Data Validation Report

SW-846 INORGANIC DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia.

Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis.

CompuChem, a Division of Liberty Analytical, (CompuChem), of Cary, North Carolina, performed the analyses. For this Appendix IX monitoring event, samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for Appendix IX inorganic target analytes, including cyanide and sulfide. Samples 13MW1 and 13MW2, background monitoring wells for the facility, were analyzed only for the 11 permit required inorganic target analytes. The following information and attached table summarizes the inorganic data review results.

Inductively Coupled Plasma Atomic Emission Spectroscopy/Mass Spectrometry (ICP-MS) and Cold Vapor Atomic Absorption (CVAA) were the techniques used for the metal analysis. ICP-MS Method 6020 was used to analyze for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, tin, vanadium and zinc. For 13MW1 and 13MW3, the two background wells, antimony, arsenic, barium, cadmium, chromium, lead, nickel, selenium, silver, and zinc were reported by Method 6020. All samples were analyzed for mercury by CVAAS SW-846 Method 7470A. Method 9012A was used to analyze for cyanide and Method 9034 was used to analyze for sulfide. All target analytes were analyzed for total (T) concentrations.

On behalf of RAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis which included sample analytical results as well as relevant documentation to verify and validate the results.

The evaluation of CompuChem's compliance with the method and validation of results presented here are based upon a limited review of QA/QC information including holding times, preservation procedures, instrument tuning, calibration and calibration verification data, QL standards, blank samples (method, calibration, and other blanks), interference check sample, pre-digestion matrix spike and matrix spike duplicate (MS/MSD), laboratory control sample (LCS), internal standard, and serial dilution results, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation checks were performed on a minimum ten percent of the data set. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

CompuChem received the samples on ice and in good condition, with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Applicable holding time and preservation criteria were met for all samples except sulfide discussed below.

Method 6020 (ICP-MS)

The laboratory submitted the results in two separate sample delivery groups. The original certificates of analysis were received on May 21, 2009 (SDG 0904103) and May 28, 2009 (SDG 0904098). The revised certificate of analysis, received June 10, 2009, was complete in its presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the reported permit quantitation limit (QL).

QC history documentation was provided. Applicable instrument tune, calibration and calibration verification requirements were met. QL standards, blank, interference check samples (ICSAB), MS/MSD, LCS, internal standard data, and serial dilution results recovered within control limits, where applicable, except where noted below. Deviations from QA/QC criteria that were noted during the data review are summarized below.

The QL standard concentration for barium was 10 µg/l instead of 1 µg/l. However, acceptable recovery was observed and no data qualification was required.

The MS and MSD (13MW5) recovered low for tin (58%). Tin was not detected above the permit detection limit or QL in any sample and all tin results were qualified as "UJ" to note that the permit detection limit and permit QL are estimated due to the observed QC deviation.

The serial dilution percent difference was greater than 10% (33%) for barium (13MW5). Compliance well results for barium are qualified as estimated "J" due to this observed QC deficiency. The percent difference for the serial dilution check associated with the background wells (13MW1) was within acceptance criteria and barium results for 13MW1 and 13MW2 were not qualified.

Field duplicate/sample results (13MW4) exhibited acceptable precision, where applicable.

The MDL study and analysts initial demonstration of capability data were provided as a revision and submitted with the HWMU5 data package (SDG 0904138).

For this event, the certificates of analysis required revisions to report the correct QLs and DLs for the target analyte metals. As well, Method 6020 data from SDG 0904103 (compliance wells) was not usable due to reported QLs above the project specified QLs. Samples in this SDG were diluted to meet the internal standard relative intensity (RI) requirements. These samples were re-digested and re-analyzed and QC requirements were met.

For this Appendix IX groundwater monitoring event, all sample results were reported at or above the permit detection limit. Target analytes reported by the laboratory as detected less than the corresponding permit QL were validated and qualified as "J" and the reported concentration for should be considered estimated. Sample results unaffected by the data validation process, and not detected at or above the permit detection limit or QL, were validated and reported as "U."

7470A (CVAA)

The original certificate of analysis appeared complete in its presentation and the final data were of acceptable quality. The certificate of analysis demonstrated the ability of the laboratory to achieve the QL for mercury. SDG 0904103 (compliance wells) data was complete for mercury and cyanide, however, the remaining reported results for Method 6020 were revised as noted above.

QC history documentation was provided. Instrument calibration and calibration verification criteria were met. QL, Blank MS/MSD, and LCS results were analyzed as required and all applicable criteria were met unless noted below. Field duplicate/sample results exhibited acceptable precision, where applicable. Calculation checks were performed on a minimum 10 percent of data. A review of transcriptions from instrument data to sample summary sheets was performed. No deviations from QA/QC criteria were noted during data review.

The MDL study and analyst's initial demonstration of capability data were provided as a revision and submitted with the HWMU5 data package (SDG 0904138).

For this Appendix IX groundwater monitoring event, all sample results were reported at or above the permit detection limit. Mercury results reported by the laboratory as detected less than the corresponding permit QL were validated and qualified as "J" and the reported concentration should be considered estimated. Mercury results unaffected by the data validation process, and not detected at or above the permit detection limit or QL, were validated and reported as "U."

For this Appendix IX monitoring event, mercury was not reported at or above the permit detection limit or QL in any sample and all mercury results were validated and reported as "U."

Method 9012A

The original certificate of analysis was received on May 28, 2009. The certificate of analysis was complete in its presentation and the data were of acceptable quality. Documentation was provided to demonstrate the ability of the laboratory to achieve the reported quantitation limit (QL) for cyanide and mercury, however, the remaining reported results for Method 6020 were revised as noted above.

QC deliverables package requirements were met. Instrument calibration and calibration verification criteria were met. Blanks, pre-distillation MS/MSD and LCS samples were analyzed as

required and results were within control limits. The blanks were interference free. Field duplicate/sample results exhibited acceptable precision, where applicable.

The MDL study and analysts initial demonstration of capability data were provided as a revision and submitted with the HWMU5 data package.

For this Appendix IX monitoring event, cyanide results were reported to at or above the detection limit. Cyanide was not detected at or above the detection limit or QL in any sample and all results were validated and reported as "U."

Method 9034

Initial laboratory analytical results for the Appendix IX constituent sulfide indicated that the constituent was not detected in any groundwater sample collected from the point of compliance wells during the Second Quarter 2009 monitoring event. However, the laboratory analyzed the sulfide samples one day outside of the 7-day holding time requirement. Alliant Techsystems Inc. resampled the point of compliance wells for sulfide on June 17, 2009; however, the data for the June 17, 2009 samples were suspect due to laboratory errors. As a result, the VDEQ instructed Alliant to resample the point of compliance wells for sulfide during the upcoming Fourth Quarter 2009 semiannual monitoring event. The results are provided under separate cover.

INORGANIC DATA EVALUATION FOR ICP/MS SW-846 METHOD 6020

Sample ID: 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, 13MWDUP Field duplicate (13MW4), serial dilution check (13MW5, 13MW1), laboratory blanks, LCS
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904103, SDG 0906006

Does Laboratory analyte list correspond to analyte list requested? _X_ yes ___ no
Corresponds to Sb, As, Ba, Cd, Cr, Pb, Ni, Se, Ag, & Zn (total), 13MW1 & 13MW2
Corresponds to Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Sn, Ag, TL, V, Zn; (total); all other locations; 3005A Prep
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. DOCUMENTION COMPLETENESS CRITERIA:
Data Quality Objective: Representativeness
- ☑ Chain of custody – Custody transfers must be signed and dated
- ☑ Chain of custody properly and completely filled out including sampler signatures, date and time of sampling, sample ID, analysis requested

B. DETECTION LIMIT AND QUANTITATION LIMIT CRITERIA:
Data Quality Objective: Analytical Sensitivity
- ☑ Specific detection limit reported
- ☑ Specific quantitation limit reported
- ☑ Instrument detection limit (IDL) less than QL
- ☑ Performance evaluation sample analyzed within 12 months

C. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:
Data Quality Objective: Laboratory Method Sensitivity
- ☑ Analyst IDOC remains on file with laboratory, submitted with package

D. SAMPLE AND STANDARD PREPARATION CRITERIA:
Data Quality Objective: Accuracy and Representativeness
- ☑ Digestion prior to analysis
- ☑ Digestion method: 3005A
- ☑ Samples and standards matrix matched

E. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
Data Quality Objective: Representativeness
- ☑ 6 month holding time, pH<2 with Nitric Acid (HNO_3)

F. INSTRUMENT TUNE CRITERIA:
Data Quality Objective: Verify Operating Conditions
- ☑ Prior to calibration
- ☑ Relative Standard Deviation (RSD) </=5%
- ☑ Resolution < 0.9 amu full width at 10% peak height (or lower)

☑ Mass calibration </=0.1 amu difference from true value

G. INITIAL CALIBRATION CRITERIA:
Data Quality Objective: Laboratory Accuracy

☑ 1 calibration blank and at least 1 standard,
☑ Linear curve fit with correlation coefficient r>0.995
☑ Daily calibration following tuning and prior to sample analysis

H. INITIAL CALIBRATION VERIFICATION (ICV) CRITERIA:
Data Quality Objective: Laboratory Accuracy

☑ Daily following initial calibration
☑ ICV recovery 90-110%
☑ ICV concentration at mid-point of calibration curve
☑ Independent/second source used for standard

I. INITIAL CALIBRATION BLANK CRITERIA:
Data Quality Objective: Laboratory Analytical Sensitivity/Instrument Drift/Contamination Evaluation

☑ Daily following ICV
☑ Interference free

J. QL CHECK STANDARD CRITERIA:
Data Quality Objective: Laboratory Analytical Sensitivity

☑ Daily, following initial calibration if not in initial calibration
☑ Concentration at or near QL for target analyte
☑ QL recovery 70-130%

K. CONTINUING CALIBRATION VERIFICATION (CCV) CRITERIA:
Data Quality Objective: Laboratory Analytical Accuracy

☑ 10 sample frequency, Recovery within 90-110% range
☑ Independent/second source used for standard
☑ CCV concentration at mid-point of calibration curve

L. CONTINUING CALIBRATION BLANK CRITERIA:
Data Quality Objective: Laboratory Analytical Sensitivity/Instrument Drift/Contamination Evaluation

☑ Immediately after the CCV, 10 sample frequency
☑ Interference free

M. BLANK CRITERIA:
Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation

Trip Blank (check only if analyzed)
☑ Method/Other Lab Blanks (check only if analyzed), one per digestion batch
☑ Interference free

N. INTERFERENCE CHECK SAMPLE (ICS) CRITERIA:
Data Quality Objective: Analytical Accuracy/Verification of Isobaric Interference Corrections

☑ At beginning of analytical run
☑ Recovery: 80-120%

O. MATRIX SPIKE DUPLICATE (MSD)/MATRIX DUPLICATE CRITERIA:
Data Quality Objective: Method Precision in Sample Matrix

☑ One MSD/duplicate per batch of samples
☑ MSD spiked prior to sample preparation; each analyte
☑ RPD ≤ 20 between MS and MSD results
☑ RPD ≤20 between sample and duplicate results if sample result >5XQL

P. MATRIX SPIKE (MS) CRITERIA:
Data Quality Objective: Method Accuracy in Sample Matrix

☑ One MS per digestion batch of 20 samples
☑ Spiked prior to sample preparation; each analyte spiked
Recovery: 75-125% (Tin recovery low)

Q. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:
Data Quality Objective: Laboratory Method Accuracy, Laboratory Performance

☑ 1 LCS per 20 samples, each analyte; Recovery: 80-120%

R. INTERNAL STANDARDS (IS) CRITERIA:
Data Quality Objective: Analytical Accuracy in Sample Matrix

☑ IS intensities, IS added to each sample and QC sample
☑ % Relative intensity (RI) should be within 70-125%

S. SERIAL DILUTION TEST CRITERIA:
Data Quality Objective: Accuracy in Sample Matrix

Similar matrix, if concentration is 50X IDL, then % Difference < 10%

T. SAMPLE QUANTITATION AND GENERAL REPORTING CRITERIA:
Data Quality Objective: n/a

☑ Sample results reported within instrument calibration range
☑ Sample results reported to the detection limit
☑ Calculation checks on 10% of data set.

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA and III) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004) and (EPA Region III Modifications To The Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses, April 1993). Validation of this data set is limited to review of items detailed in this data review report.

INORGANIC DATA EVALUATION FOR MERCURY BY COLD VAPOR AA SW-846 METHOD 7470A

Sample ID: 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, 13MWDUP Field duplicate (13MW4), laboratory blanks, LCS
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904103, SDG 0904098

Does Laboratory analyte list correspond to analyte list requested? ☑yes __no
Corresponds to Hg (total)
"☑" denotes items were reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA
- ☑ Specific detection limit for mercury
- ☑ Electronic data file reviewed
- ☑ QC standard analyzed at or less than the QL (70-130%R)
- ☑ Analyst IDOC & MDL study provided as a revision

B. TECHNICAL HOLDING TIMES / PRESERVATION REQUIREMENTS:
- ☑ 28 days holding time
- ☑ Adjust pH <2 w/ HNO_3

C. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 5 standards, r>0.99
- ☑ Instrument calibrated for every analytical sequence for every method

D. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
- ☑ 10 sample frequency for CCV
- ☑ Recovery within 80-120% range

E. BLANK CRITERIA:
- N/A Trip Blank (check only if analyzed)
- N/A Equipment Blank (check only if analyzed)
- ☑ Method/other laboratory blanks (check only if analyzed)
- ☑ Interference free

F. MATRIX SPIKE DUPLICATE (MSD)/MATRIX DUPLICATE CRITERIA:
- ☑ One MSD/duplicate per batch of samples
- ☑ MSD spiked prior to sample preparation
- ☑ RPD ≤ 20 between MS and MSD results
- ☑ RPD ≤20 between sample and duplicate results if sample result >5XQL

G. MATRIX SPIKE (MS) CRITERIA:

- ☑ One MS per digestion batch of 20 samples
- ☑ Spiked prior to sample preparation
- ☑ Recovery: 75-125%

H. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

- ☑ Recovery within 80-120% All target analytes

I. SAMPLE RESULTS CRITERIA:

- ☑ Results reported within instrument calibration range
- ☑ Sample results reported to the detection limit
- ☑ Calculation checks on 10% of data

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted in general accordance with SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA and III) method requirements and CLP data validation guidelines USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004). Validation of this data set is limited to review of items detailed in this data review report.

SW-846 METHOD 9012A CYANIDE DATA VALIDATION

Sample ID: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, 13MWDUP Field duplicate (13MW4), laboratory blanks, LCS
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904098

Does Laboratory analyte list correspond to analyte list requested by Draper Aden Associates? √yes ___no
Prep Method 9010B
"☑" denotes items reviewed. See Data Validation Report for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limit
- ☑ Specific quantitation limit
- ☑ Analyst IDOC provided as a revision

B. TECHNICAL HOLDING TIMES / PRESERVATION REQUIREMENTS:
- ☑ 14 days holding time
- ☑ Cool ≤6° C
- ☑ Adjust pH >12 w/ NaOH

C. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards, r >0.99, low standard at QL

D. INITIAL / CONTINUING CALIBRATION VALIDATION CRITERIA:
- ☑ 10 sample frequency
- ☑ Use of check standard with every batch of samples
- ☑ Recovery within 85-115% range (± 15%)

E. BLANK SAMPLE CRITERIA:
- ☑ Interference free
- ☑ Verification Blank analysis every 10 samples

F. DUPLICATE OR MATRIX SPIKE DUPLICATE (MSD) CRITERIA:
- ☑ One MSD and/or sample duplicate per batch of samples
- ☑ MSD spiked prior to sample preparation
- ☑ RPD ≤ 20 between MS and MSD results
- ☑ RPD ≤20 between sample and duplicate results if sample result >5XQL

G. MATRIX SPIKE (MS) CRITERIA:
- ☑ One MS for every 20 samples; spiked prior to distillation
- ☑ Recovery 75-125%

H. RESULTS CRITERIA:

- ☑ Results reported within the instrument calibration range
- ☑ Results reported to the detection limit
- ☑ Calculation checks on 10% of data

Draper Aden Associates conducted a limited data validation of the above noted data set using the data package provided by the analyzing laboratory. Data evaluation was conducted using SW-846 (Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, USEPA, SW-846, 3rd Edition-Final Update I, II/IIA and III) method requirements and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004). Validation of this data set is limited to review of items detailed in this data review report.

DATA EVALUATION FOR SULFIDE - SW-846 METHOD 9034

Initial laboratory analytical results for the Appendix IX constituent sulfide indicated that the constituent was not detected in any groundwater sample collected from the point of compliance wells during the Second Quarter 2009 monitoring event. However, the laboratory analyzed the sulfide samples one day outside of the 7-day holding time requirement. Alliant Techsystems Inc. resampled the point of compliance wells for sulfide on June 17, 2009; however, the data for the June 17, 2009 samples were suspect due to laboratory errors. As a result, the VDEQ instructed Alliant to resample the point of compliance wells for sulfide during the upcoming Fourth Quarter 2009 semiannual monitoring event. The results are provided under separate cover.

LIMITATIONS

Draper Aden Associates prepared this document (which may include drawings, specifications, reports, studies and attachments) in accordance with the agreement between Draper Aden Associates and Alliant TechSystems Inc.

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SW-846 METHOD 8260B VOLATILE ORGANICS DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU13) located at the Radford Facility Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind field sample duplicate for 13MW4. Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for Appendix IX volatile target analytes, including the 16 permit required volatile target analytes and samples 13MW1 and 13MW2 were analyzed for only the 16 permit required target analytes by USEPA SW-846 Method 8260B.

Lancaster Laboratories (Lancaster), of Lancaster, Pennsylvania, performed Method 8260B analysis. On behalf of RFAAP, Lancaster submitted results to Draper Aden Associates in a final certificate of analysis that included sample analytical results as well as relevant documentation to validate and verify the results.

The evaluation of Lancaster's compliance with Method 8260B and validation of the results were based on a review of the following items: QC deliverables package, QC history documentation, technical holding times and preservation requirements, instrument performance (tune) check, instrument calibration and calibration verification data, blank samples analyses, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, internal standards requirements, and/or target analyte identification and quantitation. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation verifications were performed on a minimum ten percent of the data set. A summary of data review results with observed deviations is provided below.

Lancaster received the samples on ice and in good condition, with custody seals intact. Technical holding times and preservation criteria were met, except where noted. The chain of custody was appropriately signed and dated by field and laboratory personnel.

The original certificate of analysis was received on May 14, 2009. The certificate of analysis was revised June 15, 2009 to include results for the target analyte chloromethane. The revised certificate of analysis was complete in its presentation and the data were of acceptable quality. The certificate of analysis demonstrated the ability of the laboratory to achieve the quantitation limit (QL) for each target analyte, unless noted below.

QC deliverables package requirements were met. Technical holding time and preservation criteria were met, unless noted below. QC history documentation and instrument performance check criteria were met. Initial calibration, calibration verification, blanks, surrogates, MS/MSD,

LCS and internal standards criteria were met, except where noted below. Sample results were verified and no transcription errors were observed.

Technical holding time and sample preservation criteria were met except for acrolein. Acrolein was analyzed using an aliquot adjusted to pH <2. Acrolein results were qualified as "UJ" to note that the analyte was not detected at or above the detection limit (DL) or the QL and the DL and QL were estimated.

Trans-1,4-dichloro-2-butene exceeded the April 22, 2009 continuing calibration verification percent difference/drift requirements. Trans-1,4-dichloro-2-butene was not detected in any sample and results for this target analyte were qualified as "UJ" to note that the DL and QL were estimated due to the observed QC deficiency. Remaining calibration verification criteria were met.

The MS/MSD recovered high (135-150%) for multiple analytes. No data qualification was required for those analytes that were not detected. Chloroform, 1,1,1-trichloroethane, carbon tetrachloride, trichloroethene, and tetrachloroethene recovered high in the MS/MSD and detected analytes were qualified as estimated "J." The LCS recovered within acceptable criteria for these target analytes.

Trichloroethene was reported in 13MW4 at 1.5 µg/l and in the blind field duplicate, 13MWDUP, at 1.5 µg/l and RPD criteria were met.

The laboratory provided the initial demonstration of capability (IDOC) study for analyst A. Sneeringer as a revision to the certificate of analysis.

Trichlorofluoromethane (0.3 J µg/l) and 1,1,1-trichloroethane (0.1 J µg/l) were detected less than the QL in 13MW3 by SW-846 Method 8260B. A verification sampling event was conducted on June 17, 2009 to refute or confirm the reported detection. 1,1,1-Trichloroethane in sample 13MW3 was not detected by Lancaster Laboratories, Lancaster, PA (SDG RAD19 received on July 17, 2009). Trichlorofluoromethane and 1,1,1-trichloroethane in sample 13MW3 were not confirmed by TestAmerica, North Canton, Ohio (Lot # A9F180214 received on July 8, 2009). The verification result for 1,1,1-trichloroethane in sample 13MW3 (Lancaster) was reported as the final result. The verification result for trichlorofluoromethane in sample 13MW3 (TestAmerica) was reported as the final result.

For this Appendix IX monitoring event, results reported to at or above the detection limit. Sample results unaffected by the data validation process and not detected at or above the detection limit were validated and reported as "U." Results reported between the detection limit and QL were qualified as "J" to reflect the estimated concentration. No results were rejected based on the data validation criteria.

SW-846 METHOD 8260B (GC/MS) VOLATILE ORGANICS DATA VALIDATION

Sample ID: 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, Trip Blanks, Method Blank, LCS
Laboratory: Lancaster Laboratories, Lancaster, PA; SDG: RAD11

Comments: *Volatile organic analysis uses a purge and trap system to remove volatile organic target analytes from a 25 ml water sample (SW-846 5030B). Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for all sample locations?	☑ YES ☐ NO
4.	Did the laboratory report all required target analytes?	☑ YES ☐ NO
5.	Were all analyte QLs reported on reports in agreement with the instrument specific MDL study and project required QL?	☑ YES ☐ NO
6.	Were all sample locations, analytes and QLs in agreement with the electronic deliverable (EDD)?	☑ YES ☐ NO
7.	Passed single blind performance evaluation sample within 12 mo?	☑ YES ☐ NO

Comments: QC deliverables package requirements were met. The Appendix IX monitoring target analyte list is modified per the permit.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Was an instrument specific MDL study provided which included DL and QL values for all target analytes?	☑ YES ☐ NO
2.	Was the instrument calibration range provided?	☑ YES ☐ NO
3.	Were the instrument specific check sample data provided for all target analytes?	☑ YES ☐ NO

Comments: QC history documentation was provided and met criteria. The laboratory analyzed a MDL check sample at 0.1 µg/l (25 ml purge) for most target analytes

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 14-day sample collection to analysis holding time met?	☑ YES ☐ NO
2.	Were the samples received at ≤6°C, zero headspace?	☑ YES ☐ NO
3.	Were the sample pHs adjusted to < 2 with HCl?	☑ YES ☐ NO

4. Was a separate sample aliquot adjusted with HCl to a pH between 4-5? (For analysis of acrolein only). ☐ YES ☑ NO

Comments: Technical holding time and sample preservation criteria were met except for acrolein. The acrolein pH requirement was not met and all acrolein sample results were qualified as estimated.

D. GC/MS INSTRUMENT PERFORMANCE (TUNING) CHECK CRITERIA:

1. Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period during which standards or samples were analyzed? ☑ YES ☐ NO
2. Was there documentation of the injection of 5-50 ng bromofluorobenzene (BFB)? ☑ YES ☐ NO
3. Were all ion abundance criteria met? ☑ YES ☐ NO
4. Were calibration, blank, and sample analyses performed within 12 hours of tuning? ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

1. Was the internal standard (IS) which was selected for target analyte RF calculation the IS which had the closest retention time? ☑ YES ☐ NO
2. Were all target analytes included in the ICAL? ☑ YES ☐ NO
3. Did all ICALs consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
4. Was the lowest concentration calibration standard at or below the associated MCL, regulatory compliance, or action limit? ☑ YES ☐ NO
5. Was the calibration curve developed using the same purge volume used for sample analysis? ☑ YES ☐ NO
6. Were 8260B SPCC criteria met? ☑ YES ☐ NO
   - chloromethane (0.100)
   - 1,1-dichloroethane (0.100)
   - bromoform (0.100)
   - 1,1,2,2-tetrachloroethane (0.300)
   - chlorobenzene (0.300)
7. Were 8260B CCC criteria met? (%RSD ≤ 30%) ☑ YES ☐ NO
   - 1,1-dichloroethene
   - chloroform
   - 1,2-dichloropropane
   - toluene
   - ethylbenzene
   - vinyl chloride

8. Was each target analyte %RSD ≤ 15%? ☐ YES ☑ NO
9. Was the correlation coefficient >0.99 for target analytes within ≥ 15 % RSD? ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates have % RSDs ≤ 15% and/or >0.99 correlation coefficient? (Evaluate RRFs < 0.05 for potential problems.) ☑ YES ☐ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

SW-846 Criteria:

1. Were calibration verifications analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or run independently during another 12-hour analysis period. ☑ YES ☐ NO
2. Were all target analytes included in the CV? ☑ YES ☐ NO
3. Were 8260B SPCC criteria met? (Relative Response Factor [RRF] ≥ 0.300 or 0.100 ☑ YES ☐ NO
   - chloromethane (0.100)
   - 1,1-dichloroethane (0.100)
   - bromoform (0.100)
   - 1,1,2,2-tetrachloroethane (0.300)
   - chlorobenzene (0.300)
4. Were 8260B CCC criteria met? (%Drift or %Difference [%D] within ± 20%) ☑ YES ☐ NO
   - 1,1-dichloroethene
   - chloroform
   - 1,2-dichloropropane
   - toluene
   - ethylbenzene
   - vinyl chloride

Method Validation Performance Criteria:

1. Did all target analytes and system monitoring analytes (surrogates) have the % D within ± 25.0%? (Evaluate RRFs < 0.05 for potential problems.) If "NO", list analytes that exceed these criteria: see comment ☐ YES ☑ NO

Draper Aden Associates Contractual Requirements:

1. Did all target analytes and system monitoring analytes (surrogates) have % Ds within ± 25.0%? ☐ YES ☑ NO

2. Three analytes may fail to meet maximum % D as long as the % D is within ± 40.0%
   Did the calibration verification meet this criteria? ☑ YES ☐ NO

Comments: The calibration verification criteria for percent difference/drift were exceeded for trans-1,4-dichloro-2-butene. All results for this analyte were qualified as estimated. The remaining calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a method blank analyzed after the calibration standards, prior to sample analysis, and once for every 12-hour period beginning with the injection of BFB? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ YES ☐ NO
3. Were the trip blanks and method blanks interference free? ☐ YES ☑ NO
4. Was the level of blank contamination less than 5% of the regulatory limit associated with an analyte or less than 5% of the sample result for the same analyte, whichever is greater? ☑ NA ☐ YES ☐ NO
5. List target analytes detected in the blanks: *methylene chloride*
6. Did any result exceed the calibration range? ☐ YES ☑ NO
7. Were one or more blanks analyzed following the high concentration sample to prevent cross contamination? ☑ NA ☐ YES ☐ NO

Comments: Blank criteria were met. A trip blank was analyzed for each day of sample collection. Methylene chloride was not detected in any field sample.

H. SURROGATE CRITERIA:

SW-846 Criteria:

1. Were the following surrogates used? ☑ YES ☐ NO
   - dibromofluoromethane (80-120%)
   - 4-bromofluorobenzene (80-120%)
   - toluene-d8 (80-120%)
   - 1,2-dichloroethane-d4 (80-120%)
2. Were recoveries within specified ranges? (One may be 70-130%) ☑ YES ☐ NO
   If "NO", corrective action is required. Flagging of the data as estimated is not acceptable until corrective action has been attempted
3. Were samples with surrogates outside the QC window reanalyzed as required? ☑ NA ☐ YES ☐ NO

Comments: Surrogate recovery criteria were met.

I. MATRIX SPIKE, MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	*% R Water*	*% RPD Water*
1,1-dichloroethene	61-145	14
trichloroethene	71-120	14
benzene	76-127	11
toluene	76-125	13
chlorobenzene	75-130	13

1. Was a MS/MSD analyzed per sample batch or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List MS analytes not within acceptable recovery ranges: See comment
5. Was a LCS analyzed to address failed MS criteria? ☑ YES ☐ NO
6. Did the LCS for the failed MS fall within the acceptable recovery ranges and was the problem identified as matrix interference? ☑ YES ☐ NO
7. Were any analytes flagged as estimated concentrations? ☑ YES ☐ NO
8. List analytes flagged as estimated concentrations: *See comment.*
9. List the MS/MSD acceptance range for most analytes: 75-125% 70-130% for poor purge response analytes; RPD ≤20:

Comments: The MS/MSD recovered high (135-150%) for multiple analytes. No data qualification was required for those analytes that were not detected. Chloroform, 1,1,1-trichloroethane, carbon tetrachloride, trichloroethene, and tetrachloroethene recovered high in the MS/MSD and detected analytes were qualified as estimated "J." No other data qualification was required.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain all required target analytes? (No TICS) ☑ YES ☐ NO
3. List the LCS analytes and the laboratory's acceptable recovery range. *80*-120% 70-130% for poor purge response analytes. ☑ YES ☐ NO

Comments: LCS criteria were met.

K. INTERNAL STANDARDS (IS) CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d_5, 1,4-dichlorobenzene-d_4
2. Were IS areas within - 50% to + 100% of the last CV? ☑ YES ☐ NO
3. Were IS RTs within ± 30 seconds of the last CV? ☑ YES ☐ NO

4. Were samples failing Items 2 and/or 3 above reanalyzed as required by the method? ☑ NA ☐ YES ☐ NO

Comments: Internal standards criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met:
   * Did characteristic ions maximize in the same scan or within one scan of each other? ☑ YES ☐ NO
   • Were all characteristic ions present in the standard spectra and sample spectra for analytes detected above the QL? ☑ YES ☐ NO
   * Were the relative intensities of the ions between the standard and sample spectra within ± 30%? ☑ YES ☐ NO
3. Were all reported analytes confirmed? ☑ YES ☐ NO

Comments: See attached table for detected analytes. Identification criteria were met.

M. TARGET ANALYTE QUANTITATION:

* If the %RSD of an analyte was 15% or less, then the average relative response factor should have been used for quantitation.
* If the %RSD of an analyte was greater than 15%, then the quantitation should have been based on a calibration curve using the first or higher order regression fit of the five calibration points. (6 calibration points for 2nd order).

1. List the detected analytes whose %RSD was > 15%: none
   - Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of an analyte which exceeded the initial calibration range? ☐ YES ☑ NO
   If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO
4. Were field sample duplicate RPDs <20? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met, where applicable.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: Library searches were not requested. Calculation checks were performed on a minimum ten percent of the data set.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA and III) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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SW-846 METHOD 8270C SEMIVOLATILE ORGANIC DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia.

Draper Aden Associates collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for 13MW4. Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for Appendix IX semivolatile target analytes; including the 26 permit required semivolatile target analytes. Samples 13MW1 and 13MW2 were analyzed for only the 26 permit required semivolatile target analytes by USEPA SW-846 Method 8270C.

CompuChem, a division of Liberty Analytical Corporation (CompuChem), of Cary, North Carolina, performed the GC/MS semivolatile analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis that included sample analytical results as well as relevant documentation to validate and verify the results.

The evaluation of CompuChem's compliance with Method 8270C and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, instrument performance (tune) check, instrument calibrations, blank analysis, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, and internal standard requirements. A review of the transcriptions from instrument data to sample summary sheets was performed. Specific representative calculations on 10% of the data set were performed. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

The original certificate of analysis was received on May 28, 2009. The certificate of analysis for Method 8270C was complete and data were of acceptable quality, except where noted below. The data set demonstrated the laboratory's ability to achieve the required quantitation limit (QL), except where noted below.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Sample extraction and analysis holding time criteria were met. Sample preservation criteria were met.

QC history documentation (instrument specific initial demonstration of proficiency and method detection limit data) were provided. Technical holding time requirements were met. Instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, MS/MSD, LCS, surrogate recoveries, and internal standard requirements were met, except where

noted below. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted.

Several analytes exceeded the initial calibration relative standard deviation (%RSD) and calibration verification percent drift/difference (%D) requirements and these analytes were qualified as estimated due to the observed QC deficiency (see attached summary table). The laboratory met the initial calibration %RSD using grand mean of all target analytes. Target analytes that exceeded 15% %RSD were qualified as estimated. These target analytes were not detected and the QL was qualified as estimated, "J" due to the observed QC deficiency.

The instrument's initial calibration did not contain hexachlorophene. Hexachlorophene was reported by the laboratory as a tentatively identified compound (TIC). Hexachlorophene was not detected in any sample and hexachlorophene results were qualified as estimated, "UJ" to note that the QL is estimated due to the observed QC deficiency.

Due to analytical limitations, 3-methylphenol and 4-methylphenol cannot be analyzed separately. 3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The results reported for 3-methylphenol and 4-methylphenol represent the combined total for both compounds.

Kepone and famfur recovered low in the MS and associated results for these analytes were qualified as estimated due to the observed QC deficiency. Hexachloropropene recovered low in the LCS and associated results for this analyte were qualified as estimated due to the observed QC deficiency. Several analytes recovered high in the LCS/MS/MSD; however no data validation was needed. Remaining LCS/MS/MSD criteria were met.

Field duplicate/sample results exhibited acceptable precision, where applicable.

For this Appendix IX monitoring event, results reported to at or above the detection limit. Sample results unaffected by the data validation process and not detected at or above the detection limit were validated and reported as "U." Results reported between the detection limit and QL were qualified as "J" to reflect the estimated concentration.

For this event, no target analytes were detected at or above the detection limit or quantitation limit.

SW-846 METHOD 8270C (GC/MS) SEMIVOLATILE ORGANIC DATA VALIDATION

Sample ID: 13MW1, 13MW2, 3MW3, 13MW4 (13MWDUP), 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, LCS, Method Blank
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904098/103

Comments: *Semivolatile (a.k.a, base/neutral and acid extractables) analysis involves sample preparation using extraction technique SW-846 Method 3510C. The semivolatile extracts are concentrated through evaporation. Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for sample locations?	☑ YES ☐ NO
4.	Did the data correspond to the project specific analyte list?	☑ YES ☐ NO
5.	Were analyte QLs reported on sample summary sheets in agreement with the instrument specific MDL study?	☑ YES ☐ NO
6.	Did the laboratory analyze a passing performance evaluation sample within the last 12 months?	☑ YES ☐ NO

Comments: QC deliverables package criteria were met.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Were instrument specific detection limits provided for analytes?	☑ YES ☐ NO
2.	Were the instrument specific LOQs for target analytes provided?	☑ YES ☐ NO
3.	Was calibration range specified for target analytes?	☑ YES ☐ NO

Comments: QC history documentation criteria were met.

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 7-day sample collection to extraction holding time met?	☑ YES ☐ NO
2.	Was the 40-day extraction to analysis holding time met?	☑ YES ☐ NO
3.	Were the samples received at $\leq 6^{\circ}C$?	☑ YES ☐ NO

Comments: The sample collection to extraction and extraction to analysis holding times were met. Preservation criteria were met.

D. GC/MS INSTRUMENT PERFORMANCE CHECK CRITERIA:
(Tuning, Injection Port and Column Performance)

1. Was performance check solution analysis performed at the beginning of each 12-hour period of standard and/or sample analysis? ☑ YES ☐ NO
2. Was there documentation of the injection of 50 ng of DFTPP? ☑ YES ☐ NO
3. Were ion abundance criteria met? ☑ YES ☐ NO
4. Was the injection port inertness verified by analysis of 4,4'-DDT? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was the injection port inertness check acceptable? ☑ YES ☐ NO
5. Was column performance checked through the analysis of peak tailing of pentachlorophenol and benzidine? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was column performance check acceptable? ☐ NA ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:
SW-846 Criteria:

1. Were the initial calibrations (ICAL) and any directly associated blanks and samples analyzed within 12-hours of the associated instrument performance (tune) check? ☑ YES ☐ NO
2. Were quantitation ions, used and listed on data, randomly checked against primary quantitation ions as required by Method 8270C and the RFP? ☑ YES ☐ NO
3. Were target analytes included in the ICAL? ☐ YES ☑ NO
4. Did the ICAL consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
5. Was the lowest concentration calibration standard at or below the associated MCL, regulatory compliance, or action limit? See comment
6. Were calibration levels removed from the curve that would negatively impact the data integrity? ☐ YES ☑ NO
7. Were 8270C SPCC criteria met? (RRF ≥ 0.050) ☐ NA ☑ YES ☐ NO
   - N-nitroso-di-n-propylamine
   - Hexachlorocyclopentadiene
   - 2,4-Dinitrophenol
   - 4-nitrophenol
8. Were 8270C B/N Fraction analyte criteria met? (% Relative Standard Deviation (%RSD) ≤ 30%) ☐ NA ☑ YES ☐ NO
   - acenaphthene
   - 1,4-dichlorobenzene
   - hexachlorobutadiene
   - N-nitrosodiphenylamine
   - Di-n-octyl phthalate
   - fluoranthene
   - benzo(a)pyrene

9. Were 8270C Acid Fraction analyte criteria met?
(% Relative Standard Deviation (%RSD) ≤ 30%) ☐ NA ☑ YES ☐ NO
   - 4-chloro-3-methylphenol
   - 2,4-dichlorophenol
   - 2-nitrophenol
   - phenol
   - pentachlorophenol
   - 2,4,6-trichlorophenol

10. Was each target analyte %RSD ≤ 15%?
(with the exception of SPCC/CCC compounds) ☐ NA ☐ YES ☑ NO

11. Was the correlation coefficient or coefficient of determination >0.99 for target analytes with ≥ 15 % RSD
(with the exception of SPCC/CCC compounds)? ☑ YES ☐ NO

SW-846 8270D Criteria (suggested):

12. Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL? ☑ NA ☐ YES ☐ NO

13. Was the recovery within 70-130%? ☑ NA ☐ YES ☐ NO

14. Was the ICV standard prepared from a different source from the ICAL? ☑ NA ☐ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates (with the exception of SPCC/CCC compounds) that have % RSDs ≥ 15% have >0.99 correlation coefficient or coefficient of determination? ☑ YES ☐ NO
(Evaluate RRFs < 0.05 for potential problems.)

Comments: The laboratory reported the analytes using grand mean for the initial calibration and those analytes which exceeded the % RSD requirements were qualified as estimated, "J" due to the observed QC deficiency. The instrument's initial calibration did not contain hexachlorophene and hexachlorophene results were qualified as estimated. Detection limits and QLs were based on the current method detection limit study.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be partof the ICAL or run independently on another 12-hour analysis period. ☑ YES ☐ NO

2. Were 8270C SPCC criteria met?
(Relative Response Factor (RRF) ≥ 0.050) ☑ YES ☐ NO

3. Were 13 8270C CCC criteria met?
(%D within ± 20%) ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and system monitoring analytes (surrogates) have % Ds within ± 25.0%? ☑ YES ☐ NO

(Evaluate RRFs < 0.05 for potential problems.)
If "NO", list analytes that exceed this criterion:

Draper Aden Associates Contractual Requirements:

1. Did target analytes and system monitoring analytes (surrogates) have % Ds within ± 25.0%? ☐ YES ☑ NO
2. Five analytes, in each standard mix, may fail to meet maximum % D as long the % D is within ± 40.0%
   Did calibration verification meet this criteria? ☑ YES ☐ NO

Comments: Several analytes exceeded the calibration verification percent drift/difference requirements (see validation report) and these analytes were qualified as estimated. The remaining calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a method/extraction blank analyzed on each GC/MS system used for sample analysis? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ NA ☐ YES ☐ NO
3. Were the blank samples interference free? ☑ YES ☐ NO
4. Was the level of blank contamination > 5% of the MCL? ☑ NA ☐ YES ☐ NO
5. List target analytes detected in the blanks: none

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were the following surrogates used? See comment
   - phenol - d_6 (10%-94%)
   - 2-fluorophenol (21%-100%)
   - 2,4,6-tribromophenol (10%-123%)
   - nitrobenzene – d_8 (35%-114%)
   - 2-fluorobiphenyl (43%-116%)
   - p-terphenyl - d_{14} (33%-141%)
2. Were recoveries within the specified ranges? ☑ YES ☐ NO
3. Were any two base/neutral or acid surrogates out of specification or did any one base/neutral or acid extractable surrogate have a recovery of less than 10%? ☐ YES ☑ NO
   If yes, was a reextraction and reanalysis performed to confirm that the non-compliance was due to sample matrix effects rather than laboratory deficiencies? ☑ NA ☐ YES ☐ NO

Comments: The laboratory used alternate surrogates as allowed by the method. Surrogate criteria were met.

I. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	% R Water	% RPD Water
Phenol	12-110	42
2-Chlorophenol	27-123	40
N-Nitroso-di-n-propylamine	41-116	38
4-Chloro-3-methylphenol	23-97	42
Acenaphthene	46-118	31
4-Nitrophenol	10-80	50
2,4-Dinitrotoluene	24-96	38
Pyrene	26-127	31

1. Was a MS/MSD analyzed per sample batch or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List MS/MSD target analytes not within laboratory recovery ranges: *see comment*
5. Was a LCS analyzed to address failed MS spike criteria? ☑ YES ☐ NO
6. Did the LCS for the failed MS analyte(s) fall within the recovery ranges and was the problem identified as matrix interference? ☑ YES ☐ NO
7. Were any analytes flagged as estimated concentrations? ☑ YES ☐ NO
8. List analytes flagged as estimated concentrations: *kepone, famfur*

Comments: Kepone and famfur recovered low in the MS and associated results for these analytes were qualified as estimated. Remaining MS/MSD criteria were met.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain required target analytes? ☐ YES ☑ NO
3. List the LCS target analytes and laboratory recovery range. *See semivolatile certificate of analysis.*
4. List the LCS analytes which exceeded the acceptable recovery range: *see comment*

Comments: Hexachloropropene recovered low in the LCS and associated results for this analyte were qualified as estimated. Remaining LCS criteria were met.

K. INTERNAL STANDARDS CRITERIA:

1. Were the following internal standards used? ☑ YES ☐ NO
   - 1,4-Dichlorobenzene-d_4
   - Naphthalene-d_8
   - Acenapththene-d_{10}
   - Phenanthrene-d_{10}
   - Chrysene-d_{12}

- Perylene-d_{12}

2. Were IS areas within ± 50% of the last CV? ☑ YES ☐ NO
3. Were IS RTs within ± 30 seconds of last CV? ☑ YES ☐ NO

Comments: Internal standard criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ NA ☐ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met: ☑ NA ☐ YES ☐ NO
   -Did characteristic ions maximize in the same scan or within one scan of each other?
   -Were characteristic ions present in the standard spectra present in the sample spectra for analytes detected above the QL?
   -Were the relative ion intensities between the standard and sample spectra within ± 30%?
3. Were reported analytes confirmed? ☑ YES ☐ NO

Comments: Target analyte identification criteria were met.

M. TARGET ANALYTE QUANTITATION:

- If the %RSD of an analyte was 15% or less, then the average relative response factor should have been used for quantitation.
- If the %RSD of an analyte was greater than 15%, then the quantitation should be based on a calibration curve using the first or higher order regression fit of the five calibration points (6 calibration points for 2nd order).

1. List the analytes detected above the QL whose %RSD was >15%: *none*
   a. Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of a target analyte that exceeded the initial calibration range? ☐ YES ☑ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO
3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: No corrective action was required. Calculations checks were performed on 10% of the data set. Library searches were not requested with this data set. However, hexachlorophene was reported as a TIC. TIC information reviewed included TIC report,

sample chromatograms and library search printouts, and mass spectra for the closest match, where applicable. Library searches were not requested.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA and III) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Conclusions presented are based upon a review of available information, the results of our field studies, and/or professional judgment. To the best of our knowledge, information provided by others is true and accurate, unless otherwise noted. Draper Aden Associates' liability, hereunder, shall be limited to amounts due Draper Aden Associates for services actually rendered, or reimbursable expenses actually incurred.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

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JCF/ for — 11.19.09

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11.19.09

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SW-846 METHOD 8280A DIOXIN/FURAN DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for sample 13MW4. Samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for chlorinated dioxin and furans by USEPA SW-846 Method 8280A. Sample locations 13MW1 and 13MW2 are background wells and analysis was not required. The following information summarizes the Method 8280A data validation results.

TestAmerica West Sacramento, of Sacramento, California, performed the Method 8280A analysis. On behalf of RFAAP, TestAmerica submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results, as well as relevant documentation to validate and verify the results.

The evaluation of TestAmerica's compliance with Method 8280A and validation of the results were based on a review of the following items: QC deliverables package, QC history documentation, technical holding times and preservation requirements, instrument performance (tune) check, instrument calibration and calibration verification data, blank samples analyses, surrogate spike recoveries, matrix spike and matrix spike duplicate (MS/MSD) analyses, laboratory control sample (LCS) data, internal standards requirements, and/or target analyte identification and quantitation. A review of transcriptions from instrument data to sample summary sheets was performed. A summary of data review results and observed deviations is provided below.

The project chain of custody documentation was complete. The laboratory received the samples on ice, in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Technical holding time and sample preservation criteria were met.

The original certificate of analysis was received on May 7, 2009 and was complete in its presentation and the data were of acceptable quality, except where noted below. The certificate of analysis demonstrated the ability of the laboratory to achieve the permit required quantitation limit (QL) for each target analyte.

QC deliverables package requirements were met. QC history documentation and instrument performance check criteria were met. Initial calibration, calibration verification, blanks, surrogates, MS/MSD, LCS and internal standards criteria were met, except where noted below. Sample results were verified and no transcription errors were observed. The IDOCs are on file with the laboratory and no data qualification was required. Sample results unaffected by the data validation process, and not detected at or above the detection limit and/or QL, were validated and reported as "U." No detections were reported above the detection limit (DL).

SW-846 METHOD 8280A (GC/MS) DIOXIN/FURAN DATA VALIDATION

Sample ID: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: Blanks, LCS, 13MW5 MS/MSD, field dup (13MWDUP for 13MW4)
Laboratory: TestAmerica, Sacramento, CA (SDG # A9D160180)

Comments: *Target analytes are separated and quantified using a high-resolution gas chromatography and low resolution/mass spectrometry (HRGC/HRMS) extracted with methylene chloride and toluene.*

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative and Chain of custody present and signed by a laboratory representative
- ☑ Sample results included for all sample locations
- ☑ Project specific target analytes reported at or above permit QL
- ☑ MDL study performed for all target analytes and supports permit QL
- ☑ Initial demonstration of proficiency performed
- ☑ Electronic data file reviewed

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:

- ☑ Holding time: extraction within 30 days, analysis within 1 year
- ☑ Samples received at <6°C

C. GC/MS INSTRUMENT PERFORMANCE CHECK REVIEW CRITERIA:

- ☑ Instrument MS performance check solution analyzed at the beginning of each 12-hour period of standard and/or sample analysis (PFK)
- ☑ Window defining mixture (WDM) analyzed at the beginning of each 12-hour period of standard and/or sample analysis
- ☑ Isomer specificity check analyzed at the beginning of each 12-hour period of standard and/or sample analysis

D. INITIAL GC/MS CALIBRATION REVIEW CRITERIA:

- ☑ Target analytes included in the ICAL
- ☑ ICAL consisted of a minimum of 5 calibration standards (or more, as needed)
- ☑ Lowest concentration calibration standard at or below the associated MCL, regulatory compliance, action limit, or permit QL
- ☑ Analyte %RSD for RR ± 20%/I.S. %RSD for RRF ±35%
- ☑ Ion abundance ratios within control limits

E. CALIBRATION VERIFICATION/STABILITY REVIEW CRITERIA:

- ☑ Calibration verification standard analyzed at the beginning/end of each 12-hour period following the instrument performance check analyses and prior to the method blank and sample analysis
- ☑ Midpoint calibration standard
- ☑ Ion abundance ratios within control limits
- ☑ Analytes have % Difference/Drift for RR within ± 20.0% /I.S. %D for RRF ± 35%

F. BLANK REVIEW CRITERIA:

- ☑ Method/extraction blank analyzed on each extraction

G. CLEANUP REVIEW CRITERIA:

- ☑ Prior to extraction/cleanup
- ☑ 37C14-2,3,7,8-TCDD, Percent Recovery (59-120%)

H. LABORATORY CONTROL SAMPLE (LCS) REVIEW CRITERIA:

- ☑ LCS analyzed with target analytes
- ☑ LCS recovered within limits

I. INTERNAL STANDARDS REVIEW CRITERIA:

- ☑ Internal standard added to extract
- ☑ Internal standard recovery within 40-135%

J. MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

- ☑ MS/MSD recovered within limits, %R within 65-130% range
- ☑ One MS/MSD or duplicate per batch of samples

K. TARGET ANALYTE IDENTIFICATION CRITERIA *(where applicable):*

- ☑ Results were consistent with historical data. New detections evaluated as follows:
- ☑ RRTs of the 2,3,7,8-compounds within RRT window acceptable limits
- ☑ RTs of the non-2,3,7,8-compounds within RT windows acceptable limits (WDM)
- ☑ Ion abundance ratios within criteria

L. TARGET ANALYTE QUANTITATION REVIEW CRITERIA (*where applicable*):

- ☑ Results were consistent with historical data.
- ☑ 2,3,7,8-TCDF confirmation performed on detected results
- ☑ Results that exceed the initial calibration range were reanalyzed at a higher dilution.
- ☑ Analyte concentrations recorded on the sample quantitation reports were accurately transferred to the sample summary sheets (laboratory report).

M. REPORTING (*where applicable*):

- ☑ 2,3,7,8-TCDF confirmation performed and confirmation results reported
- ☑ Detected results requiring validation are presented on the attached data validation report
- ☑ Isomers reported to at or above the estimated detection limit (EDL)
- ☑ All estimated results and detections above the EDL were included in the TEQ calculation
- ☑ Non-detections (i.e., not detected above EDL) were not included in the TEQ calculation.
- ☑ Results reported to at or above the TEQ. TEQ calculations are attached, if needed.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III) and CLP data validation guidelines (USEPA Contract Laboratory Program National

Functional Guidelines for Chlorinated Dioxin/Furan Data Review, September 2005). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

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Date:

SW-846 METHODS 8081A DATA VALIDATION SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia.

Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis. For this Appendix IX monitoring event, samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for 19 pesticides by SW-846 Method 8081A. Sample locations 13MW1 and 13MW2 are background wells and analysis was not required. The following information and attached table summarize the pesticide data review results.

CompuChem, a Division of Liberty Analytical, (CompuChem), of Cary, North Carolina, performed Method 8081A analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

The evaluation of the laboratory's compliance with Method 8081A and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, extraction procedures, instrument calibrations, blank analysis, surrogate spike recoveries, retention time, matrix spike (MS/MSD) analyses, laboratory control samples (LCS), and internal standards requirements, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. Specific representative calculations were not performed, unless noted. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

CompuChem received the samples on ice and in good condition, with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Applicable holding time and preservation criteria were met.

The original certificate of analysis was received on May 28, 2009. The original certificate of analysis for Method 8081A was complete in its presentation and the data were of acceptable quality. The data set exhibited the laboratory's ability to achieve the reported QL for each target analyte, as outlined by the precision and accuracy data.

QC history documentation and QC check sample criteria were met. Calibration, DDT/Endrin breakdown, blank, surrogate, retention time, MS/MSD and LCS criteria were met, except where noted below. Sample results were reviewed for transcription errors from the

instrument data to the laboratory report and no errors were noted. No deviations from specific QA/QC criteria were identified.

For this Appendix IX monitoring event, results were reported to at or above the method detection limit. Sample results unaffected by the data validation process and not detected at or above the detection limit were validated and reported as "U." Results reported between the detection limit and quantitation limit were qualified as "J" to reflect the estimated concentration.

For this monitoring event, no target analytes were detected at or above the method detection limit or QL.

SW-846 METHOD 8081A (ORGANOCHLORINE PESTICIDES) GC DATA VALIDATION

Sample ID: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW4/13MWDUP sample duplicate, 13MW5 MS/MSD, Extraction Blank, LCS
Laboratory: CompuChem Analytical Incorporated; Cary, NC; SDG: 0904098

Comment: *Method 8081A involves the extraction of samples using SW-846 Method 3510C). Target analytes are separated and quantified by GC using electron capture detection (ECD). Florisil cleanup was performed.*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were results included for all sample locations?	☑ YES ☐ NO
4.	Did the laboratory report results for required target analytes?	☑ YES ☐ NO
5.	Did the QL/DLs reported on sample summary sheets agree with the instrument specific MDL study?	☑ YES ☐ NO

Comments: QC deliverables requirements were met.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1.	Was the specific extraction method specified?	☑ YES ☐ NO
2.	Were instrument specific QLs for the target analytes provided?	☑ YES ☐ NO
3.	Were instrument specific DLs for the target analytes provided?	☑ YES ☐ NO
4.	Was the instrument calibration range specified?	☑ YES ☐ NO
5.	Were sample analysis log sheets provided?	☑ YES ☐ NO
6.	Were chromatograms and integration reports provided?	☑ YES ☐ NO

Comments: Instrument QC history criteria were met.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1.	Did the check sample contain all required target analytes?	☑ YES ☐ NO
2.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO
3.	Were the average recoveries of each target analyte reported?	☑ YES ☐ NO
4.	Were the standard deviations for the recoveries of target analytes quadruplicated and reported?	☑ YES ☐ NO

Comments: IDOC criteria were met.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 7-day sample collection to extraction holding time met? ☑ YES ☐ NO
2. Was the 40-day extraction to analysis holding time met? ☑ YES ☐ NO
3. Were the samples received at ≤6°C? ☑ YES ☐ NO

Comments: Holding time and preservation criteria were met.

E. INITIAL GC CALIBRATION CRITERIA:

1. Were all target analytes included in the ICAL? ☑ YES ☐ NO
2. Was a minimum five-point calibration analyzed prior to analysis? ☑ YES ☐ NO
3. Calibration type used by laboratory: *External.*
4. Was the % Relative Standard Deviation (%RSD) for all target analyte CFs <20% over the established working range? ☑ YES ☐ NO
5. State the Quantitation Method used by the laboratory: *Calibration Factor*
6. Did target analytes and surrogates with % RSDs >/- 20% have a >0.99 correlation coefficient? ☑ NA ☐ YES ☐ NO
7. Was the lowest concentration calibration standard at or below the QL, MCL, regulatory compliance or action limit? See comment
8. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO

Comments: Initial calibration criteria were met. Calculation checks were performed on 10% of data. Detection limits were based on the laboratory's current MDL study.

F. DDT / ENDRIN BREAKDOWN CHECK CRITERIA:

1. Was a 4,4'-DDT and Endrin standard analyzed every 12-hours? ☑ YES ☐ NO
2. For every 12-hours, was 4,4'-DDE, 4,4'-DDD, Endrin Ketone or Endrin Aldehyde present which indicated breakdown? ☑ YES ☐ NO
3. Was the calculated % breakdown less than 15%? ☐ NA ☑ YES ☐ NO
   If no, corrective action must be taken before proceeding with analysis.

Comments: DDT/Endrin breakdown criteria were met.

G. CALIBRATION VERIFICATION (CV) CRITERIA:

1. Was a CV standard performed every 12-hours? ☑ YES ☐ NO
2. Did target analyte responses have a % Difference (%D) within ± 15%? (For chlordane and toxaphene, qualify only 3 peaks). ☑ YES ☐ NO

If no, was a new calibration curve prepared? *No.*

3. Was a mid-concentration standard analyzed after each group of 10 samples in the analysis sequence and at the end of the analytical sequence? ☑ YES ☐ NO
4. Were target analytes and surrogates included in the CV? ☑ YES ☐ NO

Comments: Continuing calibration criteria were met. Calculation checks were performed on 10% of data.

H. BLANK CRITERIA:

1. Was a blank analyzed prior to the batch samples? ☑ YES ☐ NO
2. Was a blank analyzed after 20 batch samples? ☑ YES ☐ NO
3. Was an extraction blank analyzed with the batch samples? ☑ YES ☐ NO
4 Was a trip blank analyzed per analytical batch? ☑ NA
5. List target analytes identified in the blanks: none

Comments: Blank criteria were met.

I. SURROGATE CRITERIA:

1. Were samples, standards, blanks, and checks spiked with at least 2 surrogate analytes for dual column analysis? ☑ YES ☐ NO
2. List surrogate used and laboratory's surrogate % recovery range criteria:
   tetrachloro-xylene (TCMX): 40%-130%;
   decachlorobiphenyl (DCBP): 40%-130%
   4-chloro-3-nitrobenzotrifluoride (CNBT): 40%-130% (not used)
3. List samples whose surrogate % recoveries were not within range:

Comments: Surrogate recovery criteria were met or no data qualification was required. Calculation checks were performed on 10% of data.

J. RETENTION TIME (RT) CRITERIA:

1. Were the daily Retention Time (RT) windows reported? ☑ YES ☐ NO
2. Were surrogate, LCS, MS/MSD RTs within the RT window? ☑ YES ☐ NO

Comments: Retention time criteria were met.

K. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1. Was a MS/MSD analyzed per sample batch

or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD contain required target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List laboratory's MS % recovery range criteria: *40%-130%, RPD < 40*
5. List MS target analytes not within the recovery range criteria: *None*
6. Was a LCS analyzed to address failed MS criteria? ☑ NA ☐ YES ☐ NO
7. Did the LCS for the failed MS analyte(s) fall within the recovery range criteria and was the problem identified as matrix interference? ☑ NA ☐ YES ☐ NO
8. Were any analytes flagged as estimated concentrations? ☐ YES ☑ NO
9. List analytes flagged as estimated concentrations: *None*

Comments: MS/MSD criteria were met or no data validation was required. Calculation checks were performed on 10% of data.

L. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain required target analytes? ☑ YES ☐ NO
3. List the LCS analytes and the laboratory's recovery range criteria.
   40-130%R; All target analytes except toxaphene and chlordane.
4. List the LCS analytes not within the recovery range criteria. *None.*

Comments: LCS criteria were met or no data validation was required. Calculation checks were performed on 10% of data.

M. TARGET ANALYTE IDENTIFICATION/QUANTITATION:

1. Were the reported analytes within the RT window? ☑ NA ☐ YES ☐ NO
2. Were RT shifts observed when compared with the last CV? ☑ NA ☐ YES ☐ NO
3. Were all reported analytes confirmed? ☑ NA ☐ YES ☐ NO
4. Did the initial analysis of any sample have a concentration of a target analyte which exceeded the instrument calibration range? ☑ NA ☐ YES ☐ NO
5. Were sample dilutions required? ☑ NA ☐ YES ☐ NO
6. Were analyte concentrations that were recorded on the sample quantitation reports accurately transferred to sample summary sheets? ☑ NA ☐ YES ☐ NO
7. RPD>40? ☑ NA ☐ YES ☐ NO
8. The laboratory used dual column GC system? ☑ YES ☐ NO
9. Data evaluated from both columns? ☑ NA ☐ YES ☐ NO

Comments: No target analytes were reported at or above the detection limit or QL.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: No corrective action was taken. Calculation verification checks were performed on 10% of the data set.

LIMITATIONS:

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Date: 11.19.09

SW-846 METHODS 8082 (TOTAL PCBs) DATA VALIDATION SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia.

Draper Aden Associates, of Blacksburg, Virginia, collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Sample 13MWDUP, a blind field duplicate for 13MW4, was also submitted for analysis. For this Appendix IX monitoring event, samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for total PCBs by SW-846 Method 8082. Sample locations 13MW1 and 13MW2 are background wells and analysis was not required. The following information and attached table summarize the data review results.

CompuChem, a Division of Liberty Analytical, (CompuChem), of Cary, North Carolina, performed Method 8082 analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

The evaluation of the laboratory's compliance with Method 8082 and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, extraction procedures, instrument calibrations, blank analysis, surrogate spike recoveries, retention time, matrix spike (MS/MSD) analyses, laboratory control samples (LCS), and internal standards requirements, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. Specific representative calculations were not performed, unless noted. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

CompuChem received the samples on ice and in good condition, with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Applicable holding time and preservation criteria were met.

The original certificate of analysis was received on May 28, 2009. The original certificate of analysis for Method 8082 was complete in its presentation and the data were of acceptable quality. The data set exhibited the laboratory's ability to achieve the reported QL, as outlined by the precision and accuracy data.

QC history documentation and QC check sample criteria were met. Calibration, blank, surrogate, retention time, MS/MSD, and LCS criteria were met, except were noted below. Field duplicate/sample results exhibited acceptable precision, where applicable.

Sample results were reviewed for transcription errors from the instrument data to the laboratory report and the following errors were noted. No deviations from specific QA/QC criteria were identified during the review process.

Total PCBs were not detected in any sample. Total PCB results were qualified and validated as "U" to note that total PCBs were not reported at or above the detection limit or QL. For this Appendix IX monitoring event, results reported to at or above the detection limit

SW-846 METHOD 8082 (PCBS AS AROCLORS) GC DATA VALIDATION

Sample ID: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW4/13MWDUP sample duplicate, 13MW5 MS/MSD, Extraction Blank, LCS
Laboratory: CompuChem, a Division of Liberty Analytical; Cary, NC; SDG: 0904098

Comment: *Method 8082 extraction (SW-846 Method 3510C) of samples. Target analytes are separated and quantified by GC using electron capture detection (ECD).*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for all sample locations?	☑ YES ☐ NO
4.	Did the laboratory report results for required target analytes?	☑ YES ☐ NO
5.	Did the QLs reported on sample summary sheets agree with the instrument specific MDL study?	☑ YES ☐ NO
6.	Passed single blind performance evaluation within 12 months?	☑ YES ☐ NO

Comments: QC deliverables requirements were met. Laboratory reported total PCBs which included Aroclors 1016, 1221, 1232, 1242, 1248, 1254 and 1260.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1.	Was the specific extraction method specified?	☑ YES ☐ NO
2.	Were DLs for the target analytes provided?	☑ YES ☐ NO
3.	Were QLs for the target analytes provided?	☑ YES ☐ NO
4.	Was the instrument calibration range specified?	☑ YES ☐ NO
5.	Were sample analysis log sheets provided?	☑ YES ☐ NO
6.	Were chromatograms and integration reports provided?	☑ YES ☐ NO

Comments: Instrument QC history criteria were met.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1.	Was the check sample data provided?	☑ YES ☐ NO
2.	Did the check sample contain all required target analytes?	☑ YES ☐ NO
3.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO
4.	Were the average recoveries for each analyte reported?	☑ YES ☐ NO
5.	Were standard deviations (recoveries/in quadruplicate) reported?	☑ YES ☐ NO

Comments: Check sample criteria were met.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 7-day sample collection to extraction holding time met? ☑ YES ☐ NO
2. Was the 40-day extraction to analysis holding time met? ☑ YES ☐ NO
3. Were the samples received at ≤6°C? ☑ YES ☐ NO

Comments: Sample preservation and holding time criteria were met.

E. INITIAL GC CALIBRATION CRITERIA:

1. Was a minimum five point calibration analyzed prior to analysis present for Aroclors 1016 and 1260? ☑ YES ☐ NO
2. Calibration type used by laboratory: *External.*
3. Was a mid-point calibration standard present in the ICAL for all other Aroclors? ☑ NA ☐ YES ☐ NO
4. Was the % Relative Standard Deviation (%RSD) for all target analyte CFs <20% over the established working range? ☑ YES ☐ NO
5. State the Quantitation Method used by the laboratory: *Calibration Factor <20%. For analytes>20%RSD, linear regression used. CC>0.99*
6. List analytes with a % RSD >20%:NA
7. Was the lowest concentration calibration standard at or below the QL, MCL, regulatory compliance or action limit? ☑ YES ☐ NO
8. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1. Was CV standard performed once every 12-hours? ☑ YES ☐ NO
2. Was a mid-concentration standard analyzed after each group of 10 samples (recommended) and after 20 samples (required)? ☑ YES ☐ NO
3. Was a CV standard analyzed at the end of the analytical sequence? ☑ YES ☐ NO
   Note: Samples containing detected target analytes must be bracketed by an acceptable CV standard.
4. Did analytes/surrogate responses have a % Difference (%D) within ± 15%? ☑ YES ☐ NO
   If no, was a new calibration curve prepared? *No.*
5. Did calibration verification RT fall within the daily RT window? ☑ YES ☐ NO
6. Were required analytes and surrogates present in the CV? ☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1.	Was a blank analyzed prior to the batch samples?	☑ YES ☐ NO
2.	Was a blank analyzed after 20 batch samples?	☑ NA ☐ YES ☐ NO
3.	Was an extraction blank analyzed with the batch samples?	☑ YES ☐ NO
4	Was a trip blank analyzed per analytical batch?	☑ NA ☐ YES ☐ NO
5.	List target analytes identified in the blanks: *None.*	

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were all samples, standards, blanks, and checks spiked with at least 1 surrogate analyte for dual column analysis? ☑ YES ☐ NO
2. List surrogate used and laboratory's surrogate % recovery range criteria:
   tetrachloro-xylene (TCMX): 40%-130%, decachlorobiphenyl (DCBP): 40%-130% (required)
3. List samples whose surrogate % recoveries were not within the laboratory range: *none.*

Comments: Surrogate recovery criteria were met or no data qualification was required. Calculation checks were performed on 10% of data.

I. RETENTION TIME (RT) CRITERIA:

1.	Were the daily Retention Time (RT) windows reported?	☑ YES ☐ NO
2.	Were the LCS, MS and MSD RTs within the RT window?	☑ YES ☐ NO

Comments: Retention time criteria were met.

J. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1.	Was a MS/MSD analyzed per sample batch or every 20 samples, whichever may occur first?	☑ YES ☐ NO
2.	Did the MS/MSD contain Aroclor1254?	☐ YES ☑ NO
3.	Was the MS/MSD analyzed on the specific project matrix?	☑ YES ☐ NO
4.	List laboratory's MS % recovery range criteria:	*40%-130%*
5.	List MS target analyte that exceeded the recovery range criteria: *None.*	
6.	Was a LCS analyzed to address failed MS criteria?	☑ NA ☐ YES ☐ NO
7.	Did the LCS for the failed MS analyte(s) fall within the recovery range criteria and was the problem identified as matrix interference?	☑ NA ☐ YES ☐ NO
8.	Were any analytes flagged as estimated concentrations?	☐ YES ☑ NO
9.	List analytes flagged as estimated concentrations: *None.*	

3. Was the MS/MSD RPD < 20? ☑ YES ☐ NO

Comments: The MS/MSD samples contained Aroclor 1016 and 1260. No data qualification was required.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain Aroclors 1016/1260? ☑ YES ☐ NO
3. List the LCS analytes and the recovery range criteria. ☑ YES ☐ NO
3. List the LCS analytes not within the recovery range criteria. *none*

Comments: LCS criteria were met or no data validation was required. Calculation checks were performed on 10% of data.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the reported analytes within the RT windows? ☑ NA ☐ YES ☐ NO
2. Were all reported analytes confirmed? ☑ NA ☐ YES ☐ NO
   When using a second GC column for confirmation, the second column must meet the same calibration acceptance criteria.
3. Did any result exceed the instrument calibration range? ☑ NA ☐ YES ☐ NO
4. Were sample dilutions required? ☐ YES ☑ NO
5. Were analyte concentrations recorded on the sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte identification criteria were met. No target analytes were reported at or above the detection limit or QL.

M. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: No corrective action was taken. Calculation verification was performed on 10% of the data set.

LIMITATIONS AND REFERENCES:

Draper Aden Associates conducted a limited data validation for the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data evaluation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA and III) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999) and (USEPA

Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review, June 2001). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Date:

SW-846 METHOD 8151A HERBICIDE DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for sample 13MW4. For this Appendix IX monitoring event, samples 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7 were analyzed for four herbicides (2,4-D, silvex, 2,4,5-T and dinoseb) by USEPA SW-846 Method 8151A. Samples were also collected from background monitoring wells 13MW1 and 13MW2, however, herbicide analysis was not required for these sample locations. The following information and attached table summarize the data review results.

CompuChem, a Division of Liberty Analytical, (CompuChem) of Cary, North Carolina, performed the 8151A analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

The evaluation of the laboratory's compliance with Method 8151A and validation of the results was based on a review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, extraction procedures, instrument calibrations, blank analysis, surrogate spike recoveries, retention time, matrix spike and spiked duplicate (MS/MSD) analyses, laboratory control samples (LCS), and internal standards requirements, where applicable. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation checks for a minimum ten percent of the data set were performed. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

CompuChem received the samples on ice and in good condition, with custody seals intact. Applicable holding time and preservation criteria were met. The chain of custody was appropriately signed and dated by field and laboratory personnel.

Method 8151A

The original certificate of analysis was received on May 28, 2009. The certificate of analysis for Method 8151A was complete in its presentation and the data were of acceptable quality. The method detection limit study and analyst initial demonstration of capability data were provided as a revision and submitted with the HWMU7 data package. The data set demonstrated the laboratory's ability to achieve the reported permit required quantitation limit (QL).

QC history documentation and QC check sample criteria were met. Initial calibration, calibration verification, blank, surrogate, MS/MSD (13MW5), retention time, and LCS criteria were met. Field duplicate/sample results exhibited acceptable precision, where applicable. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. No significant deviations from specific QA/QC criteria were identified during the review process.

No target analytes were detected at or above the detection limit or QL for this Appendix IX monitoring event. Sample results unaffected by the data validation process, and not detected at or above the detection limit and/or QL, were validated and reported as "U."

SW-846 METHOD 8151A (CHLORINATED HERBICIDES) GC DATA VALIDATION

Sample ID: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MWDUP field duplicate of 13MW4, 13MW5 MS/MSD, Extraction and instrument blanks, LCS
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904098

Overview: *Method 8151A involves the extraction and esterification of samples with subsequent quantitation using electron capture detection.*

A. QC DELIVERABLES PACKAGE:

1.	Was case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were sample results included for all sample locations?	☑ YES ☐ NO
4.	Did the laboratory report the project specific analyte list?	☑ YES ☐ NO
5.	Did the QLs reported on sample summary sheets agree with the instrument specific MDL study or project QL?	☑ YES ☐ NO
6.	Passed single blind performance evaluation sample within 12 mo.?	☑ YES ☐ NO
7.	Were results evaluated to the method detection limit (MDL)?	☑ YES ☐ NO

Comments: QC deliverables criteria were met. A passing MDL check sample was analyzed by the laboratory.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

For each target analyte:

1.	Was the specific extraction method specified?	☑ YES ☐ NO
2.	Were instrument specific detection limits provided?	☑ YES ☐ NO
3.	Were instrument specific QLs provided?	☑ YES ☐ NO
4.	Were instrument specific check sample data provided?	☑ YES ☐ NO
5.	Were instrument specific calibration range provided?	☑ YES ☐ NO
6.	Were sample analysis log sheets provided?	☑ YES ☐ NO
7.	Were chromatograms and integration reports provided?	☑ YES ☐ NO

Comments: Instrument QC history criteria were met.

C. CHECK SAMPLE CRITERIA:

(Initial Demonstration of Capability)

1.	Did the check sample contain all required target analytes?	☑ YES ☐ NO
2.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO

3. Were the average recoveries of the target analytes in the check samples reported? ☑ YES ☐ NO
4. Were the standard deviations for the recoveries of target analytes quadruplicated and reported? ☑ YES ☐ NO

Comments: Check sample criteria were met.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 7-day sample collection to extraction holding time met? ☑ YES ☐ NO
2. Was the 40-day extraction to analysis holding time met? ☑ YES ☐ NO
3. Were the samples received at $\leq 6^{\circ}C$? ☑ YES ☐ NO

Comments: Holding time and preservation criteria were met.

E. INITIAL GC CALIBRATION CRITERIA:

1. Were all target analytes included in the ICAL? ☑ YES ☐ NO
2. Was a minimum five-point calibration analyzed prior to analyses? ☑ YES ☐ NO
3. State the calibration type used by laboratory: *External.*
4. Was the % Relative Standard Deviation (%RSD) for all target analyte CFs <20% over the established working range? ☑ YES ☐ NO
5. State the Quantitation Method used by the laboratory:*Average Calibration Factor.*
6. List analytes with a % RSD >20% over the established working range: *None.*
7. Was the lowest concentration calibration standard at or below the QL, MCL, regulatory compliance or action limit? ☑ YES ☐ NO
8. Were calibration standards dropped to meet calibration criteria? ☑ NA ☐ YES ☐ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1. Was a CV standard performed once every 12 hours? ☑ YES ☐ NO
2. Did analyte responses have a % Difference (%D) within ± 15%? ☑ YES ☐ NO
   If no, was a new calibration curve prepared?
3. Was a mid-concentration standard analyzed after each group of 10 samples in the analysis sequence and at the end of the analytical sequence? ☑ YES ☐ NO
4. Were all target analytes included in the CV? ☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a blank analyzed prior to any samples? ☑ YES ☐ NO
2. Was a blank analyzed after 20 batch samples? ☑ YES ☐ NO
3. Was an extraction blank analyzed per analytical batch? ☑ YES ☐ NO
4. Was a trip blank analyzed per analytical batch? ☑ NA ☐ YES ☑ NO
5. List target analytes identified in the blanks: None

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were all samples, standards, blanks, and checks spiked with at least 1 surrogate? ☑ YES ☐ NO
2. List surrogate used and laboratory's surrogate percent recovery range criteria:
   2,4-dichlorophenylacetic acid (2,4-DCAA): 50-148%
3. List samples whose surrogate percent recoveries were not within range:

Comments: Surrogate criteria were met.

I. RETENTION TIME (RT) CRITERIA:

1. Were the daily Retention Time windows reported? ☑ YES ☐ NO
2. Were surrogate, LCS, MS/MSD RTs within the RT window? ☑ YES ☐ NO

Comments: Retention time criteria were met.

J. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1. Was a MS/MSD analyzed per sample batch or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD contain target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List laboratory's % recovery range criteria: 50-150%
5. List MS target analytes not within the laboratory recovery ranges: see comment
6. Was a LCS analyzed to address failed MS criteria? ☑ NA ☐ YES ☐ NO
7. Did the LCS for the failed MS analyte(s) fall within the recovery ranges and was the problem identified as matrix interference? ☑ NA ☐ YES ☐ NO
8. Were any analytes flagged as estimated concentrations? ☑ NA ☐ YES ☐ NO
9. List analytes flagged as estimated concentrations: None
10. Was the RPD between MS and MSD results <40? ☑ YES ☐ NO

Comments: MS/MSD criteria were met.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1.	Was a LCS included in the sample analysis?	☑ YES ☐ NO
2.	Did the LCS contain all required target analytes?	☑ YES ☐ NO
3.	List the LCS analytes and the recovery range criteria. *50-150%*	
4.	List the LCS analyte not within the recovery range. *None.*	

Comments: LCS criteria were met.

L. TARGET ANALYTE IDENTIFICATION:

1.	Were the reported analytes within the RT windows?	☑ NA ☐ YES ☐ NO
2.	Were RT shifts observed when compared with the last CV?	☑ NA ☐ YES ☐ NO
3.	Were all reported analytes confirmed?	☑ NA ☐ YES ☐ NO
3.	Did the initial analysis of any sample have a concentration of a target analyte	
4.	which exceeded the instrument calibration range?	☑ NA ☐ YES ☐ NO
5.	Were all analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets?	☑ YES ☐ NO
6.	Was the sample/field duplicate <20 RPD, where applicable	☑ YES ☐ NO

Comments: Target analyte identification criteria were met.

M. DAA CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: Analyst's initial demonstration of capability, MDL study and 2X MDL check sample data were provided as a revision and submitted with the HWMU7 data package (SDG 0904096). No corrective action was required.

REFERENCES:

Draper Aden Associates conducted a limited data validation for the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data evaluation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA and III), CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable. Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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SW-846 METHOD 8330B DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13). Draper Aden Associates collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for 13MW4. Groundwater samples were analyzed for four (4) explosives analytes (1,3,5-trinitrobenzene, 1,3-dinitrobenzene, 2,6-dinitrotolune and 2,4-dinitrotolune) by SW-846 Method 8330B.

CompuChem, a division of Liberty Analytical Corporation (CompuChem), of Cary, North Carolina, performed the analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis which included sample analytical results as well as relevant documentation to verify and validate the results. As per the laboratory's narrative, the data met the requirements outline in SW-846 8330B.

The evaluation of CompuChem's compliance with Method 8330B and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, extraction procedures, instrument calibrations, blank analysis, surrogate spike recoveries, retention time, matrix spike (MS/MSD) analyses, and laboratory control samples (LCS), where applicable. Review of transcriptions from instrument data to sample summary sheets was performed. Specific representative calculations were performed on ten percent of the certificate of analysis. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Technical holding time criteria were met. Sample extraction and analysis holding time criteria were met. Sample preservation criteria were met.

The original certificate of analysis was received on May 21, 2009 and was complete and presented data which were of acceptable quality. The data set exhibited the laboratory's ability to achieve the reported project quantitation limit (QL) as supported by the method detection limit (MDL) study, and QL standard. QC history documentation and QC check sample criteria were met. Initial calibration, calibration verification, blank, surrogate, retention time, MS/MSD and LCS criteria were met except where noted below. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. No deviations from specific QA/QC criteria were identified during the review process. No detections were reported in any sample at or above the detection limit or QL. Sample results were reported and evaluated to the detection limit for this Appendix IX monitoring event. Sample results unaffected by the data validation process were validated and reported as "U."

SW-846 METHOD 8330B DATA VALIDATION

Sample ID: 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, Extraction Blank, LCS, 13MWDUP (13MW4)
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904098/103

Comments: *Solid phase extraction was performed on samples using SW 846 Method 3535. Explosive analysis- injection onto a reverse phase high performance liquid chromatograph (HPLC) using an ultraviolet detector.*

A. QC DELIVERABLES PACKAGE:

1.	Was case narrative present/signed by a laboratory representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were sample results included for sample locations?	☑ YES ☐ NO
4.	Did the laboratory report results for the project specific analyte list?	☑ YES ☐ NO
5.	Did the QLs reported on sample summary sheets agree with the instrument specific MDL study?	☑ YES ☐ NO

Comments: QC deliverables criteria were met. MDL study was provided as a revision.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1.	Was the specific extraction method specified?	☑ YES ☐ NO
2.	Were instrument specific DLs for the target analytes provided?	☑ YES ☐ NO
3.	Were instrument specific QLs for the target analytes provided?	☑ YES ☐ NO
4.	Were instrument specific check sample data provided?	☑ YES ☐ NO
5.	Was the calibration range specified?	☑ YES ☐ NO
6.	Were sample analysis log sheets provided?	☑ YES ☐ NO
7.	Were chromatograms and integration reports provided?	☑ YES ☐ NO

Comments: Instrument QC history documentation criteria were met.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1.	Did the check sample contain the required target analyte?	☑ YES ☐ NO
2.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO
3.	Were the average recoveries reported?	☑ YES ☐ NO
4.	Were the standard deviations for the recoveries of target analytes quadruplicated and reported?	☑ YES ☐ NO

Comments: Check sample criteria were met. Analyst IDOC (2512) provided as a revision.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 7-day sample collection to extraction holding time met?	☑ YES ☐ NO
2.	Was the 40-day extraction to analysis holding time met?	☑ YES ☐ NO
3.	Were the samples received at ≤6°C?	☑ YES ☐ NO

Comments: Preservation, extraction and analysis holding time criteria were met.

E. INITIAL HPLC CALIBRATION CRITERIA:

1.	Were the target analyte and surrogate included in the ICAL?	☑ YES ☐ NO
2.	Was a minimum five-point calibration analyzed prior to analyses?	☑ YES ☐ NO
3.	Was the lowest calibration standard at or below the MCL, regulatory threshold or permit limit?	☑ YES ☐ NO
4.	Was the Calibration Factor (CF) for the target analyte provided?	☑ YES ☐ NO
5.	Was the % Relative Standard Deviation (%RSD) for target analyte CFs <20% over the established working range?	☑ YES ☐ NO
6.	State the Quantitation Method used by the laboratory: *Calibration Factor.*	
7.	List analytes with a % RSD >20% over the established working range: *None.*	
8.	Were calibration standards dropped to meet calibration criteria?	☐ YES ☑ NO

Comments: Initial calibration criteria were met. The laboratory analyzed a passing check standard. The standard concentration was at or near the QL. Calculation checks performed and no calculation errors were noted.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1.	Was a CV standard performed once every 12-hours?	☑ YES ☐ NO
2.	Did analyte responses have a % Difference (%D) within ± 15%? If no, was a new calibration curve prepared?	☑ YES ☐ NO
3.	Was a mid-concentration standard analyzed after each group of 10 samples in the analysis sequence and at the end of the analytical sequence?	☑ YES ☐ NO
4.	Was the target analyte and surrogate included in the CV?	☑ YES ☐ NO

Comments: Calibration verification criteria were met. Calculation checks performed and no calculation errors were noted.

G. BLANK CRITERIA:

1	Was a blank analyzed prior to the batch samples?	☑ YES ☐ NO
2	Was a blank analyzed after 20 batch samples?	☑ NA ☐ YES ☐ NO

3. Was an extraction blank analyzed with the batch samples? ☑ YES ☐ NO
4 Was a trip blank analyzed per analytical batch? NA ☐ YES ☑ NO
5. List target analytes identified in the blanks: *None.*

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were samples, standards, blanks, and checks spiked with at least 1 surrogate? ☑ YES ☐ NO
2. List surrogate used and % recovery range criteria: *1,4-dinitrobenzene 50-150%*
3. List samples whose surrogate % recoveries were not within the range: *None.*

Comments: Surrogate recovery criteria were met. Calculation checks performed and no calculation errors were noted.

I. RETENTION TIME (RT) CRITERIA:

1. Were the daily retention time (RT) windows reported? ☑ YES ☐ NO
2. Were surrogate RTs within RT window for samples and QC? ☑ YES ☐ NO
3. Were LCS/MS RTs within RT window? ☑ YES ☐ NO

Comments: The retention time criteria were met.

J. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1. Was a MS/MSD analyzed per sample batch/ or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD contain the target analyte? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☐ YES ☑ NO
4. List MS/MSD % recovery range criteria: *50%-150%*
5. List MS target analytes outside recovery ranges: None
6. Was a LCS analyzed to address failed MS criteria? ☑ NA ☐ YES ☐ NO
7. Did the LCS for the failed MS analyte(s) fall within the recovery range criteria and was the problem identified as matrix interference? ☑ NA ☐ YES ☐ NO
8. Were any analytes flagged as estimated concentrations? ☐ YES ☑ NO
9. List analytes flagged as estimated concentrations: *None.*

Comments: MS/MSD requirements were met. Spike concentration: 8-12 µg/l. Batch QC was used to meet method requirements for SDG 0904103. Calculation checks performed and no calculation errors were noted.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain required target analytes? ☑ YES ☐ NO
3. List the LCS analyte and the laboratory's recovery range criteria: *50%-150%*
3. List the LCS analyte not within the recovery range. *None*

Comments: LCS requirements were met. Spike concentration: 8-12 ug/l. Calculation checks performed and no calculation errors were noted.

L. TARGET ANALYTE IDENTIFICATION:

1. Was the reported analyte within the RT window? ☑ NA ☐ YES ☐ NO
2. Were retention time shifts observed when compared with the last calibration verification? ☑ NA ☐ YES ☐ NO
3. Were reported analytes confirmed? ☑ NA ☐ YES ☐ NO
4. Were RPDs < 40? ☑ NA ☐ YES ☐ NO
5. Was appropriate confirmation performed? ☑ NA ☐ YES ☐ NO
6. Were analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO
7. Were dilutions required? ☐ YES ☑ NO

Comments: Target analyte identification criteria were met. No detections were reported at or above the detection limit or QL.

M. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: The IDOC was requested for analyst 2512. No other corrective action was required. Calculation checks were performed on 10% of the certificate of analysis.

REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA and III) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Conclusions presented are based upon a review of available information, the results of our field studies, and/or professional judgment. To the best of our knowledge, information provided by others is true and accurate, unless otherwise noted. Draper Aden Associates' liability, hereunder, shall be limited to amounts due Draper Aden Associates for services actually rendered, or reimbursable expenses actually incurred.

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

JCK/L — 11-19-09

Kathy Olsen, Environmental Scientist — Date:
2206 South Main Street, Blacksburg, Virginia 24060
540-552-0444; kolsen@daa.com, www.daa.com

This Report has been subjected to technical and quality review by:

11-19-09

Janet C. Frazier, Project Manager — Date:
2206 South Main Street, Blacksburg, Virginia 24060
540-552-0444; jfrazier@daa.com, www.daa.com

SW-846 METHOD 8332 DATA REVIEW SUMMARY

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13). Draper Aden Associates collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for 13MW4. Groundwater samples were analyzed for nitroglycerin by SW-846 Method 8332.

CompuChem, a Division of Liberty Analytical Corporation (CompuChem), of Cary, North Carolina, performed the analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis which included sample analytical results as well as relevant documentation to verify and validate the results.

The evaluation of CompuChem's compliance with Method 8332 and validation of the results was based on a limited review of the following items: QC deliverables package, QC history documentation, case narrative, technical holding time and preservation requirements, extraction procedures, instrument calibrations, blank analysis, surrogate spike recoveries, retention time, matrix spike (MS/MSD) analyses, and laboratory control samples (LCS), where applicable. Review of transcriptions from instrument data to sample summary sheets was performed. Representative calculations of 10% of the data set were performed. The following information is intended to summarize data review results and any observed significant deviations from method and/or contractual requirements.

The laboratory received the samples on ice and in good condition with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Technical holding time criteria were met. Sample extraction and analysis holding time criteria were met. Sample preservation criteria were met.

The original certificate of analysis was received on May 21, 2009. The original certificate of analysis for Method 8332 was complete and presented data which were of acceptable quality for nitroglycerin. The data set exhibited the laboratory's ability to achieve the reported project quantitation limit (QL) as supported by the method detection limit (MDL) study, and QL standard. QC history documentation and QC check sample criteria were met. Initial calibration, calibration verification, blank, surrogate, retention time, MS/MSD and LCS criteria were met except where noted below. Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. Field duplicate/sample results exhibited acceptable precision, where applicable. No deviations from quality control criteria were identified during the review process. No detections were reported at or above the detection limit or QL. Sample results were reported and evaluated to the detection limit for this Appendix IX monitoring event. Sample results unaffected by the data validation process were validated and reported as "U."

SW-846 METHOD 8332 DATA VALIDATION

Sample ID: 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: 13MW5 MS/MSD, Extraction Blank, LCS, 13MWDUP (13MW4)
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 0904098/103

Comments: *Solid phase extraction is performed on all samples using SW 846 Method 3535. Nitroglycerine analysis- injection onto a reverse phase high performance liquid chromatograph (HPLC). Nitroglycerine is quantitated using an ultraviolet detector.*

A. QC DELIVERABLES PACKAGE:

1.	Was case narrative present/signed by a laboratory representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were sample results included for all sample locations?	☑ YES ☐ NO
4.	Did the laboratory report results for the project specific analyte list?	☑ YES ☐ NO
5.	Did the QLs reported on sample summary sheets agree with the instrument specific MDL study?	☑ YES ☐ NO

Comments: The project QL is 16 µg/l. QC deliverables criteria were met. MDL study was provided as a revision.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1.	Was the specific extraction method specified?	☑ YES ☐ NO
2.	Were instrument specific DLs for the target analytes provided?	☑ YES ☐ NO
3.	Were instrument specific QLs for the target analytes provided?	☑ YES ☐ NO
4.	Were instrument specific check sample data provided?	☑ YES ☐ NO
5.	Was the calibration range specified?	☑ YES ☐ NO
6.	Were sample analysis log sheets provided?	☑ YES ☐ NO
7.	Were chromatograms and integration reports provided?	☑ YES ☐ NO

Comments: Instrument QC history documentation criteria were met. Results reported to at or above the detection limit.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1.	Did the check sample contain the required target analyte?	☑ YES ☐ NO
2.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO
3.	Were the average recoveries reported?	☑ YES ☐ NO
4.	Were the standard deviations for the recoveries of target analytes quadruplicated and reported?	☑ YES ☐ NO

Comments: IDOC was provided as a revision.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 7-day sample collection to extraction holding time met?	☑ YES ☐ NO
2.	Was the 40-day extraction to analysis holding time met?	☑ YES ☐ NO
3.	Were the samples received at ≤6°C?	☑ YES ☐ NO

Comments: Preservation, extraction and analysis holding time criteria were met.

E. INITIAL HPLC CALIBRATION CRITERIA:

1.	Were the target analyte and surrogate included in the ICAL?	☑ YES ☐ NO
2.	Was a minimum five-point calibration analyzed prior to analyses?	☑ YES ☐ NO
3.	Was the lowest calibration standard at or below the MCL, regulatory threshold or permit limit?	☑ YES ☐ NO
4.	Was the Calibration Factor (CF) for the target analyte provided?	☑ YES ☐ NO
5.	Was the % Relative Standard Deviation (%RSD) for target analyte CFs <20% over the established working range?	☑ YES ☐ NO
6.	State the Quantitation Method used by the laboratory: *Calibration Factor.*	
7.	List analytes with a % RSD >20% over the established working range: *None.*	
8.	Were calibration standards dropped to meet calibration criteria?	☐ YES ☑ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1.	Was a CV standard performed once every 12-hours?	☑ YES ☐ NO
2.	Did analyte responses have a % Difference (%D) within ± 15%? If no, was a new calibration curve prepared?	☑ YES ☐ NO
3.	Was a mid-concentration standard analyzed after each group of 10 samples in the analysis sequence and at the end of the analytical sequence?	☑ YES ☐ NO
4.	Was the target analyte and surrogate included in the CV?	☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1	Was a blank analyzed prior to the batch samples?	☑ YES ☐ NO
2	Was a blank analyzed after 20 batch samples?	☑ NA ☐ YES ☐ NO

3. Was an extraction blank analyzed with the batch samples? ☑ YES ☐ NO
4 Was a trip blank analyzed per analytical batch? NA ☐ YES ☑ NO
5. List target analytes identified in the blanks: *None.*

Comments: Blank criteria were met.

H. SURROGATE CRITERIA:

1. Were samples, standards, blanks, and checks spiked with at least 1 surrogate? ☑ YES ☐ NO
2. List surrogate used and % recovery range criteria: *1,4-dinitrobenzene 50-150%*
3. List samples whose surrogate % recoveries were not within the range: *None.*

Comments: Surrogate recovery criteria were met.

I. RETENTION TIME (RT) CRITERIA:

1. Were the daily retention time (RT) windows reported? ☑ YES ☐ NO
2. Were surrogate RTs within RT window for samples and QC? ☑ YES ☐ NO
3. Were LCS/MS RTs within RT window? ☑ YES ☐ NO

Comments: The retention time criteria were met.

J. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1. Was a MS/MSD analyzed per sample batch/ or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD contain the target analyte? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List MS/MSD % recovery range criteria: *50%-150%*
5. List MS target analytes outside recovery ranges: None
6. Was a LCS analyzed to address failed MS criteria? ☑ NA ☐ YES ☐ NO
7. Did the LCS for the failed MS analyte(s) fall within the recovery range criteria and was the problem identified as matrix interference? NA
8. Were any analytes flagged as estimated concentrations? ☐ YES ☑ NO
9. List analytes flagged as estimated concentrations: *None.*

Comments: MS/MSD requirements were met. Spike concentration: 20 µg/l.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO

3. List the LCS analyte and the laboratory's recovery range criteria: *50%-150%*
4. List the LCS analyte not within the recovery range. *NA*

Comments: LCS requirements were met. Spike concentration: 20 µg/l.

L. TARGET ANALYTE IDENTIFICATION:

1.	Was the reported analyte within the RT window?	☑ NA ☐ YES ☐ NO
2.	Were retention time shifts observed when compared with the last calibration verification?	☑ NA ☐ YES ☐ NO
3.	Were reported analytes confirmed?	☑ NA ☐ YES ☐ NO
4.	Were RPDs < 40?	☑ NA ☐ YES ☐ NO
5.	Was appropriate confirmation performed?	☑ NA ☐ YES ☐ NO
6.	Were analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets?	☑ YES ☐ NO
7.	Were dilutions required?	☐ YES ☑ NO

Comments: Target analyte identification criteria were met.

M. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: Target analyte not detected at or above the detection limit (1.05 µg/l) or QL (16 µg/l). The laboratory will provide the MDL study and initial demonstration of capability as a revision.

N. LIMITATIONS AND REFERENCES:

Draper Aden Associates conducted data validation of the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data validation was conducted in general accordance with SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA and III) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008, where applicable). Validation of this data set is limited to the items detailed in this report.

LIMITATIONS:

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

JCF/ [signature] 11.19.09

Kathy Olsen, Environmental Scientist Date:
2206 South Main Street, Blacksburg, Virginia 24060
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This Report has been subjected to technical and quality review by:

[signature] 11.19.09

Janet C. Frazier, Project Manager Date:
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USEPA METHOD 314.0 (PERCHLORATE) DATA VALIDATION

Draper Aden Associates performed a comprehensive manual review of the analytical results for the April 13-14, 2009 semiannual groundwater monitoring event at the Open Burning Ground (HWMU 13) located at the Radford Facility Army Ammunition Plant (RFAAP), in Radford, Virginia. Draper Aden Associates collected groundwater samples from monitoring wells 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6 and 13MW7. Groundwater sample 13MWDUP was submitted to the laboratory as a blind sample duplicate for sample 13MW4. For this Appendix IX monitoring event, the samples were analyzed for perchlorate by USEPA 314.0. The following information and attached table summarize the data review results.

CompuChem, a Division of Liberty Analytical, (CompuChem) of Cary, North Carolina, performed the analysis. On behalf of RFAAP, CompuChem submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

The evaluation of CompuChem's compliance with the method and validation of results presented here are based upon a review of QA/QC information including chain-of-custody, case narrative, holding times, preservation procedures and calibration standards, matrix spike/matrix spike duplicate (MS/MSD), blank samples analyses (method, calibration and other blanks), and laboratory control sample (LCS) data. A review of transcriptions from instrument data to sample summary sheets was performed. Calculation verification checks were conducted on a minimum ten percent of the data set. A summary of data review results with any observed deviations is provided below.

CompuChem received the samples on ice and in good condition, with custody seals intact. The chain of custody was appropriately signed and dated by field and laboratory personnel. Applicable holding time and preservation criteria were met. CompuChem reported results in two separate certificates of analysis (0904103 and 0904098).

The original certificates of analysis were received on May 21, 2009 and May 28, 2009. The certificates of analysis was revised to include the method detection limit study and analyst initial demonstration of capability data. The revised certificate of analysis for Method 314.0 was complete in its presentation and the data were of acceptable quality. The data set demonstrated the laboratory's ability to achieve the required quantitation limit (QL).

QC history documentation and QC check sample criteria were met. Initial calibration, calibration verification, blank, MS/MSD (13MW5), and LCS criteria were met, except where noted below.

Perchlorate was detected in 13MW4 at 127 µg/l and in the blind field duplicate, 13MWDUP, at 124 µg/l. Field duplicate/sample results exhibited acceptable precision.

Perchlorate was also detected above the detection limit but less than the QL in sample 13MW6 (1.3 µg/l).

Sample results were reviewed for transcription errors from the instrument data to the laboratory report and no errors were noted. Deviations from specific QA/QC criteria that were identified during the review process are summarized below.

The laboratory did not analyze a conductance standard as required by the method. The laboratory stated that the analysis was established for perchlorate only and the conductance standard was not applicable. No additional data qualification was required.

Perchlorate was not detected at or above the detection limit or QL for this Appendix IX monitoring event in any samples other than 13MW4, 13MWDUP, and 13MW6. Sample results unaffected by the data validation process, and not detected at or above the detection limit and/or QL, were validated and reported as "U." No results were rejected based on the data validation criteria.

USEPA METHOD 314.0 (PERCHLORATE) DATA VALIDATION

Sample ID: 13MW1, 13MW2, 13MW3, 13MW4, 13MW5, 13MW6, 13MW7
QC Samples: Blanks, LCS, 13MW5 MS/MSD, field duplicate for 13MW4 (13MWDUP)
Laboratory: CompuChem, a Division of Liberty Analytical, Cary, NC; SDG 904103/0904098

A. INSTRUMENT PERFORMANCE CHECK (IPC):

- ☑ % Recovery within 80-120%
- ☑ Conductance of IPC within 10% of Matrix Conductivity Threshold (MCT) (Comment: Criteria not applicable)

B. INITIAL/CONTINUING CALIBRATION VERIFICATION CRITERIA:

- ☑ Calibration has at least five calibration standards and correlation coefficient ≥ 0.995
- ☑ Lowest calibration standard at or below QL for all target analytes
- ☑ Continuing calibration verification standard recovered within 85-115%

C SAMPLE AND QC RESULTS:

- ☑ Sample results were reported within instrument calibration range
- ☑ LCS recovered within criteria for perchlorate - 85-115%
- ☑ MS/MSD per sample batch 80-120% recovery/ RPD ≤ 20
- ☑ Sample/Field Duplicate RPD ≤ 20

D. METHOD/QC INFORMATION DOCUMENTATION:

- ☑ Requested target analytes analyzed
- ☑ Sample documentation provided (chain of custody)

E. TECHNICAL HOLDING TIME/PRESERVATION REQUIREMENTS:

- ☑ Samples analyzed 28 days from collection

F. BLANK CRITERIA:

- ☑ Method blank per batch/other laboratory blanks as needed

G. METHOD DETECTION LIMIT (MDL) STUDY:

- ☑ Current MDL provided as a revision

REFERENCES:

Draper Aden Associates conducted a limited data validation for the above noted data set using summary tables and raw data provided by the analyzing laboratory. Data evaluation was conducted in general accordance with USEPA Method 314.0, Revision 1.0 (November 1999) and CLP data validation guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004). Validation of this data set is limited to the items detailed in this report.

Validated by: Date:

Draper Aden Associates
Engineering • Surveying • Environmental Services

Cheryl Daniel, Environmental Scientist
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Revisions to Data Set

Lancaster Laboratories
2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2360 Fax 717-656-2681 • www.lancasterlabs.com

Analysis Report

REVISED

ANALYTICAL RESULTS

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

540-552-0444

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

June 15, 2009

SAMPLE GROUP

The sample group for this submittal is 1140835. Samples arrived at the laboratory on Thursday, April 16, 2009.

Client Description	Lancaster Labs Number
13MW1 Grab Groundwater Sample	5648234
13MW2 Grab Groundwater Sample	5648235
13MW3 Grab Groundwater Sample	5648236
13MW4 Grab Groundwater Sample	5648237
13MWDUP Grab Groundwater Sample	5648238
13MW5 Unspiked Grab Groundwater Sample	5648239
13MW5_Matrix_Spike Grab Groundwater Sample	5648240
13MW5_Matrix_Spike_Dup Grab Groundwater Sample	5648241
13MW6 Grab Groundwater Sample	5648242
13MW7 Grab Groundwater Sample	5648243
Trip_Blank_1 Water Sample	5648244
Trip_Blank_2 Water Sample	5648245

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

ELECTRONIC COPY TO Draper Aden Associates, Inc. Attn: Janet Frazier

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

REVISED

1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

REVISED

Lancaster Laboratories Sample No. WW 5648234

Group No. 1140835
VA

13MW1 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 09:35 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-1- SDG#: RAD11-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 16:45	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 16:45	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648235

Group No. 1140835
VA

13MW2 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 08:15 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-2- SDG#: RAD11-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:07	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 17:07	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648236 **Group No. 1140835**
VA

13MW3 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 12:00 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-3- SDG#: RAD11-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.6	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	0.6	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648236

Group No. 1140835
VA

13MW3 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 12:00 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-3- SDG#: RAD11-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l		ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.		0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.		0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.		2.0	10	1
02898	Styrene	100-42-5	N.D.		0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.		0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.		0.1	0.5	1
02898	Toluene	108-88-3	N.D.		0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	0.1	J	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.		0.1	0.5	1
02898	Trichloroethene	79-01-6	1.0		0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	0.3	J	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.		0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.		0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.		0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.		0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:29	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:29	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 17:29	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Lancaster Laboratories Sample No. WW 5648237

Group No. 1140835
VA

13MW4 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:35 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-4- SDG#: RAD11-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648237

Group No. 1140835
VA

13MW4 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:35 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-4- SDG#: RAD11-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	1.5	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:50	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:50	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 17:50	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648238

Group No. 1140835
VA

13MWDUP Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-DU SDG#: RAD11-05FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648238 **Group No. 1140835**
VA

13MWDUP Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:50 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-DU SDG#: RAD11-05FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	1.5	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:12	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:12	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 18:12	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648239 **Group No. 1140835**
VA

13MW5 Unspiked Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06BKG

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l		ug/l	ug/l	
02898	Acetone	67-64-1	N.D.		3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.		7.0	20	1
02898	Acrolein	107-02-8	N.D.		5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.		1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.		0.1	0.5	1
02898	Benzene	71-43-2	N.D.		0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.		0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.		0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	1
02898	Bromoform	75-25-2	N.D.		0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.		0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.		1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.		0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	0.1	J	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.		0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.		0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.		0.1	0.5	1
02898	Chloroform	67-66-3	N.D.		0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.		0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.		0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.		1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.		0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.		0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.		0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.		0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.		0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.		0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.		20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.		0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.		0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.		0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.		0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.		1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.		10	25	1
02898	Methacrylonitrile	126-98-7	N.D.		1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.		0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.		0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.		1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.		0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648239

Group No. 1140835
VA

13MW5 Unspiked Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:34	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:34	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 18:34	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648240

Group No. 1140835
VA

13MW5_Matrix_Spike Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	52	3.0	5.0	1
02898	Acetonitrile	75-05-8	47	7.0	20	1
02898	Acrolein	107-02-8	42	5.0	25	1
02898	Acrylonitrile	107-13-1	36	1.0	5.0	1
02898	Allyl Chloride	107-05-1	6.6	0.1	0.5	1
02898	Benzene	71-43-2	7.1	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	5.6	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.9	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	7.0	0.1	0.5	1
02898	Bromoform	75-25-2	6.4	0.1	0.5	1
02898	Bromomethane	74-83-9	6.3	0.1	0.5	1
02898	2-Butanone	78-93-3	54	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	7.5	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	7.6	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	7.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	6.9	0.1	0.5	1
02898	Chloroethane	75-00-3	6.4	0.1	0.5	1
02898	Chloroform	67-66-3	7.1	0.1	0.5	1
02898	Chloromethane	74-87-3	6.8	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	6.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	6.6	0.1	0.5	1
02898	Dibromomethane	74-95-3	6.9	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	37	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	6.6	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	6.6	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	6.5	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	7.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	7.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	7.3	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	7.1	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	7.2	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	7.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	6.4	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	6.9	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	180	20	100	1
02898	Ethyl Methacrylate	97-63-2	6.1	0.1	0.5	1
02898	Ethylbenzene	100-41-4	7.2	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	6.7	0.1	0.5	1
02898	Hexachloroethane	67-72-1	5.3	0.1	0.5	1
02898	2-Hexanone	591-78-6	31	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	170	10	25	1
02898	Methacrylonitrile	126-98-7	53	1.0	5.0	1
02898	Methyl Iodide	74-88-4	6.2	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	7.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	30	1.0	5.0	1
02898	Methylene Chloride	75-09-2	6.6	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648240 **Group No. 1140835**
VA

13MW5_Matrix_Spike Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	6.1	0.1	0.5	1
02898	Pentachloroethane	76-01-7	5.9	0.2	0.5	1
02898	Propionitrile	107-12-0	51	2.0	10	1
02898	Styrene	100-42-5	7.3	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	6.7	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	6.9	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.8	0.1	0.5	1
02898	Toluene	108-88-3	7.2	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	6.3	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	7.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	6.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	7.1	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.9	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	6.3	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	11	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	6.1	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	21	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 19:38	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	3	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648241 **Group No. 1140835**
VA

13MW5_Matrix_Spike_Dup Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	51	3.0	5.0	1
02898	Acetonitrile	75-05-8	46	7.0	20	1
02898	Acrolein	107-02-8	43	5.0	25	1
02898	Acrylonitrile	107-13-1	35	1.0	5.0	1
02898	Allyl Chloride	107-05-1	6.9	0.1	0.5	1
02898	Benzene	71-43-2	7.1	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	6.0	0.1	0.5	1
02898	Bromochloromethane	74-97-5	6.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	7.1	0.1	0.5	1
02898	Bromoform	75-25-2	6.6	0.1	0.5	1
02898	Bromomethane	74-83-9	6.6	0.1	0.5	1
02898	2-Butanone	78-93-3	54	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	7.6	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	7.6	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	8.0	0.1	0.5	1
02898	Chlorobenzene	108-90-7	6.9	0.1	0.5	1
02898	Chloroethane	75-00-3	6.7	0.1	0.5	1
02898	Chloroform	67-66-3	7.1	0.1	0.5	1
02898	Chloromethane	74-87-3	7.1	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	6.8	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	6.7	0.1	0.5	1
02898	Dibromomethane	74-95-3	6.9	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	36	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	6.7	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	6.8	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	6.7	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	7.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	7.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	7.3	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	7.3	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	7.3	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	7.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	6.6	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	7.0	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	120	20	100	1
02898	Ethyl Methacrylate	97-63-2	6.4	0.1	0.5	1
02898	Ethylbenzene	100-41-4	7.2	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	6.5	0.1	0.5	1
02898	Hexachloroethane	67-72-1	5.3	0.1	0.5	1
02898	2-Hexanone	591-78-6	31	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	160	10	25	1
02898	Methacrylonitrile	126-98-7	53	1.0	5.0	1
02898	Methyl Iodide	74-88-4	6.4	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	7.1	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	31	1.0	5.0	1
02898	Methylene Chloride	75-09-2	6.7	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648241

Group No. 1140835
VA

13MW5_Matrix_Spike_Dup Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	6.0	0.1	0.5	1
02898	Pentachloroethane	76-01-7	6.1	0.2	0.5	1
02898	Propionitrile	107-12-0	51	2.0	10	1
02898	Styrene	100-42-5	7.4	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	6.8	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	7.1	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.9	0.1	0.5	1
02898	Toluene	108-88-3	7.3	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	6.1	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	7.3	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	6.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	7.1	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	7.0	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	6.6	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	11	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	6.4	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	22	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:00	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	3	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648242

Group No. 1140835
VA

13MW6 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 07:40 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-6- SDG#: RAD11-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648242

Group No. 1140835
VA

13MW6 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 07:40 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-6- SDG#: RAD11-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:21	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:21	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 20:21	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648243 Group No. 1140835
VA

13MW7 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 10:50 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-7- SDG#: RAD11-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648243

Group No. 1140835
VA

13MW7 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 10:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-7- SDG#: RAD11-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**		**ug/l**	**ug/l**	
02898	Naphthalene	91-20-3	N.D.		0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.		0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.		2.0	10	1
02898	Styrene	100-42-5	N.D.		0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.		0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.1	0.5	1
02898	Tetrachloroethene	127-18-4	0.1	J	0.1	0.5	1
02898	Toluene	108-88-3	N.D.		0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.		0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.		0.1	0.5	1
02898	Trichloroethene	79-01-6	1.4		0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.		0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.		0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.		0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.		0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.		0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:43	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:43	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 20:43	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648244

Group No. 1140835
VA

Trip_Blank_1 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB1 SDG#: RAD11-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648244

Group No. 1140835
VA

Trip_Blank_1 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB1 SDG#: RAD11-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:05	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:05	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 21:05	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 5648245

Group No. 1140835
VA

Trip_Blank_2 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB2 SDG#: RAD11-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l		ug/l	ug/l	
02898	Acetone	67-64-1	N.D.		3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.		7.0	20	1
02898	Acrolein	107-02-8	N.D.		5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.		1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.		0.1	0.5	1
02898	Benzene	71-43-2	N.D.		0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.		0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.		0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	1
02898	Bromoform	75-25-2	N.D.		0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.		0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.		1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.		0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.		0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.		0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.		0.1	0.5	1
02898	Chloroform	67-66-3	N.D.		0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.		0.2	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.		0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.		1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.		0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.		0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.		0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.		0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.		0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.		0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.		20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.		0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.		0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.		0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.		0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.		1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.		10	25	1
02898	Methacrylonitrile	126-98-7	N.D.		1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.		0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.		0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.		1.0	5.0	1
02898	Methylene Chloride	75-09-2	0.3	J	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 5648245

Group No. 1140835
VA

Trip_Blank_2 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 06/15/2009 at 12:33
Discard: 07/16/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB2 SDG#: RAD11-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:26	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:26	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 21:26	Angela D Sneeringer	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1140835
Reported: 06/15/09 at 12:33 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: C091111BB	Sample number(s): 5648234-5648245								
Acetone	N.D.	3.0	5.0	ug/l	101		74-137		
Acetonitrile	N.D.	7.0	20	ug/l	101		72-137		
Acrolein	N.D.	5.0	25	ug/l	87		32-129		
Acrylonitrile	N.D.	1.0	5.0	ug/l	104		76-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	99		71-132		
Benzene	N.D.	0.1	0.5	ug/l	104		88-112		
Benzyl Chloride	N.D.	0.1	0.5	ug/l	95		73-122		
Bromochloromethane	N.D.	0.1	0.5	ug/l	95		85-117		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	103		85-122		
Bromoform	N.D.	0.1	0.5	ug/l	102		71-121		
Bromomethane	N.D.	0.1	0.5	ug/l	94		66-124		
2-Butanone	N.D.	1.0	5.0	ug/l	103		77-139		
Carbon Disulfide	N.D.	0.4	0.5	ug/l	105		73-133		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	107		79-137		
2-Chloro-1,3-Butadiene	N.D.	0.1	0.5	ug/l	109		88-130		
Chlorobenzene	N.D.	0.1	0.5	ug/l	103		89-108		
Chloroethane	N.D.	0.1	0.5	ug/l	93		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	104		87-122		
Chloromethane	N.D.	0.2	0.5	ug/l	97		55-135		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	106		70-133		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	103		82-118		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	102		84-115		
Dibromomethane	N.D.	0.1	0.5	ug/l	103		86-120		
trans-1,4-Dichloro-2-butene	N.D.	1.0	5.0	ug/l	100		14-166		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		86-109		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		86-107		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		86-107		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	98		28-149		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	105		89-115		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	105		79-138		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	108		85-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	107		88-112		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	103		84-117		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	101		74-116		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	103		78-121		
1,4-Dioxane	N.D.	20.	100	ug/l	125		46-151		
Ethyl Methacrylate	N.D.	0.1	0.5	ug/l	94		74-116		
Ethylbenzene	N.D.	0.1	0.5	ug/l	104		89-112		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	99		79-112		
Hexachloroethane	N.D.	0.1	0.5	ug/l	92		70-130		
2-Hexanone	N.D.	1.0	5.0	ug/l	89		68-134		
Isobutyl Alcohol	N.D.	10.	25	ug/l	95		66-140		
Methacrylonitrile	N.D.	1.0	5.0	ug/l	104		75-134		
Methyl Iodide	N.D.	0.1	0.5	ug/l	103		77-119		
Methyl Methacrylate	N.D.	0.1	0.5	ug/l	106		71-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	90		69-130		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1140835
Reported: 06/15/09 at 12:33 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methylene Chloride	N.D.	0.2	0.5	ug/l	106		86-116		
Naphthalene	N.D.	0.1	0.5	ug/l	96		70-114		
Pentachloroethane	N.D.	0.2	0.5	ug/l	94		82-119		
Propionitrile	N.D.	2.0	10	ug/l	101		76-133		
Styrene	N.D.	0.1	0.5	ug/l	107		86-115		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	101		87-118		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	102		75-119		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	106		85-113		
Toluene	N.D.	0.1	0.5	ug/l	105		88-111		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	101		74-111		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	106		82-130		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		85-115		
Trichloroethene	N.D.	0.1	0.5	ug/l	104		89-113		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	97		62-142		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	97		80-116		
Vinyl Acetate	N.D.	0.2	0.5	ug/l	82		45-128		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	87		55-126		
Xylene (Total)	N.D.	0.1	0.5	ug/l	105		88-112		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: C091111BB	Sample number(s): 5648234-5648245 UNSPK: 5648239								
Acetone	138	136	57-163	2	30				
Acetonitrile	126	124	29-197	2	30				
Acrolein	111	116	14-141	4	30				
Acrylonitrile	142	141	56-161	1	30				
Allyl Chloride	132	138	66-148	5	30				
Benzene	142*	142*	87-126	0	30				
Benzyl Chloride	113	119	62-125	6	30				
Bromochloromethane	119	120	82-125	1	30				
Bromodichloromethane	140*	142*	82-133	1	30				
Bromoform	128*	131*	65-126	2	30				
Bromomethane	126	131	66-137	4	30				
2-Butanone	145	144	58-168	1	30				
Carbon Disulfide	150	151	75-162	1	30				
Carbon Tetrachloride	148	150	81-162	1	30				
2-Chloro-1,3-Butadiene	159	160*	71-159	1	30				
Chlorobenzene	137*	138*	87-120	1	30				
Chloroethane	127	134	70-139	5	30				
Chloroform	142*	142*	86-136	0	30				
Chloromethane	136	142	55-152	5	30				
1,2-Dibromo-3-chloropropane	131	130	55-156	1	30				
Dibromochloromethane	134*	136*	79-125	2	30				
1,2-Dibromoethane	132*	133*	80-120	1	30				
Dibromomethane	137*	137*	83-126	0	30				
trans-1,4-Dichloro-2-butene	146	142	11-172	3	30				
1,2-Dichlorobenzene	131*	133*	83-117	1	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1140835
Reported: 06/15/09 at 12:33 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,3-Dichlorobenzene	132*	135*	81-118	3	30				
1,4-Dichlorobenzene	129*	134*	79-120	4	30				
Dichlorodifluoromethane	145	150	25-180	3	30				
1,1-Dichloroethane	146*	147*	89-128	1	30				
1,2-Dichloroethane	146	146	72-153	0	30				
1,1-Dichloroethene	142*	147*	88-137	3	30				
trans-1,2-Dichloroethene	143*	145*	88-127	1	30				
1,2-Dichloropropane	142*	143*	83-126	1	30				
cis-1,3-Dichloropropene	128*	132*	63-127	3	30				
trans-1,3-Dichloropropene	138*	140*	71-128	2	30				
1,4-Dioxane	147	93	38-150	46*	30				
Ethyl Methacrylate	121	128	58-133	5	30				
Ethylbenzene	144*	145*	86-128	1	30				
Hexachlorobutadiene	134	131	62-142	3	30				
Hexachloroethane	106	106	70-130	0	30				
2-Hexanone	123	126	52-156	2	30				
Isobutyl Alcohol	140	127	54-147	9	30				
Methacrylonitrile	142	141	58-155	1	30				
Methyl Iodide	123	128	79-129	4	30				
Methyl Methacrylate	140	142	48-152	1	30				
4-Methyl-2-Pentanone	119	123	61-140	3	30				
Methylene Chloride	132*	133*	84-122	1	30				
Naphthalene	122	120	55-132	2	30				
Pentachloroethane	119	122	78-127	3	30				
Propionitrile	136	137	63-147	1	30				
Styrene	146	148	27-153	1	30				
1,1,1,2-Tetrachloroethane	134*	136*	87-126	1	30				
1,1,2,2-Tetrachloroethane	138*	142*	70-125	3	30				
Tetrachloroethene	136*	137*	86-129	1	30				
Toluene	144*	145*	83-127	1	30				
1,2,4-Trichlorobenzene	125	123	63-125	2	30				
1,1,1-Trichloroethane	145	146	81-152	1	30				
1,1,2-Trichloroethane	137*	137*	71-135	0	30				
Trichloroethene	143*	142*	85-131	1	30				
Trichlorofluoromethane	139	141	60-165	1	30				
1,2,3-Trichloropropane	126*	132*	76-120	5	30				
Vinyl Acetate	91	89	27-146	2	30				
Vinyl Chloride	122	128	57-150	5	30				
Xylene (Total)	143*	144*	84-125	0	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EPA SW846/8260 (water-25ml) #1
Batch number: C091111BB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5648234	99	95	95	87

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Draper Aden Associates, Inc. Group Number: 1140835
Reported: 06/15/09 at 12:33 PM

Surrogate Quality Control

5648235	99	96	96	86
5648236	99	97	97	87
5648237	100	96	97	88
5648238	100	97	97	88
5648239	101	97	98	87
5648240	93	93	100	97
5648241	93	93	99	97
5648242	100	98	97	88
5648243	99	97	97	88
5648244	100	96	97	88
5648245	101	98	97	88
Blank	97	95	94	87
LCS	95	93	98	93
MS	93	93	100	97
MSD	93	93	99	97
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

A11209/1140835/5648234-45

CHAIN OF CUSTODY RECORD

Laboratory: Lancaster Laboratories, 2425 New Holland Pike, Lancaster, PA, 17605-2425/ Kay Hower, Manager/ (717) 656-2300

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** UPS: 1Z237301-01-5303-5807 **Tracking Number:**

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type					G								
Box 3 - Filtered/Unfiltered					U								
Required pH of Sample					<2								
Box 2 - Preservative					A								
Box 5 - Sample Container Type					3-40 ml V								
Sample ID	**Date: 2009**	**Time**	**Box 1: Matrix**	**Number of Bottles**	8260B/6030B 25ml purge JUF 3.31.09								
13MW1	4/14	0935	GW	3	X								
13MW2	4/14	0815	GW	3	X								
13MW3	4/13	1200	GW	3	X								
13MW4		1035	GW	3	X								
13MWDUP		1050	GW	3	X								
13MW5		0850	GW	3	X								USE FOR DC
13MW6	4/13	0740	GW	3	X								
13MW7	4/14	1050	GW	3	X								
Trip Blank 1	4/13		GW	3	X								
Trip Blank 2	4/14		GW	3	X								
			JUF 4/14										

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

(Full deliverable) JUF 3/31/09

* Note 13MW1 + 13MW2 have different monitoring lists than other wells. JUF 3.31.09

Clients Special Instructions: level 4 with edd. See attached target analyte list.

Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on ice ____ Yes ____ No
Describe problems, if any:

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature):	Date: 4/15/09	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1700	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature):	Date: 4/15/09	#2 Received by (Signature):	Date: 4/16/09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: LL1	Time: 0855	

JF 4/15/09

OK JUF 4/9

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

ANALYTICAL METHOD: 8260B
TYPE METHOD: GCMS
CLASS: VOLATILE

For: 13MW1 and 13MW2

NO.	PARAMETER	CAS RN	Permit QL (ug/l)
1.	1,1-Dichloroethene	75-35-4	
2.	1,2-Dichloroethane	107-06-2	
3.	Benzene	71-43-2	
* 4.	Benzyl Chloride	100-44-7	
5.	Bromomethane	74-83-9	
6.	Carbon tetrachloride	56-23-5	
7.	Chlorobenzene	108-90-7	
8.	Chloroform	67-66-3	
* 9.	Hexachloroethane	67-72-1	
10.	Methyl chloride	74-87-3	
11.	Methylene chloride	75-09-2	
12.	Naphthalene	91-20-3	
13.	Tetrachloroethene	127-18-4	
14.	Toluene (methyl benzene)	108-88-3	
15.	Trichloroethene	79-01-6	
16.	Vinyl chloride	75-01-4	

25ml purge VOl
JCF
3-31-09

.\\BBG-FILES\Projects\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 – JCF
Revised November, 2005 – new permit – JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

13MW3 - 13MW7, Trip Blank

OBG - GW
2Q09
25ml purge volume

Analyte	CAS#	MethodRef	LOQ
1,1,1,2-Tetrachloroethane	630-20-6	8260B	1
1,1,1-Trichloroethane	71-55-6	8260B	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	1
1,1,2-Trichloroethane	79-00-5	8260B	1
1,1-Dichloroethane	75-34-3	8260B	1
1,1-Dichloroethene	75-35-4	8260B	1
1,2,3-Trichloropropane	96-18-4	8260B	1
1,2,4-Trichlorobenzene	120-82-1	8260B	1
1,2-Dibromo-3-chloropropane	96-12-8	8260B	1
1,2-Dibromoethane	106-93-4	8260B	1
1,2-Dichlorobenzene	95-50-1	8260B	1
1,2-Dichloroethane	107-06-2	8260B	1
1,2-Dichloropropane	78-87-5	8260B	1
1,3-Dichlorobenzene	541-73-1	8260B	1
1,4-Dichlorobenzene	106-46-7	8260B	1
1,4-Dioxane	123-91-1	8260B	200
2-Butanone	78-93-3	8260B	5
2-Hexanone	591-78-6	8260B	5
4-Methyl-2-pentanone	108-10-1	8260B	5
Acetone	67-64-1	8260B	5
Acetonitrile	75-05-8	8260B	100
Acrolein	107-02-8	8260B	10
Acrylonitrile	107-13-1	8260B	1
Allyl Chloride	107-05-1	8260B	1
Benzene	71-43-2	8260B	1
Bromochloromethane	74-97-5	8260B	1
Bromodichloromethane	75-27-4	8260B	1
Bromomethane	74-83-9	8260B	1
Carbon Disulfide	75-15-0	8260B	1
Carbon Tetrachloride	56-23-5	8260B	1
Chlorobenzene	108-90-7	8260B	1
Chloroethane	75-00-3	8260B	1
Chloroform	67-66-3	8260B	1
Bromoform	75-25-2	8260B	1
Chloroprene	126-99-8	8260B	1
cis-1,3-Dichloropropene	10061-01-5	8260B	1
Dibromochloromethane	124-48-1	8260B	1
Dibromomethane	74-95-3	8260B	1
Dichlorodifluoromethane	75-71-8	8260B	1
Benzyl chloride	100-44-7	8260B	1
Ethyl Methacrylate	97-63-2	8260B	1
Ethylbenzene	100-41-4	8260B	1
Hexachlorobutadiene	87-68-3	8260B	1

25ml purge vol 4/16/09

Hexachloroethane	67-72-1	8260B		1
Iodomethane	74-88-4	8260B		1
Isobutyl alcohol	78-83-1	8260B		125
Methacrylonitrile	126-98-7	8260B		10
Methyl Methacrylate	80-62-6	8260B		1
Methylene Chloride	75-09-2	8260B		1
Naphthalene	91-20-3	8260B		1
Pentachloroethane	76-01-7	8260B		1
Propionitrile	107-12-0	8260B		10
Styrene	100-42-5	8260B		1
Tetrachloroethene	127-18-4	8260B		1
Toluene	108-88-3	8260B		1
trans-1,2-Dichloroethene	156-60-5	8260B		1
trans-1,3-Dichloropropene	10061-02-6	8260B		1
trans-1,4-Dichloro-2-butene	110-57-6	8260B		1
Trichloroethene	79-01-6	8260B		1
Trichlorofluoromethane	75-69-4	8260B		1
Vinyl Acetate	108-05-4	8260B		5
Vinyl Chloride	75-01-4	8260B		1
Xylenes (Total)	1330-20-7	8260B		3

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Draper Aden

Date of Receipt: 4/16/09

Time of Receipt: 0855

Source Code: 60-1

Unpacker Emp. No.: 1454

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	0177	0.6	TB	WI	Y	B	
2	↓	1.1	↓	↑	↓	↓	
3	↓	0.8	↓	↓	↓	↓	
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 1

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
[signature]	4/16/09	0955	Unpacking
[signature]	4/16/09	1000	Place in Storage or (Entry)
			Entry
			Entry

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY – In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Demonstration of Capability Certification Statement

Date: 05/09/05

Analyst(s): Angela Sneeringer 1731

Matrix: Water

Method, SOP#, Analyte(s): 8260B GC/MS VOAs, 2300, 2301, 2302

We, the undersigned, CERTIFY that:

1. The analysts identified above, using the cited test method(s), which is in use at this facility for the analyses of samples under the National Environmental Laboratory Accreditation Program, have met the Demonstration of Capability.
2. The test method was performed by the analyst(s) identified on this certification.
3. A copy of the test method(s) and the laboratory-specific SOPs are available for all personnel on-site.
4. The data associated with the demonstration capability are true, accurate, complete, and self-explanatory (1).
5. All raw data (including a copy of this certification form) necessary to reconstruct and validate these analyses have been retained at the facility, and that the associated information is well organized and available for review by authorized assessors.

Thomas J Peck manager GCMS VOAs Date: 6/10/05
Technical Director's Name and Title

Dorothy M Love Group Leader Date: 6/13/05
Quality Assurance Officer's Name and Title

This certification form must be completed each time a demonstration of capability study is completed.

(1) True: Consistent with supporting Data

Accurate: Based on good laboratory practices consistent with sound scientific principles/practices.

Complete: Includes the results of all supporting performance testing.

Self-explanatory: Data properly labeled and stored so that the results are clear and require no additional explanation.

Method: SW-846 8260B QUAD STUDY VOLATILE ORGANICS

Analyst: Angela Sheeringer LLI Analysis Number: 8260B Waters Date05/09/05

Units: UG/L Matrix: W Level: L

BATCH: NO51291AA

LAB FILE ID: QUAD1 = ny09q01.d QUAD2 = ny09q02.d
QUAD3 = ny09q03.d QUAD4 = ny09q04.d

MPOUND	SPIKE	%Rec1	%Rec2	%Rec3	%Rec4	REC	REC LIMITS	IN SPEC	SD	SD LIMITS	IN SPEC
Dichlorodifluoromethane	20	120.0	117.1	115.4	104.6	114.3	59-177	Y	6.7	10	Y
Chloromethane	20	92.6	90.9	88.3	85.5	89.3	59-177	Y	3.1	10	Y
Vinyl Chloride	20	93.7	92.9	89.9	85.4	90.5	71-134	Y	3.8	10	Y
Bromomethane	20	99.1	99.6	93.6	92.8	96.3	62-131	Y	3.6	10	Y
Chloroethane	20	99.0	96.5	93.8	91.4	95.2	67-127	Y	3.3	10	Y
Trichlorofluoromethane	20	113.1	113.8	109.0	104.6	110.1	70-148	Y	4.3	10	Y
Ethanol	500	69.0	78.9	65.6	73.9	71.8	30-155	Y	5.8	10	Y
Acrolein	150	73.6	76.9	72.1	72.6	73.8	28-146	Y	2.2	10	Y
1,1-Dichloroethene	20	105.1	98.5	97.7	94.9	99.0	79-130	Y	4.3	10	Y
Freon 113	20	106.4	98.9	100.3	96.9	100.6	73-140	Y	4.1	10	Y
Acetone	150	91.2	94.2	87.6	85.6	89.6	11-206	Y	3.8	10	Y
Methyl Iodide	20	104.9	103.4	101.5	99.2	102.3	74-133	Y	2.4	10	Y
2-Propanol	150	72.6	75.9	74.0	77.6	75.0	36-155	Y	2.2	10	Y
Carbon Disulfide	20	102.9	100.6	100.2	96.4	100.0	76-136	Y	2.7	10	Y
Methyl Acetate	20	91.2	94.1	93.5	93.4	93.1	48-151	Y	1.3	10	Y
Allyl Chloride	20	101.3	100.7	98.2	94.3	98.6	40-136	Y	3.2	10	Y
Methylene Chloride	20	98.5	96.6	95.3	93.9	96.1	80-128	Y	2.0	10	Y
t-Butyl Alcohol	200	80.6	93.7	88.2	89.4	88.0	57-141	Y	5.4	10	Y
Acrylonitrile	100	80.7	83.8	79.9	80.4	81.2	55-137	Y	1.8	10	Y
trans-1,2-Dichloroethene	20	97.7	94.4	93.5	92.0	94.4	81-124	Y	2.4	10	Y
Methyl Tertiary Butyl Ether	20	105.7	104.7	102.5	100.1	103.2	69-134	Y	2.5	10	Y
n-Hexane	20	98.4	98.2	96.5	92.7	96.4	65-148	Y	2.6	10	Y
1,2-Dichloroethene (total)	40	97.8	95.5	94.4	93.2	95.3	84-117	Y	2.0	10	Y
1,1-Dichloroethane	20	103.1	100.6	98.5	95.6	99.5	83-127	Y	3.2	10	Y
di-Isopropyl Ether	20	91.6	91.3	89.8	88.4	90.3	67-130	Y	1.5	10	Y
2-Chloro-1,3-Butadiene	20	92.7	92.7	87.5	88.4	90.3	71-142	Y	2.8	10	Y
Ethyl t-Butyl Ether	20	102.8	100.5	97.2	96.0	99.1	74-120	Y	3.1	10	Y
cis-1,2-Dichloroethene	20	98.0	96.6	95.3	94.4	96.1	84-117	Y	1.6	10	Y
2-Butanone	150	88.1	92.0	86.1	86.2	88.1	38-169	Y	2.7	10	Y
2,2-Dichloropropane	20	112.5	108.6	108.3	104.2	108.4	74-130	Y	3.4	10	Y
Propionitrile	150	81.3	87.9	84.6	85.7	84.9	60-140	Y	2.7	10	Y
Methacrylonitrile	150	89.6	91.0	88.8	88.4	89.4	79-124	Y	1.2	10	Y
Bromochloromethane	20	108.7	108.9	105.8	102.4	106.5	56-131	Y	3.0	10	Y
Tetrahydrofuran	100	79.4	81.6	78.5	79.2	79.6	68-138	Y	1.4	10	Y
Chloroform	20	108.5	104.9	103.7	101.6	104.7	86-124	Y	2.9	10	Y
1,1,1-Trichloroethane	20	114.4	110.5	108.8	105.8	109.9	83-127	Y	3.6	10	Y
Cyclohexane	20	96.2	93.1	94.7	90.6	93.7	73-134	Y	2.4	10	Y
1,1-Dichloropropene	20	97.9	97.3	95.6	92.4	95.8	84-116	Y	2.4	10	Y
Carbon Tetrachloride	20	114.3	111.9	110.6	106.1	110.7	77-130	Y	3.4	10	Y
Isobutyl Alcohol	500	86.6	87.6	84.4	84.8	85.9	48-144	Y	1.5	10	Y
Benzene	20	96.6	94.6	92.7	91.4	93.8	85-117	Y	2.2	10	Y
1,2-Dichloroethane	20	121.5	119.2	115.0	112.7	117.1	77-132	Y	4.0	10	Y
t-Amyl Methyl Ether	20	101.3	100.5	99.3	96.9	99.5	79-113	Y	1.9	10	Y
n-Heptane	20	102.2	101.2	98.3	96.4	99.5	61-142	Y	2.7	10	Y
n-Butanol	1000	82.2	81.7	76.6	79.0	79.9	46-141	Y	2.6	10	Y
Trichloroethene	20	103.7	100.8	98.8	95.9	99.8	87-117	Y	3.3	10	Y
Methylcyclohexane	20	106.7	106.5	106.5	99.9	104.9	14-155	Y	3.3	10	Y
1,2-Dichloropropane	20	95.8	94.2	93.1	90.1	93.3	80-117	Y	2.4	10	Y
Methyl Methacrylate	20	89.4	91.5	89.7	88.4	89.8	72-121	Y	1.3	10	Y
Dibromomethane	20	103.7	104.8	103.6	99.8	103.0	87-117	Y	2.2	10	Y
1,4-Dioxane	500	91.9	91.1	85.6	87.7	89.1	43-147	Y	2.9	10	Y
Bromodichloromethane	20	101.5	100.5	99.2	97.4	99.7	83-121	Y	1.8	10	Y
2-Nitropropane	20	100.6	102.6	99.2	100.1	100.6	52-135	Y	1.4	10	Y
2-Chloroethyl Vinyl Ether	20	92.7	92.3	89.4	89.0	90.9	53-133	Y	1.9	10	Y
cis-1,3-Dichloropropene	20	100.0	100.5	98.4	97.1	99.0	78-114	Y	1.6	10	Y
4-Methyl-2-Pentanone	100	86.8	88.6	86.7	86.2	87.1	57-133	Y	1.1	10	Y
Toluene	20	93.1	92.4	91.3	90.2	91.8	85-115	Y	1.2	10	Y
trans-1,3-Dichloropropene	20	97.7	98.0	97.3	95.8	97.2	79-114	Y	1.0	10	Y
Ethyl Methacrylate	20	88.5	88.3	87.7	87.6	88.0	77-118	Y	0.4	10	Y
1,1,2-Trichloroethane	20	96.0	96.6	95.9	94.5	95.7	86-113	Y	0.9	10	Y
Tetrachloroethene	20	101.6	102.9	100.0	98.9	100.9	74-125	Y	1.7	10	Y
1,3-Dichloropropane	20	96.0	94.9	95.7	92.7	94.9	84-119	Y	1.5	10	Y
2-Hexanone	100	83.5	85.4	83.0	82.3	83.6	47-150	Y	1.3	10	Y
Dibromochloromethane	20	94.9	95.6	95.4	92.2	94.5	78-119	Y	1.6	10	Y
1,2-Dibromoethane	20	100.0	98.3	97.4	95.1	97.7	81-114	Y	2.0	10	Y

Method: SW-846 8260B QUAD STUDY VOLATILE ORGANICS

Analyst: Angels Sneeringer LLI Analysis Number: 8260B Waters Date05/09/05

Units: UG/L Matrix: W Level: L

BATCH: N051291AA

LAB FILE ID: QUAD1 = ny09q01.d QUAD2 = ny09q02.d
QUAD3 = ny09q03.d QUAD4 = ny09q04.d

MPOUND	SPIKE	%Rec1	%Rec2	%Rec3	%Rec4	$\overline{REC}$	$\overline{REC}$ LIMITS	IN SPEC	SD	SD LIMITS	IN SPEC
Chlorobenzene	20	98.3	95.3	95.3	93.7	95.7	85-115	Y	1.9	10	Y
1,1,1,2-Tetrachloroethane	20	103.1	101.3	102.3	99.0	101.4	83-114	Y	1.8	10	Y
Ethylbenzene	20	97.5	95.5	95.3	93.4	95.4	82-119	Y	1.7	10	Y
m+p-Xylene	40	96.7	95.1	93.3	93.1	94.5	84-120	Y	1.7	10	Y
Xylene (Total)	60	96.9	94.9	94.0	93.1	94.7	83-113	Y	1.6	10	Y
o-Xylene	20	97.3	94.6	95.5	93.1	95.1	82-113	Y	1.8	10	Y
Styrene	20	95.1	93.5	92.6	90.7	93.0	82-111	Y	1.8	10	Y
Bromoform	20	97.0	95.7	96.8	94.9	96.1	69-118	Y	1.0	10	Y
Isopropylbenzene	20	101.3	97.4	98.7	95.2	98.2	80-120	Y	2.5	10	Y
Cyclohexanone	500	56.5	55.3	51.9	53.7	54.3	36-140	Y	2.0	10	Y
1,1,2,2-Tetrachloroethane	20	86.8	86.7	86.1	84.7	86.1	72-119	Y	1.0	10	Y
trans-1,4-Dichloro-2-Butene	100	89.4	90.1	89.1	87.1	88.9	40-141	Y	1.3	10	Y
Bromobenzene	20	98.3	96.3	96.1	93.9	96.2	80-118	Y	1.8	10	Y
1,2,3-Trichloropropane	20	97.6	96.7	97.8	94.8	96.7	78-117	Y	1.4	10	Y
n-Propylbenzene	20	94.4	92.3	92.2	90.1	92.3	78-119	Y	1.8	10	Y
2-Chlorotoluene	20	94.1	91.6	92.9	89.2	91.9	78-115	Y	2.1	10	Y
1,3,5-Trimethylbenzene	20	97.0	94.3	94.4	91.4	94.3	78-116	Y	2.3	10	Y
4-Chlorotoluene	20	94.5	92.4	92.0	89.2	92.0	80-112	Y	2.2	10	Y
tert-Butylbenzene	20	94.5	94.0	93.3	90.4	93.1	74-114	Y	1.8	10	Y
Pentachloroethane	20	86.5	86.2	83.2	82.2	84.5	63-116	Y	2.1	10	Y
1,2,4-Trimethylbenzene	20	97.5	94.5	94.3	91.6	94.5	78-117	Y	2.4	10	Y
sec-Butylbenzene	20	94.0	91.9	92.9	89.4	92.1	72-120	Y	2.0	10	Y
p-Isopropyltoluene	20	97.0	94.5	94.6	91.7	94.4	72-118	Y	2.2	10	Y
1,3-Dichlorobenzene	20	98.4	94.1	95.7	92.8	95.3	81-114	Y	2.4	10	Y
1,4-Dichlorobenzene	20	96.9	94.3	94.1	91.9	94.3	84-116	Y	2.1	10	Y
1,2,3-Trimethylbenzene	20	96.3	96.3	93.8	91.4	94.5	74-117	Y	2.3	10	Y
Benzyl Chloride	20	92.6	91.5	92.5	89.6	91.6	71-120	Y	1.4	10	Y
n-Butylbenzene	20	94.2	90.9	90.5	89.4	91.3	70-116	Y	2.0	10	Y
1,2-Dichlorobenzene	20	99.3	97.0	96.6	94.2	96.8	81-112	Y	2.1	10	Y
1,2-Dibromo-3-Chloropropane	20	82.2	81.3	81.3	82.5	81.8	55-127	Y	0.6	10	Y
1,2,4-Trichlorobenzene	20	97.4	96.0	96.2	93.9	95.9	65-114	Y	1.5	10	Y
Hexachlorobutadiene	20	95.9	94.3	95.9	92.4	94.6	56-120	Y	1.7	10	Y
Naphthalene	20	89.6	91.2	91.2	89.9	90.4	61-116	Y	0.9	10	Y
1,2,3-Trichlorobenzene	20	98.3	99.3	99.2	95.0	97.9	67-114	Y	2.0	10	Y

Analyst Signature Angela Sneeringer Date: 06/10/05

Auditor Signature [signature] Date: [illegible]

8332 Soil and Water Explosives
Study Dates: March 2008 (water)
(the primary column)

CAS#	Compound	MDL µg/L	RL µg/L	MDL µg/Kg	RL µg/Kg
55-63-0	Nitroglycerin	1.05	16		
3032-55-1	TMETN	2.3	10		
78-11-5	PETN	1.31	10		

2008

ConpuChem
Method Detection Limit Study

	Explosives 8330								
	Aqueous 3535/8330 Explosives Soil 8330 Explosives								
CAS#	Compound	MDL	RL	DOD RL	MDL	RL	DOD RL	MDL	DOD RL
		µg/L	µg/L	µg/L	mgKg	mgKg	mgKg	ugKg	ugKg
2691-41-0	HMX	0.34	2.50	2.50	0.47	0.625	1.50	470	1500
121-82-4	RDX	1.11	2.50	4.00	0.34	0.625	1.50	340	1500
99-35-4	1,3,5-Trinitrobenzene	0.31	2.50	2.50	0.37	0.625	1.50	370	1500
99-65-0	1,3-Dinitrobenzene	0.45	2.50	2.50	0.38	0.625	1.50	380	1500
98-95-3	Nitrobenzene	0.31	2.50	2.50	0.45	0.625	1.50	450	1500
479-45-8	Tetryl	0.92	5.00	5.00	0.97	1.25	3.00	970	3000
118-96-7	2,4,6-Trinitrotoluene	0.32	2.50	2.50	0.36	0.625	1.50	360	1500
1946-51-0	4-Amino-2,6-dinitrotoluene	0.62	5.00	5.00	0.49	1.25	1.50	490	1500
35572-78-2	2-Amino-4,6-dinitrotoluene	0.53	5.00	5.00	0.48	1.25	1.50	480	1500
606-20-2	2,6-Dinitrotoluene	0.37	5.00	5.00	0.59	1.25	3.00	590	3000
121-14-2	2,4-Dinitrotoluene	0.28	2.50	2.50	0.40	0.625	1.50	400	1500
88-72-2	2-Nitrotoluene	0.40	5.00	5.00	0.73	1.25	3.00	730	3000
99-99-0	4-Nitrotoluene	0.60	5.00	5.00	0.64	1.25	3.00	640	3000
99-08-1	3-Nitrotoluene	0.34	5.00	5.00	0.61	1.25	3.00	610	3000

CompuChem
A Division Of
Liberty Analytical Corp.

Demonstration of Capability
Certification Statement

Study Date: February 24, 2008
Laboratory Name: CompuChem, a Division of Liberty Analytical Corporation
Laboratory Address: 501 Madison Avenue, Cary, NC 27513
Analyst Name/Employee ID#: **Mohn/2695**

Matrix: Water
Method Number: 314.0
SOP No./Rev#: 3.5.22.2/0
Analyte/Class of Analytes/Measured Parameters: Perchlorate

We, the undersigned, CERTIFY that:

1. The analyst identified above, using the cited test method, which is in use at this facility for the analyses of samples under the National Environmental Laboratory Accreditation Program, have met the Demonstration of Capability.

2. The test method was performed by the analyst identified on this certification.

3. A copy of the test method and the laboratory-specific SOPs are available for all personnel on-site.

4. The data associated with the demonstration capability are true, accurate, complete and self-explanatory.

5. All raw data (including a copy of this certification form) necessary to reconstruct and validate these analyses have been retained at the facility, and that the associated information is well organized and available for review by authorized assessors.

Kenneth Grzybowski, Laboratory Manager — Signature — Date
Technical Director's Name and Title

Jennifer B. Rebman, QA Manager — Signature — 7/17/09 — Date
Quality Assurance Officer's Name

This certification form must be completed each time a demonstration of capability study is completed.

(1) True: Consistent with supporting data.
Accurate: Based on good laboratory practices consistent with sound scientific principles/practices.
Complete: Includes the results of all supporting performance testing.
Self-Explanatory: Data properly labeled and stored so that the results are clear and require no additional explanation.

Laboratory Name/North Carolina Certificate Number: CompuChem/79
Date(s): 2/24/08
Analyst: Joe Mohn
Method: 314.0
Instrument: ICS 2000

Parameter	TruVal	Rep #1	Rep #2	Rep #3	Rep #4	Mean Conc.	Mean % R	SOP % R	SD(n-1)	% RSD	SOP % RPD
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L				
Perchlorate	300	316	302	317	315	313	104	90-110	7	2.26	20

Perchlorate Method: 314.0
Study Date: 2/24/08
Matrix: Water
Analyst: J. Mohn/2695
Instrument: ICS 2000

Parameter	Rep#1 ug/L	Rep#2 ug/L	Rep#3 ug/L	Rep#4 ug/L	Rep#5 ug/L	Rep#6 ug/L	Rep#7 ug/L	Rep#8 ug/L	Mean ug/L	Test Conc. ug/L	S.Dev. ug/L	MDL ug/L	RL ug/L	40-CFR
Perchlorate	5.732	5.396	5.282	4.783	5.347	5.271	*0.195	5.162	5.28	5.00	0.284	0.892	10.0	TRUE
Perchlorate	5.732	5.396	5.282	4.783	5.347	5.271	*0.195	5.162	5.28	5.00	0.284	0.892	5.00	TRUE

* Dixon Outlier

Perchlorate Method: 314.0
Study Date: 7/17/09
Matrix: Water
Analyst: J. Mohn/2695
Instrument: ICS 2000

Parameter	Rep#1 ug/L	Rep#2 ug/L	Rep#3 ug/L	Rep#4 ug/L	Rep#5 ug/L	Rep#6 ug/L	Rep#7 ug/L	Rep#8 ug/L	Mean ug/L
Perchlorate	0.448	1.319	2.911	1.302	1.165	0.911	1.130	2.290	1.43

* Dixon Outlier

CompuChem
A Division Of
Liberty Analytical Corp.

6/4/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07

WorkOrder: 0904098

Attn. JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

TOTAL NUMBER

OF PAGES _____

Compuchem

a division of Liberty Analytical Corporation

Attachment

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem
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Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
13MW5	0904098-01	Water	04/13/2009 08:50	04/15/2009 16:15
13MW3	0904098-02	Water	04/13/2009 12:00	04/15/2009 16:15
13MW4	0904098-03	Water	04/13/2009 10:35	04/15/2009 16:15
13MWDUP	0904098-04	Water	04/13/2009 10:50	04/15/2009 16:15
13MW6	0904098-05	Water	04/13/2009 07:40	04/15/2009 16:15
13MW7	0904098-06	Water	04/14/2009 10:50	04/15/2009 16:15

COMPUCHEM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ken Grzybowski For Cathy Dover, Project Manager

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DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

13MW5

0904098-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ken Grzybowski For Cathy Dover, Project Manager

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DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

13MW3

0904098-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

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DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

13MW4

0904098-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	**127.3**	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ken Grzybowski For Cathy Dover, Project Manager

CompuChem
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Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

13MWDUP

0904098-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	**123.6**	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ken Grzybowski For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

13MW6

0904098-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	**1.334**	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	J
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

13MW7

0904098-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

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Ken Grzybowski For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

INORGANIC ANIONS BY IC - Quality Control

COMPUCHEM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042040 - NO PREP										
Blank (9042040-BLK1)				Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	ND	4.000	ug/L							U
LCS (9042040-BS1)				Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	297.3	4.000	ug/L	300.0		99.1	85-115			
LCS Dup (9042040-BSD1)				Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	287.2	4.000	ug/L	300.0		95.7	85-115	3.46	20	
Matrix Spike (9042040-MS1)		**Source: 0904098-01**		Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	97.79	4.000	ug/L	100.0	0.000	97.8	80-120			
Matrix Spike Dup (9042040-MSD1)		**Source: 0904098-01**		Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	100.5	4.000	ug/L	100.0	0.000	101	80-120	2.78	20	

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Ken Grzybowski For Cathy Dover, Project Manager

CompuChem
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Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

WET CHEMISTRY PARAMETERS - Quality Control

COMPUCHEM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042043 - NO PREP										
Blank (9042043-BLK1)				Prepared: 04/20/2009 11:51 Analyzed: 04/21/2009 14:50						
Sulfide, total	ND	1.00	mg/L							U
LCS (9042043-BS1)				Prepared: 04/20/2009 11:51 Analyzed: 04/21/2009 14:50						
Sulfide, total	9.40	1.00	mg/L				90-110			
Matrix Spike (9042043-MS1)		**Source: 0904098-01**		Prepared: 04/20/2009 11:51 Analyzed: 04/21/2009 14:50						
Sulfide, total	9.40	1.00	mg/L		0.00		90-110			
Matrix Spike Dup (9042043-MSD1)		**Source: 0904098-01**		Prepared: 04/20/2009 11:51 Analyzed: 04/21/2009 14:50						
Sulfide, total	9.20	1.00	mg/L		0.00		90-110	2.15	20	

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Ken Grzybowski For Cathy Dover, Project Manager

CompuChem
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Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	06/04/2009 08:45

Notes and Definitions

U	The compound was analyzed for but not detected (CLP U-flag).
J	Compound detected below the Reporting Limit; therefore, result is an estimated concentration (CLP J-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

COMPUCHEM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ken Grzybowski For Cathy Dover, Project Manager

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified)
			VERSION 5.85:2886
	IC 314.0 Perchlorate Water	(WATER)	B-Flags used
	IC 314.0 Perchlorate Water	(WATER)	D-Flags used
	IC 314.0 Perchlorate Water	(WATER)	J-Flags used
	IC 314.0 Perchlorate Water	(WATER)	Result calculations based on MDL
	IC 314.0 Perchlorate Water	(WATER)	U-Flags used
	SULFIDE 9034 WATER	(WATER)	B-Flags used
	SULFIDE 9034 WATER	(WATER)	D-Flags used
	SULFIDE 9034 WATER	(WATER)	J-Flags used
	SULFIDE 9034 WATER	(WATER)	Result calculations based on MDL
	SULFIDE 9034 WATER	(WATER)	U-Flags used
0904098-01	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-02	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-03	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-04	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-05	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
9042043-BS1	SULFIDE 9034 WATER	Sulfide, total	No spike level
9042043-MS1	SULFIDE 9034 WATER	Sulfide, total	No spike level
9042043-MSD1	SULFIDE 9034 WATER	Sulfide, total	No spike level

CompuChem

A Division Of

Liberty Analytical Corp.

4/27/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07
WorkOrder: 0904103

Attn. JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES ____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem
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Liberty Analytical Corp.

SDG NARRATIVE
SDG # 0904103

The 2 water samples were received intact properly refrigerated at 2.1C with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analysis of the Wet Chemistry fraction. The sample was analyzed, in accordance with current EPA methods, for the analytes requested as per the COC, with the exceptions and/or additions requested by the client.

SAMPLE IDs:
The cover page contained in this package lists the client ID's and the associated CompuChem numbers which are part of this SDG.

SAMPLE PREPARATION QUALITY CONTROL:
The sample preparation procedure verifications (LCSW/LCSWD & PBW) were found to be within acceptable ranges and all field samples were prepared and analyzed within the contract specified holding times.

MATRIX RELATED QUALITY CONTROL:
There was no matrix QC associated with this SDG.

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Preeti Khare
Analyst II
April 22, 2009

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	04/27/2009 13:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
13MW1	0904103-01	Water	04/14/2009 09:35	04/15/2009 16:15
13MW2	0904103-02	Water	04/14/2009 08:15	04/15/2009 16:15

COMPUCHEM

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Preeti Khare For Cathy Dover, Project Manager

CompuChem
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DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	04/27/2009 13:17

13MW1

0904103-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U

CompuChem
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Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	04/27/2009 13:17

13MW2

0904103-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U

CompuChem
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Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	04/27/2009 13:17

INORGANIC ANIONS BY IC - Quality Control

COMPUCHEM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042040 - NO PREP										
Blank (9042040-BLK1)				Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	ND	4.000	ug/L							U
LCS (9042040-BS1)				Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	297.3	4.000	ug/L	300.0		99.1	85-115			
LCS Dup (9042040-BSD1)				Prepared: 04/20/2009 11:44 Analyzed: 04/21/2009 13:11						
Perchlorate	287.2	4.000	ug/L	300.0		95.7	85-115	3.46	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	04/27/2009 13:17

Notes and Definitions

U	The compound was analyzed for but not detected (CLP U-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified)
			VERSION 5.85:2886
	IC 314.0 Perchlorate Water	(WATER)	B-Flags used
	IC 314.0 Perchlorate Water	(WATER)	D-Flags used
	IC 314.0 Perchlorate Water	(WATER)	J-Flags used
	IC 314.0 Perchlorate Water	(WATER)	Result calculations based on MDL
	IC 314.0 Perchlorate Water	(WATER)	U-Flags used

COMPUCHEM
A DIVISION OF LIBERTY CORP

ANALYST: [signature]

DATE: 4/21/09

CASE(S): 0904103, 0904087, 0904098

METHOD 314.0 CL04 in Water

DIONEX IC 2000 CL04 RUN

Reviewed by: [signature]

Date: 4-27-09

Sample Summary Report

Sample Name:	500 PPB
Sequence Name:	04_21_09_CLO4
Method File Name:	ics 2000 perchlorate
Date Time Collected:	4/21/2009 3:19 PM
System Operator:	chromeleon

No.	Name	Ret.Time min perchlorate ECD_1	Area µS*min perchlorate ECD_1	Height µS perchlorate ECD_1	Amount PPB perchlorate ECD_1	Concentration PPB/µL perchlorate ECD_1
1	500 PPB	6.68	0.285	1.519	506.3092	25.3155
2	200 PPB	6.68	0.106	0.553	188.8141	9.4407
3	100 PPB	6.69	0.053	0.276	93.9040	4.6952
4	50 PPB	6.69	0.025	0.135	44.1768	2.2088
5	20 PPB	6.71	0.011	0.055	19.0896	0.9545
6	4 PPB	6.69	0.002	0.011	4.3949	0.2197
7	ICV	6.68	0.169	0.894	300.4516	15.0226
8	ICB	n.a.	n.a.	n.a.	n.a.	n.a.
9	CCV	6.50	0.132	0.297	234.6237	11.7312
10	CCB	n.a.	n.a.	n.a.	n.a.	n.a.
11	PBW	n.a.	n.a.	n.a.	n.a.	n.a.
12	LCSW	6.58	0.167	0.448	297.3288	14.8664
13	LCSWD	6.49	0.162	0.357	287.2292	14.3615
14	0904087-01	6.70	0.010	0.045	17.8838	0.8942
15	0904087-02	6.61	0.006	0.028	11.0835	0.5542
16	0904087-03	n.a.	n.a.	n.a.	n.a.	n.a.
17	0904098-01	n.a.	n.a.	n.a.	n.a.	n.a.
18	9042040-MS1	6.75	0.055	0.194	97.7850	4.8892
19	90402040-MSD1	6.74	0.057	0.246	100.5445	5.0272
20	0904098-02	n.a.	n.a.	n.a.	n.a.	n.a.
21	CCV	6.62	0.143	0.356	254.2175	12.7109
22	CCB	n.a.	n.a.	n.a.	n.a.	n.a.
23	0904098-03	6.71	0.072	0.362	127.3441	6.3672
24	0904098-04	6.72	0.070	0.336	123.6363	6.1818
25	0904098-05	7.09	0.001	0.006	1.3343	0.0667
26	0904098-06	n.a.	n.a.	n.a.	n.a.	n.a.
27	0904103-01	n.a.	n.a.	n.a.	n.a.	n.a.
28	0904103-02	n.a.	n.a.	n.a.	n.a.	n.a.
29	CCV	6.70	0.147	0.761	260.9332	13.0467
30	CCB	n.a.	n.a.	n.a.	n.a.	n.a.
31	CCB	n.a.	n.a.	n.a.	n.a.	n.a.

	Time	Area	Height	Amount	Conc.
AVERAGE:	***6.686***	***0.088***	***0.362***	***156.373***	***7.819***
STANDARD DEVIATION:	***0.121***	***0.077***	***0.372***	***137.257***	***6.863***
maximum value:	7.090	0.285	1.519	506.309	25.315
minimum value:	6.493	0.001	0.006	1.334	0.067

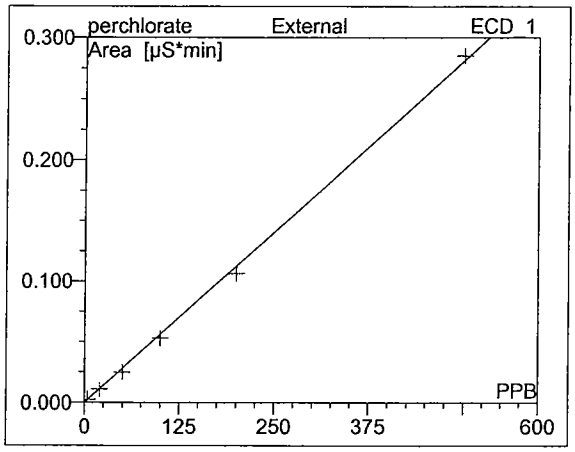
Sequence: 04_21_09_CLO4
Operator: chromeleon
Printed: 4/22/2009 11:10:23 AM

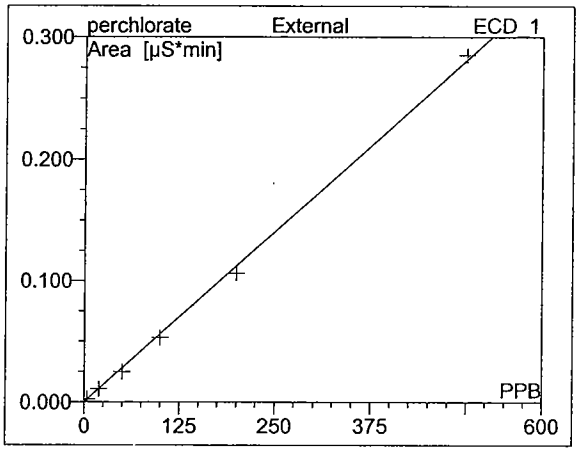
Title:
Datasource: D143S571_local
Location:
Timebase: ICS_2000
#Samples: 31
Created: 4/21/2009 3:12:09 PM by chromeleon
Last Update: 4/21/2009 3:13:29 PM by chromeleon

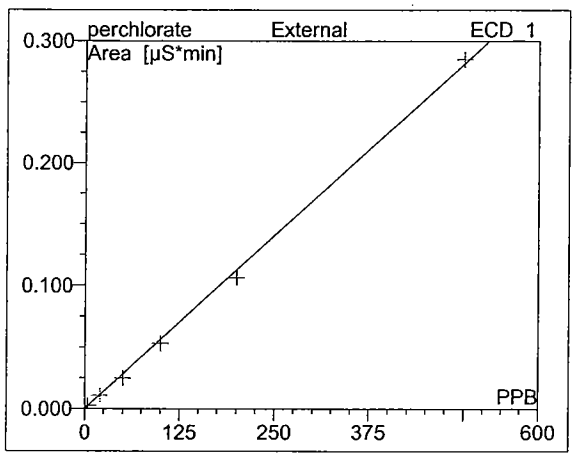
No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	500 PPB	Standard	99	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
2	200 PPB	Standard	100	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
3	100 PPB	Standard	101	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
4	50 PPB	Standard	102	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
5	20 PPB	Standard	103	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
6	4 PPB	Standard	104	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
7	ICV	Unknown	1	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
8	ICB	Unknown	2	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
9	CCV	Unknown	3	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
10	CCB	Unknown	4	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
11	PBW	Unknown	5	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
12	LCSW	Unknown	6	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
13	LCSWD	Unknown	7	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
14	0904087-01	Unknown	8	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
15	0904087-02	Unknown	9	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
16	0904087-03	Unknown	10	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
17	0904098-01	Unknown	11	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
18	9042040-MS1	Unknown	12	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
19	90402040-MSD1	Unknown	13	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
20	0904098-02	Unknown	14	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
21	CCV	Unknown	15	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
22	CCB	Unknown	16	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
23	0904098-03	Unknown	17	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
24	0904098-04	Unknown	18	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
25	0904098-05	Unknown	19	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
26	0904098-06	Unknown	20	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
27	0904103-01	Unknown	21	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
28	0904103-02	Unknown	22	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
29	CCV	Unknown	23	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
30	CCB	Unknown	24	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
31	CCB	Unknown	25	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished

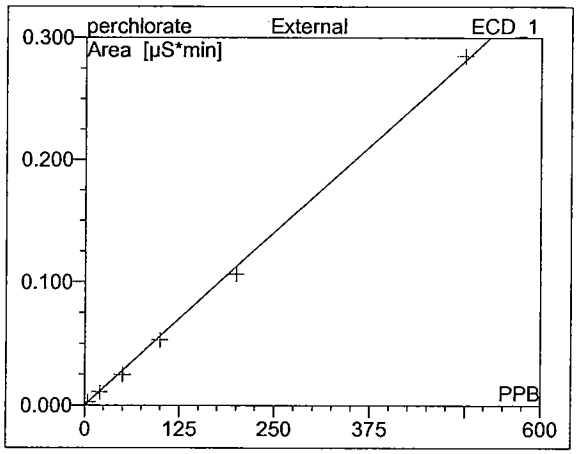
Calibration Batch Report

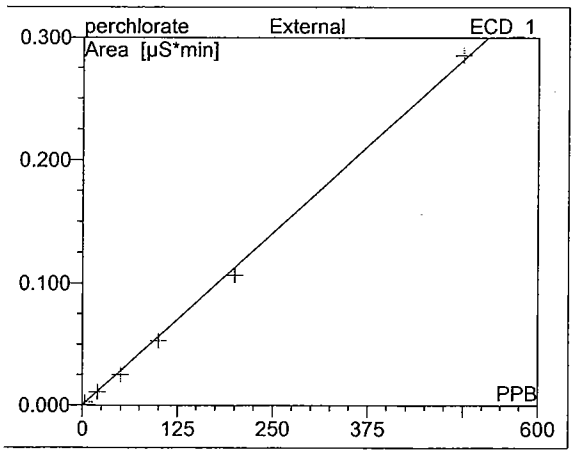
Sequence:	04_21_09_CLO4	Inj. Vol.:	20.0
Program:	ICS_2000 perchlorate	Operator:	D143S571
Inj. Date/Time:	04/21/09 15:19	Run Time:	13.50

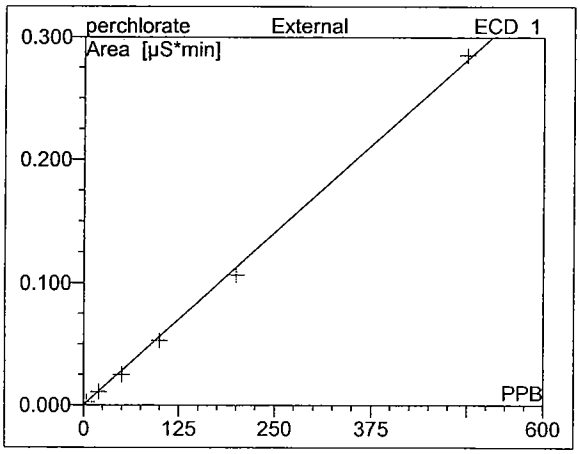




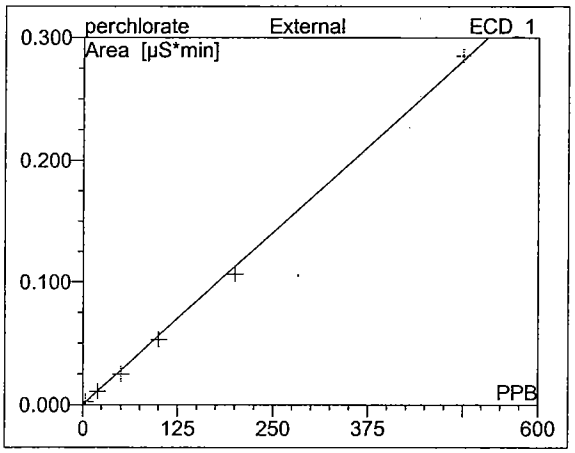








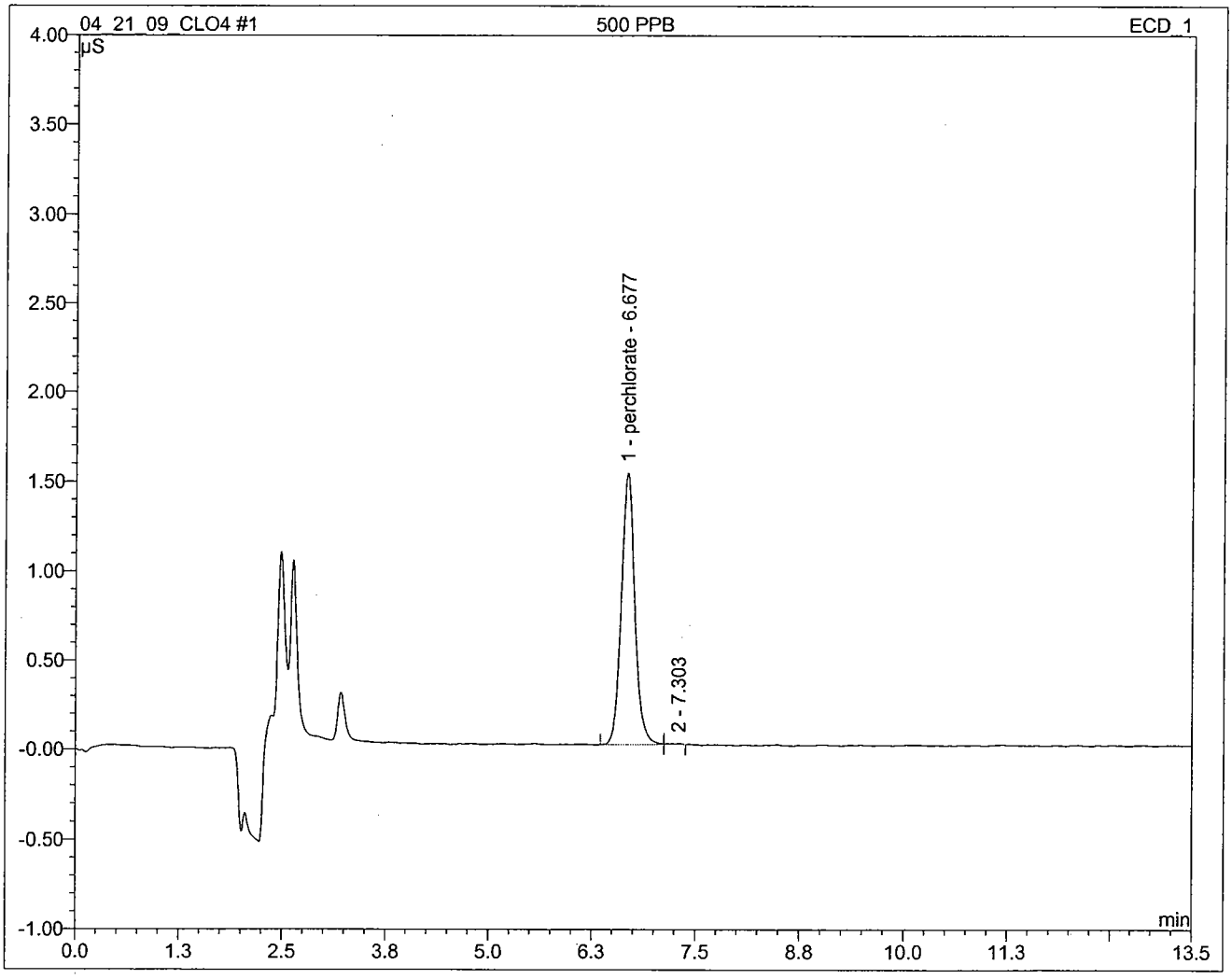
Sequence:	04_21_09_CLO4	*Inj. Vol.:*	20.0
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/09 15:19	*Run Time:*	13.50



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	6.68	perchlorate	Lin	6	0.000	0.001	0.000	99.958
AVERAGE:					0.0000	0.0006	0.0000	99.9583

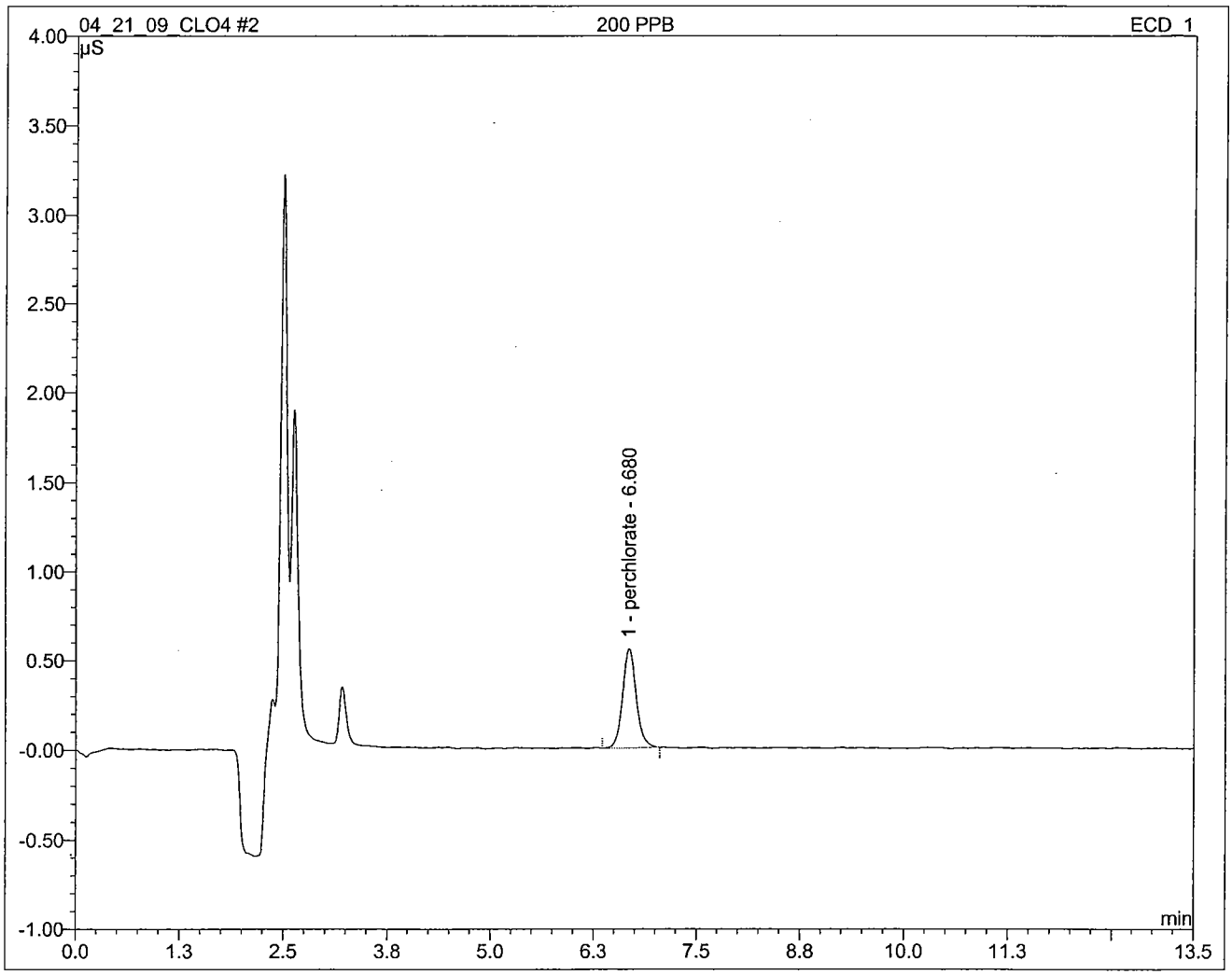
Sample Name:	**500 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 15:19**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.68	perchlorate	0.285	1.519	506.3092



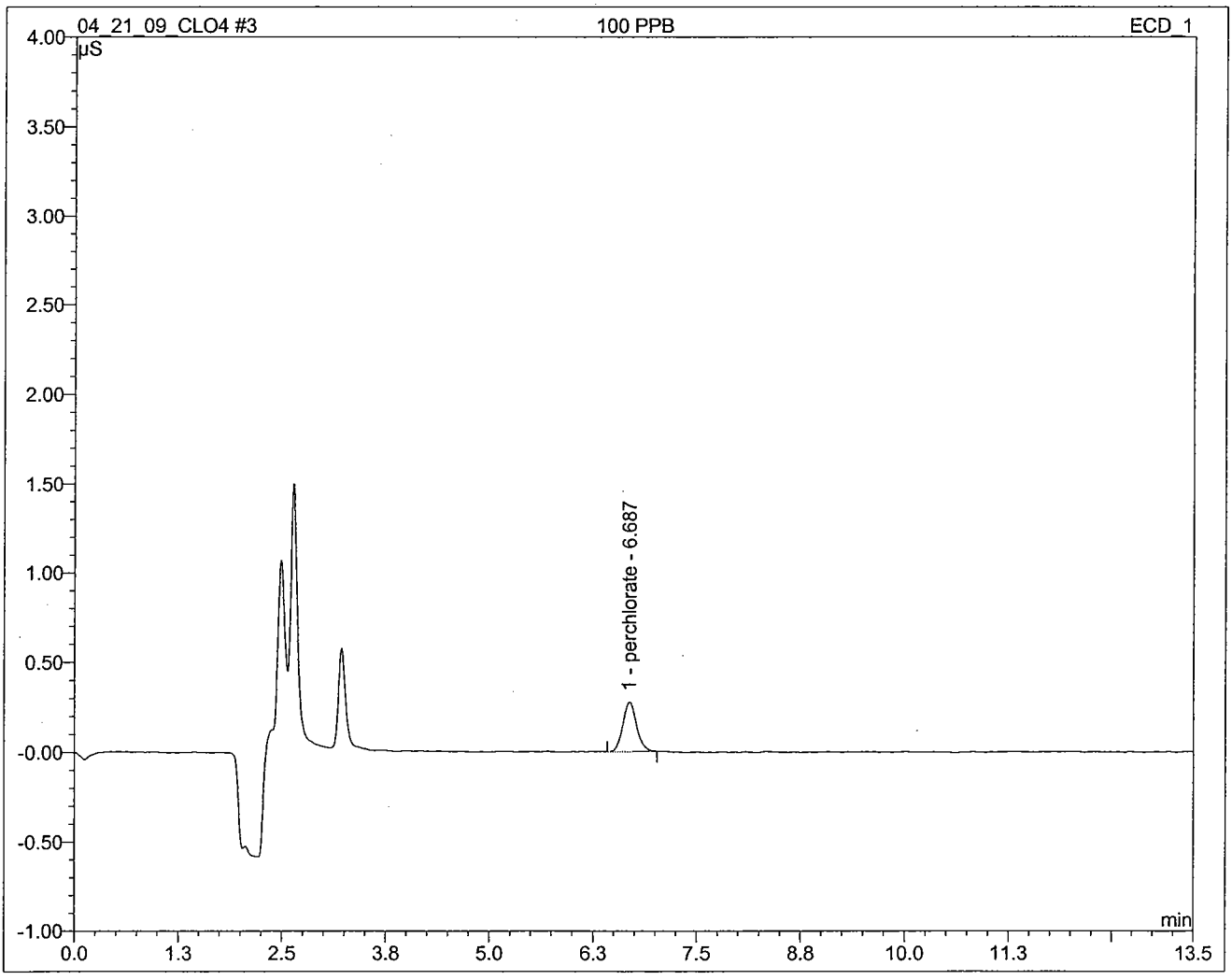
Sample Name:	**200 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 15:34**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.68	perchlorate	0.106	0.553	188.8141



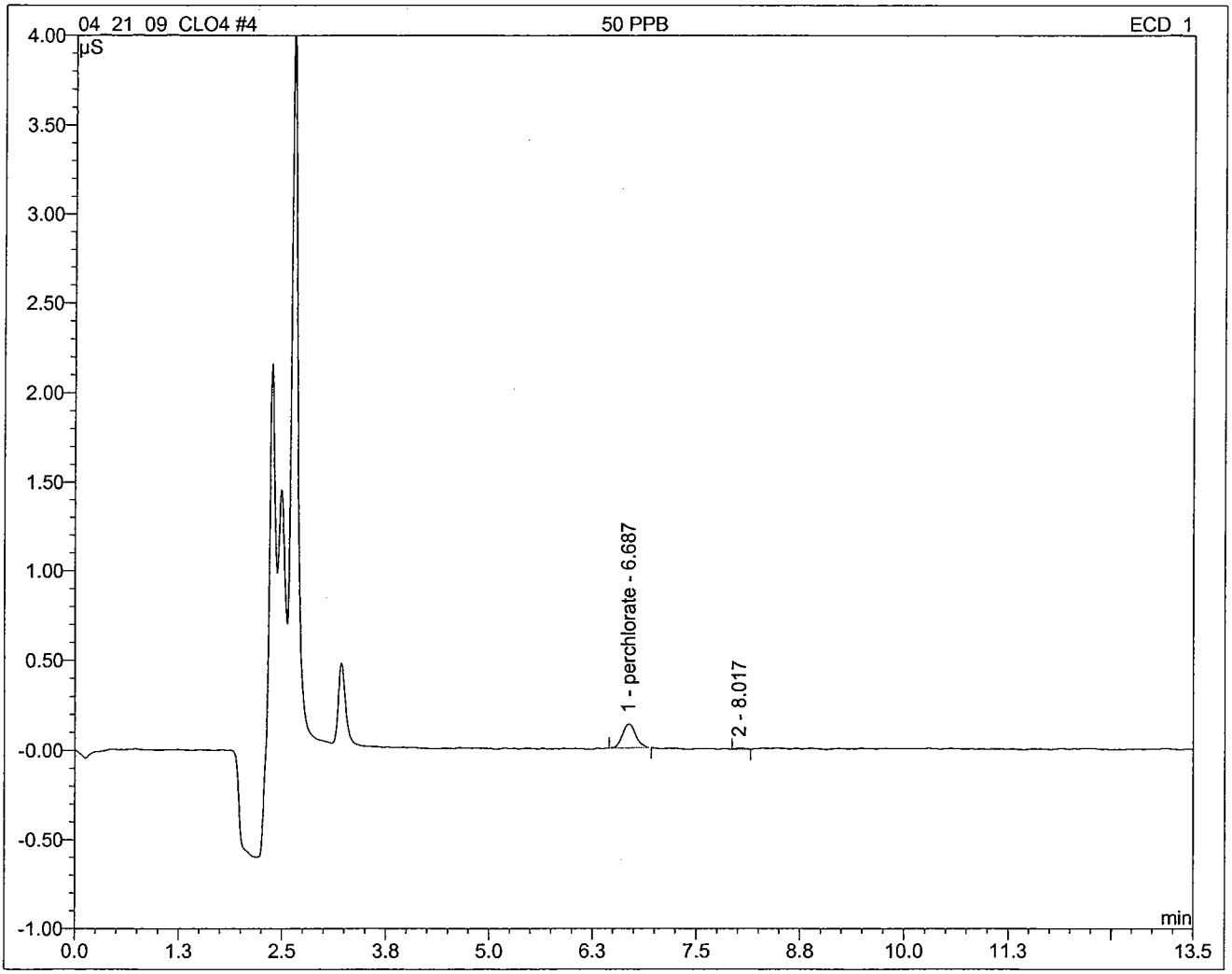
Sample Name:	**100 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 15:50**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.69	perchlorate	0.053	0.276	93.9040



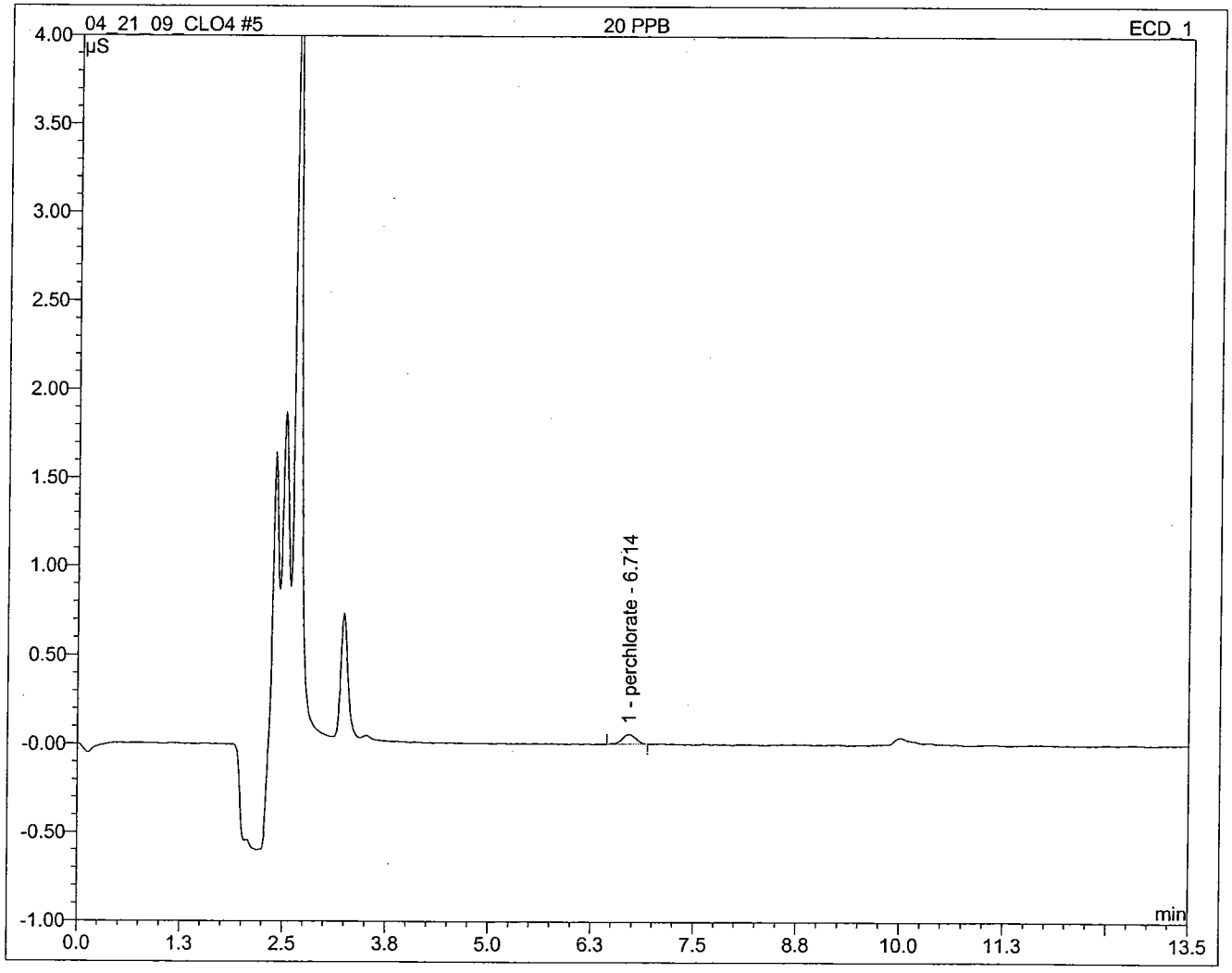
Sample Name:	**50 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:06**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area uS*min	Height uS	Amount PPB
1	6.69	perchlorate	0.025	0.135	44.1768



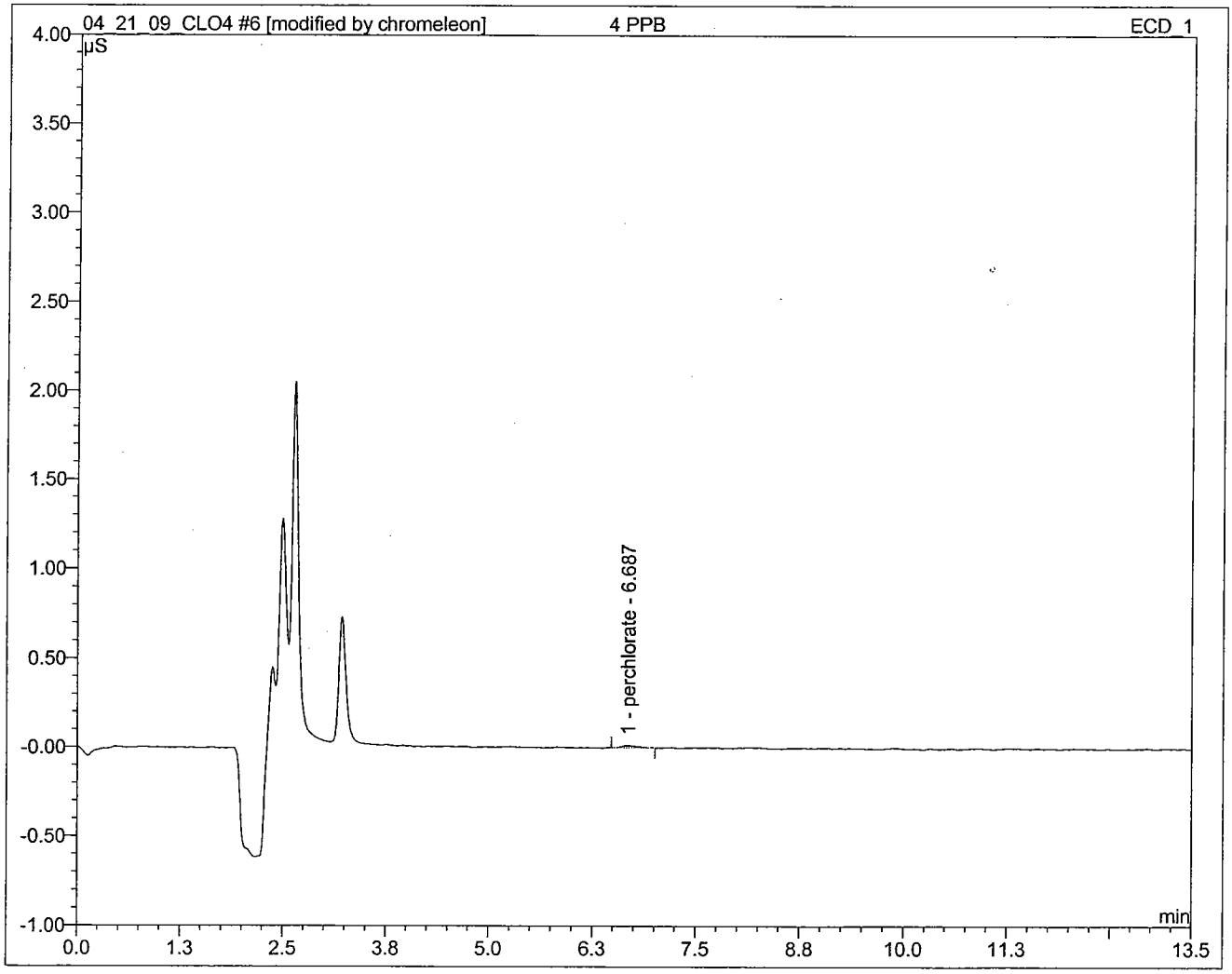
Sample Name:	**20 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:22**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.71	perchlorate	0.011	0.055	19.0896



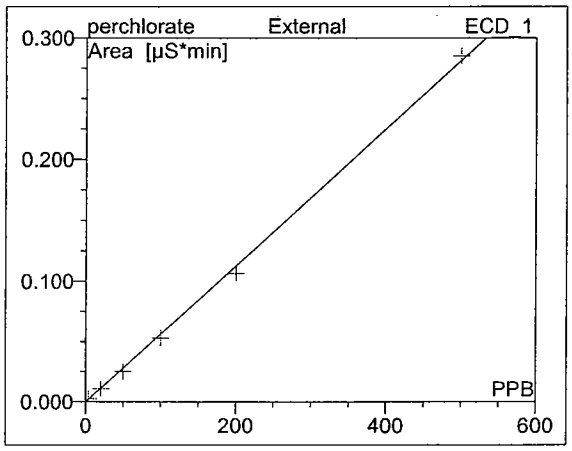
Sample Name:	4 PPB	*Inj. Vol.:*	20.0
Sample Type:	standard	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 16:38	*Run Time:*	13.50

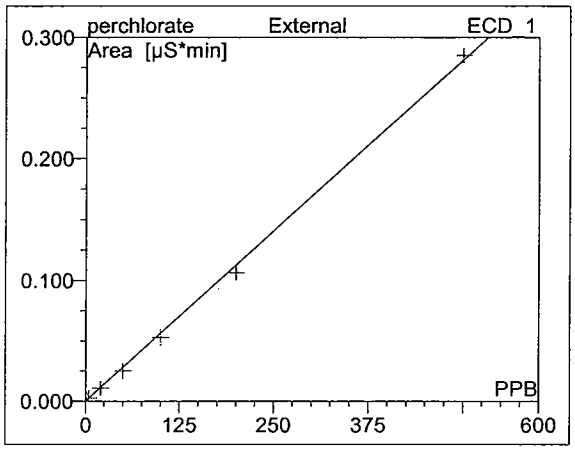
No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.69	perchlorate	0.002	0.011	4.3949

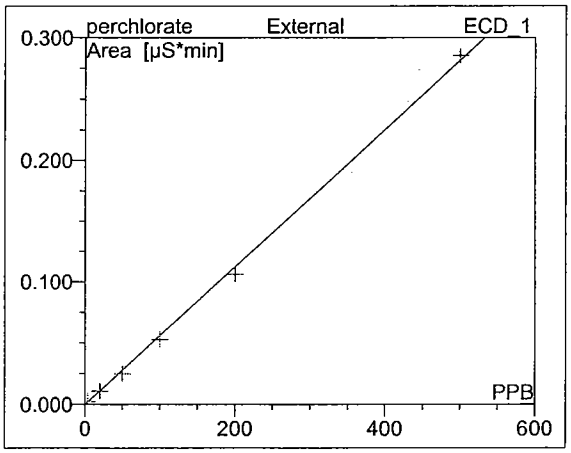


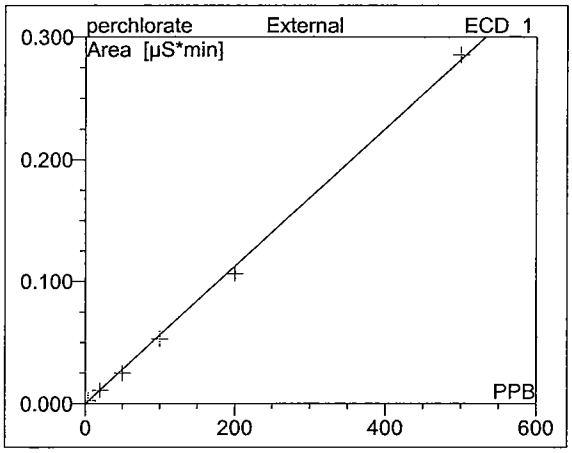
Calibration Batch Report

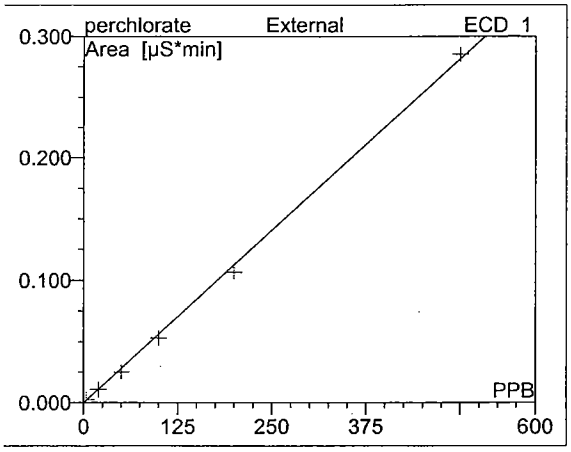
Sequence:	04_21_09_CLO4	Inj. Vol.:	20.0
Program:	ICS_2000 perchlorate	Operator:	D143S571
Inj. Date/Time:	04/21/09 16:38	Run Time:	13.50

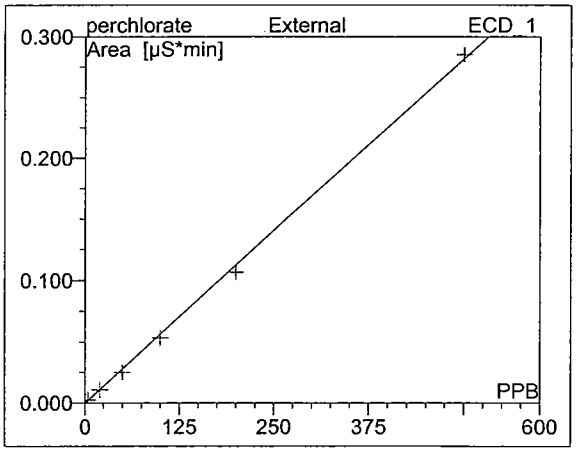




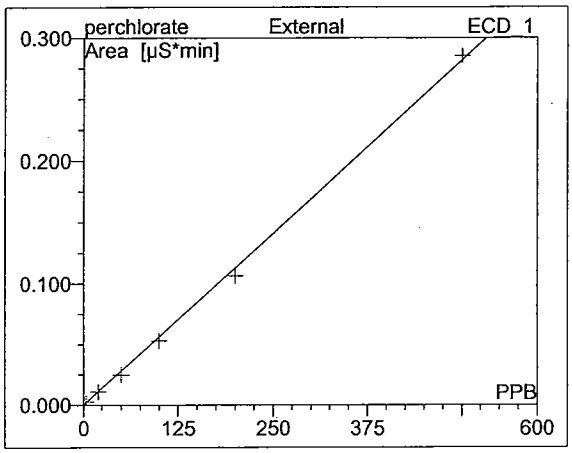








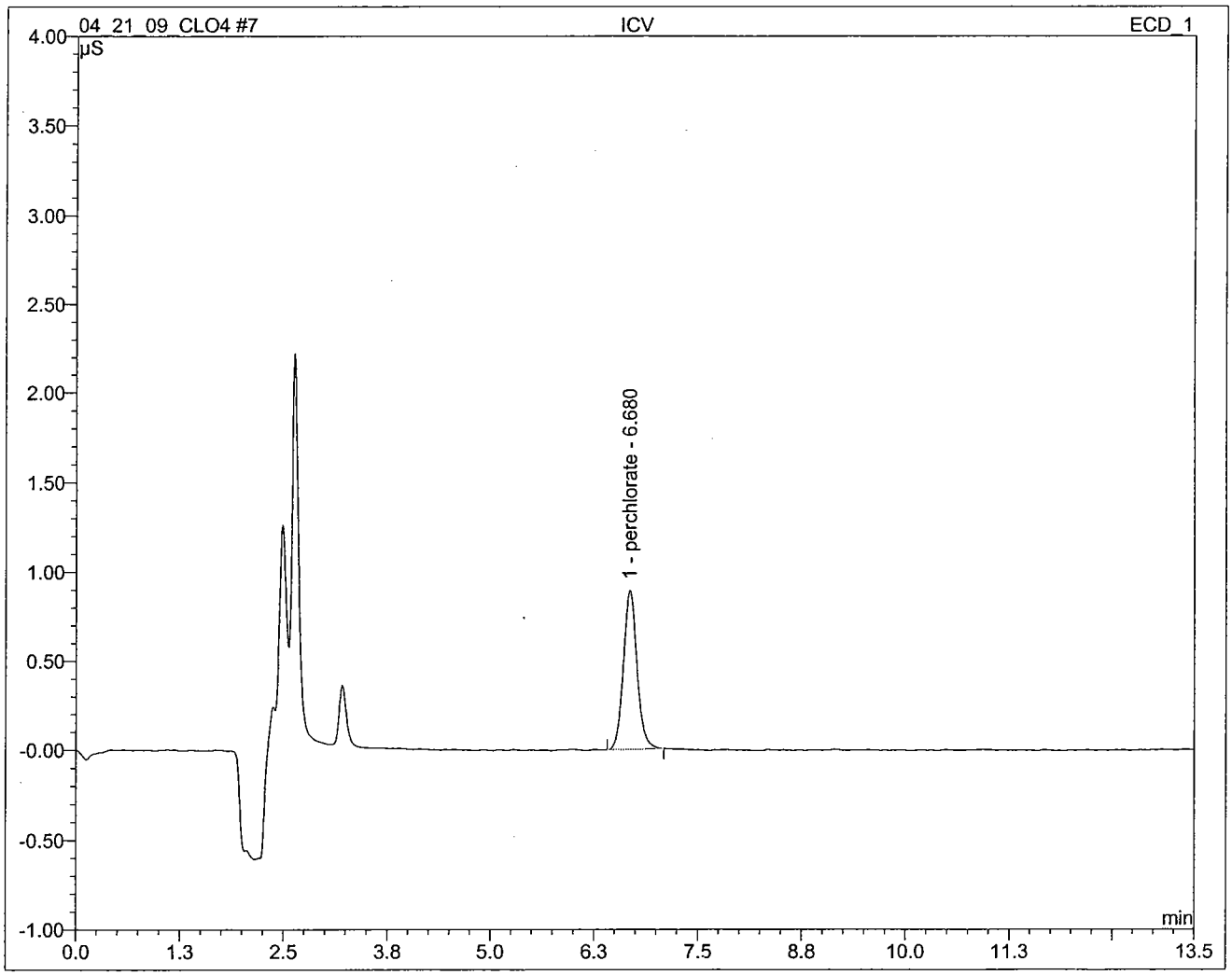
Sequence:	04_21_09_CLO4	*Inj. Vol.:*	20.0
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/09 16:38	*Run Time:*	13.50



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	6.69	perchlorate	Lin	6	0.000	0.001	0.000	99.958
AVERAGE:					0.0000	0.0006	0.0000	99.9583

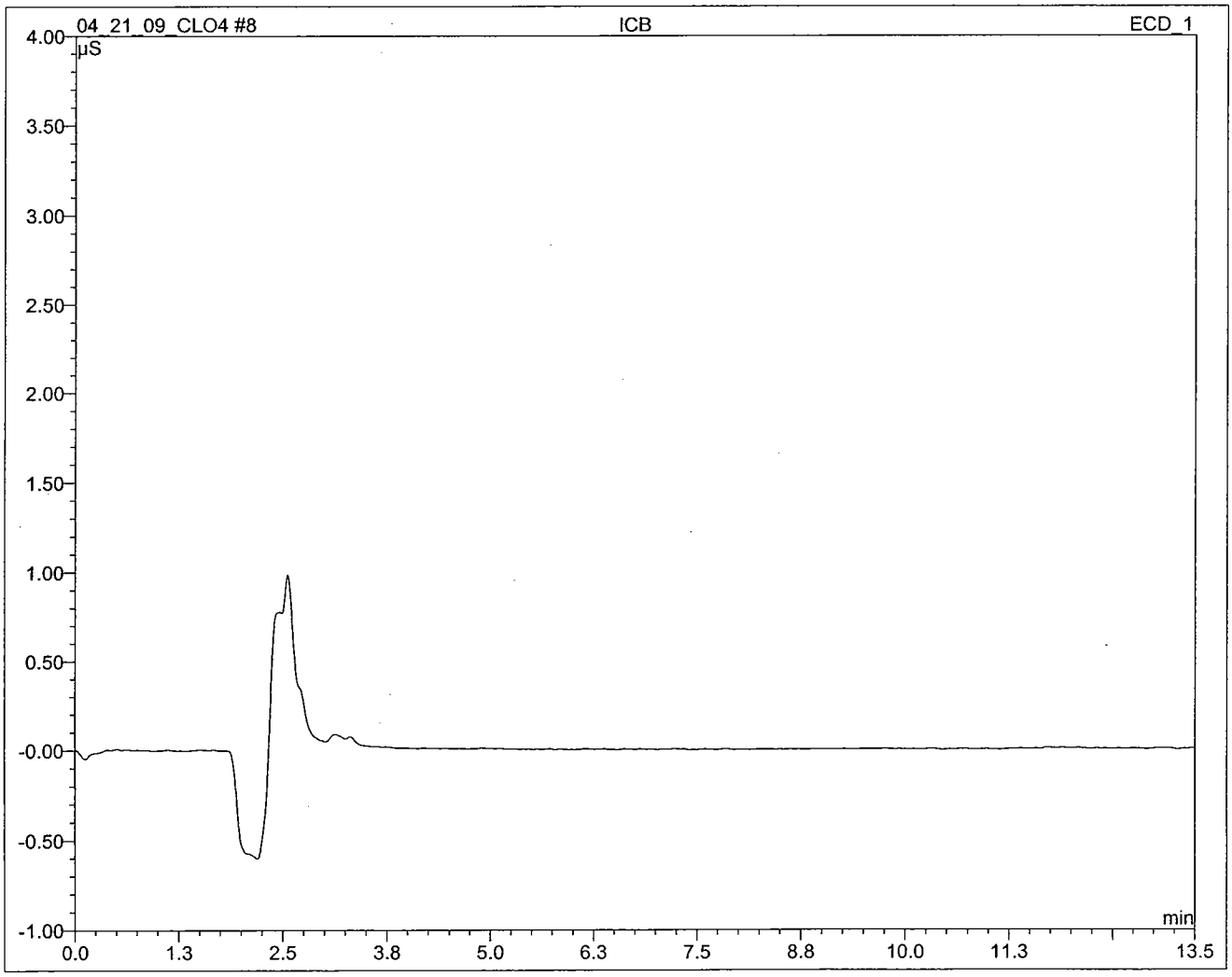
Sample Name:	**ICV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:54**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.68	perchlorate	0.169	0.894	300.4516



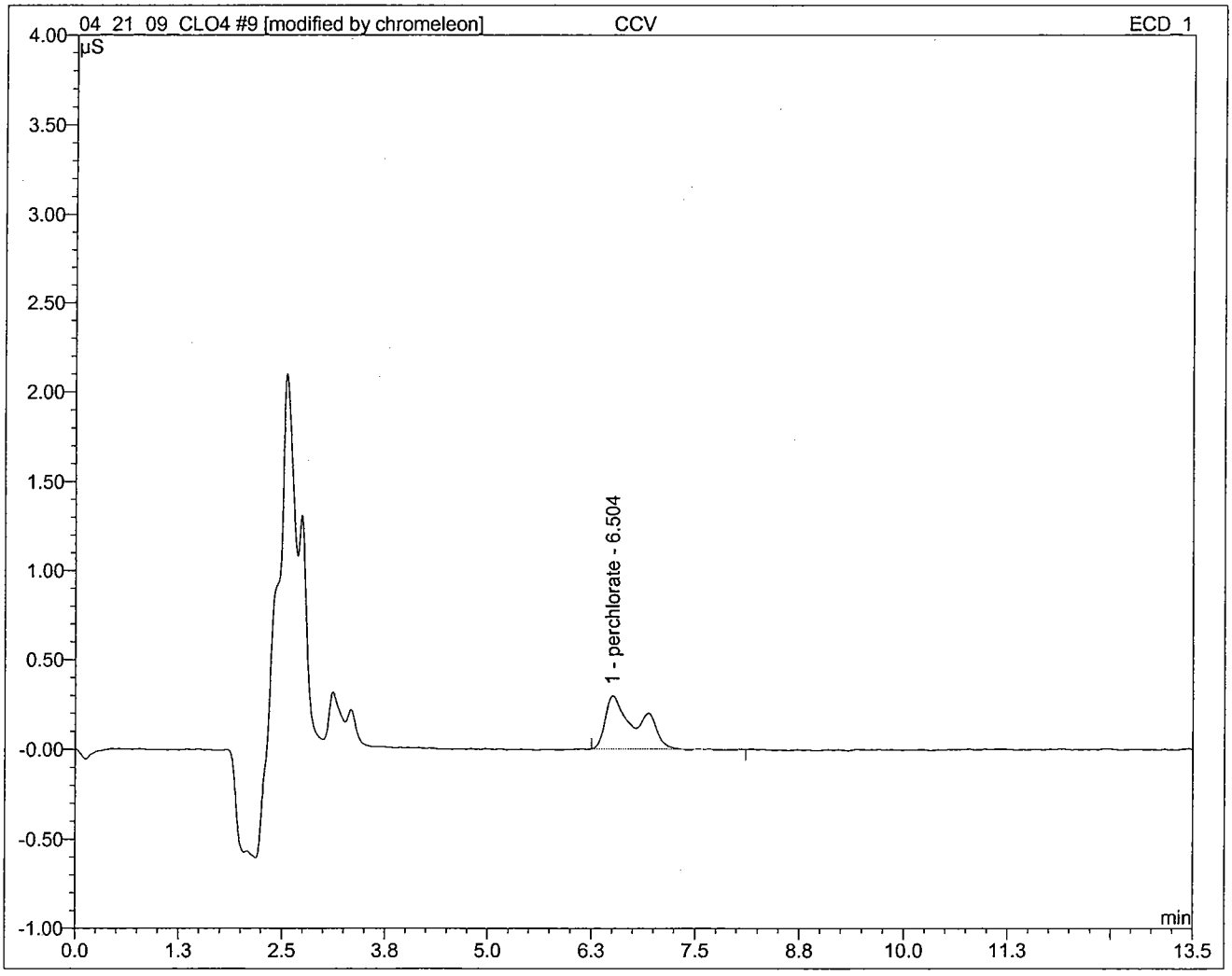
Sample Name:	**ICB**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:10**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



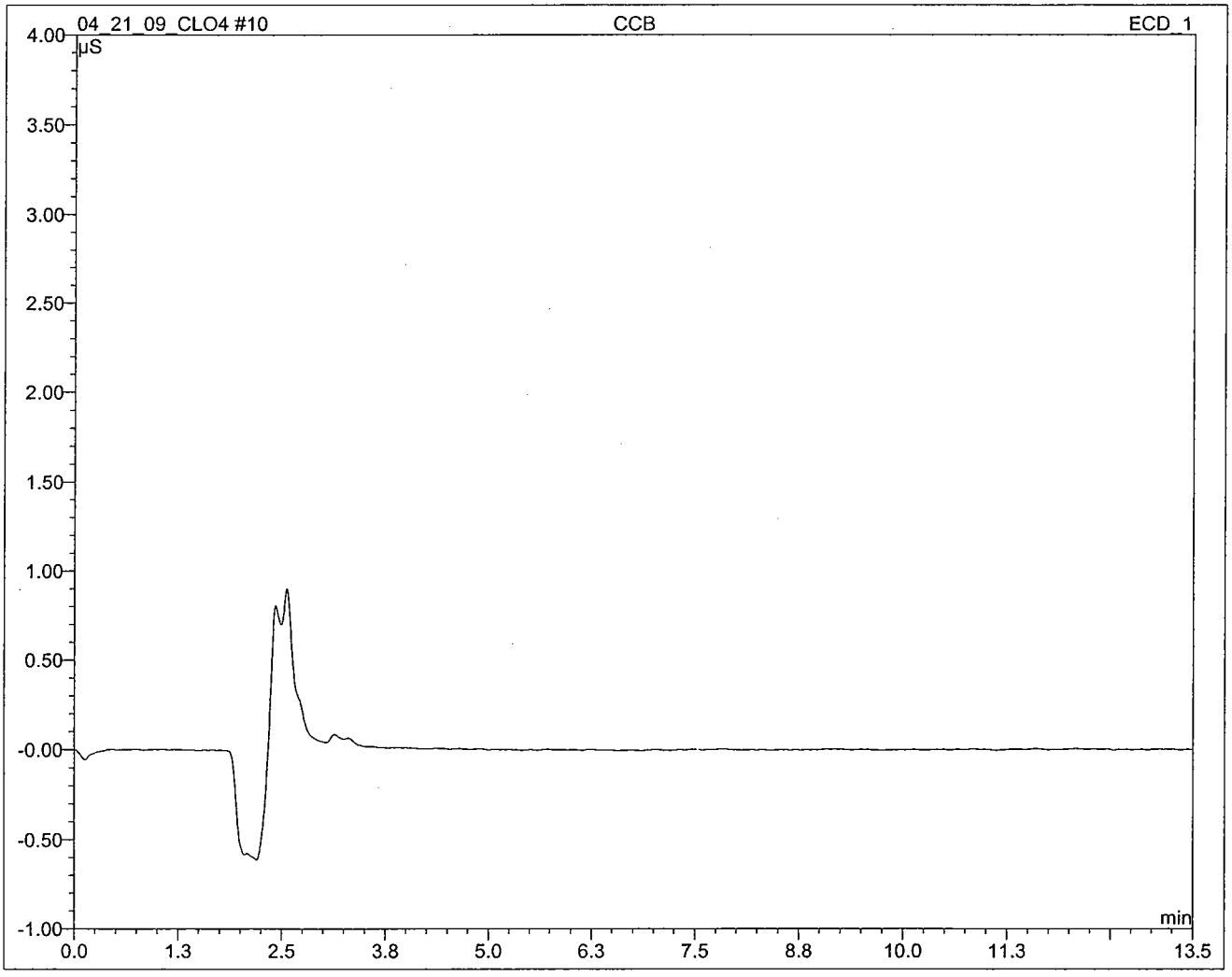
Sample Name:	**CCV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:26**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.50	perchlorate	0.132	0.297	234.6237



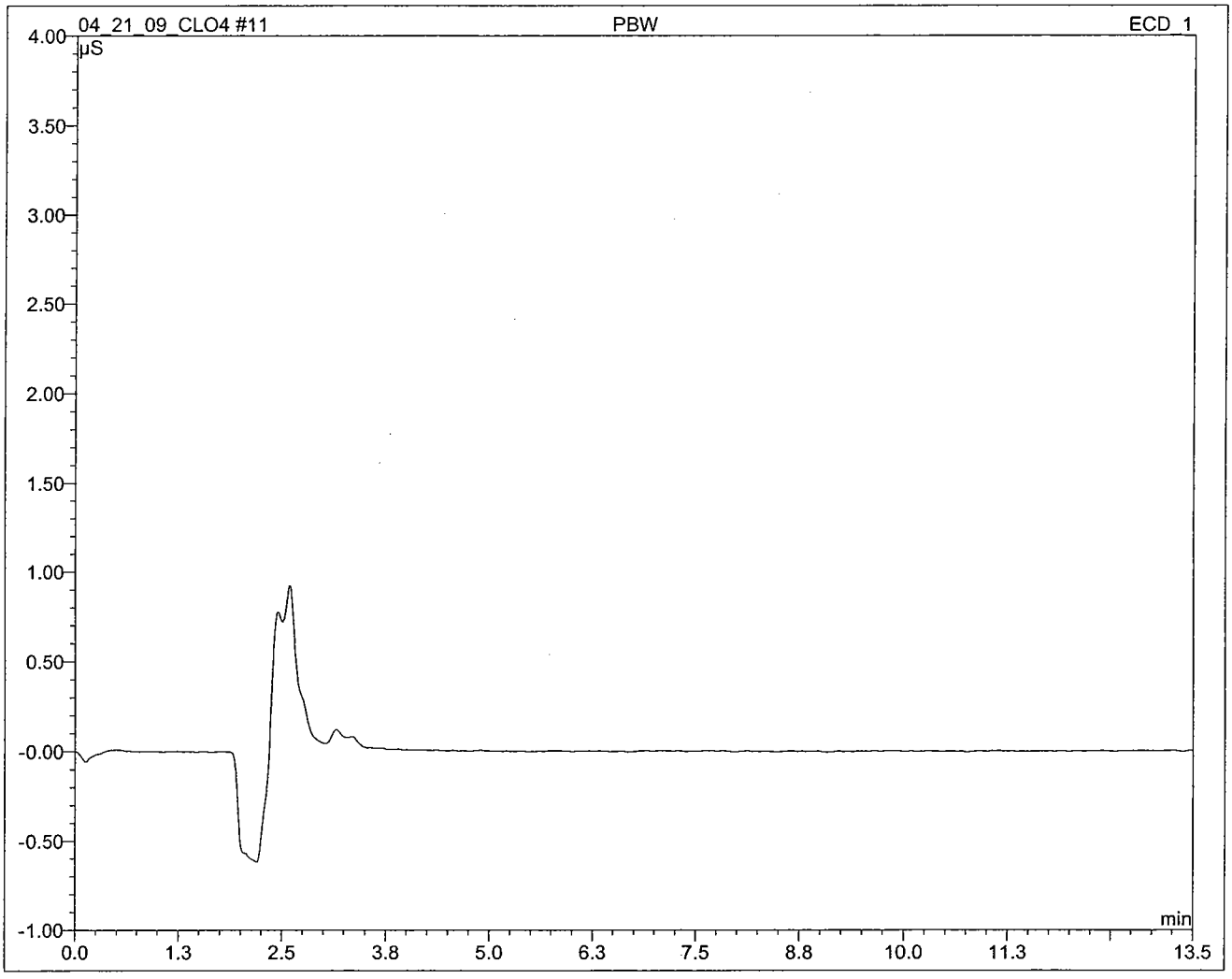
Sample Name:	**CCB**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:42**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



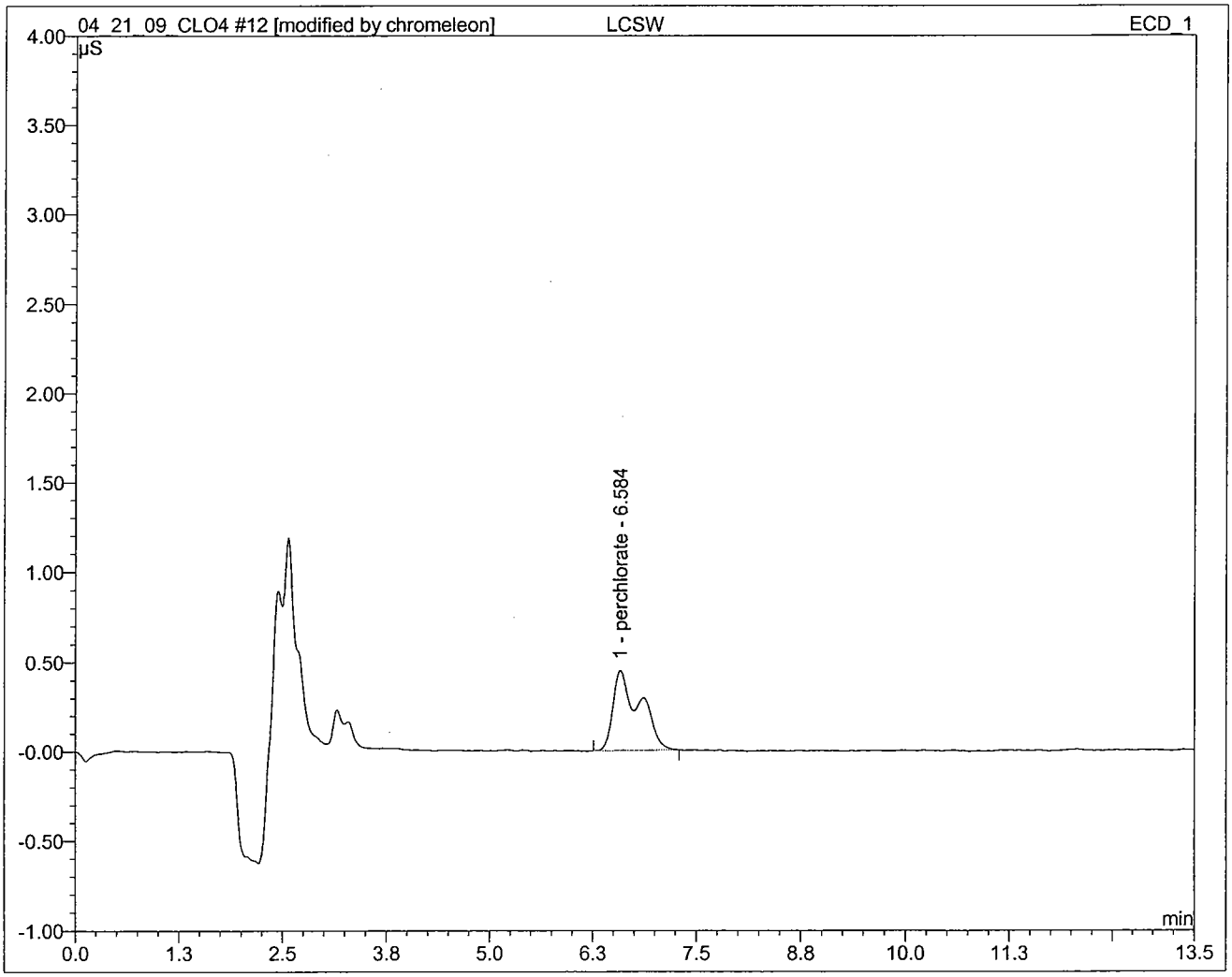
Sample Name:	**PBW**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:58**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



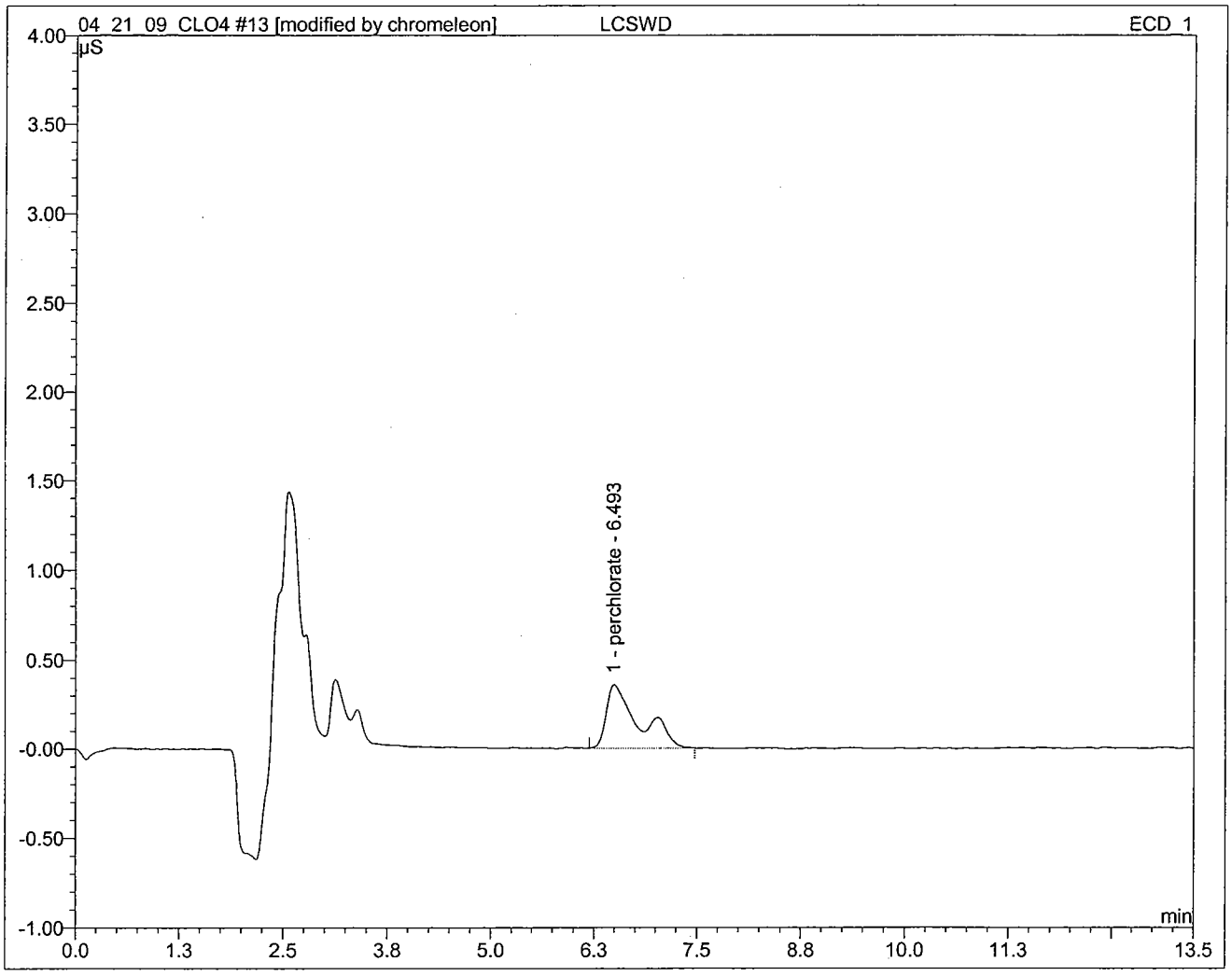
Sample Name:	**LCSW**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 18:14**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.58	perchlorate	0.167	0.448	297.3288



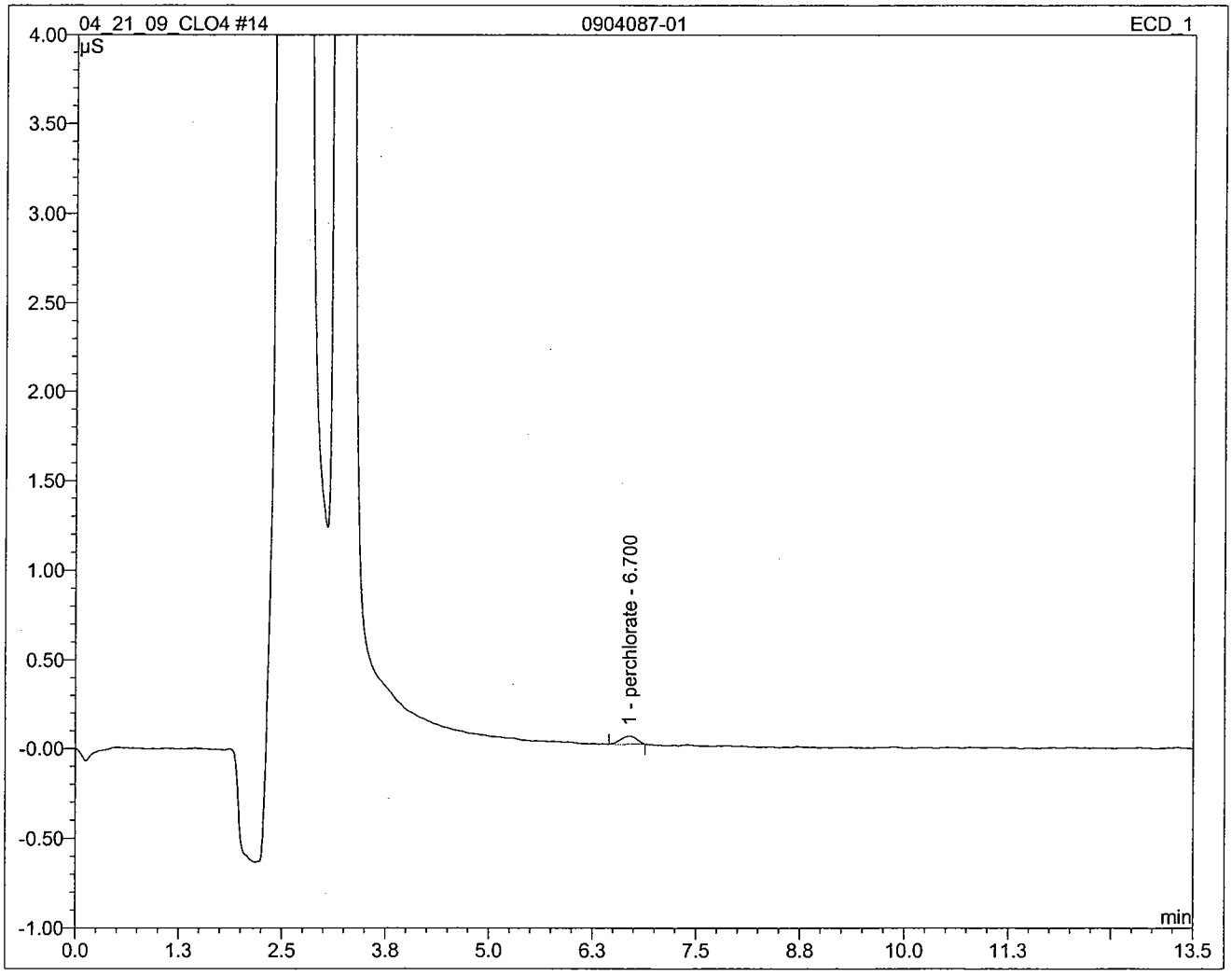
Sample Name:	**LCSWD**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 18:29**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.49	perchlorate	0.162	0.357	287.2292



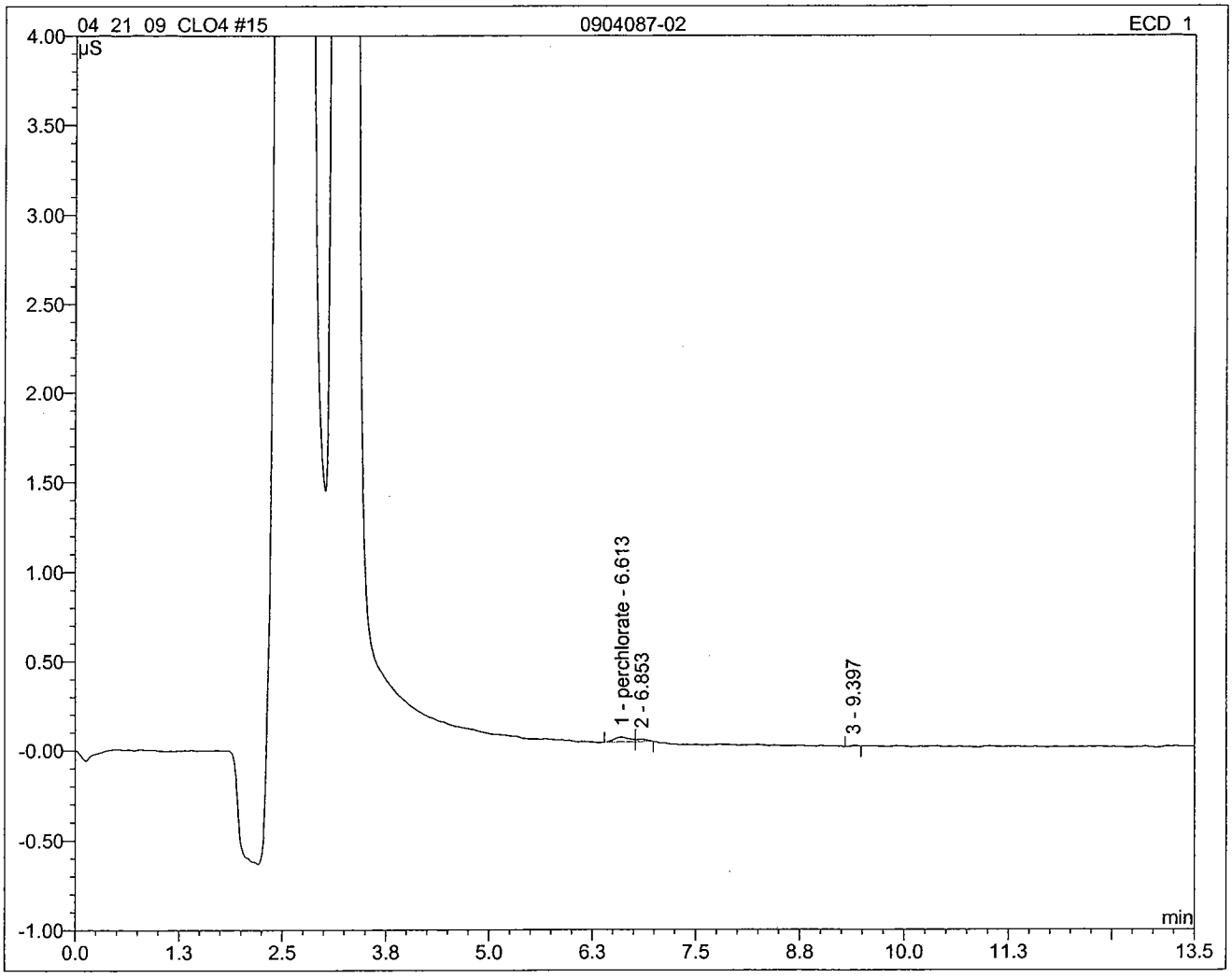
Sample Name:	0904087-01	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 18:45	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.70	perchlorate	0.010	0.045	17.8838



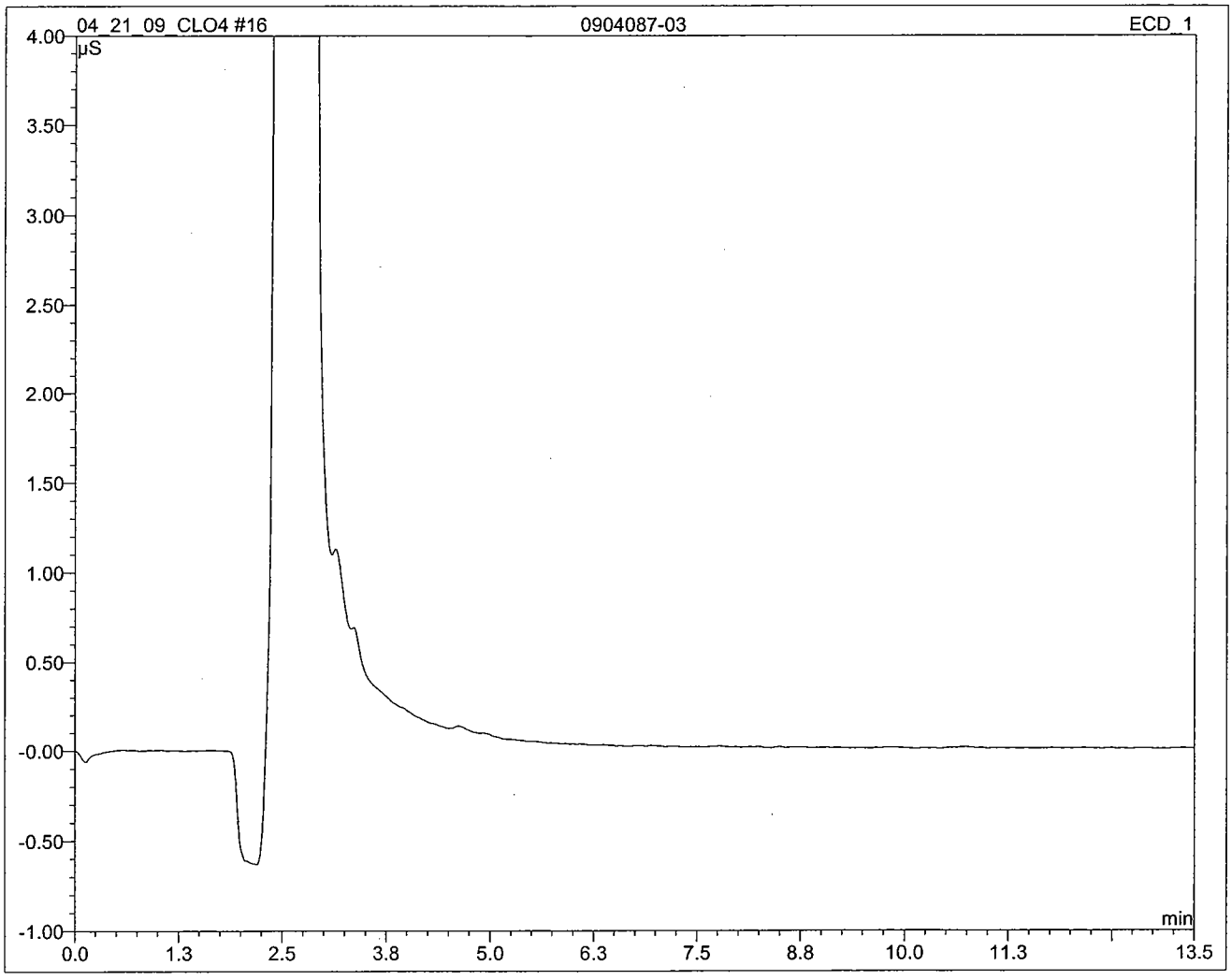
Sample Name:	**0904087-02**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 19:01**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.61	perchlorate	0.006	0.028	11.0835



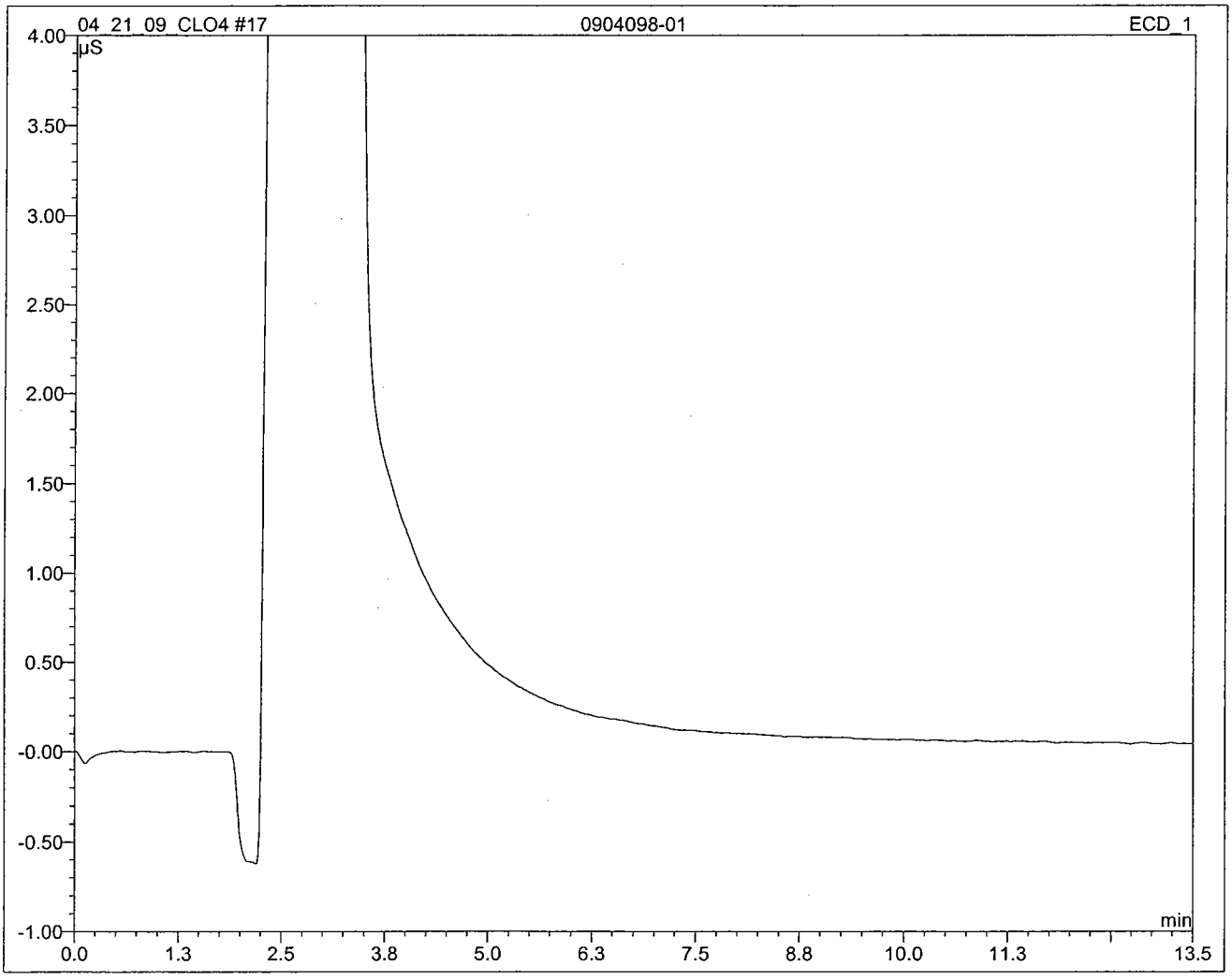
Sample Name:	0904087-03	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 19:17	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



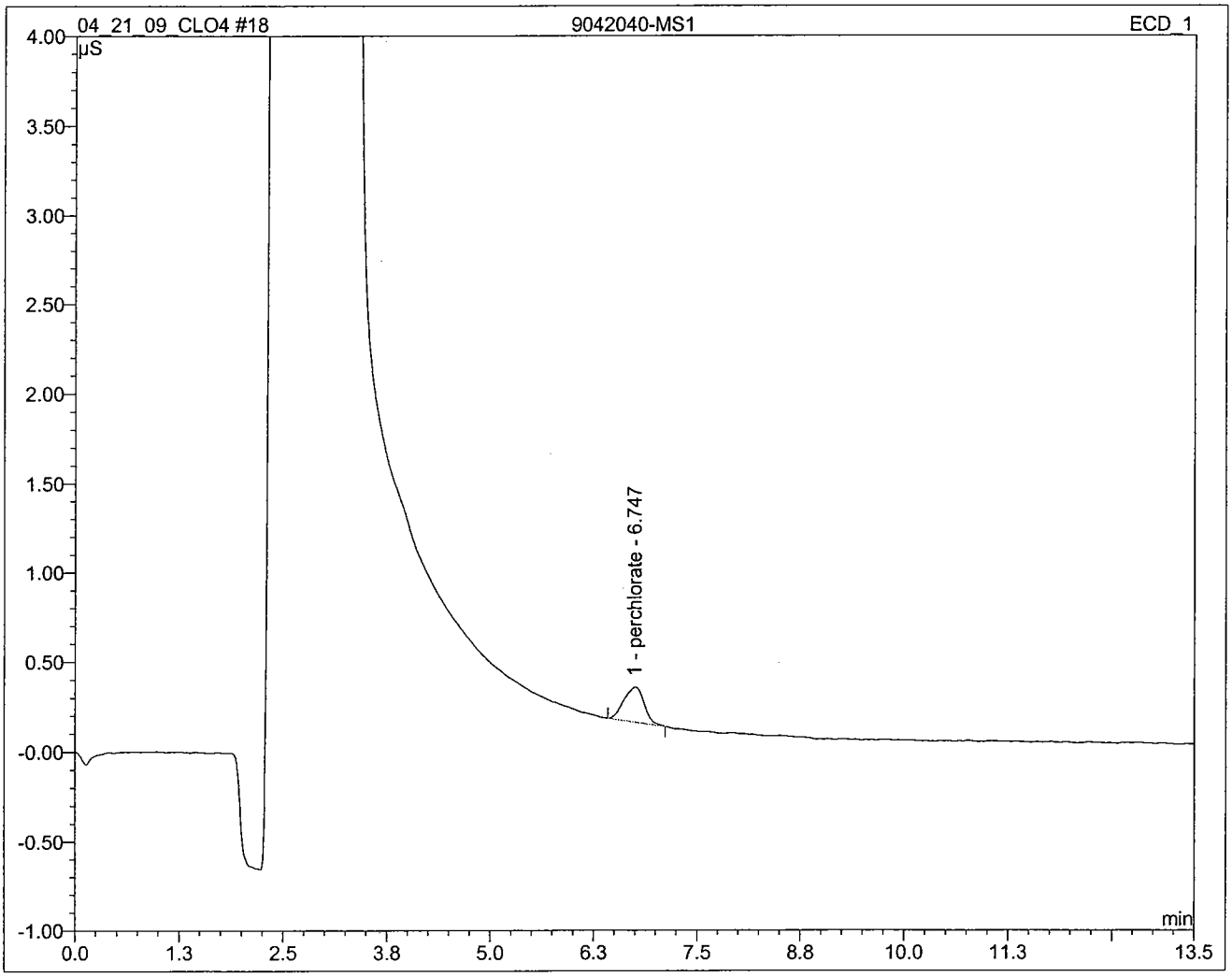
Sample Name:	0904098-01	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 19:33	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



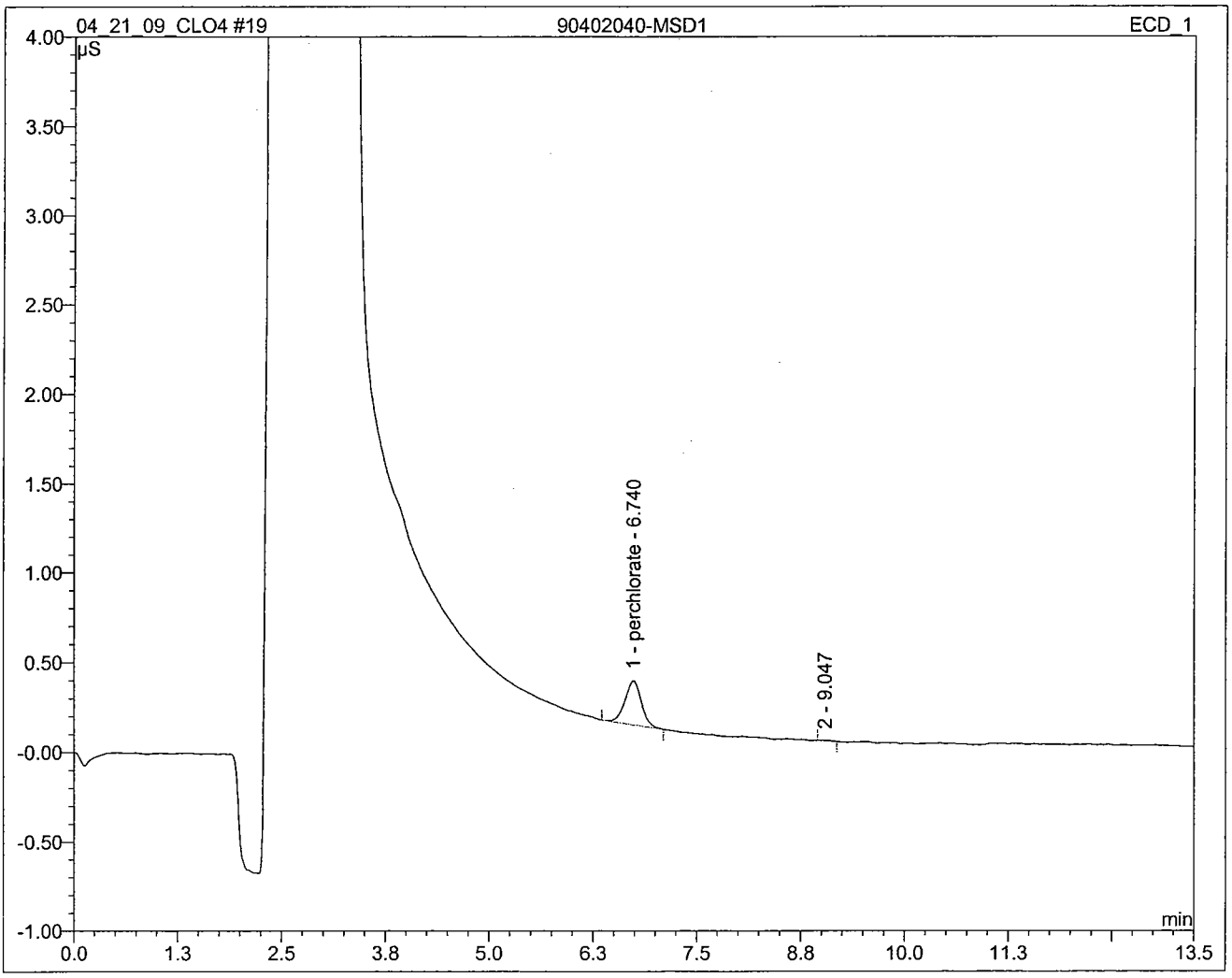
Sample Name:	**9042040-MS1**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 19:49**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area uS*min	Height uS	Amount PPB
1	6.75	perchlorate	0.055	0.194	97.7850



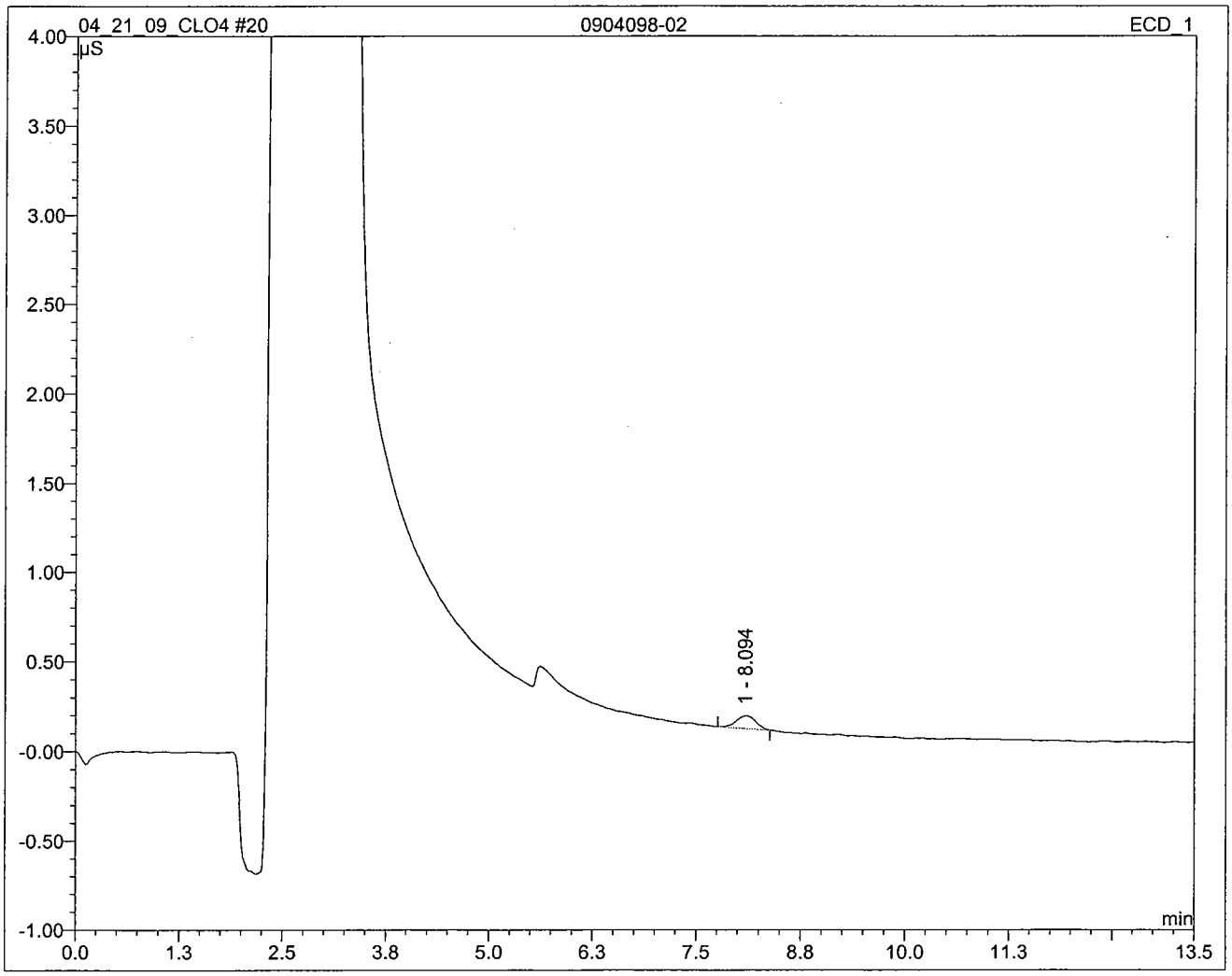
Sample Name:	90402040-MSD1	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 20:05	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.74	perchlorate	0.057	0.246	100.5445



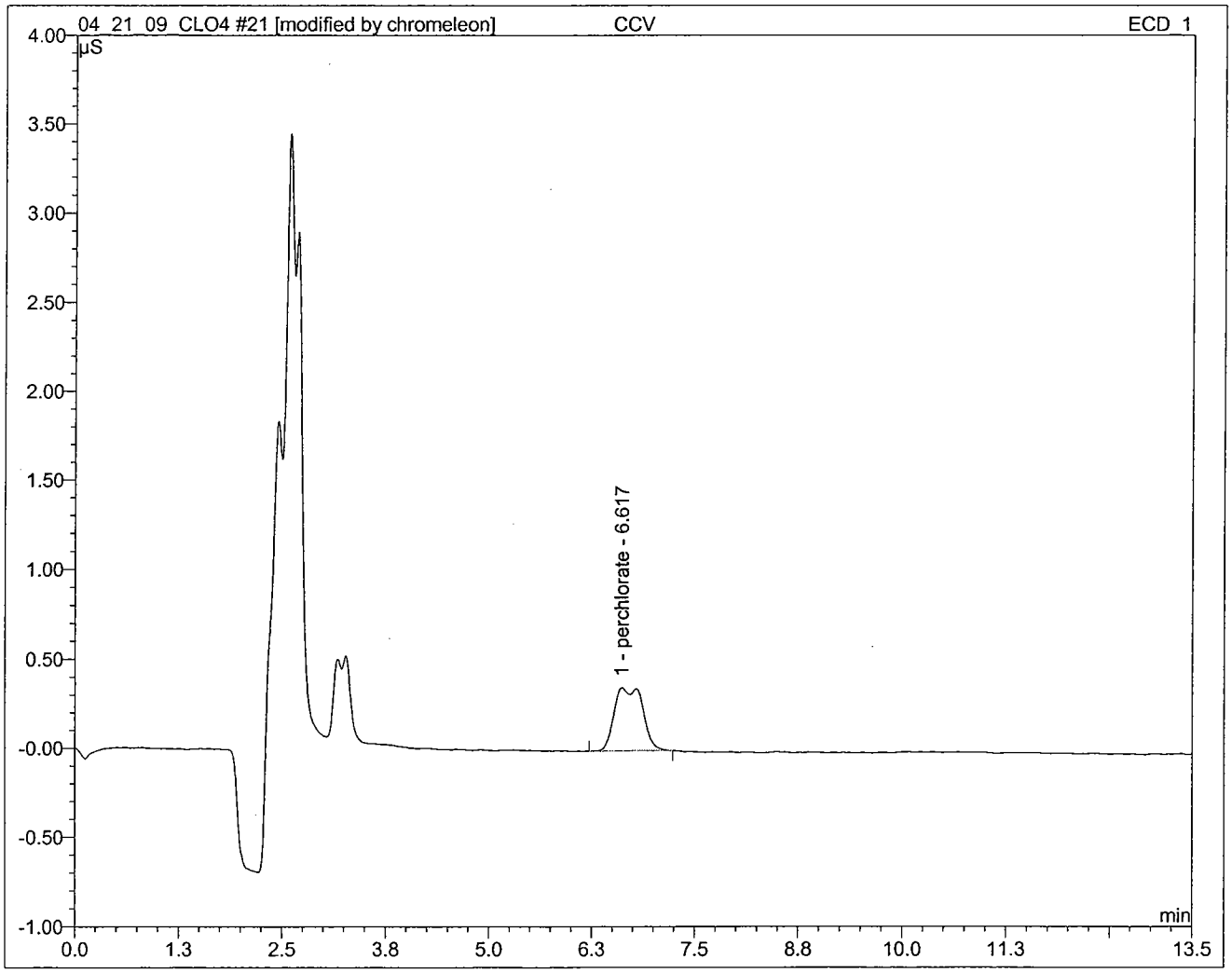
Sample Name:	0904098-02	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 20:21	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



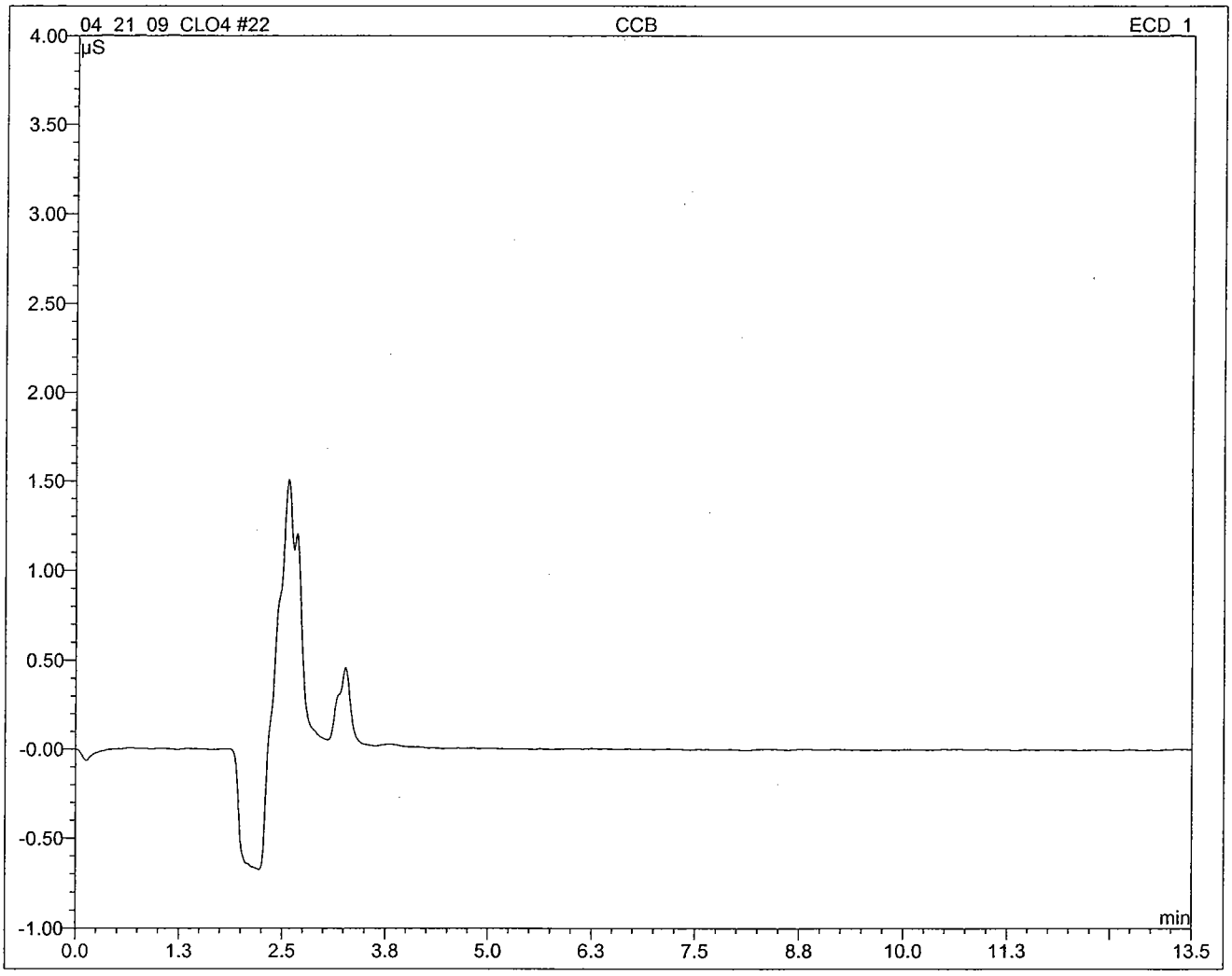
Sample Name:	**CCV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 20:37**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.62	perchlorate	0.143	0.356	254.2175



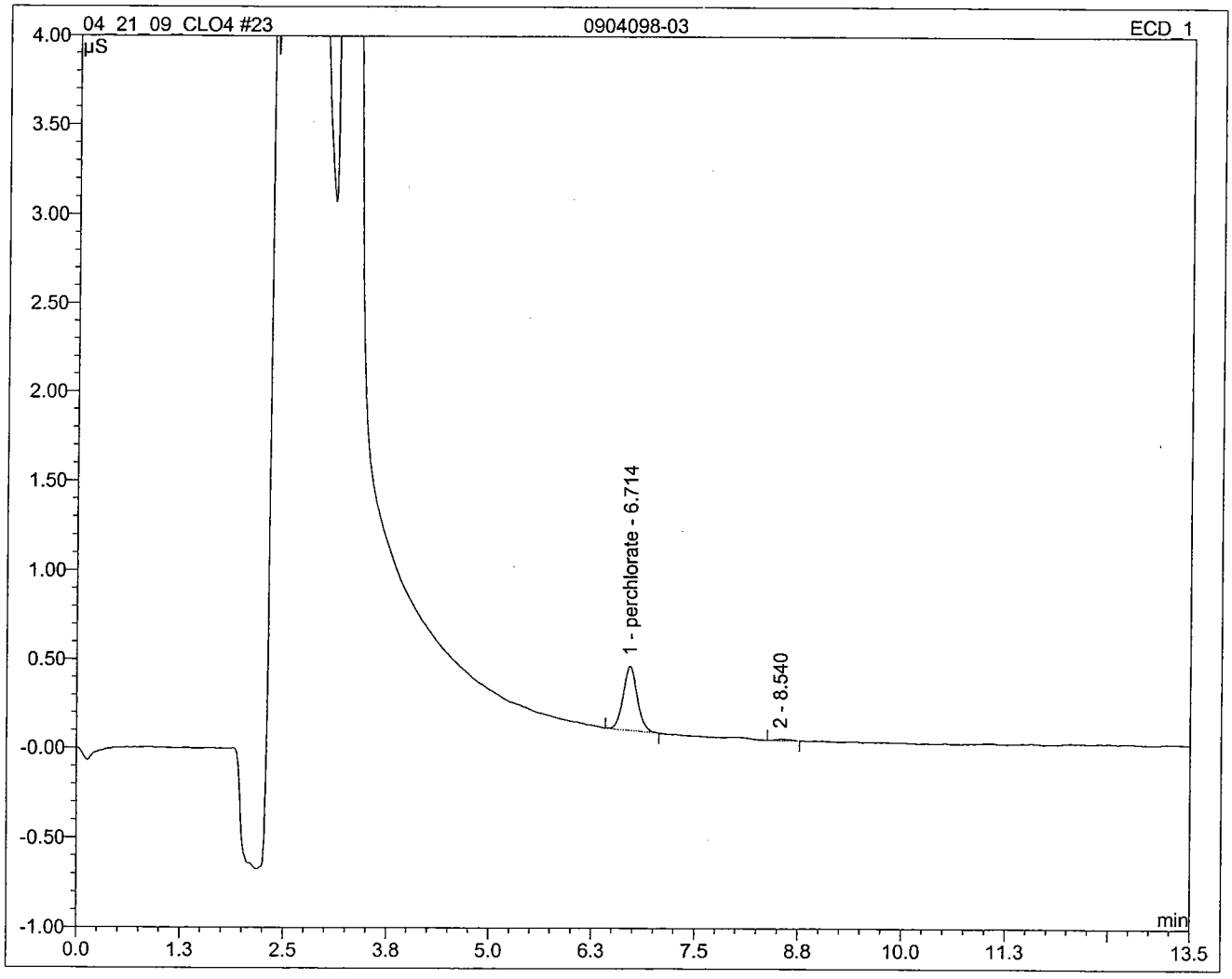
Sample Name:	**CCB**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 20:53**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



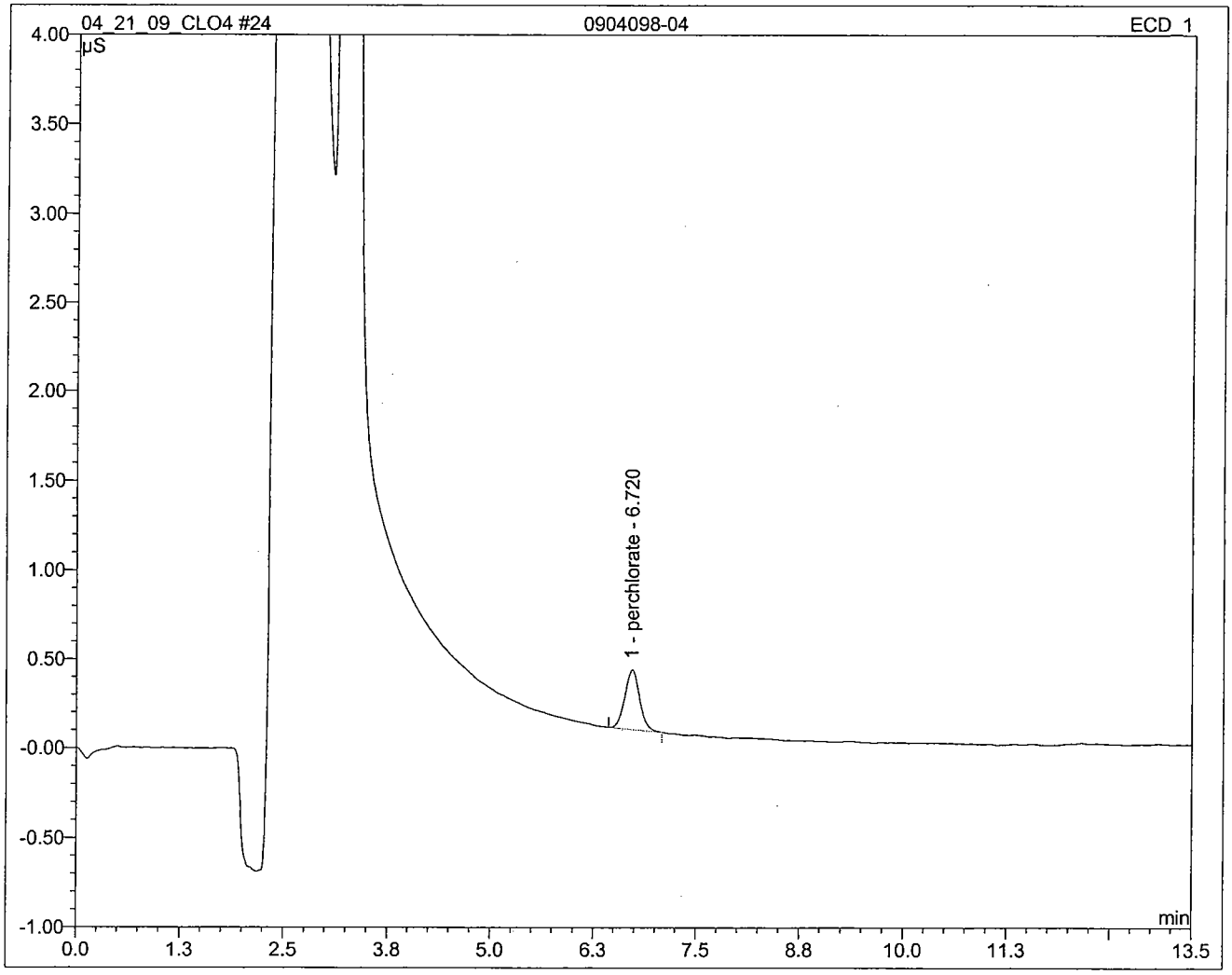
Sample Name:	0904098-03	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 21:09	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.71	perchlorate	0.072	0.362	127.3441



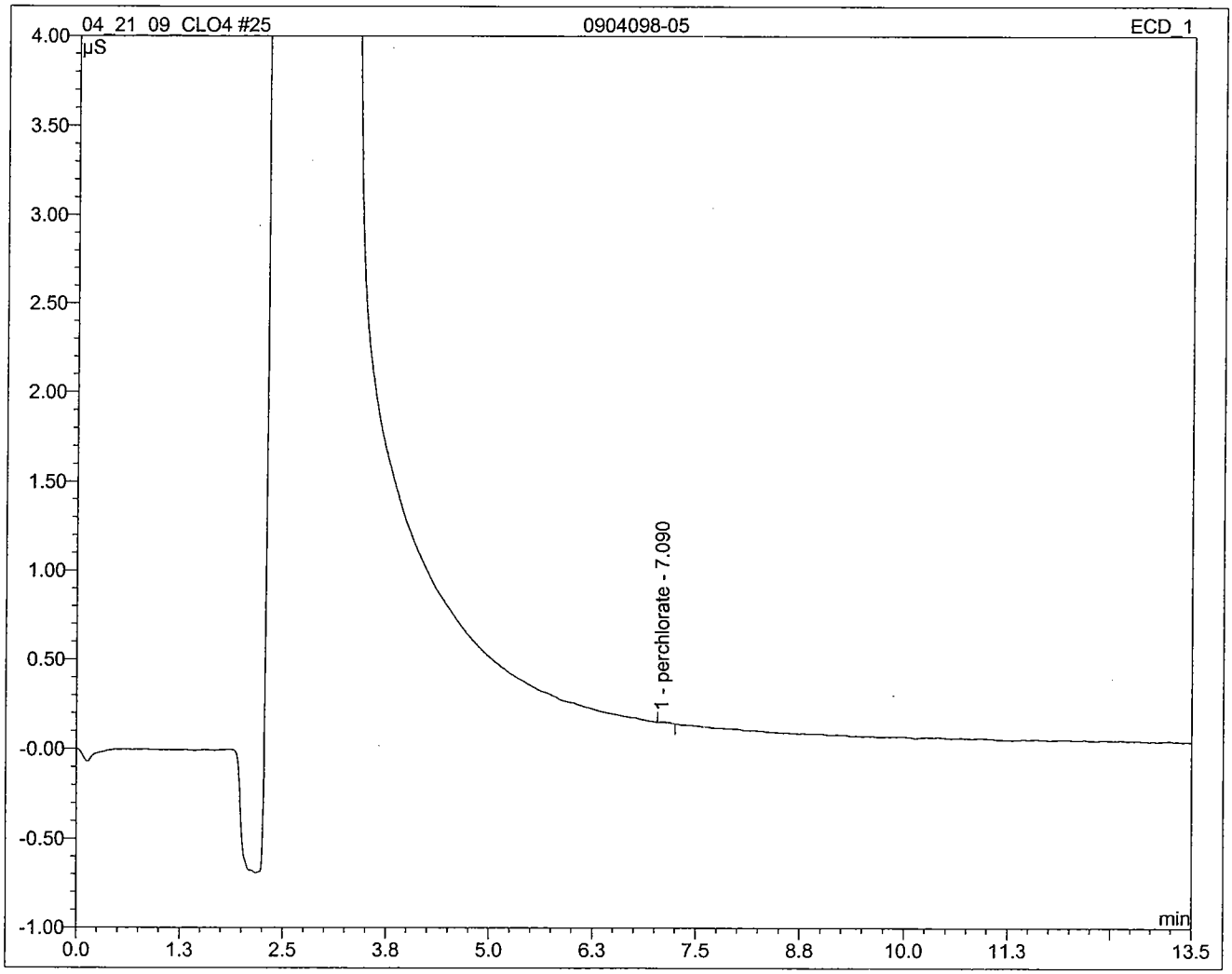
Sample Name:	0904098-04	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 21:24	*Run Time:*	13.50

No.	Time min	Peak Name	Area uS*min	Height uS	Amount PPB
1	6.72	perchlorate	0.070	0.336	123.6363



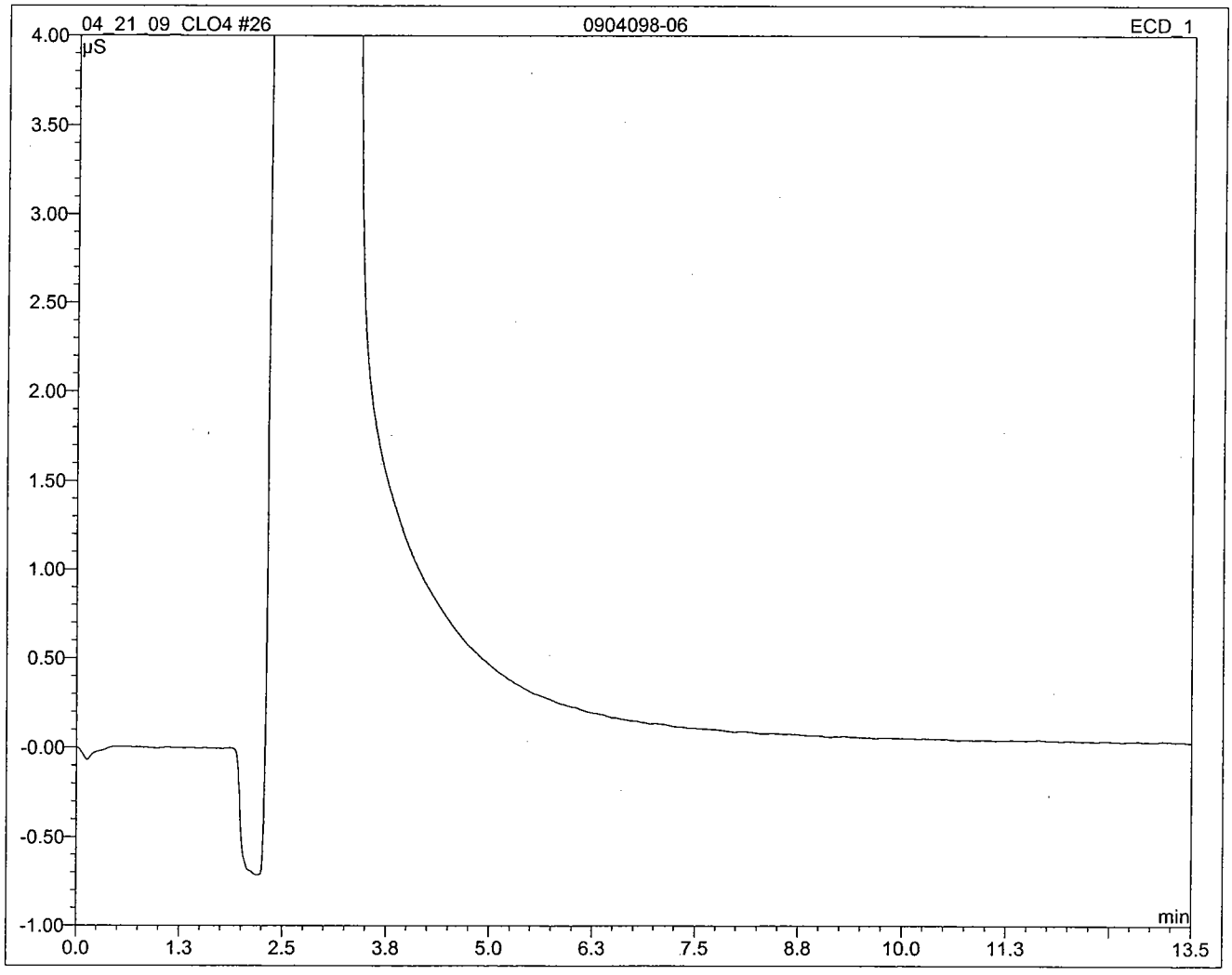
Sample Name:	0904098-05	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 21:40	*Run Time:*	13.50

No.	Time min	Peak Name	Area uS*min	Height uS	Amount PPB
1	7.09	perchlorate	0.001	0.006	1.3343



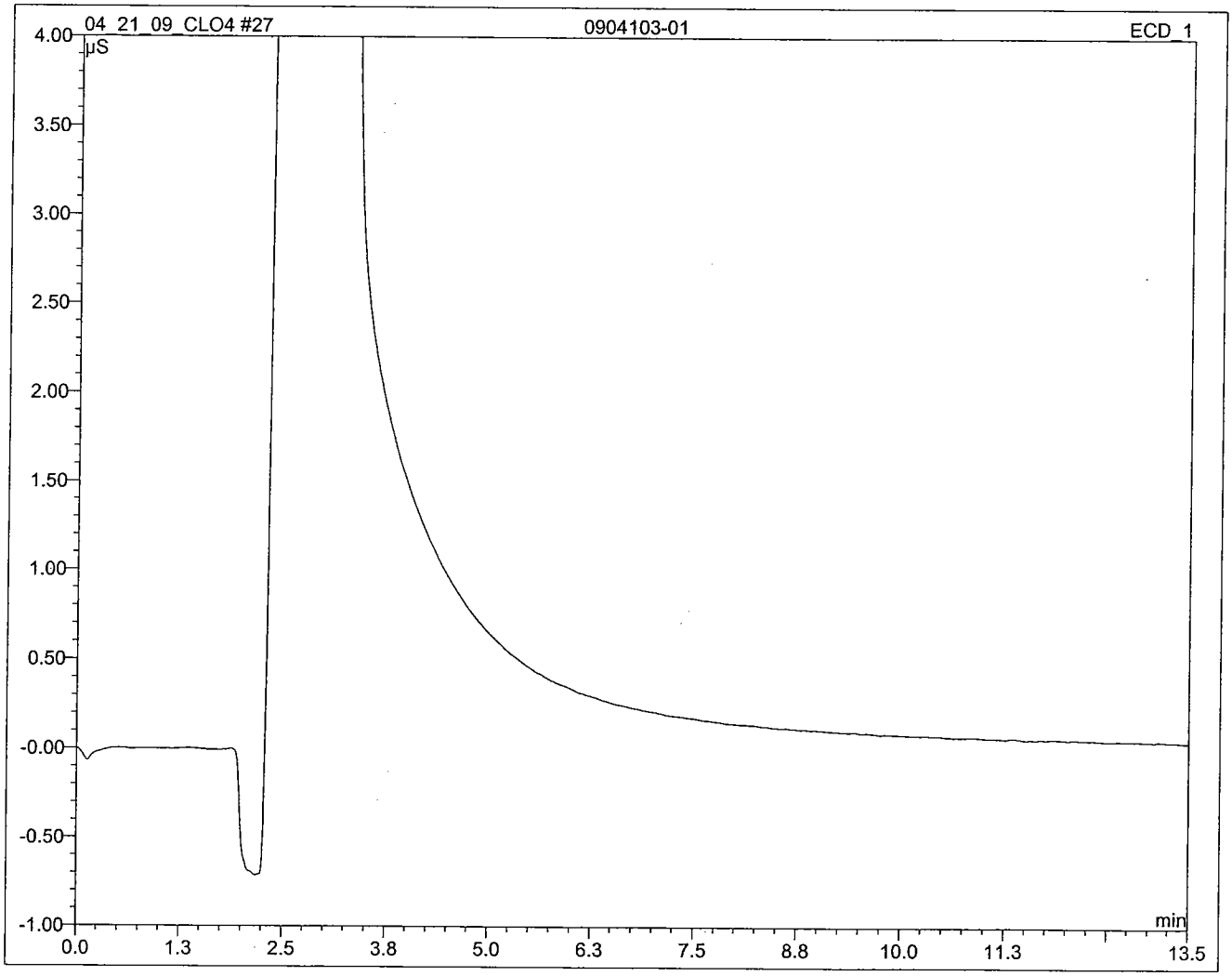
Sample Name:	0904098-06	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 21:56	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



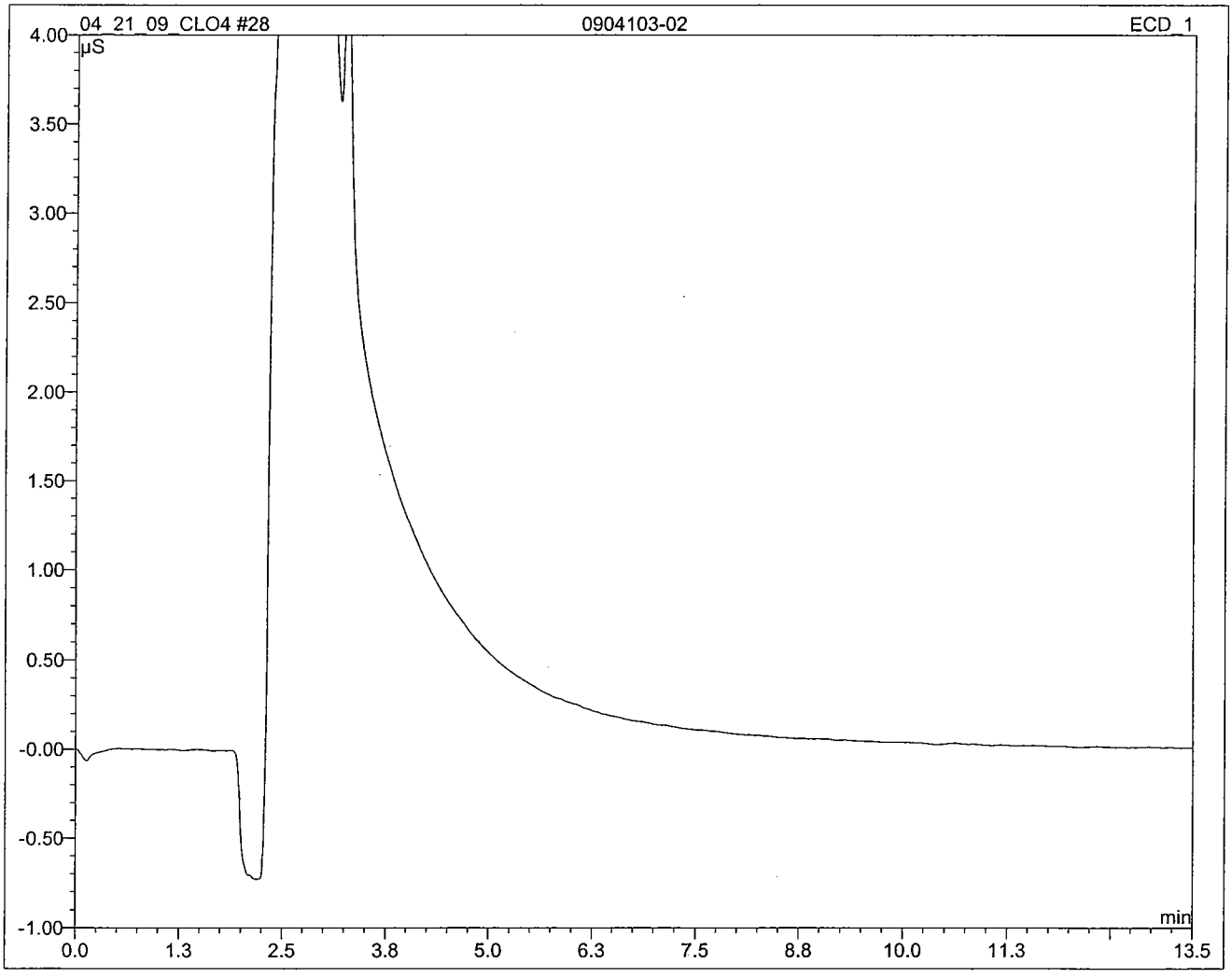
Sample Name:	0904103-01	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 22:12	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



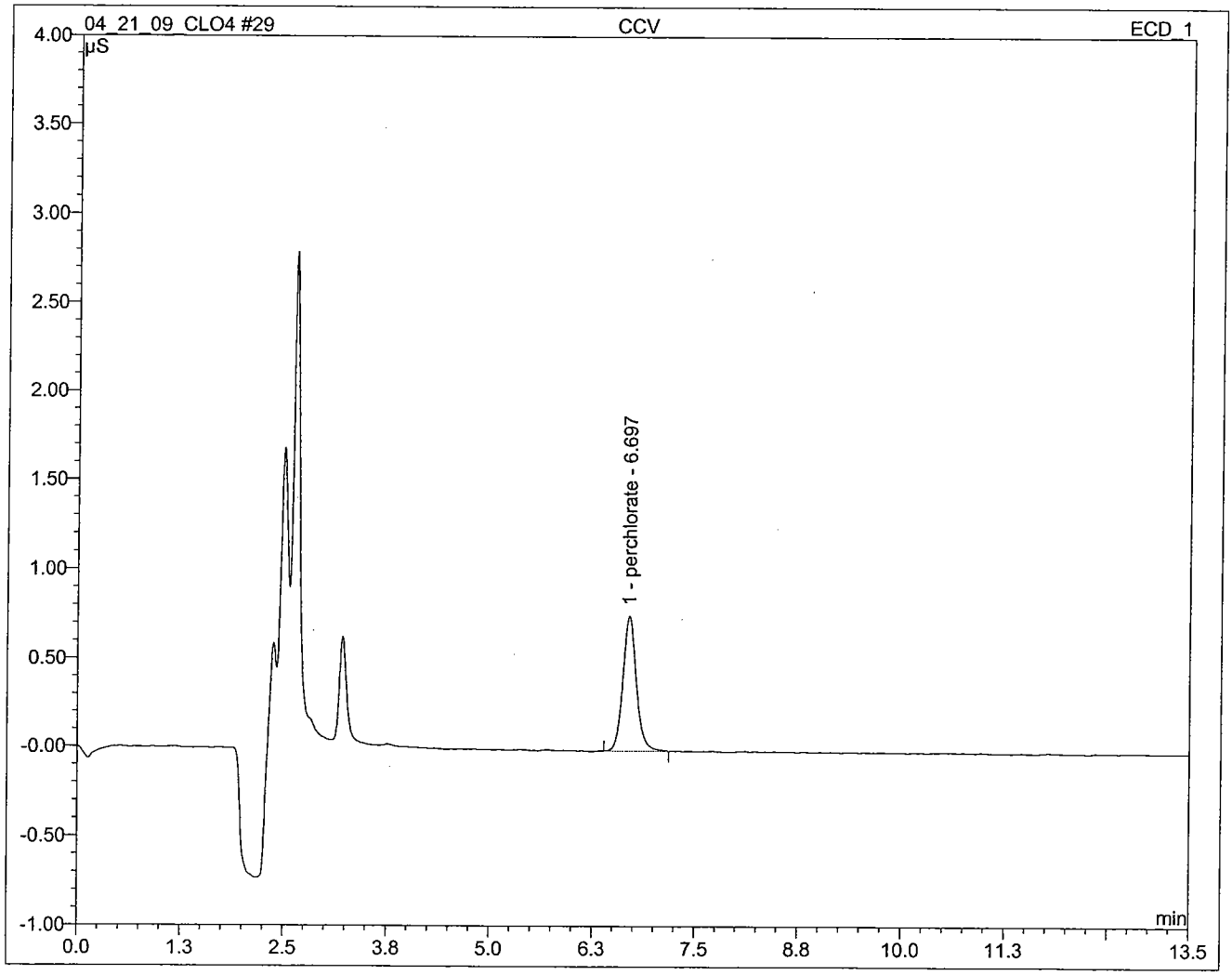
Sample Name:	0904103-02	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 22:28	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



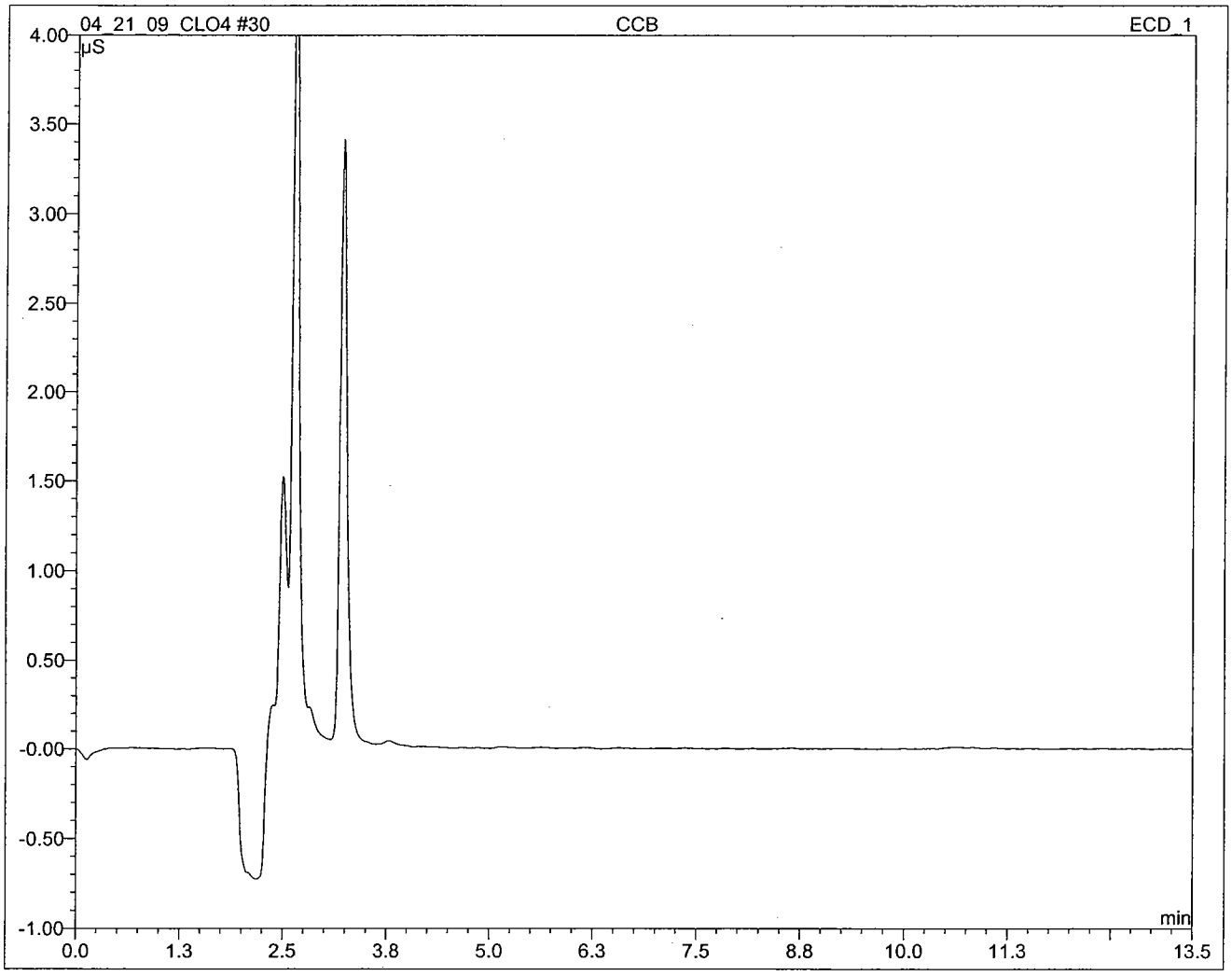
Sample Name:	**CCV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 22:44**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.70	perchlorate	0.147	0.761	260.9332



Sample Name:	CCB	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 23:00	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	2-[illegible]	1-500 ml P		P	P	2-1L A	2-1L A	

Sample ID	✓	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0 6020	ICP 6010B/3005A/-thallium 7000 (Metals-Total) PH	7470A (Mercury-Total) PH	Cyanide 9014 PH	Sulfide 9030B PH	Appdx 9 SV 8270C	Appdx 9 PEST 8081A	Appdx 9 PCBs 8082	
13MW1	✓	4/14	0935	GW	[illegible]	X	X		X	X<2	X			X			0904103-01
13MW2	✓	4/14	0815	GW	[illegible]	X	X		X	X<2	X			X			0904103-02
13MW3	✓	4/13	1200	GW	[illegible]	X	X	X	X	X<2	X	X>12	X	X	X	X	0904098-02
13MW4	✓		1035	GW	[illegible]	X	X	X	X	X<2	X	X>12	X	X	X	X	-03
13MWDUP	✓		1050	GW	[illegible]	X	X	X	X	X<2	X	X>12	X	X	X	X	-04
13MW5	✓		0850	GW	[illegible]	X	X	X	X	X<2	X	X>12	X	X	X	X	0904098-01 USE FOR QC
13MW6	✓	4/13	0740	GW	[illegible]	X	X	X	X	X<2	X	X>12	X	X	X	X	0904098-05
13MW7	✓	4/14	1050	GW	[illegible]	X	X	X	X	X<2	X	X>12	X	X	X	X	-06

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW-1 & 13MW-2. JLF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 1.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Kenneth Wright	Date: 4/15/09	Sample Storage Time Requested:	
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	#2 Received by (Signature): Lee H Swanson	Time: 1224		
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Kenneth Wright	Date: 4/15/09	Company Name: NC Courier	Date: 4/15/09	30 DYS ORG/8 MTHS INORG	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800		Time: 12 24 PM		

9 - Rdp 4-15-09
Compuchem 1615
Y/O JLF 3.31.09

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

3/12

ANALYTICAL METHOD: 314.0
TYPE METHOD:

For: 13MW1 and 13MW2 AND ALL OTHER sample locations.

No.	PARAMETER	CAS RN
1.	Perchlorate	14797-73-0

:\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-
HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
sed July 18, 2005 - JCF
ed November, 2005 - new permit - JCF
l on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells,
x IX list is not required, only the routine Semiannual monitoring list. JCF

WORK ORDER

0904103

Printed: 4/27/2009 1:51:21PM

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904103** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 15:57

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

LCS/LCSD*APPIXSV=HWMU13SPC.SUB* 6020MTL=Sb,As,Ba,Cd,Cr,Pb,Ni,Se,Ag & Zn + Hg 7470*PERCHLORATE NEEDS 4 ug/L STD.*8330=HWMU13SP.SUB*8332= NITROGLYCERIN ONLY

Analysis	Due	TAT	Expires	Received	Comments
0904103-01 13MW1 [Water] Sampled 04/14/2009 09:35 Eastern					
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 09:35	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 09:35	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 09:35	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
0904103-02 13MW2 [Water] Sampled 04/14/2009 08:15 Eastern					
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 08:15	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 08:15	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 08:15	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	

CompuChem

A Division Of

Liberty Analytical Corp.

5/4/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07

WorkOrder: 0904098

Attn. JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

TOTAL NUMBER

OF PAGES ____

Compuchem

a division of Liberty Analytical Corporation

Attachment

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem
A Division Of
Liberty Analytical Corp.

SDG NARRATIVE
SDG # 0904098

The 6 aqueous samples were received intact, properly refrigerated between 0.1°C & 2.6°C, with proper documentation, in sealed shipping containers, on March 15th 2009. The samples were scheduled for the requested analysis of the Wet Chemistry fraction. The samples were analyzed, in accordance with current EPA methods, for the analytes requested as per the COC, with the exceptions and/or additions requested by the client.

SAMPLE IDs:
The cover page contained in this package lists the client ID's and the associated CompuChem numbers which are part of this SDG.

INSTRUMENTAL QUALITY CONTROL:
All calibration verification solutions (ICV & CCV), blanks (ICB, & CCB), associated with this data were confirmed to be within allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:
The sample preparation procedure verifications (LCS/LCS Dup & PBW(Blank)) were found to be within acceptable ranges. The samples were prepared and analyzed within the contract specified holding times for IC 314.0 Perchlorate analysis. However, not all field samples were prepared and analyzed within the contract specified holding times for Sulfide 9034 analysis. **13MW5, 13MW3, 13MW4, 13MWDUP, and 13MW6 were missed by roughly 30 hours.**

000000
MATRIX RELATED QUALITY CONTROL:
13MW5 was used as the original to prepare the matrix spike and matrix spike duplicate.

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Preeti Khare
Analyst II
May 4th 2009

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
13MW5	0904098-01	Water	04/13/2009 08:50	04/15/2009 16:15
13MW3	0904098-02	Water	04/13/2009 12:00	04/15/2009 16:15
13MW4	0904098-03	Water	04/13/2009 10:35	04/15/2009 16:15
13MWDUP	0904098-04	Water	04/13/2009 10:50	04/15/2009 16:15
13MW6	0904098-05	Water	04/13/2009 07:40	04/15/2009 16:15
13MW7	0904098-06	Water	04/14/2009 10:50	04/15/2009 16:15

COMPUCHEM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

13MW5

0904098-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

13MW3

0904098-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

13MW4

0904098-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	**127.3**	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

13MWDUP

0904098-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	**123.6**	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

13MW6

0904098-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	**1.334**	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	J
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

CompuChem
A Division Of
Liberty Analytical Corp.

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

13MW7

0904098-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
COMPUCHEM									
INORGANIC ANIONS BY IC									
Perchlorate	ND	4.000	ug/L	1	9042040	04/20/2009 11:44	04/21/2009 13:11	EPA 314.0	U
WET CHEMISTRY PARAMETERS									
Sulfide, total	ND	1.00	mg/L	1	9042043	04/20/2009 11:51	04/21/2009 14:50	9034	U

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

INORGANIC ANIONS BY IC - Quality Control

COMPUCHEM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042040 - NO PREP										
Blank (9042040-BLK1)				Prepared: 04/20/2009 11:44			Analyzed: 04/21/2009 13:11			
Perchlorate	ND	4.000	ug/L							U
LCS (9042040-BS1)				Prepared: 04/20/2009 11:44			Analyzed: 04/21/2009 13:11			
Perchlorate	297.3	4.000	ug/L	300.0		99.1	85-115			
LCS Dup (9042040-BSD1)				Prepared: 04/20/2009 11:44			Analyzed: 04/21/2009 13:11			
Perchlorate	287.2	4.000	ug/L	300.0		95.7	85-115	3.46	20	
Matrix Spike (9042040-MS1)		**Source: 0904098-01**		Prepared: 04/20/2009 11:44			Analyzed: 04/21/2009 13:11			
Perchlorate	97.79	4.000	ug/L	100.0	0.000	97.8	80-120			
Matrix Spike Dup (9042040-MSD1)		**Source: 0904098-01**		Prepared: 04/20/2009 11:44			Analyzed: 04/21/2009 13:11			
Perchlorate	100.5	4.000	ug/L	100.0	0.000	101	80-120	2.78	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

WET CHEMISTRY PARAMETERS - Quality Control

COMPUCHEM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042043 - NO PREP										
Blank (9042043-BLK1)				Prepared: 04/20/2009 11:51			Analyzed: 04/21/2009 14:50			
Sulfide, total	ND	1.00	mg/L							U
LCS (9042043-BS1)				Prepared: 04/20/2009 11:51			Analyzed: 04/21/2009 14:50			
Sulfide, total	9.40	1.00	mg/L				90-110			
Matrix Spike (9042043-MS1)	**Source: 0904098-01**			Prepared: 04/20/2009 11:51			Analyzed: 04/21/2009 14:50			
Sulfide, total	9.40	1.00	mg/L		0.00		90-110			
Matrix Spike Dup (9042043-MSD1)	**Source: 0904098-01**			Prepared: 04/20/2009 11:51			Analyzed: 04/21/2009 14:50			
Sulfide, total	9.20	1.00	mg/L		0.00		90-110	2.15	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Preeti Khare For Cathy Dover, Project Manager

DRAPER	Project: RAAP APPIX 2009/B03204-07	
2206 SOUTH MAIN STREET	Project Number: RAAP APPIX 2009/B03204-07	**Reported:**
BLACKSBURG VA, 24060	Project Manager: JANET FRAZIER	05/04/2009 15:42

Notes and Definitions

U	The compound was analyzed for but not detected (CLP U-flag).
J	Compound detected below the Reporting Limit; therefore, result is an estimated concentration (CLP J-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified)
			VERSION 5.85:2886
	IC 314.0 Perchlorate Water	(WATER)	B-Flags used
	IC 314.0 Perchlorate Water	(WATER)	D-Flags used
	IC 314.0 Perchlorate Water	(WATER)	J-Flags used
	IC 314.0 Perchlorate Water	(WATER)	Result calculations based on MDL
	IC 314.0 Perchlorate Water	(WATER)	U-Flags used
	SULFIDE 9034 WATER	(WATER)	B-Flags used
	SULFIDE 9034 WATER	(WATER)	D-Flags used
	SULFIDE 9034 WATER	(WATER)	J-Flags used
	SULFIDE 9034 WATER	(WATER)	Result calculations based on MDL
	SULFIDE 9034 WATER	(WATER)	U-Flags used
0904098-01	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-02	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-03	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-04	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
0904098-05	SULFIDE 9034 WATER		Sampled->Analyzed [Day] > 7 days
9042043-BS1	SULFIDE 9034 WATER	Sulfide, total	No spike level
9042043-MS1	SULFIDE 9034 WATER	Sulfide, total	No spike level
9042043-MSD1	SULFIDE 9034 WATER	Sulfide, total	No spike level

Worksheet 1 D(6) 1 CompuChem, a Division of Liberty Analytical Corporation

Sulfide Preparation & Analysis

Method: SM 4500S-2-F

Analyst:2477 Date: 4/21/2009

SDG: **904098** Batch No.:

Cond	CompuChem No.	Sample Type	Total or Insoluable Sulfide?	Sample Vol. (mL)	Iodine Vol. (mL)	Sodium Thiosulfate Vol. (mL)	Sulfide Result (mg/L)	Comments
	9042043-BLK1	Blank	Total	200	1.0	0.90	0.20	
	9042043-BS1	LCS	Total	200	5.0	0.30	9.40	
	0904098-01	Sample	Total	200	1.0	1.00	0.00	
	9042043-MS1	MS	Total	200	5.0	0.30	9.40	
	9042043-MSD1	MSD	Total	200	5.0	0.40	9.20	
	0904098-02	Sample	Total	200	1.0	1.00	0.00	
	0904098-03	Sample	Total	200	1.0	1.00	0.00	
	0904098-04	Sample	Total	200	1.0	0.90	0.20	
	0904098-05	Sample	Total	200	1.0	0.90	0.20	
	0904098-06	Sample	Total	200	1.0	0.90	0.20	

jm 5/4/09

Concentration of Sulfide = (Iodine volume - sodium thiosulfate volume)(400)/Initial Sample volume

Reagent/Standard	Reference #	Manufacturer	Lot#	Expiration Date
Soluble Starch	1U(6)1-15-8	VWR	8200	1/31/10
Iodine Solution	1U(6)1-15-9	VWR	8210	1/31/10
Hydrocloric Acid	1M2-186-1	JT BAKER	15940	2/28/11
Sodium Thiosulfate (0.025N)	1U(6)1-13-10	VWR	7122	2/28/10
Sulfide Stock Standard 10000ppm	1U(6)1-14-14	NSI Solutions	41608	5/30/09

Reagent/Standard Lot #	Preparation Instructions
HCl(6N) - 04 21 09 jm	Add 500-mL concentrated HCl to reagent water in a one liter volumetric flask. Dilute to volume with reagent water.
LCS/MS/MSD (spike concentration 10mg/L)	Prepare the LCS by adding 200-µL of Sulfide Stock Standard to 200-mL if reagent water. Prepare the MS and MSD by adding 200-uL of the Sulfide Stock Standard to 200-mL of separate aliquots of sample for the MS and MSD.

The presence of the Chemist's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist together with the chemist's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: Date: 5-4-09

8/26/08:vr

Generated on: 5/4/2009 10:36 AM

14

COMPUCHEM
A DIVISION OF LIBERTY CORP

ANALYST: [signature]

DATE: 4/21/09

CASE(S): 0904103, 0904087, 0904098

METHOD 314.0 CL04 in Water

DIONEX IC 2000 CL04 RUN

Reviewed by: [signature]

Date: 5-4-09

Sample Summary Report

Sample Name:	500 PPB
Sequence Name:	04_21_09_CLO4
Method File Name:	ics 2000 perchlorate
Date Time Collected:	4/21/2009 3:19 PM
System Operator:	chromeleon

No.	Name	Ret.Time min perchlorate ECD_1	Area µS*min perchlorate ECD_1	Height µS perchlorate ECD_1	Amount PPB perchlorate ECD_1	Concentration PPB/µL perchlorate ECD_1
1	500 PPB	6.68	0.285	1.519	506.3092	25.3155
2	200 PPB	6.68	0.106	0.553	188.8141	9.4407
3	100 PPB	6.69	0.053	0.276	93.9040	4.6952
4	50 PPB	6.69	0.025	0.135	44.1768	2.2088
5	20 PPB	6.71	0.011	0.055	19.0896	0.9545
6	4 PPB	6.69	0.002	0.011	4.3949	0.2197
7	ICV	6.68	0.169	0.894	300.4516	15.0226
8	ICB	n.a.	n.a.	n.a.	n.a.	n.a.
9	CCV	6.50	0.132	0.297	234.6237	11.7312
10	CCB	n.a.	n.a.	n.a.	n.a.	n.a.
11	PBW	n.a.	n.a.	n.a.	n.a.	n.a.
12	LCSW	6.58	0.167	0.448	297.3288	14.8664
13	LCSWD	6.49	0.162	0.357	287.2292	14.3615
14	0904087-01	6.70	0.010	0.045	17.8838	0.8942
15	0904087-02	6.61	0.006	0.028	11.0835	0.5542
16	0904087-03	n.a.	n.a.	n.a.	n.a.	n.a.
17	0904098-01	n.a.	n.a.	n.a.	n.a.	n.a.
18	9042040-MS1	6.75	0.055	0.194	97.7850	4.8892
19	90402040-MSD1	6.74	0.057	0.246	100.5445	5.0272
20	0904098-02	n.a.	n.a.	n.a.	n.a.	n.a.
21	CCV	6.62	0.143	0.356	254.2175	12.7109
22	CCB	n.a.	n.a.	n.a.	n.a.	n.a.
23	0904098-03	6.71	0.072	0.362	127.3441	6.3672
24	0904098-04	6.72	0.070	0.336	123.6363	6.1818
25	0904098-05	7.09	0.001	0.006	1.3343	0.0667
26	0904098-06	n.a.	n.a.	n.a.	n.a.	n.a.
27	0904103-01	n.a.	n.a.	n.a.	n.a.	n.a.
28	0904103-02	n.a.	n.a.	n.a.	n.a.	n.a.
29	CCV	6.70	0.147	0.761	260.9332	13.0467
30	CCB	n.a.	n.a.	n.a.	n.a.	n.a.
31	CCB	n.a.	n.a.	n.a.	n.a.	n.a.

	Time	Area	Height	Amount	Conc.
AVERAGE:	***6.686***	***0.088***	***0.362***	***156.373***	***7.819***
STANDARD DEVIATION:	***0.121***	***0.077***	***0.372***	***137.257***	***6.863***
maximum value:	7.090	0.285	1.519	506.309	25.315
minimum value:	6.493	0.001	0.006	1.334	0.067

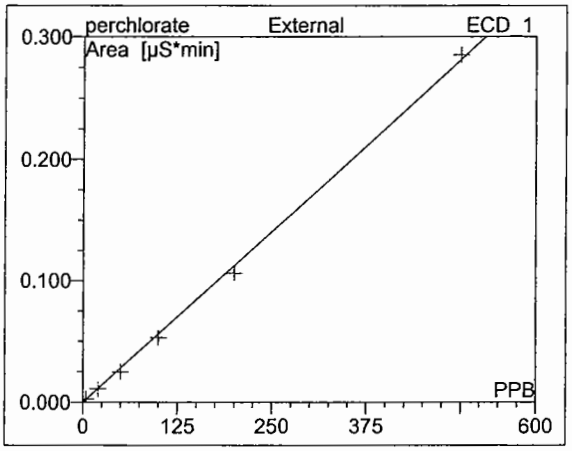
Sequence: 04_21_09_CLO4
Operator: chromeleon
Printed: 4/22/2009 11:10:23 AM

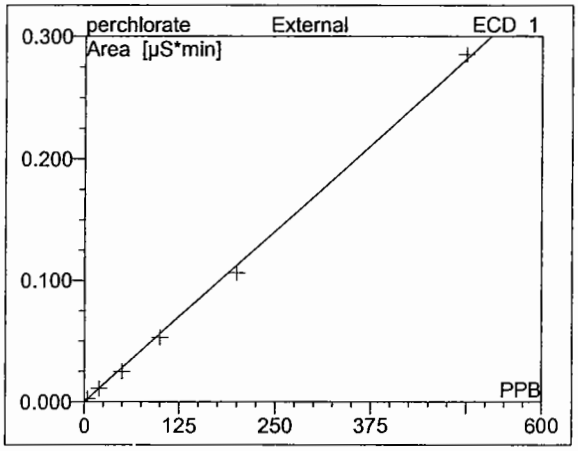
Title:
Datasource: D143S571_local
Location:
Timebase: ICS_2000
#Samples: 31
Created: 4/21/2009 3:12:09 PM by chromeleon
Last Update: 4/21/2009 3:13:29 PM by chromeleon

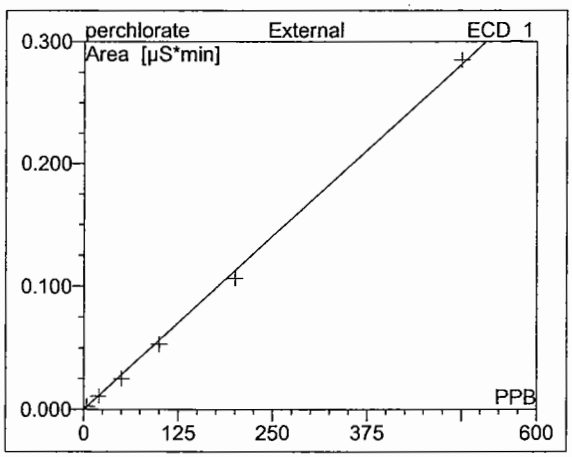
No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	500 PPB	Standard	99	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
2	200 PPB	Standard	100	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
3	100 PPB	Standard	101	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
4	50 PPB	Standard	102	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
5	20 PPB	Standard	103	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
6	4 PPB	Standard	104	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
7	ICV	Unknown	1	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
8	ICB	Unknown	2	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
9	CCV	Unknown	3	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
10	CCB	Unknown	4	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
11	PBW	Unknown	5	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
12	LCSW	Unknown	6	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
13	LCSWD	Unknown	7	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
14	0904087-01	Unknown	8	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
15	0904087-02	Unknown	9	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
16	0904087-03	Unknown	10	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
17	0904098-01	Unknown	11	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
18	9042040-MS1	Unknown	12	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
19	90402040-MSD1	Unknown	13	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
20	0904098-02	Unknown	14	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
21	CCV	Unknown	15	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
22	CCB	Unknown	16	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
23	0904098-03	Unknown	17	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
24	0904098-04	Unknown	18	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
25	0904098-05	Unknown	19	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
26	0904098-06	Unknown	20	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
27	0904103-01	Unknown	21	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
28	0904103-02	Unknown	22	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
29	CCV	Unknown	23	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
30	CCB	Unknown	24	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished
31	CCB	Unknown	25	20.000	ICS_2000 perchlorate	ics 2000 perchlorate	Finished

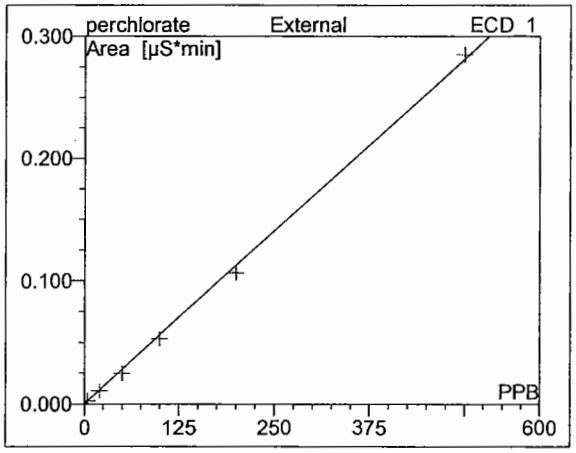
Calibration Batch Report

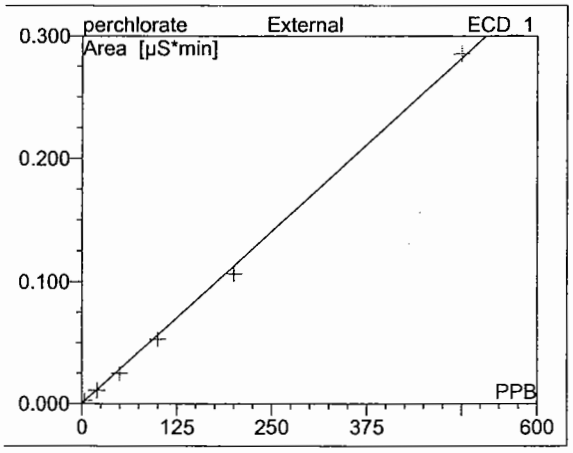
Sequence:	04_21_09_CLO4	Inj. Vol.:	20.0
Program:	ICS_2000 perchlorate	Operator:	D143S571
Inj. Date/Time:	04/21/09 15:19	Run Time:	13.50

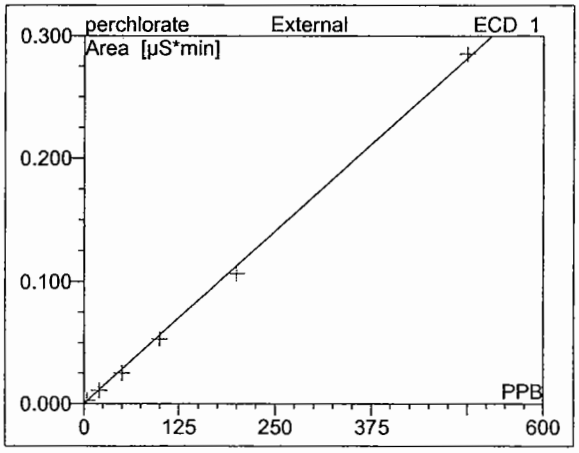




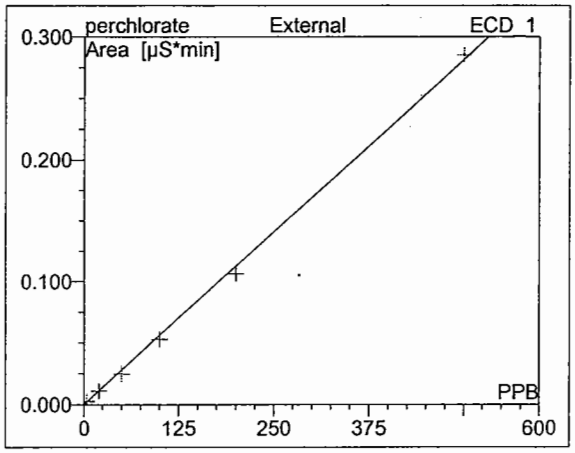








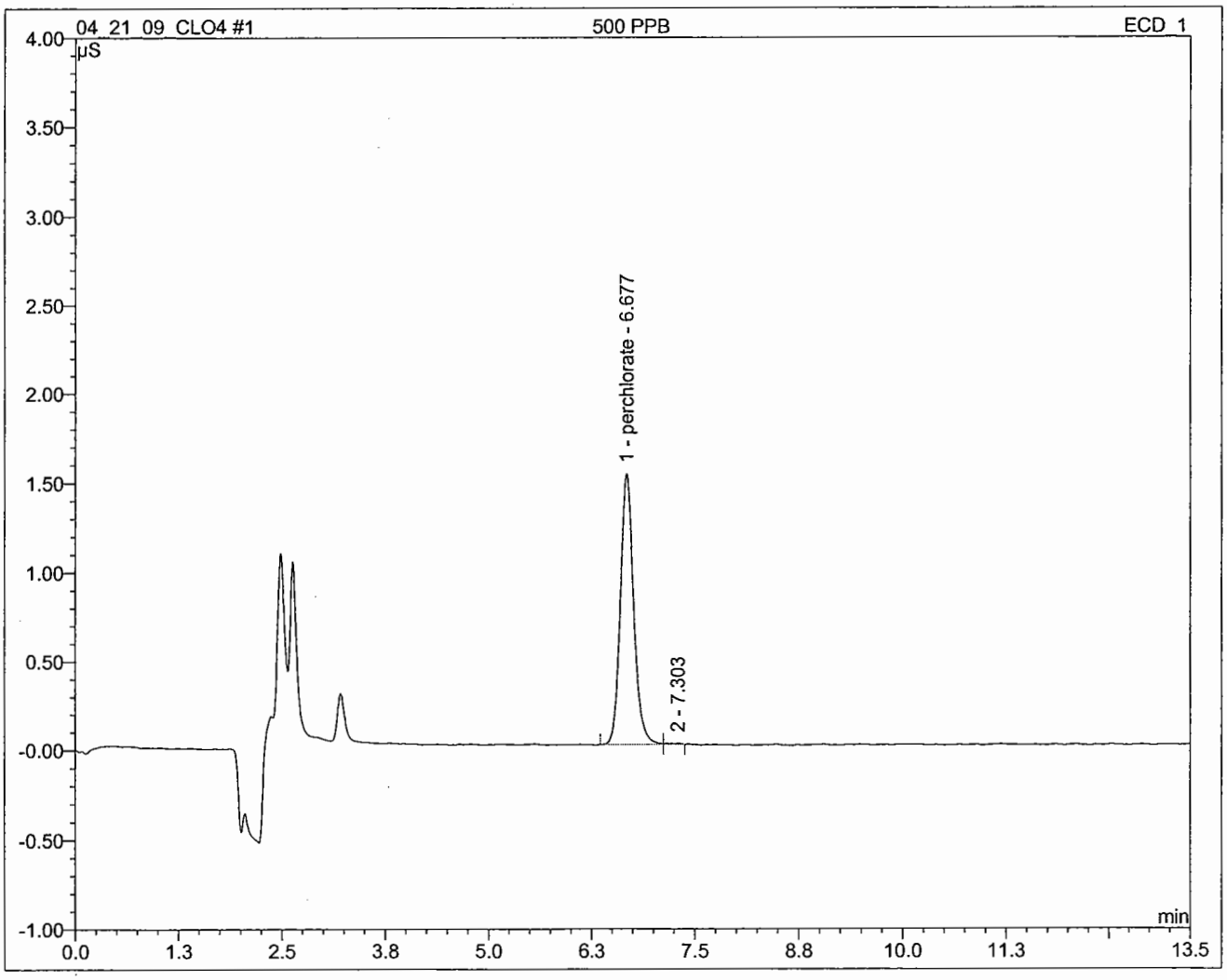
Sequence:	**04_21_09_CLO4**	*Inj. Vol.:*	**20.0**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/09 15:19**	*Run Time:*	**13.50**



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	6.68	perchlorate	Lin	6	0.000	0.001	0.000	99.958
AVERAGE:					0.0000	0.0006	0.0000	99.9583

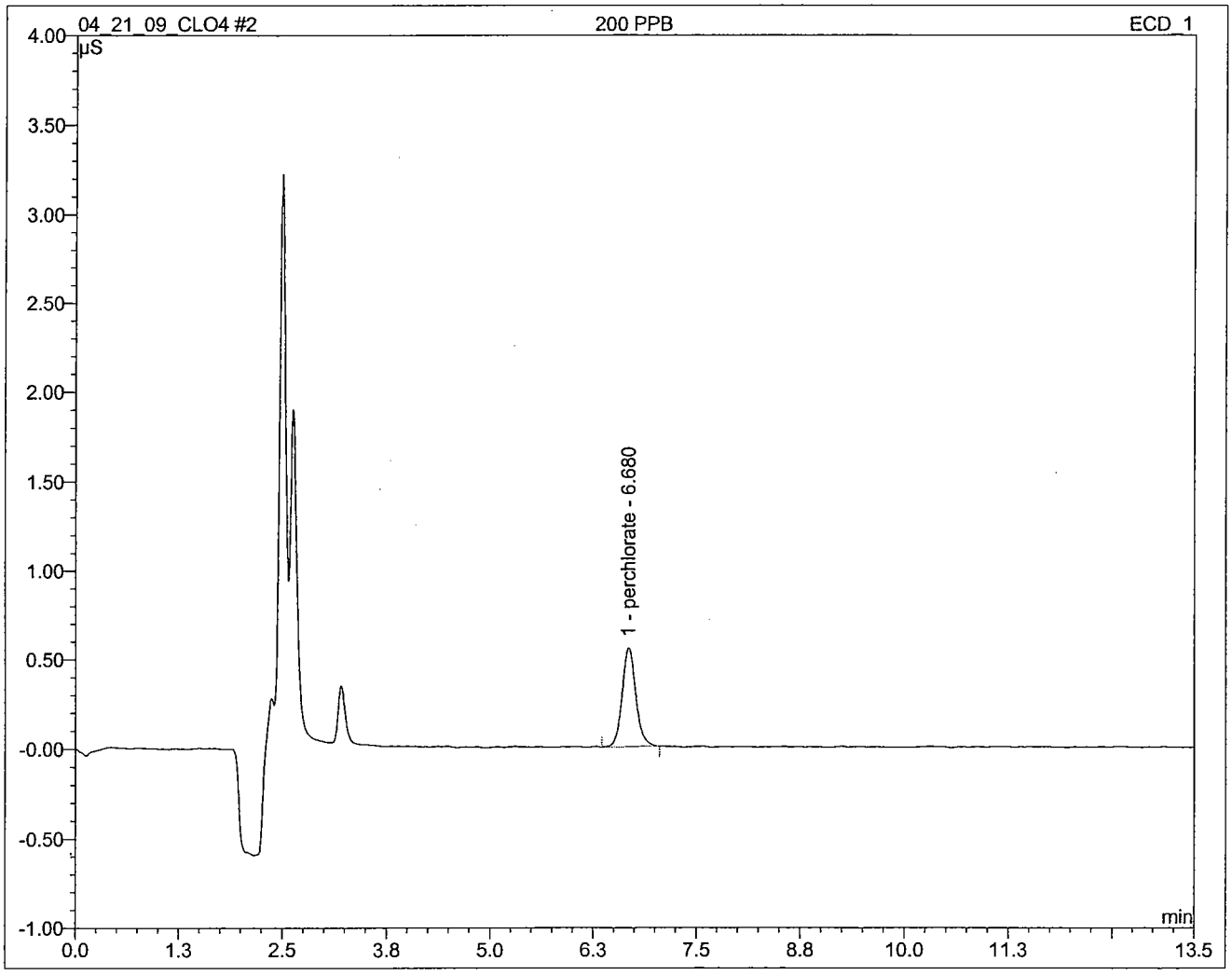
Sample Name:	500 PPB	*Inj. Vol.:*	20.0
Sample Type:	standard	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 15:19	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.68	perchlorate	0.285	1.519	506.3092



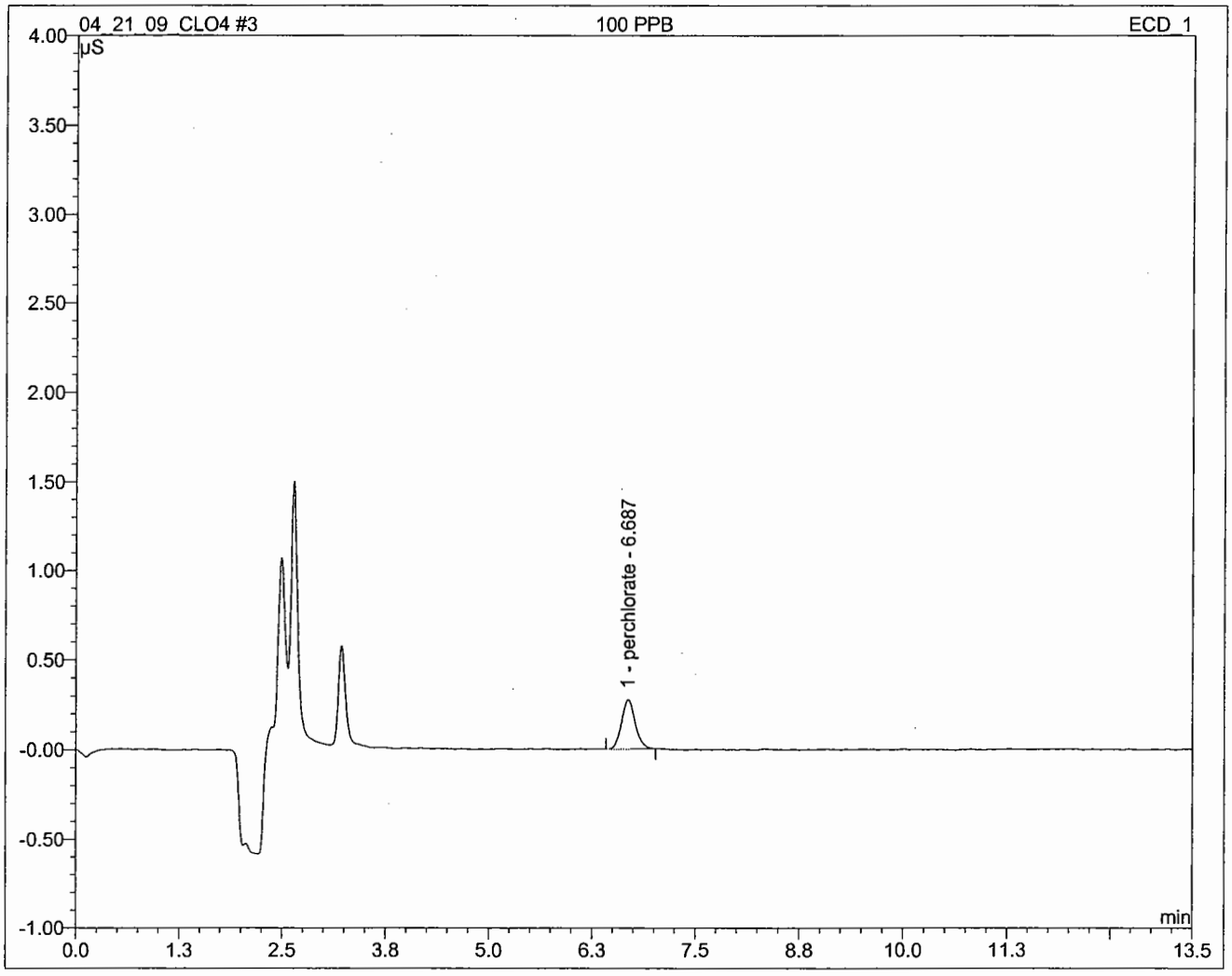
Sample Name:	200 PPB	*Inj. Vol.:*	20.0
Sample Type:	standard	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 15:34	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.68	perchlorate	0.106	0.553	188.8141



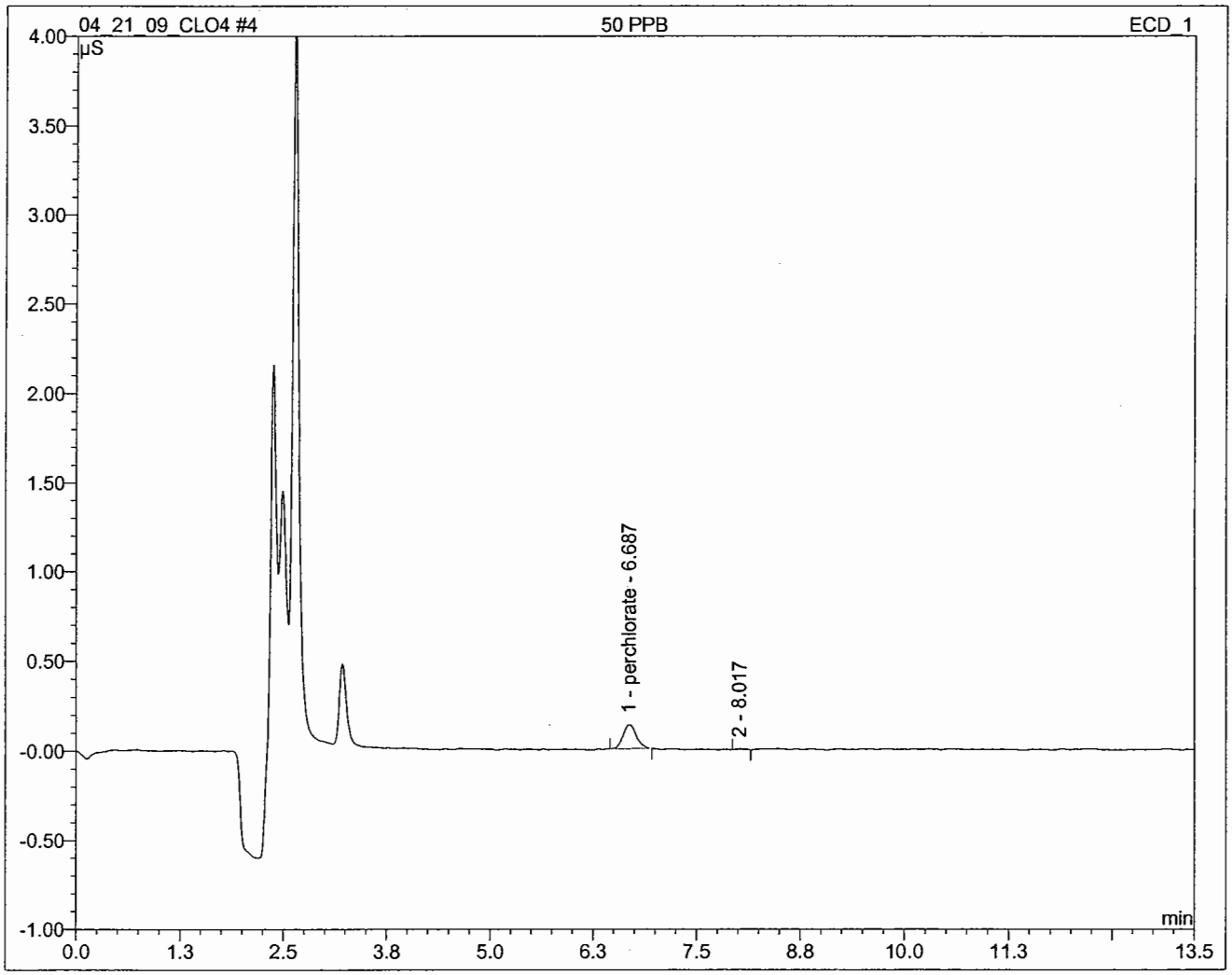
Sample Name:	**100 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 15:50**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.69	perchlorate	0.053	0.276	93.9040



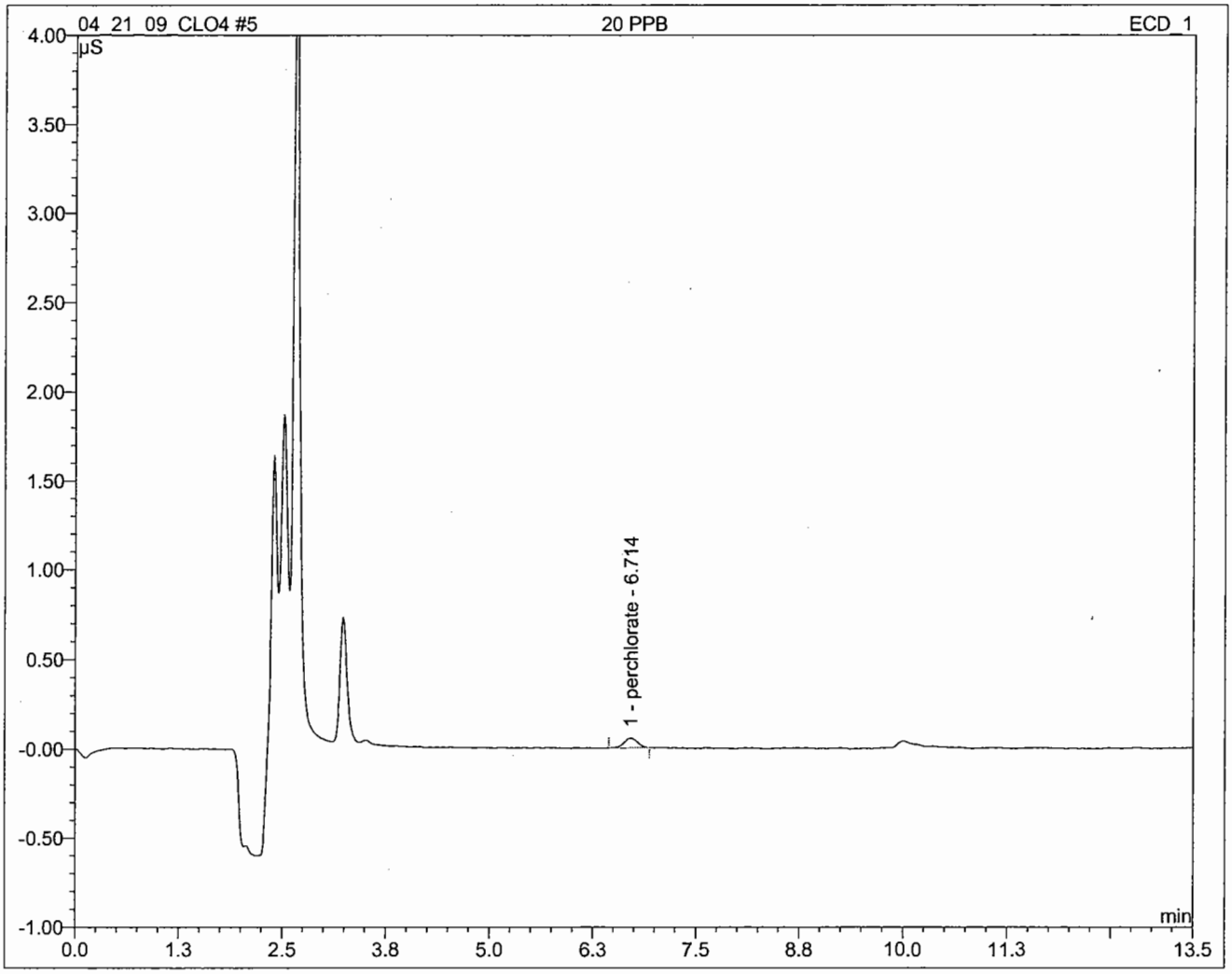
Sample Name:	**50 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:06**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area uS*min	Height uS	Amount PPB
1	6.69	perchlorate	0.025	0.135	44.1768



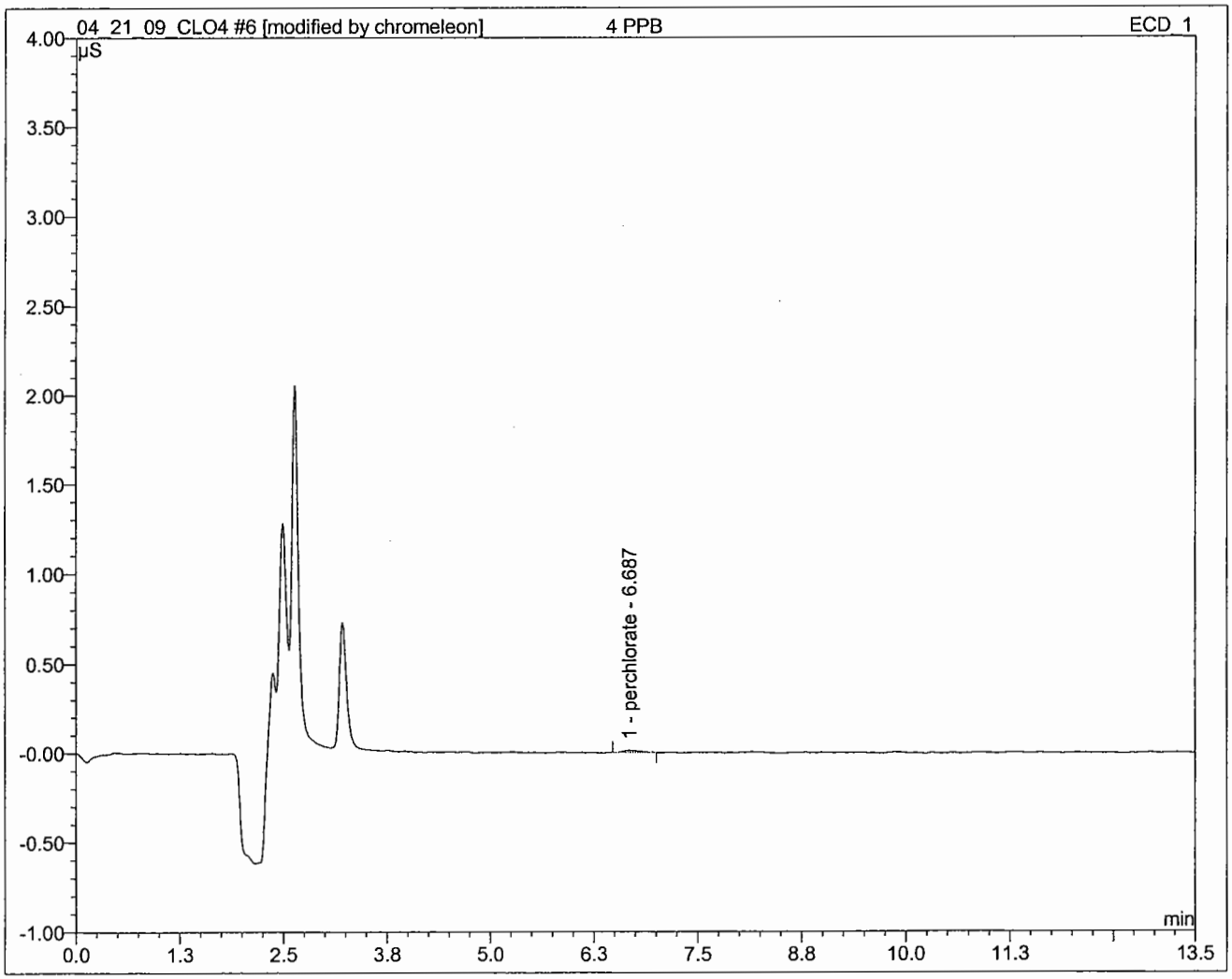
Sample Name:	**20 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:22**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.71	perchlorate	0.011	0.055	19.0896



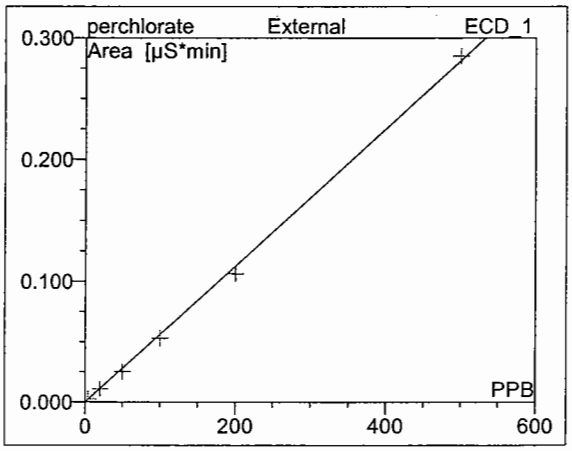
Sample Name:	**4 PPB**	*Inj. Vol.:*	**20.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:38**	*Run Time:*	**13.50**

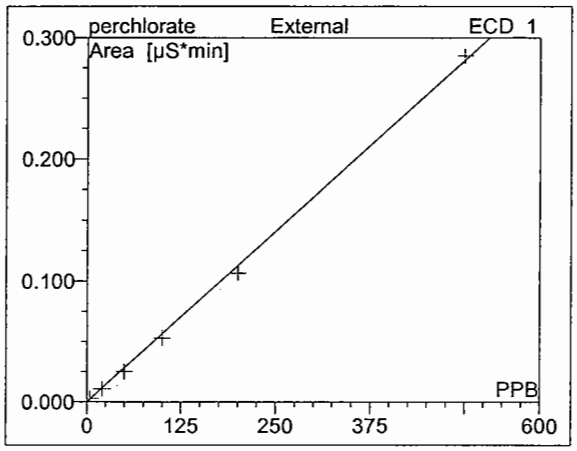
No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.69	perchlorate	0.002	0.011	4.3949

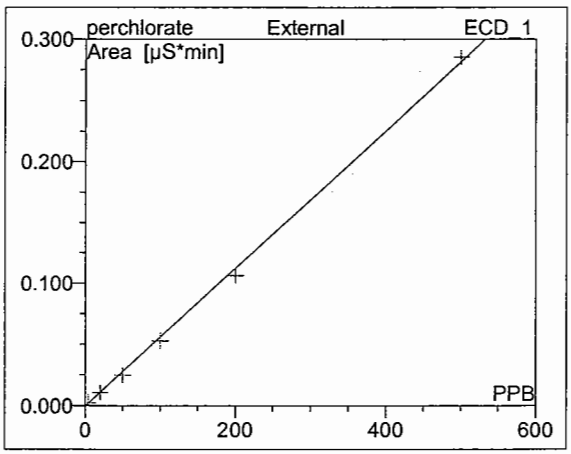


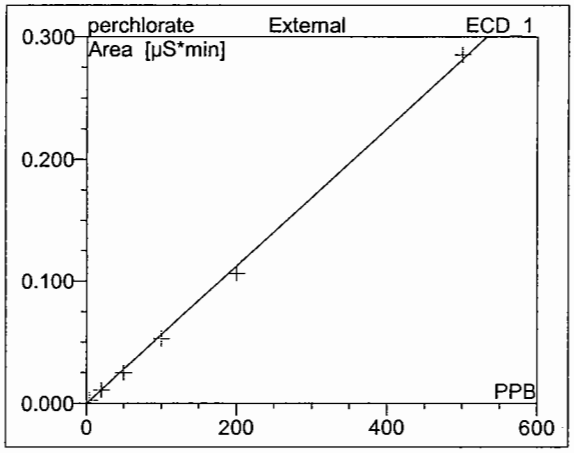
Calibration Batch Report

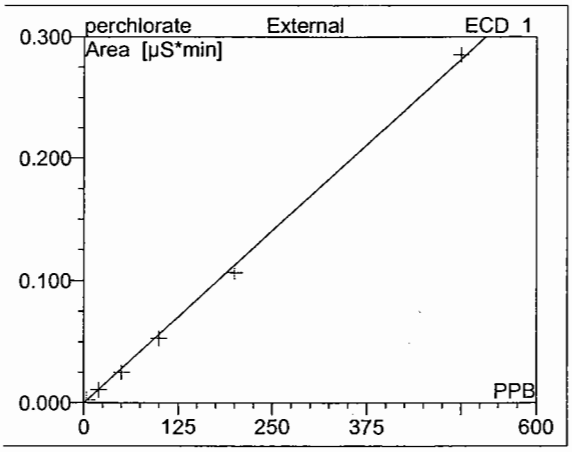
Sequence:	04_21_09_CLO4	Inj. Vol.:	20.0
Program:	ICS_2000 perchlorate	Operator:	D143S571
Inj. Date/Time:	04/21/09 16:38	Run Time:	13.50

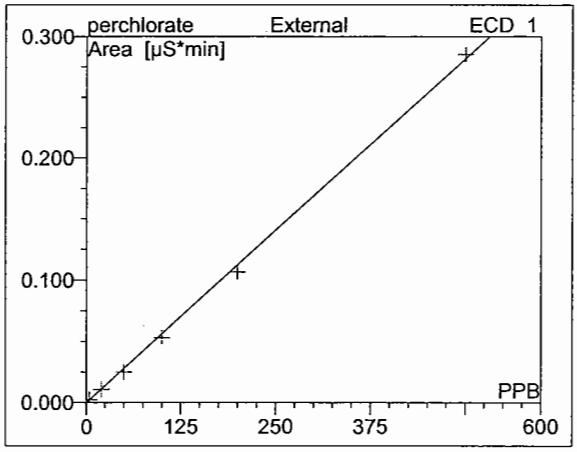




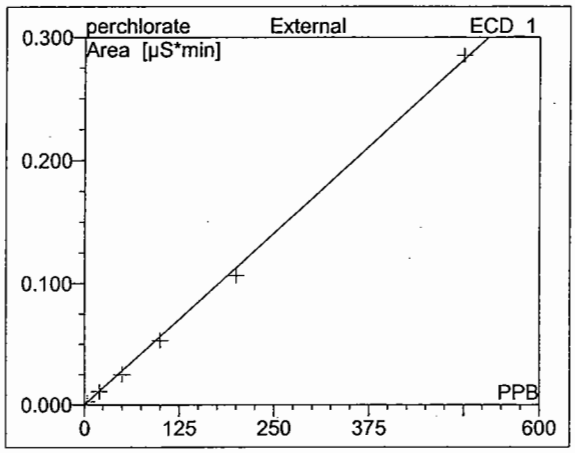








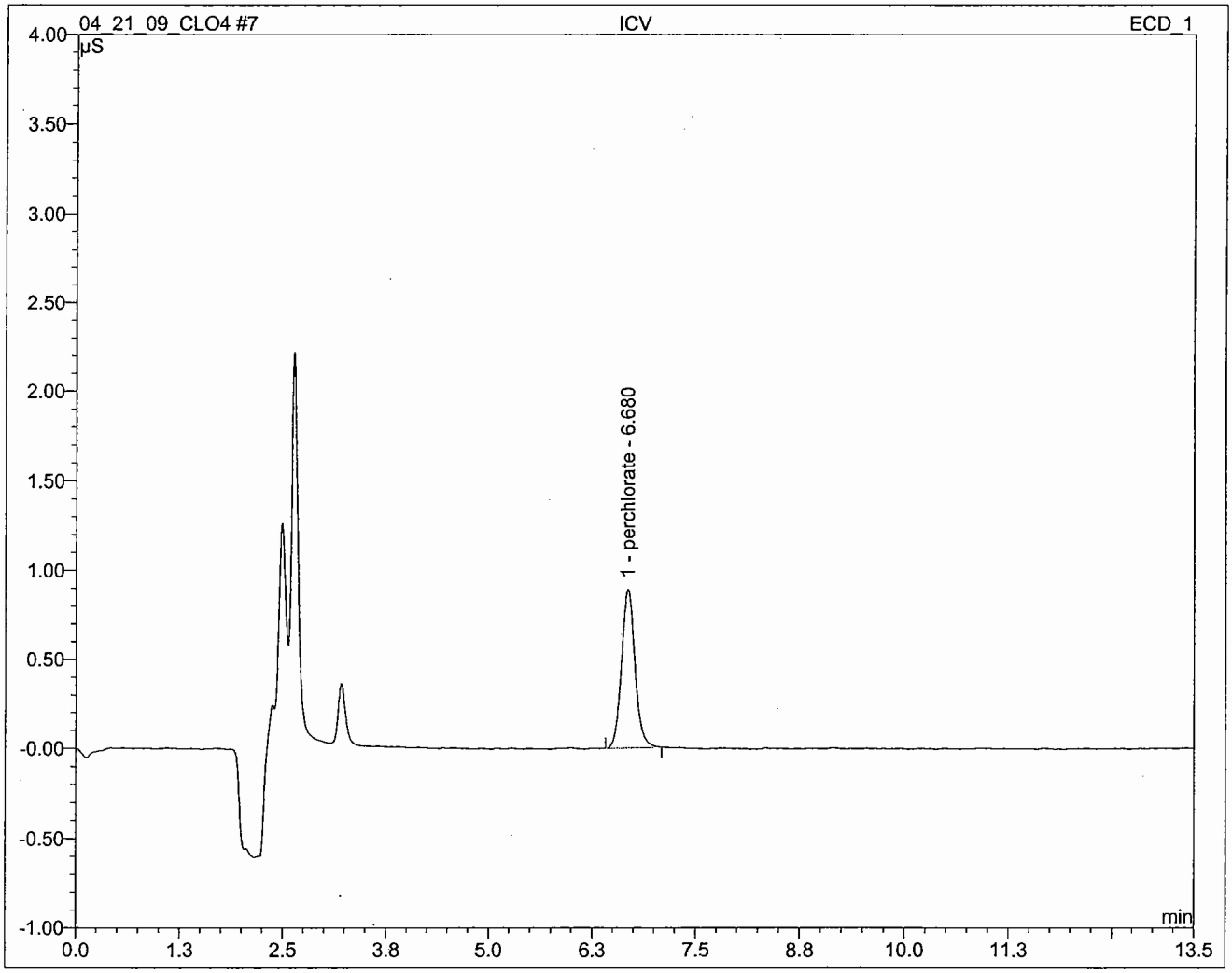
Sequence:	04_21_09_CLO4	*Inj. Vol.:*	20.0
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/09 16:38	*Run Time:*	13.50



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	6.69	perchlorate	Lin	6	0.000	0.001	0.000	99.958
AVERAGE:					0.0000	0.0006	0.0000	99.9583

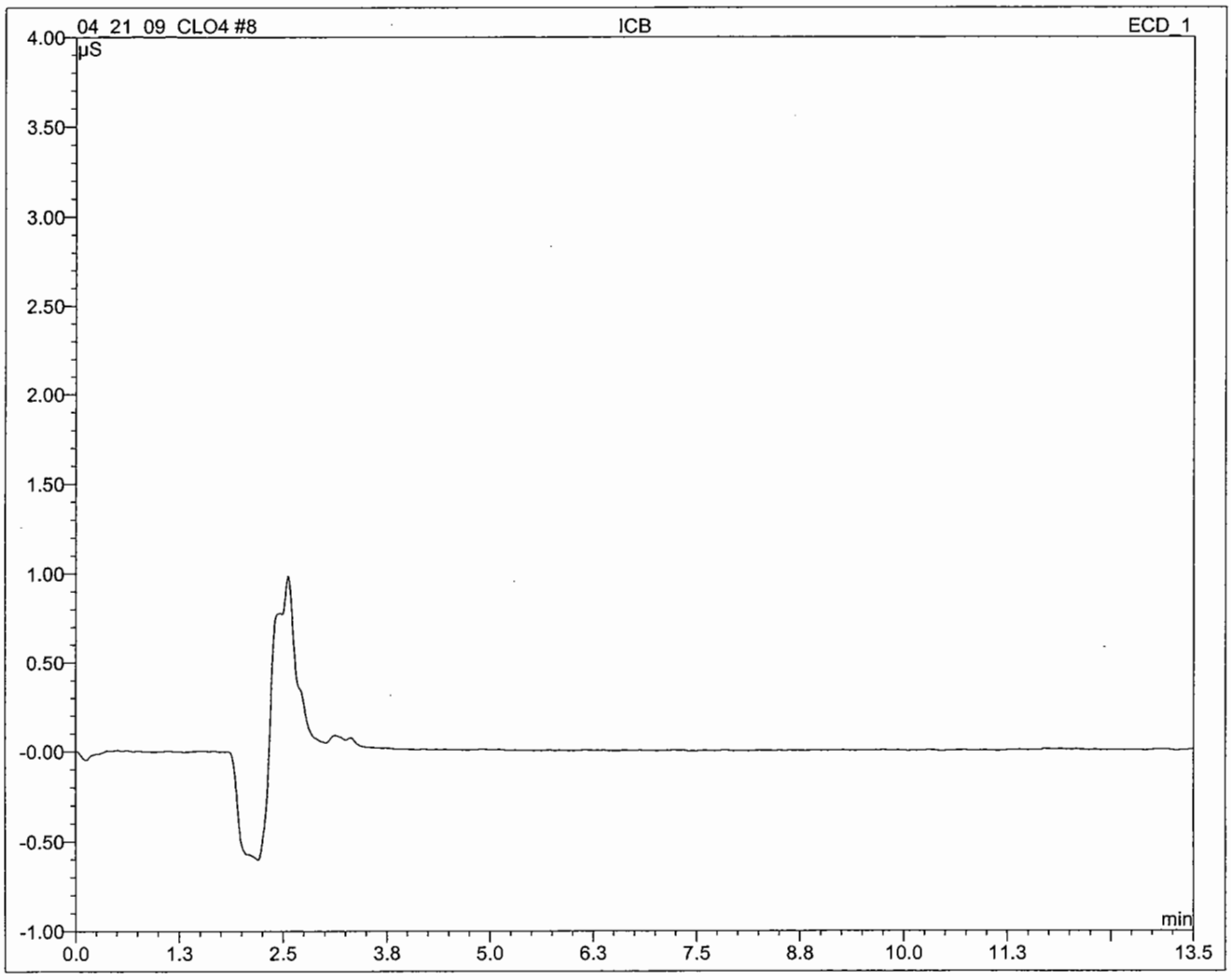
Sample Name:	**ICV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 16:54**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.68	perchlorate	0.169	0.894	300.4516



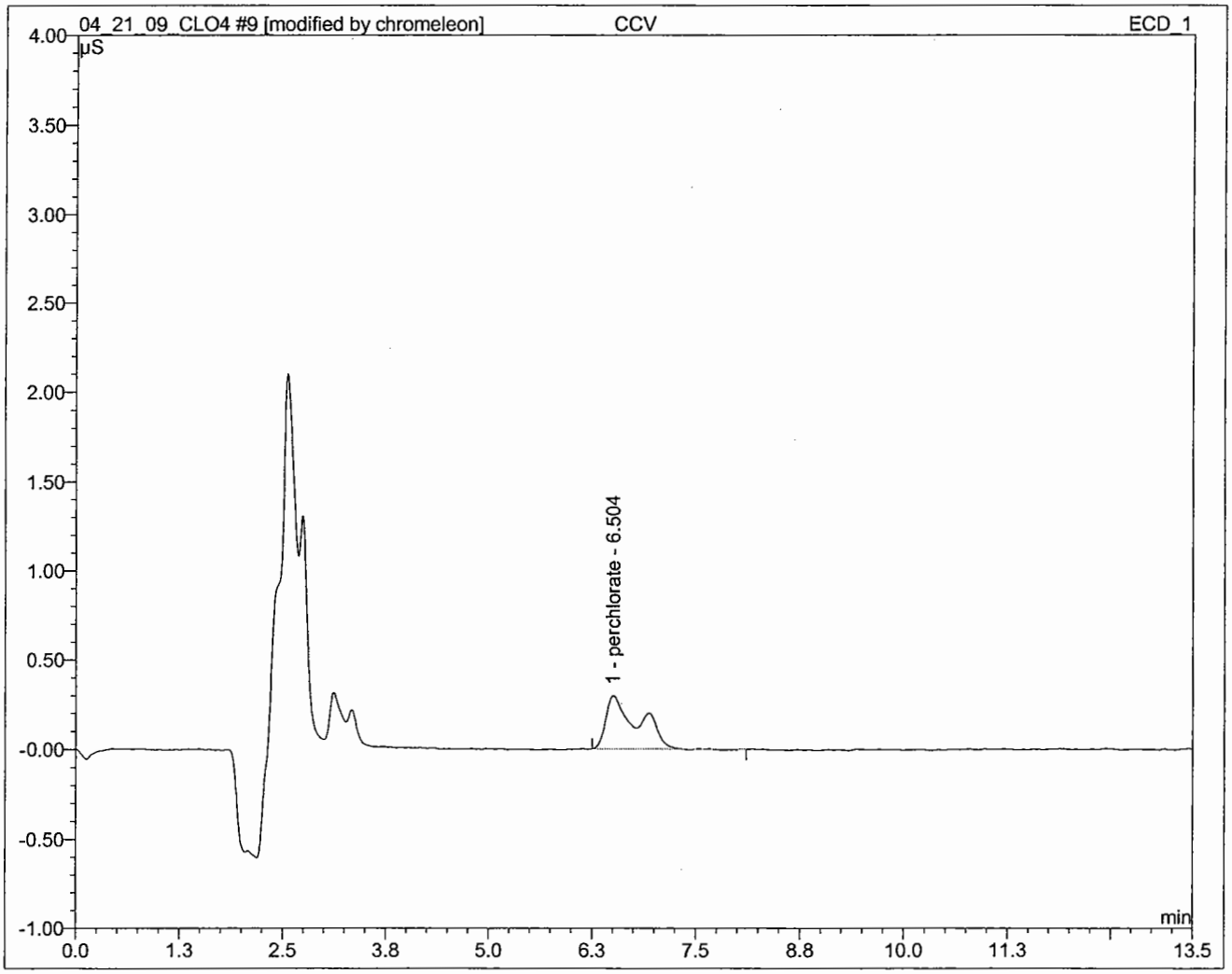
Sample Name:	**ICB**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:10**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



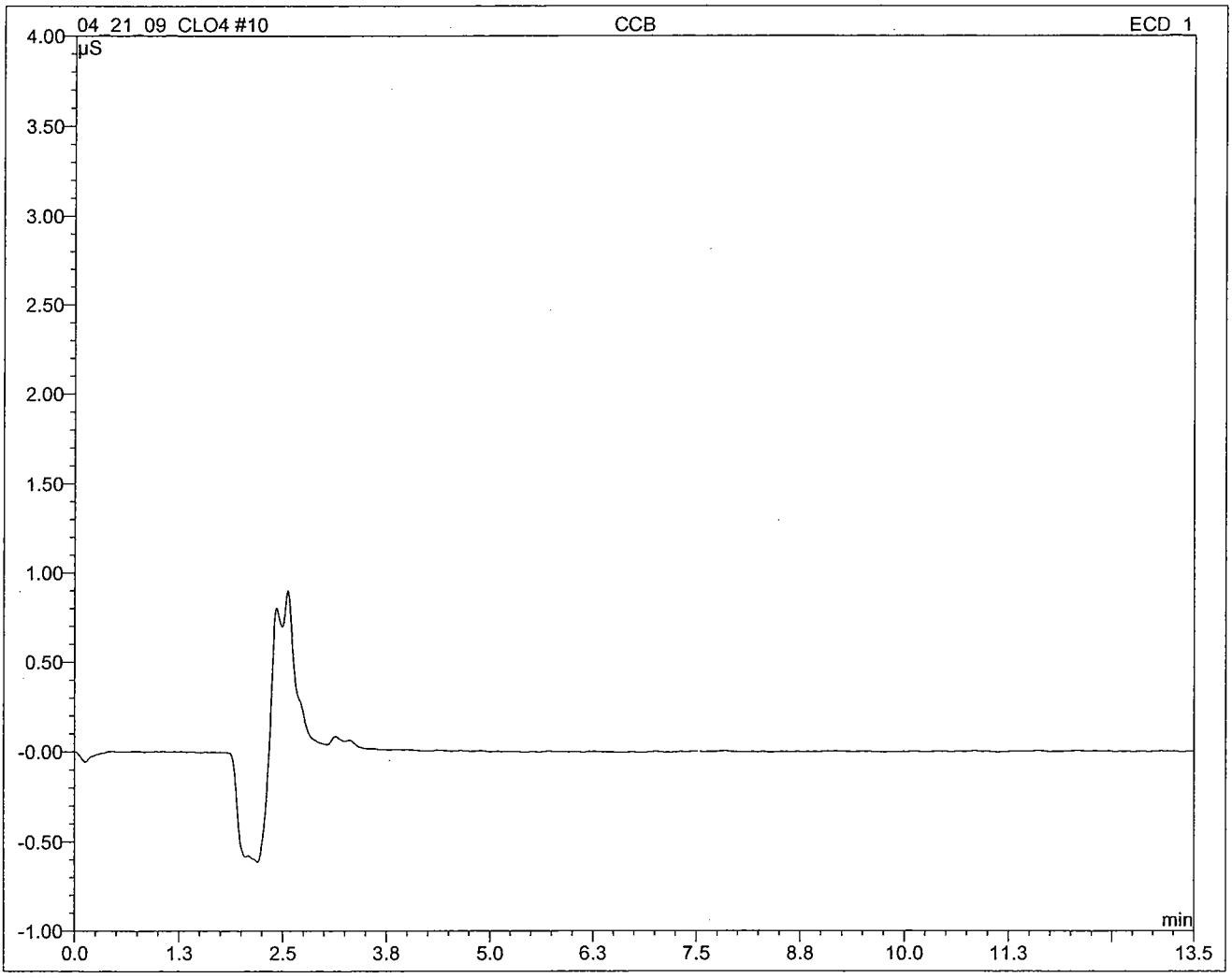
Sample Name:	**CCV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:26**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.50	perchlorate	0.132	0.297	234.6237



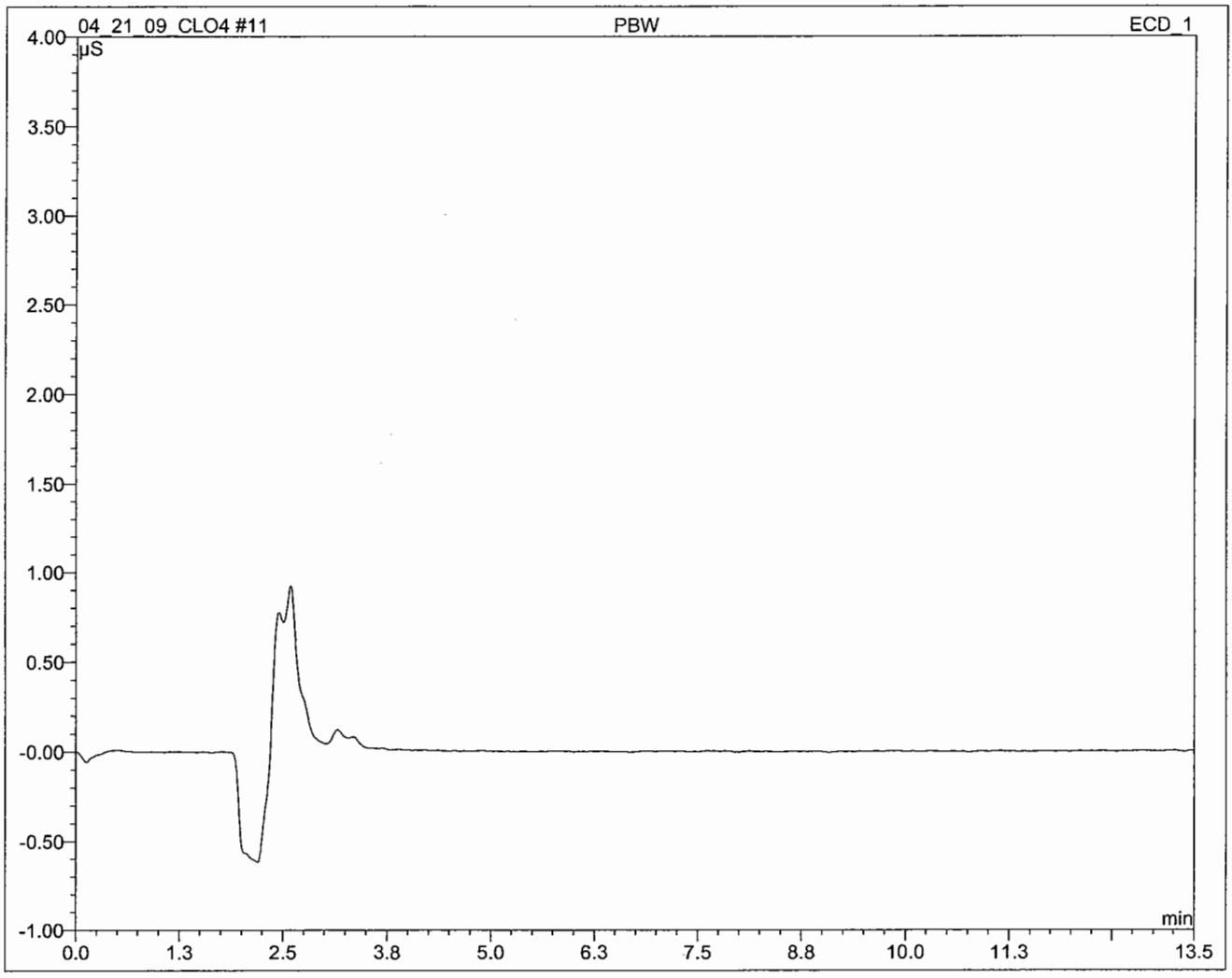
Sample Name:	**CCB**	*Inj. Vol.*	**20.0**
Sample Type:	**unknown**	*Dilution Factor*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:42**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



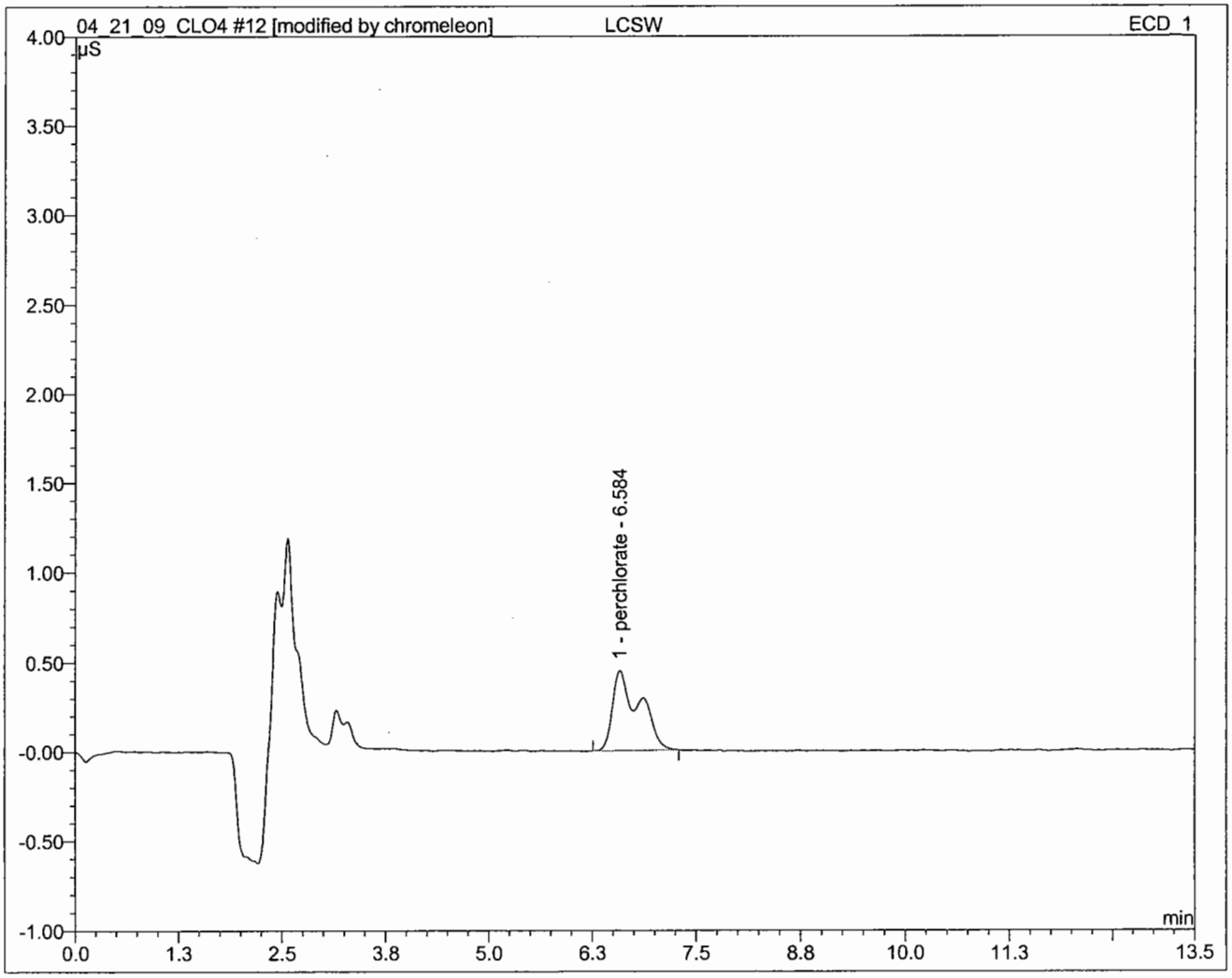
Sample Name:	**PBW**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 17:58**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



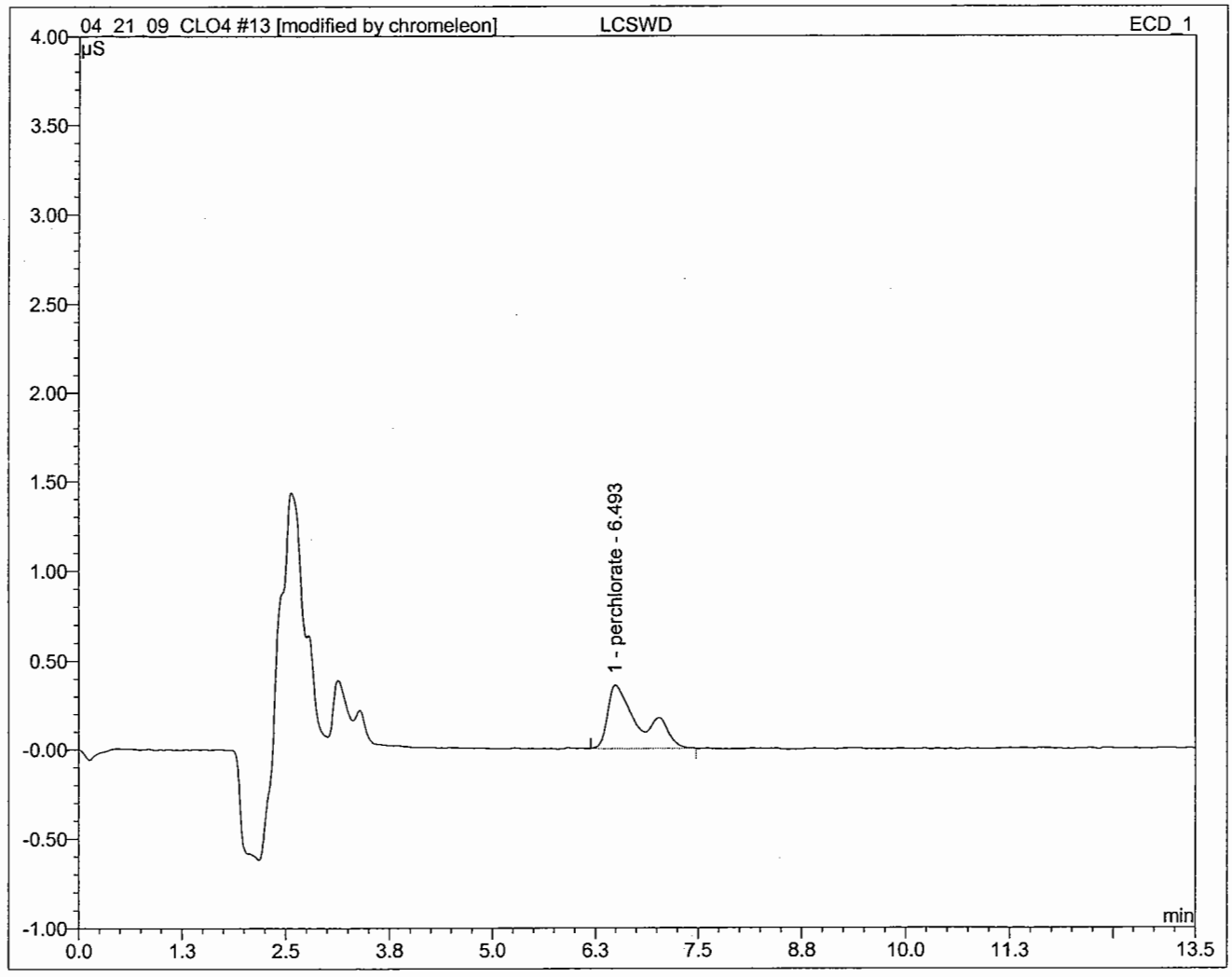
Sample Name:	**LCSW**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 18:14**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.58	perchlorate	0.167	0.448	297.3288



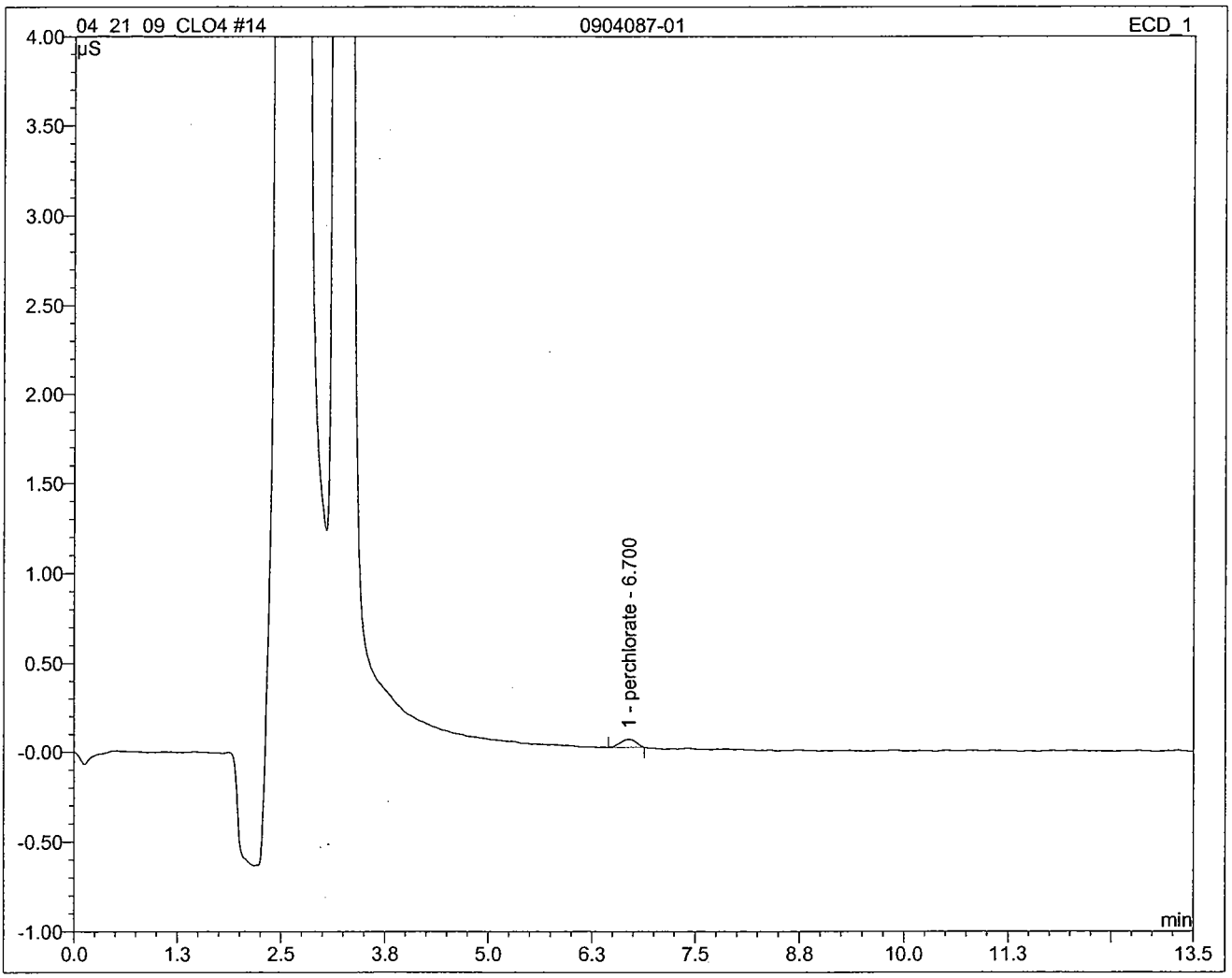
Sample Name:	**LCSWD**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 18:29**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.49	perchlorate	0.162	0.357	287.2292



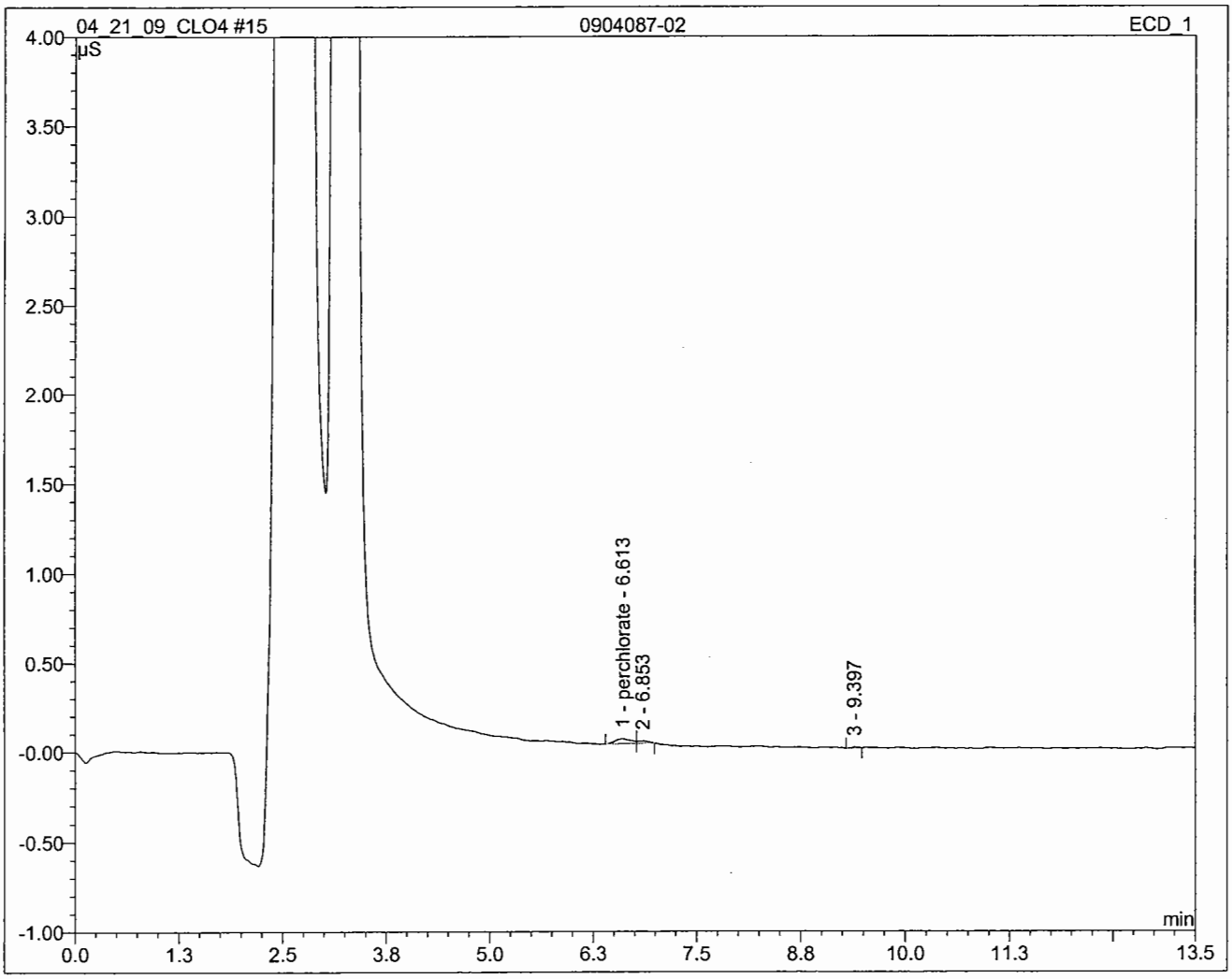
Sample Name:	0904087-01	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 18:45	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.70	perchlorate	0.010	0.045	17.8838



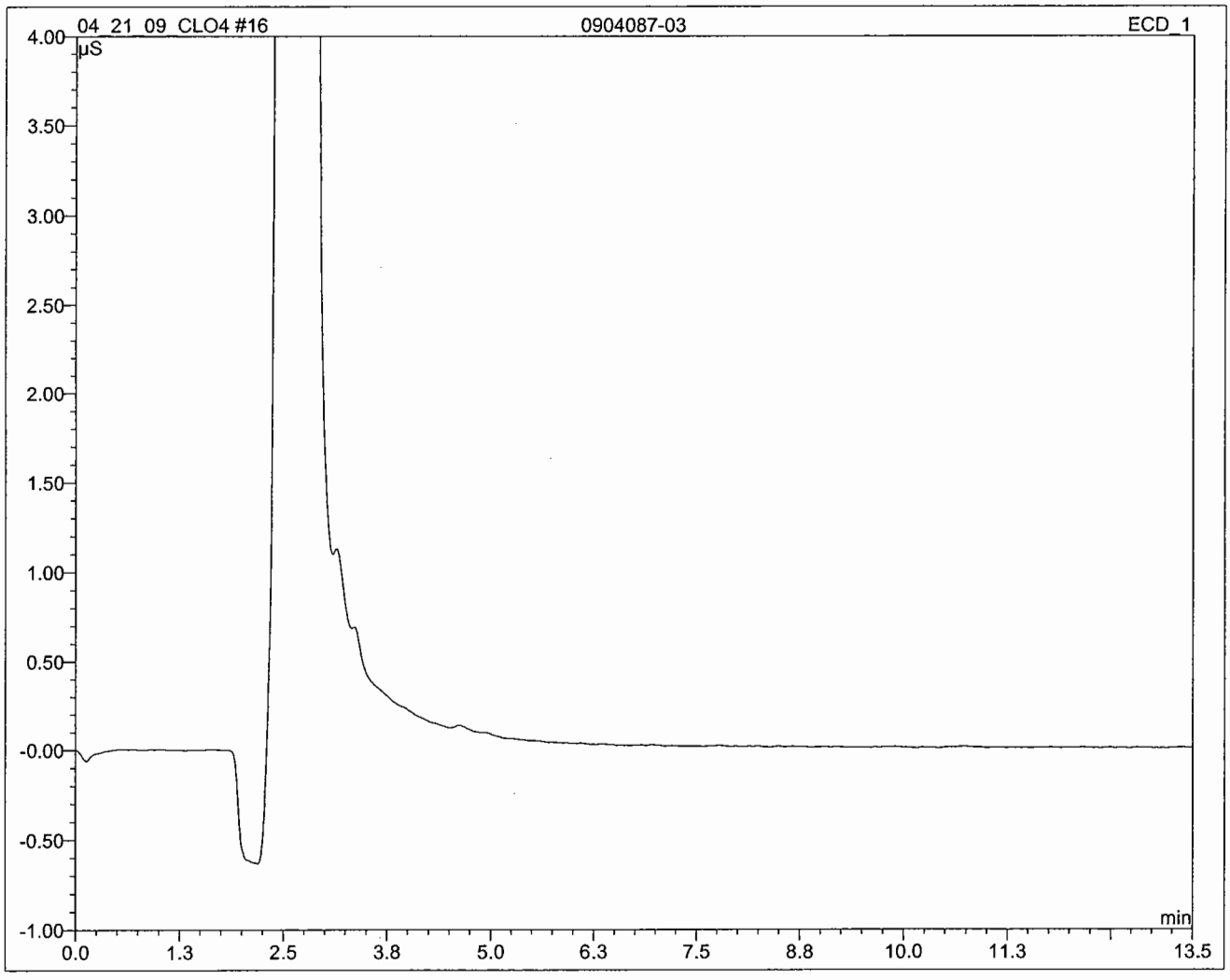
Sample Name:	**0904087-02**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 19:01**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.61	perchlorate	0.006	0.028	11.0835



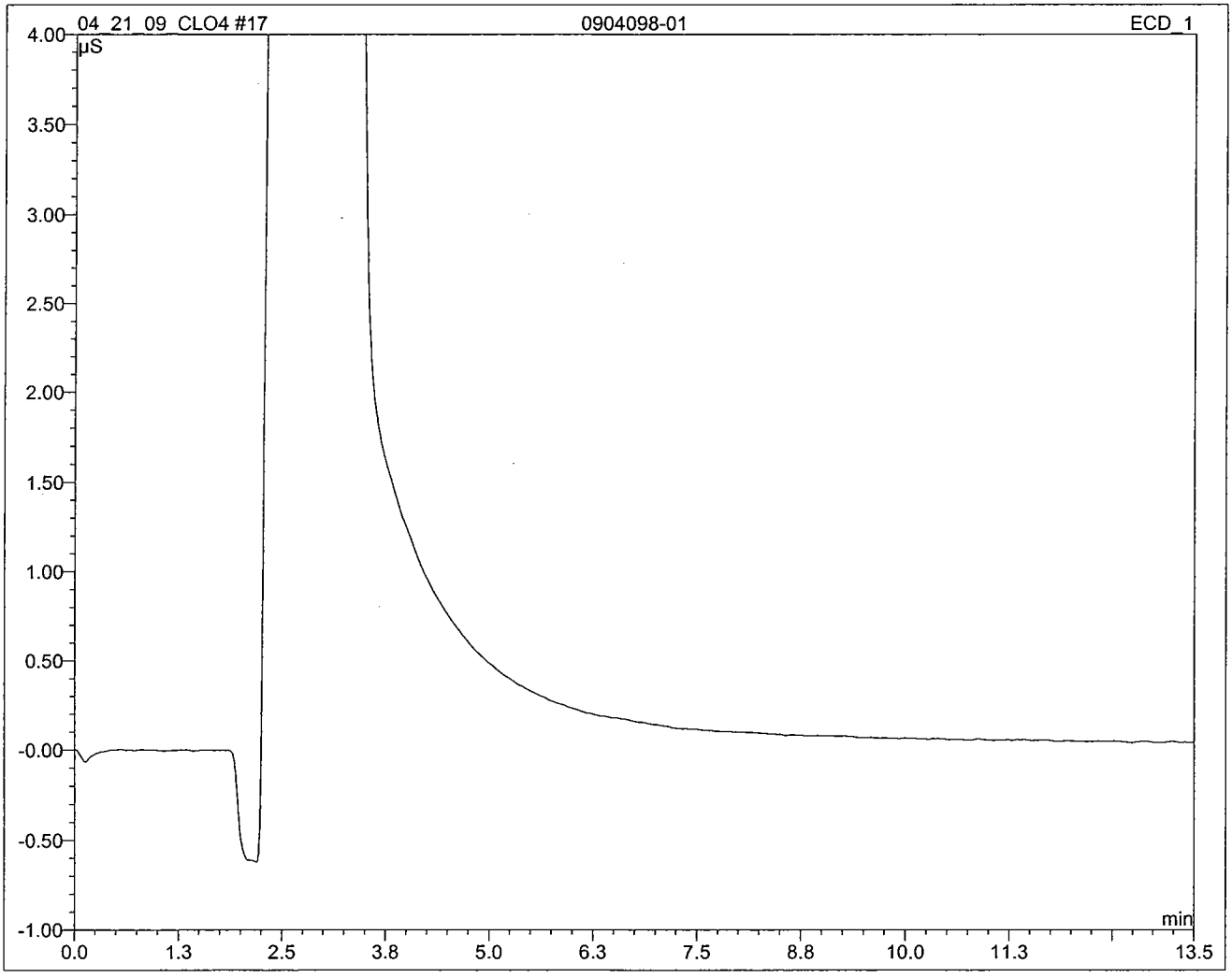
Sample Name:	0904087-03	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 19:17	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



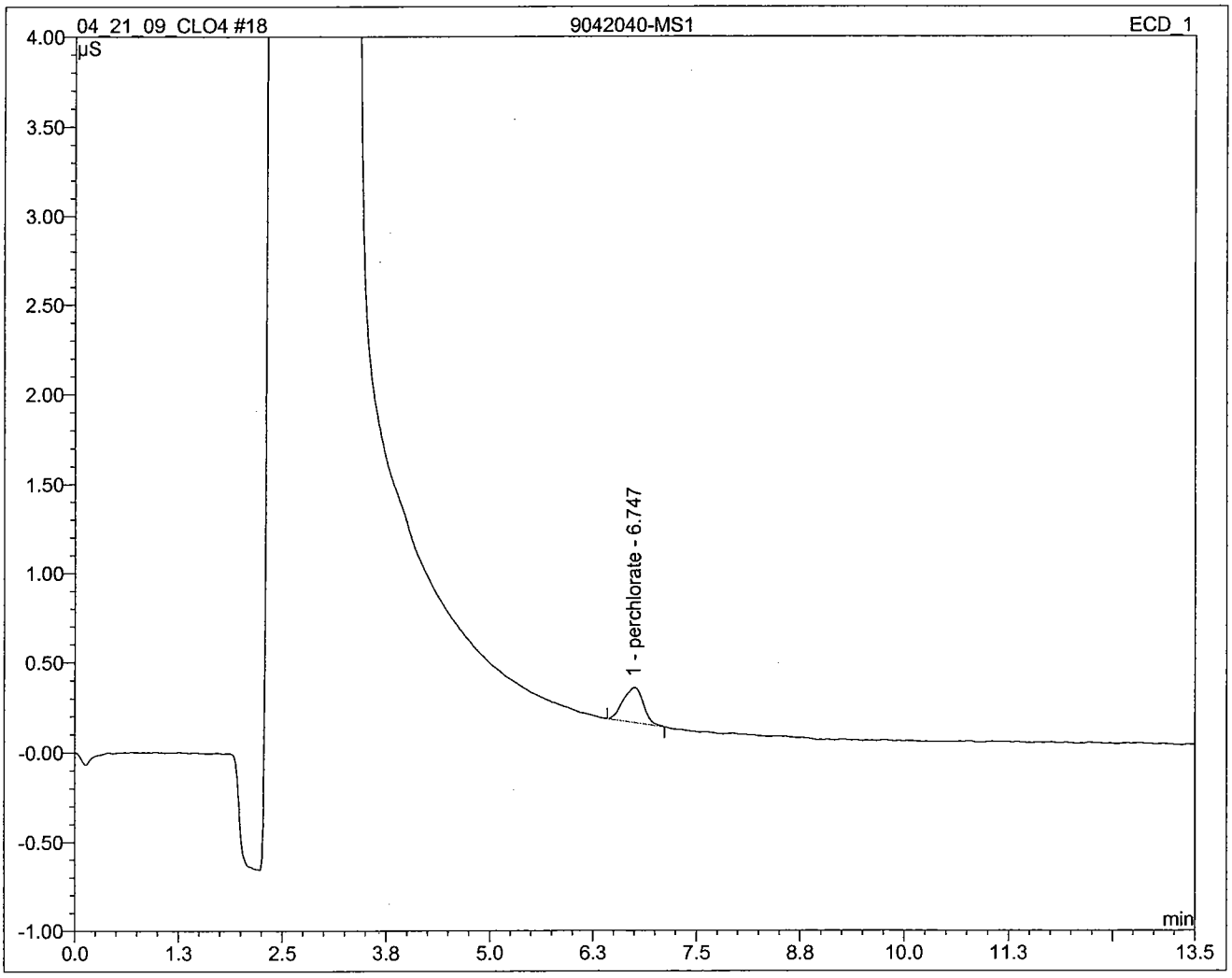
Sample Name:	**0904098-01**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 19:33**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



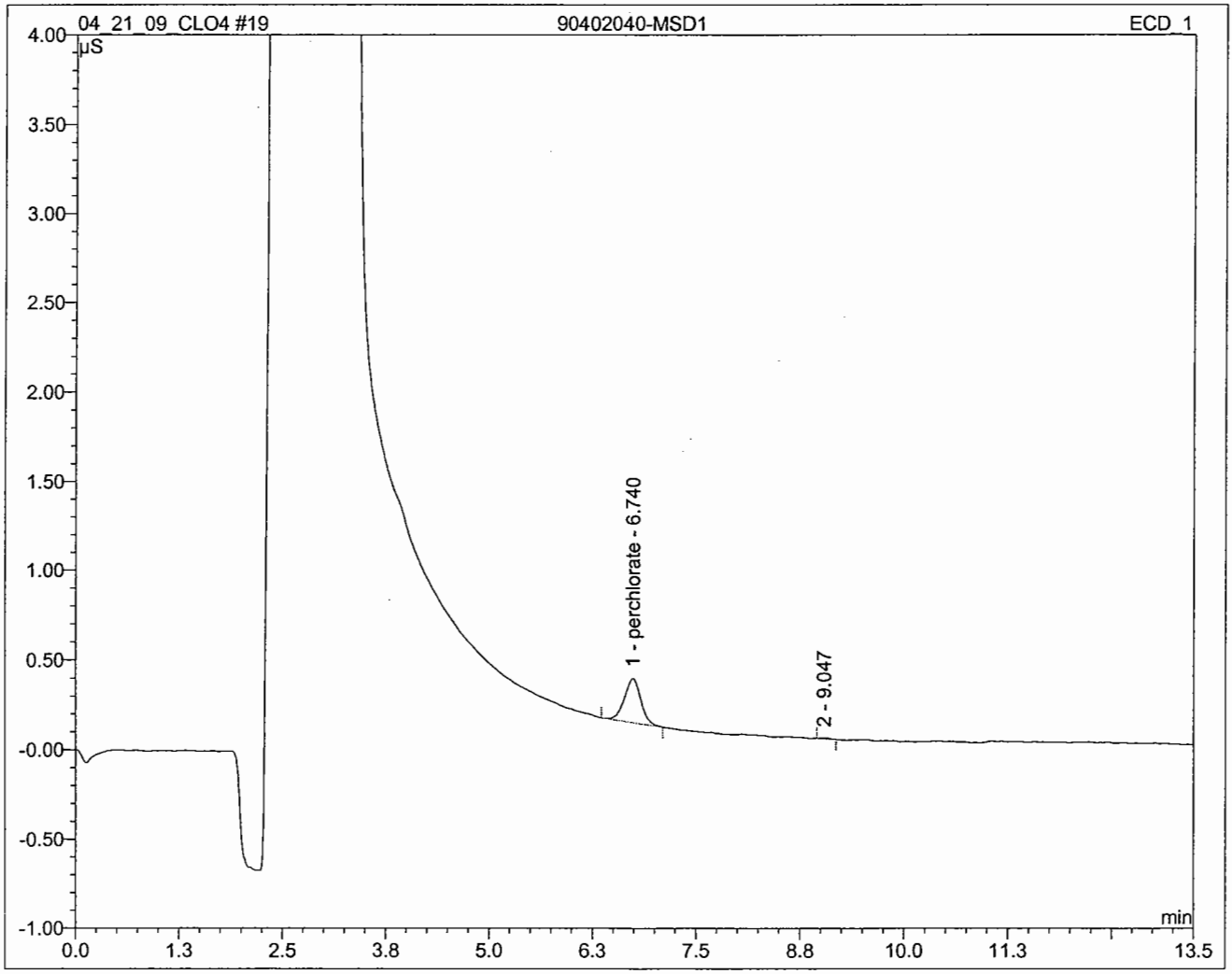
Sample Name:	9042040-MS1	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 19:49	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.75	perchlorate	0.055	0.194	97.7850



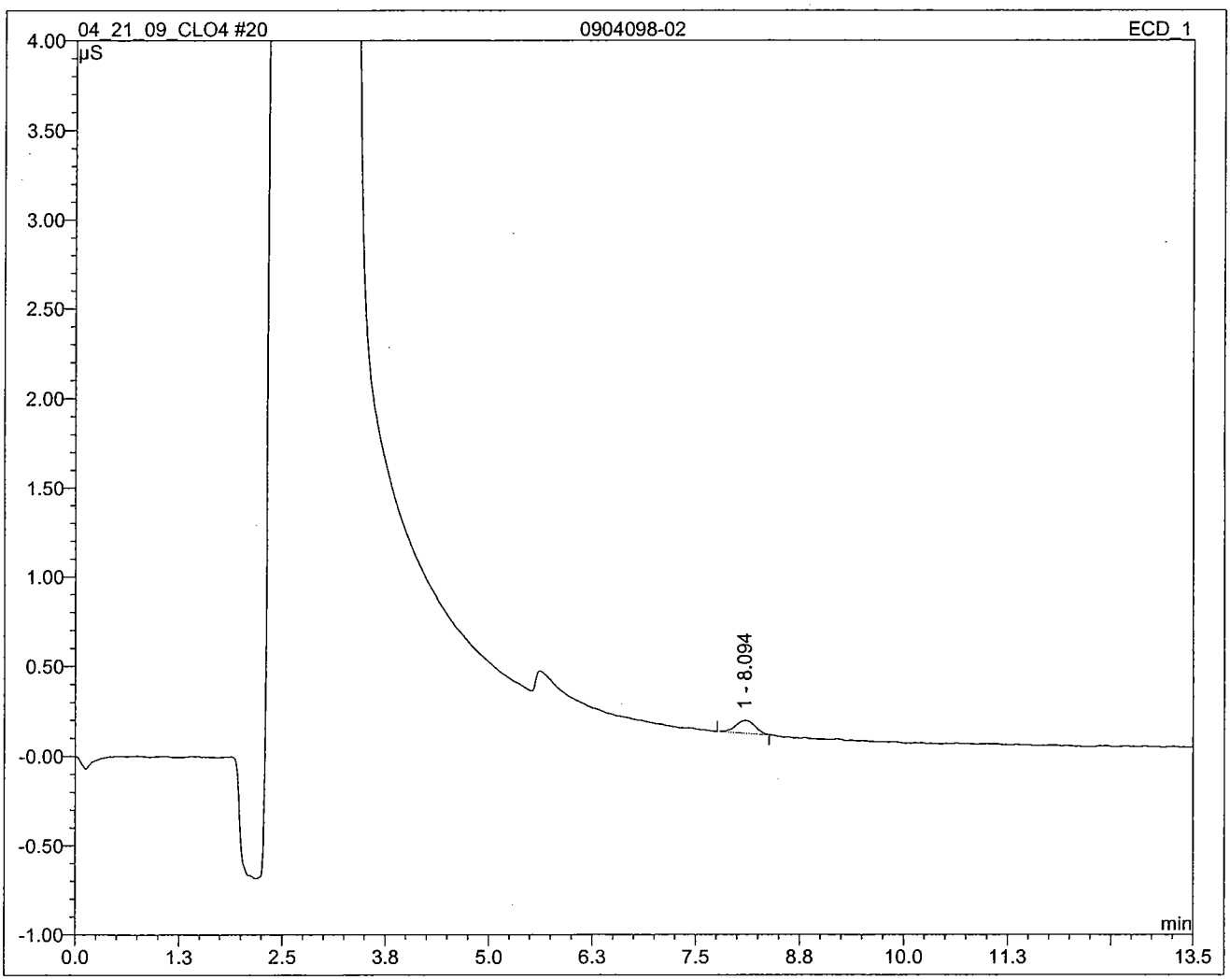
Sample Name:	**90402040-MSD1**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 20:05**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.74	perchlorate	0.057	0.246	100.5445



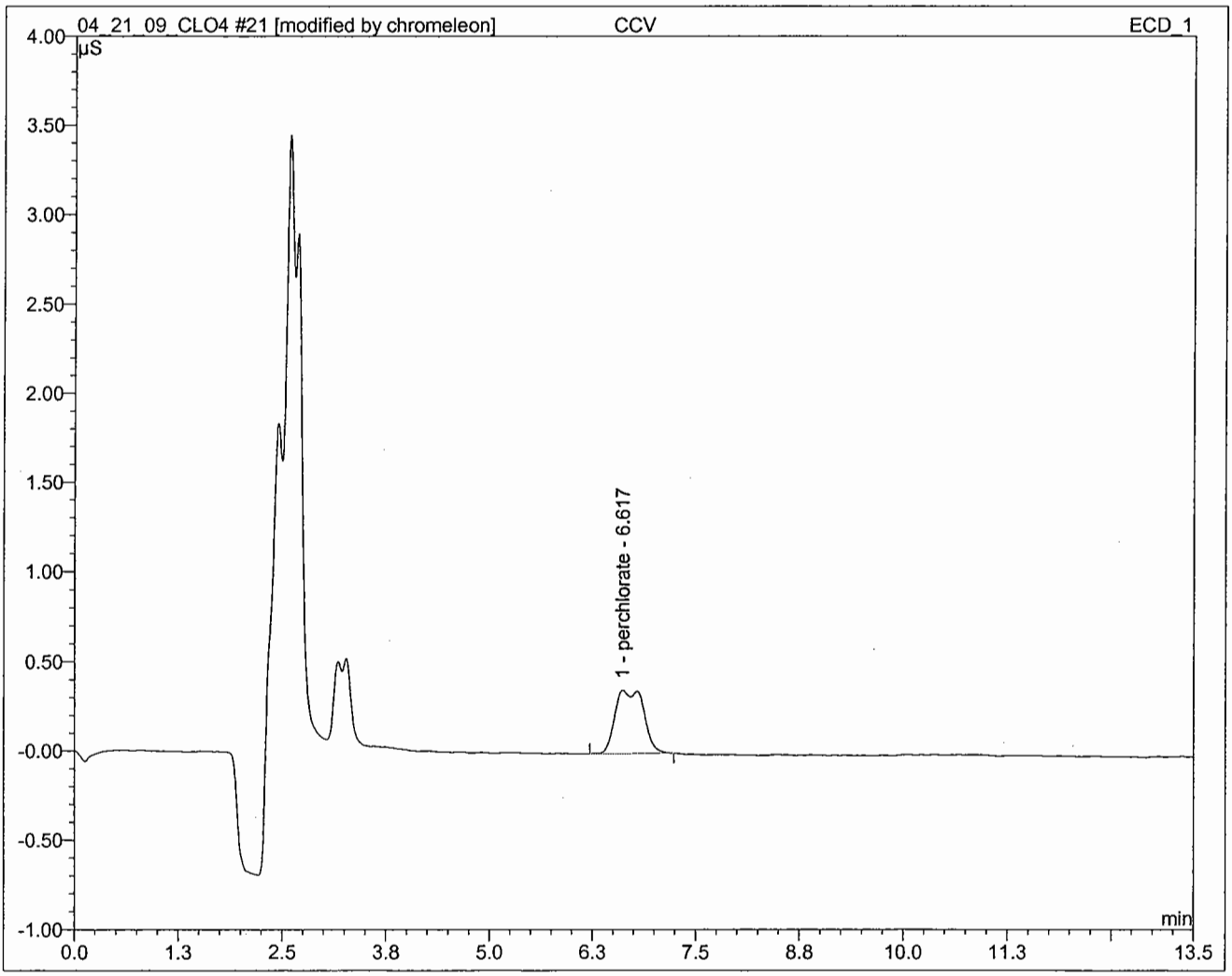
Sample Name:	0904098-02	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 20:21	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



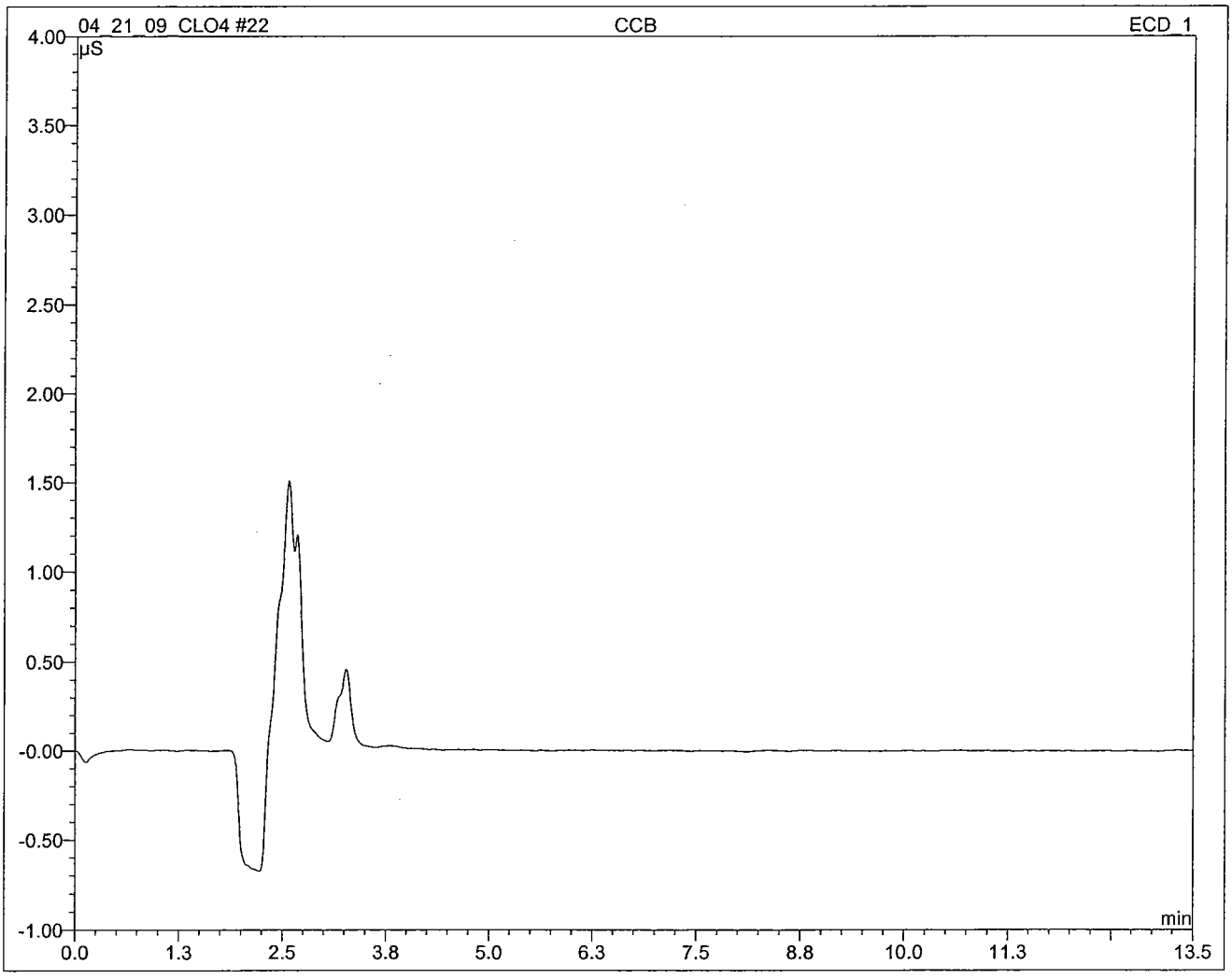
Sample Name:	**CCV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 20:37**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.62	perchlorate	0.143	0.356	254.2175



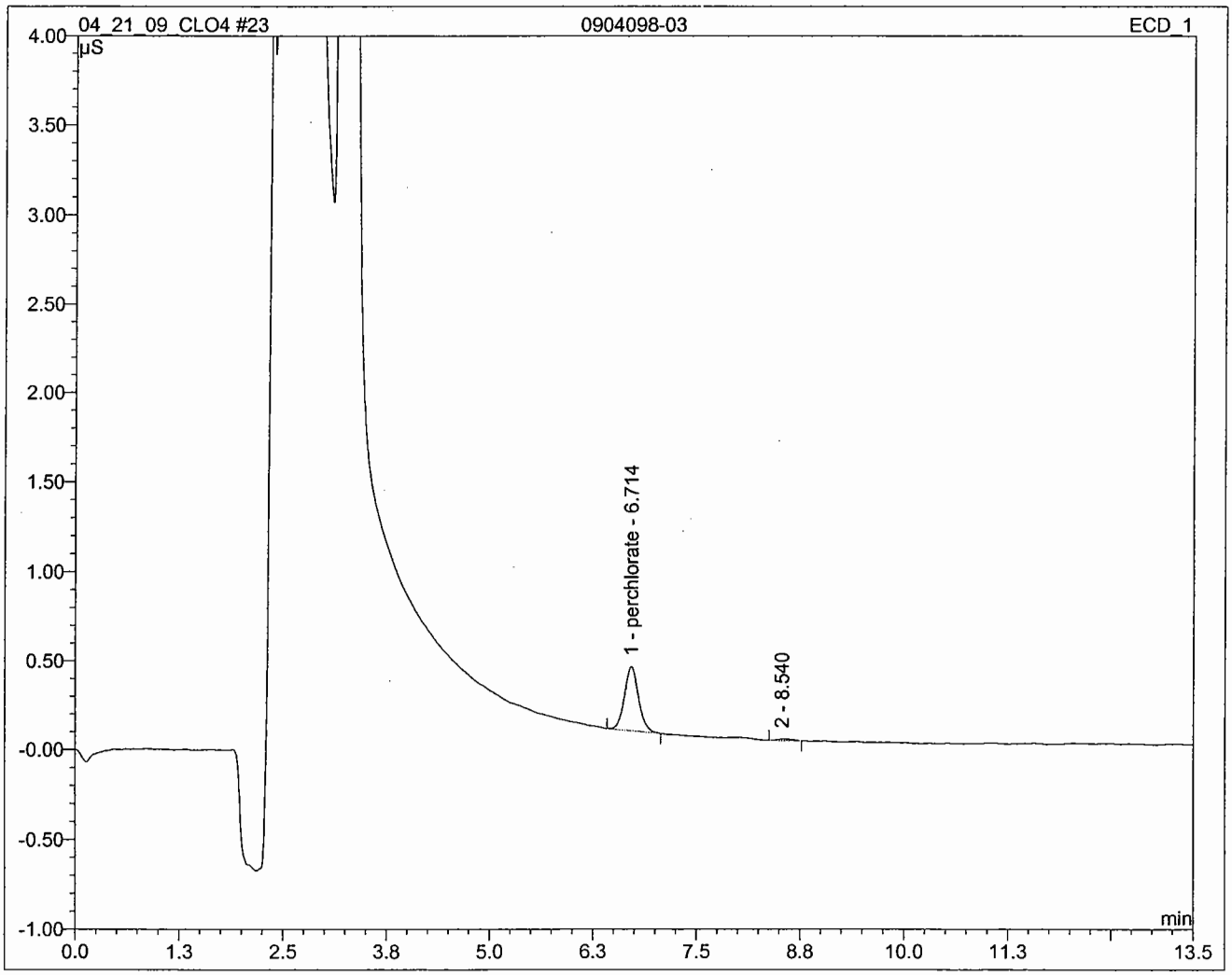
Sample Name:	**CCB**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 20:53**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



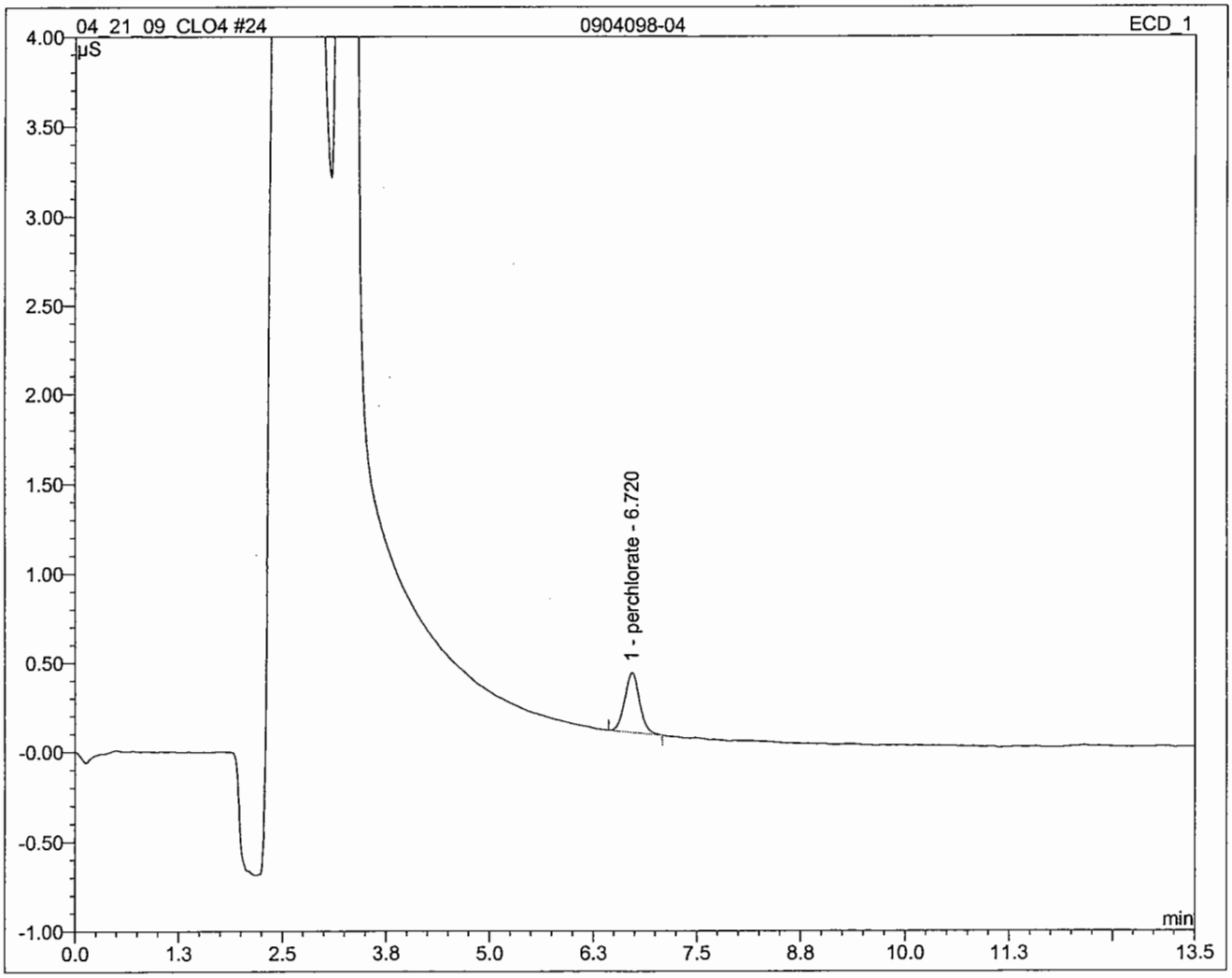
Sample Name:	0904098-03	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 21:09	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.71	perchlorate	0.072	0.362	127.3441



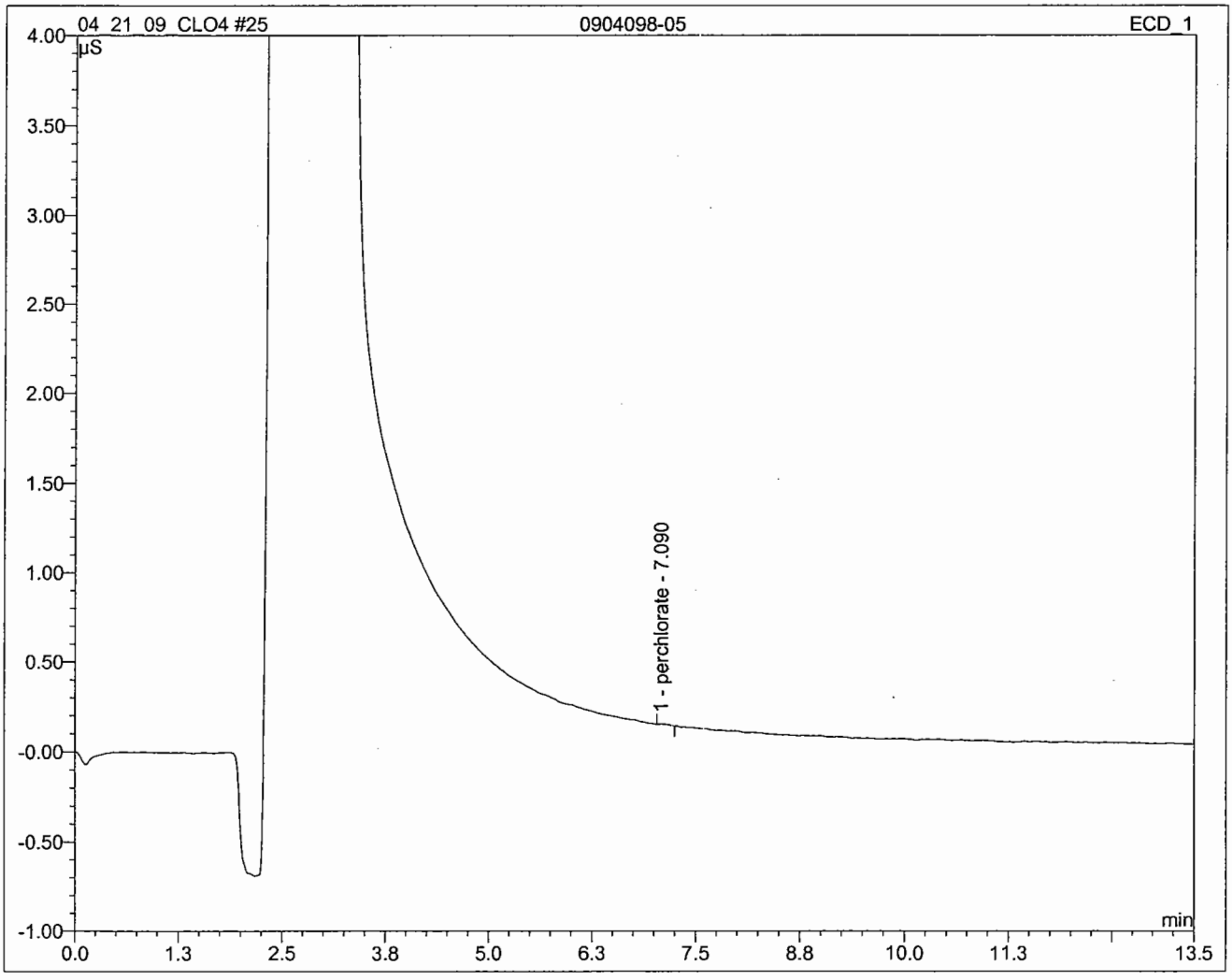
Sample Name:	**0904098-04**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 21:24**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.72	perchlorate	0.070	0.336	123.6363



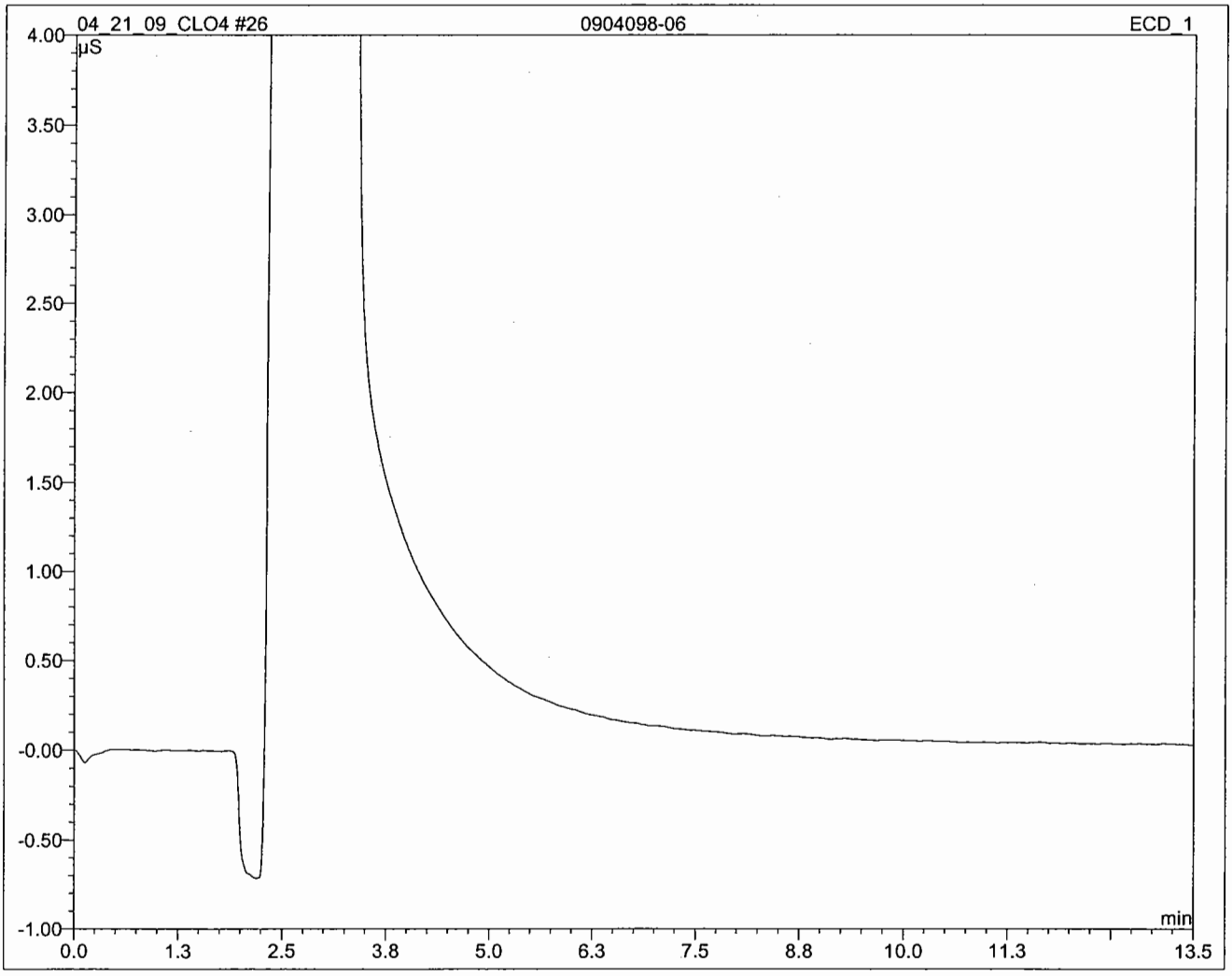
Sample Name:	**0904098-05**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 21:40**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	7.09	perchlorate	0.001	0.006	1.3343



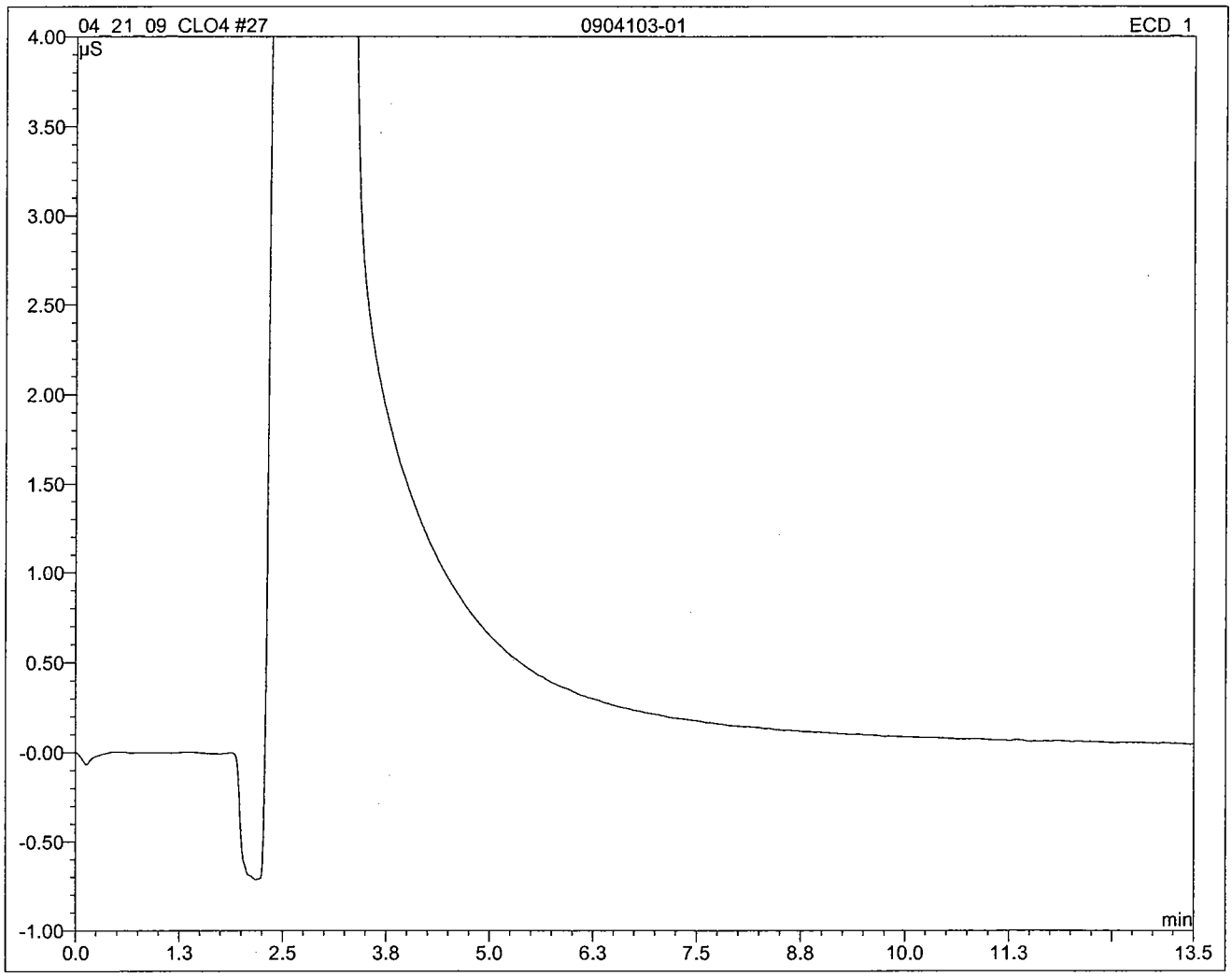
Sample Name:	0904098-06	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 21:56	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



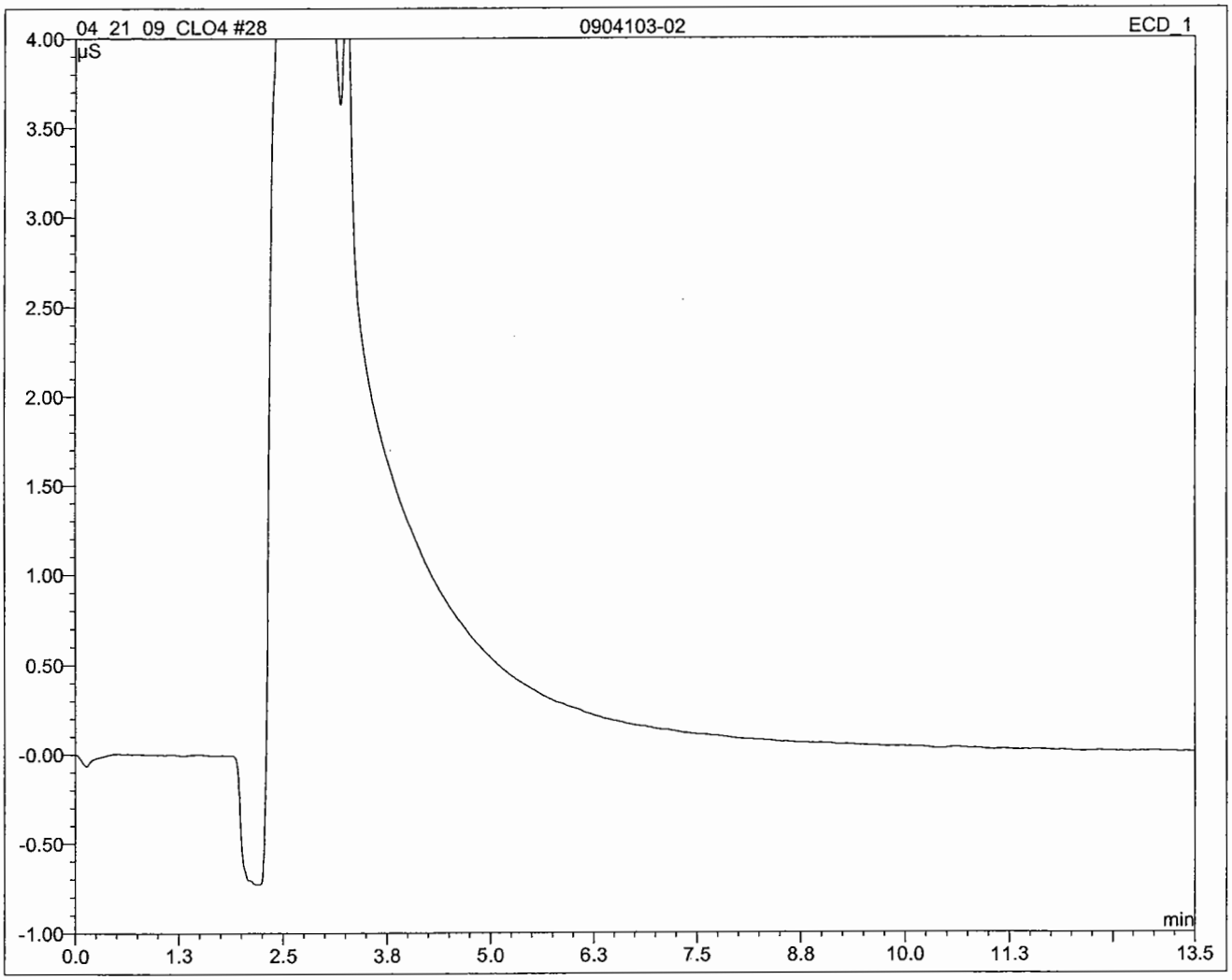
Sample Name:	0904103-01	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 22:12	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



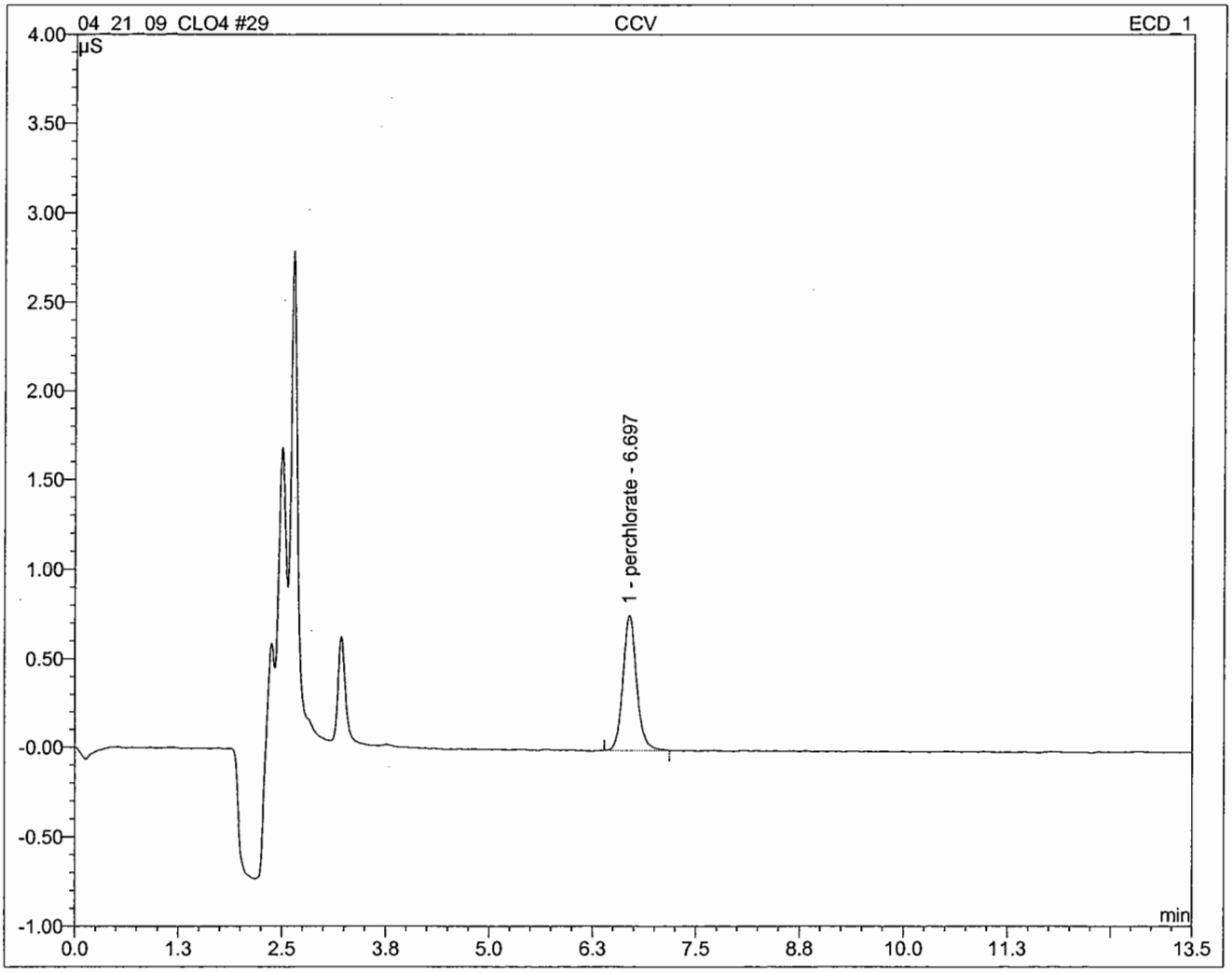
Sample Name:	0904103-02	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 22:28	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



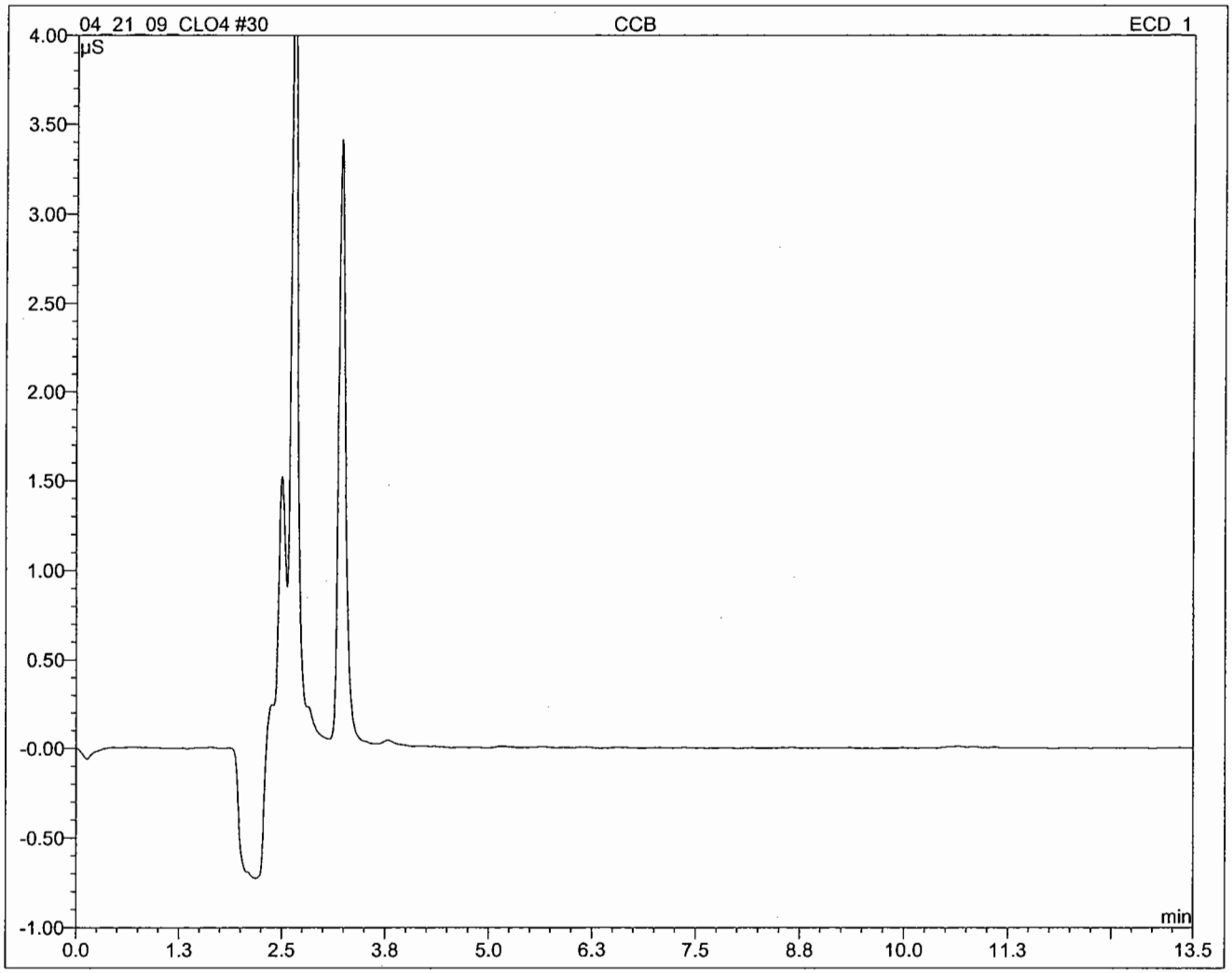
Sample Name:	**CCV**	*Inj. Vol.:*	**20.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**ICS_2000 perchlorate**	*Operator:*	**n.a.**
Inj. Date/Time:	**04/21/2009 22:44**	*Run Time:*	**13.50**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB
1	6.70	perchlorate	0.147	0.761	260.9332



Sample Name:	CCB	*Inj. Vol.:*	20.0
Sample Type:	unknown	*Dilution Factor:*	1.0000
Program:	ICS_2000 perchlorate	*Operator:*	n.a.
Inj. Date/Time:	04/21/2009 23:00	*Run Time:*	13.50

No.	Time min	Peak Name	Area µS*min	Height µS	Amount PPB



CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on Ice: ☑ YES ☐ NO

Box 4 - Sample Type					G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered					U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample									<2	<2	>12	>9			
Box 2 - Preservative					H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type					2-1L A	2-1L A	2-1L A	1-500 ml P			P	P	2-1L A	2-1L A	
Sample ID	**Date: 2009**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**8332/3535 - Nitroglycerine** AL	**8330 - Explosives** AL	**Appdx 9 Herbs 8151A** AL	**Perchlorate 314.0** 6020	**ICP 6010B/3005A/-thellium 7000 (Metals-Total)** pH	**7470A (Mercury-Total)** pH	**Cyanide 9014** pH	**Sulfide 9030B** pH	**Appdx 9 SV 8270C** AL	**Appdx 9 PEST 8081A** AL	**Appdx 8 PCBs 8082**
13MW1 ✓	4/14	0935	GW	3	X	X		X	X<2	X			X		
13MW2 ✓	4/14	0815	GW	3	X	X		X	X<2	X			X		
13MW3 ✓	4/13	1200	GW	14	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW4 ✓		1035	GW	14	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MWDUP ✓		1050	GW	14	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW5 ✓		0850	GW	12	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW6 ✓	4/13	0740	GW	14	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW7 ✓	4/14	1050	GW	14	X	X	X	X	X<2	X	X>12	X>9	X	X	X

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW1 + 13MW-2. JF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Sample ID		
13MW1	0904103-01	
13MW2	0904103-02	
13MW3	0904098-02	
13MW4	-03	
13MWDUP	-04	
13MW5	0904098-01	USE FOR QC
13MW6	0904098-05	
13MW7	-06	

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 1.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Tyler Emery	Date: 4/15/09	Sample Storage Time Requested:	
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224		
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Tyler Emery	Date: 4/15/09	#2 Received by (Signature): Lee F Swanson	Date: 4/15/09	30 DYS ORG/8 MTHS INORG	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM		

9 - Rec'd 4-15-09
Compuchem 1615

Y/O JF 3.31.09

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

3/12

ANALYTICAL METHOD: 314.0
TYPE METHOD:

For: 13MW1 and 13MW2 AND ALL OTHER sample locations.

No.	PARAMETER	CAS RN
1.	Perchlorate	14797-73-0

.P:\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 - JCF
Revised November, 2005 - new permit - JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

WORK ORDER

Printed: 5/4/2009 3:48:21PM

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Reported**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13C.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

CompuChem

A Division Of

Liberty Analytical Corp.

6/9/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0906006

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER
Project RAAP APPIX 2009/B03204-07

Work: 0906006
Sdg: 0906006

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0906006-01	13MW5	Water	04/13/2009 08:50	06/01/2009 15:45
0906006-02	13MW3	Water	04/13/2009 12:00	06/01/2009 15:45
0906006-03	13MW4	Water	04/13/2009 10:35	06/01/2009 15:45
0906006-04	13MWDUP	Water	04/13/2009 10:50	06/01/2009 15:45
0906006-05	13MW6	Water	04/13/2009 07:40	06/01/2009 15:45
0906006-06	13MW7	Water	04/14/2009 10:50	06/01/2009 15:45

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

DOCUMENT 6020

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field and analytical samples, reanalyses, blanks, spikes, duplicates, and laboratory control samples. The sample data package consists of the following:

A. Cover Documentation

B. Sample Data

LAB CODE : LIBRTY CONTRACT # : SW846

SDG # : 0906006

A. Cover Documentation

1. Cover Page

2. SDG Narrative

3. Sample Traffic Reports/
   Chain-Of-Custody Records

1. Cover Page

Inorganic Analyses Data Package

The Cover Page includes laboratory information, the Case and SDG numbers, Non-Routine Analytical Service (NRAS) number (if appropriate), the EPA sample numbers in alphanumeric order showing the EPA sample numbers cross-referenced with Lab ID numbers, and completion of the questions on the use of background and interelement correction for the samples.

SW846 - METALS

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0906006

SOW No.: SW846

EPA Sample No.	Lab Sample ID.
13MW3	0906006-02
13MW4	0906006-03
13MW5	0906006-01
13MW5D	9060135-DUP1
13MW5S	9060135-MS1
13MW5SD	9060135-MSD1
13MW6	0906006-05
13MW7	0906006-06
13MWDUP	0906006-04

Were ICP interelement corrections applied? Yes/No NO

Were ICP background corrections applied? Yes/No NO

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: _____

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

AMENDED DATA

Signature: Cathy Dove for Susan Bass Name: Susan W Bass

Date: 7/8/09 Title: Senior Chemist

2. SDG Narrative

The SDG Narrative contains laboratory information, the Case and SDG numbers, contract number, and detailed documentation of any QC, sample, shipment, and/or analytical problems encountered in processing the samples. This will include any technical and administrative problems encountered and the resolution or corrective actions taken. The SDG Narrative will also document the alternative means of determining the cooler temperature when a cooler's temperature indicator bottle is absent. The SDG Narrative also provides equations or curves and utilizes raw data from the SDG being reported to demonstrate how sample results are obtained from raw instrument output. The SDG Narrative also includes a discussion of any flexibility Statement of Work (SOW) modification, including attaching a copy of the USEPA approved modification form to the SDG Narrative. Finally, the SDG Narrative will identify and explain any differences between results being provided in the data package and those provided previously as Preliminary Results.

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

SDG NARRATIVE
SDG # 0906006

The indicated Sample Delivery Group (SDG) consisting of six (6) liquid samples was re-received into the laboratory information management system (LIMS) on June 1, 2009 intact and in good condition with Chain of Custody (COC) Records in order, unless otherwise noted in any attachments or Quality Assurance Notices. The temperature of the samples upon receipt was 0.1 to 2.6°C. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were prepared and analyzed in accordance with SW846-6020 methodology for the requested metals.

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB & CCB), and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verification (PBW & LCSWD) was found to be within acceptable ranges and the field samples were prepared and analyzed within the specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spikes, CCN = 0906006-01 ID 13MW5S and 13MW5SD were inside control limits for the requested analytes except tin.

Control limits for matrix spikes recoveries are set at 75% to 125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more. In this case, affected analytes are not flagged even if recoveries are outside percentage recovery control limits.

The sample matrix duplicate, CCN = 0906006-01 ID 13MW5D was inside control limits for the requested analytes.

CLP control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and +/- the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A five-fold serial dilution of sample, CCN = 0906006-01 ID 13MW5L was performed in accordance with requirements for ICP/MS and mercury analysis.

The adjusted sample concentration was inside control limits for the requested analytes.

The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package. Furthermore, I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

L. Forrester for Susan Bass

Susan W. Bass
Senior Chemist
June 4, 2009

CompuChem

A Division Of

Liberty Analytical Corp.

DATA REPORTING QUALIFIERS FOR INORGANICS

On Form I, under the column labeled "C" for concentration qualifier and "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each analyte.

The C (concentration) qualifiers used are:

U: This flag indicates the analyte was analyzed for but not detected. This reported value was obtained from a reading that was less than the Instrument Detection Limit (IDL). The IDL will be adjusted to reflect any dilution and, for soils, the percent moisture.

B: This flag indicates the analyte was analyzed for and the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).

The Q qualifiers used are:

E: This flag indicates an estimated value. This flag is used:

1. When the serial dilution (a five fold dilution for CLP and a five fold dilution for SW-846 method 6010B) results are not within 10%. The analyte concentration must be sufficiently high (minimally a factor of 50X above the IDL in the original sample).

N: This flag indicates the sample spike recovery is outside of control limits:

*: This flag is used for duplicate analysis when the sample and the sample duplicate results are not within control limits.

The extensions: D, S, SD, L. A, added to the end of the client ID represent as follows:

D:	matrix duplicate
S:	matrix spike
SD:	matrix spike duplicate
L:	serial dilution
A:	post digestion spike

Method Codes:

P:	ICP PLASMA
CV:	MERCURY COLD VAPOR AA
CA:	MIDI-DISTILLATION SPECTROPHOTOMETRIC
MS:	MASS SPECTROMETRY
AS:	SEMI-AUTOMATED SPECTROPHOTOMETRIC

3. Sample Traffic Reports/ Chain-Of-Custody Records

CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine	8330 - Explosives	Appdx 9 Herbs 8151A	Perchlorate 314.0	ICP 6010B/3005A/ theHmm 7000 (Metals-Total)	7470A (Mercury-Total)	Cyanide 9014	Sulfide 9030B	Appdx 9 SV 8270C	Appdx 9 PEST 8081A	Appdx 9 PCBs 8082	
Box 4 - Sample Type					G	G	G	G	G	G	G	G	G	G	G	
Box 3 - Filtered/Unfiltered					U	U	U	U	U	U	U	U	U	U	U	
Required pH of Sample									<2	<2	>12	>9				
Box 2 - Preservative					H	H	H	H	B	B	E/F	E	H	H	H	
Box 5 - Sample Container Type					2-1L A	2-1L A	2-1L A	1-500 ml P			P	P	2-1L A	2-1L A		
13MW1 ✓	4/14	0935	GW	3	X	X		X	X<2	X			X			0904103-01
13MW2 ✓	4/14	0815	GW	3	X	X		X	X<2	X			X			0904103-02
13MW3 ✓	4/13	1200	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-02
13MW4 ✓		1035	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-03
13MWDUP ✓		1050	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-04
13MW5 ✓	4/13	0850	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-01
13MW6 ✓	4/13	0740	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-05
13MW7 ✓	4/14	1050	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-06

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW-1 + 13MW-2. JDF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

per client: rescheduled as 6010B 6/1/09 JDF

6020 resch.

0906006-02 / 0906005-02
0906006-03 / 0906005-03
0906006-04 / 0906005-04
0906006-01 / 0906005-01
0906006-05 / 0906005-05
0906006-06 / 0906005-06

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 1.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Eddington	Date: 4/15/09	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Eddington	Date: 4/15/09	#2 Received by (Signature): Lee F Shannon	Date: 4/16/09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 AM PM	

9 - Rdp 4-15-09 1615 Compuchem

1/10 JDF 3.31.09

44

10/10

Analyte
Thallium
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Nickel
Selenium
Silver
Tin
Vanadium
Zinc
Mercury

6020 OK JVR 3.31.09

7470A. OK JVR

OBG
2Q09
Upperdix IK event

13MW3, 13MW4, 13MWDUP, 13MW5, 13MW6, 13MW7

OK JVR 3.31.09

QB

B. Sample Data

1. Results
2. Quality Control Data
3. Raw Data
4. Digestion and Distillation Logs

LAB CODE : LIBRTY CONTRACT # : SW846

SDG # : 0906006

AMENDED DATA

1. Results

Sample results shall be arranged in packets with the Inorganic Analysis Data Sheet [Form IA – IN and Form IB – IN]. These sample packets shall be placed in increasing alphanumeric EPA sample number order, considering both letters and numbers, and shall include all the samples in the SDG.

AMENDED
DATA

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Lab Sample ID: 0906006-02

Level (low/med): LOW Date Received: 6/1/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.5	U		MS
7440-38-2	Arsenic	1.8	U		MS
7440-39-3	Barium	81.0			MS
7440-41-7	Beryllium	0.80	U		MS
7440-43-9	Cadmium	0.60	U		MS
7440-47-3	Chromium	1.6	B		MS
7440-48-4	Cobalt	0.80	U		MS
7440-50-8	Copper	1.5	U		MS
7439-92-1	Lead	1.5	U		MS
7440-02-0	Nickel	2.1	B		MS
7782-49-2	Selenium	1.0	U		MS
7440-22-4	Silver	0.70	U		MS
7440-28-0	Thallium	2.0	U		MS
7440-31-5	Tin	2.1	U	N	MS
7440-62-2	Vanadium	0.40	U		MS
7440-66-6	Zinc	2.7	U		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AMENDED DATA

SW846 - METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MW4

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Lab Sample ID: 0906006-03

Level (low/med): LOW Date Received: 6/1/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.5	U		MS
7440-38-2	Arsenic	1.8	U		MS
7440-39-3	Barium	41.5			MS
7440-41-7	Beryllium	0.80	U		MS
7440-43-9	Cadmium	0.60	U		MS
7440-47-3	Chromium	1.6	B		MS
7440-48-4	Cobalt	0.80	U		MS
7440-50-8	Copper	1.5	U		MS
7439-92-1	Lead	1.5	U		MS
7440-02-0	Nickel	2.6	B		MS
7782-49-2	Selenium	1.0	U		MS
7440-22-4	Silver	0.70	U		MS
7440-28-0	Thallium	2.0	U		MS
7440-31-5	Tin	2.1	U	N	MS
7440-62-2	Vanadium	0.40	U		MS
7440-66-6	Zinc	3.1	B		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AMENDED DATA

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: 13MW5

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Lab Sample ID: 0906006-01

Level (low/med): LOW Date Received: 6/1/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.5	U		MS
7440-38-2	Arsenic	1.8	U		MS
7440-39-3	Barium	106			MS
7440-41-7	Beryllium	0.80	U		MS
7440-43-9	Cadmium	0.60	U		MS
7440-47-3	Chromium	3.3	B		MS
7440-48-4	Cobalt	0.80	U		MS
7440-50-8	Copper	1.5	U		MS
7439-92-1	Lead	1.5	U		MS
7440-02-0	Nickel	2.9	B		MS
7782-49-2	Selenium	2.1	B		MS
7440-22-4	Silver	0.70	U		MS
7440-28-0	Thallium	2.0	U		MS
7440-31-5	Tin	2.1	U	N	MS
7440-62-2	Vanadium	0.40	U		MS
7440-66-6	Zinc	2.7	U		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AMENDED DATA

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Lab Sample ID: 0906006-05

Level (low/med): LOW Date Received: 6/1/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.5	U		MS
7440-38-2	Arsenic	1.8	U		MS
7440-39-3	Barium	75.8			MS
7440-41-7	Beryllium	0.80	U		MS
7440-43-9	Cadmium	0.60	U		MS
7440-47-3	Chromium	1.4	B		MS
7440-48-4	Cobalt	0.80	U		MS
7440-50-8	Copper	1.5	U		MS
7439-92-1	Lead	1.5	U		MS
7440-02-0	Nickel	3.7	B		MS
7782-49-2	Selenium	3.2	B		MS
7440-22-4	Silver	0.70	U		MS
7440-28-0	Thallium	2.0	U		MS
7440-31-5	Tin	2.1	U	N	MS
7440-62-2	Vanadium	0.40	U		MS
7440-66-6	Zinc	2.8	B		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AMENDED DATA

SW846 - METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MW7

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Lab Sample ID: 0906006-06

Level (low/med): LOW Date Received: 6/1/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.5	U		MS
7440-38-2	Arsenic	1.8	U		MS
7440-39-3	Barium	125			MS
7440-41-7	Beryllium	0.80	U		MS
7440-43-9	Cadmium	0.60	U		MS
7440-47-3	Chromium	1.4	B		MS
7440-48-4	Cobalt	0.80	U		MS
7440-50-8	Copper	1.5	U		MS
7439-92-1	Lead	1.5	U		MS
7440-02-0	Nickel	222			MS
7782-49-2	Selenium	2.3	B		MS
7440-22-4	Silver	0.70	U		MS
7440-28-0	Thallium	2.0	U		MS
7440-31-5	Tin	2.1	U	N	MS
7440-62-2	Vanadium	0.40	U		MS
7440-66-6	Zinc	6.8			MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AMENDED DATA

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MWDUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Lab Sample ID: 0906006-04

Level (low/med): LOW Date Received: 6/1/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	3.5	U		MS
7440-38-2	Arsenic	1.8	U		MS
7440-39-3	Barium	41.0			MS
7440-41-7	Beryllium	0.80	U		MS
7440-43-9	Cadmium	0.60	U		MS
7440-47-3	Chromium	1.5	B		MS
7440-48-4	Cobalt	0.80	U		MS
7440-50-8	Copper	1.5	U		MS
7439-92-1	Lead	1.5	U		MS
7440-02-0	Nickel	2.6	B		MS
7782-49-2	Selenium	1.0	U		MS
7440-22-4	Silver	0.70	U		MS
7440-28-0	Thallium	2.0	U		MS
7440-31-5	Tin	2.1	U	N	MS
7440-62-2	Vanadium	0.40	U		MS
7440-66-6	Zinc	2.8	B		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AMENDED DATA

2. Quality Control (QC) Data

a. Initial and Continuing Calibration Verification
[Form IIA - IN]

b. CRQL Check Standard
[Form IIB - IN]

c. Blanks
[Form III - IN]

d. ICP-MS Interference Check Sample
[Form IVB - IN]

e. Matrix Spike Sample Recovery
[Form VA - IN]

f. Post Digest Spike Sample Recovery
[Form VB - IN]

g. Duplicates
[Form VI - IN]

h. Laboratory Control Sample
[Form VII - IN]

i. ICP-MS Serial Dilutions
[Form VIII - IN]

j. Method Detection Limits (Annually)
[Form IX - IN]

k. ICP-MS Linear Ranges (Quarterly)
[Form XI – IN]

l. Preparation Log
[Form XII - IN]

m. Analysis Run Log
[Form XIII - IN]

n. ICP-MS Tune
[Form XIV – IN]

o. ICP-MS Internal Standards Relative Intensity Summary
[Form XV – IN]

AMENDED DATA

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Initial Calibration Source: EPA-0307

Continuing Calibration Source: HP615001

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Antimony	198.0	209.42	106	120.0	119.38	99	118.84	99	MS
Arsenic	199.0	202.64	102	120.0	118.34	99	119.79	100	MS
Barium	100.0	108.26	108	120.0	120.91	101	121.42	101	MS
Beryllium	99.0	101.19	102	120.0	115.97	97	118.25	99	MS
Cadmium	99.0	104.31	105	120.0	120.59	100	120.70	101	MS
Chromium	98.0	102.28	104	120.0	119.59	100	121.37	101	MS
Cobalt	99.0	104.91	106	120.0	121.10	101	123.31	103	MS
Copper	98.0	104.16	106	120.0	119.74	100	121.65	101	MS
Lead	199.0	217.98	110	120.0	120.71	101	120.66	101	MS
Nickel	98.0	105.57	108	120.0	121.61	101	122.42	102	MS
Selenium	201.0	203.11	101	120.0	120.67	101	120.81	101	MS
Silver	99.0	106.99	108	120.0	120.42	100	121.47	101	MS
Thallium	205.0	225.80	110	120.0	116.28	97	117.30	98	MS
Tin	100.0	103.09	103	120.0	120.51	100	120.74	101	MS
Vanadium	100.0	104.63	105	120.0	119.55	100	121.38	101	MS
Zinc	200.0	202.88	101	120.0	118.33	99	119.62	100	MS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide SW-846

AMENDED DATA

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Initial Calibration Source: EPA-0307

Continuing Calibration Source: HP615001

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Antimony				120.0	120.42	100			MS
Arsenic				120.0	118.94	99			MS
Barium				120.0	121.00	101			MS
Beryllium				120.0	116.30	97			MS
Cadmium				120.0	121.77	101			MS
Chromium				120.0	120.85	101			MS
Cobalt				120.0	123.13	103			MS
Copper				120.0	121.93	102			MS
Lead				120.0	119.82	100			MS
Nickel				120.0	123.06	103			MS
Selenium				120.0	120.17	100			MS
Silver				120.0	119.81	100			MS
Thallium				120.0	118.47	99			MS
Tin				120.0	119.95	100			MS
Vanadium				120.0	119.43	100			MS
Zinc				120.0	120.59	100			MS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

AMENDED DATA

SW846 - METALS

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0906006

AA CRDL Standard Source: _____

ICP CRDL Standard Source: HP527008

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Antimony				2.0	2.22	0		
Arsenic				1.0	1.08	0		
Barium				10.0	9.57	96		
Beryllium				1.0	0.99	99		
Cadmium				1.0	0.94	94		
Chromium				2.0	2.02	101		
Cobalt				1.0	1.01	101		
Copper				2.0	2.03	102		
Lead				1.0	0.95	0		
Nickel				1.0	1.00	100		
Selenium				5.0	5.09	102		
Silver				1.0	1.03	103		
Thallium				1.0	0.96	0		
Tin				1.0	1.00	0		
Vanadium				5.0	5.02	100		
Zinc				2.0	1.89	0		

Control Limits: no limits have been established by EPA at this time

AMENDED DATA

SW846 - METALS

3

BLANKS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	3.500	U	3.500	U	3.500	U	3.500	U	3.500	U	MS
Arsenic	1.800	U	1.800	U	1.800	U	1.800	U	1.800	U	MS
Barium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Beryllium	0.800	U	0.800	U	0.800	U	0.800	U	0.800	U	MS
Cadmium	0.600	U	0.600	U	0.600	U	0.600	U	0.600	U	MS
Chromium	1.100	U	1.100	U	1.100	U	1.100	U	1.100	U	MS
Cobalt	0.800	U	0.800	U	0.800	U	0.800	U	0.800	U	MS
Copper	1.500	U	1.500	U	1.500	U	1.500	U	1.500	U	MS
Lead	1.500	U	1.500	U	1.500	U	1.500	U	1.500	U	MS
Nickel	0.900	U	0.900	U	0.900	U	0.900	U	0.900	U	MS
Selenium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Silver	0.700	U	0.700	U	0.700	U	0.700	U	0.700	U	MS
Thallium	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Tin	2.100	U	2.100	U	2.100	U	2.100	U	2.100	U	MS
Vanadium	0.400	U	0.400	U	0.400	U	0.400	U	0.400	U	MS
Zinc	2.700	U	2.700	U	2.700	U	2.700	U	2.700	U	MS

AMENDED DATA

SW846 - METALS

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

ICP ID Number: PEMS ICS Source: EPA-803

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Antimony	2	22	1.1	18.7	85			
Arsenic	0	19	0.15	15.8	83			
Barium	1	22	1.2	18.2	83			
Beryllium	0	19	0.35	18.3	96			
Cadmium	1	20	0.62	16.6	83			
Chromium	21	40	17.9	35.2	88			
Cobalt	1	20	1.1	17.9	90			
Copper	8	25	7.5	21.7	87			
Lead	4	25	3.9	22.8	91			
Nickel	6	24	6.4	22.8	95			
Selenium	0	19	0.15	16.1	85			
Silver	0	18	0.023	15.6	87			
Thallium	0	21	0.0060	19.3	92			
Tin	0	20	0.16	21.0	105			
Vanadium	1	19	-0.36	17.6	93			
Zinc	11	29	11.4	25.2	87			

AMENDED DATA

SW846 - METALS

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

13MW5S

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	85.4943		3.5000	U	100.00	85		MS
Arsenic	75 - 125	39.5509		1.8000	U	40.00	99		MS
Barium	75 - 125	1931.0850		106.0508		2000.00	91		MS
Beryllium	75 - 125	49.7769		0.8000	U	50.00	100		MS
Cadmium	75 - 125	42.4612		0.6000	U	50.00	85		MS
Chromium	75 - 125	201.0865		3.3243	B	200.00	99		MS
Cobalt	75 - 125	501.3836		0.8000	U	500.00	100		MS
Copper	75 - 125	230.6310		1.5000	U	250.00	92		MS
Lead	75 - 125	17.9854		1.5000	U	20.00	90		MS
Nickel	75 - 125	485.7754		2.9052	B	500.00	97		MS
Selenium	75 - 125	12.0085		2.0711	B	10.00	99		MS
Silver	75 - 125	41.6966		0.7000	U	50.00	83		MS
Thallium	75 - 125	44.3410		2.0000	U	50.00	89		MS
Tin	75 - 125	58.3989		2.1000	U	100.00	58	N	MS
Vanadium	75 - 125	537.7007		0.4000	U	500.00	108		MS
Zinc	75 - 125	457.1925		2.7000	U	500.00	91		MS

Comments:

AMENDED DATA

SW846 - METALS

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

13MW5SD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	83.6117		3.5000	U	100.00	84		MS
Arsenic	75 - 125	37.6460		1.8000	U	40.00	94		MS
Barium	75 - 125	1895.3620		106.0508		2000.00	89		MS
Beryllium	75 - 125	47.8158		0.8000	U	50.00	96		MS
Cadmium	75 - 125	42.6904		0.6000	U	50.00	85		MS
Chromium	75 - 125	194.4381		3.3243	B	200.00	96		MS
Cobalt	75 - 125	481.8677		0.8000	U	500.00	96		MS
Copper	75 - 125	217.9709		1.5000	U	250.00	87		MS
Lead	75 - 125	17.9143		1.5000	U	20.00	90		MS
Nickel	75 - 125	457.0800		2.9052	B	500.00	91		MS
Selenium	75 - 125	11.5283		2.0711	B	10.00	95		MS
Silver	75 - 125	41.1020		0.7000	U	50.00	82		MS
Thallium	75 - 125	44.2031		2.0000	U	50.00	88		MS
Tin	75 - 125	58.0180		2.1000	U	100.00	58	N	MS
Vanadium	75 - 125	520.7639		0.4000	U	500.00	104		MS
Zinc	75 - 125	435.7402		2.7000	U	500.00	87		MS

Comments:

AMENDED DATA

SW846 - METALS

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

13MW5A

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Tin		2.10	U	2.10	U	2.0	0		MS

Comments:

AMENDED DATA

SW846 - METALS

6

DUPLICATES

SAMPLE NO.

13MW5D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Antimony		3.5000	U	3.5000	U			MS
Arsenic		1.8000	U	1.8000	U			MS
Barium		106.0508		104.6469		1		MS
Beryllium		0.8000	U	0.8000	U			MS
Cadmium		0.6000	U	0.6000	U			MS
Chromium		3.3243	B	3.3232	B	0		MS
Cobalt		0.8000	U	0.8000	U			MS
Copper		1.5000	U	1.5000	U			MS
Lead		1.5000	U	1.5000	U			MS
Nickel		2.9052	B	2.9849	B	3		MS
Selenium		2.0711	B	1.7929	B	14		MS
Silver		0.7000	U	0.7000	U			MS
Thallium		2.0000	U	2.0000	U			MS
Tin		2.1000	U	2.1000	U			MS
Vanadium		0.4000	U	0.4416	B	200.0		MS
Zinc		2.7000	U	2.7000	U			MS

AMENDED DATA

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0906006

Solid LCS Source: _____

Aqueous LCS Source: EPA-0307

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony	198.0	212.48	107						
Arsenic	199.0	216.91	109						
Barium	100.0	109.28	109						
Beryllium	99.0	105.57	107						
Cadmium	99.0	108.68	110						
Chromium	98.0	111.02	113						
Cobalt	99.0	112.84	114						
Copper	98.0	110.12	112						
Lead	199.0	220.15	111						
Nickel	98.0	112.22	115						
Selenium	201.0	218.90	109						
Silver	99.0	110.50	112						
Thallium	205.0	225.04	110						
Tin	100.0	112.21	112						
Vanadium	100.0	111.37	111						
Zinc	200.0	215.75	108						

AMENDED DATA

9

ICP SERIAL DILUTIONS

SAMPLE NO.

13MW5L

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Antimony	3.50	U	17.50	U			MS
Arsenic	1.80	U	9.00	U			MS
Barium	106.05		140.73		33		MS
Beryllium	0.80	U	4.00	U			MS
Cadmium	0.60	U	3.00	U			MS
Chromium	3.32	B	5.50	U	100.0		MS
Cobalt	0.80	U	4.00	U			MS
Copper	1.50	U	7.50	U			MS
Lead	1.50	U	7.50	U			MS
Nickel	2.91	B	4.50	U	100.0		MS
Selenium	2.07	B	5.00	U	100.0		MS
Silver	0.70	U	3.50	U			MS
Thallium	2.00	U	10.00	U			MS
Tin	2.10	U	10.50	U			MS
Vanadium	0.40	U	2.00	U			MS
Zinc	2.70	U	13.50	U			MS

AMENDED DATA

SW846 - METALS

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0906006

ICP ID Number: PEMS Date: 4/26/2009

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Isotope	Back-ground	CRQL (ug/L)	IDL (ug/L)	M
Antimony	121		5	3.500	MS
Arsenic	75		5	1.800	MS
Barium	137		1	1.000	MS
Beryllium	9		1	0.800	MS
Cadmium	111		1	0.600	MS
Chromium	52		5	1.100	MS
Cobalt	59		5	0.800	MS
Copper	63		5	1.500	MS
Lead	208		5	1.500	MS
Nickel	60		5	0.900	MS
Selenium	82		5	1.000	MS
Silver	107		2	0.700	MS
Thallium	205		2.0	2.000	MS
Tin	118		10	2.100	MS
Vanadium	51		5	0.400	MS
Zinc	66		5	2.700	MS

Comments: AMENDED DATA

SW846 - METALS

12

ICP LINEAR RANGES (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0906006

ICP ID Number: PEMS Date: 4/15/2009

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Antimony	0.200	3000.0	MS
Arsenic	1.500	4000.0	MS
Barium	0.500	3000.0	MS
Beryllium	0.500	4000.0	MS
Cadmium	0.200	4000.0	MS
Chromium	0.200	4000.0	MS
Cobalt	0.500	4000.0	MS
Copper	0.300	3000.0	MS
Lead	0.200	3000.0	MS
Nickel	0.300	3000.0	MS
Selenium	1.500	2000.0	MS
Silver	0.300	4000.0	MS
Thallium	0.200	3000.0	MS
Tin	0.200	200.0	MS
Vanadium	0.500	4000.0	MS
Zinc	0.300	3000.0	MS

Comments: AMENDED DATA

SW846 - METALS

13

PREPARATION LOG

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0906006

Method: MS

EPA Sample No.	Preparation Date		Volume (mL)
13MW3	6/2/2009		50.0
13MW4	6/2/2009		50.0
13MW5	6/2/2009		50.0
13MW5D	6/2/2009		50.0
13MW5S	6/2/2009		50.0
13MW5SD	6/2/2009		50.0
13MW6	6/2/2009		50.0
13MW7	6/2/2009		50.0
13MWDUP	6/2/2009		50.0
LCSW	6/2/2009		50.0
PBW	6/2/2009		50.0

AMENDED DATA

SW846 - METALS

14

ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Instrument ID Number: PEMS Method: MS

Start Date: 6/3/2009 End Date: 6/3/2009

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN	
TUNE	1.00	1035																													
S0	1.00	1139			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
S2	1.00	1141			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
S20	1.00	1143			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
S200	1.00	1146			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
ICV	1.00	1148			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
ICB	1.00	1150			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
CRI	1.00	1152			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
ICSA	1.00	1154			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
ICSAB	1.00	1156			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
CCV	1.00	1158			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
CCB	1.00	1200			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
PBW	1.00	1202			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
LCSW	1.00	1204			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW5	1.00	1206			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW5D	1.00	1208			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW5S	1.00	1210			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW5SD	1.00	1212			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW5L	5.00	1215			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW5A	1.00	1217																										*
13MW3	1.00	1219			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
CCV	1.00	1221			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
CCB	1.00	1223			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW4	1.00	1225			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MWDUP	1.00	1227			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW6	1.00	1229			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
13MW7	1.00	1231			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
ZZZZZZ	1.00	1233																										
CCV	1.00	1235			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*
CCB	1.00	1237			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X		*

AMENDED DATA

SW846 - METALS

-14-

ANALYSIS RUN LOG

Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0906006

Instrument ID Number: PEMS Method: MS

Start Date: 6/3/2009 End Date: 6/3/2009

Sample ID.	D/F	Time	% R	Analytes																								
				B	AU	LI	MO	OS	PD	P	PT	SI	S	SN	SR	TI	U	W	IN	TH								
TUNE	1.00	10:35																										
S0	1.00	11:39												X														
S2	1.00	11:41												X														
S20	1.00	11:43												X														
S200	1.00	11:46												X														
ICV	1.00	11:48												X														
ICB	1.00	11:50												X														
CRI	1.00	11:52												X														
ICSA	1.00	11:54												X														
ICSAB	1.00	11:56												X														
CCV	1.00	11:58												X														
CCB	1.00	12:00												X														
PBW	1.00	12:02												X														
LCSW	1.00	12:04												X														
13MW5	1.00	12:06												X														
13MW5D	1.00	12:08												X														
13MW5S	1.00	12:10												X														
13MW5SD	1.00	12:12												X														
13MW5L	5.00	12:15												X														
13MW5A	1.00	12:17												X														
13MW3	1.00	12:19												X														
CCV	1.00	12:21												X														
CCB	1.00	12:23												X														
13MW4	1.00	12:25												X														
13MWDUP	1.00	12:27												X														
13MW6	1.00	12:29												X														
13MW7	1.00	12:31												X														
ZZZZZZ	1.00	12:33																										
CCV	1.00	12:35												X														
CCB	1.00	12:37												X														

AMENDED DATA

SW846 - METALS

14 - IN

ICP-MS Tune

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ NRAS No.: _____ SDG NO.: 0906006

ICP-MS Instrument ID: PEMS Date: 06/03/2009

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	%RSD
Be_9	8.98	0.71	0.52
Mg_24	23.93	0.76	1.08
Mg_25	24.98	0.77	1.40
Mg_26	25.98	0.71	1.15
Co_59	58.93	0.69	0.84
In_113	112.93	0.71	1.33
In_115	114.93	0.72	0.85
Pb_206	205.98	0.72	1.00
Pb_207	206.98	0.72	0.83
Pb_208	208.03	0.73	0.92

Comments: AMENDED DATA

SW846 - METALS

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: NRAS No.: SDG NO.: 0906006

ICP-MS Instrument ID: PEMS Start Date: 06/03/2009 End Date: 06/03/2009

Sample No.	Client ID	Time	Internal Standards %RI For: Element Li_6	Q	Element Sc_45	Q	Element In_115	Q	Element Tb_159	Q	Element Bi_209	Q	Element	Q
S0	S0	1139	100		100		100		100		100			
S2	S2	1141	100		102		99		100		99			
S20	S20	1143	101		103		101		100		99			
S200	S200	1146	98		101		97		98		95			
ICV1	ICV	1148	98		102		96		97		92			
ICB1	ICB	1150	98		100		99		100		98			
CRDL1	CRI	1152	99		101		100		101		99			
ICS-A1	ICSA	1154	113		97		93		102		84			
ICS-AB1	ICSAB	1156	116		109		103		113		90			
CCV1	CCV	1158	106		106		101		101		95			
CCB1	CCB	1200	106		106		101		101		96			
9060135-BLK	PBW	1202	106		105		101		101		96			
9060135-BS1	LCSW	1204	99		99		95		96		90			
0906006-01	13MW5	1206	108		104		111		113		98			
9060135-DUP	13MW5D	1208	111		105		112		115		99			
9060135-MS1	13MW5S	1210	100		97		104		107		94			
9060135-MSD	13MW5SD	1212	104		103		106		110		96			
0906006-01	13MW5L	1215	97		95		101		102		93			
0906006-01	13MW5A	1217	103		100		106		108		95			
0906006-02	13MW3	1219	103		99		107		110		96			
CCV2	CCV	1221	103		101		97		98		92			
CCB2	CCB	1223	98		98		95		96		92			
0906006-03	13MW4	1225	99		99		105		106		96			
0906006-04	13MWDUP	1227	105		103		108		109		97			
0906006-05	13MW6	1229	102		97		102		105		90			
0906006-06	13MW7	1231	101		98		102		106		91			
CRDL2	ZZZZZZ	1233	0											
CCV3	CCV	1235	102		101		96		97		91			
CCB3	CCB	1237	101		100		99		97		94			

AMENDED DATA

3. Raw Data

For each reported value, the laboratory shall include in the data package all raw data used to obtain that value. This applies to all required QA/QC measurements, instrument standardization, as well as all sample analysis results. This does not apply to the quarterly verification of method and instrument parameters submitted as a part of each data package.

Daily Instrument Profile

Detector Cross Cal: 033107
Analog Voltage: 850
Pulse Voltage: -1850
Nebulizer Pressure: 0.89

Maintenance: DONE

Printed: 6/3/2009

Method(s) (circle one): ILM05.4 (SW-846 6020) Other _____

Operator(s): JJK

Date/Time 060309/1139 **to** 060309/1237

Tune Date/Time 060309/1035

↑	Specified element(s) fail(s) high
↓	Specified element(s) fail(s) low
RR	Re-run sample(s) neat
RR #X	Re-run at a #-fold dilution
#X	Sample run at a #-fold dilution (aliquot of sample diluted with acidified water)
L	Matrix = leachate
W	Matrix = water
S	Matrix = solid
B	Matrix = biological tissue

SDG	Matrix	Comments
0906006	Water	Custom Complete

ICP-MS Run Log: PEM

File Name: PEMSJCF060309A

Sample ID	Client ID	Sample Type	DF	Date	Time	SDG	Action Needed
-TUNE	Tune	CALIB STD					
S0	S0	CALIB STD	1	06/03/09	11:39:47		
S2	S2	CALIB STD	1	06/03/09	11:41:51		
S20	S20	CALIB STD	1	06/03/09	11:43:55		
S200	S200	CALIB STD	1	06/03/09	11:46:00		
ICV	ICV	ICV	1	06/03/09	11:48:04		
ICB	ICB	ICB	1	06/03/09	11:50:09		
CRI	CRI	CRI	1	06/03/09	11:52:14		
ICSA	ICSA	ICS	1	06/03/09	11:54:18		
ICSAB	ICSAB	ICS	1	06/03/09	11:56:23		
CCV	CCV	CCV	1	06/03/09	11:58:28		
CCB	CCB	CCB	1	06/03/09	12:00:32		
9060135-BLK1	PBW	BLANK	1	06/03/09	12:02:36		
9060135-BS1	LCSW	LCS	1	06/03/09	12:04:41		
0906006-01	13MW5	SAMPLE	1	06/03/09	12:06:45	0906006	
9060135-DUP1	13MW5D	DUPLICATE	1	06/03/09	12:08:50	0906006	
9060135-MS1	13MW5S	MATRIX SPIK	1	06/03/09	12:10:54	0906006	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 6-4-9

ICP-MS Run Log: PEM

File Name: PEMSJCF060309A

Sample ID	Client ID	Sample Type	DF	Date	Time	SDG	Action Needed
9060135-MSD1	9060135-MSD1	SAMPLE	1	06/03/09	12:12:59	0906006	
SDI0906006-01	SDI0906006-01	CALIB STD	5	06/03/09	12:15:03	0906006	
9060135-PS1	PDS0906006-01	PDS	1	06/03/09	12:17:07	0906006	
0906006-02	13MW3	SAMPLE	1	06/03/09	12:19:11	0906006	
CCV	CCV	CCV	1	06/03/09	12:21:18		
CCB	CCB	CCB	1	06/03/09	12:23:22		
0906006-03	13MW4	SAMPLE	1	06/03/09	12:25:29	0906006	
0906006-04	13MWDUP	SAMPLE	1	06/03/09	12:27:33	0906006	
0906006-05	13MW6	SAMPLE	1	06/03/09	12:29:37	0906006	
0906006-06	13MW7	SAMPLE	1	06/03/09	12:31:42	0906006	
CRI	CRI	CRI	1	06/03/09	12:33:47		
CCV	CCV	CCV	1	06/03/09	12:35:53		
CCB	CCB	CCB	1	06/03/09	12:37:57		

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5-4-9

Standards/QC Preparation for ICP-MS (PEMS) 1 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

STANDARDS and REAGENTS TRACEABILITY Seq. File Name : PEMS1CF060309/PEMS1MF060309A

STANDARD / REAGENT	Ref # *	Manufacturer	Lot #	Expiration Date
Nitric Acid (HNO3)	NHO3-D-031109-JCF	JT Baker	G17027	03/10
Hydrochloric Acid (HCl)	HCL-D-112508-JCF	Caledon	60544	11/09
ICP-MS-TS-3 (Tuning Soln)	7m1-40-15	High Purity	0801020	07/20/09
Q-6042-M (CAL Standard)	7m1-42-11	NSI	123008	01/10
ICV-1 (0307) multi-element solution	7M1-40-28	EPA	0307	0909
SM-770-032 (CP-MS-CRQL-Rev multi-element solution)	7m1-41-13/8K07008	High Purity	0830418	10/31/09
ICSA (0803) multi-element solution	7M1-39-02	EPA	0803	0909
ICSAB (0803) multi-element solution	7M1-39-03	EPA	0803	0909
LITHIUM^{6} (Li^{6}) 1000 mg/L single element standard	7M1-40-13	High Purity	0712718	01/03/10
SCANDIUM (Sc) 1,000 mg/L single element standard	7m1-42-10/8L17019	High Purity	0801101	06/15/10
INDIUM (In) 1,000 mg/L single element standard	7m1-42-8/8L17017	High Purity	0808613	06/15/10
TERBIUM (Tb) 1,000 mg/L single element standard	7m1-42-9/8L17018	High Purity	0811919	06/15/10
BISMUTH (Bi) 1,000 mg/L single element standard	7m1-40-22	High Purity	0732309	01/23/10
TIN (Sn) 10 µg/ml single element standard	7M1-42-12	NSI	1020008-SN	10/10
MOLYBDENUM (Mo) 10 µg/ml single element standard	7M1-42-13	NSI	1020008-MO	10/10
Water Spike Sample D ICP-MS Matrix Spike multi-element solution	1m2-186-28	High Purity	0835021	12/17/09

Entered By: J. Feldhaus

Reviewed By: _____ Date: 5-4-5

*Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

10.12.07:jcf

Multi-Element Stock Standard Concentrations:

Stock Standard	Analyte Concentrations (µg/mL)
Tuning Solution	Be: 10 Mg: 10 Co: 10 In: 10 Pb: 10
CAL standard	Al: 1000 Sb: 100 As: 100 Ba: 100 Be: 100 B: 100 Cd: 100 Ca: 1000 Cr: 100 Co: 100 Cu: 100 Fe: 1000 Pb: 100 Mg: 1000 Mn: 100 Mo: 100 Ni: 100 K: 1000 Se: 100 Si: 100 Ag: 100 Na: 1000 Tl: 100 Ti: 100 V: 100 Zn: 100 Sn: 100 Sr: 100
CP-MS-CRQL-Rev multi-element solution	Be: 1 V: 5 Cr: 2 Mn: 1 Co: 1 Ni: 1 Cu: 2 Zn: 2 As: 1 Se: 5 Ag: 1 Cd: 1 Sb: 2 Ba: 10 Tl: 1 Pb: 1 Al: 30 Sn: 1 Mo: 1

Entered By: J. Feldhaus

Reviewed By: _____ Date: 6-4-5

Standards/QC Preparation for ICP-MS (PEMS) 3 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

Standard Lot Number *	Preparation Instructions	Resultant Analyte Conc. (µg/L)
Instrument Tune Solution– 06 01 09- JCF	Place in a 500-mLvolumetric flask: 0.5 mL of PRE-Tuning solution and 5 mL distilled nitric acid. Dilute to volume with deionized water	Li^7: 10 Be: 10 Mg: 10 Co: 10 In: 10 Ce: 10 Pb: 10 U: 10
Internal Standard– 04 06 0 9 – JCF	Place in a 100-mLvolumetric flask: 50 mL of deionized water , 1.0 mL of distilled nitric acid. Pipet: 2.0 ml of $Lithium^6$, 1.0 ml of Scandium, 1.0 ml of Indium, 1.0 ml of Terbium, and 1.0 ml of Bismuth. Dilute to volume with deionized water	Li^6: 20000 Sc: 10000 In: 10000 Tb: 10000 Bi: 10000
S0/ICB/CCB– 06 03 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1mL Internal Standard.Dilute to volume with deionized water. Prepare Daily.	Li^6: 200 Sc: 100 In: 100 Tb: 100 Bi: 100
S1– 06 01 0 9 – JCF SW-846	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.001 ml of CAL Standard and 0.040 mL of 100 ug/mL of Aluminum into flask. Dilute to volume with deionized water	Li^6: 200 Be: 1 Al: 50 Sc: 100 V: 1 Cr: 1 Mn: 1 Co: 1 Ni: 1 Cu: 1 Zn: 1 As: 1 Se: 1 Mo: 1 Ag: 1 Cd: 1 In: 100 Sn: 1 Sb: 1 Ba: 1 Tb: 100 Tl: 1 Pb: 1 Bi: 100
S2– 06 01 0 9 – JCF	Place in a 100-mL volumetric flask: Pipet 1.0 mL distilled nitric acid and 1 mL Internal Standard. 0.002 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 2 Sc: 100 V: 2 Cr: 2 Mn: 2 Co: 2 Ni: 2 Cu: 2 Zn: 2 As: 2 Se: 2 Mo: 2 Ag: 2 Cd: 2 In: 100 Sn: 2 Sb: 2 Ba: 2 Tb: 100 Tl: 2 Pb: 2 Bi: 100 Al: 20 Ca: 20 Na: 20 Mg: 20 Fe: 20 K: 20
S20–06 01 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.020 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 20 Al: 200 Sc: 100 V: 20 Cr: 20 Mn: 20 Co: 20 Ni: 20 Cu: 20 Zn: 20 As: 20 Se: 20 Mo: 20 Ag: 20 Cd: 20 In: 100 Sn: 20 Sb: 20 Ba: 20 Tb: 100 Tl: 20 Pb: 20 Bi: 100 Al: 200 Ca: 200 Na: 200 Mg: 200 Fe: 200 K: 200
S200–06 01 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.200 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 200 Al: 2000 Sc: 20 V: 200 Cr: 200 Mn: 200 Co: 200 Ni: 200 Cu: 200 Zn: 200 As: 200 Se: 200 Mo: 200 Ag: 200 Cd: 200 In: 20 Sn: 200 Sb: 200 Ba: 200 Tb: 20 Tl: 200 Pb: 200 Bi: 20 Al: 2000 Ca: 2000 Na: 2000 Mg: 2000 Fe: 2000 K: 2000

Standard Solutions Prepared By: _____

Entered By: J Feldhaus Date: 060309

Reviewed By: _____ Date: 6-4-09

*Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

10.12.07:jcf

Standards/QC Preparation for ICP-MS (PEMS)

 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

Standard Lot Number *	Preparation Instructions	Resultant Analyte Conc. (µg/L)
ICV– 06 03 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid, and 2 mL Internal Standard. Pipet 4.0 ml of ICV (0307) multi-element solution, 2.2 ml of 10 µg/ml Molybdenum and 0.022 ml of 1000 µg/ml Tin into flask. Dilute to volume with deionized water. (Note: Tin must be from a source different than that used for the calibration standards)	Al: 504 Sb: 199 As: 200 Ba: 99 Be: 99 Ca: 2005 Cr: 98 Co: 100 Cu: 98 Fe: 1016 Pb: 200 Mg: 1215 Mn: 100 Ni: 101 K: 2004 Se: 206 Ag: 100 Na: 2019 Tl: 206 V: 100 Zn: 205 Cd: 99 Li^6: 200 Sc: 100 In: 100 Tb: 100 Bi: 100 Mo: 110 Sn: 110
CRI– 06 03 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 0.200 ml of CP-MS-CRQL, into flask. Dilute to volume with deionized water	Li^6: 200 Be: 1 Al: 30 Sc: 100 V: 5 Cr: 2 Mn: 1 Co: 1 Ni: 1 Cu: 2 Zn: 2 As: 1 Se: 5 Mo: 1 Ag: 1 Cd: 1 In: 100 Sn: 1 Sb: 2 Ba: 10 Tb: 100 Tl: 1 Pb: 1 Bi: 100
ICSA– 06 01 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 20.0 ml of ICS Part A (0803) into flask. Dilute to volume with deionized water.	Al: 100000 Sb: 1.5 As 0.1 Ba: 1.2 Be: 0 Cd: 0.7 Ca: 100000 C: 200000 Cl: 1000000 Cr: 21 Co: 1 Cu: 8 Fe: 10000 Pb: 4 Mg: 100000 Mn: 7 Mo: 2000 Ni: 6 P: 100000 K: 10000 Se: 0.3 Ag: 0 Na: 100000 S: 100000 Tl: 0 Ti: 2000 V: 0.5 Zn: 11
ICSAB– 06 01 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 20.0 ml of ICS Part A (0803) and 20.0 ml of ICS Part B (0803) and 0.400 ml of 10 µg/ml Tin into flask. Dilute to volume with deionized water.	Al: 100000 Sb: 22 As 19 Ba: 22 Be: 19 Cd: 20 Ca: 100000 C: 200000 Cl: 1000000 Cr: 40 Co: 20 Cu: 25 Fe: 10000 Pb: 25 Mg: 100000 Mn: 27 Mo: 2000 Ni: 24 P: 100000 K: 10000 Se: 19 Ag: 18 Na: 100000 S: 100000 Tl: 21 Ti: 2000 V: 19 Zn: 29
CCV– 06 03 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid, and 2 mL Internal Standard. Pipet 0.240 ml of CAL Standard. Dilute to volume with deionized water.	Li^6: 200 Be: 120 Sc: 100 V: 120 Cr: 120 Mn: 120 Co: 120 Ni: 120 Cu: 120 Zn: 120 As: 120 Se: 120 Mo: 120 Ag: 120 Cd: 120 In: 20 Sn: 120 Sb: 120 Ba: 120 Tb: 100 Tl: 120 Pb: 120 Bi: 100 Al: 1200 Na: 1200 Ca: 1200 K:1200 Mg: 1200 Fe 1200

Preparation Instructions for Dissolved Metals		Prepared By	Date
Preparation Blank	Use acidified deionized water (1% HNO_3).	JCF	06/01/09
Laboratory Control Sample	Add 0.200 ml of ICV multi-element solution and 0.100 ml Internal Standard to 9.7 ml of acidified deionized water.	JCF	06/01/09
Sample Spike	Add 0.100 ml Water Spike Sample D and 0.100 ml of Internal Standard to 9.8 ml of sample.	JCF	06/01/09

Standard Solutions Prepared By: _____

Entered By: J Feldhaus Date: 060309

Reviewed By: _____ Date: 6.4.09

*Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

10.12.07:jcf

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

ILM05.4 TUNING REPORT SUMMARY

Sample ID: TUNE

Sample Date/Time: Wednesday, June 03, 2009 10:35:53
Sample Description: 100 ppb Tuning Soln @ 10% Peak Height
Number of Replicates: 5
Sample File: C:\Elandata1\Sample\1203008.sam
Method File: C:\Elandata1\Method\ILM05.4\ILM05.4TUNE.mth
Dataset File: C:\Elandata\DataSet\Default\TUNE.2679

Tuning File

Analyte	Exact Mass	Measured Mass	Measured Peak Width
Be	9.012	8.975	0.713
Mg	23.985	23.925	0.763
Mg	24.986	24.975	0.773
Mg	25.983	25.975	0.708
Co	58.933	58.925	0.689
In	112.904	112.925	0.712
In	114.904	114.925	0.724
Pb	205.975	205.975	0.715
Pb	206.976	206.975	0.718
Pb	207.977	208.025	0.726

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD
Be	9	28814.856	0.521
Mg	24	227172.828	1.082
Mg	25	31484.855	1.396
Mg	26	35314.011	1.154
Co	59	474757.531	0.839
In	113	57313.561	1.333
In	115	1316997.535	0.849
Pb	206	569206.125	1.002
Pb	207	496517.256	0.828
Pb	208	1244322.393	0.921

RAW DATA

Replicate 1

Analyte	Mass	Meas. Intensity
Be	9	28957.266
Mg	24	224330.703
Mg	25	30955.237
Mg	26	34679.028
Co	59	470989.149
In	113	56647.526
In	115	1314743.986
Pb	206	571207.296

Pb	207	496422.324
Pb	208	1245202.793

Replicate 2

Analyte	Mass	Meas. Intensity
Be	9	28895.487
Mg	24	229679.077
Mg	25	31962.800
Mg	26	35656.055
Co	59	479777.495
In	113	58329.844
In	115	1324684.931
Pb	206	575647.778
Pb	207	502441.231
Pb	208	1260426.738

Replicate 3

Analyte	Mass	Meas. Intensity
Be	9	28903.109
Mg	24	227429.122
Mg	25	31445.162
Mg	26	35214.093
Co	59	476141.758
In	113	57611.559
In	115	1330122.250
Pb	206	565624.388
Pb	207	497011.326
Pb	208	1244280.482

Replicate 4

Analyte	Mass	Meas. Intensity
Be	9	28719.381
Mg	24	229420.646
Mg	25	31889.566
Mg	26	35679.137
Co	59	476496.678
In	113	57518.425
In	115	1314480.151
Pb	206	572254.706
Pb	207	495839.657
Pb	208	1243658.808

Replicate 5

Analyte	Mass	Meas. Intensity
Be	9	28599.037
Mg	24	225004.592
Mg	25	31171.508
Mg	26	35341.742
Co	59	470382.575
In	113	56460.452
In	115	1300956.357
Pb	206	561296.458
Pb	207	490871.742
Pb	208	1228043.145

ILM05.4 - Summary Report

Sample ID: S0

Sample Date/Time: Wednesday, June 03, 2009 11:39:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\S0.190

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	422794.988	0.653				ppb
	Be	9	5.333	114.564				ppb
	Na	23	4081.166	2.188				ppb
	Mg	24	464.678	7.549				ppb
	Mg	25	66.334	11.315				ppb
	Mg	26	117.667	2.732				ppb
	Al	27	233.336	16.645				ppb
	K	39	175975.536	0.229				ppb
	Ca	44	1650.803	1.404				ppb
>	Sc	45	418978.165	2.254				ppb
	Ti	47	136.668	13.851				ppb
	V	51	540.185	15.111				ppb
	Cr	52	1873.509	1.053				ppb
	Mn	55	-869.802	1.863				ppb
	Fe	54	11201.284	5.768				ppb
	Fe	56	377981.013	0.266				ppb
	Fe	57	1861.840	3.401				ppb
	Co	59	232.670	32.499				ppb
	Ni	60	55.556	22.716				ppb
	Cu	63	807.810	5.449				ppb
	Cu	65	291.115	17.378				ppb
	Zn	66	84.445	21.741				ppb
	As	75	-1.485	1312.077				ppb
	Se	82	10.444	43.448				ppb
	Mo	96	40.000	8.660				ppb
	Ag	107	3.333	173.205				ppb
	Ag	109	4.444	43.301				ppb
	Cd	111	-3.698	78.055				ppb
	In	113	42526.913	1.395				ppb
>	In	115	978814.083	1.238				ppb
	Sn	118	48.333	36.330				ppb
	Sb	121	91.667	22.709				ppb
	Ba	135	16.667	18.330				ppb
	Ba	137	28.667	40.880				ppb
>	Tb	159	1552354.283	2.076				ppb
	Tl	205	11.667	24.744				ppb
	Pb	206	245.004	57.471				ppb
	Pb	207	436.673	60.616				ppb
	Pb	208	688.350	53.188				ppb
>	Bi	209	1412412.747	1.243				ppb
	Cr	53	77.334	19.753				ppb
	Pd	106	0.000					ppb
	Pd	108	5.000	0.000				ppb
	C	12	258700.888	1.735				ppb
	Kr	83	35.333	16.340				ppb
	Se	77	23.556	16.340				ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	424605.072		ppb
	Be	9	12.000		ppb
	Na	23	3980.792		ppb
	Mg	24	462.011		ppb
	Mg	25	62.000		ppb
	Mg	26	114.001		ppb
	Al	27	190.002		ppb
	K	39	175932.110		ppb
	Ca	44	1672.140		ppb
>	Sc	45	408272.595		ppb
	Ti	47	150.001		ppb
	V	51	463.355		ppb
	Cr	52	1860.173		ppb
	Mn	55	-875.401		ppb
	Fe	54	10840.873		ppb
	Fe	56	376828.693		ppb
	Fe	57	1930.186		ppb
	Co	59	318.005		ppb
	Ni	60	50.000		ppb
	Cu	63	816.700		ppb
	Cu	65	236.669		ppb
	Zn	66	103.334		ppb
	As	75	10.539		ppb
	Se	82	12.000		ppb
	Mo	96	42.000		ppb
	Ag	107	10.000		ppb
	Ag	109	3.333		ppb
	Cd	111	-5.365		ppb
	In	113	41847.377		ppb
>	In	115	965035.927		ppb
	Sn	118	30.000		ppb
	Sb	121	75.000		ppb
	Ba	135	14.000		ppb
	Ba	137	42.000		ppb
>	Tb	159	1528044.449		ppb
	Tl	205	15.000		ppb
	Pb	206	405.008		ppb
	Pb	207	735.014		ppb
	Pb	208	1095.035		ppb
>	Bi	209	1393589.090		ppb
	Cr	53	94.000		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	263850.532		ppb
	Kr	83	32.000		ppb
	Se	77	21.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	424162.888		ppb
	Be	9	0.000		ppb
	Na	23	4151.862		ppb
	Mg	24	431.009		ppb
	Mg	25	62.000		ppb
	Mg	26	119.001		ppb
	Al	27	245.003		ppb
	K	39	176398.214		ppb
	Ca	44	1626.132		ppb
>	Sc	45	426135.138		ppb

	Ti	47	145.001		ppb
	V	51	531.309		ppb
	Cr	52	1864.174		ppb
	Mn	55	-851.544		ppb
	Fe	54	10815.846		ppb
	Fe	56	378692.141		ppb
	Fe	57	1850.171		ppb
	Co	59	206.002		ppb
	Ni	60	70.000		ppb
	Cu	63	760.029		ppb
	Cu	65	300.005		ppb
	Zn	66	66.667		ppb
	As	75	-23.964		ppb
	Se	82	5.333		ppb
	Mo	96	42.000		ppb
	Ag	107	0.000		ppb
	Ag	109	6.667		ppb
	Cd	111	-0.365		ppb
	In	113	42942.003		ppb
>	In	115	983578.128		ppb
	Sn	118	65.000		ppb
	Sb	121	115.001		ppb
	Ba	135	20.000		ppb
	Ba	137	24.000		ppb
>	Tb	159	1588917.329		ppb
	Tl	205	10.000		ppb
	Pb	206	190.002		ppb
	Pb	207	345.003		ppb
	Pb	208	585.010		ppb
>	Bi	209	1428332.273		ppb
	Cr	53	74.000		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	256636.391		ppb
	Kr	83	32.000		ppb
	Se	77	28.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	419617.004		ppb
	Be	9	4.000		ppb
	Na	23	4110.845		ppb
	Mg	24	501.013		ppb
	Mg	25	75.000		ppb
	Mg	26	120.001		ppb
	Al	27	265.004		ppb
	K	39	175596.285		ppb
	Ca	44	1654.137		ppb
>	Sc	45	422526.762		ppb
	Ti	47	115.001		ppb
	V	51	625.890		ppb
	Cr	52	1896.180		ppb
	Mn	55	-882.462		ppb
	Fe	54	11947.132		ppb
	Fe	56	378422.206		ppb
	Fe	57	1805.163		ppb
	Co	59	174.002		ppb
	Ni	60	46.667		ppb
	Cu	63	846.703		ppb
	Cu	65	336.672		ppb
	Zn	66	83.334		ppb
	As	75	8.970		ppb
	Se	82	14.000		ppb

⌈	Mo	96	36.000	ppb
|	Ag	107	0.000	ppb
|	Ag	109	3.333	ppb
|	Cd	111	-5.365	ppb
|	In	113	42791.360	ppb
|>	In	115	987828.196	ppb
⌊	Sn	118	50.000	ppb
⌈	Sb	121	85.000	ppb
|	Ba	135	16.000	ppb
|	Ba	137	20.000	ppb
⌊>	Tb	159	1540101.072	ppb
⌈	Tl	205	10.000	ppb
|	Pb	206	140.001	ppb
|	Pb	207	230.001	ppb
|	Pb	208	385.005	ppb
⌊>	Bi	209	1415316.877	ppb
	Cr	53	64.000	ppb
	Pd	106	0.000	ppb
	Pd	108	5.000	ppb
	C	12	255615.743	ppb
	Kr	83	42.000	ppb
	Se	77	21.333	ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S2

Sample Date/Time: Wednesday, June 03, 2009 11:41:51
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\S2.191

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	421533.614	3.041	421533.614			ppb
	Be	9	509.346	11.835	0.001	2.00000	10.10	ppb
	Na	23	57111.658	1.819	0.126	20.00000	2.43	ppb
	Mg	24	38619.432	0.750	0.091	20.00000	2.59	ppb
	Mg	25	5254.714	1.764	0.012	20.00000	3.58	ppb
	Mg	26	5872.724	1.317	0.014	20.00000	4.08	ppb
	Al	27	51416.868	1.587	0.121	20.00000	3.06	ppb
	K	39	250472.819	0.771	0.178	20.00000	7.48	ppb
	Ca	44	3883.421	1.458	0.005	20.00000	2.81	ppb
>	Sc	45	427281.883	1.325	427281.883			ppb
	Ti	47	695.024	9.733	0.001	2.00000	11.50	ppb
	V	51	7734.429	3.227	0.017	2.00000	2.08	ppb
	Cr	52	8090.607	2.847	0.014	2.00000	2.52	ppb
	Mn	55	8187.843	6.569	0.021	2.00000	6.20	ppb
	Fe	54	16254.886	4.605	0.011	20.00000	11.52	ppb
	Fe	56	461340.574	0.799	0.178	20.00000	5.16	ppb
	Fe	57	3824.065	2.399	0.005	20.00000	4.96	ppb
	Co	59	8076.594	1.243	0.018	2.00000	1.39	ppb
	Ni	60	1727.927	5.084	0.004	2.00000	6.24	ppb
	Cu	63	4714.445	2.957	0.009	2.00000	4.20	ppb
	Cu	65	2232.471	2.267	0.005	2.00000	1.13	ppb
	Zn	66	1228.965	6.783	0.003	2.00000	8.20	ppb
	As	75	1240.993	3.007	0.003	2.00000	4.27	ppb
	Se	82	144.668	9.851	0.000	2.00000	12.05	ppb
	Mo	96	2175.570	1.760	0.002	2.00000	1.92	ppb
	Ag	107	7136.991	1.641	0.007	2.00000	3.90	ppb
	Ag	109	6985.775	3.769	0.007	2.00000	4.48	ppb
	Cd	111	1678.491	2.913	0.002	2.00000	5.50	ppb
	In	113	44510.530	1.914	0.002	2.00000	45.24	ppb
>	In	115	972483.280	2.739	972483.280			ppb
	Sn	118	5036.268	2.156	0.005	2.00000	1.35	ppb
	Sb	121	5439.813	1.197	0.003	2.00000	1.82	ppb
	Ba	135	1463.440	3.165	0.001	2.00000	2.44	ppb
	Ba	137	2540.989	0.984	0.002	2.00000	2.17	ppb
>	Tb	159	1551284.985	1.258	1551284.985			ppb
	Tl	205	24393.069	3.254	0.017	2.00000	2.34	ppb
	Pb	206	8401.863	2.205	0.006	2.00000	2.32	ppb
	Pb	207	15994.749	2.396	0.011	2.00000	1.51	ppb
	Pb	208	26676.089	3.335	0.019	2.00000	2.47	ppb
>	Bi	209	1397336.500	0.923	1397336.500			ppb
	Cr	53	811.366	1.749	734.033			ppb
	Pd	106	123.334	15.349	123.334			ppb
	Pd	108	103.334	22.867	98.334			ppb
	C	12	250763.777	1.121	-7937.111			ppb
	Kr	83	28.667	32.971	-6.667			ppb
	Se	77	120.667	2.923	97.112			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	436062.661		ppb
	Be	9	566.016	2.152218	ppb
	Na	23	57722.113	19.497374	ppb
	Mg	24	38791.092	19.402563	ppb
	Mg	25	5229.367	19.218595	ppb
	Mg	26	5799.681	19.059341	ppb
	Al	27	51828.965	19.475906	ppb
	K	39	252690.798	18.318999	ppb
	Ca	44	3948.779	19.397342	ppb
>	Sc	45	432906.890		ppb
	Ti	47	760.029	2.199120	ppb
	V	51	7960.542	2.034518	ppb
	Cr	52	8355.489	2.050818	ppb
	Mn	55	7790.580	1.889789	ppb
	Fe	54	17114.633	22.657493	ppb
	Fe	56	462875.356	18.812099	ppb
	Fe	57	3895.759	20.215923	ppb
	Co	59	8067.253	1.970736	ppb
	Ni	60	1630.133	1.856804	ppb
	Cu	63	4604.393	1.912274	ppb
	Cu	65	2286.928	2.025752	ppb
	Zn	66	1226.742	1.967289	ppb
	As	75	1199.059	1.906718	ppb
	Se	82	133.334	1.803148	ppb
	Mo	96	2218.246	1.982461	ppb
	Ag	107	7125.871	1.940811	ppb
	Ag	109	7152.557	1.990719	ppb
	Cd	111	1646.060	1.905921	ppb
	In	113	45377.724	1.656000	ppb
>	In	115	999905.412		ppb
	Sn	118	5106.303	1.971628	ppb
	Sb	121	5436.477	1.969435	ppb
	Ba	135	1502.113	2.023922	ppb
	Ba	137	2516.317	1.951346	ppb
>	Tb	159	1573809.395		ppb
	Tl	205	25271.893	2.050736	ppb
	Pb	206	8408.534	1.980050	ppb
	Pb	207	16431.751	2.034303	ppb
	Pb	208	27687.533	2.055890	ppb
>	Bi	209	1412078.393		ppb
	Cr	53	824.034		ppb
	Pd	106	115.001		ppb
	Pd	108	95.000		ppb
	C	12	253323.507		ppb
	Kr	83	18.000		ppb
	Se	77	116.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	416713.285		ppb
	Be	9	446.010	1.770949	ppb
	Na	23	57700.991	20.465860	ppb
	Mg	24	38782.057	20.309970	ppb
	Mg	25	5357.435	20.621857	ppb
	Mg	26	5953.772	20.504466	ppb
	Al	27	50477.076	19.850385	ppb
	K	39	249561.673	20.495584	ppb
	Ca	44	3850.741	20.094802	ppb
>	Sc	45	427350.384		ppb

	Ti	47	625.020	1.748212	ppb
	V	51	7776.190	2.011639	ppb
	Cr	52	7937.149	1.950144	ppb
	Mn	55	8799.960	2.134198	ppb
	Fe	54	15902.635	18.547027	ppb
	Fe	56	464011.222	20.676713	ppb
	Fe	57	3720.692	18.917184	ppb
	Co	59	8181.345	2.026248	ppb
	Ni	60	1800.162	2.085178	ppb
	Cu	63	4871.186	2.079740	ppb
	Cu	65	2223.581	1.990629	ppb
	Zn	66	1146.732	1.854897	ppb
	As	75	1253.379	2.018867	ppb
	Se	82	140.001	1.928031	ppb
	Mo	96	2144.230	1.973508	ppb
	Ag	107	7025.801	1.970847	ppb
	Ag	109	6682.232	1.915439	ppb
	Cd	111	1654.693	1.973111	ppb
	In	113	43675.168	1.317648	ppb
>	In	115	970845.468		ppb
	Sn	118	5091.296	2.025194	ppb
	Sb	121	5506.516	2.040168	ppb
	Ba	135	1412.100	1.943851	ppb
	Ba	137	2540.323	2.014291	ppb
>	Tb	159	1539729.897		ppb
	Tl	205	24179.196	1.990702	ppb
	Pb	206	8583.682	2.052946	ppb
	Pb	207	15836.311	1.987996	ppb
	Pb	208	26325.801	1.981484	ppb
>	Bi	209	1391747.064		ppb
	Cr	53	796.032		ppb
	Pd	106	110.001		ppb
	Pd	108	130.001		ppb
	C	12	251211.212		ppb
	Kr	83	32.000		ppb
	Se	77	122.001		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	411824.897		ppb
	Be	9	516.013	2.076833	ppb
	Na	23	55911.871	20.036766	ppb
	Mg	24	38285.148	20.287467	ppb
	Mg	25	5177.340	20.159548	ppb
	Mg	26	5864.719	20.436193	ppb
	Al	27	51944.562	20.673709	ppb
	K	39	249165.987	21.185417	ppb
	Ca	44	3850.741	20.507857	ppb
>	Sc	45	421588.376		ppb
	Ti	47	700.025	2.052668	ppb
	V	51	7466.556	1.953843	ppb
	Cr	52	7979.182	1.999038	ppb
	Mn	55	7972.989	1.976013	ppb
	Fe	54	15747.389	18.795480	ppb
	Fe	56	457135.142	20.511188	ppb
	Fe	57	3855.743	20.866893	ppb
	Co	59	7981.184	2.003016	ppb
	Ni	60	1753.487	2.058018	ppb
	Cu	63	4667.756	2.007986	ppb
	Cu	65	2186.906	1.983618	ppb
	Zn	66	1313.420	2.177813	ppb
	As	75	1270.542	2.074415	ppb
	Se	82	160.668	2.268821	ppb

⌈	Mo	96	2164.234	2.044030	ppb
|	Ag	107	7259.301	2.088342	ppb
|	Ag	109	7122.536	2.093842	ppb
|	Cd	111	1734.719	2.120969	ppb
|	In	113	44478.698	3.026352	ppb
|>	In	115	946698.960		ppb
⌊	Sn	118	4911.206	2.003178	ppb
⌈	Sb	121	5376.445	1.990397	ppb
|	Ba	135	1476.109	2.032226	ppb
|	Ba	137	2566.329	2.034363	ppb
⌊>	Tb	159	1540315.663		ppb
⌈	Tl	205	23728.118	1.958563	ppb
|	Pb	206	8213.372	1.967004	ppb
|	Pb	207	15716.185	1.977701	ppb
|	Pb	208	26014.933	1.962626	ppb
⌊>	Bi	209	1388184.044		ppb
	Cr	53	814.033		ppb
	Pd	106	145.001		ppb
	Pd	108	85.000		ppb
	C	12	247756.612		ppb
	Kr	83	36.000		ppb
	Se	77	123.334		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45					
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115					
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209					
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S20

Sample Date/Time: Wednesday, June 03, 2009 11:43:55
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\S20.192

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	425298.460	1.215	425298.460			ppb
	Be	9	5017.926	3.350	0.012	19.99735	3.46	ppb
	Na	23	536076.158	0.640	1.251	199.98748	1.03	ppb
	Mg	24	384090.192	0.734	0.902	199.99235	1.96	ppb
	Mg	25	51460.071	0.687	0.121	199.96222	1.91	ppb
	Mg	26	57436.495	1.336	0.135	199.97289	2.56	ppb
	Al	27	505472.045	0.494	1.188	199.95536	1.46	ppb
	K	39	934100.502	0.035	1.780	199.99766	1.52	ppb
	Ca	44	24549.436	1.781	0.054	200.02647	3.00	ppb
>	Sc	45	431244.650	1.059	431244.650			ppb
	Ti	47	5918.421	5.690	0.013	20.00587	5.53	ppb
	V	51	71834.226	0.335	0.165	19.99665	0.99	ppb
	Cr	52	63014.590	0.607	0.142	19.99586	0.80	ppb
	Mn	55	89325.707	1.411	0.209	19.99695	0.43	ppb
	Fe	54	59977.725	2.305	0.112	199.98861	1.78	ppb
	Fe	56	1157181.560	0.153	1.781	200.00570	1.52	ppb
	Fe	57	20893.474	1.607	0.044	199.95219	0.71	ppb
	Co	59	77475.716	2.052	0.179	19.99520	3.12	ppb
	Ni	60	17153.594	2.430	0.040	20.00257	2.52	ppb
	Cu	63	39954.120	1.866	0.091	19.99925	2.35	ppb
	Cu	65	19476.730	1.758	0.044	19.99636	2.73	ppb
	Zn	66	11073.909	2.733	0.025	19.99009	3.78	ppb
	As	75	11976.437	0.759	0.028	19.99066	1.82	ppb
	Se	82	1278.748	1.161	0.003	19.98658	0.56	ppb
	Mo	96	21108.258	1.528	0.021	19.99460	2.35	ppb
	Ag	107	69665.155	0.371	0.071	19.99245	1.16	ppb
	Ag	109	68951.342	0.138	0.070	19.99479	0.71	ppb
	Cd	111	17147.739	2.021	0.017	20.00108	2.44	ppb
	In	113	60769.165	2.557	0.018	19.94432	6.99	ppb
>	In	115	985282.820	0.831	985282.820			ppb
	Sn	118	51190.704	1.285	0.052	20.00231	1.10	ppb
	Sb	121	55263.986	1.850	0.035	20.00539	1.22	ppb
	Ba	135	14943.825	1.143	0.010	20.00549	1.91	ppb
	Ba	137	26217.657	0.557	0.017	20.00740	1.44	ppb
>	Tb	159	1556507.601	1.031	1556507.601			ppb
	Tl	205	245874.793	1.518	0.175	20.00084	0.12	ppb
	Pb	206	83841.725	1.526	0.060	20.00392	0.91	ppb
	Pb	207	158207.222	1.051	0.112	20.00188	0.68	ppb
	Pb	208	263519.410	0.664	0.187	20.00138	1.01	ppb
>	Bi	209	1403336.284	1.565	1403336.284			ppb
	Cr	53	7113.196	1.508	7035.862			ppb
	Pd	106	1456.773	6.239	1456.773			ppb
	Pd	108	1095.060	4.059	1090.060			ppb
	C	12	252214.902	1.658	-6485.986			ppb
	Kr	83	28.667	14.523	-6.667			ppb
	Se	77	993.605	3.068	970.049			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	428717.056		ppb
	Be	9	5185.344	20.498698	ppb
	Na	23	534569.254	197.804370	ppb
	Mg	24	382599.741	197.593508	ppb
	Mg	25	51167.572	197.206229	ppb
	Mg	26	56799.854	196.131113	ppb
	Al	27	507188.923	199.011941	ppb
	K	39	934359.061	198.073386	ppb
	Ca	44	24054.897	193.985866	ppb
>	Sc	45	426020.401		ppb
	Ti	47	5736.645	19.621330	ppb
	V	51	71694.079	20.202637	ppb
	Cr	52	62669.762	20.133607	ppb
	Mn	55	87874.170	19.914521	ppb
	Fe	54	58465.412	196.722891	ppb
	Fe	56	1156107.213	203.395728	ppb
	Fe	57	20536.065	198.847425	ppb
	Co	59	79299.176	20.714518	ppb
	Ni	60	17027.818	20.098659	ppb
	Cu	63	39999.840	20.271300	ppb
	Cu	65	19756.163	20.536706	ppb
	Zn	66	11409.839	20.850551	ppb
	As	75	12078.259	20.405164	ppb
	Se	82	1262.746	19.978372	ppb
	Mo	96	20737.480	19.453899	ppb
	Ag	107	69399.985	19.726589	ppb
	Ag	109	69054.271	19.834324	ppb
	Cd	111	17048.949	19.696045	ppb
	In	113	61906.027	20.559823	ppb
>	In	115	994697.538		ppb
	Sn	118	51537.464	19.946996	ppb
	Sb	121	54206.520	19.854240	ppb
	Ba	135	15015.264	20.336128	ppb
	Ba	137	26286.504	20.294826	ppb
>	Tb	159	1538372.900		ppb
	Tl	205	241598.661	20.014158	ppb
	Pb	206	82670.312	20.086602	ppb
	Pb	207	156431.347	20.140087	ppb
	Pb	208	261644.620	20.222671	ppb
>	Bi	209	1378004.812		ppb
	Cr	53	7002.451		ppb
	Pd	106	1355.092		ppb
	Pd	108	1110.062		ppb
	C	12	256056.814		ppb
	Kr	83	30.000		ppb
	Se	77	966.713		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	419354.322		ppb
	Be	9	5019.259	20.284915	ppb
	Na	23	533655.328	201.906690	ppb
	Mg	24	387341.133	204.516976	ppb
	Mg	25	51853.089	204.319573	ppb
	Mg	26	58288.383	205.785001	ppb
	Al	27	506621.203	203.229421	ppb
	K	39	934210.058	203.499683	ppb
	Ca	44	24884.924	205.995669	ppb
>	Sc	45	433235.679		ppb

	Ti	47	6306.988	21.252342	ppb
	V	51	72111.937	19.980258	ppb
	Cr	52	63426.510	20.034344	ppb
	Mn	55	90142.259	20.086572	ppb
	Fe	54	61176.558	203.794704	ppb
	Fe	56	1159218.357	199.127659	ppb
	Fe	57	20941.905	199.456093	ppb
	Co	59	76378.575	19.616040	ppb
	Ni	60	17618.841	20.451088	ppb
	Cu	63	40675.892	20.270586	ppb
	Cu	65	19579.148	20.005781	ppb
	Zn	66	10822.520	19.437259	ppb
	As	75	11947.364	19.847946	ppb
	Se	82	1292.083	20.103116	ppb
	Mo	96	21262.581	20.218868	ppb
	Ag	107	69916.901	20.143419	ppb
	Ag	109	68866.315	20.048966	ppb
	Cd	111	16861.365	19.743852	ppb
	In	113	61402.939	20.923689	ppb
>	In	115	981370.656		ppb
	Sn	118	51602.800	20.243787	ppb
	Sb	121	56247.747	20.287586	ppb
	Ba	135	15067.343	20.094358	ppb
	Ba	137	26316.583	20.007056	ppb
>	Tb	159	1562261.299		ppb
	Tl	205	248484.338	20.015710	ppb
	Pb	206	85206.467	20.130817	ppb
	Pb	207	159728.110	19.995836	ppb
	Pb	208	263806.281	19.825250	ppb
>	Bi	209	1417168.698		ppb
	Cr	53	7120.534		ppb
	Pd	106	1485.110		ppb
	Pd	108	1130.064		ppb
	C	12	252826.155		ppb
	Kr	83	24.000		ppb
	Se	77	1026.719		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	427824.004		ppb
	Be	9	4849.175	19.208426	ppb
	Na	23	540003.891	200.251369	ppb
	Mg	24	382329.702	197.866554	ppb
	Mg	25	51359.552	198.360861	ppb
	Mg	26	57221.246	198.002568	ppb
	Al	27	502606.009	197.624709	ppb
	K	39	933732.386	198.419902	ppb
	Ca	44	24708.488	200.097871	ppb
>	Sc	45	434477.868		ppb
	Ti	47	5711.631	19.143928	ppb
	V	51	71696.660	19.807059	ppb
	Cr	52	62947.498	19.819636	ppb
	Mn	55	89960.692	19.989766	ppb
	Fe	54	60291.205	199.448234	ppb
	Fe	56	1156219.109	197.493711	ppb
	Fe	57	21202.453	201.553047	ppb
	Co	59	76749.398	19.655045	ppb
	Ni	60	16814.124	19.457974	ppb
	Cu	63	39186.629	19.455858	ppb
	Cu	65	19094.880	19.446580	ppb
	Zn	66	10989.368	19.682469	ppb
	As	75	11903.687	19.718863	ppb
	Se	82	1281.415	19.878255	ppb

⌈	Mo	96	21324.713	20.311040	ppb
|	Ag	107	69678.579	20.107341	ppb
|	Ag	109	68933.442	20.101088	ppb
|	Cd	111	17532.903	20.563335	ppb
|	In	113	58998.529	18.349457	ppb
|>	In	115	979780.266		ppb
⌊	Sn	118	50431.849	19.816136	ppb
⌈	Sb	121	55337.691	19.874354	ppb
|	Ba	135	14748.868	19.585975	ppb
|	Ba	137	26049.886	19.720330	ppb
⌊>	Tb	159	1568888.604		ppb
⌈	Tl	205	247541.379	19.972637	ppb
|	Pb	206	83648.396	19.794330	ppb
|	Pb	207	158462.208	19.869732	ppb
|	Pb	208	265107.329	19.956225	ppb
⌊>	Bi	209	1414835.341		ppb
	Cr	53	7216.603		ppb
	Pd	106	1530.117		ppb
	Pd	108	1045.055		ppb
	C	12	247761.736		ppb
	Kr	83	32.000		ppb
	Se	77	987.382		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S200

Sample Date/Time: Wednesday, June 03, 2009 11:46:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\S200.193

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	413472.556	5.182	413472.556			ppb
	Be	9	49298.001	3.844	0.119	200.02347	2.32	ppb
	Na	23	4987500.918	3.059	12.062	1999.25700	2.13	ppb
	Mg	24	3456546.978	3.181	8.365	1998.43038	2.34	ppb
	Mg	25	501684.556	3.297	1.214	2000.08478	1.90	ppb
	Mg	26	559914.844	3.198	1.355	2000.09925	2.43	ppb
	Al	27	5225612.767	2.638	12.651	2001.21416	3.53	ppb
	K	39	8147998.883	1.258	19.322	2001.57252	4.93	ppb
	Ca	44	222618.775	0.779	0.535	1999.89297	4.69	ppb
>	Sc	45	422532.748	2.700	422532.748			ppb
	Ti	47	55248.932	2.501	0.130	199.94643	0.39	ppb
	V	51	703282.089	3.602	1.663	200.01164	1.11	ppb
	Cr	52	608039.561	2.781	1.435	200.02475	1.23	ppb
	Mn	55	879579.106	2.329	2.084	199.99217	2.15	ppb
	Fe	54	493515.400	3.478	1.141	2000.31123	1.65	ppb
	Fe	56	8560083.795	2.367	19.359	2001.59828	1.51	ppb
	Fe	57	186248.012	3.354	0.436	1999.82481	1.46	ppb
	Co	59	746594.031	3.305	1.767	199.97137	2.42	ppb
	Ni	60	163334.731	2.434	0.386	199.94862	1.64	ppb
	Cu	63	377704.125	2.215	0.892	199.96577	0.62	ppb
	Cu	65	186002.137	2.022	0.440	199.97598	0.85	ppb
	Zn	66	107025.376	1.979	0.253	199.98552	1.11	ppb
	As	75	115863.419	1.749	0.274	199.97350	1.80	ppb
	Se	82	12202.333	2.660	0.029	199.96107	2.65	ppb
	Mo	96	209902.628	1.971	0.221	200.06355	1.30	ppb
	Ag	107	671640.277	2.262	0.707	199.99922	1.74	ppb
	Ag	109	659798.272	4.217	0.694	199.98355	1.19	ppb
	Cd	111	168056.214	2.777	0.177	200.03178	0.58	ppb
	In	113	211418.168	3.395	0.179	199.95864	1.79	ppb
>	In	115	950173.843	3.289	950173.843			ppb
	Sn	118	493455.446	2.211	0.519	200.00157	1.26	ppb
	Sb	121	544326.550	1.130	0.357	200.01443	2.16	ppb
	Ba	135	143990.191	2.019	0.094	199.96860	1.07	ppb
	Ba	137	249617.445	2.315	0.164	199.94425	0.63	ppb
>	Tb	159	1525382.638	2.948	1525382.638			ppb
	Tl	205	2401302.947	1.337	1.788	200.04040	0.68	ppb
	Pb	206	807572.952	2.258	0.601	200.01828	1.10	ppb
	Pb	207	1522516.131	1.615	1.133	200.01607	0.51	ppb
	Pb	208	2503859.931	1.352	1.864	199.99026	0.50	ppb
>	Bi	209	1343009.581	1.468	1343009.581			ppb
	Cr	53	69873.303	1.552	69795.969			ppb
	Pd	106	14161.706	5.299	14161.706			ppb
	Pd	108	11142.877	3.722	11137.877			ppb
	C	12	255207.265	0.662	-3493.624			ppb
	Kr	83	54.000	12.830	18.667			ppb
	Se	77	9637.087	1.543	9613.531			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	437835.666		ppb
	Be	9	51421.871	196.918450	ppb
	Na	23	5163275.494	1953.097259	ppb
	Mg	24	3582407.525	1954.514575	ppb
	Mg	25	520735.203	1959.249328	ppb
	Mg	26	580277.385	1956.038544	ppb
	Al	27	5365330.752	1938.326557	ppb
	K	39	8207178.135	1898.696052	ppb
	Ca	44	224097.153	1897.389346	ppb
>	Sc	45	433637.548		ppb
	Ti	47	56690.235	199.900483	ppb
	V	51	730752.562	202.533540	ppb
	Cr	52	627424.367	201.111715	ppb
	Mn	55	902227.564	199.844999	ppb
	Fe	54	513241.297	2027.757071	ppb
	Fe	56	8794033.596	2003.470767	ppb
	Fe	57	193397.213	2023.769055	ppb
	Co	59	774299.698	202.065709	ppb
	Ni	60	167914.696	200.263888	ppb
	Cu	63	386542.436	199.384518	ppb
	Cu	65	189043.473	198.012046	ppb
	Zn	66	109415.329	199.184281	ppb
	As	75	118182.350	198.702722	ppb
	Se	82	12539.857	200.181651	ppb
	Mo	96	214667.642	197.074441	ppb
	Ag	107	687333.198	197.138968	ppb
	Ag	109	690885.923	201.793436	ppb
	Cd	111	173441.472	198.877860	ppb
	In	113	218756.840	199.181482	ppb
>	In	115	986199.851		ppb
	Sn	118	505822.244	197.475649	ppb
	Sb	121	550776.216	195.800628	ppb
	Ba	135	147347.627	198.016282	ppb
	Ba	137	256112.206	198.528428	ppb
>	Tb	159	1576037.868		ppb
	Tl	205	2438350.254	200.176740	ppb
	Pb	206	828549.276	202.251151	ppb
	Pb	207	1550324.987	200.718647	ppb
	Pb	208	2542347.874	200.117113	ppb
>	Bi	209	1362762.675		ppb
	Cr	53	71077.707		ppb
	Pd	106	15011.258		ppb
	Pd	108	11621.749		ppb
	C	12	257062.118		ppb
	Kr	83	50.000		ppb
	Se	77	9808.808		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	405017.145		ppb
	Be	9	47779.874	197.797804	ppb
	Na	23	4909624.156	2007.678704	ppb
	Mg	24	3379256.045	1993.076100	ppb
	Mg	25	493368.628	2006.704304	ppb
	Mg	26	546622.341	1991.904492	ppb
	Al	27	5089748.610	1987.764790	ppb
	K	39	8029640.380	2010.632061	ppb
	Ca	44	220709.039	2021.067190	ppb
>	Sc	45	410844.792		ppb

	Ti	47	53935.058	200.738352	ppb
	V	51	680833.533	199.164081	ppb
	Cr	52	596336.015	201.753180	ppb
	Mn	55	874161.064	204.365772	ppb
	Fe	54	481992.488	2009.531088	ppb
	Fe	56	8440784.890	2030.896508	ppb
	Fe	57	181843.455	2008.279393	ppb
	Co	59	738508.663	203.417876	ppb
	Ni	60	161307.259	203.057477	ppb
	Cu	63	369910.790	201.395483	ppb
	Cu	65	181797.633	200.991412	ppb
	Zn	66	105382.362	202.488131	ppb
	As	75	114978.829	204.041272	ppb
	Se	82	12174.740	205.139600	ppb
>	Mo	96	207811.067	201.449228	ppb
	Ag	107	657006.418	198.978538	ppb
	Ag	109	651279.398	200.862778	ppb
	Cd	111	165194.967	200.014597	ppb
	In	113	211084.567	203.859909	ppb
>	In	115	933971.203		ppb
	Sn	118	485186.521	200.012128	ppb
	Sb	121	538530.540	199.825746	ppb
	Ba	135	142317.559	199.626123	ppb
	Ba	137	247698.191	200.408645	ppb
>	Tb	159	1509961.667		ppb
	Tl	205	2384148.911	198.617735	ppb
	Pb	206	798701.329	197.843346	ppb
	Pb	207	1513592.954	198.856645	ppb
	Pb	208	2490472.488	198.928709	ppb
>	Bi	209	1342929.114		ppb
	Cr	53	68975.060		ppb
	Pd	106	13589.227		ppb
	Pd	108	10900.938		ppb
	C	12	253759.351		ppb
	Kr	83	50.000		ppb
	Se	77	9550.558		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	397564.857		ppb
	Be	9	48692.259	205.354166	ppb
	Na	23	4889603.103	2036.995036	ppb
	Mg	24	3407977.364	2047.700468	ppb
	Mg	25	490949.839	2034.300719	ppb
	Mg	26	552844.807	2052.354724	ppb
	Al	27	5221758.938	2077.551145	ppb
	K	39	8207178.135	2095.389435	ppb
	Ca	44	223050.131	2081.222371	ppb
>	Sc	45	423115.904		ppb
	Ti	47	55121.501	199.200464	ppb
	V	51	698260.171	198.337292	ppb
	Cr	52	600358.302	197.209341	ppb
	Mn	55	862348.689	195.765726	ppb
	Fe	54	485312.415	1963.645530	ppb
	Fe	56	8445432.899	1970.427555	ppb
	Fe	57	183503.367	1967.425969	ppb
	Co	59	726973.731	194.430536	ppb
	Ni	60	160782.238	196.524502	ppb
	Cu	63	376659.148	199.117322	ppb
	Cu	65	187165.303	200.924469	ppb
	Zn	66	106278.437	198.284152	ppb
	As	75	114429.077	197.176504	ppb
	Se	82	11892.401	194.561951	ppb

⌈	Mo	96	207229.177	201.666995	ppb
|	Ag	107	670581.215	203.880158	ppb
|	Ag	109	637229.493	197.294439	ppb
|	Cd	111	165532.202	201.202893	ppb
|	In	113	204413.098	196.834537	ppb
|>	In	115	930350.475		ppb
⌊	Sn	118	489357.572	202.516927	ppb
⌈	Sb	121	543672.895	204.416906	ppb
|	Ba	135	142305.388	202.263389	ppb
|	Ba	137	245041.939	200.895663	ppb
⌊>	Tb	159	1490148.379		ppb
⌈	Tl	205	2381409.676	201.326729	ppb
|	Pb	206	795468.252	199.960347	ppb
|	Pb	207	1503630.451	200.472927	ppb
|	Pb	208	2478759.430	200.924954	ppb
⌊>	Bi	209	1323336.953		ppb
	Cr	53	69567.141		ppb
	Pd	106	13884.632		ppb
	Pd	108	10905.944		ppb
	C	12	254800.324		ppb
	Kr	83	62.000		ppb
	Se	77	9551.893		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICV

Sample Date/Time: Wednesday, June 03, 2009 11:48:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\ICV.194

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	415913.231	1.633	415913.231			ppb
	Be	9	25105.494	3.038	0.060	101.18529	1.65	ppb
	Na	23	5162710.797	1.146	12.404	2056.01489	0.53	ppb
	Mg	24	2184959.014	0.990	5.253	1254.91342	0.65	ppb
	Mg	25	314909.449	1.701	0.757	1247.19488	0.50	ppb
	Mg	26	354917.213	0.370	0.853	1259.54087	1.83	ppb
	Al	27	1301961.360	1.559	3.130	495.18397	2.41	ppb
	K	39	8506848.924	0.342	20.041	2076.09309	1.83	ppb
	Ca	44	227073.895	0.512	0.542	2025.15786	1.16	ppb
>	Sc	45	427246.583	0.782	427246.583			ppb
	Ti	47	210.002	14.483	0.000	0.25400	45.29	ppb
	V	51	372182.812	1.775	0.870	104.62606	1.97	ppb
	Cr	52	315309.017	1.277	0.734	102.27897	1.57	ppb
	Mn	55	456158.190	1.634	1.070	102.64473	1.02	ppb
	Fe	54	261757.533	2.070	0.586	1026.97139	1.40	ppb
	Fe	56	4816826.451	1.279	10.372	1072.34658	0.66	ppb
	Fe	57	99137.547	2.638	0.228	1043.07051	2.05	ppb
	Co	59	396217.146	1.779	0.927	104.91015	1.00	ppb
	Ni	60	87240.039	1.257	0.204	105.57066	0.94	ppb
	Cu	63	199362.445	1.638	0.465	104.16273	0.99	ppb
	Cu	65	95711.468	1.404	0.223	101.59801	1.15	ppb
	Zn	66	109797.277	0.674	0.257	202.87628	0.64	ppb
	As	75	118744.046	0.573	0.278	202.63570	0.21	ppb
	Se	82	12534.963	0.629	0.029	203.11067	1.21	ppb
	Mo	96	423.343	22.679	0.000	0.37044	23.34	ppb
	Ag	107	355240.200	1.161	0.378	106.99237	0.73	ppb
	Ag	109	352657.608	0.902	0.376	108.16965	1.36	ppb
	Cd	111	86616.649	0.365	0.092	104.31088	1.84	ppb
	In	113	129030.564	1.498	0.094	104.89649	0.55	ppb
>	In	115	939239.920	1.872	939239.920			ppb
	Sn	118	251522.078	2.541	0.268	103.08956	1.01	ppb
	Sb	121	563093.607	0.841	0.374	209.42127	0.57	ppb
	Ba	135	76375.323	2.351	0.051	107.35782	1.74	ppb
	Ba	137	133503.249	0.206	0.089	108.25625	0.77	ppb
>	Tb	159	1506530.309	0.955	1506530.309			ppb
	Tl	205	2625007.132	0.390	2.018	225.79774	0.58	ppb
	Pb	206	855964.975	0.793	0.658	218.92784	0.48	ppb
	Pb	207	1613712.955	1.082	1.240	218.90433	0.33	ppb
	Pb	208	2642909.306	0.587	2.032	217.97572	0.50	ppb
>	Bi	209	1300664.021	0.967	1300664.021			ppb
	Cr	53	36466.377	1.326	36389.043			ppb
	Pd	106	7259.301	1.498	7259.301			ppb
	Pd	108	5466.496	4.814	5461.496			ppb
	C	12	256024.504	0.894	-2676.385			ppb
	Kr	83	52.000	13.868	16.667			ppb
	Se	77	9980.979	1.298	9957.423			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	422493.323		ppb
	Be	9	25973.688	103.067315	ppb
	Na	23	5213328.125	2043.716644	ppb
	Mg	24	2206927.367	1247.700087	ppb
	Mg	25	318872.189	1243.219184	ppb
	Mg	26	353588.648	1235.031758	ppb
	Al	27	1312333.581	491.256561	ppb
	K	39	8513723.963	2044.373009	ppb
	Ca	44	228357.933	2004.493093	ppb
>	Sc	45	430463.375		ppb
	Ti	47	190.002	0.176586	ppb
	V	51	367668.124	102.576907	ppb
	Cr	52	312336.708	100.542392	ppb
	Mn	55	460166.335	102.776110	ppb
	Fe	54	265790.914	1035.437835	ppb
	Fe	56	4886020.058	1080.280549	ppb
	Fe	57	100462.110	1049.309508	ppb
	Co	59	403226.934	105.974477	ppb
	Ni	60	87427.179	105.006500	ppb
	Cu	63	203098.381	105.330319	ppb
	Cu	65	97159.719	102.367146	ppb
	Zn	66	110611.716	202.849978	ppb
	As	75	119382.699	202.200936	ppb
	Se	82	12455.085	200.294602	ppb
	Mo	96	532.014	0.466887	ppb
	Ag	107	358879.542	106.174799	ppb
	Ag	109	356296.253	107.344272	ppb
	Cd	111	86877.468	102.758741	ppb
	In	113	130891.054	104.359814	ppb
>	In	115	956082.853		ppb
	Sn	118	258698.481	104.169711	ppb
	Sb	121	568397.377	209.254892	ppb
	Ba	135	77347.983	107.632841	ppb
	Ba	137	133730.250	107.339629	ppb
>	Tb	159	1521902.096		ppb
	Tl	205	2629868.429	225.237357	ppb
	Pb	206	862170.938	219.565685	ppb
	Pb	207	1626786.373	219.732536	ppb
	Pb	208	2656111.874	218.119069	ppb
>	Bi	209	1306265.853		ppb
	Cr	53	36578.778		ppb
	Pd	106	7177.575		ppb
	Pd	108	5381.448		ppb
	C	12	257251.906		ppb
	Kr	83	58.000		ppb
	Se	77	10117.783		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	408927.123		ppb
	Be	9	24544.084	100.625010	ppb
	Na	23	5097668.044	2064.688584	ppb
	Mg	24	2163701.590	1263.847372	ppb
	Mg	25	308815.854	1243.954897	ppb
	Mg	26	354946.504	1280.919452	ppb
	Al	27	1314974.036	508.578341	ppb
	K	39	8531922.594	2118.235879	ppb
	Ca	44	226091.294	2050.770370	ppb
>	Sc	45	423791.156		ppb

	Ti	47	245.003	0.386186	ppb
	V	51	369114.848	104.604932	ppb
	Cr	52	313700.413	102.583817	ppb
	Mn	55	447555.991	101.535831	ppb
	Fe	54	255600.357	1010.328460	ppb
	Fe	56	4767967.884	1069.956210	ppb
	Fe	57	96124.789	1019.241627	ppb
	Co	59	389132.715	103.879205	ppb
	Ni	60	86062.081	104.994330	ppb
	Cu	63	197049.144	103.795750	ppb
	Cu	65	95470.230	102.170155	ppb
	Zn	66	109614.155	204.186499	ppb
	As	75	118027.870	203.053573	ppb
	Se	82	12537.187	204.793047	ppb
	Mo	96	388.008	0.344491	ppb
	Ag	107	350758.897	107.725181	ppb
	Ag	109	351273.150	109.862235	ppb
	Cd	111	86706.930	106.463449	ppb
	In	113	127031.761	105.503917	ppb
>	In	115	921000.346		ppb
	Sn	118	246441.590	103.014042	ppb
	Sb	121	559300.346	208.312534	ppb
	Ba	135	77474.960	109.070035	ppb
	Ba	137	133582.292	108.474423	ppb
>	Tb	159	1504317.973		ppb
	Tl	205	2613255.476	227.295728	ppb
	Pb	206	848714.690	219.500624	ppb
	Pb	207	1593875.686	218.635527	ppb
	Pb	208	2625838.007	218.987134	ppb
>	Bi	209	1286259.480		ppb
	Cr	53	35936.456		ppb
	Pd	106	7382.724		ppb
	Pd	108	5761.659		ppb
	C	12	257436.568		ppb
	Kr	83	54.000		ppb
	Se	77	9964.963		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	416319.247		ppb
	Be	9	24798.711	99.863538	ppb
	Na	23	5177136.222	2059.639448	ppb
	Mg	24	2184248.086	1253.192798	ppb
	Mg	25	317040.303	1254.410558	ppb
	Mg	26	356216.486	1262.671414	ppb
	Al	27	1278576.463	485.717005	ppb
	K	39	8474900.217	2065.670382	ppb
	Ca	44	226772.459	2020.210112	ppb
>	Sc	45	427485.218		ppb
	Ti	47	195.002	0.199229	ppb
	V	51	379765.464	106.696335	ppb
	Cr	52	319889.931	103.710716	ppb
	Mn	55	460752.244	103.622248	ppb
	Fe	54	263881.329	1035.147885	ppb
	Fe	56	4796491.410	1066.802981	ppb
	Fe	57	100825.742	1060.660390	ppb
	Co	59	396291.791	104.876754	ppb
	Ni	60	88230.858	106.711164	ppb
	Cu	63	197939.810	103.362118	ppb
	Cu	65	94504.454	100.256742	ppb
	Zn	66	109165.959	201.592350	ppb
	As	75	118821.569	202.652585	ppb
	Se	82	12612.616	204.244349	ppb

⌈	Mo	96	350.006	0.299943	ppb
|	Ag	107	356082.160	107.077116	ppb
|	Ag	109	350403.421	107.302448	ppb
|	Cd	111	86265.549	103.710450	ppb
⌊	In	113	129168.877	104.825738	ppb
|>	In	115	940636.561		ppb
⌊	Sn	118	249426.162	102.084931	ppb
⌈	Sb	121	561583.098	210.696390	ppb
|	Ba	135	74303.025	105.370582	ppb
⌊	Ba	137	133197.206	108.954694	ppb
⌊>	Tb	159	1493370.859		ppb
⌈	Tl	205	2631897.491	224.860139	ppb
|	Pb	206	857009.298	217.717209	ppb
|	Pb	207	1620476.807	218.344915	ppb
⌊	Pb	208	2646778.039	216.820967	ppb
⌊>	Bi	209	1309466.731		ppb
	Cr	53	36883.896		ppb
	Pd	106	7217.604		ppb
	Pd	108	5256.381		ppb
	C	12	253385.037		ppb
	Kr	83	44.000		ppb
	Se	77	9860.192		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.372			
	Be	9	102.207				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		101.973			
	Ti	47					
	V	51	104.626				
	Cr	52	104.366				
	Mn	55	102.645				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	104.910				
	Ni	60	104.525				
	Cu	63	106.288				
	Cu	65	103.671				
	Zn	66	98.964				
	As	75	101.318				
	Se	82	98.597				
	Mo	96					
	Ag	107	106.992				
	Ag	109	108.170				
	Cd	111	105.365				
	In	113					
>	In	115		95.957			
	Sn	118	103.090				
	Sb	121	105.237				
	Ba	135	108.442				
	Ba	137	109.350				
>	Tb	159		97.048			
	Tl	205	109.611				
	Pb	206	109.464				
	Pb	207	109.452				
	Pb	208	108.988				
>	Bi	209		92.088			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICB

Sample Date/Time: Wednesday, June 03, 2009 11:50:09
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\ICB.195

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	412678.095	2.127	412678.095			ppb
	Be	9	15.333	130.652	0.000	0.04058	199.16	ppb
	Na	23	6368.361	1.126	0.006	0.95845	4.82	ppb
	Mg	24	417.010	44.554	-0.000	-0.02149	491.83	ppb
	Mg	25	67.334	47.370	0.000	0.00998	1255.85	ppb
	Mg	26	102.334	19.795	-0.000	-0.04476	159.78	ppb
	Al	27	1531.784	3.922	0.003	0.49971	2.31	ppb
	K	39	173060.664	0.334	0.003	0.33649	234.00	ppb
	Ca	44	1638.134	3.970	0.000	0.24880	286.46	ppb
>	Sc	45	419049.259	3.303	419049.259			ppb
	Ti	47	123.334	2.341	-0.000	-0.04834	50.24	ppb
	V	51	488.664	15.235	-0.000	-0.01446	164.58	ppb
	Cr	52	1788.827	2.623	-0.000	-0.02805	58.27	ppb
	Mn	55	-745.415	5.603	0.000	0.02826	48.38	ppb
	Fe	54	11384.811	0.823	0.000	0.80171	240.05	ppb
	Fe	56	369954.719	1.256	-0.019	-1.95425	98.21	ppb
	Fe	57	1933.520	3.813	0.000	0.80823	169.85	ppb
	Co	59	322.007	65.637	0.000	0.02410	235.81	ppb
	Ni	60	68.889	27.514	0.000	0.01660	143.23	ppb
	Cu	63	915.598	6.637	0.000	0.05775	55.37	ppb
	Cu	65	315.561	13.746	0.000	0.02625	161.21	ppb
	Zn	66	154.446	15.312	0.000	0.13173	31.66	ppb
	As	75	35.016	34.580	0.000	0.06352	32.94	ppb
	Se	82	22.889	17.556	0.000	0.20504	29.34	ppb
	Mo	96	144.668	18.872	0.000	0.09810	25.14	ppb
	Ag	107	1235.641	42.172	0.001	0.35860	40.65	ppb
	Ag	109	1180.080	47.266	0.001	0.34763	45.07	ppb
	Cd	111	-3.577	173.205	0.000	0.00009	7866.68	ppb
	In	113	41427.339	2.600	-0.001	-0.76181	128.24	ppb
>	In	115	968960.399	3.176	968960.399			ppb
	Sn	118	283.337	5.094	0.000	0.09355	3.22	ppb
	Sb	121	1653.641	16.978	0.001	0.56475	17.88	ppb
	Ba	135	16.667	34.641	-0.000	-0.00004	21244.62	ppb
	Ba	137	36.000	33.793	0.000	0.00588	167.33	ppb
>	Tb	159	1550145.509	1.373	1550145.509			ppb
	Tl	205	175.002	7.559	0.000	0.01329	8.42	ppb
	Pb	206	263.338	56.847	0.000	0.00616	599.45	ppb
	Pb	207	460.007	63.910	0.000	0.00468	820.08	ppb
	Pb	208	826.694	64.417	0.000	0.01243	340.03	ppb
>	Bi	209	1378274.462	2.813	1378274.462			ppb
	Cr	53	84.667	37.894	7.333			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	3.333	173.205	-1.667			ppb
	C	12	243021.190	1.344	-15679.698			ppb
	Kr	83	34.667	23.316	-0.667			ppb
	Se	77	33.111	25.013	9.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	415948.408		ppb
	Be	9	38.000	0.132041	ppb
	Na	23	6449.079	0.969944	ppb
	Mg	24	631.020	0.099865	ppb
	Mg	25	104.001	0.153453	ppb
	Mg	26	125.001	0.032789	ppb
	Al	27	1535.118	0.496499	ppb
	K	39	173298.723	0.043052	ppb
	Ca	44	1564.122	-0.538385	ppb
>	Sc	45	420160.109		ppb
	Ti	47	125.001	-0.043972	ppb
	V	51	556.854	0.004336	ppb
	Cr	52	1748.153	-0.043352	ppb
	Mn	55	-780.224	0.021018	ppb
	Fe	54	11316.399	0.348419	ppb
	Fe	56	369305.697	-2.397178	ppb
	Fe	57	1990.198	1.342919	ppb
	Co	59	566.016	0.089634	ppb
	Ni	60	90.000	0.042220	ppb
	Cu	63	850.036	0.021312	ppb
	Cu	65	273.337	-0.020139	ppb
	Zn	66	180.002	0.179231	ppb
	As	75	21.208	0.039385	ppb
	Se	82	26.667	0.267018	ppb
	Mo	96	174.002	0.125861	ppb
	Ag	107	686.690	0.199808	ppb
	Ag	109	656.688	0.194214	ppb
	Cd	111	-10.730	-0.008269	ppb
	In	113	40602.260	-1.651898	ppb
>	In	115	967455.701		ppb
	Sn	118	275.004	0.090440	ppb
	Sb	121	1348.801	0.452078	ppb
	Ba	135	20.000	0.004452	ppb
	Ba	137	42.000	0.010377	ppb
>	Tb	159	1557880.214		ppb
	Tl	205	160.001	0.012193	ppb
	Pb	206	435.009	0.048353	ppb
	Pb	207	795.016	0.048255	ppb
	Pb	208	1435.064	0.060543	ppb
>	Bi	209	1364616.830		ppb
	Cr	53	54.000		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	246306.441		ppb
	Kr	83	36.000		ppb
	Se	77	42.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	402733.640		ppb
	Be	9	0.000	-0.021153	ppb
	Na	23	6311.991	0.997849	ppb
	Mg	24	323.005	-0.070963	ppb
	Mg	25	52.000	-0.045761	ppb
	Mg	26	96.000	-0.058954	ppb
	Al	27	1470.108	0.490121	ppb
	K	39	172401.411	1.228437	ppb
	Ca	44	1664.138	0.850243	ppb
>	Sc	45	404686.140		ppb

	Ti	47	125.001	-0.026534	ppb
	V	51	499.900	-0.006497	ppb
	Cr	52	1778.158	-0.010833	ppb
	Mn	55	-756.924	0.019730	ppb
	Fe	54	11491.599	2.912453	ppb
	Fe	56	365665.524	0.147685	ppb
	Fe	57	1960.192	1.833218	ppb
	Co	59	204.002	-0.005799	ppb
	Ni	60	63.334	0.012366	ppb
	Cu	63	926.710	0.081124	ppb
	Cu	65	313.338	0.036146	ppb
	Zn	66	133.334	0.101067	ppb
	As	75	40.016	0.074677	ppb
	Se	82	18.667	0.146868	ppb
	Mo	96	120.001	0.078723	ppb
	Ag	107	1296.751	0.389678	ppb
	Ag	109	1116.729	0.341275	ppb
	Cd	111	0.000	0.004273	ppb
	In	113	41034.017	0.283430	ppb
>	In	115	938967.685		ppb
	Sn	118	275.004	0.093761	ppb
	Sb	121	1710.520	0.595013	ppb
	Ba	135	10.000	-0.008862	ppb
	Ba	137	44.000	0.012665	ppb
>	Tb	159	1526074.938		ppb
	Tl	205	185.002	0.014428	ppb
	Pb	206	195.002	-0.009591	ppb
	Pb	207	340.003	-0.010055	ppb
	Pb	208	600.011	-0.004539	ppb
>	Bi	209	1348174.584		ppb
	Cr	53	82.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	242981.569		ppb
	Kr	83	26.000		ppb
	Se	77	28.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	419352.237		ppb
	Be	9	8.000	0.010837	ppb
	Na	23	6344.012	0.907555	ppb
	Mg	24	297.004	-0.093370	ppb
	Mg	25	46.000	-0.077764	ppb
	Mg	26	86.000	-0.108101	ppb
	Al	27	1590.126	0.512510	ppb
	K	39	173481.857	-0.262032	ppb
	Ca	44	1686.142	0.434543	ppb
>	Sc	45	432301.528		ppb
	Ti	47	120.001	-0.074510	ppb
	V	51	409.238	-0.041212	ppb
	Cr	52	1840.169	-0.029968	ppb
	Mn	55	-699.099	0.044030	ppb
	Fe	54	11346.433	-0.855730	ppb
	Fe	56	374892.936	-3.613244	ppb
	Fe	57	1850.171	-0.751436	ppb
	Co	59	196.002	-0.011539	ppb
	Ni	60	53.333	-0.004774	ppb
	Cu	63	970.047	0.070805	ppb
	Cu	65	360.006	0.062756	ppb
	Zn	66	150.001	0.114899	ppb
	As	75	43.825	0.076494	ppb
	Se	82	23.333	0.201245	ppb

⌈	Mo	96	140.001	0.089713	ppb
|	Ag	107	1723.482	0.486318	ppb
|	Ag	109	1766.823	0.507393	ppb
|	Cd	111	0.000	0.004273	ppb
|	In	113	42645.739	-0.916968	ppb
|>	In	115	1000457.810		ppb
⌊	Sn	118	300.005	0.096451	ppb
⌈	Sb	121	1901.603	0.647167	ppb
|	Ba	135	20.000	0.004302	ppb
|	Ba	137	22.000	-0.005403	ppb
⌊>	Tb	159	1566481.375		ppb
⌈	Tl	205	180.002	0.013237	ppb
|	Pb	206	160.001	-0.020281	ppb
|	Pb	207	245.002	-0.024157	ppb
|	Pb	208	445.007	-0.018715	ppb
⌊>	Bi	209	1422031.971		ppb
	Cr	53	118.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	239775.561		ppb
	Kr	83	42.000		ppb
	Se	77	28.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.607			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		100.017			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		98.993			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		99.858			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		97.583			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CRI

Sample Date/Time: Wednesday, June 03, 2009 11:52:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CRI.196

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	418232.164	0.354	418232.164			ppb
	Be	9	252.670	18.332	0.001	0.99230	19.05	ppb
	Na	23	4304.593	1.778	0.001	0.10604	30.89	ppb
	Mg	24	403.675	29.294	-0.000	-0.03187	214.07	ppb
	Mg	25	53.000	26.415	-0.000	-0.04957	112.53	ppb
	Mg	26	95.667	37.461	-0.000	-0.07289	175.09	ppb
	Al	27	72852.748	0.343	0.174	27.46742	0.66	ppb
	K	39	171835.829	0.545	-0.005	-0.55407	68.92	ppb
	Ca	44	1490.778	2.536	-0.000	-1.26929	30.26	ppb
>	Sc	45	424361.552	2.240	424361.552			ppb
	Ti	47	123.334	22.328	-0.000	-0.05288	209.46	ppb
	V	51	18276.091	3.243	0.042	5.02470	2.04	ppb
	Cr	52	8034.560	1.169	0.014	2.01692	2.21	ppb
	Mn	55	3592.694	2.183	0.011	1.01210	3.52	ppb
	Fe	54	11746.900	3.175	0.001	1.69607	152.04	ppb
	Fe	56	372460.269	1.310	-0.024	-2.51042	57.91	ppb
	Fe	57	1901.848	1.448	0.000	0.18296	364.67	ppb
	Co	59	4021.475	2.289	0.009	1.01058	4.76	ppb
	Ni	60	876.705	6.119	0.002	1.00023	6.02	ppb
	Cu	63	4659.975	1.283	0.009	2.02972	1.22	ppb
	Cu	65	2109.112	6.264	0.004	1.94409	5.55	ppb
	Zn	66	1097.838	3.493	0.002	1.88520	4.22	ppb
	As	75	629.344	4.796	0.001	1.08401	4.71	ppb
	Se	82	322.227	3.960	0.001	5.09106	5.34	ppb
	Mo	96	1080.058	4.540	0.001	0.95799	4.63	ppb
	Ag	107	3591.756	2.407	0.004	1.03270	2.75	ppb
	Ag	109	3532.846	2.647	0.004	1.03395	2.41	ppb
	Cd	111	812.888	5.608	0.001	0.93957	5.91	ppb
	In	113	43676.854	1.362	0.001	1.10225	54.30	ppb
>	In	115	982941.104	0.360	982941.104			ppb
	Sn	118	2613.675	3.158	0.003	1.00489	3.34	ppb
	Sb	121	6266.963	1.521	0.004	2.21625	2.04	ppb
	Ba	135	7179.911	2.443	0.005	9.71886	2.98	ppb
	Ba	137	12263.515	0.831	0.008	9.57411	0.93	ppb
>	Tb	159	1561384.227	0.563	1561384.227			ppb
	Tl	205	12038.910	1.367	0.009	0.96117	1.34	ppb
	Pb	206	4794.485	5.388	0.003	1.08185	5.62	ppb
	Pb	207	8433.480	4.128	0.006	1.00864	4.49	ppb
	Pb	208	13063.447	5.488	0.009	0.94912	6.30	ppb
>	Bi	209	1399962.811	0.837	1399962.811			ppb
	Cr	53	756.029	1.735	678.695			ppb
	Pd	106	76.667	16.413	76.667			ppb
	Pd	108	78.334	26.575	73.334			ppb
	C	12	244170.721	1.923	-14530.167			ppb
	Kr	83	40.667	20.475	5.333			ppb
	Se	77	264.892	2.534	241.337			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	416988.404		ppb
	Be	9	304.005	1.201358	ppb
	Na	23	4381.960	0.141847	ppb
	Mg	24	540.015	0.046820	ppb
	Mg	25	63.000	-0.009571	ppb
	Mg	26	134.001	0.063544	ppb
	Al	27	72899.754	27.567036	ppb
	K	39	172653.709	-0.224831	ppb
	Ca	44	1520.116	-0.967653	ppb
>	Sc	45	413438.473		ppb
	Ti	47	155.001	0.074676	ppb
	V	51	17692.772	4.992125	ppb
	Cr	52	7953.161	2.058643	ppb
	Mn	55	3673.115	1.051705	ppb
	Fe	54	12142.367	4.617796	ppb
	Fe	56	368076.604	-1.227072	ppb
	Fe	57	1915.183	0.864270	ppb
	Co	59	4114.846	1.063785	ppb
	Ni	60	860.037	1.007607	ppb
	Cu	63	4591.054	2.057023	ppb
	Cu	65	1983.530	1.866517	ppb
	Zn	66	1096.727	1.936512	ppb
	As	75	617.624	1.091729	ppb
	Se	82	326.005	5.290483	ppb
	Mo	96	1128.064	0.999111	ppb
	Ag	107	3553.965	1.018685	ppb
	Ag	109	3640.663	1.062379	ppb
	Cd	111	763.486	0.879972	ppb
	In	113	44343.098	1.708131	ppb
>	In	115	985905.045		ppb
	Sn	118	2530.320	0.969227	ppb
	Sb	121	6211.929	2.183286	ppb
	Ba	135	6978.434	9.389007	ppb
	Ba	137	12231.476	9.492800	ppb
>	Tb	159	1570586.779		ppb
	Tl	205	12162.392	0.975636	ppb
	Pb	206	5026.263	1.142614	ppb
	Pb	207	8791.972	1.059038	ppb
	Pb	208	13890.832	1.017382	ppb
>	Bi	209	1393348.808		ppb
	Cr	53	758.029		ppb
	Pd	106	65.000		ppb
	Pd	108	85.000		ppb
	C	12	249494.016		ppb
	Kr	83	34.000		ppb
	Se	77	272.004		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	419867.183		ppb
	Be	9	214.002	0.833526	ppb
	Na	23	4302.926	0.098703	ppb
	Mg	24	342.006	-0.067971	ppb
	Mg	25	37.000	-0.113302	ppb
	Mg	26	63.000	-0.189338	ppb
	Al	27	72582.458	27.257886	ppb
	K	39	170814.526	-0.972688	ppb
	Ca	44	1448.105	-1.701704	ppb
>	Sc	45	430777.843		ppb

	Ti	47	110.001	-0.108590	ppb
	V	51	18257.725	4.942684	ppb
	Cr	52	8013.209	1.970120	ppb
	Mn	55	3516.395	0.982482	ppb
	Fe	54	11696.837	0.732796	ppb
	Fe	56	371587.950	-4.089340	ppb
	Fe	57	1870.175	-0.469217	ppb
	Co	59	3930.772	0.970065	ppb
	Ni	60	936.711	1.056371	ppb
	Cu	63	4691.100	2.008890	ppb
	Cu	65	2096.886	1.898377	ppb
	Zn	66	1136.731	1.925523	ppb
	As	75	606.777	1.029531	ppb
	Se	82	308.005	4.781071	ppb
	Mo	96	1030.053	0.911023	ppb
	Ag	107	3530.623	1.014059	ppb
	Ag	109	3473.937	1.015742	ppb
	Cd	111	821.859	0.948852	ppb
	In	113	43198.103	0.511295	ppb
>	In	115	983893.557		ppb
	Sn	118	2695.363	1.035838	ppb
	Sb	121	6211.929	2.197636	ppb
	Ba	135	7262.636	9.835728	ppb
	Ba	137	12377.656	9.668865	ppb
>	Tb	159	1560483.084		ppb
	Tl	205	12102.319	0.956967	ppb
	Pb	206	4841.172	1.081939	ppb
	Pb	207	8411.809	0.995706	ppb
	Pb	208	12624.734	0.906034	ppb
>	Bi	209	1413488.303		ppb
	Cr	53	768.029		ppb
	Pd	106	90.000		ppb
	Pd	108	95.000		ppb
	C	12	242402.773		ppb
	Kr	83	38.000		ppb
	Se	77	258.670		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	417840.905		ppb
	Be	9	240.003	0.942015	ppb
	Na	23	4228.894	0.077573	ppb
	Mg	24	329.005	-0.074460	ppb
	Mg	25	59.000	-0.025851	ppb
	Mg	26	90.000	-0.092874	ppb
	Al	27	73076.033	27.577348	ppb
	K	39	172039.254	-0.464678	ppb
	Ca	44	1504.113	-1.138501	ppb
>	Sc	45	428868.340		ppb
	Ti	47	105.001	-0.124719	ppb
	V	51	18877.777	5.139278	ppb
	Cr	52	8137.309	2.022013	ppb
	Mn	55	3588.574	1.002119	ppb
	Fe	54	11401.496	-0.262392	ppb
	Fe	56	377716.254	-2.214841	ppb
	Fe	57	1920.184	0.153838	ppb
	Co	59	4018.807	0.997901	ppb
	Ni	60	833.368	0.936715	ppb
	Cu	63	4697.770	2.023245	ppb
	Cu	65	2246.919	2.067389	ppb
	Zn	66	1060.056	1.793558	ppb
	As	75	663.632	1.130757	ppb
	Se	82	332.672	5.201632	ppb

⌈	Mo	96	1082.059	0.963840	ppb
|	Ag	107	3690.681	1.065351	ppb
|	Ag	109	3483.940	1.023743	ppb
|	Cd	111	853.320	0.989888	ppb
|	In	113	43489.361	1.087327	ppb
|>	In	115	979024.709		ppb
⌊	Sn	118	2615.342	1.009611	ppb
⌈	Sb	121	6377.033	2.267837	ppb
|	Ba	135	7298.663	9.931838	ppb
|	Ba	137	12181.415	9.560659	ppb
⌊>	Tb	159	1553082.818		ppb
⌈	Tl	205	11852.019	0.950918	ppb
|	Pb	206	4516.019	1.020992	ppb
|	Pb	207	8096.660	0.971188	ppb
|	Pb	208	12674.774	0.923947	ppb
⌊>	Bi	209	1393051.323		ppb
	Cr	53	742.028		ppb
	Pd	106	75.000		ppb
	Pd	108	55.000		ppb
	C	12	240615.375		ppb
	Kr	83	50.000		ppb
	Se	77	264.003		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			98.921		
	Be	9	99.230				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			101.285		
	Ti	47					
	V	51	100.494				
	Cr	52	100.846				
	Mn	55	101.210				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	101.058				
	Ni	60	100.023				
	Cu	63	101.486				
	Cu	65	97.205				
	Zn	66	94.260				
	As	75	108.401				
	Se	82	101.821				
	Mo	96					
	Ag	107	103.270				
	Ag	109	103.395				
	Cd	111	93.957				
	In	113					
>	In	115			100.422		
	Sn	118	100.489				
	Sb	121	110.813				
	Ba	135	97.189				
	Ba	137	95.741				
>	Tb	159			100.582		
	Tl	205	96.117				
	Pb	206	108.185				
	Pb	207	100.864				
	Pb	208	94.912				
>	Bi	209			99.119		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICSA

Sample Date/Time: Wednesday, June 03, 2009 11:54:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\ICSA.197

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	478897.611	1.658	478897.611			ppb
	Be	9	104.667	37.945	0.000	0.34621	41.43	ppb
	Na	23	S	S	1999999999.990	331509010744.94147	0.00	ppb
	Mg	24	153451195.878	0.899	320.452	76559.01331	0.78	ppb
	Mg	25	20939723.441	0.686	43.730	72047.41108	1.10	ppb
	Mg	26	23953646.353	0.477	50.030	73853.49866	2.10	ppb
	Al	27	225396808.623	1.049	470.775	74468.86109	2.43	ppb
	K	39	S	S	1999999999.584	207183257243.32681	0.00	ppb
	Ca	44	9497346.343	0.185	19.831	74081.06718	1.60	ppb
>	Sc	45	408083.685	0.675	408083.685			ppb
	Ti	47	523509.519	1.057	1.283	1966.00386	0.90	ppb
	V	51	-711.169	101.641	-0.003	-0.36497	58.70	ppb
	Cr	52	54265.523	1.338	0.129	17.91757	1.53	ppb
	Mn	55	24778.599	0.633	0.063	6.02579	0.97	ppb
	Fe	54	19677800.509	1.038	48.197	84481.26970	1.65	ppb
	Fe	56	334001300.317	1.012	817.553	84527.95297	0.54	ppb
	Fe	57	8058554.599	0.666	19.744	90492.27697	1.01	ppb
	Co	59	4316.266	5.151	0.010	1.13467	5.94	ppb
	Ni	60	5124.646	2.098	0.012	6.42867	2.44	ppb
	Cu	63	14513.863	2.649	0.034	7.53962	2.08	ppb
	Cu	65	7387.176	4.745	0.017	7.91771	4.23	ppb
	Zn	66	5957.330	1.908	0.014	11.37487	2.33	ppb
	As	75	82.079	72.429	0.000	0.14925	71.46	ppb
	Se	82	19.111	25.236	0.000	0.15190	54.58	ppb
	Mo	96	1881434.492	5.551	2.067	1871.93503	4.95	ppb
	Ag	107	75.556	9.184	0.000	0.02252	9.07	ppb
	Ag	109	75.556	5.094	0.000	0.02261	4.71	ppb
	Cd	111	495.101	21.560	0.001	0.61891	20.78	ppb
	In	113	41382.123	1.269	0.002	2.26602	20.27	ppb
>	In	115	909971.014	1.002	909971.014			ppb
	Sn	118	416.675	12.490	0.000	0.15730	13.91	ppb
	Sb	121	3203.847	1.713	0.002	1.09665	2.17	ppb
	Ba	135	948.712	4.543	0.001	1.24167	4.43	ppb
	Ba	137	1598.128	1.818	0.001	1.20611	2.05	ppb
>	Tb	159	1589267.588	0.581	1589267.588			ppb
	Tl	205	73.334	25.813	0.000	0.00603	30.29	ppb
	Pb	206	15251.627	2.550	0.013	4.24143	2.61	ppb
	Pb	207	27404.010	0.623	0.023	4.04239	0.32	ppb
	Pb	208	43016.613	1.442	0.036	3.85770	1.68	ppb
>	Bi	209	1180471.501	0.458	1180471.501			ppb
	Cr	53	9500.513	2.576	9423.179			ppb
	Pd	106	5.000	100.000	5.000			ppb
	Pd	108	2473.640	4.096	2468.640			ppb
	C	12	2499191.449	1.741	2240490.561			ppb
	Kr	83	56.000	9.449	20.667			ppb
	Se	77	462.233	4.701	438.677			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	472983.237		ppb
|	Be	9	150.001	0.510643	ppb
|	Na	23		331509010744.941470	ppb
|	Mg	24	152217608.625	76886.672163	ppb
|	Mg	25	20784005.629	72397.430141	ppb
|	Mg	26	24002697.350	74912.799133	ppb
|	Al	27	228121727.567	76292.447512	ppb
|	K	39		207183257243.326810	ppb
⌊	Ca	44	9478591.079	74846.309801	ppb
⌈>	Sc	45	406684.822		ppb
|	Ti	47	526820.857	1985.240214	ppb
|	V	51	-103.349	-0.185639	ppb
|	Cr	52	53498.724	17.717941	ppb
|	Mn	55	24633.462	6.011377	ppb
|	Fe	54	19654385.980	84665.180087	ppb
|	Fe	56	330786039.884	84002.397161	ppb
|	Fe	57	8006738.670	90216.551873	ppb
|	Co	59	4561.040	1.206692	ppb
|	Ni	60	5248.043	6.607595	ppb
|	Cu	63	14286.865	7.442623	ppb
|	Cu	65	7149.221	7.681328	ppb
|	Zn	66	6088.520	11.668583	ppb
|	As	75	145.313	0.263090	ppb
⌊	Se	82	24.667	0.247515	ppb
⌈	Mo	96	1814958.757	1799.848620	ppb
|	Ag	107	70.000	0.020721	ppb
|	Ag	109	73.334	0.021825	ppb
|	Cd	111	601.331	0.748954	ppb
|	In	113	41099.284	1.744141	ppb
|>	In	115	913128.812		ppb
⌊	Sn	118	475.011	0.181292	ppb
⌈	Sb	121	3185.507	1.094628	ppb
|	Ba	135	900.041	1.181682	ppb
|	Ba	137	1628.133	1.234165	ppb
⌊>	Tb	159	1582912.377		ppb
⌈	Tl	205	65.000	0.005211	ppb
|	Pb	206	14981.213	4.147887	ppb
|	Pb	207	27479.018	4.036813	ppb
|	Pb	208	43250.017	3.862730	ppb
⌊>	Bi	209	1185318.574		ppb
	Cr	53	9238.265		ppb
	Pd	106	10.000		ppb
	Pd	108	2555.326		ppb
	C	12	2479029.604		ppb
	Kr	83	62.000		ppb
	Se	77	438.010		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	475789.784		ppb
|	Be	9	76.000	0.246700	ppb
|	Na	23		331509010744.941470	ppb
|	Mg	24	153195248.241	76924.042783	ppb
|	Mg	25	20968135.314	72607.979291	ppb
|	Mg	26	24035111.527	74571.476578	ppb
|	Al	27	223892963.397	74436.503357	ppb
|	K	39		207183257243.326810	ppb
⌊	Ca	44	9513308.269	74677.302131	ppb
⌈>	Sc	45	411256.195		ppb

	Ti	47	526583.850	1962.284034	ppb
	V	51	-519.683	-0.307062	ppb
	Cr	52	54355.325	17.804475	ppb
	Mn	55	24757.147	5.975629	ppb
	Fe	54	19486261.985	83006.978242	ppb
	Fe	56	337527977.374	84762.569659	ppb
	Fe	57	8055021.695	89751.618172	ppb
	Co	59	4126.851	1.073068	ppb
	Ni	60	5074.621	6.315220	ppb
	Cu	63	14957.845	7.720817	ppb
	Cu	65	7789.699	8.300934	ppb
	Zn	66	5888.400	11.152670	ppb
	As	75	73.596	0.133056	ppb
	Se	82	16.667	0.108068	ppb
	Mo	96	1827531.939	1839.378240	ppb
	Ag	107	73.334	0.022093	ppb
	Ag	109	73.334	0.022171	ppb
	Cd	111	387.848	0.491750	ppb
	In	113	41059.120	2.444748	ppb
>	In	115	899695.168		ppb
	Sn	118	400.008	0.152183	ppb
	Sb	121	3265.533	1.121417	ppb
	Ba	135	982.048	1.289671	ppb
	Ba	137	1570.123	1.187772	ppb
>	Tb	159	1585026.251		ppb
	Tl	205	60.000	0.004758	ppb
	Pb	206	15697.311	4.363350	ppb
	Pb	207	27524.300	4.056980	ppb
	Pb	208	42313.390	3.790493	ppb
>	Bi	209	1181448.229		ppb
	Cr	53	9540.549		ppb
	Pd	106	0.000		ppb
	Pd	108	2360.279		ppb
	C	12	2469431.952		ppb
	Kr	83	54.000		ppb
	Se	77	480.012		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	487919.810		ppb
	Be	9	88.000	0.281283	ppb
	Na	23	331509010744.941470		ppb
	Mg	24	154940730.768	75866.324984	ppb
	Mg	25	21067029.380	71136.823805	ppb
	Mg	26	23823130.182	72076.220258	ppb
	Al	27	224175734.906	72677.632404	ppb
	K	39	207183257243.326810		ppb
	Ca	44	9500139.680	72719.589607	ppb
>	Sc	45	406310.039		ppb
	Ti	47	517123.848	1950.487323	ppb
	V	51	-1510.474	-0.602211	ppb
	Cr	52	54942.521	18.230304	ppb
	Mn	55	24945.187	6.090356	ppb
	Fe	54	19892753.563	85771.650758	ppb
	Fe	56	333689883.694	84818.892090	ppb
	Fe	57	8113903.432	91508.660865	ppb
	Co	59	4260.908	1.124245	ppb
	Ni	60	5051.275	6.363207	ppb
	Cu	63	14296.879	7.455411	ppb
	Cu	65	7222.607	7.770874	ppb
	Zn	66	5895.070	11.303344	ppb
	As	75	27.327	0.051618	ppb
	Se	82	16.000	0.100118	ppb

⌈	Mo	96	2001812.780	1976.578227	ppb
|	Ag	107	83.334	0.024740	ppb
|	Ag	109	80.000	0.023820	ppb
|	Cd	111	496.124	0.616014	ppb
|	In	113	41987.965	2.609182	ppb
|>	In	115	917089.062		ppb
⌊	Sn	118	375.007	0.138439	ppb
⌈	Sb	121	3160.499	1.073920	ppb
|	Ba	135	964.046	1.253665	ppb
|	Ba	137	1596.127	1.196407	ppb
⌊>	Tb	159	1599864.137		ppb
⌈	Tl	205	95.000	0.008124	ppb
|	Pb	206	15076.356	4.213044	ppb
|	Pb	207	27208.712	4.033368	ppb
|	Pb	208	43486.432	3.919890	ppb
⌊>	Bi	209	1174647.700		ppb
	Cr	53	9722.724		ppb
	Pd	106	5.000		ppb
	Pd	108	2505.314		ppb
	C	12	2549112.792		ppb
	Kr	83	52.000		ppb
	Se	77	468.678		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		113.269			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.400			
	Ti	47					
	V	51	-72.994				
	Cr	52	85.322				
	Mn	55	86.083				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	113.467				
	Ni	60	107.145				
	Cu	63	94.245				
	Cu	65	98.971				
	Zn	66	103.408				
	As	75	149.255				
	Se	82	50.634				
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111	88.415				
	In	113					
>	In	115		92.967			
	Sn	118					
	Sb	121	73.110				
	Ba	135	103.473				
	Ba	137	100.510				
>	Tb	159		102.378			
	Tl	205	60308.428				
	Pb	206	106.036				
	Pb	207	101.060				
	Pb	208	96.443				
>	Bi	209		83.578			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICSAB

Sample Date/Time: Wednesday, June 03, 2009 11:56:23
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\ICSAB.198

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	491082.847	1.719	491082.847			ppb
	Be	9	5378.780	0.942	0.011	18.34695	0.78	ppb
	Na	23	S	S	1999999999.990	331509010744.94147	0.00	ppb
	Mg	24	170374742.479	0.481	346.985	82898.09681	1.25	ppb
	Mg	25	23503880.589	1.065	47.866	78862.17798	1.10	ppb
	Mg	26	27013777.854	1.306	55.019	81218.75226	2.13	ppb
	Al	27	S	S	666667009.409	105455711505.99727	173.20	ppb
	K	39	S	S	1999999999.584	207183257243.32681	0.00	ppb
	Ca	44	10573446.229	2.027	21.526	80413.60600	0.65	ppb
>	Sc	45	457557.974	1.111	457557.974			ppb
	Ti	47	592112.806	1.847	1.294	1983.16133	1.26	ppb
	V	51	67626.808	0.722	0.147	17.62397	1.67	ppb
	Cr	52	117519.903	1.120	0.252	35.18853	1.08	ppb
	Mn	55	107987.825	0.900	0.238	22.84621	0.59	ppb
	Fe	54	21965131.305	0.905	47.980	84101.05409	0.65	ppb
	Fe	56	S	S	1999999999.098	206782808913.02939		ppb
	Fe	57	9007728.208	2.102	19.682	90209.46955	1.67	ppb
	Co	59	72571.725	0.794	0.158	17.89282	1.36	ppb
	Ni	60	20232.670	0.618	0.044	22.81117	1.72	ppb
	Cu	63	45222.023	0.590	0.097	21.72423	1.25	ppb
	Cu	65	23133.400	1.878	0.050	22.68970	3.01	ppb
	Zn	66	14695.237	2.020	0.032	25.21297	1.11	ppb
	As	75	9898.147	1.047	0.022	15.77453	0.45	ppb
	Se	82	1074.280	3.784	0.002	16.09185	3.02	ppb
	Mo	96	2188390.912	0.926	2.171	1965.71156	1.26	ppb
	Ag	107	55681.293	1.872	0.055	15.62264	2.17	ppb
	Ag	109	54100.396	0.590	0.054	15.45688	0.93	ppb
	Cd	111	14772.208	2.065	0.015	16.57473	2.35	ppb
	In	113	60864.702	1.761	0.017	18.90071	6.09	ppb
>	In	115	1008136.817	0.342	1008136.817			ppb
	Sn	118	55085.927	1.127	0.055	21.02146	1.41	ppb
	Sb	121	58635.162	1.738	0.033	18.74501	2.59	ppb
	Ba	135	14976.541	1.295	0.009	18.10577	1.64	ppb
	Ba	137	26063.932	2.093	0.015	18.17363	1.53	ppb
>	Tb	159	1750069.975	1.098	1750069.975			ppb
	Tl	205	220692.133	0.903	0.173	19.33392	2.03	ppb
	Pb	206	90509.453	1.116	0.071	23.52704	2.25	ppb
	Pb	207	167733.165	1.034	0.131	23.12694	2.18	ppb
	Pb	208	271529.971	0.412	0.212	22.76154	1.53	ppb
>	Bi	209	1277187.905	1.205	1277187.905			ppb
	Cr	53	17312.310	1.950	17234.976			ppb
	Pd	106	1185.070	4.220	1185.070			ppb
	Pd	108	3839.070	0.868	3834.070			ppb
	C	12	2727045.624	1.159	2468344.736			ppb
	Kr	83	62.667	3.685	27.333			ppb
	Se	77	1412.544	1.534	1388.989			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	481523.762		ppb
	Be	9	5321.415	18.510142	ppb
	Na	23	331509010744.941470		ppb
	Mg	24	169447651.707	84071.709151	ppb
	Mg	25	23314276.000	79770.810009	ppb
	Mg	26	27076150.587	83006.318955	ppb
	Al	27	250223227.538	82199.765596	ppb
	K	39	207183257243.326810		ppb
	Ca	44	10356896.091	80332.268103	ppb
>	Sc	45	452726.208		ppb
	Ti	47	589164.077	1994.385885	ppb
	V	51	68160.586	17.953472	ppb
	Cr	52	117552.897	35.579559	ppb
	Mn	55	106866.228	22.849601	ppb
	Fe	54	21886059.289	84690.622965	ppb
	Fe	56	206782808913.029360		ppb
	Fe	57	8994774.226	91042.474735	ppb
	Co	59	72935.009	18.173823	ppb
	Ni	60	20367.387	23.206375	ppb
	Cu	63	45376.050	22.035192	ppb
	Cu	65	23601.151	23.400209	ppb
	Zn	66	14520.535	25.180253	ppb
	As	75	9835.400	15.841622	ppb
	Se	82	1027.386	15.550131	ppb
	Mo	96	2165000.330	1937.234640	ppb
	Ag	107	54534.965	15.242007	ppb
	Ag	109	53737.331	15.294305	ppb
	Cd	111	14557.895	16.271369	ppb
	In	113	61473.370	19.315586	ppb
>	In	115	1011993.304		ppb
	Sn	118	54433.608	20.692501	ppb
	Sb	121	58071.772	18.648785	ppb
	Ba	135	14762.889	17.929640	ppb
	Ba	137	25488.442	17.855817	ppb
>	Tb	159	1741901.346		ppb
	Tl	205	222953.001	19.735288	ppb
	Pb	206	91653.099	24.073245	ppb
	Pb	207	169666.218	23.637853	ppb
	Pb	208	272822.347	23.109578	ppb
>	Bi	209	1263831.790		ppb
	Cr	53	17200.781		ppb
	Pd	106	1185.070		ppb
	Pd	108	3800.722		ppb
	C	12	2694179.641		ppb
	Kr	83	60.000		ppb
	Se	77	1390.763		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	497502.455		ppb
	Be	9	5417.467	18.238704	ppb
	Na	23	331509010744.941470		ppb
	Mg	24	171004512.662	82119.133107	ppb
	Mg	25	23787653.538	78776.403669	ppb
	Mg	26	27331228.052	81097.193392	ppb
	Al	27	316366971869.430240		ppb
	K	39	207183257243.326810		ppb
	Ca	44	10785473.821	80969.741870	ppb
>	Sc	45	462859.654		ppb

	Ti	47	604224.020	2000.587570	ppb
	V	51	67516.876	17.389746	ppb
	Cr	52	118819.737	35.168572	ppb
	Mn	55	108585.890	22.710217	ppb
	Fe	54	22191215.856	83991.079536	ppb
	Fe	56		206782808913.029360	ppb
	Fe	57	9203215.577	91112.878499	ppb
	Co	59	72872.557	17.759291	ppb
	Ni	60	20120.221	22.420546	ppb
	Cu	63	45376.050	21.543310	ppb
	Cu	65	22742.498	22.037033	ppb
	Zn	66	15037.965	25.508681	ppb
	As	75	10017.726	15.782048	ppb
	Se	82	1096.060	16.233868	ppb
	Mo	96	2200929.519	1982.418923	ppb
	Ag	107	55936.006	15.737085	ppb
	Ag	109	54337.227	15.567420	ppb
	Cd	111	15121.489	17.012963	ppb
	In	113	61493.493	19.786876	ppb
>	In	115	1005339.596		ppb
	Sn	118	55154.712	21.105767	ppb
	Sb	121	59811.778	19.270808	ppb
	Ba	135	15141.455	18.449570	ppb
	Ba	137	26130.095	18.365195	ppb
>	Tb	159	1736283.454		ppb
	Tl	205	219196.307	18.950211	ppb
	Pb	206	89740.872	23.018748	ppb
	Pb	207	166312.918	22.627966	ppb
	Pb	208	270922.474	22.411870	ppb
>	Bi	209	1294010.394		ppb
	Cr	53	17691.636		ppb
	Pd	106	1135.064		ppb
	Pd	108	3860.745		ppb
	C	12	2729734.822		ppb
	Kr	83	64.000		ppb
	Se	77	1434.103		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	494222.323		ppb
	Be	9	5397.456	18.291999	ppb
	Na	23		331509010744.941470	ppb
	Mg	24	170672063.069	82503.448181	ppb
	Mg	25	23409712.231	78039.320255	ppb
	Mg	26	26633954.924	79552.744425	ppb
	Al	27	251351357.775	80448.795952	ppb
	K	39		207183257243.326810	ppb
	Ca	44	10577968.775	79938.808014	ppb
>	Sc	45	457088.061		ppb
	Ti	47	582950.319	1954.510527	ppb
	V	51	67202.963	17.528679	ppb
	Cr	52	116187.073	34.817463	ppb
	Mn	55	108511.359	22.978815	ppb
	Fe	54	21818118.770	83621.459768	ppb
	Fe	56		206782808913.029360	ppb
	Fe	57	8825194.822	88473.055416	ppb
	Co	59	71907.609	17.745355	ppb
	Ni	60	20210.402	22.806586	ppb
	Cu	63	44913.971	21.594183	ppb
	Cu	65	23056.550	22.631855	ppb
	Zn	66	14527.211	24.949985	ppb
	As	75	9841.316	15.699912	ppb
	Se	82	1099.394	16.491563	ppb

⌈	Mo	96	2199242.886	1977.481128	ppb
|	Ag	107	56572.907	15.888813	ppb
|	Ag	109	54226.629	15.508918	ppb
|	Cd	111	14637.239	16.439864	ppb
|	In	113	59627.242	17.599657	ppb
|>	In	115	1007077.552		ppb
⌊	Sn	118	55669.462	21.266125	ppb
⌈	Sb	121	58021.936	18.315440	ppb
|	Ba	135	15025.279	17.938111	ppb
|	Ba	137	26573.260	18.299881	ppb
⌊>	Tb	159	1772025.125		ppb
⌈	Tl	205	219927.092	19.316268	ppb
|	Pb	206	90134.388	23.489131	ppb
|	Pb	207	167220.360	23.115004	ppb
|	Pb	208	270845.090	22.763179	ppb
⌊>	Bi	209	1273721.529		ppb
	Cr	53	17044.513		ppb
	Pd	106	1235.076		ppb
	Pd	108	3855.743		ppb
	C	12	2757222.411		ppb
	Kr	83	64.000		ppb
	Se	77	1412.766		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		116.152			
	Be	9	96.563				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		109.208			
	Ti	47					
	V	51	92.758				
	Cr	52	87.971				
	Mn	55	84.616				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	89.464				
	Ni	60	95.047				
	Cu	63	86.897				
	Cu	65	90.759				
	Zn	66	86.941				
	As	75	83.024				
	Se	82	84.694				
	Mo	96					
	Ag	107	86.792				
	Ag	109	85.872				
	Cd	111	82.874				
	In	113					
>	In	115		102.996			
	Sn	118	105.107				
	Sb	121	85.205				
	Ba	135	82.299				
	Ba	137	82.607				
>	Tb	159		112.737			
	Tl	205	92.066				
	Pb	206	94.108				
	Pb	207	92.508				
	Pb	208	91.046				
>	Bi	209		90.426			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Wednesday, June 03, 2009 11:58:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CCV.199

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	447400.198	1.866	447400.198			ppb
|	Be	9	30951.858	3.110	0.069	115.96888	1.26	ppb
|	Na	23	3054328.706	1.591	6.818	1130.09688	1.49	ppb
|	Mg	24	2141382.863	0.749	4.786	1143.52828	2.25	ppb
|	Mg	25	315469.461	0.225	0.705	1161.71366	1.74	ppb
|	Mg	26	350554.301	1.006	0.783	1156.57560	2.49	ppb
|	Al	27	3276057.570	1.729	7.325	1158.65211	3.35	ppb
|	K	39	5186285.441	1.706	11.181	1158.24705	3.66	ppb
⌊	Ca	44	143024.984	1.257	0.316	1180.03235	3.02	ppb
⌈>	Sc	45	444923.898	1.523	444923.898			ppb
|	Ti	47	34178.327	2.213	0.076	117.24909	0.91	ppb
|	V	51	442709.381	1.087	0.994	119.54784	2.19	ppb
|	Cr	52	383537.766	0.965	0.858	119.58968	2.08	ppb
|	Mn	55	556219.124	1.723	1.252	120.16365	1.46	ppb
|	Fe	54	316029.576	0.771	0.684	1198.28951	0.93	ppb
|	Fe	56	5564024.206	1.291	11.604	1199.75388	0.94	ppb
|	Fe	57	120208.262	1.274	0.266	1217.99009	0.25	ppb
|	Co	59	476167.333	1.109	1.070	121.09538	1.12	ppb
|	Ni	60	104625.608	0.741	0.235	121.61042	1.83	ppb
|	Cu	63	238496.107	0.505	0.534	119.74482	1.55	ppb
|	Cu	65	116536.248	0.892	0.261	118.86223	1.88	ppb
|	Zn	66	66715.147	0.738	0.150	118.32829	2.00	ppb
|	As	75	72207.554	0.608	0.162	118.33657	0.91	ppb
⌊	Se	82	7759.454	1.031	0.017	120.66687	0.94	ppb
⌈	Mo	96	132281.902	1.021	0.134	121.33316	1.83	ppb
|	Ag	107	420198.115	0.792	0.426	120.41620	0.46	ppb
|	Ag	109	414563.178	0.441	0.420	120.98248	0.43	ppb
|	Cd	111	105255.729	1.503	0.107	120.59493	1.73	ppb
|	In	113	149886.678	0.948	0.108	121.05349	0.83	ppb
|>	In	115	987058.022	0.863	987058.022			ppb
⌊	Sn	118	308944.789	0.374	0.313	120.50569	0.68	ppb
⌈	Sb	121	334725.291	1.131	0.213	119.37882	2.43	ppb
|	Ba	135	89408.600	0.802	0.057	120.52968	1.15	ppb
|	Ba	137	155495.012	0.949	0.099	120.91278	1.41	ppb
⌊>	Tb	159	1571131.242	1.318	1571131.242			ppb
⌈	Tl	205	1395359.340	1.279	1.039	116.27942	1.14	ppb
|	Pb	206	482377.360	0.642	0.359	119.50204	0.36	ppb
|	Pb	207	911607.484	0.503	0.679	119.78319	0.22	ppb
|	Pb	208	1511049.863	0.720	1.125	120.71361	0.56	ppb
⌊>	Bi	209	1342504.434	0.287	1342504.434			ppb
	Cr	53	44560.410	1.547	44483.076			ppb
	Pd	106	8974.025	0.892	8974.025			ppb
	Pd	108	6808.985	2.420	6803.985			ppb
	C	12	255515.491	1.686	-3185.397			ppb
	Kr	83	24.000	8.333	-11.333			ppb
	Se	77	5984.680	2.044	5961.124			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	456741.765		ppb
	Be	9	32001.122	117.466112	ppb
	Na	23	3100120.447	1123.453523	ppb
	Mg	24	2139009.145	1118.596315	ppb
	Mg	25	315731.868	1138.650162	ppb
	Mg	26	349639.364	1129.628866	ppb
	Al	27	3239756.654	1121.938407	ppb
	K	39	5094371.823	1112.315629	ppb
	Ca	44	141635.984	1143.817956	ppb
>	Sc	45	439207.919		ppb
	Ti	47	33766.914	117.352435	ppb
	V	51	440894.035	120.584586	ppb
	Cr	52	382009.819	120.646012	ppb
	Mn	55	557334.383	121.962566	ppb
	Fe	54	315035.412	1210.420510	ppb
	Fe	56	5546164.473	1212.316086	ppb
	Fe	57	118948.252	1220.925981	ppb
	Co	59	470087.368	121.095645	ppb
	Ni	60	105362.150	124.040612	ppb
	Cu	63	239319.837	121.711217	ppb
	Cu	65	117469.256	121.359529	ppb
	Zn	66	67258.762	120.825210	ppb
	As	75	71812.290	119.209388	ppb
	Se	82	7742.997	121.971244	ppb
	Mo	96	133549.863	123.709574	ppb
	Ag	107	416729.264	120.615273	ppb
	Ag	109	412450.574	121.566872	ppb
	Cd	111	105447.568	122.017023	ppb
	In	113	148489.329	121.151748	ppb
>	In	115	977283.211		ppb
	Sn	118	308186.890	121.408218	ppb
	Sb	121	330523.486	116.251485	ppb
	Ba	135	90092.009	119.789555	ppb
	Ba	137	156600.662	120.105056	ppb
>	Tb	159	1592792.326		ppb
	Tl	205	1415706.708	117.702175	ppb
	Pb	206	484877.040	119.843412	ppb
	Pb	207	915858.375	120.062974	ppb
	Pb	208	1523605.641	121.434867	ppb
>	Bi	209	1345628.415		ppb
	Cr	53	44508.832		ppb
	Pd	106	8974.025		ppb
	Pd	108	6997.447		ppb
	C	12	260345.439		ppb
	Kr	83	26.000		ppb
	Se	77	6113.201		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	444784.464		ppb
	Be	9	30745.191	115.889646	ppb
	Na	23	3003328.764	1117.628108	ppb
	Mg	24	2126660.377	1142.042041	ppb
	Mg	25	316011.496	1170.303644	ppb
	Mg	26	347574.211	1153.154087	ppb
	Al	27	3247084.575	1154.708334	ppb
	K	39	5193642.827	1166.498049	ppb
	Ca	44	142382.473	1181.229204	ppb
>	Sc	45	443156.526		ppb

	Ti	47	33716.745	116.128810	ppb
	V	51	448167.111	121.482772	ppb
	Cr	52	387758.863	121.374258	ppb
	Mn	55	546125.937	118.450691	ppb
	Fe	54	314246.152	1196.096084	ppb
	Fe	56	5502825.417	1190.571740	ppb
	Fe	57	119762.889	1218.291284	ppb
	Co	59	479603.646	122.446936	ppb
	Ni	60	103816.106	121.129871	ppb
	Cu	63	237114.902	119.507575	ppb
	Cu	65	115415.549	118.167085	ppb
	Zn	66	66299.052	118.036280	ppb
	As	75	72130.281	118.670388	ppb
	Se	82	7688.955	120.038020	ppb
	Mo	96	130862.686	119.314551	ppb
	Ag	107	420498.914	119.794165	ppb
	Ag	109	415569.117	120.561616	ppb
	Cd	111	106732.904	121.563933	ppb
	In	113	149839.242	120.004256	ppb
>	In	115	992882.679		ppb
	Sn	118	310274.994	120.310237	ppb
	Sb	121	335784.473	119.889434	ppb
	Ba	135	88661.307	119.670497	ppb
	Ba	137	153820.000	119.756924	ppb
>	Tb	159	1569057.246		ppb
	Tl	205	1388023.936	116.041340	ppb
	Pb	206	478914.781	119.026588	ppb
	Pb	207	906745.044	119.528016	ppb
	Pb	208	1505044.530	120.621173	ppb
>	Bi	209	1338198.443		ppb
	Cr	53	43898.141		ppb
	Pd	106	9054.097		ppb
	Pd	108	6737.269		ppb
	C	12	252072.483		ppb
	Kr	83	22.000		ppb
	Se	77	5971.116		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	440674.366		ppb
	Be	9	30109.260	114.550879	ppb
	Na	23	3059536.907	1149.209000	ppb
	Mg	24	2158479.069	1169.946479	ppb
	Mg	25	314665.020	1176.187182	ppb
	Mg	26	354449.327	1186.943859	ppb
	Al	27	3341331.481	1199.309583	ppb
	K	39	5270841.673	1195.927465	ppb
	Ca	44	145056.494	1215.049887	ppb
>	Sc	45	452407.248		ppb
	Ti	47	35051.322	118.266019	ppb
	V	51	439066.997	116.576174	ppb
	Cr	52	380844.615	116.748778	ppb
	Mn	55	565197.053	120.077702	ppb
	Fe	54	318807.164	1188.351931	ppb
	Fe	56	5643082.729	1196.373801	ppb
	Fe	57	121913.644	1214.753007	ppb
	Co	59	478810.984	119.743545	ppb
	Ni	60	104698.569	119.660783	ppb
	Cu	63	239053.581	118.015663	ppb
	Cu	65	116723.938	117.060067	ppb
	Zn	66	66587.627	116.123385	ppb
	As	75	72680.089	117.129936	ppb
	Se	82	7846.410	119.991335	ppb

⌈	Mo	96	132433.159	120.975344	ppb
|	Ag	107	423366.169	120.839151	ppb
|	Ag	109	415669.843	120.818939	ppb
|	Cd	111	103586.716	118.203848	ppb
|	In	113	151331.461	122.004455	ppb
|>	In	115	991008.176		ppb
⌊	Sn	118	308372.482	119.798623	ppb
⌈	Sb	121	337867.915	121.995544	ppb
|	Ba	135	89472.484	122.128991	ppb
|	Ba	137	156064.375	122.876358	ppb
⌊>	Tb	159	1551544.155		ppb
⌈	Tl	205	1382347.375	115.094754	ppb
|	Pb	206	483340.259	119.636134	ppb
|	Pb	207	912219.033	119.758574	ppb
|	Pb	208	1504499.418	120.084779	ppb
⌊>	Bi	209	1343686.444		ppb
	Cr	53	45274.256		ppb
	Pd	106	8893.953		ppb
	Pd	108	6692.239		ppb
	C	12	254128.551		ppb
	Kr	83	24.000		ppb
	Se	77	5869.722		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		105.820			
	Be	9	96.641				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		106.193			
	Ti	47					
	V	51	99.623				
	Cr	52	99.658				
	Mn	55	100.136				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	100.913				
	Ni	60	101.342				
	Cu	63	99.787				
	Cu	65	99.052				
	Zn	66	98.607				
	As	75	98.614				
	Se	82	100.556				
	Mo	96					
	Ag	107	100.347				
	Ag	109	100.819				
	Cd	111	100.496				
	In	113					
>	In	115		100.842			
	Sn	118	100.421				
	Sb	121	99.482				
	Ba	135	100.441				
	Ba	137	100.761				
>	Tb	159		101.210			
	Tl	205	96.900				
	Pb	206	99.585				
	Pb	207	99.819				
	Pb	208	100.595				
>	Bi	209		95.050			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Wednesday, June 03, 2009 12:00:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CCB.200

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	446683.511	2.684	446683.511			ppb
	Be	9	27.333	116.692	0.000	0.07947	145.15	ppb
	Na	23	10048.389	5.420	0.013	2.12705	5.00	ppb
	Mg	24	1185.411	40.462	0.002	0.36727	64.33	ppb
	Mg	25	157.001	39.166	0.000	0.31694	65.77	ppb
	Mg	26	218.003	35.754	0.000	0.30548	76.96	ppb
	Al	27	2788.734	21.556	0.006	0.89724	20.70	ppb
	K	39	173009.121	0.397	-0.029	-2.97693	31.91	ppb
	Ca	44	1828.834	3.610	0.000	0.71769	103.81	ppb
>	Sc	45	442982.761	1.816	442982.761			ppb
	Ti	47	33.333	43.301	-0.000	-0.38525	12.30	ppb
	V	51	643.202	7.422	0.000	0.01945	50.39	ppb
	Cr	52	1988.865	4.681	0.000	0.00271	1225.46	ppb
	Mn	55	-817.796	2.237	0.000	0.02207	6.98	ppb
	Fe	54	11962.154	2.910	0.000	0.49814	444.69	ppb
	Fe	56	377479.424	0.666	-0.050	-5.14643	40.68	ppb
	Fe	57	1925.186	5.010	-0.000	-0.43845	276.38	ppb
	Co	59	314.674	88.715	0.000	0.01673	413.68	ppb
	Ni	60	78.889	4.879	0.000	0.02358	22.85	ppb
	Cu	63	770.030	10.875	-0.000	-0.04296	81.41	ppb
	Cu	65	361.118	11.128	0.000	0.05437	63.98	ppb
	Zn	66	176.668	6.803	0.000	0.15601	15.49	ppb
	As	75	9.843	111.202	0.000	0.01886	97.00	ppb
	Se	82	16.222	50.722	0.000	0.08158	161.27	ppb
	Mo	96	576.017	6.143	0.001	0.49039	5.90	ppb
	Ag	107	1310.096	42.165	0.001	0.37450	42.69	ppb
	Ag	109	1222.305	39.763	0.001	0.35539	40.34	ppb
	Cd	111	0.908	392.702	0.000	0.00532	76.95	ppb
	In	113	43285.151	1.053	0.000	0.36710	122.52	ppb
>	In	115	988795.107	0.770	988795.107			ppb
	Sn	118	208.336	40.184	0.000	0.06196	51.41	ppb
	Sb	121	2005.202	7.246	0.001	0.68631	7.14	ppb
	Ba	135	22.667	51.701	0.000	0.00791	196.94	ppb
	Ba	137	32.000	16.536	0.000	0.00247	166.40	ppb
>	Tb	159	1561692.483	0.930	1561692.483			ppb
	Tl	205	143.334	19.213	0.000	0.01085	19.88	ppb
	Pb	206	270.005	62.609	0.000	0.00816	500.26	ppb
	Pb	207	508.342	62.646	0.000	0.01127	362.37	ppb
	Pb	208	850.028	67.037	0.000	0.01464	303.73	ppb
>	Bi	209	1360894.507	1.340	1360894.507			ppb
	Cr	53	117.334	11.972	40.000			ppb
	Pd	106	1.667	173.205	1.667			ppb
	Pd	108	5.000	100.000	0.000			ppb
	C	12	247365.921	1.548	-11334.967			ppb
	Kr	83	16.000	33.072	-19.333			ppb
	Se	77	27.556	11.934	4.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	460312.007		ppb
	Be	9	64.000	0.211992	ppb
	Na	23	10675.695	2.244229	ppb
	Mg	24	1739.151	0.640072	ppb
	Mg	25	228.003	0.557582	ppb
	Mg	26	308.005	0.576917	ppb
	Al	27	3470.602	1.105352	ppb
	K	39	173500.171	-4.071246	ppb
	Ca	44	1830.167	0.266826	ppb
>	Sc	45	452219.015		ppb
	Ti	47	50.000	-0.330537	ppb
	V	51	697.913	0.030553	ppb
	Cr	52	1984.197	-0.011701	ppb
	Mn	55	-836.525	0.021704	ppb
	Fe	54	11561.680	-2.047706	ppb
	Fe	56	374898.126	-7.561090	ppb
	Fe	57	1885.178	-1.260601	ppb
	Co	59	636.020	0.096346	ppb
	Ni	60	76.667	0.019110	ppb
	Cu	63	866.704	-0.002576	ppb
	Cu	65	403.341	0.089665	ppb
	Zn	66	173.335	0.143590	ppb
	As	75	7.044	0.013940	ppb
	Se	82	14.000	0.041779	ppb
	Mo	96	614.019	0.520438	ppb
	Ag	107	723.359	0.204170	ppb
	Ag	109	703.358	0.201813	ppb
	Cd	111	-0.730	0.003445	ppb
	In	113	43640.015	0.339774	ppb
>	In	115	997448.214		ppb
	Sn	118	305.005	0.098730	ppb
	Sb	121	2155.232	0.733475	ppb
	Ba	135	36.000	0.025659	ppb
	Ba	137	36.000	0.005355	ppb
>	Tb	159	1575519.984		ppb
	Tl	205	130.001	0.009694	ppb
	Pb	206	465.011	0.055242	ppb
	Pb	207	870.019	0.057532	ppb
	Pb	208	1495.068	0.064819	ppb
>	Bi	209	1369770.216		ppb
	Cr	53	104.001		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	251631.585		ppb
	Kr	83	10.000		ppb
	Se	77	26.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	437775.099		ppb
	Be	9	12.000	0.024812	ppb
	Na	23	9773.774	2.100638	ppb
	Mg	24	899.040	0.228062	ppb
	Mg	25	122.001	0.200657	ppb
	Mg	26	173.001	0.172531	ppb
	Al	27	2560.328	0.837836	ppb
	K	39	172224.400	-2.363044	ppb
	Ca	44	1894.179	1.577653	ppb
>	Sc	45	437516.126		ppb

	Ti	47	25.000	-0.412433	ppb
	V	51	621.698	0.015838	ppb
	Cr	52	2084.217	0.040732	ppb
	Mn	55	-799.978	0.023754	ppb
	Fe	54	12192.428	1.985295	ppb
	Fe	56	377622.823	-4.036773	ppb
	Fe	57	2035.207	0.953191	ppb
	Co	59	176.002	-0.017325	ppb
	Ni	60	76.667	0.022057	ppb
	Cu	63	720.026	-0.063289	ppb
	Cu	65	323.339	0.020113	ppb
	Zn	66	190.002	0.183862	ppb
	As	75	21.916	0.039105	ppb
	Se	82	25.333	0.228459	ppb
	Mo	96	570.016	0.488038	ppb
	Ag	107	1386.763	0.398037	ppb
	Ag	109	1296.751	0.378639	ppb
	Cd	111	-1.545	0.002495	ppb
	In	113	43444.165	0.829915	ppb
>	In	115	983108.978		ppb
	Sn	118	160.001	0.043654	ppb
	Sb	121	1865.174	0.635625	ppb
	Ba	135	18.000	0.001652	ppb
	Ba	137	26.000	-0.002238	ppb
>	Tb	159	1562993.590		ppb
	Tl	205	125.001	0.009513	ppb
	Pb	206	180.002	-0.013020	ppb
	Pb	207	385.004	-0.003854	ppb
	Pb	208	640.012	-0.001042	ppb
>	Bi	209	1339923.102		ppb
	Cr	53	132.001		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	246244.954		ppb
	Kr	83	18.000		ppb
	Se	77	31.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	441963.426		ppb
	Be	9	6.000	0.001612	ppb
	Na	23	9695.698	2.036287	ppb
	Mg	24	918.042	0.233684	ppb
	Mg	25	121.001	0.192578	ppb
	Mg	26	173.001	0.167002	ppb
	Al	27	2335.273	0.748520	ppb
	K	39	173302.792	-2.496489	ppb
	Ca	44	1762.155	0.308583	ppb
>	Sc	45	439213.141		ppb
	Ti	47	25.000	-0.412771	ppb
	V	51	609.994	0.011973	ppb
	Cr	52	1898.180	-0.020892	ppb
	Mn	55	-816.884	0.020739	ppb
	Fe	54	12132.355	1.556817	ppb
	Fe	56	379917.324	-3.841438	ppb
	Fe	57	1855.172	-1.007934	ppb
	Co	59	132.001	-0.028842	ppb
	Ni	60	83.334	0.029560	ppb
	Cu	63	723.359	-0.063013	ppb
	Cu	65	356.673	0.053341	ppb
	Zn	66	166.668	0.140565	ppb
	As	75	0.569	0.003528	ppb
	Se	82	9.333	-0.025484	ppb

⌈	Mo	96	544.015	0.462706	ppb
|	Ag	107	1820.166	0.521291	ppb
|	Ag	109	1666.806	0.485718	ppb
|	Cd	111	5.000	0.010008	ppb
|	In	113	42771.274	-0.068395	ppb
|>	In	115	985828.127		ppb
⌊	Sn	118	160.001	0.043481	ppb
⌈	Sb	121	1995.199	0.689841	ppb
|	Ba	135	14.000	-0.003567	ppb
|	Ba	137	34.000	0.004298	ppb
⌊>	Tb	159	1546563.875		ppb
⌈	Tl	205	175.002	0.013336	ppb
|	Pb	206	165.001	-0.017732	ppb
|	Pb	207	270.002	-0.019857	ppb
|	Pb	208	415.005	-0.019860	ppb
⌊>	Bi	209	1372990.204		ppb
	Cr	53	116.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	244221.224		ppb
	Kr	83	20.000		ppb
	Se	77	25.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		105.650			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		105.729			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		101.020			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		100.602			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.352			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9060135-BLK1

Sample Date/Time: Wednesday, June 03, 2009 12:02:36
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\9060135-BLK1.201

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	446035.188	0.501	446035.188			ppb
	Be	9	16.667	100.638	0.000	0.04131	151.51	ppb
	Na	23	5260.051	3.971	0.002	0.35451	19.26	ppb
	Mg	24	565.684	32.306	0.000	0.04013	239.79	ppb
	Mg	25	75.000	23.589	0.000	0.01838	348.79	ppb
	Mg	26	126.667	17.392	0.000	0.00816	866.99	ppb
	Al	27	570.016	8.040	0.001	0.11481	13.37	ppb
	K	39	168997.394	0.459	-0.037	-3.86664	6.51	ppb
	Ca	44	1582.792	4.999	-0.000	-1.32885	51.21	ppb
>	Sc	45	439073.414	1.419	439073.414			ppb
	Ti	47	40.000	33.072	-0.000	-0.36024	13.06	ppb
	V	51	541.663	13.985	-0.000	-0.00682	280.14	ppb
	Cr	52	1860.173	0.860	-0.000	-0.03269	30.56	ppb
	Mn	55	-900.104	4.120	0.000	0.00240	445.13	ppb
	Fe	54	11887.067	3.627	0.000	0.58803	228.91	ppb
	Fe	56	380333.860	1.584	-0.036	-3.70406	49.38	ppb
	Fe	57	1791.827	0.161	-0.000	-1.66040	16.76	ppb
	Co	59	262.005	74.713	0.000	0.00496	1032.94	ppb
	Ni	60	76.667	4.348	0.000	0.02178	23.06	ppb
	Cu	63	695.580	7.703	-0.000	-0.07695	38.25	ppb
	Cu	65	306.671	7.531	0.000	0.00182	1471.49	ppb
	Zn	66	64.445	13.017	-0.000	-0.04339	31.12	ppb
	As	75	-22.595	59.730	-0.000	-0.03510	65.00	ppb
	Se	82	11.333	5.882	0.000	0.00606	137.53	ppb
	Mo	96	308.005	9.827	0.000	0.24511	12.17	ppb
	Ag	107	135.557	44.285	0.000	0.03761	44.40	ppb
	Ag	109	156.668	27.660	0.000	0.04418	27.13	ppb
	Cd	111	2.547	173.205	0.000	0.00724	70.99	ppb
	In	113	43390.607	1.066	0.000	0.46506	109.26	ppb
>	In	115	989302.730	1.681	989302.730			ppb
	Sn	118	108.334	25.420	0.000	0.02328	49.54	ppb
	Sb	121	718.359	12.478	0.000	0.22362	14.41	ppb
	Ba	135	11.333	10.189	-0.000	-0.00743	21.31	ppb
	Ba	137	33.333	18.330	0.000	0.00339	134.55	ppb
>	Tb	159	1568266.808	1.153	1568266.808			ppb
	Tl	205	25.000	20.000	0.000	0.00113	36.12	ppb
	Pb	206	210.003	71.548	-0.000	-0.00634	579.73	ppb
	Pb	207	386.672	74.837	-0.000	-0.00438	856.62	ppb
	Pb	208	700.021	75.743	0.000	0.00294	1421.67	ppb
>	Bi	209	1359462.219	0.127	1359462.219			ppb
	Cr	53	107.334	19.394	30.000			ppb
	Pd	106	3.333	173.205	3.333			ppb
	Pd	108	0.000		-5.000			ppb
	C	12	262109.574	1.657	3408.685			ppb
	Kr	83	26.000	20.352	-9.333			ppb
	Se	77	30.889	3.297	7.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	448509.426		ppb
	Be	9	36.000	0.113442	ppb
	Na	23	5462.492	0.418760	ppb
	Mg	24	775.030	0.150263	ppb
	Mg	25	94.000	0.086812	ppb
	Mg	26	152.001	0.089450	ppb
	Al	27	610.019	0.127846	ppb
	K	39	169349.930	-4.002331	ppb
	Ca	44	1538.118	-1.774768	ppb
>	Sc	45	435172.099		ppb
	Ti	47	30.000	-0.394348	ppb
	V	51	550.472	-0.002927	ppb
	Cr	52	1876.176	-0.022346	ppb
	Mn	55	-908.635	-0.001150	ppb
	Fe	54	11997.192	1.462010	ppb
	Fe	56	385842.848	-1.603125	ppb
	Fe	57	1790.160	-1.512888	ppb
	Co	59	488.012	0.064082	ppb
	Ni	60	76.667	0.022545	ppb
	Cu	63	656.688	-0.093928	ppb
	Cu	65	333.339	0.032378	ppb
	Zn	66	56.667	-0.056356	ppb
	As	75	-37.547	-0.060321	ppb
	Se	82	10.667	-0.002889	ppb
	Mo	96	318.005	0.259767	ppb
	Ag	107	66.667	0.018471	ppb
	Ag	109	106.667	0.030357	ppb
	Cd	111	7.640	0.013176	ppb
	In	113	43012.304	0.982694	ppb
>	In	115	970332.095		ppb
	Sn	118	140.001	0.036542	ppb
	Sb	121	615.019	0.186459	ppb
	Ba	135	10.000	-0.009248	ppb
	Ba	137	28.000	-0.000769	ppb
>	Tb	159	1569766.736		ppb
	Tl	205	25.000	0.001132	ppb
	Pb	206	380.007	0.035236	ppb
	Pb	207	720.013	0.038851	ppb
	Pb	208	1310.053	0.051042	ppb
>	Bi	209	1360287.168		ppb
	Cr	53	114.001		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	265908.992		ppb
	Kr	83	32.000		ppb
	Se	77	32.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	445434.458		ppb
	Be	9	6.000	0.001435	ppb
	Na	23	5272.390	0.361956	ppb
	Mg	24	438.010	-0.027649	ppb
	Mg	25	59.000	-0.040262	ppb
	Mg	26	112.001	-0.039661	ppb
	Al	27	580.017	0.118677	ppb
	K	39	168107.224	-4.021319	ppb
	Ca	44	1674.140	-0.545605	ppb
>	Sc	45	435788.072		ppb

	Ti	47	55.000	-0.306558	ppb
	V	51	461.891	-0.027591	ppb
	Cr	52	1844.170	-0.033436	ppb
	Mn	55	-932.178	-0.006050	ppb
	Fe	54	11411.507	-0.962062	ppb
	Fe	56	373901.847	-4.565721	ppb
	Fe	57	1795.161	-1.486941	ppb
	Co	59	152.001	-0.023379	ppb
	Ni	60	80.000	0.026374	ppb
	Cu	63	756.695	-0.042964	ppb
	Cu	65	293.338	-0.009873	ppb
	Zn	66	63.334	-0.044415	ppb
	As	75	-18.927	-0.029081	ppb
	Se	82	11.333	0.007470	ppb
	Mo	96	332.006	0.264784	ppb
	Ag	107	176.668	0.049199	ppb
	Ag	109	183.335	0.051703	ppb
	Cd	111	0.000	0.004273	ppb
	In	113	43253.341	-0.032992	ppb
>	In	115	996211.216		ppb
	Sn	118	95.000	0.017706	ppb
	Sb	121	765.029	0.243585	ppb
	Ba	135	12.000	-0.006337	ppb
	Ba	137	32.000	0.002670	ppb
>	Tb	159	1549483.270		ppb
	Tl	205	30.000	0.001543	ppb
	Pb	206	155.001	-0.019814	ppb
	Pb	207	240.002	-0.023433	ppb
	Pb	208	440.007	-0.017593	ppb
>	Bi	209	1360617.963		ppb
	Cr	53	124.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	263044.715		ppb
	Kr	83	24.000		ppb
	Se	77	30.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	444161.679		ppb
	Be	9	8.000	0.009050	ppb
	Na	23	5045.272	0.282821	ppb
	Mg	24	484.012	-0.002232	ppb
	Mg	25	72.000	0.008585	ppb
	Mg	26	116.001	-0.025303	ppb
	Al	27	520.014	0.097898	ppb
	K	39	169535.027	-3.576282	ppb
	Ca	44	1536.118	-1.666192	ppb
>	Sc	45	446260.072		ppb
	Ti	47	35.000	-0.379799	ppb
	V	51	612.627	0.010045	ppb
	Cr	52	1860.173	-0.042282	ppb
	Mn	55	-859.499	0.014394	ppb
	Fe	54	12252.502	1.264150	ppb
	Fe	56	381256.887	-4.943328	ppb
	Fe	57	1790.160	-1.981357	ppb
	Co	59	146.001	-0.025828	ppb
	Ni	60	73.334	0.016416	ppb
	Cu	63	673.356	-0.093960	ppb
	Cu	65	293.338	-0.017059	ppb
	Zn	66	73.334	-0.029406	ppb
	As	75	-11.313	-0.015898	ppb
	Se	82	12.000	0.013592	ppb

⌈	Mo	96	274.004	0.210779	ppb
|	Ag	107	163.335	0.045175	ppb
|	Ag	109	180.002	0.050471	ppb
|	Cd	111	0.000	0.004273	ppb
|	In	113	43906.176	0.445491	ppb
|>	In	115	1001364.879		ppb
⌊	Sn	118	90.000	0.015594	ppb
⌈	Sb	121	775.030	0.240826	ppb
|	Ba	135	12.000	-0.006711	ppb
|	Ba	137	40.000	0.008261	ppb
⌊>	Tb	159	1585550.417		ppb
⌈	Tl	205	20.000	0.000724	ppb
|	Pb	206	95.000	-0.034433	ppb
|	Pb	207	200.001	-0.028561	ppb
|	Pb	208	350.004	-0.024627	ppb
⌊>	Bi	209	1357481.526		ppb
	Cr	53	84.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	257375.014		ppb
	Kr	83	22.000		ppb
	Se	77	30.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		105.497			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		104.796			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		101.072			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		101.025			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.251			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9060135-BS1

Sample Date/Time: Wednesday, June 03, 2009 12:04:41
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\9060135-BS1.202

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	418141.508	2.102	418141.508			ppb
	Be	9	26333.987	3.339	0.063	105.56665	1.25	ppb
	Na	23	5302498.814	0.572	12.674	2100.80595	1.54	ppb
	Mg	24	2229045.031	0.808	5.331	1273.58380	1.52	ppb
	Mg	25	326170.449	0.588	0.780	1285.37480	2.57	ppb
	Mg	26	367331.001	0.979	0.878	1296.75164	2.12	ppb
	Al	27	1341658.512	0.922	3.209	507.56863	1.61	ppb
	K	39	8664300.783	0.814	20.313	2104.24626	2.89	ppb
	Ca	44	233500.026	0.473	0.555	2072.19759	2.60	ppb
>	Sc	45	414630.380	1.153	414630.380			ppb
	Ti	47	81.667	14.139	-0.000	-0.19824	20.62	ppb
	V	51	384387.901	1.974	0.926	111.36514	2.58	ppb
	Cr	52	331982.055	0.522	0.796	111.02477	1.59	ppb
	Mn	55	480302.611	0.792	1.161	111.36644	1.70	ppb
	Fe	54	276403.314	1.352	0.640	1121.82964	2.47	ppb
	Fe	56	4997142.582	0.884	11.150	1152.83418	0.48	ppb
	Fe	57	103947.590	1.902	0.246	1128.87286	2.73	ppb
	Co	59	413427.767	1.959	0.997	112.83564	3.13	ppb
	Ni	60	89975.248	1.513	0.217	112.21647	2.42	ppb
	Cu	63	204470.731	1.634	0.491	110.11859	1.85	ppb
	Cu	65	99891.002	1.965	0.240	109.31000	3.08	ppb
	Zn	66	113283.835	2.348	0.273	215.75115	3.51	ppb
	As	75	123337.974	1.350	0.298	216.91240	2.33	ppb
	Se	82	13108.364	1.191	0.032	218.89937	2.17	ppb
	Mo	96	242.670	15.580	0.000	0.19977	16.78	ppb
	Ag	107	361972.858	1.862	0.391	110.49606	2.27	ppb
	Ag	109	356849.366	1.192	0.385	110.92405	1.19	ppb
	Cd	111	89050.843	0.571	0.096	108.67856	1.37	ppb
	In	113	129186.164	2.705	0.096	107.12739	1.63	ppb
>	In	115	926747.073	1.634	926747.073			ppb
	Sn	118	270098.667	1.086	0.291	112.21119	0.56	ppb
	Sb	121	565723.108	1.089	0.379	212.47824	1.67	ppb
	Ba	135	77057.094	0.713	0.052	109.39215	1.21	ppb
	Ba	137	133454.632	0.694	0.089	109.28161	1.34	ppb
>	Tb	159	1492028.625	1.905	1492028.625			ppb
	Tl	205	2549230.087	1.176	2.012	225.04319	0.77	ppb
	Pb	206	843662.355	2.310	0.666	221.46652	2.39	ppb
	Pb	207	1583897.996	1.890	1.250	220.51987	1.79	ppb
	Pb	208	2600976.223	1.560	2.052	220.15222	0.91	ppb
>	Bi	209	1267306.844	0.917	1267306.844			ppb
	Cr	53	38237.641	1.319	38160.308			ppb
	Pd	106	7421.089	4.014	7421.089			ppb
	Pd	108	5694.956	4.189	5689.956			ppb
	C	12	267021.856	1.418	8320.968			ppb
	Kr	83	29.333	34.317	-6.000			ppb
	Se	77	10386.503	0.789	10362.947			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	425541.650		ppb
	Be	9	27054.548	106.588009	ppb
	Na	23	5328988.207	2074.116456	ppb
	Mg	24	2249562.683	1262.696935	ppb
	Mg	25	323957.790	1254.001456	ppb
	Mg	26	365179.230	1266.389301	ppb
	Al	27	1341761.907	498.676043	ppb
	K	39	8584092.002	2046.549502	ppb
	Ca	44	232888.641	2029.801948	ppb
>	Sc	45	417403.182		ppb
	Ti	47	95.000	-0.151136	ppb
	V	51	390246.028	112.297299	ppb
	Cr	52	332484.927	110.437987	ppb
	Mn	55	475910.799	109.605109	ppb
	Fe	54	272374.556	1096.949468	ppb
	Fe	56	5005960.485	1146.709522	ppb
	Fe	57	101664.167	1095.978248	ppb
	Co	59	409644.006	111.032606	ppb
	Ni	60	90541.373	112.154142	ppb
	Cu	63	208065.612	111.307135	ppb
	Cu	65	99640.618	108.283995	ppb
	Zn	66	112330.719	212.455621	ppb
	As	75	123813.942	216.267575	ppb
	Se	82	13157.317	218.223277	ppb
	Mo	96	256.003	0.213279	ppb
	Ag	107	369634.172	112.880451	ppb
	Ag	109	360364.885	112.068601	ppb
	Cd	111	88576.547	108.144169	ppb
	In	113	128363.607	106.238893	ppb
>	In	115	926236.489		ppb
	Sn	118	270361.690	112.375636	ppb
	Sb	121	562011.170	208.815803	ppb
	Ba	135	77420.541	108.729639	ppb
	Ba	137	133493.113	108.139654	ppb
>	Tb	159	1507966.551		ppb
	Tl	205	2560931.016	224.007757	ppb
	Pb	206	834782.002	217.120917	ppb
	Pb	207	1578625.099	217.771308	ppb
	Pb	208	2624322.619	220.102116	ppb
>	Bi	209	1279006.611		ppb
	Cr	53	37973.964		ppb
	Pd	106	7312.673		ppb
	Pd	108	5741.648		ppb
	C	12	271367.732		ppb
	Kr	83	28.000		ppb
	Se	77	10363.367		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	420459.299		ppb
	Be	9	26593.313	106.037182	ppb
	Na	23	5309121.162	2091.374884	ppb
	Mg	24	2221714.329	1262.139371	ppb
	Mg	25	327313.450	1282.311545	ppb
	Mg	26	371484.200	1303.838101	ppb
	Al	27	1353975.510	509.299855	ppb
	K	39	8692070.546	2098.412049	ppb
	Ca	44	232835.423	2054.040904	ppb
>	Sc	45	409110.831		ppb

	Ti	47	75.000	-0.219004	ppb
	V	51	387100.152	113.651737	ppb
	Cr	52	333408.940	113.004022	ppb
	Mn	55	482487.078	113.365126	ppb
	Fe	54	279759.279	1151.773641	ppb
	Fe	56	4949240.247	1157.508546	ppb
	Fe	57	105094.354	1157.035079	ppb
	Co	59	422728.005	116.904727	ppb
	Ni	60	90961.830	114.960511	ppb
	Cu	63	203887.531	111.282731	ppb
	Cu	65	101967.229	113.072445	ppb
	Zn	66	116288.913	224.408913	ppb
	As	75	124713.014	222.253328	ppb
	Se	82	13234.085	223.950074	ppb
	Mo	96	272.004	0.224434	ppb
	Ag	107	359318.214	107.878321	ppb
	Ag	109	358060.969	109.472955	ppb
	Cd	111	89587.165	107.532254	ppb
	In	113	133018.856	109.144975	ppb
>	In	115	942135.547		ppb
	Sn	118	272890.353	111.512389	ppb
	Sb	121	572835.166	212.705132	ppb
	Ba	135	77325.813	108.528723	ppb
	Ba	137	134360.615	108.774539	ppb
>	Tb	159	1508909.125		ppb
	Tl	205	2571583.597	227.045323	ppb
	Pb	206	866007.110	227.353661	ppb
	Pb	207	1616118.447	225.032407	ppb
	Pb	208	2624476.468	222.176107	ppb
>	Bi	209	1267144.309		ppb
	Cr	53	37919.759		ppb
	Pd	106	7758.008		ppb
	Pd	108	5906.744		ppb
	C	12	264430.554		ppb
	Kr	83	20.000		ppb
	Se	77	10477.486		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	408423.577		ppb
	Be	9	25354.101	104.074772	ppb
	Na	23	5269387.073	2136.926514	ppb
	Mg	24	2215858.081	1295.915105	ppb
	Mg	25	327240.108	1319.811388	ppb
	Mg	26	365329.574	1320.027524	ppb
	Al	27	1329238.120	514.729991	ppb
	K	39	8716739.801	2167.777230	ppb
	Ca	44	234776.012	2132.749924	ppb
>	Sc	45	417377.128		ppb
	Ti	47	75.000	-0.224569	ppb
	V	51	375817.523	108.146375	ppb
	Cr	52	330052.300	109.632288	ppb
	Mn	55	482509.955	111.129096	ppb
	Fe	54	277076.106	1116.765819	ppb
	Fe	56	5036227.015	1154.284461	ppb
	Fe	57	105084.249	1133.605248	ppb
	Co	59	407911.290	110.569599	ppb
	Ni	60	88422.540	109.534767	ppb
	Cu	63	201459.050	107.765908	ppb
	Cu	65	98065.159	106.573546	ppb
	Zn	66	111231.872	210.388911	ppb
	As	75	121486.967	212.216309	ppb
	Se	82	12933.692	214.524770	ppb

⌈	Mo	96	200.002	0.161609	ppb
|	Ag	107	356966.188	110.729408	ppb
|	Ag	109	352122.243	111.230593	ppb
|	Cd	111	88988.816	110.359264	ppb
|	In	113	126176.029	105.998300	ppb
|>	In	115	911869.183		ppb
⌊	Sn	118	267043.958	112.745536	ppb
⌈	Sb	121	562322.987	215.913783	ppb
|	Ba	135	76424.927	110.918099	ppb
|	Ba	137	132510.169	110.930624	ppb
⌊>	Tb	159	1459210.199		ppb
⌈	Tl	205	2515175.648	224.076502	ppb
|	Pb	206	830197.955	219.924968	ppb
|	Pb	207	1556950.440	218.755890	ppb
|	Pb	208	2554129.583	218.178440	ppb
⌊>	Bi	209	1255769.613		ppb
	Cr	53	38819.201		ppb
	Pd	106	7192.586		ppb
	Pd	108	5436.477		ppb
	C	12	265267.282		ppb
	Kr	83	40.000		ppb
	Se	77	10318.654		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.899			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.962			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		94.681			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		96.114			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		89.726			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0906006-01

Sample Date/Time: Wednesday, June 03, 2009 12:06:45
Sample Type: Sample
Sample Description: 13MW5
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-01.203

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	456787.703	1.491	456787.703			ppb
	Be	9	25.333	159.726	0.000	0.07136	206.68	ppb
	Na	23	40804086.213	1.809	89.324	14805.90768	1.70	ppb
	Mg	24	58385217.739	1.972	127.842	30542.71725	2.80	ppb
	Mg	25	8248952.273	2.099	18.063	29759.62417	3.08	ppb
	Mg	26	9615223.308	2.383	21.051	31076.11704	2.52	ppb
	Al	27	12619.629	2.897	0.027	4.28335	3.17	ppb
	K	39	5787101.446	1.336	12.255	1269.54306	2.35	ppb
	Ca	44	11070394.212	1.341	24.237	90537.73280	2.47	ppb
>	Sc	45	434867.065	2.314	434867.065			ppb
	Ti	47	735.027	5.568	0.001	2.09013	4.95	ppb
	V	51	1985.951	15.480	0.003	0.39327	19.07	ppb
	Cr	52	12313.581	2.934	0.024	3.32429	1.49	ppb
	Mn	55	-429.008	1.765	0.001	0.10453	0.83	ppb
	Fe	54	14156.687	3.198	0.006	10.24000	28.29	ppb
	Fe	56	470043.764	1.724	0.179	18.49746	8.89	ppb
	Fe	57	40001.518	1.011	0.088	401.36645	2.29	ppb
	Co	59	1168.737	23.370	0.002	0.24259	32.65	ppb
	Ni	60	2499.201	2.238	0.006	2.90522	2.31	ppb
	Cu	63	938.934	14.070	0.000	0.05182	128.37	ppb
	Cu	65	897.818	8.583	0.001	0.62238	10.07	ppb
	Zn	66	1153.400	3.516	0.002	1.93640	3.35	ppb
	As	75	200.909	3.240	0.000	0.33938	1.40	ppb
	Se	82	140.890	6.301	0.000	2.07107	5.08	ppb
	Mo	96	1209.407	3.494	0.001	0.96975	1.47	ppb
	Ag	107	1068.952	38.399	0.001	0.27552	36.65	ppb
	Ag	109	1044.505	38.940	0.001	0.27381	37.17	ppb
	Cd	111	20.758	67.607	0.000	0.02570	54.77	ppb
	In	113	47629.870	2.373	0.000	0.38593	131.68	ppb
>	In	115	1087635.291	2.253	1087635.291			ppb
	Sn	118	291.671	6.928	0.000	0.08433	10.03	ppb
	Sb	121	2435.297	4.194	0.001	0.74170	2.31	ppb
	Ba	135	87627.027	2.094	0.050	105.39248	0.97	ppb
	Ba	137	152869.943	2.131	0.087	106.05079	0.25	ppb
>	Tb	159	1760925.039	2.372	1760925.039			ppb
	Tl	205	296.671	21.341	0.000	0.02301	21.88	ppb
	Pb	206	1020.054	21.233	0.001	0.18731	28.58	ppb
	Pb	207	1861.757	22.272	0.001	0.18264	29.73	ppb
	Pb	208	3091.964	21.487	0.002	0.18721	28.26	ppb
>	Bi	209	1386337.360	0.583	1386337.360			ppb
	Cr	53	1351.425	3.421	1274.091			ppb
	Pd	106	8.333	34.641	8.333			ppb
	Pd	108	8.333	91.652	3.333			ppb
	C	12	345179.879	2.202	86478.991			ppb
	Kr	83	18.667	26.964	-16.667			ppb
	Se	77	88.667	3.446	65.111			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	459780.146		ppb
	Be	9	72.000	0.241439	ppb
	Na	23	40268189.368	14515.411812	ppb
	Mg	24	57062912.107	29650.585468	ppb
	Mg	25	8049492.855	28844.008337	ppb
	Mg	26	9397164.306	30170.659218	ppb
	Al	27	12247.495	4.126348	ppb
	K	39	5698408.396	1240.773737	ppb
	Ca	44	10900399.693	88547.775812	ppb
>	Sc	45	423274.262		ppb
	Ti	47	700.025	2.035155	ppb
	V	51	1671.640	0.319941	ppb
	Cr	52	11923.104	3.304021	ppb
	Mn	55	-420.659	0.103842	ppb
	Fe	54	14480.477	13.104021	ppb
	Fe	56	462461.869	19.689073	ppb
	Fe	57	39804.061	410.647216	ppb
	Co	59	1484.110	0.334045	ppb
	Ni	60	2470.305	2.950783	ppb
	Cu	63	926.710	0.058581	ppb
	Cu	65	816.700	0.561690	ppb
	Zn	66	1133.398	1.956258	ppb
	As	75	193.791	0.336382	ppb
	Se	82	133.334	2.009779	ppb
	Mo	96	1170.068	0.961307	ppb
	Ag	107	636.687	0.168722	ppb
	Ag	109	640.020	0.172395	ppb
	Cd	111	13.820	0.018997	ppb
	In	113	46749.019	0.669748	ppb
>	In	115	1061340.194		ppb
	Sn	118	295.004	0.088014	ppb
	Sb	121	2320.269	0.722292	ppb
	Ba	135	86514.627	106.443882	ppb
	Ba	137	149844.317	106.342345	ppb
>	Tb	159	1721275.310		ppb
	Tl	205	240.003	0.018571	ppb
	Pb	206	1270.081	0.249125	ppb
	Pb	207	2340.138	0.245295	ppb
	Pb	208	3855.445	0.248059	ppb
>	Bi	209	1377302.168		ppb
	Cr	53	1380.095		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	336425.487		ppb
	Kr	83	24.000		ppb
	Se	77	89.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	448991.866		ppb
	Be	9	4.000	-0.006214	ppb
	Na	23	40498277.466	14949.165180	ppb
	Mg	24	58928115.580	31355.508284	ppb
	Mg	25	8360525.065	30678.393956	ppb
	Mg	26	9594411.934	31544.114348	ppb
	Al	27	12632.975	4.363400	ppb
	K	39	5822538.224	1300.262082	ppb
	Ca	44	11174146.735	92953.283388	ppb
>	Sc	45	441322.682		ppb

	Ti	47	780.030	2.209373	ppb
	V	51	2000.210	0.390063	ppb
	Cr	52	12381.661	3.288274	ppb
	Mn	55	-430.935	0.105508	ppb
	Fe	54	13639.295	7.310638	ppb
	Fe	56	469084.901	16.620911	ppb
	Fe	57	39733.782	392.290469	ppb
	Co	59	1014.051	0.197243	ppb
	Ni	60	2563.662	2.936743	ppb
	Cu	63	1076.725	0.114708	ppb
	Cu	65	906.708	0.618576	ppb
	Zn	66	1200.072	1.989102	ppb
	As	75	202.378	0.336916	ppb
	Se	82	150.668	2.192646	ppb
	Mo	96	1204.072	0.961728	ppb
	Ag	107	1116.729	0.288376	ppb
	Ag	109	1040.054	0.273109	ppb
	Cd	111	11.545	0.016231	ppb
	In	113	47236.301	-0.200767	ppb
>	In	115	1091724.644		ppb
	Sn	118	310.005	0.090326	ppb
	Sb	121	2470.305	0.754803	ppb
	Ba	135	86621.547	104.410299	ppb
	Ba	137	152447.217	105.992028	ppb
>	Tb	159	1756961.684		ppb
	Tl	205	285.004	0.021968	ppb
	Pb	206	900.041	0.157297	ppb
	Pb	207	1640.068	0.153243	ppb
	Pb	208	2775.234	0.161493	ppb
>	Bi	209	1392856.818		ppb
	Cr	53	1376.095		ppb
	Pd	106	10.000		ppb
	Pd	108	15.000		ppb
	C	12	348995.446		ppb
	Kr	83	18.000		ppb
	Se	77	91.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	461591.096		ppb
	Be	9	0.000	-0.021153	ppb
	Na	23	41645791.804	14953.146048	ppb
	Mg	24	59164625.530	30622.058008	ppb
	Mg	25	8336838.899	29756.470207	ppb
	Mg	26	9854093.685	31513.577553	ppb
	Al	27	12978.417	4.360297	ppb
	K	39	5840357.717	1267.593361	ppb
	Ca	44	11136636.207	90112.139210	ppb
>	Sc	45	440004.253		ppb
	Ti	47	725.026	2.025864	ppb
	V	51	2286.003	0.469820	ppb
	Cr	52	12635.978	3.380583	ppb
	Mn	55	-435.428	0.104247	ppb
	Fe	54	14350.289	10.305348	ppb
	Fe	56	478584.520	19.182405	ppb
	Fe	57	40466.712	401.161664	ppb
	Co	59	1008.051	0.196478	ppb
	Ni	60	2463.637	2.828139	ppb
	Cu	63	813.366	-0.017822	ppb
	Cu	65	970.047	0.686865	ppb
	Zn	66	1126.730	1.863851	ppb
	As	75	206.557	0.344844	ppb
	Se	82	138.668	2.010777	ppb

⌈	Mo	96	1254.079	0.986226	ppb
|	Ag	107	1453.439	0.369468	ppb
|	Ag	109	1453.439	0.375921	ppb
|	Cd	111	36.910	0.041880	ppb
|	In	113	48904.290	0.688812	ppb
|>	In	115	1109841.034		ppb
⌊	Sn	118	270.004	0.074663	ppb
⌈	Sb	121	2515.316	0.748008	ppb
|	Ba	135	89744.908	105.323255	ppb
|	Ba	137	156318.295	105.818009	ppb
⌊>	Tb	159	1804538.124		ppb
⌈	Tl	205	365.007	0.028478	ppb
|	Pb	206	890.040	0.155520	ppb
|	Pb	207	1605.065	0.149395	ppb
|	Pb	208	2645.212	0.152064	ppb
⌊>	Bi	209	1388853.092		ppb
	Cr	53	1298.084		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	350118.705		ppb
	Kr	83	14.000		ppb
	Se	77	85.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		108.040			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		103.792			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		111.118			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		113.436			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		98.154			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9060135-DUP1

Sample Date/Time: Wednesday, June 03, 2009 12:08:50
Sample Type: Sample
Sample Description: 13MW5D
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\9060135-DUP1.204

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	469622.391	2.892	469622.391			ppb
	Be	9	21.333	140.729	0.000	0.05463	194.80	ppb
	Na	23	40716866.293	1.099	86.727	14375.41169	2.26	ppb
	Mg	24	58333311.515	2.010	124.235	29680.97310	1.10	ppb
	Mg	25	8296900.911	1.604	17.672	29115.14369	1.44	ppb
	Mg	26	9609084.259	1.740	20.467	30212.58806	1.63	ppb
	Al	27	12849.931	4.978	0.027	4.23922	2.21	ppb
	K	39	5766000.302	2.297	11.864	1228.96934	1.22	ppb
	Ca	44	11026631.929	1.578	23.482	87719.97756	1.53	ppb
>	Sc	45	441642.720	3.021	441642.720			ppb
	Ti	47	746.695	9.619	0.001	2.09664	14.67	ppb
	V	51	2187.070	6.767	0.004	0.44162	12.90	ppb
	Cr	52	12500.479	2.699	0.024	3.32321	0.44	ppb
	Mn	55	-436.130	33.887	0.001	0.10504	28.37	ppb
	Fe	54	14563.947	4.694	0.006	10.92141	9.02	ppb
	Fe	56	478979.191	3.005	0.183	18.87074	10.75	ppb
	Fe	57	40403.213	4.071	0.087	398.84854	1.12	ppb
	Co	59	1167.403	20.125	0.002	0.23565	22.85	ppb
	Ni	60	2608.119	6.166	0.006	2.98489	3.56	ppb
	Cu	63	972.270	2.771	0.000	0.06182	44.27	ppb
	Cu	65	874.483	6.198	0.001	0.58604	13.25	ppb
	Zn	66	1485.667	9.157	0.003	2.49537	6.87	ppb
	As	75	150.201	33.617	0.000	0.25236	36.56	ppb
	Se	82	125.112	7.274	0.000	1.79294	10.30	ppb
	Mo	96	1182.070	3.554	0.001	0.93732	2.93	ppb
	Ag	107	103.334	20.145	0.000	0.02565	20.94	ppb
	Ag	109	88.889	18.875	0.000	0.02201	20.23	ppb
	Cd	111	5.272	134.434	0.000	0.00971	74.85	ppb
	In	113	47325.054	0.495	-0.000	-0.40160	217.81	ppb
>	In	115	1098517.935	1.329	1098517.935			ppb
	Sn	118	160.001	19.516	0.000	0.03707	29.33	ppb
	Sb	121	855.037	14.072	0.000	0.23585	14.81	ppb
	Ba	135	87331.726	1.306	0.049	103.90629	0.38	ppb
	Ba	137	152481.187	1.281	0.086	104.64686	0.63	ppb
>	Tb	159	1779955.084	1.239	1779955.084			ppb
	Tl	205	138.334	18.192	0.000	0.01019	20.68	ppb
	Pb	206	231.670	68.126	-0.000	-0.00222	1711.39	ppb
	Pb	207	481.674	58.080	0.000	0.00659	543.81	ppb
	Pb	208	851.694	63.606	0.000	0.01343	313.72	ppb
>	Bi	209	1394140.940	1.624	1394140.940			ppb
	Cr	53	1322.088	6.148	1244.754			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	8.333	34.641	3.333			ppb
	C	12	351127.703	1.751	92426.815			ppb
	Kr	83	20.667	20.145	-14.667			ppb
	Se	77	87.334	13.993	63.778			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	472671.112		ppb
|	Be	9	56.000	0.177515	ppb
|	Na	23	40442834.551	14180.739201	ppb
|	Mg	24	58249859.772	29441.867397	ppb
|	Mg	25	8284625.599	28876.937817	ppb
|	Mg	26	9550947.470	29828.095248	ppb
|	Al	27	13078.547	4.289549	ppb
|	K	39	5736284.296	1214.059679	ppb
⌊	Ca	44	10996570.301	86892.497502	ppb
⌈>	Sc	45	449502.284		ppb
|	Ti	47	665.022	1.767863	ppb
|	V	51	2033.905	0.389159	ppb
|	Cr	52	12678.032	3.309021	ppb
|	Mn	55	-498.493	0.092791	ppb
|	Fe	54	14961.183	11.479596	ppb
|	Fe	56	477599.042	16.579505	ppb
|	Fe	57	41355.337	401.315640	ppb
|	Co	59	1428.102	0.296781	ppb
|	Ni	60	2750.378	3.096956	ppb
|	Cu	63	976.714	0.054882	ppb
|	Cu	65	813.366	0.507098	ppb
|	Zn	66	1516.782	2.506656	ppb
|	As	75	131.829	0.216405	ppb
⌊	Se	82	129.334	1.820778	ppb
⌈	Mo	96	1230.076	0.965122	ppb
|	Ag	107	86.667	0.021092	ppb
|	Ag	109	73.334	0.017696	ppb
|	Cd	111	-0.730	0.003530	ppb
|	In	113	47080.569	-1.217884	ppb
|>	In	115	1111524.594		ppb
⌊	Sn	118	185.002	0.045074	ppb
⌈	Sb	121	730.027	0.198704	ppb
|	Ba	135	86891.877	104.266109	ppb
|	Ba	137	152187.303	105.336349	ppb
⌊>	Tb	159	1764881.602		ppb
⌈	Tl	205	115.001	0.008355	ppb
|	Pb	206	410.008	0.040674	ppb
|	Pb	207	800.016	0.047263	ppb
|	Pb	208	1475.066	0.061852	ppb
⌊>	Bi	209	1386571.639		ppb
	Cr	53	1384.096		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	344632.997		ppb
	Kr	83	24.000		ppb
	Se	77	98.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	454776.653		ppb
|	Be	9	4.000	-0.006404	ppb
|	Na	23	40474714.227	14750.402299	ppb
|	Mg	24	57204622.615	30051.252000	ppb
|	Mg	25	8170344.169	29599.174300	ppb
|	Mg	26	9478752.260	30767.436909	ppb
|	Al	27	12127.349	4.130917	ppb
|	K	39	5650952.938	1244.089538	ppb
⌊	Ca	44	10869672.984	89269.755099	ppb
⌈>	Sc	45	426238.063		ppb

	Ti	47	800.032	2.377192	ppb
	V	51	2329.284	0.502215	ppb
	Cr	52	12111.330	3.338283	ppb
	Mn	55	-267.376	0.139013	ppb
	Fe	54	13774.480	9.783742	ppb
	Fe	56	465325.216	19.598147	ppb
	Fe	57	38503.985	393.670339	ppb
	Co	59	972.047	0.195292	ppb
	Ni	60	2433.629	2.885272	ppb
	Cu	63	996.716	0.091986	ppb
	Cu	65	916.709	0.662328	ppb
	Zn	66	1336.756	2.318479	ppb
	As	75	207.308	0.357181	ppb
	Se	82	131.334	1.962093	ppb
	Mo	96	1164.068	0.936564	ppb
	Ag	107	96.667	0.024291	ppb
	Ag	109	86.667	0.021749	ppb
	Cd	111	3.455	0.007881	ppb
	In	113	47547.771	0.521704	ppb
>	In	115	1082733.126		ppb
	Sn	118	170.001	0.041444	ppb
	Sb	121	865.037	0.240821	ppb
	Ba	135	86476.298	103.483885	ppb
	Ba	137	150690.897	104.015494	ppb
>	Tb	159	1769714.517		ppb
	Tl	205	165.001	0.012489	ppb
	Pb	206	175.002	-0.015409	ppb
	Pb	207	370.003	-0.007116	ppb
	Pb	208	585.010	-0.006683	ppb
>	Bi	209	1376256.857		ppb
	Cr	53	1230.076		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	356860.860		ppb
	Kr	83	22.000		ppb
	Se	77	74.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	481419.409		ppb
	Be	9	4.000	-0.007220	ppb
	Na	23	41233050.102	14195.093558	ppb
	Mg	24	59545452.158	29549.799909	ppb
	Mg	25	8435732.965	28869.318943	ppb
	Mg	26	9797553.048	30042.232010	ppb
	Al	27	13343.897	4.297202	ppb
	K	39	5910763.671	1228.758813	ppb
	Ca	44	11213652.503	86997.680081	ppb
>	Sc	45	449187.812		ppb
	Ti	47	775.030	2.144867	ppb
	V	51	2198.022	0.433486	ppb
	Cr	52	12712.075	3.322341	ppb
	Mn	55	-542.520	0.083312	ppb
	Fe	54	14956.176	11.500899	ppb
	Fe	56	494013.314	20.434553	ppb
	Fe	57	41350.316	401.559627	ppb
	Co	59	1102.061	0.214867	ppb
	Ni	60	2640.349	2.972445	ppb
	Cu	63	943.378	0.038586	ppb
	Cu	65	893.373	0.588705	ppb
	Zn	66	1603.462	2.660978	ppb
	As	75	111.466	0.183504	ppb
	Se	82	114.667	1.595948	ppb

⌈	Mo	96	1152.066	0.910286	ppb
|	Ag	107	126.667	0.031570	ppb
|	Ag	109	106.667	0.026591	ppb
|	Cd	111	13.090	0.017713	ppb
|	In	113	47346.821	-0.508618	ppb
|>	In	115	1101296.085		ppb
⌊	Sn	118	125.001	0.024691	ppb
⌈	Sb	121	970.047	0.268023	ppb
|	Ba	135	88627.005	103.968890	ppb
|	Ba	137	154565.362	104.588749	ppb
⌊>	Tb	159	1805269.134		ppb
⌈	Tl	205	135.001	0.009715	ppb
|	Pb	206	110.001	-0.031936	ppb
|	Pb	207	275.002	-0.020375	ppb
|	Pb	208	495.007	-0.014878	ppb
⌊>	Bi	209	1419594.324		ppb
	Cr	53	1352.091		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	351889.253		ppb
	Kr	83	16.000		ppb
	Se	77	90.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		111.076			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		105.409			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		112.229			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		114.662			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		98.706			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9060135-MS1

Sample Date/Time: Wednesday, June 03, 2009 12:10:54
Sample Type: Spike - 2 of 203
Sample Description: 13MW5S
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\9060135-MS1.205

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	423781.945	0.707	423781.945			ppb
	Be	9	12585.918	2.084	0.030	49.77686	1.42	ppb
	Na	23	38954910.980	1.162	91.911	15234.58309	0.48	ppb
	Mg	24	55818520.107	0.410	131.718	31468.64391	0.72	ppb
	Mg	25	7853721.793	0.389	18.533	30534.57495	1.06	ppb
	Mg	26	9108506.245	0.261	21.494	31729.48042	0.97	ppb
	Al	27	2583025.161	0.477	6.095	964.11553	1.09	ppb
	K	39	5595779.913	1.429	12.789	1324.87503	2.16	ppb
	Ca	44	10383499.302	1.884	24.501	91523.83868	2.49	ppb
>	Sc	45	408133.275	0.877	408133.275			ppb
	Ti	47	716.692	6.292	0.001	2.19175	7.55	ppb
	V	51	1824989.206	0.513	4.470	537.70066	0.99	ppb
	Cr	52	590418.000	0.328	1.442	201.08655	0.96	ppb
	Mn	55	2227730.179	0.629	5.461	523.96812	0.44	ppb
	Fe	54	31021.382	1.500	0.049	86.38273	3.36	ppb
	Fe	56	463213.763	1.547	0.233	24.07860	9.40	ppb
	Fe	57	37961.961	2.963	0.089	405.89912	2.22	ppb
	Co	59	1808194.172	4.087	4.429	501.38365	3.38	ppb
	Ni	60	383265.747	0.841	0.939	485.77541	0.76	ppb
	Cu	63	420729.861	2.183	1.029	230.63096	1.35	ppb
	Cu	65	205096.492	1.113	0.502	228.29667	0.33	ppb
	Zn	66	236251.557	0.600	0.579	457.19248	1.20	ppb
	As	75	22137.728	0.522	0.054	39.55089	1.09	ppb
	Se	82	717.581	1.419	0.002	12.00854	0.74	ppb
	Mo	96	1078.058	3.466	0.001	0.92451	3.41	ppb
	Ag	107	149659.419	0.921	0.147	41.69663	1.35	ppb
	Ag	109	147556.339	1.260	0.145	41.86215	0.86	ppb
	Cd	111	38118.912	0.886	0.038	42.46118	0.80	ppb
	In	113	82219.964	0.632	0.038	41.91871	2.51	ppb
>	In	115	1015277.819	0.628	1015277.819			ppb
	Sn	118	154027.187	0.662	0.152	58.39891	0.90	ppb
	Sb	121	252520.684	1.460	0.153	85.49428	1.46	ppb
	Ba	135	1416791.725	1.013	0.856	1813.80200	0.12	ppb
	Ba	137	2615085.536	1.180	1.580	1931.08527	0.43	ppb
>	Tb	159	1654582.194	1.117	1654582.194			ppb
	Tl	205	524789.846	0.231	0.396	44.34098	0.83	ppb
	Pb	206	71115.327	1.096	0.054	17.81358	0.97	ppb
	Pb	207	133759.273	0.751	0.101	17.77334	0.29	ppb
	Pb	208	222599.900	1.178	0.168	17.98540	0.96	ppb
>	Bi	209	1324118.178	0.682	1324118.178			ppb
	Cr	53	68879.747	0.647	68802.413			ppb
	Pd	106	3338.892	5.244	3338.892			ppb
	Pd	108	2410.291	3.140	2405.291			ppb
	C	12	369474.590	1.638	110773.701			ppb
	Kr	83	46.000	13.044	10.667			ppb
	Se	77	559.571	5.545	536.016			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	427035.109		ppb
	Be	9	12834.231	50.375602	ppb
	Na	23	39406668.067	15294.174608	ppb
	Mg	24	55967831.944	31311.556816	ppb
	Mg	25	7819028.188	30166.621509	ppb
	Mg	26	9082046.947	31394.862401	ppb
	Al	27	2577534.353	954.689862	ppb
	K	39	5531796.138	1298.805055	ppb
	Ca	44	10261124.532	89746.553494	ppb
>	Sc	45	404152.658		ppb
	Ti	47	720.026	2.230965	ppb
	V	51	1827273.582	543.650959	ppb
	Cr	52	591115.325	203.303154	ppb
	Mn	55	2215955.596	526.321332	ppb
	Fe	54	31464.423	89.602041	ppb
	Fe	56	462791.611	25.118055	ppb
	Fe	57	36792.560	396.887116	ppb
	Co	59	1752591.033	490.823134	ppb
	Ni	60	381860.959	488.751859	ppb
	Cu	63	410145.271	227.053336	ppb
	Cu	65	202462.343	227.586019	ppb
	Zn	66	237128.554	463.382918	ppb
	As	75	22193.102	40.038059	ppb
	Se	82	708.692	11.976412	ppb
	Mo	96	1084.059	0.935990	ppb
	Ag	107	151028.601	42.341804	ppb
	Ag	109	146792.891	41.909042	ppb
	Cd	111	37785.168	42.354746	ppb
	In	113	82796.349	43.123439	ppb
>	In	115	1008909.410		ppb
	Sn	118	153422.971	58.535528	ppb
	Sb	121	248494.588	84.856588	ppb
	Ba	135	1405103.790	1814.413450	ppb
	Ba	137	2602455.578	1938.410322	ppb
>	Tb	159	1640366.858		ppb
	Tl	205	524150.897	44.456024	ppb
	Pb	206	70215.649	17.655368	ppb
	Pb	207	132846.166	17.719873	ppb
	Pb	208	223875.111	18.158647	ppb
>	Bi	209	1319035.367		ppb
	Cr	53	68695.143		ppb
	Pd	106	3335.556		ppb
	Pd	108	2385.284		ppb
	C	12	362907.742		ppb
	Kr	83	52.000		ppb
	Se	77	529.347		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	423176.960		ppb
	Be	9	12611.948	49.954270	ppb
	Na	23	38956502.397	15257.302071	ppb
	Mg	24	55555242.616	31364.097869	ppb
	Mg	25	7876601.132	30665.805569	ppb
	Mg	26	9115381.980	31797.381241	ppb
	Al	27	2574409.210	962.226488	ppb
	K	39	5570152.281	1320.428894	ppb
	Ca	44	10280278.844	90733.998917	ppb
>	Sc	45	409166.475		ppb

	Ti	47	670.022	2.010166	ppb
	V	51	1814697.792	533.290546	ppb
	Cr	52	588228.330	199.820523	ppb
	Mn	55	2224022.640	521.766216	ppb
	Fe	54	30536.553	83.954908	ppb
	Fe	56	470582.877	25.636063	ppb
	Fe	57	38057.280	405.941287	ppb
	Co	59	1779948.900	492.376760	ppb
	Ni	60	380981.691	481.650225	ppb
	Cu	63	425431.091	232.640122	ppb
	Cu	65	206326.803	229.090100	ppb
	Zn	66	234617.012	452.853360	ppb
	As	75	22004.860	39.212057	ppb
	Se	82	715.359	11.940435	ppb
	Mo	96	1038.054	0.888870	ppb
	Ag	107	148271.127	41.308686	ppb
	Ag	109	146200.981	41.478948	ppb
	Cd	111	38460.737	42.842294	ppb
	In	113	81788.102	41.441258	ppb
>	In	115	1015260.038		ppb
	Sn	118	155205.157	58.845184	ppb
	Sb	121	255733.702	86.929732	ppb
	Ba	135	1412457.789	1815.561813	ppb
	Ba	137	2592544.528	1922.189838	ppb
>	Tb	159	1647909.204		ppb
	Tl	205	524029.791	43.929204	ppb
	Pb	206	71565.166	17.785993	ppb
	Pb	207	134834.686	17.776269	ppb
	Pb	208	224341.364	17.984490	ppb
>	Bi	209	1334545.135		ppb
	Cr	53	69387.902		ppb
	Pd	106	3165.501		ppb
	Pd	108	2350.276		ppb
	C	12	370685.362		ppb
	Kr	83	46.000		ppb
	Se	77	558.016		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	421133.766		ppb
	Be	9	12311.574	49.000713	ppb
	Na	23	38501562.475	15152.272602	ppb
	Mg	24	55932485.760	31730.277048	ppb
	Mg	25	7865536.061	30771.297774	ppb
	Mg	26	9128089.810	31996.197609	ppb
	Al	27	2597131.921	975.430252	ppb
	K	39	5685391.320	1355.391151	ppb
	Ca	44	10609094.532	94090.963642	ppb
>	Sc	45	411080.692		ppb
	Ti	47	760.029	2.334110	ppb
	V	51	1832996.244	536.160466	ppb
	Cr	52	591910.344	200.135982	ppb
	Mn	55	2243212.301	523.816825	ppb
	Fe	54	31063.171	85.591250	ppb
	Fe	56	456266.803	21.481697	ppb
	Fe	57	39036.042	414.868969	ppb
	Co	59	1892042.582	520.951055	ppb
	Ni	60	386954.592	486.924133	ppb
	Cu	63	426613.222	232.199424	ppb
	Cu	65	206500.330	228.213897	ppb
	Zn	66	237009.105	455.341174	ppb
	As	75	22215.222	39.402564	ppb
	Se	82	728.693	12.108767	ppb

⌈	Mo	96	1112.062	0.948663	ppb
|	Ag	107	149678.529	41.439407	ppb
|	Ag	109	149675.145	42.198457	ppb
|	Cd	111	38110.830	42.186490	ppb
|	In	113	82075.442	41.191447	ppb
|>	In	115	1021664.010		ppb
⌊	Sn	118	153453.433	57.816006	ppb
⌈	Sb	121	253333.762	84.696522	ppb
|	Ba	135	1432813.595	1811.430731	ppb
|	Ba	137	2650256.503	1932.655636	ppb
⌊>	Tb	159	1675470.520		ppb
⌈	Tl	205	526188.851	44.637722	ppb
|	Pb	206	71565.166	17.999384	ppb
|	Pb	207	133596.968	17.823870	ppb
|	Pb	208	219583.224	17.813066	ppb
⌊>	Bi	209	1318774.032		ppb
	Cr	53	68556.195		ppb
	Pd	106	3515.618		ppb
	Pd	108	2495.311		ppb
	C	12	374830.666		ppb
	Kr	83	40.000		ppb
	Se	77	591.351		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.233			
	Be	9			99.411		
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.412			
	Ti	47					
	V	51			107.461		
	Cr	52			98.881		
	Mn	55			104.773		
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60			96.574		
	Cu	63			92.232		
	Cu	65					
	Zn	66			91.051		
	As	75			98.029		
	Se	82			99.375		
	Mo	96					
	Ag	107			82.842		
	Ag	109					
	Cd	111			84.871		
	In	113					
>	In	115		103.725			
	Sn	118					
	Sb	121			84.753		
	Ba	135					
	Ba	137			91.252		
>	Tb	159		106.585			
	Tl	205			88.636		
	Pb	206					
	Pb	207					
	Pb	208			88.991		
>	Bi	209		93.749			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9060135-MSD1

Sample Date/Time: Wednesday, June 03, 2009 12:12:59
Sample Type: Spike - 2 of 203
Sample Description: 13MW5SD
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\9060135-MSD1.206

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	440724.898	0.613	440724.898			ppb
	Be	9	12573.234	1.666	0.029	47.81581	1.25	ppb
	Na	23	39609496.732	0.621	89.867	14895.91864	1.08	ppb
	Mg	24	56569911.568	0.866	128.363	30667.04123	1.43	ppb
	Mg	25	7993936.981	1.637	18.139	29885.49067	2.09	ppb
	Mg	26	9334975.744	0.931	21.182	31268.13817	1.32	ppb
	Al	27	2657576.999	0.902	6.030	953.81337	1.44	ppb
	K	39	5740223.121	1.654	12.609	1306.15387	1.86	ppb
	Ca	44	10642082.514	1.398	24.143	90188.55728	1.40	ppb
>	Sc	45	432144.214	2.146	432144.214			ppb
	Ti	47	728.360	2.207	0.001	2.08507	5.08	ppb
	V	51	1871149.984	1.085	4.330	520.76393	1.94	ppb
	Cr	52	604378.703	1.125	1.395	194.43813	2.57	ppb
	Mn	55	2289576.519	1.129	5.303	508.82585	3.26	ppb
	Fe	54	32103.116	0.689	0.048	83.39611	3.74	ppb
	Fe	56	471303.935	1.521	0.189	19.54493	21.13	ppb
	Fe	57	39325.516	1.367	0.087	396.91494	3.49	ppb
	Co	59	1839124.457	4.093	4.257	481.86774	4.77	ppb
	Ni	60	381763.794	1.389	0.883	457.07997	2.08	ppb
	Cu	63	420908.018	1.537	0.972	217.97094	2.70	ppb
	Cu	65	206748.067	1.853	0.478	217.41147	3.03	ppb
	Zn	66	238353.847	0.199	0.552	435.74016	2.29	ppb
	As	75	22306.675	0.795	0.052	37.64601	1.91	ppb
	Se	82	729.804	2.526	0.002	11.52828	1.66	ppb
	Mo	96	1081.392	7.650	0.001	0.90632	8.42	ppb
	Ag	107	150868.502	0.961	0.145	41.10201	1.68	ppb
	Ag	109	150190.705	1.373	0.145	41.66862	2.09	ppb
	Cd	111	39195.802	1.496	0.038	42.69036	1.01	ppb
	In	113	84335.820	0.926	0.038	42.18449	1.92	ppb
>	In	115	1038330.011	0.854	1038330.011			ppb
	Sn	118	156500.155	0.781	0.151	58.01796	0.31	ppb
	Sb	121	254301.337	0.829	0.149	83.61172	0.41	ppb
	Ba	135	1430421.253	0.684	0.840	1778.47069	0.36	ppb
	Ba	137	2642892.544	1.202	1.551	1895.36160	0.88	ppb
>	Tb	159	1703663.095	0.428	1703663.095			ppb
	Tl	205	532718.015	0.277	0.395	44.20313	0.72	ppb
	Pb	206	72010.033	1.197	0.053	17.71354	0.86	ppb
	Pb	207	135552.964	1.140	0.100	17.68841	1.00	ppb
	Pb	208	225771.669	0.981	0.167	17.91425	0.72	ppb
>	Bi	209	1348308.687	0.736	1348308.687			ppb
	Cr	53	69949.141	1.009	69871.808			ppb
	Pd	106	3463.934	3.363	3463.934			ppb
	Pd	108	2541.990	3.138	2536.990			ppb
	C	12	363659.064	1.844	104958.176			ppb
	Kr	83	39.333	5.871	4.000			ppb
	Se	77	569.350	3.051	545.794			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	442455.739		ppb
	Be	9	12804.192	48.505313	ppb
	Na	23	39723770.741	14879.874887	ppb
	Mg	24	56063934.472	30272.157513	ppb
	Mg	25	7843924.596	29207.940345	ppb
	Mg	26	9235645.940	30813.125928	ppb
	Al	27	2631493.093	940.704544	ppb
	K	39	5644457.038	1278.413059	ppb
	Ca	44	10522501.080	88824.918421	ppb
>	Sc	45	423129.179		ppb
	Ti	47	735.027	2.162832	ppb
	V	51	1851445.868	526.133485	ppb
	Cr	52	601334.410	197.524776	ppb
	Mn	55	2317566.924	525.768836	ppb
	Fe	54	32282.022	86.868869	ppb
	Fe	56	478626.458	23.677616	ppb
	Fe	57	39939.600	412.263176	ppb
	Co	59	1800140.022	481.528634	ppb
	Ni	60	376856.374	460.710154	ppb
	Cu	63	417344.125	220.664800	ppb
	Cu	65	205023.743	220.118989	ppb
	Zn	66	238486.957	445.130289	ppb
	As	75	22130.985	38.135516	ppb
	Se	82	708.692	11.431548	ppb
	Mo	96	1010.051	0.846294	ppb
	Ag	107	150067.629	40.992457	ppb
	Ag	109	149194.712	41.501434	ppb
	Cd	111	38629.778	42.190066	ppb
	In	113	83461.847	41.488926	ppb
>	In	115	1035488.026		ppb
	Sn	118	155652.023	57.861458	ppb
	Sb	121	252882.555	83.334181	ppb
	Ba	135	1430372.345	1782.442890	ppb
	Ba	137	2610648.472	1876.503524	ppb
>	Tb	159	1699817.206		ppb
	Tl	205	532336.762	44.548470	ppb
	Pb	206	71333.519	17.697500	ppb
	Pb	207	134703.674	17.728160	ppb
	Pb	208	224081.263	17.932445	ppb
>	Bi	209	1336855.337		ppb
	Cr	53	70757.448		ppb
	Pd	106	3545.628		ppb
	Pd	108	2580.333		ppb
	C	12	356389.489		ppb
	Kr	83	42.000		ppb
	Se	77	551.349		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	442105.133		ppb
	Be	9	12519.832	47.465250	ppb
	Na	23	39327199.889	14742.993726	ppb
	Mg	24	56604063.257	30588.045272	ppb
	Mg	25	8053469.365	30011.998259	ppb
	Mg	26	9397164.306	31376.874725	ppb
	Al	27	2662636.754	952.593708	ppb
	K	39	5834285.188	1323.940565	ppb
	Ca	44	10808618.615	91312.923988	ppb
>	Sc	45	441654.812		ppb

	Ti	47	710.025	1.964358	ppb
	V	51	1870000.733	509.110941	ppb
	Cr	52	599634.768	188.676694	ppb
	Mn	55	2266614.516	492.653186	ppb
	Fe	54	32171.668	80.821426	ppb
	Fe	56	464304.370	15.419145	ppb
	Fe	57	39096.277	385.364268	ppb
	Co	59	1791330.145	459.069774	ppb
	Ni	60	381047.460	446.291802	ppb
	Cu	63	417003.689	211.217887	ppb
	Cu	65	204081.426	209.901977	ppb
	Zn	66	237828.211	425.273813	ppb
	As	75	22303.638	36.821006	ppb
	Se	82	738.027	11.404992	ppb
	Mo	96	1172.069	0.992207	ppb
	Ag	107	152541.303	41.839994	ppb
	Ag	109	152561.609	42.613021	ppb
	Cd	111	39157.137	42.942288	ppb
	In	113	84581.193	43.072125	ppb
>	In	115	1031235.959		ppb
	Sn	118	155946.559	58.210092	ppb
	Sb	121	253297.870	83.506388	ppb
	Ba	135	1420656.496	1771.083623	ppb
	Ba	137	2643872.195	1901.187781	ppb
>	Tb	159	1699099.135		ppb
	Tl	205	534344.718	44.140493	ppb
	Pb	206	72980.338	17.873411	ppb
	Pb	207	137336.761	17.842223	ppb
	Pb	208	228279.032	18.033352	ppb
>	Bi	209	1354300.409		ppb
	Cr	53	69452.347		ppb
	Pd	106	3330.555		ppb
	Pd	108	2450.300		ppb
	C	12	364981.193		ppb
	Kr	83	38.000		ppb
	Se	77	570.683		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	437613.821		ppb
	Be	9	12395.678	47.476874	ppb
	Na	23	39777519.567	15064.887302	ppb
	Mg	24	57041736.974	31140.920911	ppb
	Mg	25	8084416.983	30436.533400	ppb
	Mg	26	9372116.988	31614.413849	ppb
	Al	27	2678601.152	968.141872	ppb
	K	39	5741927.136	1316.107997	ppb
	Ca	44	10595127.846	90427.829440	ppb
>	Sc	45	431648.652		ppb
	Ti	47	740.027	2.128032	ppb
	V	51	1892003.350	527.047349	ppb
	Cr	52	612166.929	197.112931	ppb
	Mn	55	2284548.118	508.055540	ppb
	Fe	54	31855.658	82.498031	ppb
	Fe	56	470980.977	19.538028	ppb
	Fe	57	38940.671	393.117373	ppb
	Co	59	1925903.204	505.004802	ppb
	Ni	60	387387.547	464.237963	ppb
	Cu	63	428376.240	222.030143	ppb
	Cu	65	211139.032	222.213446	ppb
	Zn	66	238746.372	436.816389	ppb
	As	75	22485.400	37.981509	ppb
	Se	82	742.694	11.748288	ppb

⌈	Mo	96	1062.056	0.880452	ppb
|	Ag	107	149996.575	40.473587	ppb
|	Ag	109	148815.795	40.891407	ppb
|	Cd	111	39800.491	42.938732	ppb
|	In	113	84964.421	41.992416	ppb
|>	In	115	1048266.048		ppb
⌊	Sn	118	157901.885	57.982345	ppb
⌈	Sb	121	256723.586	83.994604	ppb
|	Ba	135	1440234.916	1781.885565	ppb
|	Ba	137	2674156.965	1908.393491	ppb
⌊>	Tb	159	1712072.944		ppb
⌈	Tl	205	531472.566	43.920420	ppb
|	Pb	206	71716.242	17.569724	ppb
|	Pb	207	134618.456	17.494861	ppb
|	Pb	208	224954.711	17.776958	ppb
⌊>	Bi	209	1353770.315		ppb
	Cr	53	69637.629		ppb
	Pd	106	3515.618		ppb
	Pd	108	2595.337		ppb
	C	12	369606.510		ppb
	Kr	83	38.000		ppb
	Se	77	586.017		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		104.241			
	Be	9			95.489		
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		103.142			
	Ti	47					
	V	51			104.074		
	Cr	52			95.557		
	Mn	55			101.744		
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60			90.835		
	Cu	63			87.168		
	Cu	65					
	Zn	66			86.761		
	As	75			93.267		
	Se	82			94.572		
	Mo	96					
	Ag	107			81.653		
	Ag	109					
	Cd	111			85.329		
	In	113					
>	In	115		106.080			
	Sn	118					
	Sb	121			82.870		
	Ba	135					
	Ba	137			89.466		
>	Tb	159		109.747			
	Tl	205			88.360		
	Pb	206					
	Pb	207					
	Pb	208			88.635		
>	Bi	209		95.461			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: SDI0906006-01

Sample Date/Time: Wednesday, June 03, 2009 12:15:03
Sample Type: Sample
Sample Description: 13MW5L 5X
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-01.207

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	408549.282	1.963	408549.282			ppb
	Be	9	13.333	121.244	0.000	0.03286	197.32	ppb
	Na	23	9493572.521	0.792	23.236	3851.46352	2.75	ppb
	Mg	24	13820683.735	0.942	33.839	8084.53022	2.72	ppb
	Mg	25	1975577.893	0.850	4.837	7969.39029	2.66	ppb
	Mg	26	2312909.540	1.651	5.663	8359.82579	3.13	ppb
	Al	27	3672.342	4.041	0.008	1.33534	5.67	ppb
	K	39	1423256.143	0.489	3.068	317.85949	2.38	ppb
	Ca	44	2613106.640	1.178	6.394	23884.93959	2.42	ppb
>	Sc	45	396009.768	1.846	396009.768			ppb
	Ti	47	205.002	13.580	0.000	0.29357	36.89	ppb
	V	51	881.995	10.148	0.001	0.11317	27.79	ppb
	Cr	52	4416.309	2.142	0.007	0.93185	5.09	ppb
	Mn	55	-686.728	4.960	0.000	0.03269	32.83	ppb
	Fe	54	12389.347	4.478	0.005	7.97530	27.74	ppb
	Fe	56	412466.281	0.383	0.140	14.44234	16.33	ppb
	Fe	57	11431.531	1.562	0.024	111.95916	2.17	ppb
	Co	59	553.350	37.983	0.001	0.09467	59.97	ppb
	Ni	60	735.583	8.224	0.002	0.89320	10.13	ppb
	Cu	63	861.148	5.614	0.000	0.05569	64.51	ppb
	Cu	65	514.458	2.698	0.001	0.27485	1.82	ppb
	Zn	66	482.234	5.756	0.001	0.80245	5.01	ppb
	As	75	73.514	20.659	0.000	0.13799	20.61	ppb
	Se	82	42.445	12.792	0.000	0.57074	18.33	ppb
	Mo	96	342.006	3.256	0.000	0.27780	3.44	ppb
	Ag	107	548.905	25.516	0.001	0.15679	25.42	ppb
	Ag	109	634.467	41.104	0.001	0.18432	41.18	ppb
	Cd	111	3.727	219.763	0.000	0.00857	109.86	ppb
	In	113	43131.165	1.645	0.000	0.44236	155.13	ppb
>	In	115	983731.016	0.309	983731.016			ppb
	Sn	118	173.335	12.010	0.000	0.04884	16.96	ppb
	Sb	121	2003.535	5.992	0.001	0.67606	6.47	ppb
	Ba	135	21205.126	0.636	0.013	28.34637	0.54	ppb
	Ba	137	36501.166	0.942	0.023	28.14516	1.09	ppb
>	Tb	159	1583318.261	0.170	1583318.261			ppb
	Tl	205	73.334	17.159	0.000	0.00531	20.27	ppb
	Pb	206	406.675	30.226	0.000	0.04509	68.87	ppb
	Pb	207	748.348	33.604	0.000	0.04578	73.62	ppb
	Pb	208	1270.054	40.150	0.000	0.05124	81.10	ppb
>	Bi	209	1316113.770	0.111	1316113.770			ppb
	Cr	53	418.675	5.973	341.342			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	6.667	43.301	1.667			ppb
	C	12	281684.396	1.439	22983.508			ppb
	Kr	83	32.667	18.704	-2.667			ppb
	Se	77	36.667	16.664	13.111			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	416342.600		ppb
	Be	9	32.000	0.107730	ppb
	Na	23	9434228.067	3754.359176	ppb
	Mg	24	13672946.459	7845.671692	ppb
	Mg	25	1956356.295	7741.476518	ppb
	Mg	26	2273147.691	8059.326913	ppb
	Al	27	3515.618	1.248410	ppb
	K	39	1426744.799	311.876401	ppb
	Ca	44	2629041.548	23574.091198	ppb
>	Sc	45	404203.338		ppb
	Ti	47	200.002	0.258469	ppb
	V	51	780.082	0.077054	ppb
	Cr	52	4370.955	0.884266	ppb
	Mn	55	-665.376	0.041248	ppb
	Fe	54	12532.849	7.487331	ppb
	Fe	56	410995.812	11.854334	ppb
	Fe	57	11471.576	109.712279	ppb
	Co	59	794.032	0.159511	ppb
	Ni	60	680.023	0.801788	ppb
	Cu	63	813.366	0.018879	ppb
	Cu	65	530.014	0.280437	ppb
	Zn	66	513.347	0.844138	ppb
	As	75	67.781	0.124843	ppb
	Se	82	40.000	0.512923	ppb
	Mo	96	332.006	0.269705	ppb
	Ag	107	406.675	0.116390	ppb
	Ag	109	343.339	0.099586	ppb
	Cd	111	8.455	0.014026	ppb
	In	113	42495.100	-0.106078	ppb
>	In	115	980225.049		ppb
	Sn	118	190.002	0.055623	ppb
	Sb	121	1955.191	0.658632	ppb
	Ba	135	21106.250	28.203235	ppb
	Ba	137	36229.510	27.924394	ppb
>	Tb	159	1583931.411		ppb
	Tl	205	75.000	0.005451	ppb
	Pb	206	545.015	0.080066	ppb
	Pb	207	1035.027	0.084220	ppb
	Pb	208	1855.105	0.098937	ppb
>	Bi	209	1316189.433		ppb
	Cr	53	444.010		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	286346.857		ppb
	Kr	83	26.000		ppb
	Se	77	38.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	400319.980		ppb
	Be	9	4.000	-0.004398	ppb
	Na	23	9578071.631	3964.248834	ppb
	Mg	24	13870689.626	8277.713927	ppb
	Mg	25	1982924.891	8160.681737	ppb
	Mg	26	2316284.098	8540.981403	ppb
	Al	27	3690.681	1.371046	ppb
	K	39	1427780.131	326.352755	ppb
	Ca	44	2632651.687	24551.904798	ppb
>	Sc	45	393664.470		ppb

	Ti	47	235.003	0.415066	ppb
	V	51	947.830	0.134521	ppb
	Cr	52	4525.024	0.979197	ppb
	Mn	55	-668.801	0.036185	ppb
	Fe	54	12858.261	10.391271	ppb
	Fe	56	412266.547	15.002503	ppb
	Fe	57	11586.709	114.535145	ppb
	Co	59	406.008	0.053886	ppb
	Ni	60	800.032	0.982806	ppb
	Cu	63	860.037	0.057530	ppb
	Cu	65	510.013	0.273293	ppb
	Zn	66	460.011	0.763960	ppb
	As	75	90.733	0.170623	ppb
	Se	82	38.667	0.507812	ppb
	Mo	96	354.006	0.288358	ppb
	Ag	107	553.349	0.157899	ppb
	Ag	109	713.359	0.207249	ppb
	Cd	111	8.455	0.013977	ppb
	In	113	43002.261	0.221275	ppb
>	In	115	985261.261		ppb
	Sn	118	150.001	0.039609	ppb
	Sb	121	1915.183	0.643744	ppb
	Ba	135	21358.786	28.510010	ppb
	Ba	137	36386.077	28.014757	ppb
>	Tb	159	1585649.429		ppb
	Tl	205	85.000	0.006310	ppb
	Pb	206	310.005	0.020747	ppb
	Pb	207	565.008	0.021288	ppb
	Pb	208	920.025	0.022799	ppb
>	Bi	209	1314616.258		ppb
	Cr	53	418.009		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	279702.730		ppb
	Kr	83	34.000		ppb
	Se	77	30.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	408985.267		ppb
	Be	9	4.000	-0.004752	ppb
	Na	23	9468417.865	3835.782537	ppb
	Mg	24	13918415.119	8130.205028	ppb
	Mg	25	1987452.493	8006.012618	ppb
	Mg	26	2349296.832	8479.169059	ppb
	Al	27	3810.726	1.386577	ppb
	K	39	1415243.499	315.349302	ppb
	Ca	44	2577626.686	23528.822783	ppb
>	Sc	45	390161.496		ppb
	Ti	47	180.002	0.207187	ppb
	V	51	918.075	0.127948	ppb
	Cr	52	4352.947	0.932094	ppb
	Mn	55	-726.007	0.020652	ppb
	Fe	54	11776.931	6.047302	ppb
	Fe	56	414136.483	16.470169	ppb
	Fe	57	11236.309	111.630050	ppb
	Co	59	460.011	0.070603	ppb
	Ni	60	726.693	0.894998	ppb
	Cu	63	910.041	0.090657	ppb
	Cu	65	503.346	0.270811	ppb
	Zn	66	473.345	0.799249	ppb
	As	75	62.027	0.118490	ppb
	Se	82	48.667	0.691500	ppb

⌈	Mo	96	340.006	0.275349	ppb
|	Ag	107	686.690	0.196091	ppb
|	Ag	109	846.703	0.246122	ppb
|	Cd	111	-5.730	-0.002301	ppb
|	In	113	43896.133	1.211884	ppb
|>	In	115	985706.737		ppb
⌊	Sn	118	180.002	0.051302	ppb
⌈	Sb	121	2140.229	0.725800	ppb
|	Ba	135	21150.343	28.325872	ppb
|	Ba	137	36887.911	28.496328	ppb
⌊>	Tb	159	1580373.945		ppb
⌈	Tl	205	60.000	0.004171	ppb
|	Pb	206	365.007	0.034464	ppb
|	Pb	207	645.011	0.031836	ppb
|	Pb	208	1035.032	0.031998	ppb
⌊>	Bi	209	1317535.618		ppb
	Cr	53	394.008		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	279003.601		ppb
	Kr	83	38.000		ppb
	Se	77	42.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.631			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.518			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		100.502			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		101.995			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		93.182			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: PDS0906006-01

Sample Date/Time: Wednesday, June 03, 2009 12:17:07
Sample Type: Sample
Sample Description: 13MW5A
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-01.208

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	433699.008	2.983	433699.008			ppb
	Be	9	576.017	7.292	0.001	2.20464	5.07	ppb
	Na	23	39534443.453	1.192	91.179	15113.35335	1.79	ppb
	Mg	24	56731928.485	1.786	130.840	31259.02935	1.29	ppb
	Mg	25	7994513.287	1.573	18.440	30380.18625	1.98	ppb
	Mg	26	9397900.991	0.623	21.681	32004.72056	2.76	ppb
	Al	27	165255.992	0.654	0.381	60.21466	2.34	ppb
	K	39	5642835.169	1.200	12.603	1305.58567	3.61	ppb
	Ca	44	10708989.590	1.844	24.697	92258.81434	2.36	ppb
>	Sc	45	416795.984	2.274	416795.984			ppb
	Ti	47	756.695	8.775	0.001	2.28262	10.13	ppb
	V	51	39596.471	1.753	0.094	11.27285	1.15	ppb
	Cr	52	24796.040	1.197	0.055	7.67354	2.24	ppb
	Mn	55	8709.292	2.682	0.023	2.20576	4.45	ppb
	Fe	54	13958.070	1.627	0.007	11.85179	9.98	ppb
	Fe	56	462199.293	1.112	0.207	21.42547	15.21	ppb
	Fe	57	39459.370	0.947	0.090	413.74733	3.13	ppb
	Co	59	8560.332	3.322	0.020	2.26172	1.11	ppb
	Ni	60	4036.370	0.390	0.010	4.94304	1.89	ppb
	Cu	63	8058.803	2.456	0.017	3.90188	0.22	ppb
	Cu	65	4380.960	3.220	0.010	4.46716	4.06	ppb
	Zn	66	3277.204	2.144	0.008	6.05296	0.68	ppb
	As	75	1392.542	6.140	0.003	2.44153	8.30	ppb
	Se	82	730.027	1.874	0.002	11.96922	3.89	ppb
	Mo	96	3173.837	1.438	0.003	2.72441	2.54	ppb
	Ag	107	6418.726	0.722	0.006	1.74328	1.14	ppb
	Ag	109	6372.030	1.613	0.006	1.76206	2.01	ppb
	Cd	111	1629.489	1.381	0.002	1.77466	2.35	ppb
	In	113	46730.612	1.317	0.001	1.61478	45.76	ppb
>	In	115	1040983.285	1.152	1040983.285			ppb
	Sn	118	4942.890	4.430	0.005	1.80936	4.39	ppb
	Sb	121	11116.178	2.815	0.007	3.69555	2.55	ppb
	Ba	135	98613.212	1.070	0.059	125.01472	0.79	ppb
	Ba	137	171704.732	2.255	0.103	125.55420	1.92	ppb
>	Tb	159	1670585.570	0.687	1670585.570			ppb
	Tl	205	22354.966	2.059	0.017	1.86853	1.71	ppb
	Pb	206	8903.968	4.565	0.006	2.15699	4.67	ppb
	Pb	207	16325.055	3.150	0.012	2.09898	2.95	ppb
	Pb	208	26045.135	5.634	0.019	2.03601	4.85	ppb
>	Bi	209	1337806.683	0.921	1337806.683			ppb
	Cr	53	2725.039	5.045	2647.705			ppb
	Pd	106	158.335	21.026	158.335			ppb
	Pd	108	113.334	11.103	108.334			ppb
	C	12	349370.414	1.186	90669.526			ppb
	Kr	83	28.000	37.796	-7.333			ppb
	Se	77	552.682	5.911	529.126			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	447167.052		ppb
	Be	9	624.019	2.318895	ppb
	Na	23	40027936.735	14835.832276	ppb
	Mg	24	57866101.202	30916.059792	ppb
	Mg	25	8137148.959	29980.572660	ppb
	Mg	26	9451863.228	31202.257763	ppb
	Al	27	166453.911	58.795079	ppb
	K	39	5659376.124	1267.945721	ppb
	Ca	44	10914765.427	91165.834493	ppb
>	Sc	45	427616.415		ppb
	Ti	47	795.032	2.349992	ppb
	V	51	40348.427	11.193941	ppb
	Cr	52	24985.174	7.523112	ppb
	Mn	55	8440.004	2.093114	ppb
	Fe	54	14124.969	11.037843	ppb
	Fe	56	461012.181	18.191491	ppb
	Fe	57	39111.336	398.845610	ppb
	Co	59	8877.939	2.287329	ppb
	Ni	60	4054.155	4.836360	ppb
	Cu	63	8283.429	3.910080	ppb
	Cu	65	4420.977	4.387317	ppb
	Zn	66	3350.561	6.031100	ppb
	As	75	1296.854	2.213688	ppb
	Se	82	716.692	11.439405	ppb
	Mo	96	3182.506	2.753612	ppb
	Ag	107	6448.745	1.765352	ppb
	Ag	109	6278.637	1.749968	ppb
	Cd	111	1654.985	1.816464	ppb
	In	113	46060.836	1.289136	ppb
>	In	115	1032711.788		ppb
	Sn	118	4711.109	1.737560	ppb
	Sb	121	11051.103	3.652062	ppb
	Ba	135	99823.765	125.805788	ppb
	Ba	137	176076.621	127.998380	ppb
>	Tb	159	1680463.572		ppb
	Tl	205	22836.045	1.891444	ppb
	Pb	206	9189.220	2.207135	ppb
	Pb	207	16817.128	2.143803	ppb
	Pb	208	27647.928	2.145014	ppb
>	Bi	209	1350066.092		ppb
	Cr	53	2594.336		ppb
	Pd	106	195.002		ppb
	Pd	108	125.001		ppb
	C	12	344953.778		ppb
	Kr	83	16.000		ppb
	Se	77	585.350		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	432567.166		ppb
	Be	9	546.015	2.095489	ppb
	Na	23	39486444.262	15129.127769	ppb
	Mg	24	56414627.257	31157.880911	ppb
	Mg	25	7899595.731	30087.685626	ppb
	Mg	26	9335651.040	31858.811060	ppb
	Al	27	164959.451	60.235959	ppb
	K	39	5568370.331	1290.402177	ppb
	Ca	44	10520904.887	90842.022973	ppb
>	Sc	45	412796.978		ppb

	Ti	47	680.023	2.025226	ppb
	V	51	38980.383	11.202760	ppb
	Cr	52	24453.863	7.636119	ppb
	Mn	55	8830.273	2.251825	ppb
	Fe	54	13699.377	11.309274	ppb
	Fe	56	457757.671	21.377986	ppb
	Fe	57	39854.260	422.144263	ppb
	Co	59	8473.589	2.260817	ppb
	Ni	60	4030.812	4.983193	ppb
	Cu	63	7983.185	3.902926	ppb
	Cu	65	4224.225	4.339334	ppb
	Zn	66	3270.535	6.100173	ppb
	As	75	1419.333	2.509388	ppb
	Se	82	744.028	12.315078	ppb
	Mo	96	3214.517	2.774095	ppb
	Ag	107	6365.359	1.737821	ppb
	Ag	109	6482.100	1.801854	ppb
	Cd	111	1621.057	1.774536	ppb
	In	113	47271.466	2.460629	ppb
>	In	115	1035498.576		ppb
	Sn	118	5146.324	1.894669	ppb
	Sb	121	11456.559	3.803628	ppb
	Ba	135	97892.816	123.900243	ppb
	Ba	137	168707.202	123.165553	ppb
>	Tb	159	1673297.793		ppb
	Tl	205	21918.996	1.831941	ppb
	Pb	206	8438.559	2.041003	ppb
	Pb	207	15791.261	2.028441	ppb
	Pb	208	25719.554	2.010315	ppb
>	Bi	209	1337919.564		ppb
	Cr	53	2868.411		ppb
	Pd	106	130.001		ppb
	Pd	108	115.001		ppb
	C	12	349989.291		ppb
	Kr	83	36.000		ppb
	Se	77	552.682		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	421362.806		ppb
	Be	9	558.016	2.199530	ppb
	Na	23	39088949.361	15375.100015	ppb
	Mg	24	55915056.997	31703.147339	ppb
	Mg	25	7946795.171	31072.300465	ppb
	Mg	26	9406188.707	32953.092849	ppb
	Al	27	164354.613	61.612939	ppb
	K	39	5700759.052	1358.409108	ppb
	Ca	44	10691298.454	94768.585551	ppb
>	Sc	45	409974.557		ppb
	Ti	47	795.032	2.472633	ppb
	V	51	39460.604	11.421838	ppb
	Cr	52	24949.084	7.861399	ppb
	Mn	55	8857.599	2.272352	ppb
	Fe	54	14049.863	13.208248	ppb
	Fe	56	467828.028	24.706939	ppb
	Fe	57	39412.515	420.252105	ppb
	Co	59	8329.468	2.237021	ppb
	Ni	60	4024.143	5.009556	ppb
	Cu	63	7909.794	3.892642	ppb
	Cu	65	4497.678	4.674825	ppb
	Zn	66	3210.515	6.027604	ppb
	As	75	1461.437	2.601521	ppb
	Se	82	729.360	12.153170	ppb

⌈	Mo	96	3124.488	2.645520	ppb
|	Ag	107	6442.074	1.726675	ppb
|	Ag	109	6355.352	1.734345	ppb
|	Cd	111	1612.426	1.732988	ppb
|	In	113	46859.534	1.094567	ppb
|>	In	115	1054739.492		ppb
⌊	Sn	118	4971.235	1.795839	ppb
⌈	Sb	121	10840.873	3.630947	ppb
|	Ba	135	98123.056	125.338140	ppb
|	Ba	137	170330.372	125.498676	ppb
⌊>	Tb	159	1657995.347		ppb
⌈	Tl	205	22309.859	1.882197	ppb
|	Pb	206	9084.124	2.222841	ppb
|	Pb	207	16366.775	2.124692	ppb
|	Pb	208	24767.924	1.952708	ppb
⌊>	Bi	209	1325434.392		ppb
	Cr	53	2712.368		ppb
	Pd	106	150.001		ppb
	Pd	108	100.001		ppb
	C	12	353168.174		ppb
	Kr	83	32.000		ppb
	Se	77	520.014		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.579			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		99.479			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		106.351			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		107.616			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.718			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0906006-02

Sample Date/Time: Wednesday, June 03, 2009 12:19:11
Sample Type: Sample
Sample Description: 13MW3
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-02.209

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	437159.301	0.783	437159.301			ppb
	Be	9	14.000	86.897	0.000	0.03279	144.22	ppb
	Na	23	32943153.539	1.646	75.344	12488.68937	0.92	ppb
	Mg	24	51128065.195	1.496	116.952	27941.03883	1.09	ppb
	Mg	25	7270212.227	1.325	16.630	27399.67809	1.10	ppb
	Mg	26	8486313.681	1.832	19.411	28654.83925	1.19	ppb
	Al	27	13143.637	2.905	0.030	4.66862	2.81	ppb
	K	39	7598265.425	1.933	16.965	1757.42920	1.90	ppb
	Ca	44	8545483.451	1.284	19.544	73007.86131	1.10	ppb
>	Sc	45	414589.857	0.578	414589.857			ppb
	Ti	47	526.681	9.972	0.001	1.44668	12.69	ppb
	V	51	1342.399	6.392	0.002	0.23433	10.09	ppb
	Cr	52	6674.894	1.441	0.012	1.62125	1.32	ppb
	Mn	55	-383.974	14.552	0.001	0.11035	11.56	ppb
	Fe	54	13212.059	2.591	0.005	9.00137	18.15	ppb
	Fe	56	457482.990	1.110	0.201	20.81225	3.98	ppb
	Fe	57	32089.766	2.826	0.073	334.38045	2.74	ppb
	Co	59	877.372	2.869	0.002	0.17670	3.98	ppb
	Ni	60	1774.602	7.005	0.004	2.14541	6.70	ppb
	Cu	63	577.795	8.001	-0.001	-0.11986	19.67	ppb
	Cu	65	654.466	6.783	0.001	0.40197	11.63	ppb
	Zn	66	1144.510	6.489	0.003	2.02204	7.31	ppb
	As	75	63.616	31.816	0.000	0.11455	31.43	ppb
	Se	82	48.889	6.727	0.000	0.64411	7.79	ppb
	Mo	96	680.690	6.031	0.001	0.55330	6.69	ppb
	Ag	107	18.889	26.956	0.000	0.00415	33.38	ppb
	Ag	109	25.556	15.061	0.000	0.00574	18.28	ppb
	Cd	111	3.970	462.363	0.000	0.00859	231.60	ppb
	In	113	46246.758	3.071	0.001	0.93363	153.55	ppb
>	In	115	1044301.395	0.234	1044301.395			ppb
	Sn	118	90.000	29.397	0.000	0.01416	68.64	ppb
	Sb	121	520.014	3.467	0.000	0.13813	3.91	ppb
	Ba	135	65290.452	0.515	0.038	81.24353	0.54	ppb
	Ba	137	112918.635	0.629	0.066	81.04677	0.40	ppb
>	Tb	159	1701827.395	0.319	1701827.395			ppb
	Tl	205	16.667	45.826	0.000	0.00045	137.41	ppb
	Pb	206	478.345	19.397	0.000	0.06017	39.15	ppb
	Pb	207	860.020	24.960	0.000	0.05790	49.89	ppb
	Pb	208	1420.064	27.441	0.001	0.06063	52.55	ppb
>	Bi	209	1351092.842	0.725	1351092.842			ppb
	Cr	53	668.022	4.116	590.689			ppb
	Pd	106	8.333	124.900	8.333			ppb
	Pd	108	10.000	50.000	5.000			ppb
	C	12	353090.164	1.844	94389.276			ppb
	Kr	83	22.667	5.094	-12.667			ppb
	Se	77	44.445	12.580	20.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	433263.694		ppb
|	Be	9	28.000	0.087216	ppb
|	Na	23	32320293.454	12363.235388	ppb
|	Mg	24	50404309.998	27793.591783	ppb
|	Mg	25	7193505.933	27354.287246	ppb
|	Mg	26	8315157.009	28330.612559	ppb
|	Al	27	12938.365	4.636465	ppb
|	K	39	7521696.370	1755.290872	ppb
⌊	Ca	44	8461816.353	72942.634319	ppb
⌈>	Sc	45	413495.749		ppb
|	Ti	47	525.014	1.446308	ppb
|	V	51	1245.801	0.207306	ppb
|	Cr	52	6680.231	1.629050	ppb
|	Mn	55	-319.457	0.125072	ppb
|	Fe	54	12973.410	8.133530	ppb
|	Fe	56	458736.008	21.428859	ppb
|	Fe	57	32703.388	342.132725	ppb
|	Co	59	904.041	0.184630	ppb
|	Ni	60	1660.138	2.008525	ppb
|	Cu	63	590.017	-0.112338	ppb
|	Cu	65	683.357	0.435742	ppb
|	Zn	66	1230.076	2.191004	ppb
|	As	75	85.438	0.153228	ppb
⌊	Se	82	46.667	0.609220	ppb
⌈	Mo	96	670.022	0.543579	ppb
|	Ag	107	13.333	0.002646	ppb
|	Ag	109	23.333	0.005124	ppb
|	Cd	111	-16.095	-0.013143	ppb
|	In	113	45503.292	0.105703	ppb
|>	In	115	1045042.607		ppb
⌊	Sn	118	120.001	0.025201	ppb
⌈	Sb	121	500.013	0.132134	ppb
|	Ba	135	65095.182	81.285955	ppb
|	Ba	137	112392.069	80.953746	ppb
⌊>	Tb	159	1695844.866		ppb
⌈	Tl	205	10.000	-0.000089	ppb
|	Pb	206	575.017	0.085028	ppb
|	Pb	207	1105.031	0.090933	ppb
|	Pb	208	1865.103	0.097008	ppb
⌊>	Bi	209	1340378.504		ppb
	Cr	53	698.024		ppb
	Pd	106	0.000		ppb
	Pd	108	15.000		ppb
	C	12	346128.335		ppb
	Kr	83	22.000		ppb
	Se	77	38.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	439689.653		ppb
|	Be	9	8.000	0.009357	ppb
|	Na	23	33200449.734	12514.328179	ppb
|	Mg	24	51051943.305	27739.288845	ppb
|	Mg	25	7238803.564	27124.241704	ppb
|	Mg	26	8525112.467	28621.457377	ppb
|	Al	27	12908.326	4.556621	ppb
|	K	39	7505519.809	1725.196346	ppb
⌊	Ca	44	8504913.555	72242.532581	ppb
⌈>	Sc	45	412936.671		ppb

	Ti	47	475.011	1.263323	ppb
	V	51	1371.613	0.244443	ppb
	Cr	52	6576.162	1.596961	ppb
	Mn	55	-416.413	0.102441	ppb
	Fe	54	13604.247	10.885785	ppb
	Fe	56	451894.842	19.871260	ppb
	Fe	57	31048.125	324.250930	ppb
	Co	59	854.036	0.171257	ppb
	Ni	60	1756.821	2.132468	ppb
	Cu	63	526.681	-0.146288	ppb
	Cu	65	603.352	0.348617	ppb
	Zn	66	1106.728	1.958193	ppb
	As	75	59.952	0.108434	ppb
	Se	82	47.333	0.621464	ppb
	Mo	96	726.026	0.594203	ppb
	Ag	107	23.333	0.005373	ppb
	Ag	109	23.333	0.005145	ppb
	Cd	111	19.915	0.025893	ppb
	In	113	45352.610	0.106137	ppb
>	In	115	1041572.698		ppb
	Sn	118	70.000	0.006864	ppb
	Sb	121	535.014	0.142601	ppb
	Ba	135	65097.195	80.783289	ppb
	Ba	137	113727.035	81.406488	ppb
>	Tb	159	1706446.896		ppb
	Tl	205	15.000	0.000316	ppb
	Pb	206	390.008	0.038173	ppb
	Pb	207	705.013	0.037376	ppb
	Pb	208	1255.049	0.047213	ppb
>	Bi	209	1353325.740		ppb
	Cr	53	662.022		ppb
	Pd	106	20.000		ppb
	Pd	108	5.000		ppb
	C	12	354115.818		ppb
	Kr	83	22.000		ppb
	Se	77	47.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	438524.555		ppb
	Be	9	6.000	0.001791	ppb
	Na	23	33308717.427	12588.504533	ppb
	Mg	24	51927942.282	28290.235851	ppb
	Mg	25	7378327.185	27720.505330	ppb
	Mg	26	8618671.566	29012.447801	ppb
	Al	27	13584.220	4.812766	ppb
	K	39	7767580.095	1791.800396	ppb
	Ca	44	8669720.447	73838.417024	ppb
>	Sc	45	417337.151		ppb
	Ti	47	580.017	1.630423	ppb
	V	51	1409.782	0.251231	ppb
	Cr	52	6768.290	1.637736	ppb
	Mn	55	-416.053	0.103544	ppb
	Fe	54	13058.521	7.984792	ppb
	Fe	56	461818.120	21.136630	ppb
	Fe	57	32517.784	336.757687	ppb
	Co	59	874.038	0.174214	ppb
	Ni	60	1906.848	2.295243	ppb
	Cu	63	616.686	-0.100958	ppb
	Cu	65	676.690	0.421554	ppb
	Zn	66	1096.727	1.916934	ppb
	As	75	45.459	0.081999	ppb
	Se	82	52.667	0.701631	ppb

⌈	Mo	96	646.021	0.522114	ppb
|	Ag	107	20.000	0.004444	ppb
|	Ag	109	30.000	0.006951	ppb
|	Cd	111	8.090	0.013016	ppb
|	In	113	47884.372	2.589041	ppb
|>	In	115	1046288.879		ppb
⌊	Sn	118	80.000	0.010428	ppb
⌈	Sb	121	525.014	0.139647	ppb
|	Ba	135	65678.980	81.661348	ppb
|	Ba	137	112636.800	80.780073	ppb
⌊>	Tb	159	1703190.423		ppb
⌈	Tl	205	25.000	0.001133	ppb
|	Pb	206	470.011	0.057313	ppb
|	Pb	207	770.016	0.045391	ppb
|	Pb	208	1140.040	0.037679	ppb
⌊>	Bi	209	1359574.282		ppb
	Cr	53	644.021		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	359026.340		ppb
	Kr	83	24.000		ppb
	Se	77	48.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.397			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.953			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		106.690			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		109.629			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.658			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Wednesday, June 03, 2009 12:21:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CCV.210

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	434034.126	2.226	434034.126			ppb
	Be	9	30608.781	1.541	0.071	118.24568	0.72	ppb
	Na	23	2992938.832	0.384	6.888	1141.69932	1.88	ppb
	Mg	24	2080482.298	0.521	4.794	1145.31486	2.40	ppb
	Mg	25	306835.845	0.874	0.707	1164.84212	2.35	ppb
	Mg	26	341630.152	1.851	0.787	1161.61251	1.08	ppb
	Al	27	3195573.606	2.086	7.362	1164.56426	0.31	ppb
	K	39	4967876.594	0.283	11.033	1142.92642	2.09	ppb
	Ca	44	135522.926	1.396	0.308	1151.96517	1.02	ppb
>	Sc	45	424630.775	1.317	424630.775			ppb
	Ti	47	33449.188	1.287	0.078	120.25153	0.07	ppb
	V	51	429063.949	1.198	1.009	121.38054	0.45	ppb
	Cr	52	371491.872	0.376	0.871	121.37131	1.52	ppb
	Mn	55	539956.502	1.712	1.274	122.21153	0.43	ppb
	Fe	54	306230.359	1.359	0.694	1217.28343	1.18	ppb
	Fe	56	5414156.167	1.325	11.848	1225.01306	0.74	ppb
	Fe	57	115874.256	1.615	0.268	1230.44486	1.76	ppb
	Co	59	462705.551	1.088	1.089	123.31220	2.35	ppb
	Ni	60	100532.863	1.196	0.237	122.42175	0.89	ppb
	Cu	63	231250.050	0.823	0.543	121.65384	1.15	ppb
	Cu	65	112518.552	2.099	0.264	120.23120	1.54	ppb
	Zn	66	64379.951	1.793	0.151	119.61738	0.48	ppb
	As	75	69760.289	0.956	0.164	119.78499	0.92	ppb
	Se	82	7415.416	2.079	0.017	120.81371	1.09	ppb
	Mo	96	126634.830	1.036	0.134	121.08091	1.14	ppb
	Ag	107	406583.219	1.580	0.429	121.46875	1.68	ppb
	Ag	109	398936.440	0.457	0.421	121.36994	0.60	ppb
	Cd	111	101056.778	1.961	0.107	120.69879	1.80	ppb
	In	113	144615.098	1.957	0.109	122.03128	1.68	ppb
>	In	115	946823.925	0.857	946823.925			ppb
	Sn	118	296934.071	0.510	0.314	120.74168	0.62	ppb
	Sb	121	322057.669	1.188	0.212	118.84011	1.29	ppb
	Ba	135	85773.734	2.181	0.056	119.66300	2.83	ppb
	Ba	137	150900.816	1.285	0.099	121.42278	1.61	ppb
>	Tb	159	1518317.817	1.453	1518317.817			ppb
	Tl	205	1365692.779	1.366	1.048	117.29571	2.26	ppb
	Pb	206	467931.970	1.156	0.359	119.47399	1.99	ppb
	Pb	207	883255.451	0.966	0.678	119.60749	1.55	ppb
	Pb	208	1465580.866	0.893	1.125	120.66062	1.36	ppb
>	Bi	209	1302763.908	0.899	1302763.908			ppb
	Cr	53	42964.098	0.322	42886.765			ppb
	Pd	106	8556.998	4.529	8556.998			ppb
	Pd	108	6523.797	4.336	6518.797			ppb
	C	12	250221.423	2.477	-8479.466			ppb
	Kr	83	29.333	14.193	-6.000			ppb
	Se	77	5878.394	1.095	5854.838			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	444999.731		ppb
	Be	9	31126.367	117.269933	ppb
	Na	23	3005545.037	1117.912208	ppb
	Mg	24	2079499.894	1116.170144	ppb
	Mg	25	307537.346	1138.362832	ppb
	Mg	26	347245.067	1151.504188	ppb
	Al	27	3268791.229	1161.865744	ppb
	K	39	4981533.992	1116.536020	ppb
	Ca	44	137687.410	1141.237809	ppb
>	Sc	45	430991.771		ppb
	Ti	47	33942.507	120.223631	ppb
	V	51	434228.608	121.026152	ppb
	Cr	52	370527.676	119.243308	ppb
	Mn	55	550191.079	122.693403	ppb
	Fe	54	308650.876	1208.422593	ppb
	Fe	56	5477570.023	1220.749772	ppb
	Fe	57	116206.295	1215.429818	ppb
	Co	59	456976.115	119.961669	ppb
	Ni	60	101721.411	122.036260	ppb
	Cu	63	232672.360	120.582282	ppb
	Cu	65	114707.472	120.763862	ppb
	Zn	66	65701.796	120.277533	ppb
	As	75	70212.872	118.776257	ppb
	Se	82	7558.189	121.328840	ppb
	Mo	96	128131.661	122.004336	ppb
	Ag	107	413704.128	123.083261	ppb
	Ag	109	400873.769	121.453973	ppb
	Cd	111	103343.780	122.921783	ppb
	In	113	146967.088	124.101540	ppb
>	In	115	950735.424		ppb
	Sn	118	298576.841	120.906744	ppb
	Sb	121	322828.125	120.596547	ppb
	Ba	135	87487.032	123.549715	ppb
	Ba	137	151805.567	123.657542	ppb
>	Tb	159	1499671.996		ppb
	Tl	205	1346534.030	114.511441	ppb
	Pb	206	463880.356	117.274717	ppb
	Pb	207	882878.191	118.385691	ppb
	Pb	208	1468494.147	119.718375	ppb
>	Bi	209	1315541.961		ppb
	Cr	53	43076.580		ppb
	Pd	106	8728.808		ppb
	Pd	108	6301.985		ppb
	C	12	257149.318		ppb
	Kr	83	28.000		ppb
	Se	77	5813.022		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	430338.522		ppb
	Be	9	30496.431	118.811313	ppb
	Na	23	2983023.759	1147.378312	ppb
	Mg	24	2070167.056	1149.024628	ppb
	Mg	25	303871.806	1163.120946	ppb
	Mg	26	342865.780	1175.726467	ppb
	Al	27	3179516.840	1168.636930	ppb
	K	39	4953484.089	1149.292042	ppb
	Ca	44	134182.244	1150.188836	ppb
>	Sc	45	420498.914		ppb

	Ti	47	33149.855	120.346507	ppb
	V	51	423951.611	121.110436	ppb
	Cr	52	370855.499	122.343084	ppb
	Mn	55	532204.422	121.645579	ppb
	Fe	54	301425.414	1209.626884	ppb
	Fe	56	5336295.959	1218.802909	ppb
	Fe	57	113859.530	1220.687656	ppb
	Co	59	464721.072	125.041653	ppb
	Ni	60	100559.750	123.653950	ppb
	Cu	63	231990.115	123.238304	ppb
	Cu	65	112832.993	121.757226	ppb
	Zn	66	63571.426	119.280244	ppb
	As	75	68994.215	119.627109	ppb
	Se	82	7251.962	119.315130	ppb
	Mo	96	126085.903	121.751642	ppb
	Ag	107	404824.925	122.142306	ppb
	Ag	109	397250.043	122.055631	ppb
	Cd	111	99972.565	120.591139	ppb
	In	113	141473.711	119.995796	ppb
>	In	115	937497.068		ppb
	Sn	118	295595.196	121.389691	ppb
	Sb	121	317904.086	117.740031	ppb
	Ba	135	83777.469	117.297420	ppb
	Ba	137	148675.058	120.070434	ppb
>	Tb	159	1512616.612		ppb
	Tl	205	1366756.639	117.600528	ppb
	Pb	206	465838.295	119.158058	ppb
	Pb	207	874917.886	118.700538	ppb
	Pb	208	1451278.669	119.708731	ppb
>	Bi	209	1300224.265		ppb
	Cr	53	42809.437		ppb
	Pd	106	8828.896		ppb
	Pd	108	6427.065		ppb
	C	12	245199.737		ppb
	Kr	83	34.000		ppb
	Se	77	5880.395		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	426764.127		ppb
	Be	9	30203.544	118.655780	ppb
	Na	23	2990247.701	1159.807433	ppb
	Mg	24	2091779.944	1170.749814	ppb
	Mg	25	309098.385	1193.042575	ppb
	Mg	26	334779.611	1157.606870	ppb
	Al	27	3138412.750	1163.190112	ppb
	K	39	4968611.701	1162.951189	ppb
	Ca	44	134699.124	1164.468863	ppb
>	Sc	45	422401.639		ppb
	Ti	47	33255.204	120.184464	ppb
	V	51	429011.628	122.005020	ppb
	Cr	52	373092.442	122.527550	ppb
	Mn	55	537474.005	122.295595	ppb
	Fe	54	308614.787	1233.800815	ppb
	Fe	56	5428602.519	1235.486514	ppb
	Fe	57	117556.944	1255.217097	ppb
	Co	59	466419.466	124.933268	ppb
	Ni	60	99317.427	121.575044	ppb
	Cu	63	229087.675	121.140947	ppb
	Cu	65	110015.190	118.172510	ppb
	Zn	66	63866.631	119.294365	ppb
	As	75	70073.779	120.951609	ppb
	Se	82	7436.097	121.797151	ppb

⌈	Mo	96	125686.927	119.486744	ppb
|	Ag	107	401220.605	119.180674	ppb
|	Ag	109	398685.509	120.600216	ppb
|	Cd	111	99853.990	118.583446	ppb
|	In	113	145404.493	121.996502	ppb
|>	In	115	952239.283		ppb
⌊	Sn	118	296630.176	119.928599	ppb
⌈	Sb	121	325440.795	118.183751	ppb
|	Ba	135	86056.701	118.141859	ppb
|	Ba	137	152221.823	120.540359	ppb
⌊>	Tb	159	1542664.844		ppb
⌈	Tl	205	1383787.668	119.775155	ppb
|	Pb	206	474077.259	121.989199	ppb
|	Pb	207	891970.275	121.736244	ppb
|	Pb	208	1476969.781	122.554758	ppb
⌊>	Bi	209	1292525.498		ppb
	Cr	53	43006.279		ppb
	Pd	106	8113.290		ppb
	Pd	108	6842.340		ppb
	C	12	248315.214		ppb
	Kr	83	26.000		ppb
	Se	77	5941.765		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			102.658		
	Be	9	98.538				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			101.349		
	Ti	47					
	V	51	101.150				
	Cr	52	101.143				
	Mn	55	101.843				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	102.760				
	Ni	60	102.018				
	Cu	63	101.378				
	Cu	65	100.193				
	Zn	66	99.681				
	As	75	99.821				
	Se	82	100.678				
	Mo	96					
	Ag	107	101.224				
	Ag	109	101.142				
	Cd	111	100.582				
	In	113					
>	In	115			96.732		
	Sn	118	100.618				
	Sb	121	99.033				
	Ba	135	99.719				
	Ba	137	101.186				
>	Tb	159			97.807		
	Tl	205	97.746				
	Pb	206	99.562				
	Pb	207	99.673				
	Pb	208	100.551				
>	Bi	209			92.237		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Wednesday, June 03, 2009 12:23:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CCB.211

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	415139.122	2.218	415139.122			ppb
|	Be	9	21.333	124.844	0.000	0.06383	165.01	ppb
|	Na	23	7702.299	1.058	0.009	1.47618	4.40	ppb
|	Mg	24	630.688	28.915	0.000	0.09945	99.15	ppb
|	Mg	25	81.000	53.344	0.000	0.06077	271.22	ppb
|	Mg	26	140.668	26.754	0.000	0.08847	143.13	ppb
|	Al	27	1803.496	6.052	0.004	0.59962	5.13	ppb
|	K	39	171216.682	0.582	-0.004	-0.37558	305.06	ppb
⌊	Ca	44	1529.450	1.310	-0.000	-0.81580	59.72	ppb
⌈>	Sc	45	409192.133	3.004	409192.133			ppb
|	Ti	47	51.667	22.349	-0.000	-0.30683	13.01	ppb
|	V	51	474.501	9.951	-0.000	-0.01524	120.03	ppb
|	Cr	52	1795.495	6.334	-0.000	-0.01072	507.14	ppb
|	Mn	55	-761.859	5.778	0.000	0.02062	30.97	ppb
|	Fe	54	10772.467	1.939	-0.000	-0.68265	274.22	ppb
|	Fe	56	365632.477	1.861	-0.008	-0.86729	132.44	ppb
|	Fe	57	2021.872	6.101	0.000	2.26536	31.57	ppb
|	Co	59	312.673	64.630	0.000	0.02307	234.01	ppb
|	Ni	60	78.889	8.796	0.000	0.03116	27.13	ppb
|	Cu	63	754.473	2.942	-0.000	-0.01856	105.66	ppb
|	Cu	65	320.005	10.259	0.000	0.04045	111.80	ppb
|	Zn	66	163.335	17.792	0.000	0.15519	30.68	ppb
|	As	75	31.163	154.550	0.000	0.05821	145.13	ppb
⌊	Se	82	21.111	25.329	0.000	0.18474	47.82	ppb
⌈	Mo	96	251.337	20.603	0.000	0.20783	25.80	ppb
|	Ag	107	1353.436	42.140	0.001	0.40852	40.90	ppb
|	Ag	109	1374.550	42.141	0.001	0.42224	41.05	ppb
|	Cd	111	1.545	504.734	0.000	0.00613	155.31	ppb
|	In	113	40366.324	1.718	-0.000	-0.11720	265.67	ppb
|>	In	115	931320.640	1.445	931320.640			ppb
⌊	Sn	118	228.336	4.558	0.000	0.07543	6.95	ppb
⌈	Sb	121	1773.491	6.874	0.001	0.63666	7.59	ppb
|	Ba	135	28.667	24.502	0.000	0.01812	53.11	ppb
|	Ba	137	56.667	14.264	0.000	0.02410	27.87	ppb
⌊>	Tb	159	1484182.110	1.364	1484182.110			ppb
⌈	Tl	205	90.000	29.397	0.000	0.00686	32.58	ppb
|	Pb	206	245.004	83.125	0.000	0.00552	955.73	ppb
|	Pb	207	423.340	77.066	0.000	0.00334	1340.82	ppb
|	Pb	208	728.356	70.395	0.000	0.00826	518.63	ppb
⌊>	Bi	209	1292442.733	2.563	1292442.733			ppb
	Cr	53	94.000	7.671	16.667			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	1.667	173.205	-3.333			ppb
	C	12	241298.547	1.341	-17402.341			ppb
	Kr	83	23.333	39.590	-12.000			ppb
	Se	77	27.778	30.199	4.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	422723.834		ppb
	Be	9	52.000	0.185121	ppb
	Na	23	7788.031	1.453771	ppb
	Mg	24	841.035	0.212749	ppb
	Mg	25	128.001	0.240391	ppb
	Mg	26	183.002	0.228223	ppb
	Al	27	1825.167	0.595679	ppb
	K	39	170065.928	-1.440936	ppb
	Ca	44	1510.114	-1.240800	ppb
>	Sc	45	416902.950		ppb
	Ti	47	65.000	-0.261025	ppb
	V	51	435.750	-0.029358	ppb
	Cr	52	1818.165	-0.015405	ppb
	Mn	55	-807.949	0.013245	ppb
	Fe	54	10540.552	-2.544745	ppb
	Fe	56	368595.191	-1.863380	ppb
	Fe	57	2105.222	2.777094	ppb
	Co	59	546.015	0.085394	ppb
	Ni	60	73.334	0.022403	ppb
	Cu	63	730.027	-0.039672	ppb
	Cu	65	283.337	-0.006914	ppb
	Zn	66	176.668	0.175559	ppb
	As	75	76.754	0.136810	ppb
	Se	82	26.667	0.270453	ppb
	Mo	96	310.005	0.268264	ppb
	Ag	107	793.365	0.243071	ppb
	Ag	109	766.696	0.238850	ppb
	Cd	111	-5.365	-0.002325	ppb
	In	113	39613.306	-0.413477	ppb
>	In	115	919590.612		ppb
	Sn	118	240.003	0.081481	ppb
	Sb	121	1635.134	0.584851	ppb
	Ba	135	22.000	0.008685	ppb
	Ba	137	66.000	0.031821	ppb
>	Tb	159	1482807.846		ppb
	Tl	205	60.000	0.004289	ppb
	Pb	206	480.012	0.066321	ppb
	Pb	207	800.017	0.055085	ppb
	Pb	208	1320.055	0.057703	ppb
>	Bi	209	1287664.198		ppb
	Cr	53	100.001		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	243237.683		ppb
	Kr	83	18.000		ppb
	Se	77	20.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	404896.400		ppb
	Be	9	4.000	-0.004587	ppb
	Na	23	7692.958	1.549306	ppb
	Mg	24	534.014	0.052519	ppb
	Mg	25	43.000	-0.083519	ppb
	Mg	26	128.001	0.055836	ppb
	Al	27	1685.142	0.571045	ppb
	K	39	171795.110	0.836445	ppb
	Ca	44	1550.120	-0.284140	ppb
>	Sc	45	395015.764		ppb

	Ti	47	45.000	-0.325396	ppb
	V	51	527.095	0.005421	ppb
	Cr	52	1896.180	0.045823	ppb
	Mn	55	-720.252	0.024244	ppb
	Fe	54	10830.862	1.199021	ppb
	Fe	56	357850.292	0.389195	ppb
	Fe	57	1880.177	1.448291	ppb
	Co	59	196.002	-0.006694	ppb
	Ni	60	76.667	0.031811	ppb
	Cu	63	760.029	-0.000897	ppb
	Cu	65	346.673	0.083160	ppb
	Zn	66	130.001	0.100773	ppb
	As	75	35.949	0.068935	ppb
	Se	82	20.667	0.189771	ppb
	Mo	96	232.003	0.189297	ppb
	Ag	107	1333.422	0.405318	ppb
	Ag	109	1436.770	0.444495	ppb
	Cd	111	10.000	0.016453	ppb
	In	113	40506.875	0.207348	ppb
>	In	115	928352.618		ppb
	Sn	118	220.002	0.072237	ppb
	Sb	121	1865.174	0.680522	ppb
	Ba	135	28.000	0.017752	ppb
	Ba	137	52.000	0.020816	ppb
>	Tb	159	1464656.967		ppb
	Tl	205	100.001	0.007941	ppb
	Pb	206	135.001	-0.022124	ppb
	Pb	207	230.001	-0.022398	ppb
	Pb	208	415.006	-0.017006	ppb
>	Bi	209	1261961.182		ppb
	Cr	53	86.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	237563.701		ppb
	Kr	83	34.000		ppb
	Se	77	26.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	417797.132		ppb
	Be	9	8.000	0.010956	ppb
	Na	23	7625.907	1.425460	ppb
	Mg	24	517.013	0.033068	ppb
	Mg	25	72.000	0.025439	ppb
	Mg	26	111.001	-0.018641	ppb
	Al	27	1900.181	0.632134	ppb
	K	39	171789.007	-0.522257	ppb
	Ca	44	1528.117	-0.922473	ppb
>	Sc	45	415657.687		ppb
	Ti	47	45.000	-0.334068	ppb
	V	51	460.660	-0.021773	ppb
	Cr	52	1672.140	-0.062566	ppb
	Mn	55	-757.375	0.024363	ppb
	Fe	54	10945.987	-0.702239	ppb
	Fe	56	370451.946	-1.127670	ppb
	Fe	57	2080.216	2.570704	ppb
	Co	59	196.002	-0.009484	ppb
	Ni	60	86.667	0.039271	ppb
	Cu	63	773.363	-0.015125	ppb
	Cu	65	330.005	0.045090	ppb
	Zn	66	183.335	0.189233	ppb
	As	75	-19.214	-0.031118	ppb
	Se	82	16.000	0.093983	ppb

⌈	Mo	96	212.002	0.165926	ppb
|	Ag	107	1933.520	0.577161	ppb
|	Ag	109	1920.184	0.583363	ppb
|	Cd	111	0.000	0.004273	ppb
|	In	113	40978.791	-0.145481	ppb
|>	In	115	946018.690		ppb
⌊	Sn	118	225.003	0.072568	ppb
⌈	Sb	121	1820.166	0.644598	ppb
|	Ba	135	36.000	0.027924	ppb
|	Ba	137	52.000	0.019651	ppb
⌊>	Tb	159	1505081.516		ppb
⌈	Tl	205	110.001	0.008345	ppb
|	Pb	206	120.001	-0.027646	ppb
|	Pb	207	240.001	-0.022661	ppb
|	Pb	208	450.006	-0.015925	ppb
⌊>	Bi	209	1327702.820		ppb
	Cr	53	96.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	243094.258		ppb
	Kr	83	18.000		ppb
	Se	77	36.667		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		98.189			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		97.664			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		95.148			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		95.608			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		91.506			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0906006-03

Sample Date/Time: Wednesday, June 03, 2009 12:25:29
Sample Type: Sample
Sample Description: 13MW4
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-03.212

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	416321.449	2.688	416321.449			ppb
	Be	9	20.000	121.244	0.000	0.06082	165.43	ppb
	Na	23	20580615.496	2.299	49.429	8193.06830	0.79	ppb
	Mg	24	32693591.390	4.266	78.511	18756.91613	2.07	ppb
	Mg	25	4695563.613	3.046	11.279	18582.75461	1.82	ppb
	Mg	26	5433970.138	2.759	13.053	19268.15851	1.29	ppb
	Al	27	70034.541	3.091	0.168	26.52388	1.91	ppb
	K	39	3970861.228	3.289	9.121	944.83893	0.77	ppb
	Ca	44	5506421.992	2.408	13.224	49398.58767	1.33	ppb
>	Sc	45	412808.489	2.217	412808.489			ppb
	Ti	47	823.367	5.740	0.002	2.55794	6.85	ppb
	V	51	1640.432	17.301	0.003	0.32210	22.89	ppb
	Cr	52	6702.259	9.410	0.012	1.63797	10.02	ppb
	Mn	55	3670.787	3.164	0.011	1.05235	0.77	ppb
	Fe	54	21857.206	2.720	0.026	45.94761	3.37	ppb
	Fe	56	567690.637	1.862	0.473	48.91590	1.04	ppb
	Fe	57	25099.827	3.997	0.056	258.27160	2.80	ppb
	Co	59	1226.742	10.147	0.002	0.27410	15.09	ppb
	Ni	60	2108.002	10.286	0.005	2.57113	9.13	ppb
	Cu	63	1191.182	3.454	0.001	0.21517	17.01	ppb
	Cu	65	675.578	4.197	0.001	0.42820	3.45	ppb
	Zn	66	1716.814	0.700	0.004	3.12720	1.63	ppb
	As	75	115.180	11.319	0.000	0.20611	11.57	ppb
	Se	82	51.333	10.630	0.000	0.68869	12.75	ppb
	Mo	96	1061.390	7.830	0.001	0.90063	5.65	ppb
	Ag	107	228.892	31.246	0.000	0.06202	30.21	ppb
	Ag	109	197.780	37.015	0.000	0.05411	36.85	ppb
	Cd	111	25.122	64.796	0.000	0.03233	57.54	ppb
	In	113	44682.947	1.076	0.000	0.21553	426.65	ppb
>	In	115	1024221.693	2.714	1024221.693			ppb
	Sn	118	136.668	31.116	0.000	0.03246	51.20	ppb
	Sb	121	910.042	10.598	0.000	0.27571	11.68	ppb
	Ba	135	32092.113	3.124	0.019	41.14398	2.85	ppb
	Ba	137	56108.359	2.378	0.034	41.48798	0.70	ppb
>	Tb	159	1651458.627	2.128	1651458.627			ppb
	Tl	205	155.001	20.145	0.000	0.01189	19.91	ppb
	Pb	206	485.013	37.157	0.000	0.06242	75.30	ppb
	Pb	207	888.355	29.037	0.000	0.06205	58.68	ppb
	Pb	208	1411.728	24.709	0.001	0.06029	50.11	ppb
>	Bi	209	1350101.188	2.040	1350101.188			ppb
	Cr	53	670.689	6.481	593.356			ppb
	Pd	106	5.000	173.205	5.000			ppb
	Pd	108	5.000	173.205	0.000			ppb
	C	12	325112.204	0.721	66411.315			ppb
	Kr	83	30.667	48.073	-4.667			ppb
	Se	77	44.445	5.679	20.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	406205.040		ppb
	Be	9	48.000	0.176997	ppb
	Na	23	20075109.582	8190.173946	ppb
	Mg	24	31148783.973	18319.894431	ppb
	Mg	25	4530514.150	18375.419977	ppb
	Mg	26	5264146.791	19130.109855	ppb
	Al	27	69415.089	26.944174	ppb
	K	39	3868232.745	943.371467	ppb
	Ca	44	5355026.859	49231.682562	ppb
>	Sc	45	403638.643		ppb
	Ti	47	840.035	2.690207	ppb
	V	51	1518.332	0.297366	ppb
	Cr	52	6195.919	1.516764	ppb
	Mn	55	3553.065	1.043864	ppb
	Fe	54	21177.400	45.103289	ppb
	Fe	56	557187.140	49.448089	ppb
	Fe	57	23948.643	251.573536	ppb
	Co	59	1370.094	0.321378	ppb
	Ni	60	1863.507	2.319914	ppb
	Cu	63	1236.743	0.254634	ppb
	Cu	65	646.688	0.412773	ppb
	Zn	66	1706.812	3.181516	ppb
	As	75	109.428	0.200239	ppb
	Se	82	46.667	0.628315	ppb
	Mo	96	976.048	0.844084	ppb
	Ag	107	146.668	0.040393	ppb
	Ag	109	113.334	0.031236	ppb
	Cd	111	41.460	0.051009	ppb
	In	113	44147.234	0.627238	ppb
>	In	115	1003139.025		ppb
	Sn	118	180.002	0.050080	ppb
	Sb	121	840.035	0.258217	ppb
	Ba	135	31132.386	40.786845	ppb
	Ba	137	54602.667	41.262961	ppb
>	Tb	159	1615937.214		ppb
	Tl	205	120.001	0.009259	ppb
	Pb	206	670.022	0.111382	ppb
	Pb	207	1175.035	0.102726	ppb
	Pb	208	1800.097	0.094203	ppb
>	Bi	209	1318427.489		ppb
	Cr	53	638.020		ppb
	Pd	106	15.000		ppb
	Pd	108	0.000		ppb
	C	12	323277.291		ppb
	Kr	83	36.000		ppb
	Se	77	43.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	414415.554		ppb
	Be	9	6.000	0.003125	ppb
	Na	23	20653872.015	8259.364881	ppb
	Mg	24	33071323.191	19065.269313	ppb
	Mg	25	4772567.965	18973.670610	ppb
	Mg	26	5489782.722	19554.832087	ppb
	Al	27	68247.091	25.962791	ppb
	K	39	3926468.364	938.384071	ppb
	Ca	44	5562213.914	50123.600608	ppb
>	Sc	45	412848.164		ppb

	Ti	47	770.030	2.359109	ppb
	V	51	1438.104	0.263900	ppb
	Cr	52	6502.113	1.572430	ppb
	Mn	55	3674.016	1.053134	ppb
	Fe	54	22279.792	47.732261	ppb
	Fe	56	567556.582	48.861201	ppb
	Fe	57	25788.209	265.929899	ppb
	Co	59	1164.068	0.256316	ppb
	Ni	60	2276.926	2.784704	ppb
	Cu	63	1180.070	0.208541	ppb
	Cu	65	676.690	0.429574	ppb
	Zn	66	1713.480	3.119753	ppb
	As	75	130.104	0.232343	ppb
	Se	82	57.333	0.789455	ppb
	Mo	96	1066.057	0.915217	ppb
	Ag	107	263.337	0.072510	ppb
	Ag	109	243.336	0.067831	ppb
	Cd	111	25.000	0.032158	ppb
	In	113	44825.240	0.857305	ppb
>	In	115	1013798.958		ppb
	Sn	118	95.000	0.017069	ppb
	Sb	121	870.038	0.256050	ppb
	Ba	135	32011.154	40.190272	ppb
	Ba	137	57144.811	41.384674	ppb
>	Tb	159	1686199.607		ppb
	Tl	205	165.001	0.012566	ppb
	Pb	206	310.005	0.017663	ppb
	Pb	207	675.011	0.032494	ppb
	Pb	208	1310.051	0.050429	ppb
>	Bi	209	1368400.303		ppb
	Cr	53	720.026		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	324304.769		ppb
	Kr	83	14.000		ppb
	Se	77	47.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	428343.754		ppb
	Be	9	6.000	0.002336	ppb
	Na	23	21012864.891	8129.666060	ppb
	Mg	24	33860667.006	18885.584652	ppb
	Mg	25	4783608.723	18399.173240	ppb
	Mg	26	5547980.902	19119.533603	ppb
	Al	27	72441.441	26.664671	ppb
	K	39	4117882.576	952.761237	ppb
	Ca	44	5602025.203	48840.479849	ppb
>	Sc	45	421938.660		ppb
	Ti	47	860.037	2.624509	ppb
	V	51	1964.859	0.405030	ppb
	Cr	52	7408.743	1.824710	ppb
	Mn	55	3785.280	1.060039	ppb
	Fe	54	22114.425	45.007292	ppb
	Fe	56	578328.191	48.438409	ppb
	Fe	57	25562.631	257.311354	ppb
	Co	59	1146.066	0.244609	ppb
	Ni	60	2183.572	2.608765	ppb
	Cu	63	1156.734	0.182339	ppb
	Cu	65	703.358	0.442263	ppb
	Zn	66	1730.150	3.080321	ppb
	As	75	106.007	0.185756	ppb
	Se	82	50.000	0.648308	ppb

⌈	Mo	96	1142.065	0.942596	ppb
|	Ag	107	276.670	0.073165	ppb
|	Ag	109	236.669	0.063266	ppb
|	Cd	111	8.905	0.013811	ppb
|	In	113	45076.365	-0.837951	ppb
|>	In	115	1055727.097		ppb
⌊	Sn	118	135.001	0.030225	ppb
⌈	Sb	121	1020.052	0.312872	ppb
|	Ba	135	33132.798	42.454813	ppb
|	Ba	137	56577.600	41.816318	ppb
⌊>	Tb	159	1652239.058		ppb
⌈	Tl	205	180.002	0.013845	ppb
|	Pb	206	475.011	0.058204	ppb
|	Pb	207	815.017	0.050930	ppb
|	Pb	208	1125.037	0.036241	ppb
⌊>	Bi	209	1363475.773		ppb
	Cr	53	654.021		ppb
	Pd	106	0.000		ppb
	Pd	108	15.000		ppb
	C	12	327754.550		ppb
	Kr	83	42.000		ppb
	Se	77	42.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.469			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.527			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		104.639			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		106.384			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.588			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0906006-04

Sample Date/Time: Wednesday, June 03, 2009 12:27:33
Sample Type: Sample
Sample Description: 13MWDUP
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-04.213

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	443325.957	3.866	443325.957			ppb
	Be	9	18.667	118.019	0.000	0.04744	166.76	ppb
	Na	23	20969075.255	0.348	47.333	7845.70575	3.57	ppb
	Mg	24	33114542.181	0.384	74.773	17864.09509	4.10	ppb
	Mg	25	4694293.038	0.546	10.599	17462.28463	3.78	ppb
	Mg	26	5503779.753	0.550	12.425	18341.65947	3.27	ppb
	Al	27	46816.020	1.763	0.105	16.64095	5.55	ppb
	K	39	4044877.420	1.574	8.714	902.71627	3.12	ppb
	Ca	44	5665182.889	0.362	12.788	47770.10112	3.95	ppb
>	Sc	45	431770.411	1.355	431770.411			ppb
	Ti	47	701.691	9.570	0.001	1.99228	12.62	ppb
	V	51	1653.278	1.633	0.003	0.30560	4.47	ppb
	Cr	52	6480.099	1.936	0.011	1.46970	4.68	ppb
	Mn	55	3123.318	11.283	0.009	0.89397	9.64	ppb
	Fe	54	20030.042	1.343	0.020	34.47297	6.34	ppb
	Fe	56	544522.424	1.402	0.359	37.14669	9.38	ppb
	Fe	57	25136.575	3.238	0.054	246.51281	4.02	ppb
	Co	59	1172.737	20.309	0.002	0.24441	24.75	ppb
	Ni	60	2239.140	1.640	0.005	2.61507	3.01	ppb
	Cu	63	1222.297	5.671	0.001	0.20214	13.73	ppb
	Cu	65	707.803	4.376	0.001	0.43007	10.01	ppb
	Zn	66	1615.686	3.104	0.004	2.79817	4.56	ppb
	As	75	103.824	7.680	0.000	0.17780	6.29	ppb
	Se	82	50.445	6.246	0.000	0.63671	7.55	ppb
	Mo	96	994.716	3.531	0.001	0.81227	4.44	ppb
	Ag	107	44.445	49.938	0.000	0.01096	55.54	ppb
	Ag	109	31.111	16.366	0.000	0.00716	21.20	ppb
	Cd	111	20.243	137.049	0.000	0.02552	113.36	ppb
	In	113	45869.968	0.950	-0.000	-0.23133	164.24	ppb
>	In	115	1060913.542	1.739	1060913.542			ppb
	Sn	118	120.001	21.651	0.000	0.02444	35.25	ppb
	Sb	121	656.688	6.476	0.000	0.18428	8.24	ppb
	Ba	135	32549.559	1.202	0.019	40.69815	2.04	ppb
	Ba	137	56804.899	1.235	0.034	40.96867	2.05	ppb
>	Tb	159	1693372.738	0.869	1693372.738			ppb
	Tl	205	180.002	10.016	0.000	0.01372	9.69	ppb
	Pb	206	348.341	60.191	0.000	0.02637	189.66	ppb
	Pb	207	615.011	48.964	0.000	0.02420	156.89	ppb
	Pb	208	978.366	43.326	0.000	0.02392	135.62	ppb
>	Bi	209	1374549.001	1.599	1374549.001			ppb
	Cr	53	623.353	0.668	546.019			ppb
	Pd	106	5.000	100.000	5.000			ppb
	Pd	108	3.333	86.603	-1.667			ppb
	C	12	333169.675	1.209	74468.787			ppb
	Kr	83	17.333	35.251	-18.000			ppb
	Se	77	47.778	7.160	24.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	462513.338		ppb
	Be	9	44.000	0.138371	ppb
	Na	23	21010554.770	7528.116070	ppb
	Mg	24	32981410.317	17036.158387	ppb
	Mg	25	4689863.589	16705.921204	ppb
	Mg	26	5538588.158	17677.010692	ppb
	Al	27	45869.962	15.600616	ppb
	K	39	4079374.778	870.562903	ppb
	Ca	44	5650896.133	45625.877526	ppb
>	Sc	45	435186.644		ppb
	Ti	47	750.028	2.141894	ppb
	V	51	1629.343	0.295249	ppb
	Cr	52	6442.074	1.440477	ppb
	Mn	55	3181.459	0.900695	ppb
	Fe	54	19799.582	32.886872	ppb
	Fe	56	544696.399	36.134151	ppb
	Fe	57	25848.364	251.867576	ppb
	Co	59	1446.105	0.313295	ppb
	Ni	60	2236.917	2.590678	ppb
	Cu	63	1250.078	0.211712	ppb
	Cu	65	693.357	0.408722	ppb
	Zn	66	1563.456	2.679084	ppb
	As	75	108.074	0.183643	ppb
	Se	82	48.000	0.591473	ppb
	Mo	96	998.050	0.798670	ppb
	Ag	107	20.000	0.004268	ppb
	Ag	109	26.667	0.005795	ppb
	Cd	111	52.275	0.058931	ppb
	In	113	46347.155	-0.661802	ppb
>	In	115	1081494.486		ppb
	Sn	118	150.001	0.034392	ppb
	Sb	121	615.019	0.168563	ppb
	Ba	135	32211.797	39.900598	ppb
	Ba	137	56287.972	40.217780	ppb
>	Tb	159	1709079.877		ppb
	Tl	205	200.002	0.015236	ppb
	Pb	206	590.017	0.084073	ppb
	Pb	207	960.024	0.067803	ppb
	Pb	208	1465.067	0.061240	ppb
>	Bi	209	1384605.062		ppb
	Cr	53	622.019		ppb
	Pd	106	10.000		ppb
	Pd	108	5.000		ppb
	C	12	328637.842		ppb
	Kr	83	12.000		ppb
	Se	77	44.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	437929.512		ppb
	Be	9	8.000	0.009480	ppb
	Na	23	21011940.842	7951.332533	ppb
	Mg	24	33234860.374	18130.791250	ppb
	Mg	25	4721862.065	17764.130822	ppb
	Mg	26	5489046.036	18502.359871	ppb
	Al	27	47191.088	16.958482	ppb
	K	39	4083854.927	922.913452	ppb
	Ca	44	5688681.007	48510.280718	ppb
>	Sc	45	425013.074		ppb

	Ti	47	730.027	2.132993	ppb
	V	51	1682.533	0.321081	ppb
	Cr	52	6620.191	1.548313	ppb
	Mn	55	3443.029	0.976542	ppb
	Fe	54	20325.636	36.965384	ppb
	Fe	56	552069.696	41.025491	ppb
	Fe	57	25311.994	252.599822	ppb
	Co	59	1062.056	0.220010	ppb
	Ni	60	2276.926	2.703035	ppb
	Cu	63	1143.399	0.170860	ppb
	Cu	65	743.361	0.479596	ppb
	Zn	66	1663.472	2.932941	ppb
	As	75	94.626	0.164907	ppb
	Se	82	49.333	0.631501	ppb
	Mo	96	1028.053	0.853124	ppb
	Ag	107	63.334	0.016166	ppb
	Ag	109	36.667	0.008791	ppb
	Cd	111	3.820	0.008403	ppb
	In	113	45493.247	0.057132	ppb
>	In	115	1045856.666		ppb
	Sn	118	105.001	0.019644	ppb
	Sb	121	655.021	0.185411	ppb
	Ba	135	32978.289	41.560862	ppb
	Ba	137	57603.431	41.873818	ppb
>	Tb	159	1679887.785		ppb
	Tl	205	175.002	0.013164	ppb
	Pb	206	240.003	-0.000254	ppb
	Pb	207	480.006	0.006395	ppb
	Pb	208	780.017	0.007932	ppb
>	Bi	209	1389693.750		ppb
	Cr	53	620.019		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	334528.411		ppb
	Kr	83	16.000		ppb
	Se	77	50.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	429535.020		ppb
	Be	9	4.000	-0.005537	ppb
	Na	23	20884730.153	8057.668639	ppb
	Mg	24	33127355.851	18425.335640	ppb
	Mg	25	4671153.462	17916.801872	ppb
	Mg	26	5483705.064	18845.607861	ppb
	Al	27	47387.011	17.363763	ppb
	K	39	3971402.553	914.672468	ppb
	Ca	44	5655971.527	49174.145122	ppb
>	Sc	45	435111.515		ppb
	Ti	47	625.020	1.701940	ppb
	V	51	1647.959	0.300472	ppb
	Cr	52	6378.033	1.420312	ppb
	Mn	55	2745.465	0.804666	ppb
	Fe	54	19964.910	33.566666	ppb
	Fe	56	536801.178	34.280429	ppb
	Fe	57	24249.366	235.071023	ppb
	Co	59	1010.051	0.199915	ppb
	Ni	60	2203.576	2.551495	ppb
	Cu	63	1273.414	0.223846	ppb
	Cu	65	686.690	0.401877	ppb
	Zn	66	1620.131	2.782481	ppb
	As	75	108.773	0.184844	ppb
	Se	82	54.000	0.687145	ppb

⌈	Mo	96	958.046	0.785017	ppb
|	Ag	107	50.000	0.012438	ppb
|	Ag	109	30.000	0.006880	ppb
|	Cd	111	4.635	0.009239	ppb
|	In	113	45769.503	-0.089312	ppb
|>	In	115	1055389.473		ppb
⌊	Sn	118	105.001	0.019295	ppb
⌈	Sb	121	700.025	0.198868	ppb
|	Ba	135	32458.593	40.632981	ppb
|	Ba	137	56523.294	40.814417	ppb
⌊>	Tb	159	1691150.553		ppb
⌈	Tl	205	165.001	0.012756	ppb
|	Pb	206	215.002	-0.004701	ppb
|	Pb	207	405.004	-0.001592	ppb
|	Pb	208	690.014	0.002576	ppb
⌊>	Bi	209	1349348.191		ppb
	Cr	53	628.020		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	336342.773		ppb
	Kr	83	24.000		ppb
	Se	77	48.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		104.856			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		103.053			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		108.388			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		109.084			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		97.319			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0906006-05

Sample Date/Time: Wednesday, June 03, 2009 12:29:37
Sample Type: Sample
Sample Description: 13MW6
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-05.214

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	430082.021	1.901	430082.021			ppb
	Be	9	14.000	86.897	0.000	0.03302	140.12	ppb
	Na	23	28465419.425	0.870	66.195	10972.09997	2.36	ppb
	Mg	24	73933357.990	0.634	171.942	41078.52864	1.83	ppb
	Mg	25	10421567.299	0.326	24.237	39931.60049	1.78	ppb
	Mg	26	12165629.613	0.526	28.292	41764.41706	1.55	ppb
	Al	27	35601.656	3.820	0.082	13.01648	5.79	ppb
	K	39	7909799.025	0.914	17.977	1862.31704	1.03	ppb
	Ca	44	13407486.302	1.126	31.174	116451.57323	0.93	ppb
>	Sc	45	408279.267	3.401	408279.267			ppb
	Ti	47	725.026	3.161	0.001	2.22314	3.80	ppb
	V	51	1645.407	2.309	0.003	0.32998	5.42	ppb
	Cr	52	5899.073	1.703	0.010	1.39205	3.56	ppb
	Mn	55	1455.463	10.990	0.006	0.54073	4.83	ppb
	Fe	54	16218.143	1.547	0.013	22.84293	14.85	ppb
	Fe	56	530241.471	0.302	0.397	41.09662	10.13	ppb
	Fe	57	50656.325	1.231	0.120	548.63978	2.85	ppb
	Co	59	1206.074	13.645	0.002	0.27076	12.57	ppb
	Ni	60	2978.222	5.993	0.007	3.70572	5.36	ppb
	Cu	63	571.128	9.703	-0.001	-0.11886	20.09	ppb
	Cu	65	957.824	4.951	0.002	0.75113	4.95	ppb
	Zn	66	1532.340	4.678	0.004	2.80690	4.77	ppb
	As	75	288.986	22.737	0.001	0.52121	24.92	ppb
	Se	82	200.669	6.719	0.000	3.24021	10.46	ppb
	Mo	96	1152.066	4.083	0.001	1.00407	4.94	ppb
	Ag	107	12.222	62.984	0.000	0.00250	87.69	ppb
	Ag	109	16.667	40.000	0.000	0.00347	53.96	ppb
	Cd	111	15.308	53.044	0.000	0.02159	43.13	ppb
	In	113	43295.246	3.057	-0.000	-0.28003	530.15	ppb
>	In	115	1002311.996	0.881	1002311.996			ppb
	Sn	118	90.000	30.932	0.000	0.01559	69.94	ppb
	Sb	121	290.004	16.627	0.000	0.06672	24.98	ppb
	Ba	135	58125.158	2.203	0.036	75.58037	1.31	ppb
	Ba	137	101070.287	1.679	0.062	75.80842	0.78	ppb
>	Tb	159	1628414.930	0.903	1628414.930			ppb
	Tl	205	175.002	4.949	0.000	0.01441	5.54	ppb
	Pb	206	266.671	40.098	0.000	0.01187	238.81	ppb
	Pb	207	485.007	45.886	0.000	0.01258	248.27	ppb
	Pb	208	853.360	52.717	0.000	0.01955	196.02	ppb
>	Bi	209	1277008.674	0.581	1277008.674			ppb
	Cr	53	580.684	2.675	503.350			ppb
	Pd	106	18.333	62.984	18.333			ppb
	Pd	108	5.000	100.000	0.000			ppb
	C	12	332064.654	1.965	73363.765			ppb
	Kr	83	30.667	20.964	-4.667			ppb
	Se	77	97.778	10.235	74.223			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	437264.443		ppb
	Be	9	28.000	0.086224	ppb
	Na	23	28569580.236	10828.314742	ppb
	Mg	24	74391012.345	40644.978789	ppb
	Mg	25	10458393.236	39405.709729	ppb
	Mg	26	12175759.043	41104.715563	ppb
	Al	27	34454.253	12.376768	ppb
	K	39	7979493.041	1847.292233	ppb
	Ca	44	13491818.481	115246.659024	ppb
>	Sc	45	423148.822		ppb
	Ti	47	730.027	2.144593	ppb
	V	51	1670.962	0.319889	ppb
	Cr	52	6007.804	1.356101	ppb
	Mn	55	1639.169	0.570913	ppb
	Fe	54	16002.794	19.427824	ppb
	Fe	56	531546.336	36.602532	ppb
	Fe	57	50869.055	530.626803	ppb
	Co	59	1382.096	0.306872	ppb
	Ni	60	3140.493	3.771073	ppb
	Cu	63	630.020	-0.098444	ppb
	Cu	65	980.048	0.737569	ppb
	Zn	66	1593.460	2.815849	ppb
	As	75	214.610	0.372352	ppb
	Se	82	185.335	2.861859	ppb
	Mo	96	1130.064	0.974372	ppb
	Ag	107	3.333	-0.000031	ppb
	Ag	109	23.333	0.005335	ppb
	Cd	111	8.090	0.013314	ppb
	In	113	44036.749	0.084047	ppb
>	In	115	1011812.177		ppb
	Sn	118	85.000	0.013334	ppb
	Sb	121	255.003	0.053904	ppb
	Ba	135	59438.121	76.626563	ppb
	Ba	137	102789.584	76.436049	ppb
>	Tb	159	1642597.393		ppb
	Tl	205	180.002	0.014951	ppb
	Pb	206	390.008	0.044586	ppb
	Pb	207	740.014	0.048394	ppb
	Pb	208	1365.058	0.063173	ppb
>	Bi	209	1268489.961		ppb
	Cr	53	598.018		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	327816.533		ppb
	Kr	83	38.000		ppb
	Se	77	108.001		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	431796.020		ppb
	Be	9	6.000	0.002148	ppb
	Na	23	28182557.885	10816.901633	ppb
	Mg	24	73454745.682	40641.695788	ppb
	Mg	25	10391311.247	39648.803548	ppb
	Mg	26	12224011.964	41790.249983	ppb
	Al	27	35247.008	12.825035	ppb
	K	39	7914786.798	1855.709478	ppb
	Ca	44	13497405.155	116754.701526	ppb
>	Sc	45	406043.822		ppb

	Ti	47	745.028	2.312633	ppb
	V	51	1601.746	0.319394	ppb
	Cr	52	5809.687	1.371463	ppb
	Mn	55	1380.171	0.525365	ppb
	Fe	54	16158.044	22.890539	ppb
	Fe	56	530724.357	41.864431	ppb
	Fe	57	51145.459	556.958016	ppb
	Co	59	1180.070	0.266125	ppb
	Ni	60	2787.055	3.482494	ppb
	Cu	63	520.014	-0.145115	ppb
	Cu	65	990.049	0.793161	ppb
	Zn	66	1453.439	2.668737	ppb
	As	75	339.154	0.611555	ppb
	Se	82	206.002	3.342339	ppb
	Mo	96	1120.063	0.976470	ppb
	Ag	107	16.667	0.003747	ppb
	Ag	109	16.667	0.003489	ppb
	Cd	111	13.734	0.019792	ppb
	In	113	41767.043	-1.912783	ppb
>	In	115	1000780.844		ppb
	Sn	118	65.000	0.005995	ppb
	Sb	121	345.006	0.085562	ppb
	Ba	135	58058.049	75.452900	ppb
	Ba	137	101025.745	75.732313	ppb
>	Tb	159	1629408.209		ppb
	Tl	205	180.002	0.014784	ppb
	Pb	206	210.002	-0.003215	ppb
	Pb	207	385.004	-0.001564	ppb
	Pb	208	675.014	0.004201	ppb
>	Bi	209	1282040.777		ppb
	Cr	53	576.017		ppb
	Pd	106	25.000		ppb
	Pd	108	5.000		ppb
	C	12	328797.979		ppb
	Kr	83	28.000		ppb
	Se	77	88.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	421185.599		ppb
	Be	9	8.000	0.010698	ppb
	Na	23	28644120.155	11271.083548	ppb
	Mg	24	73954315.942	41948.911333	ppb
	Mg	25	10414997.413	40740.288193	ppb
	Mg	26	12097117.832	42398.285625	ppb
	Al	27	37103.707	13.847635	ppb
	K	39	7835117.236	1883.949397	ppb
	Ca	44	13233235.269	117353.359128	ppb
>	Sc	45	395645.159		ppb
	Ti	47	700.025	2.212195	ppb
	V	51	1663.514	0.350643	ppb
	Cr	52	5879.728	1.448578	ppb
	Mn	55	1347.048	0.525904	ppb
	Fe	54	16493.591	26.210420	ppb
	Fe	56	528453.720	44.822890	ppb
	Fe	57	49954.462	558.334526	ppb
	Co	59	1056.056	0.239290	ppb
	Ni	60	3007.119	3.863588	ppb
	Cu	63	563.349	-0.113017	ppb
	Cu	65	903.374	0.722652	ppb
	Zn	66	1550.120	2.936121	ppb
	As	75	313.195	0.579724	ppb
	Se	82	210.669	3.516447	ppb

⌈	Mo	96	1206.073	1.061361	ppb
|	Ag	107	16.667	0.003778	ppb
|	Ag	109	10.000	0.001589	ppb
|	Cd	111	24.099	0.031680	ppb
|	In	113	44081.947	0.988649	ppb
|>	In	115	994342.968		ppb
⌊	Sn	118	120.001	0.027456	ppb
⌈	Sb	121	270.004	0.060698	ppb
|	Ba	135	56879.304	74.661640	ppb
|	Ba	137	99395.531	75.256902	ppb
⌊>	Tb	159	1613239.190		ppb
⌈	Tl	205	165.001	0.013492	ppb
|	Pb	206	200.002	-0.005748	ppb
|	Pb	207	330.003	-0.009081	ppb
|	Pb	208	520.008	-0.008719	ppb
⌊>	Bi	209	1280495.282		ppb
	Cr	53	568.016		ppb
	Pd	106	25.000		ppb
	Pd	108	0.000		ppb
	C	12	339579.449		ppb
	Kr	83	26.000		ppb
	Se	77	97.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		101.724			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.446			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		102.401			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		104.900			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		90.413			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0906006-06

Sample Date/Time: Wednesday, June 03, 2009 12:31:42
Sample Type: Sample
Sample Description: 13MW7
Number of Replicates: 3
Batch ID: 0906006
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\0906006-06.215

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	426700.455	1.484	426700.455			ppb
	Be	9	16.667	142.155	0.000	0.04344	210.33	ppb
	Na	23	21211484.001	0.547	49.710	8239.69728	1.94	ppb
	Mg	24	61193691.957	0.725	143.439	34268.82270	2.05	ppb
	Mg	25	8615021.682	1.010	20.192	33266.79843	1.26	ppb
	Mg	26	10142628.964	0.722	23.774	35095.56149	2.06	ppb
	Al	27	17044.515	1.151	0.039	6.23175	1.08	ppb
	K	39	6212700.863	1.666	14.146	1465.44588	2.57	ppb
	Ca	44	10776295.713	1.134	25.257	94350.93037	2.58	ppb
>	Sc	45	409188.346	2.880	409188.346			ppb
	Ti	47	753.362	4.001	0.002	2.32172	1.80	ppb
	V	51	1342.493	9.500	0.002	0.23970	16.18	ppb
	Cr	52	5977.119	0.665	0.010	1.41450	4.87	ppb
	Mn	55	3611.093	6.147	0.011	1.04559	3.07	ppb
	Fe	54	12868.277	2.076	0.005	8.30629	29.58	ppb
	Fe	56	462813.940	2.121	0.230	23.73806	18.90	ppb
	Fe	57	41895.953	2.605	0.098	449.12494	3.64	ppb
	Co	59	1370.762	12.391	0.003	0.31718	17.44	ppb
	Ni	60	175904.781	0.580	0.430	222.44187	2.52	ppb
	Cu	63	1268.970	7.724	0.001	0.26428	26.97	ppb
	Cu	65	1223.409	8.968	0.002	1.04301	9.16	ppb
	Zn	66	3617.321	0.422	0.009	6.82923	3.28	ppb
	As	75	156.235	10.111	0.000	0.28084	8.99	ppb
	Se	82	146.223	4.875	0.000	2.30677	8.19	ppb
	Mo	96	1334.756	2.194	0.001	1.17175	0.93	ppb
	Ag	107	21.111	9.116	0.000	0.00501	9.36	ppb
	Ag	109	6.667	132.288	0.000	0.00060	419.06	ppb
	Cd	111	22.668	91.713	0.000	0.02965	77.70	ppb
	In	113	43250.057	3.203	-0.000	-0.22252	379.96	ppb
>	In	115	999929.814	1.915	999929.814			ppb
	Sn	118	126.668	36.677	0.000	0.02955	57.86	ppb
	Sb	121	290.004	9.600	0.000	0.06543	15.73	ppb
	Ba	135	96421.994	1.009	0.058	123.72886	0.52	ppb
	Ba	137	168800.839	0.911	0.102	124.94146	0.44	ppb
>	Tb	159	1650436.059	0.825	1650436.059			ppb
	Tl	205	65.000	23.077	0.000	0.00471	27.65	ppb
	Pb	206	381.674	30.733	0.000	0.04068	74.56	ppb
	Pb	207	746.681	29.498	0.000	0.04753	63.54	ppb
	Pb	208	1190.042	25.844	0.000	0.04663	54.97	ppb
>	Bi	209	1290954.045	0.151	1290954.045			ppb
	Cr	53	600.018	4.808	522.684			ppb
	Pd	106	13.333	21.651	13.333			ppb
	Pd	108	11.667	24.744	6.667			ppb
	C	12	345038.638	0.950	86337.749			ppb
	Kr	83	21.333	32.924	-14.000			ppb
	Se	77	96.000	11.846	72.445			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	434008.816		ppb
	Be	9	44.000	0.148848	ppb
	Na	23	21103113.636	8057.997032	ppb
	Mg	24	60815797.271	33477.101479	ppb
	Mg	25	8667753.658	32903.780256	ppb
	Mg	26	10079519.545	34283.107667	ppb
	Al	27	17199.779	6.181515	ppb
	K	39	6179850.649	1431.924131	ppb
	Ca	44	10639023.145	91556.883478	ppb
>	Sc	45	400722.293		ppb
	Ti	47	725.026	2.273472	ppb
	V	51	1448.673	0.279750	ppb
	Cr	52	6021.813	1.471762	ppb
	Mn	55	3380.340	1.008651	ppb
	Fe	54	12813.204	9.185792	ppb
	Fe	56	472673.076	28.681092	ppb
	Fe	57	42695.953	467.980919	ppb
	Co	59	1566.123	0.379550	ppb
	Ni	60	176147.859	227.348659	ppb
	Cu	63	1296.751	0.293200	ppb
	Cu	65	1100.061	0.932786	ppb
	Zn	66	3620.655	6.979062	ppb
	As	75	162.695	0.298591	ppb
	Se	82	150.668	2.432300	ppb
	Mo	96	1330.088	1.160021	ppb
	Ag	107	20.000	0.004659	ppb
	Ag	109	0.000	-0.001308	ppb
	Cd	111	16.910	0.023276	ppb
	In	113	42921.917	-0.882389	ppb
>	In	115	1006205.900		ppb
	Sn	118	140.001	0.034562	ppb
	Sb	121	265.004	0.056263	ppb
	Ba	135	97521.212	124.272913	ppb
	Ba	137	170521.590	125.340726	ppb
>	Tb	159	1661947.972		ppb
	Tl	205	50.000	0.003412	ppb
	Pb	206	510.013	0.073831	ppb
	Pb	207	995.025	0.081560	ppb
	Pb	208	1545.068	0.076215	ppb
>	Bi	209	1290043.578		ppb
	Cr	53	576.017		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	341446.434		ppb
	Kr	83	28.000		ppb
	Se	77	99.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	422927.967		ppb
	Be	9	2.000	-0.013223	ppb
	Na	23	21333971.775	8359.639294	ppb
	Mg	24	61083255.493	34505.304702	ppb
	Mg	25	8514571.591	33169.139956	ppb
	Mg	26	10125378.237	35341.412940	ppb
	Al	27	16824.141	6.205264	ppb
	K	39	6129576.932	1458.256674	ppb
	Ca	44	10816599.578	95524.554181	ppb
>	Sc	45	404195.720		ppb

	Ti	47	750.028	2.344458	ppb
	V	51	1201.038	0.202324	ppb
	Cr	52	5963.778	1.433738	ppb
	Mn	55	3629.812	1.060919	ppb
	Fe	54	13158.652	10.202229	ppb
	Fe	56	453045.177	22.612349	ppb
	Fe	57	40652.464	440.612131	ppb
	Co	59	1288.083	0.297880	ppb
	Ni	60	174784.243	223.648985	ppb
	Cu	63	1350.091	0.316548	ppb
	Cu	65	1260.079	1.102160	ppb
	Zn	66	3630.659	6.937273	ppb
	As	75	138.233	0.251925	ppb
	Se	82	150.001	2.398486	ppb
	Mo	96	1308.086	1.173641	ppb
	Ag	107	20.000	0.004819	ppb
	Ag	109	3.333	-0.000327	ppb
	Cd	111	5.365	0.010473	ppb
	In	113	42058.259	-0.515708	ppb
>	In	115	978427.618		ppb
	Sn	118	75.000	0.010502	ppb
	Sb	121	320.005	0.076560	ppb
	Ba	135	95673.492	123.897103	ppb
	Ba	137	167564.224	125.166009	ppb
>	Tb	159	1635403.959		ppb
	Tl	205	65.000	0.004699	ppb
	Pb	206	280.004	0.014327	ppb
	Pb	207	575.008	0.023909	ppb
	Pb	208	1005.030	0.031096	ppb
>	Bi	209	1293188.575		ppb
	Cr	53	632.020		ppb
	Pd	106	15.000		ppb
	Pd	108	15.000		ppb
	C	12	347861.961		ppb
	Kr	83	22.000		ppb
	Se	77	105.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	423164.581		ppb
	Be	9	4.000	-0.005302	ppb
	Na	23	21197366.592	8301.455522	ppb
	Mg	24	61682023.109	34824.061918	ppb
	Mg	25	8662739.798	33727.475065	ppb
	Mg	26	10222989.108	35662.163869	ppb
	Al	27	17109.624	6.308462	ppb
	K	39	6328675.009	1506.156827	ppb
	Ca	44	10873264.418	95971.353439	ppb
>	Sc	45	422647.024		ppb
	Ti	47	785.031	2.347230	ppb
	V	51	1377.768	0.237015	ppb
	Cr	52	5945.767	1.337986	ppb
	Mn	55	3823.125	1.067189	ppb
	Fe	54	12632.975	5.530863	ppb
	Fe	56	462723.568	19.920738	ppb
	Fe	57	42339.442	438.781765	ppb
	Co	59	1258.079	0.274095	ppb
	Ni	60	176782.240	216.327970	ppb
	Cu	63	1160.067	0.183077	ppb
	Cu	65	1310.086	1.094071	ppb
	Zn	66	3600.648	6.571366	ppb
	As	75	167.779	0.292006	ppb
	Se	82	138.001	2.089519	ppb

⌈	Mo	96	1366.093	1.181585	ppb
|	Ag	107	23.333	0.005538	ppb
|	Ag	109	16.667	0.003421	ppb
|	Cd	111	45.730	0.055212	ppb
|	In	113	44769.994	0.730535	ppb
|>	In	115	1015155.924		ppb
⌊	Sn	118	165.001	0.043572	ppb
⌈	Sb	121	285.004	0.063472	ppb
|	Ba	135	96071.278	123.016553	ppb
|	Ba	137	168316.704	124.317657	ppb
⌊>	Tb	159	1653956.245		ppb
⌈	Tl	205	80.000	0.006016	ppb
|	Pb	206	355.006	0.033878	ppb
|	Pb	207	670.011	0.037127	ppb
|	Pb	208	1020.030	0.032574	ppb
⌊>	Bi	209	1289629.981		ppb
	Cr	53	592.018		ppb
	Pd	106	15.000		ppb
	Pd	108	10.000		ppb
	C	12	345807.517		ppb
	Kr	83	14.000		ppb
	Se	77	83.334		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		100.924			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		97.663			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		102.157			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		106.318			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		91.401			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CRI

Sample Date/Time: Wednesday, June 03, 2009 12:33:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CRI.216

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	449035.917	0.693	449035.917			ppb
|	Be	9	239.336	4.825	0.001	0.87265	5.03	ppb
|	Na	23	5830.033	1.965	0.003	0.55196	5.40	ppb
|	Mg	24	710.026	25.108	0.000	0.11488	80.59	ppb
|	Mg	25	101.334	36.518	0.000	0.11305	118.71	ppb
|	Mg	26	130.334	26.472	0.000	0.01741	641.66	ppb
|	Al	27	75551.009	0.984	0.168	26.52802	1.13	ppb
|	K	39	168437.395	0.442	-0.041	-4.25726	8.38	ppb
⌊	Ca	44	1404.099	2.669	-0.001	-2.90324	13.03	ppb
⌈>	Sc	45	448563.517	0.809	448563.517			ppb
|	Ti	47	36.667	69.977	-0.000	-0.37439	23.72	ppb
|	V	51	18610.927	1.215	0.040	4.83579	2.06	ppb
|	Cr	52	8180.679	1.616	0.014	1.91967	3.21	ppb
|	Mn	55	3898.122	6.233	0.011	1.03286	4.45	ppb
|	Fe	54	11853.693	3.326	-0.000	-0.53424	335.00	ppb
|	Fe	56	379836.685	1.217	-0.055	-5.71669	28.42	ppb
|	Fe	57	1993.532	0.383	0.000	0.00274	3263.38	ppb
|	Co	59	4200.884	5.133	0.009	0.99750	6.05	ppb
|	Ni	60	898.930	10.725	0.002	0.96868	12.09	ppb
|	Cu	63	4588.831	2.108	0.008	1.86122	3.21	ppb
|	Cu	65	2222.470	5.253	0.004	1.93746	5.26	ppb
|	Zn	66	1135.620	2.881	0.002	1.84126	3.93	ppb
|	As	75	614.542	7.592	0.001	1.00113	6.93	ppb
⌊	Se	82	329.783	5.769	0.001	4.91976	5.17	ppb
⌈	Mo	96	1040.054	2.544	0.001	0.91972	2.08	ppb
|	Ag	107	3385.017	0.346	0.003	0.97176	0.34	ppb
|	Ag	109	3383.906	1.841	0.003	0.98903	2.50	ppb
|	Cd	111	838.892	4.208	0.001	0.96809	4.52	ppb
|	In	113	42829.864	1.049	0.000	0.07002	256.21	ppb
|>	In	115	984349.831	0.682	984349.831			ppb
⌊	Sn	118	2445.301	10.072	0.002	0.93751	10.24	ppb
⌈	Sb	121	5114.641	0.985	0.003	1.83075	0.23	ppb
|	Ba	135	7008.455	0.470	0.005	9.63190	1.04	ppb
|	Ba	137	12006.537	0.975	0.008	9.51766	1.14	ppb
⌊>	Tb	159	1537742.540	0.871	1537742.540			ppb
⌈	Tl	205	11089.479	0.840	0.008	0.92394	1.86	ppb
|	Pb	206	4360.951	1.909	0.003	1.02405	2.81	ppb
|	Pb	207	7736.522	3.323	0.005	0.96340	4.43	ppb
|	Pb	208	12056.004	2.406	0.009	0.91214	3.77	ppb
⌊>	Bi	209	1341623.147	1.145	1341623.147			ppb
	Cr	53	816.033	3.242	738.700			ppb
	Pd	106	75.000	35.277	75.000			ppb
	Pd	108	70.000	12.372	65.000			ppb
	C	12	240348.323	2.228	-18352.566			ppb
	Kr	83	22.000	48.105	-13.333			ppb
	Se	77	265.337	4.707	241.781			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	452045.424		ppb
	Be	9	246.003	0.891393	ppb
	Na	23	5961.777	0.586045	ppb
	Mg	24	913.042	0.219973	ppb
	Mg	25	138.001	0.244478	ppb
	Mg	26	165.001	0.127990	ppb
	Al	27	76113.566	26.546991	ppb
	K	39	168701.100	-4.456981	ppb
	Ca	44	1392.097	-3.081655	ppb
>	Sc	45	444953.751		ppb
	Ti	47	65.000	-0.276092	ppb
	V	51	18866.814	4.944920	ppb
	Cr	52	8315.456	1.982199	ppb
	Mn	55	3620.199	0.979913	ppb
	Fe	54	11917.097	0.084151	ppb
	Fe	56	384887.052	-3.840478	ppb
	Fe	57	1985.197	0.081660	ppb
	Co	59	4432.982	1.064923	ppb
	Ni	60	933.377	1.016654	ppb
	Cu	63	4684.430	1.927758	ppb
	Cu	65	2146.897	1.878958	ppb
	Zn	66	1173.402	1.924216	ppb
	As	75	560.681	0.921284	ppb
	Se	82	315.338	4.737438	ppb
	Mo	96	1020.052	0.902476	ppb
	Ag	107	3383.906	0.972560	ppb
	Ag	109	3373.902	0.987147	ppb
	Cd	111	804.410	0.929445	ppb
	In	113	42776.295	0.066553	ppb
>	In	115	983205.221		ppb
	Sn	118	2720.370	1.046370	ppb
	Sb	121	5061.281	1.826550	ppb
	Ba	135	6990.442	9.686125	ppb
	Ba	137	12055.262	9.635159	ppb
>	Tb	159	1525142.443		ppb
	Tl	205	11176.242	0.943420	ppb
	Pb	206	4395.966	1.047034	ppb
	Pb	207	7911.584	0.999973	ppb
	Pb	208	12379.545	0.950896	ppb
>	Bi	209	1324053.105		ppb
	Cr	53	806.032		ppb
	Pd	106	105.001		ppb
	Pd	108	80.000		ppb
	C	12	246465.284		ppb
	Kr	83	26.000		ppb
	Se	77	275.337		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	445831.581		ppb
	Be	9	246.003	0.904112	ppb
	Na	23	5753.655	0.539136	ppb
	Mg	24	638.020	0.079322	ppb
	Mg	25	102.001	0.118450	ppb
	Mg	26	130.001	0.019609	ppb
	Al	27	75831.434	26.818108	ppb
	K	39	169014.323	-3.845374	ppb
	Ca	44	1446.105	-2.468794	ppb
>	Sc	45	448528.243		ppb

	Ti	47	15.000	-0.448760	ppb
	V	51	18527.991	4.813417	ppb
	Cr	52	8175.340	1.917878	ppb
	Mn	55	4003.925	1.055783	ppb
	Fe	54	12212.453	0.864270	ppb
	Fe	56	375816.656	-6.644053	ppb
	Fe	57	1995.199	0.020901	ppb
	Co	59	4006.803	0.948376	ppb
	Ni	60	973.381	1.054148	ppb
	Cu	63	4491.008	1.812284	ppb
	Cu	65	2163.567	1.878373	ppb
	Zn	66	1116.729	1.807787	ppb
	As	75	642.420	1.046827	ppb
	Se	82	322.672	4.811589	ppb
	Mo	96	1030.053	0.916456	ppb
	Ag	107	3373.902	0.974562	ppb
	Ag	109	3450.595	1.014698	ppb
	Cd	111	874.953	1.015637	ppb
	In	113	42409.739	-0.107620	ppb
>	In	115	978287.212		ppb
	Sn	118	2245.252	0.864719	ppb
	Sb	121	5121.311	1.834972	ppb
	Ba	135	7046.482	9.693044	ppb
	Ba	137	11873.044	9.420260	ppb
>	Tb	159	1536273.950		ppb
	Tl	205	10991.037	0.911047	ppb
	Pb	206	4420.977	1.033312	ppb
	Pb	207	7856.567	0.973781	ppb
	Pb	208	11969.230	0.900179	ppb
>	Bi	209	1348334.096		ppb
	Cr	53	796.032		ppb
	Pd	106	65.000		ppb
	Pd	108	65.000		ppb
	C	12	238075.663		ppb
	Kr	83	30.000		ppb
	Se	77	251.336		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	449230.746		ppb
	Be	9	226.003	0.822454	ppb
	Na	23	5774.667	0.530703	ppb
	Mg	24	579.017	0.045356	ppb
	Mg	25	64.000	-0.023769	ppb
	Mg	26	96.000	-0.095375	ppb
	Al	27	74708.026	26.218949	ppb
	K	39	167596.763	-4.469413	ppb
	Ca	44	1374.094	-3.159276	ppb
>	Sc	45	452208.557		ppb
	Ti	47	30.000	-0.398330	ppb
	V	51	18437.977	4.749039	ppb
	Cr	52	8051.240	1.858932	ppb
	Mn	55	4070.242	1.062884	ppb
	Fe	54	11431.530	-2.551153	ppb
	Fe	56	378806.347	-6.665545	ppb
	Fe	57	2000.200	-0.094343	ppb
	Co	59	4162.866	0.979213	ppb
	Ni	60	790.031	0.835247	ppb
	Cu	63	4591.054	1.843610	ppb
	Cu	65	2356.944	2.055057	ppb
	Zn	66	1116.729	1.791779	ppb
	As	75	640.524	1.035272	ppb
	Se	82	351.340	5.210248	ppb

⌈	Mo	96	1070.057	0.940230	ppb
|	Ag	107	3397.244	0.968165	ppb
|	Ag	109	3327.220	0.965260	ppb
|	Cd	111	837.311	0.959173	ppb
|	In	113	43303.557	0.251133	ppb
|>	In	115	991557.060		ppb
⌊	Sn	118	2370.281	0.901445	ppb
⌈	Sb	121	5161.332	1.830720	ppb
|	Ba	135	6988.441	9.516540	ppb
|	Ba	137	12091.306	9.497564	ppb
⌊>	Tb	159	1551811.228		ppb
⌈	Tl	205	11101.158	0.917359	ppb
|	Pb	206	4265.910	0.991815	ppb
|	Pb	207	7441.414	0.916455	ppb
|	Pb	208	11819.238	0.885359	ppb
⌊>	Bi	209	1352482.239		ppb
	Cr	53	846.036		ppb
	Pd	106	55.000		ppb
	Pd	108	65.000		ppb
	C	12	236504.023		ppb
	Kr	83	10.000		ppb
	Se	77	269.337		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			106.207		
	Be	9	87.265				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			107.061		
	Ti	47					
	V	51	96.716				
	Cr	52	95.983				
	Mn	55	103.286				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	99.750				
	Ni	60	96.868				
	Cu	63	93.061				
	Cu	65	96.873				
	Zn	66	92.063				
	As	75	100.113				
	Se	82	98.395				
	Mo	96					
	Ag	107	97.176				
	Ag	109	98.903				
	Cd	111	96.809				
	In	113					
>	In	115			100.566		
	Sn	118	93.751				
	Sb	121	91.537				
	Ba	135	96.319				
	Ba	137	95.177				
>	Tb	159			99.059		
	Tl	205	92.394				
	Pb	206	102.405				
	Pb	207	96.340				
	Pb	208	91.214				
>	Bi	209			94.988		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Wednesday, June 03, 2009 12:35:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CCV.217

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	429219.000	3.507	429219.000			ppb
|	Be	9	29770.274	2.977	0.069	116.29874	0.58	ppb
|	Na	23	2921197.528	1.359	6.800	1127.05663	2.12	ppb
|	Mg	24	2032727.112	1.735	4.737	1131.64572	1.76	ppb
|	Mg	25	300248.282	2.013	0.700	1152.79774	2.51	ppb
|	Mg	26	337903.968	1.819	0.787	1162.23029	2.02	ppb
|	Al	27	3172902.212	2.037	7.396	1169.95788	3.21	ppb
|	K	39	4959836.759	1.994	11.145	1154.48306	2.45	ppb
⌊	Ca	44	136596.387	2.728	0.314	1174.53470	1.69	ppb
⌈>	Sc	45	424775.671	2.397	424775.671			ppb
|	Ti	47	32482.683	1.907	0.076	116.73788	1.40	ppb
|	V	51	422323.186	2.559	0.993	119.42708	0.72	ppb
|	Cr	52	370080.304	2.520	0.867	120.85049	0.80	ppb
|	Mn	55	538143.048	1.954	1.269	121.78937	2.07	ppb
|	Fe	54	307769.416	0.553	0.698	1223.54181	2.00	ppb
|	Fe	56	5414646.386	2.232	11.847	1224.82823	1.89	ppb
|	Fe	57	115586.386	3.535	0.268	1227.02127	3.48	ppb
|	Co	59	462208.238	1.599	1.088	123.13185	1.26	ppb
|	Ni	60	101086.262	1.984	0.238	123.06147	1.07	ppb
|	Cu	63	231789.166	1.313	0.544	121.92500	2.30	ppb
|	Cu	65	113230.948	1.958	0.266	120.97167	1.56	ppb
|	Zn	66	64896.565	0.274	0.153	120.59338	2.65	ppb
|	As	75	69280.783	0.955	0.163	118.94299	1.54	ppb
⌊	Se	82	7377.388	1.844	0.017	120.17142	1.04	ppb
⌈	Mo	96	124100.682	0.985	0.133	120.06691	1.15	ppb
|	Ag	107	396334.207	2.809	0.424	119.81406	2.93	ppb
|	Ag	109	395459.339	0.945	0.423	121.74041	1.00	ppb
|	Cd	111	100753.889	2.324	0.108	121.77001	2.42	ppb
|	In	113	142820.994	0.079	0.109	121.92936	0.38	ppb
|>	In	115	935694.446	0.346	935694.446			ppb
⌊	Sn	118	291518.543	1.267	0.312	119.94791	1.41	ppb
⌈	Sb	121	323451.150	0.335	0.215	120.42031	0.81	ppb
|	Ba	135	85295.593	1.255	0.057	120.04417	1.22	ppb
|	Ba	137	149051.382	1.269	0.099	120.99916	1.13	ppb
⌊>	Tb	159	1504803.772	0.486	1504803.772			ppb
⌈	Tl	205	1361473.343	1.613	1.059	118.46818	1.76	ppb
|	Pb	206	466004.608	0.855	0.362	120.54590	1.01	ppb
|	Pb	207	875717.970	0.656	0.681	120.14954	0.79	ppb
|	Pb	208	1436402.788	0.724	1.117	119.81757	0.81	ppb
⌊>	Bi	209	1285734.783	0.162	1285734.783			ppb
	Cr	53	43339.089	2.697	43261.756			ppb
	Pd	106	8610.373	1.760	8610.373			ppb
	Pd	108	6475.430	1.584	6470.430			ppb
	C	12	242339.739	0.839	-16361.149			ppb
	Kr	83	28.667	52.364	-6.667			ppb
	Se	77	5772.555	1.461	5748.999			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	446594.517		ppb
	Be	9	30787.320	115.578044	ppb
	Na	23	2966958.789	1099.593068	ppb
	Mg	24	2073305.149	1108.869437	ppb
	Mg	25	305333.328	1126.165841	ppb
	Mg	26	344352.581	1137.829734	ppb
	Al	27	3206519.302	1135.659739	ppb
	K	39	5048805.737	1127.999194	ppb
	Ca	44	140471.734	1160.400041	ppb
>	Sc	45	435986.444		ppb
	Ti	47	33164.904	116.106595	ppb
	V	51	432716.487	119.220740	ppb
	Cr	52	378809.462	120.518600	ppb
	Mn	55	541496.670	119.376564	ppb
	Fe	54	309687.188	1198.208420	ppb
	Fe	56	5479912.184	1206.251703	ppb
	Fe	57	116019.140	1199.304997	ppb
	Co	59	468036.449	121.458376	ppb
	Ni	60	102751.866	121.860196	ppb
	Cu	63	231884.371	118.790793	ppb
	Cu	65	114575.977	119.239557	ppb
	Zn	66	64715.395	117.110367	ppb
	As	75	70043.598	117.132515	ppb
	Se	82	7494.140	118.919104	ppb
	Mo	96	125494.534	121.650834	ppb
	Ag	107	408892.154	123.848226	ppb
	Ag	109	399164.042	123.119662	ppb
	Cd	111	103335.911	125.131708	ppb
	In	113	142741.538	122.165733	ppb
>	In	115	933873.004		ppb
	Sn	118	295677.579	121.894808	ppb
	Sb	121	322828.125	119.670430	ppb
	Ba	135	86306.843	120.946826	ppb
	Ba	137	151062.440	122.107208	ppb
>	Tb	159	1511274.597		ppb
	Tl	205	1384845.148	120.650891	ppb
	Pb	206	469645.307	121.639229	ppb
	Pb	207	882260.814	121.198614	ppb
	Pb	208	1447881.920	120.926428	ppb
>	Bi	209	1284124.438		ppb
	Cr	53	44450.574		ppb
	Pd	106	8783.856		ppb
	Pd	108	6532.133		ppb
	C	12	244687.414		ppb
	Kr	83	28.000		ppb
	Se	77	5850.378		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	420079.840		ppb
	Be	9	29164.466	116.396412	ppb
	Na	23	2900434.510	1142.849320	ppb
	Mg	24	2015378.943	1145.931813	ppb
	Mg	25	301843.753	1183.577530	ppb
	Mg	26	337250.593	1184.716424	ppb
	Al	27	3213785.643	1210.082213	ppb
	K	39	4977350.835	1184.297144	ppb
	Ca	44	136278.304	1197.272814	ppb
>	Sc	45	422240.024		ppb

	Ti	47	31955.978	115.513909	ppb
	V	51	423105.575	120.369398	ppb
	Cr	52	371179.182	121.942913	ppb
	Mn	55	546570.821	124.409616	ppb
	Fe	54	306444.555	1225.281708	ppb
	Fe	56	5488863.233	1250.750789	ppb
	Fe	57	119439.050	1276.135470	ppb
	Co	59	464691.756	124.517924	ppb
	Ni	60	101647.330	124.476353	ppb
	Cu	63	234784.201	124.211692	ppb
	Cu	65	114444.484	122.990129	ppb
	Zn	66	64903.274	121.279723	ppb
	As	75	68861.847	118.905279	ppb
	Se	82	7410.078	121.416894	ppb
	Mo	96	123210.393	119.448570	ppb
	Ag	107	387671.575	117.433108	ppb
	Ag	109	391693.851	120.828237	ppb
	Cd	111	98769.318	119.614713	ppb
	In	113	142771.968	122.220112	ppb
>	In	115	933774.592		ppb
	Sn	118	288615.703	118.995596	ppb
	Sb	121	324702.364	121.524467	ppb
	Ba	135	85405.151	120.835402	ppb
	Ba	137	148784.671	121.423711	ppb
>	Tb	159	1496864.279		ppb
	Tl	205	1358291.209	118.257642	ppb
	Pb	206	466618.434	120.773363	ppb
	Pb	207	873407.364	119.900907	ppb
	Pb	208	1427601.637	119.151467	ppb
>	Bi	209	1284990.862		ppb
	Cr	53	43446.174		ppb
	Pd	106	8543.648		ppb
	Pd	108	6357.020		ppb
	C	12	241122.370		ppb
	Kr	83	14.000		ppb
	Se	77	5784.339		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	420982.641		ppb
	Be	9	29359.034	116.921757	ppb
	Na	23	2896199.287	1138.727494	ppb
	Mg	24	2009497.245	1140.135899	ppb
	Mg	25	293567.766	1148.649840	ppb
	Mg	26	332108.730	1164.144715	ppb
	Al	27	3098401.689	1164.131677	ppb
	K	39	4853353.705	1151.152844	ppb
	Ca	44	133039.123	1165.931237	ppb
>	Sc	45	416100.545		ppb
	Ti	47	32327.168	118.593134	ppb
	V	51	411147.497	118.691113	ppb
	Cr	52	360252.268	120.089962	ppb
	Mn	55	526361.652	121.581938	ppb
	Fe	54	307176.505	1247.135307	ppb
	Fe	56	5275163.743	1217.482205	ppb
	Fe	57	111300.967	1205.623346	ppb
	Co	59	453896.508	123.419251	ppb
	Ni	60	98859.591	122.847870	ppb
	Cu	63	228698.927	122.772527	ppb
	Cu	65	110672.382	120.685334	ppb
	Zn	66	65071.025	123.390037	ppb
	As	75	68936.905	120.791177	ppb
	Se	82	7227.945	120.178262	ppb

⌈	Mo	96	123597.121	119.101314	ppb
|	Ag	107	392438.892	118.160858	ppb
|	Ag	109	395520.124	121.273319	ppb
|	Cd	111	100156.437	120.563617	ppb
|	In	113	142949.477	121.402232	ppb
|>	In	115	939435.740		ppb
⌊	Sn	118	290262.348	118.953325	ppb
⌈	Sb	121	322822.962	120.066031	ppb
|	Ba	135	84174.785	118.350288	ppb
|	Ba	137	147307.035	119.466564	ppb
⌊>	Tb	159	1506272.439		ppb
⌈	Tl	205	1341283.673	116.496013	ppb
|	Pb	206	461750.083	119.225103	ppb
|	Pb	207	871485.731	119.349097	ppb
|	Pb	208	1433724.808	119.374802	ppb
⌊>	Bi	209	1288089.048		ppb
	Cr	53	42120.520		ppb
	Pd	106	8503.614		ppb
	Pd	108	6537.136		ppb
	C	12	241209.433		ppb
	Kr	83	44.000		ppb
	Se	77	5682.948		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		101.519			
	Be	9	96.916				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		101.384			
	Ti	47					
	V	51	99.523				
	Cr	52	100.709				
	Mn	55	101.491				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	102.610				
	Ni	60	102.551				
	Cu	63	101.604				
	Cu	65	100.810				
	Zn	66	100.494				
	As	75	99.119				
	Se	82	100.143				
	Mo	96					
	Ag	107	99.845				
	Ag	109	101.450				
	Cd	111	101.475				
	In	113					
>	In	115		95.595			
	Sn	118	99.957				
	Sb	121	100.350				
	Ba	135	100.037				
	Ba	137	100.833				
>	Tb	159		96.937			
	Tl	205	98.723				
	Pb	206	100.455				
	Pb	207	100.125				
	Pb	208	99.848				
>	Bi	209		91.031			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Wednesday, June 03, 2009 12:37:57
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\DataSet\PEMSJCF060109\CCB.218

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	426088.490	2.277	426088.490			ppb
	Be	9	16.000	141.973	0.000	0.04050	214.68	ppb
	Na	23	7029.136	1.004	0.007	1.13496	3.04	ppb
	Mg	24	426.009	19.352	-0.000	-0.02430	166.77	ppb
	Mg	25	65.667	27.341	-0.000	-0.00553	1139.15	ppb
	Mg	26	108.667	22.623	-0.000	-0.03536	219.47	ppb
	Al	27	1753.487	5.481	0.004	0.56388	6.85	ppb
	K	39	168154.698	0.456	-0.021	-2.22182	39.01	ppb
	Ca	44	1458.773	5.276	-0.000	-1.79647	33.88	ppb
>	Sc	45	419528.105	2.597	419528.105			ppb
	Ti	47	46.667	32.733	-0.000	-0.33040	15.68	ppb
	V	51	494.550	12.090	-0.000	-0.01315	138.33	ppb
	Cr	52	1809.497	1.770	-0.000	-0.02175	100.68	ppb
	Mn	55	-715.781	11.424	0.000	0.03522	61.95	ppb
	Fe	54	11136.201	3.126	-0.000	-0.31025	628.75	ppb
	Fe	56	368083.475	1.949	-0.025	-2.55104	24.95	ppb
	Fe	57	1920.185	8.527	0.000	0.64325	350.20	ppb
	Co	59	278.671	55.228	0.000	0.01175	335.54	ppb
	Ni	60	102.223	24.905	0.000	0.05699	49.36	ppb
	Cu	63	751.139	2.444	-0.000	-0.03050	66.61	ppb
	Cu	65	322.227	2.153	0.000	0.03340	21.19	ppb
	Zn	66	146.668	26.211	0.000	0.11644	59.84	ppb
	As	75	18.254	103.487	0.000	0.03378	96.09	ppb
	Se	82	16.000	22.048	0.000	0.09094	58.17	ppb
	Mo	96	231.336	28.417	0.000	0.17879	34.50	ppb
	Ag	107	1371.213	36.506	0.001	0.39845	36.65	ppb
	Ag	109	1423.445	38.949	0.001	0.42094	39.15	ppb
	Cd	111	3.333	86.603	0.000	0.00815	41.19	ppb
	In	113	41869.168	2.400	-0.000	-0.36376	279.44	ppb
>	In	115	970924.011	0.603	970924.011			ppb
	Sn	118	213.336	9.758	0.000	0.06558	12.42	ppb
	Sb	121	1761.823	10.473	0.001	0.62027	10.30	ppb
	Ba	135	25.333	38.944	0.000	0.01281	108.34	ppb
	Ba	137	46.667	23.604	0.000	0.01520	59.12	ppb
>	Tb	159	1510551.339	1.464	1510551.339			ppb
	Tl	205	95.000	22.942	0.000	0.00712	26.12	ppb
	Pb	206	221.670	75.500	-0.000	-0.00180	2350.44	ppb
	Pb	207	438.339	56.925	0.000	0.00405	828.78	ppb
	Pb	208	730.018	43.981	0.000	0.00703	374.47	ppb
>	Bi	209	1321864.629	0.526	1321864.629			ppb
	Cr	53	85.334	14.128	8.000			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	0.000		-5.000			ppb
	C	12	227279.163	1.537	-31421.725			ppb
	Kr	83	19.333	29.863	-16.000			ppb
	Se	77	25.111	8.111	1.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	437215.393		ppb
	Be	9	42.000	0.139931	ppb
	Na	23	7109.526	1.095322	ppb
	Mg	24	520.014	0.021577	ppb
	Mg	25	86.000	0.065585	ppb
	Mg	26	132.001	0.034845	ppb
	Al	27	1770.157	0.553139	ppb
	K	39	168595.339	-3.170724	ppb
	Ca	44	1508.114	-1.700203	ppb
>	Sc	45	429859.568		ppb
	Ti	47	60.000	-0.286060	ppb
	V	51	441.867	-0.031435	ppb
	Cr	52	1778.158	-0.046710	ppb
	Mn	55	-713.251	0.039989	ppb
	Fe	54	10875.911	-2.513034	ppb
	Fe	56	375365.165	-2.990311	ppb
	Fe	57	1880.177	-0.320065	ppb
	Co	59	456.010	0.057224	ppb
	Ni	60	130.001	0.087862	ppb
	Cu	63	733.360	-0.049765	ppb
	Cu	65	330.005	0.033157	ppb
	Zn	66	143.334	0.104203	ppb
	As	75	31.171	0.055452	ppb
	Se	82	20.000	0.149643	ppb
	Mo	96	302.005	0.245603	ppb
	Ag	107	833.368	0.242634	ppb
	Ag	109	833.368	0.246758	ppb
	Cd	111	5.000	0.010115	ppb
	In	113	40717.728	-1.530128	ppb
>	In	115	967692.637		ppb
	Sn	118	230.003	0.072507	ppb
	Sb	121	1965.193	0.687179	ppb
	Ba	135	32.000	0.021592	ppb
	Ba	137	54.000	0.020590	ppb
>	Tb	159	1528936.640		ppb
	Tl	205	80.000	0.005872	ppb
	Pb	206	410.008	0.045882	ppb
	Pb	207	720.013	0.041932	ppb
	Pb	208	1100.036	0.037338	ppb
>	Bi	209	1316859.664		ppb
	Cr	53	98.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	230813.350		ppb
	Kr	83	26.000		ppb
	Se	77	24.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	421660.316		ppb
	Be	9	6.000	0.002708	ppb
	Na	23	7000.449	1.151875	ppb
	Mg	24	366.007	-0.055200	ppb
	Mg	25	59.000	-0.027958	ppb
	Mg	26	111.001	-0.022234	ppb
	Al	27	1650.136	0.531739	ppb
	K	39	167269.349	-2.022872	ppb
	Ca	44	1370.094	-2.447607	ppb
>	Sc	45	420577.101		ppb

	Ti	47	50.000	-0.317785	ppb
	V	51	559.535	0.004944	ppb
	Cr	52	1842.170	-0.012760	ppb
	Mn	55	-635.305	0.054258	ppb
	Fe	54	11531.645	1.198694	ppb
	Fe	56	367863.992	-2.841698	ppb
	Fe	57	1780.158	-0.967587	ppb
	Co	59	200.002	-0.009032	ppb
	Ni	60	96.667	0.050311	ppb
	Cu	63	750.028	-0.032440	ppb
	Cu	65	316.672	0.026442	ppb
	Zn	66	186.668	0.191419	ppb
	As	75	27.017	0.049418	ppb
	Se	82	13.333	0.046934	ppb
	Mo	96	220.002	0.166764	ppb
	Ag	107	1456.773	0.420506	ppb
	Ag	109	1503.446	0.441646	ppb
	Cd	111	5.000	0.010056	ppb
	In	113	42570.420	0.105822	ppb
>	In	115	977682.955		ppb
	Sn	118	220.002	0.067633	ppb
	Sb	121	1715.147	0.613693	ppb
	Ba	135	30.000	0.020021	ppb
	Ba	137	52.000	0.020192	ppb
>	Tb	159	1486010.056		ppb
	Tl	205	120.001	0.009255	ppb
	Pb	206	165.001	-0.016093	ppb
	Pb	207	350.003	-0.007730	ppb
	Pb	208	565.009	-0.006328	ppb
>	Bi	209	1318933.105		ppb
	Cr	53	74.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	223827.208		ppb
	Kr	83	16.000		ppb
	Se	77	23.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	419389.762		ppb
	Be	9	0.000	-0.021153	ppb
	Na	23	6977.433	1.157677	ppb
	Mg	24	392.008	-0.039265	ppb
	Mg	25	52.000	-0.054210	ppb
	Mg	26	83.000	-0.118688	ppb
	Al	27	1840.169	0.606767	ppb
	K	39	168599.407	-1.471859	ppb
	Ca	44	1498.112	-1.241613	ppb
>	Sc	45	408147.647		ppb
	Ti	47	30.000	-0.387351	ppb
	V	51	482.248	-0.012959	ppb
	Cr	52	1808.163	-0.005778	ppb
	Mn	55	-798.787	0.011410	ppb
	Fe	54	11001.048	0.383577	ppb
	Fe	56	361021.268	-1.821107	ppb
	Fe	57	2100.221	3.217415	ppb
	Co	59	180.002	-0.012939	ppb
	Ni	60	80.000	0.032806	ppb
	Cu	63	770.030	-0.009281	ppb
	Cu	65	320.005	0.040589	ppb
	Zn	66	110.001	0.053693	ppb
	As	75	-3.427	-0.003537	ppb
	Se	82	14.667	0.076256	ppb

⌈	Mo	96	172.001	0.123999	ppb
|	Ag	107	1823.500	0.532216	ppb
|	Ag	109	1933.520	0.574414	ppb
|	Cd	111	0.000	0.004273	ppb
|	In	113	42319.357	0.333030	ppb
|>	In	115	967396.442		ppb
⌊	Sn	118	190.002	0.056613	ppb
⌈	Sb	121	1605.129	0.559954	ppb
|	Ba	135	14.000	-0.003190	ppb
|	Ba	137	34.000	0.004827	ppb
⌊>	Tb	159	1516707.320		ppb
⌈	Tl	205	85.000	0.006227	ppb
|	Pb	206	90.000	-0.035200	ppb
|	Pb	207	245.002	-0.022048	ppb
|	Pb	208	525.008	-0.009931	ppb
⌊>	Bi	209	1329801.118		ppb
	Cr	53	84.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	227196.933		ppb
	Kr	83	16.000		ppb
	Se	77	27.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.779			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		100.131			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		99.194			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		97.307			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		93.589			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

4. Digestion and Distillation Logs

The following logs shall be submitted, as appropriate, for each preparation procedure: digestion logs for ICP-AES, ICP-MS, mercury preparations, and cyanide. The logs shall include: (1) date; (2) sample weights and volumes, with initial sample weight/volume and final volume clearly indicated; (3) sufficient information to unequivocally identify which QC samples (i.e., LCS, PB) correspond to each batch digested; (4) comments describing any significant sample changes or reactions which occur during preparation shall be entered in the log and noted in the SDG Narrative; (5) indication of pH less than 2 or greater than 12, as applicable; (6) identification of the sample preparer(s) [signature (s)].

CompuChem, a Division of Liberty Analytical Corp.

METALS/MERCURY PREPARATION LOG

Purple Water

Metals Method: 6020/3005A

Mercury Method: 7470A

Prepared by: DDD/NSB

Date Prepped: 6-2-09

Batch No.: 9060135

COMPUCHEM NUMBER	CLIENT SAMPLE ID	SAMPLE TYPE	ICP Initial mL	ICP Final (mL)	HG Initial mL	HG Final (mL)	*Description Before	*Description After ICP	pH
0906006-01	13MW5	SAMPLE	50	50			CS/CL	CS/CL	<2
0906006-02	13MW3	SAMPLE	50				CS/CL	CS/CL	<2
0906006-03	13MW4	SAMPLE	50				CS/CL	CS/CL	<2
0906006-04	13MWDUP	SAMPLE	50				CS/CL	CS/CL	<2
0906006-05	13MW6	SAMPLE	50				CS/CL	CS/CL	<2
0906006-06	13MW7	SAMPLE	50				CS/CL	CS/CL	<2
9060135-BLK1	PBW	MB	50				CS/CL	CS/CL	N/A
9060135-BS1	LCSW	LCS	50				CS/CL	CS/CL	N/A
9060135-DUP1	13MW5D	DUP	50				CS/CL	CS/CL	<2
9060135-MS1	13MW5S	MS	50				CS/CL	CS/CL	<2
							/	/	
							/	/	
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Mercury Standards and QC

S0 S0.2 S0.5 S1 S5 S10

ICV ICB CRI CCV CCB

Hot Block Temp In:	95°
Hot Block Temp Out:	95°

Time Hg in water bath:	
Time Hg out water bath:	
Water Bath Temp In:	
Water Bath Temp Out:	

Reviewed by: R. Gonzalez

Date: 6-2-09

Sample Spike(SS) Ref:

ICAP: 1.0mL Water Spike D for 100mL prep
0.5mL for 50mL prep

Ref #:

HG: 1.0mL 100ppb Hg

Ref#

LCS Ref:

ICAP: 2.0mL ICV-1 (0307) for 100 mL prep
1.0mL for 50mL prep

Ref #: lm2-187-5

HG: 3.0mL 100ppb Hg

Ref #:

NOTE: All standards and QC for mercury were prepared at the same day as the associated samples. Refer to the attached Standard/QC Preparation Log, with date matching the above preparation date, for preparation method and instruction.

* R=red, BL=blue, Y=yellow, G=green, O=orange, V=violet, W=white, CS=colorless, BR=brown, BK=black, GY=grey

F=fine M=medium C=coarse CL=clear, CY=cloudy; OP=opaque

"The presence of the Chemist's/analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation."

Shading has been applied to unused portions of this worksheet as a substitute for 'Z-out.

Standards/QC Preparation Log for ICP/MS Metals

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 YYY

Case/SDG: 09060006

Reagents	Ref #[1]	Manufacturer	Lot #	Expiration
Hydrochloric Acid - Distilled (HCl)	HCL-D-030609-DD	Caledon	68273	12/11
Nitric Acid – Distilled (HNO_3)	NHO3-D-052609-DD	JT Baker	G44029	04/12
Standards				
ICV-1 (0307)	1M2-187-5	EPA	0307	02/16/10
EPA LCS (0405)	1m2-184-27	EPA	0405	11/25/09
ERA PPT (540)	1m2-186-16	ERA	540	09/30/09
Water Spike Sample D	1m2-186-28	High Purity	0835021	12/17/09
Tin 10 ppm	7m1-42-12	NSI	102008-Sn	10/10
Molybdenum 10 ppm	7m1-42-13	NSI	102008-Mo	10/10

Standard Lot Number[2]	Preparation Instructions
HNO_3– 05 26 09 – DD Nitric Acid	Place in a 100 mL volumetric flask: 25 mL of Deionized water 50 mL of **Distilled** concentrated HNO_3, Baker Instra-analyzed or equivalent Dilute to 100 mL with DI water. Prepare as needed.
HCl– 04 29 09 – DD Hydrochloric Acid	Place in a 100 mL volumetric flask: 25 mL of Deionized water 50 mL of **Distilled** concentrated HCl, Baker Instra-analyzed or equivalent Dilute to 100 mL with DI water. Prepare as needed.

Standard Solutions Prepared By: D. Decker Date: 6-2-09

Entered By: D. Decker Date: 6-2-09

Reviewed By: [signature] Date: 060209

[1]Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

[3]Raw Material sub-boiled from specified lot # in accordance with SOP SPP.9.10

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

INTERNAL DIGESTION COC

9060135

COMPUCHEM

Printed: 6/1/2009 4:17:13PM

Matrix: Water **Prepared using: METALS - EPA 3005A**

Lab Number	Client ID	Sample Type	
0906006-01	13MW5	Sample	
0906006-02	13MW3	Sample	
0906006-03	13MW4	Sample	
0906006-04	13MWDUP	Sample	
0906006-05	13MW6	Sample	
0906006-06	13MW7	Sample	
9060135-BLK1	PBW	Blank	
9060135-BS1	LCSW	LCS	
9060135-DUP1	13MW5D	Duplicate	
9060135-MS1	13MW5S	Matrix Spike	

D.Dickens	6/2/09	ICP Storage	6/2/09
Relinquished By	Date	Received By	Date
Relinquished By	060309 Date	Received By	060309 Date
Relinquished By	060309 Date	Received By	060309 Date
Relinquished By	Date	Received By	Date

Metals Internal Chain of Custody Sheet

Matrix Water **Batch**: 9060135 **Status:** Batched **Analysis**: 6020 ICP MS

Lab Id	Client Id	Received	Container	Extraction	Due_Date
0906006-01 A	13MW5	06/01/09	3n_500mL Plastic, HNC	EPA 3005A	6/4/2009 4
0906006-02 A	13MW3	06/01/09	3n_500mL Plastic, HNC	EPA 3005A	6/4/2009 4
0906006-03 A	13MW4	06/01/09	3n_500mL Plastic, HNC	EPA 3005A	6/4/2009 4
0906006-04 A	13MWDUP	06/01/09	3n_500mL Plastic, HNC	EPA 3005A	6/4/2009 4
0906006-05 A	13MW6	06/01/09	3n_500mL Plastic, HNC	EPA 3005A	6/4/2009 4
0906006-06 A	13MW7	06/01/09	3n_500mL Plastic, HNC	EPA 3005A	6/4/2009 4

Ambient 0825	6/2/09	K. Surles	6/2/09
Relinquished By	Date	Received By	Date
K. Surles 0825	6/2/09	D. Dickens	6/2/09
Relinquished By	Date	Received By	Date
D. Dickens 1600	6/2/09	Ambient	6/2/09
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date

CompuChem
A Division Of
Liberty Analytical Corp.
5/27/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904098

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER **Work:** 0904098

Project RAAP APPIX 2009/B03204-07 **Sdg:** 0904098

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904098-01	13MW5	Water	04/13/2009 08:50	04/15/2009 16:15
0904098-02	13MW3	Water	04/13/2009 12:00	04/15/2009 16:15
0904098-03	13MW4	Water	04/13/2009 10:35	04/15/2009 16:15
0904098-04	13MWDUP	Water	04/13/2009 10:50	04/15/2009 16:15
0904098-05	13MW6	Water	04/13/2009 07:40	04/15/2009 16:15
0904098-06	13MW7	Water	04/14/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

DOCUMENT 6020

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field and analytical samples, reanalyses, blanks, spikes, duplicates, and laboratory control samples. The sample data package consists of the following:

A. Cover Documentation

B. Sample Data

LAB CODE : LIBRTY CONTRACT # : SW846

SDG # : 0904098

A. Cover Documentation

1. Cover Page

2. SDG Narrative

3. Sample Traffic Reports/
   Chain-Of-Custody Records

1. Cover Page

Inorganic Analyses Data Package

The Cover Page includes laboratory information, the Case and SDG numbers, Non-Routine Analytical Service (NRAS) number (if appropriate), the EPA sample numbers in alphanumeric order showing the EPA sample numbers cross-referenced with Lab ID numbers, and completion of the questions on the use of background and interelement correction for the samples.

SW846 - METALS

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

SOW No.: SW846

EPA Sample No.	Lab Sample ID.
13MW3	0904098-02
13MW4	0904098-03
13MW5	0904098-01
13MW5D	9042717-DUP1
13MW5D	9042716-DUP1
13MW5D	9042715-DUP1
13MW5S	9042717-MS1
13MW5S	9042716-MS1
13MW5S	9042715-MS1
13MW5SD	9042717-MSD1
13MW5SD	9042716-MSD1
13MW5SD	9042715-MSD1
13MW6	0904098-05
13MW7	0904098-06
13MWDUP	0904098-04

Were ICP interelement corrections applied? Yes/No NO

Were ICP background corrections applied? Yes/No NO

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: _____

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: 2. Forster for Susan Bass Name: Susan W Bass

Date: 5-27-09 Title: Senior Chemist

2. SDG Narrative

The SDG Narrative contains laboratory information, the Case and SDG numbers, contract number, and detailed documentation of any QC, sample, shipment, and/or analytical problems encountered in processing the samples. This will include any technical and administrative problems encountered and the resolution or corrective actions taken. The SDG Narrative will also document the alternative means of determining the cooler temperature when a cooler's temperature indicator bottle is absent. The SDG Narrative also provides equations or curves and utilizes raw data from the SDG being reported to demonstrate how sample results are obtained from raw instrument output. The SDG Narrative also includes a discussion of any flexibility Statement of Work (SOW) modification, including attaching a copy of the USEPA approved modification form to the SDG Narrative. Finally, the SDG Narrative will identify and explain any differences between results being provided in the data package and those provided previously as Preliminary Results.

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

SDG NARRATIVE
SDG # 0904098

The indicated Sample Delivery Group (SDG) consisting of six (6) liquid samples was received into the laboratory information management system (LIMS) on April 15, 2009 intact and in good condition with Chain of Custody (COC) Records in order, unless otherwise noted in any attachments or Quality Assurance Notices. The temperature of the samples upon receipt was 0.1 to 2.6°C. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were prepared and analyzed in accordance with SW846-6020 methodology for the requested metals, mercury, and cyanide.

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB & CCB), and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verification (PBW, LCSW, & LCSWD) was found to be within acceptable ranges and the field samples were prepared and analyzed within the specified holding times. All of the samples were reported at a dilution. The internal standards failed in the initial analysis.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spikes, CCN = 09040988-01 ID 13MW5S and 13MW5SD were inside control limits for the requested analytes except antimony, arsenic, selenium, and tin.

Control limits for matrix spikes recoveries are set at 75% to 125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more. In this case, affected analytes are not flagged even if recoveries are outside percentage recovery control limits.

The sample matrix duplicate, CCN = 0904098-01 ID 13MW5D was inside control limits for the requested analytes.

CLP control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and +/- the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A five-fold serial dilution of sample, CCN = 0904098-01 ID 13MW5L was performed in accordance with requirements for ICP/MS and mercury analysis.

The adjusted sample concentration was inside control limits for the requested analytes.

The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package. Furthermore, I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

L. Sorosta for Susan Bass

Susan W. Bass
Senior Chemist
May 27, 2009

CompuChem

A Division Of

Liberty Analytical Corp.

DATA REPORTING QUALIFIERS FOR INORGANICS

On Form I, under the column labeled "C" for concentration qualifier and "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each analyte.

The C (concentration) qualifiers used are:

U: This flag indicates the analyte was analyzed for but not detected. This reported value was obtained from a reading that was less than the Instrument Detection Limit (IDL). The IDL will be adjusted to reflect any dilution and, for soils, the percent moisture.

B: This flag indicates the analyte was analyzed for and the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).

The Q qualifiers used are:

E: This flag indicates an estimated value. This flag is used:

1. When the serial dilution (a five fold dilution for CLP and a five fold dilution for SW-846 method 6010B) results are not within 10%. The analyte concentration must be sufficiently high (minimally a factor of 50X above the IDL in the original sample).

N: This flag indicates the sample spike recovery is outside of control limits:

*: This flag is used for duplicate analysis when the sample and the sample duplicate results are not within control limits.

The extensions: D, S, SD, L. A, added to the end of the client ID represent as follows:

D: matrix duplicate
S: matrix spike
SD: matrix spike duplicate
L: serial dilution
A: post digestion spike

Method Codes:

P: ICP PLASMA
CV: MERCURY COLD VAPOR AA
CA: MIDI-DISTILLATION SPECTROPHOTOMETRIC
MS: MASS SPECTROMETRY
AS: SEMI-AUTOMATED SPECTROPHOTOMETRIC

3. Sample Traffic Reports/ Chain-Of-Custody Records

CHAIN OF CUSTODY RECORD

10

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on Ice: ☑ YES ☐ NO

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine	8330 - Explosives	Appdx 9 Herbs 8151A	Perchlorate 314.0	ICP 6010B/3005A/-thelform 7000 (Metals-Total)	7470A (Mercury-Total)	Cyanide 9014	Sulfide 9030B	Appdx 9 SV 8270C	Appdx 9 PEST 8081A	Appdx 9 PCBs 8082
Box 4 - Sample Type					G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered					U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample									<2	<2	>12	>9			
Box 2 - Preservative					H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type					2-1L A	2-1L A	2-1L A	1-250 ml P	1-500 ml P		P	P	2-1L A	2-1L A	
13MW1 ✓	4/14	0935	GW	3	X	X		X	X<2	X			X		
13MW2 ✓	4/14	0815	GW	3	X	X		X	X<2	X			X		
13MW3 ✓	4/13	1200	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW4 ✓		1035	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MWDUP ✓		1050	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW5 ✓		0850	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW6 ✓	4/13	0740	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW7 ✓	4/14	1050	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW1 + 13MW-2. JF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

0904103-01	
0904103-02	
0904098-02	
-03	
-04	
0904098-01	USE FOR QC
0904098-05	
-06	

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No

Describe problems, if any: 0.6°C, 0.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Goodnight	Date: 4/15/09	Sample Storage Time Requested:	
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224		
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Goodnight	Date: 4/15/09	#2 Received by (Signature): Lee A Swanson	Date: 4/16/09	30 DYS ORG/8 MTHS INORG	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM		

9 - Rec'd 4-15-09
Compuchem 1615

Y/O JF 3.31.09

10/10

Analyte		
Thallium	6020	OK JVR 3.31.09
Antimony		
Arsenic		
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Nickel		
Selenium		
Silver		
Tin		
Vanadium		
Zinc		
Mercury	7470A.	OK JVR

OBG
2Q09
Upperdix IK event

13MW3, 13MW4, 13MWDUP, 13MW5, 13MW6, 13MW7

OK
JVR 3.31.09

WORK ORDER

0904098

Printed: 5/27/2009 3:25:40PM

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Reported**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due:	05/05/2009 00:00 (20 day TAT)		
Received By:	Cathy Dover	Date Received:	04/15/2009 16:15
Logged In By:	Cathy Dover	Date Logged In:	04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spik	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13C.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Reported**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Reported**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

B. Sample Data

1. Results
2. Quality Control Data
3. Raw Data
4. Digestion and Distillation Logs

LAB CODE : LIBRTY CONTRACT # : SW846

SDG # : 0904098

1. Results

Sample results shall be arranged in packets with the Inorganic Analysis Data Sheet [Form IA – IN and Form IB – IN]. These sample packets shall be placed in increasing alphanumeric EPA sample number order, considering both letters and numbers, and shall include all the samples in the SDG.

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: 13MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Lab Sample ID: 0904098-02

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	50.0	U	ND	MS
7440-38-2	Arsenic	250	U	ND	MS
7440-39-3	Barium	125	U	D	MS
7440-41-7	Beryllium	25.0	U	D	MS
7440-43-9	Cadmium	25.0	U	D	MS
7440-47-3	Chromium	125	U	D	MS
7440-48-4	Cobalt	125	U	D	MS
7440-50-8	Copper	125	U	D	MS
7439-92-1	Lead	25.0	U	D	MS
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	250	U	D	MS
7782-49-2	Selenium	375	U	ND	MS
7440-22-4	Silver	25.0	U	D	MS
7440-28-0	Thallium	25.0	U	D	MS
7440-31-5	Tin	125	U	ND	MS
7440-62-2	Vanadium	125	U	D	MS
7440-66-6	Zinc	375	U	D	MS
57-12-5	Cyanide	3.5	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: 13MW4

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Lab Sample ID: 0904098-03

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	50.0	U	ND	MS
7440-38-2	Arsenic	250	U	ND	MS
7440-39-3	Barium	125	U	D	MS
7440-41-7	Beryllium	25.0	U	D	MS
7440-43-9	Cadmium	25.0	U	D	MS
7440-47-3	Chromium	125	U	D	MS
7440-48-4	Cobalt	125	U	D	MS
7440-50-8	Copper	125	U	D	MS
7439-92-1	Lead	25.0	U	D	MS
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	250	U	D	MS
7782-49-2	Selenium	375	U	ND	MS
7440-22-4	Silver	25.0	U	D	MS
7440-28-0	Thallium	25.0	U	D	MS
7440-31-5	Tin	125	U	ND	MS
7440-62-2	Vanadium	125	U	D	MS
7440-66-6	Zinc	375	U	D	MS
57-12-5	Cyanide	3.5	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: 13MW5

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Lab Sample ID: 0904098-01

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	10.0	U	ND	MS
7440-38-2	Arsenic	50.0	U	ND	MS
7440-39-3	Barium	155	B	D	MS
7440-41-7	Beryllium	5.0	U	D	MS
7440-43-9	Cadmium	5.0	U	D	MS
7440-47-3	Chromium	25.0	U	D	MS
7440-48-4	Cobalt	25.0	U	D	MS
7440-50-8	Copper	25.0	U	D	MS
7439-92-1	Lead	5.0	U	D	MS
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	50.0	U	D	MS
7782-49-2	Selenium	75.0	U	ND	MS
7440-22-4	Silver	5.0	U	D	MS
7440-28-0	Thallium	5.0	U	D	MS
7440-31-5	Tin	25.0	U	ND	MS
7440-62-2	Vanadium	25.0	U	D	MS
7440-66-6	Zinc	75.0	U	D	MS
57-12-5	Cyanide	3.5	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SW846 - METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MW6

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Lab Sample ID: 0904098-05

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	50.0	U	ND	MS
7440-38-2	Arsenic	250	U	ND	MS
7440-39-3	Barium	125	U	D	MS
7440-41-7	Beryllium	25.0	U	D	MS
7440-43-9	Cadmium	25.0	U	D	MS
7440-47-3	Chromium	125	U	D	MS
7440-48-4	Cobalt	125	U	D	MS
7440-50-8	Copper	125	U	D	MS
7439-92-1	Lead	25.0	U	D	MS
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	250	U	D	MS
7782-49-2	Selenium	375	U	ND	MS
7440-22-4	Silver	25.0	U	D	MS
7440-28-0	Thallium	25.0	U	D	MS
7440-31-5	Tin	125	U	ND	MS
7440-62-2	Vanadium	125	U	D	MS
7440-66-6	Zinc	375	U	D	MS
57-12-5	Cyanide	3.5	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SW846 - METALS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: 13MW7

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Lab Sample ID: 0904098-06

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	50.0	U	ND	MS
7440-38-2	Arsenic	250	U	ND	MS
7440-39-3	Barium	146	B	D	MS
7440-41-7	Beryllium	25.0	U	D	MS
7440-43-9	Cadmium	25.0	U	D	MS
7440-47-3	Chromium	125	U	D	MS
7440-48-4	Cobalt	125	U	D	MS
7440-50-8	Copper	125	U	D	MS
7439-92-1	Lead	25.0	U	D	MS
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	250	U	D	MS
7782-49-2	Selenium	375	U	ND	MS
7440-22-4	Silver	25.0	U	D	MS
7440-28-0	Thallium	25.0	U	D	MS
7440-31-5	Tin	125	U	ND	MS
7440-62-2	Vanadium	125	U	D	MS
7440-66-6	Zinc	375	U	D	MS
57-12-5	Cyanide	3.5	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SW846 - METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MWDUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Lab Sample ID: 0904098-04

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	50.0	U	ND	MS
7440-38-2	Arsenic	250	U	ND	MS
7440-39-3	Barium	125	U	D	MS
7440-41-7	Beryllium	25.0	U	D	MS
7440-43-9	Cadmium	25.0	U	D	MS
7440-47-3	Chromium	125	U	D	MS
7440-48-4	Cobalt	125	U	D	MS
7440-50-8	Copper	125	U	D	MS
7439-92-1	Lead	25.0	U	D	MS
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	250	U	D	MS
7782-49-2	Selenium	375	U	ND	MS
7440-22-4	Silver	25.0	U	D	MS
7440-28-0	Thallium	25.0	U	D	MS
7440-31-5	Tin	125	U	ND	MS
7440-62-2	Vanadium	125	U	D	MS
7440-66-6	Zinc	375	U	D	MS
57-12-5	Cyanide	3.5	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

2. Quality Control (QC) Data

a. Initial and Continuing Calibration Verification
[Form IIA - IN]

b. CRQL Check Standard
[Form IIB - IN]

c. Blanks
[Form III - IN]

d. ICP-MS Interference Check Sample
[Form IVB - IN]

e. Matrix Spike Sample Recovery
[Form VA - IN]

f. Post Digest Spike Sample Recovery
[Form VB - IN]

g. Duplicates
[Form VI - IN]

h. Laboratory Control Sample
[Form VII - IN]

i. ICP-MS Serial Dilutions
[Form VIII - IN]

j. Method Detection Limits (Annually)
[Form IX - IN]

k. ICP-MS Linear Ranges (Quarterly)
[Form XI – IN]

l. Preparation Log
[Form XII - IN]

m. Analysis Run Log
[Form XIII - IN]

n. ICP-MS Tune
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o. ICP-MS Internal Standards Relative Intensity Summary
[Form XV – IN]

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Initial Calibration Source: EPA-400

Continuing Calibration Source: NSI-22006

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Antimony	198.0	200.37	101	120.0	126.49	105	125.68	105	MS
Arsenic	199.0	191.88	96	120.0	114.06	95	112.49	94	MS
Barium	100.0	99.99	100	120.0	122.32	102	123.31	103	MS
Beryllium	99.0	98.38	99	120.0	122.79	102	122.24	102	MS
Cadmium	99.0	98.28	99	120.0	123.92	103	125.12	104	MS
Chromium	98.0	97.40	99	120.0	117.64	98	116.15	97	MS
Cobalt	99.0	98.41	99	120.0	116.01	97	115.90	97	MS
Copper	98.0	98.25	100	120.0	116.72	97	114.15	95	MS
Lead	199.0	199.10	100	120.0	118.23	99	112.95	94	MS
Mercury	4.0	3.77	94.2	5.0	5.00	100.0	5.19	103.8	CV
Nickel	98.0	96.16	98	120.0	113.43	95	112.09	93	MS
Selenium	201.0	193.44	96	120.0	113.69	95	114.58	95	MS
Silver	99.0	99.79	101	120.0	122.69	102	122.21	102	MS
Thallium	205.0	204.50	100	120.0	121.32	101	120.50	100	MS
Tin	100.0	100.93	101	120.0	121.08	101	122.26	102	MS
Vanadium	100.0	100.49	100	120.0	118.30	99	117.23	98	MS
Zinc	200.0	192.68	96	120.0	119.10	99	116.74	97	MS
Cyanide	99.0	101.45	102.5	200.0	209.37	104.7	217.76	108.9	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Initial Calibration Source: EPA-400

Continuing Calibration Source: NSI-22006

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Antimony				120.0	128.36	107	124.53	104	MS
Arsenic				120.0	111.38	93	112.76	94	MS
Barium				120.0	124.73	104	121.45	101	MS
Beryllium				120.0	121.34	101	118.22	99	MS
Cadmium				120.0	126.07	105	124.46	104	MS
Chromium				120.0	116.78	97	118.23	99	MS
Cobalt				120.0	116.07	97	115.71	96	MS
Copper				120.0	113.22	94	114.87	96	MS
Lead				120.0	113.21	94	114.49	95	MS
Mercury				5.0	5.17	103.4			CV
Nickel				120.0	112.99	94	112.32	94	MS
Selenium				120.0	114.71	96	114.74	96	MS
Silver				120.0	121.87	102	122.65	102	MS
Thallium				120.0	117.28	98	121.35	101	MS
Tin				120.0	123.00	102	124.17	103	MS
Vanadium				120.0	117.54	98	118.02	98	MS
Zinc				120.0	117.37	98	116.81	97	MS
Cyanide				200.0	222.01	111.0	221.09	110.5	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Initial Calibration Source: EPA-400

Continuing Calibration Source: NSI-22006

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Antimony				120.0	124.05	103	119.62	100	MS
Arsenic				120.0	110.52	92	114.09	95	MS
Barium				120.0	121.85	102	118.43	99	MS
Beryllium				120.0	118.88	99	118.79	99	MS
Cadmium				120.0	125.32	104	120.96	101	MS
Chromium				120.0	116.76	97	119.47	100	MS
Cobalt				120.0	114.20	95	116.82	97	MS
Copper				120.0	113.68	95	114.68	96	MS
Lead				120.0	117.85	98	111.70	93	MS
Nickel				120.0	112.29	94	114.41	95	MS
Selenium				120.0	113.20	94	116.85	97	MS
Silver				120.0	121.69	101	119.30	99	MS
Thallium				120.0	119.66	100	117.58	98	MS
Tin				120.0	124.02	103	121.69	101	MS
Vanadium				120.0	116.64	97	119.54	100	MS
Zinc				120.0	116.20	97	116.58	97	MS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Initial Calibration Source: EPA-400

Continuing Calibration Source: NSI-22006

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Antimony				120.0	119.97	100	119.40	100	MS
Arsenic				120.0	114.36	95	115.03	96	MS
Barium				120.0	118.77	99	119.08	99	MS
Beryllium				120.0	119.81	100	120.01	100	MS
Cadmium				120.0	119.79	100	120.49	100	MS
Chromium				120.0	117.16	98	119.08	99	MS
Cobalt				120.0	116.93	97	118.21	99	MS
Copper				120.0	117.85	98	117.49	98	MS
Lead				120.0	115.85	97	109.37	91	MS
Nickel				120.0	114.36	95	116.89	97	MS
Selenium				120.0	117.03	98	118.56	99	MS
Silver				120.0	118.74	99	118.41	99	MS
Thallium				120.0	119.89	100	117.71	98	MS
Tin				120.0	119.12	99	119.59	100	MS
Vanadium				120.0	116.48	97	118.48	99	MS
Zinc				120.0	118.18	98	117.95	98	MS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Initial Calibration Source: EPA-400

Continuing Calibration Source: NSI-22006

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Antimony				120.0	121.24	101			MS
Arsenic				120.0	109.78	91			MS
Barium				120.0	116.88	97			MS
Beryllium				120.0	119.22	99			MS
Cadmium				120.0	117.95	98			MS
Chromium				120.0	114.81	96			MS
Cobalt				120.0	111.88	93			MS
Copper				120.0	111.68	93			MS
Lead				120.0	109.14	91			MS
Nickel				120.0	109.56	91			MS
Selenium				120.0	111.84	93			MS
Silver				120.0	116.53	97			MS
Thallium				120.0	117.34	98			MS
Tin				120.0	118.08	98			MS
Vanadium				120.0	114.27	95			MS
Zinc				120.0	116.04	97			MS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

AA CRDL Standard Source: HP617816

ICP CRDL Standard Source: HP527008

Concentration Units: ug/L

Analyte	True	Found	%R	CRDL Standard for ICP Initial True	Initial Found	Initial %R	Final Found	Final %R
Antimony				2.0	2.02	101		
Arsenic				1.0	0.93	0		
Barium				10.0	9.58	96		
Beryllium				1.0	0.90	90		
Cadmium				1.0	0.94	94		
Chromium				2.0	1.97	98		
Cobalt				1.0	0.99	0		
Copper				2.0	1.94	97		
Lead				1.0	0.90	90		
Mercury	0.2	0.24	120.0					
Nickel				1.0	0.96	0		
Selenium				5.0	4.87	97		
Silver				1.0	0.99	99		
Thallium				1.0	0.92	92		
Tin				1.0	1.02	102		
Vanadium				5.0	4.92	98		
Zinc				2.0	2.03	0		

Control Limits: no limits have been established by EPA at this time

3

BLANKS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	0.856	B	0.564	B	0.576	B	0.512	B	0.400	U	MS
Arsenic	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Barium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Beryllium	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	MS
Cadmium	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	MS
Chromium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Cobalt	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Copper	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Lead	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	MS
Mercury	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	CV
Nickel	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Selenium	3.000	U	3.000	U	3.000	U	3.000	U	3.000	U	MS
Silver	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	MS
Thallium	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	MS
Tin	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Vanadium	1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	MS
Zinc	3.000	U	3.000	U	3.000	U	3.000	U	3.000	U	MS
Cyanide	3.5	U	3.5	U	-4.6	B	-4.0	B	-4.560	B	AS

SW846 - METALS

3

BLANKS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony			0.470	B	0.493	B	0.427	B			MS
Arsenic			2.000	U	2.000	U	2.000	U			MS
Barium			1.000	U	1.000	U	1.000	U			MS
Beryllium			0.200	U	0.200	U	0.200	U			MS
Cadmium			0.200	U	0.200	U	0.200	U			MS
Chromium			1.000	U	1.000	U	1.000	U			MS
Cobalt			1.000	U	1.000	U	1.000	U			MS
Copper			1.000	U	1.000	U	1.000	U			MS
Lead			0.200	U	0.200	U	0.200	U			MS
Nickel			2.000	U	2.000	U	2.000	U			MS
Selenium			3.000	U	3.000	U	3.000	U			MS
Silver			0.200	U	0.200	U	0.200	U			MS
Thallium			0.200	U	0.200	U	0.200	U			MS
Tin			1.000	U	1.000	U	1.000	U			MS
Vanadium			1.000	U	1.000	U	1.000	U			MS
Zinc			3.000	U	3.000	U	3.000	U			MS
Cyanide			-4.3	B							AS

SW846 - METALS

3

BLANKS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony			0.441	B	0.408	B	0.669	B			MS
Arsenic			2.000	U	2.000	U	2.000	U			MS
Barium			1.000	U	1.000	U	1.000	U			MS
Beryllium			0.200	U	0.200	U	0.200	U			MS
Cadmium			0.200	U	0.200	U	0.200	U			MS
Chromium			1.000	U	1.000	U	1.000	U			MS
Cobalt			1.000	U	1.000	U	1.000	U			MS
Copper			1.000	U	1.000	U	1.000	U			MS
Lead			0.200	U	0.200	U	0.200	U			MS
Nickel			2.000	U	2.000	U	2.000	U			MS
Selenium			3.000	U	3.000	U	3.000	U			MS
Silver			0.200	U	0.200	U	0.200	U			MS
Thallium			0.200	U	0.200	U	0.200	U			MS
Tin			1.000	U	1.000	U	1.000	U			MS
Vanadium			1.000	U	1.000	U	1.000	U			MS
Zinc			3.000	U	3.000	U	3.000	U			MS

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

ICP ID Number: PEMS ICS Source: EPA-803

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Antimony	2	22	1.1	19.8	90			
Arsenic	0	19	0.16	16.8	88			
Barium	1	22	1.4	21.2	96			
Beryllium	0	19	0.29	19.7	104			
Cadmium	1	20	0.21	18.2	91			
Chromium	21	40	19.8	38.1	95			
Cobalt	1	20	1.2	19.4	97			
Copper	8	25	7.6	23.7	95			
Lead	4	25	4.0	23.4	94			
Nickel	6	24	5.8	22.5	94			
Selenium	0	19	0.17	17.2	91			
Silver	0	18	0.0097	17.3	96			
Thallium	0	21	0.0031	19.8	94			
Tin	0	20	0.17	18.1	90			
Vanadium	1	19	-0.16	19.0	100			
Zinc	11	29	12.1	27.7	96			

SW846 - METALS

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

13MW5S

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	523.6650		50.0000	U	100.0	520	N	MS
Arsenic	75 - 125	250.0000	U	250.0000	U	40.0	0	N	MS
Barium	75 - 125	2188.5890		154.8060	B	2000.0	102		MS
Beryllium	75 - 125	51.5663	B	25.0000	U	50.0	103		MS
Cadmium	75 - 125	49.4575	B	25.0000	U	50.0	99		MS
Chromium	75 - 125	202.1963	B	125.0000	U	200.0	101		MS
Cobalt	75 - 125	499.4500	B	125.0000	U	500.0	100		MS
Copper	75 - 125	227.2525	B	125.0000	U	250.0	91		MS
Lead	75 - 125	25.0000	U	25.0000	U	20.0	87		MS
Mercury	75 - 125	0.9150	B	0.2000	U	1.00	91.5		CV
Nickel	75 - 125	491.6550	B	250.0000	U	500	98		MS
Selenium	75 - 125	375.0000	U	375.0000	U	10.0	0	N	MS
Silver	75 - 125	48.3025	B	25.0000	U	50.0	97		MS
Thallium	75 - 125	41.7650	B	25.0000	U	50.0	84		MS
Tin	75 - 125	1059.5750	B	125.0000	U	100.0	1060	N	MS
Vanadium	75 - 125	498.2162	B	125.0000	U	500.0	100		MS
Zinc	75 - 125	497.0638	B	375.0000	U	500.0	99		MS
Cyanide	75 - 125	114.4063		3.5000	U	100.00	114.4		AS

Comments:

SW846 - METALS

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

13MW5SD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony		471.5825		50.0000	U	100.0	472	N	MS
Arsenic	75 - 125	250.0000	U	250.0000	U	40.0	0	N	MS
Barium	75 - 125	1997.8000		154.8060	B	2000.0	92		MS
Beryllium	75 - 125	55.7550	B	25.0000	U	50.0	112		MS
Cadmium	75 - 125	42.3875	B	25.0000	U	50.0	85		MS
Chromium	75 - 125	189.2988	B	125.0000	U	200.0	95		MS
Cobalt	75 - 125	470.0400	B	125.0000	U	500.0	94		MS
Copper	75 - 125	207.7163	B	125.0000	U	250.0	83		MS
Lead	75 - 125	25.0000	U	25.0000	U	20.0	81		MS
Mercury	75 - 125	0.9490	B	0.2000	U	1.00	94.9		CV
Nickel	75 - 125	454.8412	B	250.0000	U	500.0	91		MS
Selenium	75 - 125	375.0000	U	375.0000	U	10.0	0	N	MS
Silver	75 - 125	43.2000	B	25.0000	U	50.0	86		MS
Thallium	75 - 125	38.4838	B	25.0000	U	50.0	77		MS
Tin		959.8125	B	125.0000	U	100.0	960	N	MS
Vanadium	75 - 125	473.4837	B	125.0000	U	500.0	95		MS
Zinc	75 - 125	476.0013	B	375.0000	U	500.0	95		MS
Cyanide	75 - 125	119.3828		3.5000	U	100.00	119.4		AS

Comments:

SW846 - METALS

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

13MW5A

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Antimony		95.34		10.00	U	100.0	95		MS
Arsenic		51.16	B	50.00	U	50.0	102		MS
Selenium		253.01		75.00	U	250.0	101		MS
Tin		54.57	B	25.00	U	50.0	109		MS

Comments:

6

DUPLICATES

SAMPLE NO.

13MW5D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Antimony		10.0000	U	10.0000	U			MS
Arsenic		50.0000	U	50.0000	U			MS
Barium		154.8060	B	142.5238	B	8		MS
Beryllium		5.0000	U	5.0000	U			MS
Cadmium		5.0000	U	5.0000	U			MS
Chromium		25.0000	U	25.0000	U			MS
Cobalt		25.0000	U	25.0000	U			MS
Copper		25.0000	U	25.0000	U			MS
Lead		5.0000	U	5.0000	U			MS
Mercury		0.2000	U	0.2000	U			CV
Nickel		50.0000	U	50.0000	U			MS
Selenium		75.0000	U	75.0000	U			MS
Silver		5.0000	U	5.0000	U			MS
Thallium		5.0000	U	5.0000	U			MS
Tin		25.0000	U	25.0000	U			MS
Vanadium		25.0000	U	25.0000	U			MS
Zinc		75.0000	U	75.0000	U			MS
Cyanide		3.5000	U	3.5000	U			AS

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LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

Solid LCS Source: _____

Aqueous LCS Source: EPA-400

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony	198.0	202.43	102						
Arsenic	199.0	187.64	94						
Barium	100.0	100.31	100						
Beryllium	99.0	98.43	99						
Cadmium	99.0	101.26	102						
Chromium	98.0	97.18	99						
Cobalt	99.0	97.84	99						
Copper	98.0	96.57	99						
Lead	199.0	203.41	102						
Mercury	3.0	2.64	88.0						
Nickel	98.0	95.22	97						
Selenium	201.0	193.34	96						
Silver	99.0	103.43	104						
Thallium	205.0	202.22	99						
Tin	100.0	78.98	79						
Vanadium	100.0	98.70	99						
Zinc	200.0	196.42	98						
Cyanide	99.0	108.64	109.7						

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ICP SERIAL DILUTIONS

SAMPLE NO.

13MW5L

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Antimony	0.40	U	50.00	U			MS
Arsenic	2.00	U	250.00	U			MS
Barium	154.81	B	125.45	B	19		MS
Beryllium	0.20	U	25.00	U			MS
Cadmium	0.20	U	25.00	U			MS
Chromium	1.00	U	125.00	U			MS
Cobalt	1.00	U	125.00	U			MS
Copper	1.00	U	125.00	U			MS
Lead	0.20	U	25.00	U			MS
Mercury	0.20	U	1.00	U			CV
Nickel	2.00	U	250.00	U			MS
Selenium	3.00	U	375.00	U			MS
Silver	0.20	U	25.00	U			MS
Thallium	0.20	U	25.00	U			MS
Tin	1.00	U	125.00	U			MS
Vanadium	1.00	U	125.00	U			MS
Zinc	3.00	U	375.00	U			MS

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

ICP ID Number: _____ Date: 4/15/2009

Flame AA ID Number: C2

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRQL (ug/L)	IDL (ug/L)	M
Cyanide			20.0	3.5	AS

Comments: _____

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

ICP ID Number: _____ Date: 4/15/2009

Flame AA ID Number: V4

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRQL (ug/L)	IDL (ug/L)	M
Mercury	253.70		2.00	0.20	CV

Comments: _____

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

ICP ID Number: PEMS Date: 4/26/2009

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Isotope	Back-ground	CRQL (ug/L)	IDL (ug/L)	M
Antimony	121		1	0.400	MS
Arsenic	75		10	2.000	MS
Barium	137		10	1.000	MS
Beryllium	9		1	0.200	MS
Cadmium	111		1	0.200	MS
Chromium	52		5	1.000	MS
Cobalt	59		5	1.000	MS
Copper	63		5	1.000	MS
Lead	208		1	0.200	MS
Nickel	60		10	2.000	MS
Selenium	82		10	3.000	MS
Silver	107		2	0.200	MS
Thallium	205		1.0	0.200	MS
Tin	118		10	1.000	MS
Vanadium	51		10	1.000	MS
Zinc	66		10	3.000	MS

Comments: _____

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

ICP ID Number: PEMS Date: 4/15/2009

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Antimony	0.200	3000.0	MS
Arsenic	1.500	4000.0	MS
Barium	0.500	3000.0	MS
Beryllium	0.500	4000.0	MS
Cadmium	0.200	4000.0	MS
Chromium	0.200	4000.0	MS
Cobalt	0.500	4000.0	MS
Copper	0.300	3000.0	MS
Lead	0.200	3000.0	MS
Nickel	0.300	3000.0	MS
Selenium	1.500	2000.0	MS
Silver	0.300	4000.0	MS
Thallium	0.200	3000.0	MS
Tin	0.200	200.0	MS
Vanadium	0.500	4000.0	MS
Zinc	0.300	3000.0	MS

Comments: _____

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PREPARATION LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Method: MS

EPA Sample No.	Preparation Date		Volume (mL)
13MW3	4/28/2009		50.0
13MW4	4/28/2009		50.0
13MW5	4/28/2009		50.0
13MW5D	4/28/2009		50.0
13MW5S	4/28/2009		50.0
13MW5SD	4/28/2009		50.0
13MW6	4/28/2009		50.0
13MW7	4/28/2009		50.0
13MWDUP	4/28/2009		50.0
LCSW	4/28/2009		50.0
PBW	4/28/2009		50.0

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

Method: CV

EPA Sample No.	Preparation Date		Volume (mL)
13MW3	4/28/2009		100.0
13MW4	4/28/2009		100.0
13MW5	4/28/2009		100.0
13MW5D	4/28/2009		100.0
13MW5S	4/28/2009		100.0
13MW5SD	4/28/2009		100.0
13MW6	4/28/2009		100.0
13MW7	4/28/2009		100.0
13MWDUP	4/28/2009		100.0
LCSW	4/28/2009		100.0
PBW	4/28/2009		100.0

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904098

Method: CA

EPA Sample No.	Preparation Date		Volume (mL)
13MW3	4/27/2009		50.0
13MW4	4/27/2009		50.0
13MW5	4/27/2009		50.0
13MW5D	4/27/2009		50.0
13MW5S	4/27/2009		50.0
13MW5SD	4/27/2009		50.0
13MW6	4/27/2009		50.0
13MW7	4/27/2009		50.0
13MWDUP	4/27/2009		50.0
LCSW	4/27/2009		50.0
PBW	4/27/2009		50.0

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: C2 Method: AS

Start Date: 4/27/2009 End Date: 4/27/2009

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S400	1.00	1906																								X
S300	1.00	1906																								X
S200	1.00	1907																								X
S100	1.00	1908																								X
S40	1.00	1909																								X
S20	1.00	1910																								X
S10	1.00	1910																								X
S0	1.00	1911																								X
ICV	1.00	1913																								X
ICB	1.00	1914																								X
CCV	1.00	1915																								X
CCB	1.00	1916																								X
LRS	1.00	1918																								X
HRS	1.00	1918																								X
ZZZZZZ	1.00	1919																								
ZZZZZZ	1.00	1920																								
ZZZZZZ	1.00	1921																								
ZZZZZZ	1.00	1922																								
ZZZZZZ	1.00	1922																								
ZZZZZZ	1.00	1923																								
ZZZZZZ	1.00	1924																								
ZZZZZZ	1.00	1925																								
CCV	1.00	1926																								X
CCB	1.00	1926																								X
ZZZZZZ	1.00	1928																								
ZZZZZZ	1.00	1929																								
ZZZZZZ	1.00	1930																								
ZZZZZZ	1.00	1931																								
ZZZZZZ	1.00	1931																								
ZZZZZZ	1.00	1932																								
ZZZZZZ	1.00	1933																								
ZZZZZZ	1.00	1934																								
ZZZZZZ	1.00	1935																								
PBW	1.00	1935																								X
CCV	1.00	1936																								X
CCB	1.00	1937																								X
LCSW	1.00	1939																								X
13MW5	1.00	1940																								X

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: C2 Method: AS

Start Date: 4/27/2009 End Date: 4/27/2009

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
13MW5D	1.00	1941																								X
13MW5S	1.00	1941																								X
13MW5SD	1.00	1942																								X
13MW3	1.00	1943																								X
13MW4	1.00	1944																								X
13MWDUP	1.00	1945																								X
13MW6	1.00	1945																								X
13MW7	1.00	1946																								X
CCV	1.00	1947																								X
CCB	1.00	1948																								X

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: V4 Method: CV

Start Date: 4/28/2009 End Date: 4/28/2009

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1534																X								
S0.2	1.00	1536																X								
S0.5	1.00	1538																X								
S1	1.00	1540																X								
S5	1.00	1542																X								
S10	1.00	1543																X								
ICV	1.00	1545																X								
ICB	1.00	1547																X								
CRA	1.00	1549																X								
CCV	1.00	1551																X								
CCB	1.00	1553																X								
PBW	1.00	1555																X								
LCSW	1.00	1557																X								
13MW5	1.00	1559																X								
13MW5D	1.00	1601																X								
13MW5S	1.00	1603																X								
13MW5SD	1.00	1605																X								
13MW5L	5.00	1606																X								
13MW3	1.00	1609																X								
13MW4	1.00	1610																X								
13MWDUP	1.00	1612																X								
CCV	1.00	1614																X								
CCB	1.00	1616																X								
13MW6	1.00	1618																X								
13MW7	1.00	1620																X								
ZZZZZZ	1.00	1622																								
ZZZZZZ	1.00	1624																								
ZZZZZZ	1.00	1626																								
ZZZZZZ	1.00	1628																								
ZZZZZZ	1.00	1630																								
ZZZZZZ	1.00	1632																								
ZZZZZZ	1.00	1634																								
CCV	1.00	1636																X								
CCB	1.00	1638																X								

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: PEMS Method: MS

Start Date: 5/7/2009 End Date: 5/7/2009

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
TUNE	1.00	0927																										
S0	1.00	1016			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
S2	1.00	1019			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
S20	1.00	1022			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
S200	1.00	1025			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICV	1.00	1028			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICB	1.00	1031			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CRI	1.00	1034			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICSA	1.00	1037			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ICSAB	1.00	1040			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV	1.00	1042			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1045			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1048																										
ZZZZZZ	1.00	1051																										
ZZZZZZ	1.00	1054																										
ZZZZZZ	1.00	1057																										
ZZZZZZ	1.00	1100																										
ZZZZZZ	1.00	1103																										
ZZZZZZ	1.00	1106																										
ZZZZZZ	1.00	1108																										
ZZZZZZ	1.00	1111																										
CCV	1.00	1114			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1117			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
ZZZZZZ	1.00	1120																										
ZZZZZZ	1.00	1123																										
ZZZZZZ	1.00	1126																										
CCV	1.00	1129			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1132			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
PBW	1.00	1145			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
LCSW	1.00	1147			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW5	1.00	1158																										
13MW5D	1.00	1201																										
13MW5S	1.00	1203																										
13MW5SD	1.00	1206																										
13MW5L	5.00	1209																										
13MW3	1.00	1212																										
13MW4	1.00	1215																										
13MWDUP	1.00	1218																										

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: PEMS Method: MS

Start Date: 5/7/2009 End Date: 5/7/2009

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1221			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1224			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW6	1.00	1227																												
13MW7	1.00	1229																												
CCV	1.00	1232			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1235			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW3	5.00	1245																												
13MW4	5.00	1248																												
13MWDUP	5.00	1251																												
13MW6	5.00	1253																												
13MW7	5.00	1256																												
13MW3	25.00	1259																												
13MW4	25.00	1302																												
13MWDUP	25.00	1305																												
13MW6	25.00	1308																												
13MW7	25.00	1311																												
CCV	1.00	1314			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1317			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW3	125.00	1427			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW4	125.00	1430			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MWDUP	125.00	1433			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW6	125.00	1436			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW7	125.00	1439			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV	1.00	1442			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1445			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW5	5.00	1448																												
13MW5D	5.00	1451																												
13MW5S	5.00	1454																												
13MW5SD	5.00	1457																												
13MW5L	25.00	1459																												
13MW5	25.00	1502			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW5D	25.00	1505			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW5S	25.00	1508																												
13MW5SD	25.00	1511																												
13MW5L	125.00	1514			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCV	1.00	1517			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1520			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW5S	125.00	1546			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: PEMS Method: MS

Start Date: 5/7/2009 End Date: 5/7/2009

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
13MW5SD	125.00	1549			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
13MW5A	25.00	1552			X	X															X						
ZZZZZZ	1.00	1601																									
ZZZZZZ	1.00	1604																									
ZZZZZZ	1.00	1607																									
ZZZZZZ	1.00	1610																									
ZZZZZZ	1.00	1613																									
ZZZZZZ	1.00	1616																									
CCV	1.00	1619			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	
CCB	1.00	1622			X	X	X	X	X		X	X	X		X				X		X	X		X	X	X	

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ANALYSIS RUN LOG

Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: PEMS Method: MS

Start Date: 5/7/2009 End Date: 5/7/2009

Sample ID.	D/F	Time	% R	Analytes																								
				B	AU	LI	MO	OS	PD	P	PT	SI	S	SN	SR	TI	U	W	IN	TH								
TUNE	1.00	09:27																										
S0	1.00	10:16												X														
S2	1.00	10:19												X														
S20	1.00	10:22												X														
S200	1.00	10:25												X														
ICV	1.00	10:28												X														
ICB	1.00	10:31												X														
CRI	1.00	10:34												X														
ICSA	1.00	10:37												X														
ICSAB	1.00	10:40												X														
CCV	1.00	10:42												X														
CCB	1.00	10:45												X														
ZZZZZZ	1.00	10:48																										
ZZZZZZ	1.00	10:51																										
ZZZZZZ	1.00	10:54																										
ZZZZZZ	1.00	10:57																										
ZZZZZZ	1.00	11:00																										
ZZZZZZ	1.00	11:03																										
ZZZZZZ	1.00	11:06																										
ZZZZZZ	1.00	11:08																										
ZZZZZZ	1.00	11:11																										
CCV	1.00	11:14												X														
CCB	1.00	11:17												X														
ZZZZZZ	1.00	11:20																										
ZZZZZZ	1.00	11:23																										
ZZZZZZ	1.00	11:26																										
CCV	1.00	11:29												X														
CCB	1.00	11:32												X														
PBW	1.00	11:45												X														
LCSW	1.00	11:47												X														
13MW5	1.00	11:58																										
13MW5D	1.00	12:01																										
13MW5S	1.00	12:03																										
13MW5SD	1.00	12:06																										
13MW5L	5.00	12:09																										

SW846 - METALS

-14-

ANALYSIS RUN LOG

Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: PEMS Method: MS

Start Date: 5/7/2009 End Date: 5/7/2009

Sample ID.	D/F	Time	% R	Analytes																										
				B	AU	LI	MO	OS	PD	P	PT	SI	S	SN	SR	TI	U	W	IN	TH										
13MW3	1.00	12:12																												
13MW4	1.00	12:15																												
13MWDUP	1.00	12:18																												
CCV	1.00	12:21												X																
CCB	1.00	12:24												X																
13MW6	1.00	12:27																												
13MW7	1.00	12:29																												
CCV	1.00	12:32												X																
CCB	1.00	12:35												X																
13MW3	5.00	12:45																												
13MW4	5.00	12:48																												
13MWDUP	5.00	12:51																												
13MW6	5.00	12:53																												
13MW7	5.00	12:56																												
13MW3	25.00	12:59																												
13MW4	25.00	13:02																												
13MWDUP	25.00	13:05																												
13MW6	25.00	13:08																												
13MW7	25.00	13:11																												
CCV	1.00	13:14												X																
CCB	1.00	13:17												X																
13MW3	125.00	14:27												X																
13MW4	125.00	14:30												X																
13MWDUP	125.00	14:33												X																
13MW6	125.00	14:36												X																
13MW7	125.00	14:39												X																
CCV	1.00	14:42												X																
CCB	1.00	14:45												X																
13MW5	5.00	14:48																												
13MW5D	5.00	14:51																												
13MW5S	5.00	14:54																												
13MW5SD	5.00	14:57																												
13MW5L	25.00	14:59																												
13MW5	25.00	15:02												X																
13MW5D	25.00	15:05												X																

SW846 - METALS

-14-

ANALYSIS RUN LOG

Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID Number: PEMS Method: MS

Start Date: 5/7/2009 End Date: 5/7/2009

Sample ID.	D/F	Time	% R	Analytes																								
				B	AU	LI	MO	OS	PD	P	PT	SI	S	SN	SR	TI	U	W	IN	TH								
13MW5S	25.00	15:08																										
13MW5SD	25.00	15:11																										
13MW5L	125.00	15:14												X														
CCV	1.00	15:17												X														
CCB	1.00	15:20												X														
13MW5S	125.00	15:46												X														
13MW5SD	125.00	15:49												X														
13MW5A	25.00	15:52												X														
ZZZZZZ	1.00	16:01																										
ZZZZZZ	1.00	16:04																										
ZZZZZZ	1.00	16:07																										
ZZZZZZ	1.00	16:10																										
ZZZZZZ	1.00	16:13																										
ZZZZZZ	1.00	16:16																										
CCV	1.00	16:19												X														
CCB	1.00	16:22												X														

SW846 - METALS

14 - IN

ICP-MS Tune

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ NRAS No.: _____ SDG NO.: 0904098

ICP-MS Instrument ID: PEMS Date: 05/07/2009

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	%RSD
Be_9	9.03	0.72	0.91
Mg_24	23.93	0.76	0.76
Mg_25	24.98	0.78	1.07
Mg_26	25.98	0.70	0.54
Co_59	58.93	0.69	1.04
In_113	112.93	0.71	1.02
In_115	114.93	0.72	1.21
Pb_206	205.98	0.70	0.83
Pb_207	207.03	0.70	0.64
Pb_208	207.98	0.71	0.77

Comments: _____

SW846 - METALS

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: NRAS No.: SDG NO.: 0904098

ICP-MS Instrument ID: PEMS Start Date: 05/07/2009 End Date: 05/07/2009

Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Li_6	Q	Element Sc_45	Q	Element In_115	Q	Element Tb_159	Q	Element Bi_209	Q	Element	Q
S0	S0	1016	100		100		100		100		100			
S2	S2	1019	100		98		100		101		100			
S20	S20	1022	104		98		100		100		101			
S200	S200	1025	100		95		98		102		99			
ICV1	ICV	1028	96		92		93		95		94			
ICB1	ICB	1031	102		97		99		99		101			
CRDL1	CRI	1034	103		97		98		101		101			
ICS-A1	ICSA	1037	98		98		89		93		77			
ICS-AB1	ICSAB	1040	96		100		88		91		76			
CCV1	CCV	1042	105		106		101		101		98			
CCB1	CCB	1045	108		106		102		101		101			
9042009-BLK	ZZZZZZ	1048	0											
9042009-BS1	ZZZZZZ	1051	0											
0904096-01	ZZZZZZ	1054	0											
9042009-DUP	ZZZZZZ	1057	0											
9042009-MS1	ZZZZZZ	1100	0											
9042009-MSD	ZZZZZZ	1103	0											
SDI0904096-	ZZZZZZ	1106	0											
PDS0904096-	ZZZZZZ	1108	0											
0904096-02	ZZZZZZ	1111	0											
CCV2	CCV	1114	106		99		93		94		96			
CCB2	CCB	1117	106		96		93		93		96			
0904096-03	ZZZZZZ	1120	0											
0904096-04	ZZZZZZ	1123	0											
0904096-05	ZZZZZZ	1126	0											
CCV3	CCV	1129	109		100		95		93		97			
CCB3	CCB	1132	103		97		92		92		95			
9042715-BLK	PBW	1145	103		94		90		91		96			
9042715-BS1	LCSW	1147	100		90		86		89		91			
0904098-01	13MW5	1158	236	R	114		83		85		71			
9042715-DUP	13MW5D	1201	243	R	114		83		85		72			
9042715-MS1	13MW5S	1203	214	R	104		67		80		688	R		
9042715-MSD	13MW5SD	1206	224	R	106		78		81		701	R		
0904098-01	13MW5L	1209	146	R	108		90		91		89			
0904098-02	13MW3	1212	241	R	111		80		82		70			
0904098-03	13MW4	1215	246	R	115		82		84		72			
0904098-04	13MWDUP	1218	242	R	110		76		81		70			
CCV4	CCV	1221	116		97		90		92		95			
CCB4	CCB	1224	112		96		89		90		97			
0904098-05	13MW6	1227	251	R	116		82		87		73			
0904098-06	13MW7	1229	253	R	112		69		80		68			
CCV5	CCV	1232	118		99		90		92		96			
CCB5	CCB	1235	115		96		87		89		95			
0904098-02	13MW3	1245	138	R	105		89		91		90			
0904098-03	13MW4	1248	142	R	105		91		90		92			

SW846 - METALS

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: NRAS No.: SDG NO.: 0904098

ICP-MS Instrument ID: PEMS Start Date: 05/07/2009 End Date: 05/07/2009

Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Li_6	Q	Element Sc_45	Q	Element In_115	Q	Element Tb_159	Q	Element Bi_209	Q	Element	Q
0904098-04	13MWDUP	1251	142	R	103		89		91		91			
0904098-05	13MW6	1253	140	R	103		90		91		89			
0904098-06	13MW7	1256	140	R	104		89		91		89			
0904098-02	13MW3	1259	125	R	100		90		93		96			
0904098-03	13MW4	1302	124	R	100		91		92		95			
0904098-04	13MWDUP	1305	123	R	101		92		92		95			
0904098-05	13MW6	1308	124	R	100		92		93		95			
0904098-06	13MW7	1311	124	R	99		92		93		96			
CCV6	CCV	1314	110		92		89		92		97			
CCB6	CCB	1317	108		91		88		90		96			
0904098-02	13MW3	1427	102		93		93		93		94			
0904098-03	13MW4	1430	100		95		93		92		93			
0904098-04	13MWDUP	1433	104		95		93		94		95			
0904098-05	13MW6	1436	104		95		92		93		94			
0904098-06	13MW7	1439	105		95		94		94		95			
CCV7	CCV	1442	104		96		94		96		97			
CCB7	CCB	1445	100		92		92		95		96			
0904098-01	13MW5	1448	133	R	105		94		93		93			
9042715-DUP	13MW5D	1451	159	R	105		93		95		93			
9042715-MS1	13MW5S	1454	136	R	101		92		92		242	R		
9042715-MSD	13MW5SD	1457	128	R	100		91		92		234	R		
0904098-01	13MW5L	1459	114		99		93		93		94			
0904098-01	13MW5	1502	116		97		92		92		93			
9042715-DUP	13MW5D	1505	118		99		94		94		96			
9042715-MS1	13MW5S	1508	115		98		93		92		131	R		
9042715-MSD	13MW5SD	1511	115		99		95		95		133	R		
0904098-01	13MW5L	1514	107		96		94		94		98			
CCV8	CCV	1517	104		93		92		95		98			
CCB8	CCB	1520	102		93		93		94		97			
9042715-MS1	13MW5S	1546	105		98		96		95		104			
9042715-MSD	13MW5SD	1549	100		95		94		94		102			
0904098-01	13MW5A	1552	111		99		94		96		97			
9042033-BLK	ZZZZZZ	1601	0											
9042033-BS1	ZZZZZZ	1604	0											
0904109-01	ZZZZZZ	1607	0											
9042033-DUP	ZZZZZZ	1610	0											
9042033-MS1	ZZZZZZ	1613	0											
9042033-MSD	ZZZZZZ	1616	0											
CCV9	CCV	1619	104		97		94		94		95			
CCB9	CCB	1622	103		92		92		92		95			

3. Raw Data

For each reported value, the laboratory shall include in the data package all raw data used to obtain that value. This applies to all required QA/QC measurements, instrument standardization, as well as all sample analysis results. This does not apply to the quarterly verification of method and instrument parameters submitted as a part of each data package.

Daily Instrument Profile

Detector Cross Cal: 033107
Analog Voltage: 850
Pulse Voltage: -1950
Nebulizer Pressure: 0.89

Maintenance: NAE

Printed: 5/7/2009

Method(s) (circle one): **ILM05.4** **SW-846 6020** **Other** _____

Operator(s): JCL **Date/Time** 050709/1016 **to** 050709/1700

Tune Date/Time 050709/0927

↑	Specified element(s) fail(s) high
↓	Specified element(s) fail(s) low
RR	Re-run sample(s) neat
RR #X	Re-run at a #-fold dilution
#X	Sample run at a #-fold dilution (aliquot of sample diluted with acidified water)
L	Matrix = leachate
W	Matrix = water
S	Matrix = solid
B	Matrix = biological tissue

SDG	Matrix	Comments
0904096	Water	Custom Compute 1
0904098	Water	Custom
0904109	Water	Custom

ICP-MS Run Log: PEM

File Name: PEMSJCF050709

Sample ID	Client ID	Sample Type	DF	Date	Time	SDG	Action Needed
-TUNE	Tune	CALIB STD					
S0	S0	CALIB STD	1	05/07/09	10:16:53		
S2	S2	CALIB STD	1	05/07/09	10:19:46		
S20	S20	CALIB STD	1	05/07/09	10:22:39		
S200	S200	CALIB STD	1	05/07/09	10:25:32		
ICV	ICV	ICV	1	05/07/09	10:28:26		
ICB	ICB	ICB	1	05/07/09	10:31:20		
CRI	CRI	CRI	1	05/07/09	10:34:14		
ICSA	ICSA	ICS	1	05/07/09	10:37:08		
ICSAB	ICSAB	ICS	1	05/07/09	10:40:01		
CCV	CCV	CCV	1	05/07/09	10:42:54		
CCB	CCB	CCB	1	05/07/09	10:45:48		
9042009-BLK1	PBW	BLANK	1	05/07/09	10:48:41		
9042009-BS1	LCSW	LCS	1	05/07/09	10:51:34		
0904096-01	7W11B	SAMPLE	1	05/07/09	10:54:28	0904096	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5.19.9

ICP-MS Run Log: PEM

File Name: PEMSJCF050709

Sample ID	Client ID	Sample Type	DF	Date	Time	SDG	Action Needed
9042009-DUP1	7W11BD	DUPLICATE	1	05/07/09	10:57:21	0904096	
9042009-MS1	7W11BS	MATRIX SPIK	1	05/07/09	11:00:14	0904096	
9042009-MSD1	7W11BSD	MATRIX SPIK	1	05/07/09	11:03:08	0904096	
SDI0904096-01	SDI0904096-01	CALIB STD	5	05/07/09	11:06:01	0904096	
9042009-PS1	PDS0904096-01	PDS	1	05/07/09	11:08:55	0904096	
0904096-02	7W12B	SAMPLE	1	05/07/09	11:11:48	0904096	
CCV	CCV	CCV	1	05/07/09	11:14:43		
CCB	CCB	CCB	1	05/07/09	11:17:37		
0904096-03	7WCA	SAMPLE	1	05/07/09	11:20:32	0904096	
0904096-04	7WDUP	SAMPLE	1	05/07/09	11:23:25	0904096	
0904096-05	7MW6	SAMPLE	1	05/07/09	11:26:19	0904096	
CCV	CCV	CCV	1	05/07/09	11:29:13		
CCB	CCB	CCB	1	05/07/09	11:32:06		
9042715-BLK1	PBW	BLANK	1	05/07/09	11:45:06	0904096	
9042715-BS1	LCSW	LCS	1	05/07/09	11:47:59	0904096	
0904098-01	13MW5	SAMPLE	1	05/07/09	11:58:08	0904098	
9042715-DUP1	13MW5D	DUPLICATE	1	05/07/09	12:01:02	0904098	Li↑ RR@5x
9042715-MS1	13MW5S	MATRIX SPIK	1	05/07/09	12:03:55	0904098	Li↑
9042715-MSD1	13MW5SD	MATRIX SPIK	1	05/07/09	12:06:49	0904098	Li↑
SDI0904098-01	SDI0904098-01	CALIB STD	5	05/07/09	12:09:42	0904098	Li↑
0904098-02	13MW3	SAMPLE	1	05/07/09	12:12:35	0904098	Li↑
0904098-03	13MW4	SAMPLE	1	05/07/09	12:15:29	0904098	Li↑
0904098-04	13MWDUP	SAMPLE	1	05/07/09	12:18:22	0904098	Li↑
CCV	CCV	CCV	1	05/07/09	12:21:17		
CCB	CCB	CCB	1	05/07/09	12:24:10		
0904098-05	13MW6	SAMPLE	1	05/07/09	12:27:06	0904098	Li↑ RR@5x
0904098-06	13MW7	SAMPLE	1	05/07/09	12:29:59	0904098	Li↑ RR@5x
CCV	CCV	CCV	1	05/07/09	12:32:53		
CCB	CCB	CCB	1	05/07/09	12:35:47		
0904098-02	13MW3	SAMPLE	5	05/07/09	12:45:16	0904098	Li↑ RR@25x
0904098-03	13MW4	SAMPLE	5	05/07/09	12:48:10	0904098	Li↑
0904098-04	13MWDUP	SAMPLE	5	05/07/09	12:51:03	0904098	Li↑

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5-18-9

ICP-MS Run Log: PEM

File Name: PEMSJCF050709

Sample ID	Client ID	Sample Type	DF	Date	Time	SDG	Action Needed
0904098-05	13MW6	SAMPLE	5	05/07/09	12:53:57	0904098	Li RRe25
0904098-06	13MW7	SAMPLE	5	05/07/09	12:56:50	0904098	Li RRe25
0904098-02	13MW3	SAMPLE	25	05/07/09	12:59:43	0904098	Li RRe125
0904098-03	13MW4	SAMPLE	25	05/07/09	13:02:37	0904098	Li
0904098-04	13MWDUP	SAMPLE	25	05/07/09	13:05:30	0904098	Li
0904098-05	13MW6	SAMPLE	25	05/07/09	13:08:24	0904098	Li
0904098-06	13MW7	SAMPLE	25	05/07/09	13:11:18	0904098	Li
CCV	CCV	CCV	1	05/07/09	13:14:13		
CCB	CCB	CCB	1	05/07/09	13:17:06		
0904098-02	13MW3	SAMPLE	125	05/07/09	14:27:56	0904098	
0904098-03	13MW4	SAMPLE	125	05/07/09	14:30:49	0904098	
0904098-04	13MWDUP	SAMPLE	125	05/07/09	14:33:42	0904098	
0904098-05	13MW6	SAMPLE	125	05/07/09	14:36:35	0904098	
0904098-06	13MW7	SAMPLE	125	05/07/09	14:39:29	0904098	
CCV	CCV	CCV	1	05/07/09	14:42:25		
CCB	CCB	CCB	1	05/07/09	14:45:18		
0904098-01	13MW5	SAMPLE	5	05/07/09	14:48:24	0904098	Li RRe25
9042715-DUP1	13MW5D	DUPLICATE	5	05/07/09	14:51:17	0904098	Li RRe25
9042715-MS1	13MW5S	MATRIX SPIK	5	05/07/09	14:54:10	0904098	Li RRe25
9042715-MSD1	13MW5SD	MATRIX SPIK	5	05/07/09	14:57:04	0904098	Li RRe
SDI0904098-01	SDI0904098-01	CALIB STD	25	05/07/09	14:59:57	0904098	
0904098-01	13MW5	SAMPLE	25	05/07/09	15:02:52	0904098	
9042715-DUP1	13MW5D	DUPLICATE	25	05/07/09	15:05:45	0904098	
9042715-MS1	13MW5S	MATRIX SPIK	25	05/07/09	15:08:39	0904098	Li, Bi RRe125
9042715-MSD1	13MW5SD	MATRIX SPIK	25	05/07/09	15:11:32	0904098	Li, Bi RRe125
SDI0904098-01	SDI0904098-01	CALIB STD	125	05/07/09	15:14:25	0904098	
CCV	CCV	CCV	1	05/07/09	15:17:21		
CCB	CCB	CCB	1	05/07/09	15:20:14		
9042715-MS1	13MW5S	MATRIX SPIK	125	05/07/09	15:46:23	0904098	
9042715-MSD1	13MW5SD	MATRIX SPIK	125	05/07/09	15:49:15	0904098	
9042715-PS2	PDS0904098-01	PDS	25	05/07/09	15:52:09	0904098	
9042033-BLK1	PBW	BLANK	1	05/07/09	16:01:54	0904098	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5-08-5

ICP-MS Run Log: PEM

File Name: PEMSJCF050709

Sample ID	Client ID	Sample Type	DF	Date	Time	SDG	Action Needed
9042033-BS1	LCSW	LCS	1	05/07/09	16:04:48	0904098	
0904109-01	10D3D	SAMPLE	1	05/07/09	16:07:41	0904109	
9042033-DUP1	10D3DD	DUPLICATE	1	05/07/09	16:10:34	0904109	
9042033-MS1	10D3DS	MATRIX SPIK	1	05/07/09	16:13:28	0904109	
9042033-MSD1	10D3DSD	MATRIX SPIK	1	05/07/09	16:16:21	0904109	
CCV	CCV	CCV	1	05/07/09	16:19:16		
CCB	CCB	CCB	1	05/07/09	16:22:09		
SDI0904109-01	SDI0904109-01	CALIB STD	1	05/07/09	16:26:15	0904109	
9042033-PS3	PDS0904109-01	PDS	1	05/07/09	16:29:08	0904109	
0904109-02	10D4	SAMPLE	1	05/07/09	16:32:01	0904109	
0904109-03	10MW1	SAMPLE	1	05/07/09	16:34:55	0904109	
0904109-04	10DDH2R	SAMPLE	1	05/07/09	16:37:48	0904109	
0904109-05	10D3	SAMPLE	1	05/07/09	16:45:15	0904109	
0904109-05	10D3	SAMPLE	1	05/07/09	16:51:44	0904109	
0904109-06	10DUP	SAMPLE	1	05/07/09	16:54:37	0904109	
CCV	CCV	CCV	1	05/07/09	16:57:32		
CCB	CCB	CCB	1	05/07/09	17:00:25		

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5/18/9

Standards/QC Preparation for ICP-MS (PEMS) 1 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

STANDARDS and REAGENTS TRACEABILITY Seq. File Name : PEMSJ405079

STANDARD / REAGENT	Ref # *	Manufacturer	Lot #	Expiration Date
Nitric Acid (HNO3)	NHO3-D-091708-JCF	JT Baker	G17027	09/09
Hydrochloric Acid (HCl)	HCL-D-112508-JCF	Caledon	60544	11/09
ICP-MS-TS-3 (Tuning Soln)	7m1-40-15	High Purity	0801020	07/20/09
Q-6042-M (CAL Standard)	7m1-42-11	NSI	123008	01/10
ICV-1 (0307) multi-element solution	7M1-40-28	EPA	0307	08/09
SM-770-032 (CP-MS-CRQL-Rev multi-element solution)	7m1-41-13/8K07008	High Purity	0830418	10/31/09
ICSA (0803) multi-element solution	7M1-39-02	EPA	0803	07/09
ICSAB (0803) multi-element solution	7M1-39-03	EPA	0803	07/09
LITHIUM^{6} (Li^{6}) 1000 mg/L single element standard	7M1-40-13	High Purity	0712718	01/03/10
SCANDIUM (Sc) 1,000 mg/L single element standard	7m1-42-10/8L17019	High Purity	0801101	06/15/10
INDIUM (In) 1,000 mg/L single element standard	7m1-42-8/8L17017	High Purity	0808613	06/15/10
TERBIUM (Tb) 1,000 mg/L single element standard	7m1-42-9/8L17018	High Purity	0811919	06/15/10
BISMUTH (Bi) 1,000 mg/L single element standard	7m1-40-22	High Purity	0732309	01/23/10
TIN (Sn) 10 µg/ml single element standard	7M1-42-12	NSI	1020008-SN	10/10
MOLYBDENUM (Mo) 10 µg/ml single element standard	7M1-42-13	NSI	1020008-MO	10/10
Water Spike Sample D ICP-MS Matrix Spike multi-element solution	1m2-186-28	High Purity	0835021	12/17/09

Entered By: J. Feldhaus

Reviewed By: _____ Date: 5-18-5

*Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

10.12.07:jcf

Multi-Element Stock Standard Concentrations:

Stock Standard	Analyte Concentrations (µg/mL)
Tuning Solution	Be: 10 Mg: 10 Co: 10 In: 10 Pb: 10
CAL standard	Al: 1000 Sb: 100 As: 100 Ba: 100 Be: 100 B: 100 Cd: 100 Ca: 1000 Cr: 100 Co: 100 Cu: 100 Fe: 1000 Pb: 100 Mg: 1000 Mn: 100 Mo: 100 Ni: 100 K: 1000 Se: 100 Si: 100 Ag: 100 Na: 1000 Tl: 100 Ti: 100 V: 100 Zn: 100 Sn: 100 Sr: 100
CP-MS-CRQL-Rev multi-element solution	Be: 1 V: 5 Cr: 2 Mn: 1 Co: 1 Ni: 1 Cu: 2 Zn: 2 As: 1 Se: 5 Ag: 1 Cd: 1 Sb: 2 Ba: 10 Tl: 1 Pb: 1 Al: 30 Sn: 1 Mo: 1

Entered By: J. Feldhaus

Reviewed By: _____ Date: 5-19-5

10.12.07:jcf

Standards/QC Preparation for ICP-MS (PEMS)

 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

Standard Lot Number *	Preparation Instructions	Resultant Analyte Conc. (µg/L)
Instrument Tune Solution– 02 03 09- JCF	Place in a 500-mLvolumetric flask: 0.5 mL of PRE-Tuning solution and 5 mL distilled nitric acid. Dilute to volume with deionized water	Li^7: 10 Be: 10 Mg: 10 Co: 10 In: 10 Ce: 10 Pb: 10 U: 10
Internal Standard– 04 06 0 9 – JCF	Place in a 100-mLvolumetric flask: 50 mL of deionized water , 1.0 mL of distilled nitric acid. Pipet: 2.0 ml of $Lithium^6$, 1.0 ml of Scandium, 1.0 ml of Indium, 1.0 ml of Terbium, and 1.0 ml of Bismuth. Dilute to volume with deionized water	Li^6: 20000 Sc: 10000 In: 10000 Tb: 10000 Bi: 10000
S0/ICB/CCB– 05 07 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1mL Internal Standard.Dilute to volume with deionized water. Prepare Daily.	Li^6: 200 Sc: 100 In: 100 Tb: 100 Bi: 100
S1– 05 07 0 9 – JCF SW-846	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.001 ml of CAL Standard and 0.040 mL of 100 ug/mL of Aluminum into flask. Dilute to volume with deionized water	Li^6: 200 Be: 1 Al: 50 Sc: 100 V: 1 Cr: 1 Mn: 1 Co: 1 Ni: 1 Cu: 1 Zn: 1 As: 1 Se: 1 Mo: 1 Ag: 1 Cd: 1 In: 100 Sn: 1 Sb: 1 Ba: 1 Tb: 100 Tl: 1 Pb: 1 Bi: 100
S2– 05 07 0 9 – JCF	Place in a 100-mL volumetric flask: Pipet 1.0 mL distilled nitric acid and 1 mL Internal Standard. 0.002 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 2 Sc: 100 V: 2 Cr: 2 Mn: 2 Co: 2 Ni: 2 Cu: 2 Zn: 2 As: 2 Se: 2 Mo: 2 Ag: 2 Cd: 2 In: 100 Sn: 2 Sb: 2 Ba: 2 Tb: 100 Tl: 2 Pb: 2 Bi: 100 Al: 20 Ca: 20 Na: 20 Mg: 20 Fe: 20 K: 20
S20–05 07 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.020 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 20 Al: 200 Sc: 100 V: 20 Cr: 20 Mn: 20 Co: 20 Ni: 20 Cu: 20 Zn: 20 As: 20 Se: 20 Mo: 20 Ag: 20 Cd: 20 In: 100 Sn: 20 Sb: 20 Ba: 20 Tb: 100 Tl: 20 Pb: 20 Bi: 100 Al: 200 Ca: 200 Na: 200 Mg: 200 Fe: 200 K: 200
S200–05 07 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.200 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 200 Al: 2000 Sc: 20 V: 200 Cr: 200 Mn: 200 Co: 200 Ni: 200 Cu: 200 Zn: 200 As: 200 Se: 200 Mo: 200 Ag: 200 Cd: 200 In: 20 Sn: 200 Sb: 200 Ba: 200 Tb: 20 Tl: 200 Pb: 200 Bi: 20 Al: 2000 Ca: 2000 Na: 2000 Mg: 2000 Fe: 2000 K: 2000

Standard Solutions Prepared By: _____

Entered By: J Feldhaus Date: 050709

Reviewed By: _____ Date: 5-28-09

*Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

10.12.07:jcf

Standards/QC Preparation for ICP-MS (PEMS) 4 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

Standard Lot Number *	Preparation Instructions	Resultant Analyte Conc. (µg/L)
ICV– 05 07 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid, and 2 mL Internal Standard. Pipet 4.0 ml of ICV (0307) multi-element solution, 2.2 ml of 10 µg/ml Molybdenum and 0.022 ml of 1000 µg/ml Tin into flask. Dilute to volume with deionized water. (Note: Tin must be from a source different than that used for the calibration standards)	Al: 504 Sb: 199 As: 200 Ba: 99 Be: 99 Ca: 2005 Cr: 98 Co: 100 Cu: 98 Fe: 1016 Pb: 200 Mg: 1215 Mn: 100 Ni: 101 K: 2004 Se: 206 Ag: 100 Na: 2019 Tl: 206 V: 100 Zn: 205 Cd: 99 Li^6: 200 Sc: 100 In: 100 Tb: 100 Bi: 100 Mo: 110 Sn: 110
CRI– 05 07 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 0.200 ml of CP-MS-CRQL, into flask. Dilute to volume with deionized water	Li^6: 200 Be: 1 Al: 30 Sc: 100 V: 5 Cr: 2 Mn: 1 Co: 1 Ni: 1 Cu: 2 Zn: 2 As: 1 Se: 5 Mo: 1 Ag: 1 Cd: 1 In: 100 Sn: 1 Sb: 2 Ba: 10 Tb: 100 Tl: 1 Pb: 1 Bi: 100
ICSA– 05 07 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 20.0 ml of ICS Part A (0803) into flask. Dilute to volume with deionized water.	Al: 100000 Sb: 1.5 As 0.1 Ba: 1.2 Be: 0 Cd: 0.7 Ca: 100000 C: 200000 Cl: 1000000 Cr: 21 Co: 1 Cu: 8 Fe: 10000 Pb: 4 Mg: 100000 Mn: 7 Mo: 2000 Ni: 6 P: 100000 K: 10000 Se: 0.3 Ag: 0 Na: 100000 S: 100000 Tl: 0 Ti: 2000 V: 0.5 Zn: 11
ICSAB– 05 07 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 20.0 ml of ICS Part A (0803) and 20.0 ml of ICS Part B (0803) and 0.400 ml of 10 µg/ml Tin into flask. Dilute to volume with deionized water.	Al: 100000 Sb: 22 As 19 Ba: 22 Be: 19 Cd: 20 Ca: 100000 C: 200000 Cl: 1000000 Cr: 40 Co: 20 Cu: 25 Fe: 10000 Pb: 25 Mg: 100000 Mn: 27 Mo: 2000 Ni: 24 P: 100000 K: 10000 Se: 19 Ag: 18 Na: 100000 S: 100000 Tl: 21 Ti: 2000 V: 19 Zn: 29
CCV– 05 07 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid, and 2 mL Internal Standard. Pipet 0.240 ml of CAL Standard. Dilute to volume with deionized water.	Li^6: 200 Be: 120 Sc: 100 V: 120 Cr: 120 Mn: 120 Co: 120 Ni: 120 Cu: 120 Zn: 120 As: 120 Se: 120 Mo: 120 Ag: 120 Cd: 120 In: 20 Sn: 120 Sb: 120 Ba: 120 Tb: 100 Tl: 120 Pb: 120 Bi: 100 Al: 1200 Na: 1200 Ca: 1200 K:1200 Mg: 1200 Fe 1200

Preparation Instructions for Dissolved Metals		Prepared By	Date
Preparation Blank	Use acidified deionized water (1% HNO_3).	NA	NA
Laboratory Control Sample	Add 0.200 ml of ICV multi-element solution and 0.100 ml Internal Standard to 9.7 ml of acidified deionized water.	NA	NA
Sample Spike	Add 0.100 ml Water Spike Sample D and 0.100 ml of Internal Standard to 9.8 ml of sample.	NA	NA

Standard Solutions Prepared By: _____

Entered By: J Feldhaus Date: 050709

Reviewed By: _____ Date: 5.11.09

*Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

10.12.07:jcf

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

ILM05.4 TUNING REPORT SUMMARY

Sample ID: TUNE

Sample Date/Time: Thursday, May 07, 2009 09:27:45
Sample Description: Tuning Soln @ 10% Peak Height
Number of Replicates: 5
Sample File: C:\Elandata1\Sample\1203008.sam
Method File: C:\Elandata1\Method\ILM05.4\ILM05.4TUNE.mth
Dataset File: C:\Elandata1\DataSet\PEMS050609\TUNE.058

Tuning File

Analyte	Exact Mass	Measured Mass	Measured Peak Width
Be	9.012	8.975	0.711
Mg	23.985	24.025	0.734
Mg	24.986	24.975	0.763
Mg	25.983	25.975	0.700
Co	58.933	58.925	0.690
In	112.904	112.825	0.728
In	114.904	114.875	0.729
Pb	205.975	205.975	0.690
Pb	206.976	206.975	0.692
Pb	207.977	207.975	0.706

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD
Be	9	17418.919	0.912
Mg	24	133695.916	0.759
Mg	25	18493.286	1.066
Mg	26	21359.027	0.543
Co	59	462245.299	1.042
In	113	62803.017	1.023
In	115	1432021.579	1.206
Pb	206	573900.761	0.827
Pb	207	493712.778	0.642
Pb	208	1245825.326	0.771

RAW DATA

Replicate 1

Analyte	Mass	Meas. Intensity
Be	9	17698.648
Mg	24	135468.817
Mg	25	18789.436
Mg	26	21416.910
Co	59	469355.568
In	113	63808.468
In	115	1455027.634
Pb	206	581322.119

Pb	207	494716.426
Pb	208	1260106.949

Replicate 2

Analyte	Mass	Meas. Intensity
Be	9	17379.089
Mg	24	133337.862
Mg	25	18264.865
Mg	26	21161.166
Co	59	461170.642
In	113	62800.124
In	115	1430277.018
Pb	206	573177.997
Pb	207	495700.402
Pb	208	1245292.388

Replicate 3

Analyte	Mass	Meas. Intensity
Be	9	17304.359
Mg	24	132887.729
Mg	25	18444.995
Mg	26	21461.806
Co	59	464315.677
In	113	62657.877
In	115	1440991.725
Pb	206	574316.829
Pb	207	496629.017
Pb	208	1248360.291

Replicate 4

Analyte	Mass	Meas. Intensity
Be	9	17346.833
Mg	24	133470.007
Mg	25	18403.118
Mg	26	21375.621
Co	59	459591.580
In	113	62727.914
In	115	1424726.735
Pb	206	568208.483
Pb	207	492915.691
Pb	208	1241298.130

Replicate 5

Analyte	Mass	Meas. Intensity
Be	9	17365.665
Mg	24	133315.162
Mg	25	18564.015
Mg	26	21379.630
Co	59	456793.028
In	113	62020.702
In	115	1409084.782
Pb	206	572478.379
Pb	207	488602.354
Pb	208	1234068.874

ILM05.4 - Summary Report

Sample ID: S0

Sample Date/Time: Thursday, May 07, 2009 10:16:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\S0.071

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	558893.383	1.397				ppb
	Be	9	0.000					ppb
	Na	23	28346.860	5.239				ppb
	Mg	24	2141.583	36.652				ppb
	Mg	25	307.005	34.968				ppb
	Mg	26	375.674	36.974				ppb
	Al	27	3557.364	39.317				ppb
	K	39	235578.245	2.398				ppb
	Ca	44	12567.233	3.775				ppb
>	Sc	45	898999.638	1.626				ppb
	Ti	47	96.667	28.488				ppb
	V	51	753.264	12.821				ppb
	Cr	52	3969.455	2.619				ppb
	Mn	55	468.344	13.263				ppb
	Fe	54	25263.579	4.346				ppb
	Fe	56	579478.042	2.744				ppb
	Fe	57	1930.186	4.328				ppb
	Co	59	134.668	27.237				ppb
	Ni	60	50.000	35.277				ppb
	Cu	63	1138.954	3.237				ppb
	Cu	65	226.669	8.824				ppb
	Zn	66	185.557	13.242				ppb
	As	75	41.776	23.975				ppb
	Se	82	28.222	19.811				ppb
	Mo	96	457.344	26.960				ppb
	Ag	107	82.223	24.771				ppb
	Ag	109	80.000	32.543				ppb
	Cd	111	15.880	32.067				ppb
	In	113	110043.846	0.502				ppb
>	In	115	2864324.267	0.752				ppb
	Sn	118	228.336	23.002				ppb
	Sb	121	1421.768	5.089				ppb
	Ba	135	46.000	38.644				ppb
	Ba	137	92.667	10.200				ppb
>	Tb	159	4523371.918	0.456				ppb
	Tl	205	138.334	9.096				ppb
	Pb	206	78.334	39.001				ppb
	Pb	207	141.667	13.362				ppb
	Pb	208	213.335	5.898				ppb
>	Bi	209	3575788.881	0.172				ppb
	Cr	53	646.021	7.320				ppb
	Pd	106	3.333	86.603				ppb
	Pd	108	0.000					ppb
	C	12	298319.953	0.987				ppb
	Kr	83	37.333	35.670				ppb
	Se	77	32.667	5.400				ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	566975.997		ppb
	Be	9	0.000		ppb
	Na	23	30060.113		ppb
	Mg	24	3047.464		ppb
	Mg	25	429.009		ppb
	Mg	26	536.014		ppb
	Al	27	5171.337		ppb
	K	39	241997.124		ppb
	Ca	44	13110.589		ppb
>	Sc	45	906588.058		ppb
	Ti	47	125.001		ppb
	V	51	644.536		ppb
	Cr	52	3920.768		ppb
	Mn	55	430.009		ppb
	Fe	54	26374.736		ppb
	Fe	56	597725.393		ppb
	Fe	57	2020.204		ppb
	Co	59	122.001		ppb
	Ni	60	43.333		ppb
	Cu	63	1173.402		ppb
	Cu	65	206.669		ppb
	Zn	66	176.668		ppb
	As	75	30.244		ppb
	Se	82	25.333		ppb
	Mo	96	592.018		ppb
	Ag	107	60.000		ppb
	Ag	109	50.000		ppb
	Cd	111	10.000		ppb
	In	113	110613.401		ppb
>	In	115	2862258.485		ppb
	Sn	118	280.004		ppb
	Sb	121	1505.113		ppb
	Ba	135	32.000		ppb
	Ba	137	82.000		ppb
>	Tb	159	4522497.163		ppb
	Tl	205	125.001		ppb
	Pb	206	105.001		ppb
	Pb	207	150.001		ppb
	Pb	208	200.001		ppb
>	Bi	209	3575780.221		ppb
	Cr	53	700.025		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	301619.125		ppb
	Kr	83	52.000		ppb
	Se	77	34.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	558308.142		ppb
	Be	9	0.000		ppb
	Na	23	27429.568		ppb
	Mg	24	1714.147		ppb
	Mg	25	265.004		ppb
	Mg	26	299.004		ppb
	Al	27	2800.392		ppb
	K	39	233373.756		ppb
	Ca	44	12355.628		ppb
>	Sc	45	882145.348		ppb

	Ti	47	95.000		ppb
	V	51	786.161		ppb
	Cr	52	3898.760		ppb
	Mn	55	435.009		ppb
	Fe	54	25236.805		ppb
	Fe	56	568566.602		ppb
	Fe	57	1915.183		ppb
	Co	59	176.002		ppb
	Ni	60	36.667		ppb
	Cu	63	1143.399		ppb
	Cu	65	246.670		ppb
	Zn	66	213.336		ppb
	As	75	46.782		ppb
	Se	82	34.667		ppb
	Mo	96	430.009		ppb
	Ag	107	86.667		ppb
	Ag	109	96.667		ppb
	Cd	111	18.820		ppb
	In	113	110006.765		ppb
>	In	115	2886835.655		ppb
	Sn	118	230.003		ppb
	Sb	121	1385.096		ppb
	Ba	135	40.000		ppb
	Ba	137	96.000		ppb
>	Tb	159	4503213.510		ppb
	Tl	205	150.001		ppb
	Pb	206	45.000		ppb
	Pb	207	120.000		ppb
	Pb	208	225.001		ppb
>	Bi	209	3569649.169		ppb
	Cr	53	626.020		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	295953.565		ppb
	Kr	83	34.000		ppb
	Se	77	33.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	551396.010		ppb
	Be	9	0.000		ppb
	Na	23	27550.900		ppb
	Mg	24	1663.138		ppb
	Mg	25	227.003		ppb
	Mg	26	292.004		ppb
	Al	27	2700.365		ppb
	K	39	231363.854		ppb
	Ca	44	12235.481		ppb
>	Sc	45	908265.508		ppb
	Ti	47	70.000		ppb
	V	51	829.096		ppb
	Cr	52	4088.836		ppb
	Mn	55	540.015		ppb
	Fe	54	24179.196		ppb
	Fe	56	572142.131		ppb
	Fe	57	1855.172		ppb
	Co	59	106.001		ppb
	Ni	60	70.000		ppb
	Cu	63	1100.061		ppb
	Cu	65	226.669		ppb
	Zn	66	166.668		ppb
	As	75	48.302		ppb
	Se	82	24.667		ppb

⌈	Mo	96	350.006	ppb
|	Ag	107	100.001	ppb
|	Ag	109	93.334	ppb
|	Cd	111	18.820	ppb
|	In	113	109511.372	ppb
|>	In	115	2843878.662	ppb
⌊	Sn	118	175.002	ppb
⌈	Sb	121	1375.095	ppb
|	Ba	135	66.000	ppb
|	Ba	137	100.001	ppb
⌊>	Tb	159	4544405.081	ppb
⌈	Tl	205	140.001	ppb
|	Pb	206	85.000	ppb
|	Pb	207	155.001	ppb
|	Pb	208	215.001	ppb
⌊>	Bi	209	3581937.252	ppb
	Cr	53	612.019	ppb
	Pd	106	5.000	ppb
	Pd	108	0.000	ppb
	C	12	297387.168	ppb
	Kr	83	26.000	ppb
	Se	77	30.667	ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S2

Sample Date/Time: Thursday, May 07, 2009 10:19:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\S2.072

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	558675.590	3.080	558675.590			ppb
	Be	9	529.347	3.428	0.001	2.00000	2.02	ppb
	Na	23	89466.804	3.751	0.109	20.00000	1.10	ppb
	Mg	24	48900.082	4.299	0.084	20.00000	1.46	ppb
	Mg	25	6816.991	3.559	0.012	20.00000	0.51	ppb
	Mg	26	8030.224	2.340	0.014	20.00000	0.91	ppb
	Al	27	71927.970	3.556	0.122	20.00000	2.17	ppb
	K	39	347461.446	2.318	0.201	20.00000	3.29	ppb
	Ca	44	15371.142	2.178	0.005	20.00000	14.79	ppb
>	Sc	45	882989.471	1.826	882989.471			ppb
	Ti	47	1095.060	8.555	0.001	2.00000	8.53	ppb
	V	51	13451.391	1.741	0.014	2.00000	0.35	ppb
	Cr	52	15017.270	1.987	0.013	2.00000	2.05	ppb
	Mn	55	16481.920	4.044	0.018	2.00000	2.80	ppb
	Fe	54	33979.330	2.850	0.010	20.00000	4.06	ppb
	Fe	56	695697.554	1.782	0.143	20.00000	1.49	ppb
	Fe	57	5313.079	3.224	0.004	20.00000	3.86	ppb
	Co	59	14943.829	2.541	0.017	2.00000	0.81	ppb
	Ni	60	3388.352	3.409	0.004	2.00000	1.61	ppb
	Cu	63	9068.555	0.378	0.009	2.00000	2.12	ppb
	Cu	65	4315.376	1.479	0.005	2.00000	1.82	ppb
	Zn	66	2064.658	6.077	0.002	2.00000	5.52	ppb
	As	75	2292.405	1.333	0.003	2.00000	2.62	ppb
	Se	82	227.114	3.820	0.000	2.00000	6.32	ppb
	Mo	96	4981.242	4.073	0.002	2.00000	3.67	ppb
	Ag	107	15375.148	2.131	0.005	2.00000	1.42	ppb
	Ag	109	14819.868	2.866	0.005	2.00000	1.88	ppb
	Cd	111	3269.304	5.044	0.001	2.00000	6.58	ppb
	In	113	113856.401	2.375	0.001	2.00000	28.32	ppb
>	In	115	2873818.960	1.601	2873818.960			ppb
	Sn	118	10929.306	2.948	0.004	2.00000	1.39	ppb
	Sb	121	11673.477	1.680	0.002	2.00000	3.40	ppb
	Ba	135	3336.557	0.632	0.001	2.00000	1.96	ppb
	Ba	137	5657.600	1.555	0.001	2.00000	2.72	ppb
>	Tb	159	4563509.098	1.305	4563509.098			ppb
	Tl	205	45468.145	1.331	0.013	2.00000	0.51	ppb
	Pb	206	15450.267	3.075	0.004	2.00000	2.94	ppb
	Pb	207	29029.484	2.059	0.008	2.00000	1.46	ppb
	Pb	208	47727.440	2.098	0.013	2.00000	1.08	ppb
>	Bi	209	3561422.475	1.101	3561422.475			ppb
	Cr	53	1930.186	2.716	1284.165			ppb
	Pd	106	241.670	20.827	238.336			ppb
	Pd	108	263.337	5.481	263.337			ppb
	C	12	302947.116	2.193	4627.163			ppb
	Kr	83	23.333	19.795	-14.000			ppb
	Se	77	188.891	4.413	156.224			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	572605.560		ppb
	Be	9	550.015	2.027394	ppb
	Na	23	92445.341	20.242693	ppb
	Mg	24	50900.213	20.330871	ppb
	Mg	25	7014.459	20.084507	ppb
	Mg	26	8204.364	19.930143	ppb
	Al	27	74839.000	20.317988	ppb
	K	39	355502.749	19.880631	ppb
	Ca	44	15748.391	19.913959	ppb
>	Sc	45	901147.760		ppb
	Ti	47	1170.068	2.103558	ppb
	V	51	13721.579	1.998979	ppb
	Cr	52	15193.533	1.976491	ppb
	Mn	55	17199.779	2.046731	ppb
	Fe	54	35096.480	20.903641	ppb
	Fe	56	709968.795	19.993637	ppb
	Fe	57	5471.496	20.282841	ppb
	Co	59	15381.821	2.017455	ppb
	Ni	60	3520.620	2.037122	ppb
	Cu	63	9077.451	1.955729	ppb
	Cu	65	4334.272	1.966272	ppb
	Zn	66	2183.572	2.080211	ppb
	As	75	2273.579	1.942038	ppb
	Se	82	218.669	1.869704	ppb
	Mo	96	5215.360	2.077192	ppb
	Ag	107	15355.113	1.974259	ppb
	Ag	109	15298.360	2.041171	ppb
	Cd	111	3097.252	1.871069	ppb
	In	113	115361.599	2.108290	ppb
>	In	115	2907287.891		ppb
	Sn	118	11156.220	2.018706	ppb
	Sb	121	11501.611	1.937447	ppb
	Ba	135	3314.549	1.960807	ppb
	Ba	137	5631.585	1.964624	ppb
>	Tb	159	4621961.453		ppb
	Tl	205	45794.618	2.011575	ppb
	Pb	206	15987.770	2.066976	ppb
	Pb	207	29546.957	2.033005	ppb
	Pb	208	48148.905	2.015020	ppb
>	Bi	209	3566453.748		ppb
	Cr	53	1944.189		ppb
	Pd	106	295.004		ppb
	Pd	108	255.003		ppb
	C	12	310177.024		ppb
	Kr	83	18.000		ppb
	Se	77	188.668		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	563979.476		ppb
	Be	9	522.014	1.953609	ppb
	Na	23	90124.298	19.941753	ppb
	Mg	24	49091.202	19.889175	ppb
	Mg	25	6890.373	20.028456	ppb
	Mg	26	8055.243	19.864089	ppb
	Al	27	70905.491	19.504917	ppb
	K	39	347490.371	19.410806	ppb
	Ca	44	15109.406	17.086562	ppb
>	Sc	45	877485.954		ppb

	Ti	47	990.049	1.803026	ppb
	V	51	13326.493	1.993470	ppb
	Cr	52	15185.521	2.047248	ppb
	Mn	55	15882.603	1.937987	ppb
	Fe	54	33460.888	19.335089	ppb
	Fe	56	689514.270	19.705368	ppb
	Fe	57	5131.316	19.125456	ppb
	Co	59	14740.857	1.985239	ppb
	Ni	60	3337.223	1.982294	ppb
	Cu	63	9030.743	2.004232	ppb
	Cu	65	4367.620	2.038623	ppb
	Zn	66	1933.520	1.874110	ppb
	As	75	2327.652	2.043713	ppb
	Se	82	226.669	2.008301	ppb
	Mo	96	4857.179	1.931224	ppb
	Ag	107	15712.334	2.030604	ppb
	Ag	109	14674.092	1.967285	ppb
	Cd	111	3284.672	1.994865	ppb
	In	113	115472.872	2.504492	ppb
>	In	115	2892810.978		ppb
	Sn	118	11071.125	2.013220	ppb
	Sb	121	11631.761	1.990197	ppb
	Ba	135	3338.557	1.999920	ppb
	Ba	137	5585.559	1.972734	ppb
>	Tb	159	4565656.933		ppb
	Tl	205	45839.824	1.995921	ppb
	Pb	206	15276.660	1.957248	ppb
	Pb	207	29166.299	1.989070	ppb
	Pb	208	48449.255	2.009851	ppb
>	Bi	209	3597888.379		ppb
	Cr	53	1974.195		ppb
	Pd	106	235.003		ppb
	Pd	108	280.004		ppb
	C	12	297107.023		ppb
	Kr	83	26.000		ppb
	Se	77	180.668		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	539441.736		ppb
	Be	9	516.013	2.018996	ppb
	Na	23	85830.772	19.815554	ppb
	Mg	24	46708.832	19.779955	ppb
	Mg	25	6546.142	19.887037	ppb
	Mg	26	7831.065	20.205767	ppb
	Al	27	70039.420	20.177094	ppb
	K	39	339391.218	20.708563	ppb
	Ca	44	15255.628	22.999479	ppb
>	Sc	45	870334.698		ppb
	Ti	47	1125.063	2.093417	ppb
	V	51	13306.101	2.007551	ppb
	Cr	52	14672.757	1.976261	ppb
	Mn	55	16363.377	2.015281	ppb
	Fe	54	33380.620	19.761271	ppb
	Fe	56	687609.596	20.300995	ppb
	Fe	57	5336.423	20.591704	ppb
	Co	59	14708.810	1.997307	ppb
	Ni	60	3307.213	1.980584	ppb
	Cu	63	9097.470	2.040039	ppb
	Cu	65	4244.234	1.995104	ppb
	Zn	66	2076.882	2.045679	ppb
	As	75	2275.983	2.014249	ppb
	Se	82	236.003	2.121995	ppb

⌈	Mo	96	4871.186	1.991584	ppb
|	Ag	107	15057.995	1.995137	ppb
|	Ag	109	14487.153	1.991544	ppb
|	Cd	111	3425.989	2.134065	ppb
|	In	113	110734.733	1.387218	ppb
|>	In	115	2821358.010		ppb
⌊	Sn	118	10560.573	1.968074	ppb
⌈	Sb	121	11887.061	2.072357	ppb
|	Ba	135	3356.563	2.039273	ppb
|	Ba	137	5755.656	2.062642	ppb
⌊>	Tb	159	4502908.907		ppb
⌈	Tl	205	44769.994	1.992505	ppb
|	Pb	206	15086.371	1.975775	ppb
|	Pb	207	28375.195	1.977925	ppb
|	Pb	208	46584.161	1.975129	ppb
⌊>	Bi	209	3519925.298		ppb
	Cr	53	1872.175		ppb
	Pd	106	195.002		ppb
	Pd	108	255.003		ppb
	C	12	301557.302		ppb
	Kr	83	26.000		ppb
	Se	77	197.335		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S20

Sample Date/Time: Thursday, May 07, 2009 10:22:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\S20.073

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	578694.213	1.420	578694.213			ppb
	Be	9	5183.343	1.505	0.009	19.98854	0.90	ppb
	Na	23	670287.116	2.104	1.108	200.02419	1.34	ppb
	Mg	24	469737.042	2.764	0.808	199.92908	1.76	ppb
	Mg	25	66602.867	3.082	0.115	199.96636	3.79	ppb
	Mg	26	77146.813	1.462	0.133	199.93482	2.65	ppb
	Al	27	705893.768	3.386	1.214	199.98339	3.97	ppb
	K	39	1609628.886	1.937	2.360	200.29808	2.20	ppb
	Ca	44	48250.125	0.487	0.061	200.34244	1.87	ppb
>	Sc	45	884556.817	0.219	884556.817			ppb
	Ti	47	9721.392	2.556	0.011	19.99200	2.63	ppb
	V	51	128542.390	0.385	0.144	20.00071	0.60	ppb
	Cr	52	114629.940	0.608	0.125	19.99881	0.80	ppb
	Mn	55	157294.266	1.488	0.177	19.99540	1.39	ppb
	Fe	54	110018.648	1.479	0.096	199.84626	2.05	ppb
	Fe	56	2331727.124	0.996	1.991	200.55673	1.56	ppb
	Fe	57	35936.128	1.257	0.038	199.98870	1.46	ppb
	Co	59	146362.454	2.596	0.165	19.99712	2.82	ppb
	Ni	60	32581.887	1.208	0.037	19.99445	1.36	ppb
	Cu	63	79220.416	2.000	0.088	19.99605	2.24	ppb
	Cu	65	38757.192	1.336	0.044	19.98730	1.24	ppb
	Zn	66	19407.707	1.750	0.022	20.00385	1.76	ppb
	As	75	21747.239	1.388	0.025	19.99222	1.45	ppb
	Se	82	2091.774	1.826	0.002	20.00624	1.75	ppb
	Mo	96	45628.528	0.173	0.016	20.00070	1.21	ppb
	Ag	107	150814.302	0.376	0.053	19.99803	0.79	ppb
	Ag	109	147450.257	0.567	0.052	20.00088	0.47	ppb
	Cd	111	32981.027	1.126	0.012	20.00335	1.14	ppb
	In	113	142511.636	0.359	0.011	19.99013	3.20	ppb
>	In	115	2860879.601	1.039	2860879.601			ppb
	Sn	118	104174.811	0.319	0.036	19.99514	0.76	ppb
	Sb	121	107964.690	0.167	0.023	20.00885	1.60	ppb
	Ba	135	32226.511	0.181	0.007	19.99680	1.48	ppb
	Ba	137	56027.207	1.609	0.012	20.00222	1.92	ppb
>	Tb	159	4535556.001	1.426	4535556.001			ppb
	Tl	205	447747.945	0.560	0.124	19.99394	2.00	ppb
	Pb	206	155823.128	1.323	0.043	19.99915	3.10	ppb
	Pb	207	290900.985	0.860	0.080	19.99783	2.62	ppb
	Pb	208	477636.586	0.460	0.132	19.99748	1.93	ppb
>	Bi	209	3625131.726	1.803	3625131.726			ppb
	Cr	53	13461.721	0.185	12815.701			ppb
	Pd	106	2817.064	3.623	2813.730			ppb
	Pd	108	2180.238	1.277	2180.238			ppb
	C	12	308580.522	1.906	10260.569			ppb
	Kr	83	44.000	19.813	6.667			ppb
	Se	77	1619.242	1.497	1586.575			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	583878.171		ppb
	Be	9	5267.387	20.131909	ppb
	Na	23	669253.906	197.852647	ppb
	Mg	24	469738.536	198.163264	ppb
	Mg	25	64307.107	191.274033	ppb
	Mg	26	75857.632	194.778054	ppb
	Al	27	679855.417	190.808208	ppb
	K	39	1590042.188	195.341080	ppb
	Ca	44	48075.285	196.888743	ppb
>	Sc	45	885143.719		ppb
	Ti	47	9979.978	20.515083	ppb
	V	51	128523.511	19.984246	ppb
	Cr	52	113919.204	19.856604	ppb
	Mn	55	155408.276	19.741968	ppb
	Fe	54	108176.965	195.352823	ppb
	Fe	56	2310115.091	197.917942	ppb
	Fe	57	36290.732	201.928074	ppb
	Co	59	144703.434	19.756312	ppb
	Ni	60	32830.470	20.133548	ppb
	Cu	63	79444.321	20.039275	ppb
	Cu	65	39330.526	20.271305	ppb
	Zn	66	19792.902	20.390962	ppb
	As	75	22060.560	20.267181	ppb
	Se	82	2134.228	20.404237	ppb
	Mo	96	45605.758	19.814547	ppb
	Ag	107	150889.863	19.834104	ppb
	Ag	109	148169.640	19.924157	ppb
	Cd	111	33383.891	20.072075	ppb
	In	113	143071.199	19.571220	ppb
>	In	115	2885806.572		ppb
	Sn	118	104533.522	19.889420	ppb
	Sb	121	108085.989	20.193945	ppb
	Ba	135	32292.055	20.198197	ppb
	Ba	137	56808.906	20.445160	ppb
>	Tb	159	4498902.219		ppb
	Tl	205	446766.970	20.297724	ppb
	Pb	206	157495.552	20.563289	ppb
	Pb	207	292657.863	20.467582	ppb
	Pb	208	479340.023	20.418674	ppb
>	Bi	209	3562245.144		ppb
	Cr	53	13433.016		ppb
	Pd	106	2840.403		ppb
	Pd	108	2150.231		ppb
	C	12	313737.551		ppb
	Kr	83	34.000		ppb
	Se	77	1591.460		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	569222.375		ppb
	Be	9	5113.307	20.046192	ppb
	Na	23	656732.259	199.209712	ppb
	Mg	24	456754.319	197.644378	ppb
	Mg	25	67241.312	205.220490	ppb
	Mg	26	77949.628	205.357626	ppb
	Al	27	710992.851	204.761265	ppb
	K	39	1593271.181	201.772982	ppb
	Ca	44	48157.680	204.338716	ppb
>	Sc	45	886136.096		ppb

	Ti	47	9484.496	19.464707	ppb
	V	51	128057.051	19.888866	ppb
	Cr	52	114657.571	19.966700	ppb
	Mn	55	159913.474	20.293162	ppb
	Fe	54	110618.457	200.787838	ppb
	Fe	56	2328797.910	199.746841	ppb
	Fe	57	35427.645	196.627365	ppb
	Co	59	143674.760	19.593751	ppb
	Ni	60	32128.195	19.680127	ppb
	Cu	63	77536.098	19.528831	ppb
	Cu	65	38617.756	19.879423	ppb
	Zn	66	19151.655	19.701883	ppb
	As	75	21458.275	19.690706	ppb
	Se	82	2080.883	19.864937	ppb
	Mo	96	45716.261	20.273241	ppb
	Ag	107	150213.122	20.148969	ppb
	Ag	109	146532.446	20.106913	ppb
	Cd	111	32907.044	20.189898	ppb
	In	113	142067.034	20.726032	ppb
>	In	115	2827994.118		ppb
	Sn	118	103876.731	20.169112	ppb
	Sb	121	107757.472	19.639079	ppb
	Ba	135	32207.784	19.658181	ppb
	Ba	137	56231.657	19.747519	ppb
>	Tb	159	4610245.989		ppb
	Tl	205	450598.257	20.142688	ppb
	Pb	206	156454.399	20.098783	ppb
	Pb	207	292006.939	20.093624	ppb
	Pb	208	475157.845	19.914965	ppb
>	Bi	209	3620438.180		ppb
	Cr	53	13477.075		ppb
	Pd	106	2705.366		ppb
	Pd	108	2185.239		ppb
	C	12	302175.551		ppb
	Kr	83	50.000		ppb
	Se	77	1630.133		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	582982.093		ppb
	Be	9	5169.336	19.787527	ppb
	Na	23	684875.183	203.010220	ppb
	Mg	24	482718.270	203.979584	ppb
	Mg	25	68260.180	203.404562	ppb
	Mg	26	77633.180	199.668789	ppb
	Al	27	726833.036	204.380688	ppb
	K	39	1645573.288	203.780186	ppb
	Ca	44	48517.412	199.799865	ppb
>	Sc	45	882390.637		ppb
	Ti	47	9699.702	19.996204	ppb
	V	51	129046.607	20.129023	ppb
	Cr	52	115313.044	20.173127	ppb
	Mn	55	156561.049	19.951081	ppb
	Fe	54	111260.521	203.398118	ppb
	Fe	56	2356268.371	204.005418	ppb
	Fe	57	36090.007	201.410648	ppb
	Co	59	150709.169	20.641283	ppb
	Ni	60	32786.995	20.169674	ppb
	Cu	63	80680.829	20.420047	ppb
	Cu	65	38323.293	19.811185	ppb
	Zn	66	19278.565	19.918692	ppb
	As	75	21722.882	20.018758	ppb
	Se	82	2060.212	19.749544	ppb

⌈	Mo	96	45563.566	19.914313	ppb
|	Ag	107	151339.921	20.011024	ppb
|	Ag	109	147648.685	19.971563	ppb
|	Cd	111	32652.146	19.748077	ppb
|	In	113	142396.673	19.673151	ppb
|>	In	115	2868838.113		ppb
⌊	Sn	118	104114.181	19.926884	ppb
⌈	Sb	121	108050.610	20.193535	ppb
|	Ba	135	32179.693	20.134013	ppb
|	Ba	137	55041.060	19.813989	ppb
⌊>	Tb	159	4497519.794		ppb
⌈	Tl	205	445878.609	19.541420	ppb
|	Pb	206	153519.434	19.335365	ppb
|	Pb	207	288038.154	19.432272	ppb
|	Pb	208	478411.890	19.658788	ppb
⌊>	Bi	209	3692711.853		ppb
	Cr	53	13475.073		ppb
	Pd	106	2905.422		ppb
	Pd	108	2205.243		ppb
	C	12	309828.464		ppb
	Kr	83	48.000		ppb
	Se	77	1636.134		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S200

Sample Date/Time: Thursday, May 07, 2009 10:25:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\S200.074

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	557501.961	4.134	557501.961			ppb
	Be	9	50336.472	3.490	0.090	200.01535	1.91	ppb
	Na	23	6452425.946	1.598	11.534	2000.79721	3.51	ppb
	Mg	24	4536057.988	1.209	8.144	2000.15407	5.08	ppb
	Mg	25	637541.688	1.695	1.144	1999.96460	2.74	ppb
	Mg	26	744860.352	1.321	1.336	2000.13960	2.90	ppb
	Al	27	7603302.215	2.036	13.640	2002.20448	2.17	ppb
	K	39	13567146.760	1.742	23.931	2000.30444	2.50	ppb
	Ca	44	366012.783	0.734	0.635	2000.84658	4.65	ppb
>	Sc	45	856898.266	2.282	856898.266			ppb
	Ti	47	95778.200	1.244	0.112	200.05039	1.14	ppb
	V	51	1248824.541	1.522	1.457	200.01640	0.80	ppb
	Cr	52	1090319.478	0.868	1.268	200.02591	1.45	ppb
	Mn	55	1605643.679	8.179	1.876	200.10944	10.38	ppb
	Fe	54	863660.895	1.394	0.980	2000.33730	2.07	ppb
	Fe	56	16309089.967	1.361	18.398	1998.41229	3.60	ppb
	Fe	57	335081.632	0.659	0.389	2000.21477	1.76	ppb
	Co	59	1423709.286	0.638	1.662	200.01001	1.80	ppb
	Ni	60	321822.465	1.147	0.376	200.04118	2.28	ppb
	Cu	63	753259.545	1.687	0.878	199.98803	0.77	ppb
	Cu	65	370776.286	3.153	0.432	199.98384	1.62	ppb
	Zn	66	184514.747	1.492	0.215	199.98000	0.81	ppb
	As	75	213155.633	0.868	0.249	200.02634	1.57	ppb
	Se	82	19728.999	0.780	0.023	199.97159	2.18	ppb
	Mo	96	453082.327	0.543	0.161	200.03915	1.34	ppb
	Ag	107	1449715.846	0.607	0.516	199.95668	0.60	ppb
	Ag	109	1418591.382	1.104	0.505	199.95878	1.30	ppb
	Cd	111	325078.936	1.075	0.116	200.00769	1.09	ppb
	In	113	434354.377	0.249	0.116	200.03607	0.99	ppb
>	In	115	2810641.097	0.808	2810641.097			ppb
	Sn	118	1029459.048	1.696	0.366	200.01500	1.50	ppb
	Sb	121	1076091.072	0.298	0.234	199.98863	0.30	ppb
	Ba	135	316411.342	0.715	0.069	199.93510	0.79	ppb
	Ba	137	552809.616	0.849	0.120	199.94627	0.85	ppb
>	Tb	159	4602295.094	0.082	4602295.094			ppb
	Tl	205	4879913.191	0.304	1.374	200.20206	1.06	ppb
	Pb	206	1478145.278	1.748	0.416	199.93450	1.01	ppb
	Pb	207	2783066.358	1.596	0.784	199.95192	0.54	ppb
	Pb	208	5022003.575	0.797	1.414	200.13668	0.51	ppb
>	Bi	209	3551533.122	1.092	3551533.122			ppb
	Cr	53	127056.083	0.549	126410.062			ppb
	Pd	106	27718.381	2.704	27715.048			ppb
	Pd	108	21733.599	2.210	21733.599			ppb
	C	12	306846.906	0.985	8526.953			ppb
	Kr	83	54.000	24.287	16.667			ppb
	Se	77	15586.586	2.164	15553.919			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	572104.042		ppb
	Be	9	52107.406	201.708016	ppb
	Na	23	6410741.087	1935.104573	ppb
	Mg	24	4472964.405	1919.309119	ppb
	Mg	25	639460.006	1953.331586	ppb
	Mg	26	752135.200	1966.540274	ppb
	Al	27	7716607.871	1978.985760	ppb
	K	39	13705186.746	1967.177757	ppb
	Ca	44	368054.824	1956.749542	ppb
>	Sc	45	874331.826		ppb
	Ti	47	97028.453	198.586510	ppb
	V	51	1263837.457	198.360449	ppb
	Cr	52	1099752.880	197.682346	ppb
	Mn	55	1545351.079	188.474578	ppb
	Fe	54	876690.523	1989.232940	ppb
	Fe	56	16259898.535	1950.020981	ppb
	Fe	57	337583.549	1974.311269	ppb
	Co	59	1434138.946	197.404765	ppb
	Ni	60	319982.146	194.871107	ppb
	Cu	63	761892.239	198.224588	ppb
	Cu	65	375666.157	198.595087	ppb
	Zn	66	186761.186	198.352997	ppb
	As	75	213981.860	196.751745	ppb
	Se	82	19881.745	197.436925	ppb
	Mo	96	450330.595	196.970983	ppb
	Ag	107	1456787.104	199.072122	ppb
	Ag	109	1421173.473	198.465393	ppb
	Cd	111	326672.325	199.127446	ppb
	In	113	434874.566	197.883440	ppb
>	In	115	2836838.494		ppb
	Sn	118	1039570.435	200.114229	ppb
	Sb	121	1078180.553	200.521222	ppb
	Ba	135	318981.596	201.703142	ppb
	Ba	137	555884.564	201.202766	ppb
>	Tb	159	4598999.144		ppb
	Tl	205	4877055.594	197.774992	ppb
	Pb	206	1495223.896	199.930408	ppb
	Pb	207	2827004.275	200.786058	ppb
	Pb	208	5068151.937	199.653502	ppb
>	Bi	209	3592744.530		ppb
	Cr	53	127844.014		ppb
	Pd	106	28044.269		ppb
	Pd	108	21568.234		ppb
	C	12	310174.961		ppb
	Kr	83	42.000		ppb
	Se	77	15863.239		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	569469.888		ppb
	Be	9	50308.228	195.644200	ppb
	Na	23	6569831.453	1992.559814	ppb
	Mg	24	4562938.361	1966.996098	ppb
	Mg	25	647258.519	1986.315156	ppb
	Mg	26	748785.275	1966.837642	ppb
	Al	27	7666359.276	1975.191753	ppb
	K	39	13701951.433	1975.965273	ppb
	Ca	44	362969.939	1937.986269	ppb
>	Sc	45	860604.227		ppb

	Ti	47	95650.271	198.888784	ppb
	V	51	1255182.819	200.145534	ppb
	Cr	52	1090387.813	199.130446	ppb
	Mn	55	1515283.785	187.755175	ppb
	Fe	54	852959.009	1965.594602	ppb
	Fe	56	16115810.247	1964.056581	ppb
	Fe	57	334259.644	1986.119914	ppb
	Co	59	1419491.094	198.505299	ppb
	Ni	60	326070.828	201.747757	ppb
	Cu	63	759220.035	200.683739	ppb
	Cu	65	379226.843	203.678258	ppb
	Zn	66	185338.413	199.983340	ppb
	As	75	214448.412	200.326660	ppb
	Se	82	19573.805	197.479528	ppb
	Mo	96	455076.357	201.907129	ppb
	Ag	107	1452494.791	201.333070	ppb
	Ag	109	1432808.235	202.960817	ppb
	Cd	111	327491.881	202.490926	ppb
	In	113	435078.140	201.796934	ppb
>	In	115	2796718.202		ppb
	Sn	118	1039509.569	202.973703	ppb
	Sb	121	1077691.845	200.108631	ppb
	Ba	135	314721.764	198.690190	ppb
	Ba	137	555138.800	200.610783	ppb
>	Tb	159	4606379.886		ppb
	Tl	205	4895976.605	201.154736	ppb
	Pb	206	1490800.728	201.961924	ppb
	Pb	207	2783994.971	200.333018	ppb
	Pb	208	4997030.031	199.441851	ppb
>	Bi	209	3546086.185		ppb
	Cr	53	126517.300		ppb
	Pd	106	28249.846		ppb
	Pd	108	22274.781		ppb
	C	12	306094.062		ppb
	Kr	83	52.000		ppb
	Se	77	15685.626		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	530931.953		ppb
	Be	9	48593.782	202.693841	ppb
	Na	23	6376705.298	2074.727242	ppb
	Mg	24	4572271.199	2114.157005	ppb
	Mg	25	625906.541	2060.247066	ppb
	Mg	26	733660.580	2067.040872	ppb
	Al	27	7426939.496	2052.435937	ppb
	K	39	13294302.101	2057.770275	ppb
	Ca	44	367013.585	2107.803940	ppb
>	Sc	45	835758.746		ppb
	Ti	47	94655.877	202.675878	ppb
	V	51	1227453.347	201.543217	ppb
	Cr	52	1080817.742	203.264939	ppb
	Mn	55	1756296.172	224.098567	ppb
	Fe	54	861333.154	2046.184344	ppb
	Fe	56	16551561.119	2081.159305	ppb
	Fe	57	333401.704	2040.213126	ppb
	Co	59	1417497.817	204.119954	ppb
	Ni	60	319414.422	203.504672	ppb
	Cu	63	738666.362	201.055772	ppb
	Cu	65	357435.859	197.678175	ppb
	Zn	66	181444.642	201.603661	ppb
	As	75	211036.628	203.000621	ppb
	Se	82	19731.447	204.998321	ppb

⌈	Mo	96	453840.029	201.239332	ppb
|	Ag	107	1439865.644	199.464851	ppb
|	Ag	109	1401792.436	198.450140	ppb
|	Cd	111	321072.600	198.404698	ppb
|	In	113	433110.425	200.427828	ppb
|>	In	115	2798366.595		ppb
⌊	Sn	118	1009297.139	196.957073	ppb
⌈	Sb	121	1072400.818	199.336044	ppb
|	Ba	135	315530.665	199.411954	ppb
|	Ba	137	547405.484	198.025267	ppb
⌊>	Tb	159	4601506.253		ppb
⌈	Tl	205	4866707.373	201.676451	ppb
|	Pb	206	1448411.209	197.911173	ppb
|	Pb	207	2738199.828	198.736688	ppb
|	Pb	208	5000828.756	201.314700	ppb
⌊>	Bi	209	3515768.652		ppb
	Cr	53	126806.934		ppb
	Pd	106	26861.027		ppb
	Pd	108	21357.783		ppb
	C	12	304271.694		ppb
	Kr	83	68.000		ppb
	Se	77	15210.893		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICV

Sample Date/Time: Thursday, May 07, 2009 10:28:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\ICV.075

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	538828.992	4.277	538828.992			ppb
	Be	9	23923.264	2.820	0.044	98.38061	2.58	ppb
	Na	23	6196105.135	4.052	11.449	1986.18014	0.46	ppb
	Mg	24	2678027.423	1.567	4.970	1220.66213	2.66	ppb
	Mg	25	381428.077	1.603	0.708	1237.72428	2.92	ppb
	Mg	26	435936.462	0.882	0.809	1211.12558	3.92	ppb
	Al	27	1890890.782	3.361	3.504	514.35573	1.69	ppb
	K	39	13144534.108	2.776	23.983	2004.71917	1.51	ppb
	Ca	44	335631.395	1.297	0.601	1894.12968	3.50	ppb
>	Sc	45	827570.088	2.085	827570.088			ppb
	Ti	47	93.334	22.304	0.000	0.00996	485.90	ppb
	V	51	606321.476	1.753	0.732	100.49456	1.44	ppb
	Cr	52	514623.427	0.709	0.618	97.40401	1.94	ppb
	Mn	55	727004.359	1.977	0.878	93.66877	2.38	ppb
	Fe	54	421872.545	2.752	0.482	983.08203	1.43	ppb
	Fe	56	8137502.283	3.099	9.188	998.03215	2.22	ppb
	Fe	57	158261.622	3.099	0.189	972.17772	1.29	ppb
	Co	59	676810.204	2.640	0.818	98.41396	1.43	ppb
	Ni	60	149457.856	2.252	0.181	96.15981	2.01	ppb
	Cu	63	357895.966	1.359	0.431	98.25385	2.08	ppb
	Cu	65	174548.414	2.152	0.211	97.44275	2.09	ppb
	Zn	66	171672.626	2.242	0.207	192.67517	2.89	ppb
	As	75	197504.684	1.672	0.239	191.88049	1.16	ppb
	Se	82	18435.423	1.104	0.022	193.44175	1.13	ppb
	Mo	96	798.032	15.546	0.000	0.17507	28.82	ppb
	Ag	107	681850.529	0.805	0.257	99.78746	2.14	ppb
	Ag	109	674429.425	1.179	0.255	100.85491	1.35	ppb
	Cd	111	150567.330	1.979	0.057	98.27759	1.71	ppb
	In	113	252076.267	1.322	0.057	97.75181	3.72	ppb
>	In	115	2649620.035	2.468	2649620.035			ppb
	Sn	118	489727.934	1.749	0.185	100.92959	1.59	ppb
	Sb	121	1004502.797	0.943	0.234	200.37327	0.91	ppb
	Ba	135	149150.927	1.636	0.035	101.14143	1.60	ppb
	Ba	137	257620.052	1.555	0.060	99.99369	1.49	ppb
>	Tb	159	4287969.193	0.805	4287969.193			ppb
	Tl	205	4717385.252	1.692	1.404	204.50206	2.69	ppb
	Pb	206	1397070.740	1.807	0.416	199.69809	2.77	ppb
	Pb	207	2635905.192	1.231	0.784	200.12626	2.19	ppb
	Pb	208	4728424.784	1.157	1.407	199.09795	1.24	ppb
>	Bi	209	3361409.892	1.024	3361409.892			ppb
	Cr	53	59335.540	1.467	58689.519			ppb
	Pd	106	12941.703	0.914	12938.369			ppb
	Pd	108	9644.649	1.124	9644.649			ppb
	C	12	311254.525	1.597	12934.572			ppb
	Kr	83	49.333	23.755	12.000			ppb
	Se	77	14716.822	0.997	14684.155			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	565155.141		ppb
	Be	9	24618.266	96.469158	ppb
	Na	23	6477580.602	1979.522634	ppb
	Mg	24	2725504.345	1183.508514	ppb
	Mg	25	387015.897	1196.365002	ppb
	Mg	26	438407.938	1159.947398	ppb
	Al	27	1962466.294	508.784616	ppb
	K	39	13563641.838	1970.863677	ppb
	Ca	44	339838.014	1824.322155	ppb
>	Sc	45	835444.007		ppb
	Ti	47	100.001	0.021799	ppb
	V	51	617597.575	101.388260	ppb
	Cr	52	518837.267	97.250383	ppb
	Mn	55	743520.372	94.874863	ppb
	Fe	54	432437.209	999.135103	ppb
	Fe	56	8402438.813	1022.444767	ppb
	Fe	57	161955.952	985.768923	ppb
	Co	59	693983.069	99.962142	ppb
	Ni	60	153272.354	97.673961	ppb
	Cu	63	363502.088	98.831477	ppb
	Cu	65	178851.891	98.892199	ppb
	Zn	66	175907.008	195.518628	ppb
	As	75	200710.614	193.138729	ppb
	Se	82	18597.945	193.279096	ppb
	Mo	96	920.042	0.226773	ppb
	Ag	107	688174.898	99.232868	ppb
	Ag	109	680619.881	100.296415	ppb
	Cd	111	153882.680	98.981527	ppb
	In	113	255918.336	97.808478	ppb
>	In	115	2688238.693		ppb
	Sn	118	488179.011	99.145666	ppb
	Sb	121	1014882.214	202.141286	ppb
	Ba	135	151945.670	102.882161	ppb
	Ba	137	262168.141	101.606846	ppb
>	Tb	159	4294350.216		ppb
	Tl	205	4683026.454	201.336752	ppb
	Pb	206	1389299.148	196.947560	ppb
	Pb	207	2626927.234	197.805043	ppb
	Pb	208	4786815.684	199.920162	ppb
>	Bi	209	3388783.134		ppb
	Cr	53	60301.266		ppb
	Pd	106	12983.423		ppb
	Pd	108	9629.634		ppb
	C	12	316991.801		ppb
	Kr	83	36.000		ppb
	Se	77	14877.726		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	522311.292		ppb
	Be	9	23880.480	101.254038	ppb
	Na	23	5995381.247	1982.465195	ppb
	Mg	24	2645932.164	1243.248839	ppb
	Mg	25	374896.050	1254.007232	ppb
	Mg	26	437893.101	1253.702232	ppb
	Al	27	1869158.470	524.372395	ppb
	K	39	12897976.360	2028.889126	ppb
	Ca	44	335908.537	1956.068612	ppb
>	Sc	45	839482.066		ppb

	Ti	47	70.000	-0.043244	ppb
	V	51	604880.946	98.820063	ppb
	Cr	52	512549.116	95.597866	ppb
	Mn	55	717337.822	91.091402	ppb
	Fe	54	423736.364	972.898275	ppb
	Fe	56	8109614.227	979.300778	ppb
	Fe	57	160131.928	969.801566	ppb
	Co	59	678131.036	97.208448	ppb
	Ni	60	148193.320	93.981928	ppb
	Cu	63	354773.525	95.986028	ppb
	Cu	65	172868.030	95.119339	ppb
	Zn	66	168385.853	186.249597	ppb
	As	75	197689.402	189.315707	ppb
	Se	82	18501.099	191.345030	ppb
	Mo	96	802.032	0.172487	ppb
	Ag	107	679087.446	97.985490	ppb
	Ag	109	677202.505	99.857134	ppb
	Cd	111	149704.939	96.356133	ppb
	In	113	249950.198	94.087493	ppb
>	In	115	2686506.251		ppb
	Sn	118	498964.247	101.402410	ppb
	Sb	121	1002292.400	198.495950	ppb
	Ba	135	148068.153	99.686843	ppb
	Ba	137	256073.227	98.680501	ppb
>	Tb	159	4318858.967		ppb
	Tl	205	4808625.447	210.844069	ppb
	Pb	206	1425284.943	206.063467	ppb
	Pb	207	2671903.743	205.189138	ppb
	Pb	208	4720044.536	201.047896	ppb
>	Bi	209	3322770.409		ppb
	Cr	53	58611.262		ppb
	Pd	106	13033.488		ppb
	Pd	108	9759.760		ppb
	C	12	308257.002		ppb
	Kr	83	54.000		ppb
	Se	77	14682.104		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	529020.542		ppb
	Be	9	23271.046	97.418644	ppb
	Na	23	6115353.555	1996.552601	ppb
	Mg	24	2662645.758	1235.229044	ppb
	Mg	25	382372.285	1262.800592	ppb
	Mg	26	431508.348	1219.727118	ppb
	Al	27	1841047.583	509.910180	ppb
	K	39	12971984.126	2014.404699	ppb
	Ca	44	331147.633	1901.998287	ppb
>	Sc	45	807784.192		ppb
	Ti	47	110.001	0.051315	ppb
	V	51	596485.906	101.275343	ppb
	Cr	52	512483.898	99.363769	ppb
	Mn	55	720154.883	95.040046	ppb
	Fe	54	409444.062	977.212719	ppb
	Fe	56	7900453.808	992.350899	ppb
	Fe	57	152696.985	960.962684	ppb
	Co	59	658316.506	98.071295	ppb
	Ni	60	146907.895	96.823538	ppb
	Cu	63	355412.284	99.944037	ppb
	Cu	65	171925.319	98.316712	ppb
	Zn	66	170725.017	196.257275	ppb
	As	75	194114.035	193.187039	ppb
	Se	82	18207.227	195.701119	ppb

⌈	Mo	96	672.023	0.125945	ppb
|	Ag	107	678289.244	102.144007	ppb
|	Ag	109	665465.888	102.411193	ppb
|	Cd	111	148114.372	99.495097	ppb
|	In	113	250360.267	101.359472	ppb
|>	In	115	2574115.160		ppb
⌊	Sn	118	482040.543	102.240703	ppb
⌈	Sb	121	996333.778	200.482573	ppb
|	Ba	135	147438.958	100.855285	ppb
|	Ba	137	254618.787	99.693736	ppb
⌊>	Tb	159	4250698.397		ppb
⌈	Tl	205	4660503.855	201.325347	ppb
|	Pb	206	1376628.131	196.083257	ppb
|	Pb	207	2608884.600	197.384605	ppb
|	Pb	208	4678414.131	196.325791	ppb
⌊>	Bi	209	3372676.133		ppb
	Cr	53	59094.091		ppb
	Pd	106	12808.197		ppb
	Pd	108	9544.553		ppb
	C	12	308514.771		ppb
	Kr	83	58.000		ppb
	Se	77	14590.637		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			96.410		
	Be	9	99.374				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			92.055		
	Ti	47					
	V	51	100.495				
	Cr	52	99.392				
	Mn	55	93.669				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	98.414				
	Ni	60	95.208				
	Cu	63	100.259				
	Cu	65	99.431				
	Zn	66	93.988				
	As	75	95.940				
	Se	82	93.904				
	Mo	96					
	Ag	107	99.787				
	Ag	109	100.855				
	Cd	111	99.270				
	In	113					
>	In	115			92.504		
	Sn	118	100.930				
	Sb	121	100.690				
	Ba	135	102.163				
	Ba	137	101.004				
>	Tb	159			94.796		
	Tl	205	99.273				
	Pb	206	99.849				
	Pb	207	100.063				
	Pb	208	99.549				
>	Bi	209			94.005		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICB

Sample Date/Time: Thursday, May 07, 2009 10:31:20
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\ICB.076

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	570185.309	1.002	570185.309			ppb
	Be	9	0.667	173.205	0.000	0.00260	173.21	ppb
	Na	23	23395.006	1.717	-0.010	-1.68037	8.37	ppb
	Mg	24	426.009	1.921	-0.003	-0.75762	0.26	ppb
	Mg	25	65.667	12.952	-0.000	-0.75889	3.69	ppb
	Mg	26	108.667	1.406	-0.000	-0.72070	0.95	ppb
	Al	27	950.045	5.184	-0.005	-0.68977	1.67	ppb
	K	39	217985.919	1.419	-0.039	-3.27332	20.01	ppb
	Ca	44	10087.758	4.025	-0.005	-15.10498	15.39	ppb
>	Sc	45	871114.589	1.130	871114.589			ppb
	Ti	47	58.334	17.843	-0.000	-0.07280	27.51	ppb
	V	51	822.244	4.132	0.000	0.01459	42.29	ppb
	Cr	52	3772.712	1.534	-0.000	-0.01326	105.81	ppb
	Mn	55	451.677	22.804	-0.000	-0.00024	5361.78	ppb
	Fe	54	24416.463	3.501	-0.000	-0.13438	1842.12	ppb
	Fe	56	544281.517	0.407	-0.020	-2.14322	27.99	ppb
	Fe	57	1866.841	1.882	-0.000	-0.01802	1839.10	ppb
	Co	59	146.668	9.675	0.000	0.00223	81.37	ppb
	Ni	60	41.111	4.681	-0.000	-0.00448	26.93	ppb
	Cu	63	796.698	2.511	-0.000	-0.08023	8.43	ppb
	Cu	65	216.669	10.769	-0.000	-0.00147	929.13	ppb
	Zn	66	141.112	13.010	-0.000	-0.04112	51.81	ppb
	As	75	97.658	19.572	0.000	0.05290	35.23	ppb
	Se	82	40.445	13.221	0.000	0.13099	43.06	ppb
	Mo	96	324.672	11.026	-0.000	-0.05583	28.78	ppb
	Ag	107	187.780	28.310	0.000	0.01458	49.64	ppb
	Ag	109	187.780	33.415	0.000	0.01522	57.73	ppb
	Cd	111	7.818	98.887	-0.000	-0.00481	97.91	ppb
	In	113	107467.732	0.715	-0.000	-0.78095	64.08	ppb
>	In	115	2830687.218	0.253	2830687.218			ppb
	Sn	118	663.355	4.904	0.000	0.08447	7.81	ppb
	Sb	121	5908.413	3.585	0.001	0.85607	4.89	ppb
	Ba	135	33.333	15.100	-0.000	-0.00802	40.21	ppb
	Ba	137	76.000	18.977	-0.000	-0.00597	89.13	ppb
>	Tb	159	4497199.571	0.184	4497199.571			ppb
	Tl	205	443.343	17.265	0.000	0.01220	24.04	ppb
	Pb	206	125.001	28.000	0.000	0.00610	78.19	ppb
	Pb	207	211.668	23.662	0.000	0.00484	75.16	ppb
	Pb	208	320.003	7.160	0.000	0.00408	24.30	ppb
>	Bi	209	3618056.769	0.782	3618056.769			ppb
	Cr	53	426.676	3.121	-219.345			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	297790.740	1.318	-529.213			ppb
	Kr	83	29.333	38.770	-8.000			ppb
	Se	77	40.889	8.980	8.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	568919.868		ppb
	Be	9	2.000	0.007785	ppb
	Na	23	23849.406	-1.526443	ppb
	Mg	24	428.009	-0.756343	ppb
	Mg	25	66.000	-0.757598	ppb
	Mg	26	109.001	-0.719238	ppb
	Al	27	990.049	-0.678872	ppb
	K	39	221443.000	-2.697740	ppb
	Ca	44	10549.562	-12.426573	ppb
>	Sc	45	861284.195		ppb
	Ti	47	50.000	-0.088619	ppb
	V	51	821.810	0.015966	ppb
	Cr	52	3814.727	0.002161	ppb
	Mn	55	530.014	0.010071	ppb
	Fe	54	25337.058	2.685840	ppb
	Fe	56	541805.527	-1.685148	ppb
	Fe	57	1900.181	0.304302	ppb
	Co	59	144.001	0.002094	ppb
	Ni	60	40.000	-0.004886	ppb
	Cu	63	816.700	-0.072598	ppb
	Cu	65	240.003	0.012266	ppb
	Zn	66	160.001	-0.019179	ppb
	As	75	119.729	0.074412	ppb
	Se	82	46.000	0.191419	ppb
	Mo	96	364.007	-0.038190	ppb
	Ag	107	126.667	0.006264	ppb
	Ag	109	156.668	0.010918	ppb
	Cd	111	8.820	-0.004185	ppb
	In	113	107919.202	-0.338654	ppb
>	In	115	2823470.415		ppb
	Sn	118	695.024	0.090911	ppb
	Sb	121	6151.892	0.903962	ppb
	Ba	135	34.000	-0.007560	ppb
	Ba	137	60.000	-0.011865	ppb
>	Tb	159	4491216.874		ppb
	Tl	205	415.009	0.011114	ppb
	Pb	206	125.001	0.006112	ppb
	Pb	207	230.001	0.006150	ppb
	Pb	208	325.003	0.004299	ppb
>	Bi	209	3609708.839		ppb
	Cr	53	442.010		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	302202.342		ppb
	Kr	83	20.000		ppb
	Se	77	43.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	565212.237		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	23087.621	-1.712549	ppb
	Mg	24	417.009	-0.759911	ppb
	Mg	25	74.000	-0.731520	ppb
	Mg	26	110.001	-0.714709	ppb
	Al	27	895.040	-0.701871	ppb
	K	39	217033.902	-3.136369	ppb
	Ca	44	9786.787	-16.296580	ppb
>	Sc	45	880968.042		ppb

	Ti	47	70.000	-0.050278	ppb
	V	51	788.490	0.007845	ppb
	Cr	52	3796.721	-0.016670	ppb
	Mn	55	490.012	0.003761	ppb
	Fe	54	24264.402	-1.140952	ppb
	Fe	56	544965.482	-2.822269	ppb
	Fe	57	1830.167	-0.357820	ppb
	Co	59	162.001	0.004103	ppb
	Ni	60	40.000	-0.005439	ppb
	Cu	63	796.698	-0.082597	ppb
	Cu	65	193.335	-0.015113	ppb
	Zn	66	123.334	-0.061724	ppb
	As	75	86.522	0.041606	ppb
	Se	82	40.000	0.121827	ppb
	Mo	96	294.004	-0.069637	ppb
	Ag	107	213.336	0.018016	ppb
	Ag	109	146.668	0.009411	ppb
	Cd	111	15.000	-0.000447	ppb
	In	113	107904.040	-0.680104	ppb
>	In	115	2837790.580		ppb
	Sn	118	630.020	0.077721	ppb
	Sb	121	5806.685	0.837514	ppb
	Ba	135	28.000	-0.011455	ppb
	Ba	137	88.000	-0.001504	ppb
>	Tb	159	4493723.984		ppb
	Tl	205	385.007	0.009968	ppb
	Pb	206	160.001	0.010858	ppb
	Pb	207	250.002	0.007637	ppb
	Pb	208	340.004	0.004942	ppb
>	Bi	209	3594874.811		ppb
	Cr	53	418.009		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	296489.083		ppb
	Kr	83	26.000		ppb
	Se	77	42.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576423.822		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	23247.992	-1.802112	ppb
	Mg	24	433.009	-0.756618	ppb
	Mg	25	57.000	-0.787538	ppb
	Mg	26	107.001	-0.728164	ppb
	Al	27	965.047	-0.688565	ppb
	K	39	215480.854	-3.985865	ppb
	Ca	44	9926.925	-16.591800	ppb
>	Sc	45	871091.529		ppb
	Ti	47	55.000	-0.079509	ppb
	V	51	856.431	0.019948	ppb
	Cr	52	3706.687	-0.025265	ppb
	Mn	55	335.006	-0.014547	ppb
	Fe	54	23647.928	-1.948036	ppb
	Fe	56	546073.543	-1.922253	ppb
	Fe	57	1870.175	-0.000542	ppb
	Co	59	134.001	0.000486	ppb
	Ni	60	43.333	-0.003127	ppb
	Cu	63	776.697	-0.085492	ppb
	Cu	65	216.669	-0.001573	ppb
	Zn	66	140.001	-0.042464	ppb
	As	75	86.724	0.042688	ppb
	Se	82	35.333	0.079723	ppb

⌈	Mo	96	316.005	-0.059666	ppb
|	Ag	107	223.336	0.019457	ppb
|	Ag	109	260.003	0.025323	ppb
|	Cd	111	-0.365	-0.009810	ppb
|	In	113	106579.954	-1.324092	ppb
|>	In	115	2830800.659		ppb
⌊	Sn	118	665.022	0.084774	ppb
⌈	Sb	121	5766.662	0.826731	ppb
|	Ba	135	38.000	-0.005053	ppb
|	Ba	137	80.000	-0.004553	ppb
⌊>	Tb	159	4506657.856		ppb
⌈	Tl	205	530.014	0.015523	ppb
|	Pb	206	90.000	0.001323	ppb
|	Pb	207	155.001	0.000728	ppb
|	Pb	208	295.003	0.002996	ppb
⌊>	Bi	209	3649586.656		ppb
	Cr	53	420.009		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	294680.795		ppb
	Kr	83	42.000		ppb
	Se	77	36.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.020			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		96.898			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		98.826			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		99.421			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		101.182			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CRI

Sample Date/Time: Thursday, May 07, 2009 10:34:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CRI.077

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	577849.852	2.097	577849.852			ppb
	Be	9	235.336	15.211	0.000	0.90126	14.50	ppb
	Na	23	24088.984	1.565	-0.009	-1.56598	6.39	ppb
	Mg	24	643.354	2.918	-0.003	-0.66770	0.46	ppb
	Mg	25	96.334	7.066	-0.000	-0.66911	2.30	ppb
	Mg	26	154.335	4.314	-0.000	-0.60598	3.94	ppb
	Al	27	106292.269	3.084	0.178	26.06317	1.02	ppb
	K	39	218465.757	1.821	-0.043	-3.62999	2.53	ppb
	Ca	44	9994.328	2.812	-0.005	-16.35210	8.76	ppb
>	Sc	45	868420.252	1.745	868420.252			ppb
	Ti	47	73.334	10.415	-0.000	-0.04137	36.59	ppb
	V	51	31843.404	2.049	0.036	4.92064	2.61	ppb
	Cr	52	14671.429	3.221	0.012	1.96807	3.45	ppb
	Mn	55	8078.264	3.629	0.009	0.93676	3.76	ppb
	Fe	54	24757.302	3.628	0.000	0.82402	186.12	ppb
	Fe	56	544021.303	1.972	-0.018	-1.96568	54.67	ppb
	Fe	57	1755.154	4.523	-0.000	-0.65077	46.74	ppb
	Co	59	7245.959	2.339	0.008	0.98617	0.67	ppb
	Ni	60	1621.243	1.749	0.002	0.96470	1.78	ppb
	Cu	63	8483.598	2.400	0.009	1.93717	3.04	ppb
	Cu	65	3869.638	2.623	0.004	1.94402	1.19	ppb
	Zn	66	2074.660	3.042	0.002	2.02982	5.05	ppb
	As	75	1049.946	4.979	0.001	0.93449	3.62	ppb
	Se	82	513.569	2.630	0.001	4.86844	1.16	ppb
	Mo	96	2359.612	2.175	0.001	0.84875	2.24	ppb
	Ag	107	7213.717	5.503	0.003	0.98784	4.97	ppb
	Ag	109	7255.967	3.658	0.003	1.01593	3.34	ppb
	Cd	111	1542.522	4.115	0.001	0.94333	3.61	ppb
	In	113	107951.247	0.950	0.000	0.25712	58.31	ppb
>	In	115	2798971.216	0.861	2798971.216			ppb
	Sn	118	5441.482	4.770	0.002	1.01812	4.21	ppb
	Sb	121	12234.147	1.574	0.002	2.01986	2.53	ppb
	Ba	135	15472.628	0.372	0.003	9.80113	1.04	ppb
	Ba	137	26440.913	1.061	0.006	9.58245	1.67	ppb
>	Tb	159	4578106.566	1.153	4578106.566			ppb
	Tl	205	22859.435	1.560	0.006	0.91883	2.85	ppb
	Pb	206	8670.424	0.982	0.002	1.14560	2.11	ppb
	Pb	207	15072.473	0.749	0.004	1.05741	1.91	ppb
	Pb	208	23080.949	1.239	0.006	0.89828	2.35	ppb
>	Bi	209	3603551.808	1.294	3603551.808			ppb
	Cr	53	1706.813	6.157	1060.792			ppb
	Pd	106	105.001	4.762	101.667			ppb
	Pd	108	130.001	11.539	130.001			ppb
	C	12	299297.204	1.027	977.251			ppb
	Kr	83	27.333	30.463	-10.000			ppb
	Se	77	430.676	2.083	398.009			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	591248.884		ppb
	Be	9	244.003	0.913952	ppb
	Na	23	24316.529	-1.664028	ppb
	Mg	24	665.022	-0.664866	ppb
	Mg	25	104.001	-0.652884	ppb
	Mg	26	151.001	-0.623753	ppb
	Al	27	109920.827	26.355829	ppb
	K	39	222790.438	-3.735967	ppb
	Ca	44	10223.223	-16.373312	ppb
>	Sc	45	883246.468		ppb
	Ti	47	80.000	-0.030365	ppb
	V	51	32315.915	4.908684	ppb
	Cr	52	15183.518	2.014851	ppb
	Mn	55	8333.471	0.950838	ppb
	Fe	54	25773.170	2.200625	ppb
	Fe	56	555834.915	-1.658874	ppb
	Fe	57	1815.165	-0.472718	ppb
	Co	59	7396.735	0.989924	ppb
	Ni	60	1620.131	0.947241	ppb
	Cu	63	8650.407	1.942525	ppb
	Cu	65	3944.111	1.948604	ppb
	Zn	66	2046.876	1.962209	ppb
	As	75	1110.082	0.973221	ppb
	Se	82	528.681	4.931342	ppb
	Mo	96	2346.275	0.836023	ppb
	Ag	107	7209.264	0.980860	ppb
	Ag	109	7159.228	0.995647	ppb
	Cd	111	1536.947	0.933769	ppb
	In	113	108515.604	0.166501	ppb
>	In	115	2817457.290		ppb
	Sn	118	5521.524	1.026880	ppb
	Sb	121	12012.210	1.970761	ppb
	Ba	135	15423.886	9.737650	ppb
	Ba	137	26120.068	9.434019	ppb
>	Tb	159	4593000.826		ppb
	Tl	205	23201.885	0.942869	ppb
	Pb	206	8673.760	1.158688	ppb
	Pb	207	15080.812	1.069692	ppb
	Pb	208	23100.975	0.908972	ppb
>	Bi	209	3563985.739		ppb
	Cr	53	1724.149		ppb
	Pd	106	105.001		ppb
	Pd	108	115.001		ppb
	C	12	299062.021		ppb
	Kr	83	30.000		ppb
	Se	77	440.676		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	574641.507		ppb
	Be	9	266.004	1.025154	ppb
	Na	23	24296.480	-1.463886	ppb
	Mg	24	632.020	-0.670987	ppb
	Mg	25	91.000	-0.683551	ppb
	Mg	26	150.001	-0.615311	ppb
	Al	27	105412.679	25.992936	ppb
	K	39	217647.014	-3.573857	ppb
	Ca	44	9680.684	-17.774008	ppb
>	Sc	45	869049.843		ppb

	Ti	47	65.000	-0.058632	ppb
	V	51	31098.809	4.798453	ppb
	Cr	52	14252.149	1.890115	ppb
	Mn	55	7758.008	0.896647	ppb
	Fe	54	24068.931	-0.829076	ppb
	Fe	56	534887.619	-3.160400	ppb
	Fe	57	1785.159	-0.477628	ppb
	Co	59	7278.648	0.990035	ppb
	Ni	60	1650.136	0.981585	ppb
	Cu	63	8256.741	1.875778	ppb
	Cu	65	3910.765	1.964595	ppb
	Zn	66	2030.206	1.979567	ppb
	As	75	1024.410	0.910463	ppb
	Se	82	509.346	4.822924	ppb
	Mo	96	2416.292	0.870575	ppb
	Ag	107	7612.897	1.040024	ppb
	Ag	109	7556.187	1.055142	ppb
	Cd	111	1608.593	0.981160	ppb
	In	113	108571.203	0.430158	ppb
>	In	115	2807742.884		ppb
	Sn	118	5651.597	1.055887	ppb
	Sb	121	12332.600	2.016142	ppb
	Ba	135	15536.059	9.747237	ppb
	Ba	137	26639.436	9.561971	ppb
>	Tb	159	4621867.730		ppb
	Tl	205	22490.262	0.890898	ppb
	Pb	206	8583.682	1.117752	ppb
	Pb	207	14955.712	1.034087	ppb
	Pb	208	22785.489	0.873925	ppb
>	Bi	209	3654938.337		ppb
	Cr	53	1802.162		ppb
	Pd	106	110.001		ppb
	Pd	108	145.001		ppb
	C	12	302482.628		ppb
	Kr	83	34.000		ppb
	Se	77	428.009		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	567659.166		ppb
	Be	9	196.002	0.764665	ppb
	Na	23	23653.942	-1.570026	ppb
	Mg	24	633.020	-0.667232	ppb
	Mg	25	94.000	-0.670905	ppb
	Mg	26	162.001	-0.578868	ppb
	Al	27	103543.300	25.840749	ppb
	K	39	214959.818	-3.580132	ppb
	Ca	44	10079.077	-14.908981	ppb
>	Sc	45	852964.444		ppb
	Ti	47	75.000	-0.035105	ppb
	V	51	32115.490	5.054774	ppb
	Cr	52	14578.619	1.999257	ppb
	Mn	55	8143.314	0.962788	ppb
	Fe	54	24429.804	1.100511	ppb
	Fe	56	541341.375	-1.077766	ppb
	Fe	57	1665.139	-1.001970	ppb
	Co	59	7062.493	0.978544	ppb
	Ni	60	1593.460	0.965269	ppb
	Cu	63	8543.648	1.993222	ppb
	Cu	65	3754.038	1.918864	ppb
	Zn	66	2146.897	2.147678	ppb
	As	75	1015.345	0.919792	ppb
	Se	82	502.679	4.851064	ppb

⌈	Mo	96	2316.268	0.839647	ppb
|	Ag	107	6818.991	0.942644	ppb
|	Ag	109	7052.486	0.997004	ppb
|	Cd	111	1482.026	0.915072	ppb
|	In	113	106766.932	0.174687	ppb
|>	In	115	2771713.475		ppb
⌊	Sn	118	5151.326	0.971593	ppb
⌈	Sb	121	12357.631	2.072675	ppb
|	Ba	135	15457.938	9.918517	ppb
|	Ba	137	26563.233	9.751359	ppb
⌊>	Tb	159	4519451.143		ppb
⌈	Tl	205	22886.159	0.922734	ppb
|	Pb	206	8753.830	1.160366	ppb
|	Pb	207	15180.894	1.068461	ppb
|	Pb	208	23356.383	0.911950	ppb
⌊>	Bi	209	3591731.348		ppb
	Cr	53	1594.127		ppb
	Pd	106	100.001		ppb
	Pd	108	130.001		ppb
	C	12	296346.962		ppb
	Kr	83	18.000		ppb
	Se	77	423.342		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		103.392			
Be	9	90.126				
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		96.599			
Ti	47					
V	51	98.413				
Cr	52	98.404				
Mn	55	93.676				
Fe	54					
Fe	56					
Fe	57					
Co	59	98.617				
Ni	60	96.470				
Cu	63	96.859				
Cu	65	97.201				
Zn	66	101.491				
As	75	93.449				
Se	82	97.369				
Mo	96					
Ag	107	98.784				
Ag	109	101.593				
Cd	111	94.333				
In	113					
In	115		97.718			
Sn	118	101.812				
Sb	121	100.993				
Ba	135	98.011				
Ba	137	95.824				
Tb	159		101.210			
Tl	205	91.883				
Pb	206	114.560				
Pb	207	105.741				
Pb	208	89.828				
Bi	209		100.776			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICSA

Sample Date/Time: Thursday, May 07, 2009 10:37:08
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\ICSA.078

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	544668.734	0.926	544668.734			ppb
	Be	9	71.334	15.442	0.000	0.28986	14.88	ppb
	Na	23	S	S	1999999999.949	346953617886.23590	0.00	ppb
	Mg	24	S	S	1999999999.996	491210222736.10645	0.00	ppb
	Mg	25	32824876.808	3.645	60.278	105392.58414	4.35	ppb
	Mg	26	40646824.228	4.707	74.640	111705.92362	5.20	ppb
	Al	27	S	S	1999999999.994	293579847269.94446	0.00	ppb
	K	39	S	S	1999999999.578	167175726973.86771	0.00	ppb
	Ca	44	18563321.618	4.732	34.067	107370.64520	5.35	ppb
>	Sc	45	878803.896	5.051	878803.896			ppb
	Ti	47	1031544.834	4.053	1.174	2103.06176	1.07	ppb
	V	51	-321.726	124.667	-0.001	-0.16355	38.08	ppb
	Cr	52	114244.946	4.113	0.126	19.81343	1.11	ppb
	Mn	55	74117.255	3.844	0.084	8.94428	1.23	ppb
	Fe	54	43270817.350	3.571	49.235	100492.56844	1.49	ppb
	Fe	56	S	S	1999999999.355	217243953616.23819	0.00	ppb
	Fe	57	18032728.393	3.518	20.528	105555.67071	1.54	ppb
	Co	59	8693.780	2.913	0.010	1.17366	2.89	ppb
	Ni	60	9681.353	2.882	0.011	5.84248	3.07	ppb
	Cu	63	30270.225	3.422	0.033	7.56283	2.01	ppb
	Cu	65	15626.647	1.848	0.018	8.11609	3.27	ppb
	Zn	66	11586.711	2.370	0.013	12.07536	3.15	ppb
	As	75	224.142	78.950	0.000	0.16261	93.40	ppb
	Se	82	45.333	14.484	0.000	0.17418	25.41	ppb
	Mo	96	4909135.248	2.125	1.934	2401.65063	1.02	ppb
	Ag	107	136.668	7.317	0.000	0.00974	15.59	ppb
	Ag	109	132.223	45.262	0.000	0.00949	94.72	ppb
	Cd	111	324.170	87.395	0.000	0.20948	90.25	ppb
	In	113	100223.476	3.525	0.001	1.81885	88.21	ppb
>	In	115	2538525.885	1.450	2538525.885			ppb
	Sn	118	996.716	5.025	0.000	0.17087	5.06	ppb
	Sb	121	6897.379	2.731	0.001	1.12827	2.24	ppb
	Ba	135	2076.216	3.695	0.000	1.39903	3.41	ppb
	Ba	137	3639.329	2.220	0.001	1.39930	1.47	ppb
>	Tb	159	4226822.281	1.126	4226822.281			ppb
	Tl	205	165.001	10.926	0.000	0.00310	29.51	ppb
	Pb	206	27472.695	1.907	0.010	4.78602	2.50	ppb
	Pb	207	49126.118	1.838	0.018	4.54573	2.38	ppb
	Pb	208	78826.402	0.663	0.029	4.04582	0.72	ppb
>	Bi	209	2751950.414	0.767	2751950.414			ppb
	Cr	53	17013.156	5.556	16367.136			ppb
	Pd	106	16.667	17.321	13.333			ppb
	Pd	108	4939.554	3.580	4939.554			ppb
	C	12	3033706.829	2.926	2735386.876			ppb
	Kr	83	89.334	17.957	52.000			ppb
	Se	77	984.937	1.671	952.271			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	545841.368		ppb
	Be	9	82.000	0.332696	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	491210222736.106450		ppb
	Mg	25	31647829.956	101373.505131	ppb
	Mg	26	38511724.553	105590.885983	ppb
	Al	27	293579847269.944460		ppb
	K	39	167175726973.867710		ppb
	Ca	44	17639126.066	101778.767753	ppb
>	Sc	45	833577.477		ppb
	Ti	47	987008.517	2120.720419	ppb
	V	51	140.924	-0.091835	ppb
	Cr	52	109182.808	19.961442	ppb
	Mn	55	71247.912	9.061518	ppb
	Fe	54	41693599.320	102032.948295	ppb
	Fe	56	217243953616.238190		ppb
	Fe	57	17379533.651	107196.303261	ppb
	Co	59	8401.528	1.195065	ppb
	Ni	60	9361.046	5.950948	ppb
	Cu	63	29102.286	7.664793	ppb
	Cu	65	15321.729	8.384184	ppb
	Zn	66	11269.680	12.374635	ppb
	As	75	50.330	0.011184	ppb
	Se	82	38.000	0.123409	ppb
	Mo	96	4800845.615	2373.983876	ppb
	Ag	107	126.667	0.008423	ppb
	Ag	109	110.001	0.006286	ppb
	Cd	111	62.573	0.033496	ppb
	In	113	96452.926	-0.026559	ppb
>	In	115	2511575.012		ppb
	Sn	118	940.044	0.160893	ppb
	Sb	121	6817.323	1.126088	ppb
	Ba	135	1994.199	1.356472	ppb
	Ba	137	3546.629	1.376929	ppb
>	Tb	159	4184693.472		ppb
	Tl	205	145.001	0.002067	ppb
	Pb	206	27227.015	4.758906	ppb
	Pb	207	48594.820	4.511467	ppb
	Pb	208	78229.006	4.028795	ppb
>	Bi	209	2742554.663		ppb
	Cr	53	15978.756		ppb
	Pd	106	15.000		ppb
	Pd	108	5056.278		ppb
	C	12	2943155.784		ppb
	Kr	83	88.000		ppb
	Se	77	998.717		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	549020.510		ppb
	Be	9	72.000	0.290432	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	491210222736.106450		ppb
	Mg	25	32786840.629	104413.846091	ppb
	Mg	26	41222175.852	112367.962359	ppb
	Al	27	293579847269.944460		ppb
	K	39	167175726973.867710		ppb
	Ca	44	18663482.708	107069.462632	ppb
>	Sc	45	880526.586		ppb

	Ti	47	1037672.686	2110.698561	ppb
	V	51	-571.368	-0.204146	ppb
	Cr	52	115084.433	19.917054	ppb
	Mn	55	74158.962	8.928045	ppb
	Fe	54	43336838.645	100398.633288	ppb
	Fe	56		217243953616.238190	ppb
	Fe	57	18071982.884	105523.766901	ppb
	Co	59	8847.913	1.191400	ppb
	Ni	60	9871.537	5.940820	ppb
	Cu	63	30630.172	7.636017	ppb
	Cu	65	15662.256	8.109785	ppb
	Zn	66	11743.558	12.204831	ppb
	As	75	218.007	0.161715	ppb
	Se	82	47.333	0.194437	ppb
	Mo	96	4917623.323	2420.210368	ppb
	Ag	107	146.668	0.011403	ppb
	Ag	109	86.667	0.002541	ppb
	Cd	111	284.853	0.185615	ppb
	In	113	100760.085	2.600049	ppb
>	In	115	2523533.149		ppb
	Sn	118	1015.052	0.176159	ppb
	Sb	121	7112.529	1.154610	ppb
	Ba	135	2088.218	1.390017	ppb
	Ba	137	3694.682	1.403624	ppb
>	Tb	159	4278440.616		ppb
	Tl	205	180.002	0.003810	ppb
	Pb	206	27116.716	4.682153	ppb
	Pb	207	48614.800	4.458635	ppb
	Pb	208	79199.075	4.029441	ppb
>	Bi	209	2776119.575		ppb
	Cr	53	17228.829		ppb
	Pd	106	20.000		ppb
	Pd	108	4736.121		ppb
	C	12	3037381.827		ppb
	Kr	83	74.000		ppb
	Se	77	989.382		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	539144.323		ppb
	Be	9	60.000	0.246460	ppb
	Na	23		346953617886.235900	ppb
	Mg	24		491210222736.106450	ppb
	Mg	25	34039959.840	110390.401194	ppb
	Mg	26	42206572.278	117158.922511	ppb
	Al	27		293579847269.944460	ppb
	K	39		167175726973.867710	ppb
	Ca	44	19387356.080	113263.705216	ppb
>	Sc	45	922307.626		ppb
	Ti	47	1069953.298	2077.766291	ppb
	V	51	-534.735	-0.194656	ppb
	Cr	52	118467.596	19.561781	ppb
	Mn	55	76944.891	8.843281	ppb
	Fe	54	44782014.084	99046.123727	ppb
	Fe	56		217243953616.238190	ppb
	Fe	57	18646668.643	103946.941954	ppb
	Co	59	8831.898	1.134523	ppb
	Ni	60	9811.478	5.635677	ppb
	Cu	63	31078.218	7.387694	ppb
	Cu	65	15895.957	7.854313	ppb
	Zn	66	11746.895	11.646618	ppb
	As	75	404.089	0.314926	ppb
	Se	82	50.667	0.204687	ppb

⌈	Mo	96	5008936.806	2410.757659	ppb
|	Ag	107	136.668	0.009404	ppb
|	Ag	109	200.002	0.019641	ppb
|	Cd	111	625.083	0.409316	ppb
|	In	113	103457.418	2.883065	ppb
|>	In	115	2580469.493		ppb
⌊	Sn	118	1035.054	0.175546	ppb
⌈	Sb	121	6762.286	1.104112	ppb
|	Ba	135	2146.230	1.450595	ppb
|	Ba	137	3676.676	1.417348	ppb
⌊>	Tb	159	4217332.755		ppb
⌈	Tl	205	170.001	0.003413	ppb
|	Pb	206	28074.353	4.916999	ppb
|	Pb	207	50168.734	4.667086	ppb
|	Pb	208	79051.124	4.079238	ppb
⌊>	Bi	209	2737177.003		ppb
	Cr	53	17831.885		ppb
	Pd	106	15.000		ppb
	Pd	108	5026.263		ppb
	C	12	3120582.876		ppb
	Kr	83	106.001		ppb
	Se	77	966.713		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			97.455		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			97.754		
	Ti	47					
	V	51	-32.709				
	Cr	52	94.350				
	Mn	55	127.775				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	117.366				
	Ni	60	97.375				
	Cu	63	94.535				
	Cu	65	101.451				
	Zn	66	109.776				
	As	75	162.608				
	Se	82	58.059				
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111	29.925				
	In	113					
>	In	115			88.626		
	Sn	118					
	Sb	121	75.218				
	Ba	135	116.586				
	Ba	137	116.608				
>	Tb	159			93.444		
	Tl	205	30965.249				
	Pb	206	119.650				
	Pb	207	113.643				
	Pb	208	101.146				
>	Bi	209			76.961		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICSAB

Sample Date/Time: Thursday, May 07, 2009 10:40:01
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\ICSAB.079

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	538018.904	3.149	538018.904			ppb
	Be	9	4785.145	1.971	0.009	19.70392	2.22	ppb
	Na	23	S	S	1999999999.949	346953617886.23590	0.00	ppb
	Mg	24	S	S	1999999999.996	491210222736.10645	0.00	ppb
	Mg	25	34390699.516	0.401	63.967	111843.17639	3.49	ppb
	Mg	26	42508122.340	1.081	79.062	118323.51928	3.42	ppb
	Al	27	S	S	1999999999.994	293579847269.94446	0.00	ppb
	K	39	S	S	1999999999.578	167175726973.86771	0.00	ppb
	Ca	44	19072640.094	0.547	35.453	111739.07837	3.51	ppb
>	Sc	45	901722.973	1.185	901722.973			ppb
	Ti	47	1051724.038	0.536	1.166	2089.27273	1.71	ppb
	V	51	125592.699	0.469	0.138	19.01164	1.66	ppb
	Cr	52	221697.225	0.336	0.241	38.08252	0.98	ppb
	Mn	55	225825.205	1.727	0.250	26.65870	1.61	ppb
	Fe	54	43303444.152	1.350	47.994	97960.61004	0.30	ppb
	Fe	56	S	S	1999999999.355	217243953616.23819	0.00	ppb
	Fe	57	18139500.610	0.567	20.116	103435.82410	1.09	ppb
	Co	59	145358.935	1.188	0.161	19.38440	0.61	ppb
	Ni	60	38084.608	0.646	0.042	22.46622	1.81	ppb
	Cu	63	94849.932	0.494	0.104	23.67573	0.95	ppb
	Cu	65	47193.322	0.451	0.052	24.09104	1.45	ppb
	Zn	66	27013.104	0.744	0.030	27.65535	1.17	ppb
	As	75	18933.632	0.651	0.021	16.84693	0.73	ppb
	Se	82	1808.608	2.764	0.002	17.16391	1.62	ppb
	Mo	96	4842036.050	0.425	1.928	2394.64890	0.41	ppb
	Ag	107	112023.990	0.628	0.045	17.28358	1.38	ppb
	Ag	109	108422.388	0.484	0.043	17.09444	1.05	ppb
	Cd	111	26420.297	1.564	0.011	18.18567	2.26	ppb
	In	113	125470.631	1.091	0.012	19.88280	1.25	ppb
>	In	115	2511320.651	0.820	2511320.651			ppb
	Sn	118	83405.386	5.428	0.033	18.09674	5.35	ppb
	Sb	121	97050.339	0.498	0.023	19.83681	1.05	ppb
	Ba	135	30270.416	1.141	0.007	21.26814	1.99	ppb
	Ba	137	52791.649	0.319	0.013	21.22558	0.57	ppb
>	Tb	159	4134363.839	0.864	4134363.839			ppb
	Tl	205	367270.085	1.254	0.136	19.76659	0.57	ppb
	Pb	206	152104.770	0.742	0.056	26.99197	0.89	ppb
	Pb	207	278088.581	0.980	0.103	26.21157	0.15	ppb
	Pb	208	447118.859	0.947	0.165	23.37577	0.59	ppb
>	Bi	209	2706296.591	0.876	2706296.591			ppb
	Cr	53	30283.122	1.191	29637.101			ppb
	Pd	106	2363.614	8.277	2360.281			ppb
	Pd	108	6243.617	3.996	6243.617			ppb
	C	12	3140219.008	0.523	2841899.056			ppb
	Kr	83	71.334	15.442	34.000			ppb
	Se	77	2381.395	0.984	2348.728			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	557300.185		ppb
	Be	9	4875.188	19.373180	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	491210222736.106450		ppb
	Mg	25	34233425.678	107401.012859	ppb
	Mg	26	42341385.783	113704.090678	ppb
	Al	27	293579847269.944460		ppb
	K	39	167175726973.867710		ppb
	Ca	44	18971946.940	107222.178478	ppb
>	Sc	45	898756.237		ppb
	Ti	47	1052271.474	2096.978235	ppb
	V	51	125807.522	19.105097	ppb
	Cr	52	222115.674	38.281081	ppb
	Mn	55	229263.298	27.154055	ppb
	Fe	54	43016712.133	97634.053803	ppb
	Fe	56	217243953616.238190		ppb
	Fe	57	18022522.225	103100.207021	ppb
	Co	59	143991.264	19.265058	ppb
	Ni	60	38079.030	22.533958	ppb
	Cu	63	94366.494	23.630662	ppb
	Cu	65	47006.890	24.072354	ppb
	Zn	66	27206.961	27.945706	ppb
	As	75	18980.482	16.943730	ppb
	Se	82	1802.162	17.161256	ppb
	Mo	96	4860701.447	2388.346080	ppb
	Ag	107	111956.558	17.160627	ppb
	Ag	109	107888.878	16.899772	ppb
	Cd	111	25947.135	17.742754	ppb
	In	113	126667.180	20.145253	ppb
>	In	115	2527598.479		ppb
	Sn	118	80205.360	17.288449	ppb
	Sb	121	97593.916	19.921472	ppb
	Ba	135	30315.883	21.269341	ppb
	Ba	137	52873.411	21.229497	ppb
>	Tb	159	4139870.107		ppb
	Tl	205	367029.140	19.683123	ppb
	Pb	206	151179.184	26.730574	ppb
	Pb	207	278869.250	26.191100	ppb
	Pb	208	451287.464	23.509032	ppb
>	Bi	209	2716030.069		ppb
	Cr	53	30037.044		ppb
	Pd	106	2215.245		ppb
	Pd	108	6462.087		ppb
	C	12	3154415.401		ppb
	Kr	83	66.000		ppb
	Se	77	2360.945		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	525516.861		ppb
	Be	9	4793.148	20.199143	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	491210222736.106450		ppb
	Mg	25	34490342.779	114751.483500	ppb
	Mg	26	42155188.442	120050.726460	ppb
	Al	27	293579847269.944460		ppb
	K	39	167175726973.867710		ppb
	Ca	44	19065723.259	114273.688274	ppb
>	Sc	45	892834.385		ppb

	Ti	47	1057070.188	2120.515262	ppb
	V	51	126044.441	19.269012	ppb
	Cr	52	220837.836	38.313879	ppb
	Mn	55	221588.163	26.417578	ppb
	Fe	54	42917680.190	98055.611803	ppb
	Fe	56		217243953616.238190	ppb
	Fe	57	18180325.281	104692.925088	ppb
	Co	59	144786.625	19.500176	ppb
	Ni	60	38333.332	22.835299	ppb
	Cu	63	94881.331	23.920672	ppb
	Cu	65	47425.526	24.449643	ppb
	Zn	66	26805.880	27.714781	ppb
	As	75	18793.819	16.888252	ppb
	Se	82	1762.155	16.887293	ppb
	Mo	96	4845458.998	2389.764363	ppb
	Ag	107	111356.581	17.132505	ppb
	Ag	109	108936.814	17.127913	ppb
	Cd	111	26602.924	18.259524	ppb
	In	113	125765.911	19.851707	ppb
>	In	115	2518177.043		ppb
	Sn	118	88585.641	19.171008	ppb
	Sb	121	96670.007	19.600105	ppb
	Ba	135	29904.648	20.843616	ppb
	Ba	137	52903.570	21.103091	ppb
>	Tb	159	4167003.122		ppb
	Tl	205	362788.531	19.722656	ppb
	Pb	206	151773.079	27.203961	ppb
	Pb	207	275058.386	26.187625	ppb
	Pb	208	442825.314	23.384668	ppb
>	Bi	209	2679269.736		ppb
	Cr	53	30115.278		ppb
	Pd	106	2290.262		ppb
	Pd	108	6296.982		ppb
	C	12	3122213.514		ppb
	Kr	83	84.000		ppb
	Se	77	2376.282		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	531239.667		ppb
	Be	9	4687.098	19.539447	ppb
	Na	23		346953617886.235900	ppb
	Mg	24		491210222736.106450	ppb
	Mg	25	34448330.090	113377.032801	ppb
	Mg	26	43027792.794	121215.740715	ppb
	Al	27		293579847269.944460	ppb
	K	39		167175726973.867710	ppb
	Ca	44	19180250.082	113721.368372	ppb
>	Sc	45	913578.298		ppb
	Ti	47	1045830.453	2050.324704	ppb
	V	51	124926.134	18.660797	ppb
	Cr	52	222138.166	37.652586	ppb
	Mn	55	226624.154	26.404462	ppb
	Fe	54	43975940.134	98192.164504	ppb
	Fe	56		217243953616.238190	ppb
	Fe	57	18215654.324	102514.340200	ppb
	Co	59	147298.917	19.387975	ppb
	Ni	60	37841.464	22.029397	ppb
	Cu	63	95301.970	23.475861	ppb
	Cu	65	47147.550	23.751115	ppb
	Zn	66	27026.472	27.305563	ppb
	As	75	19026.596	16.708813	ppb
	Se	82	1861.507	17.443185	ppb

⌈	Mo	96	4819947.705	2405.836267	ppb
|	Ag	107	112758.830	17.557622	ppb
|	Ag	109	108441.473	17.255621	ppb
|	Cd	111	26710.831	18.554721	ppb
|	In	113	123978.802	19.651438	ppb
|>	In	115	2488186.432		ppb
⌊	Sn	118	81425.159	17.830750	ppb
⌈	Sb	121	96887.093	19.988847	ppb
|	Ba	135	30590.718	21.691462	ppb
|	Ba	137	52597.964	21.344141	ppb
⌊>	Tb	159	4096218.288		ppb
⌈	Tl	205	371992.585	19.893991	ppb
|	Pb	206	153362.047	27.041389	ppb
|	Pb	207	280338.107	26.255997	ppb
|	Pb	208	447243.800	23.233616	ppb
⌊>	Bi	209	2723589.968		ppb
	Cr	53	30697.043		ppb
	Pd	106	2585.334		ppb
	Pd	108	5971.783		ppb
	C	12	3144028.110		ppb
	Kr	83	64.000		ppb
	Se	77	2406.956		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			96.265		
	Be	9	103.705				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			100.303		
	Ti	47					
	V	51	100.061				
	Cr	52	95.206				
	Mn	55	98.736				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	96.922				
	Ni	60	93.609				
	Cu	63	94.703				
	Cu	65	96.364				
	Zn	66	95.363				
	As	75	88.668				
	Se	82	90.336				
	Mo	96					
	Ag	107	96.020				
	Ag	109	94.969				
	Cd	111	90.928				
	In	113					
>	In	115			87.676		
	Sn	118	90.484				
	Sb	121	90.167				
	Ba	135	96.673				
	Ba	137	96.480				
>	Tb	159			91.400		
	Tl	205	94.127				
	Pb	206	107.968				
	Pb	207	104.846				
	Pb	208	93.503				
>	Bi	209			75.684		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 10:42:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.080

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	588429.682	4.277	588429.682			ppb
	Be	9	32614.465	3.084	0.055	122.78899	1.18	ppb
	Na	23	4389850.836	3.145	7.412	1285.82639	1.42	ppb
	Mg	24	3142657.865	2.496	5.340	1311.47608	2.04	ppb
	Mg	25	445958.060	2.207	0.758	1324.99873	2.48	ppb
	Mg	26	524229.493	1.870	0.891	1333.36902	3.06	ppb
	Al	27	5345702.395	0.436	9.088	1334.09854	3.93	ppb
	K	39	9109156.206	1.258	15.073	1259.90392	3.31	ppb
	Ca	44	247402.672	1.294	0.398	1255.45984	3.46	ppb
>	Sc	45	951574.054	2.167	951574.054			ppb
	Ti	47	62030.168	1.835	0.065	116.59499	2.19	ppb
	V	51	820572.173	1.393	0.862	118.30281	0.87	ppb
	Cr	52	713858.316	1.491	0.746	117.63879	1.50	ppb
	Mn	55	1007413.263	3.897	1.058	112.85021	2.21	ppb
	Fe	54	576840.505	2.492	0.578	1179.89072	0.58	ppb
	Fe	56	10768275.547	2.396	10.672	1159.24379	1.68	ppb
	Fe	57	217956.876	1.904	0.227	1166.81441	1.03	ppb
	Co	59	917243.898	2.062	0.964	116.00507	0.94	ppb
	Ni	60	202704.098	1.409	0.213	113.42751	0.76	ppb
	Cu	63	488719.453	1.635	0.512	116.72136	0.55	ppb
	Cu	65	239404.981	2.234	0.251	116.24186	0.96	ppb
	Zn	66	122110.015	1.487	0.128	119.09839	0.90	ppb
	As	75	134993.285	0.991	0.142	114.05840	1.78	ppb
	Se	82	12469.771	1.148	0.013	113.68854	1.73	ppb
	Mo	96	286129.974	1.814	0.098	122.30673	0.75	ppb
	Ag	107	918167.122	1.374	0.316	122.69283	0.49	ppb
	Ag	109	892298.467	2.185	0.308	121.84400	1.13	ppb
	Cd	111	207902.349	1.636	0.072	123.92323	0.51	ppb
	In	113	320299.537	1.569	0.072	124.01125	0.68	ppb
>	In	115	2900888.989	1.135	2900888.989			ppb
	Sn	118	643280.594	1.593	0.222	121.07648	0.90	ppb
	Sb	121	676574.073	0.519	0.148	126.49249	0.32	ppb
	Ba	135	192387.819	1.045	0.042	122.37706	0.79	ppb
	Ba	137	335949.664	1.116	0.073	122.31796	0.77	ppb
>	Tb	159	4571342.838	0.531	4571342.838			ppb
	Tl	205	2929476.475	0.453	0.833	121.32136	2.10	ppb
	Pb	206	916430.601	1.633	0.260	125.11992	1.32	ppb
	Pb	207	1713684.131	1.356	0.487	124.28443	1.62	ppb
	Pb	208	2938759.743	5.337	0.835	118.23051	5.76	ppb
>	Bi	209	3518730.262	1.670	3518730.262			ppb
	Cr	53	83488.505	2.124	82842.484			ppb
	Pd	106	18231.612	2.573	18228.278			ppb
	Pd	108	13734.430	2.815	13734.430			ppb
	C	12	336850.896	2.421	38530.943			ppb
	Kr	83	40.667	25.237	3.333			ppb
	Se	77	10044.822	2.110	10012.155			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	617177.263		ppb
	Be	9	33752.867	121.115427	ppb
	Na	23	4537362.519	1266.567765	ppb
	Mg	24	3231928.528	1285.201801	ppb
	Mg	25	455176.776	1288.539322	ppb
	Mg	26	531526.313	1287.893070	ppb
	Al	27	5358957.309	1273.644284	ppb
	K	39	9231154.435	1214.995309	ppb
	Ca	44	250677.056	1209.258881	ppb
>	Sc	45	970586.917		ppb
	Ti	47	63194.045	116.431858	ppb
	V	51	832559.406	117.665281	ppb
	Cr	52	726095.221	117.290962	ppb
	Mn	55	1052193.915	115.579958	ppb
	Fe	54	591776.777	1187.112092	ppb
	Fe	56	11065748.142	1168.393204	ppb
	Fe	57	222687.176	1168.718546	ppb
	Co	59	938641.614	116.380561	ppb
	Ni	60	205367.354	112.654048	ppb
	Cu	63	495705.723	116.060112	ppb
	Cu	65	245445.660	116.838331	ppb
	Zn	66	124095.233	118.649875	ppb
	As	75	136479.142	113.028690	ppb
	Se	82	12629.971	112.867545	ppb
	Mo	96	292123.379	123.307730	ppb
	Ag	107	930328.692	122.757984	ppb
	Ag	109	912007.500	122.980233	ppb
	Cd	111	211637.453	124.569826	ppb
	In	113	325833.270	124.873199	ppb
>	In	115	2937788.618		ppb
	Sn	118	651322.046	121.052063	ppb
	Sb	121	678674.083	126.172993	ppb
	Ba	135	193178.038	122.191955	ppb
	Ba	137	340144.163	123.152992	ppb
>	Tb	159	4597101.239		ppb
	Tl	205	2924082.550	119.374876	ppb
	Pb	206	933662.271	125.680150	ppb
	Pb	207	1738794.897	124.325370	ppb
	Pb	208	3046692.176	120.826352	ppb
>	Bi	209	3568687.945		ppb
	Cr	53	85522.145		ppb
	Pd	106	18737.538		ppb
	Pd	108	13934.702		ppb
	C	12	346132.475		ppb
	Kr	83	52.000		ppb
	Se	77	10114.446		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570373.253		ppb
	Be	9	31846.630	123.652541	ppb
	Na	23	4263714.193	1287.993430	ppb
	Mg	24	3111220.088	1338.763284	ppb
	Mg	25	435591.791	1334.317350	ppb
	Mg	26	513083.501	1345.266448	ppb
	Al	27	5318776.906	1367.893640	ppb
	K	39	9092440.426	1297.258793	ppb
	Ca	44	247253.384	1295.386092	ppb
>	Sc	45	954487.377		ppb

	Ti	47	60919.999	114.131452	ppb
	V	51	819363.314	117.753596	ppb
	Cr	52	706713.935	116.078583	ppb
	Mn	55	991138.591	110.707283	ppb
	Fe	54	575639.523	1173.594777	ppb
	Fe	56	10605595.221	1136.915672	ppb
	Fe	57	216248.152	1153.929550	ppb
	Co	59	910344.389	114.775625	ppb
	Ni	60	203057.564	113.265964	ppb
	Cu	63	490445.647	116.767156	ppb
	Cu	65	237493.735	114.958028	ppb
	Zn	66	121702.766	118.324574	ppb
	As	75	133883.878	112.749489	ppb
	Se	82	12354.293	112.264710	ppb
	Mo	96	283241.266	121.519589	ppb
	Ag	107	919032.362	123.259482	ppb
	Ag	109	891870.468	122.240323	ppb
	Cd	111	207083.616	123.891619	ppb
	In	113	319044.558	123.965598	ppb
>	In	115	2890310.526		ppb
	Sn	118	646775.735	122.182110	ppb
	Sb	121	678529.767	126.949498	ppb
	Ba	135	193883.495	123.417867	ppb
	Ba	137	332927.285	121.305583	ppb
>	Tb	159	4568070.319		ppb
	Tl	205	2944601.448	124.205642	ppb
	Pb	206	908975.910	126.421275	ppb
	Pb	207	1709294.155	126.275604	ppb
	Pb	208	3010736.416	123.366473	ppb
>	Bi	209	3453964.530		ppb
	Cr	53	82678.379		ppb
	Pd	106	18146.450		ppb
	Pd	108	13979.765		ppb
	C	12	333594.993		ppb
	Kr	83	38.000		ppb
	Se	77	10213.213		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	577738.529		ppb
	Be	9	32243.900	123.598998	ppb
	Na	23	4368475.795	1302.917960	ppb
	Mg	24	3084824.978	1310.463168	ppb
	Mg	25	447105.613	1352.139515	ppb
	Mg	26	528078.665	1366.947548	ppb
	Al	27	5359372.968	1360.757707	ppb
	K	39	9003873.756	1267.457648	ppb
	Ca	44	244277.575	1261.734548	ppb
>	Sc	45	929647.867		ppb
	Ti	47	61976.461	119.221664	ppb
	V	51	809793.800	119.489566	ppb
	Cr	52	708765.793	119.546825	ppb
	Mn	55	978907.282	112.263376	ppb
	Fe	54	563105.214	1178.965286	ppb
	Fe	56	10633483.277	1172.422492	ppb
	Fe	57	214935.300	1177.795126	ppb
	Co	59	902745.691	116.859036	ppb
	Ni	60	199687.376	114.362507	ppb
	Cu	63	480006.991	117.336814	ppb
	Cu	65	235275.549	116.929226	ppb
	Zn	66	120532.047	120.320717	ppb
	As	75	134616.836	116.397030	ppb
	Se	82	12425.048	115.933369	ppb

⌈	Mo	96	283025.278	122.092858	ppb
|	Ag	107	905140.313	122.061021	ppb
|	Ag	109	873017.433	120.311443	ppb
|	Cd	111	204985.979	123.308249	ppb
|	In	113	316020.782	123.194950	ppb
|>	In	115	2874567.823		ppb
⌊	Sn	118	631744.001	119.995277	ppb
⌈	Sb	121	672518.368	126.354993	ppb
|	Ba	135	190101.924	121.521350	ppb
|	Ba	137	334777.543	122.495294	ppb
⌊>	Tb	159	4548856.958		ppb
⌈	Tl	205	2919745.428	120.383574	ppb
|	Pb	206	906653.621	123.258346	ppb
|	Pb	207	1692963.342	122.252325	ppb
|	Pb	208	2758850.636	110.498710	ppb
⌊>	Bi	209	3533538.312		ppb
	Cr	53	82264.990		ppb
	Pd	106	17810.847		ppb
	Pd	108	13288.824		ppb
	C	12	330825.221		ppb
	Kr	83	32.000		ppb
	Se	77	9806.806		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6			105.285		
Be	9	102.324				
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45			105.848		
Ti	47					
V	51	98.586				
Cr	52	98.032				
Mn	55	94.042				
Fe	54					
Fe	56					
Fe	57					
Co	59	96.671				
Ni	60	94.523				
Cu	63	97.268				
Cu	65	96.868				
Zn	66	99.249				
As	75	95.049				
Se	82	94.740				
Mo	96					
Ag	107	102.244				
Ag	109	101.537				
Cd	111	103.269				
In	113					
In	115			101.277		
Sn	118	100.897				
Sb	121	105.410				
Ba	135	101.981				
Ba	137	101.932				
Tb	159			101.061		
Tl	205	101.101				
Pb	206	104.267				
Pb	207	103.570				
Pb	208	98.525				
Bi	209			98.404		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 10:45:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.081

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	605362.413	1.605	605362.413			ppb
	Be	9	1.333	86.603	0.000	0.00484	86.61	ppb
	Na	23	38590.376	3.445	0.013	2.25928	13.05	ppb
	Mg	24	3380.979	44.126	0.002	0.42662	137.36	ppb
	Mg	25	500.347	42.685	0.000	0.48016	123.85	ppb
	Mg	26	623.022	43.544	0.000	0.53040	122.82	ppb
	Al	27	5504.980	36.164	0.003	0.39730	116.89	ppb
	K	39	243841.221	0.734	-0.019	-1.55904	30.85	ppb
	Ca	44	9782.800	7.390	-0.006	-19.92138	19.93	ppb
>	Sc	45	956256.830	1.390	956256.830			ppb
	Ti	47	61.667	4.681	-0.000	-0.07708	7.37	ppb
	V	51	875.390	10.282	0.000	0.01055	108.29	ppb
	Cr	52	4056.157	4.258	-0.000	-0.02747	87.08	ppb
	Mn	55	506.680	13.399	0.000	0.00089	767.92	ppb
	Fe	54	26008.779	0.204	-0.001	-1.83569	47.85	ppb
	Fe	56	577894.294	1.329	-0.040	-4.35571	40.85	ppb
	Fe	57	1993.532	5.755	-0.000	-0.31947	195.19	ppb
	Co	59	190.669	18.239	0.000	0.00594	68.87	ppb
	Ni	60	33.333	30.000	-0.000	-0.01103	52.01	ppb
	Cu	63	1093.393	9.393	-0.000	-0.02789	99.74	ppb
	Cu	65	210.002	21.355	-0.000	-0.01498	147.89	ppb
	Zn	66	158.890	8.734	-0.000	-0.03736	37.91	ppb
	As	75	62.026	19.451	0.000	0.01485	71.85	ppb
	Se	82	33.778	14.814	0.000	0.03439	139.11	ppb
	Mo	96	1046.722	13.756	0.000	0.24833	24.40	ppb
	Ag	107	201.113	33.493	0.000	0.01570	58.20	ppb
	Ag	109	215.558	32.524	0.000	0.01829	52.62	ppb
	Cd	111	0.300	2322.733	-0.000	-0.00943	43.83	ppb
	In	113	113170.110	0.374	0.000	0.80913	33.09	ppb
>	In	115	2910160.746	0.654	2910160.746			ppb
	Sn	118	463.344	11.438	0.000	0.04342	22.82	ppb
	Sb	121	4422.650	8.916	0.001	0.56376	14.23	ppb
	Ba	135	41.333	22.867	-0.000	-0.00312	200.67	ppb
	Ba	137	72.000	30.046	-0.000	-0.00779	99.93	ppb
>	Tb	159	4549536.454	0.770	4549536.454			ppb
	Tl	205	356.673	24.133	0.000	0.00873	38.29	ppb
	Pb	206	95.000	13.925	0.000	0.00211	79.83	ppb
	Pb	207	191.668	15.286	0.000	0.00342	56.20	ppb
	Pb	208	365.004	11.213	0.000	0.00586	26.37	ppb
>	Bi	209	3610609.446	1.052	3610609.446			ppb
	Cr	53	808.033	10.858	162.012			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	13.333	21.651	13.333			ppb
	C	12	326608.219	1.667	28288.267			ppb
	Kr	83	22.667	22.205	-14.667			ppb
	Se	77	42.445	12.200	9.778			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	604715.430		ppb
	Be	9	2.000	0.007324	ppb
	Na	23	37380.736	1.924863	ppb
	Mg	24	2020.204	-0.120611	ppb
	Mg	25	322.005	-0.029406	ppb
	Mg	26	359.006	-0.117478	ppb
	Al	27	3730.696	-0.028723	ppb
	K	39	245640.354	-1.278911	ppb
	Ca	44	10611.627	-15.562568	ppb
>	Sc	45	943280.100		ppb
	Ti	47	60.000	-0.078669	ppb
	V	51	772.420	-0.002612	ppb
	Cr	52	4038.815	-0.021093	ppb
	Mn	55	435.009	-0.006378	ppb
	Fe	54	26068.935	-0.949932	ppb
	Fe	56	584798.692	-2.674058	ppb
	Fe	57	1915.183	-0.600040	ppb
	Co	59	178.002	0.004683	ppb
	Ni	60	43.333	-0.005154	ppb
	Cu	63	1170.068	-0.006034	ppb
	Cu	65	246.670	0.004332	ppb
	Zn	66	170.001	-0.024335	ppb
	As	75	74.955	0.026529	ppb
	Se	82	38.667	0.083458	ppb
	Mo	96	1180.070	0.306233	ppb
	Ag	107	190.002	0.014228	ppb
	Ag	109	143.334	0.008483	ppb
	Cd	111	-0.730	-0.010022	ppb
	In	113	112812.767	0.715567	ppb
>	In	115	2904985.959		ppb
	Sn	118	520.014	0.054232	ppb
	Sb	121	4836.169	0.649392	ppb
	Ba	135	52.000	0.003964	ppb
	Ba	137	54.000	-0.014169	ppb
>	Tb	159	4509118.103		ppb
	Tl	205	260.003	0.004959	ppb
	Pb	206	80.000	0.000225	ppb
	Pb	207	170.001	0.002023	ppb
	Pb	208	375.004	0.006401	ppb
>	Bi	209	3575364.556		ppb
	Cr	53	904.041		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	331722.214		ppb
	Kr	83	22.000		ppb
	Se	77	44.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	595983.927		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	38376.497	2.371812	ppb
	Mg	24	3146.495	0.355555	ppb
	Mg	25	442.010	0.336292	ppb
	Mg	26	609.019	0.523352	ppb
	Al	27	5126.314	0.328283	ppb
	K	39	242058.585	-1.283814	ppb
	Ca	44	9454.467	-20.871674	ppb
>	Sc	45	969850.336		ppb

	Ti	47	60.000	-0.081791	ppb
	V	51	939.120	0.017908	ppb
	Cr	52	4236.897	-0.007382	ppb
	Mn	55	570.016	0.007123	ppb
	Fe	54	25968.675	-2.706311	ppb
	Fe	56	569619.033	-6.219066	ppb
	Fe	57	1940.188	-0.753486	ppb
	Co	59	230.003	0.010514	ppb
	Ni	60	33.333	-0.011316	ppb
	Cu	63	976.714	-0.059193	ppb
	Cu	65	223.336	-0.010108	ppb
	Zn	66	163.335	-0.035313	ppb
	As	75	60.056	0.012426	ppb
	Se	82	34.000	0.031858	ppb
	Mo	96	1066.057	0.253403	ppb
	Ag	107	140.001	0.007388	ppb
	Ag	109	220.002	0.018670	ppb
	Cd	111	7.725	-0.005030	ppb
	In	113	113637.021	0.600737	ppb
>	In	115	2931242.618		ppb
	Sn	118	455.010	0.041244	ppb
	Sb	121	4380.959	0.551583	ppb
	Ba	135	38.000	-0.005401	ppb
	Ba	137	66.000	-0.010071	ppb
>	Tb	159	4571444.372		ppb
	Tl	205	385.007	0.009921	ppb
	Pb	206	105.001	0.003466	ppb
	Pb	207	180.001	0.002629	ppb
	Pb	208	320.003	0.004117	ppb
>	Bi	209	3605630.131		ppb
	Cr	53	788.031		ppb
	Pd	106	5.000		ppb
	Pd	108	15.000		ppb
	C	12	327215.316		ppb
	Kr	83	28.000		ppb
	Se	77	46.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	615387.882		ppb
	Be	9	2.000	0.007197	ppb
	Na	23	40013.896	2.481172	ppb
	Mg	24	4976.238	1.044931	ppb
	Mg	25	737.027	1.133609	ppb
	Mg	26	901.041	1.185314	ppb
	Al	27	7657.931	0.892344	ppb
	K	39	243824.722	-2.114381	ppb
	Ca	44	9282.306	-23.329899	ppb
>	Sc	45	955640.053		ppb
	Ti	47	65.000	-0.070771	ppb
	V	51	914.629	0.016366	ppb
	Cr	52	3892.758	-0.053932	ppb
	Mn	55	515.013	0.001916	ppb
	Fe	54	25988.727	-1.850812	ppb
	Fe	56	579265.156	-4.173998	ppb
	Fe	57	2125.226	0.395105	ppb
	Co	59	164.001	0.002626	ppb
	Ni	60	23.333	-0.016616	ppb
	Cu	63	1133.398	-0.018431	ppb
	Cu	65	160.001	-0.039176	ppb
	Zn	66	143.334	-0.052439	ppb
	As	75	51.067	0.005603	ppb
	Se	82	28.667	-0.012134	ppb

⌈	Mo	96	894.040	0.185356	ppb
|	Ag	107	273.337	0.025484	ppb
|	Ag	109	283.337	0.027720	ppb
|	Cd	111	-6.095	-0.013229	ppb
|	In	113	113060.542	1.111090	ppb
|>	In	115	2894253.662		ppb
⌊	Sn	118	415.009	0.034778	ppb
⌈	Sb	121	4050.820	0.490295	ppb
|	Ba	135	34.000	-0.007930	ppb
|	Ba	137	96.000	0.000881	ppb
⌊>	Tb	159	4568046.888		ppb
⌈	Tl	205	425.009	0.011325	ppb
|	Pb	206	100.001	0.002635	ppb
|	Pb	207	225.001	0.005617	ppb
|	Pb	208	400.005	0.007063	ppb
⌊>	Bi	209	3650833.650		ppb
	Cr	53	732.027		ppb
	Pd	106	0.000		ppb
	Pd	108	15.000		ppb
	C	12	320887.129		ppb
	Kr	83	18.000		ppb
	Se	77	36.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		108.314			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		106.369			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		101.600			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		100.578			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		100.974			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042009-BLK1

Sample Date/Time: Thursday, May 07, 2009 10:48:41
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042009-BLK1.082

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	628553.764	2.417	628553.764			ppb
	Be	9	1.333	173.205	0.000	0.00478	173.21	ppb
	Na	23	35296.187	1.191	0.005	0.94607	24.37	ppb
	Mg	24	880.706	7.950	-0.002	-0.59644	5.88	ppb
	Mg	25	128.001	7.813	-0.000	-0.60390	5.71	ppb
	Mg	26	197.002	4.337	-0.000	-0.53695	2.79	ppb
	Al	27	1723.483	10.639	-0.004	-0.53178	8.05	ppb
	K	39	238909.143	1.248	-0.041	-3.45530	12.61	ppb
	Ca	44	9642.662	6.953	-0.007	-22.54709	10.55	ppb
>	Sc	45	945848.577	0.885	945848.577			ppb
	Ti	47	68.334	27.702	-0.000	-0.06305	58.31	ppb
	V	51	698.204	30.630	-0.000	-0.01373	224.82	ppb
	Cr	52	3911.432	4.075	-0.000	-0.04420	55.75	ppb
	Mn	55	456.677	2.755	-0.000	-0.00407	34.54	ppb
	Fe	54	25422.295	3.164	-0.001	-2.48842	84.92	ppb
	Fe	56	561738.311	1.382	-0.051	-5.49664	26.46	ppb
	Fe	57	1933.521	9.124	-0.000	-0.52290	199.12	ppb
	Co	59	118.667	22.444	-0.000	-0.00292	118.18	ppb
	Ni	60	43.333	13.323	-0.000	-0.00523	59.36	ppb
	Cu	63	1130.064	2.814	-0.000	-0.01638	61.27	ppb
	Cu	65	255.559	3.765	0.000	0.00836	60.35	ppb
	Zn	66	227.780	0.845	0.000	0.03199	1.92	ppb
	As	75	3.443	1008.904	-0.000	-0.03427	85.88	ppb
	Se	82	23.333	14.846	-0.000	-0.05827	57.48	ppb
	Mo	96	497.346	18.933	0.000	0.01526	270.23	ppb
	Ag	107	64.445	26.034	-0.000	-0.00250	87.84	ppb
	Ag	109	63.334	64.029	-0.000	-0.00242	226.22	ppb
	Cd	111	2.697	196.649	-0.000	-0.00799	39.37	ppb
	In	113	112027.344	0.052	0.000	0.51214	82.54	ppb
>	In	115	2893643.775	0.684	2893643.775			ppb
	Sn	118	213.336	3.580	-0.000	-0.00327	43.33	ppb
	Sb	121	1675.140	0.517	0.000	0.04650	10.58	ppb
	Ba	135	40.000	13.229	-0.000	-0.00399	80.33	ppb
	Ba	137	66.667	46.120	-0.000	-0.00973	114.07	ppb
>	Tb	159	4545256.405	1.625	4545256.405			ppb
	Tl	205	80.000	37.500	-0.000	-0.00243	47.07	ppb
	Pb	206	93.334	8.183	0.000	0.00187	51.09	ppb
	Pb	207	161.667	20.593	0.000	0.00127	167.47	ppb
	Pb	208	266.669	13.564	0.000	0.00198	64.07	ppb
>	Bi	209	3618039.450	1.998	3618039.450			ppb
	Cr	53	724.026	6.699	78.005			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	326915.935	1.576	28595.982			ppb
	Kr	83	25.333	39.736	-12.000			ppb
	Se	77	38.667	14.932	6.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	645832.613		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	35514.954	0.740978	ppb
	Mg	24	810.033	-0.633067	ppb
	Mg	25	118.001	-0.640975	ppb
	Mg	26	205.002	-0.530920	ppb
	Al	27	1795.161	-0.526302	ppb
	K	39	242249.116	-3.879526	ppb
	Ca	44	10377.382	-20.226849	ppb
>	Sc	45	938664.631		ppb
	Ti	47	90.000	-0.020861	ppb
	V	51	813.351	0.003928	ppb
	Cr	52	3962.785	-0.030548	ppb
	Mn	55	445.010	-0.005000	ppb
	Fe	54	26349.670	-0.062124	ppb
	Fe	56	567561.870	-4.337576	ppb
	Fe	57	2025.205	0.053993	ppb
	Co	59	112.001	-0.003668	ppb
	Ni	60	36.667	-0.008816	ppb
	Cu	63	1160.067	-0.007072	ppb
	Cu	65	250.003	0.006569	ppb
	Zn	66	226.669	0.032603	ppb
	As	75	26.742	-0.014458	ppb
	Se	82	25.333	-0.038293	ppb
	Mo	96	606.018	0.062860	ppb
	Ag	107	46.667	-0.004851	ppb
	Ag	109	43.333	-0.005108	ppb
	Cd	111	-0.365	-0.009806	ppb
	In	113	112018.917	0.775086	ppb
>	In	115	2881979.713		ppb
	Sn	118	205.002	-0.004689	ppb
	Sb	121	1670.139	0.051366	ppb
	Ba	135	36.000	-0.006113	ppb
	Ba	137	46.000	-0.016944	ppb
>	Tb	159	4462162.523		ppb
	Tl	205	50.000	-0.003583	ppb
	Pb	206	95.000	0.002343	ppb
	Pb	207	140.001	-0.000037	ppb
	Pb	208	225.002	0.000534	ppb
>	Bi	209	3546865.556		ppb
	Cr	53	732.027		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	332077.726		ppb
	Kr	83	24.000		ppb
	Se	77	35.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	617275.029		ppb
	Be	9	4.000	0.014351	ppb
	Na	23	35562.121	1.195576	ppb
	Mg	24	950.045	-0.563107	ppb
	Mg	25	128.001	-0.597870	ppb
	Mg	26	198.002	-0.525915	ppb
	Al	27	1860.173	-0.491965	ppb
	K	39	237964.053	-3.009250	ppb
	Ca	44	9486.498	-22.432662	ppb
>	Sc	45	943839.357		ppb

	Ti	47	55.000	-0.088226	ppb
	V	51	451.441	-0.049374	ppb
	Cr	52	3732.697	-0.072646	ppb
	Mn	55	470.011	-0.002452	ppb
	Fe	54	24916.002	-3.476614	ppb
	Fe	56	564727.995	-5.023802	ppb
	Fe	57	2045.209	0.102150	ppb
	Co	59	148.001	0.000844	ppb
	Ni	60	46.667	-0.003288	ppb
	Cu	63	1133.398	-0.015053	ppb
	Cu	65	266.670	0.014061	ppb
	Zn	66	226.669	0.031373	ppb
	As	75	20.075	-0.020263	ppb
	Se	82	25.333	-0.039580	ppb
	Mo	96	440.010	-0.008717	ppb
	Ag	107	66.667	-0.002162	ppb
	Ag	109	36.667	-0.006026	ppb
	Cd	111	-0.365	-0.009806	ppb
	In	113	111973.412	0.736827	ppb
>	In	115	2882456.055		ppb
	Sn	118	220.002	-0.001853	ppb
	Sb	121	1670.139	0.041527	ppb
	Ba	135	38.000	-0.005569	ppb
	Ba	137	52.000	-0.015301	ppb
>	Tb	159	4603451.020		ppb
	Tl	205	110.001	-0.001295	ppb
	Pb	206	100.001	0.002490	ppb
	Pb	207	200.001	0.003716	ppb
	Pb	208	285.002	0.002483	ppb
>	Bi	209	3691386.922		ppb
	Cr	53	768.029		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	326895.094		ppb
	Kr	83	36.000		ppb
	Se	77	35.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	622553.650		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	34811.487	0.901668	ppb
	Mg	24	882.039	-0.593141	ppb
	Mg	25	138.001	-0.572859	ppb
	Mg	26	188.002	-0.554025	ppb
	Al	27	1515.115	-0.577076	ppb
	K	39	236514.260	-3.477133	ppb
	Ca	44	9064.106	-24.981749	ppb
>	Sc	45	955041.744		ppb
	Ti	47	60.000	-0.080072	ppb
	V	51	829.818	0.004255	ppb
	Cr	52	4038.815	-0.029410	ppb
	Mn	55	455.010	-0.004750	ppb
	Fe	54	25001.214	-3.926520	ppb
	Fe	56	552925.067	-7.128549	ppb
	Fe	57	1730.150	-1.724845	ppb
	Co	59	96.000	-0.005931	ppb
	Ni	60	46.667	-0.003597	ppb
	Cu	63	1096.727	-0.027009	ppb
	Cu	65	250.003	0.004457	ppb
	Zn	66	230.003	0.031999	ppb
	As	75	-36.486	-0.068084	ppb
	Se	82	19.333	-0.096941	ppb

⌈	Mo	96	446.010	-0.008375	ppb
|	Ag	107	80.000	-0.000494	ppb
|	Ag	109	110.001	0.003877	ppb
|	Cd	111	8.820	-0.004358	ppb
|	In	113	112089.704	0.024512	ppb
|>	In	115	2916495.557		ppb
⌊	Sn	118	215.002	-0.003276	ppb
⌈	Sb	121	1685.142	0.046602	ppb
|	Ba	135	46.000	-0.000303	ppb
|	Ba	137	102.001	0.003051	ppb
⌊>	Tb	159	4570155.671		ppb
⌈	Tl	205	80.000	-0.002413	ppb
|	Pb	206	85.000	0.000769	ppb
|	Pb	207	145.001	0.000123	ppb
|	Pb	208	290.003	0.002907	ppb
⌊>	Bi	209	3615865.870		ppb
	Cr	53	672.023		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	321774.985		ppb
	Kr	83	16.000		ppb
	Se	77	45.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		112.464			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		105.211			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		101.024			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		100.484			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		101.182			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042009-BS1

Sample Date/Time: Thursday, May 07, 2009 10:51:34
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042009-BS1.083

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	579064.554	3.677	579064.554			ppb
	Be	9	26064.619	3.529	0.045	99.69062	1.11	ppb
	Na	23	7071076.475	2.839	12.163	2109.99276	0.85	ppb
	Mg	24	3085396.775	1.640	5.328	1308.49275	2.73	ppb
	Mg	25	433099.773	1.750	0.748	1307.35861	1.89	ppb
	Mg	26	504046.940	1.743	0.870	1302.31261	1.91	ppb
	Al	27	2172487.156	3.588	3.745	549.79872	0.67	ppb
	K	39	14542728.182	2.488	24.700	2064.62904	1.31	ppb
	Ca	44	362204.559	2.677	0.603	1901.01747	1.07	ppb
>	Sc	45	877575.648	2.172	877575.648			ppb
	Ti	47	90.000	5.556	-0.000	-0.00893	96.28	ppb
	V	51	639567.586	2.029	0.728	99.95832	1.04	ppb
	Cr	52	554808.516	2.781	0.628	99.01537	1.95	ppb
	Mn	55	778166.184	3.441	0.886	94.52572	2.48	ppb
	Fe	54	451848.193	3.330	0.487	993.39728	1.35	ppb
	Fe	56	8492300.326	2.320	9.032	981.09801	0.28	ppb
	Fe	57	169635.211	1.361	0.191	983.04542	1.14	ppb
	Co	59	715072.295	1.067	0.815	98.07123	1.23	ppb
	Ni	60	160406.294	0.507	0.183	97.34446	2.33	ppb
	Cu	63	374016.184	0.635	0.425	96.83555	2.46	ppb
	Cu	65	183285.781	1.483	0.209	96.49145	1.56	ppb
	Zn	66	186127.340	0.527	0.212	197.01869	2.53	ppb
	As	75	206568.757	0.487	0.235	189.28850	2.12	ppb
	Se	82	19323.319	0.927	0.022	191.20848	1.28	ppb
	Mo	96	427.342	7.464	-0.000	-0.00346	487.87	ppb
	Ag	107	709989.227	2.125	0.260	100.96198	1.49	ppb
	Ag	109	705744.334	1.355	0.259	102.56578	1.12	ppb
	Cd	111	160458.696	1.218	0.059	101.78945	0.97	ppb
	In	113	265613.636	1.725	0.059	101.66696	1.53	ppb
>	In	115	2725959.447	1.519	2725959.447			ppb
	Sn	118	457252.456	1.181	0.168	91.58006	0.56	ppb
	Sb	121	1032205.641	0.578	0.236	202.15253	0.74	ppb
	Ba	135	152439.099	0.224	0.035	101.49155	0.97	ppb
	Ba	137	266379.636	1.266	0.061	101.50620	0.29	ppb
>	Tb	159	4367634.349	1.159	4367634.349			ppb
	Tl	205	4890675.678	1.849	1.419	206.78749	2.99	ppb
	Pb	206	1489603.419	1.654	0.432	207.67296	2.80	ppb
	Pb	207	2789086.655	1.225	0.809	206.53534	2.42	ppb
	Pb	208	4924148.653	1.657	1.429	202.24051	2.45	ppb
>	Bi	209	3446551.846	1.195	3446551.846			ppb
	Cr	53	64219.664	2.911	63573.643			ppb
	Pd	106	13465.730	2.403	13462.397			ppb
	Pd	108	10375.380	1.337	10375.380			ppb
	C	12	327105.931	2.060	28785.979			ppb
	Kr	83	35.333	6.536	-2.000			ppb
	Se	77	15283.449	1.219	15250.782			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	603316.619		ppb
	Be	9	27012.434	99.155579	ppb
	Na	23	7301523.926	2090.671205	ppb
	Mg	24	3133593.957	1274.718577	ppb
	Mg	25	441684.499	1279.063107	ppb
	Mg	26	513925.109	1273.842590	ppb
	Al	27	2257199.555	548.253519	ppb
	K	39	14960487.866	2037.501593	ppb
	Ca	44	373372.613	1879.630852	ppb
>	Sc	45	897402.375		ppb
	Ti	47	95.000	-0.002984	ppb
	V	51	654537.949	100.032329	ppb
	Cr	52	571761.246	99.789207	ppb
	Mn	55	807215.942	95.891663	ppb
	Fe	54	468744.483	1008.771387	ppb
	Fe	56	8687129.382	981.478292	ppb
	Fe	57	172301.715	976.227268	ppb
	Co	59	721044.697	96.688840	ppb
	Ni	60	160650.141	95.306593	ppb
	Cu	63	374365.381	94.745734	ppb
	Cu	65	186245.025	95.866566	ppb
	Zn	66	185915.647	192.372999	ppb
	As	75	207303.535	185.708811	ppb
	Se	82	19523.707	188.885272	ppb
	Mo	96	406.008	-0.016436	ppb
	Ag	107	724855.267	101.342177	ppb
	Ag	109	715070.421	102.167243	ppb
	Cd	111	162473.751	101.328074	ppb
	In	113	270602.407	101.942070	ppb
>	In	115	2772596.225		ppb
	Sn	118	462543.193	91.077529	ppb
	Sb	121	1038336.583	200.664242	ppb
	Ba	135	152792.426	100.379994	ppb
	Ba	137	270238.769	101.621929	ppb
>	Tb	159	4425891.447		ppb
	Tl	205	4981577.696	213.521186	ppb
	Pb	206	1514791.957	214.085182	ppb
	Pb	207	2826824.624	212.210376	ppb
	Pb	208	4961358.132	206.579862	ppb
>	Bi	209	3399122.790		ppb
	Cr	53	66331.265		ppb
	Pd	106	13739.432		ppb
	Pd	108	10455.463		ppb
	C	12	332931.419		ppb
	Kr	83	34.000		ppb
	Se	77	15471.292		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	563442.435		ppb
	Be	9	25175.651	98.953206	ppb
	Na	23	6933906.596	2126.063580	ppb
	Mg	24	3089927.880	1345.961483	ppb
	Mg	25	427344.125	1325.148718	ppb
	Mg	26	497111.316	1319.402030	ppb
	Al	27	2103775.075	547.148258	ppb
	K	39	14336072.618	2091.553366	ppb
	Ca	44	355958.540	1920.256424	ppb
>	Sc	45	859385.837		ppb

	Ti	47	90.000	-0.005017	ppb
	V	51	632605.140	100.958262	ppb
	Cr	52	551083.469	100.439548	ppb
	Mn	55	772800.096	95.864373	ppb
	Fe	54	439892.026	987.407576	ppb
	Fe	56	8293210.594	978.203769	ppb
	Fe	57	168309.586	996.014586	ppb
	Co	59	706475.971	98.926447	ppb
	Ni	60	161070.150	99.784245	ppb
	Cu	63	376198.970	99.435811	ppb
	Cu	65	182710.716	98.210546	ppb
	Zn	66	187195.867	202.276130	ppb
	As	75	206981.114	193.623968	ppb
	Se	82	19178.373	193.759213	ppb
	Mo	96	464.011	0.015651	ppb
	Ag	107	710419.153	102.240211	ppb
	Ag	109	706195.138	103.861855	ppb
	Cd	111	160331.397	102.927997	ppb
	In	113	264646.146	103.069097	ppb
>	In	115	2693511.915		ppb
	Sn	118	451752.032	91.564661	ppb
	Sb	121	1031870.908	203.638193	ppb
	Ba	135	152414.728	102.251137	ppb
	Ba	137	264898.703	101.721624	ppb
>	Tb	159	4334182.794		ppb
	Tl	205	4800737.465	201.386109	ppb
	Pb	206	1465543.911	202.711989	ppb
	Pb	207	2760274.158	202.799644	ppb
	Pb	208	4830567.850	196.848856	ppb
>	Bi	209	3473111.078		ppb
	Cr	53	63551.299		ppb
	Pd	106	13549.173		ppb
	Pd	108	10455.463		ppb
	C	12	319726.838		ppb
	Kr	83	34.000		ppb
	Se	77	15280.332		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570434.608		ppb
	Be	9	26005.771	100.963079	ppb
	Na	23	6977798.904	2113.243481	ppb
	Mg	24	3032668.487	1304.798176	ppb
	Mg	25	430270.694	1317.864012	ppb
	Mg	26	501104.394	1313.693219	ppb
	Al	27	2156486.837	553.994385	ppb
	K	39	14331624.064	2064.832157	ppb
	Ca	44	357282.523	1903.165135	ppb
>	Sc	45	875938.732		ppb
	Ti	47	85.000	-0.018787	ppb
	V	51	631559.671	98.884366	ppb
	Cr	52	541580.833	96.817363	ppb
	Mn	55	754482.514	91.821129	ppb
	Fe	54	446908.070	984.012864	ppb
	Fe	56	8496561.001	983.611975	ppb
	Fe	57	168294.332	976.894409	ppb
	Co	59	717696.217	98.598401	ppb
	Ni	60	159498.593	96.942553	ppb
	Cu	63	371484.200	96.325093	ppb
	Cu	65	180901.602	95.397236	ppb
	Zn	66	185270.505	196.406940	ppb
	As	75	205421.621	188.532726	ppb
	Se	82	19267.878	190.980958	ppb

⌈	Mo	96	412.008	-0.009608	ppb
|	Ag	107	694693.260	99.303551	ppb
|	Ag	109	695967.442	101.668237	ppb
|	Cd	111	158570.940	101.112265	ppb
|	In	113	261592.353	99.989721	ppb
|>	In	115	2711770.200		ppb
⌊	Sn	118	457462.143	92.097989	ppb
⌈	Sb	121	1026409.433	202.155149	ppb
|	Ba	135	152110.143	101.843519	ppb
|	Ba	137	264001.437	101.175061	ppb
⌊>	Tb	159	4342828.806		ppb
⌈	Tl	205	4889711.874	205.455172	ppb
|	Pb	206	1488474.388	206.221701	ppb
|	Pb	207	2780161.182	204.596004	ppb
|	Pb	208	4980519.978	203.292801	ppb
⌊>	Bi	209	3467421.670		ppb
	Cr	53	62776.427		ppb
	Pd	106	13108.586		ppb
	Pd	108	10215.215		ppb
	C	12	328659.537		ppb
	Kr	83	38.000		ppb
	Se	77	15098.723		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.609			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.617			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		95.169			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		96.557			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.386			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904096-01

Sample Date/Time: Thursday, May 07, 2009 10:54:28
Sample Type: Sample
Sample Description: 7W11B
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904096-01.084

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	531030.192	3.802	531030.192			ppb
	Be	9	7.333	41.660	0.000	0.03062	42.68	ppb
	Na	23	S	S	666666843.372	115651236619.37500	173.21	ppb
	Mg	24	77020040.882	2.318	145.106	35638.76803	2.40	ppb
	Mg	25	11165059.340	2.887	21.033	36774.22044	2.29	ppb
	Mg	26	13575584.880	1.196	25.581	38284.96824	2.74	ppb
	Al	27	225241.887	0.815	0.418	61.39194	4.16	ppb
	K	39	3748412.454	1.605	6.641	555.11784	2.31	ppb
	Ca	44	17619306.674	1.263	33.181	104576.79164	2.97	ppb
>	Sc	45	853725.943	1.595	853725.943			ppb
	Ti	47	848.370	14.609	0.001	1.58495	14.51	ppb
	V	51	4758.739	3.148	0.005	0.65069	5.52	ppb
	Cr	52	10063.732	3.369	0.007	1.16255	3.61	ppb
	Mn	55	171535.379	0.212	0.200	21.37993	1.50	ppb
	Fe	54	436667.102	0.630	0.483	986.73726	1.12	ppb
	Fe	56	9166261.674	0.580	10.094	1096.45061	1.95	ppb
	Fe	57	214531.858	0.752	0.249	1281.38726	2.24	ppb
	Co	59	9910.910	1.750	0.011	1.37926	1.06	ppb
	Ni	60	3388.352	3.845	0.004	2.08374	2.89	ppb
	Cu	63	6066.285	2.255	0.006	1.33014	2.10	ppb
	Cu	65	2824.843	0.954	0.003	1.41380	0.87	ppb
	Zn	66	3586.199	2.666	0.004	3.71419	4.26	ppb
	As	75	1056.401	1.577	0.001	0.95764	1.01	ppb
	Se	82	76.889	9.271	0.000	0.50952	11.87	ppb
	Mo	96	1386.096	3.381	0.000	0.47979	5.11	ppb
	Ag	107	296.671	20.810	0.000	0.03416	27.28	ppb
	Ag	109	241.114	15.291	0.000	0.02656	21.64	ppb
	Cd	111	45.487	23.306	0.000	0.02139	33.75	ppb
	In	113	96813.089	1.159	-0.000	-0.49506	175.23	ppb
>	In	115	2538974.043	0.249	2538974.043			ppb
	Sn	118	323.339	28.570	0.000	0.02604	76.86	ppb
	Sb	121	4677.762	4.071	0.001	0.68842	4.88	ppb
	Ba	135	59998.118	0.342	0.014	41.68908	1.09	ppb
	Ba	137	103956.897	0.423	0.025	41.34557	1.80	ppb
>	Tb	159	4183373.530	1.435	4183373.530			ppb
	Tl	205	593.352	29.463	0.000	0.02382	37.05	ppb
	Pb	206	1155.067	7.511	0.000	0.17839	8.15	ppb
	Pb	207	2065.108	6.750	0.001	0.16928	7.23	ppb
	Pb	208	3373.679	4.728	0.001	0.15408	4.46	ppb
>	Bi	209	2937717.826	0.509	2937717.826			ppb
	Cr	53	1512.115	5.329	866.094			ppb
	Pd	106	10.000	86.603	6.667			ppb
	Pd	108	6.667	43.301	6.667			ppb
	C	12	381317.730	0.746	82997.777			ppb
	Kr	83	32.000	34.799	-5.333			ppb
	Se	77	84.445	3.894	51.778			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	553900.909		ppb
	Be	9	8.000	0.031986	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	78880303.491	34975.361311	ppb
	Mg	25	11502140.570	36306.651112	ppb
	Mg	26	13720957.548	37071.879844	ppb
	Al	27	224047.049	58.440649	ppb
	K	39	3814414.086	540.391136	ppb
	Ca	44	17839847.294	101438.919066	ppb
>	Sc	45	869447.260		ppb
	Ti	47	990.049	1.847072	ppb
	V	51	4586.751	0.609311	ppb
	Cr	52	10389.394	1.188236	ppb
	Mn	55	171721.868	21.011896	ppb
	Fe	54	439484.690	974.361081	ppb
	Fe	56	9147282.303	1072.774633	ppb
	Fe	57	213025.071	1248.812889	ppb
	Co	59	10071.069	1.376137	ppb
	Ni	60	3503.947	2.116621	ppb
	Cu	63	6171.904	1.328527	ppb
	Cu	65	2853.740	1.401381	ppb
	Zn	66	3497.278	3.546973	ppb
	As	75	1072.257	0.954279	ppb
	Se	82	84.667	0.573734	ppb
	Mo	96	1410.099	0.492889	ppb
	Ag	107	233.336	0.024572	ppb
	Ag	109	206.669	0.021248	ppb
	Cd	111	53.455	0.026895	ppb
	In	113	96609.426	-0.502143	ppb
>	In	115	2533866.634		ppb
	Sn	118	430.009	0.049151	ppb
	Sb	121	4861.181	0.711197	ppb
	Ba	135	60212.735	41.209530	ppb
	Ba	137	103684.754	40.614722	ppb
>	Tb	159	4246715.139		ppb
	Tl	205	485.012	0.018295	ppb
	Pb	206	1175.069	0.180659	ppb
	Pb	207	2130.115	0.173977	ppb
	Pb	208	3550.382	0.161737	ppb
>	Bi	209	2952802.985		ppb
	Cr	53	1604.129		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	379411.659		ppb
	Kr	83	34.000		ppb
	Se	77	80.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	523515.896		ppb
	Be	9	4.000	0.016921	ppb
	Na	23	138311900.667	45823.443206	ppb
	Mg	24	75321089.354	35335.606803	ppb
	Mg	25	10859847.818	36268.822301	ppb
	Mg	26	13605482.046	38893.486760	ppb
	Al	27	227355.476	62.814447	ppb
	K	39	3734137.903	560.983122	ppb
	Ca	44	17394908.589	104651.906675	ppb
>	Sc	45	846123.299		ppb

	Ti	47	795.032	1.490451	ppb
	V	51	4860.794	0.673749	ppb
	Cr	52	9712.715	1.114054	ppb
	Mn	55	171767.644	21.598406	ppb
	Fe	54	436529.377	995.672086	ppb
	Fe	56	9226298.461	1114.420204	ppb
	Fe	57	216232.826	1303.035542	ppb
	Co	59	9934.933	1.395203	ppb
	Ni	60	3247.194	2.014181	ppb
	Cu	63	5911.747	1.303060	ppb
	Cu	65	2800.392	1.414066	ppb
	Zn	66	3573.972	3.734288	ppb
	As	75	1039.043	0.950051	ppb
	Se	82	75.334	0.501165	ppb
	Mo	96	1332.089	0.451529	ppb
	Ag	107	356.673	0.043181	ppb
	Ag	109	236.669	0.025762	ppb
	Cd	111	49.550	0.024068	ppb
	In	113	95806.759	-1.359027	ppb
>	In	115	2546032.298		ppb
	Sn	118	270.004	0.014382	ppb
	Sb	121	4691.100	0.704266	ppb
	Ba	135	59804.295	42.114757	ppb
	Ba	137	104464.810	42.105364	ppb
>	Tb	159	4127311.129		ppb
	Tl	205	500.013	0.019164	ppb
	Pb	206	1060.056	0.162847	ppb
	Pb	207	1905.092	0.155390	ppb
	Pb	208	3330.345	0.152023	ppb
>	Bi	209	2937475.355		ppb
	Cr	53	1454.106		ppb
	Pd	106	20.000		ppb
	Pd	108	10.000		ppb
	C	12	379953.666		ppb
	Kr	83	20.000		ppb
	Se	77	86.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	515673.770		ppb
	Be	9	10.000	0.042946	ppb
	Na	23	137206122.524	46148.445895	ppb
	Mg	24	76858729.803	36605.335963	ppb
	Mg	25	11133189.632	37747.187909	ppb
	Mg	26	13400315.045	38889.538106	ppb
	Al	27	224323.136	62.920733	ppb
	K	39	3696685.373	563.979251	ppb
	Ca	44	17623164.140	107639.549174	ppb
>	Sc	45	845607.270		ppb
	Ti	47	760.029	1.417334	ppb
	V	51	4828.673	0.669015	ppb
	Cr	52	10089.087	1.185357	ppb
	Mn	55	171116.625	21.529499	ppb
	Fe	54	433987.238	990.178604	ppb
	Fe	56	9125204.259	1102.157006	ppb
	Fe	57	214337.676	1292.313342	ppb
	Co	59	9726.728	1.366430	ppb
	Ni	60	3413.916	2.120428	ppb
	Cu	63	6115.203	1.358843	ppb
	Cu	65	2820.398	1.425941	ppb
	Zn	66	3687.346	3.861306	ppb
	As	75	1057.904	0.968589	ppb
	Se	82	70.667	0.453654	ppb

⌈	Mo	96	1416.100	0.494967	ppb
|	Ag	107	300.005	0.034715	ppb
|	Ag	109	280.004	0.032660	ppb
|	Cd	111	33.455	0.013217	ppb
|	In	113	98023.083	0.375979	ppb
|>	In	115	2537023.195		ppb
⌊	Sn	118	270.004	0.014588	ppb
⌈	Sb	121	4481.004	0.649805	ppb
|	Ba	135	59977.326	41.742958	ppb
|	Ba	137	103721.128	41.316625	ppb
⌊>	Tb	159	4176094.322		ppb
⌈	Tl	205	795.032	0.033994	ppb
|	Pb	206	1230.076	0.191658	ppb
|	Pb	207	2160.119	0.178482	ppb
|	Pb	208	3240.310	0.148465	ppb
⌊>	Bi	209	2922875.138		ppb
	Cr	53	1478.109		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	384587.865		ppb
	Kr	83	42.000		ppb
	Se	77	86.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.015			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.964			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		88.641			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.484			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		82.156			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042009-DUP1

Sample Date/Time: Thursday, May 07, 2009 10:57:21
Sample Type: Sample
Sample Description: 7W11BD
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042009-DUP1.085

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	509310.711	1.073	509310.711			ppb
	Be	9	6.667	45.826	0.000	0.02902	45.93	ppb
	Na	23	S	S	666666846.412	115651237146.67676	173.21	ppb
	Mg	24	75600112.456	1.340	148.432	36455.68893	0.79	ppb
	Mg	25	11128982.600	0.649	21.853	38207.84542	1.41	ppb
	Mg	26	13629731.287	0.651	26.763	40053.69370	1.54	ppb
	Al	27	239631.018	1.689	0.464	68.12835	0.91	ppb
	K	39	3657872.159	1.502	6.760	565.08060	0.63	ppb
	Ca	44	17497197.936	1.664	34.335	108214.24627	1.99	ppb
>	Sc	45	814323.955	1.295	814323.955			ppb
	Ti	47	716.692	4.028	0.001	1.38375	4.01	ppb
	V	51	5005.689	4.545	0.005	0.72894	4.80	ppb
	Cr	52	10255.924	1.765	0.008	1.28988	0.73	ppb
	Mn	55	171274.344	0.744	0.210	22.38132	1.21	ppb
	Fe	54	452915.940	1.493	0.528	1077.92939	1.56	ppb
	Fe	56	9178269.032	1.071	10.628	1154.38057	1.59	ppb
	Fe	57	216161.371	0.654	0.263	1354.02635	1.25	ppb
	Co	59	9724.059	0.845	0.012	1.41936	1.39	ppb
	Ni	60	3212.738	0.959	0.004	2.07152	0.34	ppb
	Cu	63	6146.334	3.587	0.006	1.43062	3.23	ppb
	Cu	65	3007.119	1.279	0.003	1.59128	0.83	ppb
	Zn	66	4049.709	1.369	0.005	4.43122	2.09	ppb
	As	75	1019.248	2.170	0.001	0.96919	2.69	ppb
	Se	82	58.445	2.871	0.000	0.35116	5.84	ppb
	Mo	96	1312.086	5.514	0.000	0.47009	6.96	ppb
	Ag	107	118.890	16.187	0.000	0.00780	41.03	ppb
	Ag	109	124.445	20.282	0.000	0.00919	47.01	ppb
	Cd	111	63.398	3.799	0.000	0.03540	5.94	ppb
	In	113	94050.235	1.066	0.000	0.28101	173.08	ppb
>	In	115	2437709.557	1.004	2437709.557			ppb
	Sn	118	391.674	7.695	0.000	0.04425	16.50	ppb
	Sb	121	1901.849	9.110	0.000	0.14731	27.29	ppb
	Ba	135	58685.723	1.512	0.015	43.59943	0.96	ppb
	Ba	137	102585.554	1.194	0.026	43.62225	0.69	ppb
>	Tb	159	3912152.727	0.558	3912152.727			ppb
	Tl	205	326.672	17.204	0.000	0.01132	26.42	ppb
	Pb	206	1248.411	5.613	0.000	0.20301	6.07	ppb
	Pb	207	2215.125	5.680	0.001	0.19116	6.39	ppb
	Pb	208	3617.065	3.815	0.001	0.17384	4.45	ppb
>	Bi	209	2808913.775	0.485	2808913.775			ppb
	Cr	53	1488.778	4.497	842.757			ppb
	Pd	106	13.333	21.651	10.000			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	393451.070	0.664	95131.117			ppb
	Kr	83	32.667	21.501	-4.667			ppb
	Se	77	73.334	9.226	40.667			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	514714.179		ppb
	Be	9	4.000	0.017210	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	76055703.594	36290.403328	ppb
	Mg	25	11065243.185	37586.754006	ppb
	Mg	26	13535865.236	39356.171136	ppb
	Al	27	242023.757	68.087771	ppb
	K	39	3719819.119	568.853216	ppb
	Ca	44	17317094.197	105966.209638	ppb
>	Sc	45	820548.215		ppb
	Ti	47	750.028	1.444669	ppb
	V	51	4856.161	0.697559	ppb
	Cr	52	10367.371	1.296313	ppb
	Mn	55	172734.079	22.398955	ppb
	Fe	54	460692.963	1088.599316	ppb
	Fe	56	9285560.580	1159.182003	ppb
	Fe	57	217765.553	1353.597931	ppb
	Co	59	9814.814	1.421632	ppb
	Ni	60	3230.522	2.067063	ppb
	Cu	63	6111.867	1.408229	ppb
	Cu	65	3003.784	1.576412	ppb
	Zn	66	3990.796	4.328827	ppb
	As	75	1040.329	0.982087	ppb
	Se	82	56.667	0.327498	ppb
	Mo	96	1320.087	0.468221	ppb
	Ag	107	96.667	0.004106	ppb
	Ag	109	106.667	0.006114	ppb
	Cd	111	62.640	0.034448	ppb
	In	113	94257.137	-0.174810	ppb
>	In	115	2459910.784		ppb
	Sn	118	395.008	0.044166	ppb
	Sb	121	1720.148	0.105456	ppb
	Ba	135	59546.765	44.014615	ppb
	Ba	137	103929.273	43.968722	ppb
>	Tb	159	3932272.084		ppb
	Tl	205	265.004	0.008049	ppb
	Pb	206	1180.070	0.190428	ppb
	Pb	207	2070.109	0.177136	ppb
	Pb	208	3460.370	0.165159	ppb
>	Bi	209	2821219.178		ppb
	Cr	53	1564.122		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	394521.827		ppb
	Kr	83	40.000		ppb
	Se	77	74.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	503786.229		ppb
	Be	9	6.000	0.026376	ppb
	Na	23	135828058.063	46763.059531	ppb
	Mg	24	74438900.723	36289.400786	ppb
	Mg	25	11114344.434	38572.504068	ppb
	Mg	26	13641211.308	40522.843686	ppb
	Al	27	234958.217	67.526263	ppb
	K	39	3615101.163	564.582105	ppb
	Ca	44	17341436.135	108418.613010	ppb
>	Sc	45	802146.365		ppb

	Ti	47	700.025	1.370570	ppb
	V	51	4893.372	0.722571	ppb
	Cr	52	10047.045	1.279045	ppb
	Mn	55	170699.588	22.643538	ppb
	Fe	54	449615.471	1086.701455	ppb
	Fe	56	9156578.322	1169.914711	ppb
	Fe	57	215624.909	1371.181588	ppb
	Co	59	9702.705	1.437837	ppb
	Ni	60	3177.171	2.079742	ppb
	Cu	63	5945.100	1.399794	ppb
	Cu	65	2970.441	1.596027	ppb
	Zn	66	4057.490	4.509817	ppb
	As	75	1021.188	0.986287	ppb
	Se	82	58.667	0.362951	ppb
	Mo	96	1236.076	0.438341	ppb
	Ag	107	130.001	0.009771	ppb
	Ag	109	153.335	0.014126	ppb
	Cd	111	66.095	0.037811	ppb
	In	113	92960.080	0.224791	ppb
>	In	115	2411460.975		ppb
	Sn	118	420.009	0.051591	ppb
	Sb	121	1920.184	0.150845	ppb
	Ba	135	58735.991	43.603937	ppb
	Ba	137	102294.546	43.465026	ppb
>	Tb	159	3915237.799		ppb
	Tl	205	375.007	0.013917	ppb
	Pb	206	1245.078	0.203542	ppb
	Pb	207	2295.133	0.199491	ppb
	Pb	208	3720.412	0.180004	ppb
>	Bi	209	2794278.920		ppb
	Cr	53	1466.107		ppb
	Pd	106	15.000		ppb
	Pd	108	5.000		ppb
	C	12	390473.489		ppb
	Kr	83	32.000		ppb
	Se	77	66.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	509431.724		ppb
	Be	9	10.000	0.043472	ppb
	Na	23	137431436.371	46790.734850	ppb
	Mg	24	76305733.052	36787.262670	ppb
	Mg	25	11207360.182	38464.278191	ppb
	Mg	26	13712117.318	40282.066283	ppb
	Al	27	241911.079	68.771015	ppb
	K	39	3638696.194	561.806474	ppb
	Ca	44	17833063.475	110257.916161	ppb
>	Sc	45	820277.284		ppb
	Ti	47	700.025	1.336018	ppb
	V	51	5267.534	0.766688	ppb
	Cr	52	10353.357	1.294276	ppb
	Mn	55	170389.364	22.101470	ppb
	Fe	54	448439.388	1058.487410	ppb
	Fe	56	9092668.194	1134.044985	ppb
	Fe	57	215093.650	1337.299528	ppb
	Co	59	9654.658	1.398607	ppb
	Ni	60	3230.522	2.067755	ppb
	Cu	63	6382.036	1.483822	ppb
	Cu	65	3047.131	1.601411	ppb
	Zn	66	4100.841	4.455018	ppb
	As	75	996.227	0.939193	ppb
	Se	82	60.000	0.363028	ppb

⌈	Mo	96	1380.095	0.503701	ppb
|	Ag	107	130.001	0.009512	ppb
|	Ag	109	113.334	0.007323	ppb
|	Cd	111	61.460	0.033940	ppb
|	In	113	94933.490	0.793059	ppb
|>	In	115	2441756.910		ppb
⌊	Sn	118	360.006	0.036989	ppb
⌈	Sb	121	2065.213	0.185625	ppb
|	Ba	135	57774.413	43.179741	ppb
|	Ba	137	101532.842	43.432991	ppb
⌊>	Tb	159	3888948.298		ppb
⌈	Tl	205	340.006	0.011985	ppb
|	Pb	206	1320.087	0.215069	ppb
|	Pb	207	2280.133	0.196865	ppb
|	Pb	208	3670.413	0.176350	ppb
⌊>	Bi	209	2811243.229		ppb
	Cr	53	1436.103		ppb
	Pd	106	15.000		ppb
	Pd	108	0.000		ppb
	C	12	395357.894		ppb
	Kr	83	26.000		ppb
	Se	77	79.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			91.128		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			90.581		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			85.106		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			86.488		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			78.554		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042009-MS1

Sample Date/Time: Thursday, May 07, 2009 11:00:14
Sample Type: Sample
Sample Description: 7W11BS
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042009-MS1.086

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	534194.003	0.639	534194.003			ppb
	Be	9	13266.797	2.160	0.025	55.00301	2.39	ppb
	Na	23	S	S	666666837.134	115651235537.07410	173.21	ppb
	Mg	24	74695228.427	2.898	139.821	34340.79075	2.72	ppb
	Mg	25	11061958.242	2.641	20.706	36204.08392	2.36	ppb
	Mg	26	13586512.386	1.042	25.433	38062.97321	0.87	ppb
	Al	27	4459819.447	0.782	8.343	1224.59894	0.97	ppb
	K	39	3645518.574	0.355	6.403	535.20598	0.35	ppb
	Ca	44	17185009.254	0.995	32.148	101322.33049	1.10	ppb
>	Sc	45	827454.054	0.250	827454.054			ppb
	Ti	47	665.022	3.446	0.001	1.24700	4.00	ppb
	V	51	3465080.200	0.926	4.187	574.87338	0.80	ppb
	Cr	52	1047103.238	1.134	1.261	198.88964	1.34	ppb
	Mn	55	4320299.625	0.624	5.221	556.87412	0.60	ppb
	Fe	54	506426.231	1.234	0.584	1191.86842	1.48	ppb
	Fe	56	9565215.806	0.669	10.915	1185.63662	0.70	ppb
	Fe	57	227991.470	0.740	0.273	1405.74629	0.55	ppb
	Co	59	3701308.033	0.555	4.473	538.37510	0.80	ppb
	Ni	60	711177.709	1.097	0.859	457.68984	1.11	ppb
	Cu	63	831189.573	0.962	1.003	228.54817	0.83	ppb
	Cu	65	407614.953	0.321	0.492	227.71047	0.38	ppb
	Zn	66	434660.220	0.630	0.525	488.07727	0.82	ppb
	As	75	43518.272	0.121	0.053	42.25180	0.13	ppb
	Se	82	1124.285	0.753	0.001	11.54081	0.95	ppb
	Mo	96	1250.078	7.510	0.000	0.43998	11.48	ppb
	Ag	107	315918.189	0.237	0.130	50.33409	1.91	ppb
	Ag	109	309491.874	0.361	0.127	50.38898	1.41	ppb
	Cd	111	76161.640	1.918	0.031	54.12047	1.26	ppb
	In	113	170460.747	1.389	0.032	54.50279	1.87	ppb
>	In	115	2433244.321	1.743	2433244.321			ppb
	Sn	118	403127.072	1.512	0.166	90.45095	0.36	ppb
	Sb	121	498406.026	1.097	0.125	107.37113	0.79	ppb
	Ba	135	3235172.178	0.716	0.816	2372.73059	0.55	ppb
	Ba	137	5599601.863	0.656	1.412	2350.82641	0.54	ppb
>	Tb	159	3965731.449	0.776	3965731.449			ppb
	Tl	205	978275.742	0.983	0.343	49.96574	1.12	ppb
	Pb	206	134099.836	0.581	0.047	22.57688	1.10	ppb
	Pb	207	251395.407	0.226	0.088	22.48173	0.80	ppb
	Pb	208	413474.536	0.604	0.145	20.50979	1.20	ppb
>	Bi	209	2852342.061	0.603	2852342.061			ppb
	Cr	53	123032.280	1.104	122386.259			ppb
	Pd	106	6518.791	1.262	6515.458			ppb
	Pd	108	4886.194	2.446	4886.194			ppb
	C	12	396273.028	1.126	97953.075			ppb
	Kr	83	40.667	2.839	3.333			ppb
	Se	77	918.931	4.457	886.264			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	530679.045		ppb
	Be	9	13477.075	56.242218	ppb
	Na	23	346953617886.235900		ppb
	Mg	24	72790986.696	33687.667020	ppb
	Mg	25	10769771.230	35482.472233	ppb
	Mg	26	13444516.194	37914.537967	ppb
	Al	27	4474757.526	1236.818182	ppb
	K	39	3630677.422	536.639169	ppb
	Ca	44	17247659.816	102363.832345	ppb
>	Sc	45	826597.231		ppb
	Ti	47	690.024	1.302660	ppb
	V	51	3484461.613	578.691855	ppb
	Cr	52	1043002.744	198.310358	ppb
	Mn	55	4344695.614	560.598970	ppb
	Fe	54	513120.320	1209.670103	ppb
	Fe	56	9627189.263	1195.079712	ppb
	Fe	57	226434.939	1397.541099	ppb
	Co	59	3708619.165	539.990530	ppb
	Ni	60	702522.861	452.587018	ppb
	Cu	63	822372.668	226.356758	ppb
	Cu	65	406140.003	227.120611	ppb
	Zn	66	437571.819	491.851861	ppb
	As	75	43494.352	42.272272	ppb
	Se	82	1119.396	11.501482	ppb
	Mo	96	1188.071	0.417344	ppb
	Ag	107	316782.661	51.226957	ppb
	Ag	109	308949.900	51.056226	ppb
	Cd	111	75910.645	54.759465	ppb
	In	113	167801.147	54.416239	ppb
>	In	115	2396854.975		ppb
	Sn	118	398754.306	90.825673	ppb
	Sb	121	492716.632	106.448147	ppb
	Ba	135	3211600.604	2362.180699	ppb
	Ba	137	5562115.907	2341.763116	ppb
>	Tb	159	3954367.449		ppb
	Tl	205	976970.957	49.559001	ppb
	Pb	206	133343.132	22.295921	ppb
	Pb	207	250778.661	22.273409	ppb
	Pb	208	410811.797	20.238189	ppb
>	Bi	209	2871852.315		ppb
	Cr	53	122590.848		ppb
	Pd	106	6612.185		ppb
	Pd	108	4756.131		ppb
	C	12	394621.653		ppb
	Kr	83	40.000		ppb
	Se	77	872.705		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	537497.105		ppb
	Be	9	13382.949	55.140972	ppb
	Na	23	135110842.350	43598.129705	ppb
	Mg	24	74245066.811	33924.763257	ppb
	Mg	25	11061958.242	35982.835276	ppb
	Mg	26	13587433.243	37831.520499	ppb
	Al	27	4484717.955	1223.837682	ppb
	K	39	3654480.979	533.086833	ppb
	Ca	44	17315897.052	101464.588963	ppb
>	Sc	45	829812.878		ppb

	Ti	47	660.022	1.232104	ppb
	V	51	3482738.230	576.163729	ppb
	Cr	52	1037827.592	196.555576	ppb
	Mn	55	4324862.302	555.876910	ppb
	Fe	54	500746.099	1174.323396	ppb
	Fe	56	9569089.147	1182.572013	ppb
	Fe	57	229785.071	1412.842008	ppb
	Co	59	3678109.058	533.472585	ppb
	Ni	60	713343.380	457.777417	ppb
	Cu	63	837963.992	229.758781	ppb
	Cu	65	408066.084	227.313508	ppb
	Zn	66	432139.756	483.860507	ppb
	As	75	43578.484	42.189840	ppb
	Se	82	1119.396	11.455854	ppb
	Mo	96	1358.092	0.497844	ppb
	Ag	107	315454.999	50.460798	ppb
	Ag	109	308750.550	50.471741	ppb
	Cd	111	74842.392	53.405161	ppb
	In	113	171243.774	55.560360	ppb
>	In	115	2423041.059		ppb
	Sn	118	400535.452	90.245145	ppb
	Sb	121	498876.021	108.114228	ppb
	Ba	135	3235999.937	2387.440767	ppb
	Ba	137	5601163.276	2365.449497	ppb
>	Tb	159	3942253.659		ppb
	Tl	205	969377.631	49.735776	ppb
	Pb	206	134057.589	22.671716	ppb
	Pb	207	251508.296	22.593632	ppb
	Pb	208	415770.031	20.716717	ppb
>	Bi	209	2839404.502		ppb
	Cr	53	121949.072		ppb
	Pd	106	6487.103		ppb
	Pd	108	4991.245		ppb
	C	12	392872.773		ppb
	Kr	83	40.000		ppb
	Se	77	933.377		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	534405.859		ppb
	Be	9	12940.367	53.625840	ppb
	Na	23	139043131.117	45126.856712	ppb
	Mg	24	77049631.774	35409.941965	ppb
	Mg	25	11354145.255	37146.944252	ppb
	Mg	26	13727587.720	38442.861173	ppb
	Al	27	4419982.862	1213.140967	ppb
	K	39	3651397.322	535.891930	ppb
	Ca	44	16991470.894	100138.570176	ppb
>	Sc	45	825952.052		ppb
	Ti	47	645.021	1.206231	ppb
	V	51	3428040.758	569.764543	ppb
	Cr	52	1060479.379	201.802986	ppb
	Mn	55	4291340.960	554.146469	ppb
	Fe	54	505412.275	1191.611774	ppb
	Fe	56	9499369.008	1179.258121	ppb
	Fe	57	227754.401	1406.855760	ppb
	Co	59	3717195.878	541.662172	ppb
	Ni	60	717666.887	462.705083	ppb
	Cu	63	833232.061	229.528978	ppb
	Cu	65	408638.773	228.697279	ppb
	Zn	66	434269.087	488.519434	ppb
	As	75	43481.980	42.293278	ppb
	Se	82	1134.064	11.665090	ppb

⌈	Mo	96	1204.072	0.404757	ppb
|	Ag	107	315516.907	49.314515	ppb
|	Ag	109	310775.171	49.638987	ppb
|	Cd	111	77731.884	54.196788	ppb
|	In	113	172337.321	53.531764	ppb
|>	In	115	2479836.928		ppb
⌊	Sn	118	410091.458	90.282036	ppb
⌈	Sb	121	503625.425	107.551027	ppb
|	Ba	135	3257915.992	2368.570298	ppb
|	Ba	137	5635526.407	2345.266619	ppb
⌊>	Tb	159	4000573.239		ppb
⌈	Tl	205	988478.637	50.602456	ppb
|	Pb	206	134898.788	22.762996	ppb
|	Pb	207	251899.263	22.578135	ppb
|	Pb	208	413841.779	20.574459	ppb
⌊>	Bi	209	2845769.365		ppb
	Cr	53	124556.920		ppb
	Pd	106	6457.084		ppb
	Pd	108	4911.206		ppb
	C	12	401324.658		ppb
	Kr	83	42.000		ppb
	Se	77	950.712		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.581			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		92.042			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		84.950			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		87.672			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		79.768			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042009-MSD1

Sample Date/Time: Thursday, May 07, 2009 11:03:08
Sample Type: Sample
Sample Description: 7W11BSD
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042009-MSD1.087

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	542217.080	2.380	542217.080			ppb
	Be	9	13208.721	2.335	0.024	53.95398	1.52	ppb
	Na	23	S	S	1333333418.080	231302426631.56662	86.60	ppb
	Mg	24	76562115.051	1.383	141.277	34698.36320	3.59	ppb
	Mg	25	11317780.362	0.842	20.883	36513.14392	3.22	ppb
	Mg	26	13765895.383	0.260	25.397	38009.60365	2.48	ppb
	Al	27	4456997.069	2.096	8.219	1206.41294	4.12	ppb
	K	39	3644678.151	0.192	6.303	526.85691	2.73	ppb
	Ca	44	17255773.795	0.910	31.815	100272.41398	2.75	ppb
>	Sc	45	814337.200	0.515	814337.200			ppb
	Ti	47	715.026	10.856	0.001	1.38014	12.29	ppb
	V	51	3429680.410	0.438	4.211	578.17966	0.69	ppb
	Cr	52	1027199.376	1.198	1.257	198.25740	1.72	ppb
	Mn	55	4309352.784	1.210	5.292	564.44100	1.69	ppb
	Fe	54	506312.396	1.260	0.594	1211.75305	1.82	ppb
	Fe	56	9588455.853	0.870	11.131	1209.02040	1.47	ppb
	Fe	57	230569.534	3.163	0.281	1445.00941	3.63	ppb
	Co	59	3671153.399	0.290	4.508	542.59773	0.80	ppb
	Ni	60	704402.022	0.446	0.865	460.64035	0.77	ppb
	Cu	63	813958.344	0.967	0.998	227.42667	1.49	ppb
	Cu	65	400584.874	0.489	0.492	227.38939	0.56	ppb
	Zn	66	431761.724	0.098	0.530	492.63827	0.61	ppb
	As	75	43120.502	0.445	0.053	42.54111	0.80	ppb
	Se	82	1101.394	0.210	0.001	11.48670	0.43	ppb
	Mo	96	1231.409	2.460	0.000	0.44355	3.56	ppb
	Ag	107	309290.256	0.490	0.130	50.31039	1.16	ppb
	Ag	109	303969.623	0.268	0.128	50.52888	0.86	ppb
	Cd	111	74794.652	1.324	0.031	54.26993	1.12	ppb
	In	113	166516.801	1.452	0.031	54.19149	2.42	ppb
>	In	115	2382915.440	0.695	2382915.440			ppb
	Sn	118	408312.690	0.919	0.171	93.55358	1.45	ppb
	Sb	121	500025.398	0.963	0.129	110.07054	1.59	ppb
	Ba	135	3211185.219	0.459	0.827	2406.31259	1.14	ppb
	Ba	137	5563957.650	1.050	1.433	2386.45024	0.38	ppb
>	Tb	159	3881684.710	1.252	3881684.710			ppb
	Tl	205	966939.332	0.022	0.342	49.88548	0.07	ppb
	Pb	206	134177.542	0.677	0.047	22.81768	0.59	ppb
	Pb	207	250193.379	0.935	0.089	22.59988	0.85	ppb
	Pb	208	410387.983	1.158	0.145	20.56165	1.10	ppb
>	Bi	209	2823765.123	0.090	2823765.123			ppb
	Cr	53	120583.348	0.666	119937.327			ppb
	Pd	106	6213.597	1.701	6210.264			ppb
	Pd	108	4686.098	1.551	4686.098			ppb
	C	12	399958.302	0.484	101638.350			ppb
	Kr	83	39.333	33.856	2.000			ppb
	Se	77	897.151	4.091	864.485			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	555491.605		ppb
	Be	9	13559.186	54.057362	ppb
	Na	23		346953617886.235900	ppb
	Mg	24	75346173.743	33312.623341	ppb
	Mg	25	11222920.437	35323.820041	ppb
	Mg	26	13772157.212	37103.659693	ppb
	Al	27	4353569.736	1149.506412	ppb
	K	39	3638487.668	512.270178	ppb
	Ca	44	17300733.222	98089.430747	ppb
>	Sc	45	816084.172		ppb
	Ti	47	635.020	1.201195	ppb
	V	51	3445662.424	579.620239	ppb
	Cr	52	1023835.563	197.169783	ppb
	Mn	55	4263481.159	557.206299	ppb
	Fe	54	500761.860	1195.082976	ppb
	Fe	56	9557469.124	1202.097227	ppb
	Fe	57	223515.347	1397.291058	ppb
	Co	59	3670689.520	541.353047	ppb
	Ni	60	707270.633	461.516039	ppb
	Cu	63	810618.688	225.995356	ppb
	Cu	65	402847.421	228.182007	ppb
	Zn	66	431736.207	491.543924	ppb
	As	75	43282.329	42.608415	ppb
	Se	82	1100.061	11.447163	ppb
	Mo	96	1210.073	0.428859	ppb
	Ag	107	307637.008	49.756631	ppb
	Ag	109	303063.834	50.092300	ppb
	Cd	111	74538.068	53.778821	ppb
	In	113	166464.078	53.476807	ppb
>	In	115	2396424.424		ppb
	Sn	118	404023.081	92.042878	ppb
	Sb	121	494659.092	109.292282	ppb
	Ba	135	3194407.291	2402.680759	ppb
	Ba	137	5565308.061	2396.107970	ppb
>	Tb	159	3866899.794		ppb
	Tl	205	966734.180	49.904721	ppb
	Pb	206	133297.530	22.681599	ppb
	Pb	207	248047.148	22.419450	ppb
	Pb	208	411508.530	20.630243	ppb
>	Bi	209	2822076.486		ppb
	Cr	53	120649.450		ppb
	Pd	106	6101.861		ppb
	Pd	108	4761.133		ppb
	C	12	398723.652		ppb
	Kr	83	28.000		ppb
	Se	77	861.370		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	529720.157		ppb
	Be	9	13088.560	54.719747	ppb
	Na	23		346953617886.235900	ppb
	Mg	24	77057613.170	35726.873660	ppb
	Mg	25	11413447.116	37671.277387	ppb
	Mg	26	13798125.387	38982.207754	ppb
	Al	27	4482116.235	1241.097894	ppb
	K	39	3652250.383	541.078492	ppb
	Ca	44	17385331.433	103368.375964	ppb
>	Sc	45	817373.347		ppb

	Ti	47	790.031	1.538693	ppb
	V	51	3415862.041	573.699842	ppb
	Cr	52	1016924.930	195.524265	ppb
	Mn	55	4298525.384	560.900637	ppb
	Fe	54	504897.210	1203.434100	ppb
	Fe	56	9524933.059	1195.767062	ppb
	Fe	57	230112.472	1436.571581	ppb
	Co	59	3660736.298	539.033553	ppb
	Ni	60	701044.316	456.731363	ppb
	Cu	63	808305.566	224.993768	ppb
	Cu	65	399483.077	225.918322	ppb
	Zn	66	431350.068	490.329242	ppb
	As	75	42908.339	42.173244	ppb
	Se	82	1104.061	11.471231	ppb
	Mo	96	1218.074	0.441546	ppb
	Ag	107	310613.599	50.917936	ppb
	Ag	109	304204.358	50.961201	ppb
	Cd	111	73958.118	54.082301	ppb
	In	113	164125.903	53.392067	ppb
>	In	115	2364438.438		ppb
	Sn	118	409930.654	94.653308	ppb
	Sb	121	501439.585	108.845630	ppb
	Ba	135	3222048.431	2380.954307	ppb
	Ba	137	5621708.811	2377.928201	ppb
>	Tb	159	3935950.739		ppb
	Tl	205	967162.802	49.845622	ppb
	Pb	206	135111.633	22.953009	ppb
	Pb	207	252688.813	22.802000	ppb
	Pb	208	414480.278	20.745471	ppb
>	Bi	209	2826674.775		ppb
	Cr	53	119748.720		ppb
	Pd	106	6226.938		ppb
	Pd	108	4616.065		ppb
	C	12	398962.917		ppb
	Kr	83	36.000		ppb
	Se	77	895.373		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	541439.478		ppb
	Be	9	12978.417	53.084839	ppb
	Na	23	137737604.470	44122.228059	ppb
	Mg	24	77282558.240	35055.592591	ppb
	Mg	25	11316973.534	36544.334341	ppb
	Mg	26	13727403.549	37942.943514	ppb
	Al	27	4535305.236	1228.634516	ppb
	K	39	3643296.403	527.222053	ppb
	Ca	44	17081256.731	99359.435224	ppb
>	Sc	45	809554.082		ppb
	Ti	47	720.026	1.400521	ppb
	V	51	3427516.765	581.218898	ppb
	Cr	52	1040837.636	202.078147	ppb
	Mn	55	4366051.808	575.216053	ppb
	Fe	54	513278.117	1236.742081	ppb
	Fe	56	9682965.375	1229.196914	ppb
	Fe	57	238080.782	1501.165587	ppb
	Co	59	3682034.379	547.406588	ppb
	Ni	60	704891.116	463.673661	ppb
	Cu	63	822950.779	231.290894	ppb
	Cu	65	399424.124	228.067854	ppb
	Zn	66	432198.898	496.041645	ppb
	As	75	43170.837	42.841668	ppb
	Se	82	1100.061	11.541700	ppb

⌈	Mo	96	1266.080	0.460234	ppb
|	Ag	107	309620.159	50.256610	ppb
|	Ag	109	304640.676	50.533130	ppb
|	Cd	111	75887.770	54.948671	ppb
|	In	113	168960.424	55.705607	ppb
|>	In	115	2387883.456		ppb
⌊	Sn	118	410984.334	93.964561	ppb
⌈	Sb	121	503977.515	112.073694	ppb
|	Ba	135	3217099.935	2435.302695	ppb
|	Ba	137	5504856.079	2385.314562	ppb
⌊>	Tb	159	3842203.596		ppb
⌈	Tl	205	966921.013	49.906096	ppb
|	Pb	206	134123.463	22.818421	ppb
|	Pb	207	249844.176	22.578202	ppb
|	Pb	208	405175.142	20.309233	ppb
⌊>	Bi	209	2822544.109		ppb
	Cr	53	121351.873		ppb
	Pd	106	6311.991		ppb
	Pd	108	4681.095		ppb
	C	12	402188.339		ppb
	Kr	83	54.000		ppb
	Se	77	934.710		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.016			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		90.583			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		83.193			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		85.814			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		78.969			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: SDI0904096-01

Sample Date/Time: Thursday, May 07, 2009 11:06:01
Sample Type: Sample
Sample Description: 7W11BL 5X
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\SDI0904096-01.088

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	585358.376	2.521	585358.376			ppb
	Be	9	0.667	173.205	0.000	0.00256	173.21	ppb
	Na	23	29711806.962	2.778	50.706	8796.28115	0.54	ppb
	Mg	24	16377336.752	2.736	27.974	6870.47644	0.51	ppb
	Mg	25	2416133.919	0.149	4.129	7218.84116	2.40	ppb
	Mg	26	2922363.579	1.176	4.993	7472.39097	1.45	ppb
	Al	27	49993.074	3.249	0.079	11.60359	2.91	ppb
	K	39	856273.123	2.365	1.041	87.05364	2.20	ppb
	Ca	44	3616773.049	2.831	6.156	19402.22003	0.87	ppb
>	Sc	45	872952.448	2.474	872952.448			ppb
	Ti	47	191.669	18.323	0.000	0.20098	37.26	ppb
	V	51	1746.672	4.503	0.001	0.15960	3.59	ppb
	Cr	52	5115.975	0.946	0.001	0.22828	10.27	ppb
	Mn	55	36153.599	2.609	0.041	4.36206	0.74	ppb
	Fe	54	109729.102	3.034	0.098	199.18645	1.30	ppb
	Fe	56	2472172.051	1.980	2.188	237.63460	1.53	ppb
	Fe	57	47241.349	1.813	0.052	267.30451	2.44	ppb
	Co	59	2302.932	4.697	0.002	0.29943	3.35	ppb
	Ni	60	760.029	9.559	0.001	0.43355	7.65	ppb
	Cu	63	2061.324	6.782	0.001	0.24938	14.39	ppb
	Cu	65	786.698	8.475	0.001	0.30023	11.71	ppb
	Zn	66	942.267	7.365	0.001	0.81065	6.00	ppb
	As	75	273.335	8.938	0.000	0.21480	12.75	ppb
	Se	82	29.778	22.425	0.000	0.02429	289.19	ppb
	Mo	96	386.007	5.484	-0.000	-0.01259	71.16	ppb
	Ag	107	343.339	13.592	0.000	0.04044	17.27	ppb
	Ag	109	354.451	10.900	0.000	0.04334	13.38	ppb
	Cd	111	19.578	57.815	0.000	0.00350	213.71	ppb
	In	113	100103.661	1.905	0.000	0.62946	154.65	ppb
>	In	115	2580958.063	0.709	2580958.063			ppb
	Sn	118	176.668	14.245	-0.000	-0.00617	83.93	ppb
	Sb	121	4619.403	5.971	0.001	0.67899	8.02	ppb
	Ba	135	12206.113	1.964	0.003	8.47961	1.95	ppb
	Ba	137	21328.058	1.818	0.005	8.47662	1.65	ppb
>	Tb	159	4172181.357	0.239	4172181.357			ppb
	Tl	205	285.004	3.509	0.000	0.00721	7.39	ppb
	Pb	206	273.337	3.808	0.000	0.03011	6.21	ppb
	Pb	207	521.674	1.995	0.000	0.03107	1.74	ppb
	Pb	208	886.690	3.669	0.000	0.03037	3.58	ppb
>	Bi	209	3232588.522	0.884	3232588.522			ppb
	Cr	53	634.020	3.278	-12.001			ppb
	Pd	106	8.333	34.641	5.000			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	342254.418	2.354	43934.465			ppb
	Kr	83	25.333	19.868	-12.000			ppb
	Se	77	28.889	15.708	-3.778			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	602391.258		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	30644531.340	8816.222337	ppb
	Mg	24	16884073.981	6882.981612	ppb
	Mg	25	2418517.483	7018.789773	ppb
	Mg	26	2959396.430	7351.384035	ppb
	Al	27	51075.101	11.511595	ppb
	K	39	874560.590	86.121119	ppb
	Ca	44	3728780.881	19438.223138	ppb
>	Sc	45	897402.375		ppb
	Ti	47	195.002	0.196619	ppb
	V	51	1831.963	0.165251	ppb
	Cr	52	5133.317	0.205785	ppb
	Mn	55	37239.209	4.370754	ppb
	Fe	54	113551.052	200.906371	ppb
	Fe	56	2526429.086	235.784427	ppb
	Fe	57	47849.204	263.129896	ppb
	Co	59	2414.291	0.305776	ppb
	Ni	60	843.369	0.470869	ppb
	Cu	63	2133.561	0.252999	ppb
	Cu	65	786.698	0.288824	ppb
	Zn	66	1020.052	0.864682	ppb
	As	75	247.883	0.184740	ppb
	Se	82	24.667	-0.033963	ppb
	Mo	96	410.008	-0.002342	ppb
	Ag	107	376.674	0.045068	ppb
	Ag	109	390.008	0.048397	ppb
	Cd	111	32.640	0.012134	ppb
	In	113	102280.403	1.622425	ppb
>	In	115	2598545.056		ppb
	Sn	118	180.002	-0.005706	ppb
	Sb	121	4776.140	0.710011	ppb
	Ba	135	12467.767	8.651001	ppb
	Ba	137	21743.614	8.631599	ppb
>	Tb	159	4177476.747		ppb
	Tl	205	275.004	0.006638	ppb
	Pb	206	265.004	0.028478	ppb
	Pb	207	530.007	0.031324	ppb
	Pb	208	920.025	0.031448	ppb
>	Bi	209	3264239.645		ppb
	Cr	53	646.021		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	351507.161		ppb
	Kr	83	20.000		ppb
	Se	77	34.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	577257.932		ppb
	Be	9	2.000	0.007673	ppb
	Na	23	29415238.702	8831.030902	ppb
	Mg	24	16214288.226	6897.729033	ppb
	Mg	25	2417901.557	7322.558236	ppb
	Mg	26	2916176.569	7559.449465	ppb
	Al	27	50778.597	11.978082	ppb
	K	39	859749.164	89.260057	ppb
	Ca	44	3593584.610	19549.484261	ppb
>	Sc	45	856476.418		ppb

	Ti	47	225.003	0.277960	ppb
	V	51	1677.002	0.153802	ppb
	Cr	52	5153.327	0.252579	ppb
	Mn	55	35688.570	4.389143	ppb
	Fe	54	108176.965	200.440229	ppb
	Fe	56	2458724.295	241.810200	ppb
	Fe	57	47613.081	274.813257	ppb
	Co	59	2296.264	0.304663	ppb
	Ni	60	726.693	0.422236	ppb
	Cu	63	2150.231	0.283314	ppb
	Cu	65	720.026	0.272195	ppb
	Zn	66	886.706	0.770452	ppb
	As	75	275.525	0.221305	ppb
	Se	82	27.333	0.004528	ppb
	Mo	96	378.007	-0.016502	ppb
	Ag	107	290.004	0.032409	ppb
	Ag	109	313.338	0.037007	ppb
	Cd	111	13.455	-0.000577	ppb
	In	113	98724.937	-0.323274	ppb
>	In	115	2582319.313		ppb
	Sn	118	200.002	-0.001238	ppb
	Sb	121	4781.143	0.710827	ppb
	Ba	135	11997.192	8.321587	ppb
	Ba	137	21264.585	8.438881	ppb
>	Tb	159	4178367.122		ppb
	Tl	205	295.004	0.007692	ppb
	Pb	206	270.004	0.029700	ppb
	Pb	207	525.007	0.031435	ppb
	Pb	208	885.023	0.030400	ppb
>	Bi	209	3224803.471		ppb
	Cr	53	646.021		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	338450.115		ppb
	Kr	83	30.000		ppb
	Se	77	27.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576425.939		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	29075650.846	8741.590208	ppb
	Mg	24	16033648.050	6830.718688	ppb
	Mg	25	2411982.716	7315.175459	ppb
	Mg	26	2891517.738	7506.339411	ppb
	Al	27	48125.525	11.321100	ppb
	K	39	834509.615	85.779744	ppb
	Ca	44	3527953.657	19218.952693	ppb
>	Sc	45	864978.551		ppb
	Ti	47	155.001	0.128375	ppb
	V	51	1731.051	0.159739	ppb
	Cr	52	5061.281	0.226468	ppb
	Mn	55	35533.018	4.326272	ppb
	Fe	54	107459.289	196.212755	ppb
	Fe	56	2431362.771	235.309175	ppb
	Fe	57	46261.761	263.970377	ppb
	Co	59	2198.242	0.287851	ppb
	Ni	60	710.025	0.407533	ppb
	Cu	63	1900.181	0.211836	ppb
	Cu	65	853.370	0.339669	ppb
	Zn	66	920.042	0.796816	ppb
	As	75	296.598	0.238351	ppb
	Se	82	37.333	0.102319	ppb

⌈	Mo	96	370.007	-0.018940	ppb
|	Ag	107	363.340	0.043851	ppb
|	Ag	109	360.006	0.044605	ppb
|	Cd	111	12.640	-0.001056	ppb
|	In	113	99305.644	0.589216	ppb
|>	In	115	2562009.819		ppb
⌊	Sn	118	150.001	-0.011563	ppb
⌈	Sb	121	4300.925	0.616136	ppb
|	Ba	135	12153.381	8.466231	ppb
|	Ba	137	20975.977	8.359372	ppb
⌊>	Tb	159	4160700.202		ppb
⌈	Tl	205	285.004	0.007305	ppb
|	Pb	206	285.004	0.032147	ppb
|	Pb	207	510.007	0.030450	ppb
|	Pb	208	855.022	0.029271	ppb
⌊>	Bi	209	3208722.449		ppb
	Cr	53	610.019		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	336805.979		ppb
	Kr	83	26.000		ppb
	Se	77	25.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		104.735			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.103			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		90.107			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.236			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		90.402			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: PDS0904096-01

Sample Date/Time: Thursday, May 07, 2009 11:08:55
Sample Type: Sample
Sample Description: 7W11BA
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\PDS0904096-01.089

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	514270.433	1.050	514270.433			ppb
	Be	9	514.680	6.074	0.001	2.21582	5.29	ppb
	Na	23	134466575.140	1.286	261.425	45351.09201	1.05	ppb
	Mg	24	73151561.209	1.180	142.249	34937.01453	1.50	ppb
	Mg	25	11041095.974	1.818	21.471	37540.43421	2.22	ppb
	Mg	26	13451207.757	1.139	26.158	39147.24940	1.70	ppb
	Al	27	431016.611	1.918	0.832	122.08560	1.00	ppb
	K	39	3532687.062	0.445	6.448	538.98857	0.87	ppb
	Ca	44	16790084.586	0.409	32.629	102837.35853	1.35	ppb
>	Sc	45	774397.041	1.711	774397.041			ppb
	Ti	47	803.366	6.045	0.001	1.66485	5.17	ppb
	V	51	65147.086	1.978	0.083	11.43570	0.28	ppb
	Cr	52	30345.985	1.877	0.035	5.48450	2.01	ppb
	Mn	55	178930.320	1.908	0.231	24.59236	1.69	ppb
	Fe	54	421436.385	1.262	0.516	1053.69683	2.58	ppb
	Fe	56	8615085.238	0.990	10.482	1138.62358	2.06	ppb
	Fe	57	209234.644	0.343	0.268	1378.51922	1.55	ppb
	Co	59	22008.192	0.522	0.028	3.40331	1.94	ppb
	Ni	60	5896.183	2.395	0.008	4.02691	3.94	ppb
	Cu	63	18577.242	1.261	0.023	5.17798	2.88	ppb
	Cu	65	8956.231	0.987	0.011	5.23362	2.48	ppb
	Zn	66	6920.171	0.448	0.009	8.11574	1.57	ppb
	As	75	3020.902	2.366	0.004	3.09927	1.42	ppb
	Se	82	1063.612	4.733	0.001	11.66578	3.47	ppb
	Mo	96	5300.071	1.894	0.002	2.63885	2.31	ppb
	Ag	107	12465.547	2.934	0.005	2.07169	3.19	ppb
	Ag	109	12290.884	1.863	0.005	2.08756	2.04	ppb
	Cd	111	3016.611	1.963	0.001	2.23855	1.66	ppb
	In	113	92268.735	0.706	0.001	2.31820	12.78	ppb
>	In	115	2320360.328	0.325	2320360.328			ppb
	Sn	118	9319.341	0.758	0.004	2.15024	1.10	ppb
	Sb	121	20531.060	2.014	0.005	4.39936	0.82	ppb
	Ba	135	85192.719	1.212	0.023	65.76112	0.39	ppb
	Ba	137	148095.901	0.336	0.039	65.44005	1.56	ppb
>	Tb	159	3766427.974	1.589	3766427.974			ppb
	Tl	205	38890.486	1.336	0.014	2.08213	0.89	ppb
	Pb	206	15413.542	2.635	0.006	2.71777	2.15	ppb
	Pb	207	27097.032	2.440	0.010	2.53758	1.95	ppb
	Pb	208	41997.725	2.497	0.015	2.18169	2.08	ppb
>	Bi	209	2713951.746	0.497	2713951.746			ppb
	Cr	53	3614.654	5.039	2968.633			ppb
	Pd	106	235.003	12.942	231.669			ppb
	Pd	108	183.335	15.021	183.335			ppb
	C	12	385241.043	0.404	86921.090			ppb
	Kr	83	30.667	16.413	-6.667			ppb
	Se	77	901.818	2.404	869.152			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	520226.736		ppb
	Be	9	548.015	2.332913	ppb
	Na	23	136111432.963	45379.443427	ppb
	Mg	24	73547753.383	34721.811298	ppb
	Mg	25	11082186.574	37245.403014	ppb
	Mg	26	13469563.512	38748.387161	ppb
	Al	27	438737.949	122.862297	ppb
	K	39	3540423.587	533.627519	ppb
	Ca	44	16758426.765	101457.975672	ppb
>	Sc	45	770141.260		ppb
	Ti	47	815.033	1.703022	ppb
	V	51	64676.458	11.415974	ppb
	Cr	52	30797.351	5.610566	ppb
	Mn	55	181415.792	25.071083	ppb
	Fe	54	427553.808	1075.776219	ppb
	Fe	56	8709207.427	1158.345133	ppb
	Fe	57	209772.385	1389.547632	ppb
	Co	59	22140.483	3.442153	ppb
	Ni	60	6018.477	4.132171	ppb
	Cu	63	18440.320	5.166077	ppb
	Cu	65	8893.953	5.224385	ppb
	Zn	66	6945.745	8.191095	ppb
	As	75	2955.880	3.048783	ppb
	Se	82	1020.052	11.243062	ppb
	Mo	96	5395.455	2.700604	ppb
	Ag	107	12798.184	2.135158	ppb
	Ag	109	12380.993	2.110801	ppb
	Cd	111	2954.379	2.200485	ppb
	In	113	91552.180	2.040947	ppb
>	In	115	2311713.262		ppb
	Sn	118	9394.411	2.176130	ppb
	Sb	121	20636.271	4.376177	ppb
	Ba	135	85909.443	65.643935	ppb
	Ba	137	147700.780	64.597411	ppb
>	Tb	159	3804737.542		ppb
	Tl	205	39487.811	2.102589	ppb
	Pb	206	15852.555	2.780237	ppb
	Pb	207	27819.712	2.591304	ppb
	Pb	208	43170.764	2.230604	ppb
>	Bi	209	2728967.628		ppb
	Cr	53	3818.729		ppb
	Pd	106	215.002		ppb
	Pd	108	210.002		ppb
	C	12	384361.403		ppb
	Kr	83	26.000		ppb
	Se	77	877.372		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	509700.935		ppb
	Be	9	510.013	2.215973	ppb
	Na	23	134624792.793	45810.774857	ppb
	Mg	24	73745496.551	35534.153406	ppb
	Mg	25	11218079.468	38480.732500	ppb
	Mg	26	13594431.759	39915.239072	ppb
	Al	27	422297.371	120.684054	ppb
	K	39	3514585.322	541.137703	ppb
	Ca	44	16868963.107	104238.141387	ppb
>	Sc	45	789253.619		ppb

	Ti	47	845.036	1.725209	ppb
	V	51	66604.545	11.472172	ppb
	Cr	52	30534.547	5.405322	ppb
	Mn	55	180336.532	24.316762	ppb
	Fe	54	417913.861	1023.406709	ppb
	Fe	56	8593007.194	1112.607274	ppb
	Fe	57	209512.011	1353.935026	ppb
	Co	59	21934.029	3.326878	ppb
	Ni	60	5741.648	3.844598	ppb
	Cu	63	18443.659	5.034951	ppb
	Cu	65	8917.307	5.108734	ppb
	Zn	66	6929.066	7.968454	ppb
	As	75	3097.437	3.118267	ppb
	Se	82	1118.729	12.051246	ppb
	Mo	96	5309.409	2.637306	ppb
	Ag	107	12524.505	2.076696	ppb
	Ag	109	12030.566	2.038410	ppb
	Cd	111	3072.232	2.274898	ppb
	In	113	92430.202	2.283173	ppb
>	In	115	2325626.005		ppb
	Sn	118	9254.280	2.129940	ppb
	Sb	121	20881.780	4.440899	ppb
	Ba	135	85659.311	65.584450	ppb
	Ba	137	148654.760	65.145714	ppb
>	Tb	159	3797099.059		ppb
	Tl	205	38544.140	2.066628	ppb
	Pb	206	15336.752	2.708353	ppb
	Pb	207	26948.489	2.527496	ppb
	Pb	208	41150.300	2.140769	ppb
>	Bi	209	2709976.954		ppb
	Cr	53	3468.601		ppb
	Pd	106	220.002		ppb
	Pd	108	155.001		ppb
	C	12	384321.929		ppb
	Kr	83	36.000		ppb
	Se	77	918.709		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	512883.629		ppb
	Be	9	486.012	2.098586	ppb
	Na	23	132663499.665	44863.057757	ppb
	Mg	24	72161433.694	34555.078892	ppb
	Mg	25	10823021.881	36895.167112	ppb
	Mg	26	13289628.001	38778.121965	ppb
	Al	27	432014.515	122.710449	ppb
	K	39	3543052.278	542.200478	ppb
	Ca	44	16742863.886	102815.958534	ppb
>	Sc	45	763796.245		ppb
	Ti	47	750.028	1.566323	ppb
	V	51	64160.254	11.418967	ppb
	Cr	52	29706.057	5.437618	ppb
	Mn	55	175038.635	24.389222	ppb
	Fe	54	418841.486	1061.907555	ppb
	Fe	56	8543041.094	1144.918323	ppb
	Fe	57	208419.535	1392.074996	ppb
	Co	59	21950.064	3.440891	ppb
	Ni	60	5928.423	4.103954	ppb
	Cu	63	18847.745	5.332908	ppb
	Cu	65	9057.433	5.367743	ppb
	Zn	66	6885.703	8.187666	ppb
	As	75	3009.390	3.130753	ppb
	Se	82	1052.055	11.703035	ppb

⌈	Mo	96	5195.349	2.578640	ppb
|	Ag	107	12073.951	2.003221	ppb
|	Ag	109	12461.092	2.113474	ppb
|	Cd	111	3023.224	2.240279	ppb
|	In	113	92823.823	2.630476	ppb
|>	In	115	2323741.719		ppb
⌊	Sn	118	9309.331	2.144642	ppb
⌈	Sb	121	20075.130	4.380992	ppb
|	Ba	135	84009.403	66.054974	ppb
|	Ba	137	147932.162	66.577035	ppb
⌊>	Tb	159	3697447.322		ppb
⌈	Tl	205	38639.507	2.077186	ppb
|	Pb	206	15051.319	2.664727	ppb
|	Pb	207	26522.895	2.493949	ppb
|	Pb	208	41672.111	2.173712	ppb
⌊>	Bi	209	2702910.657		ppb
	Cr	53	3556.632		ppb
	Pd	106	270.004		ppb
	Pd	108	185.002		ppb
	C	12	387039.796		ppb
	Kr	83	30.000		ppb
	Se	77	909.375		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			92.016		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			86.140		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			81.009		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			83.266		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			75.898		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904096-02

Sample Date/Time: Thursday, May 07, 2009 11:11:48
Sample Type: Sample
Sample Description: 7W12B
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904096-02.090

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	509033.480	0.880	509033.480			ppb
|	Be	9	0.667	173.205	0.000	0.00287	173.21	ppb
|	Na	23	58434830.600	3.177	114.765	19908.98626	3.81	ppb
|	Mg	24	76555056.673	5.912	150.421	36944.15241	6.39	ppb
|	Mg	25	11295650.222	3.518	22.193	38803.46483	4.03	ppb
|	Mg	26	13795424.206	3.096	27.104	40563.78194	3.58	ppb
|	Al	27	24099.038	4.263	0.041	6.01682	5.76	ppb
|	K	39	7409269.272	0.920	14.135	1181.50552	1.39	ppb
⌊	Ca	44	15180457.302	1.099	29.802	93926.52508	1.55	ppb
⌈>	Sc	45	800198.291	3.173	800198.291			ppb
|	Ti	47	718.359	7.667	0.001	1.41412	5.78	ppb
|	V	51	2154.786	22.027	0.002	0.25666	36.40	ppb
|	Cr	52	42905.186	1.031	0.049	7.76397	2.39	ppb
|	Mn	55	11189.596	3.714	0.013	1.43641	3.53	ppb
|	Fe	54	29729.156	3.212	0.009	18.47204	0.70	ppb
|	Fe	56	824781.952	0.635	0.387	42.03279	10.08	ppb
|	Fe	57	40911.859	1.179	0.049	252.07373	4.22	ppb
|	Co	59	960.713	5.627	0.001	0.12641	3.16	ppb
|	Ni	60	2650.351	3.587	0.003	1.73411	0.45	ppb
|	Cu	63	4665.533	3.016	0.005	1.04133	7.79	ppb
|	Cu	65	2346.942	4.353	0.003	1.24092	6.21	ppb
|	Zn	66	4260.908	3.133	0.005	4.75913	3.17	ppb
|	As	75	96.731	23.529	0.000	0.05958	35.83	ppb
⌊	Se	82	80.889	5.847	0.000	0.60616	8.10	ppb
⌈	Mo	96	425.342	8.889	0.000	0.02626	70.00	ppb
|	Ag	107	111.112	15.100	0.000	0.00718	37.63	ppb
|	Ag	109	107.778	26.304	0.000	0.00708	66.22	ppb
|	Cd	111	32.003	47.394	0.000	0.01390	79.37	ppb
|	In	113	90521.224	1.099	0.000	0.12961	414.89	ppb
|>	In	115	2351562.452	0.718	2351562.452			ppb
⌊	Sn	118	183.335	7.873	-0.000	-0.00096	352.50	ppb
⌈	Sb	121	1321.756	17.165	0.000	0.03034	149.99	ppb
|	Ba	135	43699.952	1.183	0.012	33.67856	1.16	ppb
|	Ba	137	75123.891	2.327	0.020	33.13378	1.88	ppb
⌊>	Tb	159	3771231.315	2.092	3771231.315			ppb
⌈	Tl	205	95.000	18.977	-0.000	-0.00064	147.02	ppb
|	Pb	206	940.044	2.319	0.000	0.15263	2.22	ppb
|	Pb	207	1741.743	4.451	0.001	0.15044	4.16	ppb
|	Pb	208	2861.912	7.699	0.001	0.13776	5.97	ppb
⌊>	Bi	209	2768758.849	2.991	2768758.849			ppb
	Cr	53	5183.344	3.729	4537.323			ppb
	Pd	106	11.667	107.855	8.333			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	386342.785	1.045	88022.832			ppb
	Kr	83	32.000	12.500	-5.333			ppb
	Se	77	96.889	5.932	64.223			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	507604.220		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	57229871.241	19549.855595	ppb
	Mg	24	72758409.567	35203.331412	ppb
	Mg	25	10968596.712	37780.342654	ppb
	Mg	26	13426283.220	39584.357011	ppb
	Al	27	23632.893	5.899883	ppb
	K	39	7336474.749	1172.874092	ppb
	Ca	44	15010994.847	93132.823572	ppb
>	Sc	45	774979.446		ppb
	Ti	47	655.021	1.321351	ppb
	V	51	2646.024	0.353760	ppb
	Cr	52	42542.300	7.961408	ppb
	Mn	55	11176.242	1.482711	ppb
	Fe	54	28811.445	18.523184	ppb
	Fe	56	830729.492	46.420308	ppb
	Fe	57	41430.648	263.853076	ppb
	Co	59	920.042	0.124860	ppb
	Ni	60	2553.659	1.725218	ppb
	Cu	63	4777.808	1.115849	ppb
	Cu	65	2303.599	1.258111	ppb
	Zn	66	4254.238	4.910611	ppb
	As	75	71.766	0.037096	ppb
	Se	82	76.667	0.587189	ppb
	Mo	96	396.008	0.012340	ppb
	Ag	107	93.334	0.004368	ppb
	Ag	109	106.667	0.007034	ppb
	Cd	111	14.635	0.001252	ppb
	In	113	89418.000	-0.210959	ppb
>	In	115	2334898.376		ppb
	Sn	118	175.002	-0.002604	ppb
	Sb	121	1080.058	-0.018176	ppb
	Ba	135	43108.718	33.995431	ppb
	Ba	137	73408.455	33.131767	ppb
>	Tb	159	3685028.930		ppb
	Tl	205	90.000	-0.000734	ppb
	Pb	206	925.043	0.155637	ppb
	Pb	207	1685.072	0.150666	ppb
	Pb	208	2635.205	0.131010	ppb
>	Bi	209	2674567.531		ppb
	Cr	53	4985.242		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	382462.644		ppb
	Kr	83	28.000		ppb
	Se	77	102.001		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	514055.564		ppb
	Be	9	2.000	0.008616	ppb
	Na	23	57502003.550	19396.232177	ppb
	Mg	24	75343567.572	35996.656409	ppb
	Mg	25	11180389.073	38026.554044	ppb
	Mg	26	13696831.087	39875.223520	ppb
	Al	27	23387.316	5.743990	ppb
	K	39	7419784.037	1171.258956	ppb
	Ca	44	15185777.944	93034.740441	ppb
>	Sc	45	799863.969		ppb

	Ti	47	745.028	1.475811	ppb
	V	51	2119.618	0.248811	ppb
	Cr	52	42775.291	7.737997	ppb
	Mn	55	10780.808	1.382120	ppb
	Fe	54	29658.917	18.325010	ppb
	Fe	56	822770.116	41.716987	ppb
	Fe	57	40476.753	249.168685	ppb
	Co	59	940.044	0.123424	ppb
	Ni	60	2653.685	1.737221	ppb
	Cu	63	4711.109	1.053159	ppb
	Cu	65	2463.637	1.307877	ppb
	Zn	66	4130.853	4.608487	ppb
	As	75	116.325	0.079573	ppb
	Se	82	86.000	0.661884	ppb
	Mo	96	412.008	0.019339	ppb
	Ag	107	126.667	0.009758	ppb
	Ag	109	80.000	0.002415	ppb
	Cd	111	38.734	0.018903	ppb
	In	113	91350.347	0.749547	ppb
>	In	115	2351123.488		ppb
	Sn	118	200.002	0.002922	ppb
	Sb	121	1355.092	0.037122	ppb
	Ba	135	44066.881	33.799242	ppb
	Ba	137	76902.568	33.758959	ppb
>	Tb	159	3788781.080		ppb
	Tl	205	80.000	-0.001518	ppb
	Pb	206	965.047	0.153297	ppb
	Pb	207	1710.074	0.144086	ppb
	Pb	208	2875.255	0.135353	ppb
>	Bi	209	2830078.028		ppb
	Cr	53	5193.348		ppb
	Pd	106	25.000		ppb
	Pd	108	5.000		ppb
	C	12	386044.407		ppb
	Kr	83	32.000		ppb
	Se	77	90.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	505440.657		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	60572617.008	20780.871002	ppb
	Mg	24	81563192.880	39632.469416	ppb
	Mg	25	11737964.880	40603.497779	ppb
	Mg	26	14263158.311	42231.765303	ppb
	Al	27	25276.906	6.406591	ppb
	K	39	7471549.031	1200.383524	ppb
	Ca	44	15344599.114	95612.011239	ppb
>	Sc	45	825751.458		ppb
	Ti	47	755.029	1.445199	ppb
	V	51	1698.714	0.167416	ppb
	Cr	52	43397.965	7.592506	ppb
	Mn	55	11611.738	1.444384	ppb
	Fe	54	30717.105	18.567939	ppb
	Fe	56	820846.248	37.961073	ppb
	Fe	57	40828.177	243.199424	ppb
	Co	59	1022.052	0.130943	ppb
	Ni	60	2743.710	1.739890	ppb
	Cu	63	4507.682	0.954972	ppb
	Cu	65	2273.592	1.156779	ppb
	Zn	66	4397.633	4.758293	ppb
	As	75	102.102	0.062058	ppb
	Se	82	80.000	0.569400	ppb

⌈	Mo	96	468.011	0.047093	ppb
|	Ag	107	113.334	0.007421	ppb
|	Ag	109	136.668	0.011794	ppb
|	Cd	111	42.640	0.021543	ppb
|	In	113	90795.327	-0.149747	ppb
|>	In	115	2368665.493		ppb
⌊	Sn	118	175.002	-0.003187	ppb
⌈	Sb	121	1530.117	0.072084	ppb
|	Ba	135	43924.256	33.241001	ppb
|	Ba	137	75060.652	32.510610	ppb
⌊>	Tb	159	3839883.934		ppb
⌈	Tl	205	115.001	0.000344	ppb
|	Pb	206	930.043	0.148958	ppb
|	Pb	207	1830.084	0.156582	ppb
|	Pb	208	3075.277	0.146918	ppb
⌊>	Bi	209	2801630.986		ppb
	Cr	53	5371.442		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	390521.303		ppb
	Kr	83	36.000		ppb
	Se	77	98.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		91.079			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		89.010			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.098			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		83.372			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		77.431			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 11:14:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.091

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	592860.497	3.647	592860.497			ppb
|	Be	9	32718.803	2.969	0.055	122.24169	0.90	ppb
|	Na	23	4222711.141	3.888	7.072	1226.87803	1.96	ppb
|	Mg	24	2964756.204	3.816	4.997	1227.25897	1.05	ppb
|	Mg	25	433922.634	3.713	0.731	1278.74232	0.53	ppb
|	Mg	26	504895.716	3.168	0.851	1273.68389	0.57	ppb
|	Al	27	5075518.692	3.254	8.557	1256.07668	2.32	ppb
|	K	39	8504557.245	3.220	13.925	1163.99287	1.14	ppb
⌊	Ca	44	229795.908	4.147	0.365	1150.71441	1.88	ppb
⌈>	Sc	45	886546.492	3.688	886546.492			ppb
|	Ti	47	58898.135	4.127	0.066	118.79490	0.55	ppb
|	V	51	757293.272	2.391	0.854	117.22832	2.47	ppb
|	Cr	52	656513.589	2.263	0.736	116.14821	2.14	ppb
|	Mn	55	943251.917	3.817	1.063	113.43226	0.64	ppb
|	Fe	54	539454.805	3.000	0.581	1184.85543	1.01	ppb
|	Fe	56	10004065.351	2.549	10.643	1156.05997	1.26	ppb
|	Fe	57	205227.551	3.157	0.229	1179.44957	0.62	ppb
|	Co	59	853563.856	2.528	0.963	115.89904	1.31	ppb
|	Ni	60	186639.403	3.730	0.210	112.09007	1.11	ppb
|	Cu	63	445243.976	2.665	0.501	114.15225	1.10	ppb
|	Cu	65	216433.488	2.350	0.244	112.83837	2.14	ppb
|	Zn	66	111484.827	1.993	0.126	116.74356	1.72	ppb
|	As	75	124026.698	2.519	0.140	112.48805	1.44	ppb
⌊	Se	82	11707.296	2.435	0.013	114.58018	1.32	ppb
⌈	Mo	96	257978.295	2.198	0.097	120.62259	2.00	ppb
|	Ag	107	836138.806	1.585	0.315	122.21414	1.08	ppb
|	Ag	109	830122.405	2.488	0.313	124.00511	2.62	ppb
|	Cd	111	191892.881	1.775	0.072	125.12433	2.00	ppb
|	In	113	296383.583	1.412	0.073	126.32941	1.72	ppb
|>	In	115	2652079.556	1.031	2652079.556			ppb
⌊	Sn	118	593849.054	1.120	0.224	122.26083	0.38	ppb
⌈	Sb	121	625891.994	0.911	0.147	125.68464	1.03	ppb
|	Ba	135	180718.456	1.068	0.042	123.47494	1.42	ppb
|	Ba	137	315304.763	1.113	0.074	123.30843	1.18	ppb
⌊>	Tb	159	4256517.078	1.829	4256517.078			ppb
⌈	Tl	205	2825740.634	1.312	0.827	120.49640	1.21	ppb
|	Pb	206	900627.643	2.685	0.264	126.62514	2.36	ppb
|	Pb	207	1674517.274	2.316	0.490	125.05332	1.86	ppb
|	Pb	208	2726732.975	1.606	0.798	112.94740	1.12	ppb
⌊>	Bi	209	3416572.041	0.532	3416572.041			ppb
	Cr	53	77352.244	3.400	76706.223			ppb
	Pd	106	16126.341	4.250	16123.008			ppb
	Pd	108	12654.669	0.885	12654.669			ppb
	C	12	325794.835	2.876	27474.882			ppb
	Kr	83	36.000	30.932	-1.333			ppb
	Se	77	9164.865	1.421	9132.198			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	615171.137		ppb
	Be	9	33608.381	120.990247	ppb
	Na	23	4327403.761	1211.518970	ppb
	Mg	24	3060967.322	1221.140308	ppb
	Mg	25	451572.772	1282.501180	ppb
	Mg	26	520540.445	1265.369758	ppb
	Al	27	5152759.487	1228.598611	ppb
	K	39	8731298.706	1151.153307	ppb
	Ca	44	236608.450	1141.355278	ppb
>	Sc	45	914988.936		ppb
	Ti	47	60854.602	118.938595	ppb
	V	51	778199.527	116.664579	ppb
	Cr	52	673377.383	115.373345	ppb
	Mn	55	978725.736	114.041660	ppb
	Fe	54	555639.491	1182.118338	ppb
	Fe	56	10240726.491	1145.701727	ppb
	Fe	57	211253.070	1176.148127	ppb
	Co	59	874924.446	115.071830	ppb
	Ni	60	193996.998	112.883177	ppb
	Cu	63	454321.154	112.826138	ppb
	Cu	65	217980.153	110.062373	ppb
	Zn	66	113318.436	114.923440	ppb
	As	75	127257.815	111.795386	ppb
	Se	82	11977.168	113.539159	ppb
	Mo	96	264235.499	123.357192	ppb
	Ag	107	847937.748	123.744715	ppb
	Ag	109	853897.593	127.348278	ppb
	Cd	111	195809.496	127.468797	ppb
	In	113	300575.394	128.742206	ppb
>	In	115	2656265.611		ppb
	Sn	118	597417.805	122.802116	ppb
	Sb	121	630770.330	124.189898	ppb
	Ba	135	182657.083	122.361887	ppb
	Ba	137	319171.514	122.385496	ppb
>	Tb	159	4340696.592		ppb
	Tl	205	2864783.186	122.178608	ppb
	Pb	206	920370.793	129.425663	ppb
	Pb	207	1692971.317	126.456523	ppb
	Pb	208	2741515.060	113.579885	ppb
>	Bi	209	3416087.099		ppb
	Cr	53	80345.478		ppb
	Pd	106	16633.823		ppb
	Pd	108	12783.165		ppb
	C	12	336113.246		ppb
	Kr	83	34.000		ppb
	Se	77	9254.280		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	591405.765		ppb
	Be	9	32865.920	123.071914	ppb
	Na	23	4307235.919	1254.641057	ppb
	Mg	24	2993196.715	1242.104617	ppb
	Mg	25	430189.303	1270.858073	ppb
	Mg	26	505571.005	1278.377263	ppb
	Al	27	5187890.399	1286.726505	ppb
	K	39	8582069.932	1177.736067	ppb
	Ca	44	233873.224	1175.491373	ppb
>	Sc	45	893827.493		ppb

	Ti	47	59662.451	119.369985	ppb
	V	51	747162.574	114.661554	ppb
	Cr	52	650820.948	114.141214	ppb
	Mn	55	944288.977	112.633332	ppb
	Fe	54	539448.064	1174.489388	ppb
	Fe	56	10037376.084	1149.771875	ppb
	Fe	57	206056.311	1174.359034	ppb
	Co	59	853998.342	114.978748	ppb
	Ni	60	185762.847	110.650380	ppb
	Cu	63	449591.076	114.298585	ppb
	Cu	65	220565.933	114.008807	ppb
	Zn	66	112121.727	116.404337	ppb
	As	75	123801.100	111.333395	ppb
	Se	82	11735.549	113.883342	ppb
	Mo	96	256516.369	118.814716	ppb
	Ag	107	838673.243	121.440410	ppb
	Ag	109	816661.934	120.847051	ppb
	Cd	111	189619.604	122.478689	ppb
	In	113	296372.708	124.521730	ppb
>	In	115	2677090.245		ppb
	Sn	118	597953.439	121.955805	ppb
	Sb	121	627286.083	126.390377	ppb
	Ba	135	178796.242	122.570286	ppb
	Ba	137	312320.204	122.552750	ppb
>	Tb	159	4241724.352		ppb
	Tl	205	2821437.330	119.667334	ppb
	Pb	206	907855.682	126.962632	ppb
	Pb	207	1700621.463	126.328538	ppb
	Pb	208	2761221.824	113.766488	ppb
>	Bi	209	3434999.836		ppb
	Cr	53	76297.963		ppb
	Pd	106	16398.434		ppb
	Pd	108	12602.937		ppb
	C	12	323451.800		ppb
	Kr	83	48.000		ppb
	Se	77	9224.920		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	572004.588		ppb
	Be	9	31682.108	122.662915	ppb
	Na	23	4033493.744	1214.474070	ppb
	Mg	24	2840104.574	1218.531970	ppb
	Mg	25	420005.827	1282.867707	ppb
	Mg	26	488575.698	1277.304657	ppb
	Al	27	4885906.191	1252.904919	ppb
	K	39	8200303.097	1163.089250	ppb
	Ca	44	218906.052	1135.296590	ppb
>	Sc	45	850823.047		ppb
	Ti	47	56177.353	118.076131	ppb
	V	51	746517.716	120.358815	ppb
	Cr	52	645342.437	118.930080	ppb
	Mn	55	906741.039	113.621786	ppb
	Fe	54	523276.859	1197.958575	ppb
	Fe	56	9734093.477	1172.706293	ppb
	Fe	57	198373.274	1187.841540	ppb
	Co	59	831768.781	117.646543	ppb
	Ni	60	180158.364	112.736642	ppb
	Cu	63	431819.699	115.332017	ppb
	Cu	65	210754.378	114.443919	ppb
	Zn	66	109014.318	118.902889	ppb
	As	75	121021.180	114.335375	ppb
	Se	82	11409.171	116.318048	ppb

⌈	Mo	96	253183.016	119.695871	ppb
|	Ag	107	821805.428	121.457286	ppb
|	Ag	109	819807.687	123.820003	ppb
|	Cd	111	190249.542	125.425499	ppb
|	In	113	292202.645	125.724288	ppb
|>	In	115	2622882.811		ppb
⌊	Sn	118	586175.920	122.024572	ppb
⌈	Sb	121	619619.568	126.473651	ppb
|	Ba	135	180702.042	125.492648	ppb
|	Ba	137	314422.570	124.987049	ppb
⌊>	Tb	159	4187130.289		ppb
⌈	Tl	205	2791001.386	119.643248	ppb
|	Pb	206	873656.454	123.487135	ppb
|	Pb	207	1629959.040	122.374892	ppb
|	Pb	208	2677462.040	111.495839	ppb
⌊>	Bi	209	3398629.188		ppb
	Cr	53	75413.290		ppb
	Pd	106	15346.767		ppb
	Pd	108	12577.905		ppb
	C	12	317819.459		ppb
	Kr	83	26.000		ppb
	Se	77	9015.395		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		106.078			
Be	9	101.868				
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		98.615			
Ti	47					
V	51	97.690				
Cr	52	96.790				
Mn	55	94.527				
Fe	54					
Fe	56					
Fe	57					
Co	59	96.583				
Ni	60	93.408				
Cu	63	95.127				
Cu	65	94.032				
Zn	66	97.286				
As	75	93.740				
Se	82	95.483				
Mo	96					
Ag	107	101.845				
Ag	109	103.338				
Cd	111	104.270				
In	113					
In	115		92.590			
Sn	118	101.884				
Sb	121	104.737				
Ba	135	102.896				
Ba	137	102.757				
Tb	159		94.101			
Tl	205	100.414				
Pb	206	105.521				
Pb	207	104.211				
Pb	208	94.123				
Bi	209		95.547			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 11:17:37
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.092

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	593506.365	4.031	593506.365			ppb
|	Be	9	1.333	86.603	0.000	0.00491	86.72	ppb
|	Na	23	26383.781	3.087	-0.006	-1.08500	6.67	ppb
|	Mg	24	1315.753	3.599	-0.002	-0.39555	10.24	ppb
|	Mg	25	190.668	10.309	-0.000	-0.39695	19.35	ppb
|	Mg	26	252.337	4.955	-0.000	-0.36964	5.49	ppb
|	Al	27	1016.719	8.322	-0.005	-0.68308	1.86	ppb
|	K	39	210232.365	0.981	-0.067	-5.60058	15.84	ppb
⌊	Ca	44	7533.507	4.215	-0.010	-30.86362	1.69	ppb
⌈>	Sc	45	862702.951	2.369	862702.951			ppb
|	Ti	47	78.334	18.426	-0.000	-0.02951	113.58	ppb
|	V	51	863.721	8.449	0.000	0.02233	42.68	ppb
|	Cr	52	3682.678	3.023	-0.000	-0.02316	45.49	ppb
|	Mn	55	425.009	11.940	-0.000	-0.00304	191.46	ppb
|	Fe	54	23130.054	0.954	-0.001	-2.62225	29.64	ppb
|	Fe	56	535638.593	2.532	-0.024	-2.57071	40.20	ppb
|	Fe	57	1785.160	4.924	-0.000	-0.39009	187.35	ppb
|	Co	59	188.668	18.854	0.000	0.00823	53.35	ppb
|	Ni	60	43.333	27.735	-0.000	-0.00293	243.54	ppb
|	Cu	63	840.035	7.285	-0.000	-0.06647	31.70	ppb
|	Cu	65	200.002	11.667	-0.000	-0.00919	158.19	ppb
|	Zn	66	134.445	20.040	-0.000	-0.04669	67.35	ppb
|	As	75	42.130	54.445	0.000	0.00204	1057.56	ppb
⌊	Se	82	27.556	11.934	0.000	0.00497	701.67	ppb
⌈	Mo	96	408.008	17.338	-0.000	-0.00736	434.10	ppb
|	Ag	107	200.002	20.207	0.000	0.01814	33.95	ppb
|	Ag	109	201.113	13.900	0.000	0.01900	23.28	ppb
|	Cd	111	3.212	96.445	-0.000	-0.00749	27.04	ppb
|	In	113	102615.581	1.738	0.000	0.47237	171.45	ppb
|>	In	115	2651960.305	0.769	2651960.305			ppb
⌊	Sn	118	463.344	23.750	0.000	0.05188	43.31	ppb
⌈	Sb	121	4132.526	9.813	0.001	0.57632	12.36	ppb
|	Ba	135	50.000	8.000	0.000	0.00518	47.82	ppb
|	Ba	137	92.667	4.493	0.000	0.00277	52.43	ppb
⌊>	Tb	159	4182842.429	1.359	4182842.429			ppb
⌈	Tl	205	258.337	32.637	0.000	0.00536	71.42	ppb
|	Pb	206	100.001	5.000	0.000	0.00345	25.19	ppb
|	Pb	207	173.334	4.406	0.000	0.00275	26.21	ppb
|	Pb	208	251.669	7.522	0.000	0.00191	41.37	ppb
⌊>	Bi	209	3440351.517	2.139	3440351.517			ppb
	Cr	53	364.007	3.846	-282.014			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	312606.642	1.817	14286.689			ppb
	Kr	83	30.667	24.691	-6.667			ppb
	Se	77	34.000	5.188	1.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	620691.049		ppb
	Be	9	2.000	0.007136	ppb
	Na	23	27300.214	-1.168547	ppb
	Mg	24	1261.080	-0.442112	ppb
	Mg	25	176.002	-0.464651	ppb
	Mg	26	265.004	-0.367004	ppb
	Al	27	1110.062	-0.671797	ppb
	K	39	212594.043	-6.603151	ppb
	Ca	44	7897.117	-30.769753	ppb
>	Sc	45	860381.208		ppb
	Ti	47	70.000	-0.046872	ppb
	V	51	912.368	0.030555	ppb
	Cr	52	3736.698	-0.011409	ppb
	Mn	55	370.007	-0.009697	ppb
	Fe	54	23136.734	-2.470976	ppb
	Fe	56	543625.416	-1.383675	ppb
	Fe	57	1720.148	-0.759743	ppb
	Co	59	196.002	0.009389	ppb
	Ni	60	53.333	0.003393	ppb
	Cu	63	866.704	-0.059131	ppb
	Cu	65	216.669	-0.000141	ppb
	Zn	66	110.001	-0.073015	ppb
	As	75	67.451	0.025672	ppb
	Se	82	31.333	0.043691	ppb
	Mo	96	486.012	0.028093	ppb
	Ag	107	176.668	0.014560	ppb
	Ag	109	186.668	0.016673	ppb
	Cd	111	-0.365	-0.009824	ppb
	In	113	102618.844	0.120934	ppb
>	In	115	2666187.224		ppb
	Sn	118	575.017	0.074258	ppb
	Sb	121	4576.047	0.653956	ppb
	Ba	135	54.000	0.007417	ppb
	Ba	137	94.000	0.002755	ppb
>	Tb	159	4245496.731		ppb
	Tl	205	200.002	0.002660	ppb
	Pb	206	95.000	0.002469	ppb
	Pb	207	175.001	0.002604	ppb
	Pb	208	265.002	0.002234	ppb
>	Bi	209	3512495.294		ppb
	Cr	53	378.007		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	318230.217		ppb
	Kr	83	36.000		ppb
	Se	77	34.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	584174.763		ppb
	Be	9	2.000	0.007582	ppb
	Na	23	26109.040	-1.045325	ppb
	Mg	24	1344.090	-0.376019	ppb
	Mg	25	183.002	-0.412708	ppb
	Mg	26	240.003	-0.391112	ppb
	Al	27	945.045	-0.696852	ppb
	K	39	209324.138	-5.281404	ppb
	Ca	44	7310.671	-31.427130	ppb
>	Sc	45	884205.954		ppb

	Ti	47	70.000	-0.050799	ppb
	V	51	898.989	0.024554	ppb
	Cr	52	3756.706	-0.026297	ppb
	Mn	55	470.011	0.001131	ppb
	Fe	54	23347.223	-3.464017	ppb
	Fe	56	543314.166	-3.271186	ppb
	Fe	57	1750.153	-0.862252	ppb
	Co	59	220.002	0.011918	ppb
	Ni	60	46.667	-0.001512	ppb
	Cu	63	770.030	-0.090222	ppb
	Cu	65	173.335	-0.025946	ppb
	Zn	66	130.001	-0.055192	ppb
	As	75	22.742	-0.016684	ppb
	Se	82	25.333	-0.023840	ppb
	Mo	96	390.008	-0.016284	ppb
	Ag	107	176.668	0.014609	ppb
	Ag	109	183.335	0.016229	ppb
	Cd	111	5.000	-0.006338	ppb
	In	113	104397.108	1.398599	ppb
>	In	115	2661107.083		ppb
	Sn	118	355.006	0.029325	ppb
	Sb	121	4040.816	0.561051	ppb
	Ba	135	46.000	0.002519	ppb
	Ba	137	96.000	0.004236	ppb
>	Tb	159	4168432.408		ppb
	Tl	205	220.002	0.003673	ppb
	Pb	206	105.001	0.004126	ppb
	Pb	207	165.001	0.002119	ppb
	Pb	208	230.002	0.001010	ppb
>	Bi	209	3443131.273		ppb
	Cr	53	350.006		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	312718.362		ppb
	Kr	83	34.000		ppb
	Se	77	35.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	575653.282		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	25742.090	-1.041134	ppb
	Mg	24	1342.090	-0.368508	ppb
	Mg	25	213.002	-0.313479	ppb
	Mg	26	252.003	-0.350811	ppb
	Al	27	995.050	-0.680585	ppb
	K	39	208778.916	-4.917196	ppb
	Ca	44	7392.732	-30.393974	ppb
>	Sc	45	843521.690		ppb
	Ti	47	95.000	0.009128	ppb
	V	51	779.806	0.011887	ppb
	Cr	52	3554.632	-0.031760	ppb
	Mn	55	435.009	-0.000561	ppb
	Fe	54	22906.205	-1.931757	ppb
	Fe	56	519976.197	-3.057281	ppb
	Fe	57	1885.178	0.451732	ppb
	Co	59	150.001	0.003374	ppb
	Ni	60	30.000	-0.010679	ppb
	Cu	63	883.372	-0.050043	ppb
	Cu	65	210.002	-0.001469	ppb
	Zn	66	163.335	-0.011870	ppb
	As	75	36.197	-0.002860	ppb
	Se	82	26.000	-0.004954	ppb

⌈	Mo	96	348.006	-0.033879	ppb
|	Ag	107	246.670	0.025252	ppb
|	Ag	109	233.336	0.024103	ppb
|	Cd	111	5.000	-0.006298	ppb
|	In	113	100830.792	-0.102427	ppb
|>	In	115	2628586.608		ppb
⌊	Sn	118	460.011	0.052045	ppb
⌈	Sb	121	3780.715	0.513965	ppb
|	Ba	135	50.000	0.005595	ppb
|	Ba	137	88.000	0.001328	ppb
⌊>	Tb	159	4134598.148		ppb
⌈	Tl	205	355.006	0.009733	ppb
|	Pb	206	100.001	0.003751	ppb
|	Pb	207	180.001	0.003539	ppb
|	Pb	208	260.002	0.002490	ppb
⌊>	Bi	209	3365427.982		ppb
	Cr	53	364.007		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	306871.348		ppb
	Kr	83	22.000		ppb
	Se	77	32.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		106.193			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		95.963			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.586			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.472			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.212			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904096-03

Sample Date/Time: Thursday, May 07, 2009 11:20:32
Sample Type: Sample
Sample Description: 7WCA
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904096-03.093

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	506620.246	0.976	506620.246			ppb
	Be	9	11.333	44.411	0.000	0.04942	43.64	ppb
	Na	23	104132678.134	0.773	205.497	35649.03496	0.52	ppb
	Mg	24	87194475.253	1.886	172.112	42271.49596	1.89	ppb
	Mg	25	12760273.640	4.454	25.187	44037.46645	4.40	ppb
	Mg	26	15574581.849	4.689	30.740	46006.04210	4.51	ppb
	Al	27	5584.893	1.975	0.005	0.68378	2.76	ppb
	K	39	3839883.744	1.513	7.159	598.37921	2.23	ppb
	Ca	44	21956295.155	0.681	43.318	136526.90679	0.88	ppb
>	Sc	45	766796.682	2.184	766796.682			ppb
	Ti	47	538.348	11.761	0.001	1.06398	12.57	ppb
	V	51	1357.450	12.247	0.001	0.12772	20.07	ppb
	Cr	52	4180.207	1.300	0.001	0.16369	13.42	ppb
	Mn	55	6501695.149	1.957	8.480	904.49771	1.75	ppb
	Fe	54	18004.530	1.810	-0.005	-9.42555	9.28	ppb
	Fe	56	665941.240	1.628	0.224	24.32765	2.73	ppb
	Fe	57	54541.699	1.753	0.069	354.73067	0.50	ppb
	Co	59	36230.852	0.943	0.047	5.66998	1.28	ppb
	Ni	60	21126.756	3.486	0.027	14.64130	1.86	ppb
	Cu	63	4077.498	1.351	0.004	0.92330	4.15	ppb
	Cu	65	1993.533	9.283	0.002	1.08604	10.38	ppb
	Zn	66	4410.973	2.987	0.006	5.15566	2.85	ppb
	As	75	283.488	14.381	0.000	0.26052	18.37	ppb
	Se	82	37.556	8.757	0.000	0.15307	25.50	ppb
	Mo	96	1915.517	5.423	0.001	0.88392	12.17	ppb
	Ag	107	63.334	18.977	-0.000	-0.00005	3211.39	ppb
	Ag	109	54.445	9.352	-0.000	-0.00126	89.48	ppb
	Cd	111	121.131	19.215	0.000	0.08672	31.24	ppb
	In	113	89071.654	1.496	0.002	3.57840	149.89	ppb
>	In	115	2209354.942	8.706	2209354.942			ppb
	Sn	118	301.671	16.098	0.000	0.03127	37.85	ppb
	Sb	121	1375.095	10.733	0.000	0.04285	74.12	ppb
	Ba	135	38467.854	1.237	0.010	29.62588	1.04	ppb
	Ba	137	67335.292	1.072	0.018	29.67972	0.69	ppb
>	Tb	159	3772808.997	0.538	3772808.997			ppb
	Tl	205	971.714	9.728	0.000	0.04684	8.88	ppb
	Pb	206	688.357	6.092	0.000	0.11226	7.96	ppb
	Pb	207	1231.705	2.703	0.000	0.10651	1.24	ppb
	Pb	208	1901.774	4.226	0.001	0.09140	2.58	ppb
>	Bi	209	2695064.989	1.994	2695064.989			ppb
	Cr	53	617.352	5.762	-28.669			ppb
	Pd	106	35.000	24.744	31.667			ppb
	Pd	108	8.333	69.282	8.333			ppb
	C	12	373522.441	0.936	75202.488			ppb
	Kr	83	36.667	17.534	-0.667			ppb
	Se	77	73.556	21.107	40.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	503103.093		ppb
	Be	9	6.000	0.026412	ppb
	Na	23	103258579.506	35596.167987	ppb
	Mg	24	85444431.928	41711.362972	ppb
	Mg	25	12175553.832	42312.917137	ppb
	Mg	26	14782337.641	43972.407682	ppb
	Al	27	5556.543	0.686908	ppb
	K	39	3808556.401	597.538105	ppb
	Ca	44	21786034.604	136409.462512	ppb
>	Sc	45	750041.370		ppb
	Ti	47	470.011	0.929855	ppb
	V	51	1165.485	0.098312	ppb
	Cr	52	4150.861	0.176447	ppb
	Mn	55	6363913.056	904.986887	ppb
	Fe	54	17956.107	-8.494432	ppb
	Fe	56	653934.549	24.688003	ppb
	Fe	57	53653.550	356.788638	ppb
	Co	59	35856.168	5.735853	ppb
	Ni	60	20277.204	14.367873	ppb
	Cu	63	4134.188	0.967060	ppb
	Cu	65	1876.843	1.040676	ppb
	Zn	66	4414.307	5.278630	ppb
	As	75	305.288	0.289919	ppb
	Se	82	36.000	0.144369	ppb
	Mo	96	1900.181	0.989294	ppb
	Ag	107	53.333	-0.000724	ppb
	Ag	109	53.333	-0.000433	ppb
	Cd	111	145.195	0.116759	ppb
	In	113	87602.032	9.753611	ppb
>	In	115	1987296.075		ppb
	Sn	118	290.004	0.036165	ppb
	Sb	121	1280.082	0.022648	ppb
	Ba	135	37925.782	29.334600	ppb
	Ba	137	66524.542	29.449283	ppb
>	Tb	159	3756563.554		ppb
	Tl	205	865.037	0.042227	ppb
	Pb	206	715.026	0.119930	ppb
	Pb	207	1195.037	0.105701	ppb
	Pb	208	1810.100	0.088850	ppb
>	Bi	209	2633208.909		ppb
	Cr	53	656.022		ppb
	Pd	106	40.000		ppb
	Pd	108	5.000		ppb
	C	12	370766.280		ppb
	Kr	83	34.000		ppb
	Se	77	66.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	512275.623		ppb
	Be	9	16.000	0.069170	ppb
	Na	23	104842552.794	35495.040852	ppb
	Mg	24	87430985.203	41916.916985	ppb
	Mg	25	12794506.202	43667.806290	ppb
	Mg	26	15720507.032	45925.870584	ppb
	Al	27	5706.628	0.700885	ppb
	K	39	3804183.675	585.494553	ppb
	Ca	44	22017083.492	135387.226963	ppb
>	Sc	45	766809.239		ppb

	Ti	47	595.018	1.197317	ppb
	V	51	1453.878	0.145287	ppb
	Cr	52	4242.900	0.176291	ppb
	Mn	55	6614705.011	920.082666	ppb
	Fe	54	17705.661	-10.229577	ppb
	Fe	56	668870.485	24.732855	ppb
	Fe	57	54417.662	353.869221	ppb
	Co	59	36311.808	5.681551	ppb
	Ni	60	21516.456	14.913711	ppb
	Cu	63	4024.143	0.906909	ppb
	Cu	65	2206.910	1.214443	ppb
	Zn	66	4277.581	4.993273	ppb
	As	75	308.720	0.286361	ppb
	Se	82	41.333	0.195717	ppb
	Mo	96	1820.166	0.774247	ppb
	Ag	107	60.000	-0.001122	ppb
	Ag	109	50.000	-0.002544	ppb
	Cd	111	119.465	0.079288	ppb
	In	113	89412.955	0.079686	ppb
>	In	115	2324525.175		ppb
	Sn	118	355.006	0.039875	ppb
	Sb	121	1300.085	0.026441	ppb
	Ba	135	38817.193	29.946997	ppb
	Ba	137	67573.540	29.836688	ppb
>	Tb	159	3766310.820		ppb
	Tl	205	1005.051	0.047996	ppb
	Pb	206	710.025	0.114411	ppb
	Pb	207	1240.039	0.105789	ppb
	Pb	208	1935.113	0.091871	ppb
>	Bi	209	2730292.559		ppb
	Cr	53	610.019		ppb
	Pd	106	40.000		ppb
	Pd	108	15.000		ppb
	C	12	372345.356		ppb
	Kr	83	44.000		ppb
	Se	77	62.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	504482.023		ppb
	Be	9	12.000	0.052679	ppb
	Na	23	104296902.103	35855.896035	ppb
	Mg	24	88708008.627	43186.207929	ppb
	Mg	25	13310760.888	46131.675932	ppb
	Mg	26	16220900.874	48119.848023	ppb
	Al	27	5491.507	0.663553	ppb
	K	39	3906911.155	612.104960	ppb
	Ca	44	22065767.368	137784.030884	ppb
>	Sc	45	783539.437		ppb
	Ti	47	550.015	1.064761	ppb
	V	51	1452.987	0.139572	ppb
	Cr	52	4146.860	0.138326	ppb
	Mn	55	6526467.379	888.423590	ppb
	Fe	54	18351.824	-9.552647	ppb
	Fe	56	675018.685	23.562101	ppb
	Fe	57	55553.884	353.534143	ppb
	Co	59	36524.581	5.592537	ppb
	Ni	60	21586.607	14.642320	ppb
	Cu	63	4074.163	0.895925	ppb
	Cu	65	1896.847	1.003007	ppb
	Zn	66	4541.031	5.195085	ppb
	As	75	236.456	0.205290	ppb
	Se	82	35.333	0.119130	ppb

⌈	Mo	96	2026.205	0.888211	ppb
|	Ag	107	76.667	0.001703	ppb
|	Ag	109	60.000	-0.000803	ppb
|	Cd	111	98.735	0.064128	ppb
|	In	113	90199.975	0.901891	ppb
|>	In	115	2316243.577		ppb
⌊	Sn	118	260.003	0.017771	ppb
⌈	Sb	121	1545.119	0.079456	ppb
|	Ba	135	38660.588	29.596044	ppb
|	Ba	137	67907.793	29.753174	ppb
⌊>	Tb	159	3795552.618		ppb
⌈	Tl	205	1045.055	0.050307	ppb
|	Pb	206	640.020	0.102449	ppb
|	Pb	207	1260.040	0.108031	ppb
|	Pb	208	1960.109	0.093488	ppb
⌊>	Bi	209	2721693.499		ppb
	Cr	53	586.017		ppb
	Pd	106	25.000		ppb
	Pd	108	5.000		ppb
	C	12	377455.687		ppb
	Kr	83	32.000		ppb
	Se	77	91.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		90.647			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		85.294			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		77.134			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		83.407			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		75.370			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904096-04

Sample Date/Time: Thursday, May 07, 2009 11:23:25
Sample Type: Sample
Sample Description: 7WDUP
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904096-04.094

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	504607.219	2.548	504607.219			ppb
	Be	9	10.000	34.641	0.000	0.04416	36.44	ppb
	Na	23	104793937.571	2.165	207.640	36020.71209	0.77	ppb
	Mg	24	89323553.464	3.503	176.987	43468.90598	1.21	ppb
	Mg	25	13307936.989	1.749	26.379	46122.46362	2.12	ppb
	Mg	26	16040474.239	2.481	31.788	47573.52097	0.37	ppb
	Al	27	7674.614	4.050	0.009	1.29766	2.55	ppb
	K	39	3910186.487	1.415	7.329	612.61511	1.29	ppb
	Ca	44	22298944.513	1.146	44.179	139241.75483	1.59	ppb
>	Sc	45	759998.959	1.312	759998.959			ppb
	Ti	47	541.681	4.554	0.001	1.08469	6.87	ppb
	V	51	1503.865	2.411	0.001	0.15665	3.42	ppb
	Cr	52	4088.836	1.493	0.001	0.15226	11.97	ppb
	Mn	55	6518572.276	1.020	8.577	914.86295	0.47	ppb
	Fe	54	16218.145	2.072	-0.007	-13.79698	7.80	ppb
	Fe	56	631482.370	0.818	0.186	20.25064	7.78	ppb
	Fe	57	54501.564	3.401	0.070	357.78607	4.14	ppb
	Co	59	35661.478	1.041	0.047	5.62989	0.86	ppb
	Ni	60	21206.910	1.266	0.028	14.83123	0.96	ppb
	Cu	63	3110.484	1.114	0.003	0.64387	2.61	ppb
	Cu	65	1691.254	3.168	0.002	0.91246	2.51	ppb
	Zn	66	3731.808	2.277	0.005	4.37191	1.21	ppb
	As	75	336.903	20.916	0.000	0.31965	24.39	ppb
	Se	82	44.667	27.883	0.000	0.23879	60.81	ppb
	Mo	96	1911.516	2.689	0.001	0.99380	3.33	ppb
	Ag	107	55.556	38.575	-0.000	-0.00032	1312.34	ppb
	Ag	109	54.445	31.418	-0.000	-0.00024	1438.89	ppb
	Cd	111	136.589	26.634	0.000	0.10902	29.02	ppb
	In	113	87721.406	0.198	0.006	9.69168	1.85	ppb
>	In	115	1991630.473	0.108	1991630.473			ppb
	Sn	118	250.003	14.000	0.000	0.02503	38.57	ppb
	Sb	121	948.378	7.159	-0.000	-0.04988	29.37	ppb
	Ba	135	38734.224	1.934	0.010	30.39716	1.92	ppb
	Ba	137	67472.206	0.920	0.018	30.30410	0.49	ppb
>	Tb	159	3702688.039	0.571	3702688.039			ppb
	Tl	205	963.380	9.420	0.000	0.04696	9.72	ppb
	Pb	206	386.674	8.610	0.000	0.05917	11.35	ppb
	Pb	207	791.682	4.782	0.000	0.06562	5.18	ppb
	Pb	208	1405.058	1.283	0.000	0.06611	0.74	ppb
>	Bi	209	2667778.343	1.930	2667778.343			ppb
	Cr	53	564.683	3.366	-81.338			ppb
	Pd	106	61.667	32.769	58.334			ppb
	Pd	108	30.000	44.096	30.000			ppb
	C	12	378304.889	1.215	79984.936			ppb
	Kr	83	35.333	26.750	-2.000			ppb
	Se	77	66.889	12.620	34.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	496988.429		ppb
	Be	9	12.000	0.053473	ppb
	Na	23	104137349.713	36340.971409	ppb
	Mg	24	86767714.874	42878.516518	ppb
	Mg	25	13039666.665	45873.534937	ppb
	Mg	26	15750158.636	47427.856228	ppb
	Al	27	7482.799	1.275791	ppb
	K	39	3864213.881	614.684325	ppb
	Ca	44	22050204.490	139763.913560	ppb
>	Sc	45	749605.433		ppb
	Ti	47	570.016	1.169475	ppb
	V	51	1496.920	0.159146	ppb
	Cr	52	4070.828	0.160116	ppb
	Mn	55	6442386.321	916.679767	ppb
	Fe	54	16062.890	-13.621014	ppb
	Fe	56	630770.330	21.386455	ppb
	Fe	57	54297.009	361.416432	ppb
	Co	59	35248.012	5.641551	ppb
	Ni	60	21095.561	14.957644	ppb
	Cu	63	3130.490	0.662760	ppb
	Cu	65	1630.133	0.889136	ppb
	Zn	66	3633.994	4.314236	ppb
	As	75	376.643	0.366650	ppb
	Se	82	46.667	0.268334	ppb
	Mo	96	1852.172	0.955679	ppb
	Ag	107	80.000	0.004429	ppb
	Ag	109	50.000	-0.001129	ppb
	Cd	111	150.645	0.121093	ppb
	In	113	87834.054	9.717388	ppb
>	In	115	1993510.613		ppb
	Sn	118	250.003	0.024957	ppb
	Sb	121	985.049	-0.042577	ppb
	Ba	135	39349.266	30.713633	ppb
	Ba	137	67805.100	30.289941	ppb
>	Tb	159	3722729.293		ppb
	Tl	205	950.045	0.047372	ppb
	Pb	206	395.008	0.062149	ppb
	Pb	207	765.015	0.064650	ppb
	Pb	208	1385.058	0.066629	ppb
>	Bi	209	2611282.604		ppb
	Cr	53	564.016		ppb
	Pd	106	50.000		ppb
	Pd	108	35.000		ppb
	C	12	376118.700		ppb
	Kr	83	46.000		ppb
	Se	77	65.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	497383.355		ppb
	Be	9	12.000	0.053430	ppb
	Na	23	102925922.014	35889.588993	ppb
	Mg	24	88389567.199	43645.331452	ppb
	Mg	25	13427462.801	47200.321941	ppb
	Mg	26	15877052.768	47772.013508	ppb
	Al	27	7507.817	1.281419	ppb
	K	39	3894772.416	619.303806	ppb
	Ca	44	22286041.955	141147.295827	ppb
>	Sc	45	760902.653		ppb

	Ti	47	530.014	1.055084	ppb
	V	51	1471.590	0.150504	ppb
	Cr	52	4156.864	0.165232	ppb
	Mn	55	6548378.978	917.927436	ppb
	Fe	54	16603.773	-12.819496	ppb
	Fe	56	636965.087	20.913723	ppb
	Fe	57	56448.875	370.428335	ppb
	Co	59	35966.564	5.671183	ppb
	Ni	60	21012.052	14.676679	ppb
	Cu	63	3070.471	0.630666	ppb
	Cu	65	1730.150	0.934995	ppb
	Zn	66	3774.045	4.418417	ppb
	As	75	378.523	0.362638	ppb
	Se	82	56.000	0.366948	ppb
	Mo	96	1942.189	1.014336	ppb
	Ag	107	40.000	-0.003333	ppb
	Ag	109	40.000	-0.003099	ppb
	Cd	111	163.844	0.132845	ppb
	In	113	87808.834	9.856787	ppb
>	In	115	1989284.478		ppb
	Sn	118	285.004	0.034712	ppb
	Sb	121	870.038	-0.066747	ppb
	Ba	135	38953.722	30.752757	ppb
	Ba	137	66756.077	30.162325	ppb
>	Tb	159	3680623.915		ppb
	Tl	205	880.039	0.042207	ppb
	Pb	206	415.009	0.063871	ppb
	Pb	207	835.017	0.069399	ppb
	Pb	208	1410.058	0.066025	ppb
>	Bi	209	2679997.149		ppb
	Cr	53	546.015		ppb
	Pd	106	85.000		ppb
	Pd	108	15.000		ppb
	C	12	375209.483		ppb
	Kr	83	28.000		ppb
	Se	77	59.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	519449.874		ppb
	Be	9	6.000	0.025580	ppb
	Na	23	107318540.985	35831.575878	ppb
	Mg	24	92813378.317	43882.869967	ppb
	Mg	25	13456681.502	45293.533967	ppb
	Mg	26	16494211.313	47520.693161	ppb
	Al	27	8033.225	1.335767	ppb
	K	39	3971573.166	603.857200	ppb
	Ca	44	22560587.093	136814.055096	ppb
>	Sc	45	769488.790		ppb
	Ti	47	525.014	1.029522	ppb
	V	51	1543.087	0.160299	ppb
	Cr	52	4038.815	0.131423	ppb
	Mn	55	6564951.528	909.981661	ppb
	Fe	54	15987.770	-14.950431	ppb
	Fe	56	626711.695	18.451731	ppb
	Fe	57	52758.808	341.513452	ppb
	Co	59	35769.860	5.576934	ppb
	Ni	60	21513.116	14.859363	ppb
	Cu	63	3130.490	0.638177	ppb
	Cu	65	1713.480	0.913242	ppb
	Zn	66	3787.384	4.383087	ppb
	As	75	255.542	0.229665	ppb
	Se	82	31.333	0.081093	ppb

⌈	Mo	96	1940.188	1.011377	ppb
|	Ag	107	46.667	-0.002047	ppb
|	Ag	109	73.334	0.003519	ppb
|	Cd	111	95.279	0.073123	ppb
|	In	113	87521.330	9.500857	ppb
|>	In	115	1992096.328		ppb
⌊	Sn	118	215.002	0.015409	ppb
⌈	Sb	121	990.049	-0.040319	ppb
|	Ba	135	37899.683	29.725103	ppb
|	Ba	137	67855.440	30.460049	ppb
⌊>	Tb	159	3704710.910		ppb
⌈	Tl	205	1060.056	0.051312	ppb
|	Pb	206	350.006	0.051477	ppb
|	Pb	207	775.015	0.062813	ppb
|	Pb	208	1420.059	0.065666	ppb
⌊>	Bi	209	2712055.277		ppb
	Cr	53	584.017		ppb
	Pd	106	50.000		ppb
	Pd	108	40.000		ppb
	C	12	383586.484		ppb
	Kr	83	32.000		ppb
	Se	77	76.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			90.287		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			84.538		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			69.532		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			81.857		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			74.607		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904096-05

Sample Date/Time: Thursday, May 07, 2009 11:26:19
Sample Type: Sample
Sample Description: 7MW6
Number of Replicates: 3
Batch ID: 0904096
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904096-05.095

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	495263.093	1.246	495263.093			ppb
	Be	9	2.000	173.205	0.000	0.00891	173.21	ppb
	Na	23	98476782.071	1.525	198.814	34489.58178	2.20	ppb
	Mg	24	S	S	1999999999.996	491210222736.10645	0.00	ppb
	Mg	25	43359515.294	1.480	87.547	153071.41585	0.67	ppb
	Mg	26	53582413.302	0.796	108.199	161930.51859	1.38	ppb
	Al	27	10131.802	4.020	0.014	2.06993	7.68	ppb
	K	39	9842493.630	0.571	19.454	1626.08215	1.25	ppb
	Ca	44	35900368.223	1.717	72.481	228440.11132	2.82	ppb
>	Sc	45	784701.517	0.758	784701.517			ppb
	Ti	47	823.367	5.306	0.001	1.68727	6.47	ppb
	V	51	1148.631	3.792	0.001	0.08597	9.95	ppb
	Cr	52	3177.838	1.286	-0.000	-0.05764	17.24	ppb
	Mn	55	143744.131	0.874	0.183	19.48435	0.83	ppb
	Fe	54	200848.707	0.806	0.228	465.07438	0.71	ppb
	Fe	56	4498716.210	0.102	5.089	552.73794	0.74	ppb
	Fe	57	161871.406	1.284	0.204	1049.69150	1.27	ppb
	Co	59	1882.844	2.168	0.002	0.27075	1.52	ppb
	Ni	60	4649.970	2.668	0.006	3.12646	3.06	ppb
	Cu	63	2180.238	1.003	0.002	0.34433	0.52	ppb
	Cu	65	3555.076	0.716	0.004	1.97873	0.93	ppb
	Zn	66	6159.676	3.708	0.008	7.10394	3.41	ppb
	As	75	209.979	10.266	0.000	0.17792	13.27	ppb
	Se	82	53.333	12.055	0.000	0.31797	22.26	ppb
	Mo	96	24675.077	1.561	0.012	14.57427	7.01	ppb
	Ag	107	33.333	20.000	-0.000	-0.00490	28.25	ppb
	Ag	109	40.000	25.000	-0.000	-0.00342	60.57	ppb
	Cd	111	7.023	391.701	-0.000	-0.00464	483.54	ppb
	In	113	86623.578	0.749	0.003	5.78083	96.93	ppb
>	In	115	2082665.612	8.428	2082665.612			ppb
	Sn	118	231.669	14.371	0.000	0.01794	73.61	ppb
	Sb	121	578.350	18.163	-0.000	-0.13299	19.15	ppb
	Ba	135	24161.156	1.219	0.007	19.28546	1.67	ppb
	Ba	137	42086.390	1.472	0.012	19.22433	1.65	ppb
>	Tb	159	3638604.451	1.187	3638604.451			ppb
	Tl	205	66.667	41.307	-0.000	-0.00171	93.16	ppb
	Pb	206	278.337	17.262	0.000	0.04369	20.18	ppb
	Pb	207	518.340	8.032	0.000	0.04356	8.75	ppb
	Pb	208	876.690	2.572	0.000	0.04193	3.52	ppb
>	Bi	209	2463669.733	1.169	2463669.733			ppb
	Cr	53	459.344	1.096	-186.677			ppb
	Pd	106	3.333	173.205	0.000			ppb
	Pd	108	30.000	33.333	30.000			ppb
	C	12	405430.935	1.285	107110.982			ppb
	Kr	83	35.333	34.586	-2.000			ppb
	Se	77	69.556	11.555	36.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	500095.735		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	96939935.261	33618.423945	ppb
	Mg	24		491210222736.106450	ppb
	Mg	25	43559378.127	152291.922291	ppb
	Mg	26	53270856.591	159418.177455	ppb
	Al	27	9864.863	1.961251	ppb
	K	39	9808253.243	1604.154986	ppb
	Ca	44	35201634.885	221778.680356	ppb
>	Sc	45	778627.104		ppb
	Ti	47	835.035	1.728376	ppb
	V	51	1155.182	0.088662	ppb
	Cr	52	3160.499	-0.056202	ppb
	Mn	55	142523.460	19.469239	ppb
	Fe	54	199092.354	464.540304	ppb
	Fe	56	4493680.867	556.872999	ppb
	Fe	57	160126.848	1046.427408	ppb
	Co	59	1838.169	0.266114	ppb
	Ni	60	4757.798	3.224553	ppb
	Cu	63	2160.233	0.343423	ppb
	Cu	65	3560.634	1.998319	ppb
	Zn	66	6128.544	7.124188	ppb
	As	75	227.513	0.197585	ppb
	Se	82	56.000	0.352381	ppb
	Mo	96	24261.395	15.043894	ppb
	Ag	107	26.667	-0.005899	ppb
	Ag	109	30.000	-0.005054	ppb
	Cd	111	12.810	0.001618	ppb
	In	113	85882.211	8.649964	ppb
>	In	115	1977016.089		ppb
	Sn	118	260.003	0.028291	ppb
	Sb	121	475.011	-0.157049	ppb
	Ba	135	23826.351	19.074754	ppb
	Ba	137	41371.403	18.954224	ppb
>	Tb	159	3627435.709		ppb
	Tl	205	40.000	-0.003239	ppb
	Pb	206	235.003	0.035918	ppb
	Pb	207	485.006	0.040802	ppb
	Pb	208	875.023	0.042502	ppb
>	Bi	209	2430962.129		ppb
	Cr	53	454.010		ppb
	Pd	106	0.000		ppb
	Pd	108	30.000		ppb
	C	12	399495.561		ppb
	Kr	83	46.000		ppb
	Se	77	62.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	488310.190		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	98549319.885	35001.778404	ppb
	Mg	24		491210222736.106450	ppb
	Mg	25	42641668.859	152681.620959	ppb
	Mg	26	53407880.154	163685.773714	ppb
	Al	27	10600.616	2.252309	ppb
	K	39	9811892.969	1644.345257	ppb
	Ca	44	36367254.577	234656.428022	ppb
>	Sc	45	790517.861		ppb

	Ti	47	775.030	1.563517	ppb
	V	51	1102.173	0.076391	ppb
	Cr	52	3148.496	-0.068226	ppb
	Mn	55	143674.760	19.330900	ppb
	Fe	54	201173.385	462.063184	ppb
	Fe	56	4502686.385	548.680922	ppb
	Fe	57	161315.727	1038.254458	ppb
	Co	59	1918.184	0.274023	ppb
	Ni	60	4677.760	3.121685	ppb
	Cu	63	2203.576	0.346407	ppb
	Cu	65	3577.306	1.976261	ppb
	Zn	66	6402.049	7.335731	ppb
	As	75	185.911	0.151735	ppb
	Se	82	58.000	0.364973	ppb
	Mo	96	24740.567	15.277042	ppb
	Ag	107	40.000	-0.003319	ppb
	Ag	109	50.000	-0.001089	ppb
	Cd	111	-22.920	-0.029548	ppb
	In	113	87087.568	9.368754	ppb
>	In	115	1985689.450		ppb
	Sn	118	240.003	0.022476	ppb
	Sb	121	575.017	-0.135603	ppb
	Ba	135	24277.434	19.125750	ppb
	Ba	137	42465.977	19.145520	ppb
>	Tb	159	3686270.769		ppb
	Tl	205	95.000	-0.000067	ppb
	Pb	206	330.005	0.053270	ppb
	Pb	207	565.008	0.047907	ppb
	Pb	208	855.022	0.040252	ppb
>	Bi	209	2485180.373		ppb
	Cr	53	460.011		ppb
	Pd	106	0.000		ppb
	Pd	108	40.000		ppb
	C	12	407548.956		ppb
	Kr	83	22.000		ppb
	Se	77	78.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	497383.355		ppb
	Be	9	6.000	0.026715	ppb
	Na	23	99941091.067	34848.543002	ppb
	Mg	24	491210222736.106450		ppb
	Mg	25	43877498.897	154240.704287	ppb
	Mg	26	54068503.162	162687.604600	ppb
	Al	27	9929.928	1.996243	ppb
	K	39	9907334.678	1629.746211	ppb
	Ca	44	36132215.207	228885.225594	ppb
>	Sc	45	784959.588		ppb
	Ti	47	860.037	1.769932	ppb
	V	51	1188.538	0.092853	ppb
	Cr	52	3224.520	-0.048503	ppb
	Mn	55	145034.174	19.652904	ppb
	Fe	54	202280.383	468.619653	ppb
	Fe	56	4499781.379	552.659900	ppb
	Fe	57	164171.644	1064.392620	ppb
	Co	59	1892.179	0.272103	ppb
	Ni	60	4514.352	3.033135	ppb
	Cu	63	2176.904	0.343162	ppb
	Cu	65	3527.289	1.961611	ppb
	Zn	66	5948.435	6.851895	ppb
	As	75	216.515	0.184424	ppb
	Se	82	46.000	0.236571	ppb

⌈	Mo	96	25023.269	13.401870	ppb
|	Ag	107	33.333	-0.005474	ppb
|	Ag	109	40.000	-0.004131	ppb
|	Cd	111	31.180	0.014007	ppb
|	In	113	86900.955	-0.676240	ppb
|>	In	115	2285291.296		ppb
⌊	Sn	118	195.002	0.003065	ppb
⌈	Sb	121	685.023	-0.106325	ppb
¦	Ba	135	24379.682	19.655879	ppb
¦	Ba	137	42421.790	19.573232	ppb
⌊>	Tb	159	3602106.875		ppb
⌈	Tl	205	65.000	-0.001810	ppb
¦	Pb	206	270.004	0.041889	ppb
|	Pb	207	505.006	0.041961	ppb
|	Pb	208	900.025	0.043028	ppb
⌊>	Bi	209	2474866.696		ppb
	Cr	53	464.011		ppb
	Pd	106	10.000		ppb
	Pd	108	20.000		ppb
	C	12	409248.288		ppb
	Kr	83	38.000		ppb
	Se	77	68.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.615			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		87.286			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		72.711			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		80.440			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		68.899			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 11:29:13
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.096

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	608252.364	3.744	608252.364			ppb
	Be	9	33334.213	4.681	0.055	121.34036	0.97	ppb
	Na	23	4348301.537	3.293	7.099	1231.50410	0.59	ppb
	Mg	24	3138263.346	2.292	5.158	1266.83159	2.22	ppb
	Mg	25	462313.908	2.343	0.760	1328.55184	2.11	ppb
	Mg	26	540796.701	2.504	0.889	1330.02832	1.25	ppb
	Al	27	5356232.431	2.117	8.803	1292.21617	1.64	ppb
	K	39	8656886.526	1.968	13.817	1154.95259	1.85	ppb
	Ca	44	233672.834	1.102	0.362	1140.99995	3.94	ppb
>	Sc	45	902174.359	3.240	902174.359			ppb
	Ti	47	59307.177	3.750	0.066	117.55006	1.14	ppb
	V	51	772764.896	1.488	0.856	117.54311	1.93	ppb
	Cr	52	671626.911	1.896	0.740	116.78029	3.13	ppb
	Mn	55	966351.805	1.414	1.071	114.24455	1.85	ppb
	Fe	54	552350.936	1.191	0.585	1193.15682	3.63	ppb
	Fe	56	10261642.533	0.148	10.737	1166.31015	3.26	ppb
	Fe	57	210345.969	0.623	0.231	1188.68093	3.34	ppb
	Co	59	869544.364	0.826	0.964	116.06595	3.20	ppb
	Ni	60	191368.359	1.220	0.212	112.98950	2.33	ppb
	Cu	63	449262.711	0.750	0.497	113.21661	2.51	ppb
	Cu	65	221493.409	2.018	0.245	113.46540	1.84	ppb
	Zn	66	114063.591	1.436	0.126	117.37247	1.84	ppb
	As	75	124926.661	1.143	0.139	111.37540	3.10	ppb
	Se	82	11924.218	1.937	0.013	114.71467	3.40	ppb
	Mo	96	262670.887	1.464	0.097	120.39821	0.80	ppb
	Ag	107	850506.141	1.268	0.314	121.86911	0.52	ppb
	Ag	109	840688.354	1.346	0.311	123.10857	1.17	ppb
	Cd	111	197225.007	1.175	0.073	126.06671	1.01	ppb
	In	113	302891.883	2.247	0.074	126.68772	3.17	ppb
>	In	115	2705364.102	1.384	2705364.102			ppb
	Sn	118	609411.696	1.712	0.225	122.99515	1.11	ppb
	Sb	121	633592.639	0.527	0.150	128.36437	0.56	ppb
	Ba	135	182556.020	0.915	0.043	125.83048	0.26	ppb
	Ba	137	316120.995	0.610	0.075	124.72546	0.87	ppb
>	Tb	159	4218793.283	1.085	4218793.283			ppb
	Tl	205	2782276.416	1.243	0.805	117.27701	1.39	ppb
	Pb	206	894763.824	1.396	0.259	124.34862	0.08	ppb
	Pb	207	1681185.812	1.427	0.486	124.10291	0.12	ppb
	Pb	208	2764933.607	1.024	0.800	113.21053	0.38	ppb
>	Bi	209	3456614.392	1.355	3456614.392			ppb
	Cr	53	78318.308	2.724	77672.287			ppb
	Pd	106	16430.160	2.692	16426.826			ppb
	Pd	108	13120.270	1.848	13120.270			ppb
	C	12	332012.013	1.759	33692.060			ppb
	Kr	83	35.333	34.586	-2.000			ppb
	Se	77	9412.651	1.408	9379.984			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	630801.188		ppb
	Be	9	34938.930	122.663631	ppb
	Na	23	4479561.355	1223.126728	ppb
	Mg	24	3221318.055	1253.292697	ppb
	Mg	25	474817.152	1315.127732	ppb
	Mg	26	554397.315	1314.317792	ppb
	Al	27	5462040.825	1270.104117	ppb
	K	39	8831188.969	1134.993439	ppb
	Ca	44	235732.114	1106.940145	ppb
>	Sc	45	933278.837		ppb
	Ti	47	61860.748	118.534992	ppb
	V	51	786029.606	115.527978	ppb
	Cr	52	682054.874	114.565095	ppb
	Mn	55	979556.471	111.900590	ppb
	Fe	54	555343.721	1157.180885	ppb
	Fe	56	10279072.568	1126.339749	ppb
	Fe	57	210905.855	1150.969228	ppb
	Co	59	874161.889	112.718017	ppb
	Ni	60	194017.388	110.682008	ppb
	Cu	63	453080.038	110.306424	ppb
	Cu	65	226608.812	112.179064	ppb
	Zn	66	115611.122	114.950869	ppb
	As	75	126016.347	108.534139	ppb
	Se	82	12083.963	112.303654	ppb
	Mo	96	266909.113	121.094283	ppb
	Ag	107	854368.730	121.173362	ppb
	Ag	109	853756.257	123.742828	ppb
	Cd	111	199893.585	126.464515	ppb
	In	113	310470.936	129.492046	ppb
>	In	115	2733200.859		ppb
	Sn	118	621293.806	124.115577	ppb
	Sb	121	636757.470	127.733612	ppb
	Ba	135	184286.573	125.775560	ppb
	Ba	137	318277.693	124.338035	ppb
>	Tb	159	4260586.249		ppb
	Tl	205	2816060.313	118.921182	ppb
	Pb	206	893691.072	124.439420	ppb
	Pb	207	1679595.734	124.225335	ppb
	Pb	208	2766166.936	113.475877	ppb
>	Bi	209	3449963.759		ppb
	Cr	53	79377.796		ppb
	Pd	106	16633.823		ppb
	Pd	108	13083.553		ppb
	C	12	338756.222		ppb
	Kr	83	22.000		ppb
	Se	77	9556.564		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	608694.272		ppb
	Be	9	33241.157	120.941579	ppb
	Na	23	4369729.518	1236.566635	ppb
	Mg	24	3095427.816	1248.048611	ppb
	Mg	25	456324.341	1309.806593	ppb
	Mg	26	540676.831	1328.353991	ppb
	Al	27	5370149.322	1294.106302	ppb
	K	39	8648798.246	1152.447925	ppb
	Ca	44	230784.700	1124.099546	ppb
>	Sc	45	875279.598		ppb

	Ti	47	57796.541	118.085122	ppb
	V	51	765706.143	120.002730	ppb
	Cr	52	675394.854	121.002677	ppb
	Mn	55	952275.692	115.994613	ppb
	Fe	54	556901.890	1241.294240	ppb
	Fe	56	10251184.512	1202.153749	ppb
	Fe	57	211283.707	1230.187994	ppb
	Co	59	873205.504	120.056809	ppb
	Ni	60	190473.563	115.861964	ppb
	Cu	63	446706.002	115.975882	ppb
	Cu	65	219530.179	115.879941	ppb
	Zn	66	112347.574	119.114943	ppb
	As	75	125453.214	115.211160	ppb
	Se	82	12029.231	119.219705	ppb
	Mo	96	261702.171	119.301605	ppb
	Ag	107	858831.082	122.393782	ppb
	Ag	109	834020.567	121.465114	ppb
	Cd	111	196057.508	124.635630	ppb
	In	113	297299.622	122.094568	ppb
>	In	115	2720083.005		ppb
	Sn	118	605179.266	121.478493	ppb
	Sb	121	633915.141	128.207227	ppb
	Ba	135	182428.976	125.528706	ppb
	Ba	137	314558.754	123.892784	ppb
>	Tb	159	4225931.906		ppb
	Tl	205	2783798.213	115.665944	ppb
	Pb	206	907757.327	124.363051	ppb
	Pb	207	1705939.566	124.142390	ppb
	Pb	208	2792597.307	112.715678	ppb
>	Bi	209	3506416.200		ppb
	Cr	53	79714.458		ppb
	Pd	106	16733.990		ppb
	Pd	108	13378.944		ppb
	C	12	328576.887		ppb
	Kr	83	46.000		ppb
	Se	77	9385.736		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	585261.632		ppb
	Be	9	31822.553	120.415858	ppb
	Na	23	4195613.737	1234.818950	ppb
	Mg	24	3098044.166	1299.153475	ppb
	Mg	25	455800.232	1360.721186	ppb
	Mg	26	527315.956	1347.413171	ppb
	Al	27	5236507.147	1312.438097	ppb
	K	39	8490672.363	1177.416408	ppb
	Ca	44	234501.687	1191.960166	ppb
>	Sc	45	897964.643		ppb
	Ti	47	58264.243	116.030053	ppb
	V	51	766558.938	117.098626	ppb
	Cr	52	657431.005	114.773102	ppb
	Mn	55	967223.250	114.838450	ppb
	Fe	54	544807.197	1180.995333	ppb
	Fe	56	10254670.519	1170.436952	ppb
	Fe	57	208848.343	1184.885583	ppb
	Co	59	861265.699	115.423020	ppb
	Ni	60	189614.126	112.424521	ppb
	Cu	63	448002.094	113.367535	ppb
	Cu	65	218341.237	112.337201	ppb
	Zn	66	114232.076	118.051606	ppb
	As	75	123310.422	110.380905	ppb
	Se	82	11659.460	112.620659	ppb

⌈	Mo	96	259401.375	120.798738	ppb
|	Ag	107	838318.612	122.040177	ppb
|	Ag	109	834288.238	124.117780	ppb
|	Cd	111	195723.927	127.099996	ppb
|	In	113	300905.090	128.476542	ppb
| >	In	115	2662808.442		ppb
⌊	Sn	118	601762.017	123.391365	ppb
⌈	Sb	121	630105.306	129.152264	ppb
|	Ba	135	180952.511	126.187176	ppb
|	Ba	137	315526.537	125.945577	ppb
⌊ >	Tb	159	4169861.695		ppb
⌈	Tl	205	2746970.721	117.243914	ppb
|	Pb	206	882843.074	124.243398	ppb
|	Pb	207	1658022.136	123.940991	ppb
|	Pb	208	2736036.579	113.440036	ppb
⌊ >	Bi	209	3413463.216		ppb
	Cr	53	75862.670		ppb
	Pd	106	15922.666		ppb
	Pd	108	12898.313		ppb
	C	12	328702.929		ppb
	Kr	83	38.000		ppb
	Se	77	9295.652		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			108.832		
	Be	9	101.117				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			100.353		
	Ti	47					
	V	51	97.953				
	Cr	52	97.317				
	Mn	55	95.204				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	96.722				
	Ni	60	94.158				
	Cu	63	94.347				
	Cu	65	94.555				
	Zn	66	97.810				
	As	75	92.813				
	Se	82	95.596				
	Mo	96					
	Ag	107	101.558				
	Ag	109	102.590				
	Cd	111	105.056				
	In	113					
>	In	115			94.450		
	Sn	118	102.496				
	Sb	121	106.970				
	Ba	135	104.859				
	Ba	137	103.938				
>	Tb	159			93.267		
	Tl	205	97.731				
	Pb	206	103.624				
	Pb	207	103.419				
	Pb	208	94.342				
>	Bi	209			96.667		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 11:32:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.097

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	578046.705	2.637	578046.705			ppb
	Be	9	2.667	43.301	0.000	0.01026	44.75	ppb
	Na	23	26439.264	3.274	-0.005	-0.86490	5.80	ppb
	Mg	24	2905.756	1.439	0.001	0.29418	14.31	ppb
	Mg	25	404.675	2.927	0.000	0.26478	25.35	ppb
	Mg	26	529.681	2.147	0.000	0.36567	7.18	ppb
	Al	27	1026.721	20.802	-0.005	-0.67414	7.37	ppb
	K	39	206917.604	0.907	-0.063	-5.30286	9.69	ppb
	Ca	44	7374.058	6.101	-0.010	-30.68363	5.05	ppb
>	Sc	45	869625.093	1.500	869625.093			ppb
	Ti	47	58.334	27.553	-0.000	-0.07272	43.64	ppb
	V	51	784.008	17.698	0.000	0.00891	262.44	ppb
	Cr	52	3629.325	1.991	-0.000	-0.03816	24.78	ppb
	Mn	55	475.011	13.765	0.000	0.00278	316.86	ppb
	Fe	54	22625.580	2.795	-0.002	-4.26090	16.41	ppb
	Fe	56	534846.815	1.833	-0.030	-3.20621	34.26	ppb
	Fe	57	1896.847	4.546	0.000	0.17997	337.49	ppb
	Co	59	135.334	11.479	0.000	0.00070	294.46	ppb
	Ni	60	31.111	24.744	-0.000	-0.01053	47.20	ppb
	Cu	63	754.473	11.302	-0.000	-0.09113	22.00	ppb
	Cu	65	222.225	35.507	0.000	0.00166	2549.76	ppb
	Zn	66	155.557	10.996	-0.000	-0.02554	74.03	ppb
	As	75	48.093	22.825	0.000	0.00721	149.42	ppb
	Se	82	30.222	5.551	0.000	0.02935	66.37	ppb
	Mo	96	428.676	27.879	0.000	0.00337	1612.73	ppb
	Ag	107	211.113	22.124	0.000	0.01999	36.40	ppb
	Ag	109	226.669	10.605	0.000	0.02304	17.08	ppb
	Cd	111	5.758	68.042	-0.000	-0.00581	43.87	ppb
	In	113	102457.361	2.159	0.000	0.79322	113.00	ppb
>	In	115	2635145.129	1.199	2635145.129			ppb
	Sn	118	441.677	18.441	0.000	0.04796	34.09	ppb
	Sb	121	3779.051	8.426	0.001	0.51227	10.36	ppb
	Ba	135	36.667	24.596	-0.000	-0.00375	175.69	ppb
	Ba	137	84.667	12.122	-0.000	-0.00002	25860.20	ppb
>	Tb	159	4139307.765	2.403	4139307.765			ppb
	Tl	205	275.004	15.851	0.000	0.00621	29.09	ppb
	Pb	206	88.334	22.876	0.000	0.00201	134.54	ppb
	Pb	207	161.667	24.999	0.000	0.00207	139.22	ppb
	Pb	208	293.336	10.415	0.000	0.00383	30.53	ppb
>	Bi	209	3379803.048	1.382	3379803.048			ppb
	Cr	53	376.007	12.372	-270.014			ppb
	Pd	106	3.333	173.205	0.000			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	312435.325	2.706	14115.372			ppb
	Kr	83	23.333	38.651	-14.000			ppb
	Se	77	33.556	11.641	0.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	595648.819		ppb
	Be	9	2.000	0.007436	ppb
	Na	23	27438.592	-0.807460	ppb
	Mg	24	2888.417	0.249871	ppb
	Mg	25	391.008	0.187312	ppb
	Mg	26	539.015	0.348324	ppb
	Al	27	1205.073	-0.637345	ppb
	K	39	209070.922	-5.893899	ppb
	Ca	44	7849.079	-29.338061	ppb
>	Sc	45	883753.458		ppb
	Ti	47	70.000	-0.050726	ppb
	V	51	723.967	-0.002567	ppb
	Cr	52	3704.686	-0.035237	ppb
	Mn	55	400.008	-0.007289	ppb
	Fe	54	23277.060	-3.598469	ppb
	Fe	56	543852.265	-3.170874	ppb
	Fe	57	1820.166	-0.449683	ppb
	Co	59	148.001	0.002127	ppb
	Ni	60	26.667	-0.013550	ppb
	Cu	63	813.366	-0.078949	ppb
	Cu	65	176.668	-0.024155	ppb
	Zn	66	160.001	-0.023569	ppb
	As	75	36.231	-0.004400	ppb
	Se	82	28.667	0.009081	ppb
	Mo	96	554.015	0.060882	ppb
	Ag	107	196.669	0.017591	ppb
	Ag	109	200.002	0.018782	ppb
	Cd	111	2.275	-0.008106	ppb
	In	113	104801.303	1.822094	ppb
>	In	115	2654773.228		ppb
	Sn	118	535.014	0.066534	ppb
	Sb	121	4130.853	0.564719	ppb
	Ba	135	28.000	-0.010382	ppb
	Ba	137	76.000	-0.004283	ppb
>	Tb	159	4242567.865		ppb
	Tl	205	305.005	0.007306	ppb
	Pb	206	110.001	0.004867	ppb
	Pb	207	205.001	0.005126	ppb
	Pb	208	320.003	0.004747	ppb
>	Bi	209	3433415.114		ppb
	Cr	53	418.009		ppb
	Pd	106	10.000		ppb
	Pd	108	5.000		ppb
	C	12	322041.357		ppb
	Kr	83	32.000		ppb
	Se	77	38.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	569046.793		ppb
	Be	9	2.000	0.007784	ppb
	Na	23	25952.633	-0.886886	ppb
	Mg	24	2953.436	0.333610	ppb
	Mg	25	412.008	0.305494	ppb
	Mg	26	533.014	0.395855	ppb
	Al	27	1085.059	-0.654421	ppb
	K	39	206059.373	-4.964714	ppb
	Ca	44	7318.677	-30.334222	ppb
>	Sc	45	867079.313		ppb

	Ti	47	65.000	-0.058327	ppb
	V	51	685.382	-0.006514	ppb
	Cr	52	3560.634	-0.048726	ppb
	Mn	55	505.013	0.006557	ppb
	Fe	54	22585.476	-4.192625	ppb
	Fe	56	524403.644	-4.321828	ppb
	Fe	57	1990.198	0.762309	ppb
	Co	59	118.001	-0.001650	ppb
	Ni	60	26.667	-0.013241	ppb
	Cu	63	793.365	-0.080172	ppb
	Cu	65	313.338	0.050521	ppb
	Zn	66	136.668	-0.045346	ppb
	As	75	50.155	0.009146	ppb
	Se	82	32.000	0.047930	ppb
	Mo	96	416.009	-0.003479	ppb
	Ag	107	173.335	0.014211	ppb
	Ag	109	233.336	0.023793	ppb
	Cd	111	10.000	-0.003066	ppb
	In	113	102164.224	0.181289	ppb
>	In	115	2651961.402		ppb
	Sn	118	385.007	0.035755	ppb
	Sb	121	3695.683	0.513472	ppb
	Ba	135	36.000	-0.003687	ppb
	Ba	137	82.000	-0.000350	ppb
>	Tb	159	4044154.765		ppb
	Tl	205	225.003	0.004126	ppb
	Pb	206	70.000	-0.000510	ppb
	Pb	207	125.000	-0.000611	ppb
	Pb	208	260.002	0.002515	ppb
>	Bi	209	3358049.937		ppb
	Cr	53	384.007		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	309141.693		ppb
	Kr	83	24.000		ppb
	Se	77	32.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	569444.502		ppb
	Be	9	4.000	0.015556	ppb
	Na	23	25926.566	-0.900353	ppb
	Mg	24	2875.413	0.299068	ppb
	Mg	25	411.008	0.301540	ppb
	Mg	26	517.013	0.352823	ppb
	Al	27	790.031	-0.730668	ppb
	K	39	205622.518	-5.049979	ppb
	Ca	44	6954.417	-32.378617	ppb
>	Sc	45	858042.509		ppb
	Ti	47	40.000	-0.109102	ppb
	V	51	942.674	0.035802	ppb
	Cr	52	3622.656	-0.030504	ppb
	Mn	55	520.014	0.009076	ppb
	Fe	54	22014.205	-4.991614	ppb
	Fe	56	536284.534	-2.125913	ppb
	Fe	57	1880.177	0.227284	ppb
	Co	59	140.001	0.001609	ppb
	Ni	60	40.000	-0.004793	ppb
	Cu	63	656.688	-0.114265	ppb
	Cu	65	176.668	-0.021384	ppb
	Zn	66	170.001	-0.007694	ppb
	As	75	57.894	0.016888	ppb
	Se	82	30.000	0.031043	ppb

⌈	Mo	96	316.005	-0.047283	ppb
|	Ag	107	263.337	0.028157	ppb
|	Ag	109	246.670	0.026541	ppb
|	Cd	111	5.000	-0.006260	ppb
|	In	113	100406.556	0.376266	ppb
|>	In	115	2598700.757		ppb
⌊	Sn	118	405.008	0.041584	ppb
⌈	Sb	121	3510.616	0.458613	ppb
|	Ba	135	46.000	0.002808	ppb
|	Ba	137	96.000	0.004581	ppb
⌊>	Tb	159	4131200.664		ppb
⌈	Tl	205	295.004	0.007202	ppb
|	Pb	206	85.000	0.001673	ppb
|	Pb	207	155.001	0.001704	ppb
|	Pb	208	300.003	0.004239	ppb
⌊>	Bi	209	3347944.093		ppb
	Cr	53	326.005		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	306122.926		ppb
	Kr	83	14.000		ppb
	Se	77	30.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.427			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		96.733			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.999			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		91.509			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.519			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042715-BLK1

Sample Date/Time: Thursday, May 07, 2009 11:45:06
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-BLK1.098

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	575656.787	4.362	575656.787			ppb
	Be	9	2.667	86.603	0.000	0.01001	86.61	ppb
	Na	23	22764.888	1.723	-0.011	-1.93297	9.63	ppb
	Mg	24	616.019	8.018	-0.003	-0.67836	2.28	ppb
	Mg	25	89.334	19.720	-0.000	-0.68942	7.01	ppb
	Mg	26	133.668	6.274	-0.000	-0.65783	4.60	ppb
	Al	27	9372.726	2.733	0.010	1.45759	5.66	ppb
	K	39	212044.852	1.405	-0.053	-4.41321	24.15	ppb
	Ca	44	7233.951	3.730	-0.010	-31.22552	6.11	ppb
>	Sc	45	841604.563	1.752	841604.563			ppb
	Ti	47	58.334	17.843	-0.000	-0.06852	31.41	ppb
	V	51	793.605	25.207	0.000	0.01436	222.12	ppb
	Cr	52	3532.624	3.480	-0.000	-0.03424	74.28	ppb
	Mn	55	360.006	3.675	-0.000	-0.00995	11.24	ppb
	Fe	54	22998.083	0.771	-0.001	-1.57550	41.45	ppb
	Fe	56	534711.269	2.622	-0.009	-1.00725	93.70	ppb
	Fe	57	1885.178	2.297	0.000	0.48067	73.71	ppb
	Co	59	108.667	4.632	-0.000	-0.00248	37.81	ppb
	Ni	60	37.778	13.478	-0.000	-0.00573	53.66	ppb
	Cu	63	750.028	5.674	-0.000	-0.08569	9.37	ppb
	Cu	65	225.558	18.060	0.000	0.00756	321.05	ppb
	Zn	66	231.114	14.447	0.000	0.06302	51.56	ppb
	As	75	3.458	433.203	-0.000	-0.03422	41.51	ppb
	Se	82	19.778	11.838	-0.000	-0.06831	40.58	ppb
	Mo	96	106.667	20.223	-0.000	-0.14717	7.05	ppb
	Ag	107	68.889	29.166	-0.000	-0.00082	363.78	ppb
	Ag	109	52.222	3.685	-0.000	-0.00308	9.15	ppb
	Cd	111	6.545	91.432	-0.000	-0.00522	76.59	ppb
	In	113	99745.041	1.304	0.000	0.15130	585.17	ppb
>	In	115	2590345.288	0.175	2590345.288			ppb
	Sn	118	183.335	11.355	-0.000	-0.00488	90.68	ppb
	Sb	121	1036.721	11.509	-0.000	-0.05453	43.54	ppb
	Ba	135	32.000	18.750	-0.000	-0.00707	59.17	ppb
	Ba	137	70.000	5.714	-0.000	-0.00593	24.79	ppb
>	Tb	159	4134871.509	0.534	4134871.509			ppb
	Tl	205	68.334	29.572	-0.000	-0.00273	29.38	ppb
	Pb	206	60.000	33.333	-0.000	-0.00210	133.32	ppb
	Pb	207	138.334	36.564	0.000	0.00019	1934.30	ppb
	Pb	208	225.001	14.572	0.000	0.00086	138.82	ppb
>	Bi	209	3416892.449	1.886	3416892.449			ppb
	Cr	53	325.339	8.614	-320.682			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	303347.773	1.708	5027.820			ppb
	Kr	83	28.000	14.286	-9.333			ppb
	Se	77	28.444	11.076	-4.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	594471.785		ppb
	Be	9	4.000	0.014901	ppb
	Na	23	23086.619	-2.061616	ppb
	Mg	24	673.023	-0.663058	ppb
	Mg	25	109.001	-0.639845	ppb
	Mg	26	139.001	-0.656036	ppb
	Al	27	9309.331	1.364386	ppb
	K	39	215417.511	-4.943424	ppb
	Ca	44	7522.829	-30.985523	ppb
>	Sc	45	855253.073		ppb
	Ti	47	55.000	-0.077414	ppb
	V	51	976.229	0.041681	ppb
	Cr	52	3622.656	-0.028332	ppb
	Mn	55	365.007	-0.010046	ppb
	Fe	54	23071.584	-2.297352	ppb
	Fe	56	550749.820	-0.067316	ppb
	Fe	57	1910.182	0.444435	ppb
	Co	59	108.001	-0.002831	ppb
	Ni	60	36.667	-0.006787	ppb
	Cu	63	786.698	-0.079066	ppb
	Cu	65	216.669	0.000557	ppb
	Zn	66	263.337	0.094345	ppb
	As	75	20.206	-0.018369	ppb
	Se	82	17.333	-0.096737	ppb
	Mo	96	122.001	-0.139709	ppb
	Ag	107	50.000	-0.003631	ppb
	Ag	109	50.000	-0.003404	ppb
	Cd	111	10.000	-0.002899	ppb
	In	113	99396.541	0.044996	ppb
>	In	115	2585428.388		ppb
	Sn	118	190.002	-0.003402	ppb
	Sb	121	940.044	-0.073308	ppb
	Ba	135	32.000	-0.006932	ppb
	Ba	137	66.000	-0.007372	ppb
>	Tb	159	4109972.243		ppb
	Tl	205	65.000	-0.002852	ppb
	Pb	206	80.000	0.000777	ppb
	Pb	207	170.001	0.002646	ppb
	Pb	208	230.001	0.001128	ppb
>	Bi	209	3400889.364		ppb
	Cr	53	298.004		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	306131.172		ppb
	Kr	83	28.000		ppb
	Se	77	26.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	547145.837		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	22327.899	-1.719445	ppb
	Mg	24	586.017	-0.678063	ppb
	Mg	25	84.000	-0.692006	ppb
	Mg	26	138.001	-0.628503	ppb
	Al	27	9154.188	1.521593	ppb
	K	39	209769.322	-3.186375	ppb
	Ca	44	7190.584	-29.449544	ppb
>	Sc	45	825962.895		ppb

	Ti	47	50.000	-0.084173	ppb
	V	51	824.782	0.022062	ppb
	Cr	52	3582.642	-0.012283	ppb
	Mn	55	345.006	-0.011014	ppb
	Fe	54	22795.953	-1.025916	ppb
	Fe	56	524798.575	-0.999653	ppb
	Fe	57	1910.182	0.851697	ppb
	Co	59	114.001	-0.001417	ppb
	Ni	60	33.333	-0.008127	ppb
	Cu	63	703.358	-0.094621	ppb
	Cu	65	270.004	0.034576	ppb
	Zn	66	196.669	0.029469	ppb
	As	75	-8.664	-0.045799	ppb
	Se	82	22.000	-0.041363	ppb
	Mo	96	82.000	-0.159013	ppb
	Ag	107	66.667	-0.001154	ppb
	Ag	109	53.333	-0.002911	ppb
	Cd	111	-0.365	-0.009831	ppb
	In	113	101184.337	1.084999	ppb
>	In	115	2591237.644		ppb
	Sn	118	200.002	-0.001384	ppb
	Sb	121	1000.050	-0.062448	ppb
	Ba	135	26.000	-0.011324	ppb
	Ba	137	70.000	-0.005975	ppb
>	Tb	159	4142658.387		ppb
	Tl	205	50.000	-0.003470	ppb
	Pb	206	40.000	-0.004808	ppb
	Pb	207	80.000	-0.004038	ppb
	Pb	208	190.001	-0.000445	ppb
>	Bi	209	3361946.792		ppb
	Cr	53	324.005		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	297370.689		ppb
	Kr	83	24.000		ppb
	Se	77	32.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	585352.739		ppb
	Be	9	4.000	0.015134	ppb
	Na	23	22880.145	-2.017853	ppb
	Mg	24	589.017	-0.693974	ppb
	Mg	25	75.000	-0.736409	ppb
	Mg	26	124.001	-0.688936	ppb
	Al	27	9654.658	1.486795	ppb
	K	39	210947.725	-5.109833	ppb
	Ca	44	6988.441	-33.241497	ppb
>	Sc	45	843597.720		ppb
	Ti	47	70.000	-0.043973	ppb
	V	51	579.804	-0.020677	ppb
	Cr	52	3392.575	-0.062118	ppb
	Mn	55	370.007	-0.008785	ppb
	Fe	54	23126.711	-1.403236	ppb
	Fe	56	528585.414	-1.954790	ppb
	Fe	57	1835.168	0.145873	ppb
	Co	59	104.001	-0.003191	ppb
	Ni	60	43.333	-0.002263	ppb
	Cu	63	760.029	-0.083373	ppb
	Cu	65	190.002	-0.012444	ppb
	Zn	66	233.336	0.065243	ppb
	As	75	-1.168	-0.038478	ppb
	Se	82	20.000	-0.066818	ppb

⌈	Mo	96	116.001	-0.142783	ppb
|	Ag	107	90.000	0.002320	ppb
|	Ag	109	53.333	-0.002921	ppb
|	Cd	111	10.000	-0.002922	ppb
|	In	113	98654.244	-0.676104	ppb
|>	In	115	2594369.832		ppb
⌊	Sn	118	160.001	-0.009856	ppb
⌈	Sb	121	1170.068	-0.027841	ppb
|	Ba	135	38.000	-0.002958	ppb
|	Ba	137	74.000	-0.004434	ppb
⌊>	Tb	159	4151983.897		ppb
⌈	Tl	205	90.000	-0.001877	ppb
|	Pb	206	60.000	-0.002260	ppb
|	Pb	207	165.001	0.001962	ppb
|	Pb	208	255.002	0.001904	ppb
⌊>	Bi	209	3487841.191		ppb
	Cr	53	354.006		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	306541.458		ppb
	Kr	83	32.000		ppb
	Se	77	27.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.999			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		93.616			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		90.435			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		91.411			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.556			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042715-BS1

Sample Date/Time: Thursday, May 07, 2009 11:47:59
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-BS1.099

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	558059.718	2.811	558059.718			ppb
	Be	9	24795.372	1.271	0.044	98.42807	1.66	ppb
	Na	23	6432045.541	0.432	11.480	1991.56783	2.48	ppb
	Mg	24	2743835.767	1.243	4.914	1206.98758	1.56	ppb
	Mg	25	392950.129	0.913	0.704	1230.65103	2.11	ppb
	Mg	26	462632.888	1.031	0.829	1240.10238	1.89	ppb
	Al	27	1940497.928	3.483	3.475	510.07975	6.23	ppb
	K	39	12924937.295	1.294	22.756	1902.12000	4.04	ppb
	Ca	44	333128.077	0.874	0.575	1811.79397	3.76	ppb
>	Sc	45	806453.241	0.396	806453.241			ppb
	Ti	47	81.667	33.720	-0.000	-0.01127	539.05	ppb
	V	51	580387.735	0.863	0.719	98.70476	1.22	ppb
	Cr	52	500486.022	0.420	0.616	97.18451	0.80	ppb
	Mn	55	722738.331	0.113	0.896	95.53997	0.51	ppb
	Fe	54	412068.880	0.664	0.483	985.58657	1.03	ppb
	Fe	56	7800521.608	0.422	9.028	980.64824	0.39	ppb
	Fe	57	156442.848	1.922	0.192	986.41468	1.59	ppb
	Co	59	655665.785	1.869	0.813	97.83837	1.89	ppb
	Ni	60	144232.850	1.445	0.179	95.22085	1.78	ppb
	Cu	63	342861.847	2.368	0.424	96.57109	2.76	ppb
	Cu	65	167745.304	0.943	0.208	96.08521	1.32	ppb
	Zn	66	170583.829	0.921	0.211	196.41762	0.72	ppb
	As	75	188226.637	1.593	0.233	187.63959	1.72	ppb
	Se	82	17957.446	1.809	0.022	193.33978	2.09	ppb
	Mo	96	238.003	5.511	-0.000	-0.07795	10.86	ppb
	Ag	107	655739.460	0.948	0.267	103.43204	1.13	ppb
	Ag	109	644229.056	0.711	0.262	103.84526	0.90	ppb
	Cd	111	143917.120	1.505	0.059	101.26356	1.84	ppb
	In	113	241083.239	0.830	0.060	102.80060	1.25	ppb
>	In	115	2457790.332	1.592	2457790.332			ppb
	Sn	118	355552.146	0.225	0.145	78.98321	1.36	ppb
	Sb	121	952449.455	0.794	0.236	202.43242	0.99	ppb
	Ba	135	140327.070	0.436	0.035	101.39101	1.11	ppb
	Ba	137	242566.229	1.103	0.060	100.31360	0.94	ppb
>	Tb	159	4024683.664	1.370	4024683.664			ppb
	Tl	205	4515273.678	0.564	1.388	202.22265	0.90	ppb
	Pb	206	1406699.561	0.440	0.432	207.73571	1.00	ppb
	Pb	207	2643571.918	0.628	0.813	207.36557	1.14	ppb
	Pb	208	4675300.623	0.935	1.437	203.40676	1.06	ppb
>	Bi	209	3253172.576	0.617	3253172.576			ppb
	Cr	53	58140.534	0.819	57494.513			ppb
	Pd	106	11973.832	1.045	11970.498			ppb
	Pd	108	9287.645	1.564	9287.645			ppb
	C	12	311710.307	0.311	13390.355			ppb
	Kr	83	33.333	24.249	-4.000			ppb
	Se	77	14204.526	0.286	14171.859			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	575591.895		ppb
	Be	9	25091.440	96.540518	ppb
	Na	23	6461101.735	1938.503430	ppb
	Mg	24	2782476.143	1186.341693	ppb
	Mg	25	396852.378	1204.534541	ppb
	Mg	26	468089.864	1216.072603	ppb
	Al	27	1868373.336	475.546293	ppb
	K	39	12785144.849	1821.434822	ppb
	Ca	44	330298.223	1737.721764	ppb
>	Sc	45	807156.413		ppb
	Ti	47	55.000	-0.070550	ppb
	V	51	582408.939	98.959544	ppb
	Cr	52	501142.221	97.225459	ppb
	Mn	55	722806.303	95.464397	ppb
	Fe	54	409355.547	977.793541	ppb
	Fe	56	7774957.557	976.288684	ppb
	Fe	57	158414.904	998.144772	ppb
	Co	59	669661.907	99.839368	ppb
	Ni	60	145213.413	95.780864	ppb
	Cu	63	343224.096	96.582033	ppb
	Cu	65	168151.967	96.231212	ppb
	Zn	66	172142.339	198.042213	ppb
	As	75	191388.106	190.621776	ppb
	Se	82	18184.519	195.608934	ppb
	Mo	96	224.003	-0.087125	ppb
	Ag	107	659759.076	102.210159	ppb
	Ag	109	649108.156	102.766024	ppb
	Cd	111	144187.546	99.642128	ppb
	In	113	243309.396	101.322510	ppb
>	In	115	2502172.651		ppb
	Sn	118	356456.826	77.767783	ppb
	Sb	121	948440.650	200.621637	ppb
	Ba	135	139999.176	100.671627	ppb
	Ba	137	245261.217	100.949364	ppb
>	Tb	159	4043568.992		ppb
	Tl	205	4486105.899	200.888032	ppb
	Pb	206	1402048.176	207.017483	ppb
	Pb	207	2629008.963	206.191335	ppb
	Pb	208	4625321.856	201.205612	ppb
>	Bi	209	3253536.283		ppb
	Cr	53	57963.503		ppb
	Pd	106	12082.295		ppb
	Pd	108	9429.444		ppb
	C	12	312819.451		ppb
	Kr	83	32.000		ppb
	Se	77	14236.126		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	545351.707		ppb
	Be	9	24463.888	99.345343	ppb
	Na	23	6429376.067	2036.390931	ppb
	Mg	24	2717963.249	1223.123388	ppb
	Mg	25	392200.126	1256.464709	ppb
	Mg	26	460548.533	1262.865110	ppb
	Al	27	2002384.986	538.038852	ppb
	K	39	13110293.721	1974.225184	ppb
	Ca	44	336115.314	1871.628076	ppb
>	Sc	45	802963.174		ppb

	Ti	47	80.000	-0.014144	ppb
	V	51	584069.395	99.760870	ppb
	Cr	52	502180.407	97.940746	ppb
	Mn	55	723520.263	96.058066	ppb
	Fe	54	414824.122	997.100115	ppb
	Fe	56	7788901.585	983.639000	ppb
	Fe	57	152981.281	968.619191	ppb
	Co	59	650466.995	97.483626	ppb
	Ni	60	145646.308	96.568317	ppb
	Cu	63	350793.410	99.235410	ppb
	Cu	65	169084.156	97.271275	ppb
	Zn	66	168999.408	195.439224	ppb
	As	75	187870.503	188.094933	ppb
	Se	82	18102.370	195.742349	ppb
	Mo	96	240.003	-0.076293	ppb
	Ag	107	658880.564	104.550302	ppb
	Ag	109	643559.528	104.359207	ppb
	Cd	111	145935.361	103.296618	ppb
	In	113	240502.713	103.406484	ppb
>	In	115	2442915.403		ppb
	Sn	118	355260.359	79.387722	ppb
	Sb	121	961174.664	202.101628	ppb
	Ba	135	141033.559	100.809132	ppb
	Ba	137	242525.700	99.226016	ppb
>	Tb	159	4067890.296		ppb
	Tl	205	4526534.977	201.488604	ppb
	Pb	206	1404332.933	206.117136	ppb
	Pb	207	2640038.648	205.820494	ppb
	Pb	208	4706549.248	203.517131	ppb
>	Bi	209	3273072.516		ppb
	Cr	53	58679.661		ppb
	Pd	106	12002.198		ppb
	Pd	108	9294.317		ppb
	C	12	311014.440		ppb
	Kr	83	26.000		ppb
	Se	77	14158.683		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	553235.552		ppb
	Be	9	24830.790	99.398350	ppb
	Na	23	6405658.820	1999.809134	ppb
	Mg	24	2731067.908	1211.497663	ppb
	Mg	25	389797.883	1230.953827	ppb
	Mg	26	459260.268	1241.369431	ppb
	Al	27	1950735.464	516.654090	ppb
	K	39	12879373.316	1910.699981	ppb
	Ca	44	332970.695	1826.032059	ppb
>	Sc	45	809240.135		ppb
	Ti	47	110.001	0.050876	ppb
	V	51	574684.871	97.393865	ppb
	Cr	52	498135.438	96.387315	ppb
	Mn	55	721888.427	95.097456	ppb
	Fe	54	412026.970	981.866046	ppb
	Fe	56	7837705.683	982.017044	ppb
	Fe	57	157932.361	992.480078	ppb
	Co	59	646868.453	96.192124	ppb
	Ni	60	141838.829	93.313374	ppb
	Cu	63	334568.037	93.895827	ppb
	Cu	65	165999.788	94.753143	ppb
	Zn	66	170609.741	195.771427	ppb
	As	75	185421.301	184.202073	ppb
	Se	82	17585.449	188.668047	ppb

⌈	Mo	96	250.003	-0.070443	ppb
|	Ag	107	648578.741	103.535668	ppb
|	Ag	109	640019.484	104.410555	ppb
|	Cd	111	141628.453	100.851936	ppb
|	In	113	239437.607	103.672817	ppb
|>	In	115	2428282.943		ppb
⌊	Sn	118	354939.253	79.794135	ppb
⌈	Sb	121	947733.049	204.573988	ppb
|	Ba	135	139948.474	102.692285	ppb
|	Ba	137	239911.770	100.765422	ppb
⌊>	Tb	159	3962591.705		ppb
⌈	Tl	205	4533180.158	204.291317	ppb
|	Pb	206	1413717.574	210.072522	ppb
|	Pb	207	2661668.143	210.084895	ppb
|	Pb	208	4694030.765	205.497539	ppb
⌊>	Bi	209	3232908.930		ppb
	Cr	53	57778.437		ppb
	Pd	106	11837.002		ppb
	Pd	108	9139.174		ppb
	C	12	311297.032		ppb
	Kr	83	42.000		ppb
	Se	77	14218.768		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.851			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		89.706			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		85.807			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		88.975			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		90.978			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-01

Sample Date/Time: Thursday, May 07, 2009 11:58:08
Sample Type: Sample
Sample Description: 13MW5
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-01.100

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1318650.571	2.747	1318650.571			ppb
|	Be	9	2.000	0.000	0.000	0.00336	2.73	ppb
|	Na	23	100685309.533	1.340	76.324	13240.48573	1.48	ppb
|	Mg	24	134505804.113	1.118	102.041	25061.76835	2.46	ppb
|	Mg	25	18831424.136	1.067	14.286	24977.97984	2.30	ppb
|	Mg	26	22117886.683	0.606	16.780	25113.51448	2.66	ppb
|	Al	27	31638.304	0.335	0.018	2.58940	3.81	ppb
|	K	39	13013234.356	0.678	9.453	790.17700	3.56	ppb
⌊	Ca	44	23905778.460	1.065	18.115	57093.37536	2.74	ppb
⌈>	Sc	45	1026524.764	1.410	1026524.764			ppb
|	Ti	47	1678.474	3.888	0.002	2.73741	5.35	ppb
|	V	51	-20861.585	16.171	-0.021	-2.90501	15.30	ppb
|	Cr	52	45213.034	7.564	0.040	6.24617	6.84	ppb
|	Mn	55	3198.849	10.925	0.003	0.27655	11.50	ppb
|	Fe	54	102288.853	0.952	0.072	146.03607	0.67	ppb
|	Fe	56	868673.273	2.031	0.202	21.92756	13.37	ppb
|	Fe	57	59774.786	0.224	0.056	288.41721	1.39	ppb
|	Co	59	2780.387	3.145	0.003	0.30795	2.56	ppb
|	Ni	60	4765.583	6.609	0.005	2.44457	8.07	ppb
|	Cu	63	5104.642	8.508	0.004	0.84521	13.23	ppb
|	Cu	65	2605.895	3.124	0.002	1.05726	1.96	ppb
|	Zn	66	5067.961	11.244	0.005	4.40242	13.19	ppb
|	As	75	-3835.132	28.701	-0.004	-3.03938	27.88	ppb
⌊	Se	82	257.781	5.585	0.000	1.91188	7.98	ppb
⌈	Mo	96	2418.292	1.826	0.001	1.06922	1.56	ppb
|	Ag	107	702.251	50.509	0.000	0.10402	56.38	ppb
|	Ag	109	676.696	66.752	0.000	0.10240	74.30	ppb
|	Cd	111	49.671	28.459	0.000	0.02666	38.91	ppb
|	In	113	90664.148	0.331	-0.000	-0.26945	146.33	ppb
|>	In	115	2369623.964	0.911	2369623.964			ppb
⌊	Sn	118	6275.305	5.153	0.003	1.40304	5.48	ppb
⌈	Sb	121	19511.113	18.444	0.005	4.06538	20.88	ppb
|	Ba	135	171904.299	0.185	0.045	129.49105	1.12	ppb
|	Ba	137	298777.035	0.204	0.077	128.82498	1.23	ppb
⌊>	Tb	159	3860612.495	1.071	3860612.495			ppb
⌈	Tl	205	488.345	13.597	0.000	0.02258	17.03	ppb
|	Pb	206	615.019	4.945	0.000	0.10663	4.82	ppb
|	Pb	207	1106.698	7.456	0.000	0.10185	7.39	ppb
|	Pb	208	1765.094	8.245	0.001	0.09061	8.37	ppb
⌊>	Bi	209	2521533.701	0.738	2521533.701			ppb
	Cr	53	171794.036	7.649	171148.015			ppb
	Pd	106	20.000	50.000	16.667			ppb
	Pd	108	8.333	34.641	8.333			ppb
	C	12	1178741.443	4.246	880421.490			ppb
	Kr	83	188.002	8.309	150.668			ppb
	Se	77	35170.630	7.373	35137.963			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1284799.393		ppb
	Be	9	2.000	0.003447	ppb
	Na	23	99665724.588	13448.315296	ppb
	Mg	24	132991239.130	25421.960139	ppb
	Mg	25	18613695.826	25329.808748	ppb
	Mg	26	22002963.695	25629.071008	ppb
	Al	27	31584.801	2.674283	ppb
	K	39	13101801.027	817.158106	ppb
	Ca	44	23696278.173	58058.242084	ppb
>	Sc	45	1012436.999		ppb
	Ti	47	1700.145	2.815311	ppb
	V	51	-22249.022	-3.132462	ppb
	Cr	52	41833.319	5.820361	ppb
	Mn	55	2965.440	0.256859	ppb
	Fe	54	101270.199	146.803600	ppb
	Fe	56	888442.921	25.303288	ppb
	Fe	57	59647.361	291.899221	ppb
	Co	59	2682.360	0.300853	ppb
	Ni	60	5031.265	2.616889	ppb
	Cu	63	5598.233	0.971050	ppb
	Cu	65	2540.323	1.043820	ppb
	Zn	66	5688.284	5.030445	ppb
	As	75	-4150.960	-3.334077	ppb
	Se	82	271.337	2.057240	ppb
	Mo	96	2460.303	1.077984	ppb
	Ag	107	366.673	0.048243	ppb
	Ag	109	260.003	0.031957	ppb
	Cd	111	51.910	0.027905	ppb
	In	113	91007.240	-0.704020	ppb
>	In	115	2394292.374		ppb
	Sn	118	6191.916	1.368999	ppb
	Sb	121	23537.669	5.016998	ppb
	Ba	135	172027.047	131.171159	ppb
	Ba	137	299167.095	130.572634	ppb
>	Tb	159	3813594.433		ppb
	Tl	205	450.010	0.020173	ppb
	Pb	206	630.020	0.108621	ppb
	Pb	207	1190.036	0.109431	ppb
	Pb	208	1930.110	0.099092	ppb
>	Bi	209	2540385.820		ppb
	Cr	53	157618.466		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	1124883.316		ppb
	Kr	83	198.002		ppb
	Se	77	32408.430		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1314291.322		ppb
	Be	9	2.000	0.003370	ppb
	Na	23	100175029.368	13213.570016	ppb
	Mg	24	135998759.601	25413.508433	ppb
	Mg	25	19009617.872	25288.108142	ppb
	Mg	26	22265223.847	25352.584818	ppb
	Al	27	31760.356	2.612915	ppb
	K	39	13012425.528	792.346739	ppb
	Ca	44	24189102.657	57935.673808	ppb
>	Sc	45	1025773.919		ppb

	Ti	47	1730.150	2.828598	ppb
	V	51	-17015.646	-2.392707	ppb
	Cr	52	45133.623	6.243064	ppb
	Mn	55	3030.459	0.259558	ppb
	Fe	54	102386.480	146.370300	ppb
	Fe	56	854513.699	20.471111	ppb
	Fe	57	59913.948	289.296807	ppb
	Co	59	2850.406	0.316425	ppb
	Ni	60	4847.841	2.487250	ppb
	Cu	63	4934.551	0.807278	ppb
	Cu	65	2580.333	1.046772	ppb
	Zn	66	4947.890	4.291643	ppb
	As	75	-2611.022	-2.084089	ppb
	Se	82	259.337	1.925226	ppb
	Mo	96	2422.293	1.079693	ppb
	Ag	107	666.689	0.098661	ppb
	Ag	109	613.352	0.092157	ppb
	Cd	111	62.554	0.036364	ppb
	In	113	90532.964	0.065376	ppb
>	In	115	2354151.198		ppb
	Sn	118	6001.801	1.348975	ppb
	Sb	121	18386.888	3.792753	ppb
	Ba	135	171542.835	128.664590	ppb
	Ba	137	299090.865	128.406296	ppb
>	Tb	159	3876928.231		ppb
	Tl	205	450.010	0.020557	ppb
	Pb	206	580.017	0.100796	ppb
	Pb	207	1025.027	0.094387	ppb
	Pb	208	1710.090	0.088250	ppb
>	Bi	209	2503157.864		ppb
	Cr	53	174196.114		ppb
	Pd	106	30.000		ppb
	Pd	108	5.000		ppb
	C	12	1187536.616		ppb
	Kr	83	196.002		ppb
	Se	77	35551.082		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1356860.999		ppb
	Be	9	2.000	0.003264	ppb
	Na	23	102215174.642	13059.571874	ppb
	Mg	24	134527413.608	24349.836468	ppb
	Mg	25	18870958.710	24316.022640	ppb
	Mg	26	22085472.507	24358.887614	ppb
	Al	27	31569.754	2.481005	ppb
	K	39	12925476.514	761.026151	ppb
	Ca	44	23831954.549	55286.210178	ppb
>	Sc	45	1041363.375		ppb
	Ti	47	1605.129	2.568326	ppb
	V	51	-23320.086	-3.189869	ppb
	Cr	52	48672.161	6.675097	ppb
	Mn	55	3600.648	0.313245	ppb
	Fe	54	103209.880	144.934308	ppb
	Fe	56	863063.198	20.008280	ppb
	Fe	57	59763.049	284.055590	ppb
	Co	59	2808.394	0.306563	ppb
	Ni	60	4417.642	2.229568	ppb
	Cu	63	4781.143	0.757313	ppb
	Cu	65	2697.030	1.081183	ppb
	Zn	66	4567.710	3.885183	ppb
	As	75	-4743.415	-3.699963	ppb
	Se	82	242.670	1.753161	ppb

⌈	Mo	96	2372.281	1.049978	ppb
|	Ag	107	1073.391	0.165167	ppb
|	Ag	109	1156.734	0.183085	ppb
|	Cd	111	34.550	0.015725	ppb
|	In	113	90452.239	-0.169700	ppb
|>	In	115	2360428.321		ppb
⌊	Sn	118	6632.199	1.491145	ppb
⌈	Sb	121	16608.781	3.386376	ppb
|	Ba	135	172143.017	128.637396	ppb
|	Ba	137	298073.145	127.496009	ppb
⌊>	Tb	159	3891314.821		ppb
⌈	Tl	205	565.016	0.027017	ppb
|	Pb	206	635.020	0.110487	ppb
|	Pb	207	1105.031	0.101743	ppb
|	Pb	208	1655.081	0.084476	ppb
⌊>	Bi	209	2521057.419		ppb
	Cr	53	183567.528		ppb
	Pd	106	20.000		ppb
	Pd	108	10.000		ppb
	C	12	1223804.398		ppb
	Kr	83	170.001		ppb
	Se	77	37552.377		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		235.940			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		114.185			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.729			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		85.348			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		70.517			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-DUP1

Sample Date/Time: Thursday, May 07, 2009 12:01:02
Sample Type: Sample
Sample Description: 13MW5D
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-DUP1.101

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1360486.263	2.509	1360486.263			ppb
|	Be	9	2.000	0.000	0.000	0.00326	2.55	ppb
|	Na	23	97141069.837	1.279	71.372	12381.32312	1.98	ppb
|	Mg	24	131059306.840	0.423	96.373	23669.59762	2.74	ppb
|	Mg	25	18088162.617	0.428	13.300	23253.54298	2.15	ppb
|	Mg	26	21074248.439	0.928	15.494	23187.84691	1.62	ppb
|	Al	27	54117.712	0.622	0.033	4.90741	3.35	ppb
|	K	39	12385988.210	1.159	8.685	725.98079	2.03	ppb
⌊	Ca	44	23051948.401	0.157	16.929	53354.74448	2.58	ppb
⌈>	Sc	45	1023411.999	0.580	1023411.999			ppb
|	Ti	47	1613.464	4.923	0.001	2.63162	5.56	ppb
|	V	51	-18711.709	37.356	-0.019	-2.62919	36.12	ppb
|	Cr	52	51026.016	4.376	0.045	7.16847	5.34	ppb
|	Mn	55	3218.852	4.610	0.003	0.27990	5.25	ppb
|	Fe	54	101566.528	0.605	0.071	145.21162	1.38	ppb
|	Fe	56	868751.269	0.590	0.204	22.19404	4.10	ppb
|	Fe	57	57590.359	0.514	0.054	278.32109	0.75	ppb
|	Co	59	3038.462	0.905	0.003	0.33932	0.95	ppb
|	Ni	60	4631.073	2.748	0.004	2.38013	2.39	ppb
|	Cu	63	6249.732	3.422	0.005	1.10269	4.76	ppb
|	Cu	65	3197.178	4.065	0.003	1.32840	4.86	ppb
|	Zn	66	3734.032	5.622	0.003	3.19891	5.37	ppb
|	As	75	-3410.426	8.492	-0.003	-2.71710	8.50	ppb
⌊	Se	82	244.003	7.592	0.000	1.80025	8.97	ppb
⌈	Mo	96	2333.606	1.510	0.001	1.02498	2.34	ppb
|	Ag	107	50.000	46.667	-0.000	-0.00295	128.23	ppb
|	Ag	109	53.334	54.127	-0.000	-0.00215	223.64	ppb
|	Cd	111	69.071	29.880	0.000	0.04088	37.68	ppb
|	In	113	91126.659	0.445	0.000	0.06747	522.35	ppb
|>	In	115	2369554.461	0.650	2369554.461			ppb
⌊	Sn	118	4756.137	8.885	0.002	1.05240	8.61	ppb
⌈	Sb	121	9240.945	6.136	0.002	1.78207	7.04	ppb
|	Ba	135	166005.219	0.303	0.043	125.11224	1.00	ppb
|	Ba	137	286199.104	0.453	0.074	123.46599	1.24	ppb
⌊>	Tb	159	3858472.470	0.785	3858472.470			ppb
⌈	Tl	205	220.002	2.273	0.000	0.00680	3.77	ppb
|	Pb	206	275.004	12.727	0.000	0.04073	15.53	ppb
|	Pb	207	538.341	6.524	0.000	0.04318	7.09	ppb
|	Pb	208	888.356	8.046	0.000	0.04036	10.17	ppb
⌊>	Bi	209	2576990.279	0.789	2576990.279			ppb
	Cr	53	190814.272	2.871	190168.251			ppb
	Pd	106	41.667	45.431	38.333			ppb
	Pd	108	15.000	57.735	15.000			ppb
	C	12	1183510.667	4.715	885190.714			ppb
	Kr	83	188.668	12.378	151.335			ppb
	Se	77	37873.176	2.786	37840.509			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1321098.183		ppb
	Be	9	2.000	0.003353	ppb
	Na	23	96196230.156	12622.976356	ppb
	Mg	24	131286152.242	24406.442428	ppb
	Mg	25	18004079.609	23827.002569	ppb
	Mg	26	20852076.275	23621.080820	ppb
	Al	27	54231.656	5.091470	ppb
	K	39	12269112.558	741.052169	ppb
	Ca	44	23061392.541	54946.434107	ppb
>	Sc	45	1030190.152		ppb
	Ti	47	1565.122	2.528710	ppb
	V	51	-10767.138	-1.550124	ppb
	Cr	52	48631.967	6.748892	ppb
	Mn	55	3275.536	0.283583	ppb
	Fe	54	101184.337	143.115183	ppb
	Fe	56	865441.118	21.235385	ppb
	Fe	57	57685.905	276.888452	ppb
	Co	59	3044.463	0.337664	ppb
	Ni	60	4751.128	2.426466	ppb
	Cu	63	6148.556	1.071038	ppb
	Cu	65	3080.474	1.266314	ppb
	Zn	66	3970.788	3.390824	ppb
	As	75	-3306.843	-2.618416	ppb
	Se	82	234.669	1.707616	ppb
	Mo	96	2366.280	1.050874	ppb
	Ag	107	50.000	-0.002890	ppb
	Ag	109	36.667	-0.004891	ppb
	Cd	111	92.469	0.058379	ppb
	In	113	90992.103	0.440467	ppb
>	In	115	2352768.397		ppb
	Sn	118	4275.914	0.949124	ppb
	Sb	121	9689.692	1.866525	ppb
	Ba	135	166020.799	124.237980	ppb
	Ba	137	284965.220	122.061306	ppb
>	Tb	159	3885785.122		ppb
	Tl	205	225.003	0.006990	ppb
	Pb	206	275.004	0.040364	ppb
	Pb	207	575.008	0.046408	ppb
	Pb	208	905.023	0.040894	ppb
>	Bi	209	2596240.743		ppb
	Cr	53	184909.923		ppb
	Pd	106	50.000		ppb
	Pd	108	10.000		ppb
	C	12	1122520.817		ppb
	Kr	83	168.001		ppb
	Se	77	36719.961		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1378916.299		ppb
	Be	9	2.000	0.003212	ppb
	Na	23	98549011.869	12389.320131	ppb
	Mg	24	131464023.362	23414.719514	ppb
	Mg	25	18156570.109	23021.248633	ppb
	Mg	26	21150802.374	22954.823682	ppb
	Al	27	54382.472	4.854863	ppb
	K	39	12546136.162	725.295205	ppb
	Ca	44	23011910.569	52526.453543	ppb
>	Sc	45	1019139.240		ppb

	Ti	47	1570.123	2.567008	ppb
	V	51	-23917.655	-3.337430	ppb
	Cr	52	51393.727	7.257019	ppb
	Mn	55	3050.465	0.263704	ppb
	Fe	54	101239.895	145.400262	ppb
	Fe	56	866154.055	22.300841	ppb
	Fe	57	57826.714	280.721017	ppb
	Co	59	3008.452	0.337268	ppb
	Ni	60	4644.412	2.397333	ppb
	Cu	63	6495.442	1.163321	ppb
	Cu	65	3173.837	1.323677	ppb
	Zn	66	3660.670	3.146832	ppb
	As	75	-3186.854	-2.551734	ppb
	Se	82	232.003	1.706341	ppb
	Mo	96	2338.273	1.020425	ppb
	Ag	107	73.334	0.000802	ppb
	Ag	109	36.667	-0.004969	ppb
	Cd	111	61.289	0.034889	ppb
	In	113	91582.456	0.021855	ppb
>	In	115	2383006.971		ppb
	Sn	118	5071.286	1.118832	ppb
	Sb	121	9429.444	1.841697	ppb
	Ba	135	166500.680	126.548044	ppb
	Ba	137	287549.642	125.097200	ppb
>	Tb	159	3825895.670		ppb
	Tl	205	220.002	0.006906	ppb
	Pb	206	240.003	0.034591	ppb
	Pb	207	505.006	0.040314	ppb
	Pb	208	950.027	0.044169	ppb
>	Bi	209	2555713.450		ppb
	Cr	53	191797.849		ppb
	Pd	106	55.000		ppb
	Pd	108	10.000		ppb
	C	12	1196002.237		ppb
	Kr	83	214.002		ppb
	Se	77	38109.813		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1381444.306		ppb
	Be	9	2.000	0.003206	ppb
	Na	23	96677967.487	12131.672869	ppb
	Mg	24	130427744.915	23187.630921	ppb
	Mg	25	18103838.133	22912.377735	ppb
	Mg	26	21219866.670	22987.636238	ppb
	Al	27	53739.007	4.775896	ppb
	K	39	12342715.910	711.594989	ppb
	Ca	44	23082542.094	52591.345781	ppb
>	Sc	45	1020906.605		ppb
	Ti	47	1705.145	2.799131	ppb
	V	51	-21450.335	-3.000010	ppb
	Cr	52	53052.355	7.499486	ppb
	Mn	55	3330.555	0.292416	ppb
	Fe	54	102275.351	147.119427	ppb
	Fe	56	874658.634	23.045892	ppb
	Fe	57	57258.459	277.353792	ppb
	Co	59	3062.469	0.343021	ppb
	Ni	60	4497.678	2.316588	ppb
	Cu	63	6105.196	1.073726	ppb
	Cu	65	3337.223	1.395200	ppb
	Zn	66	3570.637	3.059081	ppb
	As	75	-3737.581	-2.981143	ppb
	Se	82	265.337	1.986807	ppb

⌈	Mo	96	2296.264	1.003633	ppb
|	Ag	107	26.667	-0.006772	ppb
|	Ag	109	86.667	0.003405	ppb
|	Cd	111	53.455	0.029369	ppb
|	In	113	90805.418	-0.259920	ppb
|>	In	115	2372888.014		ppb
⌊	Sn	118	4921.211	1.089244	ppb
⌈	Sb	121	8603.700	1.637980	ppb
|	Ba	135	165494.178	124.550687	ppb
|	Ba	137	286082.449	123.239463	ppb
⌊>	Tb	159	3863736.619		ppb
⌈	Tl	205	215.002	0.006510	ppb
|	Pb	206	310.005	0.047223	ppb
|	Pb	207	535.007	0.042827	ppb
|	Pb	208	810.020	0.036010	ppb
⌊>	Bi	209	2579016.644		ppb
	Cr	53	195735.044		ppb
	Pd	106	20.000		ppb
	Pd	108	25.000		ppb
	C	12	1232008.946		ppb
	Kr	83	184.002		ppb
	Se	77	38789.753		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		243.425			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		113.839			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.726			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		85.301			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		72.068			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-MS1

Sample Date/Time: Thursday, May 07, 2009 12:03:55
Sample Type: Spike - 2 of 15
Sample Description: 13MW5S
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MS1.102

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1197443.194	3.222	1197443.194			ppb
|	Be	9	24550.775	2.081	0.021	45.41849	1.56	ppb
|	Na	23	88097303.634	1.482	73.557	12760.45535	2.58	ppb
|	Mg	24	119375954.188	1.108	99.734	24495.27378	2.14	ppb
|	Mg	25	16731538.895	0.261	13.982	24446.30542	3.21	ppb
|	Mg	26	19623898.234	0.461	16.397	24540.15742	2.79	ppb
|	Al	27	11016265.655	0.358	9.199	1350.37805	3.01	ppb
|	K	39	11518520.136	0.583	9.204	769.30614	2.96	ppb
⌊	Ca	44	22404559.261	0.235	18.701	58941.20958	3.34	ppb
⌈>	Sc	45	932960.638	1.339	932960.638			ppb
|	Ti	47	540825.356	0.948	0.580	1038.19262	0.52	ppb
|	V	51	3952174.783	0.753	4.236	581.57264	0.71	ppb
|	Cr	52	1209155.126	0.901	1.292	203.72652	1.19	ppb
|	Mn	55	4698792.785	1.139	5.036	537.20703	1.35	ppb
|	Fe	54	565861.747	0.790	0.578	1180.73072	1.43	ppb
|	Fe	56	9290983.257	0.659	9.315	1011.80320	1.22	ppb
|	Fe	57	230243.825	0.531	0.245	1258.09169	1.40	ppb
|	Co	59	4050172.521	0.731	4.342	522.54668	1.43	ppb
|	Ni	60	756624.088	1.182	0.811	431.90937	1.58	ppb
|	Cu	63	845522.753	1.144	0.905	206.18058	0.99	ppb
|	Cu	65	413028.118	1.428	0.442	204.63109	0.77	ppb
|	Zn	66	346809.775	1.309	0.372	345.34312	1.00	ppb
|	As	75	29223.916	1.494	0.031	25.15594	2.84	ppb
⌊	Se	82	988.049	2.920	0.001	8.93648	3.46	ppb
⌈	Mo	96	2286973.911	1.016	1.194	1482.45216	0.83	ppb
|	Ag	107	276907.378	1.096	0.145	56.02170	0.91	ppb
|	Ag	109	270498.578	0.387	0.141	55.92602	0.18	ppb
|	Cd	111	59885.829	1.083	0.031	54.04534	0.98	ppb
|	In	113	146882.633	1.225	0.038	65.88395	2.05	ppb
|>	In	115	1915845.882	0.203	1915845.882			ppb
⌊	Sn	118	5077008.771	1.047	2.650	1447.39243	0.99	ppb
⌈	Sb	121	1976356.994	0.790	0.548	469.25747	1.47	ppb
|	Ba	135	2990763.462	0.551	0.830	2412.76278	0.85	ppb
|	Ba	137	5156965.546	0.672	1.430	2381.42498	0.89	ppb
⌊>	Tb	159	3605434.067	1.032	3605434.067			ppb
⌈	Tl	205	934233.135	2.644	0.038	5.52578	2.21	ppb
|	Pb	206	139057.527	3.298	0.006	2.70444	3.17	ppb
|	Pb	207	245093.556	2.724	0.010	2.53166	2.59	ppb
|	Pb	208	381304.502	2.133	0.015	2.18472	1.54	ppb
⌊>	Bi	209	24606786.799	0.963	24606786.799			ppb
	Cr	53	291350.694	0.385	290704.673			ppb
	Pd	106	5251.378	0.343	5248.045			ppb
	Pd	108	6221.936	3.148	6221.936			ppb
	C	12	944688.204	6.754	646368.251			ppb
	Kr	83	362.673	8.036	325.340			ppb
	Se	77	31326.995	0.900	31294.328			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1206971.607		ppb
|	Be	9	24900.964	45.689650	ppb
|	Na	23	89456527.771	12848.697622	ppb
|	Mg	24	119781865.205	24373.317699	ppb
|	Mg	25	16686644.677	24171.622108	ppb
|	Mg	26	19642069.817	24354.336879	ppb
|	Al	27	11054691.052	1343.519224	ppb
|	K	39	11580799.895	766.786147	ppb
⌊	Ca	44	22343903.939	58275.101302	ppb
⌈>	Sc	45	933738.959		ppb
|	Ti	47	539421.697	1034.594151	ppb
|	V	51	3940709.228	579.368185	ppb
|	Cr	52	1198650.112	201.765482	ppb
|	Mn	55	4644219.825	530.483318	ppb
|	Fe	54	560980.656	1168.904318	ppb
|	Fe	56	9233270.475	1004.091920	ppb
|	Fe	57	228854.083	1249.235653	ppb
|	Co	59	4016790.905	517.751033	ppb
|	Ni	60	746733.729	425.867092	ppb
|	Cu	63	837971.229	204.156041	ppb
|	Cu	65	409753.005	202.835848	ppb
|	Zn	66	343375.841	341.624272	ppb
|	As	75	29238.655	25.141276	ppb
⌊	Se	82	1020.719	9.231583	ppb
⌈	Mo	96	2269038.081	1473.973124	ppb
|	Ag	107	274647.128	55.683339	ppb
|	Ag	109	269386.908	55.814966	ppb
|	Cd	111	59752.940	54.040616	ppb
|	In	113	145171.140	64.625012	ppb
|>	In	115	1911772.665		ppb
⌊	Sn	118	5031890.508	1437.589621	ppb
⌈	Sb	121	1959651.885	465.781566	ppb
|	Ba	135	2974199.246	2402.028875	ppb
|	Ba	137	5121218.846	2367.515434	ppb
⌊>	Tb	159	3601310.224		ppb
⌈	Tl	205	925317.542	5.437767	ppb
|	Pb	206	135755.262	2.622809	ppb
|	Pb	207	240551.512	2.468400	ppb
|	Pb	208	380525.898	2.166177	ppb
⌊>	Bi	209	24766956.204		ppb
	Cr	53	291406.924		ppb
	Pd	106	5236.371		ppb
	Pd	108	6156.895		ppb
	C	12	1017582.210		ppb
	Kr	83	350.006		ppb
	Se	77	31169.167		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1154986.667		ppb
|	Be	9	23964.681	45.950834	ppb
|	Na	23	86851942.818	13036.198572	ppb
|	Mg	24	117897278.341	25069.628971	ppb
|	Mg	25	16734017.010	25331.322093	ppb
|	Mg	26	19525673.458	25299.726964	ppb
|	Al	27	10975869.725	1394.014319	ppb
|	K	39	11447343.268	793.225901	ppb
⌊	Ca	44	22438079.307	61158.188330	ppb
⌈>	Sc	45	920097.258		ppb

	Ti	47	536548.125	1044.342103	ppb
	V	51	3929862.928	586.341216	ppb
	Cr	52	1208412.953	206.440730	ppb
	Mn	55	4700996.487	544.931407	ppb
	Fe	54	566842.753	1200.089443	ppb
	Fe	56	9284398.578	1026.052958	ppb
	Fe	57	230726.377	1278.384359	ppb
	Co	59	4060423.231	531.135314	ppb
	Ni	60	759008.155	439.286061	ppb
	Cu	63	842165.925	208.225791	ppb
	Cu	65	409492.659	205.714034	ppb
	Zn	66	345096.925	348.430832	ppb
	As	75	29652.988	25.876674	ppb
	Se	82	977.381	8.962975	ppb
	Mo	96	2278671.496	1476.793365	ppb
	Ag	107	275719.370	55.770912	ppb
	Ag	109	270643.497	55.945106	ppb
	Cd	111	59313.855	53.518820	ppb
	In	113	146718.477	65.712168	ppb
>	In	115	1916223.346		ppb
	Sn	118	5135619.319	1463.817471	ppb
	Sb	121	1990569.894	477.222966	ppb
	Ba	135	2990913.963	2436.389296	ppb
	Ba	137	5159271.493	2405.705648	ppb
>	Tb	159	3570475.122		ppb
	Tl	205	915224.061	5.474034	ppb
	Pb	206	137123.744	2.696606	ppb
	Pb	207	241970.520	2.527310	ppb
	Pb	208	373590.043	2.164467	ppb
>	Bi	209	24334665.078		ppb
	Cr	53	290200.594		ppb
	Pd	106	5246.376		ppb
	Pd	108	6066.840		ppb
	C	12	898973.526		ppb
	Kr	83	396.008		ppb
	Se	77	31159.136		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1230371.307		ppb
	Be	9	24786.681	44.615000	ppb
	Na	23	87983440.314	12396.469859	ppb
	Mg	24	120448719.018	24042.874662	ppb
	Mg	25	16773954.998	23835.972057	ppb
	Mg	26	19703951.426	23966.408413	ppb
	Al	27	11018236.188	1313.600601	ppb
	K	39	11527417.244	747.906360	ppb
	Ca	44	22431694.536	57390.339100	ppb
>	Sc	45	945045.698		ppb
	Ti	47	546506.246	1035.641607	ppb
	V	51	3985952.193	579.008520	ppb
	Cr	52	1220402.313	202.973351	ppb
	Mn	55	4751162.044	536.206361	ppb
	Fe	54	569761.833	1173.198393	ppb
	Fe	56	9355280.719	1005.264710	ppb
	Fe	57	231151.016	1246.655065	ppb
	Co	59	4073303.427	518.753704	ppb
	Ni	60	764130.380	430.574971	ppb
	Cu	63	856431.107	206.159898	ppb
	Cu	65	419838.690	205.343396	ppb
	Zn	66	351956.561	345.974256	ppb
	As	75	28780.106	24.449882	ppb
	Se	82	966.047	8.614875	ppb

⌈	Mo	96	2313212.155	1496.590005	ppb
|	Ag	107	280355.636	56.610845	ppb
|	Ag	109	271465.328	56.017997	ppb
|	Cd	111	60590.691	54.576588	ppb
|	In	113	148758.282	67.314664	ppb
|>	In	115	1919541.633		ppb
⌊	Sn	118	5063516.485	1440.770193	ppb
⌈	Sb	121	1978849.204	464.767864	ppb
|	Ba	135	3007177.175	2399.870167	ppb
|	Ba	137	5190406.298	2371.053859	ppb
⌊>	Tb	159	3644516.855		ppb
⌈	Tl	205	962157.803	5.665530	ppb
|	Pb	206	144293.575	2.793892	ppb
|	Pb	207	252758.635	2.599256	ppb
|	Pb	208	389797.564	2.223508	ppb
⌊>	Bi	209	24718739.117		ppb
	Cr	53	292444.565		ppb
	Pd	106	5271.389		ppb
	Pd	108	6442.074		ppb
	C	12	917508.875		ppb
	Kr	83	342.006		ppb
	Se	77	31652.682		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		214.253			
Be	9			90.830		
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		103.778			
Ti	47					
V	51			116.896		
Cr	52			98.740		
Mn	55			107.386		
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60			85.893		
Cu	63			82.134		
Cu	65					
Zn	66			68.188		
As	75			70.488		
Se	82			70.246		
Mo	96					
Ag	107			111.835		
Ag	109					
Cd	111			108.037		
In	113					
In	115		66.886			
Sn	118					
Sb	121			465.192		
Ba	135					
Ba	137					
Tb	159		79.707			
Tl	205			11.006		
Pb	206					
Pb	207					
Pb	208			10.471		
Bi	209		688.150			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control
Zn 66 Spike	Zn	66	
As 75 Spike	As	75	
Se 82 Spike	Se	82	
Sb 121 Spike	Sb	121	
Tl 205 Spike	Tl	205	
Pb 208 Spike	Pb	208	
Bi 209 Int Std for sample	Bi	209	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-MSD1

Sample Date/Time: Thursday, May 07, 2009 12:06:49
Sample Type: Spike - 2 of 15
Sample Description: 13MW5SD
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MSD1.103

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1250934.815	3.491	1250934.815			ppb
|	Be	9	24616.932	1.113	0.020	43.61461	3.48	ppb
|	Na	23	87047430.430	1.204	69.574	12069.54278	2.46	ppb
|	Mg	24	117579542.751	1.358	94.037	23096.08638	2.20	ppb
|	Mg	25	16450532.214	0.463	13.160	23009.10524	3.19	ppb
|	Mg	26	19313630.723	1.928	15.448	23119.29589	3.06	ppb
|	Al	27	10941056.973	0.723	8.746	1283.85474	3.13	ppb
|	K	39	11439389.793	0.497	8.730	729.69603	3.21	ppb
⌊	Ca	44	22283913.699	0.997	17.802	56106.68183	2.55	ppb
⌈>	Sc	45	950323.426	1.887	950323.426			ppb
|	Ti	47	546957.539	1.005	0.576	1030.91328	1.57	ppb
|	V	51	4021485.642	1.962	4.232	581.10474	3.07	ppb
|	Cr	52	1214036.091	1.655	1.273	200.79653	0.88	ppb
|	Mn	55	4689440.492	1.548	4.934	526.33460	0.88	ppb
|	Fe	54	562395.765	1.992	0.564	1150.57029	1.08	ppb
|	Fe	56	9265806.540	0.334	9.108	989.27946	1.72	ppb
|	Fe	57	228494.486	0.955	0.238	1225.45685	1.12	ppb
|	Co	59	4048506.087	1.019	4.260	512.79257	1.00	ppb
|	Ni	60	757709.934	0.516	0.797	424.66000	1.40	ppb
|	Cu	63	847754.542	0.811	0.891	202.96191	1.13	ppb
|	Cu	65	413497.165	0.652	0.435	201.14787	1.25	ppb
|	Zn	66	347763.684	0.375	0.366	340.01632	1.53	ppb
|	As	75	29026.532	2.655	0.030	24.52158	1.58	ppb
⌊	Se	82	986.493	2.163	0.001	8.75656	3.90	ppb
⌈	Mo	96	2303000.839	0.458	1.032	1282.18432	1.29	ppb
|	Ag	107	278910.254	1.870	0.125	48.46489	2.34	ppb
|	Ag	109	270769.191	0.766	0.121	48.08256	1.67	ppb
|	Cd	111	61111.501	0.687	0.027	47.36774	1.18	ppb
|	In	113	149512.755	0.411	0.029	49.27731	1.36	ppb
|>	In	115	2230754.256	0.899	2230754.256			ppb
⌊	Sn	118	5135165.427	0.150	2.302	1257.37909	0.99	ppb
⌈	Sb	121	2082798.468	7.483	0.565	484.06501	7.46	ppb
|	Ba	135	3014509.617	0.739	0.818	2380.55941	0.93	ppb
|	Ba	137	5227403.936	0.160	1.419	2362.95807	0.28	ppb
⌊>	Tb	159	3683099.784	0.427	3683099.784			ppb
⌈	Tl	205	952094.067	1.040	0.038	5.52594	0.44	ppb
|	Pb	206	141838.831	0.161	0.006	2.70692	1.03	ppb
|	Pb	207	249564.336	0.526	0.010	2.52951	0.65	ppb
|	Pb	208	386174.021	0.661	0.015	2.17118	0.51	ppb
⌊>	Bi	209	25077873.283	1.174	25077873.283			ppb
	Cr	53	290506.790	1.754	289860.769			ppb
	Pd	106	5443.150	4.346	5439.816			ppb
	Pd	108	6435.404	1.868	6435.404			ppb
	C	12	941518.362	5.226	643198.409			ppb
	Kr	83	364.673	4.260	327.340			ppb
	Se	77	31379.382	1.036	31346.715			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1200785.583		ppb
	Be	9	24576.162	45.325992	ppb
	Na	23	85972556.578	12411.607586	ppb
	Mg	24	115795076.261	23683.439352	ppb
	Mg	25	16385294.404	23857.360251	ppb
	Mg	26	19135414.145	23848.338821	ppb
	Al	27	10888180.999	1330.090370	ppb
	K	39	11374144.331	756.532371	ppb
	Ca	44	22027857.792	57746.145763	ppb
>	Sc	45	929949.030		ppb
	Ti	47	542559.819	1044.855812	ppb
	V	51	4030598.364	595.001932	ppb
	Cr	52	1191954.178	201.454991	ppb
	Mn	55	4609444.344	528.656669	ppb
	Fe	54	550295.822	1150.450396	ppb
	Fe	56	9236756.482	1008.876536	ppb
	Fe	57	226061.634	1238.931402	ppb
	Co	59	4001596.357	517.894580	ppb
	Ni	60	753192.144	431.301342	ppb
	Cu	63	839842.166	205.447562	ppb
	Cu	65	410388.275	203.978898	ppb
	Zn	66	346255.975	345.896051	ppb
	As	75	28226.886	24.369063	ppb
	Se	82	1001.383	9.089542	ppb
	Mo	96	2291591.884	1269.091318	ppb
	Ag	107	272968.767	47.180743	ppb
	Ag	109	269715.592	47.641203	ppb
	Cd	111	61508.176	47.424238	ppb
	In	113	149519.510	48.677568	ppb
>	In	115	2242430.534		ppb
	Sn	118	5139704.340	1251.864088	ppb
	Sb	121	1994034.118	465.521443	ppb
	Ba	135	3009100.587	2386.979640	ppb
	Ba	137	5220582.553	2370.512981	ppb
>	Tb	159	3666541.928		ppb
	Tl	205	941087.225	5.521260	ppb
	Pb	206	141722.193	2.733947	ppb
	Pb	207	248312.253	2.544076	ppb
	Pb	208	383887.168	2.181710	ppb
>	Bi	209	24808522.658		ppb
	Cr	53	284646.328		ppb
	Pd	106	5181.342		ppb
	Pd	108	6442.074		ppb
	C	12	998005.996		ppb
	Kr	83	360.006		ppb
	Se	77	31054.143		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1271475.991		ppb
	Be	9	24365.648	42.439330	ppb
	Na	23	87103900.066	11875.426225	ppb
	Mg	24	118070588.663	22806.206083	ppb
	Mg	25	16431975.169	22595.098242	ppb
	Mg	26	19063771.449	22438.056623	ppb
	Al	27	10902959.998	1257.795438	ppb
	K	39	11478078.734	719.345226	ppb
	Ca	44	22397775.442	55448.636229	ppb
>	Sc	45	963706.845		ppb

	Ti	47	545192.361	1013.141708	ppb
	V	51	3938409.114	561.020585	ppb
	Cr	52	1218920.912	198.787065	ppb
	Mn	55	4707679.255	521.009375	ppb
	Fe	54	564479.540	1138.182342	ppb
	Fe	56	9298342.605	978.025416	ppb
	Fe	57	229140.532	1211.573911	ppb
	Co	59	4064681.335	507.631411	ppb
	Ni	60	759905.978	419.902328	ppb
	Cu	63	851111.078	200.904648	ppb
	Cu	65	415187.062	199.132557	ppb
	Zn	66	348526.165	335.962496	ppb
	As	75	29088.516	24.233039	ppb
	Se	82	962.046	8.406680	ppb
	Mo	96	2305006.493	1276.634226	ppb
	Ag	107	282737.987	48.873998	ppb
	Ag	109	269434.841	47.595802	ppb
	Cd	111	60672.342	46.783790	ppb
	In	113	150123.457	49.151683	ppb
>	In	115	2242232.620		ppb
	Sn	118	5126285.263	1248.705738	ppb
	Sb	121	1991603.606	461.015400	ppb
	Ba	135	2995447.074	2356.033522	ppb
	Ba	137	5236760.354	2357.729148	ppb
>	Tb	159	3697845.648		ppb
	Tl	205	954931.966	5.552283	ppb
	Pb	206	141691.766	2.708755	ppb
	Pb	207	249449.238	2.532764	ppb
	Pb	208	385707.331	2.172363	ppb
>	Bi	209	25032981.512		ppb
	Cr	53	293881.790		ppb
	Pd	106	5506.516		ppb
	Pd	108	6552.146		ppb
	C	12	908031.632		ppb
	Kr	83	352.006		ppb
	Se	77	31379.824		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1280542.872		ppb
	Be	9	24908.984	43.078504	ppb
	Na	23	88065834.646	11921.594524	ppb
	Mg	24	118872963.329	22798.613698	ppb
	Mg	25	16534327.069	22574.857236	ppb
	Mg	26	19741706.574	23071.492226	ppb
	Al	27	11032029.920	1263.678420	ppb
	K	39	11465946.313	713.210489	ppb
	Ca	44	22426107.862	55125.263493	ppb
>	Sc	45	957314.404		ppb
	Ti	47	553120.439	1034.742322	ppb
	V	51	4095449.448	587.291711	ppb
	Cr	52	1231233.182	202.147540	ppb
	Mn	55	4751197.877	529.337752	ppb
	Fe	54	572411.933	1163.078145	ppb
	Fe	56	9262320.533	980.936425	ppb
	Fe	57	230281.292	1225.865223	ppb
	Co	59	4079240.570	512.851711	ppb
	Ni	60	760031.680	422.776340	ppb
	Cu	63	852310.384	202.533507	ppb
	Cu	65	414916.158	200.332163	ppb
	Zn	66	348508.912	338.190406	ppb
	As	75	29764.195	24.962631	ppb
	Se	82	996.050	8.773466	ppb

⌈	Mo	96	2312404.141	1300.827412	ppb
|	Ag	107	281024.009	49.339917	ppb
|	Ag	109	273157.140	49.010680	ppb
|	Cd	111	61153.986	47.895183	ppb
|	In	113	148895.299	50.002680	ppb
|>	In	115	2207599.615		ppb
⌊	Sn	118	5139506.678	1271.567448	ppb
⌈	Sb	121	2262757.680	525.658184	ppb
|	Ba	135	3038981.191	2398.665059	ppb
|	Ba	137	5224868.902	2360.632072	ppb
⌊>	Tb	159	3684911.775		ppb
⌈	Tl	205	960263.009	5.504263	ppb
|	Pb	206	142102.533	2.678067	ppb
|	Pb	207	250931.516	2.511696	ppb
|	Pb	208	388927.564	2.159469	ppb
⌊>	Bi	209	25392115.678		ppb
	Cr	53	292992.251		ppb
	Pd	106	5641.591		ppb
	Pd	108	6311.991		ppb
	C	12	918517.459		ppb
	Kr	83	382.007		ppb
	Se	77	31704.178		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		223.824			
	Be	9			87.222		
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		105.709			
	Ti	47					
	V	51			116.802		
	Cr	52			97.275		
	Mn	55			105.212		
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60			84.443		
	Cu	63			80.847		
	Cu	65					
	Zn	66			67.123		
	As	75			68.902		
	Se	82			68.447		
	Mo	96					
	Ag	107			96.722		
	Ag	109					
	Cd	111			94.682		
	In	113					
>	In	115		77.881			
	Sn	118					
	Sb	121			480.000		
	Ba	135					
	Ba	137					
>	Tb	159		81.424			
	Tl	205			11.007		
	Pb	206					
	Pb	207					
	Pb	208			10.403		
>	Bi	209		701.324			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control
Zn 66 Spike	Zn	66	
As 75 Spike	As	75	
Se 82 Spike	Se	82	
Sb 121 Spike	Sb	121	
Tl 205 Spike	Tl	205	
Pb 208 Spike	Pb	208	
Bi 209 Int Std for sample	Bi	209	Int Std out of control

ILM05.4 - Summary Report

Sample ID: SDI0904098-01

Sample Date/Time: Thursday, May 07, 2009 12:09:42
Sample Type: Sample
Sample Description: 13MW5L 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\SDI0904098-01.104

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	815344.719	1.846	815344.719			ppb
|	Be	9	2.667	86.603	0.000	0.00730	86.62	ppb
|	Na	23	16517009.158	0.884	20.213	3506.56218	2.64	ppb
|	Mg	24	23851452.970	0.607	29.258	7185.90705	2.41	ppb
|	Mg	25	3435101.906	0.713	4.214	7367.26197	2.23	ppb
|	Mg	26	4102552.486	0.625	5.032	7530.63026	1.41	ppb
|	Al	27	6949.093	8.830	0.002	0.31810	41.04	ppb
|	K	39	2775712.481	0.539	2.983	249.38427	1.89	ppb
⌊	Ca	44	4871956.192	0.935	5.954	18766.69836	2.33	ppb
⌈>	Sc	45	966613.646	0.346	966613.646			ppb
|	Ti	47	473.345	8.473	0.000	0.68464	11.08	ppb
|	V	51	-7017.658	25.725	-0.008	-1.11138	22.83	ppb
|	Cr	52	15165.504	4.136	0.011	1.77810	5.79	ppb
|	Mn	55	1195.072	5.472	0.001	0.07633	10.01	ppb
|	Fe	54	42475.042	2.098	0.016	32.33241	6.00	ppb
|	Fe	56	615139.819	1.016	-0.008	-0.88926	88.00	ppb
|	Fe	57	13959.737	0.681	0.012	63.22169	1.14	ppb
|	Co	59	608.685	2.377	0.000	0.05776	3.14	ppb
|	Ni	60	884.484	5.145	0.001	0.45767	5.39	ppb
|	Cu	63	1203.406	2.919	-0.000	-0.00502	145.86	ppb
|	Cu	65	590.017	5.734	0.000	0.16571	10.13	ppb
|	Zn	66	795.587	5.339	0.001	0.57318	7.06	ppb
|	As	75	-673.850	32.256	-0.001	-0.59820	30.50	ppb
⌊	Se	82	73.556	4.186	0.000	0.38874	7.65	ppb
⌈	Mo	96	928.710	2.515	0.000	0.24988	6.03	ppb
|	Ag	107	23.333	14.286	-0.000	-0.00762	6.20	ppb
|	Ag	109	26.667	57.282	-0.000	-0.00696	34.07	ppb
|	Cd	111	33.641	86.520	0.000	0.01312	150.18	ppb
|	In	113	99891.455	0.769	0.000	0.67216	157.65	ppb
|>	In	115	2574154.361	0.857	2574154.361			ppb
⌊	Sn	118	958.379	7.850	0.000	0.15991	11.06	ppb
⌈	Sb	121	1531.784	2.926	0.000	0.05108	20.43	ppb
|	Ba	135	41063.477	1.015	0.010	29.12703	1.48	ppb
|	Ba	137	71567.251	2.043	0.017	29.05669	2.95	ppb
⌊>	Tb	159	4096593.183	0.963	4096593.183			ppb
⌈	Tl	205	191.669	1.506	0.000	0.00318	6.44	ppb
|	Pb	206	218.336	35.577	0.000	0.02243	49.52	ppb
|	Pb	207	398.338	27.568	0.000	0.02188	37.84	ppb
|	Pb	208	736.684	5.184	0.000	0.02444	5.10	ppb
⌊>	Bi	209	3169788.537	2.100	3169788.537			ppb
	Cr	53	63689.794	4.614	63043.773			ppb
	Pd	106	18.333	41.660	15.000			ppb
	Pd	108	5.000	100.000	5.000			ppb
	C	12	510180.970	1.184	211861.017			ppb
	Kr	83	58.000	5.973	20.667			ppb
	Se	77	7484.585	6.214	7451.918			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	818326.789		ppb
	Be	9	4.000	0.010825	ppb
	Na	23	16586056.122	3507.273539	ppb
	Mg	24	23743188.314	7125.122072	ppb
	Mg	25	3407333.875	7279.167474	ppb
	Mg	26	4089282.549	7477.664565	ppb
	Al	27	6412.055	0.215862	ppb
	K	39	2762514.261	246.943608	ppb
	Ca	44	4819697.510	18491.861946	ppb
>	Sc	45	966245.132		ppb
	Ti	47	515.013	0.762122	ppb
	V	51	-7798.622	-1.223259	ppb
	Cr	52	14446.427	1.661648	ppb
	Mn	55	1225.075	0.079671	ppb
	Fe	54	41465.793	30.233536	ppb
	Fe	56	608188.870	-1.645142	ppb
	Fe	57	14039.849	63.674871	ppb
	Co	59	592.018	0.055715	ppb
	Ni	60	933.377	0.484819	ppb
	Cu	63	1206.739	-0.004104	ppb
	Cu	65	560.016	0.151438	ppb
	Zn	66	746.695	0.526445	ppb
	As	75	-504.783	-0.457431	ppb
	Se	82	75.334	0.404929	ppb
	Mo	96	954.046	0.265972	ppb
	Ag	107	20.000	-0.008091	ppb
	Ag	109	40.000	-0.004856	ppb
	Cd	111	59.100	0.030457	ppb
	In	113	100396.455	1.581030	ppb
>	In	115	2552239.527		ppb
	Sn	118	1030.053	0.176899	ppb
	Sb	121	1555.121	0.053089	ppb
	Ba	135	41315.171	29.047758	ppb
	Ba	137	70852.115	28.509582	ppb
>	Tb	159	4132653.381		ppb
	Tl	205	190.002	0.002940	ppb
	Pb	206	305.005	0.034871	ppb
	Pb	207	525.007	0.031395	ppb
	Pb	208	745.016	0.024223	ppb
>	Bi	209	3227894.976		ppb
	Cr	53	60417.967		ppb
	Pd	106	25.000		ppb
	Pd	108	0.000		ppb
	C	12	504940.307		ppb
	Kr	83	56.000		ppb
	Se	77	6979.768		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	828681.594		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	16349191.667	3413.753022	ppb
	Mg	24	23795148.834	7051.478315	ppb
	Mg	25	3444257.063	7266.103020	ppb
	Mg	26	4132102.413	7461.547136	ppb
	Al	27	6817.323	0.273278	ppb
	K	39	2791985.933	246.390428	ppb
	Ca	44	4892897.908	18538.314472	ppb
>	Sc	45	970130.670		ppb

	Ti	47	435.009	0.610582	ppb
	V	51	-8301.023	-1.289928	ppb
	Cr	52	15449.926	1.815345	ppb
	Mn	55	1120.063	0.067583	ppb
	Fe	54	42806.424	32.703307	ppb
	Fe	56	616930.727	-0.940184	ppb
	Fe	57	13854.591	62.393697	ppb
	Co	59	616.019	0.058397	ppb
	Ni	60	876.705	0.451649	ppb
	Cu	63	1236.743	0.001802	ppb
	Cu	65	583.350	0.161489	ppb
	Zn	66	823.367	0.597029	ppb
	As	75	-597.742	-0.532797	ppb
	Se	82	70.000	0.354414	ppb
	Mo	96	924.043	0.247593	ppb
	Ag	107	23.333	-0.007614	ppb
	Ag	109	10.000	-0.009526	ppb
	Cd	111	39.915	0.017230	ppb
	In	113	100270.198	0.927167	ppb
>	In	115	2573866.823		ppb
	Sn	118	965.047	0.161251	ppb
	Sb	121	1480.110	0.039783	ppb
	Ba	135	40582.179	28.740511	ppb
	Ba	137	70600.344	28.615910	ppb
>	Tb	159	4102685.224		ppb
	Tl	205	195.002	0.003286	ppb
	Pb	206	195.002	0.018896	ppb
	Pb	207	330.003	0.016336	ppb
	Pb	208	770.021	0.025782	ppb
>	Bi	209	3184328.136		ppb
	Cr	53	64547.650		ppb
	Pd	106	20.000		ppb
	Pd	108	5.000		ppb
	C	12	508813.406		ppb
	Kr	83	56.000		ppb
	Se	77	7578.204		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	799025.774		ppb
	Be	9	4.000	0.011087	ppb
	Na	23	16615779.685	3598.659971	ppb
	Mg	24	24016021.763	7381.120757	ppb
	Mg	25	3453714.781	7556.515425	ppb
	Mg	26	4086272.497	7652.679085	ppb
	Al	27	7617.901	0.465173	ppb
	K	39	2772637.250	254.818765	ppb
	Ca	44	4903273.160	19269.918669	ppb
>	Sc	45	963465.135		ppb
	Ti	47	470.011	0.681211	ppb
	V	51	-4953.330	-0.820965	ppb
	Cr	52	15600.159	1.857314	ppb
	Mn	55	1240.077	0.081722	ppb
	Fe	54	43152.908	34.060401	ppb
	Fe	56	620299.860	-0.082460	ppb
	Fe	57	13984.772	63.596509	ppb
	Co	59	618.019	0.059176	ppb
	Ni	60	843.369	0.436552	ppb
	Cu	63	1166.735	-0.012742	ppb
	Cu	65	626.686	0.184215	ppb
	Zn	66	816.700	0.596055	ppb
	As	75	-919.025	-0.804359	ppb
	Se	82	75.334	0.406885	ppb

⌈	Mo	96	908.041	0.236075	ppb
|	Ag	107	26.667	-0.007147	ppb
|	Ag	109	30.000	-0.006488	ppb
|	Cd	111	1.910	-0.008315	ppb
|	In	113	99007.712	-0.491720	ppb
|>	In	115	2596356.732		ppb
⌊	Sn	118	880.039	0.141594	ppb
⌈	Sb	121	1560.122	0.060362	ppb
|	Ba	135	41293.080	29.592829	ppb
|	Ba	137	73249.294	30.044570	ppb
⌊>	Tb	159	4054440.943		ppb
⌈	Tl	205	190.002	0.003302	ppb
|	Pb	206	155.001	0.013519	ppb
|	Pb	207	340.003	0.017904	ppb
|	Pb	208	695.015	0.023318	ppb
⌊>	Bi	209	3097142.498		ppb
	Cr	53	66103.766		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	516789.196		ppb
	Kr	83	62.000		ppb
	Se	77	7895.783		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		145.886			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		107.521			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		89.870			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.565			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		88.646			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-02

Sample Date/Time: Thursday, May 07, 2009 12:12:35
Sample Type: Sample
Sample Description: 13MW3
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-02.105

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1348526.615	1.037	1348526.615			ppb
|	Be	9	4.000	86.603	0.000	0.00658	86.62	ppb
|	Na	23	82044785.383	1.074	60.794	10546.29765	1.44	ppb
|	Mg	24	120656669.686	0.856	89.470	21974.35280	0.18	ppb
|	Mg	25	16734766.207	0.763	12.409	21697.12403	0.45	ppb
|	Mg	26	19601245.145	1.270	14.534	21752.10792	0.27	ppb
|	Al	27	31693.484	1.375	0.017	2.51614	3.28	ppb
|	K	39	17289373.406	0.642	12.400	1036.49429	0.93	ppb
⌊	Ca	44	18694874.497	0.977	13.841	43622.38828	0.22	ppb
⌈>	Sc	45	1001109.435	1.156	1001109.435			ppb
|	Ti	47	1380.096	6.942	0.001	2.27574	6.39	ppb
|	V	51	-22745.095	10.170	-0.024	-3.23252	8.70	ppb
|	Cr	52	42983.082	6.209	0.039	6.07468	6.54	ppb
|	Mn	55	3315.550	1.568	0.003	0.29773	2.36	ppb
|	Fe	54	106293.676	1.453	0.078	159.35857	1.47	ppb
|	Fe	56	816859.643	1.126	0.171	18.62101	6.70	ppb
|	Fe	57	48589.479	2.570	0.046	238.52650	2.30	ppb
|	Co	59	2638.348	3.097	0.002	0.29918	3.29	ppb
|	Ni	60	3413.917	3.731	0.003	1.78626	3.05	ppb
|	Cu	63	3266.090	4.922	0.002	0.45460	7.79	ppb
|	Cu	65	1884.622	1.781	0.002	0.75416	2.81	ppb
|	Zn	66	3254.977	9.273	0.003	2.83088	10.12	ppb
|	As	75	-3747.690	30.373	-0.004	-3.04072	28.92	ppb
⌊	Se	82	166.446	2.206	0.000	1.17300	4.14	ppb
⌈	Mo	96	1524.783	0.200	0.001	0.63025	0.15	ppb
|	Ag	107	30.000	33.333	-0.000	-0.00604	28.11	ppb
|	Ag	109	16.667	69.282	-0.000	-0.00818	24.32	ppb
|	Cd	111	39.951	46.118	0.000	0.02061	67.10	ppb
|	In	113	88767.241	0.187	0.000	0.71788	18.96	ppb
|>	In	115	2285729.601	0.294	2285729.601			ppb
⌊	Sn	118	3467.270	7.636	0.001	0.78496	7.95	ppb
⌈	Sb	121	4055.822	1.422	0.001	0.66635	1.53	ppb
|	Ba	135	127939.242	0.643	0.034	100.19311	0.57	ppb
|	Ba	137	222106.143	0.250	0.060	99.56333	0.94	ppb
⌊>	Tb	159	3712935.165	0.688	3712935.165			ppb
⌈	Tl	205	91.667	6.298	-0.000	-0.00033	101.86	ppb
|	Pb	206	755.029	9.343	0.000	0.13368	9.67	ppb
|	Pb	207	1320.045	7.567	0.000	0.12383	8.20	ppb
|	Pb	208	2006.787	5.607	0.001	0.10452	6.68	ppb
⌊>	Bi	209	2514978.325	0.763	2514978.325			ppb
	Cr	53	199468.219	3.759	198822.198			ppb
	Pd	106	50.000	50.000	46.667			ppb
	Pd	108	21.667	35.251	21.667			ppb
	C	12	1215161.875	5.225	916841.922			ppb
	Kr	83	158.001	7.700	120.668			ppb
	Se	77	36971.415	4.358	36938.749			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1333273.709		ppb
|	Be	9	6.000	0.009966	ppb
|	Na	23	81657403.681	10615.925807	ppb
|	Mg	24	119537536.744	22019.316114	ppb
|	Mg	25	16625959.682	21802.152054	ppb
|	Mg	26	19342054.517	21710.369548	ppb
|	Al	27	32196.748	2.610457	ppb
|	K	39	17262816.885	1047.036899	ppb
⌊	Ca	44	18515036.790	43696.871602	ppb
⌈>	Sc	45	1001553.590		ppb
|	Ti	47	1335.089	2.195118	ppb
|	V	51	-22359.556	-3.180404	ppb
|	Cr	52	40152.449	5.626486	ppb
|	Mn	55	3255.530	0.291149	ppb
|	Fe	54	105028.670	156.681589	ppb
|	Fe	56	827269.561	19.704609	ppb
|	Fe	57	49843.912	244.859939	ppb
|	Co	59	2546.324	0.287971	ppb
|	Ni	60	3313.882	1.732466	ppb
|	Cu	63	3447.261	0.495486	ppb
|	Cu	65	1920.184	0.770070	ppb
|	Zn	66	3597.314	3.146656	ppb
|	As	75	-3674.642	-2.987496	ppb
⌊	Se	82	166.668	1.173916	ppb
⌈	Mo	96	1522.116	0.630351	ppb
|	Ag	107	20.000	-0.007730	ppb
|	Ag	109	10.000	-0.009329	ppb
|	Cd	111	26.009	0.010127	ppb
|	In	113	88580.596	0.702606	ppb
|>	In	115	2281437.293		ppb
⌊	Sn	118	3165.501	0.714315	ppb
⌈	Sb	121	4000.800	0.660846	ppb
|	Ba	135	127181.648	100.372616	ppb
|	Ba	137	222737.273	100.618234	ppb
⌊>	Tb	159	3684302.571		ppb
⌈	Tl	205	95.000	-0.000177	ppb
|	Pb	206	820.034	0.144857	ppb
|	Pb	207	1370.049	0.127781	ppb
|	Pb	208	1960.115	0.100976	ppb
⌊>	Bi	209	2535449.804		ppb
	Cr	53	193131.145		ppb
	Pd	106	50.000		ppb
	Pd	108	30.000		ppb
	C	12	1143102.805		ppb
	Kr	83	144.001		ppb
	Se	77	35270.089		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1351545.931		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	83052871.057	10651.399186	ppb
|	Mg	24	120860168.147	21961.964014	ppb
|	Mg	25	16703069.391	21607.138700	ppb
|	Mg	26	19623100.157	21728.050185	ppb
|	Al	27	31444.360	2.480817	ppb
|	K	39	17194066.502	1028.153209	ppb
⌊	Ca	44	18689420.838	43511.807509	ppb
⌈>	Sc	45	989321.158		ppb

	Ti	47	1315.086	2.188425	ppb
	V	51	-20648.984	-2.980898	ppb
	Cr	52	43343.731	6.213415	ppb
	Mn	55	3345.560	0.305143	ppb
	Fe	54	105837.127	160.996020	ppb
	Fe	56	809840.974	18.900391	ppb
	Fe	57	47346.821	235.045361	ppb
	Co	59	2666.355	0.306357	ppb
	Ni	60	3370.568	1.784767	ppb
	Cu	63	3140.493	0.434542	ppb
	Cu	65	1880.177	0.762331	ppb
	Zn	66	3140.493	2.758738	ppb
	As	75	-2647.686	-2.189302	ppb
	Se	82	170.001	1.221102	ppb
	Mo	96	1528.117	0.629249	ppb
	Ag	107	30.000	-0.006058	ppb
	Ag	109	30.000	-0.005883	ppb
	Cd	111	60.838	0.036286	ppb
	In	113	88898.398	0.590069	ppb
>	In	115	2293481.510		ppb
	Sn	118	3575.639	0.808011	ppb
	Sb	121	4115.847	0.678108	ppb
	Ba	135	128814.347	100.653683	ppb
	Ba	137	221886.674	99.240112	ppb
>	Tb	159	3721182.852		ppb
	Tl	205	95.000	-0.000094	ppb
	Pb	206	765.029	0.136642	ppb
	Pb	207	1385.048	0.131414	ppb
	Pb	208	2135.134	0.112562	ppb
>	Bi	209	2497416.498		ppb
	Cr	53	197527.782		ppb
	Pd	106	75.000		ppb
	Pd	108	20.000		ppb
	C	12	1239503.032		ppb
	Kr	83	166.001		ppb
	Se	77	37170.287		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1360760.205		ppb
	Be	9	6.000	0.009765	ppb
	Na	23	81424081.412	10371.567949	ppb
	Mg	24	121572304.168	21941.778257	ppb
	Mg	25	16875269.548	21682.081328	ppb
	Mg	26	19838580.759	21817.904033	ppb
	Al	27	31439.344	2.457151	ppb
	K	39	17411236.831	1034.292772	ppb
	Ca	44	18880165.862	43658.485743	ppb
>	Sc	45	1012453.556		ppb
	Ti	47	1490.111	2.443675	ppb
	V	51	-25226.744	-3.536245	ppb
	Cr	52	45453.065	6.384125	ppb
	Mn	55	3345.560	0.296902	ppb
	Fe	54	108015.231	160.398102	ppb
	Fe	56	813468.395	17.258020	ppb
	Fe	57	48577.704	235.674186	ppb
	Co	59	2702.365	0.303226	ppb
	Ni	60	3557.299	1.841534	ppb
	Cu	63	3210.515	0.433775	ppb
	Cu	65	1853.505	0.730066	ppb
	Zn	66	3027.125	2.587243	ppb
	As	75	-4920.742	-3.945377	ppb
	Se	82	162.668	1.123988	ppb

⌈	Mo	96	1524.116	0.631138	ppb
|	Ag	107	40.000	-0.004334	ppb
|	Ag	109	10.000	-0.009329	ppb
|	Cd	111	33.004	0.015421	ppb
|	In	113	88822.730	0.860957	ppb
|>	In	115	2282270.000		ppb
⌊	Sn	118	3660.670	0.832544	ppb
⌈	Sb	121	4050.820	0.660110	ppb
|	Ba	135	127821.732	99.553035	ppb
|	Ba	137	221694.481	98.831657	ppb
⌊>	Tb	159	3733320.073		ppb
⌈	Tl	205	85.000	-0.000707	ppb
|	Pb	206	680.023	0.119527	ppb
|	Pb	207	1205.037	0.112302	ppb
|	Pb	208	1925.112	0.100022	ppb
⌊>	Bi	209	2512068.673		ppb
	Cr	53	207745.730		ppb
	Pd	106	25.000		ppb
	Pd	108	15.000		ppb
	C	12	1262879.788		ppb
	Kr	83	164.001		ppb
	Se	77	38473.870		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		241.285			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		111.358			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		79.800			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		82.083			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		70.334			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-03

Sample Date/Time: Thursday, May 07, 2009 12:15:29
Sample Type: Sample
Sample Description: 13MW4
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-03.106

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1373038.459	1.247	1373038.459			ppb
|	Be	9	4.667	24.744	0.000	0.00753	25.34	ppb
|	Na	23	53409803.042	1.465	38.848	6739.24216	0.68	ppb
|	Mg	24	80012467.284	1.058	58.271	14311.75497	0.44	ppb
|	Mg	25	11112039.211	1.063	8.093	14149.44248	0.19	ppb
|	Mg	26	12972668.927	0.363	9.448	14140.07009	0.88	ppb
|	Al	27	185217.968	0.897	0.129	18.87062	2.23	ppb
|	K	39	9224144.592	0.308	6.297	526.38352	1.59	ppb
⌊	Ca	44	12687204.363	0.440	9.219	29055.64556	1.59	ppb
⌈>	Sc	45	1035807.877	0.607	1035807.877			ppb
|	Ti	47	1990.198	5.019	0.002	3.24897	5.22	ppb
|	V	51	-23957.231	24.749	-0.024	-3.29367	24.29	ppb
|	Cr	52	44573.230	4.134	0.039	6.09006	4.29	ppb
|	Mn	55	12275.865	1.634	0.011	1.20865	2.01	ppb
|	Fe	54	142151.592	0.732	0.109	222.75462	0.47	ppb
|	Fe	56	1391211.318	0.061	0.699	75.88004	1.20	ppb
|	Fe	57	48694.941	0.563	0.045	230.69404	0.12	ppb
|	Co	59	3051.132	2.983	0.003	0.33656	3.77	ppb
|	Ni	60	4582.161	1.756	0.004	2.32616	1.16	ppb
|	Cu	63	4698.883	4.584	0.003	0.74477	6.01	ppb
|	Cu	65	2209.133	1.143	0.002	0.86983	1.92	ppb
|	Zn	66	3357.230	1.641	0.003	2.82087	1.84	ppb
|	As	75	-3440.079	11.820	-0.003	-2.70843	11.89	ppb
⌊	Se	82	172.224	2.268	0.000	1.17273	2.88	ppb
⌈	Mo	96	2290.262	1.515	0.001	1.01520	2.55	ppb
|	Ag	107	26.667	43.301	-0.000	-0.00673	27.64	ppb
|	Ag	109	20.000	16.667	-0.000	-0.00768	7.65	ppb
|	Cd	111	72.919	70.333	0.000	0.04401	84.76	ppb
|	In	113	92236.794	1.065	0.001	1.59989	72.85	ppb
|>	In	115	2344360.679	0.896	2344360.679			ppb
⌊	Sn	118	3463.934	5.615	0.001	0.76334	5.23	ppb
⌈	Sb	121	3792.386	1.944	0.001	0.58301	1.75	ppb
|	Ba	135	66066.869	0.949	0.017	50.39073	0.62	ppb
|	Ba	137	114002.149	0.415	0.030	49.76974	0.87	ppb
⌊>	Tb	159	3811126.375	0.764	3811126.375			ppb
⌈	Tl	205	288.338	13.016	0.000	0.01064	18.55	ppb
|	Pb	206	596.685	9.927	0.000	0.10058	9.97	ppb
|	Pb	207	1100.031	6.696	0.000	0.09870	6.26	ppb
|	Pb	208	1738.422	2.513	0.001	0.08696	2.02	ppb
⌊>	Bi	209	2578869.429	1.063	2578869.429			ppb
	Cr	53	203233.893	1.000	202587.872			ppb
	Pd	106	50.000	43.589	46.667			ppb
	Pd	108	26.667	28.641	26.667			ppb
	C	12	1216671.249	4.394	918351.296			ppb
	Kr	83	135.334	14.803	98.001			ppb
	Se	77	33801.029	0.170	33768.362			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1361711.557		ppb
|	Be	9	4.000	0.006505	ppb
|	Na	23	52610244.333	6693.543868	ppb
|	Mg	24	79760374.608	14385.039222	ppb
|	Mg	25	11028071.464	14159.113989	ppb
|	Mg	26	12945411.552	14226.696983	ppb
|	Al	27	186192.392	19.136867	ppb
|	K	39	9255823.691	532.930312	ppb
⌊	Ca	44	12749987.941	29439.423334	ppb
⌈>	Sc	45	1030118.284		ppb
|	Ti	47	2040.208	3.355000	ppb
|	V	51	-26577.771	-3.657659	ppb
|	Cr	52	42556.360	5.819207	ppb
|	Mn	55	12202.440	1.207972	ppb
|	Fe	54	140961.555	221.944082	ppb
|	Fe	56	1390786.133	76.637345	ppb
|	Fe	57	48416.927	230.640923	ppb
|	Co	59	3142.494	0.349143	ppb
|	Ni	60	4514.352	2.304227	ppb
|	Cu	63	4744.459	0.760618	ppb
|	Cu	65	2220.246	0.880200	ppb
|	Zn	66	3393.909	2.870544	ppb
|	As	75	-3324.970	-2.632746	ppb
⌊	Se	82	169.335	1.156304	ppb
⌈	Mo	96	2330.271	1.042533	ppb
|	Ag	107	20.000	-0.007805	ppb
|	Ag	109	23.333	-0.007102	ppb
|	Cd	111	23.004	0.007468	ppb
|	In	113	93368.862	2.773420	ppb
|>	In	115	2332540.567		ppb
⌊	Sn	118	3255.530	0.718793	ppb
⌈	Sb	121	3735.698	0.576160	ppb
|	Ba	135	65932.641	50.638197	ppb
|	Ba	137	114341.988	50.263732	ppb
⌊>	Tb	159	3784797.822		ppb
⌈	Tl	205	310.005	0.011853	ppb
|	Pb	206	565.016	0.094587	ppb
|	Pb	207	1085.029	0.097107	ppb
|	Pb	208	1775.092	0.088844	ppb
⌊>	Bi	209	2582445.876		ppb
	Cr	53	203258.927		ppb
	Pd	106	40.000		ppb
	Pd	108	35.000		ppb
	C	12	1156058.030		ppb
	Kr	83	156.001		ppb
	Se	77	33740.826		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1364663.877		ppb
|	Be	9	6.000	0.009737	ppb
|	Na	23	53445276.241	6785.193700	ppb
|	Mg	24	79320257.606	14274.706563	ppb
|	Mg	25	11060920.892	14170.567532	ppb
|	Mg	26	12945595.724	14196.118689	ppb
|	Al	27	186161.831	19.090157	ppb
|	K	39	9215786.702	529.248815	ppb
⌊	Ca	44	12668183.067	29186.650024	ppb
⌈>	Sc	45	1042558.838		ppb

	Ti	47	2055.211	3.338445	ppb
	V	51	-17169.392	-2.376286	ppb
	Cr	52	44995.000	6.110370	ppb
	Mn	55	12122.343	1.184700	ppb
	Fe	54	142888.616	222.383980	ppb
	Fe	56	1390660.303	74.874267	ppb
	Fe	57	48964.584	230.458112	ppb
	Co	59	2960.438	0.323743	ppb
	Ni	60	4671.091	2.356443	ppb
	Cu	63	4887.861	0.779432	ppb
	Cu	65	2180.238	0.850557	ppb
	Zn	66	3383.906	2.825083	ppb
	As	75	-3103.425	-2.430907	ppb
	Se	82	170.668	1.150369	ppb
	Mo	96	2272.258	1.011961	ppb
	Ag	107	20.000	-0.007804	ppb
	Ag	109	20.000	-0.007667	ppb
	Cd	111	70.279	0.042531	ppb
	In	113	91733.834	1.583856	ppb
>	In	115	2331924.496		ppb
	Sn	118	3495.611	0.775228	ppb
	Sb	121	3875.751	0.594702	ppb
	Ba	135	66750.037	50.497170	ppb
	Ba	137	114202.407	49.449041	ppb
>	Tb	159	3842414.474		ppb
	Tl	205	310.005	0.011707	ppb
	Pb	206	665.022	0.112153	ppb
	Pb	207	1180.035	0.105516	ppb
	Pb	208	1750.090	0.086668	ppb
>	Bi	209	2604320.223		ppb
	Cr	53	201189.709		ppb
	Pd	106	35.000		ppb
	Pd	108	20.000		ppb
	C	12	1236845.221		ppb
	Kr	83	134.001		ppb
	Se	77	33855.212		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1392739.943		ppb
	Be	9	4.000	0.006360	ppb
	Na	23	54173888.552	6738.988919	ppb
	Mg	24	80956769.639	14275.519124	ppb
	Mg	25	11247125.278	14118.645923	ppb
	Mg	26	13026999.507	13997.394591	ppb
	Al	27	183299.682	18.384826	ppb
	K	39	9200823.384	516.971447	ppb
	Ca	44	12643442.081	28540.863312	ppb
>	Sc	45	1034746.509		ppb
	Ti	47	1875.176	3.053451	ppb
	V	51	-28124.531	-3.847062	ppb
	Cr	52	46168.330	6.340601	ppb
	Mn	55	12502.811	1.233284	ppb
	Fe	54	142604.605	223.935808	ppb
	Fe	56	1392187.520	76.128504	ppb
	Fe	57	48703.313	230.983077	ppb
	Co	59	3050.465	0.336796	ppb
	Ni	60	4561.040	2.317817	ppb
	Cu	63	4464.330	0.694251	ppb
	Cu	65	2226.915	0.878722	ppb
	Zn	66	3293.876	2.766988	ppb
	As	75	-3891.842	-3.061642	ppb
	Se	82	176.668	1.211531	ppb

⌈	Mo	96	2268.257	0.991114	ppb
|	Ag	107	40.000	-0.004582	ppb
|	Ag	109	16.667	-0.008278	ppb
|	Cd	111	125.474	0.082020	ppb
|	In	113	91607.685	0.442392	ppb
|>	In	115	2368616.973		ppb
⌊	Sn	118	3640.663	0.795993	ppb
⌈	Sb	121	3765.709	0.578167	ppb
|	Ba	135	65517.929	50.036825	ppb
|	Ba	137	113462.051	49.596442	ppb
⌊>	Tb	159	3806166.828		ppb
⌈	Tl	205	245.003	0.008363	ppb
|	Pb	206	560.016	0.094989	ppb
|	Pb	207	1035.027	0.093474	ppb
|	Pb	208	1690.085	0.085370	ppb
⌊>	Bi	209	2549842.189		ppb
	Cr	53	205253.043		ppb
	Pd	106	75.000		ppb
	Pd	108	25.000		ppb
	C	12	1257110.497		ppb
	Kr	83	116.001		ppb
	Se	77	33807.049		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		245.671			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		115.218			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		81.847			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		84.254			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		72.120			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-04

Sample Date/Time: Thursday, May 07, 2009 12:18:22
Sample Type: Sample
Sample Description: 13MWDUP
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-04.107

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1350738.993	0.897	1350738.993			ppb
	Be	9	3.333	69.282	0.000	0.00548	69.72	ppb
	Na	23	53789022.315	0.893	39.773	6899.60717	0.99	ppb
	Mg	24	80013607.484	0.997	59.239	14549.44701	1.81	ppb
	Mg	25	11266431.520	1.297	8.341	14584.05189	1.92	ppb
	Mg	26	13206566.675	1.137	9.777	14632.56708	1.56	ppb
	Al	27	165747.354	0.624	0.116	17.07872	0.86	ppb
	K	39	9349782.548	0.762	6.501	543.37625	0.84	ppb
	Ca	44	12797075.624	0.340	9.452	29790.73904	1.02	ppb
>	Sc	45	991813.105	0.473	991813.105			ppb
	Ti	47	1710.146	4.997	0.002	2.89557	4.91	ppb
	V	51	-23142.206	7.836	-0.024	-3.31814	7.11	ppb
	Cr	52	45864.381	3.989	0.042	6.59679	4.33	ppb
	Mn	55	11157.892	3.087	0.011	1.14440	3.08	ppb
	Fe	54	123837.216	1.741	0.097	197.49405	2.33	ppb
	Fe	56	1048226.466	0.265	0.412	44.78642	1.44	ppb
	Fe	57	41457.430	0.941	0.040	203.89091	0.53	ppb
	Co	59	3083.142	1.500	0.003	0.35613	1.69	ppb
	Ni	60	4724.450	2.844	0.005	2.50700	2.42	ppb
	Cu	63	4553.262	6.699	0.003	0.75703	8.61	ppb
	Cu	65	2101.332	1.589	0.002	0.86324	1.63	ppb
	Zn	66	3019.345	2.400	0.003	2.63802	3.03	ppb
	As	75	-3031.542	22.890	-0.003	-2.49503	22.58	ppb
	Se	82	168.001	2.209	0.000	1.19977	2.37	ppb
	Mo	96	2307.600	3.015	0.001	1.12703	13.18	ppb
	Ag	107	30.000	22.222	-0.000	-0.00570	28.48	ppb
	Ag	109	23.333	14.286	-0.000	-0.00680	9.85	ppb
	Cd	111	34.886	119.560	0.000	0.01662	193.60	ppb
	In	113	87963.542	0.956	0.002	3.74670	137.56	ppb
>	In	115	2175195.982	7.769	2175195.982			ppb
	Sn	118	3115.486	5.008	0.001	0.74316	12.22	ppb
	Sb	121	3328.889	6.722	0.001	0.51008	10.48	ppb
	Ba	135	66935.947	0.645	0.018	53.17965	0.63	ppb
	Ba	137	114390.540	0.154	0.031	52.01708	0.24	ppb
>	Tb	159	3658880.014	0.366	3658880.014			ppb
	Tl	205	278.337	19.209	0.000	0.01059	28.80	ppb
	Pb	206	476.678	10.507	0.000	0.08114	11.68	ppb
	Pb	207	840.018	5.678	0.000	0.07571	6.47	ppb
	Pb	208	1313.385	7.768	0.000	0.06598	8.95	ppb
>	Bi	209	2497858.141	0.426	2497858.141			ppb
	Cr	53	206462.941	0.523	205816.920			ppb
	Pd	106	46.667	24.744	43.333			ppb
	Pd	108	33.333	60.622	33.333			ppb
	C	12	1214315.883	4.393	915995.931			ppb
	Kr	83	112.001	15.872	74.667			ppb
	Se	77	33991.451	0.366	33958.784			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1344453.218		ppb
	Be	9	6.000	0.009883	ppb
	Na	23	54149247.256	6978.159660	ppb
	Mg	24	80807729.278	14761.038761	ppb
	Mg	25	11434539.906	14869.488748	ppb
	Mg	26	13371952.641	14884.143017	ppb
	Al	27	166438.660	17.237765	ppb
	K	39	9389684.731	548.546112	ppb
	Ca	44	12845759.501	30042.750129	ppb
>	Sc	45	989932.441		ppb
	Ti	47	1630.133	2.757010	ppb
	V	51	-22894.813	-3.290631	ppb
	Cr	52	43769.580	6.276994	ppb
	Mn	55	10760.787	1.103924	ppb
	Fe	54	121493.578	193.142327	ppb
	Fe	56	1051318.641	45.342022	ppb
	Fe	57	41425.627	204.136957	ppb
	Co	59	3034.460	0.350913	ppb
	Ni	60	4627.737	2.459967	ppb
	Cu	63	4517.687	0.751024	ppb
	Cu	65	2126.893	0.877051	ppb
	Zn	66	3007.119	2.631684	ppb
	As	75	-3765.672	-3.096068	ppb
	Se	82	164.001	1.167480	ppb
	Mo	96	2254.254	1.036210	ppb
	Ag	107	30.000	-0.006001	ppb
	Ag	109	20.000	-0.007572	ppb
	Cd	111	38.369	0.019668	ppb
	In	113	87803.790	0.508685	ppb
>	In	115	2268006.284		ppb
	Sn	118	2935.431	0.663395	ppb
	Sb	121	3375.570	0.524231	ppb
	Ba	135	66880.907	53.356202	ppb
	Ba	137	114228.705	52.158732	ppb
>	Tb	159	3643767.065		ppb
	Tl	205	250.003	0.009005	ppb
	Pb	206	425.009	0.071549	ppb
	Pb	207	810.016	0.072977	ppb
	Pb	208	1290.048	0.064950	ppb
>	Bi	209	2487804.255		ppb
	Cr	53	205222.424		ppb
	Pd	106	40.000		ppb
	Pd	108	30.000		ppb
	C	12	1153104.906		ppb
	Kr	83	126.001		ppb
	Se	77	34070.608		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1343064.154		ppb
	Be	9	2.000	0.003298	ppb
	Na	23	53243679.640	6868.418330	ppb
	Mg	24	80020340.090	14632.317082	ppb
	Mg	25	11195257.761	14573.363796	ppb
	Mg	26	13078751.685	14572.820273	ppb
	Al	27	164557.916	17.051004	ppb
	K	39	9267551.697	541.548730	ppb
	Ca	44	12761959.386	29877.243883	ppb
>	Sc	45	997154.886		ppb

	Ti	47	1800.162	3.041074	ppb
	V	51	-25066.540	-3.566674	ppb
	Cr	52	46676.682	6.686291	ppb
	Mn	55	11376.468	1.161386	ppb
	Fe	54	124282.538	197.036684	ppb
	Fe	56	1047408.498	44.080541	ppb
	Fe	57	41862.440	204.830923	ppb
	Co	59	3088.477	0.354760	ppb
	Ni	60	4877.856	2.575516	ppb
	Cu	63	4874.521	0.825017	ppb
	Cu	65	2113.557	0.863669	ppb
	Zn	66	2953.770	2.561503	ppb
	As	75	-2942.565	-2.410180	ppb
	Se	82	171.335	1.220990	ppb
	Mo	96	2282.260	1.046368	ppb
	Ag	107	23.333	-0.007157	ppb
	Ag	109	26.667	-0.006426	ppb
	Cd	111	74.744	0.047167	ppb
	In	113	88873.175	1.041207	ppb
>	In	115	2277442.842		ppb
	Sn	118	3200.512	0.724041	ppb
	Sb	121	3085.476	0.450991	ppb
	Ba	135	67392.324	53.389659	ppb
	Ba	137	114578.675	51.953912	ppb
>	Tb	159	3669330.208		ppb
	Tl	205	245.003	0.008661	ppb
	Pb	206	525.014	0.090497	ppb
	Pb	207	895.021	0.081367	ppb
	Pb	208	1425.062	0.072340	ppb
>	Bi	209	2496767.022		ppb
	Cr	53	207200.593		ppb
	Pd	106	60.000		ppb
	Pd	108	15.000		ppb
	C	12	1238955.206		ppb
	Kr	83	92.000		ppb
	Se	77	34055.892		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1364699.608		ppb
	Be	9	2.000	0.003246	ppb
	Na	23	53974140.049	6852.243507	ppb
	Mg	24	79212753.083	14254.985189	ppb
	Mg	25	11169496.894	14309.303126	ppb
	Mg	26	13168995.698	14440.737954	ppb
	Al	27	166245.486	16.947390	ppb
	K	39	9392111.215	540.033913	ppb
	Ca	44	12783507.987	29452.223105	ppb
>	Sc	45	988351.989		ppb
	Ti	47	1700.145	2.888611	ppb
	V	51	-21465.265	-3.097110	ppb
	Cr	52	47146.880	6.827078	ppb
	Mn	55	11336.422	1.167903	ppb
	Fe	54	125735.533	202.303126	ppb
	Fe	56	1045952.258	44.936711	ppb
	Fe	57	41084.223	202.704851	ppb
	Co	59	3126.489	0.362710	ppb
	Ni	60	4667.756	2.485511	ppb
	Cu	63	4267.577	0.695038	ppb
	Cu	65	2063.546	0.848998	ppb
	Zn	66	3097.146	2.720865	ppb
	As	75	-2386.389	-1.978832	ppb
	Se	82	168.668	1.210837	ppb

⌈	Mo	96	2386.285	1.298500	ppb
|	Ag	107	36.667	-0.003950	ppb
|	Ag	109	23.333	-0.006397	ppb
|	Cd	111	-8.456	-0.016972	ppb
|	In	113	87213.660	9.690217	ppb
⊦>	In	115	1980138.818		ppb
⌊	Sn	118	3210.515	0.842047	ppb
⌈	Sb	121	3525.621	0.555028	ppb
|	Ba	135	66534.609	52.793097	ppb
|	Ba	137	114364.241	51.938590	ppb
⌊>	Tb	159	3663542.769		ppb
⌈	Tl	205	340.006	0.014108	ppb
|	Pb	206	480.012	0.081388	ppb
|	Pb	207	815.017	0.072784	ppb
|	Pb	208	1225.045	0.060663	ppb
⌊>	Bi	209	2509003.147		ppb
	Cr	53	206965.806		ppb
	Pd	106	40.000		ppb
	Pd	108	55.000		ppb
	C	12	1250887.538		ppb
	Kr	83	118.001		ppb
	Se	77	33847.854		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		241.681			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		110.324			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		75.941			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		80.888			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		69.855			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 12:21:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.108

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	650358.693	2.852	650358.693			ppb
	Be	9	34719.547	3.370	0.053	118.21661	0.55	ppb
	Na	23	4497569.073	1.068	6.868	1191.45335	2.72	ppb
	Mg	24	3155155.096	2.341	4.850	1191.27080	3.82	ppb
	Mg	25	448127.222	1.288	0.689	1204.15113	1.55	ppb
	Mg	26	512191.782	1.417	0.787	1178.02273	1.92	ppb
	Al	27	5132848.892	0.772	7.890	1158.21569	2.98	ppb
	K	39	8471395.295	0.947	12.609	1053.97019	2.10	ppb
	Ca	44	230882.455	1.091	0.333	1048.42659	2.15	ppb
>	Sc	45	872505.018	1.135	872505.018			ppb
	Ti	47	57820.013	0.616	0.066	118.51480	0.67	ppb
	V	51	750732.377	1.969	0.860	118.02113	0.88	ppb
	Cr	52	657869.018	0.659	0.750	118.22925	1.04	ppb
	Mn	55	940236.311	3.350	1.077	114.88125	2.67	ppb
	Fe	54	527074.309	1.629	0.576	1175.71838	1.85	ppb
	Fe	56	9746488.169	0.768	10.527	1143.41896	0.81	ppb
	Fe	57	200027.738	1.589	0.227	1167.80741	1.21	ppb
	Co	59	838917.464	2.154	0.961	115.70731	1.73	ppb
	Ni	60	184066.947	2.309	0.211	112.32491	2.32	ppb
	Cu	63	441015.979	1.880	0.504	114.86674	2.02	ppb
	Cu	65	216484.052	1.458	0.248	114.64221	1.73	ppb
	Zn	66	109827.830	2.456	0.126	116.80556	1.90	ppb
	As	75	122394.103	2.061	0.140	112.76171	1.96	ppb
	Se	82	11541.102	1.572	0.013	114.74203	1.72	ppb
	Mo	96	254046.689	0.929	0.099	122.56245	0.68	ppb
	Ag	107	813254.337	1.432	0.316	122.64746	1.14	ppb
	Ag	109	806249.091	1.317	0.314	124.25865	1.03	ppb
	Cd	111	185004.930	0.441	0.072	124.46113	0.46	ppb
	In	113	287072.689	1.322	0.073	126.20668	1.78	ppb
>	In	115	2570348.911	0.310	2570348.911			ppb
	Sn	118	584534.192	1.376	0.227	124.17065	1.35	ppb
	Sb	121	606370.450	0.674	0.145	124.52652	1.39	ppb
	Ba	135	174877.906	0.681	0.042	122.19572	1.51	ppb
	Ba	137	303642.836	1.300	0.073	121.45317	2.34	ppb
>	Tb	159	4161910.800	1.136	4161910.800			ppb
	Tl	205	2827558.336	0.369	0.833	121.35328	0.62	ppb
	Pb	206	901458.339	0.661	0.266	127.57363	1.48	ppb
	Pb	207	1689551.472	0.677	0.498	127.00515	1.48	ppb
	Pb	208	2746145.432	0.690	0.809	114.49328	1.16	ppb
>	Bi	209	3394740.992	0.861	3394740.992			ppb
	Cr	53	92867.464	2.900	92221.443			ppb
	Pd	106	15658.917	0.513	15655.584			ppb
	Pd	108	12347.621	2.217	12347.621			ppb
	C	12	327033.062	1.627	28713.109			ppb
	Kr	83	45.333	26.593	8.000			ppb
	Se	77	9472.707	0.384	9440.040			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	671627.375		ppb
|	Be	9	36068.931	118.933337	ppb
|	Na	23	4507415.164	1155.436177	ppb
|	Mg	24	3137409.044	1146.367237	ppb
|	Mg	25	454624.484	1182.559342	ppb
|	Mg	26	518149.971	1153.592927	ppb
|	Al	27	5122970.568	1118.734840	ppb
|	K	39	8558209.505	1029.885077	ppb
⌊	Ca	44	233085.141	1022.923289	ppb
⌈>	Sc	45	883355.496		ppb
|	Ti	47	58224.010	117.870588	ppb
|	V	51	765664.280	118.898070	ppb
|	Cr	52	661385.410	117.388792	ppb
|	Mn	55	972719.997	117.402339	ppb
|	Fe	54	532289.335	1172.551699	ppb
|	Fe	56	9825891.661	1138.226983	ppb
|	Fe	57	203198.722	1171.777700	ppb
|	Co	59	856125.168	116.631798	ppb
|	Ni	60	186723.831	112.541823	ppb
|	Cu	63	445727.073	114.660500	ppb
|	Cu	65	218123.222	114.082847	ppb
|	Zn	66	112539.716	118.226384	ppb
|	As	75	124266.784	113.077565	ppb
⌊	Se	82	11653.453	114.428595	ppb
⌈	Mo	96	256391.221	123.254225	ppb
|	Ag	107	826141.806	124.149036	ppb
|	Ag	109	817893.396	125.605715	ppb
|	Cd	111	185259.797	124.187074	ppb
|	In	113	289701.429	127.277014	ppb
|>	In	115	2579559.586		ppb
⌊	Sn	118	586345.437	124.110578	ppb
⌈	Sb	121	602154.625	124.216413	ppb
|	Ba	135	176253.699	123.709992	ppb
|	Ba	137	307100.215	123.379404	ppb
⌊>	Tb	159	4142892.697		ppb
⌈	Tl	205	2816237.856	122.006595	ppb
|	Pb	206	908232.721	129.737460	ppb
|	Pb	207	1702430.724	129.173197	ppb
|	Pb	208	2755278.576	115.954486	ppb
⌊>	Bi	209	3362933.995		ppb
	Cr	53	95616.955		ppb
	Pd	106	15582.131		ppb
	Pd	108	12632.975		ppb
	C	12	333167.076		ppb
	Kr	83	58.000		ppb
	Se	77	9509.186		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	641909.723		ppb
|	Be	9	34100.042	117.646679	ppb
|	Na	23	4539910.872	1218.117230	ppb
|	Mg	24	3236260.268	1237.304753	ppb
|	Mg	25	446154.515	1214.280601	ppb
|	Mg	26	514316.480	1198.108202	ppb
|	Al	27	5176467.464	1182.804197	ppb
|	K	39	8400083.623	1058.604696	ppb
⌊	Ca	44	231427.297	1065.421288	ppb
⌈>	Sc	45	863960.976		ppb

	Ti	47	57685.905	119.405283	ppb
	V	51	736105.937	116.872101	ppb
	Cr	52	659193.548	119.639488	ppb
	Mn	55	938171.412	115.773616	ppb
	Fe	54	531767.649	1198.928711	ppb
	Fe	56	9736417.482	1154.100875	ppb
	Fe	57	200041.006	1179.536379	ppb
	Co	59	840532.000	117.078083	ppb
	Ni	60	186312.940	114.815592	ppb
	Cu	63	445880.351	117.281338	ppb
	Cu	65	218484.311	116.839733	ppb
	Zn	66	109799.505	117.936609	ppb
	As	75	123389.401	114.800238	ppb
	Se	82	11638.102	116.848969	ppb
	Mo	96	254077.272	122.803866	ppb
	Ag	107	803478.896	121.398259	ppb
	Ag	109	803745.784	124.102650	ppb
	Cd	111	184092.887	124.074433	ppb
	In	113	288795.791	127.718661	ppb
>	In	115	2565638.429		ppb
	Sn	118	575740.071	122.526449	ppb
	Sb	121	606638.841	122.977042	ppb
	Ba	135	174185.939	120.145881	ppb
	Ba	137	299340.160	118.182887	ppb
>	Tb	159	4215716.021		ppb
	Tl	205	2836807.481	121.526111	ppb
	Pb	206	897025.726	126.706281	ppb
	Pb	207	1680570.563	126.091183	ppb
	Pb	208	2724357.848	113.373437	ppb
>	Bi	209	3400889.364		ppb
	Cr	53	92750.144		ppb
	Pd	106	15652.240		ppb
	Pd	108	12322.588		ppb
	C	12	324246.938		ppb
	Kr	83	34.000		ppb
	Se	77	9472.484		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	637538.982		ppb
	Be	9	33989.667	118.069815	ppb
	Na	23	4445381.183	1200.806639	ppb
	Mg	24	3091795.975	1190.140396	ppb
	Mg	25	443602.668	1215.613458	ppb
	Mg	26	504108.895	1182.367057	ppb
	Al	27	5099108.643	1173.108036	ppb
	K	39	8455892.758	1073.420807	ppb
	Ca	44	228134.929	1056.935188	ppb
>	Sc	45	870198.583		ppb
	Ti	47	57550.126	118.268515	ppb
	V	51	750426.914	118.293210	ppb
	Cr	52	653028.095	117.659481	ppb
	Mn	55	909817.525	111.467794	ppb
	Fe	54	517165.943	1155.674737	ppb
	Fe	56	9677155.363	1137.929020	ppb
	Fe	57	196843.486	1152.108148	ppb
	Co	59	820095.223	113.412057	ppb
	Ni	60	179164.071	109.617329	ppb
	Cu	63	431440.514	112.658382	ppb
	Cu	65	212844.623	113.004058	ppb
	Zn	66	107144.269	114.253686	ppb
	As	75	119526.124	110.407329	ppb
	Se	82	11331.750	112.948517	ppb

⌈	Mo	96	251671.573	121.629249	ppb
|	Ag	107	810142.308	122.395099	ppb
|	Ag	109	797108.093	123.067575	ppb
|	Cd	111	185662.104	125.121875	ppb
|	In	113	282720.846	123.624379	ppb
|>	In	115	2565848.718		ppb
⌊	Sn	118	591517.067	125.874912	ppb
⌈	Sb	121	610317.886	126.386120	ppb
|	Ba	135	174194.079	122.731290	ppb
|	Ba	137	304488.135	122.797225	ppb
⌊>	Tb	159	4127123.682		ppb
⌈	Tl	205	2829629.671	120.527133	ppb
|	Pb	206	899116.568	126.277152	ppb
|	Pb	207	1685653.128	125.751084	ppb
|	Pb	208	2758799.874	114.151923	ppb
⌊>	Bi	209	3420399.618		ppb
	Cr	53	90235.292		ppb
	Pd	106	15742.381		ppb
	Pd	108	12087.301		ppb
	C	12	323685.172		ppb
	Kr	83	44.000		ppb
	Se	77	9436.450		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			116.365		
	Be	9	98.514				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			97.053		
	Ti	47					
	V	51	98.351				
	Cr	52	98.524				
	Mn	55	95.734				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	96.423				
	Ni	60	93.604				
	Cu	63	95.722				
	Cu	65	95.535				
	Zn	66	97.338				
	As	75	93.968				
	Se	82	95.618				
	Mo	96					
	Ag	107	102.206				
	Ag	109	103.549				
	Cd	111	103.718				
	In	113					
>	In	115			89.737		
	Sn	118	103.476				
	Sb	121	103.772				
	Ba	135	101.830				
	Ba	137	101.211				
>	Tb	159			92.009		
	Tl	205	101.128				
	Pb	206	106.311				
	Pb	207	105.838				
	Pb	208	95.411				
>	Bi	209			94.937		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 12:24:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.109

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	627967.587	1.491	627967.587			ppb
	Be	9	2.667	43.301	0.000	0.00944	44.53	ppb
	Na	23	16529.984	0.259	-0.024	-4.23163	1.49	ppb
	Mg	24	4562.041	2.600	0.003	0.84353	7.06	ppb
	Mg	25	628.020	2.799	0.000	0.78882	9.16	ppb
	Mg	26	767.363	4.238	0.001	0.82234	6.08	ppb
	Al	27	975.048	16.507	-0.005	-0.70672	4.88	ppb
	K	39	189271.834	0.937	-0.120	-10.03790	1.38	ppb
	Ca	44	8995.378	1.185	-0.008	-25.71411	3.77	ppb
>	Sc	45	861978.820	1.966	861978.820			ppb
	Ti	47	101.667	41.245	0.000	0.01759	466.76	ppb
	V	51	-294.719	198.952	-0.001	-0.16239	58.17	ppb
	Cr	52	3892.092	4.431	0.000	0.01598	226.28	ppb
	Mn	55	381.674	13.253	-0.000	-0.00829	81.12	ppb
	Fe	54	22124.463	3.071	-0.002	-4.97450	17.69	ppb
	Fe	56	507834.464	0.904	-0.055	-5.99872	29.02	ppb
	Fe	57	1791.827	3.490	-0.000	-0.34366	167.76	ppb
	Co	59	119.334	21.089	-0.000	-0.00136	264.08	ppb
	Ni	60	44.445	15.613	-0.000	-0.00219	179.04	ppb
	Cu	63	528.903	14.946	-0.001	-0.14906	12.13	ppb
	Cu	65	183.335	7.273	-0.000	-0.01814	48.39	ppb
	Zn	66	137.779	7.391	-0.000	-0.04336	20.56	ppb
	As	75	8.099	629.048	-0.000	-0.03012	158.22	ppb
	Se	82	28.444	12.027	0.000	0.01372	224.97	ppb
	Mo	96	365.340	16.141	-0.000	-0.02075	129.54	ppb
	Ag	107	161.112	26.923	0.000	0.01336	49.86	ppb
	Ag	109	162.224	29.942	0.000	0.01417	55.37	ppb
	Cd	111	-4.850	238.105	-0.000	-0.01282	61.10	ppb
	In	113	99068.336	0.937	0.000	0.66443	17.68	ppb
>	In	115	2553041.248	1.093	2553041.248			ppb
	Sn	118	496.679	22.832	0.000	0.06257	37.01	ppb
	Sb	121	3518.963	16.012	0.001	0.47015	22.93	ppb
	Ba	135	44.667	15.725	0.000	0.00230	201.49	ppb
	Ba	137	76.000	18.421	-0.000	-0.00308	169.56	ppb
>	Tb	159	4071233.108	1.506	4071233.108			ppb
	Tl	205	285.004	16.736	0.000	0.00637	32.01	ppb
	Pb	206	150.001	17.638	0.000	0.01030	35.37	ppb
	Pb	207	250.002	20.298	0.000	0.00832	43.93	ppb
	Pb	208	461.674	11.930	0.000	0.01044	21.00	ppb
>	Bi	209	3460294.755	0.621	3460294.755			ppb
	Cr	53	11665.476	4.438	11019.455			ppb
	Pd	106	3.333	86.603	0.000			ppb
	Pd	108	10.000	50.000	10.000			ppb
	C	12	308641.166	1.386	10321.213			ppb
	Kr	83	45.333	17.830	8.000			ppb
	Se	77	260.448	5.408	227.781			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	638305.645		ppb
	Be	9	2.000	0.006939	ppb
	Na	23	16565.710	-4.296499	ppb
	Mg	24	4567.043	0.816175	ppb
	Mg	25	615.019	0.724220	ppb
	Mg	26	804.032	0.879189	ppb
	Al	27	1125.063	-0.675591	ppb
	K	39	191229.112	-10.191012	ppb
	Ca	44	8925.982	-26.796168	ppb
>	Sc	45	881529.426		ppb
	Ti	47	150.001	0.112189	ppb
	V	51	-52.573	-0.123237	ppb
	Cr	52	3878.752	-0.002427	ppb
	Mn	55	355.006	-0.012613	ppb
	Fe	54	22790.942	-4.588390	ppb
	Fe	56	503709.505	-7.948617	ppb
	Fe	57	1720.148	-1.006372	ppb
	Co	59	116.001	-0.002191	ppb
	Ni	60	50.000	0.000587	ppb
	Cu	63	616.686	-0.129248	ppb
	Cu	65	170.001	-0.027419	ppb
	Zn	66	146.668	-0.037204	ppb
	As	75	40.241	-0.000659	ppb
	Se	82	31.333	0.036095	ppb
	Mo	96	432.009	0.009798	ppb
	Ag	107	116.667	0.006414	ppb
	Ag	109	123.334	0.007886	ppb
	Cd	111	-12.275	-0.017821	ppb
	In	113	99851.035	0.532411	ppb
>	In	115	2578274.017		ppb
	Sn	118	625.020	0.088867	ppb
	Sb	121	4155.863	0.590624	ppb
	Ba	135	52.000	0.006957	ppb
	Ba	137	92.000	0.002893	ppb
>	Tb	159	4139659.229		ppb
	Tl	205	240.003	0.004405	ppb
	Pb	206	170.001	0.012929	ppb
	Pb	207	305.002	0.012241	ppb
	Pb	208	515.008	0.012488	ppb
>	Bi	209	3482307.656		ppb
	Cr	53	12189.425		ppb
	Pd	106	5.000		ppb
	Pd	108	15.000		ppb
	C	12	313489.965		ppb
	Kr	83	50.000		ppb
	Se	77	275.337		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	625537.489		ppb
	Be	9	2.000	0.007081	ppb
	Na	23	16482.573	-4.227658	ppb
	Mg	24	4440.986	0.802550	ppb
	Mg	25	621.019	0.775378	ppb
	Mg	26	756.029	0.802819	ppb
	Al	27	995.050	-0.700820	ppb
	K	39	188811.825	-10.002879	ppb
	Ca	44	9118.155	-24.928313	ppb
>	Sc	45	851480.638		ppb

	Ti	47	75.000	-0.034831	ppb
	V	51	131.775	-0.093799	ppb
	Cr	52	4070.828	0.057640	ppb
	Mn	55	350.006	-0.011723	ppb
	Fe	54	21432.944	-5.981394	ppb
	Fe	56	512778.435	-4.601360	ppb
	Fe	57	1835.168	0.042314	ppb
	Co	59	96.000	-0.004460	ppb
	Ni	60	36.667	-0.006686	ppb
	Cu	63	463.344	-0.164649	ppb
	Cu	65	183.335	-0.017030	ppb
	Zn	66	126.667	-0.053579	ppb
	As	75	34.696	-0.004601	ppb
	Se	82	29.333	0.026578	ppb
	Mo	96	344.006	-0.031268	ppb
	Ag	107	203.335	0.019691	ppb
	Ag	109	146.668	0.011653	ppb
	Cd	111	-10.730	-0.016842	ppb
	In	113	99310.694	0.703504	ppb
>	In	115	2557761.966		ppb
	Sn	118	455.010	0.053624	ppb
	Sb	121	3315.550	0.436968	ppb
	Ba	135	44.000	0.002247	ppb
	Ba	137	66.000	-0.006782	ppb
>	Tb	159	4021239.318		ppb
	Tl	205	280.004	0.006225	ppb
	Pb	206	160.001	0.011825	ppb
	Pb	207	240.002	0.007697	ppb
	Pb	208	465.008	0.010692	ppb
>	Bi	209	3439390.292		ppb
	Cr	53	11652.785		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	307034.235		ppb
	Kr	83	36.000		ppb
	Se	77	247.336		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	620059.627		ppb
	Be	9	4.000	0.014286	ppb
	Na	23	16541.670	-4.170742	ppb
	Mg	24	4678.094	0.911873	ppb
	Mg	25	648.021	0.866852	ppb
	Mg	26	742.028	0.785006	ppb
	Al	27	805.032	-0.743741	ppb
	K	39	187774.566	-9.919815	ppb
	Ca	44	8941.996	-25.417855	ppb
>	Sc	45	852926.395		ppb
	Ti	47	80.000	-0.024598	ppb
	V	51	-963.358	-0.270133	ppb
	Cr	52	3726.694	-0.007272	ppb
	Mn	55	440.010	-0.000542	ppb
	Fe	54	22149.503	-4.353728	ppb
	Fe	56	507015.450	-5.446169	ppb
	Fe	57	1820.166	-0.066917	ppb
	Co	59	146.001	0.002573	ppb
	Ni	60	46.667	-0.000481	ppb
	Cu	63	506.680	-0.153285	ppb
	Cu	65	196.669	-0.009968	ppb
	Zn	66	140.001	-0.039283	ppb
	As	75	-50.640	-0.085106	ppb
	Se	82	24.667	-0.021501	ppb

⌈	Mo	96	320.005	-0.040787	ppb
|	Ag	107	163.335	0.013968	ppb
|	Ag	109	216.669	0.022957	ppb
|	Cd	111	8.455	-0.003792	ppb
|	In	113	98043.280	0.757362	ppb
|>	In	115	2523087.761		ppb
⌊	Sn	118	410.008	0.045218	ppb
⌈	Sb	121	3085.476	0.382847	ppb
|	Ba	135	38.000	-0.002307	ppb
|	Ba	137	70.000	-0.005351	ppb
⌊>	Tb	159	4052800.778		ppb
⌈	Tl	205	335.006	0.008474	ppb
|	Pb	206	120.001	0.006142	ppb
|	Pb	207	205.001	0.005013	ppb
|	Pb	208	405.005	0.008127	ppb
⌊>	Bi	209	3459186.316		ppb
	Cr	53	11154.217		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	305399.297		ppb
	Kr	83	50.000		ppb
	Se	77	258.670		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			112.359		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			95.882		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			89.132		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			90.004		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			96.770		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-05

Sample Date/Time: Thursday, May 07, 2009 12:27:06
Sample Type: Sample
Sample Description: 13MW6
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-05.110

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1403626.156	4.923	1403626.156			ppb
|	Be	9	5.333	43.301	0.000	0.00834	39.31	ppb
|	Na	23	70099506.614	2.744	49.928	8661.26598	2.23	ppb
|	Mg	24	172337080.089	2.532	122.881	30180.10003	2.73	ppb
|	Mg	25	23990858.944	2.356	17.106	29909.25171	2.63	ppb
|	Mg	26	27800803.871	2.716	19.823	29666.56833	2.92	ppb
|	Al	27	76424.652	4.526	0.048	7.05916	0.51	ppb
|	K	39	17769008.434	1.945	12.251	1024.01350	3.25	ppb
⌊	Ca	44	29287874.086	2.148	20.863	65753.80561	2.83	ppb
⌈>	Sc	45	1045378.004	1.763	1045378.004			ppb
|	Ti	47	1815.165	5.427	0.002	2.91723	5.07	ppb
|	V	51	-28159.879	10.884	-0.028	-3.81169	9.54	ppb
|	Cr	52	39221.717	13.651	0.033	5.21274	13.59	ppb
|	Mn	55	6720.593	3.771	0.006	0.63007	2.72	ppb
|	Fe	54	107540.266	1.729	0.075	152.61380	0.35	ppb
|	Fe	56	939551.570	0.570	0.254	27.62571	4.94	ppb
|	Fe	57	73611.714	2.443	0.068	351.02134	1.12	ppb
|	Co	59	3513.957	12.725	0.003	0.38604	11.58	ppb
|	Ni	60	5007.923	5.462	0.005	2.52063	4.02	ppb
|	Cu	63	3592.868	2.282	0.002	0.49471	6.33	ppb
|	Cu	65	2353.611	7.296	0.002	0.92403	6.48	ppb
|	Zn	66	4071.940	1.243	0.004	3.42979	2.88	ppb
|	As	75	-3771.675	38.326	-0.004	-2.93964	37.69	ppb
⌊	Se	82	335.339	5.200	0.000	2.51510	4.04	ppb
⌈	Mo	96	2589.669	4.377	0.001	1.16418	5.93	ppb
|	Ag	107	90.000	13.354	0.000	0.00365	55.47	ppb
|	Ag	109	40.000	30.046	-0.000	-0.00438	42.81	ppb
|	Cd	111	82.899	16.506	0.000	0.05118	20.51	ppb
|	In	113	91484.923	0.859	0.000	0.56151	135.58	ppb
|>	In	115	2361552.857	1.915	2361552.857			ppb
⌊	Sn	118	3572.305	3.385	0.001	0.78283	3.80	ppb
⌈	Sb	121	5349.802	19.879	0.001	0.90110	28.45	ppb
|	Ba	135	115298.389	2.031	0.029	85.39310	0.91	ppb
|	Ba	137	200700.696	0.071	0.051	85.10086	1.85	ppb
⌊>	Tb	159	3925781.717	1.850	3925781.717			ppb
⌈	Tl	205	410.009	17.073	0.000	0.01738	22.39	ppb
|	Pb	206	365.007	7.118	0.000	0.05709	9.22	ppb
|	Pb	207	656.678	0.440	0.000	0.05448	0.31	ppb
|	Pb	208	1138.374	8.611	0.000	0.05364	9.30	ppb
⌊>	Bi	209	2594274.996	0.704	2594274.996			ppb
	Cr	53	191638.255	8.578	190992.234			ppb
	Pd	106	68.334	25.697	65.000			ppb
	Pd	108	13.333	57.282	13.333			ppb
	C	12	1134096.491	6.418	835776.538			ppb
	Kr	83	214.002	9.205	176.669			ppb
	Se	77	41916.211	9.690	41883.544			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1327324.405		ppb
	Be	9	4.000	0.006674	ppb
	Na	23	67929891.865	8869.408356	ppb
	Mg	24	168244578.364	31130.655830	ppb
	Mg	25	23377727.262	30793.762103	ppb
	Mg	26	27187574.317	30653.719612	ppb
	Al	27	72557.276	7.089850	ppb
	K	39	17424986.908	1062.100433	ppb
	Ca	44	28581824.865	67796.613484	ppb
>	Sc	45	1024729.550		ppb
	Ti	47	1735.151	2.840419	ppb
	V	51	-26792.712	-3.705089	ppb
	Cr	52	33437.811	4.450034	ppb
	Mn	55	6527.129	0.623858	ppb
	Fe	54	105554.159	152.887406	ppb
	Fe	56	934100.498	28.999583	ppb
	Fe	57	71978.114	350.139833	ppb
	Co	59	3050.465	0.340264	ppb
	Ni	60	4697.770	2.411823	ppb
	Cu	63	3670.674	0.527420	ppb
	Cu	65	2156.899	0.856852	ppb
	Zn	66	4117.514	3.543006	ppb
	As	75	-4236.855	-3.361930	ppb
	Se	82	315.338	2.402628	ppb
	Mo	96	2518.317	1.147748	ppb
	Ag	107	100.001	0.005555	ppb
	Ag	109	30.000	-0.005951	ppb
	Cd	111	77.384	0.048001	ppb
	In	113	90649.008	1.018559	ppb
>	In	115	2323732.829		ppb
	Sn	118	3460.599	0.769885	ppb
	Sb	121	6577.162	1.197026	ppb
	Ba	135	112911.876	85.450012	ppb
	Ba	137	200646.966	86.915501	ppb
>	Tb	159	3841945.856		ppb
	Tl	205	330.005	0.012967	ppb
	Pb	206	380.007	0.060115	ppb
	Pb	207	655.011	0.054565	ppb
	Pb	208	1150.042	0.054538	ppb
>	Bi	209	2584446.262		ppb
	Cr	53	173803.368		ppb
	Pd	106	70.000		ppb
	Pd	108	15.000		ppb
	C	12	1053807.193		ppb
	Kr	83	198.002		ppb
	Se	77	37754.469		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1421575.305		ppb
	Be	9	4.000	0.006231	ppb
	Na	23	70773035.363	8627.733126	ppb
	Mg	24	171838161.371	29687.483134	ppb
	Mg	25	24103872.500	29645.171604	ppb
	Mg	26	27570650.943	29024.593663	ppb
	Al	27	77494.108	7.067616	ppb
	K	39	17765907.927	1009.392848	ppb
	Ca	44	29492452.779	65315.901484	ppb
>	Sc	45	1051224.471		ppb

	Ti	47	1925.185	3.087781	ppb
	V	51	-26016.466	-3.513216	ppb
	Cr	52	40222.731	5.338272	ppb
	Mn	55	6627.195	0.616887	ppb
	Fe	54	107828.229	152.003794	ppb
	Fe	56	944798.935	27.609475	ppb
	Fe	57	73317.793	347.589669	ppb
	Co	59	3548.630	0.388271	ppb
	Ni	60	5214.693	2.612164	ppb
	Cu	63	3600.648	0.491677	ppb
	Cu	65	2473.639	0.971666	ppb
	Zn	66	4017.474	3.360417	ppb
	As	75	-2150.837	-1.682541	ppb
	Se	82	347.339	2.599872	ppb
	Mo	96	2530.320	1.104862	ppb
	Ag	107	93.334	0.003875	ppb
	Ag	109	53.333	-0.002304	ppb
	Cd	111	72.834	0.042640	ppb
	In	113	92208.166	-0.317320	ppb
>	In	115	2411644.006		ppb
	Sn	118	3555.632	0.761757	ppb
	Sb	121	4771.138	0.760302	ppb
	Ba	135	117593.369	86.138985	ppb
	Ba	137	200593.918	84.104634	ppb
>	Tb	159	3969246.088		ppb
	Tl	205	460.011	0.020311	ppb
	Pb	206	380.007	0.060154	ppb
	Pb	207	655.011	0.054601	ppb
	Pb	208	1035.033	0.048271	ppb
>	Bi	209	2583017.415		ppb
	Cr	53	194929.538		ppb
	Pd	106	50.000		ppb
	Pd	108	5.000		ppb
	C	12	1152711.156		ppb
	Kr	83	208.002		ppb
	Se	77	42124.537		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1461978.757		ppb
	Be	9	8.000	0.012118	ppb
	Na	23	71595592.614	8486.656460	ppb
	Mg	24	176928500.532	29722.161135	ppb
	Mg	25	24490977.069	29288.821419	ppb
	Mg	26	28644186.352	29321.391703	ppb
	Al	27	79222.573	7.020020	ppb
	K	39	18116130.469	1000.547209	ppb
	Ca	44	29789344.614	64148.901876	ppb
>	Sc	45	1060179.991		ppb
	Ti	47	1785.159	2.823492	ppb
	V	51	-31670.460	-4.216775	ppb
	Cr	52	44004.608	5.849902	ppb
	Mn	55	7007.454	0.649465	ppb
	Fe	54	109238.410	152.950193	ppb
	Fe	56	939755.277	26.268065	ppb
	Fe	57	75539.235	355.334530	ppb
	Co	59	3942.777	0.429586	ppb
	Ni	60	5111.306	2.537915	ppb
	Cu	63	3507.282	0.465024	ppb
	Cu	65	2430.295	0.943565	ppb
	Zn	66	4080.832	3.385959	ppb
	As	75	-4927.334	-3.774448	ppb
	Se	82	343.339	2.542800	ppb

⌈	Mo	96	2720.370	1.239934	ppb
|	Ag	107	76.667	0.001523	ppb
|	Ag	109	36.667	-0.004882	ppb
|	Cd	111	98.478	0.062903	ppb
|	In	113	91597.593	0.983306	ppb
|>	In	115	2349281.735		ppb
⌊	Sn	118	3700.685	0.816858	ppb
⌈	Sb	121	4701.105	0.745981	ppb
|	Ba	135	115389.923	84.590309	ppb
|	Ba	137	200861.203	84.282446	ppb
⌊>	Tb	159	3966153.206		ppb
⌈	Tl	205	440.010	0.018876	ppb
|	Pb	206	335.006	0.051013	ppb
|	Pb	207	660.011	0.054288	ppb
|	Pb	208	1230.046	0.058123	ppb
⌊>	Bi	209	2615361.312		ppb
	Cr	53	206181.859		ppb
	Pd	106	85.000		ppb
	Pd	108	20.000		ppb
	C	12	1195771.123		ppb
	Kr	83	236.003		ppb
	Se	77	45869.627		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			251.144		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			116.282		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			82.447		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			86.789		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			72.551		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-06

Sample Date/Time: Thursday, May 07, 2009 12:29:59
Sample Type: Sample
Sample Description: 13MW7
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-06.111

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1413467.221	3.155	1413467.221			ppb
	Be	9	3.333	34.641	0.000	0.00525	35.98	ppb
	Na	23	55386548.316	1.442	39.151	6791.86871	2.29	ppb
	Mg	24	148098610.836	1.212	104.841	25749.40876	3.29	ppb
	Mg	25	20659004.913	0.907	14.625	25570.41032	3.18	ppb
	Mg	26	23959110.106	0.425	16.960	25382.65643	2.92	ppb
	Al	27	36886.260	2.218	0.020	2.90054	7.00	ppb
	K	39	14088706.042	0.814	9.552	798.46707	3.32	ppb
	Ca	44	24103174.286	1.136	17.043	53715.99609	3.85	ppb
>	Sc	45	1004066.363	0.806	1004066.363			ppb
	Ti	47	1606.797	10.459	0.001	2.67267	10.48	ppb
	V	51	-26033.798	40.364	-0.027	-3.66896	38.61	ppb
	Cr	52	46595.749	3.914	0.042	6.62228	3.96	ppb
	Mn	55	12150.715	2.763	0.012	1.23550	3.71	ppb
	Fe	54	105173.518	0.355	0.077	156.44557	0.62	ppb
	Fe	56	874019.187	1.157	0.226	24.54352	6.21	ppb
	Fe	57	61511.975	1.689	0.059	303.98476	1.88	ppb
	Co	59	3987.462	1.941	0.004	0.45999	2.36	ppb
	Ni	60	379283.565	0.642	0.378	201.15009	1.03	ppb
	Cu	63	4812.269	1.718	0.004	0.80326	2.45	ppb
	Cu	65	2761.492	2.194	0.002	1.15534	2.10	ppb
	Zn	66	6653.325	2.343	0.006	5.96830	3.18	ppb
	As	75	-3273.201	12.643	-0.003	-2.65986	13.02	ppb
	Se	82	269.559	2.724	0.000	2.06148	3.49	ppb
	Mo	96	2887.083	1.263	0.001	1.62437	1.33	ppb
	Ag	107	42.222	29.889	-0.000	-0.00281	88.17	ppb
	Ag	109	22.222	45.826	-0.000	-0.00659	31.12	ppb
	Cd	111	65.072	23.591	0.000	0.04761	28.28	ppb
	In	113	86152.886	1.071	0.005	9.25385	9.10	ppb
>	In	115	1967376.943	0.096	1967376.943			ppb
	Sn	118	2687.029	6.213	0.001	0.70244	6.54	ppb
	Sb	121	3190.509	2.050	0.001	0.48420	2.45	ppb
	Ba	135	189549.661	0.792	0.052	151.97900	0.55	ppb
	Ba	137	330418.919	0.632	0.091	151.64674	0.82	ppb
>	Tb	159	3626873.366	0.748	3626873.366			ppb
	Tl	205	118.334	14.839	0.000	0.00146	68.12	ppb
	Pb	206	455.010	5.815	0.000	0.07948	6.61	ppb
	Pb	207	881.686	6.064	0.000	0.08251	6.11	ppb
	Pb	208	1503.401	2.668	0.001	0.07918	3.52	ppb
>	Bi	209	2428736.592	0.889	2428736.592			ppb
	Cr	53	222830.393	1.605	222184.372			ppb
	Pd	106	50.000	26.458	46.667			ppb
	Pd	108	20.000	43.301	20.000			ppb
	C	12	1203754.543	3.752	905434.590			ppb
	Kr	83	207.335	8.317	170.002			ppb
	Se	77	43253.799	1.367	43221.132			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1361979.544		ppb
|	Be	9	4.000	0.006504	ppb
|	Na	23	54674414.871	6955.140734	ppb
|	Mg	24	147820673.638	26655.489354	ppb
|	Mg	25	20618375.358	26467.881750	ppb
|	Mg	26	23876171.561	26235.026345	ppb
|	Al	27	37705.953	3.129510	ppb
|	K	39	14064710.810	827.951145	ppb
⌊	Ca	44	24233397.004	56007.138877	ppb
⌈>	Sc	45	997369.817		ppb
|	Ti	47	1570.123	2.627241	ppb
|	V	51	-14085.279	-2.054153	ppb
|	Cr	52	44559.055	6.349835	ppb
|	Mn	55	12477.780	1.278907	ppb
|	Fe	54	104826.566	157.165845	ppb
|	Fe	56	884413.127	26.304384	ppb
|	Fe	57	62263.234	309.961997	ppb
|	Co	59	3942.777	0.457775	ppb
|	Ni	60	381213.616	203.522759	ppb
|	Cu	63	4737.789	0.793545	ppb
|	Cu	65	2693.696	1.132471	ppb
|	Zn	66	6825.662	6.169316	ppb
|	As	75	-3747.612	-3.058700	ppb
⌊	Se	82	266.004	2.045947	ppb
⌈	Mo	96	2880.415	1.621640	ppb
|	Ag	107	33.333	-0.004555	ppb
|	Ag	109	13.333	-0.008378	ppb
|	Cd	111	68.284	0.050483	ppb
|	In	113	87143.048	10.182320	ppb
|>	In	115	1965785.151		ppb
⌊	Sn	118	2495.311	0.649791	ppb
⌈	Sb	121	3265.533	0.496584	ppb
|	Ba	135	191273.957	152.294831	ppb
|	Ba	137	332377.440	151.481520	ppb
⌊>	Tb	159	3652249.061		ppb
⌈	Tl	205	100.001	0.000412	ppb
|	Pb	206	435.009	0.076229	ppb
|	Pb	207	820.017	0.076755	ppb
|	Pb	208	1545.075	0.082335	ppb
⌊>	Bi	209	2408983.866		ppb
	Cr	53	218722.092		ppb
	Pd	106	45.000		ppb
	Pd	108	15.000		ppb
	C	12	1153832.487		ppb
	Kr	83	192.002		ppb
	Se	77	42609.921		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	1438391.466		ppb
|	Be	9	4.000	0.006159	ppb
|	Na	23	56250225.729	6775.244394	ppb
|	Mg	24	150015720.533	25614.219018	ppb
|	Mg	25	20863362.930	25359.568236	ppb
|	Mg	26	23928476.254	24895.706127	ppb
|	Al	27	36882.892	2.829632	ppb
|	K	39	14213535.170	790.744550	ppb
⌊	Ca	44	24287667.554	53147.011807	ppb
⌈>	Sc	45	1013055.149		ppb

	Ti	47	1790.160	2.972636	ppb
	V	51	-33838.031	-4.701364	ppb
	Cr	52	47150.899	6.644245	ppb
	Mn	55	11806.966	1.187614	ppb
	Fe	54	105569.318	155.340810	ppb
	Fe	56	873433.155	23.635746	ppb
	Fe	57	61946.275	303.383056	ppb
	Co	59	3942.777	0.450408	ppb
	Ni	60	380088.653	199.779734	ppb
	Cu	63	4797.817	0.790289	ppb
	Cu	65	2780.386	1.152707	ppb
	Zn	66	6522.126	5.792324	ppb
	As	75	-3085.559	-2.486435	ppb
	Se	82	264.670	1.998599	ppb
	Mo	96	2926.428	1.647262	ppb
	Ag	107	56.667	0.000026	ppb
	Ag	109	20.000	-0.007042	ppb
	Cd	111	78.564	0.059397	ppb
	In	113	85998.201	9.038466	ppb
>	In	115	1969461.028		ppb
	Sn	118	2765.382	0.723397	ppb
	Sb	121	3160.499	0.483073	ppb
	Ba	135	188834.242	152.608099	ppb
	Ba	137	330657.819	152.959055	ppb
>	Tb	159	3598264.203		ppb
	Tl	205	120.001	0.001572	ppb
	Pb	206	485.012	0.085545	ppb
	Pb	207	915.021	0.086161	ppb
	Pb	208	1465.063	0.077051	ppb
>	Bi	209	2425428.595		ppb
	Cr	53	225252.684		ppb
	Pd	106	65.000		ppb
	Pd	108	15.000		ppb
	C	12	1215629.809		ppb
	Kr	83	204.002		ppb
	Se	77	43378.548		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	1440030.651		ppb
	Be	9	2.000	0.003076	ppb
	Na	23	55235004.347	6645.221004	ppb
	Mg	24	146459438.338	24978.517918	ppb
	Mg	25	20495276.451	24883.780972	ppb
	Mg	26	24072682.503	25017.236816	ppb
	Al	27	36069.935	2.742479	ppb
	K	39	13987872.146	776.705529	ppb
	Ca	44	23788458.299	51993.837576	ppb
>	Sc	45	1001774.125		ppb
	Ti	47	1460.107	2.418129	ppb
	V	51	-30178.085	-4.251365	ppb
	Cr	52	48077.294	6.872757	ppb
	Mn	55	12167.398	1.239991	ppb
	Fe	54	105124.671	156.830068	ppb
	Fe	56	864211.279	23.690434	ppb
	Fe	57	60326.417	298.609224	ppb
	Co	59	4076.831	0.471789	ppb
	Ni	60	376548.427	200.147772	ppb
	Cu	63	4901.201	0.825949	ppb
	Cu	65	2810.395	1.180855	ppb
	Zn	66	6612.185	5.943274	ppb
	As	75	-2986.431	-2.434448	ppb
	Se	82	278.004	2.139905	ppb

⌈	Mo	96	2854.407	1.604199	ppb
|	Ag	107	36.667	-0.003901	ppb
|	Ag	109	33.333	-0.004351	ppb
|	Cd	111	48.369	0.032940	ppb
|	In	113	85317.407	8.540761	ppb
|>	In	115	1966884.648		ppb
⌊	Sn	118	2800.392	0.734124	ppb
⌈	Sb	121	3145.495	0.472934	ppb
|	Ba	135	188540.782	151.034062	ppb
|	Ba	137	328221.497	150.499646	ppb
⌊>	Tb	159	3630106.834		ppb
⌈	Tl	205	135.001	0.002386	ppb
|	Pb	206	445.010	0.076674	ppb
|	Pb	207	910.021	0.084606	ppb
|	Pb	208	1500.064	0.078152	ppb
⌊>	Bi	209	2451797.314		ppb
	Cr	53	224516.401		ppb
	Pd	106	40.000		ppb
	Pd	108	30.000		ppb
	C	12	1241801.333		ppb
	Kr	83	226.003		ppb
	Se	77	43772.928		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		252.905			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		111.687			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		68.686			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		80.181			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		67.922			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 12:32:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.112

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	658358.531	0.742	658358.531			ppb
	Be	9	35339.696	2.601	0.054	118.87602	2.43	ppb
	Na	23	4439119.791	1.760	6.692	1160.85323	1.11	ppb
	Mg	24	3160218.124	1.746	4.796	1177.97065	1.33	ppb
	Mg	25	456261.389	0.494	0.692	1210.77938	0.43	ppb
	Mg	26	526483.144	0.679	0.799	1195.81031	0.10	ppb
	Al	27	5140849.051	0.894	7.802	1145.28096	0.28	ppb
	K	39	8504422.440	0.673	12.496	1044.52752	0.18	ppb
	Ca	44	233402.699	1.260	0.332	1046.51384	1.41	ppb
>	Sc	45	889798.384	1.046	889798.384			ppb
	Ti	47	57446.201	0.594	0.064	115.45846	1.21	ppb
	V	51	756545.185	0.120	0.849	116.63768	1.06	ppb
	Cr	52	662668.009	0.893	0.740	116.76322	0.50	ppb
	Mn	55	940097.131	0.850	1.056	112.64342	0.50	ppb
	Fe	54	534832.410	1.045	0.573	1169.48615	0.42	ppb
	Fe	56	9847195.037	0.732	10.423	1132.14117	1.06	ppb
	Fe	57	203564.545	1.098	0.227	1165.46727	1.93	ppb
	Co	59	844346.588	0.923	0.949	114.19861	0.99	ppb
	Ni	60	187640.810	0.679	0.211	112.28531	1.40	ppb
	Cu	63	445134.150	0.813	0.499	113.68373	1.23	ppb
	Cu	65	220703.438	0.694	0.248	114.60095	0.64	ppb
	Zn	66	111424.064	1.314	0.125	116.20140	0.31	ppb
	As	75	122337.968	1.106	0.137	110.51526	0.24	ppb
	Se	82	11612.963	2.147	0.013	113.19588	1.33	ppb
	Mo	96	252806.771	1.448	0.098	121.97160	1.36	ppb
	Ag	107	806840.879	0.803	0.314	121.69064	0.75	ppb
	Ag	109	800065.537	0.363	0.311	123.31815	0.78	ppb
	Cd	111	186264.591	0.292	0.072	125.31827	0.71	ppb
	In	113	286044.229	1.804	0.073	125.54534	3.53	ppb
>	In	115	2570223.439	0.739	2570223.439			ppb
	Sn	118	583770.912	1.161	0.227	124.01585	1.07	ppb
	Sb	121	601168.367	0.678	0.145	124.05112	0.47	ppb
	Ba	135	174631.050	1.077	0.042	122.60525	0.18	ppb
	Ba	137	303198.204	1.151	0.073	121.84599	0.56	ppb
>	Tb	159	4141752.391	1.139	4141752.391			ppb
	Tl	205	2826366.262	2.124	0.821	119.66010	0.77	ppb
	Pb	206	908885.217	0.916	0.264	126.89189	0.58	ppb
	Pb	207	1707454.319	1.318	0.496	126.61742	0.43	ppb
	Pb	208	2865937.839	5.185	0.833	117.84867	4.22	ppb
>	Bi	209	3441000.992	1.462	3441000.992			ppb
	Cr	53	92599.595	2.457	91953.574			ppb
	Pd	106	15847.550	1.947	15844.217			ppb
	Pd	108	11918.767	1.768	11918.767			ppb
	C	12	326661.948	0.924	28341.995			ppb
	Kr	83	45.333	12.736	8.000			ppb
	Se	77	9465.812	1.822	9433.146			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	655188.785		ppb
	Be	9	35932.441	121.456004	ppb
	Na	23	4364705.003	1146.860750	ppb
	Mg	24	3097698.034	1160.266902	ppb
	Mg	25	453855.718	1210.202145	ppb
	Mg	26	523834.971	1195.547425	ppb
	Al	27	5124987.285	1147.279004	ppb
	K	39	8455892.758	1043.555337	ppb
	Ca	44	235719.830	1063.040332	ppb
>	Sc	45	891808.635		ppb
	Ti	47	57831.743	115.963634	ppb
	V	51	757568.799	116.523571	ppb
	Cr	52	660653.315	116.140034	ppb
	Mn	55	937393.268	112.063657	ppb
	Fe	54	538356.536	1174.779837	ppb
	Fe	56	9928147.866	1139.229247	ppb
	Fe	57	205295.909	1172.658181	ppb
	Co	59	837531.228	113.016645	ppb
	Ni	60	188938.178	112.797123	ppb
	Cu	63	449308.805	114.485880	ppb
	Cu	65	222007.307	115.014647	ppb
	Zn	66	111949.817	116.489110	ppb
	As	75	122285.345	110.218863	ppb
	Se	82	11521.967	112.059473	ppb
	Mo	96	253258.901	121.193076	ppb
	Ag	107	808904.546	121.007227	ppb
	Ag	109	799562.932	122.233595	ppb
	Cd	111	186614.775	124.528173	ppb
	In	113	284145.380	122.706439	ppb
>	In	115	2591309.420		ppb
	Sn	118	585090.013	123.283002	ppb
	Sb	121	596590.543	124.652978	ppb
	Ba	135	172490.935	122.626390	ppb
	Ba	137	299220.662	121.759982	ppb
>	Tb	159	4090266.832		ppb
	Tl	205	2757293.579	118.730071	ppb
	Pb	206	899280.359	127.681238	ppb
	Pb	207	1681810.149	126.836309	ppb
	Pb	208	2757726.385	115.355245	ppb
>	Bi	209	3383405.474		ppb
	Cr	53	95031.413		ppb
	Pd	106	15727.358		ppb
	Pd	108	12062.271		ppb
	C	12	329905.576		ppb
	Kr	83	42.000		ppb
	Se	77	9656.660		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	663985.515		ppb
	Be	9	35805.989	119.425147	ppb
	Na	23	4520472.163	1172.246795	ppb
	Mg	24	3202102.640	1183.501553	ppb
	Mg	25	458326.874	1205.929890	ppb
	Mg	26	530546.271	1194.822010	ppb
	Al	27	5192662.784	1147.028334	ppb
	K	39	8567511.027	1043.314554	ppb
	Ca	44	234395.234	1041.730434	ppb
>	Sc	45	897931.888		ppb

	Ti	47	57183.029	113.877460	ppb
	V	51	755846.426	115.464803	ppb
	Cr	52	669330.806	116.867441	ppb
	Mn	55	949087.955	112.688317	ppb
	Fe	54	537755.454	1165.011220	ppb
	Fe	56	9823567.656	1118.332092	ppb
	Fe	57	201040.758	1140.219096	ppb
	Co	59	852837.253	114.297470	ppb
	Ni	60	186391.042	110.517044	ppb
	Cu	63	442891.845	112.075186	ppb
	Cu	65	221087.258	113.755657	ppb
	Zn	66	112553.200	116.318024	ppb
	As	75	123716.455	110.748528	ppb
	Se	82	11895.070	114.906177	ppb
	Mo	96	256220.939	123.875302	ppb
	Ag	107	812040.737	122.725289	ppb
	Ag	109	803190.377	124.050540	ppb
	Cd	111	185637.230	125.149319	ppb
	In	113	282103.781	123.277034	ppb
>	In	115	2564942.420		ppb
	Sn	118	589794.668	125.552621	ppb
	Sb	121	604409.756	123.489227	ppb
	Ba	135	176025.737	122.369659	ppb
	Ba	137	304624.185	121.215168	ppb
>	Tb	159	4182842.429		ppb
	Tl	205	2856007.489	119.688863	ppb
	Pb	206	913458.019	126.222469	ppb
	Pb	207	1716632.168	125.996986	ppb
	Pb	208	3035360.298	123.570570	ppb
>	Bi	209	3476462.374		ppb
	Cr	53	92243.490		ppb
	Pd	106	16198.108		ppb
	Pd	108	12017.216		ppb
	C	12	326145.195		ppb
	Kr	83	42.000		ppb
	Se	77	9419.768		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	655901.293		ppb
	Be	9	34280.658	115.746902	ppb
	Na	23	4432182.208	1163.452139	ppb
	Mg	24	3180853.699	1190.143480	ppb
	Mg	25	456601.575	1216.206109	ppb
	Mg	26	525068.189	1197.061484	ppb
	Al	27	5104897.084	1141.535532	ppb
	K	39	8489863.535	1046.712671	ppb
	Ca	44	230093.032	1034.770742	ppb
>	Sc	45	879654.630		ppb
	Ti	47	57323.832	116.534294	ppb
	V	51	756220.329	117.924658	ppb
	Cr	52	658019.908	117.282186	ppb
	Mn	55	933810.171	113.178298	ppb
	Fe	54	528385.240	1168.667382	ppb
	Fe	56	9789869.589	1138.862182	ppb
	Fe	57	204356.969	1183.524536	ppb
	Co	59	842671.284	115.281717	ppb
	Ni	60	187593.210	113.541765	ppb
	Cu	63	443201.801	114.490127	ppb
	Cu	65	219015.748	115.032557	ppb
	Zn	66	109769.175	115.797066	ppb
	As	75	121012.105	110.578396	ppb
	Se	82	11421.853	112.622000	ppb

⌈	Mo	96	248940.474	120.846422	ppb
|	Ag	107	799577.353	121.339403	ppb
|	Ag	109	797443.301	123.670305	ppb
|	Cd	111	186541.767	126.277323	ppb
|	In	113	291883.526	130.652545	ppb
|>	In	115	2554418.478		ppb
⌊	Sn	118	576428.056	123.211931	ppb
⌈	Sb	121	602504.801	124.011164	ppb
|	Ba	135	175376.478	122.819690	ppb
|	Ba	137	305749.766	122.562822	ppb
⌊>	Tb	159	4152147.913		ppb
⌈	Tl	205	2865797.718	120.561370	ppb
|	Pb	206	913917.271	126.771963	ppb
|	Pb	207	1723920.639	127.018961	ppb
|	Pb	208	2804726.834	114.620196	ppb
⌊>	Bi	209	3463135.129		ppb
	Cr	53	90523.883		ppb
	Pd	106	15617.185		ppb
	Pd	108	11676.813		ppb
	C	12	323935.072		ppb
	Kr	83	52.000		ppb
	Se	77	9321.009		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			117.797		
	Be	9	99.063				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			98.977		
	Ti	47					
	V	51	97.198				
	Cr	52	97.303				
	Mn	55	93.870				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	95.166				
	Ni	60	93.571				
	Cu	63	94.736				
	Cu	65	95.501				
	Zn	66	96.834				
	As	75	92.096				
	Se	82	94.330				
	Mo	96					
	Ag	107	101.409				
	Ag	109	102.765				
	Cd	111	104.432				
	In	113					
>	In	115			89.732		
	Sn	118	103.347				
	Sb	121	103.376				
	Ba	135	102.171				
	Ba	137	101.538				
>	Tb	159			91.563		
	Tl	205	99.717				
	Pb	206	105.743				
	Pb	207	105.515				
	Pb	208	98.207				
>	Bi	209			96.231		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 12:35:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.113

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	639980.855	4.310	639980.855			ppb
	Be	9	4.000	100.000	0.000	0.01347	98.21	ppb
	Na	23	15292.700	4.464	-0.027	-4.65275	2.10	ppb
	Mg	24	4514.373	17.542	0.003	0.78621	30.27	ppb
	Mg	25	625.353	17.401	0.000	0.74404	32.85	ppb
	Mg	26	770.030	18.020	0.001	0.78899	32.14	ppb
	Al	27	988.383	19.766	-0.005	-0.70861	4.94	ppb
	K	39	187575.725	1.228	-0.128	-10.71173	7.24	ppb
	Ca	44	8281.434	5.111	-0.010	-30.06372	6.68	ppb
>	Sc	45	864472.976	2.003	864472.976			ppb
	Ti	47	78.334	19.500	-0.000	-0.03009	110.85	ppb
	V	51	-464.482	147.389	-0.001	-0.18742	56.84	ppb
	Cr	52	3914.766	2.276	0.000	0.01789	73.57	ppb
	Mn	55	371.674	5.437	-0.000	-0.00967	32.90	ppb
	Fe	54	22852.751	1.038	-0.002	-3.38931	30.76	ppb
	Fe	56	507609.244	1.347	-0.057	-6.22341	17.25	ppb
	Fe	57	1836.836	4.185	-0.000	-0.11006	499.29	ppb
	Co	59	122.001	24.754	-0.000	-0.00109	358.14	ppb
	Ni	60	50.000	20.000	0.000	0.00113	502.23	ppb
	Cu	63	482.234	9.711	-0.001	-0.16161	6.62	ppb
	Cu	65	198.891	2.560	-0.000	-0.01019	27.20	ppb
	Zn	66	140.001	18.596	-0.000	-0.04164	59.58	ppb
	As	75	55.341	115.807	0.000	0.01339	433.17	ppb
	Se	82	28.444	20.207	0.000	0.01246	416.08	ppb
	Mo	96	361.340	30.470	-0.000	-0.01831	288.52	ppb
	Ag	107	194.446	23.275	0.000	0.01916	36.68	ppb
	Ag	109	173.335	18.345	0.000	0.01649	28.39	ppb
	Cd	111	7.697	129.305	-0.000	-0.00419	166.43	ppb
	In	113	96671.724	1.044	0.000	0.74502	22.00	ppb
>	In	115	2488298.947	1.273	2488298.947			ppb
	Sn	118	446.677	29.751	0.000	0.05429	51.38	ppb
	Sb	121	3575.644	10.789	0.001	0.49269	16.62	ppb
	Ba	135	30.667	39.849	-0.000	-0.00738	119.99	ppb
	Ba	137	64.667	39.888	-0.000	-0.00733	145.23	ppb
>	Tb	159	4019380.464	0.275	4019380.464			ppb
	Tl	205	298.338	13.018	0.000	0.00713	24.14	ppb
	Pb	206	128.334	8.998	0.000	0.00757	21.04	ppb
	Pb	207	241.668	10.206	0.000	0.00798	21.86	ppb
	Pb	208	483.341	19.363	0.000	0.01162	32.44	ppb
>	Bi	209	3407340.824	0.537	3407340.824			ppb
	Cr	53	11030.105	7.897	10384.084			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	307269.698	1.879	8949.746			ppb
	Kr	83	33.333	9.165	-4.000			ppb
	Se	77	236.669	4.207	204.003			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	669990.884		ppb
	Be	9	8.000	0.026444	ppb
	Na	23	16066.897	-4.638571	ppb
	Mg	24	5409.463	1.041883	ppb
	Mg	25	741.027	0.973388	ppb
	Mg	26	928.043	1.067045	ppb
	Al	27	1190.071	-0.673584	ppb
	K	39	190236.446	-11.499143	ppb
	Ca	44	8649.739	-30.179971	ppb
>	Sc	45	884102.369		ppb
	Ti	47	75.000	-0.040652	ppb
	V	51	-1210.415	-0.303033	ppb
	Cr	52	3994.798	0.016255	ppb
	Mn	55	360.006	-0.012135	ppb
	Fe	54	22886.159	-4.522139	ppb
	Fe	56	513188.698	-6.964620	ppb
	Fe	57	1800.162	-0.570205	ppb
	Co	59	150.001	0.002391	ppb
	Ni	60	60.000	0.006523	ppb
	Cu	63	526.681	-0.152903	ppb
	Cu	65	200.002	-0.011985	ppb
	Zn	66	170.001	-0.013122	ppb
	As	75	128.050	0.079095	ppb
	Se	82	34.667	0.067977	ppb
	Mo	96	474.011	0.034884	ppb
	Ag	107	200.002	0.019584	ppb
	Ag	109	210.002	0.021890	ppb
	Cd	111	-0.365	-0.009837	ppb
	In	113	97836.267	0.575268	ppb
>	In	115	2524628.432		ppb
	Sn	118	585.017	0.083026	ppb
	Sb	121	4010.804	0.585537	ppb
	Ba	135	44.000	0.002265	ppb
	Ba	137	86.000	0.001519	ppb
>	Tb	159	4018943.087		ppb
	Tl	205	255.003	0.005201	ppb
	Pb	206	135.001	0.008393	ppb
	Pb	207	270.002	0.009987	ppb
	Pb	208	590.011	0.015914	ppb
>	Bi	209	3428375.182		ppb
	Cr	53	11893.068		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	313877.852		ppb
	Kr	83	36.000		ppb
	Se	77	244.003		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	615740.633		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	15034.293	-4.562964	ppb
	Mg	24	4228.894	0.745694	ppb
	Mg	25	610.019	0.771759	ppb
	Mg	26	714.025	0.729508	ppb
	Al	27	800.032	-0.743596	ppb
	K	39	186246.384	-9.949714	ppb
	Ca	44	8375.506	-27.998679	ppb
>	Sc	45	851377.377		ppb

	Ti	47	95.000	0.007267	ppb
	V	51	135.106	-0.093259	ppb
	Cr	52	3930.772	0.031787	ppb
	Mn	55	395.008	-0.006080	ppb
	Fe	54	22600.510	-3.176049	ppb
	Fe	56	509654.664	-4.991969	ppb
	Fe	57	1785.159	-0.258378	ppb
	Co	59	90.000	-0.005306	ppb
	Ni	60	50.000	0.001657	ppb
	Cu	63	486.679	-0.158391	ppb
	Cu	65	193.335	-0.011585	ppb
	Zn	66	126.667	-0.053562	ppb
	As	75	30.918	-0.008165	ppb
	Se	82	23.333	-0.034660	ppb
	Mo	96	356.006	-0.019038	ppb
	Ag	107	146.668	0.011925	ppb
	Ag	109	156.668	0.014100	ppb
	Cd	111	18.820	0.003608	ppb
	In	113	96049.067	0.902369	ppb
>	In	115	2466424.712		ppb
	Sn	118	320.005	0.027325	ppb
	Sb	121	3440.592	0.461888	ppb
	Ba	135	20.000	-0.015146	ppb
	Ba	137	72.000	-0.004367	ppb
>	Tb	159	4030658.551		ppb
	Tl	205	310.005	0.007667	ppb
	Pb	206	135.001	0.008578	ppb
	Pb	207	225.001	0.006801	ppb
	Pb	208	415.006	0.008856	ppb
>	Bi	209	3395199.955		ppb
	Cr	53	11046.097		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	303203.988		ppb
	Kr	83	34.000		ppb
	Se	77	240.670		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	634211.047		ppb
	Be	9	4.000	0.013968	ppb
	Na	23	14776.910	-4.756725	ppb
	Mg	24	3904.762	0.571045	ppb
	Mg	25	525.014	0.486964	ppb
	Mg	26	668.022	0.570407	ppb
	Al	27	975.048	-0.708643	ppb
	K	39	186244.346	-10.686319	ppb
	Ca	44	7819.056	-32.012521	ppb
>	Sc	45	857939.183		ppb
	Ti	47	65.000	-0.056897	ppb
	V	51	-318.135	-0.165963	ppb
	Cr	52	3818.729	0.005620	ppb
	Mn	55	360.006	-0.010810	ppb
	Fe	54	23071.584	-2.469742	ppb
	Fe	56	499984.369	-6.713629	ppb
	Fe	57	1925.185	0.498397	ppb
	Co	59	126.001	-0.000353	ppb
	Ni	60	40.000	-0.004790	ppb
	Cu	63	433.343	-0.173549	ppb
	Cu	65	203.335	-0.006998	ppb
	Zn	66	123.334	-0.058231	ppb
	As	75	7.055	-0.030754	ppb
	Se	82	27.333	0.004055	ppb

⌈	Mo	96	254.003	-0.070790	ppb
|	Ag	107	236.669	0.025960	ppb
|	Ag	109	153.335	0.013491	ppb
|	Cd	111	4.635	-0.006347	ppb
|	In	113	96129.837	0.757436	ppb
|>	In	115	2473843.699		ppb
⌊	Sn	118	435.009	0.052504	ppb
⌈	Sb	121	3275.536	0.430656	ppb
|	Ba	135	28.000	-0.009262	ppb
|	Ba	137	36.000	-0.019155	ppb
⌊>	Tb	159	4008539.755		ppb
⌈	Tl	205	330.005	0.008511	ppb
|	Pb	206	115.001	0.005733	ppb
|	Pb	207	230.001	0.007160	ppb
|	Pb	208	445.006	0.010089	ppb
⌊>	Bi	209	3398447.335		ppb
	Cr	53	10151.150		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	304727.255		ppb
	Kr	83	30.000		ppb
	Se	77	225.336		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		114.509			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		96.159			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		86.872			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		88.858			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		95.289			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-02

Sample Date/Time: Thursday, May 07, 2009 12:45:16
Sample Type: Sample
Sample Description: 13MW3 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-02.114

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	770314.942	2.951	770314.942			ppb
	Be	9	3.333	69.282	0.000	0.00964	70.56	ppb
	Na	23	10979442.650	1.682	14.211	2465.31680	3.55	ppb
	Mg	24	17315177.977	0.821	22.490	5523.70510	3.63	ppb
	Mg	25	2490908.689	1.326	3.236	5657.43082	4.15	ppb
	Mg	26	2966325.881	0.546	3.853	5765.76129	3.28	ppb
	Al	27	5808.354	2.904	0.001	0.17315	26.45	ppb
	K	39	3038059.227	0.758	3.525	294.61123	3.23	ppb
	Ca	44	3139683.948	0.586	4.055	12781.40801	2.55	ppb
>	Sc	45	945300.391	0.464	945300.391			ppb
	Ti	47	286.671	7.049	0.000	0.35050	10.24	ppb
	V	51	-5250.182	31.655	-0.006	-0.87701	27.10	ppb
	Cr	52	10188.531	5.253	0.006	1.00340	8.56	ppb
	Mn	55	926.710	11.349	0.000	0.04898	23.54	ppb
	Fe	54	38555.858	1.186	0.013	25.88951	2.48	ppb
	Fe	56	581392.260	0.696	-0.030	-3.20808	19.33	ppb
	Fe	57	9736.405	1.270	0.008	41.92437	2.19	ppb
	Co	59	334.006	14.826	0.000	0.02451	26.32	ppb
	Ni	60	496.679	4.191	0.000	0.25022	5.04	ppb
	Cu	63	743.361	6.278	-0.000	-0.10947	10.31	ppb
	Cu	65	377.785	3.341	0.000	0.06822	8.80	ppb
	Zn	66	654.466	5.611	0.000	0.45162	7.62	ppb
	As	75	-434.887	22.882	-0.001	-0.40705	20.36	ppb
	Se	82	52.000	9.245	0.000	0.20548	22.56	ppb
	Mo	96	377.340	6.732	-0.000	-0.01422	93.36	ppb
	Ag	107	54.445	12.745	-0.000	-0.00284	36.82	ppb
	Ag	109	55.556	15.100	-0.000	-0.00242	53.01	ppb
	Cd	111	14.943	98.035	0.000	0.00060	1672.01	ppb
	In	113	99975.604	0.135	0.001	1.45425	32.09	ppb
>	In	115	2546372.066	0.577	2546372.066			ppb
	Sn	118	855.037	14.922	0.000	0.13995	20.22	ppb
	Sb	121	2783.730	18.610	0.000	0.31056	35.78	ppb
	Ba	135	25750.446	0.604	0.006	18.17105	0.69	ppb
	Ba	137	44338.749	0.751	0.011	17.90550	1.33	ppb
>	Tb	159	4115087.995	0.591	4115087.995			ppb
	Tl	205	123.334	22.328	-0.000	-0.00007	1791.44	ppb
	Pb	206	173.335	14.803	0.000	0.01535	26.33	ppb
	Pb	207	380.004	5.263	0.000	0.02000	9.41	ppb
	Pb	208	691.681	14.355	0.000	0.02196	20.79	ppb
>	Bi	209	3221625.369	1.047	3221625.369			ppb
	Cr	53	47328.254	8.374	46682.233			ppb
	Pd	106	13.333	57.282	10.000			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	462554.488	1.929	164234.536			ppb
	Kr	83	50.667	2.279	13.333			ppb
	Se	77	5802.576	5.932	5769.909			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	754927.272		ppb
|	Be	9	2.000	0.005867	ppb
|	Na	23	10825075.200	2478.725052	ppb
|	Mg	24	17334941.435	5638.741515	ppb
|	Mg	25	2522911.667	5842.202791	ppb
|	Mg	26	2984967.485	5916.497772	ppb
|	Al	27	5651.597	0.164590	ppb
|	K	39	3056649.634	303.208640	ppb
⌊	Ca	44	3143065.466	13051.044297	ppb
⌈>	Sc	45	944585.079		ppb
|	Ti	47	275.004	0.328885	ppb
|	V	51	-4085.873	-0.708979	ppb
|	Cr	52	9604.610	0.907288	ppb
|	Mn	55	825.034	0.037597	ppb
|	Fe	54	38669.623	26.200044	ppb
|	Fe	56	586032.891	-2.625167	ppb
|	Fe	57	9754.755	42.061532	ppb
|	Co	59	296.004	0.019688	ppb
|	Ni	60	480.012	0.241010	ppb
|	Cu	63	796.698	-0.096472	ppb
|	Cu	65	363.340	0.061289	ppb
|	Zn	66	616.686	0.414983	ppb
|	As	75	-374.284	-0.355976	ppb
⌊	Se	82	53.333	0.217968	ppb
⌈	Mo	96	392.008	-0.007142	ppb
|	Ag	107	46.667	-0.004025	ppb
|	Ag	109	46.667	-0.003806	ppb
|	Cd	111	19.915	0.003935	ppb
|	In	113	100063.139	1.499184	ppb
|>	In	115	2546842.384		ppb
⌊	Sn	118	760.029	0.119456	ppb
⌈	Sb	121	3330.555	0.428736	ppb
|	Ba	135	25704.995	18.263147	ppb
|	Ba	137	44711.734	18.179443	ppb
⌊>	Tb	159	4087080.226		ppb
⌈	Tl	205	95.000	-0.001305	ppb
|	Pb	206	180.002	0.016537	ppb
|	Pb	207	400.004	0.021833	ppb
|	Pb	208	805.020	0.027212	ppb
⌊>	Bi	209	3195551.079		ppb
	Cr	53	43249.323		ppb
	Pd	106	20.000		ppb
	Pd	108	5.000		ppb
	C	12	452250.387		ppb
	Kr	83	50.000		ppb
	Se	77	5460.157		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	759589.218		ppb
|	Be	9	6.000	0.017493	ppb
|	Na	23	11184068.077	2545.445638	ppb
|	Mg	24	17446355.213	5640.152670	ppb
|	Mg	25	2492866.327	5737.181517	ppb
|	Mg	26	2958130.251	5827.302810	ppb
|	Al	27	5986.792	0.222622	ppb
|	K	39	3012284.152	296.249336	ppb
⌊	Ca	44	3119833.381	12874.113284	ppb
⌈>	Sc	45	941317.455		ppb

	Ti	47	275.004	0.330695	ppb
	V	51	-4511.215	-0.773084	ppb
	Cr	52	10305.307	1.030255	ppb
	Mn	55	920.042	0.048687	ppb
	Fe	54	38052.261	25.151460	ppb
	Fe	56	579551.026	-3.139198	ppb
	Fe	57	9849.849	42.765318	ppb
	Co	59	390.008	0.031838	ppb
	Ni	60	520.014	0.264581	ppb
	Cu	63	710.025	-0.116781	ppb
	Cu	65	383.341	0.071733	ppb
	Zn	66	656.688	0.456590	ppb
	As	75	-380.642	-0.362513	ppb
	Se	82	56.000	0.244304	ppb
	Mo	96	392.008	-0.005980	ppb
	Ag	107	56.667	-0.002450	ppb
	Ag	109	56.667	-0.002197	ppb
	Cd	111	26.460	0.008488	ppb
	In	113	100042.939	1.896867	ppb
>	In	115	2531453.201		ppb
	Sn	118	1000.050	0.172235	ppb
	Sb	121	2720.370	0.294793	ppb
	Ba	135	25923.558	18.222075	ppb
	Ba	137	44233.615	17.792646	ppb
>	Tb	159	4131106.940		ppb
	Tl	205	125.001	0.000038	ppb
	Pb	206	195.002	0.018664	ppb
	Pb	207	380.004	0.020103	ppb
	Pb	208	620.011	0.018897	ppb
>	Bi	209	3209605.736		ppb
	Cr	53	47570.881		ppb
	Pd	106	15.000		ppb
	Pd	108	0.000		ppb
	C	12	467820.697		ppb
	Kr	83	52.000		ppb
	Se	77	5799.014		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	796428.338		ppb
	Be	9	2.000	0.005561	ppb
	Na	23	10929184.675	2371.779700	ppb
	Mg	24	17164237.283	5292.221127	ppb
	Mg	25	2456948.072	5392.908145	ppb
	Mg	26	2955879.906	5553.483292	ppb
	Al	27	5786.674	0.132223	ppb
	K	39	3045243.894	284.375722	ppb
	Ca	44	3156152.999	12419.066455	ppb
>	Sc	45	949998.638		ppb
	Ti	47	310.005	0.391907	ppb
	V	51	-7153.459	-1.148964	ppb
	Cr	52	10655.674	1.072644	ppb
	Mn	55	1035.054	0.060648	ppb
	Fe	54	38945.691	26.317024	ppb
	Fe	56	578592.862	-3.859878	ppb
	Fe	57	9604.610	40.946251	ppb
	Co	59	316.005	0.022007	ppb
	Ni	60	490.012	0.245074	ppb
	Cu	63	723.359	-0.115153	ppb
	Cu	65	386.674	0.071635	ppb
	Zn	66	690.024	0.483281	ppb
	As	75	-549.735	-0.502663	ppb
	Se	82	46.667	0.154156	ppb

⌈	Mo	96	348.006	-0.029527	ppb
|	Ag	107	60.000	-0.002045	ppb
|	Ag	109	63.334	-0.001267	ppb
|	Cd	111	-1.545	-0.010631	ppb
|	In	113	99820.735	0.966705	ppb
|>	In	115	2560820.614		ppb
⌊	Sn	118	805.032	0.128165	ppb
⌈	Sb	121	2300.265	0.208161	ppb
|	Ba	135	25622.784	18.027930	ppb
|	Ba	137	44070.899	17.744413	ppb
⌊>	Tb	159	4127076.820		ppb
⌈	Tl	205	150.001	0.001068	ppb
|	Pb	206	145.001	0.010846	ppb
|	Pb	207	360.003	0.018073	ppb
|	Pb	208	650.012	0.019779	ppb
⌊>	Bi	209	3259719.293		ppb
	Cr	53	51164.557		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	467592.382		ppb
	Kr	83	50.000		ppb
	Se	77	6148.556		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6			137.829		
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45			105.150		
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115			88.900		
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159			90.974		
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209			90.096		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-03

Sample Date/Time: Thursday, May 07, 2009 12:48:10
Sample Type: Sample
Sample Description: 13MW4 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-03.115

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	792749.652	0.469	792749.652			ppb
|	Be	9	1.333	86.603	0.000	0.00373	86.60	ppb
|	Na	23	7167177.529	1.872	8.990	1559.60215	1.89	ppb
|	Mg	24	11500486.372	2.339	14.503	3561.92903	2.01	ppb
|	Mg	25	1642626.254	1.374	2.071	3621.87337	1.14	ppb
|	Mg	26	1981670.464	0.203	2.499	3740.12687	0.28	ppb
|	Al	27	29583.714	2.579	0.031	4.54406	3.63	ppb
|	K	39	1727378.662	1.048	1.757	146.90067	0.94	ppb
⌊	Ca	44	2086302.788	1.512	2.609	8223.36135	1.05	ppb
⌈>	Sc	45	947124.065	0.765	947124.065			ppb
|	Ti	47	391.674	4.104	0.000	0.54801	4.50	ppb
|	V	51	-4089.974	30.515	-0.005	-0.70868	26.08	ppb
|	Cr	52	10657.012	3.047	0.007	1.07843	5.67	ppb
|	Mn	55	2505.314	4.154	0.002	0.22664	5.93	ppb
|	Fe	54	44831.962	1.935	0.019	39.26681	6.25	ppb
|	Fe	56	699938.638	1.400	0.094	10.26448	15.57	ppb
|	Fe	57	10186.853	1.043	0.009	44.26617	1.31	ppb
|	Co	59	456.677	6.137	0.000	0.04002	9.47	ppb
|	Ni	60	795.587	6.290	0.001	0.41761	5.93	ppb
|	Cu	63	992.272	6.022	-0.000	-0.04999	26.53	ppb
|	Cu	65	491.123	1.413	0.000	0.12324	4.23	ppb
|	Zn	66	744.472	7.888	0.001	0.53857	9.88	ppb
|	As	75	-351.374	60.610	-0.000	-0.33637	54.07	ppb
⌊	Se	82	50.000	4.807	0.000	0.18607	11.98	ppb
⌈	Mo	96	484.678	6.555	0.000	0.03350	46.90	ppb
|	Ag	107	32.222	26.034	-0.000	-0.00633	19.32	ppb
|	Ag	109	34.445	14.783	-0.000	-0.00581	14.44	ppb
|	Cd	111	17.303	38.579	0.000	0.00195	231.85	ppb
|	In	113	99591.839	1.049	-0.000	-0.12607	339.01	ppb
|>	In	115	2597267.834	1.121	2597267.834			ppb
⌊	Sn	118	638.354	3.532	0.000	0.09069	4.32	ppb
⌈	Sb	121	1633.467	2.845	0.000	0.07284	14.80	ppb
|	Ba	135	13011.794	1.385	0.003	9.22237	1.09	ppb
|	Ba	137	22749.851	1.130	0.006	9.22557	1.07	ppb
⌊>	Tb	159	4090430.849	0.364	4090430.849			ppb
⌈	Tl	205	103.334	21.819	-0.000	-0.00104	93.26	ppb
|	Pb	206	191.669	5.430	0.000	0.01763	8.06	ppb
|	Pb	207	350.003	5.151	0.000	0.01720	8.88	ppb
|	Pb	208	571.677	4.134	0.000	0.01629	5.31	ppb
⌊>	Bi	209	3270457.294	0.835	3270457.294			ppb
	Cr	53	50893.933	3.150	50247.912			ppb
	Pd	106	3.333	86.603	0.000			ppb
	Pd	108	3.333	173.205	3.333			ppb
	C	12	464428.270	1.580	166108.318			ppb
	Kr	83	38.000	9.116	0.667			ppb
	Se	77	5944.879	2.731	5912.212			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	791488.297		ppb
	Be	9	2.000	0.005596	ppb
	Na	23	7014914.856	1528.716214	ppb
	Mg	24	11236991.701	3485.986748	ppb
	Mg	25	1618474.541	3574.339343	ppb
	Mg	26	1979227.315	3741.437325	ppb
	Al	27	30125.308	4.652739	ppb
	K	39	1735599.640	148.061027	ppb
	Ca	44	2072219.713	8180.768560	ppb
>	Sc	45	941142.041		ppb
	Ti	47	380.007	0.530639	ppb
	V	51	-5530.590	-0.921927	ppb
	Cr	52	10539.551	1.069831	ppb
	Mn	55	2625.345	0.241981	ppb
	Fe	54	44880.487	39.975433	ppb
	Fe	56	711218.050	12.069626	ppb
	Fe	57	10235.235	44.880937	ppb
	Co	59	448.010	0.039265	ppb
	Ni	60	766.696	0.404223	ppb
	Cu	63	923.376	-0.065106	ppb
	Cu	65	496.679	0.127464	ppb
	Zn	66	736.694	0.535727	ppb
	As	75	-367.126	-0.351026	ppb
	Se	82	48.000	0.170493	ppb
	Mo	96	504.013	0.040281	ppb
	Ag	107	33.333	-0.006203	ppb
	Ag	109	30.000	-0.006535	ppb
	Cd	111	18.820	0.002817	ppb
	In	113	100795.439	-0.002700	ppb
>	In	115	2623705.103		ppb
	Sn	118	640.020	0.089697	ppb
	Sb	121	1665.139	0.079555	ppb
	Ba	135	13102.578	9.289890	ppb
	Ba	137	22463.201	9.111620	ppb
>	Tb	159	4089212.440		ppb
	Tl	205	105.001	-0.000945	ppb
	Pb	206	180.002	0.015994	ppb
	Pb	207	335.003	0.016105	ppb
	Pb	208	580.010	0.016730	ppb
>	Bi	209	3260966.287		ppb
	Cr	53	49303.242		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	455957.148		ppb
	Kr	83	36.000		ppb
	Se	77	5805.685		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	789824.130		ppb
	Be	9	2.000	0.005608	ppb
	Na	23	7267950.161	1587.532397	ppb
	Mg	24	11489790.215	3571.944416	ppb
	Mg	25	1646218.259	3643.289080	ppb
	Mg	26	1979471.918	3749.786177	ppb
	Al	27	29914.678	4.625365	ppb
	K	39	1706620.848	145.380376	ppb
	Ca	44	2064263.691	8166.406987	ppb
>	Sc	45	955184.457		ppb

	Ti	47	410.008	0.576266	ppb
	V	51	-3336.777	-0.594706	ppb
	Cr	52	10407.413	1.022048	ppb
	Mn	55	2440.298	0.216943	ppb
	Fe	54	43941.330	36.537667	ppb
	Fe	56	695080.495	9.027733	ppb
	Fe	57	10260.261	44.193547	ppb
	Co	59	434.009	0.036659	ppb
	Ni	60	853.370	0.446169	ppb
	Cu	63	1023.386	-0.044539	ppb
	Cu	65	483.345	0.117419	ppb
	Zn	66	806.699	0.593153	ppb
	As	75	-130.967	-0.147614	ppb
	Se	82	49.333	0.176110	ppb
	Mo	96	502.013	0.044672	ppb
	Ag	107	23.333	-0.007603	ppb
	Ag	109	40.000	-0.004890	ppb
	Cd	111	23.090	0.005973	ppb
	In	113	98921.869	0.226068	ppb
>	In	115	2566065.347		ppb
	Sn	118	615.019	0.087369	ppb
	Sb	121	1655.137	0.078566	ppb
	Ba	135	12804.192	9.106712	ppb
	Ba	137	22826.022	9.288988	ppb
>	Tb	159	4076208.275		ppb
	Tl	205	80.000	-0.002049	ppb
	Pb	206	195.002	0.018309	ppb
	Pb	207	370.003	0.018950	ppb
	Pb	208	545.008	0.015297	ppb
>	Bi	209	3249145.826		ppb
	Cr	53	50869.055		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	468666.974		ppb
	Kr	83	42.000		ppb
	Se	77	5905.743		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	796936.528		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	7218667.569	1562.557849	ppb
	Mg	24	11774677.201	3627.855912	ppb
	Mg	25	1663185.961	3647.991685	ppb
	Mg	26	1986312.161	3729.157105	ppb
	Al	27	28711.157	4.354067	ppb
	K	39	1739915.496	147.260619	ppb
	Ca	44	2122424.961	8322.908495	ppb
>	Sc	45	945045.698		ppb
	Ti	47	385.007	0.537128	ppb
	V	51	-3402.555	-0.609409	ppb
	Cr	52	11024.073	1.143396	ppb
	Mn	55	2450.300	0.220995	ppb
	Fe	54	45674.068	41.287336	ppb
	Fe	56	693517.368	9.696073	ppb
	Fe	57	10065.063	43.724036	ppb
	Co	59	488.012	0.044123	ppb
	Ni	60	766.696	0.402431	ppb
	Cu	63	1030.053	-0.040314	ppb
	Cu	65	493.346	0.124824	ppb
	Zn	66	690.024	0.486819	ppb
	As	75	-556.031	-0.510458	ppb
	Se	82	52.667	0.211596	ppb

⌈	Mo	96	448.010	0.015535	ppb
|	Ag	107	40.000	-0.005169	ppb
|	Ag	109	33.333	-0.005990	ppb
|	Cd	111	10.000	-0.002941	ppb
|	In	113	99058.208	-0.601588	ppb
|>	In	115	2602033.051		ppb
⌊	Sn	118	660.022	0.095006	ppb
⌈	Sb	121	1580.125	0.060407	ppb
|	Ba	135	13128.612	9.270519	ppb
|	Ba	137	22960.329	9.276092	ppb
⌊>	Tb	159	4105871.830		ppb
⌈	Tl	205	125.001	-0.000120	ppb
|	Pb	206	200.002	0.018581	ppb
|	Pb	207	345.003	0.016558	ppb
|	Pb	208	590.011	0.016852	ppb
⌊>	Bi	209	3301259.768		ppb
	Cr	53	52509.501		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	468660.689		ppb
	Kr	83	36.000		ppb
	Se	77	6123.207		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		141.843			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		105.353			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		90.676			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.429			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		91.461			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-04

Sample Date/Time: Thursday, May 07, 2009 12:51:03
Sample Type: Sample
Sample Description: 13MWDUP 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-04.116

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	795429.145	1.153	795429.145			ppb
|	Be	9	0.667	173.205	0.000	0.00183	173.21	ppb
|	Na	23	7154651.537	1.844	8.944	1551.57570	1.46	ppb
|	Mg	24	11502495.295	0.340	14.458	3551.00378	1.19	ppb
|	Mg	25	1632432.846	1.090	2.052	3587.50129	1.22	ppb
|	Mg	26	1944179.103	1.445	2.444	3656.99811	1.07	ppb
|	Al	27	25273.568	1.406	0.025	3.72964	0.50	ppb
|	K	39	1717063.998	0.120	1.737	145.22065	1.40	ppb
⌊	Ca	44	2108449.962	0.397	2.628	8284.24185	1.32	ppb
⌈>	Sc	45	925731.678	0.812	925731.678			ppb
|	Ti	47	361.673	9.808	0.000	0.50747	14.33	ppb
|	V	51	-4686.536	25.524	-0.006	-0.81116	22.58	ppb
|	Cr	52	10847.216	2.501	0.007	1.15149	2.77	ppb
|	Mn	55	2150.231	1.415	0.002	0.19218	0.99	ppb
|	Fe	54	41358.712	2.205	0.017	33.84335	7.75	ppb
|	Fe	56	627217.276	0.512	0.033	3.58378	22.94	ppb
|	Fe	57	8311.790	4.005	0.007	35.12167	4.43	ppb
|	Co	59	453.344	3.752	0.000	0.04092	6.07	ppb
|	Ni	60	792.254	0.243	0.001	0.42617	0.91	ppb
|	Cu	63	926.710	6.720	-0.000	-0.06050	27.20	ppb
|	Cu	65	428.898	2.498	0.000	0.09770	6.93	ppb
|	Zn	66	592.240	4.550	0.000	0.40277	6.36	ppb
|	As	75	-586.789	49.273	-0.001	-0.54645	45.79	ppb
⌊	Se	82	44.222	7.736	0.000	0.14224	20.24	ppb
⌈	Mo	96	471.344	6.021	0.000	0.03026	49.52	ppb
|	Ag	107	23.333	28.571	-0.000	-0.00760	12.96	ppb
|	Ag	109	22.222	45.826	-0.000	-0.00762	20.80	ppb
|	Cd	111	14.063	23.570	-0.000	-0.00009	2631.83	ppb
|	In	113	96908.976	0.454	-0.001	-1.01627	33.07	ppb
|>	In	115	2561852.349	0.907	2561852.349			ppb
⌊	Sn	118	591.684	14.935	0.000	0.08261	22.80	ppb
⌈	Sb	121	1078.392	5.108	-0.000	-0.04479	23.35	ppb
|	Ba	135	13126.611	1.269	0.003	9.24758	0.47	ppb
|	Ba	137	23178.166	1.145	0.006	9.34300	0.99	ppb
⌊>	Tb	159	4115408.218	1.219	4115408.218			ppb
⌈	Tl	205	101.667	27.087	-0.000	-0.00105	124.10	ppb
|	Pb	206	151.668	18.157	0.000	0.01205	37.98	ppb
|	Pb	207	290.002	13.685	0.000	0.01280	28.04	ppb
|	Pb	208	456.673	12.209	0.000	0.01150	18.00	ppb
⌊>	Bi	209	3237836.287	2.187	3237836.287			ppb
	Cr	53	52208.000	2.804	51561.979			ppb
	Pd	106	10.000	50.000	6.667			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	459870.603	1.163	161550.650			ppb
	Kr	83	43.333	5.329	6.000			ppb
	Se	77	6167.458	3.423	6134.792			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	791875.201		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	7010448.621	1526.986576	ppb
	Mg	24	11545008.447	3579.816412	ppb
	Mg	25	1647296.131	3636.229863	ppb
	Mg	26	1959037.519	3701.451360	ppb
	Al	27	25046.327	3.708518	ppb
	K	39	1714696.491	145.765001	ppb
	Ca	44	2100427.431	8289.005939	ppb
>	Sc	45	918220.999		ppb
	Ti	47	400.008	0.587709	ppb
	V	51	-5928.343	-1.001547	ppb
	Cr	52	10547.560	1.115296	ppb
	Mn	55	2115.224	0.190150	ppb
	Fe	54	41751.980	35.450859	ppb
	Fe	56	626802.106	4.132597	ppb
	Fe	57	7928.142	33.357222	ppb
	Co	59	470.011	0.043579	ppb
	Ni	60	793.365	0.430520	ppb
	Cu	63	936.711	-0.056218	ppb
	Cu	65	433.343	0.101655	ppb
	Zn	66	596.684	0.412160	ppb
	As	75	-306.602	-0.305856	ppb
	Se	82	41.333	0.118435	ppb
	Mo	96	502.013	0.047061	ppb
	Ag	107	23.333	-0.007569	ppb
	Ag	109	20.000	-0.007947	ppb
	Cd	111	17.640	0.002417	ppb
	In	113	96664.958	-0.650932	ppb
>	In	115	2541079.914		ppb
	Sn	118	650.021	0.096179	ppb
	Sb	121	1025.053	-0.056196	ppb
	Ba	135	13216.728	9.297225	ppb
	Ba	137	23431.419	9.430872	ppb
>	Tb	159	4121593.983		ppb
	Tl	205	75.000	-0.002254	ppb
	Pb	206	150.001	0.011784	ppb
	Pb	207	305.002	0.013984	ppb
	Pb	208	415.005	0.009740	ppb
>	Bi	209	3230285.047		ppb
	Cr	53	50657.987		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	453697.788		ppb
	Kr	83	42.000		ppb
	Se	77	5924.421		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	805847.941		ppb
	Be	9	2.000	0.005496	ppb
	Na	23	7269336.234	1556.088677	ppb
	Mg	24	11494351.013	3502.289724	ppb
	Mg	25	1637295.426	3551.465528	ppb
	Mg	26	1961725.271	3642.245399	ppb
	Al	27	25682.938	3.743978	ppb
	K	39	1717994.992	142.968787	ppb
	Ca	44	2107803.587	8172.901245	ppb
>	Sc	45	925711.631		ppb

	Ti	47	330.005	0.445943	ppb
	V	51	-4589.350	-0.795766	ppb
	Cr	52	10917.957	1.163742	ppb
	Mn	55	2165.234	0.193924	ppb
	Fe	54	42008.049	35.264472	ppb
	Fe	56	630616.041	3.980130	ppb
	Fe	57	8523.631	36.305706	ppb
	Co	59	436.010	0.038660	ppb
	Ni	60	790.031	0.424879	ppb
	Cu	63	983.382	-0.046613	ppb
	Cu	65	436.676	0.101555	ppb
	Zn	66	563.349	0.373801	ppb
	As	75	-884.103	-0.805306	ppb
	Se	82	43.333	0.134053	ppb
	Mo	96	446.010	0.018287	ppb
	Ag	107	16.667	-0.008602	ppb
	Ag	109	33.333	-0.005902	ppb
	Cd	111	11.095	-0.002086	ppb
	In	113	96644.765	-1.085550	ppb
>	In	115	2557511.853		ppb
	Sn	118	490.012	0.061109	ppb
	Sb	121	1135.064	-0.035636	ppb
	Ba	135	13228.744	9.214631	ppb
	Ba	137	23200.883	9.246317	ppb
>	Tb	159	4162199.781		ppb
	Tl	205	100.001	-0.001238	ppb
	Pb	206	125.001	0.007607	ppb
	Pb	207	245.002	0.008766	ppb
	Pb	208	520.009	0.013777	ppb
>	Bi	209	3312119.005		ppb
	Cr	53	52398.924		ppb
	Pd	106	15.000		ppb
	Pd	108	5.000		ppb
	C	12	463092.051		ppb
	Kr	83	46.000		ppb
	Se	77	6272.633		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	788564.294		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	7184169.755	1571.651837	ppb
	Mg	24	11468126.425	3570.905199	ppb
	Mg	25	1612706.981	3574.808484	ppb
	Mg	26	1911774.520	3627.297560	ppb
	Al	27	25091.440	3.736409	ppb
	K	39	1718500.510	146.928174	ppb
	Ca	44	2117118.867	8390.818374	ppb
>	Sc	45	933262.404		ppb
	Ti	47	355.006	0.488761	ppb
	V	51	-3541.914	-0.636154	ppb
	Cr	52	11076.131	1.175423	ppb
	Mn	55	2170.235	0.192477	ppb
	Fe	54	40316.106	30.814734	ppb
	Fe	56	624233.681	2.638610	ppb
	Fe	57	8483.597	35.702068	ppb
	Co	59	454.010	0.040523	ppb
	Ni	60	793.365	0.423104	ppb
	Cu	63	860.037	-0.078680	ppb
	Cu	65	416.675	0.089878	ppb
	Zn	66	616.686	0.422346	ppb
	As	75	-569.662	-0.528176	ppb
	Se	82	48.000	0.174237	ppb

⌈	Mo	96	466.011	0.025424	ppb
|	Ag	107	30.000	-0.006633	ppb
|	Ag	109	13.333	-0.009023	ppb
|	Cd	111	13.455	-0.000593	ppb
|	In	113	97417.206	-1.312319	ppb
|>	In	115	2586965.279		ppb
⌊	Sn	118	635.020	0.090534	ppb
⌈	Sb	121	1075.058	-0.042551	ppb
|	Ba	135	12934.359	9.230891	ppb
|	Ba	137	22902.196	9.351825	ppb
⌊>	Tb	159	4062430.889		ppb
⌈	Tl	205	130.001	0.000336	ppb
|	Pb	206	180.002	0.016746	ppb
|	Pb	207	320.003	0.015641	ppb
|	Pb	208	435.005	0.010972	ppb
⌊>	Bi	209	3171104.808		ppb
	Cr	53	53567.088		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	462821.968		ppb
	Kr	83	42.000		ppb
	Se	77	6305.321		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		142.322			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		102.974			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		89.440			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.981			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		90.549			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-05

Sample Date/Time: Thursday, May 07, 2009 12:53:57
Sample Type: Sample
Sample Description: 13MW6 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-05.117

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	781623.755	1.461	781623.755			ppb
	Be	9	0.000		0.000	0.00000		ppb
	Na	23	9495369.282	1.018	12.099	2098.91554	1.68	ppb
	Mg	24	25566910.244	1.400	32.713	8034.41783	2.43	ppb
	Mg	25	3597609.321	1.757	4.603	8047.41858	1.94	ppb
	Mg	26	4315755.885	2.523	5.521	8262.61518	2.16	ppb
	Al	27	12761.477	3.354	0.010	1.46294	6.80	ppb
	K	39	3164215.338	1.419	3.627	303.16396	1.05	ppb
	Ca	44	4962432.050	1.839	6.327	19939.77518	1.51	ppb
>	Sc	45	926481.578	1.151	926481.578			ppb
	Ti	47	340.006	7.353	0.000	0.46480	10.59	ppb
	V	51	-4982.972	16.841	-0.006	-0.85398	15.05	ppb
	Cr	52	10885.259	3.389	0.007	1.15637	3.88	ppb
	Mn	55	1621.798	5.950	0.001	0.13119	9.11	ppb
	Fe	54	38977.484	0.807	0.014	28.51775	3.92	ppb
	Fe	56	608424.618	1.812	0.012	1.31702	77.44	ppb
	Fe	57	14363.648	2.970	0.013	68.66946	2.32	ppb
	Co	59	445.343	6.131	0.000	0.03986	10.42	ppb
	Ni	60	845.592	12.089	0.001	0.45605	11.63	ppb
	Cu	63	681.134	8.976	-0.001	-0.12108	13.04	ppb
	Cu	65	487.790	9.576	0.000	0.12674	16.18	ppb
	Zn	66	833.368	12.245	0.001	0.64437	16.19	ppb
	As	75	-886.561	20.600	-0.001	-0.80771	20.40	ppb
	Se	82	74.222	9.853	0.000	0.42351	15.87	ppb
	Mo	96	540.015	6.738	0.000	0.06311	28.08	ppb
	Ag	107	32.222	21.535	-0.000	-0.00626	16.50	ppb
	Ag	109	16.667	80.000	-0.000	-0.00849	24.22	ppb
	Cd	111	-1.245	1090.474	-0.000	-0.01045	87.73	ppb
	In	113	98482.586	0.809	-0.000	-0.05804	798.75	ppb
>	In	115	2565641.535	0.316	2565641.535			ppb
	Sn	118	630.020	2.381	0.000	0.09059	3.99	ppb
	Sb	121	900.041	4.548	-0.000	-0.08264	10.31	ppb
	Ba	135	23453.473	0.985	0.006	16.47989	0.78	ppb
	Ba	137	41127.736	0.574	0.010	16.53804	0.61	ppb
>	Tb	159	4131997.315	1.087	4131997.315			ppb
	Tl	205	105.001	17.169	-0.000	-0.00084	97.06	ppb
	Pb	206	165.001	18.924	0.000	0.01437	33.73	ppb
	Pb	207	275.002	13.111	0.000	0.01193	25.25	ppb
	Pb	208	425.006	11.223	0.000	0.01043	19.45	ppb
>	Bi	209	3186363.161	0.613	3186363.161			ppb
	Cr	53	53846.176	5.219	53200.155			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	11.667	65.465	11.667			ppb
	C	12	457533.746	2.365	159213.793			ppb
	Kr	83	52.667	34.457	15.333			ppb
	Se	77	6752.949	4.179	6720.282			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	784666.902		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	9391567.824	2067.520858	ppb
|	Mg	24	25161759.360	7874.829730	ppb
|	Mg	25	3534433.604	7874.674584	ppb
|	Mg	26	4226032.732	8059.300845	ppb
|	Al	27	12272.526	1.361537	ppb
|	K	39	3142417.001	299.517879	ppb
⌊	Ca	44	4895304.667	19591.835354	ppb
⌈>	Sc	45	920359.851		ppb
|	Ti	47	365.007	0.517776	ppb
|	V	51	-4403.958	-0.772066	ppb
|	Cr	52	10527.539	1.107655	ppb
|	Mn	55	1545.119	0.123505	ppb
|	Fe	54	39261.924	29.712972	ppb
|	Fe	56	613148.406	2.348855	ppb
|	Fe	57	13954.730	66.924289	ppb
|	Co	59	450.010	0.040820	ppb
|	Ni	60	813.366	0.441025	ppb
|	Cu	63	633.353	-0.131846	ppb
|	Cu	65	450.010	0.109523	ppb
|	Zn	66	736.694	0.552156	ppb
|	As	75	-827.952	-0.760715	ppb
⌊	Se	82	66.000	0.350552	ppb
⌈	Mo	96	498.012	0.042708	ppb
|	Ag	107	30.000	-0.006597	ppb
|	Ag	109	30.000	-0.006434	ppb
|	Cd	111	3.090	-0.007505	ppb
|	In	113	99305.644	0.476035	ppb
|>	In	115	2566360.146		ppb
⌊	Sn	118	630.020	0.090546	ppb
⌈	Sb	121	855.037	-0.092454	ppb
|	Ba	135	23315.148	16.337520	ppb
|	Ba	137	41291.072	16.558014	ppb
⌊>	Tb	159	4143244.161		ppb
⌈	Tl	205	85.000	-0.001730	ppb
|	Pb	206	190.002	0.018273	ppb
|	Pb	207	315.003	0.015249	ppb
|	Pb	208	420.005	0.010310	ppb
⌊>	Bi	209	3169805.856		ppb
	Cr	53	50816.790		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	447616.733		ppb
	Kr	83	36.000		ppb
	Se	77	6432.068		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	768992.725		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	9511694.141	2136.941190	ppb
|	Mg	24	25840178.054	8252.036585	ppb
|	Mg	25	3597522.875	8178.646241	ppb
|	Mg	26	4284311.487	8337.012604	ppb
|	Al	27	13068.534	1.560280	ppb
|	K	39	3134360.315	305.465274	ppb
⌊	Ca	44	4925675.973	20117.092402	ppb
⌈>	Sc	45	920294.202		ppb

	Ti	47	315.005	0.420505	ppb
	V	51	-5945.375	-1.002091	ppb
	Cr	52	10863.898	1.165428	ppb
	Mn	55	1730.150	0.144964	ppb
	Fe	54	38639.507	28.338748	ppb
	Fe	56	595826.977	0.309576	ppb
	Fe	57	14330.260	69.028070	ppb
	Co	59	470.011	0.043440	ppb
	Ni	60	763.362	0.412122	ppb
	Cu	63	750.028	-0.102953	ppb
	Cu	65	473.345	0.121266	ppb
	Zn	66	940.044	0.757593	ppb
	As	75	-1091.304	-0.990862	ppb
	Se	82	80.000	0.482865	ppb
	Mo	96	562.016	0.074659	ppb
	Ag	107	26.667	-0.007086	ppb
	Ag	109	3.333	-0.010549	ppb
	Cd	111	-16.460	-0.020719	ppb
	In	113	97715.091	-0.356416	ppb
>	In	115	2557191.982		ppb
	Sn	118	645.021	0.094231	ppb
	Sb	121	935.044	-0.077165	ppb
	Ba	135	23720.099	16.514108	ppb
	Ba	137	41234.841	16.428262	ppb
>	Tb	159	4170213.159		ppb
	Tl	205	110.001	-0.000640	ppb
	Pb	206	130.001	0.008945	ppb
	Pb	207	245.002	0.009379	ppb
	Pb	208	475.007	0.012514	ppb
>	Bi	209	3207917.099		ppb
	Cr	53	54353.314		ppb
	Pd	106	0.000		ppb
	Pd	108	20.000		ppb
	C	12	455906.935		ppb
	Kr	83	72.000		ppb
	Se	77	6864.355		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	791211.638		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	9582845.882	2092.284578	ppb
	Mg	24	25698793.318	7976.387188	ppb
	Mg	25	3660871.483	8088.934920	ppb
	Mg	26	4436923.436	8391.532078	ppb
	Al	27	12943.371	1.467005	ppb
	K	39	3215868.697	304.508724	ppb
	Ca	44	5066315.511	20110.397775	ppb
>	Sc	45	938790.680		ppb
	Ti	47	340.006	0.456127	ppb
	V	51	-4599.584	-0.787780	ppb
	Cr	52	11264.341	1.196019	ppb
	Mn	55	1590.126	0.125103	ppb
	Fe	54	39031.023	27.501525	ppb
	Fe	56	616298.472	1.292633	ppb
	Fe	57	14805.953	70.056023	ppb
	Co	59	416.009	0.035306	ppb
	Ni	60	960.046	0.514993	ppb
	Cu	63	660.022	-0.128452	ppb
	Cu	65	540.015	0.149424	ppb
	Zn	66	823.367	0.623365	ppb
	As	75	-740.427	-0.671547	ppb
	Se	82	76.667	0.437102	ppb

⌈	Mo	96	560.016	0.071978	ppb
|	Ag	107	40.000	-0.005103	ppb
|	Ag	109	16.667	-0.008499	ppb
|	Cd	111	9.635	-0.003113	ppb
|	In	113	98427.022	-0.293733	ppb
|>	In	115	2573372.479		ppb
⌊	Sn	118	615.019	0.086997	ppb
⌈	Sb	121	910.041	-0.078286	ppb
|	Ba	135	23325.171	16.588049	ppb
|	Ba	137	40857.296	16.627850	ppb
⌊>	Tb	159	4082534.626		ppb
⌈	Tl	205	120.001	-0.000141	ppb
|	Pb	206	175.002	0.015903	ppb
|	Pb	207	265.002	0.011146	ppb
|	Pb	208	380.005	0.008462	ppb
⌊>	Bi	209	3181366.526		ppb
	Cr	53	56368.423		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	469077.569		ppb
	Kr	83	50.000		ppb
	Se	77	6962.423		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		139.852			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		103.057			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		89.572			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		91.348			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		89.109			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-06

Sample Date/Time: Thursday, May 07, 2009 12:56:50
Sample Type: Sample
Sample Description: 13MW7 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-06.118

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	781445.591	1.099	781445.591			ppb
|	Be	9	0.667	173.205	0.000	0.00189	173.21	ppb
|	Na	23	7423138.988	2.143	9.449	1639.19351	2.28	ppb
|	Mg	24	21491945.873	0.871	27.503	6754.77663	1.87	ppb
|	Mg	25	3067244.149	0.048	3.925	6862.38657	1.11	ppb
|	Mg	26	3665500.195	1.609	4.691	7020.06770	2.43	ppb
|	Al	27	6985.773	1.024	0.003	0.37812	7.34	ppb
|	K	39	2575064.150	0.393	2.874	240.23460	1.44	ppb
⌊	Ca	44	4079625.276	0.819	5.199	16384.82234	1.63	ppb
⌈>	Sc	45	930189.123	1.009	930189.123			ppb
|	Ti	47	361.673	14.783	0.000	0.50459	21.84	ppb
|	V	51	-5876.526	35.833	-0.007	-0.98308	31.73	ppb
|	Cr	52	11030.751	2.880	0.007	1.17431	5.92	ppb
|	Mn	55	2393.620	5.855	0.002	0.21895	7.64	ppb
|	Fe	54	38654.571	1.142	0.013	27.46103	2.36	ppb
|	Fe	56	582812.005	1.017	-0.018	-1.95537	39.91	ppb
|	Fe	57	12486.124	1.171	0.011	57.98179	0.55	ppb
|	Co	59	496.679	3.654	0.000	0.04623	3.71	ppb
|	Ni	60	72389.960	0.255	0.078	41.41751	0.81	ppb
|	Cu	63	921.154	0.209	-0.000	-0.06300	3.63	ppb
|	Cu	65	570.016	9.284	0.000	0.16687	16.34	ppb
|	Zn	66	1541.230	3.247	0.001	1.34849	4.35	ppb
|	As	75	-545.370	44.866	-0.001	-0.50953	41.75	ppb
⌊	Se	82	79.111	4.157	0.000	0.46660	7.06	ppb
⌈	Mo	96	576.017	5.841	0.000	0.08253	23.35	ppb
|	Ag	107	15.556	32.733	-0.000	-0.00876	8.70	ppb
|	Ag	109	13.333	43.301	-0.000	-0.00899	10.15	ppb
|	Cd	111	-4.307	259.322	-0.000	-0.01250	60.77	ppb
|	In	113	98703.071	0.686	0.000	0.53484	59.74	ppb
|>	In	115	2548615.398	1.066	2548615.398			ppb
⌊	Sn	118	548.348	9.835	0.000	0.07400	16.00	ppb
⌈	Sb	121	841.702	3.956	-0.000	-0.09320	5.69	ppb
|	Ba	135	39242.853	0.853	0.010	27.84529	1.49	ppb
|	Ba	137	68303.159	1.137	0.017	27.74042	2.38	ppb
⌊>	Tb	159	4095117.034	1.264	4095117.034			ppb
⌈	Tl	205	56.667	45.279	-0.000	-0.00304	37.99	ppb
|	Pb	206	156.668	29.654	0.000	0.01317	53.29	ppb
|	Pb	207	311.669	17.671	0.000	0.01488	27.58	ppb
|	Pb	208	483.340	12.514	0.000	0.01306	18.65	ppb
⌊>	Bi	209	3177608.226	1.396	3177608.226			ppb
	Cr	53	55883.121	2.721	55237.100			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	13.333	78.063	13.333			ppb
	C	12	463583.942	1.671	165263.989			ppb
	Kr	83	44.000	31.818	6.667			ppb
	Se	77	6861.020	1.788	6828.353			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	780503.233		ppb
|	Be	9	2.000	0.005675	ppb
|	Na	23	7239766.679	1600.331903	ppb
|	Mg	24	21378414.581	6726.318517	ppb
|	Mg	25	3065643.099	6866.528595	ppb
|	Mg	26	3614160.484	6929.050566	ppb
|	Al	27	7002.451	0.382637	ppb
|	K	39	2564022.805	239.360609	ppb
⌊	Ca	44	4046117.700	16267.648986	ppb
⌈>	Sc	45	930934.718		ppb
|	Ti	47	350.006	0.480844	ppb
|	V	51	-8177.188	-1.321130	ppb
|	Cr	52	10769.796	1.128205	ppb
|	Mn	55	2550.325	0.236648	ppb
|	Fe	54	39015.964	28.184624	ppb
|	Fe	56	589370.737	-1.247554	ppb
|	Fe	57	12562.886	58.350833	ppb
|	Co	59	494.012	0.045841	ppb
|	Ni	60	72525.380	41.459554	ppb
|	Cu	63	923.376	-0.062655	ppb
|	Cu	65	510.013	0.136764	ppb
|	Zn	66	1590.126	1.395820	ppb
|	As	75	-779.971	-0.711054	ppb
⌊	Se	82	75.334	0.430641	ppb
⌈	Mo	96	564.016	0.076749	ppb
|	Ag	107	10.000	-0.009606	ppb
|	Ag	109	16.667	-0.008473	ppb
|	Cd	111	-16.825	-0.021012	ppb
|	In	113	98926.918	0.731831	ppb
|>	In	115	2546799.099		ppb
⌊	Sn	118	610.019	0.087287	ppb
⌈	Sb	121	805.032	-0.098448	ppb
|	Ba	135	39329.187	28.299740	ppb
|	Ba	137	69198.597	28.497790	ppb
⌊>	Tb	159	4037875.277		ppb
⌈	Tl	205	35.000	-0.004006	ppb
|	Pb	206	170.001	0.015593	ppb
|	Pb	207	255.002	0.010699	ppb
|	Pb	208	415.006	0.010339	ppb
⌊>	Bi	209	3127122.303		ppb
	Cr	53	54353.314		ppb
	Pd	106	0.000		ppb
	Pd	108	25.000		ppb
	C	12	454900.626		ppb
	Kr	83	58.000		ppb
	Se	77	6783.633		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	773365.388		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	7505430.648	1674.775708	ppb
|	Mg	24	21708095.118	6893.108193	ppb
|	Mg	25	3068498.514	6936.368285	ppb
|	Mg	26	3729946.775	7217.078402	ppb
|	Al	27	7047.482	0.403339	ppb
|	K	39	2583914.919	244.045000	ppb
⌊	Ca	44	4112920.857	16690.692565	ppb
⌈>	Sc	45	939179.797		ppb

	Ti	47	315.005	0.408177	ppb
	V	51	-4044.856	-0.706400	ppb
	Cr	52	10937.979	1.140429	ppb
	Mn	55	2280.260	0.203410	ppb
	Fe	54	38785.069	26.931843	ppb
	Fe	56	581234.648	-2.792260	ppb
	Fe	57	12577.905	57.823877	ppb
	Co	59	516.013	0.048100	ppb
	Ni	60	72464.944	41.061050	ppb
	Cu	63	920.042	-0.065447	ppb
	Cu	65	590.017	0.173937	ppb
	Zn	66	1490.111	1.282897	ppb
	As	75	-291.710	-0.287114	ppb
	Se	82	80.667	0.473838	ppb
	Mo	96	614.019	0.104031	ppb
	Ag	107	16.667	-0.008567	ppb
	Ag	109	16.667	-0.008448	ppb
	Cd	111	4.635	-0.006410	ppb
	In	113	97942.297	0.706509	ppb
>	In	115	2522405.362		ppb
	Sn	118	525.014	0.070145	ppb
	Sb	121	850.036	-0.093290	ppb
	Ba	135	39525.961	27.748678	ppb
	Ba	137	67895.712	27.279378	ppb
>	Tb	159	4138581.406		ppb
	Tl	205	50.000	-0.003367	ppb
	Pb	206	195.002	0.018658	ppb
	Pb	207	365.003	0.018904	ppb
	Pb	208	505.007	0.013821	ppb
>	Bi	209	3210307.170		ppb
	Cr	53	55901.815		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	466061.335		ppb
	Kr	83	44.000		ppb
	Se	77	6796.976		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	790468.152		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	7524219.636	1642.472924	ppb
	Mg	24	21389327.919	6644.903184	ppb
	Mg	25	3067590.833	6784.262818	ppb
	Mg	26	3652393.327	6914.074119	ppb
	Al	27	6907.385	0.348381	ppb
	K	39	2577254.726	237.298192	ppb
	Ca	44	4079837.270	16196.125456	ppb
>	Sc	45	920452.855		ppb
	Ti	47	420.009	0.624739	ppb
	V	51	-5407.534	-0.921707	ppb
	Cr	52	11384.477	1.254306	ppb
	Mn	55	2350.276	0.216793	ppb
	Fe	54	38162.681	27.266625	ppb
	Fe	56	577830.629	-1.826282	ppb
	Fe	57	12317.581	57.770670	ppb
	Co	59	480.012	0.044738	ppb
	Ni	60	72179.558	41.731936	ppb
	Cu	63	920.042	-0.060907	ppb
	Cu	65	610.019	0.189897	ppb
	Zn	66	1543.452	1.366767	ppb
	As	75	-564.428	-0.530434	ppb
	Se	82	81.334	0.495329	ppb

⌈	Mo	96	550.015	0.066814	ppb
|	Ag	107	20.000	-0.008119	ppb
|	Ag	109	6.667	-0.010040	ppb
|	Cd	111	-0.730	-0.010077	ppb
|	In	113	99239.997	0.166173	ppb
|>	In	115	2576641.734		ppb
⌊	Sn	118	510.013	0.064572	ppb
⌈	Sb	121	870.038	-0.087849	ppb
|	Ba	135	38873.411	27.487461	ppb
|	Ba	137	67815.168	27.444083	ppb
⌊>	Tb	159	4108894.420		ppb
⌈	Tl	205	85.000	-0.001761	ppb
|	Pb	206	105.001	0.005262	ppb
|	Pb	207	315.003	0.015046	ppb
|	Pb	208	530.007	0.015032	ppb
⌊>	Bi	209	3195395.205		ppb
	Cr	53	57394.234		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	469789.865		ppb
	Kr	83	30.000		ppb
	Se	77	7002.451		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		139.820			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		103.469			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		88.978			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.532			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		88.865			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 0904098-02

Sample Date/Time: Thursday, May 07, 2009 12:59:43
Sample Type: Sample 25
Sample Description: 13MW3 ~~10X~~ JW 050709
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-02.119

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	697942.341	0.299	697942.341			ppb
	Be	9	2.000	100.000	0.000	0.00635	99.88	ppb
	Na	23	1895649.583	3.260	2.665	462.34924	3.05	ppb
	Mg	24	3025613.503	1.800	4.331	1063.73891	1.52	ppb
	Mg	25	426603.684	1.226	0.611	1067.72116	0.94	ppb
	Mg	26	494910.165	0.357	0.708	1060.22691	0.16	ppb
	Al	27	2110.223	3.901	-0.003	-0.49047	3.79	ppb
	K	39	652666.528	0.452	0.514	42.93249	0.61	ppb
	Ca	44	536497.675	0.414	0.746	2351.81321	0.20	ppb
>	Sc	45	895089.205	0.653	895089.205			ppb
	Ti	47	120.001	7.217	0.000	0.04749	34.31	ppb
	V	51	-1705.125	14.041	-0.003	-0.37647	9.31	ppb
	Cr	52	5505.516	3.449	0.002	0.27385	14.20	ppb
	Mn	55	461.677	7.983	-0.000	-0.00053	880.72	ppb
	Fe	54	26195.937	1.280	0.001	2.37995	42.43	ppb
	Fe	56	543734.549	1.394	-0.037	-4.02802	29.22	ppb
	Fe	57	3502.280	1.072	0.002	9.08065	3.56	ppb
	Co	59	98.667	6.193	-0.000	-0.00476	16.30	ppb
	Ni	60	126.667	13.158	0.000	0.04572	20.90	ppb
	Cu	63	472.233	8.712	-0.001	-0.16845	5.99	ppb
	Cu	65	198.891	0.968	-0.000	-0.01384	7.64	ppb
	Zn	66	256.670	5.195	0.000	0.07465	16.97	ppb
	As	75	-113.584	7.629	-0.000	-0.13944	6.03	ppb
	Se	82	24.444	10.325	-0.000	-0.03541	72.92	ppb
	Mo	96	98.000	16.705	-0.000	-0.15129	4.97	ppb
	Ag	107	12.222	110.221	-0.000	-0.00928	22.12	ppb
	Ag	109	8.889	57.282	-0.000	-0.00970	8.05	ppb
	Cd	111	13.033	87.834	-0.000	-0.00094	812.50	ppb
	In	113	100180.992	0.677	0.000	0.54922	222.35	ppb
>	In	115	2586541.183	1.323	2586541.183			ppb
	Sn	118	130.001	3.846	-0.000	-0.01608	8.78	ppb
	Sb	121	213.336	5.898	-0.000	-0.22572	1.17	ppb
	Ba	135	5085.960	2.773	0.001	3.49058	2.98	ppb
	Ba	137	8921.313	2.395	0.002	3.50040	2.61	ppb
>	Tb	159	4202430.685	0.199	4202430.685			ppb
	Tl	205	28.333	79.575	-0.000	-0.00444	21.39	ppb
	Pb	206	116.667	21.141	0.000	0.00588	59.29	ppb
	Pb	207	238.335	19.036	0.000	0.00769	44.20	ppb
	Pb	208	370.004	8.439	0.000	0.00687	16.83	ppb
>	Bi	209	3417680.480	1.070	3417680.480			ppb
	Cr	53	20344.677	1.405	19698.656			ppb
	Pd	106	8.333	91.652	5.000			ppb
	Pd	108	0.000		0.000			ppb
	C	12	343384.323	0.728	45064.370			ppb
	Kr	83	42.000	21.822	4.667			ppb
	Se	77	1493.445	1.460	1460.778			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	698161.403		ppb
	Be	9	4.000	0.012688	ppb
	Na	23	1869706.437	455.779720	ppb
	Mg	24	3011256.661	1058.384169	ppb
	Mg	25	425927.569	1065.711833	ppb
	Mg	26	494181.318	1058.331995	ppb
	Al	27	2065.213	-0.500105	ppb
	K	39	655395.706	43.234725	ppb
	Ca	44	535569.712	2346.867384	ppb
>	Sc	45	893423.690		ppb
	Ti	47	125.001	0.058008	ppb
	V	51	-1705.711	-0.377192	ppb
	Cr	52	5429.474	0.262083	ppb
	Mn	55	490.012	0.002934	ppb
	Fe	54	26570.252	3.343160	ppb
	Fe	56	552270.332	-2.870924	ppb
	Fe	57	3480.606	8.992172	ppb
	Co	59	92.000	-0.005636	ppb
	Ni	60	110.001	0.035950	ppb
	Cu	63	426.676	-0.179819	ppb
	Cu	65	196.669	-0.014802	ppb
	Zn	66	243.336	0.061309	ppb
	As	75	-112.416	-0.138539	ppb
	Se	82	23.333	-0.045874	ppb
	Mo	96	94.000	-0.153635	ppb
	Ag	107	0.000	-0.011129	ppb
	Ag	109	3.333	-0.010560	ppb
	Cd	111	17.640	0.002087	ppb
	In	113	100325.751	-0.039525	ppb
>	In	115	2612933.159		ppb
	Sn	118	125.001	-0.017412	ppb
	Sb	121	225.003	-0.223291	ppb
	Ba	135	5119.310	3.517866	ppb
	Ba	137	8990.039	3.531864	ppb
>	Tb	159	4197299.312		ppb
	Tl	205	5.000	-0.005421	ppb
	Pb	206	100.001	0.003670	ppb
	Pb	207	205.001	0.005346	ppb
	Pb	208	360.004	0.006610	ppb
>	Bi	209	3384626.489		ppb
	Cr	53	20623.244		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	345764.053		ppb
	Kr	83	52.000		ppb
	Se	77	1468.775		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	699911.622		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	1966194.917	478.533164	ppb
	Mg	24	3085822.653	1081.901049	ppb
	Mg	25	432140.800	1078.565683	ppb
	Mg	26	496924.360	1061.548326	ppb
	Al	27	2060.212	-0.502239	ppb
	K	39	653070.750	42.760846	ppb
	Ca	44	539034.641	2356.424232	ppb
>	Sc	45	890253.835		ppb

	Ti	47	110.001	0.028719	ppb
	V	51	-1465.412	-0.341064	ppb
	Cr	52	5721.636	0.317255	ppb
	Mn	55	475.011	0.001345	ppb
	Fe	54	26094.000	2.467393	ppb
	Fe	56	541146.227	-3.989126	ppb
	Fe	57	3545.628	9.439064	ppb
	Co	59	100.001	-0.004510	ppb
	Ni	60	126.667	0.046154	ppb
	Cu	63	483.345	-0.164930	ppb
	Cu	65	200.002	-0.012708	ppb
	Zn	66	256.670	0.076132	ppb
	As	75	-122.775	-0.148256	ppb
	Se	82	27.333	-0.006000	ppb
	Mo	96	116.001	-0.142878	ppb
	Ag	107	10.000	-0.009637	ppb
	Ag	109	13.333	-0.009033	ppb
	Cd	111	21.460	0.004692	ppb
	In	113	99441.989	-0.266081	ppb
>	In	115	2598818.071		ppb
	Sn	118	130.001	-0.016219	ppb
	Sb	121	215.002	-0.225338	ppb
	Ba	135	5207.355	3.578333	ppb
	Ba	137	9092.131	3.571817	ppb
>	Tb	159	4197931.947		ppb
	Tl	205	30.000	-0.004355	ppb
	Pb	206	145.001	0.009895	ppb
	Pb	207	290.002	0.011583	ppb
	Pb	208	345.003	0.005870	ppb
>	Bi	209	3411462.831		ppb
	Cr	53	20358.703		ppb
	Pd	106	15.000		ppb
	Pd	108	0.000		ppb
	C	12	343611.740		ppb
	Kr	83	40.000		ppb
	Se	77	1510.114		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	695753.997		ppb
	Be	9	2.000	0.006366	ppb
	Na	23	1851047.394	452.734848	ppb
	Mg	24	2979761.195	1050.931504	ppb
	Mg	25	421742.682	1058.885977	ppb
	Mg	26	493624.818	1060.800399	ppb
	Al	27	2205.243	-0.469059	ppb
	K	39	649533.130	42.801905	ppb
	Ca	44	534888.673	2352.148023	ppb
>	Sc	45	901590.088		ppb
	Ti	47	125.001	0.055738	ppb
	V	51	-1944.251	-0.411146	ppb
	Cr	52	5365.439	0.242200	ppb
	Mn	55	420.009	-0.005878	ppb
	Fe	54	25923.558	1.329307	ppb
	Fe	56	537787.089	-5.224021	ppb
	Fe	57	3480.606	8.810725	ppb
	Co	59	104.001	-0.004146	ppb
	Ni	60	143.334	0.055046	ppb
	Cu	63	506.680	-0.160589	ppb
	Cu	65	200.002	-0.014014	ppb
	Zn	66	270.004	0.086509	ppb
	As	75	-105.562	-0.131511	ppb
	Se	82	22.667	-0.054360	ppb

⌈	Mo	96	84.000	-0.157369	ppb
|	Ag	107	26.667	-0.007071	ppb
|	Ag	109	10.000	-0.009510	ppb
|	Cd	111	0.000	-0.009587	ppb
|	In	113	100775.237	1.953263	ppb
|>	In	115	2547872.318		ppb
⌊	Sn	118	135.001	-0.014601	ppb
⌈	Sb	121	200.002	-0.228536	ppb
|	Ba	135	4931.216	3.375550	ppb
|	Ba	137	8681.767	3.397517	ppb
⌊>	Tb	159	4212060.797		ppb
⌈	Tl	205	50.000	-0.003529	ppb
|	Pb	206	105.001	0.004068	ppb
|	Pb	207	220.001	0.006130	ppb
|	Pb	208	405.005	0.008138	ppb
⌊>	Bi	209	3456952.119		ppb
	Cr	53	20052.084		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	340777.176		ppb
	Kr	83	34.000		ppb
	Se	77	1501.446		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		124.879			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		99.565			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		90.302			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.905			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.578			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-03

Sample Date/Time: Thursday, May 07, 2009 13:02:37
Sample Type: Sample
Sample Description: 13MW4 ~~TQX~~ 24 JW 050705
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-03.120

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	693104.774	1.576	693104.774			ppb
	Be	9	0.667	173.205	0.000	0.00216	173.21	ppb
	Na	23	1206124.045	2.114	1.689	293.08306	1.51	ppb
	Mg	24	1954578.484	1.056	2.816	691.72149	0.85	ppb
	Mg	25	274120.707	0.517	0.395	690.62573	1.19	ppb
	Mg	26	313641.253	1.776	0.452	676.25235	1.34	ppb
	Al	27	6003.470	3.921	0.002	0.33716	13.94	ppb
	K	39	439010.864	1.042	0.212	17.72205	6.44	ppb
	Ca	44	353544.510	0.353	0.488	1537.00371	1.34	ppb
>	Sc	45	894122.628	0.424	894122.628			ppb
	Ti	47	120.001	14.434	0.000	0.04783	73.14	ppb
	V	51	-1524.819	43.711	-0.003	-0.34898	29.07	ppb
	Cr	52	5304.074	3.249	0.002	0.23919	11.99	ppb
	Mn	55	688.357	6.750	0.000	0.02655	20.86	ppb
	Fe	54	27375.769	2.484	0.003	5.13089	25.14	ppb
	Fe	56	560677.930	1.402	-0.018	-1.90100	53.53	ppb
	Fe	57	3430.589	2.346	0.002	8.68790	4.45	ppb
	Co	59	144.001	3.675	0.000	0.00136	58.66	ppb
	Ni	60	181.113	8.299	0.000	0.07826	11.53	ppb
	Cu	63	515.569	3.561	-0.001	-0.15726	2.76	ppb
	Cu	65	246.670	8.220	0.000	0.01100	98.32	ppb
	Zn	66	310.005	10.258	0.000	0.13035	24.57	ppb
	As	75	-94.250	54.282	-0.000	-0.12200	37.48	ppb
	Se	82	26.444	14.335	-0.000	-0.01585	229.15	ppb
	Mo	96	148.001	15.048	-0.000	-0.12753	8.23	ppb
	Ag	107	16.667	60.000	-0.000	-0.00864	17.30	ppb
	Ag	109	16.667	87.178	-0.000	-0.00852	26.02	ppb
	Cd	111	1.423	760.042	-0.000	-0.00864	83.52	ppb
	In	113	99622.123	0.804	-0.000	-0.07933	933.30	ppb
>	In	115	2596231.075	0.318	2596231.075			ppb
	Sn	118	130.001	17.625	-0.000	-0.01618	30.34	ppb
	Sb	121	165.001	8.017	-0.000	-0.23539	0.95	ppb
	Ba	135	2523.652	1.289	0.001	1.72794	2.46	ppb
	Ba	137	4489.674	1.208	0.001	1.75536	0.84	ppb
>	Tb	159	4177273.679	1.386	4177273.679			ppb
	Tl	205	38.333	41.929	-0.000	-0.00400	16.74	ppb
	Pb	206	101.667	15.809	0.000	0.00390	64.83	ppb
	Pb	207	170.001	2.941	0.000	0.00268	15.09	ppb
	Pb	208	296.670	9.584	0.000	0.00393	25.25	ppb
>	Bi	209	3391718.765	1.656	3391718.765			ppb
	Cr	53	17815.857	0.606	17169.836			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	3.333	173.205	3.333			ppb
	C	12	339587.194	0.652	41267.241			ppb
	Kr	83	30.000	11.547	-7.333			ppb
	Se	77	1384.096	4.620	1351.429			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	688710.626		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	1179665.935	288.343074	ppb
	Mg	24	1936185.981	689.533454	ppb
	Mg	25	272775.259	691.538774	ppb
	Mg	26	307738.391	667.721161	ppb
	Al	27	5731.642	0.287307	ppb
	K	39	444295.428	18.690541	ppb
	Ca	44	353826.855	1548.339354	ppb
>	Sc	45	889871.989		ppb
	Ti	47	130.001	0.069073	ppb
	V	51	-1044.508	-0.276215	ppb
	Cr	52	5255.381	0.235054	ppb
	Mn	55	675.023	0.025344	ppb
	Fe	54	26620.385	3.700424	ppb
	Fe	56	563469.921	-1.235858	ppb
	Fe	57	3355.563	8.349584	ppb
	Co	59	150.001	0.002259	ppb
	Ni	60	180.002	0.078105	ppb
	Cu	63	506.680	-0.158904	ppb
	Cu	65	256.670	0.016788	ppb
	Zn	66	290.004	0.111066	ppb
	As	75	-37.791	-0.071513	ppb
	Se	82	23.333	-0.044968	ppb
	Mo	96	144.001	-0.129208	ppb
	Ag	107	16.667	-0.008632	ppb
	Ag	109	6.667	-0.010045	ppb
	Cd	111	10.000	-0.002905	ppb
	In	113	100482.311	0.702056	ppb
>	In	115	2587993.182		ppb
	Sn	118	155.001	-0.010828	ppb
	Sb	121	160.001	-0.236125	ppb
	Ba	135	2512.316	1.734282	ppb
	Ba	137	4495.010	1.772371	ppb
>	Tb	159	4142705.249		ppb
	Tl	205	20.000	-0.004761	ppb
	Pb	206	120.001	0.006801	ppb
	Pb	207	170.001	0.002927	ppb
	Pb	208	265.002	0.002828	ppb
>	Bi	209	3327472.614		ppb
	Cr	53	17940.078		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	341430.918		ppb
	Kr	83	34.000		ppb
	Se	77	1310.753		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	685062.375		ppb
	Be	9	2.000	0.006465	ppb
	Na	23	1208167.059	297.142757	ppb
	Mg	24	1950652.262	698.396905	ppb
	Mg	25	273988.766	698.323786	ppb
	Mg	26	314383.366	685.799099	ppb
	Al	27	6136.882	0.380644	ppb
	K	39	436371.714	18.010896	ppb
	Ca	44	352180.232	1549.386806	ppb
>	Sc	45	895350.079		ppb

	Ti	47	100.001	0.007454	ppb
	V	51	-1244.183	-0.305850	ppb
	Cr	52	5161.332	0.212788	ppb
	Mn	55	740.027	0.032593	ppb
	Fe	54	27567.947	5.486954	ppb
	Fe	56	551800.428	-3.072397	ppb
	Fe	57	3420.585	8.604373	ppb
	Co	59	142.001	0.001059	ppb
	Ni	60	196.669	0.087359	ppb
	Cu	63	503.346	-0.160545	ppb
	Cu	65	260.003	0.017694	ppb
	Zn	66	293.338	0.112673	ppb
	As	75	-107.422	-0.133837	ppb
	Se	82	30.667	0.024850	ppb
	Mo	96	172.001	-0.116293	ppb
	Ag	107	6.667	-0.010136	ppb
	Ag	109	10.000	-0.009544	ppb
	Cd	111	5.000	-0.006268	ppb
	In	113	98896.621	-0.770362	ppb
>	In	115	2604491.590		ppb
	Sn	118	110.001	-0.020473	ppb
	Sb	121	155.001	-0.237176	ppb
	Ba	135	2560.328	1.767005	ppb
	Ba	137	4432.982	1.746467	ppb
>	Tb	159	4144978.049		ppb
	Tl	205	50.000	-0.003514	ppb
	Pb	206	95.000	0.002776	ppb
	Pb	207	175.001	0.002904	ppb
	Pb	208	320.003	0.004755	ppb
>	Bi	209	3431414.729		ppb
	Cr	53	17763.764		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	337130.648		ppb
	Kr	83	28.000		ppb
	Se	77	1413.433		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	705541.320		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	1230539.141	293.763337	ppb
	Mg	24	1976897.211	687.234112	ppb
	Mg	25	275598.095	682.014625	ppb
	Mg	26	318802.003	675.236803	ppb
	Al	27	6141.886	0.343517	ppb
	K	39	436365.450	16.464704	ppb
	Ca	44	354626.444	1513.284958	ppb
>	Sc	45	897145.816		ppb
	Ti	47	130.001	0.066951	ppb
	V	51	-2285.765	-0.464881	ppb
	Cr	52	5495.510	0.269716	ppb
	Mn	55	650.021	0.021715	ppb
	Fe	54	27938.975	6.205282	ppb
	Fe	56	566763.442	-1.394744	ppb
	Fe	57	3515.618	9.109735	ppb
	Co	59	140.001	0.000753	ppb
	Ni	60	166.668	0.069316	ppb
	Cu	63	536.681	-0.152337	ppb
	Cu	65	223.336	-0.001477	ppb
	Zn	66	346.673	0.167322	ppb
	As	75	-137.537	-0.160635	ppb
	Se	82	25.333	-0.027433	ppb

⌈	Mo	96	128.001	-0.137081	ppb
|	Ag	107	26.667	-0.007147	ppb
|	Ag	109	33.333	-0.005979	ppb
|	Cd	111	-10.730	-0.016735	ppb
|	In	113	99487.438	-0.169672	ppb
|>	In	115	2596208.452		ppb
⌊	Sn	118	125.001	-0.017243	ppb
⌈	Sb	121	180.002	-0.232879	ppb
|	Ba	135	2498.312	1.682530	ppb
|	Ba	137	4541.031	1.747251	ppb
⌊>	Tb	159	4244137.737		ppb
⌈	Tl	205	45.000	-0.003717	ppb
|	Pb	206	90.000	0.002132	ppb
|	Pb	207	165.001	0.002215	ppb
|	Pb	208	305.003	0.004192	ppb
⌊>	Bi	209	3416268.952		ppb
	Cr	53	17743.728		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	340200.015		ppb
	Kr	83	28.000		ppb
	Se	77	1428.102		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			124.014		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			99.458		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			90.640		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			92.349		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			94.852		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-04

Sample Date/Time: Thursday, May 07, 2009 13:05:30
Sample Type: Sample
Sample Description: 13MWDUP
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-04.121

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	688746.950	1.515	688746.950			ppb
	Be	9	2.667	43.301	0.000	0.00856	42.55	ppb
	Na	23	1269547.307	1.729	1.793	310.97077	1.09	ppb
	Mg	24	2040237.667	0.615	2.959	726.66887	0.92	ppb
	Mg	25	286856.906	0.524	0.416	727.33714	1.26	ppb
	Mg	26	331106.628	0.959	0.480	718.51741	0.93	ppb
	Al	27	5628.284	17.907	0.002	0.26408	77.27	ppb
	K	39	447027.121	0.956	0.228	19.02378	3.02	ppb
	Ca	44	369387.730	0.986	0.514	1619.60916	1.18	ppb
>	Sc	45	908283.374	1.119	908283.374			ppb
	Ti	47	110.001	38.837	0.000	0.02372	344.23	ppb
	V	51	-1015.938	22.589	-0.002	-0.26878	13.21	ppb
	Cr	52	5330.754	0.998	0.001	0.22936	6.85	ppb
	Mn	55	658.355	4.942	0.000	0.02173	13.73	ppb
	Fe	54	27400.824	0.810	0.002	4.22192	20.87	ppb
	Fe	56	547071.195	2.747	-0.042	-4.59678	27.72	ppb
	Fe	57	3260.533	5.935	0.001	7.42667	16.97	ppb
	Co	59	135.334	22.911	-0.000	-0.00011	3497.60	ppb
	Ni	60	170.001	7.070	0.000	0.07007	10.41	ppb
	Cu	63	520.014	2.938	-0.001	-0.15819	2.14	ppb
	Cu	65	215.558	8.517	-0.000	-0.00691	117.57	ppb
	Zn	66	223.336	7.898	0.000	0.03677	51.83	ppb
	As	75	-150.755	60.030	-0.000	-0.17024	46.07	ppb
	Se	82	24.000	9.623	-0.000	-0.04334	45.20	ppb
	Mo	96	112.667	4.467	-0.000	-0.14509	1.92	ppb
	Ag	107	21.111	9.116	-0.000	-0.00801	3.81	ppb
	Ag	109	10.000	33.333	-0.000	-0.00956	4.99	ppb
	Cd	111	3.212	96.445	-0.000	-0.00749	27.07	ppb
	In	113	100625.413	0.452	-0.000	-0.25509	350.57	ppb
>	In	115	2629695.455	1.674	2629695.455			ppb
	Sn	118	141.668	21.565	-0.000	-0.01409	46.86	ppb
	Sb	121	170.001	15.563	-0.000	-0.23440	2.23	ppb
	Ba	135	2745.044	3.545	0.001	1.87970	3.51	ppb
	Ba	137	4609.729	0.873	0.001	1.80137	1.83	ppb
>	Tb	159	4181827.089	1.114	4181827.089			ppb
	Tl	205	36.667	41.660	-0.000	-0.00406	16.24	ppb
	Pb	206	103.334	7.391	0.000	0.00406	24.89	ppb
	Pb	207	205.001	8.449	0.000	0.00526	22.86	ppb
	Pb	208	313.336	16.143	0.000	0.00459	45.81	ppb
>	Bi	209	3402075.740	0.761	3402075.740			ppb
	Cr	53	16735.993	0.120	16089.972			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	340584.255	0.647	42264.303			ppb
	Kr	83	22.000	9.091	-15.333			ppb
	Se	77	1412.544	1.937	1379.878			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	694075.141		ppb
|	Be	9	4.000	0.012763	ppb
|	Na	23	1292298.795	314.197865	ppb
|	Mg	24	2048696.692	724.009756	ppb
|	Mg	25	286159.610	719.902895	ppb
|	Mg	26	334352.677	719.939411	ppb
|	Al	27	6772.292	0.497952	ppb
|	K	39	451671.065	19.162018	ppb
⌊	Ca	44	373443.176	1624.900309	ppb
⌈>	Sc	45	906271.176		ppb
|	Ti	47	105.001	0.014925	ppb
|	V	51	-1258.936	-0.305786	ppb
|	Cr	52	5275.391	0.221681	ppb
|	Mn	55	660.022	0.022114	ppb
|	Fe	54	27151.811	3.792418	ppb
|	Fe	56	554366.685	-3.571521	ppb
|	Fe	57	3420.585	8.367645	ppb
|	Co	59	104.001	-0.004217	ppb
|	Ni	60	156.668	0.062444	ppb
|	Cu	63	503.346	-0.162089	ppb
|	Cu	65	206.669	-0.011142	ppb
|	Zn	66	243.336	0.057720	ppb
|	As	75	-138.211	-0.159992	ppb
⌊	Se	82	22.667	-0.055489	ppb
⌈	Mo	96	108.001	-0.146973	ppb
|	Ag	107	23.333	-0.007666	ppb
|	Ag	109	10.000	-0.009549	ppb
|	Cd	111	5.000	-0.006278	ppb
|	In	113	100169.193	-0.132988	ppb
|>	In	115	2612547.519		ppb
⌊	Sn	118	115.001	-0.019499	ppb
⌈	Sb	121	200.002	-0.228566	ppb
|	Ba	135	2846.405	1.934461	ppb
|	Ba	137	4621.067	1.791082	ppb
⌊>	Tb	159	4215223.972		ppb
⌈	Tl	205	20.000	-0.004780	ppb
|	Pb	206	110.001	0.005006	ppb
|	Pb	207	215.001	0.006014	ppb
|	Pb	208	255.002	0.002163	ppb
⌊>	Bi	209	3402681.917		ppb
	Cr	53	16756.026		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	342889.575		ppb
	Kr	83	20.000		ppb
	Se	77	1395.431		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	695441.332		ppb
|	Be	9	2.000	0.006369	ppb
|	Na	23	1267847.603	307.464026	ppb
|	Mg	24	2046197.415	721.702938	ppb
|	Mg	25	288580.714	724.573773	ppb
|	Mg	26	330960.592	711.223328	ppb
|	Al	27	5241.373	0.172000	ppb
|	K	39	446155.560	18.392229	ppb
⌊	Ca	44	368320.337	1598.352351	ppb
⌈>	Sc	45	919304.046		ppb

	Ti	47	155.001	0.109407	ppb
	V	51	-802.910	-0.234970	ppb
	Cr	52	5335.423	0.218965	ppb
	Mn	55	690.024	0.024494	ppb
	Fe	54	27472.686	3.637913	ppb
	Fe	56	557060.361	-4.195216	ppb
	Fe	57	3045.464	5.994314	ppb
	Co	59	166.001	0.003704	ppb
	Ni	60	173.335	0.070794	ppb
	Cu	63	533.348	-0.156448	ppb
	Cu	65	236.669	0.002455	ppb
	Zn	66	210.002	0.020479	ppb
	As	75	-246.872	-0.253295	ppb
	Se	82	26.667	-0.020741	ppb
	Mo	96	112.001	-0.146406	ppb
	Ag	107	20.000	-0.008235	ppb
	Ag	109	13.333	-0.009094	ppb
	Cd	111	5.000	-0.006361	ppb
	In	113	101078.272	-1.204154	ppb
>	In	115	2679718.386		ppb
	Sn	118	135.001	-0.016025	ppb
	Sb	121	150.001	-0.238627	ppb
	Ba	135	2652.352	1.806472	ppb
	Ba	137	4565.042	1.774775	ppb
>	Tb	159	4201657.464		ppb
	Tl	205	40.000	-0.003936	ppb
	Pb	206	105.001	0.004192	ppb
	Pb	207	215.001	0.005896	ppb
	Pb	208	345.003	0.005802	ppb
>	Bi	209	3427673.748		ppb
	Cr	53	16715.959		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	338497.685		ppb
	Kr	83	22.000		ppb
	Se	77	1444.104		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	676724.377		ppb
	Be	9	2.000	0.006545	ppb
	Na	23	1248495.523	311.250410	ppb
	Mg	24	2025818.895	734.293925	ppb
	Mg	25	285830.393	737.534760	ppb
	Mg	26	328006.616	724.389488	ppb
	Al	27	4871.186	0.122301	ppb
	K	39	443254.738	19.517099	ppb
	Ca	44	366399.677	1635.574820	ppb
>	Sc	45	899274.900		ppb
	Ti	47	70.000	-0.053175	ppb
	V	51	-985.967	-0.265592	ppb
	Cr	52	5381.448	0.247424	ppb
	Mn	55	625.020	0.018567	ppb
	Fe	54	27577.975	5.235430	ppb
	Fe	56	529786.539	-6.023588	ppb
	Fe	57	3315.550	7.918049	ppb
	Co	59	136.001	0.000173	ppb
	Ni	60	180.002	0.076978	ppb
	Cu	63	523.347	-0.156038	ppb
	Cu	65	203.335	-0.012036	ppb
	Zn	66	216.669	0.032099	ppb
	As	75	-67.184	-0.097437	ppb
	Se	82	22.667	-0.053797	ppb

⌈	Mo	96	118.001	-0.141879	ppb
|	Ag	107	20.000	-0.008143	ppb
|	Ag	109	6.667	-0.010048	ppb
|	Cd	111	-0.365	-0.009830	ppb
|	In	113	100628.773	0.571863	ppb
|>	In	115	2596820.461		ppb
⌊	Sn	118	175.002	-0.006733	ppb
⌈	Sb	121	160.001	-0.236012	ppb
|	Ba	135	2736.374	1.898154	ppb
|	Ba	137	4643.078	1.838253	ppb
⌊>	Tb	159	4128599.831		ppb
⌈	Tl	205	50.000	-0.003479	ppb
|	Pb	206	95.000	0.002995	ppb
|	Pb	207	185.001	0.003874	ppb
|	Pb	208	340.004	0.005811	ppb
⌊>	Bi	209	3375871.554		ppb
	Cr	53	16735.993		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	340365.506		ppb
	Kr	83	24.000		ppb
	Se	77	1398.098		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		123.234			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		101.033			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.809			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.449			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.142			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-05

Sample Date/Time: Thursday, May 07, 2009 13:08:24
Sample Type: Sample
Sample Description: 13MW6 ~~10X~~ 25 JVF 050709
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-05.122

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	690571.878	1.650	690571.878			ppb
	Be	9	0.667	173.205	0.000	0.00210	173.21	ppb
	Na	23	1608725.277	3.060	2.278	395.26480	1.49	ppb
	Mg	24	4330036.497	2.171	6.266	1539.04779	1.35	ppb
	Mg	25	605849.398	1.334	0.877	1533.07523	1.03	ppb
	Mg	26	700203.509	0.313	1.013	1516.68823	1.37	ppb
	Al	27	3210.515	2.429	-0.002	-0.25169	9.19	ppb
	K	39	659355.122	0.267	0.533	44.58895	2.59	ppb
	Ca	44	812647.961	1.765	1.154	3637.97060	0.30	ppb
>	Sc	45	901216.262	1.071	901216.262			ppb
	Ti	47	101.667	19.876	0.000	0.00968	431.93	ppb
	V	51	-1084.204	63.391	-0.002	-0.28072	37.75	ppb
	Cr	52	5025.263	1.961	0.001	0.18314	11.32	ppb
	Mn	55	523.347	8.126	0.000	0.00634	69.87	ppb
	Fe	54	26652.137	0.722	0.001	3.00609	14.69	ppb
	Fe	56	546551.534	1.780	-0.038	-4.12799	44.88	ppb
	Fe	57	4249.237	3.406	0.003	13.20243	5.14	ppb
	Co	59	120.667	10.127	-0.000	-0.00190	94.52	ppb
	Ni	60	154.446	16.199	0.000	0.06161	23.37	ppb
	Cu	63	455.566	8.481	-0.001	-0.17345	5.65	ppb
	Cu	65	225.558	17.816	-0.000	-0.00074	2922.64	ppb
	Zn	66	314.449	11.820	0.000	0.13229	27.02	ppb
	As	75	-154.662	2.596	-0.000	-0.17537	2.34	ppb
	Se	82	28.222	15.369	-0.000	-0.00070	5864.04	ppb
	Mo	96	134.668	8.445	-0.000	-0.13505	3.70	ppb
	Ag	107	18.889	36.735	-0.000	-0.00836	11.84	ppb
	Ag	109	16.667	72.111	-0.000	-0.00858	20.68	ppb
	Cd	111	4.485	214.111	-0.000	-0.00665	94.91	ppb
	In	113	101019.374	0.887	-0.000	-0.33713	200.82	ppb
>	In	115	2642978.282	0.857	2642978.282			ppb
	Sn	118	150.001	20.000	-0.000	-0.01257	47.36	ppb
	Sb	121	120.001	32.543	-0.000	-0.24473	3.26	ppb
	Ba	135	4579.049	3.078	0.001	3.14091	3.59	ppb
	Ba	137	8002.535	1.560	0.002	3.13743	2.04	ppb
>	Tb	159	4201181.036	0.477	4201181.036			ppb
	Tl	205	33.333	34.641	-0.000	-0.00421	11.72	ppb
	Pb	206	133.334	27.128	0.000	0.00830	61.73	ppb
	Pb	207	221.668	20.467	0.000	0.00652	52.58	ppb
	Pb	208	310.003	11.631	0.000	0.00445	33.09	ppb
>	Bi	209	3402855.111	0.225	3402855.111			ppb
	Cr	53	15180.853	2.642	14534.832			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	335693.924	1.740	37373.971			ppb
	Kr	83	28.000	31.135	-9.333			ppb
	Se	77	1289.194	0.617	1256.527			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	685695.645		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	1596864.247	395.198221	ppb
|	Mg	24	4236126.138	1516.370886	ppb
|	Mg	25	597774.184	1523.291840	ppb
|	Mg	26	698326.344	1523.155872	ppb
|	Al	27	3300.545	-0.227758	ppb
|	K	39	657559.024	44.924960	ppb
⌊	Ca	44	804131.701	3625.238540	ppb
⌈>	Sc	45	890166.555		ppb
|	Ti	47	120.001	0.048864	ppb
|	V	51	-1655.802	-0.370453	ppb
|	Cr	52	5055.277	0.199292	ppb
|	Mn	55	475.011	0.001350	ppb
|	Fe	54	26510.093	3.427327	ppb
|	Fe	56	557345.615	-2.005932	ppb
|	Fe	57	4155.863	12.966064	ppb
|	Co	59	134.001	0.000089	ppb
|	Ni	60	140.001	0.054138	ppb
|	Cu	63	450.010	-0.173449	ppb
|	Cu	65	263.337	0.020208	ppb
|	Zn	66	286.671	0.107485	ppb
|	As	75	-154.920	-0.177303	ppb
⌊	Se	82	28.000	0.000538	ppb
⌈	Mo	96	122.001	-0.140721	ppb
|	Ag	107	16.667	-0.008673	ppb
|	Ag	109	6.667	-0.010061	ppb
|	Cd	111	-5.365	-0.013114	ppb
|	In	113	101744.982	0.439040	ppb
|>	In	115	2630860.244		ppb
⌊	Sn	118	150.001	-0.012399	ppb
⌈	Sb	121	145.001	-0.239743	ppb
|	Ba	135	4511.017	3.082933	ppb
|	Ba	137	7959.166	3.109413	ppb
⌊>	Tb	159	4215387.988		ppb
⌈	Tl	205	20.000	-0.004779	ppb
|	Pb	206	175.002	0.014205	ppb
|	Pb	207	270.002	0.010156	ppb
|	Pb	208	280.002	0.003213	ppb
⌊>	Bi	209	3399746.286		ppb
	Cr	53	15642.224		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	338464.592		ppb
	Kr	83	18.000		ppb
	Se	77	1286.749		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	682429.160		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	1566512.620	389.416443	ppb
|	Mg	24	4329849.009	1557.364289	ppb
|	Mg	25	605831.007	1551.230024	ppb
|	Mg	26	699669.530	1533.397018	ppb
|	Al	27	3165.501	-0.253423	ppb
|	K	39	659432.560	45.538122	ppb
⌊	Ca	44	804607.805	3645.129006	ppb
⌈>	Sc	45	905473.549		ppb

	Ti	47	80.000	-0.034348	ppb
	V	51	-321.617	-0.163818	ppb
	Cr	52	4915.208	0.159753	ppb
	Mn	55	555.015	0.009813	ppb
	Fe	54	26575.265	2.546657	ppb
	Fe	56	538451.447	-5.422207	ppb
	Fe	57	4175.872	12.673865	ppb
	Co	59	110.001	-0.003408	ppb
	Ni	60	183.335	0.078209	ppb
	Cu	63	496.679	-0.163655	ppb
	Cu	65	183.335	-0.022967	ppb
	Zn	66	300.005	0.116112	ppb
	As	75	-158.542	-0.178154	ppb
	Se	82	24.000	-0.042495	ppb
	Mo	96	138.001	-0.133120	ppb
	Ag	107	13.333	-0.009162	ppb
	Ag	109	13.333	-0.009056	ppb
	Cd	111	13.820	-0.000497	ppb
	In	113	100017.688	-0.644444	ppb
>	In	115	2628954.456		ppb
	Sn	118	120.001	-0.018610	ppb
	Sb	121	140.001	-0.240506	ppb
	Ba	135	4741.124	3.270779	ppb
	Ba	137	8143.314	3.210731	ppb
>	Tb	159	4178249.967		ppb
	Tl	205	40.000	-0.003921	ppb
	Pb	206	115.001	0.005738	ppb
	Pb	207	215.001	0.006040	ppb
	Pb	208	300.003	0.004055	ppb
>	Bi	209	3397226.320		ppb
	Cr	53	14915.115		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	328981.881		ppb
	Kr	83	32.000		ppb
	Se	77	1298.084		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	703590.831		ppb
	Be	9	2.000	0.006295	ppb
	Na	23	1662798.964	401.179744	ppb
	Mg	24	4424134.344	1543.408185	ppb
	Mg	25	613943.003	1524.703819	ppb
	Mg	26	702614.652	1493.511793	ppb
	Al	27	3165.501	-0.273903	ppb
	K	39	661073.783	43.303776	ppb
	Ca	44	829204.378	3643.544268	ppb
>	Sc	45	908008.682		ppb
	Ti	47	105.001	0.014528	ppb
	V	51	-1275.194	-0.307880	ppb
	Cr	52	5105.303	0.190381	ppb
	Mn	55	540.015	0.007868	ppb
	Fe	54	26871.054	3.044299	ppb
	Fe	56	543857.541	-4.955837	ppb
	Fe	57	4415.975	13.967347	ppb
	Co	59	118.001	-0.002388	ppb
	Ni	60	140.001	0.052492	ppb
	Cu	63	420.009	-0.183239	ppb
	Cu	65	230.003	0.000541	ppb
	Zn	66	356.673	0.173262	ppb
	As	75	-150.525	-0.170662	ppb
	Se	82	32.667	0.039850	ppb

⌈	Mo	96	144.001	-0.131309	ppb
|	Ag	107	26.667	-0.007255	ppb
|	Ag	109	30.000	-0.006612	ppb
|	Cd	111	5.000	-0.006348	ppb
|	In	113	101295.453	-0.805996	ppb
|>	In	115	2669120.146		ppb
⌊	Sn	118	180.002	-0.006707	ppb
⌈	Sb	121	75.000	-0.253946	ppb
|	Ba	135	4485.006	3.069016	ppb
|	Ba	137	7905.123	3.092135	ppb
⌊>	Tb	159	4209905.151		ppb
⌈	Tl	205	40.000	-0.003928	ppb
|	Pb	206	110.001	0.004966	ppb
|	Pb	207	180.001	0.003354	ppb
|	Pb	208	350.004	0.006076	ppb
⌊>	Bi	209	3411592.726		ppb
	Cr	53	14985.219		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	339635.298		ppb
	Kr	83	34.000		ppb
	Se	77	1282.749		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		123.561			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		100.247			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.272			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.877			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.164			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-06

Sample Date/Time: Thursday, May 07, 2009 13:11:18
Sample Type: Sample
Sample Description: 13MW7 TQX
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-06.123

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	694733.074	0.598	694733.074			ppb
	Be	9	0.000		0.000	0.00000		ppb
	Na	23	1295934.028	1.730	1.815	314.81279	2.01	ppb
	Mg	24	3837687.500	0.222	5.520	1355.81817	0.80	ppb
	Mg	25	538210.820	1.292	0.774	1353.60079	1.49	ppb
	Mg	26	619360.985	0.951	0.891	1333.29276	1.46	ppb
	Al	27	2201.909	1.674	-0.003	-0.46904	2.22	ppb
	K	39	583616.908	0.108	0.419	34.98757	1.31	ppb
	Ca	44	696807.929	0.379	0.981	3090.32551	0.55	ppb
>	Sc	45	889194.355	0.472	889194.355			ppb
	Ti	47	133.334	32.764	0.000	0.07599	116.05	ppb
	V	51	-1192.273	115.010	-0.002	-0.29854	70.47	ppb
	Cr	52	5155.329	0.758	0.001	0.21802	2.27	ppb
	Mn	55	728.360	11.996	0.000	0.03183	34.06	ppb
	Fe	54	26252.752	1.315	0.001	2.90579	35.07	ppb
	Fe	56	538584.725	1.244	-0.039	-4.22219	21.27	ppb
	Fe	57	3817.395	2.622	0.002	11.03570	5.52	ppb
	Co	59	125.334	1.843	-0.000	-0.00106	34.96	ppb
	Ni	60	13785.053	1.871	0.015	8.22617	1.45	ppb
	Cu	63	560.016	1.575	-0.001	-0.14513	1.95	ppb
	Cu	65	238.892	10.838	0.000	0.00761	170.67	ppb
	Zn	66	434.454	12.427	0.000	0.26213	20.67	ppb
	As	75	-136.043	72.751	-0.000	-0.16013	55.40	ppb
	Se	82	31.333	20.955	0.000	0.03343	192.31	ppb
	Mo	96	166.668	13.273	-0.000	-0.11940	8.29	ppb
	Ag	107	11.111	45.826	-0.000	-0.00948	8.02	ppb
	Ag	109	16.667	34.641	-0.000	-0.00855	10.13	ppb
	Cd	111	-0.000	2228885.405	-0.000	-0.00958	18.47	ppb
	In	113	98888.243	1.079	-0.001	-1.20158	16.09	ppb
>	In	115	2621518.521	0.816	2621518.521			ppb
	Sn	118	135.001	6.415	-0.000	-0.01542	10.17	ppb
	Sb	121	135.001	14.815	-0.000	-0.24161	1.68	ppb
	Ba	135	7998.532	1.988	0.002	5.52291	1.65	ppb
	Ba	137	13824.219	2.356	0.003	5.45912	2.04	ppb
>	Tb	159	4189676.450	0.363	4189676.450			ppb
	Tl	205	55.000	18.182	-0.000	-0.00329	12.68	ppb
	Pb	206	96.667	23.324	0.000	0.00307	101.39	ppb
	Pb	207	231.668	22.464	0.000	0.00719	52.83	ppb
	Pb	208	403.338	17.103	0.000	0.00827	34.12	ppb
>	Bi	209	3414164.650	0.517	3414164.650			ppb
	Cr	53	15027.954	2.159	14381.933			ppb
	Pd	106	5.000	0.000	1.667			ppb
	Pd	108	6.667	43.301	6.667			ppb
	C	12	339184.619	0.806	40864.666			ppb
	Kr	83	31.333	30.165	-6.000			ppb
	Se	77	1318.976	3.191	1286.309			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	698786.906		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	1277179.531	308.266550	ppb
	Mg	24	3832818.747	1346.193277	ppb
	Mg	25	533095.629	1332.903255	ppb
	Mg	26	612606.670	1311.015713	ppb
	Al	27	2160.233	-0.480533	ppb
	K	39	583712.931	34.589899	ppb
	Ca	44	699455.294	3083.874098	ppb
>	Sc	45	887744.821		ppb
	Ti	47	85.000	-0.021098	ppb
	V	51	-183.422	-0.143418	ppb
	Cr	52	5115.308	0.212400	ppb
	Mn	55	705.025	0.029143	ppb
	Fe	54	26078.961	2.601899	ppb
	Fe	56	546126.310	-3.193167	ppb
	Fe	57	3715.690	10.481977	ppb
	Co	59	124.001	-0.001218	ppb
	Ni	60	13809.529	8.254659	ppb
	Cu	63	556.682	-0.145761	ppb
	Cu	65	246.670	0.011898	ppb
	Zn	66	406.675	0.233950	ppb
	As	75	-65.645	-0.096824	ppb
	Se	82	24.000	-0.037892	ppb
	Mo	96	190.002	-0.109134	ppb
	Ag	107	10.000	-0.009664	ppb
	Ag	109	20.000	-0.008071	ppb
	Cd	111	-1.545	-0.010597	ppb
	In	113	100083.340	-1.026586	ppb
>	In	115	2646109.980		ppb
	Sn	118	145.001	-0.013611	ppb
	Sb	121	115.001	-0.245611	ppb
	Ba	135	7873.098	5.455539	ppb
	Ba	137	13453.043	5.330933	ppb
>	Tb	159	4174782.190		ppb
	Tl	205	65.000	-0.002879	ppb
	Pb	206	120.001	0.006264	ppb
	Pb	207	290.002	0.011441	ppb
	Pb	208	455.006	0.010310	ppb
>	Bi	209	3433908.716		ppb
	Cr	53	14802.948		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	339341.575		ppb
	Kr	83	28.000		ppb
	Se	77	1275.415		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	690482.792		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	1289863.542	315.266475	ppb
	Mg	24	3847544.627	1367.632638	ppb
	Mg	25	535408.409	1354.801437	ppb
	Mg	26	622069.894	1347.305950	ppb
	Al	27	2230.249	-0.460191	ppb
	K	39	584193.830	35.487842	ppb
	Ca	44	696796.995	3109.680843	ppb
>	Sc	45	893920.261		ppb

	Ti	47	145.001	0.097945	ppb
	V	51	-2753.555	-0.537996	ppb
	Cr	52	5193.348	0.219891	ppb
	Mn	55	655.021	0.022591	ppb
	Fe	54	26028.831	2.073215	ppb
	Fe	56	536300.350	-4.848766	ppb
	Fe	57	3820.730	10.937505	ppb
	Co	59	124.001	-0.001334	ppb
	Ni	60	14029.835	8.328677	ppb
	Cu	63	553.349	-0.147598	ppb
	Cu	65	260.003	0.017909	ppb
	Zn	66	496.679	0.324594	ppb
	As	75	-249.207	-0.261527	ppb
	Se	82	33.333	0.051264	ppb
	Mo	96	146.001	-0.128872	ppb
	Ag	107	6.667	-0.010139	ppb
	Ag	109	10.000	-0.009548	ppb
	Cd	111	-1.545	-0.010611	ppb
	In	113	98548.206	-1.169022	ppb
>	In	115	2611231.118		ppb
	Sn	118	130.001	-0.016349	ppb
	Sb	121	135.001	-0.241708	ppb
	Ba	135	8177.342	5.626363	ppb
	Ba	137	14061.880	5.533240	ppb
>	Tb	159	4205148.673		ppb
	Tl	205	45.000	-0.003713	ppb
	Pb	206	75.000	0.000046	ppb
	Pb	207	190.001	0.004114	ppb
	Pb	208	325.003	0.005051	ppb
>	Bi	209	3408709.053		ppb
	Cr	53	15399.849		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	336375.859		ppb
	Kr	83	42.000		ppb
	Se	77	1359.426		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	694929.525		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	1320759.010	320.905343	ppb
	Mg	24	3832699.128	1353.628609	ppb
	Mg	25	546128.421	1373.097684	ppb
	Mg	26	623406.391	1341.556604	ppb
	Al	27	2215.245	-0.466394	ppb
	K	39	582943.964	34.884975	ppb
	Ca	44	694171.497	3077.421577	ppb
>	Sc	45	885917.983		ppb
	Ti	47	170.001	0.151117	ppb
	V	51	-639.841	-0.214216	ppb
	Cr	52	5157.330	0.221755	ppb
	Mn	55	825.034	0.043767	ppb
	Fe	54	26650.465	4.042242	ppb
	Fe	56	533327.516	-4.624628	ppb
	Fe	57	3915.767	11.687631	ppb
	Co	59	128.001	-0.000640	ppb
	Ni	60	13515.794	8.095169	ppb
	Cu	63	570.016	-0.142038	ppb
	Cu	65	210.002	-0.006979	ppb
	Zn	66	400.008	0.227833	ppb
	As	75	-93.276	-0.122025	ppb
	Se	82	36.667	0.086906	ppb

⌈	Mo	96	164.001	-0.120189	ppb
|	Ag	107	16.667	-0.008650	ppb
|	Ag	109	20.000	-0.008026	ppb
|	Cd	111	3.090	-0.007538	ppb
|	In	113	98033.181	-1.409142	ppb
|>	In	115	2607214.465		ppb
⌊	Sn	118	130.001	-0.016307	ppb
⌈	Sb	121	155.001	-0.237513	ppb
|	Ba	135	7945.155	5.486823	ppb
|	Ba	137	13957.734	5.513179	ppb
⌊>	Tb	159	4189098.487		ppb
⌈	Tl	205	55.000	-0.003280	ppb
|	Pb	206	95.000	0.002900	ppb
|	Pb	207	215.001	0.006027	ppb
|	Pb	208	430.006	0.009457	ppb
⌊>	Bi	209	3399876.182		ppb
	Cr	53	14881.064		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	341836.424		ppb
	Kr	83	24.000		ppb
	Se	77	1322.087		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		124.305			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.909			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.523			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.623			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.480			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 13:14:13
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.124

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	614507.442	3.805	614507.442			ppb
	Be	9	32945.528	1.966	0.054	118.79007	2.04	ppb
	Na	23	4181339.914	0.033	6.760	1172.73652	3.81	ppb
	Mg	24	2949960.758	0.495	4.802	1179.31217	4.09	ppb
	Mg	25	415835.199	1.374	0.677	1182.98503	2.70	ppb
	Mg	26	483900.586	0.498	0.788	1178.72405	4.11	ppb
	Al	27	4859817.153	0.446	7.909	1160.98259	3.52	ppb
	K	39	8244519.030	0.934	13.006	1087.12668	3.36	ppb
	Ca	44	218066.052	0.608	0.333	1048.57075	3.83	ppb
>	Sc	45	824939.829	1.789	824939.829			ppb
	Ti	47	54415.994	0.849	0.066	117.97692	1.10	ppb
	V	51	718666.894	1.173	0.871	119.54161	2.79	ppb
	Cr	52	628353.369	1.044	0.758	119.47300	2.70	ppb
	Mn	55	885055.941	1.113	1.073	114.40331	1.72	ppb
	Fe	54	507576.763	2.209	0.587	1198.75676	2.93	ppb
	Fe	56	9492784.328	1.107	10.864	1180.07930	1.41	ppb
	Fe	57	190685.998	0.970	0.229	1177.92218	2.73	ppb
	Co	59	800730.035	0.947	0.971	116.82256	1.00	ppb
	Ni	60	177236.961	1.040	0.215	114.41256	2.02	ppb
	Cu	63	416286.591	1.183	0.503	114.67846	0.60	ppb
	Cu	65	206249.796	0.906	0.250	115.54506	2.43	ppb
	Zn	66	103619.667	0.872	0.125	116.58384	1.84	ppb
	As	75	117062.888	1.887	0.142	114.08780	2.48	ppb
	Se	82	11111.061	2.627	0.013	116.85234	2.90	ppb
	Mo	96	243256.885	1.467	0.095	118.28935	2.15	ppb
	Ag	107	784774.577	1.422	0.308	119.29969	2.05	ppb
	Ag	109	777305.521	0.777	0.305	120.76487	2.20	ppb
	Cd	111	178373.618	1.639	0.070	120.95940	2.32	ppb
	In	113	278087.124	0.885	0.071	121.67954	2.98	ppb
>	In	115	2550476.126	1.884	2550476.126			ppb
	Sn	118	568419.254	2.014	0.223	121.69010	1.11	ppb
	Sb	121	582621.963	1.258	0.140	119.62161	0.21	ppb
	Ba	135	171340.204	1.180	0.041	119.70771	0.83	ppb
	Ba	137	296153.411	1.609	0.071	118.43124	1.16	ppb
>	Tb	159	4162082.627	1.089	4162082.627			ppb
	Tl	205	2795237.055	0.993	0.807	117.57776	0.41	ppb
	Pb	206	893425.881	1.513	0.258	123.91042	0.86	ppb
	Pb	207	1669834.420	1.379	0.482	123.01554	0.73	ppb
	Pb	208	2733568.423	1.209	0.789	111.69678	0.64	ppb
>	Bi	209	3463533.475	0.654	3463533.475			ppb
	Cr	53	77107.537	1.850	76461.516			ppb
	Pd	106	15156.488	3.722	15153.155			ppb
	Pd	108	11680.156	3.347	11680.156			ppb
	C	12	293621.495	1.373	-4698.458			ppb
	Kr	83	35.333	14.245	-2.000			ppb
	Se	77	8748.715	1.652	8716.048			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	640452.604		ppb
|	Be	9	33692.664	116.505674	ppb
|	Na	23	4180015.605	1123.425259	ppb
|	Mg	24	2935667.543	1124.848598	ppb
|	Mg	25	420186.171	1146.151628	ppb
|	Mg	26	482734.003	1127.035185	ppb
|	Al	27	4867340.074	1114.646245	ppb
|	K	39	8276737.347	1044.994947	ppb
⌊	Ca	44	218139.573	1002.616340	ppb
⌈>	Sc	45	821930.073		ppb
|	Ti	47	54095.924	117.697567	ppb
|	V	51	725902.988	121.150009	ppb
|	Cr	52	633740.581	120.909037	ppb
|	Mn	55	894777.037	116.065197	ppb
|	Fe	54	520270.950	1234.621696	ppb
|	Fe	56	9567927.145	1194.431520	ppb
|	Fe	57	191740.770	1188.492324	ppb
|	Co	59	795892.063	116.529119	ppb
|	Ni	60	179320.165	116.157573	ppb
|	Cu	63	415239.159	114.800849	ppb
|	Cu	65	208157.494	117.009799	ppb
|	Zn	66	104600.888	118.098354	ppb
|	As	75	119532.560	116.899579	ppb
⌊	Se	82	11427.192	120.607151	ppb
⌈	Mo	96	247054.560	120.671331	ppb
|	Ag	107	796340.399	121.594570	ppb
|	Ag	109	784266.587	122.377872	ppb
|	Cd	111	181558.989	123.663154	ppb
|	In	113	280736.089	124.304488	ppb
|>	In	115	2538739.079		ppb
⌊	Sn	118	573083.823	123.253662	ppb
⌈	Sb	121	578116.459	119.625288	ppb
|	Ba	135	171508.249	120.759626	ppb
|	Ba	137	296888.680	119.653442	ppb
⌊>	Tb	159	4129818.239		ppb
⌈	Tl	205	2770583.941	117.356799	ppb
|	Pb	206	878733.705	122.729024	ppb
|	Pb	207	1644540.312	122.002645	ppb
|	Pb	208	2695444.815	110.911048	ppb
⌊>	Bi	209	3439494.208		ppb
	Cr	53	78744.821		ppb
	Pd	106	15777.437		ppb
	Pd	108	12082.295		ppb
	C	12	298246.191		ppb
	Kr	83	40.000		ppb
	Se	77	8725.805		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	608010.499		ppb
|	Be	9	32544.872	118.541444	ppb
|	Na	23	4181264.514	1184.194580	ppb
|	Mg	24	2964857.159	1196.709376	ppb
|	Mg	25	417954.508	1200.941469	ppb
|	Mg	26	482294.541	1186.143268	ppb
|	Al	27	4876730.896	1176.438369	ppb
|	K	39	8300193.360	1105.858215	ppb
⌊	Ca	44	219353.703	1066.188841	ppb
⌈>	Sc	45	840969.595		ppb

	Ti	47	54945.537	116.838164	ppb
	V	51	709414.548	115.712472	ppb
	Cr	52	621050.360	115.775959	ppb
	Mn	55	885301.838	112.234411	ppb
	Fe	54	503430.993	1164.499702	ppb
	Fe	56	9537715.084	1161.902207	ppb
	Fe	57	188550.972	1141.831328	ppb
	Co	59	809469.640	115.833727	ppb
	Ni	60	176575.299	111.788878	ppb
	Cu	63	421652.670	113.932579	ppb
	Cu	65	204425.005	112.305407	ppb
	Zn	66	103435.526	114.132230	ppb
	As	75	116378.982	111.236878	ppb
	Se	82	11054.106	114.013174	ppb
	Mo	96	242742.875	115.615921	ppb
	Ag	107	783910.205	116.726959	ppb
	Ag	109	773425.803	117.692112	ppb
	Cd	111	177748.358	118.064040	ppb
	In	113	277656.886	117.541918	ppb
>	In	115	2603316.609		ppb
	Sn	118	576798.528	120.974550	ppb
	Sb	121	591077.166	119.867576	ppb
	Ba	135	173272.270	119.567366	ppb
	Ba	137	300508.426	118.695737	ppb
>	Tb	159	4213888.409		ppb
	Tl	205	2789834.675	117.246785	ppb
	Pb	206	896217.889	124.190849	ppb
	Pb	207	1675357.711	123.315652	ppb
	Pb	208	2751210.024	112.319219	ppb
>	Bi	209	3466642.299		ppb
	Cr	53	76132.710		ppb
	Pd	106	15016.266		ppb
	Pd	108	11656.790		ppb
	C	12	291775.439		ppb
	Kr	83	36.000		ppb
	Se	77	8903.295		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	595059.225		ppb
	Be	9	32599.048	121.323086	ppb
	Na	23	4182739.623	1210.589733	ppb
	Mg	24	2949357.572	1216.378547	ppb
	Mg	25	409364.919	1201.861995	ppb
	Mg	26	486673.214	1222.993703	ppb
	Al	27	4835380.489	1191.863142	ppb
	K	39	8156626.382	1110.526873	ppb
	Ca	44	216704.881	1076.907081	ppb
>	Sc	45	811919.819		ppb
	Ti	47	54206.520	119.395041	ppb
	V	51	720683.147	121.762354	ppb
	Cr	52	630269.164	121.733998	ppb
	Mn	55	875088.947	114.910316	ppb
	Fe	54	499028.346	1197.148893	ppb
	Fe	56	9372710.754	1183.904184	ppb
	Fe	57	191766.252	1203.442878	ppb
	Co	59	796828.400	118.104847	ppb
	Ni	60	175815.418	115.291225	ppb
	Cu	63	411967.945	115.301958	ppb
	Cu	65	206166.888	117.319978	ppb
	Zn	66	102822.587	117.520943	ppb
	As	75	115277.122	114.126949	ppb
	Se	82	10851.885	115.936702	ppb

⌈	Mo	96	239973.218	118.580791	ppb
|	Ag	107	774073.126	119.577550	ppb
|	Ag	109	774224.174	122.224639	ppb
|	Cd	111	175813.506	121.150999	ppb
|	In	113	275868.396	123.192203	ppb
|>	In	115	2509372.691		ppb
⌊	Sn	118	555375.411	120.842074	ppb
⌈	Sb	121	578672.264	119.371969	ppb
|	Ba	135	169240.094	118.796144	ppb
|	Ba	137	291063.126	116.944548	ppb
⌊>	Tb	159	4142541.233		ppb
⌈	Tl	205	2825292.549	118.129704	ppb
|	Pb	206	905326.050	124.811398	ppb
|	Pb	207	1689605.237	123.728310	ppb
|	Pb	208	2754050.429	111.860085	ppb
⌊>	Bi	209	3484463.916		ppb
	Cr	53	76445.080		ppb
	Pd	106	14675.761		ppb
	Pd	108	11301.382		ppb
	C	12	290842.854		ppb
	Kr	83	30.000		ppb
	Se	77	8617.044		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			109.951		
	Be	9	98.992				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			91.762		
	Ti	47					
	V	51	99.618				
	Cr	52	99.561				
	Mn	55	95.336				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	97.352				
	Ni	60	95.344				
	Cu	63	95.565				
	Cu	65	96.288				
	Zn	66	97.153				
	As	75	95.073				
	Se	82	97.377				
	Mo	96					
	Ag	107	99.416				
	Ag	109	100.637				
	Cd	111	100.799				
	In	113					
>	In	115			89.043		
	Sn	118	101.408				
	Sb	121	99.685				
	Ba	135	99.756				
	Ba	137	98.693				
>	Tb	159			92.013		
	Tl	205	97.981				
	Pb	206	103.259				
	Pb	207	102.513				
	Pb	208	93.081				
>	Bi	209			96.861		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 13:17:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.125

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	604304.498	3.305	604304.498			ppb
	Be	9	2.000	0.000	0.000	0.00733	3.31	ppb
	Na	23	13290.499	3.258	-0.029	-4.98334	0.23	ppb
	Mg	24	3408.914	1.505	0.002	0.44507	8.21	ppb
	Mg	25	459.011	7.494	0.000	0.36793	26.12	ppb
	Mg	26	565.683	3.184	0.000	0.39519	7.16	ppb
	Al	27	905.041	13.063	-0.005	-0.71495	3.00	ppb
	K	39	187304.050	1.275	-0.111	-9.31290	6.01	ppb
	Ca	44	6779.632	2.703	-0.011	-35.50590	0.61	ppb
>	Sc	45	817211.657	1.939	817211.657			ppb
	Ti	47	56.667	50.173	-0.000	-0.06909	88.05	ppb
	V	51	84.397	882.470	-0.001	-0.10162	121.74	ppb
	Cr	52	3433.256	0.529	-0.000	-0.03358	47.21	ppb
	Mn	55	358.340	14.523	-0.000	-0.00874	82.32	ppb
	Fe	54	22117.790	3.852	-0.001	-2.12293	70.65	ppb
	Fe	56	484247.655	2.153	-0.052	-5.64942	13.43	ppb
	Fe	57	1685.142	5.399	-0.000	-0.42690	183.64	ppb
	Co	59	95.334	12.646	-0.000	-0.00400	40.24	ppb
	Ni	60	35.556	19.516	-0.000	-0.00638	78.57	ppb
	Cu	63	366.673	12.597	-0.001	-0.18654	5.93	ppb
	Cu	65	167.779	19.601	-0.000	-0.02145	92.91	ppb
	Zn	66	117.778	9.098	-0.000	-0.05788	20.63	ppb
	As	75	49.935	54.260	0.000	0.01168	225.04	ppb
	Se	82	31.333	23.693	0.000	0.05985	125.89	ppb
	Mo	96	383.341	26.820	-0.000	-0.00877	596.23	ppb
	Ag	107	130.001	18.490	0.000	0.00890	41.25	ppb
	Ag	109	148.890	3.420	0.000	0.01238	5.05	ppb
	Cd	111	4.485	227.399	-0.000	-0.00649	107.86	ppb
	In	113	95973.391	1.227	-0.000	-0.44929	269.70	ppb
>	In	115	2515372.156	0.779	2515372.156			ppb
	Sn	118	410.008	11.177	0.000	0.04554	23.38	ppb
	Sb	121	3307.221	14.147	0.000	0.42662	22.65	ppb
	Ba	135	34.000	17.647	-0.000	-0.00528	80.34	ppb
	Ba	137	46.667	12.372	-0.000	-0.01502	15.72	ppb
>	Tb	159	4069897.545	0.282	4069897.545			ppb
	Tl	205	285.004	14.360	0.000	0.00645	27.22	ppb
	Pb	206	105.001	23.810	0.000	0.00416	84.89	ppb
	Pb	207	206.668	3.696	0.000	0.00524	11.58	ppb
	Pb	208	388.338	11.612	0.000	0.00754	23.93	ppb
>	Bi	209	3437026.200	0.327	3437026.200			ppb
	Cr	53	4558.377	8.509	3912.356			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	286482.746	1.254	-11837.207			ppb
	Kr	83	29.333	23.945	-8.000			ppb
	Se	77	99.112	3.107	66.445			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	624335.767		ppb
	Be	9	2.000	0.007094	ppb
	Na	23	13745.440	-4.979395	ppb
	Mg	24	3464.600	0.421810	ppb
	Mg	25	450.010	0.299811	ppb
	Mg	26	574.016	0.370000	ppb
	Al	27	1030.053	-0.692140	ppb
	K	39	190016.320	-9.793055	ppb
	Ca	44	6958.420	-35.742511	ppb
>	Sc	45	822856.833		ppb
	Ti	47	80.000	-0.018458	ppb
	V	51	-514.004	-0.200818	ppb
	Cr	52	3440.592	-0.036927	ppb
	Mn	55	400.008	-0.003716	ppb
	Fe	54	21713.548	-3.498167	ppb
	Fe	56	493640.567	-4.852178	ppb
	Fe	57	1635.134	-0.822185	ppb
	Co	59	108.001	-0.002232	ppb
	Ni	60	33.333	-0.008046	ppb
	Cu	63	393.341	-0.179718	ppb
	Cu	65	183.335	-0.013566	ppb
	Zn	66	130.001	-0.045003	ppb
	As	75	81.206	0.041988	ppb
	Se	82	39.333	0.142662	ppb
	Mo	96	500.013	0.050519	ppb
	Ag	107	110.001	0.005958	ppb
	Ag	109	143.334	0.011688	ppb
	Cd	111	3.820	-0.006941	ppb
	In	113	96286.332	0.276920	ppb
>	In	115	2495787.436		ppb
	Sn	118	460.011	0.057131	ppb
	Sb	121	3845.739	0.537761	ppb
	Ba	135	40.000	-0.001075	ppb
	Ba	137	50.000	-0.013713	ppb
>	Tb	159	4081691.112		ppb
	Tl	205	240.003	0.004507	ppb
	Pb	206	105.001	0.004108	ppb
	Pb	207	205.001	0.005064	ppb
	Pb	208	435.006	0.009415	ppb
>	Bi	209	3447469.772		ppb
	Cr	53	5005.252		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	290532.012		ppb
	Kr	83	22.000		ppb
	Se	77	102.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	604184.751		ppb
	Be	9	2.000	0.007331	ppb
	Na	23	13242.763	-4.996344	ppb
	Mg	24	3363.566	0.426195	ppb
	Mg	25	497.012	0.477862	ppb
	Mg	26	578.017	0.425801	ppb
	Al	27	890.040	-0.718080	ppb
	K	39	186382.892	-9.447250	ppb
	Ca	44	6788.303	-35.458355	ppb
>	Sc	45	829460.356		ppb

	Ti	47	65.000	-0.052237	ppb
	V	51	918.510	0.037000	ppb
	Cr	52	3412.582	-0.047503	ppb
	Mn	55	300.005	-0.016989	ppb
	Fe	54	23096.642	-0.523528	ppb
	Fe	56	486073.055	-6.361963	ppb
	Fe	57	1630.133	-0.934533	ppb
	Co	59	94.000	-0.004390	ppb
	Ni	60	30.000	-0.010358	ppb
	Cu	63	393.341	-0.180585	ppb
	Cu	65	130.001	-0.044124	ppb
	Zn	66	110.001	-0.068585	ppb
	As	75	33.429	-0.004959	ppb
	Se	82	30.000	0.041518	ppb
	Mo	96	344.006	-0.028451	ppb
	Ag	107	156.668	0.013018	ppb
	Ag	109	150.001	0.012561	ppb
	Cd	111	15.000	0.000725	ppb
	In	113	96962.821	0.223360	ppb
>	In	115	2515349.603		ppb
	Sn	118	400.008	0.043319	ppb
	Sb	121	3075.473	0.379777	ppb
	Ba	135	34.000	-0.005214	ppb
	Ba	137	50.000	-0.013598	ppb
>	Tb	159	4058775.665		ppb
	Tl	205	320.005	0.007923	ppb
	Pb	206	80.000	0.000653	ppb
	Pb	207	200.001	0.004733	ppb
	Pb	208	385.004	0.007404	ppb
>	Bi	209	3438481.026		ppb
	Cr	53	4308.928		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	285234.743		ppb
	Kr	83	36.000		ppb
	Se	77	97.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	584392.975		ppb
	Be	9	2.000	0.007579	ppb
	Na	23	12883.294	-4.974278	ppb
	Mg	24	3398.577	0.487217	ppb
	Mg	25	430.009	0.326107	ppb
	Mg	26	545.015	0.389776	ppb
	Al	27	795.032	-0.734621	ppb
	K	39	185512.938	-8.698391	ppb
	Ca	44	6592.172	-35.316844	ppb
>	Sc	45	799317.782		ppb
	Ti	47	25.000	-0.136582	ppb
	V	51	-151.315	-0.141041	ppb
	Cr	52	3446.594	-0.016323	ppb
	Mn	55	375.007	-0.005526	ppb
	Fe	54	21543.180	-2.347083	ppb
	Fe	56	473029.343	-5.734112	ppb
	Fe	57	1790.160	0.476006	ppb
	Co	59	84.000	-0.005381	ppb
	Ni	60	43.333	-0.000748	ppb
	Cu	63	313.338	-0.199312	ppb
	Cu	65	190.002	-0.006674	ppb
	Zn	66	113.334	-0.060060	ppb
	As	75	35.171	-0.001985	ppb
	Se	82	24.667	-0.004637	ppb

⌈	Mo	96	306.005	-0.048386	ppb
|	Ag	107	123.334	0.007733	ppb
|	Ag	109	153.335	0.012899	ppb
|	Cd	111	-5.365	-0.013247	ppb
|	In	113	94671.019	-1.848162	ppb
|>	In	115	2534979.429		ppb
⌊	Sn	118	370.007	0.036182	ppb
⌈	Sb	121	3000.450	0.362320	ppb
|	Ba	135	28.000	-0.009565	ppb
|	Ba	137	40.000	-0.017742	ppb
⌊>	Tb	159	4069225.859		ppb
⌈	Tl	205	295.004	0.006912	ppb
|	Pb	206	130.001	0.007710	ppb
|	Pb	207	215.001	0.005908	ppb
|	Pb	208	345.004	0.005812	ppb
⌊>	Bi	209	3425127.803		ppb
	Cr	53	4360.951		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	283681.484		ppb
	Kr	83	30.000		ppb
	Se	77	97.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		108.125			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		90.902			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		87.817			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		89.975			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.119			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-02

Sample Date/Time: Thursday, May 07, 2009 14:27:56
Sample Type: Sample
Sample Description: 13MW3 ~~15X~~ 125 SW 050709
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-02.126

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	567201.969	2.255	567201.969			ppb
	Be	9	2.667	114.564	0.000	0.01045	113.55	ppb
	Na	23	296817.754	0.691	0.473	82.00394	1.79	ppb
	Mg	24	481768.599	2.768	0.845	207.65490	0.64	ppb
	Mg	25	67693.082	2.155	0.119	207.71164	0.12	ppb
	Mg	26	80247.060	1.266	0.141	210.79698	2.46	ppb
	Al	27	1003.384	0.761	-0.005	-0.67454	1.06	ppb
	K	39	288172.625	1.696	0.087	7.25895	22.73	ppb
	Ca	44	97483.604	1.688	0.149	471.12902	4.52	ppb
>	Sc	45	831608.305	0.200	831608.305			ppb
	Ti	47	56.667	5.094	-0.000	-0.07056	8.47	ppb
	V	51	169.230	106.110	-0.001	-0.08714	33.93	ppb
	Cr	52	3789.385	1.646	0.000	0.02230	58.88	ppb
	Mn	55	261.670	24.196	-0.000	-0.02201	36.91	ppb
	Fe	54	23838.397	3.071	0.001	1.15229	164.22	ppb
	Fe	56	535211.383	2.484	-0.001	-0.10561	1774.64	ppb
	Fe	57	2013.536	4.615	0.000	1.41006	40.83	ppb
	Co	59	78.000	11.750	-0.000	-0.00674	19.56	ppb
	Ni	60	47.778	24.502	0.000	0.00098	767.49	ppb
	Cu	63	477.789	5.143	-0.001	-0.15772	4.41	ppb
	Cu	65	158.890	19.493	-0.000	-0.02825	60.91	ppb
	Zn	66	131.112	30.332	-0.000	-0.04536	97.47	ppb
	As	75	7.072	173.817	-0.000	-0.03051	39.01	ppb
	Se	82	24.222	8.847	-0.000	-0.01973	110.89	ppb
	Mo	96	116.667	19.268	-0.000	-0.14414	6.99	ppb
	Ag	107	93.334	28.572	0.000	0.00242	161.90	ppb
	Ag	109	97.778	8.579	0.000	0.00343	37.65	ppb
	Cd	111	5.487	52.615	-0.000	-0.00603	31.15	ppb
	In	113	100559.789	1.077	-0.001	-1.36208	14.80	ppb
>	In	115	2672433.761	0.820	2672433.761			ppb
	Sn	118	148.334	16.628	-0.000	-0.01320	39.91	ppb
	Sb	121	670.023	11.658	-0.000	-0.13295	10.51	ppb
	Ba	135	998.717	4.694	0.000	0.66056	3.55	ppb
	Ba	137	1712.814	4.836	0.000	0.64380	5.88	ppb
>	Tb	159	4207851.040	1.365	4207851.040			ppb
	Tl	205	90.000	58.002	-0.000	-0.00178	121.95	ppb
	Pb	206	78.334	26.575	0.000	0.00059	472.38	ppb
	Pb	207	143.334	21.314	0.000	0.00070	304.42	ppb
	Pb	208	266.669	13.170	0.000	0.00272	47.48	ppb
>	Bi	209	3375637.743	2.345	3375637.743			ppb
	Cr	53	3160.500	4.123	2514.479			ppb
	Pd	106	5.000	0.000	1.667			ppb
	Pd	108	0.000		0.000			ppb
	C	12	285007.072	0.261	-13312.881			ppb
	Kr	83	26.000	33.530	-11.333			ppb
	Se	77	210.002	3.360	177.335			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	553596.741		ppb
|	Be	9	2.000	0.008001	ppb
|	Na	23	294456.326	83.473079	ppb
|	Mg	24	466873.955	206.189131	ppb
|	Mg	25	66160.137	207.995137	ppb
|	Mg	26	80537.010	216.717887	ppb
|	Al	27	1005.051	-0.667824	ppb
|	K	39	293805.600	9.128877	ppb
⌊	Ca	44	99015.791	492.845750	ppb
⌈>	Sc	45	830257.616		ppb
|	Ti	47	55.000	-0.073946	ppb
|	V	51	117.814	-0.095564	ppb
|	Cr	52	3812.727	0.027886	ppb
|	Mn	55	310.005	-0.015742	ppb
|	Fe	54	24675.406	3.303092	ppb
|	Fe	56	547566.975	1.622117	ppb
|	Fe	57	2090.218	1.905194	ppb
|	Co	59	68.000	-0.008172	ppb
|	Ni	60	60.000	0.008867	ppb
|	Cu	63	486.679	-0.155078	ppb
|	Cu	65	180.002	-0.016341	ppb
|	Zn	66	86.667	-0.094826	ppb
|	As	75	21.118	-0.016913	ppb
⌊	Se	82	22.667	-0.035580	ppb
⌈	Mo	96	122.001	-0.141450	ppb
|	Ag	107	66.667	-0.001429	ppb
|	Ag	109	90.000	0.002316	ppb
|	Cd	111	8.820	-0.003863	ppb
|	In	113	99957.087	-1.560417	ppb
|>	In	115	2664604.528		ppb
⌊	Sn	118	160.001	-0.010744	ppb
⌈	Sb	121	630.020	-0.139720	ppb
|	Ba	135	980.048	0.654441	ppb
|	Ba	137	1806.163	0.687482	ppb
⌊>	Tb	159	4167284.293		ppb
⌈	Tl	205	55.000	-0.003199	ppb
|	Pb	206	55.000	-0.002486	ppb
|	Pb	207	110.000	-0.001570	ppb
|	Pb	208	230.002	0.001459	ppb
⌊>	Bi	209	3287075.216		ppb
	Cr	53	3274.536		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	284893.211		ppb
	Kr	83	36.000		ppb
	Se	77	204.669		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	569027.755		ppb
|	Be	9	6.000	0.023352	ppb
|	Na	23	297840.361	82.002509	ppb
|	Mg	24	485828.595	208.753376	ppb
|	Mg	25	67855.440	207.537764	ppb
|	Mg	26	79117.748	207.080819	ppb
|	Al	27	1010.051	-0.673761	ppb
|	K	39	285061.918	6.641452	ppb
⌊	Ca	44	97690.856	470.220252	ppb
⌈>	Sc	45	831098.330		ppb

	Ti	47	55.000	-0.074066	ppb
	V	51	20.976	-0.111583	ppb
	Cr	52	3836.736	0.031709	ppb
	Mn	55	190.002	-0.031184	ppb
	Fe	54	23522.633	0.410646	ppb
	Fe	56	536927.706	0.159131	ppb
	Fe	57	1910.182	0.778217	ppb
	Co	59	86.000	-0.005575	ppb
	Ni	60	36.667	-0.006124	ppb
	Cu	63	496.679	-0.152472	ppb
	Cu	65	123.334	-0.047976	ppb
	Zn	66	143.334	-0.031548	ppb
	As	75	1.811	-0.035613	ppb
	Se	82	23.333	-0.028846	ppb
	Mo	96	136.001	-0.135690	ppb
	Ag	107	93.334	0.002287	ppb
	Ag	109	96.667	0.003134	ppb
	Cd	111	3.820	-0.007138	ppb
	In	113	101810.645	-1.157362	ppb
>	In	115	2697192.171		ppb
	Sn	118	120.001	-0.019241	ppb
	Sb	121	620.019	-0.142244	ppb
	Ba	135	964.046	0.640796	ppb
	Ba	137	1648.136	0.621924	ppb
>	Tb	159	4182678.413		ppb
	Tl	205	65.000	-0.002851	ppb
	Pb	206	95.000	0.002898	ppb
	Pb	207	170.001	0.002648	ppb
	Pb	208	300.003	0.004043	ppb
>	Bi	209	3400291.846		ppb
	Cr	53	3188.508		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	284327.446		ppb
	Kr	83	20.000		ppb
	Se	77	207.335		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	578981.410		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	298156.577	80.536231	ppb
	Mg	24	492603.246	208.022199	ppb
	Mg	25	69063.669	207.602012	ppb
	Mg	26	81086.423	208.592238	ppb
	Al	27	995.050	-0.682044	ppb
	K	39	285650.357	6.006514	ppb
	Ca	44	95744.163	450.321050	ppb
>	Sc	45	833468.968		ppb
	Ti	47	60.000	-0.063658	ppb
	V	51	368.899	-0.054275	ppb
	Cr	52	3718.691	0.007301	ppb
	Mn	55	285.004	-0.019095	ppb
	Fe	54	23317.153	-0.256868	ppb
	Fe	56	521139.467	-2.098073	ppb
	Fe	57	2040.208	1.546783	ppb
	Co	59	80.000	-0.006477	ppb
	Ni	60	46.667	0.000199	ppb
	Cu	63	450.010	-0.165615	ppb
	Cu	65	173.335	-0.020427	ppb
	Zn	66	163.335	-0.009699	ppb
	As	75	-1.714	-0.039019	ppb
	Se	82	26.667	0.005233	ppb

⌈	Mo	96	92.000	-0.155287	ppb
|	Ag	107	120.001	0.006390	ppb
|	Ag	109	106.667	0.004849	ppb
|	Cd	111	3.820	-0.007100	ppb
|	In	113	99911.636	-1.368463	ppb
|>	In	115	2655504.583		ppb
⌊	Sn	118	165.001	-0.009603	ppb
⌈	Sb	121	760.029	-0.116886	ppb
|	Ba	135	1052.055	0.686433	ppb
|	Ba	137	1684.142	0.621996	ppb
⌊>	Tb	159	4273590.414		ppb
⌈	Tl	205	150.001	0.000717	ppb
|	Pb	206	85.000	0.001348	ppb
|	Pb	207	150.001	0.001019	ppb
|	Pb	208	270.002	0.002666	ppb
⌊>	Bi	209	3439546.166		ppb
	Cr	53	3018.455		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	285800.558		ppb
	Kr	83	22.000		ppb
	Se	77	218.002		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		101.487			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		92.504			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		93.301			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		93.025			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.403			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-03

Sample Date/Time: Thursday, May 07, 2009 14:30:49
Sample Type: Sample
Sample Description: 13MW4 ~~15~~ 125 JW 050707
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-03.127

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	557446.496	0.713	557446.496			ppb
	Be	9	0.000		0.000	0.00000		ppb
	Na	23	227375.298	2.068	0.357	61.96264	2.50	ppb
	Mg	24	367842.156	1.489	0.656	161.13142	1.65	ppb
	Mg	25	52078.304	2.326	0.093	162.39201	2.54	ppb
	Mg	26	60152.479	2.971	0.107	160.49833	3.25	ppb
	Al	27	4471.000	3.468	0.002	0.24294	15.22	ppb
	K	39	258024.645	0.987	0.041	3.45771	10.25	ppb
	Ca	44	78374.638	1.417	0.118	372.23960	1.04	ppb
>	Sc	45	850246.966	1.765	850246.966			ppb
	Ti	47	61.667	32.769	-0.000	-0.06309	64.40	ppb
	V	51	759.785	6.669	0.000	0.00776	129.61	ppb
	Cr	52	3838.070	1.044	0.000	0.01566	65.59	ppb
	Mn	55	496.679	9.135	0.000	0.00680	95.52	ppb
	Fe	54	23756.521	1.177	-0.000	-0.30973	530.82	ppb
	Fe	56	541208.891	2.211	-0.008	-0.85782	242.70	ppb
	Fe	57	3158.925	52.841	0.002	8.13872	127.27	ppb
	Co	59	91.334	13.380	-0.000	-0.00510	33.19	ppb
	Ni	60	76.667	27.152	0.000	0.01839	70.90	ppb
	Cu	63	771.141	10.741	-0.000	-0.08222	22.35	ppb
	Cu	65	328.894	15.248	0.000	0.06201	38.60	ppb
	Zn	66	342.228	9.757	0.000	0.18260	22.22	ppb
	As	75	26.257	93.380	-0.000	-0.01257	185.52	ppb
	Se	82	24.222	16.817	-0.000	-0.02564	146.08	ppb
	Mo	96	81.334	18.126	-0.000	-0.16033	4.00	ppb
	Ag	107	35.556	60.273	-0.000	-0.00592	54.13	ppb
	Ag	109	26.667	57.282	-0.000	-0.00708	32.59	ppb
	Cd	111	2.697	89.324	-0.000	-0.00782	20.10	ppb
	In	113	101042.941	0.825	-0.000	-0.64255	43.60	ppb
>	In	115	2655921.250	1.253	2655921.250			ppb
	Sn	118	120.001	19.094	-0.000	-0.01890	23.28	ppb
	Sb	121	356.673	17.528	-0.000	-0.19558	6.85	ppb
	Ba	135	620.686	2.097	0.000	0.40515	2.50	ppb
	Ba	137	1114.062	3.586	0.000	0.41251	3.67	ppb
>	Tb	159	4152882.082	0.781	4152882.082			ppb
	Tl	205	140.001	31.744	0.000	0.00047	404.46	ppb
	Pb	206	133.334	21.324	0.000	0.00867	46.04	ppb
	Pb	207	216.668	15.015	0.000	0.00648	39.23	ppb
	Pb	208	351.671	10.672	0.000	0.00648	24.06	ppb
>	Bi	209	3334486.953	1.370	3334486.953			ppb
	Cr	53	3143.161	3.296	2497.140			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	284885.678	0.194	-13434.275			ppb
	Kr	83	32.667	3.535	-4.667			ppb
	Se	77	230.447	2.052	197.780			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	555802.168		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	222289.473	60.582247	ppb
	Mg	24	361868.065	158.965864	ppb
	Mg	25	50847.948	158.996945	ppb
	Mg	26	58465.412	156.422335	ppb
	Al	27	4295.923	0.200253	ppb
	K	39	259980.117	3.865788	ppb
	Ca	44	77376.200	367.899565	ppb
>	Sc	45	839997.791		ppb
	Ti	47	40.000	-0.107309	ppb
	V	51	768.297	0.010538	ppb
	Cr	52	3852.742	0.027000	ppb
	Mn	55	490.012	0.006655	ppb
	Fe	54	24018.811	1.004252	ppb
	Fe	56	553294.693	1.532106	ppb
	Fe	57	5086.293	20.095407	ppb
	Co	59	78.000	-0.006853	ppb
	Ni	60	93.334	0.029554	ppb
	Cu	63	720.026	-0.093342	ppb
	Cu	65	303.338	0.050403	ppb
	Zn	66	330.005	0.173315	ppb
	As	75	46.197	0.006857	ppb
	Se	82	23.333	-0.031432	ppb
	Mo	96	76.000	-0.162790	ppb
	Ag	107	20.000	-0.008210	ppb
	Ag	109	10.000	-0.009574	ppb
	Cd	111	4.635	-0.006571	ppb
	In	113	101083.323	-0.643153	ppb
>	In	115	2656912.246		ppb
	Sn	118	115.001	-0.019900	ppb
	Sb	121	385.007	-0.189400	ppb
	Ba	135	634.020	0.416712	ppb
	Ba	137	1140.065	0.425255	ppb
>	Tb	159	4131997.315		ppb
	Tl	205	90.000	-0.001644	ppb
	Pb	206	110.001	0.005565	ppb
	Pb	207	215.001	0.006594	ppb
	Pb	208	330.003	0.005777	ppb
>	Bi	209	3284477.312		ppb
	Cr	53	3260.531		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	285450.778		ppb
	Kr	83	32.000		ppb
	Se	77	225.336		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	561979.461		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	228269.958	61.665719	ppb
	Mg	24	369034.973	160.340357	ppb
	Mg	25	52117.458	161.188416	ppb
	Mg	26	59967.266	158.691431	ppb
	Al	27	4591.054	0.264870	ppb
	K	39	258947.845	3.282475	ppb
	Ca	44	79571.325	375.387444	ppb
>	Sc	45	867476.655		ppb

|	Ti	47	80.000	-0.027416	ppb
|	V	51	705.401	-0.003395	ppb
|	Cr	52	3868.748	0.006996	ppb
|	Mn	55	455.010	0.000380	ppb
|	Fe	54	23462.492	-2.153448	ppb
|	Fe	56	540966.904	-2.277933	ppb
|	Fe	57	2180.238	1.883371	ppb
|	Co	59	94.000	-0.004987	ppb
|	Ni	60	83.334	0.021540	ppb
|	Cu	63	866.704	-0.061008	ppb
|	Cu	65	386.674	0.089542	ppb
|	Zn	66	316.672	0.147460	ppb
|	As	75	33.693	-0.006135	ppb
\└	Se	82	28.667	0.014373	ppb
\┌	Mo	96	70.000	-0.165161	ppb
|	Ag	107	60.000	-0.002258	ppb
|	Ag	109	40.000	-0.005022	ppb
|	Cd	111	3.455	-0.007309	ppb
|	In	113	100189.394	-0.362073	ppb
|>	In	115	2622169.542		ppb
\└	Sn	118	100.001	-0.022711	ppb
\┌	Sb	121	285.004	-0.210950	ppb
|	Ba	135	620.019	0.400787	ppb
|	Ba	137	1134.064	0.416483	ppb
\└>	Tb	159	4190270.033		ppb
\┌	Tl	205	155.001	0.001057	ppb
|	Pb	206	125.001	0.007274	ppb
|	Pb	207	185.001	0.003882	ppb
|	Pb	208	330.004	0.005399	ppb
\└>	Bi	209	3373975.085		ppb
	Cr	53	3104.482		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	284862.350		ppb
	Kr	83	32.000		ppb
	Se	77	231.336		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
\┌>	Li	6	554557.860		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	231566.463	63.639951	ppb
|	Mg	24	372623.432	164.088046	ppb
|	Mg	25	53269.505	166.990678	ppb
|	Mg	26	62024.759	166.381236	ppb
|	Al	27	4526.024	0.263706	ppb
|	K	39	255145.972	3.224872	ppb
\└	Ca	44	78176.388	373.431788	ppb
\┌>	Sc	45	843266.453		ppb
|	Ti	47	65.000	-0.054535	ppb
|	V	51	805.657	0.016135	ppb
|	Cr	52	3792.719	0.012970	ppb
|	Mn	55	545.015	0.013371	ppb
|	Fe	54	23788.260	0.219992	ppb
|	Fe	56	529365.075	-1.827624	ppb
|	Fe	57	2210.244	2.437375	ppb
|	Co	59	102.001	-0.003471	ppb
|	Ni	60	53.333	0.004063	ppb
|	Cu	63	726.693	-0.092298	ppb
|	Cu	65	296.671	0.046099	ppb
|	Zn	66	380.007	0.227014	ppb
|	As	75	-1.119	-0.038432	ppb
\└	Se	82	20.667	-0.059863	ppb

⌈	Mo	96	98.000	-0.153046	ppb
⌈	Ag	107	26.667	-0.007284	ppb
⌈	Ag	109	30.000	-0.006645	ppb
⌈	Cd	111	0.000	-0.009587	ppb
⌈	In	113	101856.105	-0.922430	ppb
⌈>	In	115	2688681.963		ppb
⌊	Sn	118	145.001	-0.014085	ppb
⌈	Sb	121	400.008	-0.186379	ppb
⌈	Ba	135	608.018	0.397956	ppb
⌈	Ba	137	1068.057	0.395786	ppb
⌊>	Tb	159	4136378.899		ppb
⌈	Tl	205	175.002	0.001986	ppb
⌈	Pb	206	165.001	0.013174	ppb
⌈	Pb	207	250.002	0.008962	ppb
⌈	Pb	208	395.005	0.008270	ppb
⌊>	Bi	209	3345008.462		ppb
	Cr	53	3064.469		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	284343.904		ppb
	Kr	83	34.000		ppb
	Se	77	234.669		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.741			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.577			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.724			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		91.809			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		93.252			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-04

Sample Date/Time: Thursday, May 07, 2009 14:33:42
Sample Type: Sample
Sample Description: 13MWDUP ~~15X~~ 125 X JVF 050707
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-04.128

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	579850.526	0.438	579850.526			ppb
	Be	9	0.000		0.000	0.00000		ppb
	Na	23	238894.217	2.738	0.361	62.67822	3.56	ppb
	Mg	24	387224.503	1.931	0.664	163.08285	2.28	ppb
	Mg	25	54909.025	1.441	0.094	164.61465	1.75	ppb
	Mg	26	64058.703	3.662	0.110	164.34253	3.98	ppb
	Al	27	1730.150	7.156	-0.003	-0.49625	6.67	ppb
	K	39	256606.108	0.833	0.021	1.75789	15.37	ppb
	Ca	44	78667.775	3.306	0.113	356.75482	4.33	ppb
>	Sc	45	851936.901	1.946	851936.901			ppb
	Ti	47	68.334	47.608	-0.000	-0.04801	148.24	ppb
	V	51	783.311	18.336	0.000	0.01152	220.42	ppb
	Cr	52	3814.728	1.999	0.000	0.01016	266.35	ppb
	Mn	55	340.006	12.565	-0.000	-0.01301	38.82	ppb
	Fe	54	23485.893	2.629	-0.001	-1.06350	222.77	ppb
	Fe	56	525992.607	0.643	-0.027	-2.94008	30.37	ppb
	Fe	57	2148.565	7.340	0.000	1.94357	62.05	ppb
	Co	59	65.334	3.535	-0.000	-0.00879	5.63	ppb
	Ni	60	44.445	30.311	-0.000	-0.00179	488.34	ppb
	Cu	63	422.231	7.164	-0.001	-0.17562	5.38	ppb
	Cu	65	160.001	19.094	-0.000	-0.02952	61.61	ppb
	Zn	66	138.890	9.700	-0.000	-0.04036	34.38	ppb
	As	75	-20.862	153.878	-0.000	-0.05717	53.48	ppb
	Se	82	18.222	29.572	-0.000	-0.08622	68.20	ppb
	Mo	96	54.000	9.799	-0.000	-0.17310	1.54	ppb
	Ag	107	23.333	37.796	-0.000	-0.00773	16.69	ppb
	Ag	109	17.778	28.641	-0.000	-0.00842	8.65	ppb
	Cd	111	-0.637	173.205	-0.000	-0.01001	7.24	ppb
	In	113	100595.175	1.459	-0.001	-1.07460	76.18	ppb
>	In	115	2661655.354	1.058	2661655.354			ppb
	Sn	118	95.000	5.263	-0.000	-0.02405	3.95	ppb
	Sb	121	251.670	8.272	-0.000	-0.21829	1.85	ppb
	Ba	135	620.686	8.798	0.000	0.39722	10.50	ppb
	Ba	137	1079.392	4.664	0.000	0.39044	4.80	ppb
>	Tb	159	4232820.599	1.333	4232820.599			ppb
	Tl	205	43.333	56.918	-0.000	-0.00379	27.28	ppb
	Pb	206	60.000	41.667	-0.000	-0.00207	168.91	ppb
	Pb	207	130.000	25.221	-0.000	-0.00038	633.27	ppb
	Pb	208	248.335	20.168	0.000	0.00186	101.54	ppb
>	Bi	209	3403937.571	1.802	3403937.571			ppb
	Cr	53	3219.852	1.025	2573.831			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	3.333	173.205	3.333			ppb
	C	12	286869.978	0.647	-11449.975			ppb
	Kr	83	27.333	30.463	-10.000			ppb
	Se	77	241.336	4.342	208.670			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	580383.273		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	233667.497	61.044637	ppb
|	Mg	24	380164.455	159.935907	ppb
|	Mg	25	54080.843	161.961534	ppb
|	Mg	26	61650.455	157.967788	ppb
|	Al	27	1635.134	-0.520764	ppb
|	K	39	258949.898	2.061454	ppb
⌊	Ca	44	76060.162	342.169626	ppb
⌈>	Sc	45	835172.688		ppb
|	Ti	47	100.001	0.021869	ppb
|	V	51	898.580	0.032683	ppb
|	Cr	52	3902.761	0.040626	ppb
|	Mn	55	345.006	-0.011506	ppb
|	Fe	54	24154.136	1.672157	ppb
|	Fe	56	523076.789	-1.984655	ppb
|	Fe	57	2310.267	3.183807	ppb
|	Co	59	68.000	-0.008230	ppb
|	Ni	60	56.667	0.006515	ppb
|	Cu	63	426.676	-0.172231	ppb
|	Cu	65	186.668	-0.013239	ppb
|	Zn	66	126.667	-0.050879	ppb
|	As	75	-46.732	-0.082358	ppb
⌊	Se	82	24.000	-0.023096	ppb
⌈	Mo	96	56.000	-0.171912	ppb
|	Ag	107	20.000	-0.008185	ppb
|	Ag	109	13.333	-0.009060	ppb
|	Cd	111	-1.910	-0.010841	ppb
|	In	113	100563.117	-0.413665	ppb
|>	In	115	2634015.405		ppb
⌊	Sn	118	90.000	-0.024879	ppb
⌈	Sb	121	235.003	-0.220982	ppb
|	Ba	135	646.021	0.420595	ppb
|	Ba	137	1086.059	0.399103	ppb
⌊>	Tb	159	4173891.815		ppb
⌈	Tl	205	15.000	-0.004983	ppb
|	Pb	206	35.000	-0.005500	ppb
|	Pb	207	95.000	-0.002865	ppb
|	Pb	208	210.001	0.000438	ppb
⌊>	Bi	209	3346333.392		ppb
	Cr	53	3256.530		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	287166.876		ppb
	Kr	83	34.000		ppb
	Se	77	246.003		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	582083.975		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	236784.545	61.769537	ppb
|	Mg	24	386450.655	162.118271	ppb
|	Mg	25	54988.774	164.212726	ppb
|	Mg	26	64188.348	164.028475	ppb
|	Al	27	1685.142	-0.509361	ppb
|	K	39	256101.948	1.543521	ppb
⌊	Ca	44	78682.332	355.160734	ppb
⌈>	Sc	45	852312.196		ppb

	Ti	47	70.000	-0.045493	ppb
	V	51	828.941	0.018494	ppb
	Cr	52	3768.710	0.000999	ppb
	Mn	55	295.004	-0.018650	ppb
	Fe	54	22936.274	-2.431403	ppb
	Fe	56	525198.787	-3.082284	ppb
	Fe	57	2140.229	1.871934	ppb
	Co	59	64.000	-0.008992	ppb
	Ni	60	30.000	-0.010874	ppb
	Cu	63	450.010	-0.168334	ppb
	Cu	65	166.668	-0.026171	ppb
	Zn	66	153.335	-0.024632	ppb
	As	75	15.064	-0.023153	ppb
	Se	82	17.333	-0.096129	ppb
	Mo	96	58.000	-0.171243	ppb
	Ag	107	33.333	-0.006272	ppb
	Ag	109	16.667	-0.008584	ppb
	Cd	111	0.000	-0.009587	ppb
	In	113	99144.053	-1.990369	ppb
>	In	115	2660634.101		ppb
	Sn	118	100.001	-0.023013	ppb
	Sb	121	275.004	-0.213631	ppb
	Ba	135	658.022	0.421994	ppb
	Ba	137	1026.053	0.368952	ppb
>	Tb	159	4238256.574		ppb
	Tl	205	55.000	-0.003278	ppb
	Pb	206	85.000	0.001497	ppb
	Pb	207	160.001	0.001909	ppb
	Pb	208	230.001	0.001139	ppb
>	Bi	209	3397070.446		ppb
	Cr	53	3210.515		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	284882.924		ppb
	Kr	83	30.000		ppb
	Se	77	229.336		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	577084.330		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	246230.607	65.220487	ppb
	Mg	24	395058.400	167.194383	ppb
	Mg	25	55657.458	167.669694	ppb
	Mg	26	66337.304	171.031315	ppb
	Al	27	1870.175	-0.458613	ppb
	K	39	254766.478	1.668703	ppb
	Ca	44	81260.830	372.934091	ppb
>	Sc	45	868325.820		ppb
	Ti	47	35.000	-0.120405	ppb
	V	51	622.411	-0.016627	ppb
	Cr	52	3772.712	-0.011135	ppb
	Mn	55	380.007	-0.008889	ppb
	Fe	54	23367.270	-2.431264	ppb
	Fe	56	529702.245	-3.753312	ppb
	Fe	57	1995.199	0.774981	ppb
	Co	59	64.000	-0.009158	ppb
	Ni	60	46.667	-0.000998	ppb
	Cu	63	390.008	-0.186294	ppb
	Cu	65	126.667	-0.049143	ppb
	Zn	66	136.668	-0.045557	ppb
	As	75	-30.918	-0.065996	ppb
	Se	82	13.333	-0.139442	ppb

⌈	Mo	96	48.000	-0.176158	ppb
|	Ag	107	16.667	-0.008727	ppb
|	Ag	109	23.333	-0.007629	ppb
|	Cd	111	0.000	-0.009587	ppb
|	In	113	102078.354	-0.819776	ppb
|>	In	115	2690316.556		ppb
⌊	Sn	118	95.000	-0.024254	ppb
⌈	Sb	121	245.003	-0.220248	ppb
|	Ba	135	558.016	0.349071	ppb
|	Ba	137	1126.063	0.403279	ppb
⌊>	Tb	159	4286313.408		ppb
⌈	Tl	205	60.000	-0.003116	ppb
|	Pb	206	60.000	-0.002214	ppb
|	Pb	207	135.000	-0.000177	ppb
|	Pb	208	305.003	0.004002	ppb
⌊>	Bi	209	3468408.873		ppb
	Cr	53	3192.510		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	288560.133		ppb
	Kr	83	18.000		ppb
	Se	77	248.670		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.750			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.765			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.924			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		93.577			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.194			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-05

Sample Date/Time: Thursday, May 07, 2009 14:36:35
Sample Type: Sample
Sample Description: 13MW6 ~~15X~~ 125 5x FOSOTOT
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-05.129

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	581367.213	1.754	581367.213			ppb
	Be	9	0.667	173.205	0.000	0.00259	173.21	ppb
	Na	23	294656.801	3.486	0.456	79.12355	3.20	ppb
	Mg	24	788770.705	1.481	1.353	332.33292	1.87	ppb
	Mg	25	110694.400	1.650	0.190	332.04591	2.90	ppb
	Mg	26	127514.731	3.211	0.219	327.39687	4.55	ppb
	Al	27	1190.071	6.275	-0.004	-0.63356	3.84	ppb
	K	39	293763.044	0.060	0.084	7.01219	10.35	ppb
	Ca	44	159680.967	1.409	0.252	795.07571	3.18	ppb
>	Sc	45	850328.728	0.298	850328.728			ppb
	Ti	47	58.334	43.142	-0.000	-0.06983	75.34	ppb
	V	51	309.670	59.659	-0.000	-0.06503	45.92	ppb
	Cr	52	3764.042	1.217	0.000	0.00175	382.00	ppb
	Mn	55	300.005	12.019	-0.000	-0.01793	25.82	ppb
	Fe	54	23890.179	2.213	-0.000	-0.01295	10036.29	ppb
	Fe	56	528092.601	0.808	-0.024	-2.55668	18.29	ppb
	Fe	57	2338.607	3.087	0.001	3.10255	15.32	ppb
	Co	59	72.000	5.556	-0.000	-0.00784	7.46	ppb
	Ni	60	53.333	10.825	0.000	0.00378	93.82	ppb
	Cu	63	405.564	3.422	-0.001	-0.17995	2.24	ppb
	Cu	65	192.224	21.403	-0.000	-0.01210	182.65	ppb
	Zn	66	162.224	7.779	-0.000	-0.01452	96.11	ppb
	As	75	7.854	847.035	-0.000	-0.02996	209.96	ppb
	Se	82	23.556	7.122	-0.000	-0.03208	54.64	ppb
	Mo	96	72.667	16.127	-0.000	-0.16423	3.30	ppb
	Ag	107	17.778	28.641	-0.000	-0.00853	8.67	ppb
	Ag	109	10.000	66.667	-0.000	-0.00957	10.37	ppb
	Cd	111	2.697	147.946	-0.000	-0.00782	33.34	ppb
	In	113	100179.391	1.709	-0.001	-0.98570	84.09	ppb
>	In	115	2646889.618	0.444	2646889.618			ppb
	Sn	118	108.334	7.050	-0.000	-0.02118	7.84	ppb
	Sb	121	196.669	12.796	-0.000	-0.22917	2.15	ppb
	Ba	135	977.381	0.625	0.000	0.64645	0.78	ppb
	Ba	137	1590.793	2.715	0.000	0.59563	1.80	ppb
>	Tb	159	4205211.155	1.012	4205211.155			ppb
	Tl	205	53.333	21.651	-0.000	-0.00333	14.24	ppb
	Pb	206	68.334	23.521	-0.000	-0.00077	304.05	ppb
	Pb	207	151.667	12.481	0.000	0.00139	107.48	ppb
	Pb	208	311.670	6.679	0.000	0.00465	16.75	ppb
>	Bi	209	3368207.739	1.317	3368207.739			ppb
	Cr	53	3097.147	3.433	2451.126			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	3.333	173.205	3.333			ppb
	C	12	289208.199	1.237	-9111.754			ppb
	Kr	83	41.333	23.869	4.000			ppb
	Se	77	220.225	7.293	187.558			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	587433.595		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	289544.995	76.707739	ppb
	Mg	24	780307.832	325.304426	ppb
	Mg	25	108595.464	322.263859	ppb
	Mg	26	122829.753	311.925214	ppb
	Al	27	1135.064	-0.650686	ppb
	K	39	293927.093	6.590870	ppb
	Ca	44	157136.977	772.209879	ppb
>	Sc	45	848057.274		ppb
	Ti	47	35.000	-0.118680	ppb
	V	51	205.344	-0.081801	ppb
	Cr	52	3712.689	-0.005920	ppb
	Mn	55	340.006	-0.012804	ppb
	Fe	54	23562.727	-0.648086	ppb
	Fe	56	528632.824	-2.306619	ppb
	Fe	57	2380.283	3.392232	ppb
	Co	59	72.000	-0.007811	ppb
	Ni	60	46.667	-0.000314	ppb
	Cu	63	416.675	-0.176685	ppb
	Cu	65	146.668	-0.036624	ppb
	Zn	66	156.668	-0.020139	ppb
	As	75	43.567	0.003943	ppb
	Se	82	25.333	-0.013222	ppb
	Mo	96	68.000	-0.166247	ppb
	Ag	107	13.333	-0.009166	ppb
	Ag	109	3.333	-0.010564	ppb
	Cd	111	5.000	-0.006304	ppb
	In	113	98204.853	-1.942613	ppb
>	In	115	2633470.424		ppb
	Sn	118	115.001	-0.019690	ppb
	Sb	121	200.002	-0.228887	ppb
	Ba	135	984.048	0.644067	ppb
	Ba	137	1636.134	0.607022	ppb
>	Tb	159	4248730.199		ppb
	Tl	205	40.000	-0.003881	ppb
	Pb	206	80.000	0.001051	ppb
	Pb	207	165.001	0.002572	ppb
	Pb	208	305.003	0.004558	ppb
>	Bi	209	3320172.505		ppb
	Cr	53	3188.508		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	292244.852		ppb
	Kr	83	30.000		ppb
	Se	77	212.669		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	569592.588		ppb
	Be	9	2.000	0.007776	ppb
	Na	23	287944.771	78.898636	ppb
	Mg	24	783909.845	337.076387	ppb
	Mg	25	111565.895	341.506158	ppb
	Mg	26	130407.801	341.638155	ppb
	Al	27	1275.081	-0.605718	ppb
	K	39	293579.091	7.849825	ppb
	Ca	44	161406.169	822.239889	ppb
>	Sc	45	853062.285		ppb

	Ti	47	85.000	-0.014126	ppb
	V	51	200.686	-0.082746	ppb
	Cr	52	3800.722	0.006304	ppb
	Mn	55	270.004	-0.021808	ppb
	Fe	54	23607.834	-0.872887	ppb
	Fe	56	532062.741	-2.267138	ppb
	Fe	57	2255.254	2.553919	ppb
	Co	59	68.000	-0.008435	ppb
	Ni	60	56.667	0.005757	ppb
	Cu	63	390.008	-0.184464	ppb
	Cu	65	226.669	0.006279	ppb
	Zn	66	153.335	-0.024779	ppb
	As	75	48.894	0.008721	ppb
	Se	82	23.333	-0.035131	ppb
	Mo	96	64.000	-0.168343	ppb
	Ag	107	23.333	-0.007718	ppb
	Ag	109	10.000	-0.009571	ppb
	Cd	111	5.000	-0.006327	ppb
	In	113	101078.272	-0.521935	ppb
>	In	115	2651874.480		ppb
	Sn	118	110.001	-0.020885	ppb
	Sb	121	220.002	-0.224375	ppb
	Ba	135	972.047	0.643052	ppb
	Ba	137	1586.126	0.594151	ppb
>	Tb	159	4203250.768		ppb
	Tl	205	60.000	-0.003071	ppb
	Pb	206	75.000	0.000049	ppb
	Pb	207	160.001	0.001872	ppb
	Pb	208	335.003	0.005470	ppb
>	Bi	209	3407643.913		ppb
	Cr	53	3122.487		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	285265.605		ppb
	Kr	83	46.000		ppb
	Se	77	209.336		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	587075.455		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	306480.636	81.764268	ppb
	Mg	24	802094.438	334.617954	ppb
	Mg	25	111921.839	332.367725	ppb
	Mg	26	129306.640	328.627233	ppb
	Al	27	1160.067	-0.644262	ppb
	K	39	293782.949	6.595861	ppb
	Ca	44	160499.755	790.777347	ppb
>	Sc	45	849866.626		ppb
	Ti	47	55.000	-0.076684	ppb
	V	51	522.981	-0.030554	ppb
	Cr	52	3778.714	0.004862	ppb
	Mn	55	290.004	-0.019171	ppb
	Fe	54	24499.976	1.482125	ppb
	Fe	56	523582.237	-3.096289	ppb
	Fe	57	2380.283	3.361506	ppb
	Co	59	76.000	-0.007266	ppb
	Ni	60	56.667	0.005890	ppb
	Cu	63	410.008	-0.178711	ppb
	Cu	65	203.335	-0.005956	ppb
	Zn	66	176.668	0.001370	ppb
	As	75	-68.900	-0.102553	ppb
	Se	82	22.000	-0.047877	ppb

⌈	Mo	96	86.000	-0.158091	ppb
|	Ag	107	16.667	-0.008695	ppb
|	Ag	109	16.667	-0.008579	ppb
|	Cd	111	-1.910	-0.010831	ppb
|	In	113	101255.047	-0.492551	ppb
|>	In	115	2655323.949		ppb
⌊	Sn	118	100.001	-0.022972	ppb
⌈	Sb	121	170.001	-0.234234	ppb
|	Ba	135	976.048	0.652243	ppb
|	Ba	137	1550.120	0.585729	ppb
⌊>	Tb	159	4163652.499		ppb
⌈	Tl	205	60.000	-0.003048	ppb
|	Pb	206	50.000	-0.003411	ppb
|	Pb	207	130.000	-0.000286	ppb
|	Pb	208	295.003	0.003921	ppb
⌊>	Bi	209	3376806.799		ppb
	Cr	53	2980.444		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	290114.139		ppb
	Kr	83	48.000		ppb
	Se	77	238.670		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		104.021			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.586			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.409			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.966			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.195			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-06

Sample Date/Time: Thursday, May 07, 2009 14:39:29
Sample Type: Sample
Sample Description: 13MW7 15X 125 JK 050709
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-06.130

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	587851.120	2.757	587851.120			ppb
	Be	9	0.000		0.000	0.00000		ppb
	Na	23	247465.164	2.221	0.371	64.29027	5.37	ppb
	Mg	24	726890.531	2.776	1.234	303.05605	5.48	ppb
	Mg	25	103118.442	4.883	0.175	306.14037	7.41	ppb
	Mg	26	118428.339	4.353	0.201	300.88679	7.11	ppb
	Al	27	1093.393	3.668	-0.005	-0.66097	2.67	ppb
	K	39	285744.326	0.168	0.065	5.41764	20.10	ppb
	Ca	44	147260.021	2.183	0.228	719.26415	4.92	ppb
>	Sc	45	857534.254	1.887	857534.254			ppb
	Ti	47	55.000	41.660	-0.000	-0.07713	64.85	ppb
	V	51	117.509	100.164	-0.001	-0.09609	19.68	ppb
	Cr	52	3796.054	0.753	0.000	0.00200	873.20	ppb
	Mn	55	355.006	16.606	-0.000	-0.01149	56.23	ppb
	Fe	54	23667.978	1.200	-0.000	-1.00507	160.19	ppb
	Fe	56	533603.634	0.576	-0.022	-2.41410	36.86	ppb
	Fe	57	2225.248	1.573	0.000	2.30851	19.27	ppb
	Co	59	69.334	13.324	-0.000	-0.00828	17.55	ppb
	Ni	60	2997.116	1.891	0.003	1.83184	1.66	ppb
	Cu	63	421.120	4.837	-0.001	-0.17677	2.26	ppb
	Cu	65	216.669	5.329	0.000	0.00035	2388.67	ppb
	Zn	66	215.558	17.034	0.000	0.04214	100.14	ppb
	As	75	-25.220	265.776	-0.000	-0.06029	102.51	ppb
	Se	82	22.889	22.054	-0.000	-0.04081	126.61	ppb
	Mo	96	65.334	12.745	-0.000	-0.16798	2.53	ppb
	Ag	107	14.444	58.076	-0.000	-0.00903	13.82	ppb
	Ag	109	14.444	48.038	-0.000	-0.00892	11.63	ppb
	Cd	111	5.758	168.854	-0.000	-0.00582	108.22	ppb
	In	113	100881.462	2.206	-0.001	-1.28901	47.57	ppb
>	In	115	2677820.489	1.401	2677820.489			ppb
	Sn	118	81.667	23.179	-0.000	-0.02687	14.63	ppb
	Sb	121	161.668	9.942	-0.000	-0.23653	1.10	ppb
	Ba	135	1781.492	3.544	0.000	1.19528	5.53	ppb
	Ba	137	3052.466	1.566	0.001	1.16648	0.87	ppb
>	Tb	159	4233257.976	1.965	4233257.976			ppb
	Tl	205	38.333	61.641	-0.000	-0.00400	24.69	ppb
	Pb	206	75.000	30.551	0.000	0.00010	3376.94	ppb
	Pb	207	150.001	3.333	0.000	0.00115	40.72	ppb
	Pb	208	298.336	5.387	0.000	0.00397	13.41	ppb
>	Bi	209	3399192.067	1.490	3399192.067			ppb
	Cr	53	3299.211	2.311	2653.190			ppb
	Pd	106	3.333	173.205	0.000			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	290163.632	0.572	-8156.320			ppb
	Kr	83	27.333	18.414	-10.000			ppb
	Se	77	241.558	5.446	208.892			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	602098.386		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	241130.564	60.675949	ppb
	Mg	24	705000.076	286.639163	ppb
	Mg	25	97407.108	281.901348	ppb
	Mg	26	113084.814	280.081101	ppb
	Al	27	1055.056	-0.677100	ppb
	K	39	285710.026	4.431447	ppb
	Ca	44	143595.636	680.792560	ppb
>	Sc	45	854459.335		ppb
	Ti	47	50.000	-0.087789	ppb
	V	51	237.734	-0.076846	ppb
	Cr	52	3820.730	0.008849	ppb
	Mn	55	340.006	-0.013125	ppb
	Fe	54	23472.516	-1.288482	ppb
	Fe	56	533680.626	-2.172236	ppb
	Fe	57	2210.244	2.260829	ppb
	Co	59	64.000	-0.009014	ppb
	Ni	60	2940.432	1.803049	ppb
	Cu	63	403.341	-0.181079	ppb
	Cu	65	223.336	0.004274	ppb
	Zn	66	253.337	0.083732	ppb
	As	75	15.523	-0.022758	ppb
	Se	82	28.667	0.018750	ppb
	Mo	96	68.000	-0.166834	ppb
	Ag	107	13.333	-0.009202	ppb
	Ag	109	20.000	-0.008112	ppb
	Cd	111	10.000	-0.003141	ppb
	In	113	100421.707	-1.695037	ppb
>	In	115	2682578.748		ppb
	Sn	118	60.000	-0.031325	ppb
	Sb	121	155.001	-0.237431	ppb
	Ba	135	1804.163	1.226316	ppb
	Ba	137	3042.463	1.178205	ppb
>	Tb	159	4178273.398		ppb
	Tl	205	20.000	-0.004780	ppb
	Pb	206	55.000	-0.002760	ppb
	Pb	207	155.001	0.001513	ppb
	Pb	208	310.003	0.004449	ppb
>	Bi	209	3403123.561		ppb
	Cr	53	3378.571		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	291476.920		ppb
	Kr	83	32.000		ppb
	Se	77	232.669		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	591238.284		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	250293.629	64.640646	ppb
	Mg	24	730917.204	302.687735	ppb
	Mg	25	105033.722	309.650898	ppb
	Mg	26	118828.845	299.784016	ppb
	Al	27	1090.059	-0.663685	ppb
	K	39	286240.888	5.235071	ppb
	Ca	44	149602.741	726.621616	ppb
>	Sc	45	875029.029		ppb

	Ti	47	35.000	-0.120959	ppb
	V	51	2.504	-0.114655	ppb
	Cr	52	3764.709	-0.017827	ppb
	Mn	55	420.009	-0.004370	ppb
	Fe	54	23537.669	-2.454565	ppb
	Fe	56	536637.747	-3.399978	ppb
	Fe	57	2200.242	1.889382	ppb
	Co	59	64.000	-0.009226	ppb
	Ni	60	3053.800	1.828964	ppb
	Cu	63	443.343	-0.173193	ppb
	Cu	65	203.335	-0.009138	ppb
	Zn	66	180.002	-0.000646	ppb
	As	75	-102.584	-0.131631	ppb
	Se	82	20.667	-0.067598	ppb
	Mo	96	56.000	-0.172678	ppb
	Ag	107	6.667	-0.010176	ppb
	Ag	109	6.667	-0.010092	ppb
	Cd	111	-5.365	-0.013007	ppb
	In	113	103300.811	-0.583716	ppb
>	In	115	2712737.265		ppb
	Sn	118	90.000	-0.025420	ppb
	Sb	121	180.002	-0.233591	ppb
	Ba	135	1710.146	1.119426	ppb
	Ba	137	3104.482	1.159852	ppb
>	Tb	159	4328981.128		ppb
	Tl	205	65.000	-0.002890	ppb
	Pb	206	70.000	-0.000770	ppb
	Pb	207	145.001	0.000622	ppb
	Pb	208	305.003	0.004077	ppb
>	Bi	209	3447755.541		ppb
	Cr	53	3292.542		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	290717.281		ppb
	Kr	83	22.000		ppb
	Se	77	256.670		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570216.692		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	250971.300	67.554226	ppb
	Mg	24	744754.313	319.841261	ppb
	Mg	25	106914.496	326.868858	ppb
	Mg	26	123371.359	322.795241	ppb
	Al	27	1135.064	-0.642122	ppb
	K	39	285282.064	6.586412	ppb
	Ca	44	148581.686	750.378280	ppb
>	Sc	45	843114.399		ppb
	Ti	47	80.000	-0.022642	ppb
	V	51	112.288	-0.096761	ppb
	Cr	52	3802.723	0.014970	ppb
	Mn	55	305.005	-0.016982	ppb
	Fe	54	23993.751	0.727844	ppb
	Fe	56	530492.529	-1.670072	ppb
	Fe	57	2265.257	2.775316	ppb
	Co	59	80.000	-0.006609	ppb
	Ni	60	2997.116	1.863513	ppb
	Cu	63	416.675	-0.176029	ppb
	Cu	65	223.336	0.005901	ppb
	Zn	66	213.336	0.043341	ppb
	As	75	11.400	-0.026493	ppb
	Se	82	19.333	-0.073575	ppb

⌈	Mo	96	72.000	-0.164420	ppb
|	Ag	107	23.333	-0.007700	ppb
|	Ag	109	16.667	-0.008562	ppb
|	Cd	111	12.640	-0.001302	ppb
|	In	113	98921.869	-1.588272	ppb
|>	In	115	2638145.452		ppb
⌊	Sn	118	95.000	-0.023873	ppb
⌈	Sb	121	150.001	-0.238561	ppb
|	Ba	135	1830.167	1.240089	ppb
|	Ba	137	3010.453	1.161375	ppb
⌊>	Tb	159	4192519.402		ppb
⌈	Tl	205	30.000	-0.004330	ppb
|	Pb	206	100.001	0.003831	ppb
|	Pb	207	150.001	0.001327	ppb
|	Pb	208	280.003	0.003398	ppb
⌊>	Bi	209	3346697.099		ppb
	Cr	53	3226.520		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	288296.696		ppb
	Kr	83	28.000		ppb
	Se	77	235.336		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		105.181			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		95.388			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		93.489			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		93.586			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.061			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 14:42:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.131

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	579425.358	3.945	579425.358			ppb
	Be	9	31343.081	3.441	0.054	119.81332	0.81	ppb
	Na	23	4116563.466	0.999	7.059	1224.63992	3.02	ppb
	Mg	24	2921524.488	2.083	5.043	1238.53592	4.00	ppb
	Mg	25	409199.832	1.852	0.706	1235.10524	4.40	ppb
	Mg	26	479914.197	2.601	0.829	1239.93399	4.98	ppb
	Al	27	4985572.064	0.442	8.607	1263.47734	4.17	ppb
	K	39	8540819.702	1.611	14.330	1197.81516	3.32	ppb
	Ca	44	225421.423	2.470	0.367	1156.02428	3.16	ppb
>	Sc	45	864481.627	0.892	864481.627			ppb
	Ti	47	55790.216	1.462	0.064	115.40607	1.24	ppb
	V	51	734021.371	1.005	0.848	116.47903	1.56	ppb
	Cr	52	645958.599	0.841	0.743	117.16279	1.61	ppb
	Mn	55	911495.725	1.467	1.054	112.42700	2.29	ppb
	Fe	54	527267.033	0.512	0.582	1187.62913	1.27	ppb
	Fe	56	10046672.103	0.996	10.978	1192.46604	1.84	ppb
	Fe	57	201103.797	0.974	0.231	1185.26576	1.82	ppb
	Co	59	839908.300	1.039	0.972	116.93302	1.85	ppb
	Ni	60	185661.340	1.775	0.215	114.36307	2.66	ppb
	Cu	63	448236.336	2.180	0.517	117.85214	3.04	ppb
	Cu	65	218134.183	2.174	0.252	116.60114	2.98	ppb
	Zn	66	110075.969	1.705	0.127	118.18080	2.59	ppb
	As	75	122977.768	2.452	0.142	114.36388	3.07	ppb
	Se	82	11661.908	1.020	0.013	117.03108	1.91	ppb
	Mo	96	253386.675	1.703	0.094	116.29640	1.51	ppb
	Ag	107	827523.027	0.863	0.306	118.73908	0.48	ppb
	Ag	109	823098.672	1.245	0.305	120.69168	0.43	ppb
	Cd	111	187158.223	1.154	0.069	119.79464	1.16	ppb
	In	113	292319.310	2.469	0.070	120.18932	2.48	ppb
>	In	115	2701687.871	1.277	2701687.871			ppb
	Sn	118	589418.349	1.225	0.218	119.12011	0.13	ppb
	Sb	121	611561.335	1.479	0.140	119.96758	0.97	ppb
	Ba	135	179982.792	2.895	0.041	120.12710	2.08	ppb
	Ba	137	310878.874	1.992	0.071	118.77351	1.26	ppb
>	Tb	159	4356254.728	0.989	4356254.728			ppb
	Tl	205	2848322.413	0.313	0.823	119.88963	0.81	ppb
	Pb	206	886337.846	1.203	0.256	123.00339	0.35	ppb
	Pb	207	1667041.556	1.506	0.482	122.88310	0.69	ppb
	Pb	208	2834211.333	6.326	0.818	115.84686	5.49	ppb
>	Bi	209	3461455.152	0.872	3461455.152			ppb
	Cr	53	77593.894	0.910	76947.873			ppb
	Pd	106	15680.619	1.216	15677.286			ppb
	Pd	108	12462.764	2.499	12462.764			ppb
	C	12	288054.237	1.987	-10265.716			ppb
	Kr	83	42.000	16.496	4.667			ppb
	Se	77	9311.891	2.642	9279.224			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	605770.502		ppb
	Be	9	32580.990	119.111822	ppb
	Na	23	4161178.489	1182.853876	ppb
	Mg	24	2941635.775	1191.723069	ppb
	Mg	25	409282.652	1180.356156	ppb
	Mg	26	478883.327	1182.105448	ppb
	Al	27	4969407.534	1203.249361	ppb
	K	39	8642732.035	1157.343252	ppb
	Ca	44	229935.470	1125.448691	ppb
>	Sc	45	857781.478		ppb
	Ti	47	55925.950	116.591741	ppb
	V	51	741431.233	118.567313	ppb
	Cr	52	652211.289	119.222599	ppb
	Mn	55	926521.751	115.159395	ppb
	Fe	54	526536.450	1195.531460	ppb
	Fe	56	10053644.117	1203.090287	ppb
	Fe	57	201953.882	1199.580159	ppb
	Co	59	842868.946	118.249559	ppb
	Ni	60	188707.211	117.129428	ppb
	Cu	63	458634.857	121.515660	ppb
	Cu	65	223517.052	120.395765	ppb
	Zn	66	111912.738	121.077525	ppb
	As	75	126361.038	118.413138	ppb
	Se	82	11777.598	119.106680	ppb
	Mo	96	258369.163	117.667125	ppb
	Ag	107	830201.570	118.200488	ppb
	Ag	109	832335.117	121.103981	ppb
	Cd	111	189652.291	120.448442	ppb
	In	113	299998.452	123.622452	ppb
>	In	115	2722680.234		ppb
	Sn	118	593101.929	118.939713	ppb
	Sb	121	614131.038	119.363355	ppb
	Ba	135	185963.186	122.990086	ppb
	Ba	137	318015.548	120.388531	ppb
>	Tb	159	4396696.510		ppb
	Tl	205	2846267.987	118.784459	ppb
	Pb	206	897380.539	123.484804	ppb
	Pb	207	1687612.041	123.351482	ppb
	Pb	208	3035122.095	123.046831	ppb
>	Bi	209	3490984.654		ppb
	Cr	53	78178.403		ppb
	Pd	106	15887.611		ppb
	Pd	108	12788.172		ppb
	C	12	294625.192		ppb
	Kr	83	46.000		ppb
	Se	77	9393.743		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	567648.590		ppb
	Be	9	30606.767	119.408877	ppb
	Na	23	4080223.170	1238.141960	ppb
	Mg	24	2853148.150	1233.533489	ppb
	Mg	25	401580.633	1235.967176	ppb
	Mg	26	467976.750	1232.805387	ppb
	Al	27	4976627.691	1285.986517	ppb
	K	39	8384311.476	1199.380639	ppb
	Ca	44	219198.351	1146.175335	ppb
>	Sc	45	862753.075		ppb

	Ti	47	54915.372	113.820650	ppb
	V	51	726677.704	115.535390	ppb
	Cr	52	642416.781	116.741076	ppb
	Mn	55	907052.471	112.088375	ppb
	Fe	54	530255.437	1197.110019	ppb
	Fe	56	10143118.296	1207.018981	ppb
	Fe	57	202494.655	1195.826983	ppb
	Co	59	846768.641	118.112079	ppb
	Ni	60	186112.594	114.852713	ppb
	Cu	63	446824.455	117.695232	ppb
	Cu	65	216314.566	115.840371	ppb
	Zn	66	110153.365	118.483230	ppb
	As	75	120572.512	112.335688	ppb
	Se	82	11668.137	117.315631	ppb
	Mo	96	250976.426	116.910116	ppb
	Ag	107	819428.413	119.331900	ppb
	Ag	109	812080.441	120.856107	ppb
	Cd	111	185861.304	120.737335	ppb
	In	113	285678.134	118.691211	ppb
>	In	115	2661872.259		ppb
	Sn	118	581102.278	119.195510	ppb
	Sb	121	601507.361	119.235839	ppb
	Ba	135	176416.533	118.996954	ppb
	Ba	137	306914.647	118.497545	ppb
>	Tb	159	4310915.882		ppb
	Tl	205	2840611.974	120.633008	ppb
	Pb	206	876107.608	122.677288	ppb
	Pb	207	1639068.562	121.909780	ppb
	Pb	208	2690495.386	110.992434	ppb
>	Bi	209	3430661.337		ppb
	Cr	53	76809.859		ppb
	Pd	106	15642.224		ppb
	Pd	108	12167.398		ppb
	C	12	285393.168		ppb
	Kr	83	46.000		ppb
	Se	77	9506.517		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	564856.983		ppb
	Be	9	30841.487	120.919271	ppb
	Na	23	4108288.739	1252.923921	ppb
	Mg	24	2969789.540	1290.351215	ppb
	Mg	25	416736.211	1288.992380	ppb
	Mg	26	492882.515	1304.891135	ppb
	Al	27	5010680.967	1301.196128	ppb
	K	39	8595415.595	1236.721593	ppb
	Ca	44	227130.448	1196.448821	ppb
>	Sc	45	872910.328		ppb
	Ti	47	56529.328	115.805827	ppb
	V	51	733955.175	115.334402	ppb
	Cr	52	643247.728	115.524699	ppb
	Mn	55	900912.952	110.033229	ppb
	Fe	54	525009.211	1170.245922	ppb
	Fe	56	9943253.896	1167.288863	ppb
	Fe	57	198862.855	1160.390143	ppb
	Co	59	830087.311	114.437425	ppb
	Ni	60	182164.214	111.107064	ppb
	Cu	63	439249.696	114.345524	ppb
	Cu	65	214570.932	113.567275	ppb
	Zn	66	108161.802	114.981650	ppb
	As	75	121999.755	112.342813	ppb
	Se	82	11539.988	114.670939	ppb

⌈	Mo	96	250814.437	114.311963	ppb
|	Ag	107	832939.099	118.684846	ppb
|	Ag	109	824880.457	120.114938	ppb
|	Cd	111	185961.072	118.198131	ppb
|	In	113	291281.344	118.254289	ppb
|>	In	115	2720511.118		ppb
⌊	Sn	118	594050.842	119.225096	ppb
⌈	Sb	121	619045.606	121.303556	ppb
|	Ba	135	177568.657	118.394266	ppb
|	Ba	137	307706.429	117.434452	ppb
⌊>	Tb	159	4361151.792		ppb
⌈	Tl	205	2858087.279	120.251418	ppb
|	Pb	206	885525.391	122.848067	ppb
|	Pb	207	1674444.066	123.388034	ppb
|	Pb	208	2777016.517	113.501305	ppb
⌊>	Bi	209	3462719.465		ppb
	Cr	53	77793.418		ppb
	Pd	106	15512.022		ppb
	Pd	108	12432.724		ppb
	C	12	284144.351		ppb
	Kr	83	34.000		ppb
	Se	77	9035.413		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.674			
	Be	9	99.844				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		96.160			
	Ti	47					
	V	51	97.066				
	Cr	52	97.636				
	Mn	55	93.689				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	97.444				
	Ni	60	95.303				
	Cu	63	98.210				
	Cu	65	97.168				
	Zn	66	98.484				
	As	75	95.303				
	Se	82	97.526				
	Mo	96					
	Ag	107	98.949				
	Ag	109	100.576				
	Cd	111	99.829				
	In	113					
>	In	115		94.322			
	Sn	118	99.267				
	Sb	121	99.973				
	Ba	135	100.106				
	Ba	137	98.978				
>	Tb	159		96.305			
	Tl	205	99.908				
	Pb	206	102.503				
	Pb	207	102.403				
	Pb	208	96.539				
>	Bi	209		96.803			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 14:45:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.132

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	558757.486	1.147	558757.486			ppb
	Be	9	2.667	86.603	0.000	0.01063	86.61	ppb
	Na	23	12281.205	1.904	-0.029	-4.98591	0.79	ppb
	Mg	24	3276.203	1.301	0.002	0.49901	3.58	ppb
	Mg	25	462.011	3.576	0.000	0.48520	9.41	ppb
	Mg	26	563.349	7.948	0.000	0.50227	20.89	ppb
	Al	27	938.377	6.577	-0.005	-0.68787	2.09	ppb
	K	39	199784.158	1.276	-0.064	-5.34355	9.41	ppb
	Ca	44	6662.888	4.129	-0.011	-33.28129	5.05	ppb
>	Sc	45	826385.970	0.294	826385.970			ppb
	Ti	47	50.000	20.000	-0.000	-0.08425	25.50	ppb
	V	51	500.652	38.928	-0.000	-0.03192	100.61	ppb
	Cr	52	3460.599	1.711	-0.000	-0.03590	35.99	ppb
	Mn	55	295.004	1.695	-0.000	-0.01749	3.43	ppb
	Fe	54	22463.539	1.392	-0.001	-1.87586	39.84	ppb
	Fe	56	500457.300	0.415	-0.039	-4.23417	7.21	ppb
	Fe	57	1730.150	7.375	-0.000	-0.27529	282.64	ppb
	Co	59	102.001	25.034	-0.000	-0.00317	118.88	ppb
	Ni	60	44.445	37.749	-0.000	-0.00096	1124.42	ppb
	Cu	63	407.786	12.514	-0.001	-0.17618	8.11	ppb
	Cu	65	161.112	15.251	-0.000	-0.02642	52.72	ppb
	Zn	66	132.223	10.496	-0.000	-0.04314	35.92	ppb
	As	75	37.592	71.396	-0.000	-0.00076	3452.04	ppb
	Se	82	29.778	22.977	0.000	0.04045	179.82	ppb
	Mo	96	386.674	21.825	-0.000	-0.01618	254.48	ppb
	Ag	107	158.890	8.479	0.000	0.01219	14.08	ppb
	Ag	109	167.779	6.977	0.000	0.01411	11.51	ppb
	Cd	111	3.212	183.135	-0.000	-0.00745	52.41	ppb
	In	113	99674.318	1.007	-0.001	-1.13130	43.24	ppb
>	In	115	2639654.466	1.332	2639654.466			ppb
	Sn	118	370.007	17.253	0.000	0.03311	42.48	ppb
	Sb	121	3555.635	9.085	0.001	0.44085	16.31	ppb
	Ba	135	36.000	14.699	-0.000	-0.00516	74.37	ppb
	Ba	137	72.667	6.356	-0.000	-0.00593	25.38	ppb
>	Tb	159	4292038.365	1.182	4292038.365			ppb
	Tl	205	236.670	21.990	0.000	0.00445	51.68	ppb
	Pb	206	93.334	42.969	0.000	0.00259	217.37	ppb
	Pb	207	151.667	32.019	0.000	0.00120	299.94	ppb
	Pb	208	268.336	20.777	0.000	0.00266	88.00	ppb
>	Bi	209	3421014.456	0.771	3421014.456			ppb
	Cr	53	1722.815	6.022	1076.794			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	279457.205	0.892	-18862.747			ppb
	Kr	83	32.667	9.352	-4.667			ppb
	Se	77	51.333	8.516	18.667			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	559185.165		ppb
|	Be	9	4.000	0.015842	ppb
|	Na	23	12416.704	-4.946626	ppb
|	Mg	24	3320.551	0.517335	ppb
|	Mg	25	446.010	0.434135	ppb
|	Mg	26	539.015	0.436636	ppb
|	Al	27	990.049	-0.674425	ppb
|	K	39	202726.277	-4.929147	ppb
⌊	Ca	44	6970.428	-31.582183	ppb
⌈>	Sc	45	823978.812		ppb
|	Ti	47	50.000	-0.083912	ppb
|	V	51	361.434	-0.054819	ppb
|	Cr	52	3488.608	-0.028634	ppb
|	Mn	55	290.004	-0.018027	ppb
|	Fe	54	22204.625	-2.355056	ppb
|	Fe	56	501297.732	-3.931494	ppb
|	Fe	57	1735.151	-0.211947	ppb
|	Co	59	130.001	0.000960	ppb
|	Ni	60	46.667	0.000542	ppb
|	Cu	63	426.676	-0.170650	ppb
|	Cu	65	170.001	-0.021190	ppb
|	Zn	66	136.668	-0.037683	ppb
|	As	75	65.451	0.026505	ppb
⌊	Se	82	37.333	0.120992	ppb
⌈	Mo	96	466.011	0.024035	ppb
|	Ag	107	143.334	0.010218	ppb
|	Ag	109	156.668	0.012779	ppb
|	Cd	111	10.000	-0.002944	ppb
|	In	113	98528.009	-0.979956	ppb
|>	In	115	2603125.393		ppb
⌊	Sn	118	440.010	0.048784	ppb
⌈	Sb	121	3780.715	0.494321	ppb
|	Ba	135	42.000	-0.000774	ppb
|	Ba	137	70.000	-0.006627	ppb
⌊>	Tb	159	4240974.562		ppb
⌈	Tl	205	220.002	0.003708	ppb
|	Pb	206	135.001	0.008384	ppb
|	Pb	207	205.001	0.005141	ppb
|	Pb	208	310.003	0.004347	ppb
⌊>	Bi	209	3430115.777		ppb
	Cr	53	1842.170		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	282200.452		ppb
	Kr	83	36.000		ppb
	Se	77	55.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	552145.726		ppb
|	Be	9	4.000	0.016044	ppb
|	Na	23	12011.209	-5.024916	ppb
|	Mg	24	3235.523	0.498107	ppb
|	Mg	25	461.011	0.499416	ppb
|	Mg	26	536.014	0.446896	ppb
|	Al	27	870.038	-0.703017	ppb
|	K	39	198394.692	-5.198544	ppb
⌊	Ca	44	6578.163	-33.320409	ppb
⌈>	Sc	45	828836.691		ppb

	Ti	47	60.000	-0.062937	ppb
	V	51	723.387	0.004790	ppb
	Cr	52	3392.575	-0.050822	ppb
	Mn	55	295.004	-0.017604	ppb
	Fe	54	22375.004	-2.257861	ppb
	Fe	56	501980.748	-4.229307	ppb
	Fe	57	1855.172	0.469188	ppb
	Co	59	80.000	-0.006412	ppb
	Ni	60	26.667	-0.012485	ppb
	Cu	63	350.006	-0.192414	ppb
	Cu	65	133.334	-0.042209	ppb
	Zn	66	143.334	-0.031110	ppb
	As	75	35.421	-0.003002	ppb
	Se	82	28.000	0.020775	ppb
	Mo	96	396.008	-0.014323	ppb
	Ag	107	166.668	0.013042	ppb
	Ag	109	166.668	0.013635	ppb
	Cd	111	-0.365	-0.009824	ppb
	In	113	100098.490	-1.678228	ppb
>	In	115	2673247.814		ppb
	Sn	118	355.006	0.028994	ppb
	Sb	121	3700.685	0.469147	ppb
	Ba	135	32.000	-0.007897	ppb
	Ba	137	70.000	-0.006959	ppb
>	Tb	159	4292733.482		ppb
	Tl	205	295.004	0.007038	ppb
	Pb	206	90.000	0.002225	ppb
	Pb	207	140.001	0.000425	ppb
	Pb	208	290.003	0.003659	ppb
>	Bi	209	3391277.121		ppb
	Cr	53	1654.137		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	277335.140		ppb
	Kr	83	30.000		ppb
	Se	77	52.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	564941.566		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	12415.703	-4.986184	ppb
	Mg	24	3272.535	0.481600	ppb
	Mg	25	479.011	0.522061	ppb
	Mg	26	615.019	0.623281	ppb
	Al	27	955.046	-0.686169	ppb
	K	39	198231.503	-5.902964	ppb
	Ca	44	6440.073	-34.941275	ppb
>	Sc	45	826342.407		ppb
	Ti	47	40.000	-0.105899	ppb
	V	51	417.136	-0.045736	ppb
	Cr	52	3500.613	-0.028253	ppb
	Mn	55	300.005	-0.016844	ppb
	Fe	54	22810.987	-1.014653	ppb
	Fe	56	498093.421	-4.541719	ppb
	Fe	57	1600.128	-1.083111	ppb
	Co	59	96.000	-0.004047	ppb
	Ni	60	60.000	0.009049	ppb
	Cu	63	446.677	-0.165473	ppb
	Cu	65	180.002	-0.015866	ppb
	Zn	66	116.667	-0.060621	ppb
	As	75	11.904	-0.025782	ppb
	Se	82	24.000	-0.020426	ppb

⌈	Mo	96	298.004	-0.058252	ppb
|	Ag	107	166.668	0.013322	ppb
|	Ag	109	180.002	0.015921	ppb
|	Cd	111	0.000	-0.009587	ppb
|	In	113	100396.455	-0.735702	ppb
|>	In	115	2642590.191		ppb
⌊	Sn	118	315.005	0.021567	ppb
⌈	Sb	121	3185.507	0.359090	ppb
|	Ba	135	34.000	-0.006805	ppb
|	Ba	137	78.000	-0.004202	ppb
⌊>	Tb	159	4342407.050		ppb
⌈	Tl	205	195.002	0.002619	ppb
|	Pb	206	55.000	-0.002847	ppb
|	Pb	207	110.000	-0.001954	ppb
|	Pb	208	205.001	-0.000014	ppb
⌊>	Bi	209	3441650.468		ppb
	Cr	53	1672.140		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	278836.023		ppb
	Kr	83	32.000		ppb
	Se	77	46.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.976			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		91.923			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.156			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		94.886			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.672			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-01

Sample Date/Time: Thursday, May 07, 2009 14:48:24
Sample Type: Sample
Sample Description: 13MW5 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-01.133

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	741898.827	3.698	741898.827			ppb
	Be	9	4.667	65.465	0.000	0.01373	62.67	ppb
	Na	23	13569858.859	3.218	18.242	3164.59540	0.49	ppb
	Mg	24	19888445.330	3.519	26.805	6583.47366	0.51	ppb
	Mg	25	2828341.105	2.519	3.813	6666.68594	1.38	ppb
	Mg	26	3460898.179	2.924	4.665	6982.35745	1.70	ppb
	Al	27	5848.379	4.445	0.002	0.22505	41.58	ppb
	K	39	2410587.704	1.524	2.830	236.52862	3.03	ppb
	Ca	44	4179387.317	1.837	5.613	17692.21183	1.89	ppb
>	Sc	45	947807.189	0.593	947807.189			ppb
	Ti	47	296.671	9.584	0.000	0.36828	15.45	ppb
	V	51	-3229.882	42.202	-0.004	-0.58310	34.03	ppb
	Cr	52	10978.708	6.634	0.007	1.13024	10.21	ppb
	Mn	55	838.369	4.315	0.000	0.03877	9.13	ppb
	Fe	54	37476.791	2.562	0.011	23.34108	6.83	ppb
	Fe	56	584608.387	1.878	-0.028	-3.01207	52.83	ppb
	Fe	57	11741.891	2.041	0.010	52.66803	3.17	ppb
	Co	59	426.009	9.378	0.000	0.03605	13.25	ppb
	Ni	60	773.363	5.973	0.001	0.40501	6.95	ppb
	Cu	63	853.370	3.726	-0.000	-0.08353	7.69	ppb
	Cu	65	511.124	11.227	0.000	0.13280	21.09	ppb
	Zn	66	853.370	9.906	0.001	0.64529	13.45	ppb
	As	75	-365.201	41.762	-0.000	-0.34677	36.75	ppb
	Se	82	69.778	5.598	0.000	0.36707	9.11	ppb
	Mo	96	577.350	6.438	0.000	0.06851	26.66	ppb
	Ag	107	101.112	33.350	0.000	0.00346	141.33	ppb
	Ag	109	88.889	5.728	0.000	0.00204	36.13	ppb
	Cd	111	39.700	35.953	0.000	0.01594	57.19	ppb
	In	113	101967.266	1.043	-0.000	-0.83489	55.68	ppb
>	In	115	2687974.682	0.425	2687974.682			ppb
	Sn	118	956.713	9.237	0.000	0.15084	11.68	ppb
	Sb	121	3023.792	6.132	0.000	0.34651	8.90	ppb
	Ba	135	35277.451	0.679	0.008	24.37545	1.18	ppb
	Ba	137	61711.204	1.843	0.015	24.40736	3.02	ppb
>	Tb	159	4204617.572	1.211	4204617.572			ppb
	Tl	205	305.005	13.012	0.000	0.00771	22.83	ppb
	Pb	206	246.670	15.482	0.000	0.02507	22.35	ppb
	Pb	207	453.339	6.463	0.000	0.02463	9.08	ppb
	Pb	208	786.686	16.234	0.000	0.02498	21.44	ppb
>	Bi	209	3330269.690	0.279	3330269.690			ppb
	Cr	53	32841.538	10.091	32195.517			ppb
	Pd	106	8.333	69.282	5.000			ppb
	Pd	108	0.000		0.000			ppb
	C	12	425127.328	3.096	126807.375			ppb
	Kr	83	34.667	48.038	-2.667			ppb
	Se	77	4800.043	5.881	4767.377			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	712171.445		ppb
|	Be	9	2.000	0.006219	ppb
|	Na	23	13093152.459	3180.543330	ppb
|	Mg	24	19173594.548	6611.417262	ppb
|	Mg	25	2746557.917	6742.072680	ppb
|	Mg	26	3344956.493	7028.259861	ppb
|	Al	27	6146.889	0.332652	ppb
|	K	39	2369960.946	242.930333	ppb
⌊	Ca	44	4096248.126	18057.158667	ppb
⌈>	Sc	45	942567.365		ppb
|	Ti	47	320.005	0.415520	ppb
|	V	51	-4363.850	-0.750744	ppb
|	Cr	52	10173.172	1.005856	ppb
|	Mn	55	815.033	0.036665	ppb
|	Fe	54	36697.211	22.107749	ppb
|	Fe	56	597274.620	-1.185404	ppb
|	Fe	57	11997.192	54.408409	ppb
|	Co	59	382.007	0.030750	ppb
|	Ni	60	826.701	0.437470	ppb
|	Cu	63	823.367	-0.089615	ppb
|	Cu	65	470.011	0.114009	ppb
|	Zn	66	950.045	0.745019	ppb
|	As	75	-305.429	-0.297919	ppb
⌊	Se	82	65.334	0.329713	ppb
⌈	Mo	96	608.018	0.083499	ppb
|	Ag	107	80.000	0.000445	ppb
|	Ag	109	83.334	0.001255	ppb
|	Cd	111	43.820	0.018691	ppb
|	In	113	101800.543	-0.740123	ppb
|>	In	115	2679728.968		ppb
⌊	Sn	118	1000.050	0.160296	ppb
⌈	Sb	121	3170.503	0.368905	ppb
|	Ba	135	35488.861	24.226341	ppb
|	Ba	137	60862.651	23.777502	ppb
⌊>	Tb	159	4255478.306		ppb
⌈	Tl	205	260.003	0.005708	ppb
|	Pb	206	205.002	0.018970	ppb
|	Pb	207	475.006	0.026191	ppb
|	Pb	208	930.025	0.030977	ppb
⌊>	Bi	209	3339189.158		ppb
	Cr	53	29349.005		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	411202.035		ppb
	Kr	83	16.000		ppb
	Se	77	4489.007		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	747288.278		ppb
|	Be	9	4.000	0.011854	ppb
|	Na	23	13666062.584	3163.665014	ppb
|	Mg	24	19919447.897	6545.820510	ppb
|	Mg	25	2861385.035	6693.864416	ppb
|	Mg	26	3531389.803	7071.308118	ppb
|	Al	27	5671.608	0.179755	ppb
|	K	39	2441434.805	237.853487	ppb
⌊	Ca	44	4194283.037	17618.747601	ppb
⌈>	Sc	45	953740.950		ppb

	Ti	47	265.004	0.305097	ppb
	V	51	-3608.202	-0.634509	ppb
	Cr	52	11172.237	1.151125	ppb
	Mn	55	880.039	0.042855	ppb
	Fe	54	38549.159	25.140085	ppb
	Fe	56	578794.016	-4.096552	ppb
	Fe	57	11521.634	51.077715	ppb
	Co	59	460.011	0.040023	ppb
	Ni	60	746.695	0.387324	ppb
	Cu	63	886.706	-0.076817	ppb
	Cu	65	486.679	0.119390	ppb
	Zn	66	816.700	0.604088	ppb
	As	75	-538.550	-0.491407	ppb
	Se	82	71.334	0.377350	ppb
	Mo	96	536.014	0.048167	ppb
	Ag	107	83.334	0.000832	ppb
	Ag	109	90.000	0.002136	ppb
	Cd	111	51.460	0.023360	ppb
	In	113	103103.794	-0.424678	ppb
>	In	115	2701014.750		ppb
	Sn	118	1015.052	0.161723	ppb
	Sb	121	3085.476	0.359287	ppb
	Ba	135	35017.203	24.192852	ppb
	Ba	137	61267.110	24.225059	ppb
>	Tb	159	4204726.916		ppb
	Tl	205	335.006	0.009017	ppb
	Pb	206	255.003	0.026254	ppb
	Pb	207	420.005	0.022067	ppb
	Pb	208	685.015	0.020663	ppb
>	Bi	209	3330953.804		ppb
	Cr	53	33233.130		ppb
	Pd	106	15.000		ppb
	Pd	108	0.000		ppb
	C	12	426820.456		ppb
	Kr	83	48.000		ppb
	Se	77	4871.186		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	766236.757		ppb
	Be	9	8.000	0.023122	ppb
	Na	23	13950361.533	3149.577868	ppb
	Mg	24	20572293.545	6593.183220	ppb
	Mg	25	2877080.362	6564.120715	ppb
	Mg	26	3506348.241	6847.504374	ppb
	Al	27	5726.639	0.162747	ppb
	K	39	2420367.362	228.802034	ppb
	Ca	44	4247630.789	17400.729227	ppb
>	Sc	45	947113.252		ppb
	Ti	47	305.005	0.384231	ppb
	V	51	-1717.593	-0.364054	ppb
	Cr	52	11590.713	1.233739	ppb
	Mn	55	820.034	0.036785	ppb
	Fe	54	37184.004	22.775402	ppb
	Fe	56	577756.526	-3.754251	ppb
	Fe	57	11706.849	52.517958	ppb
	Co	59	436.010	0.037379	ppb
	Ni	60	746.695	0.390241	ppb
	Cu	63	850.036	-0.084155	ppb
	Cu	65	576.683	0.164992	ppb
	Zn	66	793.365	0.586757	ppb
	As	75	-251.625	-0.250990	ppb
	Se	82	72.667	0.394141	ppb

⌈	Mo	96	588.017	0.073878	ppb
|	Ag	107	140.001	0.009099	ppb
|	Ag	109	93.334	0.002716	ppb
|	Cd	111	23.820	0.005765	ppb
|	In	113	100997.462	-1.339866	ppb
|>	In	115	2683180.327		ppb
⌊	Sn	118	855.037	0.130514	ppb
⌈	Sb	121	2815.396	0.311326	ppb
|	Ba	135	35326.287	24.707159	ppb
|	Ba	137	63003.851	25.219518	ppb
⌊>	Tb	159	4153647.493		ppb
⌈	Tl	205	320.005	0.008404	ppb
|	Pb	206	280.004	0.029985	ppb
|	Pb	207	465.006	0.025625	ppb
|	Pb	208	745.017	0.023311	ppb
⌊>	Bi	209	3320666.107		ppb
	Cr	53	35942.477		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	437359.493		ppb
	Kr	83	40.000		ppb
	Se	77	5039.936		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		132.744			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		105.429			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		93.843			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.953			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		93.134			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-DUP1

Sample Date/Time: Thursday, May 07, 2009 14:51:17
Sample Type: Sample
Sample Description: 13MW5D 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-DUP1.134

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	890527.433	8.491	890527.433			ppb
|	Be	9	0.000		0.000	0.00000		ppb
|	Na	23	13263588.088	3.330	14.920	2588.21795	9.55	ppb
|	Mg	24	18979977.816	3.159	21.418	5260.42000	9.44	ppb
|	Mg	25	2729112.061	2.689	3.081	5386.62752	9.90	ppb
|	Mg	26	3256414.147	2.547	3.674	5498.30275	8.88	ppb
|	Al	27	28594.179	2.920	0.026	3.79611	8.19	ppb
|	K	39	2248815.777	1.064	2.116	176.88267	10.38	ppb
⌊	Ca	44	3880153.152	1.705	4.360	13741.87715	10.36	ppb
⌈>	Sc	45	942220.627	1.452	942220.627			ppb
|	Ti	47	345.006	11.319	0.000	0.46405	18.11	ppb
|	V	51	-4337.683	29.088	-0.005	-0.74815	25.28	ppb
|	Cr	52	11333.755	2.656	0.008	1.20135	6.02	ppb
|	Mn	55	790.031	11.393	0.000	0.03398	33.79	ppb
|	Fe	54	37217.466	1.023	0.011	23.27976	7.62	ppb
|	Fe	56	589259.566	1.291	-0.019	-2.07261	70.13	ppb
|	Fe	57	11509.961	4.071	0.010	51.80729	6.74	ppb
|	Co	59	370.674	3.068	0.000	0.02933	6.40	ppb
|	Ni	60	676.690	11.458	0.001	0.35333	14.03	ppb
|	Cu	63	1125.619	5.881	-0.000	-0.01630	118.31	ppb
|	Cu	65	674.467	3.507	0.000	0.21451	5.99	ppb
|	Zn	66	678.912	2.268	0.001	0.47813	5.21	ppb
|	As	75	-380.497	36.405	-0.000	-0.36099	31.59	ppb
⌊	Se	82	66.889	5.489	0.000	0.34415	8.33	ppb
⌈	Mo	96	486.679	3.495	0.000	0.02886	26.98	ppb
|	Ag	107	36.667	9.091	-0.000	-0.00579	8.11	ppb
|	Ag	109	16.667	20.000	-0.000	-0.00858	5.86	ppb
|	Cd	111	8.062	65.467	-0.000	-0.00435	78.41	ppb
|	In	113	100218.089	1.523	-0.001	-1.29936	76.01	ppb
|>	In	115	2660822.699	0.331	2660822.699			ppb
⌊	Sn	118	676.690	14.859	0.000	0.09539	21.81	ppb
⌈	Sb	121	1643.468	3.254	0.000	0.05889	20.93	ppb
|	Ba	135	33046.540	2.697	0.008	22.37007	2.22	ppb
|	Ba	137	57523.672	1.699	0.013	22.28552	1.19	ppb
⌊>	Tb	159	4290702.802	0.513	4290702.802			ppb
⌈	Tl	205	88.334	8.646	-0.000	-0.00177	19.78	ppb
|	Pb	206	128.334	11.903	0.000	0.00795	24.22	ppb
|	Pb	207	250.002	5.292	0.000	0.00904	14.26	ppb
|	Pb	208	393.338	20.392	0.000	0.00830	44.70	ppb
⌊>	Bi	209	3333361.195	1.981	3333361.195			ppb
	Cr	53	38436.609	6.628	37790.588			ppb
	Pd	106	6.667	43.301	3.333			ppb
	Pd	108	5.000	100.000	5.000			ppb
	C	12	435385.784	1.307	137065.831			ppb
	Kr	83	36.000	38.490	-1.333			ppb
	Se	77	5142.212	4.064	5109.545			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	939766.600		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	12832416.750	2360.009395	ppb
	Mg	24	18397607.355	4807.216999	ppb
	Mg	25	2649211.772	4927.914042	ppb
	Mg	26	3184430.926	5070.254041	ppb
	Al	27	28585.799	3.530733	ppb
	K	39	2230905.712	163.195691	ppb
	Ca	44	3806408.220	12694.818467	ppb
>	Sc	45	946416.710		ppb
	Ti	47	320.005	0.413046	ppb
	V	51	-2926.890	-0.539683	ppb
	Cr	52	11022.071	1.140398	ppb
	Mn	55	790.031	0.033472	ppb
	Fe	54	36797.579	22.000996	ppb
	Fe	56	596993.560	-1.497614	ppb
	Fe	57	11351.439	50.633751	ppb
	Co	59	380.007	0.030298	ppb
	Ni	60	663.355	0.343655	ppb
	Cu	63	1153.400	-0.010983	ppb
	Cu	65	700.025	0.225472	ppb
	Zn	66	670.022	0.466192	ppb
	As	75	-398.067	-0.375566	ppb
	Se	82	70.667	0.376258	ppb
	Mo	96	504.013	0.036359	ppb
	Ag	107	40.000	-0.005315	ppb
	Ag	109	16.667	-0.008590	ppb
	Cd	111	13.820	-0.000628	ppb
	In	113	99022.861	-2.235019	ppb
>	In	115	2667548.942		ppb
	Sn	118	565.016	0.072150	ppb
	Sb	121	1690.143	0.069871	ppb
	Ba	135	32045.263	21.802509	ppb
	Ba	137	56607.770	22.041857	ppb
>	Tb	159	4269161.968		ppb
	Tl	205	95.000	-0.001534	ppb
	Pb	206	145.001	0.010122	ppb
	Pb	207	255.002	0.009176	ppb
	Pb	208	310.003	0.004560	ppb
>	Bi	209	3374053.022		ppb
	Cr	53	35749.788		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	430820.628		ppb
	Kr	83	28.000		ppb
	Se	77	4925.213		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	803460.864		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	13243156.347	2850.557150	ppb
	Mg	24	18947020.621	5790.859480	ppb
	Mg	25	2744615.586	5971.700843	ppb
	Mg	26	3237691.009	6029.791206	ppb
	Al	27	27763.487	4.137987	ppb
	K	39	2239543.743	197.757426	ppb
	Ca	44	3934303.157	15362.187569	ppb
>	Sc	45	953307.388		ppb

	Ti	47	325.005	0.418063	ppb
	V	51	-4728.005	-0.796032	ppb
	Cr	52	11356.445	1.182440	ppb
	Mn	55	700.025	0.022757	ppb
	Fe	54	37314.489	22.534107	ppb
	Fe	56	581785.326	-3.725735	ppb
	Fe	57	11141.203	49.053977	ppb
	Co	59	358.006	0.027171	ppb
	Ni	60	606.685	0.309298	ppb
	Cu	63	1050.055	-0.037686	ppb
	Cu	65	653.355	0.200358	ppb
	Zn	66	670.022	0.461436	ppb
	As	75	-509.394	-0.467022	ppb
	Se	82	66.667	0.335084	ppb
	Mo	96	470.011	0.020814	ppb
	Ag	107	36.667	-0.005793	ppb
	Ag	109	13.333	-0.009083	ppb
	Cd	111	6.910	-0.005102	ppb
	In	113	101936.922	-0.266844	ppb
>	In	115	2664051.496		ppb
	Sn	118	760.029	0.112285	ppb
	Sb	121	1655.137	0.061249	ppb
	Ba	135	33341.490	22.576185	ppb
	Ba	137	57410.326	22.246981	ppb
>	Tb	159	4289828.047		ppb
	Tl	205	80.000	-0.002177	ppb
	Pb	206	125.001	0.007301	ppb
	Pb	207	235.001	0.007691	ppb
	Pb	208	400.005	0.008361	ppb
>	Bi	209	3368857.215		ppb
	Cr	53	38742.906		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	433573.874		ppb
	Kr	83	28.000		ppb
	Se	77	5159.331		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	928354.836		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	13715191.167	2554.087308	ppb
	Mg	24	19595305.472	5183.183529	ppb
	Mg	25	2793508.825	5260.267671	ppb
	Mg	26	3347120.507	5394.863007	ppb
	Al	27	29433.252	3.719617	ppb
	K	39	2275997.875	169.694907	ppb
	Ca	44	3899748.080	13168.625409	ppb
>	Sc	45	926937.782		ppb
	Ti	47	390.008	0.561046	ppb
	V	51	-5358.154	-0.908749	ppb
	Cr	52	11622.750	1.281200	ppb
	Mn	55	880.039	0.045701	ppb
	Fe	54	37540.332	25.304192	ppb
	Fe	56	588999.812	-0.994494	ppb
	Fe	57	12037.240	55.734129	ppb
	Co	59	374.007	0.030534	ppb
	Ni	60	760.029	0.407041	ppb
	Cu	63	1173.402	-0.000233	ppb
	Cu	65	670.022	0.217691	ppb
	Zn	66	696.691	0.506763	ppb
	As	75	-234.031	-0.240378	ppb
	Se	82	63.334	0.321114	ppb

⌈	Mo	96	486.012	0.029401	ppb
|	Ag	107	33.333	-0.006254	ppb
|	Ag	109	20.000	-0.008076	ppb
|	Cd	111	3.455	-0.007334	ppb
|	In	113	99694.485	-1.396203	ppb
|>	In	115	2650867.660		ppb
⌊	Sn	118	705.025	0.101726	ppb
⌈	Sb	121	1585.126	0.045562	ppb
|	Ba	135	33752.867	22.731526	ppb
|	Ba	137	58552.922	22.567715	ppb
⌊>	Tb	159	4313118.390		ppb
⌈	Tl	205	90.000	-0.001611	ppb
|	Pb	206	115.001	0.006438	ppb
|	Pb	207	260.002	0.010260	ppb
|	Pb	208	470.006	0.011979	ppb
⌊>	Bi	209	3257173.348		ppb
	Cr	53	40817.132		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	441762.849		ppb
	Kr	83	52.000		ppb
	Se	77	5342.093		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		159.338			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		104.808			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		92.895			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		94.856			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		93.220			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-MS1

Sample Date/Time: Thursday, May 07, 2009 14:54:10
Sample Type: Sample
Sample Description: 13MW5S 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MS1.135

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	762372.767	1.047	762372.767			ppb
|	Be	9	3451.262	1.870	0.005	10.02500	0.83	ppb
|	Na	23	13344955.700	1.772	17.455	3027.97004	1.86	ppb
|	Mg	24	19082269.999	0.590	25.029	6147.15671	1.43	ppb
|	Mg	25	2762816.943	1.753	3.624	6336.36468	2.60	ppb
|	Mg	26	3297287.740	0.916	4.325	6472.68279	1.94	ppb
|	Al	27	1845024.570	1.068	2.414	354.36485	2.11	ppb
|	K	39	2291508.838	1.311	2.585	216.05231	2.72	ppb
⌊	Ca	44	4174376.353	1.319	5.454	17189.22596	2.36	ppb
⌈>	Sc	45	907132.326	0.766	907132.326			ppb
|	Ti	47	97932.268	1.466	0.108	193.18772	1.49	ppb
|	V	51	637347.197	1.038	0.702	96.35770	1.00	ppb
|	Cr	52	230153.327	2.335	0.249	39.31929	2.37	ppb
|	Mn	55	788259.023	2.053	0.868	92.63217	1.80	ppb
|	Fe	54	127399.874	1.629	0.112	229.31821	2.61	ppb
|	Fe	56	2413206.485	1.321	2.016	218.94253	1.11	ppb
|	Fe	57	45305.737	0.862	0.048	245.78509	1.37	ppb
|	Co	59	707197.339	1.041	0.779	93.81403	0.65	ppb
|	Ni	60	153800.399	0.623	0.169	90.26336	0.14	ppb
|	Cu	63	176809.397	0.394	0.194	44.11535	0.78	ppb
|	Cu	65	87670.443	1.210	0.096	44.58102	1.09	ppb
|	Zn	66	84207.578	1.783	0.093	86.08955	1.34	ppb
|	As	75	7053.282	3.425	0.008	6.21598	4.19	ppb
⌊	Se	82	243.559	6.226	0.000	2.06128	6.78	ppb
⌈	Mo	96	409929.069	2.133	0.156	193.49439	1.79	ppb
|	Ag	107	60495.778	0.895	0.023	8.91117	0.77	ppb
|	Ag	109	60433.182	1.001	0.023	9.09768	1.16	ppb
|	Cd	111	14527.090	1.579	0.006	9.54741	1.26	ppb
|	In	113	112964.501	0.920	0.005	7.85076	10.57	ppb
|>	In	115	2628573.194	0.344	2628573.194			ppb
⌊	Sn	118	959925.341	1.682	0.365	199.41746	1.36	ppb
⌈	Sb	121	478257.971	0.526	0.114	97.88501	1.09	ppb
|	Ba	135	577104.548	0.652	0.138	402.17859	0.82	ppb
|	Ba	137	1000582.690	1.375	0.240	399.15937	1.91	ppb
⌊>	Tb	159	4173360.714	0.566	4173360.714			ppb
⌈	Tl	205	202292.521	1.317	0.023	3.40571	2.00	ppb
|	Pb	206	30595.081	2.253	0.004	1.69073	2.75	ppb
|	Pb	207	53763.560	1.813	0.006	1.57794	2.75	ppb
|	Pb	208	83989.546	0.554	0.010	1.36754	2.04	ppb
⌊>	Bi	209	8641172.273	1.505	8641172.273			ppb
	Cr	53	64651.076	2.618	64005.055			ppb
	Pd	106	1275.081	5.857	1271.748			ppb
	Pd	108	1321.754	2.084	1321.754			ppb
	C	12	426299.833	1.254	127979.881			ppb
	Kr	83	49.333	8.439	12.000			ppb
	Se	77	5328.309	2.557	5295.642			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	770097.042		ppb
	Be	9	3510.616	10.095704	ppb
	Na	23	13245620.477	2974.991478	ppb
	Mg	24	18966078.241	6047.862481	ppb
	Mg	25	2707797.754	6146.869652	ppb
	Mg	26	3263771.413	6341.754777	ppb
	Al	27	1829670.833	347.823339	ppb
	K	39	2269622.036	211.116302	ppb
	Ca	44	4133478.073	16845.963071	ppb
>	Sc	45	904282.687		ppb
	Ti	47	96286.332	190.532717	ppb
	V	51	629726.728	95.503000	ppb
	Cr	52	224037.846	38.378120	ppb
	Mn	55	769833.893	90.752145	ppb
	Fe	54	125755.785	226.489029	ppb
	Fe	56	2382286.329	216.143366	ppb
	Fe	57	44950.802	244.562728	ppb
	Co	59	699903.052	93.139084	ppb
	Ni	60	153417.894	90.321970	ppb
	Cu	63	176012.167	44.052909	ppb
	Cu	65	86455.452	44.100039	ppb
	Zn	66	82646.786	84.759450	ppb
	As	75	7200.105	6.364920	ppb
	Se	82	256.003	2.188503	ppb
	Mo	96	400288.338	189.672773	ppb
	Ag	107	60036.345	8.877422	ppb
	Ag	109	60475.647	9.138922	ppb
	Cd	111	14262.382	9.409522	ppb
	In	113	113217.300	8.299850	ppb
>	In	115	2618523.923		ppb
	Sn	118	941290.046	196.301558	ppb
	Sb	121	475387.305	96.681848	ppb
	Ba	135	576309.507	399.105540	ppb
	Ba	137	984784.457	390.372870	ppb
>	Tb	159	4199618.974		ppb
	Tl	205	199811.485	3.329040	ppb
	Pb	206	29939.752	1.637072	ppb
	Pb	207	52680.580	1.529769	ppb
	Pb	208	83504.882	1.345388	ppb
>	Bi	209	8730098.506		ppb
	Cr	53	62780.453		ppb
	Pd	106	1245.078		ppb
	Pd	108	1295.084		ppb
	C	12	420398.835		ppb
	Kr	83	54.000		ppb
	Se	77	5220.696		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	762860.724		ppb
	Be	9	3460.599	10.046267	ppb
	Na	23	13614931.896	3087.277534	ppb
	Mg	24	19190697.540	6177.556820	ppb
	Mg	25	2799054.868	6414.343608	ppb
	Mg	26	3305664.664	6484.107671	ppb
	Al	27	1838153.362	352.763784	ppb
	K	39	2279138.403	214.495837	ppb
	Ca	44	4152663.560	17085.696276	ppb
>	Sc	45	902059.741		ppb

	Ti	47	98926.918	196.246122	ppb
	V	51	640662.186	97.403169	ppb
	Cr	52	234127.061	40.238410	ppb
	Mn	55	794765.542	93.924046	ppb
	Fe	54	129731.084	236.183399	ppb
	Fe	56	2411372.700	220.350998	ppb
	Fe	57	45724.297	249.601757	ppb
	Co	59	707069.818	94.324898	ppb
	Ni	60	153092.971	90.352797	ppb
	Cu	63	177294.524	44.486031	ppb
	Cu	65	88140.063	45.072700	ppb
	Zn	66	84334.119	86.707452	ppb
	As	75	7185.288	6.367489	ppb
	Se	82	226.669	1.911829	ppb
	Mo	96	412156.133	194.363971	ppb
	Ag	107	61092.714	8.990418	ppb
	Ag	109	61015.579	9.176315	ppb
	Cd	111	14666.786	9.630117	ppb
	In	113	113854.473	8.359605	ppb
>	In	115	2631149.681		ppb
	Sn	118	969861.329	201.290511	ppb
	Sb	121	480089.129	98.719918	ppb
	Ba	135	573803.376	401.750048	ppb
	Ba	137	1006995.540	403.578372	ppb
>	Tb	159	4153834.940		ppb
	Tl	205	201958.984	3.459435	ppb
	Pb	206	30531.538	1.716773	ppb
	Pb	207	54039.136	1.613794	ppb
	Pb	208	84432.627	1.398831	ppb
>	Bi	209	8491870.765		ppb
	Cr	53	65097.195		ppb
	Pd	106	1360.092		ppb
	Pd	108	1350.091		ppb
	C	12	427682.124		ppb
	Kr	83	48.000		ppb
	Se	77	5282.728		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	754160.535		ppb
	Be	9	3382.572	9.933035	ppb
	Na	23	13174314.727	3021.641094	ppb
	Mg	24	19090034.214	6216.050842	ppb
	Mg	25	2781598.207	6447.880774	ppb
	Mg	26	3322427.144	6592.185911	ppb
	Al	27	1867249.516	362.507416	ppb
	K	39	2325766.076	222.544780	ppb
	Ca	44	4236987.426	17636.018544	ppb
>	Sc	45	915054.552		ppb
	Ti	47	98583.552	192.784332	ppb
	V	51	641652.678	96.166927	ppb
	Cr	52	232295.073	39.341334	ppb
	Mn	55	800177.634	93.220311	ppb
	Fe	54	126712.752	225.282200	ppb
	Fe	56	2445960.425	220.333215	ppb
	Fe	57	45242.111	243.190782	ppb
	Co	59	714619.146	93.978109	ppb
	Ni	60	154890.332	90.115314	ppb
	Cu	63	177121.498	43.807104	ppb
	Cu	65	88415.814	44.570331	ppb
	Zn	66	85641.829	86.801735	ppb
	As	75	6774.454	5.915523	ppb
	Se	82	248.003	2.083511	ppb

⌈	Mo	96	417342.736	196.446422	ppb
|	Ag	107	60358.275	8.865685	ppb
|	Ag	109	59808.319	8.977805	ppb
|	Cd	111	14652.101	9.602578	ppb
|	In	113	111821.729	6.892820	ppb
|>	In	115	2636045.980		ppb
⌊	Sn	118	968624.647	200.660298	ppb
⌈	Sb	121	479297.478	98.253252	ppb
|	Ba	135	581200.761	405.680194	ppb
|	Ba	137	1009968.074	403.526873	ppb
⌊>	Tb	159	4166628.227		ppb
⌈	Tl	205	205107.093	3.428650	ppb
|	Pb	206	31313.952	1.718349	ppb
|	Pb	207	54570.965	1.590260	ppb
|	Pb	208	84031.128	1.358390	ppb
⌊>	Bi	209	8701547.548		ppb
	Cr	53	66075.580		ppb
	Pd	106	1220.074		ppb
	Pd	108	1320.087		ppb
	C	12	430818.541		ppb
	Kr	83	46.000		ppb
	Se	77	5481.502		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		136.408			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		100.905			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.769			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.262			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		241.658			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control
Bi 209 Int Std for sample	Bi	209	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-MSD1

Sample Date/Time: Thursday, May 07, 2009 14:57:04
Sample Type: Sample
Sample Description: 13MW5SD 5X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MSD1.136

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	717767.699	1.458	717767.699			ppb
|	Be	9	3281.872	3.885	0.005	10.12788	4.35	ppb
|	Na	23	12805722.013	1.367	17.791	3086.40290	1.29	ppb
|	Mg	24	18182544.014	0.337	25.332	6221.55508	1.38	ppb
|	Mg	25	2633365.165	1.186	3.669	6415.21361	2.46	ppb
|	Mg	26	3180931.669	1.378	4.432	6632.72588	2.36	ppb
|	Al	27	1779971.318	0.656	2.474	363.14106	1.70	ppb
|	K	39	2227426.066	0.550	2.682	224.21040	2.23	ppb
⌊	Ca	44	4046473.102	1.285	5.616	17700.44210	2.23	ppb
⌈>	Sc	45	898537.216	0.676	898537.216			ppb
|	Ti	47	97365.058	0.861	0.108	193.90161	0.34	ppb
|	V	51	623310.728	0.415	0.693	95.13864	1.09	ppb
|	Cr	52	225502.231	0.310	0.247	38.88587	0.55	ppb
|	Mn	55	775827.201	0.605	0.863	92.04806	1.07	ppb
|	Fe	54	125362.624	1.103	0.111	227.41203	1.17	ppb
|	Fe	56	2368318.093	0.440	1.991	216.29317	1.06	ppb
|	Fe	57	44004.951	1.175	0.047	240.80071	1.78	ppb
|	Co	59	689913.493	1.377	0.768	92.39860	1.44	ppb
|	Ni	60	150369.931	0.684	0.167	89.09737	1.19	ppb
|	Cu	63	174604.650	1.310	0.193	43.98141	1.59	ppb
|	Cu	65	86153.995	0.838	0.096	44.22907	1.11	ppb
|	Zn	66	82004.906	1.317	0.091	84.64130	1.49	ppb
|	As	75	6988.874	1.173	0.008	6.21682	0.93	ppb
⌊	Se	82	232.892	3.949	0.000	1.98102	5.19	ppb
⌈	Mo	96	402314.100	1.294	0.155	192.08824	1.88	ppb
|	Ag	107	60313.572	0.910	0.023	8.98660	1.70	ppb
|	Ag	109	59154.489	1.920	0.023	9.00791	2.79	ppb
|	Cd	111	14013.378	3.434	0.005	9.31591	3.83	ppb
|	In	113	112866.746	1.000	0.005	8.63289	12.01	ppb
|>	In	115	2598949.797	0.932	2598949.797			ppb
⌊	Sn	118	943825.144	1.442	0.363	198.31068	0.91	ppb
⌈	Sb	121	473427.258	1.417	0.114	97.39100	1.10	ppb
|	Ba	135	565533.121	0.392	0.136	396.15825	0.83	ppb
|	Ba	137	983210.527	0.281	0.237	394.24078	0.66	ppb
⌊>	Tb	159	4151851.122	0.453	4151851.122			ppb
⌈	Tl	205	197768.481	1.650	0.024	3.43568	2.21	ppb
|	Pb	206	29969.849	1.439	0.004	1.70893	1.42	ppb
|	Pb	207	52916.146	1.058	0.006	1.60254	1.37	ppb
|	Pb	208	82151.054	0.803	0.010	1.38012	0.61	ppb
⌊>	Bi	209	8374211.720	1.414	8374211.720			ppb
	Cr	53	64685.268	2.190	64039.247			ppb
	Pd	106	1180.070	4.042	1176.736			ppb
	Pd	108	1351.758	3.593	1351.758			ppb
	C	12	422580.075	2.236	124260.122			ppb
	Kr	83	50.667	26.869	13.333			ppb
	Se	77	5279.172	2.774	5246.505			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	714050.610		ppb
	Be	9	3148.496	9.765013	ppb
	Na	23	12614033.267	3055.749141	ppb
	Mg	24	18111905.941	6228.836738	ppb
	Mg	25	2618293.870	6410.256646	ppb
	Mg	26	3142344.871	6585.102870	ppb
	Al	27	1768045.487	362.529079	ppb
	K	39	2223183.932	225.016348	ppb
	Ca	44	3997726.875	17574.590869	ppb
>	Sc	45	899749.908		ppb
	Ti	47	97164.767	193.242340	ppb
	V	51	622387.609	94.864717	ppb
	Cr	52	224972.481	38.738802	ppb
	Mn	55	780359.651	92.457465	ppb
	Fe	54	124186.354	224.358743	ppb
	Fe	56	2380198.356	217.332914	ppb
	Fe	57	43489.361	237.498382	ppb
	Co	59	679531.472	90.883275	ppb
	Ni	60	149265.761	88.319533	ppb
	Cu	63	171962.619	43.250979	ppb
	Cu	65	85325.812	43.742143	ppb
	Zn	66	80774.917	83.253663	ppb
	As	75	6925.112	6.151419	ppb
	Se	82	226.003	1.910995	ppb
	Mo	96	407107.510	196.198910	ppb
	Ag	107	60921.676	9.162241	ppb
	Ag	109	60465.587	9.293339	ppb
	Cd	111	14416.913	9.673868	ppb
	In	113	113530.825	9.779137	ppb
>	In	115	2574638.242		ppb
	Sn	118	937870.011	198.922785	ppb
	Sb	121	476089.558	97.506969	ppb
	Ba	135	563897.015	393.251803	ppb
	Ba	137	982987.938	392.397526	ppb
>	Tb	159	4170330.314		ppb
	Tl	205	194217.891	3.391119	ppb
	Pb	206	29483.400	1.689762	ppb
	Pb	207	52274.341	1.591167	ppb
	Pb	208	81895.092	1.382958	ppb
>	Bi	209	8330618.900		ppb
	Cr	53	63247.381		ppb
	Pd	106	1150.066		ppb
	Pd	108	1340.090		ppb
	C	12	413327.004		ppb
	Kr	83	66.000		ppb
	Se	77	5122.645		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	729581.777		ppb
	Be	9	3294.543	10.000458	ppb
	Na	23	12957009.301	3072.063124	ppb
	Mg	24	18219410.464	6132.408811	ppb
	Mg	25	2612523.608	6259.947731	ppb
	Mg	26	3171835.325	6505.393214	ppb
	Al	27	1780484.477	357.294447	ppb
	K	39	2217857.041	218.865922	ppb
	Ca	44	4040462.439	17383.572297	ppb
>	Sc	45	891950.488		ppb

	Ti	47	96644.765	193.889510	ppb
	V	51	626234.470	96.287427	ppb
	Cr	52	225238.367	39.130646	ppb
	Mn	55	776128.644	92.760441	ppb
	Fe	54	125016.603	228.722033	ppb
	Fe	56	2364002.949	217.873275	ppb
	Fe	57	44523.899	245.635664	ppb
	Co	59	692045.460	93.366778	ppb
	Ni	60	151299.314	90.306246	ppb
	Cu	63	175934.146	44.646052	ppb
	Cu	65	86485.712	44.727073	ppb
	Zn	66	82441.771	85.720350	ppb
	As	75	6960.134	6.237107	ppb
	Se	82	243.336	2.099059	ppb
	Mo	96	396774.373	189.411968	ppb
	Ag	107	59855.265	8.916815	ppb
	Ag	109	58530.793	8.910822	ppb
	Cd	111	13480.754	8.959831	ppb
	In	113	111563.873	7.760433	ppb
>	In	115	2599107.101		ppb
	Sn	118	934210.058	196.280511	ppb
	Sb	121	465796.410	96.262982	ppb
	Ba	135	568052.590	399.752904	ppb
	Ba	137	986076.997	397.210739	ppb
>	Tb	159	4132747.105		ppb
	Tl	205	198449.769	3.392687	ppb
	Pb	206	30305.853	1.700712	ppb
	Pb	207	53302.264	1.588574	ppb
	Pb	208	82900.299	1.370637	ppb
>	Bi	209	8508211.577		ppb
	Cr	53	64728.815		ppb
	Pd	106	1235.076		ppb
	Pd	108	1405.099		ppb
	C	12	422196.232		ppb
	Kr	83	40.000		ppb
	Se	77	5302.072		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	709670.712		ppb
	Be	9	3402.579	10.618179	ppb
	Na	23	12846123.470	3131.396442	ppb
	Mg	24	18216315.637	6303.419701	ppb
	Mg	25	2669278.018	6575.436454	ppb
	Mg	26	3228614.809	6807.681550	ppb
	Al	27	1791383.989	369.599668	ppb
	K	39	2241237.227	228.748927	ppb
	Ca	44	4101229.993	18143.163144	ppb
>	Sc	45	903911.252		ppb
	Ti	47	98285.641	194.572977	ppb
	V	51	621310.105	94.263782	ppb
	Cr	52	226295.843	38.788156	ppb
	Mn	55	770993.308	90.926278	ppb
	Fe	54	126884.914	229.155308	ppb
	Fe	56	2360752.974	213.673316	ppb
	Fe	57	44001.595	239.268082	ppb
	Co	59	698163.545	92.945740	ppb
	Ni	60	150544.720	88.666319	ppb
	Cu	63	175917.185	44.047191	ppb
	Cu	65	86650.462	44.217985	ppb
	Zn	66	82798.029	84.949883	ppb
	As	75	7081.377	6.261935	ppb
	Se	82	229.336	1.933005	ppb

⌈	Mo	96	403060.418	190.653846	ppb
|	Ag	107	60163.775	8.880735	ppb
|	Ag	109	58467.088	8.819581	ppb
|	Cd	111	14142.467	9.314020	ppb
|	In	113	113505.540	8.359090	ppb
|>	In	115	2623104.047		ppb
⌊	Sn	118	959395.363	199.728747	ppb
⌈	Sb	121	478395.804	98.403055	ppb
|	Ba	135	564649.758	395.470039	ppb
|	Ba	137	980566.645	393.114069	ppb
⌊>	Tb	159	4152475.946		ppb
⌈	Tl	205	200637.785	3.523230	ppb
|	Pb	206	30120.293	1.736308	ppb
|	Pb	207	53171.831	1.627864	ppb
|	Pb	208	81657.771	1.386766	ppb
⌊>	Bi	209	8283804.681		ppb
	Cr	53	66079.607		ppb
	Pd	106	1155.067		ppb
	Pd	108	1310.086		ppb
	C	12	432216.989		ppb
	Kr	83	46.000		ppb
	Se	77	5412.798		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		128.427			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		99.949			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		90.735			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		91.787			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		234.192			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Int Std out of control
Bi 209 Int Std for sample	Bi	209	Int Std out of control

ILM05.4 - Summary Report

Sample ID: SDI0904098-01

Sample Date/Time: Thursday, May 07, 2009 14:59:57
Sample Type: Sample
Sample Description: 13MW5L 25X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\SDI0904098-01.137

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	639267.481	2.052	639267.481			ppb
	Be	9	1.333	86.603	0.000	0.00460	86.65	ppb
	Na	23	2517812.620	1.236	3.888	674.54416	1.13	ppb
	Mg	24	3744676.406	1.358	5.855	1437.93814	1.22	ppb
	Mg	25	518329.544	1.070	0.811	1417.12582	2.41	ppb
	Mg	26	600598.025	1.081	0.939	1405.24590	0.99	ppb
	Al	27	2048.545	10.126	-0.003	-0.46397	10.04	ppb
	K	39	572474.833	0.668	0.474	39.63538	2.59	ppb
	Ca	44	750457.369	1.033	1.152	3629.62314	1.26	ppb
>	Sc	45	890636.171	1.275	890636.171			ppb
	Ti	47	153.335	51.594	0.000	0.11682	138.62	ppb
	V	51	-553.267	357.338	-0.001	-0.19781	152.49	ppb
	Cr	52	5581.557	1.417	0.002	0.29220	8.19	ppb
	Mn	55	436.676	13.022	-0.000	-0.00322	226.04	ppb
	Fe	54	25861.753	3.095	0.001	1.93004	131.08	ppb
	Fe	56	531390.665	2.541	-0.048	-5.19533	40.24	ppb
	Fe	57	3784.049	1.785	0.002	10.80908	4.42	ppb
	Co	59	148.668	9.732	0.000	0.00208	105.53	ppb
	Ni	60	191.113	11.214	0.000	0.08460	14.16	ppb
	Cu	63	792.254	7.819	-0.000	-0.08582	21.25	ppb
	Cu	65	392.230	2.732	0.000	0.08713	9.27	ppb
	Zn	66	284.449	11.382	0.000	0.10477	28.69	ppb
	As	75	-83.093	81.729	-0.000	-0.11209	54.36	ppb
	Se	82	25.111	3.066	-0.000	-0.02785	15.65	ppb
	Mo	96	374.674	13.402	-0.000	-0.02346	114.81	ppb
	Ag	107	28.889	6.662	-0.000	-0.00693	2.85	ppb
	Ag	109	10.000	33.333	-0.000	-0.00958	4.97	ppb
	Cd	111	9.456	34.645	-0.000	-0.00342	66.37	ppb
	In	113	99734.926	1.116	-0.001	-1.73757	49.70	ppb
>	In	115	2666532.892	2.353	2666532.892			ppb
	Sn	118	198.335	12.937	-0.000	-0.00292	175.53	ppb
	Sb	121	221.669	4.696	-0.000	-0.22382	0.93	ppb
	Ba	135	7719.645	0.554	0.002	5.33827	0.82	ppb
	Ba	137	13286.821	0.656	0.003	5.25445	0.91	ppb
>	Tb	159	4182897.101	0.278	4182897.101			ppb
	Tl	205	140.001	25.000	0.000	0.00043	362.77	ppb
	Pb	206	120.001	31.458	0.000	0.00665	85.63	ppb
	Pb	207	223.335	9.048	0.000	0.00684	27.92	ppb
	Pb	208	386.671	10.372	0.000	0.00779	17.08	ppb
>	Bi	209	3367073.321	2.213	3367073.321			ppb
	Cr	53	14748.876	3.332	14102.856			ppb
	Pd	106	8.333	91.652	5.000			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	327985.325	0.409	29665.372			ppb
	Kr	83	40.000	10.000	2.667			ppb
	Se	77	1270.525	2.030	1237.858			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	632369.754		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	2488412.314	673.842807	ppb
|	Mg	24	3692785.452	1433.294119	ppb
|	Mg	25	513018.279	1417.485667	ppb
|	Mg	26	598228.161	1414.787203	ppb
|	Al	27	2225.248	-0.417781	ppb
|	K	39	570696.960	40.202849	ppb
⌊	Ca	44	750704.460	3670.639312	ppb
⌈>	Sc	45	884167.791		ppb
|	Ti	47	135.001	0.080890	ppb
|	V	51	270.048	-0.073111	ppb
|	Cr	52	5671.608	0.315309	ppb
|	Mn	55	500.013	0.004753	ppb
|	Fe	54	26600.332	4.048051	ppb
|	Fe	56	546807.039	-2.839198	ppb
|	Fe	57	3715.690	10.569048	ppb
|	Co	59	158.001	0.003479	ppb
|	Ni	60	200.002	0.090846	ppb
|	Cu	63	810.033	-0.079906	ppb
|	Cu	65	400.008	0.092625	ppb
|	Zn	66	256.670	0.077977	ppb
|	As	75	-115.927	-0.142792	ppb
⌊	Se	82	24.667	-0.030386	ppb
⌈	Mo	96	430.009	0.007026	ppb
|	Ag	107	26.667	-0.007154	ppb
|	Ag	109	10.000	-0.009542	ppb
|	Cd	111	12.640	-0.001184	ppb
|	In	113	98457.318	-0.972815	ppb
|>	In	115	2600972.852		ppb
⌊	Sn	118	205.002	-0.000491	ppb
⌈	Sb	121	230.003	-0.222070	ppb
|	Ba	135	7751.003	5.364512	ppb
|	Ba	137	13360.920	5.288309	ppb
⌊>	Tb	159	4179398.083		ppb
⌈	Tl	205	100.001	-0.001311	ppb
|	Pb	206	85.000	0.001600	ppb
|	Pb	207	220.001	0.006558	ppb
|	Pb	208	390.004	0.007945	ppb
⌊>	Bi	209	3368155.781		ppb
	Cr	53	15009.255		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	329500.545		ppb
	Kr	83	44.000		ppb
	Se	77	1243.411		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	631035.287		ppb
|	Be	9	2.000	0.007019	ppb
|	Na	23	2514629.786	682.493806	ppb
|	Mg	24	3746794.768	1457.348087	ppb
|	Mg	25	524084.551	1451.147172	ppb
|	Mg	26	595624.429	1411.606078	ppb
|	Al	27	1820.166	-0.510917	ppb
|	K	39	569861.266	40.251678	ppb
⌊	Ca	44	742584.526	3637.996265	ppb
⌈>	Sc	45	903747.389		ppb

	Ti	47	85.000	-0.024135	ppb
	V	51	-2808.908	-0.541807	ppb
	Cr	52	5523.525	0.267548	ppb
	Mn	55	390.008	-0.009538	ppb
	Fe	54	25011.239	-0.871228	ppb
	Fe	56	525714.872	-6.829650	ppb
	Fe	57	3785.716	10.499313	ppb
	Co	59	132.001	-0.000450	ppb
	Ni	60	206.669	0.092165	ppb
	Cu	63	723.359	-0.106276	ppb
	Cu	65	380.007	0.077857	ppb
	Zn	66	320.005	0.137271	ppb
	As	75	-128.348	-0.151559	ppb
	Se	82	26.000	-0.022813	ppb
	Mo	96	362.007	-0.033375	ppb
	Ag	107	30.000	-0.006862	ppb
	Ag	109	13.333	-0.009128	ppb
	Cd	111	6.095	-0.005721	ppb
	In	113	100497.462	-2.674029	ppb
>	In	115	2725988.131		ppb
	Sn	118	220.002	0.000540	ppb
	Sb	121	210.002	-0.226107	ppb
	Ba	135	7736.992	5.362470	ppb
	Ba	137	13308.850	5.275157	ppb
>	Tb	159	4173423.196		ppb
	Tl	205	165.001	0.001666	ppb
	Pb	206	160.001	0.012825	ppb
	Pb	207	245.002	0.008882	ppb
	Pb	208	345.004	0.006389	ppb
>	Bi	209	3292011.232		ppb
	Cr	53	15055.325		ppb
	Pd	106	15.000		ppb
	Pd	108	5.000		ppb
	C	12	327500.425		ppb
	Kr	83	40.000		ppb
	Se	77	1294.750		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	654397.404		ppb
	Be	9	2.000	0.006768	ppb
	Na	23	2550395.760	667.295872	ppb
	Mg	24	3794448.998	1423.172218	ppb
	Mg	25	517885.800	1382.744607	ppb
	Mg	26	607941.487	1389.344421	ppb
	Al	27	2100.221	-0.463213	ppb
	K	39	576866.273	38.451628	ppb
	Ca	44	758083.120	3580.233828	ppb
>	Sc	45	883993.333		ppb
	Ti	47	240.003	0.293708	ppb
	V	51	879.060	0.021492	ppb
	Cr	52	5549.539	0.293730	ppb
	Mn	55	420.009	-0.004889	ppb
	Fe	54	25973.688	2.613288	ppb
	Fe	56	521650.084	-5.917138	ppb
	Fe	57	3850.741	11.358876	ppb
	Co	59	156.001	0.003211	ppb
	Ni	60	166.668	0.070788	ppb
	Cu	63	843.369	-0.071274	ppb
	Cu	65	396.675	0.090922	ppb
	Zn	66	276.670	0.099060	ppb
	As	75	-5.004	-0.041917	ppb
	Se	82	24.667	-0.030338	ppb

⌈	Mo	96	332.006	-0.044025	ppb
|	Ag	107	30.000	-0.006777	ppb
|	Ag	109	6.667	-0.010077	ppb
|	Cd	111	9.635	-0.003353	ppb
|	In	113	100249.997	-1.565855	ppb
|>	In	115	2672637.694		ppb
⌊	Sn	118	170.001	-0.008799	ppb
⌈	Sb	121	225.003	-0.223276	ppb
|	Ba	135	7670.941	5.287838	ppb
|	Ba	137	13190.694	5.199871	ppb
⌊>	Tb	159	4195870.025		ppb
⌈	Tl	205	155.001	0.000926	ppb
|	Pb	206	115.001	0.005531	ppb
|	Pb	207	205.001	0.005093	ppb
|	Pb	208	425.006	0.009037	ppb
⌊>	Bi	209	3441052.950		ppb
	Cr	53	14182.049		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	326955.006		ppb
	Kr	83	36.000		ppb
	Se	77	1273.414		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		114.381			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		99.070			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		93.095			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.473			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.163			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904098-01

Sample Date/Time: Thursday, May 07, 2009 15:02:52
Sample Type: Sample
Sample Description: 13MW5 25X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904098-01.138

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	648178.669	1.251	648178.669			ppb
	Be	9	1.333	86.603	0.000	0.00456	86.62	ppb
	Na	23	2904911.172	1.372	4.432	768.83445	2.66	ppb
	Mg	24	4323711.953	1.900	6.668	1637.63637	2.58	ppb
	Mg	25	601385.516	2.775	0.928	1621.78585	3.99	ppb
	Mg	26	698547.947	2.220	1.077	1612.35472	3.48	ppb
	Al	27	2043.542	1.901	-0.003	-0.47141	3.04	ppb
	K	39	633639.397	0.876	0.556	46.49326	3.55	ppb
	Ca	44	862561.393	1.267	1.308	4124.03730	2.37	ppb
>	Sc	45	874813.732	1.595	874813.732			ppb
	Ti	47	121.667	4.745	0.000	0.05645	15.94	ppb
	V	51	-1170.045	46.231	-0.002	-0.29950	28.95	ppb
	Cr	52	5649.596	1.928	0.002	0.32222	5.52	ppb
	Mn	55	455.010	3.807	-0.000	-0.00010	1528.57	ppb
	Fe	54	26306.225	1.147	0.002	4.03221	35.54	ppb
	Fe	56	534576.970	0.602	-0.033	-3.62401	40.11	ppb
	Fe	57	4254.239	3.981	0.003	13.96689	6.93	ppb
	Co	59	158.001	10.962	0.000	0.00371	64.17	ppb
	Ni	60	193.335	15.517	0.000	0.08829	22.78	ppb
	Cu	63	477.789	9.473	-0.001	-0.16424	6.71	ppb
	Cu	65	241.114	3.479	0.000	0.01083	22.11	ppb
	Zn	66	437.788	16.443	0.000	0.27311	27.44	ppb
	As	75	-82.017	100.563	-0.000	-0.11355	67.90	ppb
	Se	82	30.889	17.445	0.000	0.03353	144.64	ppb
	Mo	96	247.336	5.384	-0.000	-0.08177	6.20	ppb
	Ag	107	18.889	36.735	-0.000	-0.00834	12.49	ppb
	Ag	109	17.778	39.031	-0.000	-0.00839	12.71	ppb
	Cd	111	15.758	69.877	0.000	0.00070	1005.15	ppb
	In	113	100026.247	2.073	-0.000	-0.78554	213.64	ppb
>	In	115	2635149.212	1.066	2635149.212			ppb
	Sn	118	150.001	3.333	-0.000	-0.01244	10.71	ppb
	Sb	121	225.003	6.667	-0.000	-0.22293	1.32	ppb
	Ba	135	8969.354	1.132	0.002	6.23584	0.73	ppb
	Ba	137	15571.448	0.953	0.004	6.19224	0.64	ppb
>	Tb	159	4163675.930	0.409	4163675.930			ppb
	Tl	205	86.667	17.625	-0.000	-0.00186	34.04	ppb
	Pb	206	146.668	15.373	0.000	0.01057	28.26	ppb
	Pb	207	275.002	14.883	0.000	0.01091	26.96	ppb
	Pb	208	421.672	1.811	0.000	0.00945	4.51	ppb
>	Bi	209	3335993.737	1.387	3335993.737			ppb
	Cr	53	14788.934	2.887	14142.913			ppb
	Pd	106	3.333	86.603	0.000			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	328046.038	0.684	29726.085			ppb
	Kr	83	30.667	13.576	-6.667			ppb
	Se	77	1443.882	5.552	1411.216			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	655717.828		ppb
	Be	9	2.000	0.006755	ppb
	Na	23	2869211.774	750.280428	ppb
	Mg	24	4245565.870	1589.274421	ppb
	Mg	25	583142.026	1553.960953	ppb
	Mg	26	683625.895	1559.284887	ppb
	Al	27	2000.200	-0.486552	ppb
	K	39	627230.771	44.723481	ppb
	Ca	44	850061.164	4014.977024	ppb
>	Sc	45	873133.616		ppb
	Ti	47	125.001	0.063832	ppb
	V	51	-1534.023	-0.356285	ppb
	Cr	52	5749.652	0.342191	ppb
	Mn	55	465.011	0.001239	ppb
	Fe	54	26630.412	4.894387	ppb
	Fe	56	535156.445	-3.439649	ppb
	Fe	57	4435.984	15.084039	ppb
	Co	59	138.001	0.000994	ppb
	Ni	60	193.335	0.088302	ppb
	Cu	63	520.014	-0.152938	ppb
	Cu	65	240.003	0.010517	ppb
	Zn	66	513.347	0.354633	ppb
	As	75	-70.552	-0.102338	ppb
	Se	82	30.000	0.025789	ppb
	Mo	96	262.003	-0.076325	ppb
	Ag	107	13.333	-0.009191	ppb
	Ag	109	10.000	-0.009580	ppb
	Cd	111	28.455	0.008859	ppb
	In	113	99487.438	-1.935160	ppb
>	In	115	2667554.822		ppb
	Sn	118	145.001	-0.013852	ppb
	Sb	121	210.002	-0.225937	ppb
	Ba	135	8919.977	6.211370	ppb
	Ba	137	15439.910	6.149528	ppb
>	Tb	159	4157068.408		ppb
	Tl	205	70.000	-0.002559	ppb
	Pb	206	125.001	0.007598	ppb
	Pb	207	230.001	0.007602	ppb
	Pb	208	430.006	0.009922	ppb
>	Bi	209	3313781.663		ppb
	Cr	53	14396.355		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	326717.427		ppb
	Kr	83	26.000		ppb
	Se	77	1366.760		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	649219.728		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	2897619.049	765.468777	ppb
	Mg	24	4409332.112	1667.145138	ppb
	Mg	25	605124.072	1628.725093	ppb
	Mg	26	697432.054	1606.728213	ppb
	Al	27	2055.211	-0.469632	ppb
	K	39	636857.551	46.763233	ppb
	Ca	44	870308.563	4154.166505	ppb
>	Sc	45	889528.341		ppb

	Ti	47	125.001	0.059105	ppb
	V	51	-548.460	-0.199708	ppb
	Cr	52	5665.604	0.308147	ppb
	Mn	55	465.011	0.000192	ppb
	Fe	54	26033.844	2.378153	ppb
	Fe	56	531108.993	-5.160940	ppb
	Fe	57	4225.893	13.388099	ppb
	Co	59	168.001	0.004702	ppb
	Ni	60	163.335	0.068168	ppb
	Cu	63	483.345	-0.164829	ppb
	Cu	65	250.003	0.013373	ppb
	Zn	66	430.009	0.257479	ppb
	As	75	-5.871	-0.042672	ppb
	Se	82	36.667	0.085446	ppb
	Mo	96	236.003	-0.086354	ppb
	Ag	107	26.667	-0.007180	ppb
	Ag	109	23.333	-0.007534	ppb
	Cd	111	8.820	-0.003762	ppb
	In	113	102315.762	1.140264	ppb
>	In	115	2618061.347		ppb
	Sn	118	155.001	-0.011204	ppb
	Sb	121	240.003	-0.220063	ppb
	Ba	135	9086.126	6.288199	ppb
	Ba	137	15732.366	6.227586	ppb
>	Tb	159	4183006.446		ppb
	Tl	205	100.001	-0.001338	ppb
	Pb	206	170.001	0.013574	ppb
	Pb	207	310.002	0.013231	ppb
	Pb	208	420.005	0.009096	ppb
>	Bi	209	3389172.820		ppb
	Cr	53	14726.836		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	330637.152		ppb
	Kr	83	34.000		ppb
	Se	77	1438.103		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	639598.452		ppb
	Be	9	2.000	0.006925	ppb
	Na	23	2947902.693	790.754151	ppb
	Mg	24	4316237.878	1656.489543	ppb
	Mg	25	615890.450	1682.671495	ppb
	Mg	26	714585.891	1671.051047	ppb
	Al	27	2075.215	-0.458051	ppb
	K	39	636829.869	47.993058	ppb
	Ca	44	867314.451	4202.968380	ppb
>	Sc	45	861779.239		ppb
	Ti	47	115.001	0.046425	ppb
	V	51	-1427.652	-0.342515	ppb
	Cr	52	5533.531	0.316322	ppb
	Mn	55	435.009	-0.001726	ppb
	Fe	54	26254.420	4.824077	ppb
	Fe	56	537465.471	-2.271438	ppb
	Fe	57	4100.841	13.428530	ppb
	Co	59	168.001	0.005434	ppb
	Ni	60	223.336	0.108396	ppb
	Cu	63	430.009	-0.174943	ppb
	Cu	65	233.336	0.008614	ppb
	Zn	66	370.007	0.207230	ppb
	As	75	-169.627	-0.195635	ppb
	Se	82	26.000	-0.010632	ppb

⌈	Mo	96	244.003	-0.082637	ppb
|	Ag	107	16.667	-0.008662	ppb
|	Ag	109	20.000	-0.008041	ppb
|	Cd	111	10.000	-0.002987	ppb
|	In	113	98275.543	-1.561716	ppb
|>	In	115	2619831.468		ppb
⌊	Sn	118	150.001	-0.012268	ppb
⌈	Sb	121	225.003	-0.222779	ppb
|	Ba	135	8901.960	6.207941	ppb
|	Ba	137	15542.068	6.199612	ppb
⌊>	Tb	159	4150952.936		ppb
⌈	Tl	205	90.000	-0.001669	ppb
|	Pb	206	145.001	0.010553	ppb
|	Pb	207	285.002	0.011895	ppb
|	Pb	208	415.005	0.009328	ppb
⌊>	Bi	209	3305026.728		ppb
	Cr	53	15243.610		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	326783.536		ppb
	Kr	83	32.000		ppb
	Se	77	1526.783		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		115.975			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.310			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.999			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.048			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		93.294			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042715-DUP1

Sample Date/Time: Thursday, May 07, 2009 15:05:45
Sample Type: Sample
Sample Description: 13MW5D 25X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-DUP1.139

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	660066.422	0.724	660066.422			ppb
|	Be	9	0.667	173.205	0.000	0.00225	173.21	ppb
|	Na	23	2804740.134	1.819	4.199	728.36780	2.05	ppb
|	Mg	24	4169158.083	2.352	6.313	1550.41644	2.44	ppb
|	Mg	25	576407.558	2.423	0.873	1525.86714	2.27	ppb
|	Mg	26	667885.678	2.515	1.011	1513.23190	2.04	ppb
|	Al	27	7254.299	3.548	0.005	0.67898	8.49	ppb
|	K	39	609512.839	0.450	0.502	41.95473	1.09	ppb
⌊	Ca	44	809816.372	0.697	1.204	3796.00568	0.92	ppb
⌈>	Sc	45	885629.480	0.960	885629.480			ppb
|	Ti	47	91.667	16.664	-0.000	-0.00701	463.64	ppb
|	V	51	-406.966	206.642	-0.001	-0.17783	72.79	ppb
|	Cr	52	5725.639	0.606	0.002	0.32335	4.66	ppb
|	Mn	55	398.341	1.449	-0.000	-0.00759	9.72	ppb
|	Fe	54	26622.064	1.840	0.002	4.00777	42.93	ppb
|	Fe	56	552906.834	1.067	-0.020	-2.20239	3.58	ppb
|	Fe	57	4082.501	4.261	0.002	12.67008	9.54	ppb
|	Co	59	131.334	11.430	-0.000	-0.00018	1191.50	ppb
|	Ni	60	201.113	1.914	0.000	0.09133	3.09	ppb
|	Cu	63	576.683	9.029	-0.001	-0.14020	10.33	ppb
|	Cu	65	310.005	10.753	0.000	0.04526	37.42	ppb
|	Zn	66	292.227	6.282	0.000	0.11478	15.10	ppb
|	As	75	-178.054	92.342	-0.000	-0.19813	74.61	ppb
⌊	Se	82	30.667	7.838	0.000	0.02814	84.61	ppb
⌈	Mo	96	196.669	6.459	-0.000	-0.10763	5.22	ppb
|	Ag	107	13.333	0.000	-0.000	-0.00921	0.06	ppb
|	Ag	109	14.444	13.323	-0.000	-0.00894	3.14	ppb
|	Cd	111	0.515	1257.774	-0.000	-0.00926	44.94	ppb
|	In	113	100807.245	0.794	-0.001	-1.70408	21.75	ppb
|>	In	115	2693235.169	0.273	2693235.169			ppb
⌊	Sn	118	181.668	34.851	-0.000	-0.00670	191.31	ppb
⌈	Sb	121	178.335	23.514	-0.000	-0.23333	3.62	ppb
|	Ba	135	8428.217	0.755	0.002	5.72820	1.39	ppb
|	Ba	137	14664.746	1.033	0.003	5.70095	2.17	ppb
⌊>	Tb	159	4258219.725	1.924	4258219.725			ppb
⌈	Tl	205	35.000	51.508	-0.000	-0.00415	18.74	ppb
|	Pb	206	113.334	2.547	0.000	0.00532	12.74	ppb
|	Pb	207	200.001	11.456	0.000	0.00474	35.67	ppb
|	Pb	208	280.002	18.898	0.000	0.00308	69.53	ppb
⌊>	Bi	209	3437675.676	1.778	3437675.676			ppb
	Cr	53	14039.851	1.745	13393.830			ppb
	Pd	106	3.333	86.603	0.000			ppb
	Pd	108	5.000	100.000	5.000			ppb
	C	12	329173.454	0.504	30853.501			ppb
	Kr	83	22.000	27.273	-15.333			ppb
	Se	77	1405.877	2.708	1373.210			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	655557.832		ppb
	Be	9	2.000	0.006756	ppb
	Na	23	2776152.381	725.839873	ppb
	Mg	24	4101580.054	1535.718163	ppb
	Mg	25	563015.361	1500.660523	ppb
	Mg	26	648606.810	1479.719490	ppb
	Al	27	7067.497	0.648206	ppb
	K	39	609494.897	42.481556	ppb
	Ca	44	812462.336	3835.210126	ppb
>	Sc	45	887848.442		ppb
	Ti	47	95.000	-0.000943	ppb
	V	51	380.039	-0.056275	ppb
	Cr	52	5743.649	0.323912	ppb
	Mn	55	405.008	-0.006911	ppb
	Fe	54	26555.212	3.689760	ppb
	Fe	56	554139.604	-2.220596	ppb
	Fe	57	4145.859	12.970803	ppb
	Co	59	146.001	0.001763	ppb
	Ni	60	196.669	0.088348	ppb
	Cu	63	603.352	-0.133803	ppb
	Cu	65	276.670	0.027510	ppb
	Zn	66	310.005	0.132695	ppb
	As	75	-155.940	-0.178592	ppb
	Se	82	33.333	0.053481	ppb
	Mo	96	204.002	-0.104412	ppb
	Ag	107	13.333	-0.009213	ppb
	Ag	109	13.333	-0.009108	ppb
	Cd	111	5.000	-0.006383	ppb
	In	113	101654.065	-1.282477	ppb
>	In	115	2698235.977		ppb
	Sn	118	125.001	-0.018238	ppb
	Sb	121	200.002	-0.228172	ppb
	Ba	135	8355.489	5.791747	ppb
	Ba	137	14738.854	5.843843	ppb
>	Tb	159	4174688.466		ppb
	Tl	205	20.000	-0.004780	ppb
	Pb	206	115.001	0.005713	ppb
	Pb	207	175.001	0.003015	ppb
	Pb	208	220.001	0.000707	ppb
>	Bi	209	3402500.064		ppb
	Cr	53	13785.495		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	331087.697		ppb
	Kr	83	28.000		ppb
	Se	77	1376.095		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	659560.604		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	2863653.044	744.395781	ppb
	Mg	24	4281611.954	1593.432128	ppb
	Mg	25	590881.071	1565.417144	ppb
	Mg	26	679344.380	1540.479125	ppb
	Al	27	7547.847	0.745507	ppb
	K	39	606778.971	41.665722	ppb
	Ca	44	803337.521	3767.901543	ppb
>	Sc	45	892801.646		ppb

	Ti	47	75.000	-0.042133	ppb
	V	51	-1293.098	-0.313918	ppb
	Cr	52	5685.616	0.308000	ppb
	Mn	55	395.008	-0.008376	ppb
	Fe	54	26169.197	2.468577	ppb
	Fe	56	558090.482	-2.116038	ppb
	Fe	57	3885.755	11.339547	ppb
	Co	59	116.001	-0.002391	ppb
	Ni	60	203.335	0.091670	ppb
	Cu	63	516.680	-0.156777	ppb
	Cu	65	343.339	0.061246	ppb
	Zn	66	293.338	0.113542	ppb
	As	75	-352.409	-0.354755	ppb
	Se	82	28.667	0.006223	ppb
>	Mo	96	204.002	-0.104357	ppb
	Ag	107	13.333	-0.009212	ppb
	Ag	109	16.667	-0.008617	ppb
	Cd	111	3.455	-0.007372	ppb
	In	113	100704.530	-1.851295	ppb
>	In	115	2696668.413		ppb
	Sn	118	250.003	0.007096	ppb
	Sb	121	205.002	-0.228733	ppb
	Ba	135	8455.573	5.639174	ppb
	Ba	137	14764.892	5.632028	ppb
>	Tb	159	4338400.361		ppb
	Tl	205	30.000	-0.004391	ppb
	Pb	206	110.001	0.004539	ppb
	Pb	207	205.001	0.004801	ppb
	Pb	208	300.003	0.003659	ppb
>	Bi	209	3508260.711		ppb
	Cr	53	14274.180		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	328310.343		ppb
	Kr	83	16.000		ppb
	Se	77	1448.772		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	665080.828		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	2774414.977	714.867734	ppb
	Mg	24	4124282.240	1522.099025	ppb
	Mg	25	575326.244	1511.523755	ppb
	Mg	26	675705.844	1519.497082	ppb
	Al	27	7147.553	0.643216	ppb
	K	39	612264.648	41.716901	ppb
	Ca	44	813649.258	3784.905377	ppb
>	Sc	45	876238.352		ppb
	Ti	47	105.001	0.022038	ppb
	V	51	-307.839	-0.163287	ppb
	Cr	52	5747.651	0.338151	ppb
	Mn	55	395.008	-0.007484	ppb
	Fe	54	27141.784	5.864986	ppb
	Fe	56	546490.415	-2.270541	ppb
	Fe	57	4215.888	13.699896	ppb
	Co	59	132.001	0.000102	ppb
	Ni	60	203.335	0.093963	ppb
	Cu	63	610.019	-0.130019	ppb
	Cu	65	310.005	0.047014	ppb
	Zn	66	273.337	0.098099	ppb
	As	75	-25.812	-0.061052	ppb
	Se	82	30.000	0.024730	ppb

⌈	Mo	96	182.002	-0.114120	ppb
|	Ag	107	13.333	-0.009203	ppb
|	Ag	109	13.333	-0.009098	ppb
|	Cd	111	-6.910	-0.014038	ppb
|	In	113	100063.139	-1.978472	ppb
|>	In	115	2684801.118		ppb
⌊	Sn	118	170.001	-0.008956	ppb
⌈	Sb	121	130.001	-0.243077	ppb
|	Ba	135	8473.589	5.753669	ppb
|	Ba	137	14490.491	5.626978	ppb
⌊>	Tb	159	4261570.348		ppb
⌈	Tl	205	55.000	-0.003281	ppb
|	Pb	206	115.001	0.005714	ppb
|	Pb	207	220.001	0.006391	ppb
|	Pb	208	320.003	0.004868	ppb
⌊>	Bi	209	3402266.253		ppb
	Cr	53	14059.877		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	328122.321		ppb
	Kr	83	22.000		ppb
	Se	77	1392.764		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		118.102			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.513			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		94.027			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		94.138			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.138			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042715-MS1

Sample Date/Time: Thursday, May 07, 2009 15:08:39
Sample Type: Sample
Sample Description: 13MW5S 25X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MS1.140

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	640272.772	2.713	640272.772			ppb
|	Be	9	679.356	3.093	0.001	2.35117	4.39	ppb
|	Na	23	2587427.489	3.432	3.991	692.30712	2.67	ppb
|	Mg	24	3875079.935	2.722	6.050	1485.82694	2.47	ppb
|	Mg	25	542086.341	1.879	0.846	1479.81515	2.31	ppb
|	Mg	26	623839.138	2.999	0.974	1457.46482	2.72	ppb
|	Al	27	332607.506	3.750	0.513	75.31901	2.54	ppb
|	K	39	590015.674	0.701	0.500	41.82420	4.09	ppb
⌊	Ca	44	813118.257	2.951	1.248	3932.23804	2.35	ppb
⌈>	Sc	45	879426.872	1.387	879426.872			ppb
|	Ti	47	21862.233	4.197	0.025	44.32502	2.86	ppb
|	V	51	140899.913	3.957	0.159	21.87894	2.62	ppb
|	Cr	52	54316.608	4.044	0.057	9.04250	2.93	ppb
|	Mn	55	174897.923	0.715	0.198	21.15938	0.69	ppb
|	Fe	54	46516.279	1.113	0.025	50.62000	4.37	ppb
|	Fe	56	853126.673	0.646	0.326	35.37505	5.49	ppb
|	Fe	57	11508.290	3.314	0.011	56.27381	5.40	ppb
|	Co	59	158785.397	0.491	0.180	21.71590	1.19	ppb
|	Ni	60	34882.961	0.968	0.040	21.09789	1.97	ppb
|	Cu	63	41089.801	0.172	0.045	10.35688	1.53	ppb
|	Cu	65	20138.035	0.357	0.023	10.47497	1.18	ppb
|	Zn	66	20203.732	2.651	0.023	21.15978	1.33	ppb
|	As	75	1735.939	6.350	0.002	1.54913	5.09	ppb
⌊	Se	82	71.556	10.220	0.000	0.43396	14.63	ppb
⌈	Mo	96	94325.670	2.773	0.035	43.63884	1.60	ppb
|	Ag	107	14635.153	3.207	0.005	2.11184	2.34	ppb
|	Ag	109	14280.195	2.896	0.005	2.10588	2.01	ppb
|	Cd	111	3567.358	2.716	0.001	2.29896	2.36	ppb
|	In	113	103944.114	0.771	0.000	0.83023	100.25	ppb
|>	In	115	2672242.181	1.184	2672242.181			ppb
⌊	Sn	118	223472.302	2.768	0.084	45.62814	1.59	ppb
⌈	Sb	121	113883.350	2.261	0.027	23.05859	1.91	ppb
|	Ba	135	135755.384	1.414	0.032	94.40672	1.05	ppb
|	Ba	137	236027.234	1.248	0.056	93.94975	0.68	ppb
⌊>	Tb	159	4181061.679	0.705	4181061.679			ppb
⌈	Tl	205	47395.461	3.211	0.010	1.47400	2.90	ppb
|	Pb	206	7317.676	0.410	0.002	0.74285	1.28	ppb
|	Pb	207	12957.600	0.559	0.003	0.69845	0.66	ppb
|	Pb	208	19716.491	0.701	0.004	0.58957	1.25	ppb
⌊>	Bi	209	4666890.990	1.202	4666890.990			ppb
	Cr	53	18923.889	0.658	18277.868			ppb
	Pd	106	321.672	12.074	318.339			ppb
	Pd	108	306.671	13.576	306.671			ppb
	C	12	325225.007	1.088	26905.054			ppb
	Kr	83	36.667	17.534	-0.667			ppb
	Se	77	1338.756	3.113	1306.090			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	620370.018		ppb
|	Be	9	680.023	2.427569	ppb
|	Na	23	2512228.222	693.706799	ppb
|	Mg	24	3793095.011	1500.748997	ppb
|	Mg	25	534561.875	1505.640626	ppb
|	Mg	26	610018.417	1470.615774	ppb
|	Al	27	320902.614	74.996606	ppb
|	K	39	585867.617	43.706069	ppb
⌊	Ca	44	792365.875	3954.667553	ppb
⌈>	Sc	45	867612.735		ppb
|	Ti	47	20891.801	42.939225	ppb
|	V	51	136399.180	21.471232	ppb
|	Cr	52	52646.217	8.873741	ppb
|	Mn	55	173792.176	21.310972	ppb
|	Fe	54	46985.121	53.175585	ppb
|	Fe	56	859043.190	37.533444	ppb
|	Fe	57	11947.132	59.765936	ppb
|	Co	59	157967.916	21.896155	ppb
|	Ni	60	34817.173	21.341712	ppb
|	Cu	63	41164.552	10.519989	ppb
|	Cu	65	20120.221	10.608568	ppb
|	Zn	66	19632.586	20.841083	ppb
|	As	75	1641.914	1.484320	ppb
⌊	Se	82	63.334	0.361735	ppb
⌈	Mo	96	91922.555	43.020905	ppb
|	Ag	107	14093.257	2.057093	ppb
|	Ag	109	13802.853	2.058970	ppb
|	Cd	111	3573.232	2.329508	ppb
|	In	113	104235.435	1.788993	ppb
|>	In	115	2641724.837		ppb
⌊	Sn	118	217734.896	44.975226	ppb
⌈	Sb	121	111331.302	22.564889	ppb
|	Ba	135	133945.097	93.264161	ppb
|	Ba	137	234108.637	93.303216	ppb
⌊>	Tb	159	4175883.443		ppb
⌈	Tl	205	46593.294	1.469447	ppb
|	Pb	206	7317.676	0.753374	ppb
|	Pb	207	12874.220	0.703756	ppb
|	Pb	208	19671.498	0.596549	ppb
⌊>	Bi	209	4602133.918		ppb
	Cr	53	18931.904		ppb
	Pd	106	290.004		ppb
	Pd	108	260.003		ppb
	C	12	324263.461		ppb
	Kr	83	44.000		ppb
	Se	77	1297.417		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	652371.233		ppb
|	Be	9	658.022	2.233799	ppb
|	Na	23	2564672.792	673.192234	ppb
|	Mg	24	3838064.173	1444.015576	ppb
|	Mg	25	538018.028	1440.999235	ppb
|	Mg	26	616366.478	1412.990283	ppb
|	Al	27	331190.002	73.586678	ppb
|	K	39	590034.197	40.367678	ppb
⌊	Ca	44	807594.772	3830.773800	ppb
⌈>	Sc	45	878690.113		ppb

	Ti	47	21979.128	44.611999	ppb
	V	51	139164.286	21.631184	ppb
	Cr	52	53498.724	8.906110	ppb
	Mn	55	174646.874	21.145365	ppb
	Fe	54	45960.376	49.401764	ppb
	Fe	56	848133.336	34.828950	ppb
	Fe	57	11256.332	54.830812	ppb
	Co	59	159520.268	21.832526	ppb
	Ni	60	35248.681	21.333818	ppb
	Cu	63	41023.976	10.347283	ppb
	Cu	65	20076.800	10.450506	ppb
	Zn	66	20283.884	21.264885	ppb
	As	75	1708.651	1.526207	ppb
	Se	82	74.000	0.459281	ppb
	Mo	96	93943.203	43.501355	ppb
	Ag	107	14904.432	2.152880	ppb
	Ag	109	14507.182	2.141468	ppb
	Cd	111	3467.656	2.236262	ppb
	In	113	103038.122	0.293947	ppb
>	In	115	2670112.900		ppb
	Sn	118	222656.504	45.503367	ppb
	Sb	121	113839.302	23.199375	ppb
	Ba	135	135552.540	94.869377	ppb
	Ba	137	234552.866	93.961324	ppb
>	Tb	159	4154514.437		ppb
	Tl	205	46442.596	1.433671	ppb
	Pb	206	7347.698	0.740334	ppb
	Pb	207	12994.292	0.695221	ppb
	Pb	208	19606.331	0.581829	ppb
>	Bi	209	4701269.911		ppb
	Cr	53	18795.647		ppb
	Pd	106	310.005		ppb
	Pd	108	340.006		ppb
	C	12	322266.437		ppb
	Kr	83	34.000		ppb
	Se	77	1380.762		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	648077.065		ppb
	Be	9	700.025	2.392133	ppb
	Na	23	2685381.452	710.022324	ppb
	Mg	24	3994080.621	1512.716238	ppb
	Mg	25	553679.119	1492.805600	ppb
	Mg	26	645132.520	1488.788412	ppb
	Al	27	345729.902	77.373753	ppb
	K	39	594145.208	41.398841	ppb
	Ca	44	839394.124	4011.272782	ppb
>	Sc	45	891977.768		ppb
	Ti	47	22715.771	45.423834	ppb
	V	51	147136.273	22.534403	ppb
	Cr	52	56804.883	9.347646	ppb
	Mn	55	176254.717	21.021812	ppb
	Fe	54	46603.341	49.282654	ppb
	Fe	56	852203.491	33.762745	ppb
	Fe	57	11321.405	54.224673	ppb
	Co	59	158868.007	21.419008	ppb
	Ni	60	34583.029	20.618143	ppb
	Cu	63	41080.876	10.203373	ppb
	Cu	65	20217.083	10.365824	ppb
	Zn	66	20694.725	21.373369	ppb
	As	75	1857.253	1.636874	ppb
	Se	82	77.334	0.480865	ppb

⌈	Mo	96	97111.251	44.394260	ppb
|	Ag	107	14907.770	2.125537	ppb
|	Ag	109	14530.549	2.117216	ppb
|	Cd	111	3661.185	2.331117	ppb
|	In	113	104558.784	0.407737	ppb
|>	In	115	2704888.805		ppb
⌊	Sn	118	230025.505	46.405817	ppb
⌈	Sb	121	116479.445	23.411500	ppb
|	Ba	135	137768.516	95.086626	ppb
|	Ba	137	239420.197	94.584715	ppb
⌊>	Tb	159	4212787.155		ppb
⌈	Tl	205	49150.492	1.518889	ppb
|	Pb	206	7287.655	0.734832	ppb
|	Pb	207	13004.288	0.696364	ppb
|	Pb	208	19871.645	0.590326	ppb
⌊>	Bi	209	4697269.140		ppb
	Cr	53	19044.117		ppb
	Pd	106	365.007		ppb
	Pd	108	320.005		ppb
	C	12	329145.123		ppb
	Kr	83	32.000		ppb
	Se	77	1338.090		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		114.561			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.823			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		93.294			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.432			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		130.514			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Bi 209 Int Std for sample	Bi	209	Int Std out of control

ILM05.4 - Summary Report

Sample ID: 9042715-MSD1

Sample Date/Time: Thursday, May 07, 2009 15:11:32
Sample Type: Sample
Sample Description: 13MW5SD 25X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MSD1.141

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	644456.044	1.488	644456.044			ppb
|	Be	9	714.692	2.245	0.001	2.45688	3.72	ppb
|	Na	23	2712024.051	1.709	4.158	721.36392	2.51	ppb
|	Mg	24	4044238.370	2.115	6.273	1540.57788	2.65	ppb
|	Mg	25	564435.240	2.819	0.875	1530.67280	3.40	ppb
|	Mg	26	656831.530	2.213	1.019	1524.55364	2.68	ppb
|	Al	27	356804.498	1.218	0.547	80.34801	1.93	ppb
|	K	39	605833.547	0.230	0.519	43.35532	2.30	ppb
⌊	Ca	44	832971.512	0.514	1.270	4003.19596	1.00	ppb
⌈>	Sc	45	887826.306	0.771	887826.306			ppb
|	Ti	47	22667.331	1.431	0.025	45.54186	1.76	ppb
|	V	51	146328.719	1.457	0.164	22.51784	2.19	ppb
|	Cr	52	56637.987	2.107	0.059	9.36642	3.07	ppb
|	Mn	55	182997.586	0.512	0.206	21.93157	1.07	ppb
|	Fe	54	46981.782	1.147	0.025	50.66120	3.96	ppb
|	Fe	56	861252.046	0.455	0.326	35.35677	0.94	ppb
|	Fe	57	12107.326	1.142	0.011	59.08053	0.57	ppb
|	Co	59	164899.328	1.466	0.186	22.33861	1.96	ppb
|	Ni	60	36417.304	0.781	0.041	21.81576	1.06	ppb
|	Cu	63	42777.988	1.752	0.047	10.68932	2.58	ppb
|	Cu	65	21131.201	2.447	0.024	10.89163	2.69	ppb
|	Zn	66	21416.253	2.737	0.024	22.23264	3.33	ppb
|	As	75	1669.767	3.871	0.002	1.47493	3.98	ppb
⌊	Se	82	81.778	2.491	0.000	0.52798	4.28	ppb
⌈	Mo	96	98193.815	1.473	0.036	44.80353	2.85	ppb
|	Ag	107	14820.979	2.391	0.005	2.10916	3.79	ppb
|	Ag	109	14937.824	3.434	0.005	2.17311	4.95	ppb
|	Cd	111	3567.309	8.335	0.001	2.26542	7.79	ppb
|	In	113	104818.297	2.041	0.000	0.42812	286.52	ppb
|>	In	115	2710920.832	1.569	2710920.832			ppb
⌊	Sn	118	235195.369	0.203	0.087	47.35140	1.48	ppb
⌈	Sb	121	120071.569	0.495	0.028	23.72134	1.85	ppb
|	Ba	135	142375.824	1.299	0.033	96.58049	2.57	ppb
|	Ba	137	246316.912	1.057	0.057	95.63415	2.09	ppb
⌊>	Tb	159	4287320.938	1.344	4287320.938			ppb
⌈	Tl	205	48515.773	2.142	0.010	1.47966	2.52	ppb
|	Pb	206	7484.469	3.850	0.002	0.74491	3.55	ppb
|	Pb	207	13132.731	2.039	0.003	0.69400	1.69	ppb
|	Pb	208	20549.356	0.475	0.004	0.60267	0.30	ppb
⌊>	Bi	209	4759376.351	0.379	4759376.351			ppb
	Cr	53	18931.906	1.207	18285.885			ppb
	Pd	106	330.005	1.515	326.672			ppb
	Pd	108	395.008	8.301	395.008			ppb
	C	12	325085.678	0.684	26765.725			ppb
	Kr	83	38.000	22.942	0.667			ppb
	Se	77	1389.652	5.038	1356.986			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	645792.119		ppb
|	Be	9	716.026	2.455470	ppb
|	Na	23	2658586.449	705.367816	ppb
|	Mg	24	3945835.931	1499.723640	ppb
|	Mg	25	546069.321	1477.487806	ppb
|	Mg	26	640186.340	1482.597061	ppb
|	Al	27	351847.833	79.041442	ppb
|	K	39	605630.385	43.156559	ppb
⌊	Ca	44	832975.267	3994.389603	ppb
⌈>	Sc	45	895688.462		ppb
|	Ti	47	22635.590	45.074504	ppb
|	V	51	144223.252	21.994011	ppb
|	Cr	52	55266.297	9.035115	ppb
|	Mn	55	182479.892	21.675844	ppb
|	Fe	54	46467.712	48.531787	ppb
|	Fe	56	865740.436	34.974461	ppb
|	Fe	57	12252.502	59.299567	ppb
|	Co	59	163261.932	21.920641	ppb
|	Ni	60	36406.150	21.616586	ppb
|	Cu	63	41914.323	10.371886	ppb
|	Cu	65	20992.010	10.722528	ppb
|	Zn	66	20901.822	21.498942	ppb
|	As	75	1685.688	1.475920	ppb
⌊	Se	82	81.334	0.516571	ppb
⌈	Mo	96	97179.913	43.548350	ppb
|	Ag	107	14440.419	2.017857	ppb
|	Ag	109	14346.951	2.049005	ppb
|	Cd	111	3675.557	2.294100	ppb
|	In	113	106468.779	0.290884	ppb
|>	In	115	2759141.522		ppb
⌊	Sn	118	235326.732	46.541923	ppb
⌈	Sb	121	119393.511	23.227791	ppb
|	Ba	135	140268.917	93.716314	ppb
|	Ba	137	244171.020	93.376705	ppb
⌊>	Tb	159	4351943.438		ppb
⌈	Tl	205	47512.605	1.444933	ppb
|	Pb	206	7763.012	0.770976	ppb
|	Pb	207	13304.547	0.701321	ppb
|	Pb	208	20547.786	0.600972	ppb
⌊>	Bi	209	4772244.632		ppb
	Cr	53	19176.369		ppb
	Pd	106	325.005		ppb
	Pd	108	390.008		ppb
	C	12	325279.678		ppb
	Kr	83	34.000		ppb
	Se	77	1319.420		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	634268.527		ppb
|	Be	9	730.027	2.548967	ppb
|	Na	23	2741353.770	740.980452	ppb
|	Mg	24	4085902.311	1581.225506	ppb
|	Mg	25	574000.204	1581.343736	ppb
|	Mg	26	663304.472	1564.100236	ppb
|	Al	27	358606.677	82.058678	ppb
|	K	39	604554.101	44.438926	ppb
⌊	Ca	44	828690.271	4046.956055	ppb
⌈>	Sc	45	883159.246		ppb

	Ti	47	23006.434	46.468845	ppb
	V	51	148487.451	22.970633	ppb
	Cr	52	57209.178	9.520137	ppb
	Mn	55	182434.067	21.978609	ppb
	Fe	54	47542.748	52.518564	ppb
	Fe	56	858510.207	35.574672	ppb
	Fe	57	11977.168	58.694395	ppb
	Co	59	163759.977	22.299756	ppb
	Ni	60	36138.515	21.762290	ppb
	Cu	63	43260.036	10.870249	ppb
	Cu	65	20698.065	10.722370	ppb
	Zn	66	21292.645	22.217994	ppb
	As	75	1724.958	1.533142	ppb
	Se	82	84.000	0.554025	ppb
	Mo	96	99850.025	46.099677	ppb
	Ag	107	14881.064	2.142540	ppb
	Ag	109	15198.207	2.236749	ppb
	Cd	111	3231.032	2.076282	ppb
	In	113	105584.477	1.717638	ppb
>	In	115	2678726.933		ppb
	Sn	118	234666.486	47.805779	ppb
	Sb	121	120501.685	24.064258	ppb
	Ba	135	143131.046	98.123480	ppb
	Ba	137	245566.575	96.360219	ppb
>	Tb	159	4241349.457		ppb
	Tl	205	49587.643	1.518983	ppb
	Pb	206	7187.582	0.718161	ppb
	Pb	207	12824.170	0.680480	ppb
	Pb	208	20452.556	0.602435	ppb
>	Bi	209	4738757.658		ppb
	Cr	53	18723.512		ppb
	Pd	106	330.005		ppb
	Pd	108	365.007		ppb
	C	12	322770.302		ppb
	Kr	83	48.000		ppb
	Se	77	1390.097		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	653307.488		ppb
	Be	9	698.024	2.366201	ppb
	Na	23	2736131.933	717.743487	ppb
	Mg	24	4100976.868	1540.784486	ppb
	Mg	25	573236.195	1533.186852	ppb
	Mg	26	667003.780	1526.963615	ppb
	Al	27	359958.985	79.943908	ppb
	K	39	607316.154	42.470487	ppb
	Ca	44	837249.000	3968.242234	ppb
>	Sc	45	884631.209		ppb
	Ti	47	22359.970	45.082233	ppb
	V	51	146275.453	22.588888	ppb
	Cr	52	57438.487	9.544020	ppb
	Mn	55	184078.799	22.140264	ppb
	Fe	54	46934.886	50.933235	ppb
	Fe	56	859505.494	35.521187	ppb
	Fe	57	12092.307	59.247615	ppb
	Co	59	167676.076	22.795432	ppb
	Ni	60	36707.248	22.068411	ppb
	Cu	63	43159.604	10.825818	ppb
	Cu	65	21703.527	11.229990	ppb
	Zn	66	22054.293	22.980983	ppb
	As	75	1598.654	1.415725	ppb
	Se	82	80.000	0.513335	ppb

⌈	Mo	96	97551.505	44.762555	ppb
|	Ag	107	15141.455	2.167078	ppb
|	Ag	109	15268.314	2.233571	ppb
|	Cd	111	3795.336	2.425883	ppb
¦	In	113	102401.634	-0.724154	ppb
|>	In	115	2694894.041		ppb
⌊	Sn	118	235592.890	47.706487	ppb
⌈	Sb	121	120319.511	23.871966	ppb
|	Ba	135	143727.510	97.901689	ppb
|	Ba	137	249213.141	97.165529	ppb
⌊>	Tb	159	4268669.919		ppb
⌈	Tl	205	48447.072	1.475050	ppb
|	Pb	206	7502.814	0.745593	ppb
|	Pb	207	13269.476	0.700207	ppb
|	Pb	208	20647.726	0.604594	ppb
⌊>	Bi	209	4767126.763		ppb
	Cr	53	18895.836		ppb
	Pd	106	335.006		ppb
	Pd	108	430.009		ppb
	C	12	327207.052		ppb
	Kr	83	32.000		ppb
	Se	77	1459.440		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		115.309			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.757			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		94.644			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		94.782			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		133.100			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Bi 209 Int Std for sample	Bi	209	Int Std out of control

ILM05.4 - Summary Report

Sample ID: SDI0904098-01

Sample Date/Time: Thursday, May 07, 2009 15:14:25
Sample Type: Sample
Sample Description: 13MW5L 125X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\SDI0904098-01.142

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	599238.241	0.897	599238.241			ppb
|	Be	9	1.333	173.205	0.000	0.00488	173.21	ppb
|	Na	23	459526.065	2.847	0.716	124.23080	2.85	ppb
|	Mg	24	693256.526	0.965	1.153	283.19883	0.40	ppb
|	Mg	25	96084.138	1.518	0.160	279.39208	1.27	ppb
|	Mg	26	113237.376	2.093	0.188	281.78572	1.30	ppb
|	Al	27	1086.726	1.860	-0.005	-0.66811	0.67	ppb
|	K	39	271176.563	1.023	0.031	2.59699	25.36	ppb
⌊	Ca	44	145829.701	1.096	0.221	696.15814	1.34	ppb
⌈>	Sc	45	864554.129	1.238	864554.129			ppb
|	Ti	47	56.667	26.956	-0.000	-0.07498	43.82	ppb
|	V	51	-240.919	114.485	-0.001	-0.15367	29.01	ppb
|	Cr	52	3952.114	0.741	0.000	0.02461	17.21	ppb
|	Mn	55	293.338	3.548	-0.000	-0.01936	8.98	ppb
|	Fe	54	23716.437	2.696	-0.001	-1.36927	88.12	ppb
|	Fe	56	533098.026	2.882	-0.028	-3.01672	89.39	ppb
|	Fe	57	2111.890	4.861	0.000	1.51836	33.93	ppb
|	Co	59	81.334	19.723	-0.000	-0.00672	31.51	ppb
|	Ni	60	55.556	36.166	0.000	0.00470	272.96	ppb
|	Cu	63	480.012	13.679	-0.001	-0.16226	9.78	ppb
|	Cu	65	232.225	14.521	0.000	0.00771	243.98	ppb
|	Zn	66	152.223	6.690	-0.000	-0.02809	46.24	ppb
|	As	75	19.456	535.271	-0.000	-0.01985	487.94	ppb
⌊	Se	82	19.778	15.569	-0.000	-0.07414	40.24	ppb
⌈	Mo	96	195.335	18.581	-0.000	-0.10867	14.48	ppb
|	Ag	107	15.556	24.744	-0.000	-0.00890	6.01	ppb
|	Ag	109	8.889	86.603	-0.000	-0.00976	11.61	ppb
|	Cd	111	2.182	347.968	-0.000	-0.00823	59.22	ppb
|	In	113	101236.549	0.797	-0.001	-1.64493	77.46	ppb
|>	In	115	2702660.263	1.165	2702660.263			ppb
⌊	Sn	118	185.002	17.723	-0.000	-0.00620	101.39	ppb
⌈	Sb	121	73.334	10.415	-0.000	-0.25449	0.63	ppb
|	Ba	135	1515.448	2.134	0.000	1.00288	2.72	ppb
|	Ba	137	2661.021	2.218	0.001	1.00357	2.40	ppb
⌊>	Tb	159	4269536.863	0.517	4269536.863			ppb
⌈	Tl	205	43.333	46.632	-0.000	-0.00383	22.34	ppb
|	Pb	206	86.667	8.813	0.000	0.00138	73.67	ppb
|	Pb	207	151.667	19.317	0.000	0.00096	225.35	ppb
|	Pb	208	250.002	9.165	0.000	0.00166	48.91	ppb
⌊>	Bi	209	3498535.893	1.166	3498535.893			ppb
	Cr	53	5600.908	8.089	4954.887			ppb
	Pd	106	3.333	86.603	0.000			ppb
	Pd	108	5.000	173.205	5.000			ppb
	C	12	290291.214	0.413	-8028.739			ppb
	Kr	83	24.000	38.188	-13.333			ppb
	Se	77	277.115	6.810	244.448			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	594639.318		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	445979.983	121.309073	ppb
	Mg	24	685896.759	282.356245	ppb
	Mg	25	94449.943	276.754456	ppb
	Mg	26	110698.333	277.600698	ppb
	Al	27	1065.057	-0.671405	ppb
	K	39	274348.428	3.331903	ppb
	Ca	44	144277.343	693.834507	ppb
>	Sc	45	852219.797		ppb
	Ti	47	70.000	-0.045477	ppb
	V	51	-556.956	-0.204783	ppb
	Cr	52	3920.768	0.029216	ppb
	Mn	55	305.005	-0.017394	ppb
	Fe	54	23226.943	-1.729288	ppb
	Fe	56	547983.909	-0.170887	ppb
	Fe	57	2025.205	1.179319	ppb
	Co	59	66.000	-0.008708	ppb
	Ni	60	76.667	0.018290	ppb
	Cu	63	406.675	-0.179905	ppb
	Cu	65	250.003	0.019064	ppb
	Zn	66	163.335	-0.013707	ppb
	As	75	-72.770	-0.106025	ppb
	Se	82	18.000	-0.089308	ppb
	Mo	96	210.002	-0.102320	ppb
	Ag	107	13.333	-0.009226	ppb
	Ag	109	13.333	-0.009121	ppb
	Cd	111	8.820	-0.003974	ppb
	In	113	100850.995	-2.241452	ppb
>	In	115	2717069.870		ppb
	Sn	118	215.002	-0.000321	ppb
	Sb	121	65.000	-0.256242	ppb
	Ba	135	1478.109	0.971382	ppb
	Ba	137	2660.354	0.997138	ppb
>	Tb	159	4295006.282		ppb
	Tl	205	55.000	-0.003319	ppb
	Pb	206	80.000	0.000592	ppb
	Pb	207	140.001	0.000223	ppb
	Pb	208	225.002	0.000767	ppb
>	Bi	209	3457471.700		ppb
	Cr	53	6089.854		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	291522.212		ppb
	Kr	83	14.000		ppb
	Se	77	288.671		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	605144.239		ppb
	Be	9	4.000	0.014639	ppb
	Na	23	460512.949	123.216653	ppb
	Mg	24	698962.568	282.741299	ppb
	Mg	25	96548.845	277.997852	ppb
	Mg	26	115389.923	284.367125	ppb
	Al	27	1090.059	-0.669904	ppb
	K	39	269986.080	2.059875	ppb
	Ca	44	145742.359	688.189863	ppb
>	Sc	45	871396.456		ppb

	Ti	47	40.000	-0.110382	ppb
	V	51	-117.018	-0.133487	ppb
	Cr	52	3978.791	0.023749	ppb
	Mn	55	285.004	-0.020682	ppb
	Fe	54	23482.539	-2.354819	ppb
	Fe	56	517292.230	-5.533751	ppb
	Fe	57	2085.217	1.264534	ppb
	Co	59	98.000	-0.004493	ppb
	Ni	60	53.333	0.002975	ppb
	Cu	63	533.348	-0.149182	ppb
	Cu	65	193.335	-0.013998	ppb
	Zn	66	143.334	-0.038961	ppb
	As	75	-1.262	-0.038529	ppb
	Se	82	18.000	-0.093349	ppb
	Mo	96	222.002	-0.097106	ppb
	Ag	107	20.000	-0.008283	ppb
	Ag	109	0.000	-0.011065	ppb
	Cd	111	3.820	-0.007163	ppb
	In	113	100694.429	-2.511413	ppb
>	In	115	2724354.658		ppb
	Sn	118	190.002	-0.005449	ppb
	Sb	121	80.000	-0.253112	ppb
	Ba	135	1534.118	1.018326	ppb
	Ba	137	2602.339	0.983403	ppb
>	Tb	159	4258055.708		ppb
	Tl	205	20.000	-0.004813	ppb
	Pb	206	85.000	0.001014	ppb
	Pb	207	130.000	-0.000736	ppb
	Pb	208	270.003	0.002354	ppb
>	Bi	209	3539045.867		ppb
	Cr	53	5517.522		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	289130.251		ppb
	Kr	83	26.000		ppb
	Se	77	287.337		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	597931.164		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	472085.263	128.166662	ppb
	Mg	24	694910.252	284.498948	ppb
	Mg	25	97253.625	283.423917	ppb
	Mg	26	113623.873	283.389348	ppb
	Al	27	1105.061	-0.663032	ppb
	K	39	269195.181	2.399190	ppb
	Ca	44	147469.402	706.450035	ppb
>	Sc	45	870046.136		ppb
	Ti	47	60.000	-0.069079	ppb
	V	51	-48.782	-0.122747	ppb
	Cr	52	3956.783	0.020877	ppb
	Mn	55	290.004	-0.020015	ppb
	Fe	54	24439.829	-0.023699	ppb
	Fe	56	534017.937	-3.345533	ppb
	Fe	57	2225.248	2.111214	ppb
	Co	59	80.000	-0.006963	ppb
	Ni	60	36.667	-0.007176	ppb
	Cu	63	500.013	-0.157693	ppb
	Cu	65	253.337	0.018056	ppb
	Zn	66	150.001	-0.031601	ppb
	As	75	132.399	0.084996	ppb
	Se	82	23.333	-0.039773	ppb

⌈	Mo	96	154.001	-0.126586	ppb
|	Ag	107	13.333	-0.009190	ppb
|	Ag	109	13.333	-0.009084	ppb
|	Cd	111	-6.095	-0.013540	ppb
|	In	113	102164.224	-0.181922	ppb
|>	In	115	2666556.262		ppb
⌊	Sn	118	150.001	-0.012816	ppb
⌈	Sb	121	75.000	-0.254109	ppb
|	Ba	135	1534.118	1.018943	ppb
|	Ba	137	2720.370	1.030179	ppb
⌊>	Tb	159	4255548.599		ppb
⌈	Tl	205	55.000	-0.003346	ppb
|	Pb	206	95.000	0.002519	ppb
|	Pb	207	185.001	0.003382	ppb
|	Pb	208	255.002	0.001871	ppb
⌊>	Bi	209	3499090.112		ppb
	Cr	53	5195.349		ppb
	Pd	106	0.000		ppb
	Pd	108	15.000		ppb
	C	12	290221.179		ppb
	Kr	83	32.000		ppb
	Se	77	255.337		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		107.219			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		96.168			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		94.356			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		94.388			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		97.840			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 15:17:21
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.143

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	578566.400	3.328	578566.400			ppb
|	Be	9	31352.445	3.479	0.054	120.00642	0.46	ppb
|	Na	23	4141525.612	2.707	7.109	1233.16178	0.62	ppb
|	Mg	24	2935250.149	2.112	5.071	1245.43813	1.34	ppb
|	Mg	25	404764.888	1.386	0.699	1222.77834	1.98	ppb
|	Mg	26	473167.294	0.674	0.818	1223.71299	2.86	ppb
|	Al	27	4869079.686	1.338	8.415	1235.25452	3.32	ppb
|	K	39	8336455.817	1.152	13.994	1169.75179	2.26	ppb
⌊	Ca	44	217949.690	1.113	0.354	1117.03666	2.63	ppb
⌈>	Sc	45	834172.682	1.589	834172.682			ppb
|	Ti	47	55999.700	0.750	0.067	120.06597	0.84	ppb
|	V	51	720570.452	2.413	0.863	118.48270	0.88	ppb
|	Cr	52	633562.697	2.375	0.755	119.08270	1.06	ppb
|	Mn	55	890875.772	1.700	1.067	113.86198	0.58	ppb
|	Fe	54	508100.299	1.507	0.581	1186.07462	2.22	ppb
|	Fe	56	9859589.728	0.771	11.176	1214.00166	1.32	ppb
|	Fe	57	195070.212	2.807	0.232	1191.37807	2.16	ppb
|	Co	59	819371.412	1.173	0.982	118.21164	0.44	ppb
|	Ni	60	183121.594	1.095	0.219	116.88548	0.52	ppb
|	Cu	63	431212.275	0.565	0.516	117.48683	1.04	ppb
|	Cu	65	209123.199	1.485	0.250	115.82841	0.51	ppb
|	Zn	66	106025.923	1.983	0.127	117.94534	0.41	ppb
|	As	75	119362.974	0.974	0.143	115.02814	0.77	ppb
⌊	Se	82	11401.163	1.618	0.014	118.56147	0.13	ppb
⌈	Mo	96	247502.521	1.460	0.093	116.13109	1.02	ppb
|	Ag	107	807194.431	1.716	0.305	118.40567	1.21	ppb
|	Ag	109	796240.933	2.064	0.301	119.35886	1.50	ppb
|	Cd	111	184138.201	1.108	0.070	120.49070	0.56	ppb
|	In	113	282759.900	2.261	0.069	118.13059	2.71	ppb
|>	In	115	2642539.785	0.567	2642539.785			ppb
⌊	Sn	118	578803.652	1.541	0.219	119.58946	1.11	ppb
⌈	Sb	121	598627.210	0.428	0.139	119.39505	1.53	ppb
|	Ba	135	174861.001	1.002	0.041	118.66374	0.91	ppb
|	Ba	137	306599.122	2.059	0.072	119.07899	0.34	ppb
⌊>	Tb	159	4285399.602	1.921	4285399.602			ppb
⌈	Tl	205	2821361.240	1.108	0.808	117.71373	0.83	ppb
|	Pb	206	867820.424	0.593	0.249	119.38707	0.55	ppb
|	Pb	207	1633158.555	0.545	0.468	119.34178	0.61	ppb
|	Pb	208	2698473.344	0.400	0.773	109.37220	0.75	ppb
⌊>	Bi	209	3491997.836	1.134	3491997.836			ppb
	Cr	53	76693.025	1.724	76047.004			ppb
	Pd	106	15612.178	0.971	15608.845			ppb
	Pd	108	12150.713	1.915	12150.713			ppb
	C	12	289283.644	1.984	-9036.309			ppb
	Kr	83	39.333	12.796	2.000			ppb
	Se	77	9001.384	1.721	8968.717			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	599868.161		ppb
	Be	9	32504.742	120.002317	ppb
	Na	23	4265793.302	1224.832740	ppb
	Mg	24	3006594.059	1230.054154	ppb
	Mg	25	411220.783	1197.628687	ppb
	Mg	26	476456.426	1187.691743	ppb
	Al	27	4859196.230	1188.128694	ppb
	K	39	8446995.649	1141.802846	ppb
	Ca	44	219650.103	1083.180053	ppb
>	Sc	45	849464.521		ppb
	Ti	47	56484.073	118.912039	ppb
	V	51	740198.549	119.530060	ppb
	Cr	52	649550.186	119.902629	ppb
	Mn	55	907052.471	113.842693	ppb
	Fe	54	508313.942	1164.013421	ppb
	Fe	56	9911879.833	1197.427486	ppb
	Fe	57	199439.163	1196.210951	ppb
	Co	59	830447.448	117.647502	ppb
	Ni	60	185426.694	116.219858	ppb
	Cu	63	433910.688	116.077688	ppb
	Cu	65	212473.522	115.563108	ppb
	Zn	66	108438.104	118.462852	ppb
	As	75	120590.010	114.110153	ppb
	Se	82	11612.739	118.588104	ppb
	Mo	96	251663.370	117.406015	ppb
	Ag	107	823149.512	120.052878	ppb
	Ag	109	813130.866	121.193179	ppb
	Cd	111	186389.948	121.261604	ppb
	In	113	290082.233	121.821560	ppb
>	In	115	2657903.075		ppb
	Sn	118	589058.099	121.008506	ppb
	Sb	121	601199.659	117.284106	ppb
	Ba	135	176882.660	117.422473	ppb
	Ba	137	313718.982	119.207651	ppb
>	Tb	159	4380247.999		ppb
	Tl	205	2853496.524	117.573282	ppb
	Pb	206	873226.200	118.634166	ppb
	Pb	207	1642170.398	118.504868	ppb
	Pb	208	2710912.628	108.505928	ppb
>	Bi	209	3535902.404		ppb
	Cr	53	77664.422		ppb
	Pd	106	15782.444		ppb
	Pd	108	12282.538		ppb
	C	12	295900.015		ppb
	Kr	83	40.000		ppb
	Se	77	9159.526		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	573424.546		ppb
	Be	9	31216.648	120.561517	ppb
	Na	23	4110736.024	1234.812836	ppb
	Mg	24	2904500.394	1243.093774	ppb
	Mg	25	402020.800	1224.850049	ppb
	Mg	26	470087.368	1225.886078	ppb
	Al	27	4938617.953	1263.293654	ppb
	K	39	8288465.353	1172.973247	ppb
	Ca	44	219026.650	1132.972633	ppb
>	Sc	45	827090.630		ppb

	Ti	47	55739.915	120.522366	ppb
	V	51	714402.019	118.484091	ppb
	Cr	52	631465.192	119.716401	ppb
	Mn	55	888541.095	114.536444	ppb
	Fe	54	515650.621	1215.158508	ppb
	Fe	56	9894449.798	1229.424402	ppb
	Fe	57	188927.988	1163.520948	ppb
	Co	59	813177.072	118.317287	ppb
	Ni	60	181787.450	117.021291	ppb
	Cu	63	430553.484	118.300859	ppb
	Cu	65	208552.259	116.499741	ppb
	Zn	66	105058.986	117.875111	ppb
	As	75	119221.866	115.867910	ppb
	Se	82	11317.067	118.695264	ppb
	Mo	96	245154.651	115.064119	ppb
	Ag	107	800240.728	117.424291	ppb
	Ag	109	795284.461	119.257013	ppb
	Cd	111	183610.807	120.183017	ppb
	In	113	279908.365	116.335859	ppb
>	In	115	2641768.724		ppb
	Sn	118	572824.585	118.391441	ppb
	Sb	121	598600.480	120.556891	ppb
	Ba	135	173905.114	119.175634	ppb
	Ba	137	304395.374	119.401320	ppb
>	Tb	159	4243177.069		ppb
	Tl	205	2791077.476	116.813148	ppb
	Pb	206	867248.046	119.678288	ppb
	Pb	207	1632946.849	119.695843	ppb
	Pb	208	2692962.780	109.485669	ppb
>	Bi	209	3481060.663		ppb
	Cr	53	77227.054		ppb
	Pd	106	15491.991		ppb
	Pd	108	12287.545		ppb
	C	12	286312.906		ppb
	Kr	83	34.000		ppb
	Se	77	8994.710		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	562406.492		ppb
	Be	9	30335.944	119.455432	ppb
	Na	23	4048047.509	1239.839760	ppb
	Mg	24	2894655.993	1263.166459	ppb
	Mg	25	401053.082	1245.856293	ppb
	Mg	26	472958.089	1257.561150	ppb
	Al	27	4809424.873	1254.341213	ppb
	K	39	8273906.448	1194.479282	ppb
	Ca	44	215172.316	1134.957284	ppb
>	Sc	45	825962.895		ppb
	Ti	47	55775.111	120.763511	ppb
	V	51	707110.788	117.433938	ppb
	Cr	52	619672.714	117.629055	ppb
	Mn	55	877033.749	113.206815	ppb
	Fe	54	500336.334	1179.051923	ppb
	Fe	56	9772439.554	1215.153095	ppb
	Fe	57	196843.486	1214.402304	ppb
	Co	59	814489.716	118.670136	ppb
	Ni	60	182150.637	117.415279	ppb
	Cu	63	429172.654	118.081928	ppb
	Cu	65	206343.815	115.422380	ppb
	Zn	66	104580.678	117.498051	ppb
	As	75	118277.046	115.106372	ppb
	Se	82	11273.685	118.401028	ppb

⌈	Mo	96	245689.541	115.923126	ppb
|	Ag	107	798193.053	117.739842	ppb
|	Ag	109	780307.472	117.626382	ppb
|	Cd	111	182413.847	120.027489	ppb
|	In	113	278289.100	116.234362	ppb
|>	In	115	2627947.556		ppb
⌊	Sn	118	574528.271	119.368427	ppb
⌈	Sb	121	596081.493	120.344157	ppb
|	Ba	135	173795.229	119.393110	ppb
|	Ba	137	301683.010	118.628004	ppb
⌊>	Tb	159	4232773.737		ppb
⌈	Tl	205	2819509.720	118.754748	ppb
|	Pb	206	862987.027	119.848766	ppb
|	Pb	207	1624358.419	119.824639	ppb
|	Pb	208	2691544.624	110.124997	ppb
⌊>	Bi	209	3459030.442		ppb
	Cr	53	75187.600		ppb
	Pd	106	15562.100		ppb
	Pd	108	11882.055		ppb
	C	12	285638.012		ppb
	Kr	83	44.000		ppb
	Se	77	8849.914		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.520			
	Be	9	100.005				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		92.789			
	Ti	47					
	V	51	98.736				
	Cr	52	99.236				
	Mn	55	94.885				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	98.510				
	Ni	60	97.405				
	Cu	63	97.906				
	Cu	65	96.524				
	Zn	66	98.288				
	As	75	95.857				
	Se	82	98.801				
	Mo	96					
	Ag	107	98.671				
	Ag	109	99.466				
	Cd	111	100.409				
	In	113					
>	In	115		92.257			
	Sn	118	99.658				
	Sb	121	99.496				
	Ba	135	98.886				
	Ba	137	99.232				
>	Tb	159		94.739			
	Tl	205	98.095				
	Pb	206	99.489				
	Pb	207	99.451				
	Pb	208	91.143				
>	Bi	209		97.657			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 15:20:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.144

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	571441.333	0.975	571441.333			ppb
|	Be	9	2.000	0.000	0.000	0.00775	0.97	ppb
|	Na	23	12255.839	0.297	-0.029	-5.07780	0.86	ppb
|	Mg	24	3329.888	2.101	0.002	0.49018	7.04	ppb
|	Mg	25	461.011	4.139	0.000	0.45004	12.01	ppb
|	Mg	26	566.016	8.160	0.000	0.47578	22.69	ppb
|	Al	27	918.376	7.934	-0.005	-0.69852	2.34	ppb
|	K	39	193925.094	1.061	-0.082	-6.86497	5.52	ppb
⌊	Ca	44	6642.208	4.233	-0.011	-34.22649	5.22	ppb
⌈>	Sc	45	838694.789	1.529	838694.789			ppb
|	Ti	47	61.667	18.725	-0.000	-0.06099	38.91	ppb
|	V	51	51.229	376.519	-0.001	-0.10636	29.95	ppb
|	Cr	52	3459.265	2.416	-0.000	-0.04593	13.08	ppb
|	Mn	55	266.670	10.327	-0.000	-0.02163	17.78	ppb
|	Fe	54	21984.139	0.181	-0.002	-3.84737	23.91	ppb
|	Fe	56	498095.357	1.549	-0.051	-5.50050	18.44	ppb
|	Fe	57	1845.170	4.207	0.000	0.27016	125.76	ppb
|	Co	59	90.000	16.025	-0.000	-0.00509	44.68	ppb
|	Ni	60	42.222	22.790	-0.000	-0.00284	206.27	ppb
|	Cu	63	415.564	5.341	-0.001	-0.17568	4.11	ppb
|	Cu	65	154.446	15.312	-0.000	-0.03144	40.94	ppb
|	Zn	66	120.001	14.699	-0.000	-0.05903	30.05	ppb
|	As	75	57.173	35.477	0.000	0.01761	114.47	ppb
⌊	Se	82	31.778	10.349	0.000	0.05672	65.22	ppb
⌈	Mo	96	421.342	17.521	-0.000	-0.00119	2808.47	ppb
|	Ag	107	126.667	21.541	0.000	0.00740	55.80	ppb
|	Ag	109	117.778	11.783	0.000	0.00653	33.76	ppb
|	Cd	111	9.242	141.538	-0.000	-0.00355	240.87	ppb
|	In	113	99864.509	0.452	-0.001	-1.33437	47.26	ppb
|>	In	115	2652981.301	0.820	2652981.301			ppb
⌊	Sn	118	476.678	7.873	0.000	0.05461	14.57	ppb
⌈	Sb	121	3348.900	12.426	0.000	0.40812	22.59	ppb
|	Ba	135	34.667	17.625	-0.000	-0.00577	76.26	ppb
|	Ba	137	64.667	3.571	-0.000	-0.00872	6.64	ppb
⌊>	Tb	159	4239467.172	1.404	4239467.172			ppb
⌈	Tl	205	281.671	6.234	0.000	0.00616	11.13	ppb
|	Pb	206	71.667	31.460	-0.000	-0.00060	532.93	ppb
|	Pb	207	160.001	18.750	0.000	0.00164	139.37	ppb
|	Pb	208	308.336	7.490	0.000	0.00411	25.84	ppb
⌊>	Bi	209	3478306.885	1.017	3478306.885			ppb
	Cr	53	2815.066	11.216	2169.045			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	5.000	100.000	5.000			ppb
	C	12	282036.921	1.121	-16283.032			ppb
	Kr	83	33.333	19.287	-4.000			ppb
	Se	77	59.778	10.716	27.111			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570411.335		ppb
	Be	9	2.000	0.007765	ppb
	Na	23	12226.470	-5.080293	ppb
	Mg	24	3410.582	0.527396	ppb
	Mg	25	479.011	0.507846	ppb
	Mg	26	578.017	0.510575	ppb
	Al	27	895.040	-0.703990	ppb
	K	39	196197.985	-6.482206	ppb
	Ca	44	6924.397	-32.609734	ppb
>	Sc	45	845189.035		ppb
	Ti	47	75.000	-0.033656	ppb
	V	51	37.799	-0.108907	ppb
	Cr	52	3490.609	-0.045018	ppb
	Mn	55	280.004	-0.020232	ppb
	Fe	54	21954.073	-4.340446	ppb
	Fe	56	506999.680	-4.857089	ppb
	Fe	57	1920.184	0.642036	ppb
	Co	59	78.000	-0.006922	ppb
	Ni	60	36.667	-0.006516	ppb
	Cu	63	426.676	-0.173610	ppb
	Cu	65	180.002	-0.018112	ppb
	Zn	66	133.334	-0.045218	ppb
	As	75	35.559	-0.003536	ppb
	Se	82	28.000	0.015092	ppb
	Mo	96	488.012	0.029745	ppb
	Ag	107	103.334	0.003944	ppb
	Ag	109	106.667	0.004835	ppb
	Cd	111	-5.730	-0.013316	ppb
	In	113	99346.043	-1.790257	ppb
>	In	115	2657768.978		ppb
	Sn	118	515.013	0.062299	ppb
	Sb	121	3675.675	0.485098	ppb
	Ba	135	40.000	-0.001702	ppb
	Ba	137	62.000	-0.009375	ppb
>	Tb	159	4173563.782		ppb
	Tl	205	265.004	0.005583	ppb
	Pb	206	95.000	0.002738	ppb
	Pb	207	190.001	0.003979	ppb
	Pb	208	335.003	0.005334	ppb
>	Bi	209	3441416.657		ppb
	Cr	53	3164.501		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	285551.596		ppb
	Kr	83	36.000		ppb
	Se	77	66.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	577456.943		ppb
	Be	9	2.000	0.007670	ppb
	Na	23	12244.492	-5.120247	ppb
	Mg	24	3292.542	0.459274	ppb
	Mg	25	463.011	0.441483	ppb
	Mg	26	605.018	0.562051	ppb
	Al	27	1000.050	-0.680107	ppb
	K	39	193388.039	-7.239741	ppb
	Ca	44	6362.023	-36.145950	ppb
>	Sc	45	846970.727		ppb

	Ti	47	55.000	-0.076288	ppb
	V	51	-134.593	-0.136868	ppb
	Cr	52	3522.620	-0.040428	ppb
	Mn	55	235.003	-0.025973	ppb
	Fe	54	21969.106	-4.415747	ppb
	Fe	56	493934.564	-6.669727	ppb
	Fe	57	1850.171	0.192408	ppb
	Co	59	86.000	-0.005808	ppb
	Ni	60	53.333	0.003915	ppb
	Cu	63	390.008	-0.183715	ppb
	Cu	65	133.334	-0.043802	ppb
	Zn	66	126.667	-0.052843	ppb
	As	75	60.167	0.019755	ppb
	Se	82	33.333	0.069236	ppb
	Mo	96	434.009	0.003431	ppb
	Ag	107	120.001	0.006283	ppb
	Ag	109	113.334	0.005739	ppb
	Cd	111	15.000	0.000121	ppb
	In	113	100174.243	-1.598138	ppb
>	In	115	2671953.125		ppb
	Sn	118	440.010	0.046405	ppb
	Sb	121	3490.609	0.433319	ppb
	Ba	135	28.000	-0.010441	ppb
	Ba	137	66.000	-0.008286	ppb
>	Tb	159	4255548.599		ppb
	Tl	205	280.004	0.005980	ppb
	Pb	206	50.000	-0.003685	ppb
	Pb	207	160.001	0.001516	ppb
	Pb	208	295.002	0.003445	ppb
>	Bi	209	3511923.755		ppb
	Cr	53	2730.373		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	279419.988		ppb
	Kr	83	38.000		ppb
	Se	77	58.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	566455.720		ppb
	Be	9	2.000	0.007819	ppb
	Na	23	12296.556	-5.032863	ppb
	Mg	24	3286.540	0.483869	ppb
	Mg	25	441.010	0.400801	ppb
	Mg	26	515.013	0.354708	ppb
	Al	27	860.037	-0.711452	ppb
	K	39	192189.257	-6.872976	ppb
	Ca	44	6640.204	-33.923795	ppb
>	Sc	45	823924.607		ppb
	Ti	47	55.000	-0.073034	ppb
	V	51	250.481	-0.073306	ppb
	Cr	52	3364.566	-0.052335	ppb
	Mn	55	285.004	-0.018672	ppb
	Fe	54	22029.238	-2.785919	ppb
	Fe	56	493351.829	-4.974693	ppb
	Fe	57	1765.156	-0.023976	ppb
	Co	59	106.001	-0.002545	ppb
	Ni	60	36.667	-0.005919	ppb
	Cu	63	430.009	-0.169720	ppb
	Cu	65	150.001	-0.032410	ppb
	Zn	66	100.001	-0.079038	ppb
	As	75	75.792	0.036602	ppb
	Se	82	34.000	0.085842	ppb

⌈	Mo	96	342.006	-0.036753	ppb
|	Ag	107	156.668	0.011972	ppb
|	Ag	109	133.334	0.009026	ppb
|	Cd	111	18.455	0.002551	ppb
|	In	113	100073.240	-0.614712	ppb
|>	In	115	2629221.801		ppb
⌊	Sn	118	475.011	0.055138	ppb
⌈	Sb	121	2880.415	0.305951	ppb
|	Ba	135	36.000	-0.005167	ppb
|	Ba	137	66.000	-0.008489	ppb
⌊>	Tb	159	4289289.136		ppb
⌈	Tl	205	300.005	0.006918	ppb
|	Pb	206	70.000	-0.000865	ppb
|	Pb	207	130.000	-0.000582	ppb
|	Pb	208	295.003	0.003549	ppb
⌊>	Bi	209	3481580.244		ppb
	Cr	53	2550.325		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	281139.179		ppb
	Kr	83	26.000		ppb
	Se	77	54.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.245			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		93.292			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.622			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		93.724			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		97.274			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042715-MS1

Sample Date/Time: Thursday, May 07, 2009 15:46:23
Sample Type: Sample
Sample Description: 13MW5S 125X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MS1.145

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	585892.171	3.360	585892.171			ppb
	Be	9	109.334	11.617	0.000	0.41253	8.15	ppb
	Na	23	445477.888	3.859	0.710	123.11194	2.62	ppb
	Mg	24	679019.288	1.942	1.156	283.92100	3.95	ppb
	Mg	25	94528.869	2.512	0.161	281.25122	2.75	ppb
	Mg	26	110407.264	1.745	0.188	281.11808	1.63	ppb
	Al	27	61010.548	0.101	0.098	14.36228	3.41	ppb
	K	39	281177.975	1.249	0.059	4.90068	17.01	ppb
	Ca	44	152125.056	0.548	0.237	748.16891	4.19	ppb
>	Sc	45	881495.427	0.458	881495.427			ppb
	Ti	47	4139.190	2.966	0.005	8.21909	3.45	ppb
	V	51	26325.782	1.464	0.029	3.98573	1.74	ppb
	Cr	52	12932.358	1.238	0.010	1.61757	2.34	ppb
	Mn	55	32914.100	2.496	0.037	3.92752	2.87	ppb
	Fe	54	27880.483	1.274	0.004	7.20142	15.07	ppb
	Fe	56	594102.415	2.219	0.029	3.19740	59.50	ppb
	Fe	57	3617.321	1.751	0.002	10.06196	4.49	ppb
	Co	59	29393.813	1.836	0.033	3.99560	2.14	ppb
	Ni	60	6558.818	2.746	0.007	3.93324	3.19	ppb
	Cu	63	8151.100	2.505	0.008	1.81802	3.18	ppb
	Cu	65	3866.303	2.861	0.004	1.91205	3.43	ppb
	Zn	66	3953.004	4.432	0.004	3.97651	4.71	ppb
	As	75	328.332	18.038	0.000	0.26215	20.72	ppb
	Se	82	33.556	14.373	0.000	0.05818	84.16	ppb
	Mo	96	17640.216	1.997	0.006	7.76205	1.64	ppb
	Ag	107	2822.621	2.684	0.001	0.38642	2.20	ppb
	Ag	109	2867.078	4.550	0.001	0.40159	4.18	ppb
	Cd	111	644.936	7.236	0.000	0.39566	7.52	ppb
	In	113	104240.596	1.738	-0.001	-0.94162	80.59	ppb
>	In	115	2752311.549	0.577	2752311.549			ppb
	Sn	118	42933.643	1.233	0.016	8.47660	0.86	ppb
	Sb	121	22453.518	1.772	0.005	4.18932	0.88	ppb
	Ba	135	26549.866	0.678	0.006	17.87485	0.48	ppb
	Ba	137	45447.737	2.081	0.011	17.50871	1.58	ppb
>	Tb	159	4313071.528	0.985	4313071.528			ppb
	Tl	205	8663.752	1.627	0.002	0.33412	1.22	ppb
	Pb	206	1420.101	3.574	0.000	0.17311	3.70	ppb
	Pb	207	2478.490	3.330	0.001	0.16013	3.49	ppb
	Pb	208	3892.125	2.715	0.001	0.13984	2.84	ppb
>	Bi	209	3715105.780	0.504	3715105.780			ppb
	Cr	53	4091.504	0.702	3445.483			ppb
	Pd	106	70.000	14.286	66.667			ppb
	Pd	108	71.667	63.306	71.667			ppb
	C	12	290835.108	2.588	-7484.845			ppb
	Kr	83	21.333	19.516	-16.000			ppb
	Se	77	237.114	3.560	204.447			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	608498.904		ppb
	Be	9	124.001	0.451298	ppb
	Na	23	459694.555	122.255534	ppb
	Mg	24	676362.054	272.055230	ppb
	Mg	25	95918.825	274.649672	ppb
	Mg	26	112630.732	276.007669	ppb
	Al	27	61080.976	13.800418	ppb
	K	39	285173.019	3.940468	ppb
	Ca	44	151212.685	712.338792	ppb
>	Sc	45	878853.584		ppb
	Ti	47	4265.910	8.501864	ppb
	V	51	26759.094	4.065631	ppb
	Cr	52	13104.581	1.655323	ppb
	Mn	55	33852.202	4.053092	ppb
	Fe	54	28254.861	8.261904	ppb
	Fe	56	608533.942	5.196143	ppb
	Fe	57	3685.679	10.524123	ppb
	Co	59	30016.983	4.092832	ppb
	Ni	60	6738.937	4.053940	ppb
	Cu	63	8036.561	1.794561	ppb
	Cu	65	3987.462	1.981740	ppb
	Zn	66	3794.053	3.820834	ppb
	As	75	276.408	0.215527	ppb
	Se	82	36.667	0.089799	ppb
	Mo	96	18046.269	7.903077	ppb
	Ag	107	2903.755	0.395748	ppb
	Ag	109	3017.122	0.420970	ppb
	Cd	111	604.741	0.368397	ppb
	In	113	105862.392	-0.269461	ppb
>	In	115	2766750.843		ppb
	Sn	118	43544.601	8.552874	ppb
	Sb	121	22690.714	4.217970	ppb
	Ba	135	26533.154	17.788989	ppb
	Ba	137	46463.694	17.827060	ppb
>	Tb	159	4331019.619		ppb
	Tl	205	8503.614	0.329437	ppb
	Pb	206	1375.095	0.168140	ppb
	Pb	207	2410.148	0.156225	ppb
	Pb	208	3945.477	0.142583	ppb
>	Bi	209	3697569.932		ppb
	Cr	53	4058.824		ppb
	Pd	106	70.000		ppb
	Pd	108	120.001		ppb
	C	12	299486.443		ppb
	Kr	83	18.000		ppb
	Se	77	244.670		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576671.507		ppb
	Be	9	102.001	0.391717	ppb
	Na	23	450368.234	126.683036	ppb
	Mg	24	693335.375	294.351281	ppb
	Mg	25	95880.460	289.744700	ppb
	Mg	26	109237.399	282.490009	ppb
	Al	27	60985.396	14.589321	ppb
	K	39	279786.012	5.321672	ppb
	Ca	44	152313.198	761.580000	ppb
>	Sc	45	879485.697		ppb

	Ti	47	4130.853	8.220550	ppb
	V	51	26021.688	3.947501	ppb
	Cr	52	12904.321	1.617721	ppb
	Mn	55	32567.947	3.894380	ppb
	Fe	54	27838.696	7.248918	ppb
	Fe	56	591087.765	2.987374	ppb
	Fe	57	3605.650	10.040726	ppb
	Co	59	29074.204	3.960856	ppb
	Ni	60	6558.817	3.941937	ppb
	Cu	63	8386.849	1.883797	ppb
	Cu	65	3840.737	1.903076	ppb
	Zn	66	4140.857	4.184475	ppb
	As	75	392.834	0.321788	ppb
	Se	82	36.000	0.082948	ppb
	Mo	96	17417.155	7.654366	ppb
	Ag	107	2810.395	0.384365	ppb
	Ag	109	2803.726	0.392144	ppb
	Cd	111	696.119	0.427388	ppb
	In	113	104573.941	-0.790924	ppb
>	In	115	2754872.670		ppb
	Sn	118	42620.633	8.406746	ppb
	Sb	121	22675.680	4.201983	ppb
	Ba	135	26737.697	17.874241	ppb
	Ba	137	45286.311	17.323939	ppb
>	Tb	159	4343625.458		ppb
	Tl	205	8718.799	0.336497	ppb
	Pb	206	1475.109	0.180343	ppb
	Pb	207	2570.169	0.166536	ppb
	Pb	208	3770.418	0.135286	ppb
>	Bi	209	3712897.562		ppb
	Cr	53	4112.846		ppb
	Pd	106	60.000		ppb
	Pd	108	65.000		ppb
	C	12	285802.616		ppb
	Kr	83	20.000		ppb
	Se	77	228.003		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	572506.101		ppb
	Be	9	102.001	0.394567	ppb
	Na	23	426370.874	120.397253	ppb
	Mg	24	667360.436	285.356504	ppb
	Mg	25	91787.321	279.359294	ppb
	Mg	26	109353.660	284.856570	ppb
	Al	27	60965.273	14.697108	ppb
	K	39	278574.895	5.439910	ppb
	Ca	44	152849.285	770.587925	ppb
>	Sc	45	886147.002		ppb
	Ti	47	4020.808	7.934868	ppb
	V	51	26196.563	3.944059	ppb
	Cr	52	12788.172	1.579653	ppb
	Mn	55	32322.152	3.835101	ppb
	Fe	54	27547.892	6.093440	ppb
	Fe	56	582685.536	1.408672	ppb
	Fe	57	3560.634	9.621045	ppb
	Co	59	29090.251	3.933125	ppb
	Ni	60	6378.700	3.803836	ppb
	Cu	63	8029.889	1.775700	ppb
	Cu	65	3770.711	1.851346	ppb
	Zn	66	3924.103	3.924219	ppb
	As	75	315.754	0.249148	ppb
	Se	82	28.000	0.001778	ppb

⌈	Mo	96	17457.224	7.728719	ppb
|	Ag	107	2753.712	0.379159	ppb
|	Ag	109	2780.386	0.391647	ppb
|	Cd	111	633.947	0.391206	ppb
|	In	113	102285.454	-1.764484	ppb
|>	In	115	2735311.132		ppb
⌊	Sn	118	42635.697	8.470186	ppb
⌈	Sb	121	21994.161	4.147996	ppb
|	Ba	135	26378.746	17.961326	ppb
|	Ba	137	44593.207	17.375131	ppb
⌊>	Tb	159	4264569.506		ppb
⌈	Tl	205	8768.843	0.336439	ppb
|	Pb	206	1410.099	0.170859	ppb
|	Pb	207	2455.154	0.157639	ppb
|	Pb	208	3960.480	0.141644	ppb
⌊>	Bi	209	3734849.846		ppb
	Cr	53	4102.841		ppb
	Pd	106	80.000		ppb
	Pd	108	30.000		ppb
	C	12	287216.264		ppb
	Kr	83	26.000		ppb
	Se	77	238.670		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		104.831			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.053			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		96.089			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		95.351			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		103.896			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042715-MSD1

Sample Date/Time: Thursday, May 07, 2009 15:49:15
Sample Type: Sample
Sample Description: 13MW5SD 125X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042715-MSD1.146

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	559216.511	0.586	559216.511			ppb
|	Be	9	112.667	11.550	0.000	0.44604	11.09	ppb
|	Na	23	393279.171	2.571	0.653	113.19797	2.47	ppb
|	Mg	24	589586.579	1.250	1.050	257.99913	0.92	ppb
|	Mg	25	83655.465	0.671	0.149	260.60127	0.85	ppb
|	Mg	26	97082.981	0.262	0.173	258.81472	0.42	ppb
|	Al	27	53539.634	1.650	0.089	13.11941	1.65	ppb
|	K	39	271171.839	1.157	0.063	5.29909	4.63	ppb
⌊	Ca	44	135455.249	0.493	0.220	692.55844	0.40	ppb
⌈>	Sc	45	852114.342	1.476	852114.342			ppb
|	Ti	47	3495.611	3.810	0.004	7.15927	5.42	ppb
|	V	51	24221.011	1.566	0.028	3.78787	0.72	ppb
|	Cr	52	11944.465	2.419	0.010	1.51439	2.79	ppb
|	Mn	55	29125.688	0.454	0.034	3.59102	1.89	ppb
|	Fe	54	26560.232	1.668	0.003	6.28040	30.86	ppb
|	Fe	56	584675.254	0.368	0.042	4.52680	27.28	ppb
|	Fe	57	3447.261	3.728	0.002	9.77270	11.05	ppb
|	Co	59	26747.726	0.864	0.031	3.76032	0.85	ppb
|	Ni	60	5869.500	1.546	0.007	3.63873	0.71	ppb
|	Cu	63	7293.771	1.833	0.007	1.66173	3.13	ppb
|	Cu	65	3665.117	5.291	0.004	1.87209	4.41	ppb
|	Zn	66	3665.117	4.154	0.004	3.80801	5.65	ppb
|	As	75	294.855	11.483	0.000	0.24075	12.41	ppb
⌊	Se	82	33.111	6.151	0.000	0.06489	30.61	ppb
⌈	Mo	96	16098.950	1.513	0.006	7.21369	1.02	ppb
|	Ag	107	2482.531	5.796	0.001	0.34560	5.73	ppb
|	Ag	109	2452.523	3.264	0.001	0.34908	2.78	ppb
|	Cd	111	543.621	14.223	0.000	0.33910	15.19	ppb
|	In	113	101808.981	0.747	-0.001	-1.17055	7.27	ppb
|>	In	115	2697681.131	0.617	2697681.131			ppb
⌊	Sn	118	38135.923	1.495	0.014	7.67850	2.08	ppb
⌈	Sb	121	20081.816	2.071	0.004	3.77266	2.89	ppb
|	Ba	135	24014.802	0.689	0.006	16.38284	0.62	ppb
|	Ba	137	40938.977	1.637	0.010	15.98240	2.08	ppb
⌊>	Tb	159	4255907.873	0.945	4255907.873			ppb
⌈	Tl	205	7823.067	6.303	0.002	0.30787	6.21	ppb
|	Pb	206	1253.412	1.968	0.000	0.15510	1.32	ppb
|	Pb	207	2200.124	5.359	0.001	0.14430	5.24	ppb
|	Pb	208	3565.388	4.380	0.001	0.13035	4.21	ppb
⌊>	Bi	209	3635506.020	0.763	3635506.020			ppb
	Cr	53	3914.766	2.580	3268.746			ppb
	Pd	106	58.334	42.282	55.000			ppb
	Pd	108	81.667	37.409	81.667			ppb
	C	12	287428.366	0.718	-10891.587			ppb
	Kr	83	30.000	24.037	-7.333			ppb
	Se	77	225.780	1.921	193.114			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	562905.423		ppb
	Be	9	126.001	0.495720	ppb
	Na	23	401852.223	115.044580	ppb
	Mg	24	596938.409	259.513160	ppb
	Mg	25	83574.784	258.631334	ppb
	Mg	26	97255.644	257.567181	ppb
	Al	27	53683.711	13.064884	ppb
	K	39	274792.371	5.571929	ppb
	Ca	44	135939.743	690.262292	ppb
>	Sc	45	839693.782		ppb
	Ti	47	3635.661	7.562905	ppb
	V	51	23784.512	3.774197	ppb
	Cr	52	11632.762	1.488551	ppb
	Mn	55	29277.797	3.663612	ppb
	Fe	54	26830.947	7.860979	ppb
	Fe	56	586673.886	5.875910	ppb
	Fe	57	3565.636	10.794681	ppb
	Co	59	26481.016	3.777707	ppb
	Ni	60	5764.995	3.626682	ppb
	Cu	63	7406.075	1.720660	ppb
	Cu	65	3577.306	1.853694	ppb
	Zn	66	3734.030	3.941526	ppb
	As	75	295.111	0.245230	ppb
	Se	82	31.333	0.051492	ppb
	Mo	96	15876.593	7.135357	ppb
	Ag	107	2576.999	0.360415	ppb
	Ag	109	2383.617	0.340135	ppb
	Cd	111	593.301	0.371980	ppb
	In	113	101431.825	-1.200041	ppb
>	In	115	2688921.346		ppb
	Sn	118	38157.662	7.707442	ppb
	Sb	121	20410.809	3.882676	ppb
	Ba	135	23848.403	16.444573	ppb
	Ba	137	40971.763	16.166847	ppb
>	Tb	159	4210467.493		ppb
	Tl	205	7597.885	0.301550	ppb
	Pb	206	1225.075	0.152796	ppb
	Pb	207	2100.113	0.138605	ppb
	Pb	208	3440.367	0.126680	ppb
>	Bi	209	3603655.724		ppb
	Cr	53	3942.777		ppb
	Pd	106	75.000		ppb
	Pd	108	55.000		ppb
	C	12	289570.724		ppb
	Kr	83	24.000		ppb
	Se	77	221.336		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	558111.614		ppb
	Be	9	100.001	0.396807	ppb
	Na	23	382127.178	109.977212	ppb
	Mg	24	582198.354	255.263714	ppb
	Mg	25	84252.435	262.983987	ppb
	Mg	26	97202.128	259.644647	ppb
	Al	27	54342.254	13.358332	ppb
	K	39	269273.241	5.095821	ppb
	Ca	44	135732.962	695.632194	ppb
>	Sc	45	851801.296		ppb

	Ti	47	3480.606	7.126609	ppb
	V	51	24406.901	3.819241	ppb
	Cr	52	12203.442	1.563159	ppb
	Mn	55	29037.097	3.580606	ppb
	Fe	54	26800.866	6.861873	ppb
	Fe	56	582399.578	4.252125	ppb
	Fe	57	3465.600	9.880447	ppb
	Co	59	26878.073	3.779859	ppb
	Ni	60	5915.082	3.668547	ppb
	Cu	63	7145.886	1.622514	ppb
	Cu	65	3530.623	1.800341	ppb
	Zn	66	3770.711	3.922801	ppb
	As	75	260.869	0.208889	ppb
	Se	82	35.333	0.087710	ppb
	Mo	96	16060.887	7.225142	ppb
	Ag	107	2316.935	0.323129	ppb
	Ag	109	2433.629	0.347729	ppb
	Cd	111	583.022	0.365605	ppb
	In	113	101310.605	-1.236957	ppb
>	In	115	2687234.549		ppb
	Sn	118	38694.720	7.821468	ppb
	Sb	121	20220.423	3.770680	ppb
	Ba	135	24016.806	16.265376	ppb
	Ba	137	40252.852	15.599053	ppb
>	Tb	159	4286828.888		ppb
	Tl	205	8388.517	0.329357	ppb
	Pb	206	1270.081	0.156720	ppb
	Pb	207	2330.137	0.152870	ppb
	Pb	208	3740.415	0.136663	ppb
>	Bi	209	3648391.621		ppb
	Cr	53	3998.799		ppb
	Pd	106	70.000		ppb
	Pd	108	75.000		ppb
	C	12	285452.835		ppb
	Kr	83	28.000		ppb
	Se	77	230.003		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	556632.495		ppb
	Be	9	112.001	0.445606	ppb
	Na	23	395858.111	114.572132	ppb
	Mg	24	589622.974	259.220512	ppb
	Mg	25	83139.175	260.188492	ppb
	Mg	26	96791.170	259.232341	ppb
	Al	27	52592.938	12.934999	ppb
	K	39	269449.905	5.229514	ppb
	Ca	44	134693.043	691.780824	ppb
>	Sc	45	864847.947		ppb
	Ti	47	3370.568	6.788293	ppb
	V	51	24471.619	3.770165	ppb
	Cr	52	11997.192	1.491461	ppb
	Mn	55	29062.169	3.528845	ppb
	Fe	54	26048.883	4.118361	ppb
	Fe	56	584952.297	3.452373	ppb
	Fe	57	3310.548	8.642977	ppb
	Co	59	26884.089	3.723403	ppb
	Ni	60	5928.423	3.620974	ppb
	Cu	63	7329.352	1.642010	ppb
	Cu	65	3887.422	1.962224	ppb
	Zn	66	3490.609	3.559689	ppb
	As	75	328.587	0.268134	ppb
	Se	82	32.667	0.055460	ppb

⌈	Mo	96	16359.371	7.280576	ppb
|	Ag	107	2553.659	0.353260	ppb
|	Ag	109	2540.323	0.359371	ppb
|	Cd	111	454.539	0.279730	ppb
|	In	113	102684.512	-1.074666	ppb
|>	In	115	2716887.498		ppb
⌊	Sn	118	37555.388	7.506576	ppb
⌈	Sb	121	19614.217	3.664616	ppb
|	Ba	135	24179.196	16.438563	ppb
|	Ba	137	41592.317	16.181307	ppb
⌊>	Tb	159	4270427.239		ppb
⌈	Tl	205	7482.799	0.292690	ppb
|	Pb	206	1265.080	0.155784	ppb
|	Pb	207	2170.121	0.141426	ppb
|	Pb	208	3515.382	0.127706	ppb
⌊>	Bi	209	3654470.715		ppb
	Cr	53	3802.723		ppb
	Pd	106	30.000		ppb
	Pd	108	115.001		ppb
	C	12	287261.537		ppb
	Kr	83	38.000		ppb
	Se	77	226.003		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.058			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.785			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		94.182			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		94.087			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		101.670			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: PDS0904098-01

Sample Date/Time: Thursday, May 07, 2009 15:52:09
Sample Type: Sample
Sample Description: 13MW5A 25X
Number of Replicates: 3
Batch ID: 0904098
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\PDS0904098-01.147

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Li	6	622863.587	2.160	622863.587			ppb
|	Be	9	596.018	2.041	0.001	2.11966	2.52	ppb
|	Na	23	2401015.926	0.766	3.805	660.05522	1.42	ppb
|	Mg	24	3584656.534	0.671	5.753	1412.93686	2.01	ppb
|	Mg	25	492512.001	0.344	0.790	1381.96260	1.99	ppb
|	Mg	26	577806.411	0.347	0.927	1387.69724	1.86	ppb
|	Al	27	249019.684	1.747	0.393	57.75967	1.53	ppb
|	K	39	574514.080	1.255	0.501	41.87719	1.92	ppb
[	Ca	44	733787.523	0.698	1.156	3643.64433	2.88	ppb
[>	Sc	45	886417.883	0.142	886417.883			ppb
|	Ti	47	103.334	36.956	0.000	0.01626	475.89	ppb
|	V	51	69157.066	0.853	0.077	10.59748	0.93	ppb
|	Cr	52	28751.282	1.821	0.028	4.41921	2.12	ppb
|	Mn	55	17665.591	0.913	0.019	2.07021	0.83	ppb
|	Fe	54	27678.333	5.651	0.003	6.37517	56.84	ppb
|	Fe	56	539043.199	2.230	-0.036	-3.96119	36.99	ppb
|	Fe	57	3882.422	5.283	0.002	11.48142	10.38	ppb
|	Co	59	15433.905	2.076	0.017	2.07765	2.16	ppb
|	Ni	60	3563.970	5.866	0.004	2.11163	6.00	ppb
|	Cu	63	16376.737	2.263	0.017	3.92026	2.51	ppb
|	Cu	65	7889.778	1.693	0.009	3.99983	1.69	ppb
|	Zn	66	4198.660	3.418	0.005	4.21094	3.65	ppb
|	As	75	2297.020	3.151	0.003	2.04630	3.23	ppb
[	Se	82	1059.612	1.745	0.001	10.12052	1.83	ppb
[	Mo	96	4830.501	3.172	0.002	2.03051	1.50	ppb
|	Ag	107	14807.623	1.322	0.005	2.12206	1.60	ppb
|	Ag	109	14944.493	1.267	0.006	2.18903	1.43	ppb
|	Cd	111	3290.676	3.892	0.001	2.10484	3.71	ppb
|	In	113	104077.278	2.019	0.000	0.43243	165.75	ppb
|>	In	115	2691465.424	1.817	2691465.424			ppb
[	Sn	118	10966.012	2.534	0.004	2.18267	3.77	ppb
[	Sb	121	20579.502	3.204	0.004	3.81355	5.73	ppb
|	Ba	135	39052.131	2.295	0.009	26.25950	0.42	ppb
|	Ba	137	68375.747	2.728	0.016	26.31300	1.22	ppb
[>	Tb	159	4320811.544	2.566	4320811.544			ppb
[	Tl	205	45955.399	2.573	0.013	1.93075	2.47	ppb
|	Pb	206	17373.424	3.504	0.005	2.40374	4.10	ppb
|	Pb	207	30513.721	2.907	0.009	2.24213	3.48	ppb
|	Pb	208	47109.562	0.870	0.014	1.92006	1.63	ppb
[>	Bi	209	3457800.768	0.922	3457800.768			ppb
	Cr	53	11084.141	2.003	10438.120			ppb
	Pd	106	273.337	19.730	270.004			ppb
	Pd	108	233.336	1.237	233.336			ppb
	C	12	321140.714	0.962	22820.761			ppb
	Kr	83	28.000	18.898	-9.333			ppb
	Se	77	1827.500	1.517	1794.834			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	634641.085		ppb
	Be	9	590.017	2.058900	ppb
	Na	23	2416779.297	651.819064	ppb
	Mg	24	3575652.861	1382.830972	ppb
	Mg	25	492356.530	1355.485870	ppb
	Mg	26	578784.487	1363.868621	ppb
	Al	27	249447.886	56.761970	ppb
	K	39	582139.046	41.439894	ppb
	Ca	44	728105.809	3545.020228	ppb
>	Sc	45	885661.706		ppb
	Ti	47	145.001	0.100654	ppb
	V	51	69831.808	10.711185	ppb
	Cr	52	29270.776	4.516077	ppb
	Mn	55	17685.625	2.074445	ppb
	Fe	54	29378.090	10.346060	ppb
	Fe	56	549910.467	-2.571890	ppb
	Fe	57	4085.835	12.681594	ppb
	Co	59	15802.476	2.129502	ppb
	Ni	60	3797.388	2.253776	ppb
	Cu	63	16804.107	4.033733	ppb
	Cu	65	7979.849	4.050401	ppb
	Zn	66	4120.849	4.132959	ppb
	As	75	2373.429	2.117443	ppb
	Se	82	1044.054	9.976616	ppb
	Mo	96	5003.251	2.063449	ppb
	Ag	107	14947.830	2.098008	ppb
	Ag	109	15101.394	2.166478	ppb
	Cd	111	3359.787	2.105066	ppb
	In	113	105978.613	0.263827	ppb
>	In	115	2747557.297		ppb
	Sn	118	10790.819	2.101624	ppb
	Sb	121	19849.681	3.561497	ppb
	Ba	135	40046.024	26.215227	ppb
	Ba	137	70527.835	26.423875	ppb
>	Tb	159	4438028.667		ppb
	Tl	205	47206.159	1.985842	ppb
	Pb	206	17991.170	2.492158	ppb
	Pb	207	31440.207	2.312976	ppb
	Pb	208	47496.902	1.938089	ppb
>	Bi	209	3453626.803		ppb
	Cr	53	10827.859		ppb
	Pd	106	250.003		ppb
	Pd	108	230.003		ppb
	C	12	324707.527		ppb
	Kr	83	30.000		ppb
	Se	77	1802.829		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	625745.943		ppb
	Be	9	610.019	2.158956	ppb
	Na	23	2405474.140	658.075766	ppb
	Mg	24	3611897.461	1416.727649	ppb
	Mg	25	494276.871	1380.133868	ppb
	Mg	26	579135.987	1384.111350	ppb
	Al	27	253138.920	58.447995	ppb
	K	39	573591.738	41.388060	ppb
	Ca	44	735210.430	3632.205279	ppb
>	Sc	45	887875.711		ppb

	Ti	47	70.000	-0.051385	ppb
	V	51	68902.591	10.540489	ppb
	Cr	52	28759.295	4.412223	ppb
	Mn	55	17815.856	2.084779	ppb
	Fe	54	27357.370	5.531918	ppb
	Fe	56	541088.210	-3.819375	ppb
	Fe	57	3885.755	11.463709	ppb
	Co	59	15277.661	2.053004	ppb
	Ni	60	3500.613	2.070074	ppb
	Cu	63	16183.084	3.863614	ppb
	Cu	65	7953.161	4.026108	ppb
	Zn	66	4110.845	4.111701	ppb
	As	75	2288.122	2.034814	ppb
	Se	82	1054.722	10.055523	ppb
	Mo	96	4777.141	2.024693	ppb
	Ag	107	14583.960	2.107135	ppb
	Ag	109	14734.180	2.175960	ppb
	Cd	111	3142.895	2.026684	ppb
	In	113	104432.474	1.218461	ppb
>	In	115	2669123.507		ppb
	Sn	118	11286.366	2.266068	ppb
	Sb	121	21132.305	3.933297	ppb
	Ba	135	38805.146	26.176949	ppb
	Ba	137	67219.164	25.951058	ppb
>	Tb	159	4306792.039		ppb
	Tl	205	45804.664	1.905726	ppb
	Pb	206	16774.057	2.297503	ppb
	Pb	207	29672.370	2.158535	ppb
	Pb	208	46680.278	1.883840	ppb
>	Bi	209	3491556.193		ppb
	Cr	53	11218.289		ppb
	Pd	106	235.003		ppb
	Pd	108	235.003		ppb
	C	12	319301.569		ppb
	Kr	83	32.000		ppb
	Se	77	1822.166		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	608203.734		ppb
	Be	9	588.017	2.141114	ppb
	Na	23	2380794.342	670.270821	ppb
	Mg	24	3566419.281	1439.251956	ppb
	Mg	25	490902.603	1410.268070	ppb
	Mg	26	575498.758	1415.111753	ppb
	Al	27	244472.247	58.069038	ppb
	K	39	567811.457	42.803607	ppb
	Ca	44	738046.331	3753.707497	ppb
>	Sc	45	885716.233		ppb
	Ti	47	95.000	-0.000482	ppb
	V	51	68736.798	10.540767	ppb
	Cr	52	28223.773	4.329320	ppb
	Mn	55	17495.291	2.051392	ppb
	Fe	54	26299.538	3.247535	ppb
	Fe	56	526130.919	-5.492305	ppb
	Fe	57	3675.675	10.298965	ppb
	Co	59	15221.576	2.050432	ppb
	Ni	60	3393.909	2.011036	ppb
	Cu	63	16143.019	3.863432	ppb
	Cu	65	7736.325	3.922985	ppb
	Zn	66	4364.285	4.388162	ppb
	As	75	2229.510	1.986656	ppb
	Se	82	1080.058	10.329416	ppb

⌈	Mo	96	4711.109	2.003376	ppb
|	Ag	107	14891.079	2.161027	ppb
|	Ag	109	14997.905	2.224661	ppb
|	Cd	111	3369.345	2.182769	ppb
|	In	113	101820.748	-0.185005	ppb
|>	In	115	2657715.468		ppb
⌊	Sn	118	10820.851	2.180311	ppb
⌈	Sb	121	20756.519	3.945844	ppb
|	Ba	135	38305.224	26.386311	ppb
|	Ba	137	67380.243	26.564079	ppb
⌊>	Tb	159	4217613.926		ppb
⌈	Tl	205	44855.375	1.900694	ppb
|	Pb	206	17355.047	2.421562	ppb
|	Pb	207	30428.587	2.254891	ppb
|	Pb	208	47151.507	1.938256	ppb
⌊>	Bi	209	3428219.308		ppb
	Cr	53	11206.276		ppb
	Pd	106	335.006		ppb
	Pd	108	235.003		ppb
	C	12	319413.045		ppb
	Kr	83	22.000		ppb
	Se	77	1857.506		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		111.446			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		98.600			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		93.965			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		95.522			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.700			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042033-BLK1

Sample Date/Time: Thursday, May 07, 2009 16:01:54
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042033-BLK1.148

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Li	6	558173.101	1.729	558173.101			ppb
|	Be	9	0.000		0.000	0.00000		ppb
|	Na	23	17892.329	1.849	-0.019	-3.23706	3.74	ppb
|	Mg	24	478.011	2.720	-0.003	-0.73068	1.23	ppb
|	Mg	25	66.334	3.138	-0.000	-0.75259	1.07	ppb
|	Mg	26	107.334	2.846	-0.000	-0.71806	1.68	ppb
|	Al	27	1421.768	8.130	-0.004	-0.56069	4.30	ppb
|	K	39	214103.319	1.302	-0.038	-3.16784	10.88	ppb
[	Ca	44	6910.397	7.950	-0.010	-31.87192	7.96	ppb
[>	Sc	45	850428.682	2.220	850428.682			ppb
|	Ti	47	58.334	21.571	-0.000	-0.07001	35.21	ppb
|	V	51	647.413	50.877	-0.000	-0.01096	475.31	ppb
|	Cr	52	3635.328	3.321	-0.000	-0.02206	104.94	ppb
|	Mn	55	303.338	9.659	-0.000	-0.01756	16.32	ppb
|	Fe	54	23656.333	5.288	-0.000	-0.58937	419.07	ppb
|	Fe	56	531393.440	1.933	-0.020	-2.13643	40.29	ppb
|	Fe	57	1830.168	1.913	0.000	0.03195	1360.41	ppb
|	Co	59	65.334	9.352	-0.000	-0.00879	8.72	ppb
|	Ni	60	67.778	24.754	0.000	0.01282	80.49	ppb
|	Cu	63	494.457	5.060	-0.001	-0.15615	4.15	ppb
|	Cu	65	222.225	9.760	0.000	0.00425	269.46	ppb
|	Zn	66	201.113	18.257	0.000	0.02792	140.48	ppb
|	As	75	8.461	282.470	-0.000	-0.02937	76.20	ppb
[	Se	82	27.111	2.839	0.000	0.00424	132.73	ppb
[	Mo	96	253.337	19.344	-0.000	-0.08354	26.74	ppb
|	Ag	107	82.223	29.328	0.000	0.00051	682.37	ppb
|	Ag	109	78.889	42.324	0.000	0.00035	1400.99	ppb
|	Cd	111	2.575	197.757	-0.000	-0.00796	40.49	ppb
|	In	113	103201.501	1.077	-0.001	-1.33291	74.32	ppb
|>	In	115	2741585.009	0.638	2741585.009			ppb
[	Sn	118	273.337	15.341	0.000	0.01090	75.62	ppb
[	Sb	121	2385.285	2.189	0.000	0.19881	7.03	ppb
|	Ba	135	22.667	30.987	-0.000	-0.01447	32.28	ppb
|	Ba	137	60.667	10.072	-0.000	-0.01099	19.21	ppb
[>	Tb	159	4365892.650	0.991	4365892.650			ppb
[	Tl	205	198.335	7.702	0.000	0.00274	22.05	ppb
|	Pb	206	76.667	35.919	0.000	0.00017	2286.31	ppb
|	Pb	207	143.334	36.642	0.000	0.00051	772.68	ppb
|	Pb	208	278.336	16.101	0.000	0.00298	63.50	ppb
[>	Bi	209	3449002.535	0.606	3449002.535			ppb
	Cr	53	1836.836	6.854	1190.815			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	5.000	0.000	5.000			ppb
	C	12	276665.061	0.649	-21654.892			ppb
	Kr	83	32.000	12.500	-5.333			ppb
	Se	77	52.222	16.215	19.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	568141.430		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	18150.457	-3.256601	ppb
|	Mg	24	463.011	-0.740959	ppb
|	Mg	25	67.000	-0.754243	ppb
|	Mg	26	104.001	-0.732016	ppb
|	Al	27	1530.117	-0.538986	ppb
|	K	39	217258.706	-3.268777	ppb
⌊	Ca	44	7540.842	-29.037181	ppb
⌈>	Sc	45	856313.297		ppb
|	Ti	47	70.000	-0.046180	ppb
|	V	51	1003.191	0.045810	ppb
|	Cr	52	3774.712	-0.001154	ppb
|	Mn	55	315.005	-0.016331	ppb
|	Fe	54	25011.239	2.257783	ppb
|	Fe	56	540587.173	-1.443036	ppb
|	Fe	57	1845.170	0.039829	ppb
|	Co	59	72.000	-0.007910	ppb
|	Ni	60	50.000	0.001476	ppb
|	Cu	63	523.347	-0.149386	ppb
|	Cu	65	200.002	-0.008590	ppb
|	Zn	66	243.336	0.072281	ppb
|	As	75	-17.914	-0.054186	ppb
⌊	Se	82	26.667	-0.002188	ppb
⌈	Mo	96	302.005	-0.060935	ppb
|	Ag	107	70.000	-0.001189	ppb
|	Ag	109	66.667	-0.001392	ppb
|	Cd	111	-0.365	-0.009819	ppb
|	In	113	102719.873	-1.373765	ppb
|>	In	115	2730366.751		ppb
⌊	Sn	118	300.005	0.016473	ppb
⌈	Sb	121	2410.290	0.201887	ppb
|	Ba	135	30.000	-0.009666	ppb
|	Ba	137	62.000	-0.010552	ppb
⌊>	Tb	159	4382075.611		ppb
⌈	Tl	205	195.002	0.002645	ppb
|	Pb	206	95.000	0.002778	ppb
|	Pb	207	195.001	0.004394	ppb
|	Pb	208	330.003	0.005170	ppb
⌊>	Bi	209	3430869.169		ppb
	Cr	53	1982.196		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	278449.473		ppb
	Kr	83	28.000		ppb
	Se	77	62.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	548868.497		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	18007.198	-3.107276	ppb
|	Mg	24	485.012	-0.724086	ppb
|	Mg	25	68.000	-0.743817	ppb
|	Mg	26	108.001	-0.711490	ppb
|	Al	27	1300.085	-0.586624	ppb
|	K	39	213072.056	-2.783977	ppb
⌊	Ca	44	6656.215	-32.648017	ppb
⌈>	Sc	45	865664.245		ppb

	Ti	47	60.000	-0.068454	ppb
	V	51	585.973	-0.022104	ppb
	Cr	52	3564.635	-0.046938	ppb
	Mn	55	325.005	-0.015522	ppb
	Fe	54	23412.375	-2.156035	ppb
	Fe	56	533285.354	-3.099980	ppb
	Fe	57	1790.160	-0.406613	ppb
	Co	59	64.000	-0.009131	ppb
	Ni	60	83.334	0.021647	ppb
	Cu	63	480.012	-0.162294	ppb
	Cu	65	243.336	0.013395	ppb
	Zn	66	176.668	-0.002157	ppb
	As	75	28.680	-0.010725	ppb
	Se	82	28.000	0.008279	ppb
	Mo	96	254.003	-0.084084	ppb
	Ag	107	66.667	-0.001770	ppb
	Ag	109	53.333	-0.003414	ppb
	Cd	111	-0.365	-0.009816	ppb
	In	113	102411.737	-2.302402	ppb
>	In	115	2761751.178		ppb
	Sn	118	295.004	0.014802	ppb
	Sb	121	2325.270	0.183548	ppb
	Ba	135	16.000	-0.018999	ppb
	Ba	137	66.000	-0.009127	ppb
>	Tb	159	4398735.001		ppb
	Tl	205	185.002	0.002189	ppb
	Pb	206	90.000	0.002029	ppb
	Pb	207	145.001	0.000633	ppb
	Pb	208	250.002	0.001829	ppb
>	Bi	209	3444274.351		ppb
	Cr	53	1766.156		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	274860.197		ppb
	Kr	83	36.000		ppb
	Se	77	47.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	557509.376		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	17519.333	-3.347293	ppb
	Mg	24	486.012	-0.727009	ppb
	Mg	25	64.000	-0.759719	ppb
	Mg	26	110.001	-0.710685	ppb
	Al	27	1435.103	-0.556463	ppb
	K	39	211979.195	-3.450761	ppb
	Ca	44	6534.134	-33.930565	ppb
>	Sc	45	829308.503		ppb
	Ti	47	45.000	-0.095410	ppb
	V	51	353.074	-0.056590	ppb
	Cr	52	3566.636	-0.018087	ppb
	Mn	55	270.004	-0.020841	ppb
	Fe	54	22545.386	-1.869866	ppb
	Fe	56	520307.794	-1.866276	ppb
	Fe	57	1855.172	0.462640	ppb
	Co	59	60.000	-0.009322	ppb
	Ni	60	70.000	0.015332	ppb
	Cu	63	480.012	-0.156757	ppb
	Cu	65	223.336	0.007940	ppb
	Zn	66	183.335	0.013632	ppb
	As	75	14.616	-0.023194	ppb
	Se	82	26.667	0.006629	ppb

⌈	Mo	96	204.002	-0.105594	ppb
|	Ag	107	110.001	0.004477	ppb
|	Ag	109	116.667	0.005849	ppb
|	Cd	111	8.455	-0.004237	ppb
|	In	113	104472.893	-0.322555	ppb
|>	In	115	2732637.097		ppb
⌊	Sn	118	225.003	0.001432	ppb
⌈	Sb	121	2420.293	0.210987	ppb
|	Ba	135	22.000	-0.014755	ppb
|	Ba	137	54.000	-0.013281	ppb
⌊>	Tb	159	4316867.338		ppb
⌈	Tl	205	215.002	0.003386	ppb
|	Pb	206	45.000	-0.004298	ppb
|	Pb	207	90.000	-0.003495	ppb
|	Pb	208	255.002	0.001951	ppb
⌊>	Bi	209	3471864.085		ppb
	Cr	53	1762.155		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	276685.512		ppb
	Kr	83	32.000		ppb
	Se	77	47.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			99.871		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			94.597		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			95.715		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			96.519		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			96.454		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042033-BS1

Sample Date/Time: Thursday, May 07, 2009 16:04:48
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042033-BS1.149

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	540663.948	0.935	540663.948			ppb
|	Be	9	24482.604	1.470	0.045	100.28004	0.54	ppb
|	Na	23	6482149.509	0.181	11.939	2071.20007	1.12	ppb
|	Mg	24	2805560.092	1.091	5.185	1273.52434	0.47	ppb
|	Mg	25	384272.970	0.661	0.710	1241.83077	1.40	ppb
|	Mg	26	441929.613	0.701	0.817	1222.33087	0.86	ppb
|	Al	27	1952228.759	1.030	3.605	529.15942	1.97	ppb
|	K	39	13183762.268	0.840	23.965	2003.22471	1.77	ppb
⌊	Ca	44	328378.721	2.107	0.585	1843.62800	2.85	ppb
⌈>	Sc	45	798263.367	0.104	798263.367			ppb
|	Ti	47	71.667	17.558	-0.000	-0.03180	88.56	ppb
|	V	51	585470.534	1.208	0.733	100.58959	1.17	ppb
|	Cr	52	509062.637	1.126	0.633	99.88162	1.18	ppb
|	Mn	55	724365.410	0.544	0.907	96.73730	0.65	ppb
|	Fe	54	419573.011	0.485	0.498	1015.45318	0.57	ppb
|	Fe	56	8120072.248	0.268	9.528	1034.90863	0.40	ppb
|	Fe	57	157001.232	0.599	0.195	1000.27819	0.51	ppb
|	Co	59	666846.876	1.018	0.835	100.52763	1.05	ppb
|	Ni	60	149338.053	1.253	0.187	99.60081	1.35	ppb
|	Cu	63	352764.766	1.084	0.441	100.38467	1.18	ppb
|	Cu	65	172569.834	1.513	0.216	99.86407	1.50	ppb
|	Zn	66	171854.196	0.934	0.215	199.91525	0.94	ppb
|	As	75	195144.419	0.945	0.244	196.53050	1.02	ppb
⌊	Se	82	18219.249	0.785	0.023	198.17066	0.89	ppb
⌈	Mo	96	241.336	2.664	-0.000	-0.08383	3.40	ppb
|	Ag	107	667676.236	0.934	0.255	98.85820	1.00	ppb
|	Ag	109	659661.230	0.632	0.252	99.81325	0.53	ppb
|	Cd	111	148137.217	0.105	0.057	97.84022	0.28	ppb
|	In	113	246274.313	1.272	0.056	95.86007	2.28	ppb
|>	In	115	2618061.833	0.174	2618061.833			ppb
⌊	Sn	118	454285.501	0.910	0.173	94.73267	0.78	ppb
⌈	Sb	121	978874.190	0.758	0.237	202.63793	0.82	ppb
|	Ba	135	144790.060	0.873	0.035	101.89527	1.29	ppb
|	Ba	137	253326.093	0.956	0.061	102.04248	1.14	ppb
⌊>	Tb	159	4132028.556	1.107	4132028.556			ppb
⌈	Tl	205	4578149.265	2.099	1.391	202.73023	2.11	ppb
|	Pb	206	1375081.343	2.012	0.418	200.76647	1.56	ppb
|	Pb	207	2608486.574	1.709	0.793	202.29722	1.25	ppb
|	Pb	208	4732773.508	0.294	1.438	203.58997	0.17	ppb
⌊>	Bi	209	3290149.402	0.462	3290149.402			ppb
	Cr	53	60285.179	0.910	59639.158			ppb
	Pd	106	12464.432	1.802	12461.098			ppb
	Pd	108	9379.398	2.036	9379.398			ppb
	C	12	287383.720	0.550	-10936.233			ppb
	Kr	83	27.333	21.123	-10.000			ppb
	Se	77	14502.286	0.646	14469.620			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	545505.778		ppb
	Be	9	24838.810	100.839376	ppb
	Na	23	6473884.407	2049.967430	ppb
	Mg	24	2823729.477	1270.397190	ppb
	Mg	25	384426.848	1231.194848	ppb
	Mg	26	445108.411	1220.148195	ppb
	Al	27	1931815.267	518.897049	ppb
	K	39	13058933.141	1965.787653	ppb
	Ca	44	320891.258	1783.120521	ppb
>	Sc	45	797327.959		ppb
	Ti	47	70.000	-0.035348	ppb
	V	51	580243.312	99.807871	ppb
	Cr	52	510294.065	100.242805	ppb
	Mn	55	728530.101	97.407580	ppb
	Fe	54	420139.260	1018.158887	ppb
	Fe	56	8144474.297	1039.526393	ppb
	Fe	57	155921.167	994.502513	ppb
	Co	59	670437.368	101.187344	ppb
	Ni	60	151448.209	101.126264	ppb
	Cu	63	356959.281	101.700499	ppb
	Cu	65	172908.725	100.177993	ppb
	Zn	66	172250.850	200.612291	ppb
	As	75	196873.586	198.503929	ppb
	Se	82	18378.874	200.142897	ppb
	Mo	96	234.003	-0.087083	ppb
	Ag	107	670898.114	99.532088	ppb
	Ag	109	657013.529	99.610345	ppb
	Cd	111	148316.698	98.153046	ppb
	In	113	247208.290	96.796375	ppb
>	In	115	2612872.081		ppb
	Sn	118	450956.804	94.225685	ppb
	Sb	121	970630.894	202.090120	ppb
	Ba	135	145963.550	103.311440	ppb
	Ba	137	255119.304	103.357163	ppb
>	Tb	159	4108144.630		ppb
	Tl	205	4501526.777	198.630079	ppb
	Pb	206	1393531.880	202.750206	ppb
	Pb	207	2645687.645	204.464307	ppb
	Pb	208	4744509.056	203.371634	ppb
>	Bi	209	3301831.307		ppb
	Cr	53	60212.735		ppb
	Pd	106	12622.962		ppb
	Pd	108	9479.491		ppb
	C	12	288745.366		ppb
	Kr	83	24.000		ppb
	Se	77	14474.468		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	541068.168		ppb
	Be	9	24489.951	100.238522	ppb
	Na	23	6476964.569	2067.840110	ppb
	Mg	24	2822724.167	1280.367827	ppb
	Mg	25	381657.751	1232.352227	ppb
	Mg	26	438916.535	1213.036857	ppb
	Al	27	1952844.550	528.865656	ppb
	K	39	13221911.991	2007.377243	ppb
	Ca	44	334539.782	1877.828980	ppb
>	Sc	45	798923.032		ppb

	Ti	47	85.000	-0.002031	ppb
	V	51	582650.770	100.022129	ppb
	Cr	52	502817.241	98.565270	ppb
	Mn	55	720696.920	96.167157	ppb
	Fe	54	417314.597	1008.795150	ppb
	Fe	56	8102642.213	1031.623649	ppb
	Fe	57	157444.762	1002.301031	ppb
	Co	59	671086.834	101.083128	ppb
	Ni	60	148683.854	99.081611	ppb
	Cu	63	351859.914	100.042811	ppb
	Cu	65	174994.540	101.185201	ppb
	Zn	66	173224.113	201.343712	ppb
	As	75	195354.849	196.578991	ppb
	Se	82	18103.038	196.740864	ppb
	Mo	96	244.003	-0.082644	ppb
	Ag	107	660488.262	97.721389	ppb
	Ag	109	657504.260	99.413987	ppb
	Cd	111	148053.895	97.712981	ppb
	In	113	248832.845	97.421848	ppb
>	In	115	2619987.772		ppb
	Sn	118	452988.246	94.393161	ppb
	Sb	121	985021.154	201.329165	ppb
	Ba	135	144955.038	100.717854	ppb
	Ba	137	254286.491	101.132267	ppb
>	Tb	159	4184787.196		ppb
	Tl	205	4685943.232	207.153992	ppb
	Pb	206	1388447.084	202.387780	ppb
	Pb	207	2620714.823	202.912656	ppb
	Pb	208	4736421.701	203.404268	ppb
>	Bi	209	3295674.276		ppb
	Cr	53	59776.127		ppb
	Pd	106	12207.447		ppb
	Pd	108	9499.510		ppb
	C	12	287757.495		ppb
	Kr	83	24.000		ppb
	Se	77	14606.660		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	535417.897		ppb
	Be	9	24119.051	99.762209	ppb
	Na	23	6495599.549	2095.792685	ppb
	Mg	24	2770226.634	1269.808002	ppb
	Mg	25	386734.311	1261.945221	ppb
	Mg	26	441763.893	1233.807568	ppb
	Al	27	1972026.459	539.715544	ppb
	K	39	13270441.673	2036.509243	ppb
	Ca	44	329705.125	1869.934487	ppb
>	Sc	45	798539.111		ppb
	Ti	47	60.000	-0.058018	ppb
	V	51	593517.519	101.938783	ppb
	Cr	52	514076.606	100.836784	ppb
	Mn	55	723869.209	96.637166	ppb
	Fe	54	421265.174	1019.405503	ppb
	Fe	56	8113100.234	1033.575856	ppb
	Fe	57	157637.767	1004.031035	ppb
	Co	59	659016.426	99.312420	ppb
	Ni	60	147882.097	98.594561	ppb
	Cu	63	349475.102	99.410702	ppb
	Cu	65	169806.237	98.229027	ppb
	Zn	66	170087.626	197.789742	ppb
	As	75	193204.821	194.508568	ppb
	Se	82	18175.836	197.628225	ppb

⌈	Mo	96	246.003	-0.081755	ppb
|	Ag	107	671642.331	99.321134	ppb
|	Ag	109	664465.901	100.415415	ppb
|	Cd	111	148041.057	97.654636	ppb
|	In	113	242781.804	93.361981	ppb
|>	In	115	2621325.645		ppb
⌊	Sn	118	458911.451	95.579172	ppb
⌈	Sb	121	980970.522	204.494507	ppb
|	Ba	135	143451.591	101.656527	ppb
|	Ba	137	250572.484	101.638006	ppb
⌊>	Tb	159	4103153.843		ppb
⌈	Tl	205	4546977.786	202.406628	ppb
|	Pb	206	1343265.066	197.161433	ppb
|	Pb	207	2559057.253	199.514698	ppb
|	Pb	208	4717389.767	203.994004	ppb
⌊>	Bi	209	3272942.621		ppb
	Cr	53	60866.676		ppb
	Pd	106	12562.886		ppb
	Pd	108	9159.193		ppb
	C	12	285648.299		ppb
	Kr	83	34.000		ppb
	Se	77	14425.731		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			96.738		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			88.795		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			91.402		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			91.348		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			92.012		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904109-01

Sample Date/Time: Thursday, May 07, 2009 16:07:41
Sample Type: Sample
Sample Description: 10D3D
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904109-01.150

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	468251.760	1.154	468251.760			ppb
	Be	9	0.667	173.205	0.000	0.00318	173.21	ppb
	Na	23	38829959.076	2.720	82.867	14375.47247	1.79	ppb
	Mg	24	69152610.137	4.593	147.646	36262.72868	3.62	ppb
	Mg	25	10193753.638	3.505	21.765	38055.67554	2.37	ppb
	Mg	26	12414138.296	3.073	26.507	39670.50056	1.93	ppb
	Al	27	48594.620	4.636	0.097	14.29548	3.74	ppb
	K	39	7478828.484	1.156	15.552	1299.95842	1.84	ppb
	Ca	44	17280514.782	0.998	36.885	116251.64551	1.51	ppb
>	Sc	45	739172.321	1.164	739172.321			ppb
	Ti	47	598.351	11.128	0.001	1.25865	14.16	ppb
	V	51	2257.549	7.494	0.002	0.30419	9.29	ppb
	Cr	52	5287.398	1.602	0.003	0.43175	1.59	ppb
	Mn	55	1010.051	10.721	0.001	0.09009	15.70	ppb
	Fe	54	19357.055	1.913	-0.002	-3.89467	42.39	ppb
	Fe	56	624475.894	0.965	0.200	21.76056	6.66	ppb
	Fe	57	42066.643	1.624	0.055	281.64212	2.61	ppb
	Co	59	1049.388	2.234	0.001	0.15286	2.77	ppb
	Ni	60	2095.776	5.837	0.003	1.48032	5.78	ppb
	Cu	63	1236.743	6.093	0.000	0.09273	29.27	ppb
	Cu	65	966.713	5.387	0.001	0.48805	5.33	ppb
	Zn	66	4693.325	5.285	0.006	5.70814	4.32	ppb
	As	75	284.485	7.997	0.000	0.27232	10.43	ppb
	Se	82	76.223	9.634	0.000	0.62436	15.55	ppb
	Mo	96	2619.676	1.092	0.001	1.46792	0.74	ppb
	Ag	107	275.559	13.380	0.000	0.04362	17.79	ppb
	Ag	109	305.560	9.778	0.000	0.05095	12.62	ppb
	Cd	111	12.153	83.790	0.000	0.00117	773.91	ppb
	In	113	85167.916	2.135	0.005	8.94477	12.48	ppb
>	In	115	1952777.312	0.891	1952777.312			ppb
	Sn	118	296.671	16.882	0.000	0.03942	35.30	ppb
	Sb	121	4599.403	12.972	0.001	0.78285	19.16	ppb
	Ba	135	65803.806	0.786	0.018	51.02992	0.90	ppb
	Ba	137	113632.670	0.862	0.030	50.44069	1.81	ppb
>	Tb	159	3748628.279	1.202	3748628.279			ppb
	Tl	205	495.012	15.875	0.000	0.02088	16.67	ppb
	Pb	206	290.004	18.001	0.000	0.04100	25.35	ppb
	Pb	207	498.340	16.001	0.000	0.03692	23.70	ppb
	Pb	208	763.351	9.317	0.000	0.03148	15.84	ppb
>	Bi	209	2712947.224	3.017	2712947.224			ppb
	Cr	53	1870.175	4.985	1224.154			ppb
	Pd	106	10.000		6.667			ppb
	Pd	108	6.667	43.301	6.667			ppb
	C	12	351388.481	2.291	53068.528			ppb
	Kr	83	38.000	27.850	0.667			ppb
	Se	77	110.223	10.842	77.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	465655.049		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	37856730.569	14094.484054	ppb
|	Mg	24	66197050.185	34914.032760	ppb
|	Mg	25	9946979.518	37347.954979	ppb
|	Mg	26	12172812.300	39121.859830	ppb
|	Al	27	46965.027	13.870615	ppb
|	K	39	7398350.094	1292.815060	ppb
⌊	Ca	44	17097617.706	115652.255932	ppb
⌈>	Sc	45	729776.225		ppb
|	Ti	47	675.023	1.464220	ppb
|	V	51	2183.063	0.295693	ppb
|	Cr	52	5209.357	0.429442	ppb
|	Mn	55	885.039	0.073791	ppb
|	Fe	54	19769.522	-2.065654	ppb
|	Fe	56	622888.571	22.696856	ppb
|	Fe	57	42711.017	289.901775	ppb
|	Co	59	1040.054	0.153504	ppb
|	Ni	60	2110.223	1.510316	ppb
|	Cu	63	1320.087	0.123468	ppb
|	Cu	65	906.708	0.458004	ppb
|	Zn	66	4460.995	5.490005	ppb
|	As	75	310.702	0.304973	ppb
⌊	Se	82	84.667	0.735780	ppb
⌈	Mo	96	2588.335	1.457836	ppb
|	Ag	107	310.005	0.050784	ppb
|	Ag	109	340.006	0.058328	ppb
|	Cd	111	1.910	-0.007886	ppb
|	In	113	83204.717	7.656050	ppb
| >	In	115	1941163.359		ppb
⌊	Sn	118	335.006	0.050722	ppb
⌈	Sb	121	5286.397	0.955615	ppb
|	Ba	135	65409.221	51.435201	ppb
|	Ba	137	114210.499	51.404523	ppb
⌊>	Tb	159	3696603.808		ppb
⌈	Tl	205	405.008	0.016880	ppb
|	Pb	206	325.005	0.049056	ppb
|	Pb	207	565.008	0.044907	ppb
|	Pb	208	845.021	0.037194	ppb
⌊>	Bi	209	2620661.035		ppb
	Cr	53	1946.189		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	344799.595		ppb
	Kr	83	42.000		ppb
	Se	77	124.001		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	464637.311		ppb
|	Be	9	2.000	0.009533	ppb
|	Na	23	38680211.869	14432.830439	ppb
|	Mg	24	68749631.062	36339.792570	ppb
|	Mg	25	10030832.004	37745.302684	ppb
|	Mg	26	12215724.249	39345.773399	ppb
|	Al	27	47653.272	14.120476	ppb
|	K	39	7570226.052	1326.644347	ppb
⌊	Ca	44	17440400.080	118230.897254	ppb
⌈>	Sc	45	741073.366		ppb

	Ti	47	555.015	1.148898	ppb
	V	51	2138.383	0.281153	ppb
	Cr	52	5275.391	0.426333	ppb
	Mn	55	1075.058	0.099170	ppb
	Fe	54	19248.507	-4.343546	ppb
	Fe	56	631137.441	22.492588	ppb
	Fe	57	41350.316	275.872782	ppb
	Co	59	1076.058	0.156736	ppb
	Ni	60	1966.860	1.383817	ppb
	Cu	63	1173.402	0.072095	ppb
	Cu	65	993.383	0.503336	ppb
	Zn	66	4664.421	5.658538	ppb
	As	75	272.827	0.258658	ppb
	Se	82	72.667	0.579612	ppb
	Mo	96	2626.345	1.479378	ppb
	Ag	107	280.004	0.044700	ppb
	Ag	109	290.004	0.048025	ppb
	Cd	111	22.275	0.010224	ppb
	In	113	85503.990	9.570937	ppb
>	In	115	1944378.604		ppb
	Sn	118	240.003	0.023878	ppb
	Sb	121	4300.925	0.706726	ppb
	Ba	135	65612.546	50.529933	ppb
	Ba	137	112501.287	49.589198	ppb
>	Tb	159	3774488.214		ppb
	Tl	205	530.014	0.022532	ppb
	Pb	206	315.005	0.044678	ppb
	Pb	207	520.007	0.038295	ppb
	Pb	208	730.016	0.029246	ppb
>	Bi	209	2741437.564		ppb
	Cr	53	1898.180		ppb
	Pd	106	10.000		ppb
	Pd	108	5.000		ppb
	C	12	349003.728		ppb
	Kr	83	46.000		ppb
	Se	77	102.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	474462.919		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	39952934.791	14599.102926	ppb
	Mg	24	72511149.165	37534.360701	ppb
	Mg	25	10603449.392	39073.768967	ppb
	Mg	26	12853878.339	40543.868461	ppb
	Al	27	51165.562	14.895345	ppb
	K	39	7467909.305	1280.415844	ppb
	Ca	44	17303526.559	114871.783349	ppb
>	Sc	45	746667.372		ppb
	Ti	47	565.016	1.162839	ppb
	V	51	2451.200	0.335710	ppb
	Cr	52	5377.445	0.439479	ppb
	Mn	55	1070.057	0.097296	ppb
	Fe	54	19053.134	-5.274802	ppb
	Fe	56	619401.671	20.092250	ppb
	Fe	57	42138.596	279.151817	ppb
	Co	59	1032.053	0.148334	ppb
	Ni	60	2210.244	1.546819	ppb
	Cu	63	1216.741	0.082615	ppb
	Cu	65	1000.050	0.502821	ppb
	Zn	66	4954.560	5.975890	ppb
	As	75	269.926	0.253317	ppb
	Se	82	71.334	0.557698	ppb

⌈	Mo	96	2644.350	1.466552	ppb
|	Ag	107	236.669	0.035380	ppb
|	Ag	109	286.671	0.046505	ppb
|	Cd	111	12.275	0.001172	ppb
|	In	113	86795.041	9.607315	ppb
|>	In	115	1972789.975		ppb
⌊	Sn	118	315.005	0.043673	ppb
⌈	Sb	121	4210.886	0.686218	ppb
|	Ba	135	66389.650	51.124623	ppb
|	Ba	137	114186.224	50.328344	ppb
⌊>	Tb	159	3774792.816		ppb
⌈	Tl	205	550.015	0.023223	ppb
|	Pb	206	230.003	0.029270	ppb
|	Pb	207	410.004	0.027570	ppb
|	Pb	208	715.016	0.028002	ppb
⌊>	Bi	209	2776743.072		ppb
	Cr	53	1766.156		ppb
	Pd	106	10.000		ppb
	Pd	108	5.000		ppb
	C	12	360362.121		ppb
	Kr	83	26.000		ppb
	Se	77	104.001		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		83.782			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		82.222			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		68.176			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		82.872			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		75.870			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042033-DUP1

Sample Date/Time: Thursday, May 07, 2009 16:10:34
Sample Type: Sample
Sample Description: 10D3DD
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042033-DUP1.151

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	491647.360	0.435	491647.360			ppb
	Be	9	1.333	86.603	0.000	0.00600	86.60	ppb
	Na	23	39392088.634	1.316	80.074	13891.00023	1.54	ppb
	Mg	24	70638072.886	2.208	143.681	35288.82924	2.55	ppb
	Mg	25	10467210.714	1.853	21.291	37225.67509	2.24	ppb
	Mg	26	12796232.674	1.289	26.028	38952.94489	1.67	ppb
	Al	27	24835.826	3.357	0.044	6.48139	4.18	ppb
	K	39	7535716.056	0.183	14.906	1245.97349	0.46	ppb
	Ca	44	17504513.819	0.917	35.583	112147.04127	1.35	ppb
>	Sc	45	760371.857	2.070	760371.857			ppb
	Ti	47	505.013	7.475	0.001	0.99700	8.35	ppb
	V	51	2406.132	21.555	0.002	0.31827	26.84	ppb
	Cr	52	5182.009	1.629	0.002	0.37891	9.27	ppb
	Mn	55	590.018	9.551	0.000	0.02712	23.24	ppb
	Fe	54	17435.190	2.090	-0.005	-10.52982	18.57	ppb
	Fe	56	601391.446	1.481	0.146	15.90242	3.21	ppb
	Fe	57	40573.823	1.462	0.051	263.39633	2.07	ppb
	Co	59	835.368	4.122	0.001	0.11423	5.13	ppb
	Ni	60	2026.872	5.115	0.003	1.38952	3.61	ppb
	Cu	63	1053.389	2.741	0.000	0.02704	33.44	ppb
	Cu	65	921.154	3.477	0.001	0.44360	2.66	ppb
	Zn	66	4466.554	3.923	0.006	5.27259	6.21	ppb
	As	75	238.280	2.865	0.000	0.21459	1.53	ppb
	Se	82	67.556	5.435	0.000	0.50018	10.96	ppb
	Mo	96	2460.303	4.296	0.001	1.17577	17.22	ppb
	Ag	107	71.111	9.758	0.000	0.00129	179.26	ppb
	Ag	109	60.000	25.459	-0.000	-0.00045	563.18	ppb
	Cd	111	20.129	29.979	0.000	0.00633	102.06	ppb
	In	113	87753.482	2.268	0.001	1.48977	357.13	ppb
>	In	115	2245212.468	9.664	2245212.468			ppb
	Sn	118	138.334	20.553	-0.000	-0.00980	65.45	ppb
	Sb	121	1583.459	7.409	0.000	0.08892	29.51	ppb
	Ba	135	63068.934	0.767	0.017	48.41392	1.55	ppb
	Ba	137	111169.866	0.536	0.029	48.84215	0.78	ppb
>	Tb	159	3787039.381	1.169	3787039.381			ppb
	Tl	205	256.670	9.206	0.000	0.00772	15.40	ppb
	Pb	206	213.336	5.413	0.000	0.02608	7.22	ppb
	Pb	207	373.337	7.376	0.000	0.02393	11.56	ppb
	Pb	208	546.676	15.982	0.000	0.01922	24.10	ppb
>	Bi	209	2799890.391	0.937	2799890.391			ppb
	Cr	53	1676.142	12.254	1030.121			ppb
	Pd	106	26.667	28.641	23.333			ppb
	Pd	108	3.333	86.603	3.333			ppb
	C	12	353714.709	0.987	55394.756			ppb
	Kr	83	27.333	25.697	-10.000			ppb
	Se	77	98.889	8.043	66.223			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	494073.165		ppb
	Be	9	2.000	0.008965	ppb
	Na	23	39267444.747	13778.614784	ppb
	Mg	24	69523989.398	34559.622701	ppb
	Mg	25	10298987.067	36445.414102	ppb
	Mg	26	12657919.911	38341.026268	ppb
	Al	27	24379.682	6.308922	ppb
	K	39	7541108.243	1240.580337	ppb
	Ca	44	17323079.919	110434.329563	ppb
>	Sc	45	742632.930		ppb
	Ti	47	500.013	1.013415	ppb
	V	51	1833.251	0.223905	ppb
	Cr	52	5249.377	0.418451	ppb
	Mn	55	525.014	0.019840	ppb
	Fe	54	17855.927	-8.282307	ppb
	Fe	56	591347.464	16.478394	ppb
	Fe	57	40170.522	267.101335	ppb
	Co	59	824.034	0.115523	ppb
	Ni	60	1913.516	1.342595	ppb
	Cu	63	1036.720	0.029409	ppb
	Cu	65	886.706	0.435600	ppb
	Zn	66	4667.756	5.650426	ppb
	As	75	232.019	0.213852	ppb
	Se	82	70.000	0.546601	ppb
	Mo	96	2582.333	1.409504	ppb
	Ag	107	76.667	0.003771	ppb
	Ag	109	56.667	0.000189	ppb
	Cd	111	26.739	0.013592	ppb
	In	113	85463.648	7.618492	ppb
>	In	115	1994878.872		ppb
	Sn	118	130.001	-0.007947	ppb
	Sb	121	1610.130	0.099659	ppb
	Ba	135	63364.117	49.265849	ppb
	Ba	137	110503.193	49.175546	ppb
>	Tb	159	3738615.463		ppb
	Tl	205	230.003	0.006411	ppb
	Pb	206	220.002	0.027474	ppb
	Pb	207	375.004	0.024294	ppb
	Pb	208	570.010	0.020561	ppb
>	Bi	209	2781523.214		ppb
	Cr	53	1912.183		ppb
	Pd	106	35.000		ppb
	Pd	108	0.000		ppb
	C	12	351405.687		ppb
	Kr	83	28.000		ppb
	Se	77	108.001		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	490822.826		ppb
	Be	9	2.000	0.009024	ppb
	Na	23	38947415.919	13756.806887	ppb
	Mg	24	69969481.626	35011.412431	ppb
	Mg	25	10423296.216	37129.592415	ppb
	Mg	26	12752031.525	38881.896570	ppb
	Al	27	24329.560	6.341899	ppb
	K	39	7520078.714	1245.447699	ppb
	Ca	44	17562109.770	112701.006254	ppb
>	Sc	45	772670.644		ppb

	Ti	47	545.015	1.070856	ppb
	V	51	2843.698	0.390289	ppb
	Cr	52	5209.357	0.366943	ppb
	Mn	55	625.020	0.030714	ppb
	Fe	54	17229.831	-11.844042	ppb
	Fe	56	608337.515	15.504382	ppb
	Fe	57	40296.025	257.123743	ppb
	Co	59	808.033	0.107839	ppb
	Ni	60	2050.210	1.383465	ppb
	Cu	63	1036.720	0.017046	ppb
	Cu	65	926.710	0.438077	ppb
	Zn	66	4384.294	5.082311	ppb
	As	75	245.558	0.218176	ppb
	Se	82	63.334	0.439722	ppb
	Mo	96	2400.288	1.064242	ppb
	Ag	107	73.334	0.000911	ppb
	Ag	109	46.667	-0.003236	ppb
	Cd	111	18.734	0.004133	ppb
	In	113	89064.869	-1.206536	ppb
>	In	115	2361313.815		ppb
	Sn	118	115.001	-0.016941	ppb
	Sb	121	1685.142	0.108085	ppb
	Ba	135	63331.914	48.122983	ppb
	Ba	137	111354.559	48.429642	ppb
>	Tb	159	3825403.620		ppb
	Tl	205	275.004	0.008734	ppb
	Pb	206	200.002	0.023937	ppb
	Pb	207	400.004	0.026499	ppb
	Pb	208	620.011	0.023029	ppb
>	Bi	209	2788225.805		ppb
	Cr	53	1578.125		ppb
	Pd	106	25.000		ppb
	Pd	108	5.000		ppb
	C	12	352008.336		ppb
	Kr	83	20.000		ppb
	Se	77	93.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	490046.089		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	39961405.236	14137.579006	ppb
	Mg	24	72420747.634	36295.452584	ppb
	Mg	25	10679348.858	38102.018756	ppb
	Mg	26	12978746.585	39635.911838	ppb
	Al	27	25798.235	6.793363	ppb
	K	39	7545961.211	1251.892429	ppb
	Ca	44	17628351.766	113305.787983	ppb
>	Sc	45	765811.998		ppb
	Ti	47	470.011	0.906740	ppb
	V	51	2541.446	0.340622	ppb
	Cr	52	5087.294	0.351327	ppb
	Mn	55	620.019	0.030791	ppb
	Fe	54	17219.813	-11.463113	ppb
	Fe	56	604489.358	15.724484	ppb
	Fe	57	41254.923	265.963899	ppb
	Co	59	874.038	0.119340	ppb
	Ni	60	2116.891	1.442491	ppb
	Cu	63	1086.726	0.034658	ppb
	Cu	65	950.045	0.457137	ppb
	Zn	66	4347.612	5.085023	ppb
	As	75	237.261	0.211753	ppb
	Se	82	69.334	0.514226	ppb

⌈	Mo	96	2398.288	1.053577	ppb
|	Ag	107	63.334	-0.000810	ppb
|	Ag	109	76.667	0.001700	ppb
|	Cd	111	14.915	0.001252	ppb
|	In	113	88731.929	-1.942643	ppb
|>	In	115	2379444.716		ppb
⌊	Sn	118	170.001	-0.004518	ppb
⌈	Sb	121	1455.106	0.059010	ppb
|	Ba	135	62510.771	47.852939	ppb
|	Ba	137	111651.846	48.921253	ppb
⌊>	Tb	159	3797099.059		ppb
⌈	Tl	205	265.004	0.008007	ppb
|	Pb	206	220.002	0.026824	ppb
|	Pb	207	345.003	0.021000	ppb
|	Pb	208	450.006	0.014063	ppb
⌊>	Bi	209	2829922.154		ppb
	Cr	53	1538.118		ppb
	Pd	106	20.000		ppb
	Pd	108	5.000		ppb
	C	12	357730.105		ppb
	Kr	83	34.000		ppb
	Se	77	95.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		87.968			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		84.580			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		78.385			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		83.722			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		78.301			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042033-MS1

Sample Date/Time: Thursday, May 07, 2009 16:13:28
Sample Type: Spike - 2 of 3
Sample Description: 10D3DS
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042033-MS1.152

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	476739.109	2.998	476739.109			ppb
|	Be	9	12404.358	2.301	0.026	57.63337	1.37	ppb
|	Na	23	39670894.628	0.858	83.219	14436.62892	3.53	ppb
|	Mg	24	70862909.366	0.942	148.733	36529.68935	3.38	ppb
|	Mg	25	10373215.247	0.306	21.772	38066.23884	3.09	ppb
|	Mg	26	12794145.397	1.052	26.854	40190.07811	3.52	ppb
|	Al	27	3929807.605	1.633	8.244	1210.12211	4.44	ppb
|	K	39	7485164.303	0.479	15.289	1277.94954	3.12	ppb
⌊	Ca	44	17397036.846	0.528	36.495	115021.86125	3.51	ppb
⌈>	Sc	45	743696.648	0.567	743696.648			ppb
|	Ti	47	550.015	12.728	0.001	1.13183	14.61	ppb
|	V	51	3305605.574	0.846	4.444	610.22275	1.41	ppb
|	Cr	52	970822.905	0.600	1.301	205.19502	1.13	ppb
|	Mn	55	4020632.084	0.524	5.406	576.63948	1.09	ppb
|	Fe	54	47537.757	2.105	0.036	73.11628	4.24	ppb
|	Fe	56	590565.014	2.530	0.150	16.24631	15.14	ppb
|	Fe	57	40635.790	3.329	0.052	269.94638	3.83	ppb
|	Co	59	3557616.575	1.123	4.784	575.77324	1.51	ppb
|	Ni	60	664862.555	1.077	0.894	476.09374	1.48	ppb
|	Cu	63	775942.641	0.479	1.042	237.40683	0.97	ppb
|	Cu	65	383000.197	0.693	0.515	238.07220	1.25	ppb
|	Zn	66	411953.352	0.904	0.554	514.68998	0.99	ppb
|	As	75	39463.519	1.059	0.053	42.63285	1.58	ppb
⌊	Se	82	1016.496	4.088	0.001	11.61300	4.74	ppb
⌈	Mo	96	2463.637	4.120	0.001	1.37376	4.48	ppb
|	Ag	107	294547.185	0.261	0.151	58.65771	0.37	ppb
|	Ag	109	287766.235	0.431	0.148	58.56443	0.52	ppb
|	Cd	111	69594.618	0.849	0.036	61.82532	1.04	ppb
|	In	113	156319.064	1.065	0.042	72.16594	1.76	ppb
|>	In	115	1946355.566	0.203	1946355.566			ppb
⌊	Sn	118	109912.610	2.276	0.056	30.80164	2.40	ppb
⌈	Sb	121	469210.960	0.711	0.129	110.59434	1.20	ppb
|	Ba	135	3116050.094	1.435	0.860	2500.08556	1.14	ppb
|	Ba	137	5392687.584	1.858	1.488	2476.59601	1.37	ppb
⌊>	Tb	159	3625030.133	0.537	3625030.133			ppb
⌈	Tl	205	903460.336	1.528	0.335	48.83253	2.40	ppb
|	Pb	206	125305.223	0.898	0.046	22.32391	1.80	ppb
|	Pb	207	234820.057	1.155	0.087	22.22203	2.06	ppb
|	Pb	208	387831.384	0.367	0.144	20.35657	1.25	ppb
⌊>	Bi	209	2695645.187	0.899	2695645.187			ppb
	Cr	53	114021.720	0.752	113375.699			ppb
	Pd	106	6040.157	1.143	6036.824			ppb
	Pd	108	4599.392	3.756	4599.392			ppb
	C	12	387373.448	12.019	89053.495			ppb
	Kr	83	40.667	22.715	3.333			ppb
	Se	77	852.481	1.855	819.814			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	489739.609		ppb
	Be	9	12726.093	57.547779	ppb
	Na	23	39743021.753	14069.075486	ppb
	Mg	24	71192101.246	35701.999029	ppb
	Mg	25	10345149.157	36932.722282	ppb
	Mg	26	12659577.454	38685.368470	ppb
	Al	27	3855779.190	1154.760507	ppb
	K	39	7459821.025	1237.995665	ppb
	Ca	44	17294747.499	111229.822430	ppb
>	Sc	45	741955.297		ppb
	Ti	47	600.018	1.255948	ppb
	V	51	3318320.971	613.975786	ppb
	Cr	52	976064.527	206.784015	ppb
	Mn	55	4031841.697	579.580851	ppb
	Fe	54	48693.264	76.594612	ppb
	Fe	56	607615.544	18.939030	ppb
	Fe	57	42153.660	281.099187	ppb
	Co	59	3602650.622	584.404243	ppb
	Ni	60	672867.378	482.935462	ppb
	Cu	63	779818.087	239.146420	ppb
	Cu	65	384429.965	239.511156	ppb
	Zn	66	415697.630	520.580714	ppb
	As	75	39830.218	43.127991	ppb
	Se	82	1021.385	11.696167	ppb
	Mo	96	2570.330	1.438693	ppb
	Ag	107	294833.189	58.598621	ppb
	Ag	109	288221.234	58.541071	ppb
	Cd	111	69171.783	61.327553	ppb
	In	113	158221.884	73.574875	ppb
>	In	115	1950202.668		ppb
	Sn	118	107241.975	29.992189	ppb
	Sb	121	466429.938	109.804295	ppb
	Ba	135	3159903.275	2532.353226	ppb
	Ba	137	5452859.235	2501.417361	ppb
>	Tb	159	3629263.321		ppb
	Tl	205	918828.148	50.173948	ppb
	Pb	206	126601.354	22.787676	ppb
	Pb	207	237877.043	22.743390	ppb
	Pb	208	389415.727	20.651345	ppb
>	Bi	209	2667838.961		ppb
	Cr	53	114841.666		ppb
	Pd	106	6066.840		ppb
	Pd	108	4551.035		ppb
	C	12	363003.111		ppb
	Kr	83	46.000		ppb
	Se	77	839.369		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	461438.169		ppb
	Be	9	12181.415	58.463247	ppb
	Na	23	39969567.666	15017.684867	ppb
	Mg	24	71302211.939	37950.379082	ppb
	Mg	25	10366760.623	39279.868373	ppb
	Mg	26	12794022.616	41494.173737	ppb
	Al	27	3970054.719	1261.995511	ppb
	K	39	7469526.961	1317.844940	ppb
	Ca	44	17472722.981	119271.854097	ppb
>	Sc	45	740632.429		ppb

	Ti	47	470.011	0.944114	ppb
	V	51	3324945.955	616.300849	ppb
	Cr	52	971848.020	206.256706	ppb
	Mn	55	4033704.989	580.884513	ppb
	Fe	54	46975.074	72.098768	ppb
	Fe	56	584327.299	15.682435	ppb
	Fe	57	40195.622	268.026881	ppb
	Co	59	3543816.185	575.886926	ppb
	Ni	60	662640.551	476.444465	ppb
	Cu	63	775598.091	238.276063	ppb
	Cu	65	384634.267	240.066739	ppb
	Zn	66	408250.035	512.164112	ppb
	As	75	39551.769	42.902787	ppb
	Se	82	1055.389	12.116728	ppb
	Mo	96	2368.280	1.316154	ppb
	Ag	107	295131.807	58.896992	ppb
	Ag	109	288715.180	58.880357	ppb
	Cd	111	70269.668	62.554932	ppb
	In	113	155606.320	71.824528	ppb
>	In	115	1942290.079		ppb
	Sn	118	110294.912	30.973083	ppb
	Sb	121	468294.101	109.856735	ppb
	Ba	135	3117741.733	2489.803802	ppb
	Ba	137	5448156.912	2490.497077	ppb
>	Tb	159	3642033.177		ppb
	Tl	205	892114.167	48.013161	ppb
	Pb	206	124576.158	22.099805	ppb
	Pb	207	233875.225	22.038335	ppb
	Pb	208	386662.990	20.209783	ppb
>	Bi	209	2706833.491		ppb
	Cr	53	113130.324		ppb
	Pd	106	6091.855		ppb
	Pd	108	4455.993		ppb
	C	12	358057.516		ppb
	Kr	83	30.000		ppb
	Se	77	848.036		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	479039.549		ppb
	Be	9	12305.567	56.889087	ppb
	Na	23	39300094.464	14223.126404	ppb
	Mg	24	70094414.912	35936.689923	ppb
	Mg	25	10407735.961	37986.125857	ppb
	Mg	26	12928836.121	40390.692119	ppb
	Al	27	3963588.907	1213.610311	ppb
	K	39	7526144.924	1278.008010	ppb
	Ca	44	17423640.057	114563.907211	ppb
>	Sc	45	748502.217		ppb
	Ti	47	580.017	1.195414	ppb
	V	51	3273549.797	600.391606	ppb
	Cr	52	964556.168	202.544332	ppb
	Mn	55	3996349.565	569.453064	ppb
	Fe	54	46944.933	70.655458	ppb
	Fe	56	579752.199	14.117467	ppb
	Fe	57	39558.088	260.713070	ppb
	Co	59	3526382.919	567.028543	ppb
	Ni	60	659079.734	468.901295	ppb
	Cu	63	772411.745	234.798005	ppb
	Cu	65	379936.360	234.638694	ppb
	Zn	66	411912.392	511.325129	ppb
	As	75	39008.569	41.867777	ppb
	Se	82	972.714	11.026108	ppb

⌈	Mo	96	2452.301	1.366432	ppb
|	Ag	107	293676.558	58.477524	ppb
|	Ag	109	286362.290	58.271873	ppb
|	Cd	111	69342.402	61.593471	ppb
|	In	113	155128.989	71.098418	ppb
|>	In	115	1946573.951		ppb
⌊	Sn	118	112200.941	31.439649	ppb
⌈	Sb	121	472908.840	112.121999	ppb
|	Ba	135	3070505.274	2478.099638	ppb
|	Ba	137	5277046.604	2437.873586	ppb
⌊>	Tb	159	3603793.902		ppb
⌈	Tl	205	899438.693	48.310493	ppb
|	Pb	206	124738.158	22.084238	ppb
|	Pb	207	232707.902	21.884368	ppb
|	Pb	208	387415.435	20.208574	ppb
⌊>	Bi	209	2712263.109		ppb
	Cr	53	114093.171		ppb
	Pd	106	5961.777		ppb
	Pd	108	4791.147		ppb
	C	12	441059.716		ppb
	Kr	83	46.000		ppb
	Se	77	870.038		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		85.301			
	Be	9			115.260		
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		82.725			
	Ti	47					
	V	51			121.984		
	Cr	52			102.382		
	Mn	55			115.310		
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60			94.923		
	Cu	63			94.926		
	Cu	65					
	Zn	66			101.796		
	As	75			105.901		
	Se	82			109.886		
	Mo	96					
	Ag	107			117.228		
	Ag	109					
	Cd	111			123.648		
	In	113					
>	In	115		67.952			
	Sn	118					
	Sb	121			109.811		
	Ba	135					
	Ba	137					
>	Tb	159		80.140			
	Tl	205			97.623		
	Pb	206					
	Pb	207					
	Pb	208			101.625		
>	Bi	209		75.386			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042033-MSD1

Sample Date/Time: Thursday, May 07, 2009 16:16:21
Sample Type: Spike - 2 of 3
Sample Description: 10D3DSD
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\9042033-MSD1.153

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	509033.700	1.643	509033.700			ppb
	Be	9	12344.949	1.239	0.024	53.72380	2.75	ppb
	Na	23	40886069.857	1.285	80.295	13929.25456	2.85	ppb
	Mg	24	72078904.969	0.116	141.621	34782.89648	1.65	ppb
	Mg	25	10713811.942	1.222	21.050	36804.74878	1.85	ppb
	Mg	26	13165496.441	1.866	25.864	38707.95633	1.38	ppb
	Al	27	4095732.656	1.246	8.040	1180.25613	1.23	ppb
	K	39	7608106.166	1.028	14.526	1214.17784	0.77	ppb
	Ca	44	17516618.280	0.396	34.394	108399.74653	1.25	ppb
>	Sc	45	789865.539	0.845	789865.539			ppb
	Ti	47	546.682	4.323	0.001	1.04693	4.31	ppb
	V	51	3327447.001	0.446	4.212	578.33966	0.91	ppb
	Cr	52	985604.881	0.436	1.243	196.11816	1.28	ppb
	Mn	55	4086068.276	0.552	5.173	551.76577	0.84	ppb
	Fe	54	48150.653	0.983	0.033	67.07440	2.60	ppb
	Fe	56	596946.803	0.917	0.111	12.08057	8.90	ppb
	Fe	57	41623.114	0.741	0.051	259.94357	1.42	ppb
	Co	59	3620341.038	0.654	4.584	551.68966	1.34	ppb
	Ni	60	676311.199	0.619	0.856	455.99996	1.46	ppb
	Cu	63	791825.992	0.502	1.001	228.09851	1.06	ppb
	Cu	65	388215.470	0.356	0.491	227.20808	1.20	ppb
	Zn	66	419977.942	0.673	0.532	494.06907	1.46	ppb
	As	75	40008.888	0.921	0.051	40.69316	1.13	ppb
	Se	82	1030.942	1.998	0.001	11.07467	1.23	ppb
	Mo	96	2448.300	3.153	0.001	1.07254	3.74	ppb
	Ag	107	297471.927	0.500	0.124	48.18520	0.67	ppb
	Ag	109	293608.086	0.768	0.123	48.60355	1.14	ppb
	Cd	111	71308.574	1.328	0.030	51.52752	1.61	ppb
	In	113	160524.865	0.740	0.029	49.38458	2.59	ppb
>	In	115	2392820.832	0.377	2392820.832			ppb
	Sn	118	109140.799	1.694	0.046	24.87090	2.05	ppb
	Sb	121	478052.459	1.086	0.123	105.68949	1.06	ppb
	Ba	135	3149639.060	0.748	0.815	2370.67440	0.48	ppb
	Ba	137	5466881.804	1.030	1.415	2355.37178	0.74	ppb
>	Tb	159	3864150.565	0.295	3864150.565			ppb
	Tl	205	925742.179	2.123	0.329	47.98657	2.60	ppb
	Pb	206	128853.421	2.111	0.046	22.01542	2.44	ppb
	Pb	207	241295.474	1.820	0.086	21.89863	2.13	ppb
	Pb	208	395579.554	0.537	0.141	19.91208	0.50	ppb
>	Bi	209	2810689.009	0.757	2810689.009			ppb
	Cr	53	115716.380	1.078	115070.359			ppb
	Pd	106	6413.725	4.341	6410.392			ppb
	Pd	108	4546.034	4.389	4546.034			ppb
	C	12	367001.057	1.174	68681.104			ppb
	Kr	83	38.667	39.165	1.333			ppb
	Se	77	874.927	2.722	842.260			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	509658.870		ppb
	Be	9	12227.471	53.131952	ppb
	Na	23	40552796.333	13794.492338	ppb
	Mg	24	71982911.032	34687.694597	ppb
	Mg	25	10568352.372	36254.947536	ppb
	Mg	26	12975799.842	38101.944114	ppb
	Al	27	4054972.382	1166.962721	ppb
	K	39	7585189.371	1208.794758	ppb
	Ca	44	17516618.280	108251.848286	ppb
>	Sc	45	797279.300		ppb
	Ti	47	565.016	1.076794	ppb
	V	51	3334015.831	574.066369	ppb
	Cr	52	980954.014	193.353973	ppb
	Mn	55	4087632.964	546.823545	ppb
	Fe	54	48215.959	66.077556	ppb
	Fe	56	594538.586	10.984761	ppb
	Fe	57	41546.125	256.909096	ppb
	Co	59	3598286.633	543.191798	ppb
	Ni	60	671880.919	448.763115	ppb
	Cu	63	792265.000	226.088290	ppb
	Cu	65	386660.193	224.176856	ppb
	Zn	66	416826.528	485.759899	ppb
	As	75	39970.202	40.273883	ppb
	Se	82	1054.722	11.229168	ppb
	Mo	96	2454.301	1.070126	ppb
	Ag	107	297218.943	47.934712	ppb
	Ag	109	291006.857	47.962384	ppb
	Cd	111	70546.509	50.753851	ppb
	In	113	159207.340	47.935612	ppb
>	In	115	2403249.132		ppb
	Sn	118	107186.384	24.317394	ppb
	Sb	121	472138.699	104.522695	ppb
	Ba	135	3130727.018	2359.701574	ppb
	Ba	137	5431554.094	2343.404939	ppb
>	Tb	159	3858839.555		ppb
	Tl	205	916946.649	47.766154	ppb
	Pb	206	126900.105	21.789595	ppb
	Pb	207	237948.285	21.702545	ppb
	Pb	208	393193.098	19.891551	ppb
>	Bi	209	2796565.075		ppb
	Cr	53	114722.307		ppb
	Pd	106	6101.861		ppb
	Pd	108	4420.977		ppb
	C	12	362992.745		ppb
	Kr	83	28.000		ppb
	Se	77	902.041		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	500373.107		ppb
	Be	9	12517.830	55.403067	ppb
	Na	23	41491475.690	14376.084729	ppb
	Mg	24	72122178.254	35399.793619	ppb
	Mg	25	10750753.140	37565.131531	ppb
	Mg	26	13077646.657	39113.665799	ppb
	Al	27	4079265.362	1195.762790	ppb
	K	39	7543939.141	1224.990130	ppb
	Ca	44	17447183.899	109824.716107	ppb
>	Sc	45	784322.386		ppb

	Ti	47	520.014	0.994989	ppb
	V	51	3337859.543	584.224675	ppb
	Cr	52	989420.283	198.262109	ppb
	Mn	55	4062765.180	552.475934	ppb
	Fe	54	48587.752	69.084240	ppb
	Fe	56	593091.327	12.122445	ppb
	Fe	57	41962.860	264.067690	ppb
	Co	59	3617376.248	555.095004	ppb
	Ni	60	680199.330	461.825314	ppb
	Cu	63	795561.950	230.785622	ppb
	Cu	65	389296.231	229.436529	ppb
	Zn	66	420822.091	498.522893	ppb
	As	75	39661.124	40.622956	ppb
	Se	82	1018.719	11.020062	ppb
	Mo	96	2522.318	1.113856	ppb
	Ag	107	296127.262	48.072924	ppb
	Ag	109	294816.027	48.910127	ppb
	Cd	111	71010.001	51.423577	ppb
	In	113	161513.888	50.350605	ppb
>	In	115	2387539.546		ppb
	Sn	118	110861.122	25.318362	ppb
	Sb	121	480157.288	105.796225	ppb
	Ba	135	3176022.006	2382.471154	ppb
	Ba	137	5531822.094	2375.328812	ppb
>	Tb	159	3877256.264		ppb
	Tl	205	912020.255	46.862939	ppb
	Pb	206	127700.194	21.628529	ppb
	Pb	207	239668.550	21.561930	ppb
	Pb	208	397270.995	19.824343	ppb
>	Bi	209	2835143.940		ppb
	Cr	53	117115.813		ppb
	Pd	106	6502.113		ppb
	Pd	108	4776.140		ppb
	C	12	366451.526		ppb
	Kr	83	56.000		ppb
	Se	77	865.371		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	517069.124		ppb
	Be	9	12289.547	52.636377	ppb
	Na	23	40613937.548	13617.186616	ppb
	Mg	24	72131625.622	34261.201234	ppb
	Mg	25	10822330.314	36594.167277	ppb
	Mg	26	13443042.823	38908.259079	ppb
	Al	27	4152960.223	1178.042891	ppb
	K	39	7695189.985	1208.748641	ppb
	Ca	44	17586052.660	107122.675202	ppb
>	Sc	45	787994.933		ppb
	Ti	47	555.015	1.069018	ppb
	V	51	3310465.629	576.727945	ppb
	Cr	52	986440.346	196.738408	ppb
	Mn	55	4107806.684	555.997838	ppb
	Fe	54	47648.248	66.061410	ppb
	Fe	56	603210.495	13.134518	ppb
	Fe	57	41360.357	258.853932	ppb
	Co	59	3645360.233	556.782165	ppb
	Ni	60	676853.348	457.411452	ppb
	Cu	63	787651.027	227.421621	ppb
	Cu	65	388689.986	228.010855	ppb
	Zn	66	422285.206	497.924423	ppb
	As	75	40395.339	41.182657	ppb
	Se	82	1019.385	10.974786	ppb

⌈	Mo	96	2368.280	1.033653	ppb
|	Ag	107	299069.575	48.547955	ppb
|	Ag	109	295001.375	48.938131	ppb
|	Cd	111	72369.212	52.405118	ppb
|	In	113	160853.369	49.867524	ppb
|>	In	115	2387673.818		ppb
⌊	Sn	118	109374.890	24.976947	ppb
⌈	Sb	121	481861.392	106.749543	ppb
|	Ba	135	3142168.157	2369.850468	ppb
|	Ba	137	5437269.225	2347.381603	ppb
⌊>	Tb	159	3856355.876		ppb
⌈	Tl	205	948259.632	49.330608	ppb
|	Pb	206	131959.965	22.628122	ppb
|	Pb	207	246269.586	22.431423	ppb
|	Pb	208	396274.569	20.020343	ppb
⌊>	Bi	209	2800358.014		ppb
	Cr	53	115311.020		ppb
	Pd	106	6637.202		ppb
	Pd	108	4440.986		ppb
	C	12	371558.900		ppb
	Kr	83	32.000		ppb
	Se	77	857.370		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
> Li	6		91.079			
Be	9			107.441		
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
> Sc	45		87.860			
Ti	47					
V	51			115.607		
Cr	52			97.843		
Mn	55			110.335		
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60			90.904		
Cu	63			91.202		
Cu	65					
Zn	66			97.672		
As	75			101.052		
Se	82			104.503		
Mo	96					
Ag	107			96.283		
Ag	109					
Cd	111			103.053		
In	113					
> In	115		83.539			
Sn	118					
Sb	121			104.907		
Ba	135					
Ba	137					
> Tb	159		85.426			
Tl	205			95.931		
Pb	206					
Pb	207					
Pb	208			99.403		
> Bi	209		78.603			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 16:19:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.154

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	578273.202	1.529	578273.202			ppb
	Be	9	31132.409	2.696	0.054	119.22093	1.80	ppb
	Na	23	4236349.681	0.524	7.276	1262.29937	1.86	ppb
	Mg	24	3001213.743	1.362	5.188	1274.09969	2.83	ppb
	Mg	25	424221.359	1.142	0.733	1281.92698	2.08	ppb
	Mg	26	494367.364	0.824	0.854	1278.68141	2.02	ppb
	Al	27	5017310.990	1.056	8.672	1272.98601	2.49	ppb
	K	39	8341443.590	0.246	14.006	1170.71416	1.79	ppb
	Ca	44	218909.625	1.027	0.356	1122.36325	1.43	ppb
>	Sc	45	875367.492	0.549	875367.492			ppb
	Ti	47	56690.264	1.647	0.065	115.80871	1.49	ppb
	V	51	729235.983	0.421	0.832	114.27358	0.89	ppb
	Cr	52	641033.076	0.893	0.728	114.80544	1.44	ppb
	Mn	55	907284.955	1.069	1.036	110.50722	1.62	ppb
	Fe	54	518613.174	1.456	0.564	1151.97300	2.09	ppb
	Fe	56	9768953.547	0.799	10.515	1142.17619	0.27	ppb
	Fe	57	197212.425	0.933	0.223	1147.46775	1.48	ppb
	Co	59	813726.098	1.792	0.930	111.87601	2.34	ppb
	Ni	60	180122.574	1.953	0.206	109.56289	2.49	ppb
	Cu	63	430214.693	1.859	0.490	111.68205	2.40	ppb
	Cu	65	210813.523	0.986	0.241	111.26900	1.51	ppb
	Zn	66	109460.284	0.759	0.125	116.04011	1.02	ppb
	As	75	119550.505	1.074	0.137	109.78405	1.62	ppb
	Se	82	11286.811	1.022	0.013	111.83933	1.51	ppb
	Mo	96	247643.680	0.866	0.092	114.56716	1.20	ppb
	Ag	107	805689.250	0.908	0.301	116.52670	0.66	ppb
	Ag	109	794374.253	1.586	0.296	117.40801	1.22	ppb
	Cd	111	182823.451	0.936	0.068	117.95409	1.26	ppb
	In	113	288737.948	1.311	0.069	119.38857	1.55	ppb
>	In	115	2680221.406	0.401	2680221.406			ppb
	Sn	118	579616.326	0.081	0.216	118.07784	0.47	ppb
	Sb	121	605582.167	1.053	0.142	121.24212	2.13	ppb
	Ba	135	172539.094	0.223	0.040	117.52826	0.88	ppb
	Ba	137	299789.784	1.256	0.070	116.87846	0.29	ppb
>	Tb	159	4269107.296	1.074	4269107.296			ppb
	Tl	205	2727491.718	0.723	0.805	117.33998	1.61	ppb
	Pb	206	857551.003	1.196	0.253	121.63589	1.08	ppb
	Pb	207	1603340.348	1.167	0.473	120.79538	0.54	ppb
	Pb	208	2611633.991	0.830	0.771	109.13847	1.05	ppb
>	Bi	209	3387033.879	1.674	3387033.879			ppb
	Cr	53	75127.178	1.261	74481.157			ppb
	Pd	106	15703.994	2.697	15700.660			ppb
	Pd	108	12114.000	1.095	12114.000			ppb
	C	12	306317.699	0.962	7997.746			ppb
	Kr	83	34.667	35.251	-2.667			ppb
	Se	77	8917.530	1.208	8884.864			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	587842.611		ppb
	Be	9	31629.944	119.161530	ppb
	Na	23	4232337.450	1240.196174	ppb
	Mg	24	2966931.406	1238.665377	ppb
	Mg	25	421176.556	1251.760147	ppb
	Mg	26	490958.237	1248.929339	ppb
	Al	27	4956768.411	1236.818171	ppb
	K	39	8317987.577	1147.537363	ppb
	Ca	44	220931.880	1113.660819	ppb
>	Sc	45	870165.915		ppb
	Ti	47	55900.810	114.877884	ppb
	V	51	732372.127	115.448722	ppb
	Cr	52	647605.967	116.681172	ppb
	Mn	55	917816.253	112.452484	ppb
	Fe	54	527305.422	1179.503714	ppb
	Fe	56	9685289.380	1138.989729	ppb
	Fe	57	199337.159	1166.887481	ppb
	Co	59	830338.972	114.833215	ppb
	Ni	60	183542.407	112.301052	ppb
	Cu	63	437724.975	114.307896	ppb
	Cu	65	212606.299	112.881638	ppb
	Zn	66	109310.862	116.572303	ppb
	As	75	120845.551	111.630699	ppb
	Se	82	11363.786	113.272871	ppb
	Mo	96	245919.081	113.241609	ppb
	Ag	107	812473.887	116.969491	ppb
	Ag	109	807288.099	118.772492	ppb
	Cd	111	181231.963	116.387028	ppb
	In	113	292233.528	120.776588	ppb
>	In	115	2692580.781		ppb
	Sn	118	579127.517	117.435016	ppb
	Sb	121	599173.304	118.593163	ppb
	Ba	135	172983.332	116.505156	ppb
	Ba	137	304032.584	117.207966	ppb
>	Tb	159	4317406.249		ppb
	Tl	205	2749836.773	117.157588	ppb
	Pb	206	868663.328	122.030354	ppb
	Pb	207	1616229.250	120.601821	ppb
	Pb	208	2611606.571	108.088093	ppb
>	Bi	209	3419542.310		ppb
	Cr	53	76205.260		ppb
	Pd	106	15461.944		ppb
	Pd	108	12072.283		ppb
	C	12	309712.968		ppb
	Kr	83	24.000		ppb
	Se	77	8827.228		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576567.775		ppb
	Be	9	31603.861	121.391562	ppb
	Na	23	4216419.269	1259.830947	ppb
	Mg	24	2990254.593	1272.841159	ppb
	Mg	25	429807.395	1302.430230	ppb
	Mg	26	498876.021	1293.924094	ppb
	Al	27	5055202.701	1286.083184	ppb
	K	39	8356002.495	1176.177757	ppb
	Ca	44	216490.308	1112.545176	ppb
>	Sc	45	876287.382		ppb

	Ti	47	57721.107	117.794902	ppb
	V	51	726230.868	113.679147	ppb
	Cr	52	638339.720	114.193449	ppb
	Mn	55	905326.050	110.146156	ppb
	Fe	54	514877.261	1141.915198	ppb
	Fe	56	9781735.573	1142.499183	ppb
	Fe	57	196165.354	1140.046885	ppb
	Co	59	807772.286	110.931315	ppb
	Ni	60	180311.079	109.552540	ppb
	Cu	63	431110.043	111.787667	ppb
	Cu	65	211299.026	111.402318	ppb
	Zn	66	110355.576	116.864777	ppb
	As	75	119527.429	109.641112	ppb
	Se	82	11342.429	112.267764	ppb
	Mo	96	250045.537	115.985568	ppb
	Ag	107	806653.135	116.977704	ppb
	Ag	109	782110.482	115.906423	ppb
	Cd	111	182603.779	118.122641	ppb
	In	113	284716.278	117.294683	ppb
>	In	115	2673102.814		ppb
	Sn	118	579656.906	118.399213	ppb
	Sb	121	611932.196	123.745039	ppb
	Ba	135	172324.096	118.567361	ppb
	Ba	137	296841.304	116.906146	ppb
>	Tb	159	4226166.215		ppb
	Tl	205	2712502.015	115.551929	ppb
	Pb	206	855535.789	120.170509	ppb
	Pb	207	1611908.385	120.263841	ppb
	Pb	208	2633315.883	108.972584	ppb
>	Bi	209	3419983.954		ppb
	Cr	53	74750.340		ppb
	Pd	106	16193.100		ppb
	Pd	108	12007.204		ppb
	C	12	304422.171		ppb
	Kr	83	32.000		ppb
	Se	77	9036.748		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570409.219		ppb
	Be	9	30163.423	117.109683	ppb
	Na	23	4260292.326	1286.870979	ppb
	Mg	24	3046455.230	1310.792548	ppb
	Mg	25	421680.125	1291.590552	ppb
	Mg	26	493267.833	1293.190792	ppb
	Al	27	5039961.858	1296.056667	ppb
	K	39	8350340.698	1188.427353	ppb
	Ca	44	219306.688	1140.883763	ppb
>	Sc	45	879649.180		ppb
	Ti	47	56448.875	114.753358	ppb
	V	51	729104.955	113.692878	ppb
	Cr	52	637153.542	113.541694	ppb
	Mn	55	898712.561	108.923035	ppb
	Fe	54	513656.839	1134.500082	ppb
	Fe	56	9839835.689	1145.039649	ppb
	Fe	57	196134.763	1135.468898	ppb
	Co	59	803067.038	109.863488	ppb
	Ni	60	176514.235	106.835071	ppb
	Cu	63	421809.063	108.950592	ppb
	Cu	65	208535.243	109.523032	ppb
	Zn	66	108714.413	114.683250	ppb
	As	75	118278.535	108.080341	ppb
	Se	82	11154.217	109.977345	ppb

⌈	Mo	96	246966.422	114.474299	ppb
|	Ag	107	797940.727	115.632907	ppb
|	Ag	109	793724.177	117.545121	ppb
|	Cd	111	184634.611	119.352601	ppb
|	In	113	289264.037	120.094448	ppb
|>	In	115	2674980.622		ppb
⌊	Sn	118	580064.555	118.399305	ppb
⌈	Sb	121	605641.000	121.388168	ppb
|	Ba	135	172309.854	117.512262	ppb
|	Ba	137	298495.465	116.521276	ppb
⌊>	Tb	159	4263749.424		ppb
⌈	Tl	205	2720136.364	119.310436	ppb
|	Pb	206	848453.892	122.706822	ppb
|	Pb	207	1581883.411	121.520493	ppb
|	Pb	208	2589979.517	110.354741	ppb
⌊>	Bi	209	3321575.373		ppb
	Cr	53	74425.934		ppb
	Pd	106	15456.937		ppb
	Pd	108	12262.514		ppb
	C	12	304817.958		ppb
	Kr	83	48.000		ppb
	Se	77	8888.615		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.468			
	Be	9	99.351				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.371			
	Ti	47					
	V	51	95.228				
	Cr	52	95.671				
	Mn	55	92.089				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	93.230				
	Ni	60	91.302				
	Cu	63	93.068				
	Cu	65	92.724				
	Zn	66	96.700				
	As	75	91.487				
	Se	82	93.199				
	Mo	96					
	Ag	107	97.106				
	Ag	109	97.840				
	Cd	111	98.295				
	In	113					
>	In	115		93.573			
	Sn	118	98.398				
	Sb	121	101.035				
	Ba	135	97.940				
	Ba	137	97.399				
>	Tb	159		94.379			
	Tl	205	97.783				
	Pb	206	101.363				
	Pb	207	100.663				
	Pb	208	90.949				
>	Bi	209		94.721			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 16:22:09
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.155

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	572850.954	2.686	572850.954			ppb
	Be	9	1.333	86.603	0.000	0.00517	86.69	ppb
	Na	23	12034.238	1.781	-0.030	-5.15375	0.65	ppb
	Mg	24	1450.105	3.481	-0.001	-0.31946	2.42	ppb
	Mg	25	203.669	5.386	-0.000	-0.33848	11.08	ppb
	Mg	26	286.004	4.239	-0.000	-0.25784	20.23	ppb
	Al	27	1031.720	5.183	-0.005	-0.66994	1.75	ppb
	K	39	195321.118	0.633	-0.080	-6.72137	9.48	ppb
	Ca	44	5486.173	3.718	-0.013	-40.66847	3.61	ppb
>	Sc	45	825831.014	1.294	825831.014			ppb
	Ti	47	51.667	20.145	-0.000	-0.08039	29.15	ppb
	V	51	522.708	8.248	-0.000	-0.02807	29.56	ppb
	Cr	52	3507.949	2.690	-0.000	-0.02645	57.27	ppb
	Mn	55	366.673	14.581	-0.000	-0.00820	84.46	ppb
	Fe	54	21765.331	1.502	-0.002	-3.56512	3.36	ppb
	Fe	56	497171.144	0.620	-0.042	-4.61167	27.17	ppb
	Fe	57	1676.808	7.629	-0.000	-0.59300	151.78	ppb
	Co	59	158.001	13.336	0.000	0.00499	59.34	ppb
	Ni	60	33.333	10.000	-0.000	-0.00810	29.98	ppb
	Cu	63	381.118	3.535	-0.001	-0.18344	2.72	ppb
	Cu	65	154.446	32.968	-0.000	-0.03020	93.54	ppb
	Zn	66	115.556	14.230	-0.000	-0.06163	32.34	ppb
	As	75	73.409	4.568	0.000	0.03414	12.10	ppb
	Se	82	33.778	41.604	0.000	0.08363	182.25	ppb
	Mo	96	392.675	21.467	-0.000	-0.01293	306.27	ppb
	Ag	107	147.779	3.446	0.000	0.01065	6.87	ppb
	Ag	109	177.779	23.742	0.000	0.01571	40.51	ppb
	Cd	111	9.878	88.755	-0.000	-0.00310	185.73	ppb
	In	113	98265.496	1.272	-0.001	-1.82873	45.51	ppb
>	In	115	2630439.796	0.132	2630439.796			ppb
	Sn	118	465.011	8.802	0.000	0.05301	15.79	ppb
	Sb	121	4554.377	9.979	0.001	0.66925	13.17	ppb
	Ba	135	68.000	5.094	0.000	0.01802	13.67	ppb
	Ba	137	108.667	5.313	0.000	0.00943	22.40	ppb
>	Tb	159	4155084.590	0.597	4155084.590			ppb
	Tl	205	291.671	18.883	0.000	0.00694	35.20	ppb
	Pb	206	86.667	16.654	0.000	0.00179	113.13	ppb
	Pb	207	153.334	13.179	0.000	0.00146	99.24	ppb
	Pb	208	265.002	14.245	0.000	0.00266	61.88	ppb
>	Bi	209	3380521.801	0.739	3380521.801			ppb
	Cr	53	1142.065	4.554	496.044			ppb
	Pd	106	0.000		-3.333			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	295695.615	2.330	-2624.338			ppb
	Kr	83	40.667	24.260	3.333			ppb
	Se	77	45.556	19.976	12.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	586346.497		ppb
	Be	9	2.000	0.007554	ppb
	Na	23	12224.467	-5.181940	ppb
	Mg	24	1504.113	-0.311083	ppb
	Mg	25	195.002	-0.378953	ppb
	Mg	26	275.004	-0.304053	ppb
	Al	27	1090.059	-0.661427	ppb
	K	39	196744.568	-7.185648	ppb
	Ca	44	5619.579	-40.663178	ppb
>	Sc	45	814935.965		ppb
	Ti	47	55.000	-0.071715	ppb
	V	51	565.835	-0.019712	ppb
	Cr	52	3498.612	-0.019289	ppb
	Mn	55	395.008	-0.003867	ppb
	Fe	54	21422.923	-3.702567	ppb
	Fe	56	500315.320	-3.329143	ppb
	Fe	57	1735.151	-0.091794	ppb
	Co	59	138.001	0.002352	ppb
	Ni	60	36.667	-0.005658	ppb
	Cu	63	396.675	-0.177727	ppb
	Cu	65	110.001	-0.054182	ppb
	Zn	66	126.667	-0.047378	ppb
	As	75	77.282	0.038887	ppb
	Se	82	49.333	0.253393	ppb
	Mo	96	488.012	0.031814	ppb
	Ag	107	153.335	0.011441	ppb
	Ag	109	140.001	0.009993	ppb
	Cd	111	20.000	0.003544	ppb
	In	113	97376.815	-2.493983	ppb
>	In	115	2633873.367		ppb
	Sn	118	510.013	0.062223	ppb
	Sb	121	5076.288	0.770673	ppb
	Ba	135	66.000	0.016335	ppb
	Ba	137	112.001	0.010492	ppb
>	Tb	159	4180991.386		ppb
	Tl	205	265.004	0.005820	ppb
	Pb	206	70.000	-0.000546	ppb
	Pb	207	135.000	0.000112	ppb
	Pb	208	300.003	0.004155	ppb
>	Bi	209	3370078.230		ppb
	Cr	53	1202.072		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	303222.538		ppb
	Kr	83	52.000		ppb
	Se	77	56.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	556091.613		ppb
	Be	9	2.000	0.007965	ppb
	Na	23	11801.960	-5.116971	ppb
	Mg	24	1404.099	-0.320978	ppb
	Mg	25	200.002	-0.331596	ppb
	Mg	26	299.004	-0.201271	ppb
	Al	27	1020.052	-0.665060	ppb
	K	39	194511.515	-5.995353	ppb
	Ca	44	5587.561	-39.201229	ppb
>	Sc	45	826261.082		ppb

	Ti	47	60.000	-0.062533	ppb
	V	51	522.680	-0.028190	ppb
	Cr	52	3418.584	-0.043845	ppb
	Mn	55	305.005	-0.016195	ppb
	Fe	54	21798.733	-3.509644	ppb
	Fe	56	497043.045	-4.673359	ppb
	Fe	57	1765.156	-0.055127	ppb
	Co	59	180.002	0.008191	ppb
	Ni	60	33.333	-0.008135	ppb
	Cu	63	373.340	-0.185681	ppb
	Cu	65	210.002	0.000936	ppb
	Zn	66	123.334	-0.053108	ppb
	As	75	71.485	0.032201	ppb
	Se	82	22.000	-0.041447	ppb
	Mo	96	362.007	-0.027154	ppb
	Ag	107	146.668	0.010517	ppb
	Ag	109	170.001	0.014574	ppb
	Cd	111	4.635	-0.006536	ppb
	In	113	97725.189	-2.096670	ppb
>	In	115	2626907.750		ppb
	Sn	118	430.009	0.045868	ppb
	Sb	121	4340.942	0.626093	ppb
	Ba	135	72.000	0.020850	ppb
	Ba	137	112.001	0.010796	ppb
>	Tb	159	4152710.256		ppb
	Tl	205	255.003	0.005262	ppb
	Pb	206	95.000	0.002864	ppb
	Pb	207	175.001	0.002990	ppb
	Pb	208	225.001	0.000897	ppb
>	Bi	209	3409020.801		ppb
	Cr	53	1114.062		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	289700.400		ppb
	Kr	83	36.000		ppb
	Se	77	41.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576114.752		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	12076.287	-5.162326	ppb
	Mg	24	1442.104	-0.326329	ppb
	Mg	25	216.002	-0.304892	ppb
	Mg	26	284.004	-0.268206	ppb
	Al	27	985.049	-0.683337	ppb
	K	39	194707.270	-6.983119	ppb
	Ca	44	5251.378	-42.141014	ppb
>	Sc	45	836295.994		ppb
	Ti	47	40.000	-0.106931	ppb
	V	51	479.609	-0.036304	ppb
	Cr	52	3606.650	-0.016208	ppb
	Mn	55	400.008	-0.004550	ppb
	Fe	54	22074.337	-3.483142	ppb
	Fe	56	494155.067	-5.832520	ppb
	Fe	57	1530.117	-1.632084	ppb
	Co	59	156.001	0.004422	ppb
	Ni	60	30.000	-0.010515	ppb
	Cu	63	373.340	-0.186916	ppb
	Cu	65	143.334	-0.037342	ppb
	Zn	66	96.667	-0.084412	ppb
	As	75	71.460	0.031343	ppb
	Se	82	30.000	0.038948	ppb

⌈	Mo	96	328.005	-0.043445	ppb
|	Ag	107	143.334	0.009995	ppb
|	Ag	109	223.336	0.022571	ppb
|	Cd	111	5.000	-0.006300	ppb
|	In	113	99694.485	-0.895547	ppb
|>	In	115	2630538.272		ppb
⌊	Sn	118	455.010	0.050936	ppb
⌈	Sb	121	4245.901	0.610976	ppb
|	Ba	135	66.000	0.016885	ppb
|	Ba	137	102.001	0.006996	ppb
⌊>	Tb	159	4131552.127		ppb
⌈	Tl	205	355.006	0.009746	ppb
|	Pb	206	95.000	0.003049	ppb
|	Pb	207	150.001	0.001274	ppb
|	Pb	208	270.002	0.002921	ppb
⌊>	Bi	209	3362466.373		ppb
	Cr	53	1110.062		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	294163.906		ppb
	Kr	83	34.000		ppb
	Se	77	39.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.497			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		91.861			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.835			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		91.858			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.539			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: SDI0904109-01

Sample Date/Time: Thursday, May 07, 2009 16:26:15
Sample Type: Sample
Sample Description: 10D3DL
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\SDI0904109-01.156

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	551540.530	4.415	551540.530			ppb
	Be	9	0.667	173.205	0.000	0.00255	173.21	ppb
	Na	23	8843863.692	2.530	15.993	2774.40766	1.92	ppb
	Mg	24	15821082.289	0.866	28.711	7051.58422	3.52	ppb
	Mg	25	2320375.316	1.336	4.210	7361.71780	3.23	ppb
	Mg	26	2806468.895	1.123	5.093	7622.09994	3.57	ppb
	Al	27	12087.304	2.734	0.016	2.28422	2.35	ppb
	K	39	1795187.519	1.158	2.837	237.12289	4.28	ppb
	Ca	44	3724671.932	0.604	6.739	21240.45856	4.37	ppb
>	Sc	45	816489.235	1.410	816489.235			ppb
	Ti	47	170.001	5.882	0.000	0.18058	14.88	ppb
	V	51	889.945	23.542	0.000	0.03438	98.09	ppb
	Cr	52	3974.790	3.659	0.000	0.07132	30.59	ppb
	Mn	55	435.010	11.085	0.000	0.00123	474.31	ppb
	Fe	54	21341.102	3.696	-0.002	-4.01842	33.97	ppb
	Fe	56	540867.952	3.254	0.018	1.93493	97.40	ppb
	Fe	57	10367.039	1.605	0.011	54.25886	2.78	ppb
	Co	59	270.670	14.143	0.000	0.02188	25.91	ppb
	Ni	60	467.789	9.300	0.001	0.27580	11.92	ppb
	Cu	63	635.576	6.323	-0.000	-0.11136	8.05	ppb
	Cu	65	382.230	6.187	0.000	0.09995	14.28	ppb
	Zn	66	1145.622	10.461	0.001	1.11166	11.25	ppb
	As	75	77.313	12.509	0.000	0.03870	22.13	ppb
	Se	82	32.444	13.211	0.000	0.07301	69.61	ppb
	Mo	96	858.704	4.329	0.000	0.21770	9.22	ppb
	Ag	107	45.556	15.232	-0.000	-0.00424	24.17	ppb
	Ag	109	63.334	41.107	-0.000	-0.00125	330.98	ppb
	Cd	111	7.032	138.696	-0.000	-0.00480	138.51	ppb
	In	113	96639.742	0.906	-0.001	-1.25907	17.35	ppb
>	In	115	2564240.709	1.007	2564240.709			ppb
	Sn	118	191.669	18.323	-0.000	-0.00276	258.91	ppb
	Sb	121	1793.494	5.234	0.000	0.10667	20.00	ppb
	Ba	135	13955.065	1.194	0.003	9.90029	0.51	ppb
	Ba	137	24324.884	0.941	0.006	9.87382	0.53	ppb
>	Tb	159	4087447.310	0.690	4087447.310			ppb
	Tl	205	120.001	15.023	-0.000	-0.00016	475.44	ppb
	Pb	206	120.001	19.094	0.000	0.00753	43.49	ppb
	Pb	207	223.335	13.495	0.000	0.00775	29.40	ppb
	Pb	208	336.670	18.688	0.000	0.00650	43.96	ppb
>	Bi	209	3189671.158	1.065	3189671.158			ppb
	Cr	53	1288.083	0.538	642.062			ppb
	Pd	106	5.000	100.000	1.667			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	310825.108	1.880	12505.155			ppb
	Kr	83	36.000	9.623	-1.333			ppb
	Se	77	47.556	12.643	14.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	579362.562		ppb
	Be	9	2.000	0.007645	ppb
	Na	23	9090019.968	2712.998966	ppb
	Mg	24	15977615.390	6772.337417	ppb
	Mg	25	2354288.208	7103.977470	ppb
	Mg	26	2837483.560	7328.707143	ppb
	Al	27	12467.767	2.224570	ppb
	K	39	1812956.460	226.332340	ppb
	Ca	44	3728980.405	20214.762433	ppb
>	Sc	45	822504.546		ppb
	Ti	47	170.001	0.177617	ppb
	V	51	1112.401	0.070653	ppb
	Cr	52	4134.855	0.096481	ppb
	Mn	55	490.012	0.007978	ppb
	Fe	54	22094.381	-2.530043	ppb
	Fe	56	560822.124	4.047894	ppb
	Fe	57	10520.531	54.730513	ppb
	Co	59	230.003	0.015628	ppb
	Ni	60	453.344	0.263911	ppb
	Cu	63	640.020	-0.111348	ppb
	Cu	65	403.341	0.110186	ppb
	Zn	66	1280.082	1.254745	ppb
	As	75	78.661	0.039534	ppb
	Se	82	29.333	0.037130	ppb
	Mo	96	884.039	0.227476	ppb
	Ag	107	40.000	-0.005115	ppb
	Ag	109	50.000	-0.003384	ppb
	Cd	111	5.000	-0.006234	ppb
	In	113	96811.365	-1.511087	ppb
>	In	115	2578778.862		ppb
	Sn	118	225.003	0.004115	ppb
	Sb	121	1685.142	0.082104	ppb
	Ba	135	14077.902	9.937066	ppb
	Ba	137	24578.167	9.926199	ppb
>	Tb	159	4108308.647		ppb
	Tl	205	140.001	0.000687	ppb
	Pb	206	140.001	0.010328	ppb
	Pb	207	255.002	0.010064	ppb
	Pb	208	345.003	0.006695	ppb
>	Bi	209	3225556.863		ppb
	Cr	53	1284.082		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	317505.725		ppb
	Kr	83	34.000		ppb
	Se	77	48.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	534125.458		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	8652790.978	2801.512169	ppb
	Mg	24	15762280.573	7246.975303	ppb
	Mg	25	2313375.003	7571.793548	ppb
	Mg	26	2807443.469	7865.317354	ppb
	Al	27	11872.043	2.328390	ppb
	K	39	1800280.608	246.501592	ppb
	Ca	44	3744705.397	22025.618208	ppb
>	Sc	45	823745.734		ppb

	Ti	47	160.001	0.155314	ppb
	V	51	861.052	0.028477	ppb
	Cr	52	3938.776	0.057745	ppb
	Mn	55	415.009	-0.001830	ppb
	Fe	54	21407.890	-4.313649	ppb
	Fe	56	534212.951	0.427520	ppb
	Fe	57	10190.189	52.569346	ppb
	Co	59	306.005	0.026682	ppb
	Ni	60	433.343	0.250538	ppb
	Cu	63	673.356	-0.102396	ppb
	Cu	65	356.673	0.083642	ppb
	Zn	66	1106.728	1.056957	ppb
	As	75	86.239	0.046815	ppb
	Se	82	30.667	0.050737	ppb
	Mo	96	816.033	0.194607	ppb
	Ag	107	53.333	-0.003113	ppb
	Ag	109	46.667	-0.003898	ppb
	Cd	111	-1.545	-0.010623	ppb
	In	113	97417.206	-1.125300	ppb
>	In	115	2579528.150		ppb
	Sn	118	195.002	-0.002251	ppb
	Sb	121	1845.170	0.120487	ppb
	Ba	135	13765.468	9.843070	ppb
	Ba	137	24133.085	9.873476	ppb
>	Tb	159	4055378.180		ppb
	Tl	205	115.001	-0.000377	ppb
	Pb	206	125.001	0.008328	ppb
	Pb	207	195.001	0.005511	ppb
	Pb	208	270.002	0.003553	ppb
>	Bi	209	3185471.214		ppb
	Cr	53	1284.082		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	308308.556		ppb
	Kr	83	34.000		ppb
	Se	77	41.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	541133.569		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	8788780.129	2808.711859	ppb
	Mg	24	15723350.905	7135.439944	ppb
	Mg	25	2293462.739	7409.382396	ppb
	Mg	26	2774479.656	7672.275336	ppb
	Al	27	11922.103	2.299714	ppb
	K	39	1772325.489	238.534731	ppb
	Ca	44	3700329.994	21480.995036	ppb
>	Sc	45	803217.426		ppb
	Ti	47	180.002	0.208808	ppb
	V	51	696.383	0.003996	ppb
	Cr	52	3850.741	0.059732	ppb
	Mn	55	400.008	-0.002449	ppb
	Fe	54	20521.034	-5.211578	ppb
	Fe	56	527568.781	1.329364	ppb
	Fe	57	10390.395	55.476720	ppb
	Co	59	276.004	0.023329	ppb
	Ni	60	516.680	0.312953	ppb
	Cu	63	593.351	-0.120328	ppb
	Cu	65	386.674	0.106035	ppb
	Zn	66	1050.055	1.023290	ppb
	As	75	67.038	0.029745	ppb
	Se	82	37.333	0.131174	ppb

⌈	Mo	96	876.038	0.231008	ppb
|	Ag	107	43.333	-0.004500	ppb
|	Ag	109	93.334	0.003525	ppb
|	Cd	111	17.640	0.002449	ppb
|	In	113	95690.655	-1.140819	ppb
|>	In	115	2534415.115		ppb
⌊	Sn	118	155.001	-0.010137	ppb
⌈	Sb	121	1850.171	0.117417	ppb
|	Ba	135	14021.824	9.920745	ppb
|	Ba	137	24263.400	9.821799	ppb
⌊>	Tb	159	4098655.104		ppb
⌈	Tl	205	105.001	-0.000792	ppb
|	Pb	206	95.000	0.003928	ppb
|	Pb	207	220.001	0.007667	ppb
|	Pb	208	395.004	0.009259	ppb
⌊>	Bi	209	3157985.396		ppb
	Cr	53	1296.084		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	306661.042		ppb
	Kr	83	40.000		ppb
	Se	77	53.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			98.684		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			90.822		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			89.523		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			90.363		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			89.202		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: PDS0904109-01

Sample Date/Time: Thursday, May 07, 2009 16:29:08
Sample Type: Sample
Sample Description: 10D3DA
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\PDS0904109-01.157

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	498758.907	0.488	498758.907			ppb
|	Be	9	580.017	3.160	0.001	2.57561	3.46	ppb
|	Na	23	41397120.062	0.859	82.950	14389.89413	0.81	ppb
|	Mg	24	73989390.650	1.543	148.349	36435.16802	1.80	ppb
|	Mg	25	10929177.399	1.322	21.913	38313.66071	1.63	ppb
|	Mg	26	13399823.921	2.420	26.867	40208.65216	2.62	ppb
|	Al	27	288248.915	4.442	0.572	83.90855	4.78	ppb
|	K	39	7743315.253	0.742	15.104	1262.51385	1.04	ppb
⌊	Ca	44	17793557.707	0.719	35.654	112370.61891	0.82	ppb
⌈>	Sc	45	762798.722	1.606	762798.722			ppb
|	Ti	47	613.352	4.021	0.001	1.24817	5.63	ppb
|	V	51	67767.259	0.398	0.088	12.08502	1.34	ppb
|	Cr	52	27215.656	1.421	0.031	4.93127	1.74	ppb
|	Mn	55	16585.411	1.404	0.021	2.26378	0.85	ppb
|	Fe	54	20028.373	1.394	-0.002	-3.76139	21.64	ppb
|	Fe	56	627683.632	0.575	0.178	19.38028	7.33	ppb
|	Fe	57	42033.156	0.512	0.053	272.33856	1.19	ppb
|	Co	59	15002.582	2.144	0.020	2.34932	1.91	ppb
|	Ni	60	5226.921	1.177	0.007	3.62012	1.77	ppb
|	Cu	63	15090.271	2.448	0.019	4.21801	1.80	ppb
|	Cu	65	7895.340	2.891	0.010	4.66970	1.40	ppb
|	Zn	66	8443.564	2.175	0.011	10.09911	2.95	ppb
|	As	75	2436.311	3.910	0.003	2.53104	3.95	ppb
⌊	Se	82	1110.506	2.046	0.001	12.38484	1.19	ppb
⌈	Mo	96	7031.805	1.609	0.003	3.99913	11.36	ppb
|	Ag	107	13364.484	2.578	0.006	2.47743	10.32	ppb
|	Ag	109	13370.044	1.094	0.006	2.53129	8.92	ppb
|	Cd	111	3199.101	1.024	0.002	2.64565	8.88	ppb
|	In	113	89031.255	0.798	0.004	7.44266	90.41	ppb
|>	In	115	2095837.577	9.994	2095837.577			ppb
⌊	Sn	118	10417.093	2.832	0.005	2.68966	10.66	ppb
⌈	Sb	121	21683.494	2.640	0.005	4.66591	2.07	ppb
|	Ba	135	94408.926	1.088	0.025	72.94590	0.78	ppb
|	Ba	137	164766.360	0.779	0.044	72.86921	0.46	ppb
⌊>	Tb	159	3762788.370	0.744	3762788.370			ppb
⌈	Tl	205	41226.492	1.856	0.015	2.17809	2.36	ppb
|	Pb	206	15690.646	3.969	0.006	2.73007	4.31	ppb
|	Pb	207	27614.418	2.618	0.010	2.55171	2.84	ppb
|	Pb	208	43349.744	0.662	0.016	2.22220	1.63	ppb
⌊>	Bi	209	2750945.891	1.209	2750945.891			ppb
	Cr	53	3972.790	4.421	3326.769			ppb
	Pd	106	290.004	18.650	286.671			ppb
	Pd	108	223.336	20.315	223.336			ppb
	C	12	385918.631	0.766	87598.678			ppb
	Kr	83	27.333	46.470	-10.000			ppb
	Se	77	930.932	0.323	898.265			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	501356.575		ppb
	Be	9	576.017	2.544409	ppb
	Na	23	41399686.864	14316.106848	ppb
	Mg	24	73030102.816	35775.126134	ppb
	Mg	25	10794148.963	37642.780868	ppb
	Mg	26	13152604.439	39260.693597	ppb
	Al	27	275899.230	79.844967	ppb
	K	39	7698425.297	1248.274513	ppb
	Ca	44	17754850.034	111543.256442	ppb
>	Sc	45	748658.275		ppb
	Ti	47	625.020	1.302797	ppb
	V	51	67516.245	12.267688	ppb
	Cr	52	26986.364	4.988704	ppb
	Mn	55	16353.361	2.274417	ppb
	Fe	54	19864.711	-3.200686	ppb
	Fe	56	626663.831	20.906285	ppb
	Fe	57	41797.168	276.035081	ppb
	Co	59	14806.954	2.362450	ppb
	Ni	60	5211.358	3.677455	ppb
	Cu	63	14787.592	4.211110	ppb
	Cu	65	7636.248	4.600697	ppb
	Zn	66	8473.589	10.328542	ppb
	As	75	2412.955	2.554223	ppb
	Se	82	1088.726	12.371068	ppb
	Mo	96	6916.391	3.476503	ppb
	Ag	107	13292.162	2.193234	ppb
	Ag	109	13469.065	2.271631	ppb
	Cd	111	3223.657	2.375133	ppb
	In	113	89392.776	-0.308143	ppb
>	In	115	2337683.592		ppb
	Sn	118	10330.333	2.370150	ppb
	Sb	121	21568.234	4.631999	ppb
	Ba	135	95402.925	73.592654	ppb
	Ba	137	165833.734	73.220070	ppb
>	Tb	159	3769005.376		ppb
	Tl	205	41159.531	2.204317	ppb
	Pb	206	15637.217	2.757956	ppb
	Pb	207	27399.130	2.566521	ppb
	Pb	208	43431.983	2.256940	ppb
>	Bi	209	2713562.061		ppb
	Cr	53	4174.871		ppb
	Pd	106	335.006		ppb
	Pd	108	175.002		ppb
	C	12	384074.697		ppb
	Kr	83	42.000		ppb
	Se	77	928.043		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	496536.803		ppb
	Be	9	600.018	2.676157	ppb
	Na	23	41040231.963	14329.571492	ppb
	Mg	24	73686369.063	36447.009535	ppb
	Mg	25	10911888.226	38422.772317	ppb
	Mg	26	13279866.914	40025.375533	ppb
	Al	27	287386.039	84.024890	ppb
	K	39	7723498.966	1264.954179	ppb
	Ca	44	17689406.135	112211.269797	ppb
>	Sc	45	770098.121		ppb

	Ti	47	630.020	1.272795	ppb
	V	51	67732.592	11.961522	ppb
	Cr	52	26998.397	4.832893	ppb
	Mn	55	16583.740	2.241459	ppb
	Fe	54	19869.721	-4.695178	ppb
	Fe	56	624690.952	18.096707	ppb
	Fe	57	42083.365	269.953748	ppb
	Co	59	14826.984	2.299307	ppb
	Ni	60	5294.735	3.631907	ppb
	Cu	63	15502.006	4.297173	ppb
	Cu	65	7983.185	4.677720	ppb
	Zn	66	8246.732	9.761838	ppb
	As	75	2354.900	2.421455	ppb
	Se	82	1108.728	12.244884	ppb
	Mo	96	7036.475	4.221943	ppb
	Ag	107	13061.858	2.549984	ppb
	Ag	109	13439.024	2.681800	ppb
	Cd	111	3211.744	2.799502	ppb
	In	113	89488.627	11.785163	ppb
>	In	115	1977195.311		ppb
	Sn	118	10745.770	2.924986	ppb
	Sb	121	21177.400	4.590618	ppb
	Ba	135	93351.703	72.719784	ppb
	Ba	137	163343.244	72.831124	ppb
>	Tb	159	3732218.819		ppb
	Tl	205	40496.834	2.118862	ppb
	Pb	206	15096.386	2.600902	ppb
	Pb	207	27023.495	2.472908	ppb
	Pb	208	43030.404	2.184515	ppb
>	Bi	209	2777262.652		ppb
	Cr	53	3886.755		ppb
	Pd	106	305.005		ppb
	Pd	108	230.003		ppb
	C	12	384353.093		ppb
	Kr	83	20.000		ppb
	Se	77	930.710		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	498383.344		ppb
	Be	9	564.016	2.506262	ppb
	Na	23	41751441.359	14524.004047	ppb
	Mg	24	75251700.071	37083.368398	ppb
	Mg	25	11081495.007	38875.428937	ppb
	Mg	26	13767000.412	41339.887356	ppb
	Al	27	301461.477	87.855780	ppb
	K	39	7808021.497	1274.312856	ppb
	Ca	44	17936416.950	113357.330500	ppb
>	Sc	45	769639.771		ppb
	Ti	47	585.017	1.168931	ppb
	V	51	68052.940	12.025865	ppb
	Cr	52	27662.207	4.972215	ppb
	Mn	55	16819.132	2.275451	ppb
	Fe	54	20350.686	-3.388294	ppb
	Fe	56	631696.114	19.137844	ppb
	Fe	57	42218.934	271.026838	ppb
	Co	59	15373.809	2.386202	ppb
	Ni	60	5174.672	3.551010	ppb
	Cu	63	14981.213	4.145752	ppb
	Cu	65	8066.586	4.730691	ppb
	Zn	66	8610.372	10.206935	ppb
	As	75	2541.078	2.617429	ppb
	Se	82	1134.064	12.538561	ppb

⌈	Mo	96	7142.550	4.298954	ppb
|	Ag	107	13739.432	2.689069	ppb
|	Ag	109	13202.042	2.640432	ppb
|	Cd	111	3161.902	2.762305	ppb
|	In	113	88212.363	10.850968	ppb
|>	In	115	1972633.827		ppb
⌊	Sn	118	10175.174	2.773858	ppb
⌈	Sb	121	22304.848	4.775116	ppb
|	Ba	135	94472.151	72.525262	ppb
|	Ba	137	165122.102	72.556431	ppb
⌊>	Tb	159	3787140.915		ppb
⌈	Tl	205	42023.112	2.211104	ppb
|	Pb	206	16338.336	2.831344	ppb
|	Pb	207	28420.631	2.615700	ppb
|	Pb	208	43586.843	2.225137	ppb
⌊>	Bi	209	2762012.959		ppb
	Cr	53	3856.744		ppb
	Pd	106	230.003		ppb
	Pd	108	265.004		ppb
	C	12	389328.103		ppb
	Kr	83	20.000		ppb
	Se	77	934.044		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			89.240		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			84.850		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			73.170		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			83.185		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			76.933		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904109-02

Sample Date/Time: Thursday, May 07, 2009 16:32:01
Sample Type: Sample
Sample Description: 10D4
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904109-02.158

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	531408.663	2.061	531408.663			ppb
	Be	9	10.000	91.652	0.000	0.04214	91.47	ppb
	Na	23	30964508.831	0.528	58.237	10102.69325	2.37	ppb
	Mg	24	41229504.804	0.613	77.607	19060.57393	2.42	ppb
	Mg	25	6051498.469	1.501	11.393	19919.25433	3.51	ppb
	Mg	26	7373611.142	1.278	13.881	20774.50416	3.29	ppb
	Al	27	3022710.637	1.435	5.684	834.41984	3.46	ppb
	K	39	7873132.154	0.740	14.398	1203.45953	1.87	ppb
	Ca	44	5773343.647	0.506	10.844	34178.33905	1.77	ppb
>	Sc	45	815837.266	0.454	815837.266			ppb
	Ti	47	9127.498	2.327	0.011	19.84704	2.21	ppb
	V	51	10017.953	6.211	0.011	1.57119	6.93	ppb
	Cr	52	22057.646	2.801	0.023	3.56791	3.51	ppb
	Mn	55	374084.334	1.387	0.458	48.85690	1.84	ppb
	Fe	54	447007.571	0.564	0.520	1061.00752	1.00	ppb
	Fe	56	9012102.699	0.155	10.402	1129.88205	0.32	ppb
	Fe	57	188814.212	0.285	0.229	1179.03177	0.74	ppb
	Co	59	3362.566	4.552	0.004	0.47808	4.90	ppb
	Ni	60	2149.120	2.095	0.003	1.37332	2.35	ppb
	Cu	63	5851.712	1.780	0.006	1.34532	1.62	ppb
	Cu	65	2899.310	4.249	0.003	1.52679	4.13	ppb
	Zn	66	6675.561	1.130	0.008	7.41382	1.22	ppb
	As	75	347.571	4.665	0.000	0.30519	5.17	ppb
	Se	82	72.445	8.551	0.000	0.49928	13.82	ppb
	Mo	96	970.714	2.388	0.000	0.29964	4.23	ppb
	Ag	107	120.001	0.000	0.000	0.00809	2.67	ppb
	Ag	109	120.001	12.108	0.000	0.00857	28.11	ppb
	Cd	111	141.160	11.116	0.000	0.09128	12.90	ppb
	In	113	91220.841	0.238	-0.001	-1.28060	45.17	ppb
>	In	115	2421395.375	1.126	2421395.375			ppb
	Sn	118	245.003	13.383	0.000	0.01167	57.96	ppb
	Sb	121	1063.390	7.350	-0.000	-0.03282	48.98	ppb
	Ba	135	142646.264	1.039	0.037	107.68557	1.51	ppb
	Ba	137	247663.761	1.438	0.064	107.01067	1.23	ppb
>	Tb	159	3852028.965	1.002	3852028.965			ppb
	Tl	205	225.003	13.878	0.000	0.00542	29.88	ppb
	Pb	206	6478.769	5.262	0.002	1.03815	4.24	ppb
	Pb	207	11898.571	3.533	0.004	1.01305	2.61	ppb
	Pb	208	19439.624	1.350	0.006	0.91895	1.97	ppb
>	Bi	209	2967169.391	1.118	2967169.391			ppb
	Cr	53	3261.865	2.521	2615.845			ppb
	Pd	106	38.333	78.622	35.000			ppb
	Pd	108	20.000	25.000	20.000			ppb
	C	12	386900.514	1.150	88580.561			ppb
	Kr	83	25.333	16.434	-12.000			ppb
	Se	77	87.111	11.360	54.445			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	543836.438		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	30897566.645	9847.126540	ppb
	Mg	24	41129275.840	18573.688430	ppb
	Mg	25	5946610.824	19117.472933	ppb
	Mg	26	7264827.203	19991.214712	ppb
	Al	27	2974119.547	801.826861	ppb
	K	39	7892544.027	1177.853977	ppb
	Ca	44	5789259.850	33479.986800	ppb
>	Sc	45	816452.491		ppb
	Ti	47	9364.383	20.351923	ppb
	V	51	10550.758	1.659324	ppb
	Cr	52	22717.776	3.692068	ppb
	Mn	55	371779.890	48.516310	ppb
	Fe	54	448627.552	1064.185155	ppb
	Fe	56	9013652.036	1129.173166	ppb
	Fe	57	188617.203	1176.867819	ppb
	Co	59	3516.618	0.500384	ppb
	Ni	60	2193.574	1.401202	ppb
	Cu	63	5885.065	1.353458	ppb
	Cu	65	2970.441	1.566018	ppb
	Zn	66	6762.286	7.506732	ppb
	As	75	366.285	0.323370	ppb
	Se	82	67.334	0.444103	ppb
	Mo	96	986.049	0.301800	ppb
	Ag	107	120.001	0.007869	ppb
	Ag	109	110.001	0.006731	ppb
	Cd	111	125.280	0.078881	ppb
	In	113	91415.943	-1.876124	ppb
>	In	115	2448883.618		ppb
	Sn	118	280.004	0.018911	ppb
	Sb	121	980.048	-0.050710	ppb
	Ba	135	144342.270	109.251626	ppb
	Ba	137	250508.921	108.530275	ppb
>	Tb	159	3841688.115		ppb
	Tl	205	250.003	0.006800	ppb
	Pb	206	6096.858	0.989537	ppb
	Pb	207	11473.303	0.989528	ppb
	Pb	208	19521.442	0.934928	ppb
>	Bi	209	2928876.295		ppb
	Cr	53	3268.534		ppb
	Pd	106	35.000		ppb
	Pd	108	20.000		ppb
	C	12	385231.959		ppb
	Kr	83	30.000		ppb
	Se	77	78.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	527227.468		ppb
	Be	9	18.000	0.075609	ppb
	Na	23	30845049.883	10140.332666	ppb
	Mg	24	41042294.908	19118.315778	ppb
	Mg	25	6104979.643	20244.948491	ppb
	Mg	26	7426898.083	21081.075460	ppb
	Al	27	3036499.237	844.483489	ppb
	K	39	7919235.352	1220.300923	ppb
	Ca	44	5791142.858	34548.178280	ppb
>	Sc	45	819193.631		ppb

	Ti	47	9064.106	19.626605	ppb
	V	51	9334.094	1.449459	ppb
	Cr	52	21493.073	3.441596	ppb
	Mn	55	370446.760	48.180195	ppb
	Fe	54	444102.119	1049.156840	ppb
	Fe	56	9025272.059	1126.701279	ppb
	Fe	57	188403.226	1171.549792	ppb
	Co	59	3210.515	0.453675	ppb
	Ni	60	2103.555	1.337893	ppb
	Cu	63	5935.094	1.361876	ppb
	Cu	65	2970.441	1.560387	ppb
	Zn	66	6625.527	7.325799	ppb
	As	75	338.683	0.295071	ppb
	Se	82	70.667	0.477082	ppb
	Mo	96	944.045	0.286025	ppb
	Ag	107	120.001	0.008088	ppb
	Ag	109	136.668	0.011300	ppb
	Cd	111	156.654	0.102314	ppb
	In	113	91259.524	-1.244843	ppb
>	In	115	2420926.458		ppb
	Sn	118	240.003	0.010607	ppb
	Sb	121	1135.064	-0.019598	ppb
	Ba	135	141995.022	106.009650	ppb
	Ba	137	248813.369	106.326149	ppb
>	Tb	159	3894759.168		ppb
	Tl	205	235.003	0.005824	ppb
	Pb	206	6752.279	1.075317	ppb
	Pb	207	12313.825	1.041713	ppb
	Pb	208	19651.465	0.922580	ppb
>	Bi	209	2987484.996		ppb
	Cr	53	3340.558		ppb
	Pd	106	70.000		ppb
	Pd	108	25.000		ppb
	C	12	383528.315		ppb
	Kr	83	22.000		ppb
	Se	77	84.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	523162.082		ppb
	Be	9	12.000	0.050798	ppb
	Na	23	31150909.966	10320.620535	ppb
	Mg	24	41516943.665	19489.717576	ppb
	Mg	25	6102904.942	20395.341578	ppb
	Mg	26	7429108.140	21251.222304	ppb
	Al	27	3057513.126	856.949181	ppb
	K	39	7807617.083	1212.223690	ppb
	Ca	44	5739628.234	34506.852059	ppb
>	Sc	45	811865.677		ppb
	Ti	47	8954.007	19.562583	ppb
	V	51	10169.008	1.604785	ppb
	Cr	52	21962.090	3.570059	ppb
	Mn	55	380026.351	49.874189	ppb
	Fe	54	448293.040	1069.680578	ppb
	Fe	56	8997384.003	1133.771699	ppb
	Fe	57	189422.206	1188.677706	ppb
	Co	59	3360.565	0.480178	ppb
	Ni	60	2150.231	1.380854	ppb
	Cu	63	5734.977	1.320621	ppb
	Cu	65	2757.047	1.453962	ppb
	Zn	66	6638.870	7.408929	ppb
	As	75	337.744	0.297141	ppb
	Se	82	79.334	0.576668	ppb

⌈	Mo	96	982.048	0.311109	ppb
|	Ag	107	120.001	0.008301	ppb
|	Ag	109	113.334	0.007687	ppb
|	Cd	111	141.546	0.092643	ppb
|	In	113	90987.058	-0.720828	ppb
|>	In	115	2394376.050		ppb
⌊	Sn	118	215.002	0.005504	ppb
⌈	Sb	121	1075.058	-0.028144	ppb
|	Ba	135	141601.501	107.795434	ppb
|	Ba	137	243668.995	106.175587	ppb
⌊>	Tb	159	3819639.612		ppb
⌈	Tl	205	190.002	0.003637	ppb
|	Pb	206	6587.169	1.049595	ppb
|	Pb	207	11908.584	1.007895	ppb
|	Pb	208	19145.965	0.899342	ppb
⌊>	Bi	209	2985146.883		ppb
	Cr	53	3176.504		ppb
	Pd	106	10.000		ppb
	Pd	108	15.000		ppb
	C	12	391941.268		ppb
	Kr	83	24.000		ppb
	Se	77	98.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.082			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		90.749			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		84.536			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		85.158			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		82.979			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904109-03

Sample Date/Time: Thursday, May 07, 2009 16:34:55
Sample Type: Sample
Sample Description: 10MW1
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904109-03.159

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	533755.862	3.600	533755.862			ppb
	Be	9	0.667	173.205	0.000	0.00288	173.21	ppb
	Na	23	37709242.147	1.424	70.651	12256.23920	3.34	ppb
	Mg	24	51520891.065	1.119	96.626	23731.83725	4.55	ppb
	Mg	25	7551852.845	0.190	14.161	24759.62479	3.83	ppb
	Mg	26	9170387.854	1.262	17.198	25738.12883	4.38	ppb
	Al	27	5299.741	6.330	0.004	0.52531	23.03	ppb
	K	39	8332276.872	1.963	15.209	1271.32353	5.61	ppb
	Ca	44	9032987.294	1.376	16.921	53330.12136	4.93	ppb
>	Sc	45	781858.828	1.407	781858.828			ppb
	Ti	47	541.682	17.079	0.001	1.04882	20.68	ppb
	V	51	3180.567	8.192	0.003	0.44376	11.19	ppb
	Cr	52	12689.380	0.737	0.012	1.86374	2.59	ppb
	Mn	55	505.013	5.239	0.000	0.01332	24.95	ppb
	Fe	54	16229.827	0.595	-0.007	-14.98355	4.53	ppb
	Fe	56	542556.518	0.476	0.049	5.37192	23.36	ppb
	Fe	57	21775.367	3.330	0.026	132.22593	4.95	ppb
	Co	59	476.011	2.911	0.000	0.05524	2.01	ppb
	Ni	60	1181.181	7.426	0.001	0.77502	7.87	ppb
	Cu	63	2988.224	3.165	0.003	0.58204	4.06	ppb
	Cu	65	1581.236	3.467	0.002	0.81901	5.01	ppb
	Zn	66	1917.962	3.052	0.002	2.08844	3.39	ppb
	As	75	145.816	14.407	0.000	0.11246	17.75	ppb
	Se	82	80.223	2.671	0.000	0.61938	5.14	ppb
	Mo	96	2431.629	3.666	0.001	1.07000	4.74	ppb
	Ag	107	23.333	75.593	-0.000	-0.00732	39.46	ppb
	Ag	109	21.111	32.868	-0.000	-0.00755	15.53	ppb
	Cd	111	22.453	55.116	0.000	0.00669	133.05	ppb
	In	113	90618.749	0.691	-0.000	-0.63015	133.75	ppb
>	In	115	2381509.658	0.623	2381509.658			ppb
	Sn	118	178.335	11.673	-0.000	-0.00262	190.95	ppb
	Sb	121	610.019	20.930	-0.000	-0.13307	21.50	ppb
	Ba	135	108829.674	0.675	0.028	82.44997	0.95	ppb
	Ba	137	188558.462	0.390	0.049	81.76758	0.98	ppb
>	Tb	159	3838032.891	1.369	3838032.891			ppb
	Tl	205	70.000	37.116	-0.000	-0.00217	57.01	ppb
	Pb	206	611.686	12.379	0.000	0.08961	13.10	ppb
	Pb	207	1151.701	10.064	0.000	0.09015	12.11	ppb
	Pb	208	1863.436	2.578	0.001	0.08150	4.05	ppb
>	Bi	209	2933284.071	1.278	2933284.071			ppb
	Cr	53	2258.256	6.345	1612.235			ppb
	Pd	106	1.667	173.205	-1.667			ppb
	Pd	108	6.667	86.603	6.667			ppb
	C	12	377711.861	1.307	79391.908			ppb
	Kr	83	25.333	31.906	-12.000			ppb
	Se	77	94.223	10.738	61.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	551053.904		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	37521762.956	11803.395471	ppb
|	Mg	24	50855177.451	22665.247118	ppb
|	Mg	25	7538424.921	23917.742097	ppb
|	Mg	26	9045212.656	24564.671695	ppb
|	Al	27	4956.228	0.385922	ppb
|	K	39	8148538.102	1200.796531	ppb
⌊	Ca	44	8895182.661	50804.743560	ppb
⌈>	Sc	45	774186.411		ppb
|	Ti	47	635.020	1.276625	ppb
|	V	51	3041.279	0.424342	ppb
|	Cr	52	12649.996	1.880658	ppb
|	Mn	55	475.011	0.009877	ppb
|	Fe	54	16153.035	-14.772044	ppb
|	Fe	56	545482.562	6.518099	ppb
|	Fe	57	21883.919	134.308887	ppb
|	Co	59	468.011	0.054730	ppb
|	Ni	60	1260.079	0.837176	ppb
|	Cu	63	3027.125	0.602137	ppb
|	Cu	65	1560.122	0.815380	ppb
|	Zn	66	1856.839	2.037491	ppb
|	As	75	146.889	0.115196	ppb
⌊	Se	82	82.667	0.655454	ppb
⌈	Mo	96	2386.285	1.037353	ppb
|	Ag	107	10.000	-0.009512	ppb
|	Ag	109	13.333	-0.008863	ppb
|	Cd	111	33.820	0.014796	ppb
|	In	113	89937.628	-1.590307	ppb
|>	In	115	2398620.473		ppb
⌊	Sn	118	155.001	-0.008246	ppb
⌈	Sb	121	500.013	-0.156365	ppb
|	Ba	135	107983.895	82.725672	ppb
|	Ba	137	188019.097	82.446292	ppb
⌊>	Tb	159	3795224.585		ppb
⌈	Tl	205	55.000	-0.002883	ppb
|	Pb	206	645.021	0.095952	ppb
|	Pb	207	1285.041	0.102566	ppb
|	Pb	208	1915.102	0.084693	ppb
⌊>	Bi	209	2910327.265		ppb
	Cr	53	2406.289		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	373246.016		ppb
	Kr	83	16.000		ppb
	Se	77	103.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	513072.981		ppb
|	Be	9	2.000	0.008633	ppb
|	Na	23	37291212.833	12599.857085	ppb
|	Mg	24	51861484.940	24824.856082	ppb
|	Mg	25	7566952.055	25785.570757	ppb
|	Mg	26	9192549.819	26812.950384	ppb
|	Al	27	5316.413	0.586703	ppb
|	K	39	8461958.968	1343.356605	ppb
⌊	Ca	44	9136606.801	56053.911418	ppb
⌈>	Sc	45	776927.222		ppb

	Ti	47	450.010	0.844899	ppb
	V	51	3481.163	0.500180	ppb
	Cr	52	12796.182	1.901242	ppb
	Mn	55	525.014	0.016512	ppb
	Fe	54	16338.336	-14.435470	ppb
	Fe	56	540608.269	5.566633	ppb
	Fe	57	22440.150	137.477480	ppb
	Co	59	468.011	0.054474	ppb
	Ni	60	1086.726	0.715290	ppb
	Cu	63	2880.415	0.555977	ppb
	Cu	65	1643.468	0.861706	ppb
	Zn	66	1973.528	2.169231	ppb
	As	75	124.292	0.091271	ppb
	Se	82	78.667	0.607414	ppb
	Mo	96	2374.282	1.044163	ppb
	Ag	107	16.667	-0.008406	ppb
	Ag	109	23.333	-0.007171	ppb
	Cd	111	24.270	0.008096	ppb
	In	113	91168.701	-0.012597	ppb
>	In	115	2373476.119		ppb
	Sn	118	195.002	0.001334	ppb
	Sb	121	580.017	-0.141718	ppb
	Ba	135	109312.210	81.562977	ppb
	Ba	137	189396.731	80.887885	ppb
>	Tb	159	3896657.073		ppb
	Tl	205	55.000	-0.002886	ppb
	Pb	206	525.014	0.076063	ppb
	Pb	207	1095.030	0.085818	ppb
	Pb	208	1855.099	0.081693	ppb
>	Bi	209	2912977.126		ppb
	Cr	53	2120.225		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	376876.443		ppb
	Kr	83	30.000		ppb
	Se	77	96.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	537140.700		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	38314750.653	12365.465043	ppb
	Mg	24	51846010.804	23705.408549	ppb
	Mg	25	7550181.558	24575.561514	ppb
	Mg	26	9273401.088	25836.764401	ppb
	Al	27	5626.582	0.603314	ppb
	K	39	8386333.546	1269.817449	ppb
	Ca	44	9067172.420	53131.709108	ppb
>	Sc	45	794462.850		ppb
	Ti	47	540.015	1.024926	ppb
	V	51	3019.258	0.406769	ppb
	Cr	52	12621.961	1.809320	ppb
	Mn	55	515.013	0.013578	ppb
	Fe	54	16198.108	-15.743142	ppb
	Fe	56	541578.723	4.031042	ppb
	Fe	57	21002.031	124.891416	ppb
	Co	59	492.012	0.056510	ppb
	Ni	60	1196.738	0.772593	ppb
	Cu	63	3057.134	0.588008	ppb
	Cu	65	1540.119	0.779949	ppb
	Zn	66	1923.518	2.058606	ppb
	As	75	166.267	0.130915	ppb
	Se	82	79.334	0.595279	ppb

⌈	Mo	96	2534.321	1.128496	ppb
|	Ag	107	43.333	-0.004048	ppb
|	Ag	109	26.667	-0.006612	ppb
|	Cd	111	9.270	-0.002830	ppb
|	In	113	90749.917	-0.287558	ppb
|>	In	115	2372432.383		ppb
⌊	Sn	118	185.002	-0.000949	ppb
⌈	Sb	121	750.028	-0.101139	ppb
|	Ba	135	109192.918	83.061267	ppb
|	Ba	137	188259.558	81.968558	ppb
⌊>	Tb	159	3822217.014		ppb
⌈	Tl	205	100.001	-0.000742	ppb
|	Pb	206	665.022	0.096811	ppb
|	Pb	207	1075.031	0.082054	ppb
|	Pb	208	1820.108	0.078104	ppb
⌊>	Bi	209	2976547.822		ppb
	Cr	53	2248.253		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	383013.123		ppb
	Kr	83	30.000		ppb
	Se	77	83.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			95.502		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			86.970		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			83.144		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			84.849		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			82.032		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904109-04

Sample Date/Time: Thursday, May 07, 2009 16:37:48
Sample Type: Sample
Sample Description: 10DDH2R
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904109-04.160

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	503288.197	2.102	503288.197			ppb
|	Be	9	2.000	100.000	0.000	0.00875	98.62	ppb
|	Na	23	44770564.777	1.526	88.940	15429.07742	3.09	ppb
|	Mg	24	58960095.461	1.279	117.199	28784.66281	3.30	ppb
|	Mg	25	8673920.129	2.753	17.246	30153.12759	4.87	ppb
|	Mg	26	10586973.293	3.187	21.051	31504.12307	5.29	ppb
|	Al	27	58797.401	2.123	0.111	16.22296	4.02	ppb
|	K	39	3487131.508	0.830	6.510	544.14684	2.99	ppb
⌊	Ca	44	15854715.686	0.970	31.493	99258.16442	3.06	ppb
⌈>	Sc	45	761271.911	1.246	761271.911			ppb
|	Ti	47	731.693	5.971	0.001	1.52849	5.61	ppb
|	V	51	1377.508	5.111	0.001	0.13336	8.13	ppb
|	Cr	52	6831.666	0.679	0.005	0.71904	1.50	ppb
|	Mn	55	144212.453	0.727	0.189	20.15338	1.58	ppb
|	Fe	54	31367.457	1.274	0.013	26.74566	3.38	ppb
|	Fe	56	826490.609	1.576	0.441	47.92504	5.06	ppb
|	Fe	57	42799.730	0.391	0.054	278.08980	1.71	ppb
|	Co	59	2000.200	1.852	0.002	0.29829	3.31	ppb
|	Ni	60	2522.541	3.922	0.003	1.73572	5.13	ppb
|	Cu	63	1993.532	4.348	0.001	0.30779	6.08	ppb
|	Cu	65	1220.074	1.913	0.001	0.62457	1.03	ppb
|	Zn	66	2388.063	3.098	0.003	2.72371	2.58	ppb
|	As	75	1025.035	2.761	0.001	1.04518	1.63	ppb
⌊	Se	82	32.444	3.139	0.000	0.09755	7.33	ppb
⌈	Mo	96	13117.264	0.659	0.006	7.68987	10.34	ppb
|	Ag	107	27.778	30.199	-0.000	-0.00590	30.48	ppb
|	Ag	109	34.445	44.698	-0.000	-0.00455	62.12	ppb
|	Cd	111	8.390	219.843	-0.000	-0.00276	586.07	ppb
|	In	113	87001.830	0.369	0.004	6.33479	104.61	ppb
|>	In	115	2079422.775	10.018	2079422.775			ppb
⌊	Sn	118	160.001	27.243	-0.000	-0.00156	703.12	ppb
⌈	Sb	121	920.043	9.963	-0.000	-0.05430	41.01	ppb
|	Ba	135	54410.302	1.131	0.015	43.11722	0.69	ppb
|	Ba	137	94270.941	0.531	0.026	42.75886	0.72	ppb
⌊>	Tb	159	3667736.905	0.468	3667736.905			ppb
⌈	Tl	205	326.672	4.676	0.000	0.01174	7.03	ppb
|	Pb	206	563.349	6.297	0.000	0.08828	6.86	ppb
|	Pb	207	1038.361	4.871	0.000	0.08661	4.78	ppb
|	Pb	208	1633.412	7.260	0.001	0.07592	6.87	ppb
⌊>	Bi	209	2739073.472	1.112	2739073.472			ppb
	Cr	53	1592.127	6.580	946.106			ppb
	Pd	106	6.667	114.564	3.333			ppb
	Pd	108	23.333	24.744	23.333			ppb
	C	12	374748.966	0.792	76429.013			ppb
	Kr	83	20.667	36.638	-16.667			ppb
	Se	77	66.000	13.887	33.334			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	513293.897		ppb
	Be	9	4.000	0.017258	ppb
	Na	23	44071419.348	14885.921961	ppb
	Mg	24	58590290.761	28033.826070	ppb
	Mg	25	8448699.844	28777.984532	ppb
	Mg	26	10251351.513	29888.523367	ppb
	Al	27	57404.291	15.481951	ppb
	K	39	3453739.969	527.194792	ppb
	Ca	44	15688977.681	96262.647005	ppb
>	Sc	45	768194.756		ppb
	Ti	47	780.030	1.626208	ppb
	V	51	1366.134	0.129134	ppb
	Cr	52	6838.337	0.707580	ppb
	Mn	55	143132.061	19.818899	ppb
	Fe	54	31273.826	25.735888	ppb
	Fe	56	837723.364	48.437596	ppb
	Fe	57	42690.932	274.716793	ppb
	Co	59	1972.194	0.290972	ppb
	Ni	60	2510.315	1.710668	ppb
	Cu	63	2046.876	0.318390	ppb
	Cu	65	1243.411	0.631976	ppb
	Zn	66	2376.949	2.684200	ppb
	As	75	1050.570	1.062283	ppb
	Se	82	33.333	0.104326	ppb
	Mo	96	13154.647	8.173221	ppb
	Ag	107	36.667	-0.003845	ppb
	Ag	109	43.333	-0.002269	ppb
	Cd	111	-11.460	-0.019742	ppb
	In	113	86885.825	10.505812	ppb
>	In	115	1951714.563		ppb
	Sn	118	110.001	-0.012757	ppb
	Sb	121	1020.052	-0.030187	ppb
	Ba	135	53832.508	42.806543	ppb
	Ba	137	93834.187	42.706319	ppb
>	Tb	159	3655177.927		ppb
	Tl	205	340.006	0.012588	ppb
	Pb	206	525.014	0.082269	ppb
	Pb	207	980.024	0.081896	ppb
	Pb	208	1525.068	0.070968	ppb
>	Bi	209	2718160.350		ppb
	Cr	53	1706.146		ppb
	Pd	106	0.000		ppb
	Pd	108	20.000		ppb
	C	12	371403.276		ppb
	Kr	83	12.000		ppb
	Se	77	56.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	504353.792		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	45436239.112	15619.385143	ppb
	Mg	24	58462588.418	28468.579225	ppb
	Mg	25	8648735.568	29981.579178	ppb
	Mg	26	10583412.645	31403.682542	ppb
	Al	27	59813.348	16.474089	ppb
	K	39	3504734.050	545.615689	ppb
	Ca	44	15882516.041	99179.671123	ppb
>	Sc	45	750461.179		ppb

	Ti	47	695.024	1.466293	ppb
	V	51	1313.489	0.125272	ppb
	Cr	52	6782.299	0.728979	ppb
	Mn	55	144278.358	20.451467	ppb
	Fe	54	31023.047	27.017361	ppb
	Fe	56	829530.859	50.050889	ppb
	Fe	57	42992.218	283.533649	ppb
	Co	59	2042.209	0.309503	ppb
	Ni	60	2627.012	1.834603	ppb
	Cu	63	1893.513	0.286179	ppb
	Cu	65	1196.738	0.620903	ppb
	Zn	66	2320.269	2.681960	ppb
	As	75	994.613	1.028314	ppb
	Se	82	31.333	0.090069	ppb
	Mo	96	13178.678	8.124415	ppb
	Ag	107	20.000	-0.007186	ppb
	Ag	109	16.667	-0.007708	ppb
	Cd	111	25.000	0.012394	ppb
	In	113	86754.694	9.804864	ppb
>	In	115	1966746.272		ppb
	Sn	118	190.002	0.009225	ppb
	Sb	121	840.035	-0.074082	ppb
	Ba	135	55057.148	43.399623	ppb
	Ba	137	94161.240	42.481905	ppb
>	Tb	159	3687278.299		ppb
	Tl	205	330.005	0.011696	ppb
	Pb	206	570.016	0.088194	ppb
	Pb	207	1070.029	0.088323	ppb
	Pb	208	1760.092	0.081360	ppb
>	Bi	209	2774015.273		ppb
	Cr	53	1570.123		ppb
	Pd	106	15.000		ppb
	Pd	108	20.000		ppb
	C	12	375769.949		ppb
	Kr	83	26.000		ppb
	Se	77	68.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	492216.902		ppb
	Be	9	2.000	0.008999	ppb
	Na	23	44804035.870	15781.925155	ppb
	Mg	24	59827407.203	29851.583125	ppb
	Mg	25	8924324.975	31699.819055	ppb
	Mg	26	10926155.723	33220.163301	ppb
	Al	27	59174.565	16.712839	ppb
	K	39	3502920.505	559.630051	ppb
	Ca	44	15992653.335	102332.175139	ppb
>	Sc	45	765159.800		ppb
	Ti	47	720.026	1.492954	ppb
	V	51	1452.901	0.145673	ppb
	Cr	52	6874.362	0.720574	ppb
	Mn	55	145226.941	20.189766	ppb
	Fe	54	31805.499	27.483728	ppb
	Fe	56	812217.604	45.286639	ppb
	Fe	57	42716.039	276.018951	ppb
	Co	59	1986.197	0.294400	ppb
	Ni	60	2430.295	1.661876	ppb
	Cu	63	2040.208	0.318813	ppb
	Cu	65	1220.074	0.620840	ppb
	Zn	66	2466.971	2.804964	ppb
	As	75	1029.922	1.044947	ppb
	Se	82	32.667	0.098247	ppb

⌈	Mo	96	13018.469	6.771964	ppb
|	Ag	107	26.667	-0.006672	ppb
|	Ag	109	43.333	-0.003665	ppb
|	Cd	111	11.630	-0.000918	ppb
|	In	113	87364.972	-1.306296	ppb
|>	In	115	2319807.491		ppb
⌊	Sn	118	180.002	-0.001160	ppb
⌈	Sb	121	900.041	-0.058629	ppb
|	Ba	135	54341.248	43.145492	ppb
|	Ba	137	94817.396	43.088369	ppb
⌊>	Tb	159	3660754.488		ppb
⌈	Tl	205	310.005	0.010938	ppb
|	Pb	206	595.018	0.094376	ppb
|	Pb	207	1065.029	0.089624	ppb
|	Pb	208	1615.077	0.075442	ppb
⌊>	Bi	209	2725044.794		ppb
	Cr	53	1500.113		ppb
	Pd	106	5.000		ppb
	Pd	108	30.000		ppb
	C	12	377073.673		ppb
	Kr	83	24.000		ppb
	Se	77	74.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			90.051		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			84.680		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			72.597		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			81.084		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			76.601		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904109-05

Sample Date/Time: Thursday, May 07, 2009 16:51:44
Sample Type: Sample
Sample Description: 10D3
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904109-05.161

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	441736.206	2.717	441736.206			ppb
|	Be	9	1.333	173.205	0.000	0.00670	173.21	ppb
|	Na	23	32860399.854	5.173	74.306	12890.31544	2.50	ppb
|	Mg	24	49987377.052	5.260	113.105	27779.27666	2.56	ppb
|	Mg	25	7216327.640	6.364	16.325	28543.29438	3.64	ppb
|	Mg	26	8930842.182	7.127	20.201	30232.42242	4.42	ppb
|	Al	27	9728.082	7.838	0.016	2.29543	7.38	ppb
|	K	39	5030737.698	4.887	10.963	916.36191	2.48	ppb
⌊	Ca	44	13717014.662	4.336	31.022	97771.38560	1.74	ppb
⌈>	Sc	45	692099.274	2.878	692099.274			ppb
|	Ti	47	636.687	1.976	0.001	1.45645	4.81	ppb
|	V	51	2203.864	4.183	0.002	0.32212	3.21	ppb
|	Cr	52	13290.161	2.075	0.015	2.33269	1.29	ppb
|	Mn	55	1973.528	3.023	0.002	0.24864	2.96	ppb
|	Fe	54	18376.879	2.784	-0.002	-3.14910	45.83	ppb
|	Fe	56	599466.806	2.137	0.222	24.09877	9.67	ppb
|	Fe	57	36177.020	2.761	0.050	257.83828	3.36	ppb
|	Co	59	823.367	5.223	0.001	0.12516	5.16	ppb
|	Ni	60	1977.974	4.164	0.003	1.49411	6.62	ppb
|	Cu	63	2046.877	6.027	0.002	0.38590	13.65	ppb
|	Cu	65	1197.850	4.709	0.001	0.68419	6.12	ppb
|	Zn	66	2338.052	5.993	0.003	2.94652	3.71	ppb
|	As	75	141.671	10.175	0.000	0.12711	11.06	ppb
⌊	Se	82	67.778	6.909	0.000	0.57964	12.92	ppb
⌈	Mo	96	1358.759	3.976	0.001	0.67910	2.20	ppb
|	Ag	107	25.556	19.924	-0.000	-0.00599	15.30	ppb
|	Ag	109	8.889	78.063	-0.000	-0.00924	15.03	ppb
|	Cd	111	20.758	30.804	0.000	0.00919	68.69	ppb
|	In	113	84359.423	1.982	0.005	9.40052	13.78	ppb
|>	In	115	1923091.050	2.712	1923091.050			ppb
⌊	Sn	118	103.334	26.650	-0.000	-0.01426	51.36	ppb
⌈	Sb	121	333.339	6.764	-0.000	-0.18861	3.14	ppb
|	Ba	135	144572.245	0.560	0.041	118.65534	1.52	ppb
|	Ba	137	251105.175	1.097	0.071	117.96113	1.50	ppb
⌊>	Tb	159	3543638.899	1.989	3543638.899			ppb
⌈	Tl	205	125.001	6.928	0.000	0.00137	36.42	ppb
|	Pb	206	393.341	12.215	0.000	0.06211	12.95	ppb
|	Pb	207	745.014	7.564	0.000	0.06303	8.98	ppb
|	Pb	208	1258.381	1.792	0.000	0.06007	1.93	ppb
⌊>	Bi	209	2599869.148	1.828	2599869.148			ppb
	Cr	53	2747.711	5.134	2101.690			ppb
	Pd	106	3.333	173.205	0.000			ppb
	Pd	108	1.667	173.205	1.667			ppb
	C	12	329956.906	0.999	31636.953			ppb
	Kr	83	35.333	11.783	-2.000			ppb
	Se	77	87.111	8.804	54.445			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	430234.172		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	31130734.905	12543.576048	ppb
	Mg	24	47358511.401	27034.318316	ppb
	Mg	25	6787383.275	27582.487955	ppb
	Mg	26	8303922.550	28884.663584	ppb
	Al	27	8913.971	2.107003	ppb
	K	39	4763144.102	890.172445	ppb
	Ca	44	13236028.607	96891.152537	ppb
>	Sc	45	674810.302		ppb
	Ti	47	635.020	1.492992	ppb
	V	51	2098.738	0.311992	ppb
	Cr	52	13106.584	2.366879	ppb
	Mn	55	1905.181	0.245582	ppb
	Fe	54	18441.990	-1.577212	ppb
	Fe	56	585291.295	24.196742	ppb
	Fe	57	35171.744	256.965965	ppb
	Co	59	776.030	0.120384	ppb
	Ni	60	1990.198	1.541028	ppb
	Cu	63	2023.538	0.394513	ppb
	Cu	65	1150.066	0.671596	ppb
	Zn	66	2186.906	2.820437	ppb
	As	75	141.844	0.131651	ppb
	Se	82	67.334	0.594611	ppb
	Mo	96	1304.085	0.670885	ppb
	Ag	107	20.000	-0.006968	ppb
	Ag	109	6.667	-0.009648	ppb
	Cd	111	27.640	0.016062	ppb
	In	113	83043.384	10.584504	ppb
>	In	115	1863489.662		ppb
	Sn	118	90.000	-0.017162	ppb
	Sb	121	310.005	-0.193687	ppb
	Ba	135	144756.189	119.719237	ppb
	Ba	137	248155.317	117.474559	ppb
>	Tb	159	3515927.922		ppb
	Tl	205	120.001	0.001214	ppb
	Pb	206	385.007	0.061947	ppb
	Pb	207	775.015	0.067379	ppb
	Pb	208	1235.043	0.060046	ppb
>	Bi	209	2552258.239		ppb
	Cr	53	2908.423		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	327800.005		ppb
	Kr	83	34.000		ppb
	Se	77	87.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	440793.446		ppb
	Be	9	4.000	0.020097	ppb
	Na	23	32921695.077	12947.724738	ppb
	Mg	24	49986182.558	27850.793160	ppb
	Mg	25	7160829.397	28403.025304	ppb
	Mg	26	8912056.694	30257.456961	ppb
	Al	27	9844.844	2.344140	ppb
	K	39	5082384.739	928.541966	ppb
	Ca	44	13532920.442	96691.226851	ppb
>	Sc	45	687604.246		ppb

	Ti	47	650.021	1.500707	ppb
	V	51	2241.957	0.332645	ppb
	Cr	52	13156.649	2.321366	ppb
	Mn	55	2015.203	0.257046	ppb
	Fe	54	17835.892	-4.414248	ppb
	Fe	56	610206.380	26.379651	ppb
	Fe	57	37168.948	266.914679	ppb
	Co	59	860.037	0.132514	ppb
	Ni	60	2053.544	1.560865	ppb
	Cu	63	2180.238	0.433718	ppb
	Cu	65	1260.079	0.730925	ppb
	Zn	66	2363.613	3.003259	ppb
	As	75	127.171	0.111348	ppb
	Se	82	72.667	0.645908	ppb
	Mo	96	1360.092	0.670036	ppb
	Ag	107	30.000	-0.005150	ppb
	Ag	109	3.333	-0.010387	ppb
	Cd	111	19.635	0.007866	ppb
	In	113	83794.612	8.016735	ppb
>	In	115	1945422.188		ppb
	Sn	118	85.000	-0.019677	ppb
	Sb	121	355.006	-0.182113	ppb
	Ba	135	143686.933	119.675520	ppb
	Ba	137	251552.636	119.925897	ppb
>	Tb	159	3491231.723		ppb
	Tl	205	135.001	0.001929	ppb
	Pb	206	350.006	0.054148	ppb
	Pb	207	680.012	0.056631	ppb
	Pb	208	1280.051	0.061238	ppb
>	Bi	209	2600033.682		ppb
	Cr	53	2690.362		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	328320.674		ppb
	Kr	83	32.000		ppb
	Se	77	94.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	454180.998		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	34528769.580	13179.645548	ppb
	Mg	24	52617437.199	28452.718490	ppb
	Mg	25	7700770.249	29644.369874	ppb
	Mg	26	9576547.302	31555.146716	ppb
	Al	27	10425.432	2.435148	ppb
	K	39	5246684.254	930.371320	ppb
	Ca	44	14382094.938	99731.777421	ppb
>	Sc	45	713883.273		ppb
	Ti	47	625.020	1.375642	ppb
	V	51	2270.897	0.321731	ppb
	Cr	52	13607.252	2.309829	ppb
	Mn	55	2000.200	0.243296	ppb
	Fe	54	18852.755	-3.455849	ppb
	Fe	56	602902.743	21.719911	ppb
	Fe	57	36190.369	249.634206	ppb
	Co	59	834.035	0.122588	ppb
	Ni	60	1890.179	1.380447	ppb
	Cu	63	1936.854	0.329461	ppb
	Cu	65	1183.403	0.650052	ppb
	Zn	66	2463.637	3.015877	ppb
	As	75	155.999	0.138344	ppb
	Se	82	63.334	0.498410	ppb

⌈	Mo	96	1412.100	0.696370	ppb
|	Ag	107	26.667	-0.005855	ppb
|	Ag	109	16.667	-0.007697	ppb
|	Cd	111	15.000	0.003645	ppb
|	In	113	86240.273	9.600324	ppb
|>	In	115	1960361.301		ppb
⌊	Sn	118	135.001	-0.005927	ppb
⌈	Sb	121	335.006	-0.190025	ppb
|	Ba	135	145273.612	116.571269	ppb
|	Ba	137	253607.573	116.482926	ppb
⌊>	Tb	159	3623757.053		ppb
⌈	Tl	205	120.001	0.000968	ppb
|	Pb	206	445.010	0.070234	ppb
|	Pb	207	780.016	0.065079	ppb
|	Pb	208	1260.048	0.058924	ppb
⌊>	Bi	209	2647315.524		ppb
	Cr	53	2644.350		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	333750.040		ppb
	Kr	83	40.000		ppb
	Se	77	79.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			79.038		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			76.985		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			67.139		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			78.341		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			72.708		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904109-06

Sample Date/Time: Thursday, May 07, 2009 16:54:37
Sample Type: Sample
Sample Description: 10DUP
Number of Replicates: 3
Batch ID: 0904109
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\0904109-06.162

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Li	6	540142.240	1.555	540142.240			ppb
[	Be	9	0.000		0.000	0.00000		ppb
[	Na	23	36463316.635	0.867	67.469	11704.29637	2.01	ppb
[	Mg	24	56454154.172	1.519	104.546	25677.11051	3.05	ppb
[	Mg	25	8199101.826	2.305	15.185	26550.09713	3.83	ppb
[	Mg	26	10104137.130	0.694	18.710	28001.42153	2.23	ppb
[	Al	27	10722.423	5.425	0.013	1.97989	8.07	ppb
[	K	39	5433681.506	0.814	9.639	805.73718	1.40	ppb
[	Ca	44	14980268.139	1.475	27.713	87343.77633	1.20	ppb
[>	Sc	45	848113.627	1.801	848113.627			ppb
[	Ti	47	663.355	4.544	0.001	1.20814	3.96	ppb
[	V	51	2538.913	17.129	0.002	0.29527	21.41	ppb
[	Cr	52	13469.733	1.219	0.011	1.80866	1.04	ppb
[	Mn	55	1723.482	3.363	0.002	0.16115	2.12	ppb
[	Fe	54	18431.985	3.523	-0.006	-13.00846	6.06	ppb
[	Fe	56	615112.579	0.692	0.081	8.78077	16.44	ppb
[	Fe	57	37612.277	1.366	0.042	217.08446	3.31	ppb
[	Co	59	832.701	3.739	0.001	0.10012	2.49	ppb
[	Ni	60	2057.990	5.020	0.002	1.26346	6.57	ppb
[	Cu	63	2638.126	2.850	0.002	0.42007	4.67	ppb
[	Cu	65	1539.007	4.441	0.002	0.72323	7.12	ppb
[	Zn	66	3100.481	4.167	0.003	3.20832	6.12	ppb
[	As	75	53.068	76.676	0.000	0.01324	293.78	ppb
[	Se	82	61.556	7.211	0.000	0.35839	13.90	ppb
[	Mo	96	1367.427	5.423	0.000	0.46354	7.17	ppb
[	Ag	107	23.333	51.508	-0.000	-0.00760	23.79	ppb
[	Ag	109	15.556	65.465	-0.000	-0.00866	18.30	ppb
[	Cd	111	25.730	47.770	0.000	0.00777	107.47	ppb
[	In	113	97344.908	1.477	-0.000	-0.82743	89.59	ppb
[>	In	115	2565807.993	0.465	2565807.993			ppb
[	Sn	118	86.667	18.546	-0.000	-0.02509	13.60	ppb
[	Sb	121	240.003	12.673	-0.000	-0.21899	2.62	ppb
[	Ba	135	143851.962	0.466	0.035	102.28302	1.50	ppb
[	Ba	137	249679.292	0.595	0.061	101.61218	1.12	ppb
[>	Tb	159	4090071.574	1.672	4090071.574			ppb
[	Tl	205	136.668	29.797	0.000	0.00099	202.62	ppb
[	Pb	206	570.016	14.118	0.000	0.08047	15.84	ppb
[	Pb	207	1063.362	6.689	0.000	0.08006	7.49	ppb
[	Pb	208	1755.092	5.818	0.001	0.07409	5.93	ppb
[>	Bi	209	3009324.704	0.526	3009324.704			ppb
	Cr	53	2392.287	4.904	1746.266			ppb
	Pd	106	10.000	132.288	6.667			ppb
	Pd	108	3.333	173.205	3.333			ppb
	C	12	350870.755	0.300	52550.802			ppb
	Kr	83	25.333	22.790	-12.000			ppb
	Se	77	98.223	6.083	65.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	549501.901		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	36440472.100	11495.395956	ppb
|	Mg	24	55542374.651	24824.252566	ppb
|	Mg	25	7987251.834	25413.404772	ppb
|	Mg	26	10027399.024	27309.085170	ppb
|	Al	27	10625.642	1.904136	ppb
|	K	39	5446483.737	793.262674	ppb
⌊	Ca	44	15101179.733	86543.619283	ppb
⌈>	Sc	45	844287.441		ppb
|	Ti	47	635.020	1.154636	ppb
|	V	51	2552.592	0.300081	ppb
|	Cr	52	13372.936	1.801735	ppb
|	Mn	55	1715.147	0.161122	ppb
|	Fe	54	18396.907	-12.883363	ppb
|	Fe	56	610211.690	8.491255	ppb
|	Fe	57	37751.123	218.877372	ppb
|	Co	59	836.035	0.101154	ppb
|	Ni	60	1990.198	1.225745	ppb
|	Cu	63	2710.367	0.442709	ppb
|	Cu	65	1576.791	0.747128	ppb
|	Zn	66	3050.465	3.166483	ppb
|	As	75	95.636	0.053716	ppb
⌊	Se	82	66.667	0.413597	ppb
⌈	Mo	96	1416.100	0.483993	ppb
|	Ag	107	33.333	-0.006116	ppb
|	Ag	109	6.667	-0.010041	ppb
|	Cd	111	25.000	0.007184	ppb
|	In	113	98992.563	-0.029694	ppb
|>	In	115	2577827.788		ppb
⌊	Sn	118	80.000	-0.026591	ppb
⌈	Sb	121	275.004	-0.212366	ppb
|	Ba	135	143624.039	100.775421	ppb
|	Ba	137	251140.468	100.864195	ppb
⌊>	Tb	159	4143993.950		ppb
⌈	Tl	205	165.001	0.002395	ppb
|	Pb	206	505.013	0.070528	ppb
|	Pb	207	1015.026	0.076421	ppb
|	Pb	208	1640.077	0.069105	ppb
⌊>	Bi	209	2993356.257		ppb
	Cr	53	2372.281		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	351492.665		ppb
	Kr	83	22.000		ppb
	Se	77	91.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	533271.651		ppb
|	Be	9	0.000	0.000000	ppb
|	Na	23	36790378.499	11959.355724	ppb
|	Mg	24	57244855.368	26363.912596	ppb
|	Mg	25	8350497.345	27377.872558	ppb
|	Mg	26	10164975.100	28526.373094	ppb
|	Al	27	10195.194	1.872039	ppb
|	K	39	5384463.055	808.756681	ppb
⌊	Ca	44	14725276.361	86958.096930	ppb
⌈>	Sc	45	835118.426		ppb

	Ti	47	660.022	1.223052	ppb
	V	51	2097.353	0.229790	ppb
	Cr	52	13376.941	1.829919	ppb
	Mn	55	1670.139	0.157752	ppb
	Fe	54	17800.829	-13.851912	ppb
	Fe	56	617855.269	10.347389	ppb
	Fe	57	38042.223	223.194070	ppb
	Co	59	800.032	0.097274	ppb
	Ni	60	2176.904	1.358591	ppb
	Cu	63	2560.328	0.409810	ppb
	Cu	65	1580.125	0.758458	ppb
	Zn	66	3247.194	3.422317	ppb
	As	75	49.010	0.009823	ppb
	Se	82	59.334	0.344785	ppb
	Mo	96	1282.082	0.425194	ppb
	Ag	107	26.667	-0.007081	ppb
	Ag	109	26.667	-0.006929	ppb
	Cd	111	38.369	0.016393	ppb
	In	113	96700.298	-0.957437	ppb
>	In	115	2553954.870		ppb
	Sn	118	75.000	-0.027502	ppb
	Sb	121	225.003	-0.222351	ppb
	Ba	135	144606.040	102.227274	ppb
	Ba	137	249727.742	101.050495	ppb
>	Tb	159	4113088.556		ppb
	Tl	205	90.000	-0.001302	ppb
	Pb	206	545.015	0.076032	ppb
	Pb	207	1030.027	0.076781	ppb
	Pb	208	1835.103	0.077418	ppb
>	Bi	209	3025024.700		ppb
	Cr	53	2518.317		ppb
	Pd	106	25.000		ppb
	Pd	108	10.000		ppb
	C	12	349655.928		ppb
	Kr	83	22.000		ppb
	Se	77	101.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	537653.169		ppb
	Be	9	0.000	0.000000	ppb
	Na	23	36159099.305	11658.137423	ppb
	Mg	24	56575232.499	25843.166371	ppb
	Mg	25	8259556.299	26859.014053	ppb
	Mg	26	10120037.265	28168.806331	ppb
	Al	27	11346.433	2.163480	ppb
	K	39	5470097.724	815.192175	ppb
	Ca	44	15114348.322	88529.612784	ppb
>	Sc	45	864935.016		ppb
	Ti	47	695.024	1.246738	ppb
	V	51	2966.795	0.355925	ppb
	Cr	52	13659.322	1.794321	ppb
	Mn	55	1785.159	0.164583	ppb
	Fe	54	19098.220	-12.290094	ppb
	Fe	56	617270.778	7.503660	ppb
	Fe	57	37043.484	209.181938	ppb
	Co	59	862.037	0.101927	ppb
	Ni	60	2006.868	1.206042	ppb
	Cu	63	2643.683	0.407688	ppb
	Cu	65	1460.107	0.664118	ppb
	Zn	66	3003.784	3.036148	ppb
	As	75	14.559	-0.023831	ppb
	Se	82	58.667	0.316789	ppb

⌈	Mo	96	1404.099	0.481423	ppb
|	Ag	107	10.000	-0.009618	ppb
|	Ag	109	13.333	-0.009006	ppb
|	Cd	111	13.820	-0.000272	ppb
|	In	113	96341.863	-1.495174	ppb
⌊>	In	115	2565641.321		ppb
⌊	Sn	118	105.001	-0.021188	ppb
⌈	Sb	121	220.002	-0.222251	ppb
|	Ba	135	143325.806	103.846363	ppb
|	Ba	137	248169.667	102.921855	ppb
⌊>	Tb	159	4013132.217		ppb
⌈	Tl	205	155.001	0.001867	ppb
|	Pb	206	660.022	0.094835	ppb
|	Pb	207	1145.034	0.086978	ppb
|	Pb	208	1790.097	0.075742	ppb
⌊>	Bi	209	3009593.154		ppb
	Cr	53	2286.261		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	351463.672		ppb
	Kr	83	32.000		ppb
	Se	77	102.001		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.645			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.340			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		89.578			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.421			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		84.158			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, May 07, 2009 16:57:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCV.163

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Li	6	576890.875	0.752	576890.875			ppb
|	Be	9	31155.127	1.133	0.054	119.60027	0.74	ppb
|	Na	23	3993904.839	0.750	6.872	1192.20887	0.12	ppb
|	Mg	24	2822417.060	1.304	4.889	1200.69891	1.34	ppb
|	Mg	25	403951.257	1.778	0.700	1223.39207	1.99	ppb
|	Mg	26	475338.352	2.054	0.823	1232.23646	2.46	ppb
|	Al	27	4901829.536	1.630	8.491	1246.44907	2.19	ppb
|	K	39	8343196.051	2.168	14.041	1173.68242	2.32	ppb
[	Ca	44	220066.445	0.164	0.359	1131.46078	0.74	ppb
[>	Sc	45	880247.235	0.948	880247.235			ppb
|	Ti	47	56598.077	1.641	0.064	114.98565	1.88	ppb
|	V	51	742281.175	0.622	0.842	115.67331	0.34	ppb
|	Cr	52	644691.925	1.312	0.728	114.81363	0.73	ppb
|	Mn	55	904210.622	0.542	1.027	109.51853	0.54	ppb
|	Fe	54	523018.343	1.173	0.566	1155.38060	0.27	ppb
|	Fe	56	9784834.246	1.149	10.471	1137.41194	0.24	ppb
|	Fe	57	199206.297	0.566	0.224	1152.67265	0.68	ppb
|	Co	59	837484.171	0.561	0.951	114.49766	0.39	ppb
|	Ni	60	184858.567	0.475	0.210	111.81992	1.33	ppb
|	Cu	63	441299.391	0.453	0.500	113.92533	0.76	ppb
|	Cu	65	217136.794	1.280	0.246	113.97320	1.46	ppb
|	Zn	66	110998.190	0.321	0.126	117.02233	0.79	ppb
|	As	75	122554.839	1.297	0.139	111.91073	0.37	ppb
[	Se	82	11451.443	1.265	0.013	112.84151	1.25	ppb
[	Mo	96	253142.050	0.503	0.092	114.86378	1.20	ppb
|	Ag	107	823772.436	0.805	0.301	116.85407	0.63	ppb
|	Ag	109	806076.273	0.407	0.295	116.85679	1.07	ppb
|	Cd	111	185458.661	1.399	0.068	117.34580	0.33	ppb
|	In	113	292093.067	0.902	0.068	117.94067	0.94	ppb
|>	In	115	2732875.348	1.397	2732875.348			ppb
[	Sn	118	582949.405	0.879	0.213	116.47588	1.09	ppb
[	Sb	121	609521.064	1.075	0.142	121.48011	0.27	ppb
|	Ba	135	175907.118	1.036	0.041	119.29612	0.96	ppb
|	Ba	137	306165.851	1.015	0.071	118.85795	1.79	ppb
[>	Tb	159	4287812.987	1.001	4287812.987			ppb
[	Tl	205	2693893.818	1.735	0.787	114.70472	1.92	ppb
|	Pb	206	864200.474	1.246	0.253	121.32884	1.39	ppb
|	Pb	207	1612600.782	1.427	0.471	120.25779	1.60	ppb
|	Pb	208	2614272.916	1.445	0.764	108.13267	1.63	ppb
[>	Bi	209	3421689.910	0.189	3421689.910			ppb
	Cr	53	75521.490	1.700	74875.469			ppb
	Pd	106	15673.942	1.454	15670.609			ppb
	Pd	108	12215.796	3.338	12215.796			ppb
	C	12	296708.115	1.554	-1611.837			ppb
	Kr	83	32.000	34.799	-5.333			ppb
	Se	77	9072.114	1.170	9039.447			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	580946.612		ppb
	Be	9	31561.729	120.315970	ppb
	Na	23	4024876.510	1193.072059	ppb
	Mg	24	2806450.873	1185.533965	ppb
	Mg	25	398441.743	1198.206638	ppb
	Mg	26	465475.996	1198.120847	ppb
	Al	27	4812288.304	1215.004318	ppb
	K	39	8229016.492	1148.775825	ppb
	Ca	44	219999.662	1122.664097	ppb
>	Sc	45	886108.832		ppb
	Ti	47	57459.607	115.958547	ppb
	V	51	744924.254	115.314505	ppb
	Cr	52	653889.757	115.687744	ppb
	Mn	55	909380.314	109.412741	ppb
	Fe	54	526699.720	1155.854839	ppb
	Fe	56	9853779.717	1137.891311	ppb
	Fe	57	200494.963	1152.412771	ppb
	Co	59	840948.963	114.207959	ppb
	Ni	60	185009.065	111.161459	ppb
	Cu	63	440746.789	113.022947	ppb
	Cu	65	214935.300	112.064138	ppb
	Zn	66	110898.196	116.136535	ppb
	As	75	123805.679	112.307671	ppb
	Se	82	11369.126	111.282340	ppb
	Mo	96	253800.372	116.129835	ppb
	Ag	107	821292.409	117.484356	ppb
	Ag	109	802685.488	117.341355	ppb
	Cd	111	183348.764	116.994870	ppb
	In	113	289783.764	118.025959	ppb
>	In	115	2709878.872		ppb
	Sn	118	577073.745	116.271153	ppb
	Sb	121	602197.070	121.423973	ppb
	Ba	135	174731.331	119.881025	ppb
	Ba	137	308155.959	121.017232	ppb
>	Tb	159	4238256.574		ppb
	Tl	205	2639988.380	112.166190	ppb
	Pb	206	853578.683	119.579450	ppb
	Pb	207	1586610.575	118.064094	ppb
	Pb	208	2576184.405	106.327073	ppb
>	Bi	209	3429024.658		ppb
	Cr	53	76932.799		ppb
	Pd	106	15682.287		ppb
	Pd	108	12287.545		ppb
	C	12	301977.707		ppb
	Kr	83	22.000		ppb
	Se	77	8988.705		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	577406.132		ppb
	Be	9	30925.746	118.614427	ppb
	Na	23	3991755.143	1190.490534	ppb
	Mg	24	2864517.059	1217.508070	ppb
	Mg	25	412072.802	1246.835732	ppb
	Mg	26	484996.635	1256.069592	ppb
	Al	27	4965835.943	1261.495431	ppb
	K	39	8551738.881	1202.754531	ppb
	Ca	44	220455.539	1132.470853	ppb
>	Sc	45	883944.267		ppb

	Ti	47	55614.218	112.503494	ppb
	V	51	744968.029	115.603963	ppb
	Cr	52	642940.909	114.019212	ppb
	Mn	55	903627.224	108.986568	ppb
	Fe	54	526420.582	1158.181157	ppb
	Fe	56	9845645.701	1139.849647	ppb
	Fe	57	198725.157	1144.966627	ppb
	Co	59	839363.724	114.271821	ppb
	Ni	60	183915.841	110.775099	ppb
	Cu	63	443518.732	114.014803	ppb
	Cu	65	220259.284	115.124383	ppb
	Zn	66	111393.658	116.942389	ppb
	As	75	123093.516	111.934956	ppb
	Se	82	11618.746	114.010812	ppb
	Mo	96	253952.154	113.388452	ppb
	Ag	107	831286.370	116.042120	ppb
	Ag	109	809229.309	115.440951	ppb
	Cd	111	188354.909	117.286801	ppb
	In	113	294961.903	116.789559	ppb
>	In	115	2776940.683		ppb
	Sn	118	586504.363	115.317134	ppb
	Sb	121	611533.905	121.184304	ppb
	Ba	135	178006.336	120.026512	ppb
	Ba	137	307757.980	118.780622	ppb
>	Tb	159	4312462.324		ppb
	Tl	205	2723154.596	116.115127	ppb
	Pb	206	863912.004	121.461573	ppb
	Pb	207	1620796.220	121.041037	ppb
	Pb	208	2651723.848	109.837874	ppb
>	Bi	209	3416762.554		ppb
	Cr	53	75207.751		ppb
	Pd	106	15441.913		ppb
	Pd	108	12582.912		ppb
	C	12	294726.101		ppb
	Kr	83	44.000		ppb
	Se	77	9191.556		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	572319.882		ppb
	Be	9	30977.907	119.870402	ppb
	Na	23	3965082.866	1193.064029	ppb
	Mg	24	2796283.246	1199.054690	ppb
	Mg	25	401339.226	1225.133835	ppb
	Mg	26	475542.425	1242.518928	ppb
	Al	27	4927364.362	1262.847459	ppb
	K	39	8248832.779	1169.516894	ppb
	Ca	44	219744.135	1139.247377	ppb
>	Sc	45	870688.605		ppb
	Ti	47	56720.405	116.494911	ppb
	V	51	736951.241	116.101469	ppb
	Cr	52	637245.109	114.733946	ppb
	Mn	55	899624.329	110.156274	ppb
	Fe	54	515934.727	1152.105802	ppb
	Fe	56	9655077.319	1134.494864	ppb
	Fe	57	198398.772	1160.638543	ppb
	Co	59	832139.825	115.013210	ppb
	Ni	60	185650.795	113.523207	ppb
	Cu	63	439632.652	114.738232	ppb
	Cu	65	216215.797	114.731066	ppb
	Zn	66	110702.715	117.988070	ppb
	As	75	120765.324	111.489573	ppb
	Se	82	11366.456	113.231367	ppb

⌈	Mo	96	251673.624	115.073054	ppb
|	Ag	107	818738.530	117.035735	ppb
|	Ag	109	806314.023	117.788052	ppb
|	Cd	111	184672.310	117.755724	ppb
¦	In	113	291533.535	119.006497	ppb
|>	In	115	2711806.489		ppb
⌊	Sn	118	585270.107	117.839354	ppb
⌈	Sb	121	614832.217	121.832066	ppb
|	Ba	135	174983.686	117.980837	ppb
|	Ba	137	302583.615	116.775997	ppb
⌊>	Tb	159	4312720.064		ppb
⌈	Tl	205	2718538.477	115.832852	ppb
¦	Pb	206	875110.736	122.945509	ppb
¦	Pb	207	1630395.550	121.668233	ppb
|	Pb	208	2614910.496	108.233068	ppb
⌊>	Bi	209	3419282.520		ppb
	Cr	53	74423.919		ppb
	Pd	106	15897.627		ppb
	Pd	108	11776.931		ppb
	C	12	293420.538		ppb
	Kr	83	30.000		ppb
	Se	77	9036.081		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.220			
	Be	9	99.667				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		97.914			
	Ti	47					
	V	51	96.394				
	Cr	52	95.678				
	Mn	55	91.265				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	95.415				
	Ni	60	93.183				
	Cu	63	94.938				
	Cu	65	94.978				
	Zn	66	97.519				
	As	75	93.259				
	Se	82	94.035				
	Mo	96					
	Ag	107	97.378				
	Ag	109	97.381				
	Cd	111	97.788				
	In	113					
>	In	115		95.411			
	Sn	118	97.063				
	Sb	121	101.233				
	Ba	135	99.413				
	Ba	137	99.048				
>	Tb	159		94.792			
	Tl	205	95.587				
	Pb	206	101.107				
	Pb	207	100.215				
	Pb	208	90.111				
>	Bi	209		95.690			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, May 07, 2009 17:00:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata1\Dataset\PEMS050609\CCB.164

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	600073.238	4.046	600073.238			ppb
	Be	9	3.333	34.641	0.000	0.01243	37.46	ppb
	Na	23	12106.992	1.256	-0.031	-5.29375	3.42	ppb
	Mg	24	1408.766	1.588	-0.001	-0.36414	3.94	ppb
	Mg	25	205.002	10.765	-0.000	-0.36396	12.45	ppb
	Mg	26	259.003	8.702	-0.000	-0.35989	14.79	ppb
	Al	27	896.709	25.520	-0.005	-0.71451	8.25	ppb
	K	39	200644.948	0.405	-0.087	-7.25676	13.90	ppb
	Ca	44	5442.151	6.518	-0.013	-42.30456	1.65	ppb
>	Sc	45	882389.574	1.017	882389.574			ppb
	Ti	47	46.667	34.442	-0.000	-0.09807	32.16	ppb
	V	51	662.857	17.351	-0.000	-0.01178	159.21	ppb
	Cr	52	3596.647	3.323	-0.000	-0.05337	50.08	ppb
	Mn	55	266.670	16.382	-0.000	-0.02337	21.12	ppb
	Fe	54	23352.244	2.253	-0.002	-3.33717	41.13	ppb
	Fe	56	529212.382	0.302	-0.045	-4.86629	10.71	ppb
	Fe	57	1800.162	4.820	-0.000	-0.55125	81.31	ppb
	Co	59	90.667	12.149	-0.000	-0.00566	27.32	ppb
	Ni	60	32.222	39.165	-0.000	-0.01014	76.54	ppb
	Cu	63	371.118	6.498	-0.001	-0.19281	3.15	ppb
	Cu	65	171.113	15.625	-0.000	-0.02698	49.46	ppb
	Zn	66	120.001	14.434	-0.000	-0.06552	26.73	ppb
	As	75	37.668	67.978	-0.000	-0.00308	757.41	ppb
	Se	82	25.556	15.286	-0.000	-0.02099	190.84	ppb
	Mo	96	344.006	26.183	-0.000	-0.04159	99.31	ppb
	Ag	107	104.445	9.213	0.000	0.00372	37.71	ppb
	Ag	109	117.778	16.093	0.000	0.00604	45.35	ppb
	Cd	111	5.880	88.898	-0.000	-0.00586	56.42	ppb
	In	113	103213.336	1.585	-0.001	-0.98625	97.56	ppb
>	In	115	2727151.379	0.254	2727151.379			ppb
	Sn	118	338.339	5.973	0.000	0.02423	17.33	ppb
	Sb	121	2848.740	6.902	0.000	0.30128	11.62	ppb
	Ba	135	40.000	13.229	-0.000	-0.00240	134.33	ppb
	Ba	137	56.000	3.571	-0.000	-0.01231	4.17	ppb
>	Tb	159	4275800.731	1.514	4275800.731			ppb
	Tl	205	235.003	24.538	0.000	0.00416	59.44	ppb
	Pb	206	76.667	15.061	-0.000	-0.00001	18014.35	ppb
	Pb	207	148.334	20.596	0.000	0.00069	310.48	ppb
	Pb	208	255.002	14.804	0.000	0.00186	80.94	ppb
>	Bi	209	3500311.127	0.725	3500311.127			ppb
	Cr	53	904.041	7.744	258.020			ppb
	Pd	106	3.333	173.205	0.000			ppb
	Pd	108	0.000		0.000			ppb
	C	12	294967.384	1.079	-3352.569			ppb
	Kr	83	29.333	34.317	-8.000			ppb
	Se	77	36.000	9.799	3.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	628017.943		ppb
|	Be	9	2.000	0.007053	ppb
|	Na	23	11932.115	-5.502681	ppb
|	Mg	24	1433.103	-0.380659	ppb
|	Mg	25	226.003	-0.331229	ppb
|	Mg	26	271.004	-0.360160	ppb
|	Al	27	835.035	-0.739143	ppb
|	K	39	201522.306	-8.410791	ppb
⌊	Ca	44	5851.712	-41.502520	ppb
⌈>	Sc	45	875650.016		ppb
|	Ti	47	40.000	-0.110781	ppb
|	V	51	703.401	-0.004751	ppb
|	Cr	52	3732.697	-0.024074	ppb
|	Mn	55	230.003	-0.027552	ppb
|	Fe	54	22921.239	-3.930360	ppb
|	Fe	56	529138.546	-4.377475	ppb
|	Fe	57	1820.166	-0.351677	ppb
|	Co	59	102.001	-0.004009	ppb
|	Ni	60	46.667	-0.001237	ppb
|	Cu	63	386.674	-0.188017	ppb
|	Cu	65	173.335	-0.025060	ppb
|	Zn	66	100.001	-0.085702	ppb
|	As	75	54.381	0.012571	ppb
⌊	Se	82	30.000	0.024930	ppb
⌈	Mo	96	432.009	-0.001355	ppb
|	Ag	107	110.001	0.004525	ppb
|	Ag	109	133.334	0.008325	ppb
|	Cd	111	7.640	-0.004738	ppb
|	In	113	101345.961	-2.097275	ppb
|>	In	115	2724261.856		ppb
⌊	Sn	118	335.006	0.023625	ppb
⌈	Sb	121	3075.473	0.341268	ppb
|	Ba	135	42.000	-0.001267	ppb
|	Ba	137	58.000	-0.011728	ppb
⌊>	Tb	159	4314805.416		ppb
⌈	Tl	205	180.002	0.001799	ppb
|	Pb	206	90.000	0.001735	ppb
|	Pb	207	175.001	0.002552	ppb
|	Pb	208	250.002	0.001588	ppb
⌊>	Bi	209	3526913.658		ppb
	Cr	53	974.047		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	297801.220		ppb
	Kr	83	20.000		ppb
	Se	77	37.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
⌈>	Li	6	584134.511		ppb
|	Be	9	4.000	0.015165	ppb
|	Na	23	12181.415	-5.181030	ppb
|	Mg	24	1389.096	-0.357057	ppb
|	Mg	25	182.002	-0.415664	ppb
|	Mg	26	273.004	-0.306519	ppb
|	Al	27	705.025	-0.757151	ppb
|	K	39	200491.902	-6.543206	ppb
⌊	Ca	44	5233.369	-42.632608	ppb
⌈>	Sc	45	892577.938		ppb

	Ti	47	65.000	-0.062163	ppb
	V	51	533.062	-0.033046	ppb
	Cr	52	3508.615	-0.076419	ppb
	Mn	55	315.005	-0.017925	ppb
	Fe	54	23196.874	-4.313330	ppb
	Fe	56	530845.542	-5.414585	ppb
	Fe	57	1875.176	-0.237480	ppb
	Co	59	90.000	-0.005893	ppb
	Ni	60	26.667	-0.013709	ppb
	Cu	63	383.341	-0.190776	ppb
	Cu	65	196.669	-0.014706	ppb
	Zn	66	130.001	-0.056474	ppb
	As	75	50.434	0.008068	ppb
	Se	82	24.000	-0.039165	ppb
	Mo	96	348.006	-0.039530	ppb
	Ag	107	110.001	0.004537	ppb
	Ag	109	96.667	0.003004	ppb
	Cd	111	0.000	-0.009587	ppb
	In	113	103901.991	-0.429586	ppb
>	In	115	2722128.368		ppb
	Sn	118	360.006	0.028694	ppb
	Sb	121	2725.371	0.286419	ppb
	Ba	135	34.000	-0.006039	ppb
	Ba	137	54.000	-0.012707	ppb
>	Tb	159	4201071.691		ppb
	Tl	205	230.003	0.003945	ppb
	Pb	206	70.000	-0.000909	ppb
	Pb	207	155.001	0.001199	ppb
	Pb	208	295.003	0.003494	ppb
>	Bi	209	3497609.307		ppb
	Cr	53	904.041		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	291524.271		ppb
	Kr	83	28.000		ppb
	Se	77	32.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	588067.259		ppb
	Be	9	4.000	0.015064	ppb
	Na	23	12207.447	-5.197544	ppb
	Mg	24	1404.099	-0.354698	ppb
	Mg	25	207.002	-0.344976	ppb
	Mg	26	233.003	-0.412996	ppb
	Al	27	1150.066	-0.647247	ppb
	K	39	199920.635	-6.816272	ppb
	Ca	44	5241.373	-42.778546	ppb
>	Sc	45	878940.770		ppb
	Ti	47	35.000	-0.121277	ppb
	V	51	752.107	0.002445	ppb
	Cr	52	3548.630	-0.059620	ppb
	Mn	55	255.003	-0.024623	ppb
	Fe	54	23938.619	-1.767825	ppb
	Fe	56	527653.058	-4.806806	ppb
	Fe	57	1705.145	-1.064589	ppb
	Co	59	80.000	-0.007075	ppb
	Ni	60	23.333	-0.015482	ppb
	Cu	63	343.339	-0.199626	ppb
	Cu	65	143.334	-0.041188	ppb
	Zn	66	130.001	-0.054374	ppb
	As	75	8.189	-0.029874	ppb
	Se	82	22.667	-0.048727	ppb

Mo	96	252.003	-0.083878	ppb
Ag	107	93.334	0.002101	ppb
Ag	109	123.334	0.006800	ppb
Cd	111	10.000	-0.003265	ppb
In	113	104392.056	-0.431902	ppb
In	115	2735063.913		ppb
Sn	118	320.005	0.020364	ppb
Sb	121	2745.377	0.276159	ppb
Ba	135	44.000	0.000104	ppb
Ba	137	56.000	-0.012483	ppb
Tb	159	4311525.086		ppb
Tl	205	295.004	0.006727	ppb
Pb	206	70.000	-0.000851	ppb
Pb	207	115.000	-0.001668	ppb
Pb	208	220.002	0.000513	ppb
Bi	209	3476410.416		ppb
Cr	53	834.035		ppb
Pd	106	0.000		ppb
Pd	108	0.000		ppb
C	12	295576.660		ppb
Kr	83	40.000		ppb
Se	77	38.667		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		107.368			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		98.152			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		95.211			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		94.527			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		97.889			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Maintenance: None

Method(s) (cirle one): ILM04.1 ILM05.4 (7470A)

Operator(s): NSB 1151 Date/Time 4/28/09 1534 to 4/28/09 1659

Printed: 4/22/2009

↑	Specified element(s) fail(s) high
↓	Specified element(s) fail(s) low
RR	Re-run sample(s) neat
RR #X	Re-run at a #-fold dilution
#X	Sample run at a #-fold dilution (aliquot of sample diluted with acidified water)
L	Matrix = leachate
W	Matrix = water
S	Matrix = solid
B	Matrix = biological tissue

SDG	Matrix	Comments
0904098	Water	Complete
0904145	Water	↓

Batch
9042716
9042733

HG Run Log (V4)

File Name: V404289A

Cup	Sample ID	Client Id	Sample Type	Dilut	Date	Time	Results	Comments
	S0	S0	CALIB STD	1.0	28 Apr 09	15:34:24	561	
	S0.2	S0.2	CALIB STD	1.0	28 Apr 09	15:36:30	1491	
	S0.5	S0.5	CALIB STD	1.0	28 Apr 09	15:38:21	3603	
	S1.0	S1.0	CALIB STD	1.0	28 Apr 09	15:40:13	6847	
	S5.0	S5.0	CALIB STD	1.0	28 Apr 09	15:42:08	36207	
	S10.0	S10.0	CALIB STD	1.0	28 Apr 09	15:43:59	72452	
	ICV	ICV	ICV	1.0	28 Apr 09	15:45:54	3.77	
	ICB 1541281N	ICB 1541281N2	ICB 1541281N3	1.0	28 Apr 09	15:47:49	.025	
	CRI	CRI	CRI	1.0	28 Apr 09	15:49:44	.236	
	CCV	CCV	CCV	1.0	28 Apr 09	15:51:46	5.00	
	CCB	CCB	CCB	1.0	28 Apr 09	15:53:48	-.020	
	9042716-BLK1	PBW	BLANK	1.0	28 Apr 09	15:55:38	-.004	
	9042716-BS1	LCSW	LCS	1.0	28 Apr 09	15:57:27	2.64	
	0904098-01	13MW5	SAMPLE	1.0	28 Apr 09	15:59:20	-.022	
	9042716-DUP1	13MW5D	DUPLICATE	1.0	28 Apr 09	16:01:11	.011	
	9042716-MS1	13MW5S	MATRIX SPIKE	1.0	28 Apr 09	16:03:07	.915	
	9042716-MSD1	13MW5SD	MATRIX SPIKE	1.0	28 Apr 09	16:05:01	.949	
	0904098-01	13MW5	SAMPLE	1.0	28 Apr 09	16:06:54	-.019	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 050307

HG Run Log (V4)

File Name: V404289A

Cup	Sample ID	Client Id	Sample Type	Dilut	Date	Time	Results	Comments
	0904098-02	13MW3	SAMPLE	1.0	28 Apr 09	16:09:07	-.124	
	0904098-03	13MW4	SAMPLE	1.0	28 Apr 09	16:10:58	.001	
	0904098-04	13MWDUP	SAMPLE	1.0	28 Apr 09	16:12:50	.008	
	CCV	CCV	CCV	1.0	28 Apr 09	16:14:41	5.19	
	CCB	CCB	CCB	1.0	28 Apr 09	16:16:56	.005	
	0904098-05	13MW6	SAMPLE	1.0	28 Apr 09	16:18:49	.018	
	0904098-06	13MW7	SAMPLE	1.0	28 Apr 09	16:20:45	.027	
	9042733-BLK1	PBW	BLANK	1.0	28 Apr 09	16:22:36	.054	
	9042733-BS1	LCSW	LCS	1.0	28 Apr 09	16:24:40	2.69	
	9042733-BSD1	LCSWD	LCS DUP	1.0	28 Apr 09	16:26:48	2.68	
	0904145-01	GW-10-042209F	SAMPLE	1.0	28 Apr 09	16:28:41	-.074	
	0904145-02	GW-11-042209F	SAMPLE	1.0	28 Apr 09	16:30:43	-.002	
	0904145-03	GW-9-042309F	SAMPLE	1.0	28 Apr 09	16:32:46	.081	
	0904145-04	GW-8-042309F	SAMPLE	1.0	28 Apr 09	16:34:42	.014	
	CCV	CCV	CCV	1.0	28 Apr 09	16:36:39	5.17	
	CCB	CCB	CCB	1.0	28 Apr 09	16:38:30	-.004	
	0904145-05	GW-7-042309F	SAMPLE	1.0	28 Apr 09	16:40:28	.049	
	0904145-06	GW-6-042309F	SAMPLE	1.0	28 Apr 09	16:42:30	-.001	
	0904145-07	GW-5-042309F	SAMPLE	1.0	28 Apr 09	16:44:24	-.006	
	0904145-08	GW-4-042309F	SAMPLE	1.0	28 Apr 09	16:46:14	.072	
	0904145-09	GW-3-042409F	SAMPLE	1.0	28 Apr 09	16:48:07	.016	
	0904145-10	GW-3-042409F-FD	SAMPLE	1.0	28 Apr 09	16:49:58	.028	
	0904145-11	GW-1-042409F	SAMPLE	1.0	28 Apr 09	16:51:59	.023	
	0904145-12	GW-2-042409F	SAMPLE	1.0	28 Apr 09	16:53:52	.015	
	SDI0904145-12	SDI0904145-12	SDI	5	28 Apr 09	16:55:43	.004	
	CCV	CCV	CCV	1.0	28 Apr 09	16:57:34	5.22	
	CCB	CCB	CCB	1.0	28 Apr 09	16:59:24	-.032	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 050305

Standards/QC Preparation Log for Analysis of Cold Vapor Mercury

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 NNN

Seq. File Name: V4042894

543

REAGENTS	REF #[1]	MANUFACTURER	LOT #	EXPIRATION DATE
Sodium Chloride (NaCL)	1m2-187-10	JTBAKER	G47614	03/12
Hydrochloric Acid (HCL)	1m2-187-17	Caledon	68763	04/12
Hydroxylamine Hydrochloride (NH_2OH-HCL)	1m2-187-1	JT BAKER	G37610	12/11
Stannous Chloride ($SnCL_2$-$2H_2O$)	1m2-187-2	EMD	48304850	12/11

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS
$SnCL_2$-_04-24-09_-_NB_ Stannous chloride	Place in a 1000 mL volumetric flask containing 500 mL of reagent water: 100 g of $SnCl_2$-$2H_2O$ Baker Instra-analyzed or equivalent 250 mL of HCL Baker Instra-analyzed or equivalent Dilute to 1000 mL with reagent water. Prepare as needed
HCL-_04-28-09_-_NB_ Hydrochloric Acid	Place in a 2 L volumetric flask: 1000 mL of deionized water 200 mL of concentrated HCL Baker Instra-analyzed or equivalent Dilute to 2000 mL with reagent water. Prepare as needed
NH_2OH-HCL-_04-21-09_-_NB_ Hydroxylamine hydrochloride	Place in a 2000 ml volumetric flask: 240.0 g of NH_2OH-HCl Baker Instra-analyzed or equivalent 240.0 g NaCl Baker Instra-analyzed or equivalent Dilute to 2000 mL with reagent water. Place solution in a repipetor bottle. Prepare as needed

Standard Solutions Prepared By: _____

Entered By: _____ Date: 4/28/09

Reviewed By: _____ Date: 090309

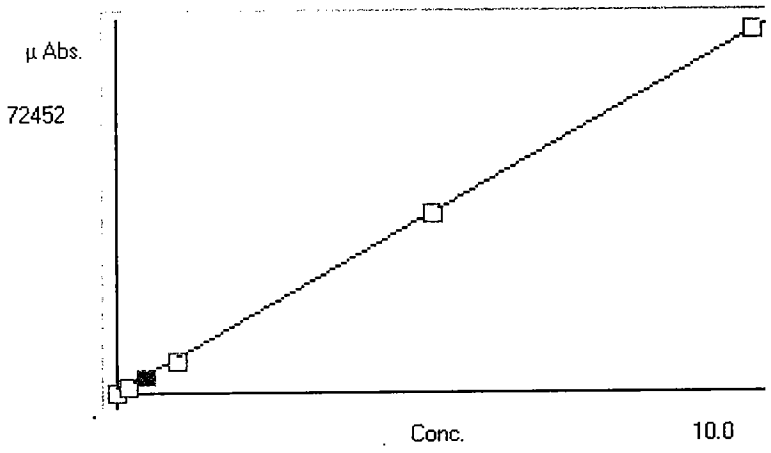
[1]Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Protocol: INSTIDV4

Folder: V4042894



A

B 1.38236e-4

C -8.13594e-3

Rhc .999945

Accepted Date: 28-Apr-09 15:44

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
01	.00000	.069	.069	561	0	561				
02	.20000	.198	-.002	1491	0%	1491				
03	.50000	.490	-.010	3603	0%	3603				
04	1.0000	.938	-.062	6847	0%	6847				
05	5.0000	5.00	-.003	36207	0%	36207				
06	10.000	10.0	.007	72453	0%	72452				
07										
08										
09										
10										

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 1 15:34:24 28 Apr 09 HG

Hg .000 ppb 561

*** Standard: 2 Rep: 1 Seq: 2 15:36:30 28 Apr 09 HG

Hg .200 ppb 1491

*** Standard: 3 Rep: 1 Seq: 3 15:38:21 28 Apr 09 HG

Hg .500 ppb 3603

*** Standard: 4 Rep: 1 Seq: 4 15:40:13 28 Apr 09 HG

Hg 1.00 ppb 6847

*** Standard: 5 Rep: 1 Seq: 5 15:42:08 28 Apr 09 HG

Hg 5.00 ppb 36207

*** Standard: 6 Rep: 1 Seq: 6 15:43:59 28 Apr 09 HG

Hg 10.0 ppb 72452

*** Check Standard: 3 Ck3 ICV Seq: 7 15:45:54 28 Apr 09 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		94.3	3.77	4.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 8 15:47:49 28 Apr 09 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		.025	.200	ppb	.000

*** Check Standard: 4 Ck4 CRI Seq: 9 15:49:44 28 Apr 09 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		118.	.236	.200	ppb	.000

*** Check Standard: 2 Ck2 CCV Seq: 10 15:51:46 28 Apr 09 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		99.9	5.00	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 11 15:53:48 28 Apr 09 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.020	.200	ppb	.000

*** Sample ID: PBW Seq: 12 15:55:38 28 Apr 09 HG
9042716-BLK1

Hg -.004 ppb .000 -.004

==========

*** Sample ID: LCSW Seq: 13 15:57:27 28 Apr 09 HG
9042716-BS1

Hg 2.64 ppb .000 2.64

=

==========

*** Sample ID: 13MW5 Seq: 14 15:59:20 28 Apr 09 HG
0904098-01

Hg -.022 ppb .000 -.022

=

==========

*** Sample ID: 13MW5D Seq: 15 16:01:11 28 Apr 09 HG
9042716-DUP1

Hg .011 ppb .000 .011

==========

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 13MW5S				Seq: 16	16:03:07 28 Apr 09	HG		
				9042716-MS1				
Hg	.915	ppb	.000	.915				
*** Sample ID: 13MW5SD				Seq: 17	16:05:01 28 Apr 09	HG		
				9042716-MSD1				
Hg	.949	ppb	.000	.949				
*** Sample ID: 13MW5				Seq: 18	16:06:54 28 Apr 09	HG		
				0904098-01				
Hg	-.019	ppb	.000	-.019				
*** Sample ID: 13MW3				Seq: 19	16:09:07 28 Apr 09	HG		
				0904098-02				
Hg	-.124	ppb	.000	-.124				
*** Sample ID: 13MW4				Seq: 20	16:10:58 28 Apr 09	HG		
				0904098-03				
Hg	.001	ppb	.000	.001				
*** Sample ID: 13MWDUP				Seq: 21	16:12:50 28 Apr 09	HG		
				0904098-04				
Hg	.008	ppb	.000	.008				

*** Check Standard: 2 Ck2 CCV			Seq: 22	16:14:41 28 Apr 09	HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		104.	5.19	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB			Seq: 23	16:16:56 28 Apr 09	HG
Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		.005	.200	ppb	.000

*** Sample ID: 13MW6				Seq: 24	16:18:49 28 Apr 09	HG		
				0904098-05				
Hg	.018	ppb	.000	.018				
*** Sample ID: 13MW7				Seq: 25	16:20:45 28 Apr 09	HG		
				0904098-06				
Hg	.027	ppb	.000	.027				
*** Sample ID: PBW				Seq: 26	16:22:36 28 Apr 09	HG		
				9042733-BLK1				
Hg	.054	ppb	.000	.054				
*** Sample ID: LCSW				Seq: 27	16:24:40 28 Apr 09	HG		
				9042733-BS1				
Hg	2.69	ppb	.000	2.69				
*** Sample ID: LCSWD				Seq: 28	16:26:48 28 Apr 09	HG		
				9042733-BSD1				
Hg	2.68	ppb	.000	2.68				

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: GW-10-0422            Seq:  29     16:28:41 28 Apr 09   HG
                          0904145-01
Hg   -.074    ppb       .000     -.074
                                                                        =
================================================================================
*** Sample ID: GW-11-0422            Seq:  30     16:30:43 28 Apr 09   HG
                          0904145-02
Hg   -.002    ppb       .000     -.002
                                                                        =
================================================================================
*** Sample ID: GW-9-04230            Seq:  31     16:32:46 28 Apr 09   HG
                          0904145-03
Hg    .081    ppb       .000      .081
                                                                        =
================================================================================
*** Sample ID: GW-8-04230            Seq:  32     16:34:42 28 Apr 09   HG
                          0904145-04
Hg    .014    ppb       .000      .014
                                                                        =
*** Check Standard: 2  Ck2 CCV       Seq:  33     16:36:39 28 Apr 09   HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          103.     5.17    5.00  ppb         .000
                                                                        =
*** Check Standard: 1  Ck1 CCB       Seq:  34     16:38:30 28 Apr 09   HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.004     .200     ppb         .000
                                                                        =
*** Sample ID: GW-7-04230            Seq:  35     16:40:28 28 Apr 09   HG
                          0904145-05
Hg    .049    ppb       .000      .049
                                                                        =
================================================================================
*** Sample ID: GW-6-04230            Seq:  36     16:42:30 28 Apr 09   HG
                          0904145-06
Hg   -.001    ppb       .000     -.001
                                                                        =
================================================================================
*** Sample ID: GW-5-04230            Seq:  37     16:44:24 28 Apr 09   HG
                          0904145-07
Hg   -.006    ppb       .000     -.006
                                                                        =
================================================================================
*** Sample ID: GW-4-04230            Seq:  38     16:46:14 28 Apr 09   HG
                          0904145-08
Hg    .072    ppb       .000      .072
                                                                        =
================================================================================
*** Sample ID: GW-3-04240            Seq:  39     16:48:07 28 Apr 09   HG
                          0904145-09
Hg    .016    ppb       .000      .016
                                                                        =
*** Sample ID: GW-3-04240            Seq:  40     16:49:58 28 Apr 09   HG
                          0904145-10
Hg    .028    ppb       .000      .028
                                                                        =
================================================================================
*** Sample ID: GW-1-04240            Seq:  41     16:51:59 28 Apr 09   HG
                          0904145-11
Hg    .023    ppb       .000      .023
                                                                        =
================================================================================
```

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: GW-2-04240				Seq: 42		16:53:52 28 Apr 09			HG
				0904145-12					
Hg	.015	ppb	.000	.015					=
*** Sample ID: GW-2-04240				Seq: 43		16:55:43 28 Apr 09			HG
				SDI0904145-12 5X					
Hg	.004	ppb	.000	.004					=
*** Check Standard: 2 Ck2 CCV				Seq: 44		16:57:34 28 Apr 09			HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg		104.	5.22	5.00	ppb	.000			=
*** Check Standard: 1 Ck1 CCB				Seq: 45		16:59:24 28 Apr 09			HG
Line	Flag	Found	Range(+/-)	Units	SD/RSD				
Hg		-.032	.200	ppb	.000				=

Maintenance: N/A

Method(s) 9010B/9012A CYANIDE

Operator(s): J.M. Date/Time 04-27-09 / 19:06:10 to 4-27-09 / 19:48:22

Printed: 4/22/2009

↑	Specified element(s) fail(s) high
↓	Specified element(s) fail(s) low
RR	Re-run sample(s) neat
RR #X	Re-run at a #-fold dilution
#X	Sample run at a #-fold dilution (aliquot of sample diluted with acidified water)
L	Matrix = leachate
W	Matrix = water
S	Matrix = solid
B	Matrix = biological tissue

SDG	Matrix	Comments
~~0904096~~	QF 5-5-09	
0904096	Water	Complete
0904097	Water	
0904098	Water	

Batch
9042011
9042039
9042717

Lachat C2 Run Log

File Name: 0427CNS1

Cup	Sample ID	Client Id	Sample Type	Dilution	Date	Time	Results	Comments
1	S400	S400	CALIB STD	1	04/27/2009	19:06:10	13916725.0	
2	S300	S300	SAMPLE	1	04/27/2009	19:06:57	11194765.0	
3	S200	S200	CALIB STD	1	04/27/2009	19:07:45	7471170.0	
4	S100	S100	SAMPLE	1	04/27/2009	19:08:33	3811313.0	
5	S40	S40	SAMPLE	1	04/27/2009	19:09:21	1588707.0	
6	S20	S20	CALIB STD	1	04/27/2009	19:10:09	832350.0	
7	S10	S10	CALIB STD	1	04/27/2009	19:10:57	478203.0	
8	S0	S0	CALIB STD	1	04/27/2009	19:11:46	28304.0	
13	ICV	ICV	ICV	1	04/27/2009	19:13:44	101.4472	
14	ICB	ICB	ICB	1	04/27/2009	19:14:32	-0.4632	
3	CCV	CCV	CCV	1	04/27/2009	19:15:20	209.3706	
8	CCB	CCB	CCB	1	04/27/2009	19:16:08	-2.1792	
1	LRS	LRS	MS	1	04/27/2009	19:18:06	39.1870	
2	HRS	HRS	MS	1	04/27/2009	19:18:54	322.0238	
3	9042011-BLK1	PBW	BLANK	1	04/27/2009	19:19:42	1.2410	
4	9042011-BS1	LCSW	LCS	1	04/27/2009	19:20:30	105.0590	
5	0904096-01	7W11B	SAMPLE	1	04/27/2009	19:21:18	1.5228	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP 1.5228has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: [signature] Date: 5-5-09

Lachat C2 Run Log

File Name: 0427CNS1

Cup	Sample ID	Client Id	Sample Type	Dilution	Date	Time	Results	Comments
6	9042011-DUP1	7W11BD	DUPLICATE	1	04/27/2009	19:22:06	-4.6199	
7	9042011-MS1	7W11BS	MATRIX SPIKE	1	04/27/2009	19:22:53	117.3324	
8	9042011-MSD1	7W11BSD	MATRIX SPIKE	1	04/27/2009	19:23:41	121.0094	
9	0904096-02	7W12B	SAMPLE	1	04/27/2009	19:24:28	-4.7375	
10	0904096-03	7WCA	SAMPLE	1	04/27/2009	19:25:15	-3.8960	
3	CCV	CCV	CCV	1	04/27/2009	19:26:03	217.7587	
8	CCB	CCB	CCB	1	04/27/2009	19:26:51	-4.6223	
11	0904096-04	7WDUP	SAMPLE	1	04/27/2009	19:28:48	-3.7859	
12	0904096-05	7MW6	SAMPLE	1	04/27/2009	19:29:35	-4.0354	
13	9042039-BLK1	PBW	BLANK	1	04/27/2009	19:30:22	-4.5265	
14	9042039-BS1	LCSW	LCS	1	04/27/2009	19:31:09	108.1400	
15	9042039-BSD1	LCSWD	LCS DUP	1	04/27/2009	19:31:56	108.7593	
16	0904097-01	7W9C	SAMPLE	1	04/27/2009	19:32:44	-4.0494	
17	0904097-02	7W10B	SAMPLE	1	04/27/2009	19:33:32	-4.6361	
18	0904097-03	7W10C	SAMPLE	1	04/27/2009	19:34:21	-4.5917	
19	0904097-04	7W13	SAMPLE	1	04/27/2009	19:35:09	-4.4350	
20	9042717-BLK1	PBW	BLANK	1	04/27/2009	19:35:57	-4.5597	
3	CCV	CCV	CCV	1	04/27/2009	19:36:45	222.0078	
8	CCB	CCB	CCB	1	04/27/2009	19:37:33	-3.9908	
21	9042717-BS1	LCSW	LCS	1	04/27/2009	19:39:31	108.6409	
22	0904098-01	13MW5	SAMPLE	1	04/27/2009	19:40:18	-3.2297	
23	9042717-DUP1	13MW5D	DUPLICATE	1	04/27/2009	19:41:05	-4.5710	
24	9042717-MS1	13MW5S	MATRIX SPIKE	1	04/27/2009	19:41:53	114.4063	
25	9042717-MSD1	13MW5SD	MATRIX SPIKE	1	04/27/2009	19:42:39	119.3828	
26	0904098-02	13MW3	SAMPLE	1	04/27/2009	19:43:26	-3.5262	
27	0904098-03	13MW4	SAMPLE	1	04/27/2009	19:44:14	-4.2823	
28	0904098-04	13MWDUP	SAMPLE	1	04/27/2009	19:45:01	-4.4727	
29	0904098-05	13MW6	SAMPLE	1	04/27/2009	19:45:48	-4.2044	
30	0904096-06	0904096-06	SAMPLE	1	04/27/2009	19:46:35	-3.6806	
3	CCV	CCV	CCV	1	04/27/2009	19:47:24	221.0926	
8	CCB	CCB	CCB	1	04/27/2009	19:48:12	-4.3415	
31	0904096-01	7W11B	SAMPLE	1	04/27/2009	19:50:10	-4.0453	
32	9042011-DUP1	7W11BD	DUPLICATE	1	04/27/2009	19:50:58	-0.4283	
33	9042011-MS1	7W11BS	MATRIX SPIKE	1	04/27/2009	19:51:46	120.0541	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP 120.0541has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: L. Forrester Date: 5-5-09

Lachat C2 Run Log

File Name: 0427CNS1

Cup	Sample ID	Client Id	Sample Type	Dilution	Date	Time	Results	Comments
34	9042011-MSD1	7W11BSD	MATRIX SPIKE	1	04/27/2009	19:52:34	122.3277	
3	CCV	CCV	CCV	1	04/27/2009	19:53:22	221.5110	
8	CCB	CCB	CCB	1	04/27/2009	19:54:11	-4.3459	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP -4.3459has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: L. Jones Date: 5-5-09

Standards/QC Preparation for Cyanide Analysis by Lachat

Seq. File Name: 042709S1

552

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 O(5)

REAGENTS*	REF#	Manufacturer	Lot#	Expiration Date
Sodium Hydroxide	1u(6)1-13-28	J.T. BAKER	E44475	01/07/11
Potassium Phosphate Monobasic Anhydrous (KH_2PO_4)	1U(6)1-14-16	Mallinckrodt	G01581	5/12/11
Chloramine-T	1U(6)1-12-22	J.T. BAKER	B21601	04/17/10
Barbituric Acid	1U(6)1-12-15	SIGMA-ALDRICH	08520CE	01-02-10
Pyridine	1U(6)1-14-23	EMD	47239	07/11
Hydrochloric Acid	1M2-182-2	CALEDON	60544	03/03/10

REAGENT/STANDARD LOT NUMBER**	PREPARATION INSTRUCTIONS
Carrier, 0.25M NaOH- 04 27 09 jm	In a 1 L volumetric flask, dissolve 10.0 g of NaOH in 800 mL of reagent water. Dilute to the mark and invert t mix. To prevent bubble formation, degas using a vacuum pump.
Phosphate Buffer- 04 10 09 JM	In a 1 L volumetric flask, dissolve 97 g of potassium phosphate monobasic anhydrous in 800 mL of reagent water. Dilute to the mark and invert to mix. To prevent bubble formation, degas using a vacuum pump.
Chloramine-T- 04 27 09 jm	To a 500 mL volumetric flask, add 250 mL of reagent water followed by 2 g of Chloramines-T. Dilute to the mark and invert to mix. To prevent bubble formation, degas using a vacuum pump. Prepare fresh daily.
Pyridine-Barbituric Acid- 04 08 09 JM	CAUTION – Always use a fume hood when preparing this reagent. Always wear a face shield when dispensing concentrated acids. This reagent has a six-month shelf – life if stored at 4 °C. In the fume hood, place 15.0 g of barbituric acid in a 1 L beaker and add 100 mL of reagent water, rinsing down the sides of the beaker to wet the barbituric acid. Stir in 75 mL of pyridine (C_5H_5N) and mix until the barbituric acid dissolves. Add 15 mL of concentrated hydrochloric acid (12M HC1) and mix. Transfer to a 1 L volumetric flask, dilute to volume with reagent, and invert to mix. To prevent bubble formation, degas using a vacuum pump.

Reagent/Standard Solutions Prepared By: JM Date: 4/28/09

Entered By: JM Date: 4/27/09

Reviewed By: D. Jones Date: 5-5-09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

*Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

**Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

Standards/QC Preparation for Cyanide Analysis by Lachat

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 O(5)

STANDARD LOT NUMBER**	PREPARATION INSTRUCTIONS
CN400– 04 27 09 jm (SW-846 only)	400 µg/L standard Place in a 100 mL volumetric flask: Pipette 4.0 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH and mix well
CN300– 04 27 09 jm (SW-846 only)	300 µg/L standard Place in a 100 mL volumetric flask: Pipette 3.0 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH solution
CN200– 04 27 09 jm (SW-846 & CLP) USED FOR CCV FOR SW-846	200 µg/L standard Place in a 100 mL volumetric flask: Pipette 2.0 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH solution
CN100– 04 27 09 jm (SW-846 & CLP) **USED FOR CCV FOR ILM05.4**	100 µg/L standard Place in a 100 mL volumetric flask: Pipette 1.0 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH solution
CN50– 04 27 09 jm (CLP only)	50 µg/L standard Place in a 100 mL volumetric flask: Pipette 0.5 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH solution.

Reagent/Standard Solutions Prepared By: JM Date: 4/27/09

Entered By: JM Date: 4/27/09

Reviewed By: D. Forrester Date: 5-5-09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

**Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

Standards/QC Preparation for Cyanide Analysis by Lachat

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 O(5)

STANDARD LOT NUMBER**	PREPARATION INSTRUCTIONS
CN40– 04 27 09 jm (SW-846 only)	40 µg/L standard Place in a 1000 mL volumetric flask: Pipette 0.4 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH solution.
CN20- 04 27 09 jm (SW-846 & CLP)	20 µg/L standard Place in a 100 mL volumetric flask: Pipette 0.2 mL of 10 mg/L cyanide solution into the flask. Dilute to 100 mL with 0.25 N NaOH solution
CN10– 04 27 09 jm (SW-846 & CLP) **(also used as CRI for CLP)**	10 µg/L standard Place in a 1000 mL volumetric flask: Pipette 0.1 mL of 10 mg/L cyanide solution into flask. Dilute to 100 mL with 0.25 N NaOH solution
Blank– 04 27 09 jm (SW-846 & CLP) (Adjusted Reagent Water)	0.25 N NaOH solution Dissolve a 10 g of NaOH into a 1000 mL volumetric flask: with reagent water

Reagent/Standard Solutions Prepared By: J.M Date: 4/27/09

Entered By: JM Date: 4/27/09

Reviewed By: D. Jonesta Date: 5-5-09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

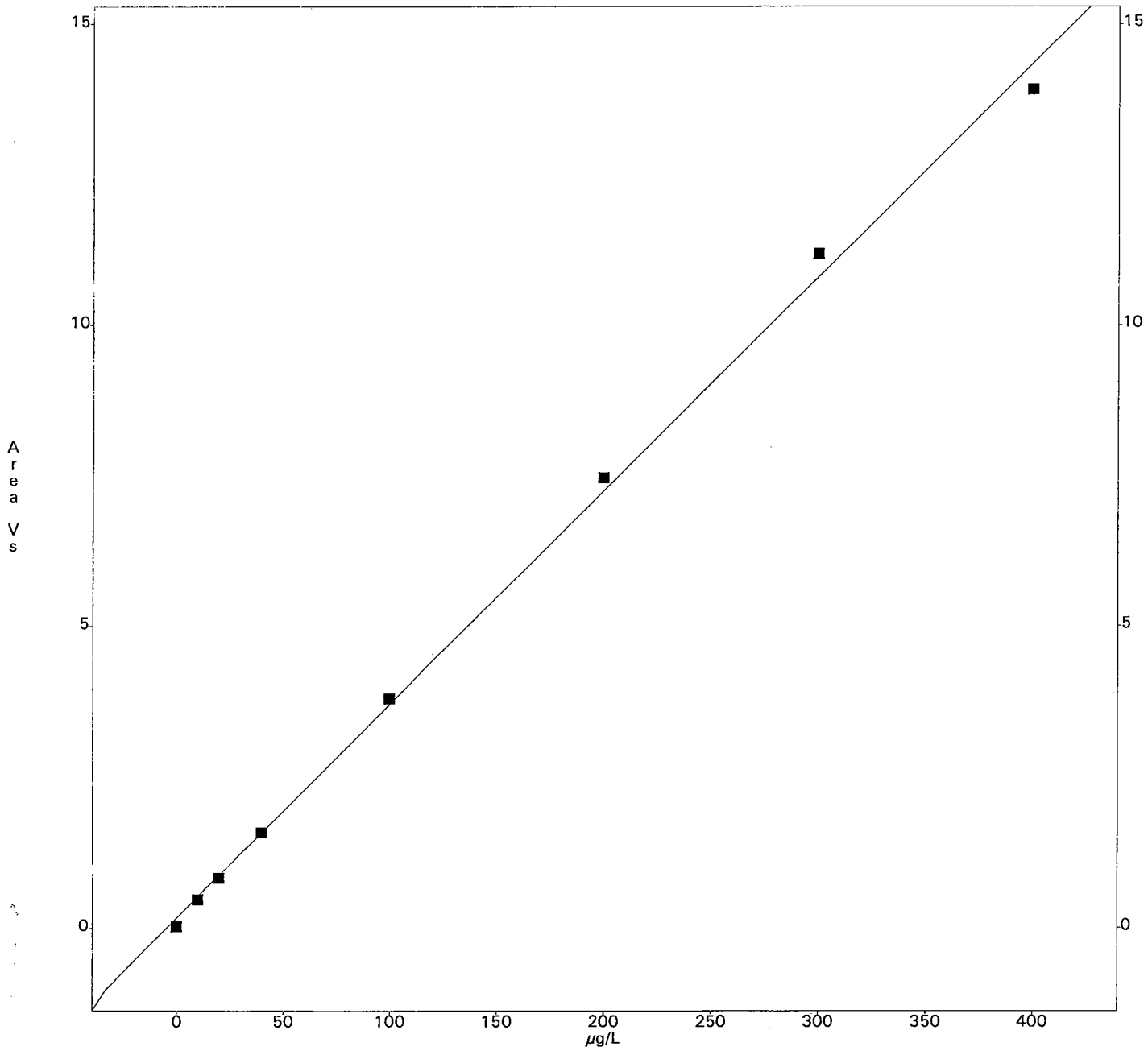
**Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

CNSW846

Lvl	Area	µg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	13916725	400	13916725					0.0	0.0	3.1
2	11194765	300	11194765					0.0	0.0	-3.6
3	7471170	200	7471170					0.0	0.0	-2.9
4	3811313	100	3811313					0.0	0.0	-2.6
5	1588707	40	1588707					0.0	0.0	0.1
6	832350	20	832350					0.0	0.0	6.9
7	478203	10	478203					0.0	0.0	13.7
8	28304	0	28304					0.0	0.0	

1st Order Poly
Conc = 2.820e-005 Area - 4.855e+000
r = 0.9990

Scaling: None - Weighting: None



Printed: Monday, April 27, 2009 - 07:57 PM

INSTRUMENT: Flow Injection Analysis
TRAY: CNSW846.TRA METHOD: CNSW846.MET DATAFILE: 0427CNS1.FDT
DATE/TIME: Mon Apr 27 19:06:03 2009 OPERATOR: Joe Mohn

*** Begin Calibration ***
Cup# 1 Sample: S400 Type: CalStd Level: 1 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 13916725.0 µv-s
Cup# 2 Sample: S300 Type: CalStd Level: 2 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 11194765.0 µv-s
Cup# 3 Sample: S200 Type: CalStd Level: 3 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 7471170.0 µv-s
Cup# 4 Sample: S100 Type: CalStd Level: 4 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 3811313.0 µv-s
Cup# 5 Sample: S40 Type: CalStd Level: 5 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 1588707.0 µv-s
Cup# 6 Sample: S20 Type: CalStd Level: 6 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 832350.0 µv-s
Cup# 7 Sample: S10 Type: CalStd Level: 7 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 478203.0 µv-s
Cup# 8 Sample: S0 Type: CalStd Level: 8 Rep# 1/1
 Ch 2: CNSW846 Peak Area = 28304.0 µv-s
*** Updated Calibration ***
 Ch 2: CNSW846
  ** 1st Order Poly Calibration **
  C[0] = 2.81993e-005
  C[1] = -4.85496
  r = 0.9990
*** End Calibration Block ***
*** Calibration Passed ***
***** Auto DQM Begin *****
*** Starting DQM Set INITIAL CAL ***
Cup# 13 Sample: ICV TV=99 Type: RelChkStd Rep# 1/1
 Ch 2: CNSW846 = 101.4472 µg/L
DQM Sample Results: ICV TV=99
 Ch 2: CNSW846 = 101.4472 µg/L
  Known Conc = 99.0000 ug/L - %Diff from Known = 2.4719%
   Test 1: Passed
Cup# 14 Sample: ICB Type: Blank Rep# 1/1
 Ch 2: CNSW846 = -0.4632 µg/L
DQM Sample Results: ICB
 Ch 2: CNSW846
  Determined Conc = -0.4632 µg/L
   Test 1: Passed
*** End of DQM Set INITIAL CAL - Set Passed ***
*** Starting DQM Set CCV/CCB ***
Cup# 3 Sample: CCV TV=200 Type: RelChkStd Rep# 1/1
 Ch 2: CNSW846 = 209.3706 µg/L
DQM Sample Results: CCV TV=200
 Ch 2: CNSW846 = 209.3706 µg/L
  Known Conc = 200.0000 ug/L - %Diff from Known = 4.6853%
   Test 1: Passed
Cup# 8 Sample: CCB Type: Blank Rep# 1/1
 Ch 2: CNSW846 = -2.1792 µg/L
DQM Sample Results: CCB
 Ch 2: CNSW846
  Determined Conc = -2.1792 µg/L
   Test 1: Passed
*** End of DQM Set CCV/CCB - Set Passed ***
***** Auto DQM End *****
*** Starting DQM Set LRS/HRS ***
Cup# 1 Sample: LRS Type: RelChkStd Rep# 1/1
 Ch 2: CNSW846 = 39.1870 µg/L
DQM Sample Results: LRS
 Ch 2: CNSW846 = 39.1870 µg/L
  Known Conc = 40.0000 ug/L - %Diff from Known = -2.0325%
   Test 1: Passed
Cup# 2 Sample: HRS Type: RelChkStd Rep# 1/1

```
  Ch 2: CNSW846 = 322.0238 µg/L
DQM Sample Results: HRS
  Ch 2: CNSW846 = 322.0238 µg/L
    Known Conc = 300.0000 ug/L - %Diff from Known = 7.3413%
      Test 1: Passed
*** End of DQM Set LRS/HRS - Set Passed ***
Cup# 3  Sample: 9042011-BLK1 PBW  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 1.2410 µg/L
Cup# 4  Sample: 9042011-BS1 LCSW  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 105.0590 µg/L
Cup# 5  Sample: 0904096-01 7W11B  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 1.5228 µg/L
Cup# 6  Sample: 9042011-DUP1 7W11BD  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.6199 µg/L
Cup# 7  Sample: 9042011-MS1 7W11BS  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 117.3324 µg/L
Cup# 8  Sample: 9042011-MSD1 7W11BSD  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 121.0094 µg/L
Cup# 9  Sample: 0904096-02 7W12B  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.7375 µg/L
Cup# 10  Sample: 0904096-03 7WCA  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -3.8960 µg/L
***** Auto DQM Begin *****
*** Starting DQM Set CCV/CCB ***
Cup# 3  Sample: CCV TV=200  Type: RelChkStd  Rep# 1/1 Repeat# 1
  Ch 2: CNSW846 = 217.7587 µg/L
DQM Sample Results: CCV TV=200
  Ch 2: CNSW846 = 217.7587 µg/L
    Known Conc = 200.0000 ug/L - %Diff from Known = 8.8794%
      Test 1: Passed
Cup# 8  Sample: CCB  Type: Blank  Rep# 1/1 Repeat# 1
  Ch 2: CNSW846 = -4.6223 µg/L
DQM Sample Results: CCB
  Ch 2: CNSW846
    Determined Conc = -4.6223 µg/L
      Test 1: Passed
*** End of DQM Set CCV/CCB - Set Passed ***
***** Auto DQM End *****
Cup# 11  Sample: 0904096-04 7WDUP  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -3.7859 µg/L
Cup# 12  Sample: 0904096-05 7MW6  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.0354 µg/L
Cup# 13  Sample: 9042039-BLK1 PBW  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.5265 µg/L
Cup# 14  Sample: 9042039-BS1 LCSW  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 108.1400 µg/L
Cup# 15  Sample: 9042039-BSD1 LCSWD  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = 108.7593 µg/L
Cup# 16  Sample: 0904097-01 7W9C  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.0494 µg/L
Cup# 17  Sample: 0904097-02 7W10B  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.6361 µg/L
Cup# 18  Sample: 0904097-03 7W10C  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.5917 µg/L
Cup# 19  Sample: 0904097-04 7W13  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.4350 µg/L
Cup# 20  Sample: 9042717-BLK1 PBW  Type: Unknown  Rep# 1/1
  Ch 2: CNSW846 = -4.5597 µg/L
***** Auto DQM Begin *****
*** Starting DQM Set CCV/CCB ***
Cup# 3  Sample: CCV TV=200  Type: RelChkStd  Rep# 1/1 Repeat# 2
  Ch 2: CNSW846 = 222.0078 µg/L
DQM Sample Results: CCV TV=200
  Ch 2: CNSW846 = 222.0078 µg/L
    Known Conc = 200.0000 ug/L - %Diff from Known = 11.0039%
      Test 1: Passed
Cup# 8  Sample: CCB  Type: Blank  Rep# 1/1 Repeat# 2
  Ch 2: CNSW846 = -3.9908 µg/L
```

DQM Sample Results: CCB
Ch 2: CNSW846
Determined Conc = -3.9908 µg/L
Test 1: Passed
*** End of DQM Set CCV/CCB - Set Passed ***
***** Auto DQM End *****
Cup# 21 Sample: 9042717-BS1 LCSW Type: Unknown Rep# 1/1
Ch 2: CNSW846 = 108.6409 µg/L
Cup# 22 Sample: 0904098-01 13MW5 Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -3.2297 µg/L
Cup# 23 Sample: 9042717-DUP1 13MW5D Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -4.5710 µg/L
Cup# 24 Sample: 9042717-MS1 13MW5S Type: Unknown Rep# 1/1
Ch 2: CNSW846 = 114.4063 µg/L
Cup# 25 Sample: 9042717-MSD1 13MW5SD Type: Unknown Rep# 1/1
Ch 2: CNSW846 = 119.3828 µg/L
Cup# 26 Sample: 0904098-02 13MW3 Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -3.5262 µg/L
Cup# 27 Sample: 0904098-03 13MW4 Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -4.2823 µg/L
Cup# 28 Sample: 0904098-04 13MWDUP Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -4.4727 µg/L
Cup# 29 Sample: 0904098-05 13MW6 Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -4.2044 µg/L
Cup# 30 Sample: 0904096-06 13MW7 Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -3.6806 µg/L
***** Auto DQM Begin *****
*** Starting DQM Set CCV/CCB ***
Cup# 3 Sample: CCV TV=200 Type: RelChkStd Rep# 1/1 Repeat# 3
Ch 2: CNSW846 = 221.0926 µg/L
DQM Sample Results: CCV TV=200
Ch 2: CNSW846 = 221.0926 µg/L
Known Conc = 200.0000 ug/L - %Diff from Known = 10.5463%
Test 1: Passed
Cup# 8 Sample: CCB Type: Blank Rep# 1/1 Repeat# 3
Ch 2: CNSW846 = -4.3415 µg/L
DQM Sample Results: CCB
Ch 2: CNSW846
Determined Conc = -4.3415 µg/L
Test 1: Passed
*** End of DQM Set CCV/CCB - Set Passed ***
***** Auto DQM End *****
Cup# 31 Sample: 0904096-01 7W11B Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -4.0453 µg/L
Cup# 32 Sample: 9042011-DUP1 7W11BD Type: Unknown Rep# 1/1
Ch 2: CNSW846 = -0.4283 µg/L
Cup# 33 Sample: 9042011-MS1 7W11BS Type: Unknown Rep# 1/1
Ch 2: CNSW846 = 120.0541 µg/L
Cup# 34 Sample: 9042011-MSD1 7W11BSD Type: Unknown Rep# 1/1
Ch 2: CNSW846 = 122.3277 µg/L
***** Auto DQM Begin *****
*** Starting DQM Set CCV/CCB ***
Cup# 3 Sample: CCV TV=200 Type: RelChkStd Rep# 1/1 Repeat# 4
Ch 2: CNSW846 = 221.5110 µg/L
DQM Sample Results: CCV TV=200
Ch 2: CNSW846 = 221.5110 µg/L
Known Conc = 200.0000 ug/L - %Diff from Known = 10.7555%
Test 1: Passed
Cup# 8 Sample: CCB Type: Blank Rep# 1/1 Repeat# 4
Ch 2: CNSW846 = -4.3459 µg/L
DQM Sample Results: CCB
Ch 2: CNSW846
Determined Conc = -4.3459 µg/L
Test 1: Passed
*** End of DQM Set CCV/CCB - Set Passed ***
***** Auto DQM End *****
******* Tray Run Complete *******

4. Digestion and Distillation Logs

The following logs shall be submitted, as appropriate, for each preparation procedure: digestion logs for ICP-AES, ICP-MS, mercury preparations, and cyanide. The logs shall include: (1) date; (2) sample weights and volumes, with initial sample weight/volume and final volume clearly indicated; (3) sufficient information to unequivocally identify which QC samples (i.e., LCS, PB) correspond to each batch digested; (4) comments describing any significant sample changes or reactions which occur during preparation shall be entered in the log and noted in the SDG Narrative; (5) indication of pH less than 2 or greater than 12, as applicable; (6) identification of the sample preparer(s) [signature (s)].

CompuChem, a Division of Liberty Analytical Corp.

METALS/MERCURY PREPARATION LOG

Purple Water

560

Metals Method: 6020/3005A

Mercury Method: 7470A

Prepared by: DDD/NSB

Date Prepped: 4-28-09

Batch No.: 9042715/16

COMPUCHEM NUMBER	CLIENT SAMPLE ID	SAMPLE TYPE	ICP Initial mL	ICP Final (mL)	HG Initial mL	HG Final (mL)	*Description Before	*Description After ICP	pH
0904098-01	13MW5	SAMPLE	50	50	100	100	CS/CL	CS/CL	<2
0904098-02	13MW3	SAMPLE	50		100		CS/CL	CS/CL	<2
0904098-03	13MW4	SAMPLE	50		100		CS/CL	CS/CL	<2
0904098-04	13MWDUP	SAMPLE	50		100		CS/CL	CS/CL	<2
0904098-05	13MW6	SAMPLE	50		100		CS/CL	CS/CL	<2
0904098-06	13MW7	SAMPLE	50		100		CS/CL	CS/CL	<2
9042715/16-BLK1	PBW	MB	50		100		CS/CL	CS/CL	N/A
9042715/16-BS1	LCSW	LCS	50		100		CS/CL	CS/CL	N/A
9042715/16-DUP1	13MW5D	DUP	50		100		CS/CL	CS/CL	<2
9042715/16-MS1	13MW5S	MS	50		100		CS/CL	CS/CL	<2
9042715/16-MSD1	13MW5SD	MSD	50		100		CS/CL	CS/CL	<2
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Mercury Standards and QC

S0 S0.2 S0.5 S1 S5 S10

ICV ICB CRI CCV CCB

Hot Block Temp In:	95°
Hot Block Temp Out:	95°

Time Hg in water bath:	1300
Time Hg out water bath:	1500
Water Bath Temp In:	95°
Water Bath Temp Out:	95°

Reviewed by: J. Tonasto

Date: 4-28-09

Sample Spike(SS) Ref:

ICAP: **1.0mL Water Spike D for 100mL prep**
0.5mL for 50mL prep
Ref #: Im2-186-28

HG: **1.0mL 100ppb Hg**
Ref# Hg 100 ppb 042809 NB

LCS Ref:

ICAP: **2.0mL ICV-1 (0307) for 100 mL prep**
1.0mL for 50mL prep
Ref #: Im2-187-5

HG: **3.0mL 100ppb Hg**
Ref #: Hg 100 ppb 042809 NB

NOTE: All standards and QC for mercury were prepared at the same day as the associated samples. Refer to the attached Standard/QC Preparation Log, with date matching the above preparation date, for preparation method and instruction.

* R=red, BL=blue, Y=yellow, G=green, O=orange, V=violet, W=white, CS=colorless, BR=brown, BK=black, GY=grey

F=fine M=medium C=coarse CL=clear, CY=cloudy, OP=opaque

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Shading has been applied to unused portions of this worksheet as a substitute for 'Z-out.

08/09/06TMG

Standards/QC Preparation Log for ICP Metals/Mercury Page 1 of 3 **Case/SDG:** 0904098

COMPUCHEM a division of Liberty Analytical Corp. Worksheet 1Q (1) 2

REAGENTS	REF#[1]	MANUFACTURER	LOT#	EXPIRATION DATE
SULFURIC ACID (H_2SO_4)	1m2-186-18	CALEDON	67048	10/11
NITRIC ACID (HNO_3)	1m2-187-12	JT BAKER	H02026	03/12
POTASSIUM PERMANGANATE ($KMnO_4$)	1m2-186-4	JT BAKER	G10663	07/11
HYDROCHLORIC ACID (HCL)	1m2-187-17	CALEDON	68763	04/12
POTASSIUM PERSULFATE ($K_2S_2O_8$)	1m2-184-10	CALEDON	64278	11/10
HYDROGEN PEROXIDE (H_2O_2)	1m2-186-8	CALEDON	65827	08/11
STANDARDS				
XCL 20R	1m2-186-12	HIGH PURITY	0825902	09/22/09
XCL LCS 10XR	8K21001	HIGH PURITY	0832331	11/21/09
ERA PPT (540)	1m2-187-4	ERA	540	03/03/10
EPA LCS (0405)	1m2-184-27	EPA	0405	11/25/09
ICV-1 (0307)	1m2-187-5	EPA	0307	02/16/10
ILM05.3 MATRIX SPIKE	1m2-186-7	HIGH PURITY	0821413	08/04/09
SILVER (Ag) 100ppm	7m1-42-6	HIGH PURITY	0815526	12/15/09
TCLP 500	1m2-186-27	HIGH PURITY	0835022	12/18/09
ARSENIC (As) 1000ppm	7m1-39-21	HIGH PURITY	0731224	11/11/09
MERCURY (Hg) 20ppm	1m2-186-15	HIGH PURITY	0826123	09/19/09
ICV-5 (0508) Hg	1m2-186-22	EPA	0508	11/20/09

[1]Ref#=Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consist of standard ID, date prepared, and initials of preparer

STANDARD SOLUTIONS PREPARED BY: _____ DATE: 4/28/09

ENTERED BY: _____ DATE: 4/28/09

REVIEWED BY: _____ DATE: 042805

The presence of the Chemist's/Analyst's employee ID number, or signature, on this worksheet attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Standards/QC Preparation Log for ICP Metals/Mercury Page 2 of 3 **Case/SDG:** 0904098

COMPUCHEM a division of Liberty Analytical Corp. Worksheet 1Q (1) 2

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS
Hg 100ppb- 04-28-09 – NB	Place in a 100mL volumetric flask: 0.5mL of 20ppm Hg stock solution 2.5mL of concentrated HNO_3 Baker instra-analyzed Trace Metals grade or equivalent Dilute to 100mL volume with reagent water **(PREPARE DAILY)**
$K_2S_2O_8$- 04-28-09 - DD Potassium Persulfate	Place in a 1000mL Erlenmeyer flask: 50.0g of $K_2S_2O_8$ Baker instra-analyzed Trace Metals grade or equivalent Dilute to 1000mL with reagent water. Transfer to a re-pipettor bottle **(PREPARE AS NEEDED)**
$KmnO_4$- 04-22-09 - DD Potassium Permanganate	Place in a 2000mL volumetric flask: 100.0g of $KmnO_4$ Baker instra-analyzed Trace Metals grade or equivalent Dilute to 2000mL with reagent water **(PREARE AS NEEDED)**
HNO_3- 04-23-09 - DD Nitric Acid	Place in a 2000mL volumetric flask: 500mL of Deionized water 1000mL of concentrated HNO_3 Baker instra-analyzed Trace Metals grade or equivalent Dilute to 2000mL with reagent water **(PREPARE AS NEEDED)**
HCl- 04-16 -09 - DD Hydrochloric Acid	Place in a 500mL volumetric flask: 200mL of Deionized water 250mL of concentrated HCl Baker instra-analyzed Trace Metals grade or equivalent Dilute to 500mL with reagent water **(PREPARE AS NEEDED)**

[1]Ref#=Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consist of standard ID, date prepared, and initials of preparer

STANDARD SOLUTIONS PREPARED BY: _____ DATE: 4/28/04

ENTERED BY: _____ DATE: 4/28/04

REVIEWED BY: _____ DATE: 042809

The presence of the Chemist's/Analyst's employee ID number, or signature, on this worksheet attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Standards/QC Preparation Log for ICP Metals/Mercury Page 3 of 3 **Case/SDG:** 0904098

COMPUCHEM a division of Liberty Analytical Corp. Worksheet 1Q (1) 2

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS	Resultant Analyte Concentration
ICV-5- 04-28-09-NB	Pipet into a 300mL BOD Bottle 1.0mL of ICV-5 and 99mL of reagent water. Digest according to sample preparation instructions	4.0µg/L
S0/ICB/CCB- 04-28-09-NB	Pipet into a 300mL BOD Bottle 100mL of reagent water Digest according to sample preparation instructions	0.0µg/L
S0.2/CRA/CRI- 04-28-09-NB	Pipet into a 300mL BOD Bottle 0.2mL of Hg 100ppb and 99.8mL of reagent water Digest according to sample preparation instructions	0.2µg/L
S0.5- 04-28-09-NB	Pipet into a 300mL BOD Bottle 0.5mL of Hg 100ppb and 99.5mL of reagent water Digest according to sample preparation instructions	0.5µg/L
S1.0- 04-28-09-NB	Pipet into a 300mL BOD Bottle 1.0mL of Hg 100ppb and 99mL of reagent water Digest according to sample preparation instructions	1.0µg/L
S5.0/CCV- 04-28-09-NB	Pipet into a 300mL BOD Bottle 5.0mL of Hg 100ppb and 95mL of reagent water Digest according to sample preparation instructions	5.0µg/L
S10.0- 04-28-09-NB	Pipet into a 300mL BOD Bottle 10mL of Hg 100ppb and 90mL of reagent water Digest according to sample preparation instructions	10.0µg/L

[1]Ref#=Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consist of standard ID, date prepared, and initials of preparer

STANDARD SOLUTIONS PREPARED BY: _____ DATE: 4/28/09

ENTERED BY: _____ DATE: 4/28/09

REVIEWED BY: _____ DATE: 6/2/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this worksheet attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Standards/QC Preparation Log for ICP/MS Metals

564

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 YYY

Case/SDG: 0904098

REAGENTS	REF #[1]	MANUFACTURER	LOT #	EXPIRATION
Hydrochloric Acid - Distilled (HCl)	HCL-D-030609-DD	Caledon	68273	12/11
Nitric Acid – Distilled (HNO_3)	NHO3-D-041509-DD	JT Baker	G44029	02/12
STANDARDS				
ICV-1 (0307)	1M2-187-5	EPA	0307	02/16/10
EPA LCS (0405)	1m2-184-27	EPA	0405	11/25/09
ERA PPT (540)	1m2-186-16	ERA	540	09/30/09
Water Spike Sample D	1m2-186-28	High Purity	0835021	12/17/09
Tin 10 ppm	7m1-42-12	NSI	102008-Sn	10/10
Molybdenum 10 ppm	7m1-42-13	NSI	102008-Mo	10/10

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS
HNO_3–_04_ _22_ _0_ _9_ – _DD_ Nitric Acid	Place in a 100 mL volumetric flask: 25 mL of Deionized water 50 mL of **Distilled** concentrated HNO_3, Baker Instra-analyzed or equivalent Dilute to 100 mL with DI water. Prepare as needed.
HCl–_03_ _09_ _0_ _9_ – _DD_ Hydrochloric Acid	Place in a 100 mL volumetric flask: 25 mL of Deionized water 50 mL of **Distilled** concentrated HCl, Baker Instra-analyzed or equivalent Dilute to 100 mL with DI water. Prepare as needed.

Standard Solutions Prepared By: D. Dickens Date: 4/28/09

Entered By: D. Dickens Date: 4/28/09

Reviewed By: [signature] Date: 042809

[1]Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

[3]Raw Material sub-boiled from specified lot # in accordance with SOP SPP.9.10

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

9/13/05:jad

Cyanide Preparation

SPP-072/-093/-094/-139/-191

565

Worksheet: CN Prep

Method (Circle One): ILM04.1 335.4 9010B/9012A 4500-CN I ILM05.4-DW2 ILM05.4-DS2

Case/SDG: 0904098 **Prep by:** NB **Date:** 4/27/09 **Matrix:** W

#	CCN (Lab ID)	Client ID	Initial mL	Final (mL)	Description Before	Description After	S-*	Cl2*	pH	Amen Prep**	Free Prep**
1	0904098-01	13MW5	50	50	CS/CL	CS/CL	N/D	N/D	712		
2	0904098-02	13MW3	50	50	CS/CL	CS/CL	N/D	N/D	712		
3	0904098-03	13MW4	50	50	CS/CL	CS/CL	N/D	N/D	>12		
4	0904098-04	13MWDUP	50	50	CS/CL	CS/CL	N/D	N/D	712		
5	0904098-05	13MW6	50	50	CS/CL	CS/CL	N/D	N/D	712		
6	0904098-06	13MW7	50	50	CS/CL	CS/CL	N/D	N/D	712		
7	9042717-BLK1	PBW	50	50	CS/CL	CS/CL	N/D	N/D	N/A		
8	9042717-BS1	LCSW	50	50	CS/CL	CS/CL	N/D	N/D	N/A		
9	9042717-DUP1	13MW5D	50	50	CS/CL	CS/CL	N/D	N/D	712		
10	9042717-MS1	13MW5S	50	50	CS/CL	CS/CL	N/D	N/D	712		
11	9042717-MSD1	13MW5SD	50	50	CS/CL	CS/CL	N/D	N/D	712		
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27	ICV-6 :	ICV-6	50	50	Ref #: ICV604279NB	CS/CL					
29	CLP MRS :	MIDRANGE	50	50	Ref #:						
30	SW-846 Low-Range Std :	LRS	NA	NA	Ref #: LRS04279NB	CS/CL					
31	SW-846 High-Range Std :	HRS	NA	NA	Ref #: HRS04279NB	CS/CL					

ICV-6 Ref:

CN: 0.5 ml ICV-6 (0400) Ref #: 1W(6) 1-13-11

Matrix Spike (MS/MSD) Ref:

CN: 0.5 ml 10 ppm CN Ref #: 1W(6) 1-16-16

LCS Ref:

CN: 0.5 ml ICV-6 (0400) Ref #: 1W(6) 1-13-11

Tempature		Distillation Time		Chlorination Time
In:	125	Start:	3:35	Start: N/A
Out:	125	End:	5:05	End: N/A

Reviewed By: [signature]

Date: 4/27/09

Comments: _____

* R=red, BL=blue, Y=yellow, G=green, O=orange, V=violet, W=white, CS=colorless, BR=brown, BK=black, GY=grey

F=fine M=medium C=coarse CL=clear, CY=cloudy, OP=opaque D= Dectected ND=Not Detected

"The presence of the Chemist's/analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation."

Shading has been applied to unused portions of this worksheet as a substitute for 'Z-out.

Standards/QC Preparation for Cyanide Digestion

Case/SDG: 0904098

COMPUCHEM a Division of Liberty Analytical Corporation WORKSHEET 1 J (8)

566

STANDARDS	REF#[1]	MANUFACTURER	LOT #	EXPIRATION DATE
CN 1000 mg/L	1U(6)1-16-16	NSI	021208	10/09
ICV-6 (0400)	1U(6)1-13-11	EPA	0400	01/08/10
EPA LCS-CN (0899)	1U(6)1-14-7	EPA	0899	04/17/10
REAGENTS				
Magnesium Chloride (MgCl)	1U(6)1-15-16	EMD	46205739	09/10/11
Sodium Hydroxide (NaOH)	1U(6)1-13-28	JT Baker	E44475	01/07/11
Sulfuric Acid (H_2SO_4)	1m2-186-18	Caledon	67048	10/11
Bismuth Nitrate ($Bi(NO_3)$)	1U(6)1-11-24	EM Science	33236425	06/23/09
Sulfamic Acid (H_2NSO_3H)	1U(6)1-11-21	EM Science	40334520	05/22/09
Calcium Hypochlorite Solution [$Ca(OCl)_2$]				

STANDARD LOT NUMBER[2]		PREPARATION INSTRUCTIONS
NaOH 0.25 N	042209-NB	Dissolve 20g of NaOH in reagent water, then dilute to 2000-mL
MgCl	032709-DD	Weigh 510 grams of $MgCl_2 \cdot 6H_2O$ into a 1000-mL flask and dissolve it in reagent water. Dilute to 1000-mL with reagent water. Shake the flask well to thoroughly mix.
H_2SO_4 50% (v/v)	032709-DD	Carefully add 250-mL of concentrated H_2SO_4 to 250-mL reagent water.
$Bi(NO)_3$	111208-JM	Dissolve $Bi(NO)_3 \cdot 5H_2O$ in 100-mL of reagent water. Mix well before use.
H_2NHSO_3	102808-JM	Dissolve 100 g H_2NSO_3H in 1 L of reagent water. Mix well before use.
$Ca(OCl)_2$	111208-JM	Dissolve 5 grams of $Ca(OCl)_2$ into 100-mL of reagent water. Store this solution in an amber bottle in the dark. Mix well before use. Prepare monthly.

[1] = Logbook ID, Page number, and item number from Materials Receipt Log

[2] = consists of standard ID, date prepared, and initials of preparer.

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Prepared By: _____ Date: 4/27/09

Reviewed By: _____ Date: 4-27-09

Standards/QC Preparation for Cyanide Digestion

COMPUCHEM a Division of Liberty Analytical Corporation WORKSHEET 1 J (8)

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS	Resultant Analyte Conc. (µg/L)
Stock Intermediate CN Solution- 042709NB	Place in a 50-mL volumetric flask: Pipette 0.5-mL of stock cyanide standard into the flask. Dilute to the mark with 0.25 NaOH solution and mix well. Prepare daily.	CN: 10, 000
ICV-6/LCSW 042709NB	Pipette 0.5-mL of ICV-6 (0400) cyanide solution into a distillation flask containing 50-mL of reagent water. Distill according to the sample preparation instructions.	CN: 99
LCSS 042209NB	Weigh 1.0 g of the EPA LCS-CN (0899) into a distillation flask containing 50-mL reagent water. Distill according to the sample preparation instructions.	CN: 192
MRS 042209NB (MIDRANGE for CLP)	Pipette 0.5-mL of the 10 ppm stock intermediate cyanide solution into the distillation flask, which contains 50-mL of reagent water. Distill according to sample preparation instructions.	CN: 100
HRS 042709NB (for SW-846 and MCAWW)	Pipette 1.5-mL of the 10 ppm stock intermediate cyanide solution into the distillation flask, which contains 50-mL of reagent water. Distill according to sample preparation instructions.	CN: 300
LRS 042709NB (for SW-846 and MCAWW)	Pipette 0.200-mL of the 10 ppm stock intermediate cyanide solution into the distillation flask, which contains 50-mL of reagent water. Distill according to sample preparation instructions.	CN: 40

[2] = consists of standard ID, date prepared, and initials of preparer.

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Prepared By: _____ Date: 4/27/09

Reviewed By: _____ Date: 4-27-09

INTERNAL DIGESTION COC

9042715

COMPUCHEM

Printed: 4/27/2009 2:32:04PM

Matrix: Water **Prepared using: METALS - EPA 3005A**

Lab Number	Client ID	Sample Type	
0904098-01	13MW5	Sample	
0904098-02	13MW3	Sample	
0904098-03	13MW4	Sample	
0904098-04	13MWDUP	Sample	
0904098-05	13MW6	Sample	
0904098-06	13MW7	Sample	
9042715-BLK1	PBW	Blank	
9042715-BS1	LCSW	LCS	
9042715-DUP1	13MW5D	Duplicate	
9042715-MS1	13MW5S	Matrix Spike	
9042715-MSD1	13MW5SD	Matrix Spike Dup	

D. Dickens	4-28-09	ICP Storage	4-28-09
Relinquished By	Date	Received By	Date
ICP Stg	5-7-09	2f for JF	5-7-09
Relinquished By	Date	Received By	Date
2f for JF	5-7-09	ICP Stg	5-7-09
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date

INTERNAL DIGESTION COC

9042716

COMPUCHEM

Printed: 4/27/2009 2:31:57PM

Matrix: Water **Prepared using: METALS - EPA 7470A Prep**

Lab Number	Client ID	Sample Type	
0904098-01	13MW5	Sample	
0904098-02	13MW3	Sample	
0904098-03	13MW4	Sample	
0904098-04	13MWDUP	Sample	
0904098-05	13MW6	Sample	
0904098-06	13MW7	Sample	
9042716-BLK1	PBW	Blank	
9042716-BS1	LCSW	LCS	
9042716-DUP1	13MW5D	Duplicate	
9042716-MS1	13MW5S	Matrix Spike	
9042716-MSD1	13MW5SD	Matrix Spike Dup	

D. Dickens	4-28-09	Hg Storage	4-28-09
Relinquished By	Date	Received By	Date
Hg sty	4/28/09		4/28/09
Relinquished By	Date	Received By	Date
	4/28/09	Waste	
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date

INTERNAL DIGESTION COC

9042717

COMPUCHEM

Printed: 4/27/2009 2:42:52PM

Matrix: Water **Prepared using: METALS - 9010B**

Lab Number	Client ID	Sample Type	
0904098-01	13MW5	Sample	
0904098-02	13MW3	Sample	
0904098-03	13MW4	Sample	
0904098-04	13MWDUP	Sample	
0904098-05	13MW6	Sample	
0904098-06	13MW7	Sample	
9042717-BLK1	PBW	Blank	
9042717-BS1	LCSW	LCS	
9042717-DUP1	13MW5D	Duplicate	
9042717-MS1	13MW5S	Matrix Spike	
9042717-MSD1	13MW5SD	Matrix Spike Dup	

[signature]	4/27/09	CN Stg	4/27/09
Relinquished By	Date	Received By	Date
CN Storage	4/27/09	Wet chem	4/27/09
Relinquished By	Date	Received By	Date
Wet chem	4/27/09	CN Storage	4/27/09
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date

Metals Internal Chain of Custody Sheet

Matrix Water **Batch**: 9042717 **Status:** Batched **Analysis**: 9010B/9012A CYANIDE

Lab Id	Client Id	Received	Container	Extraction	Due_Date
0904098-01 AI	13MW5	04/15/09	3h_250mL Plastic, cool,	9010B	5/5/2009 4
0904098-02 L	13MW3	04/15/09	3h_250mL Plastic, cool,	9010B	5/5/2009 4
0904098-03 L	13MW4	04/15/09	3h_250mL Plastic, cool,	9010B	5/5/2009 4
0904098-04 L	13MWDUP	04/15/09	3h_250mL Plastic, cool,	9010B	5/5/2009 4
0904098-05 L	13MW6	04/15/09	3h_250mL Plastic, cool,	9010B	5/5/2009 4
0904098-06 L	13MW7	04/15/09	3h_250mL Plastic, cool,	9010B	5/5/2009 4

Relinquished By	Date	Received By	Date
Cool on 1	4/27/09	[signature]	4/27/09
[signature]	4/27/09	Cool on 1	4/27/09

Metals Internal Chain of Custody Sheet

Matrix Water **Batch**: 9042715 **Status**: Batched **Analysis**: 6020 ICP MS

Lab Id	Client Id	Received	Container	Extraction	Due_Date
0904098-01 AE	13MW5	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4
0904098-02 K	13MW3	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4
0904098-03 K	13MW4	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4
0904098-04 K	13MWDUP	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4
0904098-05 K	13MW6	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4
0904098-06 K	13MW7	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4

Relinquished By	Date	Received By	Date
Ambient 0815	4/28/09	K. Burks	4/28/09
K. Burks 0815	4/28/09	D. Dickens	4-28-09
D. Dickens	4-28-09 1630	Ambient	4-28-09

CompuChem

A Division Of

Liberty Analytical Corp.

5/20/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904103

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER **Work:** 0904103

Project RAAP APPIX 2009/B03204-07 **Sdg:** DRAFT 0904103

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904103-01	13MW1	Water	4/14/09 9:35 am	4/15/09 4:15 pm
0904103-02	13MW2	Water	4/14/09 8:15 am	4/15/09 4:15 pm

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

DOCUMENT 6020

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field and analytical samples, reanalyses, blanks, spikes, duplicates, and laboratory control samples. The sample data package consists of the following:

A. Cover Documentation

B. Sample Data

LAB CODE : LIBRTY CONTRACT # : SW846

SDG # : 0904103

A. Cover Documentation

1. Cover Page

2. SDG Narrative

3. Sample Traffic Reports/ Chain-Of-Custody Records

1. Cover Page

Inorganic Analyses Data Package

The Cover Page includes laboratory information, the Case and SDG numbers, Non-Routine Analytical Service (NRAS) number (if appropriate), the EPA sample numbers in alphanumeric order showing the EPA sample numbers cross-referenced with Lab ID numbers, and completion of the questions on the use of background and interelement correction for the samples.

SW846 - METALS

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

SOW No.: SW846

EPA Sample No.	Lab Sample ID.
13MW1	0904103-01
13MW2	0904103-02

Were ICP interelement corrections applied? Yes/No NO

Were ICP background corrections applied? Yes/No NO

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: _____

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: P. Forrester for Susan Bass Name: Susan W Bass

Date: 5-4-09 Title: Senior Chemist

2. SDG Narrative

The SDG Narrative contains laboratory information, the Case and SDG numbers, contract number, and detailed documentation of any QC, sample, shipment, and/or analytical problems encountered in processing the samples. This will include any technical and administrative problems encountered and the resolution or corrective actions taken. The SDG Narrative will also document the alternative means of determining the cooler temperature when a cooler's temperature indicator bottle is absent. The SDG Narrative also provides equations or curves and utilizes raw data from the SDG being reported to demonstrate how sample results are obtained from raw instrument output. The SDG Narrative also includes a discussion of any flexibility Statement of Work (SOW) modification, including attaching a copy of the USEPA approved modification form to the SDG Narrative. Finally, the SDG Narrative will identify and explain any differences between results being provided in the data package and those provided previously as Preliminary Results.

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

SDG NARRATIVE
SDG # 0904103

The indicated Sample Delivery Group (SDG) consisting of two (2) liquid samples was received into the laboratory information management system (LIMS) on April 15, 2009 intact and in good condition with Chain of Custody (COC) Records in order, unless otherwise noted in any attachments or Quality Assurance Notices. The temperature of the samples upon receipt was 0.1 to 2.6°C. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were prepared and analyzed in accordance with SW846-6020 methodology for the requested metals and mercury.

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB & CCB), and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verification (PBW, LCSW, & LCSWD) was found to be within acceptable ranges and the field samples were prepared and analyzed within the specified holding times.

MATRIX RELATED QUALITY CONTROL:

No matrix spikes were requested for this SDG.

A five-fold serial dilution of sample, CCN = 0904103-01 ID 13MW1L was performed in accordance with requirements for ICP/MS analysis and CCN = 0904103-02 ID 13MW2L was performed for mercury.

The adjusted sample concentration was inside control limits for the requested analytes.

The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package. Furthermore, I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

L. Sonsta for Susan Bass

Susan W. Bass
Senior Chemist
May 4, 2009

CompuChem

A Division Of

Liberty Analytical Corp.

DATA REPORTING QUALIFIERS FOR INORGANICS

On Form I, under the column labeled "C" for concentration qualifier and "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each analyte.

The C (concentration) qualifiers used are:

U: This flag indicates the analyte was analyzed for but not detected. This reported value was obtained from a reading that was less than the Instrument Detection Limit (IDL). The IDL will be adjusted to reflect any dilution and, for soils, the percent moisture.

B: This flag indicates the analyte was analyzed for and the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).

The Q qualifiers used are:

E: This flag indicates an estimated value. This flag is used:

1. When the serial dilution (a five fold dilution for CLP and a five fold dilution for SW-846 method 6010B) results are not within 10%. The analyte concentration must be sufficiently high (minimally a factor of 50X above the IDL in the original sample).

N: This flag indicates the sample spike recovery is outside of control limits:

*: This flag is used for duplicate analysis when the sample and the sample duplicate results are not within control limits.

The extensions: D, S, SD, L. A, added to the end of the client ID represent as follows:

D: matrix duplicate
S: matrix spike
SD: matrix spike duplicate
L: serial dilution
A: post digestion spike

Method Codes:

P: ICP PLASMA
CV: MERCURY COLD VAPOR AA
CA: MIDI-DISTILLATION SPECTROPHOTOMETRIC
MS: MASS SPECTROMETRY
AS: SEMI-AUTOMATED SPECTROPHOTOMETRIC

3. Sample Traffic Reports/ Chain-Of-Custody Records

CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	2-1L A	1-500 ml P		P	P	2-1L A	2-1L A	

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW-1 + 13MW-2. JF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0 (Add'l 9-21-09)	ICP 6010B/3005A/6020 - thallium (Metals-Total) 500mL OK	7470A (Mercury-Total) pH	Cyanide 9014 pH 250 9012 Oxidize 3-31-09	Sulfide 9030B pH 500	Appdx 9 SV 8270C AL	Appdx 9 PEST 8081A AL	Appdx 9 PCBs 8082	
13MW1 ✓	4/14	0935	GW	3	X	X		X	X <2	X			X			0904103-01
13MW2 ✓	4/14	0815	GW	3	X	X		X	X <2	X			X			0904103-02
13MW3 ✓	4/13	1200	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-02
13MW4 ✓		1035	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-03
13MWDUP ✓		1050	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-04
13MW5 ✓		0850	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-01 USE FOR QC
13MW6 ✓	4/13	0740	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-05
13MW7 ✓	4/14	1050	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-06

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No

Describe problems, if any: 0.6°C, 1.9°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Teresa Goodnight	Date: 4/15/09	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Teresa Goodnight	Date: 4/15/09	#2 Received by (Signature): Lee A Sherman	Date: 4/15/09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM	

9 - Rdf 4-15-09
Compuchem 1615

1/10 JF 3.31.09

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

5/10

ANALYTICAL METHOD: SEE BELOW
TYPE METHOD: SEE BELOW
CLASS: TOTAL

WO# 0904103

Method SW 846-6010B 6020 OIC JU2 3.31.09

For: 13MW1 and 13MW2

No.	PARAMETER	CAS RN	Permit QL (ug/l)
1.	Antimony	7440-36-0	1
2.	Arsenic	7440-38-2	10
3.	Barium	7440-39-3	10
4.	Cadmium	7440-43-9	1
5.	Chromium	7440-47-3	5
6.	Lead	7440-92-1	1
7.	Nickel	7440-02-0	10
8.	Selenium	7782-49-2	10
9.	Silver	7440-22-4	2
10.	Zinc	7440-66-6	10

Method SW 7470A/CVAA

11.	Mercury	7439-97-6	2

.\\BBG-FILES\Projects\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 – JCF
Revised November, 2005 – new permit – JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

0904103

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904103** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 15:57

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

LCS/LCSD*APPIXSV=HWMU13SPC.SUB* 6020MTL=Sb,As,Ba,Cd,Cr,Pb,Ni,Se,Ag & Zn + Hg 7470*PERCHLORATE NEEDS 4 ug/L STD.*8330=HWMU13SP.SUB*8332= NITROGLYCERIN ONLY

Analysis	Due	TAT	Expires	Received	Comments
0904103-01 13MW1 [Water] Sampled 04/14/2009 09:35 Eastern					
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 09:35	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 09:35	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 09:35	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
0904103-02 13MW2 [Water] Sampled 04/14/2009 08:15 Eastern					
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 08:15	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 08:15	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 08:15	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	

B. Sample Data

1. Results
2. Quality Control Data
3. Raw Data
4. Digestion and Distillation Logs

LAB CODE : LIBRTY CONTRACT # : SW846

SDG # : 0904103

1. Results

Sample results shall be arranged in packets with the Inorganic Analysis Data Sheet [Form IA – IN and Form IB – IN]. These sample packets shall be placed in increasing alphanumeric EPA sample number order, considering both letters and numbers, and shall include all the samples in the SDG.

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MW1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix (soil/water): WATER Lab Sample ID: 0904103-01

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	1.1			MS
7440-38-2	Arsenic	0.24	B		MS
7440-39-3	Barium	120			MS
7440-43-9	Cadmium	0.038	B		MS
7440-47-3	Chromium	4.0	B		MS
7439-92-1	Lead	0.059	B		MS
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.4	B		MS
7782-49-2	Selenium	4.0	B		MS
7440-22-4	Silver	0.041	B		MS
7440-66-6	Zinc	1.9	B		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: UNIT 13

SW846 - METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
13MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix (soil/water): WATER Lab Sample ID: 0904103-02

Level (low/med): LOW Date Received: 4/15/2009

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.18	B		MS
7440-38-2	Arsenic	0.18	B		MS
7440-39-3	Barium	147			MS
7440-43-9	Cadmium	0.037	U		MS
7440-47-3	Chromium	1.9	B		MS
7439-92-1	Lead	0.049	B		MS
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.2	B		MS
7782-49-2	Selenium	0.57	B		MS
7440-22-4	Silver	0.020	U		MS
7440-66-6	Zinc	2.4	B		MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: UNIT 13

2. Quality Control (QC) Data

a. Initial and Continuing Calibration Verification
[Form IIA - IN]

b. CRQL Check Standard
[Form IIB - IN]

c. Blanks
[Form III - IN]

d. ICP-MS Interference Check Sample
[Form IVB - IN]

e. Matrix Spike Sample Recovery
[Form VA - IN]

f. Post Digest Spike Sample Recovery
[Form VB - IN]

g. Duplicates
[Form VI - IN]

h. Laboratory Control Sample
[Form VII - IN]

i. ICP-MS Serial Dilutions
[Form VIII - IN]

j. Method Detection Limits (Annually)
[Form IX - IN]

k. ICP-MS Linear Ranges (Quarterly)
[Form XI – IN]

l. Preparation Log
[Form XII - IN]

m. Analysis Run Log
[Form XIII - IN]

n. ICP-MS Tune
[Form XIV – IN]

o. ICP-MS Internal Standards Relative Intensity Summary
[Form XV – IN]

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Initial Calibration Source: EPA-0307

Continuing Calibration Source: HP615001

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Antimony	198.0	206.62	104	120.0	120.27	100	120.07	100	MS
Arsenic	199.0	202.23	102	120.0	118.01	98	120.23	100	MS
Barium	100.0	103.72	104	120.0	119.76	100	118.99	99	MS
Cadmium	99.0	100.42	101	120.0	118.42	99	118.72	99	MS
Chromium	98.0	100.86	103	120.0	119.07	99	119.54	100	MS
Lead	199.0	205.75	103	120.0	112.51	94	111.43	93	MS
Mercury	4.0	3.98	99.5	5.0	4.77	95.4	4.69	93.8	CV
Nickel	98.0	102.79	105	120.0	119.29	99	122.19	102	MS
Selenium	201.0	205.03	102	120.0	119.25	99	122.48	102	MS
Silver	99.0	102.09	103	120.0	119.75	100	121.45	101	MS
Zinc	200.0	206.83	103	120.0	119.81	100	123.35	103	MS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

SW846 - METALS

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Initial Calibration Source: EPA-0307

Continuing Calibration Source: HP615001

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.0	4.78	95.6	4.77	95.4	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

AA CRDL Standard Source: HP617816

ICP CRDL Standard Source: HP527008

Concentration Units: ug/L

Analyte	True	Found	%R	CRDL Standard for ICP Initial True	Initial Found	Initial %R	Final Found	Final %R
Antimony				2.0	1.94	97		
Arsenic				1.0	0.83	83		
Barium				10.0	8.32	83		
Cadmium				1.0	0.73	73		
Chromium				2.0	1.63	82		
Lead				1.0	0.76	76		
Mercury	0.2	0.14	70.0					
Nickel				1.0	0.85	85		
Selenium				5.0	3.93	79		
Silver				1.0	0.73	73		
Zinc				2.0	1.79	90		

Control Limits: no limits have been established by EPA at this time

SW846 - METALS

3

BLANKS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	0.138	B	0.711	B	0.744	B			0.205	B	MS
Arsenic	0.068	B	0.049	U	0.049	U			0.049	U	MS
Barium	0.027	U	0.027	U	0.027	U			0.027	U	MS
Cadmium	0.037	U	0.037	U	0.037	U			0.037	U	MS
Chromium	0.042	U	0.042	U	0.042	U			0.042	U	MS
Lead	0.020	U	0.020	U	0.020	U			0.020	U	MS
Mercury	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	CV
Nickel	0.041	U	0.041	U	0.041	U			0.041	U	MS
Selenium	0.153	B	0.140	U	0.140	U			0.140	U	MS
Silver	0.020	U	0.020	U	0.020	U			0.020	U	MS
Zinc	0.150	U	0.150	U	0.150	U			0.150	U	MS

SW846 - METALS

3

BLANKS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury			0.100	U							CV

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

ICP ID Number: PEMS ICS Source: EPA-803

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Antimony	2	22	1.3	20.2	92			
Arsenic	0	19	0.19	18.4	97			
Barium	1	22	1.4	21.5	98			
Cadmium	1	20	0.38	17.8	89			
Chromium	21	40	20.4	40.6	102			
Lead	4	25	4.0	23.7	95			
Nickel	6	24	6.1	24.2	101			
Selenium	0	19	0.23	18.5	97			
Silver	0	18	0.020	17.0	94			
Zinc	11	29	12.1	28.4	98			

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

Solid LCS Source: _____

Aqueous LCS Source: EPA-0307

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony	198.0	206.02	104						
Arsenic	199.0	204.34	103						
Barium	100.0	103.23	103						
Cadmium	99.0	100.18	101						
Chromium	98.0	100.65	103						
Lead	199.0	207.52	104						
Mercury	3.0	2.75	91.7						
Nickel	98.0	101.14	103						
Selenium	201.0	206.88	103						
Silver	99.0	103.61	105						
Zinc	200.0	207.84	104						

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

Solid LCS Source: _____

Aqueous LCS Source: EPA-0307

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony	198.0	204.82	103						
Arsenic	199.0	206.20	104						
Barium	100.0	102.13	102						
Cadmium	99.0	100.83	102						
Chromium	98.0	103.04	105						
Lead	199.0	209.78	105						
Mercury	3.0	2.73	91.0						
Nickel	98.0	103.45	106						
Selenium	201.0	209.98	104						
Silver	99.0	103.62	105						
Zinc	200.0	209.01	105						

9
ICP SERIAL DILUTIONS

SAMPLE NO.

13MW1L

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Antimony	1.06		2.04	B	92		MS
Arsenic	0.24	B	0.44	B	83		MS
Barium	119.61		117.32		2		MS
Cadmium	0.04	B	0.19	U	100.0		MS
Chromium	3.98	B	4.11	B	3		MS
Lead	0.06	B	0.10	U	100.0		MS
Nickel	2.37	B	2.52	B	6		MS
Selenium	3.99	B	3.90	B	2		MS
Silver	0.04	B	0.10	U	100.0		MS
Zinc	1.92	B	2.07	B	8		MS

9
ICP SERIAL DILUTIONS

SAMPLE NO.

13MW2L

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.10	U	0.50	U			CV

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

ICP ID Number: PEMS Date: 4/26/2009

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Isotope	Back-ground	CRQL (ug/L)	IDL (ug/L)	M
Antimony	121		1	0.110	MS
Arsenic	75		10	0.049	MS
Barium	137		10	0.027	MS
Cadmium	111		1	0.037	MS
Chromium	52		5	0.042	MS
Lead	208		1	0.020	MS
Nickel	60		10	0.041	MS
Selenium	82		10	0.140	MS
Silver	107		2	0.020	MS
Zinc	66		10	0.150	MS

Comments: _____

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

ICP ID Number: _____ Date: 4/15/2009

Flame AA ID Number: V4

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRQL (ug/L)	IDL (ug/L)	M
Mercury	253.70		2.00	0.10	CV

Comments: _____

SW846 - METALS

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

ICP ID Number: PEMS Date: 4/15/2009

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Antimony	0.200	3000.0	MS
Arsenic	1.500	4000.0	MS
Barium	0.500	3000.0	MS
Cadmium	0.200	4000.0	MS
Chromium	0.200	4000.0	MS
Lead	0.200	3000.0	MS
Nickel	0.300	3000.0	MS
Selenium	1.500	2000.0	MS
Silver	0.300	4000.0	MS
Zinc	0.300	3000.0	MS

Comments: _____

13

PREPARATION LOG

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

Method: MS

EPA Sample No.	Preparation Date		Volume (mL)
13MW1	4/22/2009		50.0
13MW2	4/22/2009		50.0
LCSW	4/22/2009		50.0
LCSWD	4/22/2009		50.0
PBW	4/22/2009		50.0

SW846 - METALS

13

PREPARATION LOG

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: 0904103

Method: CV

EPA Sample No.	Preparation Date		Volume (mL)
13MW1	4/22/2009		100.0
13MW2	4/22/2009		100.0
LCSW	4/22/2009		100.0
LCSWD	4/22/2009		100.0
PBW	4/22/2009		100.0

SW846 - METALS

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID Number: V4 Method: CV

Start Date: 4/23/2009 End Date: 4/23/2009

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1230																X								
S0.2	1.00	1232																X								
S0.5	1.00	1233																X								
S1	1.00	1235																X								
S5	1.00	1237																X								
S10	1.00	1239																X								
ICV	1.00	1241																X								
ICB	1.00	1243																X								
CRA	1.00	1245																X								
CCV	1.00	1247																X								
CCB	1.00	1249																X								
ZZZZZZ	1.00	1251																								
ZZZZZZ	1.00	1253																								
ZZZZZZ	1.00	1255																								
ZZZZZZ	1.00	1257																								
ZZZZZZ	1.00	1258																								
ZZZZZZ	1.00	1300																								
ZZZZZZ	1.00	1302																								
ZZZZZZ	1.00	1304																								
ZZZZZZ	1.00	1306																								
ZZZZZZ	1.00	1308																								
CCV	1.00	1310																X								
CCB	1.00	1312																X								
ZZZZZZ	1.00	1314																								
ZZZZZZ	1.00	1316																								
ZZZZZZ	1.00	1318																								
ZZZZZZ	1.00	1319																								
ZZZZZZ	1.00	1321																								
ZZZZZZ	1.00	1323																								
ZZZZZZ	1.00	1325																								
ZZZZZZ	1.00	1327																								
ZZZZZZ	1.00	1329																								
CCV	1.00	1331																X								
CCB	1.00	1333																X								
ZZZZZZ	1.00	1335																								
ZZZZZZ	1.00	1336																								
ZZZZZZ	1.00	1338																								
ZZZZZZ	1.00	1340																								

SW846 - METALS

14

ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID Number: V4 Method: CV

Start Date: 4/23/2009 End Date: 4/23/2009

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
PBW	1.00	1342																X								
LCSW	1.00	1344																X								
LCSWD	1.00	1346																X								
13MW1	1.00	1348																X								
13MW2	1.00	1350																X								
13MW2L	5.00	1352																X								
CCV	1.00	1354																X								
CCB	1.00	1356																X								

SW846 - METALS

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID Number: PEMS Method: MS

Start Date: 4/30/2009 End Date: 4/30/2009

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
TUNE	1.00	1200																										
S0	1.00	1359			X	X	X		X		X				X				X		X	X				X	
S2	1.00	1402			X	X	X		X		X				X				X		X	X				X	
S20	1.00	1404			X	X	X		X		X				X				X		X	X				X	
S200	1.00	1407			X	X	X		X		X				X				X		X	X				X	
ICV	1.00	1409			X	X	X		X		X				X				X		X	X				X	
ICB	1.00	1412			X	X	X		X		X				X				X		X	X				X	
CRI	1.00	1414			X	X	X		X		X				X				X		X	X				X	
ICSA	1.00	1417			X	X	X		X		X				X				X		X	X				X	
ICSAB	1.00	1419			X	X	X		X		X				X				X		X	X				X	
CCV	1.00	1422			X	X	X		X		X				X				X		X	X				X	
CCB	1.00	1425			X	X	X		X		X				X				X		X	X				X	
PBW	1.00	1427			X	X	X		X		X				X				X		X	X				X	
LCSW	1.00	1430			X	X	X		X		X				X				X		X	X				X	
LCSWD	1.00	1432			X	X	X		X		X				X				X		X	X				X	
13MW1	1.00	1435			X	X	X		X		X				X				X		X	X				X	
13MW1L	5.00	1437			X	X	X		X		X				X				X		X	X				X	
13MW2	1.00	1440			X	X	X		X		X				X				X		X	X				X	
CCV	1.00	1442			X	X	X		X		X				X				X		X	X				X	
CCB	1.00	1445			X	X	X		X		X				X				X		X	X				X	

SW846 - METALS

14 - IN

ICP-MS Tune

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ NRAS No.: _____ SDG NO.: 0904103

ICP-MS Instrument ID: PEMS Date: 04/30/2009

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	%RSD
Be_9	8.98	0.71	1.68
Mg_24	24.03	0.73	1.40
Mg_25	24.98	0.76	1.96
Mg_26	25.98	0.70	2.10
Co_59	58.93	0.69	1.08
In_113	112.83	0.73	0.82
In_115	114.88	0.73	0.41
Pb_206	205.98	0.69	0.51
Pb_207	206.98	0.69	0.41
Pb_208	207.98	0.71	0.53

Comments: _____

SW846 - METALS

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ NRAS No.: _____ SDG NO.: 0904103

ICP-MS Instrument ID: PEMS Start Date: 04/30/2009 End Date: 04/30/2009

Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Li_6	Q	Element Sc_45	Q	Element In_115	Q	Element Tb_159	Q	Element Bi_209	Q	Element	Q
S0	S0	1359	100		100		100		100		100			
S2	S2	1402	104		105		103		105		105			
S20	S20	1404	103		105		104		106		104			
S200	S200	1407	99		102		100		103		101			
ICV1	ICV	1409	93		96		95		96		95			
ICB1	ICB	1412	98		102		100		101		100			
CRDL1	CRI	1414	112		114		132	R	114		114			
ICS-A1	ICSA	1417	109		100		96		105		86			
ICS-AB1	ICSAB	1419	110		101		95		102		84			
CCV1	CCV	1422	107		104		102		104		104			
CCB1	CCB	1425	98		97		97		98		98			
9042029-BLK	PBW	1427	98		97		95		96		98			
9042029-BS1	LCSW	1430	97		96		94		95		95			
9042029-BSD	LCSWD	1432	96		93		93		96		95			
0904103-01	13MW1	1435	91		90		86		91		83			
0904103-01	13MW1L	1437	96		95		93		95		92			
0904103-02	13MW2	1440	87		87		83		88		77			
CCV2	CCV	1442	104		100		99		102		101			
CCB2	CCB	1445	100		97		96		96		98			

3. Raw Data

For each reported value, the laboratory shall include in the data package all raw data used to obtain that value. This applies to all required QA/QC measurements, instrument standardization, as well as all sample analysis results. This does not apply to the quarterly verification of method and instrument parameters submitted as a part of each data package.

Daily Instrument Profile

Detector Cross Cal: 03/09
Analog Voltage: 850
Pulse Voltage: 1850
Nebular Pressure: 0.89

Maintenance: _____
NONE

Printed: 5/4/2009

Method(s) (cirle one): ILM05.4 (SW-846 6020) _____

Operator(s): JCF **Date/Time** 043009/1357 to 043009/1753

Tune Date/Time 043009/1200

↑	Specified element(s) fail(s) high
↓	Specified element(s) fail(s) low
RR	Re-run sample(s) neat
RR #X	Re-run at a #-fold dilution
#X	Sample run at a #-fold dilution (aliquot of sample diluted with acidified water)
L	Matrix = leachate
W	Matrix = water
S	Matrix = solid
B	Matrix = biological tissue

SDG	Matrix	Comments
0904097	Water	Complete
0904103	Water	Complete
~~0904139~~	~~Soil~~	JCF 050409
0904139	Water	Complete
0904160	Soil	CL

ICP Run Log: PEMS

File Name: PEMSJCF043009

Sample ID	Client Id	Sample Type	Dilut	Date	Time	SDG	Action Needed
-TUN1	Tune	CALIB STD					
S0	S0	CALIB STD	1	04/30/09	13:59:27		
S2	S2	CALIB STD	1	04/30/09	14:02:00		
S20	S20	CALIB STD	1	04/30/09	14:04:33		
S200	S200	CALIB STD	1	04/30/09	14:07:06		
ICV	ICV	ICV	1	04/30/09	14:09:39		
ICB	ICB	ICB	1	04/30/09	14:12:13		
CRI	CRI	CRI	1	04/30/09	14:14:47		
ICSA	ICSA	ICS	1	04/30/09	14:17:20		
ICSAB	ICSAB	ICS	1	04/30/09	14:19:53		
CCV	CCV	CCV	1	04/30/09	14:22:26		
CCB	CCB	CCB	1	04/30/09	14:25:00		
9042029-BLK1	PBW	BLANK	1	04/30/09	14:27:34		
9042029-BS1	LCSW	LCS	1	04/30/09	14:30:06		

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5-4-9

ICP Run Log: PEMS

File Name: PEMSJCF043009

Sample ID	Client Id	Sample Type	Dilut	Date	Time	SDG	Action Needed
9042029-BSD1	LCSWD	LCS DUP	1	04/30/09	14:32:40		
0904103-01	13MW1	SAMPLE	1	04/30/09	14:35:13	0904103	
SDI0904103-01	SDI0904103-01	CALIB STD	5	04/30/09	14:37:46	0904103	
0904103-02	13MW2	SAMPLE	1	04/30/09	14:40:20	0904103	
CCV	CCV	CCV	1	04/30/09	14:42:55		
CCB	CCB	CCB	1	04/30/09	14:45:28		
9042037-BLK1	PBW	BLANK	1	04/30/09	14:53:14	0904103	
9042037-BS1	LCSW	LCS	1	04/30/09	14:55:47	0904103	
9042037-BSD1	LCSWD	LCS DUP	1	04/30/09	14:58:20	0904103	
0904097-01	7W9C	SAMPLE	1	04/30/09	15:00:54	0904097	
SDI0904097-01	SDI0904097-01	CALIB STD	5	04/30/09	15:03:27	0904097	
0904097-02	7W10B	SAMPLE	1	04/30/09	15:06:00	0904097	
0904097-03	7W10C	SAMPLE	1	04/30/09	15:08:34	0904097	
0904097-04	7W13	SAMPLE	1	04/30/09	15:11:07	0904097	
CCV	CCV	CCV	1	04/30/09	15:13:42		
CCB	CCB	CCB	1	04/30/09	15:16:15		
9042730-BLK1	PBW	BLANK	1	04/30/09	15:29:11	0904097	
9042730-BS1	LCSW	LCS	1	04/30/09	15:31:44	0904097	
9042730-BSD1	LCSWD	LCS DUP	1	04/30/09	15:34:17	0904097	
0904139-01	S5W5	SAMPLE	1	04/30/09	15:36:50	0904139	
SDI0904139-01	SDI0904139-01	CALIB STD	5	04/30/09	15:39:24	0904139	
0904139-02	S5W7	SAMPLE	1	04/30/09	15:41:57	0904139	
0904139-03	5W9A	SAMPLE	1	04/30/09	15:44:31	0904139	
0904139-04	5W10A	SAMPLE	1	04/30/09	15:47:04	0904139	
0904139-05	5W11A	SAMPLE	1	04/30/09	15:49:37	0904139	
CCV	CCV	CCV	1	04/30/09	15:52:12		
CCB	CCB	CCB	1	04/30/09	15:54:46		
9042701-BLK1	PBS	BLANK	1	04/30/09	17:16:02	0904139	
9042701-BS1	LCSS	LCS	5	04/30/09	17:18:35	0904139	
9042701-BSD1	LCSSD	LCS DUP	5	04/30/09	17:21:09	0904139	
CCV	CCV	CCV	1	04/30/09	17:23:44		
CCB	CCB	CCB	1	04/30/09	17:26:16		

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Reviewed By: _____ Date: 5-4-09

ICP Run Log: PEMS

File Name: PEMSJCF043009

Sample ID	Client Id	Sample Type	Dilut	Date	Time	SDG	Action Needed
0904160-01	MW-1A	SAMPLE	1	04/30/09	17:30:21	0904160	
SDI0904160-01	SDI0904160-01	CALIB STD	5	04/30/09	17:32:54	0904160	
0904160-02	MW-3A	SAMPLE	1	04/30/09	17:35:28	0904160	
0904160-03	MW-4	SAMPLE	1	04/30/09	17:38:01	0904160	
0904160-04	MW-5	SAMPLE	1	04/30/09	17:40:34	0904160	
0904160-05	MW-9	SAMPLE	1	04/30/09	17:43:08	0904160	
0904160-06	MW-10	SAMPLE	1	04/30/09	17:45:41	0904160	
0904160-07	MW-12	SAMPLE	1	04/30/09	17:48:14	0904160	
CCV	CCV	CCV	1	04/30/09	17:50:50		
CCB	CCB	CCB	1	04/30/09	17:53:24		

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 5.4.09

Standards/QC Preparation for ICP-MS (PEMS) 1 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

STANDARDS and REAGENTS TRACEABILITY Seq. File Name : PEMSJ4043009

STANDARD / REAGENT	Ref # *	Manufacturer	Lot #	Expiration Date
Nitric Acid (HNO3)	NHO3-D-091708-JCF	JT Baker	G17027	09/09
Hydrochloric Acid (HCl)	HCL-D-112508-JCF	Caledon	60544	11/09
ICP-MS-TS-3 (Tuning Soln)	7m1-40-15	High Purity	0801020	07/20/09
Q-6042-M (CAL Standard)	7m1-42-11	NSI	123008	01/10
ICV-1 (0307) multi-element solution	7M1-40-28	EPA	0307	08/09
SM-770-032 (CP-MS-CRQL-Rev multi-element solution)	7m1-41-13/8K07008	High Purity	0830418	10/31/09
ICSA (0803) multi-element solution	7M1-39-02	EPA	0803	07/09
ICSAB (0803) multi-element solution	7M1-39-03	EPA	0803	07/09
LITHIUM^{6} (Li^{6}) 1000 mg/L single element standard	7M1-40-13	High Purity	0712718	01/03/10
SCANDIUM (Sc) 1,000 mg/L single element standard	7m1-42-10/8L17019	High Purity	0801101	06/15/10
INDIUM (In) 1,000 mg/L single element standard	7m1-42-8/8L17017	High Purity	0808613	06/15/10
TERBIUM (Tb) 1,000 mg/L single element standard	7m1-42-9/8L17018	High Purity	0811919	06/15/10
BISMUTH (Bi) 1,000 mg/L single element standard	7m1-40-22	High Purity	0732309	01/23/10
TIN (Sn) 10 µg/ml single element standard	7M1-42-12	NSI	1020008-SN	10/10
MOLYBDENUM (Mo) 10 µg/ml single element standard	7M1-42-13	NSI	1020008-MO	10/10
Water Spike Sample D ICP-MS Matrix Spike multi-element solution	1m2-186-28	High Purity	0835021	12/17/09

Entered By: J. Feldhaus

Reviewed By: _____ Date: 5.4.9

*Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

10.12.07:jcf

Multi-Element Stock Standard Concentrations:

Stock Standard	Analyte Concentrations (µg/mL)
Tuning Solution	Be: 10 Mg: 10 Co: 10 In: 10 Pb: 10
CAL standard	Al: 1000 Sb: 100 As: 100 Ba: 100 Be: 100 B: 100 Cd: 100 Ca: 1000 Cr: 100 Co: 100 Cu: 100 Fe: 1000 Pb: 100 Mg: 1000 Mn: 100 Mo: 100 Ni: 100 K: 1000 Se: 100 Si: 100 Ag: 100 Na: 1000 Tl: 100 Ti: 100 V: 100 Zn: 100 Sn: 100 Sr: 100
CP-MS-CRQL-Rev multi-element solution	Be: 1 V: 5 Cr: 2 Mn: 1 Co: 1 Ni: 1 Cu: 2 Zn: 2 As: 1 Se: 5 Ag: 1 Cd: 1 Sb: 2 Ba: 10 Tl: 1 Pb: 1 Al: 30 Sn: 1 Mo: 1

Entered By: J. Feldhaus

Reviewed By: _____ Date: 5-4-9

10.12.07:jcf

Standards/QC Preparation for ICP-MS (PEMS) 3 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

Standard Lot Number *	Preparation Instructions	Resultant Analyte Conc. (µg/L)
Instrument Tune Solution– 02 1 3 0 9 – J F	Place in a 500-mLvolumetric flask: 0.5 mL of PRE-Tuning solution and 5 mL distilled nitric acid. Dilute to volume with deionized water	Li^7: 10 Be: 10 Mg: 10 Co: 10 In: 10 Ce: 10 Pb: 10 U: 10
Internal Standard– 04 06 0 9 – JCF	Place in a 100-mLvolumetric flask: 50 mL of deionized water , 1.0 mL of distilled nitric acid. Pipet: 2.0 ml of $Lithium^6$, 1.0 ml of Scandium, 1.0 ml of Indium, 1.0 ml of Terbium, and 1.0 ml of Bismuth. Dilute to volume with deionized water	Li^6: 20000 Sc: 10000 In: 10000 Tb: 10000 Bi: 10000
S0/ICB/CCB– 04 30 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1mL Internal Standard.Dilute to volume with deionized water. Prepare Daily.	Li^6: 200 Sc: 100 In: 100 Tb: 100 Bi: 100
S1– 04 27 0 9 – JCF SW-846	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.001 ml of CAL Standard and 0.040 mL of 100 ug/mL of Aluminum into flask. Dilute to volume with deionized water	Li^6: 200 Be: 1 Al: 50 Sc: 100 V: 1 Cr: 1 Mn: 1 Co: 1 Ni: 1 Cu: 1 Zn: 1 As: 1 Se: 1 Mo: 1 Ag: 1 Cd: 1 In: 100 Sn: 1 Sb: 1 Ba: 1 Tb: 100 Tl: 1 Pb: 1 Bi: 100
S2– 04 27 0 9 – JCF	Place in a 100-mL volumetric flask: Pipet 1.0 mL distilled nitric acid and 1 mL Internal Standard. 0.002 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 2 Sc: 100 V: 2 Cr: 2 Mn: 2 Co: 2 Ni: 2 Cu: 2 Zn: 2 As: 2 Se: 2 Mo: 2 Ag: 2 Cd: 2 In: 100 Sn: 2 Sb: 2 Ba: 2 Tb: 100 Tl: 2 Pb: 2 Bi: 100 Al: 20 Ca: 20 Na: 20 Mg: 20 Fe: 20 K: 20
S20–04 27 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.020 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 20 Al: 200 Sc: 100 V: 20 Cr: 20 Mn: 20 Co: 20 Ni: 20 Cu: 20 Zn: 20 As: 20 Se: 20 Mo: 20 Ag: 20 Cd: 20 In: 100 Sn: 20 Sb: 20 Ba: 20 Tb: 100 Tl: 20 Pb: 20 Bi: 100 Al: 200 Ca: 200 Na: 200 Mg: 200 Fe: 200 K: 200
S200–04 27 0 9 – JCF	Place in a 100-mL volumetric flask: 1 mL distilled nitric acid and 1 mL Internal Standard. Pipet 0.200 ml of CAL Standard into flask. Dilute to volume with deionized water	Li^6: 200 Be: 200 Al: 2000 Sc: 20 V: 200 Cr: 200 Mn: 200 Co: 200 Ni: 200 Cu: 200 Zn: 200 As: 200 Se: 200 Mo: 200 Ag: 200 Cd: 200 In: 20 Sn: 200 Sb: 200 Ba: 200 Tb: 20 Tl: 200 Pb: 200 Bi: 20 Al: 2000 Ca: 2000 Na: 2000 Mg: 2000 Fe: 2000 K: 2000

Standard Solutions Prepared By: _____

Entered By: J Feldhaus Date: 043009

Reviewed By: _____ Date: 5-4-09

*Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

10.12.07:jcf

Standards/QC Preparation for ICP-MS (PEMS) 4 of 4 CompuChem a division of Liberty Analytical Corp. WORKSHEET 1 Y(6) 1

Standard Lot Number *	Preparation Instructions	Resultant Analyte Conc. (µg/L)
ICV– 04 30 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid, and 2 mL Internal Standard. Pipet 4.0 ml of ICV (0307) multi-element solution, 2.2 ml of 10 µg/ml Molybdenum and 0.022 ml of 1000 µg/ml Tin into flask. Dilute to volume with deionized water. (Note: Tin must be from a source different than that used for the calibration standards)	Al: 504 Sb: 199 As: 200 Ba: 99 Be: 99 Ca: 2005 Cr: 98 Co: 100 Cu: 98 Fe: 1016 Pb: 200 Mg: 1215 Mn: 100 Ni: 101 K: 2004 Se: 206 Ag: 100 Na: 2019 Tl: 206 V: 100 Zn: 205 Cd: 99 Li^6: 200 Sc: 100 In: 100 Tb: 100 Bi: 100 Mo: 110 Sn: 110
CRI– 04 30 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 0.200 ml of CP-MS-CRQL, into flask. Dilute to volume with deionized water	Li^6: 200 Be: 1 Al: 30 Sc: 100 V: 5 Cr: 2 Mn: 1 Co: 1 Ni: 1 Cu: 2 Zn: 2 As: 1 Se: 5 Mo: 1 Ag: 1 Cd: 1 In: 100 Sn: 1 Sb: 2 Ba: 10 Tb: 100 Tl: 1 Pb: 1 Bi: 100
ICSA– 04 27 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 20.0 ml of ICS Part A (0803) into flask. Dilute to volume with deionized water.	Al: 100000 Sb: 1.5 As 0.1 Ba: 1.2 Be: 0 Cd: 0.7 Ca: 100000 C: 200000 Cl: 1000000 Cr: 21 Co: 1 Cu: 8 Fe: 10000 Pb: 4 Mg: 100000 Mn: 7 Mo: 2000 Ni: 6 P: 100000 K: 10000 Se: 0.3 Ag: 0 Na: 100000 S: 100000 Tl: 0 Ti: 2000 V: 0.5 Zn: 11
ICSAB– 04 27 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid and 2 mL Internal Standard. Pipet 20.0 ml of ICS Part A (0803) and 20.0 ml of ICS Part B (0803) and 0.400 ml of 10 µg/ml Tin into flask. Dilute to volume with deionized water.	Al: 100000 Sb: 22 As 19 Ba: 22 Be: 19 Cd: 20 Ca: 100000 C: 200000 Cl: 1000000 Cr: 40 Co: 20 Cu: 25 Fe: 10000 Pb: 25 Mg: 100000 Mn: 27 Mo: 2000 Ni: 24 P: 100000 K: 10000 Se: 19 Ag: 18 Na: 100000 S: 100000 Tl: 21 Ti: 2000 V: 19 Zn: 29
CCV– 04 30 0 9 – JCF	Place in a 200-mL volumetric flask: 2 mL distilled nitric acid, and 2 mL Internal Standard. Pipet 0.240 ml of CAL Standard. Dilute to volume with deionized water.	Li^6: 200 Be: 120 Sc: 100 V: 120 Cr: 120 Mn: 120 Co: 120 Ni: 120 Cu: 120 Zn: 120 As: 120 Se: 120 Mo: 120 Ag: 120 Cd: 120 In: 20 Sn: 120 Sb: 120 Ba: 120 Tb: 100 Tl: 120 Pb: 120 Bi: 100 Al: 1200 Na: 1200 Ca: 1200 K:1200 Mg: 1200 Fe 1200

Preparation Instructions for Dissolved Metals		Prepared By	Date
Preparation Blank	Use acidified deionized water (1% HNO_3).	NA	NA
Laboratory Control Sample	Add 0.200 ml of ICV multi-element solution and 0.100 ml Internal Standard to 9.7 ml of acidified deionized water.	NA	NA
Sample Spike	Add 0.100 ml Water Spike Sample D and 0.100 ml of Internal Standard to 9.8 ml of sample.	NA	NA

Standard Solutions Prepared By: _____

Entered By: J Feldhaus Date: 043007

Reviewed By: _____ Date: 5-4-09

*Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

10.12.07:jcf

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

ILM05.4 TUNING REPORT SUMMARY

Sample ID: TUNE

Sample Date/Time: Thursday, April 30, 2009 12:00:26
Sample Description: 100 PPB TUNING SOLN @ 10% Peak Height
Number of Replicates: 5
Sample File: C:\Elandata1\Sample\1203008.sam
Method File: C:\Elandata1\Method\ILM05.4\ILM05.4TUNE.mth
Dataset File: C:\Elandata\Dataset\Default\TUNE.2386

Tuning File

Analyte	Exact Mass	Measured Mass	Measured Peak Width
Be	9.012	9.025	0.711
Mg	23.985	23.975	0.758
Mg	24.986	25.025	0.777
Mg	25.983	26.075	0.705
Co	58.933	58.925	0.690
In	112.904	112.925	0.711
In	114.904	114.875	0.723
Pb	205.975	205.975	0.698
Pb	206.976	206.975	0.702
Pb	207.977	208.025	0.712

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD
Be	9	16450.483	1.677
Mg	24	131600.730	1.401
Mg	25	18860.775	1.958
Mg	26	22212.571	2.103
Co	59	407422.195	1.081
In	113	51532.899	0.820
In	115	1179633.946	0.414
Pb	206	466768.155	0.510
Pb	207	406599.898	0.414
Pb	208	1022102.775	0.533

RAW DATA

Replicate 1

Analyte	Mass	Meas. Intensity
Be	9	16907.681
Mg	24	131399.659
Mg	25	18691.452
Mg	26	21876.302
Co	59	414193.993
In	113	51996.543
In	115	1187184.515
Pb	206	469657.249

Pb	207	407658.072
Pb	208	1026550.025

Replicate 2

Analyte	Mass	Meas. Intensity
Be	9	16198.108
Mg	24	128775.249
Mg	25	18301.732
Mg	26	21568.034
Co	59	403045.224
In	113	51140.143
In	115	1177627.233
Pb	206	463232.748
Pb	207	405765.796
Pb	208	1018023.523

Replicate 3

Analyte	Mass	Meas. Intensity
Be	9	16437.699
Mg	24	132167.276
Mg	25	19107.037
Mg	26	22476.231
Co	59	404600.789
In	113	51541.205
In	115	1181778.896
Pb	206	467478.017
Pb	207	406134.937
Pb	208	1029277.349

Replicate 4

Analyte	Mass	Meas. Intensity
Be	9	16273.831
Mg	24	131775.557
Mg	25	18984.604
Mg	26	22476.832
Co	59	409142.696
In	113	51907.050
In	115	1176215.726
Pb	206	465938.401
Pb	207	404564.566
Pb	208	1017239.433

Replicate 5

Analyte	Mass	Meas. Intensity
Be	9	16435.095
Mg	24	133885.912
Mg	25	19219.051
Mg	26	22665.457
Co	59	406128.275
In	113	51079.554
In	115	1175363.361
Pb	206	467534.361
Pb	207	408876.118
Pb	208	1019423.545

ILM05.4 - Summary Report

Sample ID: S0

Sample Date/Time: Thursday, April 30, 2009 13:59:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\S0.2397

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	535849.729	2.362				ppb
	Be	9	2.000	100.000				ppb
	Na	23	31194.992	4.917				ppb
	Mg	24	5195.699	13.633				ppb
	Mg	25	687.024	13.596				ppb
	Mg	26	803.366	15.140				ppb
	Al	27	5436.501	15.528				ppb
	K	39	210855.104	2.104				ppb
	Ca	44	4779.813	7.746				ppb
>	Sc	45	673411.695	2.627				ppb
	Ti	47	51.667	22.349				ppb
	V	51	647.872	6.794				ppb
	Cr	52	2052.877	2.996				ppb
	Mn	55	238.336	7.943				ppb
	Fe	54	15852.556	0.794				ppb
	Fe	56	398874.319	1.732				ppb
	Fe	57	1706.812	2.440				ppb
	Co	59	65.334	15.408				ppb
	Ni	60	27.778	48.497				ppb
	Cu	63	421.120	12.091				ppb
	Cu	65	140.001	15.613				ppb
	Zn	66	186.668	7.143				ppb
	As	75	-3.064	450.682				ppb
	Se	82	19.333	13.793				ppb
	Mo	96	1026.720	15.412				ppb
	Ag	107	27.778	24.980				ppb
	Ag	109	42.222	43.481				ppb
	Cd	111	-9.063	35.396				ppb
	In	113	77910.675	0.887				ppb
>	In	115	1789253.960	1.797				ppb
	Sn	118	115.001	26.087				ppb
	Sb	121	370.007	10.203				ppb
	Ba	135	42.667	7.160				ppb
	Ba	137	70.667	4.323				ppb
>	Tb	159	3292631.176	1.497				ppb
	Tl	205	71.667	35.116				ppb
	Pb	206	48.333	26.034				ppb
	Pb	207	103.334	24.354				ppb
	Pb	208	180.001	10.015				ppb
>	Bi	209	2861322.147	0.416				ppb
	Cr	53	311.338	7.047				ppb
	Pd	106	0.000					ppb
	Pd	108	10.000	50.000				ppb
	C	12	314293.942	1.445				ppb
	Kr	83	18.000	29.397				ppb
	Se	77	28.889	17.474				ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	548102.131		ppb
	Be	9	4.000		ppb
	Na	23	32827.795		ppb
	Mg	24	5935.761		ppb
	Mg	25	775.030		ppb
	Mg	26	928.043		ppb
	Al	27	6201.923		ppb
	K	39	215840.486		ppb
	Ca	44	5195.349		ppb
>	Sc	45	691023.277		ppb
	Ti	47	45.000		ppb
	V	51	675.113		ppb
	Cr	52	2082.217		ppb
	Mn	55	260.003		ppb
	Fe	54	15707.326		ppb
	Fe	56	403915.920		ppb
	Fe	57	1740.151		ppb
	Co	59	56.000		ppb
	Ni	60	40.000		ppb
	Cu	63	476.678		ppb
	Cu	65	116.667		ppb
	Zn	66	200.002		ppb
	As	75	-13.132		ppb
	Se	82	19.333		ppb
	Mo	96	1200.072		ppb
	Ag	107	20.000		ppb
	Ag	109	23.333		ppb
	Cd	111	-11.095		ppb
	In	113	78375.940		ppb
>	In	115	1823172.183		ppb
	Sn	118	85.000		ppb
	Sb	121	330.005		ppb
	Ba	135	40.000		ppb
	Ba	137	70.000		ppb
>	Tb	159	3307650.401		ppb
	Tl	205	75.000		ppb
	Pb	206	60.000		ppb
	Pb	207	130.000		ppb
	Pb	208	195.001		ppb
>	Bi	209	2851718.564		ppb
	Cr	53	336.006		ppb
	Pd	106	0.000		ppb
	Pd	108	15.000		ppb
	C	12	319538.974		ppb
	Kr	83	14.000		ppb
	Se	77	34.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	536619.822		ppb
	Be	9	2.000		ppb
	Na	23	30972.892		ppb
	Mg	24	5127.314		ppb
	Mg	25	697.024		ppb
	Mg	26	797.032		ppb
	Al	27	5576.554		ppb
	K	39	209381.316		ppb
	Ca	44	4659.085		ppb
>	Sc	45	673570.778		ppb

	Ti	47	45.000		ppb
	V	51	597.093		ppb
	Cr	52	1982.196		ppb
	Mn	55	230.003		ppb
	Fe	54	15927.674		ppb
	Fe	56	401709.663		ppb
	Fe	57	1720.148		ppb
	Co	59	64.000		ppb
	Ni	60	13.333		ppb
	Cu	63	376.674		ppb
	Cu	65	160.001		ppb
	Zn	66	173.335		ppb
	As	75	12.680		ppb
	Se	82	22.000		ppb
	Mo	96	990.049		ppb
	Ag	107	33.333		ppb
	Ag	109	60.000		ppb
	Cd	111	-5.365		ppb
	In	113	78239.881		ppb
>	In	115	1759208.372		ppb
	Sn	118	145.001		ppb
	Sb	121	405.008		ppb
	Ba	135	46.000		ppb
	Ba	137	74.000		ppb
>	Tb	159	3332674.633		ppb
	Tl	205	45.000		ppb
	Pb	206	35.000		ppb
	Pb	207	100.000		ppb
	Pb	208	185.001		ppb
>	Bi	209	2857589.825		ppb
	Cr	53	294.004		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	311633.265		ppb
	Kr	83	24.000		ppb
	Se	77	26.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	522827.233		ppb
	Be	9	0.000		ppb
	Na	23	29784.289		ppb
	Mg	24	4524.023		ppb
	Mg	25	589.017		ppb
	Mg	26	685.023		ppb
	Al	27	4531.026		ppb
	K	39	207343.510		ppb
	Ca	44	4485.006		ppb
>	Sc	45	655641.030		ppb
	Ti	47	65.000		ppb
	V	51	671.411		ppb
	Cr	52	2094.219		ppb
	Mn	55	225.003		ppb
	Fe	54	15922.666		ppb
	Fe	56	390997.375		ppb
	Fe	57	1660.138		ppb
	Co	59	76.000		ppb
	Ni	60	30.000		ppb
	Cu	63	410.008		ppb
	Cu	65	143.334		ppb
	Zn	66	186.668		ppb
	As	75	-8.742		ppb
	Se	82	16.667		ppb

⌈	Mo	96	890.040	ppb
|	Ag	107	30.000	ppb
|	Ag	109	43.333	ppb
|	Cd	111	-10.730	ppb
|	In	113	77116.203	ppb
|>	In	115	1785381.324	ppb
⌊	Sn	118	115.001	ppb
⌈	Sb	121	375.007	ppb
|	Ba	135	42.000	ppb
|	Ba	137	68.000	ppb
⌊>	Tb	159	3237568.495	ppb
⌈	Tl	205	95.000	ppb
|	Pb	206	50.000	ppb
|	Pb	207	80.000	ppb
|	Pb	208	160.001	ppb
⌊>	Bi	209	2874658.051	ppb
	Cr	53	304.005	ppb
	Pd	106	0.000	ppb
	Pd	108	10.000	ppb
	C	12	311709.589	ppb
	Kr	83	16.000	ppb
	Se	77	25.333	ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S2

Sample Date/Time: Thursday, April 30, 2009 14:02:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\S2.2398

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	557109.735	4.064	557109.735			ppb
|	Be	9	551.349	2.360	0.001	2.00000	3.60	ppb
|	Na	23	85847.668	1.872	0.096	20.00000	5.36	ppb
|	Mg	24	46773.521	2.752	0.074	20.00000	3.88	ppb
|	Mg	25	6513.121	2.794	0.010	20.00000	2.21	ppb
|	Mg	26	7456.447	2.798	0.012	20.00000	4.36	ppb
|	Al	27	65218.707	2.032	0.107	20.00000	2.30	ppb
|	K	39	305552.069	1.717	0.155	20.00000	10.79	ppb
⌊	Ca	44	7586.211	2.895	0.005	20.00000	3.38	ppb
⌈>	Sc	45	709585.422	2.221	709585.422			ppb
|	Ti	47	825.034	5.845	0.001	2.00000	3.93	ppb
|	V	51	10948.737	0.534	0.014	2.00000	2.74	ppb
|	Cr	52	10939.982	1.427	0.012	2.00000	2.48	ppb
|	Mn	55	12856.598	3.057	0.018	2.00000	1.91	ppb
|	Fe	54	23409.072	4.591	0.009	20.00000	15.20	ppb
|	Fe	56	501961.946	0.752	0.115	20.00000	9.47	ppb
|	Fe	57	4367.621	2.875	0.004	20.00000	7.05	ppb
|	Co	59	11345.767	1.595	0.016	2.00000	0.96	ppb
|	Ni	60	2494.756	4.092	0.003	2.00000	1.95	ppb
|	Cu	63	6446.523	3.461	0.008	2.00000	5.33	ppb
|	Cu	65	3144.939	3.568	0.004	2.00000	2.79	ppb
|	Zn	66	1852.394	2.496	0.002	2.00000	4.72	ppb
|	As	75	1680.684	2.106	0.002	2.00000	2.72	ppb
⌊	Se	82	173.113	1.352	0.000	2.00000	1.07	ppb
⌈	Mo	96	3751.371	2.693	0.001	2.00000	0.62	ppb
|	Ag	107	11172.906	1.383	0.006	2.00000	1.79	ppb
|	Ag	109	10869.238	1.197	0.006	2.00000	2.26	ppb
|	Cd	111	2478.788	7.378	0.001	2.00000	7.10	ppb
|	In	113	82841.839	2.265	0.002	2.00000	13.41	ppb
|>	In	115	1835300.445	2.261	1835300.445			ppb
⌊	Sn	118	8028.222	1.532	0.004	2.00000	2.52	ppb
⌈	Sb	121	8451.905	2.819	0.002	2.00000	2.26	ppb
|	Ba	135	2452.301	1.882	0.001	2.00000	2.45	ppb
|	Ba	137	4209.553	1.181	0.001	2.00000	0.65	ppb
⌊>	Tb	159	3451375.715	0.754	3451375.715			ppb
⌈	Tl	205	38120.863	1.309	0.013	2.00000	1.58	ppb
|	Pb	206	13235.428	3.747	0.004	2.00000	4.00	ppb
|	Pb	207	24700.331	2.548	0.008	2.00000	2.76	ppb
|	Pb	208	40361.605	1.885	0.013	2.00000	1.91	ppb
⌊>	Bi	209	2994430.057	0.309	2994430.057			ppb
	Cr	53	1287.417	8.945	976.078			ppb
	Pd	106	181.668	5.729	181.668			ppb
	Pd	108	210.002	17.976	200.002			ppb
	C	12	317045.076	0.955	2751.133			ppb
	Kr	83	19.333	36.330	1.333			ppb
	Se	77	152.001	3.311	123.112			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	580952.966		ppb
	Be	9	552.015	1.918401	ppb
	Na	23	87477.953	19.241436	ppb
	Mg	24	48049.159	19.648147	ppb
	Mg	25	6723.259	19.763771	ppb
	Mg	26	7641.919	19.595687	ppb
	Al	27	66445.016	19.484222	ppb
	K	39	311317.659	18.326469	ppb
	Ca	44	7819.056	19.309282	ppb
>	Sc	45	726483.990		ppb
	Ti	47	880.039	2.090773	ppb
	V	51	10889.528	1.938340	ppb
	Cr	52	11080.135	1.972650	ppb
	Mn	55	13293.830	2.020367	ppb
	Fe	54	24254.378	20.831995	ppb
	Fe	56	506321.586	18.158244	ppb
	Fe	57	4380.959	19.295699	ppb
	Co	59	11554.672	1.989163	ppb
	Ni	60	2610.341	2.045054	ppb
	Cu	63	6418.726	1.939802	ppb
	Cu	65	3190.509	1.980953	ppb
	Zn	66	1840.169	1.932357	ppb
	As	75	1673.089	1.944243	ppb
	Se	82	175.335	1.975399	ppb
	Mo	96	3852.742	2.010725	ppb
	Ag	107	11336.422	1.982906	ppb
	Ag	109	10835.868	1.947983	ppb
	Cd	111	2434.232	1.919863	ppb
	In	113	84929.123	2.113157	ppb
>	In	115	1877774.909		ppb
	Sn	118	8118.294	1.975751	ppb
	Sb	121	8613.708	2.024549	ppb
	Ba	135	2448.300	1.981467	ppb
	Ba	137	4266.910	2.012527	ppb
>	Tb	159	3477056.012		ppb
	Tl	205	38308.236	2.008330	ppb
	Pb	206	13509.119	2.039896	ppb
	Pb	207	25165.909	2.036300	ppb
	Pb	208	41225.441	2.041506	ppb
>	Bi	209	2996603.637		ppb
	Cr	53	1416.100		ppb
	Pd	106	185.002		ppb
	Pd	108	170.001		ppb
	C	12	319691.742		ppb
	Kr	83	26.000		ppb
	Se	77	156.668		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	535898.650		ppb
	Be	9	538.014	2.027367	ppb
	Na	23	85799.505	21.226256	ppb
	Mg	24	46796.239	20.890214	ppb
	Mg	25	6410.054	20.509914	ppb
	Mg	26	7496.809	20.999799	ppb
	Al	27	63812.957	20.363606	ppb
	K	39	304282.000	22.435589	ppb
	Ca	44	7382.724	20.659233	ppb
>	Sc	45	695289.287		ppb

	Ti	47	790.031	1.952380	ppb
	V	51	10950.344	2.043356	ppb
	Cr	52	10968.012	2.057196	ppb
	Mn	55	12743.114	2.023624	ppb
	Fe	54	23773.225	22.537157	ppb
	Fe	56	499737.475	21.941514	ppb
	Fe	57	4486.006	21.623028	ppb
	Co	59	11240.314	2.022064	ppb
	Ni	60	2416.959	1.977733	ppb
	Cu	63	6682.232	2.123007	ppb
	Cu	65	3017.122	1.956173	ppb
	Zn	66	1903.514	2.107751	ppb
	As	75	1649.699	2.002958	ppb
	Se	82	170.668	2.013639	ppb
	Mo	96	3650.666	1.986484	ppb
	Ag	107	11152.883	2.041055	ppb
	Ag	109	10759.118	2.023832	ppb
	Cd	111	2322.290	1.916187	ppb
	In	113	81294.099	2.193175	ppb
>	In	115	1794872.913		ppb
	Sn	118	8078.262	2.058038	ppb
	Sb	121	8178.343	1.947939	ppb
	Ba	135	2500.313	2.055660	ppb
	Ba	137	4178.873	2.000731	ppb
>	Tb	159	3425039.351		ppb
	Tl	205	37555.388	1.964977	ppb
	Pb	206	12663.013	1.907949	ppb
	Pb	207	23984.418	1.936526	ppb
	Pb	208	39791.876	1.966369	ppb
>	Bi	209	3002396.961		ppb
	Cr	53	1252.078		ppb
	Pd	106	170.001		ppb
	Pd	108	245.003		ppb
	C	12	313741.677		ppb
	Kr	83	20.000		ppb
	Se	77	152.668		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	554477.587		ppb
	Be	9	564.016	2.054232	ppb
	Na	23	84265.545	19.532307	ppb
	Mg	24	45475.165	19.461639	ppb
	Mg	25	6406.051	19.726315	ppb
	Mg	26	7230.613	19.404515	ppb
	Al	27	65398.149	20.152173	ppb
	K	39	301056.548	19.237942	ppb
	Ca	44	7556.854	20.031485	ppb
>	Sc	45	706982.990		ppb
	Ti	47	805.032	1.956847	ppb
	V	51	11006.339	2.018304	ppb
	Cr	52	10771.798	1.970155	ppb
	Mn	55	12532.849	1.956009	ppb
	Fe	54	22199.614	16.630848	ppb
	Fe	56	499826.776	19.900242	ppb
	Fe	57	4235.897	19.081273	ppb
	Co	59	11242.316	1.988773	ppb
	Ni	60	2456.968	1.977212	ppb
	Cu	63	6238.612	1.937190	ppb
	Cu	65	3227.187	2.062874	ppb
	Zn	66	1813.498	1.959891	ppb
	As	75	1719.265	2.052798	ppb
	Se	82	173.335	2.010963	ppb

⌈	Mo	96	3750.703	2.002791	ppb
|	Ag	107	11029.412	1.976039	ppb
|	Ag	109	11012.727	2.028185	ppb
|	Cd	111	2679.842	2.163950	ppb
|	In	113	82302.295	1.693668	ppb
|>	In	115	1833253.512		ppb
⌊	Sn	118	7888.110	1.966211	ppb
⌈	Sb	121	8563.665	2.027512	ppb
|	Ba	135	2408.290	1.962873	ppb
|	Ba	137	4182.875	1.986742	ppb
⌊>	Tb	159	3452031.781		ppb
⌈	Tl	205	38498.966	2.026693	ppb
|	Pb	206	13534.152	2.052155	ppb
|	Pb	207	24950.666	2.027175	ppb
|	Pb	208	40067.498	1.992125	ppb
⌊>	Bi	209	2984289.574		ppb
	Cr	53	1194.071		ppb
	Pd	106	190.002		ppb
	Pd	108	215.002		ppb
	C	12	317701.808		ppb
	Kr	83	12.000		ppb
	Se	77	146.668		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6					
|	Be	9					
|	Na	23					
|	Mg	24					
|	Mg	25					
|	Mg	26					
|	Al	27					
|	K	39					
⌊	Ca	44					
⌈>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Mn	55					
|	Fe	54					
|	Fe	56					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
|	Cu	65					
|	Zn	66					
|	As	75					
⌊	Se	82					
⌈	Mo	96					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	In	113					
|>	In	115					
⌊	Sn	118					
⌈	Sb	121					
|	Ba	135					
|	Ba	137					
⌊>	Tb	159					
⌈	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
⌊>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S20

Sample Date/Time: Thursday, April 30, 2009 14:04:33
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\S20.2399

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	549575.505	1.814	549575.505			ppb
|	Be	9	5083.959	0.912	0.009	19.98675	1.04	ppb
|	Na	23	614195.300	1.370	1.060	200.18640	2.76	ppb
|	Mg	24	433147.662	0.120	0.779	200.09019	1.93	ppb
|	Mg	25	59869.701	1.208	0.108	200.06536	2.78	ppb
|	Mg	26	68648.207	1.807	0.123	200.07219	3.15	ppb
|	Al	27	607513.130	1.773	1.096	200.04637	2.49	ppb
|	K	39	1191534.730	0.318	1.775	200.24713	2.06	ppb
⌊	Ca	44	34043.186	1.052	0.053	200.22528	2.79	ppb
⌈>	Sc	45	703526.770	1.546	703526.770			ppb
|	Ti	47	7564.528	2.448	0.011	19.99671	2.44	ppb
|	V	51	100383.359	0.672	0.142	19.99582	1.24	ppb
|	Cr	52	89706.581	0.721	0.124	20.00120	1.47	ppb
|	Mn	55	123612.669	0.687	0.175	19.99745	1.69	ppb
|	Fe	54	83895.585	2.381	0.096	200.02438	1.06	ppb
|	Fe	56	1462346.604	0.631	1.487	200.44627	2.98	ppb
|	Fe	57	27868.787	1.766	0.037	200.04572	3.27	ppb
|	Co	59	109504.313	0.687	0.156	19.99572	1.72	ppb
|	Ni	60	24397.531	3.707	0.035	19.99939	2.24	ppb
|	Cu	63	59373.524	0.800	0.084	19.99794	0.75	ppb
|	Cu	65	28993.092	2.011	0.041	19.99403	1.56	ppb
|	Zn	66	15424.109	1.145	0.022	19.98446	0.41	ppb
|	As	75	16845.155	0.942	0.024	20.00176	0.93	ppb
⌊	Se	82	1657.248	0.536	0.002	20.01485	1.35	ppb
⌈	Mo	96	33424.435	0.646	0.017	20.03082	0.81	ppb
|	Ag	107	109032.323	0.905	0.059	19.99291	0.98	ppb
|	Ag	109	108340.421	0.942	0.058	19.99745	1.13	ppb
|	Cd	111	24934.835	3.179	0.013	19.99794	2.98	ppb
|	In	113	104786.230	1.526	0.013	19.95184	5.82	ppb
|>	In	115	1859030.654	0.204	1859030.654			ppb
⌊	Sn	118	79225.973	1.401	0.043	19.99739	1.29	ppb
⌈	Sb	121	84824.916	0.490	0.024	20.00771	0.57	ppb
|	Ba	135	23786.937	2.633	0.007	19.99589	2.22	ppb
|	Ba	137	41426.300	0.838	0.012	19.99871	0.57	ppb
⌊>	Tb	159	3473572.614	0.564	3473572.614			ppb
⌈	Tl	205	375440.664	1.557	0.126	19.99830	1.99	ppb
|	Pb	206	127423.482	1.491	0.043	19.99402	0.24	ppb
|	Pb	207	239508.132	0.854	0.080	19.99560	0.79	ppb
|	Pb	208	394836.400	0.279	0.132	19.99745	1.59	ppb
⌊>	Bi	209	2979977.055	1.633	2979977.055			ppb
	Cr	53	10627.646	1.933	10316.308			ppb
	Pd	106	2188.573	6.408	2188.573			ppb
	Pd	108	1738.485	3.710	1728.485			ppb
	C	12	314656.442	0.250	362.500			ppb
	Kr	83	18.667	12.372	0.667			ppb
	Se	77	1325.643	3.104	1296.755			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	561085.288		ppb
	Be	9	5133.317	19.764411	ppb
	Na	23	610574.884	194.578383	ppb
	Mg	24	432590.636	195.633679	ppb
	Mg	25	59298.295	193.958254	ppb
	Mg	26	67914.841	193.735625	ppb
	Al	27	607944.672	196.004501	ppb
	K	39	1193364.442	195.548582	ppb
	Ca	44	33883.307	194.291210	ppb
>	Sc	45	701056.815		ppb
	Ti	47	7748.000	20.556375	ppb
	V	51	99695.824	19.926067	ppb
	Cr	52	88974.066	19.902821	ppb
	Mn	55	124576.158	20.221563	ppb
	Fe	54	83628.228	200.126617	ppb
	Fe	56	1459981.561	200.917770	ppb
	Fe	57	28325.059	204.246360	ppb
	Co	59	110365.687	20.220870	ppb
	Ni	60	24429.804	20.100794	ppb
	Cu	63	59268.452	20.031598	ppb
	Cu	65	29409.850	20.354226	ppb
	Zn	66	15398.513	20.021230	ppb
	As	75	16714.804	19.915355	ppb
	Se	82	1664.805	20.176301	ppb
	Mo	96	33548.180	20.156049	ppb
	Ag	107	109445.658	20.115761	ppb
	Ag	109	109445.658	20.248728	ppb
	Cd	111	24027.311	19.316379	ppb
	In	113	102957.296	18.624937	ppb
>	In	115	1854673.664		ppb
	Sn	118	78577.513	19.880302	ppb
	Sb	121	84687.083	19.877292	ppb
	Ba	135	23920.576	20.011729	ppb
	Ba	137	41467.801	19.921404	ppb
>	Tb	159	3490528.795		ppb
	Tl	205	375359.975	20.366069	ppb
	Pb	206	125239.365	20.019418	ppb
	Pb	207	237187.496	20.171464	ppb
	Pb	208	394237.028	20.338133	ppb
>	Bi	209	2925135.314		ppb
	Cr	53	10617.634		ppb
	Pd	106	2035.207		ppb
	Pd	108	1810.164		ppb
	C	12	315479.075		ppb
	Kr	83	20.000		ppb
	Se	77	1296.751		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	544007.370		ppb
	Be	9	5041.270	20.019449	ppb
	Na	23	623815.774	205.630060	ppb
	Mg	24	433234.636	202.157600	ppb
	Mg	25	60682.562	204.849198	ppb
	Mg	26	70080.708	206.346091	ppb
	Al	27	618062.505	205.612040	ppb
	K	39	1194058.415	203.224886	ppb
	Ca	44	34453.249	205.402532	ppb
>	Sc	45	715422.658		ppb

	Ti	47	7567.863	19.669108	ppb
	V	51	101044.959	19.789256	ppb
	Cr	52	90200.984	19.768893	ppb
	Mn	55	123290.369	19.609769	ppb
	Fe	54	86013.331	202.088193	ppb
	Fe	56	1454531.412	194.252620	ppb
	Fe	57	27347.343	192.499607	ppb
	Co	59	109174.720	19.600624	ppb
	Ni	60	25285.260	20.387238	ppb
	Cu	63	59892.151	19.834466	ppb
	Cu	65	29242.694	19.829544	ppb
	Zn	66	15612.177	19.889770	ppb
	As	75	17021.796	19.873889	ppb
	Se	82	1659.471	19.702074	ppb
	Mo	96	33174.938	19.847153	ppb
	Ag	107	109745.585	20.095133	ppb
	Ag	109	108141.585	19.932199	ppb
	Cd	111	25286.404	20.251901	ppb
	In	113	105923.029	20.779551	ppb
>	In	115	1861664.742		ppb
	Sn	118	80507.776	20.292798	ppb
	Sb	121	85292.193	20.091927	ppb
	Ba	135	24335.575	20.432537	ppb
	Ba	137	41750.976	20.129569	ppb
>	Tb	159	3478086.973		ppb
	Tl	205	381324.389	20.052580	ppb
	Pb	206	128692.797	19.938014	ppb
	Pb	207	241045.427	19.868237	ppb
	Pb	208	394163.319	19.707936	ppb
>	Bi	209	3018062.319		ppb
	Cr	53	10837.870		ppb
	Pd	106	2310.267		ppb
	Pd	108	1720.148		ppb
	C	12	314579.388		ppb
	Kr	83	20.000		ppb
	Se	77	1372.761		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	543633.857		ppb
	Be	9	5077.289	20.176398	ppb
	Na	23	608195.240	200.350745	ppb
	Mg	24	433617.715	202.479289	ppb
	Mg	25	59628.248	201.388622	ppb
	Mg	26	67949.072	200.134864	ppb
	Al	27	596532.213	198.522556	ppb
	K	39	1187181.332	201.967908	ppb
	Ca	44	33793.002	200.982112	ppb
>	Sc	45	694100.836		ppb
	Ti	47	7377.721	19.764644	ppb
	V	51	100409.295	20.272128	ppb
	Cr	52	89944.691	20.331882	ppb
	Mn	55	122971.479	20.161007	ppb
	Fe	54	82045.196	197.858331	ppb
	Fe	56	1472526.841	206.168414	ppb
	Fe	57	27933.961	203.391192	ppb
	Co	59	108972.533	20.165673	ppb
	Ni	60	23477.527	19.510152	ppb
	Cu	63	58959.970	20.127751	ppb
	Cu	65	28326.730	19.798324	ppb
	Zn	66	15261.637	20.042391	ppb
	As	75	16798.865	20.216042	ppb
	Se	82	1647.469	20.166168	ppb

⌈	Mo	96	33550.186	20.089273	ppb
|	Ag	107	107905.725	19.767832	ppb
|	Ag	109	107434.020	19.811431	ppb
|	Cd	111	25490.791	20.425527	ppb
|	In	113	105478.366	20.451038	ppb
|>	In	115	1860753.556		ppb
⌊	Sn	118	78592.631	19.819063	ppb
⌈	Sb	121	84495.472	20.053898	ppb
|	Ba	135	23104.660	19.543417	ppb
|	Ba	137	41060.124	19.945170	ppb
⌊>	Tb	159	3452102.073		ppb
⌈	Tl	205	369637.629	19.576265	ppb
|	Pb	206	128338.285	20.024639	ppb
|	Pb	207	240291.472	19.947094	ppb
|	Pb	208	396108.853	19.946287	ppb
⌊>	Bi	209	2996733.532		ppb
	Cr	53	10427.434		ppb
	Pd	106	2220.246		ppb
	Pd	108	1685.142		ppb
	C	12	313910.865		ppb
	Kr	83	16.000		ppb
	Se	77	1307.419		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115					
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159					
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209					
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: S200

Sample Date/Time: Thursday, April 30, 2009 14:07:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\S200.2400

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	530571.245	2.065	530571.245			ppb
|	Be	9	50525.332	1.268	0.095	200.05668	1.53	ppb
|	Na	23	6045536.551	0.592	11.340	2001.32836	2.26	ppb
|	Mg	24	4239237.084	1.743	7.983	2000.50037	2.68	ppb
|	Mg	25	591656.867	1.440	1.114	2000.67642	2.80	ppb
|	Mg	26	678591.942	0.597	1.278	2000.68680	2.68	ppb
|	Al	27	6853842.768	0.202	12.912	2003.03909	2.25	ppb
|	K	39	11513667.168	0.681	21.315	2003.37075	2.80	ppb
⌊	Ca	44	298759.010	1.344	0.554	2000.88428	2.29	ppb
⌈>	Sc	45	689421.755	1.575	689421.755			ppb
|	Ti	47	77898.934	1.274	0.113	200.10888	1.42	ppb
|	V	51	1022210.970	0.477	1.482	200.08678	1.60	ppb
|	Cr	52	879490.966	0.607	1.273	200.04412	1.04	ppb
|	Mn	55	1227024.180	0.551	1.780	200.02898	1.97	ppb
|	Fe	54	685582.814	1.244	0.971	2000.29006	1.05	ppb
|	Fe	56	12780476.240	1.088	17.951	2003.47797	2.70	ppb
|	Fe	57	265393.994	0.603	0.382	2000.61031	1.77	ppb
|	Co	59	1099340.292	0.875	1.595	200.04842	1.66	ppb
|	Ni	60	243475.138	0.770	0.353	200.03891	1.93	ppb
|	Cu	63	575737.269	1.331	0.834	199.99200	0.33	ppb
|	Cu	65	283156.480	0.950	0.411	200.00181	0.68	ppb
|	Zn	66	151123.415	0.932	0.219	200.02102	1.06	ppb
|	As	75	170938.294	1.166	0.248	200.06848	1.19	ppb
⌊	Se	82	16153.481	0.706	0.023	200.01285	1.63	ppb
⌈	Mo	96	334990.302	1.157	0.186	200.13260	0.68	ppb
|	Ag	107	1082248.661	0.748	0.603	200.05504	0.28	ppb
|	Ag	109	1073604.275	1.552	0.598	200.05240	0.75	ppb
|	Cd	111	257125.951	0.498	0.143	200.12740	0.59	ppb
|	In	113	333755.115	0.831	0.142	200.19592	0.52	ppb
|>	In	115	1794289.142	0.825	1794289.142			ppb
⌊	Sn	118	784340.789	0.452	0.437	200.05266	0.82	ppb
⌈	Sb	121	845735.447	1.732	0.248	200.04315	1.26	ppb
|	Ba	135	235927.646	1.366	0.069	200.02703	0.65	ppb
|	Ba	137	413078.363	1.573	0.121	200.03750	0.76	ppb
⌊>	Tb	159	3403896.844	0.913	3403896.844			ppb
⌈	Tl	205	4067527.131	1.000	1.415	200.21978	1.90	ppb
|	Pb	206	1243292.380	1.671	0.433	200.02308	1.76	ppb
|	Pb	207	2352951.622	0.820	0.819	200.03669	1.12	ppb
|	Pb	208	4237456.987	0.813	1.474	200.20311	1.50	ppb
⌊>	Bi	209	2874303.004	1.011	2874303.004			ppb
	Cr	53	102737.726	0.376	102426.388			ppb
	Pd	106	21361.125	0.977	21361.125			ppb
	Pd	108	16588.766	4.435	16578.766			ppb
	C	12	318696.044	0.130	4402.101			ppb
	Kr	83	38.000	13.925	20.000			ppb
	Se	77	12688.268	1.280	12659.379			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	538994.565		ppb
	Be	9	51265.069	199.780019	ppb
	Na	23	6010782.057	1957.918229	ppb
	Mg	24	4175990.796	1939.232783	ppb
	Mg	25	582897.362	1939.529712	ppb
	Mg	26	676478.552	1962.520768	ppb
	Al	27	6852529.079	1970.722245	ppb
	K	39	11478887.562	1964.663059	ppb
	Ca	44	302758.800	1995.394996	ppb
>	Sc	45	699214.284		ppb
	Ti	47	77741.013	196.885166	ppb
	V	51	1019100.740	196.650382	ppb
	Cr	52	882529.091	197.897667	ppb
	Mn	55	1219416.190	195.964362	ppb
	Fe	54	687374.211	1976.741143	ppb
	Fe	56	12625155.262	1949.148731	ppb
	Fe	57	264045.580	1961.972394	ppb
	Co	59	1093915.703	196.243737	ppb
	Ni	60	241709.628	195.769874	ppb
	Cu	63	581711.194	199.231188	ppb
	Cu	65	285117.469	198.552269	ppb
	Zn	66	151410.985	197.573818	ppb
	As	75	171019.871	197.343903	ppb
	Se	82	16086.929	196.364318	ppb
	Mo	96	334022.928	198.809945	ppb
	Ag	107	1088652.477	200.489269	ppb
	Ag	109	1078310.138	200.190087	ppb
	Cd	111	256570.657	198.947585	ppb
	In	113	336234.212	201.157157	ppb
>	In	115	1800984.897		ppb
	Sn	118	781207.139	198.504773	ppb
	Sb	121	829514.589	197.214423	ppb
	Ba	135	235615.412	200.790201	ppb
	Ba	137	411643.659	200.371415	ppb
>	Tb	159	3386542.336		ppb
	Tl	205	4066216.694	201.492057	ppb
	Pb	206	1221166.734	197.790920	ppb
	Pb	207	2332003.111	199.593418	ppb
	Pb	208	4215626.686	200.508685	ppb
>	Bi	209	2854888.006		ppb
	Cr	53	102975.482		ppb
	Pd	106	21558.213		ppb
	Pd	108	16228.157		ppb
	C	12	318911.410		ppb
	Kr	83	44.000		ppb
	Se	77	12679.367		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	534534.467		ppb
	Be	9	50171.544	197.149833	ppb
	Na	23	6082241.814	1997.934905	ppb
	Mg	24	4320480.540	2023.176111	ppb
	Mg	25	599909.535	2012.878435	ppb
	Mg	26	676033.944	1977.613252	ppb
	Al	27	6840705.880	1983.747524	ppb
	K	39	11458666.861	1977.809152	ppb
	Ca	44	294728.160	1958.082603	ppb
>	Sc	45	691301.558		ppb

	Ti	47	78960.512	202.266279	ppb
	V	51	1027831.227	200.607838	ppb
	Cr	52	882616.308	200.188143	ppb
	Mn	55	1232357.901	200.311860	ppb
	Fe	54	693073.097	2016.905317	ppb
	Fe	56	12822695.657	2004.108416	ppb
	Fe	57	267161.726	2008.158706	ppb
	Co	59	1110447.539	201.489979	ppb
	Ni	60	245442.245	201.069106	ppb
	Cu	63	578400.534	200.365615	ppb
	Cu	65	284263.671	200.224397	ppb
	Zn	66	152365.317	201.099333	ppb
	As	75	172889.895	201.785209	ppb
	Se	82	16285.250	201.066296	ppb
	Mo	96	339256.769	201.532507	ppb
	Ag	107	1084947.035	199.410008	ppb
	Ag	109	1087403.598	201.477410	ppb
	Cd	111	258589.200	200.114512	ppb
	In	113	334269.981	199.106585	ppb
>	In	115	1804568.883		ppb
	Sn	118	788194.800	199.882773	ppb
	Sb	121	858009.880	200.833748	ppb
	Ba	135	239295.260	200.770119	ppb
	Ba	137	420173.661	201.358379	ppb
>	Tb	159	3439777.405		ppb
	Tl	205	4108827.015	203.217052	ppb
	Pb	206	1262396.309	204.080939	ppb
	Pb	207	2369968.677	202.457925	ppb
	Pb	208	4277150.172	203.048875	ppb
>	Bi	209	2860317.624		ppb
	Cr	53	102945.172		ppb
	Pd	106	21382.837		ppb
	Pd	108	17435.186		ppb
	C	12	318958.889		ppb
	Kr	83	36.000		ppb
	Se	77	12854.924		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	518184.703		ppb
	Be	9	50139.384	203.240183	ppb
	Na	23	6043585.782	2048.131934	ppb
	Mg	24	4221239.918	2039.092201	ppb
	Mg	25	592163.704	2049.621111	ppb
	Mg	26	683263.331	2061.926368	ppb
	Al	27	6868293.344	2054.647488	ppb
	K	39	11603447.080	2067.640025	ppb
	Ca	44	298790.070	2049.175250	ppb
>	Sc	45	677749.423		ppb
	Ti	47	76995.277	201.175185	ppb
	V	51	1019700.943	203.002134	ppb
	Cr	52	873327.499	202.046557	ppb
	Mn	55	1229298.449	203.810711	ppb
	Fe	54	676301.134	2007.223720	ppb
	Fe	56	12893577.799	2057.176757	ppb
	Fe	57	264974.676	2031.699834	ppb
	Co	59	1093657.633	202.411551	ppb
	Ni	60	243273.540	203.277745	ppb
	Cu	63	567100.078	200.379190	ppb
	Cu	65	280088.300	201.228771	ppb
	Zn	66	149593.944	201.389901	ppb
	As	75	168905.115	201.076319	ppb
	Se	82	16088.265	202.607940	ppb

⌈	Mo	96	331691.210	200.055341	ppb
|	Ag	107	1073146.472	200.265829	ppb
|	Ag	109	1055099.089	198.489700	ppb
|	Cd	111	256217.996	201.320096	ppb
|	In	113	330761.153	200.324013	ppb
|>	In	115	1777313.645		ppb
⌊	Sn	118	783620.429	201.770439	ppb
⌈	Sb	121	849681.873	202.081270	ppb
|	Ba	135	232872.267	198.520761	ppb
|	Ba	137	407417.770	198.382702	ppb
⌊>	Tb	159	3385370.790		ppb
⌈	Tl	205	4027537.683	195.950232	ppb
|	Pb	206	1246314.096	198.197376	ppb
|	Pb	207	2356883.076	198.058713	ppb
|	Pb	208	4219594.103	197.051783	ppb
⌊>	Bi	209	2907703.382		ppb
	Cr	53	102292.526		ppb
	Pd	106	21142.326		ppb
	Pd	108	16102.955		ppb
	C	12	318217.832		ppb
	Kr	83	34.000		ppb
	Se	77	12530.512		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6					
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45					
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115					
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159					
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209					
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICV

Sample Date/Time: Thursday, April 30, 2009 14:09:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\ICV.2401

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	495766.829	3.144	495766.829			ppb
	Be	9	24218.638	2.584	0.049	102.62200	1.31	ppb
	Na	23	5780693.958	0.224	11.609	2048.86682	2.90	ppb
	Mg	24	2453828.912	0.729	4.943	1238.77422	3.14	ppb
	Mg	25	342505.892	0.602	0.690	1238.85911	2.59	ppb
	Mg	26	394869.140	0.824	0.795	1245.17348	2.30	ppb
	Al	27	1684826.382	0.336	3.391	525.99707	3.29	ppb
	K	39	11020551.672	0.305	21.849	2053.52506	2.84	ppb
	Ca	44	272104.526	0.856	0.540	1949.95965	2.39	ppb
>	Sc	45	643101.445	0.138	643101.445			ppb
	Ti	47	40.000	33.072	-0.000	-0.02572	142.22	ppb
	V	51	485321.937	0.486	0.754	101.75832	0.36	ppb
	Cr	52	414636.288	0.314	0.642	100.85633	0.43	ppb
	Mn	55	590754.350	0.647	0.918	103.20112	0.67	ppb
	Fe	54	332160.099	1.030	0.493	1015.55894	1.18	ppb
	Fe	56	6400423.796	0.886	9.360	1044.69331	1.06	ppb
	Fe	57	125436.977	1.753	0.193	1006.98242	1.91	ppb
	Co	59	524508.627	0.899	0.816	102.29979	1.04	ppb
	Ni	60	116736.543	2.303	0.181	102.79011	2.43	ppb
	Cu	63	276353.575	1.261	0.429	102.83602	1.40	ppb
	Cu	65	134321.712	0.993	0.209	101.65318	1.11	ppb
	Zn	66	145773.734	0.698	0.226	206.82790	0.79	ppb
	As	75	161188.720	0.679	0.251	202.23003	0.82	ppb
	Se	82	15448.145	0.298	0.024	205.03165	0.41	ppb
	Mo	96	705.359	25.341	-0.000	-0.16871	67.36	ppb
	Ag	107	520744.574	1.593	0.308	102.08902	0.80	ppb
	Ag	109	520778.634	1.169	0.308	102.92325	0.68	ppb
	Cd	111	121641.318	0.603	0.072	100.42009	0.70	ppb
	In	113	195589.343	0.934	0.072	101.28781	2.47	ppb
>	In	115	1691760.150	1.163	1691760.150			ppb
	Sn	118	718.359	5.838	0.000	0.16488	5.90	ppb
	Sb	121	809632.537	0.643	0.257	206.61890	0.55	ppb
	Ba	135	113649.515	0.697	0.036	103.94182	0.66	ppb
	Ba	137	198541.155	1.443	0.063	103.72137	1.76	ppb
>	Tb	159	3155060.387	0.878	3155060.387			ppb
	Tl	205	4027064.235	1.522	1.489	210.58066	1.82	ppb
	Pb	206	1207202.365	2.639	0.446	206.29077	1.17	ppb
	Pb	207	2273400.160	2.217	0.840	205.30277	1.29	ppb
	Pb	208	4099486.879	1.176	1.515	205.75336	1.10	ppb
>	Bi	209	2705906.906	2.241	2705906.906			ppb
	Cr	53	48254.151	1.009	47942.813			ppb
	Pd	106	10163.498	2.557	10163.498			ppb
	Pd	108	7694.626	0.561	7684.626			ppb
	C	12	317400.502	1.484	3106.559			ppb
	Kr	83	35.333	35.948	17.333			ppb
	Se	77	12090.863	2.135	12061.974			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	513708.388		ppb
	Be	9	24854.850	101.623211	ppb
	Na	23	5794092.663	1980.352118	ppb
	Mg	24	2453240.997	1194.371765	ppb
	Mg	25	344508.826	1201.867329	ppb
	Mg	26	398619.625	1212.455527	ppb
	Al	27	1680834.000	506.016945	ppb
	K	39	11058701.395	1986.312642	ppb
	Ca	44	274455.301	1896.318478	ppb
>	Sc	45	642311.320		ppb
	Ti	47	55.000	0.015779	ppb
	V	51	484092.075	101.625430	ppb
	Cr	52	416138.059	101.348115	ppb
	Mn	55	593833.485	103.866716	ppb
	Fe	54	332295.793	1017.295086	ppb
	Fe	56	6414979.086	1048.580362	ppb
	Fe	57	127826.796	1027.681817	ppb
	Co	59	528181.909	103.142078	ppb
	Ni	60	119776.382	105.595051	ppb
	Cu	63	280064.308	104.345960	ppb
	Cu	65	134822.773	102.157468	ppb
	Zn	66	146907.895	208.694731	ppb
	As	75	162139.320	203.671355	ppb
	Se	82	15454.600	205.369368	ppb
	Mo	96	910.041	-0.038016	ppb
	Ag	107	524675.706	102.965976	ppb
	Ag	109	524254.452	103.713804	ppb
	Cd	111	121182.454	100.137823	ppb
	In	113	193499.157	99.699284	ppb
>	In	115	1690046.251		ppb
	Sn	118	745.028	0.172351	ppb
	Sb	121	806620.667	205.548625	ppb
	Ba	135	114410.768	104.484936	ppb
	Ba	137	201750.845	105.240499	ppb
>	Tb	159	3159613.797		ppb
	Tl	205	4052063.981	214.873127	ppb
	Pb	206	1202561.587	208.438295	ppb
	Pb	207	2273769.099	208.258229	ppb
	Pb	208	4060495.841	206.675306	ppb
>	Bi	209	2667787.003		ppb
	Cr	53	48798.776		ppb
	Pd	106	10440.447		ppb
	Pd	108	7732.989		ppb
	C	12	322318.061		ppb
	Kr	83	50.000		ppb
	Se	77	12314.244		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	488001.663		ppb
	Be	9	24197.240	104.146281	ppb
	Na	23	5779769.910	2080.033469	ppb
	Mg	24	2472016.112	1267.058172	ppb
	Mg	25	342621.622	1258.356141	ppb
	Mg	26	392789.599	1257.745266	ppb
	Al	27	1691302.457	536.083456	ppb
	K	39	11007745.228	2083.080888	ppb
	Ca	44	272061.197	1980.199159	ppb
>	Sc	45	642934.517		ppb

	Ti	47	30.000	-0.053272	ppb
	V	51	483835.024	101.472819	ppb
	Cr	52	413824.977	100.683961	ppb
	Mn	55	586472.577	102.479266	ppb
	Fe	54	335510.504	1026.562748	ppb
	Fe	56	6448459.278	1053.311888	ppb
	Fe	57	124986.227	1003.563490	ppb
	Co	59	526155.145	102.646646	ppb
	Ni	60	115762.863	101.956998	ppb
	Cu	63	275846.128	102.672336	ppb
	Cu	65	135332.929	102.444909	ppb
	Zn	66	144939.482	205.695226	ppb
	As	75	161434.540	202.589504	ppb
	Se	82	15490.655	205.649301	ppb
	Mo	96	626.020	-0.223883	ppb
	Ag	107	526343.338	101.954362	ppb
	Ag	109	524331.681	102.384502	ppb
	Cd	111	122487.103	99.904017	ppb
	In	113	196394.792	99.990356	ppb
>	In	115	1712239.365		ppb
	Sn	118	740.027	0.168399	ppb
	Sb	121	815645.455	206.502729	ppb
	Ba	135	113708.830	103.170907	ppb
	Ba	137	196238.774	101.701073	ppb
>	Tb	159	3180209.583		ppb
	Tl	205	4071923.434	207.521382	ppb
	Pb	206	1241129.837	206.749734	ppb
	Pb	207	2323626.437	204.540577	ppb
	Pb	208	4153408.394	203.175594	ppb
>	Bi	209	2775833.805		ppb
	Cr	53	48103.419		ppb
	Pd	106	10125.123		ppb
	Pd	108	7702.966		ppb
	C	12	316952.587		ppb
	Kr	83	28.000		ppb
	Se	77	12150.043		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485590.436		ppb
	Be	9	23603.824	102.096494	ppb
	Na	23	5768219.302	2086.214884	ppb
	Mg	24	2436229.627	1254.892710	ppb
	Mg	25	340387.227	1256.353850	ppb
	Mg	26	393198.195	1265.319638	ppb
	Al	27	1682342.689	535.890812	ppb
	K	39	10995208.393	2091.181638	ppb
	Ca	44	269797.080	1973.361324	ppb
>	Sc	45	644058.498		ppb
	Ti	47	35.000	-0.039660	ppb
	V	51	488038.711	102.176718	ppb
	Cr	52	413945.828	100.536907	ppb
	Mn	55	591956.988	103.257391	ppb
	Fe	54	328674.001	1002.818973	ppb
	Fe	56	6337833.025	1032.187670	ppb
	Fe	57	123497.907	989.701938	ppb
	Co	59	519188.827	101.110655	ppb
	Ni	60	114670.383	100.818295	ppb
	Cu	63	273150.290	101.489771	ppb
	Cu	65	132809.433	100.357152	ppb
	Zn	66	145473.824	206.093751	ppb
	As	75	159992.299	200.429236	ppb
	Se	82	15399.181	204.076269	ppb

⌈	Mo	96	580.017	-0.244228	ppb
|	Ag	107	511214.678	101.346730	ppb
|	Ag	109	513749.768	102.671458	ppb
|	Cd	111	121254.397	101.218422	ppb
|	In	113	196874.079	104.173793	ppb
| >	In	115	1672994.834		ppb
⌊	Sn	118	670.022	0.153887	ppb
⌈	Sb	121	806631.490	207.805357	ppb
|	Ba	135	112828.948	104.169626	ppb
|	Ba	137	197633.847	104.222550	ppb
⌊ >	Tb	159	3125357.780		ppb
⌈	Tl	205	3957205.290	209.347474	ppb
|	Pb	206	1177915.670	203.684287	ppb
|	Pb	207	2222804.944	203.109493	ppb
|	Pb	208	4084556.402	207.409194	ppb
⌊ >	Bi	209	2674099.908		ppb
	Cr	53	47860.257		ppb
	Pd	106	9924.923		ppb
	Pd	108	7647.923		ppb
	C	12	312930.856		ppb
	Kr	83	28.000		ppb
	Se	77	11808.301		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6			92.520		
Be	9	103.659				
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45			95.499		
Ti	47					
V	51	101.758				
Cr	52	102.915				
Mn	55	103.201				
Fe	54					
Fe	56					
Fe	57					
Co	59	102.300				
Ni	60	101.772				
Cu	63	104.935				
Cu	65	103.728				
Zn	66	100.892				
As	75	101.115				
Se	82	99.530				
Mo	96					
Ag	107	102.089				
Ag	109	102.923				
Cd	111	101.434				
In	113					
In	115			94.551		
Sn	118	0.165				
Sb	121	103.829				
Ba	135	104.992				
Ba	137	104.769				
Tb	159			95.822		
Tl	205	102.224				
Pb	206	103.145				
Pb	207	102.651				
Pb	208	102.877				
Bi	209			94.568		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Sn	118	ICV is out of control

ILM05.4 - Summary Report

Sample ID: ICB

Sample Date/Time: Thursday, April 30, 2009 14:12:13
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\ICB.2402

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	526182.697	2.828	526182.697			ppb
	Be	9	1.333	86.603	-0.000	-0.00256	179.29	ppb
	Na	23	23359.261	2.315	-0.014	-2.43804	5.53	ppb
	Mg	24	4142.859	3.072	-0.002	-0.45508	22.74	ppb
	Mg	25	575.017	3.619	-0.000	-0.33758	36.86	ppb
	Mg	26	687.690	3.983	-0.000	-0.29857	45.19	ppb
	Al	27	3397.251	13.418	-0.004	-0.57111	25.56	ppb
	K	39	209566.632	1.066	0.005	0.46158	141.10	ppb
	Ca	44	4590.390	7.018	-0.000	-0.72944	194.58	ppb
>	Sc	45	687023.417	0.568	687023.417			ppb
	Ti	47	43.333	13.323	-0.000	-0.02423	59.18	ppb
	V	51	622.569	8.380	-0.000	-0.00756	130.34	ppb
	Cr	52	2104.222	4.295	0.000	0.00224	897.05	ppb
	Mn	55	255.003	17.428	0.000	0.00193	373.23	ppb
	Fe	54	15921.003	2.604	-0.000	-0.75839	137.03	ppb
	Fe	56	394757.044	1.566	-0.018	-1.97671	56.46	ppb
	Fe	57	1570.124	5.899	-0.000	-1.30428	51.75	ppb
	Co	59	100.001	8.718	0.000	0.00609	27.68	ppb
	Ni	60	45.556	8.449	0.000	0.01419	22.25	ppb
	Cu	63	406.675	8.319	-0.000	-0.00805	136.83	ppb
	Cu	65	138.890	9.992	-0.000	-0.00282	334.53	ppb
	Zn	66	157.779	15.284	-0.000	-0.04342	73.93	ppb
	As	75	55.037	21.662	0.000	0.06828	20.20	ppb
	Se	82	32.000	15.729	0.000	0.15282	41.61	ppb
	Mo	96	320.005	5.728	-0.000	-0.42403	2.55	ppb
	Ag	107	113.334	7.782	0.000	0.01594	10.61	ppb
	Ag	109	133.334	34.731	0.000	0.01713	51.16	ppb
	Cd	111	1.667	173.205	0.000	0.00838	27.06	ppb
	In	113	77305.996	0.356	-0.000	-0.25590	176.82	ppb
>	In	115	1782858.646	0.411	1782858.646			ppb
	Sn	118	208.336	12.080	0.000	0.02408	27.41	ppb
	Sb	121	946.145	5.461	0.000	0.13826	8.08	ppb
	Ba	135	33.333	9.165	-0.000	-0.00852	30.23	ppb
	Ba	137	54.667	14.786	-0.000	-0.00833	46.97	ppb
>	Tb	159	3330643.952	0.580	3330643.952			ppb
	Tl	205	378.341	34.724	0.000	0.01522	42.32	ppb
	Pb	206	66.667	55.283	0.000	0.00297	198.53	ppb
	Pb	207	153.334	26.155	0.000	0.00432	79.30	ppb
	Pb	208	273.336	24.970	0.000	0.00450	74.15	ppb
>	Bi	209	2849683.539	1.019	2849683.539			ppb
	Cr	53	191.335	6.960	-120.003			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	0.000		-10.000			ppb
	C	12	312218.591	0.705	-2075.351			ppb
	Kr	83	28.667	14.523	10.667			ppb
	Se	77	35.556	29.308	6.667			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	543357.424		ppb
	Be	9	2.000	-0.000108	ppb
	Na	23	23845.396	-2.529221	ppb
	Mg	24	4049.820	-0.562084	ppb
	Mg	25	551.015	-0.481263	ppb
	Mg	26	658.022	-0.451202	ppb
	Al	27	3240.525	-0.648718	ppb
	K	39	212142.606	-0.288308	ppb
	Ca	44	4931.216	0.560913	ppb
>	Sc	45	687459.805		ppb
	Ti	47	40.000	-0.032851	ppb
	V	51	575.499	-0.016868	ppb
	Cr	52	2006.201	-0.020462	ppb
	Mn	55	305.005	0.010086	ppb
	Fe	54	16238.173	0.164567	ppb
	Fe	56	401673.243	-0.896512	ppb
	Fe	57	1480.110	-1.995789	ppb
	Co	59	94.000	0.004982	ppb
	Ni	60	50.000	0.017831	ppb
	Cu	63	413.342	-0.005774	ppb
	Cu	65	150.001	0.005017	ppb
	Zn	66	130.001	-0.080480	ppb
	As	75	43.519	0.054747	ppb
	Se	82	36.667	0.210452	ppb
	Mo	96	336.006	-0.414071	ppb
	Ag	107	106.667	0.014724	ppb
	Ag	109	103.334	0.011518	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	77534.419	0.012506	ppb
>	In	115	1780249.208		ppb
	Sn	118	235.003	0.031001	ppb
	Sb	121	999.281	0.149639	ppb
	Ba	135	34.000	-0.008123	ppb
	Ba	137	62.000	-0.004887	ppb
>	Tb	159	3351677.115		ppb
	Tl	205	230.003	0.007901	ppb
	Pb	206	80.000	0.005200	ppb
	Pb	207	195.001	0.007935	ppb
	Pb	208	335.003	0.007458	ppb
>	Bi	209	2843171.462		ppb
	Cr	53	200.002		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	314738.272		ppb
	Kr	83	32.000		ppb
	Se	77	46.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	518014.201		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	23455.476	-2.283138	ppb
	Mg	24	4287.919	-0.355510	ppb
	Mg	25	588.017	-0.263919	ppb
	Mg	26	712.025	-0.195237	ppb
	Al	27	3910.765	-0.402733	ppb
	K	39	208174.510	0.787014	ppb
	Ca	44	4549.034	-0.499521	ppb
>	Sc	45	690686.139		ppb

	Ti	47	50.000	-0.007676	ppb
	V	51	678.665	0.002771	ppb
	Cr	52	2184.239	0.017909	ppb
	Mn	55	240.003	-0.000724	ppb
	Fe	54	16072.907	-0.555684	ppb
	Fe	56	389765.663	-3.125317	ppb
	Fe	57	1665.139	-0.647167	ppb
	Co	59	96.000	0.005265	ppb
	Ni	60	43.333	0.012172	ppb
	Cu	63	436.676	0.001649	ppb
	Cu	65	143.334	-0.000182	ppb
	Zn	66	173.335	-0.023970	ppb
	As	75	67.325	0.082317	ppb
	Se	82	26.667	0.084597	ppb
	Mo	96	324.005	-0.422508	ppb
	Ag	107	110.001	0.015221	ppb
	Ag	109	110.001	0.012645	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	77000.315	-0.778317	ppb
>	In	115	1791130.489		ppb
	Sn	118	185.002	0.017857	ppb
	Sb	121	943.076	0.137839	ppb
	Ba	135	36.000	-0.006167	ppb
	Ba	137	46.000	-0.012587	ppb
>	Tb	159	3326606.022		ppb
	Tl	205	425.009	0.017744	ppb
	Pb	206	25.000	-0.003718	ppb
	Pb	207	115.000	0.001125	ppb
	Pb	208	285.002	0.005160	ppb
>	Bi	209	2824440.578		ppb
	Cr	53	198.002		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	310667.914		ppb
	Kr	83	30.000		ppb
	Se	77	26.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	517176.467		ppb
	Be	9	2.000	0.000283	ppb
	Na	23	22776.910	-2.501759	ppb
	Mg	24	4090.837	-0.447651	ppb
	Mg	25	586.017	-0.267562	ppb
	Mg	26	693.024	-0.249270	ppb
	Al	27	3040.462	-0.661894	ppb
	K	39	208382.781	0.886046	ppb
	Ca	44	4290.920	-2.249704	ppb
>	Sc	45	682924.307		ppb
	Ti	47	40.000	-0.032166	ppb
	V	51	613.542	-0.008596	ppb
	Cr	52	2122.225	0.009286	ppb
	Mn	55	220.002	-0.003571	ppb
	Fe	54	15451.929	-1.884060	ppb
	Fe	56	392832.225	-1.908304	ppb
	Fe	57	1565.122	-1.269877	ppb
	Co	59	110.001	0.008035	ppb
	Ni	60	43.333	0.012576	ppb
	Cu	63	370.007	-0.020024	ppb
	Cu	65	123.334	-0.013300	ppb
	Zn	66	170.001	-0.025823	ppb
	As	75	54.267	0.067784	ppb
	Se	82	32.667	0.163426	ppb

⌈	Mo	96	300.005	-0.435504	ppb
|	Ag	107	123.334	0.017869	ppb
|	Ag	109	186.668	0.027230	ppb
|	Cd	111	5.000	0.011002	ppb
|	In	113	77383.254	-0.001884	ppb
| >	In	115	1777196.239		ppb
⌊	Sn	118	205.002	0.023379	ppb
⌈	Sb	121	896.077	0.127307	ppb
|	Ba	135	30.000	-0.011271	ppb
|	Ba	137	56.000	-0.007522	ppb
⌊ >	Tb	159	3313648.719		ppb
⌈	Tl	205	480.012	0.020024	ppb
|	Pb	206	95.000	0.007435	ppb
|	Pb	207	150.001	0.003896	ppb
|	Pb	208	200.001	0.000883	ppb
⌊ >	Bi	209	2881438.579		ppb
	Cr	53	176.002		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	311249.589		ppb
	Kr	83	24.000		ppb
	Se	77	34.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.196			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		102.021			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		99.643			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		101.154			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		99.593			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CRI

Sample Date/Time: Thursday, April 30, 2009 14:14:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CRI.2403

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	600786.603	1.990	600786.603			ppb
	Be	9	246.670	19.021	0.000	0.85267	17.12	ppb
	Na	23	22735.485	1.127	-0.020	-3.59454	2.82	ppb
	Mg	24	2623.011	3.809	-0.005	-1.33602	1.78	ppb
	Mg	25	378.341	7.260	-0.001	-1.17213	5.13	ppb
	Mg	26	426.342	5.119	-0.001	-1.23590	4.86	ppb
	Al	27	86416.800	0.731	0.134	20.74622	2.27	ppb
	K	39	205446.397	0.903	-0.051	-4.83901	7.16	ppb
	Ca	44	4491.011	5.949	-0.001	-5.22773	21.81	ppb
>	Sc	45	769469.857	1.811	769469.857			ppb
	Ti	47	30.000	16.667	-0.000	-0.06672	18.99	ppb
	V	51	24658.977	1.636	0.031	4.19698	0.72	ppb
	Cr	52	10313.986	2.808	0.010	1.62735	1.36	ppb
	Mn	55	6316.996	3.438	0.008	0.88285	2.86	ppb
	Fe	54	17473.589	1.758	-0.001	-1.71225	28.05	ppb
	Fe	56	394847.650	0.008	-0.079	-8.82443	11.68	ppb
	Fe	57	1651.803	3.237	-0.000	-2.02758	18.36	ppb
	Co	59	5296.069	2.766	0.007	0.85117	1.59	ppb
	Ni	60	1193.405	5.946	0.002	0.85474	4.64	ppb
	Cu	63	5931.759	1.934	0.007	1.69777	1.93	ppb
	Cu	65	2741.487	3.779	0.003	1.63483	4.52	ppb
	Zn	66	1722.371	4.758	0.002	1.79316	7.27	ppb
	As	75	790.264	7.597	0.001	0.83195	6.49	ppb
	Se	82	375.785	4.566	0.000	3.92751	3.97	ppb
	Mo	96	1673.473	2.153	0.000	0.14636	13.69	ppb
	Ag	107	5221.363	1.277	0.002	0.72949	1.24	ppb
	Ag	109	5210.246	1.460	0.002	0.73116	1.87	ppb
	Cd	111	1228.273	5.489	0.001	0.73466	5.41	ppb
	In	113	89986.437	1.209	-0.005	-7.55047	2.65	ppb
>	In	115	2357439.713	0.836	2357439.713			ppb
	Sn	118	3980.792	2.057	0.002	0.74353	2.62	ppb
	Sb	121	9457.805	1.728	0.002	1.94059	2.53	ppb
	Ba	135	10753.112	0.547	0.003	8.23741	1.23	ppb
	Ba	137	19011.389	1.144	0.005	8.32040	0.98	ppb
>	Tb	159	3751283.784	0.862	3751283.784			ppb
	Tl	205	17244.862	2.463	0.005	0.74562	2.16	ppb
	Pb	206	6617.190	2.637	0.002	0.93182	2.27	ppb
	Pb	207	11633.449	3.281	0.004	0.86409	2.88	ppb
	Pb	208	18333.455	0.741	0.006	0.75598	0.48	ppb
>	Bi	209	3256333.359	0.450	3256333.359			ppb
	Cr	53	1123.396	3.342	812.058			ppb
	Pd	106	100.001	10.000	100.001			ppb
	Pd	108	66.667	15.613	56.667			ppb
	C	12	325299.888	0.836	11005.946			ppb
	Kr	83	21.333	30.136	3.333			ppb
	Se	77	319.338	2.960	290.450			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	614229.838		ppb
	Be	9	298.004	1.011276	ppb
	Na	23	22869.120	-3.703429	ppb
	Mg	24	2714.368	-1.322481	ppb
	Mg	25	410.008	-1.103569	ppb
	Mg	26	422.009	-1.271505	ppb
	Al	27	86593.304	20.296598	ppb
	K	39	207512.971	-5.230819	ppb
	Ca	44	4737.122	-4.359654	ppb
>	Sc	45	785175.597		ppb
	Ti	47	25.000	-0.079536	ppb
	V	51	25117.913	4.189190	ppb
	Cr	52	10625.642	1.647835	ppb
	Mn	55	6427.065	0.880184	ppb
	Fe	54	17720.687	-2.001583	ppb
	Fe	56	394823.386	-9.985929	ppb
	Fe	57	1680.141	-2.064748	ppb
	Co	59	5455.488	0.859427	ppb
	Ni	60	1270.081	0.892812	ppb
	Cu	63	6028.483	1.690174	ppb
	Cu	65	2710.367	1.580401	ppb
	Zn	66	1630.133	1.643445	ppb
	As	75	827.161	0.853640	ppb
	Se	82	384.674	3.941324	ppb
	Mo	96	1672.140	0.138934	ppb
	Ag	107	5221.363	0.722984	ppb
	Ag	109	5224.698	0.726608	ppb
	Cd	111	1207.454	0.715999	ppb
	In	113	91133.381	-7.345829	ppb
>	In	115	2378461.934		ppb
	Sn	118	3910.765	0.723148	ppb
	Sb	121	9269.294	1.885153	ppb
	Ba	135	10769.796	8.188457	ppb
	Ba	137	18975.987	8.243076	ppb
>	Tb	159	3779221.261		ppb
	Tl	205	17059.539	0.741133	ppb
	Pb	206	6497.110	0.919220	ppb
	Pb	207	11308.267	0.843800	ppb
	Pb	208	18260.195	0.756561	ppb
>	Bi	209	3240884.493		ppb
	Cr	53	1146.066		ppb
	Pd	106	100.001		ppb
	Pd	108	55.000		ppb
	C	12	324267.592		ppb
	Kr	83	24.000		ppb
	Se	77	308.671		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	596785.686		ppb
	Be	9	236.003	0.822834	ppb
	Na	23	22897.184	-3.503055	ppb
	Mg	24	2638.348	-1.322033	ppb
	Mg	25	361.007	-1.215968	ppb
	Mg	26	450.010	-1.166610	ppb
	Al	27	85715.792	20.707769	ppb
	K	39	204901.952	-4.713880	ppb
	Ca	44	4529.025	-4.804595	ppb
>	Sc	45	758591.592		ppb

	Ti	47	35.000	-0.054199	ppb
	V	51	24498.459	4.230298	ppb
	Cr	52	10053.051	1.603738	ppb
	Mn	55	6066.840	0.859054	ppb
	Fe	54	17129.659	-1.977284	ppb
	Fe	56	394833.785	-8.017634	ppb
	Fe	57	1685.142	-1.638037	ppb
	Co	59	5265.386	0.858535	ppb
	Ni	60	1180.070	0.857713	ppb
	Cu	63	5961.777	1.733582	ppb
	Cu	65	2657.020	1.605073	ppb
	Zn	66	1750.153	1.854452	ppb
	As	75	720.989	0.770504	ppb
	Se	82	356.006	3.765097	ppb
	Mo	96	1638.134	0.131098	ppb
	Ag	107	5288.064	0.739792	ppb
	Ag	109	5127.981	0.720350	ppb
	Cd	111	1303.647	0.780267	ppb
	In	113	89856.907	-7.559604	ppb
>	In	115	2354495.933		ppb
	Sn	118	4070.828	0.761924	ppb
	Sb	121	9544.553	1.978496	ppb
	Ba	135	10801.831	8.353544	ppb
	Ba	137	18813.681	8.312160	ppb
>	Tb	159	3715887.462		ppb
	Tl	205	17730.705	0.763532	ppb
	Pb	206	6817.323	0.956238	ppb
	Pb	207	12053.694	0.891903	ppb
	Pb	208	18490.148	0.759291	ppb
>	Bi	209	3270032.970		ppb
	Cr	53	1080.058		ppb
	Pd	106	110.001		ppb
	Pd	108	75.000		ppb
	C	12	323247.346		ppb
	Kr	83	26.000		ppb
	Se	77	322.672		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	591344.284		ppb
	Be	9	206.002	0.723911	ppb
	Na	23	22440.150	-3.577150	ppb
	Mg	24	2516.317	-1.363555	ppb
	Mg	25	364.007	-1.196864	ppb
	Mg	26	407.008	-1.269591	ppb
	Al	27	86941.304	21.234301	ppb
	K	39	203924.269	-4.572332	ppb
	Ca	44	4206.885	-6.518931	ppb
>	Sc	45	764642.382		ppb
	Ti	47	30.000	-0.066433	ppb
	V	51	24360.559	4.171446	ppb
	Cr	52	10263.264	1.630465	ppb
	Mn	55	6457.084	0.909300	ppb
	Fe	54	17570.422	-1.157883	ppb
	Fe	56	394885.778	-8.469733	ppb
	Fe	57	1590.126	-2.379941	ppb
	Co	59	5167.335	0.835559	ppb
	Ni	60	1130.064	0.813701	ppb
	Cu	63	5805.018	1.669547	ppb
	Cu	65	2857.075	1.719031	ppb
	Zn	66	1786.826	1.881588	ppb
	As	75	822.641	0.871695	ppb
	Se	82	386.674	4.076103	ppb

⌈	Mo	96	1710.146	0.169038	ppb
|	Ag	107	5154.662	0.725697	ppb
|	Ag	109	5278.059	0.746512	ppb
|	Cd	111	1173.718	0.707710	ppb
|	In	113	88969.022	-7.745987	ppb
|>	In	115	2339361.273		ppb
⌊	Sn	118	3960.784	0.745513	ppb
⌈	Sb	121	9559.567	1.958124	ppb
|	Ba	135	10687.708	8.170234	ppb
|	Ba	137	19244.500	8.405958	ppb
⌊>	Tb	159	3758742.630		ppb
⌈	Tl	205	16944.343	0.732201	ppb
|	Pb	206	6537.136	0.920007	ppb
|	Pb	207	11538.386	0.856558	ppb
|	Pb	208	18250.021	0.752099	ppb
⌊>	Bi	209	3258082.614		ppb
	Cr	53	1144.065		ppb
	Pd	106	90.000		ppb
	Pd	108	70.000		ppb
	C	12	328384.727		ppb
	Kr	83	14.000		ppb
	Se	77	326.672		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			112.118		
	Be	9	85.267				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			114.264		
	Ti	47					
	V	51	83.940				
	Cr	52	81.367				
	Mn	55	88.285				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	85.117				
	Ni	60	85.474				
	Cu	63	84.888				
	Cu	65	81.742				
	Zn	66	89.658				
	As	75	83.195				
	Se	82	78.550				
	Mo	96					
	Ag	107	72.949				
	Ag	109	73.116				
	Cd	111	73.466				
	In	113					
>	In	115			131.755		
	Sn	118	74.353				
	Sb	121	97.030				
	Ba	135	82.374				
	Ba	137	83.204				
>	Tb	159			113.930		
	Tl	205	74.562				
	Pb	206	93.182				
	Pb	207	86.409				
	Pb	208	75.598				
>	Bi	209			113.805		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
In 115 Int Std for QC Std	In	115	Int Std out of control

ILM05.4 - Summary Report

Sample ID: ICSA

Sample Date/Time: Thursday, April 30, 2009 14:17:20
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\ICSA.2404

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	583388.885	1.409	583388.885			ppb
|	Be	9	67.334	7.475	0.000	0.23455	7.23	ppb
|	Na	23	S	S	1999999999.942	352980760747.91241	0.00	ppb
|	Mg	24	213313786.379	0.381	365.674	91641.51562	1.11	ppb
|	Mg	25	31206667.908	0.391	53.498	96059.44691	1.46	ppb
|	Mg	26	37462806.728	0.359	64.221	100539.93582	1.05	ppb
|	Al	27	S	S	1999999999.990	310267026995.09418	0.00	ppb
|	K	39	S	S	1999999999.607	187975855148.80017	0.00	ppb
⌊	Ca	44	14912296.934	1.477	25.556	92249.38322	2.08	ppb
⌈>	Sc	45	676197.744	1.538	676197.744			ppb
|	Ti	47	824678.316	1.852	1.220	2161.05420	1.29	ppb
|	V	51	-322.833	117.241	-0.001	-0.19511	39.50	ppb
|	Cr	52	89842.496	1.372	0.130	20.40399	0.76	ppb
|	Mn	55	59697.663	0.491	0.088	9.88419	1.82	ppb
|	Fe	54	34271961.305	1.321	50.671	104387.71080	2.42	ppb
|	Fe	56	S	S	1999999999.408	223220522955.45251	0.00	ppb
|	Fe	57	13690396.522	0.642	20.247	105905.04423	1.89	ppb
|	Co	59	6618.189	1.090	0.010	1.21577	1.78	ppb
|	Ni	60	7299.330	1.828	0.011	6.09228	3.06	ppb
|	Cu	63	22469.662	0.927	0.033	7.81536	2.19	ppb
|	Cu	65	12010.542	0.916	0.018	8.55241	0.74	ppb
|	Zn	66	9110.816	2.038	0.013	12.06016	3.63	ppb
|	As	75	157.386	39.317	0.000	0.19116	37.67	ppb
⌊	Se	82	37.556	15.910	0.000	0.22999	35.31	ppb
⌈	Mo	96	3816691.798	0.398	2.223	2390.09274	0.79	ppb
|	Ag	107	128.890	7.901	0.000	0.01975	9.83	ppb
|	Ag	109	115.556	14.230	0.000	0.01462	22.23	ppb
|	Cd	111	460.568	38.487	0.000	0.38142	37.53	ppb
|	In	113	78221.423	0.966	0.002	2.84381	30.76	ppb
|>	In	115	1716670.387	0.399	1716670.387			ppb
⌊	Sn	118	791.698	11.036	0.000	0.18161	12.42	ppb
⌈	Sb	121	5785.007	1.773	0.002	1.26420	3.36	ppb
|	Ba	135	1679.474	2.442	0.000	1.37144	1.16	ppb
|	Ba	137	2955.771	3.820	0.001	1.38131	4.56	ppb
⌊>	Tb	159	3440753.694	1.532	3440753.694			ppb
⌈	Tl	205	163.335	23.179	0.000	0.00589	37.40	ppb
|	Pb	206	25094.786	1.465	0.010	4.72827	1.69	ppb
|	Pb	207	45109.800	0.678	0.018	4.48989	0.87	ppb
|	Pb	208	71513.954	0.700	0.029	3.95480	0.88	ppb
⌊>	Bi	209	2450264.551	0.240	2450264.551			ppb
	Cr	53	13120.602	0.648	12809.264			ppb
	Pd	106	6.667	43.301	6.667			ppb
	Pd	108	3558.968	5.326	3548.968			ppb
	C	12	3283513.983	0.838	2969220.041			ppb
	Kr	83	66.667	4.583	48.667			ppb
	Se	77	844.480	3.852	815.591			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	581827.687		ppb
	Be	9	72.000	0.252099	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	212682224.455	91606.004481	ppb
	Mg	25	31067605.332	95875.333044	ppb
	Mg	26	37416088.569	100674.060205	ppb
	Al	27		310267026995.094180	ppb
	K	39		187975855148.800170	ppb
	Ca	44	15165027.439	94052.138603	ppb
>	Sc	45	685742.714		ppb
	Ti	47	842212.984	2176.238485	ppb
	V	51	-54.294	-0.140582	ppb
	Cr	52	91250.441	20.435293	ppb
	Mn	55	59768.079	9.755837	ppb
	Fe	54	34396327.000	103285.671375	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	13717089.576	104615.185576	ppb
	Co	59	6678.229	1.209487	ppb
	Ni	60	7299.330	6.005505	ppb
	Cu	63	22508.637	7.716508	ppb
	Cu	65	12080.626	8.481163	ppb
	Zn	66	8987.370	11.719956	ppb
	As	75	221.210	0.263941	ppb
	Se	82	30.667	0.136822	ppb
	Mo	96	3812126.123	2381.259904	ppb
	Ag	107	140.001	0.021834	ppb
	Ag	109	123.334	0.016073	ppb
	Cd	111	447.241	0.369986	ppb
	In	113	77846.832	2.376788	ppb
>	In	115	1720939.533		ppb
	Sn	118	815.033	0.187347	ppb
	Sb	121	5786.674	1.249333	ppb
	Ba	135	1720.148	1.389843	ppb
	Ba	137	3034.460	1.402705	ppb
>	Tb	159	3478907.055		ppb
	Tl	205	120.001	0.003367	ppb
	Pb	206	24670.394	4.635896	ppb
	Pb	207	44955.948	4.462783	ppb
	Pb	208	71305.374	3.932871	ppb
>	Bi	209	2456681.373		ppb
	Cr	53	13022.474		ppb
	Pd	106	5.000		ppb
	Pd	108	3655.668		ppb
	C	12	3314932.651		ppb
	Kr	83	70.000		ppb
	Se	77	807.366		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	592279.254		ppb
	Be	9	68.000	0.233326	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	214229800.928	90644.273399	ppb
	Mg	25	31256748.878	94756.857492	ppb
	Mg	26	37614257.054	99421.296583	ppb
	Al	27		310267026995.094180	ppb
	K	39		187975855148.800170	ppb
	Ca	44	14810273.620	90229.826766	ppb
>	Sc	45	665117.127		ppb

	Ti	47	817573.779	2178.083884	ppb
	V	51	-755.718	-0.283296	ppb
	Cr	52	88955.906	20.541647	ppb
	Mn	55	59949.158	10.090202	ppb
	Fe	54	34649664.527	107274.794639	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	13761839.697	108211.682382	ppb
	Co	59	6638.203	1.239822	ppb
	Ni	60	7432.761	6.306088	ppb
	Cu	63	22655.635	8.013414	ppb
	Cu	65	11883.724	8.603085	ppb
	Zn	66	9324.345	12.554098	ppb
	As	75	153.297	0.189629	ppb
	Se	82	41.333	0.285722	ppb
	Mo	96	3833628.723	2411.754438	ppb
	Ag	107	126.667	0.019438	ppb
	Ag	109	126.667	0.016896	ppb
	Cd	111	290.350	0.244356	ppb
	In	113	79091.542	3.853085	ppb
>	In	115	1708769.707		ppb
	Sn	118	695.024	0.156746	ppb
	Sb	121	5681.614	1.231140	ppb
	Ba	135	1680.141	1.363147	ppb
	Ba	137	2826.399	1.310346	ppb
>	Tb	159	3462763.146		ppb
	Tl	205	190.002	0.007432	ppb
	Pb	206	25311.994	4.771625	ppb
	Pb	207	44911.182	4.472357	ppb
	Pb	208	71151.729	3.936728	ppb
>	Bi	209	2448991.579		ppb
	Cr	53	13168.665		ppb
	Pd	106	5.000		ppb
	Pd	108	3680.677		ppb
	C	12	3271902.644		ppb
	Kr	83	64.000		ppb
	Se	77	858.037		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576059.713		ppb
	Be	9	62.000	0.218238	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	213029333.755	92674.268971	ppb
	Mg	25	31295649.515	97546.150180	ppb
	Mg	26	37358074.561	101524.450686	ppb
	Al	27		310267026995.094180	ppb
	K	39		187975855148.800170	ppb
	Ca	44	14761589.744	92466.184305	ppb
>	Sc	45	677733.390		ppb
	Ti	47	814248.185	2128.840228	ppb
	V	51	-158.487	-0.161465	ppb
	Cr	52	89321.140	20.235038	ppb
	Mn	55	59375.752	9.806540	ppb
	Fe	54	33769892.387	102602.666388	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	13592260.293	104888.264735	ppb
	Co	59	6538.137	1.197994	ppb
	Ni	60	7165.900	5.965245	ppb
	Cu	63	22244.714	7.716145	ppb
	Cu	65	12067.277	8.572993	ppb
	Zn	66	9020.734	11.906426	ppb
	As	75	97.652	0.119924	ppb
	Se	82	40.667	0.267430	ppb

⌈	Mo	96	3804320.546	2377.263865	ppb
|	Ag	107	120.001	0.017987	ppb
|	Ag	109	96.667	0.010899	ppb
|	Cd	111	644.112	0.529931	ppb
|	In	113	77725.896	2.301563	ppb
\>	In	115	1720301.922		ppb
⌊	Sn	118	865.037	0.200732	ppb
⌈	Sb	121	5886.732	1.312141	ppb
|	Ba	135	1638.134	1.361323	ppb
|	Ba	137	3006.452	1.430869	ppb
⌊>	Tb	159	3380590.881		ppb
⌈	Tl	205	180.002	0.006871	ppb
|	Pb	206	25301.969	4.777296	ppb
|	Pb	207	45462.270	4.534525	ppb
|	Pb	208	72084.760	3.994791	ppb
⌊>	Bi	209	2445120.702		ppb
	Cr	53	13170.668		ppb
	Pd	106	10.000		ppb
	Pd	108	3340.558		ppb
	C	12	3263706.656		ppb
	Kr	83	66.000		ppb
	Se	77	868.038		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		108.872			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		100.414			
	Ti	47					
	V	51	-39.023				
	Cr	52	97.162				
	Mn	55	141.203				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	121.577				
	Ni	60	101.538				
	Cu	63	97.692				
	Cu	65	106.905				
	Zn	66	109.638				
	As	75	191.165				
	Se	82	76.664				
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111	54.489				
	In	113					
>	In	115		95.943			
	Sn	118					
	Sb	121	84.280				
	Ba	135	114.286				
	Ba	137	115.109				
>	Tb	159		104.499			
	Tl	205	58901.780				
	Pb	206	118.207				
	Pb	207	112.247				
	Pb	208	98.870				
>	Bi	209		85.634			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: ICSAB

Sample Date/Time: Thursday, April 30, 2009 14:19:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\ICSAB.2405

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	591379.105	2.985	591379.105			ppb
	Be	9	5404.128	3.585	0.009	19.18508	0.66	ppb
	Na	23	S	S	1999999999.942	352980760747.91241	0.00	ppb
	Mg	24	218776970.771	0.741	370.114	92754.29902	2.51	ppb
	Mg	25	31839105.832	1.676	53.852	96694.85438	1.37	ppb
	Mg	26	38364264.608	0.975	64.898	101600.63407	2.15	ppb
	Al	27	S	S	1999999999.990	310267026995.09418	0.00	ppb
	K	39	S	S	1999999999.607	187975855148.80017	0.00	ppb
	Ca	44	14862548.930	1.014	25.133	90722.40876	2.03	ppb
>	Sc	45	678423.733	1.336	678423.733			ppb
	Ti	47	829020.403	1.727	1.222	2165.19661	0.57	ppb
	V	51	98932.278	2.039	0.145	19.56103	2.51	ppb
	Cr	52	177103.288	1.029	0.258	40.55328	1.16	ppb
	Mn	55	179573.013	0.595	0.264	29.71259	1.61	ppb
	Fe	54	34459277.537	0.657	50.773	104599.37461	0.94	ppb
	Fe	56	S	S	1999999999.408	223220522955.45251	0.00	ppb
	Fe	57	13663310.923	0.611	20.140	105344.45985	1.71	ppb
	Co	59	110029.345	0.121	0.162	20.33540	1.45	ppb
	Ni	60	29019.825	0.614	0.043	24.20584	0.88	ppb
	Cu	63	71258.545	0.328	0.104	25.02478	1.08	ppb
	Cu	65	36122.905	0.618	0.053	25.84286	1.95	ppb
	Zn	66	21292.645	0.528	0.031	28.42352	1.70	ppb
	As	75	15440.631	0.825	0.023	18.36972	1.97	ppb
	Se	82	1489.444	2.410	0.002	18.51451	1.27	ppb
	Mo	96	3790317.577	0.031	2.223	2390.75789	0.78	ppb
	Ag	107	87396.937	0.907	0.051	17.00313	0.71	ppb
	Ag	109	87473.136	0.324	0.051	17.15386	1.07	ppb
	Cd	111	21671.213	3.313	0.013	17.76549	3.79	ppb
	In	113	98201.505	0.743	0.014	19.77760	1.99	ppb
>	In	115	1704366.387	0.773	1704366.387			ppb
	Sn	118	26157.500	0.361	0.015	6.99534	0.93	ppb
	Sb	121	84354.294	0.482	0.025	20.18666	1.00	ppb
	Ba	135	25275.238	1.172	0.008	21.73433	1.25	ppb
	Ba	137	43685.884	0.574	0.013	21.45888	1.17	ppb
>	Tb	159	3351091.342	0.598	3351091.342			ppb
	Tl	205	341426.451	1.359	0.143	20.20889	0.47	ppb
	Pb	206	139935.643	0.451	0.059	27.07374	1.43	ppb
	Pb	207	257787.720	0.503	0.108	26.35375	1.26	ppb
	Pb	208	417421.781	1.026	0.175	23.71177	0.27	ppb
>	Bi	209	2389664.125	1.107	2389664.125			ppb
	Cr	53	24028.168	0.861	23716.830			ppb
	Pd	106	1663.472	3.026	1663.472			ppb
	Pd	108	4951.226	2.845	4941.226			ppb
	C	12	3343851.863	0.114	3029557.921			ppb
	Kr	83	74.000	9.362	56.000			ppb
	Se	77	1983.308	0.789	1954.419			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	610998.627		ppb
	Be	9	5613.575	19.291001	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	220405935.769	90400.332883	ppb
	Mg	25	32382273.997	95161.333847	ppb
	Mg	26	38670480.347	99081.541101	ppb
	Al	27		310267026995.094180	ppb
	K	39		187975855148.800170	ppb
	Ca	44	15036533.930	88801.146809	ppb
>	Sc	45	688476.286		ppb
	Ti	47	845552.953	2176.193854	ppb
	V	51	99505.760	19.383554	ppb
	Cr	52	178724.985	40.321645	ppb
	Mn	55	179572.975	29.274256	ppb
	Fe	54	34698028.964	103778.167136	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	13644076.222	103645.056547	ppb
	Co	59	109876.342	20.007844	ppb
	Ni	60	29155.774	23.962184	ppb
	Cu	63	71518.164	24.745246	ppb
	Cu	65	35890.959	25.295511	ppb
	Zn	66	21252.560	27.947525	ppb
	As	75	15379.291	18.026655	ppb
	Se	82	1522.783	18.655927	ppb
	Mo	96	3791306.022	2376.945007	ppb
	Ag	107	87282.591	16.878879	ppb
	Ag	109	87396.916	17.035168	ppb
	Cd	111	21883.424	17.829505	ppb
	In	113	98275.543	19.352080	ppb
>	In	115	1714646.717		ppb
	Sn	118	26219.328	6.969423	ppb
	Sb	121	84142.515	20.001819	ppb
	Ba	135	25414.253	21.709533	ppb
	Ba	137	43420.061	21.186429	ppb
>	Tb	159	3373303.862		ppb
	Tl	205	345978.274	20.226882	ppb
	Pb	206	139354.262	26.627019	ppb
	Pb	207	257280.516	25.976271	ppb
	Pb	208	421835.163	23.667737	ppb
>	Bi	209	2419401.459		ppb
	Cr	53	24056.902		ppb
	Pd	106	1710.146		ppb
	Pd	108	5006.253		ppb
	C	12	3343916.062		ppb
	Kr	83	78.000		ppb
	Se	77	1978.196		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	586361.330		ppb
	Be	9	5367.440	19.220147	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	217164837.289	92813.567632	ppb
	Mg	25	31819165.654	97435.478748	ppb
	Mg	26	38474706.091	102722.072890	ppb
	Al	27		310267026995.094180	ppb
	K	39		187975855148.800170	ppb
	Ca	44	14770767.852	90897.607402	ppb
>	Sc	45	670878.530		ppb

	Ti	47	820651.171	2167.506187	ppb
	V	51	100600.753	20.115774	ppb
	Cr	52	177454.661	41.094279	ppb
	Mn	55	180641.971	30.222273	ppb
	Fe	54	34432024.561	105684.793282	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	13754773.888	107227.173743	ppb
	Co	59	110116.967	20.577980	ppb
	Ni	60	28818.131	24.306292	ppb
	Cu	63	71192.520	25.281939	ppb
	Cu	65	36335.895	26.284791	ppb
	Zn	66	21419.582	28.914698	ppb
	As	75	15587.061	18.749286	ppb
	Se	82	1451.439	18.242952	ppb
	Mo	96	3789023.184	2383.457643	ppb
	Ag	107	88240.946	17.121333	ppb
	Ag	109	87235.516	17.060569	ppb
	Cd	111	20871.091	17.061864	ppb
	In	113	98891.571	20.127897	ppb
>	In	115	1708933.164		ppb
	Sn	118	26048.883	6.947172	ppb
	Sb	121	84823.230	20.401213	ppb
	Ba	135	25476.411	22.017637	ppb
	Ba	137	43918.229	21.680911	ppb
>	Tb	159	3334314.798		ppb
	Tl	205	341596.429	20.294546	ppb
	Pb	206	140606.610	27.302148	ppb
	Pb	207	259261.406	26.600934	ppb
	Pb	208	417149.232	23.784379	ppb
>	Bi	209	2380796.614		ppb
	Cr	53	23808.308		ppb
	Pd	106	1610.130		ppb
	Pd	108	5056.278		ppb
	C	12	3339999.963		ppb
	Kr	83	66.000		ppb
	Se	77	1970.861		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576777.358		ppb
	Be	9	5231.368	19.044091	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	218760139.255	95048.996550	ppb
	Mg	25	31315877.847	97487.750560	ppb
	Mg	26	37947607.387	102998.288204	ppb
	Al	27		310267026995.094180	ppb
	K	39		187975855148.800170	ppb
	Ca	44	14780345.008	92468.472066	ppb
>	Sc	45	675916.382		ppb
	Ti	47	820857.085	2151.889799	ppb
	V	51	96690.322	19.183776	ppb
	Cr	52	175130.218	40.243915	ppb
	Mn	55	178504.092	29.641240	ppb
	Fe	54	34247779.086	104335.163401	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	13591082.658	105161.149246	ppb
	Co	59	110094.725	20.420386	ppb
	Ni	60	29085.570	24.349056	ppb
	Cu	63	71064.951	25.047155	ppb
	Cu	65	36141.861	25.948274	ppb
	Zn	66	21205.794	28.408344	ppb
	As	75	15355.543	18.333211	ppb
	Se	82	1494.112	18.644664	ppb

⌈	Mo	96	3790623.524	2411.871016	ppb
|	Ag	107	86667.274	17.009189	ppb
|	Ag	109	87786.977	17.365837	ppb
|	Cd	111	22259.124	18.405100	ppb
|	In	113	97437.401	19.852815	ppb
|>	In	115	1689519.282		ppb
⌊	Sn	118	26204.288	7.069439	ppb
⌈	Sb	121	84097.136	20.156937	ppb
|	Ba	135	24935.049	21.475807	ppb
|	Ba	137	43719.361	21.509299	ppb
⌊>	Tb	159	3345655.367		ppb
⌈	Tl	205	336704.651	20.105244	ppb
|	Pb	206	139846.056	27.292053	ppb
|	Pb	207	256821.237	26.484042	ppb
|	Pb	208	413280.949	23.683181	ppb
⌊>	Bi	209	2368794.301		ppb
	Cr	53	24219.293		ppb
	Pd	106	1670.139		ppb
	Pd	108	4791.147		ppb
	C	12	3347639.565		ppb
	Kr	83	78.000		ppb
	Se	77	2000.867		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		110.363			
	Be	9	100.974				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		100.744			
	Ti	47					
	V	51	102.953				
	Cr	52	101.383				
	Mn	55	110.047				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	101.677				
	Ni	60	100.858				
	Cu	63	100.099				
	Cu	65	103.371				
	Zn	66	98.012				
	As	75	96.683				
	Se	82	97.445				
	Mo	96					
	Ag	107	94.462				
	Ag	109	95.299				
	Cd	111	88.827				
	In	113					
>	In	115		95.256			
	Sn	118	34.977				
	Sb	121	91.758				
	Ba	135	98.792				
	Ba	137	97.540				
>	Tb	159		101.775			
	Tl	205	96.233				
	Pb	206	108.295				
	Pb	207	105.415				
	Pb	208	94.847				
>	Bi	209		83.516			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Sn	118	ICSAB is out of control

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, April 30, 2009 14:22:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCV.2406

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	573453.139	0.593	573453.139			ppb
	Be	9	32974.276	0.163	0.057	120.77898	0.62	ppb
	Na	23	3883230.770	1.491	6.714	1184.95628	2.10	ppb
	Mg	24	2712952.819	2.144	4.722	1183.31122	2.74	ppb
	Mg	25	378825.902	0.610	0.659	1183.88186	0.68	ppb
	Mg	26	427857.413	0.790	0.745	1165.70327	0.22	ppb
	Al	27	4206580.278	0.888	7.325	1136.40844	0.59	ppb
	K	39	7038286.811	1.634	11.880	1116.53148	1.08	ppb
	Ca	44	183568.409	1.348	0.311	1123.26764	0.86	ppb
>	Sc	45	700830.541	1.199	700830.541			ppb
	Ti	47	47164.355	2.836	0.067	119.11200	2.23	ppb
	V	51	611428.375	0.821	0.872	117.66417	0.59	ppb
	Cr	52	533054.895	0.636	0.758	119.07125	0.58	ppb
	Mn	55	747306.908	1.608	1.066	119.81373	1.99	ppb
	Fe	54	423402.996	0.750	0.581	1196.22982	1.42	ppb
	Fe	56	7879150.432	0.307	10.651	1188.78084	1.09	ppb
	Fe	57	160697.937	2.101	0.227	1186.02729	1.17	ppb
	Co	59	661089.945	1.369	0.943	118.31813	0.62	ppb
	Ni	60	147626.203	0.980	0.211	119.28604	0.47	ppb
	Cu	63	348986.585	0.923	0.497	119.19826	1.30	ppb
	Cu	65	170652.828	1.212	0.243	118.52757	0.72	ppb
	Zn	66	92098.837	0.410	0.131	119.80973	0.87	ppb
	As	75	102493.365	0.488	0.146	118.00595	0.87	ppb
	Se	82	9798.799	0.331	0.014	119.24590	1.02	ppb
	Mo	96	204599.188	0.253	0.112	120.52963	1.72	ppb
	Ag	107	655683.583	0.879	0.361	119.74601	1.32	ppb
	Ag	109	652406.221	0.336	0.359	120.11077	1.16	ppb
	Cd	111	153988.006	0.461	0.085	118.41947	1.63	ppb
	In	113	236217.396	0.409	0.087	121.60005	2.75	ppb
>	In	115	1816279.090	1.464	1816279.090			ppb
	Sn	118	478970.825	0.410	0.264	120.68267	1.07	ppb
	Sb	121	511881.559	0.930	0.149	120.27298	2.64	ppb
	Ba	135	143247.427	0.988	0.042	120.64395	1.28	ppb
	Ba	137	248930.915	0.200	0.073	119.75717	1.59	ppb
>	Tb	159	3426702.947	1.740	3426702.947			ppb
	Tl	205	2530004.716	0.664	0.853	120.60597	2.04	ppb
	Pb	206	798492.673	1.044	0.269	124.39709	0.39	ppb
	Pb	207	1499094.896	0.386	0.505	123.41880	1.10	ppb
	Pb	208	2459043.689	0.703	0.829	112.50778	1.56	ppb
>	Bi	209	2968156.594	1.422	2968156.594			ppb
	Cr	53	62257.227	1.542	61945.889			ppb
	Pd	106	12883.294	0.588	12883.294			ppb
	Pd	108	10138.471	1.239	10128.471			ppb
	C	12	334231.066	0.240	19937.123			ppb
	Kr	83	26.667	34.641	8.667			ppb
	Se	77	7732.767	0.762	7703.878			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	576830.283		ppb
	Be	9	33004.375	120.178576	ppb
	Na	23	3831719.072	1162.100713	ppb
	Mg	24	2656858.228	1151.870791	ppb
	Mg	25	380926.652	1183.459028	ppb
	Mg	26	431451.993	1168.629267	ppb
	Al	27	4249069.899	1141.176665	ppb
	K	39	7159341.407	1129.549235	ppb
	Ca	44	185294.952	1127.336939	ppb
>	Sc	45	706280.888		ppb
	Ti	47	48698.288	122.046576	ppb
	V	51	612252.177	116.908304	ppb
	Cr	52	534795.904	118.530677	ppb
	Mn	55	735917.720	117.065208	ppb
	Fe	54	420530.188	1178.131153	ppb
	Fe	56	7871403.750	1177.772235	ppb
	Fe	57	161239.513	1180.849092	ppb
	Co	59	662388.657	117.635845	ppb
	Ni	60	149018.785	119.479302	ppb
	Cu	63	352519.201	119.466905	ppb
	Cu	65	170630.083	117.594513	ppb
	Zn	66	92485.712	119.375572	ppb
	As	75	102464.735	117.054992	ppb
	Se	82	9789.456	118.201396	ppb
	Mo	96	204777.440	120.920141	ppb
	Ag	107	661117.894	121.029944	ppb
	Ag	109	651059.055	120.150958	ppb
	Cd	111	154802.820	119.327415	ppb
	In	113	236857.236	122.523859	ppb
>	In	115	1811718.398		ppb
	Sn	118	478107.495	120.755869	ppb
	Sb	121	509044.745	117.654385	ppb
	Ba	135	143445.504	118.861782	ppb
	Ba	137	249504.267	118.089454	ppb
>	Tb	159	3482445.125		ppb
	Tl	205	2542365.091	123.035119	ppb
	Pb	206	789918.137	124.948805	ppb
	Pb	207	1492448.142	124.747960	ppb
	Pb	208	2450672.917	113.833723	ppb
>	Bi	209	2923212.865		ppb
	Cr	53	62367.883		ppb
	Pd	106	12908.326		ppb
	Pd	108	10020.018		ppb
	C	12	335083.540		ppb
	Kr	83	32.000		ppb
	Se	77	7799.707		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	573498.618		ppb
	Be	9	32912.071	120.538705	ppb
	Na	23	3872069.194	1181.328955	ppb
	Mg	24	2709029.990	1181.374814	ppb
	Mg	25	376351.207	1176.022212	ppb
	Mg	26	427378.550	1164.312202	ppb
	Al	27	4178808.076	1128.809240	ppb
	K	39	7025075.953	1114.321938	ppb
	Ca	44	184675.653	1130.175156	ppb
>	Sc	45	705059.022		ppb

	Ti	47	46553.108	116.866799	ppb
	V	51	615988.229	117.826553	ppb
	Cr	52	535219.699	118.831393	ppb
	Mn	55	759868.268	121.085954	ppb
	Fe	54	426813.154	1198.615189	ppb
	Fe	56	7906263.820	1185.446198	ppb
	Fe	57	163770.141	1201.692261	ppb
	Co	59	669422.659	119.091215	ppb
	Ni	60	147729.871	118.650990	ppb
	Cu	63	346207.679	117.528865	ppb
	Cu	65	172732.383	119.251099	ppb
	Zn	66	92078.648	119.055446	ppb
	As	75	103006.828	117.878179	ppb
	Se	82	9834.834	118.956660	ppb
	Mo	96	205004.012	122.375932	ppb
	Ag	107	649637.599	120.219753	ppb
	Ag	109	651222.535	121.486346	ppb
	Cd	111	153651.249	119.725941	ppb
	In	113	236688.306	124.386466	ppb
>	In	115	1792255.040		ppb
	Sn	118	477588.559	121.935038	ppb
	Sb	121	509223.511	119.364273	ppb
	Ba	135	144553.285	121.477312	ppb
	Ba	137	248632.964	119.344437	ppb
>	Tb	159	3433802.518		ppb
	Tl	205	2536785.168	120.655827	ppb
	Pb	206	798993.329	124.212898	ppb
	Pb	207	1503039.598	123.474703	ppb
	Pb	208	2478915.892	113.167278	ppb
>	Bi	209	2974313.625		ppb
	Cr	53	63156.811		ppb
	Pd	106	12798.184		ppb
	Pd	108	10125.123		ppb
	C	12	334118.027		ppb
	Kr	83	32.000		ppb
	Se	77	7709.637		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570030.515		ppb
	Be	9	33006.381	121.619648	ppb
	Na	23	3945904.045	1211.439177	ppb
	Mg	24	2772970.239	1216.688069	ppb
	Mg	25	379199.847	1192.164336	ppb
	Mg	26	424741.695	1164.168345	ppb
	Al	27	4191862.858	1139.239419	ppb
	K	39	6930443.072	1105.723275	ppb
	Ca	44	180734.623	1112.290819	ppb
>	Sc	45	691151.713		ppb
	Ti	47	46241.668	118.422622	ppb
	V	51	606044.719	118.257654	ppb
	Cr	52	529149.082	119.851667	ppb
	Mn	55	746134.736	121.290013	ppb
	Fe	54	422865.645	1211.943111	ppb
	Fe	56	7859783.727	1203.124092	ppb
	Fe	57	157084.157	1175.540509	ppb
	Co	59	651458.520	118.227321	ppb
	Ni	60	146129.954	119.727840	ppb
	Cu	63	348232.875	120.599020	ppb
	Cu	65	168596.017	118.737097	ppb
	Zn	66	91732.152	120.998169	ppb
	As	75	102008.533	119.084669	ppb
	Se	82	9772.106	120.579648	ppb

⌈	Mo	96	204016.114	118.292829	ppb
|	Ag	107	656295.256	117.988339	ppb
|	Ag	109	654937.072	118.695008	ppb
|	Cd	111	153509.950	116.205040	ppb
|	In	113	235106.645	117.889828	ppb
|>	In	115	1844863.832		ppb
⌊	Sn	118	481216.420	119.357104	ppb
⌈	Sb	121	517376.423	123.800268	ppb
|	Ba	135	141743.491	121.592757	ppb
|	Ba	137	248655.515	121.837632	ppb
⌊>	Tb	159	3363861.198		ppb
⌈	Tl	205	2510863.889	118.126961	ppb
|	Pb	206	806566.552	124.029568	ppb
|	Pb	207	1501796.949	122.033746	ppb
|	Pb	208	2447542.259	110.522326	ppb
⌊>	Bi	209	3006943.292		ppb
	Cr	53	61246.987		ppb
	Pd	106	12943.371		ppb
	Pd	108	10270.271		ppb
	C	12	333491.630		ppb
	Kr	83	16.000		ppb
	Se	77	7688.955		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			107.018		
	Be	9	100.649				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			104.072		
	Ti	47					
	V	51	98.053				
	Cr	52	99.226				
	Mn	55	99.845				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	98.598				
	Ni	60	99.405				
	Cu	63	99.332				
	Cu	65	98.773				
	Zn	66	99.841				
	As	75	98.338				
	Se	82	99.372				
	Mo	96					
	Ag	107	99.788				
	Ag	109	100.092				
	Cd	111	98.683				
	In	113					
>	In	115			101.510		
	Sn	118	100.569				
	Sb	121	100.227				
	Ba	135	100.537				
	Ba	137	99.798				
>	Tb	159			104.072		
	Tl	205	100.505				
	Pb	206	103.664				
	Pb	207	102.849				
	Pb	208	93.756				
>	Bi	209			103.734		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, April 30, 2009 14:25:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCB.2407

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	527133.235	0.797	527133.235			ppb
	Be	9	3.333	34.641	0.000	0.00543	83.88	ppb
	Na	23	29873.245	2.844	-0.002	-0.27353	79.80	ppb
	Mg	24	4017.143	7.030	-0.002	-0.52072	23.02	ppb
	Mg	25	571.683	5.344	-0.000	-0.35468	30.19	ppb
	Mg	26	639.354	3.106	-0.000	-0.44851	9.88	ppb
	Al	27	2990.453	13.894	-0.004	-0.69440	16.64	ppb
	K	39	203071.179	2.251	-0.008	-0.77894	69.73	ppb
	Ca	44	4384.302	10.902	-0.001	-2.19193	137.89	ppb
>	Sc	45	655208.119	0.781	655208.119			ppb
	Ti	47	40.000	33.072	-0.000	-0.02764	131.50	ppb
	V	51	580.392	8.717	-0.000	-0.01025	108.43	ppb
	Cr	52	2026.206	5.954	0.000	0.00688	402.43	ppb
	Mn	55	233.336	6.888	0.000	0.00026	1145.81	ppb
	Fe	54	15241.615	3.294	-0.000	-0.57612	243.93	ppb
	Fe	56	426745.702	23.258	0.060	6.67555	262.95	ppb
	Fe	57	1506.781	7.090	-0.000	-1.22360	77.72	ppb
	Co	59	93.334	25.385	0.000	0.00568	77.82	ppb
	Ni	60	55.556	27.713	0.000	0.02463	53.08	ppb
	Cu	63	422.231	4.348	0.000	0.00461	169.43	ppb
	Cu	65	135.556	17.272	-0.000	-0.00040	4524.71	ppb
	Zn	66	208.891	10.383	0.000	0.03805	79.97	ppb
	As	75	21.731	121.365	0.000	0.03043	106.24	ppb
	Se	82	25.111	31.674	0.000	0.08201	125.00	ppb
	Mo	96	772.697	8.413	-0.000	-0.13554	32.92	ppb
	Ag	107	130.001	8.882	0.000	0.01982	10.54	ppb
	Ag	109	110.001	18.433	0.000	0.01340	28.64	ppb
	Cd	111	3.848	335.398	0.000	0.01021	101.88	ppb
	In	113	75080.831	1.240	-0.000	-0.07374	1615.58	ppb
>	In	115	1726528.724	0.960	1726528.724			ppb
	Sn	118	231.669	6.938	0.000	0.03203	15.22	ppb
	Sb	121	3203.848	7.114	0.001	0.71094	7.74	ppb
	Ba	135	39.333	25.082	-0.000	-0.00213	416.98	ppb
	Ba	137	61.334	4.981	-0.000	-0.00398	40.97	ppb
>	Tb	159	3219698.507	0.426	3219698.507			ppb
	Tl	205	283.337	16.302	0.000	0.01080	22.54	ppb
	Pb	206	93.334	17.221	0.000	0.00763	35.53	ppb
	Pb	207	146.667	15.746	0.000	0.00400	52.66	ppb
	Pb	208	261.669	23.036	0.000	0.00419	75.22	ppb
>	Bi	209	2797318.467	1.897	2797318.467			ppb
	Cr	53	385.341	17.326	74.003			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	5.000	100.000	-5.000			ppb
	C	12	318718.158	0.551	4424.216			ppb
	Kr	83	15.333	19.924	-2.667			ppb
	Se	77	35.333	7.547	6.444			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	531964.727		ppb
	Be	9	4.000	0.007955	ppb
	Na	23	30683.000	-0.094828	ppb
	Mg	24	4310.929	-0.399072	ppb
	Mg	25	565.016	-0.395009	ppb
	Mg	26	661.022	-0.401769	ppb
	Al	27	3415.583	-0.577853	ppb
	K	39	207980.536	-0.237783	ppb
	Ca	44	4927.214	1.235343	ppb
>	Sc	45	658468.009		ppb
	Ti	47	25.000	-0.068679	ppb
	V	51	523.393	-0.022576	ppb
	Cr	52	2162.234	0.036976	ppb
	Mn	55	240.003	0.001187	ppb
	Fe	54	15011.258	-1.531520	ppb
	Fe	56	371499.763	-3.139669	ppb
	Fe	57	1445.104	-1.778020	ppb
	Co	59	106.001	0.008024	ppb
	Ni	60	73.334	0.039715	ppb
	Cu	63	403.341	-0.003069	ppb
	Cu	65	113.334	-0.017431	ppb
	Zn	66	186.668	0.005747	ppb
	As	75	47.823	0.062270	ppb
	Se	82	34.000	0.195912	ppb
	Mo	96	838.035	-0.089255	ppb
	Ag	107	123.334	0.018810	ppb
	Ag	109	100.001	0.011693	ppb
	Cd	111	8.455	0.013989	ppb
	In	113	75720.599	1.130167	ppb
>	In	115	1707421.118		ppb
	Sn	118	250.003	0.037599	ppb
	Sb	121	3460.599	0.772123	ppb
	Ba	135	44.000	0.001900	ppb
	Ba	137	58.000	-0.005792	ppb
>	Tb	159	3231406.161		ppb
	Tl	205	310.005	0.012479	ppb
	Pb	206	100.001	0.009082	ppb
	Pb	207	160.001	0.005459	ppb
	Pb	208	325.004	0.007581	ppb
>	Bi	209	2737254.940		ppb
	Cr	53	462.011		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	320746.731		ppb
	Kr	83	18.000		ppb
	Se	77	38.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	525106.105		ppb
	Be	9	4.000	0.008161	ppb
	Na	23	29947.776	-0.208978	ppb
	Mg	24	3992.797	-0.524376	ppb
	Mg	25	605.018	-0.233313	ppb
	Mg	26	635.020	-0.453881	ppb
	Al	27	2970.441	-0.696353	ppb
	K	39	202297.729	-0.774983	ppb
	Ca	44	4198.881	-3.334656	ppb
>	Sc	45	657849.208		ppb

	Ti	47	45.000	-0.014742	ppb
	V	51	597.815	-0.007201	ppb
	Cr	52	1932.187	-0.017500	ppb
	Mn	55	215.002	-0.003045	ppb
	Fe	54	15817.500	1.037485	ppb
	Fe	56	367407.667	-3.774700	ppb
	Fe	57	1445.104	-1.767222	ppb
	Co	59	108.001	0.008424	ppb
	Ni	60	46.667	0.016816	ppb
	Cu	63	423.342	0.004355	ppb
	Cu	65	133.334	-0.002541	ppb
	Zn	66	230.003	0.066170	ppb
	As	75	-4.915	-0.002357	ppb
	Se	82	18.667	-0.002856	ppb
	Mo	96	772.030	-0.139079	ppb
	Ag	107	143.334	0.022222	ppb
	Ag	109	96.667	0.010719	ppb
	Cd	111	-10.730	-0.001553	ppb
	In	113	75509.008	-0.099330	ppb
>	In	115	1736918.222		ppb
	Sn	118	220.002	0.028556	ppb
	Sb	121	3025.458	0.665599	ppb
	Ba	135	28.000	-0.012328	ppb
	Ba	137	64.000	-0.002647	ppb
>	Tb	159	3223088.182		ppb
	Tl	205	230.003	0.008008	ppb
	Pb	206	75.000	0.004501	ppb
	Pb	207	120.000	0.001585	ppb
	Pb	208	205.001	0.001340	ppb
>	Bi	209	2816906.658		ppb
	Cr	53	354.006		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	317699.744		ppb
	Kr	83	12.000		ppb
	Se	77	35.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	524328.872		ppb
	Be	9	2.000	0.000172	ppb
	Na	23	28988.957	-0.516798	ppb
	Mg	24	3747.702	-0.638698	ppb
	Mg	25	545.015	-0.435729	ppb
	Mg	26	622.019	-0.489892	ppb
	Al	27	2585.334	-0.808994	ppb
	K	39	198935.274	-1.324042	ppb
	Ca	44	4026.811	-4.476470	ppb
>	Sc	45	649307.138		ppb
	Ti	47	50.000	0.000499	ppb
	V	51	619.968	-0.000980	ppb
	Cr	52	1984.197	0.001162	ppb
	Mn	55	245.003	0.002631	ppb
	Fe	54	14896.086	-1.234322	ppb
	Fe	56	541329.677	26.941031	ppb
	Fe	57	1630.133	-0.125544	ppb
	Co	59	66.000	0.000581	ppb
	Ni	60	46.667	0.017344	ppb
	Cu	63	440.010	0.012536	ppb
	Cu	65	160.001	0.018766	ppb
	Zn	66	210.002	0.042231	ppb
	As	75	22.284	0.031362	ppb
	Se	82	22.667	0.052978	ppb

⌈	Mo	96	708.025	-0.178280	ppb
|	Ag	107	123.334	0.018425	ppb
|	Ag	109	133.334	0.017802	ppb
|	Cd	111	13.820	0.018195	ppb
|	In	113	74012.886	-1.252055	ppb
|>	In	115	1735246.834		ppb
⌊	Sn	118	225.003	0.029930	ppb
⌈	Sb	121	3125.488	0.695105	ppb
|	Ba	135	46.000	0.004030	ppb
|	Ba	137	62.000	-0.003487	ppb
⌊>	Tb	159	3204601.179		ppb
⌈	Tl	205	310.005	0.011911	ppb
|	Pb	206	105.001	0.009299	ppb
|	Pb	207	160.001	0.004953	ppb
|	Pb	208	255.002	0.003660	ppb
⌊>	Bi	209	2837793.802		ppb
	Cr	53	340.006		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	317708.000		ppb
	Kr	83	16.000		ppb
	Se	77	32.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			98.373		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			97.297		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			96.494		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			97.785		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			97.763		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042029-BLK1

Sample Date/Time: Thursday, April 30, 2009 14:27:34
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0904103
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042029-BLK1.2408

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	524928.205	1.130	524928.205			ppb
	Be	9	0.667	173.205	-0.000	-0.00516	90.10	ppb
	Na	23	26688.911	2.091	-0.007	-1.30185	7.21	ppb
	Mg	24	3055.800	2.488	-0.004	-0.97097	3.98	ppb
	Mg	25	430.676	2.922	-0.000	-0.82915	3.35	ppb
	Mg	26	495.346	10.303	-0.001	-0.87080	15.53	ppb
	Al	27	1840.169	1.631	-0.007	-1.03010	0.50	ppb
	K	39	201905.661	2.850	-0.009	-0.83755	74.04	ppb
	Ca	44	4117.518	8.373	-0.001	-3.89953	52.42	ppb
>	Sc	45	650837.153	0.395	650837.153			ppb
	Ti	47	35.000	28.571	-0.000	-0.04062	67.75	ppb
	V	51	572.606	8.604	-0.000	-0.01112	89.79	ppb
	Cr	52	1978.862	1.837	-0.000	-0.00127	543.31	ppb
	Mn	55	223.336	24.661	-0.000	-0.00120	792.98	ppb
	Fe	54	14513.863	2.522	-0.001	-2.55633	42.30	ppb
	Fe	56	373529.552	2.569	-0.018	-2.05686	68.22	ppb
	Fe	57	1465.108	8.709	-0.000	-1.48519	65.99	ppb
	Co	59	76.667	7.531	0.000	0.00261	44.33	ppb
	Ni	60	45.556	25.697	0.000	0.01626	62.09	ppb
	Cu	63	416.675	8.314	0.000	0.00359	371.49	ppb
	Cu	65	120.001	16.897	-0.000	-0.01142	136.02	ppb
	Zn	66	171.113	6.262	-0.000	-0.01308	110.12	ppb
	As	75	21.941	78.750	0.000	0.03091	69.64	ppb
	Se	82	19.778	16.966	0.000	0.01446	311.97	ppb
	Mo	96	381.341	5.753	-0.000	-0.37691	3.29	ppb
	Ag	107	53.333	22.535	0.000	0.00521	44.31	ppb
	Ag	109	54.445	37.409	0.000	0.00279	145.33	ppb
	Cd	111	-0.365	2459.783	0.000	0.00677	108.51	ppb
	In	113	74661.036	1.178	0.000	0.25909	216.23	ppb
>	In	115	1707382.339	0.578	1707382.339			ppb
	Sn	118	148.334	20.318	0.000	0.01034	77.78	ppb
	Sb	121	1163.401	4.411	0.000	0.20465	6.18	ppb
	Ba	135	35.333	14.245	-0.000	-0.00528	86.42	ppb
	Ba	137	80.667	7.575	0.000	0.00650	48.25	ppb
>	Tb	159	3174804.849	0.142	3174804.849			ppb
	Tl	205	95.000	32.015	0.000	0.00127	120.86	ppb
	Pb	206	66.667	42.647	0.000	0.00321	144.53	ppb
	Pb	207	111.667	27.359	0.000	0.00094	277.37	ppb
	Pb	208	175.001	27.553	-0.000	-0.00003	8965.47	ppb
>	Bi	209	2791706.995	0.792	2791706.995			ppb
	Cr	53	325.339	9.727	14.000			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	5.000	100.000	-5.000			ppb
	C	12	318768.481	0.762	4474.538			ppb
	Kr	83	18.667	6.186	0.667			ppb
	Se	77	22.889	19.393	-6.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	531756.056		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	27293.195	-1.215913	ppb
	Mg	24	3056.467	-0.989487	ppb
	Mg	25	444.010	-0.802861	ppb
	Mg	26	552.015	-0.721931	ppb
	Al	27	1870.175	-1.028317	ppb
	K	39	208472.624	-0.136386	ppb
	Ca	44	4505.015	-1.617518	ppb
>	Sc	45	653124.069		ppb
	Ti	47	35.000	-0.040997	ppb
	V	51	565.908	-0.012909	ppb
	Cr	52	2008.202	0.004132	ppb
	Mn	55	170.001	-0.010523	ppb
	Fe	54	14440.419	-2.947822	ppb
	Fe	56	380259.986	-1.127441	ppb
	Fe	57	1595.127	-0.482632	ppb
	Co	59	70.000	0.001274	ppb
	Ni	60	46.667	0.017106	ppb
	Cu	63	396.675	-0.004315	ppb
	Cu	65	110.001	-0.019232	ppb
	Zn	66	183.335	0.003204	ppb
	As	75	22.517	0.031488	ppb
	Se	82	16.667	-0.027270	ppb
	Mo	96	374.007	-0.381239	ppb
	Ag	107	40.000	0.002629	ppb
	Ag	109	50.000	0.001911	ppb
	Cd	111	-10.730	-0.001711	ppb
	In	113	73801.331	-0.386719	ppb
>	In	115	1705661.085		ppb
	Sn	118	180.002	0.018884	ppb
	Sb	121	1120.063	0.193790	ppb
	Ba	135	40.000	-0.001020	ppb
	Ba	137	74.000	0.003061	ppb
>	Tb	159	3173391.183		ppb
	Tl	205	75.000	0.000289	ppb
	Pb	206	35.000	-0.001965	ppb
	Pb	207	85.000	-0.001322	ppb
	Pb	208	210.001	0.001759	ppb
>	Bi	209	2768247.928		ppb
	Cr	53	360.006		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	321547.852		ppb
	Kr	83	18.000		ppb
	Se	77	20.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	521999.635		ppb
	Be	9	2.000	0.000208	ppb
	Na	23	26580.279	-1.287643	ppb
	Mg	24	3131.490	-0.926546	ppb
	Mg	25	429.009	-0.826438	ppb
	Mg	26	481.012	-0.904504	ppb
	Al	27	1810.164	-1.035954	ppb
	K	39	199504.446	-1.062441	ppb
	Ca	44	4002.801	-4.518799	ppb
>	Sc	45	651332.708		ppb

	Ti	47	25.000	-0.067942	ppb
	V	51	624.879	-0.000363	ppb
	Cr	52	1990.198	0.001117	ppb
	Mn	55	280.004	0.008538	ppb
	Fe	54	14911.109	-1.333787	ppb
	Fe	56	377788.923	-1.372156	ppb
	Fe	57	1460.107	-1.531790	ppb
	Co	59	80.000	0.003237	ppb
	Ni	60	56.667	0.025913	ppb
	Cu	63	396.675	-0.003914	ppb
	Cu	65	106.667	-0.021499	ppb
	Zn	66	163.335	-0.024144	ppb
	As	75	4.382	0.009099	ppb
	Se	82	19.333	0.008317	ppb
	Mo	96	406.008	-0.362904	ppb
	Ag	107	63.334	0.007078	ppb
	Ag	109	36.667	-0.000754	ppb
	Cd	111	5.000	0.011138	ppb
	In	113	75559.387	0.614551	ppb
>	In	115	1718000.565		ppb
	Sn	118	145.001	0.009213	ppb
	Sb	121	1150.066	0.201610	ppb
	Ba	135	30.000	-0.010097	ppb
	Ba	137	82.000	0.007248	ppb
>	Tb	159	3171165.245		ppb
	Tl	205	80.000	0.000481	ppb
	Pb	206	90.000	0.006988	ppb
	Pb	207	145.001	0.003775	ppb
	Pb	208	195.001	0.000874	ppb
>	Bi	209	2812126.516		ppb
	Cr	53	318.005		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	317047.527		ppb
	Kr	83	20.000		ppb
	Se	77	28.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	521028.924		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	26193.259	-1.401996	ppb
	Mg	24	2979.444	-0.996878	ppb
	Mg	25	419.009	-0.858152	ppb
	Mg	26	453.010	-0.985952	ppb
	Al	27	1840.169	-1.026018	ppb
	K	39	197739.913	-1.313819	ppb
	Ca	44	3844.739	-5.562281	ppb
>	Sc	45	648054.682		ppb
	Ti	47	45.000	-0.012910	ppb
	V	51	527.031	-0.020093	ppb
	Cr	52	1938.188	-0.009068	ppb
	Mn	55	220.002	-0.001623	ppb
	Fe	54	14190.061	-3.387389	ppb
	Fe	56	362539.748	-3.670968	ppb
	Fe	57	1340.090	-2.441157	ppb
	Co	59	80.000	0.003315	ppb
	Ni	60	33.333	0.005770	ppb
	Cu	63	456.677	0.019013	ppb
	Cu	65	143.334	0.006469	ppb
	Zn	66	166.668	-0.018286	ppb
	As	75	38.925	0.052133	ppb
	Se	82	23.333	0.062346	ppb

⌈	Mo	96	364.007	-0.386574	ppb
|	Ag	107	56.667	0.005917	ppb
|	Ag	109	76.667	0.007203	ppb
|	Cd	111	4.635	0.010884	ppb
|	In	113	74622.390	0.549441	ppb
|>	In	115	1698485.366		ppb
⌊	Sn	118	120.001	0.002919	ppb
⌈	Sb	121	1220.074	0.218546	ppb
|	Ba	135	36.000	-0.004725	ppb
|	Ba	137	86.000	0.009205	ppb
⌊>	Tb	159	3179858.119		ppb
⌈	Tl	205	130.001	0.003037	ppb
|	Pb	206	75.000	0.004598	ppb
|	Pb	207	105.000	0.000356	ppb
|	Pb	208	120.000	-0.002712	ppb
⌊>	Bi	209	2794746.542		ppb
	Cr	53	298.004		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	317710.064		ppb
	Kr	83	18.000		ppb
	Se	77	20.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.962			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		96.648			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		95.424			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		96.422			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		97.567			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042029-BS1

Sample Date/Time: Thursday, April 30, 2009 14:30:06
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0904103
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042029-BS1.2409

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	522007.880	1.724	522007.880			ppb
	Be	9	25330.045	1.519	0.049	101.92867	1.43	ppb
	Na	23	6089839.547	0.478	11.610	2049.05640	1.60	ppb
	Mg	24	2581675.476	1.031	4.937	1237.30302	2.31	ppb
	Mg	25	358376.659	0.168	0.685	1230.66105	1.68	ppb
	Mg	26	404505.213	1.282	0.774	1211.11495	2.57	ppb
	Al	27	1714061.089	0.662	3.274	507.94688	2.20	ppb
	K	39	10916078.050	1.036	20.520	1928.64010	0.91	ppb
	Ca	44	273994.422	0.842	0.516	1862.66111	0.90	ppb
>	Sc	45	643713.413	1.486	643713.413			ppb
	Ti	47	63.334	91.161	0.000	0.03934	409.97	ppb
	V	51	485129.839	1.363	0.753	101.62269	0.12	ppb
	Cr	52	414143.651	1.008	0.640	100.64559	0.82	ppb
	Mn	55	590397.014	1.244	0.917	103.05657	2.01	ppb
	Fe	54	335469.184	0.299	0.498	1025.25824	1.27	ppb
	Fe	56	6342238.951	1.027	9.263	1033.80455	2.61	ppb
	Fe	57	126518.738	1.284	0.194	1014.80845	0.33	ppb
	Co	59	524184.470	1.019	0.814	102.14450	0.80	ppb
	Ni	60	114959.247	0.670	0.179	101.13786	1.27	ppb
	Cu	63	272914.575	1.574	0.423	101.45816	0.88	ppb
	Cu	65	136485.172	1.110	0.212	103.19683	0.43	ppb
	Zn	66	146609.139	0.602	0.228	207.83718	1.13	ppb
	As	75	163009.700	0.689	0.253	204.33745	1.02	ppb
	Se	82	15601.495	0.997	0.024	206.88250	0.61	ppb
	Mo	96	356.673	9.117	-0.000	-0.38769	5.56	ppb
	Ag	107	522544.220	1.308	0.312	103.61195	0.90	ppb
	Ag	109	514370.746	1.288	0.307	102.81441	0.86	ppb
	Cd	111	119988.334	0.713	0.072	100.18167	0.30	ppb
	In	113	194964.064	1.261	0.073	102.61135	2.69	ppb
>	In	115	1672647.141	0.429	1672647.141			ppb
	Sn	118	455.010	11.420	0.000	0.09505	14.43	ppb
	Sb	121	801087.639	0.827	0.256	206.01919	1.89	ppb
	Ba	135	112691.452	1.001	0.036	103.84924	0.19	ppb
	Ba	137	196113.308	1.536	0.063	103.22812	1.18	ppb
>	Tb	159	3131223.323	1.191	3131223.323			ppb
	Tl	205	4066774.687	1.705	1.504	212.70805	2.59	ppb
	Pb	206	1231938.151	0.777	0.455	210.60070	1.59	ppb
	Pb	207	2322972.148	0.432	0.859	209.83846	1.03	ppb
	Pb	208	4134118.241	1.112	1.528	207.51713	0.69	ppb
>	Bi	209	2705188.152	1.145	2705188.152			ppb
	Cr	53	48047.165	1.396	47735.827			ppb
	Pd	106	10145.144	0.520	10145.144			ppb
	Pd	108	7572.870	4.096	7562.870			ppb
	C	12	329081.824	1.461	14787.882			ppb
	Kr	83	18.667	40.564	0.667			ppb
	Se	77	12244.603	0.722	12215.714			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	531918.356		ppb
	Be	9	25698.980	101.477387	ppb
	Na	23	6111811.369	2017.622966	ppb
	Mg	24	2561837.362	1204.564364	ppb
	Mg	25	358326.912	1207.288355	ppb
	Mg	26	400199.902	1175.518404	ppb
	Al	27	1702848.550	495.060341	ppb
	K	39	11012193.782	1908.828346	ppb
	Ca	44	276457.330	1843.882698	ppb
>	Sc	45	654691.765		ppb
	Ti	47	30.000	-0.054757	ppb
	V	51	492721.648	101.480822	ppb
	Cr	52	417945.128	99.856348	ppb
	Mn	55	588703.082	101.021087	ppb
	Fe	54	336440.996	1010.184335	ppb
	Fe	56	6269456.451	1002.692863	ppb
	Fe	57	128388.929	1012.488385	ppb
	Co	59	529106.938	101.368638	ppb
	Ni	60	115327.880	99.749276	ppb
	Cu	63	276743.758	101.154394	ppb
	Cu	65	138232.182	102.760746	ppb
	Zn	66	147415.280	205.451464	ppb
	As	75	163951.572	202.053302	ppb
	Se	82	15765.751	205.542539	ppb
	Mo	96	320.005	-0.411801	ppb
	Ag	107	524496.671	103.748555	ppb
	Ag	109	517751.788	103.241015	ppb
	Cd	111	120320.143	100.215083	ppb
	In	113	194090.452	101.472905	ppb
>	In	115	1676726.461		ppb
	Sn	118	485.012	0.102977	ppb
	Sb	121	797311.739	202.370664	ppb
	Ba	135	113931.341	103.634864	ppb
	Ba	137	197450.274	102.588497	ppb
>	Tb	159	3172172.775		ppb
	Tl	205	4145147.241	218.169062	ppb
	Pb	206	1224831.992	210.714376	ppb
	Pb	207	2311401.850	210.125479	ppb
	Pb	208	4086341.935	206.438877	ppb
>	Bi	209	2687842.817		ppb
	Cr	53	47902.458		ppb
	Pd	106	10090.088		ppb
	Pd	108	7527.832		ppb
	C	12	334130.431		ppb
	Kr	83	24.000		ppb
	Se	77	12310.239		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	514348.043		ppb
	Be	9	25360.116	103.560275	ppb
	Na	23	6100876.794	2083.144644	ppb
	Mg	24	2571277.094	1250.395122	ppb
	Mg	25	357799.523	1246.767298	ppb
	Mg	26	403056.255	1224.448691	ppb
	Al	27	1713809.641	515.331541	ppb
	K	39	10791383.727	1934.948892	ppb
	Ca	44	271882.433	1875.863820	ppb
>	Sc	45	639275.768		ppb

	Ti	47	30.000	-0.052799	ppb
	V	51	482024.842	101.672015	ppb
	Cr	52	414808.494	101.504750	ppb
	Mn	55	598441.367	105.170204	ppb
	Fe	54	335531.181	1032.782238	ppb
	Fe	56	6395043.484	1050.392849	ppb
	Fe	57	125462.131	1013.276890	ppb
	Co	59	524941.807	102.996099	ppb
	Ni	60	115476.244	102.286719	ppb
	Cu	63	273732.558	102.468469	ppb
	Cu	65	135532.268	103.183719	ppb
	Zn	66	145666.600	207.913020	ppb
	As	75	163312.006	206.118493	ppb
	Se	82	15582.131	208.050498	ppb
	Mo	96	368.007	-0.381035	ppb
	Ag	107	528190.337	104.471900	ppb
	Ag	109	518625.355	103.407974	ppb
	Cd	111	120627.790	100.464267	ppb
	In	113	193060.806	100.598658	ppb
>	In	115	1676843.932		ppb
	Sn	118	485.012	0.102967	ppb
	Sb	121	797214.421	205.578713	ppb
	Ba	135	112416.340	103.889837	ppb
	Ba	137	198225.384	104.636618	ppb
>	Tb	159	3122311.760		ppb
	Tl	205	4041791.850	212.813466	ppb
	Pb	206	1242827.558	213.895129	ppb
	Pb	207	2329280.698	211.834831	ppb
	Pb	208	4137998.405	209.131508	ppb
>	Bi	209	2686777.677		ppb
	Cr	53	48778.679		ppb
	Pd	106	10195.194		ppb
	Pd	108	7287.655		ppb
	C	12	328560.357		ppb
	Kr	83	10.000		ppb
	Se	77	12279.535		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	519757.243		ppb
	Be	9	24931.039	100.748355	ppb
	Na	23	6056830.478	2046.401577	ppb
	Mg	24	2611911.971	1256.949587	ppb
	Mg	25	359003.543	1237.927483	ppb
	Mg	26	410259.482	1233.377751	ppb
	Al	27	1725525.076	513.448761	ppb
	K	39	10944656.641	1942.143065	ppb
	Ca	44	273643.503	1868.236810	ppb
>	Sc	45	637172.707		ppb
	Ti	47	130.001	0.225587	ppb
	V	51	480643.028	101.715226	ppb
	Cr	52	409677.330	100.575659	ppb
	Mn	55	584046.592	102.978411	ppb
	Fe	54	334435.375	1032.808135	ppb
	Fe	56	6362216.918	1048.327929	ppb
	Fe	57	125705.154	1018.660069	ppb
	Co	59	518504.665	102.068773	ppb
	Ni	60	114073.616	101.377598	ppb
	Cu	63	268267.409	100.751606	ppb
	Cu	65	135691.066	103.646038	ppb
	Zn	66	146745.537	210.147051	ppb
	As	75	161765.522	204.840551	ppb
	Se	82	15456.603	207.054455	ppb

⌈	Mo	96	382.007	-0.370221	ppb
|	Ag	107	514945.651	102.615401	ppb
|	Ag	109	506735.095	101.794248	ppb
|	Cd	111	119017.069	99.865660	ppb
|	In	113	197740.933	105.762476	ppb
|>	In	115	1664371.031		ppb
⌊	Sn	118	395.008	0.079209	ppb
⌈	Sb	121	808736.756	210.108199	ppb
|	Ba	135	111726.675	104.023007	ppb
|	Ba	137	192664.268	102.459253	ppb
⌊>	Tb	159	3099185.434		ppb
⌈	Tl	205	4013384.969	207.141615	ppb
|	Pb	206	1228154.902	207.192594	ppb
|	Pb	207	2328233.895	207.555073	ppb
|	Pb	208	4178014.382	206.980996	ppb
⌊>	Bi	209	2740943.963		ppb
	Cr	53	47460.358		ppb
	Pd	106	10150.149		ppb
	Pd	108	7903.122		ppb
	C	12	324554.684		ppb
	Kr	83	22.000		ppb
	Se	77	12144.036		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			97.417		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			95.590		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			93.483		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			95.098		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			94.543		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042029-BSD1

Sample Date/Time: Thursday, April 30, 2009 14:32:40
Sample Type: Sample
Sample Description: LCSWD
Number of Replicates: 3
Batch ID: 0904103
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042029-BSD1.2410

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	514775.053	1.756	514775.053			ppb
	Be	9	25013.947	4.086	0.049	102.03556	2.40	ppb
	Na	23	6053647.644	1.124	11.703	2065.47655	1.40	ppb
	Mg	24	2529382.398	1.380	4.904	1229.09399	1.45	ppb
	Mg	25	354305.784	1.018	0.687	1233.65486	0.79	ppb
	Mg	26	401245.548	1.975	0.778	1217.90068	0.47	ppb
	Al	27	1669426.460	2.769	3.233	501.47881	1.28	ppb
	K	39	10892756.841	1.539	20.767	1951.87973	0.39	ppb
	Ca	44	270278.715	0.971	0.516	1863.20968	0.80	ppb
>	Sc	45	627126.699	1.710	627126.699			ppb
	Ti	47	41.667	48.498	-0.000	-0.01759	338.23	ppb
	V	51	481521.674	1.061	0.767	103.54367	0.68	ppb
	Cr	52	413026.238	1.551	0.656	103.03571	0.21	ppb
	Mn	55	586475.362	2.694	0.935	105.05302	1.09	ppb
	Fe	54	336076.876	2.808	0.512	1055.40734	1.40	ppb
	Fe	56	6317116.703	2.461	9.480	1058.06320	0.93	ppb
	Fe	57	125973.546	0.942	0.198	1037.54978	1.20	ppb
	Co	59	524507.910	0.890	0.836	104.91673	1.12	ppb
	Ni	60	114580.717	2.367	0.183	103.45243	0.73	ppb
	Cu	63	272328.781	1.371	0.434	103.92840	1.17	ppb
	Cu	65	132534.862	1.602	0.211	102.85743	0.15	ppb
	Zn	66	143652.458	1.874	0.229	209.01230	0.84	ppb
	As	75	160254.188	0.976	0.256	206.19537	0.79	ppb
	Se	82	15425.666	0.530	0.025	209.98236	1.20	ppb
	Mo	96	286.004	3.700	-0.000	-0.43128	1.41	ppb
	Ag	107	517190.227	1.930	0.312	103.62037	2.67	ppb
	Ag	109	509918.246	0.894	0.308	102.97709	0.98	ppb
	Cd	111	119535.994	1.083	0.072	100.83404	1.28	ppb
	In	113	191756.286	1.367	0.072	101.56679	2.10	ppb
>	In	115	1655628.320	0.727	1655628.320			ppb
	Sn	118	490.012	15.238	0.000	0.10595	18.65	ppb
	Sb	121	803288.198	0.465	0.254	204.81762	2.21	ppb
	Ba	135	111949.821	0.336	0.035	102.29320	1.99	ppb
	Ba	137	195716.981	1.515	0.062	102.13093	1.01	ppb
>	Tb	159	3158598.457	1.752	3158598.457			ppb
	Tl	205	4086295.963	0.774	1.507	213.15894	0.28	ppb
	Pb	206	1226454.436	0.716	0.452	209.12696	1.18	ppb
	Pb	207	2321579.156	0.220	0.856	209.17968	0.61	ppb
	Pb	208	4189637.858	0.227	1.545	209.78280	0.78	ppb
>	Bi	209	2711942.701	0.578	2711942.701			ppb
	Cr	53	47473.782	1.912	47162.444			ppb
	Pd	106	10178.511	0.505	10178.511			ppb
	Pd	108	7636.248	0.759	7626.248			ppb
	C	12	327597.633	0.544	13303.691			ppb
	Kr	83	26.000	26.647	8.000			ppb
	Se	77	12307.793	1.883	12278.905			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	524012.941		ppb
	Be	9	26160.173	104.857152	ppb
	Na	23	6065916.956	2032.758943	ppb
	Mg	24	2535325.179	1210.093938	ppb
	Mg	25	357469.013	1222.596929	ppb
	Mg	26	410084.521	1222.819269	ppb
	Al	27	1722384.539	508.336323	ppb
	K	39	11078113.268	1950.006887	ppb
	Ca	44	272895.473	1847.649863	ppb
>	Sc	45	636975.734		ppb
	Ti	47	30.000	-0.052499	ppb
	V	51	486618.194	103.013210	ppb
	Cr	52	418491.272	102.781709	ppb
	Mn	55	603120.291	106.375659	ppb
	Fe	54	346516.435	1072.215372	ppb
	Fe	56	6434478.938	1061.334229	ppb
	Fe	57	127340.652	1032.409175	ppb
	Co	59	529897.176	104.343942	ppb
	Ni	60	116757.661	103.795562	ppb
	Cu	63	276623.841	103.926824	ppb
	Cu	65	134383.588	102.678133	ppb
	Zn	66	145017.264	207.733391	ppb
	As	75	161396.734	204.436767	ppb
	Se	82	15485.314	207.503743	ppb
	Mo	96	282.004	-0.434663	ppb
	Ag	107	510867.598	101.895482	ppb
	Ag	109	514998.259	103.548583	ppb
	Cd	111	120840.020	101.487557	ppb
	In	113	194717.466	103.359604	ppb
>	In	115	1662855.749		ppb
	Sn	118	520.014	0.113715	ppb
	Sb	121	800815.808	203.105859	ppb
	Ba	135	112203.975	101.985421	ppb
	Ba	137	198337.576	102.971301	ppb
>	Tb	159	3174586.160		ppb
	Tl	205	4082905.737	213.539123	ppb
	Pb	206	1235998.841	211.295771	ppb
	Pb	207	2326888.183	210.200542	ppb
	Pb	208	4188604.413	210.272030	ppb
>	Bi	209	2704885.064		ppb
	Cr	53	47918.535		ppb
	Pd	106	10135.133		ppb
	Pd	108	7697.962		ppb
	C	12	328886.830		ppb
	Kr	83	22.000		ppb
	Se	77	12575.235		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	514366.980		ppb
	Be	9	24684.428	100.797125	ppb
	Na	23	6114737.523	2087.823483	ppb
	Mg	24	2560928.766	1245.307078	ppb
	Mg	25	355067.694	1237.184913	ppb
	Mg	26	398876.573	1211.682151	ppb
	Al	27	1648689.677	495.672274	ppb
	K	39	10848406.104	1945.295728	ppb
	Ca	44	270296.293	1864.662500	ppb
>	Sc	45	628700.918		ppb

	Ti	47	30.000	-0.051400	ppb
	V	51	481543.836	103.281044	ppb
	Cr	52	414610.533	103.170646	ppb
	Mn	55	584618.607	104.468844	ppb
	Fe	54	333556.748	1044.499716	ppb
	Fe	56	6376088.321	1065.807567	ppb
	Fe	57	125214.051	1028.479417	ppb
	Co	59	521959.626	104.133685	ppb
	Ni	60	115442.525	103.977214	ppb
	Cu	63	269852.547	102.715501	ppb
	Cu	65	133005.344	102.962908	ppb
	Zn	66	145389.274	211.011429	ppb
	As	75	160893.289	206.481388	ppb
	Se	82	15459.274	209.884137	ppb
	Mo	96	278.004	-0.434936	ppb
	Ag	107	528696.038	106.808593	ppb
	Ag	109	508571.557	103.572160	ppb
	Cd	111	119516.128	101.667239	ppb
	In	113	190818.377	102.139537	ppb
>	In	115	1641731.068		ppb
	Sn	118	405.008	0.083495	ppb
	Sb	121	801464.839	201.392334	ppb
	Ba	135	111518.369	100.425518	ppb
	Ba	137	196316.273	100.979880	ppb
>	Tb	159	3204179.423		ppb
	Tl	205	4119479.596	213.477484	ppb
	Pb	206	1218723.932	206.433094	ppb
	Pb	207	2321140.555	207.759630	ppb
	Pb	208	4180687.697	207.951143	ppb
>	Bi	209	2729902.873		ppb
	Cr	53	48073.275		ppb
	Pd	106	10165.164		ppb
	Pd	108	7627.908		ppb
	C	12	328343.403		ppb
	Kr	83	34.000		ppb
	Se	77	12182.750		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	505945.237		ppb
	Be	9	24197.240	100.452408	ppb
	Na	23	5980288.453	2075.847237	ppb
	Mg	24	2491893.250	1231.880961	ppb
	Mg	25	350380.644	1241.182743	ppb
	Mg	26	394775.552	1219.200628	ppb
	Al	27	1637205.164	500.427822	ppb
	K	39	10751751.153	1960.336588	ppb
	Ca	44	267644.378	1877.316668	ppb
>	Sc	45	615703.445		ppb
	Ti	47	65.000	0.051117	ppb
	V	51	476402.992	104.336749	ppb
	Cr	52	405976.911	103.154780	ppb
	Mn	55	571687.187	104.314548	ppb
	Fe	54	328157.446	1049.506940	ppb
	Fe	56	6140782.850	1047.047801	ppb
	Fe	57	125365.936	1051.760740	ppb
	Co	59	521666.930	106.272565	ppb
	Ni	60	111541.964	102.584521	ppb
	Cu	63	270509.955	105.142872	ppb
	Cu	65	130215.655	102.931260	ppb
	Zn	66	140550.834	208.292077	ppb
	As	75	158472.542	207.667948	ppb
	Se	82	15332.412	212.559198	ppb

⌈	Mo	96	298.004	-0.424251	ppb
|	Ag	107	512007.045	102.157021	ppb
|	Ag	109	506184.922	101.810529	ppb
|	Cd	111	118251.836	99.347332	ppb
|	In	113	189733.016	99.201238	ppb
|>	In	115	1662298.144		ppb
⌊	Sn	118	545.015	0.120647	ppb
⌈	Sb	121	807583.948	209.954670	ppb
|	Ba	135	112127.120	104.468664	ppb
|	Ba	137	192497.094	102.441597	ppb
⌊>	Tb	159	3097029.788		ppb
⌈	Tl	205	4056502.556	212.460203	ppb
|	Pb	206	1224640.534	209.652004	ppb
|	Pb	207	2316708.730	209.578859	ppb
|	Pb	208	4199621.463	211.125239	ppb
⌊>	Bi	209	2701040.167		ppb
	Cr	53	46429.535		ppb
	Pd	106	10235.235		ppb
	Pd	108	7582.874		ppb
	C	12	325562.667		ppb
	Kr	83	22.000		ppb
	Se	77	12165.395		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			96.067		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			93.127		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			92.532		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			95.929		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			94.779		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904103-01

Sample Date/Time: Thursday, April 30, 2009 14:35:13
Sample Type: Sample
Sample Description: 13MW1
Number of Replicates: 3
Batch ID: 0904103
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904103-01.2411

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	489483.730	1.082	489483.730			ppb
	Be	9	2.667	173.205	0.000	0.00348	563.90	ppb
	Na	23	31094080.978	0.534	63.469	11201.59556	0.57	ppb
	Mg	24	66313296.238	1.098	135.483	33953.46031	1.94	ppb
	Mg	25	9596873.779	0.250	19.606	35204.52424	1.03	ppb
	Mg	26	11614465.839	0.633	23.729	37148.25879	1.44	ppb
	Al	27	98103.992	1.961	0.190	29.51668	1.04	ppb
	K	39	9119805.775	0.764	18.238	1714.19176	0.36	ppb
	Ca	44	15018310.730	0.250	30.675	110727.20334	0.95	ppb
>	Sc	45	608204.255	1.013	608204.255			ppb
	Ti	47	1031.720	4.707	0.002	2.86928	3.87	ppb
	V	51	2765.358	7.197	0.004	0.48379	8.12	ppb
	Cr	52	17255.545	1.883	0.025	3.97975	0.98	ppb
	Mn	55	7077.505	2.570	0.011	1.26824	3.18	ppb
	Fe	54	28172.966	1.082	0.023	46.93127	0.63	ppb
	Fe	56	690489.511	1.432	0.543	60.62231	5.10	ppb
	Fe	57	43020.676	0.618	0.068	356.76178	1.68	ppb
	Co	59	1030.720	1.627	0.002	0.20041	0.94	ppb
	Ni	60	2574.776	2.820	0.004	2.37490	3.67	ppb
	Cu	63	907.819	6.932	0.001	0.20803	13.62	ppb
	Cu	65	722.248	9.418	0.001	0.47750	12.26	ppb
	Zn	66	1448.994	1.267	0.002	1.92347	2.16	ppb
	As	75	176.640	34.065	0.000	0.23756	32.92	ppb
	Se	82	301.560	4.660	0.000	3.99095	4.15	ppb
	Mo	96	1837.502	2.891	0.001	0.66309	4.98	ppb
	Ag	107	214.447	6.472	0.000	0.04094	7.56	ppb
	Ag	109	257.781	12.015	0.000	0.04795	13.89	ppb
	Cd	111	34.213	46.344	0.000	0.03796	37.11	ppb
	In	113	68045.736	0.795	0.001	0.76480	11.82	ppb
>	In	115	1543407.821	0.756	1543407.821			ppb
	Sn	118	133.334	15.156	0.000	0.01010	56.48	ppb
	Sb	121	4255.906	3.954	0.001	1.05802	5.34	ppb
	Ba	135	124390.974	1.409	0.042	120.24208	2.55	ppb
	Ba	137	216656.534	0.336	0.073	119.61375	1.45	ppb
>	Tb	159	2985842.224	1.397	2985842.224			ppb
	Tl	205	483.345	11.442	0.000	0.02516	13.58	ppb
	Pb	206	360.007	8.333	0.000	0.06209	10.40	ppb
	Pb	207	738.347	4.610	0.000	0.06691	6.18	ppb
	Pb	208	1180.039	4.042	0.000	0.05871	5.24	ppb
>	Bi	209	2382978.853	0.903	2382978.853			ppb
	Cr	53	2024.205	1.165	1712.867			ppb
	Pd	106	8.333	91.652	8.333			ppb
	Pd	108	6.667	43.301	-3.333			ppb
	C	12	368178.274	0.919	53884.332			ppb
	Kr	83	24.000	41.667	6.000			ppb
	Se	77	231.780	1.871	202.892			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	495014.024		ppb
	Be	9	8.000	0.026107	ppb
	Na	23	31280892.801	11142.493650	ppb
	Mg	24	65572546.639	33194.903326	ppb
	Mg	25	9593243.053	34795.503865	ppb
	Mg	26	11551970.326	36532.077295	ppb
	Al	27	99750.034	29.686961	ppb
	K	39	9197183.658	1709.278164	ppb
	Ca	44	15026158.678	109539.647967	ppb
>	Sc	45	614635.670		ppb
	Ti	47	1085.059	2.992343	ppb
	V	51	2989.338	0.526755	ppb
	Cr	52	17589.456	4.018738	ppb
	Mn	55	6922.395	1.226015	ppb
	Fe	54	28435.371	46.812420	ppb
	Fe	56	680026.481	57.375585	ppb
	Fe	57	42721.060	350.300346	ppb
	Co	59	1050.055	0.202140	ppb
	Ni	60	2493.644	2.274535	ppb
	Cu	63	853.370	0.182872	ppb
	Cu	65	706.692	0.458856	ppb
	Zn	66	1450.105	1.902125	ppb
	As	75	213.545	0.283990	ppb
	Se	82	309.338	4.055543	ppb
	Mo	96	1868.174	0.673256	ppb
	Ag	107	210.002	0.039590	ppb
	Ag	109	266.670	0.049382	ppb
	Cd	111	51.095	0.052904	ppb
	In	113	68654.868	0.778848	ppb
>	In	115	1556873.085		ppb
	Sn	118	155.001	0.016150	ppb
	Sb	121	4385.962	1.111975	ppb
	Ba	135	125840.845	123.598741	ppb
	Ba	137	216574.093	121.499693	ppb
>	Tb	159	2938004.079		ppb
	Tl	205	490.012	0.025818	ppb
	Pb	206	390.008	0.068574	ppb
	Pb	207	765.015	0.070351	ppb
	Pb	208	1185.040	0.059615	ppb
>	Bi	209	2361026.569		ppb
	Cr	53	1998.200		ppb
	Pd	106	15.000		ppb
	Pd	108	5.000		ppb
	C	12	365053.771		ppb
	Kr	83	34.000		ppb
	Se	77	232.003		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	484453.222		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	30963020.087	11269.813900	ppb
	Mg	24	66339086.464	34315.121154	ppb
	Mg	25	9574916.530	35486.150692	ppb
	Mg	26	11595987.303	37470.750181	ppb
	Al	27	95988.489	29.163893	ppb
	K	39	9062109.375	1721.140150	ppb
	Ca	44	14977474.802	111565.506070	ppb
>	Sc	45	602350.934		ppb

	Ti	47	990.049	2.776637	ppb
	V	51	2697.899	0.474823	ppb
	Cr	52	16940.337	3.941096	ppb
	Mn	55	7032.472	1.272368	ppb
	Fe	54	27838.696	46.715504	ppb
	Fe	56	699685.598	63.536666	ppb
	Fe	57	43228.232	362.119055	ppb
	Co	59	1022.052	0.200679	ppb
	Ni	60	2597.004	2.418588	ppb
	Cu	63	976.714	0.238733	ppb
	Cu	65	796.698	0.543076	ppb
	Zn	66	1466.774	1.971364	ppb
	As	75	107.204	0.147267	ppb
	Se	82	285.337	3.802759	ppb
	Mo	96	1868.174	0.689823	ppb
	Ag	107	230.003	0.044481	ppb
	Ag	109	223.336	0.040691	ppb
	Cd	111	31.910	0.036063	ppb
	In	113	67859.467	0.847368	ppb
>	In	115	1537136.223		ppb
	Sn	118	115.001	0.004825	ppb
	Sb	121	4065.826	0.999354	ppb
	Ba	135	122443.054	117.578729	ppb
	Ba	137	217422.202	119.255688	ppb
>	Tb	159	3004993.103		ppb
	Tl	205	535.014	0.028207	ppb
	Pb	206	360.006	0.062022	ppb
	Pb	207	750.014	0.068055	ppb
	Pb	208	1225.042	0.061240	ppb
>	Bi	209	2383888.119		ppb
	Cr	53	2030.206		ppb
	Pd	106	10.000		ppb
	Pd	108	10.000		ppb
	C	12	367710.498		ppb
	Kr	83	14.000		ppb
	Se	77	236.003		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	488983.944		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	31038330.046	11192.479121	ppb
	Mg	24	67028255.610	34350.356435	ppb
	Mg	25	9622461.754	35331.918148	ppb
	Mg	26	11695439.889	37441.948904	ppb
	Al	27	98573.454	29.699187	ppb
	K	39	9100124.293	1712.156974	ppb
	Ca	44	15051298.712	111076.455998	ppb
>	Sc	45	607626.161		ppb
	Ti	47	1020.052	2.838849	ppb
	V	51	2608.838	0.449784	ppb
	Cr	52	17236.843	3.979416	ppb
	Mn	55	7277.647	1.306325	ppb
	Fe	54	28244.832	47.265884	ppb
	Fe	56	691756.456	60.954679	ppb
	Fe	57	43112.735	357.865930	ppb
	Co	59	1020.052	0.198418	ppb
	Ni	60	2633.680	2.431575	ppb
	Cu	63	893.373	0.202488	ppb
	Cu	65	663.355	0.430572	ppb
	Zn	66	1430.102	1.896914	ppb
	As	75	209.170	0.281414	ppb
	Se	82	310.005	4.114534	ppb

⌈	Mo	96	1776.158	0.626200	ppb
|	Ag	107	203.335	0.038753	ppb
|	Ag	109	283.337	0.053780	ppb
|	Cd	111	19.635	0.024922	ppb
|	In	113	67622.872	0.668184	ppb
|>	In	115	1536214.154		ppb
⌊	Sn	118	130.001	0.009315	ppb
⌈	Sb	121	4315.931	1.062737	ppb
|	Ba	135	124889.024	119.548766	ppb
|	Ba	137	215973.308	118.085876	ppb
⌊>	Tb	159	3014529.490		ppb
⌈	Tl	205	425.009	0.021467	ppb
|	Pb	206	330.005	0.055666	ppb
|	Pb	207	700.012	0.062328	ppb
|	Pb	208	1130.036	0.055289	ppb
⌊>	Bi	209	2404021.871		ppb
	Cr	53	2044.209		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	371770.552		ppb
	Kr	83	24.000		ppb
	Se	77	227.336		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		91.347			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		90.317			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		86.260			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.683			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		83.282			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: SDI0904103-01

Sample Date/Time: Thursday, April 30, 2009 14:37:46
Sample Type: Sample
Sample Description: 13MW1L 5X
Number of Replicates: 3
Batch ID: 0904103
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\SDI0904103-01.2412

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	515132.199	2.543	515132.199			ppb
	Be	9	0.667	173.205	-0.000	-0.00520	88.04	ppb
	Na	23	6443904.164	1.089	12.455	2198.10747	1.81	ppb
	Mg	24	14034552.581	2.287	27.238	6826.06275	1.44	ppb
	Mg	25	2027173.466	2.503	3.934	7063.82934	0.42	ppb
	Mg	26	2444309.159	1.645	4.744	7427.38828	1.12	ppb
	Al	27	23439.106	1.144	0.035	5.48866	4.29	ppb
	K	39	2082508.936	0.068	3.651	343.13635	2.72	ppb
	Ca	44	3112735.727	1.128	6.035	21785.25651	1.61	ppb
>	Sc	45	639035.092	0.734	639035.092			ppb
	Ti	47	250.003	5.292	0.000	0.55723	6.19	ppb
	V	51	1153.361	5.378	0.001	0.11386	13.04	ppb
	Cr	52	5287.398	1.029	0.005	0.82142	2.78	ppb
	Mn	55	1621.798	1.083	0.002	0.24545	0.78	ppb
	Fe	54	17486.952	3.010	0.004	7.88811	26.66	ppb
	Fe	56	452439.926	1.398	0.116	12.91377	9.06	ppb
	Fe	57	10023.355	1.754	0.013	68.78588	2.03	ppb
	Co	59	240.003	5.774	0.000	0.03495	8.49	ppb
	Ni	60	594.462	4.283	0.001	0.50344	3.83	ppb
	Cu	63	491.123	2.743	0.000	0.03433	16.37	ppb
	Cu	65	270.004	17.416	0.000	0.10451	34.01	ppb
	Zn	66	466.678	4.286	0.000	0.41392	6.79	ppb
	As	75	67.071	49.984	0.000	0.08822	47.44	ppb
	Se	82	76.667	13.387	0.000	0.77955	17.06	ppb
	Mo	96	486.679	10.719	-0.000	-0.30159	9.30	ppb
	Ag	107	121.112	23.408	0.000	0.01914	30.93	ppb
	Ag	109	78.889	35.436	0.000	0.00802	70.16	ppb
	Cd	111	25.880	47.470	0.000	0.02877	34.36	ppb
	In	113	72243.368	1.029	0.000	0.07351	951.54	ppb
>	In	115	1657299.361	1.783	1657299.361			ppb
	Sn	118	120.001	15.023	0.000	0.00368	121.76	ppb
	Sb	121	1940.190	13.080	0.001	0.40895	15.00	ppb
	Ba	135	25657.557	2.792	0.008	23.65235	3.53	ppb
	Ba	137	44566.425	0.751	0.014	23.46405	0.75	ppb
>	Tb	159	3126865.170	0.879	3126865.170			ppb
	Tl	205	178.335	11.673	0.000	0.00602	19.46	ppb
	Pb	206	150.001	20.000	0.000	0.01844	27.74	ppb
	Pb	207	268.335	11.834	0.000	0.01599	17.18	ppb
	Pb	208	453.340	18.368	0.000	0.01476	28.36	ppb
>	Bi	209	2640569.635	0.793	2640569.635			ppb
	Cr	53	558.682	6.880	247.344			ppb
	Pd	106	3.333	173.205	3.333			ppb
	Pd	108	0.000		-10.000			ppb
	C	12	336324.348	0.708	22030.406			ppb
	Kr	83	16.000	33.072	-2.000			ppb
	Se	77	60.222	11.199	31.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	529998.331		ppb
	Be	9	2.000	0.000087	ppb
	Na	23	6496677.606	2153.130566	ppb
	Mg	24	14298264.434	6758.516140	ppb
	Mg	25	2085736.035	7063.943982	ppb
	Mg	26	2490236.915	7353.452215	ppb
	Al	27	23302.118	5.246744	ppb
	K	39	2083705.328	332.532592	ppb
	Ca	44	3151688.647	21433.119026	ppb
>	Sc	45	637343.066		ppb
	Ti	47	260.003	0.586943	ppb
	V	51	1169.069	0.117760	ppb
	Cr	52	5301.405	0.828213	ppb
	Mn	55	1605.129	0.243271	ppb
	Fe	54	17690.634	8.685863	ppb
	Fe	56	458960.987	14.263502	ppb
	Fe	57	10190.189	70.371936	ppb
	Co	59	232.003	0.033493	ppb
	Ni	60	600.018	0.509855	ppb
	Cu	63	506.680	0.040654	ppb
	Cu	65	313.338	0.138227	ppb
	Zn	66	486.679	0.444364	ppb
	As	75	31.200	0.043168	ppb
	Se	82	65.334	0.630662	ppb
	Mo	96	546.015	-0.269592	ppb
	Ag	107	93.334	0.013170	ppb
	Ag	109	93.334	0.010577	ppb
	Cd	111	40.000	0.040128	ppb
	In	113	72738.586	-0.703213	ppb
>	In	115	1689896.013		ppb
	Sn	118	135.001	0.007147	ppb
	Sb	121	1665.139	0.342815	ppb
	Ba	135	26248.404	24.440838	ppb
	Ba	137	44372.227	23.599847	ppb
>	Tb	159	3095272.469		ppb
	Tl	205	195.002	0.006914	ppb
	Pb	206	120.001	0.013224	ppb
	Pb	207	250.002	0.014333	ppb
	Pb	208	520.008	0.018226	ppb
>	Bi	209	2637963.072		ppb
	Cr	53	600.018		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	339062.339		ppb
	Kr	83	12.000		ppb
	Se	77	68.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	505276.674		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	6364230.642	2212.716424	ppb
	Mg	24	13677181.485	6781.260313	ppb
	Mg	25	1996696.797	7093.259697	ppb
	Mg	26	2427192.724	7518.014429	ppb
	Al	27	23748.165	5.717407	ppb
	K	39	2080956.576	350.100614	ppb
	Ca	44	3102986.066	22135.422487	ppb
>	Sc	45	644335.517		ppb

	Ti	47	255.003	0.565347	ppb
	V	51	1084.990	0.097454	ppb
	Cr	52	5227.366	0.795965	ppb
	Mn	55	1640.134	0.246305	ppb
	Fe	54	16889.250	5.503057	ppb
	Fe	56	452030.784	12.190853	ppb
	Fe	57	10040.038	68.245478	ppb
	Co	59	232.003	0.032998	ppb
	Ni	60	616.686	0.518720	ppb
	Cu	63	483.345	0.029907	ppb
	Cu	65	276.670	0.107904	ppb
	Zn	66	466.678	0.408435	ppb
	As	75	97.610	0.125897	ppb
	Se	82	85.334	0.886410	ppb
	Mo	96	448.010	-0.321888	ppb
	Ag	107	120.001	0.019235	ppb
	Ag	109	96.667	0.011912	ppb
	Cd	111	17.640	0.022165	ppb
	In	113	71388.913	0.270130	ppb
>	In	115	1632272.655		ppb
	Sn	118	100.001	-0.001377	ppb
	Sb	121	1990.198	0.420041	ppb
	Ba	135	25863.403	23.738753	ppb
	Ba	137	44374.236	23.264737	ppb
>	Tb	159	3139931.818		ppb
	Tl	205	155.001	0.004692	ppb
	Pb	206	180.002	0.023449	ppb
	Pb	207	305.002	0.019166	ppb
	Pb	208	480.007	0.015937	ppb
>	Bi	209	2662695.112		ppb
	Cr	53	552.015		ppb
	Pd	106	10.000		ppb
	Pd	108	0.000		ppb
	C	12	334754.800		ppb
	Kr	83	14.000		ppb
	Se	77	56.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	510121.591		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	6470804.246	2228.475429	ppb
	Mg	24	14128211.825	6938.411793	ppb
	Mg	25	1999087.565	7034.284344	ppb
	Mg	26	2415497.837	7410.698206	ppb
	Al	27	23267.036	5.501840	ppb
	K	39	2082864.905	346.775852	ppb
	Ca	44	3083532.468	21787.228013	ppb
>	Sc	45	635426.694		ppb
	Ti	47	235.003	0.519403	ppb
	V	51	1206.025	0.126359	ppb
	Cr	52	5333.422	0.840075	ppb
	Mn	55	1620.131	0.246778	ppb
	Fe	54	17880.972	9.475415	ppb
	Fe	56	446328.006	12.286961	ppb
	Fe	57	9839.839	67.740211	ppb
	Co	59	256.003	0.038369	ppb
	Ni	60	566.683	0.481750	ppb
	Cu	63	483.345	0.032428	ppb
	Cu	65	220.002	0.067390	ppb
	Zn	66	446.677	0.388956	ppb
	As	75	72.403	0.095605	ppb
	Se	82	79.334	0.821585	ppb

⌈	Mo	96	466.011	-0.313279	ppb
|	Ag	107	150.001	0.025009	ppb
|	Ag	109	46.667	0.001568	ppb
|	Cd	111	20.000	0.024003	ppb
|	In	113	72602.604	0.653605	ppb
|>	In	115	1649729.414		ppb
⌊	Sn	118	125.001	0.005262	ppb
⌈	Sb	121	2165.234	0.463980	ppb
|	Ba	135	24860.865	22.777454	ppb
|	Ba	137	44952.811	23.527568	ppb
⌊>	Tb	159	3145391.224		ppb
⌈	Tl	205	185.002	0.006442	ppb
|	Pb	206	150.001	0.018653	ppb
|	Pb	207	250.002	0.014483	ppb
|	Pb	208	360.004	0.010109	ppb
⌊>	Bi	209	2621050.721		ppb
	Cr	53	524.014		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	335155.906		ppb
	Kr	83	22.000		ppb
	Se	77	56.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.134			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.895			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.625			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		94.966			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		92.285			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904103-02

Sample Date/Time: Thursday, April 30, 2009 14:40:20
Sample Type: Sample
Sample Description: 13MW2
Number of Replicates: 3
Batch ID: 0904103
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904103-02.2413

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	463585.379	1.362	463585.379			ppb
	Be	9	3.333	91.652	0.000	0.00734	188.81	ppb
	Na	23	5606305.455	1.746	12.035	2124.06375	0.92	ppb
	Mg	24	76842984.191	0.736	165.760	41541.08669	0.88	ppb
·	Mg	25	11099648.638	0.798	23.943	42991.53755	0.60	ppb
	Mg	26	13311912.747	1.238	28.714	44952.84873	0.23	ppb
	Al	27	32452.590	2.217	0.060	9.28543	1.49	ppb
	K	39	9624784.082	0.787	20.370	1914.52854	1.20	ppb
	Ca	44	13156884.054	1.592	28.373	102416.38067	1.29	ppb
>	Sc	45	583943.790	1.109	583943.790			ppb
	Ti	47	526.681	3.334	0.001	1.46267	4.48	ppb
	V	51	1812.051	14.143	0.002	0.28932	21.21	ppb
	Cr	52	8673.096	3.380	0.012	1.85527	4.02	ppb
	Mn	55	2735.375	7.224	0.004	0.48660	7.29	ppb
	Fe	54	15800.812	2.390	0.004	7.24302	10.77	ppb
	Fe	56	491915.911	1.748	0.250	27.90840	2.83	ppb
	Fe	57	34022.792	1.856	0.056	291.49652	1.59	ppb
	Co	59	813.366	3.945	0.001	0.16262	5.42	ppb
	Ni	60	2319.159	7.209	0.004	2.22723	8.17	ppb
	Cu	63	813.366	1.084	0.001	0.18397	2.57	ppb
	Cu	65	635.576	5.383	0.001	0.42894	6.38	ppb
	Zn	66	1689.032	7.936	0.003	2.38814	7.75	ppb
	As	75	126.413	37.980	0.000	0.17880	37.95	ppb
	Se	82	55.556	6.609	0.000	0.56810	10.87	ppb
	Mo	96	710.025	7.469	-0.000	-0.10230	36.38	ppb
	Ag	107	46.667	31.135	0.000	0.00529	61.42	ppb
	Ag	109	32.222	21.535	-0.000	-0.00063	244.84	ppb
	Cd	111	12.425	67.287	0.000	0.01879	42.00	ppb
	In	113	64205.496	1.686	-0.000	-0.35497	271.85	ppb
>	In	115	1483100.546	0.309	1483100.546			ppb
	Sn	118	155.001	11.631	0.000	0.01842	30.62	ppb
	Sb	121	981.715	8.091	0.000	0.18364	9.14	ppb
	Ba	135	146044.740	0.512	0.051	146.28194	2.21	ppb
	Ba	137	257343.915	0.307	0.089	147.23524	2.40	ppb
>	Tb	159	2881972.920	2.078	2881972.920			ppb
	Tl	205	255.003	1.961	0.000	0.01288	14.50	ppb
	Pb	206	308.338	15.068	0.000	0.05729	23.56	ppb
	Pb	207	566.675	8.386	0.000	0.05413	14.46	ppb
	Pb	208	931.693	5.739	0.000	0.04908	15.68	ppb
>	Bi	209	2212275.461	9.080	2212275.461			ppb
	Cr	53	1018.052	7.829	706.714			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	1.667	173.205	-8.333			ppb
	C	12	368975.951	0.477	54682.009			ppb
	Kr	83	15.333	30.123	-2.667			ppb
	Se	77	44.222	24.556	15.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	464046.818		ppb
	Be	9	6.000	0.019319	ppb
	Na	23	5553686.022	2101.952317	ppb
	Mg	24	76502987.563	41313.282564	ppb
	Mg	25	11125755.288	43047.545804	ppb
	Mg	26	13296442.345	44855.390188	ppb
	Al	27	32929.127	9.434478	ppb
	K	39	9703105.597	1928.280663	ppb
	Ca	44	13354944.960	103851.837885	ppb
>	Sc	45	590382.901		ppb
	Ti	47	525.014	1.439874	ppb
	V	51	1553.867	0.225457	ppb
	Cr	52	8605.701	1.811866	ppb
	Mn	55	2930.429	0.518078	ppb
	Fe	54	16082.923	7.624208	ppb
	Fe	56	497904.346	28.018604	ppb
	Fe	57	34077.967	288.660650	ppb
	Co	59	780.030	0.153569	ppb
	Ni	60	2126.893	2.017086	ppb
	Cu	63	820.034	0.183009	ppb
	Cu	65	626.686	0.415847	ppb
	Zn	66	1843.503	2.599414	ppb
	As	75	71.627	0.101558	ppb
	Se	82	51.333	0.497694	ppb
	Mo	96	764.029	-0.065009	ppb
	Ag	107	53.333	0.006737	ppb
	Ag	109	40.000	0.001096	ppb
	Cd	111	3.455	0.010315	ppb
	In	113	64462.101	-0.323519	ppb
>	In	115	1488270.272		ppb
	Sn	118	150.001	0.016713	ppb
	Sb	121	890.040	0.164323	ppb
	Ba	135	146221.274	149.992300	ppb
	Ba	137	258194.744	151.280804	ppb
>	Tb	159	2813257.818		ppb
	Tl	205	260.003	0.015029	ppb
	Pb	206	330.005	0.069239	ppb
	Pb	207	565.008	0.060885	ppb
	Pb	208	960.029	0.057280	ppb
>	Bi	209	1980552.157		ppb
	Cr	53	1110.062		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	367162.919		ppb
	Kr	83	18.000		ppb
	Se	77	56.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	469655.782		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	5719244.727	2138.941353	ppb
	Mg	24	77495775.544	41349.616420	ppb
	Mg	25	11172263.162	42711.221630	ppb
	Mg	26	13483928.886	44944.629893	ppb
	Al	27	32803.716	9.261583	ppb
	K	39	9619391.895	1888.057214	ppb
	Ca	44	13178166.623	101252.498549	ppb
>	Sc	45	584014.814		ppb

	Ti	47	510.013	1.411541	ppb
	V	51	2066.395	0.347818	ppb
	Cr	52	8994.043	1.941358	ppb
	Mn	55	2535.321	0.448125	ppb
	Fe	54	15947.706	7.759171	ppb
	Fe	56	495777.486	28.638506	ppb
	Fe	57	34624.840	296.850683	ppb
	Co	59	816.033	0.163110	ppb
	Ni	60	2430.295	2.333581	ppb
	Cu	63	803.366	0.179798	ppb
	Cu	65	673.356	0.460417	ppb
	Zn	66	1603.462	2.255027	ppb
	As	75	146.453	0.205999	ppb
	Se	82	57.333	0.593592	ppb
	Mo	96	658.022	-0.139429	ppb
	Ag	107	30.000	0.001567	ppb
	Ag	109	30.000	-0.001119	ppb
	Cd	111	20.000	0.025925	ppb
	In	113	65136.449	0.593915	ppb
>	In	115	1481507.965		ppb
	Sn	118	140.001	0.013834	ppb
	Sb	121	1025.053	0.191945	ppb
	Ba	135	146688.036	144.811929	ppb
	Ba	137	256633.313	144.710474	ppb
>	Tb	159	2923172.302		ppb
	Tl	205	250.003	0.011705	ppb
	Pb	206	340.006	0.059974	ppb
	Pb	207	615.010	0.055966	ppb
	Pb	208	965.028	0.047955	ppb
>	Bi	209	2319486.094		ppb
	Cr	53	974.047		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	369087.872		ppb
	Kr	83	18.000		ppb
	Se	77	39.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	457053.536		ppb
	Be	9	4.000	0.010543	ppb
	Na	23	5545985.617	2131.297571	ppb
	Mg	24	76530189.465	41960.361091	ppb
	Mg	25	11000927.464	43215.845224	ppb
	Mg	26	13155367.011	45058.526111	ppb
	Al	27	31624.928	9.160243	ppb
	K	39	9551854.754	1927.247737	ppb
	Ca	44	12937540.579	102144.805569	ppb
>	Sc	45	577433.654		ppb
	Ti	47	545.015	1.536592	ppb
	V	51	1815.892	0.294691	ppb
	Cr	52	8419.543	1.812573	ppb
	Mn	55	2740.375	0.493597	ppb
	Fe	54	15371.806	6.345679	ppb
	Fe	56	482065.903	27.068099	ppb
	Fe	57	33365.570	288.978213	ppb
	Co	59	844.036	0.171191	ppb
	Ni	60	2400.288	2.331010	ppb
	Cu	63	816.700	0.189090	ppb
	Cu	65	606.685	0.410569	ppb
	Zn	66	1620.131	2.309987	ppb
	As	75	161.158	0.228851	ppb
	Se	82	58.000	0.613019	ppb

⌈	Mo	96	708.025	-0.102448	ppb
⌈	Ag	107	56.667	0.007554	ppb
⌈	Ag	109	26.667	-0.001864	ppb
⌈	Cd	111	13.820	0.020118	ppb
⌈	In	113	63017.939	-1.335315	ppb
⌈>	In	115	1479523.400		ppb
⌈	Sn	118	175.002	0.024720	ppb
⌈	Sb	121	1030.053	0.194658	ppb
⌈	Ba	135	145224.912	144.041594	ppb
⌈	Ba	137	257203.690	145.714447	ppb
⌈>	Tb	159	2909488.640		ppb
⌈	Tl	205	255.003	0.011895	ppb
⌈	Pb	206	255.003	0.042651	ppb
⌈	Pb	207	520.007	0.045552	ppb
⌈	Pb	208	870.022	0.042015	ppb
⌈>	Bi	209	2336788.131		ppb
	Cr	53	970.047		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	370677.062		ppb
	Kr	83	10.000		ppb
	Se	77	36.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		86.514			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		86.714			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.889			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		87.528			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		77.317			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, April 30, 2009 14:42:55
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCV.2414

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	556630.010	1.016	556630.010			ppb
	Be	9	32249.936	2.197	0.058	121.70666	2.66	ppb
	Na	23	3794976.911	1.615	6.761	1193.17242	2.46	ppb
	Mg	24	2696453.861	1.108	4.835	1211.70259	1.74	ppb
	Mg	25	369892.406	0.802	0.663	1190.91996	0.45	ppb
	Mg	26	418529.081	0.709	0.750	1174.81855	0.70	ppb
	Al	27	4246822.260	0.722	7.620	1182.04721	0.39	ppb
	K	39	6919523.893	1.305	12.038	1131.40301	1.04	ppb
	Ca	44	178364.841	1.396	0.312	1124.47816	1.01	ppb
>	Sc	45	670772.064	1.213	670772.064			ppb
	Ti	47	45782.916	1.608	0.068	120.80901	0.43	ppb
	V	51	594726.694	1.501	0.886	119.57371	0.32	ppb
	Cr	52	512197.263	1.017	0.761	119.53749	0.20	ppb
	Mn	55	734712.432	0.463	1.095	123.07051	0.84	ppb
	Fe	54	414615.878	0.493	0.595	1225.06012	1.65	ppb
	Fe	56	7766436.207	1.123	10.988	1226.36871	2.30	ppb
	Fe	57	158091.524	0.367	0.233	1219.61516	1.07	ppb
	Co	59	649477.549	1.739	0.968	121.45281	1.55	ppb
	Ni	60	144725.326	0.585	0.216	122.18672	0.70	ppb
	Cu	63	344231.222	1.757	0.513	122.84239	1.63	ppb
	Cu	65	168876.400	1.297	0.252	122.55922	1.46	ppb
	Zn	66	90745.506	1.638	0.135	123.34916	1.96	ppb
	As	75	99953.172	0.970	0.149	120.23281	0.27	ppb
	Se	82	9632.639	2.410	0.014	122.47843	2.33	ppb
	Mo	96	198933.673	1.833	0.112	120.52130	1.93	ppb
	Ag	107	646571.801	1.058	0.366	121.45153	1.81	ppb
	Ag	109	633881.389	1.154	0.359	120.04124	2.56	ppb
	Cd	111	150107.442	1.271	0.085	118.72162	1.83	ppb
	In	113	228658.178	0.994	0.086	120.77703	1.94	ppb
>	In	115	1765947.723	1.387	1765947.723			ppb
	Sn	118	462363.134	1.008	0.262	119.81493	1.16	ppb
	Sb	121	500895.527	0.841	0.149	120.06578	0.70	ppb
	Ba	135	139540.906	1.040	0.042	119.92279	1.72	ppb
	Ba	137	242391.424	1.160	0.072	118.98724	1.90	ppb
>	Tb	159	3357964.414	0.753	3357964.414			ppb
	Tl	205	2450592.267	0.484	0.845	119.60982	1.09	ppb
	Pb	206	770622.251	0.742	0.266	122.93726	0.79	ppb
	Pb	207	1443635.661	0.613	0.498	121.70256	1.25	ppb
	Pb	208	2378457.020	0.543	0.821	111.42777	1.34	ppb
>	Bi	209	2898697.317	1.523	2898697.317			ppb
	Cr	53	60003.483	0.222	59692.145			ppb
	Pd	106	12561.219	1.668	12561.219			ppb
	Pd	108	9986.651	1.260	9976.651			ppb
	C	12	327039.073	0.385	12745.130			ppb
	Kr	83	19.333	15.802	1.333			ppb
	Se	77	7627.130	0.773	7598.241			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	559333.105		ppb
	Be	9	32869.933	123.433385	ppb
	Na	23	3820512.576	1195.239143	ppb
	Mg	24	2721164.970	1216.792621	ppb
	Mg	25	372507.220	1193.524121	ppb
	Mg	26	421706.191	1177.982111	ppb
	Al	27	4251610.040	1177.628954	ppb
	K	39	7019818.570	1142.596160	ppb
	Ca	44	181058.402	1136.269032	ppb
>	Sc	45	675793.479		ppb
	Ti	47	46146.229	120.866754	ppb
	V	51	599404.544	119.621555	ppb
	Cr	52	515627.471	119.441578	ppb
	Mn	55	735036.302	122.201638	ppb
	Fe	54	412282.172	1208.324961	ppb
	Fe	56	7669215.346	1200.495760	ppb
	Fe	57	158760.317	1215.530695	ppb
	Co	59	662499.660	122.963964	ppb
	Ni	60	145497.498	121.919267	ppb
	Cu	63	351173.059	124.385857	ppb
	Cu	65	171338.713	123.415026	ppb
	Zn	66	92267.039	124.476837	ppb
	As	75	100442.497	119.921252	ppb
	Se	82	9461.808	119.401740	ppb
	Mo	96	195790.107	117.833696	ppb
	Ag	107	653529.301	121.954855	ppb
	Ag	109	630410.325	118.590463	ppb
	Cd	111	148145.684	116.404825	ppb
	In	113	231278.923	121.666881	ppb
>	In	115	1777340.864		ppb
	Sn	118	467655.220	120.400458	ppb
	Sb	121	499847.789	120.756072	ppb
	Ba	135	140410.889	121.610097	ppb
	Ba	137	244832.911	121.120221	ppb
>	Tb	159	3331760.826		ppb
	Tl	205	2437259.633	121.062244	ppb
	Pb	206	764130.380	124.060419	ppb
	Pb	207	1436595.329	123.249235	ppb
	Pb	208	2369698.497	112.978132	ppb
>	Bi	209	2848029.541		ppb
	Cr	53	60154.385		ppb
	Pd	106	12442.736		ppb
	Pd	108	10130.128		ppb
	C	12	328374.396		ppb
	Kr	83	20.000		ppb
	Se	77	7561.524		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	560425.806		ppb
	Be	9	31477.464	117.973557	ppb
	Na	23	3725066.058	1162.830465	ppb
	Mg	24	2663269.305	1188.525743	ppb
	Mg	25	370502.779	1184.770403	ppb
	Mg	26	418047.267	1165.459609	ppb
	Al	27	4274794.594	1181.747580	ppb
	K	39	6894045.810	1119.203143	ppb
	Ca	44	177888.263	1113.572061	ppb
>	Sc	45	675136.236		ppb

	Ti	47	46266.784	121.300972	ppb
	V	51	600343.117	119.925827	ppb
	Cr	52	514760.473	119.356484	ppb
	Mn	55	737944.191	122.804712	ppb
	Fe	54	415480.549	1219.308054	ppb
	Fe	56	7792387.592	1222.091036	ppb
	Fe	57	157779.983	1209.131852	ppb
	Co	59	642395.476	119.348220	ppb
	Ni	60	144858.319	121.501754	ppb
	Cu	63	340093.137	120.574019	ppb
	Cu	65	167141.911	120.506892	ppb
	Zn	66	89296.925	120.579239	ppb
	As	75	100580.921	120.203415	ppb
	Se	82	9896.895	125.025369	ppb
	Mo	96	198078.516	121.942334	ppb
	Ag	107	646337.022	123.354617	ppb
	Ag	109	642284.688	123.571216	ppb
	Cd	111	150219.090	120.716964	ppb
	In	113	227222.504	122.543654	ppb
>	In	115	1737835.182		ppb
	Sn	118	458861.577	120.822149	ppb
	Sb	121	497305.629	119.133639	ppb
	Ba	135	140345.987	120.534651	ppb
	Ba	137	243025.620	119.217813	ppb
>	Tb	159	3359924.802		ppb
	Tl	205	2454532.030	118.557867	ppb
	Pb	206	774893.126	122.338237	ppb
	Pb	207	1440736.259	120.195579	ppb
	Pb	208	2372390.153	109.987045	ppb
>	Bi	209	2928798.358		ppb
	Cr	53	59900.870		ppb
	Pd	106	12437.730		ppb
	Pd	108	9934.933		ppb
	C	12	325870.453		ppb
	Kr	83	22.000		ppb
	Se	77	7644.254		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	550131.120		ppb
	Be	9	32402.411	123.713052	ppb
	Na	23	3839352.098	1221.447645	ppb
	Mg	24	2704927.308	1229.789421	ppb
	Mg	25	366667.220	1194.465366	ppb
	Mg	26	415833.786	1181.013926	ppb
	Al	27	4214062.146	1186.765085	ppb
	K	39	6844707.299	1132.409738	ppb
	Ca	44	176147.859	1123.593400	ppb
>	Sc	45	661386.477		ppb
	Ti	47	44935.735	120.259311	ppb
	V	51	584432.421	119.173756	ppb
	Cr	52	506203.844	119.814398	ppb
	Mn	55	731156.804	124.205186	ppb
	Fe	54	416084.915	1247.547334	ppb
	Fe	56	7837705.683	1256.519321	ppb
	Fe	57	157734.271	1234.182943	ppb
	Co	59	643537.510	122.046245	ppb
	Ni	60	143820.161	123.139135	ppb
	Cu	63	341427.470	123.567283	ppb
	Cu	65	168148.577	123.755754	ppb
	Zn	66	90672.554	124.991397	ppb
	As	75	98836.098	120.573774	ppb
	Se	82	9539.214	123.008168	ppb

⌈	Mo	96	202932.395	121.787879	ppb
|	Ag	107	639849.081	119.045122	ppb
|	Ag	109	628949.154	117.962047	ppb
|	Cd	111	151957.552	119.043080	ppb
|	In	113	227473.106	118.120564	ppb
|>	In	115	1782667.122		ppb
⌊	Sn	118	460572.604	118.222182	ppb
⌈	Sb	121	505533.162	120.307636	ppb
|	Ba	135	137865.843	117.623625	ppb
|	Ba	137	239315.741	116.623692	ppb
⌊>	Tb	159	3382207.615		ppb
⌈	Tl	205	2459985.137	119.209350	ppb
|	Pb	206	772843.247	122.413111	ppb
|	Pb	207	1453575.396	121.662868	ppb
|	Pb	208	2393282.411	111.318120	ppb
⌊>	Bi	209	2919264.052		ppb
	Cr	53	59955.194		ppb
	Pd	106	12803.191		ppb
	Pd	108	9894.893		ppb
	C	12	326872.369		ppb
	Kr	83	16.000		ppb
	Se	77	7675.611		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.878			
	Be	9	101.422				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		99.608			
	Ti	47					
	V	51	99.645				
	Cr	52	99.615				
	Mn	55	102.559				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	101.211				
	Ni	60	101.822				
	Cu	63	102.369				
	Cu	65	102.133				
	Zn	66	102.791				
	As	75	100.194				
	Se	82	102.065				
	Mo	96					
	Ag	107	101.210				
	Ag	109	100.034				
	Cd	111	98.935				
	In	113					
>	In	115		98.697			
	Sn	118	99.846				
	Sb	121	100.055				
	Ba	135	99.936				
	Ba	137	99.156				
>	Tb	159		101.984			
	Tl	205	99.675				
	Pb	206	102.448				
	Pb	207	101.419				
	Pb	208	92.856				
>	Bi	209		101.306			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, April 30, 2009 14:45:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCB.2415

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	534844.442	1.523	534844.442			ppb
	Be	9	2.000	173.205	0.000	0.00013	10946.01	ppb
	Na	23	20098.512	1.055	-0.021	-3.64203	0.97	ppb
	Mg	24	2982.445	2.287	-0.004	-1.03196	5.13	ppb
	Mg	25	390.008	7.338	-0.001	-0.99342	8.16	ppb
	Mg	26	500.679	2.191	-0.001	-0.88139	4.20	ppb
	Al	27	1391.764	3.415	-0.008	-1.17022	1.11	ppb
	K	39	190772.682	1.182	-0.037	-3.45726	10.34	ppb
	Ca	44	3433.924	5.164	-0.002	-9.02295	12.67	ppb
>	Sc	45	650756.805	1.942	650756.805			ppb
	Ti	47	20.000	25.000	-0.000	-0.08165	15.42	ppb
	V	51	640.750	7.323	0.000	0.00307	323.83	ppb
	Cr	52	2001.534	1.273	0.000	0.00448	341.14	ppb
	Mn	55	251.670	20.000	0.000	0.00359	218.20	ppb
	Fe	54	14555.592	2.951	-0.001	-2.42118	30.78	ppb
	Fe	56	380469.535	0.541	-0.008	-0.84215	122.52	ppb
	Fe	57	1558.455	2.137	-0.000	-0.72981	32.30	ppb
	Co	59	97.334	15.422	0.000	0.00658	42.63	ppb
	Ni	60	50.000	46.188	0.000	0.02008	99.22	ppb
	Cu	63	364.451	9.694	-0.000	-0.01561	86.53	ppb
	Cu	65	151.112	4.592	0.000	0.01194	61.34	ppb
	Zn	66	163.335	7.358	-0.000	-0.02369	87.57	ppb
	As	75	33.612	17.941	0.000	0.04544	18.04	ppb
	Se	82	24.000	8.333	0.000	0.06996	40.41	ppb
	Mo	96	412.009	16.591	-0.000	-0.35791	12.47	ppb
	Ag	107	117.778	24.727	0.000	0.01767	31.29	ppb
	Ag	109	101.112	33.186	0.000	0.01185	54.51	ppb
	Cd	111	4.213	104.980	0.000	0.01052	34.31	ppb
	In	113	74662.740	1.649	0.000	0.13651	1012.72	ppb
>	In	115	1711003.562	0.636	1711003.562			ppb
	Sn	118	323.339	5.855	0.000	0.05710	9.79	ppb
	Sb	121	3273.873	10.786	0.001	0.74356	12.14	ppb
	Ba	135	24.667	30.697	-0.000	-0.01486	47.05	ppb
	Ba	137	48.667	22.634	-0.000	-0.01006	54.06	ppb
>	Tb	159	3162206.820	1.383	3162206.820			ppb
	Tl	205	251.670	32.118	0.000	0.00913	43.03	ppb
	Pb	206	73.334	38.770	0.000	0.00433	112.46	ppb
	Pb	207	120.000	14.434	0.000	0.00165	99.82	ppb
	Pb	208	211.668	7.593	0.000	0.00171	43.94	ppb
>	Bi	209	2802817.362	1.301	2802817.362			ppb
	Cr	53	166.668	9.165	-144.670			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	0.000		-10.000			ppb
	C	12	317717.620	1.428	3423.677			ppb
	Kr	83	11.333	44.411	-6.667			ppb
	Se	77	26.222	16.928	-2.667			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	543526.237		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	20300.585	-3.682675	ppb
	Mg	24	2917.426	-1.084791	ppb
	Mg	25	408.008	-0.954262	ppb
	Mg	26	497.012	-0.915551	ppb
	Al	27	1390.097	-1.177156	ppb
	K	39	193200.465	-3.575228	ppb
	Ca	44	3566.636	-8.511737	ppb
>	Sc	45	665138.480		ppb
	Ti	47	25.000	-0.069354	ppb
	V	51	655.294	0.003122	ppb
	Cr	52	1972.194	-0.013106	ppb
	Mn	55	305.005	0.011760	ppb
	Fe	54	14936.146	-2.235163	ppb
	Fe	56	382456.412	-1.932641	ppb
	Fe	57	1575.124	-0.870683	ppb
	Co	59	106.001	0.007821	ppb
	Ni	60	63.334	0.030567	ppb
	Cu	63	370.007	-0.016552	ppb
	Cu	65	143.334	0.003701	ppb
	Zn	66	150.001	-0.047212	ppb
	As	75	27.852	0.037456	ppb
	Se	82	24.000	0.063008	ppb
	Mo	96	484.012	-0.310893	ppb
	Ag	107	110.001	0.016311	ppb
	Ag	109	96.667	0.011122	ppb
	Cd	111	3.820	0.010211	ppb
	In	113	76073.261	1.689988	ppb
>	In	115	1700100.795		ppb
	Sn	118	345.006	0.063464	ppb
	Sb	121	3615.654	0.822820	ppb
	Ba	135	30.000	-0.010248	ppb
	Ba	137	54.000	-0.007465	ppb
>	Tb	159	3188785.303		ppb
	Tl	205	165.001	0.004902	ppb
	Pb	206	105.001	0.009755	ppb
	Pb	207	140.001	0.003552	ppb
	Pb	208	200.001	0.001283	ppb
>	Bi	209	2764039.324		ppb
	Cr	53	170.001		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	322900.403		ppb
	Kr	83	6.000		ppb
	Se	77	31.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	527370.734		ppb
	Be	9	6.000	0.016058	ppb
	Na	23	19877.737	-3.622250	ppb
	Mg	24	3053.466	-0.978935	ppb
	Mg	25	357.006	-1.086620	ppb
	Mg	26	492.012	-0.886540	ppb
	Al	27	1345.090	-1.178241	ppb
	K	39	190373.008	-3.055693	ppb
	Ca	44	3502.613	-8.224328	ppb
>	Sc	45	645720.723		ppb

	Ti	47	20.000	-0.081072	ppb
	V	51	588.279	-0.006890	ppb
	Cr	52	2018.204	0.012107	ppb
	Mn	55	245.003	0.002866	ppb
	Fe	54	14640.710	-1.786581	ppb
	Fe	56	378349.532	-0.712628	ppb
	Fe	57	1580.125	-0.457692	ppb
	Co	59	80.000	0.003371	ppb
	Ni	60	23.333	-0.002897	ppb
	Cu	63	326.672	-0.028627	ppb
	Cu	65	153.335	0.014403	ppb
	Zn	66	173.335	-0.008004	ppb
	As	75	33.104	0.045035	ppb
	Se	82	22.000	0.045812	ppb
	Mo	96	404.008	-0.363130	ppb
	Ag	107	93.334	0.012943	ppb
	Ag	109	70.000	0.005789	ppb
	Cd	111	8.820	0.014272	ppb
	In	113	74113.628	-0.322125	ppb
>	In	115	1711060.933		ppb
	Sn	118	315.005	0.054844	ppb
	Sb	121	3295.543	0.762575	ppb
	Ba	135	28.000	-0.011431	ppb
	Ba	137	36.000	-0.016311	ppb
>	Tb	159	3111720.980		ppb
	Tl	205	265.004	0.009808	ppb
	Pb	206	65.000	0.002893	ppb
	Pb	207	110.000	0.000748	ppb
	Pb	208	230.002	0.002580	ppb
>	Bi	209	2807969.871		ppb
	Cr	53	180.002		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	314459.711		ppb
	Kr	83	16.000		ppb
	Se	77	23.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	533636.355		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	20117.215	-3.621155	ppb
	Mg	24	2976.443	-1.032144	ppb
	Mg	25	405.008	-0.939376	ppb
	Mg	26	513.013	-0.842078	ppb
	Al	27	1440.104	-1.155265	ppb
	K	39	188744.573	-3.740869	ppb
	Ca	44	3232.522	-10.332795	ppb
>	Sc	45	641411.212		ppb
	Ti	47	15.000	-0.094517	ppb
	V	51	678.677	0.012965	ppb
	Cr	52	2014.203	0.014427	ppb
	Mn	55	205.002	-0.003856	ppb
	Fe	54	14089.919	-3.241807	ppb
	Fe	56	380602.660	0.118816	ppb
	Fe	57	1520.116	-0.861057	ppb
	Co	59	106.001	0.008561	ppb
	Ni	60	63.334	0.032563	ppb
	Cu	63	396.675	-0.001657	ppb
	Cu	65	156.668	0.017712	ppb
	Zn	66	166.668	-0.015852	ppb
	As	75	39.880	0.053836	ppb
	Se	82	26.000	0.101061	ppb

⌈	Mo	96	348.006	-0.399693	ppb
|	Ag	107	150.001	0.023746	ppb
|	Ag	109	136.668	0.018649	ppb
|	Cd	111	0.000	0.007074	ppb
|	In	113	73801.331	-0.958339	ppb
|>	In	115	1721848.958		ppb
⌊	Sn	118	310.005	0.052987	ppb
⌈	Sb	121	2910.423	0.645291	ppb
|	Ba	135	16.000	-0.022909	ppb
|	Ba	137	56.000	-0.006407	ppb
⌊>	Tb	159	3186114.177		ppb
⌈	Tl	205	325.005	0.012667	ppb
|	Pb	206	50.000	0.000340	ppb
|	Pb	207	110.000	0.000652	ppb
|	Pb	208	205.001	0.001272	ppb
⌊>	Bi	209	2836442.892		ppb
	Cr	53	150.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	315792.746		ppb
	Kr	83	12.000		ppb
	Se	77	24.000		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6		99.812			
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45		96.636			
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115		95.627			
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159		96.039			
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209		97.955			
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042037-BLK1

Sample Date/Time: Thursday, April 30, 2009 14:53:14
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042037-BLK1.2416

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	524937.673	2.190	524937.673			ppb
	Be	9	0.000		-0.000	-0.00784	0.00	ppb
	Na	23	20513.018	0.308	-0.019	-3.37587	3.99	ppb
	Mg	24	3337.558	6.114	-0.003	-0.83532	14.26	ppb
	Mg	25	439.010	9.273	-0.000	-0.79939	19.09	ppb
	Mg	26	543.681	2.991	-0.000	-0.72482	9.98	ppb
	Al	27	1930.188	13.239	-0.006	-1.00263	8.31	ppb
	K	39	198607.243	1.756	-0.015	-1.42112	22.96	ppb
	Ca	44	3633.996	6.992	-0.002	-7.22710	16.44	ppb
>	Sc	45	648416.502	1.480	648416.502			ppb
	Ti	47	35.000	62.270	-0.000	-0.04067	143.14	ppb
	V	51	553.152	12.497	-0.000	-0.01484	86.42	ppb
	Cr	52	2012.203	5.184	0.000	0.00855	259.65	ppb
	Mn	55	191.669	15.725	-0.000	-0.00653	82.46	ppb
	Fe	54	14690.784	1.269	-0.001	-1.81997	18.49	ppb
	Fe	56	384010.272	1.453	-0.000	-0.00963	2689.58	ppb
	Fe	57	1531.784	5.987	-0.000	-0.89172	104.09	ppb
	Co	59	65.334	3.535	0.000	0.00047	71.06	ppb
	Ni	60	41.111	32.769	0.000	0.01244	90.76	ppb
	Cu	63	355.562	14.042	-0.000	-0.01862	89.21	ppb
	Cu	65	145.557	19.744	0.000	0.00790	254.31	ppb
	Zn	66	191.113	8.779	0.000	0.01602	144.33	ppb
	As	75	27.128	25.635	0.000	0.03752	24.55	ppb
	Se	82	21.111	12.762	0.000	0.03318	115.79	ppb
	Mo	96	138.001	3.834	-0.000	-0.52966	0.75	ppb
	Ag	107	45.556	15.232	0.000	0.00374	34.68	ppb
	Ag	109	56.667	5.882	0.000	0.00326	20.12	ppb
	Cd	111	7.425	96.898	0.000	0.01314	44.75	ppb
	In	113	73766.243	3.077	-0.000	-0.16870	1327.57	ppb
>	In	115	1699047.427	1.016	1699047.427			ppb
	Sn	118	143.334	5.329	0.000	0.00918	18.41	ppb
	Sb	121	1010.051	11.536	0.000	0.16698	17.56	ppb
	Ba	135	38.000	0.000	-0.000	-0.00269	12.83	ppb
	Ba	137	78.000	15.385	0.000	0.00536	124.15	ppb
>	Tb	159	3159566.936	0.988	3159566.936			ppb
	Tl	205	113.334	29.375	0.000	0.00224	73.63	ppb
	Pb	206	63.334	36.464	0.000	0.00275	135.22	ppb
	Pb	207	113.334	5.094	0.000	0.00119	52.09	ppb
	Pb	208	198.335	18.922	0.000	0.00121	160.84	ppb
>	Bi	209	2766515.992	1.264	2766515.992			ppb
	Cr	53	182.668	15.727	-128.670			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	1.667	173.205	-8.333			ppb
	C	12	323291.840	1.130	8997.898			ppb
	Kr	83	8.667	26.647	-9.333			ppb
	Se	77	17.556	8.770	-11.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	537906.249		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	20577.149	-3.523062	ppb
	Mg	24	3169.502	-0.953294	ppb
	Mg	25	415.009	-0.916812	ppb
	Mg	26	531.014	-0.801635	ppb
	Al	27	1700.145	-1.083592	ppb
	K	39	202558.937	-1.590979	ppb
	Ca	44	3922.769	-5.874389	ppb
>	Sc	45	656521.044		ppb
	Ti	47	60.000	0.025991	ppb
	V	51	600.108	-0.006481	ppb
	Cr	52	2128.226	0.030365	ppb
	Mn	55	160.001	-0.012387	ppb
	Fe	54	14755.879	-2.193607	ppb
	Fe	56	387380.619	-0.253143	ppb
	Fe	57	1460.107	-1.624453	ppb
	Co	59	68.000	0.000823	ppb
	Ni	60	53.333	0.022648	ppb
	Cu	63	396.675	-0.005068	ppb
	Cu	65	176.668	0.029815	ppb
	Zn	66	206.669	0.034346	ppb
	As	75	21.756	0.030409	ppb
	Se	82	18.000	-0.011043	ppb
	Mo	96	132.001	-0.533923	ppb
	Ag	107	53.333	0.005207	ppb
	Ag	109	53.333	0.002550	ppb
	Cd	111	8.820	0.014284	ppb
	In	113	75236.969	0.706889	ppb
>	In	115	1708117.648		ppb
	Sn	118	145.001	0.009436	ppb
	Sb	121	975.048	0.160906	ppb
	Ba	135	38.000	-0.002291	ppb
	Ba	137	90.000	0.012116	ppb
>	Tb	159	3123834.770		ppb
	Tl	205	75.000	0.000338	ppb
	Pb	206	50.000	0.000646	ppb
	Pb	207	120.000	0.001901	ppb
	Pb	208	220.001	0.002385	ppb
>	Bi	209	2733773.749		ppb
	Cr	53	204.002		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	327405.388		ppb
	Kr	83	6.000		ppb
	Se	77	16.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	515995.758		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	20511.014	-3.258997	ppb
	Mg	24	3278.537	-0.837635	ppb
	Mg	25	416.009	-0.854507	ppb
	Mg	26	538.014	-0.714771	ppb
	Al	27	1885.178	-1.007142	ppb
	K	39	197305.457	-1.045019	ppb
	Ca	44	3444.593	-8.101706	ppb
>	Sc	45	650911.570		ppb

	Ti	47	20.000	-0.081510	ppb
	V	51	585.573	-0.008432	ppb
	Cr	52	1926.185	-0.014029	ppb
	Mn	55	220.002	-0.001791	ppb
	Fe	54	14835.997	-1.541000	ppb
	Fe	56	387079.281	0.262724	ppb
	Fe	57	1500.113	-1.202725	ppb
	Co	59	64.000	0.000164	ppb
	Ni	60	43.333	0.014343	ppb
	Cu	63	370.007	-0.013639	ppb
	Cu	65	140.001	0.003501	ppb
	Zn	66	173.335	-0.009960	ppb
	As	75	24.644	0.034219	ppb
	Se	82	22.667	0.052243	ppb
	Mo	96	142.001	-0.526085	ppb
	Ag	107	40.000	0.002752	ppb
	Ag	109	56.667	0.003394	ppb
	Cd	111	-0.365	0.006770	ppb
	In	113	74909.525	1.500799	ppb
>	In	115	1679145.643		ppb
	Sn	118	135.001	0.007381	ppb
	Sb	121	915.042	0.141160	ppb
	Ba	135	38.000	-0.002927	ppb
	Ba	137	66.000	-0.001182	ppb
>	Tb	159	3181451.422		ppb
	Tl	205	135.001	0.003269	ppb
	Pb	206	90.000	0.007035	ppb
	Pb	207	110.000	0.000764	ppb
	Pb	208	155.001	-0.001034	ppb
>	Bi	209	2803371.582		ppb
	Cr	53	150.001		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	320432.907		ppb
	Kr	83	10.000		ppb
	Se	77	19.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	520911.014		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	20450.891	-3.345566	ppb
	Mg	24	3564.635	-0.715018	ppb
	Mg	25	486.012	-0.626866	ppb
	Mg	26	562.016	-0.658040	ppb
	Al	27	2205.243	-0.917170	ppb
	K	39	195957.335	-1.627376	ppb
	Ca	44	3534.625	-7.705204	ppb
>	Sc	45	637816.890		ppb
	Ti	47	25.000	-0.066500	ppb
	V	51	473.774	-0.029604	ppb
	Cr	52	1982.196	0.009322	ppb
	Mn	55	195.002	-0.005416	ppb
	Fe	54	14480.477	-1.725296	ppb
	Fe	56	377570.917	-0.038486	ppb
	Fe	57	1635.134	0.152033	ppb
	Co	59	64.000	0.000417	ppb
	Ni	60	26.667	0.000317	ppb
	Cu	63	300.005	-0.037145	ppb
	Cu	65	120.001	-0.009624	ppb
	Zn	66	193.335	0.023682	ppb
	As	75	34.983	0.047924	ppb
	Se	82	22.667	0.058352	ppb

⌈	Mo	96	140.001	-0.528977	ppb
|	Ag	107	43.333	0.003257	ppb
|	Ag	109	60.000	0.003843	ppb
|	Cd	111	13.820	0.018360	ppb
|	In	113	71152.235	-2.713778	ppb
|>	In	115	1709878.990		ppb
⌊	Sn	118	150.001	0.010734	ppb
⌈	Sb	121	1140.065	0.198865	ppb
|	Ba	135	38.000	-0.002840	ppb
|	Ba	137	78.000	0.005139	ppb
⌊>	Tb	159	3173414.614		ppb
⌈	Tl	205	130.001	0.003114	ppb
|	Pb	206	50.000	0.000559	ppb
|	Pb	207	110.000	0.000906	ppb
|	Pb	208	220.001	0.002272	ppb
⌊>	Bi	209	2762402.645		ppb
	Cr	53	194.002		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	322037.227		ppb
	Kr	83	10.000		ppb
	Se	77	16.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.964			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		96.288			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		94.958			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		95.959			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		96.687			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042037-BS1

Sample Date/Time: Thursday, April 30, 2009 14:55:47
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042037-BS1.2417

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	508204.368	2.450	508204.368			ppb
	Be	9	22053.628	1.503	0.043	91.15996	0.99	ppb
	Na	23	5332068.369	1.175	10.437	1842.00090	2.07	ppb
	Mg	24	2267622.629	2.271	4.453	1115.92888	1.65	ppb
	Mg	25	313024.569	1.946	0.615	1103.85910	1.74	ppb
	Mg	26	356823.250	0.950	0.701	1097.13044	1.55	ppb
	Al	27	1331347.836	1.640	2.610	404.90104	1.40	ppb
	K	39	9587577.992	0.193	18.479	1736.79902	2.27	ppb
	Ca	44	236967.202	1.498	0.457	1651.24491	1.38	ppb
>	Sc	45	623110.797	0.753	623110.797			ppb
	Ti	47	58.334	17.843	0.000	0.02985	96.77	ppb
	V	51	418482.186	1.116	0.671	90.54571	0.97	ppb
	Cr	52	358786.006	0.990	0.573	90.02135	1.00	ppb
	Mn	55	510744.502	1.266	0.819	92.08167	0.97	ppb
	Fe	54	292086.400	1.229	0.445	917.18297	0.76	ppb
	Fe	56	5517271.769	1.527	8.262	922.12542	1.32	ppb
	Fe	57	109962.973	0.693	0.174	909.83203	0.93	ppb
	Co	59	457391.128	1.014	0.734	92.06944	0.74	ppb
	Ni	60	100738.464	2.800	0.162	91.53684	2.17	ppb
	Cu	63	238981.991	0.701	0.383	91.76610	0.47	ppb
	Cu	65	117984.203	1.032	0.189	92.14448	0.92	ppb
	Zn	66	126270.014	0.788	0.202	184.88017	0.91	ppb
	As	75	139612.161	0.706	0.224	180.78074	0.59	ppb
	Se	82	13630.395	1.391	0.022	186.68460	0.96	ppb
	Mo	96	230.003	9.876	-0.000	-0.46825	3.33	ppb
	Ag	107	452471.471	0.688	0.272	90.23842	1.54	ppb
	Ag	109	450505.063	1.171	0.271	90.56959	1.66	ppb
	Cd	111	105750.725	1.619	0.064	88.81018	2.38	ppb
	In	113	179092.848	0.581	0.064	90.13760	2.13	ppb
>	In	115	1663170.812	0.882	1663170.812			ppb
	Sn	118	416.675	7.990	0.000	0.08521	9.86	ppb
	Sb	121	699151.875	0.218	0.226	181.71790	2.09	ppb
	Ba	135	98720.901	0.328	0.032	91.96274	2.57	ppb
	Ba	137	170683.684	0.573	0.055	90.81032	2.04	ppb
>	Tb	159	3098584.040	2.241	3098584.040			ppb
	Tl	205	3524101.813	0.650	1.309	185.14449	0.88	ppb
	Pb	206	1063859.539	0.601	0.395	182.70291	1.78	ppb
	Pb	207	2021783.352	0.898	0.751	183.47471	1.82	ppb
	Pb	208	3649802.506	0.708	1.355	184.05174	1.11	ppb
>	Bi	209	2692891.410	1.182	2692891.410			ppb
	Cr	53	41407.557	0.892	41096.218			ppb
	Pd	106	8878.942	2.651	8878.942			ppb
	Pd	108	6728.931	2.137	6718.931			ppb
	C	12	327727.514	1.205	13433.572			ppb
	Kr	83	23.333	17.843	5.333			ppb
	Se	77	10883.920	1.343	10855.032			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	522578.736		ppb
	Be	9	22431.130	90.155780	ppb
	Na	23	5371648.450	1803.890880	ppb
	Mg	24	2313454.576	1107.020444	ppb
	Mg	25	318088.824	1090.648609	ppb
	Mg	26	360574.577	1077.860110	ppb
	Al	27	1352681.710	399.985219	ppb
	K	39	9608877.131	1691.211997	ppb
	Ca	44	240509.883	1629.107716	ppb
>	Sc	45	626440.467		ppb
	Ti	47	55.000	0.019623	ppb
	V	51	423833.629	91.216278	ppb
	Cr	52	362725.298	90.526901	ppb
	Mn	55	518207.858	92.931280	ppb
	Fe	54	296001.967	924.940403	ppb
	Fe	56	5614504.734	934.203838	ppb
	Fe	57	110749.900	911.467574	ppb
	Co	59	462723.568	92.647551	ppb
	Ni	60	103725.170	93.758397	ppb
	Cu	63	240852.653	91.992292	ppb
	Cu	65	119378.331	92.737300	ppb
	Zn	66	127349.092	185.465038	ppb
	As	75	140745.849	181.277515	ppb
	Se	82	13845.578	188.629144	ppb
	Mo	96	256.003	-0.450560	ppb
	Ag	107	453324.066	90.917879	ppb
	Ag	109	456340.033	92.261290	ppb
	Cd	111	107618.510	90.884352	ppb
	In	113	180290.717	92.011245	ppb
>	In	115	1653704.759		ppb
	Sn	118	380.007	0.075758	ppb
	Sb	121	697495.241	185.751950	ppb
	Ba	135	99094.566	94.577453	ppb
	Ba	137	170489.042	92.941989	ppb
>	Tb	159	3023198.934		ppb
	Tl	205	3514413.038	186.993949	ppb
	Pb	206	1070230.766	186.129699	ppb
	Pb	207	2038173.927	187.311743	ppb
	Pb	208	3648813.057	186.349909	ppb
>	Bi	209	2658772.278		ppb
	Cr	53	41754.992		ppb
	Pd	106	9039.083		ppb
	Pd	108	6777.296		ppb
	C	12	332121.132		ppb
	Kr	83	28.000		ppb
	Se	77	11035.419		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	501159.033		ppb
	Be	9	21809.757	91.405000	ppb
	Na	23	5259838.571	1842.053449	ppb
	Mg	24	2211880.108	1103.645279	ppb
	Mg	25	306265.183	1094.999382	ppb
	Mg	26	353973.925	1103.409172	ppb
	Al	27	1309035.351	403.637282	ppb
	K	39	9578546.079	1759.387343	ppb
	Ca	44	236983.168	1674.710765	ppb
>	Sc	45	625148.243		ppb

	Ti	47	70.000	0.062464	ppb
	V	51	415232.031	89.547417	ppb
	Cr	52	355823.872	88.979903	ppb
	Mn	55	507241.491	91.151928	ppb
	Fe	54	291307.077	911.480956	ppb
	Fe	56	5466494.688	909.846715	ppb
	Fe	57	109228.301	900.647936	ppb
	Co	59	455164.223	91.322208	ppb
	Ni	60	100371.204	90.913537	ppb
	Cu	63	238469.891	91.269307	ppb
	Cu	65	117132.001	91.178658	ppb
	Zn	66	125387.875	182.982897	ppb
	As	75	139129.265	179.565834	ppb
	Se	82	13557.851	185.086416	ppb
	Mo	96	220.002	-0.474143	ppb
	Ag	107	455067.291	91.155752	ppb
	Ag	109	446078.919	90.076110	ppb
	Cd	111	105377.518	88.883007	ppb
	In	113	178417.568	90.233919	ppb
>	In	115	1655732.238		ppb
	Sn	118	425.009	0.088069	ppb
	Sb	121	700489.023	181.186859	ppb
	Ba	135	98526.999	91.332530	ppb
	Ba	137	169817.764	89.914888	ppb
>	Tb	159	3112634.786		ppb
	Tl	205	3507615.677	183.911543	ppb
	Pb	206	1063900.766	182.331353	ppb
	Pb	207	2002258.502	181.328306	ppb
	Pb	208	3624469.507	182.408034	ppb
>	Bi	209	2698104.536		ppb
	Cr	53	41447.718		ppb
	Pd	106	8608.704		ppb
	Pd	108	6567.156		ppb
	C	12	326589.344		ppb
	Kr	83	20.000		ppb
	Se	77	10872.574		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	500875.336		ppb
	Be	9	21919.998	91.919098	ppb
	Na	23	5364718.086	1880.058366	ppb
	Mg	24	2277533.202	1137.120917	ppb
	Mg	25	314719.701	1125.929301	ppb
	Mg	26	355921.247	1110.122035	ppb
	Al	27	1332326.448	411.080625	ppb
	K	39	9575310.767	1759.797714	ppb
	Ca	44	233408.554	1649.916253	ppb
>	Sc	45	617743.682		ppb
	Ti	47	50.000	0.007471	ppb
	V	51	416380.897	90.873424	ppb
	Cr	52	357808.848	90.557233	ppb
	Mn	55	506784.157	92.161788	ppb
	Fe	54	288950.156	915.127559	ppb
	Fe	56	5470815.884	922.325698	ppb
	Fe	57	109910.717	917.380593	ppb
	Co	59	454285.592	92.238562	ppb
	Ni	60	98119.017	89.938596	ppb
	Cu	63	237623.428	92.036712	ppb
	Cu	65	117442.275	92.517473	ppb
	Zn	66	126073.076	186.192574	ppb
	As	75	138961.368	181.498861	ppb
	Se	82	13487.757	186.338230	ppb

⌈	Mo	96	214.002	-0.480054	ppb
|	Ag	107	449023.056	88.641628	ppb
|	Ag	109	449096.235	89.371358	ppb
|	Cd	111	104256.146	86.663186	ppb
|	In	113	178570.257	88.167623	ppb
|>	In	115	1680075.439		ppb
⌊	Sn	118	445.010	0.091815	ppb
⌈	Sb	121	699471.361	178.214888	ppb
|	Ba	135	98541.137	89.978226	ppb
|	Ba	137	171744.248	89.574076	ppb
⌊>	Tb	159	3159918.399		ppb
⌈	Tl	205	3550276.725	184.527965	ppb
|	Pb	206	1057447.085	179.647664	ppb
|	Pb	207	2024917.627	181.784080	ppb
|	Pb	208	3676124.953	183.397267	ppb
⌊>	Bi	209	2721797.415		ppb
	Cr	53	41019.960		ppb
	Pd	106	8989.038		ppb
	Pd	108	6842.340		ppb
	C	12	324472.067		ppb
	Kr	83	22.000		ppb
	Se	77	10743.768		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
> Li	6			94.841		
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
> Sc	45			92.530		
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
> In	115			92.953		
Sn	118					
Sb	121					
Ba	135					
Ba	137					
> Tb	159			94.107		
Tl	205					
Pb	206					
Pb	207					
Pb	208					
> Bi	209			94.114		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042037-BSD1

Sample Date/Time: Thursday, April 30, 2009 14:58:20
Sample Type: Sample
Sample Description: LCSWD
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042037-BSD1.2418

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	499779.645	4.426	499779.645			ppb
	Be	9	20543.096	3.415	0.041	86.35880	0.99	ppb
	Na	23	4998230.148	1.769	9.953	1756.56719	3.78	ppb
	Mg	24	2126819.021	1.110	4.251	1065.37781	4.38	ppb
	Mg	25	294177.888	0.944	0.588	1055.73219	3.68	ppb
	Mg	26	334008.336	0.784	0.668	1045.10349	3.89	ppb
	Al	27	1245602.381	0.783	2.485	385.48014	3.66	ppb
	K	39	9090283.551	2.108	17.809	1673.82180	2.87	ppb
	Ca	44	223713.286	1.905	0.439	1585.08712	3.58	ppb
>	Sc	45	608318.659	3.294	608318.659			ppb
	Ti	47	45.000	22.222	-0.000	-0.00487	582.30	ppb
	V	51	397023.274	2.341	0.652	88.00611	1.01	ppb
	Cr	52	337401.276	1.713	0.552	86.72628	1.66	ppb
	Mn	55	481243.544	1.096	0.791	88.91551	2.25	ppb
	Fe	54	278496.495	0.541	0.435	895.40072	3.82	ppb
	Fe	56	5304183.540	1.371	8.131	907.48610	2.10	ppb
	Fe	57	104599.208	0.359	0.170	886.75616	3.23	ppb
	Co	59	435273.525	1.176	0.716	89.78987	2.16	ppb
	Ni	60	95135.979	0.881	0.156	88.60287	2.46	ppb
	Cu	63	228124.075	1.290	0.375	89.76747	2.39	ppb
	Cu	65	111231.943	1.320	0.183	89.02220	2.31	ppb
	Zn	66	120129.509	0.923	0.197	180.25124	2.42	ppb
	As	75	133561.524	1.428	0.220	177.23567	2.40	ppb
	Se	82	12859.821	1.875	0.021	180.52418	3.45	ppb
	Mo	96	159.335	7.355	-0.000	-0.51124	1.80	ppb
	Ag	107	429468.962	1.063	0.265	87.87102	0.43	ppb
	Ag	109	428426.150	0.325	0.264	88.37153	1.19	ppb
	Cd	111	99278.930	2.772	0.061	85.53630	2.79	ppb
	In	113	169536.740	0.437	0.061	85.79304	2.42	ppb
>	In	115	1621065.254	1.453	1621065.254			ppb
	Sn	118	335.006	18.341	0.000	0.06532	28.14	ppb
	Sb	121	672072.156	1.310	0.219	176.09819	2.08	ppb
	Ba	135	93227.489	3.075	0.030	87.53369	2.92	ppb
	Ba	137	162232.412	2.067	0.053	87.00896	2.09	ppb
>	Tb	159	3072950.605	0.813	3072950.605			ppb
	Tl	205	3359696.992	1.670	1.273	180.06232	1.84	ppb
	Pb	206	1018465.566	1.066	0.386	178.41472	1.27	ppb
	Pb	207	1928987.074	1.673	0.731	178.56035	1.53	ppb
	Pb	208	3459423.571	1.595	1.310	177.95659	1.46	ppb
>	Bi	209	2639695.008	0.934	2639695.008			ppb
	Cr	53	39081.558	0.966	38770.219			ppb
	Pd	106	8426.883	1.605	8426.883			ppb
	Pd	108	6605.515	1.731	6595.515			ppb
	C	12	325192.042	1.195	10898.100			ppb
	Kr	83	27.333	27.702	9.333			ppb
	Se	77	10204.760	0.281	10175.871			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	525287.257		ppb
	Be	9	21352.773	85.378685	ppb
	Na	23	5046075.331	1685.147797	ppb
	Mg	24	2127449.354	1012.558291	ppb
	Mg	25	296478.784	1011.143997	ppb
	Mg	26	335801.015	998.456460	ppb
	Al	27	1255492.884	369.211819	ppb
	K	39	9271191.423	1621.879962	ppb
	Ca	44	226557.672	1524.664531	ppb
>	Sc	45	622697.186		ppb
	Ti	47	55.000	0.020559	ppb
	V	51	404468.369	87.566635	ppb
	Cr	52	340593.061	85.487722	ppb
	Mn	55	484294.819	87.369293	ppb
	Fe	54	276793.438	867.242893	ppb
	Fe	56	5355360.060	893.768849	ppb
	Fe	57	104432.474	863.960972	ppb
	Co	59	439201.653	88.466021	ppb
	Ni	60	95789.932	87.104485	ppb
	Cu	63	231365.900	88.895064	ppb
	Cu	65	111413.881	87.064333	ppb
	Zn	66	120791.820	176.961247	ppb
	As	75	135710.106	175.842441	ppb
	Se	82	13111.924	179.696231	ppb
	Mo	96	146.001	-0.521654	ppb
	Ag	107	434001.156	87.438140	ppb
	Ag	109	429308.294	87.190377	ppb
	Cd	111	98827.259	83.840183	ppb
	In	113	169392.644	83.405340	ppb
>	In	115	1646218.551		ppb
	Sn	118	265.004	0.044261	ppb
	Sb	121	666254.203	173.156776	ppb
	Ba	135	95746.183	89.180856	ppb
	Ba	137	164758.173	87.654714	ppb
>	Tb	159	3097732.716		ppb
	Tl	205	3378694.093	179.178993	ppb
	Pb	206	1023364.842	177.391033	ppb
	Pb	207	1951627.467	178.765427	ppb
	Pb	208	3498355.975	178.075622	ppb
>	Bi	209	2667579.171		ppb
	Cr	53	38646.534		ppb
	Pd	106	8558.661		ppb
	Pd	108	6737.269		ppb
	C	12	329676.194		ppb
	Kr	83	24.000		ppb
	Se	77	10189.188		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	488209.445		ppb
	Be	9	20158.297	86.724208	ppb
	Na	23	5052389.663	1816.191900	ppb
	Mg	24	2150108.274	1101.274514	ppb
	Mg	25	294960.873	1082.529013	ppb
	Mg	26	335220.001	1072.600881	ppb
	Al	27	1245326.692	394.141296	ppb
	K	39	9110234.643	1716.878224	ppb
	Ca	44	225768.114	1637.065108	ppb
>	Sc	45	616829.776		ppb

	Ti	47	35.000	-0.035409	ppb
	V	51	399994.443	87.421562	ppb
	Cr	52	340882.682	86.379253	ppb
	Mn	55	484284.329	88.198834	ppb
	Fe	54	279651.322	885.498514	ppb
	Fe	56	5336223.334	899.436768	ppb
	Fe	57	105028.670	877.360844	ppb
	Co	59	437133.945	88.887137	ppb
	Ni	60	95426.482	87.599534	ppb
	Cu	63	227386.162	88.195841	ppb
	Cu	65	112600.393	88.830578	ppb
	Zn	66	120747.962	178.581991	ppb
	As	75	132907.412	173.849079	ppb
	Se	82	12631.306	174.749366	ppb
	Mo	96	164.001	-0.507990	ppb
	Ag	107	429534.365	88.078378	ppb
	Ag	109	429148.309	88.709174	ppb
	Cd	111	102228.750	88.268929	ppb
	In	113	170338.509	86.800431	ppb
>	In	115	1617433.035		ppb
	Sn	118	380.007	0.078116	ppb
	Sb	121	682202.448	180.211417	ppb
	Ba	135	93828.130	88.826617	ppb
	Ba	137	163511.968	88.417856	ppb
>	Tb	159	3047777.977		ppb
	Tl	205	3296567.772	177.276938	ppb
	Pb	206	1006025.841	176.832609	ppb
	Pb	207	1892031.069	175.738377	ppb
	Pb	208	3396294.736	175.306339	ppb
>	Bi	209	2630662.963		ppb
	Cr	53	39325.172		ppb
	Pd	106	8433.555		ppb
	Pd	108	6547.143		ppb
	C	12	323065.613		ppb
	Kr	83	36.000		ppb
	Se	77	10237.905		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485842.234		ppb
	Be	9	20118.217	86.973511	ppb
	Na	23	4896225.452	1768.361867	ppb
	Mg	24	2102899.434	1082.300632	ppb
	Mg	25	291094.005	1073.523554	ppb
	Mg	26	331003.993	1064.253123	ppb
	Al	27	1235987.566	393.087312	ppb
	K	39	8889424.588	1682.707217	ppb
	Ca	44	218814.072	1593.531721	ppb
>	Sc	45	585429.016		ppb
	Ti	47	45.000	0.000253	ppb
	V	51	386607.011	89.030140	ppb
	Cr	52	330728.086	88.311874	ppb
	Mn	55	475151.484	91.178407	ppb
	Fe	54	279044.725	933.460767	ppb
	Fe	56	5220967.228	929.252683	ppb
	Fe	57	104336.480	918.946655	ppb
	Co	59	429484.977	92.016449	ppb
	Ni	60	94191.523	91.104587	ppb
	Cu	63	225620.164	92.211515	ppb
	Cu	65	109681.555	91.171682	ppb
	Zn	66	118848.746	185.210477	ppb
	As	75	132067.055	182.015495	ppb
	Se	82	12836.233	187.126942	ppb

⌈	Mo	96	168.001	-0.504081	ppb
|	Ag	107	424871.366	88.096556	ppb
|	Ag	109	426821.847	89.215037	ppb
|	Cd	111	96780.782	84.499776	ppb
|	In	113	168879.067	87.173363	ppb
|>	In	115	1599544.177		ppb
⌊	Sn	118	360.006	0.073596	ppb
⌈	Sb	121	667759.819	174.926370	ppb
|	Ba	135	90108.153	84.593610	ppb
|	Ba	137	158427.094	84.954301	ppb
⌊>	Tb	159	3073341.120		ppb
⌈	Tl	205	3403829.110	183.731030	ppb
|	Pb	206	1026006.016	181.020513	ppb
|	Pb	207	1943302.685	181.177256	ppb
|	Pb	208	3483620.002	180.487802	ppb
⌊>	Bi	209	2620842.889		ppb
	Cr	53	39272.967		ppb
	Pd	106	8288.433		ppb
	Pd	108	6532.133		ppb
	C	12	322834.320		ppb
	Kr	83	22.000		ppb
	Se	77	10187.186		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6			93.269		
|	Be	9					
|	Na	23					
|	Mg	24					
|	Mg	25					
|	Mg	26					
|	Al	27					
|	K	39					
⌊	Ca	44					
⌈>	Sc	45			90.334		
|	Ti	47					
|	V	51					
|	Cr	52					
|	Mn	55					
|	Fe	54					
|	Fe	56					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
|	Cu	65					
|	Zn	66					
|	As	75					
⌊	Se	82					
⌈	Mo	96					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	In	113					
|>	In	115			90.600		
⌊	Sn	118					
⌈	Sb	121					
|	Ba	135					
|	Ba	137					
⌊>	Tb	159			93.328		
⌈	Tl	205					
|	Pb	206					
|	Pb	207					
|	Pb	208					
⌊>	Bi	209			92.254		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904097-01

Sample Date/Time: Thursday, April 30, 2009 15:00:54
Sample Type: Sample
Sample Description: 7W9C
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904097-01.2419

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	453237.021	1.097	453237.021			ppb
	Be	9	4.667	49.487	0.000	0.01373	77.03	ppb
	Na	23	S	S	666666918.546	117660298040.32964	173.20	ppb
	Mg	24	131076138.356	0.515	289.214	72479.84958	1.21	ppb
	Mg	25	18863639.627	1.414	41.620	74731.27563	1.27	ppb
	Mg	26	22786367.673	0.839	50.280	78715.74598	1.93	ppb
	Al	27	8525.303	3.997	0.009	1.34516	10.96	ppb
	K	39	5327343.788	0.804	11.362	1067.89214	1.88	ppb
	Ca	44	20042726.184	0.844	44.217	159608.04121	1.56	ppb
>	Sc	45	575700.863	1.127	575700.863			ppb
	Ti	47	620.019	7.943	0.001	1.77154	7.41	ppb
	V	51	4226.034	8.782	0.006	0.86108	9.74	ppb
	Cr	52	17154.704	1.576	0.027	4.20411	0.71	ppb
	Mn	55	85735.972	0.568	0.149	16.69889	1.10	ppb
	Fe	54	28604.189	1.301	0.026	53.87069	3.21	ppb
	Fe	56	687007.788	0.773	0.601	67.09112	2.63	ppb
	Fe	57	54131.116	0.480	0.091	478.57945	0.70	ppb
	Co	59	1004.050	3.722	0.002	0.20657	2.91	ppb
	Ni	60	4933.440	3.708	0.009	4.83148	4.49	ppb
	Cu	63	5129.093	1.275	0.008	1.98566	2.55	ppb
	Cu	65	2974.887	0.933	0.005	2.41649	2.00	ppb
	Zn	66	3797.389	5.095	0.006	5.77465	6.11	ppb
	As	75	929.659	0.325	0.002	1.30666	1.07	ppb
	Se	82	47.111	11.525	0.000	0.45463	19.57	ppb
	Mo	96	10850.551	1.501	0.007	7.67107	0.90	ppb
	Ag	107	226.669	12.037	0.000	0.04830	14.33	ppb
	Ag	109	197.780	16.966	0.000	0.03908	19.97	ppb
	Cd	111	11.602	250.207	0.000	0.01847	154.83	ppb
	In	113	61478.478	2.489	0.000	0.18401	818.55	ppb
>	In	115	1407698.615	1.088	1407698.615			ppb
	Sn	118	135.001	25.926	0.000	0.01449	78.59	ppb
	Sb	121	3762.375	3.523	0.001	1.01667	4.04	ppb
	Ba	135	21861.207	1.626	0.008	23.01598	1.90	ppb
	Ba	137	37965.265	0.252	0.014	22.83156	0.57	ppb
>	Tb	159	2737357.231	0.346	2737357.231			ppb
	Tl	205	416.676	23.587	0.000	0.02788	24.06	ppb
	Pb	206	1330.089	5.909	0.001	0.32120	6.78	ppb
	Pb	207	2478.488	5.377	0.001	0.31506	5.70	ppb
	Pb	208	4018.812	4.470	0.002	0.28322	3.76	ppb
>	Bi	209	1870358.277	2.283	1870358.277			ppb
	Cr	53	2026.205	3.040	1714.867			ppb
	Pd	106	6.667	114.564	6.667			ppb
	Pd	108	25.000	34.641	15.000			ppb
	C	12	379050.651	1.464	64756.709			ppb
	Kr	83	26.000	20.352	8.000			ppb
	Se	77	43.778	6.155	14.889			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	448846.036		ppb
	Be	9	2.000	0.001520	ppb
	Na	23	171013518.172	67233.810195	ppb
	Mg	24	130584440.902	72908.508985	ppb
	Mg	25	18572893.379	74297.231815	ppb
	Mg	26	22940028.057	80010.598485	ppb
	Al	27	8888.949	1.498347	ppb
	K	39	5342246.023	1081.677232	ppb
	Ca	44	19966374.969	160539.995610	ppb
>	Sc	45	568217.579		ppb
	Ti	47	565.016	1.626095	ppb
	V	51	4079.223	0.839362	ppb
	Cr	52	16856.195	4.183349	ppb
	Mn	55	85584.676	16.888195	ppb
	Fe	54	28570.756	55.089135	ppb
	Fe	56	686298.999	68.695173	ppb
	Fe	57	53839.546	482.347765	ppb
	Co	59	964.046	0.200659	ppb
	Ni	60	5064.616	5.024945	ppb
	Cu	63	5198.017	2.042481	ppb
	Cu	65	2997.116	2.468354	ppb
	Zn	66	3940.776	6.082624	ppb
	As	75	928.704	1.322360	ppb
	Se	82	53.333	0.556758	ppb
	Mo	96	10679.700	7.643312	ppb
	Ag	107	250.003	0.054498	ppb
	Ag	109	193.335	0.038610	ppb
	Cd	111	-2.640	0.004422	ppb
	In	113	60809.328	0.277603	ppb
>	In	115	1390206.582		ppb
	Sn	118	135.001	0.015029	ppb
	Sb	121	3895.759	1.056071	ppb
	Ba	135	22140.483	23.313767	ppb
	Ba	137	38030.177	22.874412	ppb
>	Tb	159	2736872.992		ppb
	Tl	205	355.006	0.023918	ppb
	Pb	206	1295.084	0.319645	ppb
	Pb	207	2380.143	0.309189	ppb
	Pb	208	3825.434	0.275496	ppb
>	Bi	209	1828866.056		ppb
	Cr	53	2010.202		ppb
	Pd	106	5.000		ppb
	Pd	108	20.000		ppb
	C	12	373337.332		ppb
	Kr	83	20.000		ppb
	Se	77	46.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	452229.472		ppb
	Be	9	6.000	0.020029	ppb
	Na	23		352980760747.912410	ppb
	Mg	24	131845990.190	73062.120262	ppb
	Mg	25	19097273.976	75823.398955	ppb
	Mg	26	22846653.129	79088.719779	ppb
	Al	27	8473.589	1.332875	ppb
	K	39	5360710.051	1077.145190	ppb
	Ca	44	20236530.577	161495.017631	ppb
>	Sc	45	579736.317		ppb

	Ti	47	660.022	1.881482	ppb
	V	51	3950.758	0.790186	ppb
	Cr	52	17224.822	4.190648	ppb
	Mn	55	86280.618	16.686771	ppb
	Fe	54	28249.846	51.890627	ppb
	Fe	56	682084.816	65.205452	ppb
	Fe	57	54216.575	475.902302	ppb
	Co	59	1010.051	0.206385	ppb
	Ni	60	5011.255	4.872509	ppb
	Cu	63	5067.951	1.945153	ppb
	Cu	65	2943.767	2.372467	ppb
	Zn	66	3874.084	5.851641	ppb
	As	75	933.042	1.302196	ppb
	Se	82	44.667	0.413069	ppb
	Mo	96	10867.902	7.619863	ppb
	Ag	107	196.669	0.040829	ppb
	Ag	109	233.336	0.047103	ppb
	Cd	111	45.000	0.051367	ppb
	In	113	60396.840	-1.366829	ppb
>	In	115	1418732.710		ppb
	Sn	118	100.001	0.002844	ppb
	Sb	121	3760.707	1.019869	ppb
	Ba	135	21982.134	23.221031	ppb
	Ba	137	38010.101	22.935672	ppb
>	Tb	159	2728133.256		ppb
	Tl	205	365.007	0.024099	ppb
	Pb	206	1420.101	0.343723	ppb
	Pb	207	2630.174	0.335225	ppb
	Pb	208	4180.514	0.295350	ppb
>	Bi	209	1868050.914		ppb
	Cr	53	2094.219		ppb
	Pd	106	15.000		ppb
	Pd	108	20.000		ppb
	C	12	379395.046		ppb
	Kr	83	30.000		ppb
	Se	77	43.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	458635.554		ppb
	Be	9	6.000	0.019640	ppb
	Na	23	171899064.736	66139.266276	ppb
	Mg	24	130797983.977	71468.919505	ppb
	Mg	25	18920751.526	74073.196120	ppb
	Mg	26	22572421.833	77047.919665	ppb
	Al	27	8213.372	1.204256	ppb
	K	39	5279075.289	1044.854006	ppb
	Ca	44	19925273.007	156789.110402	ppb
>	Sc	45	579148.692		ppb
	Ti	47	635.020	1.807031	ppb
	V	51	4648.121	0.953691	ppb
	Cr	52	17383.095	4.238339	ppb
	Mn	55	85342.621	16.521715	ppb
	Fe	54	28991.966	54.632319	ppb
	Fe	56	692639.551	67.372736	ppb
	Fe	57	54337.227	477.488288	ppb
	Co	59	1038.054	0.212672	ppb
	Ni	60	4724.449	4.596989	ppb
	Cu	63	5121.311	1.969360	ppb
	Cu	65	2983.778	2.408634	ppb
	Zn	66	3577.306	5.389692	ppb
	As	75	927.231	1.295417	ppb
	Se	82	43.333	0.394063	ppb

⌈	Mo	96	11004.051	7.750040	ppb
|	Ag	107	233.336	0.049578	ppb
|	Ag	109	166.668	0.031517	ppb
|	Cd	111	-7.555	-0.000387	ppb
|	In	113	63229.267	1.641258	ppb
\>	In	115	1414156.555		ppb
⌊	Sn	118	170.001	0.025604	ppb
⌈	Sb	121	3630.659	0.974083	ppb
|	Ba	135	21461.004	22.513152	ppb
|	Ba	137	37855.517	22.684582	ppb
⌊>	Tb	159	2747065.446		ppb
⌈	Tl	205	530.014	0.035628	ppb
|	Pb	206	1275.081	0.300222	ppb
|	Pb	207	2425.147	0.300764	ppb
|	Pb	208	4050.487	0.278805	ppb
⌊>	Bi	209	1914157.861		ppb
	Cr	53	1974.195		ppb
	Pd	106	0.000		ppb
	Pd	108	35.000		ppb
	C	12	384419.577		ppb
	Kr	83	28.000		ppb
	Se	77	41.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		84.583			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		85.490			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		78.675			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		83.136			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		65.367			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: SDI0904097-01

Sample Date/Time: Thursday, April 30, 2009 15:03:27
Sample Type: Sample
Sample Description: 7W9CL 5X
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\SDI0904097-01.2420

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	505023.756	2.073	505023.756			ppb
	Be	9	1.333	173.205	-0.000	-0.00242	387.27	ppb
	Na	23	36124498.819	0.275	71.492	12617.65011	2.04	ppb
	Mg	24	27704295.622	0.497	54.866	13749.94039	2.42	ppb
	Mg	25	4011047.460	1.466	7.942	14259.88059	0.60	ppb
	Mg	26	4738677.813	1.159	9.383	14689.10064	0.95	ppb
	Al	27	2133.561	3.399	-0.006	-0.91839	2.65	ppb
	K	39	1115113.319	1.258	1.815	170.57401	1.48	ppb
	Ca	44	4004373.521	0.587	7.922	28595.37828	1.59	ppb
>	Sc	45	610965.814	1.248	610965.814			ppb
	Ti	47	153.335	35.171	0.000	0.30996	52.41	ppb
	V	51	1255.517	5.383	0.001	0.14757	10.02	ppb
	Cr	52	5153.995	0.377	0.005	0.84683	1.42	ppb
	Mn	55	18204.899	3.006	0.029	3.30871	2.11	ppb
	Fe	54	17451.886	1.926	0.005	10.35771	14.30	ppb
	Fe	56	452941.906	1.400	0.149	16.63283	0.89	ppb
	Fe	57	12681.372	2.507	0.018	95.34368	4.28	ppb
	Co	59	250.670	3.936	0.000	0.03932	6.78	ppb
	Ni	60	1121.174	8.681	0.002	1.01555	7.92	ppb
	Cu	63	1411.211	6.098	0.002	0.40351	6.95	ppb
	Cu	65	766.696	4.413	0.001	0.51017	5.74	ppb
	Zn	66	937.822	6.480	0.001	1.14883	7.21	ppb
	As	75	189.131	3.713	0.000	0.25352	4.62	ppb
	Se	82	20.444	33.940	0.000	0.03998	237.22	ppb
	Mo	96	2276.259	5.003	0.001	0.93035	6.82	ppb
	Ag	107	64.445	43.379	0.000	0.00834	68.92	ppb
	Ag	109	57.778	6.662	0.000	0.00433	19.53	ppb
	Cd	111	3.455	191.795	0.000	0.01016	58.17	ppb
	In	113	68960.366	2.154	0.000	0.08575	956.93	ppb
>	In	115	1581386.761	0.937	1581386.761			ppb
	Sn	118	80.000	16.536	-0.000	-0.00628	58.25	ppb
	Sb	121	1650.137	6.647	0.000	0.35525	7.64	ppb
	Ba	135	4577.047	1.640	0.002	4.39429	1.28	ppb
	Ba	137	8115.292	0.681	0.003	4.45295	1.09	ppb
>	Tb	159	2981148.228	0.717	2981148.228			ppb
	Tl	205	115.001	19.924	0.000	0.00291	39.49	ppb
	Pb	206	308.338	12.279	0.000	0.04898	16.42	ppb
	Pb	207	613.343	16.413	0.000	0.05093	22.07	ppb
	Pb	208	1005.029	7.960	0.000	0.04580	12.21	ppb
>	Bi	209	2515619.141	2.339	2515619.141			ppb
	Cr	53	543.348	2.027	232.010			ppb
	Pd	106	5.000	173.205	5.000			ppb
	Pd	108	5.000	100.000	-5.000			ppb
	C	12	340171.184	0.584	25877.242			ppb
	Kr	83	10.000	52.915	-8.000			ppb
	Se	77	28.667	18.163	-0.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	517003.877		ppb
	Be	9	4.000	0.008412	ppb
	Na	23	36155403.111	12332.149031	ppb
	Mg	24	27578982.269	13366.082539	ppb
	Mg	25	4078550.872	14162.679024	ppb
	Mg	26	4801997.302	14538.570694	ppb
	Al	27	2135.228	-0.933216	ppb
	K	39	1129848.944	168.415217	ppb
	Ca	44	4029301.561	28100.052521	ppb
>	Sc	45	617855.269		ppb
	Ti	47	130.001	0.236891	ppb
	V	51	1312.662	0.156948	ppb
	Cr	52	5175.339	0.837379	ppb
	Mn	55	18406.925	3.308474	ppb
	Fe	54	17625.519	10.272345	ppb
	Fe	56	458343.616	16.687006	ppb
	Fe	57	12367.643	91.443332	ppb
	Co	59	244.003	0.037370	ppb
	Ni	60	1233.409	1.107303	ppb
	Cu	63	1510.114	0.435877	ppb
	Cu	65	736.694	0.479593	ppb
	Zn	66	1003.384	1.230369	ppb
	As	75	181.038	0.240079	ppb
	Se	82	22.667	0.068164	ppb
	Mo	96	2358.278	0.973718	ppb
	Ag	107	96.667	0.014964	ppb
	Ag	109	60.000	0.004695	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	70583.224	1.031727	ppb
>	In	115	1594096.711		ppb
	Sn	118	85.000	-0.005012	ppb
	Sb	121	1525.116	0.324050	ppb
	Ba	135	4579.048	4.423002	ppb
	Ba	137	8167.334	4.508746	ppb
>	Tb	159	2963309.481		ppb
	Tl	205	95.000	0.001941	ppb
	Pb	206	335.006	0.055401	ppb
	Pb	207	720.013	0.062967	ppb
	Pb	208	1085.032	0.051579	ppb
>	Bi	209	2450706.195		ppb
	Cr	53	536.014		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	342217.119		ppb
	Kr	83	4.000		ppb
	Se	77	32.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	497631.242		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	36204839.710	12830.169106	ppb
	Mg	24	27682088.880	13938.439838	ppb
	Mg	25	3970933.879	14325.808775	ppb
	Mg	26	4709689.994	14814.247235	ppb
	Al	27	2060.212	-0.931659	ppb
	K	39	1113572.015	173.337111	ppb
	Ca	44	4001193.606	28991.345330	ppb
>	Sc	45	612266.772		ppb

	Ti	47	115.001	0.196880	ppb
	V	51	1180.919	0.130516	ppb
	Cr	52	5149.325	0.842718	ppb
	Mn	55	18622.323	3.378575	ppb
	Fe	54	17064.548	8.921235	ppb
	Fe	56	454519.886	16.745701	ppb
	Fe	57	12673.025	95.007858	ppb
	Co	59	246.003	0.038232	ppb
	Ni	60	1060.056	0.957260	ppb
	Cu	63	1370.094	0.386417	ppb
	Cu	65	803.366	0.537945	ppb
	Zn	66	883.372	1.064842	ppb
	As	75	193.618	0.258814	ppb
	Se	82	26.000	0.117550	ppb
	Mo	96	2324.270	0.959821	ppb
	Ag	107	46.667	0.004617	ppb
	Ag	109	53.333	0.003361	ppb
	Cd	111	-0.730	0.006430	ppb
	In	113	68629.696	-0.341389	ppb
>	In	115	1584955.105		ppb
	Sn	118	90.000	-0.003428	ppb
	Sb	121	1695.144	0.368414	ppb
	Ba	135	4501.013	4.329345	ppb
	Ba	137	8057.245	4.429454	ppb
>	Tb	159	2975282.686		ppb
	Tl	205	110.001	0.002606	ppb
	Pb	206	325.005	0.051576	ppb
	Pb	207	600.009	0.049111	ppb
	Pb	208	1005.030	0.045386	ppb
>	Bi	209	2530669.661		ppb
	Cr	53	556.015		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	338251.563		ppb
	Kr	83	14.000		ppb
	Se	77	31.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	500436.147		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	36013253.636	12690.632195	ppb
	Mg	24	27851815.717	13945.298779	ppb
	Mg	25	3983657.629	14291.153979	ppb
	Mg	26	4704346.144	14714.483996	ppb
	Al	27	2205.243	-0.890300	ppb
	K	39	1101918.998	169.969702	ppb
	Ca	44	3982625.396	28694.737000	ppb
>	Sc	45	602775.400		ppb
	Ti	47	215.002	0.496105	ppb
	V	51	1272.971	0.155234	ppb
	Cr	52	5137.319	0.860401	ppb
	Mn	55	17585.449	3.239073	ppb
	Fe	54	17665.590	11.879543	ppb
	Fe	56	445962.216	16.465795	ppb
	Fe	57	13003.449	99.579859	ppb
	Co	59	262.003	0.042355	ppb
	Ni	60	1070.057	0.982099	ppb
	Cu	63	1353.425	0.388234	ppb
	Cu	65	760.029	0.512985	ppb
	Zn	66	926.710	1.151278	ppb
	As	75	192.738	0.261655	ppb
	Se	82	12.667	-0.065764	ppb

⌈	Mo	96	2146.230	0.857498	ppb
|	Ag	107	50.000	0.005447	ppb
|	Ag	109	60.000	0.004928	ppb
|	Cd	111	11.095	0.016973	ppb
|	In	113	67668.177	-0.433099	ppb
|>	In	115	1565108.468		ppb
⌊	Sn	118	65.000	-0.010409	ppb
⌈	Sb	121	1730.150	0.373282	ppb
|	Ba	135	4651.081	4.430532	ppb
|	Ba	137	8121.296	4.420662	ppb
⌊>	Tb	159	3004852.517		ppb
⌈	Tl	205	140.001	0.004177	ppb
|	Pb	206	265.004	0.039955	ppb
|	Pb	207	520.007	0.040705	ppb
|	Pb	208	925.026	0.040420	ppb
⌊>	Bi	209	2565481.567		ppb
	Cr	53	538.014		ppb
	Pd	106	15.000		ppb
	Pd	108	5.000		ppb
	C	12	340044.870		ppb
	Kr	83	12.000		ppb
	Se	77	22.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		94.247			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		90.727			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		88.382			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.540			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		87.918			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904097-02

Sample Date/Time: Thursday, April 30, 2009 15:06:00
Sample Type: Sample
Sample Description: 7W10B
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904097-02.2421

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	489137.803	2.099	489137.803			ppb
	Be	9	3.333	124.900	0.000	0.00660	276.24	ppb
	Na	23	78413633.785	0.746	160.311	28293.26126	2.67	ppb
	Mg	24	118578411.796	1.689	242.514	60776.49232	3.28	ppb
	Mg	25	17092248.660	0.897	34.957	62767.38886	2.94	ppb
	Mg	26	20390604.000	0.426	41.696	65277.10095	1.91	ppb
	Al	27	13455.716	1.961	0.017	2.69514	4.97	ppb
	K	39	1952740.481	0.236	3.600	338.33938	2.21	ppb
	Ca	44	15341406.729	0.398	31.364	113212.95879	1.96	ppb
>	Sc	45	599236.083	0.879	599236.083			ppb
	Ti	47	655.022	9.924	0.001	1.80015	9.90	ppb
	V	51	895.035	16.317	0.001	0.07197	48.23	ppb
	Cr	52	2923.095	5.492	0.002	0.28784	16.98	ppb
	Mn	55	12314.247	2.243	0.020	2.27020	3.11	ppb
	Fe	54	16238.176	1.801	0.004	7.33108	14.63	ppb
	Fe	56	486416.384	0.871	0.219	24.49580	5.81	ppb
	Fe	57	38279.804	1.471	0.061	320.88459	1.51	ppb
	Co	59	5136.653	2.977	0.008	1.06327	3.49	ppb
	Ni	60	4036.371	3.315	0.007	3.79130	2.59	ppb
	Cu	63	4931.216	2.812	0.008	1.82208	2.11	ppb
	Cu	65	2578.110	4.390	0.004	1.99499	4.99	ppb
	Zn	66	3721.804	2.958	0.006	5.42013	2.18	ppb
	As	75	223.338	9.722	0.000	0.30456	10.40	ppb
	Se	82	40.667	3.279	0.000	0.33457	5.11	ppb
	Mo	96	1576.124	4.270	0.000	0.53032	8.94	ppb
	Ag	107	38.889	43.985	0.000	0.00358	106.71	ppb
	Ag	109	33.333	26.458	-0.000	-0.00034	592.36	ppb
	Cd	111	4.756	257.628	0.000	0.01157	100.24	ppb
	In	113	64545.980	0.749	0.000	0.21826	218.90	ppb
>	In	115	1477067.069	0.353	1477067.069			ppb
	Sn	118	85.000	17.647	-0.000	-0.00309	147.48	ppb
	Sb	121	996.716	5.050	0.000	0.18883	8.00	ppb
	Ba	135	65255.557	0.362	0.023	65.49428	0.68	ppb
	Ba	137	114563.855	0.603	0.040	65.67863	1.03	ppb
>	Tb	159	2874420.350	0.462	2874420.350			ppb
	Tl	205	173.335	39.797	0.000	0.00748	50.94	ppb
	Pb	206	1386.763	8.776	0.001	0.28522	2.88	ppb
	Pb	207	2568.500	7.453	0.001	0.27813	1.70	ppb
	Pb	208	4130.505	1.155	0.002	0.24888	8.24	ppb
>	Bi	209	2187465.318	7.478	2187465.318			ppb
	Cr	53	261.337	13.439	-50.001			ppb
	Pd	106	10.000	50.000	10.000			ppb
	Pd	108	16.667	86.603	6.667			ppb
	C	12	385522.359	0.638	71228.417			ppb
	Kr	83	19.333	23.890	1.333			ppb
	Se	77	40.889	6.589	12.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
┌>	Li	6	500682.006		ppb
|	Be	9	2.000	0.000551	ppb
|	Na	23	77824758.154	27422.948517	ppb
|	Mg	24	116932506.691	58526.680932	ppb
|	Mg	25	16939931.052	60748.717618	ppb
|	Mg	26	20458870.219	63968.687020	ppb
|	Al	27	13323.870	2.554409	ppb
|	K	39	1956144.299	330.223082	ppb
└	Ca	44	15352580.077	110652.579921	ppb
┌>	Sc	45	599242.257		ppb
|	Ti	47	690.024	1.904533	ppb
|	V	51	866.939	0.065434	ppb
|	Cr	52	2908.423	0.283698	ppb
|	Mn	55	12442.736	2.293880	ppb
|	Fe	54	15902.635	6.174694	ppb
|	Fe	56	490244.467	25.200328	ppb
|	Fe	57	38895.496	326.247494	ppb
|	Co	59	4975.237	1.029333	ppb
|	Ni	60	3960.784	3.720266	ppb
|	Cu	63	4904.536	1.811603	ppb
|	Cu	65	2700.365	2.094063	ppb
|	Zn	66	3717.357	5.413988	ppb
|	As	75	231.124	0.314859	ppb
└	Se	82	42.000	0.353609	ppb
┌	Mo	96	1500.113	0.476048	ppb
|	Ag	107	43.333	0.004591	ppb
|	Ag	109	40.000	0.001173	ppb
|	Cd	111	-9.185	-0.001618	ppb
|	In	113	63989.077	-0.255089	ppb
| >	In	115	1475690.206		ppb
└	Sn	118	85.000	-0.003054	ppb
┌	Sb	121	990.049	0.187742	ppb
|	Ba	135	65521.955	65.953907	ppb
|	Ba	137	114606.996	65.894505	ppb
└>	Tb	159	2866000.837		ppb
┌	Tl	205	95.000	0.003181	ppb
|	Pb	206	1255.079	0.282567	ppb
|	Pb	207	2355.139	0.279112	ppb
|	Pb	208	4135.521	0.272430	ppb
└>	Bi	209	1998685.029		ppb
	Cr	53	258.003		ppb
	Pd	106	10.000		ppb
	Pd	108	25.000		ppb
	C	12	385664.149		ppb
	Kr	83	22.000		ppb
	Se	77	41.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
┌>	Li	6	481023.461		ppb
|	Be	9	8.000	0.027095	ppb
|	Na	23	78420923.501	28762.830569	ppb
|	Mg	24	117994195.297	61471.791137	ppb
|	Mg	25	17246640.969	64376.394705	ppb
|	Mg	26	20420194.213	66457.190778	ppb
|	Al	27	13283.817	2.710208	ppb
|	K	39	1954577.195	344.923960	ppb
└	Ca	44	15275563.781	114598.120634	ppb
┌>	Sc	45	593966.019		ppb

	Ti	47	580.017	1.594464	ppb
	V	51	1053.082	0.109481	ppb
	Cr	52	3090.477	0.338648	ppb
	Mn	55	12502.811	2.325977	ppb
	Fe	54	16373.393	8.293132	ppb
	Fe	56	487143.293	25.428702	ppb
	Fe	57	37791.274	319.539364	ppb
	Co	59	5279.393	1.102821	ppb
	Ni	60	3957.450	3.750341	ppb
	Cu	63	4807.822	1.790005	ppb
	Cu	65	2556.994	1.995971	ppb
	Zn	66	3613.986	5.305337	ppb
	As	75	240.085	0.329796	ppb
	Se	82	39.333	0.320563	ppb
	Mo	96	1600.128	0.551311	ppb
	Ag	107	20.000	-0.000645	ppb
	Ag	109	36.667	0.000435	ppb
	Cd	111	13.820	0.020178	ppb
	In	113	64859.659	0.700337	ppb
>	In	115	1472675.710		ppb
	Sn	118	70.000	-0.007662	ppb
	Sb	121	950.045	0.174305	ppb
	Ba	135	65173.691	65.063994	ppb
	Ba	137	113852.450	64.922472	ppb
>	Tb	159	2889736.367		ppb
	Tl	205	225.003	0.010441	ppb
	Pb	206	1410.099	0.278653	ppb
	Pb	207	2625.173	0.272992	ppb
	Pb	208	4080.484	0.234887	ppb
>	Bi	209	2276231.002		ppb
	Cr	53	228.003		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	382996.504		ppb
	Kr	83	14.000		ppb
	Se	77	38.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485707.941		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	78995219.699	28694.004699	ppb
	Mg	24	120808533.399	62331.004896	ppb
	Mg	25	17090173.960	63177.054244	ppb
	Mg	26	20292747.567	65405.425050	ppb
	Al	27	13759.460	2.820808	ppb
	K	39	1947499.949	339.871097	ppb
	Ca	44	15396076.327	114388.175818	ppb
>	Sc	45	604499.971		ppb
	Ti	47	695.024	1.901443	ppb
	V	51	765.084	0.040986	ppb
	Cr	52	2770.384	0.241173	ppb
	Mn	55	11997.192	2.190747	ppb
	Fe	54	16438.500	7.525401	ppb
	Fe	56	481861.392	22.858368	ppb
	Fe	57	38152.643	316.866905	ppb
	Co	59	5155.329	1.057646	ppb
	Ni	60	4190.878	3.903292	ppb
	Cu	63	5081.291	1.864618	ppb
	Cu	65	2476.973	1.894935	ppb
	Zn	66	3834.068	5.541078	ppb
	As	75	198.805	0.269016	ppb
	Se	82	40.667	0.329550	ppb

⌈	Mo	96	1628.133	0.563614	ppb
⌈	Ag	107	53.333	0.006780	ppb
⌈	Ag	109	23.333	-0.002629	ppb
⌈	Cd	111	9.635	0.016147	ppb
⌈	In	113	64789.204	0.209546	ppb
⌈>	In	115	1482835.290		ppb
⌊	Sn	118	100.001	0.001449	ppb
⌈	Sb	121	1050.055	0.204450	ppb
⌈	Ba	135	65071.025	65.464939	ppb
⌈	Ba	137	115232.119	66.218911	ppb
⌊>	Tb	159	2867523.847		ppb
⌈	Tl	205	200.002	0.008826	ppb
⌈	Pb	206	1495.112	0.294430	ppb
⌈	Pb	207	2725.187	0.282290	ppb
⌈	Pb	208	4175.509	0.239331	ppb
⌊>	Bi	209	2287479.924		ppb
	Cr	53	298.004		ppb
	Pd	106	15.000		ppb
	Pd	108	25.000		ppb
	C	12	387906.424		ppb
	Kr	83	22.000		ppb
	Se	77	43.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			91.283		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			88.985		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			82.552		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			87.299		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			76.449		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904097-03

Sample Date/Time: Thursday, April 30, 2009 15:08:34
Sample Type: Sample
Sample Description: 7W10C
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904097-03.2422

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	492161.356	2.237	492161.356			ppb
	Be	9	0.667	173.205	-0.000	-0.00497	99.77	ppb
	Na	23	49726442.698	1.860	100.994	17824.43213	1.74	ppb
	Mg	24	104412193.322	1.049	212.178	53174.07966	1.21	ppb
	Mg	25	15019392.159	0.669	30.526	54811.05949	2.23	ppb
	Mg	26	17863648.860	0.642	36.304	56835.48312	1.76	ppb
	Al	27	37379.734	0.699	0.066	10.21159	2.12	ppb
	K	39	4075671.862	0.675	7.890	741.53287	1.71	ppb
	Ca	44	12861854.443	0.683	26.132	94327.08340	1.94	ppb
>	Sc	45	599985.414	0.690	599985.414			ppb
	Ti	47	525.014	7.796	0.001	1.41502	8.98	ppb
	V	51	805.802	5.818	0.000	0.05149	22.85	ppb
	Cr	52	3977.458	1.374	0.004	0.56289	3.70	ppb
	Mn	55	21160.699	0.714	0.035	3.92411	0.79	ppb
	Fe	54	37941.856	1.654	0.040	81.77665	1.74	ppb
	Fe	56	851330.666	1.316	0.827	92.25648	1.84	ppb
	Fe	57	42377.970	2.300	0.068	356.15935	1.67	ppb
	Co	59	742.694	5.613	0.001	0.14308	5.46	ppb
	Ni	60	2034.651	2.088	0.003	1.89748	2.45	ppb
	Cu	63	3094.924	5.402	0.005	1.08651	6.48	ppb
	Cu	65	1816.832	4.233	0.003	1.37384	4.23	ppb
	Zn	66	2741.487	2.621	0.004	3.92086	2.35	ppb
	As	75	107.941	13.964	0.000	0.14883	13.66	ppb
	Se	82	26.444	17.707	0.000	0.13141	51.59	ppb
	Mo	96	5956.441	2.288	0.003	3.68019	3.44	ppb
	Ag	107	38.889	26.186	0.000	0.00351	64.99	ppb
	Ag	109	30.000	48.432	-0.000	-0.00117	274.01	ppb
	Cd	111	15.365	125.742	0.000	0.02149	84.47	ppb
	In	113	65131.419	0.448	0.000	0.21348	318.81	ppb
>	In	115	1490644.698	0.660	1490644.698			ppb
	Sn	118	88.334	53.500	-0.000	-0.00231	626.43	ppb
	Sb	121	556.682	10.641	0.000	0.06722	22.67	ppb
	Ba	135	49575.248	0.192	0.017	50.33491	0.77	ppb
	Ba	137	85819.364	0.973	0.030	49.77332	1.73	ppb
>	Tb	159	2840992.226	0.945	2840992.226			ppb
	Tl	205	56.667	28.364	0.000	0.00009	1025.05	ppb
	Pb	206	653.355	7.817	0.000	0.13011	14.18	ppb
	Pb	207	1266.707	6.726	0.001	0.13281	16.60	ppb
	Pb	208	2066.791	0.978	0.001	0.11946	10.28	ppb
>	Bi	209	2204160.275	8.168	2204160.275			ppb
	Cr	53	443.343	4.335	132.005			ppb
	Pd	106	10.000	100.000	10.000			ppb
	Pd	108	8.333	124.900	-1.667			ppb
	C	12	389859.093	0.686	75565.151			ppb
	Kr	83	19.333	36.330	1.333			ppb
	Se	77	46.445	5.801	17.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	504486.228		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	50201711.689	17552.383660	ppb
	Mg	24	105552338.512	52432.077861	ppb
	Mg	25	15064055.854	53613.958349	ppb
	Mg	26	17985263.410	55810.116885	ppb
	Al	27	37515.238	9.962315	ppb
	K	39	4100233.695	726.907017	ppb
	Ca	44	12892847.184	92218.153716	ppb
>	Sc	45	598589.872		ppb
	Ti	47	570.016	1.551492	ppb
	V	51	821.583	0.055417	ppb
	Cr	52	4022.809	0.577132	ppb
	Mn	55	20987.000	3.900662	ppb
	Fe	54	38072.337	82.534112	ppb
	Fe	56	859168.282	94.087649	ppb
	Fe	57	42108.470	354.692965	ppb
	Co	59	706.025	0.135788	ppb
	Ni	60	2083.550	1.948100	ppb
	Cu	63	3287.207	1.166217	ppb
	Cu	65	1876.843	1.426218	ppb
	Zn	66	2667.022	3.817151	ppb
	As	75	91.137	0.126512	ppb
	Se	82	22.000	0.068737	ppb
	Mo	96	6101.861	3.813869	ppb
	Ag	107	36.667	0.003064	ppb
	Ag	109	23.333	-0.002622	ppb
	Cd	111	30.280	0.035629	ppb
	In	113	65418.280	0.891907	ppb
>	In	115	1480775.919		ppb
	Sn	118	105.001	0.003037	ppb
	Sb	121	520.014	0.057588	ppb
	Ba	135	49496.191	50.479514	ppb
	Ba	137	86750.659	50.536502	ppb
>	Tb	159	2828206.750		ppb
	Tl	205	50.000	-0.000000	ppb
	Pb	206	675.023	0.148547	ppb
	Pb	207	1365.047	0.158260	ppb
	Pb	208	2090.122	0.133630	ppb
>	Bi	209	1996344.208		ppb
	Cr	53	440.010		ppb
	Pd	106	20.000		ppb
	Pd	108	0.000		ppb
	C	12	386800.810		ppb
	Kr	83	12.000		ppb
	Se	77	49.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	488702.683		ppb
	Be	9	2.000	0.000756	ppb
	Na	23	50316909.746	18161.204446	ppb
	Mg	24	104317176.698	53492.146360	ppb
	Mg	25	14904303.902	54758.637546	ppb
	Mg	26	17757627.492	56883.460222	ppb
	Al	27	37545.351	10.344458	ppb
	K	39	4080815.503	747.843738	ppb
	Ca	44	12929958.664	95471.661685	ppb
>	Sc	45	604643.256		ppb

	Ti	47	490.012	1.300128	ppb
	V	51	753.065	0.038262	ppb
	Cr	52	3916.767	0.538993	ppb
	Mn	55	21262.581	3.912436	ppb
	Fe	54	38493.947	82.658793	ppb
	Fe	56	856324.172	91.958852	ppb
	Fe	57	43459.230	362.694217	ppb
	Co	59	788.031	0.151320	ppb
	Ni	60	2006.868	1.856532	ppb
	Cu	63	2983.778	1.032775	ppb
	Cu	65	1843.503	1.384063	ppb
	Zn	66	2810.395	3.993023	ppb
	As	75	112.421	0.153684	ppb
	Se	82	26.000	0.122126	ppb
	Mo	96	5935.761	3.664570	ppb
	Ag	107	50.000	0.005976	ppb
	Ag	109	20.000	-0.003404	ppb
	Cd	111	-6.460	0.001022	ppb
	In	113	65141.482	0.217848	ppb
>	In	115	1490696.322		ppb
	Sn	118	35.000	-0.018671	ppb
	Sb	121	525.014	0.059291	ppb
	Ba	135	49548.449	50.627292	ppb
	Ba	137	85570.556	49.941714	ppb
>	Tb	159	2822934.791		ppb
	Tl	205	45.000	-0.000791	ppb
	Pb	206	690.024	0.130139	ppb
	Pb	207	1215.038	0.119537	ppb
	Pb	208	2055.131	0.112111	ppb
>	Bi	209	2313017.314		ppb
	Cr	53	464.011		ppb
	Pd	106	0.000		ppb
	Pd	108	20.000		ppb
	C	12	391007.769		ppb
	Kr	83	26.000		ppb
	Se	77	46.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	483295.156		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	48660706.660	17759.708290	ppb
	Mg	24	103367064.755	53598.014747	ppb
	Mg	25	15089816.721	56060.582581	ppb
	Mg	26	17848055.677	57812.872259	ppb
	Al	27	37078.614	10.327992	ppb
	K	39	4045966.389	749.847857	ppb
	Ca	44	12762757.482	95291.434798	ppb
>	Sc	45	596723.113		ppb
	Ti	47	515.013	1.393433	ppb
	V	51	842.758	0.060787	ppb
	Cr	52	3992.797	0.572532	ppb
	Mn	55	21232.517	3.959230	ppb
	Fe	54	37259.284	80.137041	ppb
	Fe	56	838499.545	90.722948	ppb
	Fe	57	41566.208	351.090855	ppb
	Co	59	734.027	0.142138	ppb
	Ni	60	2013.536	1.887812	ppb
	Cu	63	3013.787	1.060524	ppb
	Cu	65	1730.150	1.311235	ppb
	Zn	66	2747.044	3.952395	ppb
	As	75	120.267	0.166283	ppb
	Se	82	31.333	0.203381	ppb

⌈	Mo	96	5831.700	3.562131	ppb
|	Ag	107	30.000	0.001482	ppb
|	Ag	109	46.667	0.002509	ppb
|	Cd	111	22.275	0.027804	ppb
|	In	113	64834.496	-0.469300	ppb
|>	In	115	1500461.854		ppb
⌊	Sn	118	125.001	0.008712	ppb
⌈	Sb	121	625.020	0.084791	ppb
|	Ba	135	49681.105	49.897930	ppb
|	Ba	137	85136.878	48.841751	ppb
⌊>	Tb	159	2871835.138		ppb
⌈	Tl	205	75.000	0.001064	ppb
|	Pb	206	595.018	0.111657	ppb
|	Pb	207	1220.037	0.120619	ppb
|	Pb	208	2055.122	0.112629	ppb
⌊>	Bi	209	2303119.303		ppb
	Cr	53	426.009		ppb
	Pd	106	10.000		ppb
	Pd	108	5.000		ppb
	C	12	391768.699		ppb
	Kr	83	20.000		ppb
	Se	77	44.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		91.847			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		89.096			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		83.311			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		86.283			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		77.033			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904097-04

Sample Date/Time: Thursday, April 30, 2009 15:11:07
Sample Type: Sample
Sample Description: 7W13
Number of Replicates: 3
Batch ID: 0904097
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904097-04.2423

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	507653.445	1.881	507653.445			ppb
	Be	9	1.333	86.603	-0.000	-0.00226	213.19	ppb
	Na	23	97273927.490	0.865	191.591	33813.93490	1.61	ppb
	Mg	24	S	S	1999999999.990	501220293775.44745	0.00	ppb
	Mg	25	32221657.586	0.821	63.484	113990.53757	1.89	ppb
	Mg	26	38421971.664	0.648	75.696	118505.44138	1.34	ppb
	Al	27	8987.372	2.639	0.008	1.17404	10.40	ppb
	K	39	76467546.656	0.832	150.283	14124.76889	2.56	ppb
	Ca	44	18186221.102	0.510	35.824	129314.81810	2.13	ppb
>	Sc	45	594684.469	0.920	594684.469			ppb
	Ti	47	406.675	6.189	0.001	1.07622	7.71	ppb
	V	51	1535.009	5.934	0.002	0.21866	9.99	ppb
	Cr	52	2649.684	1.223	0.001	0.22121	5.38	ppb
	Mn	55	9095.802	1.175	0.015	1.67929	1.28	ppb
	Fe	54	20516.033	2.516	0.011	22.57322	6.63	ppb
	Fe	56	585368.986	1.262	0.392	43.75082	0.90	ppb
	Fe	57	48689.919	0.819	0.079	415.04046	1.75	ppb
	Co	59	38812.512	0.849	0.065	8.17590	1.77	ppb
	Ni	60	5974.007	2.407	0.010	5.66587	1.51	ppb
	Cu	63	3203.847	2.461	0.005	1.14131	2.81	ppb
	Cu	65	2958.216	4.495	0.005	2.32203	4.42	ppb
	Zn	66	3137.159	3.475	0.005	4.56688	4.23	ppb
	As	75	5316.864	0.702	0.009	7.21734	0.45	ppb
	Se	82	35.778	20.525	0.000	0.26944	40.96	ppb
	Mo	96	13314.191	0.102	0.009	9.18230	0.27	ppb
	Ag	107	21.111	24.119	-0.000	-0.00036	323.91	ppb
	Ag	109	24.444	43.835	-0.000	-0.00230	106.35	ppb
	Cd	111	30.057	104.939	0.000	0.03584	84.37	ppb
	In	113	63220.882	0.341	-0.000	-0.37956	48.51	ppb
>	In	115	1460959.863	0.219	1460959.863			ppb
	Sn	118	323.339	13.860	0.000	0.07190	19.85	ppb
	Sb	121	2525.319	4.486	0.001	0.62748	5.66	ppb
	Ba	135	12664.014	0.236	0.004	12.86451	1.35	ppb
	Ba	137	21936.703	0.929	0.008	12.72969	1.58	ppb
>	Tb	159	2833666.156	1.435	2833666.156			ppb
	Tl	205	48.333	11.945	-0.000	-0.00006	744.28	ppb
	Pb	206	553.349	7.524	0.000	0.12241	9.30	ppb
	Pb	207	1030.027	5.886	0.000	0.11925	7.61	ppb
	Pb	208	1670.083	4.521	0.001	0.10677	3.89	ppb
>	Bi	209	1966352.318	1.291	1966352.318			ppb
	Cr	53	257.337	14.380	-54.002			ppb
	Pd	106	6.667	86.603	6.667			ppb
	Pd	108	23.333	44.607	13.333			ppb
	C	12	400863.501	1.258	86569.559			ppb
	Kr	83	21.333	70.986	3.333			ppb
	Se	77	40.000	0.000	11.111			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	518216.278		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	97999973.000	33365.852867	ppb
	Mg	24		501220293775.447450	ppb
	Mg	25	32190018.400	111533.447997	ppb
	Mg	26	38623700.798	116680.372153	ppb
	Al	27	8713.795	1.034649	ppb
	K	39	76092115.641	13763.702307	ppb
	Ca	44	18174249.657	126562.043252	ppb
>	Sc	45	588522.928		ppb
	Ti	47	430.009	1.158796	ppb
	V	51	1587.488	0.234293	ppb
	Cr	52	2666.355	0.232945	ppb
	Mn	55	9034.079	1.685441	ppb
	Fe	54	20285.554	22.512872	ppb
	Fe	56	577258.991	43.365274	ppb
	Fe	57	49050.001	422.680623	ppb
	Co	59	39192.653	8.341752	ppb
	Ni	60	5818.359	5.576161	ppb
	Cu	63	3170.503	1.141206	ppb
	Cu	65	2937.098	2.330014	ppb
	Zn	66	3220.519	4.745968	ppb
	As	75	5275.421	7.235916	ppb
	Se	82	43.333	0.383879	ppb
	Mo	96	13298.837	9.162431	ppb
	Ag	107	26.667	0.000900	ppb
	Ag	109	16.667	-0.004079	ppb
	Cd	111	3.905	0.010803	ppb
	In	113	63058.192	-0.588947	ppb
>	In	115	1462234.269		ppb
	Sn	118	295.004	0.062923	ppb
	Sb	121	2540.323	0.620237	ppb
	Ba	135	12686.042	12.681903	ppb
	Ba	137	21909.976	12.511923	ppb
>	Tb	159	2878981.571		ppb
	Tl	205	55.000	0.000472	ppb
	Pb	206	600.018	0.135362	ppb
	Pb	207	1085.030	0.127988	ppb
	Pb	208	1590.073	0.102875	ppb
>	Bi	209	1937943.044		ppb
	Cr	53	258.003		ppb
	Pd	106	0.000		ppb
	Pd	108	15.000		ppb
	C	12	398636.270		ppb
	Kr	83	4.000		ppb
	Se	77	40.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	499633.467		ppb
	Be	9	2.000	0.000568	ppb
	Na	23	97470031.135	34420.010891	ppb
	Mg	24		501220293775.447450	ppb
	Mg	25	31974249.530	114906.357067	ppb
	Mg	26	38143565.815	119515.697036	ppb
	Al	27	9134.170	1.262193	ppb
	K	39	77201827.713	14485.741776	ppb
	Ca	44	18284386.950	132066.152305	ppb
>	Sc	45	598977.055		ppb

	Ti	47	410.008	1.077027	ppb
	V	51	1587.714	0.227987	ppb
	Cr	52	2670.356	0.221567	ppb
	Mn	55	9034.079	1.655331	ppb
	Fe	54	21107.252	24.099671	ppb
	Fe	56	591718.474	44.148894	ppb
	Fe	57	48261.177	408.183658	ppb
	Co	59	38604.371	8.072745	ppb
	Ni	60	6101.861	5.746509	ppb
	Cu	63	3147.162	1.109334	ppb
	Cu	65	3100.481	2.420465	ppb
	Zn	66	3177.171	4.592602	ppb
	As	75	5327.424	7.179737	ppb
	Se	82	28.667	0.163647	ppb
	Mo	96	13324.872	9.174250	ppb
	Ag	107	16.667	-0.001372	ppb
	Ag	109	36.667	0.000488	ppb
	Cd	111	21.180	0.027286	ppb
	In	113	63465.758	-0.242872	ppb
>	In	115	1463328.245		ppb
	Sn	118	300.005	0.064417	ppb
	Sb	121	2405.289	0.596120	ppb
	Ba	135	12629.971	12.882783	ppb
	Ba	137	22152.510	12.908383	ppb
>	Tb	159	2821692.952		ppb
	Tl	205	45.000	-0.000319	ppb
	Pb	206	520.014	0.113986	ppb
	Pb	207	1040.027	0.119898	ppb
	Pb	208	1740.088	0.111141	ppb
>	Bi	209	1974303.250		ppb
	Cr	53	220.002		ppb
	Pd	106	10.000		ppb
	Pd	108	20.000		ppb
	C	12	397319.384		ppb
	Kr	83	32.000		ppb
	Se	77	40.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	505110.591		ppb
	Be	9	2.000	0.000477	ppb
	Na	23	96351778.335	33655.940933	ppb
	Mg	24		501220293775.447450	ppb
	Mg	25	32500704.827	115531.807658	ppb
	Mg	26	38498648.380	119320.254964	ppb
	Al	27	9114.151	1.225291	ppb
	K	39	76108696.615	14124.862576	ppb
	Ca	44	18100026.698	129316.258743	ppb
>	Sc	45	596553.424		ppb
	Ti	47	380.007	0.992838	ppb
	V	51	1429.824	0.193707	ppb
	Cr	52	2612.341	0.209129	ppb
	Mn	55	9219.248	1.697103	ppb
	Fe	54	20155.291	21.107131	ppb
	Fe	56	587129.493	43.738279	ppb
	Fe	57	48758.581	414.257086	ppb
	Co	59	38640.510	8.113191	ppb
	Ni	60	6001.801	5.674949	ppb
	Cu	63	3293.876	1.173389	ppb
	Cu	65	2837.069	2.215597	ppb
	Zn	66	3013.787	4.362083	ppb
	As	75	5347.749	7.236381	ppb
	Se	82	35.333	0.260809	ppb

⌈	Mo	96	13318.864	9.210205	ppb
|	Ag	107	20.000	-0.000597	ppb
|	Ag	109	20.000	-0.003302	ppb
|	Cd	111	65.085	0.069441	ppb
|	In	113	63138.697	-0.306851	ppb
|>	In	115	1457317.075		ppb
⌊	Sn	118	375.007	0.088360	ppb
⌈	Sb	121	2630.346	0.666097	ppb
|	Ba	135	12676.029	13.028852	ppb
|	Ba	137	21747.622	12.768773	ppb
⌊>	Tb	159	2800323.945		ppb
⌈	Tl	205	45.000	-0.000339	ppb
|	Pb	206	540.015	0.117875	ppb
|	Pb	207	965.024	0.109863	ppb
|	Pb	208	1680.088	0.106287	ppb
⌊>	Bi	209	1986810.662		ppb
	Cr	53	294.004		ppb
	Pd	106	10.000		ppb
	Pd	108	35.000		ppb
	C	12	406634.850		ppb
	Kr	83	28.000		ppb
	Se	77	40.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			94.738		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			88.309		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			81.652		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			86.061		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			68.722		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, April 30, 2009 15:13:42
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCV.2424

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	556944.573	2.230	556944.573			ppb
	Be	9	32728.814	1.605	0.059	123.44296	0.80	ppb
	Na	23	3737789.372	2.406	6.657	1174.86512	4.22	ppb
	Mg	24	2638322.351	1.674	4.729	1185.10463	2.63	ppb
	Mg	25	375760.851	1.665	0.674	1209.36230	1.81	ppb
	Mg	26	428980.238	1.824	0.769	1203.81792	2.54	ppb
	Al	27	4073882.317	1.581	7.307	1133.52059	2.54	ppb
	K	39	6618774.667	0.854	11.493	1080.22983	1.66	ppb
	Ca	44	175479.002	0.910	0.306	1105.54611	2.73	ppb
>	Sc	45	665730.423	0.907	665730.423			ppb
	Ti	47	45196.920	1.330	0.068	120.16669	0.62	ppb
	V	51	585973.971	0.391	0.879	118.71248	0.69	ppb
	Cr	52	503975.036	1.114	0.754	118.51167	1.60	ppb
	Mn	55	721814.188	0.735	1.084	121.82037	0.69	ppb
	Fe	54	402976.934	1.479	0.582	1198.52301	1.16	ppb
	Fe	56	7384912.110	1.094	10.502	1172.11095	2.01	ppb
	Fe	57	153756.513	1.370	0.228	1194.93674	2.19	ppb
	Co	59	635324.838	0.897	0.954	119.71216	1.57	ppb
	Ni	60	138956.794	1.903	0.209	118.20818	2.33	ppb
	Cu	63	328279.156	0.313	0.493	118.03493	1.16	ppb
	Cu	65	163434.800	0.950	0.245	119.50057	0.83	ppb
	Zn	66	89910.217	1.446	0.135	123.13869	1.97	ppb
	As	75	97469.891	1.424	0.146	118.14407	2.11	ppb
	Se	82	9358.822	1.481	0.014	119.90205	2.20	ppb
	Mo	96	191855.042	0.965	0.109	117.46780	0.16	ppb
	Ag	107	629340.833	0.558	0.360	119.49067	1.49	ppb
	Ag	109	623404.094	1.321	0.357	119.31475	1.59	ppb
	Cd	111	148372.923	1.316	0.085	118.60678	0.89	ppb
	In	113	223932.903	0.466	0.085	118.95121	2.38	ppb
>	In	115	1747036.222	1.121	1747036.222			ppb
	Sn	118	461888.551	0.967	0.264	120.98755	1.38	ppb
	Sb	121	490554.568	0.764	0.153	123.02552	1.97	ppb
	Ba	135	134823.515	1.050	0.042	121.20178	0.71	ppb
	Ba	137	237217.395	0.758	0.074	121.81354	1.35	ppb
>	Tb	159	3210177.740	1.635	3210177.740			ppb
	Tl	205	2360205.969	1.052	0.841	118.95902	1.10	ppb
	Pb	206	755778.468	1.719	0.269	124.51446	2.08	ppb
	Pb	207	1415399.059	0.835	0.504	123.22069	1.33	ppb
	Pb	208	2335596.534	0.583	0.832	112.98958	0.59	ppb
>	Bi	209	2806800.814	0.660	2806800.814			ppb
	Cr	53	58358.472	1.168	58047.134			ppb
	Pd	106	12544.530	0.838	12544.530			ppb
	Pd	108	9778.112	1.313	9768.112			ppb
	C	12	333442.044	0.277	19148.101			ppb
	Kr	83	20.000	10.000	2.000			ppb
	Se	77	7459.448	1.000	7430.559			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	570032.630		ppb
	Be	9	33195.004	122.314263	ppb
	Na	23	3642811.295	1117.592726	ppb
	Mg	24	2622069.418	1150.341242	ppb
	Mg	25	377292.707	1186.152497	ppb
	Mg	26	427077.071	1170.577897	ppb
	Al	27	4051939.609	1101.155285	ppb
	K	39	6651397.398	1059.709519	ppb
	Ca	44	174187.974	1070.830525	ppb
>	Sc	45	670056.039		ppb
	Ti	47	45367.678	119.843893	ppb
	V	51	588604.120	118.470714	ppb
	Cr	52	508020.584	118.684114	ppb
	Mn	55	727928.578	122.056163	ppb
	Fe	54	409850.202	1211.609434	ppb
	Fe	56	7384524.776	1163.920728	ppb
	Fe	57	153732.673	1186.805717	ppb
	Co	59	637754.068	119.384244	ppb
	Ni	60	140733.374	118.936376	ppb
	Cu	63	327103.754	116.843478	ppb
	Cu	65	165227.150	120.029162	ppb
	Zn	66	90682.645	123.384670	ppb
	As	75	97855.841	117.833428	ppb
	Se	82	9389.072	119.498602	ppb
	Mo	96	190481.036	117.649564	ppb
	Ag	107	633319.096	121.288569	ppb
	Ag	109	629243.500	121.481244	ppb
	Cd	111	148350.057	119.627863	ppb
	In	113	224568.553	121.026445	ppb
>	In	115	1731838.409		ppb
	Sn	118	465162.921	122.905966	ppb
	Sb	121	486251.421	121.204284	ppb
	Ba	135	134861.287	120.514588	ppb
	Ba	137	236016.710	120.468529	ppb
>	Tb	159	3229156.792		ppb
	Tl	205	2347118.513	119.179725	ppb
	Pb	206	758737.028	125.926780	ppb
	Pb	207	1420635.789	124.592960	ppb
	Pb	208	2323993.372	113.265305	ppb
>	Bi	209	2786017.587		ppb
	Cr	53	59140.364		ppb
	Pd	106	12547.868		ppb
	Pd	108	9919.918		ppb
	C	12	334502.567		ppb
	Kr	83	18.000		ppb
	Se	77	7397.402		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	555481.042		ppb
	Be	9	32831.808	124.145237	ppb
	Na	23	3821645.980	1203.959061	ppb
	Mg	24	2688318.062	1210.428323	ppb
	Mg	25	381108.384	1229.619764	ppb
	Mg	26	437580.869	1230.907625	ppb
	Al	27	4146386.647	1156.419749	ppb
	K	39	6651397.398	1088.438909	ppb
	Ca	44	177265.347	1119.723558	ppb
>	Sc	45	658830.772		ppb

	Ti	47	44528.921	119.632148	ppb
	V	51	584393.300	119.628536	ppb
	Cr	52	506336.304	120.312635	ppb
	Mn	55	718459.189	122.521085	ppb
	Fe	54	399269.808	1199.995098	ppb
	Fe	56	7465864.939	1198.657732	ppb
	Fe	57	155875.463	1224.264562	ppb
	Co	59	639408.887	121.733624	ppb
	Ni	60	140219.565	120.521517	ppb
	Cu	63	329018.386	119.533294	ppb
	Cu	65	162580.972	120.119248	ppb
	Zn	66	90638.917	125.430599	ppb
	As	75	98623.996	120.781738	ppb
	Se	82	9479.825	122.715952	ppb
>	Mo	96	193960.976	117.270490	ppb
	Ag	107	628020.071	117.737113	ppb
	Ag	109	626984.703	118.492225	ppb
	Cd	111	150336.208	118.672899	ppb
	In	113	222728.071	115.721822	ppb
>	In	115	1769148.302		ppb
	Sn	118	463702.380	119.935501	ppb
	Sb	121	493099.845	122.103110	ppb
	Ba	135	136219.511	120.927335	ppb
	Ba	137	239285.019	121.333202	ppb
>	Tb	159	3250549.230		ppb
	Tl	205	2388841.119	120.142154	ppb
	Pb	206	767035.654	126.090710	ppb
	Pb	207	1423700.707	123.671580	ppb
	Pb	208	2350603.713	113.470293	ppb
>	Bi	209	2812827.950		ppb
	Cr	53	58047.991		ppb
	Pd	106	12437.730		ppb
	Pd	108	9669.673		ppb
	C	12	333012.038		ppb
	Kr	83	20.000		ppb
	Se	77	7542.176		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	545320.048		ppb
	Be	9	32159.629	123.869393	ppb
	Na	23	3748910.843	1203.043577	ppb
	Mg	24	2604579.572	1194.544312	ppb
	Mg	25	368881.462	1212.314654	ppb
	Mg	26	422282.773	1209.968248	ppb
	Al	27	4023320.693	1142.986743	ppb
	K	39	6553529.205	1092.541061	ppb
	Ca	44	174983.686	1126.084246	ppb
>	Sc	45	668304.458		ppb
	Ti	47	45694.160	121.024031	ppb
	V	51	584924.492	118.038189	ppb
	Cr	52	497568.220	116.538261	ppb
	Mn	55	719054.797	120.883862	ppb
	Fe	54	399810.792	1183.964492	ppb
	Fe	56	7304346.616	1153.754391	ppb
	Fe	57	151661.404	1173.739951	ppb
	Co	59	628811.560	118.018625	ppb
	Ni	60	135917.443	115.166660	ppb
	Cu	63	328715.327	117.728023	ppb
	Cu	65	162496.278	118.353298	ppb
	Zn	66	88409.088	120.600796	ppb
	As	75	95929.836	115.817041	ppb
	Se	82	9207.570	117.491583	ppb

⌈	Mo	96	191123.114	117.483334	ppb
|	Ag	107	626683.331	119.446334	ppb
|	Ag	109	613984.080	117.970778	ppb
|	Cd	111	146432.504	117.519588	ppb
|	In	113	224502.085	120.105370	ppb
|>	In	115	1740121.954		ppb
⌊	Sn	118	456800.352	120.121176	ppb
⌈	Sb	121	492312.437	125.769173	ppb
|	Ba	135	133389.747	122.163406	ppb
|	Ba	137	236350.455	123.638895	ppb
⌊>	Tb	159	3150827.199		ppb
⌈	Tl	205	2344658.274	117.555181	ppb
|	Pb	206	741562.721	121.525880	ppb
|	Pb	207	1401860.679	121.397526	ppb
|	Pb	208	2332192.517	112.233150	ppb
⌊>	Bi	209	2821556.905		ppb
	Cr	53	57887.062		ppb
	Pd	106	12647.994		ppb
	Pd	108	9744.746		ppb
	C	12	332811.526		ppb
	Kr	83	22.000		ppb
	Se	77	7438.766		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6			103.937		
Be	9	102.869				
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45			98.859		
Ti	47					
V	51	98.927				
Cr	52	98.760				
Mn	55	101.517				
Fe	54					
Fe	56					
Fe	57					
Co	59	99.760				
Ni	60	98.507				
Cu	63	98.362				
Cu	65	99.584				
Zn	66	102.616				
As	75	98.453				
Se	82	99.918				
Mo	96					
Ag	107	99.576				
Ag	109	99.429				
Cd	111	98.839				
In	113					
In	115			97.640		
Sn	118	100.823				
Sb	121	102.521				
Ba	135	101.001				
Ba	137	101.511				
Tb	159			97.496		
Tl	205	99.133				
Pb	206	103.762				
Pb	207	102.684				
Pb	208	94.158				
Bi	209			98.095		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, April 30, 2009 15:16:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCB.2425

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	540396.590	1.485	540396.590			ppb
|	Be	9	2.000	0.000	-0.000	-0.00006	177.26	ppb
|	Na	23	20279.544	1.026	-0.021	-3.65084	2.05	ppb
|	Mg	24	2835.402	0.512	-0.004	-1.11486	1.68	ppb
|	Mg	25	385.007	2.749	-0.001	-1.02291	2.74	ppb
|	Mg	26	473.011	10.097	-0.001	-0.97769	12.64	ppb
|	Al	27	906.709	22.721	-0.008	-1.31416	4.18	ppb
|	K	39	183421.662	0.992	-0.054	-5.08091	3.41	ppb
⌊	Ca	44	2853.741	3.443	-0.004	-13.13874	3.62	ppb
⌈>	Sc	45	633346.261	0.655	633346.261			ppb
|	Ti	47	45.000	33.333	-0.000	-0.00987	433.74	ppb
|	V	51	518.762	5.070	-0.000	-0.01931	27.71	ppb
|	Cr	52	1884.845	6.115	-0.000	-0.01142	242.00	ppb
|	Mn	55	255.003	13.726	0.000	0.00545	108.82	ppb
|	Fe	54	13876.289	1.525	-0.002	-3.35680	27.96	ppb
|	Fe	56	376258.769	1.455	0.002	0.19804	508.07	ppb
|	Fe	57	1496.779	5.732	-0.000	-0.89373	85.18	ppb
|	Co	59	71.334	17.131	0.000	0.00195	119.77	ppb
|	Ni	60	26.667	25.000	0.000	0.00048	1234.51	ppb
|	Cu	63	351.117	3.837	-0.000	-0.01698	35.10	ppb
|	Cu	65	110.001	16.872	-0.000	-0.01660	89.49	ppb
|	Zn	66	191.113	7.262	0.000	0.02251	96.32	ppb
|	As	75	33.280	26.607	0.000	0.04611	24.87	ppb
⌊	Se	82	24.000	14.699	0.000	0.07858	61.81	ppb
⌈	Mo	96	396.008	26.321	-0.000	-0.36492	17.73	ppb
|	Ag	107	108.889	6.372	0.000	0.01626	7.88	ppb
|	Ag	109	116.667	7.559	0.000	0.01524	12.53	ppb
|	Cd	111	9.363	51.335	0.000	0.01484	27.17	ppb
|	In	113	73072.701	1.191	-0.000	-0.32085	272.94	ppb
|>	In	115	1687061.650	0.735	1687061.650			ppb
⌊	Sn	118	351.673	20.816	0.000	0.06595	29.57	ppb
⌈	Sb	121	3175.508	11.400	0.001	0.73629	13.89	ppb
|	Ba	135	24.667	26.064	-0.000	-0.01440	41.85	ppb
|	Ba	137	50.667	2.279	-0.000	-0.00841	4.75	ppb
⌊>	Tb	159	3096115.982	0.993	3096115.982			ppb
⌈	Tl	205	248.336	10.134	0.000	0.00928	14.19	ppb
|	Pb	206	71.667	14.523	0.000	0.00429	41.61	ppb
|	Pb	207	136.667	10.561	0.000	0.00337	39.27	ppb
|	Pb	208	240.002	9.547	0.000	0.00335	33.40	ppb
⌊>	Bi	209	2739324.603	0.352	2739324.603			ppb
	Cr	53	125.334	9.619	-186.004			ppb
	Pd	106	1.667	173.205	1.667			ppb
	Pd	108	3.333	173.205	-6.667			ppb
	C	12	318380.507	0.939	4086.564			ppb
	Kr	83	15.333	32.825	-2.667			ppb
	Se	77	25.333	25.918	-3.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	549172.526		ppb
	Be	9	2.000	-0.000190	ppb
	Na	23	20366.719	-3.729196	ppb
	Mg	24	2834.402	-1.136508	ppb
	Mg	25	389.008	-1.030245	ppb
	Mg	26	504.013	-0.910314	ppb
	Al	27	1140.065	-1.251866	ppb
	K	39	185500.714	-5.236489	ppb
	Ca	44	2914.425	-13.042218	ppb
>	Sc	45	636784.087		ppb
	Ti	47	30.000	-0.052474	ppb
	V	51	546.661	-0.013988	ppb
	Cr	52	2004.201	0.015545	ppb
	Mn	55	290.004	0.011407	ppb
	Fe	54	13849.584	-3.690500	ppb
	Fe	56	381199.770	0.704709	ppb
	Fe	57	1510.114	-0.853134	ppb
	Co	59	82.000	0.003983	ppb
	Ni	60	33.333	0.006285	ppb
	Cu	63	343.339	-0.020653	ppb
	Cu	65	93.334	-0.029877	ppb
	Zn	66	186.668	0.014566	ppb
	As	75	23.080	0.032915	ppb
	Se	82	25.333	0.094632	ppb
	Mo	96	504.013	-0.297734	ppb
	Ag	107	116.667	0.017648	ppb
	Ag	109	113.334	0.014435	ppb
	Cd	111	4.270	0.010587	ppb
	In	113	72325.607	-1.312226	ppb
>	In	115	1697392.299		ppb
	Sn	118	430.009	0.086533	ppb
	Sb	121	3585.643	0.851590	ppb
	Ba	135	22.000	-0.016690	ppb
	Ba	137	50.000	-0.008496	ppb
>	Tb	159	3065749.499		ppb
	Tl	205	245.003	0.009153	ppb
	Pb	206	75.000	0.004893	ppb
	Pb	207	145.001	0.004155	ppb
	Pb	208	245.002	0.003645	ppb
>	Bi	209	2729876.894		ppb
	Cr	53	138.001		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	321457.000		ppb
	Kr	83	16.000		ppb
	Se	77	32.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	538583.269		ppb
	Be	9	2.000	-0.000040	ppb
	Na	23	20429.848	-3.579818	ppb
	Mg	24	2850.406	-1.103630	ppb
	Mg	25	393.008	-0.991901	ppb
	Mg	26	497.012	-0.902413	ppb
	Al	27	830.034	-1.334835	ppb
	K	39	182638.753	-5.111732	ppb
	Ca	44	2906.422	-12.719213	ppb
>	Sc	45	628738.153		ppb

	Ti	47	60.000	0.033147	ppb
	V	51	515.201	-0.019260	ppb
	Cr	52	1876.176	-0.010128	ppb
	Mn	55	220.002	-0.000451	ppb
	Fe	54	14099.933	-2.296823	ppb
	Fe	56	377202.394	0.850126	ppb
	Fe	57	1575.124	-0.153571	ppb
	Co	59	58.000	-0.000598	ppb
	Ni	60	26.667	0.000659	ppb
	Cu	63	366.673	-0.010105	ppb
	Cu	65	130.001	-0.000552	ppb
	Zn	66	206.669	0.047054	ppb
	As	75	38.997	0.053714	ppb
	Se	82	26.667	0.117104	ppb
>	Mo	96	388.008	-0.370218	ppb
	Ag	107	103.334	0.015125	ppb
	Ag	109	110.001	0.013867	ppb
	Cd	111	10.000	0.015334	ppb
	In	113	74027.997	0.347426	ppb
>	In	115	1690487.874		ppb
	Sn	118	285.004	0.047747	ppb
	Sb	121	3040.462	0.700703	ppb
	Ba	135	32.000	-0.007563	ppb
	Ba	137	50.000	-0.008753	ppb
>	Tb	159	3095366.192		ppb
	Tl	205	225.003	0.008035	ppb
	Pb	206	60.000	0.002281	ppb
	Pb	207	120.000	0.001842	ppb
	Pb	208	260.002	0.004300	ppb
>	Bi	209	2749127.358		ppb
	Cr	53	124.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	318201.319		ppb
	Kr	83	10.000		ppb
	Se	77	23.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	533433.975		ppb
	Be	9	2.000	0.000036	ppb
	Na	23	20042.064	-3.643494	ppb
	Mg	24	2821.398	-1.104455	ppb
	Mg	25	373.007	-1.046578	ppb
	Mg	26	418.009	-1.120329	ppb
	Al	27	750.028	-1.355794	ppb
	K	39	182125.519	-4.894495	ppb
	Ca	44	2740.375	-13.654794	ppb
>	Sc	45	634516.542		ppb
	Ti	47	45.000	-0.010284	ppb
	V	51	494.423	-0.024689	ppb
	Cr	52	1774.157	-0.039669	ppb
	Mn	55	255.003	0.005390	ppb
	Fe	54	13679.350	-4.083087	ppb
	Fe	56	370374.143	-0.960729	ppb
	Fe	57	1405.099	-1.674489	ppb
	Co	59	74.000	0.002459	ppb
	Ni	60	20.000	-0.005511	ppb
	Cu	63	343.339	-0.020191	ppb
	Cu	65	106.667	-0.019385	ppb
	Zn	66	180.002	0.005924	ppb
	As	75	37.764	0.051690	ppb
	Se	82	20.000	0.024018	ppb

⌈	Mo	96	296.004	-0.426805	ppb
|	Ag	107	106.667	0.015994	ppb
|	Ag	109	126.667	0.017421	ppb
|	Cd	111	13.820	0.018607	ppb
|	In	113	72864.498	0.002247	ppb
|>	In	115	1673304.776		ppb
⌊	Sn	118	340.006	0.063584	ppb
⌈	Sb	121	2900.421	0.656569	ppb
|	Ba	135	20.000	-0.018944	ppb
|	Ba	137	52.000	-0.007970	ppb
⌊>	Tb	159	3127232.255		ppb
⌈	Tl	205	275.004	0.010661	ppb
|	Pb	206	80.000	0.005695	ppb
|	Pb	207	145.001	0.004112	ppb
|	Pb	208	215.001	0.002117	ppb
⌊>	Bi	209	2738969.556		ppb
	Cr	53	114.001		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	315483.202		ppb
	Kr	83	20.000		ppb
	Se	77	20.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.849			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		94.050			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		94.289			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		94.032			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		95.736			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042730-BLK1

Sample Date/Time: Thursday, April 30, 2009 15:29:11
Sample Type: Sample
Sample Description: PBW
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042730-BLK1.2426

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	500700.849	2.606	500700.849			ppb
	Be	9	3.333	124.900	0.000	0.00640	278.74	ppb
	Na	23	18586.926	1.156	-0.021	-3.72079	3.65	ppb
	Mg	24	2172.569	1.105	-0.005	-1.34227	1.22	ppb
	Mg	25	290.004	11.709	-0.001	-1.26366	7.53	ppb
	Mg	26	366.007	3.103	-0.001	-1.20164	5.28	ppb
	Al	27	1320.087	7.452	-0.008	-1.16521	1.84	ppb
	K	39	192133.247	1.793	-0.010	-0.91305	31.76	ppb
	Ca	44	3309.881	2.742	-0.002	-8.33720	1.40	ppb
>	Sc	45	613502.908	2.168	613502.908			ppb
	Ti	47	35.000	37.797	-0.000	-0.03436	118.09	ppb
	V	51	616.036	6.354	0.000	0.00584	198.40	ppb
	Cr	52	1950.857	3.085	0.000	0.02064	49.39	ppb
	Mn	55	218.336	11.527	0.000	0.00025	1941.06	ppb
	Fe	54	13971.426	2.960	-0.001	-1.58522	36.10	ppb
	Fe	56	375471.284	1.140	0.020	2.20953	39.68	ppb
	Fe	57	1585.126	4.244	0.000	0.25804	205.07	ppb
	Co	59	57.334	43.616	-0.000	-0.00037	1450.91	ppb
	Ni	60	26.667	12.500	0.000	0.00124	226.87	ppb
	Cu	63	313.338	8.032	-0.000	-0.02751	31.90	ppb
	Cu	65	135.557	29.337	0.000	0.00598	490.32	ppb
	Zn	66	216.669	29.673	0.000	0.06992	140.71	ppb
	As	75	14.366	41.993	0.000	0.02266	36.12	ppb
	Se	82	15.111	6.739	-0.000	-0.03499	27.72	ppb
	Mo	96	86.667	33.389	-0.001	-0.56071	3.39	ppb
	Ag	107	43.333	27.735	0.000	0.00352	67.65	ppb
	Ag	109	38.889	55.769	-0.000	-0.00004	11555.32	ppb
	Cd	111	-0.122	4260.469	0.000	0.00696	62.84	ppb
	In	113	73154.948	0.672	0.001	0.88191	65.48	ppb
>	In	115	1656193.981	0.308	1656193.981			ppb
	Sn	118	161.668	30.039	0.000	0.01529	88.79	ppb
	Sb	121	820.034	11.293	0.000	0.13072	17.71	ppb
	Ba	135	36.000	25.459	-0.000	-0.00272	296.25	ppb
	Ba	137	63.334	10.151	-0.000	-0.00043	673.41	ppb
>	Tb	159	2984694.109	2.496	2984694.109			ppb
	Tl	205	90.000	33.333	0.000	0.00129	123.99	ppb
	Pb	206	51.667	11.175	0.000	0.00127	78.94	ppb
	Pb	207	96.667	21.535	0.000	0.00013	1323.10	ppb
	Pb	208	170.001	10.605	0.000	0.00023	374.65	ppb
>	Bi	209	2630472.450	2.130	2630472.450			ppb
	Cr	53	110.001	14.431	-201.338			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	1.667	173.205	-8.333			ppb
	C	12	313375.176	1.524	-918.767			ppb
	Kr	83	14.000	49.487	-4.000			ppb
	Se	77	16.889	22.790	-12.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	515391.775		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	18692.454	-3.873522	ppb
	Mg	24	2200.242	-1.360091	ppb
	Mg	25	329.005	-1.155921	ppb
	Mg	26	353.006	-1.274833	ppb
	Al	27	1410.099	-1.149476	ppb
	K	39	195994.044	-1.242054	ppb
	Ca	44	3406.580	-8.339701	ppb
>	Sc	45	625642.779		ppb
	Ti	47	30.000	-0.050987	ppb
	V	51	588.348	-0.002928	ppb
	Cr	52	2020.204	0.028374	ppb
	Mn	55	195.002	-0.004747	ppb
	Fe	54	14220.103	-1.672552	ppb
	Fe	56	380332.673	1.739826	ppb
	Fe	57	1565.122	-0.172356	ppb
	Co	59	32.000	-0.005754	ppb
	Ni	60	26.667	0.000778	ppb
	Cu	63	310.005	-0.031120	ppb
	Cu	65	180.002	0.038881	ppb
	Zn	66	243.336	0.102082	ppb
	As	75	7.400	0.013215	ppb
	Se	82	16.000	-0.026798	ppb
	Mo	96	120.001	-0.538832	ppb
	Ag	107	30.000	0.000880	ppb
	Ag	109	40.000	0.000214	ppb
	Cd	111	-5.365	0.002534	ppb
	In	113	73559.559	1.445859	ppb
>	In	115	1650331.636		ppb
	Sn	118	215.002	0.030210	ppb
	Sb	121	725.026	0.104795	ppb
	Ba	135	38.000	-0.000721	ppb
	Ba	137	68.000	0.002109	ppb
>	Tb	159	2990137.894		ppb
	Tl	205	60.000	-0.000255	ppb
	Pb	206	55.000	0.002041	ppb
	Pb	207	80.000	-0.001252	ppb
	Pb	208	175.001	0.000663	ppb
>	Bi	209	2581484.652		ppb
	Cr	53	122.001		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	318789.618		ppb
	Kr	83	10.000		ppb
	Se	77	21.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	496242.731		ppb
	Be	9	2.000	0.000626	ppb
	Na	23	18728.521	-3.613691	ppb
	Mg	24	2160.233	-1.339012	ppb
	Mg	25	267.004	-1.336035	ppb
	Mg	26	374.007	-1.167203	ppb
	Al	27	1335.089	-1.156547	ppb
	K	39	191033.425	-0.802381	ppb
	Ca	44	3296.543	-8.219444	ppb
>	Sc	45	615581.256		ppb

	Ti	47	25.000	-0.063992	ppb
	V	51	598.942	0.001471	ppb
	Cr	52	1912.183	0.009089	ppb
	Mn	55	245.003	0.004954	ppb
	Fe	54	14200.075	-0.974251	ppb
	Fe	56	373818.828	1.667779	ppb
	Fe	57	1660.138	0.848855	ppb
	Co	59	58.000	-0.000351	ppb
	Ni	60	30.000	0.004239	ppb
	Cu	63	340.006	-0.017500	ppb
	Cu	65	123.334	-0.003675	ppb
	Zn	66	143.334	-0.040520	ppb
	As	75	17.881	0.027108	ppb
	Se	82	15.333	-0.032480	ppb
	Mo	96	68.000	-0.572959	ppb
	Ag	107	53.333	0.005510	ppb
	Ag	109	16.667	-0.004532	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	72607.640	0.291788	ppb
>	In	115	1659553.433		ppb
	Sn	118	120.001	0.003678	ppb
	Sb	121	910.041	0.149329	ppb
	Ba	135	44.000	0.004152	ppb
	Ba	137	66.000	0.000219	ppb
>	Tb	159	3056306.835		ppb
	Tl	205	90.000	0.001187	ppb
	Pb	206	55.000	0.001638	ppb
	Pb	207	120.000	0.002070	ppb
	Pb	208	185.001	0.000791	ppb
>	Bi	209	2691583.798		ppb
	Cr	53	116.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	309764.529		ppb
	Kr	83	10.000		ppb
	Se	77	14.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	490468.039		ppb
	Be	9	8.000	0.026422	ppb
	Na	23	18339.802	-3.675144	ppb
	Mg	24	2157.233	-1.327701	ppb
	Mg	25	274.004	-1.299033	ppb
	Mg	26	371.007	-1.162887	ppb
	Al	27	1215.074	-1.189594	ppb
	K	39	189372.274	-0.694710	ppb
	Ca	44	3226.520	-8.452462	ppb
>	Sc	45	599284.690		ppb
	Ti	47	50.000	0.011889	ppb
	V	51	660.817	0.018983	ppb
	Cr	52	1920.184	0.024464	ppb
	Mn	55	215.002	0.000544	ppb
	Fe	54	13494.098	-2.108848	ppb
	Fe	56	372262.350	3.220976	ppb
	Fe	57	1530.117	0.097624	ppb
	Co	59	82.000	0.004994	ppb
	Ni	60	23.333	-0.001311	ppb
	Cu	63	290.004	-0.033896	ppb
	Cu	65	103.334	-0.017280	ppb
	Zn	66	263.337	0.148199	ppb
	As	75	17.816	0.027658	ppb
	Se	82	14.000	-0.045705	ppb

⌈	Mo	96	72.000	-0.570343	ppb
|	Ag	107	46.667	0.004182	ppb
|	Ag	109	60.000	0.004205	ppb
|	Cd	111	5.000	0.011283	ppb
|	In	113	73297.646	0.908094	ppb
|>	In	115	1658696.873		ppb
⌊	Sn	118	150.001	0.011973	ppb
⌈	Sb	121	825.034	0.138042	ppb
|	Ba	135	26.000	-0.011593	ppb
|	Ba	137	56.000	-0.003631	ppb
⌊>	Tb	159	2907637.596		ppb
⌈	Tl	205	120.001	0.002940	ppb
|	Pb	206	45.000	0.000136	ppb
|	Pb	207	90.000	-0.000425	ppb
|	Pb	208	150.001	-0.000763	ppb
⌊>	Bi	209	2618348.901		ppb
	Cr	53	92.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	311571.380		ppb
	Kr	83	22.000		ppb
	Se	77	14.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		93.441			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		91.104			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		92.563			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		90.648			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		91.932			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042730-BS1

Sample Date/Time: Thursday, April 30, 2009 15:31:44
Sample Type: Sample
Sample Description: LCSW
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042730-BS1.2427

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	474482.920	3.470	474482.920			ppb
|	Be	9	21553.883	2.922	0.045	95.43035	1.60	ppb
|	Na	23	5170975.898	1.786	10.847	1914.36623	3.23	ppb
|	Mg	24	2180470.327	1.836	4.589	1150.13096	3.82	ppb
|	Mg	25	310032.759	0.592	0.653	1171.98848	3.85	ppb
|	Mg	26	352890.194	0.790	0.743	1162.98433	3.73	ppb
|	Al	27	1370427.837	7.137	2.881	447.00148	8.60	ppb
|	K	39	9362184.578	0.730	19.350	1818.68411	2.76	ppb
⌊	Ca	44	236680.694	1.769	0.490	1769.09835	1.84	ppb
⌈>	Sc	45	591146.361	1.840	591146.361			ppb
|	Ti	47	35.000	28.571	-0.000	-0.03128	90.86	ppb
|	V	51	416469.499	1.329	0.704	94.99407	0.51	ppb
|	Cr	52	355353.198	0.856	0.598	94.01164	0.98	ppb
|	Mn	55	514177.848	1.525	0.869	97.71965	0.32	ppb
|	Fe	54	292243.887	2.519	0.471	969.97778	1.95	ppb
|	Fe	56	5504041.888	1.916	8.719	973.08380	0.86	ppb
|	Fe	57	109983.337	2.019	0.184	959.94505	1.52	ppb
|	Co	59	454362.858	1.986	0.769	96.41278	1.68	ppb
|	Ni	60	101492.636	2.424	0.172	97.21273	0.81	ppb
|	Cu	63	238230.114	1.244	0.402	96.43753	0.63	ppb
|	Cu	65	116734.135	1.330	0.197	96.10801	0.75	ppb
|	Zn	66	128380.021	1.321	0.217	198.16915	1.35	ppb
|	As	75	140754.542	1.506	0.238	192.13071	1.34	ppb
⌊	Se	82	13696.040	0.918	0.023	197.76638	0.92	ppb
⌈	Mo	96	159.335	3.835	-0.000	-0.50755	1.05	ppb
|	Ag	107	457753.260	1.704	0.292	96.97078	1.14	ppb
|	Ag	109	451736.321	0.993	0.289	96.47372	1.01	ppb
|	Cd	111	106108.945	1.369	0.068	94.65294	1.10	ppb
|	In	113	175937.689	1.216	0.069	96.73025	1.95	ppb
|>	In	115	1565617.302	1.129	1565617.302			ppb
⌊	Sn	118	396.675	16.451	0.000	0.08669	23.51	ppb
⌈	Sb	121	699865.962	1.514	0.240	193.61388	1.88	ppb
|	Ba	135	98177.071	2.214	0.034	97.35876	3.62	ppb
|	Ba	137	172200.725	0.793	0.059	97.51757	1.47	ppb
⌊>	Tb	159	2910894.495	2.066	2910894.495			ppb
⌈	Tl	205	3477712.363	0.963	1.382	195.49985	1.08	ppb
|	Pb	206	1075566.103	1.817	0.427	197.61158	0.81	ppb
|	Pb	207	2033837.399	1.203	0.808	197.46954	0.63	ppb
|	Pb	208	3603145.271	0.504	1.432	194.42956	1.48	ppb
⌊>	Bi	209	2516666.962	1.136	2516666.962			ppb
	Cr	53	41305.177	2.874	40993.839			ppb
	Pd	106	8930.655	2.634	8930.655			ppb
	Pd	108	6964.092	2.175	6954.092			ppb
	C	12	317073.311	1.756	2779.368			ppb
	Kr	83	26.667	18.875	8.667			ppb
	Se	77	10843.209	0.685	10814.320			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	493199.588		ppb
	Be	9	22130.461	94.246136	ppb
	Na	23	5191921.000	1847.642881	ppb
	Mg	24	2173706.331	1102.098257	ppb
	Mg	25	308268.344	1120.000902	ppb
	Mg	26	351352.879	1112.934441	ppb
	Al	27	1326133.631	415.554917	ppb
	K	39	9441045.312	1762.174666	ppb
	Ca	44	241013.800	1731.757317	ppb
>	Sc	45	603369.681		ppb
	Ti	47	45.000	-0.003797	ppb
	V	51	422720.407	94.459943	ppb
	Cr	52	358803.554	92.985090	ppb
	Mn	55	522871.458	97.354857	ppb
	Fe	54	299339.130	973.555578	ppb
	Fe	56	5623601.034	974.134978	ppb
	Fe	57	112165.547	959.098028	ppb
	Co	59	462556.080	96.155719	ppb
	Ni	60	104331.428	97.913389	ppb
	Cu	63	241422.824	95.741961	ppb
	Cu	65	118514.818	95.589910	ppb
	Zn	66	130016.421	196.604875	ppb
	As	75	142828.680	190.993963	ppb
	Se	82	13839.570	195.765959	ppb
	Mo	96	154.001	-0.511621	ppb
	Ag	107	465326.961	98.229870	ppb
	Ag	109	456674.808	97.181342	ppb
	Cd	111	105138.710	93.455929	ppb
	In	113	174183.904	94.600100	ppb
>	In	115	1571140.312		ppb
	Sn	118	345.006	0.071088	ppb
	Sb	121	692687.721	196.239308	ppb
	Ba	135	98963.275	100.477077	ppb
	Ba	137	170773.840	99.035770	ppb
>	Tb	159	2841984.136		ppb
	Tl	205	3448088.044	193.339560	ppb
	Pb	206	1072783.815	196.615968	ppb
	Pb	207	2024060.834	196.026864	ppb
	Pb	208	3583756.416	192.878618	ppb
>	Bi	209	2522979.867		ppb
	Cr	53	42423.798		ppb
	Pd	106	9164.197		ppb
	Pd	108	6987.440		ppb
	C	12	323383.648		ppb
	Kr	83	32.000		ppb
	Se	77	10901.939		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	462237.861		ppb
	Be	9	20881.780	94.885105	ppb
	Na	23	5069946.586	1925.518418	ppb
	Mg	24	2144239.301	1160.105977	ppb
	Mg	25	309898.588	1201.508003	ppb
	Mg	26	351209.989	1187.154546	ppb
	Al	27	1302600.781	435.597186	ppb
	K	39	9320529.934	1858.181659	ppb
	Ca	44	232655.303	1784.638396	ppb
>	Sc	45	582531.965		ppb

	Ti	47	35.000	-0.029489	ppb
	V	51	412184.324	95.401575	ppb
	Cr	52	353050.113	94.776077	ppb
	Mn	55	507646.276	97.901333	ppb
	Fe	54	292748.260	986.806753	ppb
	Fe	56	5464388.559	980.841150	ppb
	Fe	57	110057.316	974.950229	ppb
	Co	59	455844.168	98.150376	ppb
	Ni	60	100162.460	97.363247	ppb
	Cu	63	235569.004	96.763825	ppb
	Cu	65	116025.885	96.931375	ppb
	Zn	66	128493.594	201.258482	ppb
	As	75	140843.168	195.075869	ppb
	Se	82	13605.249	199.340038	ppb
	Mo	96	158.001	-0.509481	ppb
	Ag	107	458188.407	96.188493	ppb
	Ag	109	450619.168	95.362796	ppb
	Cd	111	107779.051	95.273494	ppb
	In	113	178320.866	97.419083	ppb
>	In	115	1579868.065		ppb
	Sn	118	375.007	0.079224	ppb
	Sb	121	712038.458	195.139118	ppb
	Ba	135	99848.005	98.066765	ppb
	Ba	137	173494.066	97.329871	ppb
>	Tb	159	2937840.063		ppb
	Tl	205	3470991.092	197.563414	ppb
	Pb	206	1057557.939	196.752939	ppb
	Pb	207	2015772.760	198.172910	ppb
	Pb	208	3619718.189	197.756747	ppb
>	Bi	209	2485440.163		ppb
	Cr	53	41431.652		ppb
	Pd	106	8693.777		ppb
	Pd	108	7102.521		ppb
	C	12	312852.460		ppb
	Kr	83	22.000		ppb
	Se	77	10759.786		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	468011.313		ppb
	Be	9	21649.410	97.159795	ppb
	Na	23	5251060.109	1969.937402	ppb
	Mg	24	2223465.349	1188.188645	ppb
	Mg	25	311931.345	1194.456533	ppb
	Mg	26	356107.713	1188.864001	ppb
	Al	27	1482549.100	489.852346	ppb
	K	39	9324978.488	1835.696013	ppb
	Ca	44	236372.978	1790.899335	ppb
>	Sc	45	587537.437		ppb
	Ti	47	25.000	-0.060557	ppb
	V	51	414503.764	95.120697	ppb
	Cr	52	354205.927	94.273749	ppb
	Mn	55	512015.811	97.902773	ppb
	Fe	54	284644.271	949.571010	ppb
	Fe	56	5424136.072	964.275279	ppb
	Fe	57	107727.148	945.786895	ppb
	Co	59	444688.327	94.932230	ppb
	Ni	60	99984.021	96.361554	ppb
	Cu	63	237698.515	96.806800	ppb
	Cu	65	115661.702	95.802743	ppb
	Zn	66	126630.047	196.644089	ppb
	As	75	138591.779	190.322289	ppb
	Se	82	13643.301	198.193142	ppb

⌈	Mo	96	166.001	-0.501549	ppb
|	Ag	107	449744.412	96.493967	ppb
|	Ag	109	447914.986	96.877017	ppb
|	Cd	111	105409.076	95.229400	ppb
|	In	113	175308.298	98.171579	ppb
|>	In	115	1545843.528		ppb
⌊	Sn	118	470.011	0.109745	ppb
⌈	Sb	121	694871.707	189.463205	ppb
|	Ba	135	95719.933	93.532430	ppb
|	Ba	137	172334.269	96.187069	ppb
⌊>	Tb	159	2952859.288		ppb
⌈	Tl	205	3514057.952	195.596575	ppb
|	Pb	206	1096356.554	199.465822	ppb
|	Pb	207	2061678.601	198.208860	ppb
|	Pb	208	3605961.207	192.653314	ppb
⌊>	Bi	209	2541580.856		ppb
	Cr	53	40060.080		ppb
	Pd	106	8933.989		ppb
	Pd	108	6802.313		ppb
	C	12	314983.824		ppb
	Kr	83	26.000		ppb
	Se	77	10867.902		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.548			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		87.784			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		87.501			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		88.406			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		87.955			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042730-BSD1

Sample Date/Time: Thursday, April 30, 2009 15:34:17
Sample Type: Sample
Sample Description: LCSWD
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042730-BSD1.2428

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	482920.385	0.983	482920.385			ppb
	Be	9	22056.969	1.516	0.046	95.93257	1.13	ppb
	Na	23	5234375.899	2.514	10.782	1902.88865	2.88	ppb
	Mg	24	2224659.844	2.936	4.597	1152.13735	3.14	ppb
	Mg	25	313686.663	2.311	0.648	1164.08255	2.35	ppb
	Mg	26	354888.170	2.429	0.733	1148.05987	1.73	ppb
	Al	27	1366762.128	5.194	2.821	437.65294	6.17	ppb
	K	39	9360297.313	1.290	18.989	1784.72351	0.43	ppb
	Ca	44	235709.925	1.348	0.479	1729.64152	0.75	ppb
>	Sc	45	592569.362	0.960	592569.362			ppb
	Ti	47	38.333	71.838	-0.000	-0.02137	384.07	ppb
	V	51	417493.811	0.471	0.704	94.99634	0.56	ppb
	Cr	52	356857.981	1.485	0.599	94.17381	1.30	ppb
	Mn	55	514167.287	0.487	0.867	97.48229	0.53	ppb
	Fe	54	291137.510	0.991	0.468	963.67864	0.59	ppb
	Fe	56	5461876.939	1.275	8.625	962.61609	0.45	ppb
	Fe	57	111166.257	1.642	0.185	967.95717	0.70	ppb
	Co	59	454736.809	0.289	0.767	96.26049	1.20	ppb
	Ni	60	100555.314	1.256	0.170	96.10013	2.02	ppb
	Cu	63	238652.017	0.660	0.402	96.37755	1.47	ppb
	Cu	65	116612.718	1.225	0.197	95.77730	1.68	ppb
	Zn	66	126866.436	1.287	0.214	195.34293	1.31	ppb
	As	75	140943.407	1.719	0.238	191.89879	0.77	ppb
	Se	82	13689.812	2.286	0.023	197.16290	1.37	ppb
	Mo	96	172.001	4.028	-0.000	-0.49885	1.64	ppb
	Ag	107	459649.219	0.832	0.293	97.31713	2.08	ppb
	Ag	109	452101.624	1.853	0.289	96.48832	2.45	ppb
	Cd	111	105564.649	1.223	0.067	94.10329	1.64	ppb
	In	113	175769.771	1.203	0.069	96.49084	4.26	ppb
>	In	115	1567140.049	2.843	1567140.049			ppb
	Sn	118	390.008	7.799	0.000	0.08445	8.53	ppb
	Sb	121	711778.913	1.402	0.245	197.57590	1.35	ppb
	Ba	135	98689.403	2.150	0.034	98.16139	0.70	ppb
	Ba	137	172230.602	0.999	0.059	97.87229	1.92	ppb
>	Tb	159	2901280.004	2.743	2901280.004			ppb
	Tl	205	3542380.288	2.844	1.387	196.18519	2.68	ppb
	Pb	206	1072195.722	2.776	0.420	194.05560	0.94	ppb
	Pb	207	2036838.808	2.404	0.797	194.82281	1.46	ppb
	Pb	208	3662512.491	1.907	1.434	194.69449	1.61	ppb
>	Bi	209	2555055.315	3.021	2555055.315			ppb
	Cr	53	41084.904	1.471	40773.566			ppb
	Pd	106	9029.076	2.064	9029.076			ppb
	Pd	108	6957.424	5.169	6947.424			ppb
	C	12	316011.063	0.882	1717.120			ppb
	Kr	83	20.000	10.000	2.000			ppb
	Se	77	10739.320	1.372	10710.431			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485326.054		ppb
	Be	9	22429.125	97.067888	ppb
	Na	23	5087811.525	1839.924473	ppb
	Mg	24	2155279.893	1110.502274	ppb
	Mg	25	306868.255	1133.028278	ppb
	Mg	26	353195.101	1136.970397	ppb
	Al	27	1305675.725	415.782746	ppb
	K	39	9387258.247	1780.946381	ppb
	Ca	44	235291.927	1717.817098	ppb
>	Sc	45	586366.627		ppb
	Ti	47	25.000	-0.060406	ppb
	V	51	415812.611	95.612252	ppb
	Cr	52	355635.341	94.846086	ppb
	Mn	55	511279.537	97.957215	ppb
	Fe	54	287910.814	963.040446	ppb
	Fe	56	5395158.639	960.817042	ppb
	Fe	57	109238.410	961.182758	ppb
	Co	59	455503.144	97.435466	ppb
	Ni	60	101098.475	97.630491	ppb
	Cu	63	240169.856	98.010463	ppb
	Cu	65	117384.941	97.425959	ppb
	Zn	66	126815.711	197.326503	ppb
	As	75	138229.515	190.203837	ppb
	Se	82	13387.622	194.863161	ppb
	Mo	96	180.002	-0.489434	ppb
	Ag	107	455241.630	99.527835	ppb
	Ag	109	445354.338	98.151921	ppb
	Cd	111	104099.929	95.832047	ppb
	In	113	174306.004	100.268502	ppb
>	In	115	1517043.515		ppb
	Sn	118	375.007	0.083724	ppb
	Sb	121	701346.079	200.367538	ppb
	Ba	135	96339.844	98.636624	ppb
	Ba	137	170246.970	99.561928	ppb
>	Tb	159	2818248.605		ppb
	Tl	205	3426224.891	193.388099	ppb
	Pb	206	1045492.726	192.885132	ppb
	Pb	207	1987122.645	193.726025	ppb
	Pb	208	3591642.479	194.585452	ppb
>	Bi	209	2506353.286		ppb
	Cr	53	40572.138		ppb
	Pd	106	9094.133		ppb
	Pd	108	6747.276		ppb
	C	12	318601.771		ppb
	Kr	83	22.000		ppb
	Se	77	10753.112		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	477452.277		ppb
	Be	9	21781.696	95.820432	ppb
	Na	23	5272929.259	1938.865362	ppb
	Mg	24	2233722.055	1170.029440	ppb
	Mg	25	312890.626	1174.399882	ppb
	Mg	26	347240.927	1136.235756	ppb
	Al	27	1444647.126	467.819978	ppb
	K	39	9228323.537	1779.639512	ppb
	Ca	44	232761.738	1727.548040	ppb
>	Sc	45	593796.376		ppb

	Ti	47	70.000	0.072941	ppb
	V	51	417009.810	94.686509	ppb
	Cr	52	352275.501	92.764040	ppb
	Mn	55	515671.665	97.562355	ppb
	Fe	54	293463.780	969.649316	ppb
	Fe	56	5456345.324	959.468533	ppb
	Fe	57	111391.972	967.960352	ppb
	Co	59	455488.499	96.213079	ppb
	Ni	60	101455.396	96.749064	ppb
	Cu	63	237026.169	95.513466	ppb
	Cu	65	114963.723	94.219213	ppb
	Zn	66	125259.616	192.460257	ppb
	As	75	141711.392	192.555024	ppb
	Se	82	13669.336	196.476181	ppb
	Mo	96	168.001	-0.504277	ppb
	Ag	107	461603.545	95.547928	ppb
	Ag	109	449472.591	93.787551	ppb
	Cd	111	106537.103	92.856591	ppb
	In	113	174809.682	92.118006	ppb
>	In	115	1602313.707		ppb
	Sn	118	425.009	0.091985	ppb
	Sb	121	712751.676	197.294621	ppb
	Ba	135	99264.236	98.471342	ppb
	Ba	137	173331.280	98.214091	ppb
>	Tb	159	2908668.557		ppb
	Tl	205	3595195.105	202.246318	ppb
	Pb	206	1066801.775	196.157849	ppb
	Pb	207	2038389.206	198.059086	ppb
	Pb	208	3664619.508	197.874762	ppb
>	Bi	209	2514770.493		ppb
	Cr	53	40931.599		ppb
	Pd	106	8818.887		ppb
	Pd	108	6752.279		ppb
	C	12	313062.894		ppb
	Kr	83	18.000		ppb
	Se	77	10585.600		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485982.825		ppb
	Be	9	21960.086	94.909387	ppb
	Na	23	5342386.911	1929.876108	ppb
	Mg	24	2284977.585	1175.880337	ppb
	Mg	25	321301.108	1184.819490	ppb
	Mg	26	364228.481	1170.973471	ppb
	Al	27	1349963.532	429.356097	ppb
	K	39	9465310.153	1793.584632	ppb
	Ca	44	239076.110	1743.559415	ppb
>	Sc	45	597545.082		ppb
	Ti	47	20.000	-0.076647	ppb
	V	51	419659.011	94.690252	ppb
	Cr	52	362663.102	94.911305	ppb
	Mn	55	515550.659	96.927287	ppb
	Fe	54	292037.937	958.346169	ppb
	Fe	56	5534126.855	967.562700	ppb
	Fe	57	112868.389	974.728387	ppb
	Co	59	453218.784	95.132924	ppb
	Ni	60	99112.071	93.920822	ppb
	Cu	63	238760.025	95.608713	ppb
	Cu	65	117489.492	95.686727	ppb
	Zn	66	128523.980	196.242026	ppb
	As	75	142889.313	192.937519	ppb
	Se	82	14012.477	200.149363	ppb

⌈	Mo	96	168.001	-0.502834	ppb
|	Ag	107	462102.481	96.875633	ppb
|	Ag	109	461477.943	97.525487	ppb
|	Cd	111	106056.917	93.621236	ppb
|	In	113	178193.628	97.086026	ppb
|>	In	115	1582062.927		ppb
⌊	Sn	118	370.007	0.077627	ppb
⌈	Sb	121	721238.985	195.065548	ppb
|	Ba	135	100464.130	97.376213	ppb
|	Ba	137	173113.557	95.840864	ppb
⌊>	Tb	159	2976922.851		ppb
⌈	Tl	205	3605720.869	192.921164	ppb
|	Pb	206	1104292.666	193.123826	ppb
|	Pb	207	2085004.573	192.683316	ppb
|	Pb	208	3731275.487	191.623249	ppb
⌊>	Bi	209	2644042.166		ppb
	Cr	53	41750.976		ppb
	Pd	106	9174.206		ppb
	Pd	108	7372.717		ppb
	C	12	316368.522		ppb
	Kr	83	20.000		ppb
	Se	77	10879.248		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		90.122			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		87.995			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		87.586			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		88.114			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		89.296			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904139-01

Sample Date/Time: Thursday, April 30, 2009 15:36:50
Sample Type: Sample
Sample Description: S5W5
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904139-01.2429

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	466833.232	2.361	466833.232			ppb
	Be	9	5.333	57.282	0.000	0.01635	87.11	ppb
	Na	23	33642812.328	2.744	72.031	12712.74278	3.36	ppb
	Mg	24	27849155.252	2.548	59.663	14952.07746	3.04	ppb
	Mg	25	4015682.219	1.392	8.604	15448.34145	2.51	ppb
	Mg	26	4778606.568	0.232	10.239	16029.41761	2.61	ppb
	Al	27	179330.603	1.556	0.374	58.05636	4.05	ppb
	K	39	10818614.271	0.869	22.793	2142.25185	3.31	ppb
	Ca	44	4300126.406	0.434	9.205	33228.85827	2.20	ppb
>	Sc	45	572399.965	0.595	572399.965			ppb
	Ti	47	793.366	25.308	0.001	2.32267	27.48	ppb
	V	51	2777.739	3.722	0.004	0.52535	4.99	ppb
	Cr	52	2740.375	1.466	0.002	0.27336	4.81	ppb
	Mn	55	461728.049	0.963	0.806	90.62201	1.24	ppb
	Fe	54	28181.329	1.850	0.026	52.93238	3.61	ppb
	Fe	56	659430.417	0.498	0.560	62.47673	2.25	ppb
	Fe	57	19382.112	3.264	0.031	163.88190	4.16	ppb
	Co	59	898.040	3.883	0.001	0.18462	3.75	ppb
	Ni	60	682.246	4.618	0.001	0.65182	5.25	ppb
	Cu	63	2705.922	0.891	0.004	0.98307	0.91	ppb
	Cu	65	1383.429	1.205	0.002	1.07618	1.42	ppb
	Zn	66	2050.210	3.845	0.003	3.01946	4.76	ppb
	As	75	127.228	16.865	0.000	0.18300	16.45	ppb
	Se	82	37.111	16.300	0.000	0.30857	28.75	ppb
	Mo	96	146.001	16.151	-0.000	-0.51110	3.26	ppb
	Ag	107	298.893	12.234	0.000	0.06181	13.94	ppb
	Ag	109	275.559	5.717	0.000	0.05433	7.44	ppb
	Cd	111	35.916	57.544	0.000	0.04085	47.40	ppb
	In	113	65243.838	1.339	0.001	0.70624	181.93	ppb
>	In	115	1481415.149	0.808	1481415.149			ppb
	Sn	118	83.334	24.249	-0.000	-0.00364	177.51	ppb
	Sb	121	4145.862	7.547	0.001	1.08033	9.91	ppb
	Ba	135	27534.522	0.369	0.010	27.80680	1.75	ppb
	Ba	137	47755.095	0.853	0.017	27.54721	1.64	ppb
>	Tb	159	2854941.439	1.585	2854941.439			ppb
	Tl	205	768.364	18.966	0.000	0.04188	17.96	ppb
	Pb	206	1778.492	5.187	0.001	0.33657	2.86	ppb
	Pb	207	3253.601	4.059	0.001	0.32414	1.48	ppb
	Pb	208	5362.532	3.527	0.002	0.29663	4.24	ppb
>	Bi	209	2387152.818	2.647	2387152.818			ppb
	Cr	53	238.003	4.679	-73.335			ppb
	Pd	106	23.333	65.465	23.333			ppb
	Pd	108	3.333	86.603	-6.667			ppb
	C	12	364648.268	0.739	50354.325			ppb
	Kr	83	13.333	37.749	-4.667			ppb
	Se	77	50.889	9.201	22.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	474812.960		ppb
	Be	9	2.000	0.001008	ppb
	Na	23	32902444.065	12219.730434	ppb
	Mg	24	27341006.348	14428.375836	ppb
	Mg	25	3973743.369	15025.005227	ppb
	Mg	26	4775387.405	15742.909862	ppb
	Al	27	176824.647	56.199208	ppb
	K	39	10735170.178	2088.013653	ppb
	Ca	44	4292505.002	32600.783206	ppb
>	Sc	45	568476.701		ppb
	Ti	47	1025.053	3.059303	ppb
	V	51	2835.266	0.543481	ppb
	Cr	52	2758.380	0.283498	ppb
	Mn	55	462493.273	91.396035	ppb
	Fe	54	28079.367	53.261157	ppb
	Fe	56	663190.257	64.096737	ppb
	Fe	57	20060.100	171.316259	ppb
	Co	59	874.038	0.180701	ppb
	Ni	60	706.692	0.680732	ppb
	Cu	63	2690.362	0.984318	ppb
	Cu	65	1383.429	1.084287	ppb
	Zn	66	2133.561	3.175474	ppb
	As	75	127.989	0.185324	ppb
	Se	82	34.667	0.275785	ppb
	Mo	96	120.001	-0.529225	ppb
	Ag	107	340.006	0.071581	ppb
	Ag	109	293.338	0.058844	ppb
	Cd	111	12.275	0.018736	ppb
	In	113	65725.283	1.651240	ppb
>	In	115	1469747.787		ppb
	Sn	118	105.001	0.003281	ppb
	Sb	121	4501.013	1.201068	ppb
	Ba	135	27612.069	28.356034	ppb
	Ba	137	47486.481	27.855374	ppb
>	Tb	159	2807095.484		ppb
	Tl	205	665.022	0.037006	ppb
	Pb	206	1700.145	0.331041	ppb
	Pb	207	3110.244	0.318747	ppb
	Pb	208	5255.839	0.299072	ppb
>	Bi	209	2320135.570		ppb
	Cr	53	250.003		ppb
	Pd	106	10.000		ppb
	Pd	108	5.000		ppb
	C	12	362236.034		ppb
	Kr	83	8.000		ppb
	Se	77	55.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	454256.306		ppb
	Be	9	8.000	0.029153	ppb
	Na	23	33348759.533	12946.585222	ppb
	Mg	24	27546568.027	15194.826238	ppb
	Mg	25	3994174.308	15785.801440	ppb
	Mg	26	4790941.260	16509.041132	ppb
	Al	27	182337.327	60.696280	ppb
	K	39	10920391.799	2222.500366	ppb
	Ca	44	4286494.339	34029.774627	ppb
>	Sc	45	574623.517		ppb

	Ti	47	685.023	1.976534	ppb
	V	51	2839.578	0.537291	ppb
	Cr	52	2768.383	0.278076	ppb
	Mn	55	456946.821	89.333121	ppb
	Fe	54	27718.362	50.878378	ppb
	Fe	56	657955.895	61.687233	ppb
	Fe	57	18807.670	157.941478	ppb
	Co	59	938.044	0.192610	ppb
	Ni	60	646.688	0.614056	ppb
	Cu	63	2693.696	0.973576	ppb
	Cu	65	1400.098	1.085737	ppb
	Zn	66	2040.208	2.990380	ppb
	As	75	148.294	0.211890	ppb
	Se	82	44.000	0.409013	ppb
	Mo	96	152.001	-0.507595	ppb
	Ag	107	286.671	0.058508	ppb
	Ag	109	263.337	0.051059	ppb
	Cd	111	44.915	0.049065	ppb
	In	113	64235.650	-0.756800	ppb
>	In	115	1493675.247		ppb
	Sn	118	65.000	-0.009500	ppb
	Sb	121	3910.765	0.996841	ppb
	Ba	135	27571.958	27.434250	ppb
	Ba	137	47554.805	27.028049	ppb
>	Tb	159	2897070.248		ppb
	Tl	205	705.025	0.038090	ppb
	Pb	206	1755.154	0.330973	ppb
	Pb	207	3280.270	0.325760	ppb
	Pb	208	5580.939	0.307799	ppb
>	Bi	209	2395682.601		ppb
	Cr	53	228.003		ppb
	Pd	106	20.000		ppb
	Pd	108	5.000		ppb
	C	12	364149.688		ppb
	Kr	83	18.000		ppb
	Se	77	46.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	471430.430		ppb
	Be	9	6.000	0.018894	ppb
	Na	23	34677233.386	12971.912685	ppb
	Mg	24	28659891.381	15233.030314	ppb
	Mg	25	4079128.979	15534.217680	ppb
	Mg	26	4769491.041	15836.301842	ppb
	Al	27	178829.835	57.273579	ppb
	K	39	10800280.835	2116.241539	ppb
	Ca	44	4321379.878	33056.016990	ppb
>	Sc	45	574099.677		ppb
	Ti	47	670.022	1.932158	ppb
	V	51	2658.374	0.495285	ppb
	Cr	52	2694.363	0.258503	ppb
	Mn	55	465744.054	91.136865	ppb
	Fe	54	28746.258	54.657596	ppb
	Fe	56	657145.100	61.646214	ppb
	Fe	57	19278.565	162.387974	ppb
	Co	59	882.039	0.180560	ppb
	Ni	60	693.357	0.660681	ppb
	Cu	63	2733.707	0.991304	ppb
	Cu	65	1366.760	1.058530	ppb
	Zn	66	1976.862	2.892537	ppb
	As	75	105.400	0.151798	ppb
	Se	82	32.667	0.240911	ppb

⌈	Mo	96	166.001	-0.496479	ppb
|	Ag	107	270.004	0.055328	ppb
|	Ag	109	270.004	0.053076	ppb
|	Cd	111	50.559	0.054752	ppb
|	In	113	65770.580	1.224268	ppb
|>	In	115	1480822.412		ppb
⌊	Sn	118	80.000	-0.004691	ppb
⌈	Sb	121	4025.810	1.043076	ppb
|	Ba	135	27419.540	27.630124	ppb
|	Ba	137	48223.998	27.758209	ppb
⌊>	Tb	159	2860658.585		ppb
⌈	Tl	205	935.044	0.050545	ppb
|	Pb	206	1880.177	0.347692	ppb
|	Pb	207	3370.288	0.327919	ppb
|	Pb	208	5250.818	0.283007	ppb
⌊>	Bi	209	2445640.283		ppb
	Cr	53	236.003		ppb
	Pd	106	40.000		ppb
	Pd	108	0.000		ppb
	C	12	367559.081		ppb
	Kr	83	14.000		ppb
	Se	77	51.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		87.120			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		85.000			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.795			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		86.707			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		83.428			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: SDI0904139-01

Sample Date/Time: Thursday, April 30, 2009 15:39:24
Sample Type: Sample
Sample Description: S5W5L 5X
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\SDI0904139-01.2430

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	494509.083	1.808	494509.083			ppb
	Be	9	3.333	34.641	0.000	0.00632	77.81	ppb
	Na	23	7023231.293	0.855	14.146	2496.69143	1.39	ppb
	Mg	24	5800792.030	0.701	11.724	2938.16261	2.39	ppb
	Mg	25	815615.525	1.600	1.649	2960.37523	3.33	ppb
	Mg	26	928331.803	1.065	1.876	2937.37290	2.40	ppb
	Al	27	41676.548	18.562	0.074	11.48045	19.36	ppb
	K	39	2374285.227	0.519	4.409	414.35279	1.48	ppb
	Ca	44	810245.200	1.381	1.630	5882.69657	1.07	ppb
>	Sc	45	596046.464	0.529	596046.464			ppb
	Ti	47	178.335	23.346	0.000	0.39463	32.09	ppb
	V	51	996.092	5.614	0.001	0.09570	12.20	ppb
	Cr	52	2040.208	1.954	0.000	0.05882	13.29	ppb
	Mn	55	94876.337	1.334	0.159	17.84935	0.81	ppb
	Fe	54	16298.274	1.844	0.004	7.83548	12.89	ppb
	Fe	56	420808.596	0.837	0.114	12.68864	5.10	ppb
	Fe	57	5147.994	5.442	0.006	31.91757	7.55	ppb
	Co	59	192.002	5.800	0.000	0.02824	8.02	ppb
	Ni	60	181.113	8.501	0.000	0.14878	10.24	ppb
	Cu	63	814.478	6.075	0.001	0.17766	11.79	ppb
	Cu	65	357.784	13.640	0.000	0.19103	20.15	ppb
	Zn	66	537.792	8.090	0.001	0.57094	11.28	ppb
	As	75	33.363	31.094	0.000	0.04887	29.18	ppb
	Se	82	21.778	4.676	0.000	0.06693	23.38	ppb
	Mo	96	57.334	14.523	-0.001	-0.57820	0.96	ppb
	Ag	107	146.668	17.751	0.000	0.02554	23.01	ppb
	Ag	109	130.001	10.256	0.000	0.01950	15.72	ppb
	Cd	111	0.758	364.219	0.000	0.00772	31.23	ppb
	In	113	69958.912	1.808	0.001	0.72092	90.21	ppb
>	In	115	1587931.794	1.497	1587931.794			ppb
	Sn	118	68.334	30.463	-0.000	-0.00968	63.65	ppb
	Sb	121	1670.140	3.155	0.000	0.36060	5.44	ppb
	Ba	135	5710.297	0.133	0.002	5.48851	1.49	ppb
	Ba	137	9933.599	1.644	0.003	5.45452	0.94	ppb
>	Tb	159	2983311.684	1.586	2983311.684			ppb
	Tl	205	173.335	6.005	0.000	0.00595	8.54	ppb
	Pb	206	375.007	5.812	0.000	0.05935	5.81	ppb
	Pb	207	751.681	1.385	0.000	0.06233	1.26	ppb
	Pb	208	1318.385	8.735	0.000	0.06082	10.26	ppb
>	Bi	209	2581372.076	0.680	2581372.076			ppb
	Cr	53	127.334	3.270	-184.004			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	1.667	173.205	-8.333			ppb
	C	12	323978.314	1.274	9684.371			ppb
	Kr	83	20.000	52.915	2.000			ppb
	Se	77	27.333	13.580	-1.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	503380.546		ppb
	Be	9	4.000	0.008851	ppb
	Na	23	7036167.973	2456.678078	ppb
	Mg	24	5754261.032	2862.353377	ppb
	Mg	25	807789.604	2879.112439	ppb
	Mg	26	930698.144	2892.170045	ppb
	Al	27	50541.097	14.002008	ppb
	K	39	2388412.335	408.964811	ppb
	Ca	44	823119.160	5870.285137	ppb
>	Sc	45	598547.442		ppb
	Ti	47	165.001	0.352539	ppb
	V	51	1058.960	0.108975	ppb
	Cr	52	2062.213	0.062379	ppb
	Mn	55	95776.471	17.944121	ppb
	Fe	54	16598.765	8.634147	ppb
	Fe	56	418982.201	12.018153	ppb
	Fe	57	5426.472	34.163431	ppb
	Co	59	204.002	0.030584	ppb
	Ni	60	163.335	0.131196	ppb
	Cu	63	826.701	0.181137	ppb
	Cu	65	410.008	0.232434	ppb
	Zn	66	586.684	0.642218	ppb
	As	75	32.511	0.047496	ppb
	Se	82	22.000	0.068759	ppb
	Mo	96	60.000	-0.575763	ppb
	Ag	107	176.668	0.032321	ppb
	Ag	109	143.334	0.022756	ppb
	Cd	111	-1.545	0.005694	ppb
	In	113	68508.872	0.371096	ppb
>	In	115	1563852.756		ppb
	Sn	118	75.000	-0.007467	ppb
	Sb	121	1725.149	0.377862	ppb
	Ba	135	5713.632	5.521508	ppb
	Ba	137	9984.983	5.513378	ppb
>	Tb	159	2966870.983		ppb
	Tl	205	170.001	0.005816	ppb
	Pb	206	365.007	0.057875	ppb
	Pb	207	755.014	0.062974	ppb
	Pb	208	1445.063	0.067824	ppb
>	Bi	209	2569586.254		ppb
	Cr	53	124.001		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	328676.068		ppb
	Kr	83	16.000		ppb
	Se	77	28.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485496.013		ppb
	Be	9	4.000	0.009466	ppb
	Na	23	6957777.851	2519.057981	ppb
	Mg	24	5818437.974	3001.013025	ppb
	Mg	25	830683.931	3069.930218	ppb
	Mg	26	936820.109	3018.538250	ppb
	Al	27	38197.815	10.631664	ppb
	K	39	2365727.236	421.000872	ppb
	Ca	44	804739.819	5951.067794	ppb
>	Sc	45	592508.240		ppb

	Ti	47	225.003	0.536966	ppb
	V	51	951.907	0.087015	ppb
	Cr	52	1994.199	0.049857	ppb
	Mn	55	93429.423	17.682228	ppb
	Fe	54	16298.271	8.171657	ppb
	Fe	56	418575.697	12.737898	ppb
	Fe	57	5151.326	32.217830	ppb
	Co	59	190.002	0.028056	ppb
	Ni	60	190.002	0.158263	ppb
	Cu	63	856.703	0.196647	ppb
	Cu	65	313.338	0.156351	ppb
	Zn	66	523.347	0.553689	ppb
	As	75	44.136	0.063772	ppb
	Se	82	22.667	0.081576	ppb
	Mo	96	48.000	-0.584527	ppb
	Ag	107	130.001	0.021994	ppb
	Ag	109	116.667	0.016666	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	70834.994	1.471267	ppb
>	In	115	1588560.758		ppb
	Sn	118	85.000	-0.004927	ppb
	Sb	121	1620.131	0.339242	ppb
	Ba	135	5715.633	5.395675	ppb
	Ba	137	10065.063	5.429355	ppb
>	Tb	159	3036648.287		ppb
	Tl	205	165.001	0.005529	ppb
	Pb	206	360.006	0.056890	ppb
	Pb	207	740.014	0.061455	ppb
	Pb	208	1220.043	0.055847	ppb
>	Bi	209	2572989.508		ppb
	Cr	53	132.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	322326.321		ppb
	Kr	83	32.000		ppb
	Se	77	23.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	494650.691		ppb
	Be	9	2.000	0.000653	ppb
	Na	23	7075748.054	2514.338246	ppb
	Mg	24	5829677.084	2951.121414	ppb
	Mg	25	808373.040	2932.083020	ppb
	Mg	26	917477.154	2901.410397	ppb
	Al	27	36290.732	9.807667	ppb
	K	39	2368716.109	413.092694	ppb
	Ca	44	802876.622	5826.736778	ppb
>	Sc	45	597083.710		ppb
	Ti	47	145.001	0.294379	ppb
	V	51	977.408	0.091119	ppb
	Cr	52	2064.213	0.064233	ppb
	Mn	55	95423.117	17.921696	ppb
	Fe	54	15997.786	6.700642	ppb
	Fe	56	424867.889	13.309865	ppb
	Fe	57	4866.184	29.371447	ppb
	Co	59	182.002	0.026067	ppb
	Ni	60	190.002	0.156871	ppb
	Cu	63	760.029	0.155188	ppb
	Cu	65	350.006	0.184295	ppb
	Zn	66	503.346	0.516903	ppb
	As	75	23.441	0.035347	ppb
	Se	82	20.667	0.050446	ppb

⌈	Mo	96	64.000	-0.574311	ppb
|	Ag	107	133.334	0.022296	ppb
|	Ag	109	130.001	0.019085	ppb
|	Cd	111	3.820	0.010384	ppb
|	In	113	70532.870	0.320390	ppb
|>	In	115	1611381.869		ppb
⌊	Sn	118	45.000	-0.016636	ppb
⌈	Sb	121	1665.139	0.364707	ppb
|	Ba	135	5701.625	5.548337	ppb
|	Ba	137	9750.752	5.420831	ppb
⌊>	Tb	159	2946415.782		ppb
⌈	Tl	205	185.002	0.006517	ppb
|	Pb	206	400.008	0.063290	ppb
|	Pb	207	760.014	0.062562	ppb
|	Pb	208	1290.050	0.058795	ppb
⌊>	Bi	209	2601540.466		ppb
	Cr	53	126.001		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	320932.552		ppb
	Kr	83	12.000		ppb
	Se	77	30.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			92.285		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			88.511		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			88.748		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			90.606		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			90.216		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904139-02

Sample Date/Time: Thursday, April 30, 2009 15:41:57
Sample Type: Sample
Sample Description: S5W7
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904139-02.2431

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	479304.793	3.128	479304.793			ppb
	Be	9	25.333	31.906	0.000	0.10299	33.62	ppb
	Na	23	41466167.026	1.812	86.489	15264.52455	2.35	ppb
	Mg	24	38340293.604	1.308	80.016	20052.73243	2.17	ppb
	Mg	25	5508099.783	2.262	11.495	20640.84026	2.84	ppb
	Mg	26	6546190.186	0.924	13.664	21390.84420	2.71	ppb
	Al	27	2845711.601	0.353	5.931	920.03564	2.92	ppb
	K	39	10955575.819	1.247	22.475	2112.35495	2.55	ppb
	Ca	44	5391980.382	0.565	11.247	40599.45879	2.91	ppb
>	Sc	45	568121.000	0.595	568121.000			ppb
	Ti	47	4737.790	4.267	0.008	14.64009	3.82	ppb
	V	51	10682.518	2.103	0.018	2.40867	1.74	ppb
	Cr	52	6066.507	2.703	0.008	1.19924	4.02	ppb
	Mn	55	10028142.741	1.968	17.650	1983.68667	1.42	ppb
	Fe	54	292311.621	1.776	0.491	1011.43540	1.24	ppb
	Fe	56	5857363.220	1.819	9.717	1084.55432	1.40	ppb
	Fe	57	127058.785	0.573	0.221	1156.56713	0.73	ppb
	Co	59	16402.108	0.716	0.029	3.60949	0.42	ppb
	Ni	60	2040.208	1.234	0.004	2.01057	0.67	ppb
	Cu	63	3531.735	0.553	0.006	1.33996	0.29	ppb
	Cu	65	1756.821	5.703	0.003	1.40515	5.96	ppb
	Zn	66	6233.054	2.750	0.011	9.76945	2.55	ppb
	As	75	269.885	5.201	0.000	0.38692	4.88	ppb
	Se	82	28.444	9.472	0.000	0.18266	23.28	ppb
	Mo	96	256.003	13.888	-0.000	-0.42987	6.39	ppb
	Ag	107	50.000	26.667	0.000	0.00614	50.53	ppb
	Ag	109	63.334	42.105	0.000	0.00652	93.93	ppb
	Cd	111	123.893	4.039	0.000	0.12460	3.72	ppb
	In	113	64530.888	0.947	0.000	0.41556	179.62	ppb
>	In	115	1472052.510	0.915	1472052.510			ppb
	Sn	118	115.001	26.447	0.000	0.00638	152.31	ppb
	Sb	121	943.378	14.187	0.000	0.17525	22.83	ppb
	Ba	135	76670.832	1.317	0.027	77.29357	2.12	ppb
	Ba	137	132217.060	1.073	0.046	76.12701	1.03	ppb
>	Tb	159	2862572.111	2.088	2862572.111			ppb
	Tl	205	528.347	3.042	0.000	0.02793	2.63	ppb
	Pb	206	3892.425	3.307	0.002	0.75033	4.15	ppb
	Pb	207	7017.913	2.772	0.003	0.71346	3.60	ppb
	Pb	208	11028.612	2.066	0.005	0.62214	2.16	ppb
>	Bi	209	2374674.222	0.817	2374674.222			ppb
	Cr	53	672.023	4.725	360.684			ppb
	Pd	106	45.000	0.000	45.000			ppb
	Pd	108	6.667	43.301	-3.333			ppb
	C	12	407635.842	9.621	93341.899			ppb
	Kr	83	16.000	45.069	-2.000			ppb
	Se	77	41.556	1.852	12.667			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	496452.781		ppb
	Be	9	30.000	0.119093	ppb
	Na	23	41937637.150	14898.675121	ppb
	Mg	24	38758312.453	19562.827280	ppb
	Mg	25	5558296.013	20101.011188	ppb
	Mg	26	6574368.419	20729.585928	ppb
	Al	27	2853178.074	889.998364	ppb
	K	39	11035245.381	2052.197313	ppb
	Ca	44	5400618.112	39235.372044	ppb
>	Sc	45	571306.319		ppb
	Ti	47	4971.235	15.283467	ppb
	V	51	10941.883	2.455925	ppb
	Cr	52	6147.889	1.212202	ppb
	Mn	55	10248680.088	2016.108585	ppb
	Fe	54	297407.767	1023.951637	ppb
	Fe	56	5979555.027	1102.055553	ppb
	Fe	57	127700.194	1155.896186	ppb
	Co	59	16537.663	3.619064	ppb
	Ni	60	2066.880	2.025723	ppb
	Cu	63	3553.965	1.340970	ppb
	Cu	65	1720.148	1.365547	ppb
	Zn	66	6415.391	10.005470	ppb
	As	75	268.736	0.383193	ppb
	Se	82	25.333	0.133596	ppb
	Mo	96	228.003	-0.452148	ppb
	Ag	107	36.667	0.003029	ppb
	Ag	109	36.667	0.000355	ppb
	Cd	111	123.649	0.123193	ppb
	In	113	64829.464	0.075105	ppb
>	In	115	1487012.789		ppb
	Sn	118	100.001	0.001362	ppb
	Sb	121	795.032	0.129608	ppb
	Ba	135	77728.920	77.084397	ppb
	Ba	137	133361.372	75.542703	ppb
>	Tb	159	2909254.330		ppb
	Tl	205	535.014	0.028116	ppb
	Pb	206	3825.732	0.732182	ppb
	Pb	207	6926.212	0.699116	ppb
	Pb	208	11233.787	0.629546	ppb
>	Bi	209	2390694.626		ppb
	Cr	53	696.024		ppb
	Pd	106	45.000		ppb
	Pd	108	10.000		ppb
	C	12	452923.569		ppb
	Kr	83	24.000		ppb
	Se	77	40.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	472790.433		ppb
	Be	9	16.000	0.063246	ppb
	Na	23	41861403.141	15616.384631	ppb
	Mg	24	38478149.151	20393.529715	ppb
	Mg	25	5599790.027	21264.734561	ppb
	Mg	26	6587444.592	21810.482313	ppb
	Al	27	2834304.061	928.427022	ppb
	K	39	11033627.725	2156.435662	ppb
	Ca	44	5417197.316	41327.225976	ppb
>	Sc	45	568481.989		ppb

	Ti	47	4621.067	14.268552	ppb
	V	51	10549.535	2.375590	ppb
	Cr	52	5877.727	1.145912	ppb
	Mn	55	9967752.965	1970.585886	ppb
	Fe	54	292496.038	1011.480147	ppb
	Fe	56	5808704.373	1074.316055	ppb
	Fe	57	126267.169	1148.519587	ppb
	Co	59	16333.328	3.592015	ppb
	Ni	60	2036.874	2.006008	ppb
	Cu	63	3523.954	1.335725	ppb
	Cu	65	1870.175	1.501403	ppb
	Zn	66	6075.178	9.509708	ppb
	As	75	284.460	0.407395	ppb
	Se	82	30.000	0.205629	ppb
	Mo	96	244.003	-0.438321	ppb
	Ag	107	50.000	0.006146	ppb
	Ag	109	90.000	0.012606	ppb
	Cd	111	129.014	0.129780	ppb
	In	113	63828.053	-0.099946	ppb
>	In	115	1468238.422		ppb
	Sn	118	95.000	0.000197	ppb
	Sb	121	1055.056	0.204239	ppb
	Ba	135	75717.576	75.766440	ppb
	Ba	137	132660.137	75.823469	ppb
>	Tb	159	2883246.000		ppb
	Tl	205	510.013	0.027119	ppb
	Pb	206	4040.816	0.786272	ppb
	Pb	207	7241.328	0.743149	ppb
	Pb	208	11068.606	0.630207	ppb
>	Bi	209	2353102.964		ppb
	Cr	53	636.020		ppb
	Pd	106	45.000		ppb
	Pd	108	5.000		ppb
	C	12	384926.529		ppb
	Kr	83	14.000		ppb
	Se	77	42.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	468671.164		ppb
	Be	9	30.000	0.126618	ppb
	Na	23	40599460.786	15278.513906	ppb
	Mg	24	37784419.207	20201.840285	ppb
	Mg	25	5366213.309	20556.775035	ppb
	Mg	26	6476757.548	21632.464345	ppb
	Al	27	2849652.667	941.681534	ppb
	K	39	10797854.351	2128.431882	ppb
	Ca	44	5358125.717	41235.778364	ppb
>	Sc	45	564574.692		ppb
	Ti	47	4621.067	14.368243	ppb
	V	51	10556.138	2.394509	ppb
	Cr	52	6173.905	1.239611	ppb
	Mn	55	9867995.171	1964.365534	ppb
	Fe	54	287031.059	998.874405	ppb
	Fe	56	5783830.261	1077.291344	ppb
	Fe	57	127208.993	1165.285630	ppb
	Co	59	16335.331	3.617404	ppb
	Ni	60	2016.870	1.999985	ppb
	Cu	63	3517.285	1.343176	ppb
	Cu	65	1680.141	1.348515	ppb
	Zn	66	6208.593	9.793161	ppb
	As	75	256.459	0.370173	ppb
	Se	82	30.000	0.208750	ppb

⌈	Mo	96	296.004	-0.399150	ppb
|	Ag	107	63.334	0.009230	ppb
|	Ag	109	63.334	0.006605	ppb
|	Cd	111	119.014	0.120837	ppb
|	In	113	64935.146	1.271533	ppb
|>	In	115	1460906.319		ppb
⌊	Sn	118	150.001	0.017577	ppb
⌈	Sb	121	980.048	0.191906	ppb
|	Ba	135	76566.000	79.029877	ppb
|	Ba	137	130629.669	77.014853	ppb
⌊>	Tb	159	2795216.003		ppb
⌈	Tl	205	540.015	0.028553	ppb
|	Pb	206	3810.726	0.732522	ppb
|	Pb	207	6886.199	0.698122	ppb
|	Pb	208	10783.442	0.606660	ppb
⌊>	Bi	209	2380225.075		ppb
	Cr	53	684.023		ppb
	Pd	106	45.000		ppb
	Pd	108	5.000		ppb
	C	12	385057.427		ppb
	Kr	83	10.000		ppb
	Se	77	42.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		89.448			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		84.365			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.272			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		86.939			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		82.992			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904139-03

Sample Date/Time: Thursday, April 30, 2009 15:44:31
Sample Type: Sample
Sample Description: 5W9A
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904139-03.2432

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	482518.671	0.709	482518.671			ppb
	Be	9	1.333	86.603	-0.000	-0.00203	248.66	ppb
	Na	23	19344751.846	2.606	40.037	7066.22917	3.11	ppb
	Mg	24	40935061.861	1.820	84.828	21258.75081	1.82	ppb
	Mg	25	5827430.796	1.162	12.076	21683.55185	1.23	ppb
	Mg	26	6912752.772	1.889	14.326	22427.30007	2.13	ppb
	Al	27	4506.016	4.386	-0.001	-0.12502	54.71	ppb
	K	39	6678627.942	0.989	13.449	1264.00819	1.63	ppb
	Ca	44	5795640.464	0.755	12.003	43327.00550	1.35	ppb
>	Sc	45	572997.472	1.310	572997.472			ppb
	Ti	47	258.337	17.984	0.000	0.66347	22.23	ppb
	V	51	1309.664	14.840	0.001	0.17908	27.51	ppb
	Cr	52	5550.207	2.426	0.007	1.04364	4.91	ppb
	Mn	55	1578.459	10.413	0.002	0.27014	13.50	ppb
	Fe	54	14692.454	1.724	0.002	4.33888	33.63	ppb
	Fe	56	426627.614	0.903	0.152	16.99836	6.42	ppb
	Fe	57	16889.258	2.833	0.027	140.94535	3.79	ppb
	Co	59	341.339	14.079	0.000	0.06263	17.94	ppb
	Ni	60	660.022	5.955	0.001	0.62915	6.39	ppb
	Cu	63	1525.672	0.985	0.002	0.48830	1.89	ppb
	Cu	65	918.931	0.419	0.001	0.68008	1.20	ppb
	Zn	66	1727.927	6.368	0.003	2.50210	7.19	ppb
	As	75	35.690	16.731	0.000	0.05396	16.16	ppb
	Se	82	32.889	11.164	0.000	0.24505	21.41	ppb
	Mo	96	360.006	2.940	-0.000	-0.35985	1.83	ppb
	Ag	107	54.445	12.745	0.000	0.00685	22.99	ppb
	Ag	109	40.000	33.333	0.000	0.00099	296.25	ppb
	Cd	111	3.970	127.936	0.000	0.01077	43.87	ppb
	In	113	65230.445	1.947	-0.000	-0.28515	497.28	ppb
>	In	115	1505150.996	0.434	1505150.996			ppb
	Sn	118	86.667	38.414	-0.000	-0.00308	324.74	ppb
	Sb	121	588.351	7.228	0.000	0.07500	14.21	ppb
	Ba	135	51811.240	1.940	0.018	52.21135	1.50	ppb
	Ba	137	90145.198	1.321	0.031	51.88821	0.34	ppb
>	Tb	159	2862314.371	1.034	2862314.371			ppb
	Tl	205	116.667	13.093	0.000	0.00336	28.93	ppb
	Pb	206	443.343	8.760	0.000	0.07786	10.00	ppb
	Pb	207	806.683	6.362	0.000	0.07358	8.25	ppb
	Pb	208	1330.054	1.128	0.000	0.06693	2.13	ppb
>	Bi	209	2393422.425	1.040	2393422.425			ppb
	Cr	53	505.346	6.136	194.008			ppb
	Pd	106	3.333	86.603	3.333			ppb
	Pd	108	3.333	86.603	-6.667			ppb
	C	12	373117.999	1.197	58824.056			ppb
	Kr	83	13.333	22.913	-4.667			ppb
	Se	77	36.000	6.677	7.111			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	484201.457		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	18780055.486	6835.014918	ppb
	Mg	24	40242363.526	20825.976239	ppb
	Mg	25	5765247.406	21377.110757	ppb
	Mg	26	6766827.589	21876.414039	ppb
	Al	27	4651.081	-0.083756	ppb
	K	39	6607720.683	1245.635028	ppb
	Ca	44	5747877.308	42817.711042	ppb
>	Sc	45	564738.568		ppb
	Ti	47	290.004	0.774018	ppb
	V	51	1463.133	0.219901	ppb
	Cr	52	5601.568	1.079826	ppb
	Mn	55	1760.155	0.310512	ppb
	Fe	54	14936.146	5.989260	ppb
	Fe	56	423939.717	17.675099	ppb
	Fe	57	16904.276	143.308964	ppb
	Co	59	388.008	0.074017	ppb
	Ni	60	650.021	0.628556	ppb
	Cu	63	1526.783	0.498044	ppb
	Cu	65	916.709	0.689518	ppb
	Zn	66	1696.811	2.491649	ppb
	As	75	40.267	0.061199	ppb
	Se	82	32.667	0.248971	ppb
	Mo	96	356.006	-0.362860	ppb
	Ag	107	56.667	0.007330	ppb
	Ag	109	40.000	0.000990	ppb
	Cd	111	5.000	0.011709	ppb
	In	113	64275.908	-1.220229	ppb
>	In	115	1506161.681		ppb
	Sn	118	65.000	-0.009665	ppb
	Sb	121	590.017	0.076706	ppb
	Ba	135	50653.967	51.408845	ppb
	Ba	137	89508.806	51.889713	ppb
>	Tb	159	2842077.859		ppb
	Tl	205	130.001	0.004220	ppb
	Pb	206	475.011	0.084908	ppb
	Pb	207	850.018	0.078852	ppb
	Pb	208	1330.053	0.067696	ppb
>	Bi	209	2369028.112		ppb
	Cr	53	474.011		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	369921.855		ppb
	Kr	83	14.000		ppb
	Se	77	34.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	478582.423		ppb
	Be	9	2.000	0.000938	ppb
	Na	23	19749690.471	7272.964893	ppb
	Mg	24	40839828.057	21383.385329	ppb
	Mg	25	5817460.707	21824.023578	ppb
	Mg	26	6952840.759	22741.778556	ppb
	Al	27	4586.051	-0.087340	ppb
	K	39	6738346.412	1286.347599	ppb
	Ca	44	5833784.896	43968.764300	ppb
>	Sc	45	574845.759		ppb

	Ti	47	205.002	0.495988	ppb
	V	51	1374.741	0.192990	ppb
	Cr	52	5651.597	1.066095	ppb
	Mn	55	1535.118	0.260356	ppb
	Fe	54	14430.404	3.218796	ppb
	Fe	56	431038.732	17.580296	ppb
	Fe	57	17360.056	144.703327	ppb
	Co	59	292.004	0.051551	ppb
	Ni	60	703.358	0.669646	ppb
	Cu	63	1510.114	0.479703	ppb
	Cu	65	916.709	0.675614	ppb
	Zn	66	1850.171	2.687113	ppb
	As	75	28.936	0.044284	ppb
	Se	82	29.333	0.190726	ppb
	Mo	96	352.006	-0.364376	ppb
	Ag	107	60.000	0.008134	ppb
	Ag	109	26.667	-0.001939	ppb
	Cd	111	8.455	0.014954	ppb
	In	113	66671.516	1.346426	ppb
>	In	115	1498174.631		ppb
	Sn	118	70.000	-0.008032	ppb
	Sb	121	545.015	0.063598	ppb
	Ba	135	52314.483	52.973836	ppb
	Ba	137	89407.910	51.712580	ppb
>	Tb	159	2848591.657		ppb
	Tl	205	120.001	0.003553	ppb
	Pb	206	400.008	0.069504	ppb
	Pb	207	820.017	0.074930	ppb
	Pb	208	1345.052	0.067802	ppb
>	Bi	209	2392435.221		ppb
	Cr	53	506.013		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	371210.306		ppb
	Kr	83	10.000		ppb
	Se	77	35.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	484772.133		ppb
	Be	9	2.000	0.000826	ppb
	Na	23	19504509.579	7090.707711	ppb
	Mg	24	41722994.001	21566.890866	ppb
	Mg	25	5899584.275	21849.521215	ppb
	Mg	26	7018589.968	22663.707619	ppb
	Al	27	4280.916	-0.203968	ppb
	K	39	6689816.730	1260.041958	ppb
	Ca	44	5805259.187	43194.541171	ppb
>	Sc	45	579408.090		ppb
	Ti	47	280.004	0.720395	ppb
	V	51	1091.117	0.124358	ppb
	Cr	52	5397.456	0.984989	ppb
	Mn	55	1440.104	0.239563	ppb
	Fe	54	14710.812	3.808591	ppb
	Fe	56	424904.392	15.739671	ppb
	Fe	57	16403.443	134.823763	ppb
	Co	59	344.006	0.062308	ppb
	Ni	60	626.686	0.589241	ppb
	Cu	63	1540.119	0.487156	ppb
	Cu	65	923.376	0.675102	ppb
	Zn	66	1636.801	2.327535	ppb
	As	75	37.868	0.056403	ppb
	Se	82	36.667	0.295451	ppb

⌈	Mo	96	372.007	-0.352308	ppb
|	Ag	107	46.667	0.005094	ppb
|	Ag	109	53.333	0.003911	ppb
|	Cd	111	-1.545	0.005646	ppb
|	In	113	64743.912	-0.981661	ppb
|>	In	115	1511116.675		ppb
⌊	Sn	118	125.001	0.008444	ppb
⌈	Sb	121	630.020	0.084702	ppb
|	Ba	135	52465.270	52.251381	ppb
|	Ba	137	91518.878	52.062325	ppb
⌊>	Tb	159	2896273.596		ppb
⌈	Tl	205	100.001	0.002305	ppb
|	Pb	206	455.010	0.079177	ppb
|	Pb	207	750.015	0.066945	ppb
|	Pb	208	1315.056	0.065286	ppb
⌊>	Bi	209	2418803.941		ppb
	Cr	53	536.014		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	378221.835		ppb
	Kr	83	16.000		ppb
	Se	77	38.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			90.047		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			85.089		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			84.122		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			86.931		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			83.647		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904139-04

Sample Date/Time: Thursday, April 30, 2009 15:47:04
Sample Type: Sample
Sample Description: 5W10A
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904139-04.2433

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	483049.437	0.746	483049.437			ppb
	Be	9	4.000	0.000	0.000	0.00955	1.36	ppb
	Na	23	6314640.034	0.390	13.015	2296.93697	0.49	ppb
	Mg	24	52669452.014	0.706	109.033	27324.72219	1.38	ppb
	Mg	25	7620202.706	0.219	15.775	28324.46731	0.86	ppb
	Mg	26	9097885.692	1.405	18.835	29486.55058	2.15	ppb
	Al	27	21925.700	3.745	0.035	5.46765	4.73	ppb
	K	39	3821253.317	0.504	7.517	706.54787	0.82	ppb
	Ca	44	5275921.795	0.367	10.914	39394.58888	0.83	ppb
>	Sc	45	575745.985	1.966	575745.985			ppb
	Ti	47	406.675	6.189	0.001	1.11625	7.64	ppb
	V	51	918.933	14.683	0.001	0.08602	41.49	ppb
	Cr	52	4061.491	1.457	0.004	0.62969	1.53	ppb
	Mn	55	2710.368	3.686	0.004	0.48919	1.94	ppb
	Fe	54	12679.706	3.364	-0.002	-3.13475	20.61	ppb
	Fe	56	395635.328	1.258	0.095	10.60149	13.69	ppb
	Fe	57	14872.722	2.149	0.023	121.92379	4.31	ppb
	Co	59	307.338	3.075	0.000	0.05480	3.96	ppb
	Ni	60	944.489	11.006	0.002	0.90472	9.49	ppb
	Cu	63	1533.451	5.435	0.002	0.48864	7.70	ppb
	Cu	65	777.808	10.226	0.001	0.55788	14.43	ppb
	Zn	66	1652.359	5.045	0.003	2.37093	7.68	ppb
	As	75	636.407	4.826	0.001	0.89519	3.01	ppb
	Se	82	52.667	13.396	0.000	0.53524	17.01	ppb
	Mo	96	5100.635	3.040	0.003	3.05916	2.20	ppb
	Ag	107	22.222	31.225	-0.000	-0.00022	649.49	ppb
	Ag	109	26.667	33.072	-0.000	-0.00193	99.60	ppb
	Cd	111	6.667	92.926	0.000	0.01325	42.59	ppb
	In	113	65161.662	1.880	0.000	0.19267	256.03	ppb
>	In	115	1491758.964	1.638	1491758.964			ppb
	Sn	118	96.667	26.543	0.000	0.00017	4446.97	ppb
	Sb	121	2643.683	2.939	0.001	0.65624	5.93	ppb
	Ba	135	43053.153	1.028	0.015	43.52317	2.51	ppb
	Ba	137	75315.225	0.410	0.026	43.49317	2.77	ppb
>	Tb	159	2853941.719	2.363	2853941.719			ppb
	Tl	205	181.668	16.590	0.000	0.00720	19.77	ppb
	Pb	206	553.349	4.637	0.000	0.09945	1.18	ppb
	Pb	207	1046.694	7.723	0.000	0.09835	5.84	ppb
	Pb	208	1773.428	5.788	0.001	0.09240	3.67	ppb
>	Bi	209	2384979.239	3.560	2384979.239			ppb
	Cr	53	348.006	11.736	36.668			ppb
	Pd	106	5.000	0.000	5.000			ppb
	Pd	108	6.667	86.603	-3.333			ppb
	C	12	368154.430	0.299	53860.488			ppb
	Kr	83	13.333	48.218	-4.667			ppb
	Se	77	42.445	17.372	13.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485399.492		ppb
	Be	9	4.000	0.009470	ppb
	Na	23	6313715.986	2285.381198	ppb
	Mg	24	52264138.244	26981.371146	ppb
	Mg	25	7601184.616	28115.792009	ppb
	Mg	26	9043555.112	29165.446591	ppb
	Al	27	22790.942	5.710059	ppb
	K	39	3842312.334	707.003186	ppb
	Ca	44	5257609.226	39066.067611	ppb
>	Sc	45	562735.234		ppb
	Ti	47	410.008	1.155147	ppb
	V	51	1059.922	0.124407	ppb
	Cr	52	3996.799	0.637167	ppb
	Mn	55	2595.337	0.478561	ppb
	Fe	54	12187.422	-3.879600	ppb
	Fe	56	392982.978	11.833555	ppb
	Fe	57	15131.439	127.387997	ppb
	Co	59	304.005	0.055598	ppb
	Ni	60	826.701	0.808704	ppb
	Cu	63	1533.451	0.503190	ppb
	Cu	65	866.704	0.649043	ppb
	Zn	66	1736.817	2.566370	ppb
	As	75	601.588	0.866203	ppb
	Se	82	44.667	0.432961	ppb
	Mo	96	4945.222	2.981511	ppb
	Ag	107	16.667	-0.001408	ppb
	Ag	109	30.000	-0.001102	ppb
	Cd	111	3.090	0.009994	ppb
	In	113	64004.173	-0.322524	ppb
>	In	115	1477673.712		ppb
	Sn	118	75.000	-0.006187	ppb
	Sb	121	2730.373	0.701122	ppb
	Ba	135	42897.814	44.533051	ppb
	Ba	137	75663.167	44.866827	ppb
>	Tb	159	2778205.149		ppb
	Tl	205	150.001	0.005722	ppb
	Pb	206	525.014	0.098191	ppb
	Pb	207	960.023	0.093602	ppb
	Pb	208	1660.084	0.089884	ppb
>	Bi	209	2290311.639		ppb
	Cr	53	302.005		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	368309.965		ppb
	Kr	83	16.000		ppb
	Se	77	49.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	478899.054		ppb
	Be	9	4.000	0.009705	ppb
	Na	23	6290460.763	2307.971439	ppb
	Mg	24	52994354.572	27729.767171	ppb
	Mg	25	7626945.483	28594.046318	ppb
	Mg	26	9243933.655	30216.406543	ppb
	Al	27	21828.799	5.497255	ppb
	K	39	3816853.208	712.105288	ppb
	Ca	44	5274007.611	39720.378269	ppb
>	Sc	45	581202.879		ppb

	Ti	47	430.009	1.175103	ppb
	V	51	791.009	0.053858	ppb
	Cr	52	4112.846	0.633079	ppb
	Mn	55	2775.385	0.496907	ppb
	Fe	54	12913.332	-2.724251	ppb
	Fe	56	401376.685	10.968816	ppb
	Fe	57	14971.198	121.476915	ppb
	Co	59	318.005	0.056466	ppb
	Ni	60	1023.386	0.973936	ppb
	Cu	63	1616.797	0.516807	ppb
	Cu	65	713.359	0.496665	ppb
	Zn	66	1650.136	2.340527	ppb
	As	75	659.664	0.919417	ppb
	Se	82	58.000	0.607453	ppb
	Mo	96	5101.301	3.095216	ppb
	Ag	107	20.000	-0.000660	ppb
	Ag	109	16.667	-0.004119	ppb
	Cd	111	3.090	0.009994	ppb
	In	113	65035.797	0.660691	ppb
>	In	115	1477621.607		ppb
	Sn	118	90.000	-0.001540	ppb
	Sb	121	2580.333	0.632149	ppb
	Ba	135	43552.636	43.672838	ppb
	Ba	137	75074.757	43.000825	ppb
>	Tb	159	2876122.998		ppb
	Tl	205	185.002	0.007316	ppb
	Pb	206	560.016	0.099633	ppb
	Pb	207	1120.031	0.104729	ppb
	Pb	208	1860.100	0.096257	ppb
>	Bi	209	2410204.881		ppb
	Cr	53	380.007		ppb
	Pd	106	5.000		ppb
	Pd	108	10.000		ppb
	C	12	366982.474		ppb
	Kr	83	6.000		ppb
	Se	77	43.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	484849.764		ppb
	Be	9	4.000	0.009489	ppb
	Na	23	6339743.354	2297.458276	ppb
	Mg	24	52749863.225	27263.028254	ppb
	Mg	25	7632478.018	28263.563608	ppb
	Mg	26	9006168.307	29077.798617	ppb
	Al	27	21157.358	5.195633	ppb
	K	39	3804594.408	700.535124	ppb
	Ca	44	5296148.549	39397.320756	ppb
>	Sc	45	583299.843		ppb
	Ti	47	380.007	1.018486	ppb
	V	51	905.869	0.079783	ppb
	Cr	52	4074.830	0.618837	ppb
	Mn	55	2760.381	0.492087	ppb
	Fe	54	12938.365	-2.800392	ppb
	Fe	56	392546.320	9.002095	ppb
	Fe	57	14515.527	116.906449	ppb
	Co	59	300.005	0.052348	ppb
	Ni	60	983.382	0.931507	ppb
	Cu	63	1450.105	0.445923	ppb
	Cu	65	753.362	0.527926	ppb
	Zn	66	1570.123	2.205886	ppb
	As	75	647.967	0.899945	ppb
	Se	82	55.333	0.565319	ppb

⌈	Mo	96	5255.381	3.100761	ppb
|	Ag	107	30.000	0.001397	ppb
|	Ag	109	33.333	-0.000558	ppb
|	Cd	111	13.820	0.019770	ppb
|	In	113	66445.016	0.239857	ppb
|>	In	115	1519981.572		ppb
⌊	Sn	118	125.001	0.008223	ppb
⌈	Sb	121	2620.343	0.635436	ppb
|	Ba	135	42709.009	42.363629	ppb
|	Ba	137	75207.751	42.611848	ppb
⌊>	Tb	159	2907497.011		ppb
⌈	Tl	205	210.002	0.008561	ppb
|	Pb	206	575.017	0.100524	ppb
|	Pb	207	1060.028	0.096710	ppb
|	Pb	208	1800.098	0.091050	ppb
⌊>	Bi	209	2454421.197		ppb
	Cr	53	362.007		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	369170.853		ppb
	Kr	83	18.000		ppb
	Se	77	34.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		90.146			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		85.497			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		83.373			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		86.677			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		83.352			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904139-05

Sample Date/Time: Thursday, April 30, 2009 15:49:37
Sample Type: Sample
Sample Description: 5W11A
Number of Replicates: 3
Batch ID: 0904139
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904139-05.2434

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	474681.547	0.934	474681.547			ppb
	Be	9	4.667	49.487	0.000	0.01287	80.37	ppb
	Na	23	12385587.921	1.146	26.034	4594.73937	0.38	ppb
	Mg	24	47435393.423	1.788	99.920	25040.91132	1.38	ppb
	Mg	25	6861092.779	0.952	14.453	25951.59515	0.76	ppb
	Mg	26	8143263.651	0.268	17.155	26856.72586	1.16	ppb
	Al	27	29480.170	6.257	0.052	8.06053	7.37	ppb
	K	39	7271094.482	0.556	14.925	1402.79992	1.20	ppb
	Ca	44	13618582.781	0.369	28.683	103537.60529	1.30	ppb
>	Sc	45	557279.145	0.662	557279.145			ppb
	Ti	47	540.015	9.756	0.001	1.58051	9.88	ppb
	V	51	2097.034	5.782	0.003	0.37808	7.16	ppb
	Cr	52	2282.261	2.536	0.001	0.16450	7.99	ppb
	Mn	55	525301.782	1.150	0.942	105.90544	1.55	ppb
	Fe	54	58978.433	1.381	0.082	169.53771	1.94	ppb
	Fe	56	1208783.993	0.897	1.577	175.98883	1.45	ppb
	Fe	57	53098.965	1.804	0.093	485.12705	1.77	ppb
	Co	59	3311.215	1.935	0.006	0.73327	2.62	ppb
	Ni	60	2339.163	3.564	0.004	2.35421	3.86	ppb
	Cu	63	6418.726	1.211	0.011	2.61063	1.73	ppb
	Cu	65	3279.427	3.722	0.006	2.76526	3.28	ppb
	Zn	66	4399.857	1.755	0.008	6.95951	1.61	ppb
	As	75	84.439	26.972	0.000	0.12581	25.60	ppb
	Se	82	31.778	21.836	0.000	0.24175	43.36	ppb
	Mo	96	165.335	1.397	-0.000	-0.49262	0.40	ppb
	Ag	107	21.111	45.580	-0.000	-0.00024	948.11	ppb
	Ag	109	16.667	91.652	-0.000	-0.00404	87.20	ppb
	Cd	111	82.125	24.270	0.000	0.08756	23.82	ppb
	In	113	63459.087	1.687	0.001	1.20528	28.82	ppb
>	In	115	1429297.699	2.069	1429297.699			ppb
	Sn	118	88.334	31.175	-0.000	-0.00117	730.21	ppb
	Sb	121	391.675	27.061	0.000	0.02322	132.63	ppb
	Ba	135	87056.645	0.672	0.031	90.55198	0.72	ppb
	Ba	137	153314.362	0.703	0.055	91.08793	0.75	ppb
>	Tb	159	2773971.962	0.107	2773971.962			ppb
	Tl	205	460.011	9.476	0.000	0.02807	18.47	ppb
	Pb	206	2326.938	5.606	0.001	0.51308	11.42	ppb
	Pb	207	4240.454	2.635	0.002	0.49241	9.02	ppb
	Pb	208	6871.414	3.351	0.003	0.44235	7.41	ppb
>	Bi	209	2076434.804	7.835	2076434.804			ppb
	Cr	53	154.001	12.389	-157.337			ppb
	Pd	106	16.667	62.450	16.667			ppb
	Pd	108	8.333	69.282	-1.667			ppb
	C	12	382526.566	0.679	68232.624			ppb
	Kr	83	14.667	31.492	-3.333			ppb
	Se	77	23.556	9.939	-5.333			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	479175.852		ppb
	Be	9	2.000	0.000927	ppb
	Na	23	12499451.242	4593.531948	ppb
	Mg	24	47642909.729	24914.928758	ppb
	Mg	25	6879361.671	25776.167774	ppb
	Mg	26	8132090.583	26566.394881	ppb
	Al	27	28816.460	7.755431	ppb
	K	39	7286327.410	1392.192446	ppb
	Ca	44	13564046.199	102147.084019	ppb
>	Sc	45	554255.784		ppb
	Ti	47	490.012	1.430683	ppb
	V	51	1957.157	0.346857	ppb
	Cr	52	2216.246	0.149332	ppb
	Mn	55	531804.535	107.796623	ppb
	Fe	54	59607.123	173.058071	ppb
	Fe	56	1216433.613	178.843900	ppb
	Fe	57	53598.255	492.555050	ppb
	Co	59	3376.570	0.752043	ppb
	Ni	60	2423.627	2.453315	ppb
	Cu	63	6395.378	2.615434	ppb
	Cu	65	3143.827	2.662038	ppb
	Zn	66	4314.264	6.857834	ppb
	As	75	80.014	0.120147	ppb
	Se	82	34.000	0.278877	ppb
	Mo	96	164.001	-0.494587	ppb
	Ag	107	10.000	-0.002847	ppb
	Ag	109	20.000	-0.003248	ppb
	Cd	111	88.005	0.092395	ppb
	In	113	64104.815	1.352098	ppb
>	In	115	1440367.695		ppb
	Sn	118	120.001	0.008714	ppb
	Sb	121	295.004	-0.004941	ppb
	Ba	135	86468.228	89.848576	ppb
	Ba	137	152246.190	90.361432	ppb
>	Tb	159	2776775.863		ppb
	Tl	205	480.012	0.030970	ppb
	Pb	206	2475.306	0.573943	ppb
	Pb	207	4365.485	0.533339	ppb
	Pb	208	7021.495	0.476055	ppb
>	Bi	209	1967557.213		ppb
	Cr	53	174.002		ppb
	Pd	106	25.000		ppb
	Pd	108	15.000		ppb
	C	12	382801.237		ppb
	Kr	83	12.000		ppb
	Se	77	26.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	470315.739		ppb
	Be	9	6.000	0.018957	ppb
	Na	23	12226548.892	4577.852284	ppb
	Mg	24	46502710.244	24776.777008	ppb
	Mg	25	6788593.517	25915.263679	ppb
	Mg	26	8168372.360	27187.685109	ppb
	Al	27	28059.311	7.681438	ppb
	K	39	7301695.143	1422.187287	ppb
	Ca	44	13663010.144	104831.553021	ppb
>	Sc	45	556188.800		ppb

	Ti	47	535.014	1.568617	ppb
	V	51	2161.780	0.394872	ppb
	Cr	52	2306.266	0.172586	ppb
	Mn	55	519870.930	105.010420	ppb
	Fe	54	58058.049	166.550298	ppb
	Fe	56	1196370.863	173.966588	ppb
	Fe	57	51994.823	475.717949	ppb
	Co	59	3308.547	0.734045	ppb
	Ni	60	2256.921	2.274945	ppb
	Cu	63	6505.449	2.653252	ppb
	Cu	65	3313.882	2.801388	ppb
	Zn	66	4464.330	7.079609	ppb
	As	75	64.201	0.096804	ppb
	Se	82	24.000	0.123409	ppb
	Mo	96	164.001	-0.490676	ppb
	Ag	107	26.667	0.001188	ppb
	Ag	109	0.000	-0.007890	ppb
	Cd	111	98.455	0.105576	ppb
	In	113	62222.985	1.455140	ppb
>	In	115	1395785.227		ppb
	Sn	118	70.000	-0.006464	ppb
	Sb	121	375.007	0.018498	ppb
	Ba	135	87063.359	90.660091	ppb
	Ba	137	153296.046	91.178749	ppb
>	Tb	159	2770871.269		ppb
	Tl	205	490.012	0.031147	ppb
	Pb	206	2230.249	0.508285	ppb
	Pb	207	4150.433	0.498702	ppb
	Pb	208	6606.282	0.440384	ppb
>	Bi	209	1998297.882		ppb
	Cr	53	152.001		ppb
	Pd	106	5.000		ppb
	Pd	108	5.000		ppb
	C	12	379802.067		ppb
	Kr	83	12.000		ppb
	Se	77	23.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	474553.048		ppb
	Be	9	6.000	0.018718	ppb
	Na	23	12430763.630	4612.833886	ppb
	Mg	24	48160560.296	25431.028185	ppb
	Mg	25	6915323.150	26163.354006	ppb
	Mg	26	8129328.011	26816.097589	ppb
	Al	27	31564.738	8.744736	ppb
	K	39	7225260.893	1394.020034	ppb
	Ca	44	13628692.002	103634.178841	ppb
>	Sc	45	561392.849		ppb
	Ti	47	595.018	1.742217	ppb
	V	51	2172.166	0.392505	ppb
	Cr	52	2324.270	0.171585	ppb
	Mn	55	524229.880	104.909263	ppb
	Fe	54	59270.128	169.004760	ppb
	Fe	56	1213547.502	175.155995	ppb
	Fe	57	53703.819	487.108142	ppb
	Co	59	3248.528	0.713716	ppb
	Ni	60	2336.940	2.334370	ppb
	Cu	63	6355.352	2.563192	ppb
	Cu	65	3380.571	2.832352	ppb
	Zn	66	4420.977	6.941086	ppb
	As	75	109.102	0.160471	ppb
	Se	82	37.333	0.322953	ppb

⌈	Mo	96	168.001	-0.492583	ppb
|	Ag	107	26.667	0.000943	ppb
|	Ag	109	30.000	-0.000981	ppb
|	Cd	111	59.915	0.064707	ppb
|	In	113	64049.462	0.808599	ppb
|>	In	115	1451740.174		ppb
⌊	Sn	118	75.000	-0.005772	ppb
⌈	Sb	121	505.013	0.056112	ppb
|	Ba	135	87638.349	91.147276	ppb
|	Ba	137	154400.849	91.723618	ppb
⌊>	Tb	159	2774268.753		ppb
⌈	Tl	205	410.008	0.022083	ppb
|	Pb	206	2275.259	0.457023	ppb
|	Pb	207	4205.445	0.445186	ppb
|	Pb	208	6986.464	0.410603	ppb
⌊>	Bi	209	2263449.318		ppb
	Cr	53	136.001		ppb
	Pd	106	20.000		ppb
	Pd	108	5.000		ppb
	C	12	384976.395		ppb
	Kr	83	20.000		ppb
	Se	77	21.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.585			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		82.755			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		79.882			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		84.248			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		72.569			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, April 30, 2009 15:52:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCV.2435

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	556702.185	1.169	556702.185			ppb
	Be	9	32322.180	2.853	0.058	121.94689	2.45	ppb
	Na	23	3771025.443	0.365	6.716	1185.36381	1.31	ppb
	Mg	24	2622228.062	0.703	4.701	1178.16728	1.72	ppb
	Mg	25	373917.418	0.102	0.670	1203.83218	1.16	ppb
	Mg	26	419843.029	0.948	0.753	1178.43500	1.56	ppb
	Al	27	4124710.783	0.846	7.400	1147.97095	1.68	ppb
	K	39	6557977.759	0.810	11.388	1070.29116	1.40	ppb
	Ca	44	170556.857	0.278	0.297	1073.77727	0.95	ppb
>	Sc	45	640117.161	0.192	640117.161			ppb
	Ti	47	43815.786	0.884	0.068	121.16005	0.96	ppb
	V	51	560711.176	1.121	0.875	118.13350	0.97	ppb
	Cr	52	486307.507	0.408	0.757	118.92695	0.57	ppb
	Mn	55	692042.503	0.629	1.081	121.46569	0.53	ppb
	Fe	54	385690.766	0.782	0.579	1192.80119	0.93	ppb
	Fe	56	7200613.700	1.354	10.657	1189.38973	1.47	ppb
	Fe	57	149047.598	0.872	0.230	1204.66724	1.07	ppb
	Co	59	611764.816	0.259	0.956	119.87603	0.43	ppb
	Ni	60	133609.024	1.639	0.209	118.19473	1.49	ppb
	Cu	63	321523.764	0.085	0.502	120.22655	0.21	ppb
	Cu	65	158745.689	0.748	0.248	120.71450	0.64	ppb
	Zn	66	85706.893	1.643	0.134	122.06593	1.63	ppb
	As	75	94986.016	0.933	0.148	119.72780	0.99	ppb
	Se	82	9319.452	0.577	0.015	124.17065	0.73	ppb
	Mo	96	190258.260	0.780	0.111	118.98116	0.90	ppb
	Ag	107	618653.870	1.107	0.362	119.95081	0.74	ppb
	Ag	109	609655.023	1.632	0.356	119.16642	1.87	ppb
	Cd	111	146477.866	1.496	0.086	119.59138	1.81	ppb
	In	113	222326.183	1.230	0.086	121.45672	2.39	ppb
>	In	115	1710571.468	0.360	1710571.468			ppb
	Sn	118	448901.428	1.778	0.262	120.08438	1.82	ppb
	Sb	121	477858.958	1.334	0.148	119.55676	0.49	ppb
	Ba	135	133401.283	0.927	0.041	119.67733	2.18	ppb
	Ba	137	230269.057	0.497	0.072	117.98737	1.47	ppb
>	Tb	159	3217300.742	1.791	3217300.742			ppb
	Tl	205	2357627.368	0.426	0.836	118.25572	0.53	ppb
	Pb	206	750479.718	1.150	0.266	123.03531	0.62	ppb
	Pb	207	1406985.779	1.201	0.499	121.88778	0.47	ppb
	Pb	208	2333621.819	2.147	0.827	112.34112	1.55	ppb
>	Bi	209	2820422.488	0.769	2820422.488			ppb
	Cr	53	57073.077	0.780	56761.738			ppb
	Pd	106	12534.518	1.029	12534.518			ppb
	Pd	108	9916.581	0.585	9906.581			ppb
	C	12	323177.915	0.530	8883.972			ppb
	Kr	83	16.000	12.500	-2.000			ppb
	Se	77	7276.647	1.539	7247.758			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	563850.499		ppb
	Be	9	33136.812	123.438631	ppb
	Na	23	3772392.265	1170.518845	ppb
	Mg	24	2603558.992	1154.753196	ppb
	Mg	25	374106.283	1189.035737	ppb
	Mg	26	418048.309	1158.369525	ppb
	Al	27	4122678.670	1132.708358	ppb
	K	39	6583455.842	1060.408671	ppb
	Ca	44	171101.367	1063.164334	ppb
>	Sc	45	641507.078		ppb
	Ti	47	43599.841	120.300046	ppb
	V	51	565798.091	118.948994	ppb
	Cr	52	484291.672	118.173586	ppb
	Mn	55	695894.271	121.877537	ppb
	Fe	54	383411.979	1182.784715	ppb
	Fe	56	7210224.427	1188.335672	ppb
	Fe	57	147550.587	1189.806026	ppb
	Co	59	610100.186	119.290147	ppb
	Ni	60	135319.414	119.450439	ppb
	Cu	63	321599.472	119.993731	ppb
	Cu	65	159383.445	120.937503	ppb
	Zn	66	85608.210	121.660475	ppb
	As	75	94566.998	118.940814	ppb
	Se	82	9267.626	123.209758	ppb
	Mo	96	188750.687	118.221585	ppb
	Ag	107	615521.048	119.535973	ppb
	Ag	109	603567.782	118.161078	ppb
	Cd	111	146098.757	119.467528	ppb
	In	113	223786.307	122.942642	ppb
>	In	115	1707845.861		ppb
	Sn	118	440424.721	118.003242	ppb
	Sb	121	470504.306	120.163519	ppb
	Ba	135	133452.577	122.190062	ppb
	Ba	137	229155.878	119.843903	ppb
>	Tb	159	3151623.851		ppb
	Tl	205	2350060.654	118.918820	ppb
	Pb	206	741256.199	122.602299	ppb
	Pb	207	1387477.773	121.266301	ppb
	Pb	208	2289697.256	111.209954	ppb
>	Bi	209	2795629.829		ppb
	Cr	53	56917.521		ppb
	Pd	106	12417.705		ppb
	Pd	108	9924.923		ppb
	C	12	325102.040		ppb
	Kr	83	16.000		ppb
	Se	77	7381.390		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	551119.368		ppb
	Be	9	32508.755	123.896522	ppb
	Na	23	3784070.410	1201.535565	ppb
	Mg	24	2622695.510	1190.186637	ppb
	Mg	25	374166.474	1216.752336	ppb
	Mg	26	417076.986	1182.423464	ppb
	Al	27	4160565.249	1169.575460	ppb
	K	39	6593566.193	1087.483204	ppb
	Ca	44	170332.406	1083.431277	ppb
>	Sc	45	639685.781		ppb

	Ti	47	44262.743	122.479300	ppb
	V	51	562651.652	118.623941	ppb
	Cr	52	488261.916	119.486900	ppb
	Mn	55	687320.715	120.718335	ppb
	Fe	54	389110.889	1204.643856	ppb
	Fe	56	7098690.360	1172.447197	ppb
	Fe	57	149712.363	1210.907723	ppb
	Co	59	613261.006	120.249665	ppb
	Ni	60	134366.696	118.947050	ppb
	Cu	63	321220.926	120.193980	ppb
	Cu	65	159478.273	121.354340	ppb
	Zn	66	87161.542	124.225966	ppb
	As	75	96003.943	121.091843	ppb
	Se	82	9375.059	124.996464	ppb
>	Mo	96	191718.347	120.203714	ppb
	Ag	107	613934.504	119.340133	ppb
	Ag	109	621139.658	121.715894	ppb
	Cd	111	148833.504	121.818251	ppb
	In	113	224021.486	123.309728	ppb
>	In	115	1706239.061		ppb
	Sn	118	456272.034	122.365434	ppb
	Sb	121	481226.907	119.516122	ppb
	Ba	135	134611.962	119.855871	ppb
	Ba	137	231441.623	117.704592	ppb
>	Tb	159	3240895.687		ppb
	Tl	205	2353814.421	117.669721	ppb
	Pb	206	758354.589	123.915038	ppb
	Pb	207	1417302.728	122.376529	ppb
	Pb	208	2322966.831	111.462763	ppb
>	Bi	209	2829818.238		ppb
	Cr	53	57575.270		ppb
	Pd	106	12673.025		ppb
	Pd	108	9969.968		ppb
	C	12	321824.542		ppb
	Kr	83	18.000		ppb
	Se	77	7158.561		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	555136.688		ppb
	Be	9	31320.973	118.505504	ppb
	Na	23	3756613.654	1184.037025	ppb
	Mg	24	2640429.684	1189.562002	ppb
	Mg	25	373479.495	1205.708473	ppb
	Mg	26	424403.793	1194.512009	ppb
	Al	27	4090888.428	1141.629025	ppb
	K	39	6496911.242	1062.981595	ppb
	Ca	44	170236.799	1074.736205	ppb
>	Sc	45	639158.624		ppb
	Ti	47	43584.775	120.700794	ppb
	V	51	553683.786	116.827557	ppb
	Cr	52	486368.933	119.120355	ppb
	Mn	55	692912.522	121.801189	ppb
	Fe	54	384549.429	1190.975002	ppb
	Fe	56	7292926.311	1207.386316	ppb
	Fe	57	149879.844	1213.287959	ppb
	Co	59	611933.258	120.088264	ppb
	Ni	60	131140.963	116.186701	ppb
	Cu	63	321750.895	120.491949	ppb
	Cu	65	157375.348	119.851645	ppb
	Zn	66	84350.926	120.311359	ppb
	As	75	94387.108	119.150744	ppb
	Se	82	9315.670	124.305727	ppb

⌈	Mo	96	190305.746	118.518178	ppb
|	Ag	107	626506.057	120.976327	ppb
|	Ag	109	604257.629	117.622279	ppb
|	Cd	111	144501.338	117.488361	ppb
|	In	113	219170.756	118.117805	ppb
|>	In	115	1717629.482		ppb
⌊	Sn	118	450007.528	119.884467	ppb
⌈	Sb	121	481845.660	118.990637	ppb
|	Ba	135	132139.310	116.986047	ppb
|	Ba	137	230209.671	116.413610	ppb
⌊>	Tb	159	3259382.689		ppb
⌈	Tl	205	2369007.029	118.178612	ppb
|	Pb	206	751828.366	122.588598	ppb
|	Pb	207	1416176.837	122.020521	ppb
|	Pb	208	2388201.370	114.350628	ppb
⌊>	Bi	209	2835819.395		ppb
	Cr	53	56726.439		ppb
	Pd	106	12512.824		ppb
	Pd	108	9854.854		ppb
	C	12	322607.163		ppb
	Kr	83	14.000		ppb
	Se	77	7289.990		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.891			
	Be	9	101.622				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		95.056			
	Ti	47					
	V	51	98.445				
	Cr	52	99.106				
	Mn	55	101.221				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	99.897				
	Ni	60	98.496				
	Cu	63	100.189				
	Cu	65	100.595				
	Zn	66	101.722				
	As	75	99.773				
	Se	82	103.476				
	Mo	96					
	Ag	107	99.959				
	Ag	109	99.305				
	Cd	111	99.659				
	In	113					
>	In	115		95.602			
	Sn	118	100.070				
	Sb	121	99.631				
	Ba	135	99.731				
	Ba	137	98.323				
>	Tb	159		97.712			
	Tl	205	98.546				
	Pb	206	102.529				
	Pb	207	101.573				
	Pb	208	93.618				
>	Bi	209		98.571			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, April 30, 2009 15:54:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCB.2436

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	533377.944	3.728	533377.944			ppb
	Be	9	2.000	100.000	0.000	0.00014	5535.86	ppb
	Na	23	16920.640	1.774	-0.026	-4.67216	3.40	ppb
	Mg	24	2812.732	10.057	-0.004	-1.10845	10.95	ppb
	Mg	25	403.008	8.234	-0.001	-0.94534	10.70	ppb
	Mg	26	468.345	16.590	-0.001	-0.97602	18.63	ppb
	Al	27	630.020	8.944	-0.009	-1.39015	1.65	ppb
	K	39	175958.573	0.168	-0.063	-5.94901	19.49	ppb
	Ca	44	2606.340	2.365	-0.004	-14.53980	6.25	ppb
>	Sc	45	604845.638	0.779	604845.638			ppb
	Ti	47	36.667	7.873	-0.000	-0.02849	32.17	ppb
	V	51	505.653	15.132	-0.000	-0.01707	96.54	ppb
	Cr	52	1807.497	2.428	-0.000	-0.00937	159.93	ppb
	Mn	55	325.006	28.243	0.000	0.02055	81.74	ppb
	Fe	54	13255.452	3.076	-0.002	-3.35281	32.49	ppb
	Fe	56	350610.602	0.520	-0.013	-1.41084	14.15	ppb
	Fe	57	1356.759	1.855	-0.000	-1.52443	12.33	ppb
	Co	59	96.667	24.510	0.000	0.00788	62.60	ppb
	Ni	60	30.000	22.222	0.000	0.00474	134.02	ppb
	Cu	63	261.115	11.007	-0.000	-0.04635	26.26	ppb
	Cu	65	84.445	27.726	-0.000	-0.03331	56.15	ppb
	Zn	66	131.112	14.002	-0.000	-0.05529	48.21	ppb
	As	75	16.953	70.274	0.000	0.02621	60.14	ppb
	Se	82	21.333	23.593	0.000	0.05572	123.61	ppb
	Mo	96	359.340	17.374	-0.000	-0.38084	10.58	ppb
	Ag	107	100.001	35.119	0.000	0.01515	47.58	ppb
	Ag	109	96.667	9.123	0.000	0.01188	15.77	ppb
	Cd	111	5.000	173.205	0.000	0.01133	65.10	ppb
	In	113	70767.912	1.860	-0.000	-0.38122	297.30	ppb
>	In	115	1635421.159	0.488	1635421.159			ppb
	Sn	118	305.005	11.822	0.000	0.05592	17.47	ppb
	Sb	121	2828.735	7.471	0.001	0.65908	8.82	ppb
	Ba	135	22.000	15.746	-0.000	-0.01654	18.83	ppb
	Ba	137	56.000	16.366	-0.000	-0.00499	105.14	ppb
>	Tb	159	3040272.270	0.934	3040272.270			ppb
	Tl	205	208.336	27.713	0.000	0.00739	39.58	ppb
	Pb	206	58.334	34.641	0.000	0.00221	158.69	ppb
	Pb	207	100.000	31.225	0.000	0.00026	1113.55	ppb
	Pb	208	228.335	10.114	0.000	0.00298	40.58	ppb
>	Bi	209	2692302.551	0.878	2692302.551			ppb
	Cr	53	97.334	23.096	-214.004			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	0.000		-10.000			ppb
	C	12	312037.768	1.652	-2256.174			ppb
	Kr	83	14.667	15.746	-3.333			ppb
	Se	77	26.889	12.230	-2.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	553567.169		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	17251.869	-4.774246	ppb
	Mg	24	3072.472	-1.038998	ppb
	Mg	25	434.009	-0.894372	ppb
	Mg	26	558.016	-0.768995	ppb
	Al	27	595.018	-1.407168	ppb
	K	39	175769.284	-7.140785	ppb
	Ca	44	2616.342	-15.138020	ppb
>	Sc	45	609871.871		ppb
	Ti	47	35.000	-0.034262	ppb
	V	51	583.341	-0.000753	ppb
	Cr	52	1758.155	-0.026035	ppb
	Mn	55	365.007	0.027487	ppb
	Fe	54	13564.193	-2.677348	ppb
	Fe	56	352272.395	-1.640851	ppb
	Fe	57	1380.095	-1.420876	ppb
	Co	59	84.000	0.005108	ppb
	Ni	60	30.000	0.004498	ppb
	Cu	63	230.003	-0.059487	ppb
	Cu	65	86.667	-0.032052	ppb
	Zn	66	150.001	-0.028542	ppb
	As	75	26.367	0.038553	ppb
	Se	82	26.000	0.118975	ppb
	Mo	96	428.009	-0.336271	ppb
	Ag	107	63.334	0.007665	ppb
	Ag	109	100.001	0.012507	ppb
	Cd	111	15.000	0.019852	ppb
	In	113	72209.775	0.710635	ppb
>	In	115	1639291.533		ppb
	Sn	118	295.004	0.052949	ppb
	Sb	121	2965.440	0.689672	ppb
	Ba	135	24.000	-0.014777	ppb
	Ba	137	54.000	-0.006306	ppb
>	Tb	159	3061672.518		ppb
	Tl	205	175.002	0.005688	ppb
	Pb	206	40.000	-0.000915	ppb
	Pb	207	75.000	-0.001991	ppb
	Pb	208	255.002	0.004369	ppb
>	Bi	209	2681997.535		ppb
	Cr	53	78.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	317986.650		ppb
	Kr	83	12.000		ppb
	Se	77	30.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	513817.800		ppb
	Be	9	2.000	0.000336	ppb
	Na	23	16843.173	-4.489120	ppb
	Mg	24	2854.407	-1.037751	ppb
	Mg	25	407.008	-0.879823	ppb
	Mg	26	426.009	-1.049118	ppb
	Al	27	695.024	-1.364074	ppb
	K	39	175807.955	-4.825020	ppb
	Ca	44	2662.354	-13.494958	ppb
>	Sc	45	604133.807		ppb

	Ti	47	35.000	-0.033296	ppb
	V	51	430.369	-0.033713	ppb
	Cr	52	1822.166	-0.005078	ppb
	Mn	55	390.008	0.032777	ppb
	Fe	54	13408.984	-2.771426	ppb
	Fe	56	350900.400	-1.282002	ppb
	Fe	57	1330.088	-1.741411	ppb
	Co	59	124.001	0.013577	ppb
	Ni	60	23.333	-0.001488	ppb
	Cu	63	266.670	-0.044083	ppb
	Cu	65	106.667	-0.015266	ppb
	Zn	66	113.334	-0.081856	ppb
	As	75	20.934	0.031630	ppb
	Se	82	22.000	0.065854	ppb
	Mo	96	344.006	-0.391571	ppb
	Ag	107	103.334	0.015740	ppb
	Ag	109	86.667	0.009772	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	69631.587	-1.551975	ppb
>	In	115	1640736.679		ppb
	Sn	118	345.006	0.066825	ppb
	Sb	121	2935.431	0.695541	ppb
	Ba	135	18.000	-0.020132	ppb
	Ba	137	66.000	0.000790	ppb
>	Tb	159	3008062.554		ppb
	Tl	205	175.002	0.005710	ppb
	Pb	206	80.000	0.006015	ppb
	Pb	207	135.000	0.003505	ppb
	Pb	208	215.001	0.002370	ppb
>	Bi	209	2675554.734		ppb
	Cr	53	122.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	308896.282		ppb
	Kr	83	16.000		ppb
	Se	77	24.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	532748.862		ppb
	Be	9	4.000	0.007931	ppb
	Na	23	16666.878	-4.753107	ppb
	Mg	24	2511.315	-1.248616	ppb
	Mg	25	368.007	-1.061816	ppb
	Mg	26	421.009	-1.109935	ppb
	Al	27	600.018	-1.399196	ppb
	K	39	176298.478	-5.881239	ppb
	Ca	44	2540.323	-14.986419	ppb
>	Sc	45	600531.236		ppb
	Ti	47	40.000	-0.017926	ppb
	V	51	503.248	-0.016751	ppb
	Cr	52	1842.170	0.003001	ppb
	Mn	55	220.002	0.001396	ppb
	Fe	54	12793.178	-4.609644	ppb
	Fe	56	348659.011	-1.309675	ppb
	Fe	57	1360.092	-1.410995	ppb
	Co	59	82.000	0.004958	ppb
	Ni	60	36.667	0.011219	ppb
	Cu	63	286.671	-0.035467	ppb
	Cu	65	60.000	-0.052608	ppb
	Zn	66	130.001	-0.055473	ppb
	As	75	3.559	0.008453	ppb
	Se	82	16.000	-0.017659	ppb

⌈	Mo	96	306.005	-0.414687	ppb
|	Ag	107	133.334	0.022045	ppb
|	Ag	109	103.334	0.013356	ppb
|	Cd	111	0.000	0.007074	ppb
|	In	113	70462.376	-0.302317	ppb
|>	In	115	1626235.266		ppb
⌊	Sn	118	275.004	0.047981	ppb
⌈	Sb	121	2585.334	0.592030	ppb
|	Ba	135	24.000	-0.014699	ppb
|	Ba	137	48.000	-0.009447	ppb
⌊>	Tb	159	3051081.738		ppb
⌈	Tl	205	275.004	0.010763	ppb
|	Pb	206	55.000	0.001541	ppb
|	Pb	207	90.000	-0.000737	ppb
|	Pb	208	215.002	0.002194	ppb
⌊>	Bi	209	2719355.386		ppb
	Cr	53	92.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	309230.373		ppb
	Kr	83	16.000		ppb
	Se	77	25.333		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.539			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		89.818			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		91.402			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.336			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.093			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042701-BLK1

Sample Date/Time: Thursday, April 30, 2009 17:16:02
Sample Type: Sample
Sample Description: PBS
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042701-BLK1.2437

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	482357.336	2.316	482357.336			ppb
	Be	9	0.667	173.205	-0.000	-0.00491	103.40	ppb
	Na	23	35312.254	1.988	0.015	2.65058	15.11	ppb
	Mg	24	4333.939	0.516	-0.001	-0.17738	32.45	ppb
	Mg	25	582.684	3.816	-0.000	-0.13275	62.10	ppb
	Mg	26	691.691	2.213	-0.000	-0.10187	41.36	ppb
	Al	27	3540.627	2.885	-0.003	-0.43457	11.65	ppb
	K	39	193420.254	1.486	0.008	0.70907	45.23	ppb
	Ca	44	3664.005	2.175	-0.001	-4.77733	7.26	ppb
>	Sc	45	601566.671	2.311	601566.671			ppb
	Ti	47	26.667	70.986	-0.000	-0.05692	99.57	ppb
	V	51	573.100	5.200	-0.000	-0.00129	386.47	ppb
	Cr	52	2156.232	0.885	0.001	0.08449	20.49	ppb
	Mn	55	286.671	6.125	0.000	0.01376	16.45	ppb
	Fe	54	15039.635	0.730	0.001	3.02770	43.93	ppb
	Fe	56	411228.895	20.940	0.090	10.06075	147.25	ppb
	Fe	57	1503.447	10.625	-0.000	-0.18548	718.48	ppb
	Co	59	55.333	25.387	-0.000	-0.00059	542.66	ppb
	Ni	60	55.556	29.597	0.000	0.02912	55.81	ppb
	Cu	63	460.011	6.913	0.000	0.03337	33.82	ppb
	Cu	65	226.669	10.294	0.000	0.08206	18.31	ppb
	Zn	66	304.449	6.030	0.000	0.20885	8.51	ppb
	As	75	2.950	672.436	0.000	0.00804	336.42	ppb
	Se	82	15.778	31.146	-0.000	-0.02004	378.61	ppb
	Mo	96	78.667	21.920	-0.001	-0.56474	2.03	ppb
	Ag	107	56.667	52.284	0.000	0.00643	93.00	ppb
	Ag	109	50.000	13.333	0.000	0.00244	56.72	ppb
	Cd	111	0.000		0.000	0.00707	0.00	ppb
	In	113	70512.729	0.186	0.000	0.05579	1053.97	ppb
>	In	115	1618000.989	1.152	1618000.989			ppb
	Sn	118	1468.442	13.564	0.001	0.38590	14.43	ppb
	Sb	121	780.031	7.799	0.000	0.12489	10.89	ppb
	Ba	135	62.667	20.269	0.000	0.02455	48.60	ppb
	Ba	137	120.001	10.138	0.000	0.03251	22.24	ppb
>	Tb	159	2915221.407	1.603	2915221.407			ppb
	Tl	205	81.667	43.003	0.000	0.00091	209.49	ppb
	Pb	206	106.667	23.123	0.000	0.01119	38.48	ppb
	Pb	207	180.001	4.811	0.000	0.00813	9.11	ppb
	Pb	208	336.670	14.876	0.000	0.00909	29.71	ppb
>	Bi	209	2594101.803	0.495	2594101.803			ppb
	Cr	53	111.334	4.149	-200.004			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	0.000		-10.000			ppb
	C	12	327568.946	0.986	13275.004			ppb
	Kr	83	13.333	22.913	-4.667			ppb
	Se	77	18.667	18.898	-10.222			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	495085.432		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	35425.638	2.354146	ppb
	Mg	24	4326.936	-0.239686	ppb
	Mg	25	595.018	-0.144134	ppb
	Mg	26	701.025	-0.130364	ppb
	Al	27	3505.614	-0.475444	ppb
	K	39	196601.801	0.339307	ppb
	Ca	44	3732.697	-4.983389	ppb
>	Sc	45	611066.597		ppb
	Ti	47	35.000	-0.034461	ppb
	V	51	607.152	0.004255	ppb
	Cr	52	2158.233	0.075982	ppb
	Mn	55	305.005	0.016320	ppb
	Fe	54	15126.432	2.499930	ppb
	Fe	56	510591.084	27.149741	ppb
	Fe	57	1385.096	-1.401213	ppb
	Co	59	54.000	-0.001085	ppb
	Ni	60	36.667	0.010623	ppb
	Cu	63	443.343	0.024006	ppb
	Cu	65	236.669	0.087402	ppb
	Zn	66	313.338	0.215212	ppb
	As	75	-9.291	-0.008596	ppb
	Se	82	12.000	-0.077523	ppb
	Mo	96	82.000	-0.563238	ppb
	Ag	107	80.000	0.011035	ppb
	Ag	109	50.000	0.002307	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	70663.790	-0.622395	ppb
>	In	115	1639502.730		ppb
	Sn	118	1515.115	0.393555	ppb
	Sb	121	740.027	0.114673	ppb
	Ba	135	70.000	0.032149	ppb
	Ba	137	134.001	0.040664	ppb
>	Tb	159	2905083.625		ppb
	Tl	205	45.000	-0.001089	ppb
	Pb	206	90.000	0.008236	ppb
	Pb	207	175.001	0.007664	ppb
	Pb	208	355.004	0.010045	ppb
>	Bi	209	2593512.945		ppb
	Cr	53	106.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	331296.442		ppb
	Kr	83	16.000		ppb
	Se	77	20.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	477806.614		ppb
	Be	9	2.000	0.000952	ppb
	Na	23	34560.619	2.491317	ppb
	Mg	24	4315.931	-0.166252	ppb
	Mg	25	557.016	-0.208905	ppb
	Mg	26	700.025	-0.053476	ppb
	Al	27	3460.599	-0.450336	ppb
	K	39	192649.997	0.911672	ppb
	Ca	44	3682.678	-4.377087	ppb
>	Sc	45	608024.301		ppb

	Ti	47	5.000	-0.121386	ppb
	V	51	560.360	-0.005464	ppb
	Cr	52	2136.228	0.073072	ppb
	Mn	55	285.004	0.012904	ppb
	Fe	54	14916.116	2.042499	ppb
	Fe	56	364836.038	0.861254	ppb
	Fe	57	1685.142	1.239276	ppb
	Co	59	42.000	-0.003505	ppb
	Ni	60	63.334	0.035633	ppb
	Cu	63	496.679	0.045899	ppb
	Cu	65	243.336	0.093688	ppb
	Zn	66	316.672	0.222565	ppb
	As	75	-7.697	-0.006542	ppb
	Se	82	14.000	-0.048574	ppb
	Mo	96	94.000	-0.554093	ppb
	Ag	107	23.333	-0.000331	ppb
	Ag	109	43.333	0.001130	ppb
	Cd	111	0.000	0.007074	ppb
	In	113	70427.129	0.423204	ppb
>	In	115	1606281.167		ppb
	Sn	118	1250.078	0.326783	ppb
	Sb	121	750.028	0.119667	ppb
	Ba	135	48.000	0.010798	ppb
	Ba	137	114.001	0.030005	ppb
>	Tb	159	2874389.109		ppb
	Tl	205	85.000	0.001115	ppb
	Pb	206	95.000	0.009206	ppb
	Pb	207	175.001	0.007740	ppb
	Pb	208	375.005	0.011183	ppb
>	Bi	209	2581562.589		ppb
	Cr	53	114.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	325769.234		ppb
	Kr	83	10.000		ppb
	Se	77	21.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	474179.960		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	35950.506	3.106272	ppb
	Mg	24	4358.950	-0.126203	ppb
	Mg	25	596.018	-0.045206	ppb
	Mg	26	674.023	-0.121781	ppb
	Al	27	3655.668	-0.377923	ppb
	K	39	191008.964	0.876236	ppb
	Ca	44	3576.640	-4.971515	ppb
>	Sc	45	585609.115		ppb
	Ti	47	40.000	-0.014919	ppb
	V	51	551.790	-0.002677	ppb
	Cr	52	2174.236	0.104409	ppb
	Mn	55	270.004	0.012041	ppb
	Fe	54	15076.356	4.540682	ppb
	Fe	56	358259.562	2.171249	ppb
	Fe	57	1440.104	-0.394488	ppb
	Co	59	70.000	0.002824	ppb
	Ni	60	66.667	0.041116	ppb
	Cu	63	440.010	0.030201	ppb
	Cu	65	200.002	0.065101	ppb
	Zn	66	283.337	0.188775	ppb
	As	75	25.839	0.039271	ppb
	Se	82	21.333	0.065970	ppb

⌈	Mo	96	60.000	-0.576901	ppb
|	Ag	107	66.667	0.008600	ppb
|	Ag	109	56.667	0.003891	ppb
|	Cd	111	0.000	0.007074	ppb
|	In	113	70447.270	0.366561	ppb
|>	In	115	1608219.070		ppb
⌊	Sn	118	1640.134	0.437364	ppb
⌈	Sb	121	850.036	0.140320	ppb
|	Ba	135	70.000	0.030716	ppb
|	Ba	137	112.001	0.026869	ppb
⌊>	Tb	159	2966191.486		ppb
⌈	Tl	205	115.001	0.002697	ppb
|	Pb	206	135.001	0.016133	ppb
|	Pb	207	190.001	0.008983	ppb
|	Pb	208	280.003	0.006041	ppb
⌊>	Bi	209	2607229.875		ppb
	Cr	53	114.001		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	325641.162		ppb
	Kr	83	14.000		ppb
	Se	77	14.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			90.017		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			89.331		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			90.429		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			88.538		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			90.661		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042701-BS1

Sample Date/Time: Thursday, April 30, 2009 17:18:35
Sample Type: Sample
Sample Description: LCSS 5X
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042701-BS1.2438

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	473894.801	3.891	473894.801			ppb
	Be	9	14042.522	1.970	0.030	62.26658	1.92	ppb
	Na	23	553056.384	2.599	1.109	195.76730	1.45	ppb
	Mg	24	2000739.596	1.567	4.215	1056.28461	2.49	ppb
	Mg	25	280569.961	0.646	0.591	1061.69505	3.39	ppb
	Mg	26	318147.812	1.599	0.670	1049.32549	2.49	ppb
	Al	27	12721433.687	0.394	26.862	4167.20512	4.01	ppb
	K	39	5645392.245	1.037	11.528	1083.50967	3.01	ppb
	Ca	44	240275.185	2.132	0.498	1798.95182	2.35	ppb
>	Sc	45	574787.152	1.709	574787.152			ppb
	Ti	47	42026.476	1.693	0.073	129.43683	1.30	ppb
	V	51	127251.389	1.497	0.220	29.76113	0.23	ppb
	Cr	52	95682.353	1.915	0.163	25.68498	1.21	ppb
	Mn	55	690254.125	1.447	1.201	134.93772	1.29	ppb
	Fe	54	1499437.621	1.515	2.585	5325.91428	0.73	ppb
	Fe	56	28837411.702	0.854	49.584	5534.06353	1.08	ppb
	Fe	57	612492.477	2.259	1.063	5560.39700	1.41	ppb
	Co	59	137480.927	2.309	0.239	29.99112	1.14	ppb
	Ni	60	22205.744	1.819	0.039	21.85776	0.47	ppb
	Cu	63	135120.165	1.192	0.234	56.19150	0.64	ppb
	Cu	65	66670.412	0.997	0.116	56.41487	1.57	ppb
	Zn	66	32815.984	1.268	0.057	51.90947	1.30	ppb
	As	75	24461.027	1.300	0.043	34.34105	0.41	ppb
	Se	82	2570.997	0.368	0.004	37.98603	1.73	ppb
	Mo	96	34328.155	0.528	0.022	23.24409	1.44	ppb
	Ag	107	58957.785	2.093	0.038	12.63420	1.34	ppb
	Ag	109	58606.865	2.540	0.038	12.65715	1.40	ppb
	Cd	111	107469.086	2.716	0.069	97.00010	1.66	ppb
	In	113	177298.399	2.155	0.071	99.83903	2.00	ppb
>	In	115	1547110.230	1.154	1547110.230			ppb
	Sn	118	105806.972	2.103	0.068	31.27053	1.07	ppb
	Sb	121	17109.625	0.890	0.006	4.67409	2.64	ppb
	Ba	135	68106.486	0.982	0.024	67.91399	1.08	ppb
	Ba	137	118978.995	1.011	0.041	67.76820	1.14	ppb
>	Tb	159	2893547.798	2.067	2893547.798			ppb
	Tl	205	1115488.372	1.480	0.442	62.47656	0.78	ppb
	Pb	206	188632.914	1.904	0.075	34.52657	0.98	ppb
	Pb	207	351009.023	1.488	0.139	33.95023	0.77	ppb
	Pb	208	589339.716	1.146	0.233	31.67705	0.27	ppb
>	Bi	209	2525716.326	1.177	2525716.326			ppb
	Cr	53	11098.823	1.486	10787.485			ppb
	Pd	106	9482.829	2.174	9482.829			ppb
	Pd	108	7180.912	2.252	7170.912			ppb
	C	12	326442.708	1.443	12148.766			ppb
	Kr	83	28.000	25.754	10.000			ppb
	Se	77	2031.095	0.792	2002.206			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	494629.690		ppb
	Be	9	14340.275	60.891028	ppb
	Na	23	568302.189	192.503145	ppb
	Mg	24	2029577.990	1025.880405	ppb
	Mg	25	282428.764	1022.954664	ppb
	Mg	26	322751.717	1019.185151	ppb
	Al	27	12710924.176	3985.025286	ppb
	K	39	5699640.595	1046.043259	ppb
	Ca	44	244466.099	1751.851249	ppb
>	Sc	45	585439.610		ppb
	Ti	47	42776.295	129.341437	ppb
	V	51	129354.493	29.701543	ppb
	Cr	52	96808.335	25.510660	ppb
	Mn	55	694593.331	133.303795	ppb
	Fe	54	1517864.804	5292.767645	ppb
	Fe	56	29117454.262	5484.944812	ppb
	Fe	57	627679.665	5594.703217	ppb
	Co	59	141110.635	30.224002	ppb
	Ni	60	22588.817	21.830359	ppb
	Cu	63	136630.393	55.781053	ppb
	Cu	65	66725.206	55.423980	ppb
	Zn	66	32984.309	51.217913	ppb
	As	75	24800.896	34.183087	ppb
	Se	82	2567.663	37.234515	ppb
	Mo	96	34128.137	22.929704	ppb
	Ag	107	60291.205	12.826346	ppb
	Ag	109	59493.113	12.756291	ppb
	Cd	111	108369.150	97.109972	ppb
	In	113	177822.102	99.146574	ppb
>	In	115	1558474.817		ppb
	Sn	118	106509.206	31.250567	ppb
	Sb	121	17034.496	4.541135	ppb
	Ba	135	68878.398	67.073885	ppb
	Ba	137	120274.980	66.900522	ppb
>	Tb	159	2962536.261		ppb
	Tl	205	1131172.812	63.012173	ppb
	Pb	206	191750.963	34.908709	ppb
	Pb	207	355917.525	34.238806	ppb
	Pb	208	594020.913	31.755528	ppb
>	Bi	209	2539476.554		ppb
	Cr	53	11126.186		ppb
	Pd	106	9654.658		ppb
	Pd	108	7302.665		ppb
	C	12	331784.221		ppb
	Kr	83	34.000		ppb
	Se	77	2046.209		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	467711.775		ppb
	Be	9	13993.784	62.839776	ppb
	Na	23	551119.368	197.689566	ppb
	Mg	24	2005262.218	1072.033169	ppb
	Mg	25	278809.293	1068.065220	ppb
	Mg	26	319004.304	1065.433290	ppb
	Al	27	12677425.113	4203.352286	ppb
	K	39	5653164.577	1099.034546	ppb
	Ca	44	241794.306	1833.907305	ppb
>	Sc	45	572840.456		ppb

	Ti	47	41360.357	127.809092	ppb
	V	51	126756.386	29.745313	ppb
	Cr	52	96671.017	26.044608	ppb
	Mn	55	697339.952	136.775453	ppb
	Fe	54	1506382.288	5368.949448	ppb
	Fe	56	28653815.335	5516.701850	ppb
	Fe	57	600610.808	5470.881686	ppb
	Co	59	135224.138	29.599964	ppb
	Ni	60	22244.714	21.970786	ppb
	Cu	63	135305.900	56.457089	ppb
	Cu	65	67305.743	57.138931	ppb
	Zn	66	33121.427	52.568655	ppb
	As	75	24411.390	34.386229	ppb
	Se	82	2581.667	38.267758	ppb
	Mo	96	34481.346	23.206405	ppb
	Ag	107	58725.261	12.510412	ppb
	Ag	109	59439.462	12.762472	ppb
	Cd	111	109831.986	98.557255	ppb
	In	113	180830.330	102.085155	ppb
>	In	115	1556315.781		ppb
	Sn	118	107595.745	31.613502	ppb
	Sb	121	17284.926	4.784466	ppb
	Ba	135	67722.543	68.408078	ppb
	Ba	137	117898.935	68.024736	ppb
>	Tb	159	2856042.692		ppb
	Tl	205	1117027.398	62.062880	ppb
	Pb	206	189442.587	34.398966	ppb
	Pb	207	351591.630	33.734872	ppb
	Pb	208	592399.911	31.586750	ppb
>	Bi	209	2546075.229		ppb
	Cr	53	11248.323		ppb
	Pd	106	9539.548		ppb
	Pd	108	6997.447		ppb
	C	12	322883.882		ppb
	Kr	83	30.000		ppb
	Se	77	2014.203		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	459342.938		ppb
	Be	9	13793.506	63.068948	ppb
	Na	23	539747.595	197.109192	ppb
	Mg	24	1967378.581	1070.940267	ppb
	Mg	25	280471.827	1094.065266	ppb
	Mg	26	312687.416	1063.358045	ppb
	Al	27	12775951.771	4313.237789	ppb
	K	39	5583371.564	1105.451219	ppb
	Ca	44	234565.150	1811.096915	ppb
>	Sc	45	566081.390		ppb
	Ti	47	41942.776	131.159946	ppb
	V	51	125643.289	29.836548	ppb
	Cr	52	93567.707	25.499678	ppb
	Mn	55	678829.092	134.733921	ppb
	Fe	54	1474065.771	5316.025760	ppb
	Fe	56	28740965.509	5600.543925	ppb
	Fe	57	609186.957	5615.606107	ppb
	Co	59	136108.008	30.149402	ppb
	Ni	60	21783.701	21.772136	ppb
	Cu	63	133424.202	56.336349	ppb
	Cu	65	65980.288	56.681690	ppb
	Zn	66	32342.217	51.941834	ppb
	As	75	24170.795	34.453845	ppb
	Se	82	2563.662	38.455809	ppb

⌈	Mo	96	34374.981	23.596167	ppb
|	Ag	107	57856.888	12.565854	ppb
|	Ag	109	56888.020	12.452701	ppb
|	Cd	111	104206.122	95.333065	ppb
|	In	113	173242.766	98.285353	ppb
|>	In	115	1526540.093		ppb
⌊	Sn	118	103315.967	30.947515	ppb
⌈	Sb	121	17009.454	4.696680	ppb
|	Ba	135	67718.516	68.260008	ppb
|	Ba	137	118763.070	68.379333	ppb
⌊>	Tb	159	2862064.441		ppb
⌈	Tl	205	1098264.905	62.354632	ppb
|	Pb	206	184705.191	34.272036	ppb
|	Pb	207	345517.914	33.877003	ppb
|	Pb	208	581598.326	31.688879	ppb
⌊>	Bi	209	2491597.194		ppb
	Cr	53	10921.961		ppb
	Pd	106	9254.280		ppb
	Pd	108	7242.622		ppb
	C	12	324660.022		ppb
	Kr	83	20.000		ppb
	Se	77	2032.873		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6			88.438		
Be	9					
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45			85.354		
Ti	47					
V	51					
Cr	52					
Mn	55					
Fe	54					
Fe	56					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
As	75					
Se	82					
Mo	96					
Ag	107					
Ag	109					
Cd	111					
In	113					
In	115			86.467		
Sn	118					
Sb	121					
Ba	135					
Ba	137					
Tb	159			87.879		
Tl	205					
Pb	206					
Pb	207					
Pb	208					
Bi	209			88.271		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 9042701-BSD1

Sample Date/Time: Thursday, April 30, 2009 17:21:09
Sample Type: Sample
Sample Description: LCSSD 5X
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\9042701-BSD1.2439

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	471868.034	3.027	471868.034			ppb
	Be	9	13216.730	1.583	0.028	58.85404	2.68	ppb
	Na	23	530346.660	1.482	1.066	188.15684	1.96	ppb
	Mg	24	1911376.462	0.299	4.043	1013.30758	2.95	ppb
	Mg	25	269490.215	1.027	0.570	1023.61892	2.22	ppb
	Mg	26	306932.617	1.199	0.649	1016.51122	2.85	ppb
	Al	27	12288244.813	0.572	26.046	4040.57504	2.75	ppb
	K	39	5459978.948	1.564	11.182	1050.92641	2.00	ppb
	Ca	44	228362.205	1.023	0.475	1715.46320	2.21	ppb
>	Sc	45	576944.762	1.206	576944.762			ppb
	Ti	47	39974.748	1.240	0.069	122.66218	2.19	ppb
	V	51	122004.377	0.898	0.211	28.42523	2.03	ppb
	Cr	52	92359.349	2.157	0.157	24.68566	2.96	ppb
	Mn	55	650734.146	0.442	1.128	126.73719	1.42	ppb
	Fe	54	1443267.906	2.314	2.479	5106.05235	3.17	ppb
	Fe	56	27871787.770	1.010	47.725	5326.62266	2.19	ppb
	Fe	57	590276.838	1.225	1.021	5338.34586	0.99	ppb
	Co	59	129455.262	0.965	0.224	28.13947	2.06	ppb
	Ni	60	21346.095	1.429	0.037	20.93657	2.63	ppb
	Cu	63	128919.168	1.656	0.223	53.40702	2.12	ppb
	Cu	65	63530.066	0.970	0.110	53.54970	1.72	ppb
	Zn	66	30743.856	0.990	0.053	48.43476	1.92	ppb
	As	75	22854.999	1.107	0.040	31.96972	2.03	ppb
	Se	82	2426.072	0.398	0.004	35.69253	1.25	ppb
	Mo	96	33042.507	1.386	0.021	22.66069	2.62	ppb
	Ag	107	80569.941	0.171	0.053	17.50110	1.01	ppb
	Ag	109	79942.721	0.585	0.052	17.50315	1.42	ppb
	Cd	111	102487.413	1.346	0.067	93.76667	2.08	ppb
	In	113	169852.409	2.060	0.068	95.14326	1.46	ppb
>	In	115	1526643.202	1.181	1526643.202			ppb
	Sn	118	101913.438	1.599	0.067	30.52421	0.67	ppb
	Sb	121	16298.281	3.370	0.005	4.42802	2.88	ppb
	Ba	135	64420.843	0.725	0.022	63.97233	1.04	ppb
	Ba	137	111539.952	0.509	0.038	63.26687	0.82	ppb
>	Tb	159	2905153.918	0.552	2905153.918			ppb
	Tl	205	1067161.567	0.895	0.425	60.18930	0.65	ppb
	Pb	206	181143.810	3.380	0.072	33.38954	3.31	ppb
	Pb	207	335557.417	3.062	0.134	32.68324	2.98	ppb
	Pb	208	550509.413	1.195	0.219	29.79769	1.39	ppb
>	Bi	209	2508145.839	0.784	2508145.839			ppb
	Cr	53	10728.421	2.635	10417.083			ppb
	Pd	106	8733.813	2.051	8733.813			ppb
	Pd	108	6803.981	2.224	6793.981			ppb
	C	12	328884.348	0.878	14590.406			ppb
	Kr	83	26.667	26.339	8.667			ppb
	Se	77	1911.071	1.098	1882.183			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	487208.351		ppb
	Be	9	13402.976	57.777603	ppb
	Na	23	539374.237	185.112830	ppb
	Mg	24	1910394.058	980.238201	ppb
	Mg	25	272642.717	1002.505883	ppb
	Mg	26	309805.777	993.146543	ppb
	Al	27	12301053.278	3915.242394	ppb
	K	39	5514418.973	1026.809016	ppb
	Ca	44	230060.292	1672.295358	ppb
>	Sc	45	570708.597		ppb
	Ti	47	40526.956	125.699332	ppb
	V	51	123264.388	29.030808	ppb
	Cr	52	94433.792	25.527563	ppb
	Mn	55	653587.954	128.670493	ppb
	Fe	54	1479710.400	5292.906915	ppb
	Fe	56	28186690.400	5446.203230	ppb
	Fe	57	589789.369	5392.188500	ppb
	Co	59	130897.132	28.759488	ppb
	Ni	60	21609.991	21.423027	ppb
	Cu	63	130570.234	54.679914	ppb
	Cu	65	64091.396	54.608894	ppb
	Zn	66	31071.530	49.484591	ppb
	As	75	23131.258	32.704910	ppb
	Se	82	2432.296	36.174997	ppb
	Mo	96	33387.644	23.084141	ppb
	Ag	107	80506.096	17.623458	ppb
	Ag	109	80442.252	17.749389	ppb
	Cd	111	104031.573	95.915689	ppb
	In	113	167241.895	93.962241	ppb
>	In	115	1514725.232		ppb
	Sn	118	101482.334	30.635074	ppb
	Sb	121	15767.421	4.302878	ppb
	Ba	135	64233.638	64.099501	ppb
	Ba	137	111225.131	63.398268	ppb
>	Tb	159	2890884.483		ppb
	Tl	205	1058866.112	60.265290	ppb
	Pb	206	179415.180	33.372041	ppb
	Pb	207	332315.233	32.662235	ppb
	Pb	208	549662.984	30.021968	ppb
>	Bi	209	2485492.121		ppb
	Cr	53	11048.100		ppb
	Pd	106	8608.704		ppb
	Pd	108	6917.392		ppb
	C	12	332112.864		ppb
	Kr	83	26.000		ppb
	Se	77	1886.845		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	469442.091		ppb
	Be	9	12990.432	58.118570	ppb
	Na	23	525004.998	187.105132	ppb
	Mg	24	1917525.395	1021.234787	ppb
	Mg	25	267457.476	1020.700208	ppb
	Mg	26	302783.532	1007.403049	ppb
	Al	27	12351301.874	4080.081504	ppb
	K	39	5503980.036	1064.978766	ppb
	Ca	44	229329.797	1731.185756	ppb
>	Sc	45	584454.414		ppb

	Ti	47	39829.160	120.624123	ppb
	V	51	121271.884	27.884694	ppb
	Cr	52	92182.935	24.310612	ppb
	Mn	55	650772.971	125.102036	ppb
	Fe	54	1435980.239	5013.139238	ppb
	Fe	56	27644035.314	5212.930782	ppb
	Fe	57	597741.303	5336.223270	ppb
	Co	59	128682.668	27.607506	ppb
	Ni	60	21012.052	20.339172	ppb
	Cu	63	129678.745	53.024815	ppb
	Cu	65	63628.454	52.936276	ppb
	Zn	66	30690.356	47.718989	ppb
	As	75	22799.362	31.477633	ppb
	Se	82	2430.962	35.298925	ppb
	Mo	96	32522.801	21.982806	ppb
	Ag	107	80727.873	17.298832	ppb
	Ag	109	79871.034	17.251077	ppb
	Cd	111	102053.129	92.105473	ppb
	In	113	173827.787	96.667557	ppb
>	In	115	1547392.756		ppb
	Sn	118	103715.066	30.648118	ppb
	Sb	121	16263.214	4.423536	ppb
	Ba	135	64952.257	64.566746	ppb
	Ba	137	112195.885	63.704960	ppb
>	Tb	159	2902084.466		ppb
	Tl	205	1077608.545	60.534171	ppb
	Pb	206	187944.718	34.504068	ppb
	Pb	207	347060.620	33.668034	ppb
	Pb	208	557470.265	30.052303	ppb
>	Bi	209	2518251.683		ppb
	Cr	53	10511.522		ppb
	Pd	106	8653.743		ppb
	Pd	108	6632.199		ppb
	C	12	327990.087		ppb
	Kr	83	20.000		ppb
	Se	77	1923.518		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	458953.662		ppb
	Be	9	13256.781	60.665958	ppb
	Na	23	526660.745	192.252550	ppb
	Mg	24	1906209.933	1038.449741	ppb
	Mg	25	268370.453	1047.650659	ppb
	Mg	26	308208.542	1048.984056	ppb
	Al	27	12212379.286	4126.401225	ppb
	K	39	5361537.836	1060.991459	ppb
	Ca	44	225696.525	1742.908480	ppb
>	Sc	45	575671.275		ppb
	Ti	47	39568.127	121.663070	ppb
	V	51	121476.859	28.360192	ppb
	Cr	52	90461.320	24.218796	ppb
	Mn	55	647841.513	126.439039	ppb
	Fe	54	1414113.078	5012.110907	ppb
	Fe	56	27784637.595	5320.733969	ppb
	Fe	57	583299.843	5286.625811	ppb
	Co	59	128785.986	28.051419	ppb
	Ni	60	21416.242	21.047519	ppb
	Cu	63	126508.524	52.516332	ppb
	Cu	65	62870.348	53.103921	ppb
	Zn	66	30469.683	48.100713	ppb
	As	75	22634.377	31.726605	ppb
	Se	82	2414.958	35.603661	ppb

⌈	Mo	96	33217.077	22.915111	ppb
|	Ag	107	80475.854	17.581002	ppb
|	Ag	109	79514.879	17.508983	ppb
|	Cd	111	101377.538	93.278835	ppb
|	In	113	168487.545	94.799990	ppb
|>	In	115	1517811.617		ppb
⌊	Sn	118	100542.916	30.289436	ppb
⌈	Sb	121	16864.208	4.557662	ppb
|	Ba	135	64076.635	63.250756	ppb
|	Ba	137	111198.841	62.697367	ppb
⌊>	Tb	159	2922492.805		ppb
⌈	Tl	205	1065010.044	59.768451	ppb
|	Pb	206	176071.532	32.292498	ppb
|	Pb	207	327296.399	31.719454	ppb
|	Pb	208	544394.990	29.318797	ppb
⌊>	Bi	209	2520693.712		ppb
	Cr	53	10625.642		ppb
	Pd	106	8938.993		ppb
	Pd	108	6862.354		ppb
	C	12	326550.093		ppb
	Kr	83	34.000		ppb
	Se	77	1922.852		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.060			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		85.675			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		85.323			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		88.232			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		87.657			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, April 30, 2009 17:23:44
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCV.2440

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	523151.184	3.011	523151.184			ppb
	Be	9	30205.571	2.606	0.058	121.28319	0.57	ppb
	Na	23	3644444.423	1.490	6.911	1219.67046	2.09	ppb
	Mg	24	2536119.247	2.177	4.840	1212.93762	2.69	ppb
	Mg	25	351671.681	1.186	0.671	1205.23802	2.31	ppb
	Mg	26	399582.602	1.151	0.763	1193.86084	1.90	ppb
	Al	27	4012734.209	0.480	7.665	1189.03502	2.91	ppb
	K	39	6449729.606	0.704	11.941	1122.29599	2.40	ppb
	Ca	44	166031.021	0.778	0.309	1113.91165	2.33	ppb
>	Sc	45	631791.985	0.273	631791.985			ppb
	Ti	47	42702.659	1.361	0.068	119.63334	1.10	ppb
	V	51	554163.675	1.906	0.876	118.29061	1.66	ppb
	Cr	52	480487.763	1.270	0.757	119.04968	1.00	ppb
	Mn	55	688190.834	1.046	1.089	122.38019	0.77	ppb
	Fe	54	386283.307	1.132	0.588	1211.06128	0.89	ppb
	Fe	56	7216567.023	0.915	10.830	1208.73372	0.73	ppb
	Fe	57	147418.849	1.609	0.231	1207.19075	1.40	ppb
	Co	59	607815.591	1.249	0.962	120.66923	1.02	ppb
	Ni	60	133703.538	1.217	0.212	119.83751	1.02	ppb
	Cu	63	317793.160	0.958	0.502	120.39599	0.71	ppb
	Cu	65	157593.193	0.344	0.249	121.41910	0.50	ppb
	Zn	66	85088.291	1.393	0.134	122.78444	1.46	ppb
	As	75	94714.446	0.997	0.150	120.95659	0.75	ppb
	Se	82	9158.637	0.816	0.014	123.63368	0.73	ppb
	Mo	96	187986.511	0.394	0.111	119.24856	1.01	ppb
	Ag	107	609418.743	1.842	0.361	119.84482	0.86	ppb
	Ag	109	600396.029	1.350	0.356	119.03422	1.32	ppb
	Cd	111	143767.688	0.274	0.085	119.05986	1.03	ppb
	In	113	220592.238	2.162	0.087	122.60922	2.42	ppb
>	In	115	1686501.659	1.297	1686501.659			ppb
	Sn	118	443752.436	0.742	0.263	120.40598	0.56	ppb
	Sb	121	479909.366	1.629	0.151	121.23198	1.91	ppb
	Ba	135	132532.525	1.048	0.042	120.02418	1.29	ppb
	Ba	137	231149.251	1.265	0.073	119.56857	1.48	ppb
>	Tb	159	3186426.590	0.284	3186426.590			ppb
	Tl	205	2360831.597	1.859	0.835	118.07436	1.38	ppb
	Pb	206	734070.824	0.177	0.260	120.01302	1.17	ppb
	Pb	207	1381717.585	0.376	0.488	119.36687	0.89	ppb
	Pb	208	2290501.908	0.551	0.810	109.96168	0.76	ppb
>	Bi	209	2828510.627	1.162	2828510.627			ppb
	Cr	53	56117.035	1.359	55805.697			ppb
	Pd	106	12249.168	2.631	12249.168			ppb
	Pd	108	9477.828	4.290	9467.828			ppb
	C	12	312722.579	0.533	-1571.364			ppb
	Kr	83	29.333	14.193	11.333			ppb
	Se	77	7209.265	2.036	7180.376			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	540340.355		ppb
	Be	9	31012.013	120.549728	ppb
	Na	23	3676527.037	1190.582738	ppb
	Mg	24	2547111.482	1178.921710	ppb
	Mg	25	353724.322	1173.140483	ppb
	Mg	26	403989.817	1168.140229	ppb
	Al	27	4010312.096	1149.800025	ppb
	K	39	6491653.859	1092.187862	ppb
	Ca	44	167519.484	1086.895100	ppb
>	Sc	45	633718.230		ppb
	Ti	47	43373.861	121.148394	ppb
	V	51	563876.527	120.003171	ppb
	Cr	52	486967.011	120.295433	ppb
	Mn	55	696269.058	123.442456	ppb
	Fe	54	391059.744	1222.779771	ppb
	Fe	56	7270648.548	1214.395566	ppb
	Fe	57	149286.060	1218.916746	ppb
	Co	59	614246.836	121.577282	ppb
	Ni	60	134826.152	120.478002	ppb
	Cu	63	320625.604	121.102090	ppb
	Cu	65	157253.453	120.787719	ppb
	Zn	66	84539.173	121.617766	ppb
	As	75	95794.770	121.965788	ppb
	Se	82	9218.247	124.061242	ppb
	Mo	96	188640.639	119.218618	ppb
	Ag	107	617593.130	121.015257	ppb
	Ag	109	609413.487	120.376780	ppb
	Cd	111	143940.552	118.759512	ppb
	In	113	225468.466	125.992282	ppb
>	In	115	1692649.129		ppb
	Sn	118	444739.530	120.229688	ppb
	Sb	121	472861.686	119.180562	ppb
	Ba	135	132343.990	119.584588	ppb
	Ba	137	231398.645	119.429131	ppb
>	Tb	159	3193518.350		ppb
	Tl	205	2351278.092	118.959422	ppb
	Pb	206	733252.197	121.256958	ppb
	Pb	207	1375755.266	120.220446	ppb
	Pb	208	2275941.225	110.522260	ppb
>	Bi	209	2796123.431		ppb
	Cr	53	56995.965		ppb
	Pd	106	12602.937		ppb
	Pd	108	9864.863		ppb
	C	12	312462.549		ppb
	Kr	83	34.000		ppb
	Se	77	7205.262		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	519702.505		ppb
	Be	9	30165.429	121.915437	ppb
	Na	23	3675047.115	1237.767273	ppb
	Mg	24	2585002.754	1244.106110	ppb
	Mg	25	354420.326	1222.223059	ppb
	Mg	26	399948.123	1202.446232	ppb
	Al	27	4033096.385	1202.323323	ppb
	K	39	6456065.426	1130.592132	ppb
	Ca	44	165355.919	1116.307913	ppb
>	Sc	45	631270.456		ppb

	Ti	47	42359.527	118.771344	ppb
	V	51	555693.387	118.718826	ppb
	Cr	52	479645.587	118.940886	ppb
	Mn	55	685849.689	122.066239	ppb
	Fe	54	385312.994	1208.954931	ppb
	Fe	56	7236115.292	1213.255198	ppb
	Fe	57	148220.383	1214.864576	ppb
	Co	59	609756.123	121.156371	ppb
	Ni	60	134447.775	120.605763	ppb
	Cu	63	318179.301	120.643536	ppb
	Cu	65	158218.497	122.001227	ppb
	Zn	66	86448.728	124.853798	ppb
	As	75	94045.592	120.203080	ppb
	Se	82	9074.782	122.601149	ppb
	Mo	96	188135.251	118.056157	ppb
	Ag	107	614040.738	119.472039	ppb
	Ag	109	598064.812	117.303190	ppb
	Cd	111	144045.344	118.009315	ppb
	In	113	220371.721	120.473046	ppb
>	In	115	1704650.236		ppb
	Sn	118	446437.745	119.839008	ppb
	Sb	121	488318.585	123.748942	ppb
	Ba	135	134005.903	121.745271	ppb
	Ba	137	233940.776	121.398200	ppb
>	Tb	159	3176249.756		ppb
	Tl	205	2322516.125	116.197849	ppb
	Pb	206	735568.368	120.287618	ppb
	Pb	207	1385285.919	119.707467	ppb
	Pb	208	2298300.434	110.367264	ppb
>	Bi	209	2827558.062		ppb
	Cr	53	55722.820		ppb
	Pd	106	12172.404		ppb
	Pd	108	9054.097		ppb
	C	12	311202.146		ppb
	Kr	83	28.000		ppb
	Se	77	7358.039		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	509410.692		ppb
	Be	9	29439.270	121.384395	ppb
	Na	23	3581759.116	1230.661374	ppb
	Mg	24	2476243.503	1215.785041	ppb
	Mg	25	346870.394	1220.350512	ppb
	Mg	26	394809.868	1210.996058	ppb
	Al	27	3994794.147	1214.981725	ppb
	K	39	6401469.533	1144.107986	ppb
	Ca	44	165217.661	1138.531927	ppb
>	Sc	45	630387.271		ppb
	Ti	47	42374.590	118.980279	ppb
	V	51	542921.113	116.149842	ppb
	Cr	52	474850.690	117.912711	ppb
	Mn	55	682453.756	121.631866	ppb
	Fe	54	382477.184	1201.449144	ppb
	Fe	56	7142937.230	1198.550406	ppb
	Fe	57	144750.102	1187.790916	ppb
	Co	59	599443.815	119.274035	ppb
	Ni	60	131836.688	118.428767	ppb
	Cu	63	314574.573	119.442356	ppb
	Cu	65	157307.629	121.468363	ppb
	Zn	66	84276.974	121.881749	ppb
	As	75	94302.976	120.700905	ppb
	Se	82	9182.881	124.238654	ppb

⌈	Mo	96	187183.642	120.470901	ppb
|	Ag	107	596622.360	119.047174	ppb
|	Ag	109	593709.789	119.422687	ppb
|	Cd	111	143317.166	120.410760	ppb
|	In	113	215936.526	121.362319	ppb
|>	In	115	1662205.610		ppb
⌊	Sn	118	440080.033	121.149229	ppb
⌈	Sb	121	478547.825	120.766422	ppb
|	Ba	135	131247.682	118.742692	ppb
|	Ba	137	228108.332	117.878375	ppb
⌊>	Tb	159	3189511.662		ppb
⌈	Tl	205	2408700.572	119.065815	ppb
|	Pb	206	733391.905	118.494494	ppb
|	Pb	207	1384111.570	118.172687	ppb
|	Pb	208	2297264.064	108.995503	ppb
⌊>	Bi	209	2861850.387		ppb
	Cr	53	55632.318		ppb
	Pd	106	11972.162		ppb
	Pd	108	9514.524		ppb
	C	12	314503.042		ppb
	Kr	83	26.000		ppb
	Se	77	7064.494		ppb

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	6			97.630		
Be	9	101.069				
Na	23					
Mg	24					
Mg	25					
Mg	26					
Al	27					
K	39					
Ca	44					
Sc	45			93.820		
Ti	47					
V	51	98.576				
Cr	52	99.208				
Mn	55	101.983				
Fe	54					
Fe	56					
Fe	57					
Co	59	100.558				
Ni	60	99.865				
Cu	63	100.330				
Cu	65	101.183				
Zn	66	102.320				
As	75	100.797				
Se	82	103.028				
Mo	96					
Ag	107	99.871				
Ag	109	99.195				
Cd	111	99.217				
In	113					
In	115			94.257		
Sn	118	100.338				
Sb	121	101.027				
Ba	135	100.020				
Ba	137	99.640				
Tb	159			96.774		
Tl	205	98.395				
Pb	206	100.011				
Pb	207	99.472				
Pb	208	91.635				
Bi	209			98.853		
Cr	53					
Pd	106					
Pd	108					
C	12					
Kr	83					
Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, April 30, 2009 17:26:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCB.2441

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	486633.655	1.146	486633.655			ppb
	Be	9	2.000	100.000	0.000	0.00079	1083.19	ppb
	Na	23	15060.332	0.516	-0.027	-4.81221	0.97	ppb
	Mg	24	1806.830	2.040	-0.006	-1.49929	1.84	ppb
	Mg	25	251.003	8.980	-0.001	-1.37560	6.44	ppb
	Mg	26	319.672	0.361	-0.001	-1.31863	0.80	ppb
	Al	27	785.034	36.363	-0.009	-1.32410	6.72	ppb
	K	39	179739.413	2.157	-0.024	-2.26679	35.62	ppb
	Ca	44	2526.320	7.312	-0.004	-13.46211	9.54	ppb
>	Sc	45	590729.316	1.310	590729.316			ppb
	Ti	47	36.667	28.386	-0.000	-0.02585	123.29	ppb
	V	51	509.423	5.708	-0.000	-0.01348	44.74	ppb
	Cr	52	1742.819	2.022	-0.000	-0.01546	28.09	ppb
	Mn	55	258.337	14.002	0.000	0.00944	79.93	ppb
	Fe	54	13397.313	4.353	-0.001	-1.77979	96.96	ppb
	Fe	56	332218.284	0.097	-0.030	-3.33299	26.56	ppb
	Fe	57	1478.444	13.101	-0.000	-0.17857	881.63	ppb
	Co	59	80.000	21.651	0.000	0.00485	80.65	ppb
	Ni	60	38.889	26.186	0.000	0.01399	72.96	ppb
	Cu	63	262.226	13.593	-0.000	-0.04358	30.42	ppb
	Cu	65	101.112	26.850	-0.000	-0.01772	131.17	ppb
	Zn	66	158.890	9.690	-0.000	-0.00765	276.99	ppb
	As	75	21.931	89.839	0.000	0.03376	80.82	ppb
	Se	82	20.222	15.227	0.000	0.04728	95.60	ppb
	Mo	96	382.674	21.013	-0.000	-0.36204	15.30	ppb
	Ag	107	80.000	16.667	0.000	0.01129	24.90	ppb
	Ag	109	110.001	25.891	0.000	0.01484	37.96	ppb
	Cd	111	4.363	10.786	0.000	0.01085	3.81	ppb
	In	113	70418.749	0.867	0.000	0.07666	556.34	ppb
>	In	115	1615240.130	1.215	1615240.130			ppb
	Sn	118	301.671	25.908	0.000	0.05619	40.95	ppb
	Sb	121	3012.121	5.076	0.001	0.70840	8.19	ppb
	Ba	135	30.667	13.576	-0.000	-0.00828	49.01	ppb
	Ba	137	57.334	29.255	-0.000	-0.00432	206.95	ppb
>	Tb	159	3040256.649	2.298	3040256.649			ppb
	Tl	205	436.676	15.546	0.000	0.01928	15.90	ppb
	Pb	206	48.333	31.604	0.000	0.00050	559.56	ppb
	Pb	207	78.334	14.741	-0.000	-0.00173	66.91	ppb
	Pb	208	183.335	8.767	0.000	0.00068	137.02	ppb
>	Bi	209	2701395.213	2.254	2701395.213			ppb
	Cr	53	76.667	13.130	-234.671			ppb
	Pd	106	1.667	173.205	1.667			ppb
	Pd	108	3.333	86.603	-6.667			ppb
	C	12	302041.110	0.823	-12252.833			ppb
	Kr	83	14.000	14.286	-4.000			ppb
	Se	77	24.889	9.407	-4.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	490035.593		ppb
	Be	9	4.000	0.009306	ppb
	Na	23	15042.305	-4.856941	ppb
	Mg	24	1765.156	-1.527241	ppb
	Mg	25	225.003	-1.477697	ppb
	Mg	26	319.005	-1.327974	ppb
	Al	27	1110.062	-1.222499	ppb
	K	39	183765.108	-1.738130	ppb
	Ca	44	2738.375	-12.027263	ppb
>	Sc	45	582494.897		ppb
	Ti	47	45.000	0.000939	ppb
	V	51	482.533	-0.018049	ppb
	Cr	52	1702.145	-0.019852	ppb
	Mn	55	300.005	0.018107	ppb
	Fe	54	13233.751	-1.692546	ppb
	Fe	56	332554.173	-2.389042	ppb
	Fe	57	1255.079	-1.987169	ppb
	Co	59	100.001	0.009365	ppb
	Ni	60	50.000	0.025254	ppb
	Cu	63	240.003	-0.051125	ppb
	Cu	65	120.001	-0.000919	ppb
	Zn	66	150.001	-0.017982	ppb
	As	75	40.935	0.060371	ppb
	Se	82	22.000	0.077415	ppb
	Mo	96	458.010	-0.308214	ppb
	Ag	107	80.000	0.011489	ppb
	Ag	109	80.000	0.008883	ppb
	Cd	111	4.635	0.011132	ppb
	In	113	69722.215	0.245047	ppb
>	In	115	1594815.308		ppb
	Sn	118	385.007	0.081076	ppb
	Sb	121	3170.503	0.765887	ppb
	Ba	135	34.000	-0.004494	ppb
	Ba	137	66.000	0.001105	ppb
>	Tb	159	2982077.655		ppb
	Tl	205	365.007	0.016066	ppb
	Pb	206	65.000	0.003603	ppb
	Pb	207	85.000	-0.000937	ppb
	Pb	208	190.001	0.001255	ppb
>	Bi	209	2633364.783		ppb
	Cr	53	86.000		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	304347.963		ppb
	Kr	83	12.000		ppb
	Se	77	24.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	480199.231		ppb
	Be	9	2.000	0.000909	ppb
	Na	23	14993.231	-4.764004	ppb
	Mg	24	1835.168	-1.472211	ppb
	Mg	25	263.003	-1.318714	ppb
	Mg	26	319.005	-1.307098	ppb
	Al	27	575.017	-1.388153	ppb
	K	39	179423.325	-1.865961	ppb
	Ca	44	2440.298	-13.854735	ppb
>	Sc	45	597847.370		ppb

	Ti	47	40.000	-0.017396	ppb
	V	51	505.460	-0.015744	ppb
	Cr	52	1764.156	-0.015344	ppb
	Mn	55	235.003	0.004401	ppb
	Fe	54	14044.856	-0.099468	ppb
	Fe	56	331913.403	-4.144963	ppb
	Fe	57	1580.125	0.567250	ppb
	Co	59	70.000	0.002517	ppb
	Ni	60	36.667	0.011374	ppb
	Cu	63	303.338	-0.028272	ppb
	Cu	65	70.000	-0.044241	ppb
	Zn	66	176.668	0.016727	ppb
	As	75	23.263	0.035066	ppb
	Se	82	22.000	0.069127	ppb
	Mo	96	392.008	-0.359047	ppb
	Ag	107	66.667	0.008384	ppb
	Ag	109	136.668	0.020077	ppb
	Cd	111	4.635	0.011035	ppb
	In	113	70673.860	-0.408306	ppb
>	In	115	1633960.615		ppb
	Sn	118	290.004	0.051817	ppb
	Sb	121	3000.450	0.709525	ppb
	Ba	135	26.000	-0.012561	ppb
	Ba	137	38.000	-0.014646	ppb
>	Tb	159	3020949.565		ppb
	Tl	205	445.010	0.019602	ppb
	Pb	206	45.000	-0.000161	ppb
	Pb	207	85.000	-0.001189	ppb
	Pb	208	195.001	0.001193	ppb
>	Bi	209	2720004.861		ppb
	Cr	53	78.000		ppb
	Pd	106	0.000		ppb
	Pd	108	5.000		ppb
	C	12	299408.150		ppb
	Kr	83	14.000		ppb
	Se	77	27.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	489666.139		ppb
	Be	9	0.000	-0.007840	ppb
	Na	23	15145.461	-4.815673	ppb
	Mg	24	1820.166	-1.498406	ppb
	Mg	25	265.004	-1.330393	ppb
	Mg	26	321.005	-1.320811	ppb
	Al	27	670.022	-1.361645	ppb
	K	39	176029.807	-3.196272	ppb
	Ca	44	2400.288	-14.504323	ppb
>	Sc	45	591845.681		ppb
	Ti	47	25.000	-0.061105	ppb
	V	51	540.277	-0.006643	ppb
	Cr	52	1762.155	-0.011172	ppb
	Mn	55	240.003	0.005798	ppb
	Fe	54	12913.332	-3.547348	ppb
	Fe	56	332187.276	-3.464963	ppb
	Fe	57	1600.128	0.884222	ppb
	Co	59	70.000	0.002666	ppb
	Ni	60	30.000	0.005346	ppb
	Cu	63	243.336	-0.051335	ppb
	Cu	65	113.334	-0.007992	ppb
	Zn	66	150.001	-0.021699	ppb
	As	75	1.596	0.005848	ppb
	Se	82	16.667	-0.004692	ppb

⌈	Mo	96	298.004	-0.418845	ppb
|	Ag	107	93.334	0.013996	ppb
|	Ag	109	113.334	0.015546	ppb
|	Cd	111	3.820	0.010373	ppb
|	In	113	70860.172	0.393232	ppb
|>	In	115	1616944.467		ppb
⌊	Sn	118	230.003	0.035688	ppb
⌈	Sb	121	2865.410	0.649797	ppb
|	Ba	135	32.000	-0.007777	ppb
|	Ba	137	68.000	0.000575	ppb
⌊>	Tb	159	3117742.729		ppb
⌈	Tl	205	500.013	0.022171	ppb
|	Pb	206	35.000	-0.001928	ppb
|	Pb	207	65.000	-0.003051	ppb
|	Pb	208	165.001	-0.000397	ppb
⌊>	Bi	209	2750815.996		ppb
	Cr	53	66.000		ppb
	Pd	106	5.000		ppb
	Pd	108	0.000		ppb
	C	12	302367.215		ppb
	Kr	83	16.000		ppb
	Se	77	22.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		90.815			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		87.722			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		90.275			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		92.335			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		94.411			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-01

Sample Date/Time: Thursday, April 30, 2009 17:30:21
Sample Type: Sample
Sample Description: MW-1A
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-01.2442

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	490563.501	0.612	490563.501			ppb
	Be	9	372.674	8.676	0.001	1.58754	8.31	ppb
	Na	23	540613.659	1.648	1.044	184.22363	1.68	ppb
	Mg	24	25979825.343	1.307	52.953	13270.44569	1.75	ppb
	Mg	25	3746076.486	1.731	7.635	13710.07182	2.12	ppb
	Mg	26	4398115.057	1.214	8.965	14034.31098	1.75	ppb
	Al	27	100823314.619	1.422	205.529	31884.40052	1.89	ppb
	K	39	24291397.759	0.517	49.125	4617.20342	0.96	ppb
	Ca	44	3457403.188	0.932	7.039	25409.74808	1.54	ppb
>	Sc	45	603852.743	0.394	603852.743			ppb
	Ti	47	10935.980	3.083	0.018	31.95641	3.10	ppb
	V	51	191573.612	0.448	0.316	42.70384	0.71	ppb
	Cr	52	176962.107	0.772	0.290	45.58132	0.97	ppb
	Mn	55	19466529.632	0.654	32.237	3623.07957	0.62	ppb
	Fe	54	19656305.204	0.802	32.528	67012.04127	0.84	ppb
	Fe	56	S	S	1333333517.352	148813702552.73569	86.60	ppb
	Fe	57	8146092.116	1.301	13.487	70546.49518	0.91	ppb
	Co	59	113642.801	1.074	0.188	23.59547	0.70	ppb
	Ni	60	53488.247	1.587	0.089	50.14534	1.33	ppb
	Cu	63	157625.922	0.272	0.260	62.40840	0.12	ppb
	Cu	65	78220.299	0.843	0.129	63.00453	0.66	ppb
	Zn	66	84910.082	0.607	0.140	128.20612	0.37	ppb
	As	75	7812.936	0.677	0.013	10.44305	1.07	ppb
	Se	82	67.111	8.029	0.000	0.70435	10.70	ppb
	Mo	96	9803.470	0.869	0.006	6.46856	0.80	ppb
	Ag	107	328850.906	0.586	0.221	73.31203	0.73	ppb
	Ag	109	325445.515	0.611	0.219	73.13821	0.89	ppb
	Cd	111	1047.947	9.635	0.001	0.99056	9.30	ppb
	In	113	64928.477	1.708	0.000	0.13859	673.79	ppb
>	In	115	1487716.798	0.283	1487716.798			ppb
	Sn	118	2757.047	5.183	0.002	0.81872	5.09	ppb
	Sb	121	1043.388	10.238	0.000	0.19325	13.94	ppb
	Ba	135	206368.342	0.457	0.070	201.18717	1.16	ppb
	Ba	137	359964.201	0.284	0.122	200.44772	1.36	ppb
>	Tb	159	2960552.442	1.112	2960552.442			ppb
	Tl	205	4267.578	3.869	0.002	0.24338	5.41	ppb
	Pb	206	197404.679	1.522	0.081	37.30931	0.97	ppb
	Pb	207	365504.942	1.981	0.149	36.49988	0.38	ppb
	Pb	208	603382.283	2.028	0.247	33.48395	0.47	ppb
>	Bi	209	2446272.440	1.607	2446272.440			ppb
	Cr	53	20569.802	0.743	20258.463			ppb
	Pd	106	1533.452	10.221	1533.452			ppb
	Pd	108	528.347	4.268	518.347			ppb
	C	12	361433.386	0.840	47139.443			ppb
	Kr	83	51.333	2.249	33.333			ppb
	Se	77	92.000	5.931	63.111			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	493287.782		ppb
	Be	9	378.007	1.601810	ppb
	Na	23	536724.207	181.756677	ppb
	Mg	24	25597641.335	13002.207261	ppb
	Mg	25	3675378.179	13376.141438	ppb
	Mg	26	4336616.180	13760.691706	ppb
	Al	27	99182845.760	31190.326421	ppb
	K	39	24328334.240	4598.382674	ppb
	Ca	44	3424095.137	25023.930466	ppb
>	Sc	45	606559.222		ppb
	Ti	47	10895.933	31.696055	ppb
	V	51	191028.268	42.390686	ppb
	Cr	52	176797.168	45.332339	ppb
	Mn	55	19545647.883	3621.559864	ppb
	Fe	54	19713114.225	66905.284447	ppb
	Fe	56	223220522955.452510		ppb
	Fe	57	8263463.046	71245.438285	ppb
	Co	59	115050.040	23.781571	ppb
	Ni	60	54297.009	50.677660	ppb
	Cu	63	158110.137	62.320385	ppb
	Cu	65	78621.188	63.045204	ppb
	Zn	66	85440.115	128.431549	ppb
	As	75	7751.954	10.315065	ppb
	Se	82	68.000	0.712690	ppb
	Mo	96	9900.899	6.522300	ppb
	Ag	107	329803.628	73.352088	ppb
	Ag	109	324383.943	72.728185	ppb
	Cd	111	1121.070	1.056915	ppb
	In	113	66208.455	1.202602	ppb
>	In	115	1491198.823		ppb
	Sn	118	2905.422	0.862352	ppb
	Sb	121	1000.050	0.184892	ppb
	Ba	135	205898.102	203.159284	ppb
	Ba	137	360689.617	203.279527	ppb
>	Tb	159	2924906.190		ppb
	Tl	205	4450.990	0.258501	ppb
	Pb	206	195339.421	37.582988	ppb
	Pb	207	357635.825	36.359260	ppb
	Pb	208	590507.458	33.361600	ppb
>	Bi	209	2402956.730		ppb
	Cr	53	20729.463		ppb
	Pd	106	1675.140		ppb
	Pd	108	530.014		ppb
	C	12	364939.720		ppb
	Kr	83	52.000		ppb
	Se	77	87.334		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	487346.861		ppb
	Be	9	338.006	1.449020	ppb
	Na	23	534307.823	183.222520	ppb
	Mg	24	26095582.739	13416.796357	ppb
	Mg	25	3760111.332	13851.419231	ppb
	Mg	26	4432719.147	14237.186025	ppb
	Al	27	101448958.899	32291.921119	ppb
	K	39	24394253.725	4667.602334	ppb
	Ca	44	3488422.948	25805.835990	ppb
>	Sc	45	602892.131		ppb

	Ti	47	11291.371	33.051956	ppb
	V	51	192562.767	42.992956	ppb
	Cr	52	175685.837	45.321269	ppb
	Mn	55	19319759.543	3601.478968	ppb
	Fe	54	19478201.246	66509.817482	ppb
	Fe	56	333901368.117	61747.302048	ppb
	Fe	57	8117436.337	70411.971237	ppb
	Co	59	112863.333	23.471308	ppb
	Ni	60	52604.666	49.396175	ppb
	Cu	63	157470.157	62.445962	ppb
	Cu	65	78580.873	63.396715	ppb
	Zn	66	84411.434	127.655513	ppb
	As	75	7840.215	10.495899	ppb
	Se	82	72.000	0.775215	ppb
	Mo	96	9742.744	6.419007	ppb
	Ag	107	326632.038	72.757797	ppb
	Ag	109	324211.827	72.800817	ppb
	Cd	111	1090.027	1.029405	ppb
	In	113	64255.779	-0.544833	ppb
>	In	115	1488920.806		ppb
	Sn	118	2745.377	0.814518	ppb
	Sb	121	965.047	0.171487	ppb
	Ba	135	207453.762	201.793928	ppb
	Ba	137	360409.794	200.243501	ppb
>	Tb	159	2966941.275		ppb
	Tl	205	4130.853	0.234383	ppb
	Pb	206	196022.595	36.896931	ppb
	Pb	207	366991.730	36.501869	ppb
	Pb	208	604778.916	33.427410	ppb
>	Bi	209	2456187.771		ppb
	Cr	53	20424.837		ppb
	Pd	106	1560.122		ppb
	Pd	108	505.013		ppb
	C	12	359734.106		ppb
	Kr	83	52.000		ppb
	Se	77	98.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	491055.859		ppb
	Be	9	402.008	1.711793	ppb
	Na	23	550808.947	187.691685	ppb
	Mg	24	26246251.956	13392.333458	ppb
	Mg	25	3802739.948	13902.654777	ppb
	Mg	26	4425009.845	14105.055213	ppb
	Al	27	101838139.199	32170.954017	ppb
	K	39	24151605.313	4585.625259	ppb
	Ca	44	3459691.480	25399.477778	ppb
>	Sc	45	602106.874		ppb
	Ti	47	10620.637	31.121227	ppb
	V	51	191129.800	42.727876	ppb
	Cr	52	178403.317	46.090358	ppb
	Mn	55	19534181.470	3646.199881	ppb
	Fe	54	19777600.141	67621.021871	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	8057376.964	69982.076030	ppb
	Co	59	113015.031	23.533540	ppb
	Ni	60	53563.067	50.362172	ppb
	Cu	63	157297.471	62.458864	ppb
	Cu	65	77458.836	62.571674	ppb
	Zn	66	84878.697	128.531297	ppb
	As	75	7846.637	10.518189	ppb
	Se	82	61.334	0.625155	ppb

⌈	Mo	96	9766.767	6.464369	ppb
|	Ag	107	330117.052	73.826214	ppb
|	Ag	109	327740.777	73.885635	ppb
|	Cd	111	932.744	0.885365	ppb
|	In	113	64321.198	-0.241995	ppb
| >	In	115	1483030.764		ppb
⌊	Sn	118	2620.343	0.779282	ppb
⌈	Sb	121	1165.068	0.223372	ppb
|	Ba	135	205753.164	198.608299	ppb
|	Ba	137	358793.192	197.820129	ppb
⌊ >	Tb	159	2989809.861		ppb
⌈	Tl	205	4220.891	0.237266	ppb
|	Pb	206	200852.021	37.448020	ppb
|	Pb	207	371887.272	36.638502	ppb
|	Pb	208	614860.474	33.662830	ppb
⌊ >	Bi	209	2479672.818		ppb
	Cr	53	20555.104		ppb
	Pd	106	1365.093		ppb
	Pd	108	550.015		ppb
	C	12	359626.332		ppb
	Kr	83	50.000		ppb
	Se	77	90.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			91.549		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			89.671		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			83.147		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			89.914		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			85.494		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	LDR exceeded

ILM05.4 - Summary Report

Sample ID: SDI0904160-01

Sample Date/Time: Thursday, April 30, 2009 17:32:54
Sample Type: Sample
Sample Description: MW-1AL 5X
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\SDI0904160-01.2443

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	494316.559	2.768	494316.559			ppb
	Be	9	92.667	3.297	0.000	0.38592	1.33	ppb
	Na	23	144982.836	0.980	0.235	41.51555	3.56	ppb
	Mg	24	6515751.403	1.039	13.178	3302.65759	3.00	ppb
	Mg	25	905369.306	0.815	1.831	3288.40361	3.35	ppb
	Mg	26	1015103.289	1.098	2.053	3214.66309	3.62	ppb
	Al	27	24835286.314	1.582	50.271	7798.65751	4.24	ppb
	K	39	6139544.052	1.210	12.032	1130.86321	2.64	ppb
	Ca	44	777131.814	1.031	1.564	5644.61966	1.91	ppb
>	Sc	45	595916.084	1.476	595916.084			ppb
	Ti	47	2702.033	6.685	0.004	7.89718	6.10	ppb
	V	51	47957.629	1.846	0.080	10.73547	1.04	ppb
	Cr	52	45510.008	1.632	0.073	11.52440	1.30	ppb
	Mn	55	4875196.385	1.075	8.182	919.53297	1.68	ppb
	Fe	54	4917057.095	0.868	8.229	16952.55916	1.71	ppb
	Fe	56	83467789.014	0.698	139.488	15568.28101	1.14	ppb
	Fe	57	2035228.857	1.754	3.413	17852.75244	2.10	ppb
	Co	59	28517.279	1.761	0.048	5.99074	0.46	ppb
	Ni	60	13861.823	0.801	0.023	13.15306	1.35	ppb
	Cu	63	41792.711	1.031	0.070	16.65840	0.58	ppb
	Cu	65	20438.645	1.023	0.034	16.60887	1.01	ppb
	Zn	66	23428.526	1.024	0.039	35.66523	0.47	ppb
	As	75	2066.002	1.286	0.003	2.80147	2.41	ppb
	Se	82	36.000	7.407	0.000	0.27062	11.41	ppb
	Mo	96	2536.322	0.079	0.001	1.12526	1.24	ppb
	Ag	107	87645.759	0.705	0.056	18.56722	1.54	ppb
	Ag	109	86592.292	2.092	0.055	18.49073	2.76	ppb
	Cd	111	288.758	8.273	0.000	0.26465	7.89	ppb
	In	113	67498.714	0.793	-0.000	-0.59382	109.07	ppb
>	In	115	1565395.051	0.855	1565395.051			ppb
	Sn	118	751.695	5.377	0.000	0.19043	7.07	ppb
	Sb	121	531.681	10.695	0.000	0.05209	32.41	ppb
	Ba	135	52022.305	0.892	0.017	49.92806	1.39	ppb
	Ba	137	90433.073	0.504	0.030	49.57488	0.95	ppb
>	Tb	159	3005633.548	1.271	3005633.548			ppb
	Tl	205	1151.733	7.072	0.000	0.05768	8.78	ppb
	Pb	206	50652.973	1.118	0.019	8.78870	1.97	ppb
	Pb	207	93663.614	0.711	0.035	8.58598	1.08	ppb
	Pb	208	154470.207	1.480	0.058	7.86858	1.77	ppb
>	Bi	209	2663119.437	1.205	2663119.437			ppb
	Cr	53	5228.033	0.372	4916.695			ppb
	Pd	106	365.007	4.745	365.007			ppb
	Pd	108	138.334	2.087	128.334			ppb
	C	12	321249.563	1.112	6955.621			ppb
	Kr	83	24.667	16.878	6.667			ppb
	Se	77	36.445	9.024	7.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	510087.938		ppb
	Be	9	96.000	0.387490	ppb
	Na	23	145171.140	39.954649	ppb
	Mg	24	6514285.432	3198.088825	ppb
	Mg	25	899635.249	3164.532062	ppb
	Mg	26	1005947.519	3085.060550	ppb
	Al	27	24409979.573	7422.255609	ppb
	K	39	6176210.923	1101.034080	ppb
	Ca	44	785515.821	5526.567481	ppb
>	Sc	45	605688.767		ppb
	Ti	47	2860.409	8.232617	ppb
	V	51	48626.304	10.709289	ppb
	Cr	52	45903.114	11.432322	ppb
	Mn	55	4867761.133	903.200546	ppb
	Fe	54	4903412.614	16629.427738	ppb
	Fe	56	83757127.593	15367.816010	ppb
	Fe	57	2030463.117	17521.290701	ppb
	Co	59	29096.268	6.013938	ppb
	Ni	60	13946.385	13.018095	ppb
	Cu	63	42208.892	16.551082	ppb
	Cu	65	20654.642	16.511828	ppb
	Zn	66	23701.388	35.495676	ppb
	As	75	2057.848	2.744887	ppb
	Se	82	38.667	0.300204	ppb
	Mo	96	2538.322	1.121621	ppb
	Ag	107	87188.441	18.416441	ppb
	Ag	109	87571.769	18.644535	ppb
	Cd	111	316.277	0.288418	ppb
	In	113	68111.169	-0.219609	ppb
>	In	115	1569838.146		ppb
	Sn	118	715.026	0.179053	ppb
	Sb	121	515.013	0.045982	ppb
	Ba	135	51763.628	49.126309	ppb
	Ba	137	90511.774	49.066295	ppb
>	Tb	159	3039178.827		ppb
	Tl	205	1245.078	0.063455	ppb
	Pb	206	51135.408	8.986427	ppb
	Pb	207	93590.338	8.690018	ppb
	Pb	208	153113.831	7.900030	ppb
>	Bi	209	2629026.284		ppb
	Cr	53	5211.358		ppb
	Pd	106	375.007		ppb
	Pd	108	140.001		ppb
	C	12	324905.814		ppb
	Kr	83	26.000		ppb
	Se	77	38.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	487229.337		ppb
	Be	9	90.000	0.380170	ppb
	Na	23	143477.965	41.697853	ppb
	Mg	24	6448805.404	3314.562565	ppb
	Mg	25	902772.998	3324.669113	ppb
	Mg	26	1011847.583	3248.865540	ppb
	Al	27	24911480.263	7930.225684	ppb
	K	39	6054077.889	1130.864938	ppb
	Ca	44	769553.496	5669.101501	ppb
>	Sc	45	593414.689		ppb

	Ti	47	2505.314	7.345336	ppb
	V	51	48293.106	10.857676	ppb
	Cr	52	45973.435	11.697322	ppb
	Mn	55	4930933.903	933.847517	ppb
	Fe	54	4964875.753	17187.768728	ppb
	Fe	56	83848925.777	15704.313936	ppb
	Fe	57	2073078.774	18259.601662	ppb
	Co	59	28253.858	5.960501	ppb
	Ni	60	13736.094	13.087129	ppb
	Cu	63	41820.599	16.739706	ppb
	Cu	65	20237.123	16.512682	ppb
	Zn	66	23333.858	35.669287	ppb
	As	75	2044.468	2.783394	ppb
	Se	82	36.000	0.273086	ppb
	Mo	96	2534.321	1.140690	ppb
	Ag	107	88348.557	18.896074	ppb
	Ag	109	87702.911	18.907157	ppb
	Cd	111	276.641	0.256252	ppb
	In	113	67265.474	-0.220155	ppb
>	In	115	1550360.304		ppb
	Sn	118	795.032	0.205292	ppb
	Sb	121	485.012	0.039118	ppb
	Ba	135	52557.754	50.303197	ppb
	Ba	137	90844.773	49.664211	ppb
>	Tb	159	3013662.546		ppb
	Tl	205	1095.060	0.053989	ppb
	Pb	206	50793.673	8.714969	ppb
	Pb	207	94363.383	8.554385	ppb
	Pb	208	153187.235	7.716643	ppb
>	Bi	209	2692726.876		ppb
	Cr	53	5249.377		ppb
	Pd	106	375.007		ppb
	Pd	108	135.001		ppb
	C	12	321075.017		ppb
	Kr	83	28.000		ppb
	Se	77	38.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	485632.402		ppb
	Be	9	92.000	0.390097	ppb
	Na	23	146299.404	42.894136	ppb
	Mg	24	6584163.372	3395.321389	ppb
	Mg	25	913699.671	3376.009660	ppb
	Mg	26	1027514.766	3310.063169	ppb
	Al	27	25184399.107	8043.491249	ppb
	K	39	6188343.344	1160.690606	ppb
	Ca	44	776326.124	5738.190004	ppb
>	Sc	45	588644.796		ppb
	Ti	47	2740.375	8.113581	ppb
	V	51	46953.477	10.639450	ppb
	Cr	52	44653.475	11.443554	ppb
	Mn	55	4826894.120	921.550834	ppb
	Fe	54	4882882.918	17040.481003	ppb
	Fe	56	82797313.673	15632.713081	ppb
	Fe	57	2002144.681	17777.364951	ppb
	Co	59	28201.711	5.997786	ppb
	Ni	60	13902.991	13.353952	ppb
	Cu	63	41348.642	16.684417	ppb
	Cu	65	20424.169	16.802111	ppb
	Zn	66	23250.331	35.830741	ppb
	As	75	2095.691	2.876127	ppb
	Se	82	33.333	0.238574	ppb

⌈	Mo	96	2536.322	1.113473	ppb
|	Ag	107	87400.279	18.389155	ppb
|	Ag	109	84502.196	17.920509	ppb
|	Cd	111	273.356	0.249290	ppb
|	In	113	67119.498	-1.341683	ppb
|>	In	115	1575986.704		ppb
⌊	Sn	118	745.028	0.186953	ppb
⌈	Sb	121	595.018	0.071183	ppb
|	Ba	135	51745.535	50.354668	ppb
|	Ba	137	89942.673	49.994147	ppb
⌊>	Tb	159	2964059.271		ppb
⌈	Tl	205	1115.062	0.055591	ppb
|	Pb	206	50029.837	8.664706	ppb
|	Pb	207	93037.120	8.513539	ppb
|	Pb	208	157109.557	7.989057	ppb
⌊>	Bi	209	2667605.150		ppb
	Cr	53	5223.364		ppb
	Pd	106	345.006		ppb
	Pd	108	140.001		ppb
	C	12	317767.858		ppb
	Kr	83	20.000		ppb
	Se	77	32.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			92.249		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			88.492		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			87.489		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			91.284		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			93.073		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-02

Sample Date/Time: Thursday, April 30, 2009 17:35:28
Sample Type: Sample
Sample Description: MW-3A
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-02.2444

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	512828.300	0.291	512828.300			ppb
	Be	9	418.675	7.855	0.001	1.70731	8.18	ppb
	Na	23	454897.962	2.079	0.829	146.27444	1.96	ppb
	Mg	24	27739696.101	2.023	54.080	13553.02501	1.74	ppb
	Mg	25	3986088.018	1.586	7.771	13953.98142	1.35	ppb
	Mg	26	4782139.399	1.105	9.323	14596.12534	0.83	ppb
	Al	27	104170265.199	1.933	203.113	31509.67670	1.69	ppb
	K	39	17266187.002	1.215	33.275	3127.40308	0.97	ppb
	Ca	44	222631.192	1.231	0.425	1534.84124	1.14	ppb
>	Sc	45	604535.356	1.225	604535.356			ppb
	Ti	47	7798.082	14.490	0.013	22.74065	15.41	ppb
	V	51	130312.461	1.228	0.215	28.97436	1.11	ppb
	Cr	52	163974.805	0.451	0.268	42.15503	0.90	ppb
	Mn	55	1230860.813	1.655	2.036	228.78901	1.11	ppb
	Fe	54	19098194.955	1.896	31.567	65032.43460	1.18	ppb
	Fe	56	S	S	1333333516.405	148813702447.09277	86.60	ppb
	Fe	57	7957670.555	0.655	13.161	68841.41079	0.57	ppb
	Co	59	122960.709	0.751	0.203	25.50420	0.90	ppb
	Ni	60	71495.803	1.093	0.118	66.96260	0.68	ppb
	Cu	63	137159.813	0.626	0.226	54.22706	0.69	ppb
	Cu	65	67445.586	1.031	0.111	54.25150	0.24	ppb
	Zn	66	88891.187	1.697	0.147	134.07873	1.29	ppb
	As	75	10972.432	1.080	0.018	14.64789	0.25	ppb
	Se	82	83.778	10.386	0.000	0.93857	12.54	ppb
	Mo	96	8341.478	1.618	0.005	5.39991	1.79	ppb
	Ag	107	1040.054	4.976	0.001	0.22623	4.61	ppb
	Ag	109	870.038	4.267	0.001	0.18725	4.16	ppb
	Cd	111	934.406	6.699	0.001	0.88208	5.73	ppb
	In	113	65408.220	0.617	0.000	0.47248	168.94	ppb
>	In	115	1490726.287	0.932	1490726.287			ppb
	Sn	118	1758.488	6.561	0.001	0.51032	6.03	ppb
	Sb	121	553.349	2.274	0.000	0.06008	8.03	ppb
	Ba	135	71348.982	1.087	0.024	69.53598	1.16	ppb
	Ba	137	124210.088	1.464	0.042	69.14041	0.53	ppb
>	Tb	159	2960450.908	1.540	2960450.908			ppb
	Tl	205	2802.059	1.046	0.001	0.15691	2.39	ppb
	Pb	206	172366.373	1.527	0.070	32.24919	1.08	ppb
	Pb	207	320336.613	1.497	0.130	31.67090	1.46	ppb
	Pb	208	528749.951	1.833	0.214	29.04748	0.60	ppb
>	Bi	209	2471342.207	2.395	2471342.207			ppb
	Cr	53	19303.949	1.147	18992.611			ppb
	Pd	106	1168.402	4.287	1168.402			ppb
	Pd	108	386.674	16.627	376.674			ppb
	C	12	403967.506	0.671	89673.564			ppb
	Kr	83	52.000	17.625	34.000			ppb
	Se	77	78.889	16.675	50.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	511314.246		ppb
	Be	9	456.010	1.865509	ppb
	Na	23	449174.293	144.766975	ppb
	Mg	24	27243600.735	13350.459839	ppb
	Mg	25	3913161.029	13739.501689	ppb
	Mg	26	4722823.720	14457.961132	ppb
	Al	27	101845036.065	30898.363643	ppb
	K	39	17117632.252	3109.517048	ppb
	Ca	44	222628.899	1539.474320	ppb
>	Sc	45	601804.461		ppb
	Ti	47	7062.493	20.659837	ppb
	V	51	128555.234	28.711027	ppb
	Cr	52	163290.391	42.166777	ppb
	Mn	55	1210409.114	226.008063	ppb
	Fe	54	18752734.690	64146.663542	ppb
	Fe	56	223220522955.452510		ppb
	Fe	57	7934902.950	68952.769439	ppb
	Co	59	121993.611	25.416922	ppb
	Ni	60	71726.314	67.481823	ppb
	Cu	63	136515.507	54.214374	ppb
	Cu	65	67292.320	54.373173	ppb
	Zn	66	87285.953	132.250324	ppb
	As	75	10907.110	14.626576	ppb
	Se	82	90.667	1.042127	ppb
	Mo	96	8367.499	5.476816	ppb
	Ag	107	986.715	0.216513	ppb
	Ag	109	836.702	0.181594	ppb
	Cd	111	876.504	0.836079	ppb
	In	113	65755.481	1.394153	ppb
>	In	115	1476463.553		ppb
	Sn	118	1675.140	0.489870	ppb
	Sb	121	555.015	0.063102	ppb
	Ba	135	70983.039	70.367958	ppb
	Ba	137	122548.332	69.391849	ppb
>	Tb	159	2910214.998		ppb
	Tl	205	2790.389	0.160725	ppb
	Pb	206	169545.197	32.617073	ppb
	Pb	207	315994.776	32.122686	ppb
	Pb	208	517679.596	29.244130	ppb
>	Bi	209	2403112.604		ppb
	Cr	53	19146.312		ppb
	Pd	106	1165.068		ppb
	Pd	108	460.011		ppb
	C	12	400981.287		ppb
	Kr	83	54.000		ppb
	Se	77	72.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	512868.902		ppb
	Be	9	406.008	1.655038	ppb
	Na	23	449704.336	144.479399	ppb
	Mg	24	27626707.762	13497.186140	ppb
	Mg	25	4025013.869	14089.447951	ppb
	Mg	26	4799467.822	14648.084715	ppb
	Al	27	105356526.164	31866.858746	ppb
	K	39	17174654.629	3110.428954	ppb
	Ca	44	219891.318	1515.442451	ppb
>	Sc	45	598881.584		ppb

	Ti	47	9099.138	26.787583	ppb
	V	51	130696.937	29.334615	ppb
	Cr	52	163873.819	42.528028	ppb
	Mn	55	1231028.086	230.980756	ppb
	Fe	54	19067103.531	65541.384872	ppb
	Fe	56	329979610.270	61430.373262	ppb
	Fe	57	7920771.333	69165.938115	ppb
	Co	59	123054.491	25.763246	ppb
	Ni	60	70625.185	66.769901	ppb
	Cu	63	136829.758	54.605457	ppb
	Cu	65	66839.297	54.270518	ppb
	Zn	66	89108.589	135.677353	ppb
	As	75	10901.004	14.689718	ppb
	Se	82	74.000	0.810588	ppb
	Mo	96	8195.357	5.291239	ppb
	Ag	107	1090.059	0.237259	ppb
	Ag	109	910.041	0.196124	ppb
	Cd	111	925.884	0.873949	ppb
	In	113	64965.342	0.018400	ppb
>	In	115	1491510.005		ppb
	Sn	118	1710.146	0.495373	ppb
	Sb	121	565.016	0.062624	ppb
	Ba	135	70823.916	68.751867	ppb
	Ba	137	123929.193	68.716673	ppb
>	Tb	159	2971908.632		ppb
	Tl	205	2835.402	0.156774	ppb
	Pb	206	172800.207	31.928370	ppb
	Pb	207	319528.831	31.197062	ppb
	Pb	208	532851.994	28.910661	ppb
>	Bi	209	2502066.745		ppb
	Cr	53	19208.430		ppb
	Pd	106	1120.063		ppb
	Pd	108	340.006		ppb
	C	12	404644.505		ppb
	Kr	83	42.000		ppb
	Se	77	70.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	514301.751		ppb
	Be	9	394.008	1.601392	ppb
	Na	23	465815.258	149.576959	ppb
	Mg	24	28348779.807	13811.429047	ppb
	Mg	25	4020089.157	14032.994632	ppb
	Mg	26	4824126.654	14682.330170	ppb
	Al	27	105309233.368	31763.807702	ppb
	K	39	17506274.126	3162.263239	ppb
	Ca	44	225373.358	1549.606957	ppb
>	Sc	45	612920.024		ppb
	Ti	47	7232.615	20.774541	ppb
	V	51	131685.212	28.877450	ppb
	Cr	52	164760.206	41.770279	ppb
	Mn	55	1251145.237	229.378226	ppb
	Fe	54	19474746.643	65409.255401	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	8017337.383	68405.524823	ppb
	Co	59	123834.025	25.332424	ppb
	Ni	60	72135.911	66.636089	ppb
	Cu	63	138134.175	53.861364	ppb
	Cu	65	68205.140	54.110801	ppb
	Zn	66	90279.017	134.308506	ppb
	As	75	11109.181	14.627382	ppb
	Se	82	86.667	0.963008	ppb

⌈	Mo	96	8461.578	5.431681	ppb
|	Ag	107	1043.388	0.224922	ppb
|	Ag	109	863.371	0.184028	ppb
|	Cd	111	1000.831	0.936211	ppb
|	In	113	65503.837	0.004882	ppb
|>	In	115	1504205.302		ppb
⌊	Sn	118	1890.179	0.545724	ppb
⌈	Sb	121	540.015	0.054514	ppb
|	Ba	135	72239.992	69.488120	ppb
|	Ba	137	126152.738	69.312716	ppb
⌊>	Tb	159	2999229.094		ppb
⌈	Tl	205	2780.386	0.153238	ppb
|	Pb	206	174753.717	32.202121	ppb
|	Pb	207	325486.234	31.692964	ppb
|	Pb	208	535718.261	28.987642	ppb
⌊>	Bi	209	2508847.273		ppb
	Cr	53	19557.105		ppb
	Pd	106	1220.074		ppb
	Pd	108	360.006		ppb
	C	12	406276.726		ppb
	Kr	83	60.000		ppb
	Se	77	94.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			95.704		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			89.772		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			83.316		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			89.911		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			86.371		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-03

Sample Date/Time: Thursday, April 30, 2009 17:38:01
Sample Type: Sample
Sample Description: MW-4
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-03.2445

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	454218.996	3.878	454218.996			ppb
	Be	9	206.669	7.517	0.000	0.94715	4.15	ppb
	Na	23	645852.656	0.951	1.365	240.86518	3.04	ppb
	Mg	24	62516812.018	0.840	137.732	34517.09997	2.98	ppb
	Mg	25	9025236.111	0.803	19.887	35709.44170	3.77	ppb
	Mg	26	10679672.926	1.217	23.527	36832.26179	2.70	ppb
	Al	27	73906160.017	1.740	162.809	25257.13746	2.87	ppb
	K	39	4649293.130	2.562	9.846	925.43646	1.95	ppb
	Ca	44	5322909.717	1.692	11.716	42292.40098	2.14	ppb
>	Sc	45	542998.696	1.046	542998.696			ppb
	Ti	47	291417.744	1.765	0.537	950.85582	1.06	ppb
	V	51	51471.378	1.531	0.094	12.66769	0.54	ppb
	Cr	52	109850.760	0.860	0.199	31.31854	0.99	ppb
	Mn	55	3164449.346	1.917	5.827	654.90044	1.04	ppb
	Fe	54	13456828.836	0.751	24.759	51007.41225	0.31	ppb
	Fe	56	234629185.479	2.120	431.479	48157.46012	1.20	ppb
	Fe	57	5687282.759	1.661	10.471	54768.59110	0.62	ppb
	Co	59	33431.131	1.542	0.061	7.71091	0.74	ppb
	Ni	60	23663.523	1.062	0.044	24.65946	0.23	ppb
	Cu	63	37501.335	2.863	0.068	16.39949	1.85	ppb
	Cu	65	18925.671	0.764	0.035	16.87935	0.89	ppb
	Zn	66	23357.247	0.574	0.043	39.04603	0.92	ppb
	As	75	4185.669	2.815	0.008	6.22229	1.80	ppb
	Se	82	40.889	14.794	0.000	0.39767	22.48	ppb
	Mo	96	112659.733	0.508	0.082	87.77920	0.51	ppb
	Ag	107	11641.218	1.655	0.008	2.81232	1.43	ppb
	Ag	109	6849.012	1.841	0.005	1.66319	1.75	ppb
	Cd	111	7615.531	7.615	0.006	7.76522	7.06	ppb
	In	113	59625.639	2.493	-0.000	-0.04921	2999.80	ppb
>	In	115	1370443.431	0.763	1370443.431			ppb
	Sn	118	5436.479	3.586	0.004	1.78606	3.07	ppb
	Sb	121	411.675	6.113	0.000	0.03049	26.65	ppb
	Ba	135	264247.195	0.517	0.096	278.22414	0.76	ppb
	Ba	137	462649.604	0.122	0.169	278.24042	0.98	ppb
>	Tb	159	2741262.386	0.939	2741262.386			ppb
	Tl	205	915.042	10.426	0.000	0.06219	10.84	ppb
	Pb	206	57506.543	0.099	0.029	13.49800	0.73	ppb
	Pb	207	106397.435	0.120	0.054	13.19563	0.64	ppb
	Pb	208	175310.026	0.831	0.089	12.08168	0.21	ppb
>	Bi	209	1969007.694	0.630	1969007.694			ppb
	Cr	53	12806.865	2.122	12495.526			ppb
	Pd	106	19550.778	3.786	19550.778			ppb
	Pd	108	7167.569	2.119	7157.569			ppb
	C	12	373379.060	0.695	59085.117			ppb
	Kr	83	36.667	8.332	18.667			ppb
	Se	77	51.556	9.705	22.667			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	474435.671		ppb
	Be	9	224.003	0.983922	ppb
	Na	23	652377.631	232.410354	ppb
	Mg	24	63122746.601	33340.764428	ppb
	Mg	25	9027541.334	34163.849897	ppb
	Mg	26	10826518.966	35722.897791	ppb
	Al	27	75078298.827	24547.929842	ppb
	K	39	4779895.689	909.935774	ppb
	Ca	44	5425914.025	41250.120541	ppb
>	Sc	45	549387.885		ppb
	Ti	47	295564.303	953.199593	ppb
	V	51	52380.787	12.742749	ppb
	Cr	52	110151.343	31.033369	ppb
	Mn	55	3233259.769	661.392065	ppb
	Fe	54	13567376.120	50827.141120	ppb
	Fe	56	240314862.856	48754.779670	ppb
	Fe	57	5795324.614	55162.420649	ppb
	Co	59	33901.368	7.728656	ppb
	Ni	60	23925.253	24.642226	ppb
	Cu	63	38647.872	16.709188	ppb
	Cu	65	18984.670	16.733472	ppb
	Zn	66	23400.681	38.659162	ppb
	As	75	4321.727	6.350513	ppb
	Se	82	47.333	0.490920	ppb
	Mo	96	113288.095	87.869643	ppb
	Ag	107	11863.700	2.853225	ppb
	Ag	109	6755.614	1.632952	ppb
	Cd	111	8257.474	8.383319	ppb
	In	113	61267.110	1.350078	ppb
>	In	115	1376651.895		ppb
	Sn	118	5646.594	1.847917	ppb
	Sb	121	385.007	0.021531	ppb
	Ba	135	265658.464	277.019238	ppb
	Ba	137	462796.845	275.645472	ppb
>	Tb	159	2767778.386		ppb
	Tl	205	1025.053	0.069937	ppb
	Pb	206	57489.780	13.462915	ppb
	Pb	207	106539.781	13.182850	ppb
	Pb	208	175945.042	12.097952	ppb
>	Bi	209	1973500.508		ppb
	Cr	53	13008.455		ppb
	Pd	106	20265.514		ppb
	Pd	108	7087.511		ppb
	C	12	376255.712		ppb
	Kr	83	40.000		ppb
	Se	77	51.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	442189.080		ppb
	Be	9	202.002	0.951737	ppb
	Na	23	640187.405	245.242654	ppb
	Mg	24	62204723.130	35252.024501	ppb
	Mg	25	8951641.867	36347.211387	ppb
	Mg	26	10632954.767	37642.857377	ppb
	Al	27	74109781.777	25998.414187	ppb
	K	39	4621384.350	945.297977	ppb
	Ca	44	5259074.481	42898.684390	ppb
>	Sc	45	541077.662		ppb

	Ti	47	293026.225	959.529300	ppb
	V	51	51045.089	12.607165	ppb
	Cr	52	110608.346	31.650107	ppb
	Mn	55	3118703.135	647.755847	ppb
	Fe	54	13433798.151	51099.931722	ppb
	Fe	56	231088564.395	47601.457050	ppb
	Fe	57	5646335.417	54569.573826	ppb
	Co	59	33512.059	7.757287	ppb
	Ni	60	23641.246	24.723763	ppb
	Cu	63	37336.237	16.387168	ppb
	Cu	65	19031.426	17.034129	ppb
	Zn	66	23464.163	39.363987	ppb
	As	75	4118.992	6.145684	ppb
	Se	82	35.333	0.312703	ppb
	Mo	96	112167.570	88.173091	ppb
	Ag	107	11533.314	2.811007	ppb
	Ag	109	6798.977	1.665700	ppb
	Cd	111	7129.514	7.336430	ppb
	In	113	59239.950	0.094373	ppb
>	In	115	1358377.212		ppb
	Sn	118	5261.384	1.743378	ppb
	Sb	121	435.009	0.037383	ppb
	Ba	135	262933.856	276.994367	ppb
	Ba	137	462026.418	278.013518	ppb
>	Tb	159	2739637.841		ppb
	Tl	205	865.037	0.059054	ppb
	Pb	206	57570.241	13.609595	ppb
	Pb	207	106358.968	13.285253	ppb
	Pb	208	173643.325	12.052794	ppb
>	Bi	209	1954975.286		ppb
	Cr	53	12914.334		ppb
	Pd	106	18787.632		ppb
	Pd	108	7072.500		ppb
	C	12	372671.162		ppb
	Kr	83	36.000		ppb
	Se	77	46.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	446032.238		ppb
	Be	9	194.002	0.905793	ppb
	Na	23	644992.934	244.942534	ppb
	Mg	24	62222966.322	34958.510986	ppb
	Mg	25	9096525.131	36617.263805	ppb
	Mg	26	10579545.045	37131.030214	ppb
	Al	27	72530399.446	25225.068343	ppb
	K	39	4546599.351	921.075622	ppb
	Ca	44	5283740.645	42728.398000	ppb
>	Sc	45	538530.540		ppb
	Ti	47	285662.702	939.838580	ppb
	V	51	50988.258	12.653160	ppb
	Cr	52	108792.590	31.272140	ppb
	Mn	55	3141385.133	655.553400	ppb
	Fe	54	13369312.235	51095.163909	ppb
	Fe	56	232484129.187	48116.143653	ppb
	Fe	57	5620188.246	54573.778833	ppb
	Co	59	32879.966	7.646797	ppb
	Ni	60	23424.069	24.612400	ppb
	Cu	63	36519.897	16.102099	ppb
	Cu	65	18760.915	16.870462	ppb
	Zn	66	23206.897	39.114941	ppb
	As	75	4116.288	6.170683	ppb
	Se	82	40.000	0.389395	ppb

⌈	Mo	96	112523.535	87.294859	ppb
|	Ag	107	11526.639	2.772723	ppb
|	Ag	109	6992.444	1.690907	ppb
|	Cd	111	7459.604	7.575901	ppb
|	In	113	58369.856	-1.592095	ppb
| >	In	115	1376301.185		ppb
⌊	Sn	118	5401.458	1.766874	ppb
⌈	Sb	121	415.009	0.032548	ppb
|	Ba	135	264149.265	280.658811	ppb
|	Ba	137	463125.550	281.062256	ppb
⌊ >	Tb	159	2716370.930		ppb
⌈	Tl	205	855.037	0.057593	ppb
|	Pb	206	57459.607	13.421503	ppb
|	Pb	207	106293.555	13.118791	ppb
|	Pb	208	176341.709	12.094296	ppb
⌊ >	Bi	209	1978547.289		ppb
	Cr	53	12497.805		ppb
	Pd	106	19599.188		ppb
	Pd	108	7342.695		ppb
	C	12	371210.306		ppb
	Kr	83	34.000		ppb
	Se	77	56.667		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		84.766			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		80.634			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		76.593			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		83.254			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		68.815			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-04

Sample Date/Time: Thursday, April 30, 2009 17:40:34
Sample Type: Sample
Sample Description: MW-5
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-04.2446

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	465345.289	2.680	465345.289			ppb
	Be	9	369.340	11.794	0.001	1.65666	9.08	ppb
	Na	23	249506.880	2.466	0.478	84.38164	3.05	ppb
	Mg	24	5807144.570	0.711	12.475	3126.26994	2.38	ppb
	Mg	25	816278.109	1.014	1.754	3148.80237	2.73	ppb
	Mg	26	931734.695	0.528	2.002	3133.44095	2.15	ppb
	Al	27	16715047.566	0.342	35.925	5573.16566	2.42	ppb
	K	39	5540619.525	0.193	11.519	1082.64693	2.93	ppb
	Ca	44	763735.932	0.157	1.633	5894.74592	2.52	ppb
>	Sc	45	526415.467	0.411	526415.467			ppb
	Ti	47	6392.046	5.125	0.012	21.37843	4.76	ppb
	V	51	22956.125	2.214	0.043	5.75787	2.31	ppb
	Cr	52	74713.401	0.315	0.139	21.82830	0.69	ppb
	Mn	55	5330377.155	0.190	10.126	1138.00112	0.46	ppb
	Fe	54	108626525.563	0.878	206.331	425067.93424	1.06	ppb
	Fe	56	S	S	1999999999.408	223220522955.45251	0.00	ppb
	Fe	57	43047260.677	0.796	81.773	427720.19584	0.98	ppb
	Co	59	58070.136	1.234	0.110	13.82616	1.44	ppb
	Ni	60	26882.755	1.071	0.051	28.90184	1.47	ppb
	Cu	63	75098.717	0.428	0.142	34.03978	0.54	ppb
	Cu	65	37953.005	1.356	0.072	35.02355	1.62	ppb
	Zn	66	56313.686	1.171	0.107	97.47920	1.50	ppb
	As	75	3999.742	1.281	0.008	6.13425	1.65	ppb
	Se	82	40.445	5.789	0.000	0.41117	8.91	ppb
	Mo	96	9150.185	1.160	0.006	6.62275	1.74	ppb
	Ag	107	192.224	23.671	0.000	0.04181	27.21	ppb
	Ag	109	106.667	16.536	0.000	0.01835	23.63	ppb
	Cd	111	663.140	8.796	0.000	0.68817	7.91	ppb
	In	113	59204.755	1.008	0.000	0.02611	1746.63	ppb
>	In	115	1359093.798	0.825	1359093.798			ppb
	Sn	118	4457.661	4.578	0.003	1.47172	4.48	ppb
	Sb	121	348.339	6.630	0.000	0.01655	41.60	ppb
	Ba	135	77884.175	1.652	0.030	85.75257	1.55	ppb
	Ba	137	135730.947	0.448	0.052	85.36102	0.20	ppb
>	Tb	159	2620515.003	0.387	2620515.003			ppb
	Tl	205	1120.063	8.553	0.001	0.07872	9.30	ppb
	Pb	206	35471.141	1.480	0.018	8.50614	1.18	ppb
	Pb	207	65780.348	1.534	0.034	8.33463	1.40	ppb
	Pb	208	110259.216	0.666	0.057	7.76321	0.31	ppb
>	Bi	209	1926517.159	0.462	1926517.159			ppb
	Cr	53	10933.307	1.085	10621.969			ppb
	Pd	106	573.350	12.708	573.350			ppb
	Pd	108	158.335	17.392	148.335			ppb
	C	12	331363.741	1.144	17069.798			ppb
	Kr	83	26.667	4.330	8.667			ppb
	Se	77	44.889	1.715	16.000			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	479362.486		ppb
	Be	9	418.009	1.823855	ppb
	Na	23	254116.244	83.285278	ppb
	Mg	24	5840427.536	3050.938723	ppb
	Mg	25	819681.261	3068.026617	ppb
	Mg	26	937418.475	3059.145196	ppb
	Al	27	16772193.028	5426.321071	ppb
	K	39	5528301.748	1046.942400	ppb
	Ca	44	765104.823	5729.166691	ppb
>	Sc	45	528590.681		ppb
	Ti	47	6682.232	22.265430	ppb
	V	51	23235.144	5.804833	ppb
	Cr	52	74633.472	21.712350	ppb
	Mn	55	5324142.293	1131.979257	ppb
	Fe	54	107856149.173	420308.700629	ppb
	Fe	56		223220522955.452510	ppb
	Fe	57	42769338.876	423202.689338	ppb
	Co	59	57420.383	13.614688	ppb
	Ni	60	26565.239	28.441444	ppb
	Cu	63	74976.692	33.843447	ppb
	Cu	65	37419.882	34.386535	ppb
	Zn	66	56103.607	96.710618	ppb
	As	75	3940.673	6.018597	ppb
	Se	82	40.667	0.412109	ppb
	Mo	96	9046.090	6.560219	ppb
	Ag	107	233.336	0.051957	ppb
	Ag	109	86.667	0.013492	ppb
	Cd	111	622.173	0.648160	ppb
	In	113	59541.735	0.548430	ppb
>	In	115	1355255.726		ppb
	Sn	118	4646.079	1.539660	ppb
	Sb	121	335.006	0.012920	ppb
	Ba	135	77327.828	85.522704	ppb
	Ba	137	135106.565	85.349948	ppb
>	Tb	159	2608799.539		ppb
	Tl	205	1185.070	0.083931	ppb
	Pb	206	34930.902	8.420148	ppb
	Pb	207	65031.135	8.282458	ppb
	Pb	208	109423.600	7.744366	ppb
>	Bi	209	1916571.284		ppb
	Cr	53	10869.905		ppb
	Pd	106	565.016		ppb
	Pd	108	130.001		ppb
	C	12	335738.983		ppb
	Kr	83	28.000		ppb
	Se	77	45.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	455478.038		ppb
	Be	9	334.006	1.532506	ppb
	Na	23	251883.818	87.326357	ppb
	Mg	24	5820066.831	3199.849138	ppb
	Mg	25	822314.858	3239.411238	ppb
	Mg	26	928799.179	3190.058671	ppb
	Al	27	16715047.566	5691.486644	ppb
	K	39	5546380.319	1107.512057	ppb
	Ca	44	763229.318	6016.418858	ppb
>	Sc	45	524266.739		ppb

	Ti	47	6036.822	20.268682	ppb
	V	51	23263.818	5.861164	ppb
	Cr	52	74978.035	21.998673	ppb
	Mn	55	5324948.525	1141.488534	ppb
	Fe	54	108330581.269	425639.935002	ppb
	Fe	56	223220522955.452510		ppb
	Fe	57	42942451.185	428420.334089	ppb
	Co	59	57951.433	13.854144	ppb
	Ni	60	27126.743	29.282828	ppb
	Cu	63	74855.791	34.068544	ppb
	Cu	65	37992.033	35.202646	ppb
	Zn	66	57052.285	99.163460	ppb
	As	75	4031.917	6.208626	ppb
	Se	82	38.000	0.374064	ppb
	Mo	96	9146.181	6.552490	ppb
	Ag	107	143.334	0.029509	ppb
	Ag	109	113.334	0.019736	ppb
	Cd	111	729.927	0.750158	ppb
	In	113	59556.824	-0.177485	ppb
>	In	115	1371728.355		ppb
	Sn	118	4486.006	1.467407	ppb
	Sb	121	335.006	0.012236	ppb
	Ba	135	79355.621	87.185879	ppb
	Ba	137	135765.398	85.199061	ppb
>	Tb	159	2626161.857		ppb
	Tl	205	1010.051	0.070350	ppb
	Pb	206	35502.911	8.482060	ppb
	Pb	207	65382.484	8.253196	ppb
	Pb	208	110553.681	7.754846	ppb
>	Bi	209	1933750.751		ppb
	Cr	53	10859.894		ppb
	Pd	106	650.021		ppb
	Pd	108	160.001		ppb
	C	12	329322.832		ppb
	Kr	83	26.000		ppb
	Se	77	45.333		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	461195.343		ppb
	Be	9	356.006	1.613614	ppb
	Na	23	242520.578	82.533300	ppb
	Mg	24	5760939.343	3128.021974	ppb
	Mg	25	806838.209	3138.969262	ppb
	Mg	26	928986.432	3151.118979	ppb
	Al	27	16657902.105	5601.689255	ppb
	K	39	5547176.509	1093.486330	ppb
	Ca	44	762873.656	5938.652221	ppb
>	Sc	45	526388.982		ppb
	Ti	47	6457.084	21.601189	ppb
	V	51	22369.413	5.607606	ppb
	Cr	52	74528.695	21.773884	ppb
	Mn	55	5342040.648	1140.535558	ppb
	Fe	54	109692846.246	429255.167085	ppb
	Fe	56	223220522955.452510		ppb
	Fe	57	43429991.971	431537.564088	ppb
	Co	59	58838.591	14.009658	ppb
	Ni	60	26956.283	28.981261	ppb
	Cu	63	75463.668	34.207341	ppb
	Cu	65	38447.101	35.481475	ppb
	Zn	66	55785.166	96.563520	ppb
	As	75	4026.637	6.175517	ppb
	Se	82	42.667	0.447327	ppb

⌈	Mo	96	9258.284	6.755549	ppb
|	Ag	107	200.002	0.043979	ppb
|	Ag	109	120.001	0.021825	ppb
|	Cd	111	637.321	0.666179	ppb
|	In	113	58515.705	-0.292624	ppb
|>	In	115	1350297.312		ppb
⌊	Sn	118	4240.899	1.408082	ppb
⌈	Sb	121	375.007	0.024487	ppb
|	Ba	135	76969.076	84.549137	ppb
|	Ba	137	136320.879	85.534053	ppb
⌊>	Tb	159	2626583.613		ppb
⌈	Tl	205	1165.068	0.081891	ppb
|	Pb	206	35979.610	8.616217	ppb
|	Pb	207	66927.425	8.468242	ppb
|	Pb	208	110800.368	7.790404	ppb
⌊>	Bi	209	1929229.443		ppb
	Cr	53	11070.124		ppb
	Pd	106	505.013		ppb
	Pd	108	185.002		ppb
	C	12	329029.407		ppb
	Kr	83	26.000		ppb
	Se	77	44.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		86.842			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		78.171			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		75.959			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		79.587			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		67.330			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-05

Sample Date/Time: Thursday, April 30, 2009 17:43:08
Sample Type: Sample
Sample Description: MW-9
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-05.2447

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	485651.865	0.868	485651.865			ppb
	Be	9	311.338	1.963	0.001	1.33868	1.10	ppb
	Na	23	314994.452	0.976	0.590	104.20866	1.95	ppb
	Mg	24	19217845.147	2.091	39.568	9916.21247	2.95	ppb
	Mg	25	2763791.260	1.419	5.690	10217.40657	2.23	ppb
	Mg	26	3320033.874	1.636	6.836	10701.50325	2.44	ppb
	Al	27	77085286.855	2.419	158.743	24626.41262	3.21	ppb
	K	39	15529228.783	0.228	31.584	2968.54433	0.99	ppb
	Ca	44	152909.651	1.256	0.306	1104.45993	2.15	ppb
>	Sc	45	614777.376	0.204	614777.376			ppb
	Ti	47	5785.007	3.273	0.009	16.53816	3.12	ppb
	V	51	122245.591	1.171	0.198	26.71722	1.36	ppb
	Cr	52	128120.880	0.657	0.205	32.27567	0.68	ppb
	Mn	55	1136795.888	0.477	1.849	207.78045	0.40	ppb
	Fe	54	16287683.781	0.324	26.470	54531.75285	0.36	ppb
	Fe	56	280567398.066	0.997	455.787	50870.52214	1.19	ppb
	Fe	57	6870646.212	0.637	11.173	58443.28925	0.82	ppb
	Co	59	98584.254	0.934	0.160	20.10401	1.14	ppb
	Ni	60	50255.981	1.321	0.082	46.27765	1.47	ppb
	Cu	63	162134.942	0.400	0.263	63.05465	0.55	ppb
	Cu	65	80519.563	1.113	0.131	63.70649	1.30	ppb
	Zn	66	107663.152	0.733	0.175	159.73521	0.74	ppb
	As	75	8308.879	0.881	0.014	10.90809	0.79	ppb
	Se	82	67.334	6.183	0.000	0.69068	8.60	ppb
	Mo	96	7813.052	1.642	0.004	4.74942	2.35	ppb
	Ag	107	602.240	4.836	0.000	0.12246	5.58	ppb
	Ag	109	448.899	2.269	0.000	0.08799	2.81	ppb
	Cd	111	853.486	10.629	0.001	0.76863	11.02	ppb
	In	113	67493.685	0.973	-0.000	-0.60864	81.13	ppb
>	In	115	1565596.352	0.534	1565596.352			ppb
	Sn	118	2742.046	12.384	0.002	0.77208	12.63	ppb
	Sb	121	296.671	15.660	-0.000	-0.01165	106.62	ppb
	Ba	135	56720.427	1.433	0.019	53.99264	1.82	ppb
	Ba	137	99316.108	0.924	0.033	53.99957	1.14	ppb
>	Tb	159	3030407.849	0.398	3030407.849			ppb
	Tl	205	2360.279	4.647	0.001	0.12799	5.06	ppb
	Pb	206	114586.160	1.251	0.045	20.86216	0.57	ppb
	Pb	207	213396.973	0.958	0.084	20.52982	0.29	ppb
	Pb	208	353336.162	0.959	0.139	18.88985	0.30	ppb
>	Bi	209	2538939.654	1.250	2538939.654			ppb
	Cr	53	15192.866	0.616	14881.528			ppb
	Pd	106	1160.067	1.293	1160.067			ppb
	Pd	108	403.342	21.340	393.342			ppb
	C	12	367861.576	0.888	53567.633			ppb
	Kr	83	37.333	24.744	19.333			ppb
	Se	77	91.334	2.920	62.445			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	490371.472		ppb
	Be	9	318.005	1.354360	ppb
	Na	23	312450.171	102.179888	ppb
	Mg	24	18777456.669	9594.011598	ppb
	Mg	25	2719027.611	9953.868673	ppb
	Mg	26	3258398.787	10400.273184	ppb
	Al	27	74965978.437	23714.601047	ppb
	K	39	15523432.182	2938.342528	ppb
	Ca	44	150696.987	1077.098565	ppb
>	Sc	45	613504.267		ppb
	Ti	47	5566.549	15.942387	ppb
	V	51	123225.724	26.988162	ppb
	Cr	52	127576.632	32.204152	ppb
	Mn	55	1131245.373	207.195080	ppb
	Fe	54	16252753.909	54527.597541	ppb
	Fe	56	282743053.753	51371.228839	ppb
	Fe	57	6921180.236	58994.833089	ppb
	Co	59	99599.546	20.353042	ppb
	Ni	60	50453.625	46.555492	ppb
	Cu	63	162232.040	63.223355	ppb
	Cu	65	81158.000	64.344804	ppb
	Zn	66	107161.115	159.319329	ppb
	As	75	8304.426	10.924897	ppb
	Se	82	72.000	0.757562	ppb
	Mo	96	7740.995	4.706379	ppb
	Ag	107	610.019	0.124253	ppb
	Ag	109	440.010	0.086204	ppb
	Cd	111	828.777	0.747256	ppb
	In	113	66787.285	-1.166142	ppb
>	In	115	1563599.889		ppb
	Sn	118	2360.279	0.661485	ppb
	Sb	121	265.004	-0.020376	ppb
	Ba	135	55954.106	53.034709	ppb
	Ba	137	98565.374	53.363244	ppb
>	Tb	159	3043279.239		ppb
	Tl	205	2440.298	0.134058	ppb
	Pb	206	112949.295	20.810137	ppb
	Pb	207	211482.353	20.588759	ppb
	Pb	208	350231.290	18.947617	ppb
>	Bi	209	2508899.231		ppb
	Cr	53	15085.370		ppb
	Pd	106	1175.069		ppb
	Pd	108	465.011		ppb
	C	12	368061.047		ppb
	Kr	83	48.000		ppb
	Se	77	94.000		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	482260.979		ppb
	Be	9	306.005	1.325000	ppb
	Na	23	318410.832	106.252497	ppb
	Mg	24	19564520.086	10164.403892	ppb
	Mg	25	2780228.580	10349.174285	ppb
	Mg	26	3340884.577	10842.989993	ppb
	Al	27	77817339.926	25030.675981	ppb
	K	39	15567108.897	2996.892667	ppb
	Ca	44	153897.174	1119.707426	ppb
>	Sc	45	614816.281		ppb

	Ti	47	5886.732	16.830915	ppb
	V	51	122908.062	26.860534	ppb
	Cr	52	129089.866	32.521248	ppb
	Mn	55	1142090.440	208.735330	ppb
	Fe	54	16348331.249	54731.392532	ppb
	Fe	56	281546191.358	51044.190330	ppb
	Fe	57	6843953.158	58211.898360	ppb
	Co	59	98349.262	20.054482	ppb
	Ni	60	50798.699	46.773986	ppb
	Cu	63	162730.034	63.282235	ppb
	Cu	65	80905.970	64.007571	ppb
	Zn	66	108572.888	161.076573	ppb
	As	75	8237.996	10.814415	ppb
	Se	82	64.000	0.644226	ppb
>	Mo	96	7736.992	4.665853	ppb
	Ag	107	570.016	0.114909	ppb
	Ag	109	446.677	0.086951	ppb
	Cd	111	777.679	0.696689	ppb
	In	113	68085.999	-0.433380	ppb
>	In	115	1574779.605		ppb
	Sn	118	3010.453	0.845549	ppb
	Sb	121	275.004	-0.017152	ppb
	Ba	135	57573.258	55.003134	ppb
	Ba	137	99044.069	54.047724	ppb
>	Tb	159	3019356.262		ppb
	Tl	205	2405.289	0.128749	ppb
	Pb	206	115619.552	20.778203	ppb
	Pb	207	215551.388	20.468750	ppb
	Pb	208	356952.920	18.836273	ppb
>	Bi	209	2572158.179		ppb
	Cr	53	15255.628		ppb
	Pd	106	1145.066		ppb
	Pd	108	440.010		ppb
	C	12	364498.041		ppb
	Kr	83	32.000		ppb
	Se	77	88.667		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	484323.143		ppb
	Be	9	310.005	1.336673	ppb
	Na	23	314122.352	104.193596	ppb
	Mg	24	19311558.686	9990.221911	ppb
	Mg	25	2792117.587	10349.176739	ppb
	Mg	26	3360818.259	10861.246582	ppb
	Al	27	78472542.203	25133.960837	ppb
	K	39	15497145.271	2970.397784	ppb
	Ca	44	154134.792	1116.573787	ppb
>	Sc	45	616011.580		ppb
	Ti	47	5901.741	16.841168	ppb
	V	51	120602.987	26.302954	ppb
	Cr	52	127696.143	32.101616	ppb
	Mn	55	1137051.852	207.410955	ppb
	Fe	54	16261966.183	54336.268481	ppb
	Fe	56	277412949.087	50196.147257	ppb
	Fe	57	6846805.242	58123.136294	ppb
	Co	59	97803.953	19.904499	ppb
	Ni	60	49515.620	45.503463	ppb
	Cu	63	161442.753	62.658345	ppb
	Cu	65	79494.720	62.767088	ppb
	Zn	66	107255.452	158.809735	ppb
	As	75	8384.214	10.984948	ppb
	Se	82	66.000	0.670245	ppb

⌈	Mo	96	7961.168	4.876023	ppb
|	Ag	107	626.686	0.128231	ppb
|	Ag	109	460.011	0.090809	ppb
|	Cd	111	954.001	0.861931	ppb
|	In	113	67607.771	-0.226410	ppb
|>	In	115	1558409.562		ppb
⌊	Sn	118	2855.408	0.809203	ppb
⌈	Sb	121	350.006	0.002572	ppb
|	Ba	135	56633.917	53.940078	ppb
|	Ba	137	100338.882	54.587745	ppb
⌊>	Tb	159	3028588.047		ppb
⌈	Tl	205	2235.250	0.121161	ppb
|	Pb	206	115189.633	20.998152	ppb
|	Pb	207	213157.176	20.531954	ppb
|	Pb	208	352824.278	18.885665	ppb
⌊>	Bi	209	2535761.552		ppb
	Cr	53	15237.600		ppb
	Pd	106	1160.067		ppb
	Pd	108	305.005		ppb
	C	12	371025.638		ppb
	Kr	83	32.000		ppb
	Se	77	91.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			90.632		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			91.293		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			87.500		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			92.036		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			88.733		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-06

Sample Date/Time: Thursday, April 30, 2009 17:45:41
Sample Type: Sample
Sample Description: MW-10
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-06.2448

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	473968.522	2.465	473968.522			ppb
	Be	9	546.015	4.441	0.001	2.41125	2.03	ppb
	Na	23	498399.472	0.164	0.994	175.38684	2.56	ppb
	Mg	24	16534684.281	0.149	34.890	8743.82414	2.49	ppb
	Mg	25	2364788.679	0.772	4.990	8960.76921	3.01	ppb
	Mg	26	2827828.947	0.643	5.967	9341.53584	2.32	ppb
	Al	27	80715665.788	0.281	170.359	26428.35489	2.56	ppb
	K	39	20452969.485	0.605	42.775	4020.34830	2.36	ppb
	Ca	44	1771694.877	0.348	3.731	13466.35060	2.54	ppb
>	Sc	45	610997.438	1.167	610997.438			ppb
	Ti	47	4195.880	1.851	0.007	12.03259	0.92	ppb
	V	51	128384.189	1.152	0.209	28.24104	1.36	ppb
	Cr	52	126032.757	1.882	0.203	31.94131	1.58	ppb
	Mn	55	3178268.762	0.681	5.202	584.60379	0.49	ppb
	Fe	54	13544345.436	1.171	22.145	45620.97153	1.01	ppb
	Fe	56	230510274.571	1.086	376.679	42041.26603	0.19	ppb
	Fe	57	5604032.569	0.604	9.170	47963.90136	0.83	ppb
	Co	59	81064.671	2.042	0.133	16.63029	1.08	ppb
	Ni	60	44819.110	1.083	0.073	41.52454	0.77	ppb
	Cu	63	120706.444	1.376	0.197	47.19621	0.99	ppb
	Cu	65	59060.573	1.042	0.096	46.99184	0.93	ppb
	Zn	66	75002.466	1.182	0.122	111.89514	1.15	ppb
	As	75	5923.329	2.434	0.010	7.82475	1.36	ppb
	Se	82	203.558	8.941	0.000	2.60020	8.70	ppb
	Mo	96	8391.520	1.046	0.005	5.52074	1.35	ppb
	Ag	107	581.128	5.774	0.000	0.12594	5.51	ppb
	Ag	109	255.559	3.765	0.000	0.05023	4.15	ppb
	Cd	111	1218.719	1.482	0.001	1.16467	0.92	ppb
	In	113	65285.779	1.395	0.001	1.21410	62.77	ppb
>	In	115	1470139.836	0.558	1470139.836			ppb
	Sn	118	3255.531	4.640	0.002	0.98430	5.29	ppb
	Sb	121	235.003	14.741	-0.000	-0.02628	39.40	ppb
	Ba	135	158356.715	0.827	0.054	154.90469	2.03	ppb
	Ba	137	272055.139	0.661	0.092	152.00619	2.00	ppb
>	Tb	159	2950656.780	1.325	2950656.780			ppb
	Tl	205	2843.738	4.324	0.001	0.16369	5.00	ppb
	Pb	206	108775.087	0.708	0.045	20.89740	0.05	ppb
	Pb	207	199763.831	0.444	0.083	20.27903	0.37	ppb
	Pb	208	326365.091	0.626	0.136	18.41069	0.08	ppb
>	Bi	209	2406091.534	0.692	2406091.534			ppb
	Cr	53	14812.300	2.408	14500.961			ppb
	Pd	106	1840.169	3.533	1840.169			ppb
	Pd	108	440.010	12.500	430.010			ppb
	C	12	403237.533	0.602	88943.591			ppb
	Kr	83	87.334	24.700	69.334			ppb
	Se	77	319.561	1.149	290.672			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	487271.310		ppb
	Be	9	574.016	2.466648	ppb
	Na	23	498343.426	170.226165	ppb
	Mg	24	16530775.026	8499.568567	ppb
	Mg	25	2353666.878	8670.872127	ppb
	Mg	26	2830637.562	9092.117393	ppb
	Al	27	80567218.956	25648.768108	ppb
	K	39	20469415.655	3911.284548	ppb
	Ca	44	1768961.813	13072.170925	ppb
>	Sc	45	619109.378		ppb
	Ti	47	4270.912	12.088402	ppb
	V	51	128645.576	27.924587	ppb
	Cr	52	127199.878	31.812609	ppb
	Mn	55	3203142.518	581.437111	ppb
	Fe	54	13634165.105	45319.985121	ppb
	Fe	56	233400949.022	42010.367262	ppb
	Fe	57	5627732.468	47532.859215	ppb
	Co	59	82666.279	16.737651	ppb
	Ni	60	45305.732	41.424276	ppb
	Cu	63	121824.231	47.007879	ppb
	Cu	65	59422.697	46.657993	ppb
	Zn	66	75383.063	110.982668	ppb
	As	75	6072.641	7.917554	ppb
	Se	82	220.002	2.791361	ppb
	Mo	96	8295.439	5.435787	ppb
	Ag	107	576.683	0.124646	ppb
	Ag	109	266.670	0.052616	ppb
	Cd	111	1225.992	1.168826	ppb
	In	113	66329.251	2.059879	ppb
>	In	115	1473670.544		ppb
	Sn	118	3115.485	0.938202	ppb
	Sb	121	215.002	-0.032037	ppb
	Ba	135	159026.496	154.970490	ppb
	Ba	137	271450.945	151.093332	ppb
>	Tb	159	2961364.714		ppb
	Tl	205	2885.416	0.167155	ppb
	Pb	206	108131.477	20.901883	ppb
	Pb	207	199391.001	20.365764	ppb
	Pb	208	324667.054	18.427800	ppb
>	Bi	209	2391344.102		ppb
	Cr	53	15189.527		ppb
	Pd	106	1805.163		ppb
	Pd	108	385.007		ppb
	C	12	404717.367		ppb
	Kr	83	112.001		ppb
	Se	77	321.338		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	469261.923		ppb
	Be	9	532.014	2.373601	ppb
	Na	23	499242.655	177.491644	ppb
	Mg	24	16512206.063	8815.942422	ppb
	Mg	25	2354833.898	9008.197634	ppb
	Mg	26	2844453.298	9487.237429	ppb
	Al	27	80977089.855	26768.679184	ppb
	K	39	20567688.262	4082.494540	ppb
	Ca	44	1778763.434	13650.488352	ppb
>	Sc	45	608157.018		ppb

	Ti	47	4200.882	12.104500	ppb
	V	51	129715.642	28.667381	ppb
	Cr	52	127594.862	32.496233	ppb
	Mn	55	3168062.460	585.426104	ppb
	Fe	54	13637619.707	46148.733058	ppb
	Fe	56	229115484.447	41981.649208	ppb
	Fe	57	5619121.014	48315.057537	ppb
	Co	59	81168.081	16.730269	ppb
	Ni	60	44334.728	41.266396	ppb
	Cu	63	121496.952	47.728178	ppb
	Cu	65	59409.284	47.489341	ppb
	Zn	66	75634.955	113.364313	ppb
	As	75	5912.496	7.847615	ppb
	Se	82	206.669	2.658691	ppb
	Mo	96	8467.583	5.551723	ppb
	Ag	107	616.686	0.133433	ppb
	Ag	109	250.003	0.048745	ppb
	Cd	111	1232.010	1.172702	ppb
	In	113	64879.789	0.580932	ppb
>	In	115	1475980.478		ppb
	Sn	118	3235.523	0.973911	ppb
	Sb	121	275.004	-0.014325	ppb
	Ba	135	159195.148	158.019974	ppb
	Ba	137	274077.139	155.392547	ppb
>	Tb	159	2907309.563		ppb
	Tl	205	2705.366	0.154338	ppb
	Pb	206	109627.635	20.904265	ppb
	Pb	207	200776.153	20.229614	ppb
	Pb	208	328630.307	18.400268	ppb
>	Bi	209	2424155.622		ppb
	Cr	53	14766.895		ppb
	Pd	106	1915.183		ppb
	Pd	108	495.012		ppb
	C	12	404559.154		ppb
	Kr	83	72.000		ppb
	Se	77	322.005		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	465372.334		ppb
	Be	9	532.014	2.393505	ppb
	Na	23	497612.336	178.442705	ppb
	Mg	24	16561071.755	8915.961442	ppb
	Mg	25	2385865.260	9203.237870	ppb
	Mg	26	2808395.981	9445.252709	ppb
	Al	27	80602688.553	26867.617381	ppb
	K	39	20321804.537	4067.265825	ppb
	Ca	44	1767359.385	13676.392523	ppb
>	Sc	45	605725.919		ppb
	Ti	47	4115.847	11.904859	ppb
	V	51	126791.347	28.131151	ppb
	Cr	52	123303.530	31.515086	ppb
	Mn	55	3163601.309	586.948147	ppb
	Fe	54	13361251.496	45394.196421	ppb
	Fe	56	229014390.245	42131.781620	ppb
	Fe	57	5565244.224	48043.787314	ppb
	Co	59	79359.653	16.422946	ppb
	Ni	60	44816.870	41.882944	ppb
	Cu	63	118798.150	46.852558	ppb
	Cu	65	58349.739	46.828178	ppb
	Zn	66	73989.379	111.338443	ppb
	As	75	5784.851	7.709075	ppb
	Se	82	184.002	2.350558	ppb

⌈	Mo	96	8411.536	5.574706	ppb
|	Ag	107	550.015	0.119737	ppb
|	Ag	109	250.003	0.049335	ppb
|	Cd	111	1198.155	1.152475	ppb
|	In	113	64648.297	1.001487	ppb
|>	In	115	1460768.487		ppb
⌊	Sn	118	3415.583	1.040777	ppb
⌈	Sb	121	215.002	-0.032466	ppb
|	Ba	135	156848.501	151.723617	ppb
|	Ba	137	270637.333	149.532683	ppb
⌊>	Tb	159	2983296.063		ppb
⌈	Tl	205	2940.432	0.169583	ppb
|	Pb	206	108566.149	20.886062	ppb
|	Pb	207	199124.340	20.241716	ppb
|	Pb	208	325797.912	18.404003	ppb
⌊>	Bi	209	2402774.877		ppb
	Cr	53	14480.477		ppb
	Pd	106	1800.162		ppb
	Pd	108	440.010		ppb
	C	12	400436.080		ppb
	Kr	83	78.000		ppb
	Se	77	315.338		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			88.452		
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			90.732		
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115			82.165		
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159			89.614		
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209			84.090		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: 0904160-07

Sample Date/Time: Thursday, April 30, 2009 17:48:14
Sample Type: Sample
Sample Description: MW-12
Number of Replicates: 3
Batch ID: 0904160
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\0904160-07.2449

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	472789.887	2.238	472789.887			ppb
	Be	9	423.342	5.907	0.001	1.87461	7.52	ppb
	Na	23	564847.322	0.447	1.137	200.66411	2.79	ppb
	Mg	24	8449529.730	1.043	17.871	4478.54267	3.24	ppb
	Mg	25	1187832.919	1.153	2.512	4510.90352	3.11	ppb
	Mg	26	1460809.610	1.260	3.090	4837.06345	3.25	ppb
	Al	27	69049781.033	2.303	146.118	22667.75250	4.07	ppb
	K	39	18029451.064	1.249	37.760	3549.00494	3.48	ppb
	Ca	44	128002.132	1.461	0.262	945.39975	2.75	ppb
>	Sc	45	581361.154	1.045	581361.154			ppb
	Ti	47	7744.668	4.154	0.013	23.46819	3.68	ppb
	V	51	105186.218	0.548	0.180	24.29940	0.92	ppb
	Cr	52	97230.404	0.345	0.164	25.80922	1.23	ppb
	Mn	55	1197604.342	1.560	2.060	231.47865	0.99	ppb
	Fe	54	13381595.267	1.556	22.995	47372.74734	1.61	ppb
	Fe	56	233709266.972	0.479	401.447	44805.60173	1.35	ppb
	Fe	57	5604866.727	0.543	9.639	50419.59782	1.53	ppb
	Co	59	90221.852	0.718	0.155	19.45767	1.65	ppb
	Ni	60	46040.187	0.361	0.079	44.83357	0.86	ppb
	Cu	63	90105.246	0.549	0.154	36.99560	0.50	ppb
	Cu	65	44278.935	1.171	0.076	37.00378	0.47	ppb
	Zn	66	79456.655	0.825	0.136	124.60860	0.26	ppb
	As	75	6104.764	0.510	0.011	8.47684	1.47	ppb
	Se	82	64.889	16.125	0.000	0.70899	22.42	ppb
	Mo	96	6210.595	1.618	0.004	3.88575	2.87	ppb
	Ag	107	372.229	14.779	0.000	0.07799	14.45	ppb
	Ag	109	165.557	16.765	0.000	0.02942	21.16	ppb
	Cd	111	949.147	7.520	0.001	0.90115	8.43	ppb
	In	113	64743.937	1.324	0.000	0.14482	112.63	ppb
>	In	115	1483356.102	1.244	1483356.102			ppb
	Sn	118	1565.123	7.872	0.001	0.45377	9.25	ppb
	Sb	121	196.669	11.464	-0.000	-0.03527	18.39	ppb
	Ba	135	135659.324	0.536	0.047	136.50211	0.94	ppb
	Ba	137	234598.723	0.864	0.082	134.83271	1.26	ppb
>	Tb	159	2868023.707	0.668	2868023.707			ppb
	Tl	205	2627.012	1.759	0.001	0.15098	1.99	ppb
	Pb	206	113640.415	0.734	0.047	21.84094	0.29	ppb
	Pb	207	207942.985	0.252	0.086	21.11802	0.46	ppb
	Pb	208	342168.795	0.835	0.142	19.31061	1.07	ppb
>	Bi	209	2405147.629	0.561	2405147.629			ppb
	Cr	53	11531.979	0.600	11220.641			ppb
	Pd	106	1013.385	5.762	1013.385			ppb
	Pd	108	343.339	6.567	333.339			ppb
	C	12	393843.218	0.274	79549.276			ppb
	Kr	83	35.333	8.646	17.333			ppb
	Se	77	70.445	7.103	41.556			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	484707.091		ppb
	Be	9	412.008	1.777655	ppb
	Na	23	562012.227	194.363989	ppb
	Mg	24	8356684.915	4318.262006	ppb
	Mg	25	1174690.295	4349.287410	ppb
	Mg	26	1442246.662	4655.914522	ppb
	Al	27	67576479.071	21626.697731	ppb
	K	39	17790172.768	3412.648842	ppb
	Ca	44	128510.475	924.836107	ppb
>	Sc	45	588316.285		ppb
	Ti	47	7998.197	23.955004	ppb
	V	51	105583.474	24.100465	ppb
	Cr	52	97139.524	25.472056	ppb
	Mn	55	1216107.269	232.279149	ppb
	Fe	54	13479859.520	47154.283246	ppb
	Fe	56	233217352.654	44177.863977	ppb
	Fe	57	5577682.991	49576.495871	ppb
	Co	59	89730.783	19.120684	ppb
	Ni	60	46142.880	44.399634	ppb
	Cu	63	90675.917	36.787661	ppb
	Cu	65	44853.701	37.041139	ppb
	Zn	66	80213.761	124.306189	ppb
	As	75	6079.887	8.341712	ppb
	Se	82	61.334	0.645560	ppb
	Mo	96	6115.870	3.758985	ppb
	Ag	107	426.676	0.089023	ppb
	Ag	109	156.668	0.026968	ppb
	Cd	111	868.495	0.814115	ppb
	In	113	65549.133	0.104875	ppb
>	In	115	1502789.788		ppb
	Sn	118	1435.103	0.407665	ppb
	Sb	121	175.002	-0.041269	ppb
	Ba	135	136499.288	137.617487	ppb
	Ba	137	236927.881	136.438245	ppb
>	Tb	159	2862298.750		ppb
	Tl	205	2600.338	0.150159	ppb
	Pb	206	113192.016	21.861684	ppb
	Pb	207	207999.317	21.227171	ppb
	Pb	208	340365.678	19.302679	ppb
>	Bi	209	2393396.446		ppb
	Cr	53	11564.683		ppb
	Pd	106	1065.057		ppb
	Pd	108	345.006		ppb
	C	12	394973.129		ppb
	Kr	83	36.000		ppb
	Se	77	70.667		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	464499.108		ppb
	Be	9	452.010	2.036228	ppb
	Na	23	566850.156	205.104978	ppb
	Mg	24	8532112.750	4600.881418	ppb
	Mg	25	1186779.577	4585.335393	ppb
	Mg	26	1461121.358	4922.186577	ppb
	Al	27	68837620.296	22988.829544	ppb
	K	39	18237454.675	3653.228895	ppb
	Ca	44	129565.964	974.674129	ppb
>	Sc	45	578656.384		ppb

	Ti	47	7382.724	22.472388	ppb
	V	51	104524.811	24.257950	ppb
	Cr	52	96949.695	25.853717	ppb
	Mn	55	1178751.041	228.901931	ppb
	Fe	54	13142459.995	46741.067018	ppb
	Fe	56	232921042.062	44859.306580	ppb
	Fe	57	5599138.024	50598.266628	ppb
	Co	59	89978.998	19.493891	ppb
	Ni	60	46129.485	45.128106	ppb
	Cu	63	89838.409	37.057423	ppb
	Cu	65	43845.913	36.812723	ppb
	Zn	66	79068.023	124.576693	ppb
	As	75	6094.760	8.501642	ppb
	Se	82	56.667	0.591515	ppb
	Mo	96	6315.994	3.967984	ppb
	Ag	107	373.340	0.078451	ppb
	Ag	109	196.669	0.036505	ppb
	Cd	111	1004.182	0.953788	ppb
	In	113	64839.529	0.324198	ppb
>	In	115	1481221.069		ppb
	Sn	118	1680.141	0.489747	ppb
	Sb	121	195.002	-0.036155	ppb
	Ba	135	135260.627	135.089622	ppb
	Ba	137	233224.330	133.045595	ppb
>	Tb	159	2889384.903		ppb
	Tl	205	2680.359	0.154309	ppb
	Pb	206	113126.279	21.769088	ppb
	Pb	207	207393.510	21.087921	ppb
	Pb	208	345463.064	19.520240	ppb
>	Bi	209	2402177.359		ppb
	Cr	53	11452.554		ppb
	Pd	106	950.045		ppb
	Pd	108	365.007		ppb
	C	12	392822.868		ppb
	Kr	83	32.000		ppb
	Se	77	75.334		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	469163.461		ppb
	Be	9	406.008	1.809945	ppb
	Na	23	565679.583	202.523359	ppb
	Mg	24	8459791.525	4516.484600	ppb
	Mg	25	1202028.886	4598.087749	ppb
	Mg	26	1479060.809	4933.089245	ppb
	Al	27	70735243.733	23387.730233	ppb
	K	39	18060725.748	3581.137087	ppb
	Ca	44	125929.956	936.689011	ppb
>	Sc	45	577110.794		ppb
	Ti	47	7853.082	23.977186	ppb
	V	51	105450.370	24.539795	ppb
	Cr	52	97601.994	26.101888	ppb
	Mn	55	1197954.715	233.254875	ppb
	Fe	54	13522466.286	48222.891755	ppb
	Fe	56	234989406.200	45379.634626	ppb
	Fe	57	5637779.165	51084.030955	ppb
	Co	59	90955.775	19.758448	ppb
	Ni	60	45848.196	44.972966	ppb
	Cu	63	89801.412	37.141707	ppb
	Cu	65	44137.190	37.157468	ppb
	Zn	66	79088.182	124.942917	ppb
	As	75	6139.644	8.587151	ppb
	Se	82	76.667	0.889909	ppb

⌈	Mo	96	6199.921	3.930274	ppb
|	Ag	107	316.672	0.066495	ppb
|	Ag	109	143.334	0.024800	ppb
|	Cd	111	974.764	0.935559	ppb
|	In	113	63843.149	0.005401	ppb
|>	In	115	1466057.448		ppb
⌊	Sn	118	1580.125	0.463892	ppb
⌈	Sb	121	220.002	-0.028390	ppb
|	Ba	135	135218.057	136.799234	ppb
|	Ba	137	233643.957	135.014297	ppb
⌊>	Tb	159	2852387.468		ppb
⌈	Tl	205	2600.338	0.148477	ppb
|	Pb	206	114602.950	21.892059	ppb
|	Pb	207	208436.128	21.038965	ppb
|	Pb	208	340677.643	19.108926	ppb
⌊>	Bi	209	2419869.081		ppb
	Cr	53	11578.699		ppb
	Pd	106	1025.053		ppb
	Pd	108	320.005		ppb
	C	12	393733.658		ppb
	Kr	83	38.000		ppb
	Se	77	65.334		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.232			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		86.331			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		82.904			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		87.104			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		84.057			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCV

Sample Date/Time: Thursday, April 30, 2009 17:50:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCV.2450

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	509200.080	2.511	509200.080			ppb
	Be	9	29351.013	0.825	0.058	121.13717	3.29	ppb
	Na	23	3476128.010	1.184	6.773	1195.28144	3.62	ppb
	Mg	24	2455462.010	0.770	4.814	1206.56063	2.59	ppb
	Mg	25	341250.578	1.898	0.669	1201.17232	0.81	ppb
	Mg	26	390662.506	0.609	0.766	1199.20757	2.36	ppb
	Al	27	3910728.328	1.333	7.673	1190.38344	2.88	ppb
	K	39	6283245.834	0.848	11.950	1123.11854	1.88	ppb
	Ca	44	162573.250	2.164	0.310	1120.35861	0.88	ppb
>	Sc	45	622248.815	1.173	622248.815			ppb
	Ti	47	42294.264	1.470	0.068	120.30752	0.56	ppb
	V	51	545130.462	1.879	0.875	118.14791	1.28	ppb
	Cr	52	473519.225	1.090	0.758	119.12723	0.64	ppb
	Mn	55	673021.527	1.382	1.081	121.52278	1.15	ppb
	Fe	54	380351.198	1.605	0.588	1210.72021	0.56	ppb
	Fe	56	6965084.301	1.283	10.603	1183.37250	2.28	ppb
	Fe	57	144712.938	0.715	0.230	1203.27524	1.15	ppb
	Co	59	600225.372	1.362	0.965	120.99108	0.55	ppb
	Ni	60	133319.621	1.516	0.214	121.32693	0.83	ppb
	Cu	63	317971.971	2.036	0.510	122.30676	0.87	ppb
	Cu	65	156351.836	1.296	0.251	122.30931	0.33	ppb
	Zn	66	84151.507	1.091	0.135	123.29712	0.58	ppb
	As	75	93422.312	1.221	0.150	121.13719	0.08	ppb
	Se	82	8965.573	0.551	0.014	122.89128	1.04	ppb
	Mo	96	185758.853	0.841	0.112	120.45943	0.37	ppb
	Ag	107	606478.161	0.877	0.368	121.93267	0.85	ppb
	Ag	109	597574.304	0.901	0.362	121.11052	0.47	ppb
	Cd	111	141419.359	0.136	0.086	119.71920	0.41	ppb
	In	113	214615.237	0.493	0.087	121.62371	0.88	ppb
>	In	115	1649691.746	0.497	1649691.746			ppb
	Sn	118	437060.573	0.818	0.265	121.23418	1.13	ppb
	Sb	121	465212.159	0.730	0.150	120.52993	1.83	ppb
	Ba	135	130472.327	0.673	0.042	121.18055	1.20	ppb
	Ba	137	226447.985	0.733	0.073	120.13789	1.69	ppb
>	Tb	159	3107308.155	1.715	3107308.155			ppb
	Tl	205	2326946.246	1.767	0.851	120.38697	2.02	ppb
	Pb	206	735983.093	1.238	0.269	124.46058	1.82	ppb
	Pb	207	1381908.116	0.584	0.505	123.49344	1.81	ppb
	Pb	208	2287355.611	0.639	0.836	113.58857	1.51	ppb
>	Bi	209	2734856.209	2.074	2734856.209			ppb
	Cr	53	55350.771	0.932	55039.433			ppb
	Pd	106	12018.887	2.102	12018.887			ppb
	Pd	108	9391.075	1.323	9381.075			ppb
	C	12	309711.718	0.631	-4582.224			ppb
	Kr	83	21.333	19.516	3.333			ppb
	Se	77	6921.728	1.012	6892.839			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	523412.699		ppb
	Be	9	29072.198	116.663865	ppb
	Na	23	3428963.832	1145.943347	ppb
	Mg	24	2449822.943	1170.545949	ppb
	Mg	25	347727.400	1190.582853	ppb
	Mg	26	390788.441	1166.509294	ppb
	Al	27	3890771.549	1151.606091	ppb
	K	39	6324630.869	1098.714429	ppb
	Ca	44	165894.733	1111.882659	ppb
>	Sc	45	629706.313		ppb
	Ti	47	42771.274	120.225385	ppb
	V	51	549212.251	117.624443	ppb
	Cr	52	476443.848	118.438381	ppb
	Mn	55	682795.973	121.824518	ppb
	Fe	54	385661.032	1213.216974	ppb
	Fe	56	6957053.171	1166.971577	ppb
	Fe	57	144547.198	1187.404328	ppb
	Co	59	609637.190	121.433652	ppb
	Ni	60	135643.764	121.981127	ppb
	Cu	63	324418.366	123.318056	ppb
	Cu	65	158628.246	122.621523	ppb
	Zn	66	85211.510	123.369628	ppb
	As	75	94552.583	121.151240	ppb
	Se	82	8964.683	121.412160	ppb
	Mo	96	184983.261	120.370400	ppb
	Ag	107	609901.959	123.042474	ppb
	Ag	109	595781.023	121.164268	ppb
	Cd	111	141200.281	119.943743	ppb
	In	113	213464.290	121.267337	ppb
>	In	115	1644030.577		ppb
	Sn	118	435224.298	121.137043	ppb
	Sb	121	462807.313	121.823603	ppb
	Ba	135	130090.711	122.764717	ppb
	Ba	137	224982.708	121.269986	ppb
>	Tb	159	3057853.277		ppb
	Tl	205	2322795.122	122.861941	ppb
	Pb	206	734617.117	127.006753	ppb
	Pb	207	1379842.341	126.060580	ppb
	Pb	208	2270482.227	115.270828	ppb
>	Bi	209	2674515.573		ppb
	Cr	53	55660.475		ppb
	Pd	106	11731.878		ppb
	Pd	108	9529.538		ppb
	C	12	309389.173		ppb
	Kr	83	20.000		ppb
	Se	77	6942.409		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	505552.083		ppb
	Be	9	29471.364	122.444267	ppb
	Na	23	3504764.693	1213.253694	ppb
	Mg	24	2476536.188	1225.228113	ppb
	Mg	25	341247.825	1209.712605	ppb
	Mg	26	392977.780	1214.583449	ppb
	Al	27	3969900.771	1216.628272	ppb
	K	39	6301983.684	1134.627068	ppb
	Ca	44	162936.691	1131.181196	ppb
>	Sc	45	621926.366		ppb

	Ti	47	42520.207	121.015678	ppb
	V	51	552702.471	119.855168	ppb
	Cr	52	476554.959	119.954051	ppb
	Mn	55	664284.419	120.003730	ppb
	Fe	54	381708.639	1215.908050	ppb
	Fe	56	6879979.735	1168.565195	ppb
	Fe	57	145820.485	1213.132611	ppb
	Co	59	596121.791	120.226787	ppb
	Ni	60	131978.541	120.169417	ppb
	Cu	63	318024.492	122.398734	ppb
	Cu	65	155682.492	121.849223	ppb
	Zn	66	83601.338	122.550858	ppb
	As	75	93442.046	121.226028	ppb
	Se	82	9015.395	123.630839	ppb
	Mo	96	187556.531	120.939280	ppb
	Ag	107	609183.418	121.781244	ppb
	Ag	109	603627.921	121.645157	ppb
	Cd	111	141557.652	119.155215	ppb
	In	113	214838.247	120.773888	ppb
>	In	115	1659099.357		ppb
	Sn	118	434775.390	119.912707	ppb
	Sb	121	463733.787	117.978378	ppb
	Ba	135	131476.661	119.918385	ppb
	Ba	137	226109.703	117.796562	ppb
>	Tb	159	3163761.072		ppb
	Tl	205	2369970.834	120.293019	ppb
	Pb	206	745698.963	123.714277	ppb
	Pb	207	1390817.631	121.929899	ppb
	Pb	208	2295810.733	111.847847	ppb
>	Bi	209	2787108.706		ppb
	Cr	53	54755.499		ppb
	Pd	106	12207.447		ppb
	Pd	108	9289.313		ppb
	C	12	307939.440		ppb
	Kr	83	26.000		ppb
	Se	77	6979.101		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	498635.457		ppb
	Be	9	29509.476	124.303364	ppb
	Na	23	3494655.505	1226.647272	ppb
	Mg	24	2440026.899	1223.907817	ppb
	Mg	25	334776.509	1203.221512	ppb
	Mg	26	388221.296	1216.529954	ppb
	Al	27	3871512.666	1202.915963	ppb
	K	39	6223122.950	1136.014131	ppb
	Ca	44	158888.326	1118.011987	ppb
>	Sc	45	615113.765		ppb
	Ti	47	41591.312	119.681490	ppb
	V	51	533476.662	116.964128	ppb
	Cr	52	467558.868	118.989254	ppb
	Mn	55	671984.190	122.740098	ppb
	Fe	54	373683.924	1203.035614	ppb
	Fe	56	7058219.998	1214.580724	ppb
	Fe	57	143771.131	1209.288792	ppb
	Co	59	594917.133	121.312803	ppb
	Ni	60	132336.559	121.830253	ppb
	Cu	63	311473.054	121.203490	ppb
	Cu	65	154744.771	122.457189	ppb
	Zn	66	83641.673	123.970863	ppb
	As	75	92272.307	121.034300	ppb
	Se	82	8916.640	123.630836	ppb

⌈	Mo	96	184736.766	120.068624	ppb
|	Ag	107	600349.107	120.974288	ppb
|	Ag	109	593313.969	120.522133	ppb
|	Cd	111	141500.143	120.058630	ppb
|	In	113	215543.175	122.829915	ppb
|>	In	115	1645945.305		ppb
⌊	Sn	118	441182.032	122.652794	ppb
⌈	Sb	121	469095.376	121.787801	ppb
|	Ba	135	129849.608	120.858539	ppb
|	Ba	137	228251.545	121.347127	ppb
⌊>	Tb	159	3100310.118		ppb
⌈	Tl	205	2288072.783	118.005955	ppb
|	Pb	206	727633.200	122.660708	ppb
|	Pb	207	1375064.375	122.489853	ppb
|	Pb	208	2295773.873	113.647030	ppb
⌊>	Bi	209	2742944.348		ppb
	Cr	53	55636.341		ppb
	Pd	106	12117.337		ppb
	Pd	108	9354.373		ppb
	C	12	311806.542		ppb
	Kr	83	18.000		ppb
	Se	77	6843.674		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6			95.027		
	Be	9	100.948				
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45			92.402		
	Ti	47					
	V	51	98.457				
	Cr	52	99.273				
	Mn	55	101.269				
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59	100.826				
	Ni	60	101.106				
	Cu	63	101.922				
	Cu	65	101.924				
	Zn	66	102.748				
	As	75	100.948				
	Se	82	102.409				
	Mo	96					
	Ag	107	101.611				
	Ag	109	100.925				
	Cd	111	99.766				
	In	113					
>	In	115			92.200		
	Sn	118	101.028				
	Sb	121	100.442				
	Ba	135	100.984				
	Ba	137	100.115				
>	Tb	159			94.372		
	Tl	205	100.322				
	Pb	206	103.717				
	Pb	207	102.911				
	Pb	208	94.657				
>	Bi	209			95.580		
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

ILM05.4 - Summary Report

Sample ID: CCB

Sample Date/Time: Thursday, April 30, 2009 17:53:24
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata1\Method\ILM05.4\ILM054METHOD.mth
Dataset File: C:\Elandata\Dataset\Default\CCB.2451

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	477719.819	3.472	477719.819			ppb
	Be	9	2.667	43.301	0.000	0.00394	134.39	ppb
	Na	23	15085.040	2.311	-0.027	-4.69974	1.99	ppb
	Mg	24	1857.506	2.345	-0.006	-1.45429	3.73	ppb
	Mg	25	270.670	10.254	-0.001	-1.28573	6.40	ppb
	Mg	26	313.672	9.330	-0.001	-1.31912	6.95	ppb
	Al	27	791.698	7.588	-0.008	-1.31697	1.04	ppb
	K	39	177510.744	2.062	-0.022	-2.04823	26.47	ppb
	Ca	44	2472.973	5.161	-0.004	-13.51974	2.33	ppb
>	Sc	45	584589.234	0.761	584589.234			ppb
	Ti	47	20.000	50.000	-0.000	-0.07548	39.63	ppb
	V	51	564.180	10.972	0.000	0.00040	3503.68	ppb
	Cr	52	1774.158	3.812	-0.000	-0.00209	927.35	ppb
	Mn	55	400.008	12.686	0.000	0.03710	25.40	ppb
	Fe	54	13252.113	2.753	-0.001	-1.79876	57.37	ppb
	Fe	56	331954.122	2.796	-0.024	-2.73319	59.38	ppb
	Fe	57	1306.752	8.491	-0.000	-1.56905	58.44	ppb
	Co	59	104.667	27.315	0.000	0.01026	58.29	ppb
	Ni	60	36.667	27.273	0.000	0.01215	78.93	ppb
	Cu	63	247.781	22.883	-0.000	-0.04831	47.65	ppb
	Cu	65	106.667	14.321	-0.000	-0.01244	97.49	ppb
	Zn	66	160.001	11.600	-0.000	-0.00318	914.93	ppb
	As	75	28.613	31.882	0.000	0.04310	28.59	ppb
	Se	82	21.111	15.578	0.000	0.06333	76.60	ppb
	Mo	96	320.672	29.204	-0.000	-0.39683	15.57	ppb
	Ag	107	117.778	12.762	0.000	0.01983	14.73	ppb
	Ag	109	130.001	14.276	0.000	0.01992	19.80	ppb
	Cd	111	6.423	168.416	0.000	0.01289	75.05	ppb
	In	113	68748.903	1.940	0.000	0.62272	78.01	ppb
>	In	115	1562854.960	1.197	1562854.960			ppb
	Sn	118	296.671	19.679	0.000	0.05734	27.96	ppb
	Sb	121	2730.378	14.929	0.001	0.65799	16.27	ppb
	Ba	135	30.667	16.413	-0.000	-0.00728	65.51	ppb
	Ba	137	58.667	14.193	-0.000	-0.00242	202.13	ppb
>	Tb	159	2936410.776	0.682	2936410.776			ppb
	Tl	205	263.337	24.781	0.000	0.01081	32.35	ppb
	Pb	206	88.334	27.922	0.000	0.00795	55.95	ppb
	Pb	207	168.334	21.073	0.000	0.00704	47.92	ppb
	Pb	208	253.335	9.116	0.000	0.00473	27.31	ppb
>	Bi	209	2593270.474	0.611	2593270.474			ppb
	Cr	53	68.667	3.363	-242.671			ppb
	Pd	106	0.000		0.000			ppb
	Pd	108	3.333	173.205	-6.667			ppb
	C	12	301285.582	1.000	-13008.360			ppb
	Kr	83	10.667	10.825	-7.333			ppb
	Se	77	25.111	11.053	-3.778			ppb

Raw Data

Replicate 1

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	496809.877		ppb
	Be	9	2.000	0.000616	ppb
	Na	23	15462.946	-4.781382	ppb
	Mg	24	1815.165	-1.514324	ppb
	Mg	25	296.004	-1.232323	ppb
	Mg	26	328.005	-1.313509	ppb
	Al	27	850.036	-1.308486	ppb
	K	39	181671.369	-2.614826	ppb
	Ca	44	2620.343	-13.159894	ppb
>	Sc	45	588077.856		ppb
	Ti	47	30.000	-0.045559	ppb
	V	51	621.363	0.012762	ppb
	Cr	52	1816.165	0.006261	ppb
	Mn	55	390.008	0.034758	ppb
	Fe	54	13669.336	-0.610965	ppb
	Fe	56	342149.875	-1.172819	ppb
	Fe	57	1430.102	-0.537442	ppb
	Co	59	136.001	0.016840	ppb
	Ni	60	46.667	0.021582	ppb
	Cu	63	303.338	-0.026252	ppb
	Cu	65	123.334	0.000890	ppb
	Zn	66	143.334	-0.030572	ppb
	As	75	37.327	0.054883	ppb
	Se	82	23.333	0.093726	ppb
	Mo	96	420.009	-0.331981	ppb
	Ag	107	133.334	0.022763	ppb
	Ag	109	133.334	0.020248	ppb
	Cd	111	-5.730	0.002023	ppb
	In	113	70250.896	1.116249	ppb
>	In	115	1584438.835		ppb
	Sn	118	360.006	0.074578	ppb
	Sb	121	3085.476	0.751655	ppb
	Ba	135	36.000	-0.002193	ppb
	Ba	137	56.000	-0.004099	ppb
>	Tb	159	2951148.830		ppb
	Tl	205	190.002	0.006892	ppb
	Pb	206	100.001	0.010141	ppb
	Pb	207	175.001	0.007777	ppb
	Pb	208	280.002	0.006219	ppb
>	Bi	209	2575795.244		ppb
	Cr	53	66.000		ppb
	Pd	106	0.000		ppb
	Pd	108	10.000		ppb
	C	12	304661.290		ppb
	Kr	83	10.000		ppb
	Se	77	27.333		ppb

Replicate 2

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	466819.499		ppb
	Be	9	2.000	0.001159	ppb
	Na	23	15016.266	-4.597355	ppb
	Mg	24	1902.181	-1.408785	ppb
	Mg	25	275.004	-1.244370	ppb
	Mg	26	333.006	-1.230338	ppb
	Al	27	795.032	-1.309713	ppb
	K	39	176070.515	-1.534472	ppb
	Ca	44	2398.288	-13.653817	ppb
>	Sc	45	579577.496		ppb

	Ti	47	10.000	-0.105383	ppb
	V	51	572.734	0.003526	ppb
	Cr	52	1810.164	0.011752	ppb
	Mn	55	355.006	0.029064	ppb
	Fe	54	12993.436	-2.311155	ppb
	Fe	56	329717.524	-2.614556	ppb
	Fe	57	1215.074	-2.291475	ppb
	Co	59	80.000	0.005145	ppb
	Ni	60	36.667	0.012469	ppb
	Cu	63	250.003	-0.046493	ppb
	Cu	65	93.334	-0.022829	ppb
	Zn	66	156.668	-0.006289	ppb
	As	75	19.131	0.030303	ppb
	Se	82	22.667	0.088869	ppb
	Mo	96	308.005	-0.403508	ppb
	Ag	107	116.667	0.019797	ppb
	Ag	109	110.001	0.015821	ppb
	Cd	111	10.000	0.016076	ppb
	In	113	67703.414	0.145015	ppb
>	In	115	1551163.350		ppb
	Sn	118	245.003	0.042875	ppb
	Sb	121	2820.398	0.681048	ppb
	Ba	135	30.000	-0.007995	ppb
	Ba	137	52.000	-0.006268	ppb
>	Tb	159	2944471.015		ppb
	Tl	205	285.004	0.011924	ppb
	Pb	206	60.000	0.002832	ppb
	Pb	207	130.000	0.003362	ppb
	Pb	208	240.002	0.003960	ppb
>	Bi	209	2606736.273		ppb
	Cr	53	70.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	298874.539		ppb
	Kr	83	10.000		ppb
	Se	77	26.000		ppb

Replicate 3

Internal Standard Symbol	Analyte	Mass	Meas. Intensity	Concentration	Report Unit
>	Li	6	469530.081		ppb
	Be	9	4.000	0.010055	ppb
	Na	23	14775.908	-4.720476	ppb
	Mg	24	1855.172	-1.439771	ppb
	Mg	25	241.003	-1.380502	ppb
	Mg	26	280.004	-1.413506	ppb
	Al	27	730.027	-1.332716	ppb
	K	39	174790.349	-1.995377	ppb
	Ca	44	2400.288	-13.745496	ppb
>	Sc	45	586112.351		ppb
	Ti	47	20.000	-0.075490	ppb
	V	51	498.444	-0.015074	ppb
	Cr	52	1696.144	-0.024296	ppb
	Mn	55	455.010	0.047473	ppb
	Fe	54	13093.566	-2.474152	ppb
	Fe	56	323994.966	-4.412201	ppb
	Fe	57	1275.081	-1.878221	ppb
	Co	59	98.000	0.008804	ppb
	Ni	60	26.667	0.002406	ppb
	Cu	63	190.002	-0.072179	ppb
	Cu	65	103.334	-0.015392	ppb
	Zn	66	180.002	0.027327	ppb
	As	75	29.380	0.044115	ppb
	Se	82	17.333	0.007382	ppb

⌈	Mo	96	234.003	-0.454995	ppb
|	Ag	107	103.334	0.016921	ppb
|	Ag	109	146.668	0.023689	ppb
¦	Cd	111	15.000	0.020562	ppb
|	In	113	68292.399	0.606898	ppb
|>	In	115	1552962.695		ppb
⌊	Sn	118	285.004	0.054580	ppb
⌈	Sb	121	2285.261	0.541274	ppb
¦	Ba	135	26.000	-0.011646	ppb
|	Ba	137	68.000	0.003094	ppb
⌊>	Tb	159	2913612.483		ppb
⌈	Tl	205	315.005	0.013614	ppb
¦	Pb	206	105.001	0.010883	ppb
¦	Pb	207	200.001	0.009992	ppb
|	Pb	208	240.002	0.004005	ppb
⌊>	Bi	209	2597279.905		ppb
	Cr	53	70.000		ppb
	Pd	106	0.000		ppb
	Pd	108	0.000		ppb
	C	12	300320.918		ppb
	Kr	83	12.000		ppb
	Se	77	22.000		ppb

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		89.152			
	Be	9					
	Na	23					
	Mg	24					
	Mg	25					
	Mg	26					
	Al	27					
	K	39					
	Ca	44					
>	Sc	45		86.810			
	Ti	47					
	V	51					
	Cr	52					
	Mn	55					
	Fe	54					
	Fe	56					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	As	75					
	Se	82					
	Mo	96					
	Ag	107					
	Ag	109					
	Cd	111					
	In	113					
>	In	115		87.347			
	Sn	118					
	Sb	121					
	Ba	135					
	Ba	137					
>	Tb	159		89.181			
	Tl	205					
	Pb	206					
	Pb	207					
	Pb	208					
>	Bi	209		90.632			
	Cr	53					
	Pd	106					
	Pd	108					
	C	12					
	Kr	83					
	Se	77					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Maintenance: None

Method(s) (cirle one): ILM04.1 (ILM05.4) 7470A

Operator(s): NSB 4/23/09 115 Date/Time 4/23/09 1230 to 4/23/09 1356

Printed: 4/22/2009

↑	Specified element(s) fail(s) high
↓	Specified element(s) fail(s) low
RR	Re-run sample(s) neat
RR #X	Re-run at a #-fold dilution
#X	Sample run at a #-fold dilution (aliquot of sample diluted with acidified water)
L	Matrix = leachate
W	Matrix = water
S	Matrix = solid
B	Matrix = biological tissue

SDG	Matrix	Comments
0904096	Water	Complete
0904103	Water	Complete
0904113	Soil	RR - CRI fails

Batch
9042010
9042023
9042030

HG Run Log (V4)

File Name: V404239C

Cup	Sample ID	Client Id	Sample Type	Dilut	Date	Time	Results	Comments
	S0	S0	CALIB STD	1.0	23 Apr 09	12:30:06	574	
	S0.2	S0.2	CALIB STD	1.0	23 Apr 09	12:32:06	1944	
	S0.5	S0.5	CALIB STD	1.0	23 Apr 09	12:33:57	4310	
	S1.0	S1.0	CALIB STD	1.0	23 Apr 09	12:35:49	8953	
	S5.0	S5.0	CALIB STD	1.0	23 Apr 09	12:37:41	40302	
	S10.0	S10.0	CALIB STD	1.0	23 Apr 09	12:39:47	79503	
	ICV	ICV	ICV	1.0	23 Apr 09	12:41:48	3.98	
	ICB	ICB	ICB	1.0	23 Apr 09	12:43:53	-.019	
	CRI	CRI	CRI	1.0	23 Apr 09	12:45:43	.138	
	CCV	CCV	CCV	1.0	23 Apr 09	12:47:37	4.77	
	CCB	CCB	CCB	1.0	23 Apr 09	12:49:31	-.055	
	9042023-BLK1	PBS	BLANK	1.0	23 Apr 09	12:51:25	-.064	
	9042023-BS1	LCSS	LCS	1.0	23 Apr 09	12:53:17	6.08	
	0904113-01	L-16	SAMPLE	1.0	23 Apr 09	12:55:10	-.106	
	9042023-DUP1	L-16D	DUPLICATE	1.0	23 Apr 09	12:57:00	-.035	
	9042023-MS1	L-16S	MATRIX SPIKE	1.0	23 Apr 09	12:58:51	.897	
	0904113-02	L-5	SAMPLE	1.0	23 Apr 09	13:00:53	.027	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 04/24/09

HG Run Log (V4)

File Name: V404239C

Cup	Sample ID	Client Id	Sample Type	Dilut	Date	Time	Results	Comments
	0904113-03	L-26	SAMPLE	1.0	23 Apr 09	13:02:46	.055	
	0904113-04	M-5	SAMPLE	1.0	23 Apr 09	13:04:46	.050	
	0904113-05	M-5 DUP	SAMPLE	1.0	23 Apr 09	13:06:37	-.016	
	0904113-06	N-5	SAMPLE	1.0	23 Apr 09	13:08:29	.015	
	CCV	CCV	CCV	1.0	23 Apr 09	13:10:20	4.69	
	CCB	CCB	CCB	1.0	23 Apr 09	13:12:13	-.083	
	9042010-BLK1	PBW	BLANK	1.0	23 Apr 09	13:14:14	-.028	
	9042010-BS1	LCSW	LCS	1.0	23 Apr 09	13:16:05	2.71	
	0904096-01	7W11B	SAMPLE	1.0	23 Apr 09	13:18:02	-.016	
	9042010-DUP1	7W11BD	DUPLICATE	1.0	23 Apr 09	13:19:57	.010	
	9042010-MS1	7W11BS	MATRIX SPIKE	1.0	23 Apr 09	13:21:48	.903	
	9042010-MSD1	7W11BSD	MATRIX SPIKE	1.0	23 Apr 09	13:23:39	.900	
	SDI0904096-01	SDI0904096-01	SDI	5	23 Apr 09	13:25:38	-.060	
	ZZZZZZ	ZZZZZZ	SAMPLE	1.0	23 Apr 09	13:27:40	-.028	
	CRI	CRI	CRI	1.0	23 Apr 09	13:29:30	.124	
	CCV	CCV	CCV	1.0	23 Apr 09	13:31:21	4.78	
	CCB	CCB	CCB	1.0	23 Apr 09	13:33:12	-.079	
	0904096-02	7W12B	SAMPLE	1.0	23 Apr 09	13:35:05	-.010	
	0904096-03	7WCA	SAMPLE	1.0	23 Apr 09	13:36:56	-.041	
	0904096-04	7WDUP	SAMPLE	1.0	23 Apr 09	13:38:48	-.051	
	0904096-05	7MW6	SAMPLE	1.0	23 Apr 09	13:40:54	-.054	
	9042030-BLK1	PBW	BLANK	1.0	23 Apr 09	13:42:51	-.040	
	9042030-BS1	LCSW	LCS	1.0	23 Apr 09	13:44:53	2.75	
	9042030-BSD1	LCSWD	LCS DUP	1.0	23 Apr 09	13:46:46	2.73	
	0904103-01	13MW1	SAMPLE	1.0	23 Apr 09	13:48:40	-.037	
	0904103-02	13MW2	SAMPLE	1.0	23 Apr 09	13:50:45	-.004	
	SDI0904103-02	SDI0904103-02	SDI	5	23 Apr 09	13:52:46	-.047	
	CCV	CCV	CCV	1.0	23 Apr 09	13:54:38	4.77	
	CCB	CCB	CCB	1.0	23 Apr 09	13:56:32	-.088	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Reviewed By: _____ Date: 04 24 09

V404239E

Standards/QC Preparation Log for Analysis of Cold Vapor Mercury

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 NNN

Seq. File Name: V404239C

REAGENTS	REF # [1]	MANUFACTURER	LOT #	EXPIRATION DATE
Sodium Chloride (NaCL)	1m2-187-24	Caledon	64431	06/11
Hydrochloric Acid (HCL)	1m2-186-25	Caledon	68273	12/11
Hydroxylamine Hydrochloride (NH_2OH-HCL)	1m2-187-1	JT BAKER	G37610	12/11
Stannous Chloride ($SnCL_2$-$2H_2O$)	1m2-187-2	EMD	48304850	12/11

STANDARD LOT NUMBER [2]	PREPARATION INSTRUCTIONS
$SnCL_2$– 04-16- 09 – NB Stannous chloride	Place in a 1000 mL volumetric flask containing 500 mL of reagent water: 100 g of $SnCl_2$-$2H_2O$ Baker Instra-analyzed or equivalent 250 mL of HCL Baker Instra-analyzed or equivalent Dilute to 1000 mL with reagent water. Prepare as needed
HCL– 04-23-09 – NB Hydrochloric Acid	Place in a 2 L volumetric flask: 1000 mL of deionized water 200 mL of concentrated HCL Baker Instra-analyzed or equivalent Dilute to 2000 mL with reagent water. Prepare as needed
NH_2OH-HCL– 04-21-09 – NB Hydroxylamine hydrochloride	Place in a 2000 ml volumetric flask: 240.0 g of NH_2OH-HCl Baker Instra-analyzed or equivalent 240.0 g NaCl Baker Instra-analyzed or equivalent Dilute to 2000 mL with reagent water. Place solution in a repipetor bottle. Prepare as needed

Standard Solutions Prepared By: [signature]

Entered By: [signature] Date: 4/23/09

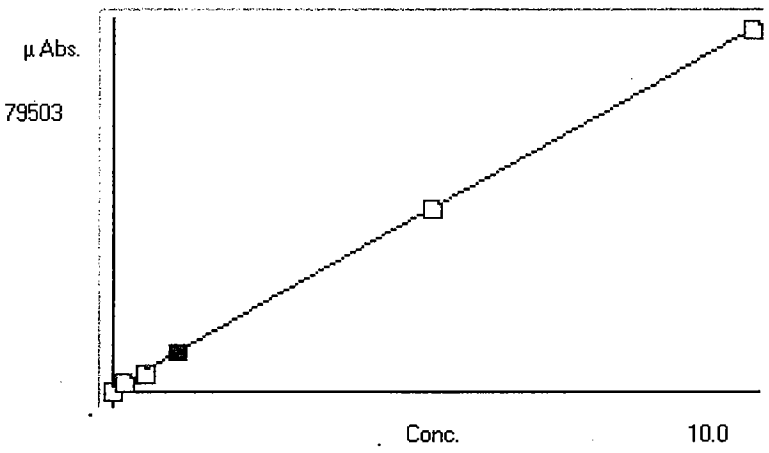
Reviewed By: [signature] Date: 042705

[1]Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Protocol: INSTIDV4
Folder: H04239C



A :
B . 1.26539e-4
C : -7.61486e-2
Rhc ! .999963

Accepted Date: 23-Apr-09 12:39

S	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
01	.00000	-.004	-.004	574	0	574				
02	.20000	.170	-.030	1944	0%	1944				
03	.50000	.469	-.031	4310	0%	4310				
04	1.0000	1.06	.057	8954	0%	8953				
05	5.0000	5.02	.024	40303	0%	40302				
06	10.000	9.98	-.016	79503	0%	79503				
07										
08										
09										
10										

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		12:30:06 23 Apr 09			HG
Hg	.000	ppb	574						
*** Standard: 2 Rep: 1				Seq: 2		12:32:06 23 Apr 09			HG
Hg	.200	ppb	1944						
*** Standard: 3 Rep: 1				Seq: 3		12:33:57 23 Apr 09			HG
Hg	.500	ppb	4310						
*** Standard: 4 Rep: 1				Seq: 4		12:35:49 23 Apr 09			HG
Hg	1.00	ppb	8953						
*** Standard: 5 Rep: 1				Seq: 5		12:37:41 23 Apr 09			HG
Hg	5.00	ppb	40302						
*** Standard: 6 Rep: 1				Seq: 6		12:39:47 23 Apr 09			HG
Hg	10.0	ppb	79503						

*** Check Standard: 3 Ck3 ICV				Seq: 7		12:41:48 23 Apr 09			HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg		99.5	3.98	4.00	ppb	.000			

I 5/4/23/09

*** Check Standard: 1 Ck1 CCB				Seq: 8		12:43:53 23 Apr 09			HG
Line	Flag	Found	Range(+/-)	Units		SD/RSD			
Hg		-.019	.200	ppb		.000			

*** Check Standard: 4 Ck4 CRI				Seq: 9		12:45:43 23 Apr 09			HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg	L	68.9	.138	.200	ppb	.000			

*** Check Standard: 2 Ck2 CCV				Seq: 10		12:47:37 23 Apr 09			HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg		95.4	4.77	5.00	ppb	.000			

*** Check Standard: 1 Ck1 CCB				Seq: 11		12:49:31 23 Apr 09			HG
Line	Flag	Found	Range(+/-)	Units		SD/RSD			
Hg		-.055	.200	ppb		.000			

*** Sample ID: PBS				Seq: 12		12:51:25 23 Apr 09			HG
				9042023-BLK1					
Hg	-.064	ppb	.000	-.064					

*** Sample ID: LCSS				Seq: 13		12:53:17 23 Apr 09			HG
				9042023-BS1					
Hg	6.08	ppb	.000	6.08					

*** Sample ID: L-16				Seq: 14		12:55:10 23 Apr 09			HG
				0904113-01					
Hg	-.106	ppb	.000	-.106					

*** Sample ID: L-16D				Seq: 15		12:57:00 23 Apr 09			HG
				9042023-DUP1					
Hg	-.035	ppb	.000	-.035					

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: L-16S				Seq: 16	12:58:51 23 Apr 09				HG
				9042023-MS1					
Hg	.897	ppb	.000	.897					=
*** Sample ID: L-5				Seq: 17	13:00:53 23 Apr 09				HG
				0904113-02					
Hg	.027	ppb	.000	.027					=
*** Sample ID: L-26				Seq: 18	13:02:46 23 Apr 09				HG
				0904113-03					
Hg	.055	ppb	.000	.055					=
*** Sample ID: M-5				Seq: 19	13:04:46 23 Apr 09				HG
				0904113-04					
Hg	.050	ppb	.000	.050					=
*** Sample ID: M-5 DUP				Seq: 20	13:06:37 23 Apr 09				HG
				0904113-05					
Hg	-.016	ppb	.000	-.016					=
*** Sample ID: N-5				Seq: 21	13:08:29 23 Apr 09				HG
				0904113-06					
Hg	.015	ppb	.000	.015					=
*** Check Standard: 2 Ck2 CCV				Seq: 22	13:10:20 23 Apr 09				HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD			
Hg		93.8	4.69	5.00	ppb	.000			=
*** Check Standard: 1 Ck1 CCB				Seq: 23	13:12:13 23 Apr 09				HG
Line	Flag	Found	Range(+/-)	Units	SD/RSD				
Hg		-.083	.200	ppb	.000				=
*** Sample ID: PBW				Seq: 24	13:14:14 23 Apr 09				HG
				9042010-BLK1					
Hg	-.028	ppb	.000	-.028					=
*** Sample ID: LCSW				Seq: 25	13:16:05 23 Apr 09				HG
				9042010-BS1					
Hg	2.71	ppb	.000	2.71					=
*** Sample ID: 7W11B				Seq: 26	13:18:02 23 Apr 09				HG
				0904096-01					
Hg	-.016	ppb	.000	-.016					=
*** Sample ID: 7W11BD				Seq: 27	13:19:57 23 Apr 09				HG
				9042010-DUP1					
Hg	.010	ppb	.000	.010					=
*** Sample ID: 7W11BS				Seq: 28	13:21:48 23 Apr 09				HG
				9042010-MS1					
Hg	.903	ppb	.000	.903					=

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 7W11BSD				Seq: 29	13:23:39 23 Apr 09	HG		
				9042010-MSD1				
Hg	.900	ppb	.000	.900				
*** Sample ID: 7W11B				Seq: 30	13:25:38 23 Apr 09	HG		
				SDI0904096-01 5X				
Hg	-.060	ppb	.000	-.060				
*** Sample ID: ZZZZZZ				Seq: 31	13:27:40 23 Apr 09	HG		
				ZZZZZZ				
Hg	-.028	ppb	.000	-.028				
*** Check Standard: 4 Ck4 CRI				Seq: 32	13:29:30 23 Apr 09	HG		
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg	L	62.1	.124	.200	ppb	.000		
*** Check Standard: 2 Ck2 CCV				Seq: 33	13:31:21 23 Apr 09	HG		
Line	Flag	%Rcv.	Found	True	Units	SD/RSD		
Hg		95.5	4.78	5.00	ppb	.000		
*** Check Standard: 1 Ck1 CCB				Seq: 34	13:33:12 23 Apr 09	HG		
Line	Flag	Found	Range(+/-)	Units	SD/RSD			
Hg		-.079	.200	ppb	.000			
*** Sample ID: 7W12B				Seq: 35	13:35:05 23 Apr 09	HG		
				0904096-02				
Hg	-.010	ppb	.000	-.010				
*** Sample ID: 7WCA				Seq: 36	13:36:56 23 Apr 09	HG		
				0904096-03				
Hg	-.041	ppb	.000	-.041				
*** Sample ID: 7WDUP				Seq: 37	13:38:48 23 Apr 09	HG		
				0904096-04				
Hg	-.051	ppb	.000	-.051				
*** Sample ID: 7MW6				Seq: 38	13:40:54 23 Apr 09	HG		
				0904096-05				
Hg	-.054	ppb	.000	-.054				
*** Sample ID: PBW				Seq: 39	13:42:51 23 Apr 09	HG		
				9042030-BLK1				
Hg	-.040	ppb	.000	-.040				
*** Sample ID: LCSW				Seq: 40	13:44:53 23 Apr 09	HG		
				9042030-BS1				
Hg	2.75	ppb	.000	2.75				
*** Sample ID: LCSWD				Seq: 41	13:46:46 23 Apr 09	HG		
				9042030-BSD1				
Hg	2.73	ppb	.000	2.73				

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 13MW1				Seq: 42	13:48:40 23 Apr 09				HG
				0904103-01					
Hg	-.037	ppb	.000	-.037					=
*** Sample ID: 13MW2				Seq: 43	13:50:45 23 Apr 09				HG
				0904103-02					
Hg	-.004	ppb	.000	-.004					=
*** Sample ID: 13MW2				Seq: 44	13:52:46 23 Apr 09				HG
				SDI0904103-02 5X					
Hg	-.047	ppb	.000	-.047					=

*** Check Standard: 2 Ck2 CCV				Seq: 45	13:54:38 23 Apr 09	HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		95.5	4.77	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB				Seq: 46	13:56:32 23 Apr 09	HG
Line	Flag	Found	Range(+/-)	Units	SD/RSD	
Hg		-.088	.200	ppb	.000	

4. Digestion and Distillation Logs

The following logs shall be submitted, as appropriate, for each preparation procedure: digestion logs for ICP-AES, ICP-MS, mercury preparations, and cyanide. The logs shall include: (1) date; (2) sample weights and volumes, with initial sample weight/volume and final volume clearly indicated; (3) sufficient information to unequivocally identify which QC samples (i.e., LCS, PB) correspond to each batch digested; (4) comments describing any significant sample changes or reactions which occur during preparation shall be entered in the log and noted in the SDG Narrative; (5) indication of pH less than 2 or greater than 12, as applicable; (6) identification of the sample preparer(s) [signature (s)].

CompuChem, a Division of Liberty Analytical Corp.

METALS/MERCURY PREPARATION LOG

Purple Water

331

Metals Method: 6020/3005A
Mercury Method: 7470A
Prepared by: DDD/NSB

Date Prepped: 4-22-09
Batch No.: 9042029/30

COMPUCHEM NUMBER	CLIENT SAMPLE ID	SAMPLE TYPE	ICP Initial mL	ICP Final (mL)	HG Initial mL	HG Final (mL)	*Description Before	*Description After ICP	pH
0904103-01	13MW1	SAMPLE	50	50	100	100	CS/CL	CS/CL	<2
0904103-02	13MW2	SAMPLE	50	↓	100	↓	CS/CL	CS/CL	<2
9042029/30-BLK1	PBW	SAMPLE	50		100		CS/CL	CS/CL	N/A
9042029/30-BS1	LCSW	SAMPLE	50		100		CS/CL	CS/CL	N/A
9042029/30-BSD1	LCSWD	SAMPLE	50	↓	100	↓	CS/CL	CS/CL	N/A
							/	/	
							/	/	
							/	/	
							/	/	
							/	/	
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Mercury Standards and QC

S0 S0.2 S0.5 S1 S5 S10

ICV ICB CRI CCV CCB

Hot Block Temp In:	95°
Hot Block Temp Out:	95°

Time Hg in water bath:	1015
Time Hg out water bath:	1215
NA	NA
Water Bath Temp In:	95°
Water Bath Temp Out:	95°

Reviewed by: [signature]
Date: 042809

Sample Spike(SS) Ref:

ICAP: **1.0mL Water Spike D for 100mL prep**
0.5mL for 50mL prep
Ref #:

HG: **1.0mL 100ppb Hg**
Ref#

LCS Ref:

ICAP: **2.0mL ICV-1 (0307) for 100 mL prep**
1.0mL for 50mL prep
Ref #: Im2-187-5

HG: **3.0mL 100ppb Hg**
Ref #: Hg 100ppb 042209 DD

NOTE: All standards and QC for mercury were prepared at the same day as the associated samples. Refer to the attached Standard/QC Preparation Log, with date matching the above preparation date, for preparation method and instruction.

* R=red, BL=blue, Y=yellow, G=green, O=orange, V=violet, W=white, CS=colorless, BR=brown, BK=black, GY=grey

F=fine M=medium C=coarse CL=clear, CY=cloudy, OP=opaque

"The presence of the Chemist's/analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation."

Shading has been applied to unused portions of this worksheet as a substitute for 'Z-out.

Standards/QC Preparation Log for ICP/MS Metals

COMPUCHEM a division of Liberty Analytical Corp. WORKSHEET 1 YYY

Case/SDG: 0904103

REAGENTS	REF #[1]	MANUFACTURER	LOT #	EXPIRATION
Hydrochloric Acid - Distilled (HCl)	HCL-D-030609-DD	Caledon	68273	12/11
Nitric Acid – Distilled (HNO_3)	NHO3-D-041509-DD	JT Baker	G44029	02/12
STANDARDS				
ICV-1 (0307)	1M2-187-5	EPA	0307	02/16/10
EPA LCS (0405)	1m2-184-27	EPA	0405	11/25/09
ERA PPT (540)	1m2-186-16	ERA	540	09/30/09
Water Spike Sample D	1m2-186-28	High Purity	0835021	12/17/09
Tin 10 ppm	7m1-39-15	CPI	07H059	03/21/09
Molybdenum 10 ppm	7m1-39-16	CPI	07D069	03/21/09

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS
HNO_3–_04_22_0_9_–_DD Nitric Acid	Place in a 100 mL volumetric flask: 25 mL of Deionized water 50 mL of **Distilled** concentrated HNO_3, Baker Instra-analyzed or equivalent Dilute to 100 mL with DI water. Prepare as needed.
HCl–_03_09_0_9_–_DD_ Hydrochloric Acid	Place in a 100 mL volumetric flask: 25 mL of Deionized water 50 mL of **Distilled** concentrated HCl, Baker Instra-analyzed or equivalent Dilute to 100 mL with DI water. Prepare as needed.

Standard Solutions Prepared By: D. Nielsen Date: 4-22-09

Entered By: D. Nielsen Date: 4-22-09

Reviewed By: _____ Date: 042205

[1]Ref# = Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consists of standard ID, date prepared, and initials of preparer.

[3]Raw Material sub-boiled from specified lot # in accordance with SOP SPP.9.10

The presence of the Chemist's/Analyst's employee ID number, or signature, on this log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Standards/QC Preparation Log for ICP Metals/Mercury Page 1 of 3 **Case/SDG:** 0904103

COMPUCHEM a division of Liberty Analytical Corp. Worksheet 1Q (1) 2

REAGENTS	REF#[1]	MANUFACTURER	LOT#	EXPIRATION DATE
SULFURIC ACID (H_2SO_4)	1m2-186-18	CALEDON	67048	10/11
NITRIC ACID (HNO_3)	1m2-187-12	JT BAKER	H02026	03/12
POTASSIUM PERMANGANATE ($KMnO_4$)	1m2-186-4	JT BAKER	G10663	07/11
HYDROCHLORIC ACID (HCL)	1m2-187-14	CALEDON	68763	12/11
POTASSIUM PERSULFATE ($K_2S_2O_8$)	1m2-184-10	CALEDON	64278	11/10
HYDROGEN PEROXIDE (H_2O_2)	1m2-186-8	CALEDON	65827	08/11
STANDARDS				
XCL 20R	1m2-186-12	HIGH PURITY	0825902	09/22/09
XCL LCS 10XR	8K21001	HIGH PURITY	0832331	11/21/09
ERA PPT (540)	1m2-187-4	ERA	540	03/03/10
EPA LCS (0405)	1m2-184-27	EPA	0405	11/25/09
ICV-1 (0307)	1m2-187-5	EPA	0307	02/16/10
ILM05.3 MATRIX SPIKE	1m2-186-7	HIGH PURITY	0821413	08/04/09
SILVER (Ag) 100ppm	7m1-42-6	HIGH PURITY	0815526	12/15/09
TCLP 500	1m2-186-27	HIGH PURITY	0835022	12/18/09
ARSENIC (As) 1000ppm	7m1-39-21	HIGH PURITY	0731224	11/11/09
MERCURY (Hg) 20ppm	1m2-186-15	HIGH PURITY	0826123	09/19/09
ICV-5 (0508) Hg	1m2-186-22	EPA	0508	11/20/09

[1]Ref#=Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consist of standard ID, date prepared, and initials of preparer

STANDARD SOLUTIONS PREPARED BY: D. Dreher DATE: 4-22-09

ENTERED BY: D. Dreher DATE: 4-22-09

REVIEWED BY: [signature] DATE: 042207

The presence of the Chemist's/Analyst's employee ID number, or signature, on this worksheet attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Standards/QC Preparation Log for ICP Metals/Mercury Page 2 of 3 **Case/SDG:** 0904103

COMPUCHEM a division of Liberty Analytical Corp. Worksheet 1Q (1) 2

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS
Hg 100ppb- 04-22-09 – DD	Place in a 100mL volumetric flask: 0.5mL of 20ppm Hg stock solution 2.5mL of concentrated HNO_3 Baker instra-analyzed Trace Metals grade or equivalent Dilute to 100mL volume with reagent water **(PREPARE DAILY)**
$K_2S_2O_8$- 04-07-09 - DD Potassium Persulfate	Place in a 1000mL Erlenmeyer flask: 50.0g of $K_2S_2O_8$ Baker instra-analyzed Trace Metals grade or equivalent Dilute to 1000mL with reagent water. Transfer to a re-pipettor bottle **(PREPARE AS NEEDED)**
$KmnO_4$- 04-22-09 - DD Potassium Permanganate	Place in a 2000mL volumetric flask: 100.0g of $KmnO_4$ Baker instra-analyzed Trace Metals grade or equivalent Dilute to 2000mL with reagent water **(PREARE AS NEEDED)**
HNO_3- 04-16-09 - DD Nitric Acid	Place in a 2000mL volumetric flask: 500mL of Deionized water 1000mL of concentrated HNO_3 Baker instra-analyzed Trace Metals grade or equivalent Dilute to 2000mL with reagent water **(PREPARE AS NEEDED)**
HCl- 04-16-09 - DD Hydrochloric Acid	Place in a 500mL volumetric flask: 200mL of Deionized water 250mL of concentrated HCl Baker instra-analyzed Trace Metals grade or equivalent Dilute to 500mL with reagent water **(PREPARE AS NEEDED)**

[1]Ref#=Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consist of standard ID, date prepared, and initials of preparer

STANDARD SOLUTIONS PREPARED BY: D. Richman DATE: 4-22-09

ENTERED BY: D. Richman DATE: 4-22-09

REVIEWED BY: [signature] DATE: 042209

The presence of the Chemist's/Analyst's employee ID number, or signature, on this worksheet attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Standards/QC Preparation Log for ICP Metals/Mercury Page 3 of 3 **Case/SDG:** 0904103

COMPUCHEM a division of Liberty Analytical Corp. Worksheet 1Q (1) 2

STANDARD LOT NUMBER[2]	PREPARATION INSTRUCTIONS	Resultant Analyte Concentration
ICV-5- 04-22-09-DD	Pipet into a 300mL BOD Bottle 1.0mL of ICV-5 and 99mL of reagent water. Digest according to sample preparation instructions	4.0µg/L
S0/ICB/CCB- 04-22-09-DD	Pipet into a 300mL BOD Bottle 100mL of reagent water Digest according to sample preparation instructions	0.0µg/L
S0.2/CRA/CRI- 04-22-09-DD	Pipet into a 300mL BOD Bottle 0.2mL of Hg 100ppb and 99.8mL of reagent water Digest according to sample preparation instructions	0.2µg/L
S0.5- 04-22-09-DD	Pipet into a 300mL BOD Bottle 0.5mL of Hg 100ppb and 99.5mL of reagent water Digest according to sample preparation instructions	0.5µg/L
S1.0- 04-22-09-DD	Pipet into a 300mL BOD Bottle 1.0mL of Hg 100ppb and 99mL of reagent water Digest according to sample preparation instructions	1.0µg/L
S5.0/CCV- 04-22-09-DD	Pipet into a 300mL BOD Bottle 5.0mL of Hg 100ppb and 95mL of reagent water Digest according to sample preparation instructions	5.0µg/L
S10.0- 04-22-09-DD	Pipet into a 300mL BOD Bottle 10mL of Hg 100ppb and 90mL of reagent water Digest according to sample preparation instructions	10.0µg/L

[1]Ref#=Logbook ID, Page number, and item number from Materials Receipt Log

[2]Standard Lot Number consist of standard ID, date prepared, and initials of preparer

STANDARD SOLUTIONS PREPARED BY: D. Dichmann DATE: 4-22-09

ENTERED BY: D. Dichmann DATE: 4-22-09

REVIEWED BY: [signature] DATE: 042209

The presence of the Chemist's/Analyst's employee ID number, or signature, on this worksheet attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

INTERNAL DIGESTION COC

9042029

COMPUCHEM

Printed: 4/20/2009 11:28:01AM

Matrix: Water **Prepared using: METALS - EPA 3005A**

Lab Number	Client ID	Sample Type	
0904103-01	13MW1	Sample	
0904103-02	13MW2	Sample	
9042029-BLK1	PBW	Blank	
9042029-BS1	LCSW	LCS	
9042029-BSD1	LCSWD	LCS Dup	

D. Dickens	4-22-09	ICP Storage	4-22-09
Relinquished By	Date	Received By	Date
[illegible]	042909	[illegible]	042909
Relinquished By	Date	Received By	Date
[illegible]	042709	[illegible]	042705
Relinquished By	Date	Received By	Date
[illegible]	043009	[illegible]	043009
Relinquished By	Date	Received By	Date
[illegible]	043005	ICP SL	043009

INTERNAL DIGESTION COC

9042030

COMPUCHEM

Printed: 4/20/2009 11:27:56AM

Matrix: Water **Prepared using: METALS - EPA 7470A Prep**

Lab Number	Client ID	Sample Type	
0904103-01	13MW1	Sample	
0904103-02	13MW2	Sample	
9042030-BLK1	PBW	Blank	
9042030-BS1	LCSW	LCS	
9042030-BSD1	LCSWD	LCS Dup	

D. Dickens	4-22-09	Hg Storage	4-22-09
Relinquished By	Date	Received By	Date
Hg Stg	4/23/09		4/23/09
Relinquished By	Date	Received By	Date
	4/23/09	Waste	
Relinquished By	Date	Received By	Date
Relinquished By	Date	Received By	Date

Metals Internal Chain of Custody Sheet

Matrix Water **Batch**: 9042029 **Status:** Batched **Analysis**: 6020 ICP MS

Lab Id	Client Id	Received	Container	Extraction	Due_Date
0904103-01 G	13MW1	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4
0904103-02 G	13MW2	04/15/09	3n_500mL Plastic, HNC	EPA 3005A	5/5/2009 4

Relinquished By	Date	Received By	Date
Ambient	4-22-09 0800	J. Reay	4-22-09
J. Reay	4-22-09 0800	D. Dickens	4-22-09
D. Dickens	4-22-09 1220	Ambient	4-22-09

CompuChem
A Division Of
Liberty Analytical Corp.
5/27/2009

JANET FRAZIER
DRAPER
2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904098

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem
a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER
OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER
Project RAAP APPIX 2009/B03204-07

Work: 0904098
Sdg: 0904098

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904098-01	13MW5	Water	04/13/2009 08:50	04/15/2009 16:15
0904098-02	13MW3	Water	04/13/2009 12:00	04/15/2009 16:15
0904098-03	13MW4	Water	04/13/2009 10:35	04/15/2009 16:15
0904098-04	13MWDUP	Water	04/13/2009 10:50	04/15/2009 16:15
0904098-05	13MW6	Water	04/13/2009 07:40	04/15/2009 16:15
0904098-06	13MW7	Water	04/14/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

GC by SW-846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)

C. Surrogate spike analysis results (Form II)
By matrix (Water or Soil), and
by concentration (Low, or Medium)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)

LAB CODE: LIBRTY METHOD: 8081

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MWDUP

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analysis of the Pesticide fraction only. SW-846, 3rd Edition, Update 3, Method 8081A was used to prepare and analyze the samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904098 are included in the sample data sections.

Pesticide

Extraction and analysis holding time requirements were met for the samples. This SDG was further cleaned with the Florisil cleanup process.

No target analytes confirmed above the reporting limits in samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All surrogate recoveries were with the method specified limits.

The method blank associated with the samples met all quality control criteria.

Matrix spike/matrix spike duplicate samples were performed with sample 13MW5, and met recovery and precision criteria, with the exception of the recovery of Aldrin in the MSD. The Laboratory Control Sample (LCS) prepared and analyzed with the samples met recovery criteria.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on CD has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings

Teresa Amentt Jennings
GC/HPLC Data Reviewer
April 24, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 09040098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
✓	Restek	clpest	0.32	0.5	30
✓	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

CompuChem

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

CompuChem

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DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I

Organic Analysis Data Sheet (OADS)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-MS2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.078	
319-85-7	beta-BHC	0.14	
319-84-6	alpha-BHC	0.14	
319-86-8	delta-BHC	0.15	
58-89-9	gamma-BHC (Lindane)	0.13	
72-54-8	4,4'-DDD	0.39	
72-55-9	4,4'-DDE	0.37	
50-29-3	4,4'-DDT	0.36	
60-57-1	Dieldrin	0.41	
959-98-8	Endosulfan I	0.094	
33213-65-9	Endosulfan II	0.25	
1031-07-8	Endosulfan sulfate	0.36	
72-20-8	Endrin	0.34	
7421-93-4	Endrin Aldehyde	0.25	
76-44-8	Heptachlor	0.12	
1024-57-3	Heptachlor Epoxide	0.16	
72-43-5	Methoxychlor	0.42	J
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-MSD2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.068	
319-85-7	beta-BHC	0.13	
319-84-6	alpha-BHC	0.14	
319-86-8	delta-BHC	0.14	
58-89-9	gamma-BHC (Lindane)	0.13	
72-54-8	4,4'-DDD	0.38	
72-55-9	4,4'-DDE	0.35	
50-29-3	4,4'-DDT	0.34	
60-57-1	Dieldrin	0.39	
959-98-8	Endosulfan I	0.084	
33213-65-9	Endosulfan II	0.24	
1031-07-8	Endosulfan sulfate	0.31	
72-20-8	Endrin	0.32	
7421-93-4	Endrin Aldehyde	0.23	
76-44-8	Heptachlor	0.10	
1024-57-3	Heptachlor Epoxide	0.16	
72-43-5	Methoxychlor	0.39	J
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 950.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.053	U
319-85-7	beta-BHC	0.053	U
319-84-6	alpha-BHC	0.053	U
319-86-8	delta-BHC	0.053	U
58-89-9	gamma-BHC (Lindane)	0.053	U
72-54-8	4,4'-DDD	0.11	U
72-55-9	4,4'-DDE	0.11	U
50-29-3	4,4'-DDT	0.11	U
60-57-1	Dieldrin	0.11	U
959-98-8	Endosulfan I	0.053	U
33213-65-9	Endosulfan II	0.11	U
1031-07-8	Endosulfan sulfate	0.11	U
72-20-8	Endrin	0.11	U
7421-93-4	Endrin Aldehyde	0.11	U
76-44-8	Heptachlor	0.053	U
1024-57-3	Heptachlor Epoxide	0.053	U
72-43-5	Methoxychlor	0.53	U
8001-35-2	Toxaphene	2.6	U
57-74-9	Technical Chlordane	0.91	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGTLCS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.12	
319-85-7	beta-BHC	0.13	
319-84-6	alpha-BHC	0.14	
319-86-8	delta-BHC	0.14	
58-89-9	gamma-BHC (Lindane)	0.13	
72-54-8	4,4'-DDD	0.37	
72-55-9	4,4'-DDE	0.36	
50-29-3	4,4'-DDT	0.34	
60-57-1	Dieldrin	0.39	
959-98-8	Endosulfan I	0.080	
33213-65-9	Endosulfan II	0.24	
1031-07-8	Endosulfan sulfate	0.33	
72-20-8	Endrin	0.32	
7421-93-4	Endrin Aldehyde	0.24	
76-44-8	Heptachlor	0.14	
1024-57-3	Heptachlor Epoxide	0.16	
72-43-5	Methoxychlor	0.39	J
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

C. Form II

Surrogate spike analysis

- By level (low, medium) -

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): CLPEST ID: 0.32 (mm) GC Column(2): CLPEST2 ID: 0.32 (mm)

	EPA SAMPLE NO.	DCB 1 %REC #	DCB 2 %REC #	TCX 1 %REC #	TCX 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKGT	89	96	87	86			0
02	PGTLCS	83	90	82	82			0
03	13MW5MS	87	94	73	73			0
04	13MW5MSD	84	91	61	61			0
05	13MW5	87	94	77	77			0
06	13MW3	79	85	71	71			0
07	13MW4	93	101	89	89			0
08	13MWDUP	91	98	81	81			0
09	13MW6	82	88	77	76			0
10	13MW7	87	93	78	79			0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 (DCB) = Decachlorobiphenyl (43-144)

S2 (TCX) = Tetrachloro-m-Xylene (43-135)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate results

- By level (low, medium) -

Laboratory Control Sample(s)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aldrin	0.15	0.0	0.078	52	50-150
beta-BHC	0.15	0.0	0.14	93	50-150
alpha-BHC	0.15	0.0	0.14	93	50-150
delta-BHC	0.15	0.0	0.15	100	50-150
gamma-BHC (Lindane)	0.15	0.0	0.13	87	50-150
4,4'-DDD	0.38	0.0	0.39	103	50-150
4,4'-DDE	0.38	0.0	0.37	97	50-150
4,4'-DDT	0.38	0.0	0.36	95	50-150
Dieldrin	0.38	0.0	0.41	108	50-150
Endosulfan I	0.15	0.0	0.094	63	50-150
Endosulfan II	0.38	0.0	0.25	66	50-150
Endosulfan sulfate	0.38	0.0	0.36	95	50-150
Endrin	0.38	0.0	0.34	89	50-150
Endrin Aldehyde	0.38	0.0	0.25	66	50-150
Heptachlor	0.15	0.0	0.12	80	50-150
Heptachlor Epoxide	0.15	0.0	0.16	107	50-150
Methoxychlor	0.38	0.0	0.42	110	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aldrin	0.15	0.068	45*	14	40	50-150
beta-BHC	0.15	0.13	87	7	40	50-150
alpha-BHC	0.15	0.14	93	0	40	50-150
delta-BHC	0.15	0.14	93	7	40	50-150
gamma-BHC (Lindane)	0.15	0.13	87	0	40	50-150
4,4'-DDD	0.38	0.38	100	2	40	50-150
4,4'-DDE	0.38	0.35	92	6	40	50-150
4,4'-DDT	0.38	0.34	89	6	40	50-150
Dieldrin	0.38	0.39	103	5	40	50-150
Endosulfan I	0.15	0.084	56	11	40	50-150
Endosulfan II	0.38	0.24	63	4	40	50-150
Endosulfan sulfate	0.38	0.31	82	15	40	50-150
Endrin	0.38	0.32	84	6	40	50-150
Endrin Aldehyde	0.38	0.23	60	8	40	50-150
Heptachlor	0.15	0.10	67	18	40	50-150
Heptachlor Epoxide	0.15	0.16	107	0	40	50-150
Methoxychlor	0.38	0.39	103	7	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 17 outside limits
Spike Recovery: 1 out of 34 outside limits

COMMENTS: _____

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGTLCS

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aldrin	0.15	0.12	80	50-150
beta-BHC	0.15	0.13	87	50-150
alpha-BHC	0.15	0.14	93	50-150
delta-BHC	0.15	0.14	93	50-150
gamma-BHC (Lindane)	0.15	0.13	87	50-150
4,4'-DDD	0.38	0.37	97	50-150
4,4'-DDE	0.38	0.36	95	50-150
4,4'-DDT	0.38	0.34	89	50-150
Dieldrin	0.38	0.39	100	50-150
Endosulfan I	0.15	0.080	53	50-150
Endosulfan II	0.38	0.24	63	50-150
Endosulfan sulfate	0.38	0.33	87	50-150
Endrin	0.38	0.32	84	50-150
Endrin Aldehyde	0.38	0.24	63	50-150
Heptachlor	0.15	0.14	93	50-150
Heptachlor Epoxide	0.15	0.16	110	50-150
Methoxychlor	0.38	0.39	100	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 17 outside limits

COMMENTS: _____

E. Form IV

Method Blank Results
Form IV, Form I

Method blank summary, OADS,
- In chronological order of analysis

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLKGT

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-BLK1 Lab File ID: 073L9041631-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 04/17/09

Date Analyzed (1): 04/23/09 Date Analyzed (2): 04/23/09

Time Analyzed (1): 0049 Time Analyzed (2): 0049

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPEST2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGTLCS	9041631-BS1	04/23/09	04/23/09
02	13MW5MS	9041631-MS2	04/23/09	04/23/09
03	13MW5MSD	9041631-MSD2	04/23/09	04/23/09
04	13MW5	0904098-01	04/23/09	04/23/09
05	13MW3	0904098-02	04/23/09	04/23/09
06	13MW4	0904098-03	04/23/09	04/23/09
07	13MWDUP	0904098-04	04/23/09	04/23/09
08	13MW6	0904098-05	04/23/09	04/23/09
09	13MW7	0904098-06	04/23/09	04/23/09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGT

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

GC by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalysis, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE: LIBRTY

METHOD: 8081

SDG #: 0904012

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MWDUP

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analysis of the Pesticide fraction only. SW-846, 3rd Edition, Update 3, Method 8081A was used to prepare and analyze the samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904098 are included in the sample data sections.

Pesticide

Extraction and analysis holding time requirements were met for the samples. This SDG was further cleaned with the Florisil cleanup process.

No target analytes confirmed above the reporting limits in samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All surrogate recoveries were with the method specified limits.

The method blank associated with the samples met all quality control criteria.

Matrix spike/matrix spike duplicate samples were performed with sample 13MW5, and met recovery and precision criteria, with the exception of the recovery of Aldrin in the MSD. The Laboratory Control Sample (LCS) prepared and analyzed with the samples met recovery criteria.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on CD has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings
GC/HPLC Data Reviewer
April 24, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
✓	Restek	clpest	0.32	0.5	30
✓	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

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DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

37

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES Bi ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	2-1L A	1-500 ml P		P	P	2-1L A	2-1L A	

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0 (MAC 4-24-09) 1-250ml OKJ 4-24-09	ICP 6010B/3005A/6020 Metals-Total) 500mL OK	7470A (Mercury-Total) PH	cyanide 9014 PH 250 9012 OK Ltr 3-31-09	Sulfide 9030B PH 500	Appdx 9 SV 8270C AL	Appdx 9 PEST 8081A AL	Appdx 9 PCBs 8082	
13MW1 ✓	4/14	0935	GW	8	X	X		X	X <2	X			X			0904103-01
13MW2 ✓	4/14	0815	GW	8	X	X		X	X <2	X			X			0904103-02
13MW3 ✓	4/13	1200	GW	14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-02
13MW4 ✓		1035	GW	14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-03
13MWDUP ✓		1050	GW	14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-04
13MW5 ✓		0850	GW	12	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-01 USE FOR QC
13MW6 ✓	4/13	0740	GW	14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-05
13MW7 ✓	4/14	1050	GW	14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-06

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW1 + 13MW-2. JLF 3.31.09

Residual Chlorine Present?
Yes ____ No ✓

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 2.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Eddington	Date: 4/15/09	Sample Storage Time Requested: 30 DYS ORG/6 MTHS INORG
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Eddington	Date: 4/15/09	#2 Received by (Signature): Lee F Swanson	Date: 4/15/09	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM	

9 - Rcd 4-15-09
Compuchem 1615

Y/O JLF 4.21.09

WORK ORDER

0904098

Printed: 4/24/2009 7:16:04AM

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Received**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR

DATE: 4/22/09

4-22-4

BATCH: ~~9042~~ 4/24 9041631

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904096-01	7W11B		
2	0904096-02	7W12B		
3	0904096-03	7WCA		
4	0904096-04	7WDUP		
5	0904096-05	7MW6		
6	0904098-01	13MW5		
7	0904098-02	13MW3		
8	0904098-03	13MW4		
9	0904098-04	13MWDUP		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	9041631-BLK1	PBLKGT		
13	9041631-BS1	PGTLCS		
14	9041631-MS1	Matrix Spike		
15	9041631-MS2	Matrix Spike		
16	9041631-MSD1	Matrix Spike Dup		
17	9041631-MSD2	Matrix Spike Dup		
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	[illegible]	4/22/09 13:30	GCRef3	cold storage
	GCRef3	4/22/09 1344	A Hardwick	
	A Hardwick	4/22/09 1348	GCRef 4	
				TAJ 4/23/09

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE: LIBRTY METHOD: 8081

SDG #: 0904098

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II)

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample Summary
(Form III)

c. Method Blank Summary (Form IV)

a. Surrogate Percent Recovery Summary

(Form II)

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): CLPEST ID: 0.32 (mm) GC Column(2): CLPEST2 ID: 0.32 (mm)

	EPA SAMPLE NO.	DCB 1 %REC #	DCB 2 %REC #	TCX 1 %REC #	TCX 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKGT	89	96	87	86			0
02	PGTLCS	83	90	82	82			0
03	13MW5MS	87	94	73	73			0
04	13MW5MSD	84	91	61	61			0
05	13MW5	87	94	77	77			0
06	13MW3	79	85	71	71			0
07	13MW4	93	101	89	89			0
08	13MWDUP	91	98	81	81			0
09	13MW6	82	88	77	76			0
10	13MW7	87	93	78	79			0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 (DCB) = Decachlorobiphenyl (43-144)
S2 (TCX) = Tetrachloro-m-Xylene (43-135)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample Summary

(Form III)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aldrin	0.15	0.0	0.078	52	50-150
beta-BHC	0.15	0.0	0.14	93	50-150
alpha-BHC	0.15	0.0	0.14	93	50-150
delta-BHC	0.15	0.0	0.15	100	50-150
gamma-BHC (Lindane)	0.15	0.0	0.13	87	50-150
4,4'-DDD	0.38	0.0	0.39	103	50-150
4,4'-DDE	0.38	0.0	0.37	97	50-150
4,4'-DDT	0.38	0.0	0.36	95	50-150
Dieldrin	0.38	0.0	0.41	108	50-150
Endosulfan I	0.15	0.0	0.094	63	50-150
Endosulfan II	0.38	0.0	0.25	66	50-150
Endosulfan sulfate	0.38	0.0	0.36	95	50-150
Endrin	0.38	0.0	0.34	89	50-150
Endrin Aldehyde	0.38	0.0	0.25	66	50-150
Heptachlor	0.15	0.0	0.12	80	50-150
Heptachlor Epoxide	0.15	0.0	0.16	107	50-150
Methoxychlor	0.38	0.0	0.42	110	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aldrin	0.15	0.068	45*	14	40	50-150
beta-BHC	0.15	0.13	87	7	40	50-150
alpha-BHC	0.15	0.14	93	0	40	50-150
delta-BHC	0.15	0.14	93	7	40	50-150
gamma-BHC (Lindane)	0.15	0.13	87	0	40	50-150
4,4'-DDD	0.38	0.38	100	2	40	50-150
4,4'-DDE	0.38	0.35	92	6	40	50-150
4,4'-DDT	0.38	0.34	89	6	40	50-150
Dieldrin	0.38	0.39	103	5	40	50-150
Endosulfan I	0.15	0.084	56	11	40	50-150
Endosulfan II	0.38	0.24	63	4	40	50-150
Endosulfan sulfate	0.38	0.31	82	15	40	50-150
Endrin	0.38	0.32	84	6	40	50-150
Endrin Aldehyde	0.38	0.23	60	8	40	50-150
Heptachlor	0.15	0.10	67	18	40	50-150
Heptachlor Epoxide	0.15	0.16	107	0	40	50-150
Methoxychlor	0.38	0.39	103	7	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 17 outside limits
Spike Recovery: 1 out of 34 outside limits

COMMENTS: _____

_____

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGTLCS

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aldrin	0.15	0.12	80	50-150
beta-BHC	0.15	0.13	87	50-150
alpha-BHC	0.15	0.14	93	50-150
delta-BHC	0.15	0.14	93	50-150
gamma-BHC (Lindane)	0.15	0.13	87	50-150
4,4'-DDD	0.38	0.37	97	50-150
4,4'-DDE	0.38	0.36	95	50-150
4,4'-DDT	0.38	0.34	89	50-150
Dieldrin	0.38	0.39	100	50-150
Endosulfan I	0.15	0.080	53	50-150
Endosulfan II	0.38	0.24	63	50-150
Endosulfan sulfate	0.38	0.33	87	50-150
Endrin	0.38	0.32	84	50-150
Endrin Aldehyde	0.38	0.24	63	50-150
Heptachlor	0.15	0.14	93	50-150
Heptachlor Epoxide	0.15	0.16	110	50-150
Methoxychlor	0.38	0.39	100	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 17 outside limits

COMMENTS: _____

c. Method Blank Summary (Form IV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGT

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-BLK1 Lab File ID: 073L9041631-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 04/17/09

Date Analyzed (1): 04/23/09 Date Analyzed (2): 04/23/09

Time Analyzed (1): 0049 Time Analyzed (2): 0049

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPEST2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGTLCS	9041631-BS1	04/23/09	04/23/09
02	13MW5MS	9041631-MS2	04/23/09	04/23/09
03	13MW5MSD	9041631-MSD2	04/23/09	04/23/09
04	13MW5	0904098-01	04/23/09	04/23/09
05	13MW3	0904098-02	04/23/09	04/23/09
06	13MW4	0904098-03	04/23/09	04/23/09
07	13MWDUP	0904098-04	04/23/09	04/23/09
08	13MW6	0904098-05	04/23/09	04/23/09
09	13MW7	0904098-06	04/23/09	04/23/09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I), followed by the raw data for samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results

Tabulated results (identification and quantitation) shall be included.

b. Copies of Chromatograms

Positively identified compounds shall be labeled with the names of compounds, either directly out from the peak on the chromatogram, or on a printout of retention times on the data system printout if retention times are printed over the peak on the chromatogram. Included for each sample or sample extract, dilutions, and reanalysis. The chromatogram shall contain the following header information: Client Sample ID number, volume injected (uL), date and time of injection, GC column ID, and GC instrument ID.

c. Copies of Chromatograms from the Second Column

(if necessary)

d. Data System Printout

A printout of retention time and corresponding peak height or peak Area shall accompany each chromatogram. Where edits have been Made, initialing, dating and integration time range are required.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

Data File: /chem/tracegc84.i/1090416g.b/08910904098-02.d

Page 1

Date : 23-APR-2009 08:32

Client ID: 13MW3

Instrument: tracegc84.i

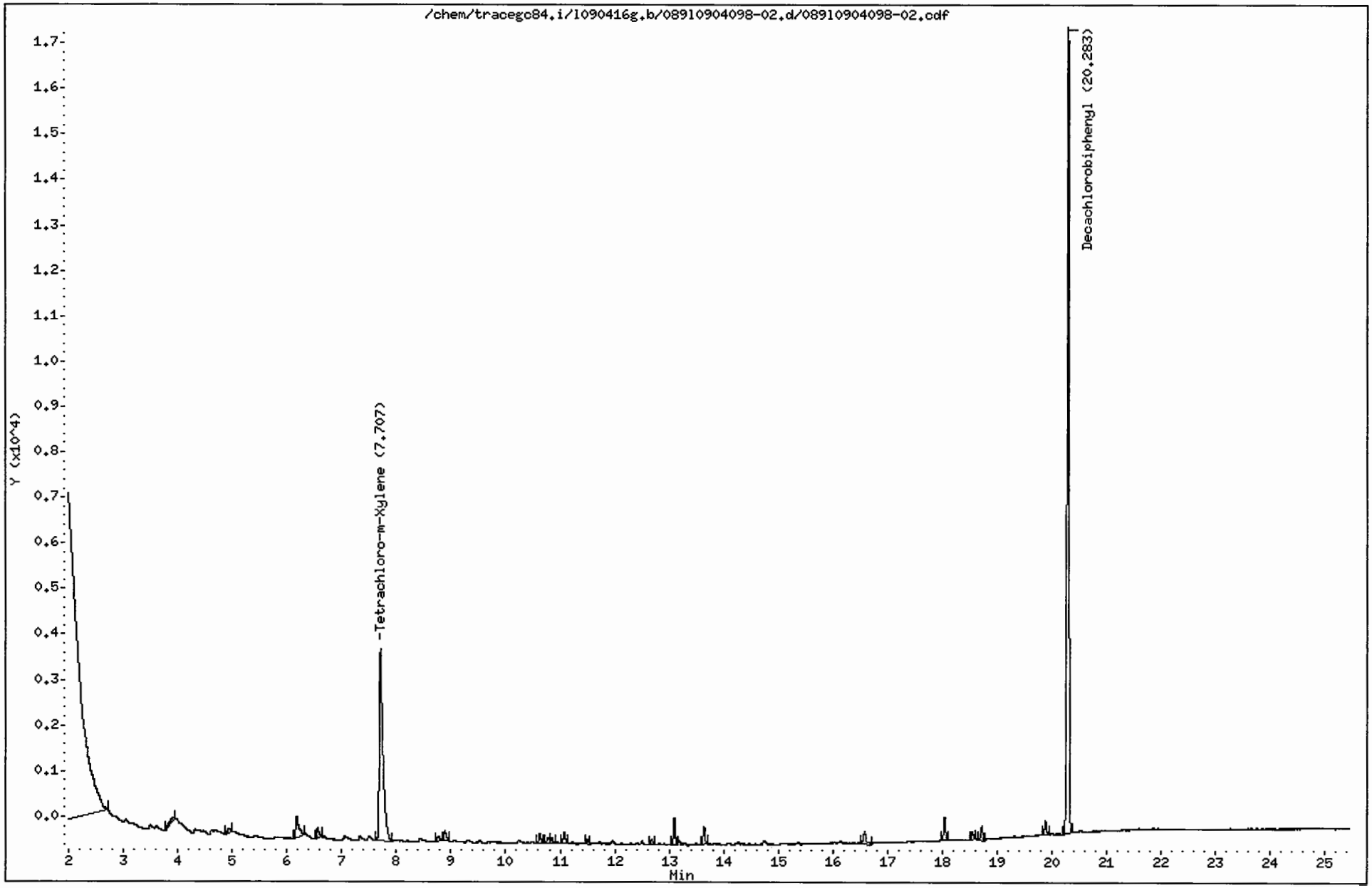
Sample Info: 0904098-02

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



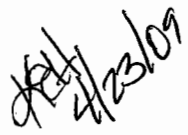
CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 08:32 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			4985								
1.38			37942								
1.80			54208								
1.92			152439								
3.93			606								
4.95			401								
6.18			1818								
6.56			685								
7.71	7.64	7.78	18594	433925	Tetrachloro-m-Xylene	0.042851	0.214254		71.4	43 - 135	
8.77			403								
8.88			717								
10.63			546								
10.78			376								
10.85			331								
11.07			621								
11.50			250								
12.68			270								
13.10			1277								
13.64			892								
16.58			936								
18.04			1151								
18.55			449								
18.72			793								
19.88			720								
20.28	20.22	20.36	43842	459922	Decachlorobiphenyl	0.095323	0.476613		79.4	43 - 144	



Data File: /chem/tracegc85.i/1090416g.b/08910904098-02.d

Date : 23-APR-2009 08:32

Client ID: 13MW3

Instrument: tracegc85.i

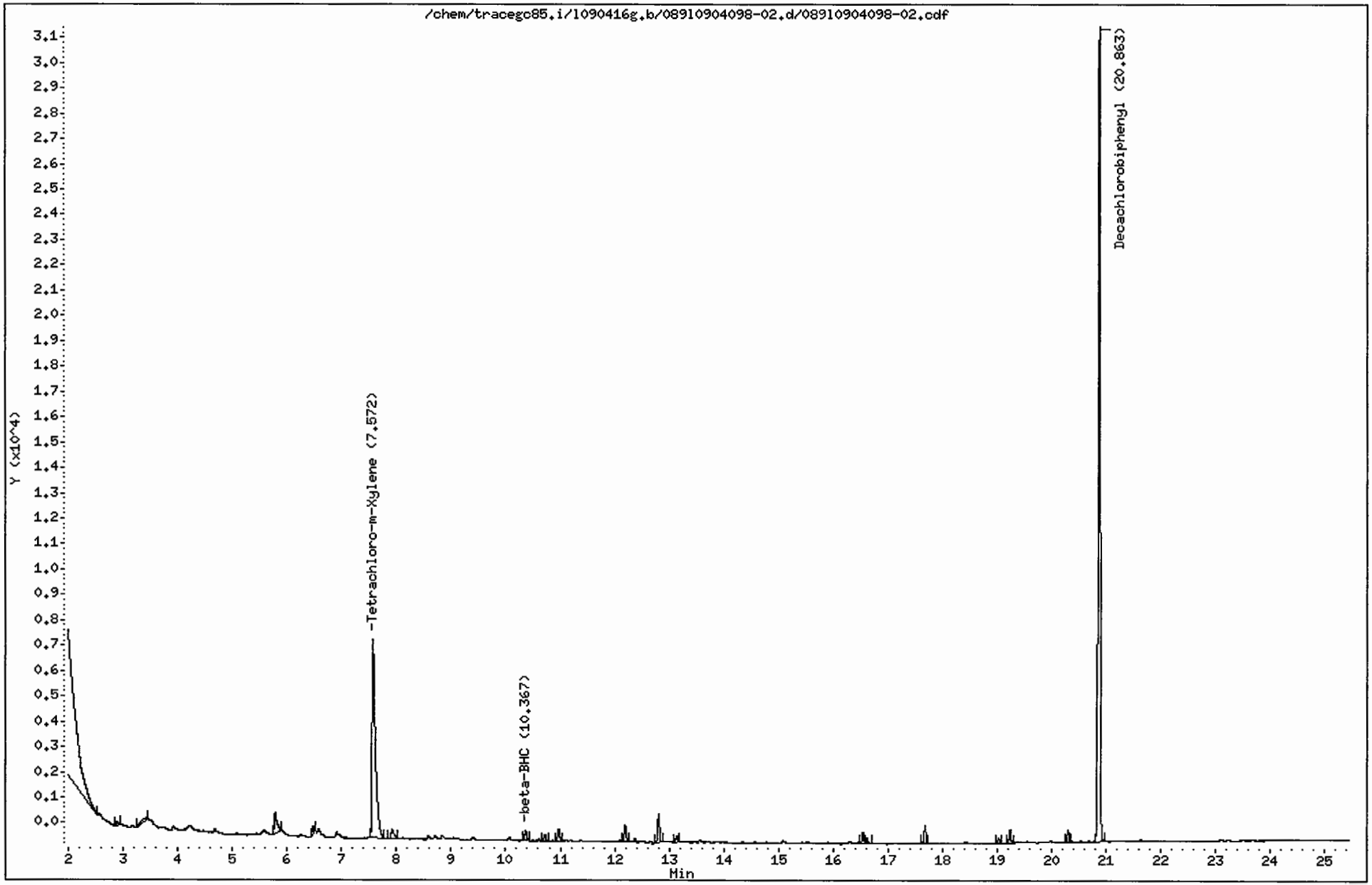
Sample Info: 0904098-02

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 08:32 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.33		2838								
1.48		2249								
1.64		69650								
1.76		239187								
2.89		396								
3.44		1065								
5.79		2951								
6.47		785								
7.57	7.51 7.65	32502	764823	Tetrachloro-m-Xylene	0.042495	0.212474		70.8	43 - 135	
7.92		1217								
10.37	10.31 10.45	988	481682	beta-BHC	0.002051	0.010256	0.050000			J
10.72		669								
10.97		1230								
12.19		1691								
12.81		2494								
13.14		637								
16.55		833								
16.62		413								
17.68		1565								
19.03		474								
19.23		1138								
20.30		1113								
20.86	20.80 20.94	79148	773453	Decachlorobiphenyl	0.102331	0.511654		85.3	43 - 144	

KCH 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416g.b/09010904098-03.d

Page 1

Date : 23-APR-2009 09:01

Client ID: 13MW4

Instrument: tracegc84.i

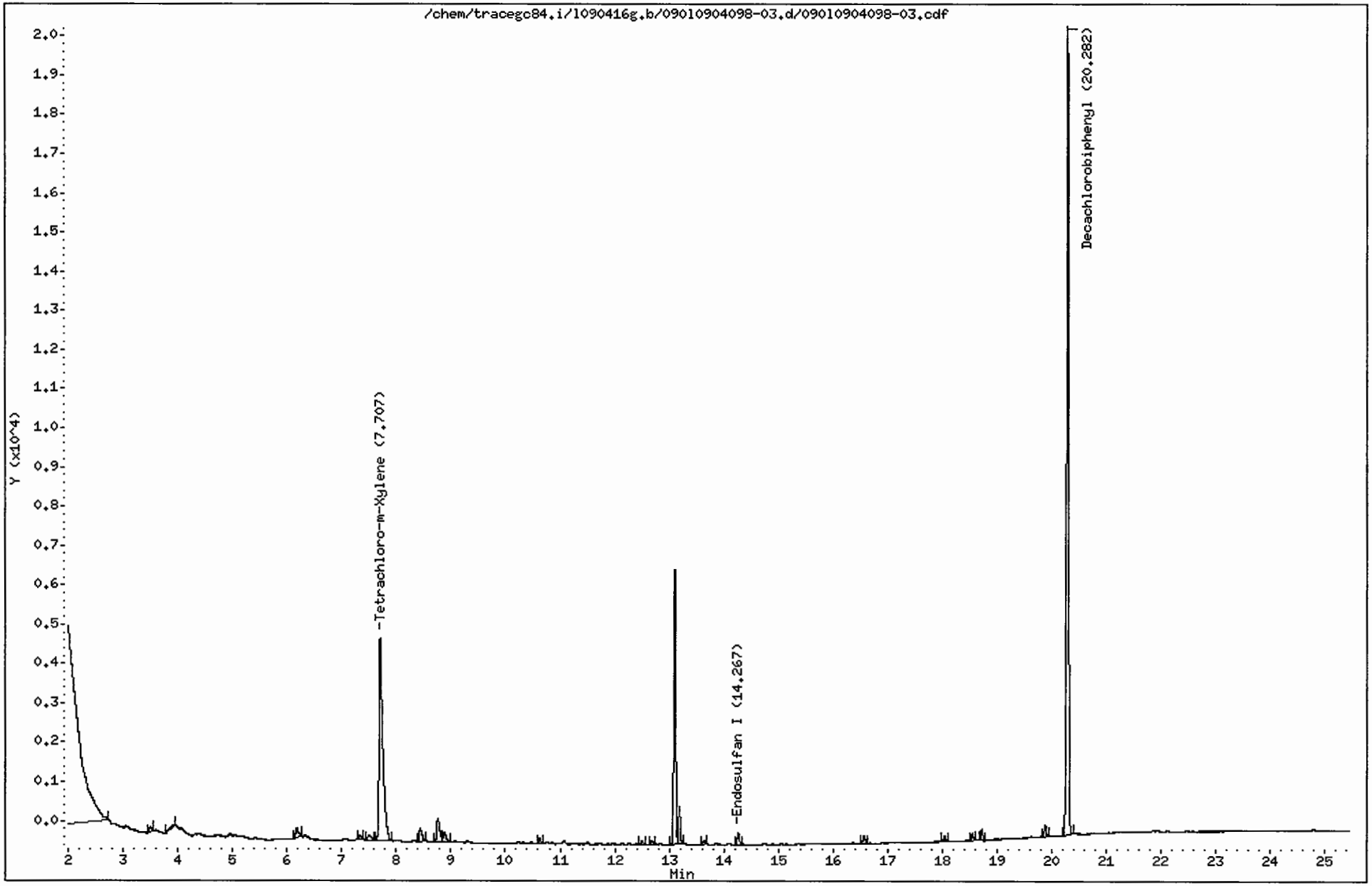
Sample Info: 0904098-03

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 09:01 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			5738								
1.39			29711								
1.80			39415								
1.91			107284								
3.49			297								
3.92			380								
6.18			859								
7.33			291								
7.50			599								
7.71	7.64	7.78	23205	433925	Tetrachloro-m-Xylene	0.053477	0.267385		89.1	43 - 135	
8.44			1203								
8.76			2286								
8.88			909								
10.63			394								
12.50			273								
12.68			300								
13.10			16550								
13.19			2317								
13.64			236								
14.27	14.18	14.32	823	497455	Endosulfan I	0.001654	0.008272	0.050000			J
16.57			578								
18.04			327								
18.55			419								
18.72			699								
19.88			691								
20.28	20.22	20.36	51484	459922	Decachlorobiphenyl	0.111941	0.559703		93.3	43 - 144	

4/23/09

Data File: /chem/tracegc85.i/1090416g.b/09010904098-03.d

Page 1

Date : 23-APR-2009 09:01

Client ID: 13MW4

Instrument: tracegc85.i

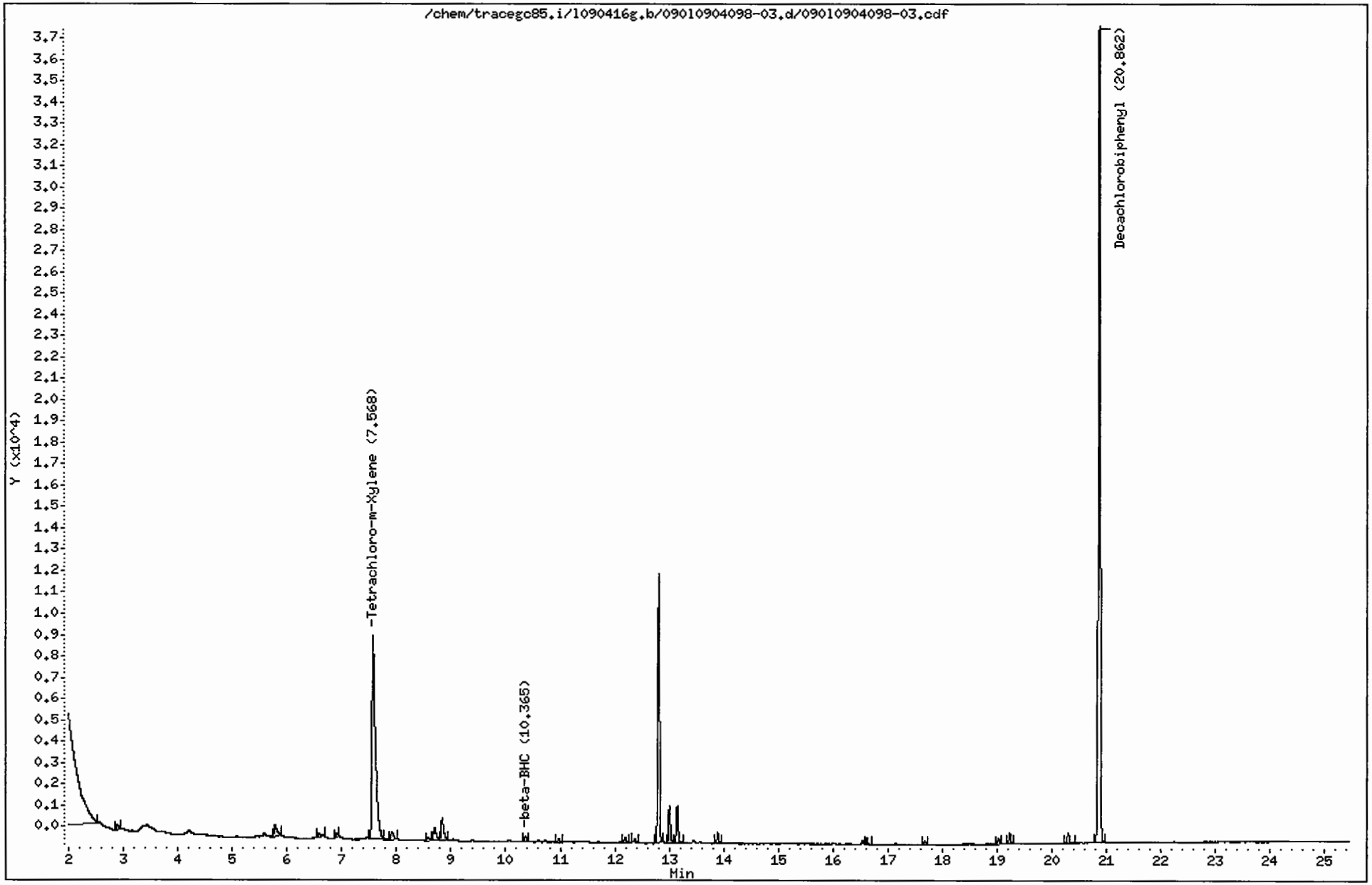
Sample Info: 0904098-03

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 09:01 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30		5927								
1.38		11001								
1.49		12136								
1.64		66158								
1.75		197759								
2.88		658								
5.78		1928								
6.58		734								
6.91		532								
7.57	7.51 7.65	40760	764823	Tetrachloro-m-Xylene	0.053293	0.266467		88.8	43 - 135	
7.92		1152								
8.57		419								
8.70		1997								
8.84		3249								
10.36	10.31 10.45	663	481682	beta-BHC	0.001374	0.006872	0.050000			J
10.97		460								
12.19		597								
12.37		432								
12.80		26723								
13.01		3867								
13.15		3927								
13.89		1128								
16.62		621								
17.68		422								
19.03		652								
19.23		1122								
20.30		1160								
20.86	20.80 20.94	93961	773453	Decachlorobiphenyl	0.121482	0.607412		101.2	43 - 144	

KeH 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

Data File: /chem/tracegc84.i/1090416g.b/08810904098-01.d

Page 1

Date : 23-APR-2009 08:03

Client ID: 13MW5

Instrument: tracegc84.i

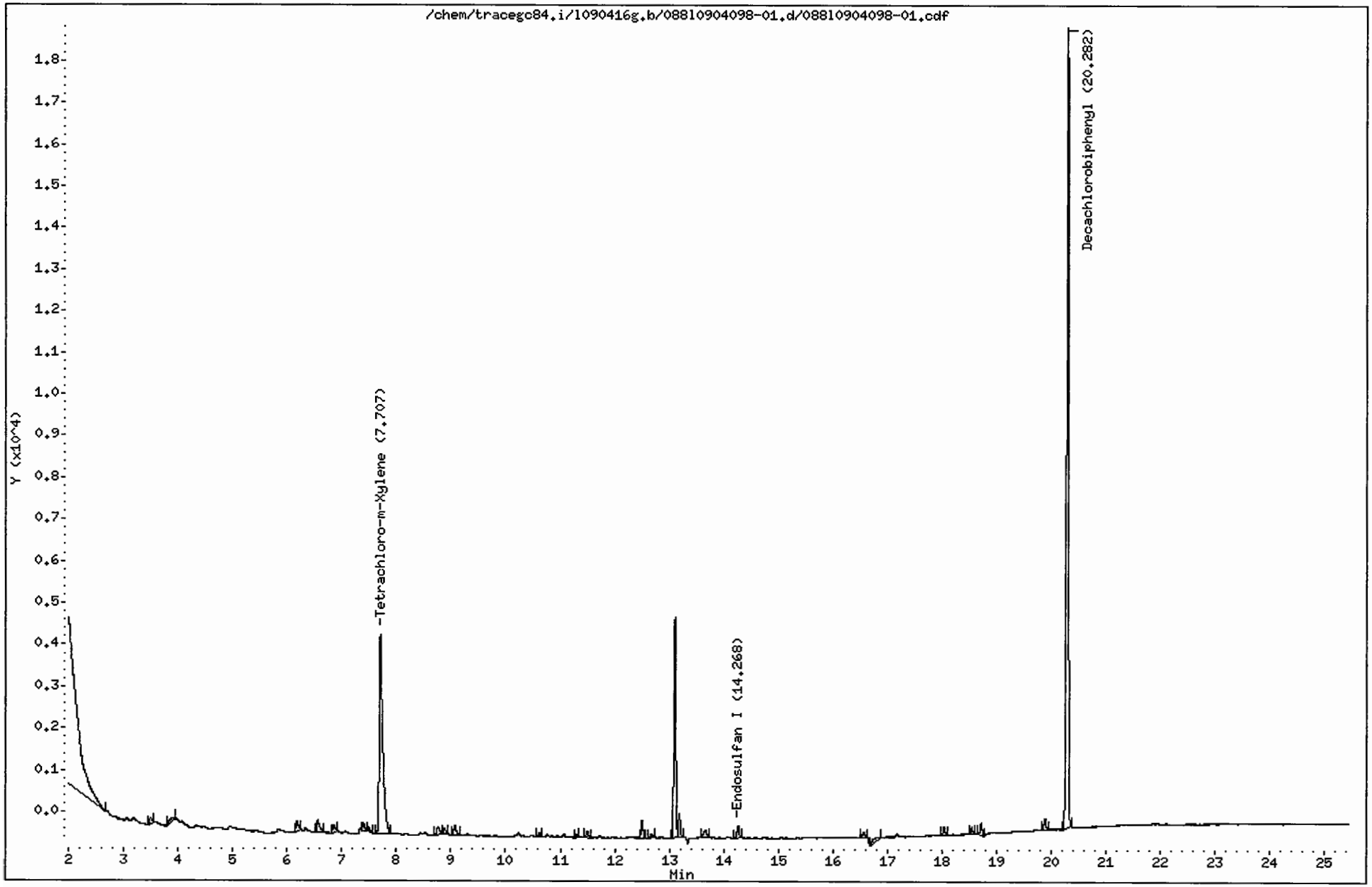
Sample Info: 0904098-01

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 08:03 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			6325								
1.80			27413								
1.92			78286								
3.50			422								
3.92			462								
6.18			729								
6.56			1120								
6.86			560								
7.40			498								
7.50			307								
7.71	7.64	7.78	20066	433925	Tetrachloro-m-Xylene	0.046241	0.231204		77.1	43 - 135	
8.77			594								
8.88			436								
9.07			801								
10.63			296								
11.30			235								
11.49			376								
12.50			1067								
12.68			248								
13.10			12674								
13.18			1388								
13.67			678								
14.27	14.18	14.32	755	497455	Endosulfan I	0.001516	0.007579	0.050000			J
16.57			420								
16.86			765								
18.04			498								
18.55			390								
18.72			730								
19.88			657								
20.28	20.22	20.36	47882	459922	Decachlorobiphenyl	0.104107	0.520533		86.8	43 - 144	

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Data File: /chem/tracegc85.i/1090416g.b/08810904098-01.d

Page 1

Date : 23-APR-2009 08:03

Client ID: 13MW5

Instrument: tracegc85.i

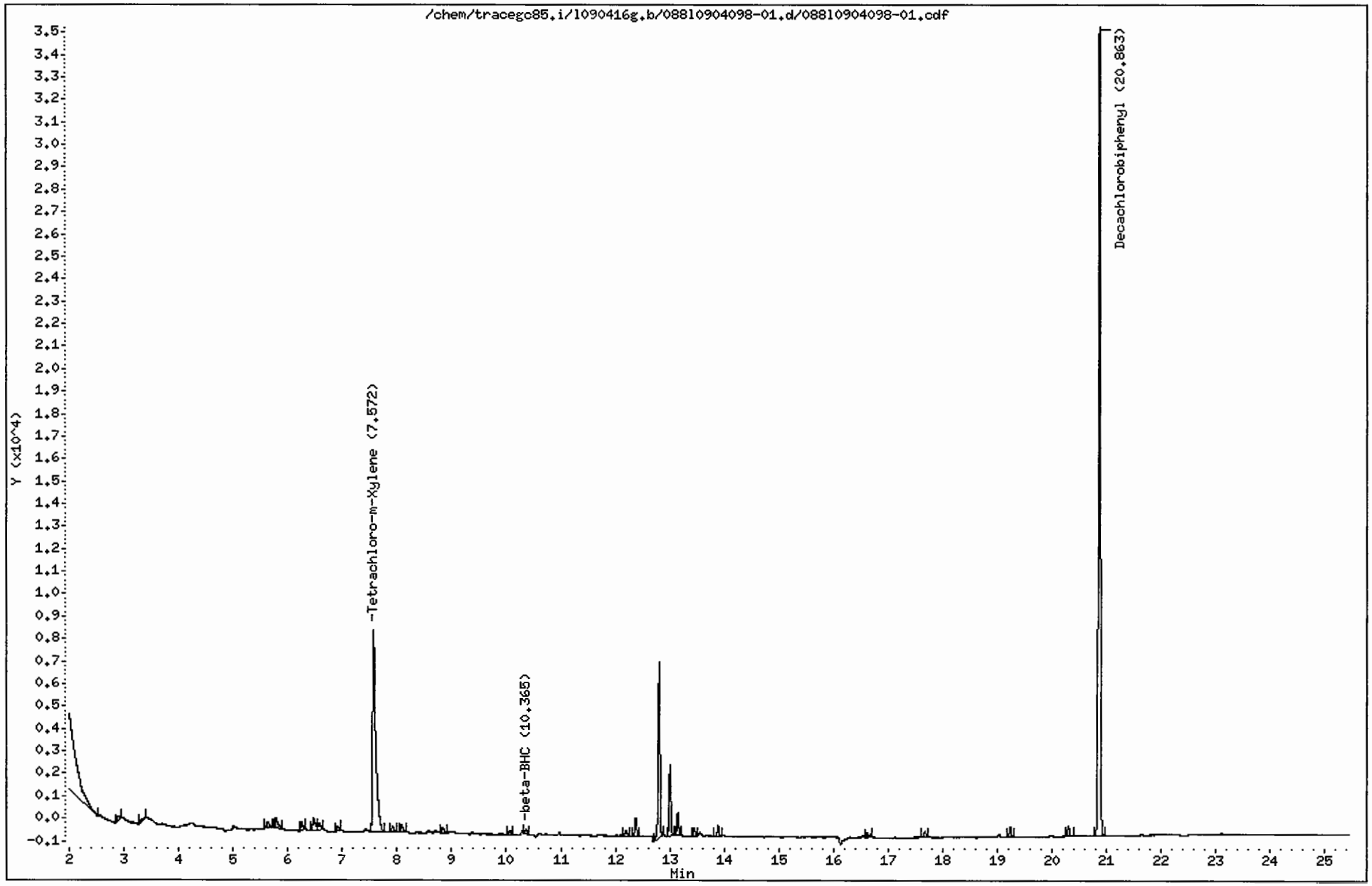
Sample Info: 0904098-01

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 08:03 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			4214								
1.48			1771								
1.64			48519								
1.77			148916								
2.89			563								
3.38			457								
5.64			741								
5.79			1530								
6.25			907								
6.47			1921								
6.58			842								
6.91			465								
7.57	7.51	7.65	35199	764823	Tetrachloro-m-Xylene	0.046021	0.230106		76.7	43 - 135	
7.92			709								
8.08			1016								
8.84			622								
10.07			483								
10.36	10.31	10.45	484	481682	beta-BHC	0.001003	0.005014	0.050000			J
12.19			674								
12.37			1803								
12.80			17642								
13.01			6983								
13.15			2166								
13.45			909								
13.89			1073								
16.62			666								
17.68			632								
19.23			1006								
20.30			1093								
20.86	20.80	20.94	86917	773453	Decachlorobiphenyl	0.112375	0.561876		93.6	43 - 144	

4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416g.b/09210904098-05.d

Page 1

Date : 23-APR-2009 09:58

Client ID: 13MW6

Instrument: tracegc84.i

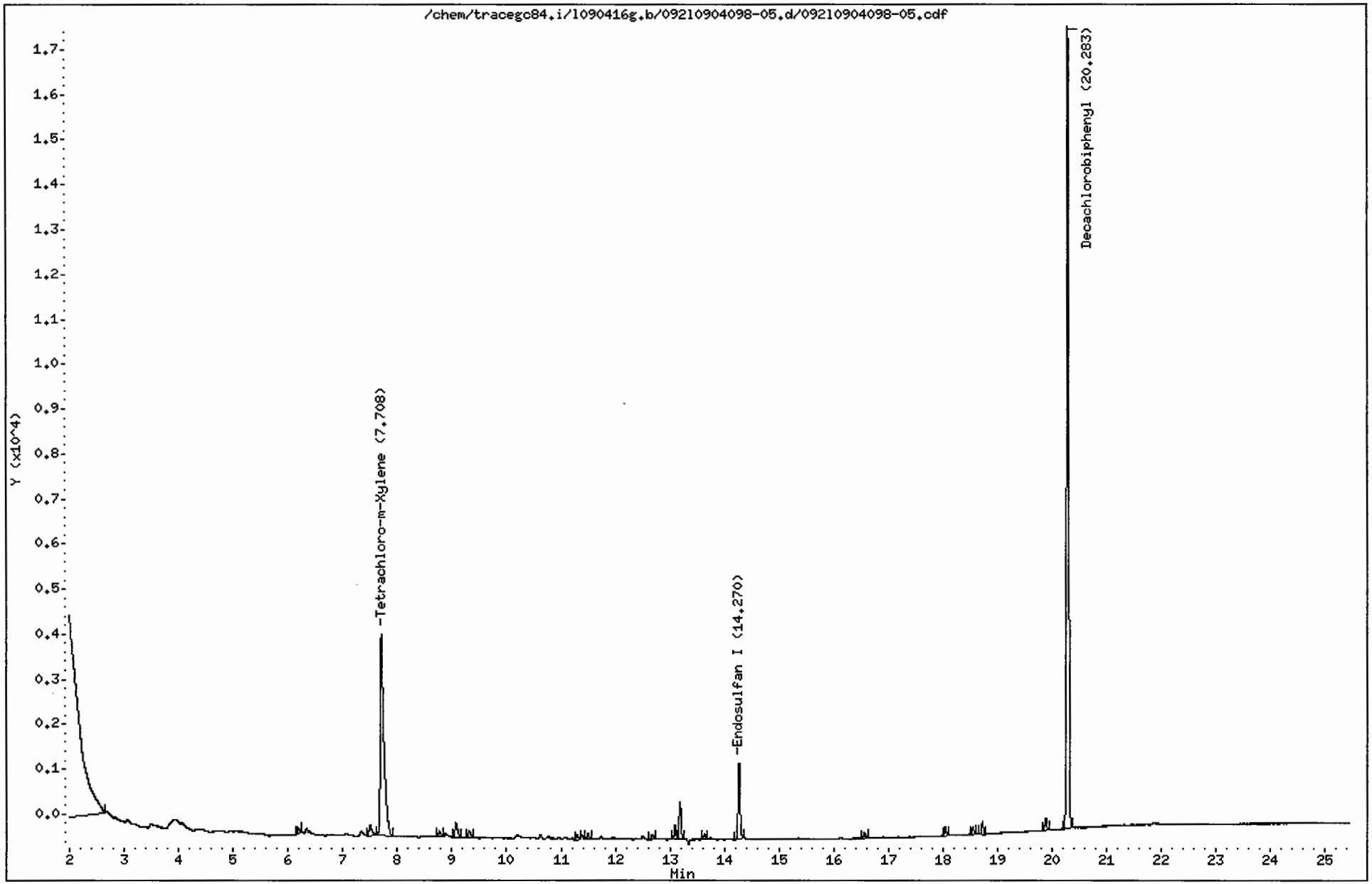
Sample Info: 0904098-05

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 09:58 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.31			5072								
1.39			25756								
1.80			36189								
1.91			93185								
6.18			344								
7.50			857								
7.71	7.64	7.78	20027	433925	Tetrachloro-m-Xylene	0.046151	0.230754		76.9	43 - 135	
8.77			379								
9.07			1077								
9.32			478								
11.30			276								
11.50			302								
12.68			268								
13.10			690								
13.19			1958								
13.64			281								
14.27	14.18	14.32	4291	497455	Endosulfan I	0.008624	0.043119	0.050000			J
16.57			304								
18.04			471								
18.55			383								
18.72			652								
19.88			651								
20.28	20.22	20.36	45452	459922	Decachlorobiphenyl	0.098823	0.494116		82.4	43 - 144	

Data File: /chem/tracegc85.i/1090416g.b/09210904098-05.d

Page 1

Date : 23-APR-2009 09:58

Client ID: 13MW6

Instrument: tracegc85.i

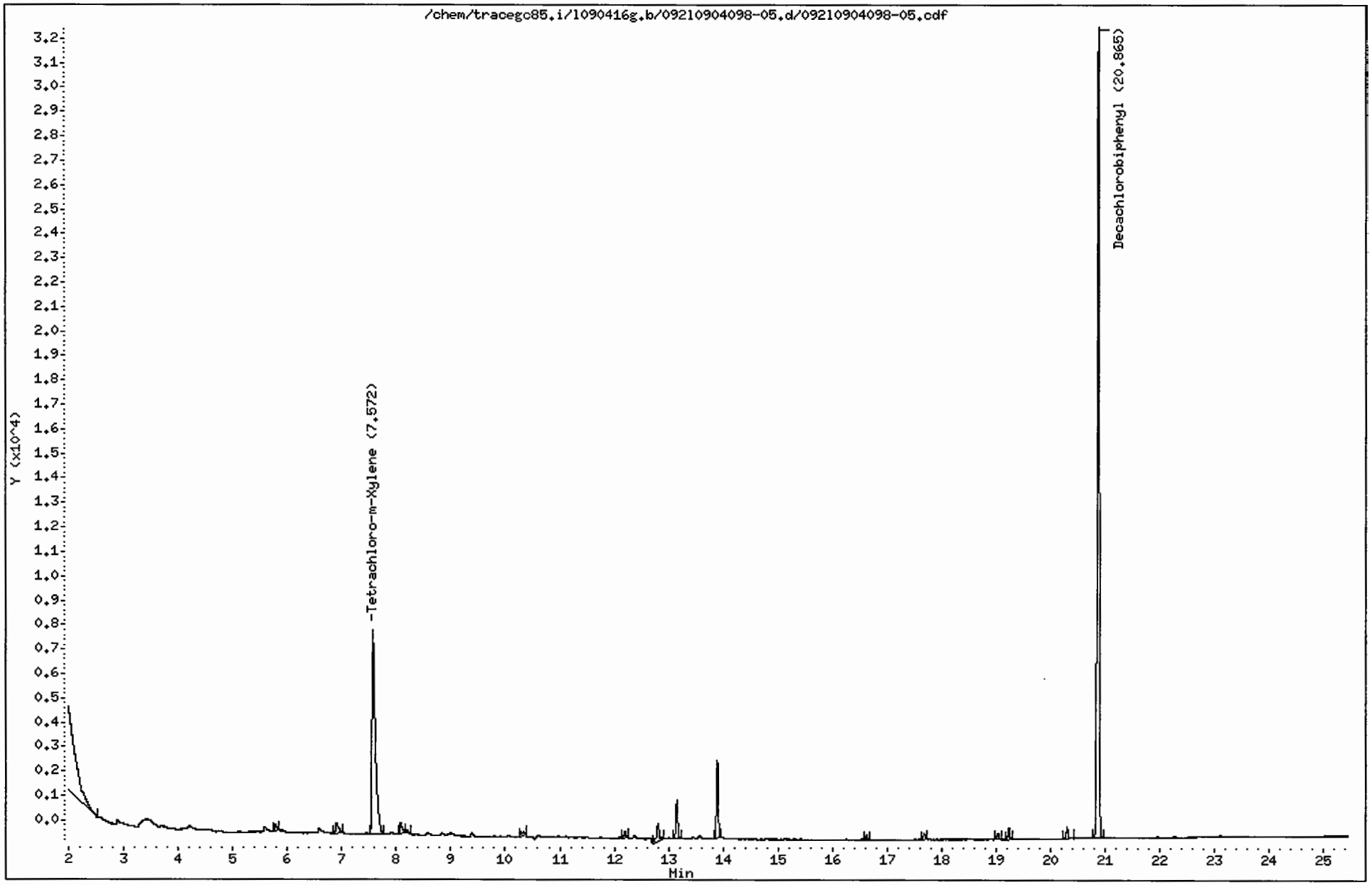
Sample Info: 0904098-05

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 09:58 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			1783								
1.49			1230								
1.64			46263								
1.76			145729								
5.79			625								
6.91			1497								
7.57	7.51	7.65	35064	764823	Tetrachloro-m-Xylene	0.045846	0.229230		76.4	43 - 135	
8.08			1495								
8.20			414								
10.29			777								
12.20			606								
12.81			2542								
13.15			3465								
13.89			7098								
16.62			390								
17.68			621								
19.03			603								
19.24			1080								
20.30			1105								
20.86	20.80	20.94	81911	773453	Decachlorobiphenyl	0.105902	0.529509		88.3	43 - 144	

4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416g.b/09310904098-06.d

Page 1

Date : 23-APR-2009 10:27

Client ID: 13MW7

Instrument: tracegc84.i

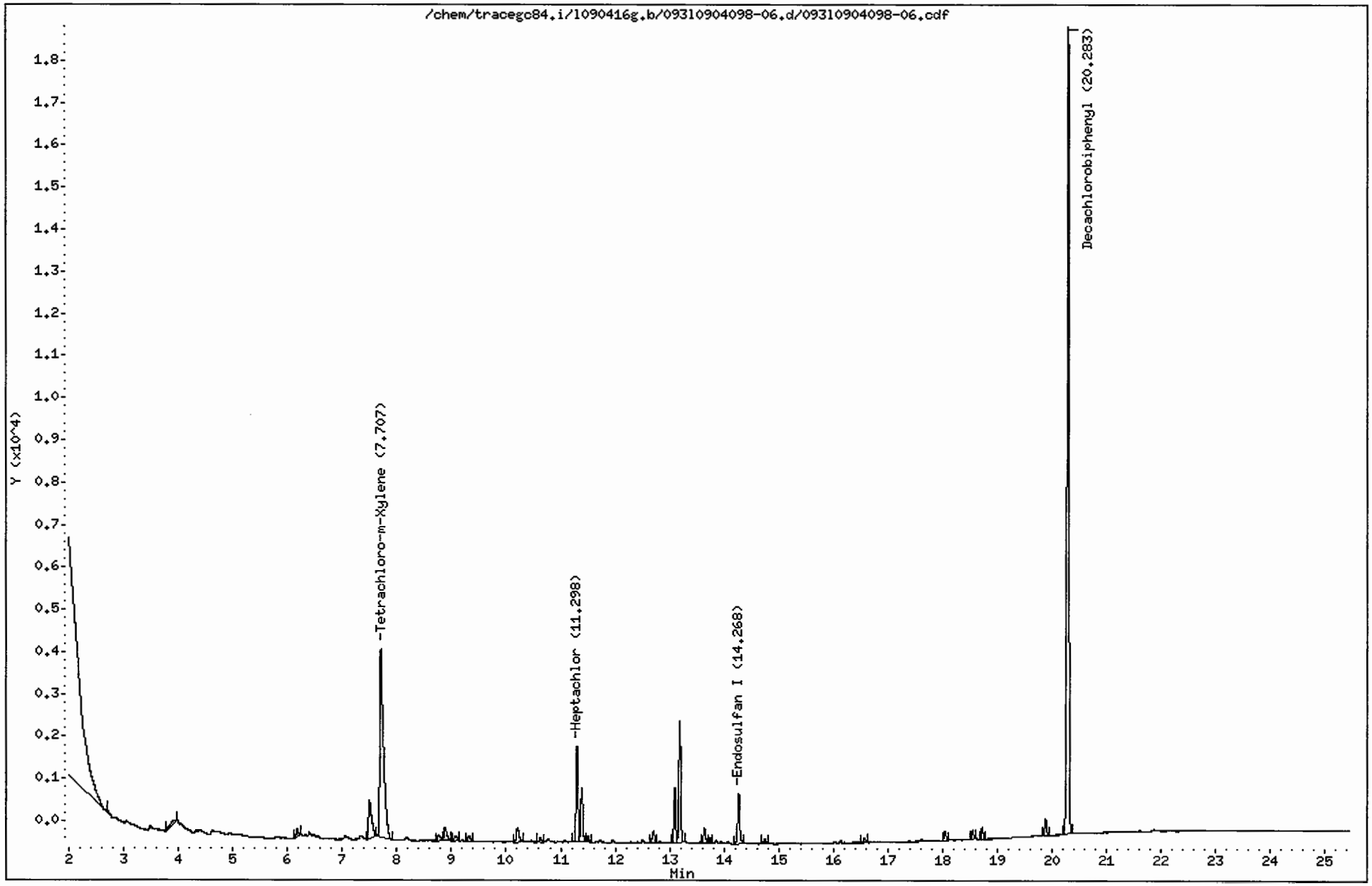
Sample Info: 0904098-06

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 10:27 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.31			4011								
1.40			6775								
1.51			1943								
1.80			37433								
1.91			119303								
3.93			544								
6.18			508								
7.50			3672								
7.71	7.64	7.78	20427	433925	Tetrachloro-m-Xylene	0.047073	0.235363		78.5	43 - 135	
8.77			477								
8.88			988								
9.07			456								
9.32			444								
10.21			1172								
10.63			263								
11.30	11.17	11.31	5577	611410	Heptachlor	0.009120	0.045600	0.050000			J
11.38			3246								
11.49			324								
12.71			876								
13.10			2884								
13.19			6909								
13.64			874								
13.75			249								
14.27	14.18	14.32	3126	497455	Endosulfan I	0.006284	0.031420	0.050000			J
14.74			261								
16.57			343								
18.05			560								
18.55			464								
18.72			738								
19.88			933								
20.28	20.22	20.36	47768	459922	Decachlorobiphenyl	0.103861	0.519305		86.6	43 - 144	

KEH 4/23/09

Data File: /chem/tracegc85.i/1090416g.b/09310904098-06.d

Page 1

Date : 23-APR-2009 10:27

Client ID: 13MW7

Instrument: tracegc85.i

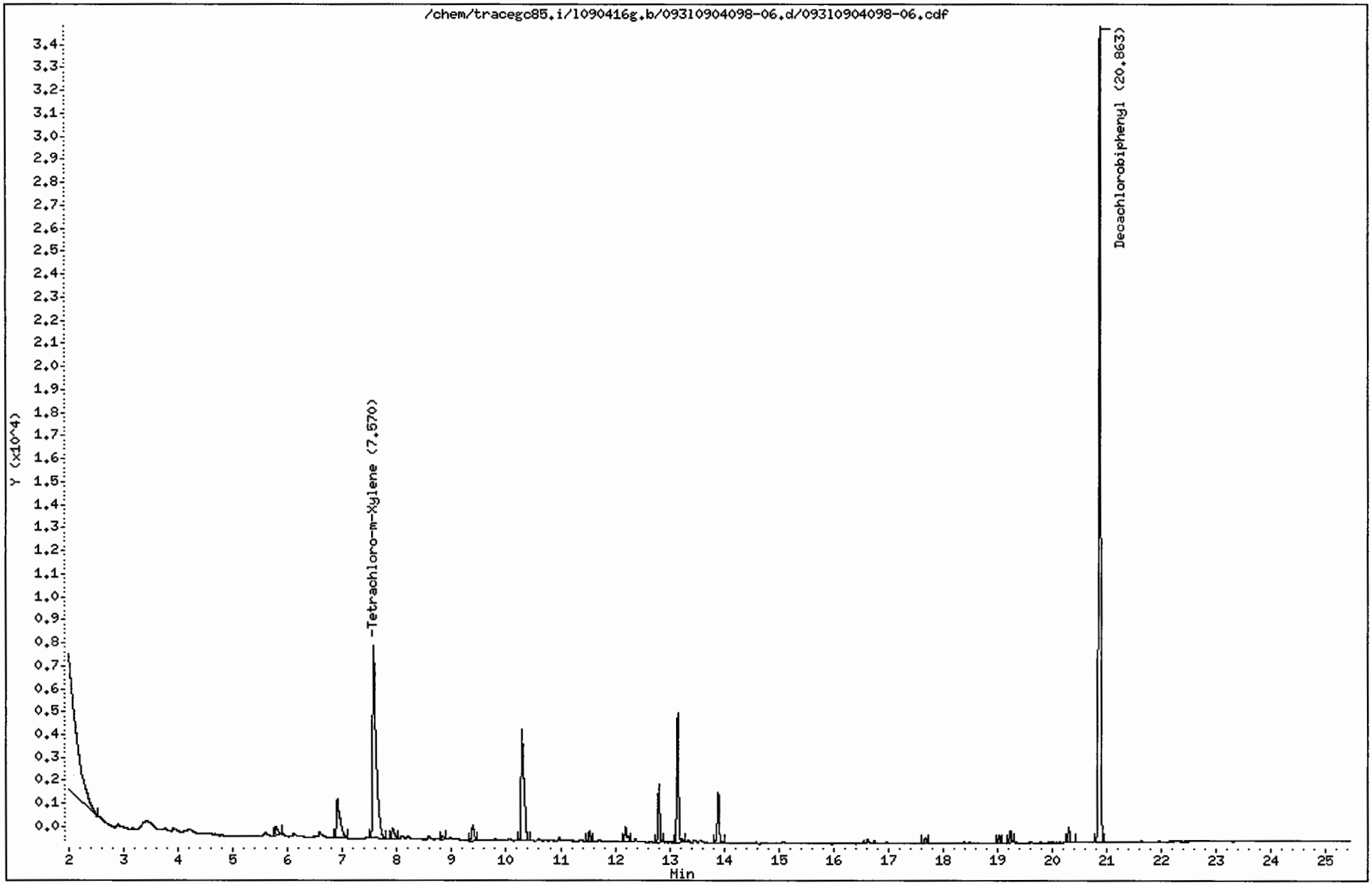
Sample Info: 0904098-06

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 10:27 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.34		2319								
1.48		3980								
1.63		69271								
1.75		235808								
5.78		1390								
6.91		7514								
7.57	7.51 7.65	36343	764823	Tetrachloro-m-Xylene	0.047518	0.237591		79.2	43 - 135	
7.92		1654								
8.84		455								
9.39		2015								
10.29		17572								
11.53		1040								
12.19		2042								
12.80		5493								
13.15		12753								
13.89		5175								
17.68		635								
19.03		775								
19.23		1182								
20.30		1556								
20.86	20.80 20.94	86513	773453	Decachlorobiphenyl	0.111852	0.559258		93.2	43 - 144	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 950.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.053	U
319-85-7	beta-BHC	0.053	U
319-84-6	alpha-BHC	0.053	U
319-86-8	delta-BHC	0.053	U
58-89-9	gamma-BHC (Lindane)	0.053	U
72-54-8	4,4'-DDD	0.11	U
72-55-9	4,4'-DDE	0.11	U
50-29-3	4,4'-DDT	0.11	U
60-57-1	Dieldrin	0.11	U
959-98-8	Endosulfan I	0.053	U
33213-65-9	Endosulfan II	0.11	U
1031-07-8	Endosulfan sulfate	0.11	U
72-20-8	Endrin	0.11	U
7421-93-4	Endrin Aldehyde	0.11	U
76-44-8	Heptachlor	0.053	U
1024-57-3	Heptachlor Epoxide	0.053	U
72-43-5	Methoxychlor	0.53	U
8001-35-2	Toxaphene	2.6	U
57-74-9	Technical Chlordane	0.91	U

FORM I PEST

Data File: /chem/tracegc84.i/1090416g.b/09110904098-04.d

Page 1

Date : 23-APR-2009 09:30

Client ID: 13MWDUP

Instrument: tracegc84.i

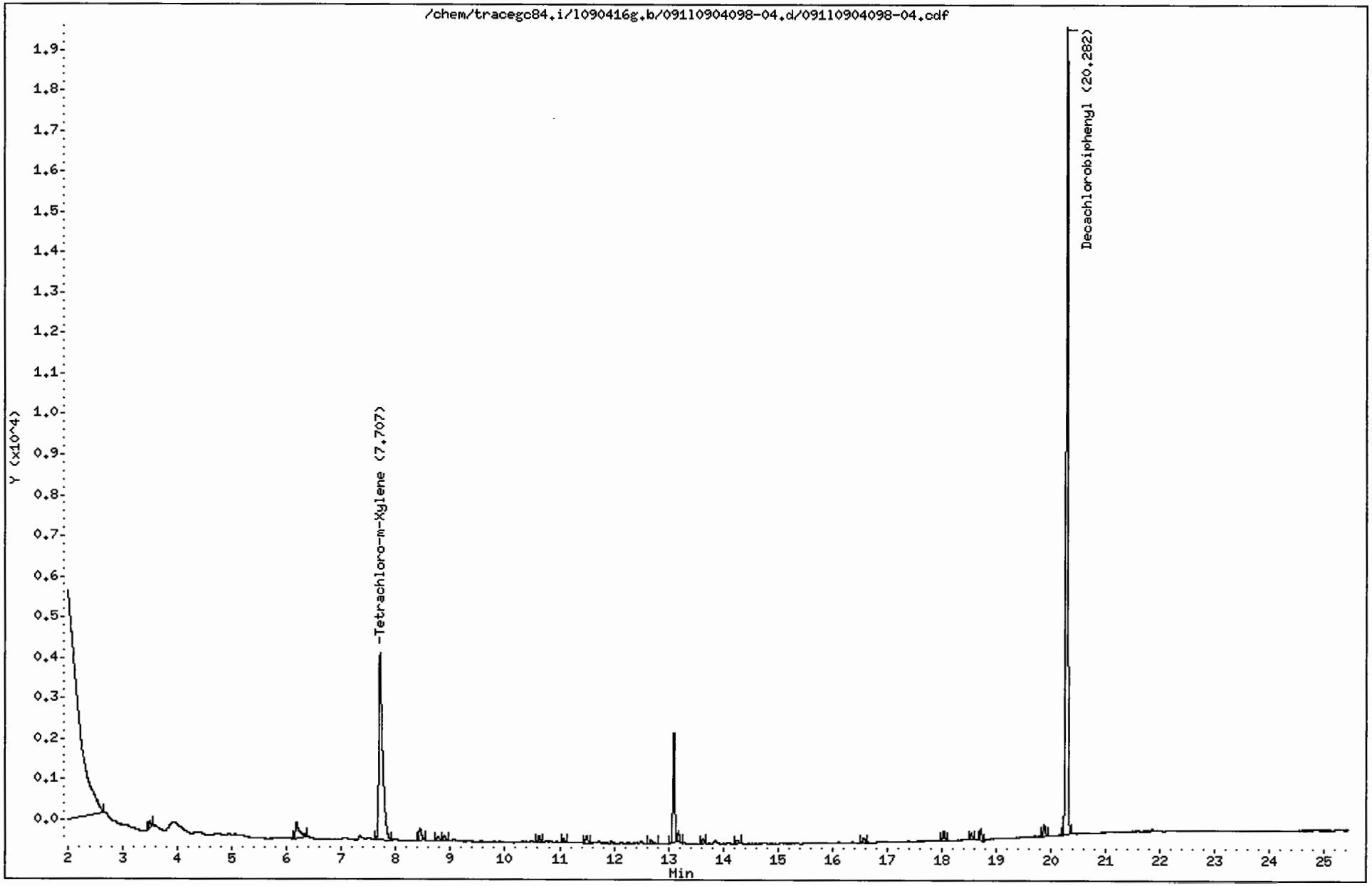
Sample Info: 0904098-04

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



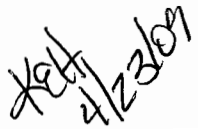
CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 09:30 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			4367								
1.39			27876								
1.80			42249								
1.91			120522								
3.49			531								
6.18			1845								
7.71	7.64	7.78	21183	433925	Tetrachloro-m-Xylene	0.048817	0.256933		81.4	43 - 135	
8.44			1084								
8.77			294								
8.88			375								
10.63			505								
11.07			289								
11.49			525								
12.68			358								
13.10			6165								
13.19			625								
13.64			309								
14.27			296								
16.58			397								
18.04			537								
18.55			406								
18.72			744								
19.88			660								
20.28	20.22	20.36	49988	459922	Decachlorobiphenyl	0.108686	0.572030		90.6	43 - 144	



Data File: /chem/tracegc85.i/1090416g.b/09110904098-04.d

Page 1

Date : 23-APR-2009 09:30

Client ID: 13MWDUP

Instrument: tracegc85.i

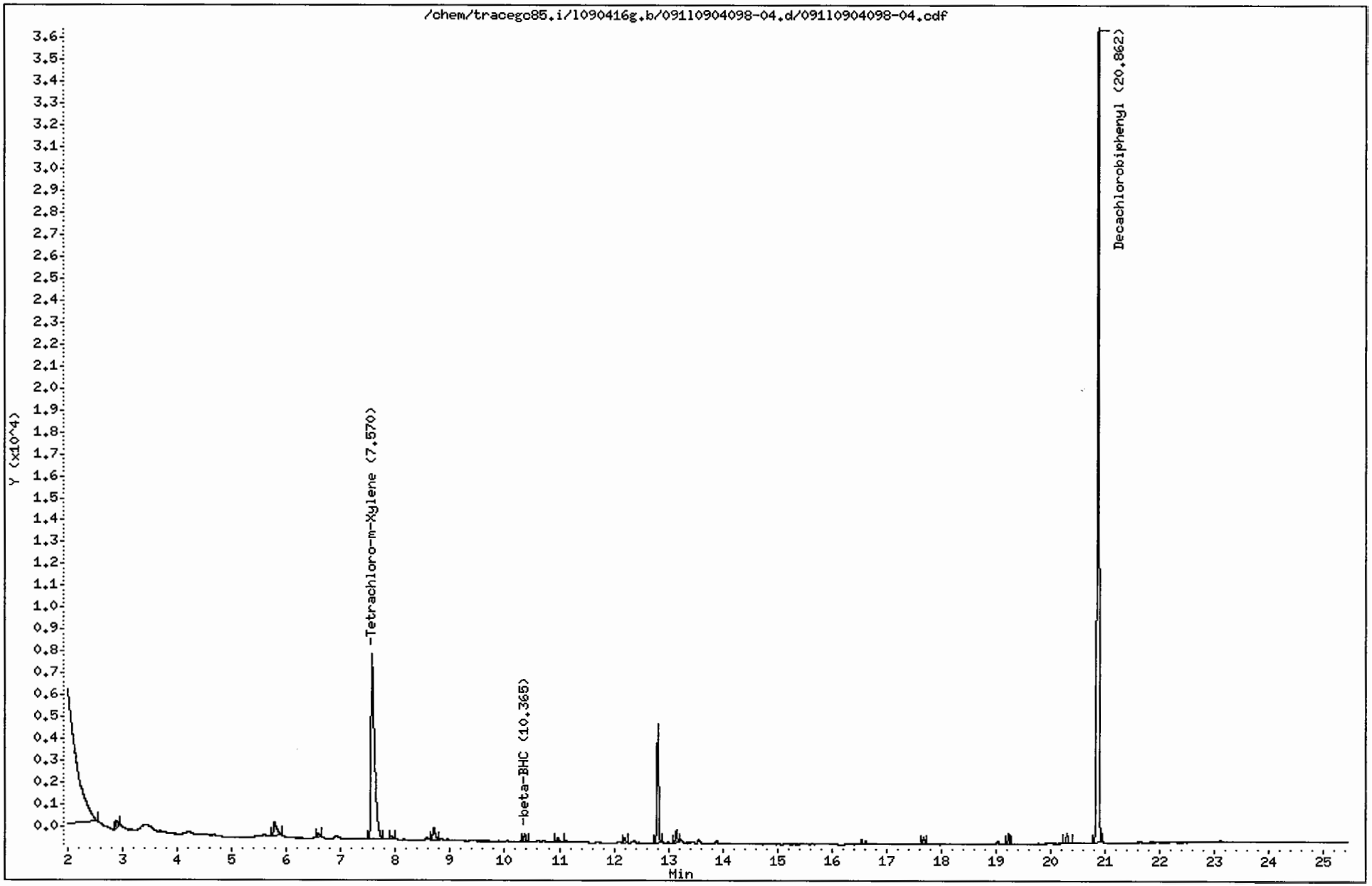
Sample Info: 0904098-04

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : DAACOMP1
Inj Date : 23-APR-2009 09:30 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30		2694								
1.38		12385								
1.49		10766								
1.65		70696								
1.76		228991								
2.89		1068								
5.78		2716								
6.58		438								
7.57	7.51 7.65	37167	764823	Tetrachloro-m-Xylene	0.048596	0.255766		81.0	43 - 135	
7.92		478								
8.70		1804								
10.36	10.31 10.45	869	481682	beta-BHC	0.001802	0.009484	0.052632			J
10.97		596								
12.19		608								
12.80		11451								
13.15		1249								
17.68		731								
19.23		1094								
20.30		1114								
20.86	20.80 20.94	91044	773453	Decachlorobiphenyl	0.117711	0.619532		98.1	43 - 144	

4/23/09

3. Standards Data

a. Initial Calibration Data (Form VI)

b. Continuing Verification Summary (Form VII)

c. Analytical Sequence (Form VIII)

d. Identification Summary for Single Component Analytes (Form X)

e. Identification Summary for Multicomponent Analytes (Form X) – if applicable

f. Chromatograms and Data System Printouts

a. Initial Calibration Data
(Form VI)

For all GC columns, all instruments, in chronological order by GC column and instrument.

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1539 2322

LAB FILE ID: RF0.0025: 011LAR16RF0.005: 012LAR166RF0.01: 020LAR1254
RF0.02: 014LAR1660RF0.04: 015LAR1660

COMPOUND	RF0.0025	RF0.005	RF0.01	RF0.02	RF0.04
Aldrin	596600.00	570400.00	565550.00	554200.00	544125.00
beta-BHC	280200.00	278800.00	274400.00	268725.00	262225.00
alpha-BHC	620800.00	624200.00	644100.00	664800.00	678900.00
delta-BHC	588600.00	582100.00	604450.00	615075.00	625150.00
gamma-BHC (Lindane)	604000.00	605300.00	617800.00	626450.00	631175.00
4,4'-DDD	385300.00	378700.00	377650.00	370112.50	360893.75
4,4'-DDE	544200.00	513300.00	502225.00	484600.00	469837.50
4,4'-DDT	448400.00	427200.00	424125.00	412412.50	401387.50
Dieldrin	524700.00	496100.00	488800.00	480112.50	461875.00
Endosulfan I	539000.00	515000.00	495600.00	475350.00	462325.00
Endosulfan II	491100.00	463650.00	448875.00	429237.50	407868.75
Endosulfan sulfate	451600.00	422300.00	408225.00	387712.50	367906.25
Endrin	470800.00	440000.00	429750.00	413150.00	394831.25
Endrin Aldehyde	398600.00	384800.00	370550.00	351487.50	330100.00
Heptachlor	642600.00	619400.00	612900.00	598250.00	583900.00
Heptachlor Epoxide	567800.00	539600.00	527050.00	508900.00	488262.50
Methoxychlor	233960.00	210300.00	197830.00	181265.00	166437.50
Toxaphene			14345.000		
(2)			14063.500		
(3)			11805.500		
(4)			23370.500		
(5)			13631.500		
Technical Chlordane			26680.000		
(2)			24407.500		
(3)			65160.000		
(4)			50172.500		
(5)			21235.000		
Decachlorobiphenyl	564200.00	479750.00	449325.00	417912.50	388425.00
Tetrachloro-m-Xylene	421000.00	426500.00	446200.00	443425.00	432500.00

FORM VI PEST

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1539 2322

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Aldrin	AVRG	566175.000	3.5
beta-BHC	AVRG	272870.000	2.7
alpha-BHC	AVRG	646560.000	3.9
delta-BHC	AVRG	603075.000	3.0
gamma-BHC (Lindane)	AVRG	616945.000	2.0
4,4'-DDD	AVRG	374531.250	2.5
4,4'-DDE	AVRG	502832.500	5.7
4,4'-DDT	AVRG	422705.000	4.2
Dieldrin	AVRG	490317.500	4.7
Endosulfan I	AVRG	497455.000	6.2
Endosulfan II	AVRG	448146.250	7.1
Endosulfan sulfate	AVRG	407548.750	7.9
Endrin	AVRG	429706.250	6.7
Endrin Aldehyde	AVRG	367107.500	7.4
Heptachlor	AVRG	611410.000	3.6
Heptachlor Epoxide	AVRG	526322.500	5.7
Methoxychlor	AVRG	197958.500	13.2
Toxaphene	AVRG	14345.0000	0.0
(2)	AVRG	14063.5000	0.0
(3)	AVRG	11805.5000	0.0
(4)	AVRG	23370.5000	0.0
(5)	AVRG	13631.5000	0.0
Technical Chlordane	AVRG	26680.0000	0.0
(2)	AVRG	24407.5000	0.0
(3)	AVRG	65160.0000	0.0
(4)	AVRG	50172.5000	0.0
(5)	AVRG	21235.0000	0.0
Decachlorobiphenyl	AVRG	459922.500	14.7
Tetrachloro-m-Xylene	AVRG	433925.000	2.5

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1539 2322

LAB FILE ID: RF0.0025: 011LAR16RF0.005: 012LAR166RF0.01: 020LAR1254
RF0.02: 014LAR1660RF0.04: 015LAR1660

COMPOUND	RF0.0025	RF0.005	RF0.01	RF0.02	RF0.04
Aldrin	1089800.0	1056700.0	1046450.0	1050950.0	1062537.5
beta-BHC	503600.00	483800.00	476550.00	473375.00	471087.50
alpha-BHC	1218400.0	1206100.0	1247650.0	1307050.0	1374850.0
delta-BHC	1109000.0	1107900.0	1132650.0	1189475.0	1249500.0
gamma-BHC (Lindane)	1155200.0	1137100.0	1165550.0	1210575.0	1261750.0
4,4'-DDD	710200.00	686450.00	691325.00	699537.50	713787.50
4,4'-DDE	960900.00	923550.00	917375.00	923800.00	942225.00
4,4'-DDT	787100.00	748600.00	754300.00	758312.50	778012.50
Dieldrin	958600.00	920800.00	914425.00	915150.00	914862.50
Endosulfan I	968000.00	912400.00	888950.00	871600.00	851450.00
Endosulfan II	860700.00	815150.00	799425.00	784887.50	773456.25
Endosulfan sulfate	796700.00	745150.00	728050.00	710100.00	697712.50
Endrin	843700.00	788300.00	774175.00	761437.50	752137.50
Endrin Aldehyde	745000.00	659100.00	655725.00	633050.00	619025.00
Heptachlor	1058545.5	1127900.0	1116650.0	1119700.0	1127537.5
Heptachlor Epoxide	1005800.0	966200.00	950850.00	938625.00	926550.00
Methoxychlor	383280.00	351040.00	337130.00	325750.00	315756.25
Toxaphene			38846.500		
(2)			47508.000		
(3)			20123.000		
(4)			36685.500		
(5)			20052.500		
Technical Chlordane			49217.500		
(2)			38652.500		
(3)			112610.00		
(4)			90857.500		
(5)			40187.500		
Decachlorobiphenyl	870100.00	792550.00	758275.00	730862.50	715475.00
Tetrachloro-m-Xylene	749200.00	762300.00	771550.00	773050.00	768012.50

FORM VI PEST

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1539 2322

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Aldrin	AVRG	1061287.50	1.6
beta-BHC	AVRG	481682.500	2.7
alpha-BHC	AVRG	1270810.00	5.5
delta-BHC	AVRG	1157705.00	5.3
gamma-BHC (Lindane)	AVRG	1186035.00	4.2
4,4'-DDD	AVRG	700260.000	1.7
4,4'-DDE	AVRG	933570.000	1.9
4,4'-DDT	AVRG	765265.000	2.2
Dieldrin	AVRG	924767.500	2.1
Endosulfan I	AVRG	898480.000	5.0
Endosulfan II	AVRG	806723.750	4.2
Endosulfan sulfate	AVRG	735542.500	5.2
Endrin	AVRG	783950.000	4.6
Endrin Aldehyde	AVRG	662380.000	7.4
Heptachlor	AVRG	1110066.59	2.6
Heptachlor Epoxide	AVRG	957605.000	3.2
Methoxychlor	AVRG	342591.250	7.7
Toxaphene	AVRG	38846.5000	0.0
(2)	AVRG	47508.0000	0.0
(3)	AVRG	20123.0000	0.0
(4)	AVRG	36685.5000	0.0
(5)	AVRG	20052.5000	0.0
Technical Chlordane	AVRG	49217.5000	0.0
(2)	AVRG	38652.5000	0.0
(3)	AVRG	112610.000	0.0
(4)	AVRG	90857.5000	0.0
(5)	AVRG	40187.5000	0.0
Decachlorobiphenyl	AVRG	773452.500	7.9
Tetrachloro-m-Xylene	AVRG	764822.500	1.3

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1539 2322

LAB FILE ID: RT1: 011LAR16601THRT2: 012LAR16602THRT3: 020LAR12543TH
RT4: 014LAR16604THRT5: 015LAR16605TH

COMPOUND	RT1	RT2	RT3	RT4	RT5
Aldrin	11.950	11.950	11.950	11.950	11.950
beta-BHC	10.290	10.290	10.290	10.290	10.300
alpha-BHC	9.230	9.230	9.230	9.230	9.240
delta-BHC	10.720	10.720	10.720	10.720	10.730
gamma-BHC (Lindane)	10.050	10.050	10.050	10.050	10.060
4,4'-DDD	15.430	15.440	15.430	15.430	15.440
4,4'-DDE	14.130	14.130	14.130	14.130	14.140
4,4'-DDT	16.030	16.030	16.030	16.030	16.040
Dieldrin	14.770	14.780	14.770	14.770	14.780
Endosulfan I	14.240	14.240	14.240	14.240	14.250
Endosulfan II	15.770	15.770	15.760	15.770	15.770
Endosulfan sulfate	17.610	17.610	17.610	17.610	17.610
Endrin	15.280	15.280	15.280	15.280	15.280
Endrin Aldehyde	16.680	16.680	16.670	16.680	16.680
Heptachlor	11.230	11.230	11.230	11.230	11.240
Heptachlor Epoxide	13.370	13.370	13.370	13.370	13.370
Methoxychlor	17.060	17.060	17.060	17.060	17.070
Toxaphene			16.020		
(2)			16.620		
(3)			16.890		
(4)			17.390		
(5)			18.150		
Technical Chlordane			11.230		
(2)			12.290		
(3)			13.650		
(4)			13.940		
(5)			15.610		
Decachlorobiphenyl	20.290	20.290	20.280	20.280	20.290
Tetrachloro-m-Xylene	7.710	7.710	7.700	7.710	7.710

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1539 2322

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aldrin	11.950	11.883	12.023
beta-BHC	10.292	10.228	10.368
alpha-BHC	9.232	9.167	9.307
delta-BHC	10.722	10.660	10.800
gamma-BHC (Lindane)	10.052	9.988	10.128
4,4'-DDD	15.434	15.368	15.508
4,4'-DDE	14.132	14.068	14.208
4,4'-DDT	16.032	15.967	16.107
Dieldrin	14.774	14.708	14.848
Endosulfan I	14.242	14.178	14.318
Endosulfan II	15.768	15.702	15.842
Endosulfan sulfate	17.610	17.545	17.685
Endrin	15.280	15.213	15.353
Endrin Aldehyde	16.678	16.610	16.750
Heptachlor	11.232	11.170	11.310
Heptachlor Epoxide	13.370	13.302	13.442
Methoxychlor	17.062	16.995	17.135
Toxaphene	16.020	15.945	16.085
(2)	16.620	16.553	16.693
(3)	16.890	16.815	16.955
(4)	17.390	17.315	17.455
(5)	18.150	18.080	18.220
Technical Chlordane	11.230	11.165	11.305
(2)	12.290	12.220	12.360
(3)	13.650	13.577	13.717
(4)	13.940	13.870	14.010
(5)	15.610	15.543	15.683
Decachlorobiphenyl	20.286	20.220	20.360
Tetrachloro-m-Xylene	7.708	7.640	7.780

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1539 2322

LAB FILE ID: RT1: 011LAR16601THRT2: 012LAR16602THRT3: 020LAR12543TH
RT4: 014LAR16604THRT5: 015LAR16605TH

COMPOUND	RT1	RT2	RT3	RT4	RT5
Aldrin	11.940	11.940	11.940	11.940	11.950
beta-BHC	10.380	10.380	10.380	10.380	10.380
alpha-BHC	9.230	9.230	9.230	9.230	9.230
delta-BHC	11.080	11.080	11.080	11.080	11.090
gamma-BHC (Lindane)	10.140	10.140	10.140	10.140	10.140
4,4'-DDD	15.650	15.650	15.650	15.650	15.650
4,4'-DDE	14.410	14.410	14.410	14.410	14.410
4,4'-DDT	16.310	16.310	16.310	16.310	16.320
Dieldrin	14.720	14.720	14.720	14.720	14.720
Endosulfan I	14.120	14.120	14.120	14.120	14.130
Endosulfan II	15.830	15.840	15.830	15.830	15.840
Endosulfan sulfate	17.140	17.150	17.140	17.140	17.150
Endrin	15.370	15.380	15.370	15.370	15.380
Endrin Aldehyde	16.560	16.560	16.560	16.560	16.560
Heptachlor	11.190	11.190	11.190	11.190	11.200
Heptachlor Epoxide	13.260	13.260	13.260	13.260	13.270
Methoxychlor	17.770	17.770	17.770	17.770	17.770
Toxaphene			16.010		
(2)			16.570		
(3)			17.120		
(4)			17.770		
(5)			18.180		
Technical Chlordane			11.200		
(2)			12.320		
(3)			13.690		
(4)			14.010		
(5)			15.930		
Decachlorobiphenyl	20.870	20.870	20.860	20.860	20.870
Tetrachloro-m-Xylene	7.570	7.570	7.570	7.570	7.580

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date(s): 04/16/09 04/16/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1539 2322

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aldrin	11.942	11.877	12.017
beta-BHC	10.380	10.315	10.455
alpha-BHC	9.230	9.163	9.303
delta-BHC	11.082	11.015	11.155
gamma-BHC (Lindane)	10.140	10.073	10.213
4,4'-DDD	15.650	15.582	15.722
4,4'-DDE	14.410	14.343	14.483
4,4'-DDT	16.312	16.245	16.385
Dieldrin	14.720	14.655	14.795
Endosulfan I	14.122	14.055	14.195
Endosulfan II	15.834	15.770	15.910
Endosulfan sulfate	17.144	17.080	17.220
Endrin	15.374	15.310	15.450
Endrin Aldehyde	16.560	16.493	16.633
Heptachlor	11.192	11.128	11.268
Heptachlor Epoxide	13.262	13.197	13.337
Methoxychlor	17.770	17.705	17.845
Toxaphene	16.010	15.943	16.083
(2)	16.570	16.502	16.642
(3)	17.120	17.053	17.193
(4)	17.770	17.702	17.842
(5)	18.180	18.113	18.253
Technical Chlordane	11.200	11.125	11.265
(2)	12.320	12.255	12.395
(3)	13.690	13.615	13.755
(4)	14.010	13.940	14.080
(5)	15.930	15.862	16.002
Decachlorobiphenyl	20.866	20.802	20.942
Tetrachloro-m-Xylene	7.572	7.505	7.645

b. Continuing Calibration Summary (Form VII)

For all performance evaluation mixtures (if applicable) and Continuing calibration verification standards, on all GC columns and instruments, in chronological order by GC column and instrument.

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date: 04/23/09 Time: 0020

Lab File ID: 072LINDC3TT Init. Calib. Date(s): 04/16/09 04/16/09

Init. Calib. Times: 1539 1735

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.0100 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aldrin	566175.00	551650.00	0.01	-2.56	15.00	AVRG
alpha-BHC	646560.00	622600.00	0.01	-3.70	15.00	AVRG
beta-BHC	272870.00	268050.00	0.01	-1.77	15.00	AVRG
delta-BHC	603075.00	578200.00	0.01	-4.12	15.00	AVRG
gamma-BHC (Lindane)	616945.00	596500.00	0.01	-3.31	15.00	AVRG
4,4'-DDD	374531.25	374825.00	0.01	0.08	15.00	AVRG
4,4'-DDE	502832.50	491200.00	0.01	-2.31	15.00	AVRG
4,4'-DDT	422705.00	407675.00	0.01	-3.56	15.00	AVRG
Dieldrin	490317.50	490675.00	0.01	0.07	15.00	AVRG
Endosulfan I	497455.00	494100.00	0.01	-0.67	15.00	AVRG
Endosulfan II	448146.25	456350.00	0.01	1.83	15.00	AVRG
Endosulfan sulfate	407548.75	412275.00	0.01	1.16	15.00	AVRG
Endrin	429706.25	387350.00	0.01	-9.86	15.00	AVRG
Endrin Aldehyde	367107.50	391525.00	0.01	6.65	15.00	AVRG
Heptachlor	611410.00	601950.00	0.01	-1.55	15.00	AVRG
Heptachlor Epoxide	526322.50	524550.00	0.01	-0.34	15.00	AVRG
Methoxychlor	197958.50	194060.00	0.01	-1.97	15.00	AVRG
Endrin Ketone	477487.50	509200.00	0.01	6.64	15.00	AVRG
gamma-Chlordane	541375.00	531450.00	0.01	-1.83	15.00	AVRG
alpha-Chlordane	515967.50	505050.00	0.01	-2.12	15.00	AVRG
Decachlorobiphenyl	459922.50	456800.00	0.01	-0.68	15.00	AVRG
Tetrachloro-m-Xylene	433925.00	438800.00	0.01	1.12	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date: 04/23/09 Time: 0020

Lab File ID: 072LINDC3TT Init. Calib. Date(s): 04/16/09 04/16/09

Init. Calib. Times: 1539 1735

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.0100 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aldrin	1061287.5	1034450.0	0.01	-2.53	15.00	AVRG
beta-BHC	481682.50	468100.00	0.01	-2.82	15.00	AVRG
alpha-BHC	1270810.0	1219150.0	0.01	-4.06	15.00	AVRG
delta-BHC	1157705.0	1115600.0	0.01	-3.64	15.00	AVRG
gamma-BHC (Lindane)	1186035.0	1142050.0	0.01	-3.71	15.00	AVRG
4,4'-DDD	700260.00	694850.00	0.01	-0.77	15.00	AVRG
4,4'-DDE	933570.00	907875.00	0.01	-2.75	15.00	AVRG
4,4'-DDT	765265.00	731675.00	0.01	-4.39	15.00	AVRG
Dieldrin	924767.50	928950.00	0.01	0.45	15.00	AVRG
Endosulfan I	898480.00	896650.00	0.01	-0.20	15.00	AVRG
Endosulfan II	806723.75	816975.00	0.01	1.27	15.00	AVRG
Endosulfan sulfate	735542.50	746425.00	0.01	1.48	15.00	AVRG
Endrin	783950.00	702300.00	0.01	-10.42	15.00	AVRG
Endrin Aldehyde	662380.00	707100.00	0.01	6.75	15.00	AVRG
Heptachlor	1110066.6	1106100.0	0.01	-0.36	15.00	AVRG
Heptachlor Epoxide	957605.00	954550.00	0.01	-0.32	15.00	AVRG
Methoxychlor	342591.25	338080.00	0.01	-1.32	15.00	AVRG
Endrin Ketone	853565.00	911875.00	0.01	6.83	15.00	AVRG
gamma-Chlordane	980297.50	951500.00	0.01	-2.94	15.00	AVRG
alpha-Chlordane	923527.50	900750.00	0.01	-2.47	15.00	AVRG
Decachlorobiphenyl	773452.50	783275.00	0.01	1.27	15.00	AVRG
Tetrachloro-m-Xylene	764822.50	774600.00	0.01	1.28	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date: 04/23/09 Time: 0636

Lab File ID: 085LINDC3TV Init. Calib. Date(s): 04/16/09 04/16/09

Init. Calib. Times: 1539 1735

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.0100 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aldrin	566175.00	571550.00	0.01	0.95	15.00	AVRG
alpha-BHC	646560.00	646750.00	0.01	0.03	15.00	AVRG
beta-BHC	272870.00	279100.00	0.01	2.28	15.00	AVRG
delta-BHC	603075.00	605200.00	0.01	0.35	15.00	AVRG
gamma-BHC (Lindane)	616945.00	617250.00	0.01	0.05	15.00	AVRG
4,4'-DDD	374531.25	392400.00	0.01	4.77	15.00	AVRG
4,4'-DDE	502832.50	511675.00	0.01	1.76	15.00	AVRG
4,4'-DDT	422705.00	426075.00	0.01	0.80	15.00	AVRG
Dieldrin	490317.50	512425.00	0.01	4.51	15.00	AVRG
Endosulfan I	497455.00	512900.00	0.01	3.10	15.00	AVRG
Endosulfan II	448146.25	475150.00	0.01	6.02	15.00	AVRG
Endosulfan sulfate	407548.75	430575.00	0.01	5.65	15.00	AVRG
Endrin	429706.25	394975.00	0.01	-8.08	15.00	AVRG
Endrin Aldehyde	367107.50	407475.00	0.01	11.00	15.00	AVRG
Heptachlor	611410.00	622700.00	0.01	1.85	15.00	AVRG
Heptachlor Epoxide	526322.50	545000.00	0.01	3.55	15.00	AVRG
Methoxychlor	197958.50	200780.00	0.01	1.42	15.00	AVRG
Endrin Ketone	477487.50	533750.00	0.01	11.78	15.00	AVRG
gamma-Chlordane	541375.00	553250.00	0.01	2.19	15.00	AVRG
alpha-Chlordane	515967.50	525050.00	0.01	1.76	15.00	AVRG
Decachlorobiphenyl	459922.50	471550.00	0.01	2.53	15.00	AVRG
Tetrachloro-m-Xylene	433925.00	454450.00	0.01	4.73	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date: 04/23/09 Time: 0636

Lab File ID: 085LINDC3TV Init. Calib. Date(s): 04/16/09 04/16/09

Init. Calib. Times: 1539 1735

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.0100 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aldrin	1061287.5	1077100.0	0.01	1.49	15.00	AVRG
beta-BHC	481682.50	488500.00	0.01	1.42	15.00	AVRG
alpha-BHC	1270810.0	1267650.0	0.01	-0.25	15.00	AVRG
delta-BHC	1157705.0	1169700.0	0.01	1.04	15.00	AVRG
gamma-BHC (Lindane)	1186035.0	1188450.0	0.01	0.20	15.00	AVRG
4,4'-DDD	700260.00	728225.00	0.01	3.99	15.00	AVRG
4,4'-DDE	933570.00	950200.00	0.01	1.78	15.00	AVRG
4,4'-DDT	765265.00	766150.00	0.01	0.12	15.00	AVRG
Dieldrin	924767.50	968900.00	0.01	4.77	15.00	AVRG
Endosulfan I	898480.00	934200.00	0.01	3.98	15.00	AVRG
Endosulfan II	806723.75	851325.00	0.01	5.53	15.00	AVRG
Endosulfan sulfate	735542.50	781450.00	0.01	6.24	15.00	AVRG
Endrin	783950.00	715925.00	0.01	-8.68	15.00	AVRG
Endrin Aldehyde	662380.00	742175.00	0.01	12.05	15.00	AVRG
Heptachlor	1110066.6	1150350.0	0.01	3.63	15.00	AVRG
Heptachlor Epoxide	957605.00	1000900.0	0.01	4.52	15.00	AVRG
Methoxychlor	342591.25	351325.00	0.01	2.55	15.00	AVRG
Endrin Ketone	853565.00	958875.00	0.01	12.34	15.00	AVRG
gamma-Chlordane	980297.50	992250.00	0.01	1.22	15.00	AVRG
alpha-Chlordane	923527.50	939300.00	0.01	1.71	15.00	AVRG
Decachlorobiphenyl	773452.50	809200.00	0.01	4.62	15.00	AVRG
Tetrachloro-m-Xylene	764822.50	803050.00	0.01	5.00	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC84 Calibration Date: 04/23/09 Time: 1154

Lab File ID: 096LINDC3TX Init. Calib. Date(s): 04/16/09 04/16/09

Init. Calib. Times: 1539 1735

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.0100 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aldrin	566175.00	576350.00	0.01	1.80	15.00	AVRG
alpha-BHC	646560.00	651800.00	0.01	0.81	15.00	AVRG
beta-BHC	272870.00	280750.00	0.01	2.89	15.00	AVRG
delta-BHC	603075.00	609600.00	0.01	1.08	15.00	AVRG
gamma-BHC (Lindane)	616945.00	622150.00	0.01	0.84	15.00	AVRG
4,4'-DDD	374531.25	393850.00	0.01	5.16	15.00	AVRG
4,4'-DDE	502832.50	515700.00	0.01	2.56	15.00	AVRG
4,4'-DDT	422705.00	423050.00	0.01	0.08	15.00	AVRG
Dieldrin	490317.50	511825.00	0.01	4.39	15.00	AVRG
Endosulfan I	497455.00	523200.00	0.01	5.18	15.00	AVRG
Endosulfan II	448146.25	476025.00	0.01	6.22	15.00	AVRG
Endosulfan sulfate	407548.75	432175.00	0.01	6.04	15.00	AVRG
Endrin	429706.25	382125.00	0.01	-11.07	15.00	AVRG
Endrin Aldehyde	367107.50	416025.00	0.01	13.32	15.00	AVRG
Heptachlor	611410.00	627050.00	0.01	2.56	15.00	AVRG
Heptachlor Epoxide	526322.50	546300.00	0.01	3.80	15.00	AVRG
Methoxychlor	197958.50	198500.00	0.01	0.27	15.00	AVRG
Endrin Ketone	477487.50	541950.00	0.01	13.50	15.00	AVRG
gamma-Chlordane	541375.00	554100.00	0.01	2.35	15.00	AVRG
alpha-Chlordane	515967.50	525250.00	0.01	1.80	15.00	AVRG
Decachlorobiphenyl	459922.50	473850.00	0.01	3.03	15.00	AVRG
Tetrachloro-m-Xylene	433925.00	458200.00	0.01	5.59	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC85 Calibration Date: 04/23/09 Time: 1154

Lab File ID: 096LINDC3TX Init. Calib. Date(s): 04/16/09 04/16/09

Init. Calib. Times: 1539 1735

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.0100 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aldrin	1061287.5	1067550.0	0.01	0.59	15.00	AVRG
beta-BHC	481682.50	482750.00	0.01	0.22	15.00	AVRG
alpha-BHC	1270810.0	1259200.0	0.01	-0.91	15.00	AVRG
delta-BHC	1157705.0	1158000.0	0.01	0.02	15.00	AVRG
gamma-BHC (Lindane)	1186035.0	1178000.0	0.01	-0.68	15.00	AVRG
4,4'-DDD	700260.00	719300.00	0.01	2.72	15.00	AVRG
4,4'-DDE	933570.00	936950.00	0.01	0.36	15.00	AVRG
4,4'-DDT	765265.00	751600.00	0.01	-1.78	15.00	AVRG
Dieldrin	924767.50	957375.00	0.01	3.53	15.00	AVRG
Endosulfan I	898480.00	923700.00	0.01	2.81	15.00	AVRG
Endosulfan II	806723.75	842050.00	0.01	4.38	15.00	AVRG
Endosulfan sulfate	735542.50	777075.00	0.01	5.65	15.00	AVRG
Endrin	783950.00	684050.00	0.01	-12.74	15.00	AVRG
Endrin Aldehyde	662380.00	745875.00	0.01	12.60	15.00	AVRG
Heptachlor	1110066.6	1140100.0	0.01	2.70	15.00	AVRG
Heptachlor Epoxide	957605.00	992950.00	0.01	3.69	15.00	AVRG
Methoxychlor	342591.25	344090.00	0.01	0.44	15.00	AVRG
Endrin Ketone	853565.00	960775.00	0.01	12.56	15.00	AVRG
gamma-Chlordane	980297.50	981050.00	0.01	0.08	15.00	AVRG
alpha-Chlordane	923527.50	926200.00	0.01	0.29	15.00	AVRG
Decachlorobiphenyl	773452.50	806325.00	0.01	4.25	15.00	AVRG
Tetrachloro-m-Xylene	764822.50	798750.00	0.01	4.44	15.00	AVRG

7F

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEMTH Date Analyzed :04/16/09

Lab Sample ID (PEM): PEMTH Time Analyzed :1510

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	AREA
4,4'-DDD	15.44	15.37	15.51	66
4,4'-DDE	14.13	14.07	14.21	74
4,4'-DDT	16.03	15.97	16.11	12556
Endrin	15.28	15.21	15.35	9097
Endrin Aldehyde	16.67	16.61	16.75	46
Endrin Ketone	18.20	18.14	18.28	91

4,4'-DDT % breakdown (1): 1.10 Endrin % breakdown (1): 1.48

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

FORM VII PEST-1

7F

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEMTH Date Analyzed :04/16/09

Lab Sample ID (PEM): PEMTH Time Analyzed :1510

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	AREA
4,4'-DDD	15.65	15.58	15.72	85
4,4'-DDE	14.41	14.34	14.48	171
4,4'-DDT	16.31	16.25	16.39	22601
Endrin	15.38	15.31	15.45	16399
Endrin Aldehyde	16.56	16.49	16.63	192
Endrin Ketone	18.27	18.21	18.35	177

4,4'-DDT % breakdown (1): 1.12 Endrin % breakdown (1): 2.20

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

FORM VII PEST-1

7F

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

EPA Sample No.(PIBLK): PIBLKTU Date Analyzed :04/23/09

Lab Sample ID (PIBLK): PIBLKTU Time Analyzed :0607

EPA Sample No.(PEM): PEMTV Date Analyzed :04/23/09

Lab Sample ID (PEM): PEMTV Time Analyzed :0705

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	AREA
4,4'-DDD	15.43	15.37	15.51	109
4,4'-DDE	14.13	14.07	14.21	124
4,4'-DDT	16.03	15.97	16.11	13095
Endrin	15.28	15.21	15.35	8716
Endrin Aldehyde	16.68	16.61	16.75	634
Endrin Ketone	18.20	18.14	18.28	633

4,4'-DDT % breakdown (1): 1.75 Endrin % breakdown (1): 12.7

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

FORM VII PEST-1

7F

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

EPA Sample No.(PIBLK): PIBLKTV Date Analyzed :04/23/09

Lab Sample ID (PIBLK): PIBLKTV Time Analyzed :0607

EPA Sample No.(PEM): PEMTV Date Analyzed :04/23/09

Lab Sample ID (PEM): PEMTV Time Analyzed :0705

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	AREA
4,4'-DDD	15.65	15.58	15.72	242
4,4'-DDE	14.41	14.34	14.48	189
4,4'-DDT	16.31	16.25	16.39	23590
Endrin	15.37	15.31	15.45	15586
Endrin Aldehyde	16.56	16.49	16.63	1096
Endrin Ketone	18.27	18.21	18.35	1133

4,4'-DDT % breakdown (1): 1.79 Endrin % breakdown (1): 12.5

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%

Endrin breakdown must be less than or equal to 15.0%

FORM VII PEST-1

c. Analytical Sequence (Form VIII)

For all GC columns, all instruments, in chronological order by GC column and instrument

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

Instrument ID: TRACEGC84

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 20.29 TCX: 7.71

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	PEMTH	PEMTH	04/16/09	1510	20.29	7.71
02	INDC1TH	INDC1TH	04/16/09	1539	20.29	7.71
03	INDC2TH	INDC2TH	04/16/09	1608	20.29	7.71
04	INDC3TH	INDC3TH	04/16/09	1637	20.28	7.70
05	INDC4TH	INDC4TH	04/16/09	1706	20.28	7.71
06	INDC5TH	INDC5TH	04/16/09	1735	20.29	7.71
07	TOXAPH3TH	TOXAPH3TH	04/16/09	1804	20.29	7.71
08	CHLORO3TH	CHLORO3TH	04/16/09	1833	20.29	7.71
09	AR16601TH	AR16601TH	04/16/09	1902	20.29	7.71
10	AR16602TH	AR16602TH	04/16/09	1931	20.29	7.71
11	AR16603TH	AR16603TH	04/16/09	2000	20.29	7.71
12	AR16604TH	AR16604TH	04/16/09	2029	20.29	7.71
13	AR16605TH	AR16605TH	04/16/09	2058	20.29	7.71
14	AR12213TH	AR12213TH	04/16/09	2126	20.28	7.71
15	AR12323TH	AR12323TH	04/16/09	2155	20.29	7.71
16	AR12423TH	AR12423TH	04/16/09	2225	20.29	7.71
17	AR12483TH	AR12483TH	04/16/09	2253	20.29	7.71
18	AR12543TH	AR12543TH	04/16/09	2322	20.29	7.71
19	PIBLKTS	PIBLKTS	04/22/09	2351	20.28	7.71
20	INDC3TT	INDC3TT	04/23/09	0020	20.29	7.71
21	PBLKGT	9041631-BLK1	04/23/09	0049	20.28	7.71
22	PGTLCS	9041631-BS1	04/23/09	0118	20.28	7.71
23	13MW5MS	9041631-MS2	04/23/09	0245	20.29	7.71
24	13MW5MSD	9041631-MSD2	04/23/09	0314	20.29	7.71
25	PIBLKTU	PIBLKTU	04/23/09	0607	20.28	7.71
26	INDC3TV	INDC3TV	04/23/09	0636	20.28	7.71
27	PEMTV	PEMTV	04/23/09	0705	20.29	7.71
28	13MW5	0904098-01	04/23/09	0803	20.28	7.71
29	13MW3	0904098-02	04/23/09	0832	20.28	7.71
30	13MW4	0904098-03	04/23/09	0901	20.28	7.71
31	13MWDUP	0904098-04	04/23/09	0930	20.28	7.71
32	13MW6	0904098-05	04/23/09	0958	20.28	7.71

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

Instrument ID: TRACEGC84

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 20.29 TCX: 7.71

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	13MW7	0904098-06	04/23/09	1027	20.28	7.71
02	PIBLKTW	PIBLKTW	04/23/09	1125	20.28	7.70
03	INDC3TX	INDC3TX	04/23/09	1154	20.28	7.70
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

Instrument ID: TRACEGC85

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 20.87 TCX: 7.58

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	PEMTH	PEMTH	04/16/09	1510	20.87	7.57
02	INDC1TH	INDC1TH	04/16/09	1539	20.87	7.57
03	INDC2TH	INDC2TH	04/16/09	1608	20.87	7.57
04	INDC3TH	INDC3TH	04/16/09	1637	20.86	7.57
05	INDC4TH	INDC4TH	04/16/09	1706	20.86	7.57
06	INDC5TH	INDC5TH	04/16/09	1735	20.87	7.58
07	TOXAPH3TH	TOXAPH3TH	04/16/09	1804	20.87	7.57
08	CHLORO3TH	CHLORO3TH	04/16/09	1833	20.87	7.57
09	AR16601TH	AR16601TH	04/16/09	1902	20.87	7.57
10	AR16602TH	AR16602TH	04/16/09	1931	20.87	7.57
11	AR16603TH	AR16603TH	04/16/09	2000	20.87	7.57
12	AR16604TH	AR16604TH	04/16/09	2029	20.87	7.57
13	AR16605TH	AR16605TH	04/16/09	2058	20.87	7.57
14	AR12213TH	AR12213TH	04/16/09	2126	20.86	7.57
15	AR12323TH	AR12323TH	04/16/09	2155	20.87	7.57
16	AR12423TH	AR12423TH	04/16/09	2225	20.87	7.57
17	AR12483TH	AR12483TH	04/16/09	2253	20.87	7.57
18	AR12543TH	AR12543TH	04/16/09	2322	20.87	7.57
19	PIBLKTT	PIBLKTT	04/22/09	2351	20.86	7.57
20	INDC3TT	INDC3TT	04/23/09	0020	20.86	7.57
21	PBLKGT	9041631-BLK1	04/23/09	0049	20.86	7.57
22	PGTLCS	9041631-BS1	04/23/09	0118	20.86	7.57
23	13MW5MS	9041631-MS2	04/23/09	0245	20.86	7.57
24	13MW5MSD	9041631-MSD2	04/23/09	0314	20.86	7.57
25	PIBLKTV	PIBLKTV	04/23/09	0607	20.86	7.57
26	INDC3TV	INDC3TV	04/23/09	0636	20.86	7.57
27	PEMTV	PEMTV	04/23/09	0705	20.86	7.57
28	13MW5	0904098-01	04/23/09	0803	20.86	7.57
29	13MW3	0904098-02	04/23/09	0832	20.86	7.57
30	13MW4	0904098-03	04/23/09	0901	20.86	7.57
31	13MWDUP	0904098-04	04/23/09	0930	20.86	7.57
32	13MW6	0904098-05	04/23/09	0958	20.86	7.57

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 04/16/09 04/16/09

Instrument ID: TRACEGC85

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 20.87 TCX: 7.58

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	13MW7	0904098-06	04/23/09	1027	20.86	7.57
02	PIBLKTX	PIBLKTX	04/23/09	1125	20.86	7.57
03	INDC3TX	INDC3TX	04/23/09	1154	20.86	7.57
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

d. Identification Summary for Single Component Analytes (Form X)

For all samples with positively identified single component analytes, in order by increasing Client Sample ID number.

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-MS2 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Aldrin	1	11.95	11.88	12.02	0.078	
	2	11.94	11.88	12.02	0.077	1.3
beta-BHC	1	10.30	10.23	10.37	0.13	
	2	10.38	10.31	10.46	0.14	7.4
alpha-BHC	1	9.23	9.17	9.31	0.14	
	2	9.23	9.16	9.30	0.14	0.0
delta-BHC	1	10.73	10.66	10.80	0.15	
	2	11.08	11.02	11.15	0.15	0.0
gamma-BHC (Lindane)	1	10.06	9.99	10.13	0.13	
	2	10.14	10.07	10.21	0.13	0.0
4,4'-DDD	1	15.43	15.37	15.51	0.38	
	2	15.65	15.58	15.72	0.39	2.6
4,4'-DDE	1	14.13	14.07	14.21	0.36	
	2	14.41	14.34	14.48	0.37	2.7
4,4'-DDT	1	16.03	15.97	16.11	0.35	
	2	16.31	16.25	16.39	0.36	2.8

FORM X PEST-1

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-MS2 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Dieldrin	1	14.78	14.71	14.85	0.39	
	2	14.72	14.65	14.79	0.41	5.0
Endosulfan I	1	14.24	14.18	14.32	0.094	
	2	14.12	14.05	14.20	0.082	13.6
Endosulfan II	1	15.77	15.70	15.84	0.25	
	2	15.83	15.77	15.91	0.25	0.0
Endosulfan sulfate	1	17.61	17.55	17.68	0.36	
	2	17.14	17.08	17.22	0.35	2.8
Endrin	1	15.28	15.21	15.35	0.33	
	2	15.37	15.31	15.45	0.34	3.0
Endrin Aldehyde	1	16.68	16.61	16.75	0.24	
	2	16.56	16.49	16.63	0.25	4.1
Heptachlor	1	11.24	11.17	11.31	0.12	
	2	11.20	11.13	11.27	0.12	0.0
Heptachlor Epoxide	1	13.37	13.30	13.44	0.16	
	2	13.26	13.20	13.34	0.16	0.0

FORM X PEST-1

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-MS2 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Methoxychlor	1	17.06	17.00	17.14	0.41	
	2	17.77	17.70	17.84	0.42	2.4
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-MSD2 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Aldrin	1	11.95	11.88	12.02	0.068	
	2	11.94	11.88	12.02	0.068	0.0
beta-BHC	1	10.30	10.23	10.37	0.12	
	2	10.38	10.31	10.46	0.13	8.0
alpha-BHC	1	9.23	9.17	9.31	0.14	
	2	9.23	9.16	9.30	0.13	7.4
delta-BHC	1	10.72	10.66	10.80	0.14	
	2	11.08	11.02	11.15	0.14	0.0
gamma-BHC (Lindane)	1	10.05	9.99	10.13	0.12	
	2	10.14	10.07	10.21	0.13	8.0
4,4'-DDD	1	15.44	15.37	15.51	0.37	
	2	15.65	15.58	15.72	0.38	2.7
4,4'-DDE	1	14.13	14.07	14.21	0.34	
	2	14.41	14.34	14.48	0.35	2.9
4,4'-DDT	1	16.03	15.97	16.11	0.34	
	2	16.31	16.25	16.39	0.34	0.0

FORM X PEST-1

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-MSD2 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Dieldrin	1	14.78	14.71	14.85	0.37	
	2	14.72	14.65	14.79	0.39	5.3
Endosulfan I	1	14.24	14.18	14.32	0.084	
	2	14.12	14.05	14.20	0.080	4.9
Endosulfan II	1	15.77	15.70	15.84	0.24	
	2	15.83	15.77	15.91	0.24	0.0
Endosulfan sulfate	1	17.61	17.55	17.68	0.31	
	2	17.14	17.08	17.22	0.30	3.3
Endrin	1	15.28	15.21	15.35	0.32	
	2	15.37	15.31	15.45	0.32	0.0
Endrin Aldehyde	1	16.68	16.61	16.75	0.22	
	2	16.56	16.49	16.63	0.23	4.4
Heptachlor	1	11.24	11.17	11.31	0.100	
	2	11.20	11.13	11.27	0.10	0.0
Heptachlor Epoxide	1	13.37	13.30	13.44	0.15	
	2	13.26	13.20	13.34	0.16	6.4

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-MSD2 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Methoxychlor	1	17.06	17.00	17.14	0.39	
	2	17.77	17.70	17.84	0.39	0.0
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

PGTLCS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-BS1 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Aldrin	1	11.95	11.88	12.02	0.12	
	2	11.94	11.88	12.02	0.12	0.0
beta-BHC	1	10.29	10.23	10.37	0.13	
	2	10.38	10.31	10.46	0.13	0.0
alpha-BHC	1	9.23	9.17	9.31	0.14	
	2	9.23	9.16	9.30	0.14	0.0
delta-BHC	1	10.72	10.66	10.80	0.14	
	2	11.08	11.02	11.15	0.14	0.0
gamma-BHC (Lindane)	1	10.05	9.99	10.13	0.13	
	2	10.14	10.07	10.21	0.13	0.0
4,4'-DDD	1	15.43	15.37	15.51	0.37	
	2	15.64	15.58	15.72	0.37	0.0
4,4'-DDE	1	14.13	14.07	14.21	0.35	
	2	14.40	14.34	14.48	0.36	2.8
4,4'-DDT	1	16.03	15.97	16.11	0.33	
	2	16.31	16.25	16.39	0.34	3.0

FORM X PEST-1

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

PGTLCS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-BS1 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Dieldrin	1	14.77	14.71	14.85	0.38	
	2	14.72	14.65	14.79	0.39	2.6
Endosulfan I	1	14.24	14.18	14.32	0.080	
	2	14.12	14.05	14.20	0.079	1.2
Endosulfan II	1	15.76	15.70	15.84	0.24	
	2	15.83	15.77	15.91	0.24	0.0
Endosulfan sulfate	1	17.61	17.55	17.68	0.32	
	2	17.14	17.08	17.22	0.33	3.1
Endrin	1	15.28	15.21	15.35	0.31	
	2	15.37	15.31	15.45	0.32	3.2
Endrin Aldehyde	1	16.67	16.61	16.75	0.23	
	2	16.55	16.49	16.63	0.24	4.2
Heptachlor	1	11.23	11.17	11.31	0.14	
	2	11.19	11.13	11.27	0.14	0.0
Heptachlor Epoxide	1	13.37	13.30	13.44	0.16	
	2	13.26	13.20	13.34	0.16	0.0

FORM X PEST-1

10A

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

PGTLCS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041631-BS1 Date(s) Analyzed: 04/23/09 04/23/09

Instrument ID (1): TRACEGC84 Instrument ID (2): TRACEGC85

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Methoxychlor	1	17.06	17.00	17.14	0.39	
	2	17.76	17.70	17.84	0.39	0.0
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

e. Identification Summary for Multicomponent Analytes (Form X) – if applicable

For all samples with positively identified multicomponent analytes, in order by increasing Client Sample ID number.

f. Chromatograms and Data System Printouts

For all methods, standards packages shall include
The following:

- Performance evaluation mixtures (8081 only)
- Initial Calibration Standards
- Second Source Initial Calibration Verifications (if required by client)
- Continuing Calibration Verification Standards
- The quantitation report must include the Client Sample ID number.
- The chromatograms shall include the following: Client Sample ID number for the standard, labeled standard peaks, volume injected, for each standard, date and time of injection, GC column identifier, and GC Instrument identifier

Data File: /chem/tracegc84.i/1090416.b/0031PEMTH.d

Date : 16-APR-2009 15:10

Client ID: PEMTH

Instrument: tracegc84.i

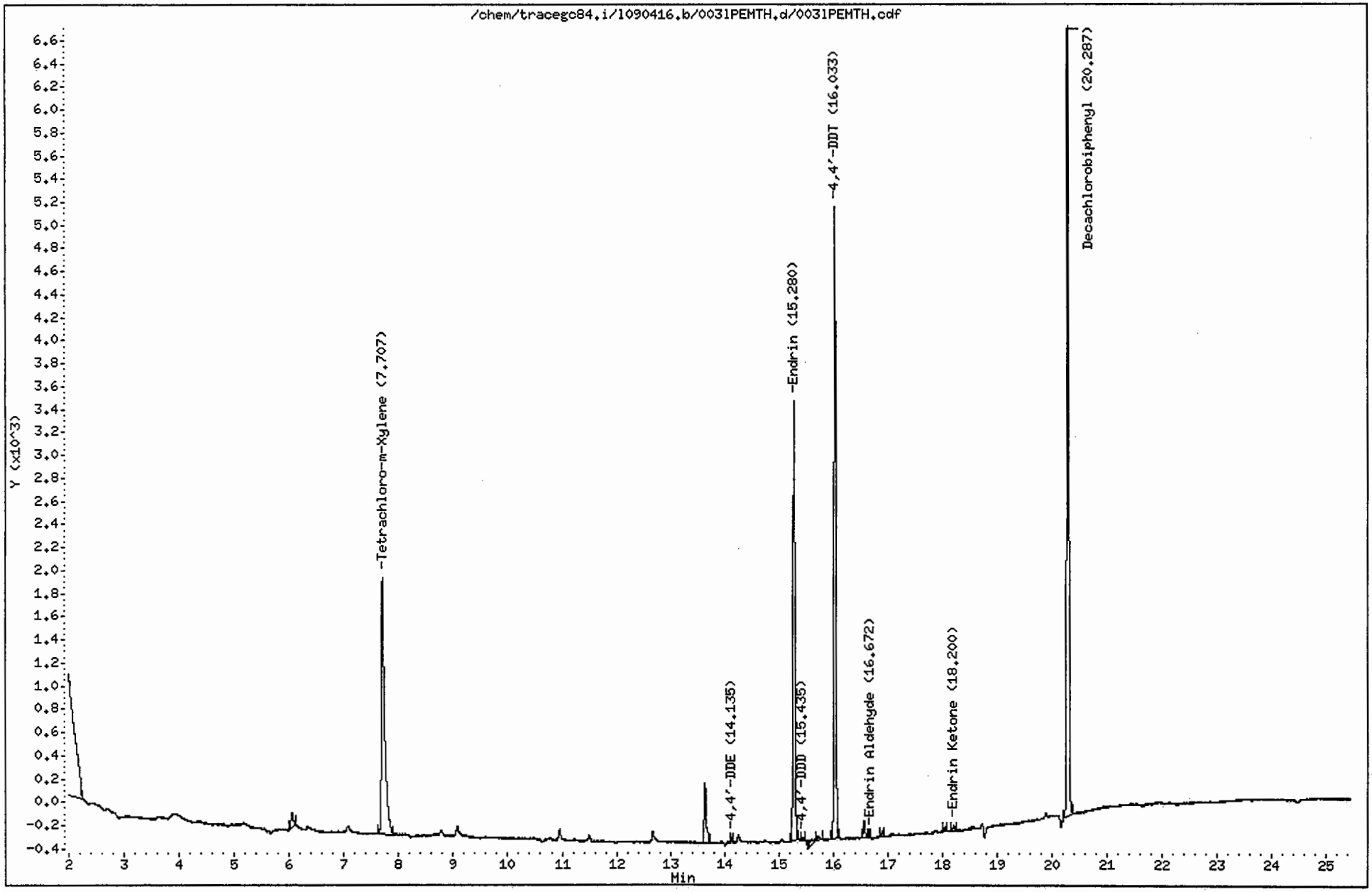
Sample Info: PEMTH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PEMTH Client Smp Id : PEMTH
Sample Type : SAMPLE Sublist : PEM
Inj Date : 16-APR-2009 15:10 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 1000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			8489								
1.37			30960								
1.78			13900								
1.92			17804								
6.05			355								
7.71	7.64	7.78	8799	433925	Tetrachloro-m-Xylene	0.020278	0.020278		102.4	43 - 135	
13.64			1361								
14.14	14.07	14.21	75	502832	4,4'-DDE	0.000149	0.000149	0.020000			JM2
15.28	15.21	15.35	9097	429706	Endrin	0.021171	0.021171	0.020000			
15.44	15.37	15.51	67	374531	4,4'-DDD	0.000179	0.000179	0.020000			JM
15.62			235								
15.72			73								
16.03	15.97	16.11	12556	422705	4,4'-DDT	0.029704	0.029704	0.020000			
16.57			342								
16.67	16.61	16.75	46	367108	Endrin Aldehyde	0.000125	0.000125	0.020000			JM
16.90			85								
18.05			60								
18.20	18.14	18.28	92	477488	Endrin Ketone	0.000192	0.000192	0.020000			JM
20.29	20.22	20.36	17448	459922	Decachlorobiphenyl	0.037937	0.037937		95.8	43 - 144	

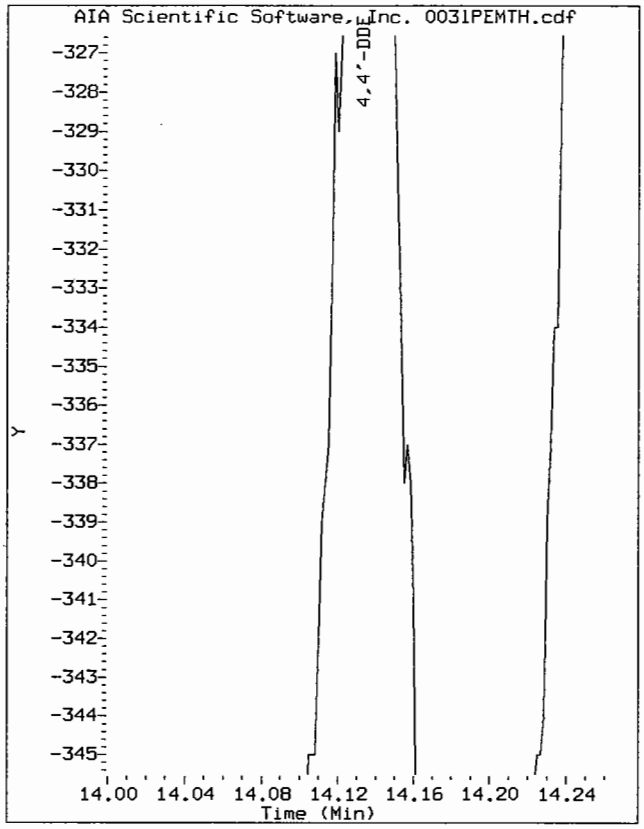
$\%DDT = \frac{67+75}{67+75+12556} \times 100 = \frac{142}{12698} \times 100 = 1.12$

c 4/17/09

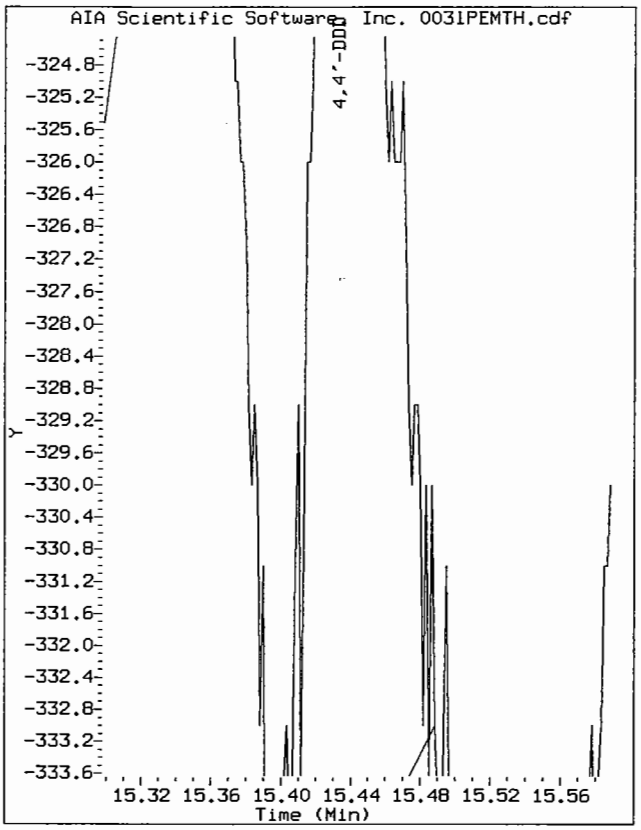
$\%Endrin = \frac{46+92}{46+92+9097} \times 100 = \frac{138}{9235} \times 100 = 1.5\%$

4/20/09

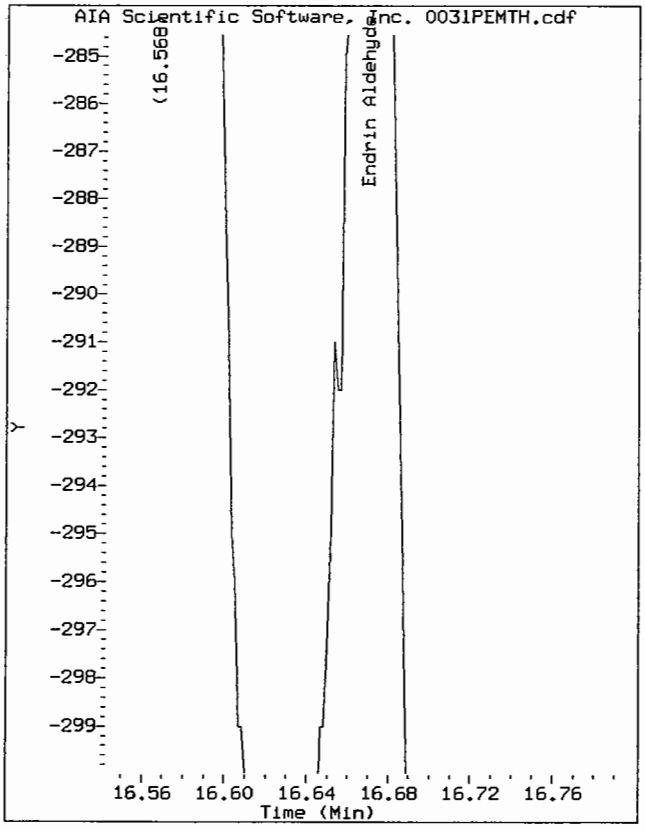
Manually Integrated Peaks



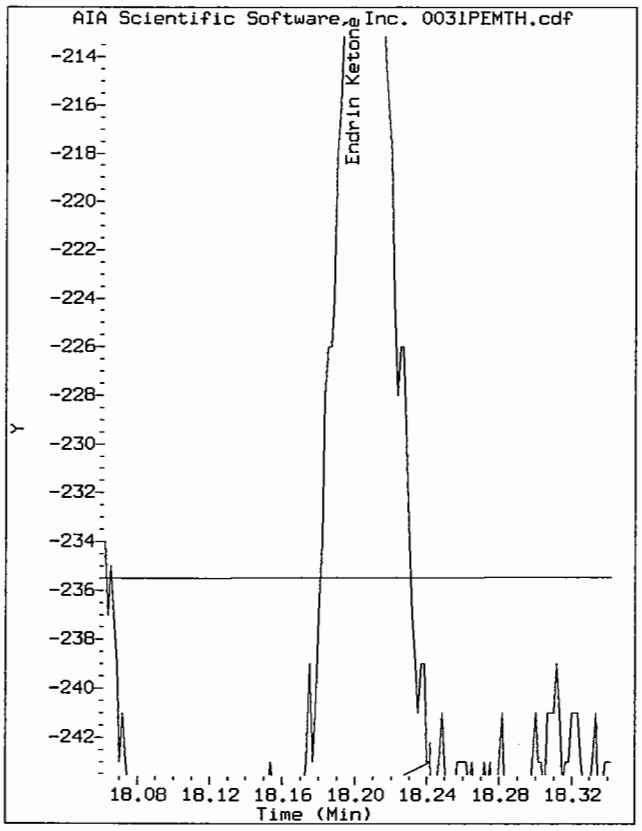
Start: 14.10 Stop: 14.16



Start: 15.40 Stop: 15.49



Start: 16.64 Stop: 16.69



Start: 18.16 Stop: 18.24

Data File: /chem/tracegc84.i/1090416.b/0041INDC1TH.d

Date : 16-APR-2009 15:39

Client ID: INDC1TH

Instrument: tracegc84.i

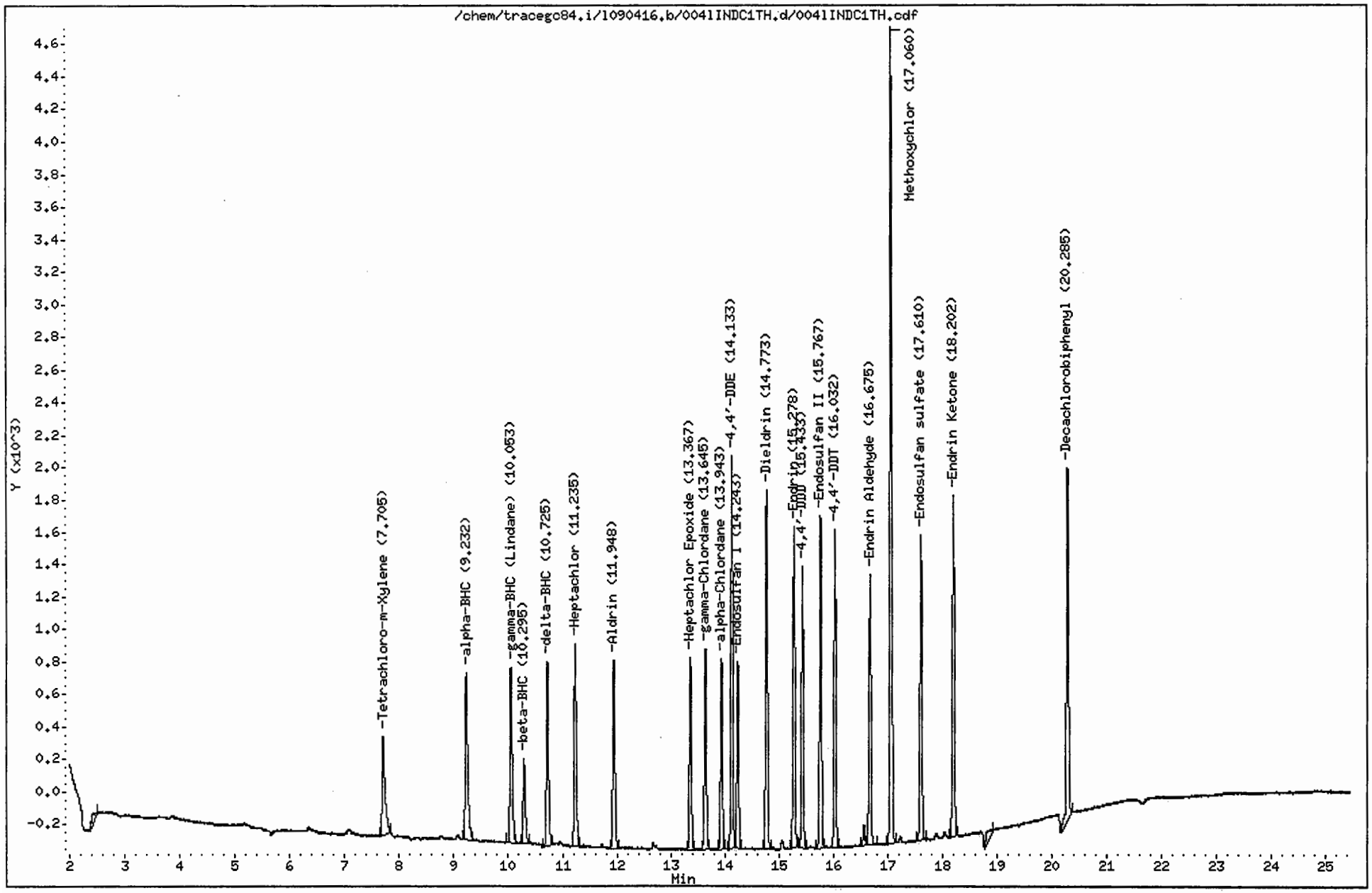
Sample Info: INDC1TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC1TH Client Smp Id : INDC1TH
Sample Type : INITIAL CAL: Level 1 Sublist : INDA
Inj Date : 16-APR-2009 15:39 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			3039					
2.48			293					
7.70	7.64	7.78	2106	433925	Tetrachloro-m-Xylene	0.005000	421000	
9.23	9.16	9.30	3105	646560	alpha-BHC	0.005000	620800	
10.05	9.98	10.12	3021	616945	gamma-BHC (Lindane)	0.005000	604000	
10.30	10.22	10.36	1401	272870	beta-BHC	0.005000	280200	
10.72	10.65	10.79	2944	603075	delta-BHC	0.005000	588600	
11.24	11.16	11.30	3213	611410	Heptachlor	0.005000	642600	
11.95	11.88	12.02	2983	566175	Aldrin	0.005000	596600	
13.37	13.30	13.44	2840	526322	Heptachlor Epoxide	0.005000	567800	
13.64	13.57	13.71	2976	541375	gamma-Chlordane	0.005000	595200	
13.94	13.87	14.01	2767	515968	alpha-Chlordane	0.005000	553400	
14.13	14.06	14.20	5443	502832	4,4'-DDE	0.010000	544200	
14.24	14.17	14.31	2696	497455	Endosulfan I	0.005000	539000	
14.77	14.70	14.84	5248	490318	Dieldrin	0.010000	524700	
15.28	15.21	15.35	4709	429706	Endrin	0.010000	470800	
15.43	15.36	15.50	3854	374531	4,4'-DDD	0.010000	385300	
15.77	15.70	15.84	4911	448146	Endosulfan II	0.010000	491100	
16.03	15.96	16.10	4484	422705	4,4'-DDT	0.010000	448400	
16.57			275					
16.68	16.61	16.75	3986	367108	Endrin Aldehyde	0.010000	398600	
17.06	16.99	17.13	11699	197958	Methoxychlor	0.050000	233960	
17.61	17.54	17.68	4517	407549	Endosulfan sulfate	0.010000	451600	
18.20	18.13	18.27	5175	477488	Endrin Ketone	0.010000	517400	
18.90			345					
20.28	20.22	20.36	5643	459922	Decachlorobiphenyl	0.010000	564200	

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Data File: /chem/tracegc84.i/1090416.b/0051INDC2TH.d

Page 1

Date : 16-APR-2009 16:08

Client ID: INDC2TH

Instrument: tracegc84.i

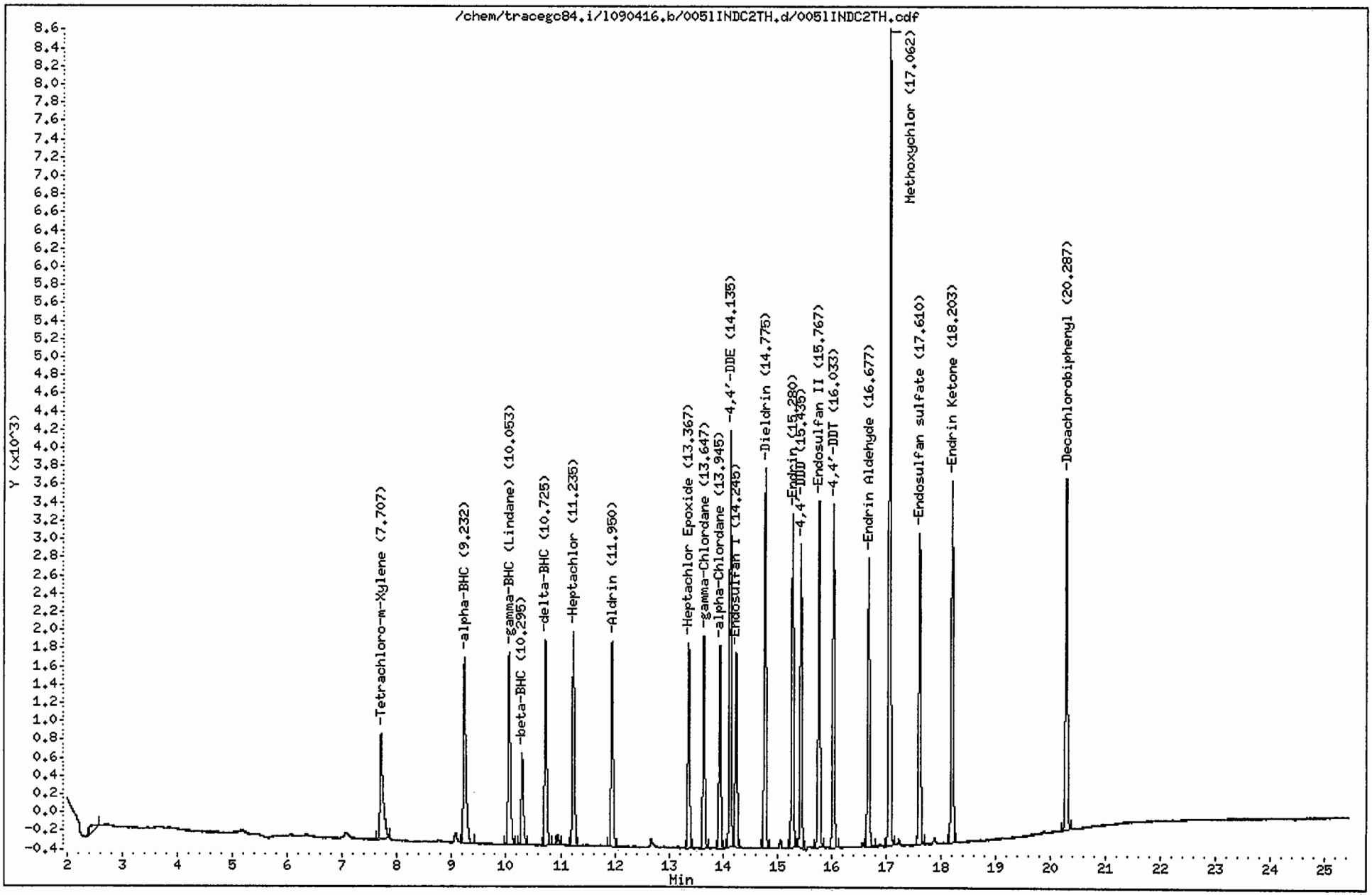
Sample Info: INDC2TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC2TH Client Smp Id : INDC2TH
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 16-APR-2009 16:08 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			2852					
2.53			491					
7.71	7.64	7.78	4265	433925	Tetrachloro-m-Xylene	0.010000	426500	
9.23	9.16	9.30	6243	646560	alpha-BHC	0.010000	624200	
10.05	9.98	10.12	6054	616945	gamma-BHC (Lindane)	0.010000	605300	
10.30	10.22	10.36	2788	272870	beta-BHC	0.010000	278800	
10.72	10.65	10.79	5822	603075	delta-BHC	0.010000	582100	
10.95			257					
11.24	11.16	11.30	6194	611410	Heptachlor	0.010000	619400	
11.95	11.88	12.02	5704	566175	Aldrin	0.010000	570400	
13.37	13.30	13.44	5397	526322	Heptachlor Epoxide	0.010000	539600	
13.65	13.57	13.71	5536	541375	gamma-Chlordane	0.010000	553600	
13.94	13.87	14.01	5301	515968	alpha-Chlordane	0.010000	530000	
14.14	14.06	14.20	10266	502832	4,4'-DDE	0.020000	513300	
14.24	14.17	14.31	5151	497455	Endosulfan I	0.010000	515000	
14.78	14.70	14.84	9922	490318	Dieldrin	0.020000	496100	
15.28	15.21	15.35	8800	429706	Endrin	0.020000	440000	
15.44	15.36	15.50	7575	374531	4,4'-DDD	0.020000	378700	
15.77	15.70	15.84	9274	448146	Endosulfan II	0.020000	463650	
16.03	15.96	16.10	8545	422705	4,4'-DDT	0.020000	427200	
16.68	16.61	16.75	7697	367108	Endrin Aldehyde	0.020000	384800	
17.06	16.99	17.13	21031	197958	Methoxychlor	0.100000	210300	
17.61	17.54	17.68	8446	407549	Endosulfan sulfate	0.020000	422300	
18.20	18.13	18.27	9831	477488	Endrin Ketone	0.020000	491550	
20.29	20.22	20.36	9595	459922	Decachlorobiphenyl	0.020000	479750	

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Data File: /chem/tracegc84.i/1090416.b/0061INDC3TH.d

Date : 16-APR-2009 16:37

Client ID: INDC3TH

Instrument: tracegc84.i

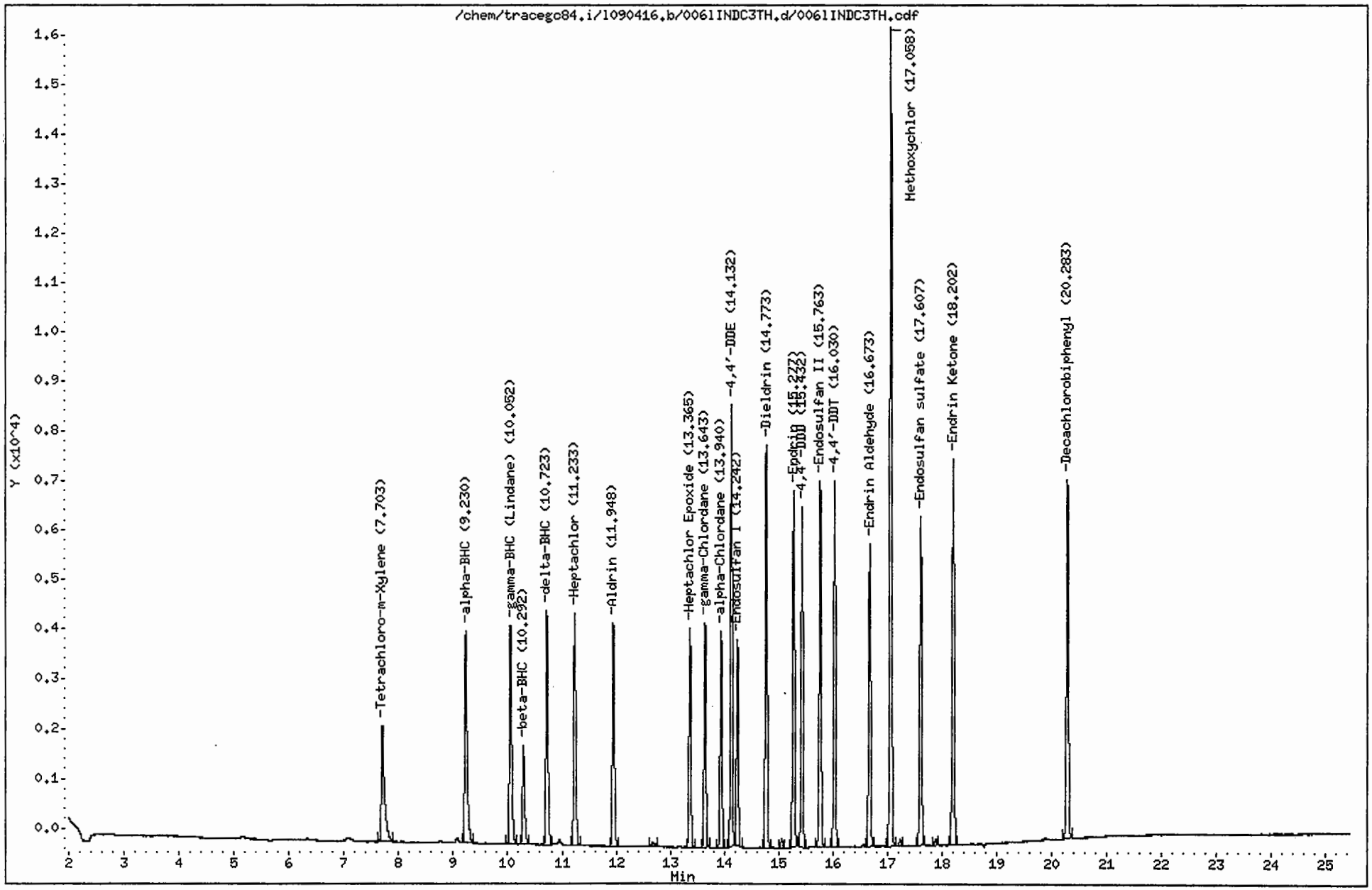
Sample Info: INDC3TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TH Client Smp Id : INDC3TH
Sample Type : INITIAL CAL: Level 3 Sublist : INDA
Inj Date : 16-APR-2009 16:37 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			4318					
7.70	7.64	7.78	8925	433925	Tetrachloro-m-Xylene	0.020000	446200	
9.23	9.16	9.30	12882	646560	alpha-BHC	0.020000	644100	
10.05	9.98	10.12	12357	616945	gamma-BHC (Lindane)	0.020000	617800	
10.29	10.22	10.36	5489	272870	beta-BHC	0.020000	274400	
10.72	10.65	10.79	12089	603075	delta-BHC	0.020000	604450	
11.23	11.16	11.30	12258	611410	Heptachlor	0.020000	612900	
11.95	11.88	12.02	11311	566175	Aldrin	0.020000	565550	
12.67			384					
13.36	13.30	13.44	10541	526322	Heptachlor Epoxide	0.020000	527050	
13.64	13.57	13.71	10729	541375	gamma-Chlordane	0.020000	536450	
13.94	13.87	14.01	10324	515968	alpha-Chlordane	0.020000	516150	
14.13	14.06	14.20	20089	502832	4,4'-DDE	0.040000	502225	
14.24	14.17	14.31	9913	497455	Endosulfan I	0.020000	495600	
14.77	14.70	14.84	19553	490318	Dieldrin	0.040000	488800	
15.06			424					
15.28	15.21	15.35	17190	429706	Endrin	0.040000	429750	
15.43	15.36	15.50	15106	374531	4,4'-DDD	0.040000	377650	
15.76	15.70	15.84	17955	448146	Endosulfan II	0.040000	448875	
16.03	15.96	16.10	16966	422705	4,4'-DDT	0.040000	424125	
16.67	16.61	16.75	14823	367108	Endrin Aldehyde	0.040000	370550	
17.06	16.99	17.13	39567	197958	Methoxychlor	0.200000	197830	
17.23			352					
17.61	17.54	17.68	16330	407549	Endosulfan sulfate	0.040000	408225	
17.89			322					
18.20	18.13	18.27	19234	477488	Endrin Ketone	0.040000	480825	
20.28	20.22	20.36	17974	459922	Decachlorobiphenyl	0.040000	449325	

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Data File: /chem/tracegc84.i/1090416.b/0071INDC4TH.d

Page 1

Date : 16-APR-2009 17:06

Client ID: INDC4TH

Instrument: tracegc84.i

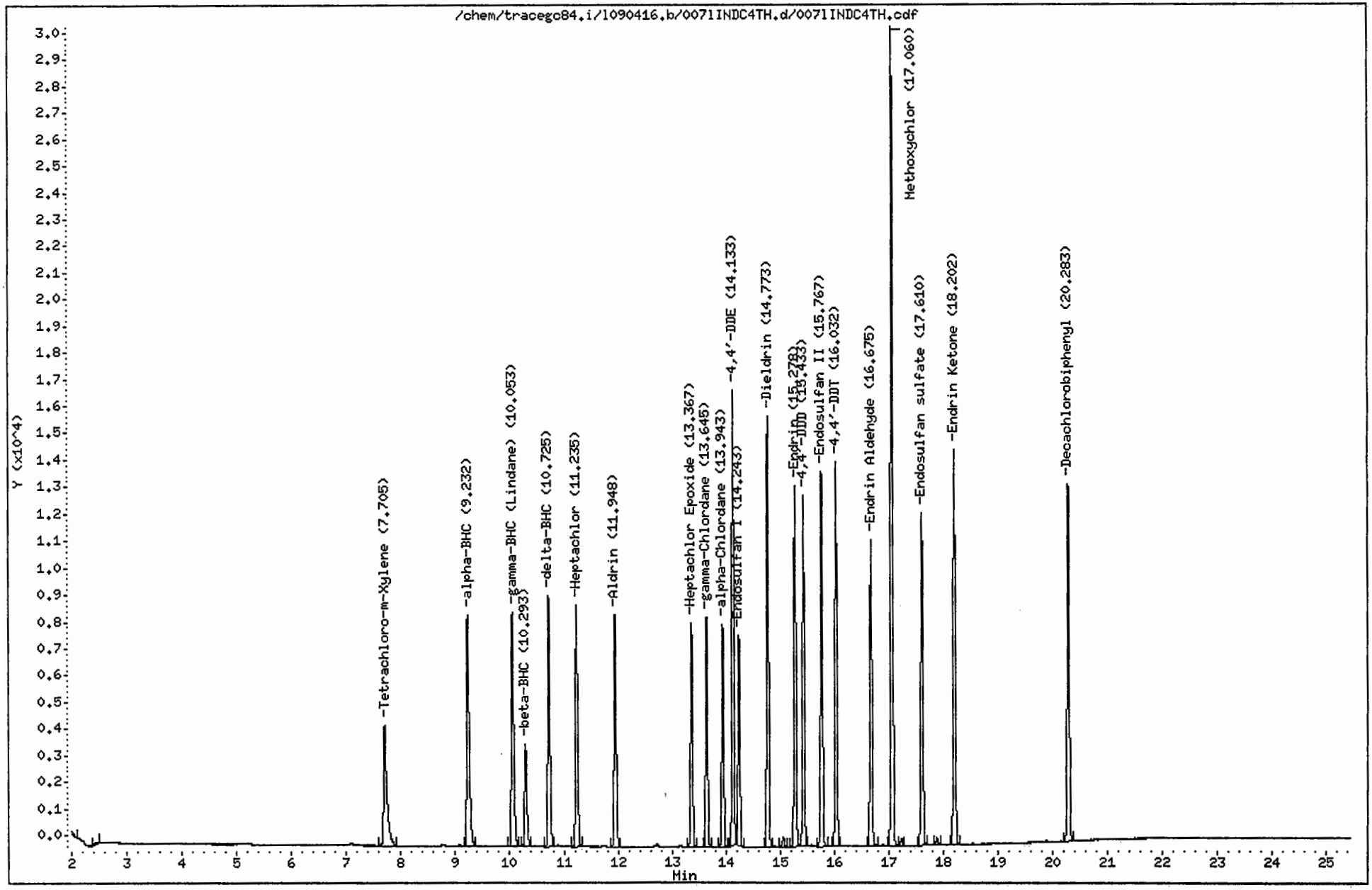
Sample Info: INDC4TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC4TH Client Smp Id : INDC4TH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 16-APR-2009 17:06 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			14741					
1.91			532					
2.48			261					
7.70	7.64	7.78	17737	433925	Tetrachloro-m-Xylene	0.040000	443425	
9.23	9.16	9.30	26593	646560	alpha-BHC	0.040000	664800	
10.05	9.98	10.12	25058	616945	gamma-BHC (Lindane)	0.040000	626450	
10.29	10.22	10.36	10750	272870	beta-BHC	0.040000	268725	
10.72	10.65	10.79	24604	603075	delta-BHC	0.040000	615075	
11.24	11.16	11.30	23931	611410	Heptachlor	0.040000	598250	
11.95	11.88	12.02	22169	566175	Aldrin	0.040000	554200	
13.37	13.30	13.44	20356	526322	Heptachlor Epoxide	0.040000	508900	
13.64	13.57	13.71	20692	541375	gamma-Chlordane	0.040000	517275	
13.94	13.87	14.01	19929	515968	alpha-Chlordane	0.040000	498200	
14.13	14.06	14.20	38769	502832	4,4'-DDE	0.080000	484600	
14.24	14.17	14.31	19014	497455	Endosulfan I	0.040000	475350	
14.77	14.70	14.84	38410	490318	Dieldrin	0.080000	480113	
15.06			868					
15.28	15.21	15.35	33053	429706	Endrin	0.080000	413150	
15.43	15.36	15.50	29610	374531	4,4'-DDD	0.080000	370113	
15.77	15.70	15.84	34339	448146	Endosulfan II	0.080000	429237	
16.03	15.96	16.10	32993	422705	4,4'-DDT	0.080000	412413	
16.68	16.61	16.75	28120	367108	Endrin Aldehyde	0.080000	351487	
17.06	16.99	17.13	72506	197958	Methoxychlor	0.400000	181265	
17.23			613					
17.61	17.54	17.68	31018	407549	Endosulfan sulfate	0.080000	387713	
17.89			652					
18.20	18.13	18.27	36858	477488	Endrin Ketone	0.080000	460725	
20.28	20.22	20.36	33433	459922	Decachlorobiphenyl	0.080000	417913	

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Data File: /chem/tracegc84.i/1090416.b/0081INDC5TH.d

Page 1

Date : 16-APR-2009 17:35

Client ID: INDC5TH

Instrument: tracegc84.i

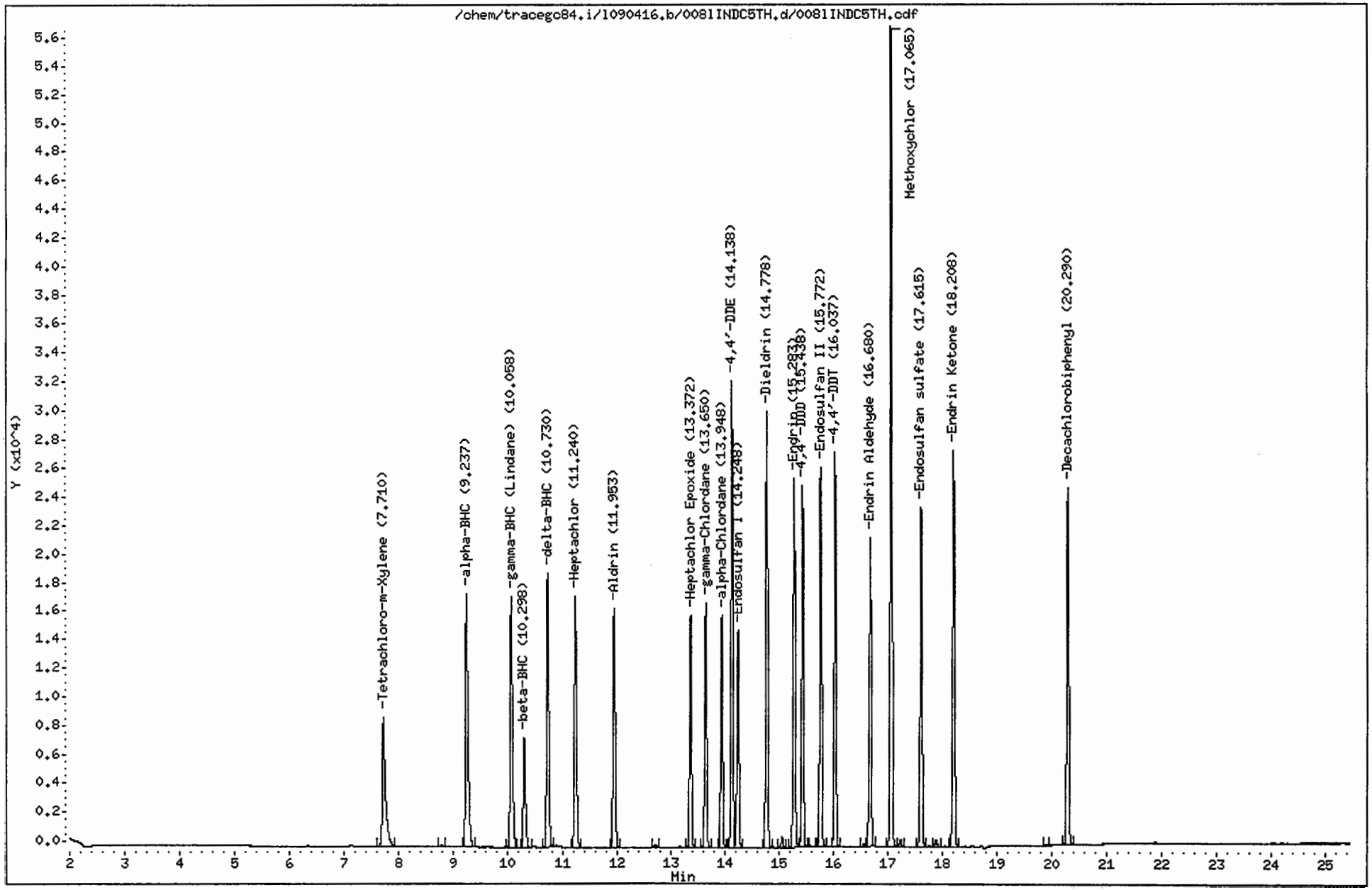
Sample Info: INDC5TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC5TH Client Smp Id : INDC5TH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 16-APR-2009 17:35 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			12382					
1.37			42020					
7.71	7.64	7.78	34601	433925	Tetrachloro-m-Xylene	0.080000	432500	
8.77			378					
9.24	9.16	9.30	54313	646560	alpha-BHC	0.080000	678900	
10.06	9.98	10.12	50494	616945	gamma-BHC (Lindane)	0.080000	631175	
10.30	10.22	10.36	20979	272870	beta-BHC	0.080000	262225	
10.73	10.65	10.79	50012	603075	delta-BHC	0.080000	625150	
11.24	11.16	11.30	46713	611410	Heptachlor	0.080000	583900	
11.95	11.88	12.02	43531	566175	Aldrin	0.080000	544125	
12.73			452					
13.37	13.30	13.44	39061	526322	Heptachlor Epoxide	0.080000	488263	
13.65	13.57	13.71	40348	541375	gamma-Chlordane	0.080000	504350	
13.95	13.87	14.01	38567	515968	alpha-Chlordane	0.080000	482087	
14.14	14.06	14.20	75175	502832	4,4'-DDE	0.160000	469837	
14.25	14.17	14.31	36986	497455	Endosulfan I	0.080000	462325	
14.78	14.70	14.84	73901	490318	Dieldrin	0.160000	461875	
15.06			1718					
15.28	15.21	15.35	63173	429706	Endrin	0.160000	394831	
15.44	15.36	15.50	57743	374531	4,4'-DDD	0.160000	360894	
15.59			303					
15.77	15.70	15.84	65260	448146	Endosulfan II	0.160000	407869	
16.04	15.96	16.10	64223	422705	4,4'-DDT	0.160000	401387	
16.57			416					
16.68	16.61	16.75	52816	367108	Endrin Aldehyde	0.160000	330100	
17.06	16.99	17.13	133150	197958	Methoxychlor	0.800000	166437	
17.24			1213					
17.62	17.54	17.68	58865	407549	Endosulfan sulfate	0.160000	367906	
17.89			1322					
18.21	18.13	18.27	69911	477488	Endrin Ketone	0.160000	436937	
19.89			245					
20.29	20.22	20.36	62148	459922	Decachlorobiphenyl	0.160000	388425	

Data File: /chem/tracegc84.i/1090416.b/0091TOXAPH3TH.d

Date : 16-APR-2009 18:04

Client ID: TOXAPH3TH

Instrument: tracegc84.i

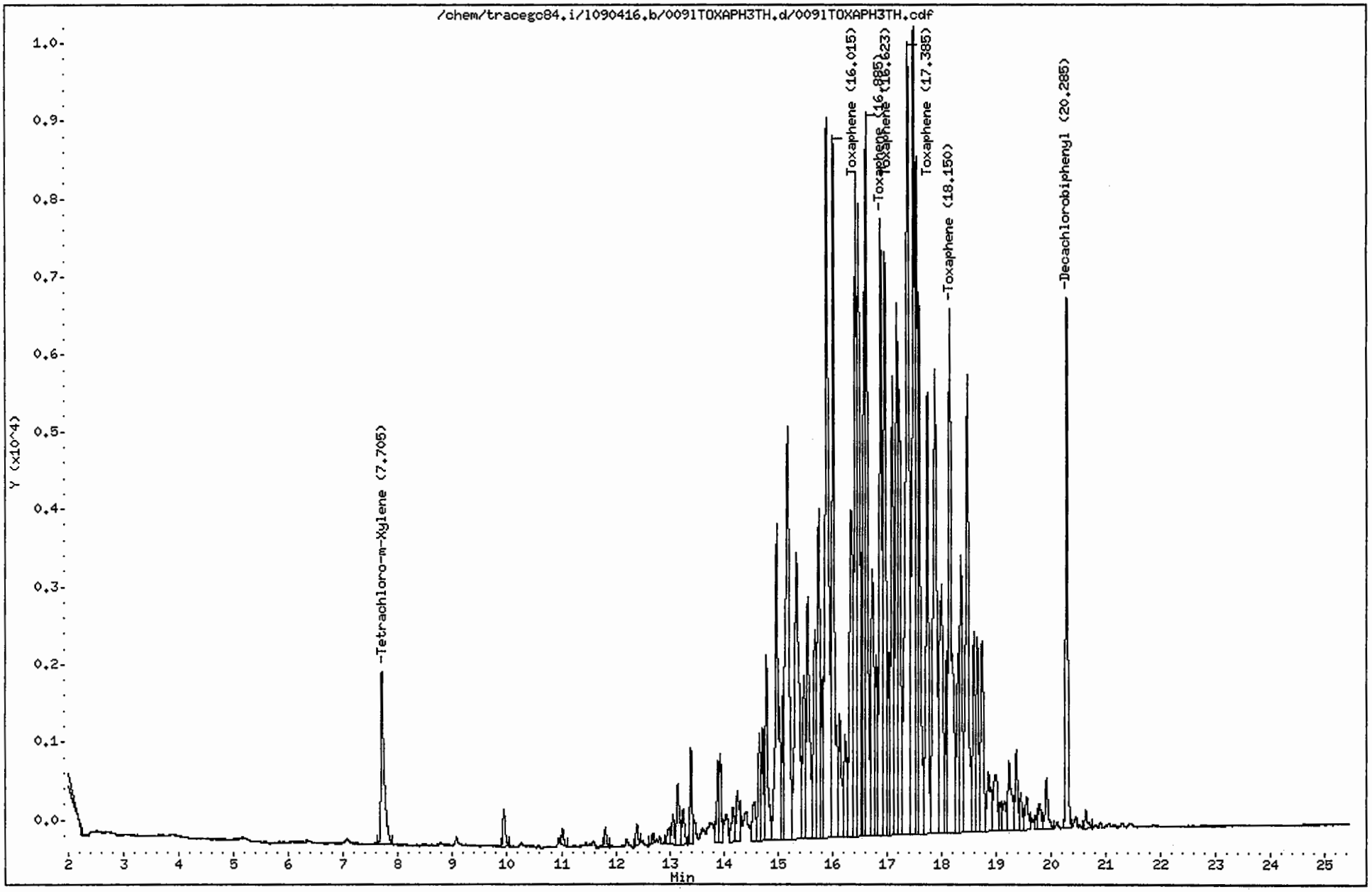
Sample Info: TOXAPH3TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

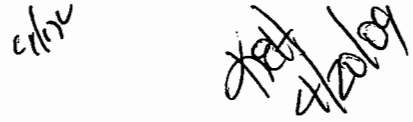
Column diameter: 0.32



CompuChem

Lab Smp Id : TOXAPH3TH Client Smp Id : TOXAPH3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TOXAPH
Inj Date : 16-APR-2009 18:04 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			11643					
1.37			31816					
1.92			2606					
7.70	7.64	7.78	8622	433925	Tetrachloro-m-Xylene	0.020000	446200	
9.94			1459					
11.02			549					
11.81			716					
12.39			694					
12.68			276					
12.98			781					
13.06			1103					
13.15			2791					
13.25			1389					
13.39			3106					
13.89			3058					
13.94			3013					
14.18			1822					
14.26			2561					
14.57			2202					
14.66			4115					
14.72			3890					
14.79			7905					
14.97			16612					
15.11			4433					
15.18			25686					
15.34			20846					
15.48			6586					
15.55			12058					
15.68			9603					
15.75			15084					
15.82			5129					
15.89			38278					
16.02	15.95	16.09	28691	14345	Toxaphene Peak 1	2.000000	14345	
16.14			5775					
16.23			5326					
16.34			19509					
16.43			23191					
16.48			24539					
16.54			6074					
16.58			17878					
16.62	16.55	16.69	28127	14064	Toxaphene Peak 2	2.000000	14063	
16.73			13272					



CompuChem

Lab Smp Id : TOXAPH3TH Client Smp Id : TOXAPH3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TOXAPH
Inj Date : 16-APR-2009 18:04 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.81		7036					
16.88	16.82 16.96	23611	11806	Toxaphene Peak 3	2.000000	11805	
16.96		27036					
17.04		5884					
17.10		17653					
17.18		22393					
17.23		17108					
17.38	17.32 17.46	46741	23370	Toxaphene Peak 4	2.000000	23371	
17.49		34922					
17.54		23622					
17.59		21530					
17.74		18607					
17.88		26972					
18.00		15846					
18.09		5837					
18.15	18.08 18.22	27264	13632	Toxaphene Peak 5	2.000000	13631	
18.30		6427					
18.36		11479					
18.47		22132					
18.60		8295					
18.66		7700					
18.74		8990					
18.86		4056					
18.98		3537					
19.07		1255					
19.16		1657					
19.23		4328					
19.37		3034					
19.45		1556					
19.56		1865					
19.73		520					
19.79		1231					
19.92		2381					
20.28	20.22 20.36	17685	459922	Decachlorobiphenyl	0.040000	449325	
20.64		822					

Data File: /chem/tracegc84.i/1090416.b/0101CHLOR03TH.d

Page 1

Date : 16-APR-2009 18:33

Client ID: CHLOR03TH

Instrument: tracegc84.i

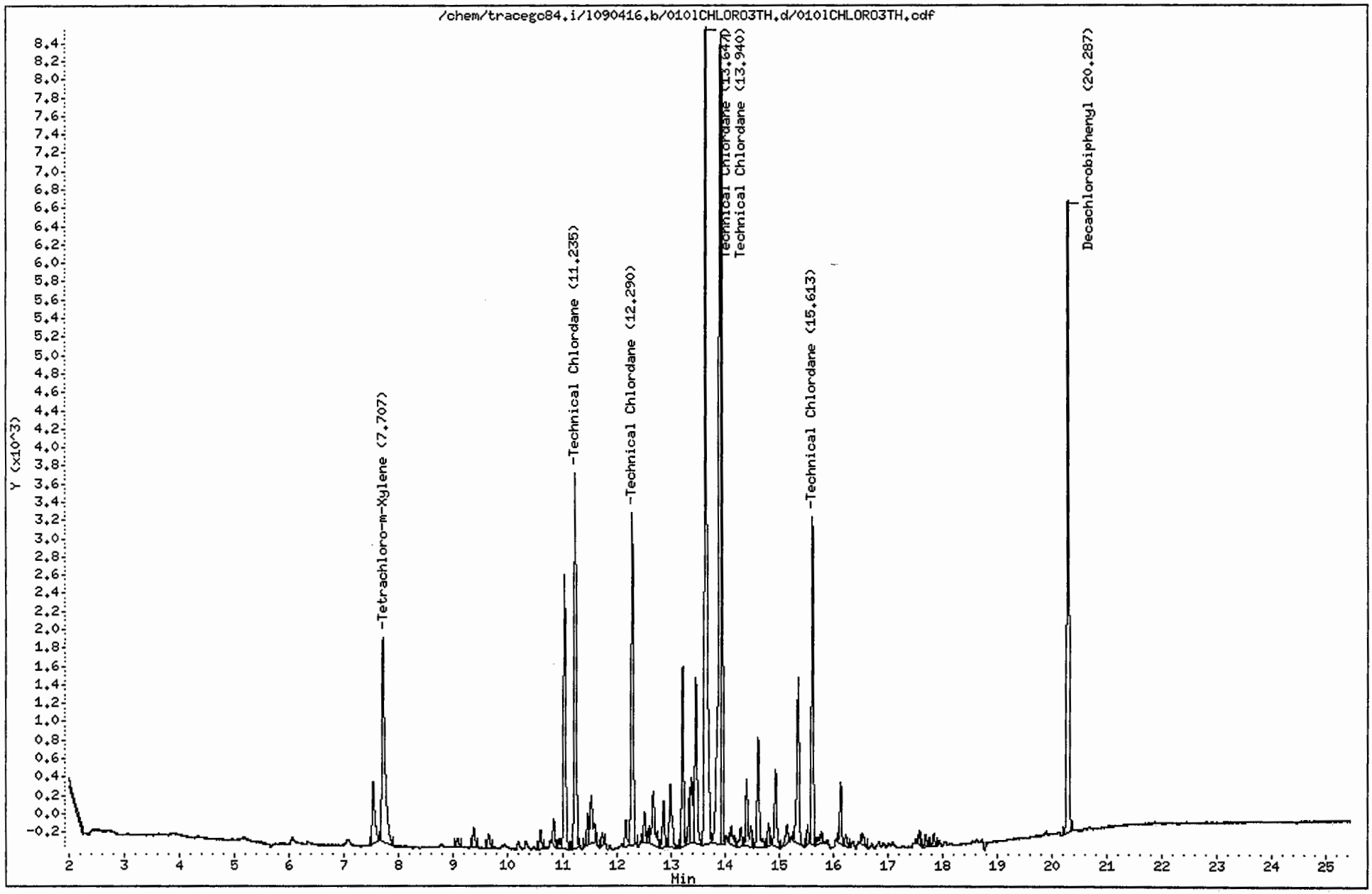
Sample Info: CHLOR03TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : CHLORO3TH Client Smp Id : CHLORO3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TechChlor
Inj Date : 16-APR-2009 18:33 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

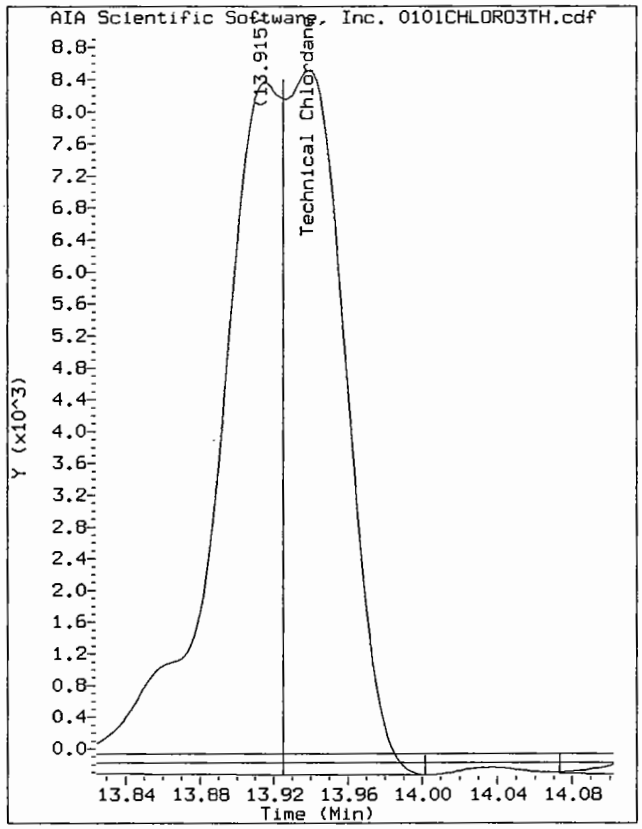
RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			3123					
1.77			2108					
1.92			4720					
7.53			2209					
7.71	7.64	7.78	8245	433925	Tetrachloro-m-Xylene	0.020000	446200	
9.07			286					
9.37			633					
9.64			427					
10.60			559					
10.84			662					
10.95			294					
11.04			8065					
11.24	11.16	11.30	10673	26680	TechnicalChlordane Peak 1	0.400000	26680	
11.47			875					
11.54			1916					
11.73			306					
12.17			683					
12.29	12.22	12.36	9764	24408	TechnicalChlordane Peak 2	0.400000	24407	
12.52			877					
12.59			376					
12.68			2319					
12.87			1378					
12.99			2390					
13.22			4670					
13.36			1330					
13.39			2017					
13.47			5323					
13.65	13.58	13.72	26064	65160	TechnicalChlordane Peak 3	0.400000	65160	
13.91			21797					
13.94	13.87	14.01	20069	50172	TechnicalChlordane Peak 4	0.400000	50173	M2 V
14.12			757					
14.30			603					
14.40			2399					
14.62			3567					
14.81			592					
14.94			2478					
15.15			670					
15.35			5251					
15.53			475					
15.61	15.54	15.68	8494	21235	TechnicalChlordane Peak 5	0.400000	21235	
15.71			466					
16.14			1674					

CompuChem

Lab Smp Id : CHLORO3TH Client Smp Id : CHLORO3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TechChlor
Inj Date : 16-APR-2009 18:33 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.23		371					
16.54		394					
17.59		324					
17.70		330					
17.84		323					
20.29	20.22 20.36	17513	459922	Decachlorobiphenyl	0.040000	449325	

Manually Integrated Peaks



Start: 13.93 Stop: 14.00

Data File: /chem/tracegc84.i/1090416.b/0111AR16601TH.d

Date : 16-APR-2009 19:02

Client ID: AR16601TH

Instrument: tracegc84.i

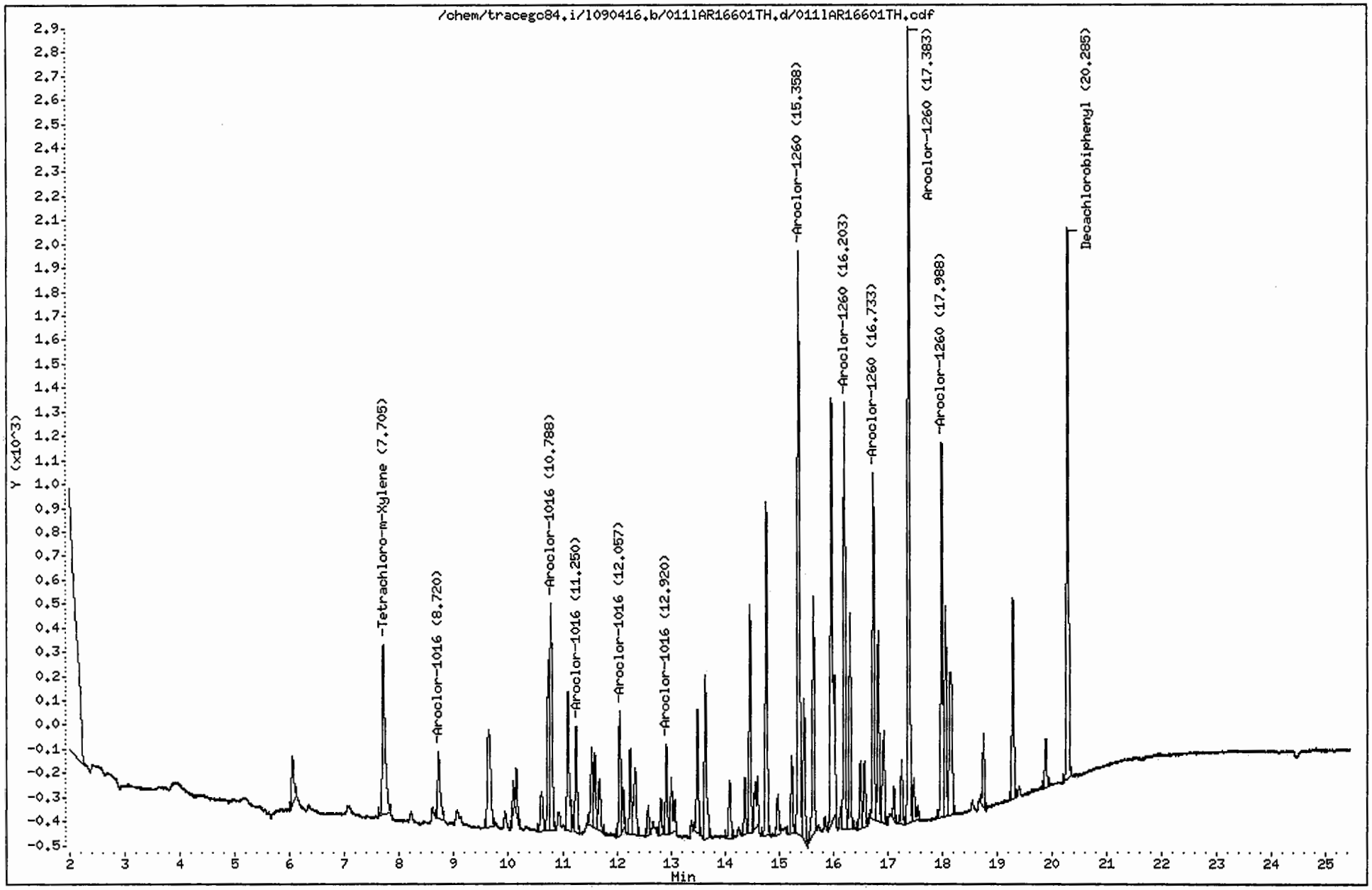
Sample Info: AR16601TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16601TH Client Smp Id : AR16601TH
Sample Type : INITIAL CAL: Level 1 Sublist : AR1660
Inj Date : 16-APR-2009 19:02 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.28			18197					
1.37			76520					
1.77			14593					
1.92			18931					
6.05			561					
7.70	7.64	7.78	2422	433925	Tetrachloro-m-Xylene	0.005000	421000	
8.72	8.65	8.79	901	7994	Aroclor-1016 Peak 1	0.100000	9000.000	
9.63			1701					
10.09			247					
10.15			380					
10.62			585					
10.74			1636					
10.79	10.72	10.86	2585	21748	Aroclor-1016 Peak 2	0.100000	25850	
11.10			1642					
11.25	11.18	11.32	1137	9750	Aroclor-1016 Peak 3	0.100000	11360	
11.54			852					
11.60			764					
11.68			628					
12.06	11.99	12.13	1295	10844	Aroclor-1016 Peak 4	0.100000	12950	M 2
12.12			377					
12.25			848					
12.34			1011					
12.58			294					
12.82			347					
12.92	12.85	12.99	862	7514	Aroclor-1016 Peak 5	0.100000	8620.000	
13.01			809					
13.50			1224					
13.64			1799					
14.09			669					
14.37			529					
14.46			2134					
14.55			825					
14.76			3310					
14.98			415					
15.24			736					
15.36	15.29	15.43	6460	54434	Aroclor-1260 Peak 1	0.100000	64590	
15.46			1468					
15.63			2508					
15.96			5795					
16.20	16.13	16.27	4134	35324	Aroclor-1260 Peak 2	0.100000	41340	
16.30			2049					
16.50			640					

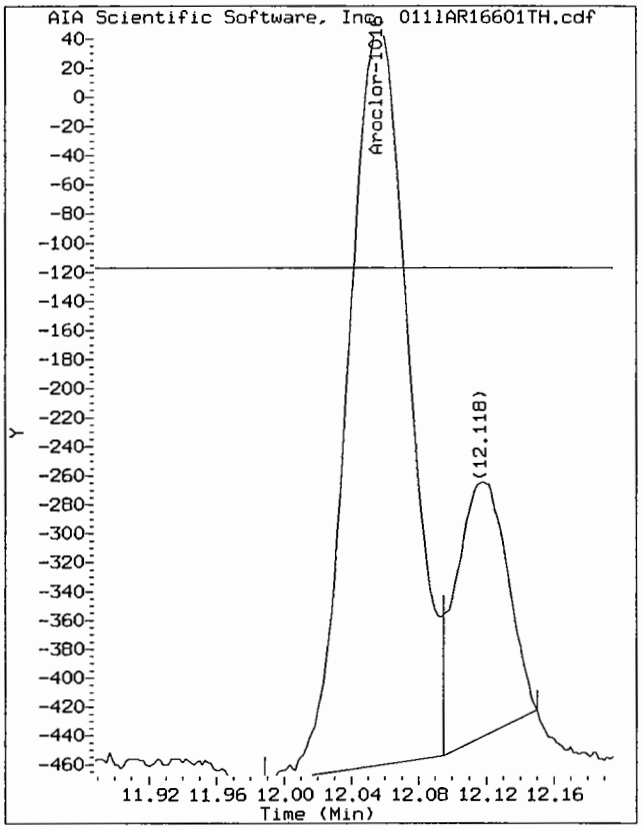
4/17/09 4/20/09

CompuChem

Lab Smp Id : AR16601TH Client Smp Id : AR16601TH
Sample Type : INITIAL CAL: Level 1 Sublist : AR1660
Inj Date : 16-APR-2009 19:02 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.57		729					
16.73	16.66 16.80	3363	29915	Aroclor-1260 Peak 3	0.100000	33620	
16.82		1779					
16.93		1134					
17.11		273					
17.25		621					
17.38	17.32 17.46	7819	67749	Aroclor-1260 Peak 4	0.100000	78180	
17.48		512					
17.99	17.92 18.06	3740	32420	Aroclor-1260 Peak 5	0.100000	37390	
18.05		2042					
18.14		2253					
18.75		689					
19.29		1984					
19.88		478					
20.28	20.22 20.36	5675	459922	Decachlorobiphenyl	0.010000	564200	

Manually Integrated Peaks



Start: 11.99 Stop: 12.10

Data File: /chem/tracegc84.i/l090416.b/0121AR16602TH.d

Page 1

Date : 16-APR-2009 19:31

Client ID: AR16602TH

Instrument: tracegc84.i

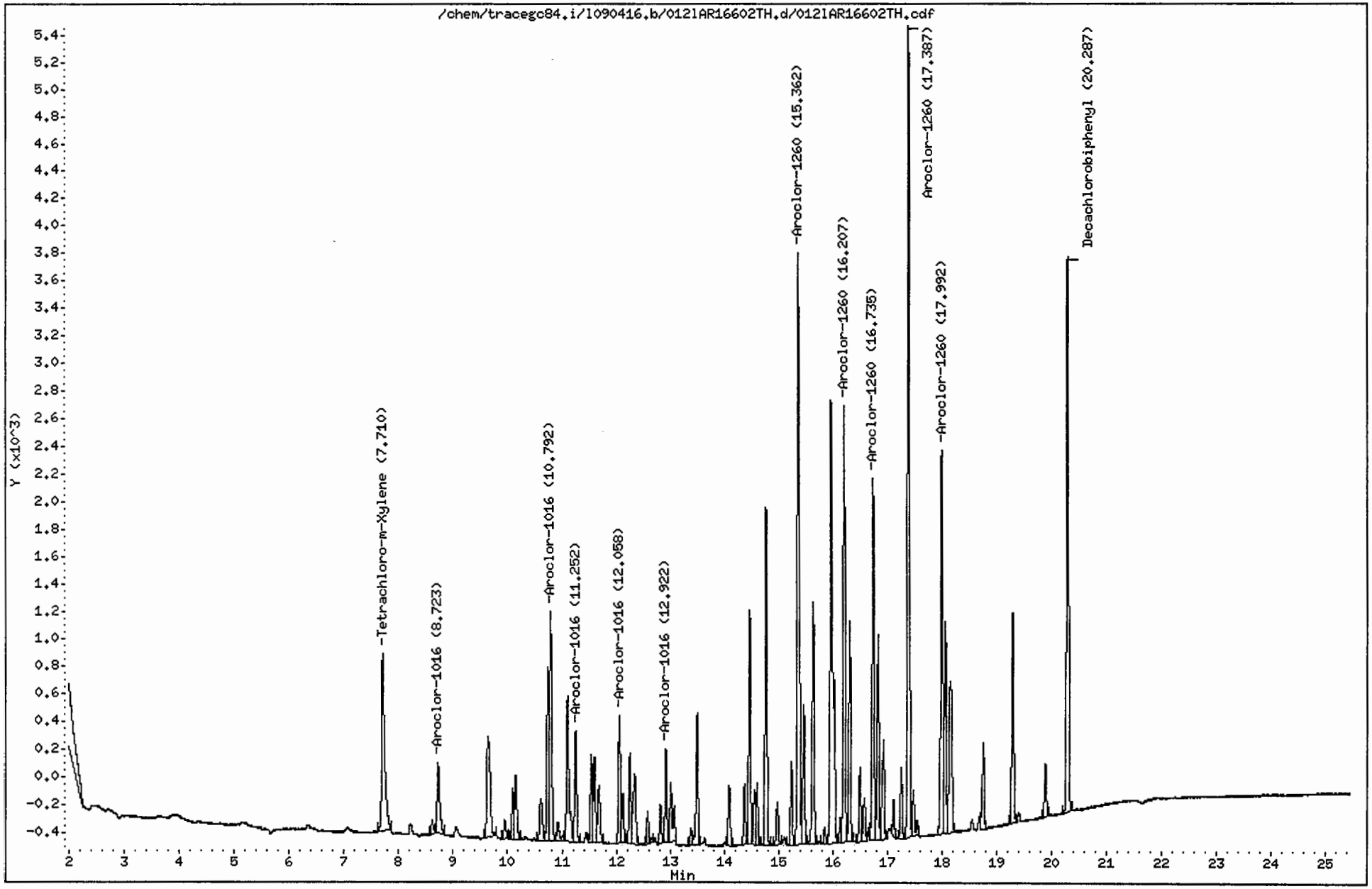
Sample Info: AR16602TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16602TH Client Smp Id : AR16602TH
Sample Type : INITIAL CAL: Level 2 Sublist : AR1660
Inj Date : 16-APR-2009 19:31 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			3195					
1.78			5133					
1.93			9811					
7.71	7.64	7.78	4689	433925	Tetrachloro-m-Xylene	0.010000	426500	
8.62			236					
8.72	8.65	8.79	1595	7994	Aroclor-1016 Peak 1	0.200000	7970.000	
9.64			3103					
9.95			390					
10.10			884					
10.15			1330					
10.61			1069					
10.74			2896					
10.79	10.72	10.86	4610	21748	Aroclor-1016 Peak 2	0.200000	23050	
10.93			491					
11.10			3185					
11.25	11.18	11.32	2029	9750	Aroclor-1016 Peak 3	0.200000	10145	
11.54			1526					
11.60			1543					
11.68			1269					
12.06	11.99	12.13	2237	10844	Aroclor-1016 Peak 4	0.200000	11180	M 2
12.12			858					
12.25			1528					
12.34			1871					
12.58			637					
12.82			618					
12.92	12.85	12.99	1533	7514	Aroclor-1016 Peak 5	0.200000	7665.000	
13.02			1548					
13.39			292					
13.50			2416					
14.09			1156					
14.37			968					
14.46			3894					
14.55			895					
14.60			1013					
14.77			5872					
14.98			800					
15.24			1367					
15.36	15.29	15.43	11481	54434	Aroclor-1260 Peak 1	0.200000	57405	
15.46			2366					
15.63			4437					
15.85			256					
15.97			11168					

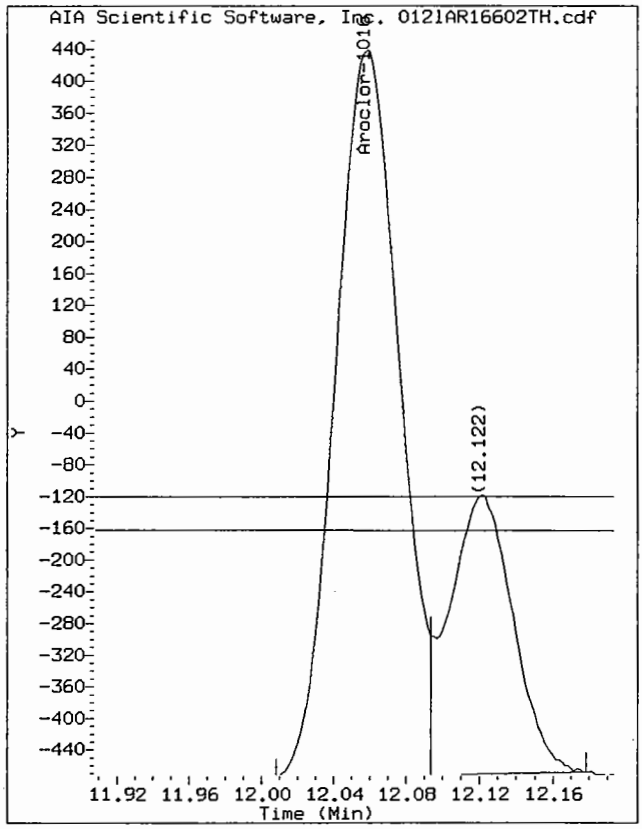
C/H 4/20/09

CompuChem

Lab Smp Id : AR16602TH Client Smp Id : AR16602TH
Sample Type : INITIAL CAL: Level 2 Sublist : AR1660
Inj Date : 16-APR-2009 19:31 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.14		407					
16.21	16.13 16.27	7458	35324	Aroclor-1260 Peak 2	0.200000	37285	
16.31		3745					
16.50		1214					
16.58		876					
16.74	16.66 16.80	6431	29915	Aroclor-1260 Peak 3	0.200000	32155	
16.82		3431					
16.93		2054					
17.12		536					
17.25		1161					
17.39	17.32 17.46	14212	67749	Aroclor-1260 Peak 4	0.200000	71055	
17.48		1001					
17.99	17.92 18.06	6812	32420	Aroclor-1260 Peak 5	0.200000	34060	
18.06		3651					
18.15		4154					
18.75		1538					
19.29		3661					
19.89		893					
20.29	20.22 20.36	10118	459922	Decachlorobiphenyl	0.020000	479750	

Manually Integrated Peaks



Start: 12.01 Stop: 12.09

Data File: /chem/tracegc84.i/1090416.b/0131AR16603TH.d

Date : 16-APR-2009 20:00

Client ID: AR16603TH

Instrument: tracegc84.i

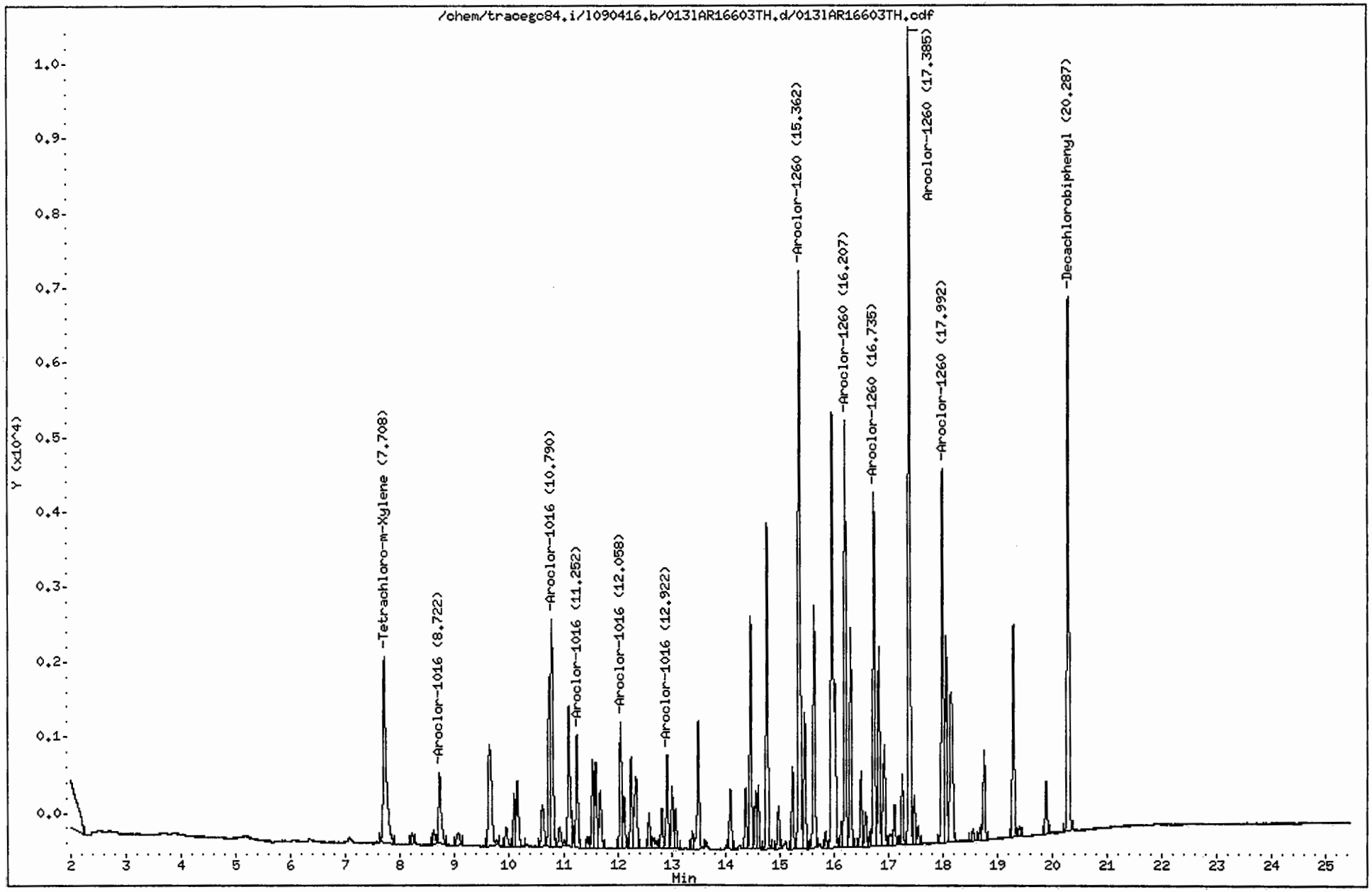
Sample Info: AR16603TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16603TH Client Smp Id : AR16603TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1660
Inj Date : 16-APR-2009 20:00 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			19179					
1.37			80552					
1.92			11615					
7.71	7.64	7.78	9232	433925	Tetrachloro-m-Xylene	0.020000	446200	
8.21			380					
8.62			469					
8.72	8.65	8.79	3063	7994	Aroclor-1016 Peak 1	0.400000	7655.000	
9.06			652					
9.63			5836					
9.95			775					
10.09			1663					
10.15			2557					
10.61			1910					
10.74			5343					
10.79	10.72	10.86	8364	21748	Aroclor-1016 Peak 2	0.400000	20910	
10.93			981					
11.10			5359					
11.25	11.18	11.32	3712	9750	Aroclor-1016 Peak 3	0.400000	9277.500	
11.45			364					
11.54			2837					
11.60			2896					
11.68			2330					
12.06	11.99	12.13	4175	10844	Aroclor-1016 Peak 4	0.400000	10435	
12.12			1584					
12.25			2853					
12.34			3459					
12.58			1078					
12.67			612					
12.82			1249					
12.92	12.85	12.99	2967	7514	Aroclor-1016 Peak 5	0.400000	7415.000	
13.01			2017					
13.08			1281					
13.39			555					
13.50			4518					
14.09			2103					
14.37			1850					
14.46			7175					
14.55			1667					
14.60			1939					
14.77			10391					
14.98			1504					
15.24			2506					

4/17/09

CompuChem

Lab Smp Id : AR16603TH Client Smp Id : AR16603TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1660
Inj Date : 16-APR-2009 20:00 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.36	15.29 15.43	20698	54434	Aroclor-1260 Peak 1	0.400000	51743	
15.46		4320					
15.63		8072					
15.85		484					
15.97		20159					
16.14		765					
16.21	16.13 16.27	13475	35324	Aroclor-1260 Peak 2	0.400000	33687	
16.31		6845					
16.50		2261					
16.59		1128					
16.66		394					
16.74	16.66 16.80	11592	29915	Aroclor-1260 Peak 3	0.400000	28977	
16.82		6307					
16.93		3841					
17.03		575					
17.11		1231					
17.25		2157					
17.38	17.32 17.46	25820	67749	Aroclor-1260 Peak 4	0.400000	64550	
17.48		1488					
17.55		527					
17.99	17.92 18.06	12402	32420	Aroclor-1260 Peak 5	0.400000	31003	
18.06		6552					
18.14		7609					
18.55		352					
18.68		376					
18.75		2940					
19.29		6749					
19.40		338					
19.89		1644					
20.29	20.22 20.36	18060	459922	Decachlorobiphenyl	0.040000	449325	

Data File: /chem/tracegc84.i/1090416.b/0141AR16604TH.d

Date : 16-APR-2009 20:29

Client ID: AR16604TH

Instrument: tracegc84.i

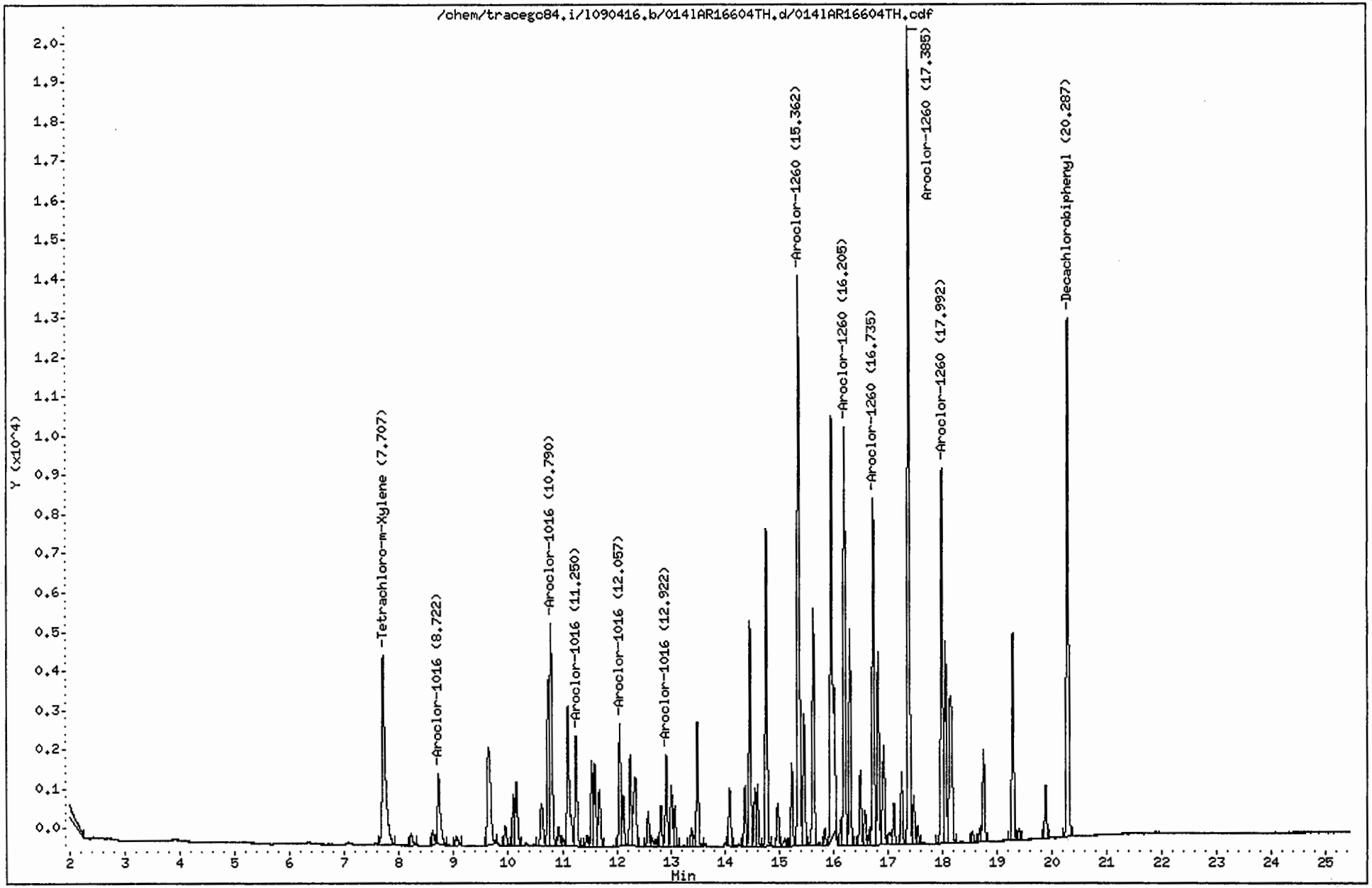
Sample Info: AR16604TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16604TH Client Smp Id : AR16604TH
Sample Type : INITIAL CAL: Level 4 Sublist : AR1660
Inj Date : 16-APR-2009 20:29 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			6085					
1.77			4102					
1.92			8233					
7.71	7.64	7.78	18650	433925	Tetrachloro-m-Xylene	0.040000	443425	
8.22			920					
8.61			898					
8.72	8.65	8.79	5894	7994	Aroclor-1016 Peak 1	0.800000	7366.250	
9.05			814					
9.64			10944					
9.95			1518					
10.09			3211					
10.15			4813					
10.62			3883					
10.74			10137					
10.79	10.72	10.86	15703	21748	Aroclor-1016 Peak 2	0.800000	19627	
10.93			1408					
11.02			444					
11.10			11179					
11.25	11.18	11.32	7204	9750	Aroclor-1016 Peak 3	0.800000	9003.750	
11.45			697					
11.54			5202					
11.60			5536					
11.68			4507					
12.06	11.99	12.13	7881	10844	Aroclor-1016 Peak 4	0.800000	9851.250	
12.12			3095					
12.25			5411					
12.34			6583					
12.58			2121					
12.66			1022					
12.82			2489					
12.92	12.85	12.99	5613	7514	Aroclor-1016 Peak 5	0.800000	7016.250	
13.01			3885					
13.08			2462					
13.39			1058					
13.44			531					
13.50			7995					
14.09			3996					
14.37			3569					
14.46			13587					
14.56			3294					
14.60			3682					
14.77			19271					

CompuChem

Lab Smp Id : AR16604TH Client Smp Id : AR16604TH
Sample Type : INITIAL CAL: Level 4 Sublist : AR1660
Inj Date : 16-APR-2009 20:29 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.98		2931					
15.11		618					
15.24		4811					
15.36	15.29 15.43	39238	54434	Aroclor-1260 Peak 1	0.800000	49047	
15.46		8057					
15.63		15746					
15.85		936					
15.97		36293					
16.14		1411					
16.20	16.13 16.27	25572	35324	Aroclor-1260 Peak 2	0.800000	31965	
16.31		12983					
16.50		4407					
16.59		2150					
16.66		763					
16.74	16.66 16.80	21966	29915	Aroclor-1260 Peak 3	0.800000	27456	
16.82		11952					
16.93		7379					
17.02		1122					
17.11		2440					
17.25		4199					
17.38	17.32 17.46	49451	67749	Aroclor-1260 Peak 4	0.800000	61813	
17.48		2937					
17.55		1015					
17.99	17.92 18.06	23741	32420	Aroclor-1260 Peak 5	0.800000	29676	
18.06		12302					
18.14		14506					
18.55		677					
18.68		694					
18.75		6007					
19.29		12788					
19.40		670					
19.89		3219					
20.29	20.22 20.36	33614	459922	Decachlorobiphenyl	0.080000	417913	

Data File: /chem/tracegc84.i/1090416.b/0151AR16605TH.d

Date : 16-APR-2009 20:58

Client ID: AR16605TH

Instrument: tracegc84.i

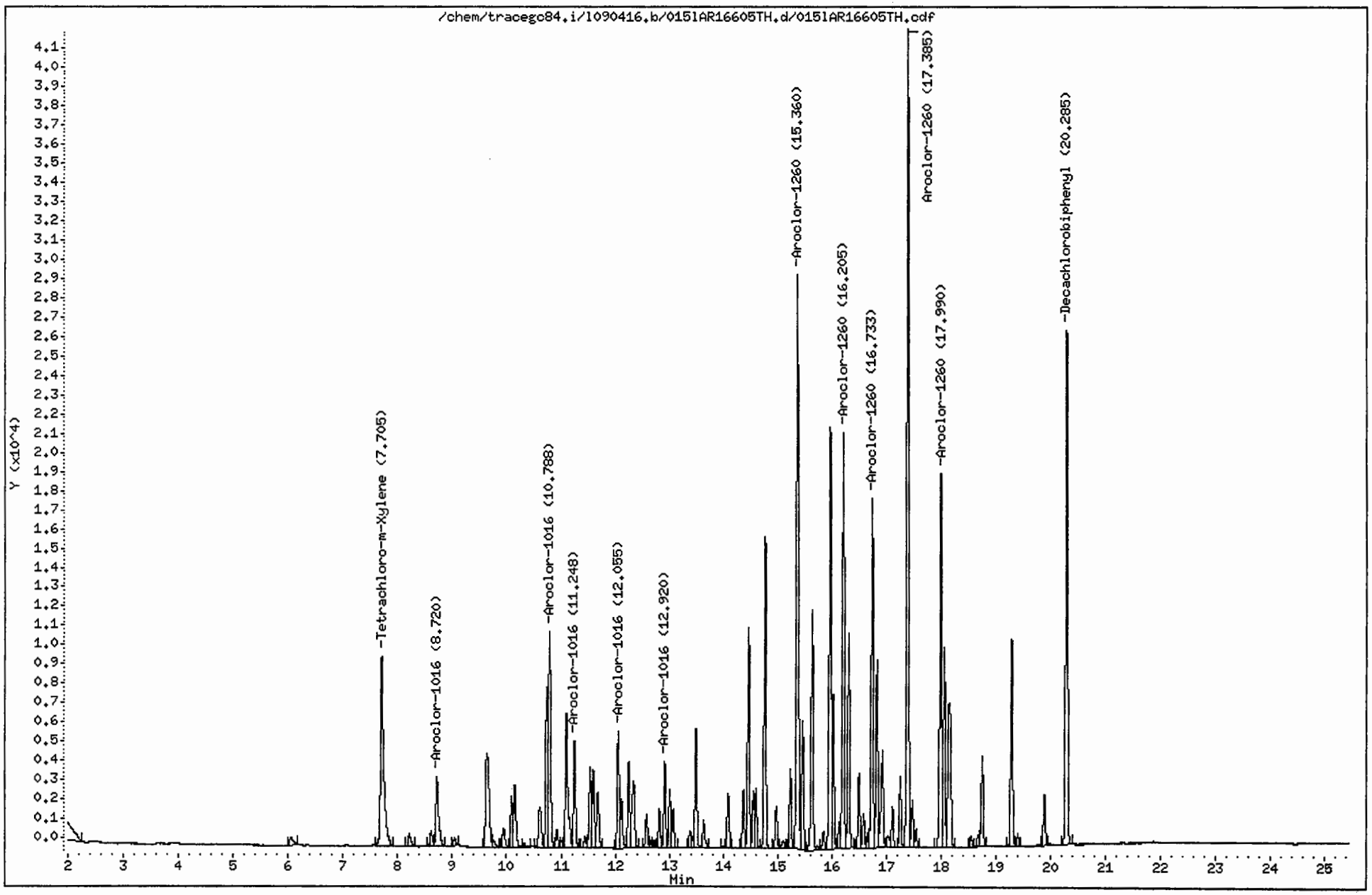
Sample Info: AR16605TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16605TH Client Smp Id : AR16605TH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1660
Inj Date : 16-APR-2009 20:58 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.28			14730					
1.37			61523					
1.77			12836					
1.92			16828					
6.05			1709					
7.70	7.64	7.78	38521	433925	Tetrachloro-m-Xylene	0.080000	432500	
8.21			2069					
8.61			2456					
8.72	8.65	8.79	12770	7994	Aroclor-1016 Peak 1	1.600000	7980.625	
9.04			1235					
9.63			21586					
9.77			1052					
9.94			3093					
10.09			6424					
10.15			9773					
10.33			584					
10.61			7739					
10.74			19778					
10.79	10.72	10.86	30885	21748	Aroclor-1016 Peak 2	1.600000	19303	
10.92			2576					
11.01			891					
11.10			21992					
11.25	11.18	11.32	14345	9750	Aroclor-1016 Peak 3	1.600000	8965.000	
11.44			1451					
11.54			10639					
11.60			10823					
11.68			8952					
12.06	11.99	12.13	15689	10844	Aroclor-1016 Peak 4	1.600000	9805.000	
12.12			6573					
12.25			10934					
12.34			13267					
12.58			4298					
12.65			874					
12.72			888					
12.82			4940					
12.92	12.85	12.99	10966	7514	Aroclor-1016 Peak 5	1.600000	6853.750	
13.01			7672					
13.08			4920					
13.38			2152					
13.46			1273					
13.49			15493					
13.64			4002					

CompuChem

Lab Smp Id : AR16605TH Client Smp Id : AR16605TH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1660
Inj Date : 16-APR-2009 20:58 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.01		251					
14.09		7920					
14.37		7126					
14.46		26994					
14.55		6627					
14.60		7257					
14.77		38540					
14.98		5884					
15.11		1311					
15.24		9581					
15.36	15.29 15.43	79018	54434	Aroclor-1260 Peak 1	1.600000	49386	
15.46		16384					
15.63		33212					
15.85		2478					
15.96		58204					
16.02		19078					
16.14		3245					
16.20	16.13 16.27	51745	35324	Aroclor-1260 Peak 2	1.600000	32340	
16.30		26259					
16.50		8966					
16.58		4388					
16.66		1600					
16.73	16.66 16.80	43789	29915	Aroclor-1260 Peak 3	1.600000	27368	
16.82		23705					
16.93		14889					
17.02		2352					
17.11		5024					
17.25		8514					
17.38	17.32 17.46	101034	67749	Aroclor-1260 Peak 4	1.600000	63146	
17.48		5946					
17.54		2151					
17.99	17.92 18.06	47952	32420	Aroclor-1260 Peak 5	1.600000	29970	
18.05		24553					
18.14		28996					
18.55		1331					
18.68		1444					
18.75		12167					
19.29		25726					
19.40		1421					
19.89		6476					
20.28	20.22 20.36	66985	459922	Decachlorobiphenyl	0.160000	388425	

Data File: /chem/tracegc84.i/1090416.b/0161AR12213TH.d

Page 1

Date : 16-APR-2009 21:26

Client ID: AR12213TH

Instrument: tracegc84.i

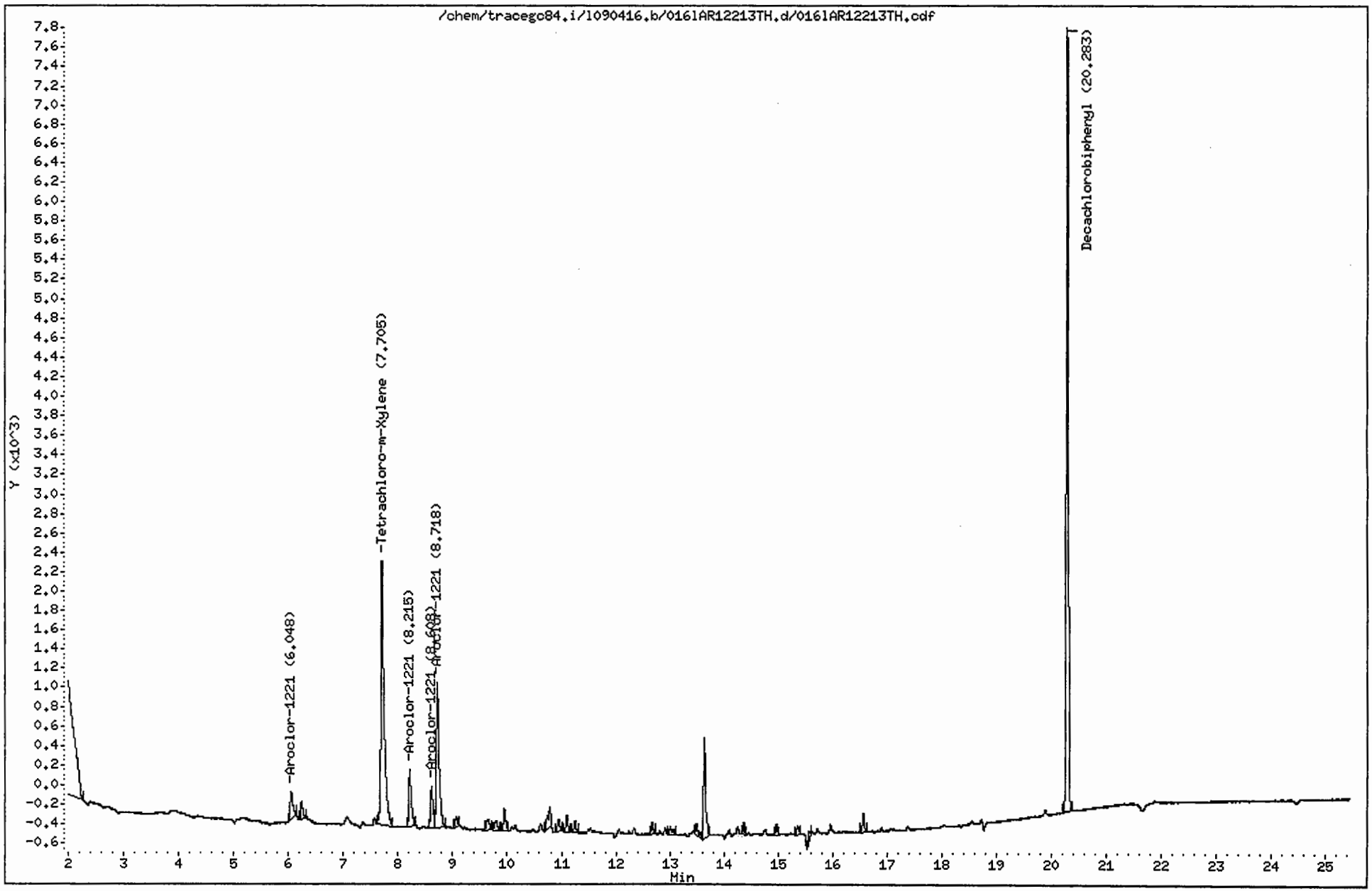
Sample Info: AR12213TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12213TH Client Smp Id : AR12213TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1221
Inj Date : 16-APR-2009 21:26 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.28			17148					
1.36			57659					
1.78			17980					
1.93			20210					
6.05	5.98	6.12	928	2320	Aroclor-1221 Peak 1	0.400000	2320.000	
6.24			481					
7.70	7.64	7.78	10549	433925	Tetrachloro-m-Xylene	0.020000	446200	
8.22	8.14	8.28	1893	4730	Aroclor-1221 Peak 2	0.400000	4730.000	
8.61	8.54	8.68	1327	3318	Aroclor-1221 Peak 3	0.400000	3317.500	
8.72	8.65	8.79	5282	13202	Aroclor-1221 Peak 4	0.400000	13203	
9.07			295					
9.66			427					
9.79			357					
9.95			626					
10.74			762					
10.95			346					
11.10			418					
11.25			297					
12.67			283					
13.01			315					
13.50			450					
13.64			2747					
14.37			253					
14.97			241					
15.36			258					
15.57			231					
16.57			458					
20.28	20.22	20.36	20279	459922	Decachlorobiphenyl	0.040000	449325	

(4/16/09)

Data File: /chem/tracegc84.i/1090416.b/0171AR12323TH.d

Date : 16-APR-2009 21:55

Client ID: AR12323TH

Instrument: tracegc84.i

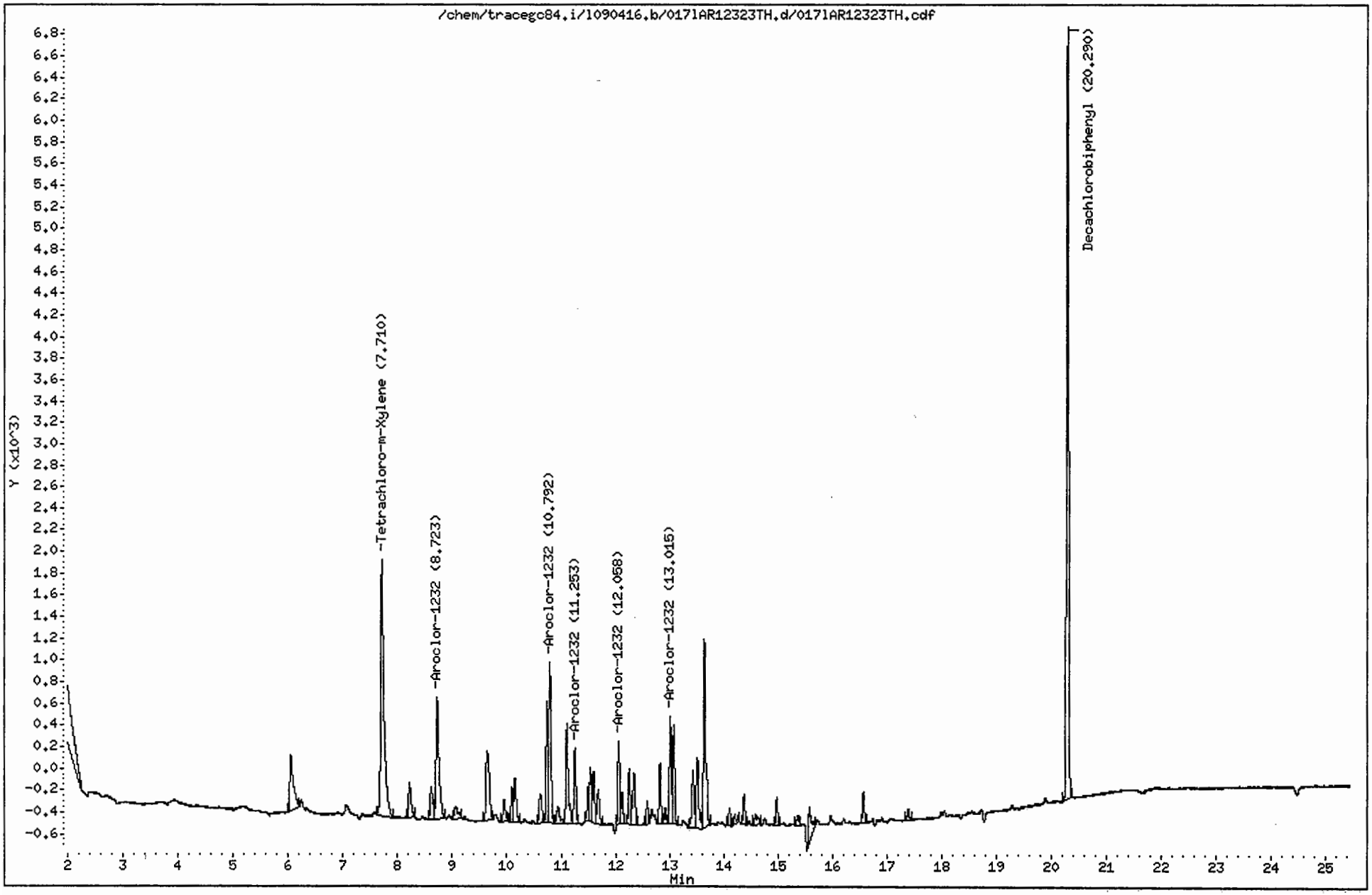
Sample Info: AR12323TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12323TH Client Smp Id : AR12323TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 16-APR-2009 21:55 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			2852					
1.78			5653					
1.92			11113					
6.05			2301					
7.71	7.64	7.78	9406	433925	Tetrachloro-m-Xylene	0.020000	446200	
8.22			959					
8.62			1001					
8.72	8.65	8.79	4059	10145	Aroclor-1232 Peak 1	0.400000	10145	
9.07			501					
9.64			2688					
9.95			588					
10.10			779					
10.15			1184					
10.62			928					
10.74			2578					
10.79	10.72	10.86	4119	10295	Aroclor-1232 Peak 2	0.400000	10295	
10.95			636					
11.11			2755					
11.25	11.18	11.32	1794	4485	Aroclor-1232 Peak 3	0.400000	4485.000	
11.50			703					
11.54			1244					
11.60			1153					
11.69			950					
12.06	11.99	12.13	1857	4640	Aroclor-1232 Peak 4	0.400000	4640.000	M
12.12			674					
12.26			1214					
12.35			1625					
12.59			442					
12.82			1271					
12.92			318					
13.02	12.95	13.09	2344	5858	Aroclor-1232 Peak 5	0.400000	5857.500	
13.08			2204					
13.43			1483					
13.52			2132					
13.64			4923					
14.11			371					
14.20			339					
14.37			627					
14.59			394					
14.98			578					
15.36			255					
15.58			1092					

4/20/09

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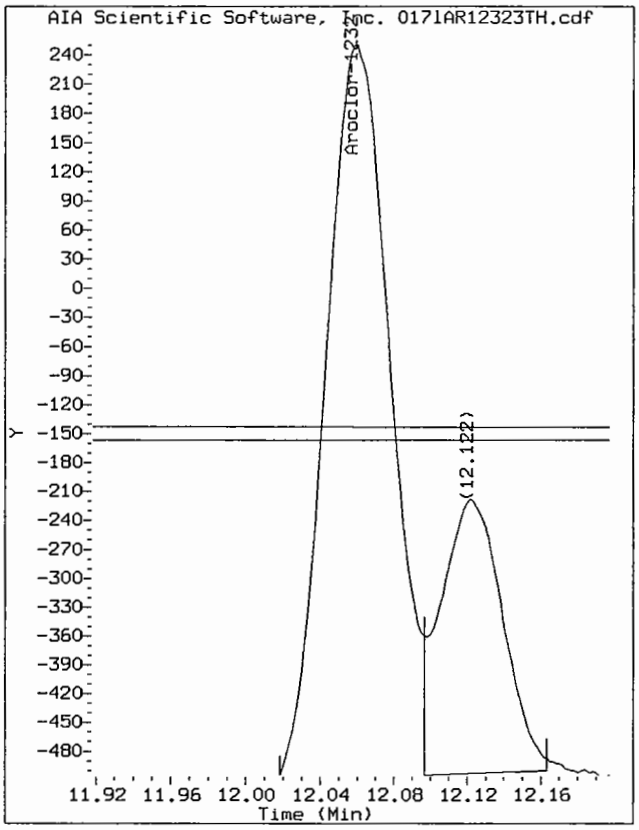
CompuChem

Lab Smp Id : AR12323TH Client Smp Id : AR12323TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 16-APR-2009 21:55 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.57		621					
17.39		253					
20.29	20.22 20.36	18117	459922	Decachlorobiphenyl	0.040000	449325	

Manually Integrated Peaks



Start: 12.02 Stop: 12.10

Data File: /chem/tracegc84.i/1090416.b/0181AR12423TH.d

Date : 16-APR-2009 22:25

Client ID: AR12423TH

Instrument: tracegc84.i

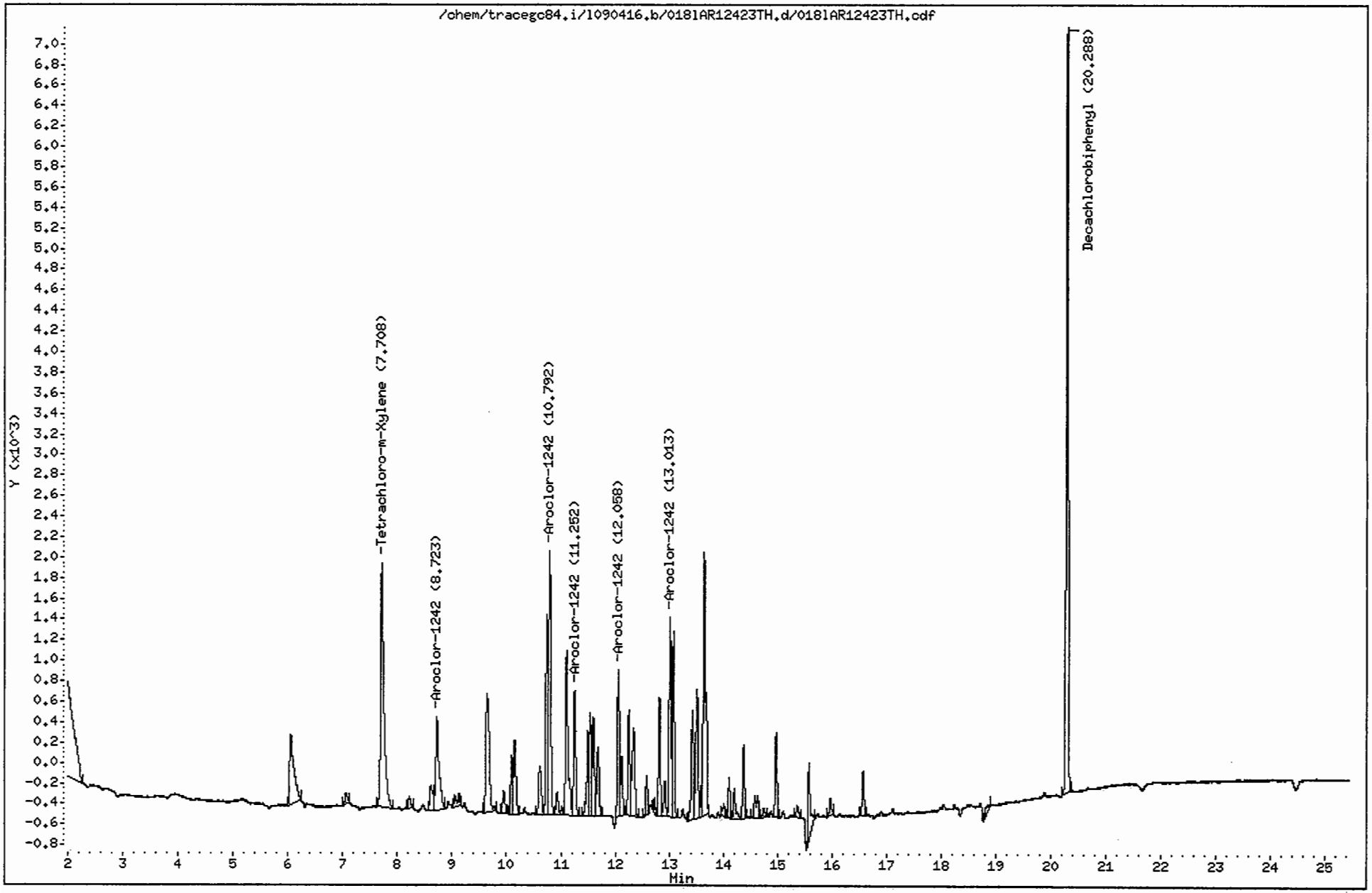
Sample Info: AR12423TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12423TH Client Smp Id : AR12423TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 16-APR-2009 22:25 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

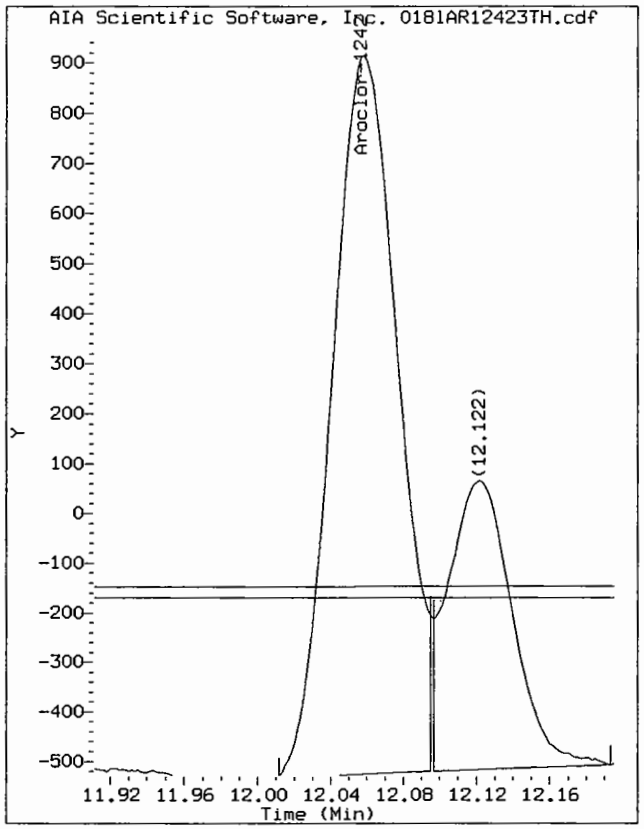
RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			25364					
1.78			11403					
1.93			16117					
6.05			3626					
7.06			302					
7.71	7.64	7.78	9523	433925	Tetrachloro-m-Xylene	0.020000	446200	
8.22			329					
8.61			872					
8.72	8.65	8.79	3806	9515	Aroclor-1242 Peak 1	0.400000	9515.000	
9.05			557					
9.64			5070					
9.95			638					
10.10			1451					
10.15			2112					
10.61			1656					
10.74			4724					
10.79	10.72	10.86	7184	17960	Aroclor-1242 Peak 2	0.400000	17960	
10.93			827					
11.10			5049					
11.25	11.18	11.32	3225	8062	Aroclor-1242 Peak 3	0.400000	8062.500	
11.50			2115					
11.54			2593					
11.60			2559					
11.68			2067					
12.06	11.99	12.13	3665	9162	Aroclor-1242 Peak 4	0.400000	9162.500	M 2
12.12			1432					
12.25			2481					
12.34			3122					
12.58			849					
12.73			266					
12.82			2758					
12.92			861					
13.01	12.94	13.08	4810	12025	Aroclor-1242 Peak 5	0.400000	12025	
13.08			4376					
13.43			3044					
13.52			3633					
13.58			530					
13.64			8191					
14.01			335					
14.11			915					
14.20			843					
14.37			1683					

CompuChem

Lab Smp Id : AR12423TH Client Smp Id : AR12423TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 16-APR-2009 22:25 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.58		992					
14.75		246					
14.97		1902					
15.36		354					
15.57		2203					
15.97		365					
16.57		1040					
18.89		417					
20.29	20.22 20.36	18590	459922	Decachlorobiphenyl	0.040000	449325	

Manually Integrated Peaks



Start: 12.01 Stop: 12.10

Data File: /chem/tracegc84.i/1090416.b/0191AR12483TH.d

Date : 16-APR-2009 22:53

Client ID: AR12483TH

Instrument: tracegc84.i

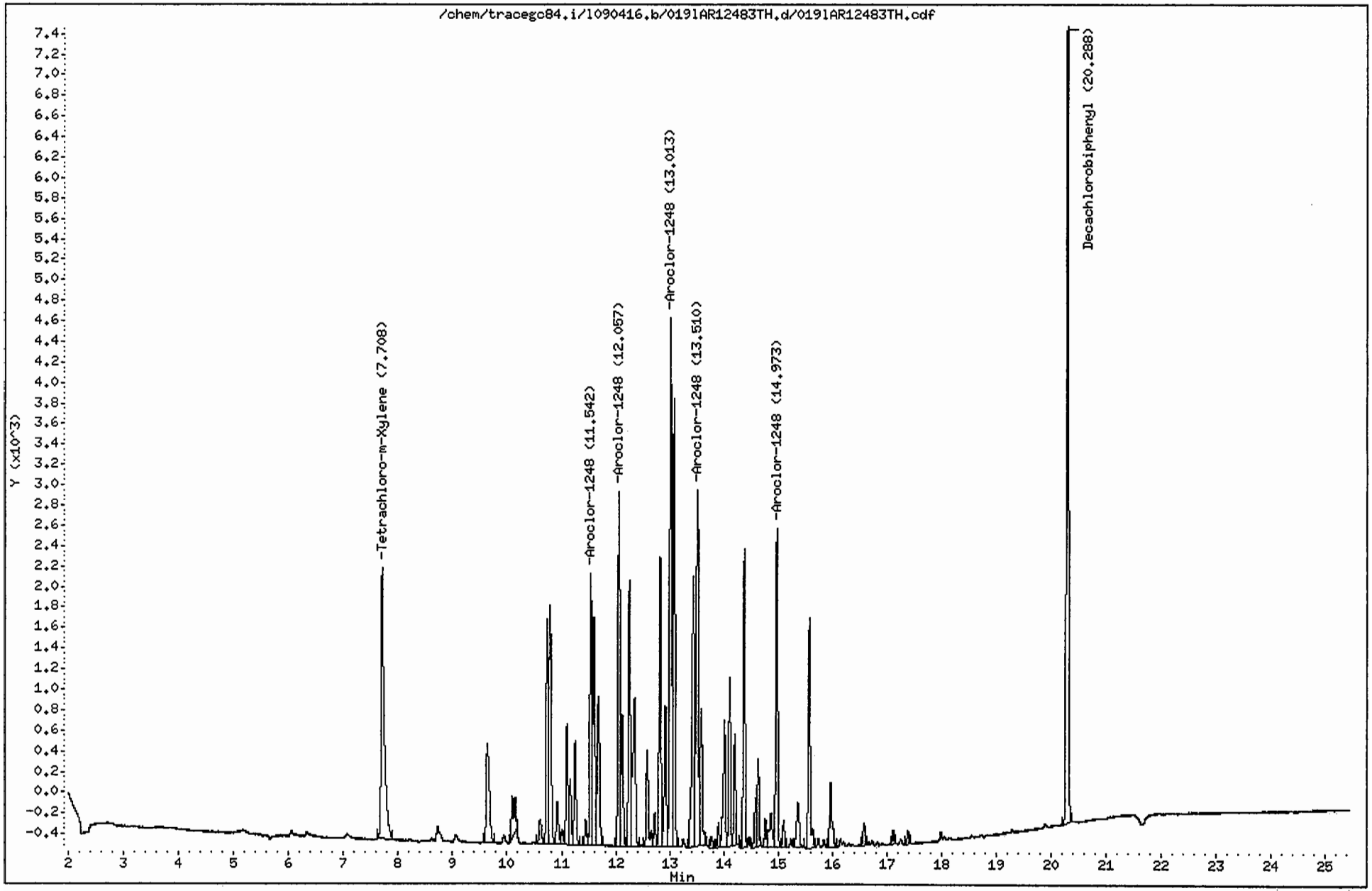
Sample Info: AR12483TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12483TH Client Smp Id : AR12483TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 16-APR-2009 22:53 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29		10045					
1.37		34530					
7.71	7.64 7.78	10056	433925	Tetrachloro-m-Xylene	0.020000	446200	
9.64		3704					
10.10		1671					
10.61		725					
10.74		5173					
10.79		6393					
10.93		1082					
11.02		369					
11.10		2923					
11.16		1642					
11.25		2576					
11.45		616					
11.54	11.47 11.61	6509	16272	Aroclor-1248 Peak 1	0.400000	16273	
11.60		5790					
11.68		4467					
12.06	11.99 12.13	8848	22118	Aroclor-1248 Peak 2	0.400000	22117	
12.12		3072					
12.25		6409					
12.35		5270					
12.58		2584					
12.73		760					
12.82		6877					
12.92		3469					
13.01	12.94 13.08	12904	32260	Aroclor-1248 Peak 3	0.400000	32260	
13.08		10736					
13.43		7949					
13.51	13.44 13.58	10488	26220	Aroclor-1248 Peak 4	0.400000	26220	
13.58		3332					
13.78		272					
13.90		523					
14.01		3402					
14.11		3893					
14.20		2437					
14.37		6735					
14.58		1098					
14.63		2046					
14.77		598					
14.87		1337					
14.97	14.90 15.04	7296	18238	Aroclor-1248 Peak 5	0.400000	18237	
15.10		636					

4/17/09

CompuChem

Lab Smp Id : AR12483TH Client Smp Id : AR12483TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 16-APR-2009 22:53 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.37		1590					
15.57		5654					
15.97		1878					
16.59		525					
17.12		291					
17.38		289					
20.29	20.22 20.36	19727	459922	Decachlorobiphenyl	0.040000	449325	

Data File: /chem/tracegc84.i/1090416.b/0201AR12543TH.d

Date : 16-APR-2009 23:22

Client ID: AR12543TH

Instrument: tracegc84.i

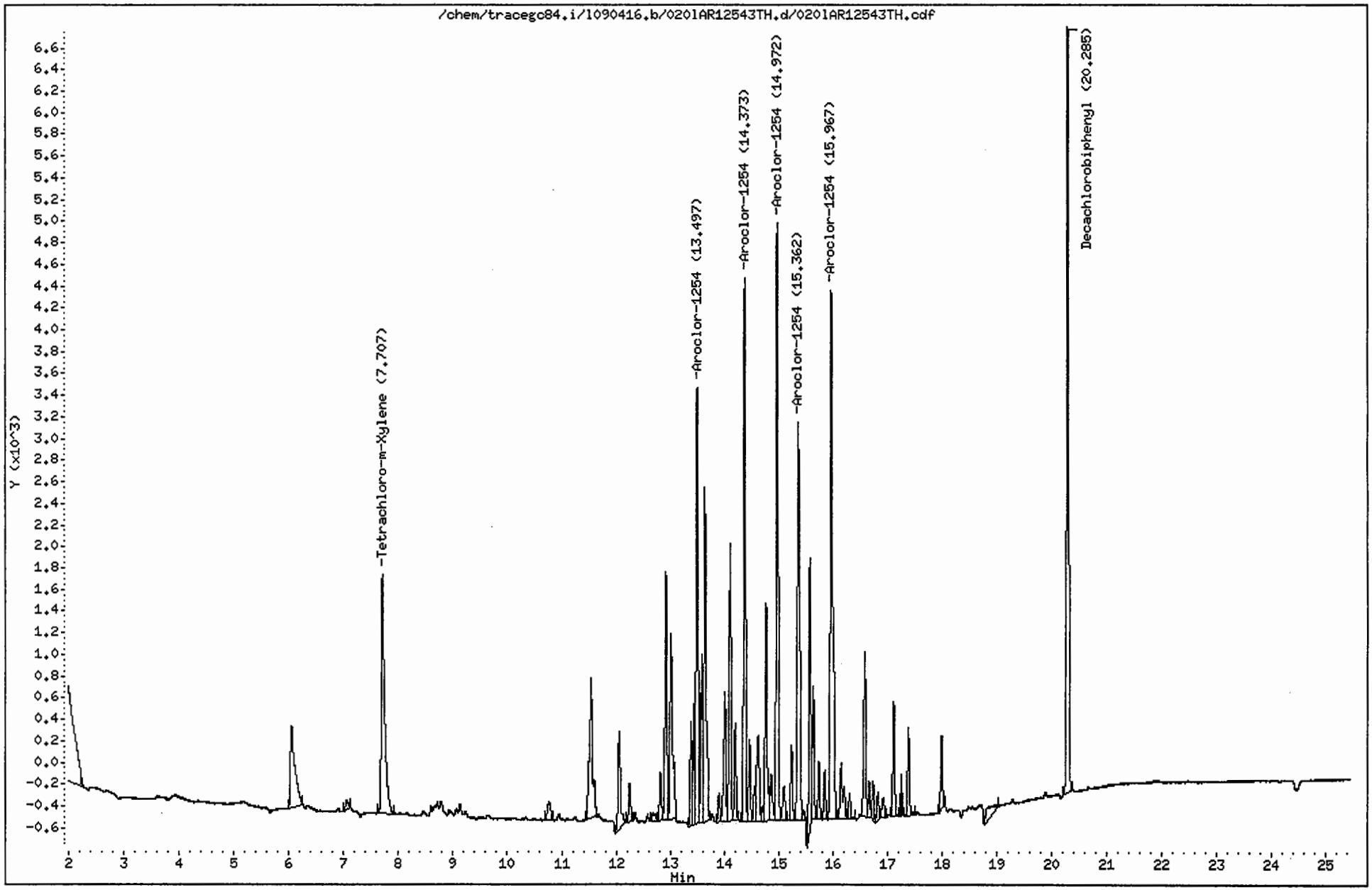
Sample Info: AR12543TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12543TH Client Smp Id : AR12543TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 16-APR-2009 23:22 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29		6823					
1.37		23832					
1.77		11320					
1.92		14849					
6.05		4289					
7.06		273					
7.71	7.64 7.78	8878	433925	Tetrachloro-m-Xylene	0.020000	446200	
10.77		698					
11.54		5163					
12.06		2715					
12.25		869					
12.68		343					
12.82		1045					
12.92		5656					
13.01		5859					
13.38		2228					
13.45		2386					
13.50	13.43 13.57	10314	25782	Aroclor-1254 Peak 1	0.400000	25783	
13.58		3350					
13.64		8836					
13.90		609					
14.01		3280					
14.11		6407					
14.20		2018					
14.37	14.30 14.44	11844	29610	Aroclor-1254 Peak 2	0.400000	29610	
14.46		1710					
14.55		650					
14.63		2814					
14.70		293					
14.77		5523					
14.87		1137					
14.97	14.90 15.04	13303	33258	Aroclor-1254 Peak 3	0.400000	33257	
15.10		962					
15.24		1569					
15.36	15.29 15.43	11240	28100	Aroclor-1254 Peak 4	0.400000	28100	M
15.46		181					
15.57		5741					
15.63		2839					
15.74		1201					
15.85		1005					
15.97	15.90 16.04	15336	38340	Aroclor-1254 Peak 5	0.400000	38340	
16.15		1953					

Keith 4/20/09

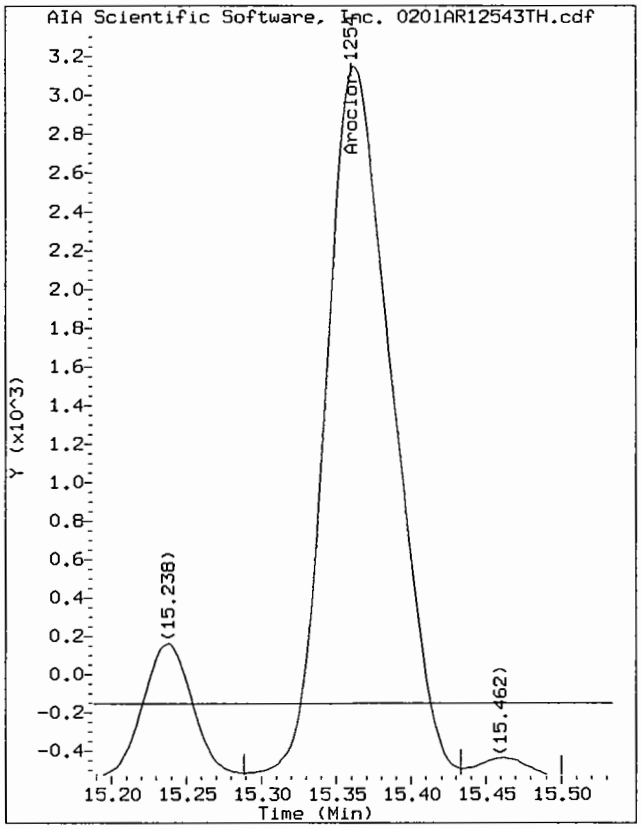
c4/hc

CompuChem

Lab Smp Id : AR12543TH Client Smp Id : AR12543TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 16-APR-2009 23:22 Inst ID :
Operator : 2512
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.30		578					
16.58		4035					
16.66		728					
16.73		770					
16.82		591					
16.93		543					
17.11		2439					
17.25		332					
17.39		1927					
17.99		1570					
18.96		986					
20.28	20.22 20.36	17584	459922	Decachlorobiphenyl	0.040000	449325	

Manually Integrated Peaks



Start: 15.29 Stop: 15.43

Data File: /chem/tracegc84.i/1090416.b/0211PESTCHKTH.d

Page 1

Date : 16-APR-2009 23:51

Client ID: PESTCHKTH

Instrument: tracegc84.i

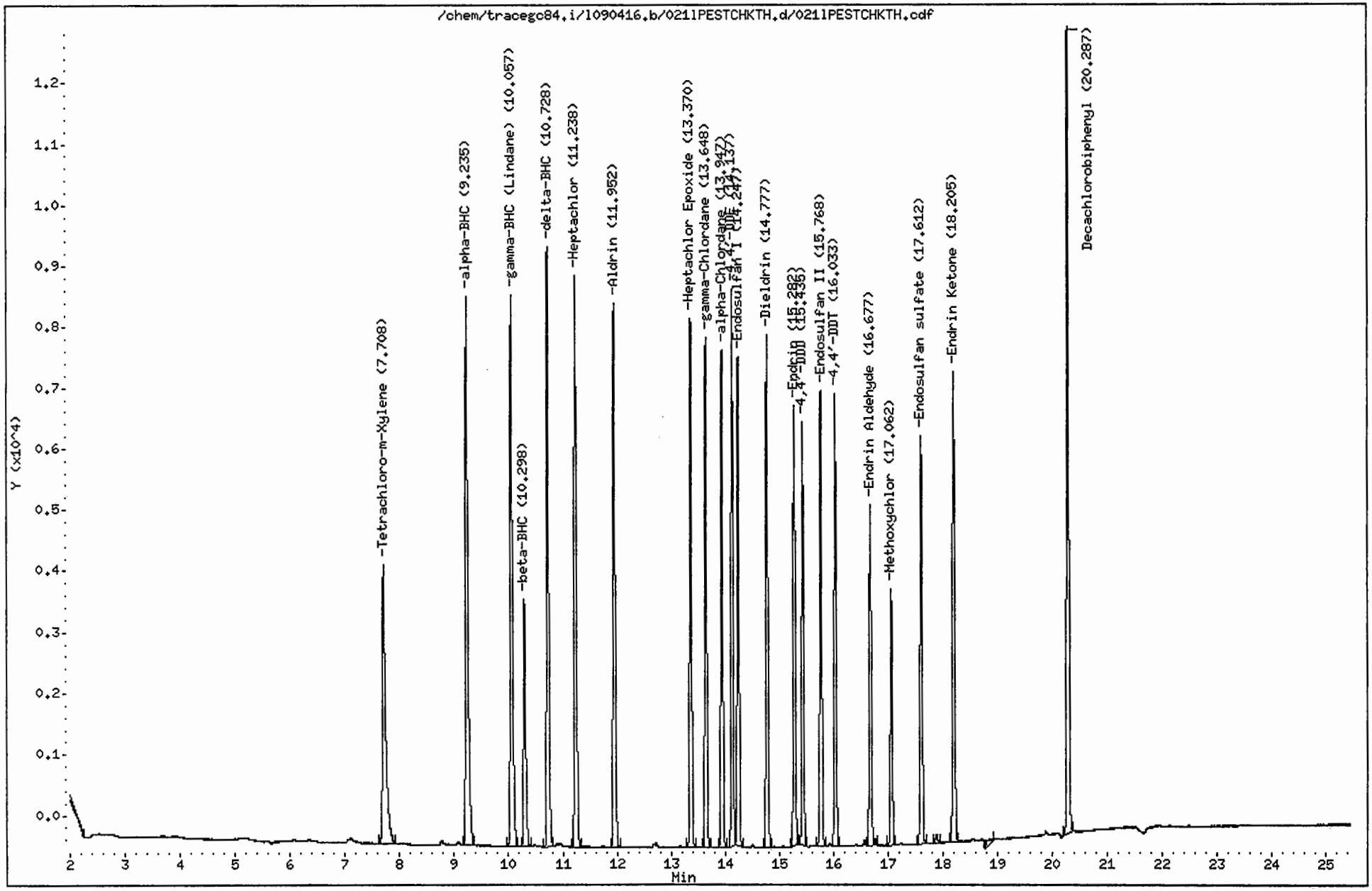
Sample Info: PESTCHKTH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PESTCHKTH
Client Smp Id : PESTCHKTH
Sample Type : QCCHECK
Sublist : INDA
Inj Date : 16-APR-2009 23:51
Inst ID : TRACEGC84
Operator : 2512
Spike Sublist : INDAchek
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	AREA
1.29	9530
1.37	22874
1.92	2748
7.71	17929
9.23	27193
10.06	25354
10.30	11037
10.73	25122
11.24	24601
11.95	22835
13.37	20970
13.65	20112
13.95	19312
14.14	20484
14.25	19292
14.78	20116
15.28	17561
15.44	15535
15.77	18222
16.03	16958
16.68	13776
17.06	9851
17.61	16652
17.89	372
18.20	19546
18.90	436
20.29	33230

Data File: /chem/tracegc84.i/1090416.b/0221PCBCHKTH.d

Page 1

Date : 17-APR-2009 00:20

Client ID: PCBCHKTH

Instrument: tracegc84.i

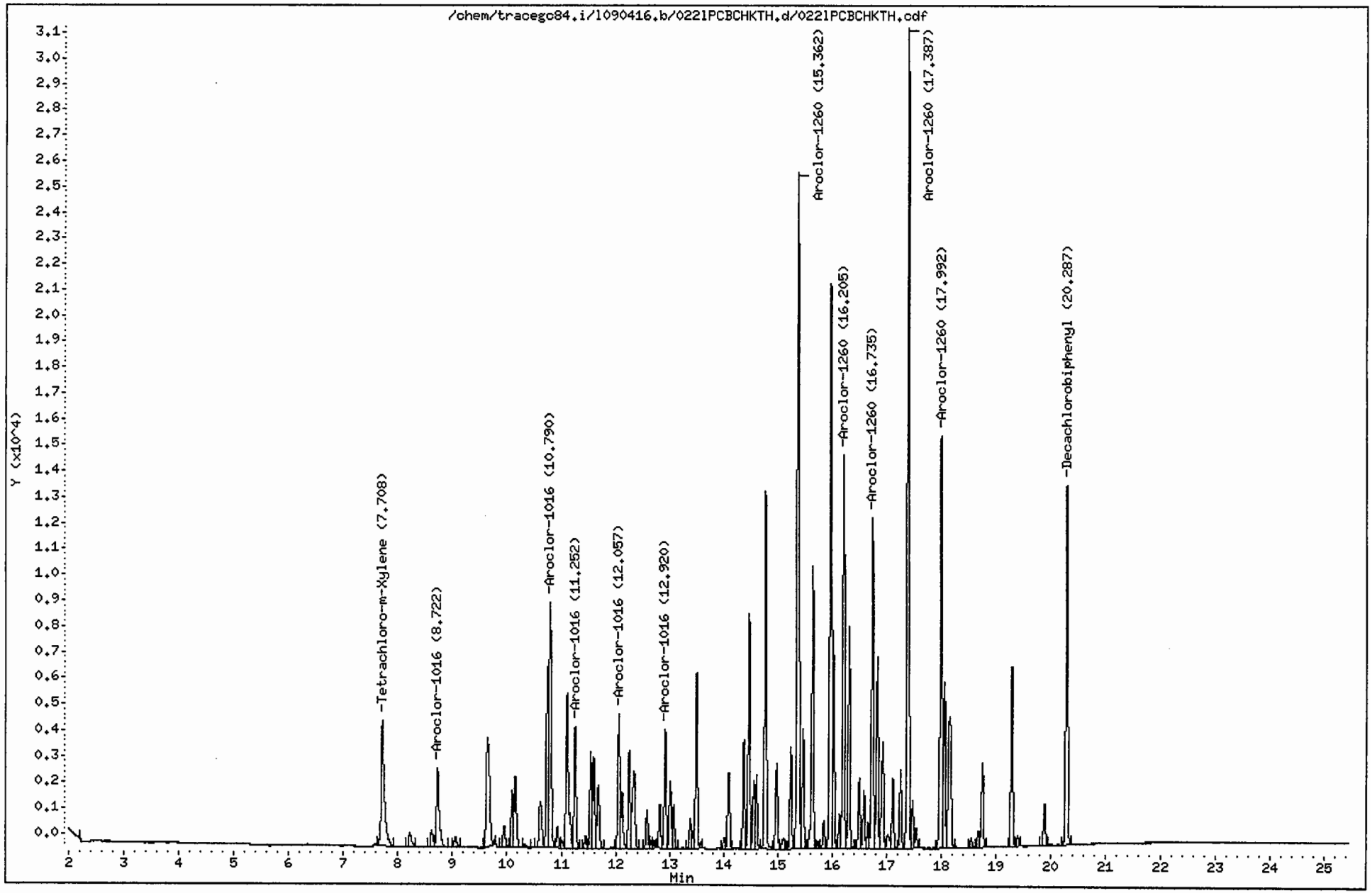
Sample Info: PCBCHKTH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PCBCHKTH
Client Smp Id : PCBCHKTH
Sample Type : QCCHECK
Sublist : AR1660
Inj Date : 17-APR-2009 00:20
Inst ID : TRACEGC84
Operator : 2512
Spike Sublist : AR1660chk
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	AREA
1.29	7474
1.78	807
1.93	1703
7.71	18792
8.22	1703
8.61	1989
8.72	10558
9.05	1322
9.64	18152
9.95	2618
10.10	5545
10.15	8259
10.33	490
10.61	6523
10.74	16743
10.79	26500
10.93	2195
11.02	765
11.10	18706
11.25	12188
11.45	1177
11.54	9222
11.60	9172
11.68	7685
12.06	13253
12.12	5502
12.25	9342
12.34	11249
12.58	3618
12.65	726
12.72	647
12.82	4078
12.92	11284
13.01	6664
13.08	4075
13.39	2771
13.45	1192
13.50	17159
14.01	929
14.10	8624
14.37	9769
14.46	21400
14.55	5961
14.60	6809
14.77	33320

CompuChem

Lab Smp Id : PCBCHKTH Client Smp Id : PCBCHKTH
Sample Type : QCCHECK Sublist : AR1660
Inj Date : 17-APR-2009 00:20 Inst ID :
Operator : 2512 Spike Sublist : AR1660chk
Method : /chem/tracegc84.i/l090416.b/8081A_clpestv6.m
Misc. Info : None

RT	AREA
14.98	8731
15.11	1510
15.24	9226
15.36	70344
15.46	11059
15.64	27650
15.74	637
15.85	2457
15.97	57449
16.02	16351
16.14	3045
16.20	36202
16.31	20258
16.50	6452
16.59	5404
16.66	2125
16.73	30694
16.82	17869
16.93	11742
17.02	1864
17.11	6524
17.25	7090
17.39	74679
17.48	4486
17.55	1847
17.99	39194
18.05	15228
18.14	19441
18.55	844
18.68	1475
18.75	8348
19.29	16720
19.40	951
19.89	3960
20.29	34574

Data File: /chem/tracegc85.i/1090416.b/0031PEMTH.d

Page 1

Date : 16-APR-2009 15:10

Client ID: PEMTH

Instrument: tracegc85.i

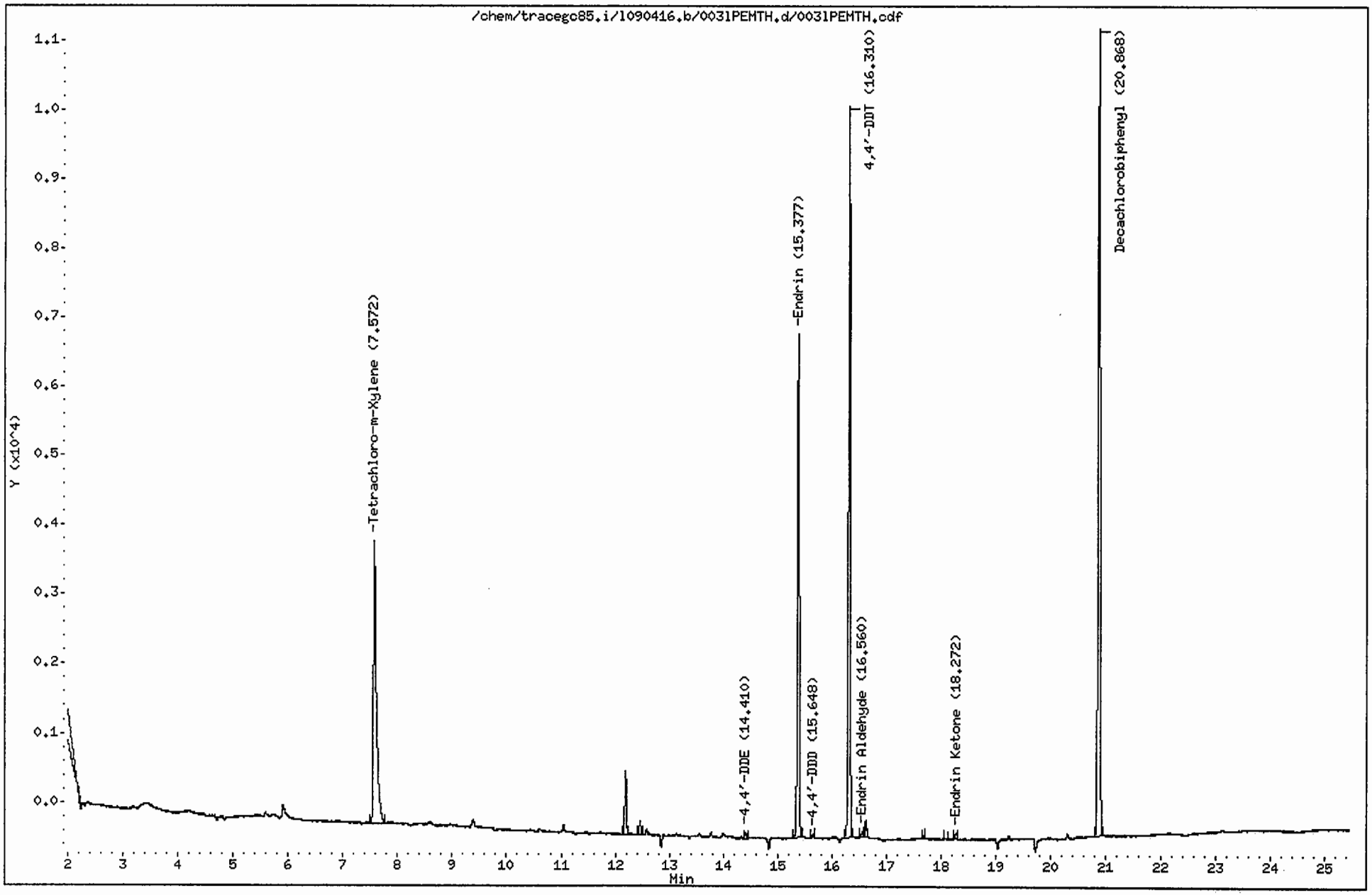
Sample Info: PEMTH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PEMTH Client Smp Id : PEMTH
Sample Type : SAMPLE Sublist : PEM
Inj Date : 16-APR-2009 15:10 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 1000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			4471								
1.63			9013								
1.76			19690								
7.57	7.51	7.65	15176	764823	Tetrachloro-m-Xylene	0.019842	0.019842		100.2	43 - 135	
12.19			1973								
12.46			427								
14.41	14.34	14.48	172	933570	4,4'-DDE	0.000184	0.000184	0.020000			JM
15.38	15.31	15.45	16400	783950	Endrin	0.020920	0.020920	0.020000			
15.65	15.58	15.72	86	700260	4,4'-DDD	0.000122	0.000122	0.020000			JM
16.31	16.25	16.39	22602	765265	4,4'-DDT	0.029535	0.029535	0.020000			
16.56	16.49	16.63	193	662380	Endrin Aldehyde	0.000291	0.000291	0.020000			JM
16.62			496								
17.68			61								
18.08			24								
18.27	18.21	18.35	177	853565	Endrin Ketone	0.000207	0.000207	0.020000			JM
20.87	20.80	20.94	29396	773453	Decachlorobiphenyl	0.038007	0.038007		96.0	43 - 144	

$\%\,4,4'\text{-DDT} = \frac{172\text{+}86}{172\text{+}86 + 22602} \times 100 =$

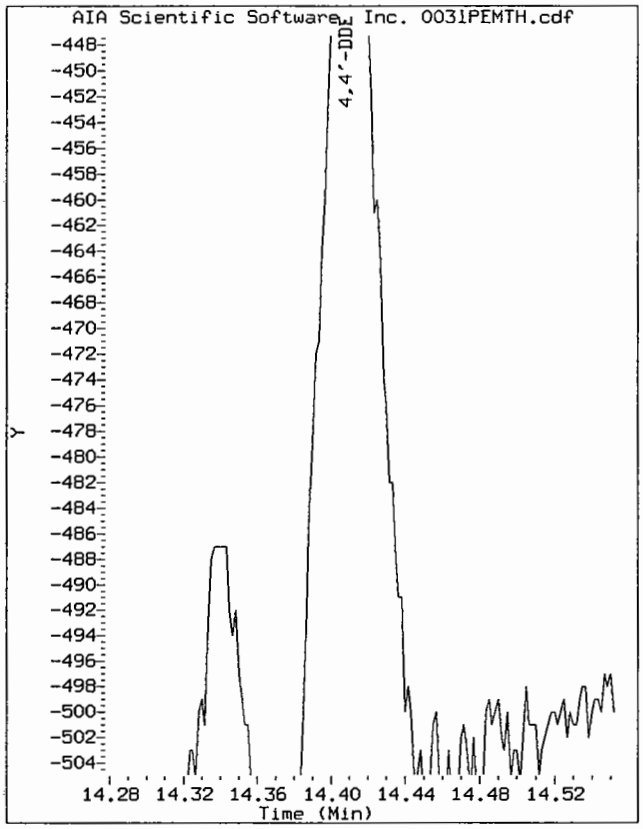
$\frac{278}{278 + 22602} \times 100 = 1.3\%$

$\%\,\text{Endrin} = \frac{193 + 177}{193 + 177 + 16400} \times 100 =$

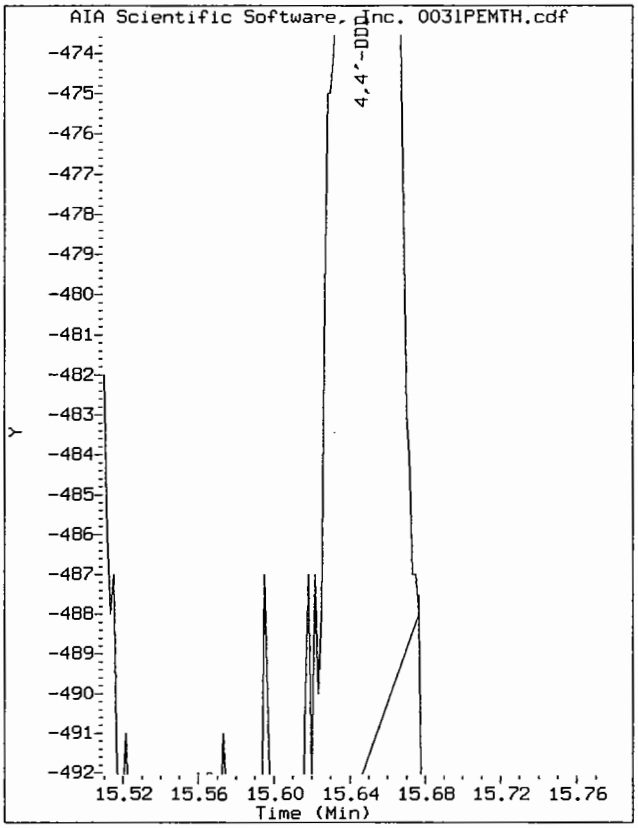
$\frac{370}{16770} \times 100 = 2.2\%$

4/20/09

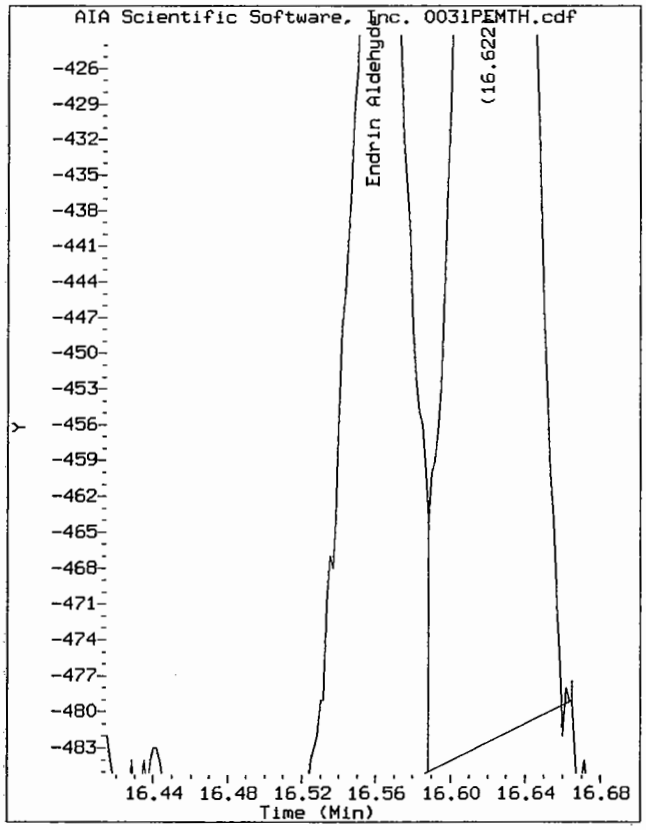
Manually Integrated Peaks



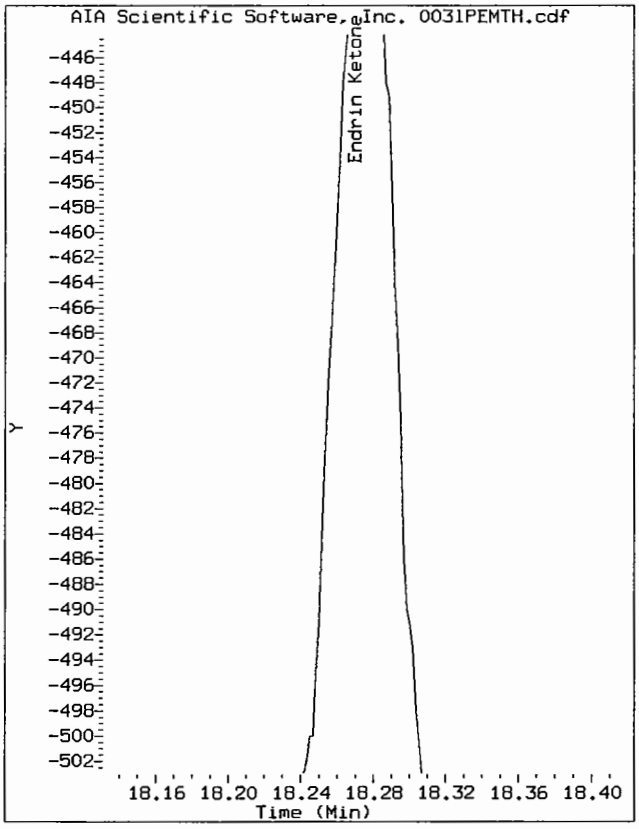
Start: 14.38 Stop: 14.45



Start: 15.61 Stop: 15.68



Start: 16.52 Stop: 16.59



Start: 18.23 Stop: 18.31

Data File: /chem/tracegc85.i/1090416.b/0041INDC1TH.d

Page 1

Date : 16-APR-2009 15:39

Client ID: INDC1TH

Instrument: tracegc85.i

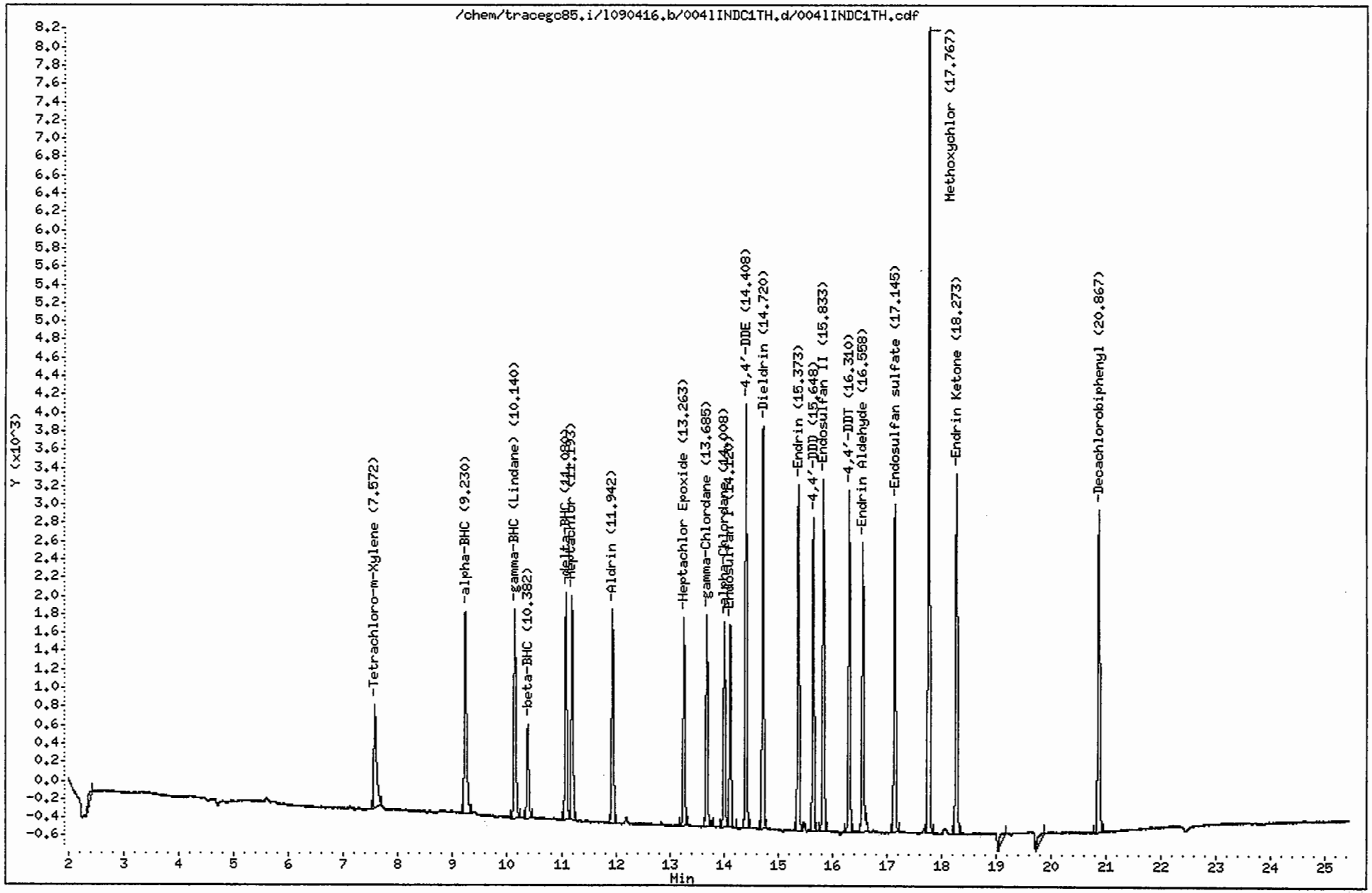
Sample Info: INDC1TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC1TH Client Smp Id : INDC1TH
Sample Type : INITIAL CAL: Level 1 Sublist : INDA
Inj Date : 16-APR-2009 15:39 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			4137					
2.40			396					
7.57	7.50	7.64	3746	764823	Tetrachloro-m-Xylene	0.005000	749200	
9.23	9.16	9.30	6093	1270810	alpha-BHC	0.005000	1218400	
10.14	10.07	10.21	5776	1186035	gamma-BHC (Lindane)	0.005000	1155200	
10.38	10.31	10.45	2518	481682	beta-BHC	0.005000	503600	
11.08	11.01	11.15	5545	1157705	delta-BHC	0.005000	1109000	
11.19	11.12	11.26	5823	1110066	Heptachlor	0.005500	1058545	
11.94	11.87	12.01	5450	1061288	Aldrin	0.005000	1089800	
13.26	13.19	13.33	5029	957605	Heptachlor Epoxide	0.005000	1005800	
13.68	13.62	13.76	5199	980298	gamma-Chlordane	0.005000	1039800	
14.01	13.94	14.08	4896	923528	alpha-Chlordane	0.005000	979200	
14.12	14.05	14.19	4840	898480	Endosulfan I	0.005000	968000	
14.41	14.34	14.48	9610	933570	4,4'-DDE	0.010000	960900	
14.72	14.65	14.79	9586	924768	Dieldrin	0.010000	958600	
15.37	15.30	15.44	8438	783950	Endrin	0.010000	843700	
15.65	15.58	15.72	7103	700260	4,4'-DDD	0.010000	710200	
15.83	15.76	15.90	8608	806724	Endosulfan II	0.010000	860700	
16.31	16.24	16.38	7871	765265	4,4'-DDT	0.010000	787100	
16.56	16.49	16.63	7450	662380	Endrin Aldehyde	0.010000	745000	
17.14	17.07	17.21	7968	735542	Endosulfan sulfate	0.010000	796700	
17.77	17.70	17.84	19165	342591	Methoxychlor	0.050000	383280	
18.27	18.20	18.34	9098	853565	Endrin Ketone	0.010000	909800	
19.13			540					
19.87			515					
20.87	20.80	20.94	8702	773453	Decachlorobiphenyl	0.010000	870100	

Data File: /chem/tracegc85.i/1090416.b/0051INDC2TH.d

Date : 16-APR-2009 16:08

Client ID: INDC2TH

Instrument: tracegc85.i

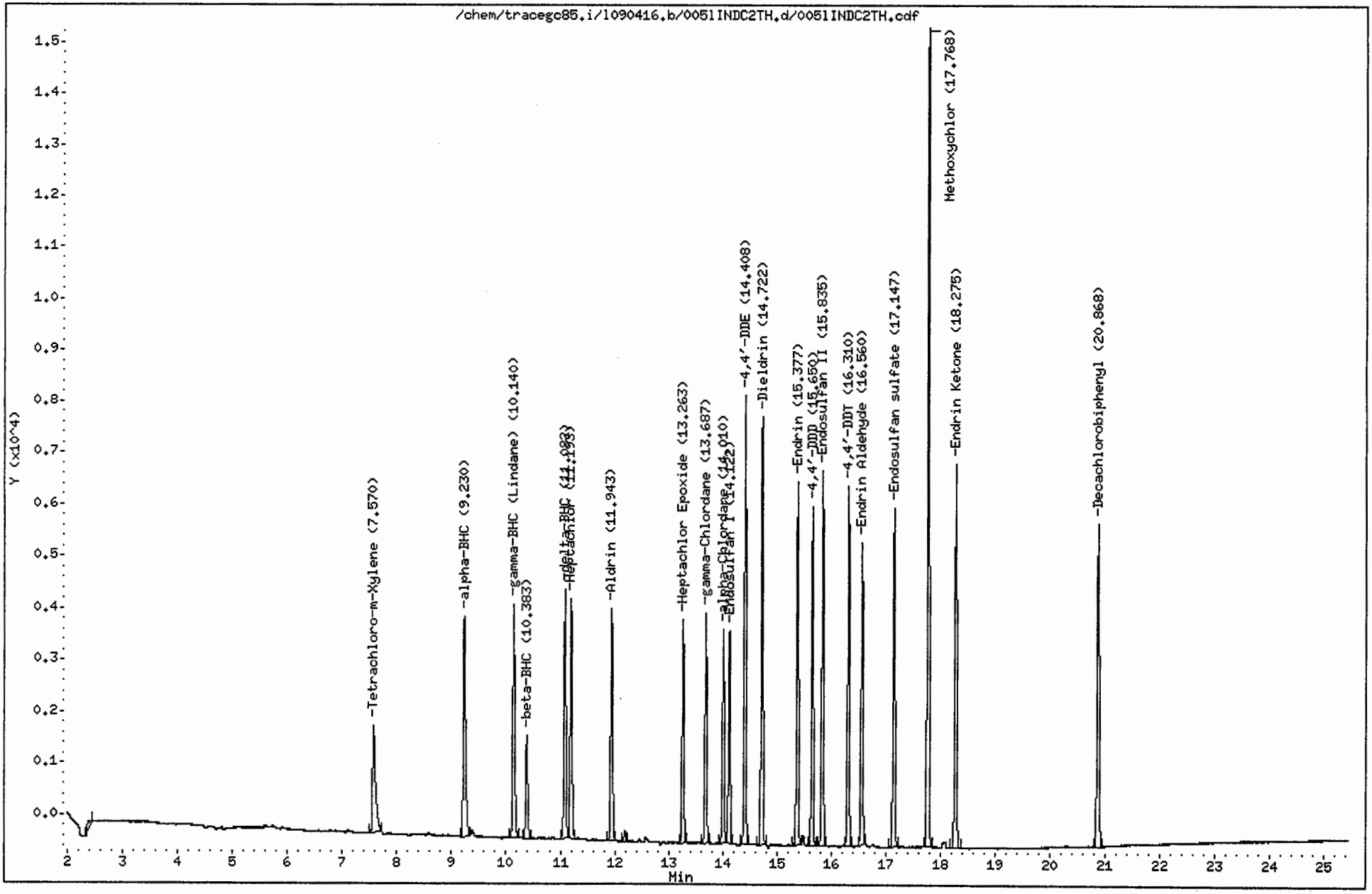
Sample Info: INDC2TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC2TH Client Smp Id : INDC2TH
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 16-APR-2009 16:08 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			3305					
2.44			691					
7.57	7.50	7.64	7624	764823	Tetrachloro-m-Xylene	0.010000	762300	
9.23	9.16	9.30	12062	1270810	alpha-BHC	0.010000	1206100	
10.14	10.07	10.21	11372	1186035	gamma-BHC (Lindane)	0.010000	1137100	
10.38	10.31	10.45	4839	481682	beta-BHC	0.010000	483800	
11.08	11.01	11.15	11080	1157705	delta-BHC	0.010000	1107900	
11.19	11.12	11.26	11279	1110066	Heptachlor	0.010000	1127900	
11.94	11.87	12.01	10568	1061288	Aldrin	0.010000	1056700	
12.19			439					
13.26	13.19	13.33	9663	957605	Heptachlor Epoxide	0.010000	966200	
13.69	13.62	13.76	9728	980298	gamma-Chlordane	0.010000	972800	
14.01	13.94	14.08	9234	923528	alpha-Chlordane	0.010000	923400	
14.12	14.05	14.19	9124	898480	Endosulfan I	0.010000	912400	
14.41	14.34	14.48	18471	933570	4,4'-DDE	0.020000	923550	
14.72	14.65	14.79	18417	924768	Dieldrin	0.020000	920800	
15.38	15.30	15.44	15767	783950	Endrin	0.020000	788300	
15.65	15.58	15.72	13730	700260	4,4'-DDD	0.020000	686450	
15.84	15.76	15.90	16303	806724	Endosulfan II	0.020000	815150	
16.31	16.24	16.38	14973	765265	4,4'-DDT	0.020000	748600	
16.56	16.49	16.63	13183	662380	Endrin Aldehyde	0.020000	659100	
17.15	17.07	17.21	14904	735542	Endosulfan sulfate	0.020000	745150	
17.77	17.70	17.84	35104	342591	Methoxychlor	0.100000	351040	
18.28	18.20	18.34	17251	853565	Endrin Ketone	0.020000	862500	
20.87	20.80	20.94	15852	773453	Decachlorobiphenyl	0.020000	792550	

Data File: /chem/tracegc85.i/1090416.b/0061INDC3TH.d

Page 1

Date : 16-APR-2009 16:37

Client ID: INDC3TH

Instrument: tracegc85.i

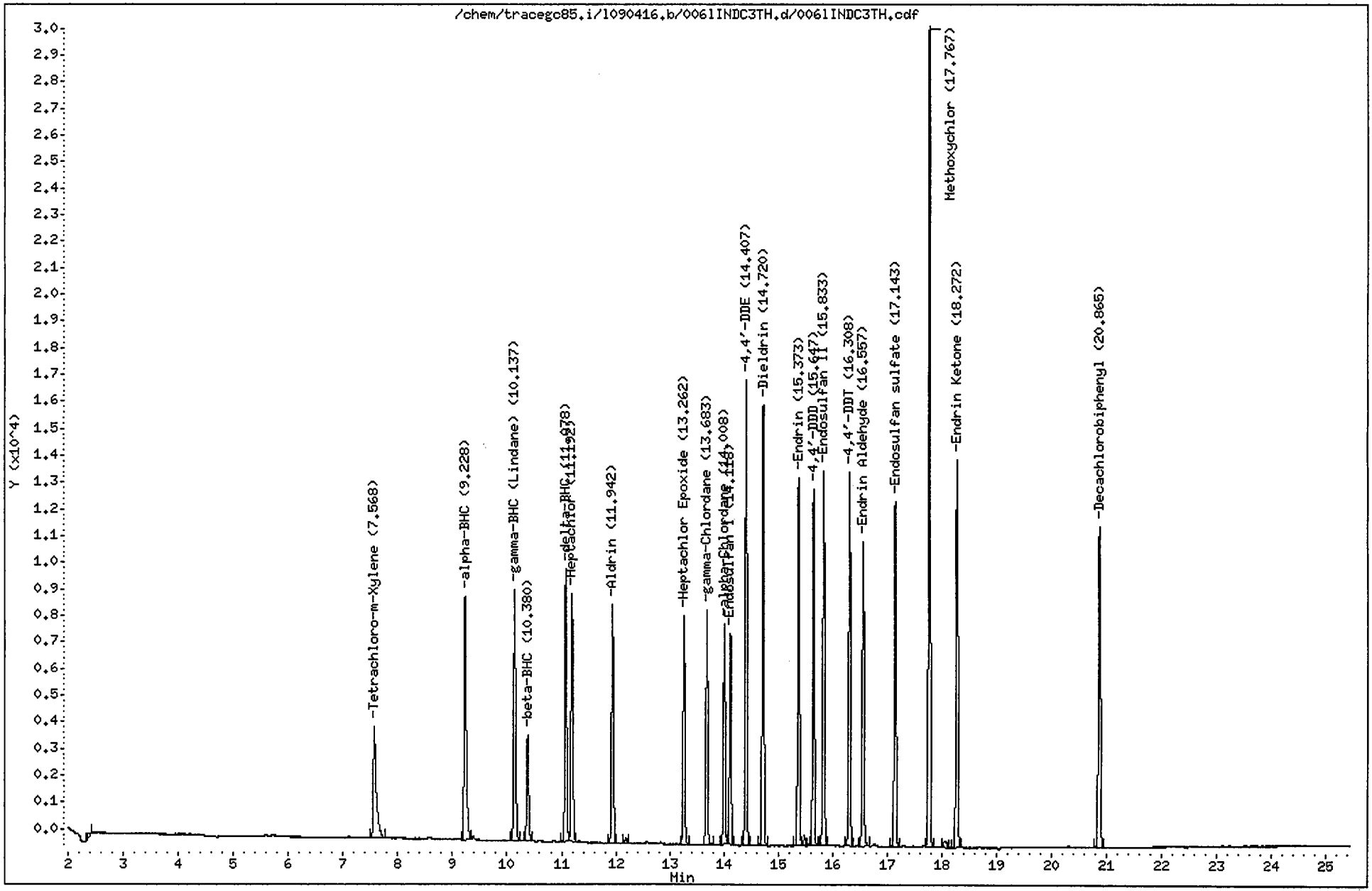
Sample Info: INDC3TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TH Client Smp Id : INDC3TH
Sample Type : INITIAL CAL: Level 3 Sublist : INDA
Inj Date : 16-APR-2009 16:37 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			8947					
1.38			20483					
2.40			622					
7.57	7.50	7.64	15431	764823	Tetrachloro-m-Xylene	0.020000	771550	
9.23	9.16	9.30	24953	1270810	alpha-BHC	0.020000	1247650	
10.14	10.07	10.21	23312	1186035	gamma-BHC (Lindane)	0.020000	1165550	
10.38	10.31	10.45	9531	481682	beta-BHC	0.020000	476550	
11.08	11.01	11.15	22653	1157705	delta-BHC	0.020000	1132650	
11.19	11.12	11.26	22333	1110066	Heptachlor	0.020000	1116650	
11.94	11.87	12.01	20929	1061288	Aldrin	0.020000	1046450	
12.19			396					
13.26	13.19	13.33	19018	957605	Heptachlor Epoxide	0.020000	950850	
13.68	13.62	13.76	19312	980298	gamma-Chlordane	0.020000	965550	
14.01	13.94	14.08	18018	923528	alpha-Chlordane	0.020000	900850	
14.12	14.05	14.19	17780	898480	Endosulfan I	0.020000	888950	
14.41	14.34	14.48	36695	933570	4,4'-DDE	0.040000	917375	
14.72	14.65	14.79	36578	924768	Dieldrin	0.040000	914425	
15.37	15.30	15.44	30967	783950	Endrin	0.040000	774175	
15.48			719					
15.65	15.58	15.72	27653	700260	4,4'-DDD	0.040000	691325	
15.83	15.76	15.90	31978	806724	Endosulfan II	0.040000	799425	
16.31	16.24	16.38	30172	765265	4,4'-DDT	0.040000	754300	
16.56	16.49	16.63	26230	662380	Endrin Aldehyde	0.040000	655725	
17.14	17.07	17.21	29123	735542	Endosulfan sulfate	0.040000	728050	
17.77	17.70	17.84	67426	342591	Methoxychlor	0.200000	337130	
18.05			1007					
18.27	18.20	18.34	33911	853565	Endrin Ketone	0.040000	847750	
20.86	20.80	20.94	30331	773453	Decachlorobiphenyl	0.040000	758275	

Data File: /chem/tracegc85.i/1090416.b/0071INDC4TH.d

Date : 16-APR-2009 17:06

Client ID: INDC4TH

Instrument: tracegc85.i

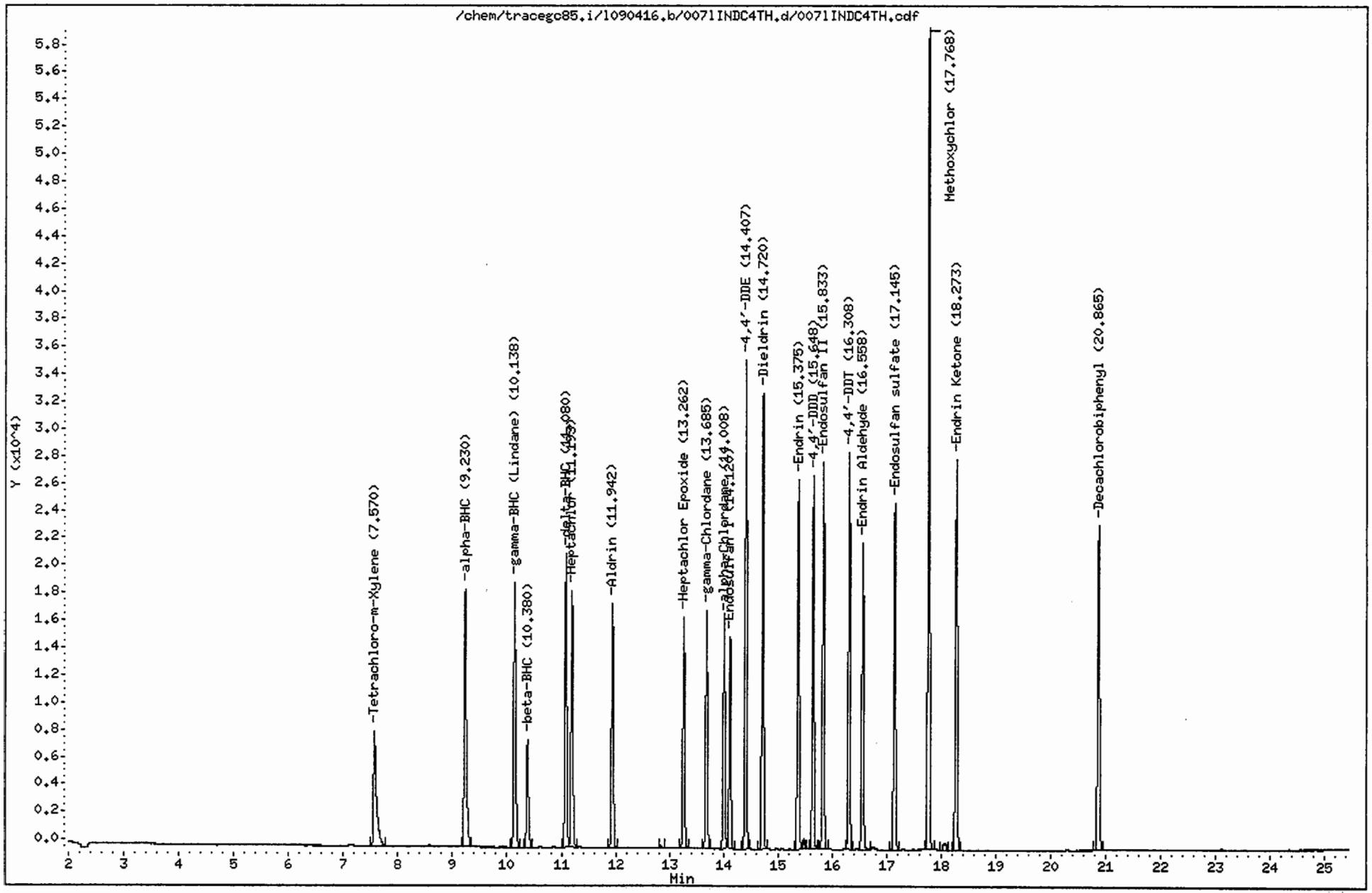
Sample Info: INDC4TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC4TH Client Smp Id : INDC4TH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 16-APR-2009 17:06 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			2906					
1.76			1021					
7.57	7.50	7.64	30923	764823	Tetrachloro-m-Xylene	0.040000	773050	
9.23	9.16	9.30	52282	1270810	alpha-BHC	0.040000	1307050	
10.14	10.07	10.21	48423	1186035	gamma-BHC (Lindane)	0.040000	1210575	
10.38	10.31	10.45	18936	481682	beta-BHC	0.040000	473375	
11.08	11.01	11.15	47579	1157705	delta-BHC	0.040000	1189475	
11.19	11.12	11.26	44789	1110066	Heptachlor	0.040000	1119700	
11.94	11.87	12.01	42039	1061288	Aldrin	0.040000	1050950	
12.84			417					
13.26	13.19	13.33	37546	957605	Heptachlor Epoxide	0.040000	938625	
13.68	13.62	13.76	38356	980298	gamma-Chlordane	0.040000	958875	
14.01	13.94	14.08	36223	923528	alpha-Chlordane	0.040000	905575	
14.12	14.05	14.19	34865	898480	Endosulfan I	0.040000	871600	
14.41	14.34	14.48	73905	933570	4,4'-DDE	0.080000	923800	
14.72	14.65	14.79	73213	924768	Dieldrin	0.080000	915150	
15.38	15.30	15.44	60915	783950	Endrin	0.080000	761437	
15.49			1355					
15.65	15.58	15.72	55963	700260	4,4'-DDD	0.080000	699537	
15.83	15.76	15.90	62791	806724	Endosulfan II	0.080000	784887	
16.31	16.24	16.38	60666	765265	4,4'-DDT	0.080000	758313	
16.56	16.49	16.63	50645	662380	Endrin Aldehyde	0.080000	633050	
17.14	17.07	17.21	56809	735542	Endosulfan sulfate	0.080000	710100	
17.77	17.70	17.84	130300	342591	Methoxychlor	0.400000	325750	
18.05			1927					
18.27	18.20	18.34	66616	853565	Endrin Ketone	0.080000	832687	
20.86	20.80	20.94	58470	773453	Decachlorobiphenyl	0.080000	730863	

Data File: /chem/tracegc85.i/1090416.b/0081INDC5TH.d

Page 1

Date : 16-APR-2009 17:35

Client ID: INDC5TH

Instrument: tracegc85.i

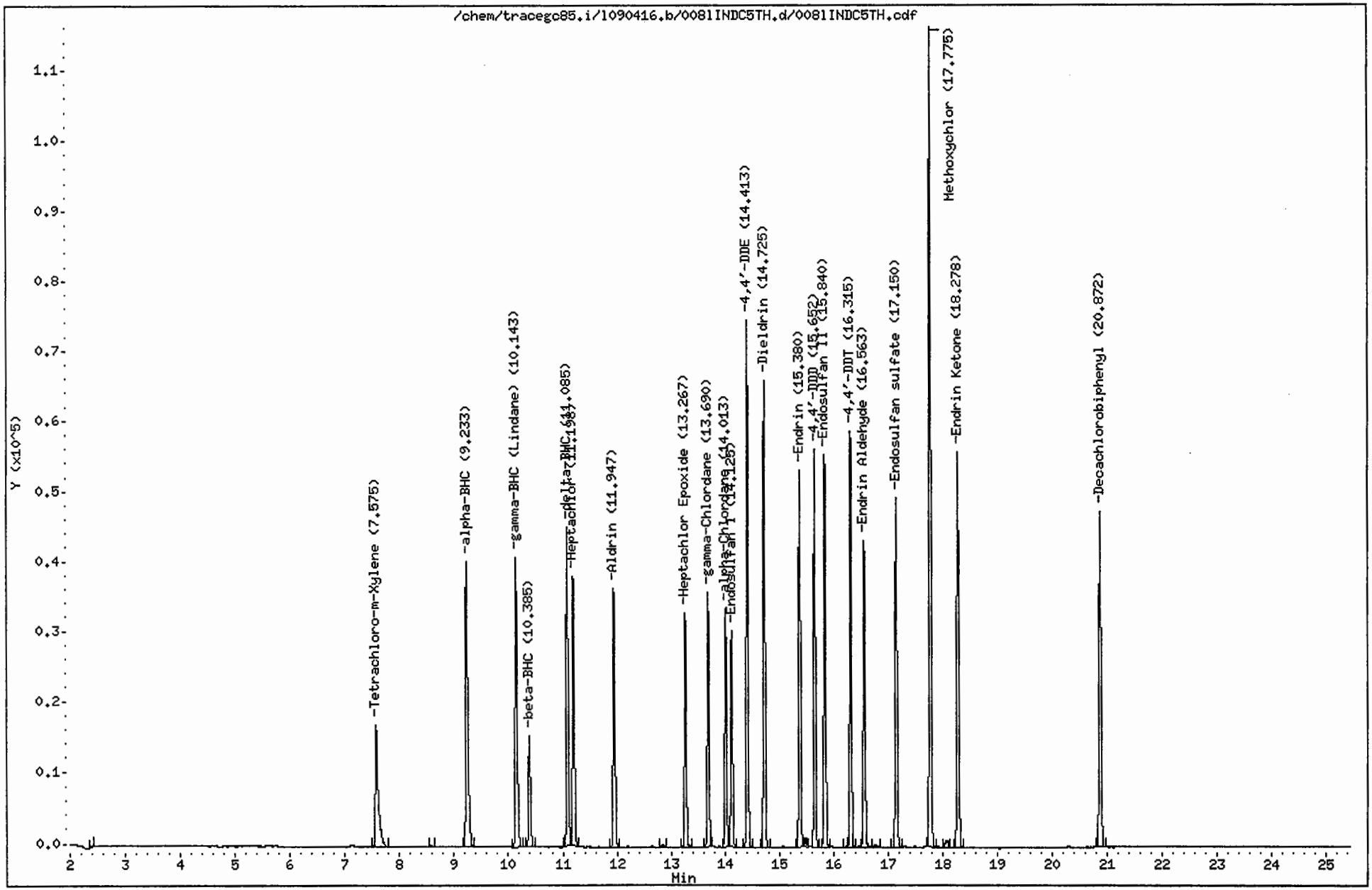
Sample Info: INDC5TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC5TH Client Smp Id : INDC5TH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 16-APR-2009 17:35 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			8031					
2.41			460					
7.58	7.50	7.64	61441	764823	Tetrachloro-m-Xylene	0.080000	768013	
8.58			597					
9.23	9.16	9.30	109989	1270810	alpha-BHC	0.080000	1374850	
10.14	10.07	10.21	100940	1186035	gamma-BHC (Lindane)	0.080000	1261750	
10.38	10.31	10.45	37688	481682	beta-BHC	0.080000	471087	
11.08	11.01	11.15	99960	1157705	delta-BHC	0.080000	1249500	
11.20	11.12	11.26	90204	1110066	Heptachlor	0.080000	1127537	
11.95	11.87	12.01	85003	1061288	Aldrin	0.080000	1062537	
12.85			812					
13.27	13.19	13.33	74124	957605	Heptachlor Epoxide	0.080000	926550	
13.69	13.62	13.76	77157	980298	gamma-Chlordane	0.080000	964463	
14.01	13.94	14.08	72689	923528	alpha-Chlordane	0.080000	908613	
14.12	14.05	14.19	68117	898480	Endosulfan I	0.080000	851450	
14.41	14.34	14.48	150757	933570	4,4'-DDE	0.160000	942225	
14.72	14.65	14.79	146378	924768	Dieldrin	0.160000	914863	
15.38	15.30	15.44	120343	783950	Endrin	0.160000	752137	
15.49			2663					
15.65	15.58	15.72	114207	700260	4,4'-DDD	0.160000	713787	
15.84	15.76	15.90	123754	806724	Endosulfan II	0.160000	773456	
16.24			390					
16.32	16.24	16.38	124482	765265	4,4'-DDT	0.160000	778013	
16.56	16.49	16.63	99044	662380	Endrin Aldehyde	0.160000	619025	
16.76			1200					
17.15	17.07	17.21	111634	735542	Endosulfan sulfate	0.160000	697713	
17.78	17.70	17.84	252605	342591	Methoxychlor	0.800000	315756	
18.05			3659					
18.28	18.20	18.34	130414	853565	Endrin Ketone	0.160000	815087	
20.87	20.80	20.94	114476	773453	Decachlorobiphenyl	0.160000	715475	

Data File: /chem/tracegc85.i/1090416.b/0091TOXAPH3TH.d

Page 1

Date : 16-APR-2009 18:04

Client ID: TOXAPH3TH

Instrument: tracegc85.i

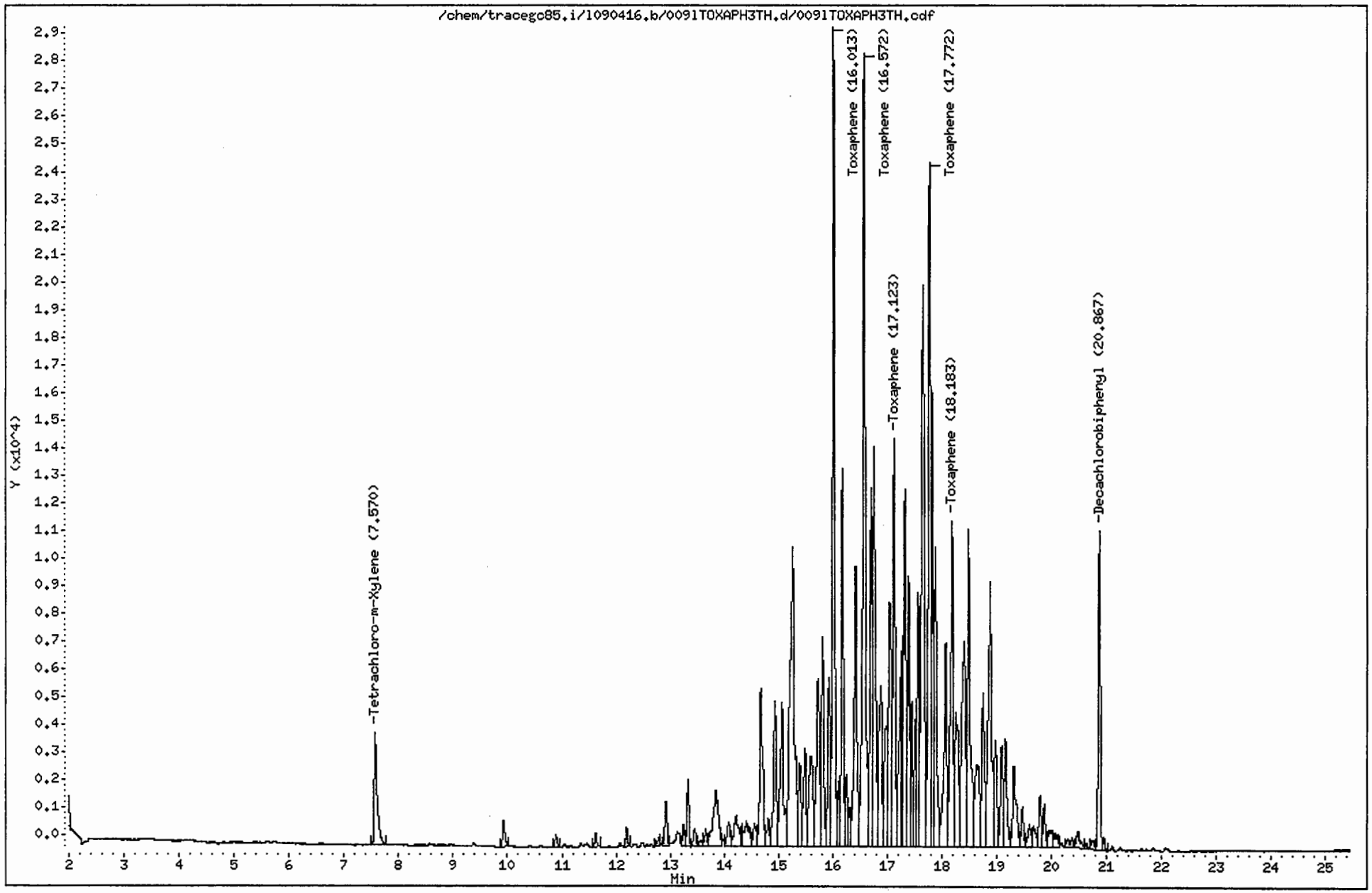
Sample Info: TOXAPH3TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : TOXAPH3TH Client Smp Id : TOXAPH3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TOXAPH
Inj Date : 16-APR-2009 18:04 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

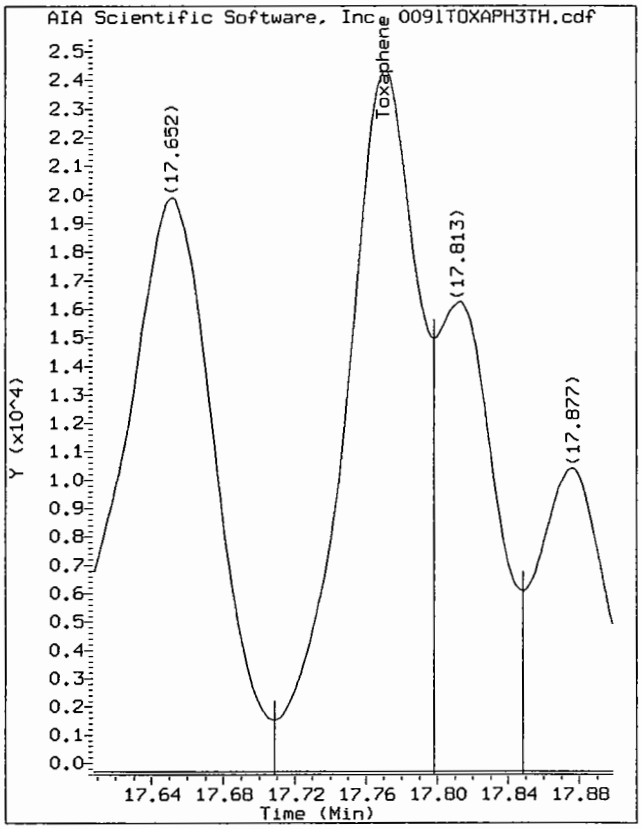
RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30		7954					
1.75		2181					
7.57	7.50 7.64	14973	764823	Tetrachloro-m-Xylene	0.020000	771550	
9.93		2827					
10.89		1206					
11.62		1169					
12.19		1453					
12.74		947					
12.92		4783					
13.25		2025					
13.33		5639					
13.46		1919					
13.57		810					
13.66		1629					
13.85		14231					
14.09		3296					
14.22		6357					
14.41		5698					
14.56		3333					
14.67		21608					
14.82		3545					
14.93		19239					
15.06		22305					
15.26		61887					
15.39		10161					
15.49		12130					
15.60		17880					
15.72		25335					
15.81		23736					
15.93		19801					
16.01	15.94 16.08	77694	38846	Toxaphene Peak 1	2.000000	38847	
16.10		5852					
16.17		34764					
16.25		8480					
16.32		3577					
16.42		36516					
16.57	16.50 16.64	95017	47508	Toxaphene Peak 2	2.000000	47508	
16.70		33391					
16.75		46541					
16.88		24992					
16.98		18440					
17.04		34338					

CompuChem

Lab Smp Id : TOXAPH3TH Client Smp Id : TOXAPH3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TOXAPH
Inj Date : 16-APR-2009 18:04 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
17.12	17.05 17.19	40247	20123	Toxaphene Peak 3	2.000000	20123	
17.25		20858					
17.27		15539					
17.32		35252					
17.39		25920					
17.44		13429					
17.51		11305					
17.56		24254					
17.65		76158					
17.77	17.70 17.84	73371	36686	Toxaphene Peak 4	2.000000	36685	M
17.81		39142					
17.88		34281					
18.07		26376					
18.18	18.11 18.25	40106	20052	Toxaphene Peak 5	2.000000	20053	
18.25		22391					
18.40		36645					
18.48		39828					
18.64		17751					
18.75		20039					
18.88		41225					
18.98		12585					
19.09		12383					
19.16		13419					
19.31		13356					
19.47		4423					
19.60		3460					
19.68		3358					
19.79		6235					
19.87		4202					
19.96		3545					
20.06		2571					
20.30		2182					
20.49		2912					
20.63		638					
20.76		1451					
20.87	20.80 20.94	29184	773453	Decachlorobiphenyl	0.040000	758275	
20.96		1122					

Manually Integrated Peaks



Start: 17.71 Stop: 17.80

Data File: /chem/tracegc85.i/1090416.b/0101CHLOR03TH.d

Page 1

Date : 16-APR-2009 18:33

Client ID: CHLOR03TH

Instrument: tracegc85.i

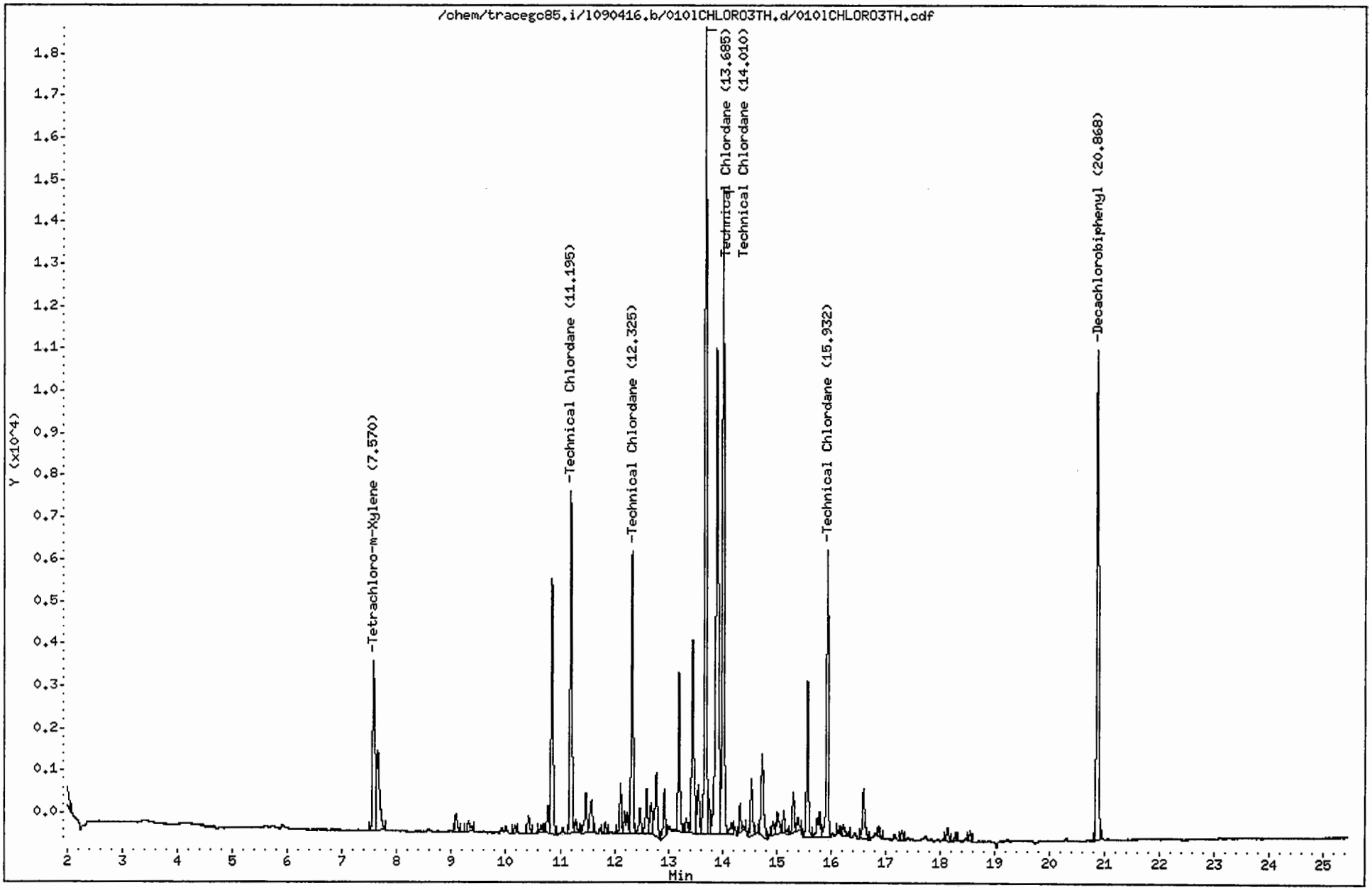
Sample Info: CHLOR03TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : CHLORO3TH Client Smp Id : CHLORO3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TechChlor
Inj Date : 16-APR-2009 18:33 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			3434					
1.63			4122					
1.76			6377					
7.57	7.50	7.64	12214	764823	Tetrachloro-m-Xylene	0.020000	771550	
7.65			7045					
9.09			1202					
9.31			1022					
10.17			456					
10.41			1093					
10.65			436					
10.77			1525					
10.85			14917					
11.20	11.13	11.27	19687	49218	TechnicalChlordane Peak 1	0.400000	49217	
11.29			681					
11.47			2682					
11.58			2530					
11.83			635					
12.11			2905					
12.19			2291					
12.32	12.25	12.39	15461	38652	TechnicalChlordane Peak 2	0.400000	38653	
12.48			1734					
12.60			2923					
12.68			2247					
12.78			4961					
12.93			2660					
13.20			8749					
13.34			970					
13.45			12939					
13.55			3347					
13.68	13.62	13.76	45045	112610	TechnicalChlordane Peak 3	0.400000	112610	
13.76			1830					
13.89			39607					
14.01	13.94	14.08	36344	90858	TechnicalChlordane Peak 4	0.400000	90857	
14.13			929					
14.32			1616					
14.54			3543					
14.73			6172					
14.93			894					
15.02			1643					
15.13			1381					
15.31			2280					
15.39			782					

CompuChem

Lab Smp Id : CHLORO3TH Client Smp Id : CHLORO3TH
Sample Type : INITIAL CAL: Level 3 Sublist : TechChlor
Inj Date : 16-APR-2009 18:33 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.57		8622					
15.75		2404					
15.93	15.86 16.00	16075	40188	TechnicalChlordane Peak 5	0.400000	40187	
16.17		401					
16.23		842					
16.60		3714					
16.89		591					
17.30		562					
18.14		901					
18.29		495					
18.56		525					
20.87	20.80 20.94	29122	773453	Decachlorobiphenyl	0.040000	758275	

Data File: /chem/tracegc85.i/1090416.b/0111AR16601TH.d

Page 1

Date : 16-APR-2009 19:02

Client ID: AR16601TH

Instrument: tracegc85.i

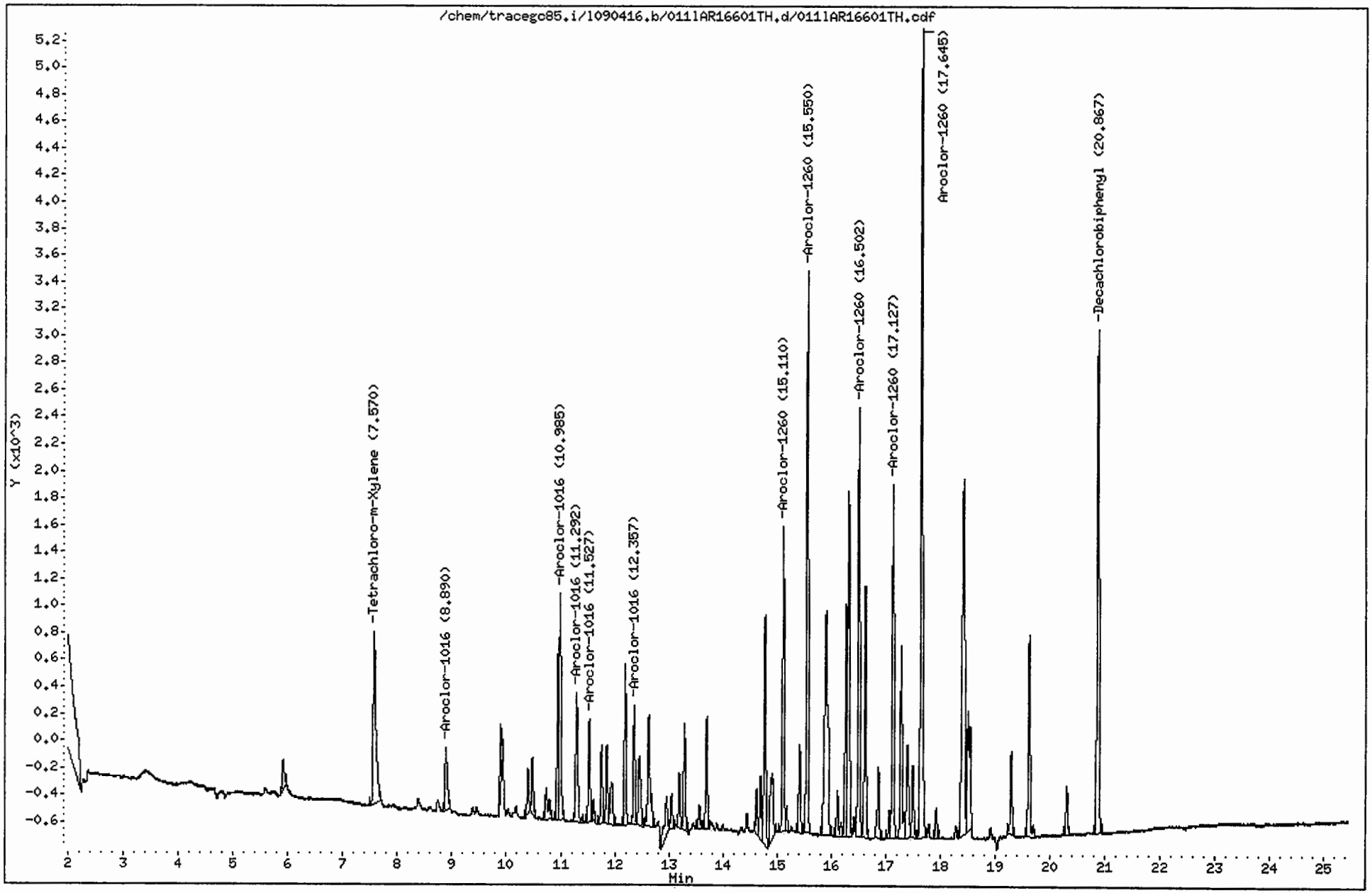
Sample Info: AR16601TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16601TH Client Smp Id : AR16601TH
Sample Type : INITIAL CAL: Level 1 Sublist : AR1660
Inj Date : 16-APR-2009 19:02 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			29053					
1.38			78371					
1.62			33277					
1.76			45786					
5.91			580					
7.57	7.50	7.64	4376	764823	Tetrachloro-m-Xylene	0.005000	749200	
8.89	8.82	8.96	1345	12770	Aroclor-1016 Peak 1	0.100000	13450	
9.90			866					
10.40			744					
10.48			961					
10.73			818					
10.95			2480					
10.98	10.92	11.06	4058	35829	Aroclor-1016 Peak 2	0.100000	40570	
11.29	11.22	11.36	2604	23223	Aroclor-1016 Peak 3	0.100000	26030	
11.53	11.46	11.60	1671	15438	Aroclor-1016 Peak 4	0.100000	16700	M 2
11.61			321					
11.76			1294					
11.85			1375					
11.95			1064					
12.19			2596					
12.36	12.29	12.43	1936	16928	Aroclor-1016 Peak 5	0.100000	19350	
12.45			1594					
12.63			2553					
12.96			1128					
13.05			552					
13.20			873					
13.29			1902					
13.57			408					
13.70			1795					
14.62			765					
14.69			1118					
14.77			3983					
14.88			2055					
15.11	15.04	15.18	5046	43715	Aroclor-1260 Peak 1	0.100000	50460	M 7
15.18			374					
15.41			1484					
15.55	15.48	15.62	8924	80595	Aroclor-1260 Peak 2	0.100000	89240	M 2
15.89			6880					
16.11			940					
16.27			3872					
16.31			6512					
16.50	16.43	16.57	7012	61816	Aroclor-1260 Peak 3	0.100000	70120	

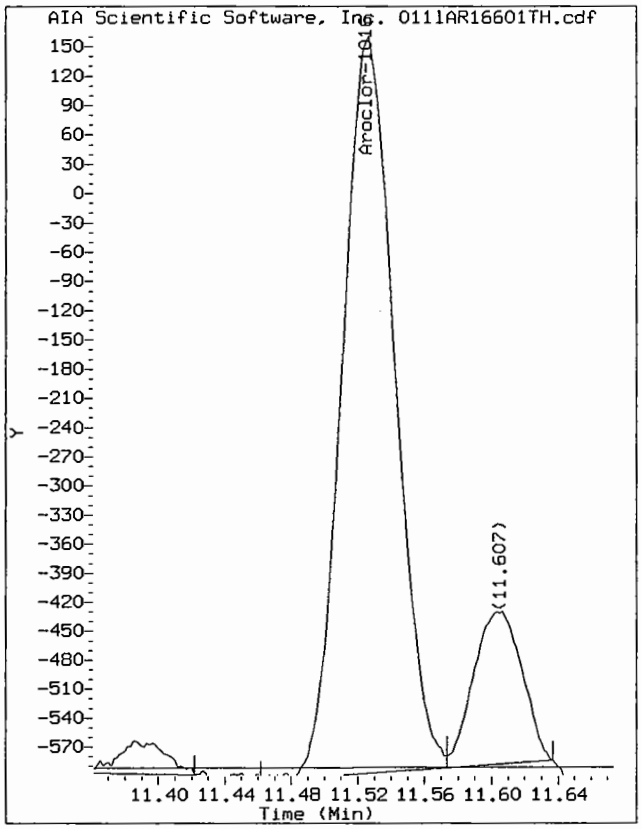
4/20/09

CompuChem

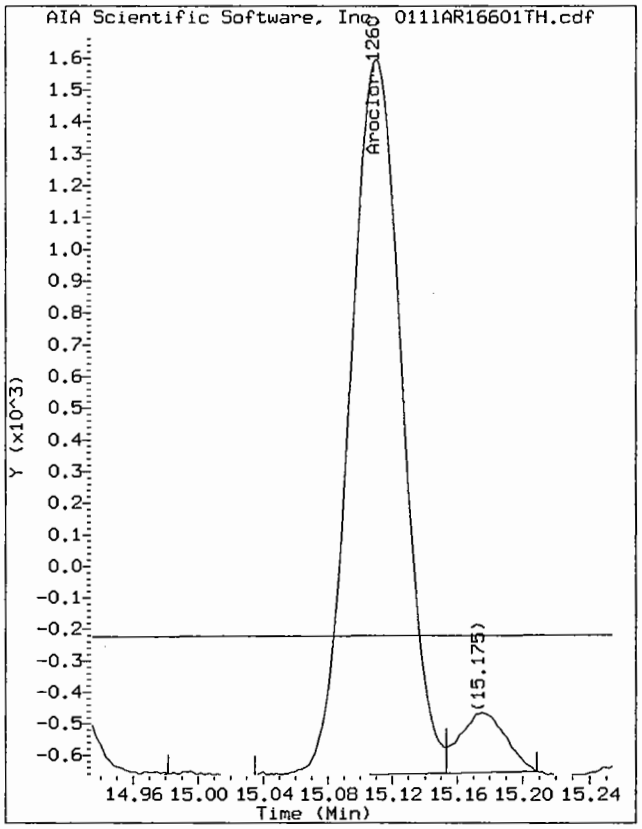
Lab Smp Id : AR16601TH Client Smp Id : AR16601TH
Sample Type : INITIAL CAL: Level 1 Sublist : AR1660
Inj Date : 16-APR-2009 19:02 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.62		4109					
16.86		1268					
17.07		404					
17.13	17.06 17.20	5914	51733	Aroclor-1260 Peak 4	0.100000	59130	
17.28		3460					
17.39		2002					
17.49		1290					
17.64	17.58 17.72	13867	127326	Aroclor-1260 Peak 5	0.100000	138660	
17.92		523					
18.42		9124					
18.50		3402					
19.29		1368					
19.62		3616					
20.30		796					
20.87	20.80 20.94	9279	773453	Decachlorobiphenyl	0.010000	870100	

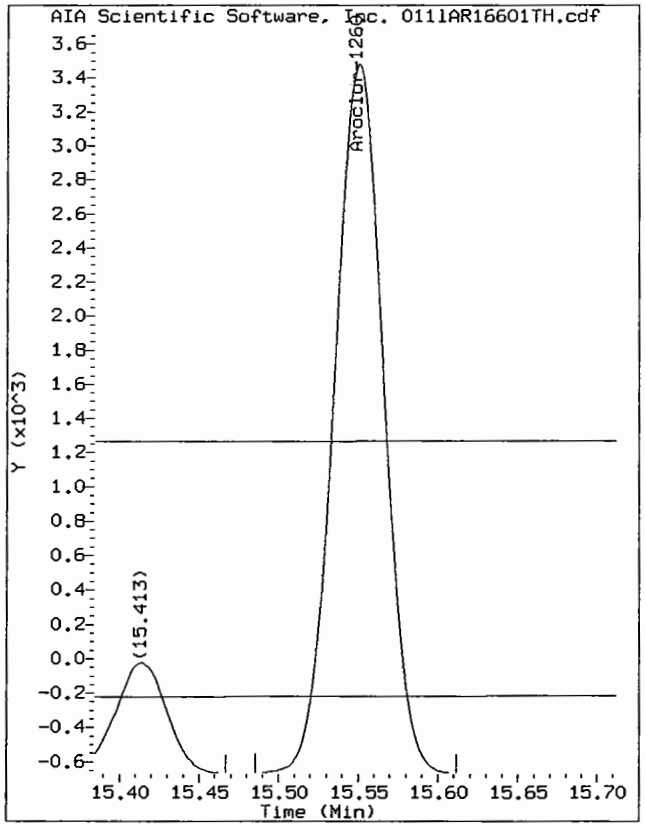
Manually Integrated Peaks



Start: 11.46 Stop: 11.57



Start: 15.04 Stop: 15.15



Start: 15.48 Stop: 15.61

Data File: /chem/tracegc85.i/1090416.b/0121AR16602TH.d

Date : 16-APR-2009 19:31

Client ID: AR16602TH

Instrument: tracegc85.i

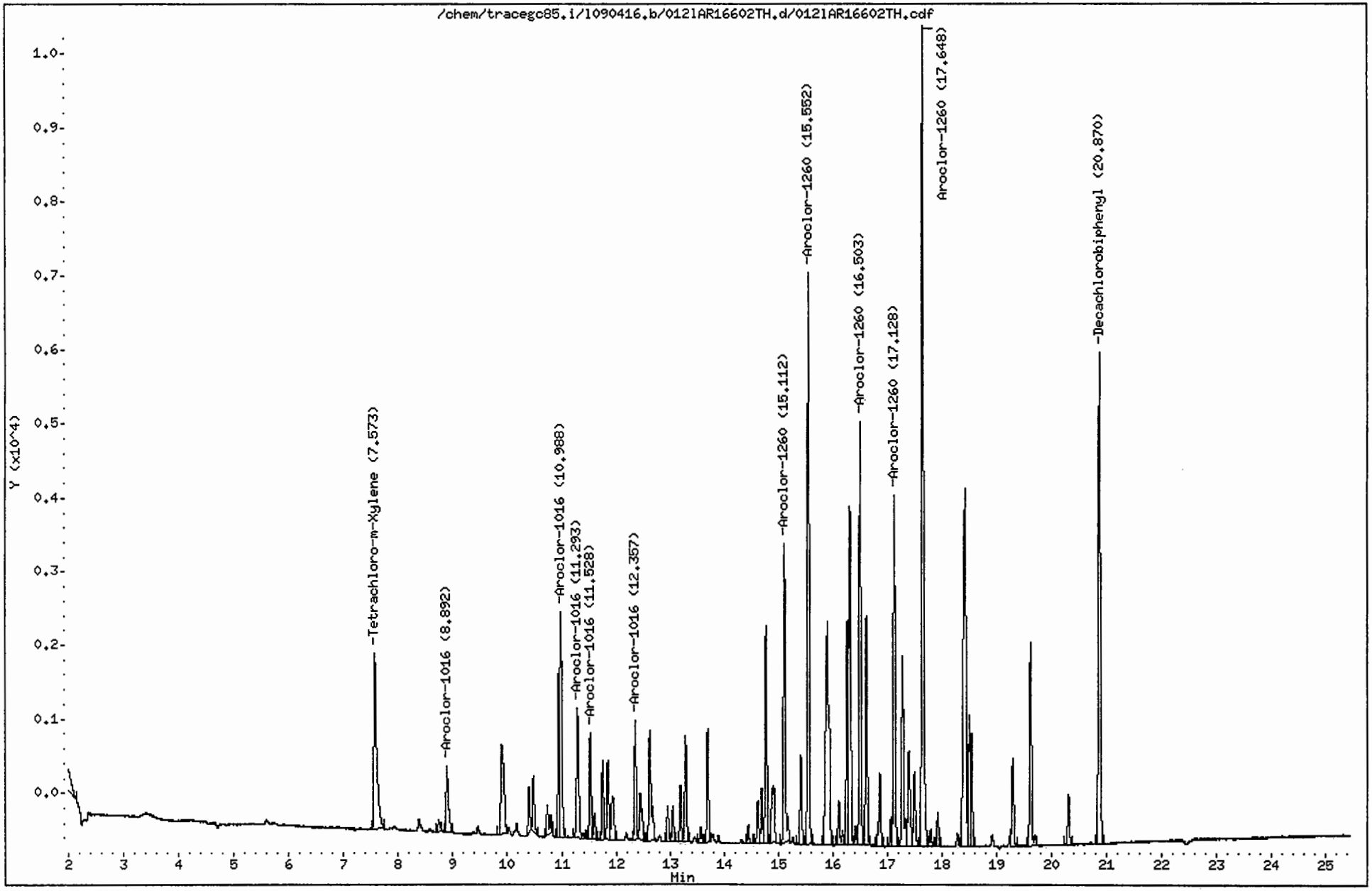
Sample Info: AR16602TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16602TH Client Smp Id : AR16602TH
Sample Type : INITIAL CAL: Level 2 Sublist : AR1660
Inj Date : 16-APR-2009 19:31 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			17089					
1.64			14965					
1.77			20699					
7.57	7.50	7.64	8298	764823	Tetrachloro-m-Xylene	0.010000	762300	
8.74			443					
8.89	8.82	8.96	2635	12770	Aroclor-1016 Peak 1	0.200000	13175	
9.90			4829					
10.40			1337					
10.48			1761					
10.74			1289					
10.95			4460					
10.99	10.92	11.06	7364	35829	Aroclor-1016 Peak 2	0.200000	36820	
11.29	11.22	11.36	4912	23223	Aroclor-1016 Peak 3	0.200000	24560	
11.53	11.46	11.60	3230	15438	Aroclor-1016 Peak 4	0.200000	16150	
11.61			793					
11.76			2324					
11.85			2526					
11.94			1947					
12.36	12.29	12.43	3521	16928	Aroclor-1016 Peak 5	0.200000	17605	
12.45			2074					
12.63			4453					
12.96			1053					
13.05			1052					
13.20			1640					
13.29			3309					
13.57			453					
13.70			3252					
14.45			537					
14.62			1223					
14.70			1578					
14.77			6329					
14.88			2968					
15.11	15.04	15.18	9621	43715	Aroclor-1260 Peak 1	0.200000	48100	
15.42			2760					
15.55	15.48	15.62	16559	80595	Aroclor-1260 Peak 2	0.200000	82795	
15.90			12659					
16.11			1707					
16.27			6793					
16.32			11762					
16.42			494					
16.50	16.43	16.57	12660	61816	Aroclor-1260 Peak 3	0.200000	63300	
16.62			6696					

CompuChem

Lab Smp Id : AR16602TH Client Smp Id : AR16602TH
Sample Type : INITIAL CAL: Level 2 Sublist : AR1660
Inj Date : 16-APR-2009 19:31 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.86		2461					
17.07		780					
17.13	17.06 17.20	10712	51733	Aroclor-1260 Peak 4	0.200000	53560	
17.28		6429					
17.39		3812					
17.49		2481					
17.65	17.58 17.72	25512	127326	Aroclor-1260 Peak 5	0.200000	127555	
17.79		460					
17.92		974					
18.42		16983					
18.50		3828					
18.54		3245					
19.30		2662					
19.62		6502					
20.31		1500					
20.87	20.80 20.94	16710	773453	Decachlorobiphenyl	0.020000	792550	

Data File: /chem/tracegc85.i/1090416.b/0131AR16603TH.d

Date : 16-APR-2009 20:00

Client ID: AR16603TH

Instrument: tracegc85.i

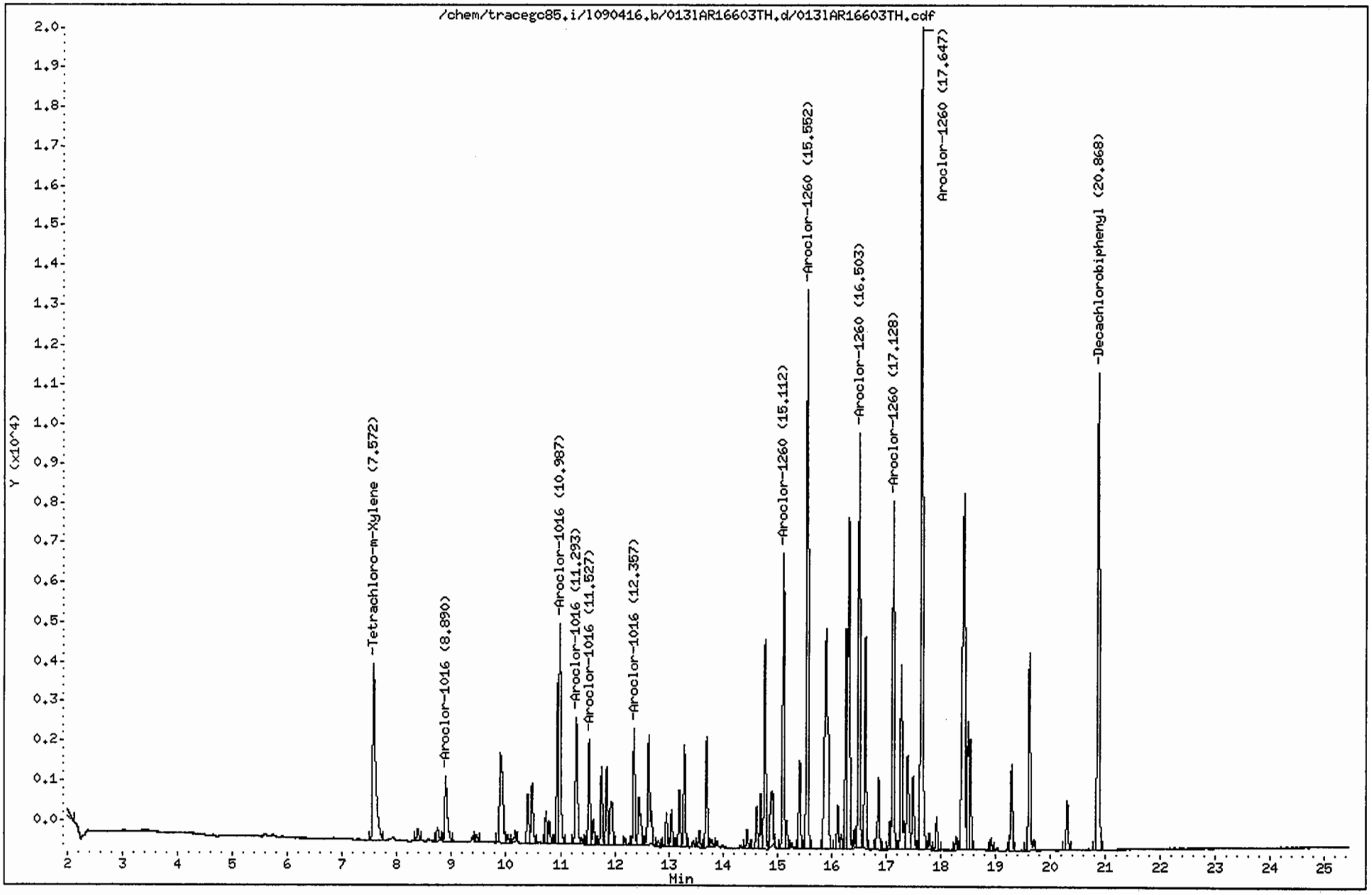
Sample Info: AR16603TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16603TH Client Smp Id : AR16603TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1660
Inj Date : 16-APR-2009 20:00 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			23657					
1.38			74555					
1.76			18022					
7.57	7.50	7.64	16098	764823	Tetrachloro-m-Xylene	0.020000	771550	
8.38			753					
8.74			906					
8.89	8.82	8.96	5030	12770	Aroclor-1016 Peak 1	0.400000	12573	
9.46			490					
9.90			9104					
10.03			482					
10.14			719					
10.40			3047					
10.48			3943					
10.74			1901					
10.80			1295					
10.95			8024					
10.99	10.92	11.06	13952	35829	Aroclor-1016 Peak 2	0.400000	34877	
11.29	11.22	11.36	9097	23223	Aroclor-1016 Peak 3	0.400000	22740	
11.53	11.46	11.60	5976	15438	Aroclor-1016 Peak 4	0.400000	14940	
11.61			1483					
11.76			4371					
11.85			4780					
11.94			3705					
12.19			471					
12.36	12.29	12.43	6580	16928	Aroclor-1016 Peak 5	0.400000	16450	
12.45			4075					
12.63			8195					
12.81			403					
12.96			1838					
13.05			1867					
13.20			3036					
13.29			6114					
13.57			907					
13.70			6039					
13.79			606					
14.45			973					
14.62			2351					
14.70			3002					
14.77			11713					
14.88			5246					
15.11	15.04	15.18	16319	43715	Aroclor-1260 Peak 1	0.400000	40795	
15.18			1421					

CompuChem

Lab Smp Id : AR16603TH Client Smp Id : AR16603TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1660
Inj Date : 16-APR-2009 20:00 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.42		5052					
15.55	15.48 15.62	30231	80595	Aroclor-1260 Peak 2	0.400000	75577	
15.90		23185					
16.11		2405					
16.18		673					
16.27		12511					
16.32		21357					
16.42		912					
16.50	16.43 16.57	23226	61816	Aroclor-1260 Peak 3	0.400000	58065	
16.62		11667					
16.86		4563					
17.07		1431					
17.13	17.06 17.20	19554	51733	Aroclor-1260 Peak 4	0.400000	48885	
17.28		11703					
17.39		7060					
17.49		4565					
17.65	17.58 17.72	47688	127326	Aroclor-1260 Peak 5	0.400000	119217	
17.79		882					
17.92		1831					
18.28		722					
18.42		31280					
18.50		7132					
18.54		5935					
18.92		628					
19.29		4950					
19.62		11988					
20.30		2760					
20.87	20.80 20.94	30345	773453	Decachlorobiphenyl	0.040000	758275	

Data File: /chem/tracegc85.i/1090416.b/0141AR16604TH.d

Date : 16-APR-2009 20:29

Client ID: AR16604TH

Instrument: tracegc85.i

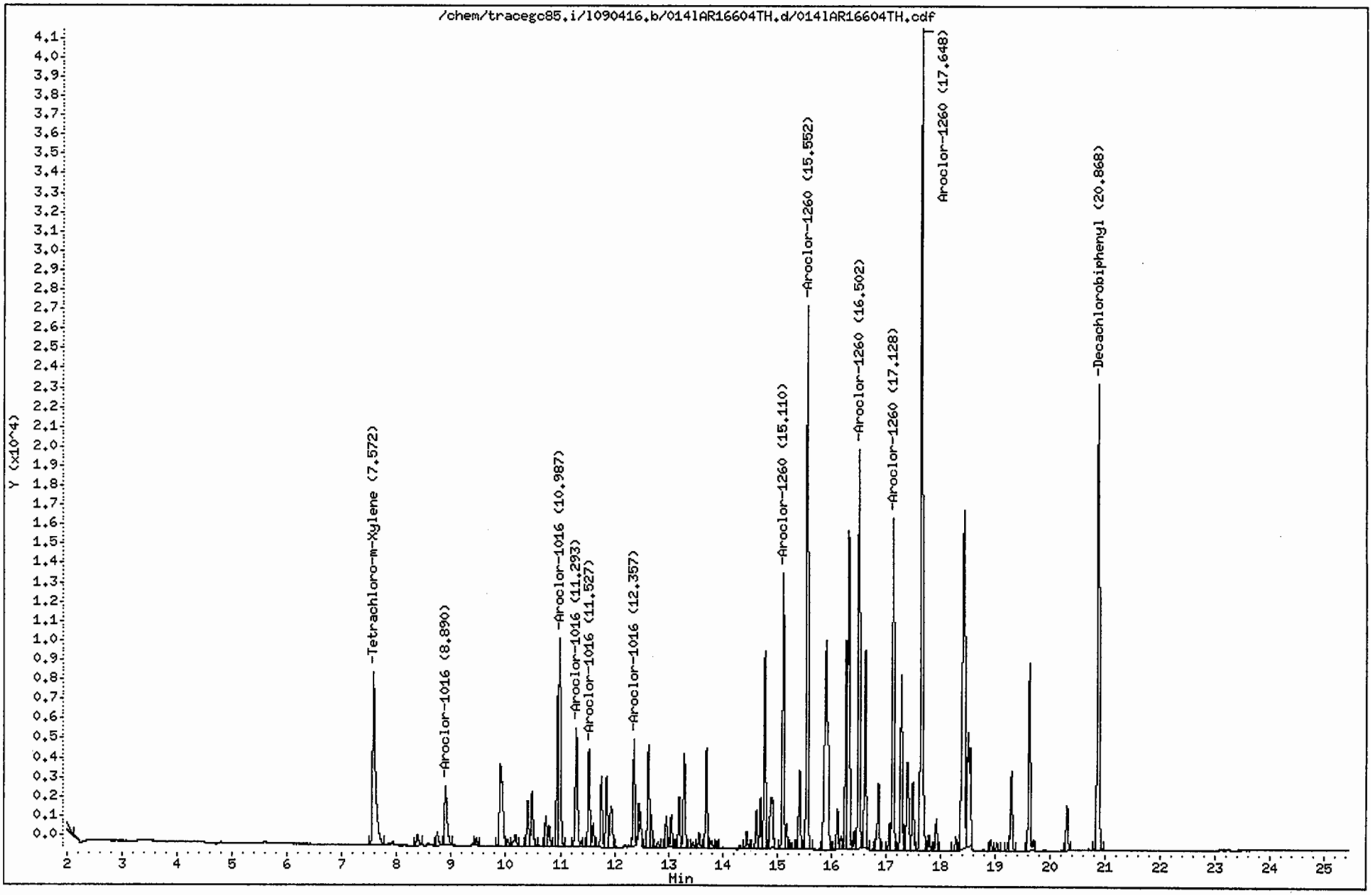
Sample Info: AR16604TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16604TH Client Smp Id : AR16604TH
Sample Type : INITIAL CAL: Level 4 Sublist : AR1660
Inj Date : 16-APR-2009 20:29 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.29			5652					
1.64			6899					
1.76			11433					
7.57	7.50	7.64	32153	764823	Tetrachloro-m-Xylene	0.040000	773050	
8.38			1618					
8.74			1886					
8.89	8.82	8.96	9781	12770	Aroclor-1016 Peak 1	0.800000	12225	
9.46			947					
9.90			17439					
10.03			946					
10.17			1986					
10.40			5905					
10.48			7707					
10.74			3659					
10.80			2571					
10.95			15565					
10.99	10.92	11.06	26563	35829	Aroclor-1016 Peak 2	0.800000	33203	
11.29	11.22	11.36	17360	23223	Aroclor-1016 Peak 3	0.800000	21700	
11.53	11.46	11.60	11617	15438	Aroclor-1016 Peak 4	0.800000	14520	
11.61			2882					
11.76			8367					
11.85			9113					
11.94			7193					
12.36	12.29	12.43	12304	16928	Aroclor-1016 Peak 5	0.800000	15379	
12.45			3098					
12.63			12714					
12.68			3557					
12.81			693					
12.96			3583					
13.05			3625					
13.20			5864					
13.29			11621					
13.46			576					
13.57			1690					
13.70			11452					
13.79			1140					
13.89			664					
14.45			1912					
14.62			4464					
14.70			5684					
14.77			22292					
14.88			10380					

CompuChem

Lab Smp Id : AR16604TH Client Smp Id : AR16604TH
Sample Type : INITIAL CAL: Level 4 Sublist : AR1660
Inj Date : 16-APR-2009 20:29 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.11	15.04 15.18	31322	43715	Aroclor-1260 Peak 1	0.800000	39151	
15.18		2776					
15.27		578					
15.42		9747					
15.55	15.48 15.62	59662	80595	Aroclor-1260 Peak 2	0.800000	74576	
15.90		44570					
16.11		4686					
16.18		1404					
16.27		24241					
16.32		41470					
16.42		1808					
16.50	16.43 16.57	45508	61816	Aroclor-1260 Peak 3	0.800000	56884	
16.62		22460					
16.86		8930					
17.07		2779					
17.13	17.06 17.20	37920	51733	Aroclor-1260 Peak 4	0.800000	47399	
17.28		19975					
17.34		2554					
17.39		13677					
17.49		8938					
17.65	17.58 17.72	95620	127326	Aroclor-1260 Peak 5	0.800000	119524	
17.79		1740					
17.92		3556					
18.28		1419					
18.42		60047					
18.50		23352					
18.92		1252					
19.03		892					
19.24		823					
19.29		9578					
19.62		22848					
20.30		5369					
20.87	20.80 20.94	58627	773453	Decachlorobiphenyl	0.080000	730863	

Data File: /chem/tracegc85.i/1090416.b/0151AR16605TH.d

Page 1

Date : 16-APR-2009 20:58

Client ID: AR16605TH

Instrument: tracegc85.i

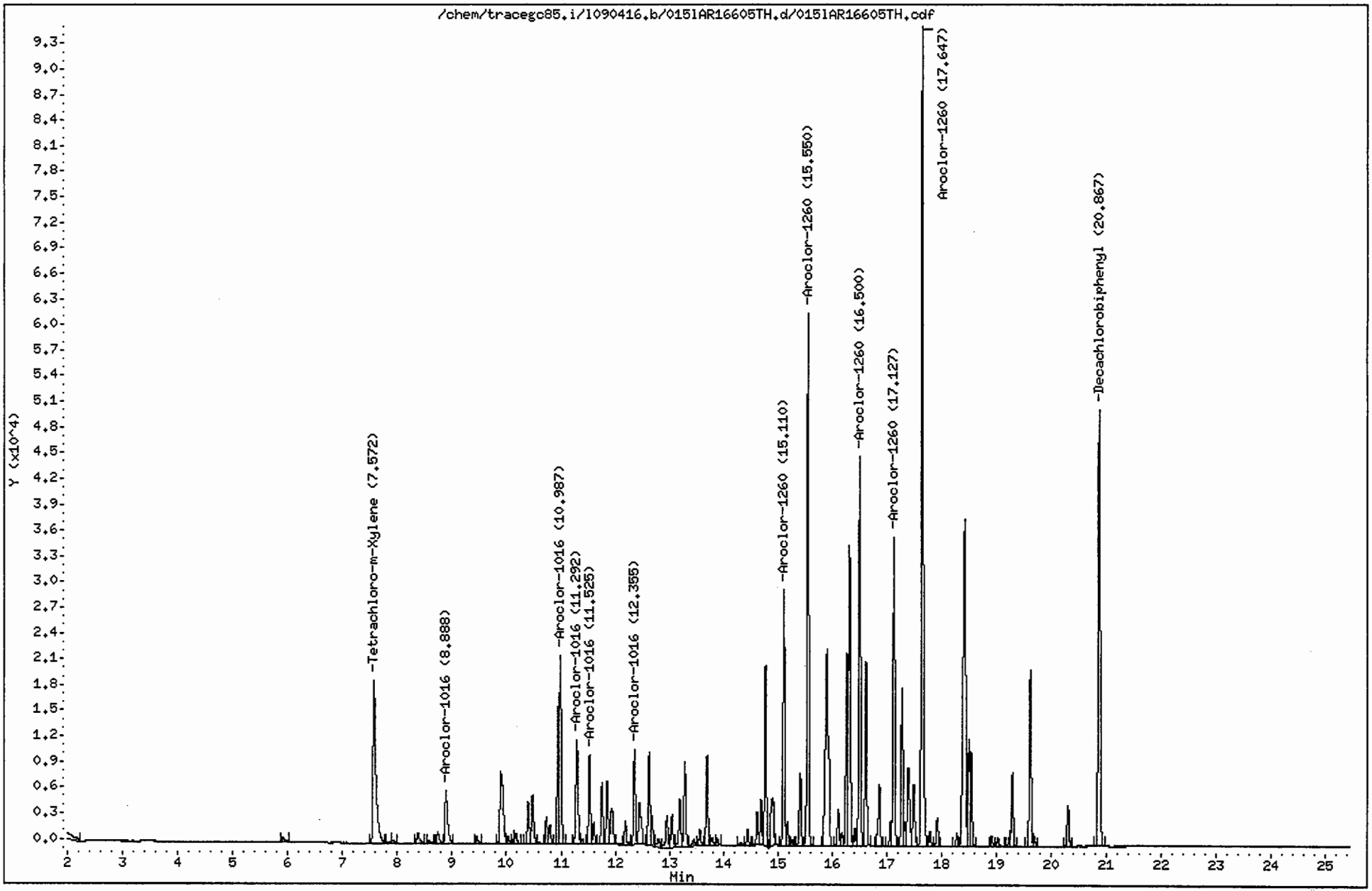
Sample Info: AR16605TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16605TH Client Smp Id : AR16605TH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1660
Inj Date : 16-APR-2009 20:58 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.28			21710					
1.38			57931					
1.62			27079					
1.76			39541					
5.91			1777					
7.57	7.50	7.64	68273	764823	Tetrachloro-m-Xylene	0.080000	768013	
7.85			429					
7.92			958					
8.38			3526					
8.57			768					
8.74			3926					
8.89	8.82	8.96	19884	12770	Aroclor-1016 Peak 1	1.600000	12427	
9.45			2109					
9.90			35068					
10.03			2004					
10.13			860					
10.17			3342					
10.40			11947					
10.48			15417					
10.73			7373					
10.79			5255					
10.95			31540					
10.99	10.92	11.06	53881	35829	Aroclor-1016 Peak 2	1.600000	33675	
11.29	11.22	11.36	33734	23223	Aroclor-1016 Peak 3	1.600000	21084	
11.39			1268					
11.52	11.46	11.60	23810	15438	Aroclor-1016 Peak 4	1.600000	14881	
11.60			5780					
11.76			16633					
11.85			18122					
11.94			14400					
12.19			6229					
12.36	12.29	12.43	25370	16928	Aroclor-1016 Peak 5	1.600000	15856	
12.45			16699					
12.63			25868					
12.68			8083					
12.80			3108					
12.96			10549					
13.05			9290					
13.19			13994					
13.29			24559					
13.45			2443					
13.57			4721					

CompuChem

Lab Smp Id : AR16605TH Client Smp Id : AR16605TH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1660
Inj Date : 16-APR-2009 20:58 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
13.70		23295					
13.79		2654					
13.89		1514					
14.31		710					
14.44		3908					
14.62		8607					
14.69		10994					
14.77		45420					
14.88		21408					
15.11	15.04 15.18	64113	43715	Aroclor-1260 Peak 1	1.600000	40071	
15.18		5872					
15.26		1359					
15.41		19813					
15.55	15.48 15.62	129259	80595	Aroclor-1260 Peak 2	1.600000	80787	
15.90		91078					
16.11		9600					
16.18		3035					
16.27		50597					
16.31		87360					
16.42		4081					
16.50	16.43 16.57	97139	61816	Aroclor-1260 Peak 3	1.600000	60712	
16.62		46880					
16.86		18303					
17.07		5783					
17.13	17.06 17.20	79506	51733	Aroclor-1260 Peak 4	1.600000	49691	
17.28		41186					
17.34		5326					
17.39		28179					
17.49		18410					
17.65	17.58 17.72	210679	127326	Aroclor-1260 Peak 5	1.600000	131674	
17.79		3756					
17.92		7365					
18.28		2991					
18.42		128867					
18.50		27932					
18.54		23271					
18.92		2594					
19.03		2054					
19.24		1630					
19.29		19675					
19.62		45560					
19.69		2432					

CompuChem

Lab Smp Id : AR16605TH Client Smp Id : AR16605TH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1660
Inj Date : 16-APR-2009 20:58 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
20.30			10882					
20.87	20.80	20.94	123758	773453	Decachlorobiphenyl	0.160000	715475	

Data File: /chem/tracegc85.i/1090416.b/0161AR12213TH.d

Date : 16-APR-2009 21:26

Client ID: AR12213TH

Instrument: tracegc85.i

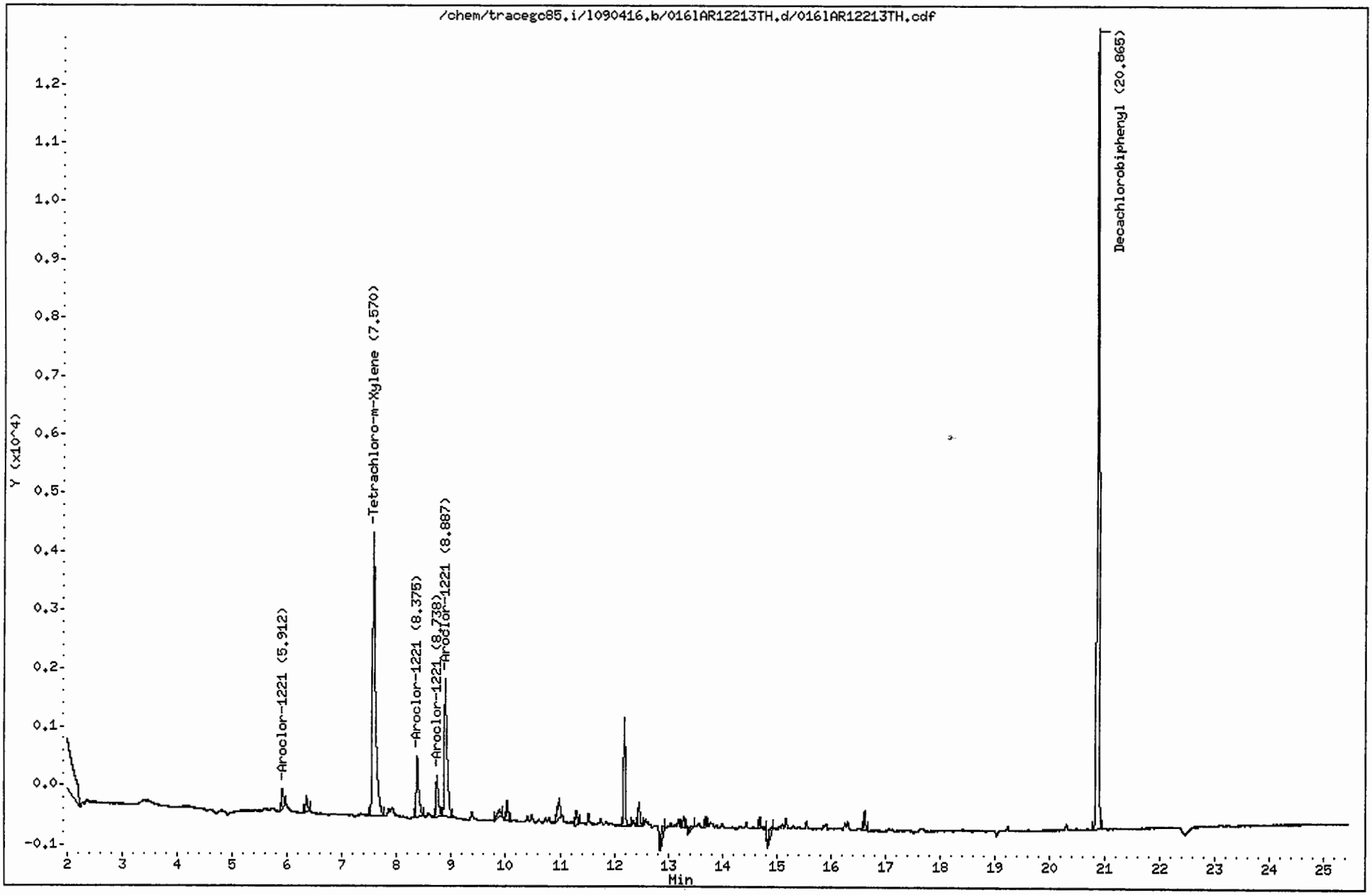
Sample Info: AR12213TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12213TH Client Smp Id : AR12213TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1221
Inj Date : 16-APR-2009 21:26 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.28			26094					
1.37			59777					
1.63			30087					
1.76			46585					
5.91	5.84	5.98	937	2340	Aroclor-1221 Peak 1	0.400000	2340.000	
6.35			665					
7.57	7.50	7.64	18090	764823	Tetrachloro-m-Xylene	0.020000	771550	
8.38	8.30	8.44	3163	7905	Aroclor-1221 Peak 2	0.400000	7905.000	
8.74	8.67	8.81	1971	4925	Aroclor-1221 Peak 3	0.400000	4925.000	
8.89	8.82	8.96	7964	19908	Aroclor-1221 Peak 4	0.400000	19907	
9.89			587					
10.03			867					
10.95			1142					
11.29			678					
12.19			4022					
12.46			974					
12.91			688					
13.29			502					
13.45			407					
13.70			391					
14.69			562					
14.91			728					
16.62			698					
20.86	20.80	20.94	34576	773453	Decachlorobiphenyl	0.040000	758275	

4/9/2

Data File: /chem/tracegc85.i/1090416.b/0171AR12323TH.d

Date : 16-APR-2009 21:55

Client ID: AR12323TH

Instrument: tracegc85.i

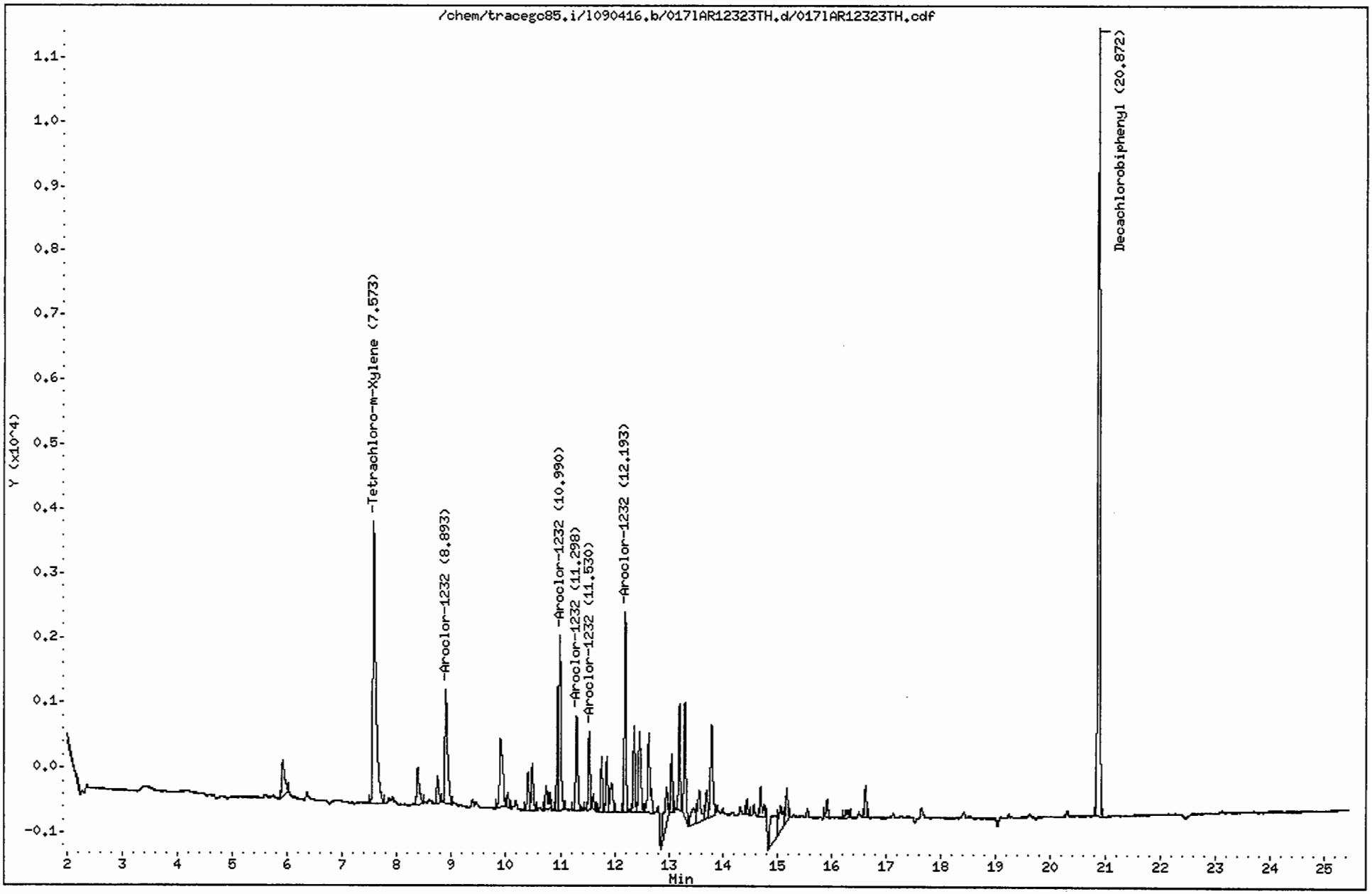
Sample Info: AR12323TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12323TH Client Smp Id : AR12323TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 16-APR-2009 21:55 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30		3207					
1.64		9661					
1.76		21085					
5.91		2188					
7.57	7.50 7.64	16132	764823	Tetrachloro-m-Xylene	0.020000	771550	
8.38		1805					
8.74		1152					
8.89	8.82 8.96	5870	14675	Aroclor-1232 Peak 1	0.400000	14675	
9.90		4347					
10.04		561					
10.40		1486					
10.48		1922					
10.74		1326					
10.95		3877					
10.99	10.92 11.06	6754	16882	Aroclor-1232 Peak 2	0.400000	16883	
11.30	11.23 11.37	3847	9615	Aroclor-1232 Peak 3	0.400000	9615.000	
11.53	11.46 11.60	2596	6490	Aroclor-1232 Peak 4	0.400000	6490.000	
11.61		465					
11.76		1890					
11.86		2018					
11.94		1524					
12.19	12.12 12.26	6842	17102	Aroclor-1232 Peak 5	0.400000	17103	
12.36		2946					
12.46		3630					
12.63		3769					
12.96		2773					
13.06		1914					
13.20		3519					
13.30		4279					
13.46		1419					
13.56		2137					
13.70		1237					
13.79		4453					
14.45		494					
14.70		1410					
14.92		3492					
15.06		2199					
15.18		1312					
15.92		656					
16.27		486					
16.63		1053					
20.87	20.80 20.94	30330	773453	Decachlorobiphenyl	0.040000	758275	

Data File: /chem/tracegc85.i/1090416.b/0181AR12423TH.d

Page 1

Date : 16-APR-2009 22:25

Client ID: AR12423TH

Instrument: tracegc85.i

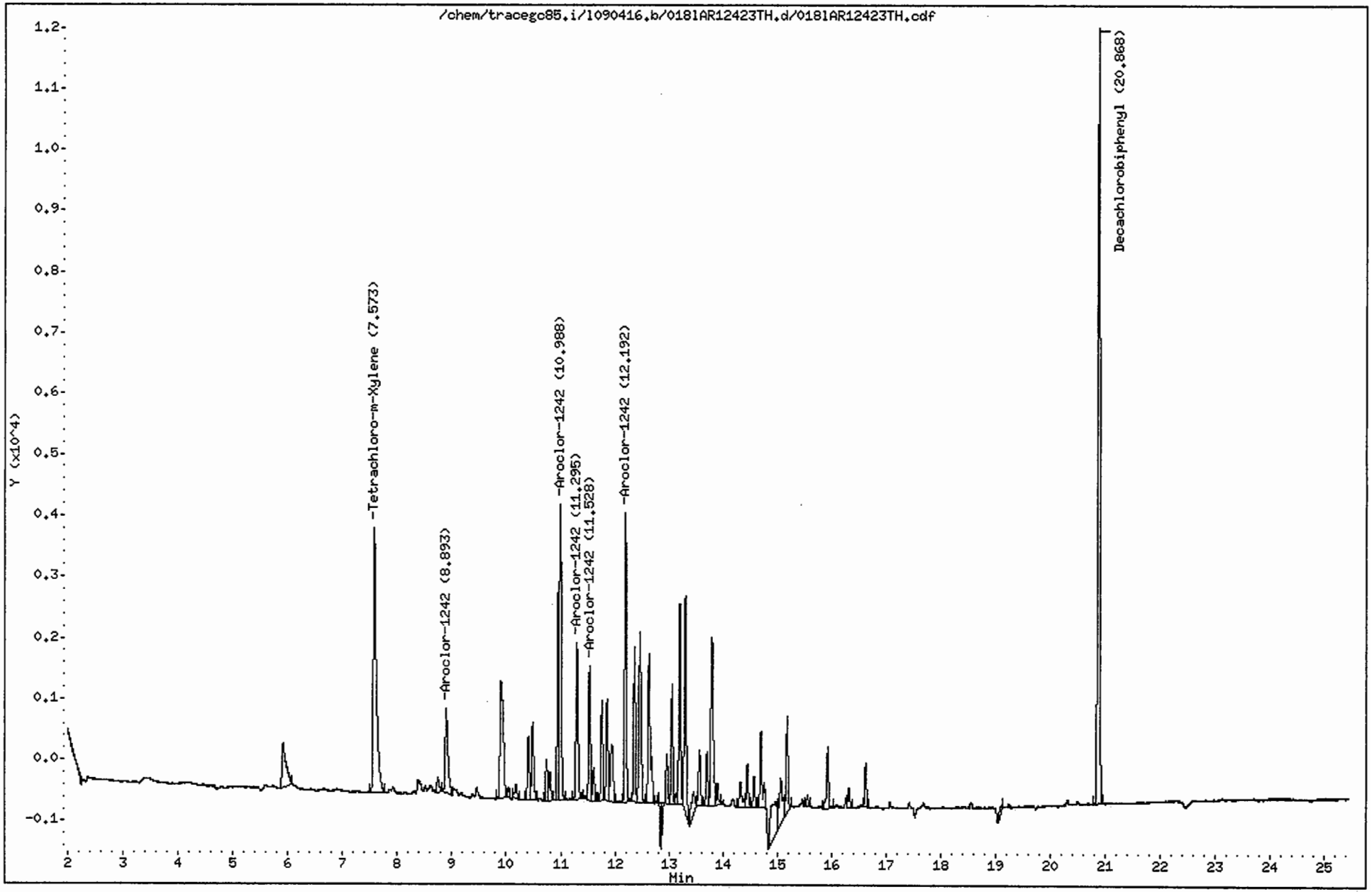
Sample Info: AR12423TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12423TH Client Smp Id : AR12423TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 16-APR-2009 22:25 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			3402					
1.64			10103					
1.76			22381					
5.91			3820					
7.57	7.50	7.64	16553	764823	Tetrachloro-m-Xylene	0.020000	771550	
8.74			680					
8.89	8.82	8.96	4819	12045	Aroclor-1242 Peak 1	0.400000	12045	
9.90			8335					
10.18			656					
10.40			2611					
10.48			3403					
10.74			1544					
10.80			1138					
10.95			6926					
10.99	10.92	11.06	11920	29800	Aroclor-1242 Peak 2	0.400000	29800	
11.30	11.22	11.36	6969	17422	Aroclor-1242 Peak 3	0.400000	17423	
11.53	11.46	11.60	4984	12458	Aroclor-1242 Peak 4	0.400000	12457	
11.61			1289					
11.76			3729					
11.85			4101					
11.95			3220					
12.19	12.12	12.26	10559	26395	Aroclor-1242 Peak 5	0.400000	26395	
12.36			5718					
12.46			7931					
12.63			7296					
12.81			645					
12.96			807					
13.05			4272					
13.13			335					
13.20			7377					
13.30			8779					
13.46			1602					
13.56			2394					
13.70			1956					
13.79			8759					
13.90			728					
14.32			1394					
14.45			1626					
14.57			1239					
14.70			3609					
14.92			4906					
15.06			3428					

CompuChem

Lab Smp Id : AR12423TH Client Smp Id : AR12423TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 16-APR-2009 22:25 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.18		3760					
15.55		399					
15.93		2521					
16.32		788					
16.62		1513					
19.10		432					
20.87	20.80 20.94	31502	773453	Decachlorobiphenyl	0.040000	758275	

Data File: /chem/tracegc85.i/1090416.b/0191AR12483TH.d

Date : 16-APR-2009 22:53

Client ID: AR12483TH

Instrument: tracegc85.i

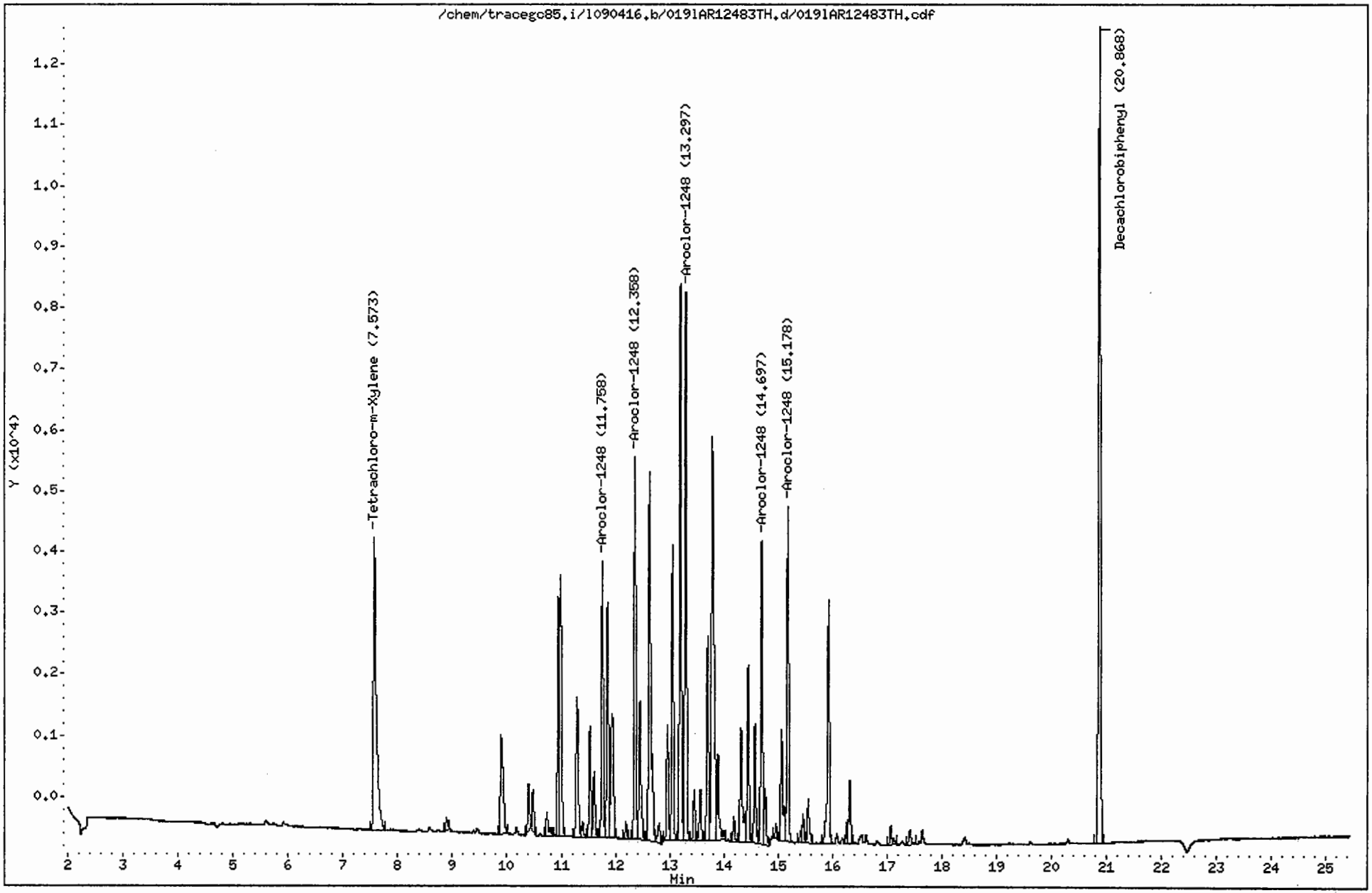
Sample Info: AR12483TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12483TH Client Smp Id : AR12483TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 16-APR-2009 22:53 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30		9755					
7.57	7.50 7.64	17550	764823	Tetrachloro-m-Xylene	0.020000	771550	
8.89		507					
9.90		5868					
10.40		1738					
10.48		1535					
10.74		1147					
10.95		8127					
10.99		10311					
11.29		6233					
11.39		561					
11.53		4148					
11.61		2481					
11.76	11.69 11.83	10360	25900	Aroclor-1248 Peak 1	0.400000	25900	
11.85		9581					
11.94		7093					
12.19		549					
12.36	12.29 12.43	14221	35552	Aroclor-1248 Peak 2	0.400000	35553	
12.45		5937					
12.63		17669					
12.81		976					
12.96		4510					
13.05		10657					
13.20		20260					
13.30	13.23 13.37	20900	52248	Aroclor-1248 Peak 3	0.400000	52247	
13.46		1803					
13.57		2021					
13.70		7566					
13.79		22322					
13.89		3747					
14.19		846					
14.32		5673					
14.45		6304					
14.57		4300					
14.70	14.63 14.77	11071	27678	Aroclor-1248 Peak 4	0.400000	27677	
14.76		2228					
14.96		531					
15.06		5322					
15.18	15.11 15.25	11964	29910	Aroclor-1248 Peak 5	0.400000	29910	
15.42		391					
15.46		1005					
15.55		1800					

CompuChem

Lab Smp Id : AR12483TH Client Smp Id : AR12483TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 16-APR-2009 22:53 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.93		10002					
16.27		637					
16.32		2477					
17.07		892					
17.42		605					
20.87	20.80 20.94	33273	773453	Decachlorobiphenyl	0.040000	758275	

Data File: /chem/tracegc85.i/1090416.b/0201AR12543TH.d

Date : 16-APR-2009 23:22

Client ID: AR12543TH

Instrument: tracegc85.i

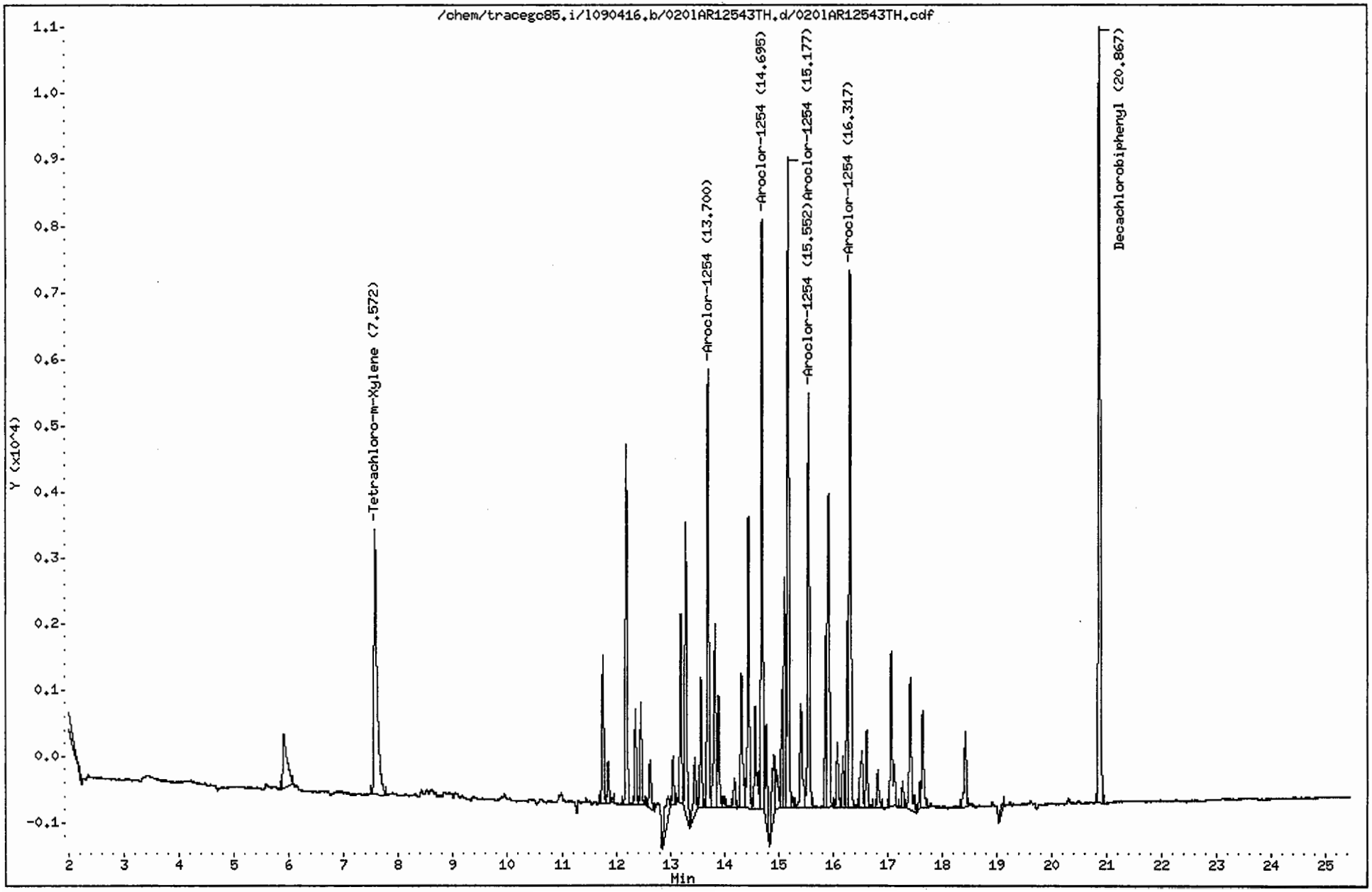
Sample Info: AR12543TH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12543TH Client Smp Id : AR12543TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 16-APR-2009 23:22 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.30			6068					
1.64			8302					
1.76			18042					
5.91			4355					
7.57	7.50	7.64	15452	764823	Tetrachloro-m-Xylene	0.020000	771550	
11.76			5045					
11.85			1488					
12.19			12293					
12.36			3103					
12.46			3355					
12.63			1947					
12.96			2501					
13.05			1555					
13.20			6157					
13.29			10820					
13.45			2607					
13.57			4449					
13.70	13.63	13.77	14984	37460	Aroclor-1254 Peak 1	0.400000	37460	
13.83			7292					
13.89			3839					
13.99			376					
14.19			1064					
14.32			5466					
14.45			10617					
14.57			4578					
14.70	14.63	14.77	19466	48665	Aroclor-1254 Peak 2	0.400000	48665	
14.77			3722					
14.90			3765					
14.96			1795					
15.06			3958					
15.11			8130					
15.18	15.11	15.25	21860	54650	Aroclor-1254 Peak 3	0.400000	54650	M ✓
15.27			453					
15.41			4825					
15.55	15.48	15.62	14405	36012	Aroclor-1254 Peak 4	0.400000	36013	
15.87			4960					
15.92			13893					
16.08			2213					
16.18			1654					
16.27			5740					
16.32	16.25	16.39	20355	50885	Aroclor-1254 Peak 5	0.400000	50885	
16.53			2833					

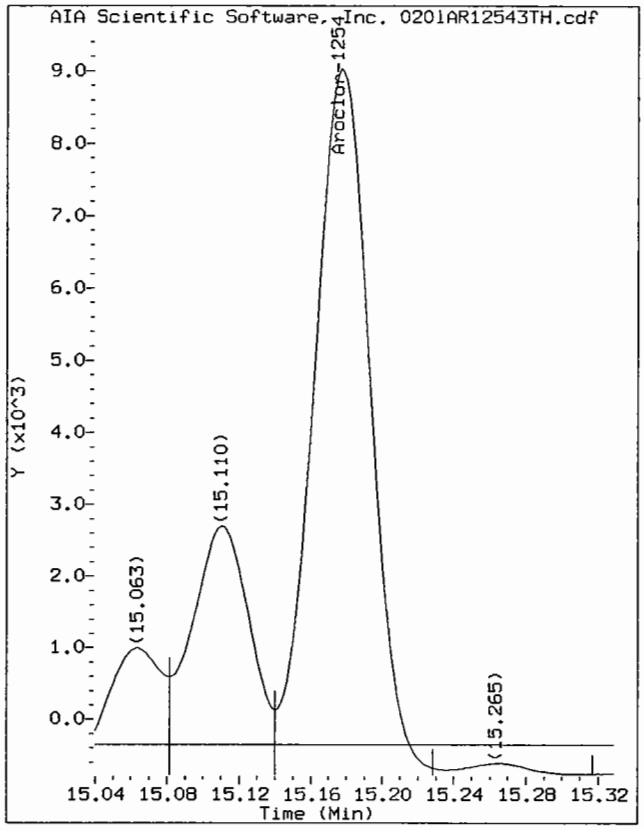
4/20/09

CompuChem

Lab Smp Id : AR12543TH Client Smp Id : AR12543TH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 16-APR-2009 23:22 Inst ID :
Operator : 2512
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.62		2785					
16.82		1350					
17.07		6378					
17.28		852					
17.42		5694					
17.59		907					
17.64		3495					
18.43		2924					
19.10		454					
20.87	20.80 20.94	29451	773453	Decachlorobiphenyl	0.040000	758275	

Manually Integrated Peaks



Start: 15.14 Stop: 15.23

Data File: /chem/tracegc85.i/1090416.b/0211PESTCHKTH.d

Page 1

Date : 16-APR-2009 23:51

Client ID: PESTCHKTH

Instrument: tracegc85.i

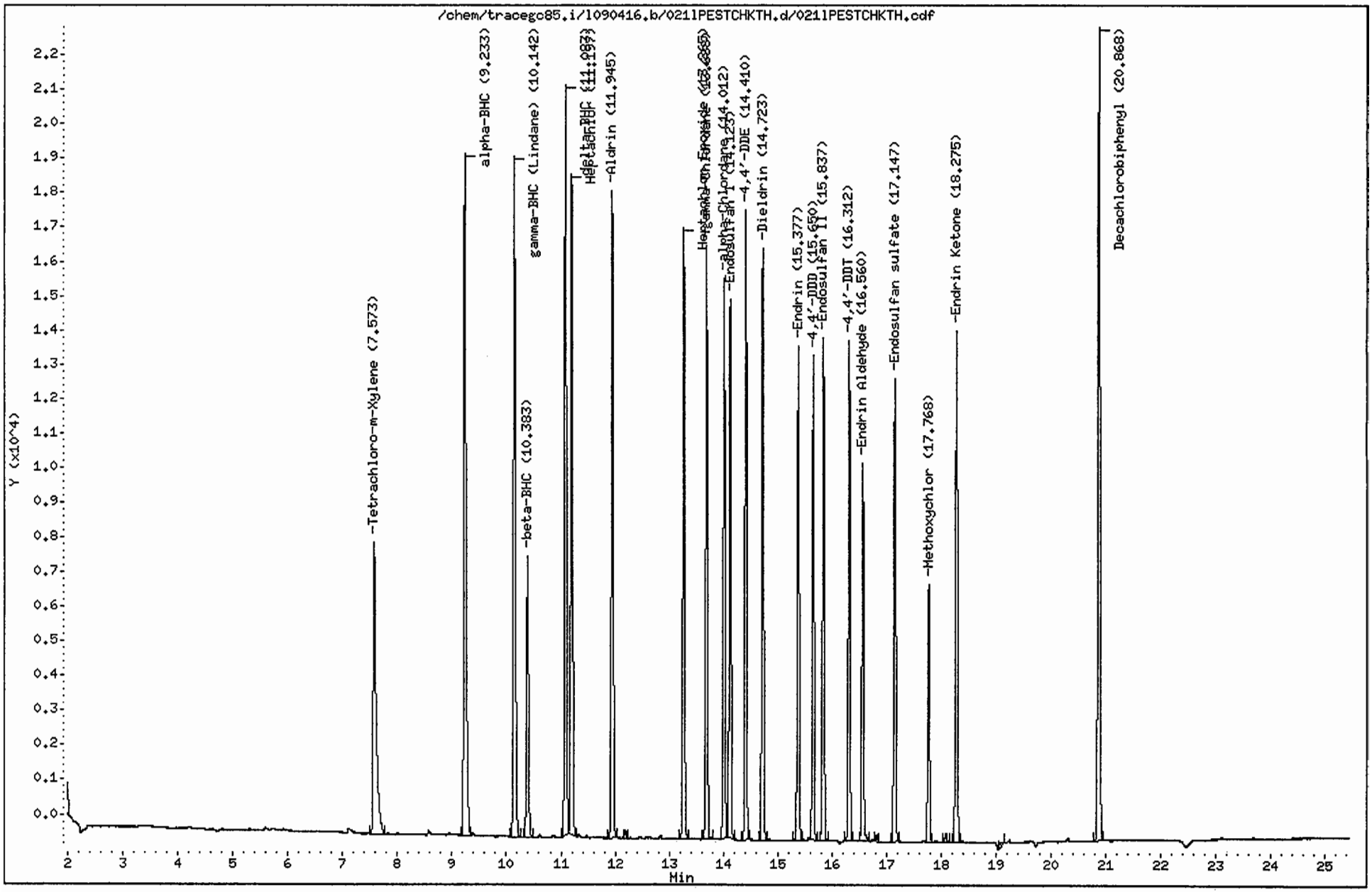
Sample Info: PESTCHKTH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PESTCHKTH
Client Smp Id : PESTCHKTH
Sample Type : QCCHECK
Sublist : INDA
Inj Date : 16-APR-2009 23:51
Inst ID : TRACEGC85
Operator : 2512
Spike Sublist : INDAchek
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	AREA
1.30	6530
1.62	1254
1.77	2299
7.57	31175
9.23	53607
10.14	48871
10.38	19363
11.08	48379
11.20	46178
11.95	43436
12.19	485
13.27	38722
13.69	37513
14.01	35136
14.12	35413
14.41	37786
14.72	37863
15.38	32047
15.65	28900
15.84	32844
16.31	30664
16.56	24729
16.82	405
17.15	29936
17.77	16100
18.09	585
18.27	34770
19.14	515
20.87	58094

Data File: /chem/tracegc85.i/1090416.b/0221PCBCHKTH.d

Date : 17-APR-2009 00:20

Client ID: PCBCHKTH

Instrument: tracegc85.i

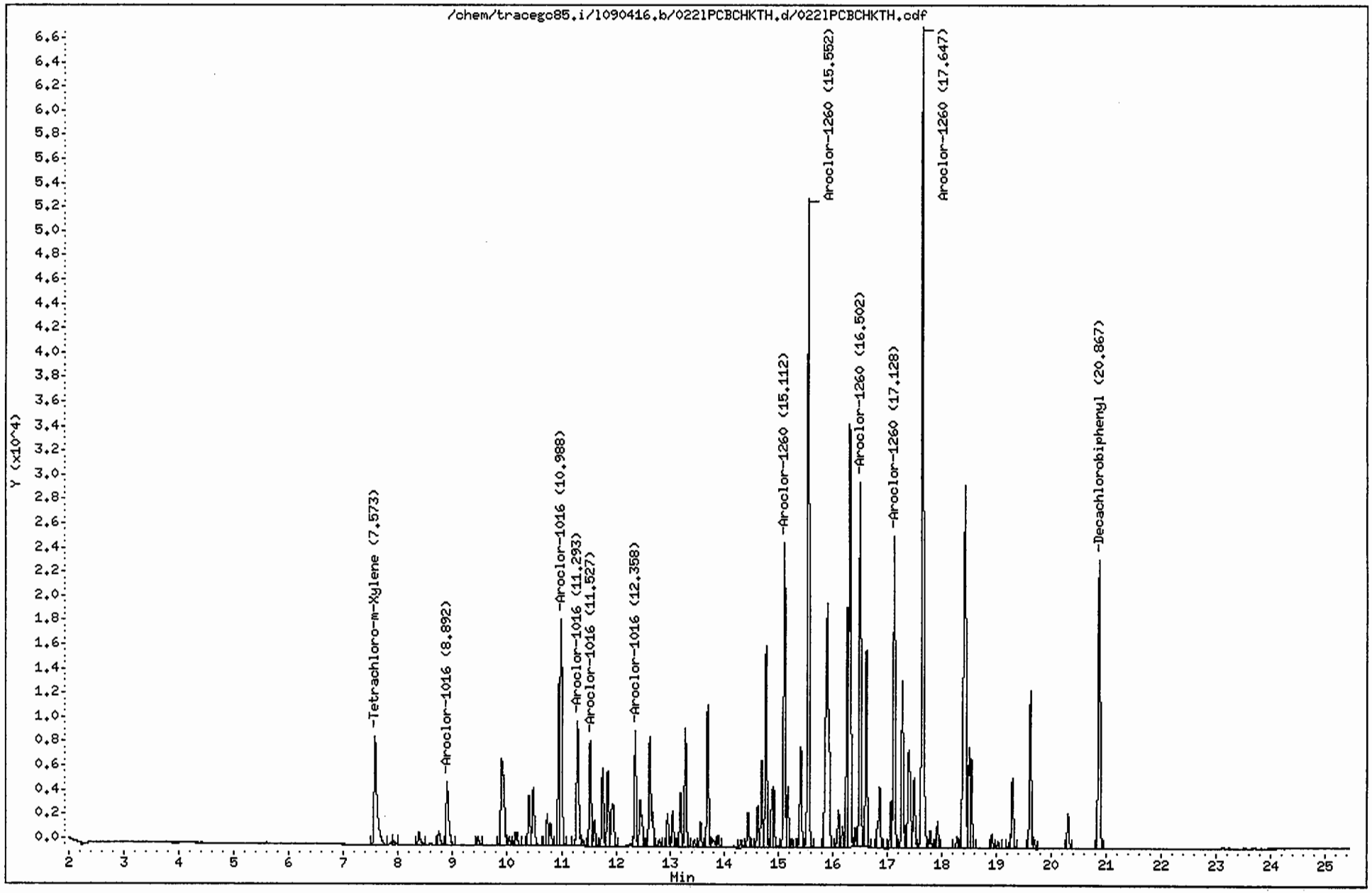
Sample Info: PCBCHKTH

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PCBCHKTH Client Smp Id : PCBCHKTH
Sample Type : QCCHECK Sublist : AR1660
Inj Date : 17-APR-2009 00:20 Inst ID : TRACEGC85
Operator : 2512 Spike Sublist : AR1660chk
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	AREA
1.29	7550
1.64	1550
1.76	2197
7.57	32528
7.92	733
8.38	2939
8.74	3323
8.89	16741
9.46	1759
9.90	29856
10.03	1662
10.13	750
10.17	2788
10.40	10158
10.48	13439
10.74	6280
10.80	4526
10.95	26392
10.99	46033
11.29	29159
11.39	1191
11.53	20216
11.60	4984
11.76	14894
11.85	15566
11.94	12255
12.36	21612
12.45	13406
12.63	27926
12.81	1223
12.96	6460
13.05	6376
13.20	10164
13.29	22795
13.46	1104
13.57	4422
13.70	25579
13.79	2433
13.89	2021
14.32	1568
14.45	6373
14.62	7671
14.70	15781
14.77	35847
14.88	9360

CompuChem

Lab Smp Id : PCBCHKTH Client Smp Id : PCBCHKTH
Sample Type : QCCHECK Sublist : AR1660
Inj Date : 17-APR-2009 00:20 Inst ID :
Operator : 2512 Spike Sublist : AR1660chk
Method : /chem/tracegc85.i/l090416.b/8081A_clpest2v6.m
Misc. Info : None

RT	AREA
14.91	11077
15.11	55386
15.18	10799
15.27	1416
15.41	19490
15.55	111343
15.90	79924
16.11	7097
16.18	3326
16.27	42392
16.32	88890
16.42	2998
16.50	66738
16.62	35076
16.86	14902
17.07	8011
17.13	57042
17.28	30846
17.34	3239
17.39	27622
17.49	14682
17.65	152061
17.79	3054
17.92	4815
18.28	2042
18.42	97492
18.50	18321
18.54	16089
18.92	2579
19.03	1330
19.24	982
19.29	13339
19.62	29280
19.69	1738
20.30	6631
20.87	59043

Data File: /chem/tracegc84.i/1090416f.b/0721INDC3TT.d

Page 1

Date : 23-APR-2009 00:20

Client ID: INDC3TT

Instrument: tracegc84.i

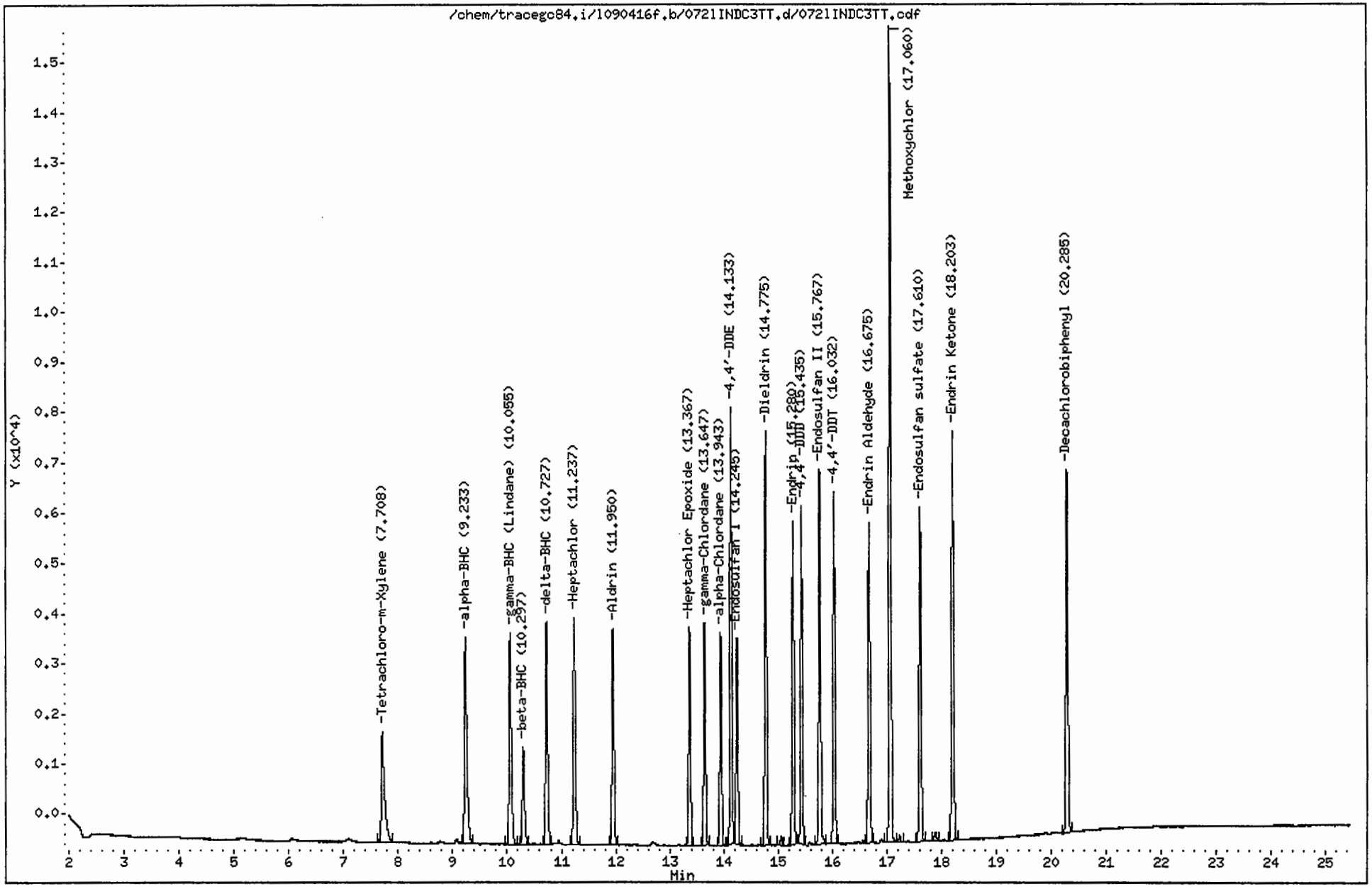
Sample Info: INDC3TT

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TT Client Smp Id : INDC3TT
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 23-APR-2009 00:20 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.29			9131								
7.71	7.64	7.78	8777	433925	Tetrachloro-m-Xylene	0.020000	438840	-1.1	15.0		
9.23	9.17	9.31	12452	646560	alpha-BHC	0.020000	622620	3.7	15.0		
10.06	9.99	10.13	11931	616945	gamma-BHC (Lindane)	0.020000	596542	3.3	15.0		
10.30	10.23	10.37	5362	272870	beta-BHC	0.020000	268080	1.8	15.0		
10.73	10.66	10.80	11564	603075	delta-BHC	0.020000	578200	4.1	15.0		
11.24	11.17	11.31	12039	611410	Heptachlor	0.020000	601960	1.5	15.0		
11.95	11.88	12.02	11034	566175	Aldrin	0.020000	551690	2.6	15.0		
13.37	13.30	13.44	10491	526322	Heptachlor Epoxide	0.020000	524555	0.3	15.0		
13.65	13.58	13.72	10629	541375	gamma-Chlordane	0.020000	531475	1.8	15.0		
13.94	13.88	14.02	10102	515968	alpha-Chlordane	0.020000	505077	2.1	15.0		
14.13	14.07	14.21	19648	502832	4,4'-DDE	0.040000	491209	2.3	15.0		
14.24	14.18	14.32	9882	497455	Endosulfan I	0.020000	494110	0.7	15.0		
14.78	14.71	14.85	19628	490318	Dieldrin	0.040000	490697	-0.1	15.0		
15.06			425								
15.28	15.21	15.35	15494	429706	Endrin	0.040000	387354	9.9	15.0		
15.44	15.37	15.51	14994	374531	4,4'-DDD	0.040000	374841	-0.1	15.0		
15.77	15.70	15.84	18254	448146	Endosulfan II	0.040000	456359	-1.8	15.0		
16.03	15.97	16.11	16307	422705	4,4'-DDT	0.040000	407675	3.6	15.0		
16.68	16.61	16.75	15661	367108	Endrin Aldehyde	0.040000	391533	-6.7	15.0		
17.06	16.99	17.13	38813	197958	Methoxychlor	0.200000	194063	2.0	15.0		
17.23			333								
17.61	17.55	17.69	16492	407549	Endosulfan sulfate	0.040000	412295	-1.2	15.0		
17.89			456								
18.20	18.14	18.28	20368	477488	Endrin Ketone	0.040000	509206	-6.6	15.0		
20.28	20.22	20.36	18273	459922	Decachlorobiphenyl	0.040000	456818	0.7	15.0		

AS 4/23/09

Data File: /chem/tracegc85.i/1090416f.b/0721INDC3TT.d

Date : 23-APR-2009 00:20

Client ID: INDC3TT

Instrument: tracegc85.i

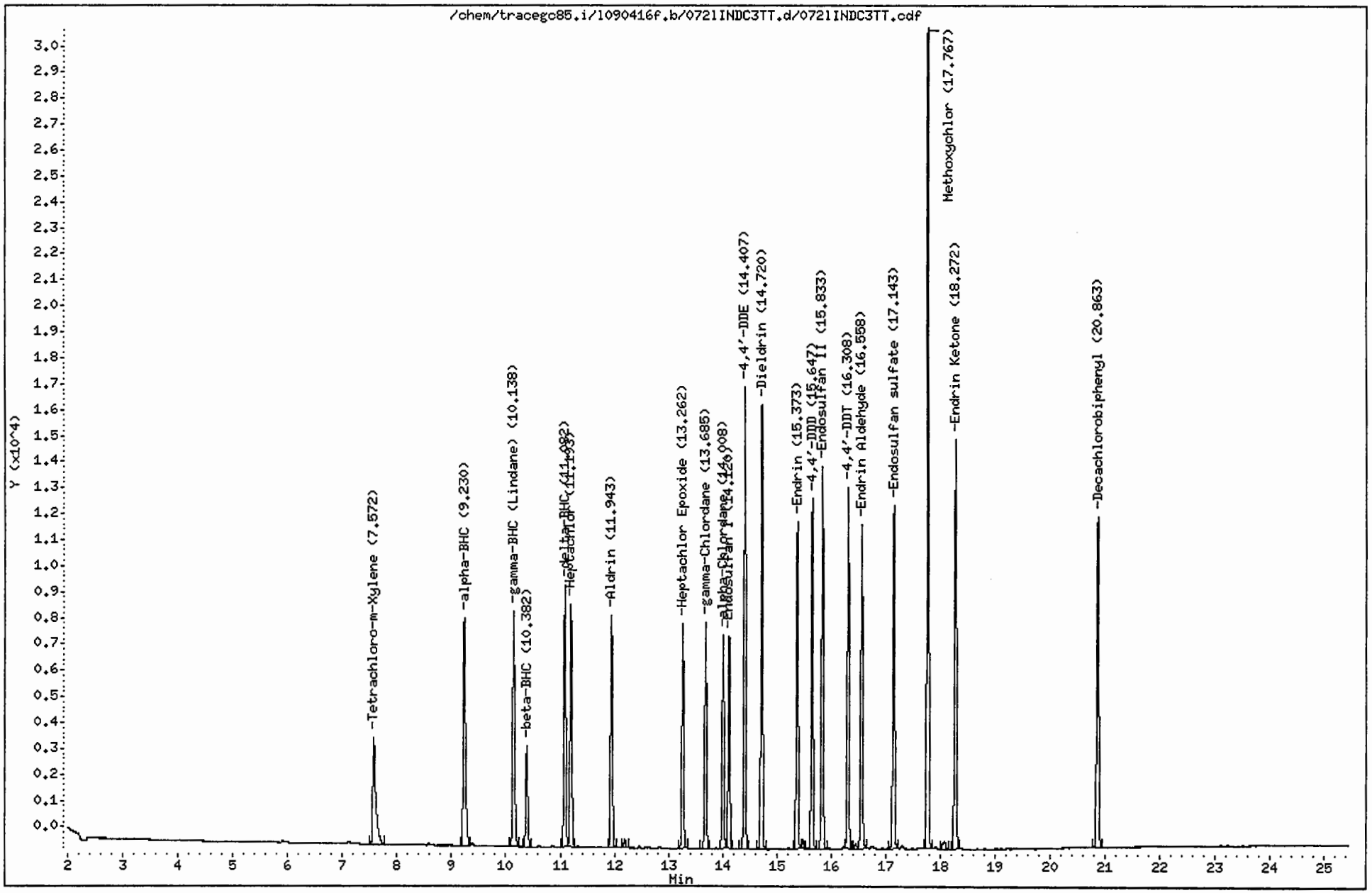
Sample Info: INDC3TT

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TT Client Smp Id : INDC3TT
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 23-APR-2009 00:20 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.30			10529								
7.57	7.51	7.65	15493	764823	Tetrachloro-m-Xylene	0.020000	774640	-1.3	15.0		
9.23	9.16	9.30	24384	1270810	alpha-BHC	0.020000	1219185	4.1	15.0		
10.14	10.07	10.21	22841	1186035	gamma-BHC (Lindane)	0.020000	1142057	3.7	15.0		
10.38	10.31	10.45	9362	481682	beta-BHC	0.020000	468110	2.8	15.0		
11.08	11.01	11.15	22312	1157705	delta-BHC	0.020000	1115605	3.6	15.0		
11.19	11.13	11.27	22123	1110066	Heptachlor	0.020000	1106137	0.4	15.0		
11.94	11.88	12.02	20689	1061288	Aldrin	0.020000	1034455	2.5	15.0		
12.19			780								
13.26	13.20	13.34	19092	957605	Heptachlor Epoxide	0.020000	954598	0.3	15.0		
13.68	13.62	13.76	19030	980298	gamma-Chlordane	0.020000	951505	2.9	15.0		
14.01	13.94	14.08	18016	923528	alpha-Chlordane	0.020000	900790	2.5	15.0		
14.12	14.05	14.19	17933	898480	Endosulfan I	0.020000	896660	0.2	15.0		
14.41	14.34	14.48	36316	933570	4,4'-DDE	0.040000	907890	2.8	15.0		
14.72	14.65	14.79	37159	924768	Dieldrin	0.040000	928975	-0.5	15.0		
15.37	15.31	15.45	28093	783950	Endrin	0.040000	702320	10.4	15.0		
15.48			691								
15.65	15.58	15.72	27795	700260	4,4'-DDD	0.040000	694872	0.8	15.0		
15.83	15.77	15.91	32680	806724	Endosulfan II	0.040000	816999	-1.3	15.0		
16.31	16.25	16.39	29267	765265	4,4'-DDT	0.040000	731685	4.4	15.0		
16.45			409								
16.56	16.49	16.63	28284	662380	Endrin Aldehyde	0.040000	707103	-6.8	15.0		
17.14	17.08	17.22	29857	735542	Endosulfan sulfate	0.040000	746435	-1.5	15.0		
17.77	17.71	17.85	67616	342591	Methoxychlor	0.200000	338082	1.3	15.0		
18.08			1124								
18.27	18.21	18.35	36476	853565	Endrin Ketone	0.040000	911889	-6.8	15.0		
20.86	20.80	20.94	31331	773453	Decachlorobiphenyl	0.040000	783283	-1.3	15.0		

AS 4/23/09

Data File: /chem/tracegc84.i/1090416g.b/0851INDC3TV.d

Date : 23-APR-2009 06:36

Client ID: INDC3TV

Instrument: tracegc84.i

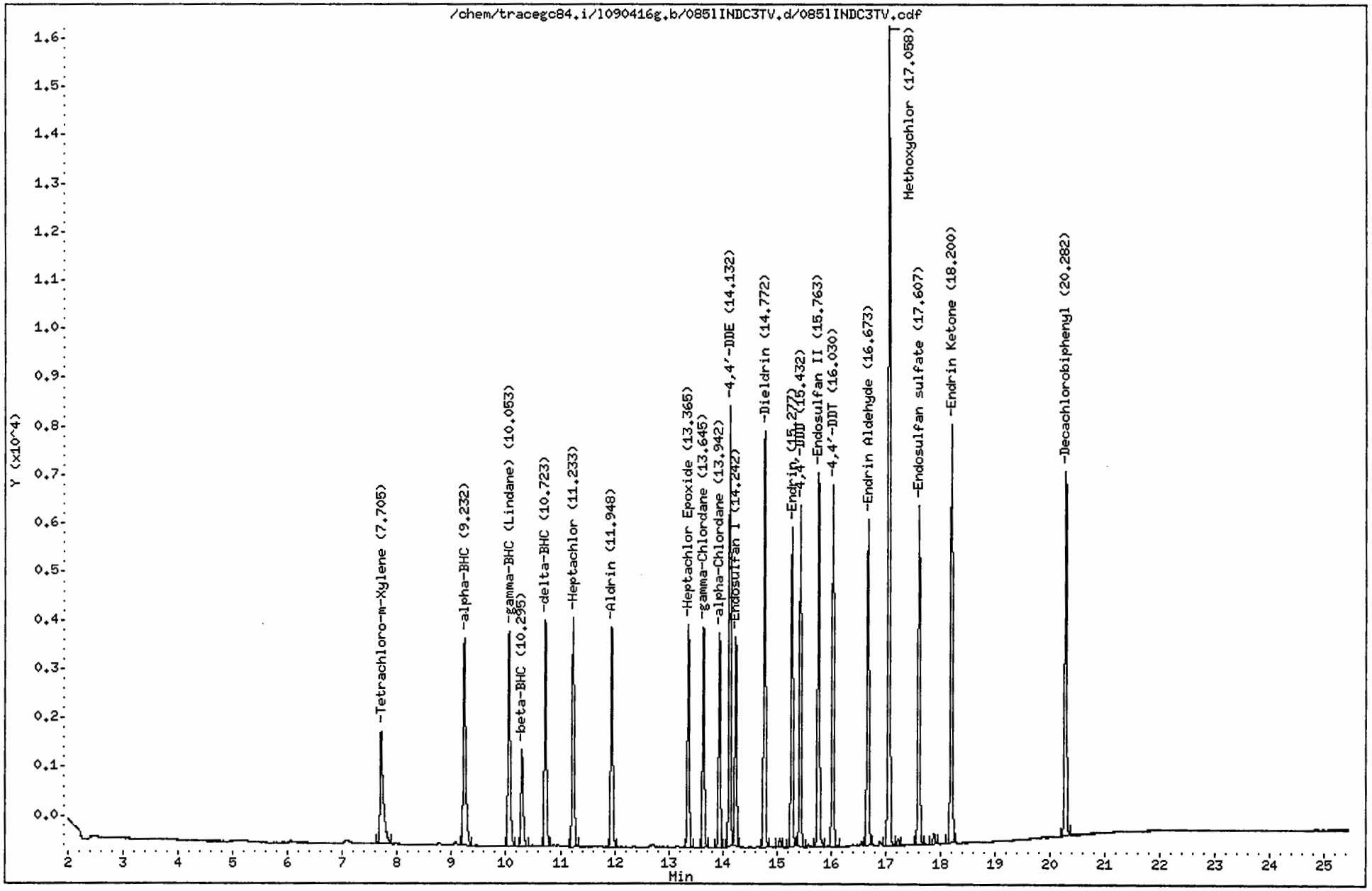
Sample Info: INDC3TV

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TV Client Smp Id : INDC3TV
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 23-APR-2009 06:36 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.29			5110								
7.70	7.64	7.78	9090	433925	Tetrachloro-m-Xylene	0.020000	454475	-4.7	15.0		
9.23	9.17	9.31	12935	646560	alpha-BHC	0.020000	646765	0.0	15.0		
10.05	9.99	10.13	12345	616945	gamma-BHC (Lindane)	0.020000	617273	-0.1	15.0		
10.30	10.23	10.37	5583	272870	beta-BHC	0.020000	279145	-2.3	15.0		
10.72	10.66	10.80	12104	603075	delta-BHC	0.020000	605203	-0.4	15.0		
11.23	11.17	11.31	12454	611410	Heptachlor	0.020000	622705	-1.8	15.0		
11.95	11.88	12.02	11432	566175	Aldrin	0.020000	571582	-1.0	15.0		
13.36	13.30	13.44	10900	526322	Heptachlor Epoxide	0.020000	545010	-3.6	15.0		
13.64	13.58	13.72	11065	541375	gamma-Chlordane	0.020000	553265	-2.2	15.0		
13.94	13.88	14.02	10502	515968	alpha-Chlordane	0.020000	525075	-1.8	15.0		
14.13	14.07	14.21	20467	502832	4,4'-DDE	0.040000	511676	-1.8	15.0		
14.24	14.18	14.32	10258	497455	Endosulfan I	0.020000	512920	-3.1	15.0		
14.77	14.71	14.85	20498	490318	Dieldrin	0.040000	512450	-4.5	15.0		
15.06			430								
15.28	15.21	15.35	15799	429706	Endrin	0.040000	394980	8.1	15.0		
15.43	15.37	15.51	15696	374531	4,4'-DDD	0.040000	392409	-4.8	15.0		
15.76	15.70	15.84	19006	448146	Endosulfan II	0.040000	475157	-6.0	15.0		
16.03	15.97	16.11	17044	422705	4,4'-DDT	0.040000	426088	-0.8	15.0		
16.67	16.61	16.75	16300	367108	Endrin Aldehyde	0.040000	407490	-11.0	15.0		
17.06	16.99	17.13	40156	197958	Methoxychlor	0.200000	200781	-1.4	15.0		
17.23			319								
17.61	17.55	17.69	17224	407549	Endosulfan sulfate	0.040000	430598	-5.7	15.0		
17.88			532								
18.20	18.14	18.28	21351	477488	Endrin Ketone	0.040000	533765	-11.8	15.0		
20.28	20.22	20.36	18862	459922	Decachlorobiphenyl	0.040000	471555	-2.5	15.0		

AS 4/23/09

Data File: /chem/tracegc84.i/1090416g.b/0861PEMTV.d

Date : 23-APR-2009 07:05

Client ID: PEMTV

Instrument: tracegc84.i

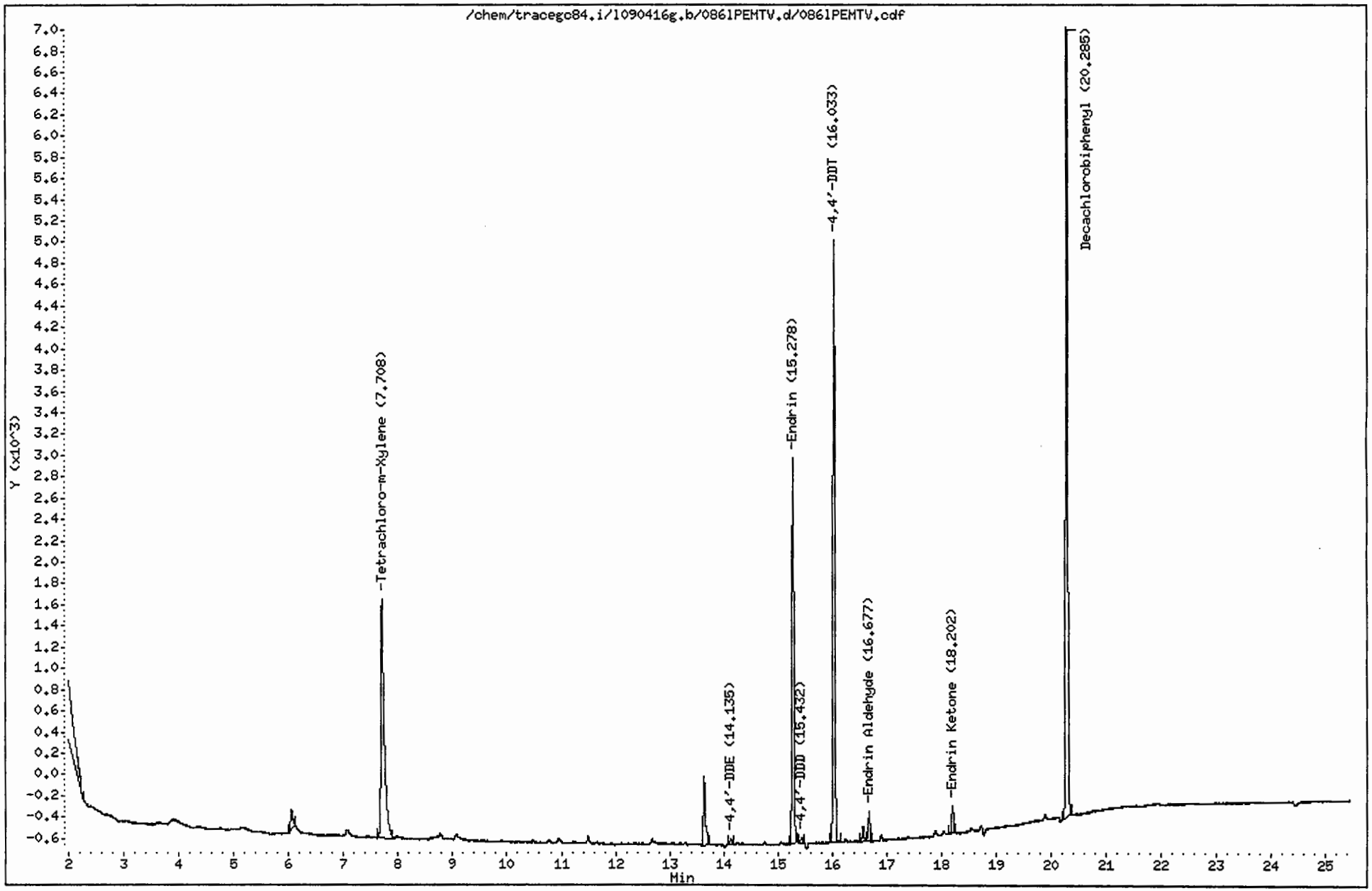
Sample Info: PEMTV

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PEMTV Client Smp Id : PEMTV
Sample Type : SAMPLE Sublist : PEM
Inj Date : 23-APR-2009 07:05 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 1000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			8183								
1.78			5718								
1.92			12152								
6.05			536								
7.71	7.64	7.78	9093	433925	Tetrachloro-m-Xylene	0.020956	0.020956		105.8	43 - 135	
13.64			1751								
14.14	14.07	14.21	124	502832	4,4'-DDE	0.000247	0.000247	0.020000			JM2
15.28	15.21	15.35	8717	429706	Endrin	0.020286	0.020286	0.020000			J
15.43	15.37	15.51	110	374531	4,4'-DDD	0.000293	0.000293	0.020000			JM2
16.03	15.97	16.11	13095	422705	4,4'-DDT	0.030979	0.030979	0.020000			
16.57			309								
16.68	16.61	16.75	634	367108	Endrin Aldehyde	0.001728	0.001728	0.020000			J
18.20	18.14	18.28	633	477488	Endrin Ketone	0.001326	0.001326	0.020000			J
20.28	20.22	20.36	18749	459922	Decachlorobiphenyl	0.040766	0.040766		102.9	43 - 144	

JM2 } KS 4/23/09

Breakdown:

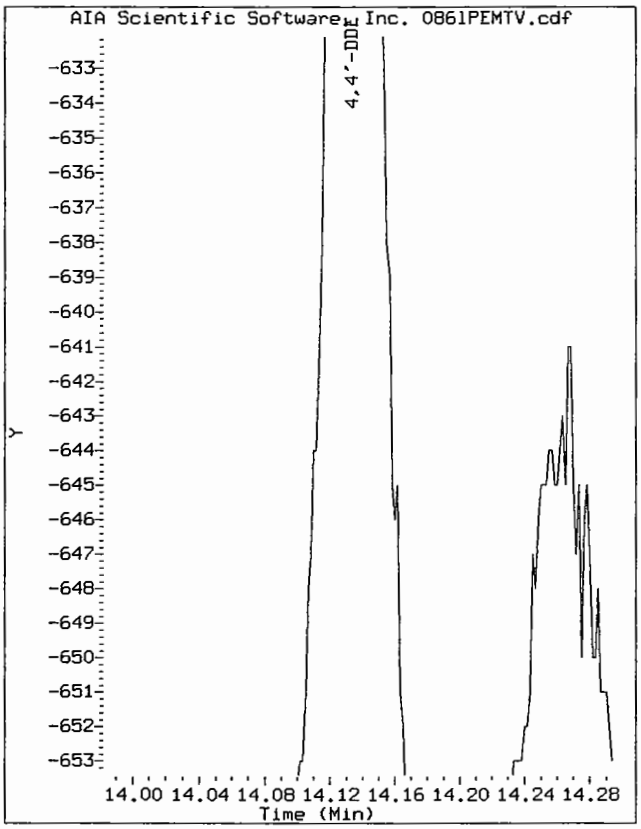
Endrin: $\frac{1267}{9984} \times 100 = 12.7\%$

DDT: $\frac{234}{13329} \times 100 = 1.8\%$

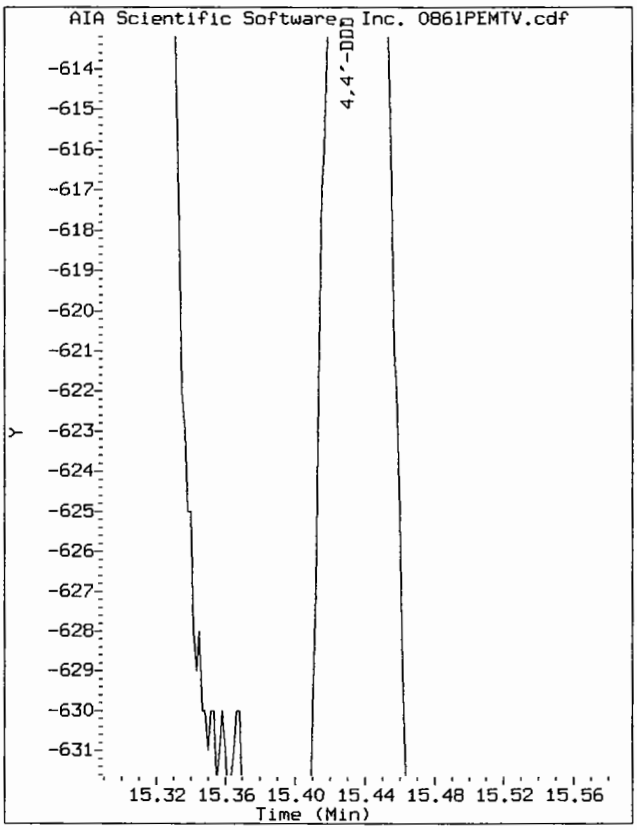
KS 4/23/09

KS 4/23/09

Manually Integrated Peaks



Start: 14.08 Stop: 14.19



Start: 15.39 Stop: 15.48

Data File: /chem/tracegc85.i/1090416g.b/0851INDC3TV.d

Page 1

Date : 23-APR-2009 06:36

Client ID: INDC3TV

Instrument: tracegc85.i

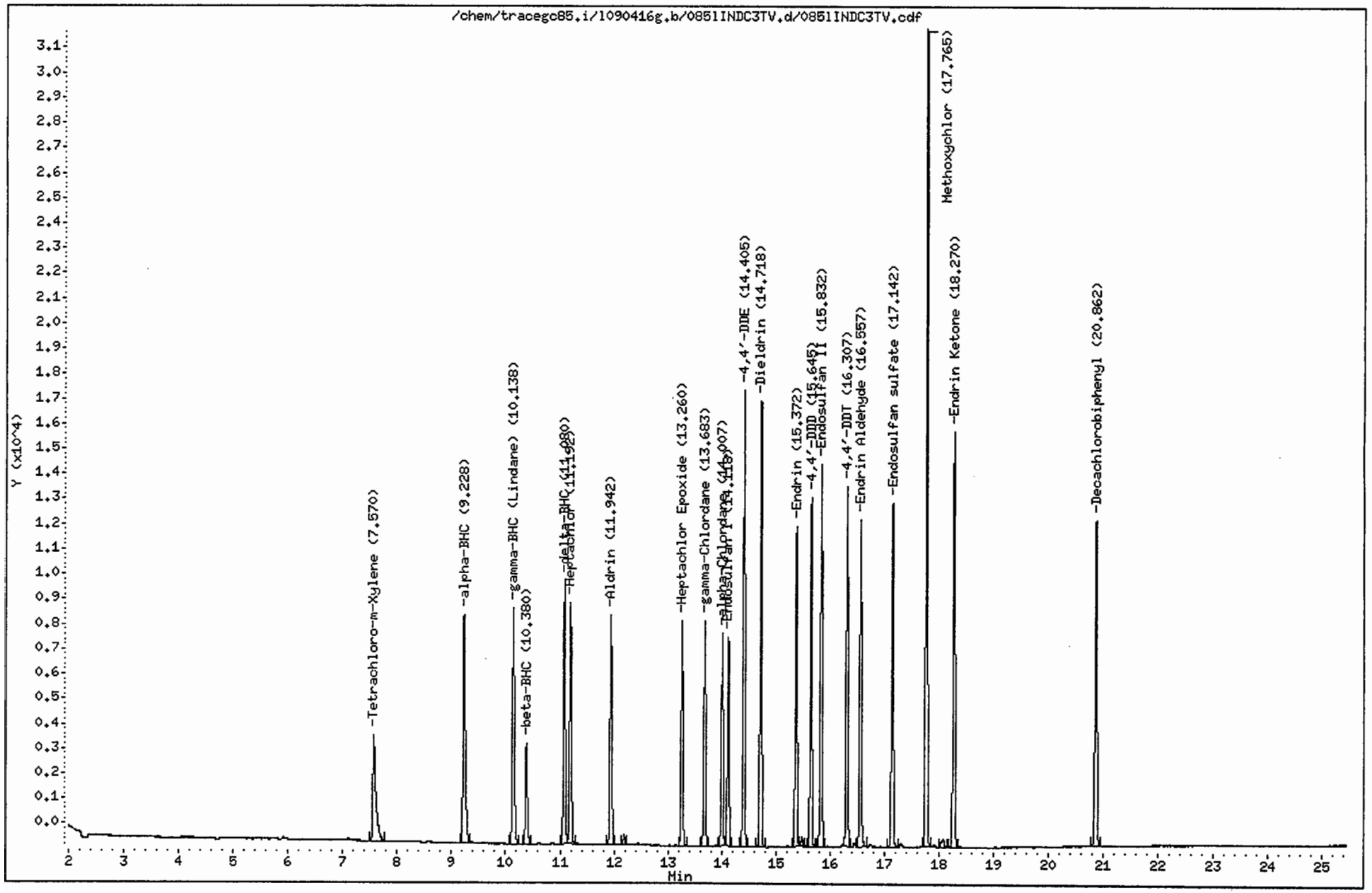
Sample Info: INDC3TV

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TV Client Smp Id : INDC3TV
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 23-APR-2009 06:36 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.30			9513								
7.57	7.51	7.65	16062	764823	Tetrachloro-m-Xylene	0.020000	803085	-5.0	15.0		
9.23	9.16	9.30	25353	1270810	alpha-BHC	0.020000	1267660	0.2	15.0		
10.14	10.07	10.21	23770	1186035	gamma-BHC (Lindane)	0.020000	1188475	-0.2	15.0		
10.38	10.31	10.45	9770	481682	beta-BHC	0.020000	488510	-1.4	15.0		
11.08	11.01	11.15	23395	1157705	delta-BHC	0.020000	1169740	-1.0	15.0		
11.19	11.13	11.27	23007	1110066	Heptachlor	0.020000	1150358	-3.6	15.0		
11.94	11.88	12.02	21542	1061288	Aldrin	0.020000	1077117	-1.5	15.0		
12.19			822								
13.26	13.20	13.34	20019	957605	Heptachlor Epoxide	0.020000	1000945	-4.5	15.0		
13.68	13.62	13.76	19846	980298	gamma-Chlordane	0.020000	992280	-1.2	15.0		
14.01	13.94	14.08	18786	923528	alpha-Chlordane	0.020000	939300	-1.7	15.0		
14.12	14.05	14.19	18684	898480	Endosulfan I	0.020000	934200	-4.0	15.0		
14.40	14.34	14.48	38008	933570	4,4'-DDE	0.040000	950206	-1.8	15.0		
14.72	14.65	14.79	38757	924768	Dieldrin	0.040000	968920	-4.8	15.0		
15.37	15.31	15.45	28637	783950	Endrin	0.040000	715935	8.7	15.0		
15.48			717								
15.64	15.58	15.72	29130	700260	4,4'-DDD	0.040000	728241	-4.0	15.0		
15.83	15.77	15.91	34053	806724	Endosulfan II	0.040000	851327	-5.5	15.0		
16.31	16.25	16.39	30647	765265	4,4'-DDT	0.040000	766173	-0.1	15.0		
16.56	16.49	16.63	29687	662380	Endrin Aldehyde	0.040000	742185	-12.0	15.0		
17.14	17.08	17.22	31259	735542	Endosulfan sulfate	0.040000	781465	-6.2	15.0		
17.76	17.71	17.85	70265	342591	Methoxychlor	0.200000	351326	-2.5	15.0		
18.08			1231								
18.27	18.21	18.35	38356	853565	Endrin Ketone	0.040000	958890	-12.3	15.0		
20.86	20.80	20.94	32369	773453	Decachlorobiphenyl	0.040000	809220	-4.6	15.0		

4/23/09

Data File: /chem/tracegc85.i/1090416g.b/0861PEMTV.d

Date : 23-APR-2009 07:05

Client ID: PEMTV

Sample Info: PEMTV

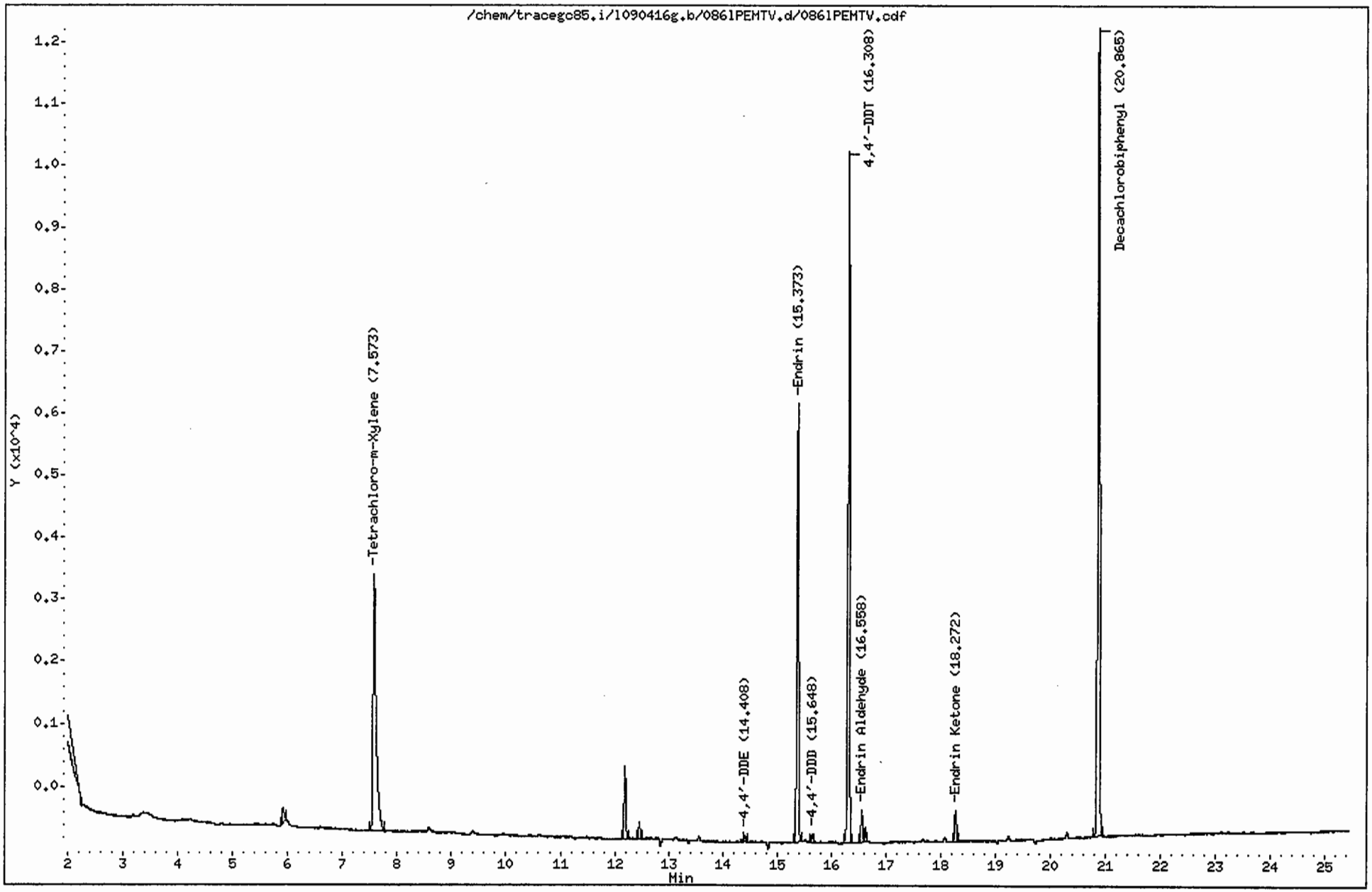
Volume Injected (uL): 1.0

Column phase: clpest2

Instrument: tracegc85.i

Operator: 2646

Column diameter: 0.32



CompuChem

Lab Smp Id : PEMTV Client Smp Id : PEMTV
Sample Type : SAMPLE Sublist : PEM
Inj Date : 23-APR-2009 07:05 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 1000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			9811								
1.64			9339								
1.77			20373								
5.91			651								
7.57	7.51	7.65	16006	764823	Tetrachloro-m-Xylene	0.020928	0.020928		105.7	43 - 135	
12.19			2489								
12.46			544								
14.41	14.34	14.48	190	933570	4,4'-DDE	0.000202	0.000202	0.020000			JM 2
15.37	15.31	15.45	15587	783950	Endrin	0.019881	0.019881	0.020000			J
15.65	15.58	15.72	242	700260	4,4'-DDD	0.000346	0.000346	0.020000			JM 2
16.31	16.25	16.39	23591	765265	4,4'-DDT	0.030826	0.030826	0.020000			JM 2
16.56	16.49	16.63	1096	662380	Endrin Aldehyde	0.001655	0.001655	0.020000			JM 2
16.62			432								
18.27	18.21	18.35	1134	853565	Endrin Ketone	0.001327	0.001327	0.020000			J
20.86	20.80	20.94	32111	773453	Decachlorobiphenyl	0.041515	0.041515		104.8	43 - 144	

AS 4/23/09

Breakdown:

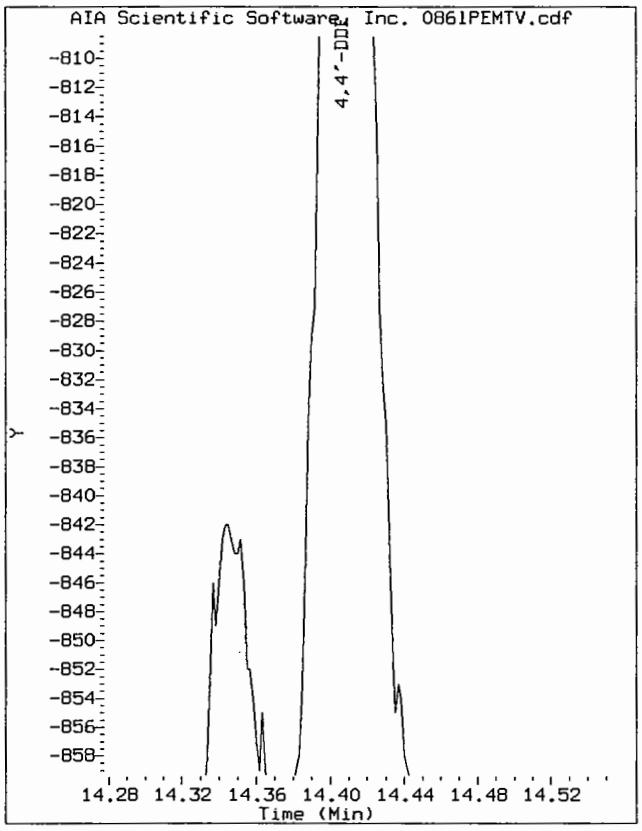
Endrin: $\frac{2230}{17817} \times 100 = 12.5\%$

DDT: $\frac{432}{24023} \times 100 = 1.8\%$

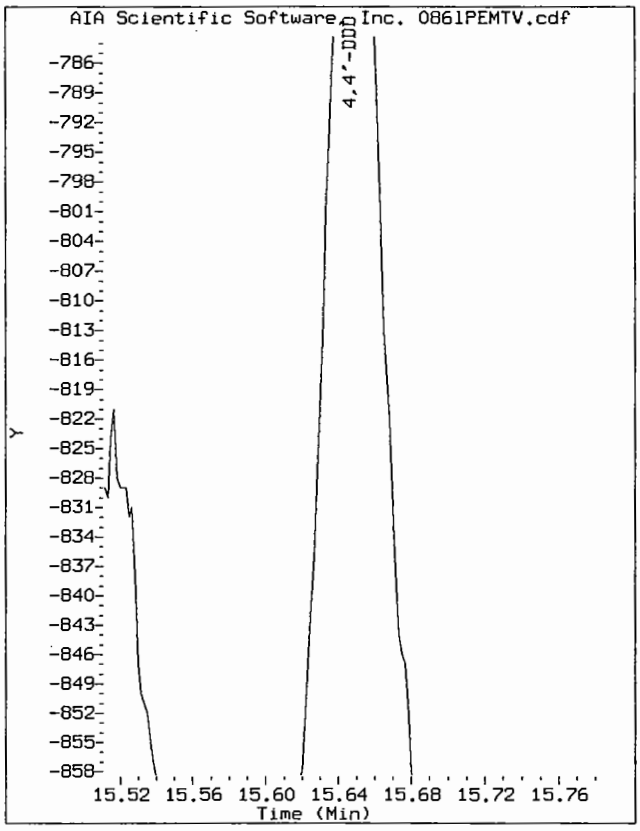
Kelly 4/23/09

AS 4/23/09

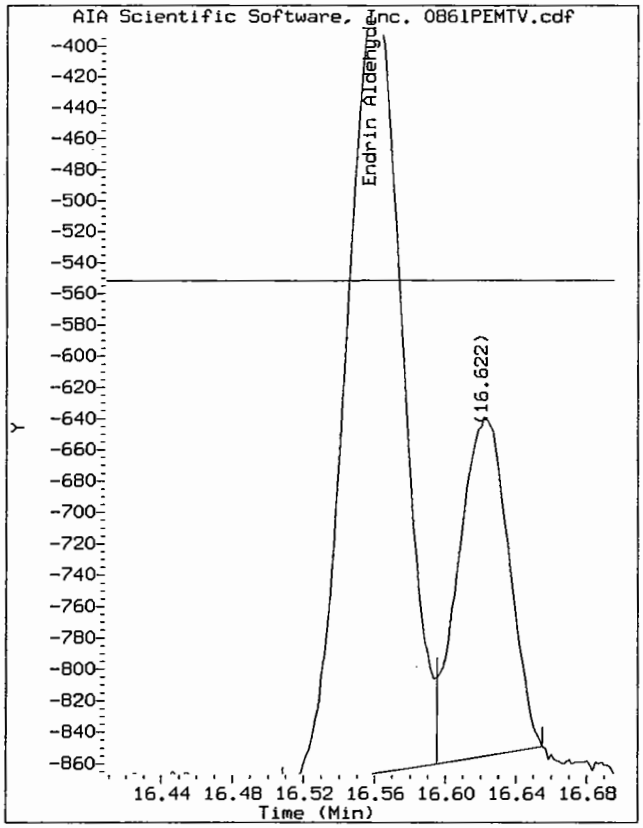
Manually Integrated Peaks



Start: 14.38 Stop: 14.45



Start: 15.61 Stop: 15.69



Start: 16.51 Stop: 16.59

Data File: /chem/tracegc84.i/1090416h.b/0961INDC3TX.d

Date : 23-APR-2009 11:54

Client ID: INDC3TX

Sample Info: INDC3TX

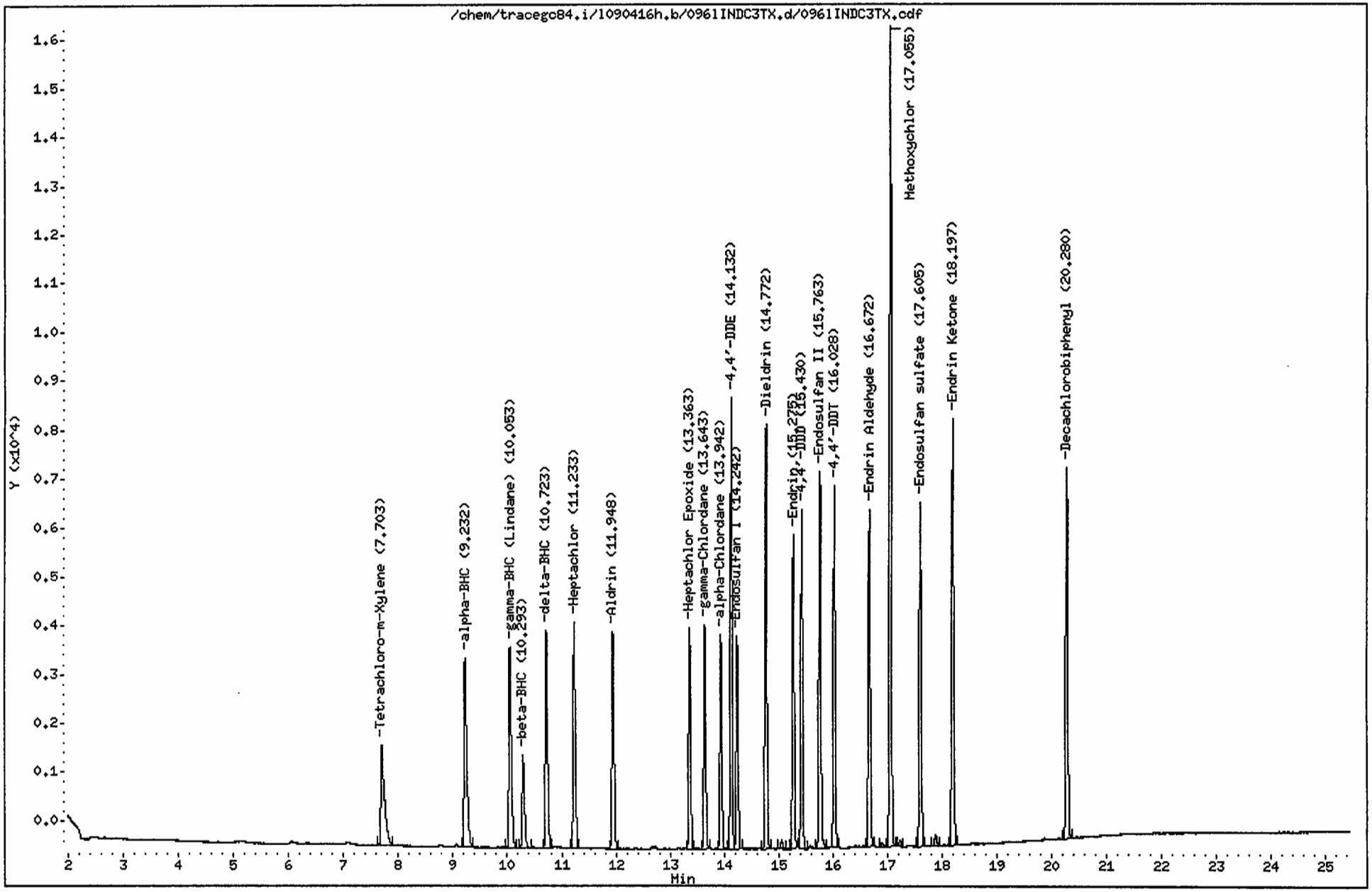
Volume Injected (uL): 1.0

Column phase: clpest

Instrument: tracegc84.i

Operator: 2646

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TX Client Smp Id : INDC3TX
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 23-APR-2009 11:54 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416h.b/8081A_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.29			4530								
1.41			1851								
7.70	7.64	7.78	9164	433925	Tetrachloro-m-Xylene	0.020000	458200	-5.6	15.0		
9.23	9.17	9.31	13037	646560	alpha-BHC	0.020000	651850	-0.8	15.0		
10.05	9.99	10.13	12443	616945	gamma-BHC (Lindane)	0.020000	622153	-0.8	15.0		
10.29	10.23	10.37	5616	272870	beta-BHC	0.020000	280780	-2.9	15.0		
10.72	10.66	10.80	12193	603075	delta-BHC	0.020000	609645	-1.1	15.0		
11.23	11.17	11.31	12541	611410	Heptachlor	0.020000	627055	-2.6	15.0		
11.95	11.88	12.02	11527	566175	Aldrin	0.020000	576355	-1.8	15.0		
13.36	13.30	13.44	10927	526322	Heptachlor Epoxide	0.020000	546325	-3.8	15.0		
13.64	13.58	13.72	11083	541375	gamma-Chlordane	0.020000	554150	-2.4	15.0		
13.94	13.88	14.02	10505	515968	alpha-Chlordane	0.020000	525250	-1.8	15.0		
14.13	14.07	14.21	20629	502832	4,4'-DDE	0.040000	515724	-2.6	15.0		
14.24	14.18	14.32	10464	497455	Endosulfan I	0.020000	523217	-5.2	15.0		
14.77	14.71	14.85	20474	490318	Dieldrin	0.040000	511843	-4.4	15.0		
15.06			459								
15.28	15.21	15.35	15286	429706	Endrin	0.040000	382142	11.1	15.0		
15.43	15.37	15.51	15754	374531	4,4'-DDD	0.040000	393856	-5.2	15.0		
15.76	15.70	15.84	19041	448146	Endosulfan II	0.040000	476033	-6.2	15.0		
16.03	15.97	16.11	16922	422705	4,4'-DDT	0.040000	423050	-0.1	15.0		
16.67	16.61	16.75	16641	367108	Endrin Aldehyde	0.040000	416026	-13.3	15.0		
16.90			238								
17.06	16.99	17.13	39700	197958	Methoxychlor	0.200000	198501	-0.3	15.0		
17.23			297								
17.60	17.55	17.69	17287	407549	Endosulfan sulfate	0.040000	432180	-6.0	15.0		
17.88			603								
18.20	18.14	18.28	21678	477488	Endrin Ketone	0.040000	541961	-13.5	15.0		
20.28	20.22	20.36	18954	459922	Decachlorobiphenyl	0.040000	473858	-3.0	15.0		

AD 4/23/09

Data File: /chem/tracego85.i/1090416h.b/0961INDC3TX.d

Date : 23-APR-2009 11:54

Client ID: INDC3TX

Instrument: tracego85.i

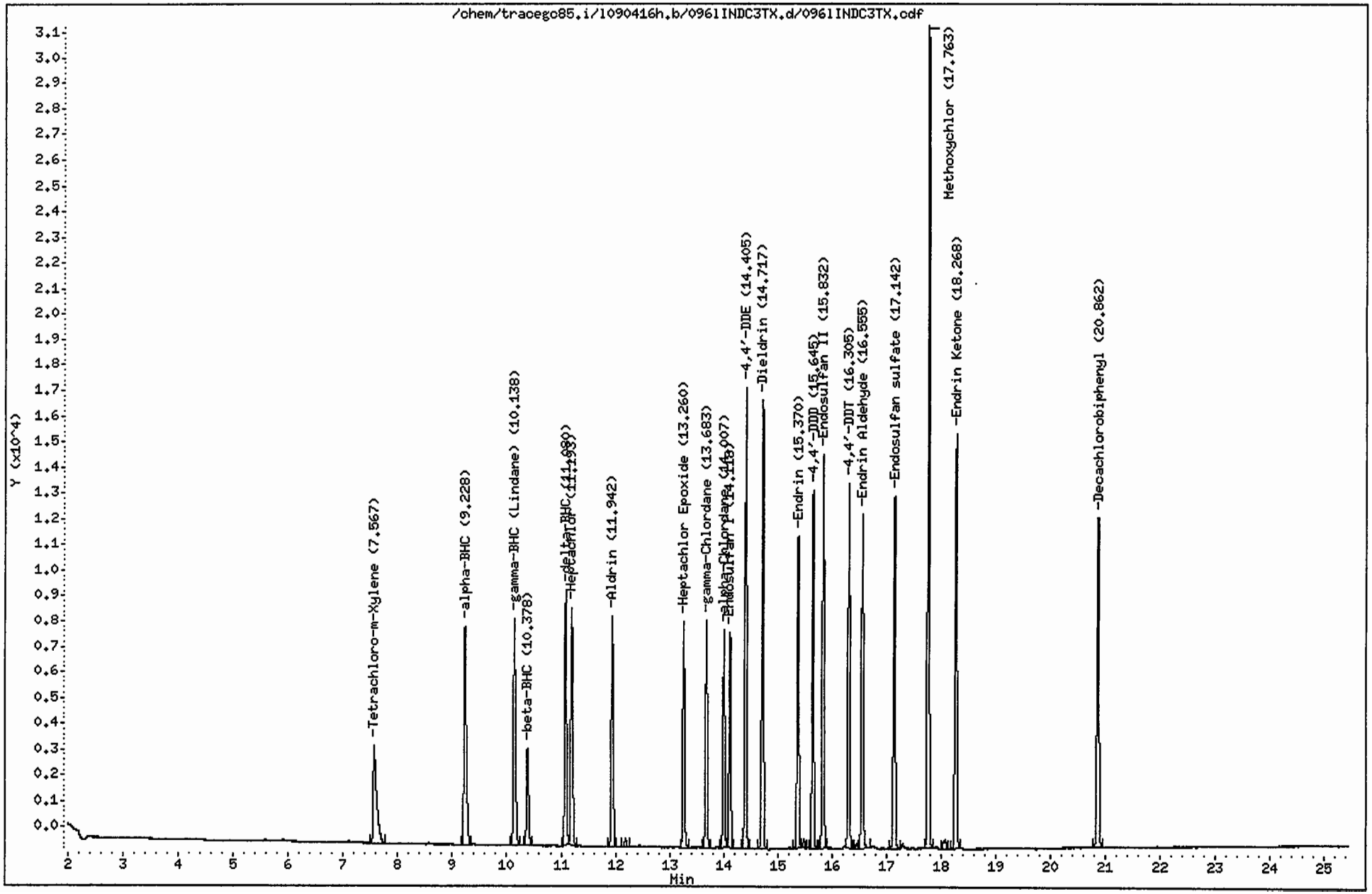
Sample Info: INDC3TX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : INDC3TX Client Smp Id : INDC3TX
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 23-APR-2009 11:54 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416h.b/8081A_clpest2v6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.30			5583								
1.41			1737								
7.57	7.51	7.65	15975	764823	Tetrachloro-m-Xylene	0.020000	798768	-4.4	15.0		
9.23	9.16	9.30	25184	1270810	alpha-BHC	0.020000	1259210	0.9	15.0		
10.14	10.07	10.21	23561	1186035	gamma-BHC (Lindane)	0.020000	1178038	0.7	15.0		
10.38	10.31	10.45	9656	481682	beta-BHC	0.020000	482795	-0.2	15.0		
11.08	11.01	11.15	23161	1157705	delta-BHC	0.020000	1158035	0.0	15.0		
11.19	11.13	11.27	22802	1110066	Heptachlor	0.020000	1140120	-2.7	15.0		
11.94	11.88	12.02	21351	1061288	Aldrin	0.020000	1067573	-0.6	15.0		
12.19			775								
13.26	13.20	13.34	19860	957605	Heptachlor Epoxide	0.020000	992993	-3.7	15.0		
13.68	13.62	13.76	19621	980298	gamma-Chlordane	0.020000	981070	-0.1	15.0		
14.01	13.94	14.08	18525	923528	alpha-Chlordane	0.020000	926245	-0.3	15.0		
14.12	14.05	14.19	18474	898480	Endosulfan I	0.020000	923700	-2.8	15.0		
14.40	14.34	14.48	37478	933570	4,4'-DDE	0.040000	936954	-0.4	15.0		
14.72	14.65	14.79	38296	924768	Dieldrin	0.040000	957398	-3.5	15.0		
15.37	15.31	15.45	27362	783950	Endrin	0.040000	684057	12.7	15.0		
15.48			710								
15.64	15.58	15.72	28773	700260	4,4'-DDD	0.040000	719320	-2.7	15.0		
15.83	15.77	15.91	33682	806724	Endosulfan II	0.040000	842061	-4.4	15.0		
16.30	16.25	16.39	30065	765265	4,4'-DDT	0.040000	751621	1.8	15.0		
16.45			400								
16.56	16.49	16.63	29836	662380	Endrin Aldehyde	0.040000	745893	-12.6	15.0		
17.14	17.08	17.22	31083	735542	Endosulfan sulfate	0.040000	777080	-5.6	15.0		
17.76	17.71	17.85	68818	342591	Methoxychlor	0.200000	344091	-0.4	15.0		
18.07			1275								
18.27	18.21	18.35	38431	853565	Endrin Ketone	0.040000	960782	-12.6	15.0		
20.86	20.80	20.94	32254	773453	Decachlorobiphenyl	0.040000	806342	-4.3	15.0		

AD
4/23/09

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 84/85 Sequence ID: 1090416 Date 04/16/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4 N (4) 35 Method (8081A) 8082 8151A OLM/OLC SOM01.1 Other _____ Amt.Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REJECTED	FILE NUMBER	SORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1	✓	1/2		4/16/09	~~Hexane~~/Hexane	Solvent/solvent	N/A	26416	
2		3	✓	/ /	PEMTH	61935			
3		4	✓	/ /	INDC1TH	62052			
4		5	✓	/ /	2	↓ 53			
5		6	✓	/ /	3	62031			
6		7	✓	/ /	4	62054			
7		8	✓	/ /	↓ 5 ↓	↓ 55			
8		9	✓	/ /	TOXAPH3TH	61844			
9		10	✓	/ /	CHLORD3TH	61946			
10		11	✓	/ /	AR1660ITH	61740			
11		12	✓	/ /	2	↓ 41			
12		13	✓	/ /	3	61964			
13		14	✓	/ /	4	61743			
14		15	✓	/ /	↓ 5 ↓	↓ 44			
15		16	✓	/ /	AR1221 3TH	61789			
16		17	✓	/ /	AR1232 3TH	61794			
17		18	✓	/ /	AR1242 3TH	61799			
18		19	✓	/ /	AR1248 3TH	61970			
19		20	✓	/ /	AR1254 3TH	61930			
20		21/22	✓	4/N/M	PESTCHKTH/PCBCHKTH	62040/62028			

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Calibration ID: N/A Sequence ID: N/A Hexane Lot No 166510

REVIEWED BY: _____ DATE 4/17/09

01/12/09 jr

256

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 84/85 Sequence ID: 1090416f Date 4/22/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4 N (4) 35 Method: (8081A) 8082 8151A OLM/OLC SOM01.1 Other _____. Amt.Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REINJECTED	FILE NUMBER	REPORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1		71		4/22/09	PIBLKTSTT	62029	N/A	2646	
2		72		4/23/09	INDC3TT	62031			
3		73		/ /	9041631-BLK1	Various			
4		74		/ /	BS1	↓			
5		75		/ /	MS1	0904096			
6		76		/ /	MSD1	↓			
7		77		/ /	MS2	0904098			
8		78		/ /	MSD2	↓			
9		79		/ /	0904096-01	0904096			
10		80		/ /	02				
11		81		/ /	03				
12		82		/ /	04	↓			
13		83		/ /	PIBLK	62029			
14				/ /					
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					JCS 4/22/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Calibration ID: N/A Sequence ID: N/A Hexane Lot No 66510

REVIEWED BY: PEH DATE 4/23/09

01/12/09 jr

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 84/85 Sequence ID: 10904169 Date 4/23/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4 N (4) 35 Method: (8081A) 8082 8151A OLM/OLC SOM01.1 Other _____ Amt.Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REJECTED	FILE NUMBER	REJECTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1		84		4/23/09	PIBLKTUTV	62029	N/A	JG46	
2		85		/ /	INDC3TV	62031			
3		86		/ /	PEMTV	61935			
4		87		/ /	0904096-05	0904096			
5		88		/ /	0904098-01	0409098			
6		89		/ /	02				
7		90		/ /	03				
8		91		/ /	04				
9		92		/ /	05				
10		93		/ /	06				
11		94		/ /	PIBLK	62029			
12				/ /					
13				/ /					
14				/ /					
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

JG46 4/23/09

Calibration ID: N/A Sequence ID: N/A Hexane Lot No 66510

REVIEWED BY: JG46 DATE 4/23/09

01/12/09 jr

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 84/85 Sequence ID: 4/23/09 NS S 1004116h Date 4 23 09

GC EXTRACTABLES RUN LOG

LOGBOOK 4 N (4) 35 Method: 8081A 8082 8151A OLM/OLC SOM01.1 Other _____ Amt.Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REJECTED	FILE NUMBER	REPORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1		95	✓	4/23/09	P1RKTWSTX	62029	N/A	2646	
2		96	✓	1 1	INDC3TX	62031	↓	↓	
3				/ /					
4				/ /					
5				/ /					
6				/ /					
7				/ /					
8				/ /					
9				/ /					
10				/ /					
11				/ /					
12				/ /					
13				/ /					
14				/ /					
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					

Instrument still acquiring

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Calibration ID: N/A Sequence ID: N/A Hexane Lot No 66510

REVIEWED BY: [signature] DATE 4/23/09

01/12/09 jr

4. Raw QC Data

    a. Blank Data

    b. Laboratory Control Sample Data

    c. Matrix Spike Data

    d. Matrix Spike Duplicate Data

a. Blank Data

Arranged by type of blank

i) Method blanks shall be in chronological order, by extraction date.
ii) Instrument blanks shall be in chronological order, by GC column and instrument.
iii) Sulfur cleanup blanks (if needed) shall be in chronological order, by date of analysis.

- Tabulated Results (Form I)
- Chromatograms and date system printout(s) for each GC column and instrument used for analysis.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGT

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416f.b/07319041631-BLK1.d

Page 1

Date : 23-APR-2009 00:49

Client ID: PBLKGT

Instrument: tracegc84.i

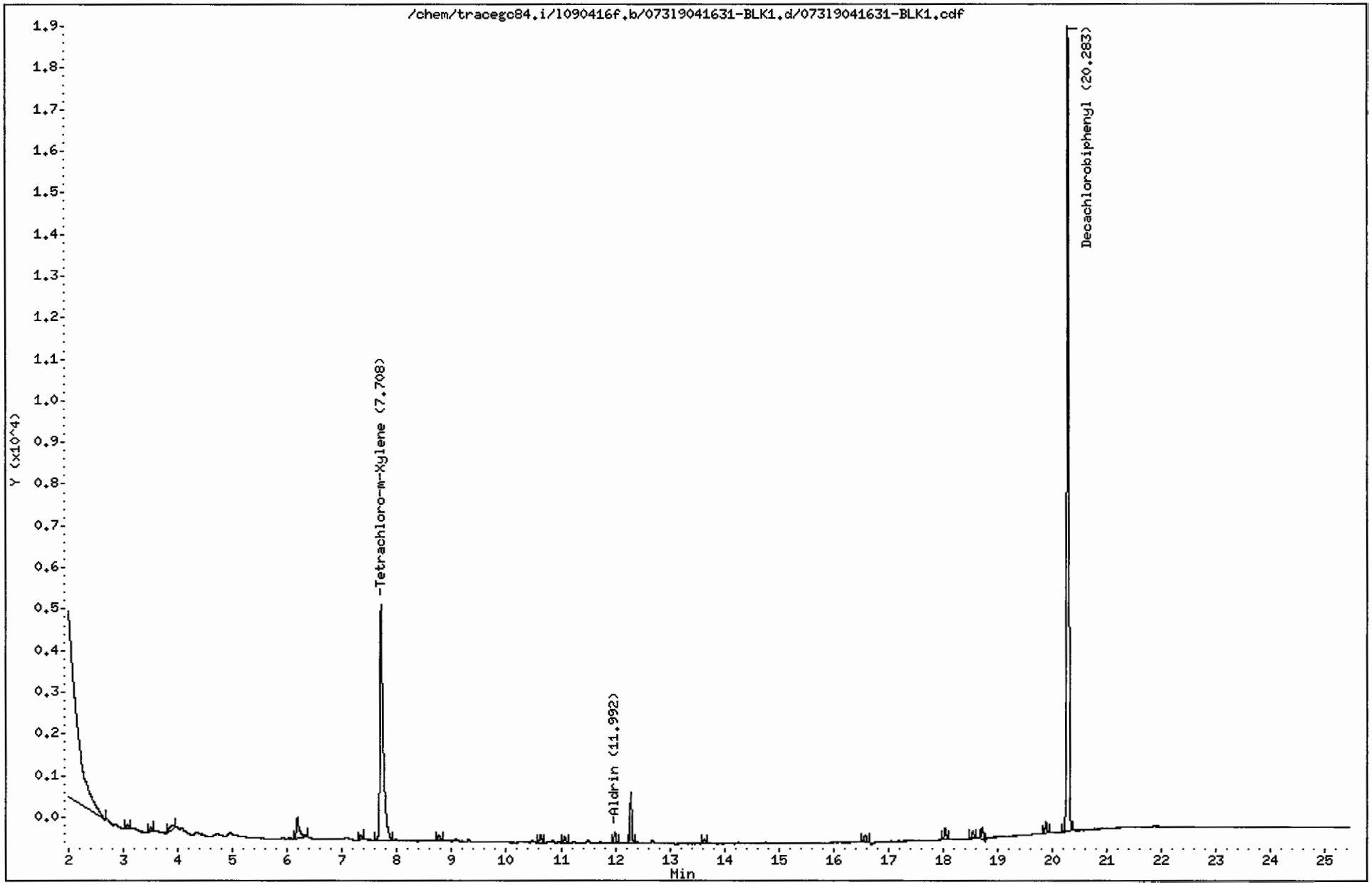
Sample Info: 9041631-BLK1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-BLK1 Client Smp Id : PBLKGT
Sample Type : BLANK Sublist : DAACOMP1
Inj Date : 23-APR-2009 00:49 Inst ID : TRACEGC84
Operator : 2512
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : PBLKGT

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			15772								
1.81			32671								
1.93			84944								
3.07			253								
3.50			266								
3.93			467								
6.18			1986								
7.34			309								
7.71	7.64	7.78	22544	433925	Tetrachloro-m-Xylene	0.051951	0.259757		86.6	43 - 135	
8.77			476								
10.63			532								
11.07			377								
11.99	11.88	12.02	704	566175	Aldrin	0.001243	0.006217	0.050000			J
12.28			2910								
13.64			272								
16.58			498								
18.04			667								
18.55			442								
18.72			814								
19.88			669								
20.28	20.22	20.36	49024	459922	Decachlorobiphenyl	0.106592	0.532959		88.8	43 - 144	

RCH 4/23/09

Data File: /chem/tracegc85.i/1090416f.b/07319041631-BLK1.d

Page 1

Date : 23-APR-2009 00:49

Client ID: PBLKGT

Instrument: tracegc85.i

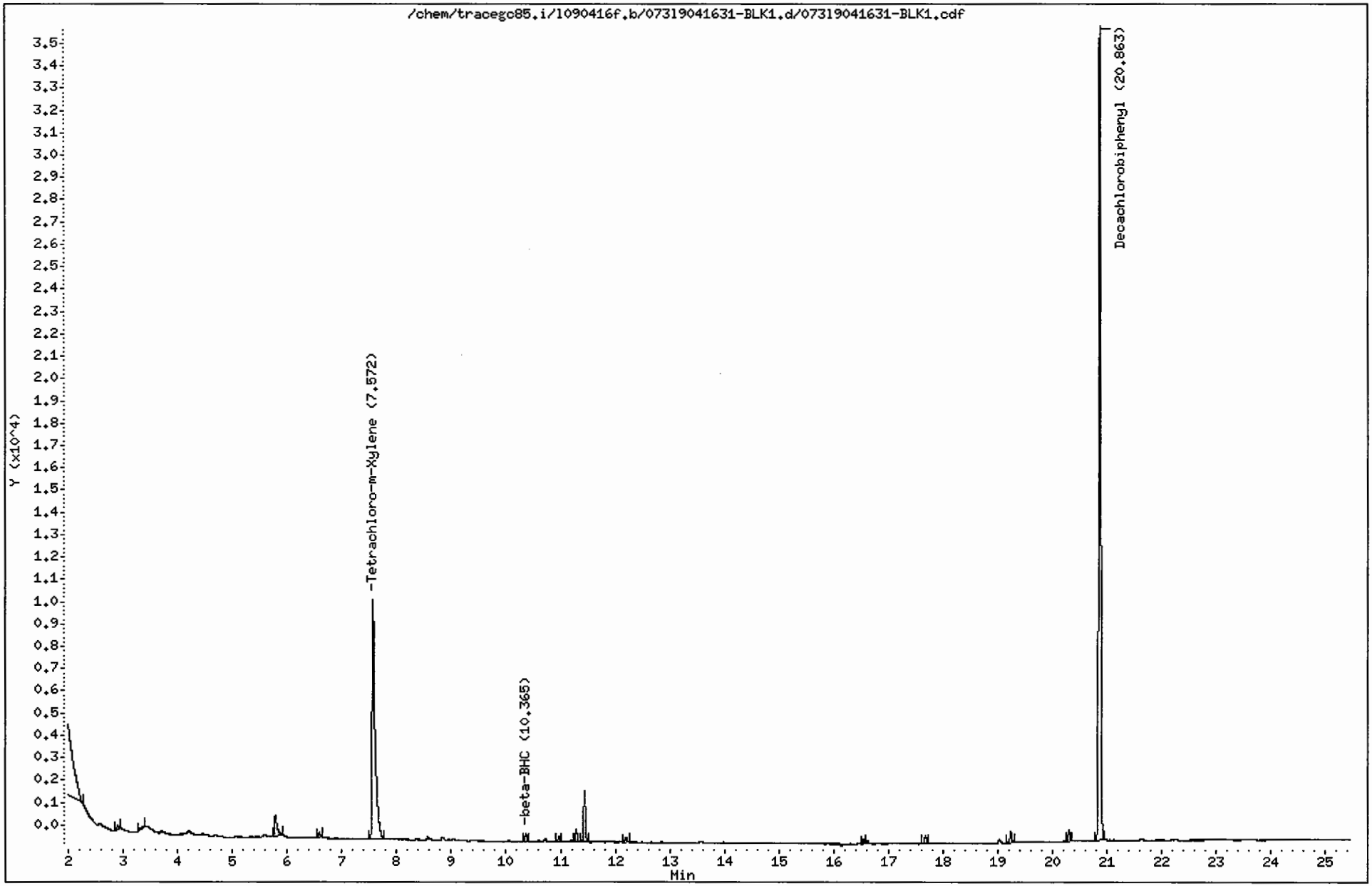
Sample Info: 9041631-BLK1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-BLK1 Client Smp Id : PBLKGT
Sample Type : BLANK Sublist : DAACOMP1
Inj Date : 23-APR-2009 00:49 Inst ID : TRACEGC85
Operator : 2512
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : PBLKGT

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			5680								
1.50			751								
1.66			54482								
1.77			139110								
2.90			478								
3.37			412								
5.79			3054								
6.59			544								
7.57	7.51	7.65	39487	764823	Tetrachloro-m-Xylene	0.051629	0.258145		86.0	43 - 135	
10.36	10.31	10.45	938	481682	beta-BHC	0.001945	0.009726	0.050000			J
10.97			674								
11.29			1278								
11.44			5223								
12.19			552								
16.54			471								
17.68			922								
19.23			1129								
20.30			1123								
20.86	20.80	20.94	89353	773453	Decachlorobiphenyl	0.115525	0.577624		96.3	43 - 144	

4/23/09

ASSIGNED TO: Billy / Martha

EMPLOYEE ID # 2713

COMPUCHEM
EXTRACTION WORKSHEET
PEST/PCB IN WATER BY METHOD 3510C for 8081A/8082

4-22-4 DATE EXTRACTED/POSTED 4/17/09

BATCH NUMBER 9041631

266

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	RECORD INITIAL pH	pH ADJUSTED (Y/N)	FINAL VOL. (ml)	COMMENTS
1	0904096-01	7W11B	SAMPLE	1000	6.0	N	2.0 5.0	QC1
2	0904096-02	7W12B	SAMPLE	975	6.0		2.0 5.0	
3	0904096-03	7WCA	SAMPLE	1000	6.0		2.0 5.0	
4	0904096-04	7WDUP	SAMPLE	1000	6.0		2.0 5.0	
5	0904096-05	7MW6	SAMPLE	1000	6.0		2.0 5.0	FLORISIL (3620B) PERFORMED (Y) / N Lot# FL003 21208
6	0904098-01	13MW5	SAMPLE	1000	6.0		2.0 5.0	QC2
7	0904098-02	13MW3	SAMPLE	1000	6.0		2.0 5.0	
8	0904098-03	13MW4	SAMPLE	1000	6.0		2.0 5.0	Add 1.0 ml 4615 to PCBLCS & PCBSS
9	0904098-04	13MWDUP	SAMPLE	950	6.0		2.0 5.0	
10	0904098-05	13MW6	SAMPLE	1000	6.0		2.0 5.0	
11	0904098-06	13MW7	SAMPLE	1000	6.0		2.0 5.0	
12	9041631-BLK1	PBLKGT	MB	1000	5.0		2.0 5.0	
13	9041631-BS1	PGTLCS	LCS	1000	5.0		2.0 5.0	
14	9041631-MS1	Matrix Spike	MS1	925	6.0		2.0 5.0	
15	9041631-MS2	Matrix Spike	MS2 ~~PCB~~	1000	6.0		2.0 5.0	
16	9041631-MSD1	Matrix Spike Dup	MSD1	1000	6.0		2.0 5.0	
17	9041631-MSD2	Matrix Spike Dup	MSD2 ~~PCB~~	1000	6.0	N	2.0 5.0	
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								

Florisil Required

4/22/09

4/22/09

	#	AMOUNT	LOT #	SURROGATE AND SPIKE ADDED BY:
SURROGATE	449	0.5 ml	62001	BFP / 4/17/09
SPIKE	4030	1.0 ml	61746	INITIALS DATE
PCB SPIKE	4615	1.0 ml	N/A	

FINAL VOL. VERIFIED: ML SB

SUPERVISOR REVIEW: B. Patterson

Witness BFP ~~BFP~~ SB / 4/17/09
Initia Date

Analysts initials. Extracted ML, SB KD BFP N2 BFP, ML Bottle up ML

Manufacturer and lot number of reagents/solvents CH_2Cl_2-G45400, Na_2SO_4-2xx8-558-4, C_6H_{14}-68906
90/10 Hexane Acetone

Rev. 7/18/03:dce

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKTS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKTS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/22/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416f.b/0711PIBLKTSTT.d

Date : 22-APR-2009 23:51

Client ID: PIBLKTS

Instrument: tracegc84.i

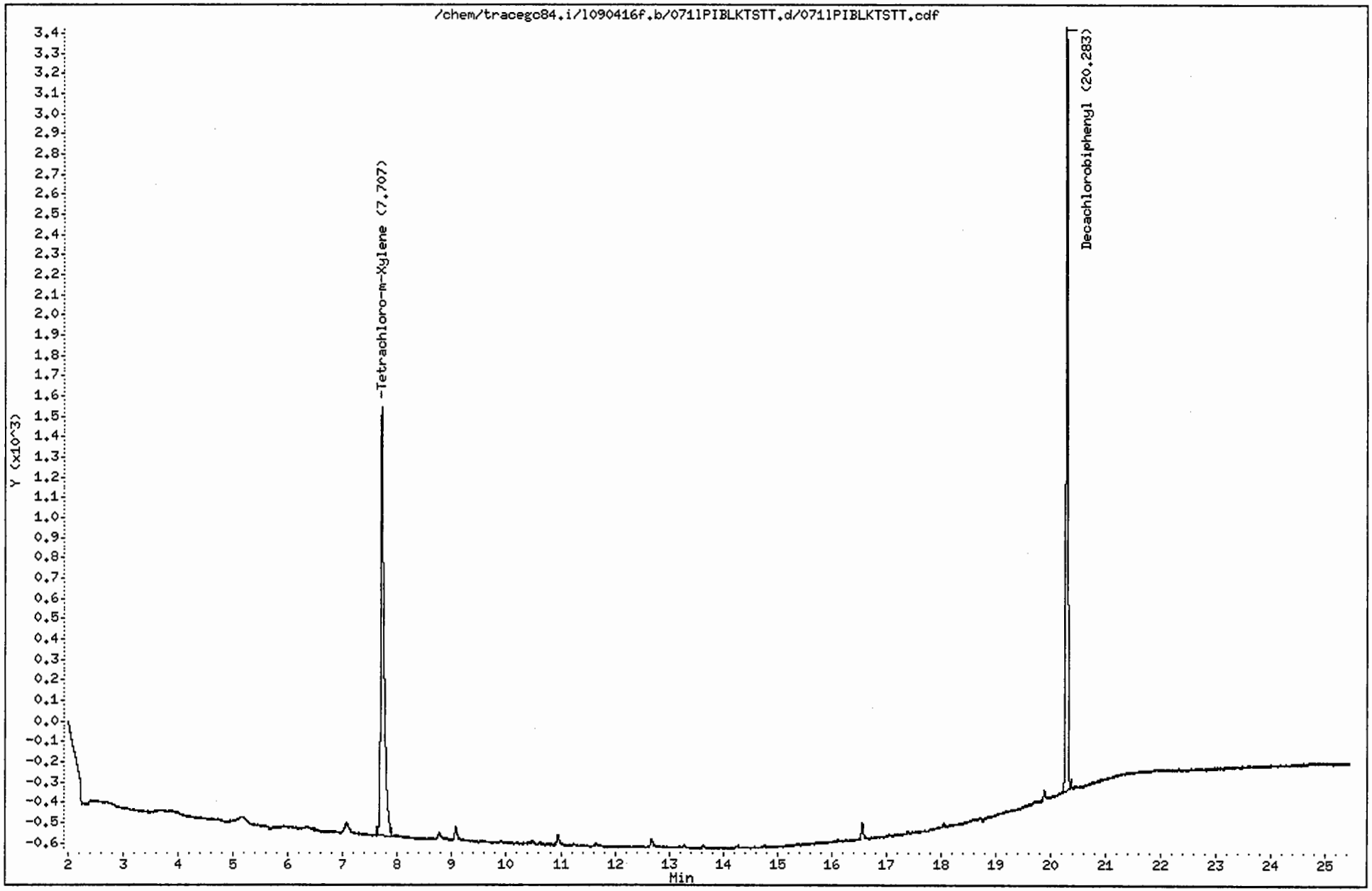
Sample Info: PIBLKTSTT

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKTS Client Smp Id : PIBLKTS
Sample Type : INSTBLANK Sublist : all
Inj Date : 22-APR-2009 23:51 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 100.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.29			10151						
7.71	7.64	7.78	8316	433925	Tetrachloro-m-Xylene	0.019165	0.958270		
20.28	20.22	20.36	9360	459922	Decachlorobiphenyl	0.020351	1.017568		

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKTT

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKTT

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/22/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc85.i/1090416f.b/0711PIBLKTSTT.d

Date : 22-APR-2009 23:51

Client ID: PIBLKTT

Instrument: tracegc85.i

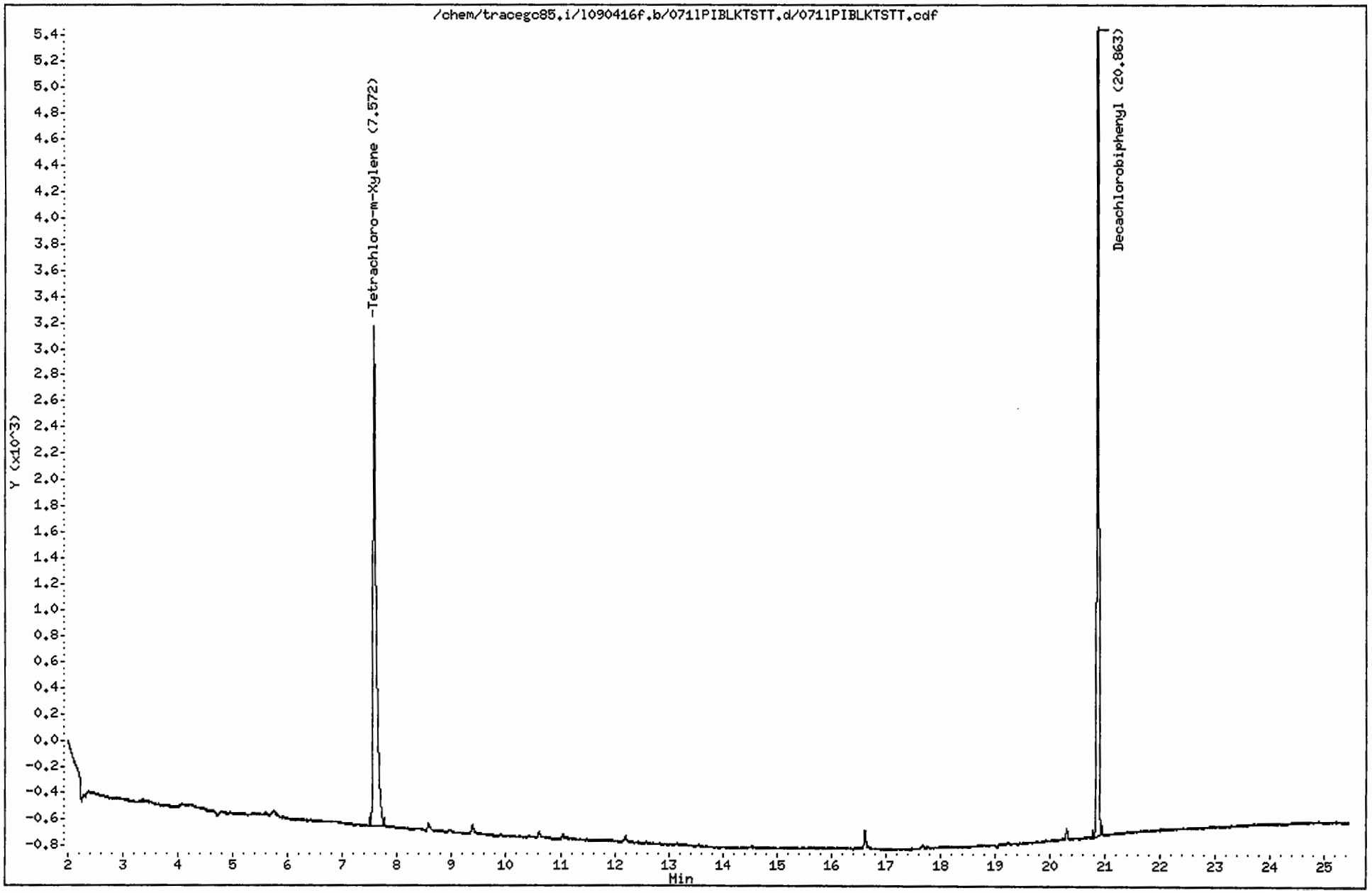
Sample Info: PIBLKTSTT

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKTT Client Smp Id : PIBLKTT
Sample Type : INSTBLANK Sublist : all
Inj Date : 22-APR-2009 23:51 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.30			11501						
7.57	7.51	7.65	14698	764823	Tetrachloro-m-Xylene	0.019218	0.192179		
20.86	20.80	20.94	15708	773453	Decachlorobiphenyl	0.020309	0.203094		

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKTU

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKTU

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416g.b/0841PIBLKTUTV.d

Date : 23-APR-2009 06:07

Client ID: PIBLKTU

Instrument: tracegc84.i

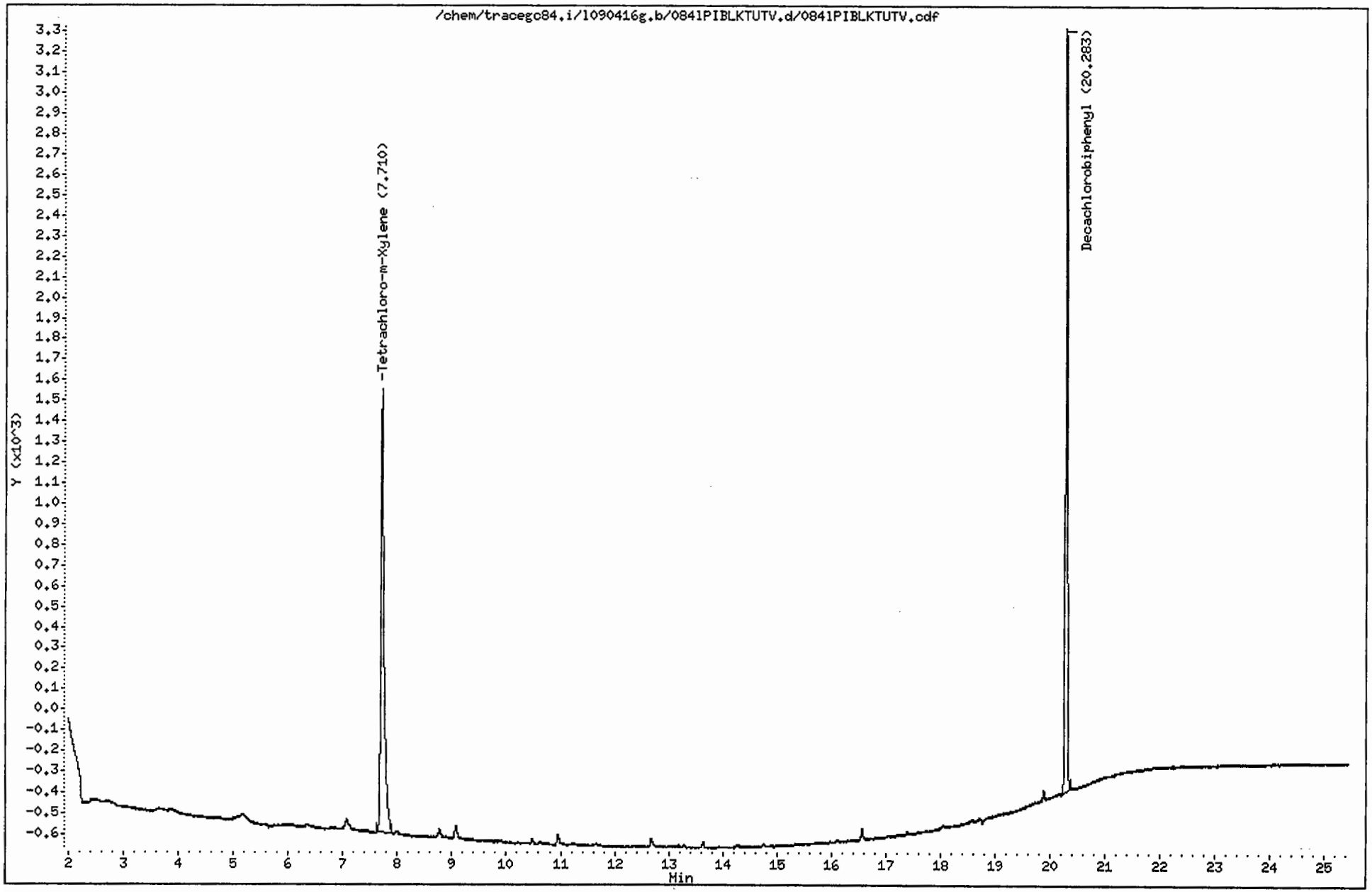
Sample Info: PIBLKTUTV

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKTU Client Smp Id : PIBLKTU
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 06:07 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416g.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 100.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.29			10035						
7.71	7.64	7.78	8361	433925	Tetrachloro-m-Xylene	0.019267	0.963369		
20.28	20.22	20.36	9308	459922	Decachlorobiphenyl	0.020237	1.011872		

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKTV

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKTV

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc85.i/1090416g.b/0841PIBLKTUTV.d

Date : 23-APR-2009 06:07

Client ID: PIBLKTV

Instrument: tracegc85.i

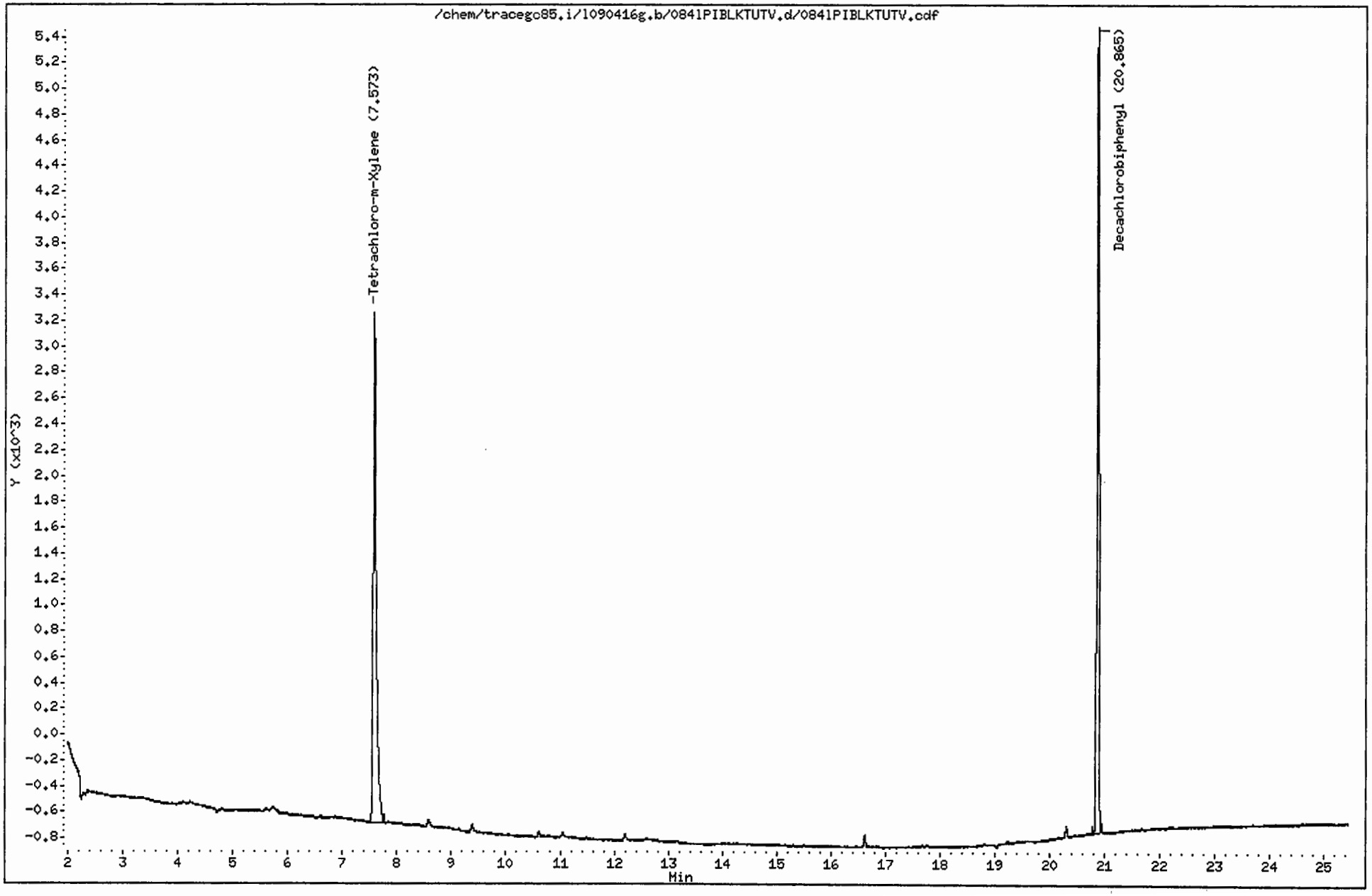
Sample Info: PIBLKTUTV

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKTV Client Smp Id : PIBLKTV
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 06:07 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416g.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.30			11543						
7.57	7.51	7.65	14848	764823	Tetrachloro-m-Xylene	0.019414	0.194138		
20.86	20.80	20.94	15656	773453	Decachlorobiphenyl	0.020241	0.202412		

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKTW

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKTW

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416h.b/0951PIBLKTWTX.d

Date : 23-APR-2009 11:25

Client ID: PIBLKTW

Instrument: tracegc84.i

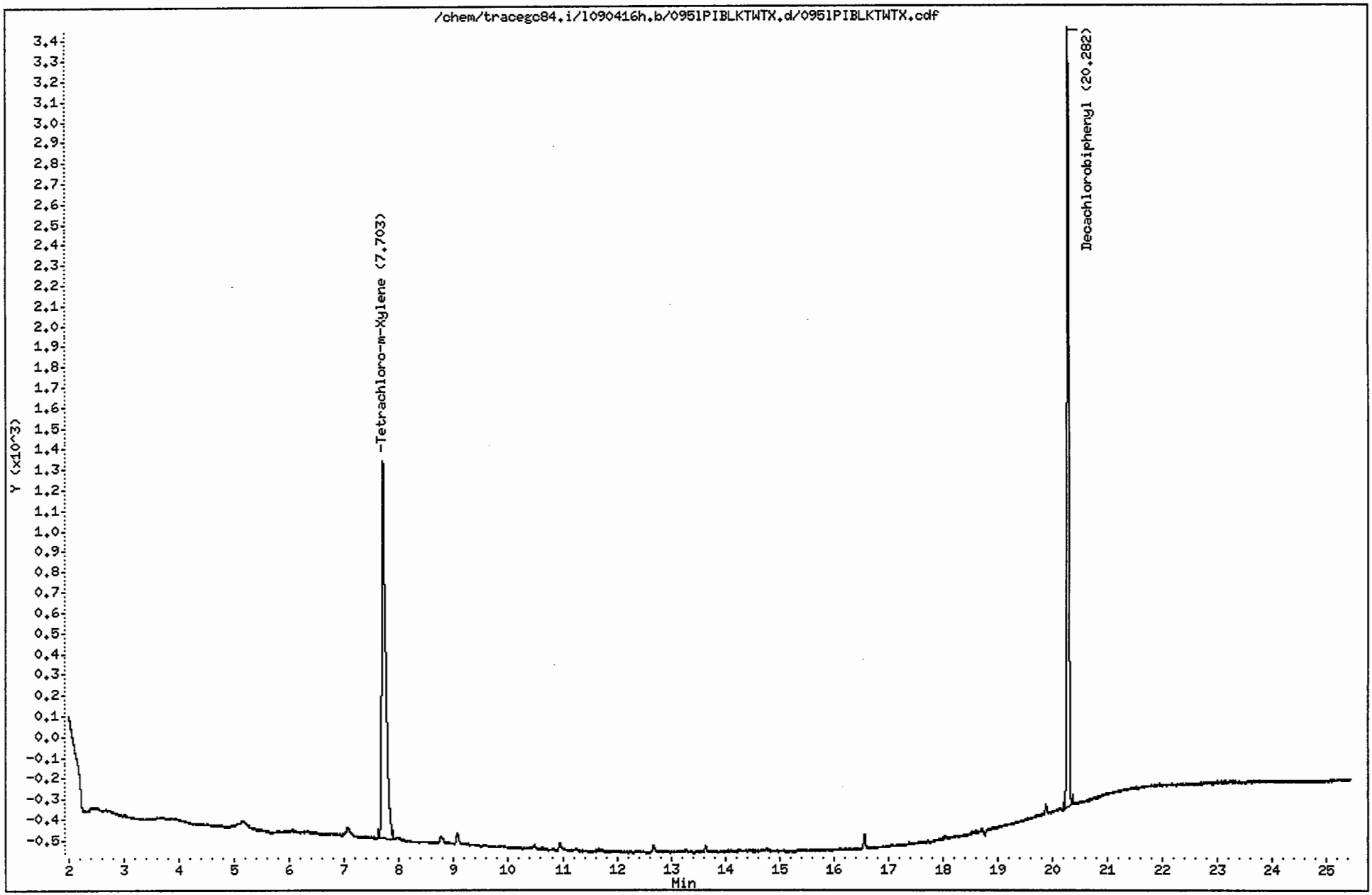
Sample Info: PIBLKTWTX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKTW Client Smp Id : PIBLKTW
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 11:25 Inst ID : TRACEGC84
Operator : 2646
Method : /chem/tracegc84.i/l090416h.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.29			6403						
1.41			34938						
7.70	7.64	7.78	8648	433925	Tetrachloro-m-Xylene	0.019930	0.099651		
20.28	20.22	20.36	9544	459922	Decachlorobiphenyl	0.020751	0.103755		

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKTX

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKTX

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.050	U
319-85-7	beta-BHC	0.050	U
319-84-6	alpha-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
72-54-8	4,4'-DDD	0.10	U
72-55-9	4,4'-DDE	0.10	U
50-29-3	4,4'-DDT	0.10	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc85.i/1090416h.b/0951PIBLKTWTX.d

Date : 23-APR-2009 11:25

Client ID: PIBLKTX

Instrument: tracegc85.i

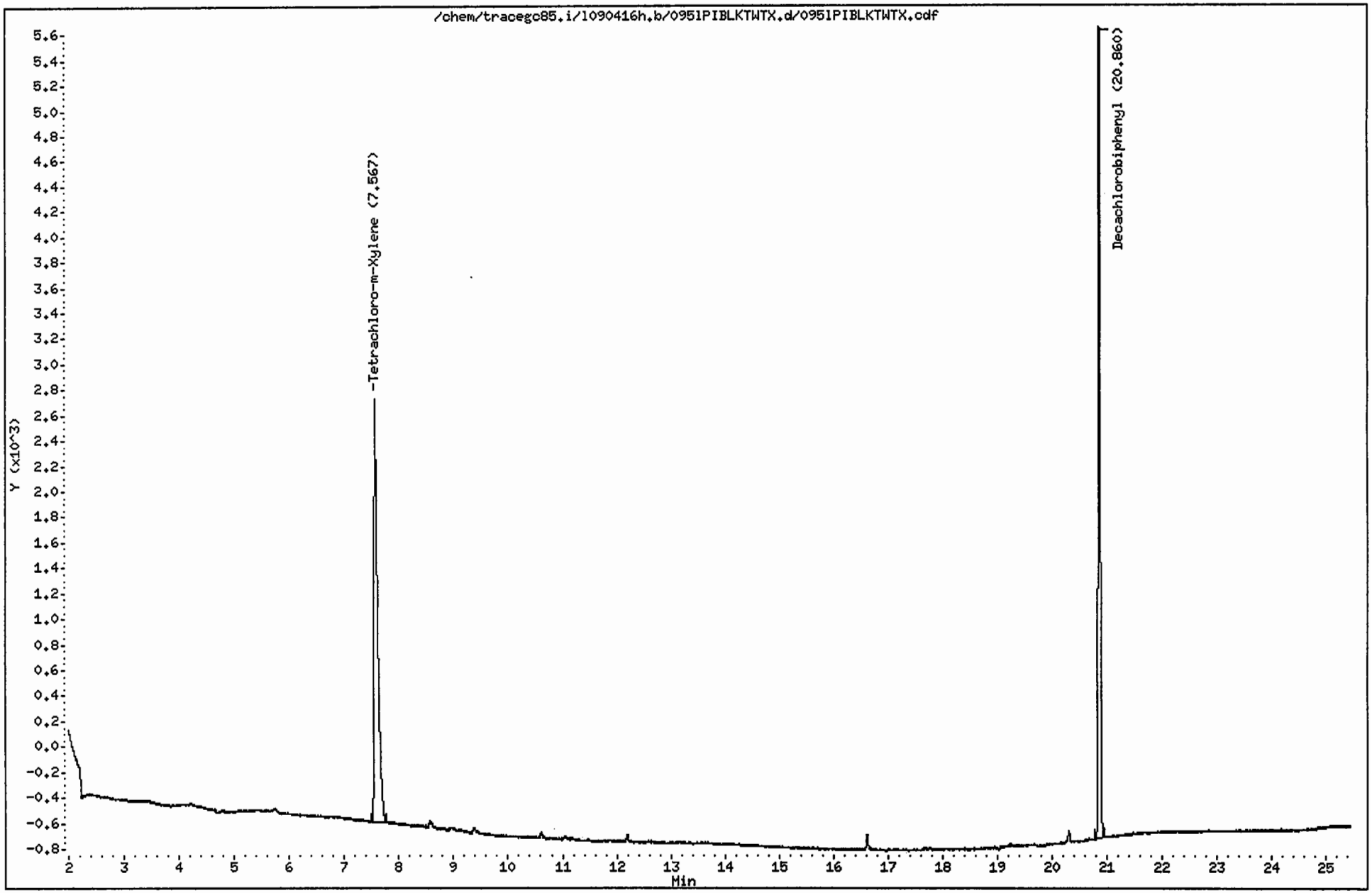
Sample Info: PIBLKTWTX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKTX Client Smp Id : PIBLKTX
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 11:25 Inst ID : TRACEGC85
Operator : 2646
Method : /chem/tracegc85.i/l090416h.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.30			5106						
1.41			2088						
7.57	7.51	7.65	15152	764823	Tetrachloro-m-Xylene	0.019811	0.198114		
20.86	20.80	20.94	15895	773453	Decachlorobiphenyl	0.020551	0.205513		

AS 4/23/09

b. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGTLCS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.12	
319-85-7	beta-BHC	0.13	
319-84-6	alpha-BHC	0.14	
319-86-8	delta-BHC	0.14	
58-89-9	gamma-BHC (Lindane)	0.13	
72-54-8	4,4'-DDD	0.37	
72-55-9	4,4'-DDE	0.36	
50-29-3	4,4'-DDT	0.34	
60-57-1	Dieldrin	0.39	
959-98-8	Endosulfan I	0.080	
33213-65-9	Endosulfan II	0.24	
1031-07-8	Endosulfan sulfate	0.33	
72-20-8	Endrin	0.32	
7421-93-4	Endrin Aldehyde	0.24	
76-44-8	Heptachlor	0.14	
1024-57-3	Heptachlor Epoxide	0.16	
72-43-5	Methoxychlor	0.39	J
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416f.b/07419041631-BS1.d

Page 1

Date : 23-APR-2009 01:18

Client ID: PGTLCS

Instrument: tracegc84.i

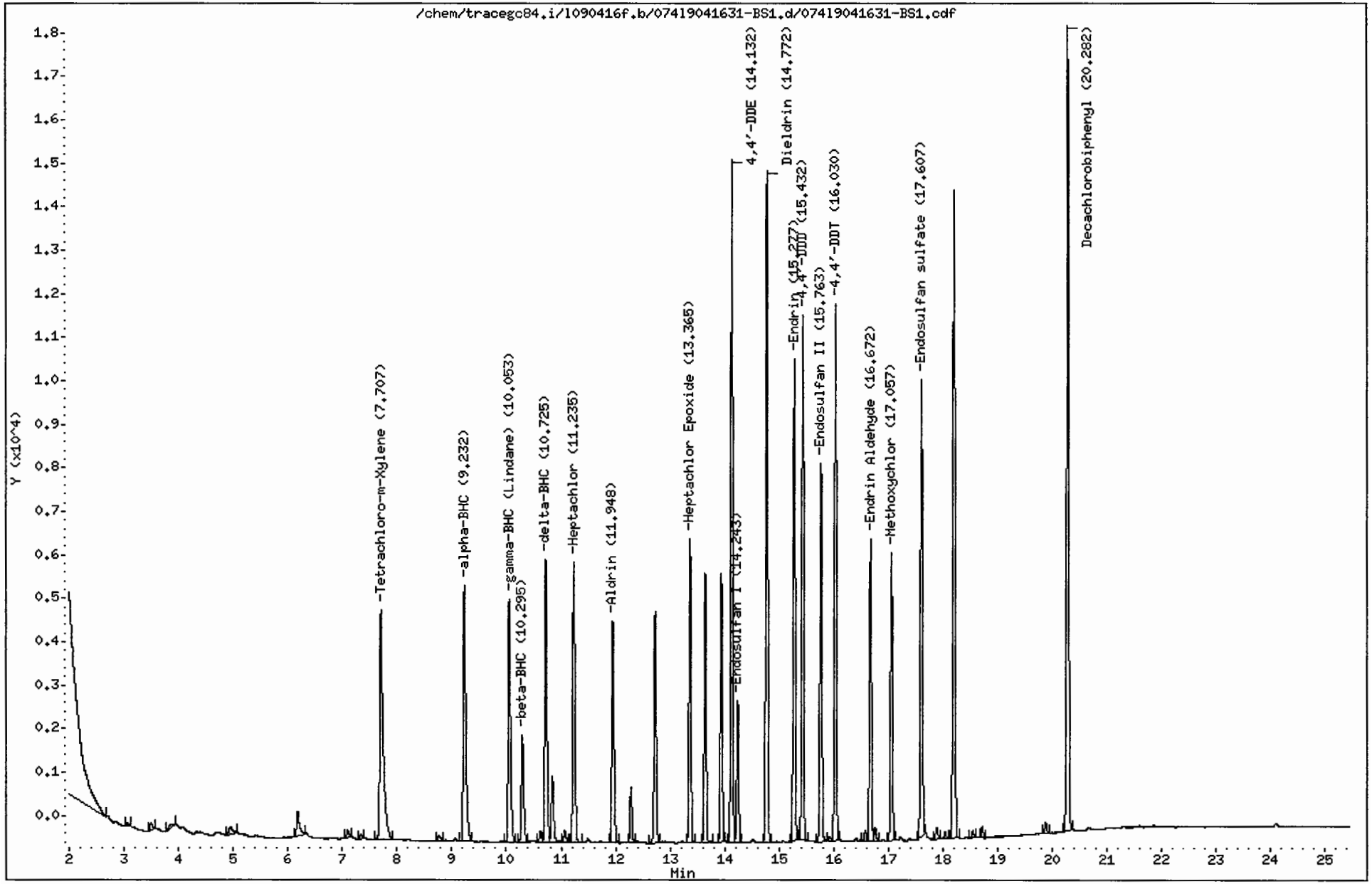
Sample Info: 9041631-BS1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-BS1 Client Smp Id : PGTLCS
Sample Type : LCS Sublist : DAACOMP1
Inj Date : 23-APR-2009 01:18 Inst ID : TRACEGC84
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : PGTLCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			3923								
1.81			33791								
1.93			90313								
3.06			237								
3.50			513								
3.92			485								
4.95			895								
6.18			2054								
7.10			467								
7.34			255								
7.71	7.64	7.78	21264	433925	Tetrachloro-m-Xylene	0.049004	0.245019		81.7	43 - 135	
8.77			334								
9.23	9.17	9.31	18170	646560	alpha-BHC	0.028101	0.140505	0.050000	93.7	50 - 150	
10.05	9.99	10.13	16024	616945	gamma-BHC (Lindane)	0.025972	0.129858	0.050000	86.6	50 - 150	
10.30	10.23	10.37	6844	272870	beta-BHC	0.025082	0.125408	0.050000	83.6	50 - 150	
10.63			637								
10.72	10.66	10.80	17232	603075	delta-BHC	0.028572	0.142860	0.050000	95.2	50 - 150	
10.84			4592								
11.07			762								
11.24	11.17	11.31	17194	611410	Heptachlor	0.028120	0.140601	0.050000	93.7	50 - 150	
11.95	11.88	12.02	13685	566175	Aldrin	0.024169	0.120846	0.050000	80.6	50 - 150	
12.28			3029								
12.73			13536								
13.36	13.30	13.44	16657	526322	Heptachlor Epoxide	0.031646	0.158230	0.050000	105.5	50 - 150	
13.64			14976								
13.94			14521								
14.13	14.07	14.21	35420	502832	4,4'-DDE	0.070439	0.352195	0.100000	93.9	50 - 150	
14.24	14.18	14.32	7986	497455	Endosulfan I	0.016052	0.080259	0.050000	53.5	50 - 150	
14.77	14.71	14.85	37089	490318	Dieldrin	0.075641	0.378204	0.100000	100.9	50 - 150	
15.28	15.21	15.35	26822	429706	Endrin	0.062419	0.312097	0.100000	83.2	50 - 150	
15.43	15.37	15.51	27455	374531	4,4'-DDD	0.073302	0.366511	0.100000	97.7	50 - 150	
15.76	15.70	15.84	21476	448146	Endosulfan II	0.047922	0.239609	0.100000	63.9	50 - 150	
15.92			302								
16.03	15.97	16.11	28090	422705	4,4'-DDT	0.066453	0.332265	0.100000	88.6	50 - 150	
16.59			635								
16.67	16.61	16.75	16882	367108	Endrin Aldehyde	0.045987	0.229933	0.100000	61.3	50 - 150	
16.76			712								

4/23/09

CompuChem

Lab Smp Id : 9041631-BS1 Client Smp Id : PGTLCS
Sample Type : LCS Sublist : DAACOMP1
Inj Date : 23-APR-2009 01:18 Inst ID :
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : PGTLCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
17.06	16.99 17.13	15491	197958	Methoxychlor	0.078249	0.391244	0.500000	104.3	50 - 150	J
17.61	17.55 17.69	25740	407549	Endosulfan sulfate	0.063158	0.315790	0.100000	84.2	50 - 150	
17.89		759								
18.04		418								
18.20		37059								
18.55		379								
18.72		620								
19.88		599								
20.28	20.22 20.36	45850	459922	Decachlorobiphenyl	0.099689	0.498443		83.1	43 - 144	

Data File: /chem/tracegc85.i/1090416f.b/07419041631-BS1.d

Page 1

Date : 23-APR-2009 01:18

Client ID: PGTLCS

Instrument: tracegc85.i

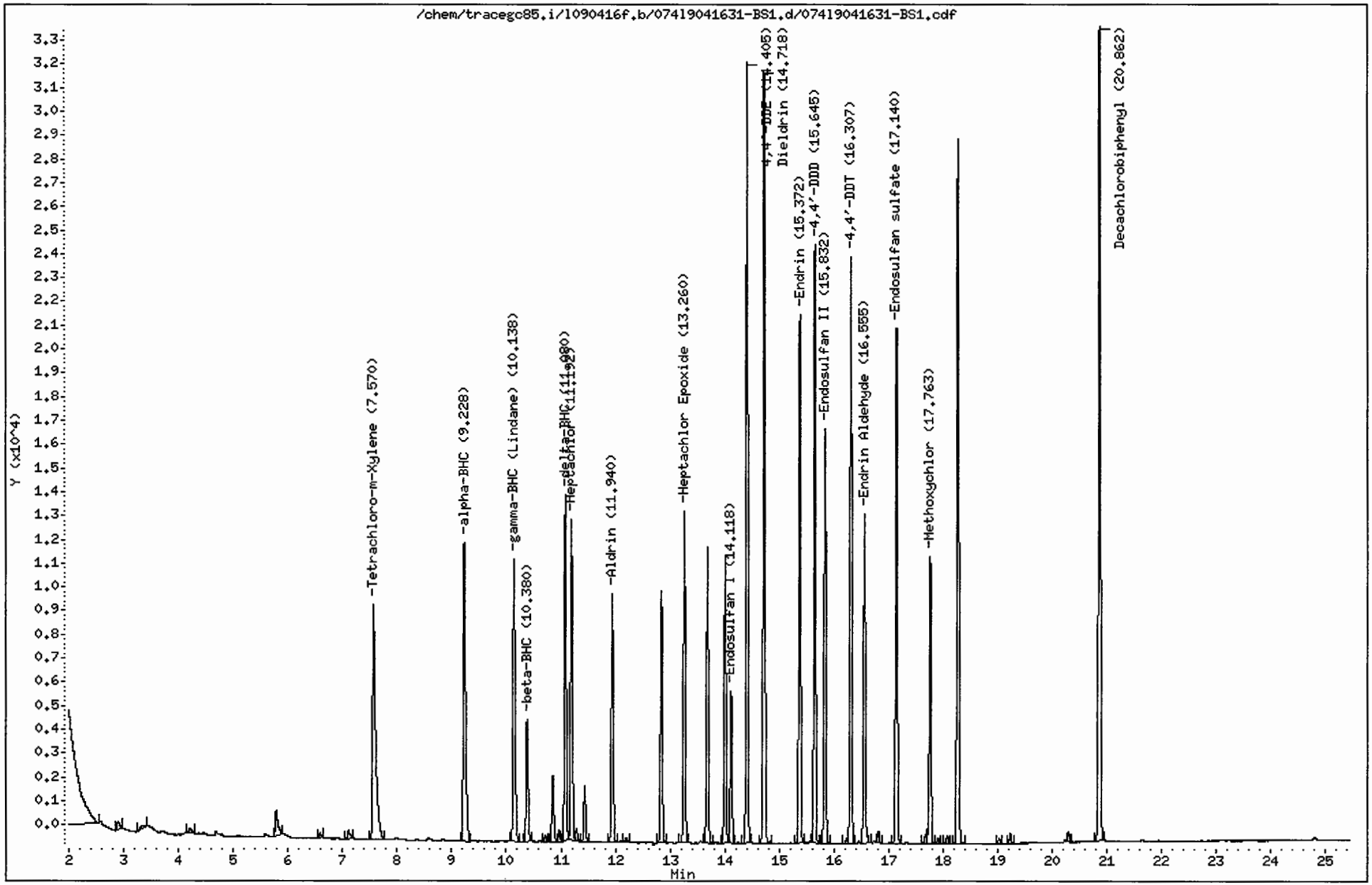
Sample Info: 9041631-BS1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-BS1 Client Smp Id : PGTLCS
Sample Type : LCS Sublist : DAACOMP1
Inj Date : 23-APR-2009 01:18 Inst ID : TRACEGC85
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : PGTLCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			16240								
1.50			8523								
1.65			71087								
1.77			193275								
2.90			963								
3.39			666								
4.21			758								
5.79			3634								
6.59			492								
7.11			1044								
7.57	7.51	7.65	37414	764823	Tetrachloro-m-Xylene	0.048919	0.244593		81.5	43 - 135	
9.23	9.16	9.30	35508	1270810	alpha-BHC	0.027940	0.139702	0.050000	93.1	50 - 150	
10.14	10.07	10.21	30812	1186035	gamma-BHC (Lindane)	0.025978	0.129891	0.050000	86.6	50 - 150	
10.38	10.31	10.45	12782	481682	beta-BHC	0.026536	0.132681	0.050000	88.5	50 - 150	
10.71			661								
10.85			7251								
10.97			1175								
11.08	11.01	11.15	33029	1157705	delta-BHC	0.028530	0.142649	0.050000	95.1	50 - 150	
11.19	11.13	11.27	32106	1110066	Heptachlor	0.028922	0.144608	0.050000	96.4	50 - 150	
11.29			1330								
11.44			5425								
11.94	11.88	12.02	24496	1061288	Aldrin	0.023081	0.115407	0.050000	76.9	50 - 150	
12.19			475								
12.84			24615								
13.26	13.20	13.34	30631	957605	Heptachlor Epoxide	0.031986	0.159930	0.050000	106.6	50 - 150	
13.68			27781								
14.01			26672								
14.12	14.05	14.19	14240	898480	Endosulfan I	0.015849	0.079245	0.050000	52.8	50 - 150	
14.40	14.34	14.48	67386	933570	4,4'-DDE	0.072180	0.360900	0.100000	96.2	50 - 150	
14.72	14.65	14.79	72505	924768	Dieldrin	0.078403	0.392017	0.100000	104.5	50 - 150	
15.37	15.31	15.45	49739	783950	Endrin	0.063447	0.317233	0.100000	84.6	50 - 150	
15.64	15.58	15.72	52456	700260	4,4'-DDD	0.074908	0.374539	0.100000	99.9	50 - 150	
15.83	15.77	15.91	39190	806724	Endosulfan II	0.048579	0.242896	0.100000	64.8	50 - 150	
16.23			483								
16.31	16.25	16.39	52342	765265	4,4'-DDT	0.068396	0.341980	0.100000	91.2	50 - 150	
16.56	16.49	16.63	31650	662380	Endrin Aldehyde	0.047781	0.238904	0.100000	63.7	50 - 150	
16.81			1177								

4/23/09

CompuChem

Lab Smp Id : 9041631-BS1 Client Smp Id : PGTLCS
Sample Type : LCS Sublist : DAACOMP1
Inj Date : 23-APR-2009 01:18 Inst ID :
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : PGTLCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
17.14	17.08 17.22	47931	735542	Endosulfan sulfate	0.065164	0.325821	0.100000	86.9	50 - 150	
17.68		964								
17.76	17.71 17.85	26810	342591	Methoxychlor	0.078257	0.391283	0.500000	104.3	50 - 150	J
17.91		520								
18.08		918								
18.27		68234								
19.03		525								
19.23		989								
20.30		810								
20.86	20.80 20.94	83198	773453	Decachlorobiphenyl	0.107566	0.537828		89.6	43 - 144	

c. Matrix Spike Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-MS2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.078	
319-85-7	beta-BHC	0.14	
319-84-6	alpha-BHC	0.14	
319-86-8	delta-BHC	0.15	
58-89-9	gamma-BHC (Lindane)	0.13	
72-54-8	4,4'-DDD	0.39	
72-55-9	4,4'-DDE	0.37	
50-29-3	4,4'-DDT	0.36	
60-57-1	Dieldrin	0.41	
959-98-8	Endosulfan I	0.094	
33213-65-9	Endosulfan II	0.25	
1031-07-8	Endosulfan sulfate	0.36	
72-20-8	Endrin	0.34	
7421-93-4	Endrin Aldehyde	0.25	
76-44-8	Heptachlor	0.12	
1024-57-3	Heptachlor Epoxide	0.16	
72-43-5	Methoxychlor	0.42	J
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

FORM I PEST

Data File: /chem/tracegc84.i/1090416f.b/07719041631-MS2.d

Page 1

Date : 23-APR-2009 02:45

Client ID: 13MW5MS

Instrument: tracegc84.i

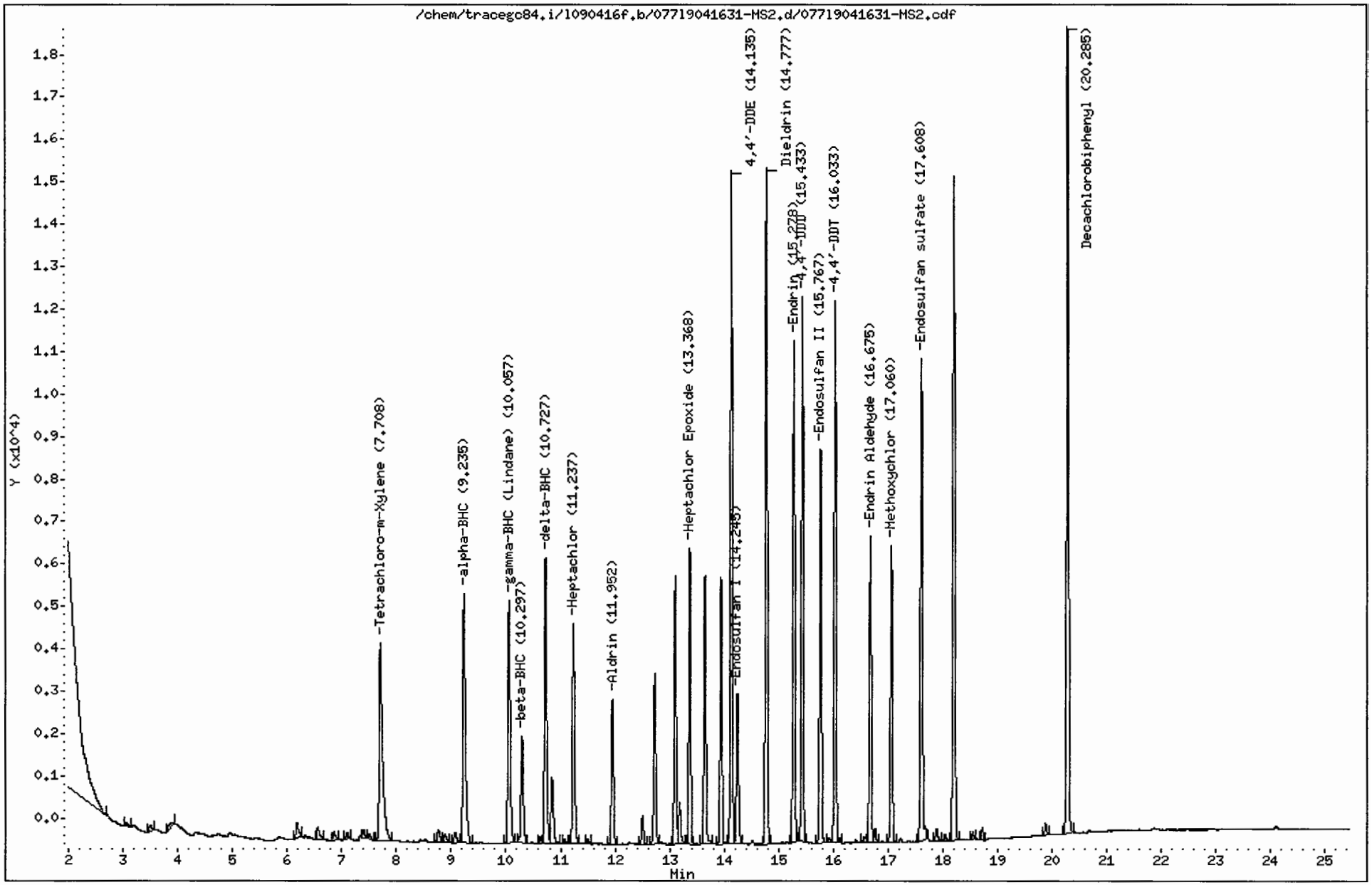
Sample Info: 9041631-MS2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP1
Inj Date : 23-APR-2009 02:45 Inst ID : TRACEGC84
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			7409								
1.81			39681								
1.93			114684								
3.06			344								
3.50			440								
3.92			593								
6.18			1132								
6.57			1068								
6.86			648								
7.11			422								
7.40			495								
7.50			376								
7.71	7.64	7.78	18975	433925	Tetrachloro-m-Xylene	0.043729	0.218644		72.9	43 - 135	
8.77			1001								
8.88			541								
9.07			832								
9.24	9.17	9.31	18540	646560	alpha-BHC	0.028675	0.143374	0.050000	95.6	50 - 150	
10.06	9.99	10.13	16234	616945	gamma-BHC (Lindane)	0.026312	0.131560	0.050000	87.7	50 - 150	
10.30	10.23	10.37	7311	272870	beta-BHC	0.026789	0.133947	0.050000	89.3	50 - 150	
10.63			372								
10.73	10.66	10.80	17759	603075	delta-BHC	0.029446	0.147229	0.050000	98.2	50 - 150	
10.85			4537								
11.07			238								
11.24	11.17	11.31	14098	611410	Heptachlor	0.023058	0.115291	0.050000	76.9	50 - 150	
11.50			256								
11.95	11.88	12.02	8847	566175	Aldrin	0.015626	0.078130	0.050000	52.1	50 - 150	
12.50			1671								
12.73			10235								
13.10			15353								
13.19			2559								
13.37	13.30	13.44	16402	526322	Heptachlor Epoxide	0.031162	0.155808	0.050000	103.9	50 - 150	
13.65			15963								
13.95			14923								
14.14	14.07	14.21	36010	502832	4,4'-DDE	0.071612	0.358062	0.100000	95.5	50 - 150	
14.24	14.18	14.32	9362	497455	Endosulfan I	0.018818	0.094089	0.050000	62.7	50 - 150	
14.78	14.71	14.85	38232	490318	Dieldrin	0.077974	0.389870	0.100000	104.0	50 - 150	
15.28	15.21	15.35	28416	429706	Endrin	0.066129	0.330644	0.100000	88.2	50 - 150	

4/23/09

CompuChem

Lab Smp Id : 9041631-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP1
Inj Date : 23-APR-2009 02:45 Inst ID :
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
15.43	15.37 15.51	28548	374531	4,4'-DDD	0.076223	0.381116	0.100000	101.6	50 - 150	
15.77	15.70 15.84	22439	448146	Endosulfan II	0.050068	0.250342	0.100000	66.8	50 - 150	
15.92		387								
16.03	15.97 16.11	29589	422705	4,4'-DDT	0.069999	0.349996	0.100000	93.3	50 - 150	
16.57		365								
16.68	16.61 16.75	17451	367108	Endrin Aldehyde	0.047534	0.237669	0.100000	63.4	50 - 150	
16.76		796								
17.06	16.99 17.13	16300	197958	Methoxychlor	0.082340	0.411702	0.500000	109.8	50 - 150	J
17.61	17.55 17.69	29059	407549	Endosulfan sulfate	0.071299	0.356497	0.100000	95.1	50 - 150	
17.89		787								
18.04		352								
18.20		39008								
18.55		379								
18.73		714								
19.89		648								
20.28	20.22 20.36	47990	459922	Decachlorobiphenyl	0.104344	0.521718		87.0	43 - 144	

Data File: /chem/tracegc85.i/1090416f.b/07719041631-MS2.d

Page 1

Date : 23-APR-2009 02:45

Client ID: 13MW5MS

Instrument: tracegc85.i

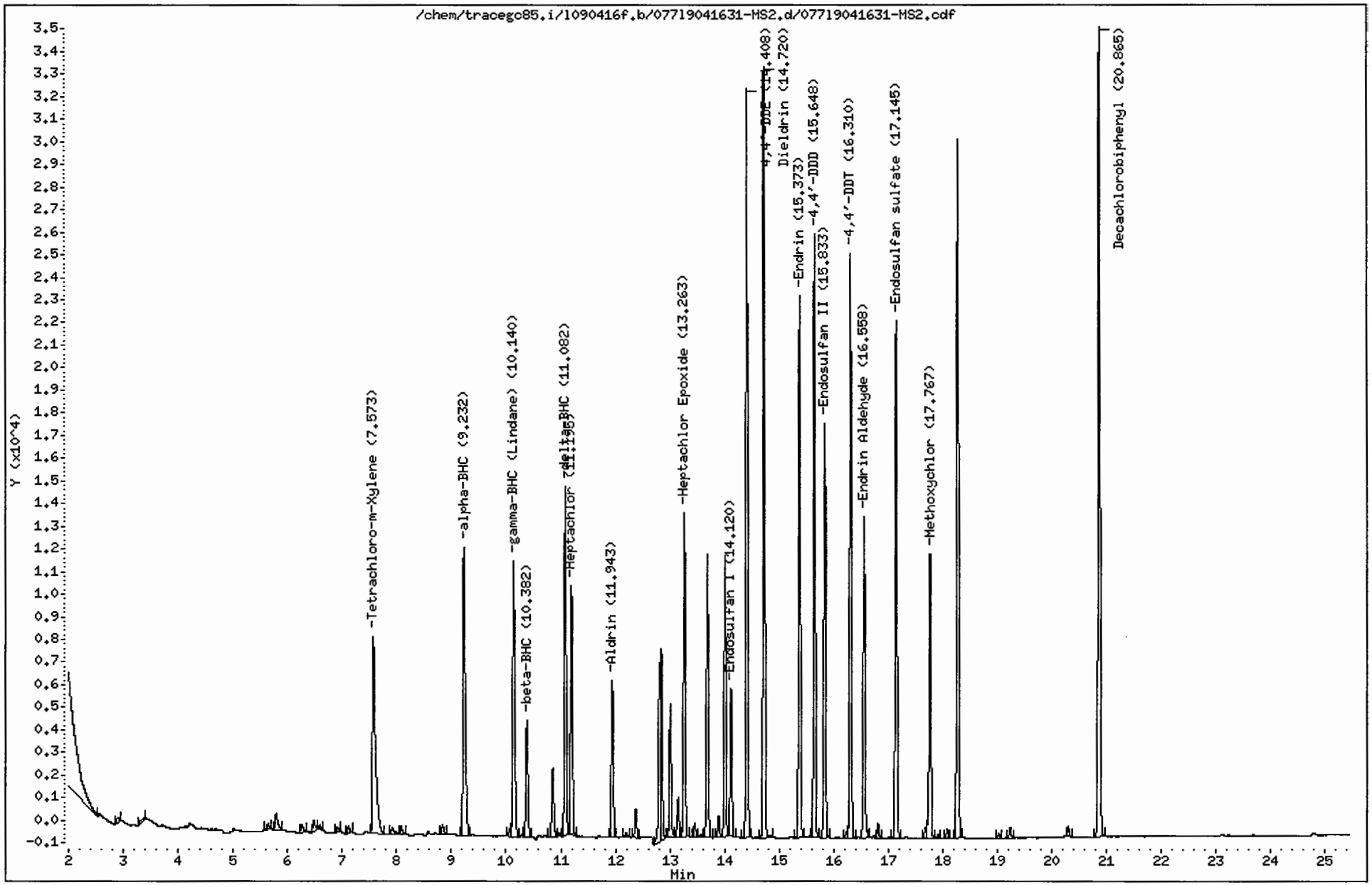
Sample Info: 9041631-MS2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP1
Inj Date : 23-APR-2009 02:45 Inst ID : TRACEGC85
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			5133								
1.49			1649								
1.65			68243								
1.77			212610								
2.90			691								
3.38			449								
5.64			699								
5.79			2281								
6.26			1117								
6.48			1477								
6.59			397								
6.91			520								
7.11			808								
7.57	7.51	7.65	33328	764823	Tetrachloro-m-Xylene	0.043575	0.217874		72.6	43 - 135	
7.92			999								
8.08			1004								
8.84			1252								
9.23	9.16	9.30	36160	1270810	alpha-BHC	0.028454	0.142268	0.050000	94.8	50 - 150	
10.07			820								
10.14	10.07	10.21	31702	1186035	gamma-BHC (Lindane)	0.026729	0.133647	0.050000	89.1	50 - 150	
10.38	10.31	10.45	13036	481682	beta-BHC	0.027061	0.135307	0.050000	90.2	50 - 150	
10.85			7951								
11.08	11.01	11.15	34367	1157705	delta-BHC	0.029685	0.148427	0.050000	99.0	50 - 150	
11.20	11.13	11.27	26520	1110066	Heptachlor	0.023890	0.119452	0.050000	79.6	50 - 150	
11.94	11.88	12.02	16391	1061288	Aldrin	0.015444	0.077222	0.050000	51.5	50 - 150	
12.19			526								
12.37			2855								
12.81			17168								
12.84			18945								
13.01			13274								
13.15			4061								
13.26	13.20	13.34	31557	957605	Heptachlor Epoxide	0.032954	0.164770	0.050000	109.8	50 - 150	
13.46			1507								
13.56			399								
13.69			28006								
13.89			2068								
14.01			27027								

RSH 4/23/09

CompuChem

Lab Smp Id : 9041631-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP1
Inj Date : 23-APR-2009 02:45 Inst ID :
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
14.12	14.05 14.19	14672	898480	Endosulfan I	0.016329	0.081643	0.050000	54.4	50 - 150	
14.41	14.34 14.48	68655	933570	4,4'-DDE	0.073539	0.367696	0.100000	98.1	50 - 150	
14.72	14.65 14.79	75231	924768	Dieldrin	0.081351	0.406756	0.100000	108.5	50 - 150	
15.37	15.31 15.45	52741	783950	Endrin	0.067275	0.336373	0.100000	89.7	50 - 150	
15.65	15.58 15.72	55039	700260	4,4'-DDD	0.078598	0.392990	0.100000	104.8	50 - 150	
15.83	15.77 15.91	40991	806724	Endosulfan II	0.050810	0.254052	0.100000	67.7	50 - 150	
16.24		649								
16.31	16.25 16.39	54592	765265	4,4'-DDT	0.071336	0.356680	0.100000	95.1	50 - 150	
16.56	16.49 16.63	32519	662380	Endrin Aldehyde	0.049094	0.245471	0.100000	65.5	50 - 150	
16.81		1412								
17.14	17.08 17.22	51971	735542	Endosulfan sulfate	0.070657	0.353283	0.100000	94.2	50 - 150	
17.68		1069								
17.77	17.71 17.85	28859	342591	Methoxychlor	0.084234	0.421172	0.500000	112.3	50 - 150	J
17.91		452								
18.08		1012								
18.27		71593								
19.03		520								
19.24		1119								
20.30		954								
20.86	20.80 20.94	87205	773453	Decachlorobiphenyl	0.112748	0.563738		94.0	43 - 144	

d. Matrix Spike Duplicate Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8081A-8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041631-MSD2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/23/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.068	
319-85-7	beta-BHC	0.13	
319-84-6	alpha-BHC	0.14	
319-86-8	delta-BHC	0.14	
58-89-9	gamma-BHC (Lindane)	0.13	
72-54-8	4,4'-DDD	0.38	
72-55-9	4,4'-DDE	0.35	
50-29-3	4,4'-DDT	0.34	
60-57-1	Dieldrin	0.39	
959-98-8	Endosulfan I	0.084	
33213-65-9	Endosulfan II	0.24	
1031-07-8	Endosulfan sulfate	0.31	
72-20-8	Endrin	0.32	
7421-93-4	Endrin Aldehyde	0.23	
76-44-8	Heptachlor	0.10	
1024-57-3	Heptachlor Epoxide	0.16	
72-43-5	Methoxychlor	0.39	J
8001-35-2	Toxaphene	2.5	U
57-74-9	Technical Chlordane	0.86	U

Data File: /chem/tracegc84.i/1090416f.b/07819041631-MSD2.d

Page 1

Date : 23-APR-2009 03:14

Client ID: 13MW5MSD

Instrument: tracegc84.i

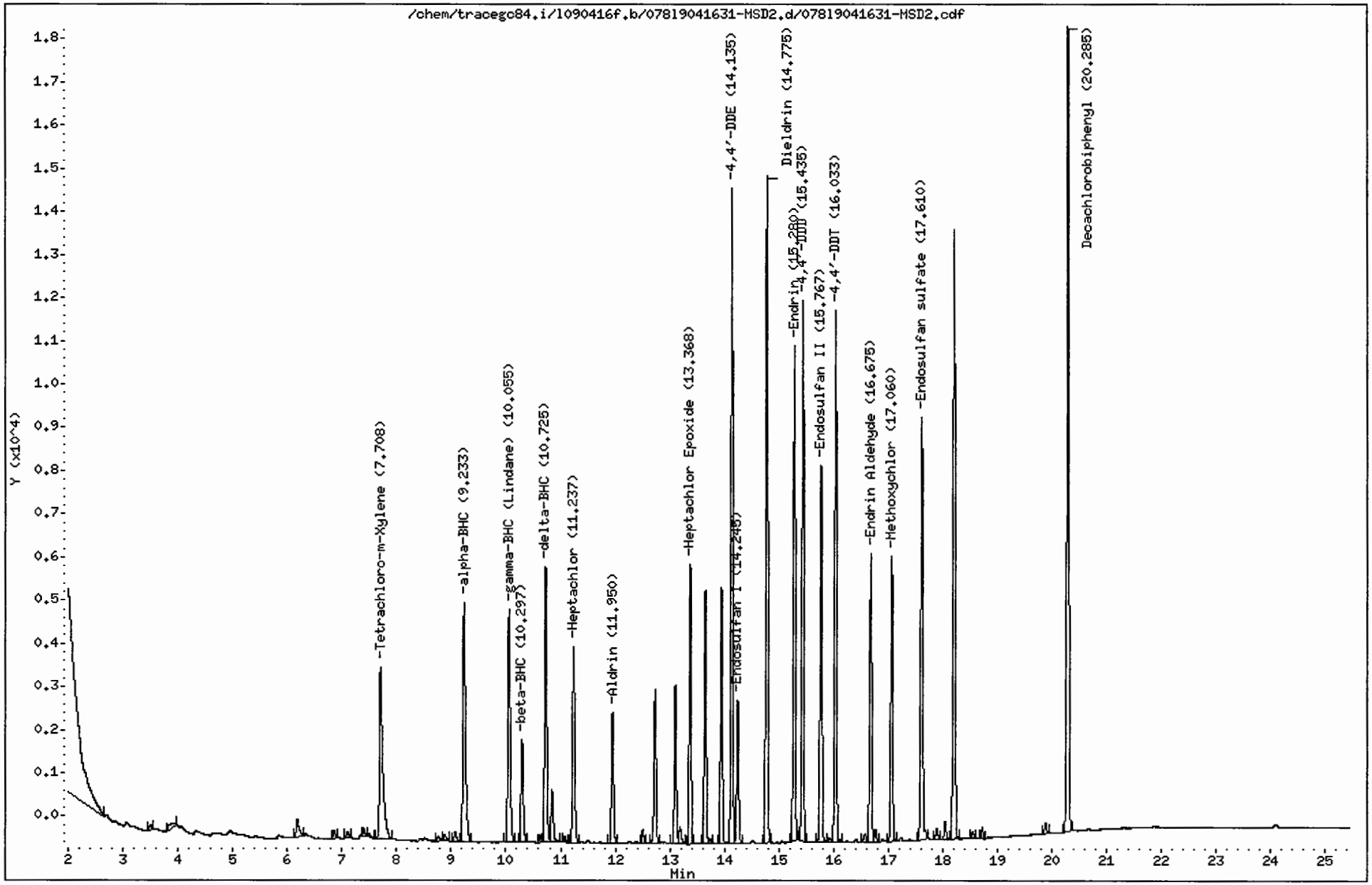
Sample Info: 9041631-MSD2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP1
Inj Date : 23-APR-2009 03:14 Inst ID : TRACEGC84
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.29			11253								
1.81			33919								
1.93			91248								
3.50			320								
3.92			716								
6.18			1491								
6.86			497								
7.11			404								
7.40			481								
7.50			297								
7.71	7.64	7.78	15938	433925	Tetrachloro-m-Xylene	0.036730	0.183649		61.2	43 - 135	
8.77			317								
8.88			425								
9.07			687								
9.23	9.17	9.31	17489	646560	alpha-BHC	0.027049	0.135247	0.050000	90.2	50 - 150	
10.06	9.99	10.13	15385	616945	gamma-BHC (Lindane)	0.024937	0.124687	0.050000	83.1	50 - 150	
10.30	10.23	10.37	6717	272870	beta-BHC	0.024612	0.123062	0.050000	82.0	50 - 150	
10.63			396								
10.72	10.66	10.80	16753	603075	delta-BHC	0.027778	0.138888	0.050000	92.6	50 - 150	
10.85			3525								
11.08			360								
11.24	11.17	11.31	12197	611410	Heptachlor	0.019949	0.099745	0.050000	66.5	50 - 150	
11.95	11.88	12.02	7737	566175	Aldrin	0.013664	0.068318	0.050000	45.5*	50 - 150	R
12.50			771								
12.73			9173								
13.10			8538								
13.19			1097								
13.37	13.30	13.44	15353	526322	Heptachlor Epoxide	0.029170	0.145852	0.050000	97.2	50 - 150	
13.65			14409								
13.95			14059								
14.14	14.07	14.21	34223	502832	4,4'-DDE	0.068058	0.340292	0.100000	90.7	50 - 150	
14.24	14.18	14.32	8328	497455	Endosulfan I	0.016739	0.083696	0.050000	55.8	50 - 150	
14.78	14.71	14.85	36743	490318	Dieldrin	0.074937	0.374686	0.100000	99.9	50 - 150	
15.28	15.21	15.35	27365	429706	Endrin	0.063681	0.318404	0.100000	84.9	50 - 150	
15.44	15.37	15.51	27505	374531	4,4'-DDD	0.073438	0.367192	0.100000	97.9	50 - 150	
15.77	15.70	15.84	21202	448146	Endosulfan II	0.047310	0.236552	0.100000	63.1	50 - 150	
15.92			339								

Kelly 4/23/09

CompuChem

Lab Smp Id : 9041631-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP1
Inj Date : 23-APR-2009 03:14 Inst ID :
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc84.i/l090416f.b/8081A_clpestv6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
16.03	15.97 16.11	28587	422705	4,4'-DDT	0.067626	0.338132	0.100000	90.2	50 - 150	
16.57		520								
16.68	16.61 16.75	16198	367108	Endrin Aldehyde	0.044121	0.220603	0.100000	58.8	50 - 150	
16.77		675								
17.06	16.99 17.13	15457	197958	Methoxychlor	0.078077	0.390385	0.500000	104.1	50 - 150	J
17.61	17.55 17.69	24897	407549	Endosulfan sulfate	0.061087	0.305436	0.100000	81.4	50 - 150	
17.89		742								
18.04		1042								
18.20		35256								
18.55		358								
18.73		618								
19.89		598								
20.28	20.22 20.36	46505	459922	Decachlorobiphenyl	0.101113	0.505563		84.3	43 - 144	

Data File: /chem/tracegc85.i/1090416f.b/07819041631-MSD2.d

Page 1

Date : 23-APR-2009 03:14

Client ID: 13MW5MSD

Instrument: tracegc85.i

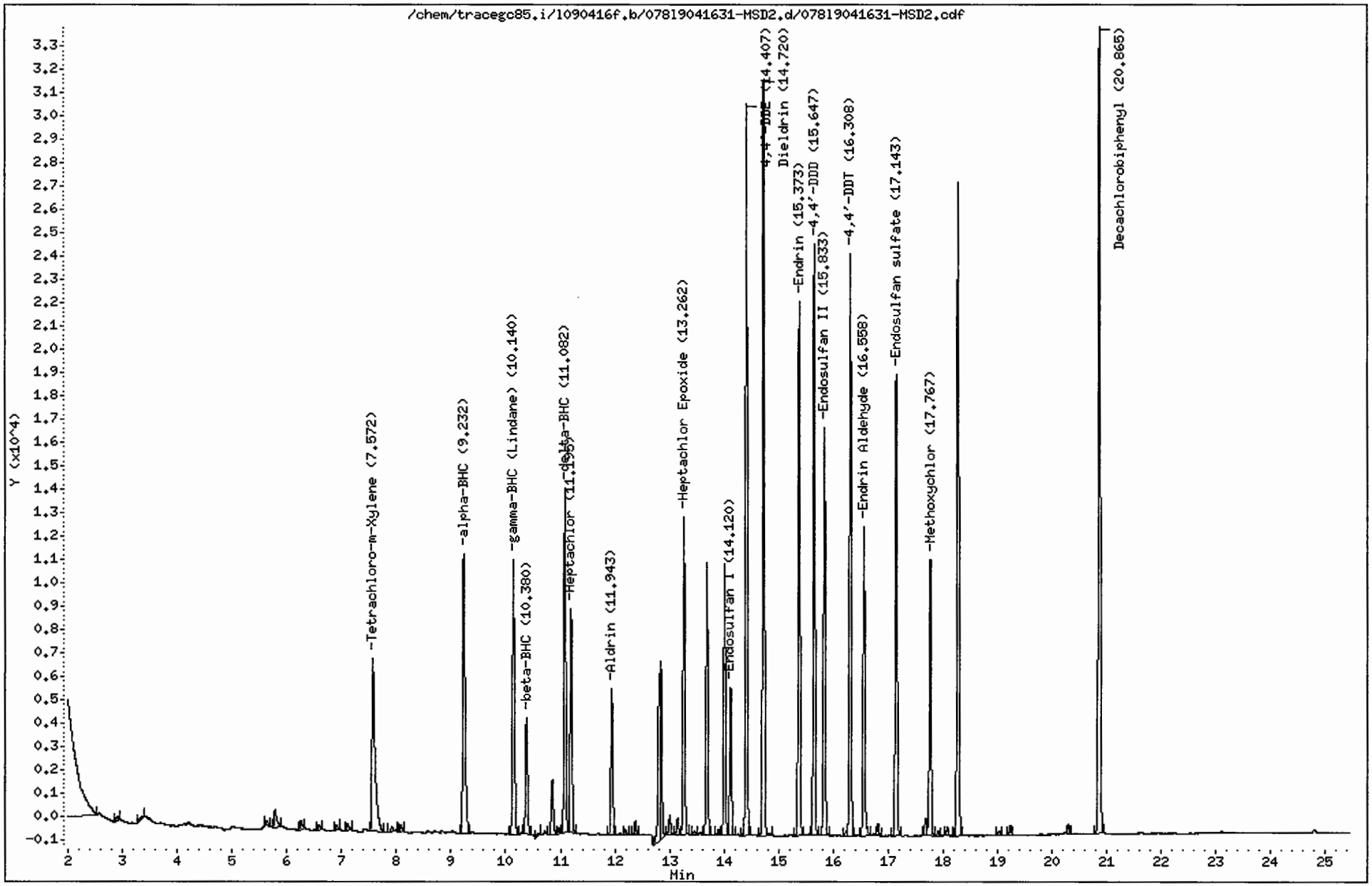
Sample Info: 9041631-MSD2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041631-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP1
Inj Date : 23-APR-2009 03:14 Inst ID : TRACEGC85
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc85.i/1090416f.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.30			17642								
1.49			10538								
1.65			72697								
1.77			197195								
2.90			615								
3.38			606								
5.64			517								
5.79			2430								
6.26			849								
6.59			497								
6.91			469								
7.11			842								
7.57	7.51	7.65	28073	764823	Tetrachloro-m-Xylene	0.036704	0.183520		61.2	43 - 135	
7.92			742								
8.08			718								
9.23	9.16	9.30	34046	1270810	alpha-BHC	0.026791	0.133954	0.050000	89.3	50 - 150	
10.14	10.07	10.21	29801	1186035	gamma-BHC (Lindane)	0.025126	0.125629	0.050000	83.8	50 - 150	
10.38	10.31	10.45	12406	481682	beta-BHC	0.025756	0.128778	0.050000	85.9	50 - 150	
10.61			394								
10.85			6071								
10.97			621								
11.08	11.01	11.15	32589	1157705	delta-BHC	0.028150	0.140748	0.050000	93.8	50 - 150	
11.20	11.13	11.27	23250	1110066	Heptachlor	0.020945	0.104723	0.050000	69.8	50 - 150	
11.94	11.88	12.02	14391	1061288	Aldrin	0.013560	0.067800	0.050000	45.2*	50 - 150	R
12.19			548								
12.37			1310								
12.81			15401								
12.84			17447								
13.01			2021								
13.15			1579								
13.26	13.20	13.34	30044	957605	Heptachlor Epoxide	0.031373	0.156865	0.050000	104.6	50 - 150	
13.46			419								
13.69			26063								
13.89			570								
14.01			25686								
14.12	14.05	14.19	14337	898480	Endosulfan I	0.015957	0.079785	0.050000	53.2	50 - 150	
14.41	14.34	14.48	65001	933570	4,4'-DDE	0.069626	0.348131	0.100000	92.8	50 - 150	

4/23/09

CompuChem

Lab Smp Id : 9041631-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP1
Inj Date : 23-APR-2009 03:14 Inst ID :
Operator : 2512 Spike Sublist : DAACOMP
Method : /chem/tracegc85.i/l090416f.b/8081A_clpest2v6.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
14.72	14.65 14.79	71653	924768	Dieldrin	0.077482	0.387411	0.100000	103.3	50 - 150	
15.37	15.31 15.45	50743	783950	Endrin	0.064726	0.323630	0.100000	86.3	50 - 150	
15.65	15.58 15.72	52780	700260	4,4'-DDD	0.075372	0.376860	0.100000	100.5	50 - 150	
15.83	15.77 15.91	38598	806724	Endosulfan II	0.047844	0.239221	0.100000	63.8	50 - 150	
16.24		582								
16.31	16.25 16.39	52745	765265	4,4'-DDT	0.068924	0.344619	0.100000	91.9	50 - 150	
16.56	16.49 16.63	30122	662380	Endrin Aldehyde	0.045474	0.227369	0.100000	60.6	50 - 150	
16.81		1121								
17.14	17.08 17.22	44657	735542	Endosulfan sulfate	0.060712	0.303558	0.100000	80.9	50 - 150	
17.68		1811								
17.77	17.71 17.85	26815	342591	Methoxychlor	0.078271	0.391356	0.500000	104.4	50 - 150	J
17.91		474								
18.08		942								
18.27		64272								
19.03		491								
19.24		966								
20.30		841								
20.86	20.80 20.94	84556	773453	Decachlorobiphenyl	0.109323	0.546614		91.1	43 - 144	

e. Raw Florisil Data

1. The chromatograms and data system reports for the Florisil cartridge performance check analyses.

2. The chromatograms and data system reports for standard analyses used to quantify compounds in the Florisil cartridge performance check analysis.

Worksheet Ref: Florisil Lot Test

EXTRACTION WORKSHEET

Pesticide/PCB

12-29-2

310

ASSIGNED TO: Rodney/ Alicia

DATE PREPPED 12/29/2008

EMP. ID NUMBER 2171

FLORISIL LOT TEST

	COMPUCHEM NUMBER	SAMPLE TYPE	FINAL VOLUME	COMMENTS
1	FLO00321	FLORISIL TEST SAMPLE	1.0ML	0.5 MLs OF 4025 AND MIX A MED 3/90
2	FLO00322	FLORISIL TEST SAMPLE	1.0ML	ARE DILUTED TO 4.0ML IN HEXANE, BLOWN DOWN TO 0.5ML
3	FLO00323	FLORISIL TEST SAMPLE	1.0ML	BROUGHT BACK UP TO 2.0ML W/ HEXANE, THEN FLORISILED
4	FLO00324	FLORISIL TEST SAMPLE	1.0ML	
5	FLO00325	FLORISIL TEST SAMPLE	1.0ML	
6	FLO00326	FLORISIL TEST SAMPLE	1.0ML	
7	FLO00327	FLORISIL TEST SAMPLE	1.0ML	
8	FLO00328	FLORISIL TEST SAMPLE FLO003212088	1.0ML	
9	FLO00329	FLORISIL TEST SAMPLE	1.0ML	
10	FLO003210	FLORISIL TEST SAMPLE	1.0ML	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

JLM

4025 SOLUTION	AMT. 0.5ML
	LOT 61826
MIXA-MED 3/90 SPIKE SOLUTION	~~61764~~ ~12-29-08
	AMT. 0.5ML
	LOT 61764

FLO003212088 for OLM only

KEH 1/7/09

FINAL VOLUME VERIFIED

SUPERVISOR REVIEWED

Data File: /chem/tracegc82.i/n081213u.b/249nFL000328.d

Date : 03-JAN-2009 11:27

Client ID: FL0003212088

Instrument: tracegc82.i

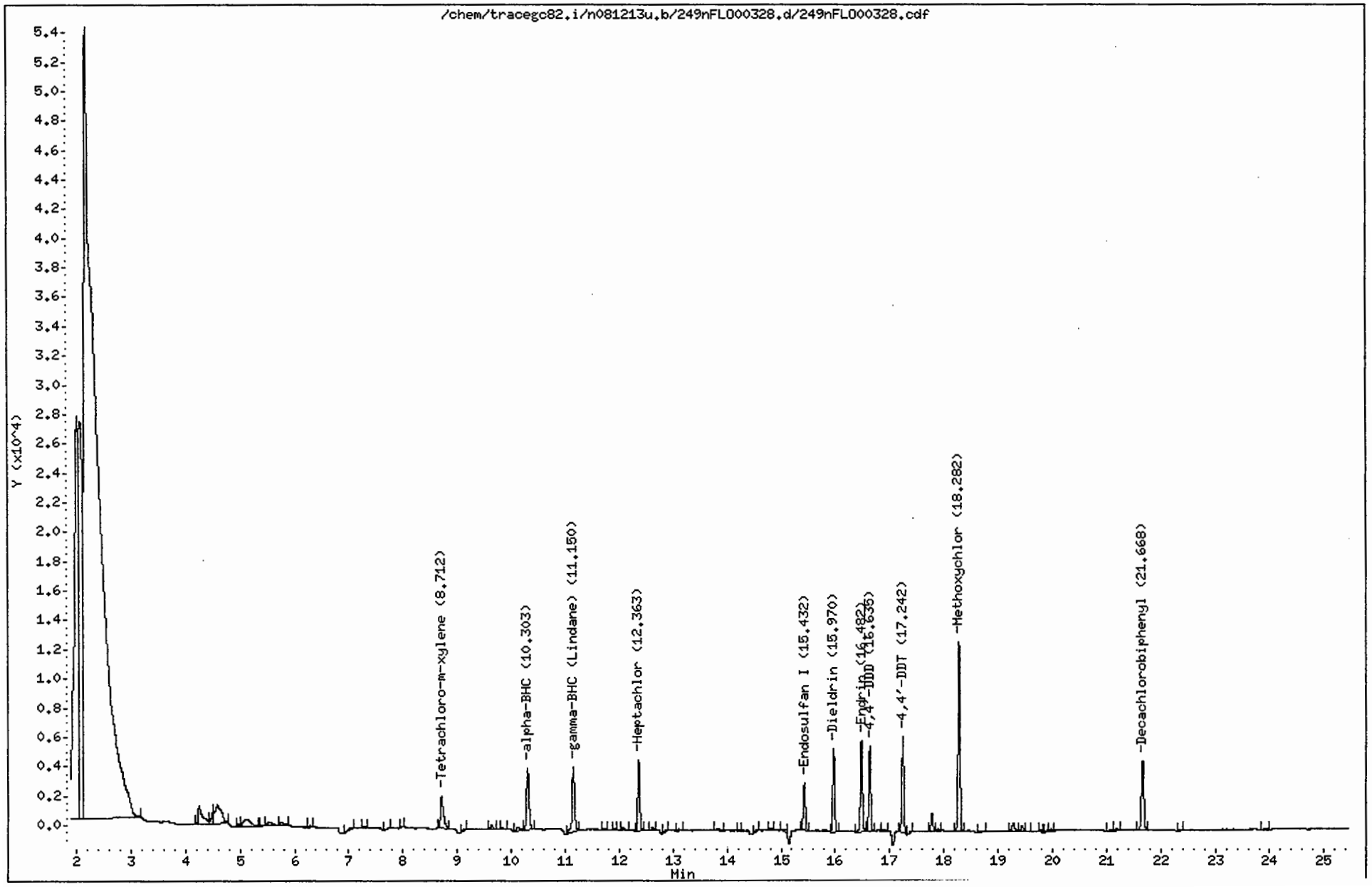
Sample Info: FL000328

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : FLO00328 Client Smp Id : FLO003212088
Sample Type : FLORISIL Sublist : florisil
Inj Date : 03-JAN-2009 11:27 Inst ID : TRACEGC82
Operator : 2646 Spike Sublist : olmflorisil
Method : /chem/tracegc82.i/n081213u.b/2ul0LM04_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED CRQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.36			207								
1.39			19823								
1.49			146460								
2.03			135087								
2.08			145533								
2.19			882769								
4.25			6965								
4.51			2218								
4.59			10263								
4.97			557								
5.12			4708								
5.46			245								
5.54			1717								
5.76			903								
6.29			167								
7.08			541								
7.28			248								
7.75			129								
7.99			147								
8.71	8.67	8.77	8353	844050	Tetrachloro-m-xylene	0.009896	0.009896	0.000000	99.0	80 - 120	
9.13			336								
9.63			892								
9.77			154								
9.82			453								
10.13			1554								
10.30	10.26	10.36	13406	1326150	alpha-BHC	0.010108	0.010000	0.050000	100.0	80 - 120	
11.15	11.11	11.21	13558	1226400	gamma-BHC (Lindane)	0.011055	0.011000	0.050000	110.0	80 - 120	
11.72			216								
11.91			120								
12.06			454								
12.36	12.32	12.42	12728	1176850	Heptachlor	0.010815	0.011000	0.050000	110.0	80 - 120	
12.62			649								
12.87			243								
13.11			332								
13.83			707								
14.22			168								
14.55			450								
14.81			354								
15.04			883								
15.43	15.38	15.52	8486	864350	Endosulfan I	0.009817	0.009800	0.050000	98.0	80 - 120	M 2
15.97	15.91	16.05	14117	829975	Dieldrin	0.017009	0.017000	0.100000	85.0	80 - 120	
16.48	16.43	16.57	16165	693775	Endrin	0.023299	0.023000	0.100000	115.0	80 - 120	

1/7/09

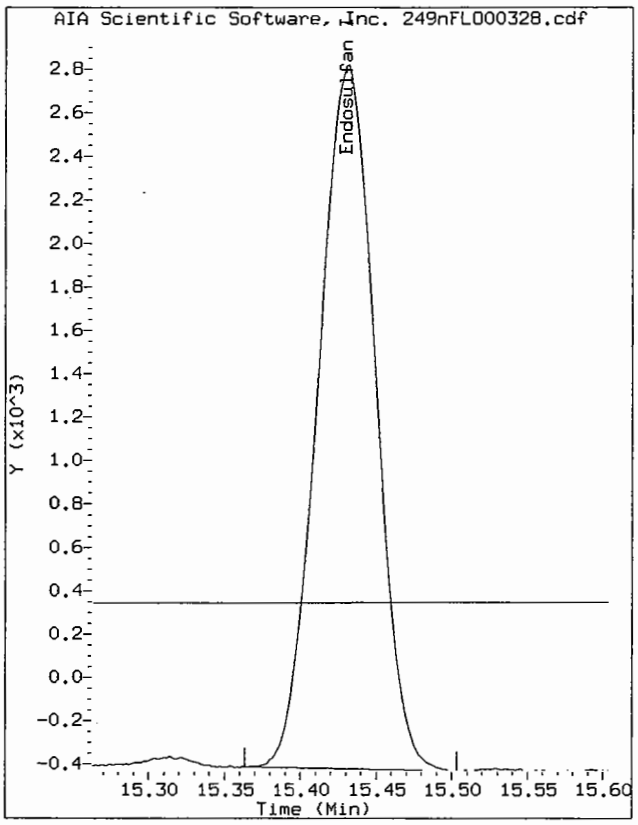
CompuChem

Lab Smp Id : FLO00328 Client Smp Id : FLO003212088
Sample Type : FLORISIL Sublist : florisil
Inj Date : 03-JAN-2009 11:27 Inst ID :
Operator : 2646 Spike Sublist : olmflorisil
Method : /chem/tracegc82.i/n081213u.b/2ulOLM04_clpestv6.m
Misc. Info : None

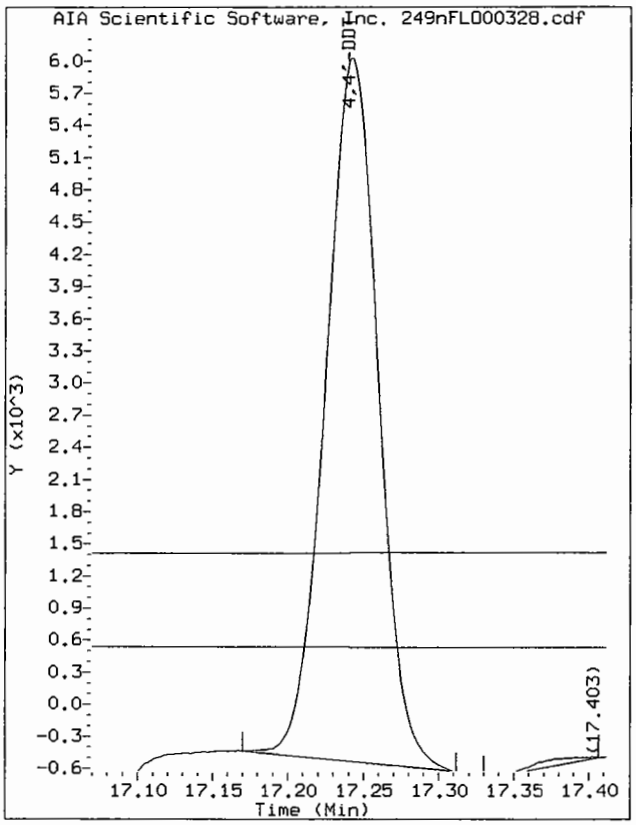
RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED CRQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
16.64	16.58 16.72	13614	619675	4,4'-DDD	0.021970	0.022000	0.100000	110.0	80 - 120	
16.91		314								
17.24	17.19 17.33	15887	715525	4,4'-DDT	0.022202	0.022000	0.050000	110.0	80 - 120	M2
17.40		165								
17.78		2989								
17.90		303								
18.28	18.23 18.37	31578	313455	Methoxychlor	0.100742	0.100000	0.500000	100.0	80 - 120	
18.76		392								
19.28		1797								
19.45		1157								
19.55		192								
19.79		269								
19.89		150								
19.97		333								
21.10		517								
21.20		459								
21.67	21.59 21.79	14293	637600	Decachlorobiphenyl	0.022417	0.022000	0.000000	110.0	80 - 120	
22.40		142								
23.94		291								

M2 RH 1/7/09

Manually Integrated Peaks



Start: 15.36 Stop: 15.50



Start: 17.17 Stop: 17.31

Data File: /chem/tracegc82.i/n081213u.b/252nTCPSTD.d

Date : 03-JAN-2009 12:55

Client ID: TCPSTD

Instrument: tracegc82.i

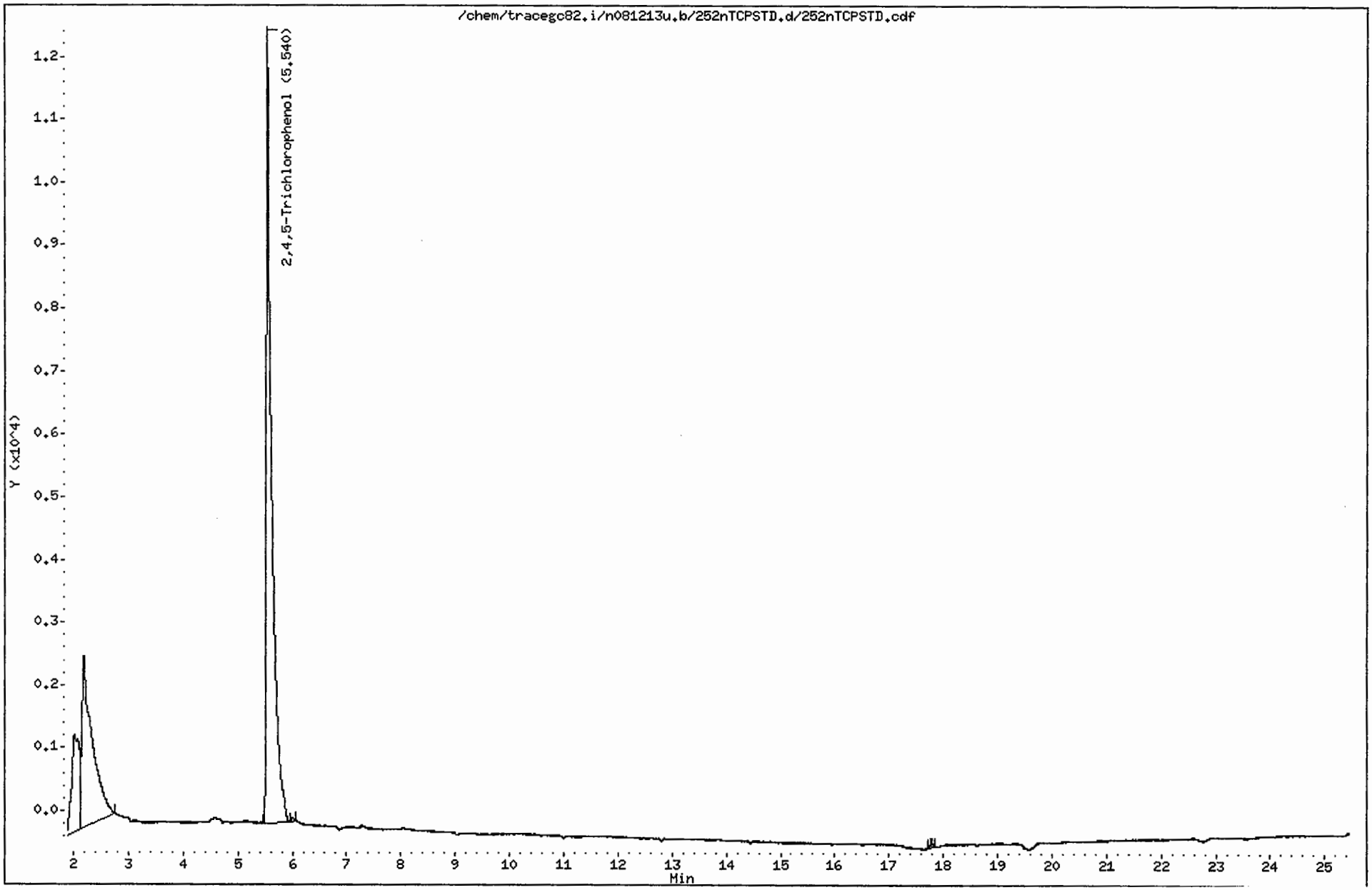
Sample Info: TCPSTD

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : TCPSTD Client Smp Id : TCPSTD
Sample Type : INITIAL CAL: Level 2 Sublist : tcp
Inj Date : 03-JAN-2009 12:55 Inst ID : TRACEGC82
Operator : 2646
Method : /chem/tracegc82.i/n081213u.b/2ulOLM04_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
0.37			120					
1.05			102					
1.35			861					
2.02			15207					
2.19			35803					
5.54	5.49	5.59	82742	4137050	2,4,5-Trichlorophenol	0.020000	4137050	
6.00			214					
17.78			351					

KEH 1/7/09

Data File: /chem/tracegc82.i/n081213.b/014nINDAM66.d

Page 1

Date : 13-DEC-2008 21:10

Client ID: INDAM66

Instrument: tracegc82.i

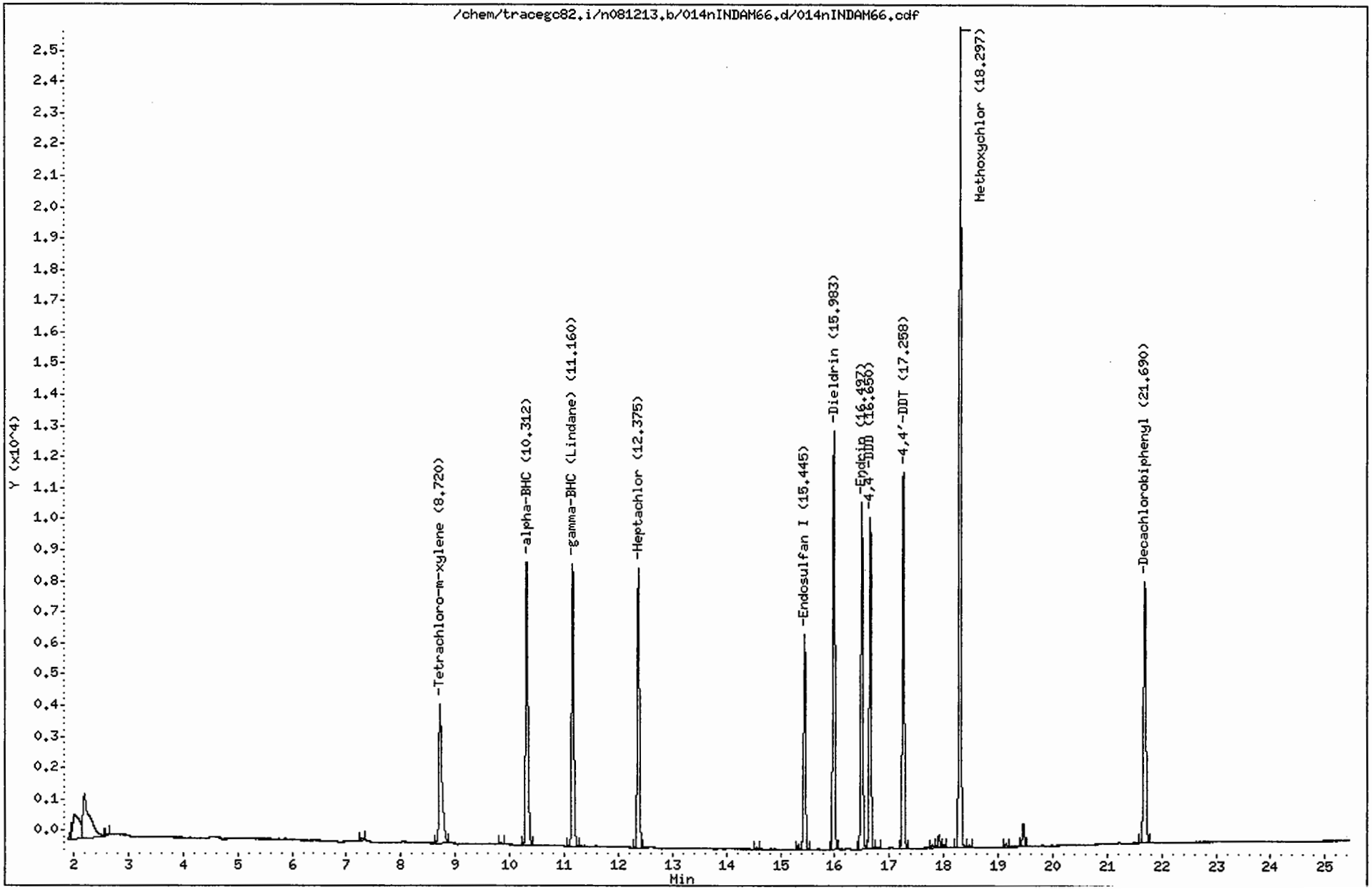
Sample Info: INDAM66

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : INDAM66 Client Smp Id : INDAM66
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 13-DEC-2008 21:10 Inst ID : TRACEGC82
Operator : 2512
Method : /chem/tracegc82.i/n081213.b/2ulOLM04_clpestv6.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
0.33			109					
1.35			458					
1.39			2493					
1.45			7143					
1.95			557					
2.02			6605					
2.20			12118					
2.63			147					
7.29			179					
8.72	8.67	8.77	16882	844050	Tetrachloro-m-xylene	0.020000	844050	
9.83			239					
10.31	10.26	10.36	26523	1326150	alpha-BHC	0.020000	1326150	
11.16	11.11	11.21	24529	1226400	gamma-BHC (Lindane)	0.020000	1226400	
12.38	12.32	12.42	23537	1176850	Heptachlor	0.020000	1176850	
14.56			136					
15.33			344					
15.44	15.38	15.52	17288	864350	Endosulfan I	0.020000	864350	
15.98	15.91	16.05	33199	829975	Dieldrin	0.040000	829975	
16.50	16.43	16.57	27751	693775	Endrin	0.040000	693775	
16.65	16.58	16.72	24787	619675	4,4'-DDD	0.040000	619675	
16.80			119					
17.26	17.19	17.33	28621	715525	4,4'-DDT	0.040000	715525	
17.80			258					
17.91			1014					
18.00			270					
18.30	18.23	18.37	62691	313455	Methoxychlor	0.200000	313455	
18.47			238					
19.14			250					
19.46			1861					
21.69	21.59	21.79	25505	637600	Decachlorobiphenyl	0.040000	637600	

KCH 1/7/09

CompuChem
A Division Of
Liberty Analytical Corp.
5/27/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904098

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER
Project RAAP APPIX 2009/B03204-07

Work: 0904098
Sdg: 0904098

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904098-01	13MW5	Water	04/13/2009 08:50	04/15/2009 16:15
0904098-02	13MW3	Water	04/13/2009 12:00	04/15/2009 16:15
0904098-03	13MW4	Water	04/13/2009 10:35	04/15/2009 16:15
0904098-04	13MWDUP	Water	04/13/2009 10:50	04/15/2009 16:15
0904098-05	13MW6	Water	04/13/2009 07:40	04/15/2009 16:15
0904098-06	13MW7	Water	04/14/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

GC by SW-846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)

C. Surrogate spike analysis results (Form II)
By matrix (Water or Soil), and
by concentration (Low, or Medium)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)

LAB CODE: LIBRTY

METHOD: 8082

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MWDUP

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analysis of the PCB fraction. The requested SW-846, 3rd Edition, Update 3, Method 8082 was used to prepare and analyze the samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG #0904098 are included in the sample data sections.

PCBs

Extraction and analysis holding time requirements were met for the samples.

No target analytes confirmed above the reporting limits in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery criteria.

The method blank associated with the samples met all quality control criteria.

Duplicate matrix spikes were performed with sample 13MW5, and met recovery and precision criteria. The Laboratory Control Sample (LCS) prepared and analyzed with the samples met recovery criteria.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on CD has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings

Teresa Amentt Jennings
GC/HPLC Data Reviewer
April 21 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
✓	Restek	clpest	0.32	0.5	30
✓	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

CompuChem

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

CompuChem

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DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I

Organic Analysis Data Sheet (OADS)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.98	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.98	U
53469-21-9	Aroclor-1242	0.66	U
12672-29-6	Aroclor-1248	0.66	U
11097-69-1	Aroclor-1254	0.66	U
11096-82-5	Aroclor-1260	0.98	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-MS2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	5.2	
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	4.0	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-MSD2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	4.7	
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	4.3	

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 950.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.98	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.98	U
53469-21-9	Aroclor-1242	0.66	U
12672-29-6	Aroclor-1248	0.66	U
11097-69-1	Aroclor-1254	0.66	U
11096-82-5	Aroclor-1260	0.98	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

13MWDUP

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

FORM I PEST

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PGXLCS

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	4.5	
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	4.2	

FORM I PEST

C. Form II

Surrogate spike analysis

- By level (low, medium) -

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): CLPEST ID: 0.32 (mm) GC Column(2): CLPEST2 ID: 0.32 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKGX	77	80	93	88			0
02	PGXLCS	76	81	88	85			0
03	13MW5MS	62	68	81	82			0
04	13MW5MSD	60	65	86	85			0
05	13MW5	67	70	92	86			0
06	13MW3	74	78	110	98			0
07	13MW4	70	74	100	92			0
08	13MWDUP	72	76	110	99			0
09	13MW6	67	71	97	90			0
10	13MW7	72	81	110	98			0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (43-135)
S2 (DCB) = Decachlorobiphenyl (43-144)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate results

- By level (low, medium) -

Laboratory Control Sample(s)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aroclor-1016	4.0	0.0	5.2	130	50-150
Aroclor-1260	4.0	0.0	4.0	100	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	4.0	4.7	118	10	20	50-150
Aroclor-1260	4.0	4.3	108	7	20	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGXLCS

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	4.0	4.5	110	63-132
Aroclor-1260	4.0	4.2	110	59-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

_____

FORM III PEST-1

E. Form IV

Method Blank Results
Form IV, Form I

Method blank summary, OADS,
- In chronological order of analysis

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGX

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041715-BLK1 Lab File ID: 260F9041715-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 04/18/09

Date Analyzed (1): 04/18/09 Date Analyzed (2): 04/18/09

Time Analyzed (1): 1753 Time Analyzed (2): 1753

Instrument ID (1): TRACEGC86 Instrument ID (2): TRACEGC87

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPEST2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGXLCS	9041715-BS1	04/18/09	04/18/09
02	13MW5MS	9041715-MS2	04/18/09	04/18/09
03	13MW5MSD	9041715-MSD2	04/18/09	04/18/09
04	13MW5	0904098-01	04/19/09	04/19/09
05	13MW3	0904098-02	04/19/09	04/19/09
06	13MW4	0904098-03	04/19/09	04/19/09
07	13MWDUP	0904098-04	04/19/09	04/19/09
08	13MW6	0904098-05	04/19/09	04/19/09
09	13MW7	0904098-06	04/19/09	04/19/09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGX

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

FORM I PEST

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

GC by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalysis, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE: LIBRTY

METHOD: 8082

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MWDUP

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analysis of the PCB fraction. The requested SW-846, 3rd Edition, Update 3, Method 8082 was used to prepare and analyze the samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG #0904098 are included in the sample data sections.

PCBs

Extraction and analysis holding time requirements were met for the samples.

No target analytes confirmed above the reporting limits in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery criteria.

The method blank associated with the samples met all quality control criteria.

Duplicate matrix spikes were performed with sample 13MW5, and met recovery and precision criteria. The Laboratory Control Sample (LCS) prepared and analyzed with the samples met recovery criteria.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on CD has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings

Teresa Amentt Jennings
GC/HPLC Data Reviewer
April 21 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
✓	Restek	clpest	0.32	0.5	30
✓	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

CompuChem

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DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on Ice: ☑ YES Bi ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	2-1L P	1-500 ml P		P	P	2-1L A	2-1L A	

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW1 + 13MW-2. JF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Sample ID	✓	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0	ICP 6010B/3005A/6020 (Metals-Total)	7470A (Mercury-Total) pH	cyanide 9014 pH	Sulfide 9030B pH	Appdx 9 SV 8270C AL	Appdx 9 PEST 8081A AL	Appdx 9 PCBs 8082	
13MW1	✓	4/14	0935	GW	3	X	X		X	X	X			X			0904103-01
13MW2	✓	4/14	0815	GW	3	X	X		X	X	X			X			0904103-02
13MW3	✓	4/13	1200	GW	14	X	X	X	X	X	X	X	X	X	X	X	0904098-02
13MW4	✓		1035	GW	14	X	X	X	X	X	X	X	X	X	X	X	-03
13MWDUP	✓		1050	GW	14	X	X	X	X	X	X	X	X	X	X	X	-04
13MW5	✓		0850	GW	12	X	X	X	X	X	X	X	X	X	X	X	0904098-01 USE FOR QC
13MW6	✓	4/13	0740	GW	14	X	X	X	X	X	X	X	X	X	X	X	0904098-05
13MW7	✓	4/14	1050	GW	14	X	X	X	X	X	X	X	X	X	X	X	-06

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No

Describe problems, if any: 0.6°C, 2.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Eddington	Date: 4/15/09	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Eddington	Date: 4/15/09	#2 Received by (Signature): Lee F Swanson	Date: 4/15/09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM	

9 - Rel 4-15-09
Compuchem 1615

Y/O JF.

WORK ORDER

Printed: 4/21/2009 1:54:33PM

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13C.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Received**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR **DATE:** 4/18/09

4-18-1

BATCH: 9041715

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904092-09	AR01-0409		
2	0904092-10	AR02-0409		
3	0904092-11	AR03-0409		
4	0904092-12	FLBLK-0409		
5	0904098-01	13MW5		
6	0904098-02	13MW3		
7	0904098-03	13MW4		
8	0904098-04	13MWDUP		
9	0904098-05	13MW6		
10	0904098-06	13MW7		
11	0904102-01	FB01-0409		
12	0904102-02	FB02-0409		
13	0904102-03	FB03-0409		
14	0904102-04	FB07-0409		
15	0904102-05	DUP1-0409		
16	0904102-07	FB04-0409		
17	0904102-08	FB05-0409		
18	0904102-09	FB06-0409		
19	0904102-10	EB01-0409		
20	0904102-11	RMI4D-0409		
21	9041715-BLK1	PBLKGX		
22	9041715-BS1	PGXLCS		
23	9041715-MS1	Matrix Spike		
24	9041715-MS2	Matrix Spike		
25	9041715-MS3	Matrix Spike		
26	9041715-MSD1	Matrix Spike Dup		
27	9041715-MSD2	Matrix Spike Dup		
28	9041715-MSD3	Matrix Spike Dup		
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	B. Potter	4/18/09 12:55	GC Ref. #3	temp. storage
	Geff	4/18/09 1600	GC	GC
	GC	4/18/09 1600	Geff	GC
				TAJ 4/21/09

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE: LIBRTY METHOD: 8082

SDG #: 0904098

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II)

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample Summary
(Form III)

c. Method Blank Summary (Form IV)

a. Surrogate Percent Recovery Summary

(Form II)

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): CLPEST ID: 0.32 (mm) GC Column(2): CLPEST2 ID: 0.32 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKGX	77	80	93	88			0
02	PGXLCS	76	81	88	85			0
03	13MW5MS	62	68	81	82			0
04	13MW5MSD	60	65	86	85			0
05	13MW5	67	70	92	86			0
06	13MW3	74	78	110	98			0
07	13MW4	70	74	100	92			0
08	13MWDUP	72	76	110	99			0
09	13MW6	67	71	97	90			0
10	13MW7	72	81	110	98			0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (43-135)
S2 (DCB) = Decachlorobiphenyl (43-144)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample Summary

(Form III)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aroclor-1016	4.0	0.0	5.2	130	50-150
Aroclor-1260	4.0	0.0	4.0	100	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	4.0	4.7	118	10	20	50-150
Aroclor-1260	4.0	4.3	108	7	20	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGXLCS

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	4.0	4.5	110	63-132
Aroclor-1260	4.0	4.2	110	59-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

_____

FORM III PEST-1

c. Method Blank Summary (Form IV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLKGX

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041715-BLK1 Lab File ID: 260F9041715-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 04/18/09

Date Analyzed (1): 04/18/09 Date Analyzed (2): 04/18/09

Time Analyzed (1): 1753 Time Analyzed (2): 1753

Instrument ID (1): TRACEGC86 Instrument ID (2): TRACEGC87

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPEST2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGXLCS	9041715-BS1	04/18/09	04/18/09
02	13MW5MS	9041715-MS2	04/18/09	04/18/09
03	13MW5MSD	9041715-MSD2	04/18/09	04/18/09
04	13MW5	0904098-01	04/19/09	04/19/09
05	13MW3	0904098-02	04/19/09	04/19/09
06	13MW4	0904098-03	04/19/09	04/19/09
07	13MWDUP	0904098-04	04/19/09	04/19/09
08	13MW6	0904098-05	04/19/09	04/19/09
09	13MW7	0904098-06	04/19/09	04/19/09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I), followed by the raw data for samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results

Tabulated results (identification and quantitation) shall be included.

b. Copies of Chromatograms

Positively identified compounds shall be labeled with the names of compounds, either directly out from the peak on the chromatogram, or on a printout of retention times on the data system printout if retention times are printed over the peak on the chromatogram. Included for each sample or sample extract, dilutions, and reanalysis. The chromatogram shall contain the following header information: Client Sample ID number, volume injected (uL), date and time of injection, GC column ID, and GC instrument ID.

c. Copies of Chromatograms from the Second Column

(if necessary)

d. Data System Printout

A printout of retention time and corresponding peak height or peak Area shall accompany each chromatogram. Where edits have been Made, initialing, dating and integration time range are required.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zk.b/301f0904098-02.d

Page 1

Date : 19-APR-2009 13:23

Client ID: 13MW3

Instrument: tracegc86.i

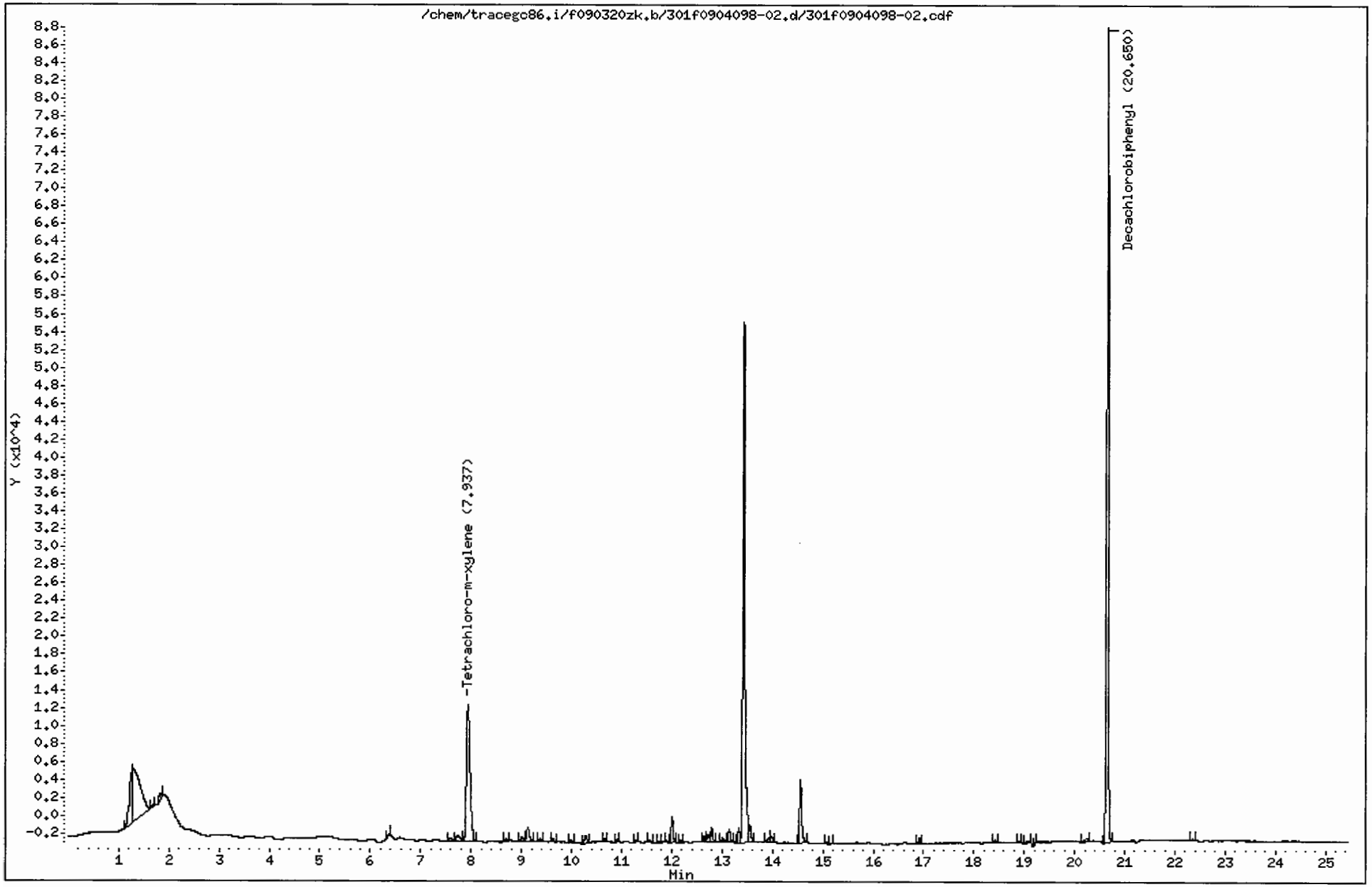
Sample Info: 0904098-02

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:23 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.27		22573								
1.30		62676								
1.67		541								
1.83		1949								
6.38		912								
7.59		1419								
7.74		2973								
7.94	7.87 8.01	77130	1736635	Tetrachloro-m-xylene	0.044413	0.222067		74.0	43 - 135	
8.70		883								
9.01		1686								
9.13		5711								
9.37		528								
9.63		967								
10.00		604								
10.28		2686								
10.66		872								
10.91		674								
11.29		530								
11.56		622								
11.74		368								
11.89		577								
12.01		7428								
12.19		510								
12.64		1420								
12.73		2703								
12.80		3778								
13.01		1373								
13.14		4402								
13.33		3745								
13.43		161194								
13.56		4787								
13.93		1462								
13.99		1713								
14.55		20630								
15.07		571								
15.17		290								
16.92		1516								

CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:23 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
18.43		857								
18.89		320								
19.07		727								
19.23		339								
20.24		1484								
20.65	20.58 20.72	214168	1636434	Decachlorobiphenyl	0.130875	0.654374		109.1	43 - 144	
22.35		289								

Data File: /chem/tracegc87.i/f090320zk.b/301f0904098-02.d

Page 1

Date : 19-APR-2009 13:23

Client ID: 13MW3

Instrument: tracegc87.i

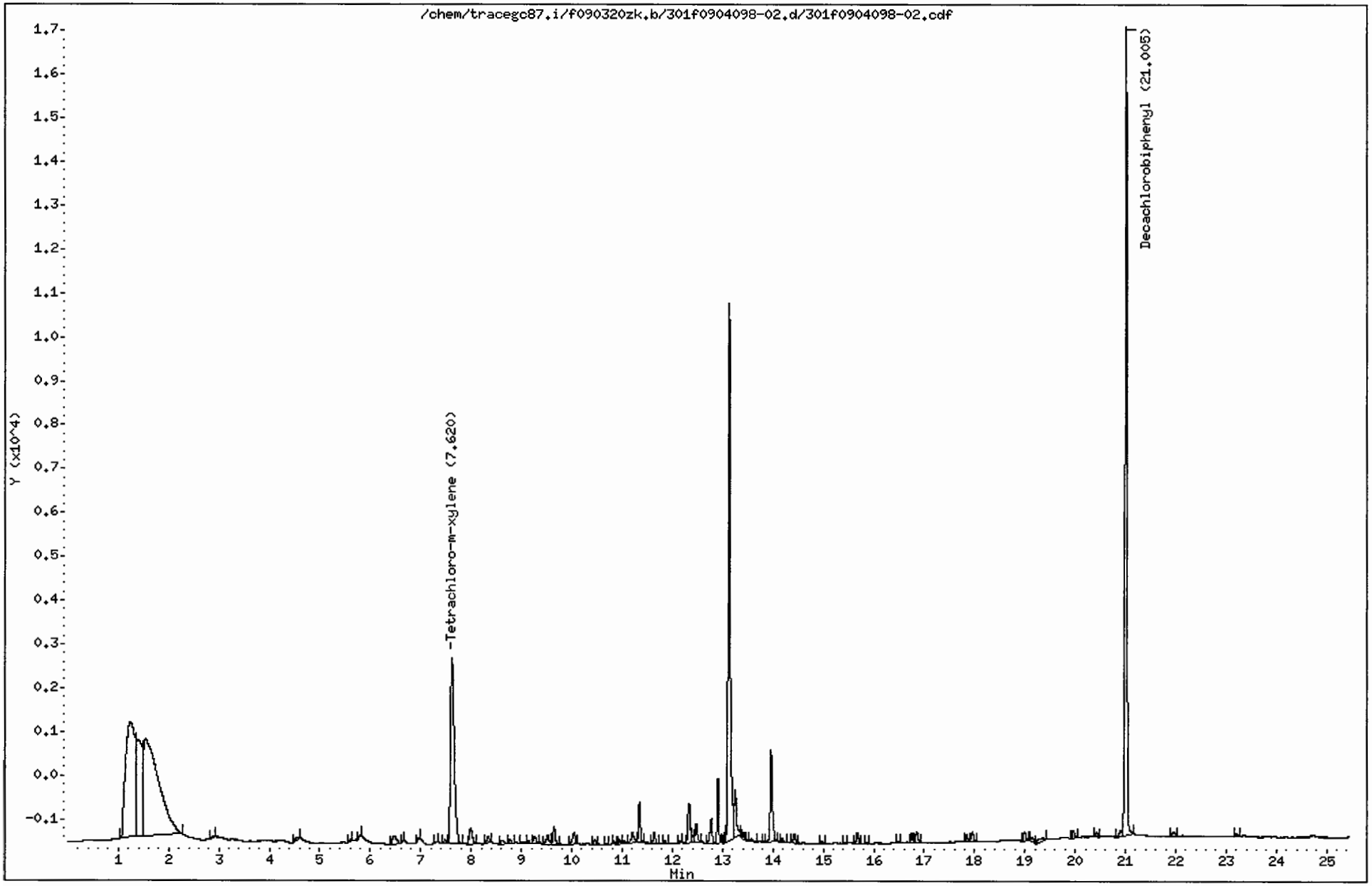
Sample Info: 0904098-02

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:23 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.25			35290								
1.39			17516								
1.55			45287								
2.89			113								
4.58			230								
5.62			65								
5.80			97								
6.48			1076								
6.66			86								
6.98			132								
7.30			77								
7.48			308								
7.62	7.56	7.70	21787	464578	Tetrachloro-m-xylene	0.046896	0.234482		78.2	43 - 135	
7.99			1458								
8.34			547								
8.62			402								
8.77			387								
9.04			187								
9.15			223								
9.26			698								
9.38			90								
9.52			979								
9.65			1272								
10.05			990								
10.46			256								
10.68			98								
10.85			141								
10.95			252								
11.05			224								
11.21			1001								
11.34			2168								
11.64			781								
11.85			136								
12.15			118								
12.34			3100								
12.42			478								
12.47			1247								

4/20/09

CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:23 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
12.78		1696								
12.91		3139								
13.05		510								
13.12		35367								
13.26		3289								
13.42		266								
13.58		236								
13.84		72								
13.96		6055								
14.19		286								
14.43		594								
14.98		197								
15.43		71								
15.68		765								
15.87		78								
16.48		79								
16.76		480								
16.86		749								
17.85		344								
17.96		642								
18.99		608								
19.15		374								
19.36		726								
19.96		563								
20.43		249								
20.91		467								
21.00	20.95 21.09	48785	413792	Decachlorobiphenyl	0.117895	0.589474		98.2	43 - 144	
21.96		310								
23.21		201								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.98	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.98	U
53469-21-9	Aroclor-1242	0.66	U
12672-29-6	Aroclor-1248	0.66	U
11097-69-1	Aroclor-1254	0.66	U
11096-82-5	Aroclor-1260	0.98	U

Data File: /chem/tracegc86.i/f090320zk.b/302f0904098-03.d

Page 1

Date : 19-APR-2009 13:52

Client ID: 13MW4

Instrument: tracegc86.i

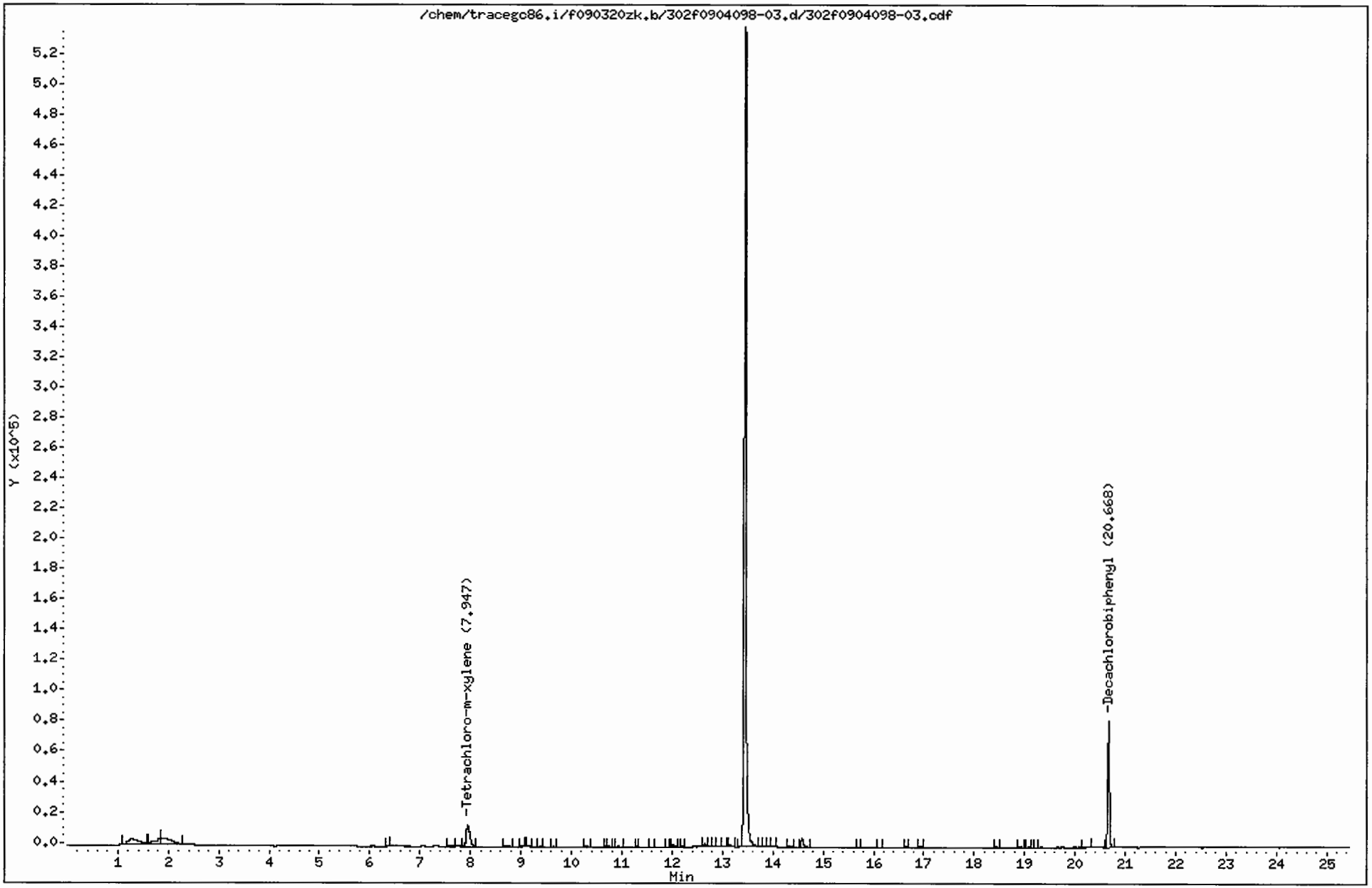
Sample Info: 0904098-03

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:52 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.26		56296								
1.60		1999								
1.83		32842								
1.89		51317								
6.38		683								
7.60		1532								
7.95	7.87 8.01	72439	1736635	Tetrachloro-m-xylene	0.041712	0.219538		69.5	43 - 135	
8.71		4169								
9.02		851								
9.14		1050								
9.39		698								
9.64		450								
10.30		1409								
10.68		684								
10.74		846								
10.93		1433								
11.30		494								
11.58		477								
11.91		378								
12.02		4639								
12.20		299								
12.65		5350								
12.73		2326								
12.81		1863								
13.03		1149								
13.16		3805								
13.35		1643								
13.45		1544950								
13.83		1266								
13.90		1269								
14.00		1079								
14.34		1329								
14.58		20641								
15.70		464								
16.13		551								
16.66		1212								
16.93		1340								

4/20/09

CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:52 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
18.44		745								
18.91		874								
19.09		759								
19.25		405								
20.26		1820								
20.67	20.58 20.72	196971	1636434	Decachlorobiphenyl	0.120365	0.633502		100.3	43 - 144	

Data File: /chem/tracegc87.i/f090320zk.b/302f0904098-03.d

Date : 19-APR-2009 13:52

Client ID: 13MW4

Instrument: tracegc87.i

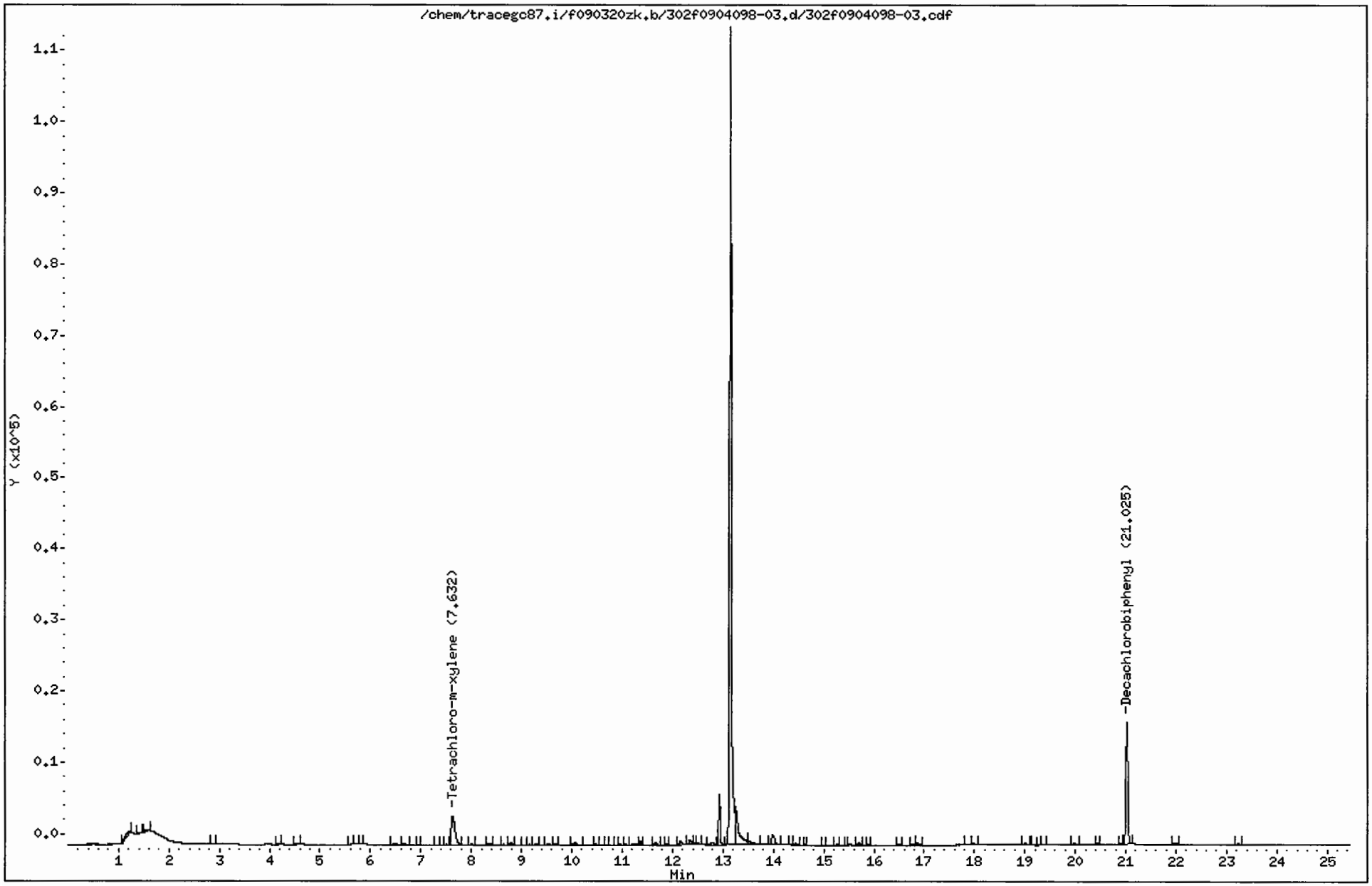
Sample Info: 0904098-03

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:52 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.22			3268								
1.44			387								
1.56			1204								
2.90			108								
4.18			77								
4.57			324								
5.64			73								
5.81			264								
6.48			1064								
6.68			450								
6.97			69								
7.33			95								
7.50			227								
7.63	7.56	7.70	20704	464578	Tetrachloro-m-xylene	0.044563	0.234542		74.3	43 - 135	
8.01			356								
8.35			680								
8.64			338								
8.78			1121								
9.05			179								
9.16			220								
9.30			531								
9.54			740								
9.67			752								
10.06			1568								
10.48			258								
10.70			103								
10.87			127								
10.97			281								
11.07			214								
11.22			1014								
11.36			1271								
11.66			873								
11.87			155								
12.15			1758								
12.35			2141								
12.44			888								
12.49			795								

4/20/09

CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 13:52 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
12.61		139								
12.79		1309								
12.93		15739								
13.07		134								
13.14		294328								
13.27		22481								
13.53		2704								
13.98		5953								
14.19		551								
14.36		361								
14.45		695								
14.62		66								
15.00		87								
15.27		154								
15.45		74								
15.70		850								
15.89		404								
16.50		119								
16.78		454								
16.87		888								
17.86		309								
17.98		738								
19.01		721								
19.17		375								
19.31		109								
19.38		110								
19.98		616								
20.45		350								
20.92		411								
21.02	20.95 21.09	45531	413792	Decachlorobiphenyl	0.110033	0.579123		91.7	43 - 144	
21.98		397								
23.23		259								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zk.b/300f0904098-01.d

Page 1

Date : 19-APR-2009 12:54

Client ID: 13MW5

Instrument: tracegc86.i

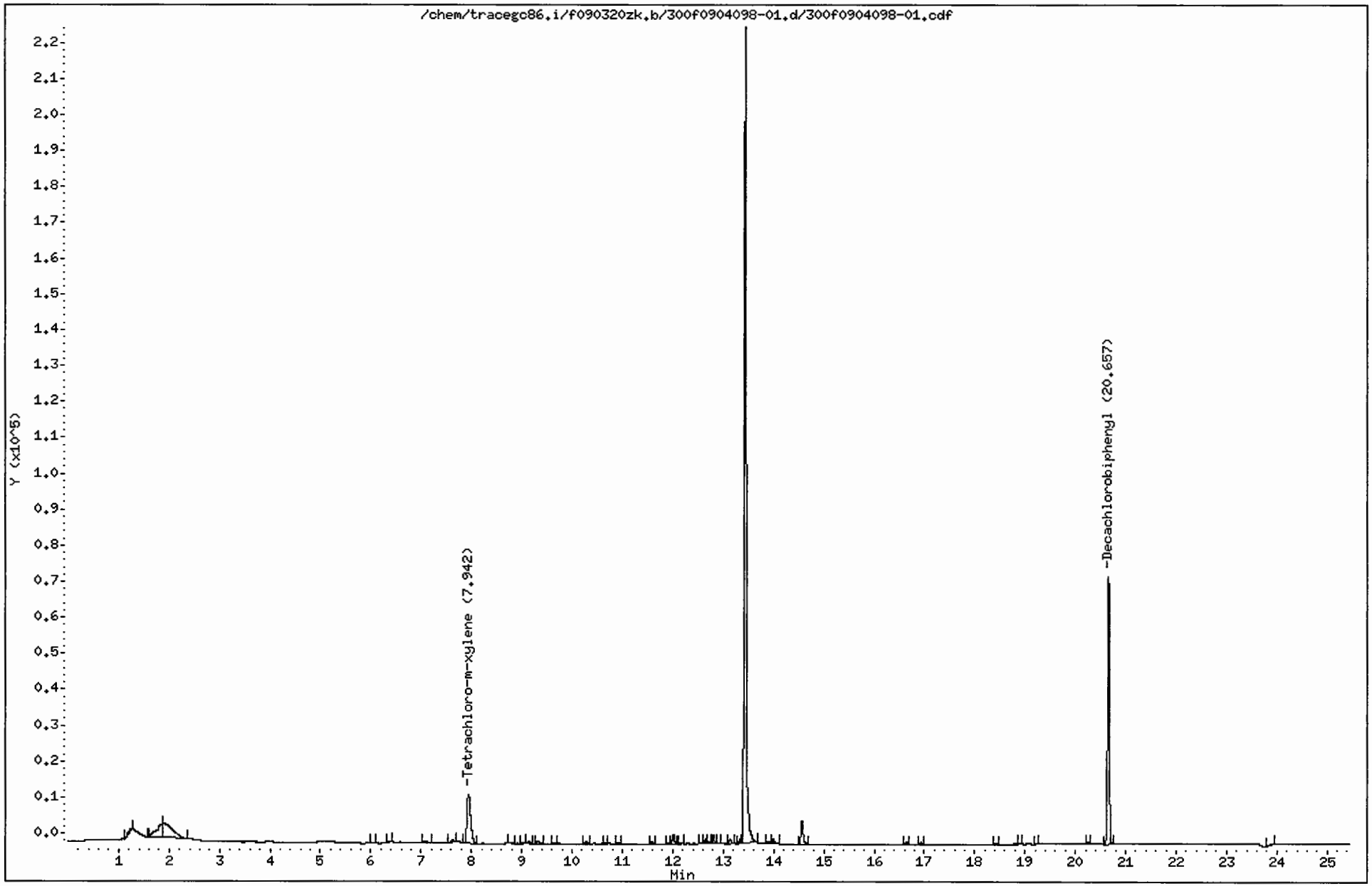
Sample Info: 0904098-01

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 12:54 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.25		2974								
1.60		324								
1.84		30382								
1.90		56447								
6.04		427								
6.37		714								
7.08		2959								
7.63		2747								
7.94	7.87 8.01	70002	1736635	Tetrachloro-m-xylene	0.040309	0.201545		67.2	43 - 135	
8.79		825								
9.01		685								
9.14		1780								
9.32		2875								
9.63		600								
10.29		2150								
10.66		503								
10.91		569								
11.59		1593								
11.90		472								
12.01		6499								
12.14		718								
12.57		325								
12.64		3205								
12.73		2141								
12.80		6133								
13.01		856								
13.15		3801								
13.34		2796								
13.44		594408								
13.89		1941								
13.99		4811								
14.56		19467								
16.64		1458								
16.93		1252								
18.43		656								
18.90		312								
19.23		520								

CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 12:54 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
20.25		601								
20.66	20.58 20.72	180513	1636434	Decachlorobiphenyl	0.110309	0.551544		91.9	43 - 144	
23.94		949								

Data File: /chem/tracegc87.i/f090320zk.b/300f0904098-01.d

Page 1

Date : 19-APR-2009 12:54

Client ID: 13MW5

Instrument: tracegc87.i

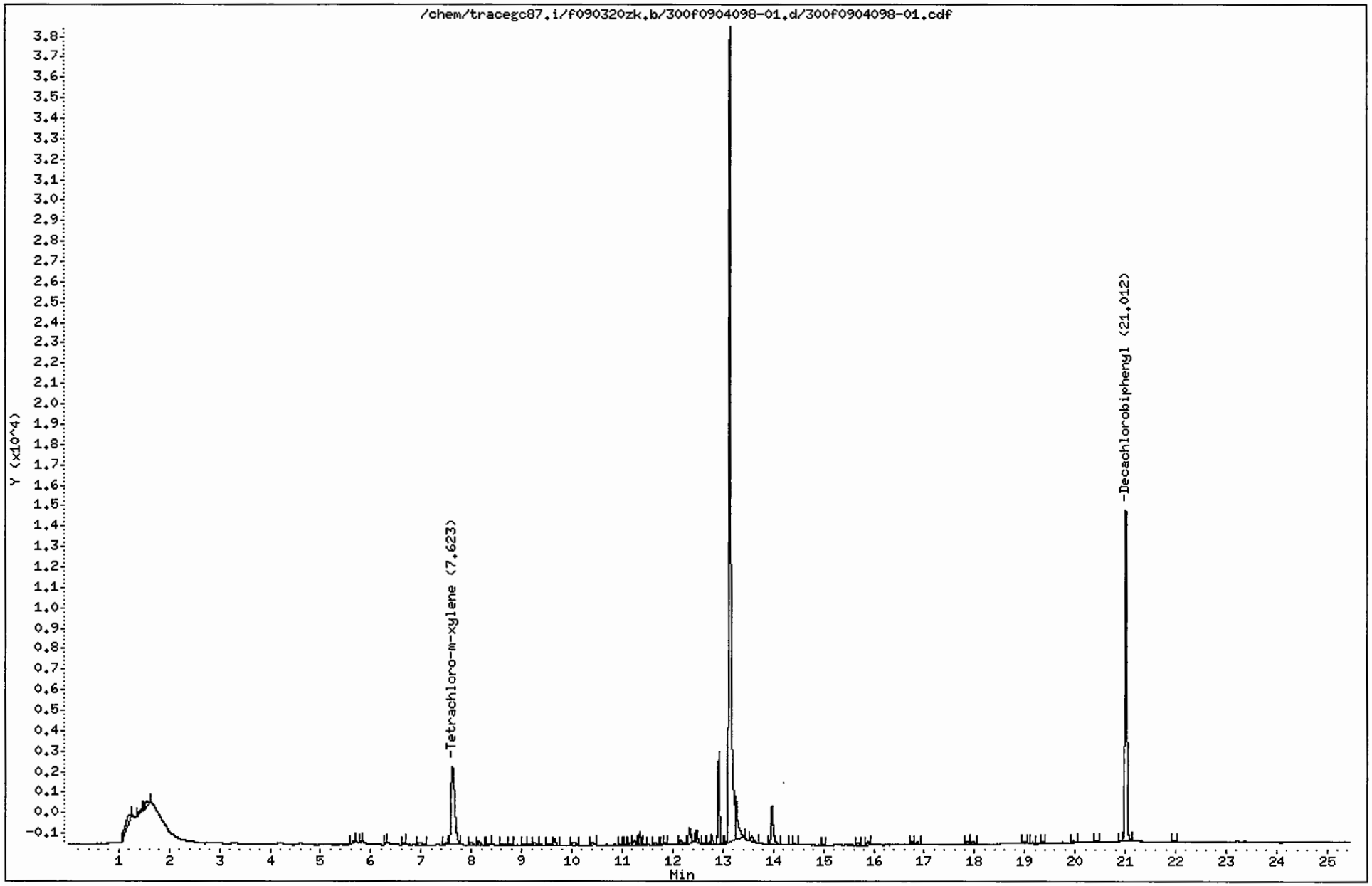
Sample Info: 0904098-01

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 12:54 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.20			3247								
1.47			705								
1.55			1345								
5.67			84								
5.80			67								
6.31			146								
6.67			123								
6.98			598								
7.50			265								
7.62	7.56	7.70	19593	464578	Tetrachloro-m-xylene	0.042172	0.210858		70.3	43 - 135	
7.99			511								
8.15			775								
8.34			235								
8.63			374								
8.78			183								
9.06			218								
9.15			117								
9.25			437								
9.53			181								
9.66			993								
10.05			650								
10.40			335								
10.96			86								
11.06			86								
11.16			273								
11.24			735								
11.35			1617								
11.43			121								
11.65			380								
11.81			104								
11.86			158								
12.15			798								
12.34			2224								
12.48			1464								
12.60			102								
12.73			210								
12.79			844								

4/20/09

CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 12:54 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
12.92		9931								
13.06		117								
13.13		108577								
13.26		7617								
13.57		876								
13.97		5885								
14.36		119								
14.43		324								
14.99		134								
15.69		396								
15.88		462								
16.77		395								
16.86		365								
17.86		327								
17.96		359								
19.00		281								
19.16		295								
19.30		126								
19.36		95								
19.97		297								
20.43		239								
20.91		133								
21.01	20.95 21.09	42567	413792	Decachlorobiphenyl	0.102870	0.514352		85.7	43 - 144	
21.97		119								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 950.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.98	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.98	U
53469-21-9	Aroclor-1242	0.66	U
12672-29-6	Aroclor-1248	0.66	U
11097-69-1	Aroclor-1254	0.66	U
11096-82-5	Aroclor-1260	0.98	U

Data File: /chem/tracegc86.i/f090320zk.b/304f0904098-05.d

Page 1

Date : 19-APR-2009 14:49

Client ID: 13MW6

Instrument: tracegc86.i

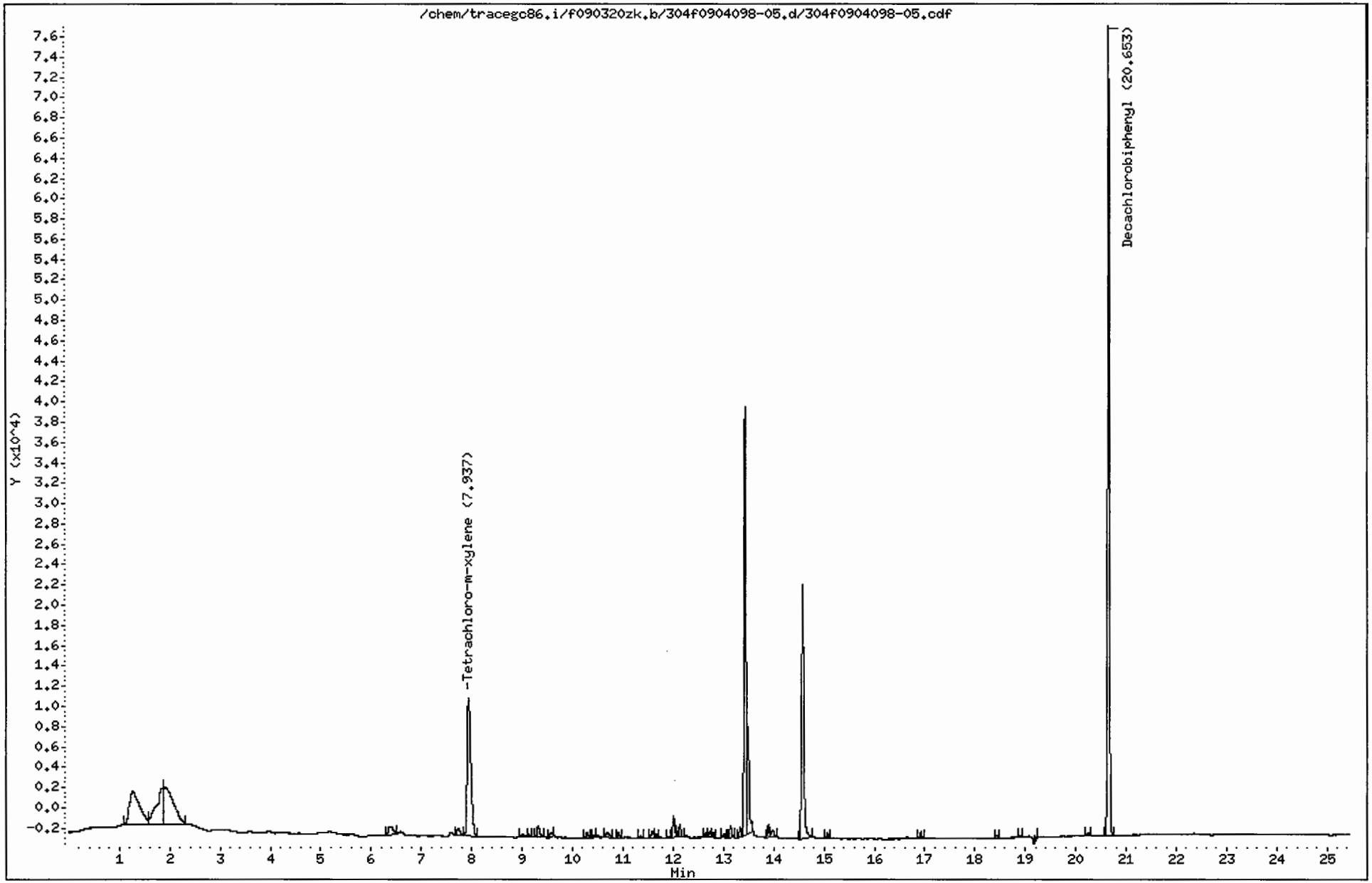
Sample Info: 0904098-05

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:49 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.27			43914								
1.83			30918								
1.90			50936								
6.39			5479								
7.73			3453								
7.94	7.87	8.01	69462	1736635	Tetrachloro-m-xylene	0.039997	0.210513		66.7	43 - 135	
9.01			1173								
9.13			634								
9.32			4052								
9.57			1168								
10.28			1539								
10.43			459								
10.70			2271								
10.91			1235								
11.35			542								
11.59			1801								
11.67			1047								
11.90			313								
12.01			5205								
12.07			1211								
12.14			3258								
12.65			991								
12.73			1736								
12.80			1133								
13.02			905								
13.14			3262								
13.33			2173								
13.43			104558								
13.49			28124								
13.89			3209								
13.98			2566								
14.58			73543								
15.07			1304								
16.92			1501								
18.43			618								
18.90			280								
19.25			583								

CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:49 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
20.24		648								
20.65	20.58 20.72	190864	1636434	Decachlorobiphenyl	0.116634	0.613864		97.2	43 - 144	

Data File: /chem/tracegc87.i/f090320zk.b/304f0904098-05.d

Page 1

Date : 19-APR-2009 14:49

Client ID: 13MW6

Instrument: tracegc87.i

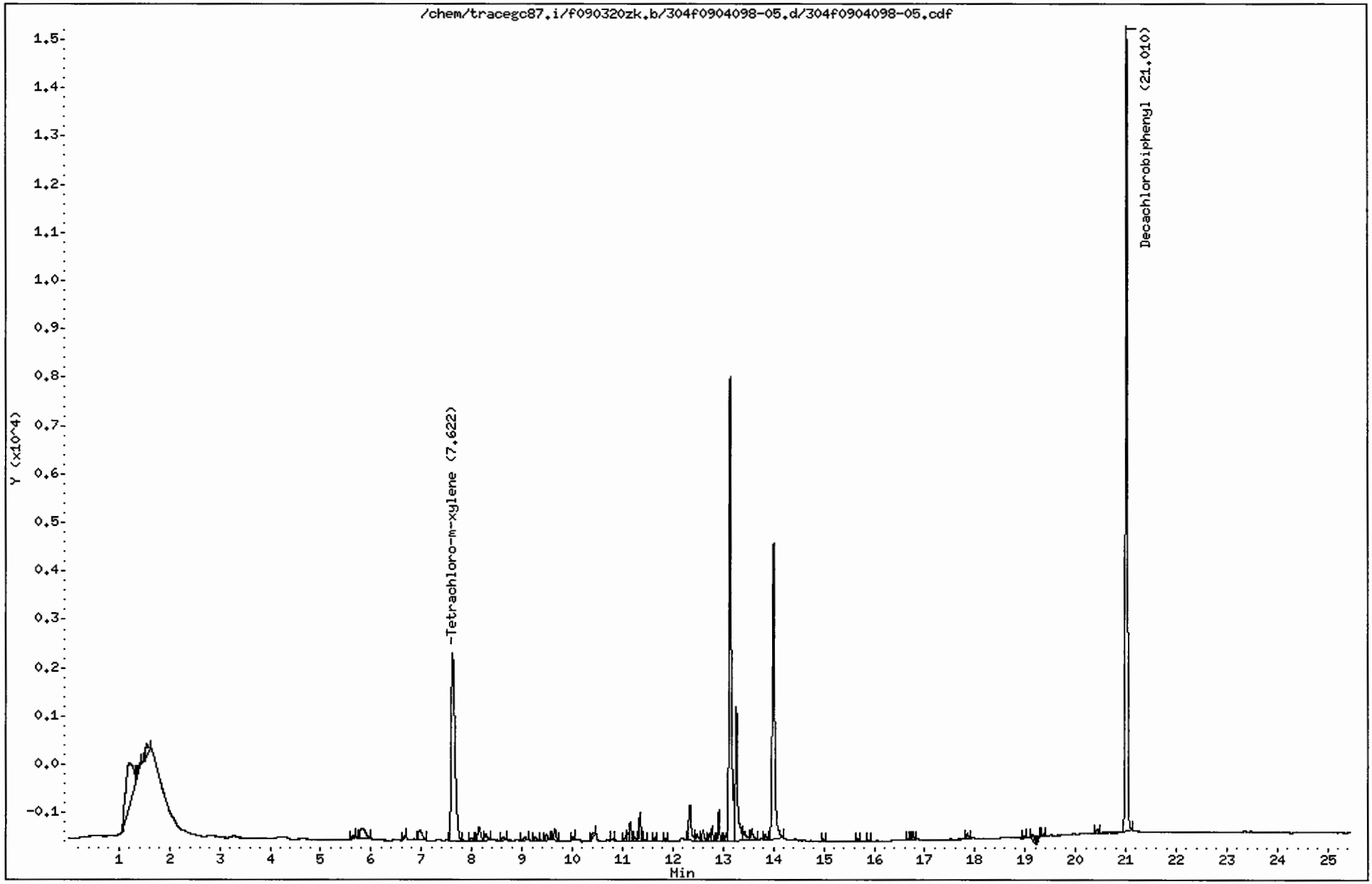
Sample Info: 0904098-05

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:49 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.22		9157								
1.35		290								
1.44		388								
1.55		1131								
5.64		198								
5.83		1452								
6.67		98								
6.97		1038								
7.62	7.56 7.70	19819	464578	Tetrachloro-m-xylene	0.042658	0.224516		71.1	43 - 135	
7.99		190								
8.14		1083								
8.28		475								
8.63		304								
9.06		257								
9.25		330								
9.48		442								
9.65		738								
10.01		133								
10.41		387								
10.81		69								
11.06		247								
11.11		384								
11.16		1124								
11.25		260								
11.35		1498								
11.43		97								
11.64		163								
11.85		103								
12.34		2592								
12.48		446								
12.60		579								
12.73		362								
12.79		664								
12.91		1363								
13.06		327								
13.13		28347								
13.26		8918								

CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:49 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 950.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
13.43		735								
13.56		777								
13.84		273								
14.00		19748								
14.99		109								
15.69		161								
15.88		99								
16.66		76								
16.76		373								
17.85		254								
19.00		87								
19.15		448								
19.29		151								
19.36		89								
20.43		261								
21.01	20.95 21.09	44819	413792	Decachlorobiphenyl	0.108310	0.570054		90.3	43 - 144	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zk.b/305f0904098-06.d

Page 1

Date : 19-APR-2009 15:18

Client ID: 13MW7

Instrument: tracegc86.i

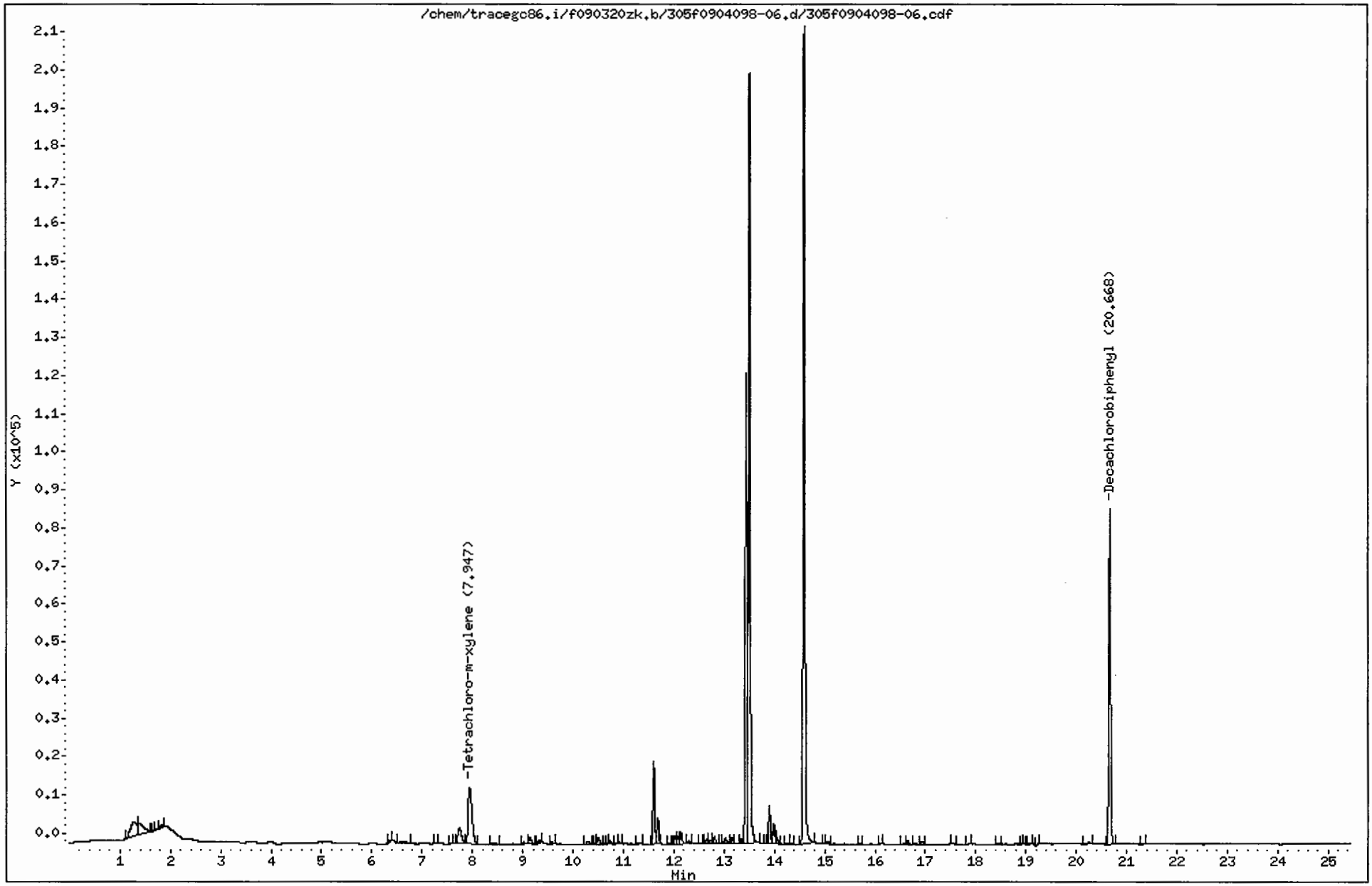
Sample Info: 0904098-06

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 15:18 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.27		33060								
1.37		22377								
1.68		500								
1.82		2098								
6.39		1256								
6.60		4247								
7.29		274								
7.59		281								
7.74		19460								
7.95	7.87 8.01	74729	1736635	Tetrachloro-m-xylene	0.043030	0.215152		71.7	43 - 135	
8.43		2247								
9.03		986								
9.14		4765								
9.33		1269								
9.58		1294								
10.30		2731								
10.44		660								
10.50		6030								
10.68		646								
10.73		2656								
10.92		604								
11.30		1224								
11.61		50904								
11.69		16715								
11.91		516								
12.03		5393								
12.08		5611								
12.15		8206								
12.30		1829								
12.53		429								
12.59		339								
12.65		3156								
12.74		2619								
12.81		4685								
13.03		3568								
13.16		3482								
13.35		2260								

4/20/09

CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 15:18 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
13.44		282208								
13.51		480913								
13.83		324								
13.90		24056								
13.99		14380								
14.05		4350								
14.26		788								
14.33		891								
14.59		512510								
14.99		731								
15.09		2442								
15.70		587								
16.11		589								
16.58		949								
16.66		3045								
16.79		1838								
16.93		1937								
17.54		680								
17.89		312								
18.45		656								
18.91		301								
18.96		588								
19.09		537								
19.25		401								
20.26		1792								
20.67	20.58 20.72	209952	1636434	Decachlorobiphenyl	0.128299	0.641493		106.9	43 - 144	
21.37		404								

Data File: /chem/tracegc87.i/f090320zk.b/305f0904098-06.d

Date : 19-APR-2009 15:18

Client ID: 13MW7

Instrument: tracegc87.i

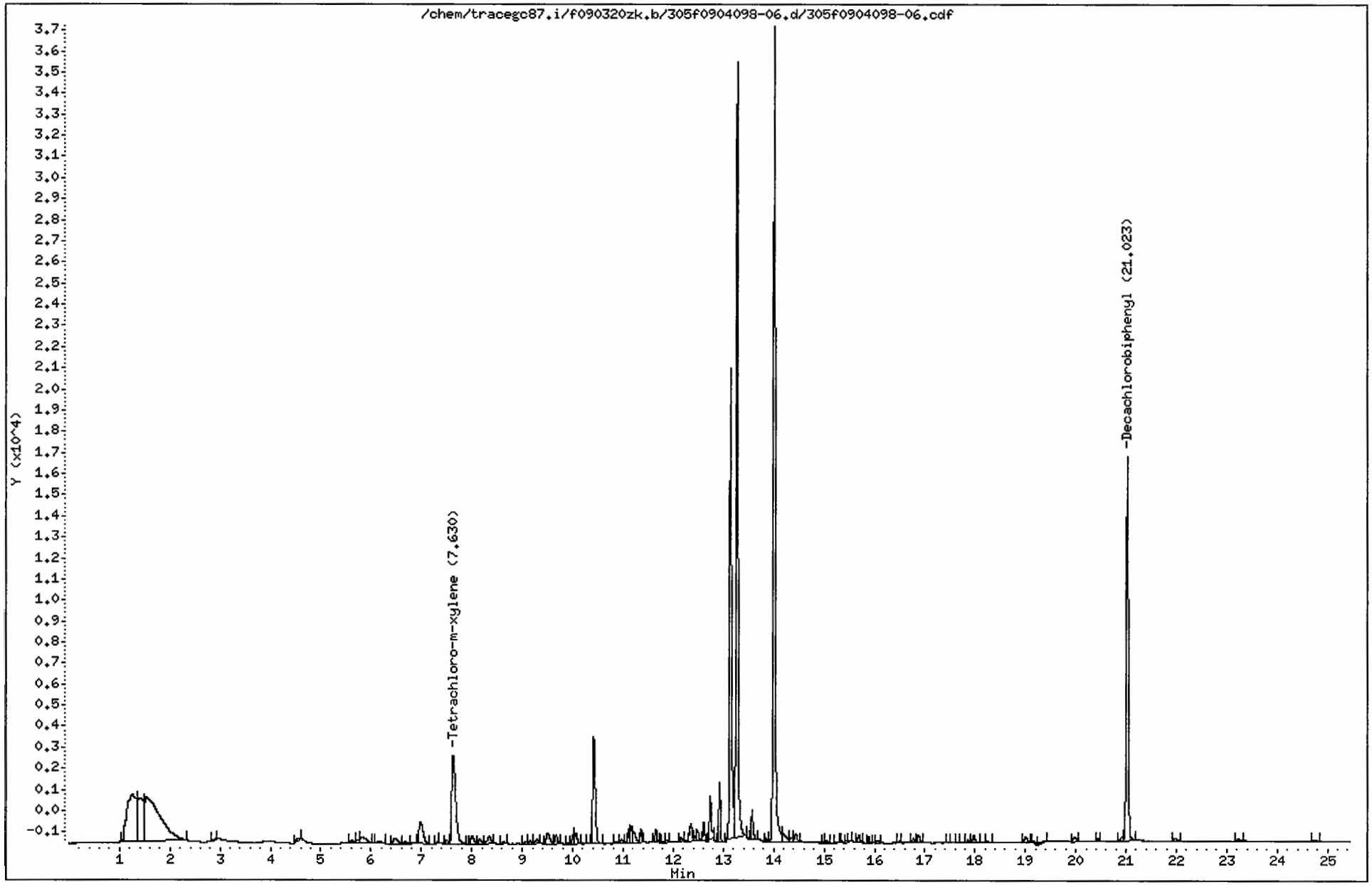
Sample Info: 0904098-06

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 15:18 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.25			29157								
1.39			16282								
1.54			42934								
2.90			182								
4.58			423								
5.63			612								
5.73			570								
5.84			2396								
6.16			555								
6.47			1704								
6.68			466								
6.98			5906								
7.33			112								
7.50			633								
7.63	7.56	7.70	22625	464578	Tetrachloro-m-xylene	0.048700	0.243501		81.2	43 - 135	
8.00			1476								
8.15			762								
8.35			1493								
8.63			240								
9.07			387								
9.16			400								
9.29			877								
9.49			2500								
9.67			1394								
9.91			153								
10.01			1091								
10.06			1702								
10.32			125								
10.41			16963								
10.87			260								
10.97			544								
11.07			157								
11.12			1513								
11.17			1936								
11.22			1906								
11.36			1524								
11.66			1675								

CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 15:18 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
11.82		103								
11.87		274								
12.16		437								
12.35		2599								
12.44		423								
12.49		1268								
12.61		2269								
12.74		5289								
12.93		6221								
13.07		189								
13.14		59146								
13.27		88033								
13.57		3639								
13.85		390								
14.01		99932								
14.19		1986								
14.36		689								
14.44		1135								
15.00		134								
15.04		224								
15.27		119								
15.37		111								
15.44		186								
15.52		123								
15.70		1123								
15.89		646								
16.06		317								
16.50		135								
16.78		535								
16.88		1312								
17.47		119								
17.66		84								
17.86		263								
17.98		1081								
18.25		150								
19.01		971								
19.17		406								

CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 15:18 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
19.38		703								
19.98		855								
20.44		247								
20.92		620								
21.02	20.95 21.09	48713	413792	Decachlorobiphenyl	0.117723	0.588616		98.1	43 - 144	
21.98		561								
23.23		448								
24.74		255								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zk.b/303f0904098-04.d

Page 1

Date : 19-APR-2009 14:20

Client ID: 13MWDUP

Instrument: tracegc86.i

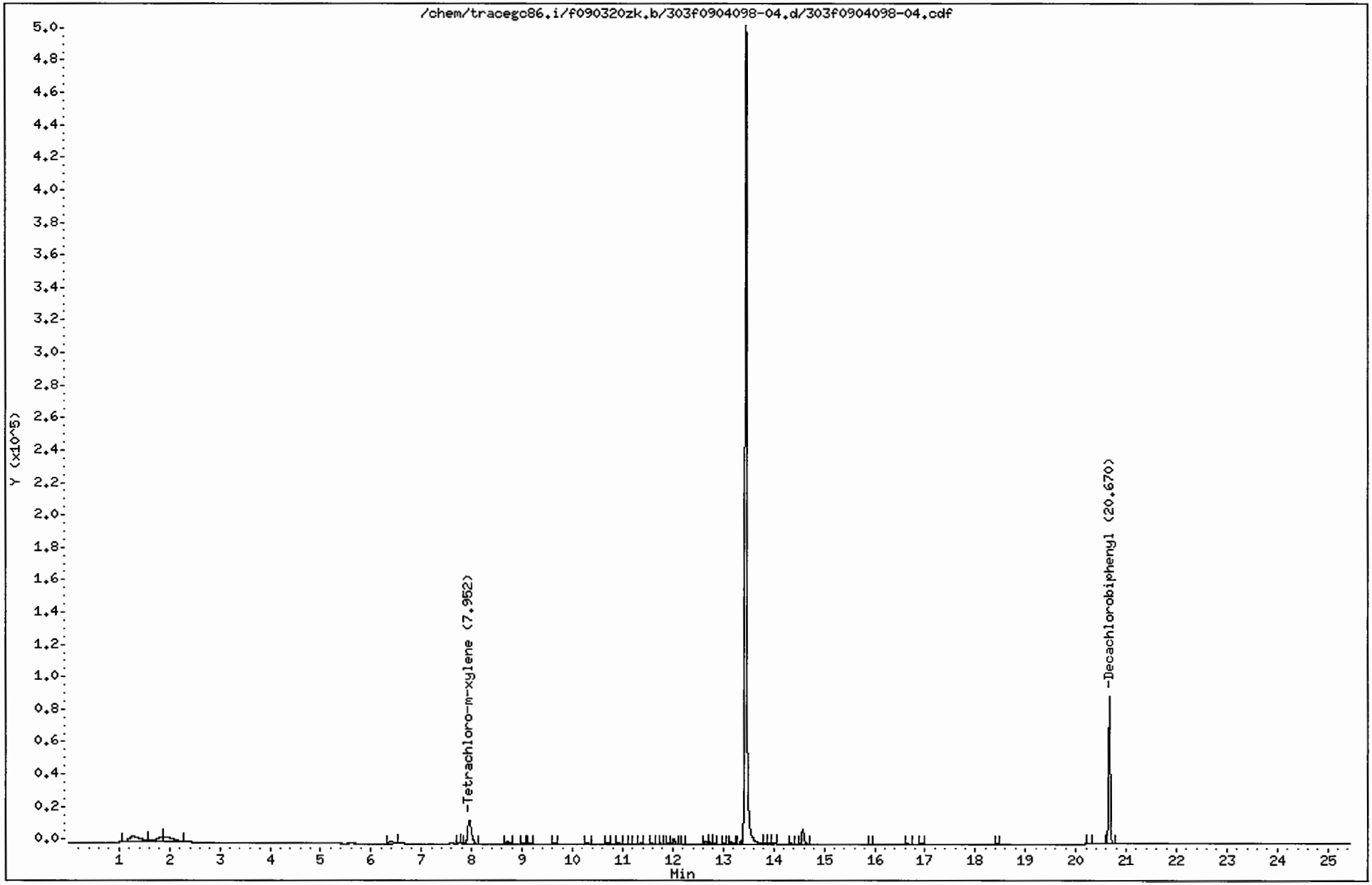
Sample Info: 0904098-04

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:20 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.26		57736								
1.83		29438								
1.89		41033								
6.39		7665								
7.75		314								
7.95	7.87 8.01	75375	1736635	Tetrachloro-m-xylene	0.043403	0.217015		72.3	43 - 135	
8.71		4612								
9.02		798								
9.15		1617								
9.65		1061								
10.30		2513								
10.68		1112								
10.93		1803								
11.13		622								
11.37		1349								
11.58		764								
11.76		880								
11.91		663								
12.03		9386								
12.20		480								
12.65		5386								
12.74		3649								
12.81		2098								
13.03		785								
13.16		5834								
13.35		4587								
13.45		1425348								
13.84		2778								
13.91		3438								
14.00		2238								
14.35		1162								
14.57		27999								
15.93		371								
16.66		1182								
16.94		1565								
18.45		629								
20.26		609								

Kelly 4/20/09

CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:20 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
20.67	20.58 20.72	214428	1636434	Decachlorobiphenyl	0.131033	0.655166		109.2	43 - 144	

Data File: /chem/tracegc87.i/f090320zk.b/303f0904098-04.d

Page 1

Date : 19-APR-2009 14:20

Client ID: 13MWDUP

Instrument: tracegc87.i

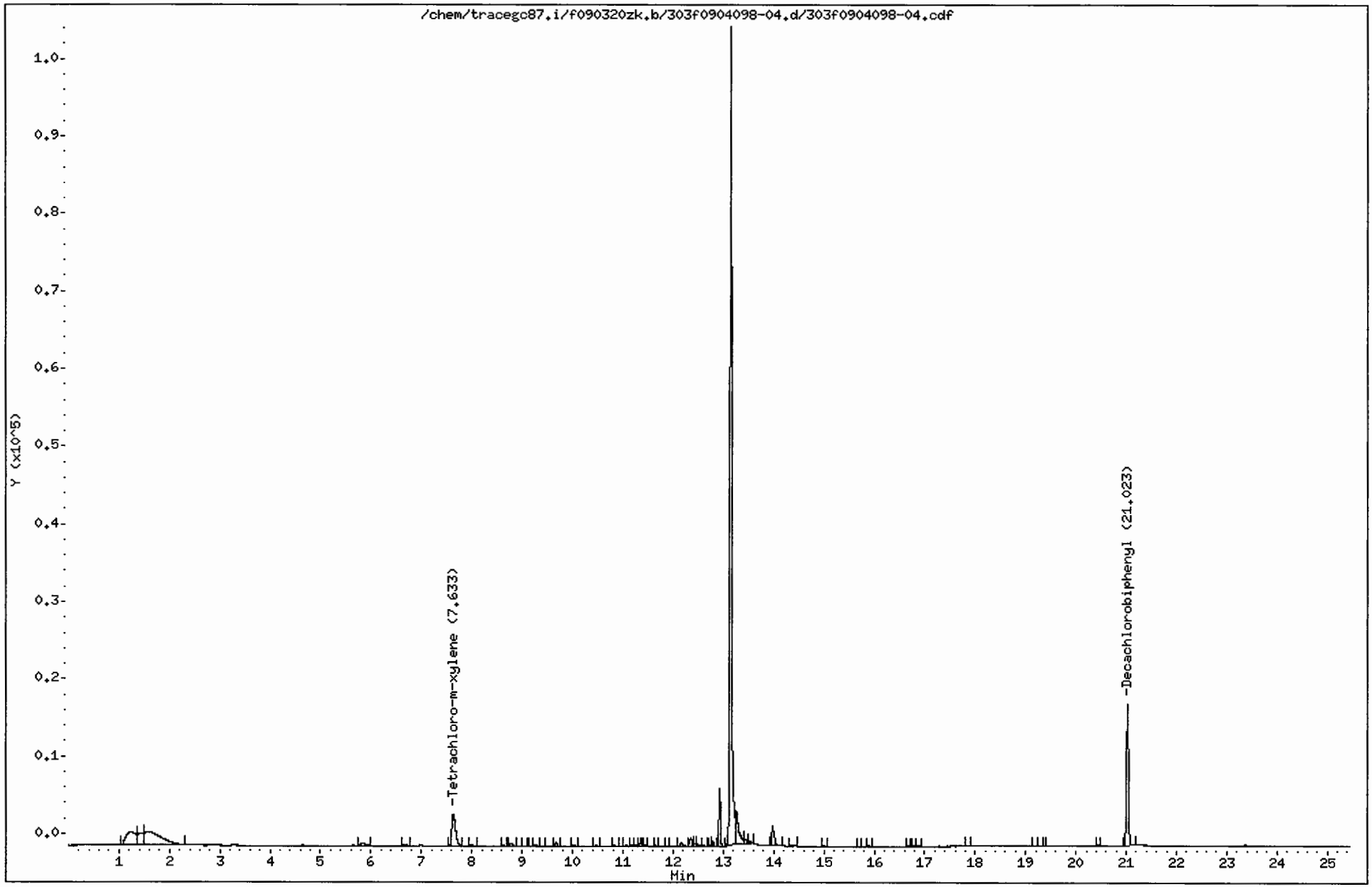
Sample Info: 0904098-04

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:20 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.22			21586								
1.43			11415								
1.55			36029								
5.84			2148								
6.68			499								
7.63	7.56	7.70	21327	464578	Tetrachloro-m-xylene	0.045906	0.229531		76.5	43 - 135	
8.01			457								
8.64			261								
8.78			1267								
9.04			172								
9.15			62								
9.27			583								
9.39			90								
9.67			1322								
10.02			617								
10.48			547								
10.82			329								
11.07			571								
11.18			221								
11.26			269								
11.36			2599								
11.44			212								
11.66			152								
11.87			107								
12.16			1636								
12.36			3529								
12.44			911								
12.49			817								
12.62			173								
12.74			243								
12.80			1255								
12.93			16327								
13.07			304								
13.14			267288								
13.27			18830								
13.44			1638								
13.53			856								

Kelly 4/20/09

CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : 8082
Inj Date : 19-APR-2009 14:20 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
13.98		8433								
14.37		337								
15.00		221								
15.69		130								
15.89		400								
16.68		202								
16.78		319								
16.88		124								
17.86		269								
19.17		165								
19.37		68								
20.45		256								
21.02	20.95 21.09	49009	413792	Decachlorobiphenyl	0.118439	0.592193		98.7	43 - 144	

3. Standards Data

a. Initial Calibration Data (Form VI)

b. Continuing Verification Summary (Form VII)

c. Analytical Sequence (Form VIII)

d. Identification Summary for Single Component Analytes (Form X)

e. Identification Summary for Multicomponent Analytes (Form X) – if applicable

f. Chromatograms and Data System Printouts

a. Initial Calibration Data
(Form VI)

For all GC columns, all instruments, in chronological order by GC column and instrument.

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RF1: 013FAR16601UHRF2: 014FAR16602UHRF4: 015FAR16603UH
RF8: 016FAR16604UHRF16: 017FAR16605U

COMPOUND	RF1	RF2	RF4	RF8	RF16
Aroclor-1016	82170.000	76975.000	69427.500	68437.500	67150.625
(2)	35680.000	34905.000	31105.000	30551.250	29260.625
(3)	41310.000	39235.000	34605.000	33716.250	31245.625
(4)	29870.000	27050.000	23480.000	22638.750	20936.875
(5)	36400.000	34335.000	29825.000	28771.250	27015.000
Aroclor-1221			16117.500		
(2)			10302.500		
(3)			40232.500		
(4)					
(5)					
Aroclor-1232			22912.500		
(2)			32907.500		
(3)			14057.500		
(4)			14522.500		
(5)			16992.500		
Aroclor-1242			54772.500		
(2)			25337.500		
(3)			27567.500		
(4)			34055.000		
(5)			25315.000		
Aroclor-1248			54135.000		
(2)			73017.500		
(3)			96442.500		
(4)			49780.000		
(5)			53840.000		
Aroclor-1254			72255.000		
(2)			90140.000		
(3)			101670.00		
(4)			82432.500		
(5)			94415.000		
Aroclor-1260	90990.000	84640.000	73642.500	72888.750	71989.375
(2)	183370.00	173555.00	157317.50	167317.50	181042.50
(3)	122130.00	115050.00	103180.00	107498.75	114858.12
(4)	101990.00	94850.000	84072.500	86002.500	87062.500
(5)	236590.00	230240.00	217360.00	248036.25	285310.00
Tetrachloro-m-xylene	1829800.0	1785100.0	1647400.0	1693425.0	1727450.0

FORM VI PEST

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RF1: 013FAR16601UHRF2: 014FAR16602UHRF4: 015FAR16603UH
RF8: 016FAR16604UHRF16: 017FAR16605U

COMPOUND	RF1	RF2	RF4	RF8	RF16
Decachlorobiphenyl	1764500.0	1629000.0	1477375.0	1575025.0	1736268.8

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Aroclor-1016	AVRG	72832.1250	8.9
(2)	AVRG	32300.3750	8.7
(3)	AVRG	36022.3750	11.5
(4)	AVRG	24795.1250	14.6
(5)	AVRG	31269.2500	12.6
Aroclor-1221	AVRG	16117.5000	0.0
(2)	AVRG	10302.5000	0.0
(3)	AVRG	40232.5000	0.0
(4)	AVRG		
(5)	AVRG		
Aroclor-1232	AVRG	22912.5000	0.0
(2)	AVRG	32907.5000	0.0
(3)	AVRG	14057.5000	0.0
(4)	AVRG	14522.5000	0.0
(5)	AVRG	16992.5000	0.0
Aroclor-1242	AVRG	54772.5000	0.0
(2)	AVRG	25337.5000	0.0
(3)	AVRG	27567.5000	0.0
(4)	AVRG	34055.0000	0.0
(5)	AVRG	25315.0000	0.0
Aroclor-1248	AVRG	54135.0000	0.0
(2)	AVRG	73017.5000	0.0
(3)	AVRG	96442.5000	0.0
(4)	AVRG	49780.0000	0.0
(5)	AVRG	53840.0000	0.0
Aroclor-1254	AVRG	72255.0000	0.0
(2)	AVRG	90140.0000	0.0
(3)	AVRG	101670.000	0.0
(4)	AVRG	82432.5000	0.0
(5)	AVRG	94415.0000	0.0
Aroclor-1260	AVRG	78830.1250	10.8
(2)	AVRG	172520.500	6.1
(3)	AVRG	112543.375	6.5
(4)	AVRG	90795.5000	8.2
(5)	AVRG	243507.250	10.6
Tetrachloro-m-xylene	AVRG	1736635.00	4.2

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Decachlorobiphenyl	AVRG	1636433.75	7.2

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RF1: 013FAR16601UHRF2: 014FAR16602UHRF4: 015FAR16603UH
RF8: 016FAR16604UHRF16: 017FAR16605U

COMPOUND	RF1	RF2	RF4	RF8	RF16
Aroclor-1016	16370.000	15530.000	13765.000	13298.750	12551.250
(2)	24540.000	22655.000	19712.500	19136.250	18370.625
(3)	14400.000	14235.000	12720.000	12277.500	11423.750
(4)	11570.000	10995.000	9627.500	9365.000	8781.250
(5)	11290.000	10440.000	9210.000	8890.000	8150.625
Aroclor-1221			4837.500		
(2)			4585.000		
(3)			2807.500		
(4)			10935.000		
(5)					
Aroclor-1232			8710.000		
(2)			9767.500		
(3)			5622.500		
(4)			5620.000		
(5)			5392.500		
Aroclor-1242			16997.500		
(2)			7075.000		
(3)			8162.500		
(4)			10340.000		
(5)			11345.000		
Aroclor-1248			15800.000		
(2)			20437.500		
(3)			27822.500		
(4)			14670.000		
(5)			15277.500		
Aroclor-1254			21022.500		
(2)			26165.000		
(3)			27872.500		
(4)			17615.000		
(5)			25692.500		
Aroclor-1260	28560.000	26215.000	22550.000	21537.500	19951.250
(2)	45890.000	42350.000	36800.000	36351.250	34986.250
(3)	35940.000	32770.000	28857.500	28308.750	26896.250
(4)	31180.000	28515.000	25085.000	24343.750	22890.625
(5)	69290.000	63830.000	56847.500	56663.750	54711.875
Tetrachloro-m-xylene	512000.00	492600.00	441900.00	441550.00	434837.50

FORM VI PEST

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RF1: 013FAR16601UHRF2: 014FAR16602UHRF4: 015FAR16603UH
RF8: 016FAR16604UHRF16: 017FAR16605U

COMPOUND	RF1	RF2	RF4	RF8	RF16
Decachlorobiphenyl	496000.00	447950.00	388575.00	378187.50	358250.00

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Aroclor-1016	AVRG	14303.0000	11.1
(2)	AVRG	20882.8750	12.5
(3)	AVRG	13011.2500	9.8
(4)	AVRG	10067.7500	11.6
(5)	AVRG	9596.12500	13.1
Aroclor-1221	AVRG	4837.50000	0.0
(2)	AVRG	4585.00000	0.0
(3)	AVRG	2807.50000	0.0
(4)	AVRG	10935.0000	0.0
(5)	AVRG		
Aroclor-1232	AVRG	8710.00000	0.0
(2)	AVRG	9767.50000	0.0
(3)	AVRG	5622.50000	0.0
(4)	AVRG	5620.00000	0.0
(5)	AVRG	5392.50000	0.0
Aroclor-1242	AVRG	16997.5000	0.0
(2)	AVRG	7075.00000	0.0
(3)	AVRG	8162.50000	0.0
(4)	AVRG	10340.0000	0.0
(5)	AVRG	11345.0000	0.0
Aroclor-1248	AVRG	15800.0000	0.0
(2)	AVRG	20437.5000	0.0
(3)	AVRG	27822.5000	0.0
(4)	AVRG	14670.0000	0.0
(5)	AVRG	15277.5000	0.0
Aroclor-1254	AVRG	21022.5000	0.0
(2)	AVRG	26165.0000	0.0
(3)	AVRG	27872.5000	0.0
(4)	AVRG	17615.0000	0.0
(5)	AVRG	25692.5000	0.0
Aroclor-1260	AVRG	23762.7500	14.9
(2)	AVRG	39275.5000	11.8
(3)	AVRG	30554.5000	12.2
(4)	AVRG	26402.8750	12.8
(5)	AVRG	60268.6250	10.1
Tetrachloro-m-xylene	AVRG	464577.500	7.6

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Decachlorobiphenyl	AVRG	413792.500	13.7

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RT1: 013FAR16601UHRT2: 014FAR16602UHRT3: 015FAR16603UH
RT4: 016FAR16604UHRT5: 017FAR16605UH

COMPOUND	RT1	RT2	RT3	RT4	RT5
Aroclor-1016	11.070	11.080	11.080	11.090	11.080
(2)	11.540	11.540	11.540	11.550	11.540
(3)	12.360	12.360	12.350	12.370	12.360
(4)	13.220	13.230	13.220	13.240	13.230
(5)	13.810	13.820	13.810	13.820	13.810
Aroclor-1221			8.470		
(2)			8.870		
(3)			8.980		
(4)					
(5)					
Aroclor-1232			9.910		
(2)			11.070		
(3)			11.530		
(4)			12.350		
(5)			13.310		
Aroclor-1242			11.070		
(2)			11.530		
(3)			12.350		
(4)			13.310		
(5)			13.810		
Aroclor-1248			11.830		
(2)			12.350		
(3)			13.310		
(4)			14.680		
(5)			15.290		
Aroclor-1254			13.820		
(2)			14.700		
(3)			15.300		
(4)			15.700		
(5)			16.300		
Aroclor-1260	15.090	15.100	15.090	15.100	15.090
(2)	15.690	15.700	15.690	15.700	15.690
(3)	16.540	16.550	16.540	16.550	16.540
(4)	17.070	17.080	17.070	17.080	17.070
(5)	17.730	17.730	17.730	17.740	17.730
Tetrachloro-m-xylene	7.930	7.940	7.930	7.940	7.940

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RT1: 013FAR16601UHRT2: 014FAR16602UHRT3: 015FAR16603UH
RT4: 016FAR16604UHRT5: 017FAR16605UH

COMPOUND	RT1	RT2	RT3	RT4	RT5
Decachlorobiphenyl	20.650	20.660	20.650	20.660	20.660

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016	11.080	11.005	11.145
(2)	11.542	11.468	11.608
(3)	12.360	12.285	12.425
(4)	13.228	13.155	13.295
(5)	13.814	13.738	13.878
Aroclor-1221	8.470	8.397	8.537
(2)	8.870	8.798	8.938
(3)	8.980	8.910	9.050
(4)			
(5)			
Aroclor-1232	9.910	9.837	9.977
(2)	11.070	10.997	11.137
(3)	11.530	11.460	11.600
(4)	12.350	12.277	12.417
(5)	13.310	13.240	13.380
Aroclor-1242	11.070	10.998	11.138
(2)	11.530	11.462	11.602
(3)	12.350	12.277	12.417
(4)	13.310	13.242	13.382
(5)	13.810	13.745	13.885
Aroclor-1248	11.830	11.757	11.897
(2)	12.350	12.277	12.417
(3)	13.310	13.242	13.382
(4)	14.680	14.610	14.750
(5)	15.290	15.217	15.357
Aroclor-1254	13.820	13.747	13.887
(2)	14.700	14.627	14.767
(3)	15.300	15.232	15.372
(4)	15.700	15.628	15.768
(5)	16.300	16.233	16.373
Aroclor-1260	15.094	15.018	15.158
(2)	15.694	15.618	15.758
(3)	16.544	16.468	16.608
(4)	17.074	17.000	17.140
(5)	17.732	17.657	17.797
Tetrachloro-m-xylene	7.936	7.865	8.005

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	20.656	20.582	20.722

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RT1: 013FAR16601UHRT2: 014FAR16602UHRT3: 015FAR16603UH
RT4: 016FAR16604UHRT5: 017FAR16605UH

COMPOUND	RT1	RT2	RT3	RT4	RT5
Aroclor-1016	9.980	9.990	9.980	9.990	9.980
(2)	11.080	11.090	11.080	11.090	11.080
(3)	11.380	11.390	11.380	11.390	11.380
(4)	12.450	12.460	12.450	12.460	12.460
(5)	13.390	13.400	13.390	13.400	13.390
Aroclor-1221			5.970		
(2)			8.450		
(3)			8.820		
(4)			8.970		
(5)					
Aroclor-1232			8.960		
(2)			11.070		
(3)			11.370		
(4)			12.300		
(5)			13.390		
Aroclor-1242			11.070		
(2)			11.610		
(3)			12.450		
(4)			13.290		
(5)			13.880		
Aroclor-1248			11.850		
(2)			12.450		
(3)			13.290		
(4)			14.790		
(5)			15.280		
Aroclor-1254			13.820		
(2)			14.810		
(3)			15.300		
(4)			15.680		
(5)			16.440		
Aroclor-1260	15.220	15.230	15.220	15.230	15.220
(2)	15.670	15.680	15.670	15.680	15.670
(3)	16.620	16.630	16.620	16.640	16.620
(4)	17.250	17.250	17.250	17.260	17.250
(5)	17.770	17.780	17.770	17.790	17.770
Tetrachloro-m-xylene	7.620	7.630	7.620	7.630	7.620

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

LAB FILE ID: RT1: 013FAR16601UHRT2: 014FAR16602UHRT3: 015FAR16603UH
RT4: 016FAR16604UHRT5: 017FAR16605UH

COMPOUND	RT1	RT2	RT3	RT4	RT5
Decachlorobiphenyl	21.010	21.020	21.010	21.020	21.010

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016	9.984	9.918	10.058
(2)	11.084	11.017	11.157
(3)	11.384	11.320	11.460
(4)	12.456	12.392	12.532
(5)	13.394	13.328	13.468
Aroclor-1221	5.970	5.897	6.037
(2)	8.450	8.382	8.522
(3)	8.820	8.747	8.887
(4)	8.970	8.898	9.038
(5)			
Aroclor-1232	8.960	8.888	9.028
(2)	11.070	11.000	11.140
(3)	11.370	11.305	11.445
(4)	12.300	12.233	12.373
(5)	13.390	13.320	13.460
Aroclor-1242	11.070	11.002	11.142
(2)	11.610	11.542	11.682
(3)	12.450	12.377	12.517
(4)	13.290	13.223	13.363
(5)	13.880	13.815	13.955
Aroclor-1248	11.850	11.778	11.918
(2)	12.450	12.377	12.517
(3)	13.290	13.223	13.363
(4)	14.790	14.725	14.865
(5)	15.280	15.213	15.353
Aroclor-1254	13.820	13.747	13.887
(2)	14.810	14.740	14.880
(3)	15.300	15.228	15.368
(4)	15.680	15.607	15.747
(5)	16.440	16.368	16.508
Aroclor-1260	15.224	15.160	15.300
(2)	15.674	15.608	15.748
(3)	16.626	16.558	16.698
(4)	17.252	17.183	17.323
(5)	17.776	17.710	17.850
Tetrachloro-m-xylene	7.624	7.558	7.698

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date(s): 03/20/09 03/20/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 1703 2346

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	21.014	20.948	21.088

b. Continuing Calibration Summary (Form VII)

For all performance evaluation mixtures (if applicable) and Continuing calibration verification standards, on all GC columns and instruments, in chronological order by GC column and instrument.

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date: 04/18/09 Time: 1655

Lab File ID: 259FAR1660WX Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	72832.125	67109.125	0.01	-7.86	15.00	AVRG
(2)	32300.375	30281.750	0.01	-6.25	15.00	AVRG
(3)	36022.375	33502.250	0.01	-7.00	15.00	AVRG
(4)	24795.125	22637.375	0.01	-8.70	15.00	AVRG
(5)	31269.250	28706.375	0.01	-8.20	15.00	AVRG
Aroclor-1260	78830.125	71180.500	0.01	-9.70	15.00	AVRG
(2)	172520.50	152502.00	0.01	-11.60	15.00	AVRG
(3)	112543.37	102778.25	0.01	-8.68	15.00	AVRG
(4)	90795.500	83550.375	0.01	-7.98	15.00	AVRG
(5)	243507.25	219591.00	0.01	-9.82	15.00	AVRG
Tetrachloro-m-xylene	1736635.0	1625902.5	0.01	-6.38	15.00	AVRG
Decachlorobiphenyl	1636433.8	1528750.0	0.01	-6.58	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date: 04/18/09 Time: 1655

Lab File ID: 259FAR1660WX Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	14303.000	14318.250	0.01	0.11	15.00	AVRG
(2)	20882.875	20469.500	0.01	-1.98	15.00	AVRG
(3)	13011.250	12982.000	0.01	-0.22	15.00	AVRG
(4)	10067.750	9778.8750	0.01	-2.87	15.00	AVRG
(5)	9596.1250	9340.3750	0.01	-2.66	15.00	AVRG
Aroclor-1260	23762.750	22841.875	0.01	-3.88	15.00	AVRG
(2)	39275.500	37629.750	0.01	-4.19	15.00	AVRG
(3)	30554.500	29663.625	0.01	-2.92	15.00	AVRG
(4)	26402.875	25471.500	0.01	-3.53	15.00	AVRG
(5)	60268.625	57787.000	0.01	-4.12	15.00	AVRG
Tetrachloro-m-xylene	464577.50	451695.00	0.01	-2.77	15.00	AVRG
Decachlorobiphenyl	413792.50	412458.75	0.01	-0.32	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date: 04/18/09 Time: 2239

Lab File ID: 270FAR1660WZ Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	72832.125	65181.500	0.01	-10.50	15.00	AVRG
(2)	32300.375	29345.875	0.01	-9.15	15.00	AVRG
(3)	36022.375	32427.125	0.01	-9.98	15.00	AVRG
(4)	24795.125	22091.375	0.01	-10.90	15.00	AVRG
(5)	31269.250	27695.375	0.01	-11.43	15.00	AVRG
Aroclor-1260	78830.125	68486.625	0.01	-13.12	15.00	AVRG
(2)	172520.50	146662.00	0.01	-14.99	15.00	AVRG
(3)	112543.37	98743.625	0.01	-12.26	15.00	AVRG
(4)	90795.500	80910.500	0.01	-10.89	15.00	AVRG
(5)	243507.25	213400.75	0.01	-12.36	15.00	AVRG
Tetrachloro-m-xylene	1736635.0	1571305.0	0.01	-9.52	15.00	AVRG
Decachlorobiphenyl	1636433.8	1507232.5	0.01	-7.90	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date: 04/18/09 Time: 2239

Lab File ID: 270FAR1660WZ Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	14303.000	14715.875	0.01	2.89	15.00	AVRG
(2)	20882.875	20769.250	0.01	-0.54	15.00	AVRG
(3)	13011.250	13198.250	0.01	1.44	15.00	AVRG
(4)	10067.750	9907.5000	0.01	-1.59	15.00	AVRG
(5)	9596.1250	9550.2500	0.01	-0.48	15.00	AVRG
Aroclor-1260	23762.750	23054.750	0.01	-2.98	15.00	AVRG
(2)	39275.500	37979.125	0.01	-3.30	15.00	AVRG
(3)	30554.500	30078.000	0.01	-1.56	15.00	AVRG
(4)	26402.875	25753.125	0.01	-2.46	15.00	AVRG
(5)	60268.625	58816.250	0.01	-2.41	15.00	AVRG
Tetrachloro-m-xylene	464577.50	458925.00	0.01	-1.22	15.00	AVRG
Decachlorobiphenyl	413792.50	415662.50	0.01	0.45	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date: 04/19/09 Time: 1013

Lab File ID: 295FAR1660XD Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	72832.125	64640.750	0.01	-11.25	15.00	AVRG	
(2)	32300.375	28870.375	0.01	-10.62	15.00	AVRG	
(3)	36022.375	31952.250	0.01	-11.30	15.00	AVRG	
(4)	24795.125	21826.250	0.01	-11.97	15.00	AVRG	
(5)	31269.250	27229.875	0.01	-12.92	15.00	AVRG	
Aroclor-1260	78830.125	68100.125	0.01	-13.61	15.00	AVRG	
(2)	172520.50	144956.12	0.01	-15.98	15.00	AVRG	<-
(3)	112543.37	98116.875	0.01	-12.82	15.00	AVRG	
(4)	90795.500	79563.250	0.01	-12.37	15.00	AVRG	
(5)	243507.25	210542.75	0.01	-13.54	15.00	AVRG	
Tetrachloro-m-xylene	1736635.0	1543390.0	0.01	-11.13	15.00	AVRG	
Decachlorobiphenyl	1636433.8	1468982.5	0.01	-10.23	15.00	AVRG	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date: 04/19/09 Time: 1013

Lab File ID: 295FAR1660XD Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	14303.000	13983.250	0.01	-2.24	15.00	AVRG
(2)	20882.875	19456.500	0.01	-6.83	15.00	AVRG
(3)	13011.250	12814.875	0.01	-1.51	15.00	AVRG
(4)	10067.750	9196.1250	0.01	-8.66	15.00	AVRG
(5)	9596.1250	9139.3750	0.01	-4.76	15.00	AVRG
Aroclor-1260	23762.750	22306.125	0.01	-6.13	15.00	AVRG
(2)	39275.500	36849.750	0.01	-6.18	15.00	AVRG
(3)	30554.500	28929.000	0.01	-5.32	15.00	AVRG
(4)	26402.875	24800.000	0.01	-6.07	15.00	AVRG
(5)	60268.625	56341.375	0.01	-6.52	15.00	AVRG
Tetrachloro-m-xylene	464577.50	438940.00	0.01	-5.52	15.00	AVRG
Decachlorobiphenyl	413792.50	399470.00	0.01	-3.46	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC86 Calibration Date: 04/19/09 Time: 1644

Lab File ID: 308FAR1660XF Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	72832.125	65046.875	0.01	-10.69	15.00	AVRG
(2)	32300.375	29372.750	0.01	-9.06	15.00	AVRG
(3)	36022.375	32395.375	0.01	-10.07	15.00	AVRG
(4)	24795.125	22083.625	0.01	-10.94	15.00	AVRG
(5)	31269.250	27830.625	0.01	-11.00	15.00	AVRG
Aroclor-1260	78830.125	69429.250	0.01	-11.92	15.00	AVRG
(2)	172520.50	149019.25	0.01	-13.62	15.00	AVRG
(3)	112543.37	101139.25	0.01	-10.13	15.00	AVRG
(4)	90795.500	82008.250	0.01	-9.68	15.00	AVRG
(5)	243507.25	217255.88	0.01	-10.78	15.00	AVRG
Tetrachloro-m-xylene	1736635.0	1561655.0	0.01	-10.08	15.00	AVRG
Decachlorobiphenyl	1636433.8	1522650.0	0.01	-6.95	15.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: TRACEGC87 Calibration Date: 04/19/09 Time: 1644

Lab File ID: 308FAR1660XF Init. Calib. Date(s): 03/20/09 03/20/09

Init. Calib. Times: 2151 2346

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF4.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	14303.000	14523.375	0.01	1.54	15.00	AVRG
(2)	20882.875	20380.250	0.01	-2.41	15.00	AVRG
(3)	13011.250	13225.375	0.01	1.64	15.00	AVRG
(4)	10067.750	9514.7500	0.01	-5.49	15.00	AVRG
(5)	9596.1250	9599.7500	0.01	0.04	15.00	AVRG
Aroclor-1260	23762.750	23162.250	0.01	-2.53	15.00	AVRG
(2)	39275.500	38850.625	0.01	-1.08	15.00	AVRG
(3)	30554.500	30245.125	0.01	-1.01	15.00	AVRG
(4)	26402.875	25996.875	0.01	-1.54	15.00	AVRG
(5)	60268.625	59496.875	0.01	-1.28	15.00	AVRG
Tetrachloro-m-xylene	464577.50	453827.50	0.01	-2.31	15.00	AVRG
Decachlorobiphenyl	413792.50	422213.75	0.01	2.04	15.00	AVRG

c. Analytical Sequence (Form VIII)

For all GC columns, all instruments, in chronological order by GC column and instrument

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 03/20/09 03/20/09

Instrument ID: TRACEGC86

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 7.93 DCB: 20.65

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213UH	AR12213UH	03/20/09	1703	7.93	20.65
02	AR12323UH	AR12323UH	03/20/09	1732	7.93	20.64
03	AR12423UH	AR12423UH	03/20/09	1800	7.93	20.64
04	AR12483UH	AR12483UH	03/20/09	1829	7.93	20.64
05	AR12543UH	AR12543UH	03/20/09	1858	7.94	20.66
06	AR12681UH	AR12681UH	03/20/09	1927	7.93	20.65
07	AR12682UH	AR12682UH	03/20/09	1956	7.94	20.66
08	AR12683UH	AR12683UH	03/20/09	2024	7.94	20.66
09	AR12684UH	AR12684UH	03/20/09	2053	7.93	20.65
10	AR12685UH	AR12685UH	03/20/09	2122	7.95	20.66
11	AR16601UH	AR16601UH	03/20/09	2151	7.93	20.65
12	AR16602UH	AR16602UH	03/20/09	2219	7.94	20.66
13	AR16603UH	AR16603UH	03/20/09	2248	7.93	20.65
14	AR16604UH	AR16604UH	03/20/09	2317	7.94	20.66
15	AR16605UH	AR16605UH	03/20/09	2346	7.94	20.66
16	PIBLKWW	PIBLKWW	04/18/09	1627	7.95	20.67
17	AR1660WX	AR1660WX	04/18/09	1655	7.95	20.67
18	PBLKGX	9041715-BLK1	04/18/09	1753	7.95	20.67
19	PGXLCS	9041715-BS1	04/18/09	1820	7.95	20.67
20	13MW5MS	9041715-MS2	04/18/09	1918	7.95	20.67
21	13MW5MSD	9041715-MSD2	04/18/09	2044	7.96	20.67
22	PIBLKWY	PIBLKWY	04/18/09	2211	7.95	20.66
23	AR1660WZ	AR1660WZ	04/18/09	2239	7.95	20.66
24	PIBLKXC	PIBLKXC	04/19/09	0944	7.95	20.67
25	AR1660XD	AR1660XD	04/19/09	1013	7.94	20.66
26	13MW5	0904098-01	04/19/09	1254	7.94	20.66
27	13MW3	0904098-02	04/19/09	1323	7.94	20.65
28	13MW4	0904098-03	04/19/09	1352	7.95	20.67
29	13MWDUP	0904098-04	04/19/09	1420	7.95	20.67
30	13MW6	0904098-05	04/19/09	1449	7.94	20.65
31	13MW7	0904098-06	04/19/09	1518	7.95	20.67
32	PIBLKXE	PIBLKXE	04/19/09	1615	7.95	20.67

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 03/20/09 03/20/09

Instrument ID: TRACEGC86

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 7.93 DCB: 20.65

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR1660XF	AR1660XF	04/19/09	1644	7.95	20.66
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 03/20/09 03/20/09

Instrument ID: TRACEGC87

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 7.63 DCB: 21.02

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213UH	AR12213UH	03/20/09	1703	7.62	21.01
02	AR12323UH	AR12323UH	03/20/09	1732	7.61	21.00
03	AR12423UH	AR12423UH	03/20/09	1800	7.61	21.00
04	AR12483UH	AR12483UH	03/20/09	1829	7.62	21.00
05	AR12543UH	AR12543UH	03/20/09	1858	7.62	21.02
06	AR12681UH	AR12681UH	03/20/09	1927	7.62	21.01
07	AR12682UH	AR12682UH	03/20/09	1956	7.63	21.02
08	AR12683UH	AR12683UH	03/20/09	2024	7.63	21.02
09	AR12684UH	AR12684UH	03/20/09	2053	7.62	21.01
10	AR12685UH	AR12685UH	03/20/09	2122	7.63	21.02
11	AR16601UH	AR16601UH	03/20/09	2151	7.62	21.01
12	AR16602UH	AR16602UH	03/20/09	2219	7.63	21.02
13	AR16603UH	AR16603UH	03/20/09	2248	7.62	21.01
14	AR16604UH	AR16604UH	03/20/09	2317	7.63	21.02
15	AR16605UH	AR16605UH	03/20/09	2346	7.62	21.01
16	PIBLKWX	PIBLKWX	04/18/09	1627	7.64	21.03
17	AR1660WX	AR1660WX	04/18/09	1655	7.63	21.03
18	PBLKGX	9041715-BLK1	04/18/09	1753	7.63	21.03
19	PGXLCS	9041715-BS1	04/18/09	1820	7.64	21.02
20	13MW5MS	9041715-MS2	04/18/09	1918	7.63	21.03
21	13MW5MSD	9041715-MSD2	04/18/09	2044	7.64	21.03
22	PIBLKWZ	PIBLKWZ	04/18/09	2211	7.63	21.02
23	AR1660WZ	AR1660WZ	04/18/09	2239	7.63	21.02
24	PIBLKXD	PIBLKXD	04/19/09	0944	7.63	21.02
25	AR1660XD	AR1660XD	04/19/09	1013	7.63	21.02
26	13MW5	0904098-01	04/19/09	1254	7.62	21.01
27	13MW3	0904098-02	04/19/09	1323	7.62	21.00
28	13MW4	0904098-03	04/19/09	1352	7.63	21.02
29	13MWDUP	0904098-04	04/19/09	1420	7.63	21.02
30	13MW6	0904098-05	04/19/09	1449	7.62	21.01
31	13MW7	0904098-06	04/19/09	1518	7.63	21.02
32	PIBLKXF	PIBLKXF	04/19/09	1615	7.63	21.02

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 03/20/09 03/20/09

Instrument ID: TRACEGC87

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 7.63 DCB: 21.02

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR1660XF	AR1660XF	04/19/09	1644	7.63	21.02
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

d. Identification Summary for Single Component Analytes (Form X)

For all samples with positively identified single component analytes, in order by increasing Client Sample ID number.

e. Identification Summary for Multicomponent Analytes (Form X) – if applicable

For all samples with positively identified multicomponent analytes, in order by increasing Client Sample ID number.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

13MW5MS

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041715-MS2 Date(s) Analyzed: 04/18/09 04/18/09

Instrument ID (1): TRACEGC86 Instrument ID (2): TRACEGC87

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	11.09	11.01	11.14	3.5		
Aroclor-1016	2	11.56	11.47	11.61	4.7		
	3	12.37	12.29	12.43	4.0		
COLUMN 1	4	13.24	13.15	13.29	4.2		
	5	13.82	13.74	13.88	3.4	3.9	
	1	10.02	9.92	10.06	4.4		
	2	11.09	11.02	11.16	4.0		
	3	11.39	11.32	11.46	6.4		
COLUMN 2	4	12.47	12.39	12.53	5.7		
	5	13.40	13.33	13.47	5.6	5.2	28.6
	1	15.10	15.02	15.16	3.6		
Aroclor-1260	2	15.71	15.62	15.76	3.7		
	3	16.56	16.47	16.61	3.8		
COLUMN 1	4	17.09	17.00	17.14	3.6		
	5	17.75	17.66	17.80	4.2	3.8	
	1	15.24	15.16	15.30	3.8		
	2	15.69	15.61	15.75	4.0		
	3	16.64	16.56	16.70	4.1		
COLUMN 2	4	17.26	17.18	17.32	4.0		
	5	17.79	17.71	17.85	4.2	4.0	5.1
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

13MW5MSD

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041715-MSD2 Date(s) Analyzed: 04/18/09 04/18/09

Instrument ID (1): TRACEGC86 Instrument ID (2): TRACEGC87

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	11.09	11.01	11.14	3.7		
Aroclor-1016	2	11.56	11.47	11.61	4.0		
	3	12.37	12.29	12.43	4.0		
COLUMN 1	4	13.24	13.15	13.29	4.0		
	5	13.83	13.74	13.88	3.6	3.9	
	1	10.00	9.92	10.06	4.0		
	2	11.09	11.02	11.16	4.0		
	3	11.40	11.32	11.46	5.2		
COLUMN 2	4	12.47	12.39	12.53	5.6		
	5	13.41	13.33	13.47	4.8	4.7	18.6
	1	15.11	15.02	15.16	3.8		
Aroclor-1260	2	15.71	15.62	15.76	4.0		
	3	16.56	16.47	16.61	4.0		
COLUMN 1	4	17.09	17.00	17.14	3.9		
	5	17.75	17.66	17.80	4.5	4.0	
	1	15.24	15.16	15.30	4.1		
	2	15.69	15.61	15.75	4.3		
	3	16.64	16.56	16.70	4.3		
COLUMN 2	4	17.26	17.18	17.32	4.2		
	5	17.79	17.71	17.85	4.4	4.3	7.2
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

PGXLCS

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041715-BS1 Date(s) Analyzed: 04/18/09 04/18/09

Instrument ID (1): TRACEGC86 Instrument ID (2): TRACEGC87

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	11.09	11.01	11.14	3.8		
Aroclor-1016	2	11.55	11.47	11.61	3.7		
	3	12.37	12.29	12.43	3.6		
COLUMN 1	4	13.24	13.15	13.29	3.8		
	5	13.82	13.74	13.88	3.6	3.7	
	1	9.99	9.92	10.06	4.2		
	2	11.09	11.02	11.16	4.1		
	3	11.39	11.32	11.46	5.8		
COLUMN 2	4	12.47	12.39	12.53	4.1		
	5	13.40	13.33	13.47	4.1	4.5	19.5
	1	15.10	15.02	15.16	3.6		
Aroclor-1260	2	15.71	15.62	15.76	3.8		
	3	16.55	16.47	16.61	3.9		
COLUMN 1	4	17.09	17.00	17.14	3.8		
	5	17.74	17.66	17.80	4.3	3.9	
	1	15.23	15.16	15.30	4.0		
	2	15.68	15.61	15.75	4.2		
	3	16.64	16.56	16.70	4.3		
COLUMN 2	4	17.26	17.18	17.32	4.1		
	5	17.79	17.71	17.85	4.3	4.2	7.4
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

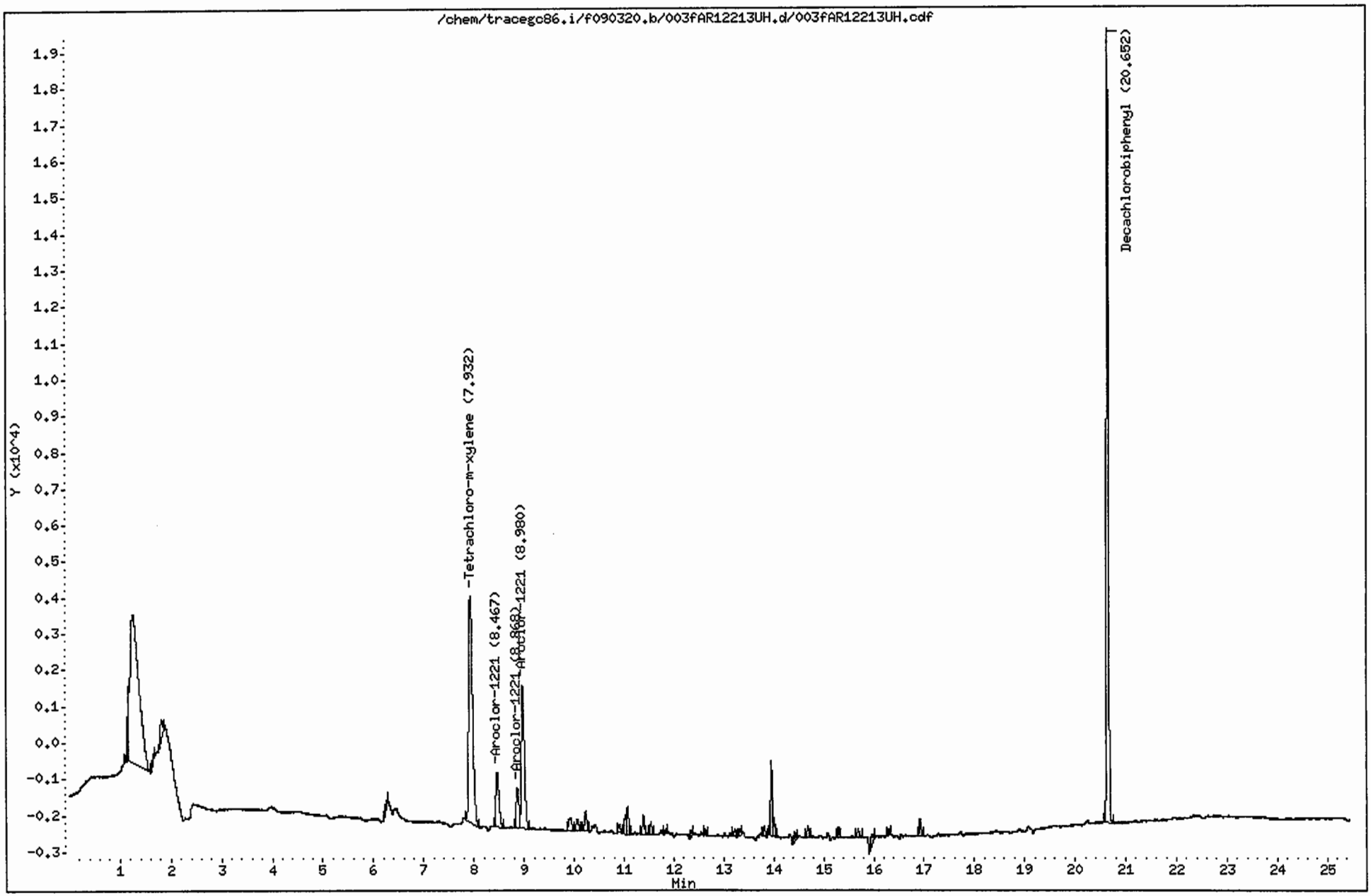
f. Chromatograms and Data System Printouts

For all methods, standards packages shall include
The following:

- Performance evaluation mixtures (8081 only)
- Initial Calibration Standards
- Second Source Initial Calibration Verifications (if required by client)
- Continuing Calibration Verification Standards
- The quantitation report must include the Client Sample ID number.
- The chromatograms shall include the following: Client Sample ID number for the standard, labeled standard peaks, volume injected, for each standard, date and time of injection, GC column identifier, and GC Instrument identifier

Data File: /chem/tracegc86.i/f090320.b/003fAR12213UH.d
Date : 20-MAR-2009 17:03
Client ID: AR12213UH
Sample Info: AR12213UH
Volume Injected (uL): 1.0
Column phase: clpest

Instrument: tracegc86.i
Operator: 2646
Column diameter: 0.32



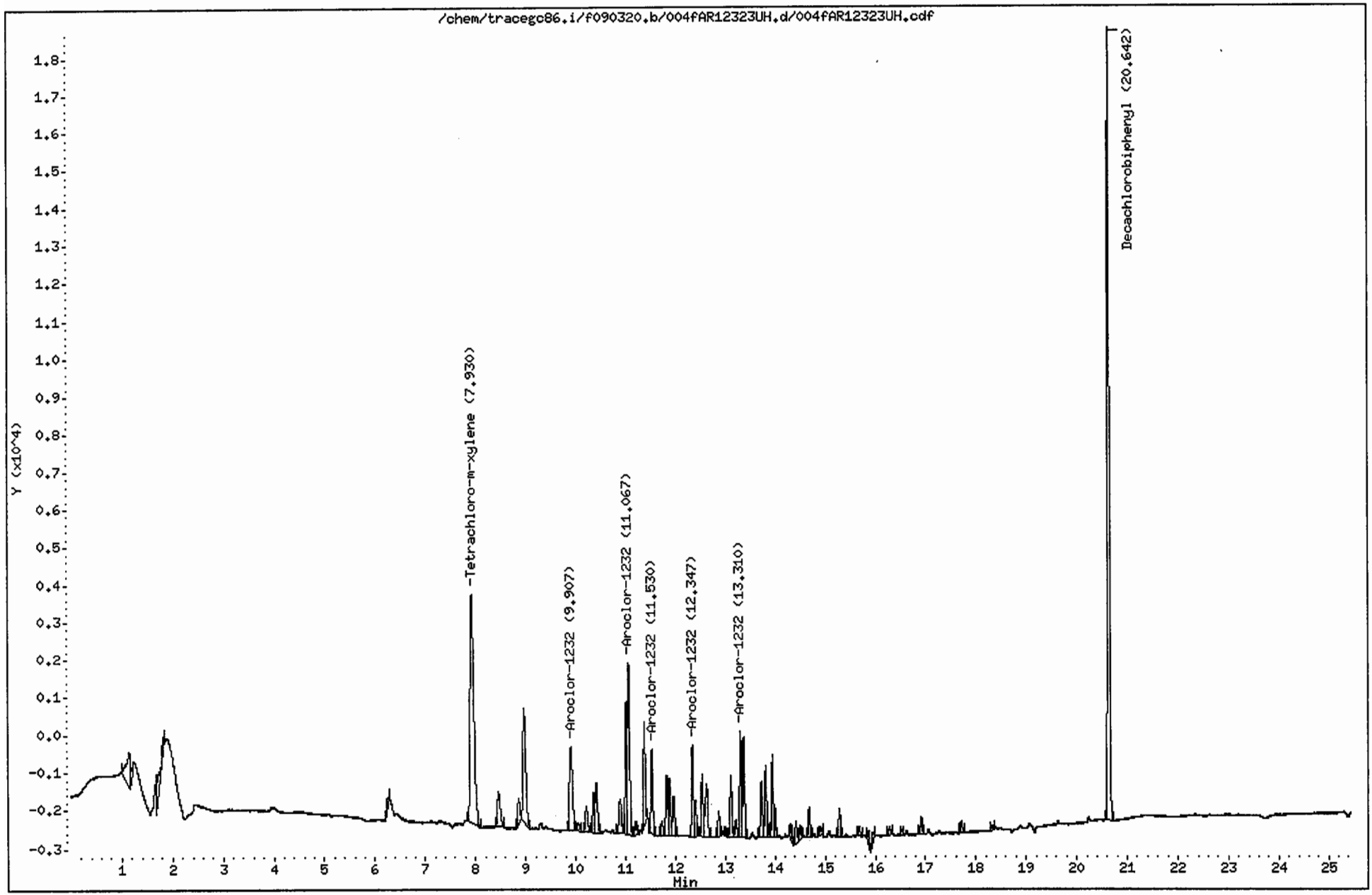
CompuChem

Lab Smp Id : AR12213UH Client Smp Id : AR12213UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1221
Inj Date : 20-MAR-2009 17:03 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.14			452					
1.16			1447					
1.17			1186					
1.25			49714					
1.67			535					
1.83			1816					
6.27			586					
7.93	7.87	8.01	32912	1736635	Tetrachloro-m-xylene	0.020000	1647400	
8.47	8.40	8.54	6448	16118	Aroclor-1221 Peak 1	0.400000	16117	
8.87	8.80	8.94	4121	10302	Aroclor-1221 Peak 2	0.400000	10303	
8.98	8.91	9.05	16093	40232	Aroclor-1221 Peak 3	0.400000	40233	
9.93			1426					
10.07			1083					
10.23			1655					
10.90			688					
11.03			1204					
11.07			2115					
11.39			1282					
11.54			877					
11.83			296					
12.36			367					
12.64			366					
13.22			503					
13.32			387					
13.81			648					
13.96			4507					
14.01			918					
14.42			675					
14.69			758					
15.29			625					
15.69			606					
15.97			877					
16.30			399					
16.93			1103					
20.65	20.59	20.73	55746	1636434	Decachlorobiphenyl	0.040000	1477375	

Data File: /chem/tracegc86.i/f090320.b/004fAR12323UH.d
Date : 20-MAR-2009 17:32
Client ID: AR12323UH
Sample Info: AR12323UH
Volume Injected (uL): 1.0
Column phase: clpest

Instrument: tracegc86.i
Operator: 2646
Column diameter: 0.32



CompuChem

Lab Smp Id : AR12323UH Client Smp Id : AR12323UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 20-MAR-2009 17:32 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.15			4364					
1.19			770					
1.83			3374					
6.27			578					
7.93	7.87	8.01	31396	1736635	Tetrachloro-m-xylene	0.020000	1647400	
8.46			3725					
8.86			2106					
8.97			11719					
9.91	9.84	9.98	9165	22912	Aroclor-1232 Peak 1	0.400000	22913	
10.04			694					
10.21			2148					
10.36			2690					
10.42			4078					
10.89			3095					
11.02			8179					
11.07	11.00	11.14	13164	32908	Aroclor-1232 Peak 2	0.400000	32907	
11.20			881					
11.38			6496					
11.53	11.46	11.60	5623	14058	Aroclor-1232 Peak 3	0.400000	14057	
11.73			951					
11.83			3813					
11.88			3790					
11.96			3005					
12.35	12.28	12.42	5810	14522	Aroclor-1232 Peak 4	0.400000	14523	
12.41			2173					
12.54			3816					
12.63			4994					
12.87			1501					
13.02			477					
13.12			3779					
13.21			1031					
13.31	13.24	13.38	6797	16992	Aroclor-1232 Peak 5	0.400000	16993	
13.37			6547					
13.73			3792					
13.81			4874					
13.88			673					
13.95			4823					
14.00			1371					
14.31			1052					
14.41			1620					
14.51			903					
14.68			1790					

CompuChem

Lab Smp Id : AR12323UH Client Smp Id : AR12323UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 20-MAR-2009 17:32 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.88		705					
15.29		1672					
15.68		617					
15.87		770					
15.95		887					
16.29		420					
16.52		297					
16.91		1006					
17.71		649					
18.32		293					
20.64	20.59 20.73	53842	1636434	Decachlorobiphenyl	0.040000	1477375	

Data File: /chem/tracegc86.i/f090320.b/005fAR12423UH.d

Date : 20-MAR-2009 18:00

Client ID: AR12423UH

Instrument: tracegc86.i

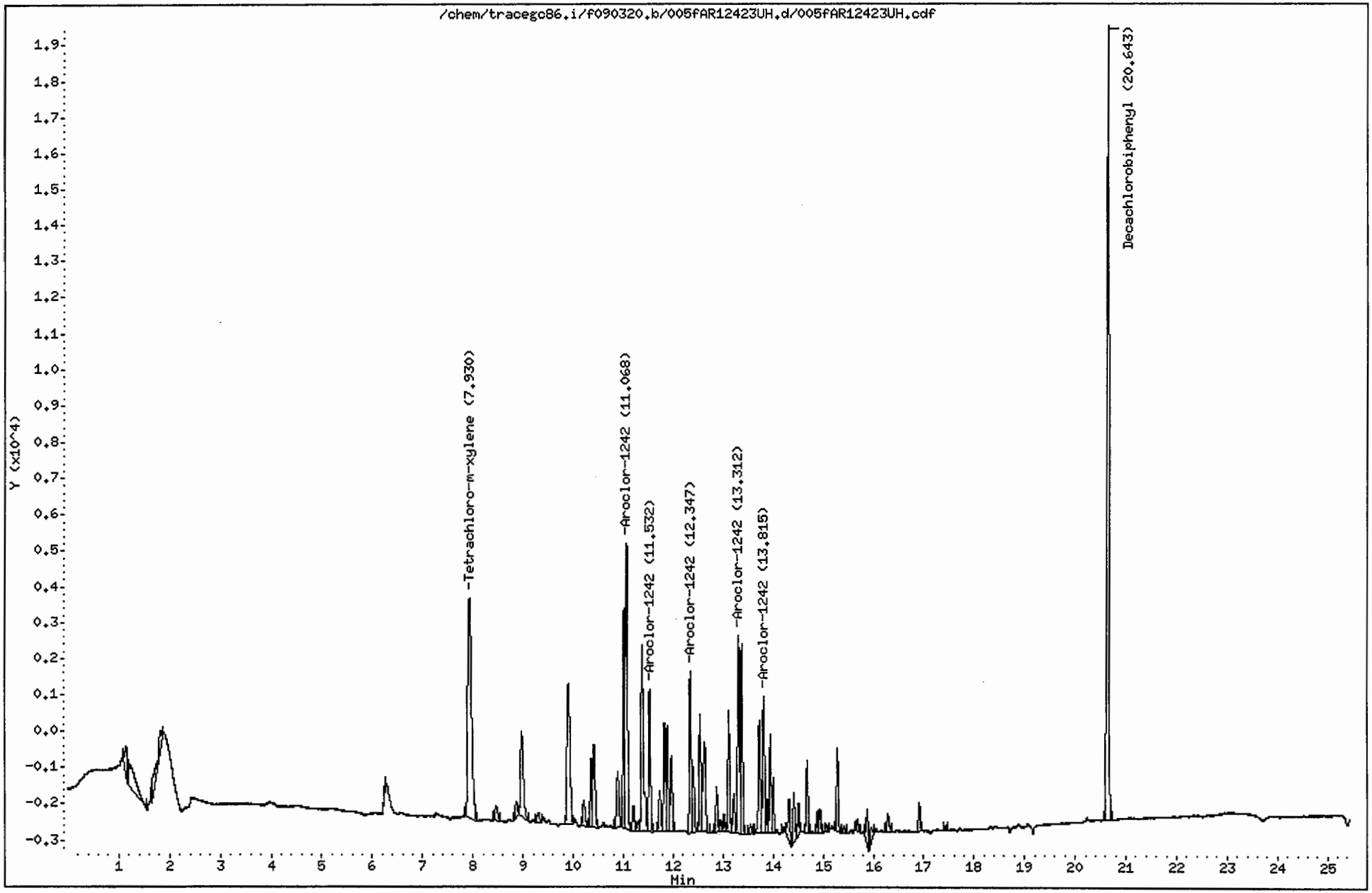
Sample Info: AR12423UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12423UH Client Smp Id : AR12423UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 20-MAR-2009 18:00 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.15		2028					
1.19		915					
1.23		5566					
1.83		3868					
6.26		430					
7.93	7.87 8.01	31917	1736635	Tetrachloro-m-xylene	0.020000	1647400	
8.46		1612					
8.86		1434					
8.97		9216					
9.30		888					
9.91		16258					
10.21		2285					
10.36		4987					
10.42		6973					
10.89		5401					
11.02		15323					
11.07	11.00 11.14	21909	54772	Aroclor-1242 Peak 1	0.400000	54773	
11.20		1823					
11.30		726					
11.38		16256					
11.53	11.46 11.60	10136	25338	Aroclor-1242 Peak 2	0.400000	25337	
11.73		3023					
11.83		7404					
11.88		7512					
11.97		6214					
12.35	12.28 12.42	11027	27568	Aroclor-1242 Peak 3	0.400000	27567	
12.41		4368					
12.54		7799					
12.63		9340					
12.87		3026					
12.95		675					
13.02		1096					
13.12		8043					
13.22		2808					
13.31	13.24 13.38	13623	34055	Aroclor-1242 Peak 4	0.400000	34055	
13.38		12891					
13.55		541					
13.73		8467					
13.82	13.74 13.88	10127	25315	Aroclor-1242 Peak 5	0.400000	25315	
13.89		2073					
13.95		6123					
14.00		2947					

5/4/9

CompuChem

Lab Smp Id : AR12423UH Client Smp Id : AR12423UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 20-MAR-2009 18:00 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.21		305					
14.32		3469					
14.42		3640					
14.51		2181					
14.68		4687					
14.89		1343					
14.94		1481					
15.07		488					
15.29		5355					
15.42		383					
15.68		872					
15.88		2237					
15.96		1240					
16.29		1528					
16.92		1748					
17.44		304					
20.64	20.59 20.73	56053	1636434	Decachlorobiphenyl	0.040000	1477375	

Data File: /chem/tracegc86.i/f090320.b/006fAR12483UH.d

Page 1

Date : 20-MAR-2009 18:29

Client ID: AR12483UH

Instrument: tracegc86.i

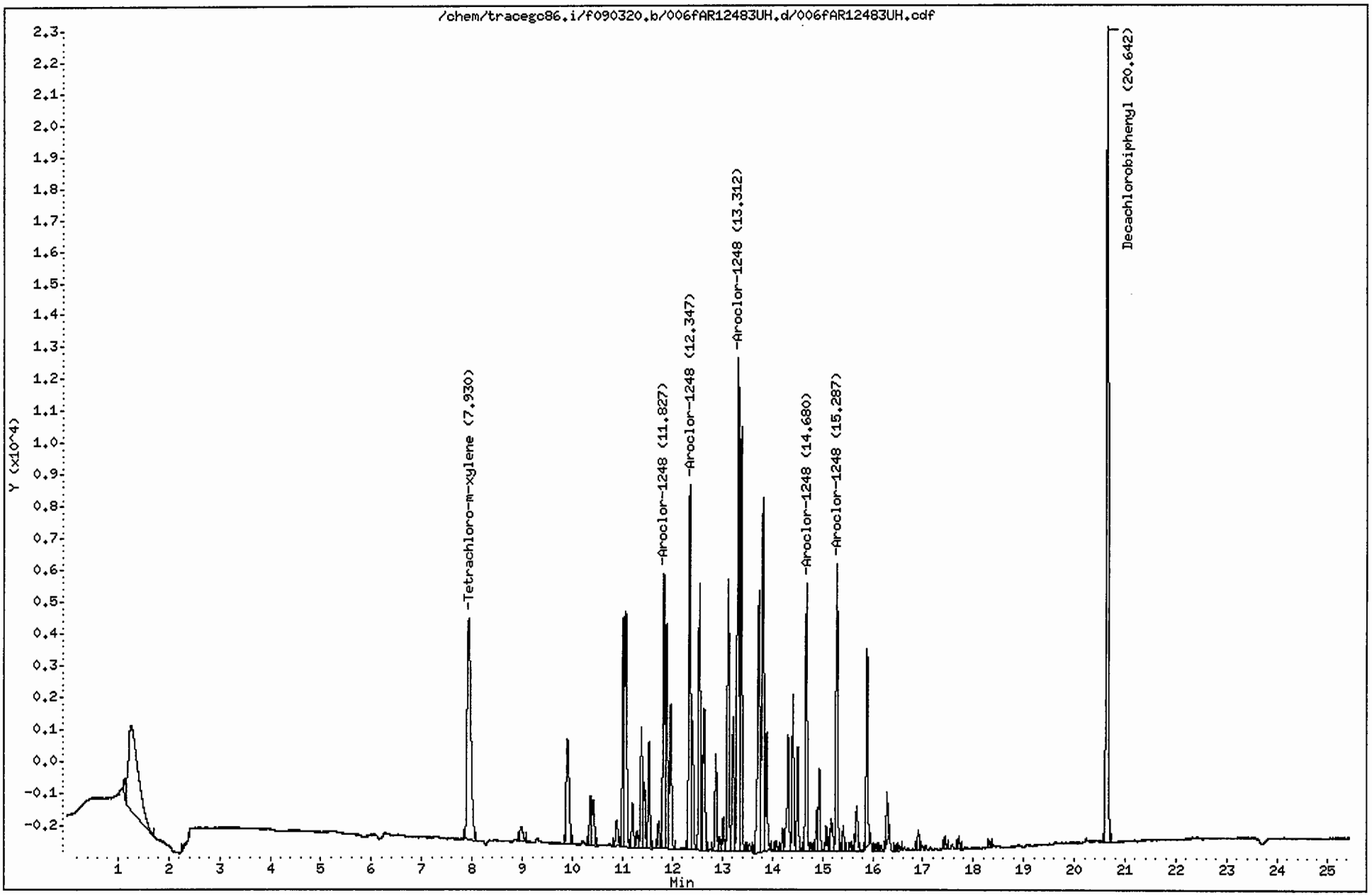
Sample Info: AR12483UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12483UH Client Smp Id : AR12483UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 20-MAR-2009 18:29 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.15		1638					
1.26		34943					
2.37		381					
7.93	7.87 8.01	35484	1736635	Tetrachloro-m-xylene	0.020000	1647400	
8.98		1912					
9.90		12883					
10.36		4322					
10.42		4222					
10.88		2483					
11.02		18506					
11.07		20169					
11.20		3656					
11.29		1433					
11.38		10158					
11.44		5277					
11.53		8584					
11.73		2200					
11.83	11.76 11.90	21654	54135	Aroclor-1248 Peak 1	0.400000	54135	
11.88		18174					
11.96		13379					
12.35	12.28 12.42	29208	73018	Aroclor-1248 Peak 2	0.400000	73017	
12.41		9598					
12.54		20640					
12.60		4312					
12.64		12299					
12.87		7339					
12.95		1002					
13.02		2492					
13.12		20921					
13.22		10875					
13.31	13.24 13.38	38578	96442	Aroclor-1248 Peak 3	0.400000	96443	
13.38		32919					
13.54		570					
13.73		24950					
13.81		30985					
13.89		9111					
14.08		868					
14.21		1653					
14.32		10401					
14.41		11672					
14.51		7665					
14.68	14.61 14.75	19912	49780	Aroclor-1248 Peak 4	0.400000	49780	

CompuChem

Lab Smp Id : AR12483UH Client Smp Id : AR12483UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 20-MAR-2009 18:29 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.78		597					
14.89		2857					
14.94		6745					
15.08		1752					
15.14		862					
15.18		3124					
15.29	15.22 15.36	21536	53840	Aroclor-1248 Peak 5	0.400000	53840	
15.41		1808					
15.55		569					
15.63		331					
15.68		4188					
15.89		14748					
16.06		517					
16.17		437					
16.29		3317					
16.46		437					
16.53		320					
16.91		1502					
17.44		920					
17.72		1046					
18.32		492					
20.64	20.59 20.73	63874	1636434	Decachlorobiphenyl	0.040000	1477375	

Data File: /chem/tracegc86.i/f090320.b/007fAR12543UH.d

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Date : 20-MAR-2009 18:58

Client ID: AR12543UH

Instrument: tracegc86.i

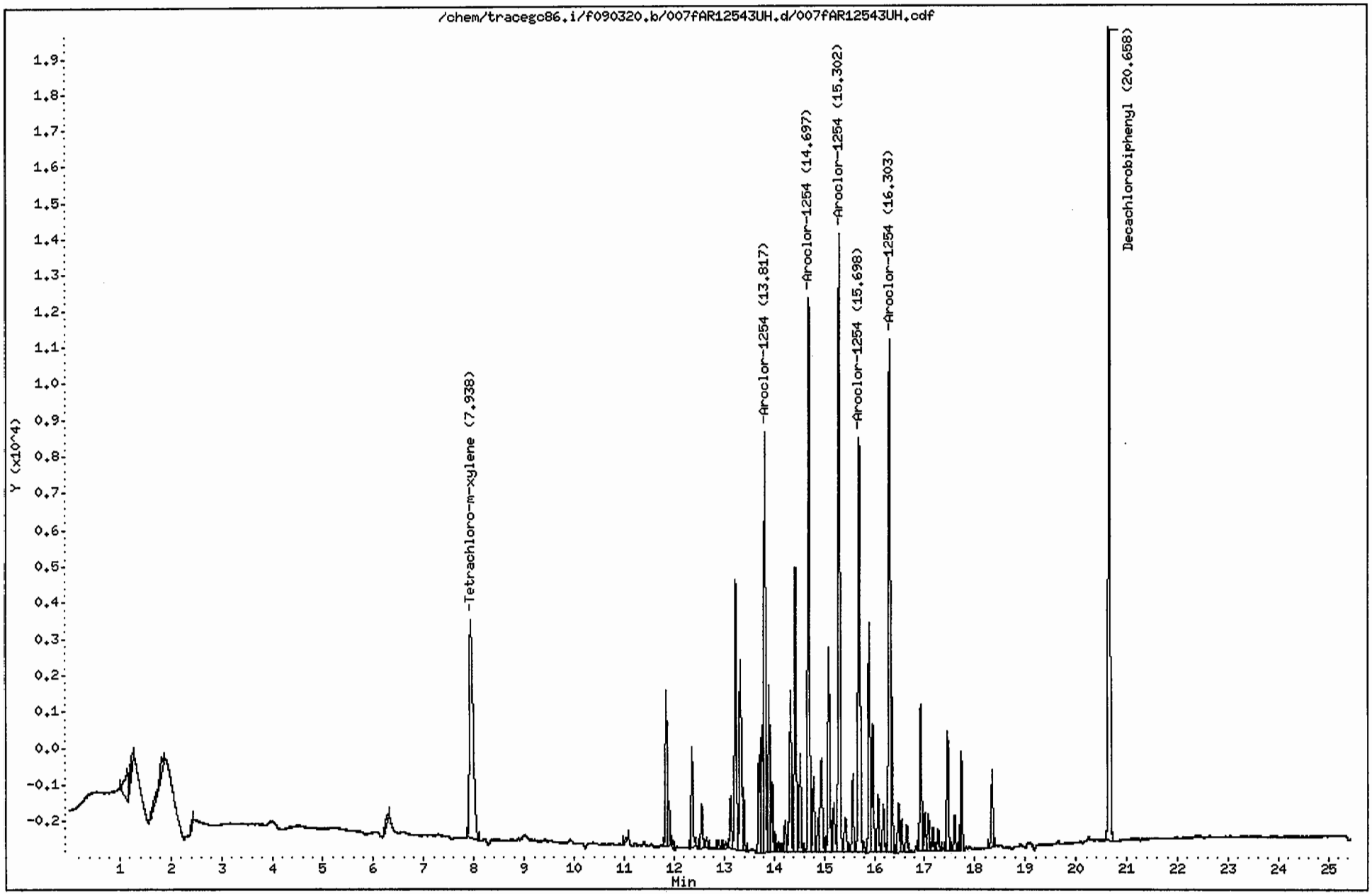
Sample Info: AR12543UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12543UH Client Smp Id : AR12543UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 20-MAR-2009 18:58 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

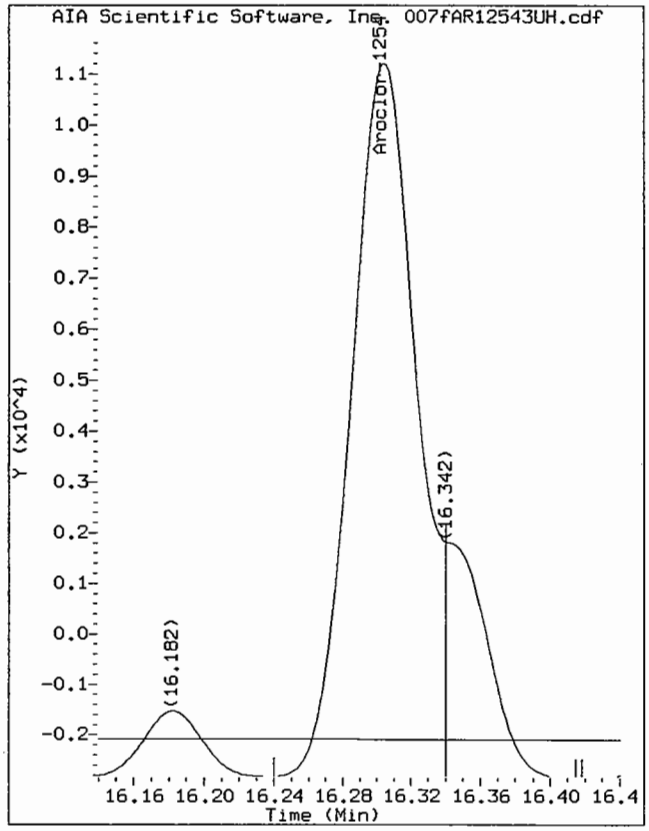
RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.15		4052					
1.19		827					
1.26		1322					
1.76		1297					
1.82		1435					
2.43		323					
6.26		927					
7.94	7.87 8.01	31172	1736635	Tetrachloro-m-xylene	0.020000	1647400	
11.04		553					
11.84		10862					
11.90		2606					
11.97		342					
12.36		6823					
12.55		2753					
12.65		652					
12.89		484					
13.03		388					
13.13		3424					
13.23		18524					
13.33		14953					
13.39		3650					
13.71		6294					
13.76		8317					
13.82	13.75 13.89	28903	72255	Aroclor-1254 Peak 1	0.400000	72255	
13.90		10892					
13.96		4129					
14.02		976					
14.10		615					
14.22		1966					
14.33		11817					
14.43		19414					
14.52		6355					
14.70	14.63 14.77	36057	90140	Aroclor-1254 Peak 2	0.400000	90140	
14.79		4703					
14.88		1896					
14.95		8171					
15.03		811					
15.10		13410					
15.15		1507					
15.20		3642					
15.30	15.23 15.37	40668	101670	Aroclor-1254 Peak 3	0.400000	101670	
15.43		2831					

CompuChem

Lab Smp Id : AR12543UH Client Smp Id : AR12543UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 20-MAR-2009 18:58 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.57		4865					
15.70	15.63 15.77	32973	82432	Aroclor-1254 Peak 4	0.400000	82433	
15.79		600					
15.90		14780					
15.97		8371					
16.07		3590					
16.18		3026					
16.30	16.23 16.37	37767	94415	Aroclor-1254 Peak 5	0.400000	94415	M
16.34		7913					
16.48		3362					
16.55		1957					
16.64		1698					
16.92		9710					
17.01		2350					
17.07		2218					
17.16		1328					
17.27		1373					
17.46		7643					
17.60		2239					
17.73		2803					
18.34		4896					
20.66	20.59 20.73	56784	1636434	Decachlorobiphenyl	0.040000	1477375	

Manually Integrated Peaks



Start: 16.24 Stop: 16.34

Data File: /chem/tracegc86.i/f090320.b/008fAR12681UH.d

Date : 20-MAR-2009 19:27

Client ID: AR12681UH

Instrument: tracegc86.i

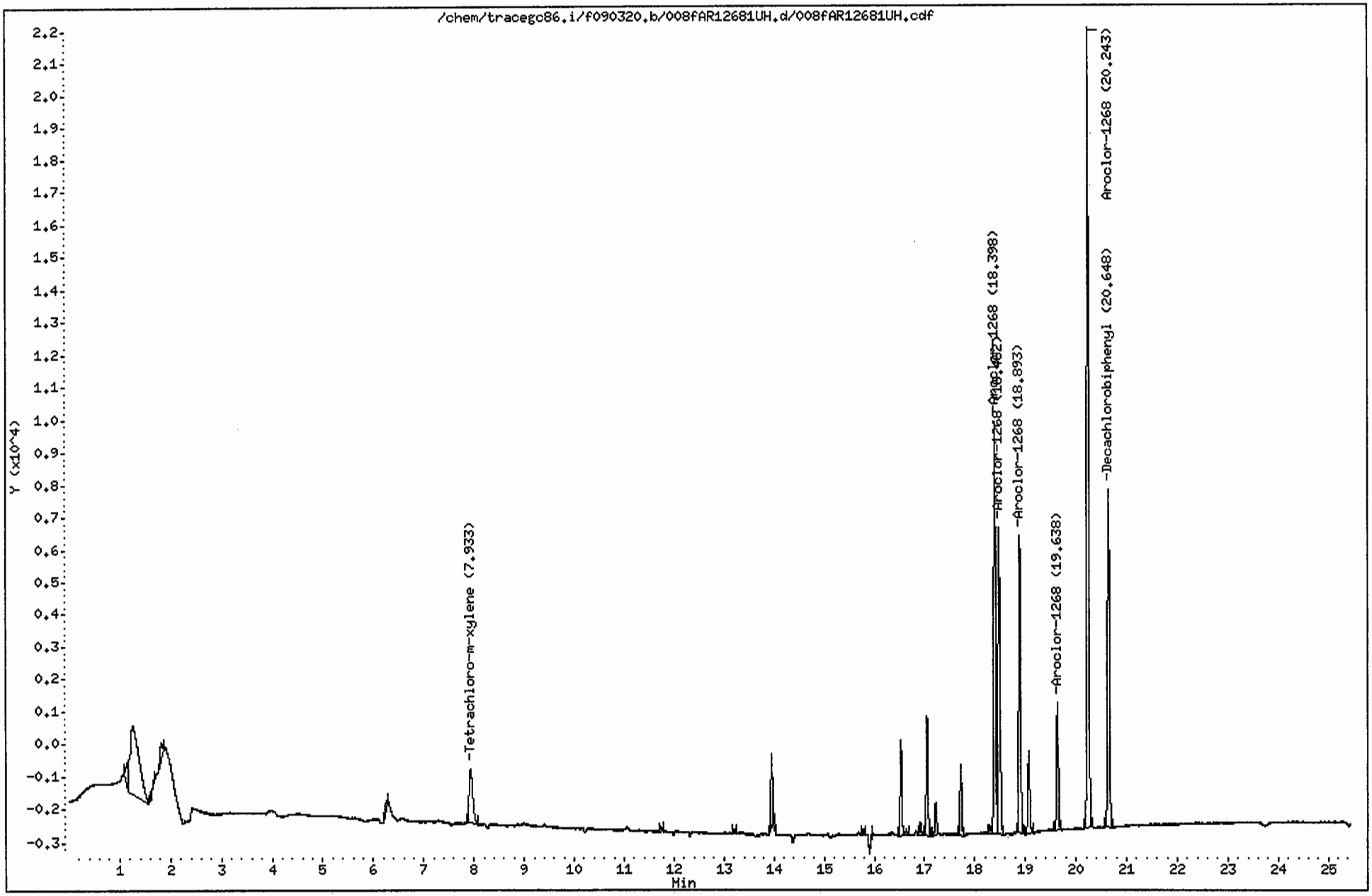
Sample Info: AR12681UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12681UH Client Smp Id : AR12681UH
Sample Type : INITIAL CAL: Level 1 Sublist : AR1268
Inj Date : 20-MAR-2009 19:27 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.14			1615					
1.26			25572					
1.68			561					
1.82			1635					
6.26			541					
7.93	7.87	8.01	8285	1736635	Tetrachloro-m-xylene	0.005000	1829800	
11.74			352					
13.20			325					
13.95			4701					
14.01			563					
15.79			383					
15.96			336					
16.54			6781					
16.64			415					
16.92			914					
17.05			8759					
17.23			2278					
17.72			5035					
18.30			555					
18.40	18.34	18.48	30447	327589	Aroclor-1268 Peak 1	0.100000	304460	
18.48	18.42	18.56	25707	268468	Aroclor-1268 Peak 2	0.100000	257060	
18.89	18.83	18.97	22202	230817	Aroclor-1268 Peak 3	0.100000	222020	
19.07			6501					
19.64	19.58	19.72	9379	89823	Aroclor-1268 Peak 4	0.100000	93780	
20.24	20.18	20.32	59445	691553	Aroclor-1268 Peak 5	0.100000	594440	
20.65	20.59	20.73	27060	1636434	Decachlorobiphenyl	0.010000	1764500	

Data File: /chem/tracegc86.i/f090320.b/009fAR12682UH.d

Page 1

Date : 20-MAR-2009 19:56

Client ID: AR12682UH

Instrument: tracegc86.i

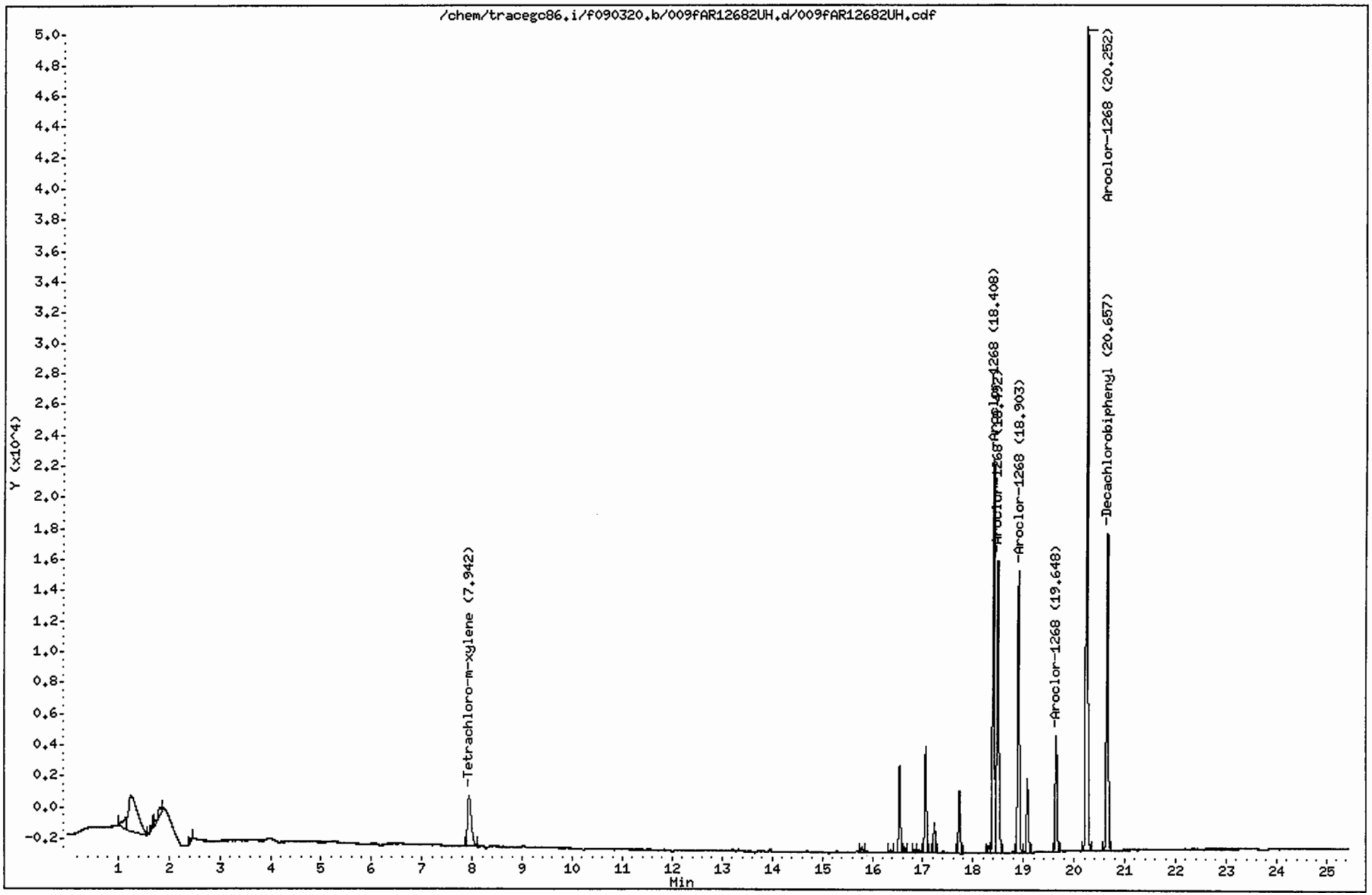
Sample Info: AR12682UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12682UH Client Smp Id : AR12682UH
Sample Type : INITIAL CAL: Level 2 Sublist : AR1268
Inj Date : 20-MAR-2009 19:56 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.15			3701					
1.26			27429					
1.69			756					
1.83			2380					
2.42			820					
7.94	7.87	8.01	16633	1736635	Tetrachloro-m-xylene	0.010000	1785100	
15.79			767					
16.36			367					
16.55			13055					
16.64			744					
16.84			540					
16.93			621					
17.06			16728					
17.23			4458					
17.73			9626					
18.31			996					
18.41	18.34	18.48	60291	327589	Aroclor-1268 Peak 1	0.200000	301455	
18.49	18.42	18.56	50613	268468	Aroclor-1268 Peak 2	0.200000	253060	
18.90	18.83	18.97	43561	230817	Aroclor-1268 Peak 3	0.200000	217805	
19.08			12311					
19.65	19.58	19.72	18163	89823	Aroclor-1268 Peak 4	0.200000	90810	
20.25	20.18	20.32	123863	691553	Aroclor-1268 Peak 5	0.200000	619310	
20.66	20.59	20.73	52641	1636434	Decachlorobiphenyl	0.020000	1629000	

Data File: /chem/tracegc86.i/f090320.b/010fAR12683UH.d

Date : 20-MAR-2009 20:24

Client ID: AR12683UH

Instrument: tracegc86.i

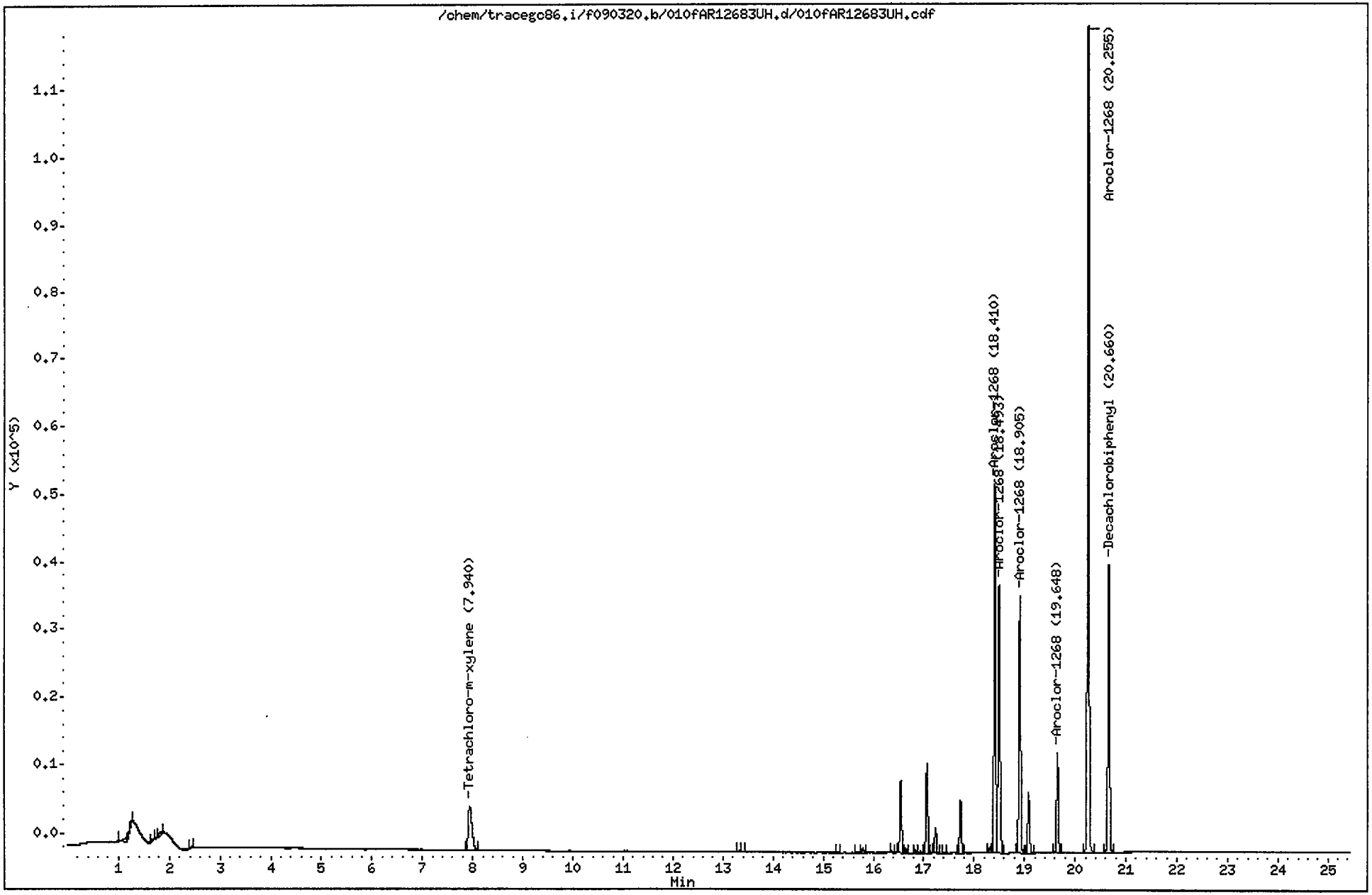
Sample Info: AR12683UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12683UH Client Smp Id : AR12683UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1268
Inj Date : 20-MAR-2009 20:24 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.15			3222					
1.26			2671					
1.69			452					
1.82			1371					
2.43			528					
7.94	7.87	8.01	33097	1736635	Tetrachloro-m-xylene	0.020000	1647400	
13.32			322					
13.39			280					
15.30			292					
15.70			461					
15.79			1490					
16.36			678					
16.55			25202					
16.65			1408					
16.84			976					
16.93			641					
17.06			31634					
17.23			8398					
17.40			394					
17.73			18193					
18.31			1922					
18.41	18.34	18.48	124074	327589	Aroclor-1268 Peak 1	0.400000	310183	
18.49	18.42	18.56	101746	268468	Aroclor-1268 Peak 2	0.400000	254365	
18.90	18.83	18.97	87458	230817	Aroclor-1268 Peak 3	0.400000	218645	
19.08			23565					
19.65	19.58	19.72	35085	89823	Aroclor-1268 Peak 4	0.400000	87710	
20.26	20.18	20.32	274054	691553	Aroclor-1268 Peak 5	0.400000	685133	
20.66	20.59	20.73	105601	1636434	Decachlorobiphenyl	0.040000	1477375	

Data File: /chem/tracegc86.i/f090320.b/011fAR12684UH.d

Date : 20-MAR-2009 20:53

Client ID: AR12684UH

Instrument: tracegc86.i

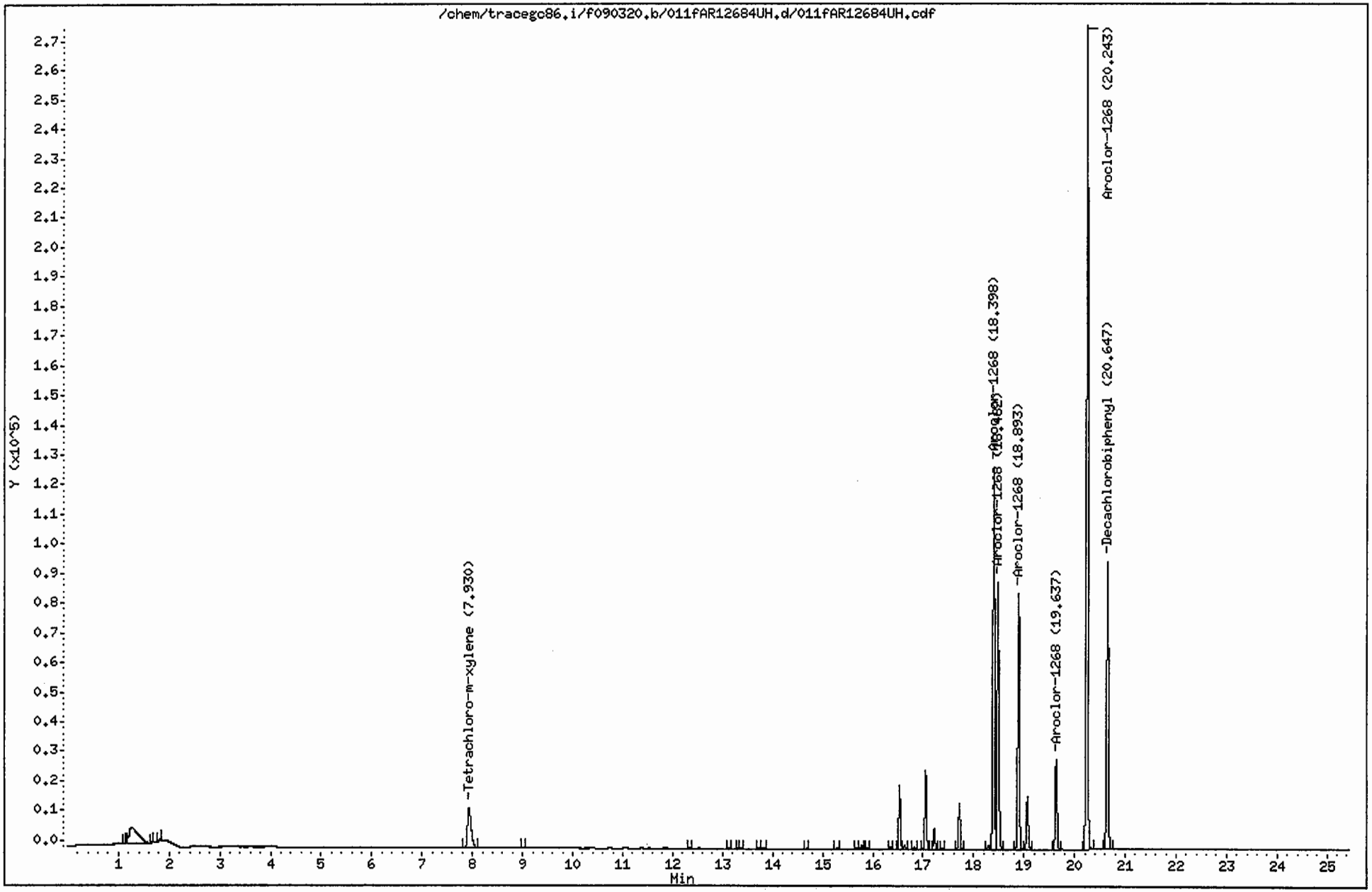
Sample Info: AR12684UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12684UH Client Smp Id : AR12684UH
Sample Type : INITIAL CAL: Level 4 Sublist : AR1268
Inj Date : 20-MAR-2009 20:53 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.14			372					
1.16			441					
1.27			63396					
1.68			359					
1.82			779					
7.93	7.87	8.01	67258	1736635	Tetrachloro-m-xylene	0.040000	1693425	
9.01			589					
12.35			381					
13.12			381					
13.31			607					
13.38			572					
13.73			425					
13.81			622					
14.68			383					
15.29			642					
15.68			916					
15.78			2935					
15.89			514					
16.35			1353					
16.53			49849					
16.63			2932					
16.82			1969					
17.05			62802					
17.15			313					
17.22			16394					
17.39			816					
17.72			36034					
18.30			3784					
18.40	18.34	18.48	281807	327589	Aroclor-1268 Peak 1	0.800000	352257	
18.48	18.42	18.56	224440	268468	Aroclor-1268 Peak 2	0.800000	280550	
18.89	18.83	18.97	192627	230817	Aroclor-1268 Peak 3	0.800000	240783	
19.07			45575					
19.64	19.58	19.72	71565	89823	Aroclor-1268 Peak 4	0.800000	89455	
20.24	20.18	20.32	639618	691553	Aroclor-1268 Peak 5	0.800000	799523	
20.65	20.59	20.73	230765	1636434	Decachlorobiphenyl	0.080000	1575025	

Data File: /chem/tracegc86.i/f090320.b/012fAR12685UH.d

Date : 20-MAR-2009 21:22

Client ID: AR12685UH

Instrument: tracegc86.i

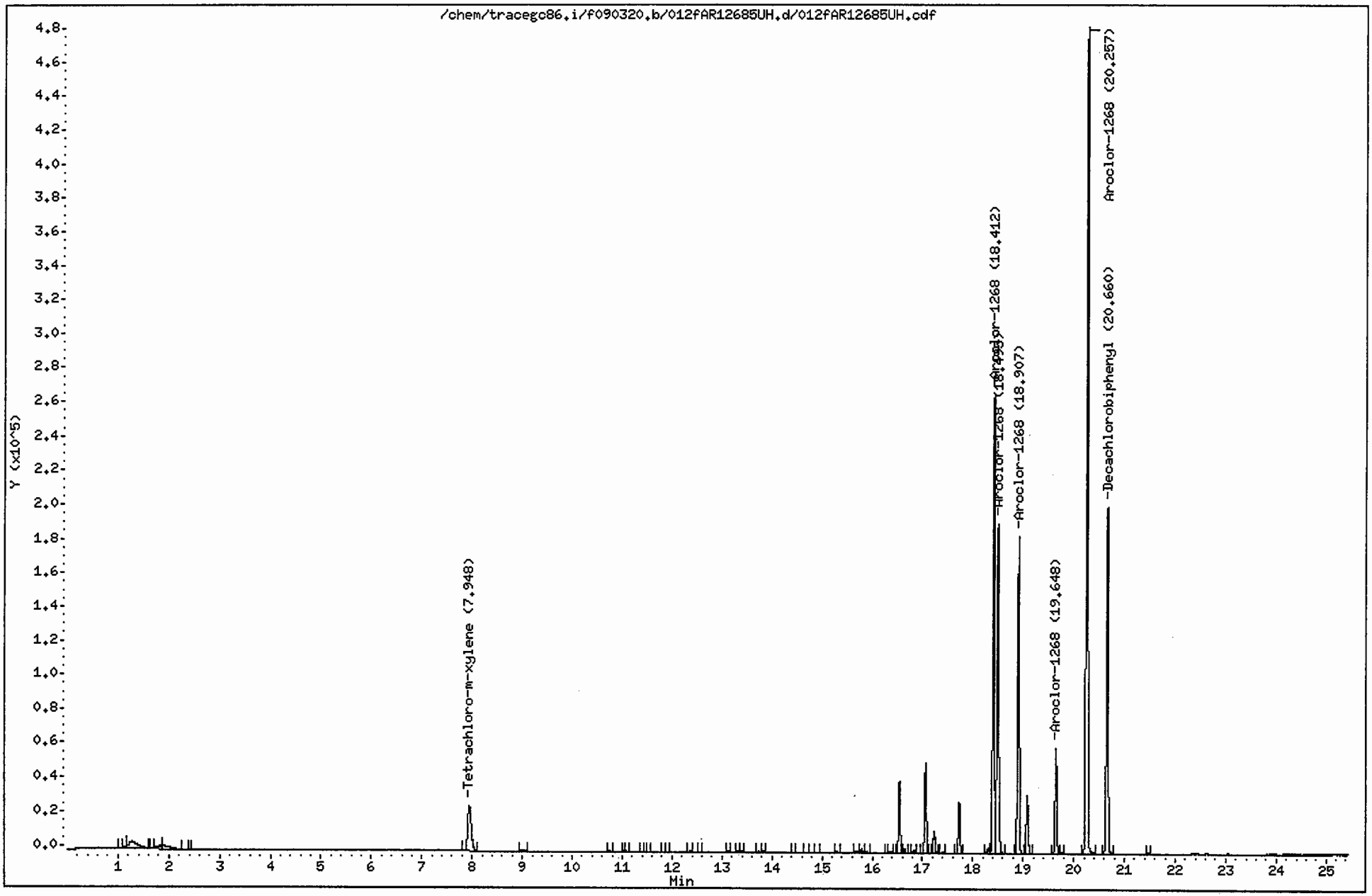
Sample Info: AR12685UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12685UH Client Smp Id : AR12685UH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1268
Inj Date : 20-MAR-2009 21:22 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.08			518					
1.14			2122					
1.18			789					
1.26			45050					
1.69			1735					
1.83			11617					
1.89			24776					
2.44			406					
7.95	7.87	8.01	127614	1736635	Tetrachloro-m-xylene	0.080000	1727450	
9.02			1516					
10.75			683					
11.03			277					
11.08			440					
11.39			400					
11.54			362					
11.84			361					
11.90			278					
12.36			699					
12.55			478					
13.13			700					
13.32			1513					
13.39			1452					
13.74			814					
13.82			1127					
14.43			398					
14.69			758					
14.79			487					
14.90			429					
15.30			1165					
15.69			1723					
15.79			5291					
15.90			1070					
16.30			389					
16.36			2667					
16.55			94438					
16.64			5328					
16.84			3613					
16.93			575					
17.06			119963					
17.16			767					
17.23			29284					
17.40			1427					

CompuChem

Lab Smp Id : AR12685UH Client Smp Id : AR12685UH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1268
Inj Date : 20-MAR-2009 21:22 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
17.73		67000					
18.31		6731					
18.41	18.34 18.48	591348	327589	Aroclor-1268 Peak 1	1.600000	369592	
18.50	18.42 18.56	475691	268468	Aroclor-1268 Peak 2	1.600000	297307	
18.91	18.83 18.97	407731	230817	Aroclor-1268 Peak 3	1.600000	254832	
19.08		84652					
19.65	19.58 19.72	139775	89823	Aroclor-1268 Peak 4	1.600000	87359	
19.76		641					
20.26	20.18 20.32	1214977	691553	Aroclor-1268 Peak 5	1.600000	759361	
20.66	20.59 20.73	478483	1636434	Decachlorobiphenyl	0.160000	1736269	
21.47		395					

Data File: /chem/tracegc86.i/f090320.b/013fAR16601UH.d

Date : 20-MAR-2009 21:51

Client ID: AR16601UH

Instrument: tracegc86.i

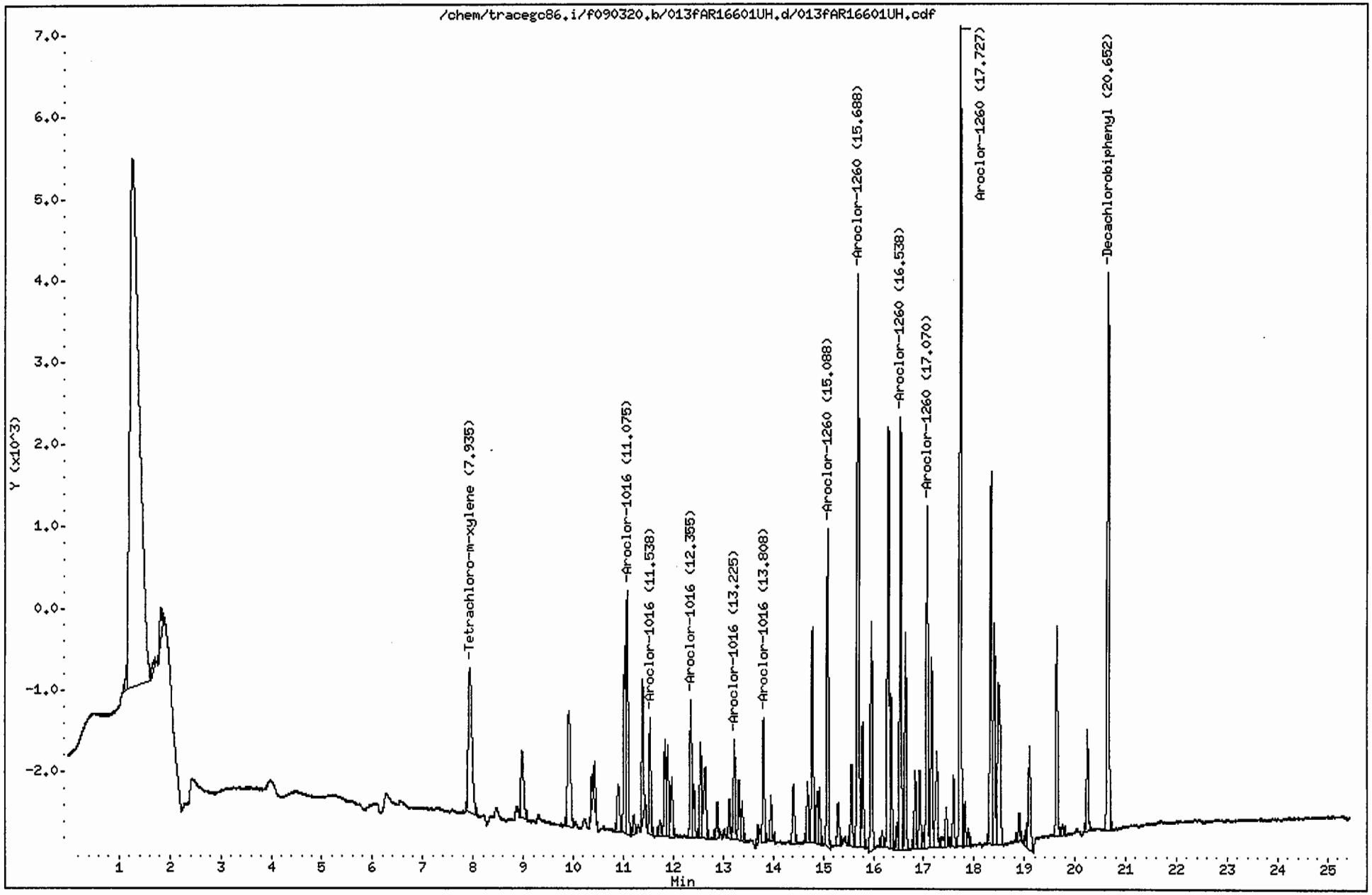
Sample Info: AR16601UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16601UH Client Smp Id : AR16601UH
Sample Type : INITIAL CAL: Level 1 Sublist : INDA
Inj Date : 20-MAR-2009 21:51 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

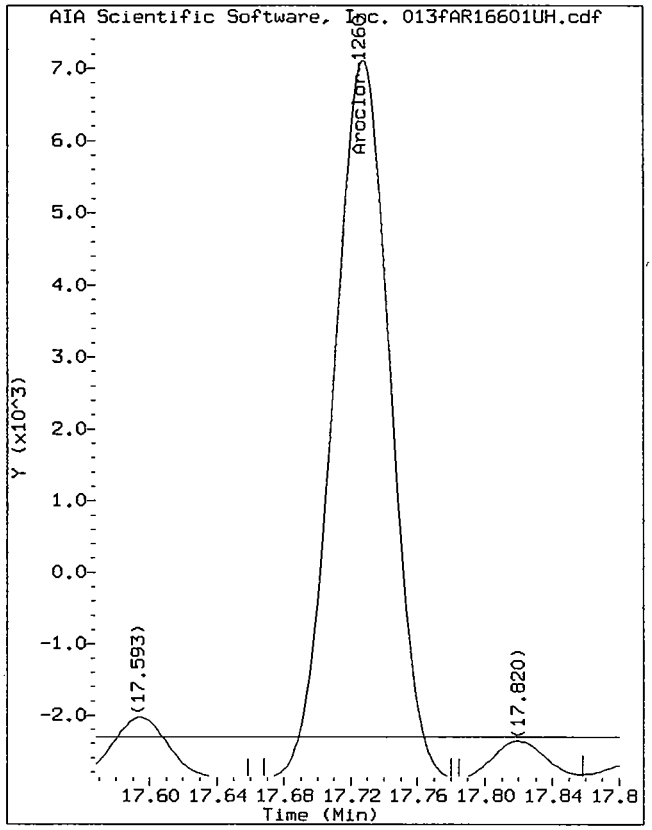
RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.17		1533					
1.26		81292					
1.68		450					
1.83		1327					
7.94	7.87 8.01	9149	1736635	Tetrachloro-m-xylene	0.005000	1829800	
8.98		3055					
9.91		5883					
10.37		771					
10.43		1269					
10.90		1985					
11.02		5604					
11.08	11.01 11.15	8217	72832	Aroclor-1016 Peak 1	0.100000	82170	
11.21		612					
11.39		4077					
11.54	11.47 11.61	3568	32300	Aroclor-1016 Peak 2	0.100000	35680	
11.73		496					
11.84		2796					
11.89		2828					
11.97		1986					
12.36	12.29 12.43	4131	36022	Aroclor-1016 Peak 3	0.100000	41310	
12.42		1558					
12.55		2754					
12.64		3189					
12.88		981					
13.12		1075					
13.22	13.16 13.30	2987	24795	Aroclor-1016 Peak 4	0.100000	29870	
13.32		1770					
13.38		1144					
13.70		600					
13.81	13.74 13.88	3641	31269	Aroclor-1016 Peak 5	0.100000	36400	
13.96		1222					
14.40		1956					
14.69		1621					
14.79		6021					
14.87		1324					
14.92		1572					
15.09	15.02 15.16	9100	78830	Aroclor-1260 Peak 1	0.100000	90990	
15.30		1318					
15.56		2259					
15.69	15.62 15.76	18338	172520	Aroclor-1260 Peak 2	0.100000	183370	
15.79		3515					
15.96		7119					

CompuChem

Lab Smp Id : AR16601UH Client Smp Id : AR16601UH
Sample Type : INITIAL CAL: Level 1 Sublist : INDA
Inj Date : 20-MAR-2009 21:51 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
16.18		405					
16.30		13528					
16.35		4567					
16.47		677					
16.54	16.47 16.61	12214	112543	Aroclor-1260 Peak 3	0.100000	122130	
16.64		6109					
16.83		2117					
16.92		2302					
17.00		387					
17.07	17.00 17.14	10199	90796	Aroclor-1260 Peak 4	0.100000	101990	
17.16		5385					
17.26		3330					
17.36		433					
17.45		1083					
17.59		1955					
17.73	17.66 17.80	23659	243507	Aroclor-1260 Peak 5	0.100000	236590	M 2
17.82		1108					
17.89		429					
18.33		11110					
18.40		6544					
18.49		7321					
18.90		774					
19.04		362					
19.10		3711					
19.64		6143					
19.76		281					
20.25		2922					
20.65	20.59 20.73	17645	1636434	Decachlorobiphenyl	0.010000	1764500	

Manually Integrated Peaks



Start: 17.67 Stop: 17.78

Data File: /chem/tracegc86.i/f090320.b/014fAR16602UH.d

Date : 20-MAR-2009 22:19

Client ID: AR16602UH

Instrument: tracegc86.i

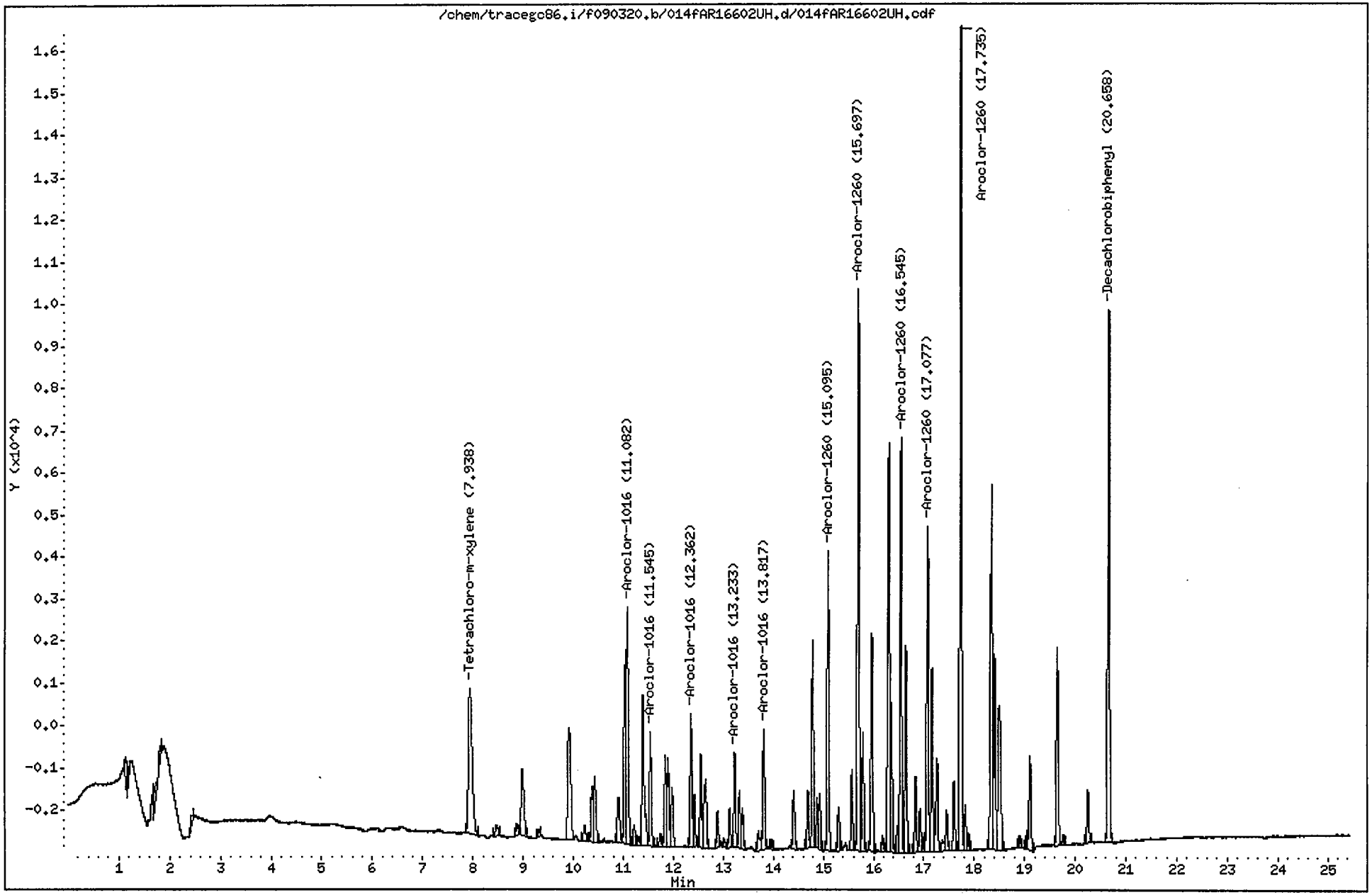
Sample Info: AR16602UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16602UH Client Smp Id : AR16602UH
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 20-MAR-2009 22:19 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.14		1752					
1.19		531					
1.82		2364					
2.43		713					
7.94	7.87 8.01	17851	1736635	Tetrachloro-m-xylene	0.010000	1785100	
8.47		892					
8.87		865					
8.99		5930					
9.31		476					
9.92		11101					
10.22		1220					
10.38		3350					
10.43		4755					
10.90		3681					
11.03		10463					
11.08	11.01 11.15	15395	72832	Aroclor-1016 Peak 1	0.200000	76975	
11.22		1295					
11.30		547					
11.39		11195					
11.54	11.47 11.61	6982	32300	Aroclor-1016 Peak 2	0.200000	34905	
11.74		750					
11.84		5375					
11.90		5301					
11.98		4108					
12.36	12.29 12.43	7848	36022	Aroclor-1016 Peak 3	0.200000	39235	
12.43		2821					
12.56		5281					
12.65		6190					
12.89		1882					
13.04		394					
13.13		2131					
13.23	13.16 13.30	5411	24795	Aroclor-1016 Peak 4	0.200000	27050	
13.32		3334					
13.39		2184					
13.71		1702					
13.82	13.74 13.88	6867	31269	Aroclor-1016 Peak 5	0.200000	34335	
13.97		447					
14.41		3717					
14.70		3111					
14.79		11275					
14.88		2596					
14.93		2975					

CompuChem

Lab Smp Id : AR16602UH Client Smp Id : AR16602UH
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 20-MAR-2009 22:19 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.10	15.02 15.16	16929	78830	Aroclor-1260 Peak 1	0.200000	84640	
15.30		2520					
15.57		4294					
15.70	15.62 15.76	34712	172520	Aroclor-1260 Peak 2	0.200000	173555	
15.79		6701					
15.97		13142					
16.18		786					
16.30		25643					
16.36		8412					
16.48		1357					
16.54	16.47 16.61	23011	112543	Aroclor-1260 Peak 3	0.200000	115050	
16.65		11533					
16.84		4038					
16.93		2488					
17.01		725					
17.08	17.00 17.14	18970	90796	Aroclor-1260 Peak 4	0.200000	94850	
17.16		10249					
17.27		6195					
17.36		871					
17.46		2129					
17.60		3766					
17.74	17.66 17.80	46049	243507	Aroclor-1260 Peak 5	0.200000	230240	
17.83		2363					
17.89		865					
18.34		21229					
18.41		10965					
18.50		12841					
18.90		630					
19.04		668					
19.11		5917					
19.65		11307					
19.76		555					
20.25		2915					
20.66	20.59 20.73	32580	1636434	Decachlorobiphenyl	0.020000	1629000	

Data File: /chem/tracegc86.i/f090320.b/015fAR16603UH.d

Date : 20-MAR-2009 22:48

Client ID: AR16603UH

Instrument: tracegc86.i

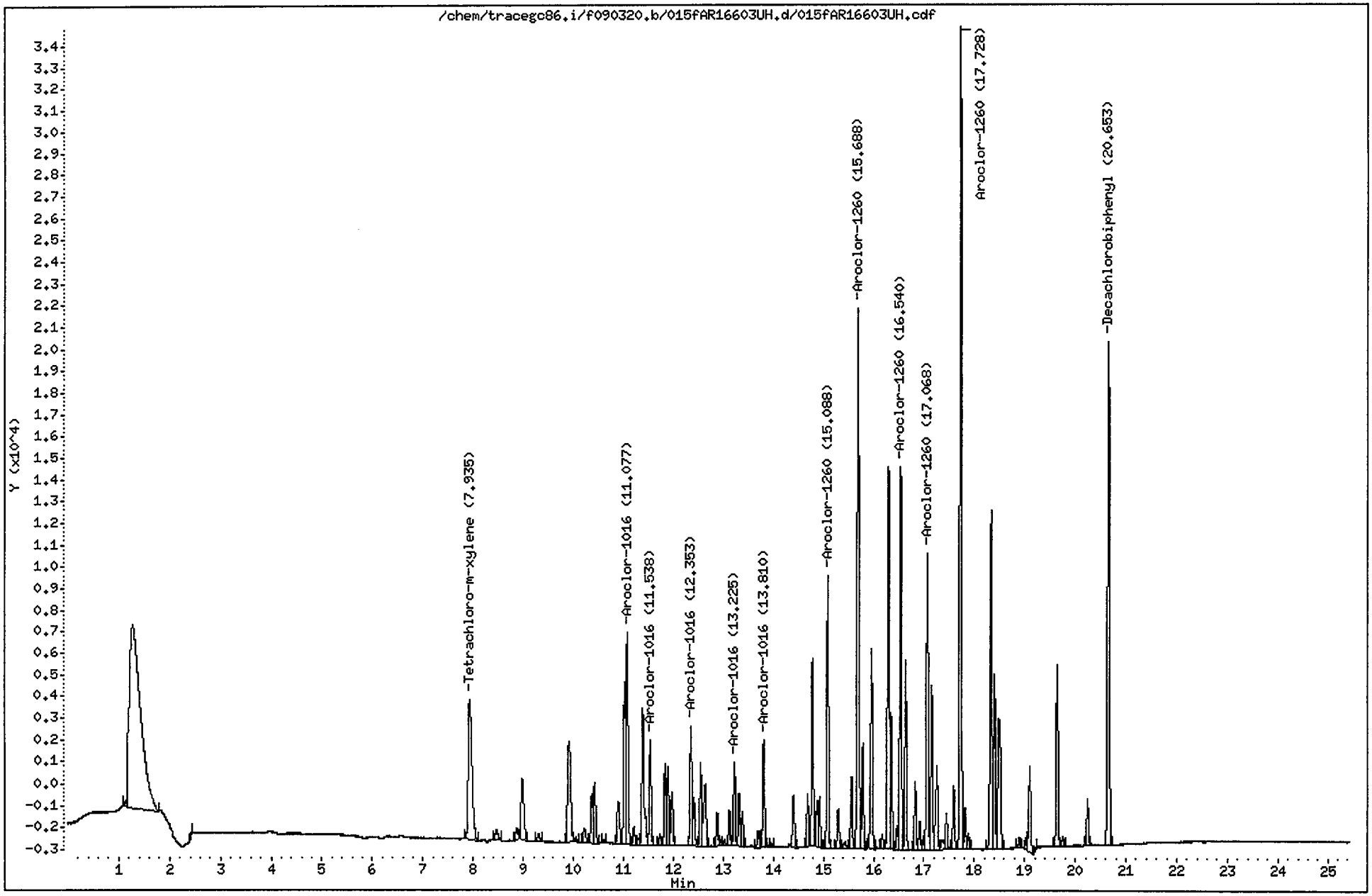
Sample Info: AR16603UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16603UH Client Smp Id : AR16603UH
Sample Type : INITIAL CAL: Level 3 Sublist : INDA
Inj Date : 20-MAR-2009 22:48 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.13		610					
1.28		129448					
2.44		436					
7.94	7.87 8.01	32948	1736635	Tetrachloro-m-xylene	0.020000	1647400	
8.46		1784					
8.87		1631					
8.98		10634					
9.30		1059					
9.91		19558					
10.04		565					
10.22		2198					
10.37		5997					
10.43		8508					
10.61		333					
10.90		6588					
11.03		17784					
11.08	11.01 11.15	27772	72832	Aroclor-1016 Peak 1	0.400000	69427	
11.21		2172					
11.30		875					
11.39		19744					
11.54	11.47 11.61	12443	32300	Aroclor-1016 Peak 2	0.400000	31105	
11.73		1315					
11.84		9232					
11.89		9447					
11.97		7191					
12.35	12.29 12.43	13843	36022	Aroclor-1016 Peak 3	0.400000	34605	
12.42		5339					
12.55		9525					
12.64		10959					
12.88		3585					
12.95		540					
13.03		592					
13.13		3813					
13.22	13.16 13.30	9392	24795	Aroclor-1016 Peak 4	0.400000	23480	
13.32		5944					
13.38		3882					
13.70		1875					
13.75		1131					
13.81	13.74 13.88	11930	31269	Aroclor-1016 Peak 5	0.400000	29825	
13.96		341					
14.40		6570					
14.69		5531					

CompuChem

Lab Smp Id : AR16603UH Client Smp Id : AR16603UH
Sample Type : INITIAL CAL: Level 3 Sublist : INDA
Inj Date : 20-MAR-2009 22:48 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.78		19835					
14.87		4507					
14.92		5352					
15.09	15.02 15.16	29458	78830	Aroclor-1260 Peak 1	0.400000	73643	
15.30		4564					
15.44		1030					
15.56		7701					
15.69	15.62 15.76	62928	172520	Aroclor-1260 Peak 2	0.400000	157317	
15.79		11634					
15.96		23332					
16.18		1431					
16.30		45674					
16.35		15370					
16.47		2375					
16.54	16.47 16.61	41272	112543	Aroclor-1260 Peak 3	0.400000	103180	
16.64		20353					
16.83		7219					
16.92		3101					
17.00		1314					
17.07	17.00 17.14	33630	90796	Aroclor-1260 Peak 4	0.400000	84073	
17.16		18190					
17.26		11119					
17.36		1729					
17.45		3917					
17.59		6811					
17.73	17.66 17.80	86945	243507	Aroclor-1260 Peak 5	0.400000	217360	
17.82		4393					
17.89		1613					
18.33		38355					
18.40		19394					
18.49		22675					
18.90		1050					
19.03		1271					
19.10		11010					
19.24		309					
19.64		20341					
19.75		1095					
20.25		5058					
20.65	20.59 20.73	59095	1636434	Decachlorobiphenyl	0.040000	1477375	

Data File: /chem/tracegc86.i/f090320.b/016fAR16604UH.d

Date : 20-MAR-2009 23:17

Client ID: AR16604UH

Instrument: tracegc86.i

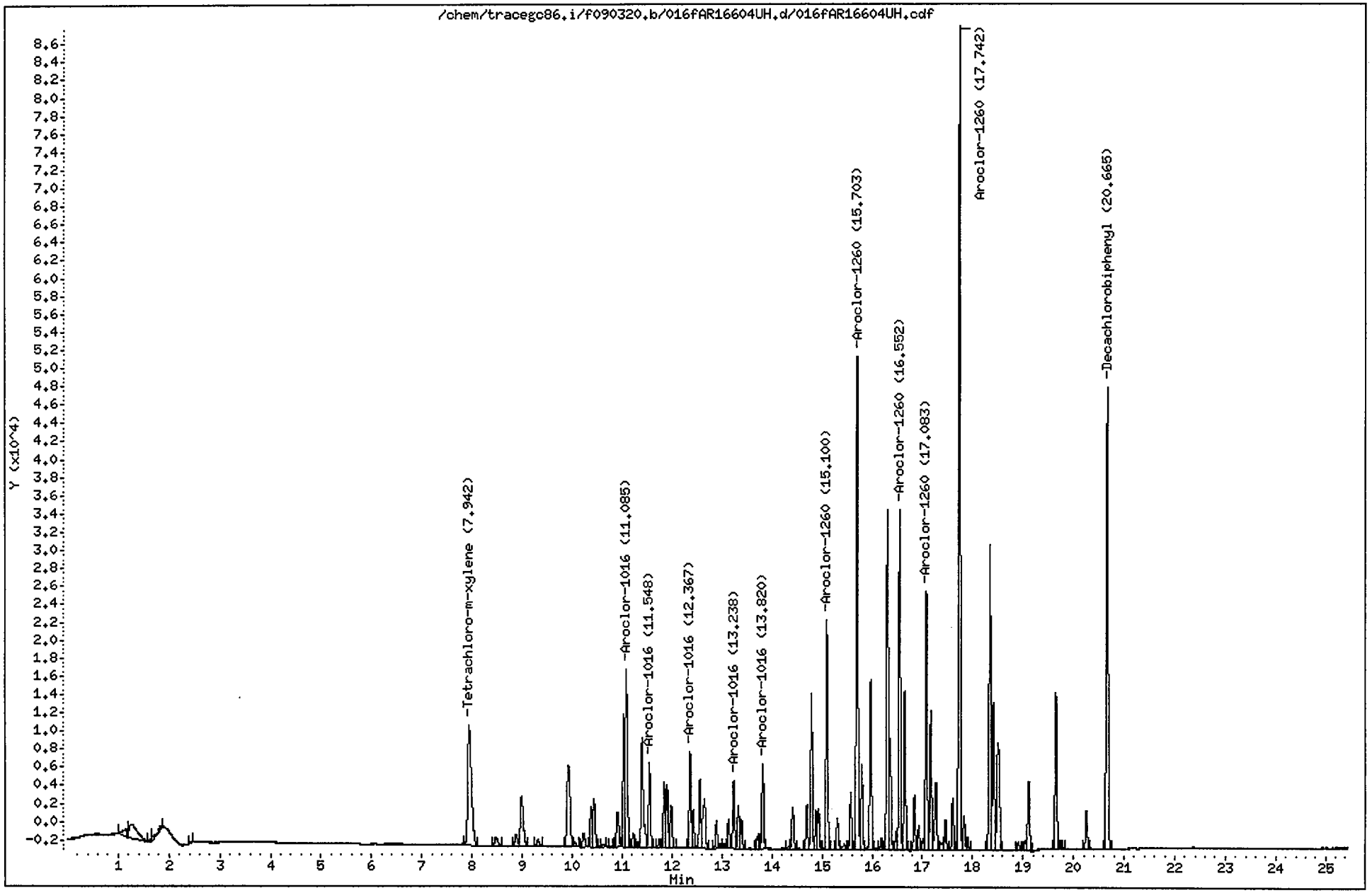
Sample Info: AR16604UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16604UH Client Smp Id : AR16604UH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 20-MAR-2009 23:17 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.14			4075					
1.19			992					
1.26			16326					
1.83			2872					
2.44			596					
7.94	7.87	8.01	67738	1736635	Tetrachloro-m-xylene	0.040000	1693425	
8.48			3844					
8.88			4251					
8.99			22308					
9.32			2482					
9.93			37679					
10.05			1154					
10.23			4873					
10.38			12001					
10.44			16267					
10.62			671					
10.76			350					
10.91			12982					
11.04			35464					
11.08	11.01	11.15	54751	72832	Aroclor-1016 Peak 1	0.800000	68437	
11.22			4149					
11.31			1585					
11.40			38480					
11.55	11.47	11.61	24441	32300	Aroclor-1016 Peak 2	0.800000	30551	
11.74			2322					
11.85			17703					
11.90			18014					
11.98			14091					
12.37	12.29	12.43	26973	36022	Aroclor-1016 Peak 3	0.800000	33716	
12.43			10220					
12.56			18236					
12.65			21394					
12.89			7074					
12.97			1035					
13.04			1219					
13.13			7708					
13.24	13.16	13.30	18112	24795	Aroclor-1016 Peak 4	0.800000	22639	
13.33			11967					
13.40			7782					
13.71			3534					
13.76			2083					
13.82	13.74	13.88	23018	31269	Aroclor-1016 Peak 5	0.800000	28771	

CompuChem

Lab Smp Id : AR16604UH Client Smp Id : AR16604UH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 20-MAR-2009 23:17 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.34		701					
14.42		12989					
14.70		11334					
14.79		40514					
14.89		9770					
14.94		10476					
15.10	15.02 15.16	58311	78830	Aroclor-1260 Peak 1	0.800000	72889	
15.31		8963					
15.45		1985					
15.58		14989					
15.70	15.62 15.76	133854	172520	Aroclor-1260 Peak 2	0.800000	167317	
15.80		22868					
15.98		47706					
16.19		2914					
16.31		95922					
16.36		29977					
16.48		4675					
16.55	16.47 16.61	86000	112543	Aroclor-1260 Peak 3	0.800000	107499	
16.65		40935					
16.84		14365					
16.93		6333					
17.01		2608					
17.08	17.00 17.14	68802	90796	Aroclor-1260 Peak 4	0.800000	86003	
17.17		36174					
17.27		21888					
17.37		3385					
17.46		7746					
17.61		13329					
17.74	17.66 17.80	198429	243507	Aroclor-1260 Peak 5	0.800000	248036	
17.83		9028					
17.90		3263					
18.35		80644					
18.41		38749					
18.50		45120					
18.91		2143					
19.04		2365					
19.11		20075					
19.66		41163					
19.77		2120					
20.26		10033					
20.66	20.59 20.73	126002	1636434	Decachlorobiphenyl	0.080000	1575025	

Data File: /chem/tracegc86.i/f090320.b/017fAR16605UH.d

Date : 20-MAR-2009 23:46

Client ID: AR16605UH

Sample Info: AR16605UH

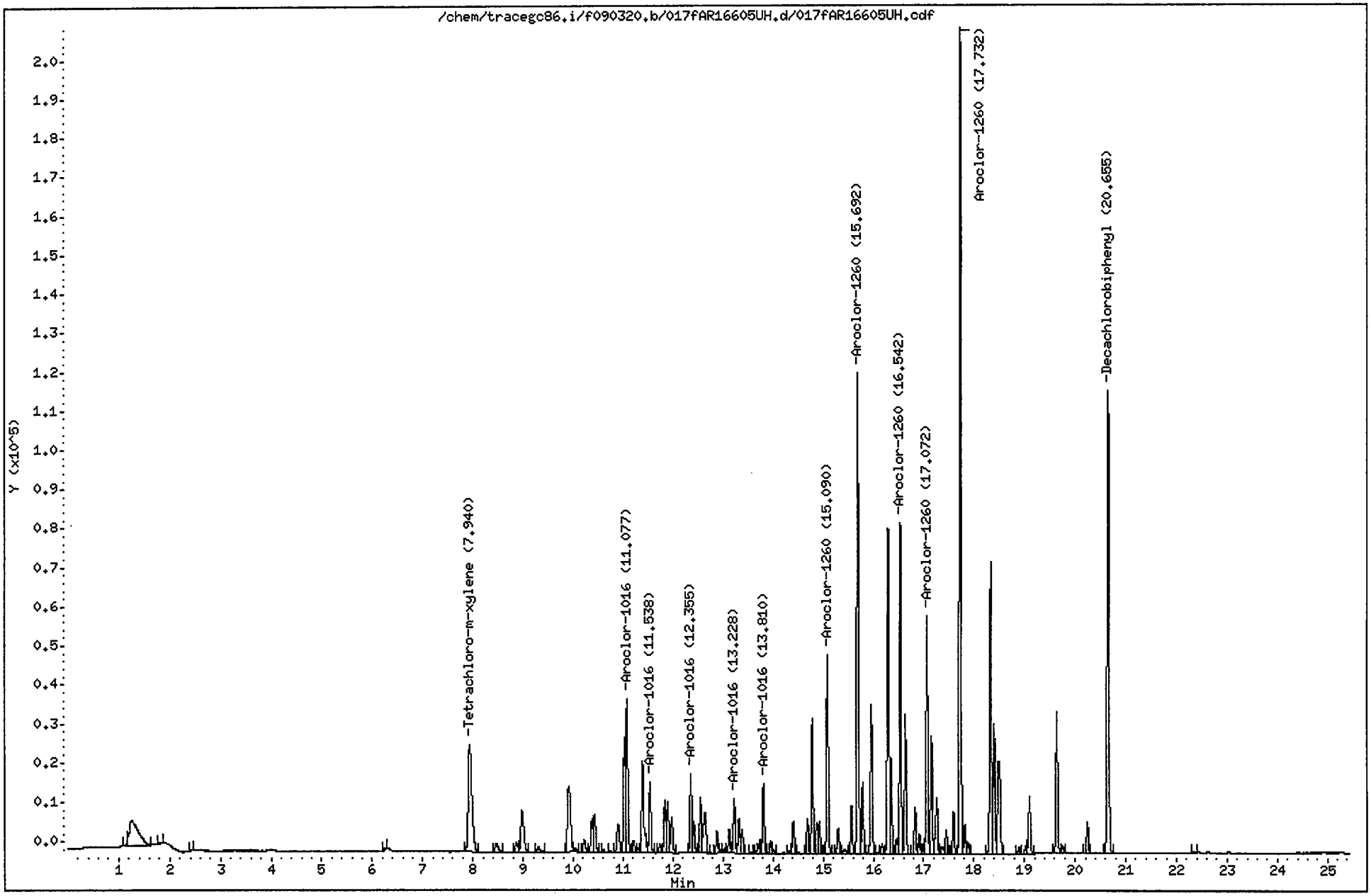
Volume Injected (uL): 1.0

Column phase: clpest

Instrument: tracegc86.i

Operator: 2646

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16605UH Client Smp Id : AR16605UH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 20-MAR-2009 23:46 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.17		1835					
1.25		79027					
1.82		1273					
2.44		450					
6.27		804					
7.94	7.87 8.01	138196	1736635	Tetrachloro-m-xylene	0.080000	1727450	
8.46		7761					
8.87		8327					
8.98		42460					
9.30		4789					
9.91		70733					
10.04		2214					
10.22		10112					
10.37		22188					
10.43		30972					
10.54		283					
10.61		2211					
10.75		926					
10.90		25524					
11.03		70117					
11.08	11.01 11.15	107441	72832	Aroclor-1016 Peak 1	1.600000	67151	
11.21		7842					
11.30		2807					
11.39		73105					
11.54	11.47 11.61	46817	32300	Aroclor-1016 Peak 2	1.600000	29261	
11.74		6116					
11.84		33423					
11.89		33390					
11.97		27387					
12.36	12.29 12.43	49994	36022	Aroclor-1016 Peak 3	1.600000	31246	
12.42		19281					
12.55		34237					
12.64		39504					
12.88		13270					
12.95		2069					
13.03		2280					
13.13		14443					
13.23	13.16 13.30	33500	24795	Aroclor-1016 Peak 4	1.600000	20937	
13.32		22140					
13.38		14559					
13.55		383					
13.70		6173					

CompuChem

Lab Smp Id : AR16605UH Client Smp Id : AR16605UH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 20-MAR-2009 23:46 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
13.75		3885					
13.81	13.74 13.88	43224	31269	Aroclor-1016 Peak 5	1.600000	27015	
13.89		770					
13.96		6979					
14.01		1820					
14.32		1270					
14.40		22796					
14.69		21005					
14.79		78804					
14.87		18199					
14.92		19386					
15.09	15.02 15.16	115184	78830	Aroclor-1260 Peak 1	1.600000	71989	
15.30		16709					
15.44		3773					
15.56		28163					
15.69	15.62 15.76	289669	172520	Aroclor-1260 Peak 2	1.600000	181043	
15.79		42769					
15.96		93045					
16.07		795					
16.18		5842					
16.30		201907					
16.35		59660					
16.47		9266					
16.54	16.47 16.61	183773	112543	Aroclor-1260 Peak 3	1.600000	114858	
16.64		80892					
16.83		27202					
16.92		11729					
17.00		4844					
17.07	17.00 17.14	139301	90796	Aroclor-1260 Peak 4	1.600000	87063	
17.16		69459					
17.26		41686					
17.36		6522					
17.45		14810					
17.59		25287					
17.73	17.66 17.80	456497	243507	Aroclor-1260 Peak 5	1.600000	285310	
17.82		17637					
17.89		6243					
18.34		171029					
18.40		77137					
18.49		88570					
18.90		4309					
19.03		5034					

CompuChem

Lab Smp Id : AR16605UH Client Smp Id : AR16605UH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 20-MAR-2009 23:46 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
19.10		37936					
19.64		83528					
19.75		4155					
20.25		19093					
20.66	20.59 20.73	277803	1636434	Decachlorobiphenyl	0.160000	1736269	
22.35		404					

Data File: /chem/tracegc86.i/f090320.b/018fPCBCHKUH.d

Page 1

Date : 21-MAR-2009 00:14

Client ID: PCBCHKUH

Instrument: tracegc86.i

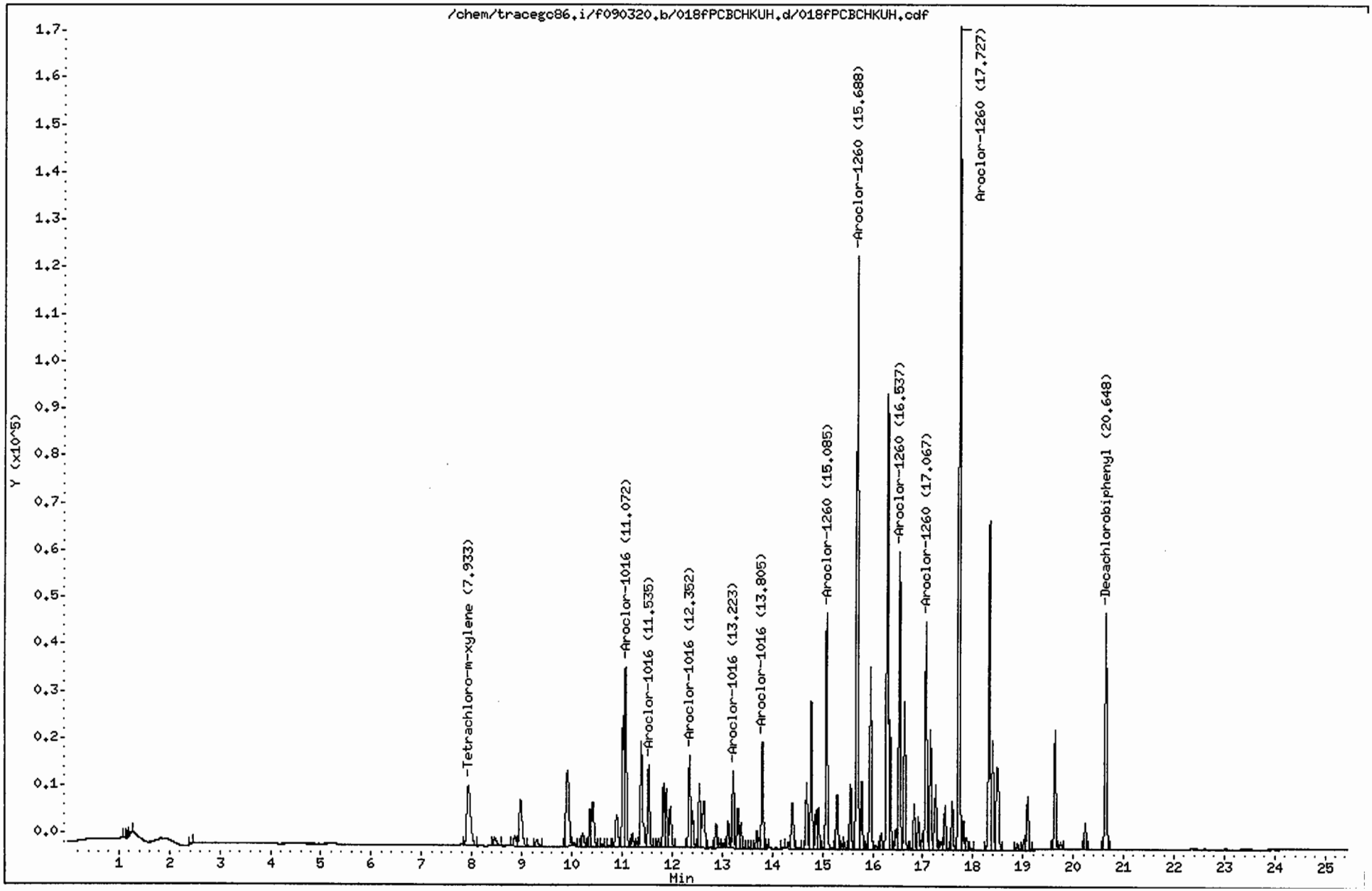
Sample Info: PCBCHKUH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

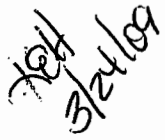
Column diameter: 0.32



CompuChem

Lab Smp Id : PCBCHKUH Client Smp Id : PCBCHKUH
Sample Type : QCCHECK Sublist : AR1660
Inj Date : 21-MAR-2009 00:14 Inst ID : TRACEGC86
Operator : 2646 Spike Sublist : AR1660chk
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	AREA
1.14	921
1.16	511
1.18	637
1.25	1061
2.42	939
7.93	65562
8.46	7312
8.86	7762
8.98	39684
9.30	4828
9.91	67303
10.04	1996
10.22	9386
10.37	21297
10.42	29369
10.61	1217
10.75	343
10.89	23829
11.02	67386
11.07	102395
11.21	7408
11.30	2617
11.39	69917
11.54	44830
11.73	4203
11.83	32928
11.89	32571
11.97	25704
12.35	49113
12.41	18304
12.55	32948
12.64	38258
12.88	12788
12.95	1976
13.03	2109
13.12	13913
13.22	39954
13.31	21811
13.38	13777
13.55	322
13.69	9331
13.74	4853
13.80	54581
13.89	1587
14.21	362



CompuChem

Lab Smp Id : PCBCHKUH Client Smp Id : PCBCHKUH
Sample Type : QCCHECK Sublist : AR1660
Inj Date : 21-MAR-2009 00:14 Inst ID :
Operator : 2646 Spike Sublist : AR1660chk
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	AREA
14.32	3231
14.40	29441
14.52	485
14.69	33483
14.78	71010
14.87	18931
14.92	20836
15.02	278
15.09	114892
15.29	29627
15.40	1882
15.43	3234
15.56	32098
15.69	298212
15.78	33929
15.89	2053
15.96	94572
16.07	1897
16.17	7924
16.29	235463
16.34	60993
16.47	10244
16.54	139595
16.64	71344
16.83	22395
16.91	16766
17.00	8138
17.07	112409
17.16	60480
17.26	38636
17.35	6150
17.45	22105
17.59	24109
17.73	372246
17.82	15019
17.88	6380
17.99	342
18.33	161126
18.40	54508
18.48	67270
18.89	3068
19.02	5463
19.10	29169
19.64	60110
19.75	3198

CompuChem

Lab Smp Id : PCBCHKUH Client Smp Id : PCBCHKUH
Sample Type : QCCHECK Sublist : AR1660
Inj Date : 21-MAR-2009 00:14 Inst ID :
Operator : 2646 Spike Sublist : AR1660chk
Method : /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc. Info : None

RT	AREA
20.24	13388
20.65	122473

CompuChem

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: PCBCHKUH
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: AR1660chk.spk
Sublist File: AR1660.sub
Method File: /chem/tracegc86.i/f090320.b/8082_clpestv7.m
Misc Info: None

Client SDG: f090320
Fraction: PEST
Client Smp ID: PCBCHKUH
Operator: 2646
SampleType: QCCHECK
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
2 Aroclor-1016	1.5	1.5	100.00	80-120
8 Aroclor-1260	1.5	1.4	93.33	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 9 Decachlorobiphenyl	0.12	0.075	62.37	43-144
$ 1 Tetrachloro-m-xyle	0.060	0.038	62.92	43-135

Data File: /chem/tracegc87.i/f090320.b/003fAR12213UH.d

Date : 20-MAR-2009 17:03

Client ID: AR12213UH

Instrument: tracegc87.i

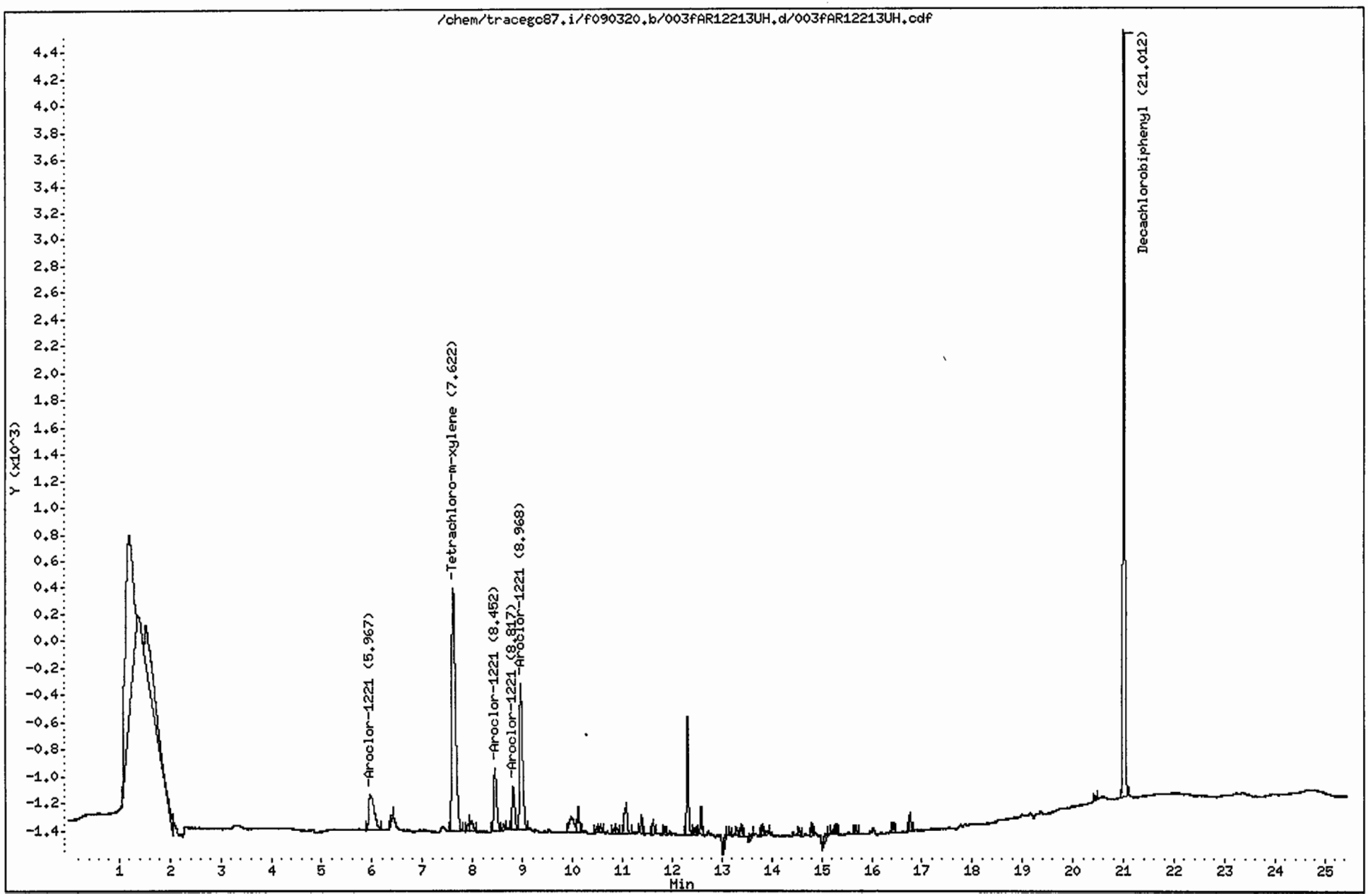
Sample Info: AR12213UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32

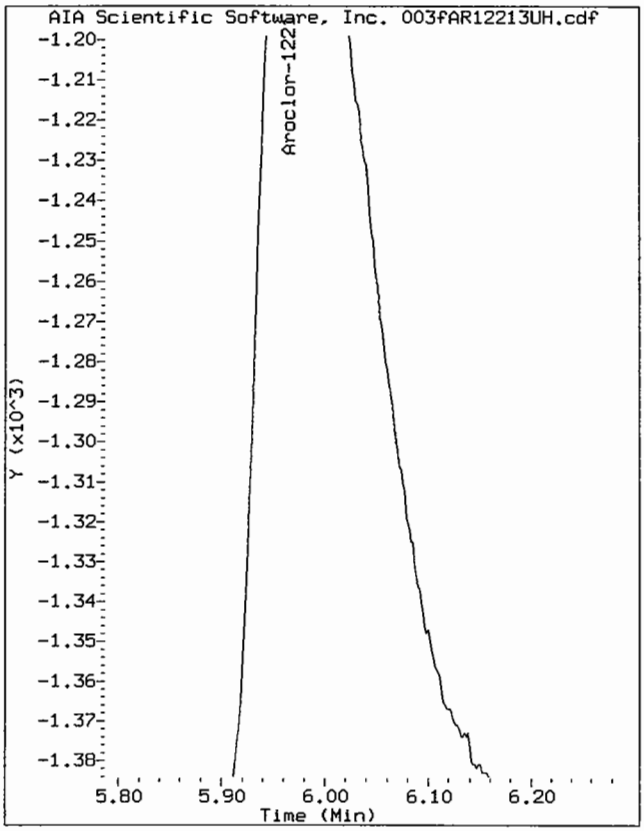


CompuChem

Lab Smp Id : AR12213UH Client Smp Id : AR12213UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1221
Inj Date : 20-MAR-2009 17:03 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.20			14326					
1.54			3970					
5.97	5.90	6.04	1935	4838	Aroclor-1221 Peak 1	0.400000	4837.500	M
6.40			134					
7.62	7.55	7.69	9305	464578	Tetrachloro-m-xylene	0.020000	441900	
7.91			183					
7.98			298					
8.45	8.38	8.52	1835	4585	Aroclor-1221 Peak 2	0.400000	4585.000	
8.62			115					
8.82	8.75	8.89	1123	2808	Aroclor-1221 Peak 3	0.400000	2807.500	
8.97	8.90	9.04	4375	10935	Aroclor-1221 Peak 4	0.400000	10935	
9.98			793					
10.12			516					
10.49			102					
10.56			137					
10.83			90					
10.89			115					
11.08			883					
11.39			326					
11.62			252					
11.86			141					
12.31			2104					
12.46			115					
12.59			450					
13.07			160					
13.16			61					
13.30			113					
13.39			206					
13.61			131					
13.81			184					
13.90			76					
14.56			98					
14.80			203					
15.09			205					
15.22			65					
15.29			158					
15.68			154					
16.43			187					
16.77			323					
20.43			76					
21.01	20.94	21.08	15286	413792	Decachlorobiphenyl	0.040000	388575	

Manually Integrated Peaks



Start: 5.89 Stop: 6.18

Data File: /chem/tracegc87.i/f090320.b/004fAR12323UH.d

Date : 20-MAR-2009 17:32

Client ID: AR12323UH

Instrument: tracegc87.i

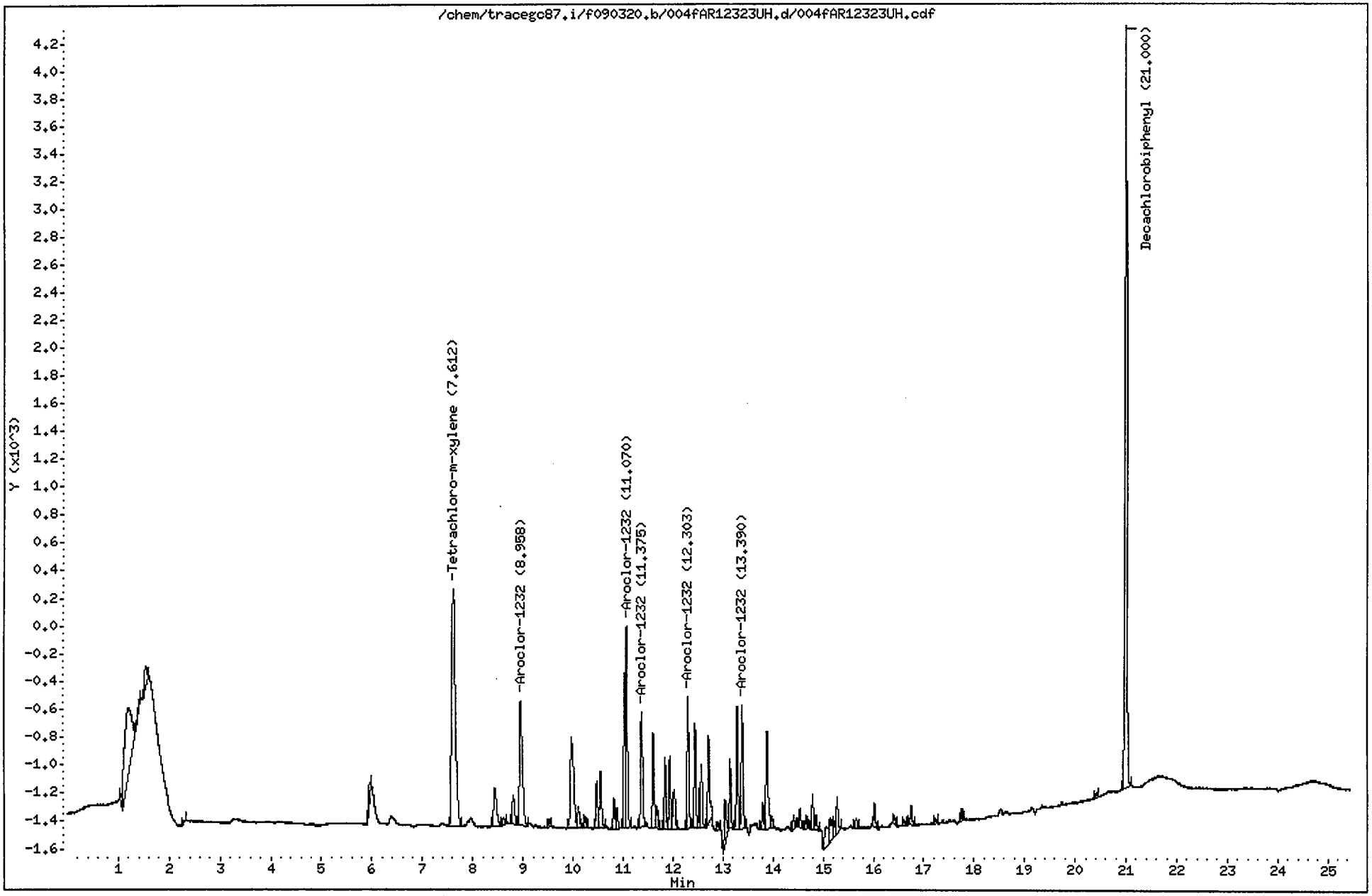
Sample Info: AR12323UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12323UH Client Smp Id : AR12323UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 20-MAR-2009 17:32 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.07			139					
1.22			4742					
1.35			63					
1.44			237					
1.55			505					
2.31			64					
5.97			362					
7.61	7.55	7.69	8869	464578	Tetrachloro-m-xylene	0.020000	441900	
8.44			1114					
8.61			129					
8.81			705					
8.96	8.89	9.03	3484	8710	Aroclor-1232 Peak 1	0.400000	8710.000	
9.53			159					
9.97			2935					
10.11			394					
10.25			214					
10.48			848					
10.55			1139					
10.82			524					
10.88			370					
11.03			2130					
11.07	11.00	11.14	3908	9768	Aroclor-1232 Peak 2	0.400000	9767.500	
11.38	11.30	11.44	2249	5622	Aroclor-1232 Peak 3	0.400000	5622.500	
11.61			1634					
11.68			363					
11.85			1200					
11.94			1240					
12.03			900					
12.30	12.23	12.37	2248	5620	Aroclor-1232 Peak 4	0.400000	5620.000	
12.45			1728					
12.54			543					
12.57			1066					
12.72			1643					
12.90			118					
13.05			806					
13.15			1113					
13.29			2100					
13.39	13.32	13.46	2157	5392	Aroclor-1232 Peak 5	0.400000	5392.500	
13.80			416					
13.88			2193					
13.98			152					
14.41			192					

CompuChem

Lab Smp Id : AR12323UH Client Smp Id : AR12323UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1232
Inj Date : 20-MAR-2009 17:32 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.54		296					
14.67		198					
14.79		557					
14.86		270					
15.07		617					
15.15		608					
15.21		319					
15.28		675					
15.66		206					
16.02		429					
16.42		138					
16.61		87					
16.75		345					
17.23		69					
17.76		175					
20.43		79					
21.00	20.94 21.08	14776	413792	Decachlorobiphenyl	0.040000	388575	

Data File: /chem/tracegc87.i/f090320.b/005fAR12423UH.d

Date : 20-MAR-2009 18:00

Client ID: AR12423UH

Instrument: tracegc87.i

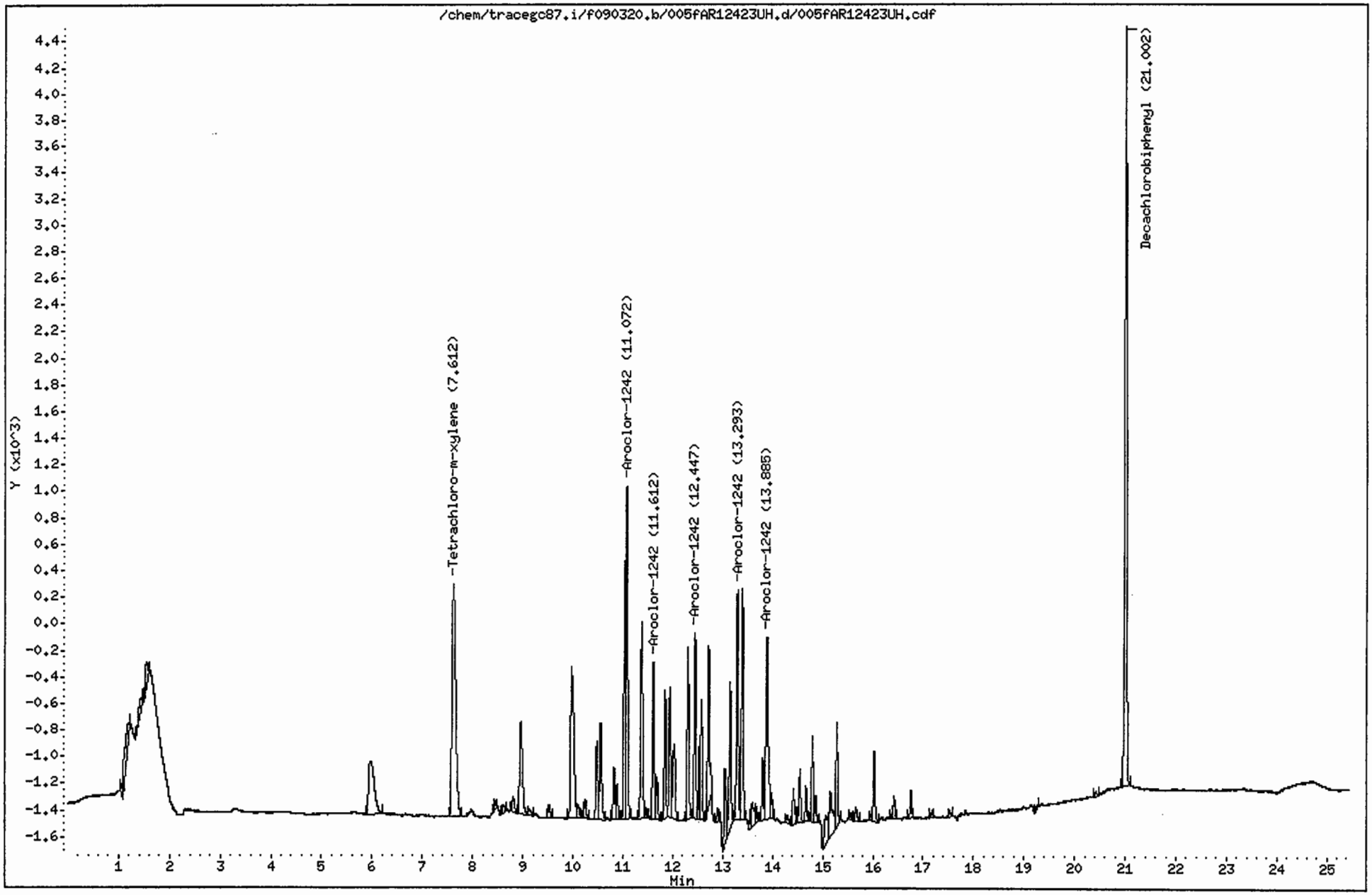
Sample Info: AR12423UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12423UH Client Smp Id : AR12423UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 20-MAR-2009 18:00 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.07		139					
1.20		1316					
1.46		548					
1.55		565					
5.98		3078					
7.61	7.55 7.69	8940	464578	Tetrachloro-m-xylene	0.020000	441900	
8.44		216					
8.61		186					
8.81		350					
8.96		2703					
9.13		183					
9.52		302					
9.97		5054					
10.11		262					
10.21		107					
10.25		388					
10.48		1549					
10.55		2043					
10.82		932					
10.88		629					
11.04		3775					
11.07	11.00 11.14	6799	16998	Aroclor-1242 Peak 1	0.400000	16997	
11.38		4110					
11.47		155					
11.61	11.54 11.68	2831	7075	Aroclor-1242 Peak 2	0.400000	7075.000	
11.68		802					
11.85		2248					
11.94		2344					
12.03		1876					
12.30		3096					
12.45	12.38 12.52	3266	8162	Aroclor-1242 Peak 3	0.400000	8162.500	
12.54		1089					
12.57		2139					
12.72		3233					
12.90		244					
13.05		1678					
13.15		2834					
13.29	13.22 13.36	4137	10340	Aroclor-1242 Peak 4	0.400000	10340	
13.39		4287					
13.56		252					
13.60		614					
13.67		252					

3/24/09

CompuChem

Lab Smp Id : AR12423UH Client Smp Id : AR12423UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1242
Inj Date : 20-MAR-2009 18:00 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
13.80		1029					
13.88	13.81 13.95	4538	11345	Aroclor-1242 Peak 5	0.400000	11345	
13.99		394					
14.29		193					
14.42		697					
14.49		175					
14.55		942					
14.67		581					
14.79		1439					
14.86		478					
15.07		934					
15.16		1514					
15.28		1870					
15.56		105					
15.67		284					
15.96		88					
16.03		1261					
16.38		63					
16.42		419					
16.76		451					
17.17		102					
17.53		94					
19.26		63					
20.42		78					
21.00	20.94 21.08	15144	413792	Decachlorobiphenyl	0.040000	388575	

Data File: /chem/tracegc87.i/f090320.b/006fAR12483UH.d

Date : 20-MAR-2009 18:29

Client ID: AR12483UH

Instrument: tracegc87.i

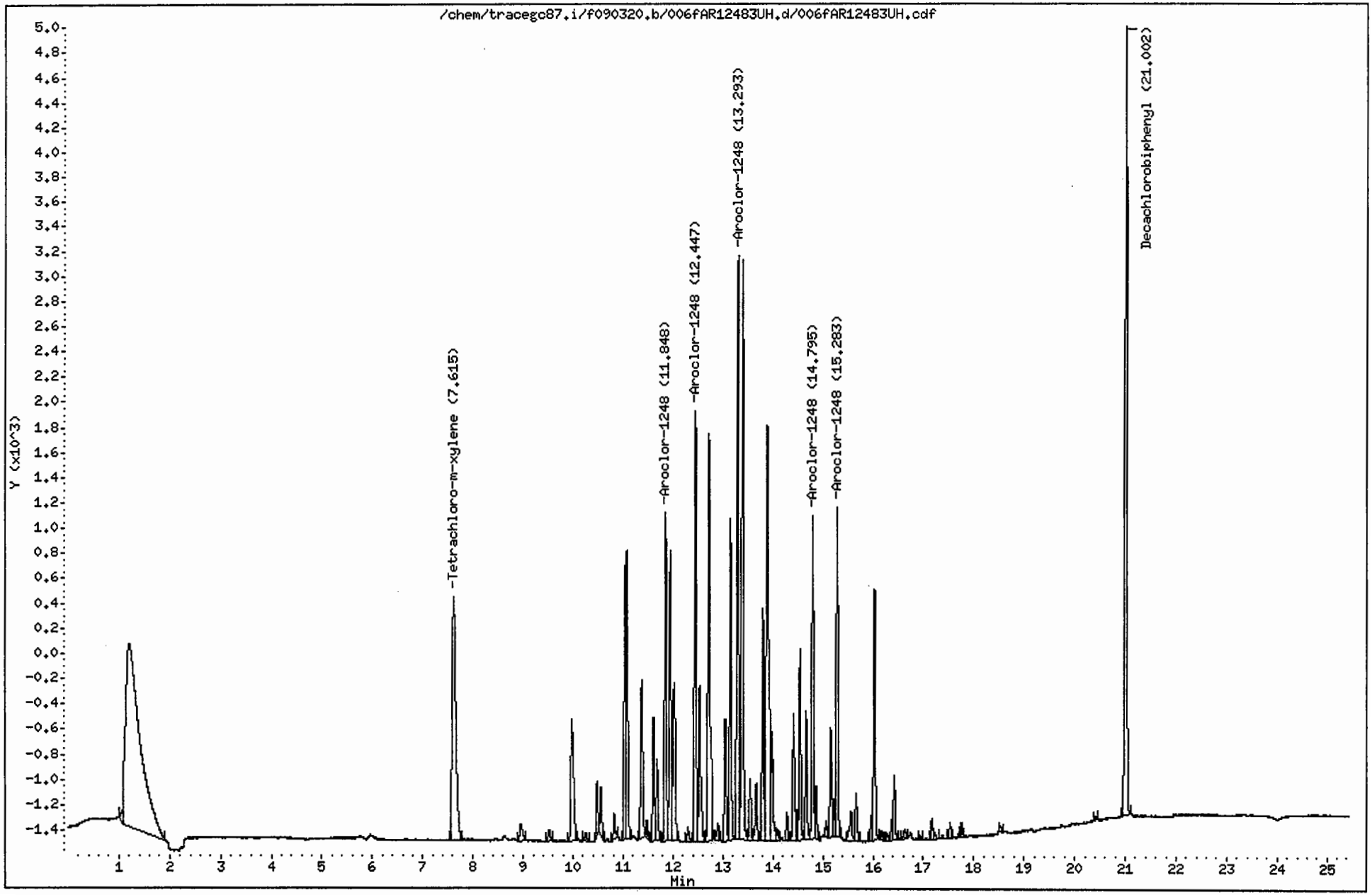
Sample Info: AR12483UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12483UH Client Smp Id : AR12483UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 20-MAR-2009 18:29 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.08			227					
1.21			28372					
7.62	7.55	7.69	9816	464578	Tetrachloro-m-xylene	0.020000	441900	
8.96			436					
9.52			223					
9.97			3664					
10.25			176					
10.48			1009					
10.55			883					
10.82			551					
11.04			4895					
11.07			5770					
11.37			3600					
11.47			300					
11.61			2334					
11.69			1577					
11.85	11.78	11.92	6320	15800	Aroclor-1248 Peak 1	0.400000	15800	
11.94			5739					
12.03			4296					
12.30			274					
12.45	12.38	12.52	8176	20438	Aroclor-1248 Peak 2	0.400000	20437	
12.54			3577					
12.72			9642					
12.90			389					
13.05			2593					
13.15			6023					
13.29	13.22	13.36	11129	27822	Aroclor-1248 Peak 3	0.400000	27823	
13.39			11808					
13.55			1121					
13.67			1112					
13.80			4259					
13.88			12296					
13.98			2231					
14.10			222					
14.29			482					
14.41			2746					
14.49			448					
14.54			3494					
14.67			2321					
14.80	14.72	14.86	5869	14670	Aroclor-1248 Peak 4	0.400000	14670	
14.86			1051					
15.07			246					

CompuChem

Lab Smp Id : AR12483UH Client Smp Id : AR12483UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1248
Inj Date : 20-MAR-2009 18:29 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.16		2252					
15.21		655					
15.28	15.21 15.35	6111	15278	Aroclor-1248 Peak 5	0.400000	15277	
15.56		781					
15.66		966					
15.96		390					
16.03		4815					
16.19		151					
16.29		110					
16.37		307					
16.42		1266					
16.64		241					
16.94		65					
17.17		373					
17.23		109					
17.53		295					
17.76		236					
18.53		121					
20.42		71					
21.00	20.94 21.08	16980	413792	Decachlorobiphenyl	0.040000	388575	

Data File: /chem/tracegc87.i/f090320.b/007fAR12543UH.d

Date : 20-MAR-2009 18:58

Client ID: AR12543UH

Instrument: tracegc87.i

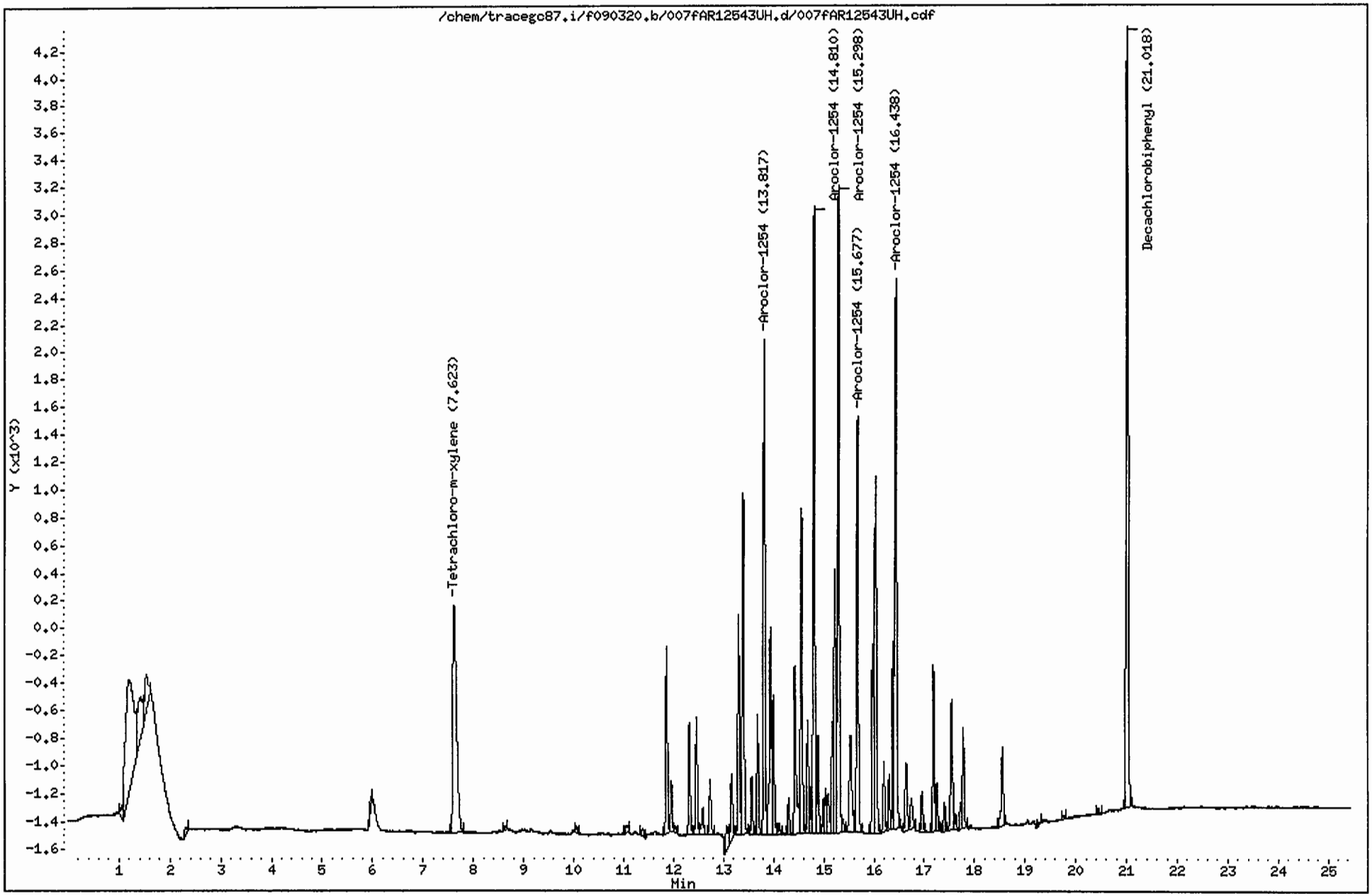
Sample Info: AR12543UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12543UH Client Smp Id : AR12543UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 20-MAR-2009 18:58 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.07		233					
1.20		9395					
1.43		2166					
1.55		1398					
2.31		118					
5.97		222					
7.62	7.55 7.69	8609	464578	Tetrachloro-m-xylene	0.020000	441900	
8.63		121					
10.06		98					
11.05		193					
11.39		173					
11.86		3172					
11.96		793					
12.03		117					
12.32		1874					
12.46		1934					
12.59		539					
12.73		965					
13.07		624					
13.16		1228					
13.31		3728					
13.40		6138					
13.56		890					
13.69		1944					
13.82	13.75 13.89	8410	21022	Aroclor-1254 Peak 1	0.400000	21023	
13.95		4139					
14.00		2363					
14.11		197					
14.30		587					
14.43		3554					
14.56		5486					
14.68		1881					
14.73		684					
14.81	14.74 14.88	10467	26165	Aroclor-1254 Peak 2	0.400000	26165	
14.89		1610					
15.00		456					
15.04		705					
15.08		872					
15.18		1890					
15.23		4741					
15.30	15.23 15.37	11150	27872	Aroclor-1254 Peak 3	0.400000	27873	
15.39		248					

CompuChem

Lab Smp Id : AR12543UH Client Smp Id : AR12543UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1254
Inj Date : 20-MAR-2009 18:58 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.54		2497					
15.62		191					
15.68	15.61 15.75	7046	17615	Aroclor-1254 Peak 4	0.400000	17615	
15.98		2906					
16.04		7521					
16.20		1158					
16.30		834					
16.39		2797					
16.44	16.37 16.51	10277	25692	Aroclor-1254 Peak 5	0.400000	25693	
16.65		1454					
16.74		673					
16.95		713					
17.19		2745					
17.25		772					
17.40		475					
17.55		2477					
17.62		255					
17.72		380					
17.78		1627					
18.55		1488					
19.28		69					
19.76		68					
20.45		85					
21.02	20.94 21.08	15119	413792	Decachlorobiphenyl	0.040000	388575	

Data File: /chem/tracegc87.i/f090320.b/008fAR12681UH.d

Date : 20-MAR-2009 19:27

Client ID: AR12681UH

Instrument: tracegc87.i

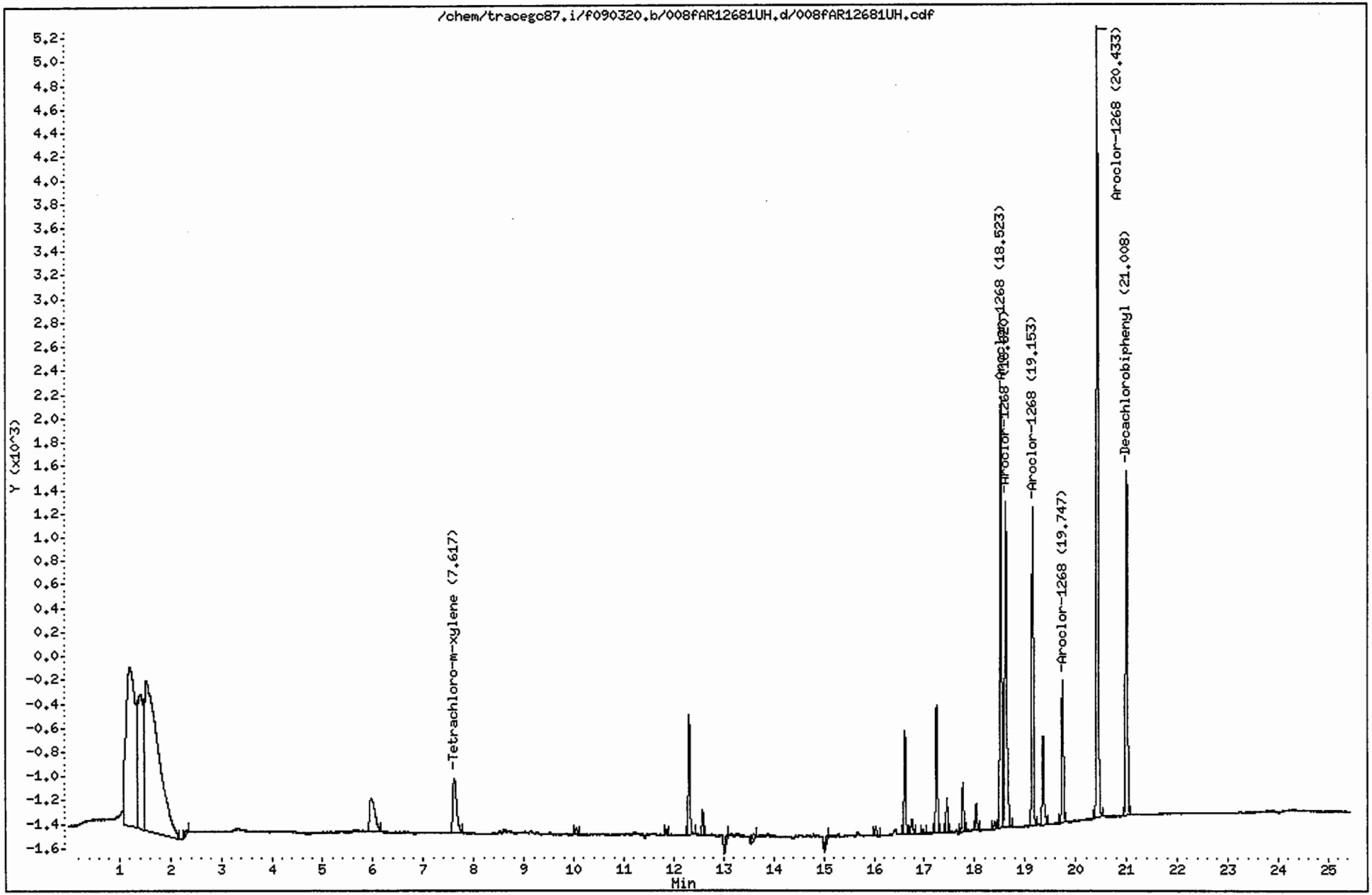
Sample Info: AR12681UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12681UH Client Smp Id : AR12681UH
Sample Type : INITIAL CAL: Level 1 Sublist : AR1268
Inj Date : 20-MAR-2009 19:27 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.21		17242					
1.41		8956					
1.54		22915					
2.30		140					
5.97		2053					
7.62	7.55 7.69	2365	464578	Tetrachloro-m-xylene	0.005000	512000	
10.04		147					
11.86		96					
12.31		2341					
12.58		444					
13.06		136					
13.60		181					
15.08		162					
16.04		206					
16.62		1923					
16.76		371					
16.97		79					
17.25		2427					
17.45		626					
17.77		916					
18.04		476					
18.40		132					
18.52	18.46 18.60	8466	75711	Aroclor-1268 Peak 1	0.100000	84650	
18.62	18.56 18.70	7395	66642	Aroclor-1268 Peak 2	0.100000	73950	
19.15	19.09 19.23	6226	55656	Aroclor-1268 Peak 3	0.100000	62260	
19.36		1812					
19.75	19.68 19.82	2729	24736	Aroclor-1268 Peak 4	0.100000	27290	
20.43	20.37 20.51	15868	144612	Aroclor-1268 Peak 5	0.100000	158680	
21.01	20.94 21.08	7603	413792	Decachlorobiphenyl	0.010000	496000	

Data File: /chem/tracegc87.i/f090320.b/009fAR12682UH.d

Page 1

Date : 20-MAR-2009 19:56

Client ID: AR12682UH

Instrument: tracegc87.i

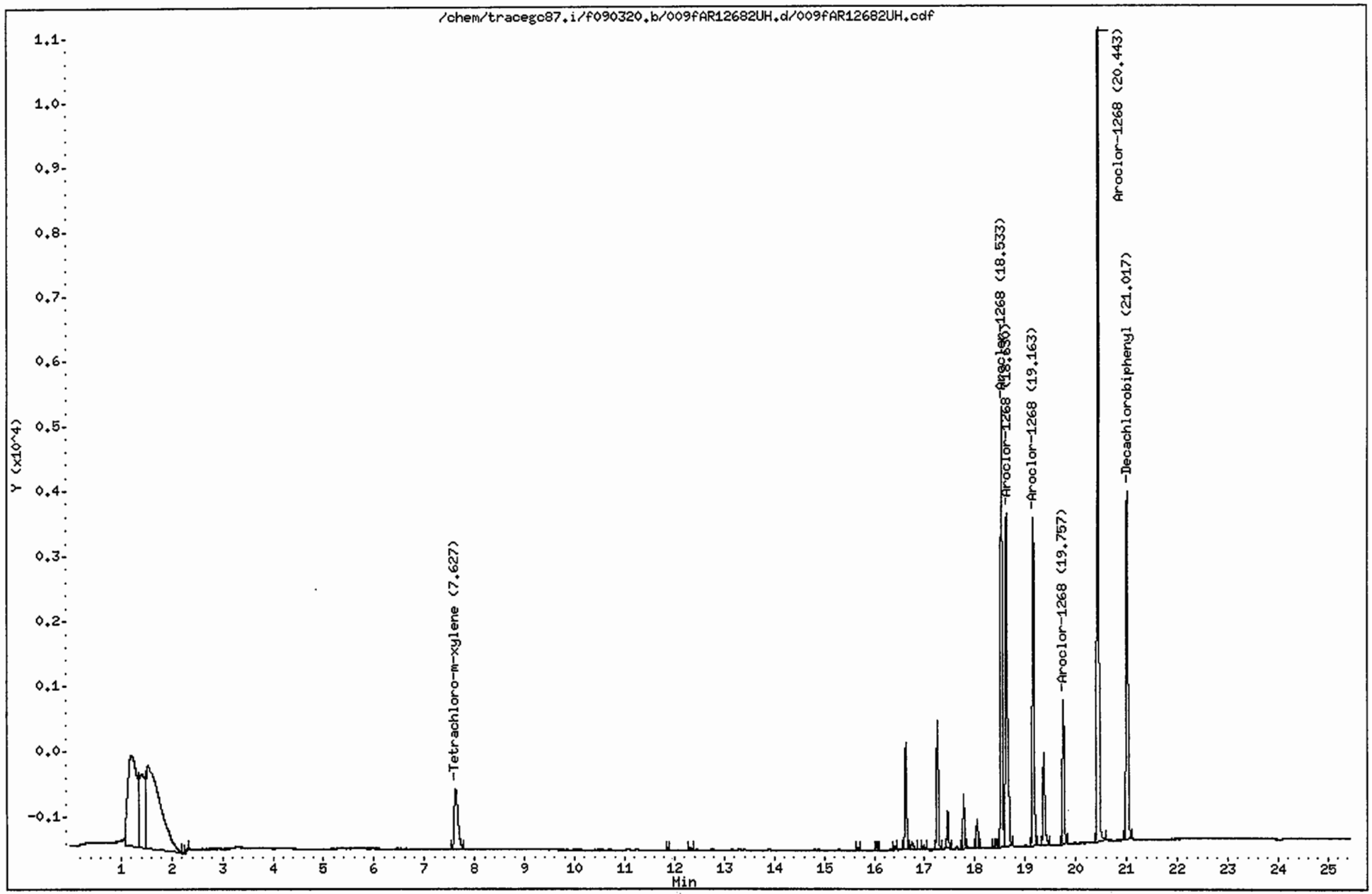
Sample Info: AR12682UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12682UH Client Smp Id : AR12682UH
Sample Type : INITIAL CAL: Level 2 Sublist : AR1268
Inj Date : 20-MAR-2009 19:56 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.21			17553					
1.41			8910					
1.54			23767					
2.30			68					
7.63	7.55	7.69	4635	464578	Tetrachloro-m-xylene	0.010000	492600	
11.86			73					
12.32			92					
15.68			88					
16.05			276					
16.41			100					
16.63			3704					
16.75			378					
16.98			135					
17.26			4640					
17.46			1228					
17.78			1785					
18.04			976					
18.41			269					
18.53	18.46	18.60	16062	75711	Aroclor-1268 Peak 1	0.200000	80305	
18.63	18.56	18.70	14083	66642	Aroclor-1268 Peak 2	0.200000	70410	
19.16	19.09	19.23	11757	55656	Aroclor-1268 Peak 3	0.200000	58785	
19.37			3531					
19.76	19.68	19.82	5196	24736	Aroclor-1268 Peak 4	0.200000	25975	
20.44	20.37	20.51	30344	144612	Aroclor-1268 Peak 5	0.200000	151720	
21.02	20.94	21.08	14253	413792	Decachlorobiphenyl	0.020000	447950	

Data File: /chem/tracegc87.i/f090320.b/010fAR12683UH.d

Date : 20-MAR-2009 20:24

Client ID: AR12683UH

Instrument: tracegc87.i

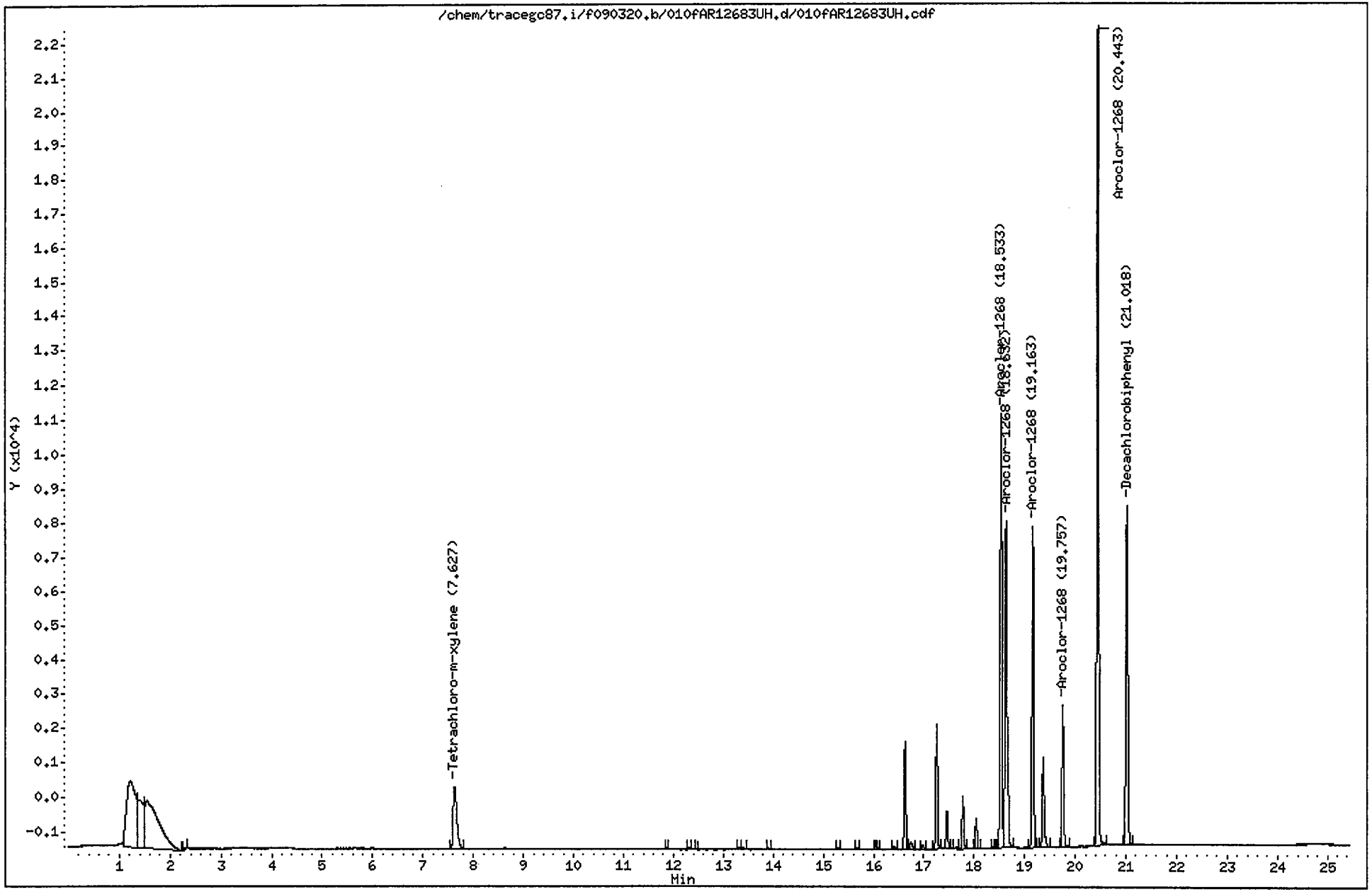
Sample Info: AR12683UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12683UH Client Smp Id : AR12683UH
Sample Type : INITIAL CAL: Level 3 Sublist : AR1268
Inj Date : 20-MAR-2009 20:24 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.22			24199					
1.39			10530					
1.54			25399					
2.31			77					
7.63	7.55	7.69	9042	464578	Tetrachloro-m-xylene	0.020000	441900	
11.87			95					
12.32			78					
12.46			64					
13.30			121					
13.41			129					
13.90			106					
15.30			81					
15.68			138					
16.05			543					
16.41			232					
16.63			7063					
16.75			638					
16.98			272					
17.26			8577					
17.46			2349					
17.64			133					
17.78			3441					
18.04			1905					
18.41			513					
18.53	18.46	18.60	30076	75711	Aroclor-1268 Peak 1	0.400000	75187	
18.63	18.56	18.70	26464	66642	Aroclor-1268 Peak 2	0.400000	66160	
19.16	19.09	19.23	22017	55656	Aroclor-1268 Peak 3	0.400000	55043	
19.37			6710					
19.76	19.68	19.82	10033	24736	Aroclor-1268 Peak 4	0.400000	25083	
20.44	20.37	20.51	57676	144612	Aroclor-1268 Peak 5	0.400000	144190	
21.02	20.94	21.08	26489	413792	Decachlorobiphenyl	0.040000	388575	

Data File: /chem/tracegc87.i/f090320.b/011fAR12684UH.d

Date : 20-MAR-2009 20:53

Client ID: AR12684UH

Instrument: tracegc87.i

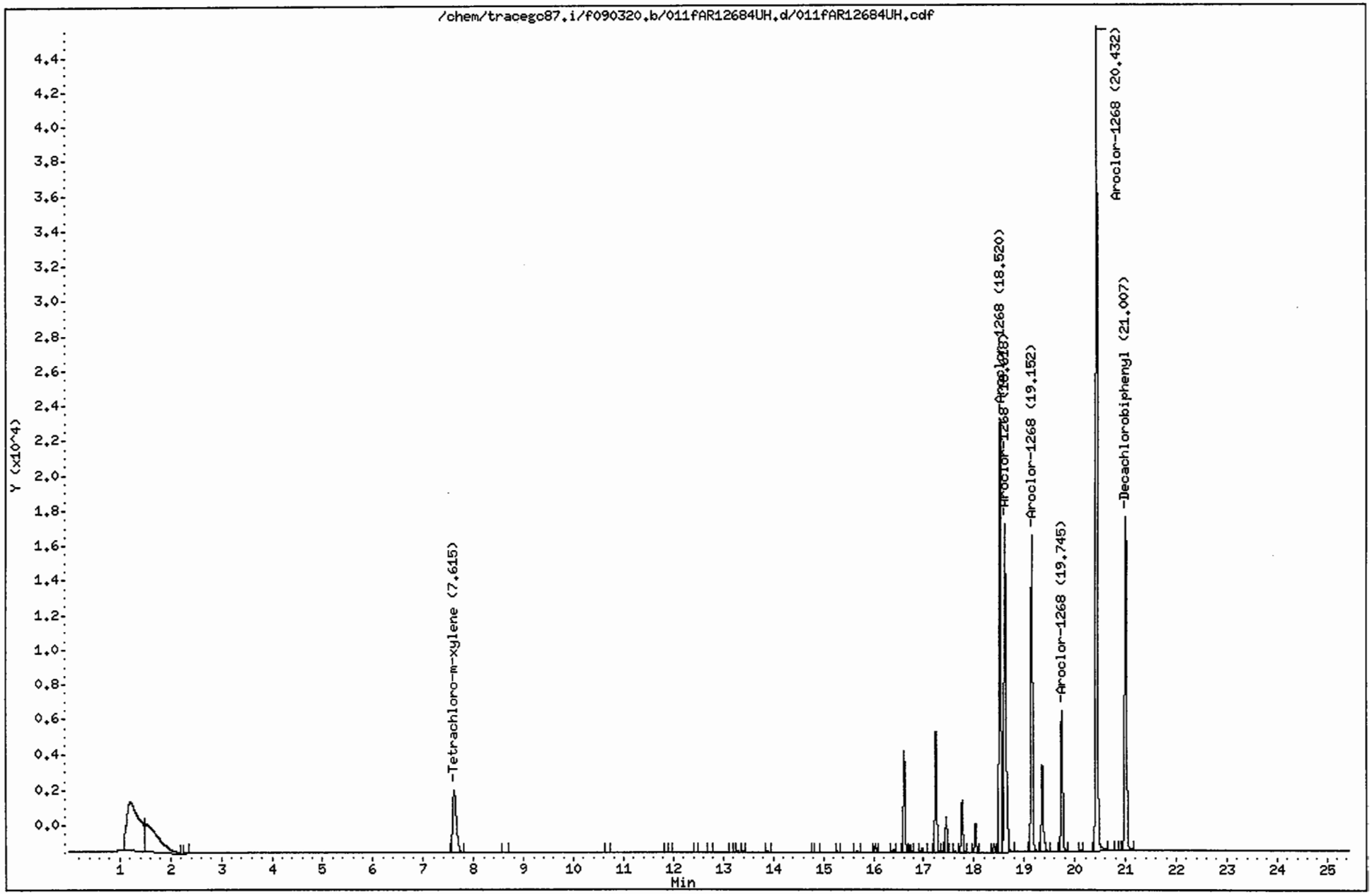
Sample Info: AR12684UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12684UH Client Smp Id : AR12684UH
Sample Type : INITIAL CAL: Level 4 Sublist : AR1268
Inj Date : 20-MAR-2009 20:53 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.21			48530					
1.54			26879					
2.31			135					
7.62	7.55	7.69	17649	464578	Tetrachloro-m-xylene	0.040000	441550	
8.63			230					
10.69			87					
11.85			130					
11.94			67					
12.45			123					
12.72			142					
13.15			113					
13.29			240					
13.39			246					
13.89			264					
14.80			110					
14.87			145					
15.29			171					
15.66			283					
16.04			1074					
16.40			476					
16.61			13460					
16.73			973					
16.97			561					
17.25			16221					
17.39			101					
17.45			4604					
17.63			279					
17.77			6694					
18.03			3709					
18.40			1020					
18.52	18.46	18.60	58400	75711	Aroclor-1268 Peak 1	0.800000	73000	
18.62	18.56	18.70	51600	66642	Aroclor-1268 Peak 2	0.800000	64499	
19.15	19.09	19.23	43056	55656	Aroclor-1268 Peak 3	0.800000	53820	
19.36			12911					
19.74	19.68	19.82	19157	24736	Aroclor-1268 Peak 4	0.800000	23946	
20.12			65					
20.43	20.37	20.51	112984	144612	Aroclor-1268 Peak 5	0.800000	141229	
20.81			103					
21.01	20.94	21.08	50797	413792	Decachlorobiphenyl	0.080000	378187	

Data File: /chem/tracegc87.i/f090320.b/012fAR12685UH.d

Date : 20-MAR-2009 21:22

Client ID: AR12685UH

Instrument: tracegc87.i

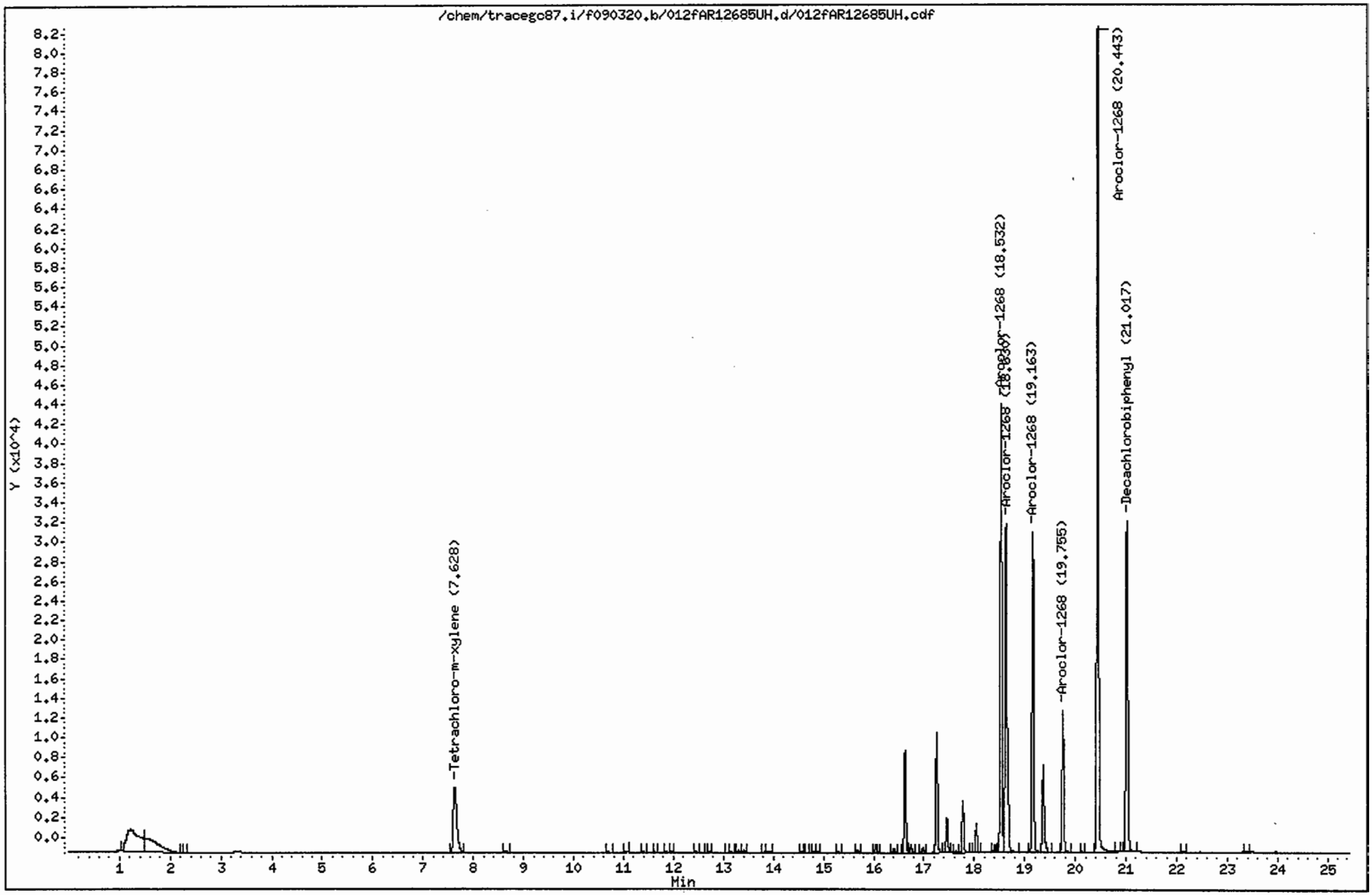
Sample Info: AR12685UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR12685UH Client Smp Id : AR12685UH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1268
Inj Date : 20-MAR-2009 21:22 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.07			114					
1.21			39728					
1.54			25475					
2.31			61					
7.63	7.55	7.69	31989	464578	Tetrachloro-m-xylene	0.080000	434837	
8.63			400					
10.70			184					
11.05			178					
11.39			148					
11.63			97					
11.86			200					
11.96			125					
12.46			231					
12.55			101					
12.73			172					
13.07			92					
13.16			220					
13.31			442					
13.41			479					
13.81			91					
13.90			511					
14.55			104					
14.69			64					
14.81			209					
14.88			243					
15.30			306					
15.67			503					
16.05			1890					
16.41			849					
16.63			23720					
16.74			1765					
16.98			987					
17.26			28551					
17.40			211					
17.46			8037					
17.64			478					
17.78			11933					
18.04			6592					
18.41			1840					
18.53	18.46	18.60	104658	75711	Aroclor-1268 Peak 1	1.600000	65411	
18.63	18.56	18.70	93110	66642	Aroclor-1268 Peak 2	1.600000	58194	
19.16	19.09	19.23	77396	55656	Aroclor-1268 Peak 3	1.600000	48373	

CompuChem

Lab Smp Id : AR12685UH Client Smp Id : AR12685UH
Sample Type : INITIAL CAL: Level 5 Sublist : AR1268
Inj Date : 20-MAR-2009 21:22 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
19.37		22789					
19.76	19.68 19.82	34219	24736	Aroclor-1268 Peak 4	1.600000	21386	
20.13		111					
20.44	20.37 20.51	203590	144612	Aroclor-1268 Peak 5	1.600000	127243	
20.82		274					
21.02	20.94 21.08	90700	413792	Decachlorobiphenyl	0.160000	358250	
22.14		151					
23.36		116					

Data File: /chem/tracegc87.i/f090320.b/013fAR16601UH.d

Page 1

Date : 20-MAR-2009 21:51

Client ID: AR16601UH

Instrument: tracegc87.i

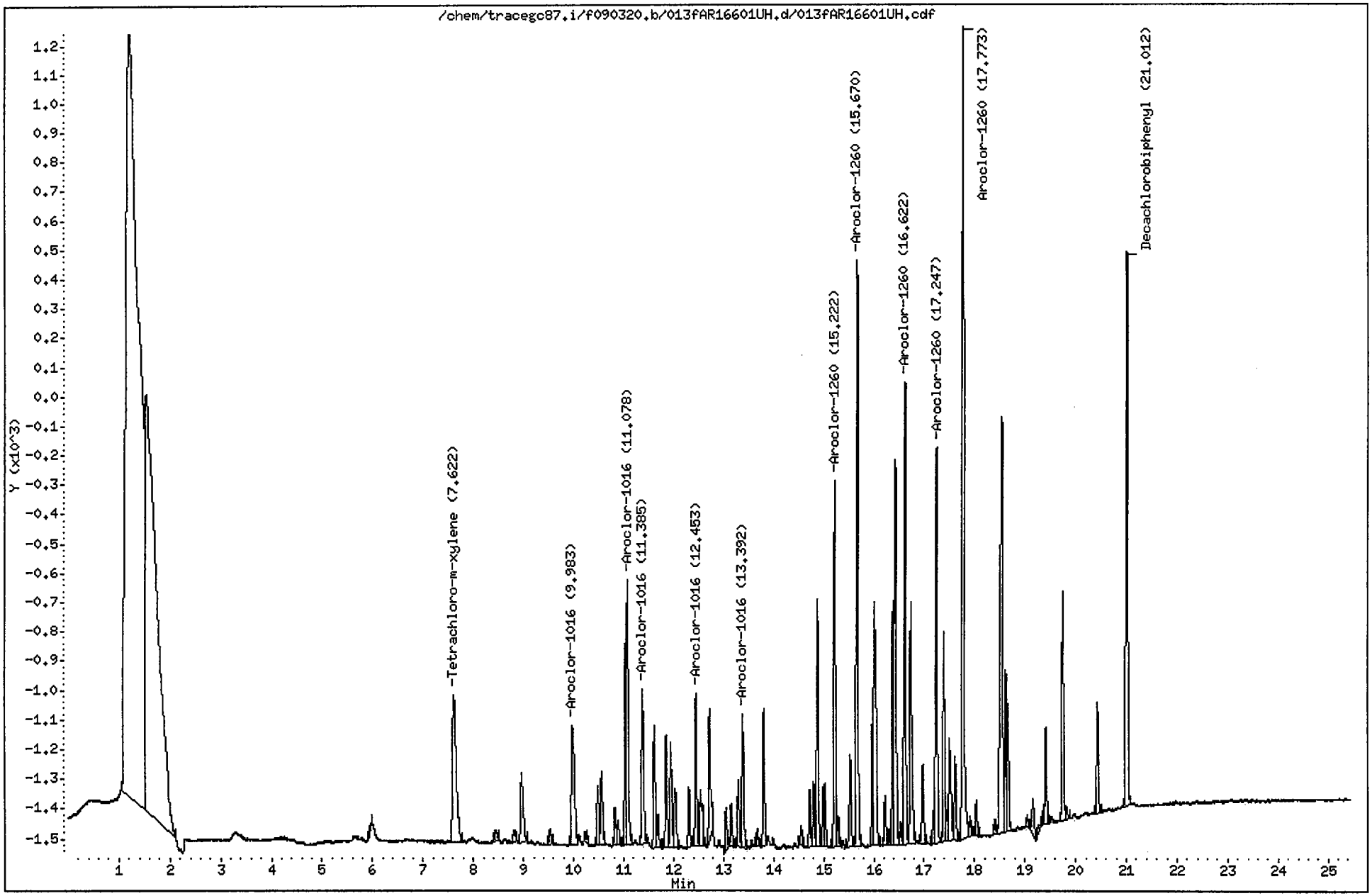
Sample Info: AR16601UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16601UH Client Smp Id : AR16601UH
Sample Type : INITIAL CAL: Level 1 Sublist : INDA
Inj Date : 20-MAR-2009 21:51 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.21		46007					
1.54		23353					
5.98		70					
7.62	7.55 7.69	2561	464578	Tetrachloro-m-xylene	0.005000	512000	
8.45		99					
8.82		126					
8.97		823					
9.53		140					
9.98	9.91 10.05	1637	14303	Aroclor-1016 Peak 1	0.100000	16370	
10.26		81					
10.49		505					
10.56		667					
10.83		305					
10.89		193					
11.04		1380					
11.08	11.01 11.15	2454	20883	Aroclor-1016 Peak 2	0.100000	24540	
11.38	11.31 11.45	1440	13011	Aroclor-1016 Peak 3	0.100000	14400	
11.62		992					
11.69		265					
11.86		866					
11.95		861					
12.04		657					
12.31		449					
12.45	12.39 12.53	1157	10068	Aroclor-1016 Peak 4	0.100000	11570	
12.54		680					
12.73		1183					
13.05		354					
13.16		315					
13.30		501					
13.39	13.32 13.46	1129	9596	Aroclor-1016 Peak 5	0.100000	11290	
13.68		119					
13.81		1028					
14.55		140					
14.72		428					
14.80		479					
14.88		1870					
14.99		405					
15.03		432					
15.22	15.15 15.29	2857	23763	Aroclor-1260 Peak 1	0.100000	28560	
15.29		228					
15.54		795					
15.67	15.60 15.74	4590	39276	Aroclor-1260 Peak 2	0.100000	45890	

CompuChem

Lab Smp Id : AR16601UH Client Smp Id : AR16601UH
Sample Type : INITIAL CAL: Level 1 Sublist : INDA
Inj Date : 20-MAR-2009 21:51 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
15.98		773					
16.02		2950					
16.23		365					
16.30		102					
16.39		1868					
16.43		3541					
16.54		167					
16.62	16.56 16.70	3594	30554	Aroclor-1260 Peak 3	0.100000	35940	
16.74		2235					
16.98		665					
17.18		224					
17.25	17.18 17.32	3118	26403	Aroclor-1260 Peak 4	0.100000	31180	
17.40		1628					
17.46		202					
17.51		1062					
17.62		670					
17.77	17.71 17.85	6930	60269	Aroclor-1260 Peak 5	0.100000	69290	
17.92		143					
18.04		267					
18.41		107					
18.54		4867					
18.62		1232					
18.66		941					
19.05		83					
19.16		331					
19.28		90					
19.36		96					
19.42		743					
19.75		1803					
19.83		101					
20.44		885					
21.01	20.94 21.08	4960	413792	Decachlorobiphenyl	0.010000	496000	

Data File: /chem/tracegc87.i/f090320.b/014fAR16602UH.d

Date : 20-MAR-2009 22:19

Client ID: AR16602UH

Instrument: tracegc87.i

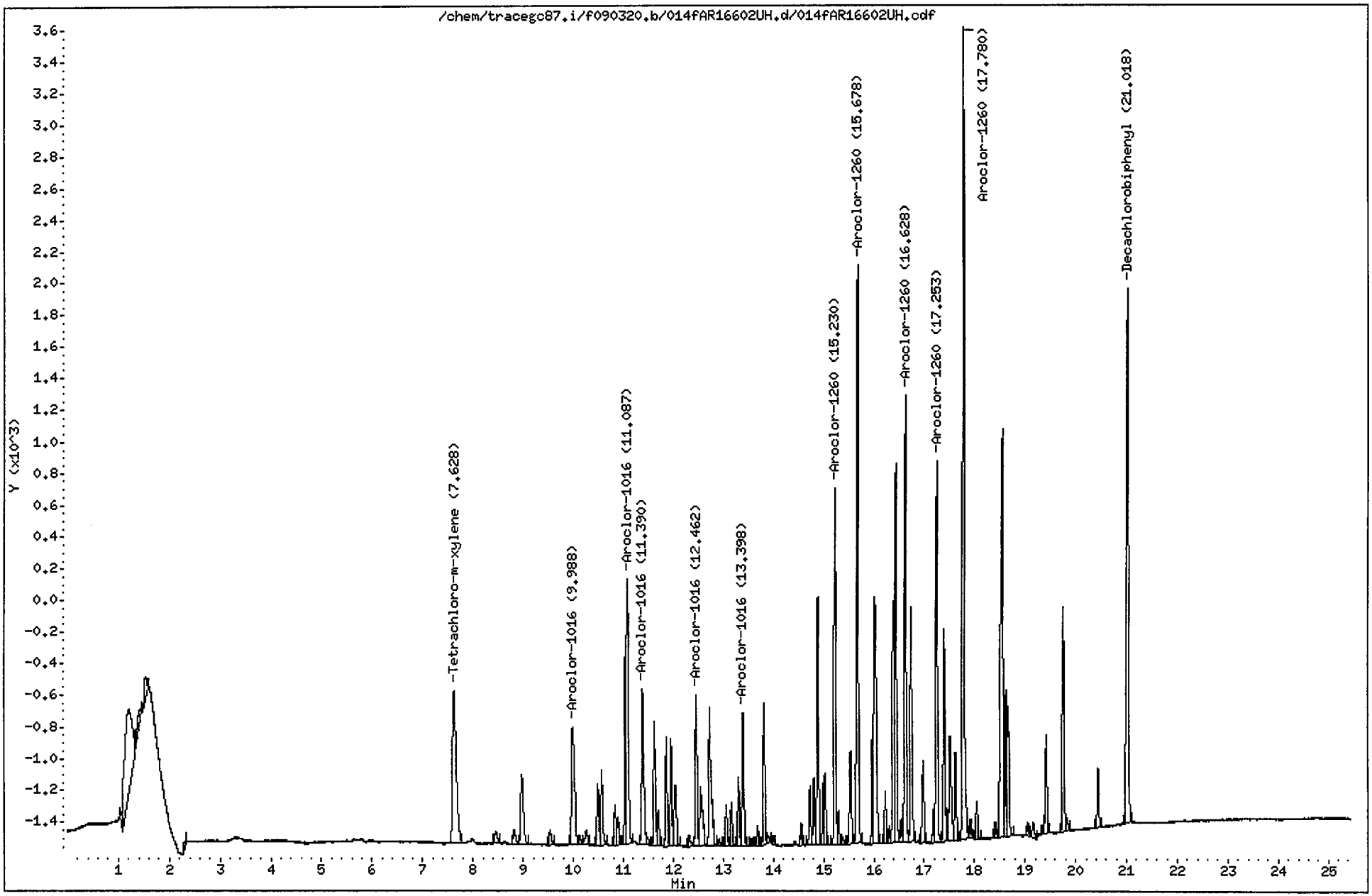
Sample Info: AR16602UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16602UH Client Smp Id : AR16602UH
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 20-MAR-2009 22:19 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.07		155					
1.21		5266					
1.34		167					
1.43		365					
1.55		502					
2.32		113					
7.63	7.55 7.69	4926	464578	Tetrachloro-m-xylene	0.010000	492600	
8.46		273					
8.82		314					
8.97		1646					
9.54		279					
9.99	9.91 10.05	3106	14303	Aroclor-1016 Peak 1	0.200000	15530	
10.13		143					
10.27		294					
10.49		1004					
10.57		1331					
10.84		630					
10.90		400					
11.05		2517					
11.09	11.01 11.15	4532	20883	Aroclor-1016 Peak 2	0.200000	22655	
11.39	11.31 11.45	2847	13011	Aroclor-1016 Peak 3	0.200000	14235	
11.49		129					
11.63		1892					
11.70		535					
11.86		1604					
11.96		1647					
12.05		1286					
12.32		186					
12.46	12.39 12.53	2200	10068	Aroclor-1016 Peak 4	0.200000	10995	
12.55		1281					
12.73		2681					
12.92		101					
13.06		626					
13.17		630					
13.31		989					
13.40	13.32 13.46	2089	9596	Aroclor-1016 Peak 5	0.200000	10440	
13.56		95					
13.69		250					
13.82		1954					
13.90		98					
14.00		100					
14.56		292					

CompuChem

Lab Smp Id : AR16602UH Client Smp Id : AR16602UH
Sample Type : INITIAL CAL: Level 2 Sublist : INDA
Inj Date : 20-MAR-2009 22:19 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.73		817					
14.81		923					
14.89		3516					
15.00		711					
15.03		1005					
15.23	15.15 15.29	5244	23763	Aroclor-1260 Peak 1	0.200000	26215	
15.30		439					
15.39		89					
15.54		1503					
15.68	15.60 15.74	8470	39276	Aroclor-1260 Peak 2	0.200000	42350	
15.98		1428					
16.02		5515					
16.23		727					
16.30		199					
16.39		3366					
16.44		6432					
16.55		296					
16.63	16.56 16.70	6555	30554	Aroclor-1260 Peak 3	0.200000	32770	
16.75		3559					
16.98		1289					
17.19		422					
17.25	17.18 17.32	5704	26403	Aroclor-1260 Peak 4	0.200000	28515	
17.40		3060					
17.46		395					
17.52		2046					
17.63		1309					
17.78	17.71 17.85	12766	60269	Aroclor-1260 Peak 5	0.200000	63830	
17.92		261					
18.05		525					
18.41		199					
18.55		8832					
18.63		2113					
18.67		1774					
19.06		198					
19.16		289					
19.37		123					
19.42		1434					
19.76		3284					
19.83		171					
20.44		863					
21.02	20.94 21.08	8960	413792	Decachlorobiphenyl	0.020000	447950	

Data File: /chem/tracegc87.i/f090320.b/015fAR16603UH.d

Date : 20-MAR-2009 22:48

Client ID: AR16603UH

Instrument: tracegc87.i

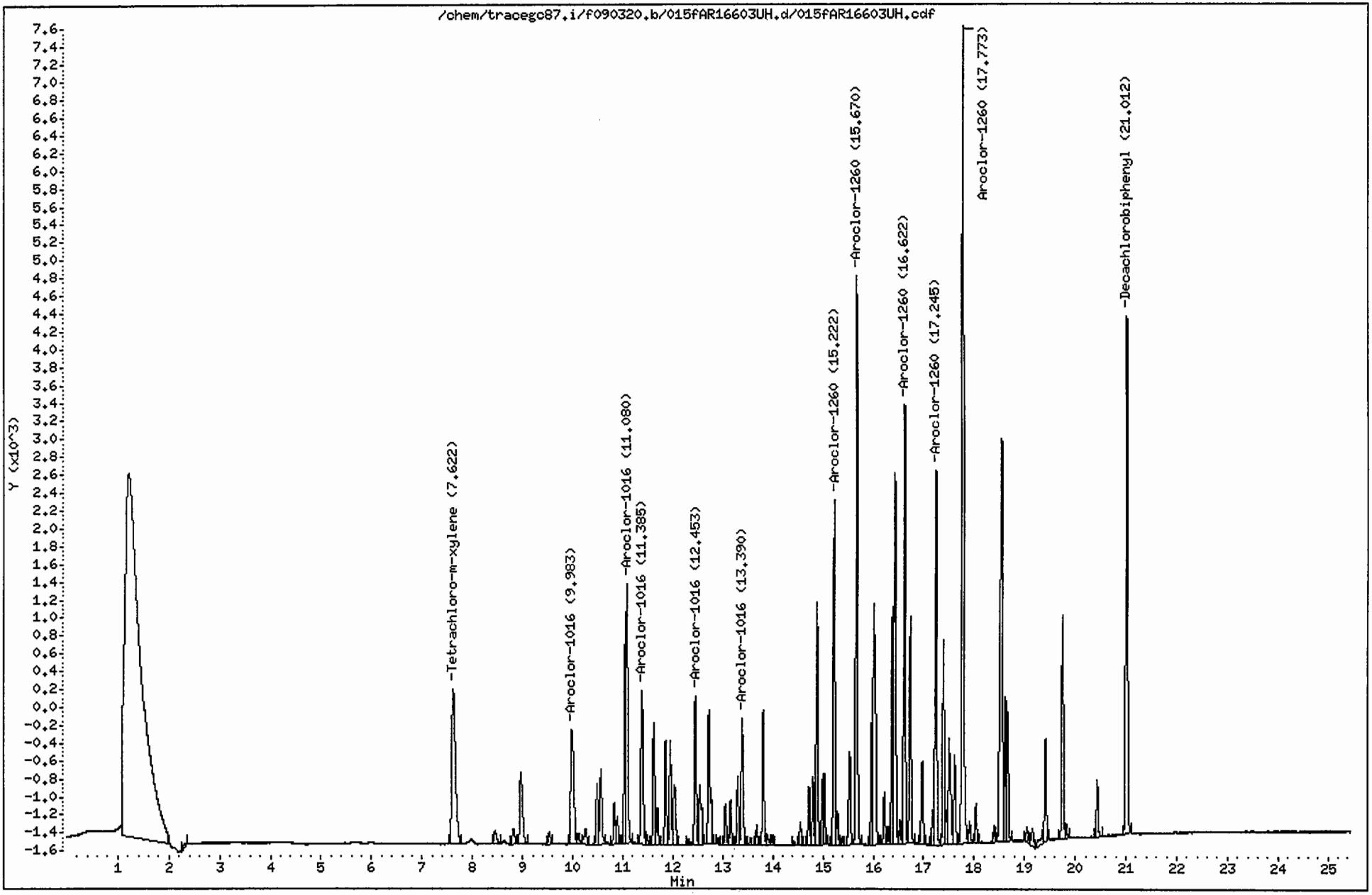
Sample Info: AR16603UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16603UH Client Smp Id : AR16603UH
Sample Type : INITIAL CAL: Level 3 Sublist : INDA
Inj Date : 20-MAR-2009 22:48 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.22		89583					
2.33		183					
7.62	7.55 7.69	8839	464578	Tetrachloro-m-xylene	0.020000	441900	
8.45		517					
8.82		570					
8.97		2961					
9.53		375					
9.98	9.91 10.05	5506	14303	Aroclor-1016 Peak 1	0.400000	13765	
10.12		293					
10.26		607					
10.48		1782					
10.56		2326					
10.83		1137					
10.89		757					
11.04		4466					
11.08	11.01 11.15	7886	20883	Aroclor-1016 Peak 2	0.400000	19713	
11.38	11.31 11.45	5089	13011	Aroclor-1016 Peak 3	0.400000	12720	
11.48		231					
11.62		3351					
11.69		959					
11.86		2787					
11.95		2901					
12.04		2262					
12.31		181					
12.45	12.39 12.53	3852	10068	Aroclor-1016 Peak 4	0.400000	9627.500	
12.54		2276					
12.73		4624					
12.91		167					
13.05		1125					
13.16		1124					
13.30		1760					
13.39	13.32 13.46	3684	9596	Aroclor-1016 Peak 5	0.400000	9210.000	
13.55		179					
13.68		481					
13.81		3485					
13.90		366					
13.99		222					
14.43		110					
14.55		578					
14.72		1454					
14.80		1656					
14.88		6152					

CompuChem

Lab Smp Id : AR16603UH Client Smp Id : AR16603UH
Sample Type : INITIAL CAL: Level 3 Sublist : INDA
Inj Date : 20-MAR-2009 22:48 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
14.99		1397					
15.02		1692					
15.22	15.15 15.29	9021	23763	Aroclor-1260 Peak 1	0.400000	22550	
15.29		814					
15.38		172					
15.54		2684					
15.67	15.60 15.74	14720	39276	Aroclor-1260 Peak 2	0.400000	36800	
15.97		2464					
16.02		9720					
16.22		1311					
16.30		375					
16.39		6028					
16.43		11174					
16.54		575					
16.62	16.56 16.70	11544	30554	Aroclor-1260 Peak 3	0.400000	28857	
16.74		5912					
16.98		2332					
17.18		782					
17.24	17.18 17.32	10035	26403	Aroclor-1260 Peak 4	0.400000	25085	
17.39		5482					
17.45		728					
17.51		3774					
17.62		2429					
17.77	17.71 17.85	22740	60269	Aroclor-1260 Peak 5	0.400000	56847	
17.92		587					
18.04		958					
18.41		370					
18.55		15558					
18.63		3660					
18.66		3203					
19.05		407					
19.16		627					
19.36		606					
19.41		2691					
19.75		5826					
19.82		334					
20.43		1488					
21.01	20.94 21.08	15544	413792	Decachlorobiphenyl	0.040000	388575	

Data File: /chem/tracegc87.i/f090320.b/016fAR16604UH.d

Date : 20-MAR-2009 23:17

Client ID: AR16604UH

Instrument: tracegc87.i

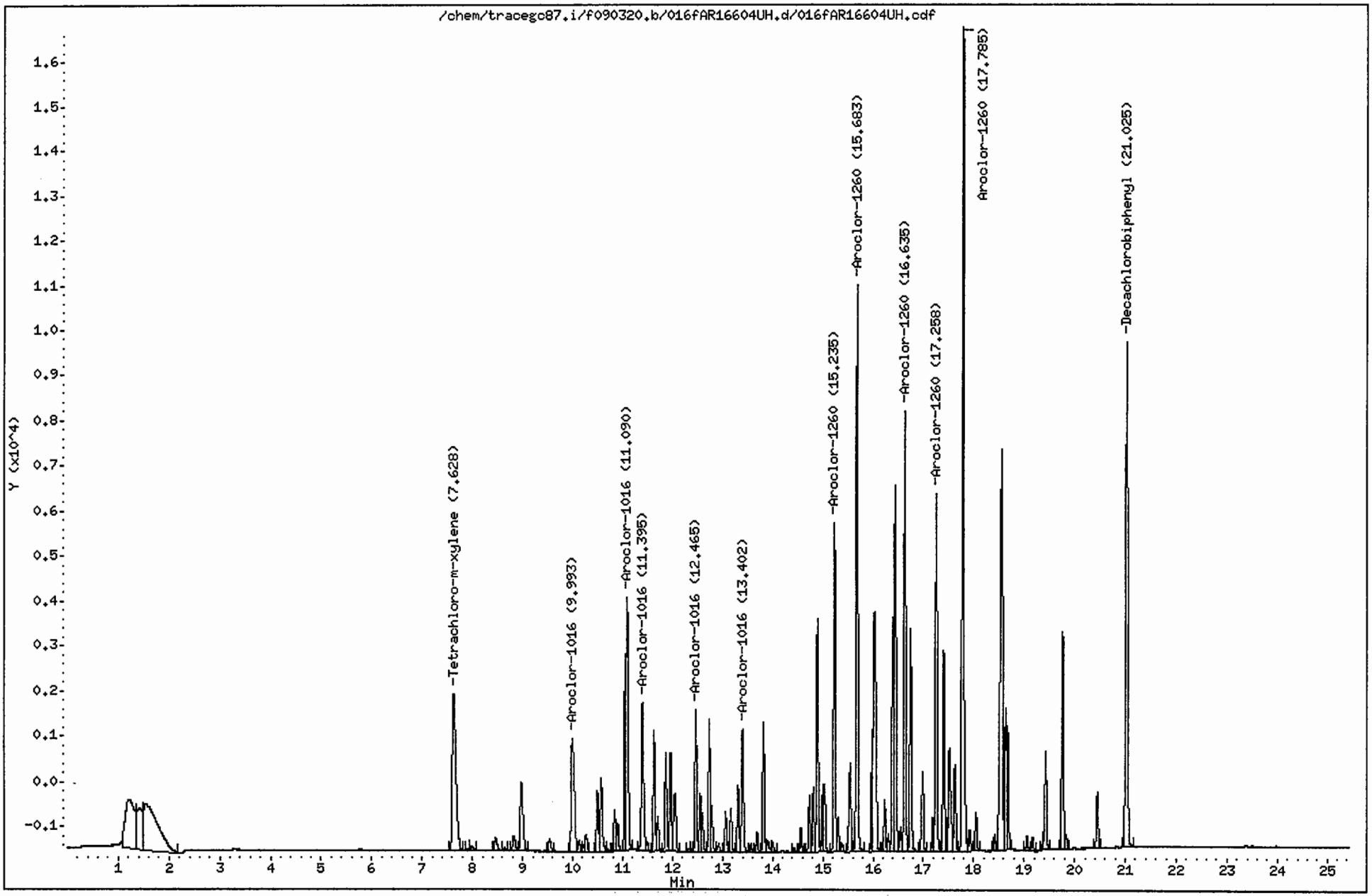
Sample Info: AR16604UH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR16604UH Client Smp Id : AR16604UH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 20-MAR-2009 23:17 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.21		14097					
1.42		7072					
1.55		19500					
7.63	7.55 7.69	17663	464578	Tetrachloro-m-xylene	0.040000	441550	
7.92		101					
7.99		382					
8.46		1073					
8.64		185					
8.82		1174					
8.98		5795					
9.54		818					
9.99	9.91 10.05	10639	14303	Aroclor-1016 Peak 1	0.800000	13299	
10.13		667					
10.23		275					
10.27		1034					
10.50		3560					
10.57		4675					
10.69		106					
10.84		2281					
10.90		1510					
11.05		8350					
11.09	11.01 11.15	15309	20883	Aroclor-1016 Peak 2	0.800000	19136	
11.40	11.31 11.45	9822	13011	Aroclor-1016 Peak 3	0.800000	12277	
11.49		461					
11.63		6476					
11.70		1885					
11.87		5197					
11.96		5531					
12.05		4457					
12.32		147					
12.37		183					
12.46	12.39 12.53	7493	10068	Aroclor-1016 Peak 4	0.800000	9365.000	
12.55		3080					
12.59		1895					
12.74		7449					
12.79		2110					
12.92		497					
13.06		2269					
13.17		2269					
13.31		3490					
13.40	13.32 13.46	7113	9596	Aroclor-1016 Peak 5	0.800000	8890.000	
13.57		384					

CompuChem

Lab Smp Id : AR16604UH Client Smp Id : AR16604UH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 20-MAR-2009 23:17 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
13.69		1005					
13.82		6652					
13.91		736					
14.01		503					
14.44		199					
14.56		1108					
14.74		2878					
14.81		3290					
14.89		11943					
15.01		2870					
15.04		3347					
15.24	15.15 15.29	17230	23763	Aroclor-1260 Peak 1	0.800000	21537	
15.30		1674					
15.39		364					
15.55		5330					
15.68	15.60 15.74	29081	39276	Aroclor-1260 Peak 2	0.800000	36351	
15.99		4839					
16.03		18705					
16.23		2617					
16.31		813					
16.40		11602					
16.44		21978					
16.55		1237					
16.64	16.56 16.70	22648	30554	Aroclor-1260 Peak 3	0.800000	28309	
16.75		11894					
16.99		4645					
17.20		1541					
17.26	17.18 17.32	19475	26403	Aroclor-1260 Peak 4	0.800000	24344	
17.41		10503					
17.47		1504					
17.52		7374					
17.63		4799					
17.78	17.71 17.85	45332	60269	Aroclor-1260 Peak 5	0.800000	56664	
17.93		1203					
18.05		1935					
18.42		757					
18.56		30454					
18.64		7288					
18.68		6125					
19.06		665					
19.17		730					
19.38		386					

CompuChem

Lab Smp Id : AR16604UH Client Smp Id : AR16604UH
Sample Type : INITIAL CAL: Level 4 Sublist : INDA
Inj Date : 20-MAR-2009 23:17 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
19.43		5159					
19.76		11378					
19.84		688					
20.45		2906					
21.02	20.94 21.08	30255	413792	Decachlorobiphenyl	0.080000	378187	

CompuChem

Lab Smp Id : AR16605UH Client Smp Id : AR16605UH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 20-MAR-2009 23:46 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
1.20		46429					
1.53		22305					
2.31		78					
5.97		2724					
7.62	7.55 7.69	34788	464578	Tetrachloro-m-xylene	0.080000	434837	
7.92		229					
7.98		883					
8.45		2137					
8.63		603					
8.81		2275					
8.97		11055					
9.53		1405					
9.98	9.91 10.05	20083	14303	Aroclor-1016 Peak 1	1.600000	12551	
10.12		1424					
10.26		2630					
10.49		6729					
10.56		8739					
10.69		202					
10.83		4251					
10.89		3026					
11.04		15524					
11.08	11.01 11.15	29393	20883	Aroclor-1016 Peak 2	1.600000	18371	
11.38	11.31 11.45	18278	13011	Aroclor-1016 Peak 3	1.600000	11424	
11.48		928					
11.62		12344					
11.69		3602					
11.86		9615					
11.95		10298					
12.04		8333					
12.31		3213					
12.46	12.39 12.53	14050	10068	Aroclor-1016 Peak 4	1.600000	8781.250	
12.54		5782					
12.58		4415					
12.73		14389					
12.77		4237					
12.91		1779					
13.05		4647					
13.16		4742					
13.30		6668					
13.39	13.32 13.46	13042	9596	Aroclor-1016 Peak 5	1.600000	8150.625	
13.56		508					
13.68		1701					

CompuChem

Lab Smp Id : AR16605UH Client Smp Id : AR16605UH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 20-MAR-2009 23:46 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
13.81		12114					
13.89		1353					
13.99		964					
14.42		434					
14.55		2249					
14.72		5210					
14.80		6040					
14.88		21985					
14.99		5014					
15.03		5473					
15.22	15.15 15.29	31923	23763	Aroclor-1260 Peak 1	1.600000	19951	
15.29		3202					
15.38		744					
15.54		9953					
15.67	15.60 15.74	55978	39276	Aroclor-1260 Peak 2	1.600000	34986	
15.97		8530					
16.02		35683					
16.22		5028					
16.30		1632					
16.39		22162					
16.43		41377					
16.54		2431					
16.62	16.56 16.70	43035	30554	Aroclor-1260 Peak 3	1.600000	26896	
16.74		22421					
16.98		8830					
17.18		2980					
17.25	17.18 17.32	36626	26403	Aroclor-1260 Peak 4	1.600000	22891	
17.39		19688					
17.45		2737					
17.51		13918					
17.62		8959					
17.77	17.71 17.85	87540	60269	Aroclor-1260 Peak 5	1.600000	54712	
17.91		2291					
18.04		3721					
18.41		1497					
18.54		58205					
18.62		13446					
18.66		11934					
19.05		1309					
19.16		1284					
19.36		747					
19.41		9721					

CompuChem

Lab Smp Id : AR16605UH Client Smp Id : AR16605UH
Sample Type : INITIAL CAL: Level 5 Sublist : INDA
Inj Date : 20-MAR-2009 23:46 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
19.75		21562					
19.82		1380					
20.43		5510					
20.82		101					
21.01	20.94 21.08	57321	413792	Decachlorobiphenyl	0.160000	358250	
23.36		127					

Data File: /chem/tracegc87.i/f090320.b/018fPCBCHKUH.d

Date : 21-MAR-2009 00:14

Client ID: PCBCHKUH

Instrument: tracegc87.i

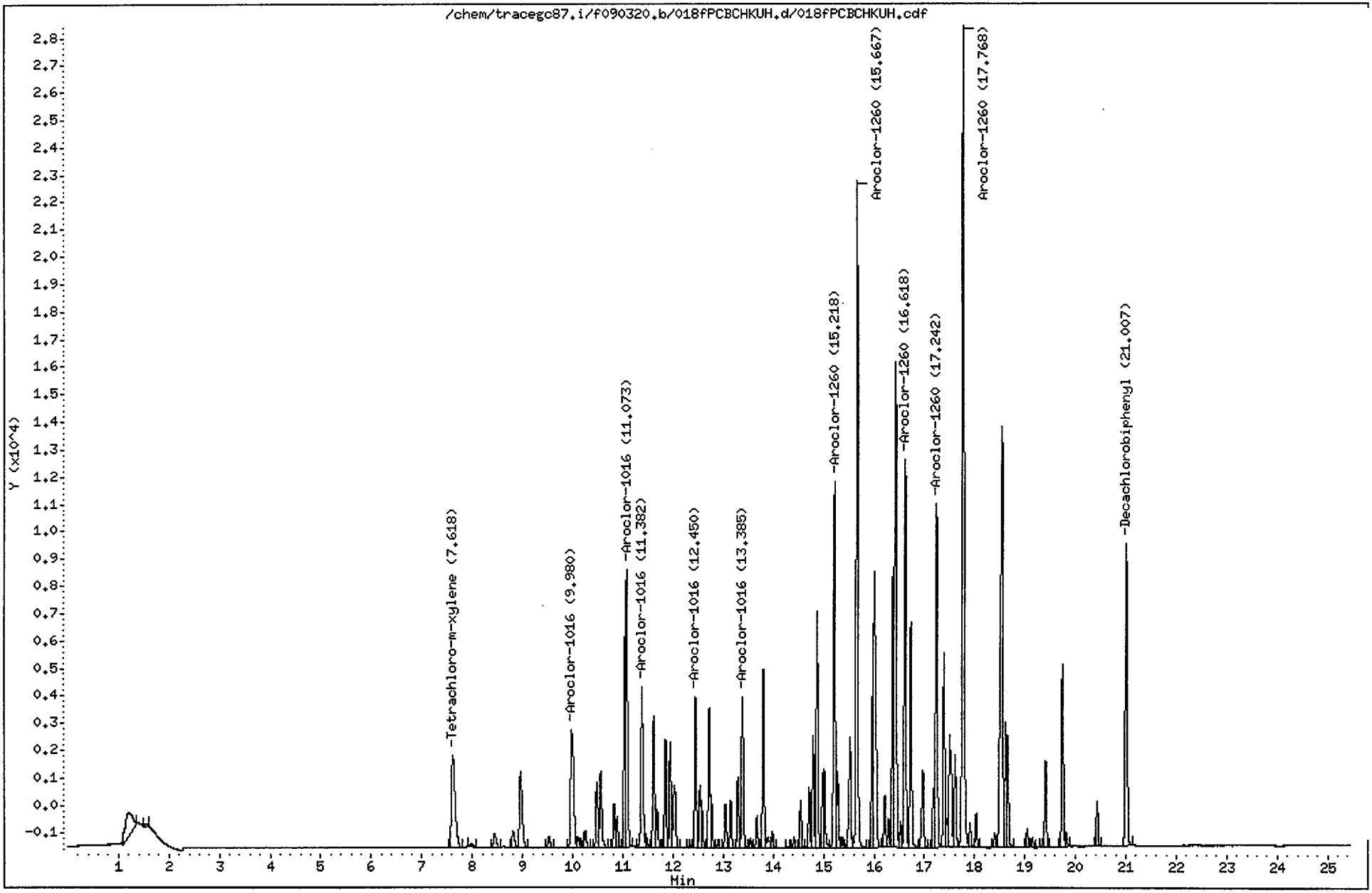
Sample Info: PCBCHKUH

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PCBCHKUH Client Smp Id : PCBCHKUH
Sample Type : QCCHECK Sublist : INDA
Inj Date : 21-MAR-2009 00:14 Inst ID : TRACEGC87
Operator : 2646 Spike Sublist : AR1660chk
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	AREA
1.21	8611
1.54	308
7.62	17225
7.98	475
8.45	2014
8.81	2186
8.96	10428
9.53	1341
9.98	18826
10.11	1304
10.21	541
10.26	1922
10.48	6324
10.56	8244
10.82	4042
10.88	2854
11.04	14948
11.07	27618
11.38	17481
11.48	873
11.62	11710
11.69	3408
11.85	9577
11.95	9867
12.03	7868
12.31	133
12.36	276
12.45	13251
12.54	5399
12.58	3441
12.72	13261
12.77	3643
12.91	816
13.05	4046
13.15	4026
13.30	6214
13.38	14339
13.55	733
13.68	2739
13.80	15352
13.89	1632
13.99	1501
14.29	113
14.42	966
14.55	3977

3/24/09

CompuChem

Lab Smp Id : PCBCHKUH Client Smp Id : PCBCHKUH
Sample Type : QCCHECK Sublist : INDA
Inj Date : 21-MAR-2009 00:14 Inst ID :
Operator : 2646 Spike Sublist : AR1660chk
Method : /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc. Info : None

RT	AREA
14.72	5221
14.80	9474
14.88	20209
14.99	5514
15.02	6704
15.22	31409
15.29	6477
15.38	873
15.46	202
15.53	11232
15.67	55967
15.97	10175
16.01	34032
16.22	4659
16.29	2333
16.38	22124
16.43	47195
16.54	2262
16.62	34370
16.73	19445
16.97	8280
17.18	4681
17.24	30286
17.39	16726
17.45	1913
17.50	15224
17.61	8077
17.77	74298
17.91	2043
18.04	2729
18.40	1166
18.54	51107
18.62	10545
18.66	9159
19.05	1547
19.15	950
19.36	508
19.41	7637
19.75	16062
19.82	1101
20.43	3885
21.01	29591

CompuChem

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: PCBCHKUH
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: AR1660chk.spk
Sublist File: INDA.sub
Method File: /chem/tracegc87.i/f090320.b/8082_clpest2v7.m
Misc Info: None

Client SDG: f090320
Fraction: PEST
Client Smp ID: PCBCHKUH
Operator: 2646
SampleType: QCCHECK
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
2 Aroclor-1016	1.5	1.4	93.33	80-120
8 Aroclor-1260	1.5	1.3	86.67	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 9 Decachlorobiphenyl	0.12	0.072	59.59	43-144
$ 1 Tetrachloro-m-xyle	0.060	0.037	61.79	43-135

Data File: /chem/tracegc86.i/f090320zh.b/259fAR1660WX.d

Page 1

Date : 18-APR-2009 16:55

Client ID: AR1660WX

Instrument: tracegc86.i

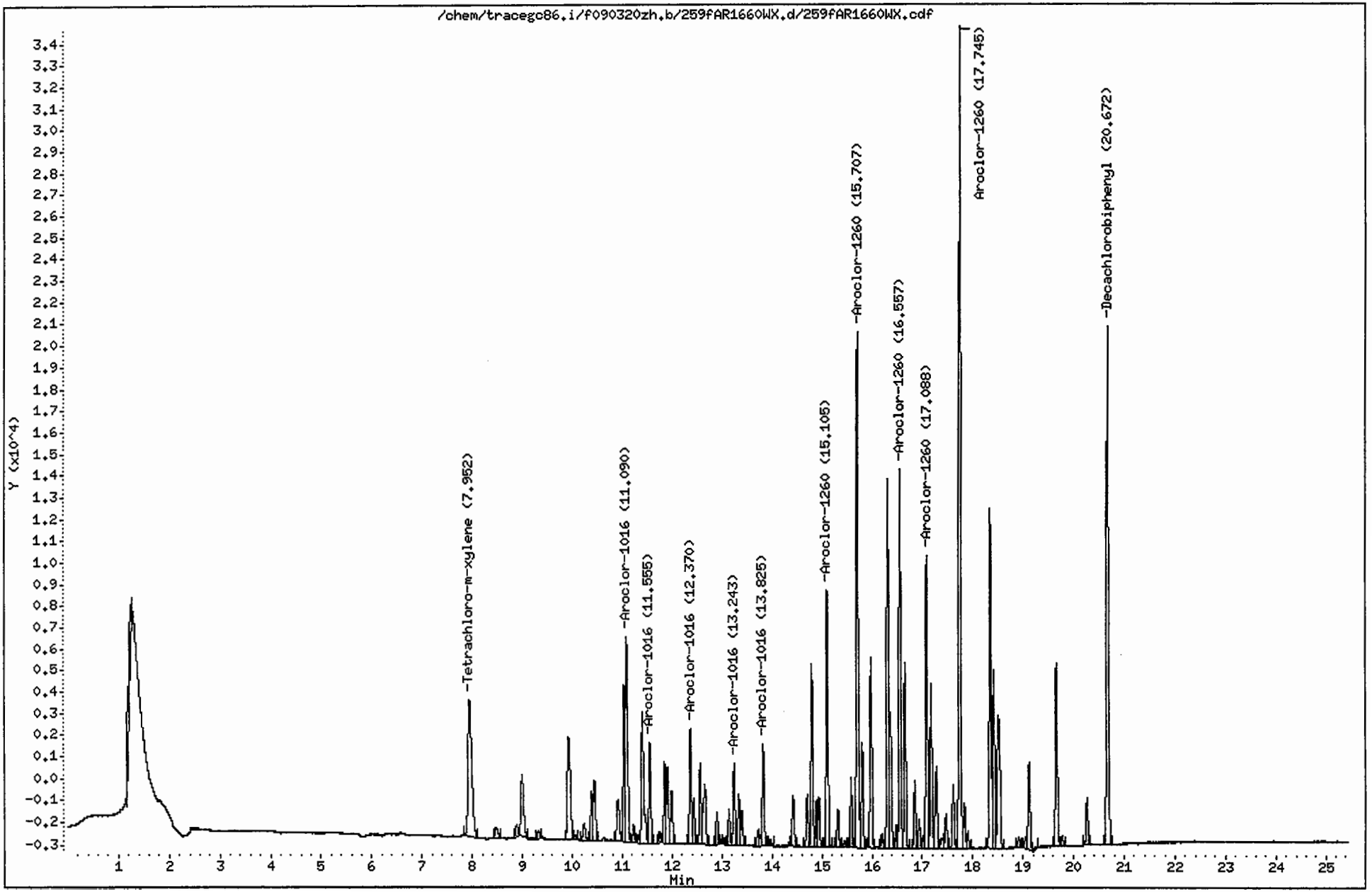
Sample Info: AR1660WX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660WX Client Smp Id : AR1660WX
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 16:55 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.26			11728								
7.95	7.87	8.01	32518	1736635	Tetrachloro-m-xylene	0.020000	1625903	6.4	15.0		
8.48			1814								
8.88			1614								
8.99			10601								
9.32			1029								
9.93			19419								
10.05			523								
10.23			2422								
10.39			5995								
10.44			8351								
10.91			6498								
11.04			17687								
11.09	11.01	11.15	26844	72832	Aroclor-1016 Peak 1	0.400000	67109	7.9	15.0		
11.22			2076								
11.32			921								
11.40			19380								
11.56	11.47	11.61	12113	32300	Aroclor-1016 Peak 2	0.400000	30282	6.2	15.0		
11.75			1264								
11.85			8937								
11.91			9007								
11.99			7018								
12.37	12.29	12.43	13401	36022	Aroclor-1016 Peak 3	0.400000	33502	7.0	15.0		
12.43			4841								
12.57			9000								
12.66			10515								
12.90			3312								
12.97			385								
13.04			656								
13.14			3744								
13.24	13.15	13.29	9055	24795	Aroclor-1016 Peak 4	0.400000	22637	8.7	15.0		
13.34			5860								
13.40			3790								
13.71			1687								
13.77			973								
13.82	13.74	13.88	11483	31269	Aroclor-1016 Peak 5	0.400000	28706	8.2	15.0		
13.97			634								
14.42			6330								
14.71			5613								
14.80			19935								
14.89			4831								
14.94			5271								

CompuChem

Lab Smp Id : AR1660WX Client Smp Id : AR1660WX
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 16:55 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
15.10	15.02 15.16	28472	78830	Aroclor-1260 Peak 1	0.400000	71181	9.7	15.0		
15.32		4355								
15.46		943								
15.58		7416								
15.71	15.62 15.76	61001	172520	Aroclor-1260 Peak 2	0.400000	152502	11.6	15.0		
15.80		11555								
15.98		22632								
16.19		1434								
16.31		45034								
16.37		14808								
16.49		2325								
16.56	16.47 16.61	41111	112543	Aroclor-1260 Peak 3	0.400000	102778	8.7	15.0		
16.66		20191								
16.85		7256								
16.94		3087								
17.02		1175								
17.09	17.00 17.14	33420	90796	Aroclor-1260 Peak 4	0.400000	83550	8.0	15.0		
17.18		18106								
17.28		11076								
17.37		1652								
17.47		3819								
17.61		6882								
17.74	17.66 17.80	87836	243507	Aroclor-1260 Peak 5	0.400000	219591	9.8	15.0		
17.84		4927								
17.91		1679								
18.35		39102								
18.42		20035								
18.51		23371								
18.91		1122								
19.05		1300								
19.12		10975								
19.28		283								
19.66		20930								
19.77		1087								
20.26		5250								
20.67	20.58 20.72	61150	1636434	Decachlorobiphenyl	0.040000	1528750	6.6	15.0		

Data File: /chem/tracegc87.i/f090320zh.b/259fAR1660WX.d

Date : 18-APR-2009 16:55

Client ID: AR1660WX

Instrument: tracegc87.i

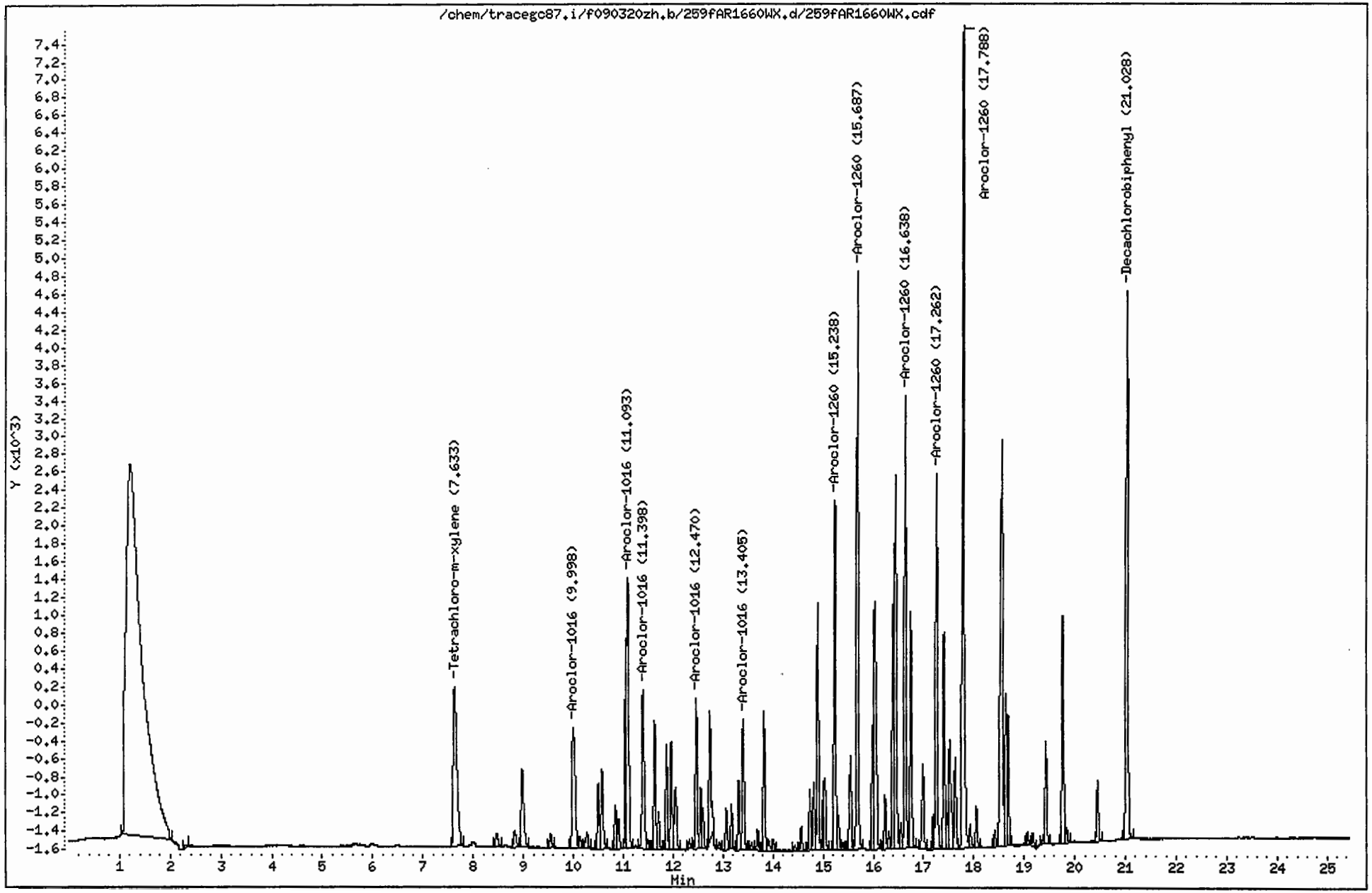
Sample Info: AR1660WX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660WX Client Smp Id : AR1660WX
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 16:55 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.21		89780								
2.31		70								
7.63	7.56 7.70	9034	464578	Tetrachloro-m-xylene	0.020000	451695	2.8	15.0		
8.47		551								
8.83		613								
8.98		3085								
9.54		432								
10.00	9.92 10.06	5727	14303	Aroclor-1016 Peak 1	0.400000	14318	-0.1	15.0		
10.13		313								
10.28		609								
10.50		1843								
10.58		2425								
10.84		1203								
10.90		794								
11.06		4442								
11.09	11.02 11.16	8188	20883	Aroclor-1016 Peak 2	0.400000	20470	2.0	15.0		
11.40	11.32 11.46	5193	13011	Aroclor-1016 Peak 3	0.400000	12982	0.2	15.0		
11.50		233								
11.63		3453								
11.71		976								
11.87		2787								
11.96		2957								
12.05		2306								
12.33		202								
12.47	12.39 12.53	3912	10068	Aroclor-1016 Peak 4	0.400000	9778.875	2.9	15.0		
12.56		1538								
12.60		925								
12.74		3971								
12.93		177								
13.07		1124								
13.17		1086								
13.32		1809								
13.40	13.33 13.47	3736	9596	Aroclor-1016 Peak 5	0.400000	9340.375	2.7	15.0		
13.57		190								
13.70		494								
13.82		3531								
13.91		378								
14.01		249								
14.44		134								
14.57		585								
14.74		1495								
14.82		1687								

CompuChem

Lab Smp Id : AR1660WX Client Smp Id : AR1660WX
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 16:55 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
14.90		6295								
15.01		1428								
15.04		1730								
15.24	15.16 15.30	9137	23763	Aroclor-1260 Peak 1	0.400000	22842	3.9	15.0		
15.31		878								
15.40		193								
15.55		2763								
15.69	15.61 15.75	15052	39276	Aroclor-1260 Peak 2	0.400000	37630	4.2	15.0		
15.99		2524								
16.03		9902								
16.24		1354								
16.31		393								
16.40		6233								
16.45		11377								
16.55		626								
16.64	16.56 16.70	11865	30554	Aroclor-1260 Peak 3	0.400000	29664	2.9	15.0		
16.75		6105								
16.99		2422								
17.20		791								
17.26	17.18 17.32	10189	26403	Aroclor-1260 Peak 4	0.400000	25471	3.5	15.0		
17.41		5569								
17.47		745								
17.52		3814								
17.64		2489								
17.79	17.71 17.85	23115	60269	Aroclor-1260 Peak 5	0.400000	57787	4.1	15.0		
17.93		677								
18.05		1008								
18.42		390								
18.56		15772								
18.64		3808								
18.68		3251								
19.07		297								
19.17		405								
19.30		77								
19.38		178								
19.43		2670								
19.77		6028								
19.84		364								
20.45		1558								
21.03	20.95 21.09	16498	413792	Decachlorobiphenyl	0.040000	412459	0.3	15.0		

Data File: /chem/tracegc86.i/f090320zi.b/270fAR1660WZ.d

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Date : 18-APR-2009 22:39

Client ID: AR1660WZ

Instrument: tracegc86.i

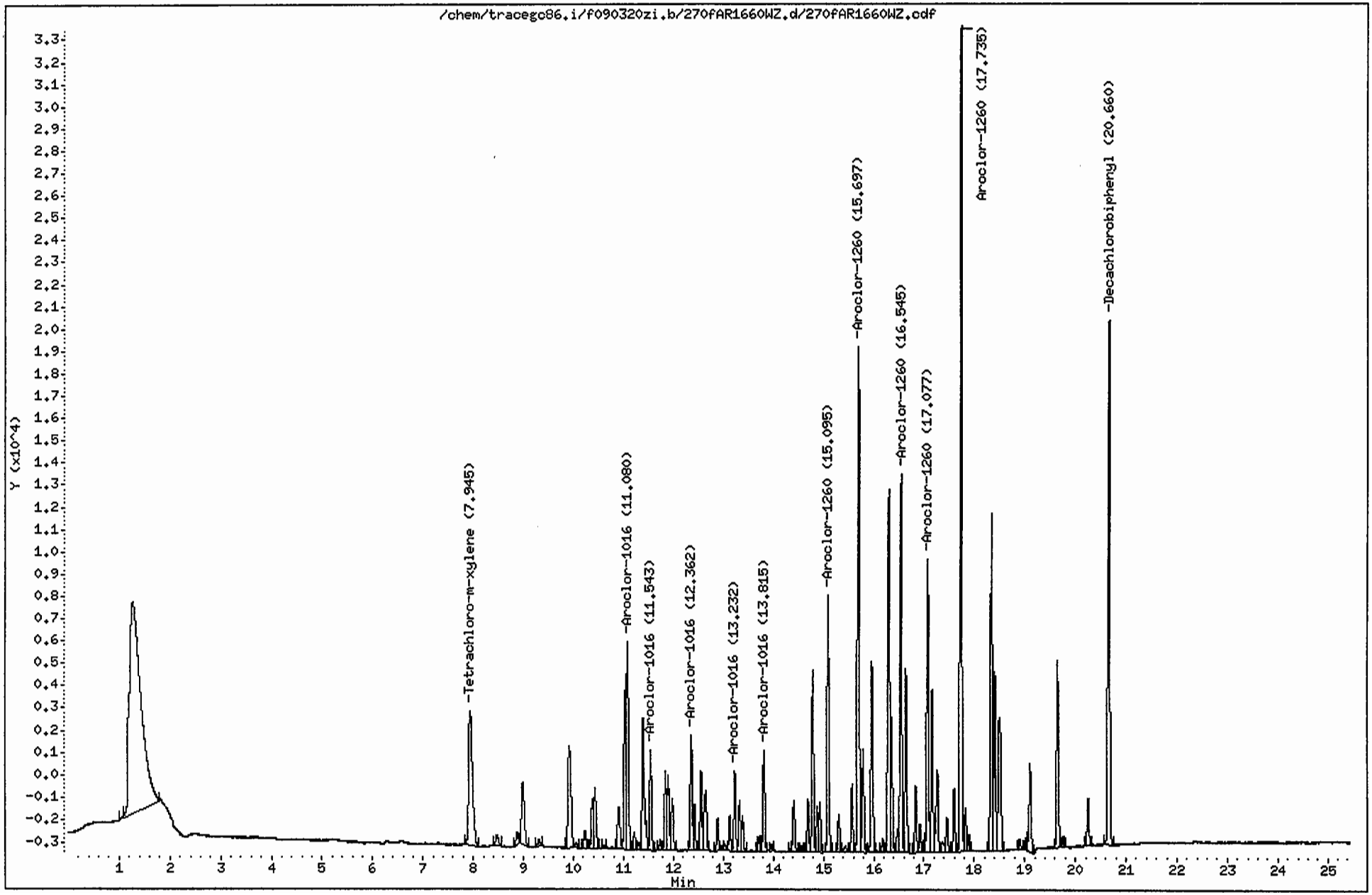
Sample Info: AR1660WZ

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660WZ Client Smp Id : AR1660WZ
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 22:39 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zi.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.09			331								
1.27			150749								
7.94	7.87	8.01	31426	1736635	Tetrachloro-m-xylene	0.020000	1571305	9.5	15.0		
8.47			1803								
8.87			1588								
8.98			10444								
9.31			974								
9.92			18905								
10.05			514								
10.23			2397								
10.37			5792								
10.43			8157								
10.61			314								
10.90			6491								
11.03			17170								
11.08	11.01	11.15	26073	72832	Aroclor-1016 Peak 1	0.400000	65181	10.5	15.0		
11.22			1978								
11.31			834								
11.39			18732								
11.54	11.47	11.61	11738	32300	Aroclor-1016 Peak 2	0.400000	29346	9.1	15.0		
11.74			1120								
11.84			8665								
11.90			8729								
11.98			6822								
12.36	12.29	12.43	12971	36022	Aroclor-1016 Peak 3	0.400000	32427	10.0	15.0		
12.42			4686								
12.55			8605								
12.65			10244								
12.89			3352								
12.96			443								
13.04			632								
13.13			3640								
13.23	13.15	13.29	8837	24795	Aroclor-1016 Peak 4	0.400000	22091	10.9	15.0		
13.32			5783								
13.39			3682								
13.71			1491								
13.75			978								
13.82	13.74	13.88	11078	31269	Aroclor-1016 Peak 5	0.400000	27695	11.4	15.0		
13.96			528								
14.33			298								
14.41			6271								
14.56			544								

CompuChem

Lab Smp Id : AR1660WZ Client Smp Id : AR1660WZ
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 22:39 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zi.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
14.70		5364								
14.79		19309								
14.88		4596								
14.93		5122								
15.10	15.02 15.16	27395	78830	Aroclor-1260 Peak 1	0.400000	68487	13.1	15.0		
15.31		4220								
15.44		881								
15.57		7101								
15.70	15.62 15.76	58665	172520	Aroclor-1260 Peak 2	0.400000	146662	15.0	15.0		
15.79		11175								
15.97		21902								
16.18		1338								
16.30		43393								
16.36		14297								
16.48		2200								
16.54	16.47 16.61	39497	112543	Aroclor-1260 Peak 3	0.400000	98744	12.3	15.0		
16.65		19410								
16.84		7020								
16.93		3007								
17.01		1164								
17.08	17.00 17.14	32364	90796	Aroclor-1260 Peak 4	0.400000	80910	10.9	15.0		
17.16		17623								
17.27		10800								
17.36		1672								
17.46		3778								
17.60		6670								
17.74	17.66 17.80	85360	243507	Aroclor-1260 Peak 5	0.400000	213401	12.4	15.0		
17.82		4681								
17.89		1607								
18.34		38034								
18.41		19441								
18.50		22623								
18.90		1022								
19.04		1239								
19.11		10766								
19.65		20347								
19.76		1085								
20.25		5067								
20.66	20.58 20.72	60289	1636434	Decachlorobiphenyl	0.040000	1507232	7.9	15.0		

Data File: /chem/tracegc87.i/f090320zi.b/270fAR1660WZ.d

Date : 18-APR-2009 22:39

Client ID: AR1660WZ

Instrument: tracegc87.i

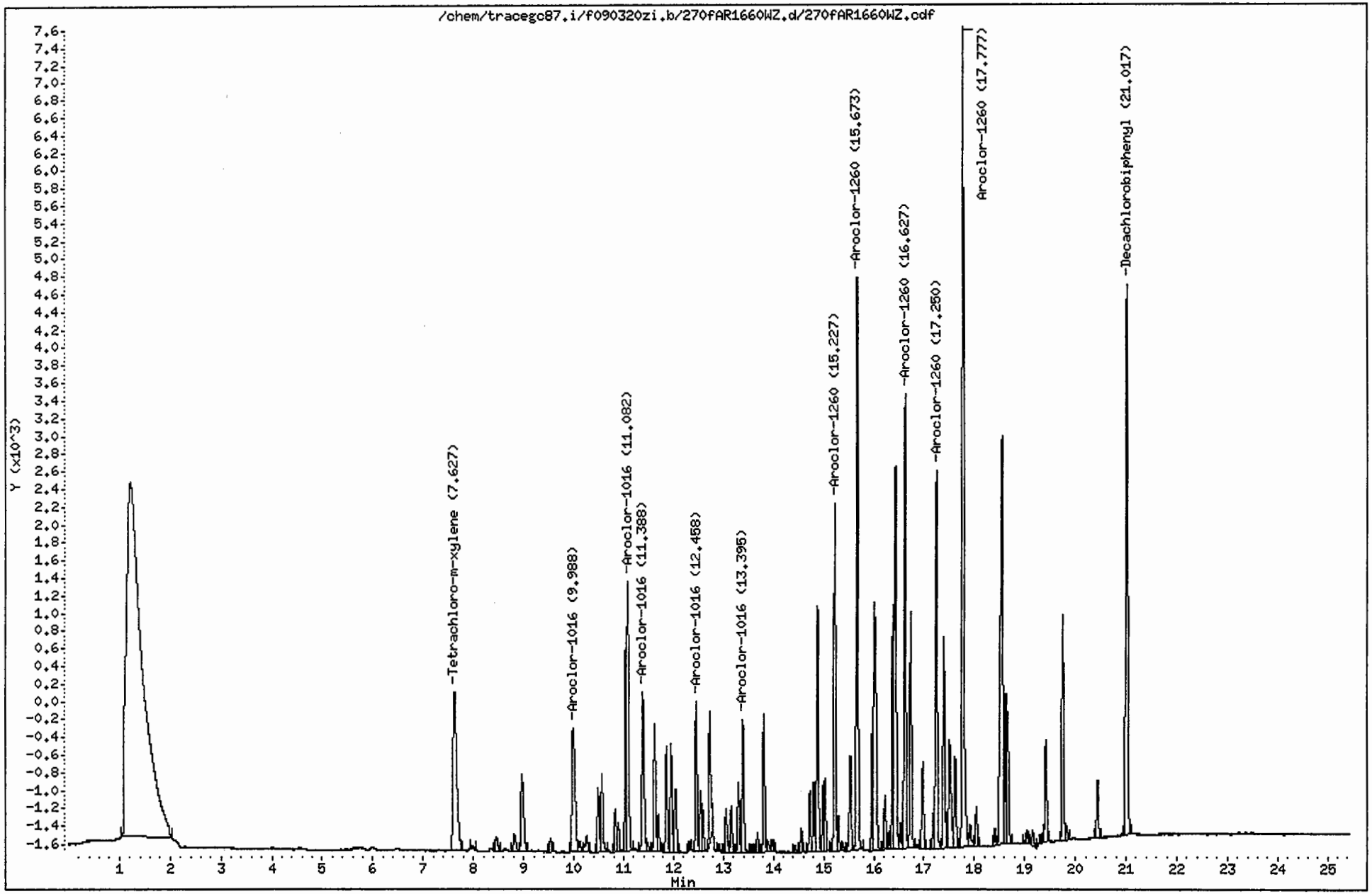
Sample Info: AR1660WZ

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660WZ Client Smp Id : AR1660WZ
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 22:39 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zi.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS
1.21		88002							
7.63	7.56 7.70	9179	464578	Tetrachloro-m-xylene	0.020000	458925	1.2	15.0	
7.98		149							
8.45		548							
8.82		635							
8.97		3183							
9.54		452							
9.99	9.92 10.06	5886	14303	Aroclor-1016 Peak 1	0.400000	14716	-2.9	15.0	
10.12		319							
10.26		616							
10.49		1881							
10.57		2448							
10.84		1216							
10.89		834							
11.05		4514							
11.08	11.02 11.16	8308	20883	Aroclor-1016 Peak 2	0.400000	20769	0.5	15.0	
11.39	11.32 11.46	5279	13011	Aroclor-1016 Peak 3	0.400000	13198	-1.4	15.0	
11.49		224							
11.63		3533							
11.70		995							
11.86		2835							
11.95		3014							
12.04		2350							
12.32		214							
12.46	12.39 12.53	3963	10068	Aroclor-1016 Peak 4	0.400000	9907.500	1.6	15.0	
12.55		1548							
12.59		985							
12.73		3967							
12.92		181							
13.06		1252							
13.16		1191							
13.30		1846							
13.40	13.33 13.47	3820	9596	Aroclor-1016 Peak 5	0.400000	9550.250	0.5	15.0	
13.56		182							
13.69		498							
13.81		3570							
13.90		350							
13.99		369							
14.43		195							
14.56		587							
14.73		1517							
14.81		1714							

14/19/09

CompuChem

Lab Smp Id : AR1660WZ Client Smp Id : AR1660WZ
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 18-APR-2009 22:39 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zi.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
14.89		6366								
15.00		1451								
15.03		1751								
15.23	15.16 15.30	9222	23763	Aroclor-1260 Peak 1	0.400000	23055	3.0	15.0		
15.29		887								
15.39		177								
15.54		2769								
15.67	15.61 15.75	15192	39276	Aroclor-1260 Peak 2	0.400000	37979	3.3	15.0		
15.98		2554								
16.02		10049								
16.23		1368								
16.30		397								
16.39		6088								
16.43		11813								
16.54		618								
16.63	16.56 16.70	12031	30554	Aroclor-1260 Peak 3	0.400000	30078	1.6	15.0		
16.74		6193								
16.98		2457								
17.19		801								
17.25	17.18 17.32	10301	26403	Aroclor-1260 Peak 4	0.400000	25753	2.5	15.0		
17.40		5657								
17.46		761								
17.51		3885								
17.62		2509								
17.78	17.71 17.85	23527	60269	Aroclor-1260 Peak 5	0.400000	58816	2.4	15.0		
17.92		708								
18.04		1010								
18.41		393								
18.55		16039								
18.63		3877								
18.67		3324								
19.00		62								
19.05		339								
19.16		452								
19.28		62								
19.37		196								
19.42		2726								
19.75		6040								
19.83		357								
20.44		1532								
21.02	20.95 21.09	16627	413792	Decachlorobiphenyl	0.040000	415663	-0.5	15.0		

Data File: /chem/tracegc86.i/f090320zk.b/295fAR1660XD.d

Date : 19-APR-2009 10:13

Client ID: AR1660XD

Instrument: tracegc86.i

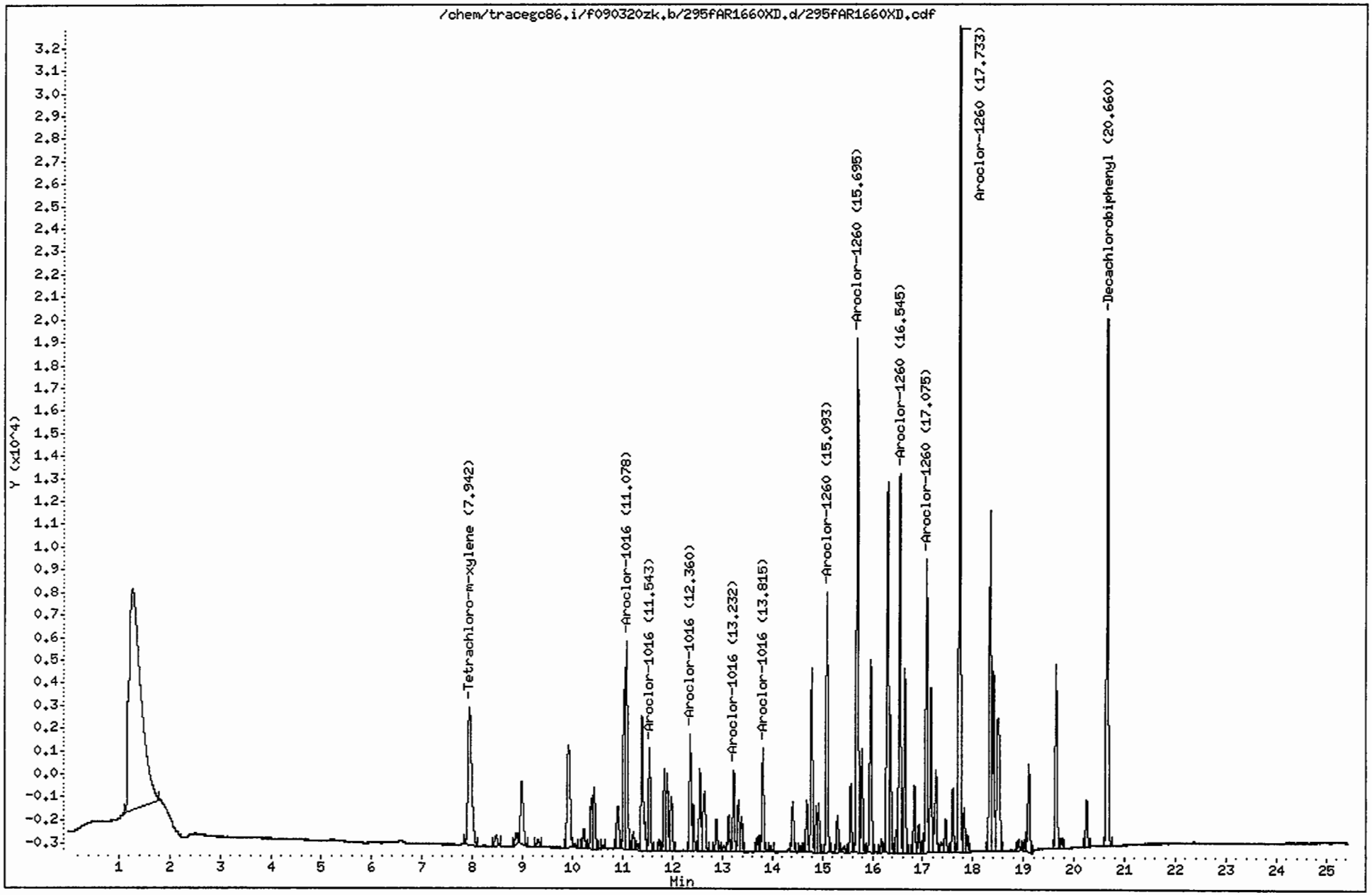
Sample Info: AR1660XD

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660XD Client Smp Id : AR1660XD
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 10:13 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.27			155610								
7.94	7.87	8.01	30868	1736635	Tetrachloro-m-xylene	0.020000	1543390	11.1	15.0		
8.47			1740								
8.87			1573								
8.98			10248								
9.31			1156								
9.92			18624								
10.05			536								
10.22			2565								
10.37			5689								
10.43			8079								
10.61			302								
10.90			6167								
11.03			16722								
11.08	11.01	11.15	25856	72832	Aroclor-1016 Peak 1	0.400000	64641	11.2	15.0		
11.21			1957								
11.30			730								
11.39			18468								
11.54	11.47	11.61	11548	32300	Aroclor-1016 Peak 2	0.400000	28870	10.6	15.0		
11.74			1080								
11.84			8539								
11.90			8691								
11.98			7001								
12.36	12.29	12.43	12781	36022	Aroclor-1016 Peak 3	0.400000	31952	11.3	15.0		
12.42			4677								
12.55			8676								
12.65			9998								
12.89			3386								
12.96			533								
13.04			637								
13.13			3601								
13.23	13.15	13.29	8730	24795	Aroclor-1016 Peak 4	0.400000	21826	12.0	15.0		
13.32			5632								
13.39			3626								
13.70			1463								
13.75			931								
13.82	13.74	13.88	10892	31269	Aroclor-1016 Peak 5	0.400000	27230	12.9	15.0		
13.96			620								
14.41			6007								
14.56			585								
14.69			5309								
14.79			19041								

CompuChem

Lab Smp Id : AR1660XD Client Smp Id : AR1660XD
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 10:13 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
14.88		4607								
14.93		4974								
15.09	15.02 15.16	27240	78830	Aroclor-1260 Peak 1	0.400000	68100	13.6	15.0		
15.30		4095								
15.44		845								
15.57		7000								
15.70	15.62 15.76	57982	172520	Aroclor-1260 Peak 2	0.400000	144956	16.0*	15.0	R	
15.79		11050								
15.97		21557								
16.18		1330								
16.30		42531								
16.36		14499								
16.47		2234								
16.54	16.47 16.61	39247	112543	Aroclor-1260 Peak 3	0.400000	98117	12.8	15.0		
16.64		19171								
16.84		6875								
16.92		2954								
17.00		1135								
17.08	17.00 17.14	31825	90796	Aroclor-1260 Peak 4	0.400000	79563	12.4	15.0		
17.16		17401								
17.27		10567								
17.36		1652								
17.46		3668								
17.60		6494								
17.73	17.66 17.80	84217	243507	Aroclor-1260 Peak 5	0.400000	210543	13.5	15.0		
17.82		4616								
17.89		1580								
18.34		37098								
18.41		19176								
18.50		22175								
18.90		1024								
19.04		1198								
19.11		10207								
19.65		19876								
19.76		1030								
20.25		4919								
20.66	20.58 20.72	58759	1636434	Decachlorobiphenyl	0.040000	1468983	10.2	15.0		

Data File: /chem/tracegc87.i/f090320zk.b/295fAR1660XD.d

Date : 19-APR-2009 10:13

Client ID: AR1660XD

Instrument: tracegc87.i

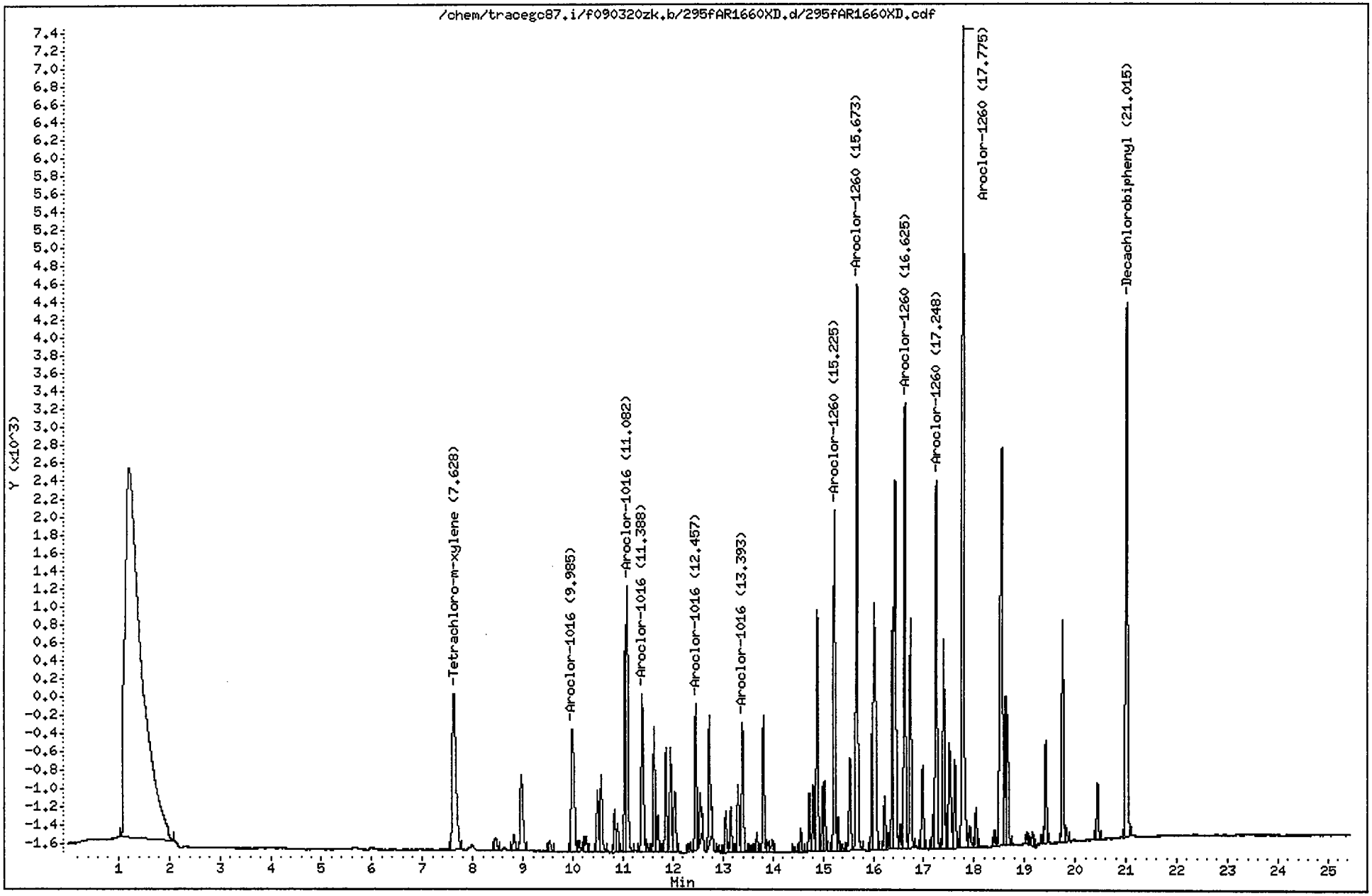
Sample Info: AR1660XD

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660XD Client Smp Id : AR1660XD
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 10:13 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.21		90846								
7.63	7.56 7.70	8779	464578	Tetrachloro-m-xylene	0.020000	438940	5.5	15.0		
8.45		529								
8.82		605								
8.97		3031								
9.53		363								
9.98	9.92 10.06	5593	14303	Aroclor-1016 Peak 1	0.400000	13983	2.2	15.0		
10.12		295								
10.22		120								
10.26		480								
10.49		1816								
10.56		2357								
10.83		1149								
10.89		769								
11.05		4595								
11.08	11.02 11.16	7783	20883	Aroclor-1016 Peak 2	0.400000	19457	6.8	15.0		
11.39	11.32 11.46	5126	13011	Aroclor-1016 Peak 3	0.400000	12815	1.5	15.0		
11.48		236								
11.62		3374								
11.70		986								
11.86		2713								
11.95		2893								
12.04		2246								
12.32		178								
12.46	12.39 12.53	3678	10068	Aroclor-1016 Peak 4	0.400000	9196.125	8.7	15.0		
12.55		1465								
12.73		3901								
12.91		175								
13.06		1163								
13.16		1117								
13.30		1754								
13.39	13.33 13.47	3656	9596	Aroclor-1016 Peak 5	0.400000	9139.375	4.8	15.0		
13.56		185								
13.68		477								
13.81		3454								
13.90		307								
13.99		378								
14.43		161								
14.55		583								
14.73		1470								
14.81		1651								
14.88		6134								

CompuChem

Lab Smp Id : AR1660XD Client Smp Id : AR1660XD
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 10:13 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
15.00		1396								
15.03		1662								
15.22	15.16 15.30	8922	23763	Aroclor-1260 Peak 1	0.400000	22306	6.1	15.0		
15.29		843								
15.39		189								
15.54		2682								
15.67	15.61 15.75	14740	39276	Aroclor-1260 Peak 2	0.400000	36850	6.2	15.0		
15.98		2418								
16.02		9693								
16.23		1315								
16.30		367								
16.39		5851								
16.43		11339								
16.54		599								
16.62	16.56 16.70	11572	30554	Aroclor-1260 Peak 3	0.400000	28929	5.3	15.0		
16.74		5979								
16.98		2372								
17.18		767								
17.25	17.18 17.32	9920	26403	Aroclor-1260 Peak 4	0.400000	24800	6.1	15.0		
17.40		5445								
17.46		730								
17.51		3723								
17.62		2424								
17.78	17.71 17.85	22537	60269	Aroclor-1260 Peak 5	0.400000	56341	6.5	15.0		
17.92		684								
18.04		977								
18.41		383								
18.55		15424								
18.63		3739								
18.67		3182								
19.05		273								
19.16		385								
19.36		194								
19.42		2611								
19.75		5811								
19.83		371								
20.44		1486								
21.02	20.95 21.09	15979	413792	Decachlorobiphenyl	0.040000	399470	3.5	15.0		

Data File: /chem/tracegc86.i/f090320z1.b/308fAR1660XF.d

Page 1

Date : 19-APR-2009 16:44

Client ID: AR1660XF

Instrument: tracegc86.i

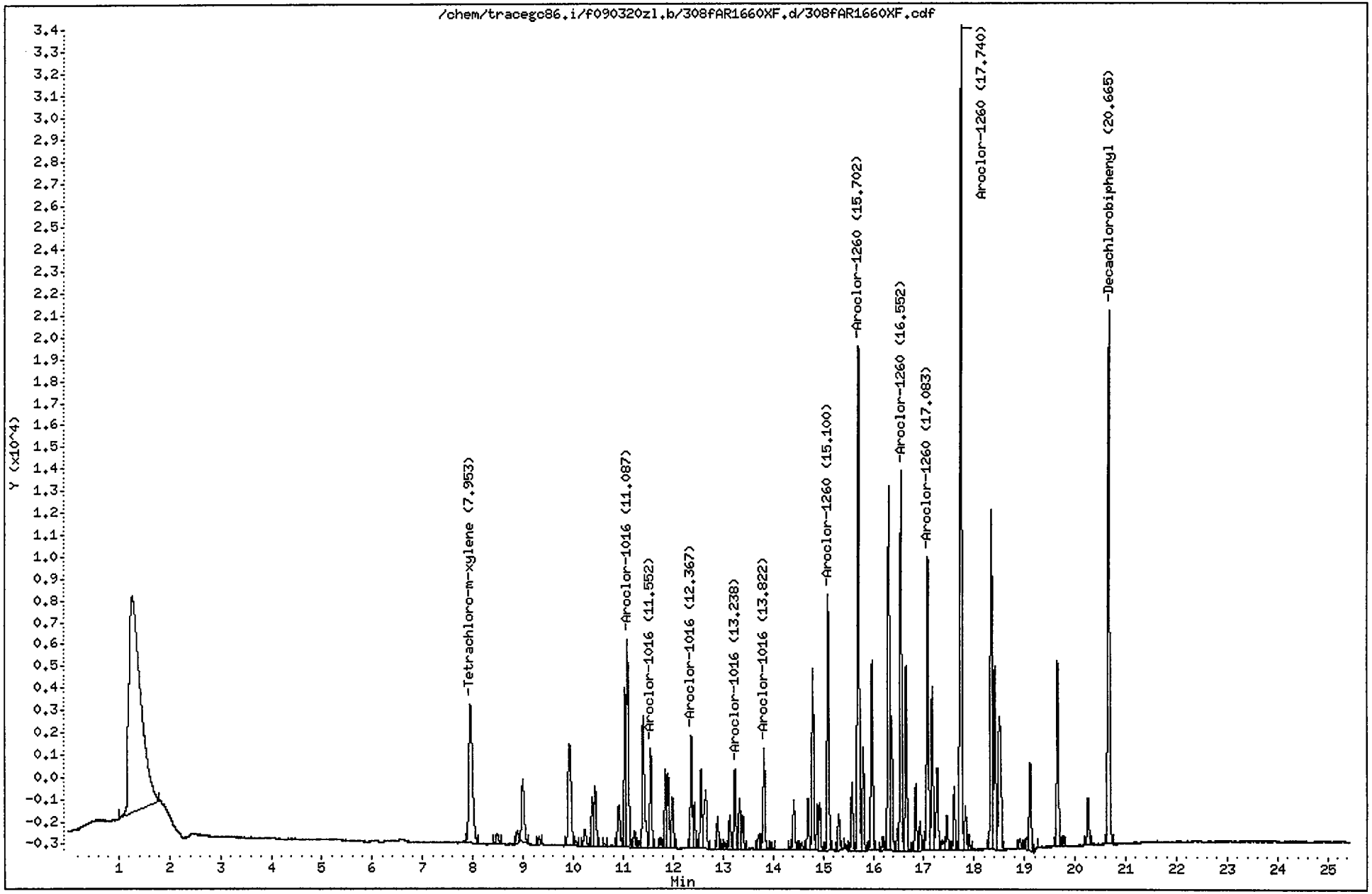
Sample Info: AR1660XF

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660XF Client Smp Id : AR1660XF
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 16:44 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zl.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.27		157085								
7.95	7.87 8.01	31233	1736635	Tetrachloro-m-xylene	0.020000	1561655	10.1	15.0		
8.48		1788								
8.88		1649								
8.99		10330								
9.32		1073								
9.93		18855								
10.05		522								
10.23		2468								
10.38		5749								
10.44		8114								
10.62		300								
10.91		6241								
11.04		17076								
11.09	11.01 11.15	26019	72832	Aroclor-1016 Peak 1	0.400000	65047	10.7	15.0		
11.22		1961								
11.32		740								
11.40		18754								
11.55	11.47 11.61	11749	32300	Aroclor-1016 Peak 2	0.400000	29373	9.1	15.0		
11.74		1120								
11.85		8550								
11.90		8908								
11.98		6918								
12.37	12.29 12.43	12958	36022	Aroclor-1016 Peak 3	0.400000	32395	10.1	15.0		
12.43		4821								
12.56		8740								
12.65		10168								
12.89		3395								
12.97		513								
13.04		644								
13.13		3701								
13.24	13.15 13.29	8833	24795	Aroclor-1016 Peak 4	0.400000	22084	10.9	15.0		
13.33		5822								
13.39		3662								
13.71		1564								
13.76		935								
13.82	13.74 13.88	11132	31269	Aroclor-1016 Peak 5	0.400000	27831	11.0	15.0		
13.97		619								
14.34		312								
14.41		6237								
14.57		708								
14.70		5388								

4/19/09

CompuChem

Lab Smp Id : AR1660XF Client Smp Id : AR1660XF
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 16:44 Inst ID :
Operator : 2646
Method : /chem/tracegc86.i/f090320zl.b/8082_clpestv7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
14.80		19420								
14.89		4705								
14.94		5101								
15.10	15.02 15.16	27772	78830	Aroclor-1260 Peak 1	0.400000	69429	11.9	15.0		
15.31		4226								
15.45		451								
15.58		7220								
15.70	15.62 15.76	59608	172520	Aroclor-1260 Peak 2	0.400000	149019	13.6	15.0		
15.80		11249								
15.97		22163								
16.19		1436								
16.31		43629								
16.36		14944								
16.48		2306								
16.55	16.47 16.61	40456	112543	Aroclor-1260 Peak 3	0.400000	101139	10.1	15.0		
16.65		19839								
16.84		7048								
16.93		3085								
17.01		1169								
17.08	17.00 17.14	32803	90796	Aroclor-1260 Peak 4	0.400000	82008	9.7	15.0		
17.17		17820								
17.27		10862								
17.37		1584								
17.46		3612								
17.61		6601								
17.74	17.66 17.80	86902	243507	Aroclor-1260 Peak 5	0.400000	217256	10.8	15.0		
17.83		4778								
17.90		1605								
18.35		38350								
18.41		20046								
18.50		22854								
18.91		1043								
19.05		1294								
19.11		10893								
19.27		319								
19.66		20607								
19.77		1071								
20.26		5120								
20.66	20.58 20.72	60906	1636434	Decachlorobiphenyl	0.040000	1522650	7.0	15.0		

Data File: /chem/tracegc87.i/f090320z1.b/308fAR1660XF.d

Date : 19-APR-2009 16:44

Client ID: AR1660XF

Instrument: tracegc87.i

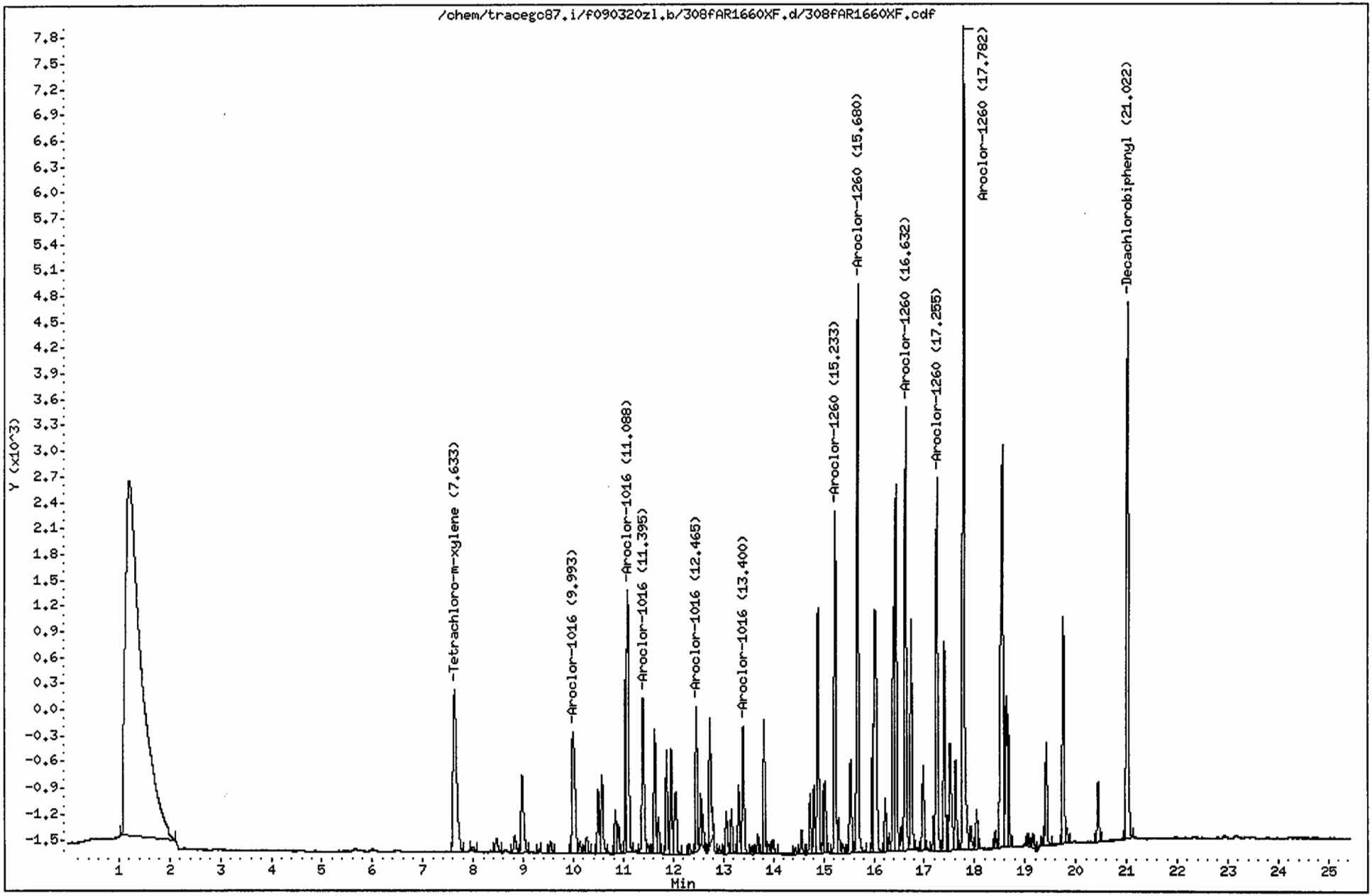
Sample Info: AR1660XF

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : AR1660XF Client Smp Id : AR1660XF
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 16:44 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zl.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
1.21		89226								
7.63	7.56 7.70	9077	464578	Tetrachloro-m-xylene	0.020000	453827	2.3	15.0		
7.99		162								
8.47		544								
8.83		631								
8.98		3175								
9.31		87								
9.55		398								
9.99	9.92 10.06	5809	14303	Aroclor-1016 Peak 1	0.400000	14523	-1.5	15.0		
10.13		319								
10.22		120								
10.27		506								
10.50		1868								
10.57		2436								
10.84		1173								
10.90		776								
11.05		4586								
11.09	11.02 11.16	8152	20883	Aroclor-1016 Peak 2	0.400000	20380	2.4	15.0		
11.40	11.32 11.46	5290	13011	Aroclor-1016 Peak 3	0.400000	13225	-1.6	15.0		
11.49		235								
11.63		3492								
11.70		993								
11.87		2801								
11.96		2998								
12.04		2386								
12.32		312								
12.46	12.39 12.53	3806	10068	Aroclor-1016 Peak 4	0.400000	9514.750	5.5	15.0		
12.55		1248								
12.59		681								
12.73		4006								
12.93		169								
13.06		1216								
13.17		1180								
13.31		1864								
13.40	13.33 13.47	3840	9596	Aroclor-1016 Peak 5	0.400000	9599.750	0.0	15.0		
13.56		193								
13.69		485								
13.82		3559								
13.91		324								
14.00		507								
14.44		172								
14.56		586								

CompuChem

Lab Smp Id : AR1660XF Client Smp Id : AR1660XF
Sample Type : CONT CAL: Level 3 Sublist : INDA
Inj Date : 19-APR-2009 16:44 Inst ID :
Operator : 2646
Method : /chem/tracegc87.i/f090320zl.b/8082_clpest2v7.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
14.73		1508								
14.81		1721								
14.89		6382								
15.00		1448								
15.03		1742								
15.23	15.16 15.30	9265	23763	Aroclor-1260 Peak 1	0.400000	23162	2.5	15.0		
15.30		896								
15.39		194								
15.54		2840								
15.68	15.61 15.75	15540	39276	Aroclor-1260 Peak 2	0.400000	38851	1.1	15.0		
15.98		2536								
16.03		10150								
16.23		1366								
16.31		394								
16.39		6138								
16.44		11815								
16.55		627								
16.63	16.56 16.70	12098	30554	Aroclor-1260 Peak 3	0.400000	30245	1.0	15.0		
16.75		6256								
16.99		2430								
17.19		785								
17.26	17.18 17.32	10399	26403	Aroclor-1260 Peak 4	0.400000	25997	1.5	15.0		
17.41		5695								
17.46		736								
17.52		3903								
17.63		2512								
17.78	17.71 17.85	23799	60269	Aroclor-1260 Peak 5	0.400000	59497	1.3	15.0		
17.93		726								
18.05		1023								
18.41		401								
18.55		16156								
18.63		3951								
18.67		3323								
19.06		294								
19.16		442								
19.30		68								
19.37		198								
19.43		2816								
19.76		6173								
19.83		345								
20.45		1563								
21.02	20.95 21.09	16889	413792	Decachlorobiphenyl	0.040000	422214	-2.0	15.0		

COMPUCHEM a Division of Liberty Analytical Corporation Instrument ID 86/87 File Path: f 090320 DATE 3 /20/ 09

GC EXTRACTABLES RUN LOG

LOGBOOK 4N(5) 16 Method: 8081A (8082) 8151A OLM04.3 OLC03.2 SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REJECTED	FILE NUMBER	REPORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1	✓	1		3 20 09	Hexane	Solvent	N/A	2646	
2	✓	2		/ /	↓	↓		↓	
3		3	✓	/ /	AR12213UH	61789			
4		4	✓	/ /	AR12323UH	61794			
5		5	✓	/ /	AR12423UH	61799			
6		6	✓	/ /	AR12483UH	61970			
7		7	✓	/ /	AR12543UH	61930			
8		8	✓	/ /	AR12681UH	61817			
9		9	✓	/ /	2	18			
10		10	✓	/ /	3	19			
11		11	✓	/ /	4	20			
12		12	✓	/ /	5	21			
13		13	✓	/ /	AR11601UH	61740			
14		14	✓	/ /	2	41			
15		15	✓	/ /	3	61964			
16		16	✓	/ /	4	61743			
17		17	✓	/ /	5	44			
18		18	✓	3 /21 09	PCBCHKSTDUH	61618			
19				/ /					
20				/ /					AS 3/20/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Calibration ID: N/A Sequence ID: N/A Hexane Lot No 066510

REVIEWED BY: _____ DATE 3/24/09

12/6/08: sw

COMPUCHEM a Division of Liberty Analytical Corporation Instrument ID 86/87 File Path: f090320rh DATE 4/18/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4N(5) 16 Method: 8081A (8082) 8151A OLM04.3 OLC03.2 SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	RELEASED	FILE NUMBER	REPORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1	✓	257		4/18/09	PIBHL	62029	NA	202	
2		258	✓	/ /	PIBLKGW06X	↓			
3		259	✓	/ /	AR1660WX	61964			
4		260	✓	/ /	9041715-641	ULRD			
5		261	✓	/ /	-MS1	↓			
6		262	✓	/ /	-MS1	090402			
7		263	✓	/ /	-MS2	090408			
8		264	✓	/ /	-MS3	090402			
9		265	✓	/ /	-MSD1	090402			
10		266	✓	/ /	-MSD2	090407			
11		267	✓	/ /	-MSD3	090402			
12		268	✓	/ /	PIBHL	62029			
13				/ /					
14				/ /					
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					

RCH 4/20/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Calibration ID: NA Sequence ID: NA Hexane Lot No 66510

REVIEWED BY: RCH DATE 4/20/09

12/6/08: sw

252

COMPUCHEM a Division of Liberty Analytical Corporation Instrument ID 86/87 File Path: f090320zi DATE 4/18/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4N(5) 16 Method: 8081A (8082) 8151A OLM04.3 OLC03.2 SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	CTED	FILE NUMBER	REPORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1		269	✓	4/18/09	PIBLKW762	62029	NA	272	
2		270	✓	/ /	NR1660W2	61964			
3		271		/ /	0904092-09	0904092			
4		272		/ /	10				
5		273		/ /	11				
6		274		/ /	12				
7		275		/ /	0904098-01	0904098			Sample 5 Compounds @ 4/19/09
8		276		/ /	07				
9		277		/ /	03				
10		278		/ /	04				
11		279		/ /	05				
12		280		/ /	06				
13		281		/ /	PIBLK	62029			
14				/ /					
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					

RCH 4/20/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

Calibration ID: NA Sequence ID: NA Hexane Lot No 166510

REVIEWED BY: RCH DATE 4/20/09

12/6/08: sw

Supervisor/Manager Review: _____ pages _____ to _____ Date _____

COMPUCHEM a Division of Liberty Analytical Corporation Instrument ID 86/87 File Path: f090330.rk DATE 4/15/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4N(5) 16 Method: 8081A (8082) 8151A OLM04.3 OLC03.2 SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REJECTED	FILE NUMBER	REPORTED	DATE	COMPUCHEM#	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1		293		4/16/09	PIBLC	62029		RH	
2		294		/ /	PIBLKXCXD	1			
3		295		/ /	AR1660XD	61964			
4		296		/ /	090492-09	090492			
5		297		/ /	10				
6		298		/ /	11				
7		299		/ /	12				
8		300		/ /	090498-01	090498			
9		301		/ /	02				
10		302		/ /	03				
11		303		/ /	04				
12		304		/ /	05				
13		305		/ /	06				
14		306		/ /	PIBLC	62029			
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

RH 4/20/09

Calibration ID: NA Sequence ID: NA Hexane Lot No 66510

REVIEWED BY: RH DATE 4/20/09

12/6/08: sw

COMPUCHEM a Division of Liberty Analytical Corporation Instrument ID 86/87 File Path: f090520z1 DATE 4/19/09

GC EXTRACTABLES RUN LOG

LOGBOOK 4N(5) 16 Method: 8081A (8082) 8151A OLM04.3 OLC03.2 SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐Changed septum ☐Changed liner ☐Baked column ☐Trimmed column

	REJECTED	FILE NUMBER	REPORTED	DATE	COMPUCHEM #	CASE/SDG#	STANDARD ID	CHEMIST	COMMENTS
1		307	—	4 19 09	P1B4LXEXT	62064		252	
2		308	—	/ /	AR1660XT	61968			
3		309	/	/ /	090410z-01	090410z			
4		310	/	/ /	02				
5		311	/	/ /	03				
6		312	/	/ /	04				
7		313	/	/ /	05				
8		314	/	/ /	07				
9		315	/	/ /	08				
10		316	/	/ /	09				
11		317	/	/ /	10				
12		318	—	/ /	11				
13		319	/	/ /	P1B4L	62029			
14				/ /					
15				/ /					
16				/ /					
17				/ /					
18				/ /					
19				/ /					
20				/ /					

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

KEH 4/20/09

Calibration ID: NA Sequence ID: NA Hexane Lot No 66510

REVIEWED BY: KEH DATE 4/20/09

12/6/08: sw

4. Raw QC Data

    a. Blank Data

    b. Laboratory Control Sample Data

    c. Matrix Spike Data

    d. Matrix Spike Duplicate Data

a. Blank Data

Arranged by type of blank

i) Method blanks shall be in chronological order, by extraction date.
ii) Instrument blanks shall be in chronological order, by GC column and instrument.
iii) Sulfur cleanup blanks (if needed) shall be in chronological order, by date of analysis.

- Tabulated Results (Form I)
- Chromatograms and date system printout(s) for each GC column and instrument used for analysis.

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PBLKGX

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zh.b/260f9041715-BLK1.d

Date : 18-APR-2009 17:53

Client ID: PBLKGX

Instrument: tracegc86.i

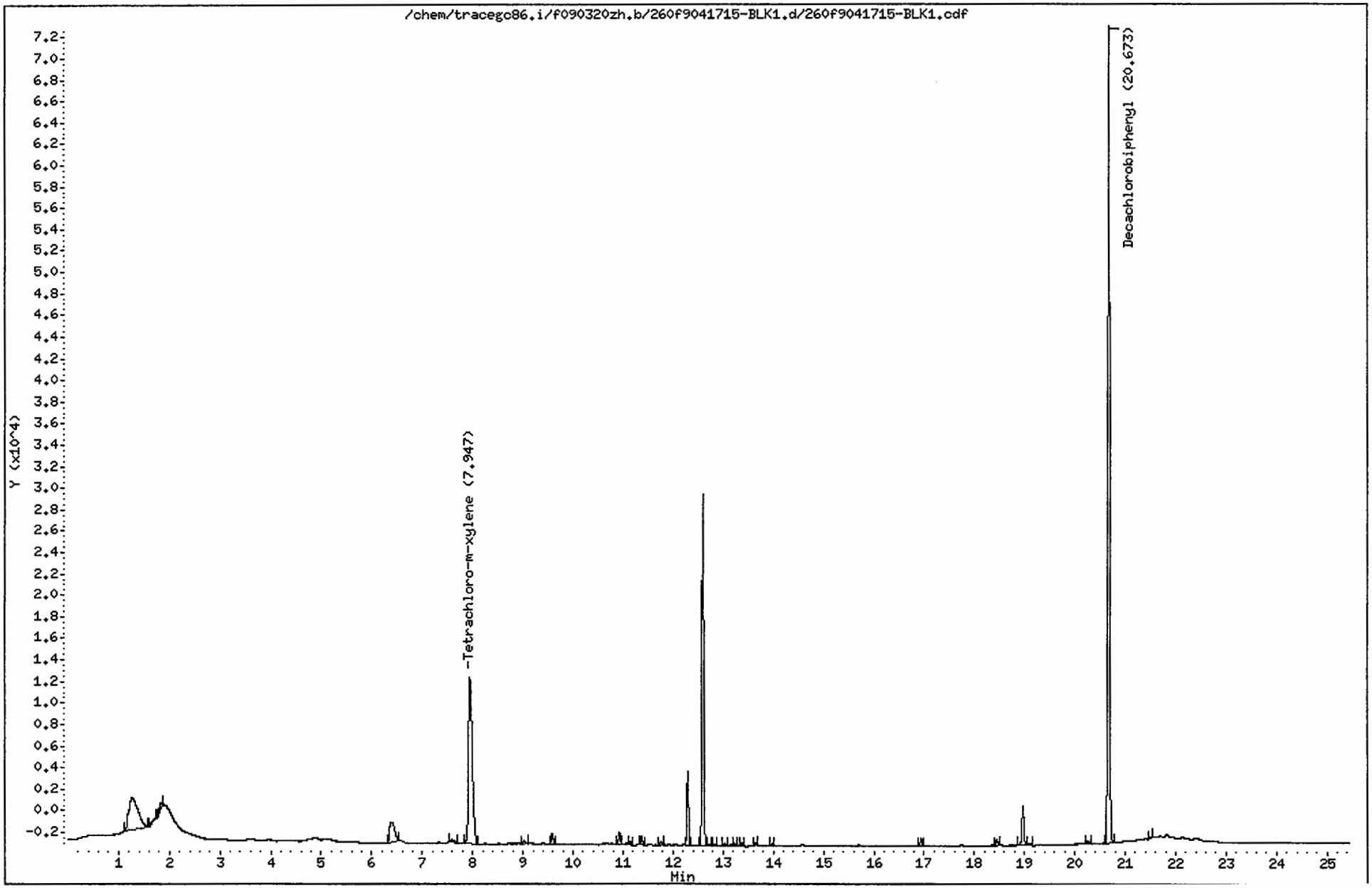
Sample Info: 9041715-BLK1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-BLK1 Client Smp Id : PBLKGX
Sample Type : BLANK Sublist : 8082
Inj Date : 18-APR-2009 17:53 Inst ID : TRACEGC86
Operator : 2512
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.26		37521								
1.73		987								
1.83		2288								
6.39		12979								
7.60		1205								
7.95	7.87 8.01	80563	1736635	Tetrachloro-m-xylene	0.046390	0.231949		77.3	43 - 135	
9.03		932								
9.58		2759								
10.93		2813								
11.14		774								
11.37		2049								
11.76		797								
12.30		16543								
12.60		78238								
12.71		407								
12.82		381								
13.03		581								
13.22		533								
13.37		803								
13.64		355								
13.98		460								
16.94		1845								
18.45		1461								
18.97		9912								
19.10		620								
20.26		732								
20.67	20.58 20.72	182369	1636434	Decachlorobiphenyl	0.111442	0.557212		92.9	43 - 144	
21.53		307								

KAT 4/20/09

Data File: /chem/tracegc87.i/f090320zh.b/260f9041715-BLK1.d

Page 1

Date : 18-APR-2009 17:53

Client ID: PBLKGX

Instrument: tracegc87.i

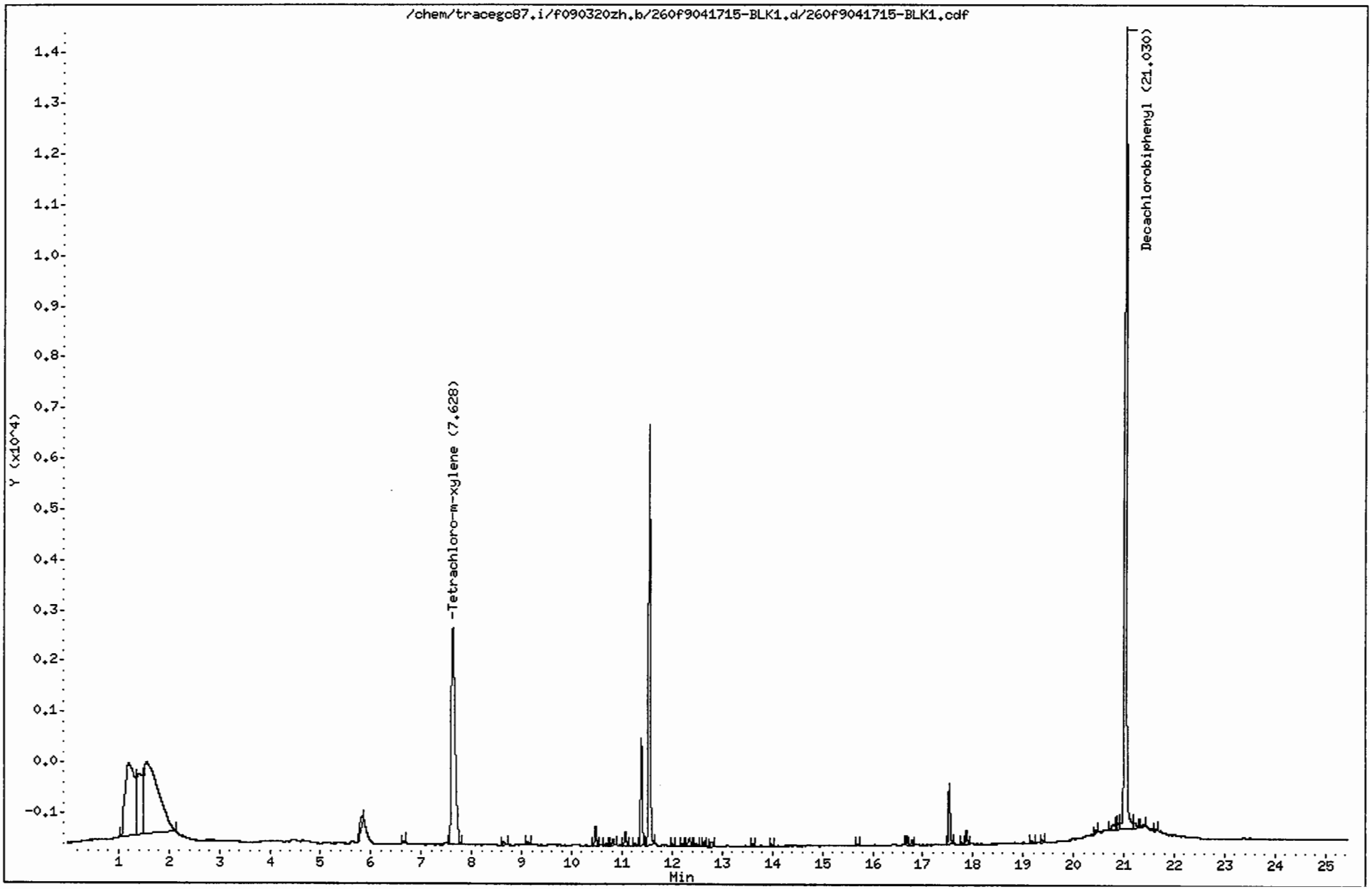
Sample Info: 9041715-BLK1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-BLK1 Client Smp Id : PBLKGX
Sample Type : BLANK Sublist : 8082
Inj Date : 18-APR-2009 17:53 Inst ID : TRACEGC87
Operator : 2512
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.20		18809								
1.40		9544								
1.56		27430								
5.81		1024								
6.66		103								
7.63	7.56 7.70	22452	464578	Tetrachloro-m-xylene	0.048326	0.241628		80.5	43 - 135	
8.64		267								
9.12		177								
10.47		925								
10.68		166								
10.82		320								
11.07		644								
11.26		107								
11.39		4966								
11.54		20359								
12.01		113								
12.22		135								
12.35		533								
12.49		138								
12.64		222								
12.79		372								
13.62		145								
13.98		109								
15.69		111								
16.68		363								
16.78		211								
17.52		2902								
17.79		75								
17.87		622								
19.17		176								
19.38		110								
20.45		145								
20.80		450								
20.86		230								
20.90		392								
21.03	20.95 21.09	43981	413792	Decachlorobiphenyl	0.106288	0.531438		88.6	43 - 144	
21.21		419								

4/21/09

CompuChem

Lab Smp Id : 9041715-BLK1 Client Smp Id : PBLKGX
Sample Type : BLANK Sublist : 8082
Inj Date : 18-APR-2009 17:53 Inst ID :
Operator : 2512
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
21.38		113								
21.63		95								

ASSIGNED TO: Billy / Martha

COMPUCHEM
EXTRACTION WORKSHEET
PCB Only 3510C and 3520C for 8082

4-18-1

DATE EXTTRACTED/POSTED: 4/18/09

EMP ID NUMBER: 2713 / 2502

1049

BATCH NO.: 9041715

	COMPUCHEM NUMBER	SAMPLE CLIENT ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	INITIAL pH	Adjusted pH (Y/N)	Final Volume (ml)	COMMENTS
1	0904092-09	AR01-0409	SAMPLE	975	6.0	N	5.0	QC1
2	0904092-10	AR02-0409	SAMPLE	500	7.0	N	2.5	USE 500mL OF SAMPLE, ADD 0.25mL OF 449
3	0904092-11	AR03-0409	SAMPLE	900	7.0	N	5.0	
4	0904092-12	FLBLK-0409	SAMPLE	500	4.0	Y 5.0	2.5	
5	0904098-01	13MW5	SAMPLE	1000	6.0	N	5.0	QC2
6	0904098-02	13MW3	SAMPLE	1000	6.0	N	5.0	
7	0904098-03	13MW4	SAMPLE	950	6.0	N	5.0	
8	0904098-04	13MWDUP	SAMPLE	1000	6.0	N	5.0	B. Patton 4/18/09
9	0904098-05	13MW6	SAMPLE	950	6.0	N	5.0	
10	0904098-06	13MW7	SAMPLE	1000	7.0	N	5.0	
11	0904102-01	FB01-0409	SAMPLE	1000	6.0	N	5.0	QC1 QC3 BFP
12	0904102-02	FB02-0409	SAMPLE	1000	7.0	N	5.0	
13	0904102-03	FB03-0409	SAMPLE	1000	7.0	N	5.0	
14	0904102-04	FB07-0409	SAMPLE	1000	7.0	N	5.0	
15	0904102-05	DUP1-0409	SAMPLE	1000	7.0	N	5.0	
16	0904102-07	FB04-0409	SAMPLE	1000	6.0	N	5.0	
17	0904102-08	FB05-0409	SAMPLE	1000	7.0	N	5.0	
18	0904102-09	FB06-0409	SAMPLE	1000	7.0	N	5.0	
19	0904102-10	EB01-0409	SAMPLE	1000	4.0	Y 8.0	5.0	
20	0904102-11	RMI4D-0409	SAMPLE	1000	7.0	N	5.0	
21	9041715-BLK1	PBLKGX	MB	1000	5.0	N	5.0	B. Patton 4/18/09
22	9041715-BS1	PGXLCS	LCS	1000	5.0	N	5.0	
23	9041715-MS1	Matrix Spike	MS1	1000	6.0	N	5.0	
24	9041715-MS2	Matrix Spike	MS2	1000	7.0	N	5.0	
25	9041715-MS3	Matrix Spike	MS3	1000	7.0	N	5.0	
26	9041715-MSD1	Matrix Spike Dup	MSD1	1000	6.0	N	5.0	
27	9041715-MSD2	Matrix Spike Dup	MSD2	1000	7.0	N	5.0	
28	9041715-MSD3	Matrix Spike Dup	MSD3	1000	7.0	N	5.0	

			REQUIRED	SURROGATE & SPIKE ADDED BY:
	SURROGATE	NO.	449	
		AMT.	0.5 ml	BFP / 4/18/09
		LOT	62001	INITIALS / DATE
	PCB SPIKE SOLUTION	NO.	4615	
		AMT.	1.0 ml	Witness ML / 4/18/09
		LOT	62027	Initials / Date

FINAL VOLUME VERIFIED: B. Patton

SUPERVISOR REVIEWED: MCM

Analyst initials. Extracted BFP/ML/SB KD ALM N2 ALM Bottle up BFP, ML

Manufacturer and lot number of reagents/solvents used CH_2Cl_2 - G45400, Na_2SO_4 - ZXX6-567-2, C_6H_{14} - 68906

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKWW

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKWW

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zh.b/258fPIBLKWWWX.d

Page 1

Date : 18-APR-2009 16:27

Client ID: PIBLKWW

Instrument: tracegc86.i

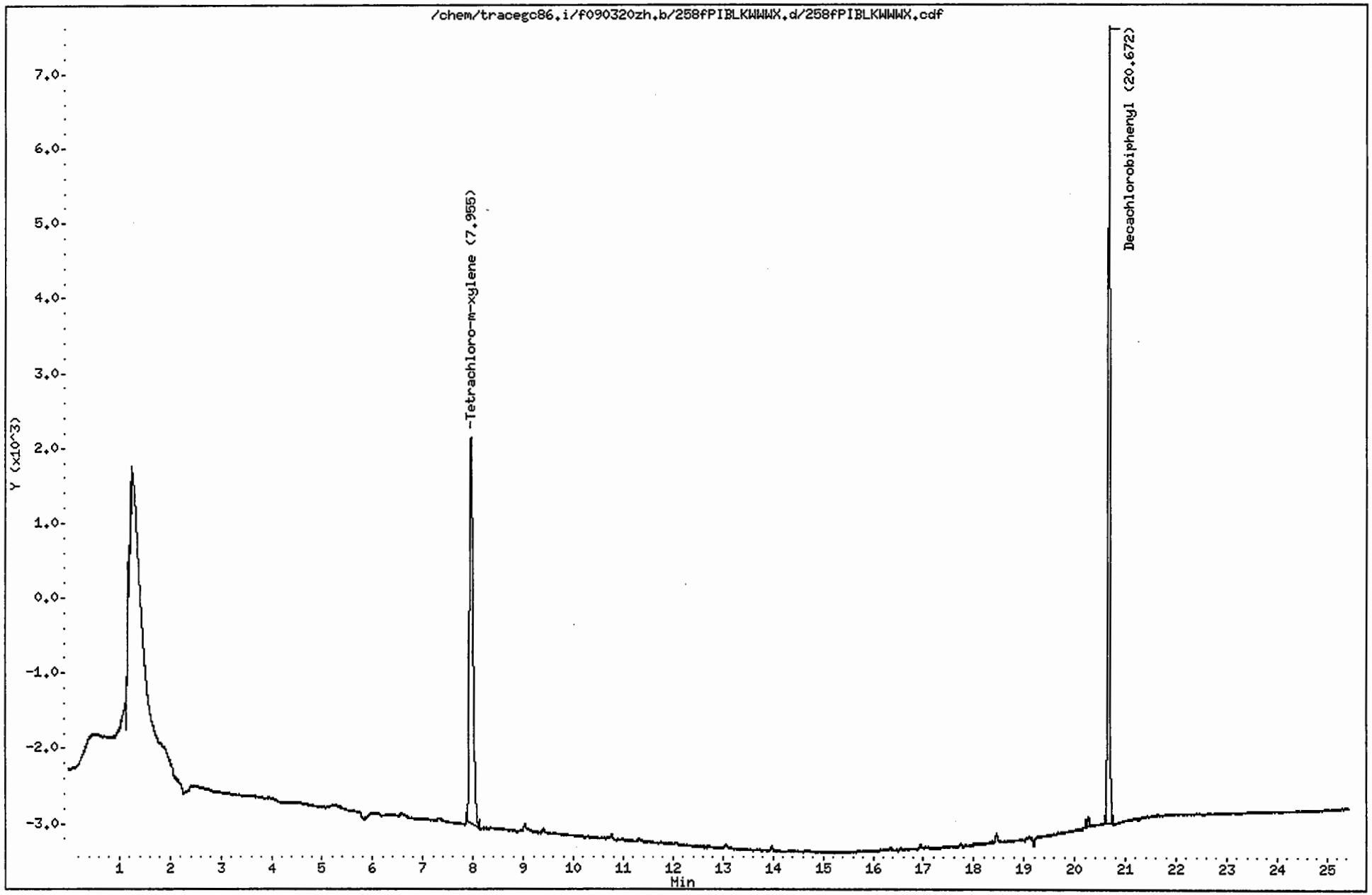
Sample Info: PIBLKWWWX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKWW Client Smp Id : PIBLKWW
Sample Type : INSTBLANK Sublist : all
Inj Date : 18-APR-2009 16:27 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.19			1220						
1.25			698						
7.96	7.87	8.01	25524	1736635	Tetrachloro-m-xylene	0.014697	0.073486		
20.27			272						
20.67	20.58	20.72	27811	1636434	Decachlorobiphenyl	0.016995	0.084973		

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKWX

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKWX

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc87.i/f090320zh.b/258fPIBLKWWWX.d

Date : 18-APR-2009 16:27

Client ID: PIBLKWX

Instrument: tracegc87.i

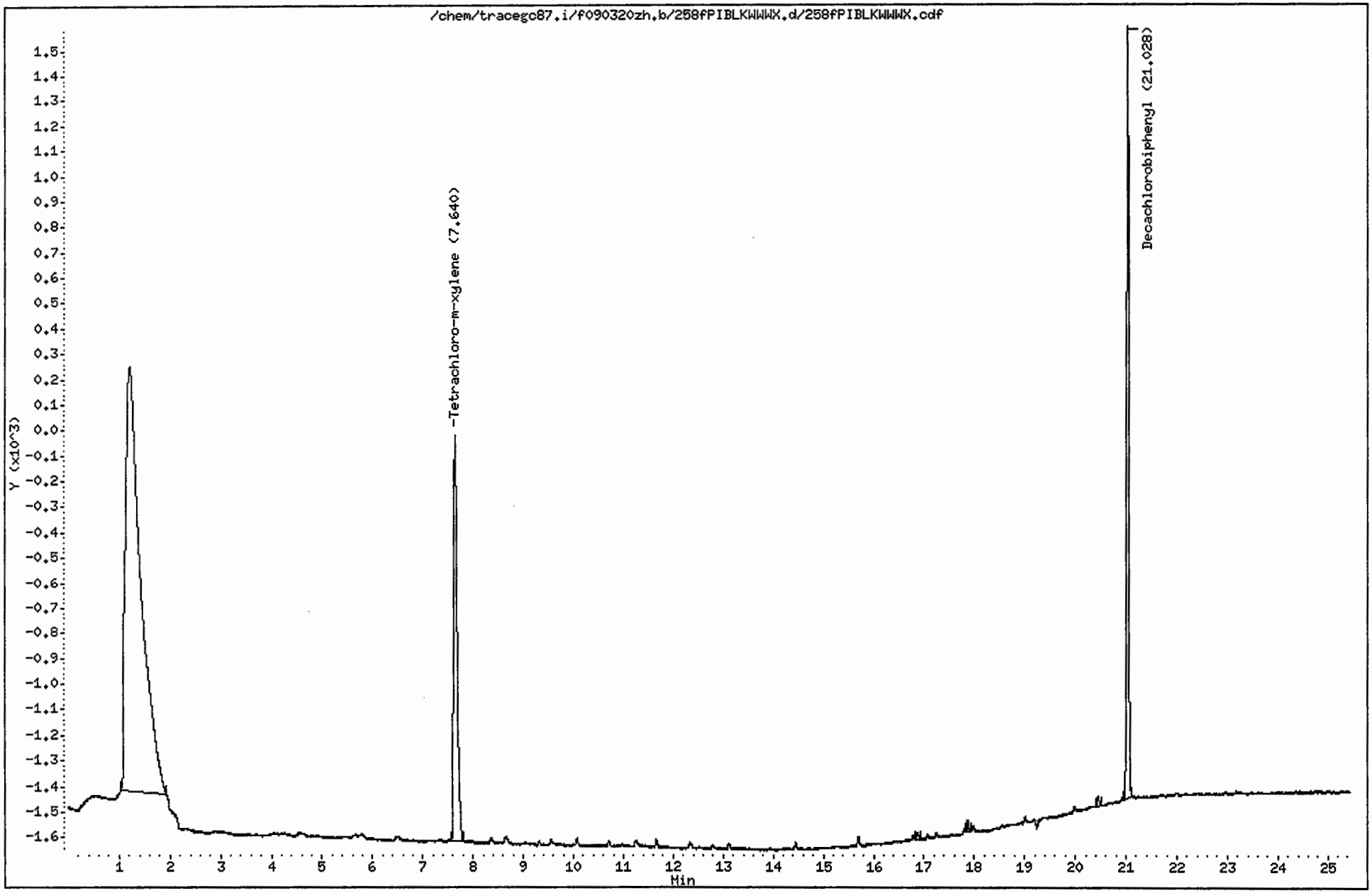
Sample Info: PIBLKWWWX

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKWX Client Smp Id : PIBLKWX
Sample Type : INSTBLANK Sublist : all
Inj Date : 18-APR-2009 16:27 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.21			35073						
7.64	7.56	7.70	7863	464578	Tetrachloro-m-xylene	0.016924	0.084621		
16.88			73						
17.87			101						
20.45			96						
21.03	20.95	21.09	8195	413792	Decachlorobiphenyl	0.019806	0.099028		

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PIBLKWY

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKWY

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320zi.b/269fPIBLKWYWZ.d

Date : 18-APR-2009 22:11

Client ID: PIBLKWY

Instrument: tracegc86.i

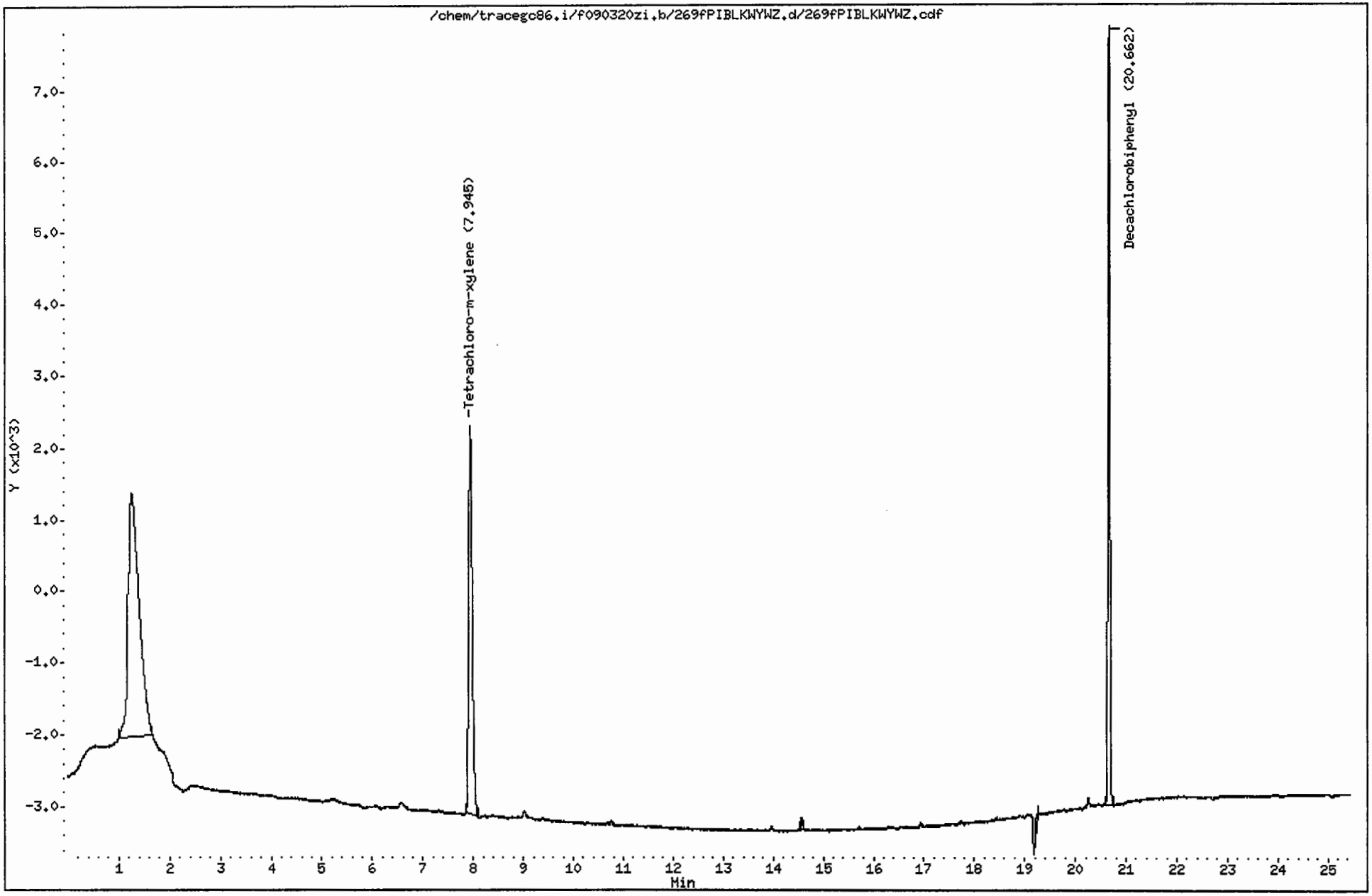
Sample Info: PIBLKWYWZ

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKWY Client Smp Id : PIBLKWY
Sample Type : INSTBLANK Sublist : all
Inj Date : 18-APR-2009 22:11 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zi.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.25			50932						
7.94	7.87	8.01	27528	1736635	Tetrachloro-m-xylene	0.015851	0.079257		
14.57			395						
19.26			658						
20.66	20.58	20.72	28178	1636434	Decachlorobiphenyl	0.017219	0.086095		

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKWZ

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKWZ

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc87.i/f090320zi.b/269fPIBLKWYWZ.d

Date : 18-APR-2009 22:11

Client ID: PIBLKWZ

Instrument: tracegc87.i

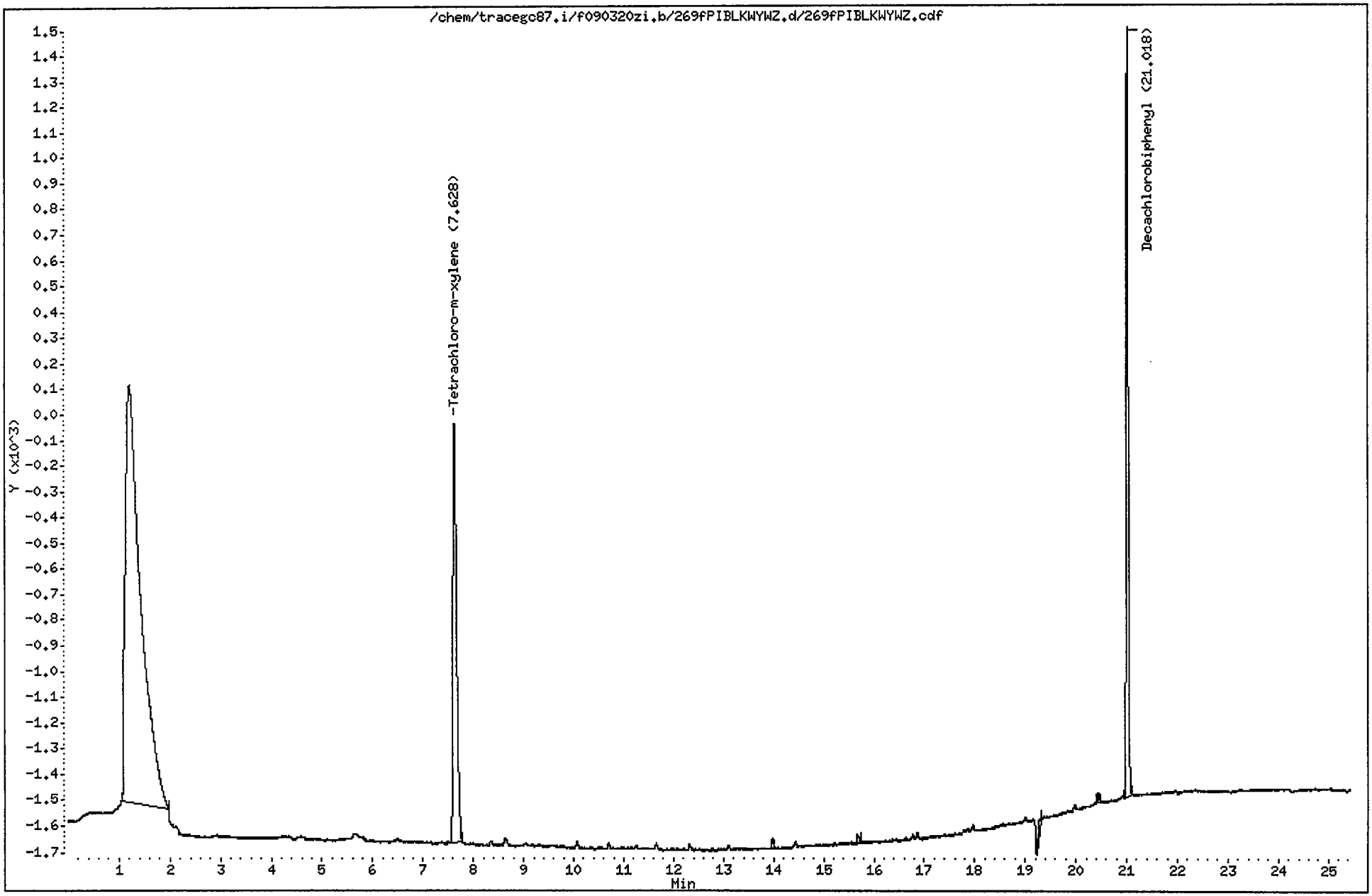
Sample Info: PIBLKWYWZ

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKWZ Client Smp Id : PIBLKWZ
Sample Type : INSTBLANK Sublist : all
Inj Date : 18-APR-2009 22:11 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zi.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.21			34187						
7.63	7.56	7.70	8191	464578	Tetrachloro-m-xylene	0.017632	0.088159		
13.98			73						
15.69			69						
19.30			194						
20.45			95						
21.02	20.95	21.09	8072	413792	Decachlorobiphenyl	0.019507	0.097536		

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PIBLKXC

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKXC

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracego86.i/f090320zk.b/294fPIBLKXCXD.d

Page 1

Date : 19-APR-2009 09:44

Client ID: PIBLKXC

Instrument: tracego86.i

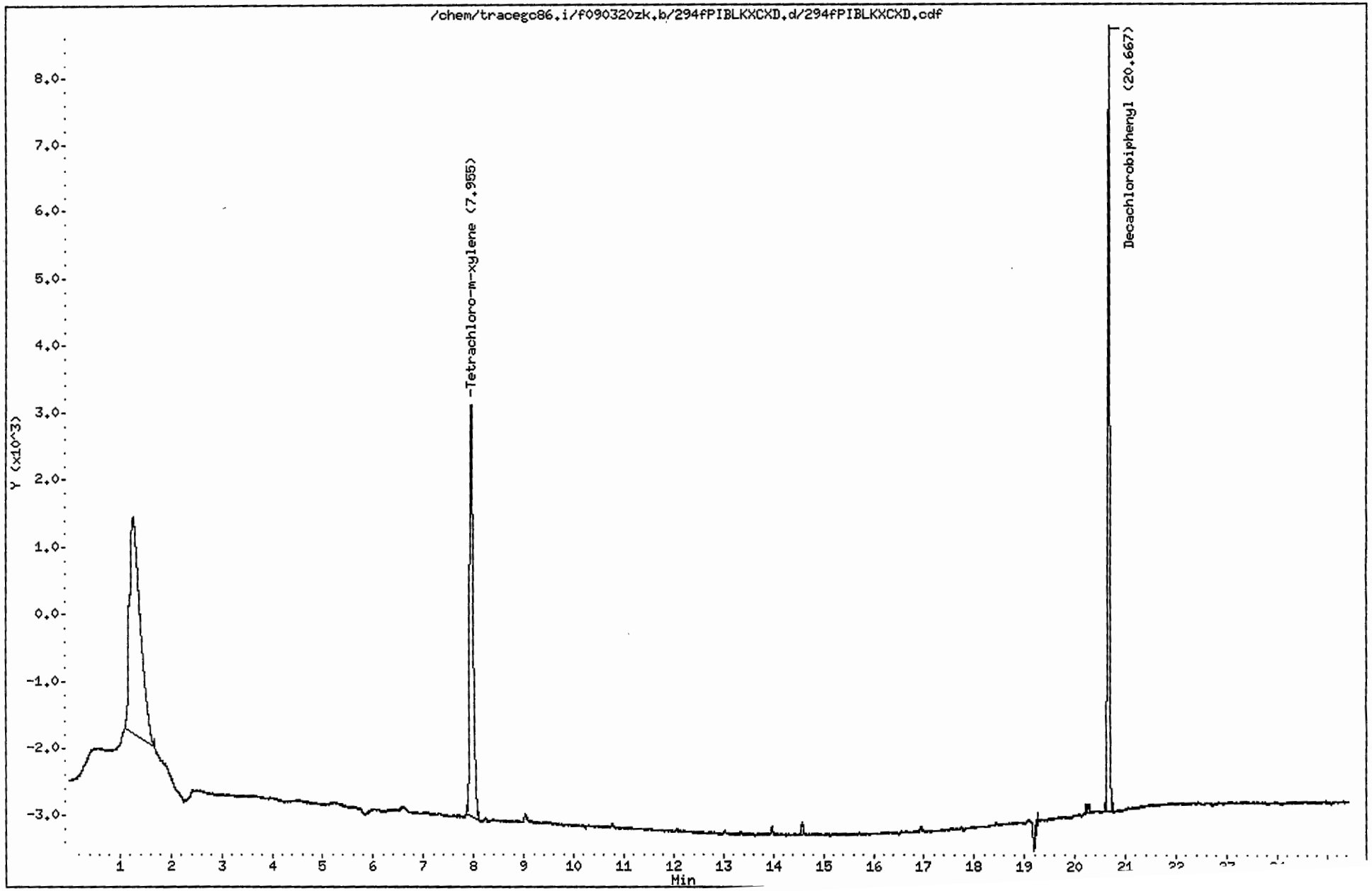
Sample Info: PIBLKXCXD

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKXC Client Smp Id : PIBLKXC
Sample Type : INSTBLANK Sublist : all
Inj Date : 19-APR-2009 09:44 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zk.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.26			46960						
7.96	7.87	8.01	29956	1736635	Tetrachloro-m-xylene	0.017250	0.086248		
14.57			393						
19.26			420						
20.26			282						
20.67	20.58	20.72	30357	1636434	Decachlorobiphenyl	0.018551	0.092753		

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKXD

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKXD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc87.i/f090320zk.b/294fPIBLKXCXD.d

Page 1

Date : 19-APR-2009 09:44

Client ID: PIBLKXD

Instrument: tracegc87.i

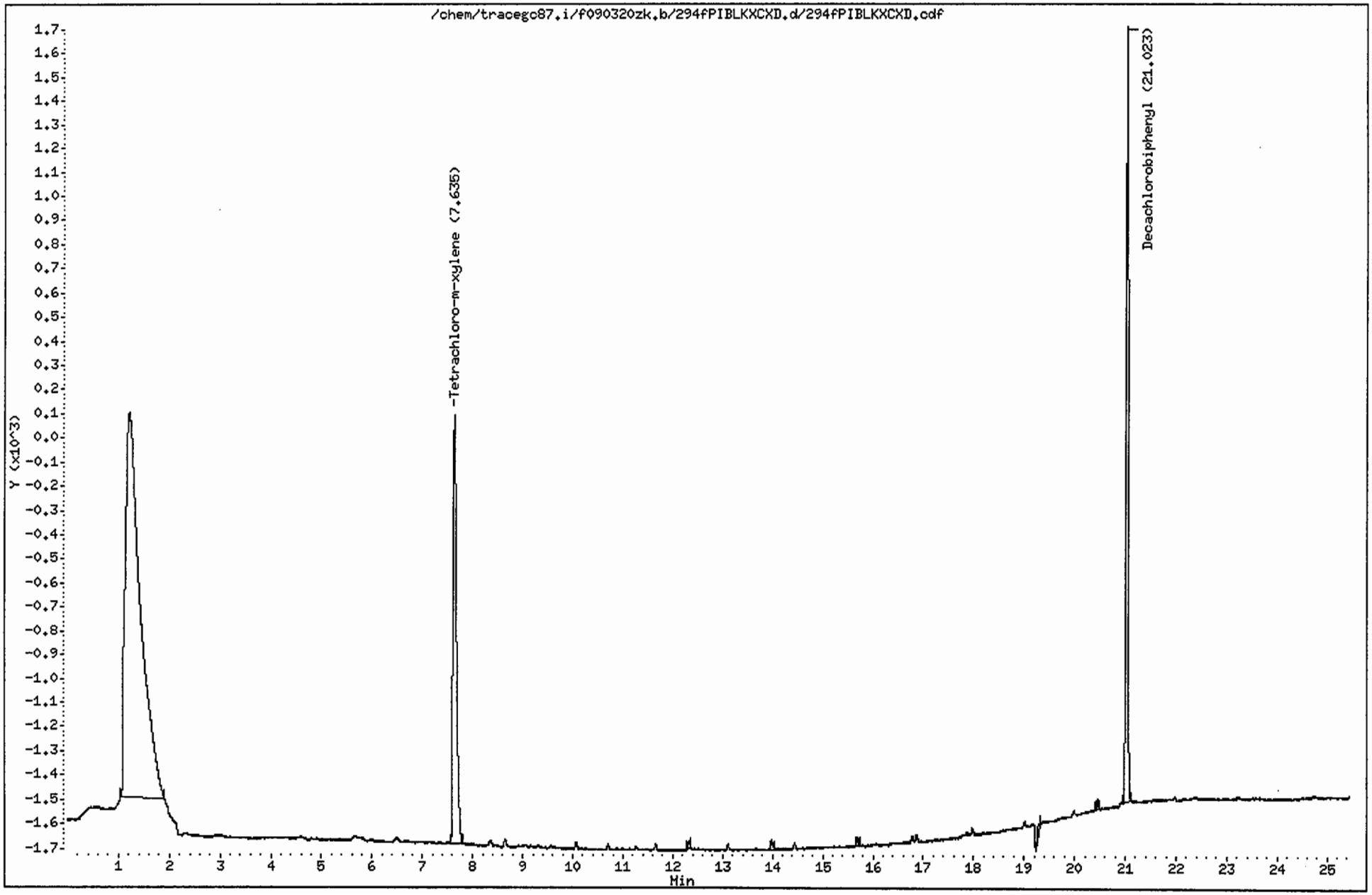
Sample Info: PIBLKXCXD

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKXD Client Smp Id : PIBLKXD
Sample Type : INSTBLANK Sublist : all
Inj Date : 19-APR-2009 09:44 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zk.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.22			33029						
7.64	7.56	7.70	8683	464578	Tetrachloro-m-xylene	0.018691	0.093454		
12.32			66						
13.98			94						
15.70			79						
19.32			160						
20.45			99						
21.02	20.95	21.09	8537	413792	Decachlorobiphenyl	0.020631	0.103153		

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PIBLKXE

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKXE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc86.i/f090320z1.b/307fPIBLKXEXF.d

Page 1

Date : 19-APR-2009 16:15

Client ID: PIBLKXE

Instrument: tracegc86.i

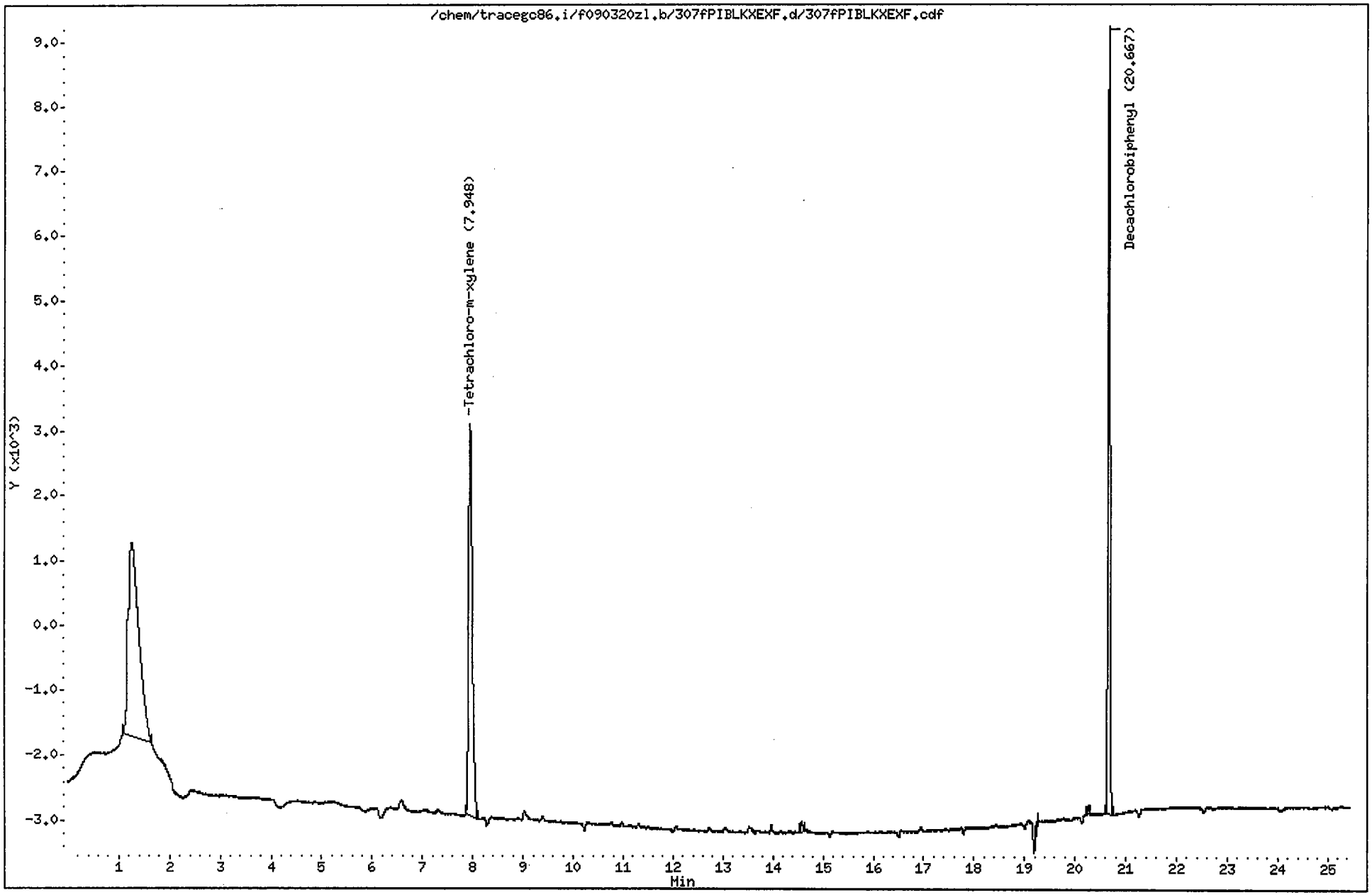
Sample Info: PIBLKXEXF

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKXE Client Smp Id : PIBLKXE
Sample Type : INSTBLANK Sublist : all
Inj Date : 19-APR-2009 16:15 Inst ID : TRACEGC86
Operator : 2646
Method : /chem/tracegc86.i/f090320zl.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.26			43574						
7.95	7.87	8.01	31135	1736635	Tetrachloro-m-xylene	0.017928	0.089642		
14.57			368						
19.27			666						
20.26			306						
20.67	20.58	20.72	31734	1636434	Decachlorobiphenyl	0.019392	0.096959		

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKXF

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: PIBLKXF

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/19/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.93	U
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	0.93	U

Data File: /chem/tracegc87.i/f090320z1.b/307fPIBLKXEXF.d

Date : 19-APR-2009 16:15

Client ID: PIBLKXF

Instrument: tracegc87.i

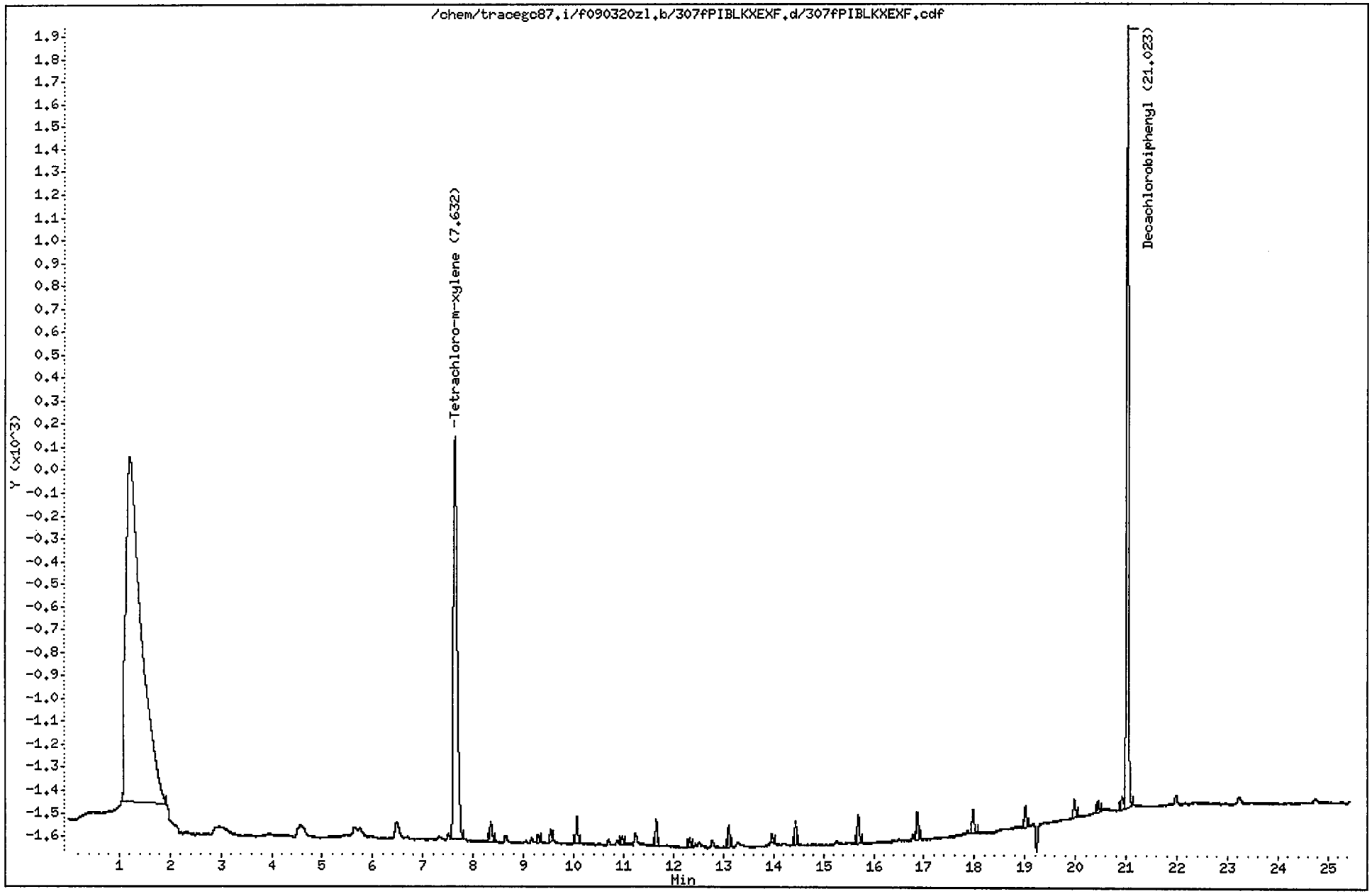
Sample Info: PIBLKXEXF

Volume Injected (uL): 1.0

Operator: 2646

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : PIBLKXF Client Smp Id : PIBLKXF
Sample Type : INSTBLANK Sublist : all
Inj Date : 19-APR-2009 16:15 Inst ID : TRACEGC87
Operator : 2646
Method : /chem/tracegc87.i/f090320zl.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.21			31971						
7.63	7.56	7.70	9219	464578	Tetrachloro-m-xylene	0.019843	0.099215		
8.35			278						
9.30			91						
9.54			137						
10.06			313						
10.97			85						
11.66			296						
12.33			109						
13.11			246						
13.98			82						
14.44			266						
15.70			355						
16.87			336						
17.98			314						
19.01			258						
19.98			239						
20.45			114						
20.93			178						
21.02	20.95	21.09	9202	413792	Decachlorobiphenyl	0.022238	0.111190		

b. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGXLCS

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	4.5	
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	4.2	

Data File: /chem/tracegc86.i/f090320zh.b/261f9041715-BS1.d

Page 1

Date : 18-APR-2009 18:20

Client ID: PGXLCS

Instrument: tracegc86.i

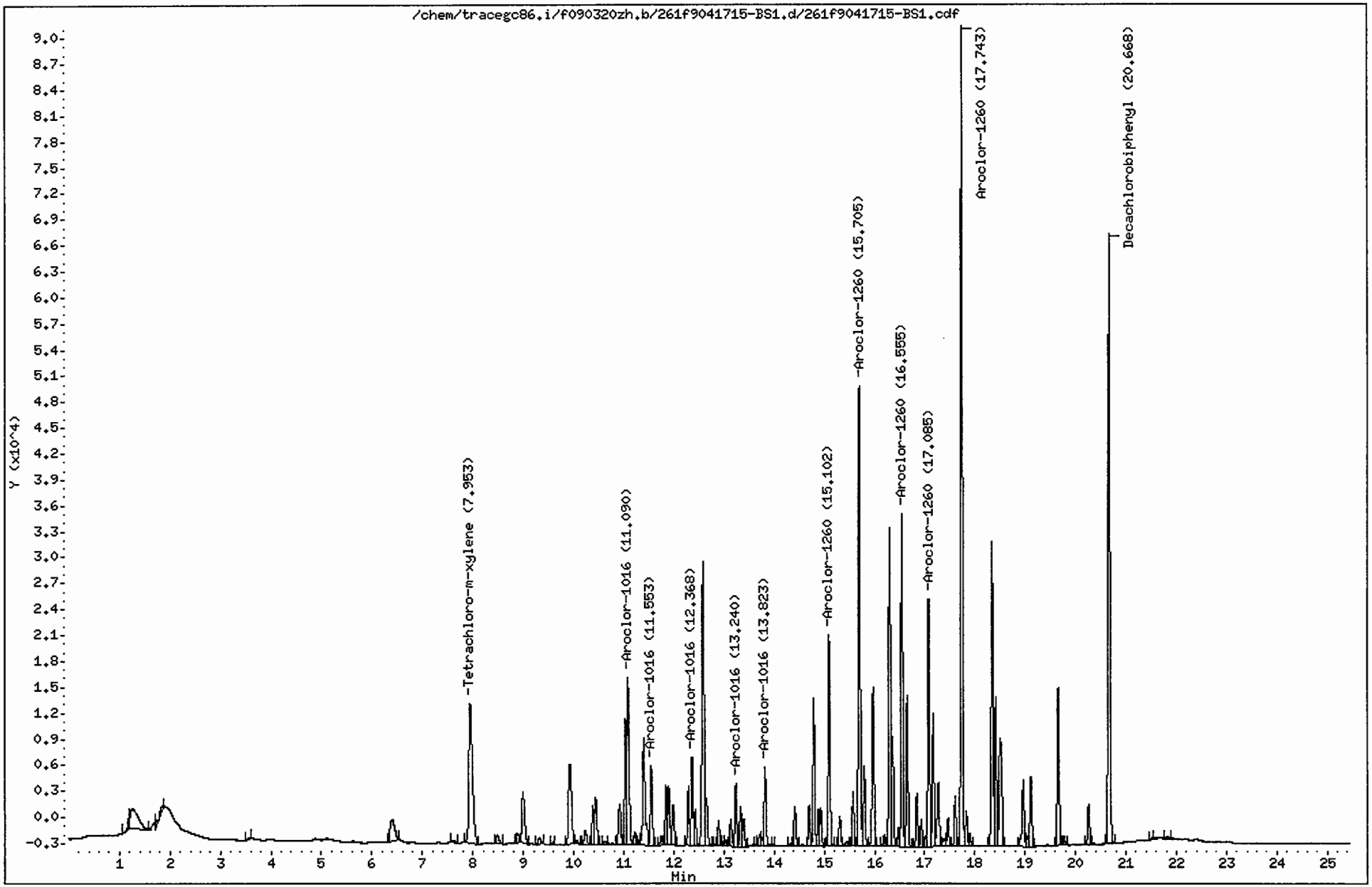
Sample Info: 9041715-BS1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-BS1 Client Smp Id : PGXLCS
Sample Type : LCS Sublist : 8082
Inj Date : 18-APR-2009 18:20 Inst ID : TRACEGC86
Operator : 2512 Spike Sublist : AR1660WaterLCS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.19		2729								
1.26		26131								
1.84		3930								
3.59		319								
6.40		16076								
7.60		1166								
7.95	7.87 8.01	79030	1736635	Tetrachloro-m-xylene	0.045507	0.227535		75.8	43 - 135	
8.48		4027								
8.88		3334								
8.99		21670								
9.32		2296								
9.58		391								
9.93		38274								
10.05		1186								
10.23		5411								
10.38		11598								
10.44		16468								
10.62		825								
10.92		16181								
11.04		34778								
11.09	11.01 11.15	54735	72832	Aroclor-1016 Peak 1	0.751523	3.757614	0.930000	92.5	63 - 132	
11.22		3810								
11.31		1380								
11.40		40064								
11.55	11.47 11.61	23993	32300	Aroclor-1016 Peak 2	0.742809	3.714044	0.930000	92.5	63 - 132	
11.75		2747								
11.85		17074								
11.90		17526								
11.99		13985								
12.29		15599								
12.37	12.29 12.43	25644	36022	Aroclor-1016 Peak 3	0.711891	3.559454	0.930000	92.5	63 - 132	
12.43		9852								
12.59		96497								
12.66		13394								
12.81		337								
12.90		7038								
12.97		1276								

4/20/09

CompuChem

Lab Smp Id : 9041715-BS1 Client Smp Id : PGXLCS
Sample Type : LCS Sublist : 8082
Inj Date : 18-APR-2009 18:20 Inst ID :
Operator : 2512 Spike Sublist : AR1660WaterLCS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
13.04		2113								
13.14		8093								
13.24	13.15 13.29	18598	24795	Aroclor-1016 Peak 4	0.750067	3.750334	0.930000	92.5	63 - 132	
13.33		12264								
13.40		8364								
13.63		479								
13.71		3461								
13.76		1863								
13.82	13.74 13.88	22626	31269	Aroclor-1016 Peak 5	0.723586	3.617931	0.930000	92.5	63 - 132	
13.91		339								
13.97		276								
14.34		675								
14.42		12833								
14.70		11091								
14.80		40205								
14.89		9685								
14.94		10407								
15.10	15.02 15.16	57289	78830	Aroclor-1260 Peak 1	0.726727	3.633636	0.930000	97.5	59 - 120	
15.31		8843								
15.45		1936								
15.58		14863								
15.70	15.62 15.76	131942	172520	Aroclor-1260 Peak 2	0.764790	3.823951	0.930000	97.5	59 - 120	
15.80		22804								
15.98		47402								
16.08		275								
16.19		2963								
16.31		96121								
16.36		30250								
16.48		4911								
16.56	16.47 16.61	87852	112543	Aroclor-1260 Peak 3	0.780606	3.903028	0.930000	97.5	59 - 120	
16.66		41387								
16.85		14854								
16.93		7405								
17.02		2671								
17.08	17.00 17.14	69205	90796	Aroclor-1260 Peak 4	0.762196	3.810982	0.930000	97.5	59 - 120	
17.17		37025								
17.27		22428								

CompuChem

Lab Smp Id : 9041715-BS1 Client Smp Id : PGXLCS
Sample Type : LCS Sublist : 8082
Inj Date : 18-APR-2009 18:20 Inst ID :
Operator : 2512 Spike Sublist : AR1660WaterLCS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
17.37		3633								
17.47		7940								
17.61		13908								
17.74	17.66 17.80	207847	243507	Aroclor-1260 Peak 5	0.853552	4.267758	0.930000	97.5	59 - 120	
17.83		10137								
17.90		3638								
18.35		85074								
18.42		42559								
18.51		48338								
18.96		22456								
19.04		3177								
19.12		21907								
19.66		44425								
19.77		2581								
20.26		11358								
20.67	20.58 20.72	173446	1636434	Decachlorobiphenyl	0.105990	0.529948		88.3	43 - 144	
21.53		429								
21.82		1020								

Data File: /chem/tracegc87.i/f090320zh.b/261f9041715-BS1.d

Page 1

Date : 18-APR-2009 18:20

Client ID: PGXLCS

Instrument: tracegc87.i

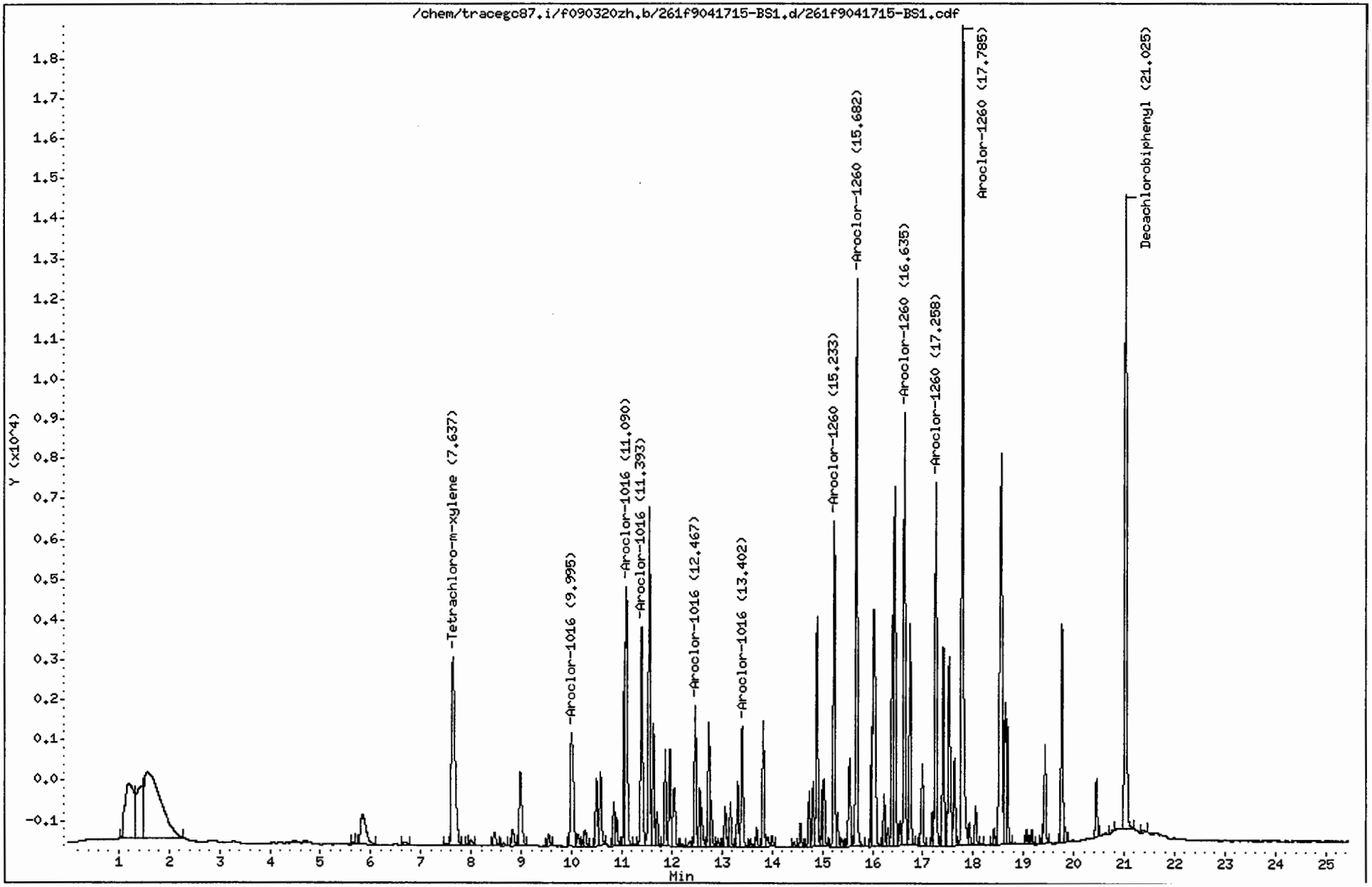
Sample Info: 9041715-BS1

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-BS1 Client Smp Id : PGXLCS
Sample Type : LCS Sublist : 8082
Inj Date : 18-APR-2009 18:20 Inst ID : TRACEGC87
Operator : 2512 Spike Sublist : AR1660WaterLCS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.20		15889								
1.47		12653								
1.56		36347								
5.67		66								
5.84		5450								
6.68		335								
7.51		164								
7.64	7.56 7.70	22708	464578	Tetrachloro-m-xylene	0.048877	0.244383		81.5	43 - 135	
7.93		109								
7.99		535								
8.46		1229								
8.64		249								
8.83		1437								
8.98		6683								
9.54		806								
10.00	9.92 10.06	11965	14303	Aroclor-1016 Peak 1	0.836538	4.182689	0.930000	112.5	63 - 132	
10.13		912								
10.23		356								
10.27		1164								
10.49		4881								
10.57		4984								
10.84		2857								
10.90		1705								
11.06		9696								
11.09	11.02 11.16	17240	20883	Aroclor-1016 Peak 2	0.825557	4.127784	0.930000	112.5	63 - 132	
11.39	11.32 11.46	15213	13011	Aroclor-1016 Peak 3	1.169142	5.845710	0.930000	112.5	63 - 132	
11.55		20642								
11.63		7465								
11.70		2112								
11.87		5674								
11.96		6102								
12.05		4931								
12.21		173								
12.36		549								
12.47	12.39 12.53	8320	10068	Aroclor-1016 Peak 4	0.826401	4.132006	0.930000	112.5	63 - 132	
12.55		3452								
12.59		2268								

KEH 4/20/09

CompuChem

Lab Smp Id : 9041715-BS1 Client Smp Id : PGXLCS
Sample Type : LCS Sublist : 8082
Inj Date : 18-APR-2009 18:20 Inst ID :
Operator : 2512 Spike Sublist : AR1660WaterLCS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
12.74		8027								
12.79		2493								
12.92		521								
13.06		2555								
13.17		2485								
13.31		3824								
13.40	13.33 13.47	7806	9596	Aroclor-1016 Peak 5	0.813349	4.066746	0.930000	112.5	63 - 132	
13.57		510								
13.69		1084								
13.82		7303								
13.91		809								
14.00		561								
14.44		266								
14.56		1271								
14.73		3167								
14.81		3626								
14.89		13237								
15.01		3033								
15.04		3691								
15.23	15.16 15.30	18975	23763	Aroclor-1260 Peak 1	0.798519	3.992593	0.930000	105.0	59 - 120	
15.30		1958								
15.39		430								
15.55		5960								
15.68	15.61 15.75	32756	39276	Aroclor-1260 Peak 2	0.834006	4.170030	0.930000	105.0	59 - 120	
15.99		5180								
16.03		21264								
16.23		2973								
16.31		921								
16.40		13114								
16.44		24610								
16.55		1424								
16.64	16.56 16.70	26027	30554	Aroclor-1260 Peak 3	0.851822	4.259111	0.930000	105.0	59 - 120	
16.75		13055								
16.99		5291								
17.20		1736								
17.26	17.18 17.32	21666	26403	Aroclor-1260 Peak 4	0.820592	4.102962	0.930000	105.0	59 - 120	
17.41		11825								

CompuChem

Lab Smp Id : 9041715-BS1 Client Smp Id : PGXLCS
Sample Type : LCS Sublist : 8082
Inj Date : 18-APR-2009 18:20 Inst ID :
Operator : 2512 Spike Sublist : AR1660WaterLCS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
17.47		1608								
17.52		13754								
17.63		5558								
17.78	17.71 17.85	51456	60269	Aroclor-1260 Peak 5	0.853761	4.268805	0.930000	105.0	59 - 120	
17.93		1468								
18.05		2275								
18.16		93								
18.42		902								
18.55		34121								
18.64		8293								
18.68		6919								
19.06		732								
19.17		864								
19.37		479								
19.43		5943								
19.76		12944								
19.83		822								
20.45		3369								
20.80		166								
21.02	20.95 21.09	42444	413792	Decachlorobiphenyl	0.102571	0.512854		85.5	43 - 144	
21.39		156								

c. Matrix Spike Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-MS2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	5.2	
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	4.0	

Data File: /chem/tracegc86.i/f090320zh.b/263f9041715-MS2.d

Date : 18-APR-2009 19:18

Client ID: 13MW5MS

Instrument: tracegc86.i

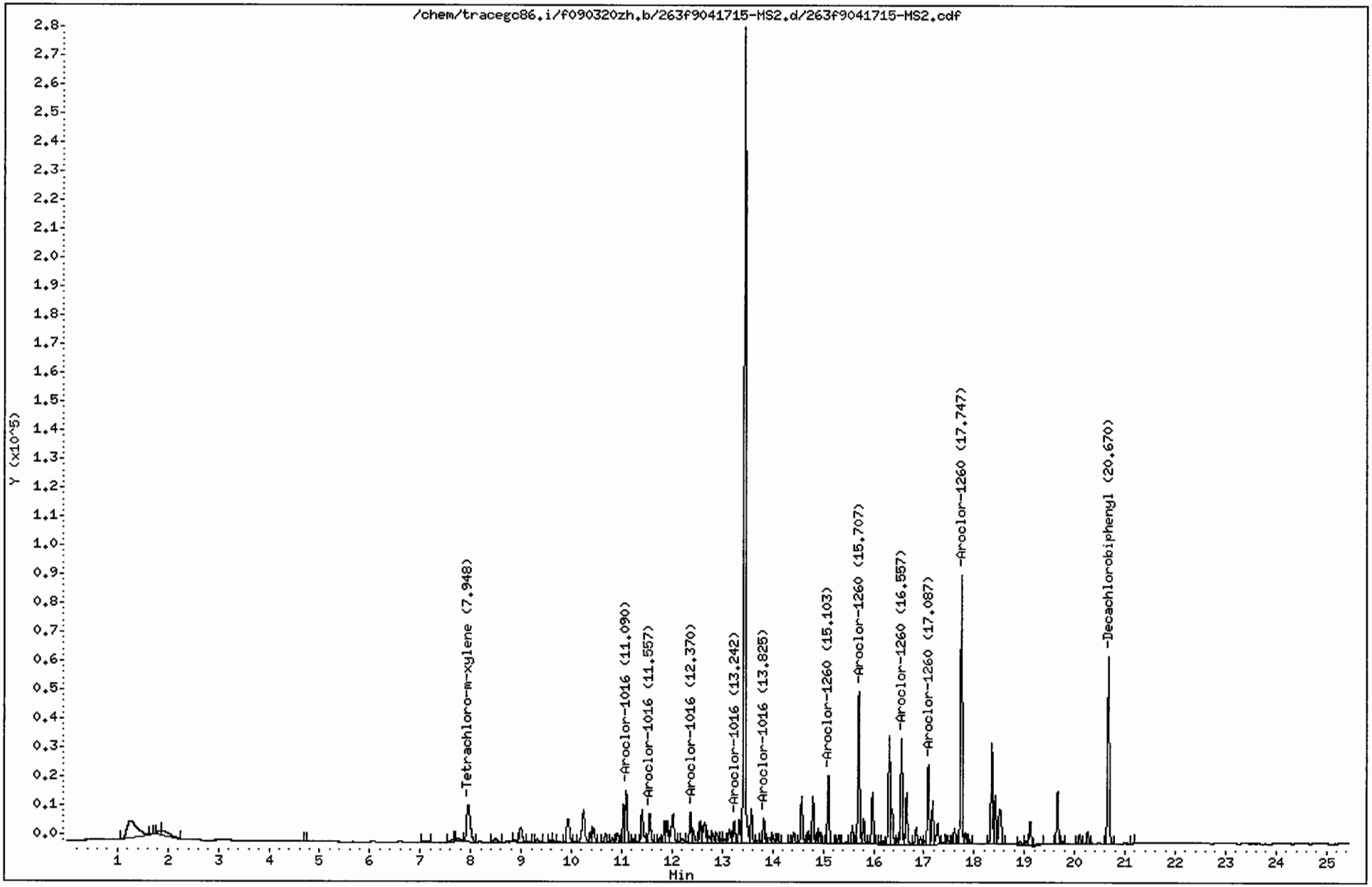
Sample Info: 9041715-MS2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID : TRACEGC86
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.25		79199								
1.68		465								
1.82		4637								
1.89		16878								
4.74		349								
7.08		2507								
7.64		2945								
7.68		1592								
7.74		6417								
7.95	7.87 8.01	64787	1736635	Tetrachloro-m-xylene	0.037305	0.186527		62.2	43 - 135	
8.49		6016								
8.88		3017								
8.99		20465								
9.14		1508								
9.32		4757								
9.58		2134								
9.64		3028								
9.76		1602								
9.93		33998								
10.05		1469								
10.24		46003								
10.38		9948								
10.44		16323								
10.68		10137								
10.82		4885								
10.91		11593								
11.04		32029								
11.09	11.01 11.15	50586	72832	Aroclor-1016 Peak 1	0.694542	3.472712	0.930000	97.5	50 - 150	
11.23		3787								
11.32		1044								
11.40		35570								
11.56	11.47 11.61	30167	32300	Aroclor-1016 Peak 2	0.933952	4.669760	0.930000	97.5	50 - 150	
11.75		4028								
11.85		18830								
11.91		19273								
12.02		36571								
12.14		1560								

4/20/09

CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
12.20		5084								
12.37	12.29 12.43	28566	36022	Aroclor-1016 Peak 3	0.793007	3.965036	0.930000	97.5	50 - 150	
12.43		13412								
12.56		20334								
12.65		29488								
12.74		8813								
12.81		10700								
12.90		10043								
12.97		4627								
13.04		4853								
13.14		15744								
13.24	13.15 13.29	20796	24795	Aroclor-1016 Peak 4	0.838713	4.193566	0.930000	97.5	50 - 150	
13.34		21857								
13.44		677124								
13.58		30777								
13.71		3229								
13.76		2023								
13.82	13.74 13.88	21511	31269	Aroclor-1016 Peak 5	0.687896	3.439481	0.930000	97.5	50 - 150	
13.94		7321								
14.00		7852								
14.11		8227								
14.34		713								
14.42		11611								
14.57		42485								
14.70		10354								
14.80		37693								
14.89		9056								
14.94		9662								
15.10	15.02 15.16	56038	78830	Aroclor-1260 Peak 1	0.710870	3.554352	0.930000	95.0	50 - 150	
15.31		8393								
15.45		2012								
15.58		15468								
15.71	15.62 15.76	128093	172520	Aroclor-1260 Peak 2	0.742480	3.712399	0.930000	95.0	50 - 150	
15.80		21034								
15.98		46592								
16.09		882								
16.13		1676								

CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
16.19		2951								
16.31		96785								
16.36		32948								
16.48		5035								
16.56	16.47 16.61	85156	112543	Aroclor-1260 Peak 3	0.756642	3.783208	0.930000	95.0	50 - 150	
16.66		44013								
16.85		14818								
16.93		6606								
17.02		2675								
17.09	17.00 17.14	66016	90796	Aroclor-1260 Peak 4	0.727084	3.635422	0.930000	95.0	50 - 150	
17.18		35826								
17.28		22018								
17.37		3789								
17.47		7958								
17.55		355								
17.61		13508								
17.75	17.66 17.80	203077	243507	Aroclor-1260 Peak 5	0.833967	4.169835	0.930000	95.0	50 - 150	
17.84		9466								
17.90		3385								
18.35		83189								
18.42		42005								
18.51		47177								
18.91		4497								
19.05		5045								
19.12		24142								
19.32		3676								
19.66		42830								
19.77		2610								
20.10		7486								
20.26		10374								
20.67	20.58 20.72	159814	1636434	Decachlorobiphenyl	0.097660	0.488300		81.4	43 - 144	
21.17		371								

Data File: /chem/tracegc87.i/f090320zh.b/263f9041715-MS2.d

Page 1

Date : 18-APR-2009 19:18

Client ID: 13MW5MS

Instrument: tracegc87.i

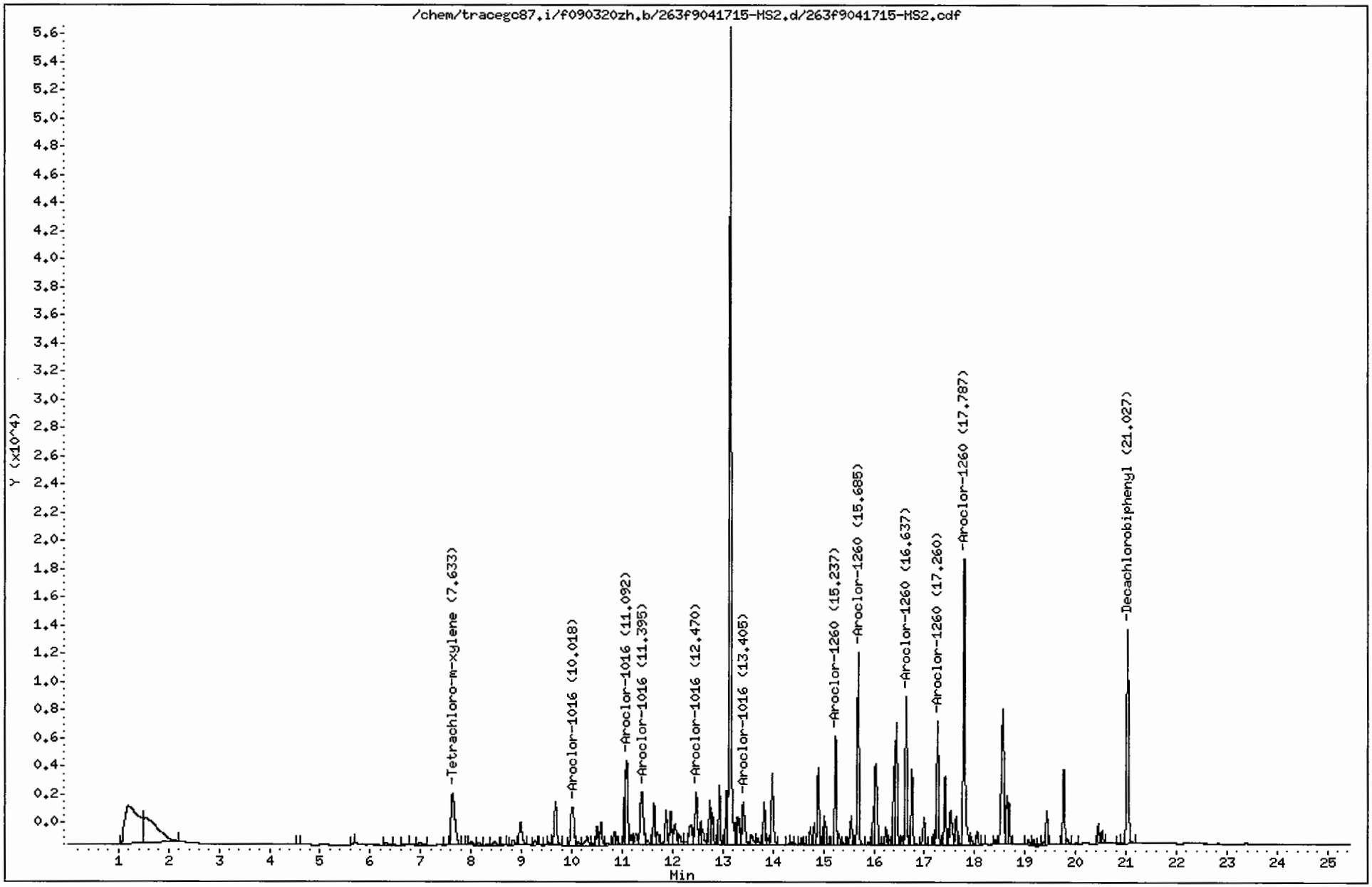
Sample Info: 9041715-MS2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID : TRACEGC87
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.20		51961								
1.54		33079								
4.56		76								
5.68		77								
6.33		770								
6.69		375								
6.99		936								
7.50		155								
7.63	7.56 7.70	19057	464578	Tetrachloro-m-xylene	0.041020	0.205100		68.4	43 - 135	
7.92		143								
8.00		880								
8.15		563								
8.46		1180								
8.65		209								
8.83		1658								
8.98		6057								
9.27		973								
9.39		141								
9.49		81								
9.54		613								
9.68		10940								
10.02	9.92 10.06	12705	14303	Aroclor-1016 Peak 1	0.888275	4.441376	0.930000	130.0	50 - 150	
10.13		864								
10.31		2710								
10.42		431								
10.50		3604								
10.58		4770								
10.70		577								
10.84		2557								
10.90		1693								
11.06		8948								
11.09	11.02 11.16	16690	20883	Aroclor-1016 Peak 2	0.799172	3.995858	0.930000	130.0	50 - 150	
11.18		1997								
11.28		3037								
11.40	11.32 11.46	16761	13011	Aroclor-1016 Peak 3	1.288193	6.440965	0.930000	130.0	50 - 150	
11.50		1190								
11.63		7436								

KEH 4/20/09

CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
11.71		2515								
11.87		6897								
11.96		6512								
12.05		5477								
12.14		2530								
12.26		935								
12.36		6452								
12.47	12.39 12.53	11541	10068	Aroclor-1016 Peak 4	1.146234	5.731171	0.930000	130.0	50 - 150	
12.56		4033								
12.60		3270								
12.74		8208								
12.79		5584								
12.93		9601								
13.07		8278								
13.14		138792								
13.27		3820								
13.31		5732								
13.40	13.33 13.47	10822	9596	Aroclor-1016 Peak 5	1.127747	5.638734	0.930000	130.0	50 - 150	
13.58		2271								
13.69		1569								
13.82		6908								
13.89		1213								
13.98		13234								
14.32		282								
14.37		508								
14.44		206								
14.57		1130								
14.63		224								
14.74		2851								
14.82		3522								
14.90		12676								
15.01		3086								
15.04		3527								
15.24	15.16 15.30	17936	23763	Aroclor-1260 Peak 1	0.754753	3.773764	0.930000	100.0	50 - 150	
15.30		1913								
15.40		388								
15.55		5698								

CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
15.62		200								
15.68	15.61 15.75	31769	39276	Aroclor-1260 Peak 2	0.808876	4.044379	0.930000	100.0	50 - 150	
15.89		619								
15.99		5012								
16.03		20520								
16.24		3286								
16.31		893								
16.40		12456								
16.45		24112								
16.55		1310								
16.64	16.56 16.70	24835	30554	Aroclor-1260 Peak 3	0.812810	4.064049	0.930000	100.0	50 - 150	
16.75		13099								
16.99		5075								
17.20		1691								
17.26	17.18 17.32	21069	26403	Aroclor-1260 Peak 4	0.797943	3.989717	0.930000	100.0	50 - 150	
17.41		11444								
17.47		1570								
17.52		8038								
17.63		5162								
17.79	17.71 17.85	50839	60269	Aroclor-1260 Peak 5	0.843540	4.217700	0.930000	100.0	50 - 150	
17.93		1459								
18.05		2159								
18.17		93								
18.42		801								
18.56		32733								
18.64		7885								
18.68		6581								
19.06		1029								
19.17		1271								
19.30		511								
19.38		747								
19.43		5749								
19.77		12587								
19.84		912								
20.00		173								
20.45		3309								
20.53		2143								

CompuChem

Lab Smp Id : 9041715-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : 8082
Inj Date : 18-APR-2009 19:18 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
20.87		201								
21.03	20.95 21.09	40954	413792	Decachlorobiphenyl	0.098970	0.494849		82.5	43 - 144	

d. Matrix Spike Duplicate Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041715-MSD2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/18/09

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/18/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	4.7	
11104-28-2	Aroclor-1221	1.3	U
11141-16-5	Aroclor-1232	0.93	U
53469-21-9	Aroclor-1242	0.63	U
12672-29-6	Aroclor-1248	0.63	U
11097-69-1	Aroclor-1254	0.63	U
11096-82-5	Aroclor-1260	4.3	

Data File: /chem/tracegc86.i/f090320zh.b/266f9041715-MSD2.d

Date : 18-APR-2009 20:44

Client ID: 13MW5MSD

Instrument: tracegc86.i

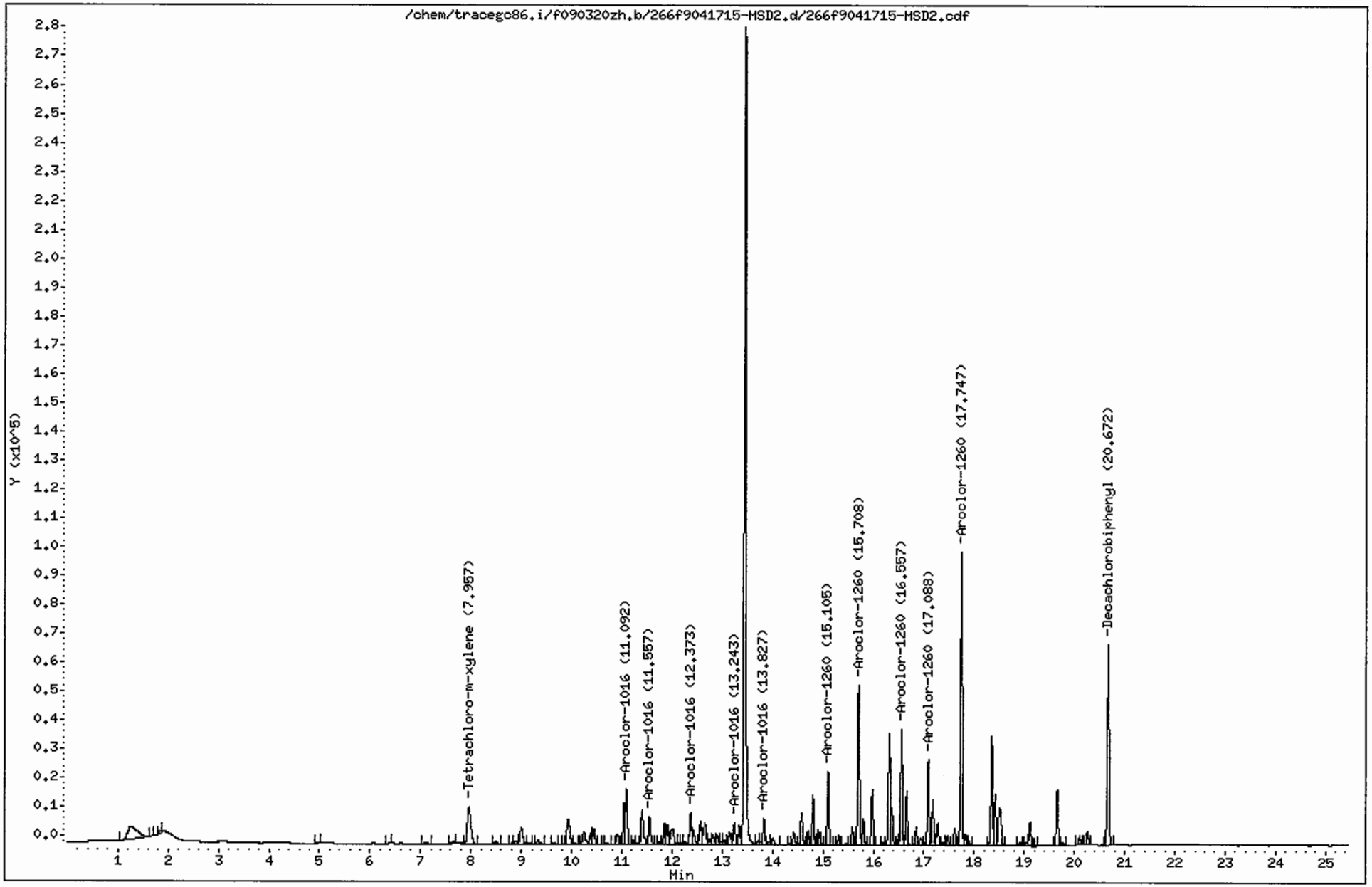
Sample Info: 9041715-MSD2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : 8082
Inj Date : 18-APR-2009 20:44 Inst ID : TRACEGC86
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.26		61162								
1.69		397								
1.84		1474								
4.98		474								
6.41		464								
7.10		2783								
7.65		2480								
7.75		1124								
7.96	7.87 8.01	62660	1736635	Tetrachloro-m-xylene	0.036081	0.180403		60.1	43 - 135	
8.49		3811								
8.80		397								
8.89		3374								
9.00		21324								
9.15		1525								
9.33		5380								
9.65		1588								
9.76		553								
9.93		36178								
10.06		1335								
10.24		17773								
10.39		10721								
10.44		16103								
10.63		564								
10.71		2652								
10.82		468								
10.92		12670								
11.04		34290								
11.09	11.01 11.15	53508	72832	Aroclor-1016 Peak 1	0.734662	3.673310	0.930000	97.5	50 - 150	
11.23		3561								
11.32		1150								
11.40		36826								
11.56	11.47 11.61	25718	32300	Aroclor-1016 Peak 2	0.796183	3.980914	0.930000	97.5	50 - 150	
11.75		2615								
11.85		17498								
11.91		18047								
12.01		25458								
12.15		2076								

CompuChem

Lab Smp Id : 9041715-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : 8082
Inj Date : 18-APR-2009 20:44 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
12.21		1803								
12.26		3876								
12.37	12.29 12.43	28753	36022	Aroclor-1016 Peak 3	0.798171	3.990853	0.930000	97.5	50 - 150	
12.44		13433								
12.57		21239								
12.66		29478								
12.75		5805								
12.82		10240								
12.90		10007								
12.97		3496								
13.04		5108								
13.14		14996								
13.24	13.15 13.29	19756	24795	Aroclor-1016 Peak 4	0.796729	3.983646	0.930000	97.5	50 - 150	
13.34		18106								
13.45		721666								
13.71		4185								
13.76		2136								
13.83	13.74 13.88	22751	31269	Aroclor-1016 Peak 5	0.727552	3.637759	0.930000	97.5	50 - 150	
13.94		3705								
14.01		7648								
14.34		860								
14.42		12516								
14.58		30681								
14.71		11424								
14.80		40735								
14.89		9712								
14.94		10384								
15.10	15.02 15.16	59439	78830	Aroclor-1260 Peak 1	0.754014	3.770069	0.930000	100.0	50 - 150	
15.32		8838								
15.46		1971								
15.58		14770								
15.71	15.62 15.76	136624	172520	Aroclor-1260 Peak 2	0.791923	3.959616	0.930000	100.0	50 - 150	
15.80		22501								
15.98		49038								
16.19		2720								
16.31		98910								
16.37		31322								

CompuChem

Lab Smp Id : 9041715-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : 8082
Inj Date : 18-APR-2009 20:44 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc86.i/f090320zh.b/8082_clpestv7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
16.49		4781								
16.56	16.47 16.61	91009	112543	Aroclor-1260 Peak 3	0.808648	4.043241	0.930000	100.0	50 - 150	
16.66		44976								
16.85		15004								
16.93		6513								
17.02		2502								
17.09	17.00 17.14	71501	90796	Aroclor-1260 Peak 4	0.787484	3.937420	0.930000	100.0	50 - 150	
17.18		37869								
17.28		22751								
17.37		3502								
17.47		8069								
17.61		14106								
17.75	17.66 17.80	219128	243507	Aroclor-1260 Peak 5	0.899879	4.499394	0.930000	100.0	50 - 150	
17.84		9839								
17.91		3436								
18.35		88169								
18.42		43156								
18.51		48843								
18.91		2225								
19.05		2779								
19.12		22409								
19.25		478								
19.66		44895								
19.77		2518								
20.10		6706								
20.26		10638								
20.67	20.58 20.72	168346	1636434	Decachlorobiphenyl	0.102873	0.514365		85.7	43 - 144	

Data File: /chem/tracegc87.i/f090320zh.b/266f9041715-MSD2.d

Date : 18-APR-2009 20:44

Client ID: 13MW5MSD

Instrument: tracegc87.i

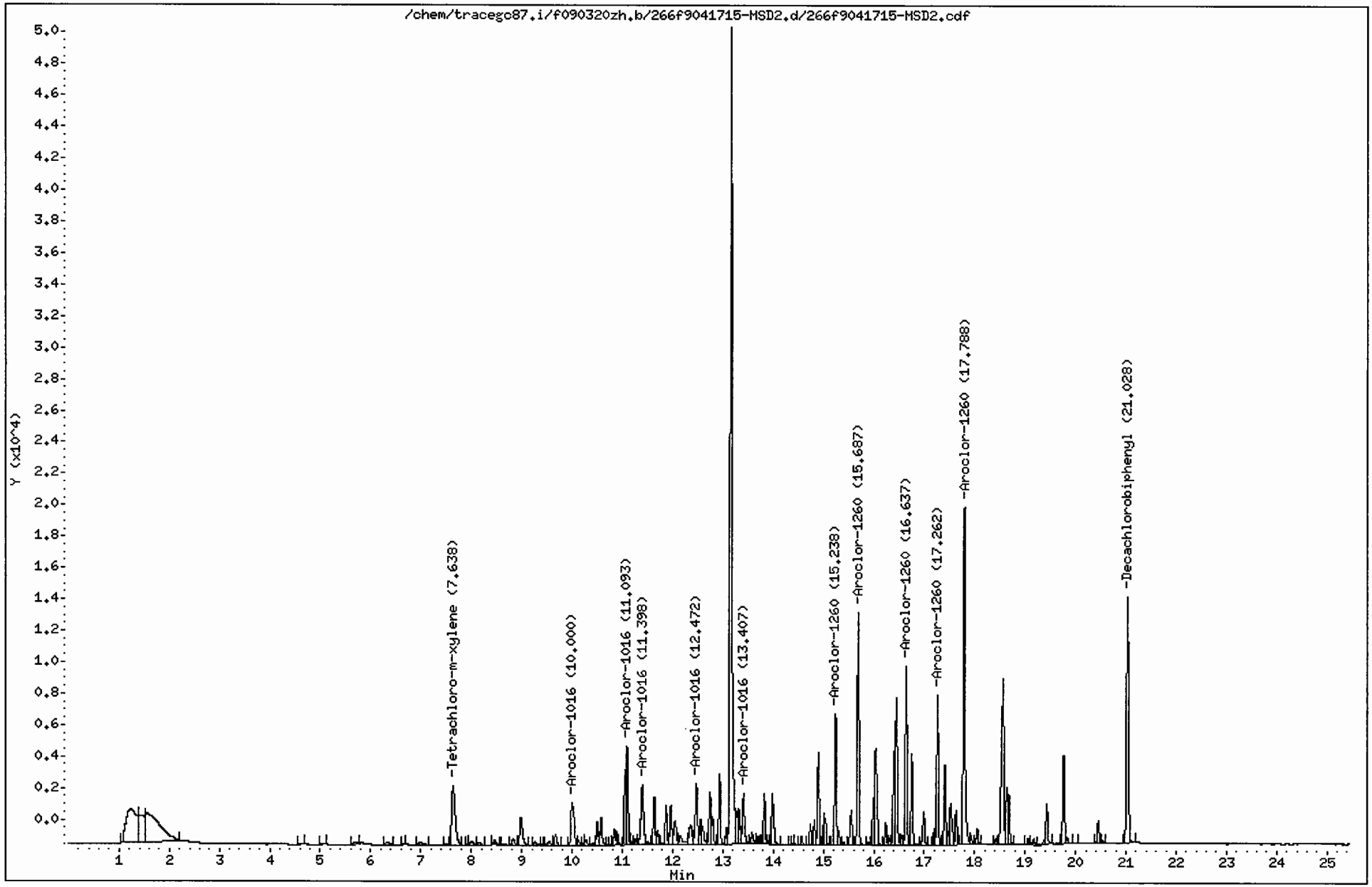
Sample Info: 9041715-MSD2

Volume Injected (uL): 1.0

Operator: 2512

Column phase: clpest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041715-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : 8082
Inj Date : 18-APR-2009 20:44 Inst ID : TRACEGC87
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		29026								
1.40		13199								
1.55		36285								
4.63		180								
5.08		113								
5.71		606								
6.34		825								
6.68		78								
7.00		783								
7.51		209								
7.64	7.56 7.70	18049	464578	Tetrachloro-m-xylene	0.038850	0.194252		64.8	43 - 135	
7.93		73								
8.01		964								
8.16		692								
8.47		1141								
8.64		285								
8.83		1461								
8.98		6602								
9.27		842								
9.40		182								
9.55		1205								
9.67		2197								
10.00	9.92 10.06	11430	14303	Aroclor-1016 Peak 1	0.799063	3.995316	0.930000	117.5	50 - 150	
10.13		813								
10.23		246								
10.28		1104								
10.42		389								
10.50		3814								
10.58		4813								
10.78		138								
10.85		2573								
10.90		1606								
11.06		9331								
11.09	11.02 11.16	16796	20883	Aroclor-1016 Peak 2	0.804295	4.021477	0.930000	117.5	50 - 150	
11.18		560								
11.26		951								
11.40	11.32 11.46	13570	13011	Aroclor-1016 Peak 3	1.042944	5.214718	0.930000	117.5	50 - 150	

KCH 4/20/09

CompuChem

Lab Smp Id : 9041715-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : 8082
Inj Date : 18-APR-2009 20:44 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
11.50		632								
11.63		7423								
11.71		2201								
11.87		6318								
11.97		6463								
12.05		5389								
12.16		2613								
12.36		4946								
12.47	12.39 12.53	11241	10068	Aroclor-1016 Peak 4	1.116436	5.582181	0.930000	117.5	50 - 150	
12.56		3868								
12.60		2964								
12.74		8461								
12.79		4093								
12.93		9973								
13.07		2297								
13.14		143613								
13.27		4630								
13.31		6129								
13.41	13.33 13.47	9272	9596	Aroclor-1016 Peak 5	0.966119	4.830596	0.930000	117.5	50 - 150	
13.58		2079								
13.69		1030								
13.82		7091								
13.91		628								
13.98		9485								
14.36		103								
14.40		160								
14.44		285								
14.57		1319								
14.74		3108								
14.82		3624								
14.90		13401								
15.01		3293								
15.04		3709								
15.24	15.16 15.30	19435	23763	Aroclor-1260 Peak 1	0.817877	4.089384	0.930000	107.5	50 - 150	
15.30		2003								
15.40		442								
15.55		6030								

CompuChem

Lab Smp Id : 9041715-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : 8082
Inj Date : 18-APR-2009 20:44 Inst ID :
Operator : 2512 Spike Sublist : AR1660MS
Method : /chem/tracegc87.i/f090320zh.b/8082_clpest2v7.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 5000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
15.69	15.61 15.75	33844	39276	Aroclor-1260 Peak 2	0.861708	4.308538	0.930000	107.5	50 - 150	
15.90		459								
15.99		5201								
16.03		21923								
16.24		3317								
16.31		1019								
16.40		13697								
16.45		25295								
16.55		1495								
16.64	16.56 16.70	26413	30554	Aroclor-1260 Peak 3	0.864455	4.322277	0.930000	107.5	50 - 150	
16.75		13853								
16.99		5335								
17.20		1750								
17.26	17.18 17.32	22246	26403	Aroclor-1260 Peak 4	0.842522	4.212609	0.930000	107.5	50 - 150	
17.41		12117								
17.47		1629								
17.52		8386								
17.63		5387								
17.79	17.71 17.85	53358	60269	Aroclor-1260 Peak 5	0.885320	4.426598	0.930000	107.5	50 - 150	
17.93		1418								
18.05		2222								
18.42		856								
18.56		34898								
18.64		8315								
18.68		6938								
19.07		709								
19.17		1021								
19.38		770								
19.43		5876								
19.77		13242								
19.84		899								
20.00		120								
20.45		3386								
20.54		359								
21.03	20.95 21.09	42182	413792	Decachlorobiphenyl	0.101940	0.509700		84.9	43 - 144	

CompuChem

A Division Of

Liberty Analytical Corp.

5/27/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904098

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER
Project RAAP APPIX 2009/B03204-07

Work: 0904098
Sdg: 0904098

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904098-01	13MW5	Water	04/13/2009 08:50	04/15/2009 16:15
0904098-02	13MW3	Water	04/13/2009 12:00	04/15/2009 16:15
0904098-03	13MW4	Water	04/13/2009 10:35	04/15/2009 16:15
0904098-04	13MWDUP	Water	04/13/2009 10:50	04/15/2009 16:15
0904098-05	13MW6	Water	04/13/2009 07:40	04/15/2009 16:15
0904098-06	13MW7	Water	04/14/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

GC by SW-846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)

C. Surrogate spike analysis results (Form II)
By matrix (Water or Soil), and
by concentration (Low, or Medium)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)

LAB CODE: LIBRTY

METHOD: 8151

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW5, 13MW3, 13MW4, 13MWDUP, 13MW6, 13MW7

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples listed above were scheduled for the requested analysis of the Herbicide fraction for 2,4-D, Dinoseb, Silvex, and 2,4,5-T only. SW-846, 3rd Edition, Update 3, Method 8151A was used to prepare and analyze the samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904098 are included in the sample data sections.

Herbicide

Extraction and analysis holding time requirements were met for the samples.

No target analytes confirmed above the reporting limits in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All surrogate recoveries were within the method specified limits.

The method blank associated with the samples met all quality control criteria.

Matrix spike/matrix spike duplicate samples were performed with sample 13MW5, and met recovery and precision criteria. The Laboratory Control Sample (LCS) prepared and analyzed with the samples met recovery criteria.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on CD has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings
GC/HPLC Data Reviewer
April 21, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
✓	Restek	clpest	0.32	0.5	30
✓	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

CompuChem

a division of Liberty Analytical Corporation

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

CompuChem

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DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I

Organic Analysis Data Sheet (OADS)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

13MW4

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-MS2

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	27	
93-72-1	silvex	4.6	
93-76-5	2,4,5-T	6.0	
88-85-7	dinoseb	7.9	

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

13MW5MSD

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-MSD2

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	29	
93-72-1	silvex	4.8	
93-76-5	2,4,5-T	6.5	
88-85-7	dinoseb	7.7	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.1	U
93-72-1	silvex	2.6	U
93-76-5	2,4,5-T	2.6	U
88-85-7	dinoseb	2.6	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGULCS

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-BS1

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 09/27/07

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	24	
93-72-1	silvex	4.0	
93-76-5	2,4,5-T	4.7	
88-85-7	dinoseb	7.0	

C. Form II

Surrogate spike analysis

- By level (low, medium) -

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): CLPEST ID: 0.32 (mm) GC Column(2): CLPEST2 ID: 0.32 (mm)

	EPA SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	S2 1 %REC #	S2 2 %REC #	S3 1 %REC #	S3 2 %REC #	TOT OUT
01	PBLKGU	82	94					0
02	PGULCS	85	90					0
03	13MW5MS	100	97					0
04	13MW5MSD	100	101					0
05	13MW5	100	99					0
06	13MW3	100	100					0
07	13MW4	100	96					0
08	13MWDUP	93	90					0
09	13MW6	98	94					0
10	13MW7	94	89					0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 = DCAA (50-148)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate results

- By level (low, medium) -

Laboratory Control Sample(s)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2,4-D	25	0.0	27	108	50-150
silvex	5.0	0.0	4.6	92	50-150
2,4,5-T	5.0	0.0	6.0	120	50-150
dinoseb	12	0.0	7.9	66	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	25	29	116	7	40	50-150
silvex	5.0	4.8	96	4	40	50-150
2,4,5-T	5.0	6.5	130	8	40	50-150
dinoseb	12	7.7	64	2	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E

WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGULCS

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2,4-D	25	24	96	50-150
silvex	5.0	4.0	80	50-150
2,4,5-T	5.0	4.7	94	50-150
dinoseb	12	7.0	58	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

_____

FORM III PEST-1

E. Form IV

Method Blank Results
Form IV, Form I

Method blank summary, OADS,
- In chronological order of analysis

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLKGU

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041632-BLK1 Lab File ID: 095T9041632-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 04/17/09

Date Analyzed (1): 04/20/09 Date Analyzed (2): 04/20/09

Time Analyzed (1): 1639 Time Analyzed (2): 1639

Instrument ID (1): AGILENT92 Instrument ID (2): AGILENT93

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPEST2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGULCS	9041632-BS1	04/20/09	04/20/09
02	13MW5MS	9041632-MS2	04/20/09	04/20/09
03	13MW5MSD	9041632-MSD2	04/20/09	04/20/09
04	13MW5	0904098-01	04/20/09	04/20/09
05	13MW3	0904098-02	04/20/09	04/20/09
06	13MW4	0904098-03	04/21/09	04/21/09
07	13MWDUP	0904098-04	04/21/09	04/21/09
08	13MW6	0904098-05	04/21/09	04/21/09
09	13MW7	0904098-06	04/21/09	04/21/09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGU

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-BLK1

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

GC by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalysis, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE: LIBRTY

METHOD: 8151

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW5, 13MW3, 13MW4, 13MWDUP, 13MW6, 13MW7

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples listed above were scheduled for the requested analysis of the Herbicide fraction for 2,4-D, Dinoseb, Silvex, and 2,4,5-T only. SW-846, 3rd Edition, Update 3, Method 8151A was used to prepare and analyze the samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904098 are included in the sample data sections.

Herbicide

Extraction and analysis holding time requirements were met for the samples.

No target analytes confirmed above the reporting limits in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All surrogate recoveries were within the method specified limits.

The method blank associated with the samples met all quality control criteria.

Matrix spike/matrix spike duplicate samples were performed with sample 13MW5, and met recovery and precision criteria. The Laboratory Control Sample (LCS) prepared and analyzed with the samples met recovery criteria.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on CD has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings
GC/HPLC Data Reviewer
April 21, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
✓	Restek	clpest	0.32	0.5	30
✓	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

CompuChem

a division of Liberty Analytical Corporation

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

36

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine	8330 - Explosives	Appdx 9 Herbs 8151A	Perchlorate 314.0	ICP 6010B/3005A/Trailtium 7000 (Metals-Total)	7470A (Mercury-Total)	Cyanide 9014	Sulfide 9030B	Appdx 9 SV 8270C	Appdx 9 PEST 8081A	Appdx 9 PCBs 8082	
Box 4 - Sample Type					G	G	G	G	G	G	G	G	G	G	G	
Box 3 - Filtered/Unfiltered					U	U	U	U	U	U	U	U	U	U	U	
Required pH of Sample									<2	<2	>12	>9				
Box 2 - Preservative					H	H	H	H	B	B	E/F	E	H	H	H	
Box 5 - Sample Container Type					2-1L A	2-1L A	2-1L A	1-250ml P	1-500 ml P		P	P	2-1L A	2-1L A		
13MW1 ✓	4/14	0935	GW	3	X	X		X	X <2	X			X			0904103-01
13MW2 ✓	4/14	0815	GW	3	X	X		X	X <2	X			X			0904103-02
13MW3 ✓	4/13	1200	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-02
13MW4 ✓		1035	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-03
13MWDUP ✓		1050	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-04
13MW5 ✓		0850	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-01 USE FOR QC
13MW6 ✓	4/13	0740	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-05
13MW7 ✓	4/14	1050	GW	3	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-06

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW1 + 13MW-2. JF 3.31.09

Residual Chlorine Present?
Yes ____ No ✓

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No

Describe problems, if any: 0.6°C, 1.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Eddington	Date: 4/15/09	Sample Storage Time Requested:	
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224		
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Eddington	Date: 4/15/09	#2 Received by (Signature): Lee H Swanson	Date: 4/15/09	30 DYS ORG/6 MTHS INORG	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM		

9 - Rdp
Compuchem
4-15-09
1615

Y/O JF 3.31.09

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13C.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Received**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR **DATE:** 4/20/09

4-20-1

BATCH: 9041632

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904096-01	7W11B		
2	0904096-02	7W12B		
3	0904096-03	7WCA		
4	0904096-04	7WDUP		
5	0904096-05	7MW6		
6	0904098-01	13MW5		
7	0904098-02	13MW3		
8	0904098-03	13MW4		
9	0904098-04	13MWDUP		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	9041632-BLK1	PBLKGU		
13	9041632-BS1	PGULCS		
14	9041632-MS1	Matrix Spike		
15	9041632-MS2	Matrix Spike		
16	9041632-MSD1	Matrix Spike Dup		
17	9041632-MSD2	Matrix Spike Dup		
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	B. Patterson	4/20/09 16:00	GC Refr # 3	temp Storage
	Gc#3	4/20/09 1620	ae	
	ae	4/20/09 1620	Gc#4	
				TAJ 4/21/09

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE: LIBRTY

METHOD: 8151

SDG #: 0904098

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II)

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample Summary
(Form III)

c. Method Blank Summary (Form IV)

a. Surrogate Percent Recovery Summary

(Form II)

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): CLPEST ID: 0.32 (mm) GC Column(2): CLPEST2 ID: 0.32 (mm)

	EPA SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	S2 1 %REC #	S2 2 %REC #	S3 1 %REC #	S3 2 %REC #	TOT OUT
01	PBLKGU	82	94					0
02	PGULCS	85	90					0
03	13MW5MS	100	97					0
04	13MW5MSD	100	101					0
05	13MW5	100	99					0
06	13MW3	100	100					0
07	13MW4	100	96					0
08	13MWDUP	93	90					0
09	13MW6	98	94					0
10	13MW7	94	89					0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 = DCAA (50-148)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample Summary

(Form III)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2,4-D	25	0.0	27	108	50-150
silvex	5.0	0.0	4.6	92	50-150
2,4,5-T	5.0	0.0	6.0	120	50-150
dinoseb	12	0.0	7.9	66	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	25	29	116	7	40	50-150
silvex	5.0	4.8	96	4	40	50-150
2,4,5-T	5.0	6.5	130	8	40	50-150
dinoseb	12	7.7	64	2	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGULCS

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2,4-D	25	24	96	50-150
silvex	5.0	4.0	80	50-150
2,4,5-T	5.0	4.7	94	50-150
dinoseb	12	7.0	58	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

_____

FORM III PEST-1

c. Method Blank Summary (Form IV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGU

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041632-BLK1 Lab File ID: 095T9041632-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) N Date Extracted: 04/17/09

Date Analyzed (1): 04/20/09 Date Analyzed (2): 04/20/09

Time Analyzed (1): 1639 Time Analyzed (2): 1639

Instrument ID (1): AGILENT92 Instrument ID (2): AGILENT93

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPEST2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGULCS	9041632-BS1	04/20/09	04/20/09
02	13MW5MS	9041632-MS2	04/20/09	04/20/09
03	13MW5MSD	9041632-MSD2	04/20/09	04/20/09
04	13MW5	0904098-01	04/20/09	04/20/09
05	13MW3	0904098-02	04/20/09	04/20/09
06	13MW4	0904098-03	04/21/09	04/21/09
07	13MWDUP	0904098-04	04/21/09	04/21/09
08	13MW6	0904098-05	04/21/09	04/21/09
09	13MW7	0904098-06	04/21/09	04/21/09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I), followed by the raw data for samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results

Tabulated results (identification and quantitation) shall be included.

b. Copies of Chromatograms

Positively identified compounds shall be labeled with the names of compounds, either directly out from the peak on the chromatogram, or on a printout of retention times on the data system printout if retention times are printed over the peak on the chromatogram. Included for each sample or sample extract, dilutions, and reanalysis. The chromatogram shall contain the following header information: Client Sample ID number, volume injected (uL), date and time of injection, GC column ID, and GC instrument ID.

c. Copies of Chromatograms from the Second Column

(if necessary)

d. Data System Printout

A printout of retention time and corresponding peak height or peak Area shall accompany each chromatogram. Where edits have been Made, initialing, dating and integration time range are required.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402n.b/110t0904098-02.d

Date : 20-APR-2009 23:57

Client ID: 13MW3

Instrument: agilent92.i

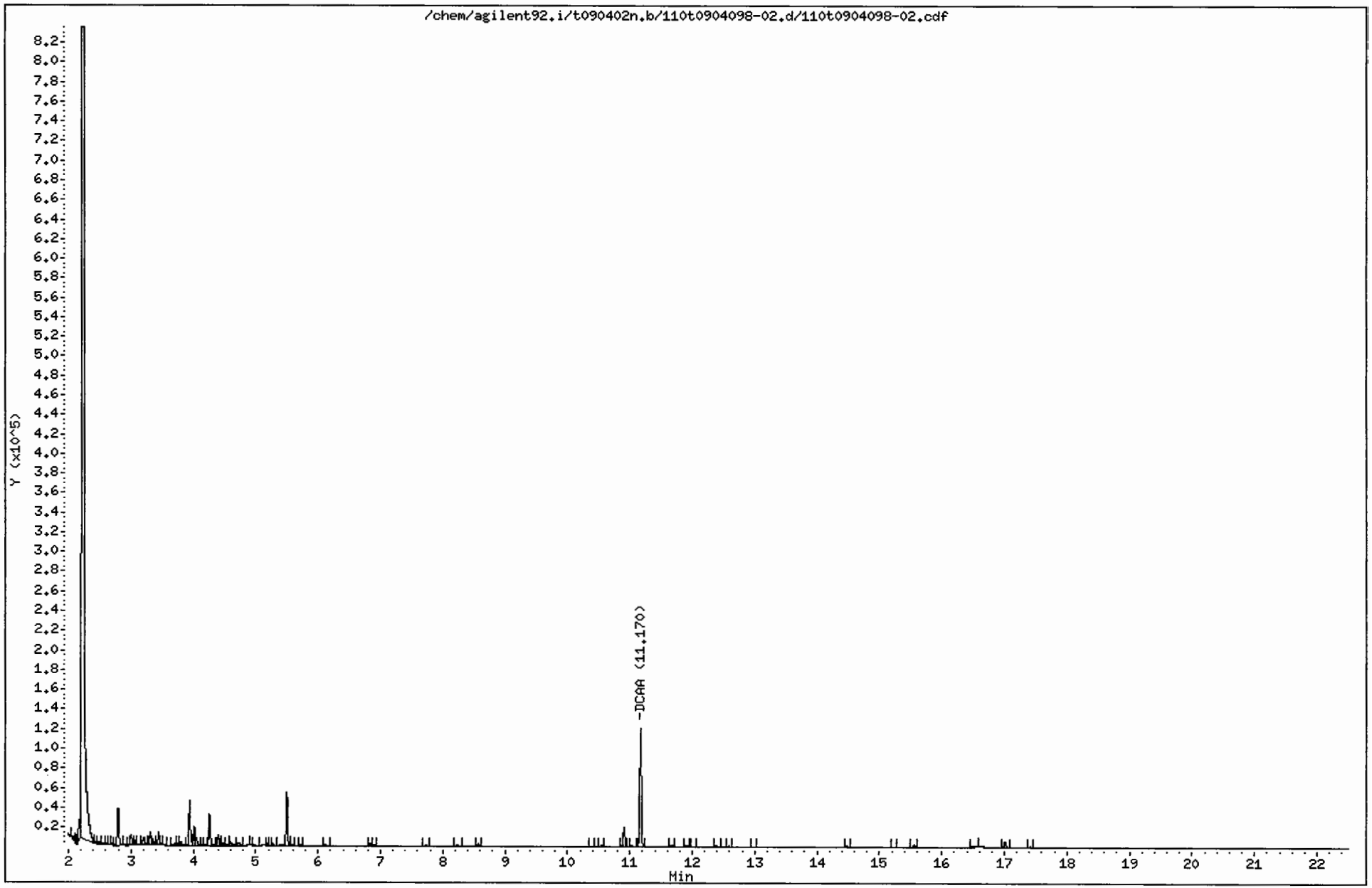
Sample Info: 0904098-02

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:57 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.19		2526								
1.21		227285								
1.29		2055109								
1.35		1326322								
1.63		45840								
1.81		1551								
1.85		4022								
2.06		7866								
2.11		2251								
2.18		33117								
2.25		2841081								
2.43		1475								
2.50		4626								
2.55		2819								
2.61		2249								
2.69		1714								
2.73		919								
2.80		71407								
2.89		1078								
2.96		898								
3.00		17744								
3.06		6024								
3.21		17744								
3.31		19973								
3.36		6444								
3.44		23136								
3.53		2481								
3.71		7338								
3.75		3698								
3.80		8234								
3.94		71342								
4.01		30662								
4.05		13398								
4.13		1254								
4.26		61217								
4.40		20750								
4.47		5588								

CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:57 Inst ID :
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.54		1950								
4.60		8472								
4.72		7830								
4.92		1369								
4.99		1041								
5.18		2316								
5.28		3133								
5.50		86031								
5.58		2412								
5.73		1298								
6.12		2296								
6.83		4785								
6.89		2295								
7.72		2263								
8.23		2332								
8.57		4850								
10.38		1146								
10.54		1426								
10.91		34820								
11.03		2030								
11.17	11.14 11.20	209780	40502	DCAA	5.179508	51.79508		103.6	50 - 148	
11.68		3073								
11.91		3595								
12.03		951								
12.39		1981								
12.59		1471								
12.97		1348								
14.48		2431								
15.23		979								
15.55		4238								
16.52		4544								
17.01		11285								
17.41		1425								

Data File: /chem/agilent93.i/t090402n.b/110t0904098-02.d

Date : 20-APR-2009 23:57

Client ID: 13MW3

Instrument: agilent93.i

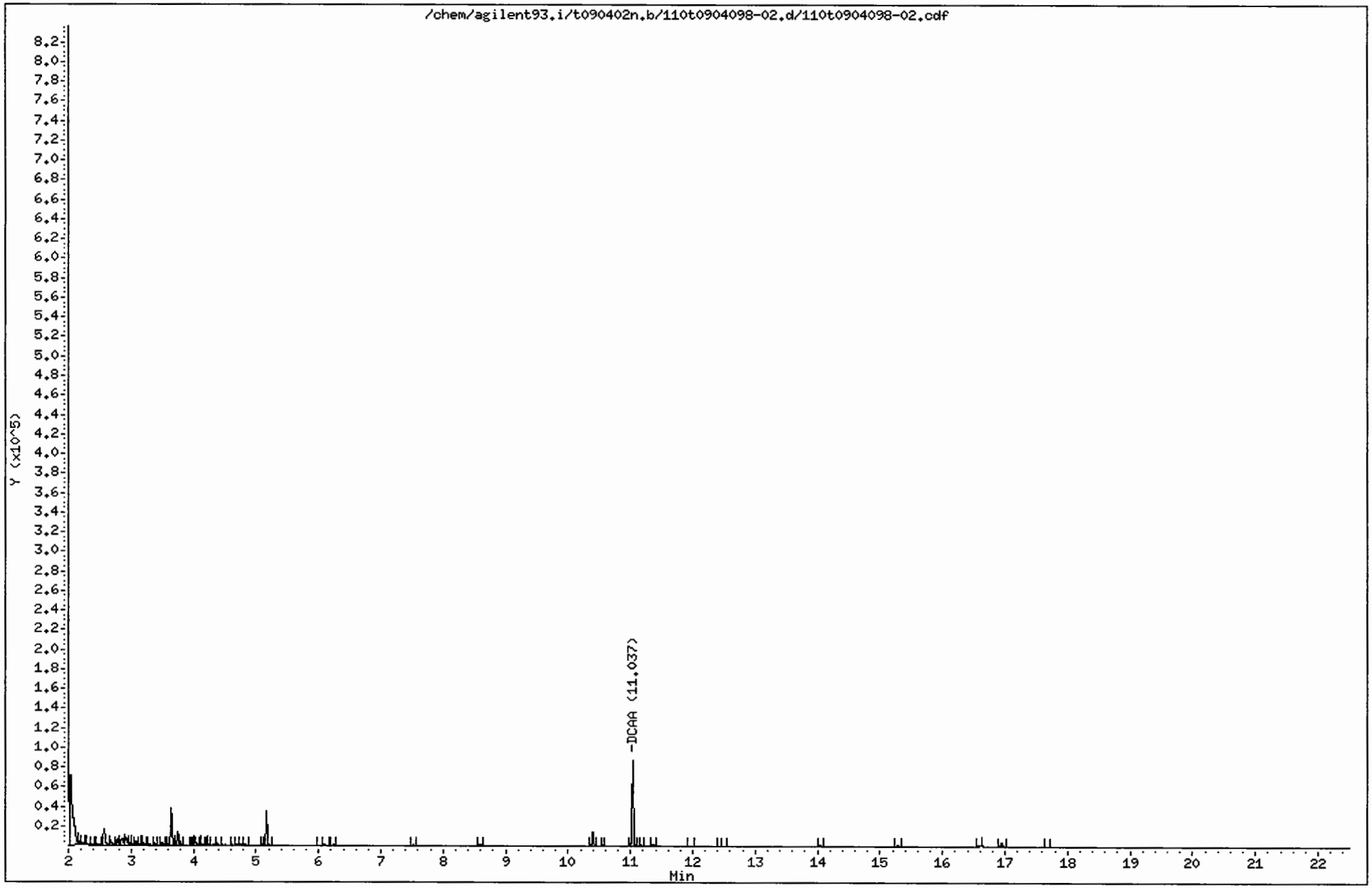
Sample Info: 0904098-02

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:57 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		166772								
1.29		2457920								
1.35		1987216								
1.40		2172019								
1.50		1086181								
1.79		30991								
1.81		106245								
2.00		1772559								
2.03		256307								
2.17		6940								
2.23		4308								
2.31		1375								
2.37		876								
2.47		1401								
2.57		36787								
2.67		8868								
2.78		12684								
2.85		16737								
2.92		18623								
2.98		5474								
3.02		2344								
3.08		5254								
3.13		808								
3.17		1417								
3.19		5280								
3.30		1639								
3.37		3055								
3.49		4579								
3.64		70049								
3.75		20964								
3.79		4611								
3.98		12013								
4.02		13291								
4.13		1883								
4.22		1024								
4.25		1993								
4.38		4097								

KeH 4/21/09

CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:57 Inst ID :
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.62		1131								
4.70		1365								
4.76		1529								
4.83		2032								
5.10		1662								
5.17		51417								
6.01		765								
6.09		2953								
6.24		1310								
7.53		941								
8.60		2799								
10.40		23859								
10.56		829								
11.04	11.01 11.07	141072	28143	DCAA	5.012608	50.12608		100.3	50 - 148	
11.17		1067								
11.37		2190								
11.95		1308								
12.43		739								
12.49		1127								
14.04		1536								
15.29		3098								
16.59		1710								
16.95		8864								
17.67		927								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402n.b/111t0904098-03.d

Page 1

Date : 21-APR-2009 00:26

Client ID: 13MW4

Instrument: agilent92.i

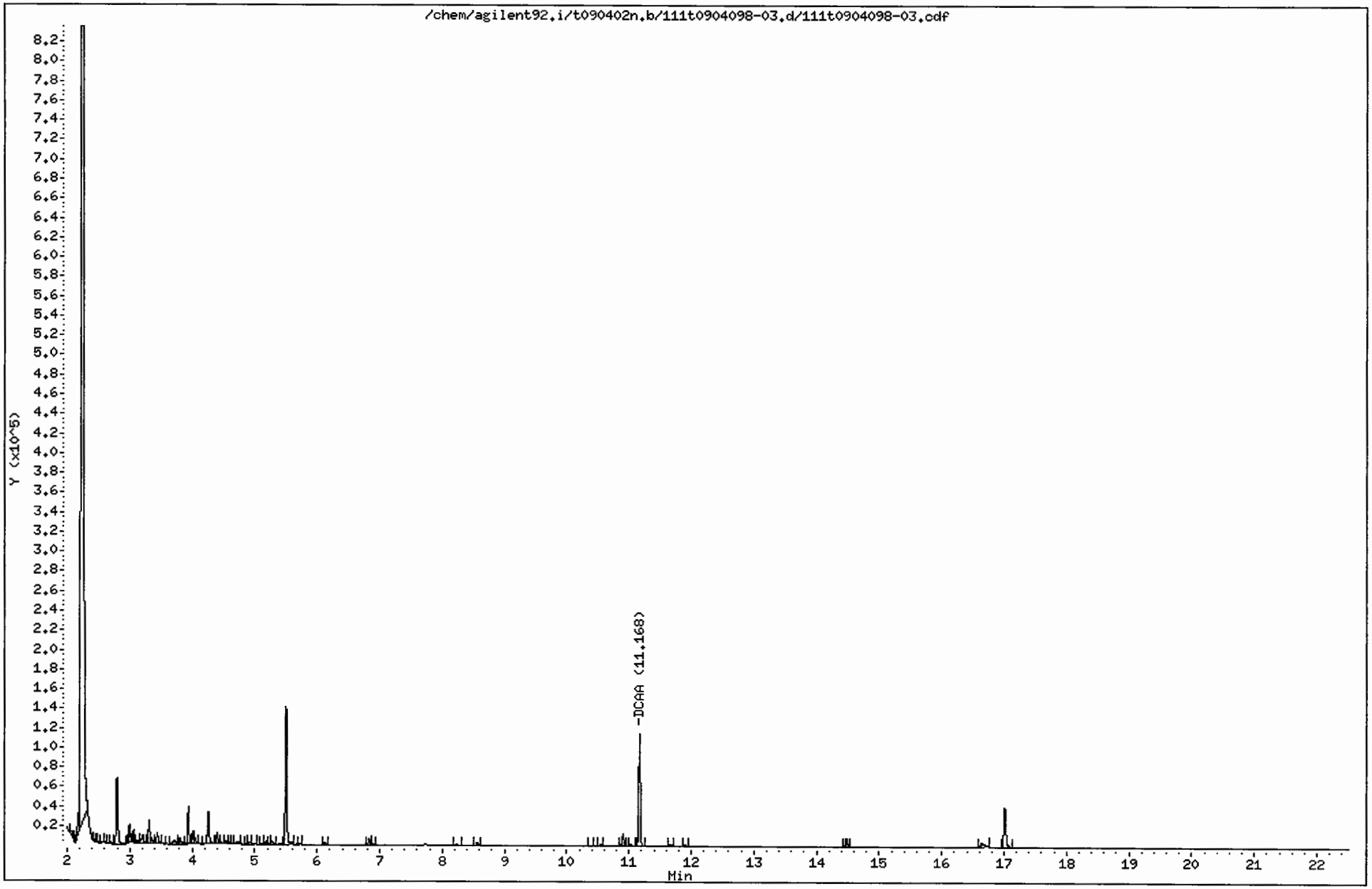
Sample Info: 0904098-03

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:26 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.21		508518								
1.32		2269618								
1.63		64973								
1.81		3933								
1.91		4884								
2.06		12093								
2.11		1223								
2.18		27547								
2.26		3123313								
2.42		1419								
2.49		1148								
2.54		1872								
2.61		1904								
2.69		2709								
2.80		121143								
2.96		899								
3.00		30063								
3.06		17521								
3.12		4305								
3.21		18980								
3.31		36333								
3.35		7927								
3.44		22907								
3.54		2548								
3.71		13049								
3.80		13295								
3.94		59104								
4.01		20581								
4.05		10831								
4.13		1204								
4.26		64106								
4.40		20879								
4.46		2949								
4.54		5904								
4.59		3565								
4.64		1200								
4.72		7108								

KEH 4/21/09

CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:26 Inst ID :
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.87		1093								
4.92		5925								
4.99		1349								
5.12		1891								
5.18		5324								
5.28		6632								
5.50		238621								
5.72		1254								
6.12		4378								
6.83		11021								
6.89		2514								
8.23		2679								
8.57		4920								
10.38		1141								
10.54		1601								
10.90		22062								
11.03		1630								
11.17	11.14 11.20	202464	40502	DCAA	4.998874	49.98874		100.0	50 - 148	
11.67		3209								
11.91		1971								
14.48		16793								
16.64		15902								
17.01		89058								

Data File: /chem/agilent93.i/t090402n.b/111t0904098-03.d

Date : 21-APR-2009 00:26

Client ID: 13MW4

Instrument: agilent93.i

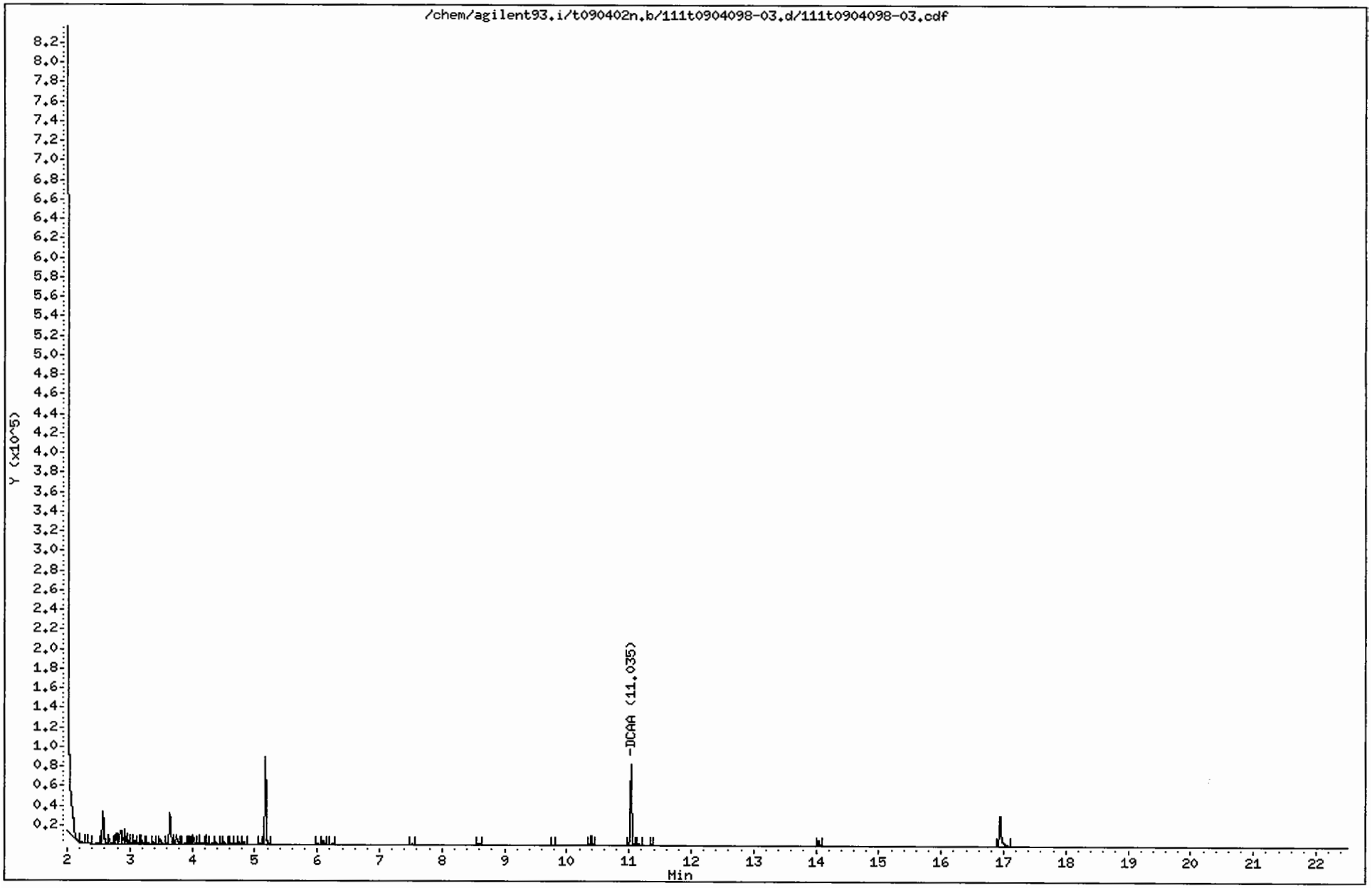
Sample Info: 0904098-03

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:26 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		370587								
1.44		10503915								
1.50		1061398								
1.78		2544								
2.00		2422454								
2.23		2730								
2.31		855								
2.37		1061								
2.57		62291								
2.67		8296								
2.78		19315								
2.86		34009								
2.90		9267								
2.92		14774								
2.98		6147								
3.02		2755								
3.08		4721								
3.14		1236								
3.17		1447								
3.19		5564								
3.30		1480								
3.37		3062								
3.49		8802								
3.64		64309								
3.75		17437								
3.88		1273								
3.98		12324								
4.02		11257								
4.10		776								
4.13		2666								
4.25		1381								
4.38		4104								
4.50		4312								
4.62		3515								
4.70		1567								
4.76		3209								
4.83		3831								

KEH 4/21/09

CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:26 Inst ID :
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
5.10		2080								
5.17		137638								
6.01		1910								
6.09		5770								
6.24		1323								
7.52		1229								
8.60		2745								
9.78		907								
10.39		15819								
11.04	11.01 11.07	135077	28143	DCAA	4.799626	47.99626		96.0	50 - 148	
11.17		1174								
11.36		968								
14.04		11331								
16.94		76048								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402n.b/109t0904098-01.d

Date : 20-APR-2009 23:27

Client ID: 13MW5

Instrument: agilent92.i

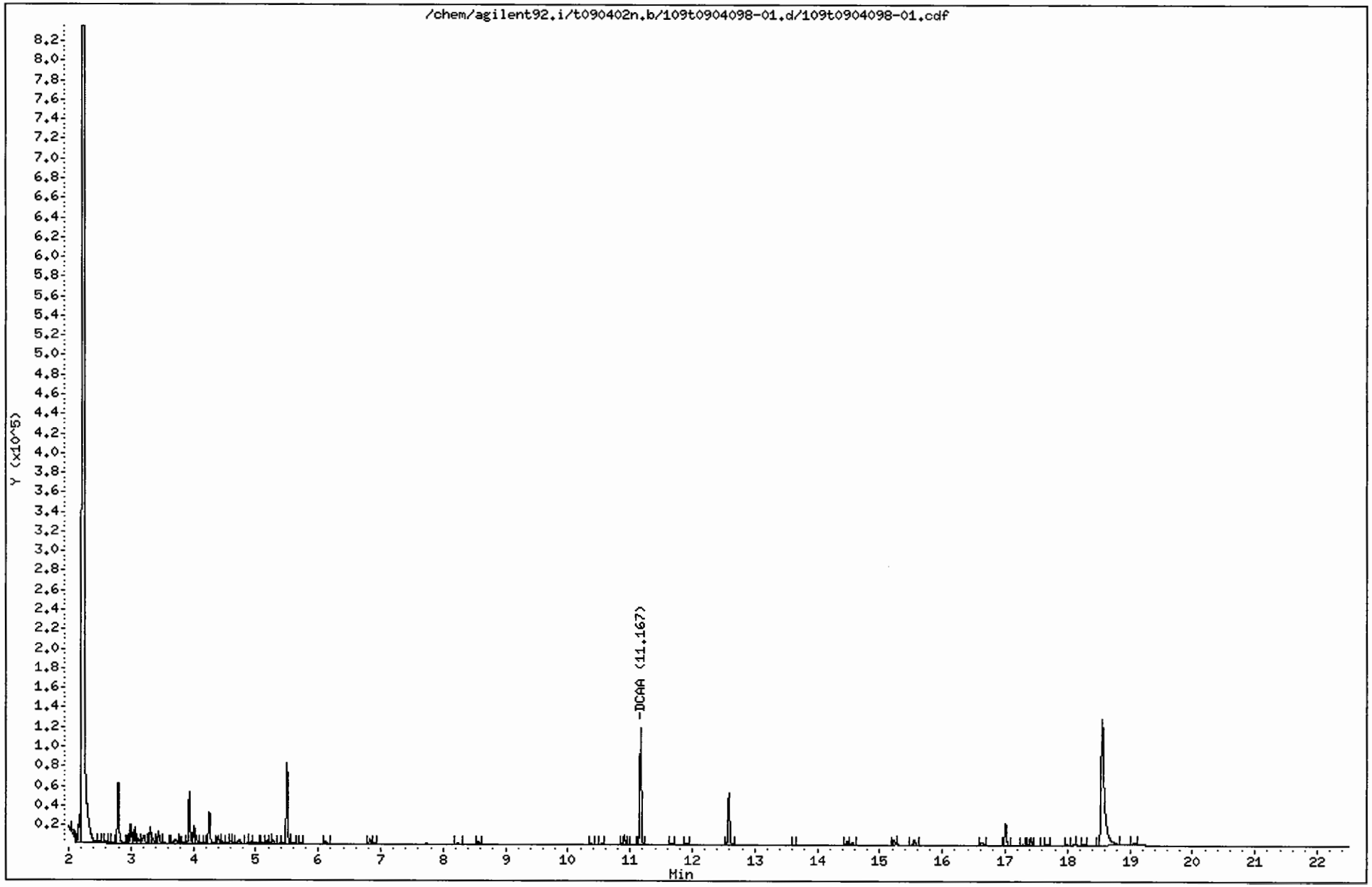
Sample Info: 0904098-01

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:27 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.21		333274								
1.33		2301359								
1.62		69721								
1.81		2425								
2.06		11558								
2.17		47217								
2.25		2888345								
2.49		3950								
2.55		3608								
2.61		4161								
2.65		1560								
2.69		2983								
2.80		115229								
2.96		1395								
3.00		33492								
3.06		23560								
3.12		9777								
3.21		23136								
3.31		27839								
3.35		8483								
3.44		24604								
3.54		3199								
3.71		12971								
3.80		12753								
3.94		81258								
4.01		29855								
4.05		12714								
4.13		1394								
4.25		60699								
4.40		16594								
4.46		4534								
4.54		2358								
4.59		5977								
4.64		2181								
4.74		11125								
4.92		4050								
4.99		1452								

CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:27 Inst ID :
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
5.12		1618								
5.18		5606								
5.27		6802								
5.39		910								
5.44		1794								
5.50		135137								
5.60		4428								
5.72		897								
6.12		4088								
6.83		9076								
6.89		2526								
8.23		2985								
8.57		4963								
10.38		1874								
10.54		1105								
10.90		17761								
11.03		1322								
11.17	11.14 11.20	206242	40502	DCAA	5.092154	50.92154		101.8	50 - 148	
11.67		2980								
11.91		2359								
12.59		101211								
13.63		1150								
14.48		9101								
14.56		6032								
15.23		10916								
15.55		13206								
16.63		6800								
17.01		44832								
17.28		1224								
17.41		16622								
17.50		1018								
17.68		1601								
18.00		1037								
18.10		1204								
18.26		2104								
18.55		473438								
19.07		4912								

Data File: /chem/agilent93.i/t090402n.b/109t0904098-01.d

Page 1

Date : 20-APR-2009 23:27

Client ID: 13MW5

Instrument: agilent93.i

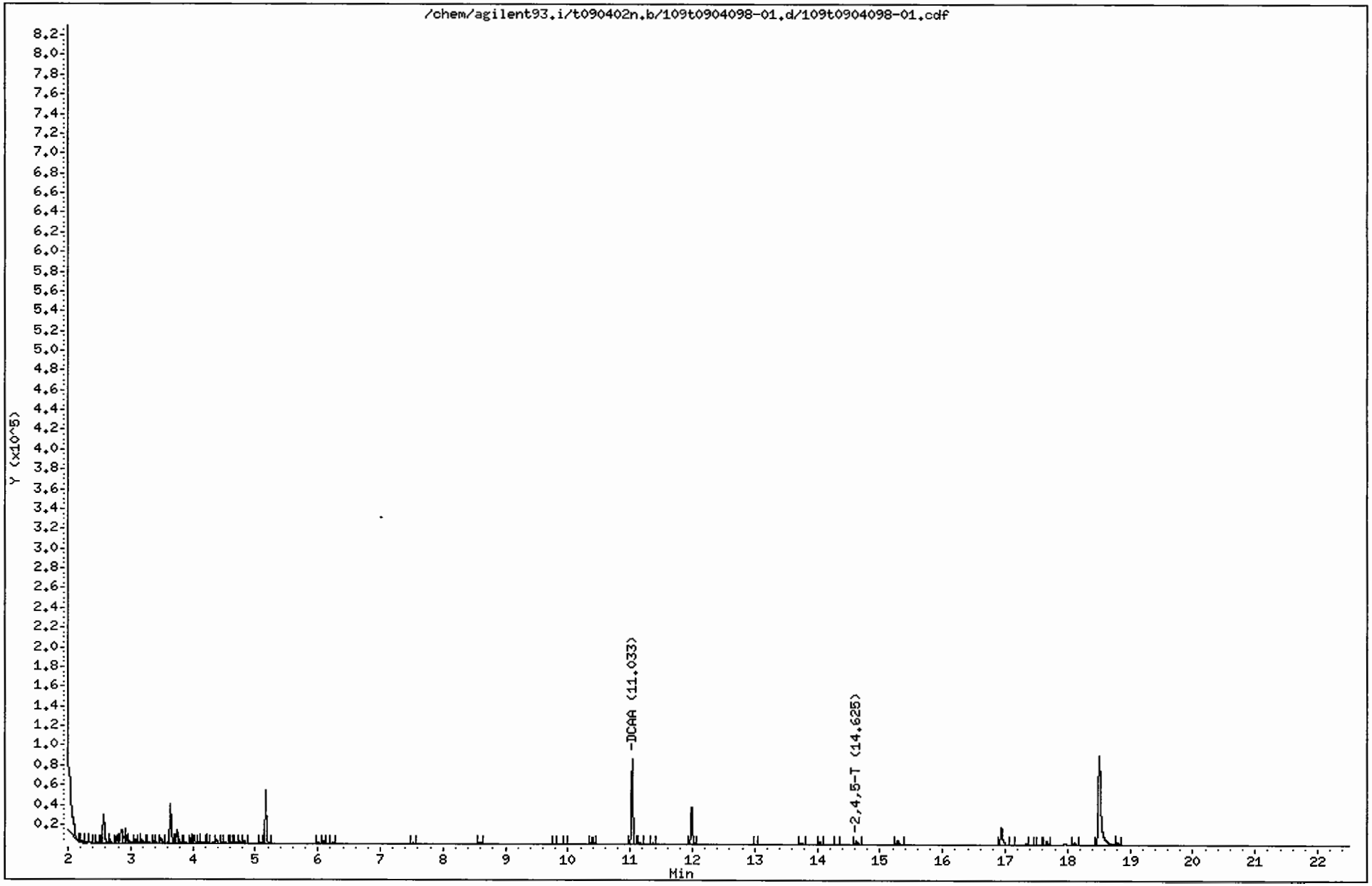
Sample Info: 0904098-01

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:27 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		207360								
1.29		1781041								
1.40		899615								
1.50		192212								
2.00		1893868								
2.22		2332								
2.37		980								
2.47		762								
2.57		58157								
2.67		6999								
2.78		13737								
2.85		33742								
2.90		9368								
2.92		14988								
2.98		7554								
3.08		4852								
3.14		1793								
3.19		6537								
3.30		1158								
3.37		2022								
3.49		8634								
3.64		74153								
3.71		1469								
3.75		18848								
3.78		4591								
3.88		1392								
3.97		8479								
4.02		13666								
4.13		2089								
4.22		904								
4.25		2016								
4.38		5955								
4.50		1530								
4.62		1756								
4.70		1449								
4.75		2960								
4.83		3727								

4/21/09

CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 20-APR-2009 23:27 Inst ID :
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
5.10		2591								
5.17		80368								
6.01		1852								
6.09		4810								
6.24		1577								
7.52		1325								
8.59		2843								
9.78		730								
9.96		1009								
10.39		12517								
11.03	11.01 11.07	139938	28143	DCAA	4.972350	49.72350		99.4	50 - 148	
11.16		1139								
11.37		1513								
11.99		66371								
13.02		776								
13.75		3845								
14.04		5979								
14.32		1095								
14.62	14.57 14.63	8041	136793	2,4,5-T	0.058782	0.587823	2.500000			J
15.28		8481								
16.94		41477								
17.10		1015								
17.42		735								
17.54		823								
17.67		8031								
18.11		3932								
18.51		282149								
18.80		4310								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.1	U
93-72-1	silvex	2.6	U
93-76-5	2,4,5-T	2.6	U
88-85-7	dinoseb	2.6	U

Data File: /chem/agilent92.i/t090402n.b/113t0904098-05.d

Date : 21-APR-2009 01:25

Client ID: 13MW6

Instrument: agilent92.i

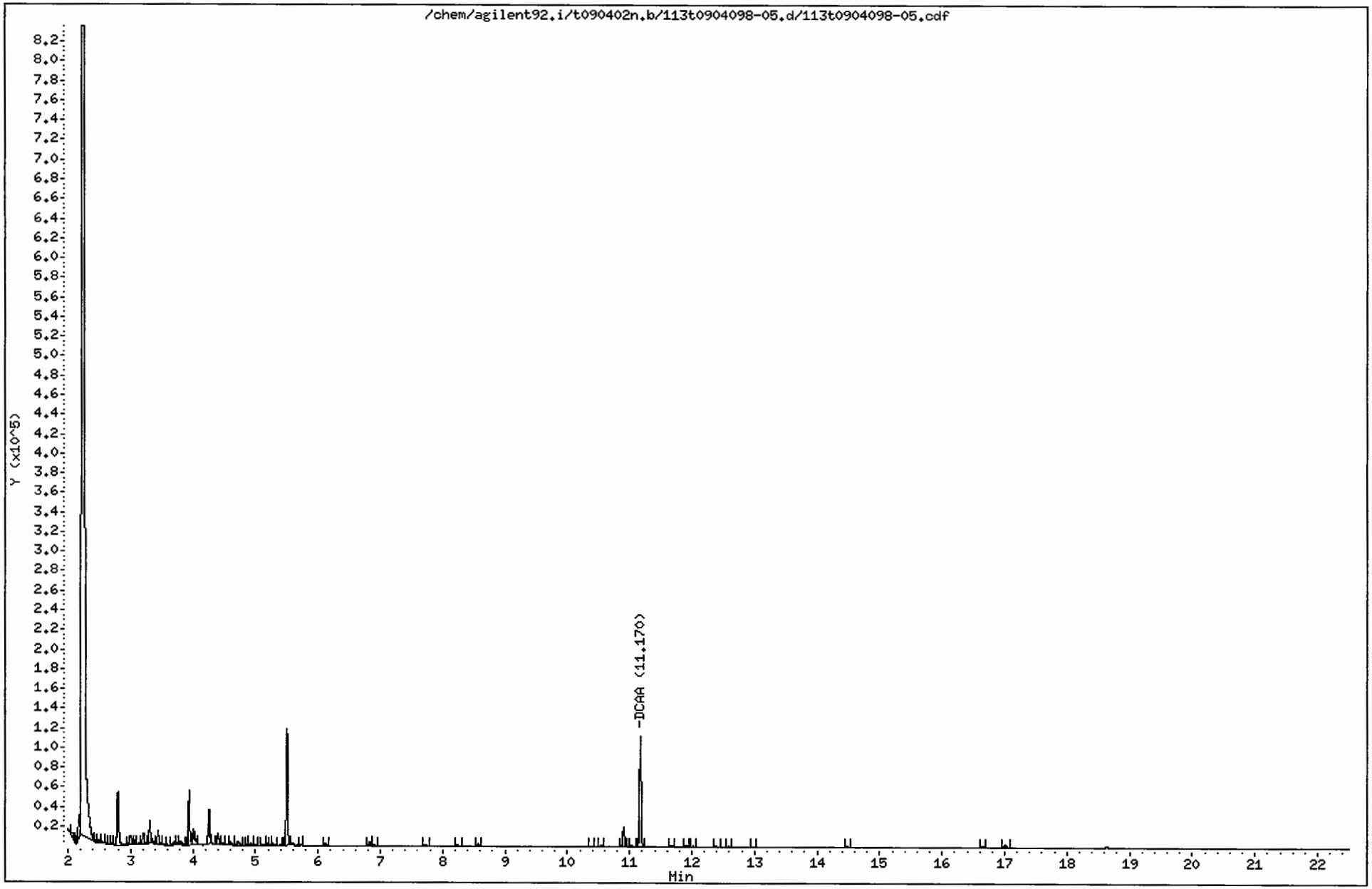
Sample Info: 0904098-05

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:25 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 975.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.21		486290								
1.32		1808839								
1.62		66110								
1.81		2731								
1.84		4361								
1.91		5585								
2.06		11137								
2.11		1327								
2.18		33630								
2.26		3351076								
2.43		1896								
2.49		5146								
2.54		4493								
2.61		1670								
2.69		1921								
2.80		99852								
2.96		1332								
3.00		15922								
3.06		4612								
3.21		23377								
3.31		33652								
3.35		6286								
3.44		25789								
3.54		2320								
3.71		7462								
3.75		3237								
3.80		8863								
3.94		82463								
4.01		31421								
4.26		63558								
4.40		20718								
4.46		4762								
4.54		2399								
4.59		9389								
4.72		9354								
4.87		1667								
4.92		5093								

4/21/09

CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:25 Inst ID :
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 975.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.99		1900								
5.12		2712								
5.18		3646								
5.24		1000								
5.28		4789								
5.39		1048								
5.50		189241								
5.72		1377								
6.12		4353								
6.83		7724								
6.89		3294								
7.72		3225								
8.23		2898								
8.57		4222								
10.38		1208								
10.54		1834								
10.90		35510								
11.03		1834								
11.17	11.14 11.20	198449	40502	DCAA	4.899743	50.25378		98.0	50 - 148	
11.67		3426								
11.91		3558								
12.03		1098								
12.39		1944								
12.59		1482								
12.97		1241								
14.48		1685								
16.66		1704								
17.01		7638								

Data File: /chem/agilent93.i/t090402n.b/113t0904098-05.d

Page 1

Date : 21-APR-2009 01:25

Client ID: 13MW6

Instrument: agilent93.i

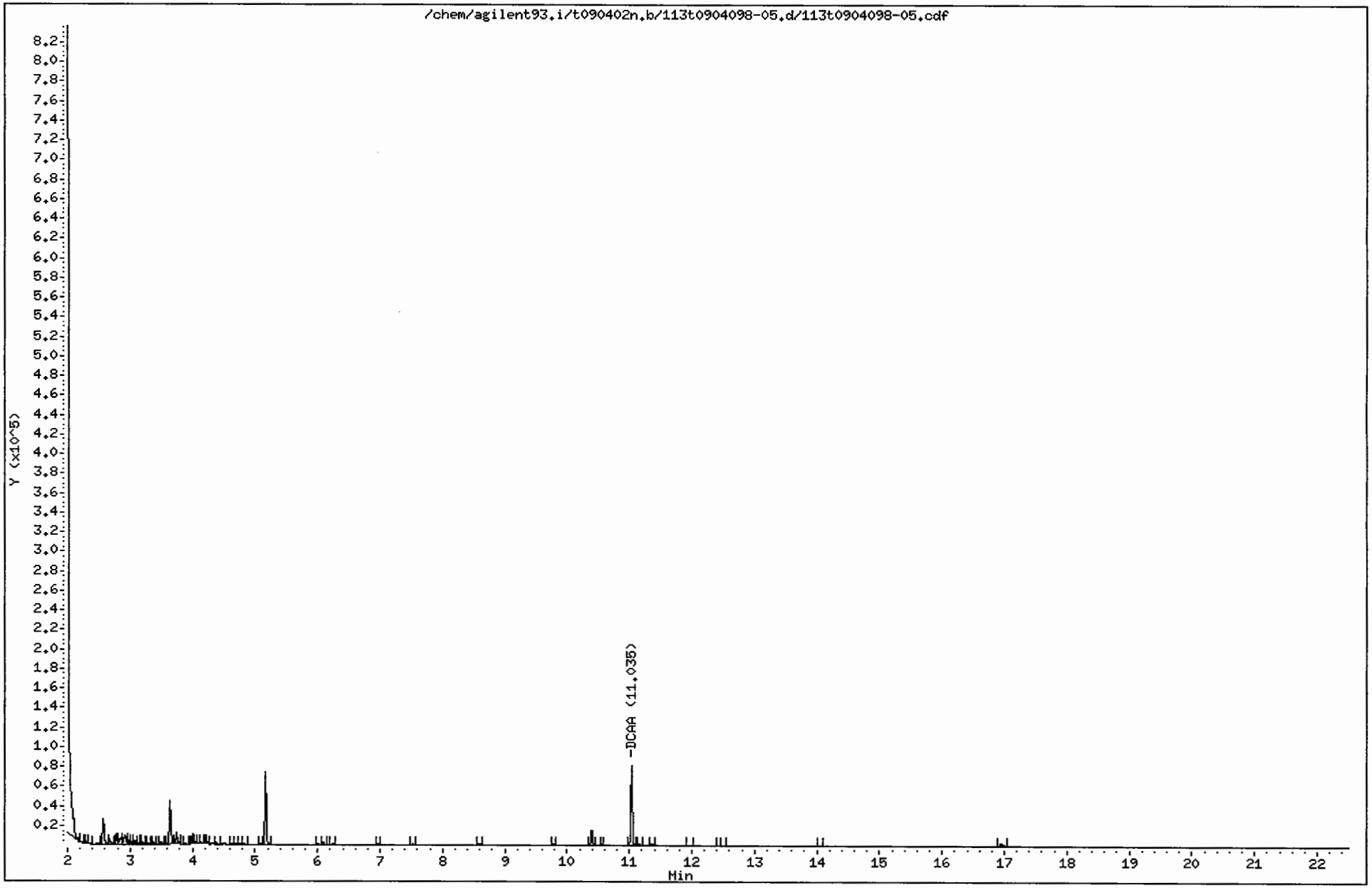
Sample Info: 0904098-05

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:25 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 975.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		351264								
1.30		2708131								
1.42		7134331								
1.50		1037529								
1.78		3510								
2.01		2459089								
2.24		2848								
2.31		1800								
2.37		1044								
2.57		50256								
2.67		9955								
2.78		19389								
2.85		15872								
2.92		21522								
2.98		7062								
3.02		3074								
3.08		4756								
3.13		824								
3.17		1425								
3.19		5168								
3.30		1499								
3.37		2961								
3.49		5673								
3.64		82680								
3.75		20510								
3.88		876								
3.98		12048								
4.02		14557								
4.13		2583								
4.22		899								
4.25		1919								
4.38		3866								
4.62		2327								
4.70		1489								
4.76		2027								
4.83		2482								
5.09		1689								

CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:25 Inst ID :
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 975.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
5.17		114127								
6.01		1772								
6.09		3961								
6.24		1311								
6.96		929								
7.52		1237								
8.60		2528								
9.79		1019								
10.39		25428								
10.56		880								
11.04	11.01 11.07	132518	28143	DCAA	4.708663	48.29398		94.2	50 - 148	
11.17		1281								
11.37		2113								
11.95		1286								
12.43		703								
12.49		1095								
14.04		1123								
16.95		7935								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402n.b/114t0904098-06.d

Page 1

Date : 21-APR-2009 01:54

Client ID: 13MW7

Instrument: agilent92.i

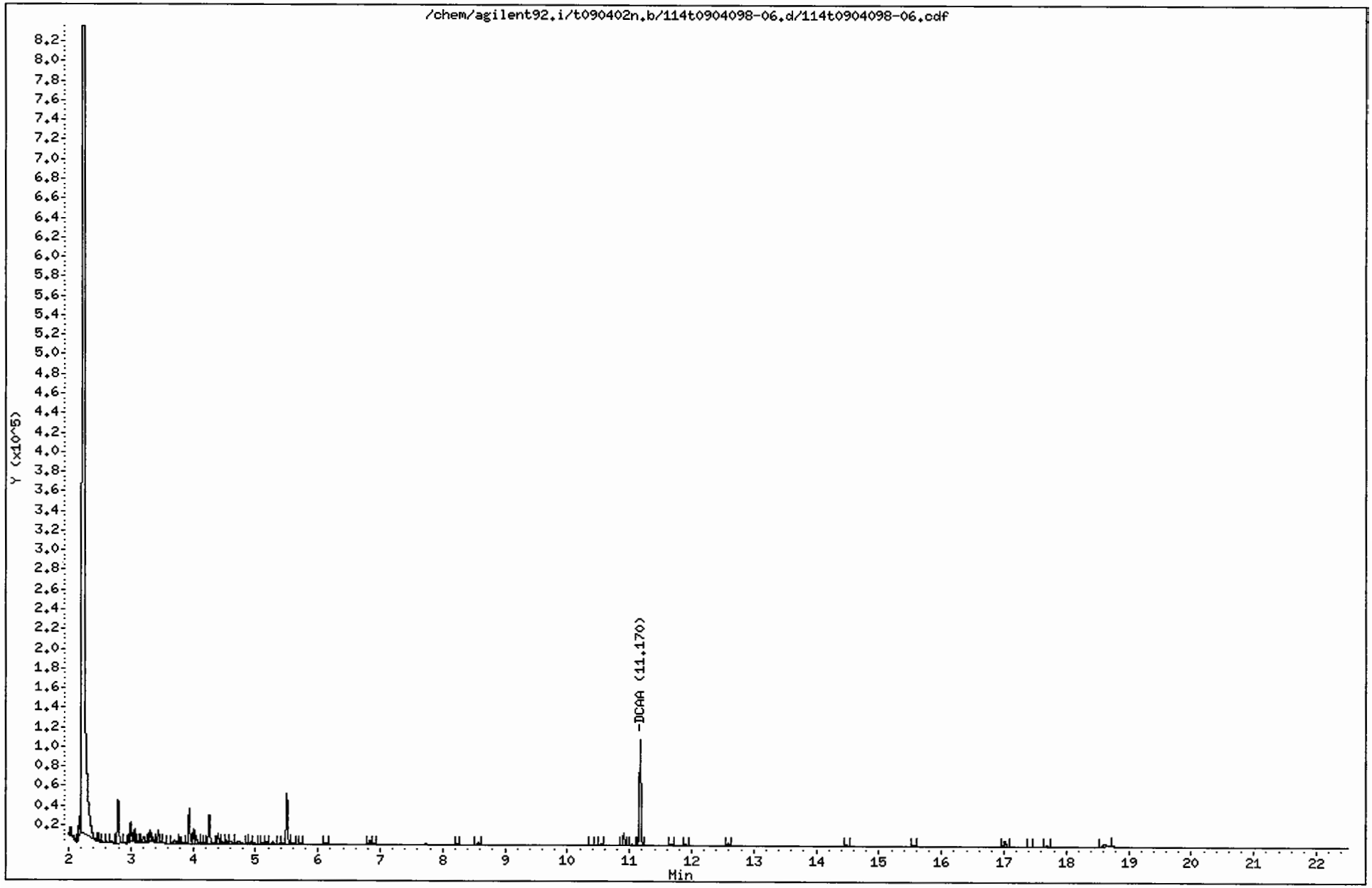
Sample Info: 0904098-06

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:54 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.19		3510								
1.21		261230								
1.29		1921571								
1.35		855916								
1.63		36570								
1.84		1460								
1.90		3269								
2.00		1328								
2.08		9314								
2.17		27231								
2.25		2997928								
2.49		2008								
2.54		1723								
2.61		2867								
2.69		2830								
2.80		79782								
2.89		1055								
3.00		31367								
3.06		16062								
3.12		1509								
3.21		14119								
3.31		18287								
3.35		5923								
3.44		23316								
3.53		1976								
3.71		11058								
3.80		12803								
3.94		58041								
4.01		24391								
4.05		12735								
4.13		1567								
4.26		58331								
4.40		19190								
4.46		4513								
4.54		5789								
4.59		7968								
4.75		10837								

4/21/09

CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:54 Inst ID :
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.92		3775								
4.98		1197								
5.12		1483								
5.18		4103								
5.28		5240								
5.44		1451								
5.50		84596								
5.60		3974								
5.72		1148								
6.12		3057								
6.83		7942								
6.89		2248								
8.23		2124								
8.57		3848								
10.38		1125								
10.54		1396								
10.90		22028								
11.03		1394								
11.17	11.14 11.20	191355	40502	DCAA	4.724591	47.24591		94.5	50 - 148	
11.67		2491								
11.91		1883								
12.59		5141								
14.48		2945								
15.56		2294								
17.01		13903								
17.41		1060								
17.69		2225								
18.61		10594								

Data File: /chem/agilent93.i/t090402n.b/114t0904098-06.d

Date : 21-APR-2009 01:54

Client ID: 13MW7

Instrument: agilent93.i

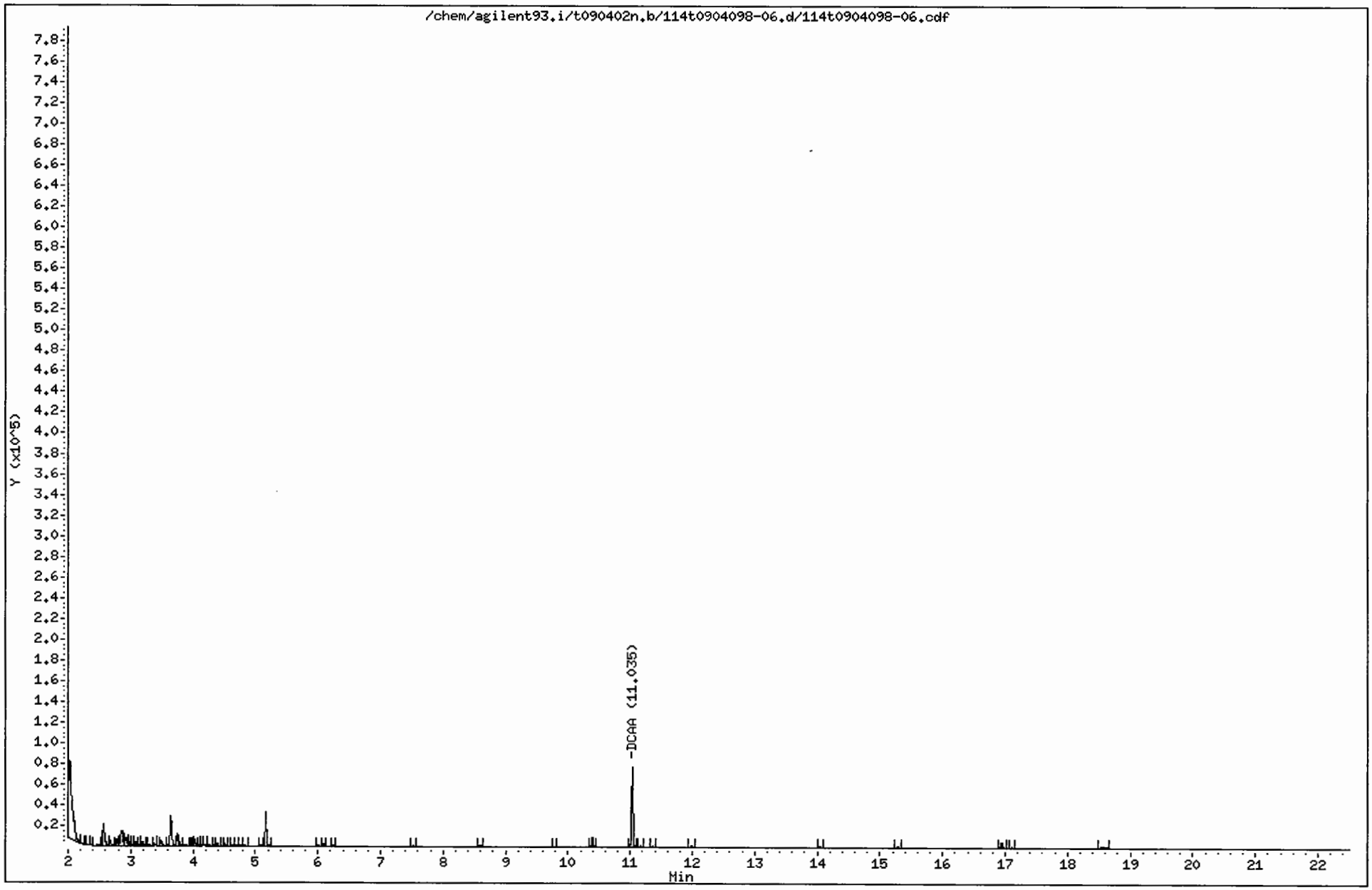
Sample Info: 0904098-06

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:54 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		185647								
1.28		1926476								
1.34		1279666								
1.37		660201								
1.39		1828085								
1.50		602500								
1.78		1714								
2.00		1695368								
2.03		283663								
2.22		2040								
2.31		1117								
2.37		981								
2.57		42718								
2.67		9241								
2.78		11997								
2.86		35387								
2.92		18807								
2.98		5851								
3.02		2577								
3.08		5242								
3.14		1716								
3.19		6710								
3.30		1338								
3.37		2752								
3.49		8880								
3.64		59382								
3.75		16119								
3.78		4077								
3.98		11120								
4.02		11483								
4.13		1259								
4.25		1704								
4.38		4825								
4.50		3118								
4.62		2364								
4.70		1583								
4.75		2292								

KEH 4/21/09

CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 01:54 Inst ID :
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.83		2658								
5.10		2169								
5.17		49203								
6.01		1319								
6.09		4090								
6.24		1186								
7.53		1063								
8.60		2203								
9.78		803								
10.39		15805								
11.04	11.01 11.07	125751	28143	DCAA	4.468214	44.68214		89.4	50 - 148	
11.17		915								
11.36		1094								
11.99		2780								
14.04		1954								
15.29		1851								
16.95		10386								
17.11		1240								
18.55		6195								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402n.b/112t0904098-04.d

Date : 21-APR-2009 00:56

Client ID: 13MWDUP

Instrument: agilent92.i

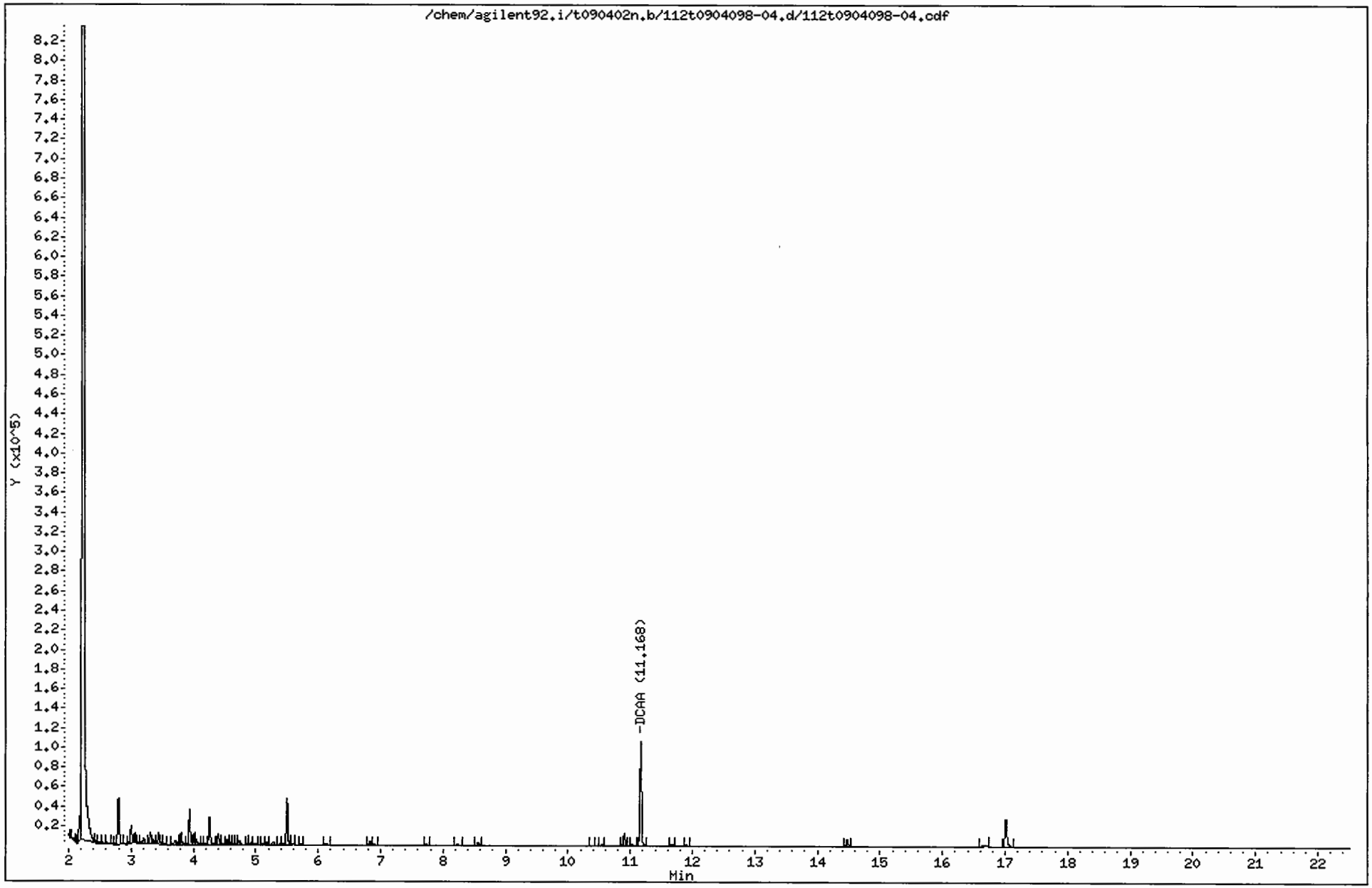
Sample Info: 0904098-04

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:56 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.19		8552								
1.21		281858								
1.28		2081336								
1.35		2394650								
1.43		1943901								
1.63		203098								
1.81		5753								
1.84		15196								
1.97		4832								
2.06		5685								
2.11		2264								
2.18		38383								
2.26		2873860								
2.43		1530								
2.50		2441								
2.55		1625								
2.61		3191								
2.69		1692								
2.80		87761								
2.89		1094								
3.00		28910								
3.07		13904								
3.12		1709								
3.21		13235								
3.31		17256								
3.36		5978								
3.44		21645								
3.54		2153								
3.71		11562								
3.80		19876								
3.94		57014								
4.01		17235								
4.05		9254								
4.13		1418								
4.26		54867								
4.40		19217								
4.47		3727								

4/21/09

CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:56 Inst ID :
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.54		8743								
4.59		4456								
4.65		2439								
4.69		2429								
4.75		9671								
4.92		4804								
4.98		1097								
5.12		1258								
5.18		4316								
5.28		5512								
5.44		1458								
5.50		73974								
5.58		2482								
5.72		1034								
6.12		2990								
6.83		6824								
6.89		3044								
7.74		1772								
8.23		2429								
8.57		4409								
10.38		1065								
10.54		1494								
10.90		23194								
11.03		1703								
11.17	11.14 11.20	187869	40502	DCAA	4.638521	46.38521		92.8	50 - 148	
11.67		2771								
11.91		2187								
14.48		13106								
16.66		5744								
17.01		65486								

Data File: /chem/agilent93.i/t090402n.b/112t0904098-04.d

Page 1

Date : 21-APR-2009 00:56

Client ID: 13MWDUP

Instrument: agilent93.i

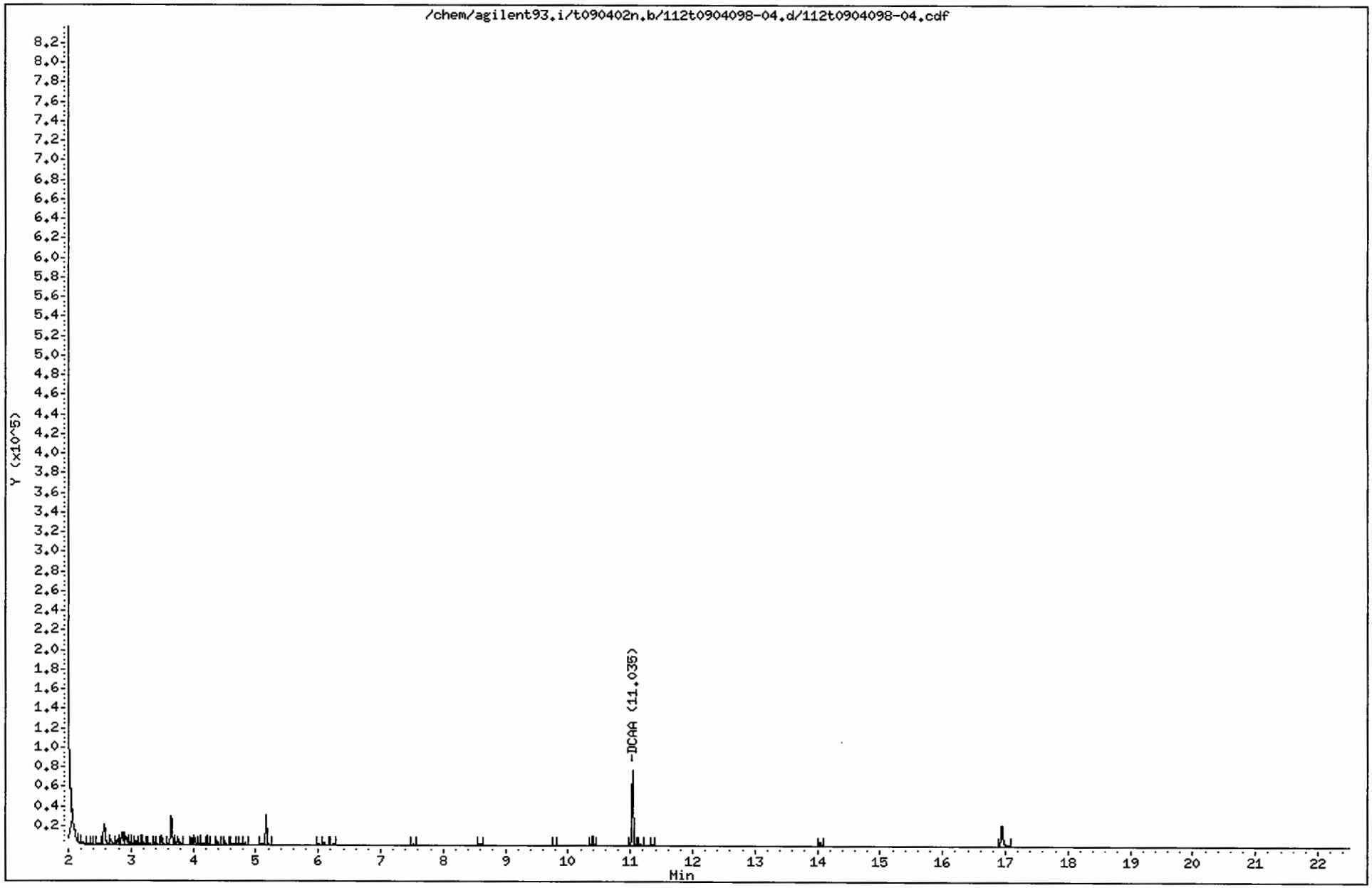
Sample Info: 0904098-04

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:56 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		170547								
1.28		1550108								
1.34		1624309								
1.40		1694324								
1.50		525125								
1.79		2399								
1.84		1416								
2.00		1780787								
2.17		725								
2.23		2541								
2.31		1313								
2.37		785								
2.48		1279								
2.57		46531								
2.68		9110								
2.78		11035								
2.87		30474								
2.93		17246								
2.98		4603								
3.02		2195								
3.08		5133								
3.14		1349								
3.17		1435								
3.19		5117								
3.30		1259								
3.37		2315								
3.41		1378								
3.49		14049								
3.65		57440								
3.75		15701								
3.98		11383								
4.02		10414								
4.11		1020								
4.14		2350								
4.25		1344								
4.38		5257								
4.51		5028								

CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : DAACOMP
Inj Date : 21-APR-2009 00:56 Inst ID :
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.62		3421								
4.70		1594								
4.76		2573								
4.83		3051								
5.10		2623								
5.17		45014								
6.01		1310								
6.09		3920								
6.24		1330								
7.52		1098								
8.60		2500								
9.78		838								
10.39		16872								
11.04	11.01 11.07	126390	28143	DCAA	4.490955	44.90955		89.8	50 - 148	
11.17		1104								
11.36		1149								
14.04		8881								
16.95		52482								

3. Standards Data

a. Initial Calibration Data (Form VI)

b. Continuing Verification Summary (Form VII)

c. Analytical Sequence (Form VIII)

d. Identification Summary for Single Component Analytes (Form X)

e. Identification Summary for Multicomponent Analytes (Form X) – if applicable

f. Chromatograms and Data System Printouts

a. Initial Calibration Data
(Form VI)

For all GC columns, all instruments, in chronological order by GC column and instrument.

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 2103 2301

LAB FILE ID: RF0.063: 003T81511RF0.125: 004T81512RF0.25: 005T815132
RF0.5: 006T815142RRF1: 007T815152R

COMPOUND	RF0.063	RF0.125	RF0.25	RF0.5	RF1
2,4-D	37625.490	37143.137	36843.627	37454.902	40781.765
silvex	261450.00	246850.00	247927.50	247245.00	259083.00
2,4,5-T	204580.00	204130.00	199317.50	196268.33	207636.00
dinoseb	153320.00	153116.00	160928.00	163436.67	177799.20
DCAA	38769.231	37198.974	39350.513	41271.795	45919.077

FORM VI 8151

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 2103 2301

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
2,4-D	AVRG	37969.7843	4.2
silvex	AVRG	252511.100	2.8
2,4,5-T	AVRG	202386.367	2.2
dinoseb	AVRG	161719.973	6.2
DCAA	AVRG	40501.9179	8.3

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 2103 2301

LAB FILE ID: RF0.063: 003T81511RF0.125: 004T81512RF0.25: 005T815132
RF0.5: 006T815142RRF1: 007T815152R

COMPOUND	RF0.063	RF0.125	RF0.25	RF0.5	RF1
2,4-D	27437.255	25642.157	25492.157	25798.366	27926.667
silvex	178490.00	166125.00	166987.50	167488.33	174674.00
2,4,5-T	139790.00	136670.00	134530.00	132418.33	140556.00
dinoseb	100388.00	100368.00	106586.00	108524.67	116661.60
DCAA	27997.949	26178.462	27394.872	28402.735	30742.154

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 2103 2301

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
2,4-D	AVRG	26459.3203	4.3
silvex	AVRG	170752.967	3.2
2,4,5-T	AVRG	136792.867	2.5
dinoseb	AVRG	106505.653	6.3
DCAA	AVRG	28143.2342	6.0

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 2103 2301

LAB FILE ID: RT1: 003T815112R RT2: 004T815122R RT3: 005T815132R
RT4: 006T815142R RT5: 007T815152R

COMPOUND	RT1	RT2	RT3	RT4	RT5
2,4-D	13.012	13.010	13.010	13.010	13.012
silvex	14.253	14.253	14.253	14.252	14.253
2,4,5-T	14.647	14.643	14.643	14.642	14.643
dinoseb	16.855	16.853	16.853	16.853	16.853
DCAA	11.168	11.168	11.168	11.168	11.172

FORM VI 8151

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST ID: 0.32 (mm) Calibration Time(s): 2103 2301

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4-D	13.011	12.980	13.040
silvex	14.253	14.223	14.283
2,4,5-T	14.644	14.613	14.673
dinoseb	16.853	16.823	16.883
DCAA	11.169	11.138	11.198

FORM VI 8151

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 2103 2301

LAB FILE ID: RT1: 003T815112R RT2: 004T815122R RT3: 005T815132R
RT4: 006T815142R RT5: 007T815152R

COMPOUND	RT1	RT2	RT3	RT4	RT5
2,4-D	12.908	12.908	12.908	12.907	12.908
silvex	14.073	14.073	14.073	14.072	14.073
2,4,5-T	14.607	14.603	14.603	14.602	14.603
dinoseb	15.705	15.705	15.705	15.703	15.705
DCAA	11.033	11.035	11.035	11.035	11.037

FORM 6
8151 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date(s): 04/02/09 04/02/09

Column: CLPEST2 ID: 0.32 (mm) Calibration Time(s): 2103 2301

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
2,4-D	12.908	12.878	12.938
silvex	14.073	14.043	14.103
2,4,5-T	14.604	14.573	14.633
dinoseb	15.705	15.675	15.735
DCAA	11.035	11.005	11.065

b. Continuing Calibration Summary (Form VII)

For all performance evaluation mixtures (if applicable) and Continuing calibration verification standards, on all GC columns and instruments, in chronological order by GC column and instrument.

FORM 7B
8151 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date: 04/20/09 Time: 1224

Lab File ID: 094T8151M3R Init. Calib. Date(s): 04/02/09 04/02/09

Init. Calib. Times: 2103 2301

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.5000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4-D	37969.784	33957.843	0.01	-10.57	15.00	AVRG
silvex	252511.10	229800.00	0.01	-8.99	15.00	AVRG
2,4,5-T	202386.37	177108.33	0.01	-12.49	15.00	AVRG
dinoseb	161719.97	150677.33	0.01	-6.83	15.00	AVRG
DCAA	40501.918	39044.957	0.01	-3.60	15.00	AVRG

FORM VII 8151

FORM 7B
8151 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date: 04/20/09 Time: 1224

Lab File ID: 094T8151M3R Init. Calib. Date(s): 04/02/09 04/02/09

Init. Calib. Times: 2103 2301

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.5000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4-D	26459.320	24237.582	0.01	-8.40	15.00	AVRG
silvex	170752.97	159751.67	0.01	-6.44	15.00	AVRG
2,4,5-T	136792.87	120330.00	0.01	-12.03	15.00	AVRG
dinoseb	106505.65	102388.00	0.01	-3.87	15.00	AVRG
DCAA	28143.234	27757.265	0.01	-1.37	15.00	AVRG

FORM 7B
8151 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date: 04/20/09 Time: 2100

Lab File ID: 104T8151M3T Init. Calib. Date(s): 04/02/09 04/02/09

Init. Calib. Times: 2103 2301

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.5000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4-D	37969.784	36952.010	0.01	-2.68	15.00	AVRG
silvex	252511.10	246968.50	0.01	-2.19	15.00	AVRG
2,4,5-T	202386.37	193904.42	0.01	-4.19	15.00	AVRG
dinoseb	161719.97	163404.03	0.01	1.04	15.00	AVRG
DCAA	40501.918	41221.556	0.01	1.78	15.00	AVRG

FORM VII 8151

FORM 7B
8151 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date: 04/20/09 Time: 2100

Lab File ID: 104T8151M3T Init. Calib. Date(s): 04/02/09 04/02/09

Init. Calib. Times: 2103 2301

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.5000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4-D	26459.320	25649.886	0.01	-3.06	15.00	AVRG
silvex	170752.97	167269.00	0.01	-2.04	15.00	AVRG
2,4,5-T	136792.87	131059.25	0.01	-4.19	15.00	AVRG
dinoseb	106505.65	109231.43	0.01	2.56	15.00	AVRG
DCAA	28143.234	28525.316	0.01	1.36	15.00	AVRG

FORM VII 8151

FORM 7B
8151 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT92 Calibration Date: 04/21/09 Time: 0323

Lab File ID: 117T8151M3V Init. Calib. Date(s): 04/02/09 04/02/09

Init. Calib. Times: 2103 2301

GC Column: CLPEST ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.5000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4-D	37969.784	36080.376	0.01	-4.98	15.00	AVRG
silvex	252511.10	241519.33	0.01	-4.35	15.00	AVRG
2,4,5-T	202386.37	186937.92	0.01	-7.63	15.00	AVRG
dinoseb	161719.97	156830.53	0.01	-3.02	15.00	AVRG
DCAA	40501.918	40670.966	0.01	0.42	15.00	AVRG

FORM 7B
8151 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: AGILENT93 Calibration Date: 04/21/09 Time: 0323

Lab File ID: 117T8151M3V Init. Calib. Date(s): 04/02/09 04/02/09

Init. Calib. Times: 2103 2301

GC Column: CLPEST2 ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.5000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4-D	26459.320	25335.768	0.01	-4.25	15.00	AVRG
silvex	170752.97	165658.58	0.01	-2.98	15.00	AVRG
2,4,5-T	136792.87	127986.42	0.01	-6.44	15.00	AVRG
dinoseb	106505.65	106051.47	0.01	-0.43	15.00	AVRG
DCAA	28143.234	28483.880	0.01	1.21	15.00	AVRG

c. Analytical Sequence (Form VIII)

For all GC columns, all instruments, in chronological order by GC column and instrument

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST ID: 0.32 (mm) Init. Calib. Date(s): 04/02/09 04/02/09

Instrument ID: AGILENT92

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 11.17

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	815112R	815112R	04/02/09	2103	11.17	
02	815122R	815122R	04/02/09	2133	11.17	
03	815132R	815132R	04/02/09	2202	11.17	
04	815142R	815142R	04/02/09	2232	11.17	
05	815152R	815152R	04/02/09	2301	11.17	
06	HIBLK3Q	HIBLK3Q	04/20/09	1154	11.17	
07	8151M3R	8151M3R	04/20/09	1224	11.17	
08	PBLKGU	9041632-BLK1	04/20/09	1639	11.16	
09	PGULCS	9041632-BS1	04/20/09	1704	11.17	
10	13MW5MS	9041632-MS2	04/20/09	1832	11.17	
11	13MW5MSD	9041632-MSD2	04/20/09	1902	11.17	
12	HIBLK3S	HIBLK3S	04/20/09	2030	11.17	
13	8151M3T	8151M3T	04/20/09	2100	11.17	
14	13MW5	0904098-01	04/20/09	2327	11.17	
15	13MW3	0904098-02	04/20/09	2357	11.17	
16	13MW4	0904098-03	04/21/09	0026	11.17	
17	13MWDUP	0904098-04	04/21/09	0056	11.17	
18	13MW6	0904098-05	04/21/09	0125	11.17	
19	13MW7	0904098-06	04/21/09	0154	11.17	
20	HIBLK3U	HIBLK3U	04/21/09	0254	11.17	
21	8151M3V	8151M3V	04/21/09	0323	11.17	
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = DCAA (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: CLPEST2 ID: 0.32 (mm) Init. Calib. Date(s): 04/02/09 04/02/09

Instrument ID: AGILENT93

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 11.04

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	815112R	815112R	04/02/09	2103	11.03	
02	815122R	815122R	04/02/09	2133	11.04	
03	815132R	815132R	04/02/09	2202	11.04	
04	815142R	815142R	04/02/09	2232	11.04	
05	815152R	815152R	04/02/09	2301	11.04	
06	HIBLK3R	HIBLK3R	04/20/09	1154	11.03	
07	8151M3R	8151M3R	04/20/09	1224	11.04	
08	PBLKGU	9041632-BLK1	04/20/09	1639	11.03	
09	PGULCS	9041632-BS1	04/20/09	1704	11.03	
10	13MW5MS	9041632-MS2	04/20/09	1832	11.03	
11	13MW5MSD	9041632-MSD2	04/20/09	1902	11.04	
12	HIBLK3T	HIBLK3T	04/20/09	2030	11.03	
13	8151M3T	8151M3T	04/20/09	2100	11.04	
14	13MW5	0904098-01	04/20/09	2327	11.03	
15	13MW3	0904098-02	04/20/09	2357	11.04	
16	13MW4	0904098-03	04/21/09	0026	11.04	
17	13MWDUP	0904098-04	04/21/09	0056	11.04	
18	13MW6	0904098-05	04/21/09	0125	11.04	
19	13MW7	0904098-06	04/21/09	0154	11.04	
20	HIBLK3V	HIBLK3V	04/21/09	0254	11.03	
21	8151M3V	8151M3V	04/21/09	0323	11.03	
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = DCAA (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

d. Identification Summary for Single Component Analytes (Form X)

For all samples with positively identified single component analytes, in order by increasing Client Sample ID number.

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041632-MS2 Date(s) Analyzed: 04/20/09 04/20/09

Instrument ID (1): AGILENT92 Instrument ID (2): AGILENT93

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
2,4-D	1	13.01	12.98	13.04	27	
	2	12.91	12.88	12.94	27	0.0
silvex	1	14.25	14.22	14.28	4.2	
	2	14.07	14.04	14.10	4.6	9.1
2,4,5-T	1	14.64	14.61	14.67	5.4	
	2	14.60	14.57	14.63	6.0	10.5
dinoseb	1	16.85	16.82	16.88	7.8	
	2	15.70	15.68	15.73	7.9	1.3
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

10A

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

13MW5MSD

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041632-MSD2 Date(s) Analyzed: 04/20/09 04/20/09

Instrument ID (1): AGILENT92 Instrument ID (2): AGILENT93

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
2,4-D	1	13.01	12.98	13.04	29	
	2	12.91	12.88	12.94	29	0.0
silvex	1	14.25	14.22	14.28	4.4	
	2	14.07	14.04	14.10	4.8	8.7
2,4,5-T	1	14.64	14.61	14.67	5.7	
	2	14.60	14.57	14.63	6.5	13.1
dinoseb	1	16.85	16.82	16.88	7.6	
	2	15.71	15.68	15.73	7.7	1.3
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

10A

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

PGULCS

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9041632-BS1 Date(s) Analyzed: 04/20/09 04/20/09

Instrument ID (1): AGILENT92 Instrument ID (2): AGILENT93

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPEST2 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
2,4-D	1	13.01	12.98	13.04	22	
	2	12.91	12.88	12.94	24	8.7
silvex	1	14.25	14.22	14.28	3.6	
	2	14.07	14.04	14.10	4.0	10.5
2,4,5-T	1	14.64	14.61	14.67	4.3	
	2	14.60	14.57	14.63	4.7	8.9
dinoseb	1	16.85	16.82	16.88	6.4	
	2	15.70	15.68	15.73	7.0	9.0
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

e. Identification Summary for Multicomponent Analytes (Form X) – if applicable

For all samples with positively identified multicomponent analytes, in order by increasing Client Sample ID number.

f. Chromatograms and Data System Printouts

For all methods, standards packages shall include
The following:

- Performance evaluation mixtures (8081 only)
- Initial Calibration Standards
- Second Source Initial Calibration Verifications (if required by client)
- Continuing Calibration Verification Standards
- The quantitation report must include the Client Sample ID number.
- The chromatograms shall include the following: Client Sample ID number for the standard, labeled standard peaks, volume injected, for each standard, date and time of injection, GC column identifier, and GC Instrument identifier

Data File: /chem/agilent92.i/t090402.b/003t815112R.d

Date : 02-APR-2009 21:03

Client ID: 815112R

Instrument: agilent92.i

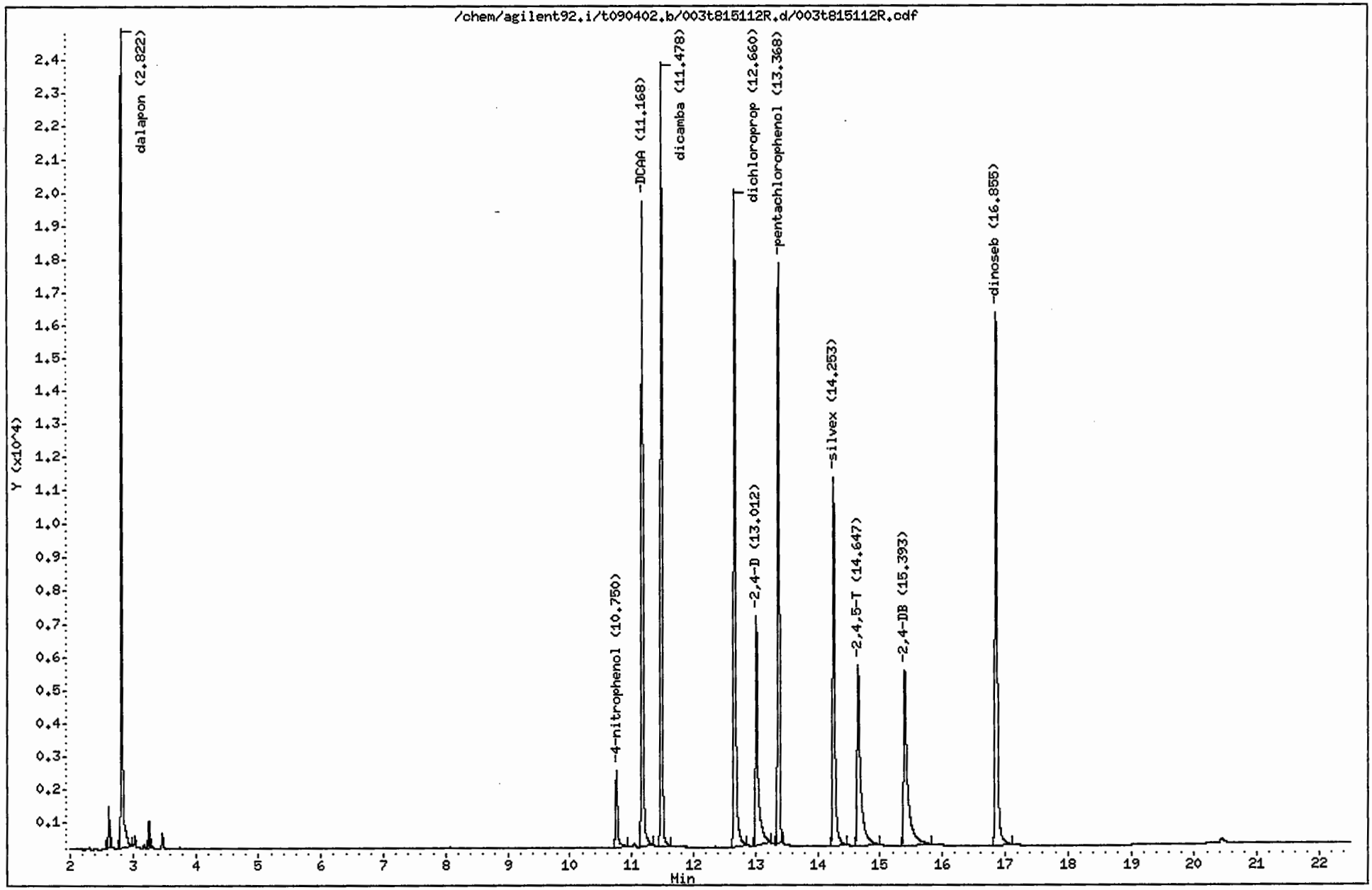
Sample Info: 815112R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

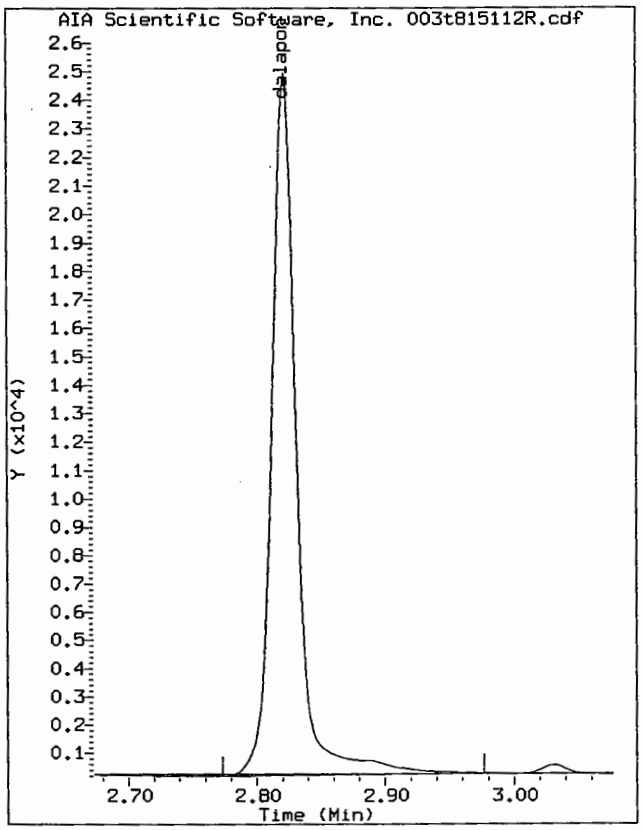
Lab Smp Id : 815112R Client Smp Id : 815112R
Sample Type : INITIAL CAL: Level 1 Sublist : FULL8151new
Inj Date : 02-APR-2009 21:03 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.62			1667					
2.82	2.79	2.85	33279	65694	dalapon	0.507500	65572	M
3.25			1026					
10.75	10.71	10.79	5163	19631	4-nitrophenol	0.250000	20652	M
11.17	11.14	11.20	37800	40502	DCAA	0.975000	38769	M
11.48	11.45	11.51	44586	176260	dicamba	0.250000	178344	M
12.66	12.63	12.69	40876	41568	dichloroprop	1.025000	39878	M
13.01	12.98	13.04	19189	37970	2,4-D	0.510000	37625	M
13.37	13.34	13.40	34551	665247	pentachlorophenol	0.050000	691000	
14.25	14.22	14.28	26146	252511	silvex	0.100000	261450	M
14.65	14.61	14.67	20459	202386	2,4,5-T	0.100000	204580	M
15.39	15.36	15.42	22241	22780	2,4-DB	1.027500	21646	M
16.86	16.82	16.88	38331	161720	dinoseb	0.250000	153320	M

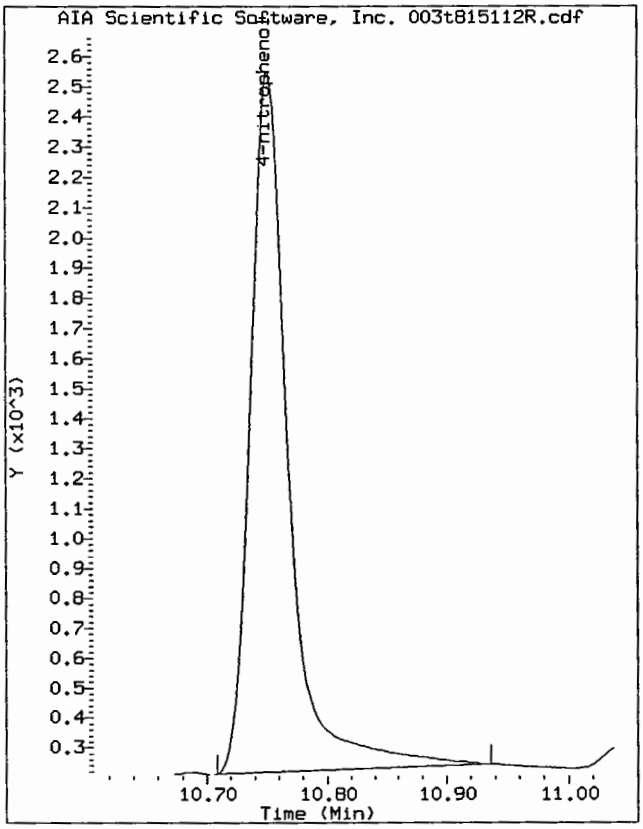
4/2/09

4/3/09

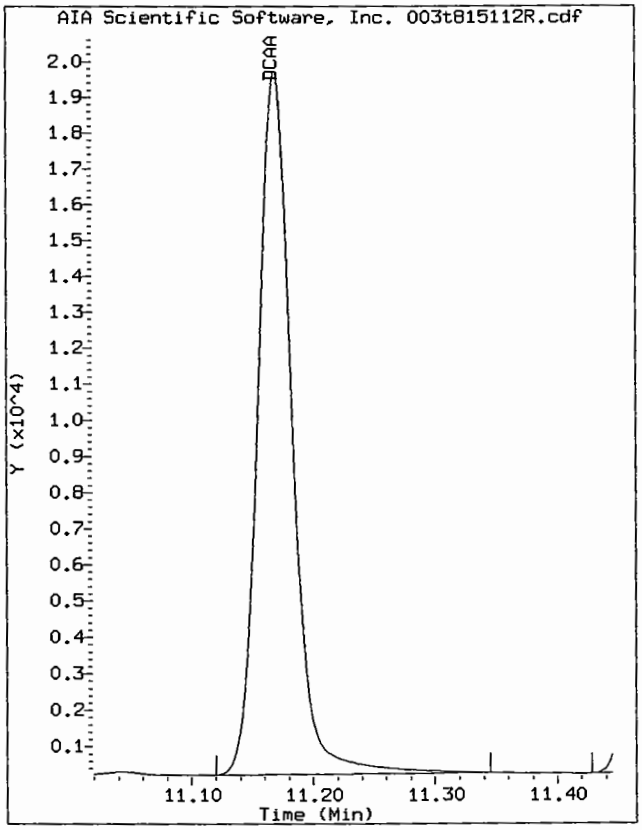
Manually Integrated Peaks



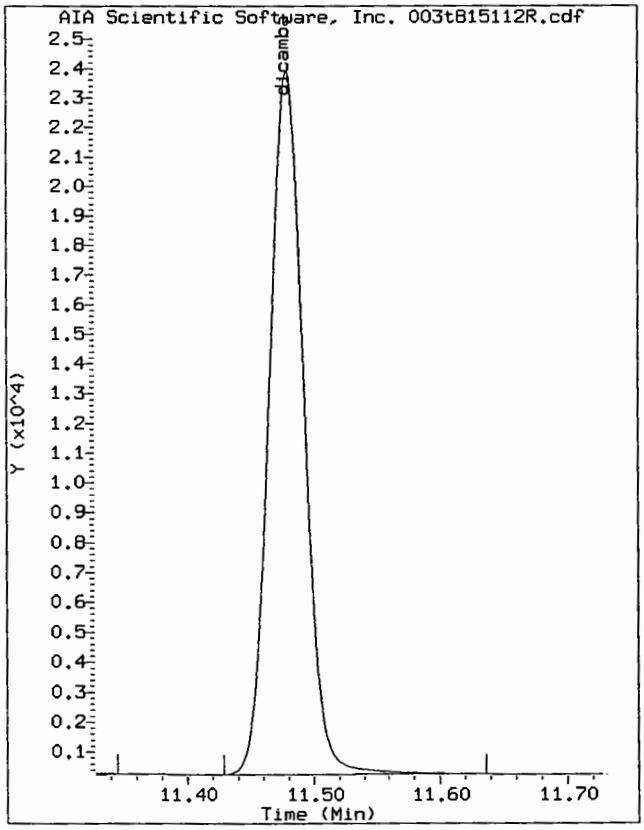
Start: 2.77 Stop: 2.98



Start: 10.71 Stop: 10.94

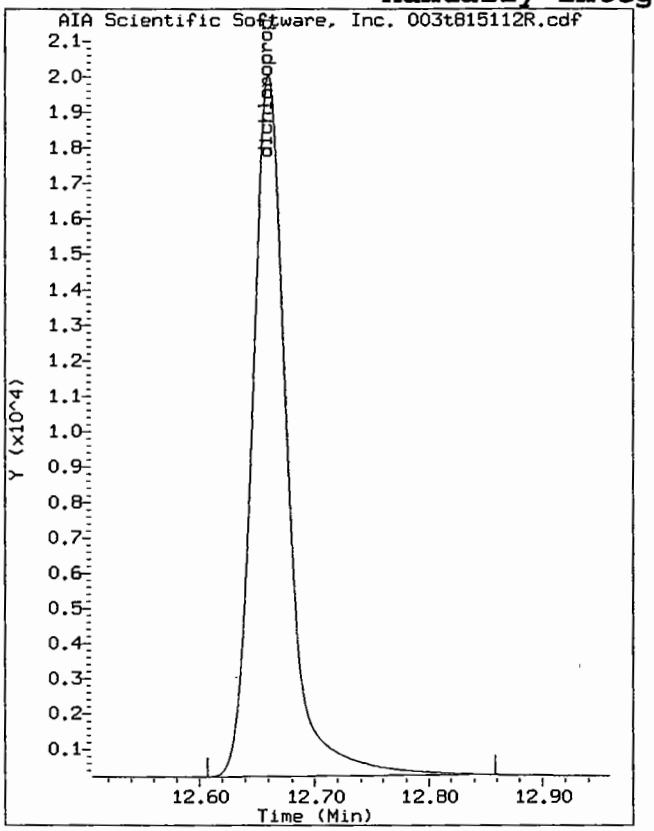


Start: 11.12 Stop: 11.35

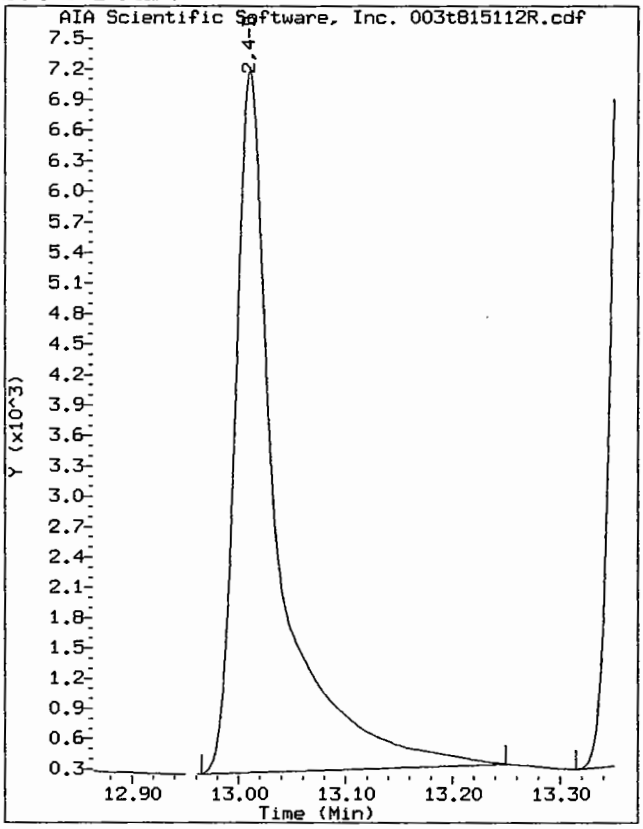


Start: 11.43 Stop: 11.64

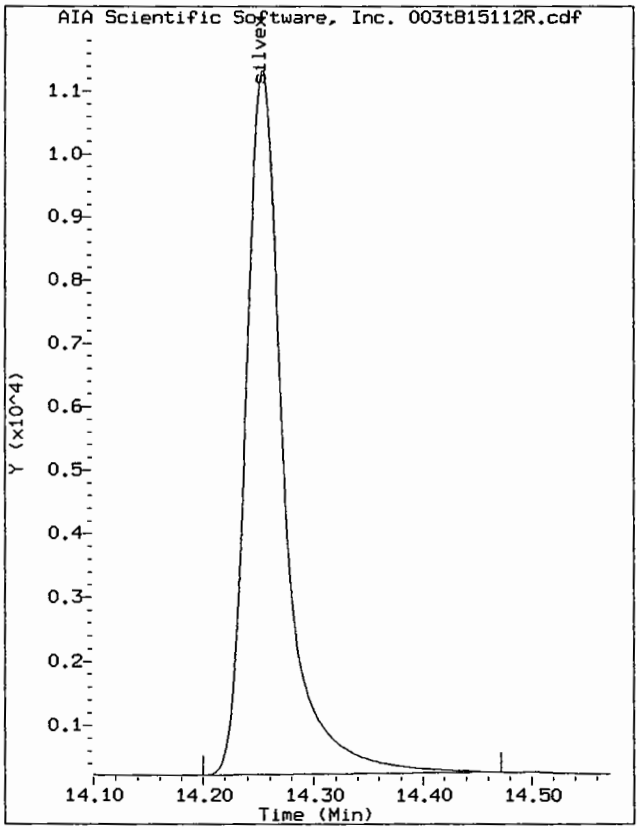
Manually Integrated Peaks



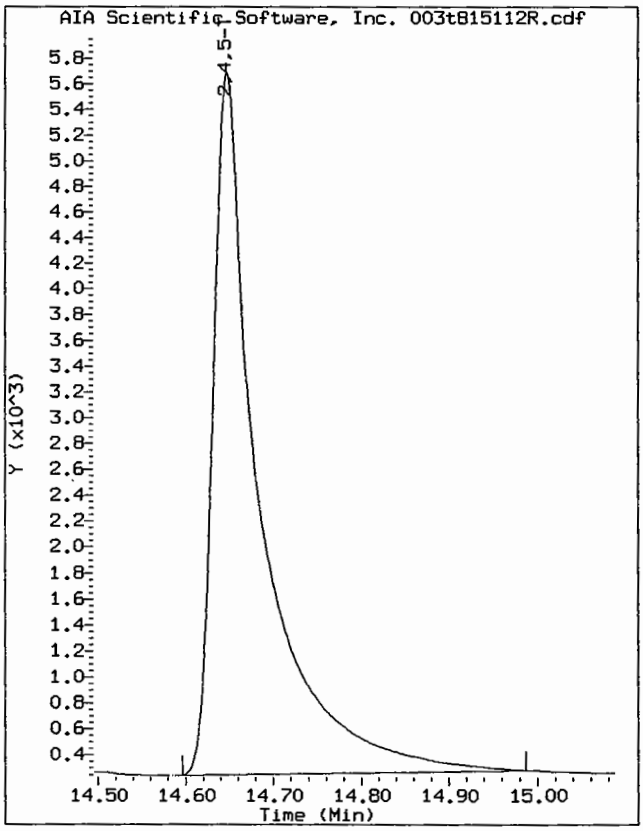
Start: 12.61 Stop: 12.86



Start: 12.96 Stop: 13.25

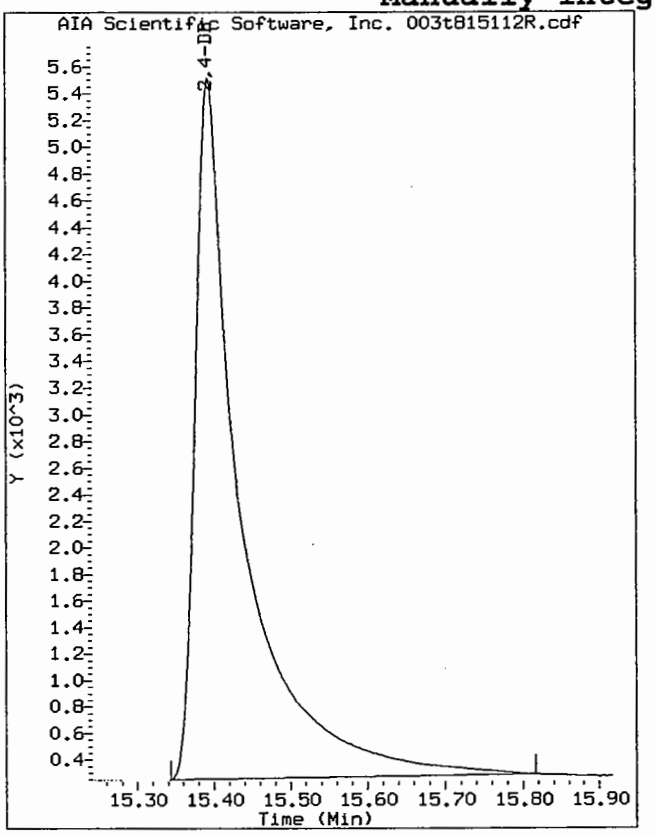


Start: 14.20 Stop: 14.47

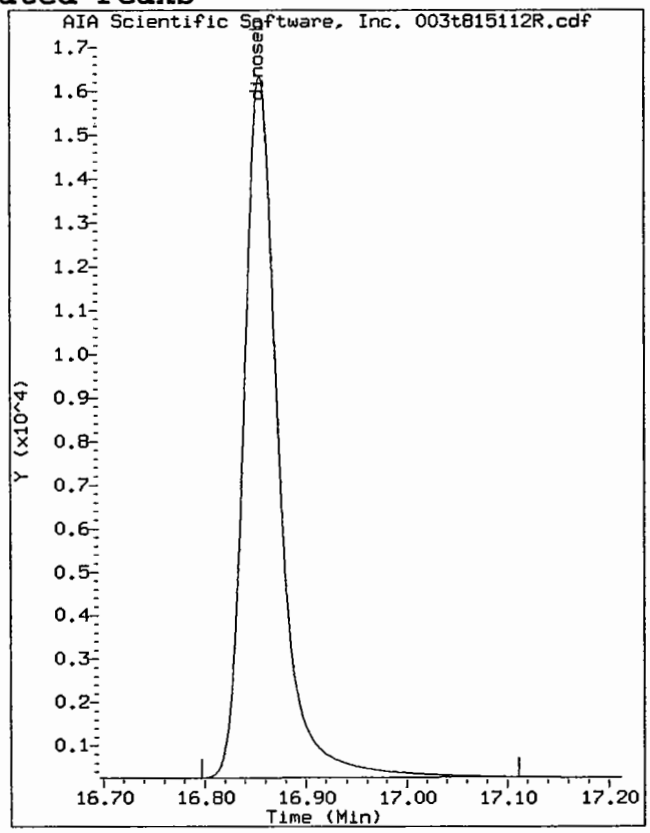


Start: 14.60 Stop: 14.99

Manually Integrated Peaks



Start: 15.34 Stop: 15.82



Start: 16.80 Stop: 17.11

Data File: /chem/agilent92.i/t090402.b/004t815122R.d

Date : 02-APR-2009 21:33

Client ID: 815122R

Instrument: agilent92.i

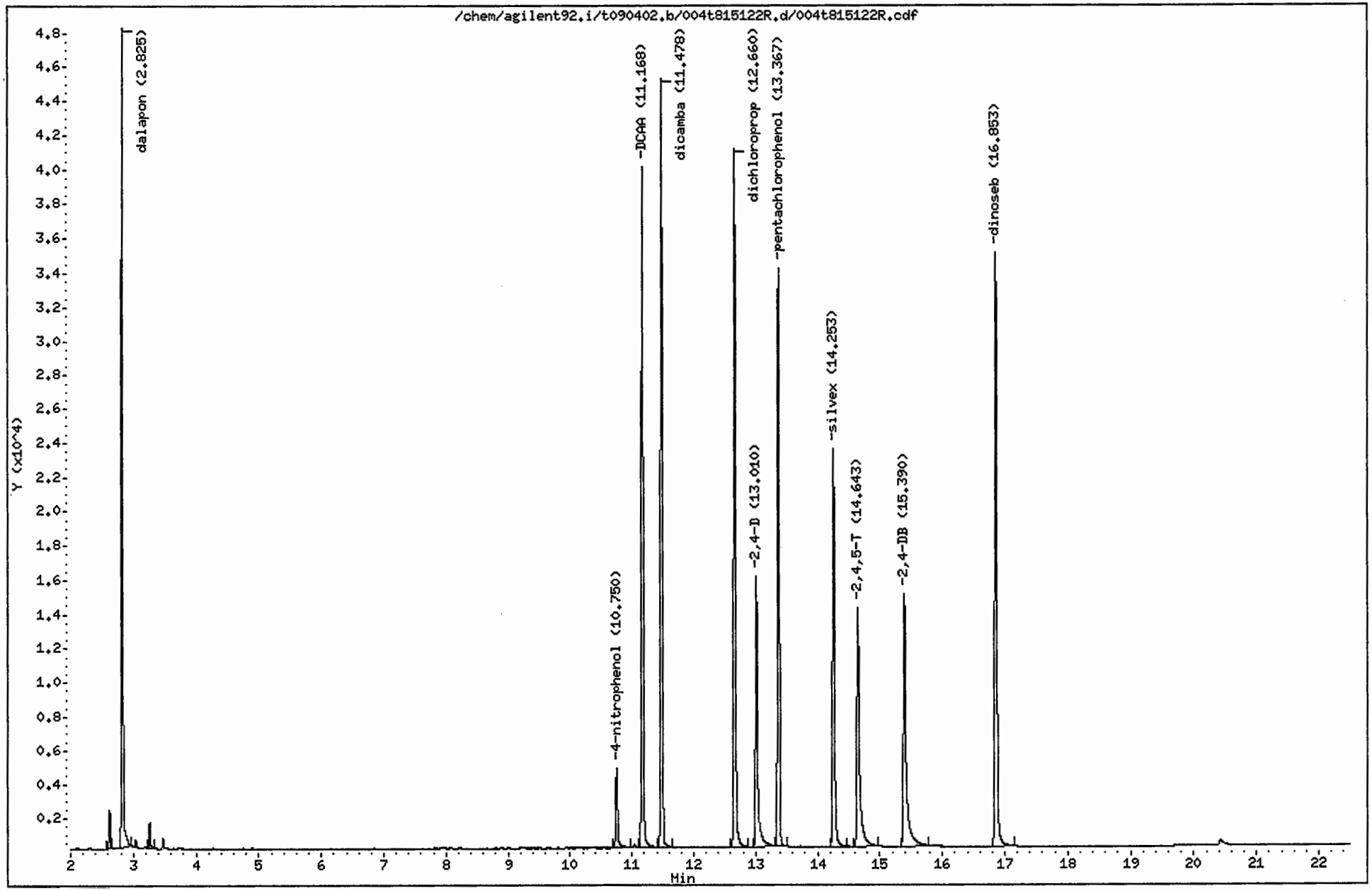
Sample Info: 815122R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

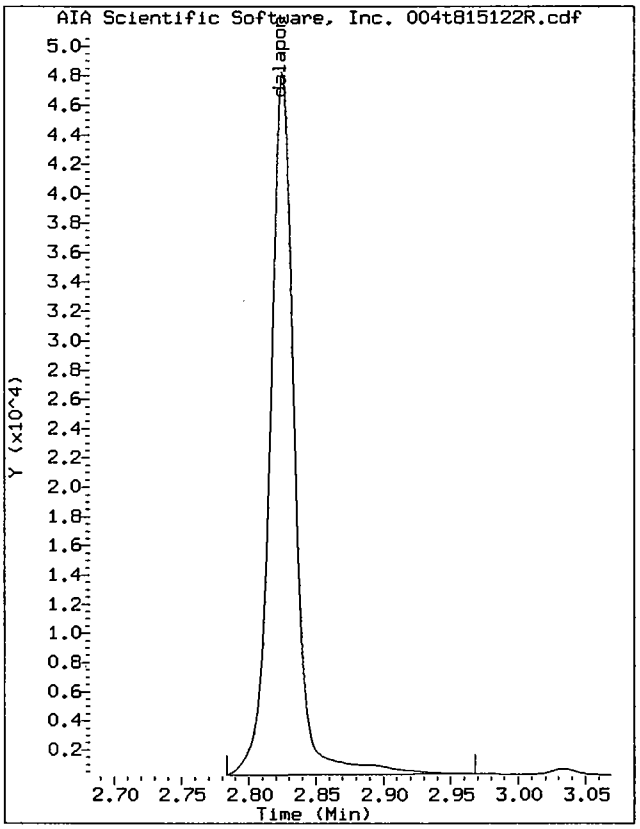
Lab Smp Id : 815122R Client Smp Id : 815122R
Sample Type : INITIAL CAL: Level 2 Sublist : FULL8151new
Inj Date : 02-APR-2009 21:33 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.62			3041					
2.82	2.79	2.85	61280	65694	dalapon	1.015000	60373	M
3.26			2123					
10.75	10.71	10.79	9888	19631	4-nitrophenol	0.500000	19776	M
11.17	11.14	11.20	72538	40502	DCAA	1.950000	37199	M
11.48	11.45	11.51	83128	176260	dicamba	0.500000	166254	M
12.66	12.63	12.69	78062	41568	dichloroprop	2.050000	38079	M
13.01	12.98	13.04	37887	37970	2,4-D	1.020000	37143	M
13.37	13.34	13.40	65386	665247	pentachlorophenol	0.100000	653860	M
14.25	14.22	14.28	49371	252511	silvex	0.200000	246850	M
14.64	14.61	14.67	40827	202386	2,4,5-T	0.200000	204130	M
15.39	15.36	15.42	45342	22780	2,4-DB	2.055000	22064	M
16.85	16.82	16.88	76559	161720	dinoseb	0.500000	153116	M

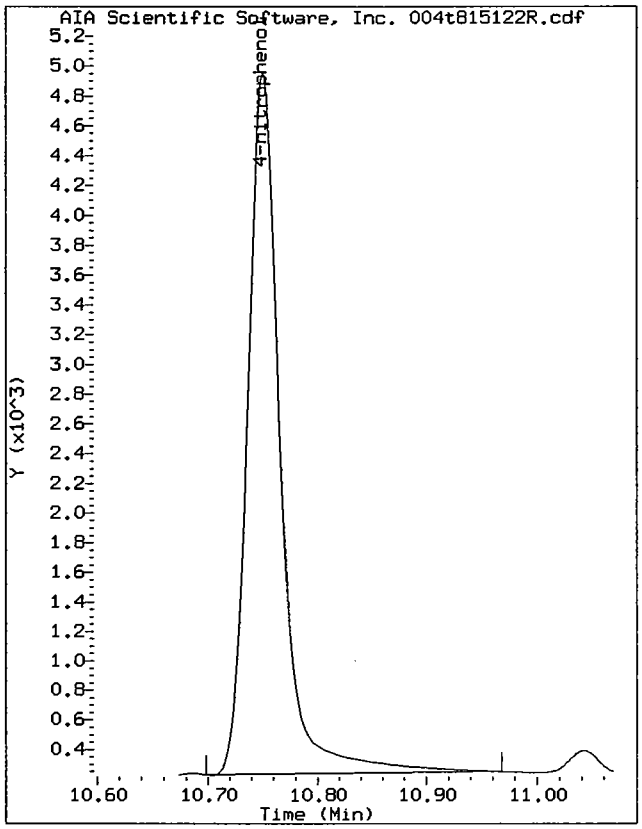
14/2/5

KEH 4/3/09

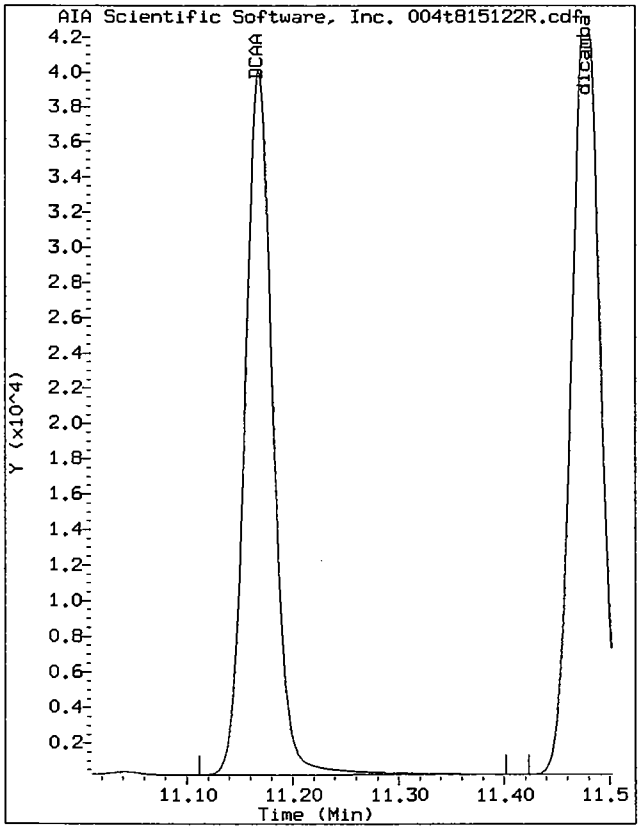
Manually Integrated Peaks



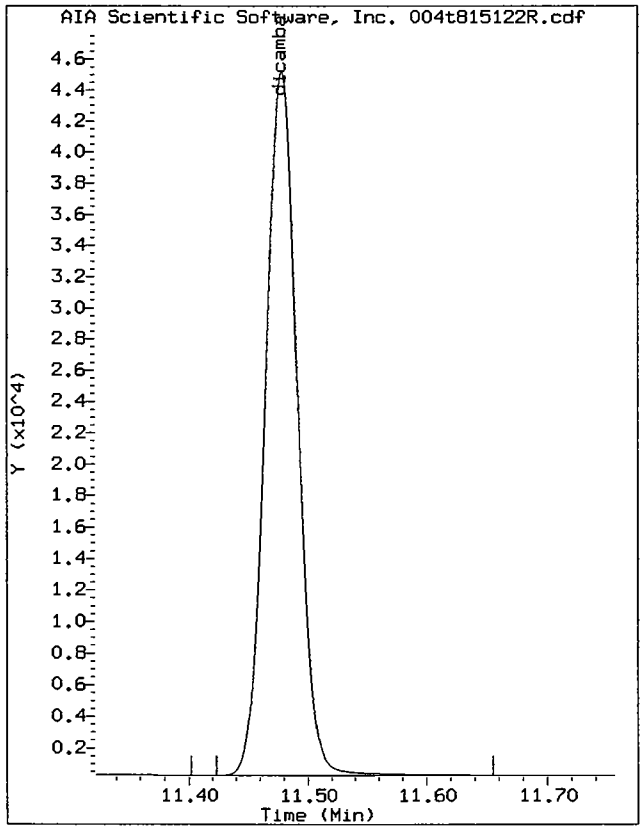
Start: 2.78 Stop: 2.97



Start: 10.70 Stop: 10.97

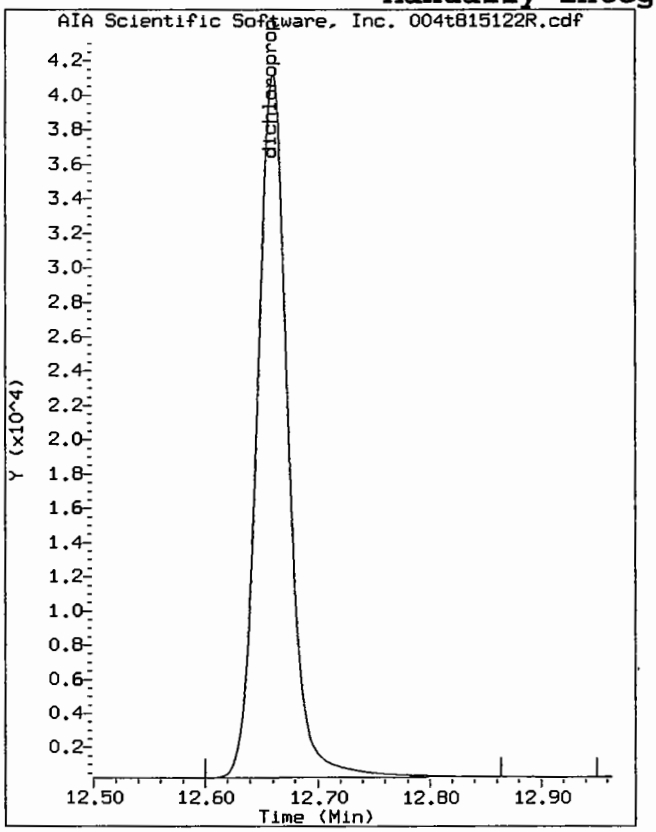


Start: 11.11 Stop: 11.40

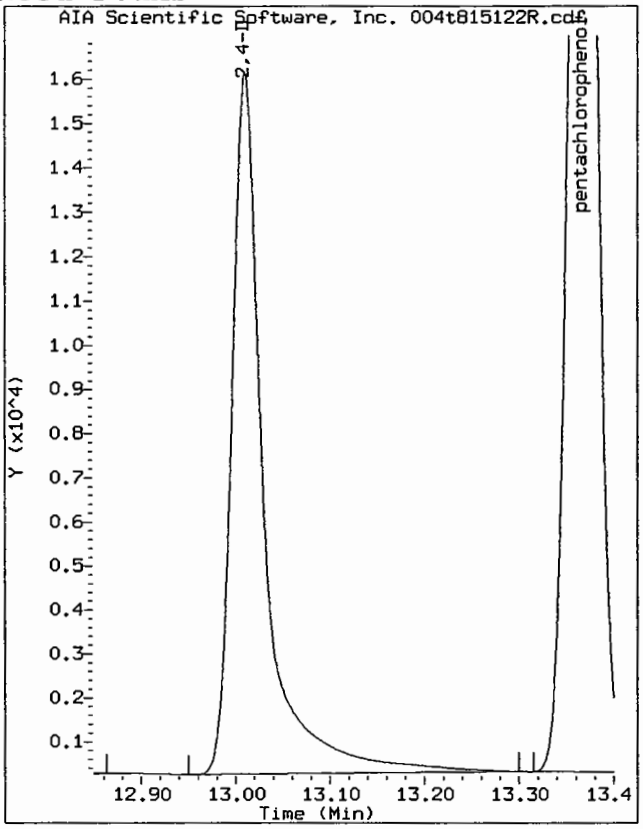


Start: 11.42 Stop: 11.65

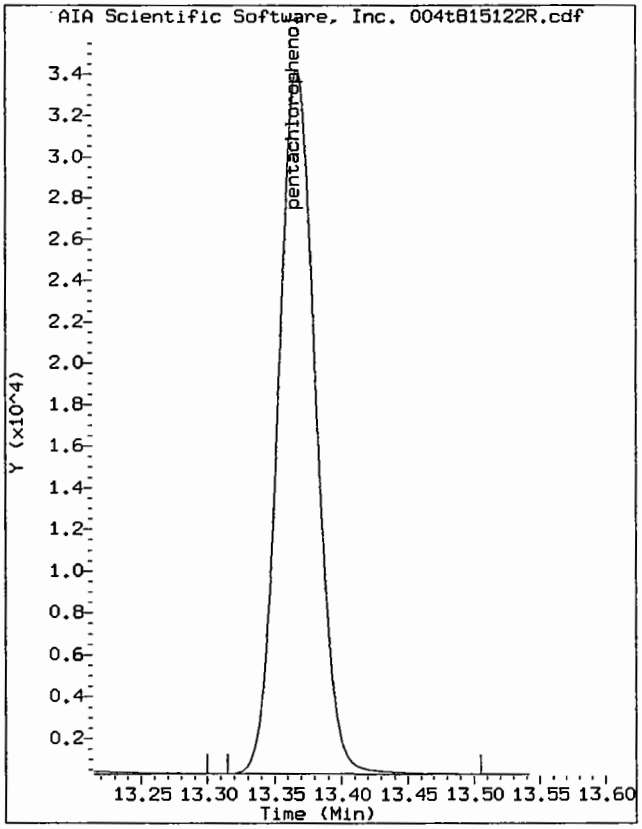
Manually Integrated Peaks



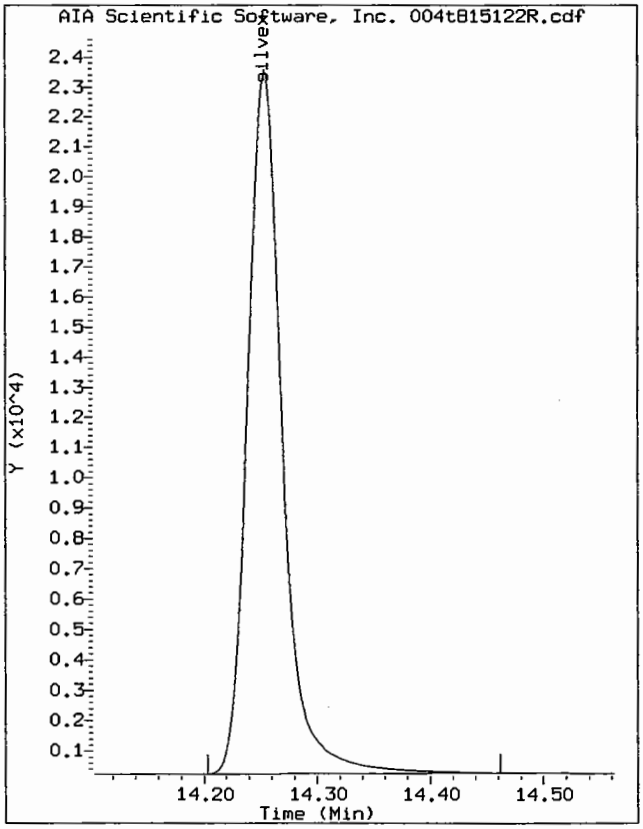
Start: 12.60 Stop: 12.86



Start: 12.95 Stop: 13.30

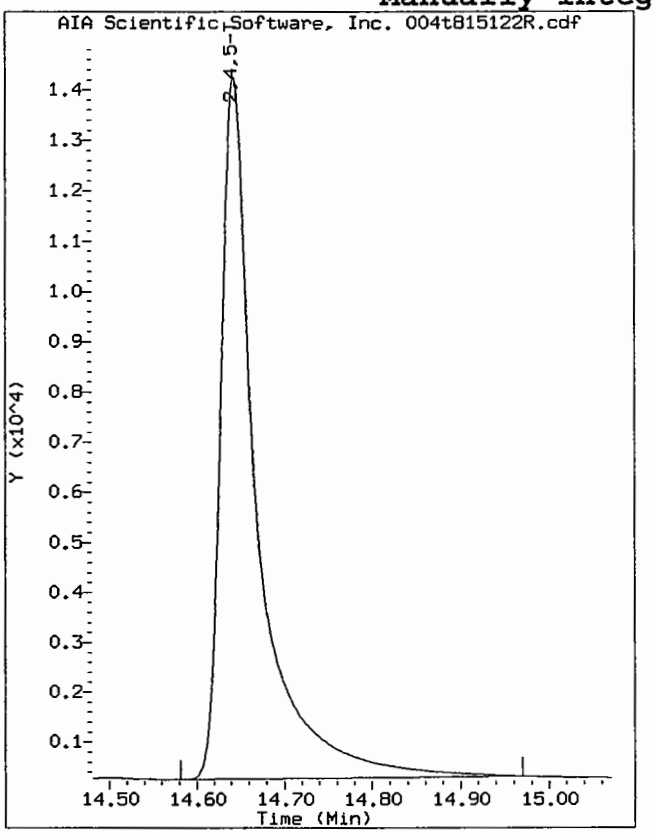


Start: 13.31 Stop: 13.51

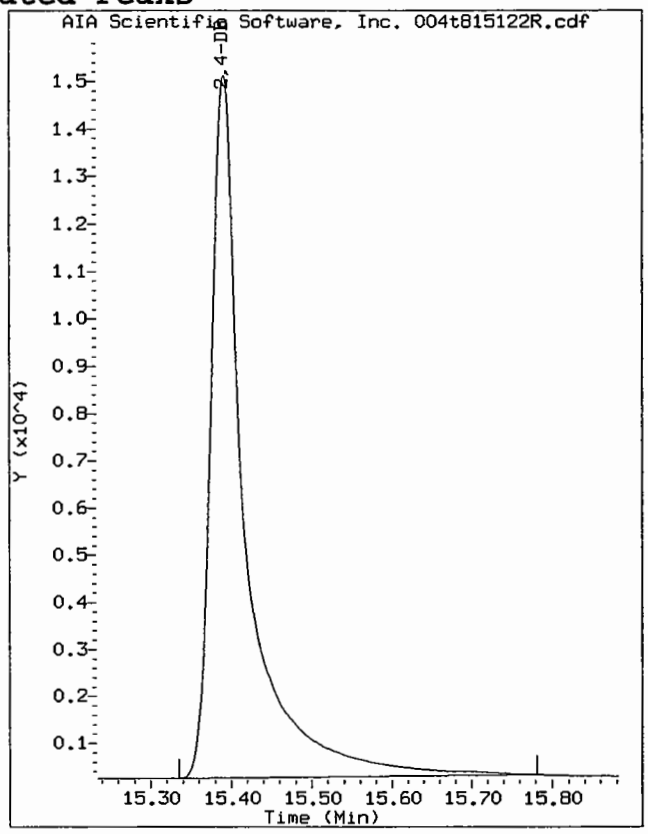


Start: 14.20 Stop: 14.46

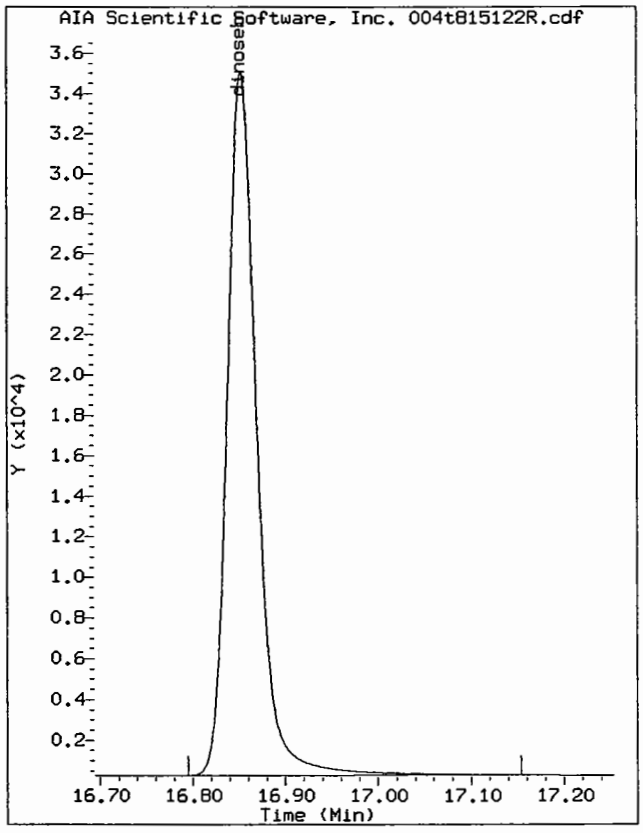
Manually Integrated Peaks



Start: 14.58 Stop: 14.97



Start: 15.34 Stop: 15.78



Start: 16.80 Stop: 17.15

Data File: /chem/agilent92.i/t090402.b/005t815132R.d

Date : 02-APR-2009 22:02

Client ID: 815132R

Instrument: agilent92.i

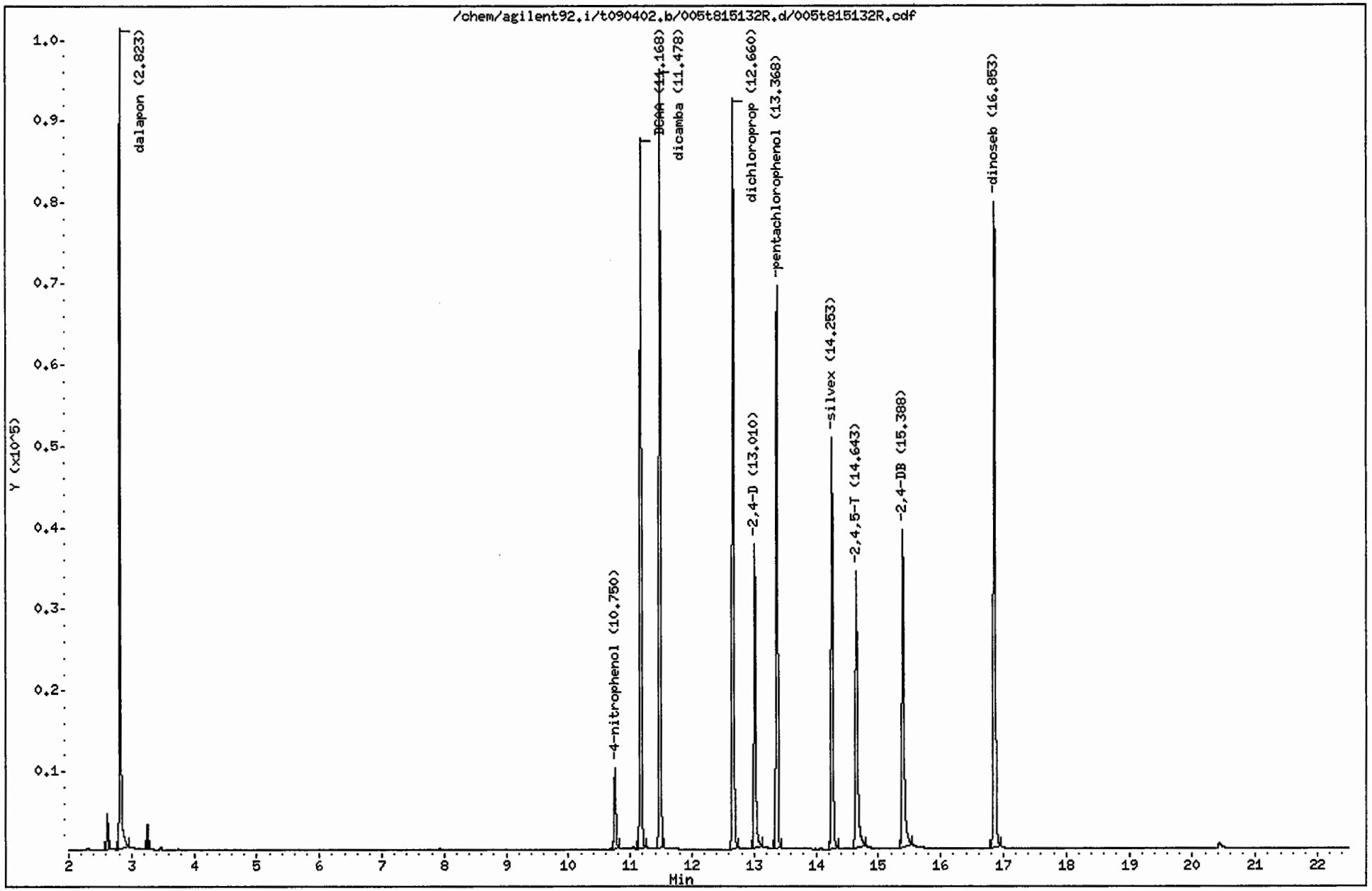
Sample Info: 815132R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



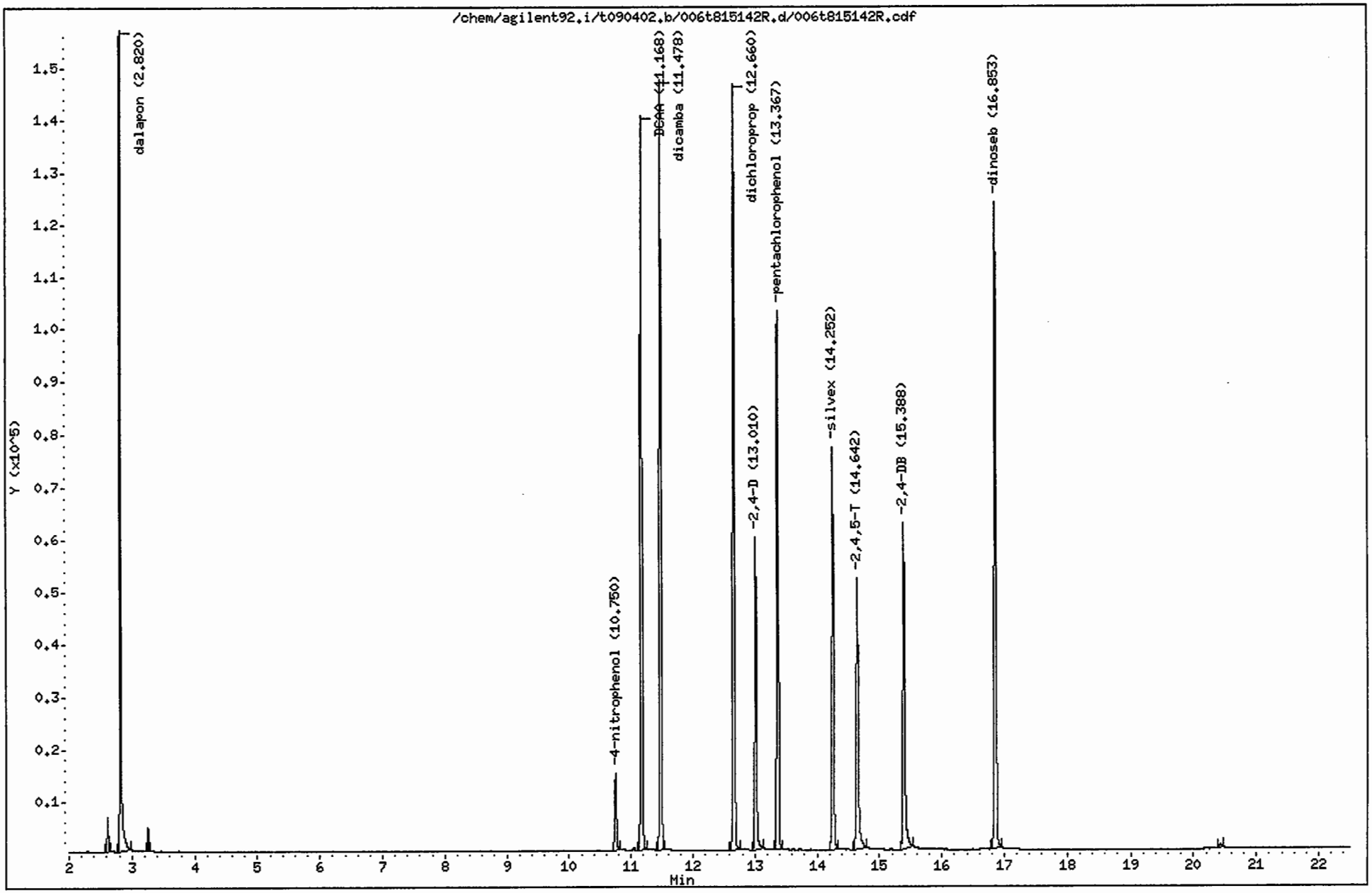
CompuChem

Lab Smp Id : 815132R Client Smp Id : 815132R
Sample Type : INITIAL CAL: Level 3 Sublist : FULL8151new
Inj Date : 02-APR-2009 22:02 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.62			5882					
2.82	2.79	2.85	128970	65694	dalapon	2.030000	63532	
3.26			3940					
10.75	10.71	10.79	18885	19631	4-nitrophenol	1.000000	18885	
11.17	11.14	11.20	153468	40502	DCAA	3.900000	39351	
11.48	11.45	11.51	171537	176260	dicamba	1.000000	171536	
12.66	12.63	12.69	165449	41568	dichloroprop	4.100000	40353	
13.01	12.98	13.04	75162	37970	2,4-D	2.040000	36844	
13.37	13.34	13.40	131199	665247	pentachlorophenol	0.200000	655995	
14.25	14.22	14.28	99172	252511	silvex	0.400000	247927	
14.64	14.61	14.67	79727	202386	2,4,5-T	0.400000	199317	
15.39	15.36	15.42	91608	22780	2,4-DB	4.110000	22289	
16.85	16.82	16.88	160928	161720	dinoseb	1.000000	160928	

Data File: /chem/agilent92.i/t090402.b/006t815142R.d
Date : 02-APR-2009 22:32
Client ID: 815142R
Sample Info: 815142R
Volume Injected (uL): 1.0
Column phase: CLPest

Instrument: agilent92.i
Operator: 2512
Column diameter: 0.32



CompuChem

Lab Smp Id : 815142R Client Smp Id : 815142R
Sample Type : INITIAL CAL: Level 4 Sublist : FULL8151new
Inj Date : 02-APR-2009 22:32 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.61			8721					
2.82	2.79	2.85	202436	65694	dalapon	3.045000	66481	
3.25			5869					
10.75	10.71	10.79	28254	19631	4-nitrophenol	1.500000	18836	
11.17	11.14	11.20	241441	40502	DCAA	5.850000	41272	
11.48	11.45	11.51	263963	176260	dicamba	1.500000	175975	
12.66	12.63	12.69	259373	41568	dichloroprop	6.150000	42174	
13.01	12.98	13.04	114612	37970	2,4-D	3.060000	37455	
13.37	13.34	13.40	195636	665247	pentachlorophenol	0.300000	652120	
14.25	14.22	14.28	148347	252511	silvex	0.600000	247245	
14.64	14.61	14.67	117761	202386	2,4,5-T	0.600000	196268	
15.39	15.36	15.42	137979	22780	2,4-DB	6.165000	22381	
16.85	16.82	16.88	245156	161720	dinoseb	1.500000	163437	
20.43			1837					

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Data File: /chem/agilent92.i/t090402.b/007t815152R.d

Date : 02-APR-2009 23:01

Client ID: 815152R

Instrument: agilent92.i

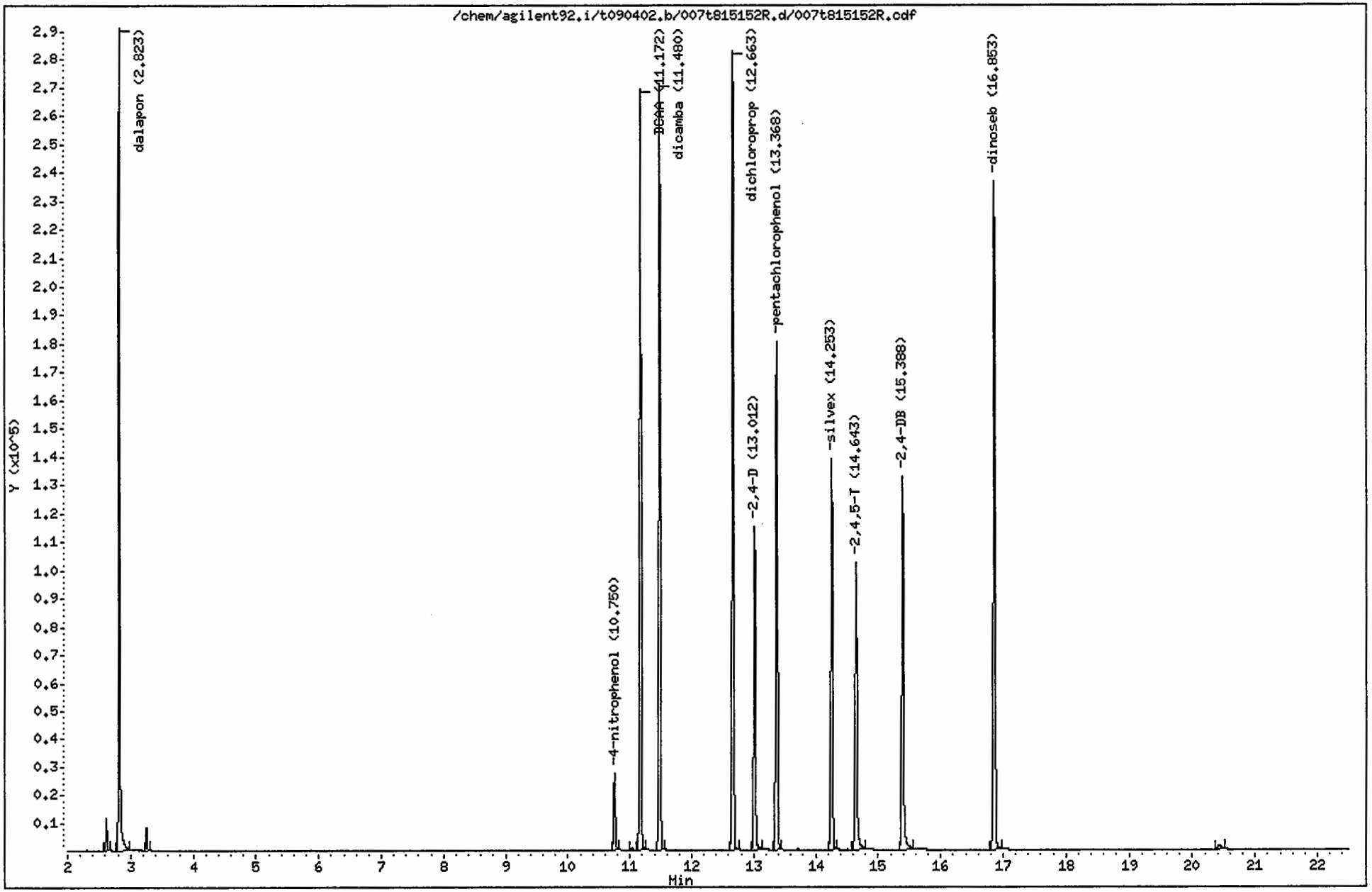
Sample Info: 815152R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 815152R Client Smp Id : 815152R
Sample Type : INITIAL CAL: Level 5 Sublist : FULL8151new
Inj Date : 02-APR-2009 23:01 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.62			15321					
2.82	2.79	2.85	367985	65694	dalapon	5.075000	72509	
3.25			10385					
10.75	10.71	10.79	50021	19631	4-nitrophenol	2.500000	20008	
11.04			1388					
11.17	11.14	11.20	447711	40502	DCAA	9.750000	45919	
11.48	11.45	11.51	472981	176260	dicamba	2.500000	189192	
12.66	12.63	12.69	485419	41568	dichloroprop	10.25000	47358	
13.01	12.98	13.04	207988	37970	2,4-D	5.100000	40782	
13.37	13.34	13.40	336629	665247	pentachlorophenol	0.500000	673258	
14.25	14.22	14.28	259083	252511	silvex	1.000000	259083	
14.64	14.61	14.67	207637	202386	2,4,5-T	1.000000	207636	
15.39	15.36	15.42	262226	22780	2,4-DB	10.27500	25521	
16.85	16.82	16.88	444499	161720	dinoseb	2.500000	177799	
20.43			4332					

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Data File: /chem/agilent93.i/t090402.b/003t815112R.d

Page 1

Date : 02-APR-2009 21:03

Client ID: 815112R

Instrument: agilent93.i

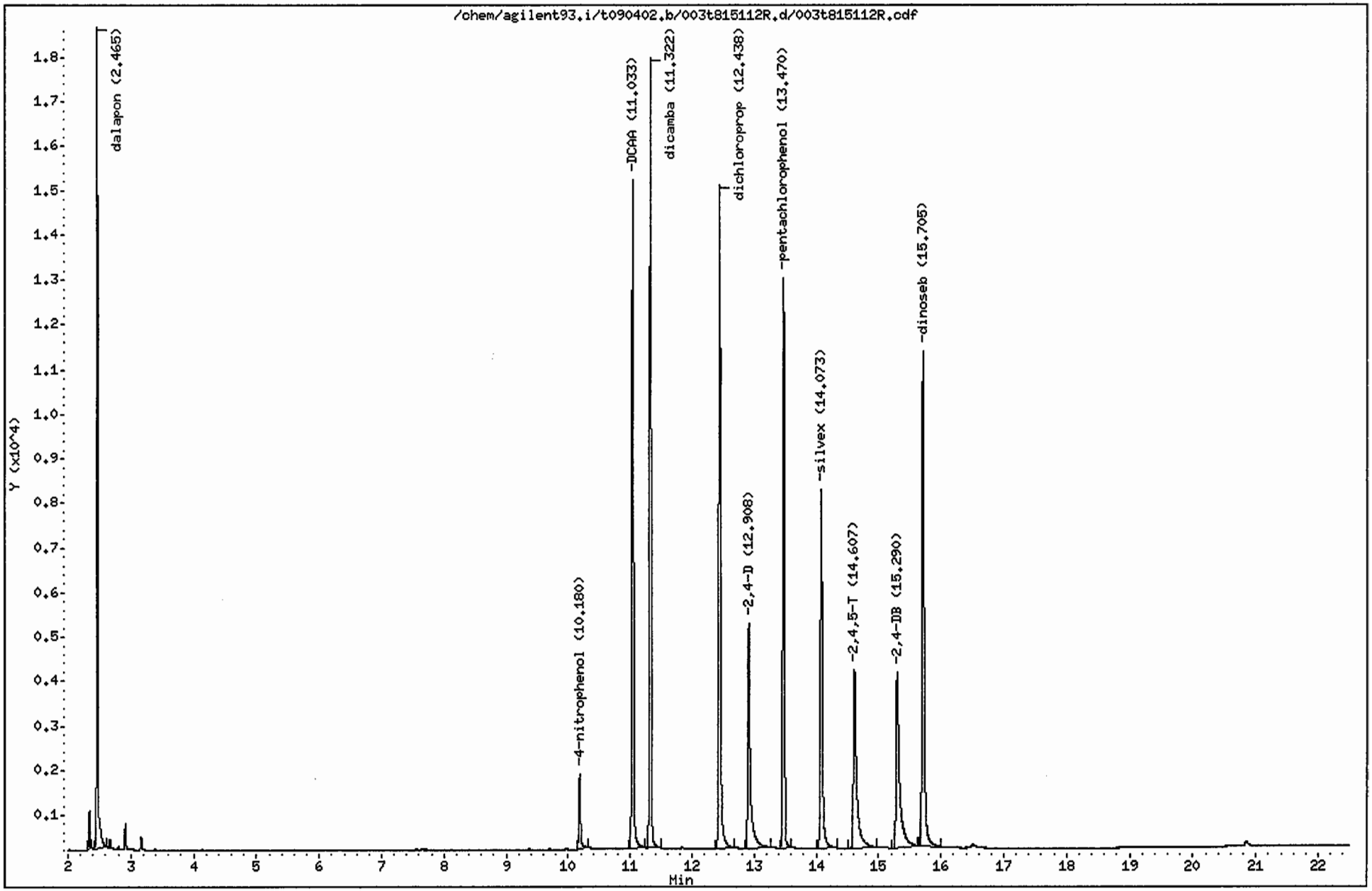
Sample Info: 815112R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 815112R Client Smp Id : 815112R
Sample Type : INITIAL CAL: Level 1 Sublist : FULL8151new
Inj Date : 02-APR-2009 21:03 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402.b/8151f_clpest2v4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.34			1059					
2.46	2.43	2.49	21609	41363	dalapon	0.507500	42577	M
10.18	10.14	10.22	3477	13078	4-nitrophenol	0.250000	13904	M
11.03	11.01	11.07	27298	28143	DCAA	0.975000	27998	M
11.32	11.29	11.35	31135	120462	dicamba	0.250000	124536	M
12.44	12.41	12.47	28732	28216	dichloroprop	1.025000	28031	M
12.91	12.88	12.94	13994	26459	2,4-D	0.510000	27437	M
13.47	13.44	13.50	23829	447969	pentachlorophenol	0.050000	476580	M
14.07	14.04	14.10	17850	170753	silvex	0.100000	178490	M
14.61	14.57	14.63	13980	136793	2,4,5-T	0.100000	139790	M
15.29	15.26	15.32	14932	15245	2,4-DB	1.027500	14531	M
15.70	15.67	15.73	25098	106506	dinoseb	0.250000	100388	M

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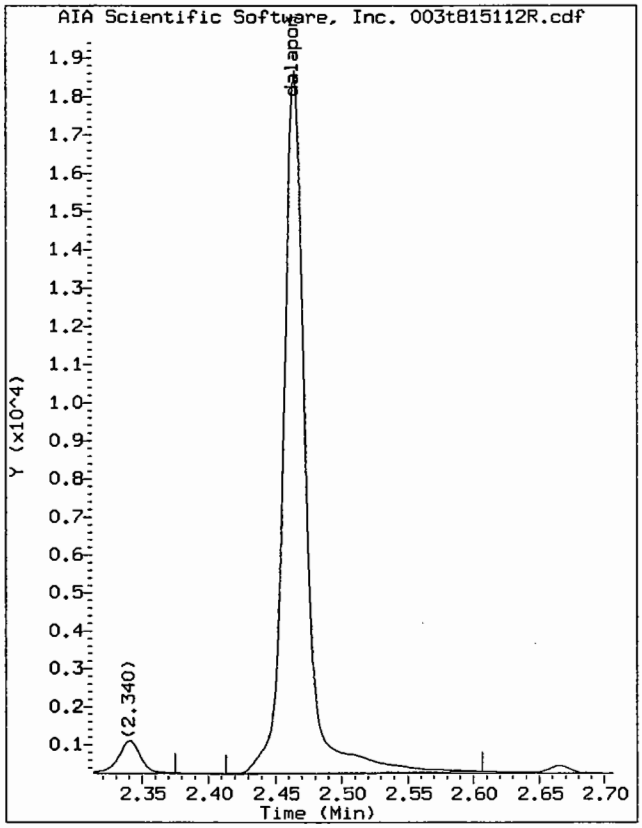
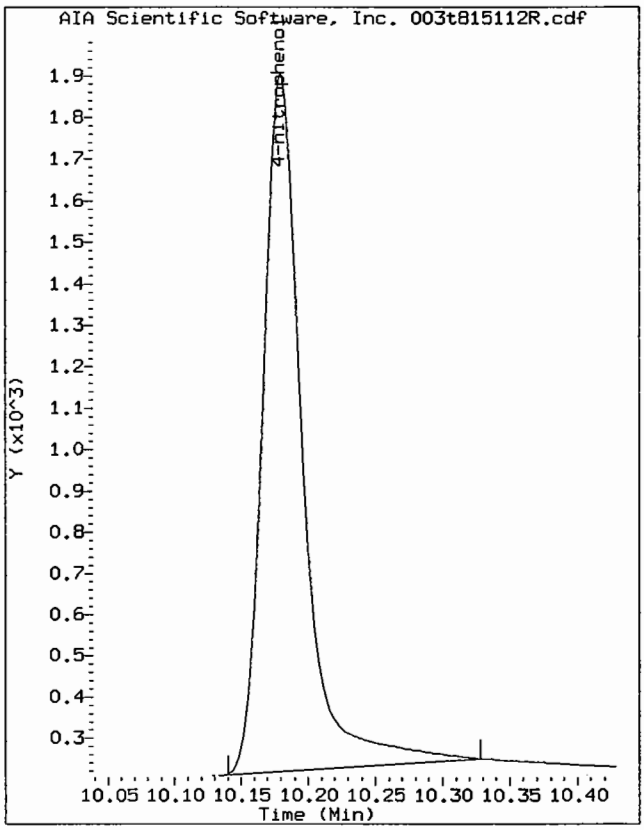
4/3/09

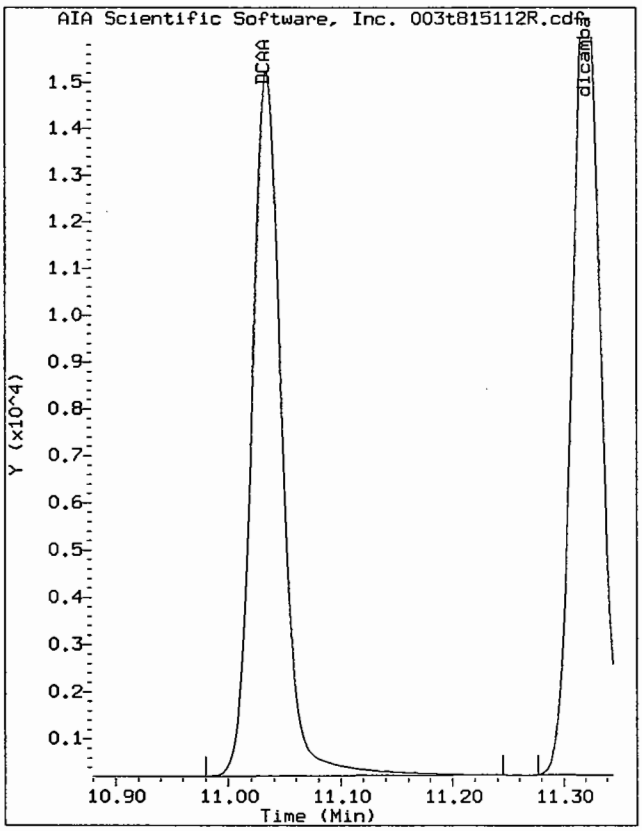
Manually Integrated Peaks



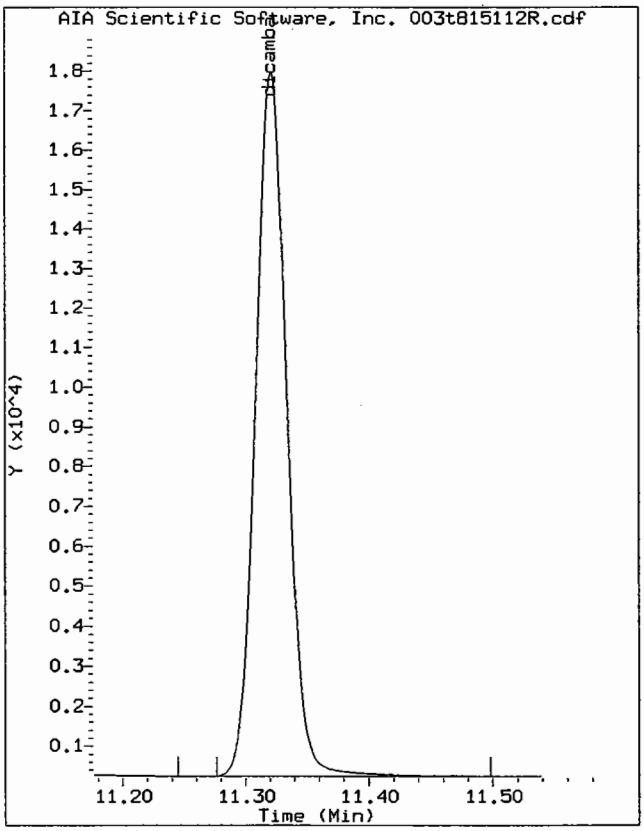
Start: 2.41 Stop: 2.61



Start: 10.14 Stop: 10.33

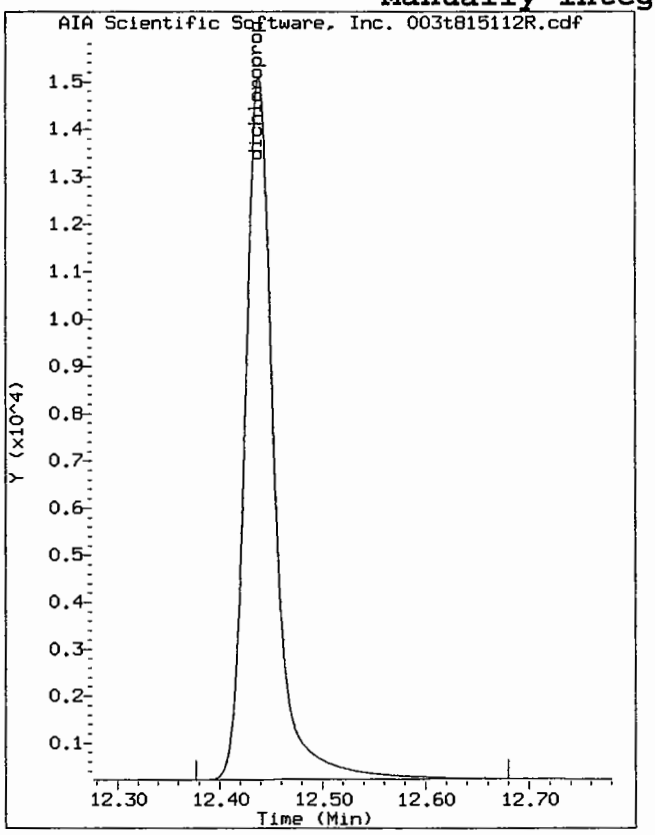


Start: 10.98 Stop: 11.24

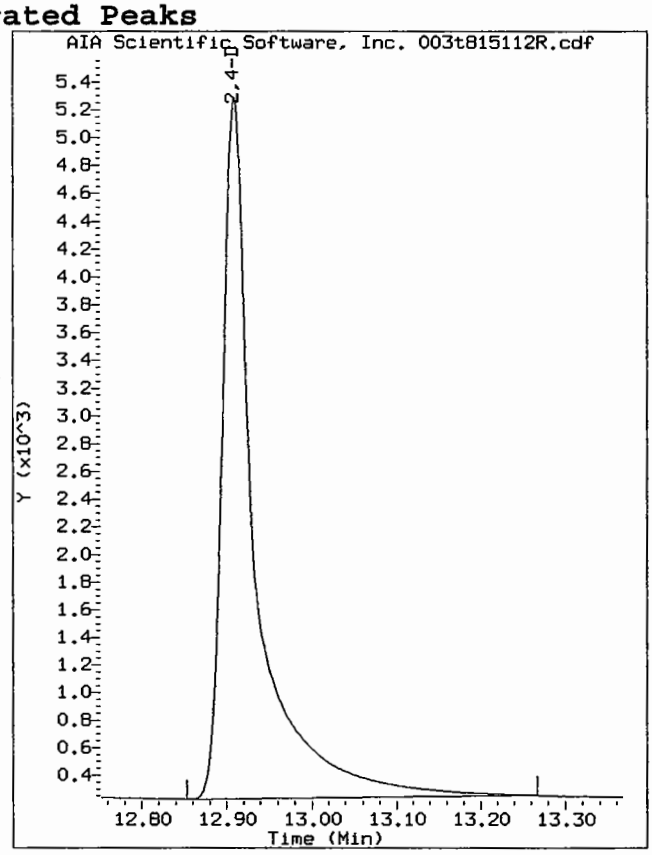


Start: 11.28 Stop: 11.50

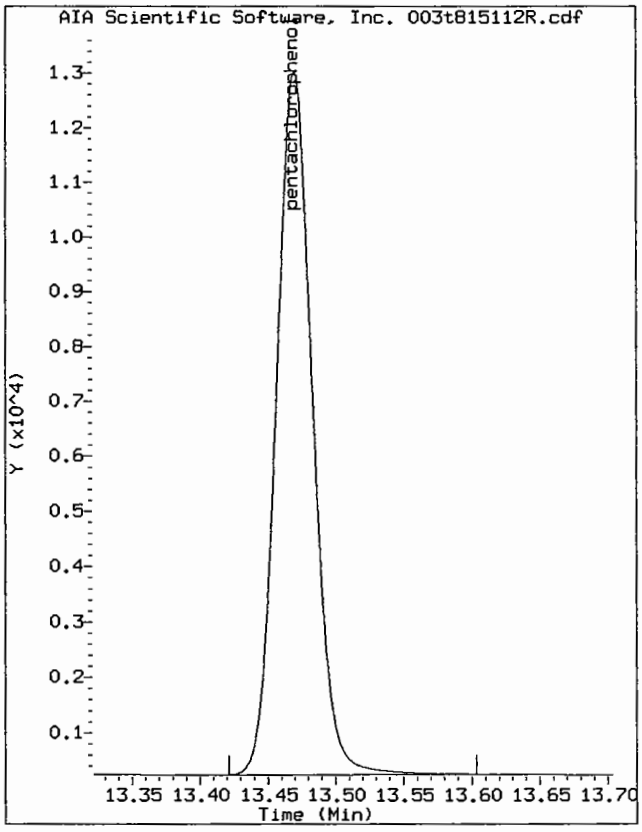
Manually Integrated Peaks



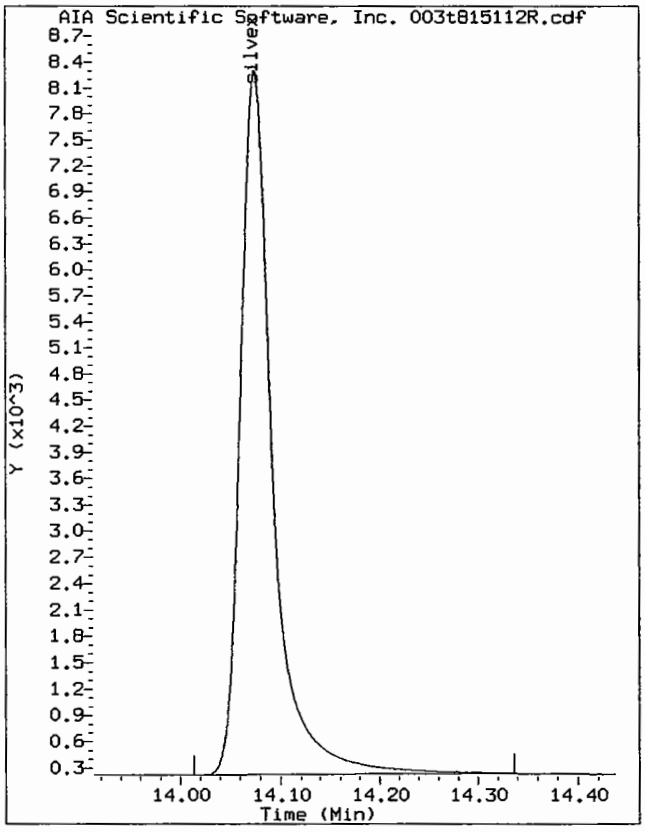
Start: 12.38 Stop: 12.68



Start: 12.85 Stop: 13.27

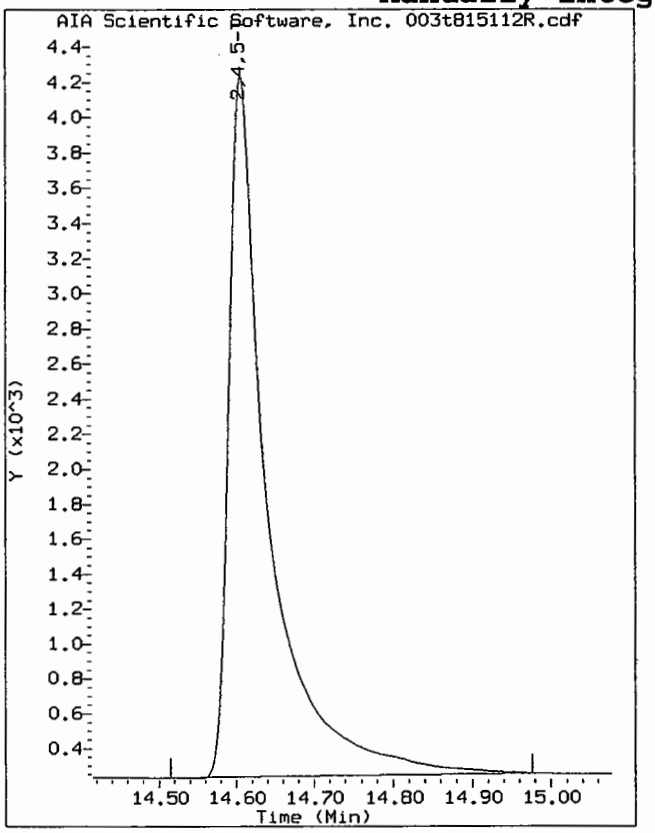


Start: 13.42 Stop: 13.60

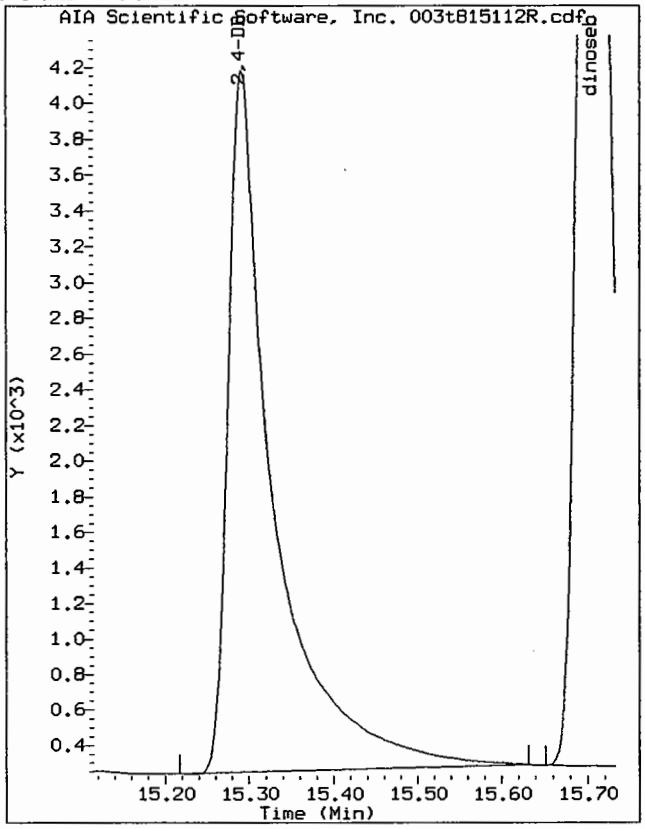


Start: 14.01 Stop: 14.34

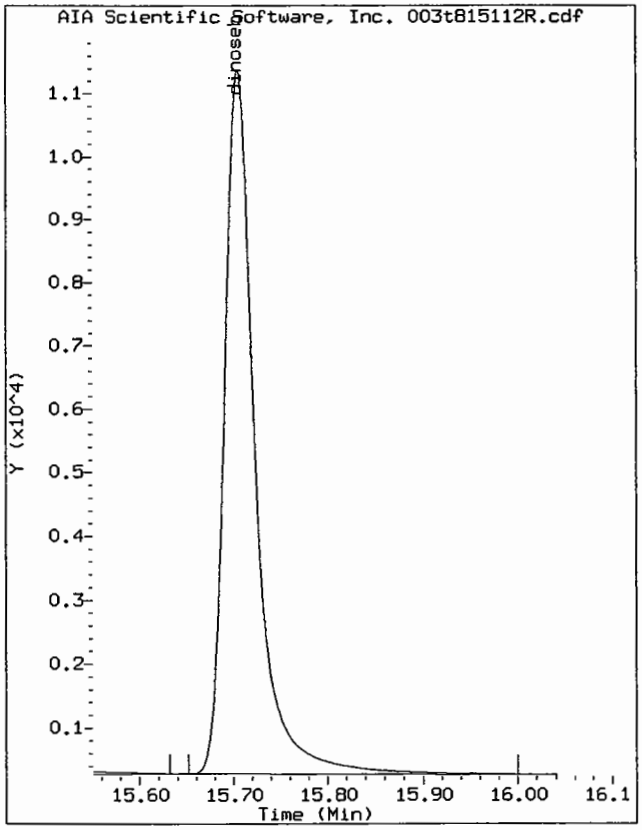
Manually Integrated Peaks



Start: 14.52 Stop: 14.98



Start: 15.22 Stop: 15.63



Start: 15.65 Stop: 16.00

Data File: /chem/agilent93.i/t090402.b/004t815122R.d

Date : 02-APR-2009 21:33

Client ID: 815122R

Instrument: agilent93.i

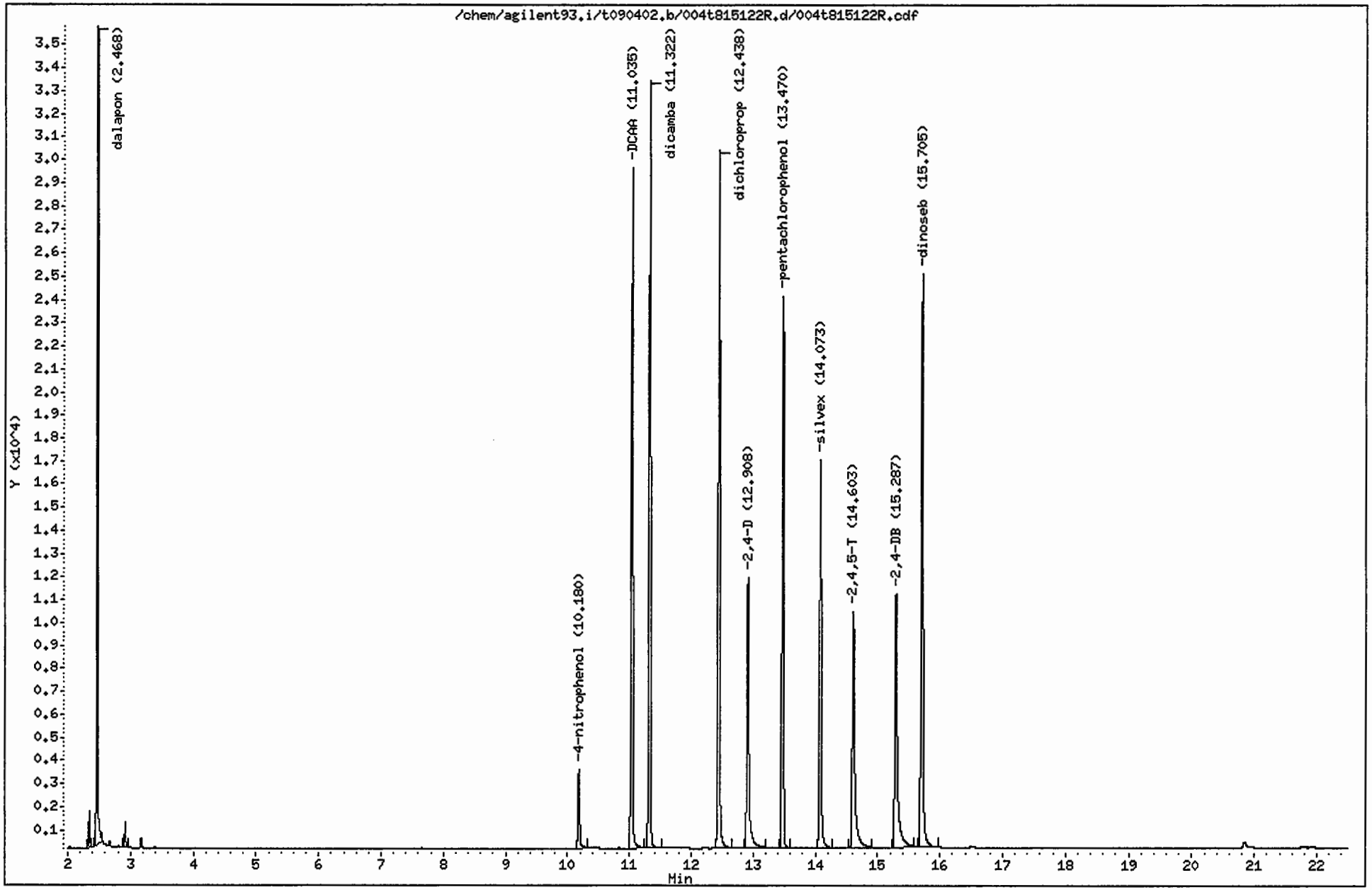
Sample Info: 815122R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



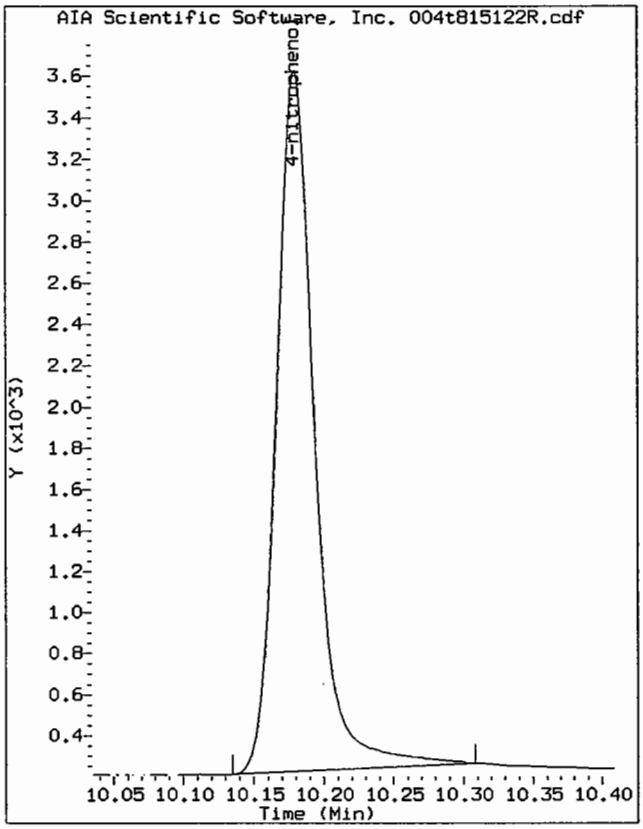
CompuChem

Lab Smp Id : 815122R Client Smp Id : 815122R
Sample Type : INITIAL CAL: Level 2 Sublist : FULL8151new
Inj Date : 02-APR-2009 21:33 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402.b/8151f_clpest2v4.m
Misc. Info : None

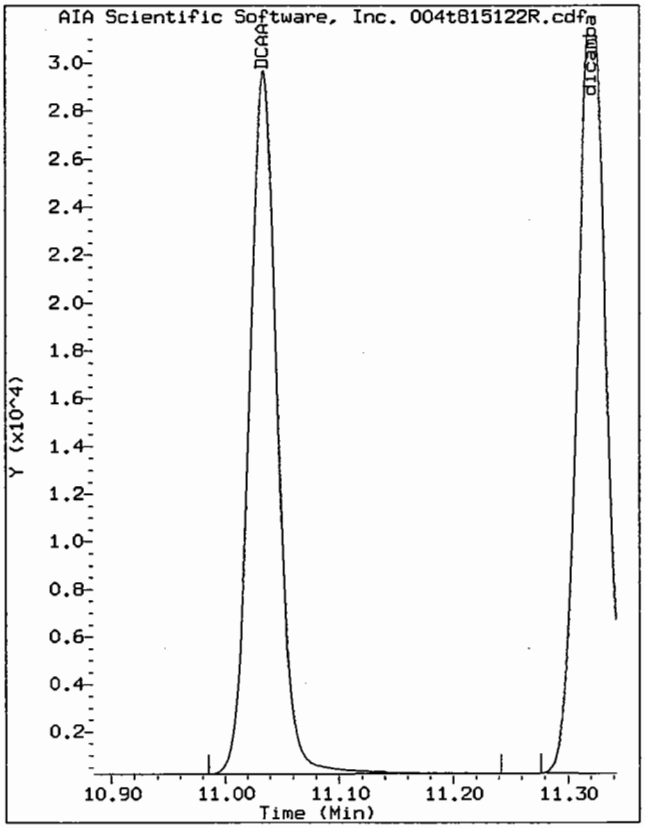
RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.35			1905					
2.47	2.43	2.49	38987	41363	dalapon	1.015000	38410	
2.91			1247					
10.18	10.14	10.22	6487	13078	4-nitrophenol	0.500000	12974	M
11.04	11.01	11.07	51048	28143	DCAA	1.950000	26178	M
11.32	11.29	11.35	57262	120462	dicamba	0.500000	114524	M
12.44	12.41	12.47	53723	28216	dichloroprop	2.050000	26206	M
12.91	12.88	12.94	26155	26459	2,4-D	1.020000	25642	M
13.47	13.44	13.50	43873	447969	pentachlorophenol	0.100000	438720	M
14.07	14.04	14.10	33226	170753	silvex	0.200000	166125	M
14.60	14.57	14.63	27335	136793	2,4,5-T	0.200000	136670	M
15.29	15.26	15.32	30097	15245	2,4-DB	2.055000	14646	M
15.70	15.67	15.73	50184	106506	dinoseb	0.500000	100368	M

4/3/09

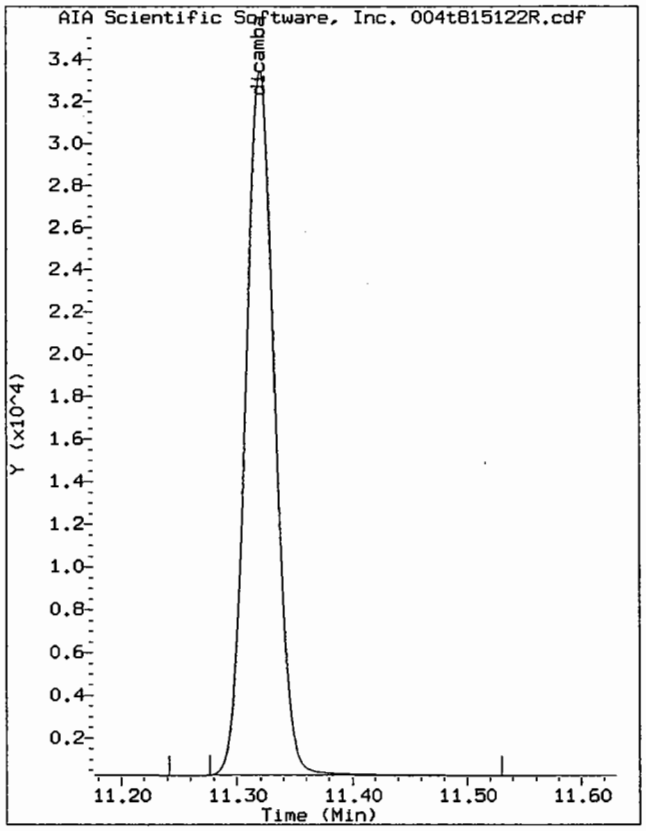
Manually Integrated Peaks



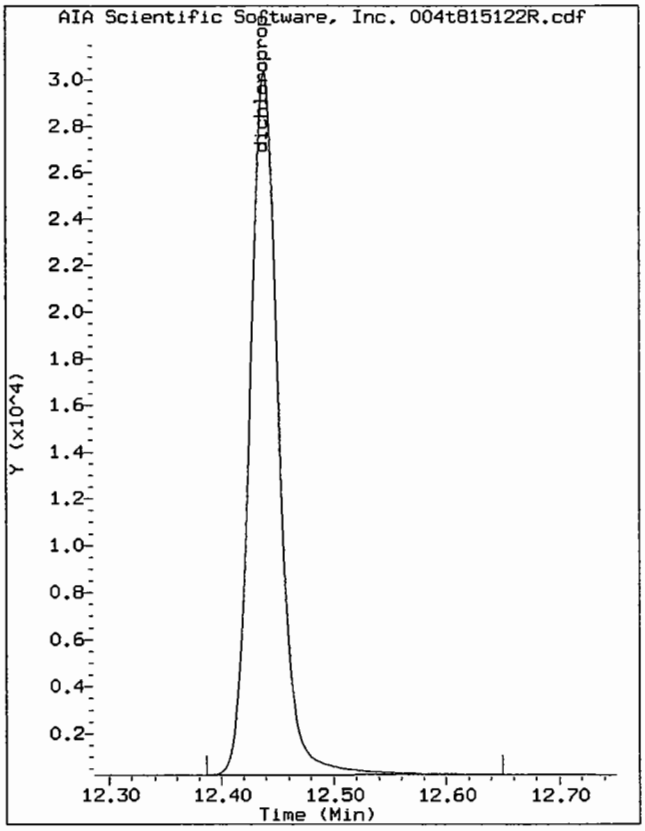
Start: 10.13 Stop: 10.31



Start: 10.98 Stop: 11.24

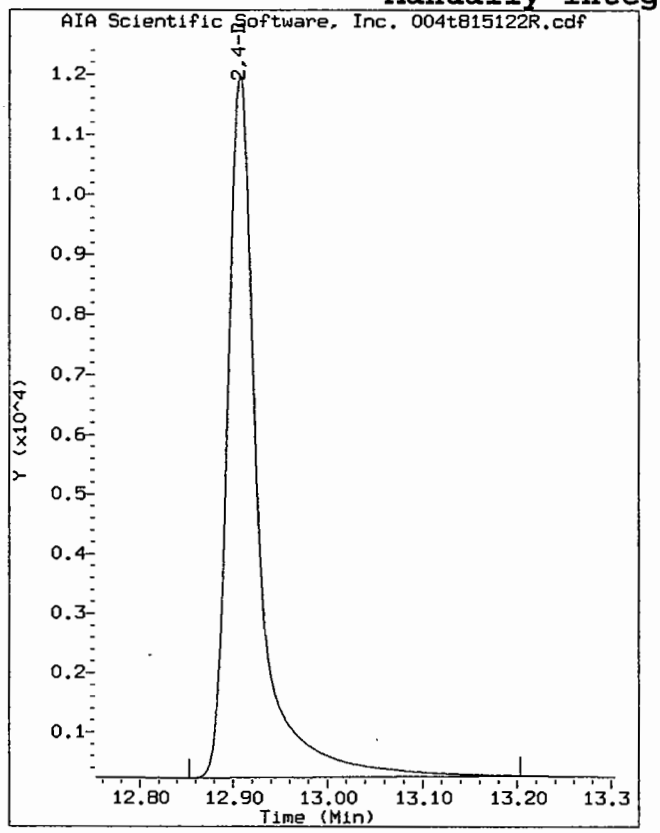


Start: 11.28 Stop: 11.53

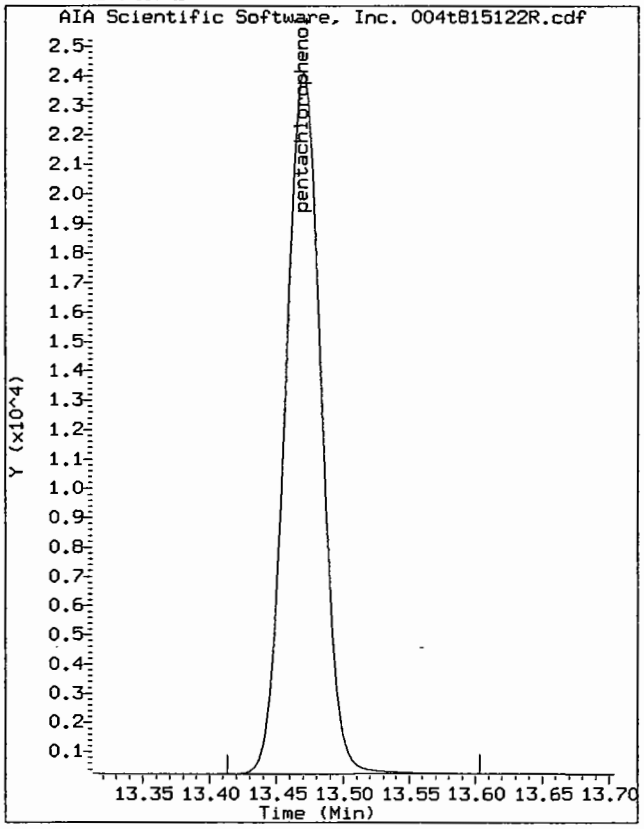


Start: 12.39 Stop: 12.65

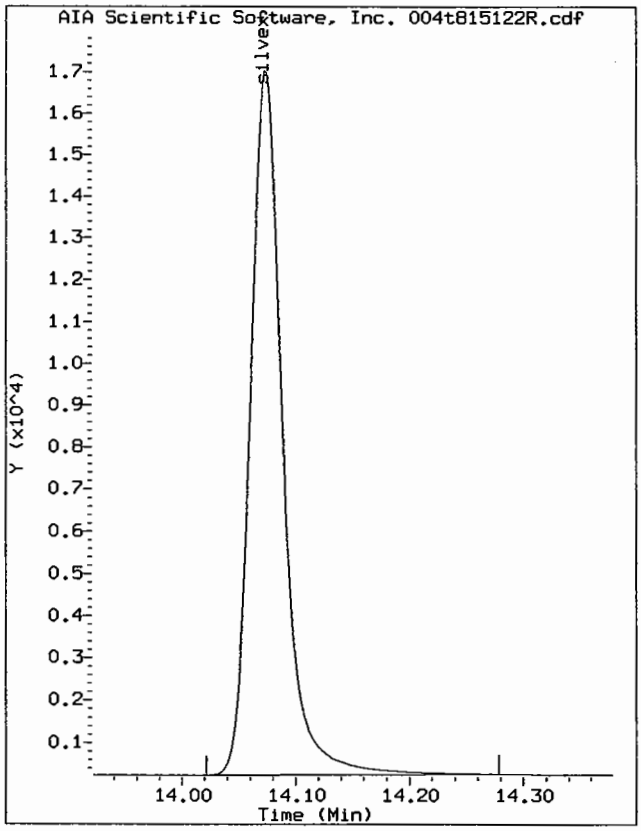
Manually Integrated Peaks



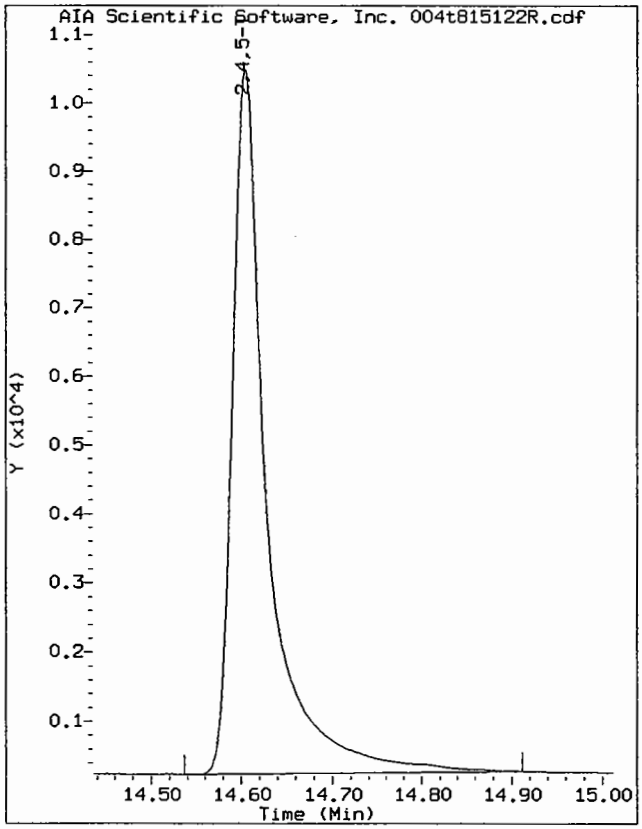
Start: 12.85 Stop: 13.20



Start: 13.41 Stop: 13.60

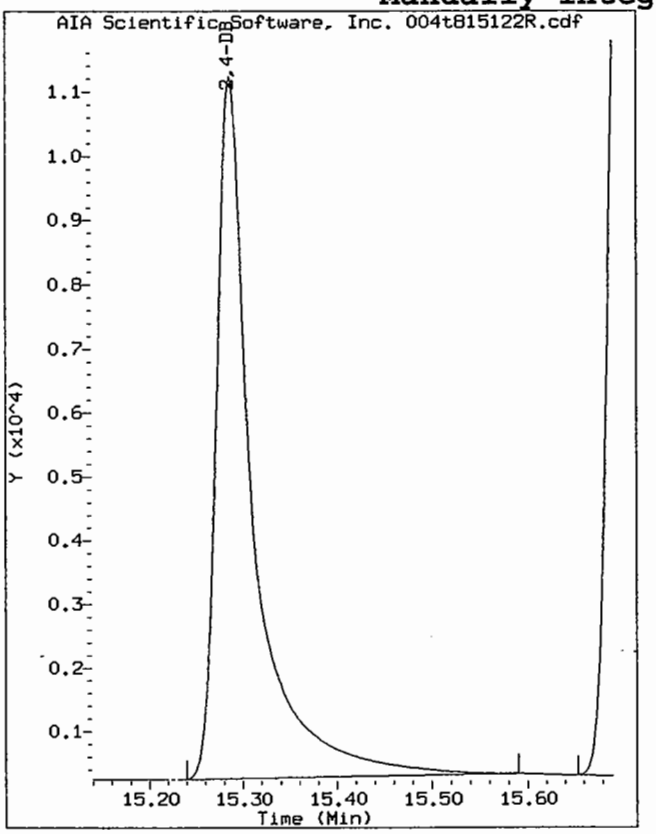


Start: 14.02 Stop: 14.28

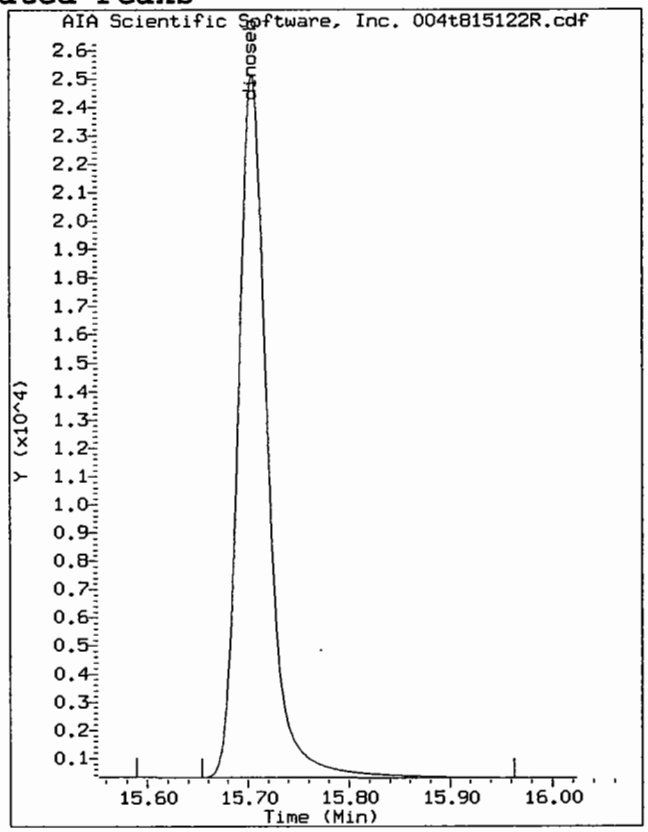


Start: 14.54 Stop: 14.91

Manually Integrated Peaks



Start: 15.24 Stop: 15.59



Start: 15.65 Stop: 15.96

Data File: /chem/agilent93.i/t090402.b/005t815132R.d

Date : 02-APR-2009 22:02

Client ID: 815132R

Sample Info: 815132R

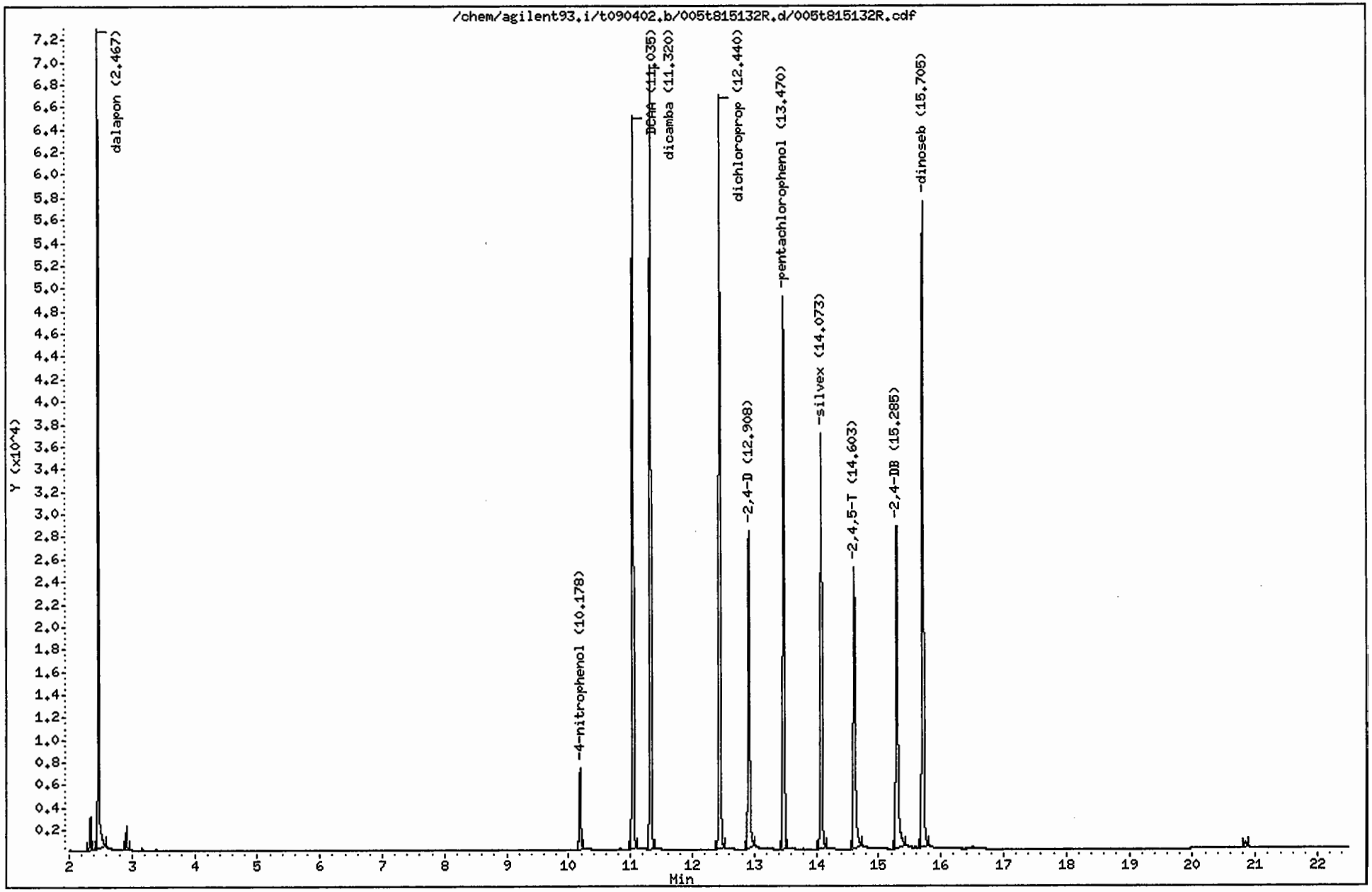
Volume Injected (uL): 1.0

Column phase: CLPest2

Instrument: agilent93.i

Operator: 2512

Column diameter: 0.32



CompuChem

Lab Smp Id : 815132R Client Smp Id : 815132R
Sample Type : INITIAL CAL: Level 3 Sublist : FULL8151new
Inj Date : 02-APR-2009 22:02 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402.b/8151f_clpest2v4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.34			3648					
2.47	2.43	2.49	81328	41363	dalapon	2.030000	40063	
2.91			2405					
10.18	10.14	10.22	12631	13078	4-nitrophenol	1.000000	12630	
11.04	11.01	11.07	106841	28143	DCAA	3.900000	27395	
11.32	11.29	11.35	117411	120462	dicamba	1.000000	117411	
12.44	12.41	12.47	112310	28216	dichloroprop	4.100000	27393	
12.91	12.88	12.94	52004	26459	2,4-D	2.040000	25492	
13.47	13.44	13.50	87842	447969	pentachlorophenol	0.200000	439205	
14.07	14.04	14.10	66795	170753	silvex	0.400000	166987	
14.60	14.57	14.63	53813	136793	2,4,5-T	0.400000	134530	
15.28	15.26	15.32	62298	15245	2,4-DB	4.110000	15158	
15.70	15.67	15.73	106586	106506	dinoseb	1.000000	106586	
20.84			1189					

Data File: /chem/agilent93.i/t090402.b/006t815142R.d

Date : 02-APR-2009 22:32

Client ID: 815142R

Instrument: agilent93.i

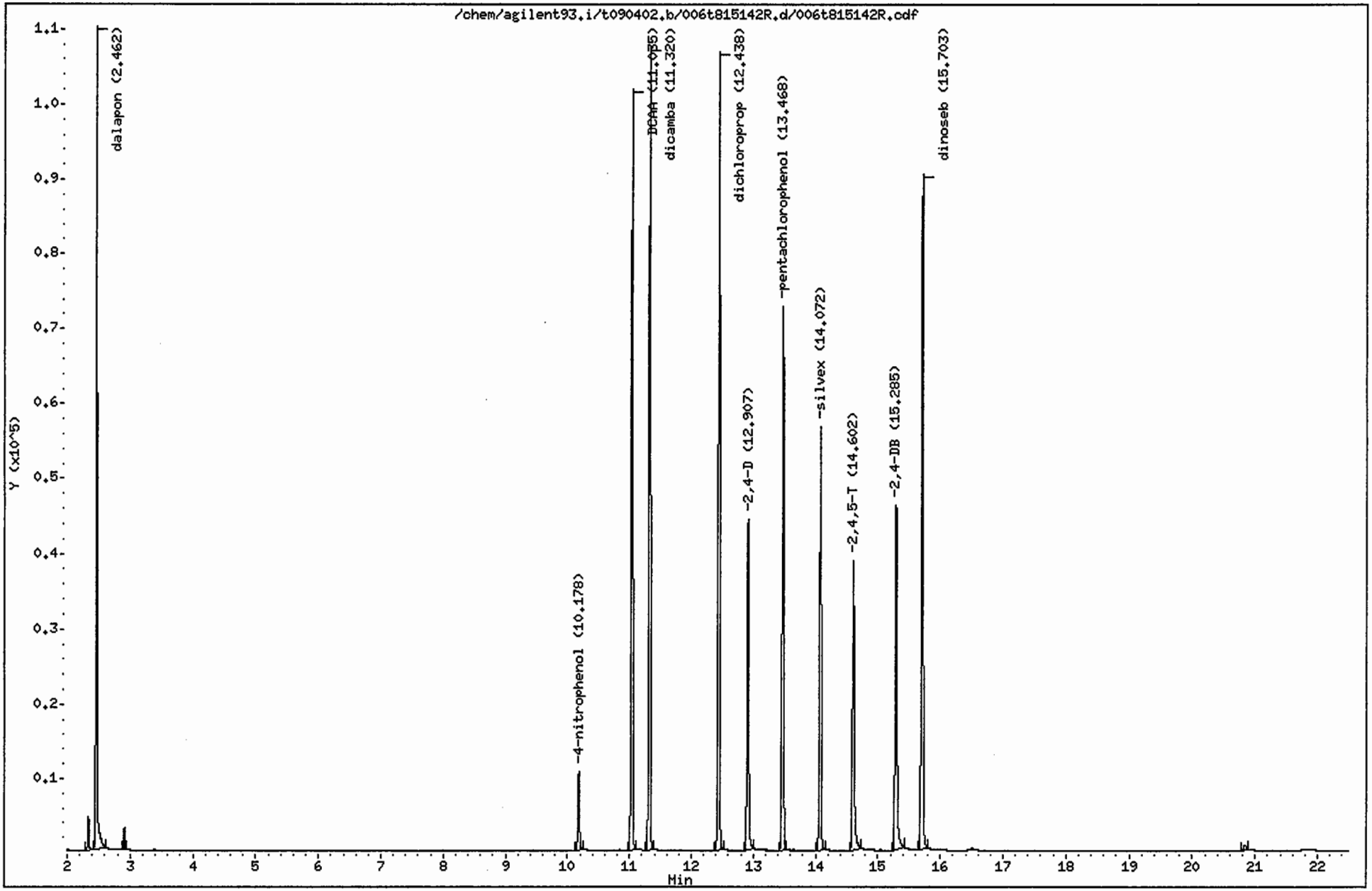
Sample Info: 815142R

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 815142R Client Smp Id : 815142R
Sample Type : INITIAL CAL: Level 4 Sublist : FULL8151new
Inj Date : 02-APR-2009 22:32 Inst ID : AGILENT93
Operator : 2646
Method : /chem/agilent93.i/t090402.b/8151f_clpest2v4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.34			5759					
2.46	2.43	2.49	126247	41363	dalapon	3.045000	41460	
2.91			3470					
10.18	10.14	10.22	18864	13078	4-nitrophenol	1.500000	12575	
11.04	11.01	11.07	166157	28143	DCAA	5.850000	28403	
11.32	11.29	11.35	179747	120462	dicamba	1.500000	119831	
12.44	12.41	12.47	174878	28216	dichloroprop	6.150000	28435	
12.91	12.88	12.94	78943	26459	2,4-D	3.060000	25798	
13.47	13.44	13.50	131043	447969	pentachlorophenol	0.300000	436807	
14.07	14.04	14.10	100493	170753	silvex	0.600000	167488	
14.60	14.57	14.63	79451	136793	2,4,5-T	0.600000	132418	
15.28	15.26	15.32	93017	15245	2,4-DB	6.165000	15088	
15.70	15.67	15.73	162787	106506	dinoseb	1.500000	108525	
20.84			1672					

Data File: /chem/agilent93.i/t090402.b/007t815152R.d

Date : 02-APR-2009 23:01

Client ID: 815152R

Instrument: agilent93.i

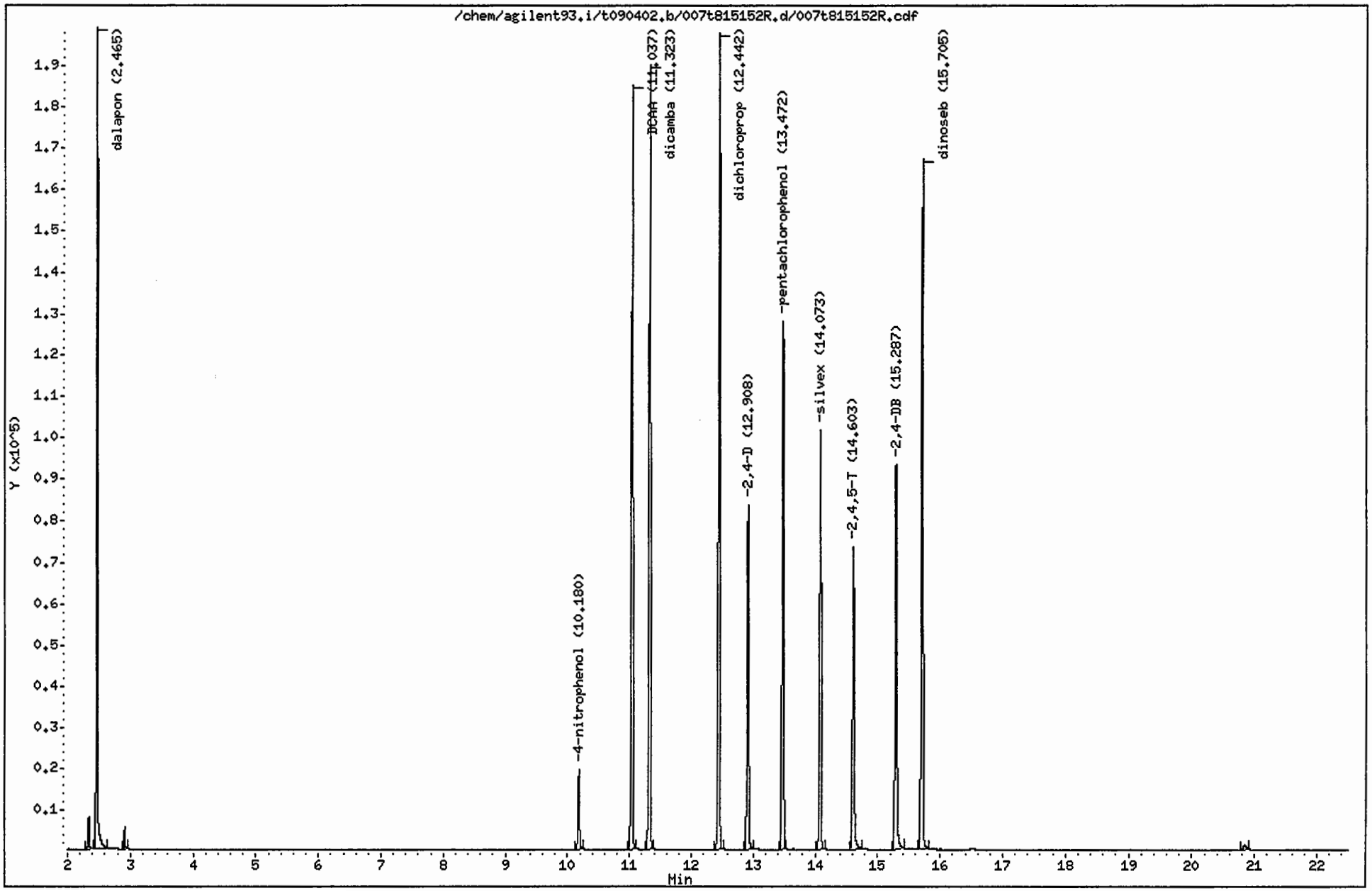
Sample Info: 815152R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 815152R Client Smp Id : 815152R
Sample Type : INITIAL CAL: Level 5 Sublist : FULL8151new
Inj Date : 02-APR-2009 23:01 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402.b/8151f_clpest2v4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.34			9779					
2.46	2.43	2.49	224857	41363	dalapon	5.075000	44307	
2.91			6240					
10.18	10.14	10.22	33269	13078	4-nitrophenol	2.500000	13307	
11.04	11.01	11.07	299736	28143	DCAA	9.750000	30742	
11.32	11.29	11.35	315028	120462	dicamba	2.500000	126011	
12.44	12.41	12.47	317889	28216	dichloroprop	10.25000	31013	
12.91	12.88	12.94	142426	26459	2,4-D	5.100000	27927	
13.47	13.44	13.50	224266	447969	pentachlorophenol	0.500000	448532	
14.07	14.04	14.10	174674	170753	silvex	1.000000	174674	
14.60	14.57	14.63	140556	136793	2,4,5-T	1.000000	140556	
15.29	15.26	15.32	172657	15245	2,4-DB	10.27500	16804	
15.70	15.67	15.73	291654	106506	dinoseb	2.500000	116662	
20.84			3335					

Data File: /chem/agilent92.i/t090402m.b/094t8151M3R.d

Date : 20-APR-2009 12:24

Client ID: 8151M3R

Sample Info: 8151M3R

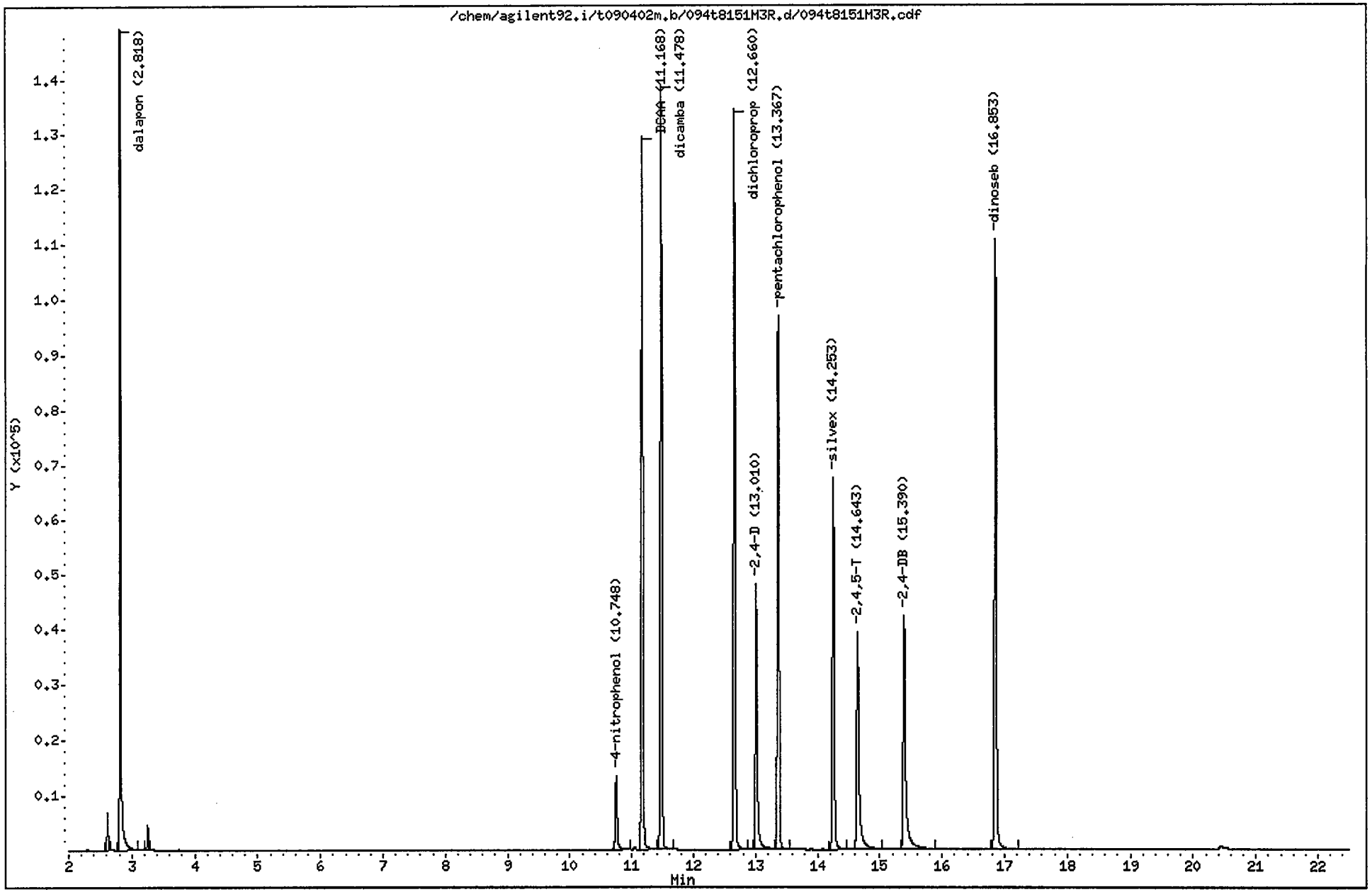
Volume Injected (uL): 1.0

Column phase: CLPest

Instrument: agilent92.i

Operator: 2646

Column diameter: 0.32



CompuChem

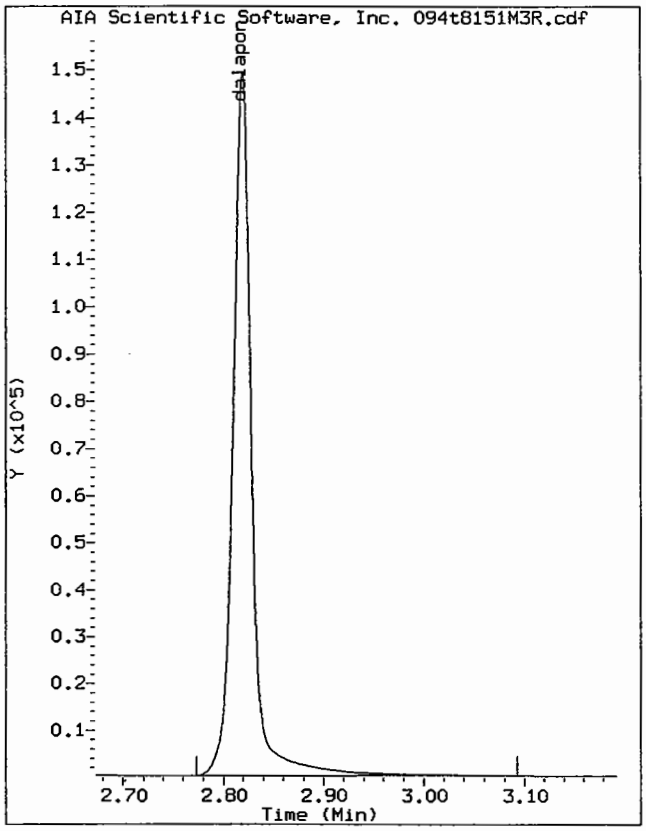
Lab Smp Id : 8151M3R Client Smp Id : 8151M3R
Sample Type : CONT CAL: Level 4 Sublist : FULL8151new
Inj Date : 20-APR-2009 12:24 Inst ID : AGILENT92
Operator : 2646
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.61			8579								
2.82	2.79	2.85	196634	65694	dalapon	3.045000	64576	1.7	15.0	M	
3.25			5662								
10.75	10.71	10.79	26801	19631	4-nitrophenol	1.500000	17867	9.0	15.0	M	
11.17	11.14	11.20	228413	40502	DCAA	5.850000	39045	3.6	15.0	M	
11.48	11.45	11.51	253120	176260	dicamba	1.500000	168746	4.3	15.0	M	
12.66	12.63	12.69	242878	41568	dichloroprop	6.150000	39492	5.0	15.0	M	
13.01	12.98	13.04	103911	37970	2,4-D	3.060000	33958	10.6	15.0	M	
13.37	13.34	13.40	187039	665247	pentachlorophenol	0.300000	623463	6.3	15.0	M	
14.25	14.22	14.28	137881	252511	silvex	0.600000	229800	9.0	15.0	M	
14.64	14.61	14.67	106266	202386	2,4,5-T	0.600000	177108	12.5	15.0	M	
15.39	15.36	15.42	119300	22780	2,4-DB	6.165000	19351	15.1*	15.0	RM	
16.85	16.82	16.88	226016	161720	dinoseb	1.500000	150677	6.8	15.0	M	

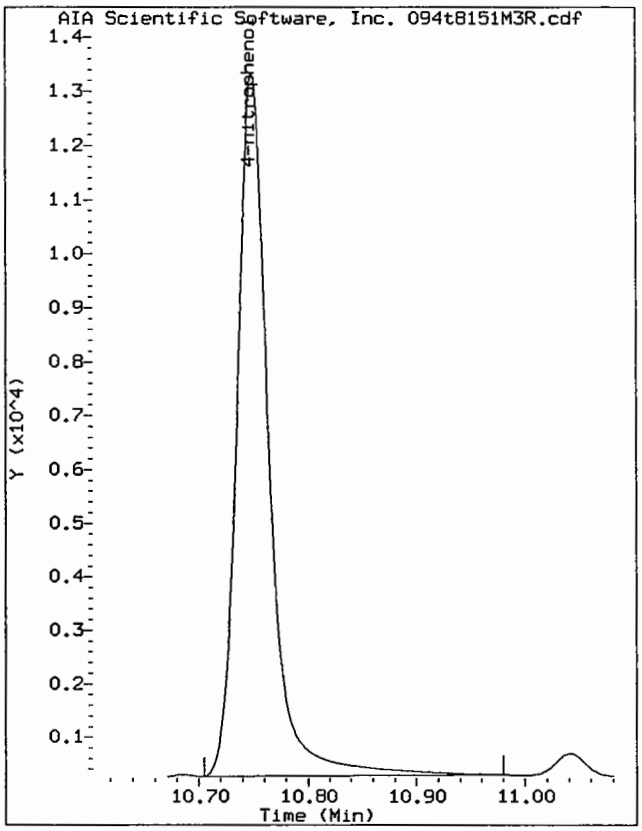
4/20/09 x̄ = 7.6

#6H 4/21/09

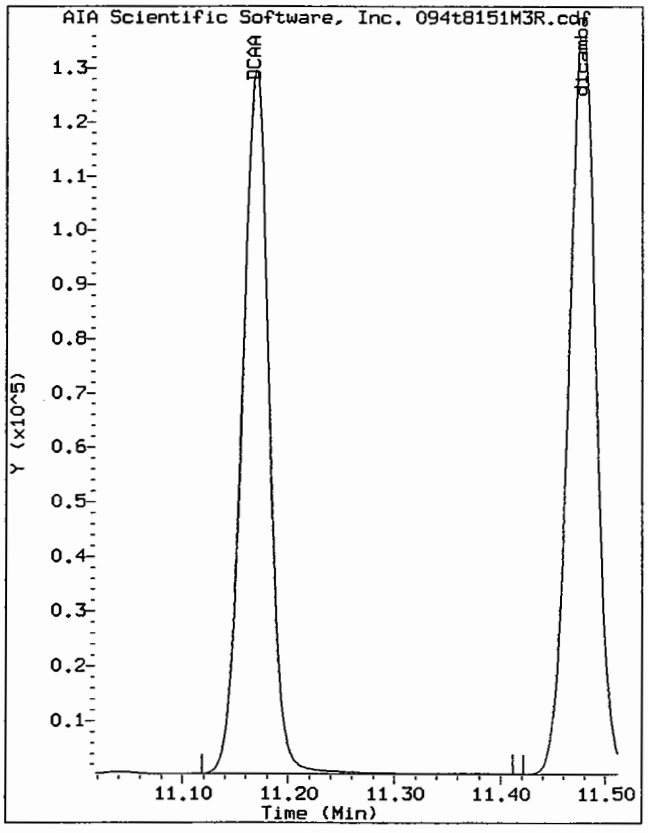
Manually Integrated Peaks



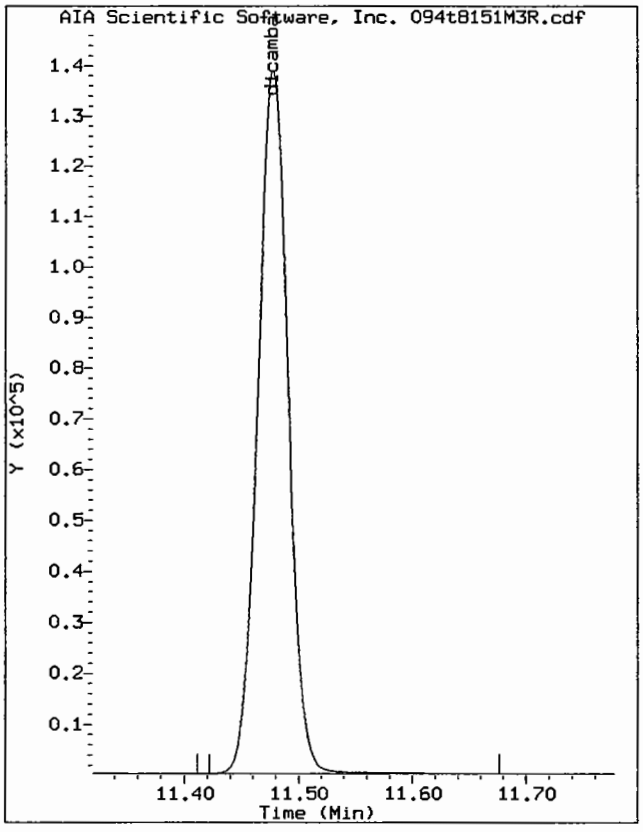
Start: 2.77 Stop: 3.09



Start: 10.71 Stop: 10.98

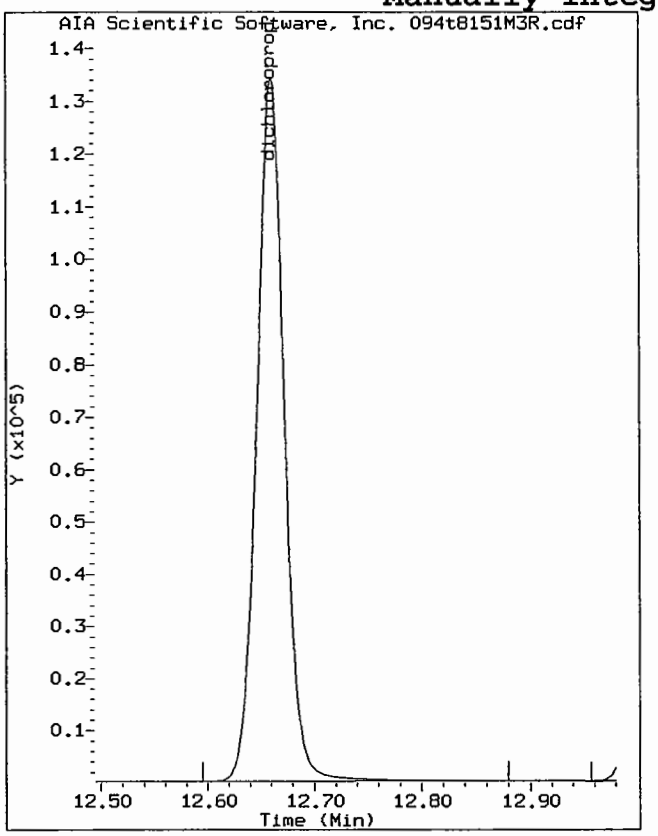


Start: 11.12 Stop: 11.41

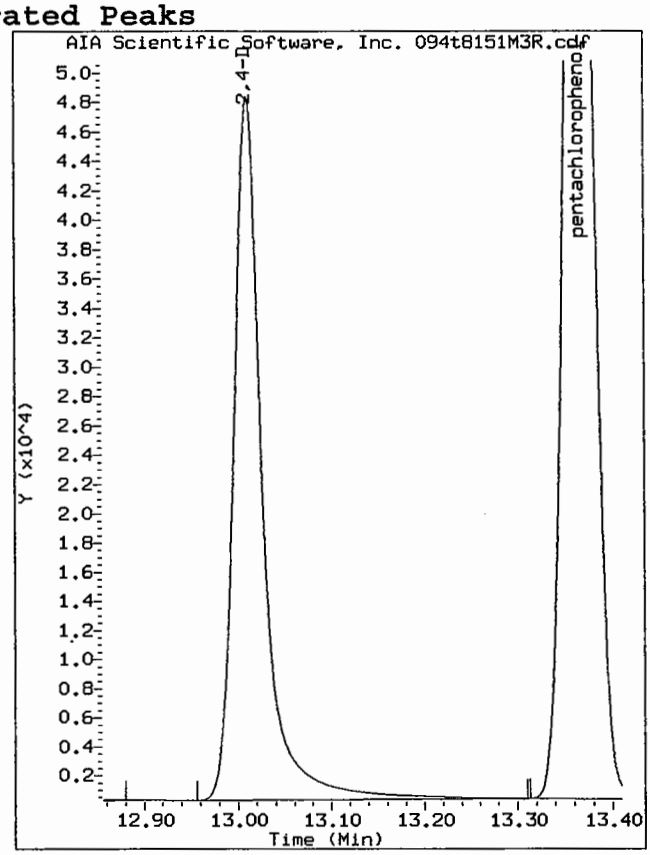


Start: 11.42 Stop: 11.68

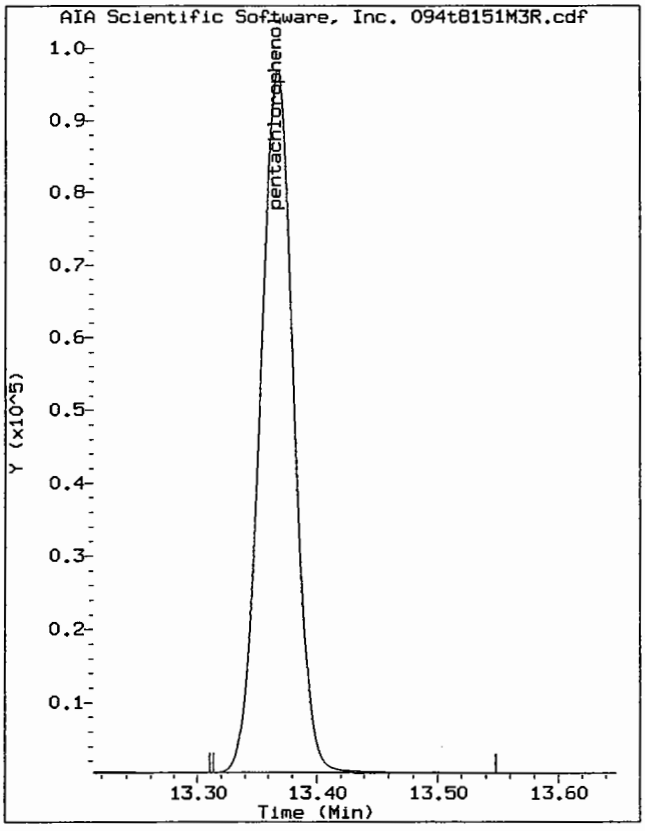
Manually Integrated Peaks



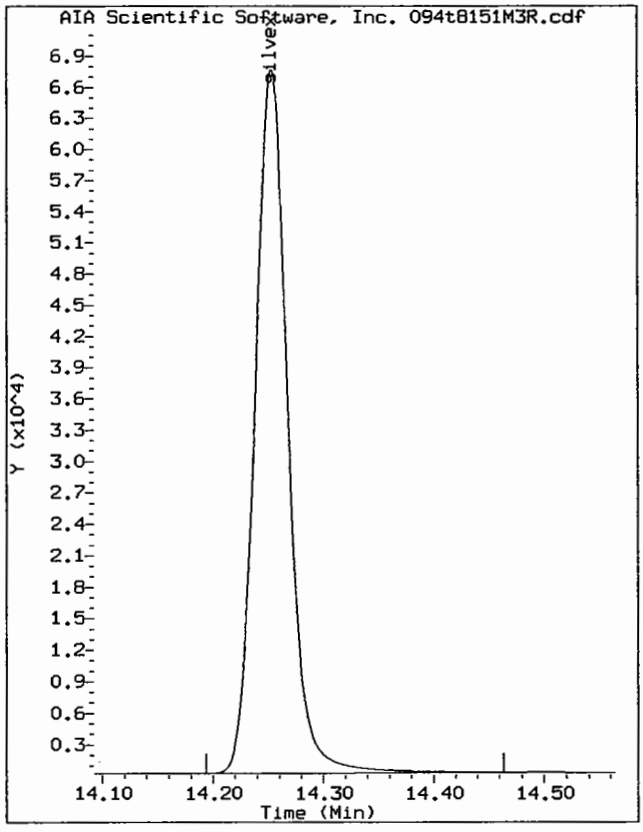
Start: 12.60 Stop: 12.88



Start: 12.96 Stop: 13.31

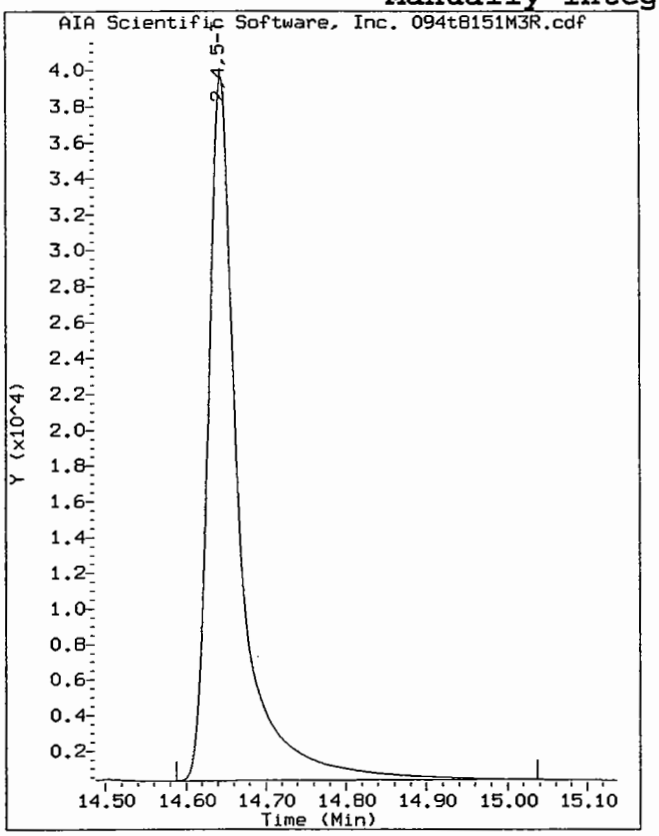


Start: 13.31 Stop: 13.55

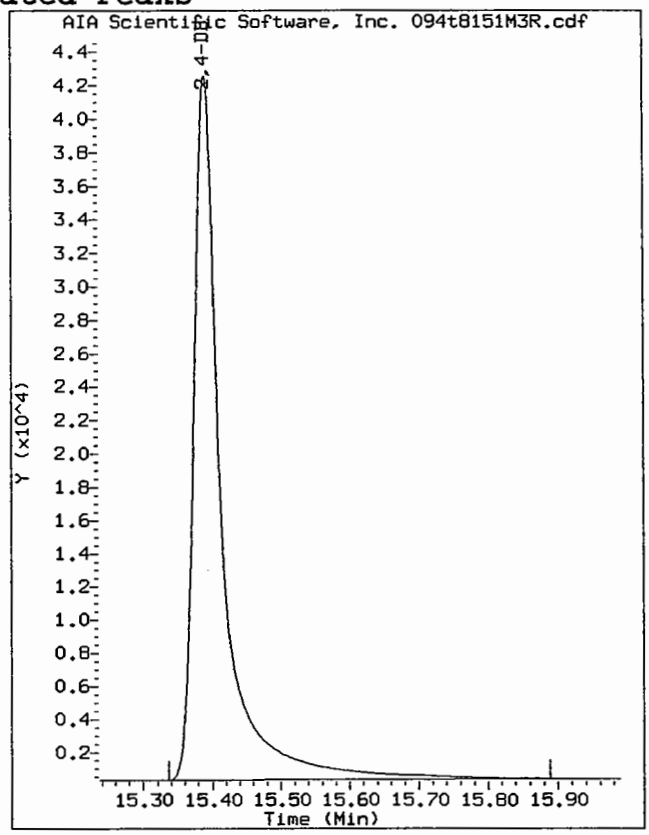


Start: 14.19 Stop: 14.46

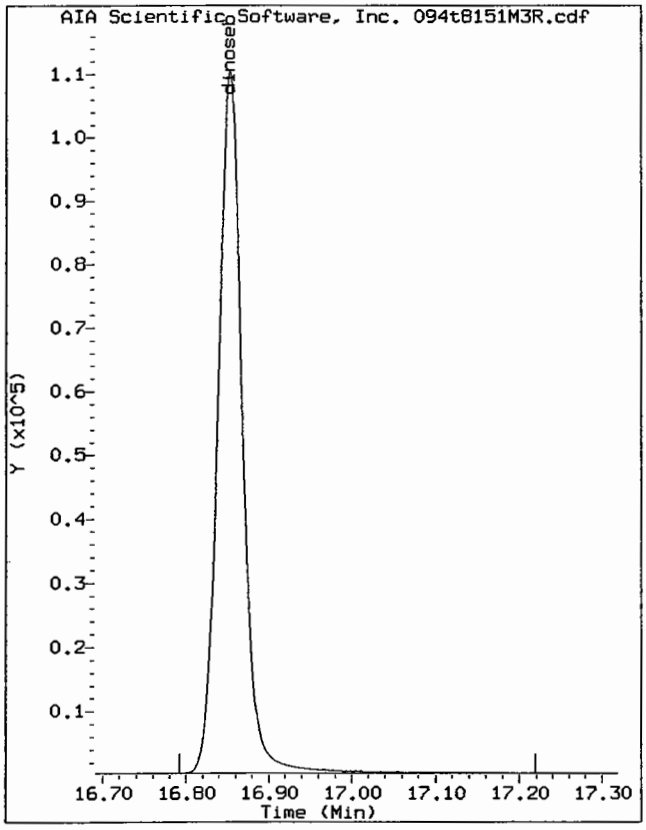
Manually Integrated Peaks



Start: 14.59 Stop: 15.04



Start: 15.34 Stop: 15.89



Start: 16.79 Stop: 17.22

Data File: /chem/agilent93.i/t090402m.b/094t8151M3R.d

Page 1

Date : 20-APR-2009 12:24

Client ID: 8151M3R

Instrument: agilent93.i

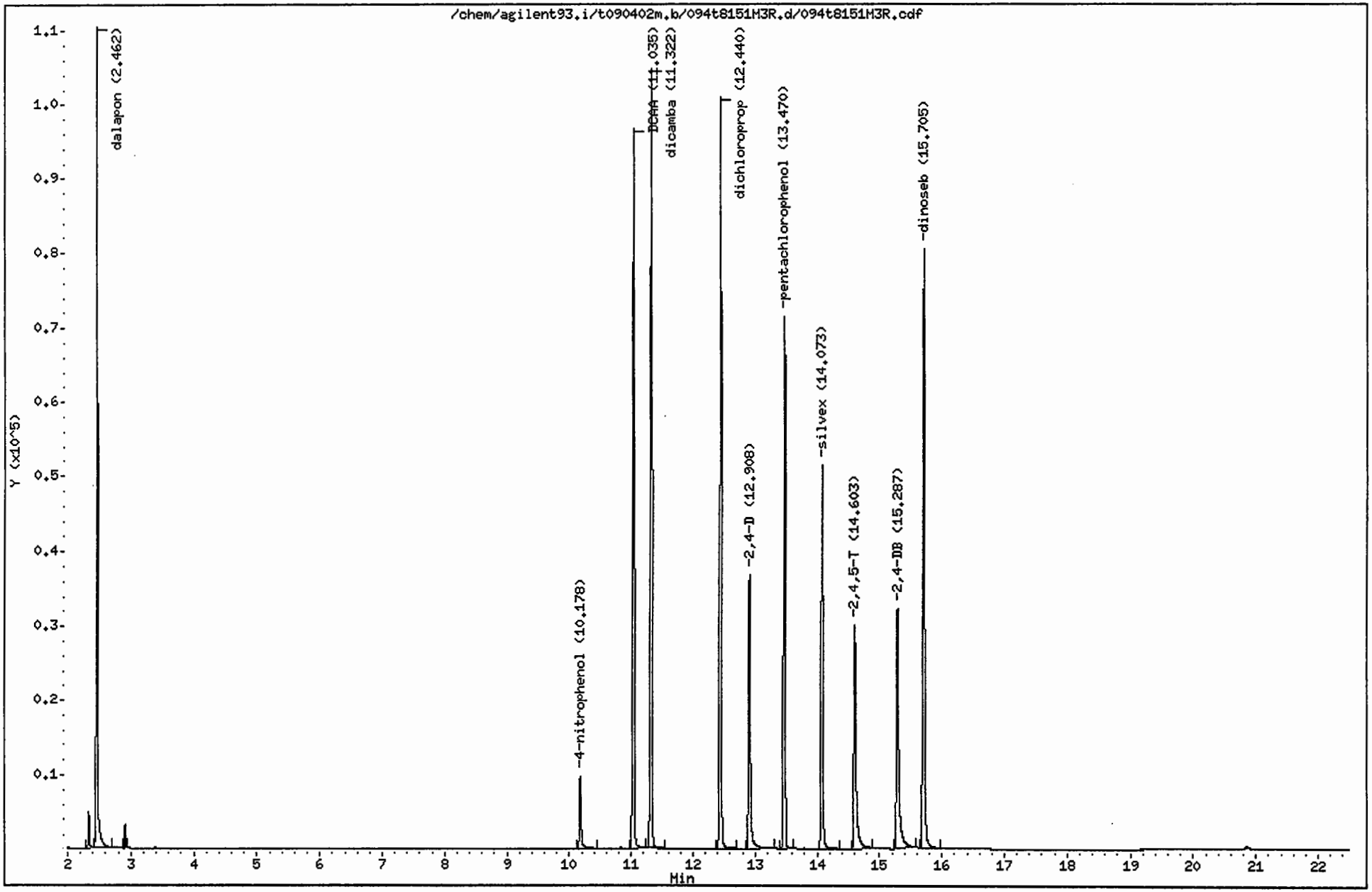
Sample Info: 8151M3R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 8151M3R Client Smp Id : 8151M3R
Sample Type : CONT CAL: Level 4 Sublist : FULL8151new
Inj Date : 20-APR-2009 12:24 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

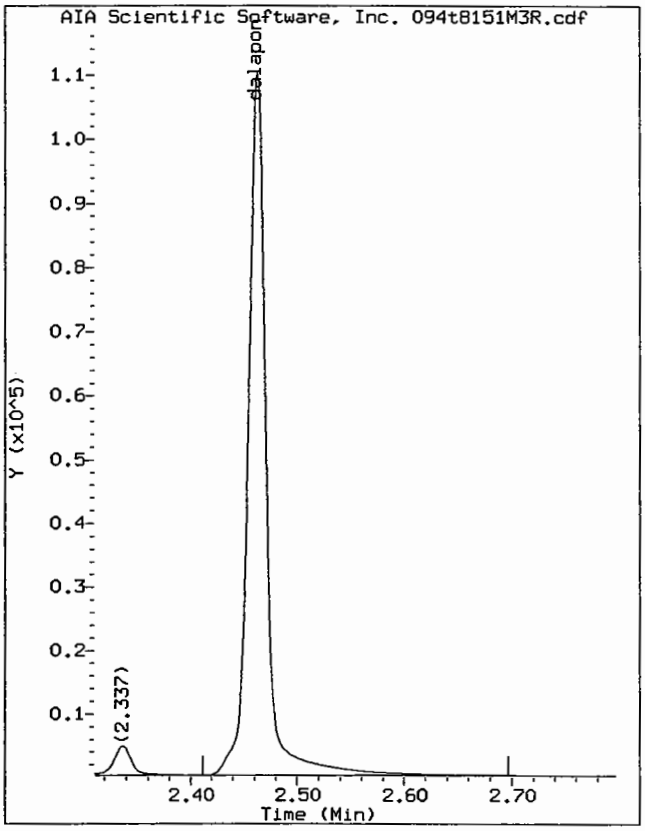
RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.34			5841								
2.46	2.44	2.50	127814	41363	dalapon	3.045000	41975	-1.5	15.0	M	
2.91			3421								
10.18	10.14	10.22	18798	13078	4-nitrophenol	1.500000	12531	4.2	15.0	M	
11.04	11.01	11.07	162380	28143	DCAA	5.850000	27757	1.4	15.0	M	
11.32	11.29	11.35	177232	120462	dicamba	1.500000	118154	1.9	15.0	M	
12.44	12.41	12.47	169731	28216	dichloroprop	6.150000	27599	2.2	15.0	M	
12.91	12.88	12.94	74167	26459	2,4-D	3.060000	24238	8.4	15.0	M	
13.47	13.44	13.50	128979	447969	pentachlorophenol	0.300000	429930	4.0	15.0	M	
14.07	14.04	14.10	95851	170753	silvex	0.600000	159752	6.4	15.0	M	
14.60	14.57	14.63	72199	136793	2,4,5-T	0.600000	120330	12.0	15.0	M	
15.29	15.26	15.32	80232	15245	2,4-DB	6.165000	13014	14.6	15.0	M	
15.70	15.67	15.73	153583	106506	dinoseb	1.500000	102388	3.9	15.0	M	

2

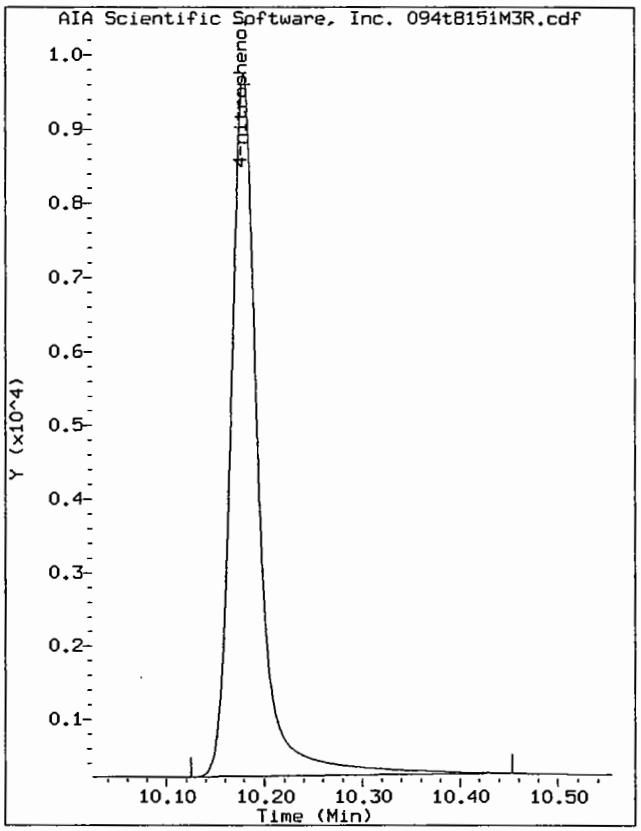
C4/Peter

KEH 4/21/09

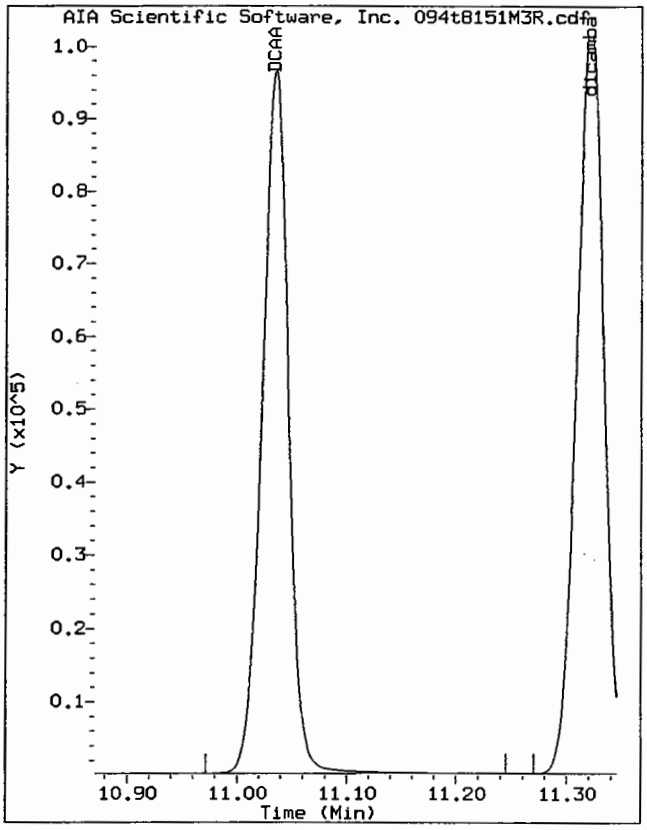
Manually Integrated Peaks



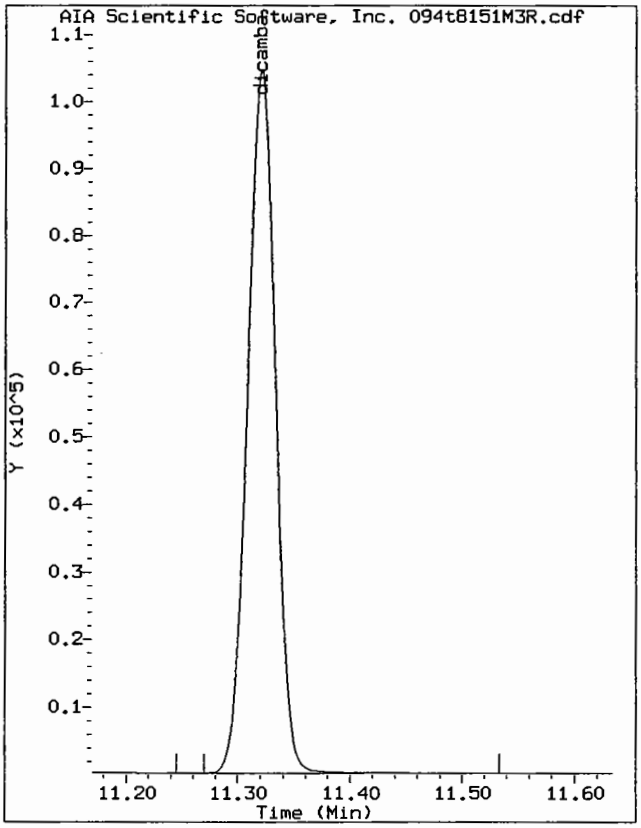
Start: 2.41 Stop: 2.70



Start: 10.13 Stop: 10.45

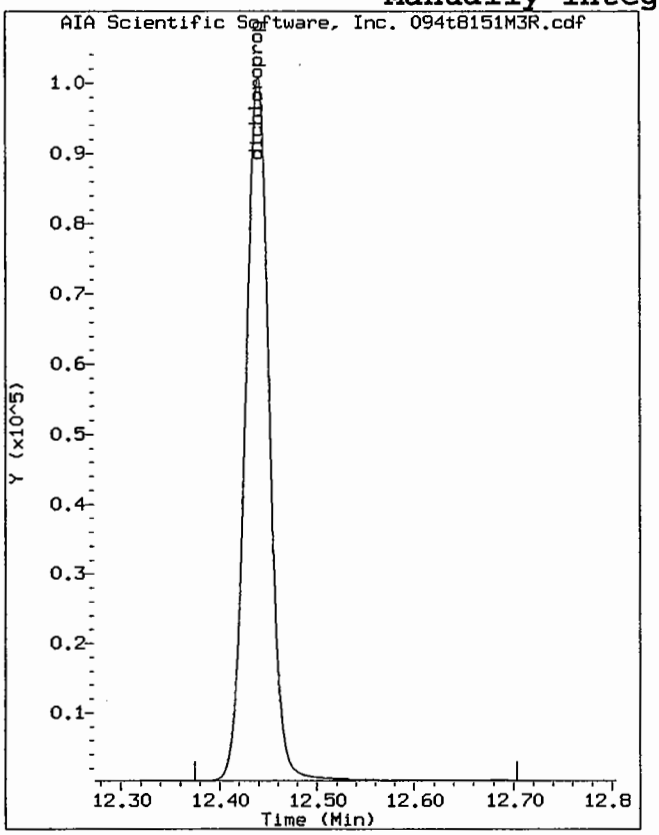


Start: 10.97 Stop: 11.24

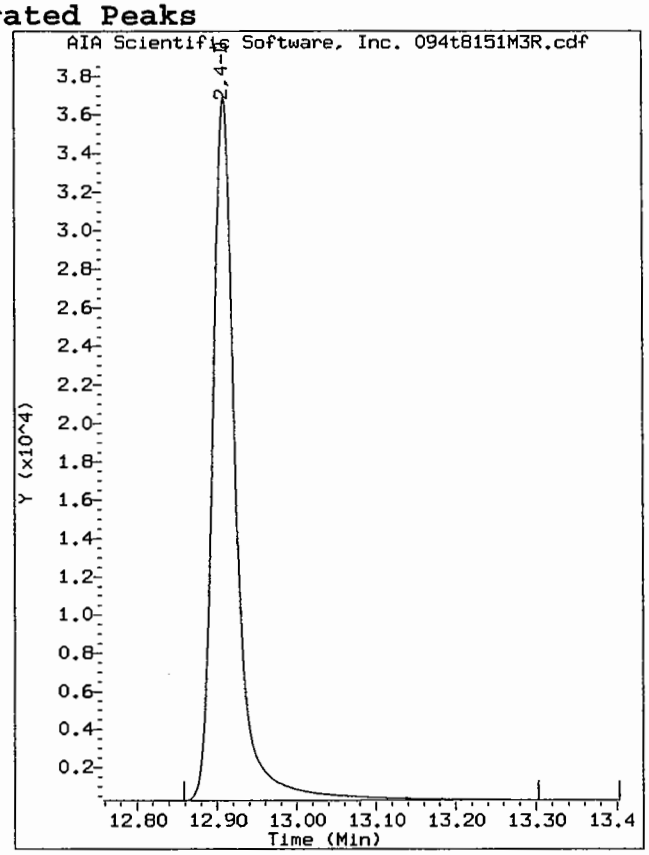


Start: 11.27 Stop: 11.53

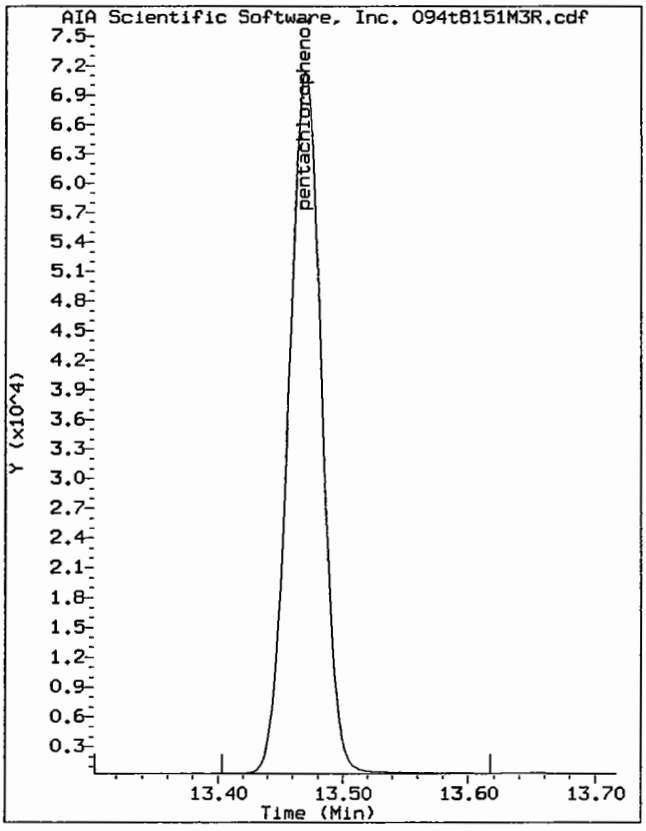
Manually Integrated Peaks



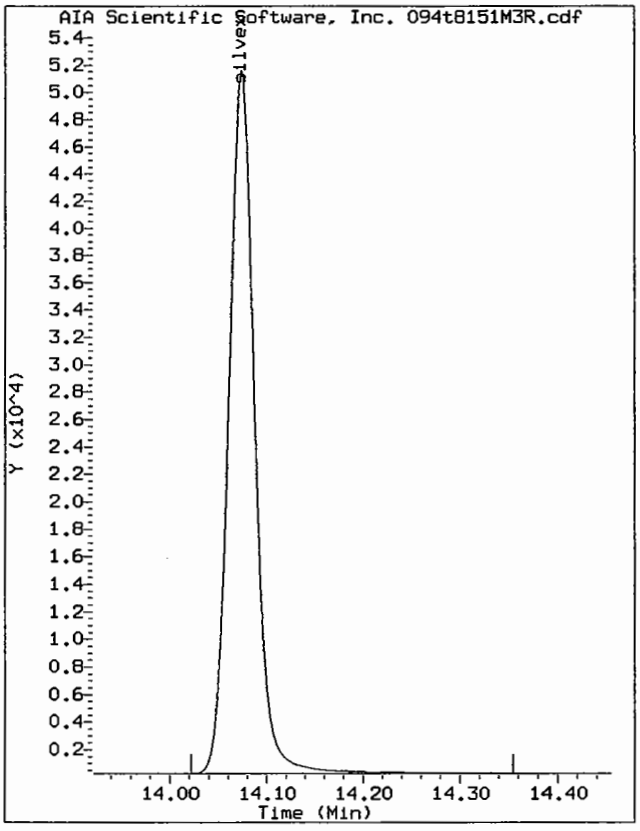
Start: 12.37 Stop: 12.70



Start: 12.86 Stop: 13.30

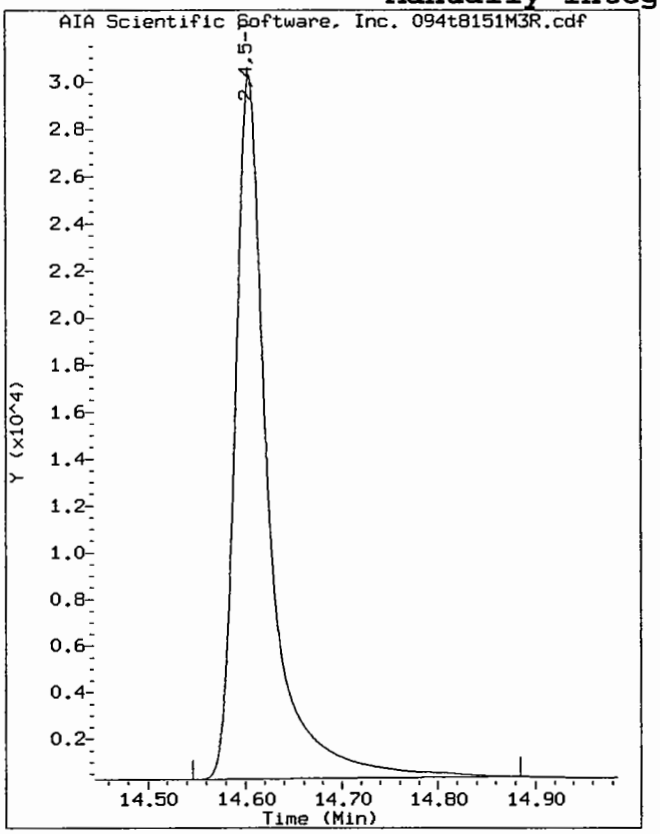


Start: 13.40 Stop: 13.62

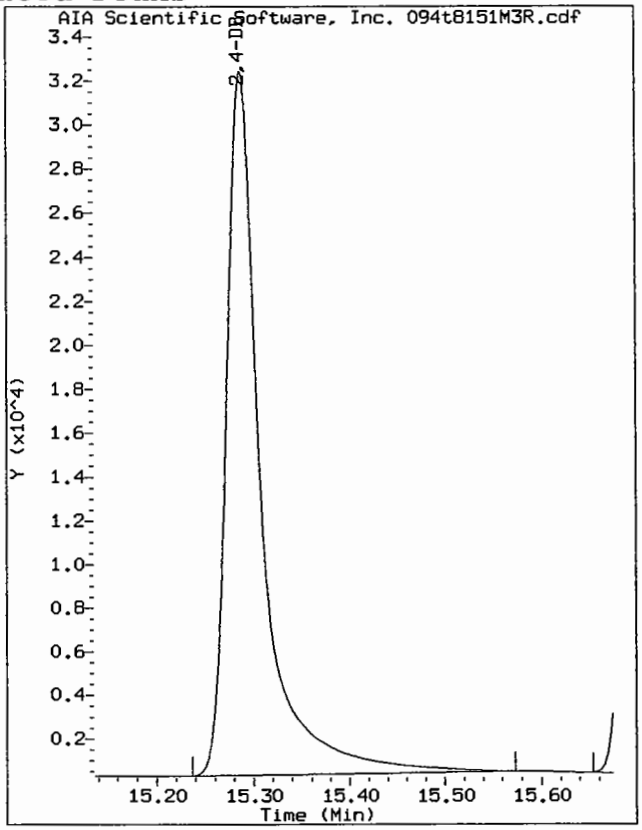


Start: 14.02 Stop: 14.36

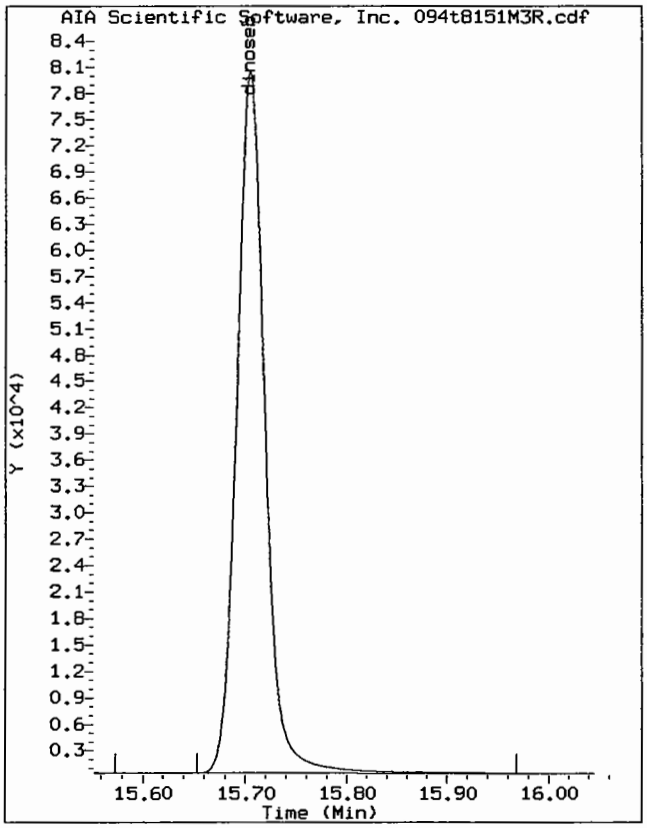
Manually Integrated Peaks



Start: 14.55 Stop: 14.88



Start: 15.24 Stop: 15.57



Start: 15.65 Stop: 15.97

Data File: /chem/agilent92.i/t090402n.b/104t8151M3T.d

Page 1

Date : 20-APR-2009 21:00

Client ID: 8151M3T

Instrument: agilent92.i

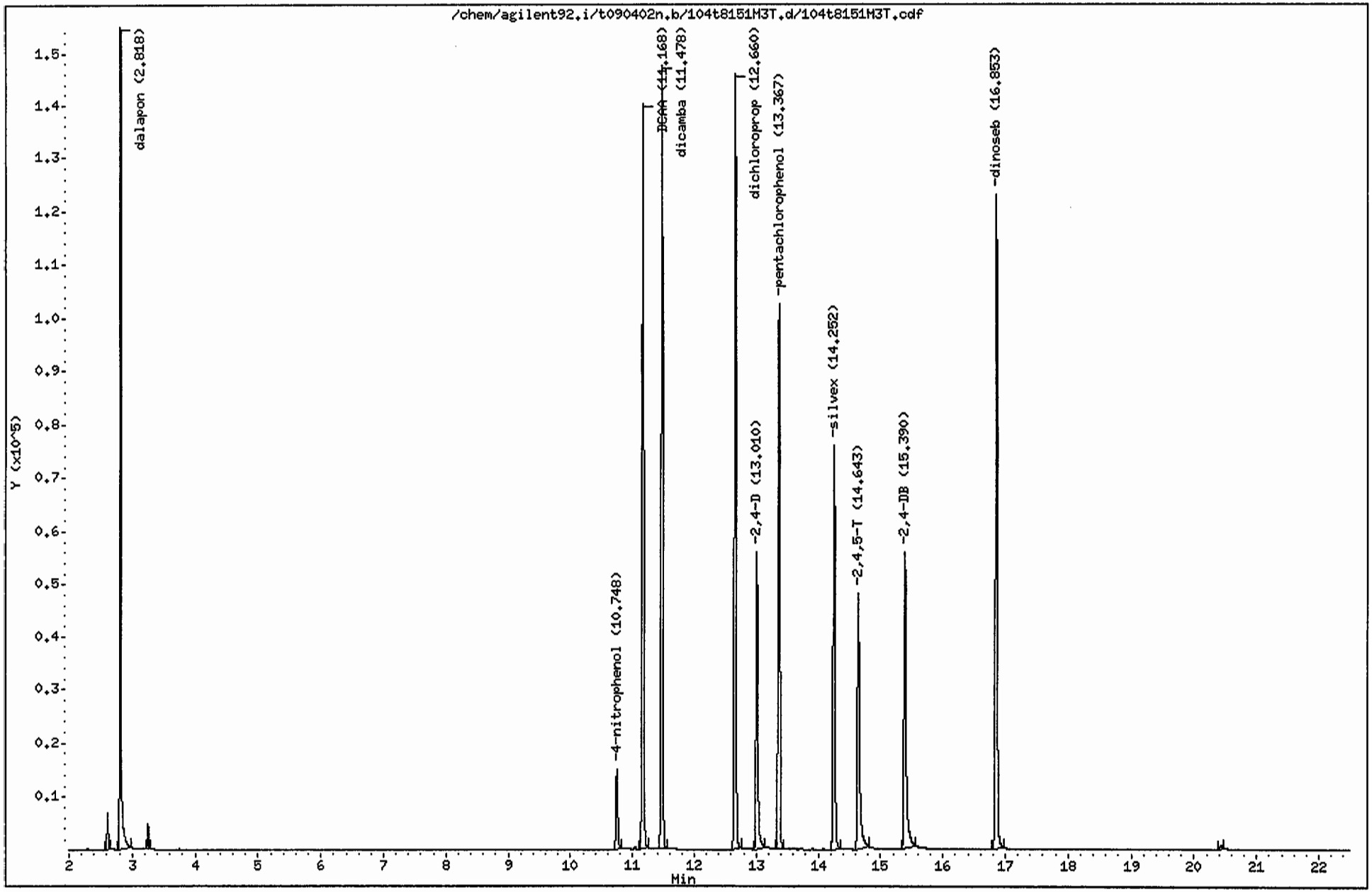
Sample Info: 8151M3T

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 8151M3T Client Smp Id : 8151M3T
Sample Type : CONT CAL: Level 4 Sublist : FULL8151new
Inj Date : 20-APR-2009 21:00 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.61			8754								
2.82	2.79	2.85	201287	65694	dalapon	3.045000	66104	-0.6	15.0		
3.25			5774								
10.75	10.71	10.79	27805	19631	4-nitrophenol	1.500000	18537	5.6	15.0		
11.17	11.14	11.20	241146	40502	DCAA	5.850000	41222	-1.8	15.0		
11.48	11.45	11.51	263493	176260	dicamba	1.500000	175662	0.3	15.0		
12.66	12.63	12.69	258368	41568	dichloroprop	6.150000	42011	-1.1	15.0		
13.01	12.98	13.04	113073	37970	2,4-D	3.060000	36952	2.7	15.0		
13.37	13.34	13.40	196595	665247	pentachlorophenol	0.300000	655315	1.5	15.0		
14.25	14.22	14.28	148181	252511	silvex	0.600000	246969	2.2	15.0		
14.64	14.61	14.67	116343	202386	2,4,5-T	0.600000	193904	4.2	15.0		
15.39	15.36	15.42	134617	22780	2,4-DB	6.165000	21836	4.1	15.0		
16.85	16.82	16.88	245106	161720	dinoseb	1.500000	163404	-1.0	15.0		
20.43			1521								

NS 4/21/09

Data File: /chem/agilent93.i/t090402n.b/104t8151M3T.d

Page 1

Date : 20-APR-2009 21:00

Client ID: 8151M3T

Instrument: agilent93.i

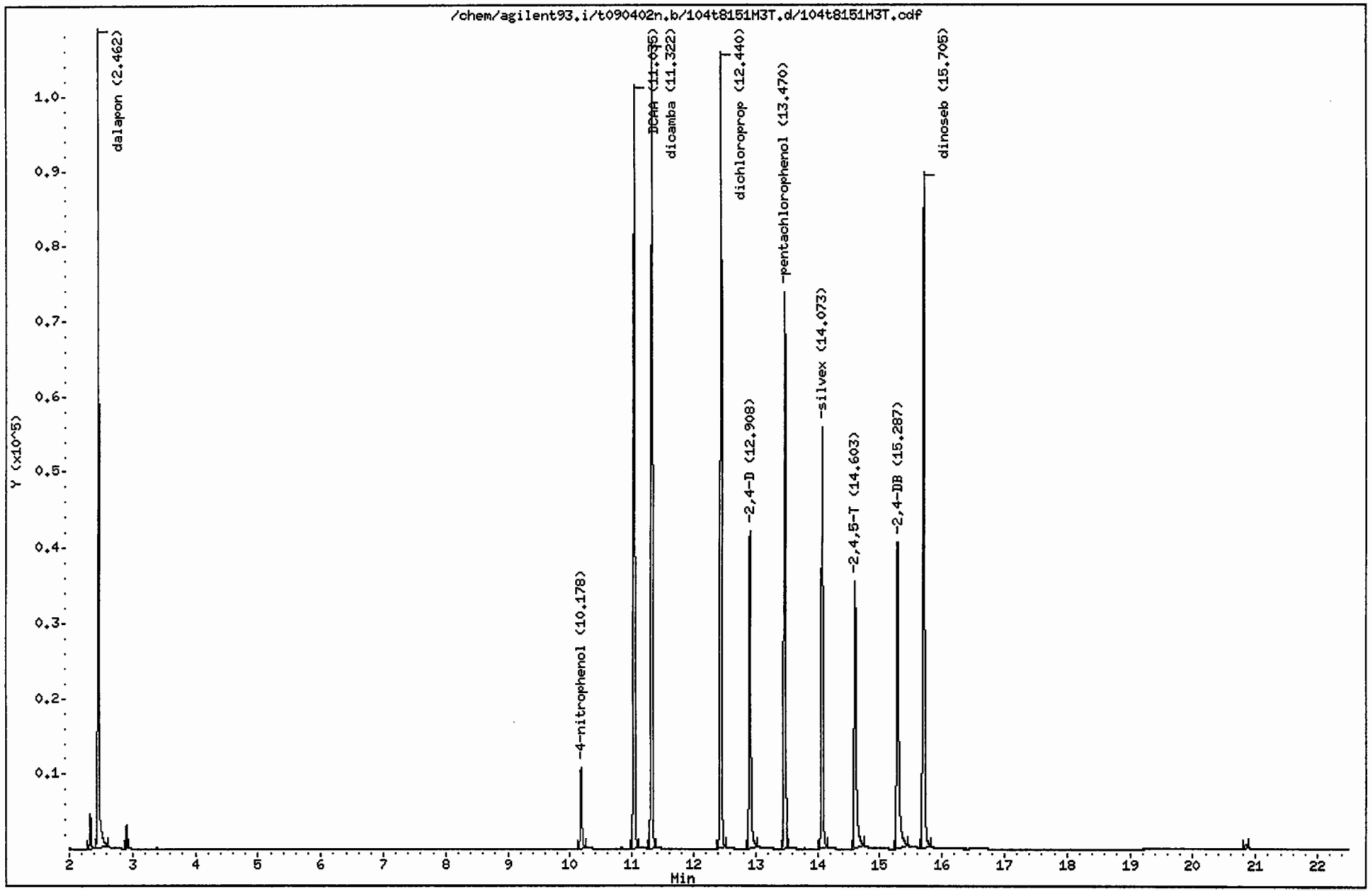
Sample Info: 8151M3T

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 8151M3T Client Smp Id : 8151M3T
Sample Type : CONT CAL: Level 4 Sublist : FULL8151new
Inj Date : 20-APR-2009 21:00 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.34			5730								
2.46	2.44	2.50	125224	41363	dalapon	3.045000	41125	0.6	15.0		
2.91			3442								
10.18	10.14	10.22	18496	13078	4-nitrophenol	1.500000	12331	5.7	15.0		
11.04	11.01	11.07	166873	28143	DCAA	5.850000	28525	-1.4	15.0		
11.32	11.29	11.35	179662	120462	dicamba	1.500000	119775	0.6	15.0		
12.44	12.41	12.47	175287	28216	dichloroprop	6.150000	28502	-1.0	15.0		
12.91	12.88	12.94	78489	26459	2,4-D	3.060000	25650	3.1	15.0		
13.47	13.44	13.50	131804	447969	pentachlorophenol	0.300000	439347	1.9	15.0		
14.07	14.04	14.10	100361	170753	silvex	0.600000	167269	2.0	15.0		
14.60	14.57	14.63	78636	136793	2,4,5-T	0.600000	131059	4.2	15.0		
15.29	15.26	15.32	91066	15245	2,4-DB	6.165000	14771	3.1	15.0		
15.70	15.67	15.73	163847	106506	dinoseb	1.500000	109231	-2.6	15.0		
20.84			1452								

ACS 4/21/09

Data File: /chem/agilent92.i/t090402o.b/117t8151M3V.d

Page 1

Date : 21-APR-2009 03:23

Client ID: 8151M3V

Instrument: agilent92.i

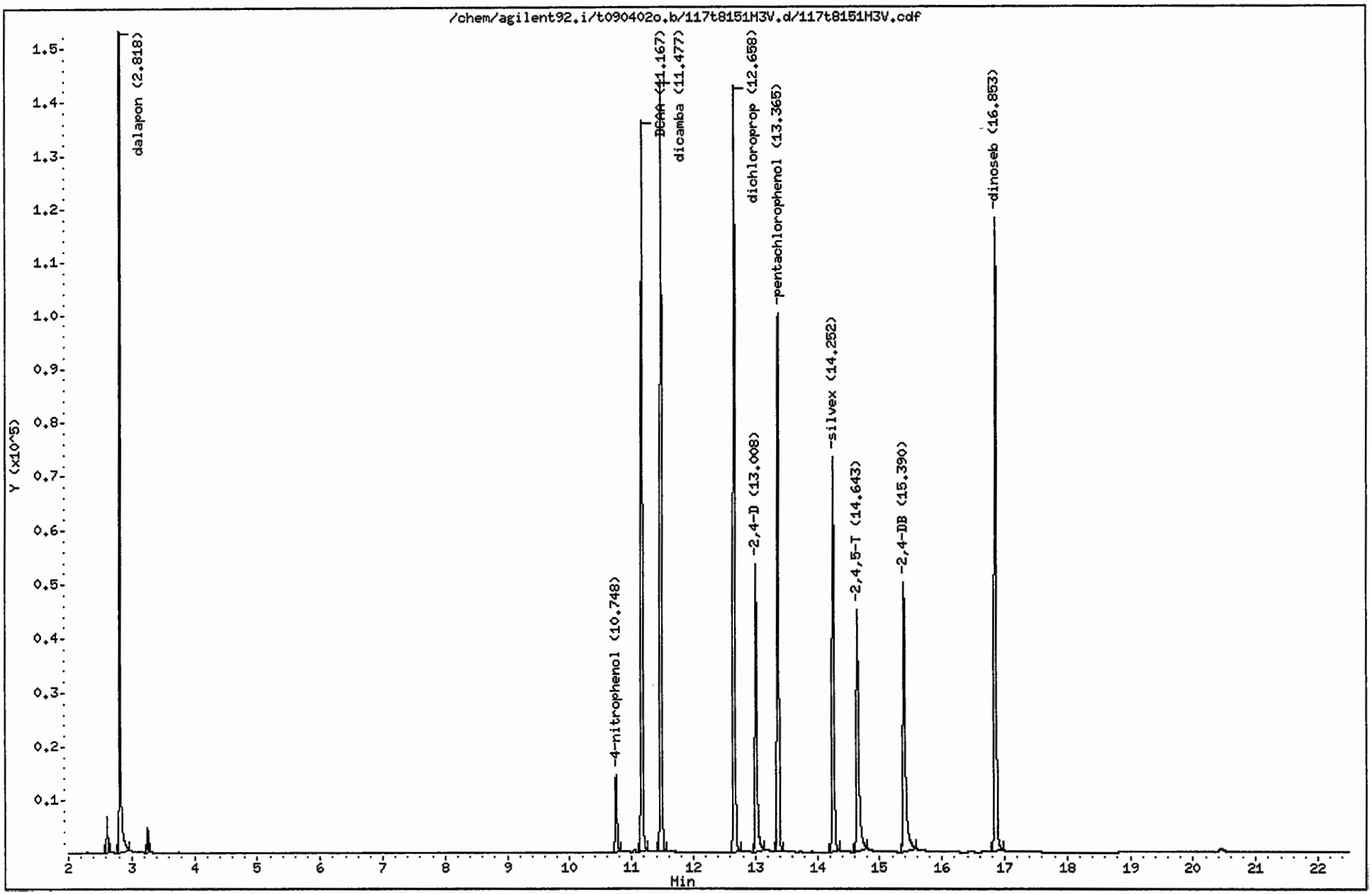
Sample Info: 8151M3V

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 8151M3V Client Smp Id : 8151M3V
Sample Type : CONT CAL: Level 4 Sublist : FULL8151new
Inj Date : 21-APR-2009 03:23 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402o.b/8151f_clpestv4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.61			8563								
2.82	2.79	2.85	195623	65694	dalapon	3.045000	64244	2.2	15.0		
3.25			5606								
10.75	10.71	10.79	27216	19631	4-nitrophenol	1.500000	18144	7.6	15.0		
11.17	11.14	11.20	237925	40502	DCAA	5.850000	40671	-0.4	15.0		
11.48	11.45	11.51	259003	176260	dicamba	1.500000	172669	2.0	15.0		
12.66	12.63	12.69	253376	41568	dichloroprop	6.150000	41199	0.9	15.0		
13.01	12.98	13.04	110406	37970	2,4-D	3.060000	36080	5.0	15.0		
13.36	13.34	13.40	192684	665247	pentachlorophenol	0.300000	642279	3.5	15.0		
14.25	14.22	14.28	144912	252511	silvex	0.600000	241519	4.4	15.0		
14.64	14.61	14.67	112163	202386	2,4,5-T	0.600000	186938	7.6	15.0		
15.39	15.36	15.42	129207	22780	2,4-DB	6.165000	20958	8.0	15.0		
16.85	16.82	16.88	235246	161720	dinoseb	1.500000	156831	3.0	15.0		

AS 4/21/09

Data File: /chem/agilent93.i/t090402o.b/117t8151M3V.d

Page 1

Date : 21-APR-2009 03:23

Client ID: 8151M3V

Instrument: agilent93.i

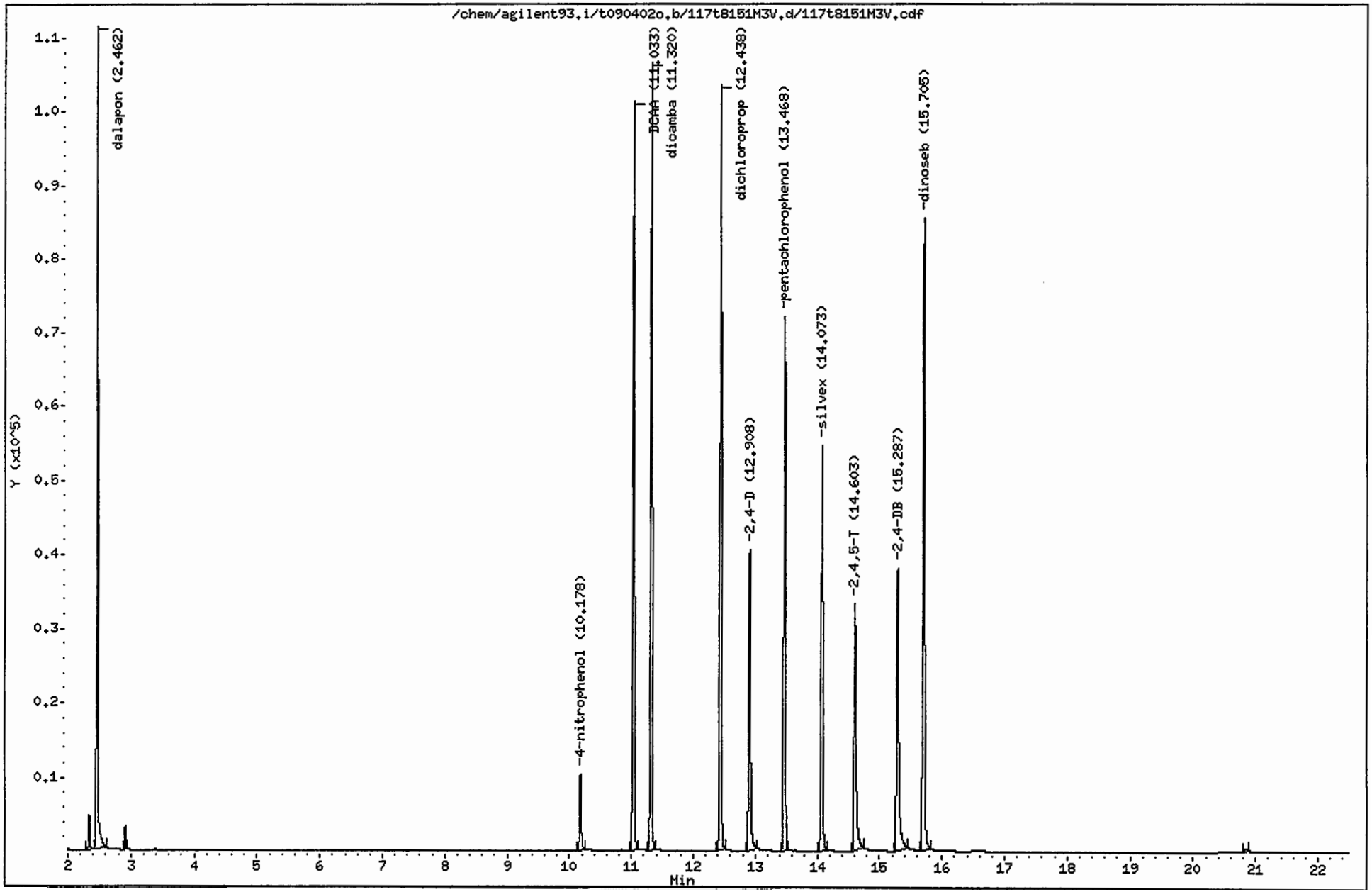
Sample Info: 8151M3V

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 8151M3V Client Smp Id : 8151M3V
Sample Type : CONT CAL: Level 4 Sublist : FULL8151new
Inj Date : 21-APR-2009 03:23 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402o.b/8151f_clpest2v4.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.34			5740								
2.46	2.44	2.50	126084	41363	dalapon	3.045000	41407	-0.1	15.0		
2.91			3473								
10.18	10.14	10.22	18352	13078	4-nitrophenol	1.500000	12235	6.4	15.0		
11.03	11.01	11.07	166631	28143	DCAA	5.850000	28484	-1.2	15.0		
11.32	11.29	11.35	178805	120462	dicamba	1.500000	119203	1.0	15.0		
12.44	12.41	12.47	173878	28216	dichloroprop	6.150000	28273	-0.2	15.0		
12.91	12.88	12.94	77527	26459	2,4-D	3.060000	25336	4.2	15.0		
13.47	13.44	13.50	130871	447969	pentachlorophenol	0.300000	436238	2.6	15.0		
14.07	14.04	14.10	99395	170753	silvex	0.600000	165659	3.0	15.0		
14.60	14.57	14.63	76792	136793	2,4,5-T	0.600000	127986	6.4	15.0		
15.29	15.26	15.32	87813	15245	2,4-DB	6.165000	14244	6.6	15.0		
15.70	15.67	15.73	159077	106506	dinoseb	1.500000	106051	0.4	15.0		
20.85			1086								

AS 4/21/09

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 92/93 Sequence ID: f090402 DATE 4/2/09

GC EXTRACTABLES RUN LOG

COMPUCHEM LOGBOOK 4 S (5) 5 Method: 8081A 8082 8151A OLM/OLC SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐ Changed septum ☐ Changed liner ☐ Baked column ☐ Trimmed column

	TYPE	FILE NUMBER		DATE	CompuChem #	CASE/SDG #	Chemist	COMMENTS	XGC		XGCR	
1	/	1		4/2/09	Hexane	Soil	202					
2	/	2		/ /	↓	↓						
3		3	/	/ /	8151 1ZK	62005						
4		4	/	/ /	2	OC						
5		5	/	/ /	3	01						
6		6	/	/ /	4	02						
7		7	/	/ /	5	09						
8				/ /								
9				/ /								
10				/ /								
11				/ /								
12				/ /								
13				/ /								
14				/ /								
15				/ /								
16				/ /								
17				/ /								
18				/ /								
19				/ /								
20				/ /								
21				/ /								
22				/ /								
23				/ /								
24				/ /								

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: KEH DATE: 4/3/09 Hexane Lot #: 66510

10/09/08: jr

170

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 92/93 Sequence ID: t090402m DATE 4/20/09

GC EXTRACTABLES RUN LOG

COMPUCHEM LOGBOOK 4 S (5) 5 Method: 8081A 8082 8151A OLM/OLC SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐ Changed septum ☐ Changed liner ☐ Baked column ☐ Trimmed column

	REJECTED	FILE NUMBER	REPORTED	DATE	CompuChem #	CASE/SDG#	Chemist	COMMENTS	XGC	Posted	XGCR	Posted
1	✓	92		4/20/09	HIBLC	61767	ZSZ					
2		93	✓	/ /	MBLK393C	↓						
3		94	✓	/ /	8151M3C	67008						
4		95	✓	/ /	904632-15MS1	UNK						
5		96	✓	/ /	-BS1	↓						
6		97	✓	/ /	-MS1	0904096						
7		98	✓	/ /	-MSD1	↓						
8		99	✓	/ /	-MS2	0904098						
9		100	✓	/ /	-MSD2	↓						
10		101	✓	/ /	0904096-01	0904096						
11		102	✓	/ /	HIBLC	61767						
12				/ /								
13				/ /								
14				/ /								
15				/ /								
16				/ /								
17				/ /								
18				/ /								
19				/ /								
20				/ /								
21				/ /								
22				/ /								
23				/ /								
24				/ /								

KB 4/21/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: KBH DATE: 4/21/09 Hexane Lot #: 46510

10/09/08: jr

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 92/93 Sequence ID: t090402n DATE 4/20/09

GC EXTRACTABLES RUN LOG

COMPUCHEM LOGBOOK 4 S (5) 5 Method: 8081A 8082 (8151A) OLM/OLC SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐ Changed septum ☐ Changed liner ☐ Baked column ☐ Trimmed column

	REQUESTED	FILE NUMBER	REPORTED	DATE	CompuChem #	CASE/SDG#	Chemist	COMMENTS	XGC	Post'cd	XGCR	Post'cd
1		103		4/20/09	H1BLK3S3T	61767	2512					
2		104		/ /	8151M3T	62008						
3		105		/ /	0904096-02	0904096						
4		106		/ /	03							
5		107		/ /	04							
6		108		/ /	05							
7		109		/ /	0904098-01	0904098						
8		110		/ /	02							
9		111		4/21/09	03							
10		112		/ /	04							
11		113		/ /	05							
12		114		/ /	06							
13		115		/ /	H1BLK	61767						
14				/ /								
15				/ /								
16				/ /								
17				/ /								
18				/ /								
19				/ /								
20				/ /								
21				/ /								
22				/ /								
23				/ /								
24				/ /							AGS 4/21/09	

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: KeH DATE: 4/21/09 Hexane Lot #: 66510

10/09/08: jr

COMPUCHEM a Division of Liberty Analytical Corp Instrument ID 92/93 Sequence ID: 0904020 DATE 4/21/09

GC EXTRACTABLES RUN LOG

COMPUCHEM LOGBOOK 4 S (5) 5 Method: 8081A 8082 8151A OLM/OLC SOM01.2 Other _____ Amt. Inj. 2 µL (1 µL per column)

☐ Changed septum ☐ Changed liner ☐ Baked column ☐ Trimmed column

	REJECTED	FILE NUMBER	REPORTED	DATE	CompuChem #	CASE/SDG#	Chemist	COMMENTS	XGC	Posted	XGCR	Posted
1		116		4/21/09	H1B4K3U3V	61767	2512					
2		117		↓ /	8151M3V	62008	↓					
3				/ /								
4				/ /								
5				/ /								
6				/ /								
7				/ /								
8				/ /								
9				/ /								
10				/ /								
11				/ /								
12				/ /								
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14				/ /								
15				/ /								
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17				/ /								
18				/ /								
19				/ /								
20				/ /								
21				/ /								
22				/ /								
23				/ /								
24				/ /								

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: KEH DATE: 4/21/09 Hexane Lot #: 66510

4/21/09

10/09/08: jr

4. Raw QC Data

    a. Blank Data

    b. Laboratory Control Sample Data

    c. Matrix Spike Data

    d. Matrix Spike Duplicate Data

a. Blank Data

Arranged by type of blank

i) Method blanks shall be in chronological order, by extraction date.
ii) Instrument blanks shall be in chronological order, by GC column and instrument.
iii) Sulfur cleanup blanks (if needed) shall be in chronological order, by date of analysis.

- Tabulated Results (Form I)
- Chromatograms and date system printout(s) for each GC column and instrument used for analysis.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGU

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-BLK1

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	2.5	U
93-76-5	2,4,5-T	2.5	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402m.b/095t9041632-BLK1.d

Page 1

Date : 20-APR-2009 16:39

Client ID: PBLKGU

Instrument: agilent92.i

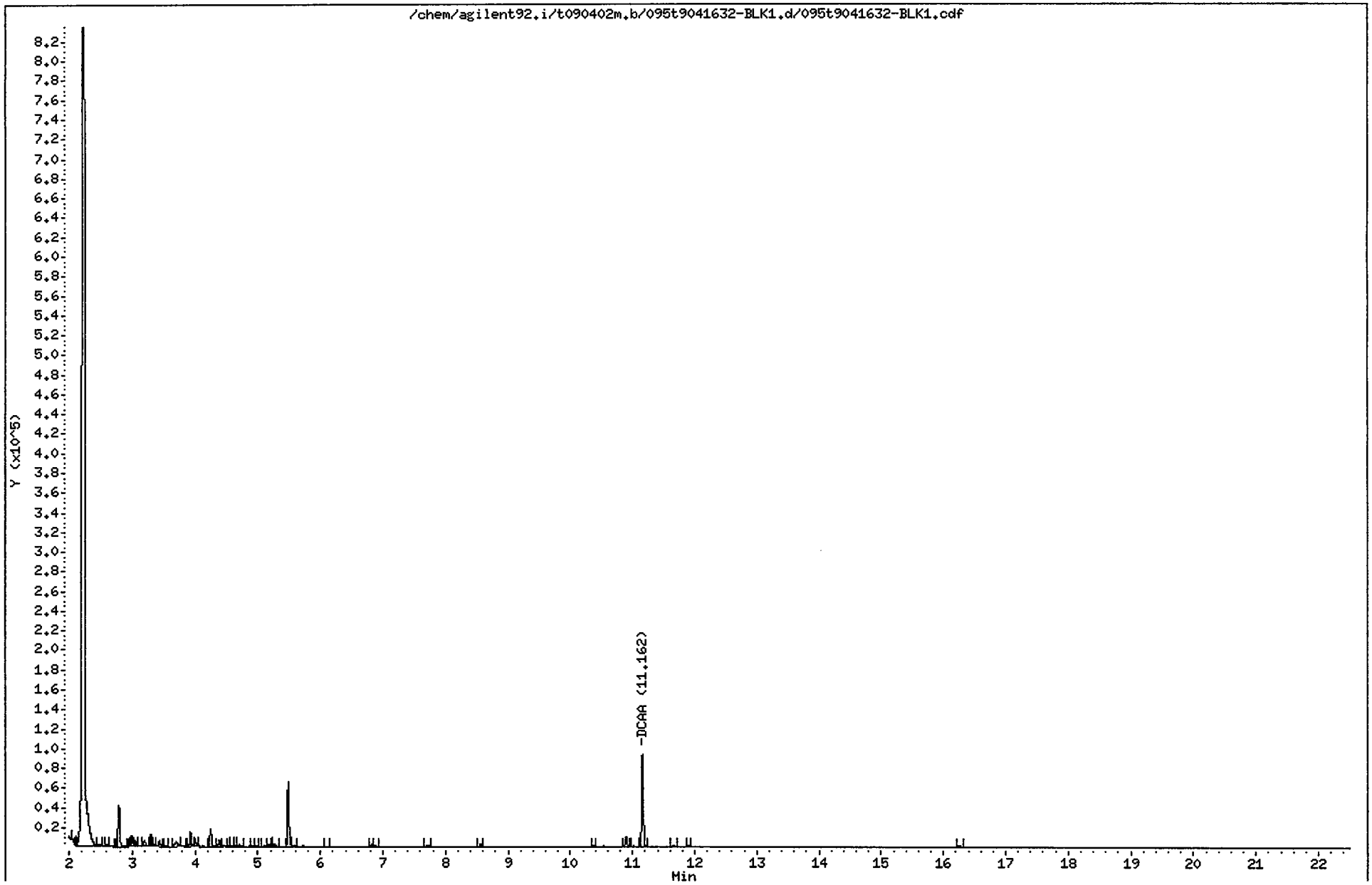
Sample Info: 9041632-BLK1

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041632-BLK1 Client Smp Id : PBLKGU
Sample Type : BLANK Sublist : DAACOMP
Inj Date : 20-APR-2009 16:39 Inst ID : AGILENT92
Operator : 2646
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : PBLKGU

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.18		9137								
1.20		408670								
1.29		3194954								
1.35		6245037								
1.62		336525								
1.83		32482								
1.90		18231								
2.08		7533								
2.25		2738463								
2.49		3425								
2.60		1236								
2.65		1540								
2.79		81495								
2.95		936								
2.99		15383								
3.06		6776								
3.11		1338								
3.20		14475								
3.30		17179								
3.35		3041								
3.44		11763								
3.54		1527								
3.70		14987								
3.79		3707								
3.93		21652								
4.00		14054								
4.25		32939								
4.39		12442								
4.53		1842								
4.59		2277								
4.63		2351								
4.71		5210								
4.91		2146								
4.97		943								
5.11		1678								
5.17		4755								
5.26		5638								

4/21/09

CompuChem

Lab Smp Id : 9041632-BLK1 Client Smp Id : PBLKGU
Sample Type : BLANK Sublist : DAACOMP
Inj Date : 20-APR-2009 16:39 Inst ID :
Operator : 2646
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : PBLKGU

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
5.49		107189								
5.59		4137								
6.11		936								
6.82		3599								
6.88		2369								
7.71		2000								
8.56		3530								
10.37		1328								
10.90		17723								
11.02		1036								
11.16	11.14 11.20	165192	40502	DCAA	4.078622	40.78622		81.6	50 - 148	
11.67		1974								
11.90		1589								
16.26		3502								

Data File: /chem/agilent93.i/t090402m.b/095t9041632-BLK1.d

Page 1

Date : 20-APR-2009 16:39

Client ID: PBLKGU

Instrument: agilent93.i

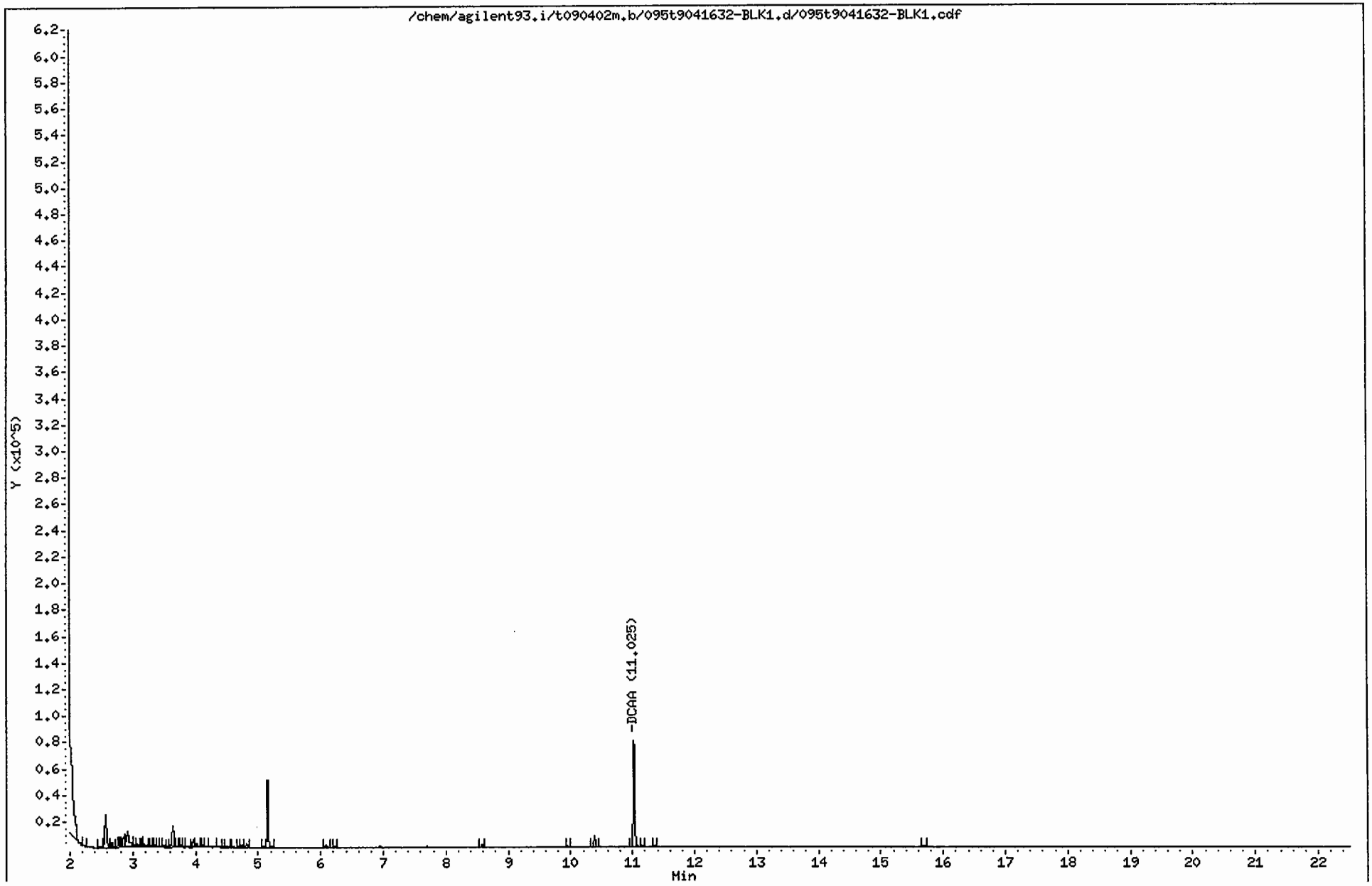
Sample Info: 9041632-BLK1

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest2

Column diameter: 0.32



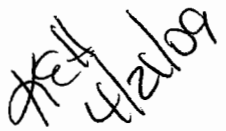
CompuChem

Lab Smp Id : 9041632-BLK1 Client Smp Id : PBLKGU
Sample Type : BLANK Sublist : DAACOMP
Inj Date : 20-APR-2009 16:39 Inst ID : AGILENT93
Operator : 2646
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : PBLKGU

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.22		239925								
1.29		1939467								
1.34		1327243								
1.50		136867								
2.00		1858196								
2.22		2178								
2.47		1093								
2.57		50050								
2.66		6801								
2.77		12642								
2.86		18008								
2.92		38951								
3.02		4201								
3.07		3890								
3.13		1449								
3.16		1264								
3.18		4281								
3.29		1518								
3.36		1449								
3.40		985								
3.49		2612								
3.64		35225								
3.74		12315								
3.87		1385								
3.96		8981								
4.01		4983								
4.09		1020								
4.12		1576								
4.17		781								
4.37		1627								
4.49		1651								
4.60		1345								
4.69		708								
4.74		3092								
4.82		3863								
5.08		1335								
5.15		75914								



CompuChem

Lab Smp Id : 9041632-BLK1 Client Smp Id : PBLKGU
Sample Type : BLANK Sublist : DAACOMP
Inj Date : 20-APR-2009 16:39 Inst ID :
Operator : 2646
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : PBLKGU

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
6.08		2131								
6.22		1133								
8.58		2296								
9.95		844								
10.38		13876								
11.02	11.01 11.07	132735	28143	DCAA	4.716409	47.16409		94.3	50 - 148	
11.16		983								
11.36		972								
15.68		2508								

ASSIGNED TO: Billy / Martha

COMPUCHEM
EXTRACTION WORKSHEET
HERB. IN WATER BY METHOD 8151A or 615

4-20-1

DATE EXTRACTED/POSTED: 4/17/09

183

EMPLOYEE ID #: 2713

-1075

BATCH NO.: 9041632

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOL (ml)	FINAL VOL (ml)	pH Adjustments	COMMENTS
1	0904096-01	7W11B	SAMPLE	950	10.0	13.0 / 0.5	QC1
2	0904096-02	7W12B	SAMPLE	1000	10.0	13.0 / 0.5	
3	0904096-03	7WCA	SAMPLE	950	10.0	13.0 / 0.5	
4	0904096-04	7WDUP	SAMPLE	925	10.0	13.0 / 0.5	B. Patton 4/20/09
5	0904096-05	7MW6	SAMPLE	950	10.0	13.0 / 0.5	
6	0904098-01	13MW5	SAMPLE	1000	10.0	13.0 / 0.5	QC2
7	0904098-02	13MW3	SAMPLE	1000	10.0	13.0 / 0.5	
8	0904098-03	13MW4	SAMPLE	1000	10.0	13.0 / 0.5	
9	0904098-04	13MWDUP	SAMPLE	1000	10.0	13.0 / 0.5	
10	0904098-05	13MW6	SAMPLE	975	10.0	13.0 / 0.5	
11	0904098-06	13MW7	SAMPLE	1000	10.0	13.0 / 0.5	
12	9041632-BLK1	PBLKGU	MB	1000	10.0	13.0 / 0.5	
13	9041632-BS1	PGULCS	LCS	1000	10.0	13.0 / 0.5	
14	9041632-MS1	Matrix Spike	MS1	1000	10.0	13.0 / 0.5	
15	9041632-MS2	Matrix Spike	MS2	1000	10.0	13.0 / 0.5	
16	9041632-MSD1	Matrix Spike Dup	MSD1	1000	10.0	13.0 / 0.5	
17	9041632-MSD2	Matrix Spike Dup	MSD2	1000	10.0	13.0 / 0.5	B. Patton 4/20/09
18						/	
19						/	
20						/	
21						/	
22						/	
23						/	
24						/	
25						/	
26						/	

B. Patton 4/20/09

		ID #	AMOUNT	LOT #
	SURROGATE	445	0.5ML	112008-01
	HERICIDE SPIKE	4814	1.0 ML	012609-04

SURROGATES AND SPIKES ADDED BY: BFP 4/17/09

Witness ML / 4/17/09 (Initials / Date)

FINAL VOLUME VERIFIED: B. Patton

SUPERVISOR REVIEWED:

Analysts Initials: Extracted BFP, ML, RM KD ALM Bottled RM, ALM Derivatization RM

Manufacturer and lot number of reagents/solvents used 6N NaOH-2XX6-567-3, NaCl-68427, 12N H_2SO_4-2XX6-548-2, $(C_2H_5)_2O$-CY134, CH_2Cl_2-G45400, Acidified Na_2SO_4-2XX6-535-2, C_8H_{18}-CT768, CH_3OH-CV538, CH(2)N(2)-2XX6-561-4, C_6H_{14}-68906

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIBLK3Q

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: HIBLK3Q

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	1.0	U
93-76-5	2,4,5-T	5.0	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402m.b/093tHIBLK3Q3R.d

Page 1

Date : 20-APR-2009 11:54

Client ID: HIBLK3Q

Instrument: agilent92.i

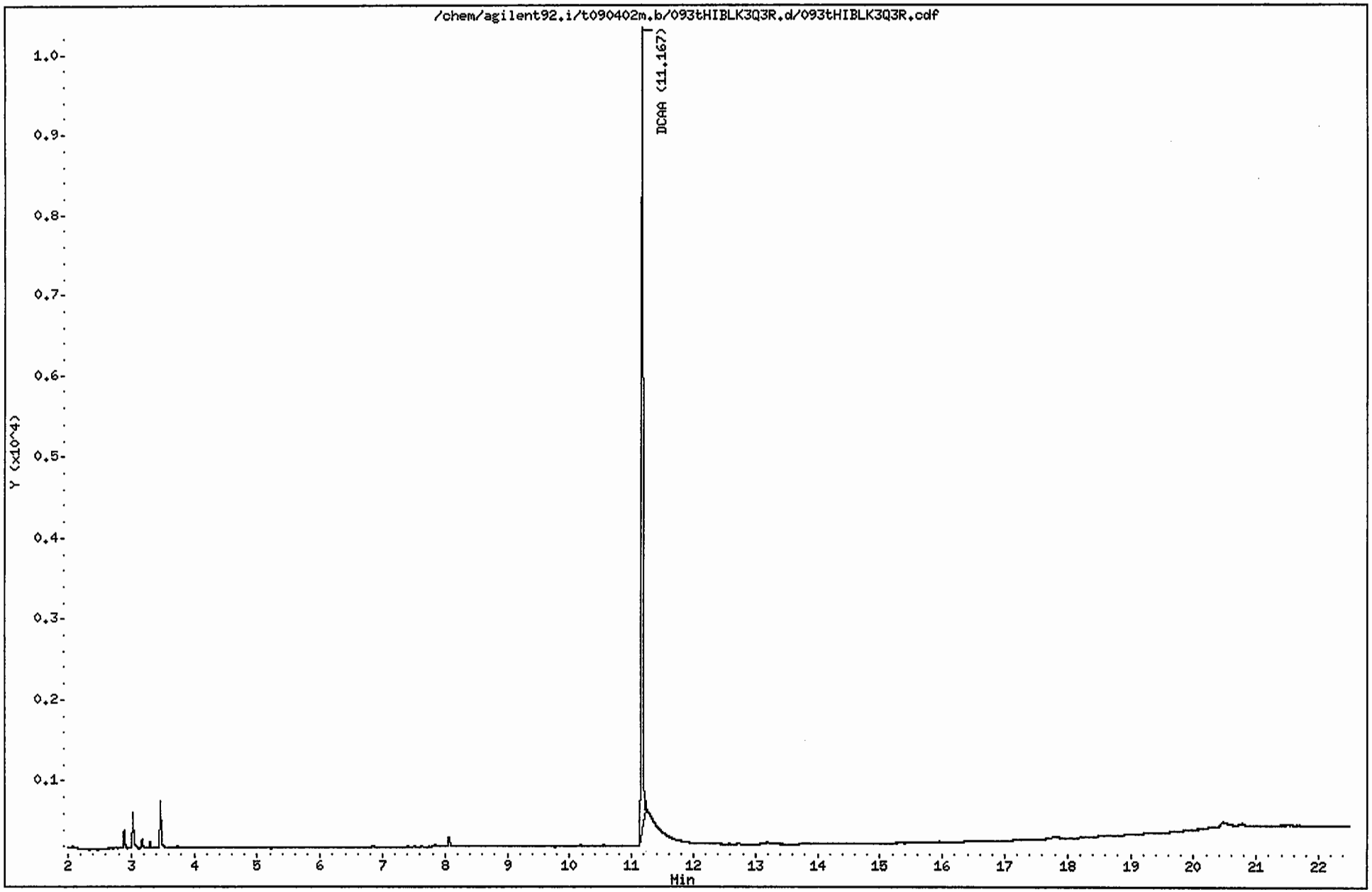
Sample Info: HIBLK3Q3R

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : HIBLK3Q Client Smp Id : HIBLK3Q
Sample Type : INSTBLANK Sublist : FULL8151new
Inj Date : 20-APR-2009 11:54 Inst ID : AGILENT92
Operator : 2646
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
11.17	11.14 11.20	18475	40502	DCAA	0.456149	4.561488		

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIBLK3R

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: HIBLK3R

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	1.0	U
93-76-5	2,4,5-T	5.0	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent93.i/t090402m.b/093tHIBLK3Q3R.d

Date : 20-APR-2009 11:54

Client ID: HIBLK3R

Instrument: agilent93.i

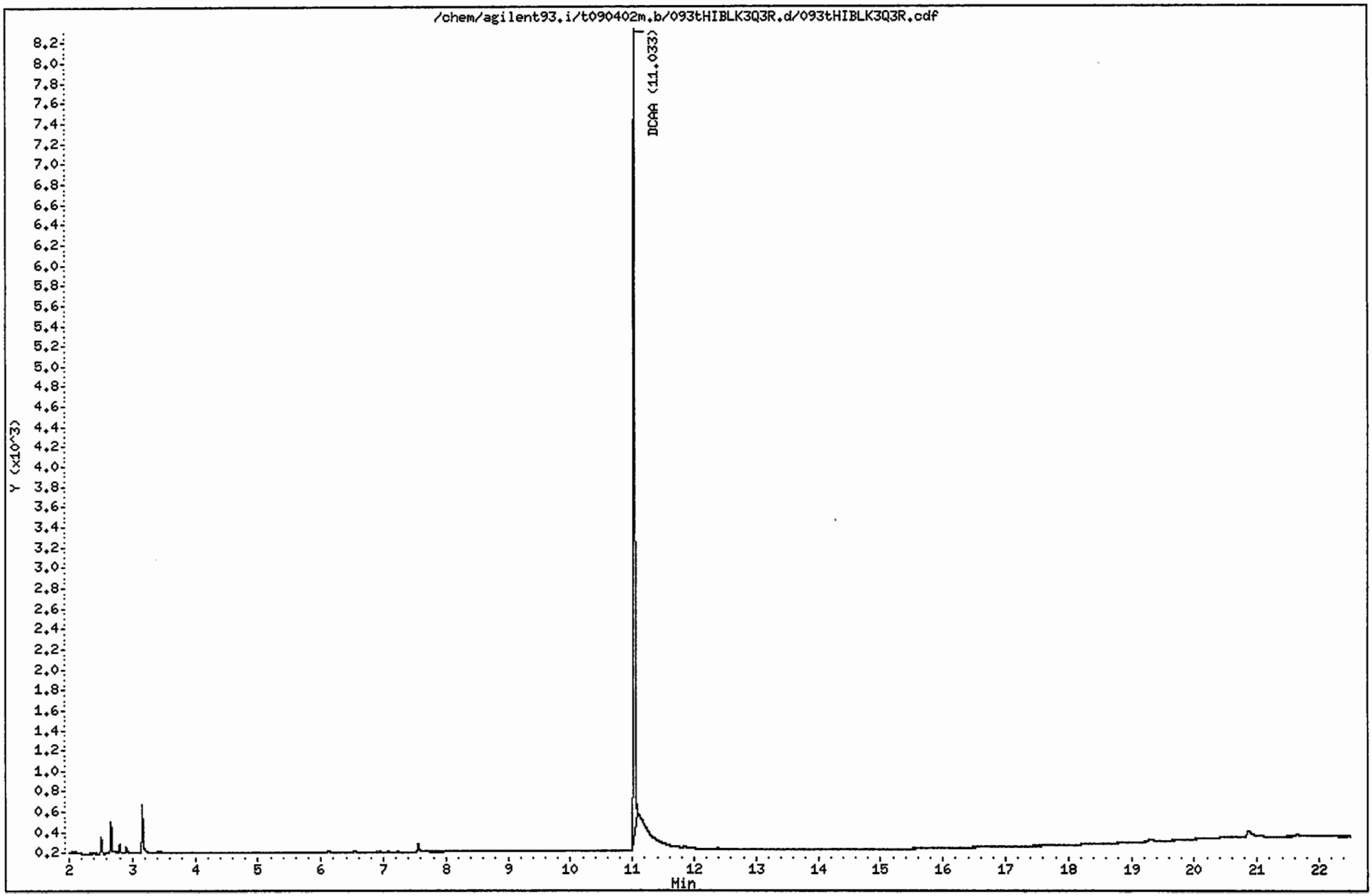
Sample Info: HIBLK3Q3R

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : HIBLK3R Client Smp Id : HIBLK3R
Sample Type : INSTBLANK Sublist : FULL8151new
Inj Date : 20-APR-2009 11:54 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
11.03	11.01 11.07	13517	28143	DCAA	0.480290	4.802895		

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIBLK3S

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: HIBLK3S

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	1.0	U
93-76-5	2,4,5-T	5.0	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402n.b/103tHIBLK3S3T.d

Page 1

Date : 20-APR-2009 20:30

Client ID: HIBLK3S

Instrument: agilent92.i

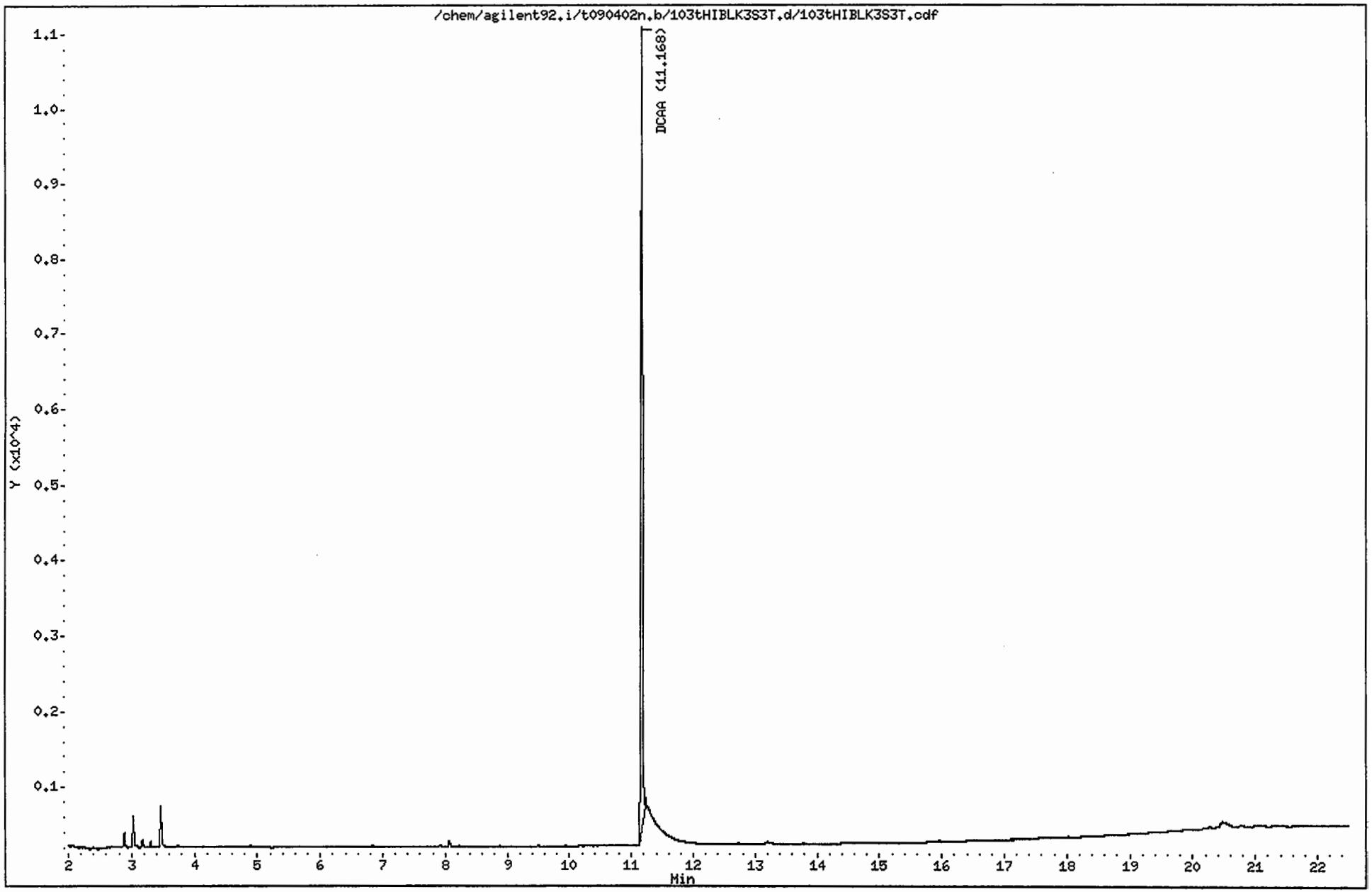
Sample Info: HIBLK3S3T

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : HIBLK3S Client Smp Id : HIBLK3S
Sample Type : INSTBLANK Sublist : FULL8151new
Inj Date : 20-APR-2009 20:30 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402n.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
1.26		903						
11.17	11.14 11.20	19677	40502	DCAA	0.485840	4.858400		

AS 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIBLK3T

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: HIBLK3T

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	1.0	U
93-76-5	2,4,5-T	5.0	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent93.i/t090402n.b/103tHIBLK3S3T.d

Page 1

Date : 20-APR-2009 20:30

Client ID: HIBLK3T

Instrument: agilent93.i

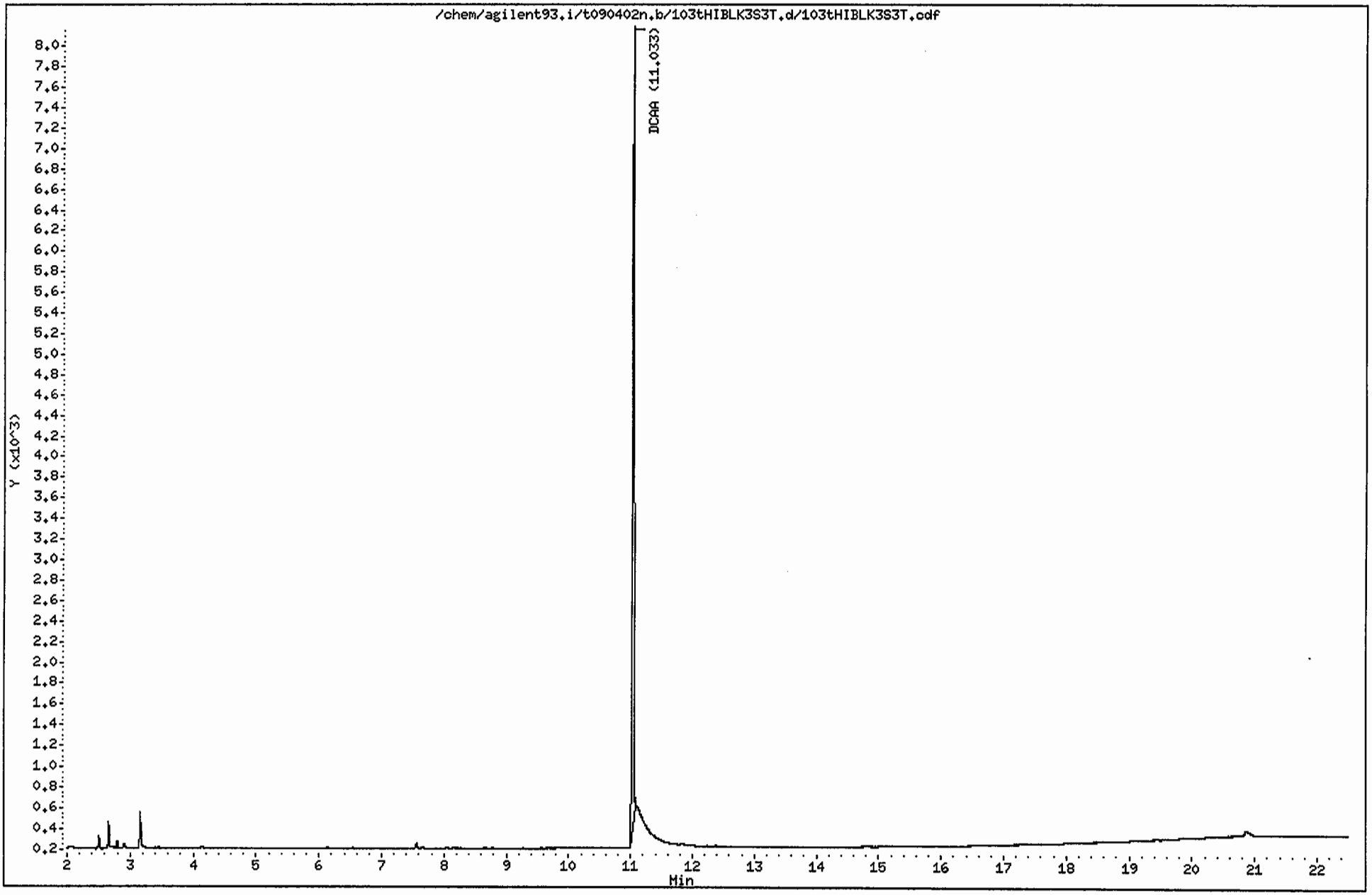
Sample Info: HIBLK3S3T

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : HIBLK3T Client Smp Id : HIBLK3T
Sample Type : INSTBLANK Sublist : FULL8151new
Inj Date : 20-APR-2009 20:30 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402n.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
11.03	11.01 11.07	13427	28143	DCAA	0.477102	4.771022		

AS 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIBLK3U

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: HIBLK3U

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	1.0	U
93-76-5	2,4,5-T	5.0	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent92.i/t090402o.b/116tHIBLK3U3V.d

Date : 21-APR-2009 02:54

Client ID: HIBLK3U

Instrument: agilent92.i

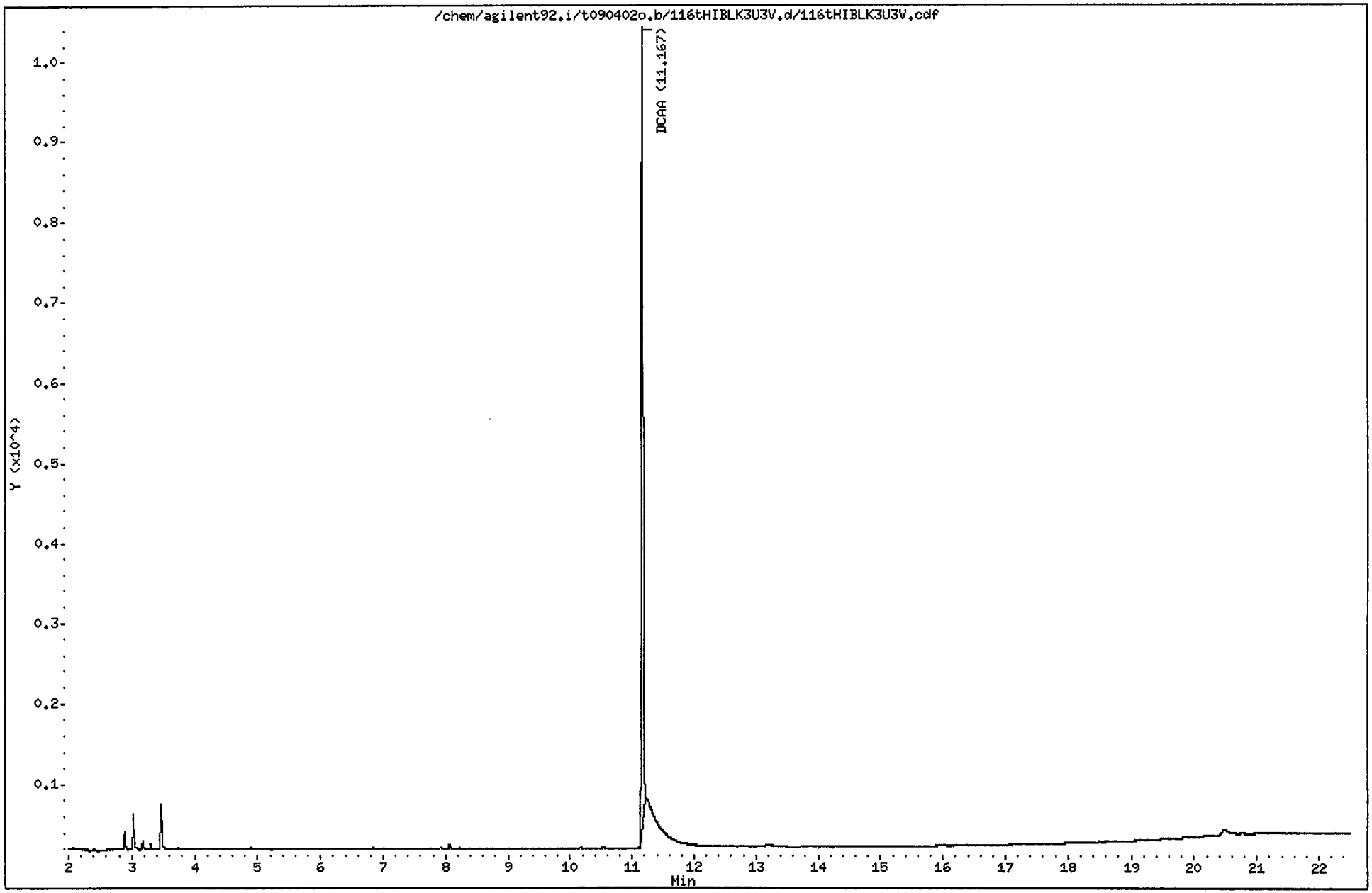
Sample Info: HIBLK3U3V

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : HIBLK3U Client Smp Id : HIBLK3U
Sample Type : INSTBLANK Sublist : FULL8151new
Inj Date : 21-APR-2009 02:54 Inst ID : AGILENT92
Operator : 2512
Method : /chem/agilent92.i/t090402o.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
11.17	11.14 11.20	18438	40502	DCAA	0.455225	4.552254		

AS 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIBLK3V

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: HIBLK3V

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	5.0	U
93-72-1	silvex	1.0	U
93-76-5	2,4,5-T	5.0	U
88-85-7	dinoseb	2.5	U

Data File: /chem/agilent93.i/t090402o.b/116tHIBLK3U3V.d

Date : 21-APR-2009 02:54

Client ID: HIBLK3V

Instrument: agilent93.i

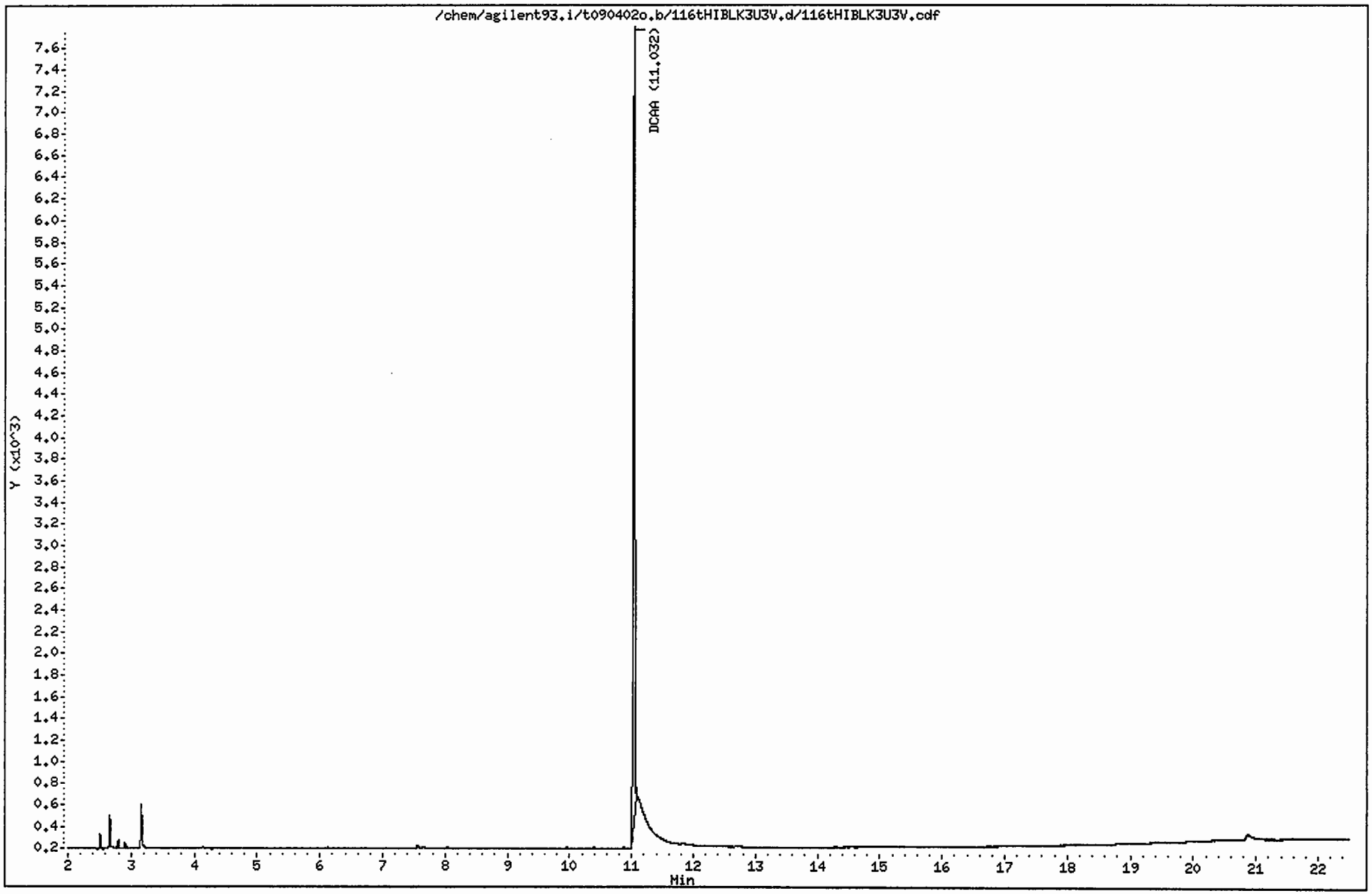
Sample Info: HIBLK3U3V

Volume Injected (uL): 1.0

Operator: 2512

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : HIBLK3V Client Smp Id : HIBLK3V
Sample Type : INSTBLANK Sublist : FULL8151new
Inj Date : 21-APR-2009 02:54 Inst ID : AGILENT93
Operator : 2512
Method : /chem/agilent93.i/t090402o.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
11.03	11.01	11.07	12815	28143	DCAA	0.455339	4.553386		

ALS 4/21/09

b. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PGULCS

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-BS1

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 09/27/07

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

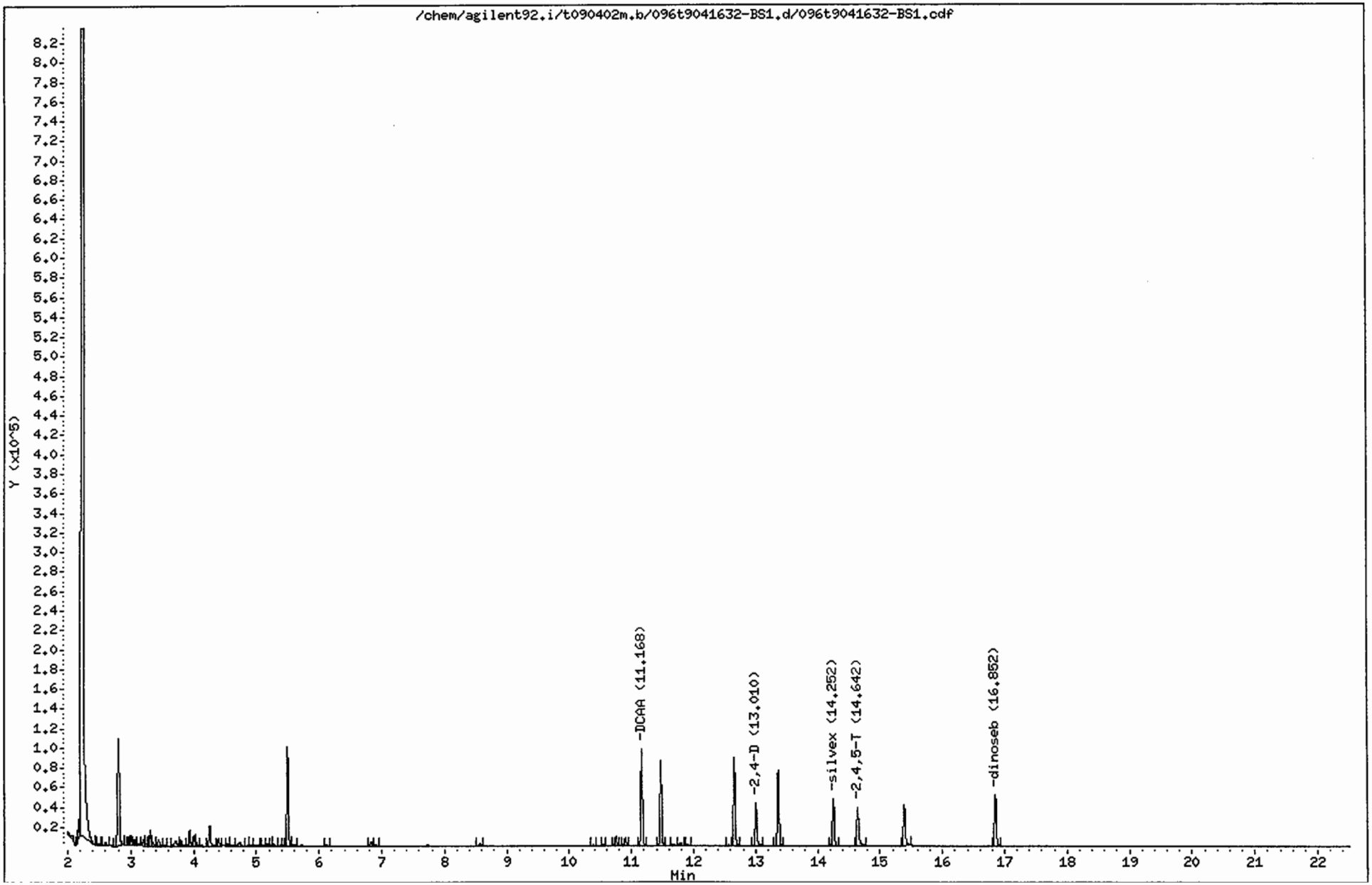
Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	24	
93-72-1	silvex	4.0	
93-76-5	2,4,5-T	4.7	
88-85-7	dinoseb	7.0	

Data File: /chem/agilent92.i/t090402m.b/096t9041632-BS1.d
Date : 20-APR-2009 17:04
Client ID: PGULCS
Sample Info: 9041632-BS1
Volume Injected (uL): 1.0
Column phase: CLPest

Instrument: agilent92.i
Operator: 2646
Column diameter: 0.32



CompuChem

Lab Smp Id : 9041632-BS1 Client Smp Id : PGULCS
Sample Type : LCS Sublist : DAACOMP
Inj Date : 20-APR-2009 17:04 Inst ID : AGILENT92
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : PGULCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.18		2258								
1.21		402024								
1.30		2183145								
1.38		480067								
1.62		52396								
1.85		7693								
1.97		30225								
2.17		22700								
2.26		2859236								
2.49		2638								
2.61		5136								
2.68		1105								
2.81		209423								
2.95		1795								
3.00		19651								
3.06		9516								
3.12		3745								
3.21		15409								
3.25		4076								
3.31		26085								
3.35		5404								
3.44		14319								
3.54		1904								
3.71		18605								
3.80		12547								
3.94		28279								
4.01		16718								
4.04		7003								
4.26		40398								
4.40		13981								
4.54		3692								
4.59		3689								
4.74		10316								
4.92		2905								
4.99		1947								
5.12		1792								
5.18		3304								

4/21/09

CompuChem

Lab Smp Id : 9041632-BS1 Client Smp Id : PGULCS
Sample Type : LCS Sublist : DAACOMP
Inj Date : 20-APR-2009 17:04 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : PGULCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
5.24		905								
5.27		3988								
5.44		1994								
5.50		164934								
5.59		4668								
6.12		1143								
6.83		7936								
6.89		2752								
8.57		3743								
10.38		1319								
10.54		907								
10.75		17732								
10.90		14471								
11.17	11.14 11.20	171877	40502	DCAA	4.243676	42.43676		84.9	50 - 148	
11.48		157940								
11.67		2575								
11.79		4975								
11.91		1267								
12.57		1110								
12.66		159658								
13.01	12.98 13.04	83413	37970	2,4-D	2.196799	21.96799	5.000000	87.9	50 - 150	
13.37		145471								
14.25	14.22 14.28	92132	252511	silvex	0.364863	3.648632	2.500000	73.0	50 - 150	
14.64	14.61 14.67	87439	202386	2,4,5-T	0.432040	4.320400	2.500000	86.4	50 - 150	
15.39		90995								
16.85	16.82 16.88	104254	161720	dinoseb	0.644658	6.446575	2.500000	51.6	50 - 150	

Data File: /chem/agilent93.i/t090402m.b/096t9041632-BS1.d

Page 1

Date : 20-APR-2009 17:04

Client ID: PGULCS

Instrument: agilent93.i

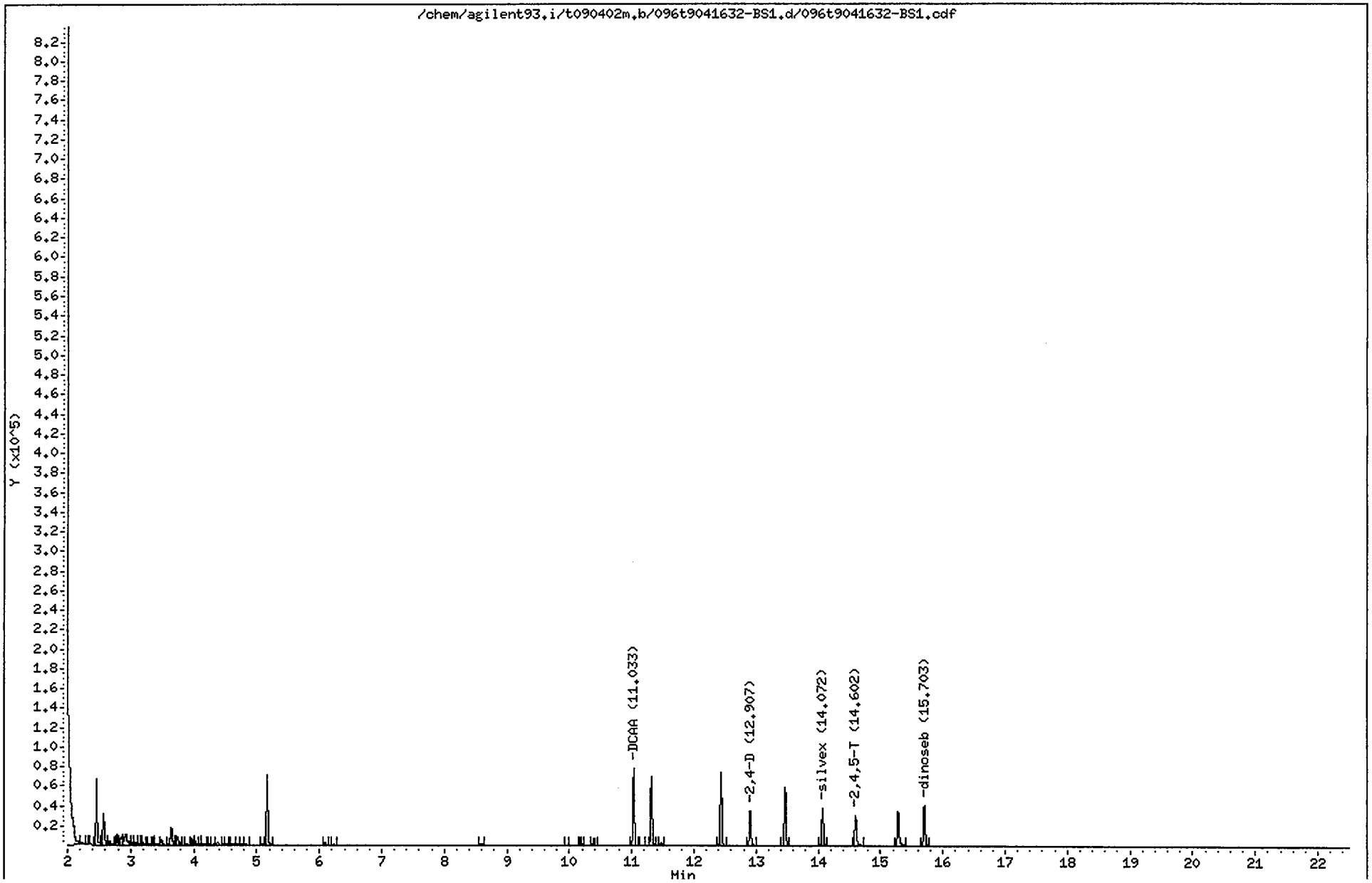
Sample Info: 9041632-BS1

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041632-BS1 Client Smp Id : PGULCS
Sample Type : LCS Sublist : DAACOMP
Inj Date : 20-APR-2009 17:04 Inst ID : AGILENT93
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : PGULCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.22		315799								
1.29		2451758								
1.39		7458373								
1.50		1724157								
1.80		147967								
2.00		2182895								
2.22		4203								
2.31		933								
2.33		2992								
2.46		82393								
2.57		59370								
2.67		7287								
2.78		15400								
2.86		18808								
2.92		35664								
3.02		3546								
3.08		3933								
3.14		1395								
3.16		1308								
3.19		3969								
3.30		1442								
3.37		1527								
3.40		1245								
3.48		7994								
3.64		39258								
3.75		14539								
3.88		811								
3.97		9740								
4.02		5807								
4.13		2041								
4.25		770								
4.38		4535								
4.47		767								
4.50		3005								
4.61		2246								
4.70		1393								
4.75		1967								

4/21/09

CompuChem

Lab Smp Id : 9041632-BS1 Client Smp Id : PGULCS
Sample Type : LCS Sublist : DAACOMP
Inj Date : 20-APR-2009 17:04 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : PGULCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.83		2554								
5.10		2832								
5.17		107378								
6.09		4509								
6.24		1233								
8.59		2326								
9.96		719								
10.18		13404								
10.39		11189								
11.03	11.01 11.07	127330	28143	DCAA	4.524356	45.24356		90.5	50 - 148	
11.16		861								
11.32		119404								
11.47		3441								
12.44		122412								
12.91	12.88 12.94	63268	26459	2,4-D	2.391105	23.91105	5.000000	95.6	50 - 150	
13.47		106281								
14.07	14.04 14.10	67913	170753	silvex	0.397721	3.977208	2.500000	79.5	50 - 150	
14.60	14.57 14.63	64296	136793	2,4,5-T	0.470025	4.700245	2.500000	94.0	50 - 150	
15.29		68802								
15.70	15.67 15.73	74192	106506	dinoseb	0.696592	6.965921	2.500000	55.7	50 - 150	

c. Matrix Spike Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-MS2

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	27	
93-72-1	silvex	4.6	
93-76-5	2,4,5-T	6.0	
88-85-7	dinoseb	7.9	

Data File: /chem/agilent92.i/t090402m.b/099t9041632-MS2.d

Page 1

Date : 20-APR-2009 18:32

Client ID: 13MW5MS

Instrument: agilent92.i

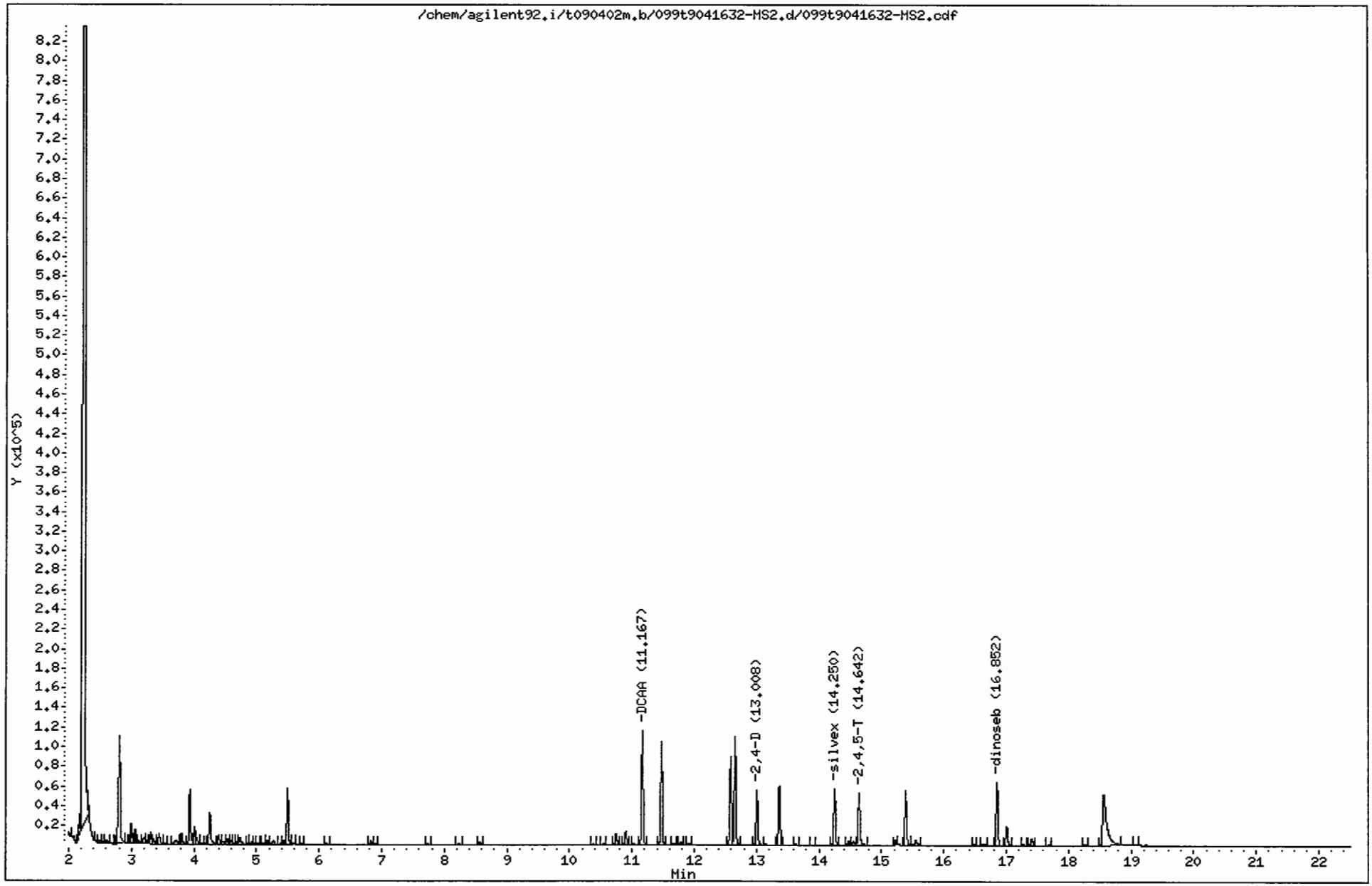
Sample Info: 9041632-MS2

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041632-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP
Inj Date : 20-APR-2009 18:32 Inst ID : AGILENT92
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.18		10058								
1.21		208990								
1.28		2327216								
1.35		2310793								
1.39		3073496								
1.62		260657								
1.84		18141								
1.97		4757								
2.08		8786								
2.17		23960								
2.25		2703738								
2.42		1284								
2.49		3655								
2.54		1385								
2.61		6064								
2.68		1450								
2.73		958								
2.81		217649								
2.96		1361								
3.00		35742								
3.06		21408								
3.12		6168								
3.21		17434								
3.25		5814								
3.31		19070								
3.35		7234								
3.44		22450								
3.54		2253								
3.71		13584								
3.80		19468								
3.94		87443								
4.01		27854								
4.05		12276								
4.13		1477								
4.25		60166								
4.40		18202								
4.46		5216								

KEH 4/21/09

CompuChem

Lab Smp Id : 9041632-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP
Inj Date : 20-APR-2009 18:32 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.54		8821								
4.59		6462								
4.64		2346								
4.69		2639								
4.74		16227								
4.92		3408								
5.02		1799								
5.12		1567								
5.18		6031								
5.27		7731								
5.44		4784								
5.50		91252								
5.57		2663								
5.72		1003								
6.12		2374								
6.83		5714								
6.89		2282								
7.74		1927								
8.23		2300								
8.57		4355								
10.38		1413								
10.54		1778								
10.75		21334								
10.90		25684								
11.03		1705								
11.17	11.14 11.20	202494	40502	DCAA	4.999615	49.99615		100.0	50 - 148	
11.48		189117								
11.67		2929								
11.79		5799								
11.91		3492								
12.59		168253								
12.66		196849								
13.01	12.98 13.04	102509	37970	2,4-D	2.699752	26.99752	5.000000	108.0	50 - 150	
13.37		113710								
13.63		1752								
13.90		1086								
14.25	14.22 14.28	106979	252511	silvex	0.423661	4.236606	2.500000	84.7	50 - 150	

CompuChem

Lab Smp Id : 9041632-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP
Inj Date : 20-APR-2009 18:32 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
14.48		8411								
14.55		8290								
14.64	14.61 14.67	108617	202386	2,4,5-T	0.536681	5.366814	2.500000	107.3	50 - 150	
15.22		9141								
15.39		112292								
15.55		12499								
16.49		930								
16.64		3713								
16.85	16.82 16.88	126218	161720	dinoseb	0.780466	7.804664	2.500000	62.4	50 - 150	
17.01		39439								
17.28		1223								
17.41		15643								
17.68		1041								
18.26		2430								
18.56		238584								
19.07		2519								

Data File: /chem/agilent93.i/t090402m.b/099t9041632-MS2.d

Date : 20-APR-2009 18:32

Client ID: 13MW5MS

Instrument: agilent93.i

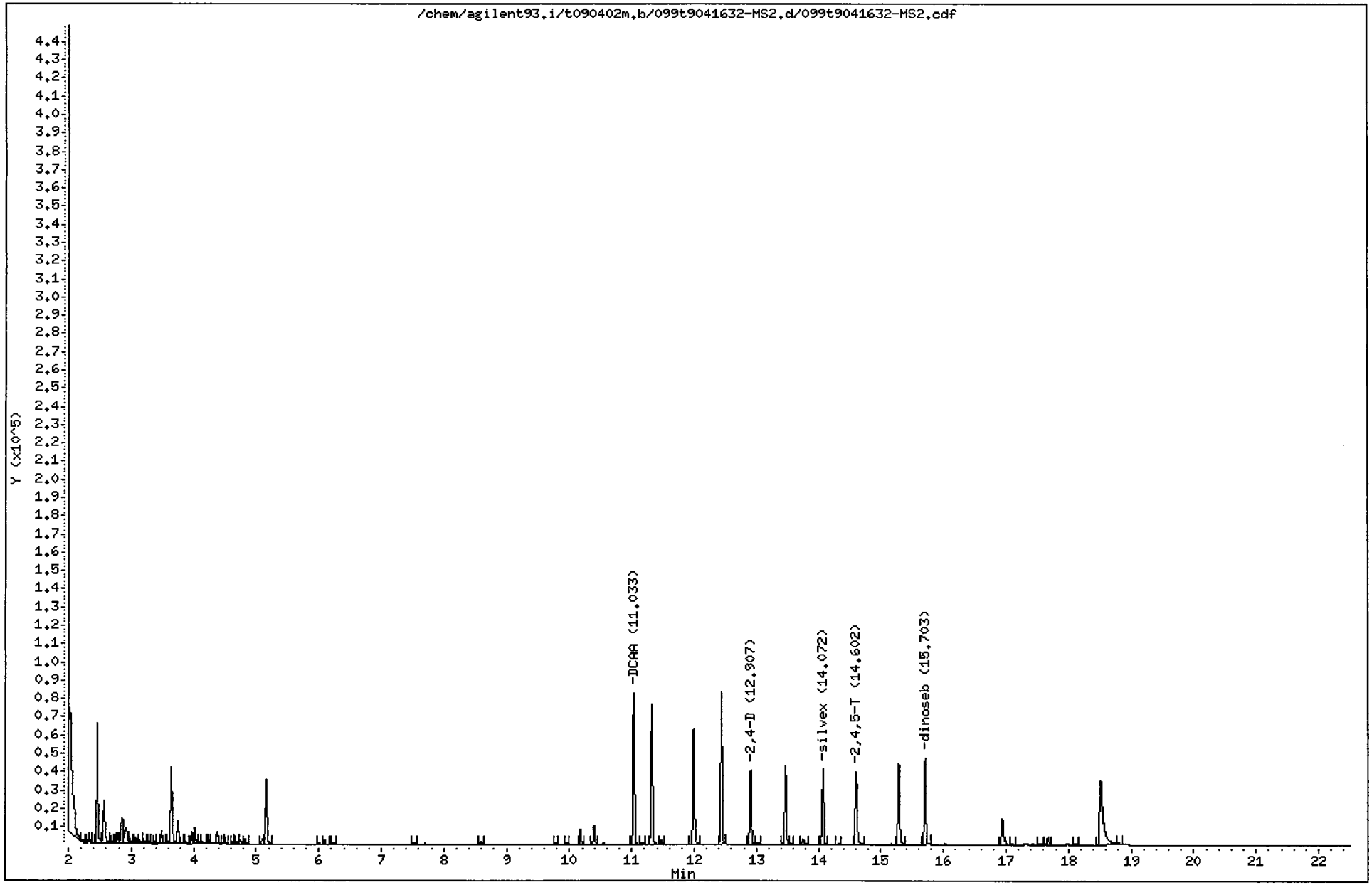
Sample Info: 9041632-MS2

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest2

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041632-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP
Inj Date : 20-APR-2009 18:32 Inst ID : AGILENT93
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.22		125060								
1.28		1759292								
1.34		1462025								
1.37		594824								
1.39		2046677								
1.50		646374								
1.80		3021								
1.99		1580984								
2.02		244144								
2.22		2057								
2.31		734								
2.33		2347								
2.46		82103								
2.57		48606								
2.67		7641								
2.78		9400								
2.86		31967								
2.92		19938								
2.97		4837								
3.08		3726								
3.14		3218								
3.19		4285								
3.30		1178								
3.37		1806								
3.40		1482								
3.48		11576								
3.64		79676								
3.75		18137								
3.78		4153								
3.88		984								
3.97		9781								
4.02		14004								
4.13		1772								
4.22		1042								
4.25		2202								
4.38		10447								
4.50		5036								

CompuChem

Lab Smp Id : 9041632-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP
Inj Date : 20-APR-2009 18:32 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.62		1451								
4.65		1220								
4.70		2055								
4.75		3248								
4.83		4097								
5.10		4856								
5.17		52867								
6.00		1043								
6.09		3285								
6.24		1249								
7.52		1018								
8.59		2433								
9.78		877								
9.96		777								
10.18		14568								
10.39		17943								
11.03	11.01 11.07	136408	28143	DCAA	4.846920	48.46920		96.9	50 - 148	
11.16		1425								
11.32		131426								
11.47		3955								
11.99		109532								
12.44		133688								
12.91	12.88 12.94	71361	26459	2,4-D	2.696970	26.96970	5.000000	107.9	50 - 150	
13.02		1924								
13.47		76039								
13.57		776								
13.75		6310								
14.07	14.04 14.10	77743	170753	silvex	0.455289	4.552893	2.500000	91.1	50 - 150	
14.32		812								
14.60	14.57 14.63	82261	136793	2,4,5-T	0.601354	6.013545	2.500000	120.3	50 - 150	
15.28		84576								
15.70	15.67 15.73	84505	106506	dinoseb	0.793423	7.934227	2.500000	63.5	50 - 150	
16.94		34991								
17.10		805								
17.54		1072								
17.67		7690								
18.12		754								

CompuChem

Lab Smp Id : 9041632-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : DAACOMP
Inj Date : 20-APR-2009 18:32 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
18.52		140644								
18.80		2631								

d. Matrix Spike Duplicate Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8151A

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041632-MSD2

Sample wt/vol: 1000 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/17/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	29	
93-72-1	silvex	4.8	
93-76-5	2,4,5-T	6.5	
88-85-7	dinoseb	7.7	

Data File: /chem/agilent92.i/t090402m.b/100t9041632-MSD2.d

Date : 20-APR-2009 19:02

Client ID: 13MW5MSD

Instrument: agilent92.i

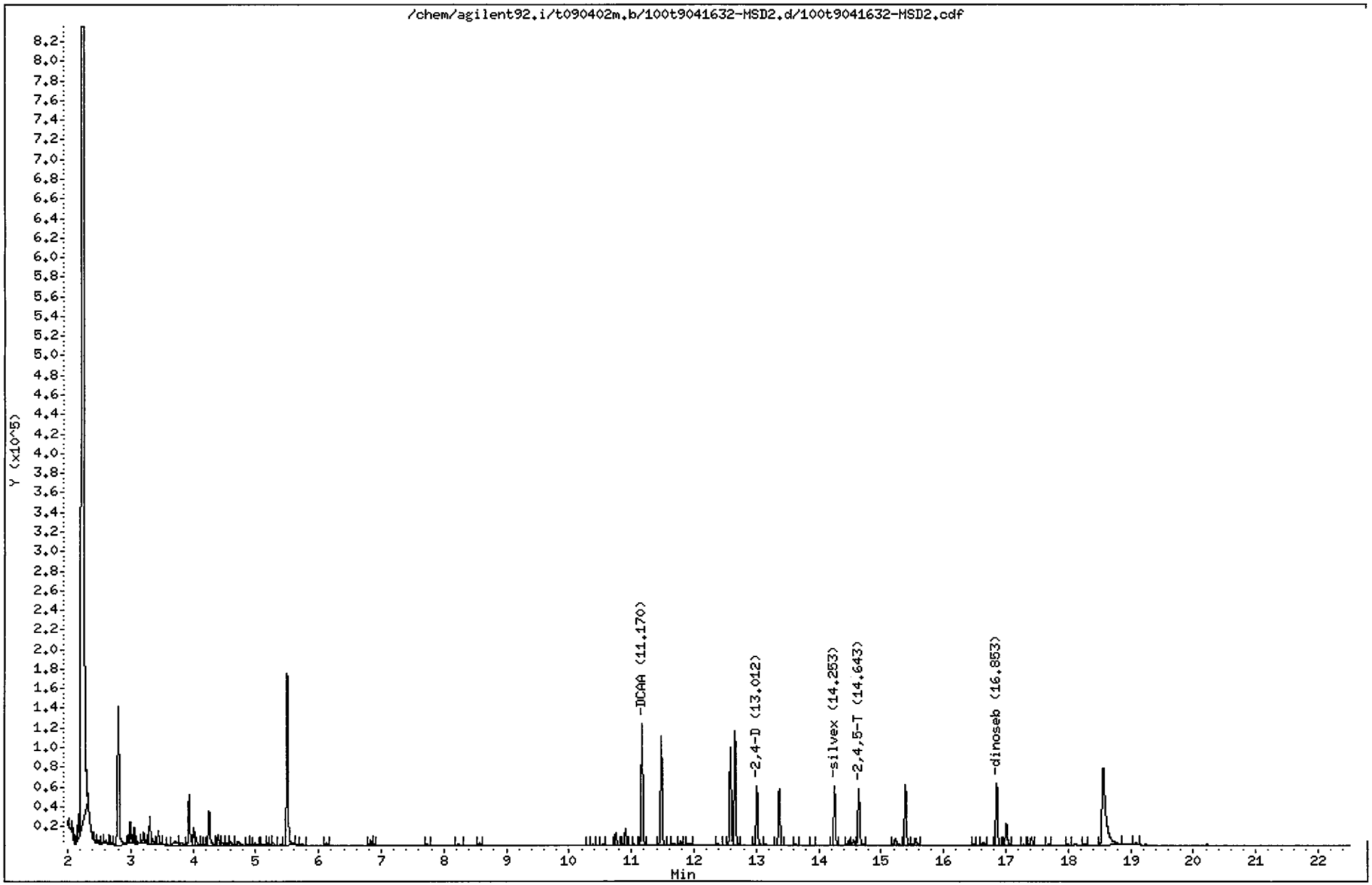
Sample Info: 9041632-MSD2

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest

Column diameter: 0.32



CompuChem

Lab Smp Id : 9041632-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP
Inj Date : 20-APR-2009 19:02 Inst ID : AGILENT92
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.21		655041								
1.47		9916595								
1.62		89493								
1.80		2738								
1.85		5717								
1.91		4351								
1.96		2788								
2.08		9996								
2.17		33317								
2.26		3074921								
2.42		1010								
2.49		4594								
2.54		1855								
2.61		4575								
2.69		1641								
2.73		910								
2.81		265255								
2.99		30484								
3.06		20825								
3.12		2766								
3.21		21892								
3.25		4617								
3.31		42322								
3.35		8852								
3.44		27135								
3.54		2407								
3.71		15501								
3.80		8165								
3.94		81415								
4.01		28669								
4.05		13007								
4.13		1297								
4.26		68660								
4.40		20199								
4.46		4871								
4.54		3259								
4.59		8953								

CompuChem

Lab Smp Id : 9041632-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP
Inj Date : 20-APR-2009 19:02 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
4.72		10373								
4.87		1871								
4.92		1885								
4.99		2823								
5.12		2402								
5.18		3617								
5.24		1042								
5.28		4345								
5.39		1045								
5.50		297790								
5.72		2171								
6.12		3640								
6.83		8432								
6.89		2382								
7.72		2757								
8.23		3209								
8.57		4450								
10.29		903								
10.38		1482								
10.54		1579								
10.75		23011								
10.91		29510								
11.03		1489								
11.17	11.14 11.20	211733	40502	DCAA	5.227703	52.27703		104.6	50 - 148	
11.48		196987								
11.67		3697								
11.79		6429								
11.91		5168								
12.39		1769								
12.59		183531								
12.66		206413								
13.01	12.98 13.04	111032	37970	2,4-D	2.924220	29.24220	5.000000	117.0	50 - 150	
13.37		107527								
13.63		1914								
13.90		1143								
14.25	14.22 14.28	112021	252511	silvex	0.443628	4.436280	2.500000	88.7	50 - 150	
14.48		9309								

CompuChem

Lab Smp Id : 9041632-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP
Inj Date : 20-APR-2009 19:02 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent92.i/t090402m.b/8151f_clpestv4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
14.56		10176								
14.64	14.61 14.67	116269	202386	2,4,5-T	0.574485	5.744853	2.500000	114.9	50 - 150	
15.23		17972								
15.39		122071								
15.55		15070								
16.49		1043								
16.63		6155								
16.85	16.82 16.88	123363	161720	dinoseb	0.762812	7.628124	2.500000	61.0	50 - 150	
17.01		45395								
17.28		1293								
17.41		16356								
17.68		1570								
18.00		1180								
18.26		2485								
18.56		326257								
19.07		3904								

Data File: /chem/agilent93.i/t090402m.b/100t9041632-MSD2.d

Page 1

Date : 20-APR-2009 19:02

Client ID: 13MW5MSD

Instrument: agilent93.i

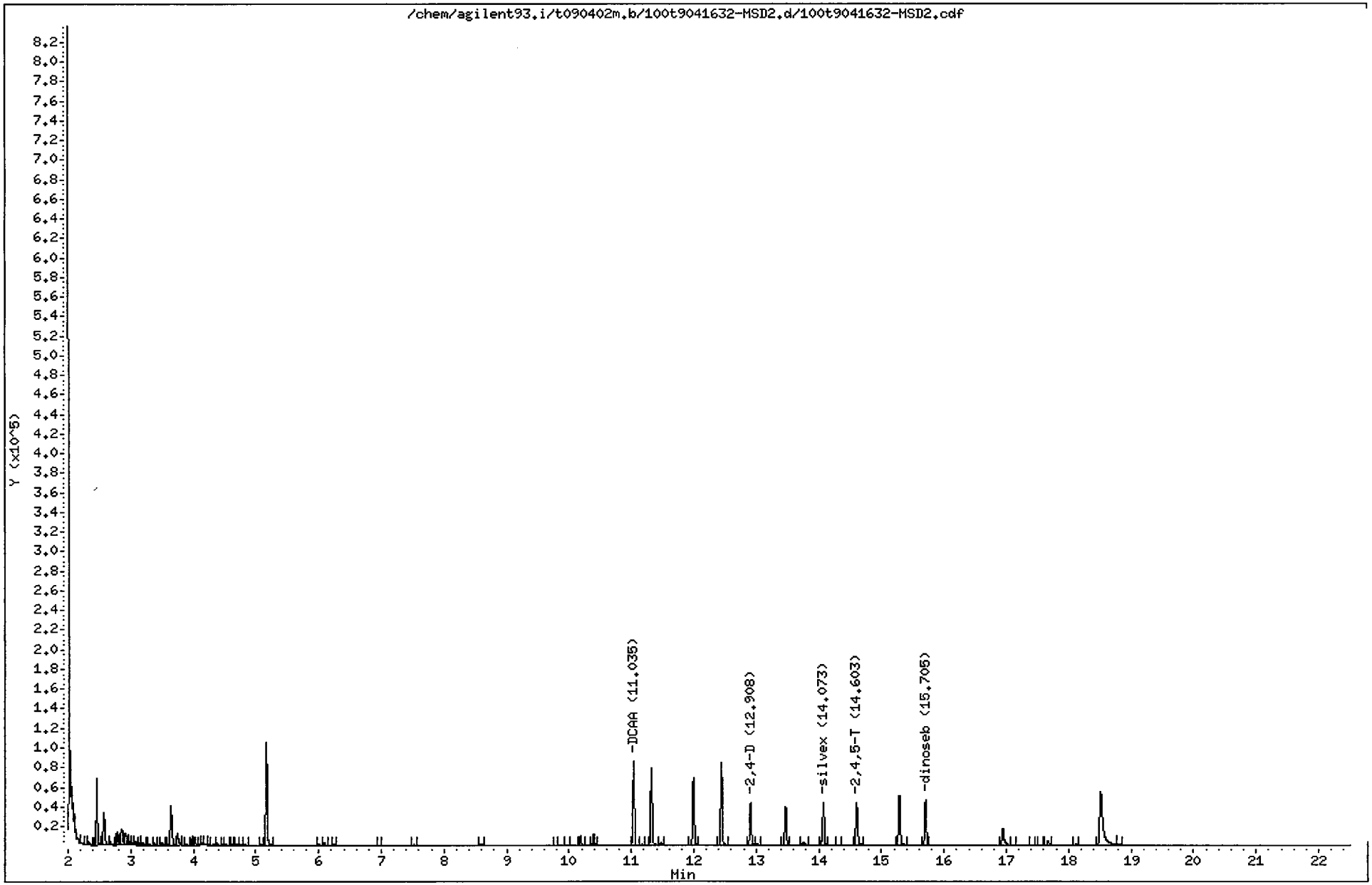
Sample Info: 9041632-MSD2

Volume Injected (uL): 1.0

Operator: 2646

Column phase: CLPest2

Column diameter: 0.32



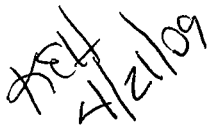
CompuChem

Lab Smp Id : 9041632-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP
Inj Date : 20-APR-2009 19:02 Inst ID : AGILENT93
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
1.23		423872								
1.41		3775998								
1.50		221604								
1.80		8229								
2.00		1944550								
2.03		97271								
2.23		2774								
2.33		3099								
2.46		83227								
2.57		55140								
2.67		4803								
2.78		20819								
2.85		36668								
2.92		25873								
2.98		5900								
3.02		1992								
3.08		4042								
3.14		2244								
3.19		6316								
3.30		1960								
3.37		2804								
3.50		3784								
3.64		80246								
3.75		20625								
3.88		1136								
3.98		10551								
4.02		12720								
4.13		2034								
4.25		1630								
4.38		3396								
4.51		2527								
4.62		715								
4.70		1310								
4.75		2095								
4.83		2526								
5.09		1541								
5.17		164585								



CompuChem

Lab Smp Id : 9041632-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : DAACOMP
Inj Date : 20-APR-2009 19:02 Inst ID :
Operator : 2646 Spike Sublist : DAACOMP
Method : /chem/agilent93.i/t090402m.b/8151f_clpest2v4.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 1(ul)
Vo Sample Volume: 1000.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
6.01		1340								
6.09		4275								
6.24		1292								
6.96		860								
7.52		1303								
8.60		2498								
9.79		895								
9.96		759								
10.18		15947								
10.39		19947								
11.04	11.01 11.07	141785	28143	DCAA	5.037978	50.37978		100.8	50 - 148	
11.17		1415								
11.32		136761								
11.47		4031								
11.99		119131								
12.44		142492								
12.91	12.88 12.94	76397	26459	2,4-D	2.887338	28.87338	5.000000	115.5	50 - 150	
13.02		1802								
13.47		71238								
13.75		7451								
14.07	14.04 14.10	81224	170753	silvex	0.475681	4.756813	2.500000	95.1	50 - 150	
14.32		978								
14.60	14.57 14.63	88846	136793	2,4,5-T	0.649486	6.494856	2.500000	129.9	50 - 150	
15.29		93322								
15.70	15.67 15.73	81981	106506	dinoseb	0.769724	7.697244	2.500000	61.6	50 - 150	
16.94		40544								
17.10		1059								
17.42		777								
17.54		1018								
17.67		7678								
18.12		1132								
18.51		192903								
18.80		3568								

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Type I Data Package
for
Draper Aden Associates, Inc.

SDG# RAD19

Project: RAAP - Radford, VA - HWMU13/Open Burning Ground
Water Samples
Collected on 06/17/09

GROUP	SAMPLE NUMBERS
1149710	5702474-5702475

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Prepared by _____

Reviewed by _____

Date 7/10/09

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Sample Reference List for SDG Number RAD19
with a Data Package Type of I
11200 - Draper Aden Associates, Inc.
Project: RAAP - Radford, VA - HWMU13/Open Burning Ground

Lab Sample Number	Lab Sample Code	Client Sample Description
5702474	R13M3	13MW3 Grab Groundwater Sample June 2009 Verification Groundwater Monitoring
5702475	RVATB	Trip_Blank_1 Water Sample June 2009 Verification Groundwater Monitoring

Acct#11200 Grp#1149710 Sample# 5702474-75

CHAIN OF CUSTODY RECORD

Laboratory: Lancaster Laboratories, 2425 New Holland Pike, Lancaster, PA 17605-2425/ Barb Weyandt, Manager/ (717) 656-2300 x1576

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** HWMU13/Open Burning Ground **Event:** June 2009 Verification Groundwater Monitoring **DAA JN:** 803204-08 07 **Lab JN:**	**Project Specific (PS) QC:** ☑ Yes ☐ No **Sample Collection for Project Complete?** ☑ Yes ☐ No **Carrier:** **Tracking Number:**	

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Invoice
Copy to Consultant: ☑ Yes ☐ No
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ Yes ☐ No

Box 4 - Sample Type					G								
Box 3 - Filtered/Unfiltered					U								
Required pH of Sample					<2								
Box 2 - Preservative					A								
Box 5 - Sample Container Type					3-40 ml V								
Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8260B/5030B 25 ml purge volume (Sample for 1,1,1-trichloroethane& trichlorofluoromethane ONLY)								
13MW3	6/17	1100	GW	3	X								
Trip Blank 1	6/21		T	3	X								

GENERAL NOTES: Level 1 with EDD deliverable required. (Sample for 1,1,1-trichloroethane & trichlorofluoromethane ONLY)

✓25 ml purge vol required
✓report MDL/LOQ, estimated results

DAA 6-15-09

Clients Special Instructions: level 1 with edd. See attached target analyte list.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): Dale Slaughter	Date: 6/17/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 6/17/09	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 1700	Company Name:	Time:	30 DYS ORG/6 MTHS INORG
Sampler Name (Print):	Date:	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 6/18/09	
Sampler Signature:	Time:	Company Name:	Time:	Company Name: LLS	Time: 843	

Batch QC 6/15

1/1

JLS 6/15/09

2009 6TMW

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Draper Aden

Date of Receipt: 6/18/09

Time of Receipt: 845

Source Code: CO-1

Unpacker Emp. No.: 2316

Shipping Container Sealed: (YES) NO

Custody Seal Present* : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	042503	1.9°C	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
[signature]	6/18/09	905	Unpacking to storage
Kristin Zeigler	6-18-09	0939	Place in Storage or (Entry)
			Entry
			Entry

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030B, December 1996.

02898 EPA SW846/8260 (water-25ml) #1

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996.

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

540-552-0444

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

June 28, 2009

SAMPLE GROUP

The sample group for this submittal is 1149710. Samples arrived at the laboratory on Thursday, June 18, 2009.

Client Description	Lancaster Labs Number
13MW3 Grab Groundwater Sample	5702474
Trip_Blank_1 Water Sample	5702475

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

ELECTRONIC COPY TO	Draper Aden Associates, Inc.	Attn: Janet Frazier
1 COPY TO	Data Package Group	

RAD19 8885

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Questions? Contact your Client Services Representative
Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

RAD19 0086

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Lancaster, PA 17605-2425
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Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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Analysis Report

REVISED

Sample Description: 13MW3 Grab Groundwater Sample
June 2009 Verification Groundwater Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

LLI Sample # WW 5702474
LLI Group # 1149710
VA

Project Name: RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 06/17/2009 11:00 by DS

Account Number: 11200

Submitted: 06/18/2009 08:45
Reported: 12/10/2009 at 11:06
Discard: 01/10/2010

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

R13M3 SDG#: RAD19-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	G091761AA	06/25/2009 18:18	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G091761AA	06/25/2009 18:18	Jason M Long	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5702475

Group No. 1149710
VA

Trip_Blank_1 Water Sample
June 2009 Verification Groundwater Monitoring
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/21/2009

Account Number: 11200

Submitted: 06/18/2009 08:45
Reported: 06/28/2009 at 21:17
Discard: 07/29/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

RVATB SDG#: RAD19-02TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
	SW-846 8260B 25mL purge GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	G091761AA	06/25/2009 19:01	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G091761AA	06/25/2009 19:01	Jason M Long	1

RAD19 0003

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Volatiles by GC/MS Data

BAD19 8818

Case Narrative
Conformance/Nonconformance Summary

CASE NARRATIVE
Client: Draper Aden Associates, Inc.
SDG#: RAD19

LANCASTER LABORATORIES
VOLATILES BY GC/MS

SAMPLE NUMBER(S):

LL #'s	Sample Code	Matrix Water	Comments
5702474	R13M3	X	Unspiked
5702474	R13M3MS	X	Matrix Spike
5702475	RVATB	X	Client Blank

LABORATORY SUBMITTED QC:

VBLKG71	VBLKG71	X	Method Blank
LCSG71	LCSG71	X	Lab Control Sample
LCDG71	LCDG71	X	Lab Control Sample Dup

SAMPLE PREPARATION:

No sample preparation was necessary for the VOA fraction.

ANALYSIS:

No problems were encountered during the analysis of these samples.

QUALITY CONTROL and NONCONFORMANCE SUMMARY:

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCD was performed, unless otherwise specified in the method or by the client.

All QC is within specifications.

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♦ Phone: 717-656-2300 ♦ Fax: 717-656-2681 ♦ http:// www.LancasterLabs.com

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Case Narrative reviewed and approved by:

Raymond Longacre, ACT 404 for Date 7/15/09
Dana M. Kauffman
Manager, Data Deliverables

RAD19: 0013

QC Summary

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKG71

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKG71

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP16334.i/09jun25a.b/gu25b01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/25/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
75-71-8	Dichlorodifluoromethane		0.1	U
115-10-6	Dimethyl ether		0.1	U
74-87-3	Chloromethane		0.2	U
75-01-4	Vinyl Chloride		0.1	U
74-83-9	Bromomethane		0.2	U
75-00-3	Chloroethane		0.2	U
75-43-4	Dichlorofluoromethane		0.2	U
75-69-4	Trichlorofluoromethane		0.1	U
60-29-7	Ethyl Ether		0.2	U
354-23-4	Freon 123a		0.2	U
107-02-8	Acrolein		5.0	U
75-35-4	1,1-Dichloroethene		0.1	U
76-13-1	Freon 113		0.2	U
67-64-1	Acetone		3.0	U
74-88-4	Methyl Iodide		0.1	U
75-15-0	Carbon Disulfide		0.4	U
75-05-8	Acetonitrile		7.0	U
107-05-1	Allyl Chloride		0.1	U
79-20-9	Methyl Acetate		0.3	U
75-09-2	Methylene Chloride		0.6	U
540-59-0	1,2-Dichloroethene (Total)		0.1	U
75-65-0	t-Butyl Alcohol		4.0	U
107-13-1	Acrylonitrile		1.0	U
1634-04-4	Methyl Tertiary Butyl Ether		0.1	U
156-60-5	trans-1,2-Dichloroethene		0.1	U
110-54-3	n-Hexane		0.1	U
75-34-3	1,1-Dichloroethane		0.1	U
108-05-4	Vinyl Acetate		0.2	U
108-20-3	di-Isopropyl Ether		0.1	U
126-99-8	2-Chloro-1,3-Butadiene		0.1	U

RAD19 0015

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKG71

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKG71

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP16334.i/09jun25a.b/gu25b01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/25/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
637-92-3	Ethyl t-Butyl Ether		0.1	U
156-59-2	cis-1,2-Dichloroethene		0.1	U
594-20-7	2,2-Dichloropropane		0.1	U
78-93-3	2-Butanone		1.0	U
107-12-0	Propionitrile		2.0	U
126-98-7	Methacrylonitrile		1.0	U
74-97-5	Bromochloromethane		0.1	U
109-99-9	Tetrahydrofuran		2.0	U
67-66-3	Chloroform		0.1	U
71-55-6	1,1,1-Trichloroethane		0.1	U
110-82-7	Cyclohexane		0.1	U
563-58-6	1,1-Dichloropropene		0.1	U
56-23-5	Carbon Tetrachloride		0.1	U
78-83-1	Isobutyl Alcohol		10	U
71-43-2	Benzene		0.1	U
107-06-2	1,2-Dichloroethane		0.1	U
994-05-8	t-Amyl Methyl Ether		0.1	U
142-82-5	n-Heptane		0.2	U
71-36-3	n-Butanol		20	U
79-01-6	Trichloroethene		0.1	U
108-87-2	Methylcyclohexane		0.1	U
78-87-5	1,2-Dichloropropane		0.1	U
80-62-6	Methyl Methacrylate		0.1	U
74-95-3	Dibromomethane		0.1	U
123-91-1	1,4-Dioxane		20	U
75-27-4	Bromodichloromethane		0.1	U
79-46-9	2-Nitropropane		1.0	U
110-75-8	2-Chloroethyl Vinyl Ether		0.1	U
10061-01-5	cis-1,3-Dichloropropene		0.1	U
108-10-1	4-Methyl-2-Pentanone		1.0	U

RAD19 0016

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKG71

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKG71

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP16334.i/09jun25a.b/gu25b01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/25/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
108-88-3	Toluene		0.1	U
10061-02-6	trans-1,3-Dichloropropene		0.1	U
97-63-2	Ethyl Methacrylate		0.1	U
79-00-5	1,1,2-Trichloroethane		0.1	U
127-18-4	Tetrachloroethene		0.1	U
142-28-9	1,3-Dichloropropane		0.1	U
591-78-6	2-Hexanone		1.0	U
124-48-1	Dibromochloromethane		0.1	U
106-93-4	1,2-Dibromoethane		0.1	U
108-90-7	Chlorobenzene		0.1	U
630-20-6	1,1,1,2-Tetrachloroethane		0.1	U
100-41-4	Ethylbenzene		0.1	U
1330-20-7	Xylene (Total)		0.1	U
179601-23-1	m+p-Xylene		0.1	U
95-47-6	o-Xylene		0.1	U
100-42-5	Styrene		0.1	U
75-25-2	Bromoform		0.1	U
98-82-8	Isopropylbenzene		0.1	U
1476-11-5	cis-1,4-Dichloro-2-Butene		0.4	U
108-94-1	Cyclohexanone		5.0	U
79-34-5	1,1,2,2-Tetrachloroethane		0.1	U
108-86-1	Bromobenzene		0.1	U
110-57-6	trans-1,4-Dichloro-2-Butene		1.0	U
96-18-4	1,2,3-Trichloropropane		0.3	U
103-65-1	n-Propylbenzene		0.1	U
95-49-8	2-Chlorotoluene		0.1	U
108-67-8	1,3,5-Trimethylbenzene		0.1	U
106-43-4	4-Chlorotoluene		0.1	U
98-06-6	tert-Butylbenzene		0.1	U
76-01-7	Pentachloroethane		0.2	U

RAD19 8817

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKG71

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKG71

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP16334.i/09jun25a.b/gu25b01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/25/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
95-63-6	1,2,4-Trimethylbenzene		0.1	U
135-98-8	sec-Butylbenzene		0.1	U
99-87-6	p-Isopropyltoluene		0.1	U
541-73-1	1,3-Dichlorobenzene		0.1	U
106-46-7	1,4-Dichlorobenzene		0.1	U
526-73-8	1,2,3-Trimethylbenzene		0.1	U
100-44-7	Benzyl Chloride		0.1	U
104-51-8	n-Butylbenzene		0.1	U
95-50-1	1,2-Dichlorobenzene		0.1	U
67-72-1	Hexachloroethane		0.1	U
96-12-8	1,2-Dibromo-3-Chloropropane		0.2	U
120-82-1	1,2,4-Trichlorobenzene		0.1	U
87-68-3	Hexachlorobutadiene		0.1	U
91-20-3	Naphthalene		0.1	U
87-61-6	1,2,3-Trichlorobenzene		0.1	U

RAD19 0819

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name:___Lancaster Laboratories___ Contract:_____

Lab Code:_____ Case No.:_____ SAS No.:_____ SDG No.:RAD19___

	LL #'s	EPA SAMPLE NO.	S1 (DBF)#	S2 (DCA)#	S3 (TOL)#	S4 (BFB)#	TOT OUT
01	5702474	R13M3	93	92	92	85	0
02	5702474	R13M3MS	92	90	92	89	0
03	5702475	RVATB	93	91	92	86	0
04	VBLKG71	VBLKG71	93	93	92	87	0
05	LCDG71	LCDG71	92	91	92	89	0
06	LCSG71	LCSG71	92	92	93	90	0

	QC LIMITS
S1 (DBF) = Dibromofluoromethane	(77-114)
S2 (DCA) = 1,2-Dichloroethane-d4	(74-113)
S3 (TOL) = Toluene-d8	(77-110)
S4 (BFB) = 4-Bromofluorobenzene	(78-110)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

Lancaster Laboratories, Inc.
GC/MS Volatiles Matrix Spike Recoveries

Unspiked: gu25s09.d
R13M3 5702474
Method: SW-846 8260B (25ML)
Instrument: HP16334

Matrix Spike: gu25s10.d
R13M3MS 5702474
Matrix/Level: WL
Dilution Factor: 1.00

Batch: G091761AA

COMPOUND NAME	MS SPIKE	US CONC UG/L	MS CONC UG/L	MS REC %	Range LOWER-UPPER	INSPEC
Dichlorodifluoromethane	5.00	ND	5.08	102	25-180	YES
Chloromethane	5.00	ND	6.36	127	55-152	YES
Vinyl Chloride	5.00	ND	5.60	112	57-150	YES
Bromomethane	5.00	ND	6.41	128	66-137	YES
Chloroethane	5.00	ND	6.53	131	70-139	YES
Dichlorofluoromethane	5.00	ND	5.99	120	76-148	YES
Trichlorofluoromethane	5.00	0.15	5.80	113	60-165	YES
Ethyl Ether	5.00	ND	4.62	92	60-137	YES
Freon 123a	5.00	ND	5.49	110	81-151	YES
Acrolein	37.50	ND	35.79	95	14-141	YES
1,1-Dichloroethene	5.00	ND	5.37	107	88-137	YES
Freon 113	5.00	ND	5.48	110	87-158	YES
Acetone	37.50	ND	42.75	114	57-163	YES
Methyl Iodide	5.00	ND	5.10	102	79-129	YES
Carbon Disulfide	5.00	ND	4.89	98	75-162	YES
Allyl Chloride	5.00	ND	4.79	96	66-148	YES
Methyl Acetate	5.00	ND	5.19	104	61-139	YES
Methylene Chloride	5.00	ND	4.62	92	84-122	YES
t-Butyl Alcohol	50.00	ND	47.43	95	46-135	YES
Acrylonitrile	25.00	ND	29.95	120	56-161	YES
trans-1,2-Dichloroethene	5.00	ND	5.39	108	88-127	YES
1,2-Dichloroethene (Total	10.00	ND	10.59	106	89-124	YES
Methyl Tertiary Butyl Eth	5.00	ND	4.63	93	73-125	YES
n-Hexane	5.00	ND	5.25	105	82-149	YES
1,1-Dichloroethane	5.00	ND	5.40	108	89-128	YES
di-Isopropyl Ether	5.00	ND	5.07	101	75-135	YES
2-Chloro-1,3-Butadiene	5.00	ND	5.49	110	71-159	YES
Ethyl t-Butyl Ether	5.00	ND	4.75	95	72-124	YES
2,2-Dichloropropane	5.00	ND	5.27	105	80-145	YES
cis-1,2-Dichloroethene	5.00	ND	5.20	104	82-129	YES
2-Butanone	37.50	ND	44.10	118	58-168	YES
Propionitrile	37.50	ND	41.77	111	63-147	YES
Methacrylonitrile	37.50	ND	45.31	121	58-155	YES
Bromochloromethane	5.00	ND	5.11	102	82-125	YES
Tetrahydrofuran	25.00	ND	28.94	116	56-154	YES
Chloroform	5.00	0.23	5.66	109	86-136	YES
1,1,1-Trichloroethane	5.00	ND	5.71	114	81-152	YES
Cyclohexane	5.00	ND	5.30	106	84-147	YES
1,1-Dichloropropene	5.00	ND	5.44	109	91-133	YES
Carbon Tetrachloride	5.00	2.46	8.07	112	81-162	YES
Isobutyl Alcohol	125.00	ND	137.52	110	54-147	YES
Benzene	5.00	ND	5.26	105	87-126	YES
1,2-Dichloroethane	5.00	ND	5.34	107	72-153	YES
t-Amyl Methyl Ether	5.00	ND	4.67	93	74-127	YES
n-Heptane	5.00	ND	5.35	107	68-166	YES
n-Butanol	250.00	ND	223.67	89	50-125	YES
Trichloroethene	5.00	0.48	5.90	108	85-131	YES
Methylcyclohexane	5.00	ND	5.66	113	91-146	YES
1,2-Dichloropropane	5.00	ND	5.20	104	83-126	YES
Dibromomethane	5.00	ND	5.17	103	83-126	YES
1,4-Dioxane	125.00	ND	118.29	95	38-150	YES
Methyl Methacrylate	5.00	ND	5.81	116	48-152	YES
Bromodichloromethane	5.00	ND	5.24	105	82-133	YES
2-Nitropropane	5.00	ND	5.71	114	43-176	YES
cis-1,3-Dichloropropene	5.00	ND	4.87	97	63-127	YES
4-Methyl-2-Pentanone	25.00	ND	24.07	96	61-140	YES
Toluene	5.00	ND	5.14	103	83-127	YES
trans-1,3-Dichloropropene	5.00	ND	4.86	97	71-128	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by RAB 9 8820

Lancaster Laboratories, Inc.
GC/MS Volatiles Matrix Spike Recoveries

Unspiked: gu25s09.d
R13M3 5702474
Method: SW-846 8260B (25ML)
Instrument: HP16334

Matrix Spike: gu25s10.d
R13M3MS 5702474
Matrix/Level: WL
Dilution Factor: 1.00

Batch: G091761AA

COMPOUND NAME	MS SPIKE	US CONC UG/L	MS CONC UG/L	MS REC %	Range LOWER-UPPER	INSPEC
Ethyl Methacrylate	5.00	ND	4.73	95	58-133	YES
1,1,2-Trichloroethane	5.00	ND	5.03	101	71-135	YES
Tetrachloroethene	5.00	ND	5.47	109	86-129	YES
1,3-Dichloropropane	5.00	ND	5.09	102	80-127	YES
2-Hexanone	25.00	ND	23.91	96	52-156	YES
Dibromochloromethane	5.00	ND	4.90	98	79-125	YES
1,2-Dibromoethane	5.00	ND	4.98	100	80-120	YES
Chlorobenzene	5.00	ND	5.26	105	87-120	YES
1,1,1,2-Tetrachloroethane	5.00	ND	5.11	102	87-126	YES
Ethylbenzene	5.00	ND	5.24	105	86-128	YES
m+p-Xylene	10.00	ND	10.50	105	84-125	YES
Xylene (Total)	15.00	ND	15.70	105	84-125	YES
o-Xylene	5.00	ND	5.21	104	84-125	YES
Styrene	5.00	ND	5.05	101	27-153	YES
Bromoform	5.00	ND	4.60	92	65-126	YES
Isopropylbenzene	5.00	ND	5.35	107	81-133	YES
1,1,2,2-Tetrachloroethane	5.00	ND	4.92	98	70-125	YES
Bromobenzene	5.00	ND	4.93	99	81-115	YES
trans-1,4-Dichloro-2-Bute	25.00	ND	20.77	83	11-172	YES
1,2,3-Trichloropropane	5.00	ND	4.65	93	76-120	YES
n-Propylbenzene	5.00	ND	5.31	106	79-131	YES
2-Chlorotoluene	5.00	ND	5.03	101	81-120	YES
4-Chlorotoluene	5.00	ND	5.06	101	82-119	YES
1,3,5-Trimethylbenzene	5.00	ND	5.10	102	70-130	YES
Pentachloroethane	5.00	ND	4.95	99	78-127	YES
tert-Butylbenzene	5.00	ND	5.46	109	81-125	YES
1,2,4-Trimethylbenzene	5.00	ND	5.10	102	65-131	YES
sec-Butylbenzene	5.00	ND	5.28	106	84-128	YES
1,3-Dichlorobenzene	5.00	ND	5.17	103	81-118	YES
p-Isopropyltoluene	5.00	ND	5.25	105	84-124	YES
1,4-Dichlorobenzene	5.00	ND	5.10	102	79-120	YES
1,2,3-Trimethylbenzene	5.00	ND	4.98	100	70-130	YES
Benzyl Chloride	5.00	ND	4.47	89	62-125	YES
n-Butylbenzene	5.00	ND	5.37	107	83-131	YES
1,2-Dichlorobenzene	5.00	ND	5.14	103	83-117	YES
1,2-Dibromo-3-Chloropropa	5.00	ND	5.84	117	55-156	YES
1,2,4-Trichlorobenzene	5.00	ND	5.01	100	63-125	YES
Hexachlorobutadiene	5.00	ND	5.35	107	62-142	YES
Naphthalene	5.00	ND	4.77	95	55-132	YES
1,2,3-Trichlorobenzene	5.00	ND	5.04	101	62-127	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____ ARD19 0821

_____ Ver. by _____

Lancaster Laboratories, Inc.
Volatiles Laboratory Control Sample Recoveries

LCS: gu25l01.d
Client ID: LCSG71
Method: SW-846 8260B (25ML)
Instrument: HP16334

LCS Duplicate: gu25l02.d
Client ID: LCDG71
Matrix/Level: WL
Dilution Factor: 1.0

Batch: G091761AA

COMPOUND NAME	SPIKE LEVEL	LCS CONC UG/L	LCSD CONC UG/L	LCS REC %	LCSD REC %	Range LOWER-UPPER	RPD %	RPD MAX	INSPEC
Dichlorodifluoromethane	5.00	5.85	6.02	117	120	28-149	3	30	YES
Chloromethane	5.00	6.86	6.85	137	137	55-135	0	30	NO
Vinyl Chloride	5.00	5.64	5.71	113	114	55-126	1	30	YES
Bromomethane	5.00	6.31	6.36	126	127	66-124	1	30	NO
Chloroethane	5.00	6.28	6.50	126	130	67-124	3	30	NO
Dichlorofluoromethane	5.00	5.82	5.55	116	111	76-131	5	30	YES
Trichlorofluoromethane	5.00	5.53	5.37	111	107	62-142	3	30	YES
Ethyl Ether	5.00	4.67	4.57	93	91	61-129	2	30	YES
Freon 123a	5.00	5.00	4.93	100	99	74-132	1	30	YES
Acrolein	37.50	30.79	33.71	82	90	32-129	9	30	YES
1,1-Dichloroethene	5.00	4.80	4.78	96	96	85-120	0	30	YES
Freon 113	5.00	4.67	4.73	93	95	78-132	1	30	YES
Acetone	37.50	37.39	40.73	100	109	74-137	9	30	YES
Methyl Iodide	5.00	4.69	4.74	94	95	77-119	1	30	YES
Carbon Disulfide	5.00	4.60	4.73	92	95	73-133	3	30	YES
Allyl Chloride	5.00	4.78	4.87	96	97	71-132	2	30	YES
Methyl Acetate	5.00	5.43	4.95	109	99	68-134	9	30	YES
Methylene Chloride	5.00	4.57	4.65	91	93	86-116	2	30	YES
t-Butyl Alcohol	50.00	44.11	48.08	88	96	61-127	9	30	YES
Acrylonitrile	25.00	25.53	27.58	102	110	76-135	8	30	YES
trans-1,2-Dichloroethene	5.00	4.94	4.97	99	99	88-112	1	30	YES
1,2-Dichloroethene (Total)	10.00	9.83	9.86	98	99	89-111	0	30	YES
Methyl Tertiary Butyl Ether	5.00	4.65	4.63	93	93	79-117	0	30	YES
n-Hexane	5.00	4.56	4.54	91	91	73-128	1	30	YES
1,1-Dichloroethane	5.00	5.00	5.02	100	100	89-115	0	30	YES
di-Isopropyl Ether	5.00	4.91	4.91	98	98	74-129	0	30	YES
2-Chloro-1,3-Butadiene	5.00	4.96	4.99	99	100	88-130	1	30	YES
Ethyl t-Butyl Ether	5.00	4.72	4.78	94	96	77-117	1	30	YES
2,2-Dichloropropane	5.00	4.97	4.97	99	99	81-128	0	30	YES
cis-1,2-Dichloroethene	5.00	4.89	4.89	98	98	89-111	0	30	YES
2-Butanone	37.50	38.06	41.19	101	110	77-139	8	30	YES
Propionitrile	37.50	37.36	39.42	100	105	76-133	5	30	YES
Methacrylonitrile	37.50	37.46	40.68	100	108	75-134	8	30	YES
Bromochloromethane	5.00	5.02	5.06	100	101	85-117	1	30	YES
Tetrahydrofuran	25.00	24.63	27.48	99	110	77-128	11	30	YES
Chloroform	5.00	5.11	5.14	102	103	87-122	1	30	YES
1,1,1-Trichloroethane	5.00	5.14	5.22	103	104	82-130	1	30	YES
Cyclohexane	5.00	4.65	4.64	93	93	77-122	0	30	YES
1,1-Dichloropropene	5.00	4.89	4.94	98	99	89-114	1	30	YES
Carbon Tetrachloride	5.00	4.99	5.03	100	101	79-137	1	30	YES
Isobutyl Alcohol	125.00	125.72	131.98	101	106	66-140	5	30	YES
Benzene	5.00	4.90	4.90	98	98	88-112	0	30	YES
1,2-Dichloroethane	5.00	5.24	5.21	105	104	79-138	1	30	YES
t-Amyl Methyl Ether	5.00	4.67	4.69	93	94	79-119	1	30	YES
n-Heptane	5.00	4.65	4.59	93	92	72-135	1	30	YES
n-Butanol	250.00	236.44	231.14	95	92	59-125	2	30	YES
Trichloroethene	5.00	5.03	5.08	101	102	89-113	1	30	YES
Methylcyclohexane	5.00	5.01	5.02	100	100	82-122	0	30	YES
1,2-Dichloropropane	5.00	4.99	4.94	100	99	84-117	1	30	YES
Dibromomethane	5.00	5.06	5.10	101	102	86-120	1	30	YES
1,4-Dioxane	125.00	150.48	116.43	120	93	46-151	26	30	YES
Methyl Methacrylate	5.00	4.90	5.38	98	108	71-125	9	30	YES
Bromodichloromethane	5.00	5.09	5.09	102	102	85-122	0	30	YES
2-Nitropropane	5.00	5.46	5.65	109	113	55-158	3	30	YES
cis-1,3-Dichloropropene	5.00	4.84	4.86	97	97	74-116	0	30	YES
4-Methyl-2-Pentanone	25.00	24.66	24.26	99	97	69-130	2	30	YES
Toluene	5.00	4.81	4.78	96	96	88-111	1	30	YES
trans-1,3-Dichloropropene	5.00	4.95	4.89	99	98	78-121	1	30	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by RaD19 8822

Lancaster Laboratories, Inc.
Volatiles Laboratory Control Sample Recoveries

LCS: gu25l01.d
Client ID: LCSG71
Method: SW-846 8260B (25ML)
Instrument: HP16334

LCS Duplicate: gu25l02.d
Client ID: LCDG71
Matrix/Level: WL
Dilution Factor: 1.0

Batch: G091761AA

COMPOUND NAME	SPIKE LEVEL	LCS CONC UG/L	LCSD CONC UG/L	LCS REC %	LCSD REC %	Range LOWER-UPPER	RPD %	RPD MAX	INSPEC
Ethyl Methacrylate	5.00	4.62	4.59	92	92	74-116	1	30	YES
1,1,2-Trichloroethane	5.00	4.95	4.92	99	98	85-115	1	30	YES
Tetrachloroethene	5.00	5.02	4.99	100	100	85-113	1	30	YES
1,3-Dichloropropane	5.00	4.95	4.90	99	98	85-117	1	30	YES
2-Hexanone	25.00	24.63	24.38	99	98	68-134	1	30	YES
Dibromochloromethane	5.00	4.92	4.92	98	98	82-118	0	30	YES
1,2-Dibromoethane	5.00	4.89	4.85	98	97	84-115	1	30	YES
Chlorobenzene	5.00	4.94	4.93	99	99	89-108	0	30	YES
1,1,1,2-Tetrachloroethane	5.00	4.94	4.93	99	99	87-118	0	30	YES
Ethylbenzene	5.00	4.88	4.90	98	98	89-112	0	30	YES
m+p-Xylene	10.00	9.80	9.81	98	98	88-112	0	30	YES
Xylene (Total)	15.00	14.71	14.69	98	98	88-112	0	30	YES
o-Xylene	5.00	4.91	4.88	98	98	88-112	1	30	YES
Styrene	5.00	4.84	4.85	97	97	86-115	0	30	YES
Bromoform	5.00	4.80	4.80	96	96	71-121	0	30	YES
Isopropylbenzene	5.00	4.91	4.91	98	98	88-113	0	30	YES
1,1,2,2-Tetrachloroethane	5.00	4.92	4.85	98	97	75-119	1	30	YES
Bromobenzene	5.00	4.70	4.73	94	95	83-108	1	30	YES
trans-1,4-Dichloro-2-Butene	25.00	25.29	27.37	101	109	14-166	8	30	YES
1,2,3-Trichloropropane	5.00	4.69	4.66	94	93	80-116	1	30	YES
n-Propylbenzene	5.00	4.82	4.82	96	96	84-114	0	30	YES
2-Chlorotoluene	5.00	4.66	4.73	93	95	85-108	1	30	YES
4-Chlorotoluene	5.00	4.73	4.78	95	96	86-108	1	30	YES
1,3,5-Trimethylbenzene	5.00	4.79	4.84	96	97	86-112	1	30	YES
Pentachloroethane	5.00	4.87	4.95	97	99	82-119	2	30	YES
tert-Butylbenzene	5.00	4.69	4.75	94	95	84-110	1	30	YES
1,2,4-Trimethylbenzene	5.00	4.80	4.86	96	97	85-113	1	30	YES
sec-Butylbenzene	5.00	4.79	4.85	96	97	84-113	1	30	YES
1,3-Dichlorobenzene	5.00	4.86	4.90	97	98	86-107	1	30	YES
p-Isopropyltoluene	5.00	4.78	4.86	96	97	85-112	2	30	YES
1,4-Dichlorobenzene	5.00	4.91	4.86	98	97	86-107	1	30	YES
1,2,3-Trimethylbenzene	5.00	4.83	4.93	97	99	70-130	2	30	YES
Benzyl Chloride	5.00	4.85	4.63	97	93	73-122	5	30	YES
n-Butylbenzene	5.00	4.86	4.89	97	98	85-115	1	30	YES
1,2-Dichlorobenzene	5.00	4.95	4.95	99	99	86-109	0	30	YES
1,2-Dibromo-3-Chloropropane	5.00	5.04	5.32	101	106	70-133	6	30	YES
1,2,4-Trichlorobenzene	5.00	5.09	5.12	102	102	74-111	1	30	YES
Hexachlorobutadiene	5.00	4.94	4.92	99	98	79-112	0	30	YES
Naphthalene	5.00	4.88	4.85	98	97	70-114	1	30	YES
1,2,3-Trichlorobenzene	5.00	4.99	4.93	100	99	72-114	1	30	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

RAD19 6823

VOLATILE METHOD BLANK SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: gu25b01.d Lab Sample ID: VBLKG71

Date Analyzed: 06/25/09 Time Analyzed: 13:14

Matrix (soil/water) WATER Level: (low/med) LOW

Instrument ID: HP16334

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCSG71	LCSG71	gu25101.d	13:35
02	LCDG71	LCDG71	gu25102.d	13:57
03	LCS1G71	LCS1G71	gu25103.d	14:26
04	LCD1SG71	LCD1G71	gu25104.d	14:47
05	S3266	5698388	gu25s01.d	15:27
06	SS266	5698389	gu25s02.d	15:49
07	EB101	5697897	gu25s03.d	16:10
08	REB1-	5710804	gu25s03atf.d	16:10
09	EB201	5697898	gu25s04.d	16:31
10	REB2-	5710805	gu25s04atf.d	16:31
11	PARE2	5698731	gu25s05.d	16:53
12	PART2	5698732	gu25s06.d	17:14
13	PM10D	5698741	gu25s07.d	17:35
14	PM02S	5698726	gu25s08.d	17:57
15	R13M3	5702474	gu25s09.d	18:18
16	R13M3MS	5702474	gu25s10.d	18:40
17	RVATB	5702475	gu25s11.d	19:01
18	WM122	5701945	gu25s12.d	19:22
19	702TB	5703039	gu25s14.d	20:05
20	706TB	5704031	gu25s15.d	20:26
21	DDPWT	5704832	gu25s16.d	20:47
22	GGPWT	5704833	gu25s17.d	21:09
23	DYPWT	5704834	gu25s18.d	21:30
24	V5700	5704835	gu25s19.d	21:51
25	DDPWTDL	5704832	gu25s20.d	22:38

COMMENTS: G091761AA

RAD19 6824

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: gu22t01.d BFB Injection Date: 06/22/09

Instrument ID: HP16334 BFB Injection Time: 11:56

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	46.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	Greater than 50.0% of mass 95	82.2
175	5.0 - 9.0% of mass 174	5.7 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.0 (97.3)1
177	5.0 - 9.0% of mass 176	5.5 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD025	VSTD025	gu22i01.d	06/22/09	15:40
02	VSTD010	VSTD010	gu22i02.d	06/22/09	16:01
03	VSTD005	VSTD005	gu22i03.d	06/22/09	16:22
04	VSTD002	VSTD002	gu22i04.d	06/22/09	16:44
05	VSTD001	VSTD001	gu22i05.d	06/22/09	17:05
06	MDL0.1	MDL0.1	gu22m01.d	06/22/09	17:48
07	VSTD0.5	VSTD0.5	gu22i07.d	06/22/09	19:18
08	MDL0.2	MDL0.2	gu22m02.d	06/22/09	20:51
09	MDL20	MDL20	gu22m03.d	06/22/09	21:13
10	ICVGLG	ICVGLG	gu22cv4.d	06/22/09	22:37

FORM V VOA

RAD19 0025

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: gu25t01.d BFB Injection Date: 06/25/09

Instrument ID: HP16334 BFB Injection Time: 10:54

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	49.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.4 (0.4)1
174	Greater than 50.0% of mass 95	89.0
175	5.0 - 9.0% of mass 174	6.7 (7.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.3 (95.9)1
177	5.0 - 9.0% of mass 176	5.8 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	gu25c03.d	06/25/09	11:52
02	VSTD005	VSTD005	gu25c05.d	06/25/09	12:52
03	VBLKG71	VBLKG71	gu25b01.d	06/25/09	13:14
04	LCSG71	LCSG71	gu25l01.d	06/25/09	13:35
05	LCDG71	LCDG71	gu25l02.d	06/25/09	13:57
06	LCS1G71	LCS1G71	gu25l03.d	06/25/09	14:26
07	LCD1SG71	LCD1G71	gu25l04.d	06/25/09	14:47
08	S3266	5698388	gu25s01.d	06/25/09	15:27
09	SS266	5698389	gu25s02.d	06/25/09	15:49
10	EB101	5697897	gu25s03.d	06/25/09	16:10
11	REB1-	5710804	gu25s03atf.d	06/25/09	16:10
12	EB201	5697898	gu25s04.d	06/25/09	16:31
13	REB2-	5710805	gu25s04atf.d	06/25/09	16:31
14	PARE2	5698731	gu25s05.d	06/25/09	16:53
15	PART2	5698732	gu25s06.d	06/25/09	17:14
16	PM10D	5698741	gu25s07.d	06/25/09	17:35
17	PM02S	5698726	gu25s08.d	06/25/09	17:57
18	R13M3	5702474	gu25s09.d	06/25/09	18:18
19	R13M3MS	5702474	gu25s10.d	06/25/09	18:40
20	RVATB	5702475	gu25s11.d	06/25/09	19:01
21	WM122	5701945	gu25s12.d	06/25/09	19:22
22	702TB	5703039	gu25s14.d	06/25/09	20:05

RAD19 0026

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: gu25t01.d BFB Injection Date: 06/25/09

Instrument ID: HP16334 BFB Injection Time: 10:54

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	49.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.4 (0.4)1
174	Greater than 50.0% of mass 95	89.0
175	5.0 - 9.0% of mass 174	6.7 (7.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.3 (95.9)1
177	5.0 - 9.0% of mass 176	5.8 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	706TB	5704031	gu25s15.d	06/25/09	20:26
24	DDPWT	5704832	gu25s16.d	06/25/09	20:47
25	GGPWT	5704833	gu25s17.d	06/25/09	21:09
26	DYPWT	5704834	gu25s18.d	06/25/09	21:30
27	V5700	5704835	gu25s19.d	06/25/09	21:51
28	DDPWTDL	5704832	gu25s20.d	06/25/09	22:38

RAD19 0827

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID (Standard): gu25c03.d Date Analyzed: 06/25/09

Instrument ID: HP16334 Time Analyzed: 11:52

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	77504	4.666	1936141	8.122	1419503	11.475	815886	13.316
	UPPER LIMIT	155008	5.166	3872282	8.622	2839006	11.975	1631772	13.816
	LOWER LIMIT	38752	4.166	968070	7.622	709752	10.975	407943	12.816
	EPA SAMPLE NO.								
01	VBLKG71	81487	4.665	1862707	8.116	1364862	11.475	749052	13.316
02	LCSG71	84614	4.659	1917696	8.116	1398317	11.475	809365	13.316
03	LCDG71	77985	4.666	1935654	8.122	1419223	11.475	812899	13.316
04	LCS1G71	90949	4.665	1921649	8.122	1410796	11.475	769161	13.316
05	LCD1G71	85771	4.672	1904108	8.122	1402946	11.475	765427	13.316
06	S3266	87516	4.678	1813896	8.122	1345533	11.475	760574	13.316
07	SS266	87641	4.684	1830547	8.122	1342207	11.475	775922	13.316
08	EB101	78581	4.671	1855353	8.116	1357288	11.475	740530	13.316
09	REB1-	78581	4.671	1855353	8.116	1357288	11.475	740530	13.316
10	EB201	66146	4.684	1801023	8.122	1323592	11.475	723837	13.316
11	REB2-	66146	4.684	1801023	8.122	1323592	11.475	723837	13.316
12	PARE2	57449	4.672	1772270	8.122	1303451	11.475	709386	13.316
13	PART2	65033	4.665	1756770	8.122	1284803	11.475	703290	13.316
14	PM10D	56471	4.671	1711705	8.122	1261644	11.475	713359	13.316
15	PM02S	66365	4.665	1823061	8.122	1328854	11.475	728833	13.316
16	R13M3	62737	4.672	1766953	8.122	1292703	11.475	707535	13.316
17	R13M3MS	65079	4.647	1801932	8.116	1317690	11.475	764089	13.316
18	RVATB	66475	4.684	1756856	8.116	1284121	11.475	702535	13.316
19	WM122	59224	4.678	1681971	8.116	1228771	11.475	668649	13.316
20	702TB	63631	4.665	1683399	8.116	1230654	11.475	673835	13.316
21	706TB	67076	4.678	1670015	8.122	1232971	11.475	668465	13.316
22	DDPWT	57975	4.666	1646505	8.116	1203991	11.469	655213	13.316

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

RAD19 0828

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID (Standard): gu25c03.d Date Analyzed: 06/25/09

Instrument ID: HP16334 Time Analyzed: 11:52

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
	12 HOUR STD	77504	4.666	1936141	8.122	1419503	11.475	815886	13.316
	UPPER LIMIT	155008	5.166	3872282	8.622	2839006	11.975	1631772	13.816
	LOWER LIMIT	38752	4.166	968070	7.622	709752	10.975	407943	12.816
	EPA SAMPLE NO.								
23	GGPWT	57397	4.665	1615756	8.116	1185476	11.475	635904	13.316
24	DYPWT	53645	4.671	1636973	8.122	1197786	11.475	645690	13.316
25	V5700	57090	4.659	1625334	8.122	1184869	11.475	643656	13.316
26	DDPWTDL	49971	4.696	1636973	8.122	1203360	11.475	652220	13.316

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

RAD19 6829

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Sample Data

BAD19 0030

Lancaster Laboratories

Component	MDL	LOQ	Units
02898: EPA SW846/8260 (water-25ml)			
Dichlorofluoromethane	0.20	0.50	ug/l
Methyl Acetate	0.30	1.0	ug/l
Methylcyclohexane	0.10	0.50	ug/l
Dichlorodifluoromethane	0.10	0.50	ug/l
Chloromethane	0.20	0.50	ug/l
Vinyl Chloride	0.10	0.50	ug/l
Bromomethane	0.10	0.50	ug/l
Chloroethane	0.10	0.50	ug/l
Trichlorofluoromethane	0.10	0.50	ug/l
Ethyl ether	0.20	0.50	ug/l
Freon 123a	5.0	25.0	ug/l
Acrolein	0.10	0.50	ug/l
1,1-Dichloroethene	0.20	0.50	ug/l
Freon 113	3.0	5.0	ug/l
Acetone	0.10	0.50	ug/l
Methyl Iodide	0.40	0.50	ug/l
Carbon Disulfide	7.0	20.0	ug/l
Acetonitrile	0.10	0.50	ug/l
Allyl Chloride	0.20	0.50	ug/l
Methylene Chloride	4.0	10	ug/l
t-Butyl Alcohol	1.0	5.0	ug/l
Acrylonitrile	0.10	0.50	ug/l
trans-1,2-Dichloroethene	0.10	0.50	ug/l
Methyl Tertiary Butyl Ether	0.10	0.50	ug/l
n-Hexane	0.10	0.50	ug/l
1,1-Dichloroethane	0.10	0.50	ug/l
di-Isopropyl Ether	0.20	0.50	ug/l
Vinyl Acetate	0.10	0.50	ug/l
2-Chloro-1,3-Butadiene	0.10	0.50	ug/l
Ethyl t-butyl ether	1.0	5.0	ug/l
2-Butanone	0.10	0.50	ug/l
cis-1,2-Dichloroethene	0.10	0.50	ug/l
2,2-Dichloropropane	2.0	10	ug/l
Propionitrile	1.0	5.0	ug/l
Methacrylonitrile	0.10	0.50	ug/l
Bromochloromethane	2.0	5.0	ug/l
Tetrahydrofuran	0.10	0.50	ug/l
Chloroform	0.10	0.50	ug/l
1,1,1-Trichloroethane	0.10	0.50	ug/l
Cyclohexane	0.10	0.50	ug/l
1,1-Dichloropropene	0.10	0.50	ug/l
Carbon Tetrachloride	10	25.0	ug/l
Isobutyl Alcohol	0.10	0.50	ug/l
Benzene	0.10	0.50	ug/l
1,2-Dichloroethane	0.10	0.50	ug/l
t-Amyl methyl ether	0.20	0.50	ug/l
n-Heptane	20.0	50	ug/l
n-Butanol	0.10	0.50	ug/l
Trichloroethene	0.10	0.50	ug/l
1,2-Dichloropropane	0.10	0.50	ug/l
Dibromomethane	0.10	0.50	ug/l
Methyl Methacrylate	20.0	100	ug/l
1,4-Dioxane	0.10	0.50	ug/l
Bromodichloromethane	1.0	5.0	ug/l
2-Nitropropane			

RAD19 P831

Lancaster Laboratories

Component	MDL	LOQ	Units
02898: EPA SW846/8260 (water-25ml)			
2-Chloroethyl vinyl ether	0.10	0.50	ug/l
cis-1,3-Dichloropropene	0.10	0.50	ug/l
4-Methyl-2-Pentanone	1.0	5.0	ug/l
Toluene	0.10	0.50	ug/l
trans-1,3-Dichloropropene	0.10	0.50	ug/l
Ethyl Methacrylate	0.10	0.50	ug/l
1,1,2-Trichloroethane	0.10	0.50	ug/l
Tetrachloroethene	0.10	0.50	ug/l
1,3-Dichloropropane	0.10	0.50	ug/l
2-Hexanone	1.0	5.0	ug/l
Dibromochloromethane	0.10	0.50	ug/l
1,2-Dibromoethane	0.10	0.50	ug/l
Chlorobenzene	0.10	0.50	ug/l
1,1,1,2-Tetrachloroethane	0.10	0.50	ug/l
Ethylbenzene	0.10	0.50	ug/l
m+p-Xylene	0.10	0.50	ug/l
o-Xylene	0.10	0.50	ug/l
Styrene	0.10	0.50	ug/l
Bromoform	0.10	0.50	ug/l
Isopropylbenzene	0.10	0.50	ug/l
Cyclohexanone	5.0	25.0	ug/l
cis-1,4-Dichloro-2-butene	0.40	1.0	ug/l
1,1,2,2-Tetrachloroethane	0.10	0.50	ug/l
Bromobenzene	0.10	0.50	ug/l
trans-1,4-Dichloro-2-butene	1.0	5.0	ug/l
1,2,3-Trichloropropane	0.30	1.0	ug/l
n-Propylbenzene	0.10	0.50	ug/l
2-Chlorotoluene	0.10	0.50	ug/l
1,3,5-Trimethylbenzene	0.10	0.50	ug/l
4-Chlorotoluene	0.10	0.50	ug/l
tert-Butylbenzene	0.10	0.50	ug/l
Pentachloroethane	0.20	0.50	ug/l
1,2,4-Trimethylbenzene	0.10	0.50	ug/l
sec-Butylbenzene	0.10	0.50	ug/l
1,3-Dichlorobenzene	0.10	0.50	ug/l
p-Isopropyltoluene	0.10	0.50	ug/l
1,4-Dichlorobenzene	0.10	0.50	ug/l
Benzyl Chloride	0.10	0.50	ug/l
1,2,3-Trimethylbenzene	0.10	0.50	ug/l
n-Butylbenzene	0.10	0.50	ug/l
1,2-Dichlorobenzene	0.10	0.50	ug/l
1,2-Dibromo-3-chloropropane	0.20	0.50	ug/l
1,2,4-Trichlorobenzene	0.10	0.50	ug/l
Hexachlorobutadiene	0.10	0.50	ug/l
Naphthalene	0.10	0.50	ug/l
1,2,3-Trichlorobenzene	0.10	0.50	ug/l
Hexachloroethane	0.10	0.50	ug/l
Dimethyl ether	0.10	0.50	ug/l

RAB19 8832

R13M3

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5702474

File: /chem2/HP16334.i/09jun25a.b/gu25s09.d
Sample: R13M3;5702474;1;0;;
Injected At:25-JUN-2009 18:18
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: TT

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
35) t-Butyl Alcohol-d10	4.672(-0.006)	506	65	62737(-19)	50.00	
76) Fluorobenzene	8.122(0.000)	1072	96	1766953(-9)	10.00	
109) Chlorobenzene-d5	11.475(0.000)	1622	117	1292703(-9)	10.00	
142) 1,4-Dichlorobenzene-d4	13.316(0.000)	1924	152	707535(-13)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
60) Dibromofluoromethane	(1)	7.214(0.000)	113	417837	9.261	93%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.677(0.001)	102	74887	9.237	92%		74 - 113
96) Toluene-d8	(2)	10.073(0.000)	98	1785204	9.161	92%		77 - 110
125) 4-Bromofluorobenzene	(2)	12.444(0.000)	95	573690	8.545	85%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Reporting Qual.	Reporting Limit	LOQ
14) Trichlorofluoromethane	(1)	3.269(0.001)	101	12108	0.153	0.15		J	0.10	0.50
62) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: Client

Analyst: [signature] Date: 6/26/09

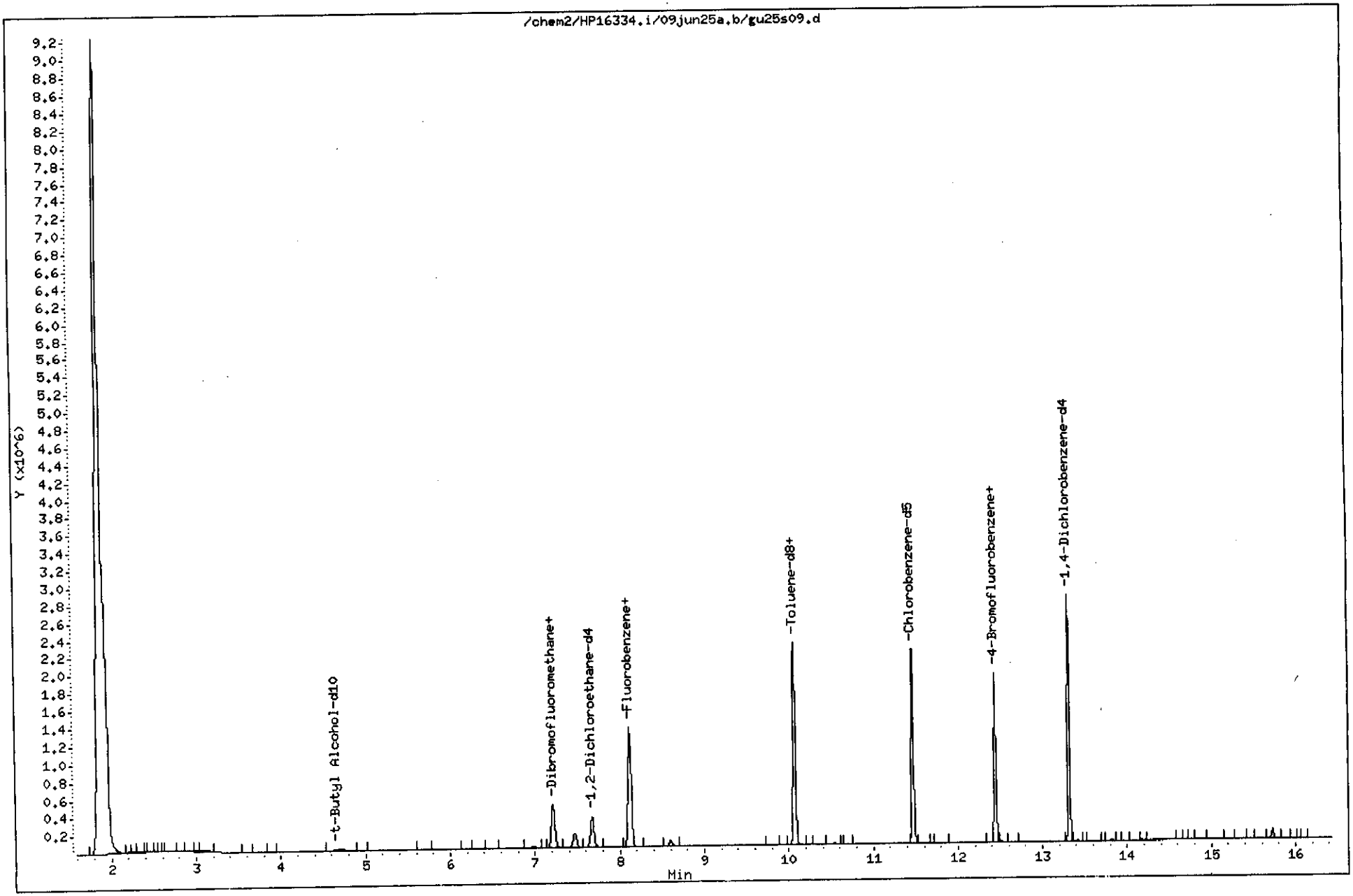
Auditor: [signature] Date: 6-26-09

RAD19 8833

Data File: /chem2/HP16334.i/09jun25a.b/gu25s09.d
Date : 25-JUN-2009 18:18
Client ID: R13M3
Sample Info: R13M3;5702474;1;0;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25s09.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:18 Analyst ID: JML01693

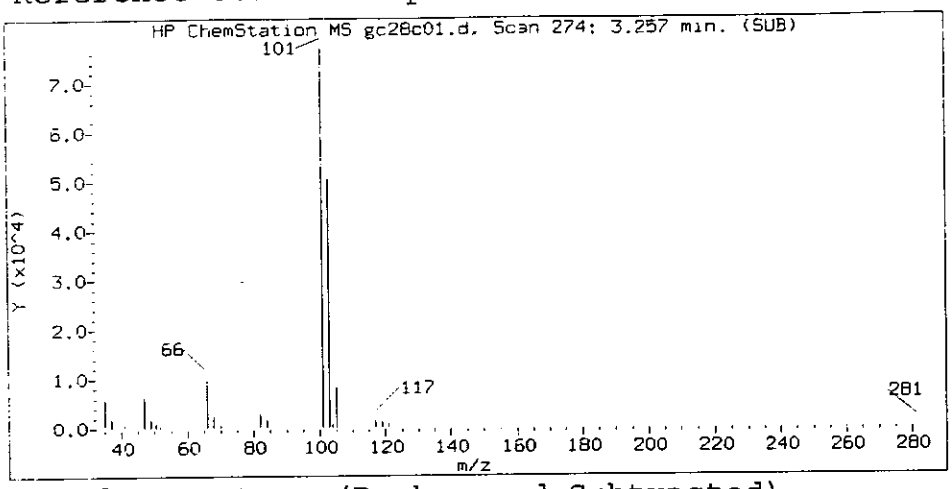
Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: TT
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 20:02 lcm01518

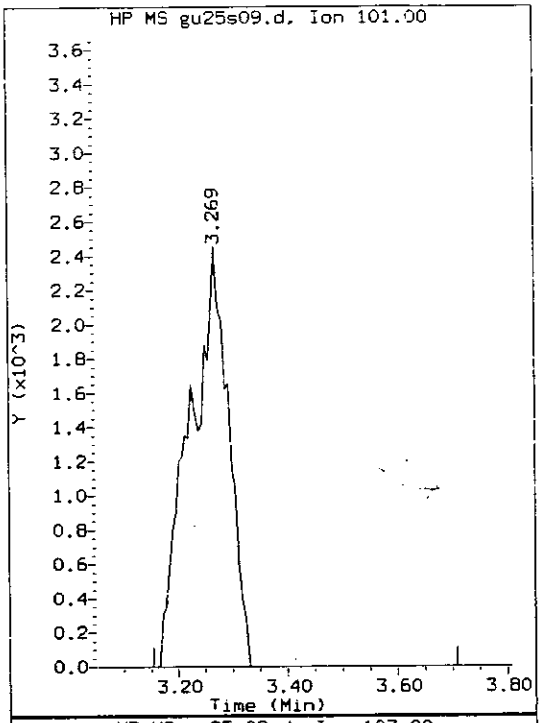
Sample Name: R13M3 Lab Sample ID: 5702474

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
14) Trichlorofluoromethane	(1)	3.269	101	12108	0.153
35) *t-Butyl Alcohol-d10	(4)	4.672	65	62737	50.000
76) *Fluorobenzene	(1)	8.122	96	1766953	10.000
109) *Chlorobenzene-d5	(2)	11.475	117	1292703	10.000
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	707535	10.000
60) $Dibromofluoromethane	(1)	7.214	113	417837	9.261
69) $1,2-Dichloroethane-d4	(1)	7.677	102	74887	9.237
96) $Toluene-d8	(2)	10.073	98	1785204	9.161
125) $4-Bromofluorobenzene	(2)	12.444	95	573690	8.545

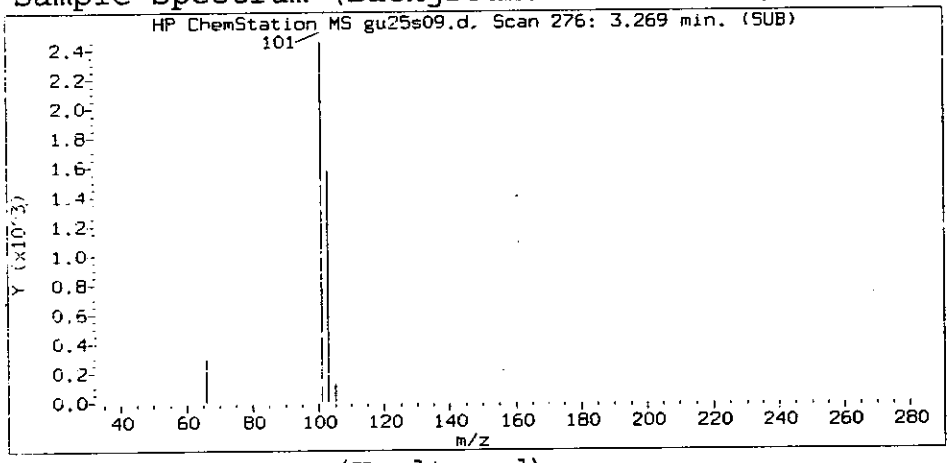
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

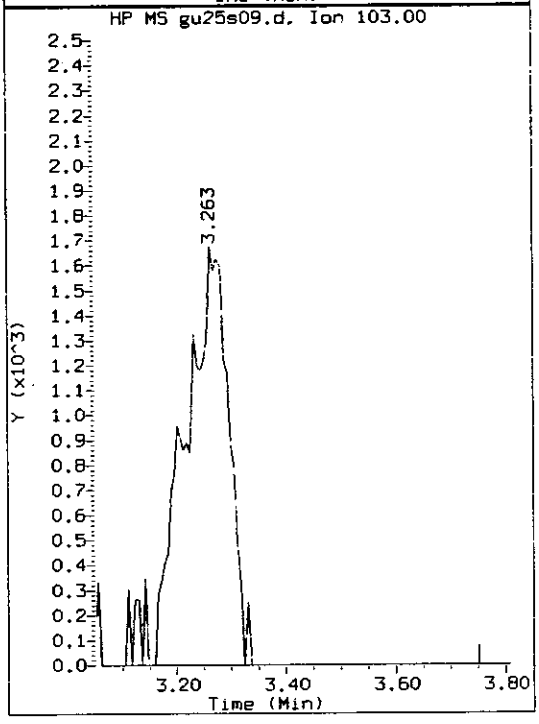
Reference Standard Spectrum for Trichlorofluoromethane



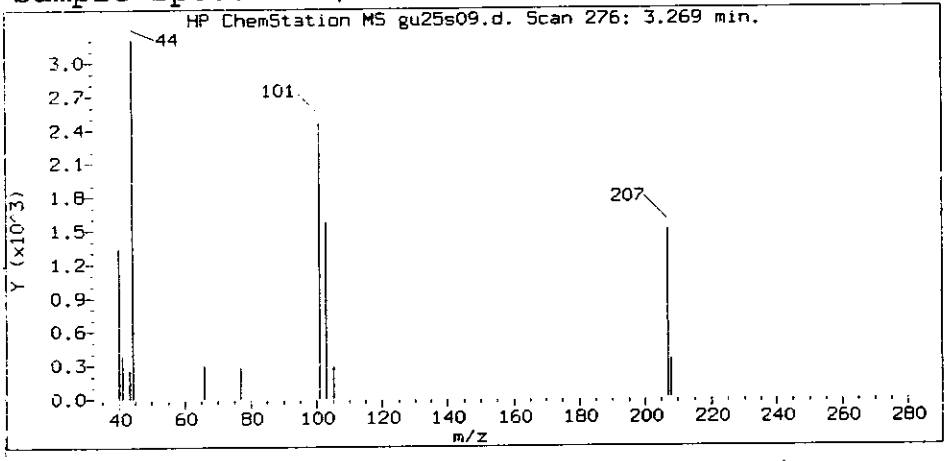


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP16334.i/09jun25a.b/gu25s09.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:18 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: TT
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 20:02 lcm01518

Sample Name: R13M3 Lab Sample ID: 5702474

Compound Number	:	14
Compound Name	:	Trichlorofluoromethane
Scan Number	:	276
Retention Time (minutes)	:	3.269
Quant Ion	:	101.0
Area (flag)	:	12108
Concentration (ug/L)	:	0.1532

BAB19 0036

RVATB

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5702475

File: /chem2/HP16334.i/09jun25a.b/gu25s11.d
Sample: RVATB;5702475;1;0;;
Injected At:25-JUN-2009 19:01
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: TT

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
35) t-Butyl Alcohol-d10	4.684(-0.018)	508	65	66475(-14)	50.00	
76) Fluorobenzene	8.116(0.006)	1071	96	1756856(-9)	10.00	
109) Chlorobenzene-d5	11.475(0.000)	1622	117	1284121(-10)	10.00	
142) 1,4-Dichlorobenzene-d4	13.316(0.000)	1924	152	702535(-14)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
60) Dibromofluoromethane	(1)	7.214(-0.001)	113	415105	9.253	93%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.677(0.000)	102	73378	9.103	91%		74 - 113
96) Toluene-d8	(2)	10.073(0.000)	98	1784550	9.219	92%		77 - 110
125) 4-Bromofluorobenzene	(2)	12.444(0.000)	95	573472	8.599	86%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
14) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
62) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: Linda Date: 6/26/09

Auditor: [signature] Date: 6/26/09

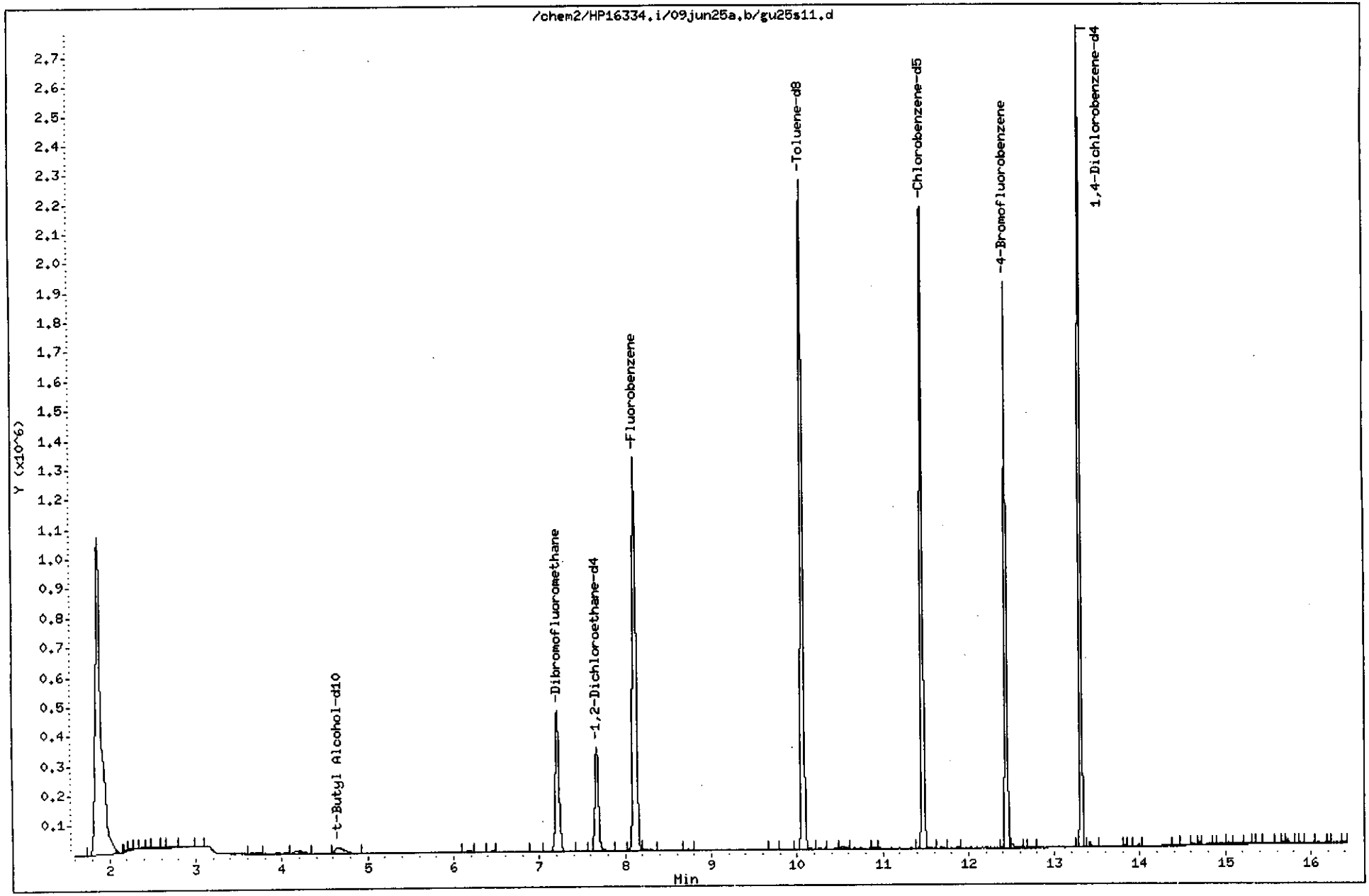
RAD19 8837

RAD15808

Data File: /chem2/HP16334.i/09jun25a.b/gu25s11.d
Date : 25-JUN-2009 19:01
Client ID: RVATB
Sample Info: RVATB;5702475;1;0;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25s11.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 19:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: TT
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 19:18 Automation

Sample Name: RVATB Lab Sample ID: 5702475

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
35)*t-Butyl Alcohol-d10	(4)	4.684	65	66475	50.000
76)*Fluorobenzene	(1)	8.116	96	1756856	10.000
109)*Chlorobenzene-d5	(2)	11.475	117	1284121	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	702535	10.000
60)$Dibromofluoromethane	(1)	7.214	113	415105	9.253
69)$1,2-Dichloroethane-d4	(1)	7.677	102	73378	9.103
96)$Toluene-d8	(2)	10.073	98	1784550	9.219
125)$4-Bromofluorobenzene	(2)	12.444	95	573472	8.599

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Standards Data

RADIS 0040

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date(s): 06/22/09 06/22/09

Heated Purge: (Y/N) Y Calibration Times: 15:40 19:18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 0.5 gu22i07.d RRF 1 = gu22i05.d RRF 2 = gu22i04.d
RRF 5 = gu22i03.d RRF 10= gu22i02.d RRF 25= gu22i01.d RRF =

COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD	
Dichlorodifluoromethane	0.4470	0.3942	0.3522	0.3525	0.3561	0.3333		0.3725	11	AVG	
Chloromethane	#0.4393	0.3458	0.3108	0.2979	0.3062	0.3032		0.3339	16	1STDEG	#
Vinyl Chloride	*0.4632	0.3587	0.3321	0.3272	0.3338	0.3281		0.3572	15	AVG	*
Bromomethane	0.3996	0.3150	0.2810	0.2579	0.2556	0.2348		0.2906	21	2NDDEG	
Chloroethane	0.2722	0.2245	0.2041	0.1803	0.1782	0.1641		0.2039	19	2NDDEG	
Dichlorofluoromethane	0.7250	0.5750	0.5058	0.4991	0.5142	0.4855		0.5508	16	2NDDEG	
Trichlorofluoromethane	0.5191	0.4458	0.4315	0.4242	0.4353	0.4279		0.4473	8	AVG	
Ethyl Ether	0.3715	0.1618	0.1643	0.1609	0.1664	0.1649		0.1983	43	1STDEG	
Freon 123a	0.3762	0.3270	0.3058	0.3002	0.3066	0.2924		0.3180	10	AVG	
Acrolein	2.7038	2.3985	2.2959	2.4125	2.3280	2.2991		2.4063	6	AVG	
1,1-Dichloroethene	*0.3039	0.2563	0.2394	0.2548	0.2443	0.2444		0.2572	9	AVG	*
Freon 113	0.3027	0.2809	0.2559	0.2846	0.2737	0.2651		0.2771	6	AVG	
Acetone	1.2019	1.0301	1.0050	1.0032	0.9498	0.9244		1.0191	10	AVG	
Methyl Iodide	0.5424	0.4812	0.4533	0.4783	0.4618	0.4570		0.4790	7	AVG	
Carbon Disulfide	0.7662	0.7275	0.6780	0.7498	0.7271	0.7185		0.7278	4	AVG	
Allyl Chloride	0.4003	0.3307	0.3226	0.3250	0.3397	0.3372		0.3426	8	AVG	
Methyl Acetate	0.1150	0.0890	0.0710	0.0685	0.0708	0.0700		0.0807	23	1STDEG	
Methylene Chloride	0.4530	0.4369	0.3513	0.3021	0.2714	0.2548		0.3449	24	2NDDEG	
t-Butyl Alcohol	1.6960	1.2628	1.2069	1.2611	1.2264	1.1636		1.3028	15	AVG	
Acrylonitrile	4.7921	4.3073	4.1696	4.3020	4.1551	4.1332		4.3099	6	AVG	
trans-1,2-Dichloroethene	0.3327	0.2876	0.2742	0.2877	0.2764	0.2794		0.2896	8	AVG	
1,2-Dichloroethene (Total)	0.3423	0.2977	0.2821	0.2958	0.2857	0.2887		0.2987	7	AVG	
Methyl Tertiary Butyl Ether	0.6302	0.5488	0.5269	0.5495	0.5331	0.5288		0.5529	7	AVG	
n-Hexane	0.4192	0.3918	0.3609	0.3866	0.3721	0.3631		0.3823	6	AVG	
1,1-Dichloroethane	#0.5189	0.4540	0.4319	0.4496	0.4332	0.4315		0.4532	7	AVG	#
di-Isopropyl Ether	0.8610	0.7640	0.7330	0.7719	0.7483	0.7467		0.7708	6	AVG	
2-Chloro-1,3-Butadiene	0.4478	0.3958	0.3753	0.4000	0.3872	0.3901		0.3993	6	AVG	
Ethyl t-Butyl Ether	0.7818	0.6985	0.6681	0.7127	0.6911	0.6881		0.7067	6	AVG	
2,2-Dichloropropane	0.4175	0.3712	0.3517	0.3761	0.3636	0.3629		0.3738	6	AVG	
cis-1,2-Dichloroethene	0.3519	0.3077	0.2901	0.3040	0.2950	0.2980		0.3078	7	AVG	
2-Butanone	6.2425	5.4084	5.1297	5.3177	5.0887	5.0412		5.3714	8	AVG	
Propionitrile	1.8158	1.5704	1.5330	1.5997	1.5223	1.5074		1.5914	7	AVG	
Methacrylonitrile	6.5573	5.8382	5.6739	5.9668	5.7790	5.8240		5.9399	5	AVG	
Bromochloromethane	0.1432	0.1175	0.1211	0.1189	0.1251	0.1251		0.1251	7	AVG	
Tetrahydrofuran	1.8443	1.6073	1.5843	1.6376	1.5820	1.5887		1.6407	6	AVG	
Chloroform	*0.5335	0.4689	0.4488	0.4674	0.4519	0.4540		0.4707	7	AVG	*
1,1,1-Trichloroethane	0.4485	0.3999	0.3752	0.4025	0.3884	0.3888		0.4005	6	AVG	
Cyclohexane	0.5169	0.4640	0.4318	0.4658	0.4460	0.4365		0.4602	7	AVG	
1,1-Dichloropropene	0.4175	0.3679	0.3441	0.3677	0.3548	0.3580		0.3683	7	AVG	
Carbon Tetrachloride	0.3958	0.3532	0.3303	0.3585	0.3491	0.3520		0.3565	6	AVG	
Isobutyl Alcohol	0.5353	0.3954	0.3863	0.3871	0.3727	0.3694		0.4077	16	2NDDEG	
Benzene	1.2851	1.1298	1.0690	1.1296	1.0915	1.1037		1.1348	7	AVG	
1,2-Dichloroethane	0.2861	0.2497	0.2365	0.2480	0.2389	0.2378		0.2495	8	AVG	
1,2-Dichloroethane(mz98)	0.0278	0.0238	0.0235	0.0249	0.0241	0.0243		0.0247	6	AVG	
t-Amyl Methyl Ether	0.6847	0.5996	0.5801	0.6084	0.5926	0.5905		0.6093	6	AVG	
n-Heptane	0.4392	0.4105	0.3669	0.3949	0.3763	0.3658		0.3923	7	AVG	
n-Butanol	0.4281	0.3165	0.3124	0.3510	0.3477	0.3476		0.3505	12	AVG	
Trichloroethene	0.3399	0.2970	0.2825	0.2976	0.2904	0.2949		0.3004	7	AVG	
Methylcyclohexane	0.5484	0.4895	0.4894	0.4903	0.5069	0.4926		0.5028	5	AVG	
1,2-Dichloropropane	*0.2912	0.2576	0.2480	0.2590	0.2521	0.2535		0.2602	6	AVG	*
Dibromomethane	0.1301	0.1122	0.1098	0.1151	0.1116	0.1125		0.1152	7	AVG	
1,4-Dioxane	0.1134	0.0965	0.0960	0.0971	0.0984	0.0962		0.0996	7	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

RAD19 8841

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date(s): 06/22/09 06/22/09

Heated Purge: (Y/N) Y Calibration Times: 15:40 19:18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 0.5 gu22i07.d RRF 1 = gu22i05.d RRF 2 = gu22i04.d
RRF 5 = gu22i03.d RRF 10= gu22i02.d RRF 25= gu22i01.d RRF =

COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD	
Methyl Methacrylate	12.651	11.117	10.752	11.251	11.256	11.292		11.386	6	AVG	
Bromodichloromethane	0.3469	0.2963	0.2944	0.3122	0.3072	0.3121		0.3115	6	AVG	
2-Nitropropane	3.4984	2.8590	2.8310	2.9845	2.9037	2.9335		3.0017	8	AVG	
cis-1,3-Dichloropropene	0.3846	0.3442	0.3394	0.3615	0.3578	0.3656		0.3589	5	AVG	
4-Methyl-2-Pentanone	0.1461	0.1140	0.1120	0.1182	0.1154	0.1152		0.1201	11	AVG	
Toluene	*1.1337	1.0906	0.9699	1.0222	0.9975	1.0205		1.0391	6	AVG	*
trans-1,3-Dichloropropene	0.4227	0.3718	0.3710	0.3975	0.3972	0.4077		0.3946	5	AVG	
Ethyl Methacrylate	0.3479	0.2892	0.2899	0.3129	0.3087	0.3153		0.3106	7	AVG	
1,1,2-Trichloroethane	0.2669	0.2244	0.2195	0.2294	0.2229	0.2245		0.2313	8	AVG	
Tetrachloroethene	0.5335	0.4679	0.4408	0.4668	0.4551	0.4675		0.4719	7	AVG	
1,3-Dichloropropane	0.4437	0.3829	0.3663	0.3833	0.3727	0.3772		0.3877	7	AVG	
2-Hexanone	0.1396	0.1092	0.1075	0.1113	0.1082	0.1081		0.1140	11	AVG	
Dibromochloromethane	0.3069	0.2697	0.2652	0.2926	0.2905	0.2980		0.2871	6	AVG	
1,2-Dibromoethane	0.2523	0.2110	0.2095	0.2216	0.2164	0.2161		0.2211	7	AVG	
Chlorobenzene	#1.3059	1.1135	1.0725	1.1206	1.0968	1.1093		1.1364	7	AVG	#
1,1,1,2-Tetrachloroethane	0.4079	0.3481	0.3447	0.3732	0.3712	0.3875		0.3721	6	AVG	
Ethylbenzene	*2.2262	1.9578	1.8543	1.9648	1.9461	1.9970		1.9910	6	AVG	*
m+p-Xylene	0.8836	0.7841	0.7476	0.7928	0.7940	0.8246		0.8044	6	AVG	
Xylene (Total)	0.8685	0.7731	0.7370	0.7858	0.7856	0.8167		0.7944	6	AVG	
o-Xylene	0.8383	0.7512	0.7158	0.7718	0.7688	0.8008		0.7744	5	AVG	
Styrene	1.3375	1.1655	1.1341	1.2285	1.2282	1.2876		1.2302	6	AVG	
Bromoform	#0.1615	0.1357	0.1378	0.1536	0.1540	0.1619		0.1507	8	AVG	#
Isopropylbenzene	2.1892	1.8845	1.7974	1.9309	1.9062	1.9449		1.9422	7	AVG	
1,1,2,2-Tetrachloroethane	#0.5822	0.4423	0.4356	0.4637	0.4583	0.4548		0.4728	12	AVG	#
Bromobenzene	0.9539	0.8109	0.7740	0.8265	0.8180	0.8498		0.8388	7	AVG	
trans-1,4-Dichloro-2-Butene	5.1791	4.3683	4.3251	4.7102	4.6237	4.6519		4.6430	7	AVG	
1,2,3-Trichloropropane	0.1625	0.1270	0.1258	0.1353	0.1321	0.1374		0.1367	10	AVG	
n-Propylbenzene	4.8541	4.1987	4.0107	4.3104	4.2050	4.1531		4.2887	7	AVG	
2-Chlorotoluene	1.0342	0.8799	0.8231	0.8741	0.8604	0.8674		0.8899	8	AVG	
4-Chlorotoluene	1.0570	0.8905	0.8515	0.9018	0.8789	0.8920		0.9119	8	AVG	
1,3,5-Trimethylbenzene	3.3907	2.9531	2.8322	3.0676	3.0340	3.0578		3.0559	6	AVG	
Pentachloroethane	0.5564	0.4450	0.4600	0.4935	0.5386	0.5656		0.5099	10	AVG	
tert-Butylbenzene	0.7676	0.6522	0.6191	0.6750	0.6838	0.6853		0.6805	7	AVG	
1,2,4-Trimethylbenzene	3.5199	3.0694	2.9622	3.1963	3.1801	3.2519		3.1966	6	AVG	
sec-Butylbenzene	4.4577	3.9347	3.7129	4.0404	3.9543	3.9381		4.0063	6	AVG	
1,3-Dichlorobenzene	2.0644	1.7124	1.6381	1.7573	1.7594	1.8148		1.7911	8	AVG	
p-Isopropyltoluene	3.8366	3.3783	3.1919	3.4954	3.4984	3.5736		3.4957	6	AVG	
1,4-Dichlorobenzene	2.1144	1.7360	1.6662	1.7445	1.7188	1.7491		1.7882	9	AVG	
1,2,3-Trimethylbenzene	1.5966	1.2826	1.2953	1.3015	1.3794	1.3799		1.3725	9	AVG	
Benzyl Chloride	0.2219	0.1742	0.1824	0.2131	0.2150	0.2229		0.2049	10	AVG	
n-Butylbenzene	2.0199	1.7252	1.6571	1.7895	1.7709	1.7853		1.7913	7	AVG	
1,2-Dichlorobenzene	1.7746	1.4712	1.4088	1.4853	1.4747	1.5032		1.5196	8	AVG	
1,2-Dibromo-3-Chloropropane	3.2042	2.6263	2.6113	2.8386	2.8359	2.9330		2.8415	8	AVG	
1,2,4-Trichlorobenzene	1.3774	1.1479	1.0918	1.1604	1.1511	1.1592		1.1813	8	AVG	
Hexachlorobutadiene	0.7202	0.6094	0.5667	0.6169	0.6135	0.6104		0.6228	8	AVG	
Naphthalene	2.0207	1.5761	1.5545	1.6695	1.6599	1.6187		1.6832	10	AVG	
1,2,3-Trichlorobenzene	1.1694	0.9228	0.8886	0.9388	0.9313	0.9118		0.9604	11	AVG	
Dibromofluoromethane	0.2842	0.2416	0.2475	0.2518	0.2564	0.2507		0.2553	6	AVG	
Dibromofluoromethane(mz111)	0.2788	0.2534	0.2500	0.2579	0.2607	0.2561		0.2595	4	AVG	
1,2-Dichloroethane-d4	0.0505	0.0434	0.0445	0.0457	0.0461	0.0451		0.0459	5	AVG	
1,2-Dichloroethane-d4(mz65)	0.2335	0.2015	0.1997	0.1995	0.2021	0.1954		0.2053	7	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

RAB19 0042

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date(s): 06/22/09 06/22/09

Heated Purge: (Y/N) Y Calibration Times: 15:40 19:18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 0.5 gu22i07.d RRF 1 = gu22i05.d RRF 2 = gu22i04.d
RRF 5 = gu22i03.d RRF 10= gu22i02.d RRF 25= gu22i01.d RRF =

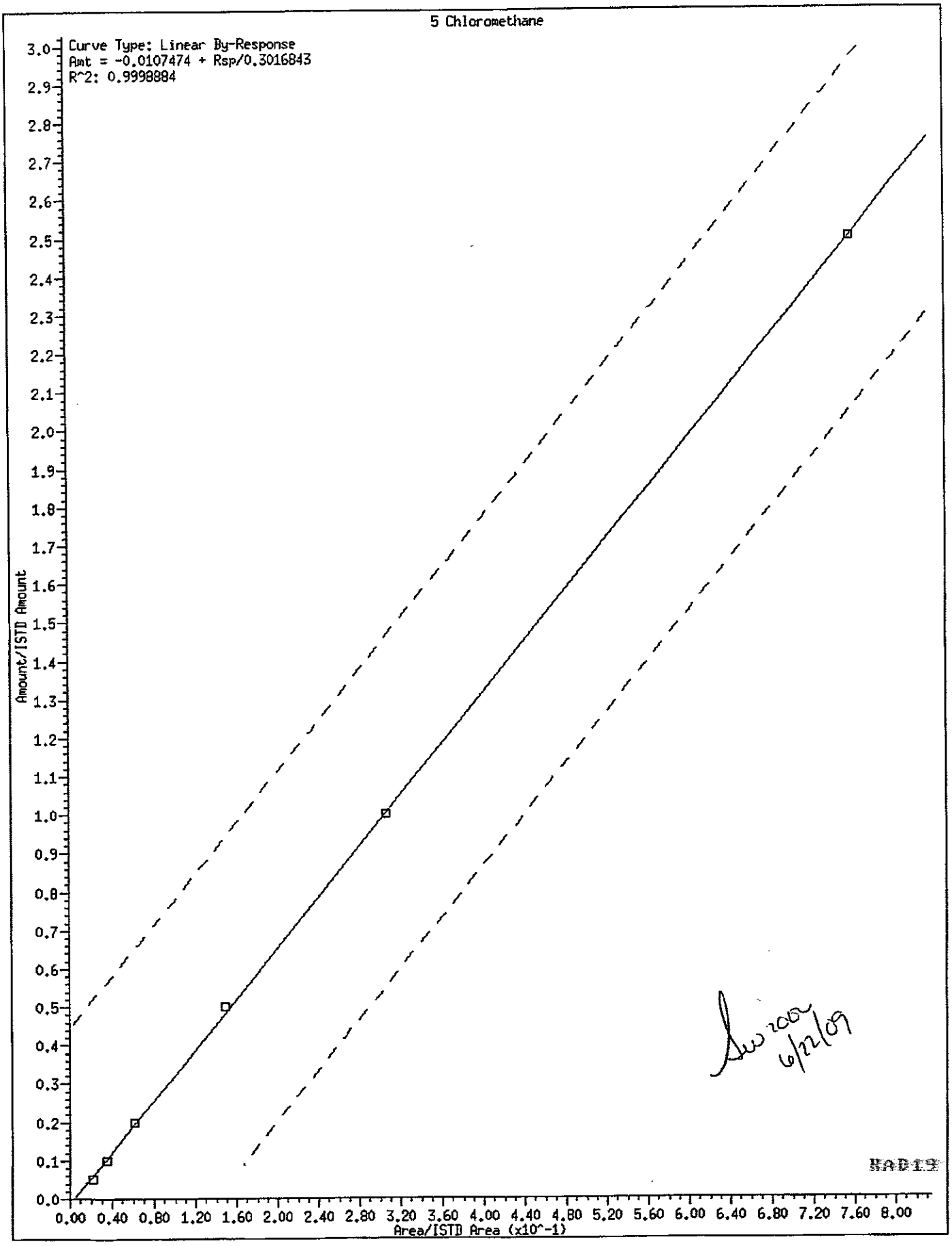
COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD
1,2-Dichloroethane-d4(mz104)	0.0327	0.0291	0.0299	0.0289	0.0296	0.0288		0.0298	5	AVG
Toluene-d8	1.6325	1.4508	1.4504	1.4817	1.5263	1.5029		1.5074	5	AVG
Toluene-d8(mz100)	1.0527	0.9210	0.9333	0.9564	0.9813	0.9693		0.9690	5	AVG
4-Bromofluorobenzene	0.5852	0.4875	0.4936	0.5055	0.5230	0.5215		0.5194	7	AVG
4-Bromofluorobenzene(mz174)	0.5178	0.4256	0.4278	0.4375	0.4494	0.4503		0.4514	8	AVG

Average %RSD 8

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

RAD19 0043

FORM VI VOA



6/12/09

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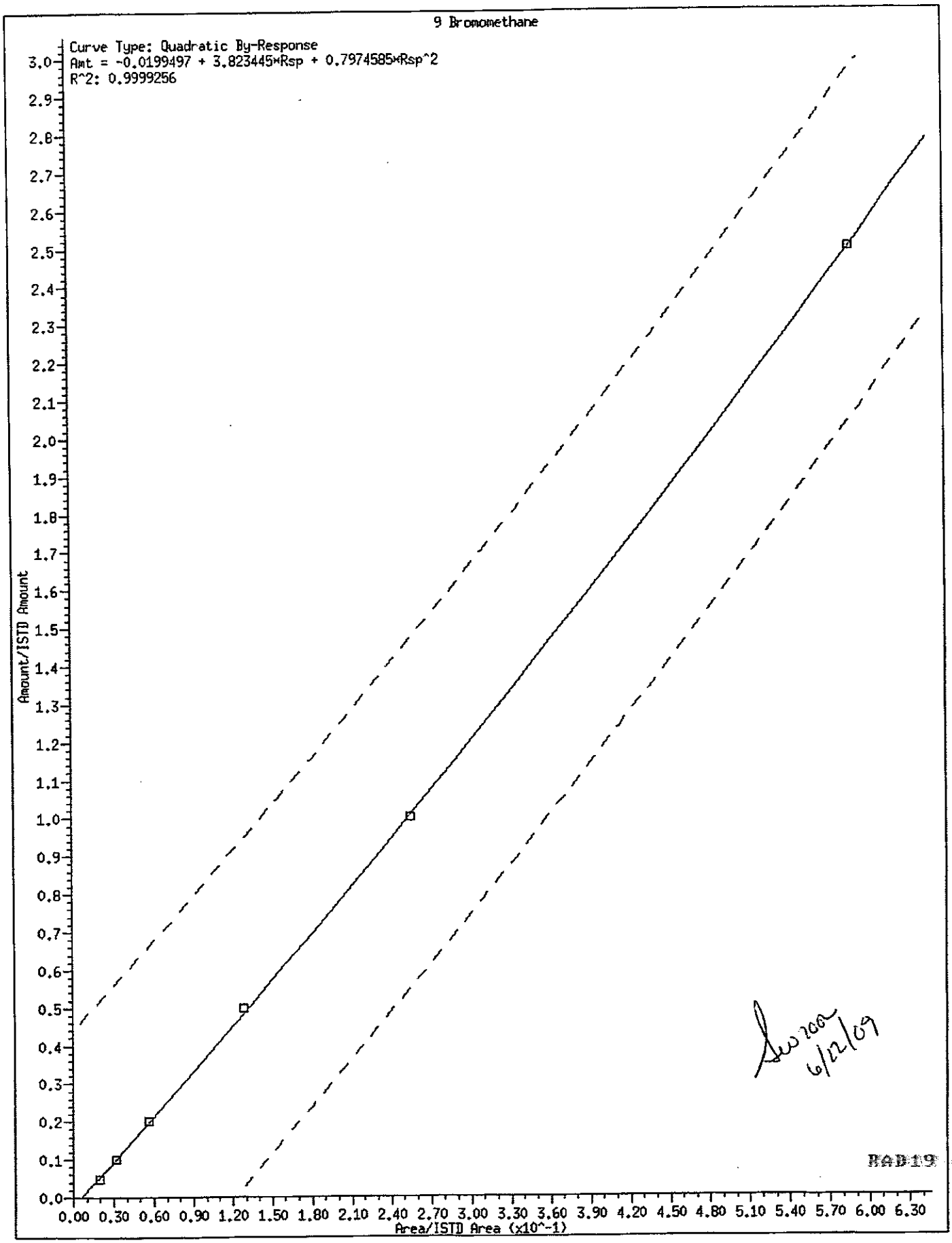
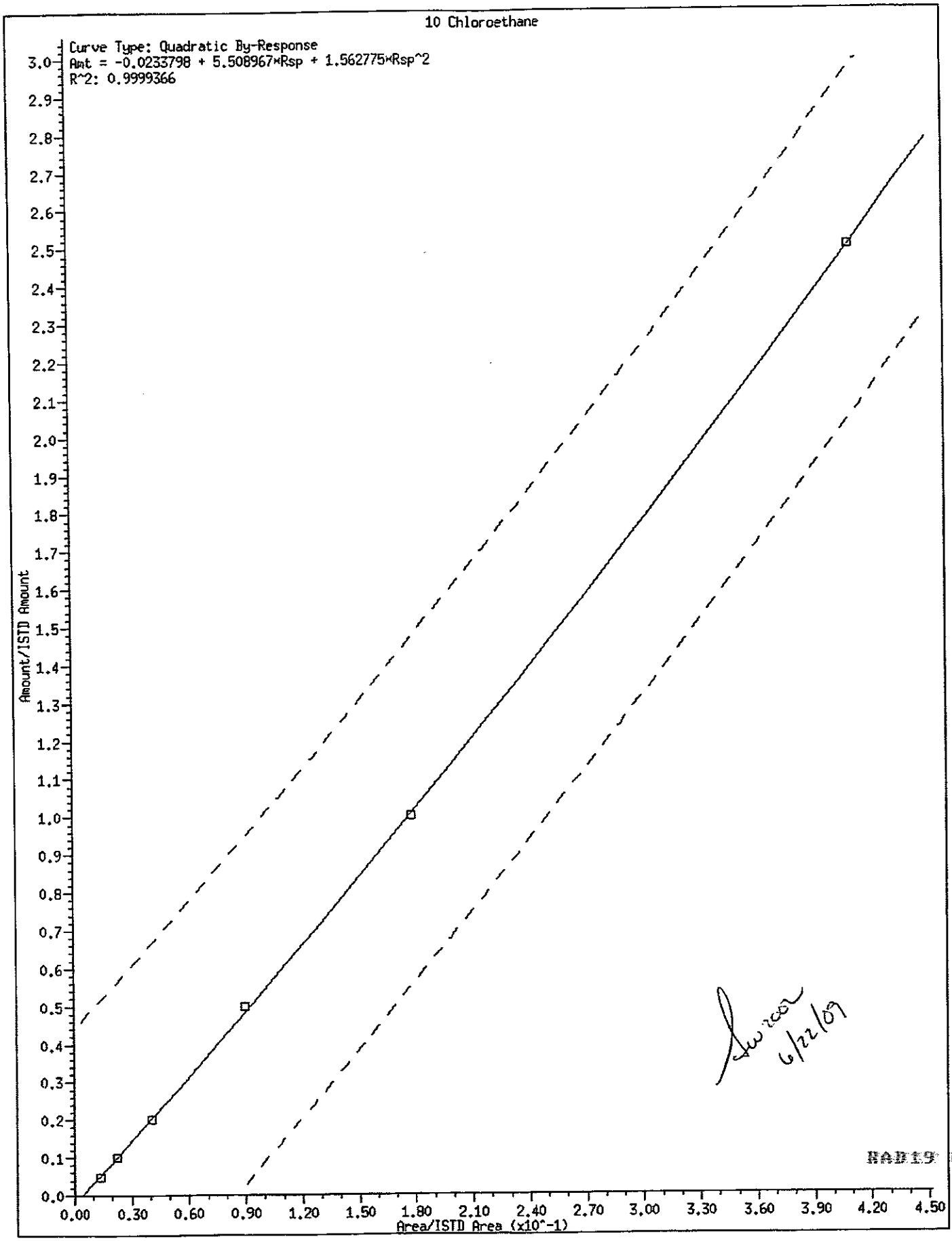


6/12/09

RAB19 0045



6/22/09

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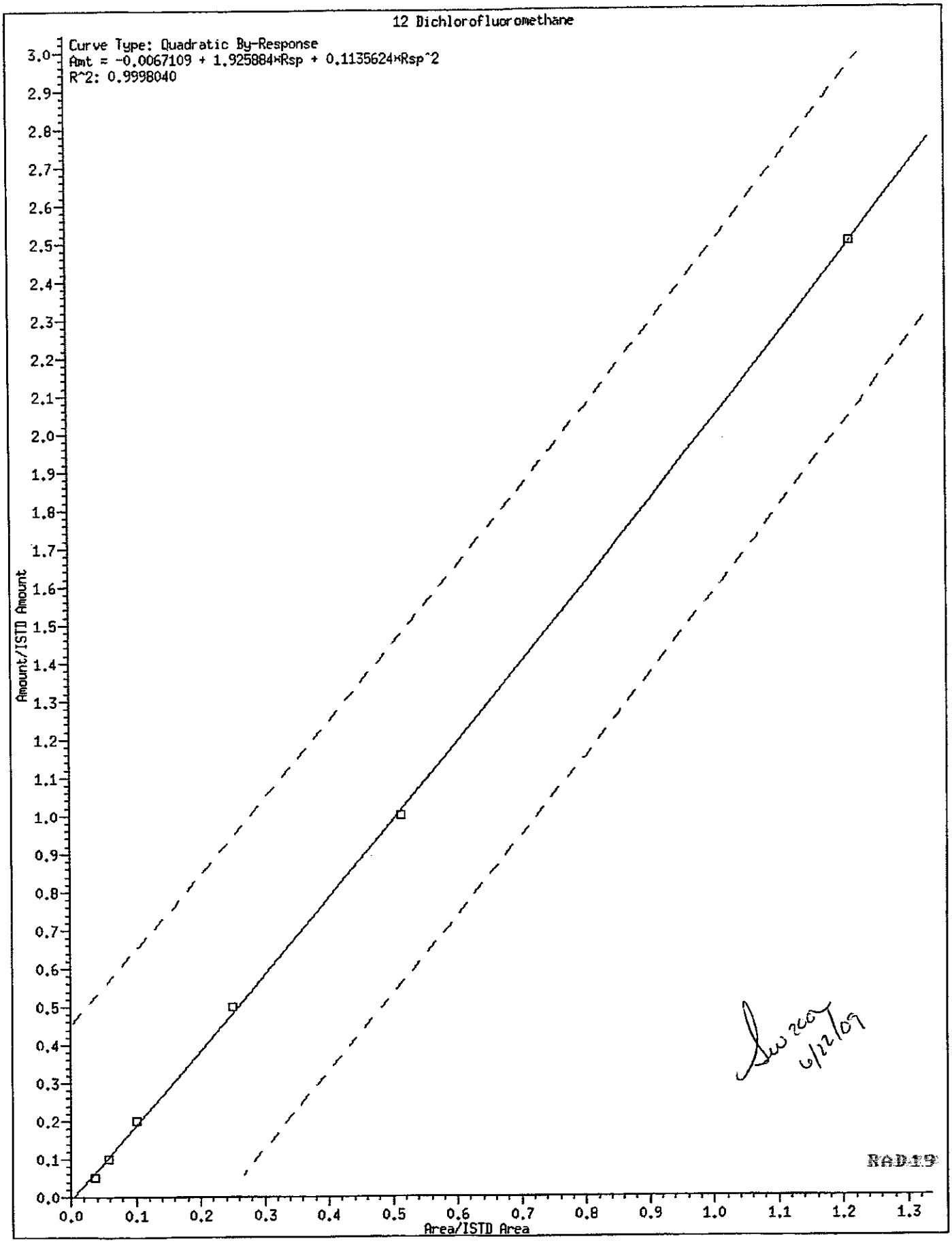
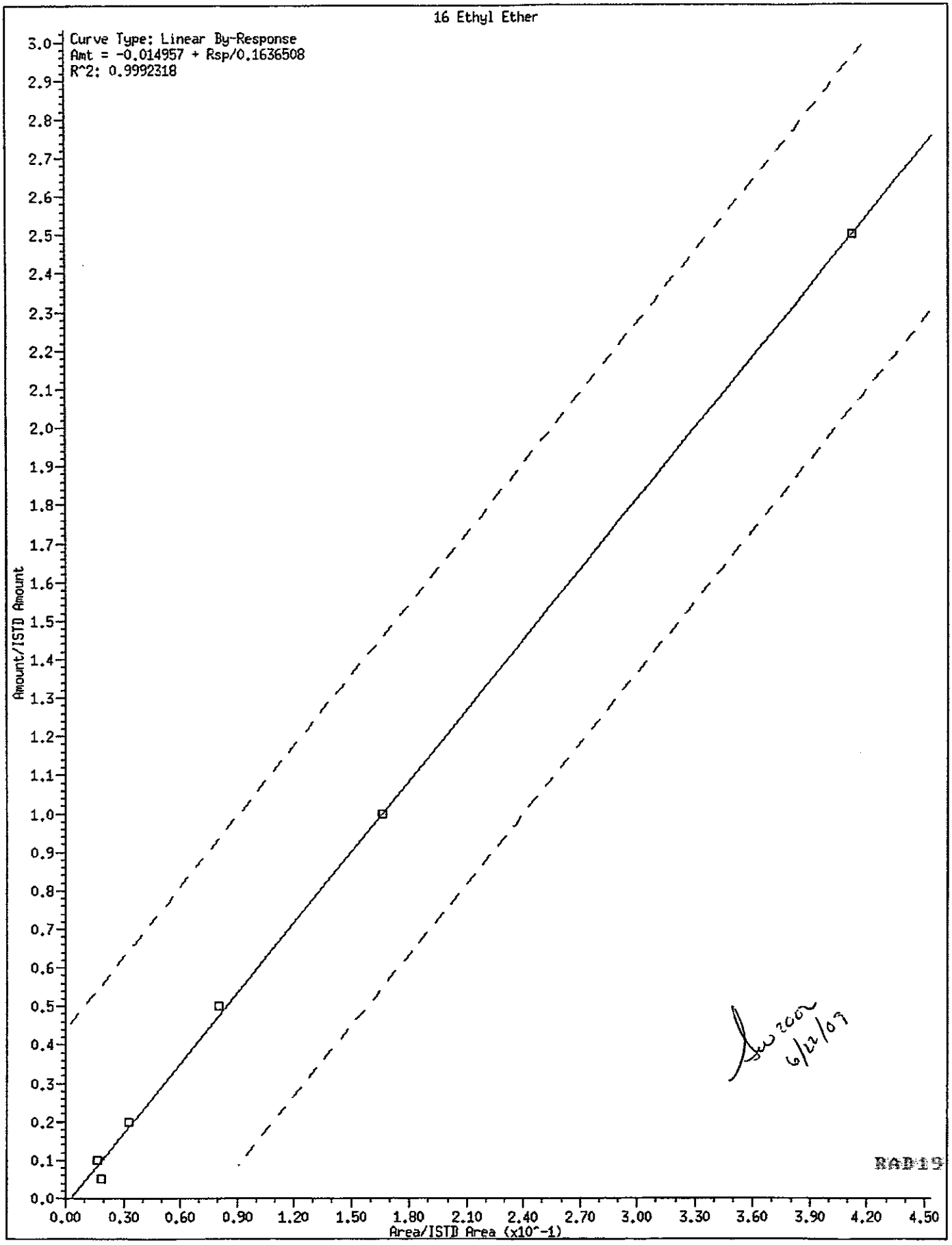


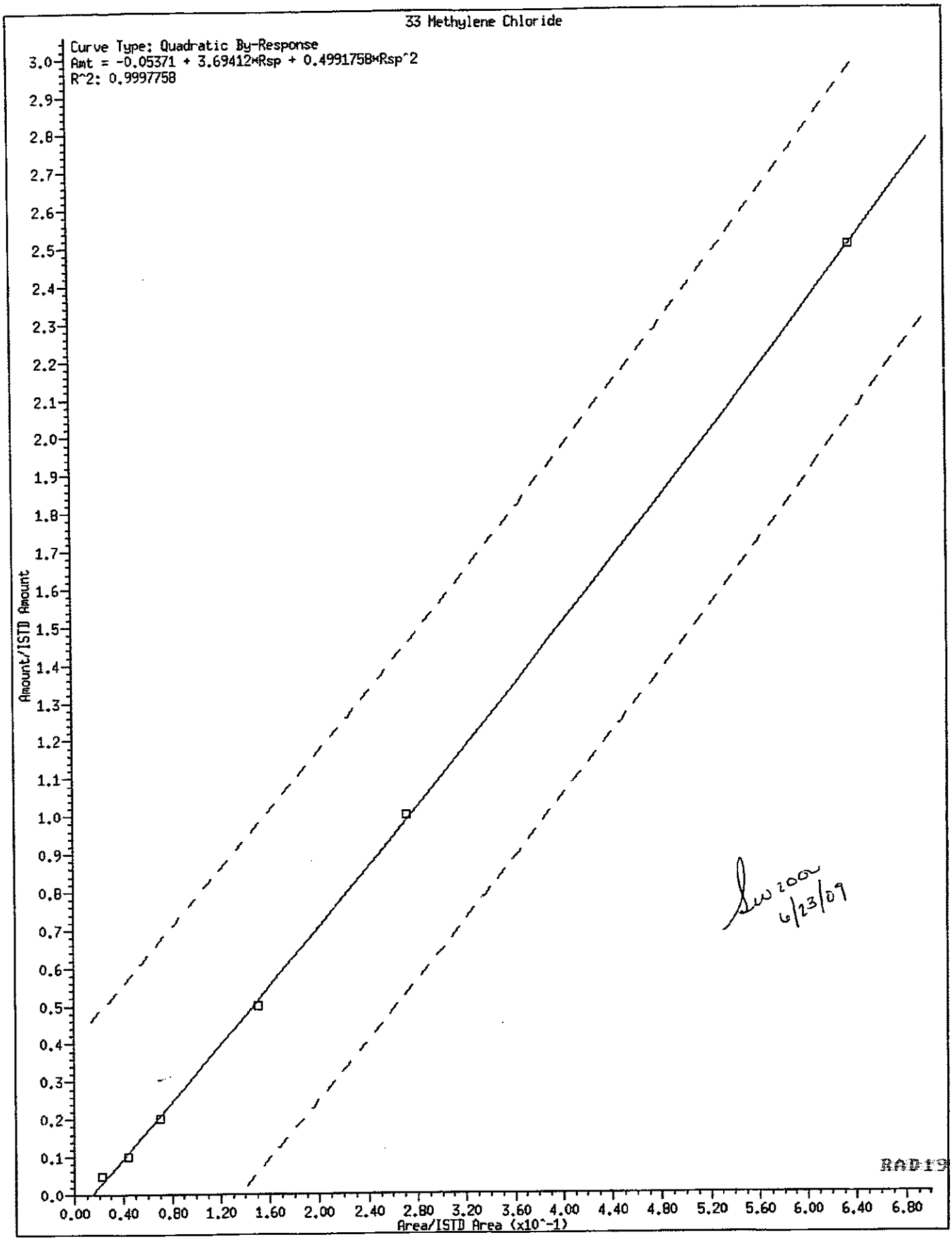
6/22/09

RAD19 0847



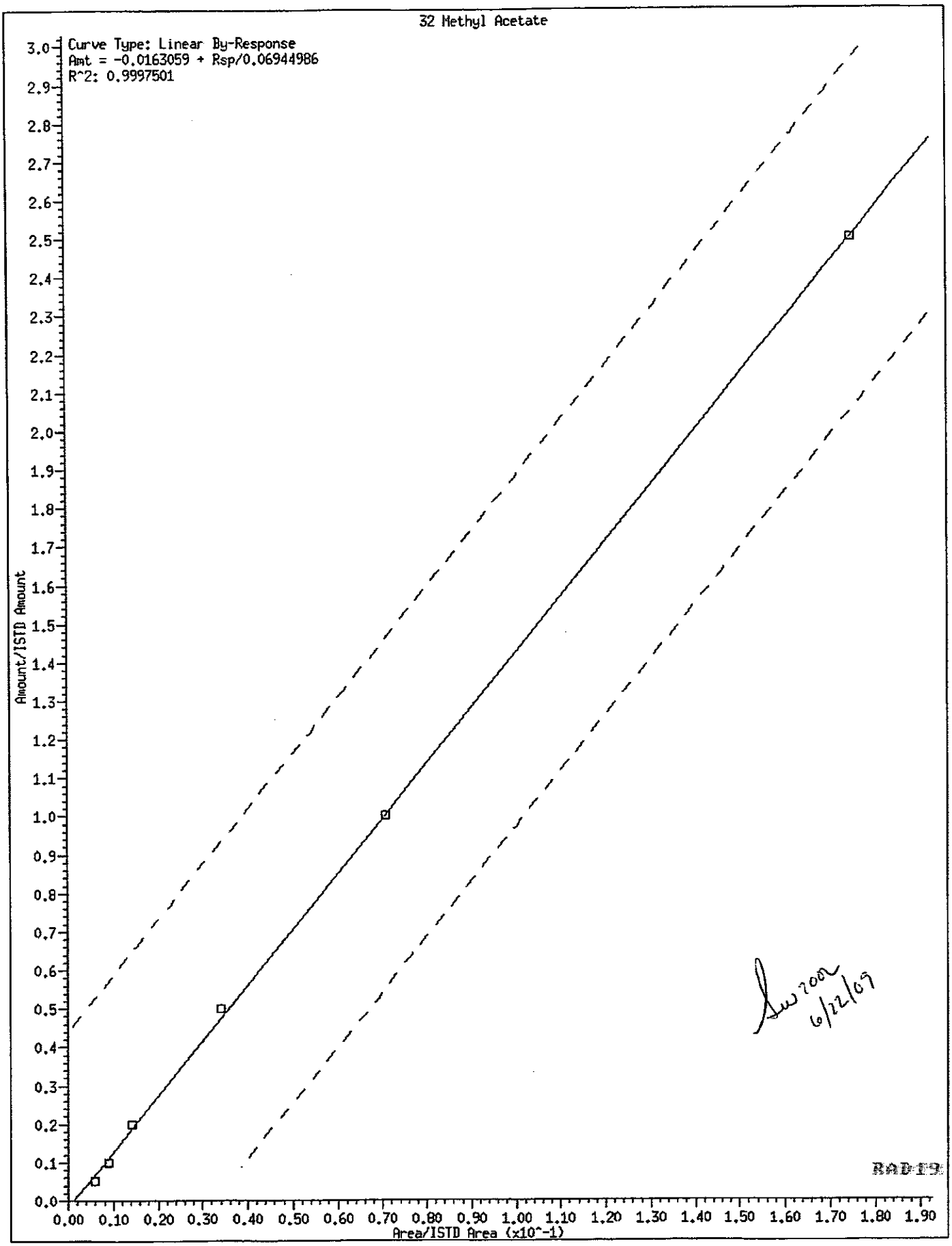
6/12/09

RAD19 0048



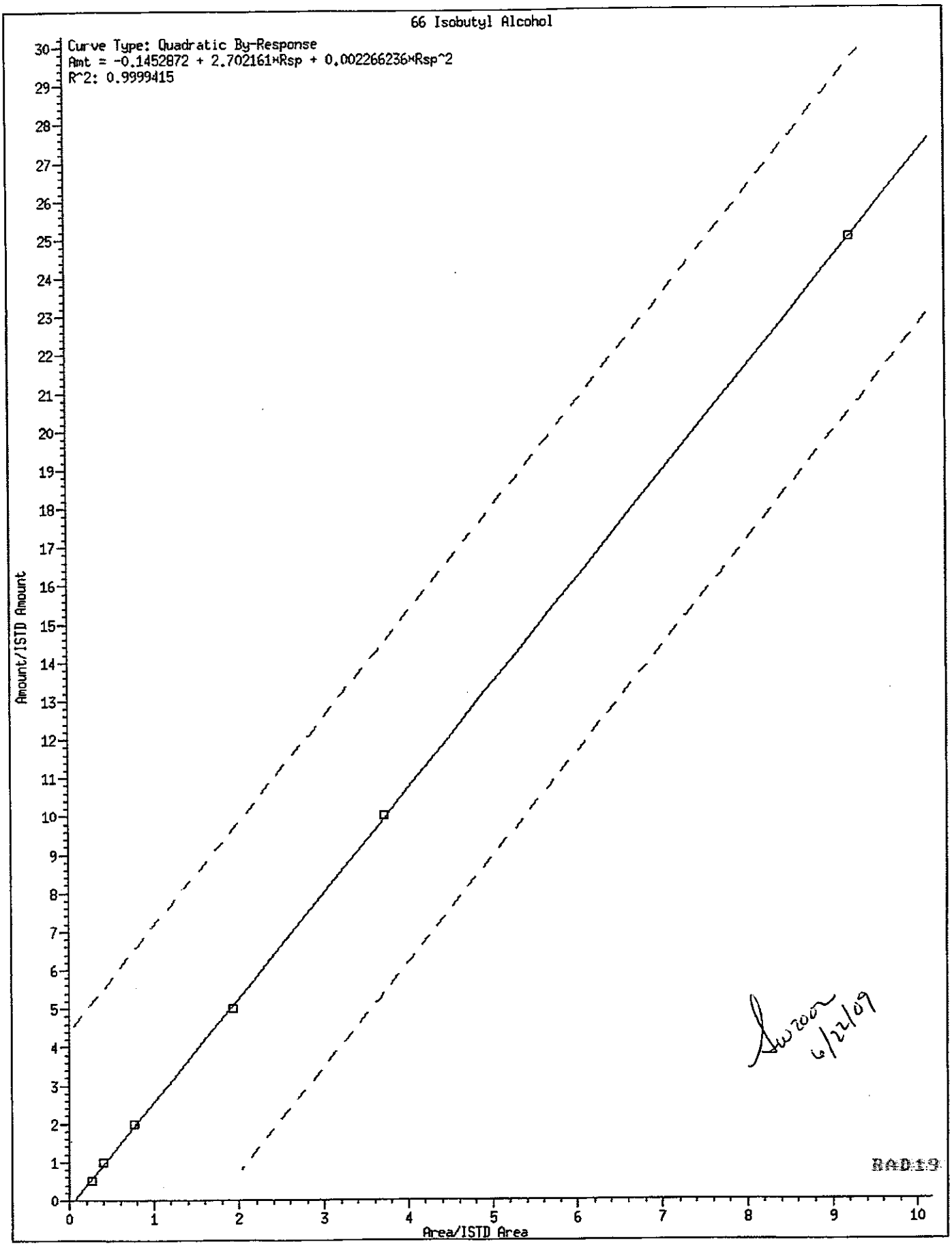
6/23/09

RAD19 0849



6/22/09

RAD19 0858


66 Isobutyl Alcohol
Curve Type: Quadratic By-Response
Amt = -0.1452872 + 2.702161*Rsp + 0.002266236*Rsp^2
R^2: 0.9999415
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
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28
29
30

6/22/09

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP16334.i/09jun22a.b/gu22i01.d VSTD025
/chem2/HP16334.i/09jun22a.b/gu22i02.d VSTD010
/chem2/HP16334.i/09jun22a.b/gu22i03.d VSTD005
/chem2/HP16334.i/09jun22a.b/gu22i04.d VSTD002
/chem2/HP16334.i/09jun22a.b/gu22i05.d VSTD001
/chem2/HP16334.i/09jun22a.b/gu22i07.d VSTD0.5

Area Summary

File ID:

Internal Standard Name	gu22i01.d	gu22i02.d	gu22i03.d	gu22i04.d	gu22i05.d	gu22i07.d	Avg Area	%RSD	In Spec
t-Butyl Alcohol-d10	106535	104844	103470	101013	97401	97247	101752	4	Yes
Fluorobenzene	2340052	2325495	2308427	2281309	2227573	2113725	2266097	4	Yes
Chlorobenzene-d5	1691843	1673643	1663653	1636524	1601628	1531899	1633198	4	Yes
1,4-Dichlorobenzene-d4	953587	928789	919769	905888	877003	845349	905064	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	gu22i01.d	gu22i02.d	gu22i03.d	gu22i04.d	gu22i05.d	gu22i07.d	Avg. RT
t-Butyl Alcohol-d10	4.671	4.684	4.678	4.672	4.678	4.659	4.674
Fluorobenzene	8.122	8.122	8.122	8.122	8.122	8.116	8.121
Chlorobenzene-d5	11.475	11.475	11.475	11.475	11.475	11.475	11.475
1,4-Dichlorobenzene-d4	13.316	13.316	13.316	13.316	13.316	13.316	13.316

* indicates the retention time is greater than 30 seconds from the average RT

Report generated on 06/22/2009 at 22:29

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 ICV Date: 06/22/09 Time: 22:37

Lab File ID: gu22cv4.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.3725	0.3084	4.14	5	-17	
#	Chloromethane	0.3339	0.3112	5.05	5	-7	#
*	Vinyl Chloride	0.3572	0.3094	4.33	5	-13	*
	Bromomethane	0.2906	0.2649	5.01	5	0	
	Chloroethane	0.2039	0.1881	5.09	5	2	
	Dichlorofluoromethane	0.5508	0.5171	4.99	5	0	
	Trichlorofluoromethane	0.4473	0.4460	4.99	5	0	
	Ethyl Ether	0.1983	0.1502	4.44	5	-11	
	Freon 123a	0.3180	0.2983	4.69	5	-6	
	Acrolein	2.4063	1.9113	29.79	37.5	-21	
*	1,1-Dichloroethene	0.2572	0.2425	4.72	5	-6	*
	Freon 113	0.2771	0.2557	4.61	5	-8	
	Acetone	1.0191	0.8999	33.11	37.5	-12	
	Methyl Iodide	0.4790	0.4430	4.62	5	-8	
	Carbon Disulfide	0.7278	0.7176	4.93	5	-1	
	Allyl Chloride	0.3426	0.3413	4.98	5	0	
	Methyl Acetate	0.0807	0.0693	4.82	5	-4	
	Methylene Chloride	0.3449	0.2581	4.31	5	-14	
	t-Butyl Alcohol	1.3028	1.1816	45.35	50	-9	
	Acrylonitrile	4.3099	3.9186	22.73	25	-9	
	trans-1,2-Dichloroethene	0.2896	0.2765	4.77	5	-5	
	1,2-Dichloroethene (Total)	0.2987	0.2816	9.43	10	-6	
	Methyl Tertiary Butyl Ether	0.5529	0.5024	4.54	5	-9	
	n-Hexane	0.3823	0.3355	4.39	5	-12	
#	1,1-Dichloroethane	0.4532	0.4320	4.77	5	-5	#
	di-Isopropyl Ether	0.7708	0.7213	4.68	5	-6	
	2-Chloro-1,3-Butadiene	0.3993	0.3863	4.84	5	-3	
	Ethyl t-Butyl Ether	0.7067	0.6566	4.65	5	-7	
	2,2-Dichloropropane	0.3738	0.3573	4.78	5	-4	
	cis-1,2-Dichloroethene	0.3078	0.2867	4.66	5	-7	
	2-Butanone	5.3714	4.8417	33.80	37.5	-10	
	Propionitrile	1.5914	1.4467	34.09	37.5	-9	
	Methacrylonitrile	5.9399	5.3552	33.81	37.5	-10	
	Bromochloromethane	0.1251	0.1188	4.75	5	-5	
	Tetrahydrofuran	1.6407	1.4671	22.35	25	-11	
*	Chloroform	0.4707	0.4560	4.84	5	-3	*

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

RAD19 0053

FORM VII VOA

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 ICV Date: 06/22/09 Time: 22:37

Lab File ID: gu22cv4.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1,1,1-Trichloroethane	0.4005	0.3951	4.93	5	-1	
	Cyclohexane	0.4602	0.4198	4.56	5	-9	
	1,1-Dichloropropene	0.3683	0.3471	4.71	5	-6	
	Carbon Tetrachloride	0.3565	0.3493	4.90	5	-2	
	Isobutyl Alcohol	0.4077	0.3728	118.74	125	-5	
	Benzene	1.1348	1.0601	4.67	5	-7	
	1,2-Dichloroethane	0.2495	0.2437	4.88	5	-2	
	t-Amyl Methyl Ether	0.6093	0.5571	4.57	5	-9	
	n-Heptane	0.3923	0.3384	4.31	5	-14	
	n-Butanol	0.3505	0.3091	220.47	250	-12	
	Trichloroethene	0.3004	0.2884	4.80	5	-4	
	Methylcyclohexane	0.5028	0.4891	4.86	5	-3	
*	1,2-Dichloropropane	0.2602	0.2458	4.72	5	-6	*
	Dibromomethane	0.1152	0.1087	4.72	5	-6	
	1,4-Dioxane	0.0996	0.1032	129.59	125	4	
	Methyl Methacrylate	11.386	10.1916	4.48	5	-10	
	Bromodichloromethane	0.3115	0.3014	4.84	5	-3	
	2-Nitropropane	3.0017	2.6179	4.36	5	-13	
	cis-1,3-Dichloropropene	0.3589	0.3434	4.78	5	-4	
	4-Methyl-2-Pentanone	0.1201	0.1106	23.02	25	-8	
*	Toluene	1.0391	0.9434	4.54	5	-9	*
	trans-1,3-Dichloropropene	0.3946	0.3720	4.71	5	-6	
	Ethyl Methacrylate	0.3106	0.2769	4.46	5	-11	
	1,1,2-Trichloroethane	0.2313	0.2132	4.61	5	-8	
	Tetrachloroethene	0.4719	0.4503	4.77	5	-5	
	1,3-Dichloropropane	0.3877	0.3553	4.58	5	-8	
	2-Hexanone	0.1140	0.1025	22.49	25	-10	
	Dibromochloromethane	0.2871	0.2724	4.74	5	-5	
	1,2-Dibromoethane	0.2211	0.2033	4.60	5	-8	
#	Chlorobenzene	1.1364	1.0557	4.64	5	-7	#
	1,1,1,2-Tetrachloroethane	0.3721	0.3481	4.68	5	-6	
*	Ethylbenzene	1.9910	1.8303	4.60	5	-8	*
	m+p-Xylene	0.8044	0.7440	9.25	10	-8	
	Xylene (Total)	0.7944	0.7357	13.89	15	-7	
	o-Xylene	0.7744	0.7189	4.64	5	-7	
	Styrene	1.2302	1.1400	4.63	5	-7	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane) RAD19 0054
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 ICV Date: 06/22/09 Time: 22:37

Lab File ID: gu22cv4.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF	CONC.	CONC.	DRIFT	
# Bromoform	0.1507	0.1445	4.79	5	-4	#
Isopropylbenzene	1.9422	1.8024	4.64	5	-7	
# 1,1,2,2-Tetrachloroethane	0.4728	0.4239	4.48	5	-10	#
Bromobenzene	0.8388	0.7550	4.50	5	-10	
trans-1,4-Dichloro-2-Butene	4.6430	4.7232	25.43	25	2	
1,2,3-Trichloropropane	0.1367	0.1211	4.43	5	-11	
n-Propylbenzene	4.2887	3.9075	4.56	5	-9	
2-Chlorotoluene	0.8899	0.7979	4.48	5	-10	
4-Chlorotoluene	0.9119	0.8200	4.50	5	-10	
1,3,5-Trimethylbenzene	3.0559	2.7934	4.57	5	-9	
Pentachloroethane	0.5099	0.4989	4.89	5	-2	
tert-Butylbenzene	0.6805	0.6296	4.63	5	-7	
1,2,4-Trimethylbenzene	3.1966	2.9377	4.59	5	-8	
sec-Butylbenzene	4.0063	3.6471	4.55	5	-9	
1,3-Dichlorobenzene	1.7911	1.6388	4.58	5	-8	
p-Isopropyltoluene	3.4957	3.1794	4.55	5	-9	
1,4-Dichlorobenzene	1.7882	1.6392	4.58	5	-8	
1,2,3-Trimethylbenzene	1.3725	1.2956	4.72	5	-6	
Benzyl Chloride	0.2049	0.1799	4.39	5	-12	
n-Butylbenzene	1.7913	1.6095	4.49	5	-10	
1,2-Dichlorobenzene	1.5196	1.3887	4.57	5	-9	
1,2-Dibromo-3-Chloropropane	2.8415	2.6340	4.63	5	-7	
1,2,4-Trichlorobenzene	1.1813	1.0444	4.42	5	-12	
Hexachlorobutadiene	0.6228	0.5490	4.41	5	-12	
Naphthalene	1.6832	1.4953	4.44	5	-11	
1,2,3-Trichlorobenzene	0.9604	0.8543	4.45	5	-11	

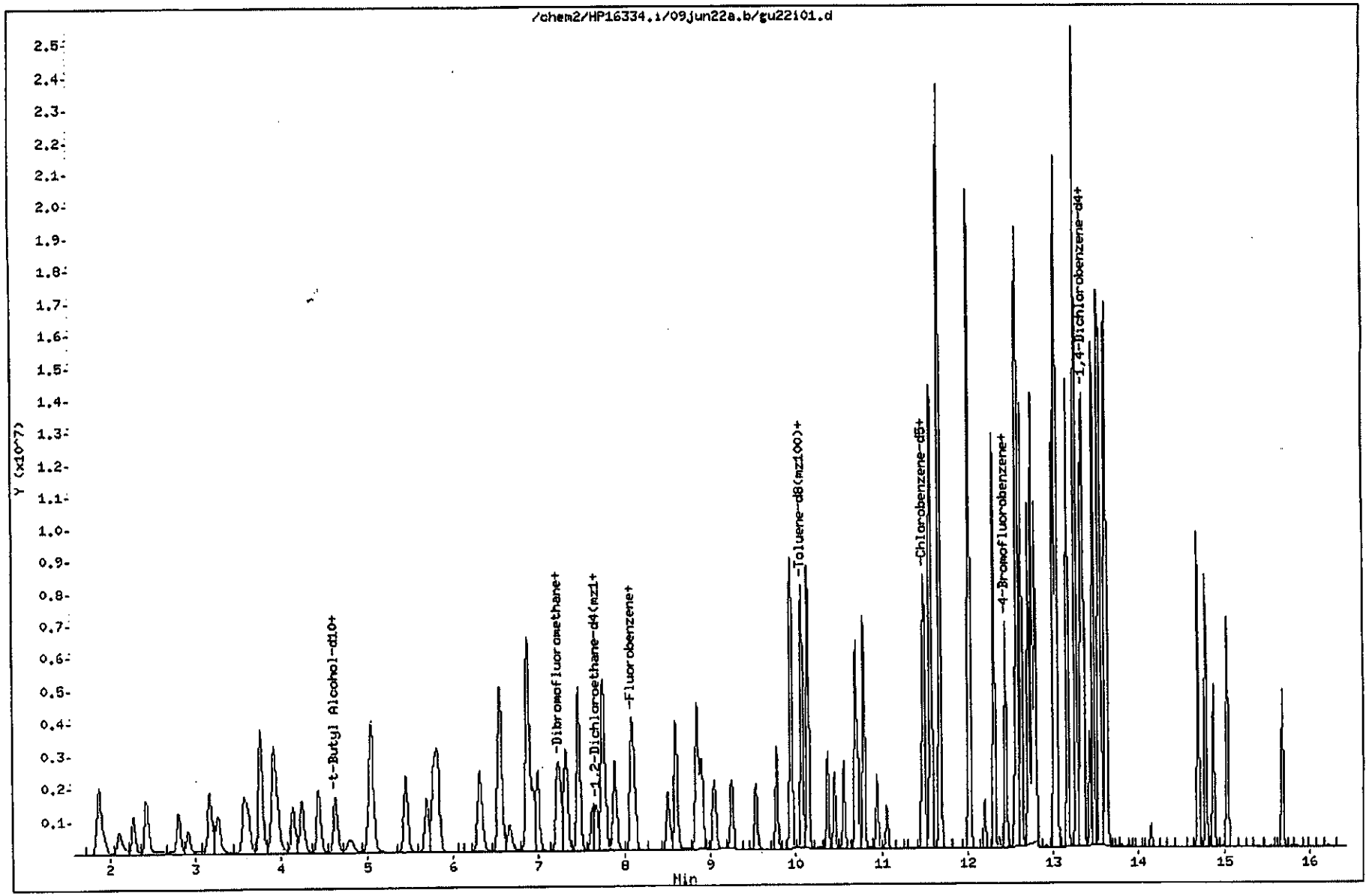
Average %Drift 7

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

RAD19 0855

Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d
Date : 22-JUN-2009 15:40
Client ID: VSTD025
Sample Info: VSTD025;VSTD025;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i
Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.111	85	1949666	22.365
5) Chloromethane	(1)	2.282	50	1773515	25.015
6) Vinyl Chloride	(1)	2.422	62	1919181	22.961
9) Bromomethane	(1)	2.806	94	1373475	24.989
10) Chloroethane	(1)	2.916	64	959820	24.992
12) Dichlorofluoromethane	(1)	3.166	67	2840524	24.984
14) Trichlorofluoromethane	(1)	3.263	101	2503191M	23.916
16) Ethyl Ether	(1)	3.562	59	964438	25.035
17) Freon 123a	(1)	3.605	67	1710428	22.984
22) Acrolein	(4)	3.757	56	6123249	1194.288
23) 1,1-Dichloroethene	(1)	3.909	96	1429737	23.757
24) Freon 113	(1)	3.928	101	1550653	23.911
25) Acetone	(4)	3.970	58	492381M	226.765
26) Methyl Iodide	(1)	4.135	142	2673332	23.852
28) Carbon Disulfide	(1)	4.239	76	4203042	24.678
31) Allyl Chloride	(1)	4.434	41	1972427	24.604
32) Methyl Acetate	(1)	4.458	43	409397	25.028
33) Methylene Chloride	(1)	4.629	84	1490406	29.946
35) *t-Butyl Alcohol-d10	(4)	4.671	65	106535	50.000
37) t-Butyl Alcohol	(4)	4.800	59	1239655	446.578
38) Acrylonitrile	(4)	5.019	53	1100813	119.874
40) trans-1,2-Dichloroethene	(1)	5.049	96	1634276	24.112
36) 1,2-Dichloroethene (Total)	(1)		96	3377780	48.319
39) Methyl Tertiary Butyl Ether	(1)	5.049	73	3093379	23.911
43) n-Hexane	(1)	5.452	57	2124115	23.745
44) 1,1-Dichloroethane	(1)	5.696	63	2524193	23.803
46) di-Isopropyl Ether	(1)	5.781	45	4368031	24.217
47) 2-Chloro-1,3-Butadiene	(1)	5.824	53	2282180	24.421
48) Ethyl t-Butyl Ether	(1)	6.311	59	4025360	24.342
50) 2,2-Dichloropropane	(1)	6.549	77	2122811	24.268
49) cis-1,2-Dichloroethene	(1)	6.543	96	1743504	24.207
51) 2-Butanone	(4)	6.561	43	2685345	234.635
52) Propionitrile	(4)	6.659	54	1605912	473.597
54) Methacrylonitrile	(4)	6.872	67	3102325	245.125

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8857

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.878	128	731920	24.994
56) Tetrahydrofuran	(4)	6.933	71	846286	242.084
57) Chloroform	(1)	6.988	83	2655708	24.109
62) 1,1,1-Trichloroethane	(1)	7.244	97	2274437	24.266
63) Cyclohexane	(1)	7.317	56	2553292	23.712
64) 1,1-Dichloropropene	(1)	7.464	75	2094344	24.298
65) Carbon Tetrachloride	(1)	7.470	117	2059384	24.686
66) Isobutyl Alcohol	(4)	7.628	41	983885	1250.166
71) Benzene	(1)	7.750	78	6456827	24.315
73) 1,2-Dichloroethane	(1)	7.781	62	1391409	23.829
72) 1,2-Dichloroethane(mz98)	(1)	7.781	98	141916	24.536
74) t-Amyl Methyl Ether	(1)	7.890	73	3454295	24.227
76) *Fluorobenzene	(1)	8.122	96	2340052	10.000
75) n-Heptane	(1)	8.085	43	2139804	23.311
80) n-Butanol	(4)	8.506	56	1851598	2479.097
82) Trichloroethene	(1)	8.598	95	1725049	24.543
83) Methylcyclohexane	(1)	8.848	83	2881903	24.491
84) 1,2-Dichloropropane	(1)	8.902	63	1482768	24.348
87) Dibromomethane	(1)	9.055	93	658031	24.406
88) 1,4-Dioxane	(4)	9.073	88	256290	1207.837
86) Methyl Methacrylate	(4)	9.036	69	601473	24.791
89) Bromodichloromethane	(1)	9.250	83	1825557	25.044
90) 2-Nitropropane	(4)	9.536	41	1562628	244.324
93) cis-1,3-Dichloropropene	(1)	9.780	75	2138659	25.468
95) 4-Methyl-2-Pentanone	(1)	9.945	43	6737713	239.685
100) Toluene	(2)	10.146	92	4316502	24.554
101) trans-1,3-Dichloropropene	(2)	10.372	75	1724321	25.826
102) Ethyl Methacrylate	(2)	10.451	69	1333400	25.371
103) 1,1,2-Trichloroethane	(2)	10.561	97	949659	24.269
104) Tetrachloroethene	(2)	10.701	166	1977378	24.765
105) 1,3-Dichloropropane	(2)	10.725	76	1595610	24.326
106) 2-Hexanone	(2)	10.792	43	4570830M	237.026
107) Dibromochloromethane	(2)	10.951	129	1260636	25.949
108) 1,2-Dibromoethane	(2)	11.060	107	913856	24.426

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8858

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1691843	10.000
111) Chlorobenzene	(2)	11.499	112	4691823	24.403
112) 1,1,1,2-Tetrachloroethane	(2)	11.566	131	1638948	26.034
113) Ethylbenzene	(2)	11.585	91	8446622	25.075
116) m+p-Xylene	(2)	11.682	106	6975893	51.256
114) Xylene (Total)	(2)		106	10362829	77.106
117) o-Xylene	(2)	12.018	106	3386936	25.850
118) Styrene	(2)	12.030	104	5445877	26.165
119) Bromoform	(2)	12.200	173	684608	26.843
120) Isopropylbenzene	(2)	12.310	105	8226369	25.036
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	1084236M	24.048
128) Bromobenzene	(3)	12.572	156	2025808	25.326
129) trans-1,4-Dichloro-2-Butene	(4)	12.591	53	2477926	250.474
130) 1,2,3-Trichloropropane	(3)	12.591	110	327676	25.138
131) n-Propylbenzene	(3)	12.633	91	9900861	24.210
132) 2-Chlorotoluene	(3)	12.713	126	2067951	24.370
134) 4-Chlorotoluene	(3)	12.792	126	2126591	24.455
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	7289676	25.016
137) Pentachloroethane	(3)	13.042	167	1348430	27.735
136) tert-Butylbenzene	(3)	13.011	134	1633712M	25.176
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	7752345	25.432
139) sec-Butylbenzene	(3)	13.170	105	9388202	24.574
141) 1,3-Dichlorobenzene	(3)	13.273	146	4326498	25.332
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	953587	10.000
140) p-Isopropyltoluene	(3)	13.267	119	8519444	25.557
143) 1,4-Dichlorobenzene	(3)	13.334	146	4169884	24.454
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	3289580	25.134
145) Benzyl Chloride	(3)	13.426	126	531465	27.197
146) n-Butylbenzene	(3)	13.560	92	4256088	24.916
147) 1,2-Dichlorobenzene	(3)	13.609	146	3583556	24.730
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	156232	25.804
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	2763586	24.533
153) Hexachlorobutadiene	(3)	14.785	225	1455089	24.499
154) Naphthalene	(3)	14.877	128	3858980	24.042

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0059

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

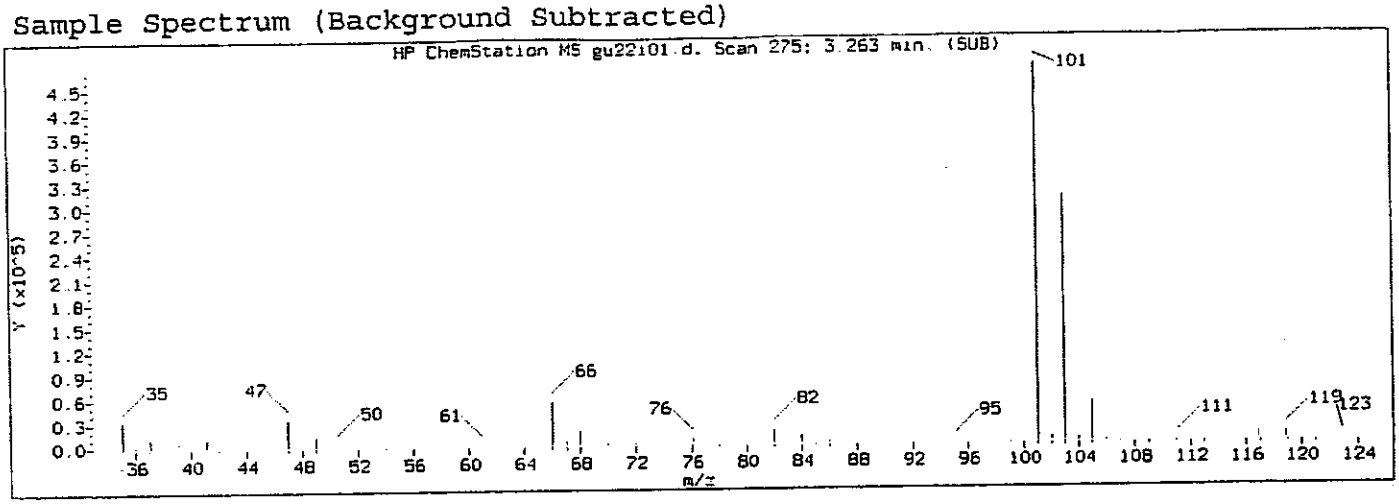
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	2173604	23.733
60) $Dibromofluoromethane	(1)	7.214	113	1466700	24.546
61) $Dibromofluoromethane(mz111)	(1)	7.214	111	1498043	24.670
69) $1,2-Dichloroethane-d4	(1)	7.677	102	263846	24.574
67) $1,2-Dichloroethane-d4(mz104)	(1)	7.677	104	168507	24.148
68) $1,2-Dichloroethane-d4(mz65)	(1)	7.677	65	1143275	23.799
96) $Toluene-d8	(2)	10.073	98	6356611	24.925
97) $Toluene-d8(mz100)	(2)	10.073	100	4099768	25.008
125) $4-Bromofluorobenzene	(2)	12.444	95	2205820	25.103
126) $4-Bromofluorobenzene(mz174)	(2)	12.444	174	1904390	24.936

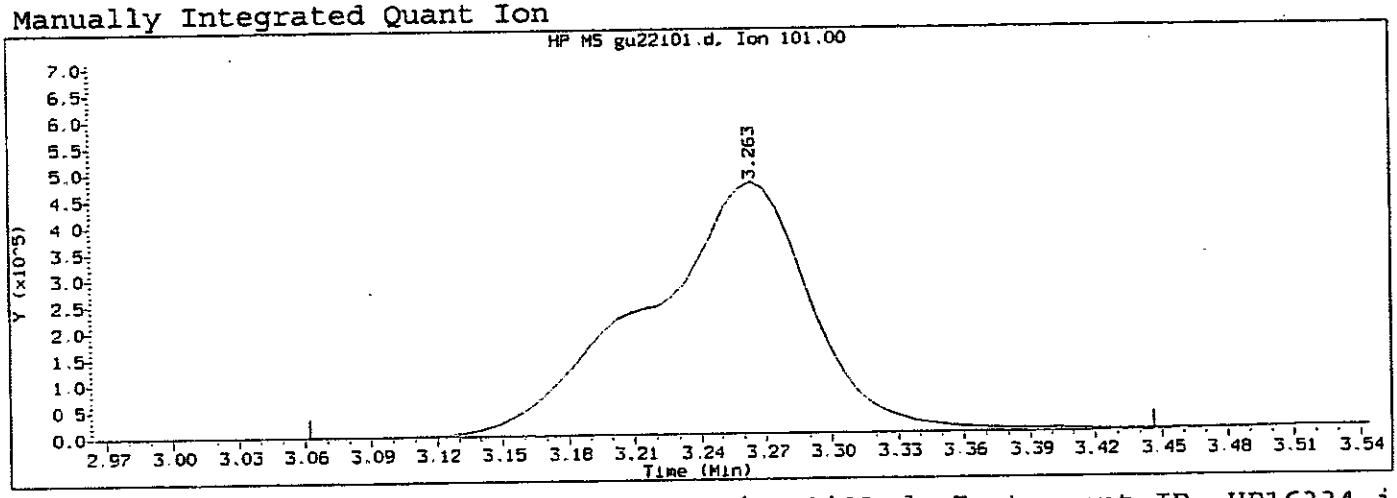
$ = Compound is a surrogate standard.

RAD19 8868

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	14
Compound Name	:	Trichlorofluoromethane
Scan Number	:	275
Retention Time (minutes)	:	3.263
Quant Ion	:	101
Area (flag)	:	2503191 M
Concentration (ug/L)	:	23.9158
Integration start scan	:	241 Integration stop scan: 304
Y at integration start	:	0 Y at integration end: 0

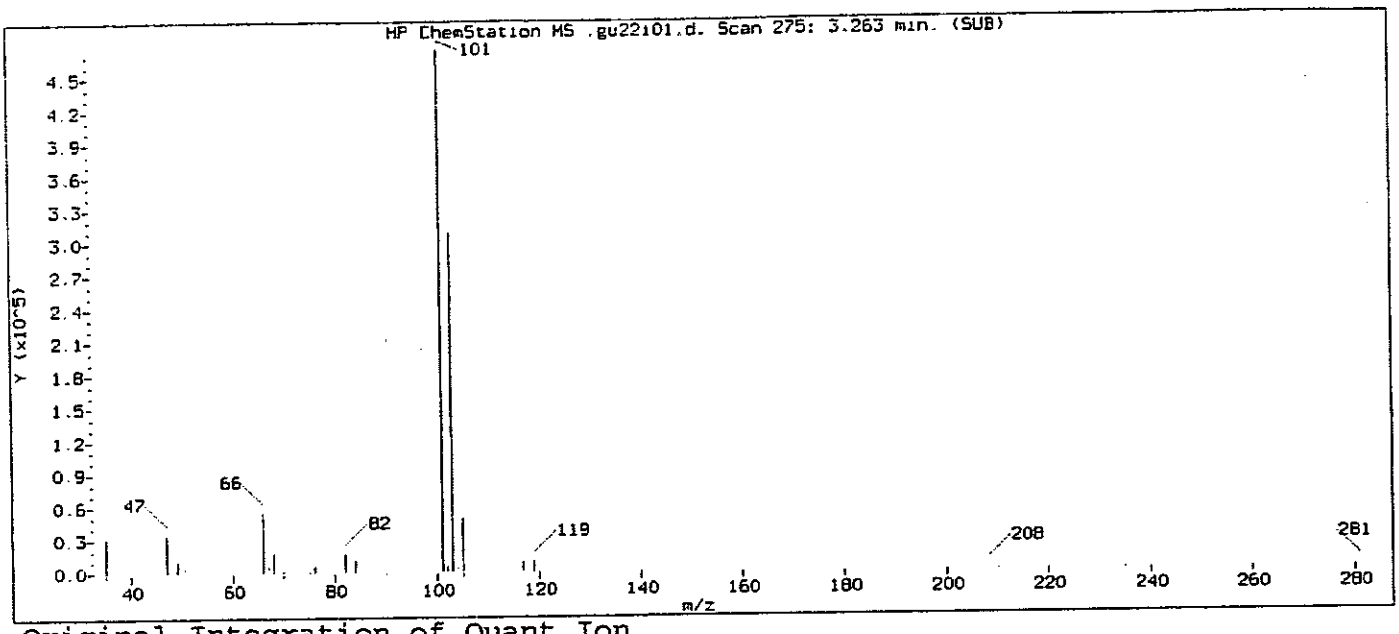
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: sw 20a 6/22/09

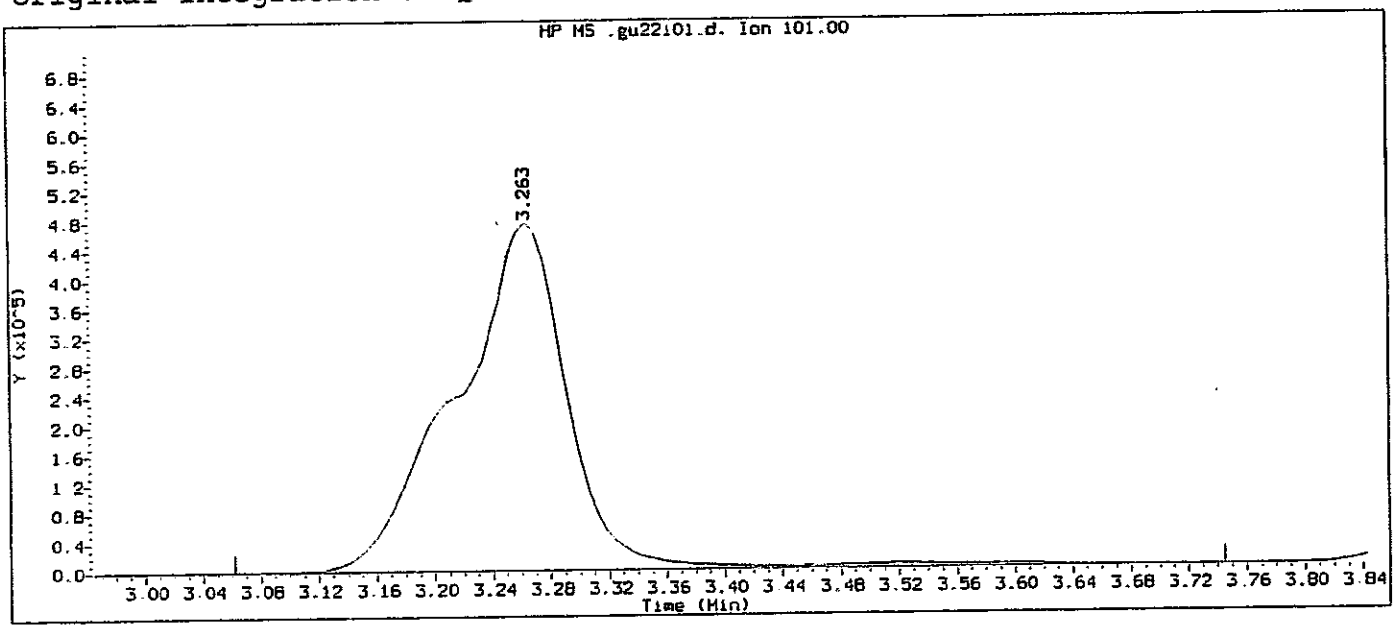
GC/MS audit/management approval: 6-23-09

NAD19 0861

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:57
Date, time and analyst ID of latest file update: 22-Jun-2009 15:57 Automation

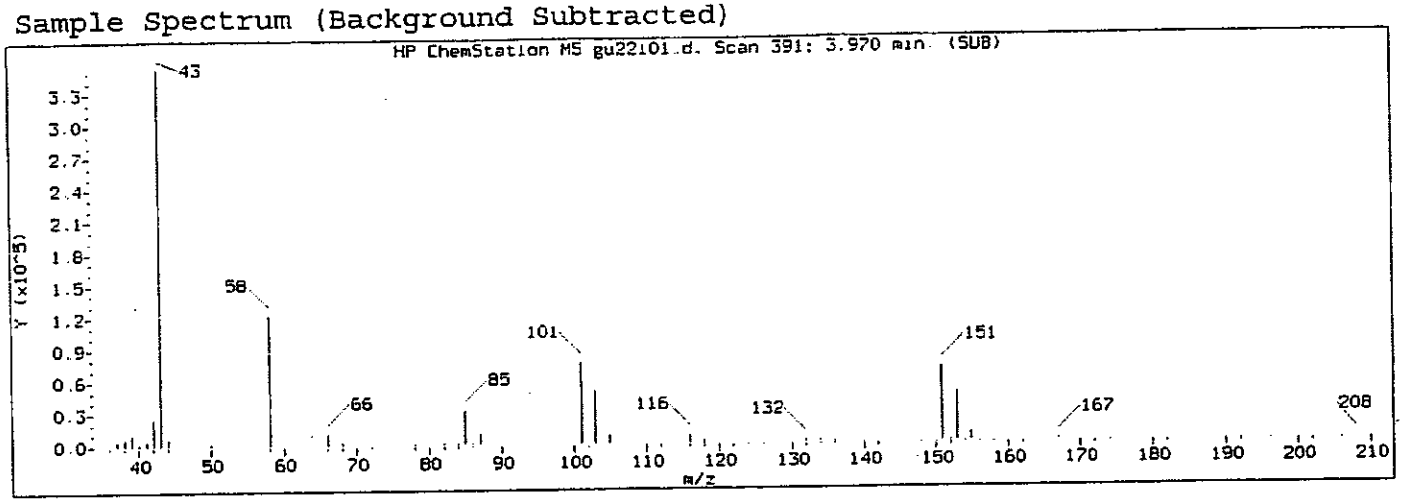
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 14
Compound Name : Trichlorofluoromethane
Scan Number : 275
Retention Time (minutes): 3.263
Quant Ion : 101
Area : 2551355
Concentration (ug/L) : 27.7658
Integration start scan : 241 Integration stop scan: 353
Y at integration start : 0 Y at integration end: 0

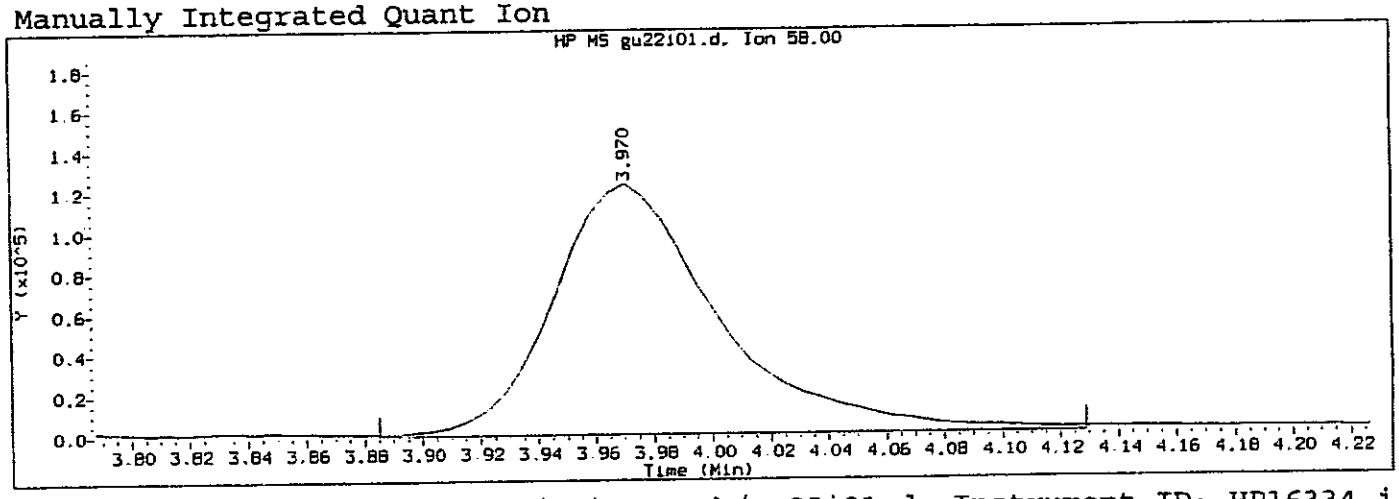
RAD19 0062

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i01 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	25
Compound Name	:	Acetone
Scan Number	:	391
Retention Time (minutes)	:	3.970
Quant Ion	:	58
Area (flag)	:	492381 M
Concentration (ug/L)	:	226.7649
Integration start scan	:	376 Integration stop scan: 416
Y at integration start	:	0 Y at integration end: 0

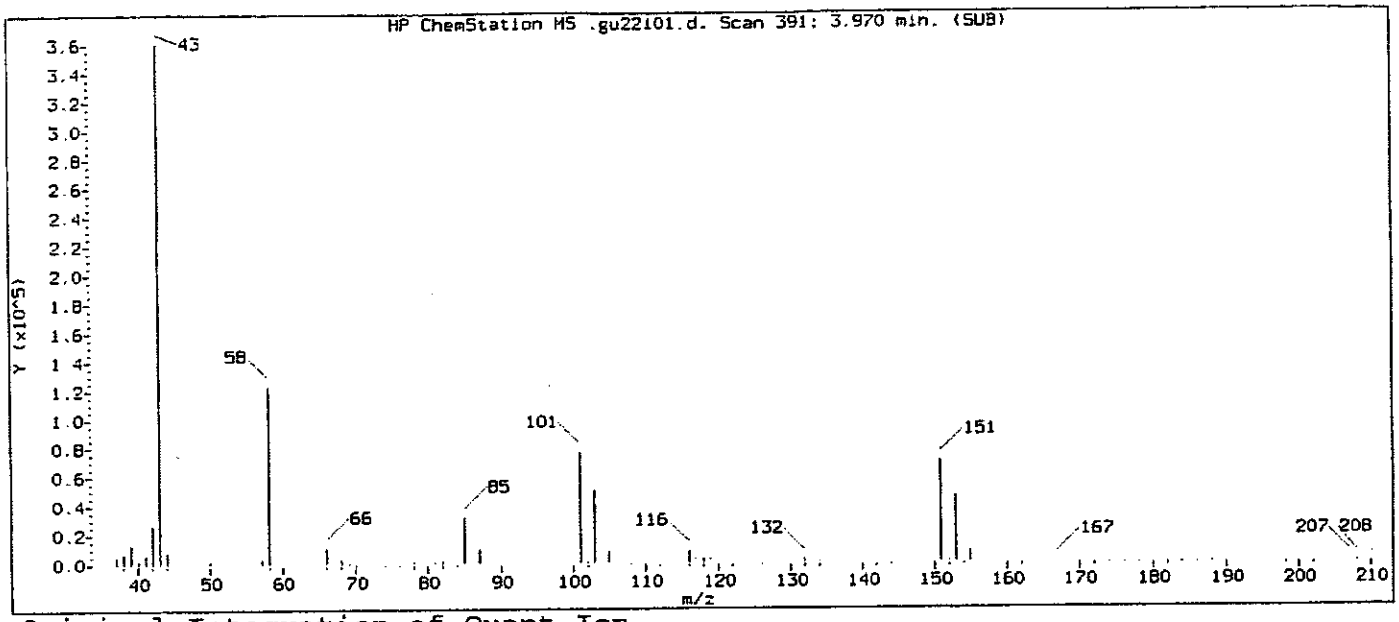
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

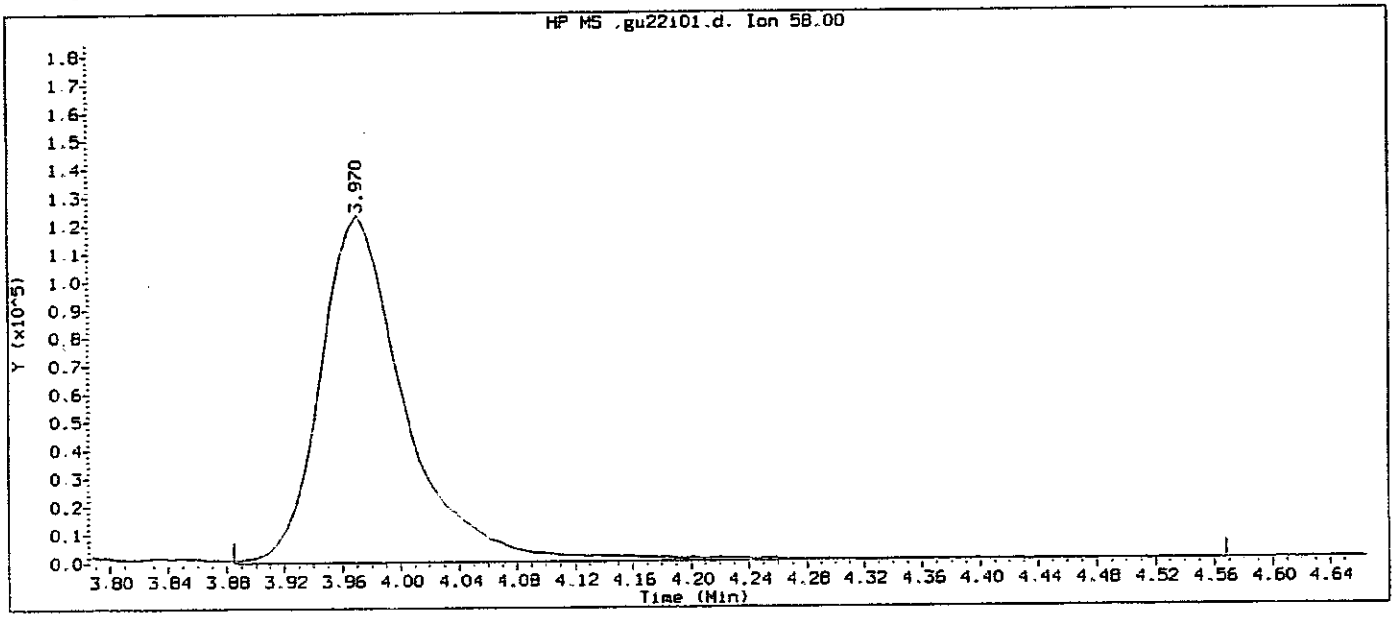
GC/MS audit/management approval: [signature] 6-23-09

RAD13 P863

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:57
Date, time and analyst ID of latest file update: 22-Jun-2009 15:57 Automation

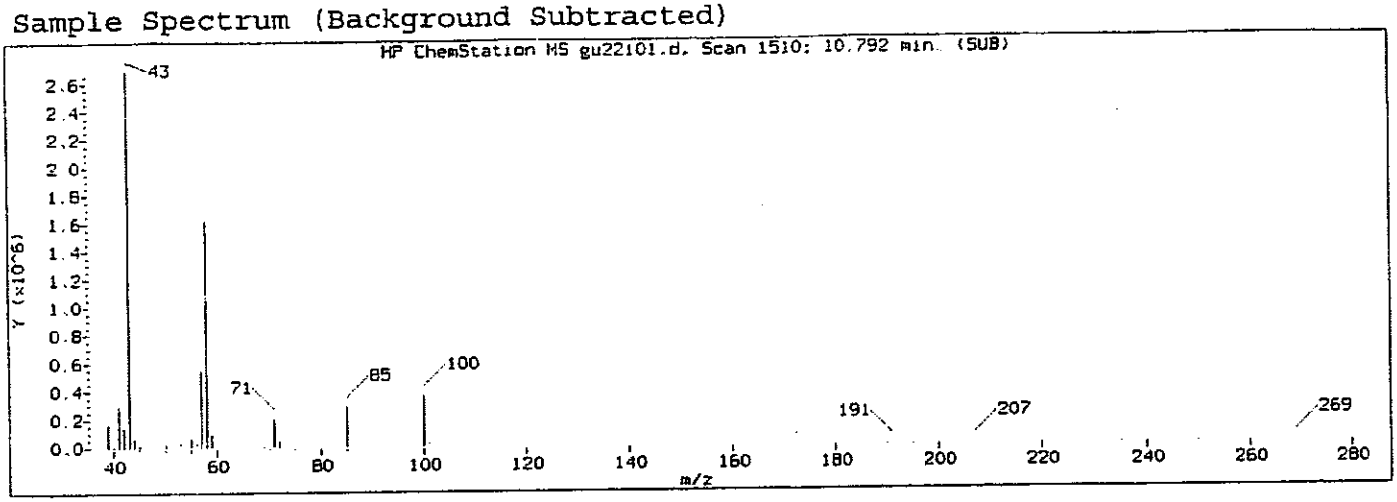
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 25
Compound Name : Acetone
Scan Number : 391
Retention Time (minutes): 3.970
Quant Ion : 58
Area : 509310
Concentration (ug/L) : 167.1689
Integration start scan : 376 Integration stop scan: 488
Y at integration start : 0 Y at integration end: 0

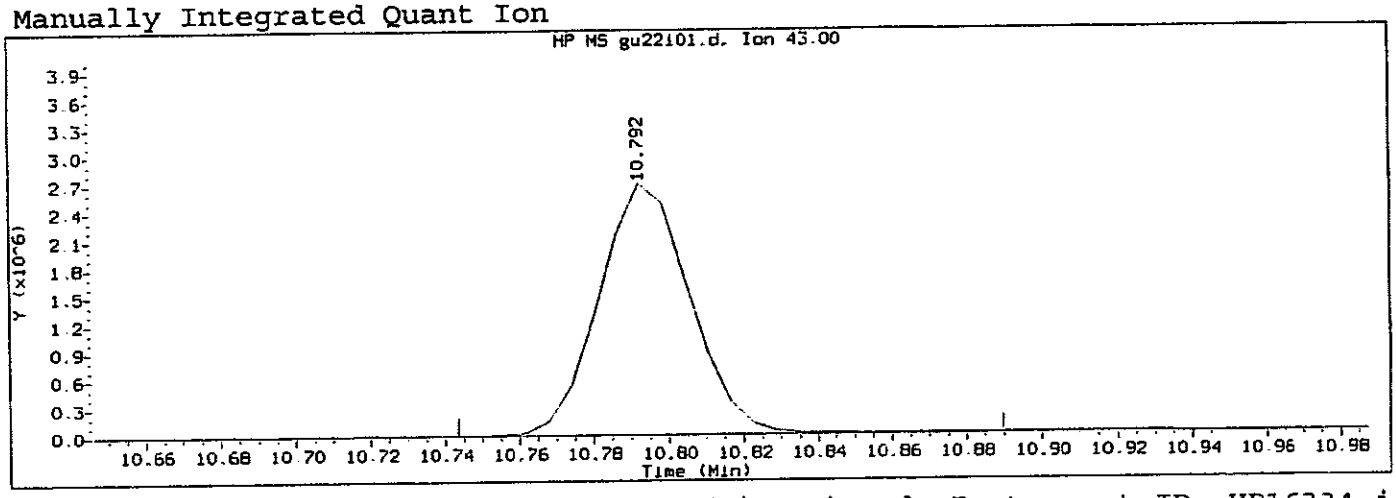
RAD12 0864

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i01 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	106
Compound Name	:	2-Hexanone
Scan Number	:	1510
Retention Time (minutes)	:	10.792
Quant Ion	:	43
Area (flag)	:	4570830 M
Concentration (ug/L)	:	237.0259
Integration start scan	:	1501 Integration stop scan: 1525
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

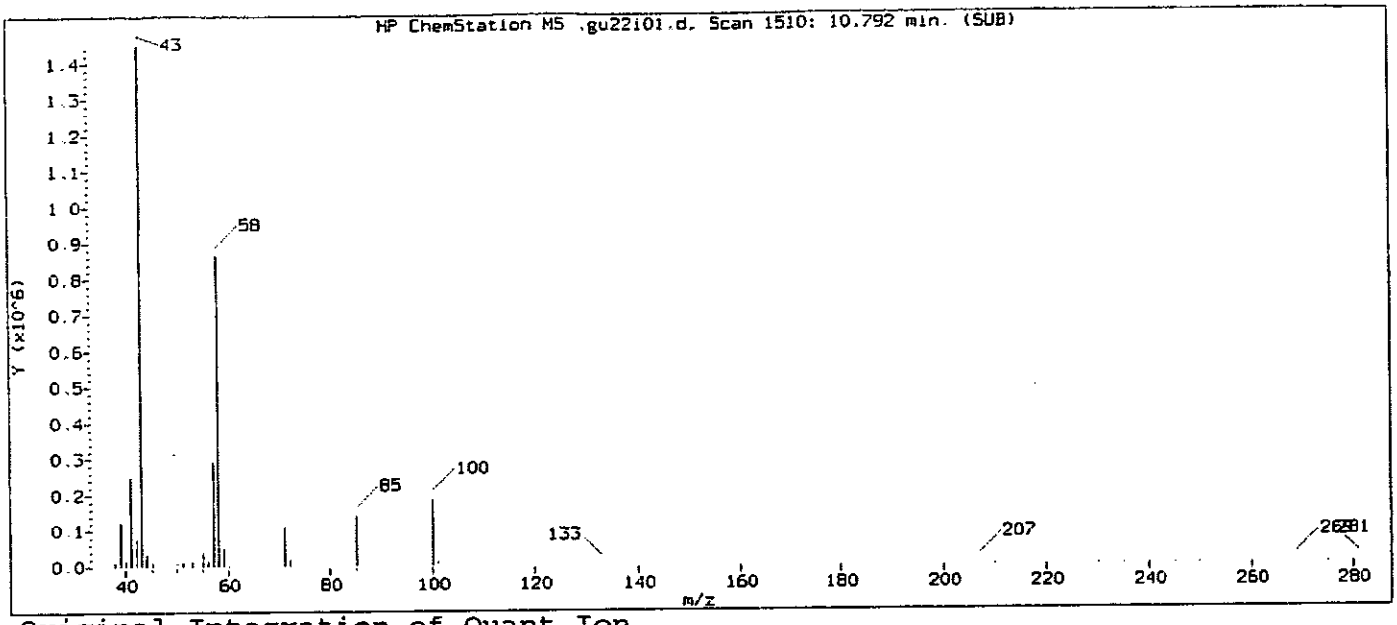
Analyst responsible for change: sew 2002 6/22/09

GC/MS audit/management approval: 6/23/09

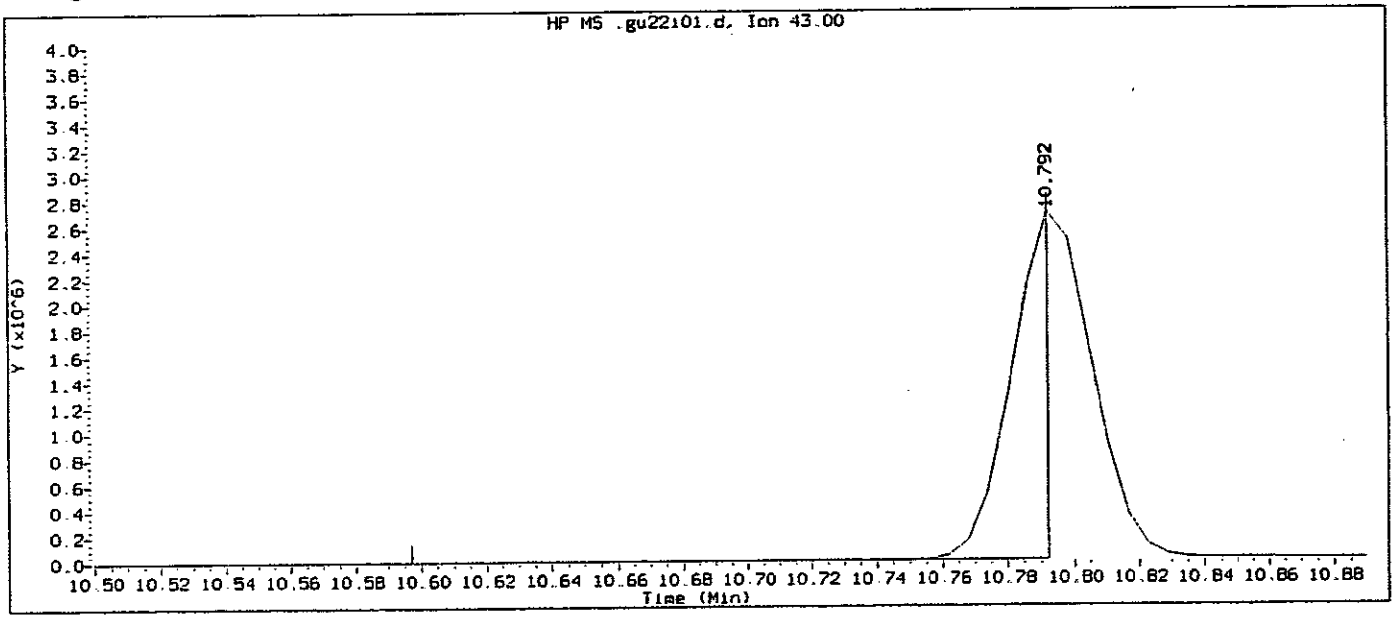
BAD19 0065

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i01 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:57
Date, time and analyst ID of latest file update: 22-Jun-2009 15:57 Automation

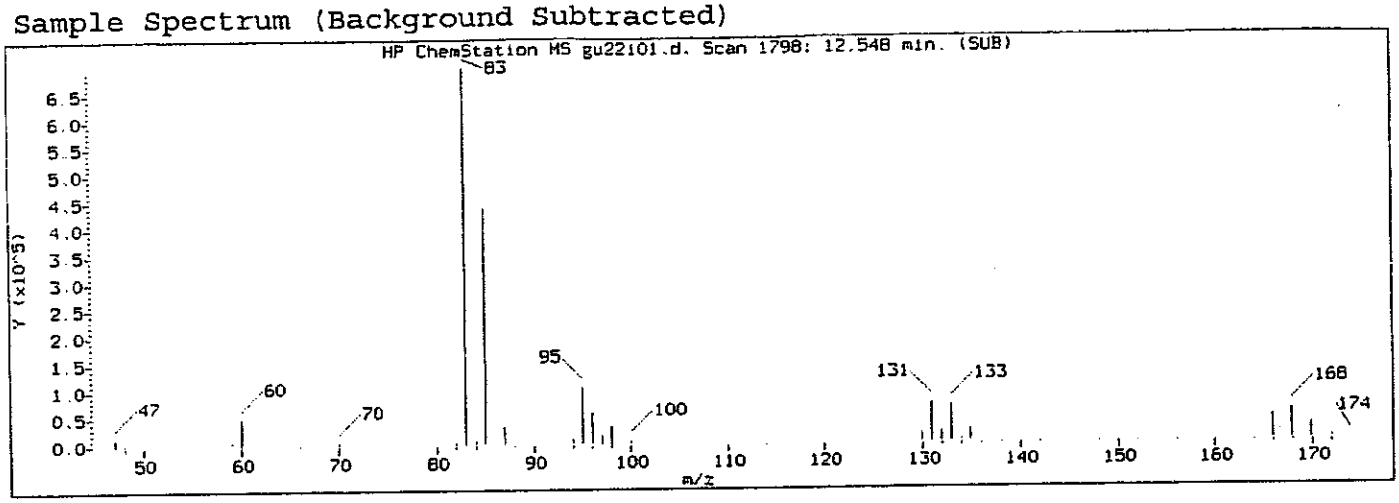
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	: 106
Compound Name	: 2-Hexanone
Scan Number	: 1510
Retention Time (minutes)	: 10.792
Quant Ion	: 43
Area	: 2014583
Concentration (ug/L)	: 123.3388
Integration start scan	: 1477 Integration stop scan: 1509
Y at integration start	: 684 Y at integration end: 684

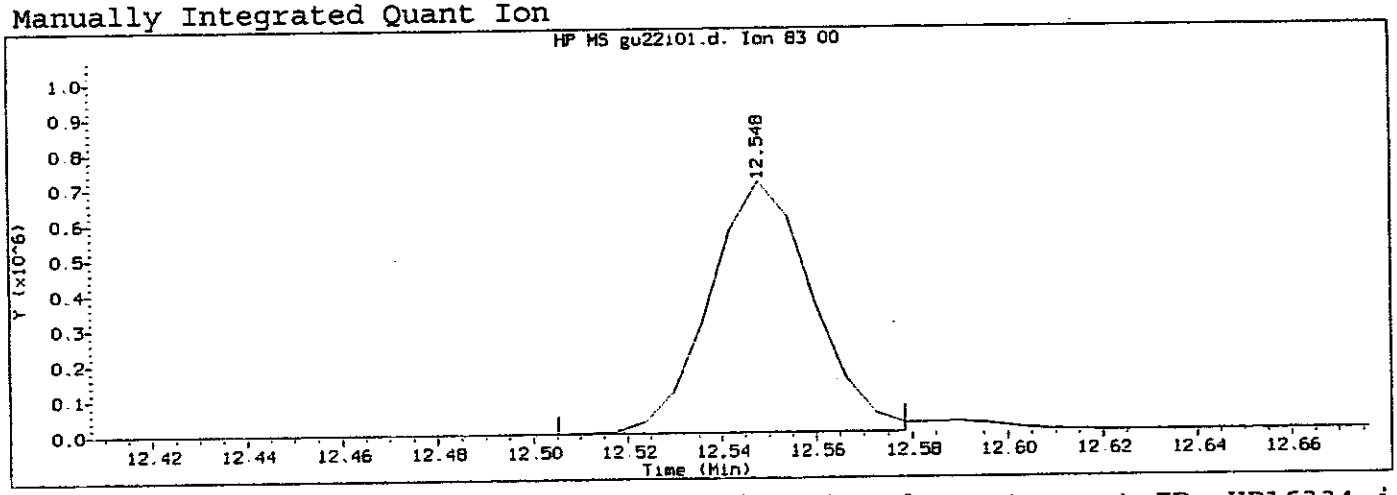
RAD19 8866

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i01.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area (flag)	:	1084236 M
Concentration (ug/L)	:	24.0477
Integration start scan	:	1790 Integration stop scan: 1802
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

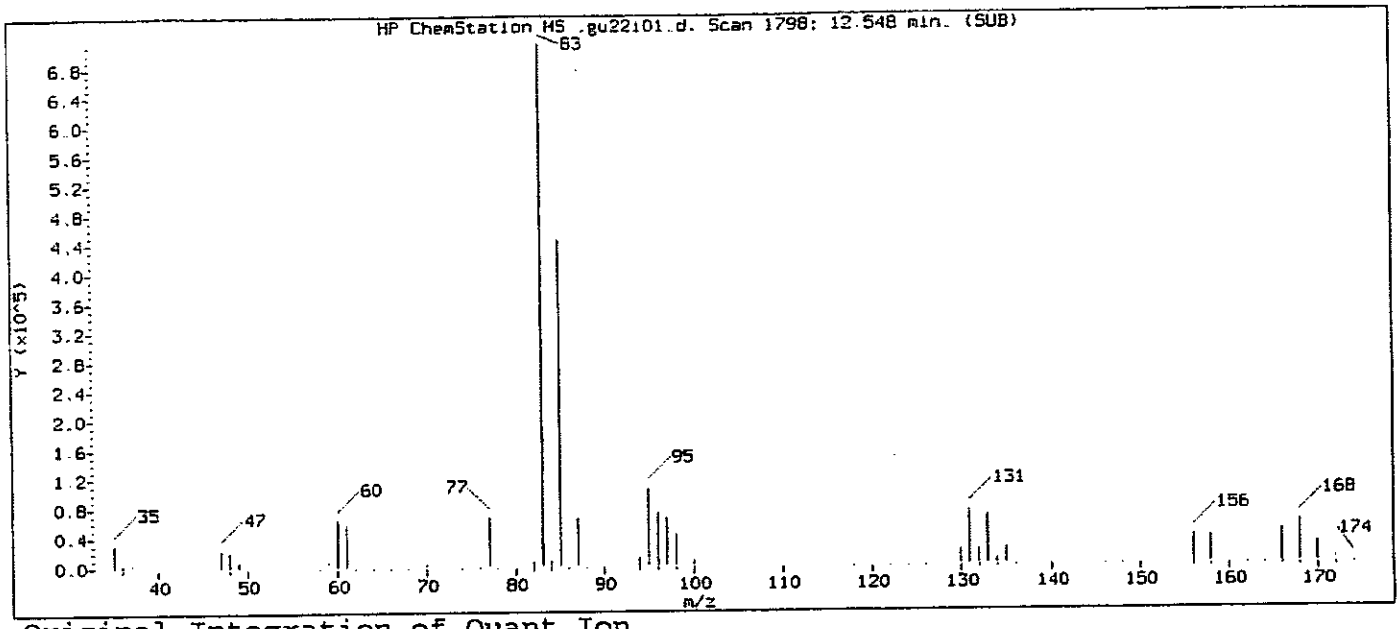
Analyst responsible for change: sew 2002 6/22/09

GC/MS audit/management approval: 6-23-09

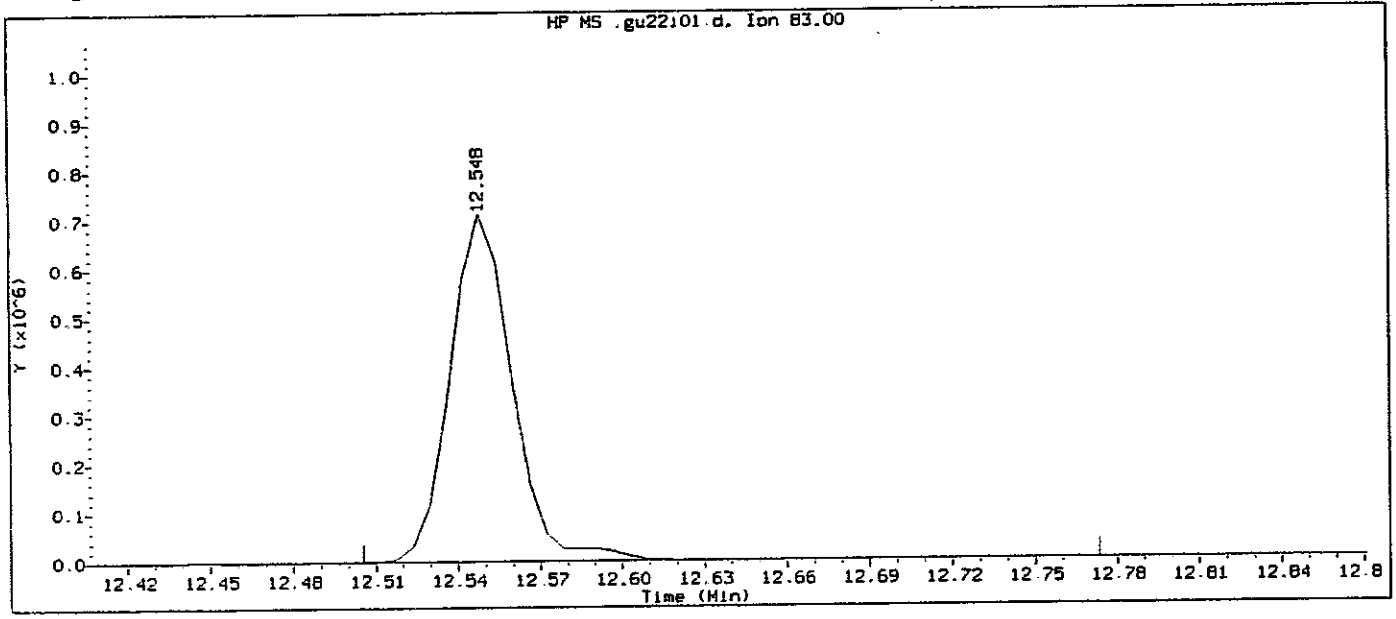
RA019 8867

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i01.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:57
Date, time and analyst ID of latest file update: 22-Jun-2009 15:57 Automation

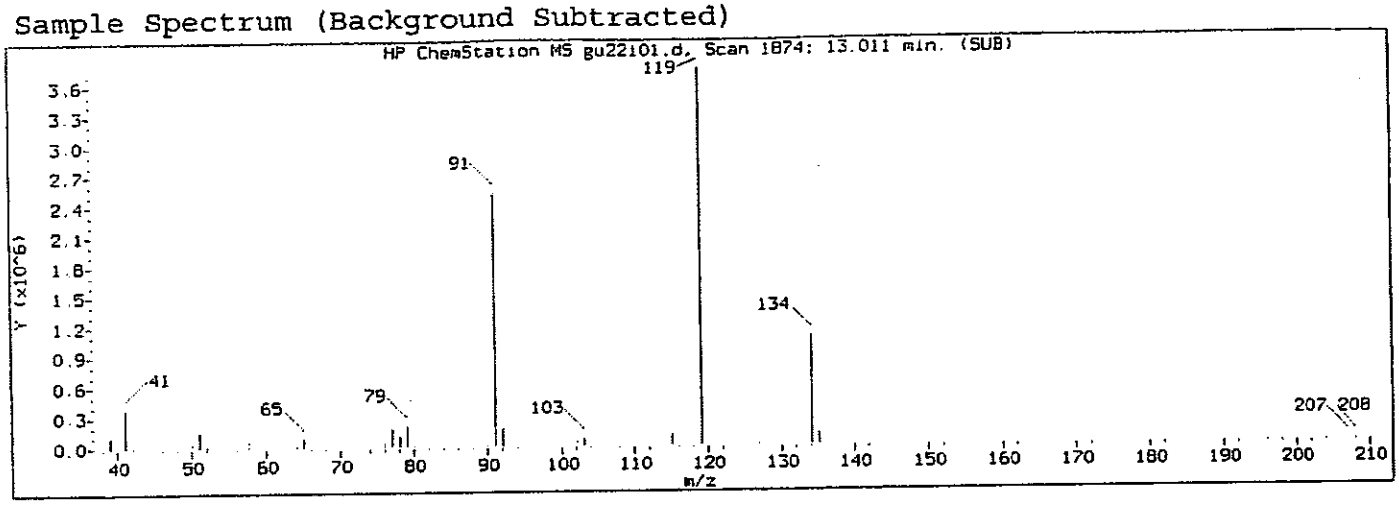
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area	:	1118036
Concentration (ug/L)	:	23.1065
Integration start scan	:	1790 Integration stop scan: 1834
Y at integration start	:	0 Y at integration end: 0

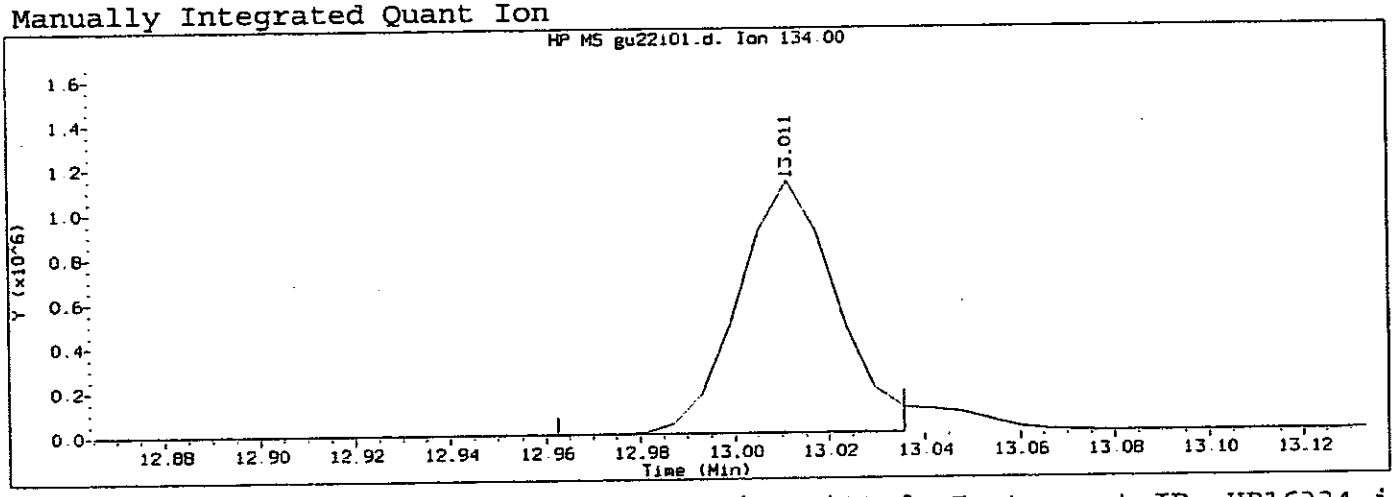
BAD19 0868

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i01.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	1633712 M
Concentration (ug/L)	:	25.1756
Integration start scan	:	1865 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

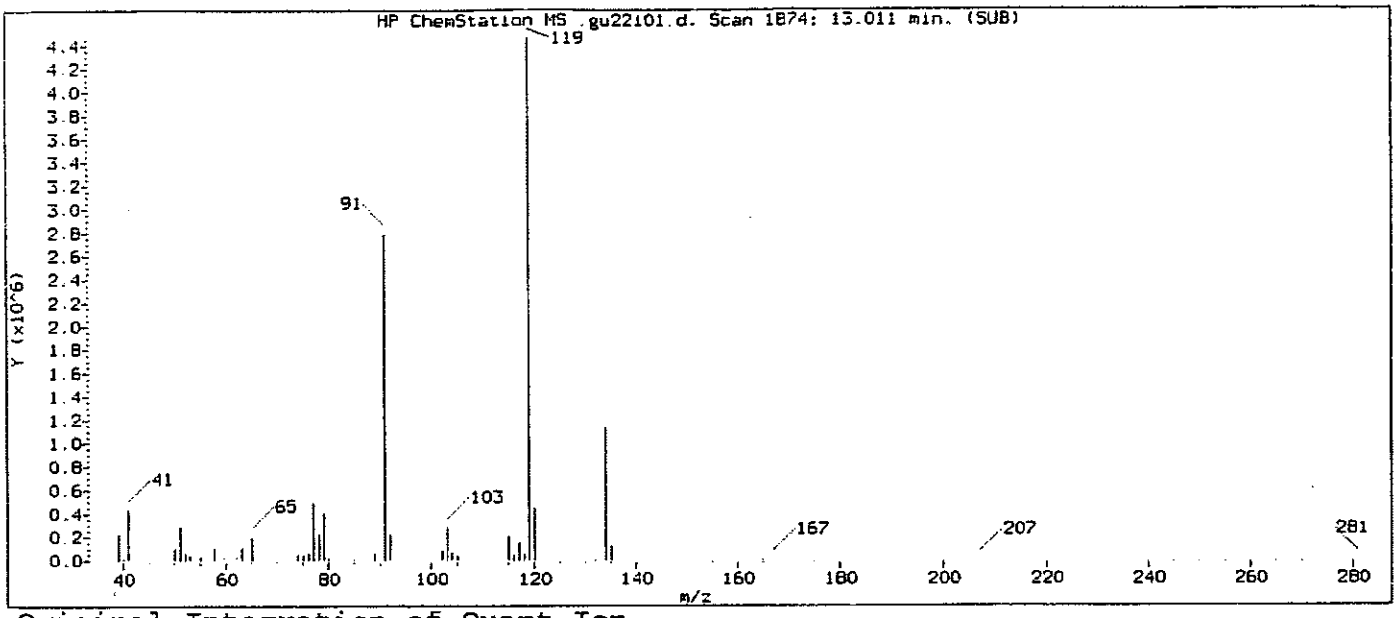
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

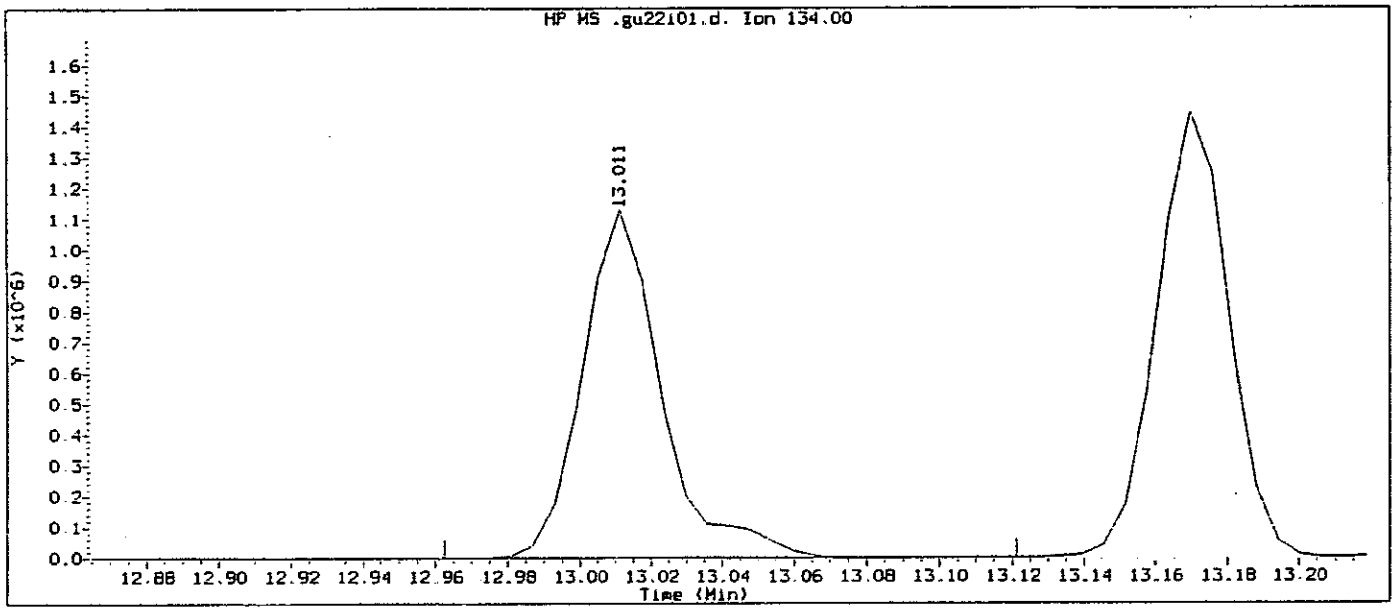
RAD19 8869

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i01.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 15:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:57
Date, time and analyst ID of latest file update: 22-Jun-2009 15:57 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

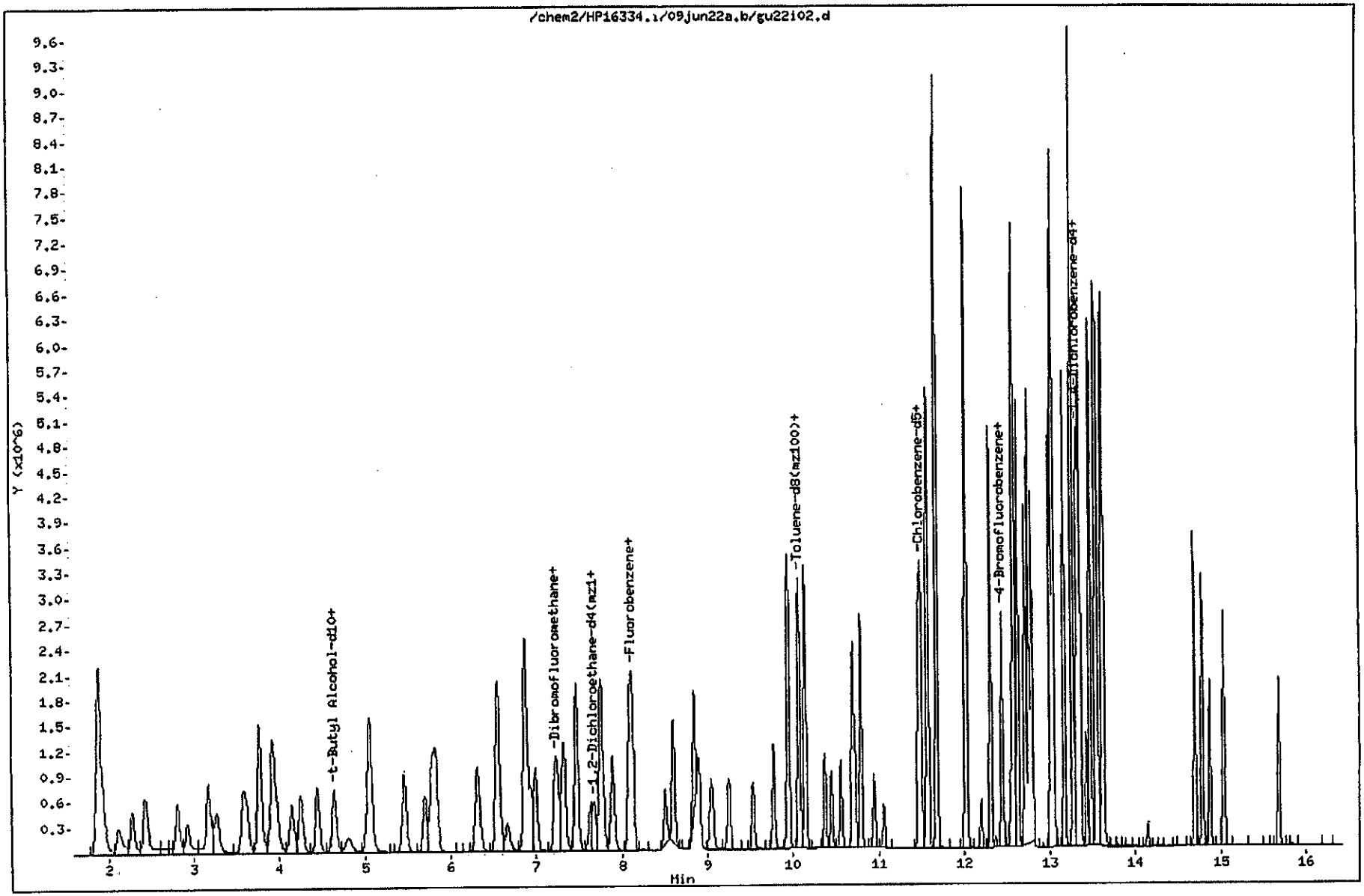
Compound Number : 136
Compound Name : tert-Butylbenzene
Scan Number : 1874
Retention Time (minutes): 13.011
Quant Ion : 134
Area : 1735089
Concentration (ug/L) : 29.0179
Integration start scan : 1865 Integration stop scan: 1891
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i01.d. generated on 06/22/2009 at 19:52

Data File: /chem2/HP16334.1/09jun22a.b/gu22i02.d
Date : 22-JUN-2009 16:01
Client ID: VSTD010
Sample Info: VSTD010;VSTD010;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.1
Operator: JHL01693
Column diameter: 0.25

RADIAN 8671



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.117	85	828107	9.559
5) Chloromethane	(1)	2.276	50	712106	10.043
6) Vinyl Chloride	(1)	2.422	62	776321	9.346
9) Bromomethane	(1)	2.806	94	594305	10.093
10) Chloroethane	(1)	2.922	64	414353	10.078
12) Dichlorofluoromethane	(1)	3.166	67	1195876	10.137
14) Trichlorofluoromethane	(1)	3.269	101	1012280M	9.732
16) Ethyl Ether	(1)	3.568	59	386887	10.016
17) Freon 123a	(1)	3.611	67	712976	9.641
22) Acrolein	(4)	3.763	56	2440808	483.737
23) 1,1-Dichloroethene	(1)	3.916	96	568035	9.498
24) Freon 113	(1)	3.934	101	636378	9.874
25) Acetone	(4)	3.977	58	199169M	93.206
26) Methyl Iodide	(1)	4.141	142	1073799	9.640
28) Carbon Disulfide	(1)	4.245	76	1690944	9.990
31) Allyl Chloride	(1)	4.440	41	790010	9.916
32) Methyl Acetate	(1)	4.464	43	164740	10.037
33) Methylene Chloride	(1)	4.635	84	631149	10.008
35) *t-Butyl Alcohol-d10	(4)	4.684	65	104844	50.000
37) t-Butyl Alcohol	(4)	4.806	59	514315	188.267
38) Acrylonitrile	(4)	5.025	53	435640	48.205
40) trans-1,2-Dichloroethene	(1)	5.056	96	642728	9.542
36) 1,2-Dichloroethene (Total)	(1)		96	1328738	19.126
39) Methyl Tertiary Butyl Ether	(1)	5.050	73	1239682	9.642
43) n-Hexane	(1)	5.458	57	865333	9.734
44) 1,1-Dichloroethane	(1)	5.696	63	1007441	9.560
46) di-Isopropyl Ether	(1)	5.781	45	1740089	9.708
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	900463	9.696
48) Ethyl t-Butyl Ether	(1)	6.311	59	1607083	9.779
50) 2,2-Dichloropropane	(1)	6.543	77	845538	9.727
49) cis-1,2-Dichloroethene	(1)	6.543	96	686010	9.584
51) 2-Butanone	(4)	6.561	43	1067040	94.738
52) Propionitrile	(4)	6.665	54	638437	191.317
54) Methacrylonitrile	(4)	6.872	67	1211788	97.292

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8872

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.885	128	290833	9.994
56) Tetrahydrofuran	(4)	6.939	71	331724	96.422
57) Chloroform	(1)	6.994	83	1050984	9.601
62) 1,1,1-Trichloroethane	(1)	7.244	97	903281	9.697
63) Cyclohexane	(1)	7.317	56	1037240	9.693
64) 1,1-Dichloropropene	(1)	7.464	75	825177	9.633
65) Carbon Tetrachloride	(1)	7.470	117	811931	9.794
66) Isobutyl Alcohol	(4)	7.628	41	390753	497.856
71) Benzene	(1)	7.750	78	2538338	9.619
73) 1,2-Dichloroethane	(1)	7.781	62	555623	9.575
72) 1,2-Dichloroethane(mz98)	(1)	7.781	98	55997	9.742
74) t-Amyl Methyl Ether	(1)	7.890	73	1378068	9.726
76) *Fluorobenzene	(1)	8.122	96	2325495	10.000
75) n-Heptane	(1)	8.086	43	875172	9.594
80) n-Butanol	(4)	8.506	56	728989	991.783
82) Trichloroethene	(1)	8.604	95	675247	9.667
83) Methylcyclohexane	(1)	8.848	83	1178693	10.080
84) 1,2-Dichloropropane	(1)	8.902	63	586346	9.689
87) Dibromomethane	(1)	9.055	93	259616	9.689
88) 1,4-Dioxane	(4)	9.073	88	103154	493.982
86) Methyl Methacrylate	(4)	9.037	69	236026	9.885
89) Bromodichloromethane	(1)	9.256	83	714368	9.861
90) 2-Nitropropane	(4)	9.536	41	608863	96.734
93) cis-1,3-Dichloropropene	(1)	9.780	75	832120	9.971
95) 4-Methyl-2-Pentanone	(1)	9.945	43	2682477	96.023
100) Toluene	(2)	10.146	92	1669482	9.600
101) trans-1,3-Dichloropropene	(2)	10.372	75	664755	10.065
102) Ethyl Methacrylate	(2)	10.451	69	516603	9.937
103) 1,1,2-Trichloroethane	(2)	10.561	97	373126	9.639
104) Tetrachloroethene	(2)	10.701	166	761736	9.644
105) 1,3-Dichloropropane	(2)	10.725	76	623690	9.612
106) 2-Hexanone	(2)	10.792	43	1811558	94.962
107) Dibromochloromethane	(2)	10.951	129	486113	10.115
108) 1,2-Dibromoethane	(2)	11.061	107	362164	9.785

* = Compound is an internal standard.

RAD19 8873

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1673643	10.000
111) Chlorobenzene	(2)	11.500	112	1835630	9.651
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	621206	9.975
113) Ethylbenzene	(2)	11.585	91	3256996	9.774
116) m+p-Xylene	(2)	11.682	106	2657643	19.740
114) Xylene (Total)	(2)		106	3944389	29.667
117) o-Xylene	(2)	12.018	106	1286746	9.927
118) Styrene	(2)	12.030	104	2055567	9.984
119) Bromoform	(2)	12.201	173	257780	10.217
120) Isopropylbenzene	(2)	12.310	105	3190320	9.815
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	425663M	9.693
128) Bromobenzene	(3)	12.572	156	759731	9.751
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	969537M	99.584
130) 1,2,3-Trichloropropane	(3)	12.591	110	122692M	9.664
131) n-Propylbenzene	(3)	12.633	91	3905592	9.805
132) 2-Chlorotoluene	(3)	12.713	126	799142	9.669
134) 4-Chlorotoluene	(3)	12.792	126	816306	9.638
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	2817930	9.928
137) Pentachloroethane	(3)	13.042	167	500240	10.564
136) tert-Butylbenzene	(3)	13.011	134	635100M	10.048
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	2953686	9.948
139) sec-Butylbenzene	(3)	13.170	105	3672672	9.870
141) 1,3-Dichlorobenzene	(3)	13.274	146	1634112	9.823
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	928789	10.000
140) p-Isopropyltoluene	(3)	13.267	119	3249268	10.008
143) 1,4-Dichlorobenzene	(3)	13.335	146	1596410	9.612
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	1281201	10.050
145) Benzyl Chloride	(3)	13.426	126	199674	10.491
146) n-Butylbenzene	(3)	13.560	92	1644838	9.886
147) 1,2-Dichlorobenzene	(3)	13.609	146	1369650	9.704
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	59466	9.980
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	1069107	9.744
153) Hexachlorobutadiene	(3)	14.785	225	569803	9.850
154) Naphthalene	(3)	14.877	128	1541713	9.862

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0074

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

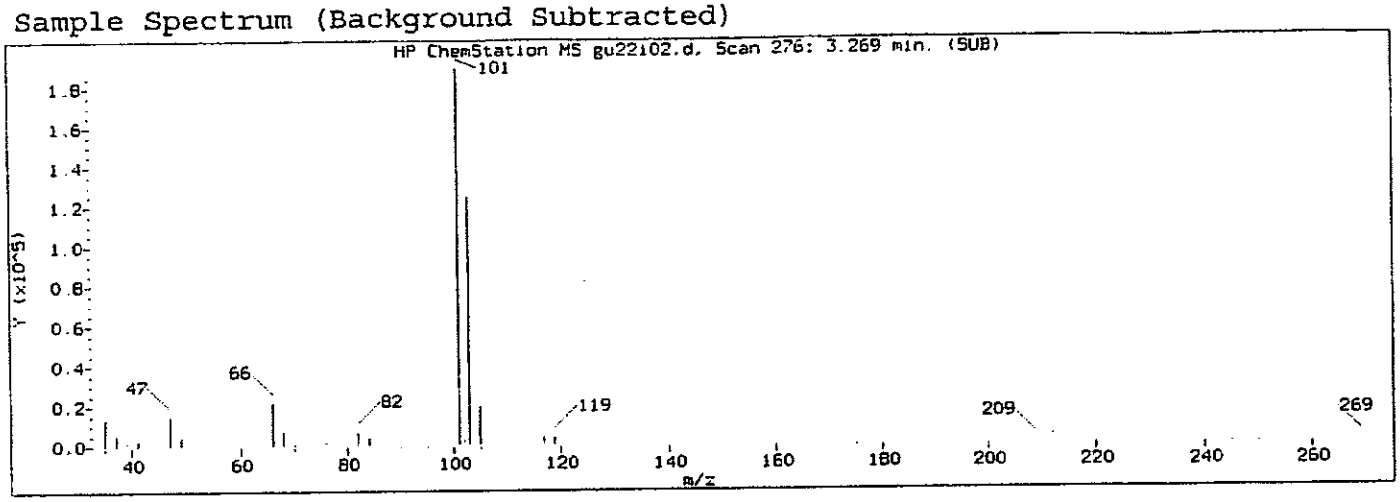
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	864976	9.697
60)$Dibromofluoromethane	(1)	7.214	113	596204	10.040
61)$Dibromofluoromethane(mz111)	(1)	7.214	111	606352	10.048
69)$1,2-Dichloroethane-d4	(1)	7.677	102	107304	10.057
67)$1,2-Dichloroethane-d4(mz104)	(1)	7.683	104	68761	9.915
68)$1,2-Dichloroethane-d4(mz65)	(1)	7.677	65	469996	9.845
96)$Toluene-d8	(2)	10.073	98	2554504	10.125
97)$Toluene-d8(mz100)	(2)	10.073	100	1642392	10.127
125)$4-Bromofluorobenzene	(2)	12.444	95	875290	10.069
126)$4-Bromofluorobenzene(mz174)	(2)	12.444	174	752170	9.956

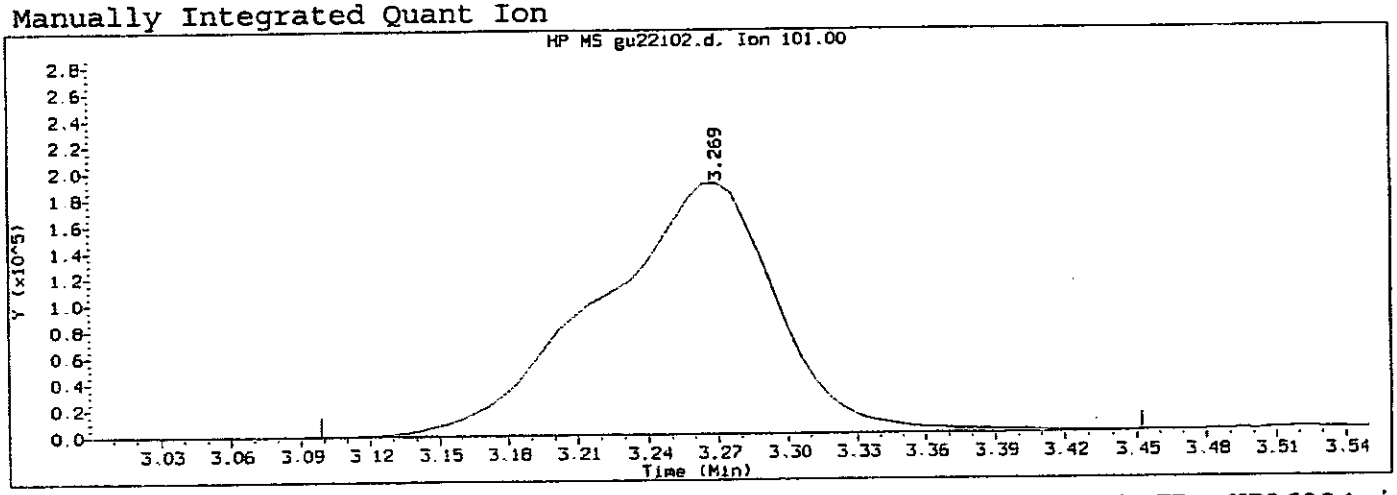
$ = Compound is a surrogate standard.

BAD19 8875

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 14
Compound Name : Trichlorofluoromethane
Scan Number : 276
Retention Time (minutes): 3.269
Quant Ion : 101
Area (flag) : 1012280 M
Concentration (ug/L) : 9.7320
Integration start scan : 247 Integration stop scan: 305
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

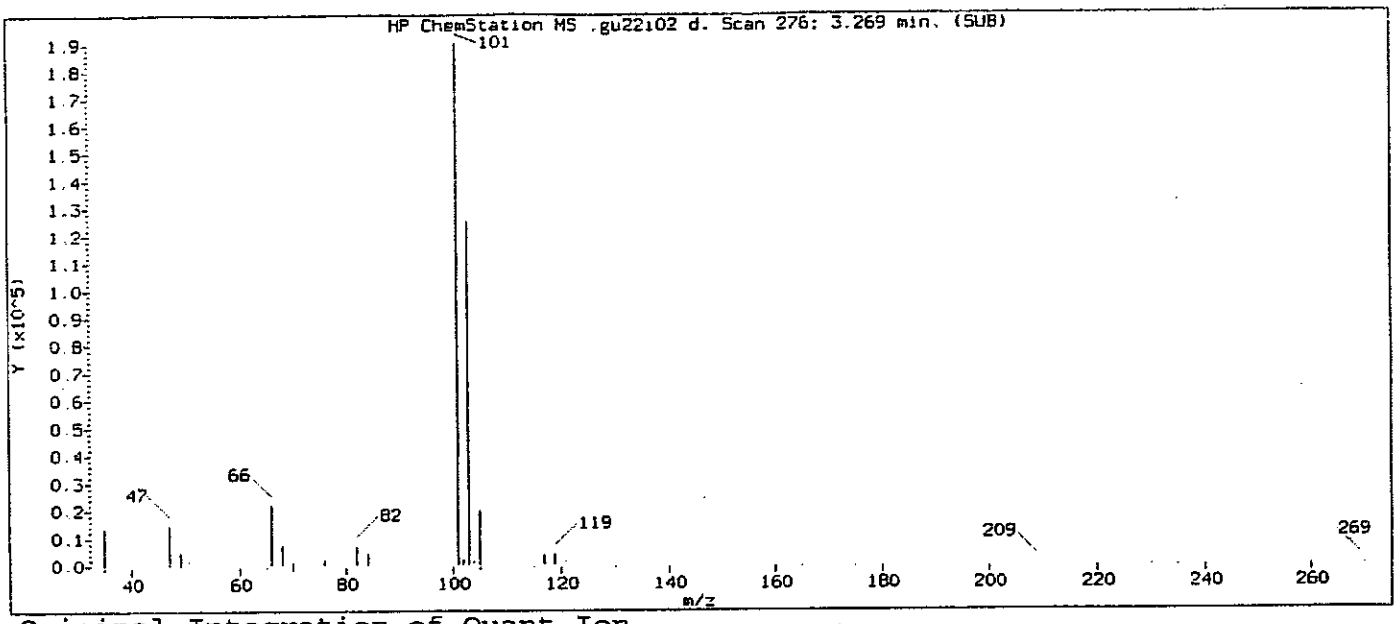
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09

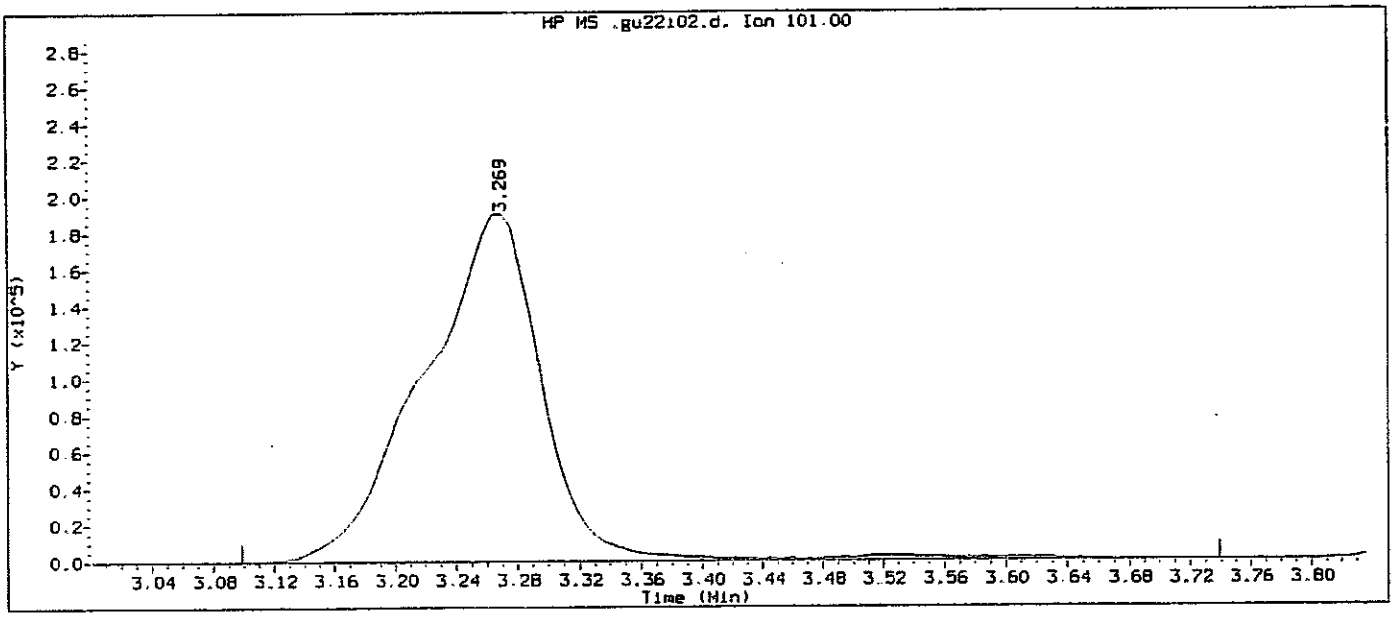
RA019 8876

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i02.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

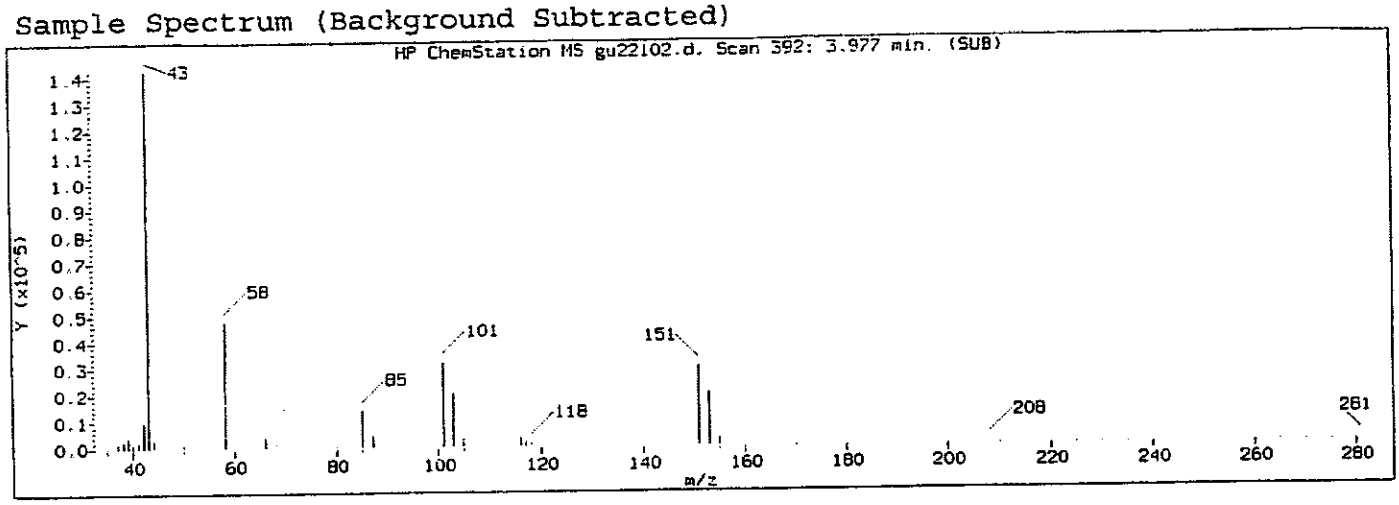
Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:18
Date, time and analyst ID of latest file update: 22-Jun-2009 16:18 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

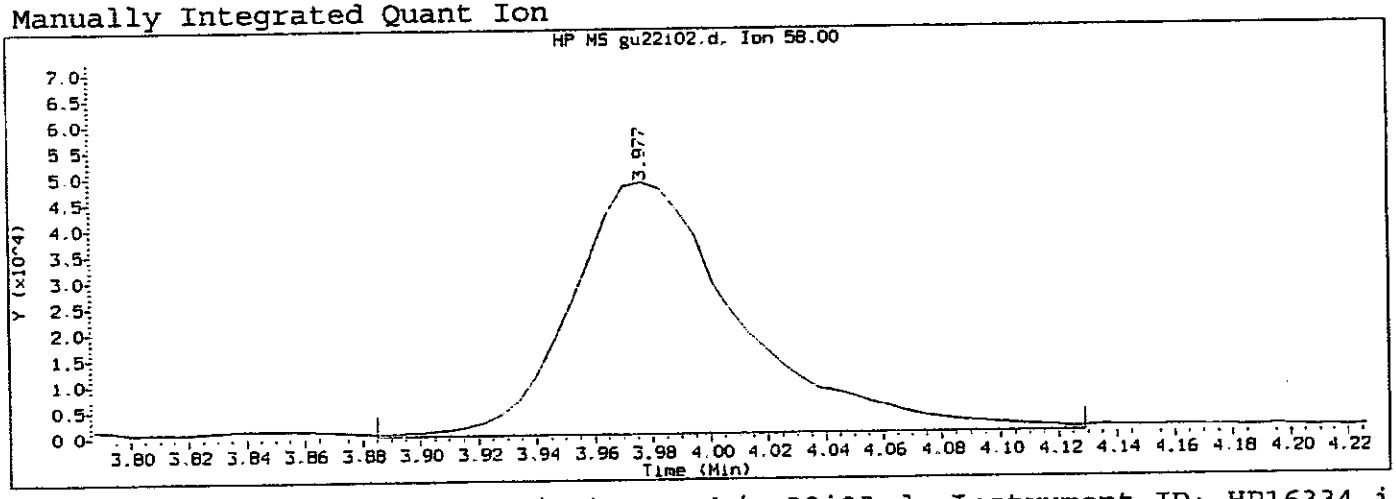
Compound Number : 14
Compound Name : Trichlorofluoromethane
Scan Number : 276
Retention Time (minutes): 3.269
Quant Ion : 101
Area : 1031307
Concentration (ug/L) : 10.9067
Integration start scan : 247 Integration stop scan: 352
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 25
Compound Name : Acetone
Scan Number : 392
Retention Time (minutes): 3.977
Quant Ion : 58
Area (flag) : 199169 M
Concentration (ug/L) : 93.2063
Integration start scan : 376 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

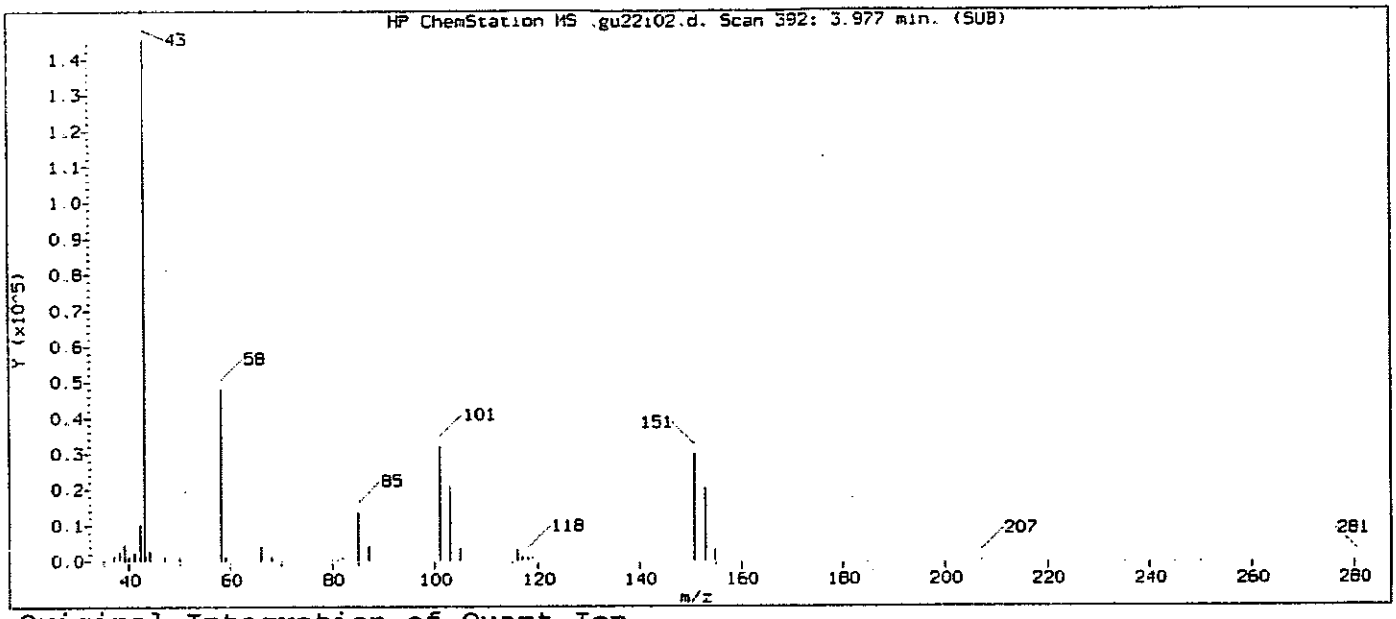
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

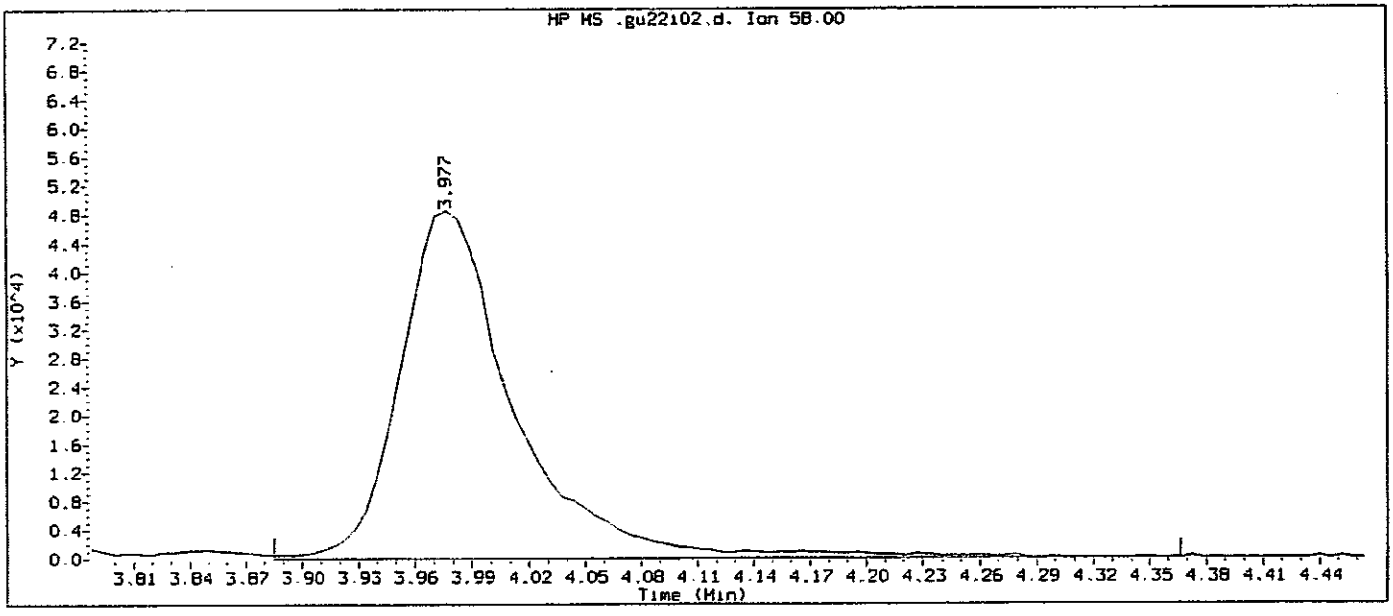
GC/MS audit/management approval: [signature] 6-23-09

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:18
Date, time and analyst ID of latest file update: 22-Jun-2009 16:18 Automation

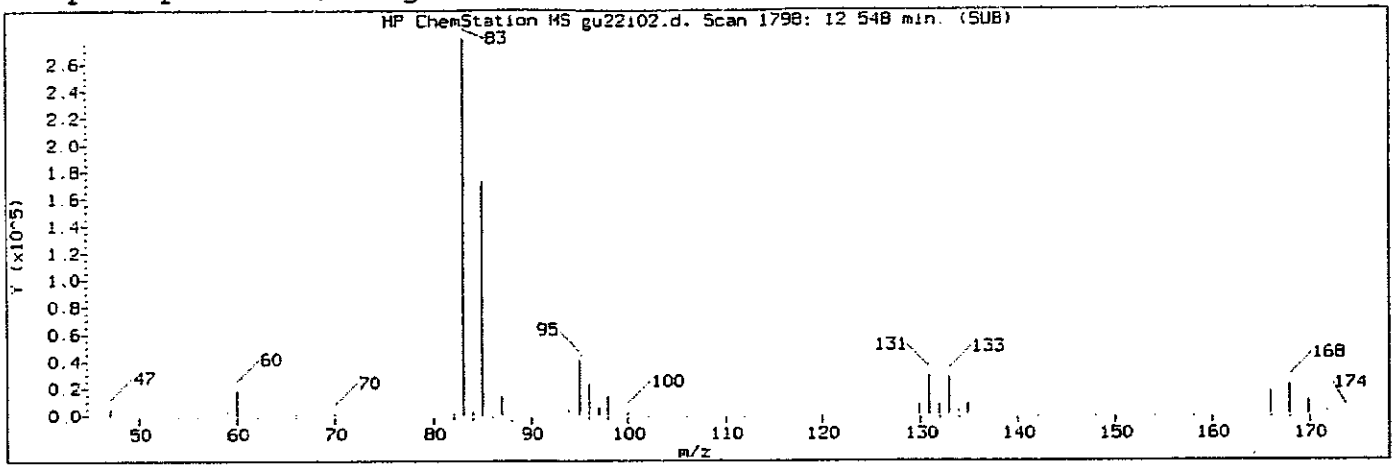
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 25
Compound Name : Acetone
Scan Number : 392
Retention Time (minutes): 3.977
Quant Ion : 58
Area : 204764
Concentration (ug/L) : 71.4766
Integration start scan : 376 Integration stop scan: 455
Y at integration start : 0 Y at integration end: 0

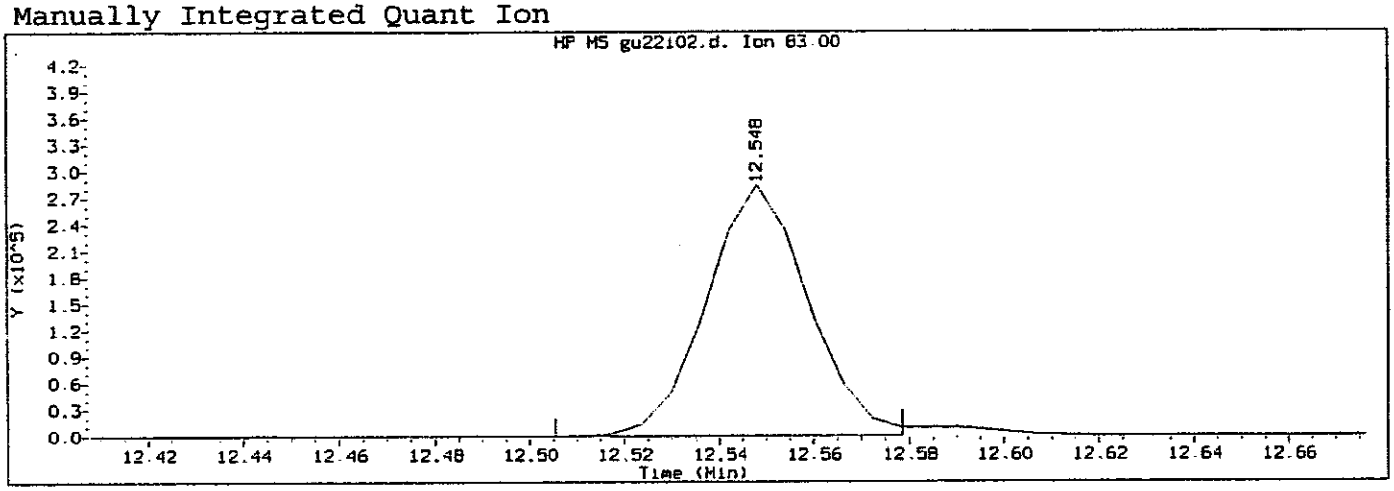
RAD19 8879

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 127
Compound Name	: 1,1,2,2-Tetrachloroethane
Scan Number	: 1798
Retention Time (minutes)	: 12.548
Quant Ion	: 83
Area (flag)	: 425663 M
Concentration (ug/L)	: 9.6930
Integration start scan	: 1790 Integration stop scan: 1802
Y at integration start	: 0 Y at integration end: 0

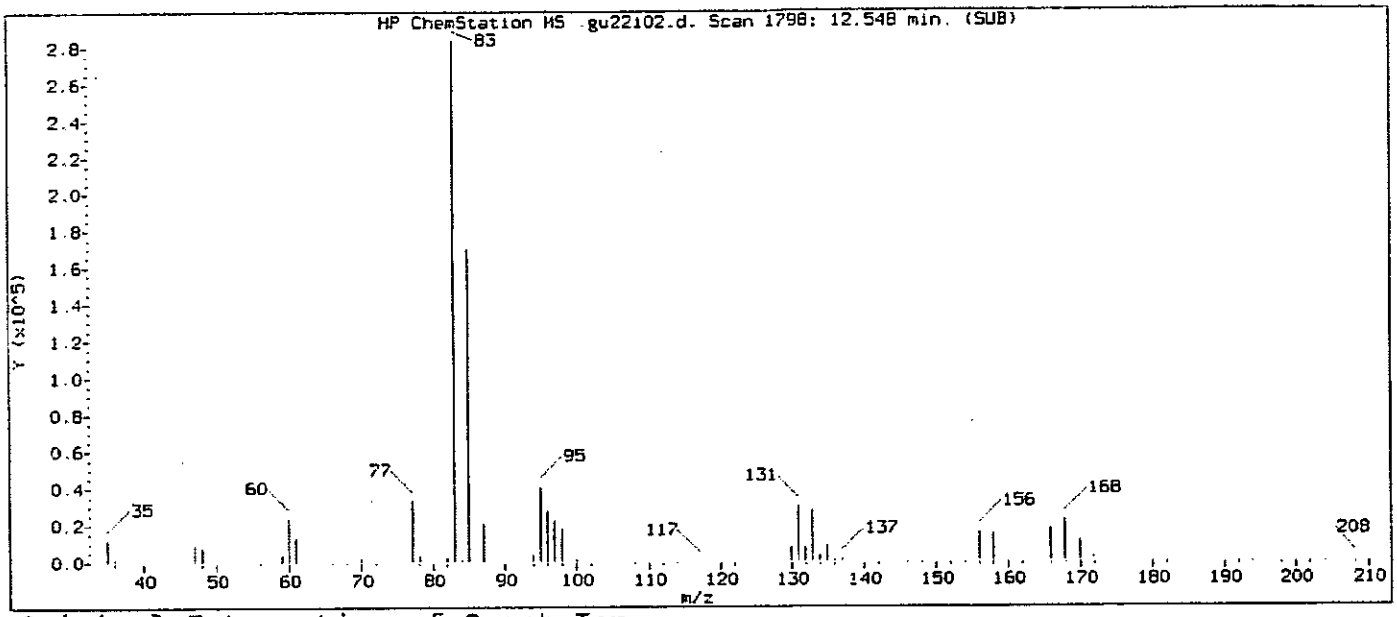
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

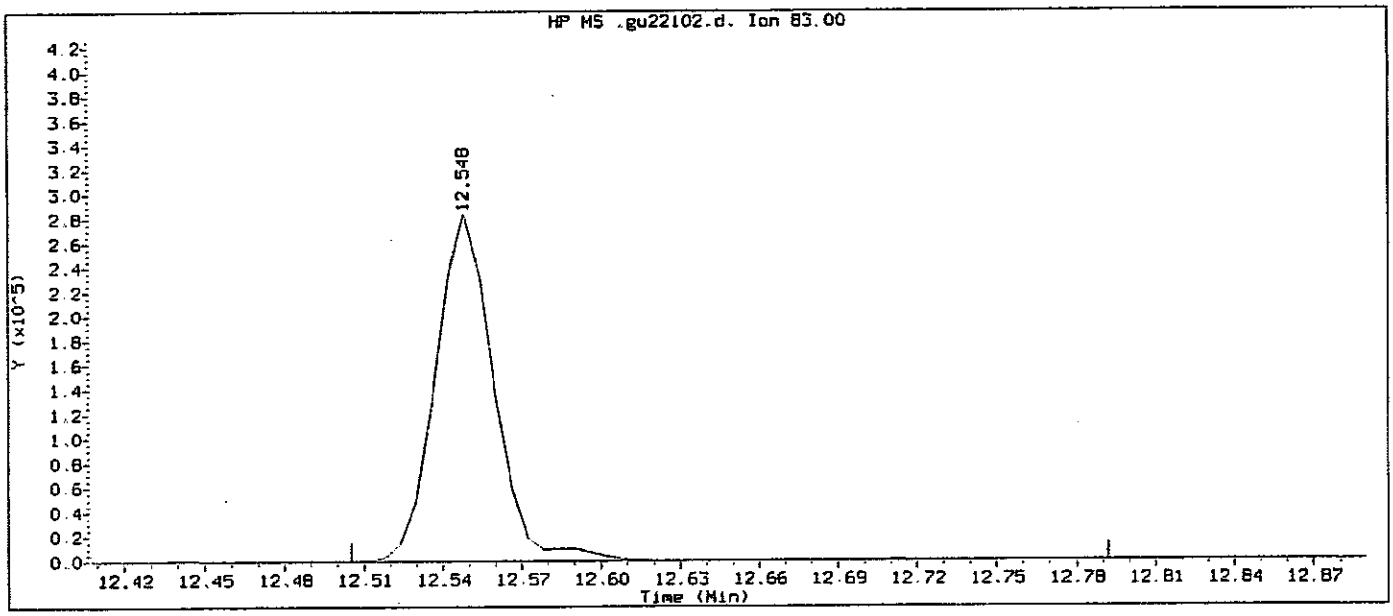
GC/MS audit/management approval: [signature] 6/23/09

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:18
Date, time and analyst ID of latest file update: 22-Jun-2009 16:18 Automation

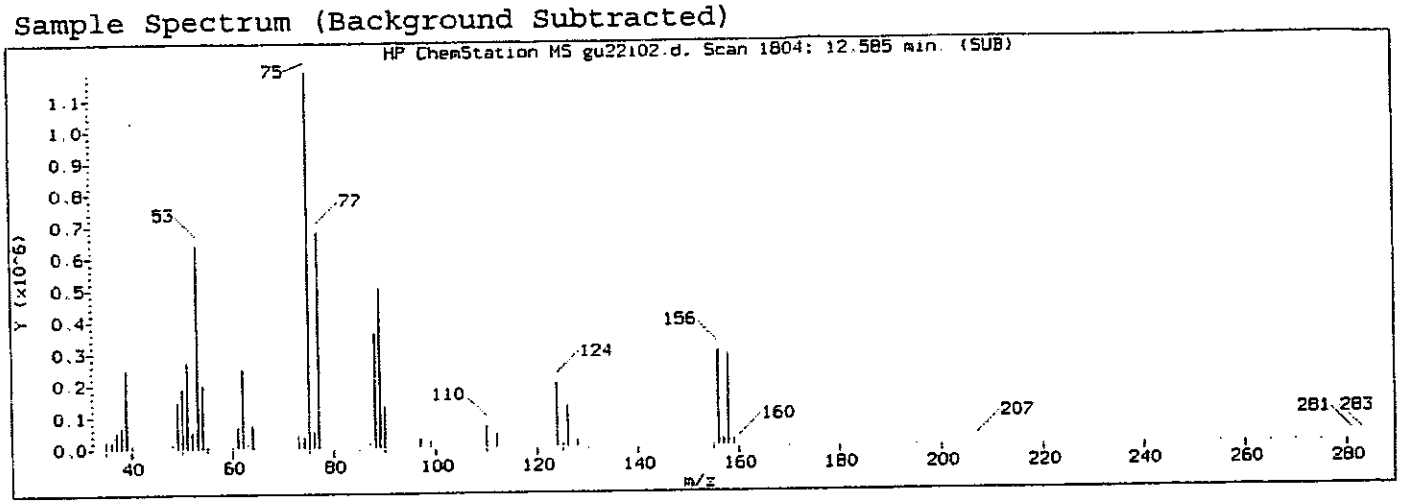
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 127
Compound Name	: 1,1,2,2-Tetrachloroethane
Scan Number	: 1798
Retention Time (minutes)	: 12.548
Quant Ion	: 83
Area	: 437266
Concentration (ug/L)	: 9.3987
Integration start scan	: 1790 Integration stop scan: 1837
Y at integration start	: 0 Y at integration end: 0

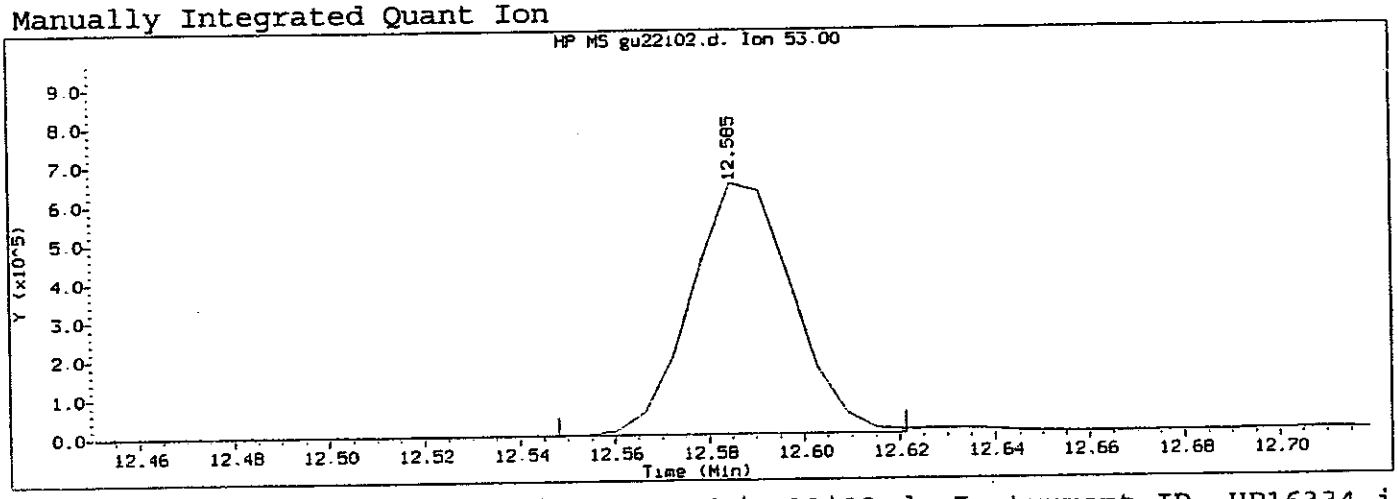
RAD19 8861

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area (flag)	:	969537 M
Concentration (ug/L)	:	99.5836
Integration start scan	:	1797 Integration stop scan: 1809
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

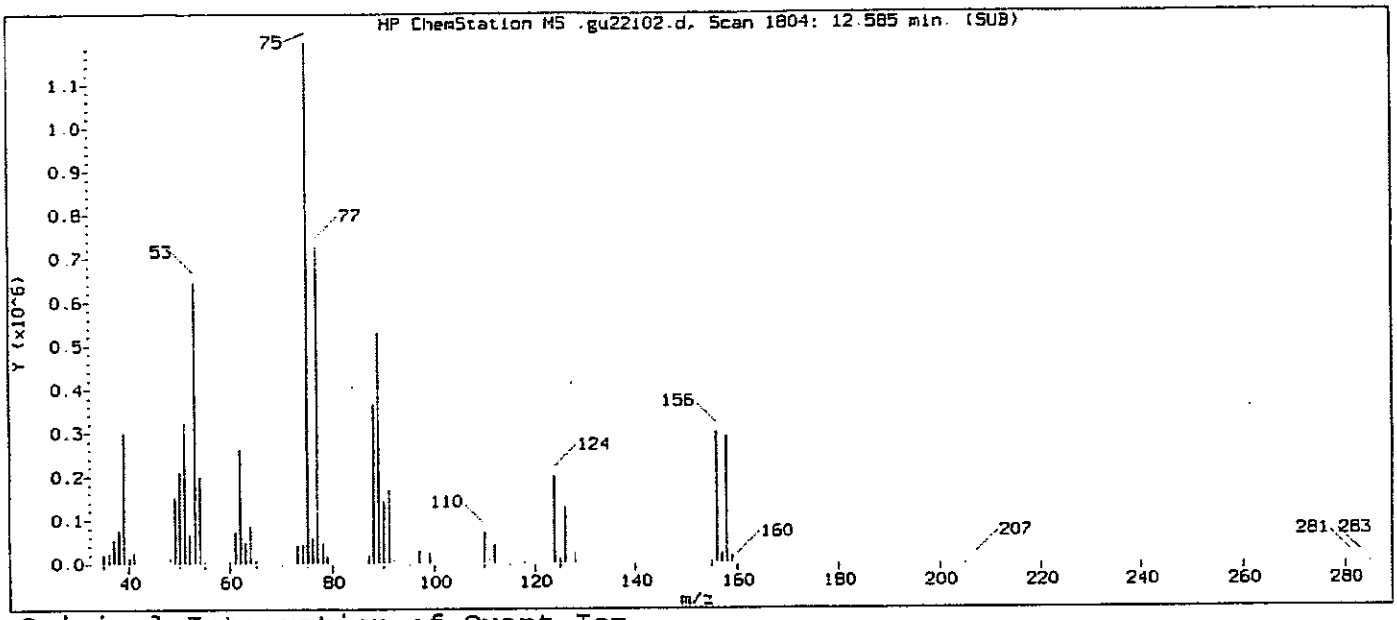
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

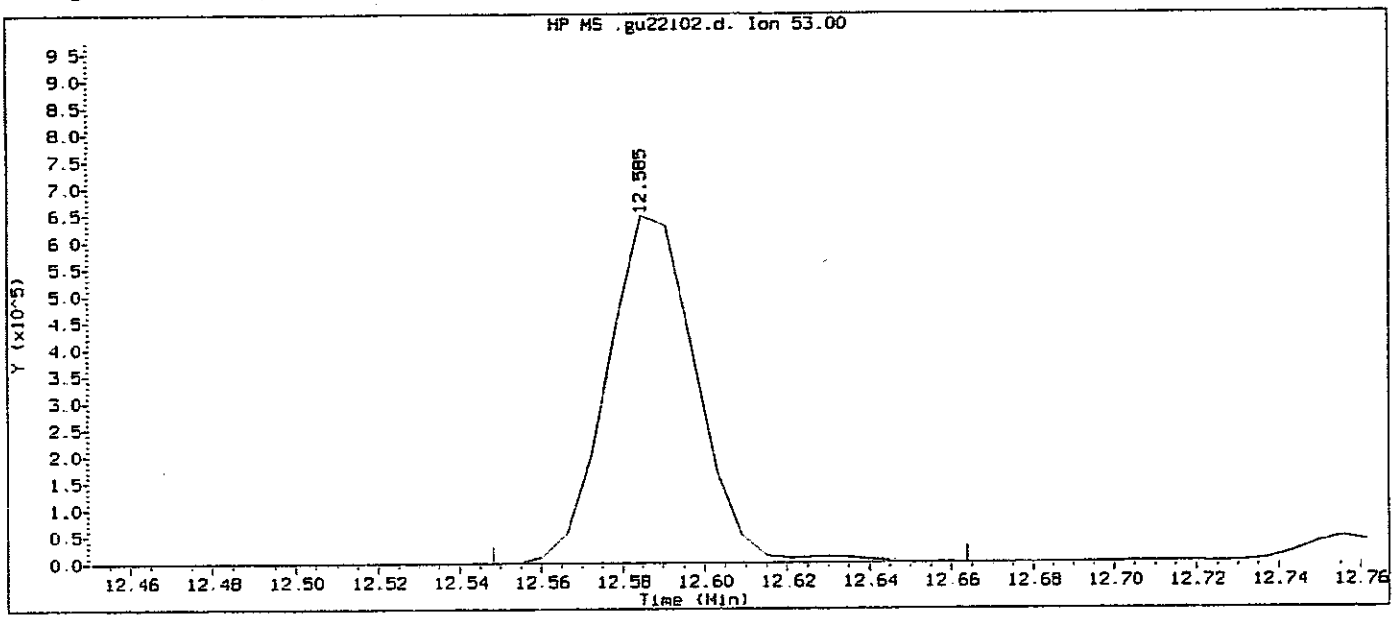
KAD19 0882

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i02.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:18
Date, time and analyst ID of latest file update: 22-Jun-2009 16:18 Automation

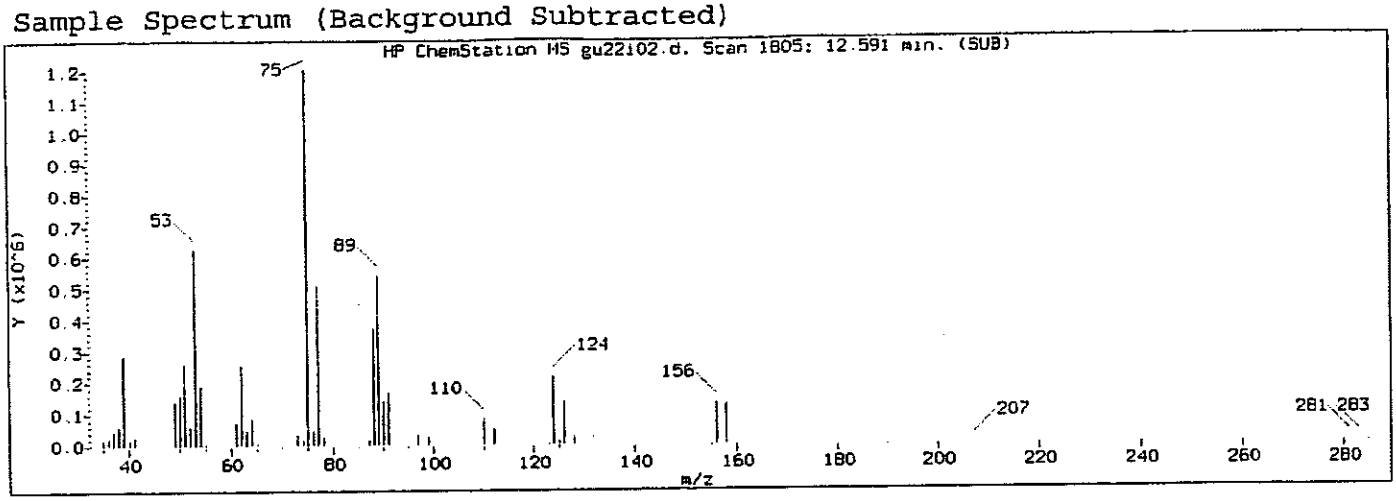
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area	:	982234
Concentration (ug/L)	:	89.5688
Integration start scan	:	1797 Integration stop scan: 1816
Y at integration start	:	0 Y at integration end: 0

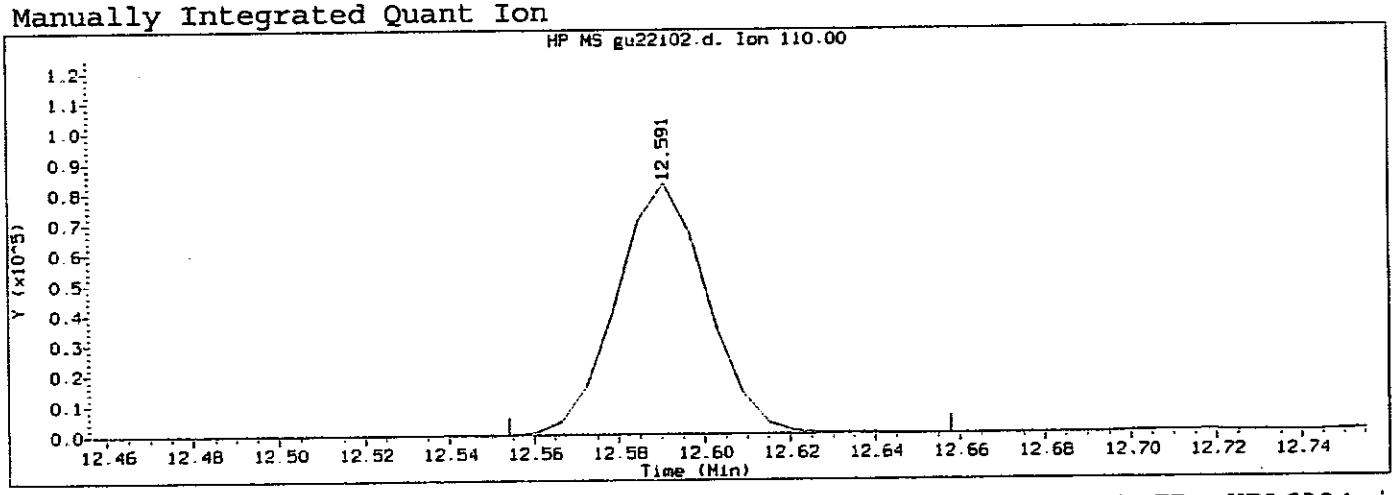
RAD19 0003

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	130
Compound Name	:	1,2,3-Trichloropropane
Scan Number	:	1805
Retention Time (minutes)	:	12.591
Quant Ion	:	110
Area (flag)	:	122692 M
Concentration (ug/L)	:	9.6638
Integration start scan	:	1798 Integration stop scan: 1815
Y at integration start	:	0 Y at integration end: 0

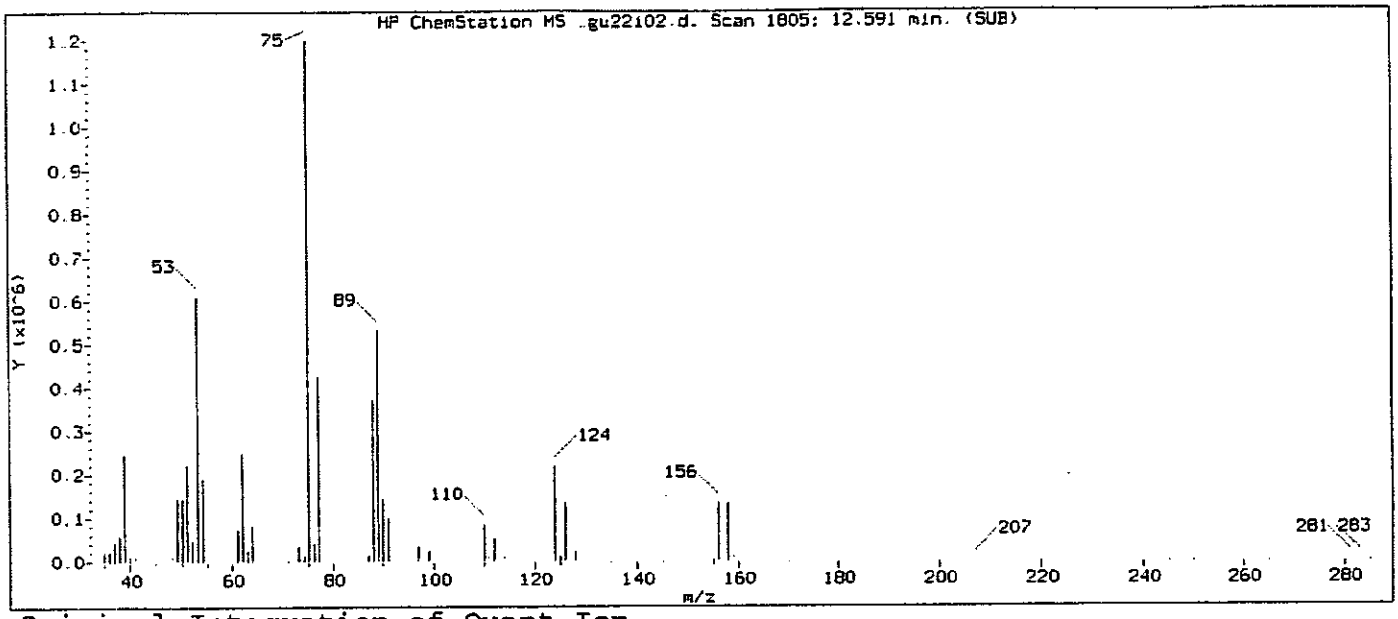
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

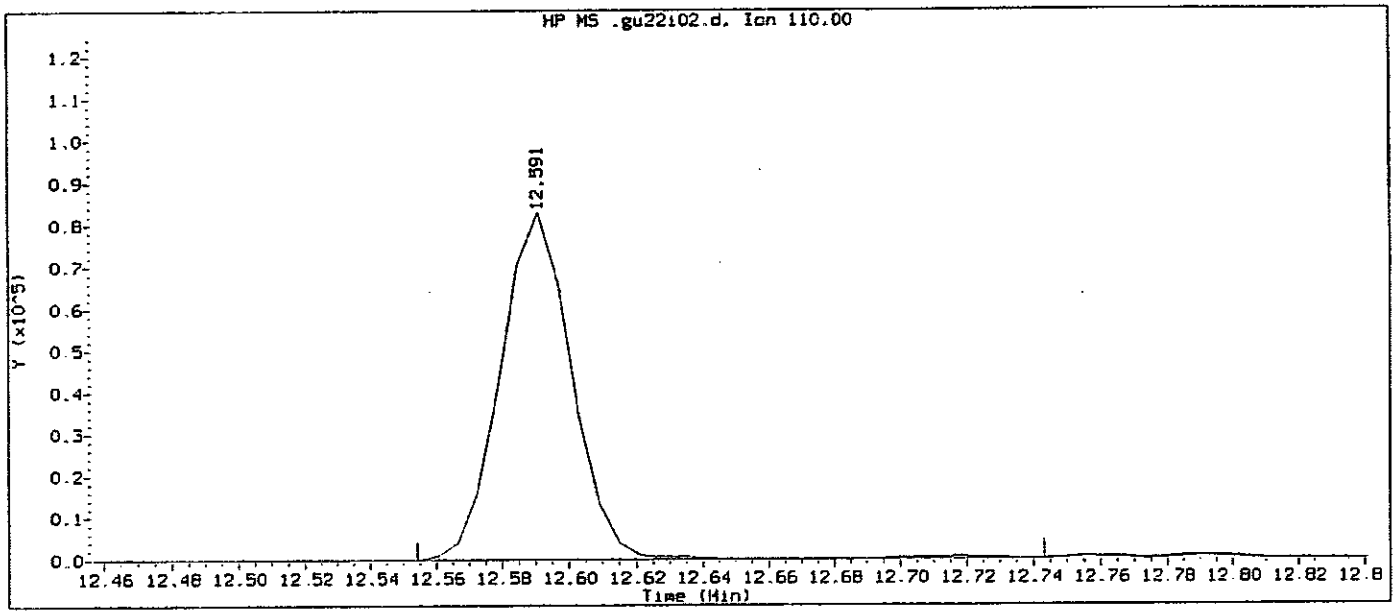
GC/MS audit/management approval: [signature] 6/23/09

RAD19 8284

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:18
Date, time and analyst ID of latest file update: 22-Jun-2009 16:18 Automation

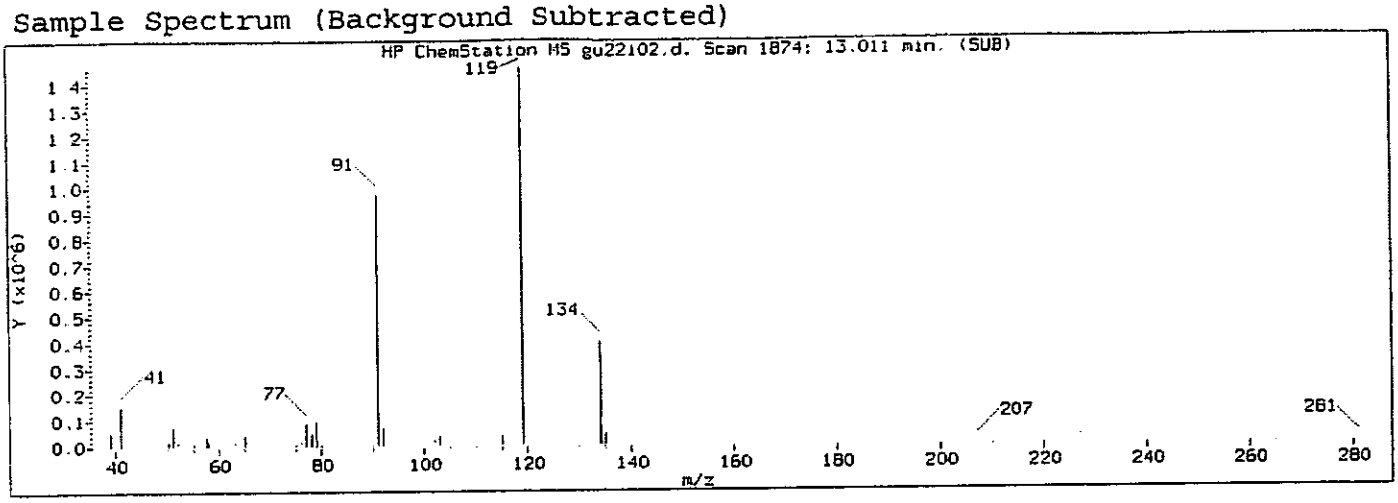
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	130
Compound Name	:	1,2,3-Trichloropropane
Scan Number	:	1805
Retention Time (minutes)	:	12.591
Quant Ion	:	110
Area	:	123571
Concentration (ug/L)	:	9.8262
Integration start scan	:	1798 Integration stop scan: 1829
Y at integration start	:	0 Y at integration end: 0

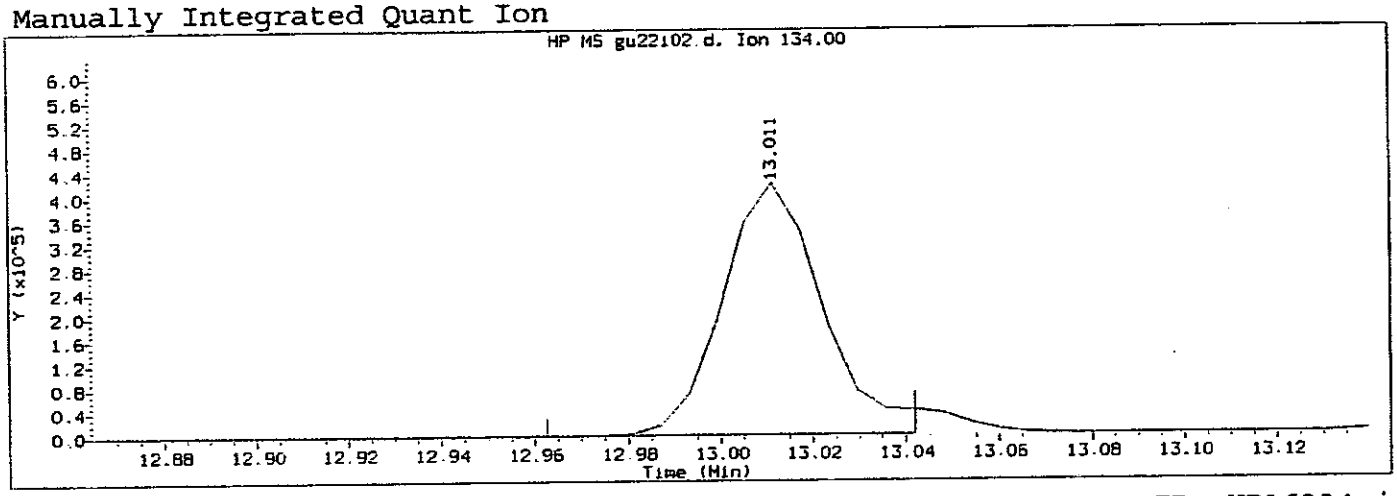
RAD19 8885

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	635100 M
Concentration (ug/L)	:	10.0482
Integration start scan	:	1865 Integration stop scan: 1878
Y at integration start	:	0 Y at integration end: 0

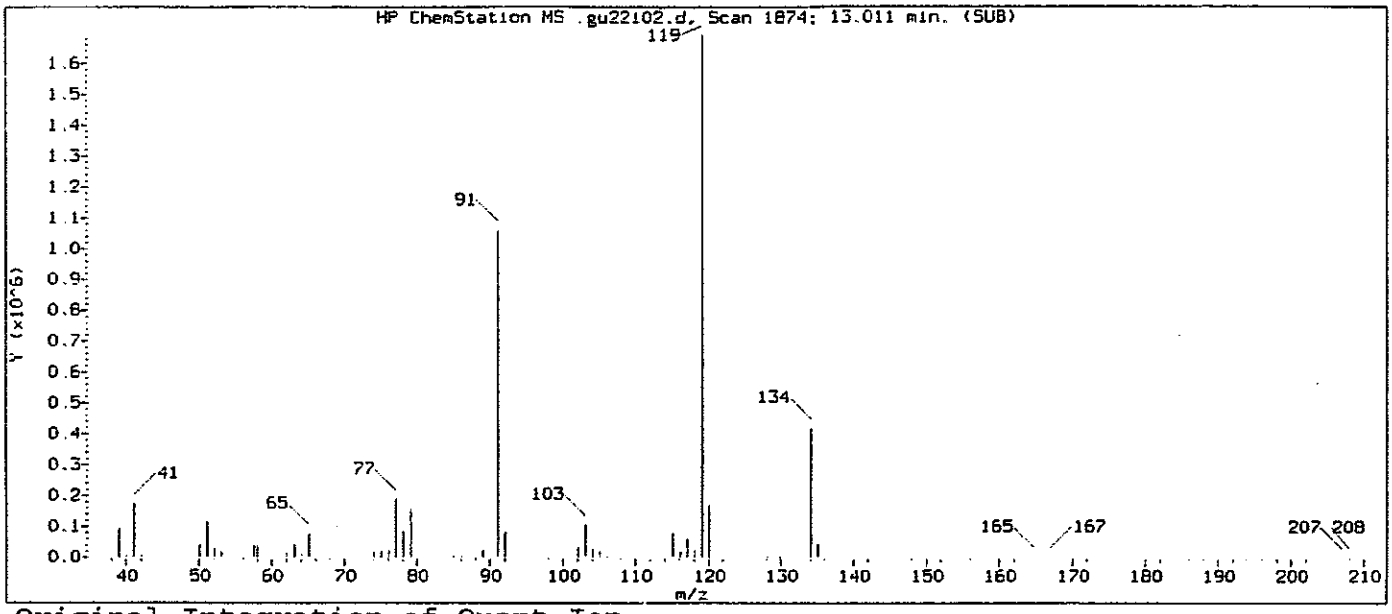
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

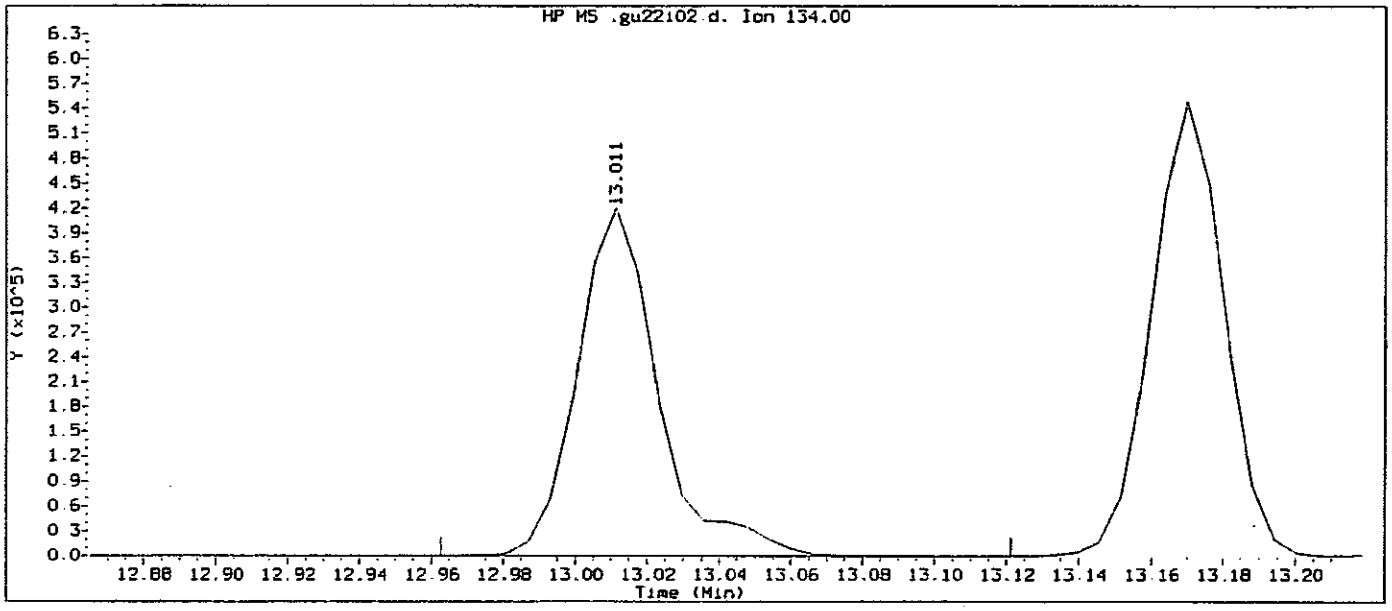
GC/MS audit/management approval: [signature] 6-23-09

RAD19 8886

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:01 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:18
Date, time and analyst ID of latest file update: 22-Jun-2009 16:18 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

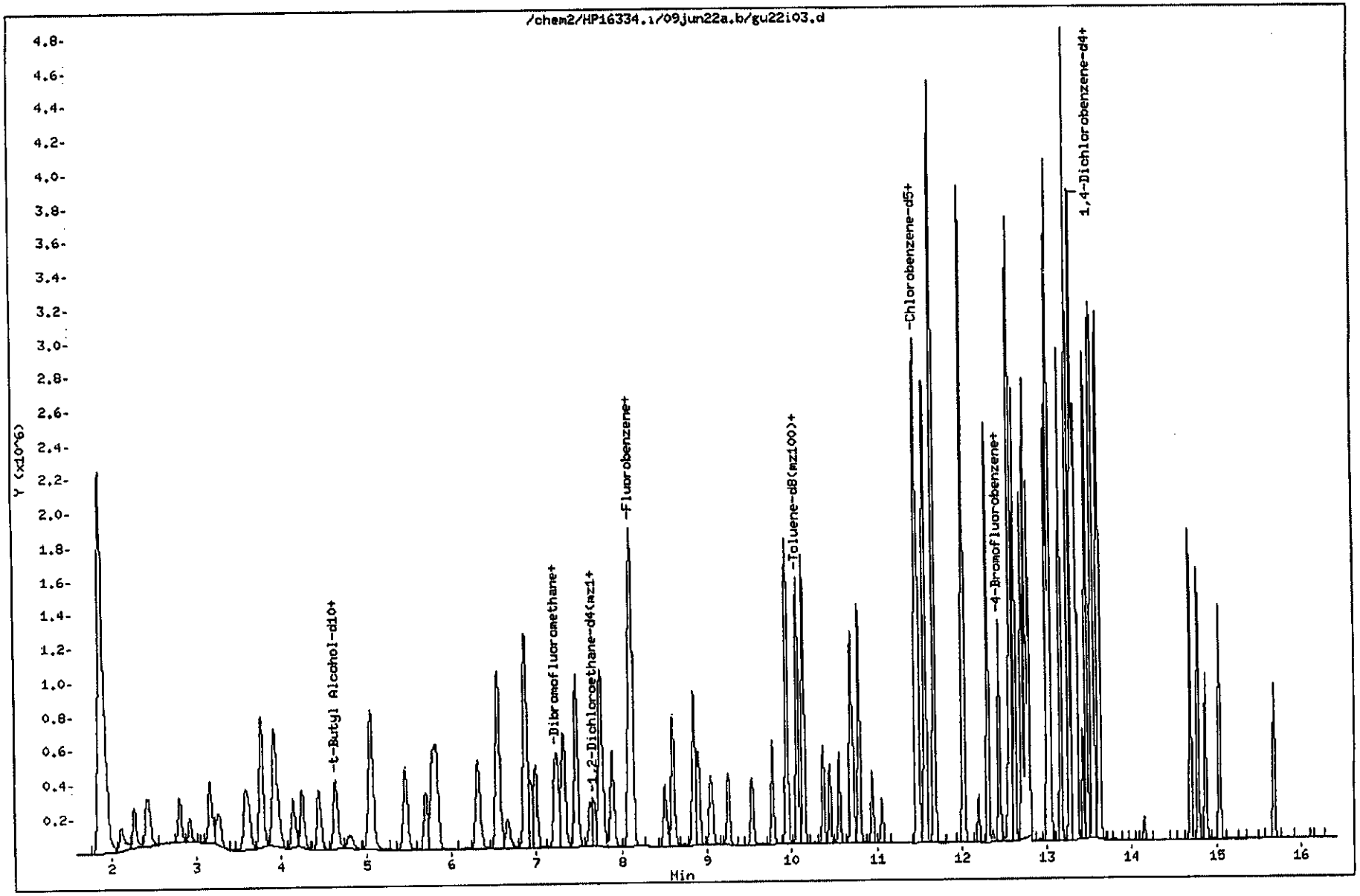
Compound Number : 136
Compound Name : tert-Butylbenzene
Scan Number : 1874
Retention Time (minutes): 13.011
Quant Ion : 134
Area : 659242
Concentration (ug/L) : 11.1718
Integration start scan : 1865 Integration stop scan: 1891
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i02 d. generated on 06/22/2009 at 19:52

Data File: /chem2/HP16334.1/09jun22a.b/gu22i03.d
Date : 22-JUN-2009 16:22
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.1

Operator: JHL01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.123	85	406866	4.731
5) Chloromethane	(1)	2.270	50	343883	4.830
6) Vinyl Chloride	(1)	2.416	62	377615	4.580
9) Bromomethane	(1)	2.806	94	297670	4.863
10) Chloroethane	(1)	2.922	64	208127	4.860
12) Dichlorofluoromethane	(1)	3.166	67	576069	4.810
14) Trichlorofluoromethane	(1)	3.263	101	489610M	4.742
16) Ethyl Ether	(1)	3.574	59	185698	4.766
17) Freon 123a	(1)	3.611	67	346463	4.719
22) Acrolein	(4)	3.769	56	1248132	250.649
23) 1,1-Dichloroethene	(1)	3.916	96	294054	4.953
24) Freon 113	(1)	3.934	101	328515	5.135
25) Acetone	(4)	3.983	58	103805M	49.223
26) Methyl Iodide	(1)	4.141	142	552065	4.993
28) Carbon Disulfide	(1)	4.245	76	865449	5.151
31) Allyl Chloride	(1)	4.440	41	375169	4.744
32) Methyl Acetate	(1)	4.470	43	79094	4.770
33) Methylene Chloride	(1)	4.641	84	348636	4.965
35) *t-Butyl Alcohol-d10	(4)	4.678	65	103470	50.000
37) t-Butyl Alcohol	(4)	4.806	59	260972	96.798
38) Acrylonitrile	(4)	5.025	53	222562	24.954
40) trans-1,2-Dichloroethene	(1)	5.062	96	332069	4.966
36) 1,2-Dichloroethene (Total)	(1)		96	682935	9.905
39) Methyl Tertiary Butyl Ether	(1)	5.056	73	634224	4.969
43) n-Hexane	(1)	5.464	57	446181	5.056
44) 1,1-Dichloroethane	(1)	5.702	63	518877	4.960
46) di-Isopropyl Ether	(1)	5.781	45	890979	5.007
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	461643	5.008
48) Ethyl t-Butyl Ether	(1)	6.318	59	822593	5.042
50) 2,2-Dichloropropane	(1)	6.549	77	434078	5.030
49) cis-1,2-Dichloroethene	(1)	6.543	96	350866	4.938
51) 2-Butanone	(4)	6.561	43	550225	49.501
52) Propionitrile	(4)	6.671	54	331039	100.518
54) Methacrylonitrile	(4)	6.872	67	617382	50.226

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0009

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.884	128	137229	4.750
56) Tetrahydrofuran	(4)	6.939	71	169439	49.905
57) Chloroform	(1)	6.994	83	539527	4.965
62) 1,1,1-Trichloroethane	(1)	7.244	97	464614	5.025
63) Cyclohexane	(1)	7.317	56	537576	5.061
64) 1,1-Dichloropropene	(1)	7.470	75	424361	4.991
65) Carbon Tetrachloride	(1)	7.470	117	413771	5.028
66) Isobutyl Alcohol	(4)	7.628	41	200289	254.692
71) Benzene	(1)	7.750	78	1303765	4.977
73) 1,2-Dichloroethane	(1)	7.781	62	286221	4.969
72) 1,2-Dichloroethane(mz98)	(1)	7.781	98	28739	5.037
74) t-Amyl Methyl Ether	(1)	7.890	73	702203	4.992
76)*Fluorobenzene	(1)	8.122	96	2308427	10.000
75) n-Heptane	(1)	8.092	43	455814	5.034
80) n-Butanol	(4)	8.506	56	363187	500.674
82) Trichloroethene	(1)	8.604	95	343493	4.954
83) Methylcyclohexane	(1)	8.848	83	565956	4.876
84) 1,2-Dichloropropane	(1)	8.902	63	298901	4.975
87) Dibromomethane	(1)	9.055	93	132805	4.993
88) 1,4-Dioxane	(4)	9.079	88	50218	243.677
86) Methyl Methacrylate	(4)	9.037	69	116419	4.941
89) Bromodichloromethane	(1)	9.256	83	360289	5.010
90) 2-Nitropropane	(4)	9.536	41	308811	49.714
93) cis-1,3-Dichloropropene	(1)	9.780	75	417265	5.037
95) 4-Methyl-2-Pentanone	(1)	9.945	43	1363849	49.182
100) Toluene	(2)	10.146	92	850296	4.919
101) trans-1,3-Dichloropropene	(2)	10.372	75	330669	5.037
102) Ethyl Methacrylate	(2)	10.451	69	260252	5.036
103) 1,1,2-Trichloroethane	(2)	10.567	97	190859	4.960
104) Tetrachloroethene	(2)	10.701	166	388306	4.946
105) 1,3-Dichloropropane	(2)	10.731	76	318822	4.943
106) 2-Hexanone	(2)	10.792	43	925730	48.818
107) Dibromochloromethane	(2)	10.951	129	243370	5.095
108) 1,2-Dibromoethane	(2)	11.060	107	184305	5.010

* = Compound is an internal standard.

RAD19 0090

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1663653	10.000
111) Chlorobenzene	(2)	11.499	112	932156	4.930
112) 1,1,1,2-Tetrachloroethane	(2)	11.566	131	310451	5.015
113) Ethylbenzene	(2)	11.585	91	1634399	4.934
116) m+p-Xylene	(2)	11.682	106	1318866	9.855
114) Xylene (Total)	(2)		106	1960866	14.838
117) o-Xylene	(2)	12.018	106	642000	4.983
118) Styrene	(2)	12.030	104	1021862	4.993
119) Bromoform	(2)	12.201	173	127751	5.094
120) Isopropylbenzene	(2)	12.310	105	1606136	4.971
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	213231M	4.903
128) Bromobenzene	(3)	12.572	156	380081	4.926
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	487367	50.723
130) 1,2,3-Trichloropropane	(3)	12.591	110	62209	4.948
131) n-Propylbenzene	(3)	12.633	91	1982283	5.025
132) 2-Chlorotoluene	(3)	12.713	126	402007	4.912
134) 4-Chlorotoluene	(3)	12.792	126	414709	4.944
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	1410744	5.019
137) Pentachloroethane	(3)	13.042	167	226968	4.840
136) tert-Butylbenzene	(3)	13.011	134	310430M	4.960
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	1469944	5.000
139) sec-Butylbenzene	(3)	13.170	105	1858136	5.043
141) 1,3-Dichlorobenzene	(3)	13.273	146	808152	4.906
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	919769	10.000
140) p-Isopropyltoluene	(3)	13.267	119	1607495	5.000
143) 1,4-Dichlorobenzene	(3)	13.334	146	802265	4.878
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	598519	4.741
145) Benzyl Chloride	(3)	13.426	126	97987	5.199
146) n-Butylbenzene	(3)	13.560	92	822981	4.995
147) 1,2-Dichlorobenzene	(3)	13.609	146	683067	4.887
149) 1,2-Dibromo-3-Chloropropane	(4)	14.151	155	29371	4.995
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	533663	4.912
153) Hexachlorobutadiene	(3)	14.785	225	283714	4.953
154) Naphthalene	(3)	14.877	128	767772	4.959

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0091

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

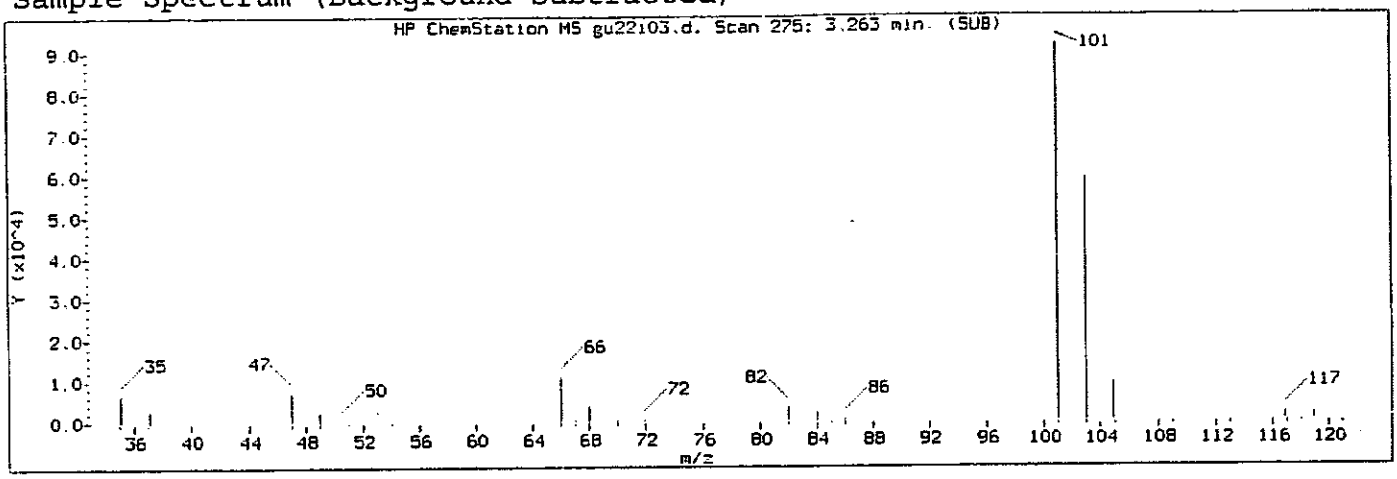
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	431729	4.887
60)$Dibromofluoromethane	(1)	7.220	113	290577	4.930
61)$Dibromofluoromethane(mz111)	(1)	7.220	111	297625	4.968
69)$1,2-Dichloroethane-d4	(1)	7.677	102	52781	4.983
67)$1,2-Dichloroethane-d4(mz104)	(1)	7.677	104	33301	4.838
68)$1,2-Dichloroethane-d4(mz65)	(1)	7.677	65	230225	4.858
96)$Toluene-d8	(2)	10.073	98	1232512	4.915
97)$Toluene-d8(mz100)	(2)	10.073	100	795560	4.935
125)$4-Bromofluorobenzene	(2)	12.444	95	420471	4.866
126)$4-Bromofluorobenzene(mz174)	(2)	12.444	174	363943	4.846

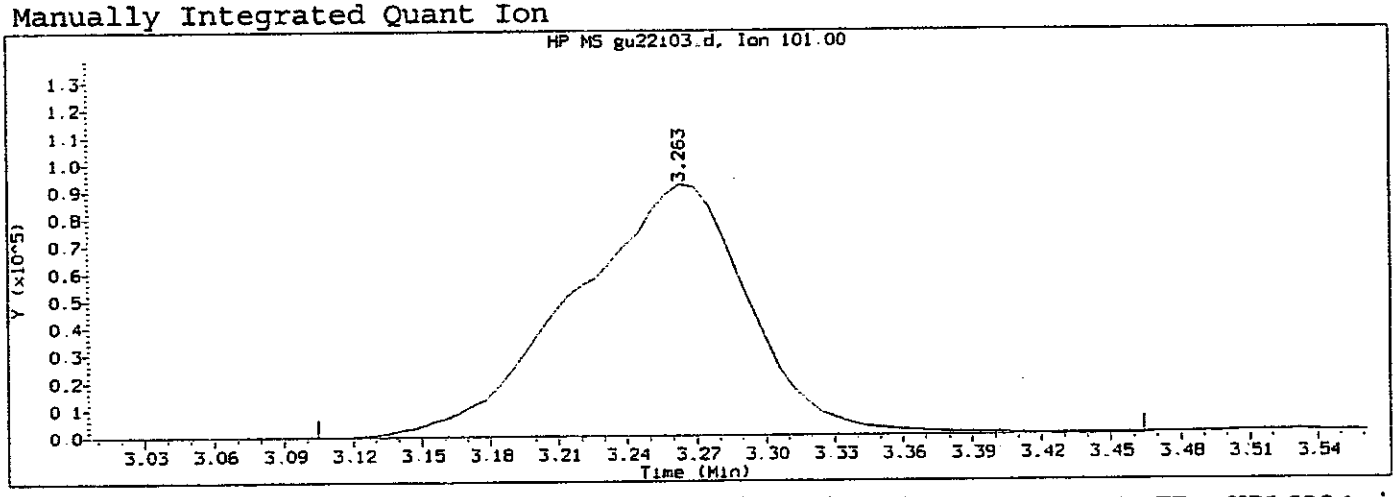
$ = Compound is a surrogate standard.

RAD19 8892

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

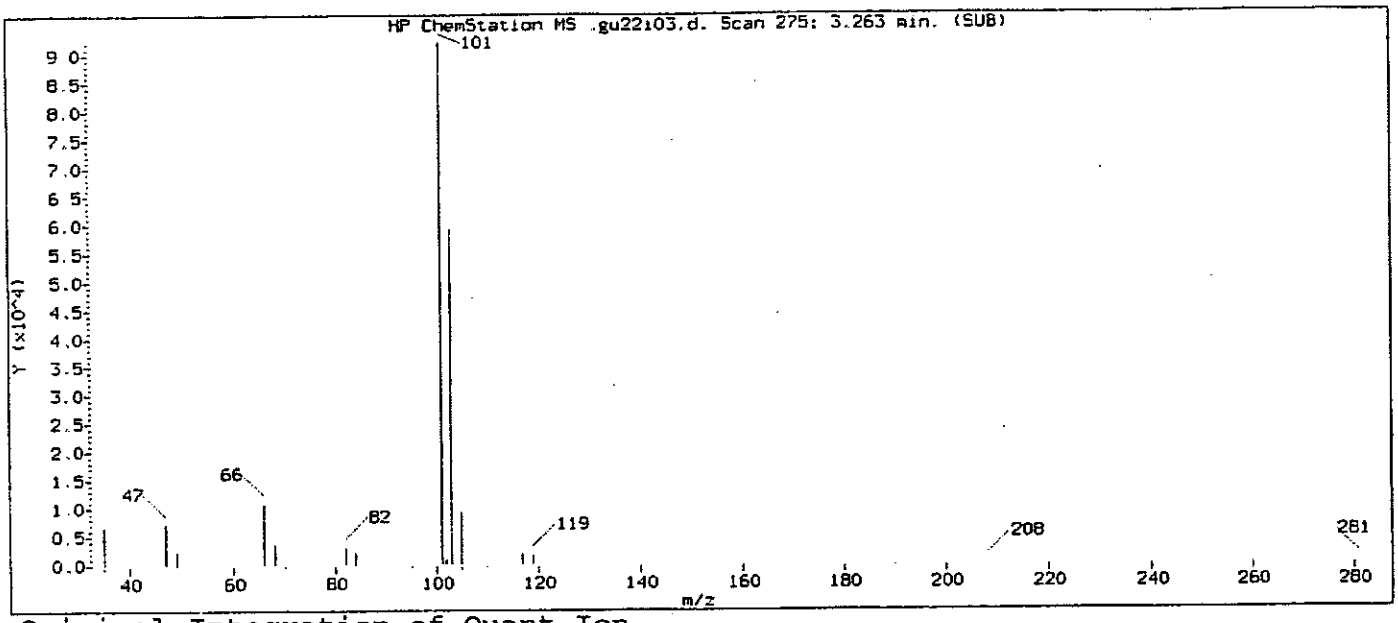
Compound Number	: 14
Compound Name	: Trichlorofluoromethane
Scan Number	: 275
Retention Time (minutes)	: 3.263
Quant Ion	: 101
Area (flag)	: 489610 M
Concentration (ug/L)	: 4.7419
Integration start scan	: 248 Integration stop scan: 307
Y at integration start	: 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

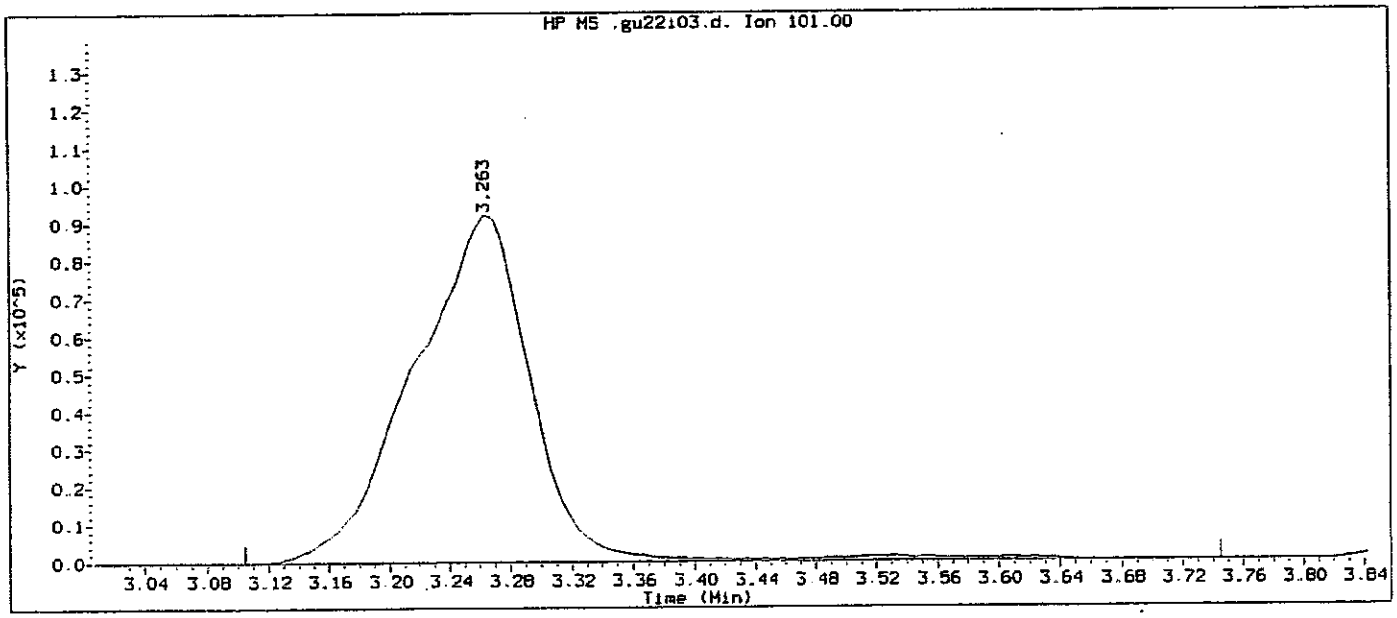
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09 KAD19 8893

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:39
Date, time and analyst ID of latest file update: 22-Jun-2009 16:39 Automation

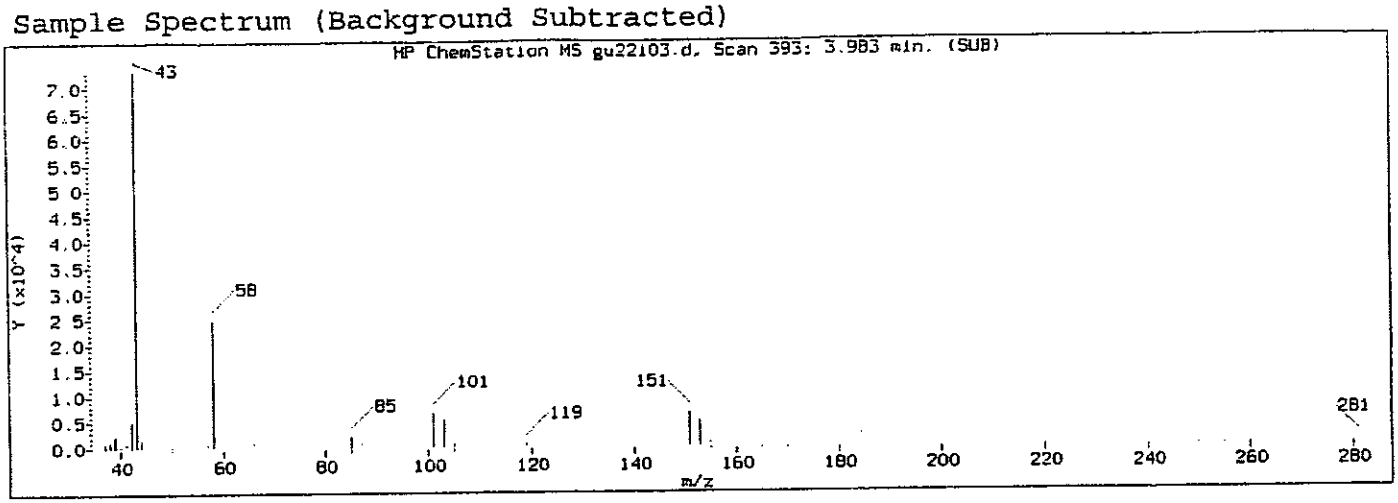
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	14
Compound Name	:	Trichlorofluoromethane
Scan Number	:	275
Retention Time (minutes)	:	3.263
Quant Ion	:	101
Area	:	498110
Concentration (ug/L)	:	5.1847
Integration start scan	:	248 Integration stop scan: 353
Y at integration start	:	0 Y at integration end: 0

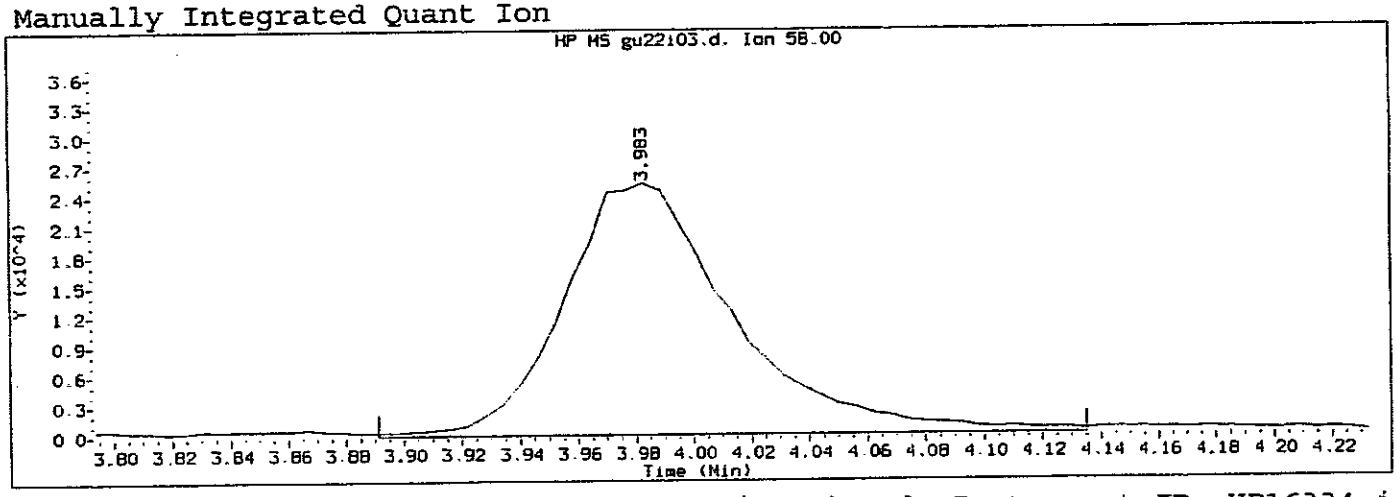
RAD19 8894

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i03 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	25
Compound Name	:	Acetone
Scan Number	:	393
Retention Time (minutes)	:	3.983
Quant Ion	:	58
Area (flag)	:	103805 M
Concentration (ug/L)	:	49.2233
Integration start scan	:	377 Integration stop scan: 417
Y at integration start	:	0 Y at integration end: 0

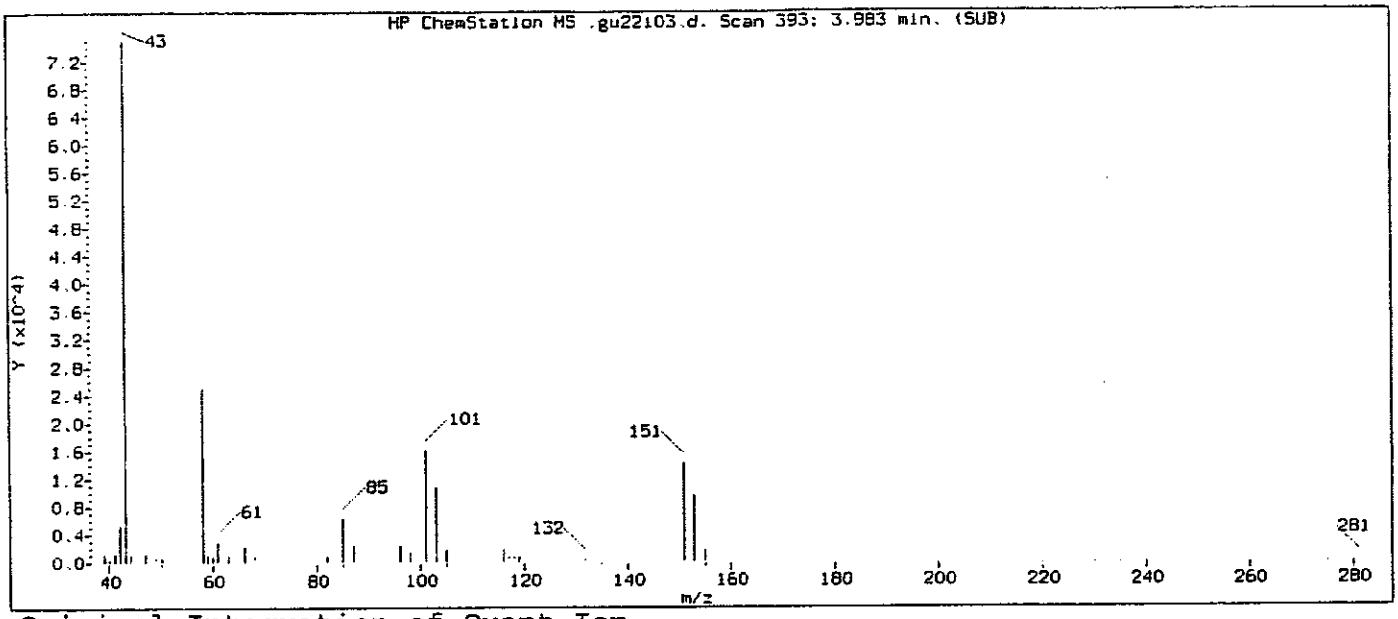
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

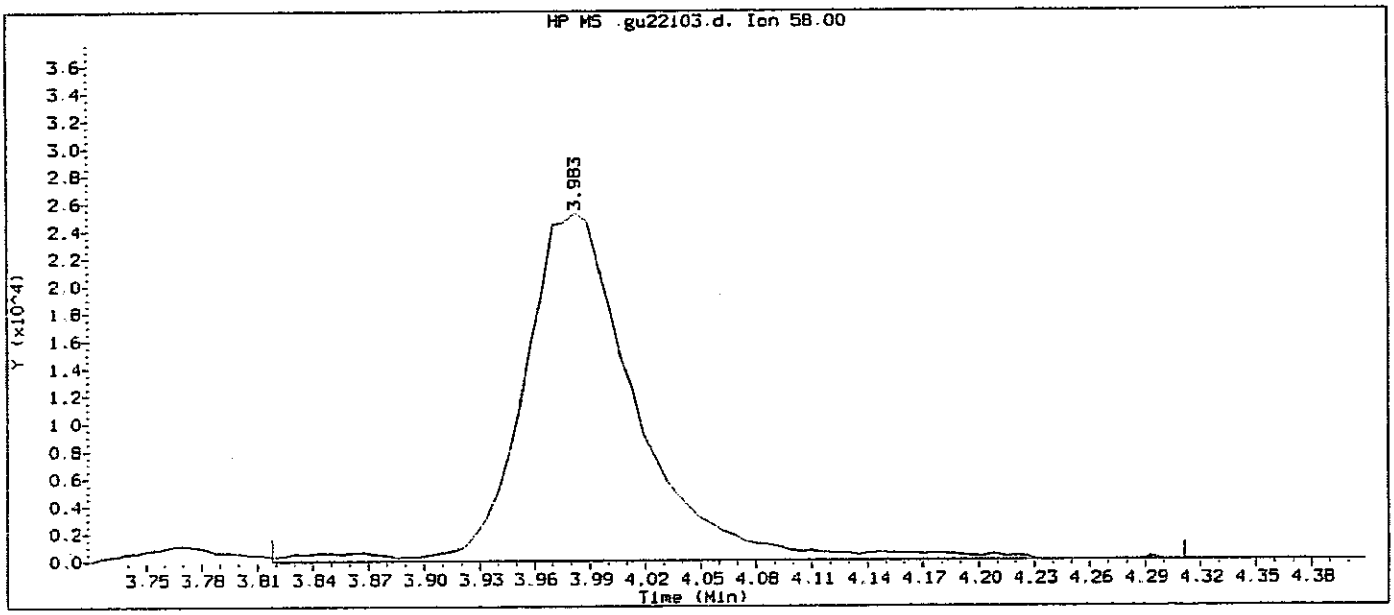
GC/MS audit/management approval: [signature] 6/23/09

Manual Integration Report for data file /chem2/HP16334 i/09jun22a.b/gu22i03 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

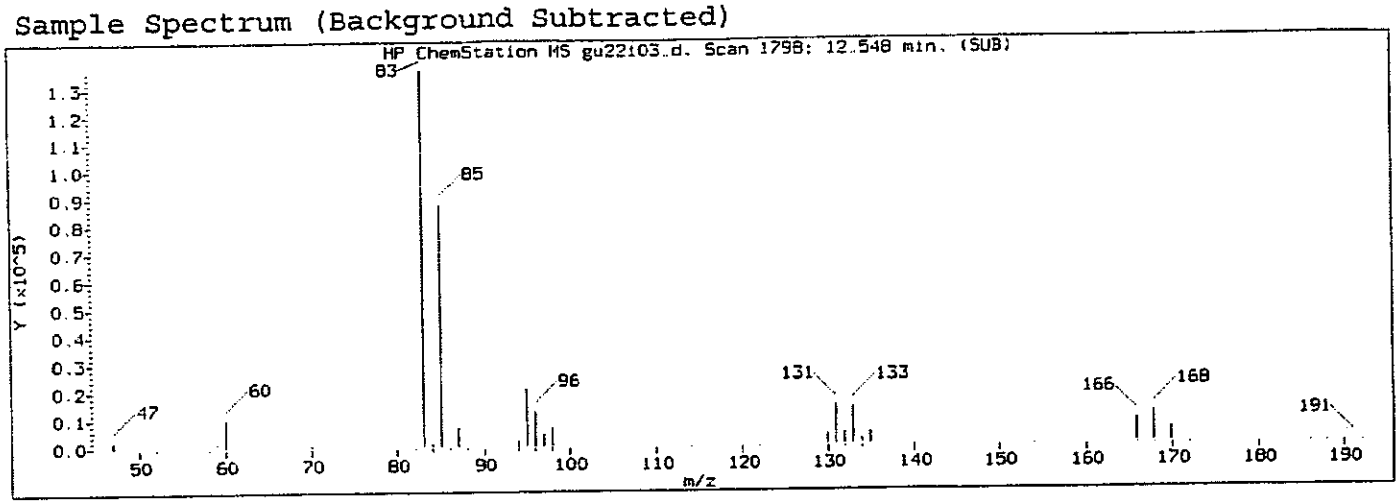
Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:39
Date, time and analyst ID of latest file update: 22-Jun-2009 16:39 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

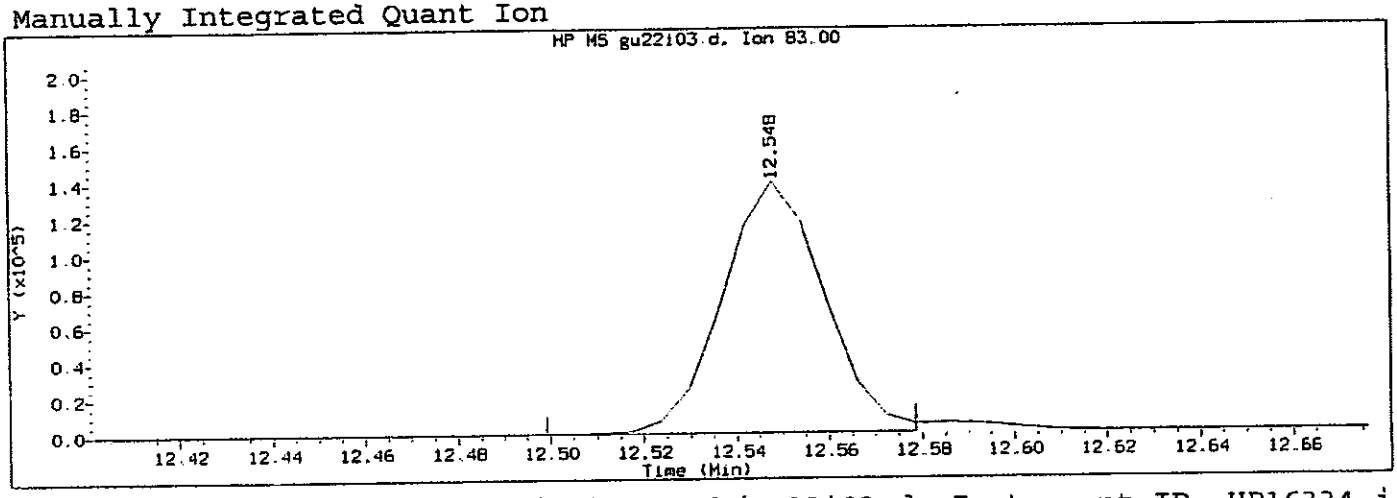
Compound Number : 25
Compound Name : Acetone
Scan Number : 393
Retention Time (minutes): 3.983
Quant Ion : 58
Area : 108191
Concentration (ug/L) : 40.2062
Integration start scan : 365 Integration stop scan: 446
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i03.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area (flag)	:	213231 M
Concentration (ug/L)	:	4.9032
Integration start scan	:	1789 Integration stop scan: 1802
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

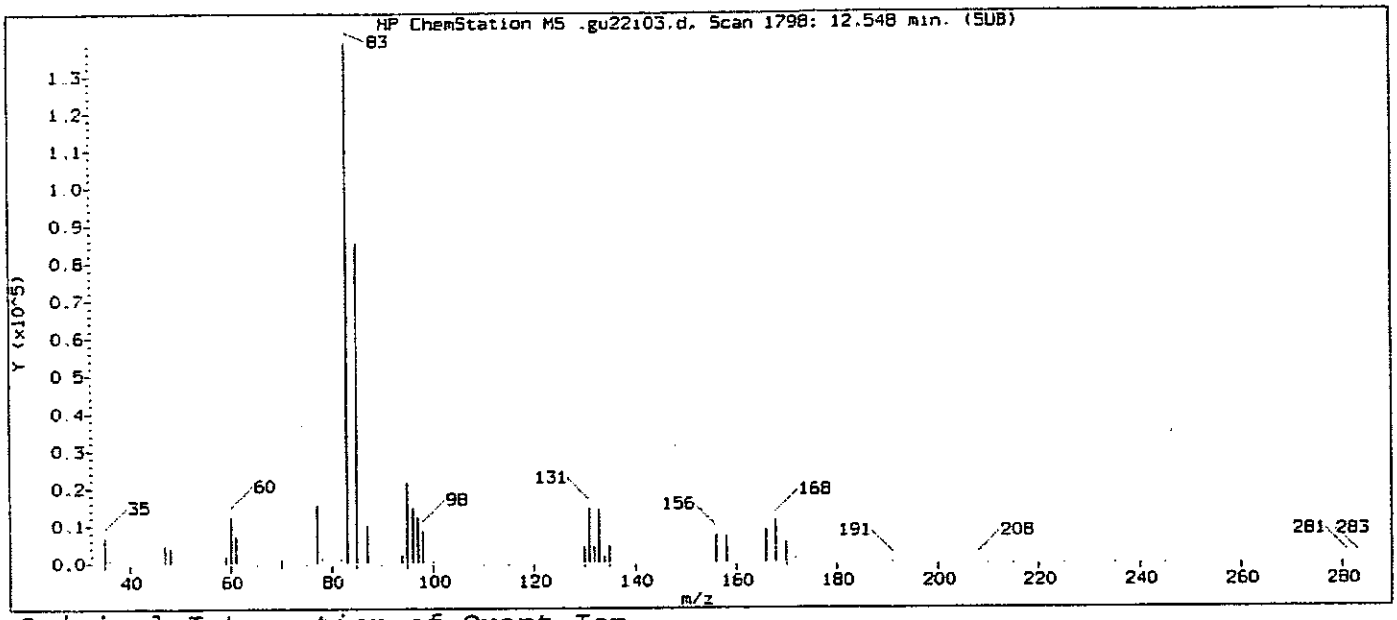
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

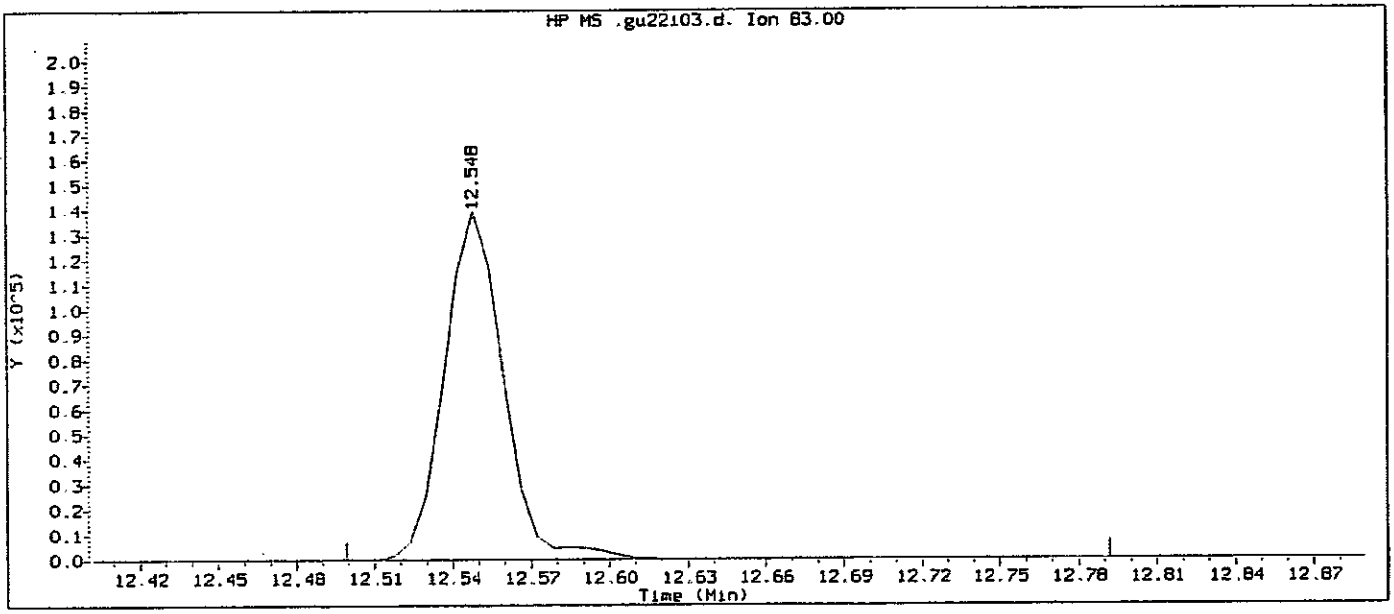
RAD19 6697

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i03 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:39
Date, time and analyst ID of latest file update: 22-Jun-2009 16:39 Automation

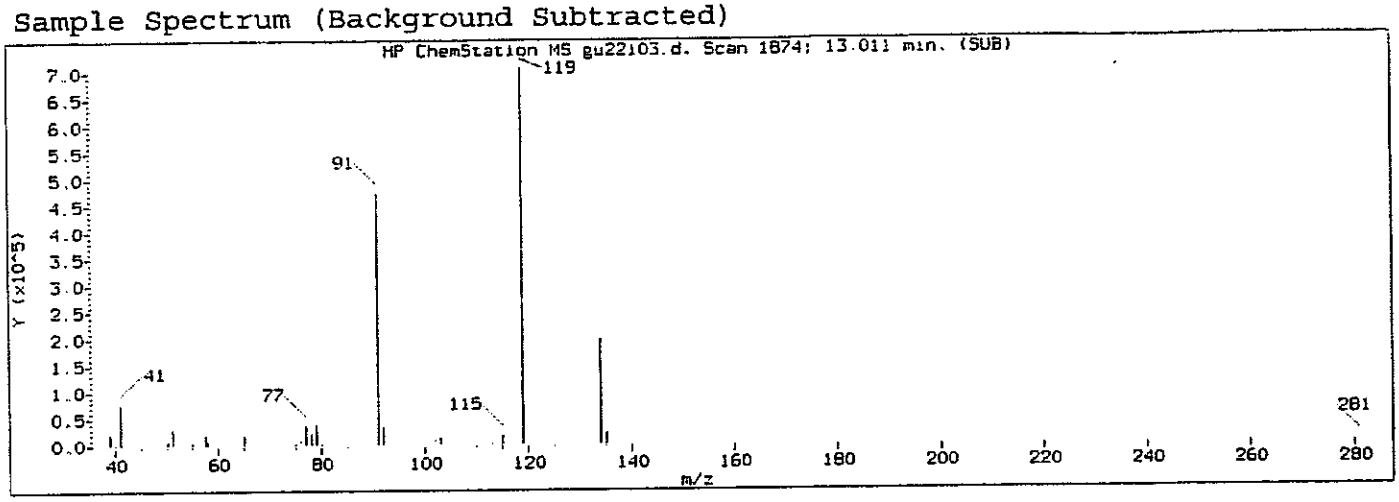
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	: 127
Compound Name	: 1,1,2,2-Tetrachloroethane
Scan Number	: 1798
Retention Time (minutes)	: 12.548
Quant Ion	: 83
Area	: 219177
Concentration (ug/L)	: 4.7894
Integration start scan	: 1789 Integration stop scan: 1837
Y at integration start	: 0 Y at integration end: 0

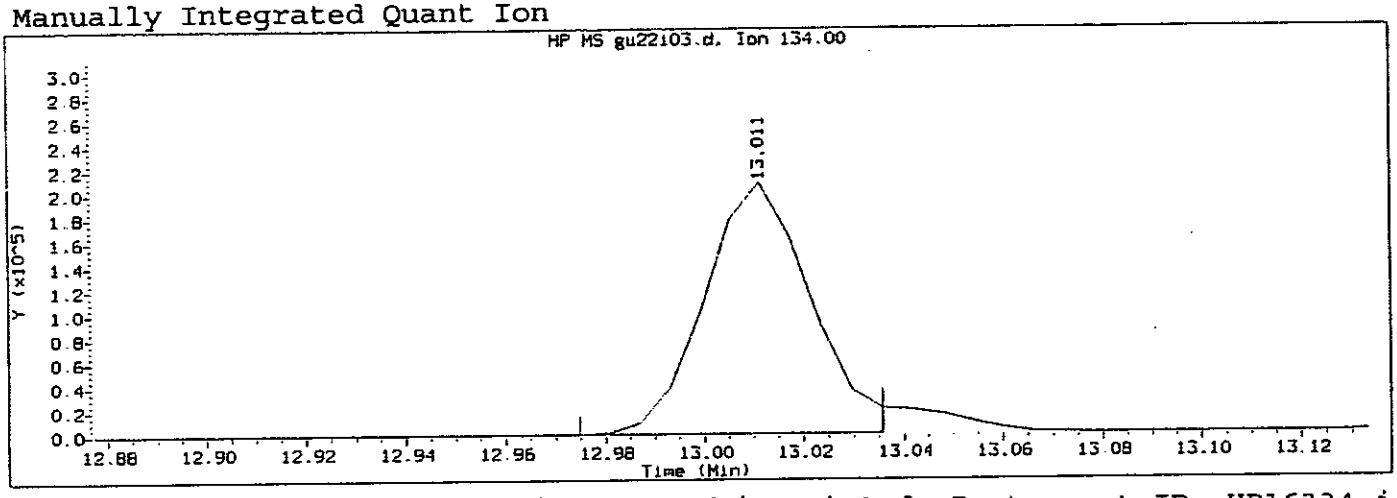
RAD19 0898

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i03.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	310430 M
Concentration (ug/L)	:	4.9596
Integration start scan	:	1867 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

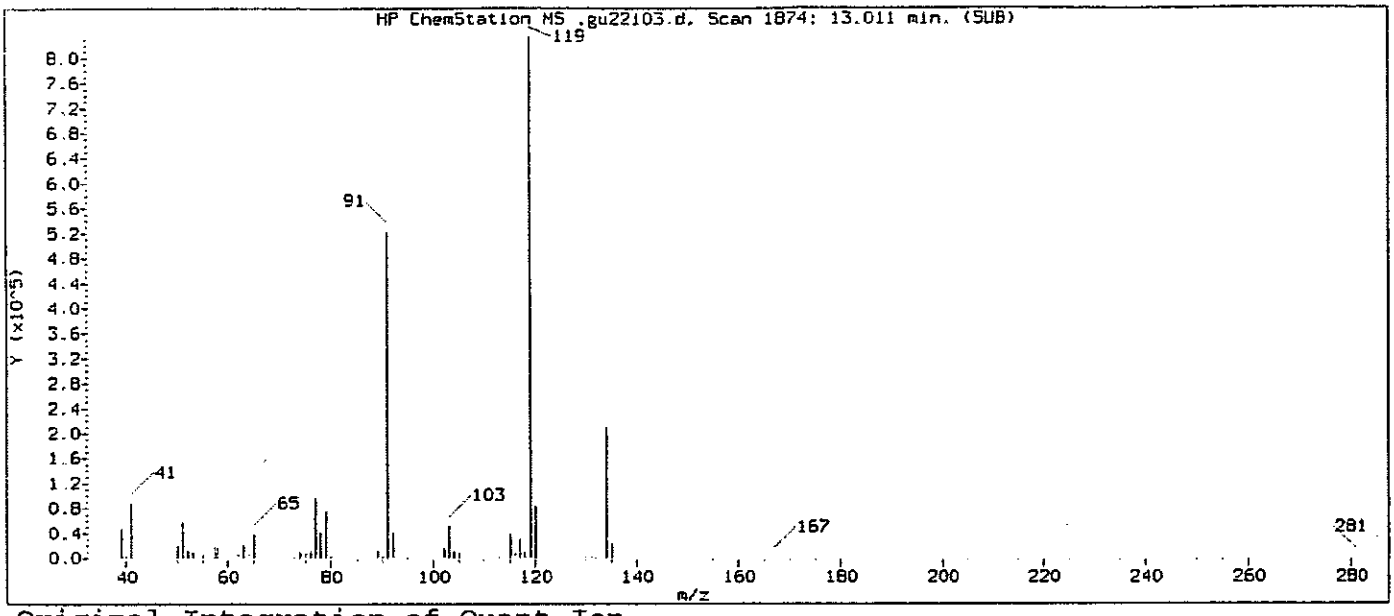
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

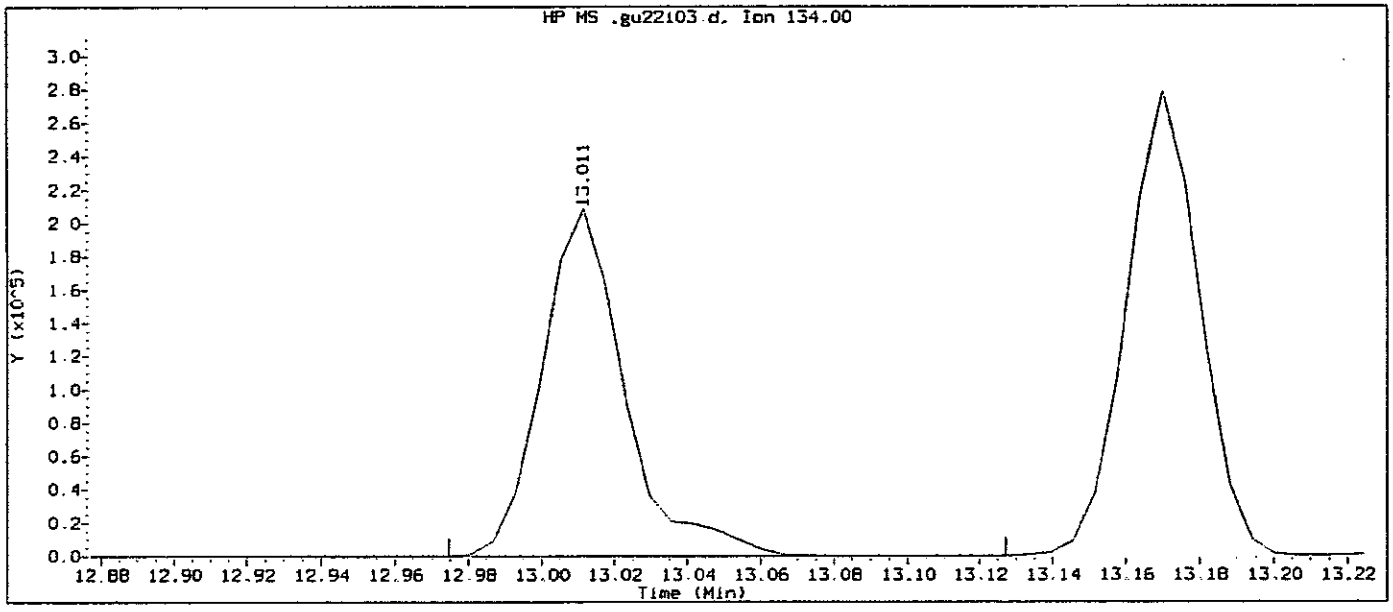
GC/MS audit/management approval: [signature] 6-23-09

EAD19 8899

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:22 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 16:39
Date, time and analyst ID of latest file update: 22-Jun-2009 16:39 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area	:	329192
Concentration (ug/L)	:	5.5081
Integration start scan	:	1867 Integration stop scan: 1892
Y at integration start	:	0 Y at integration end: 0

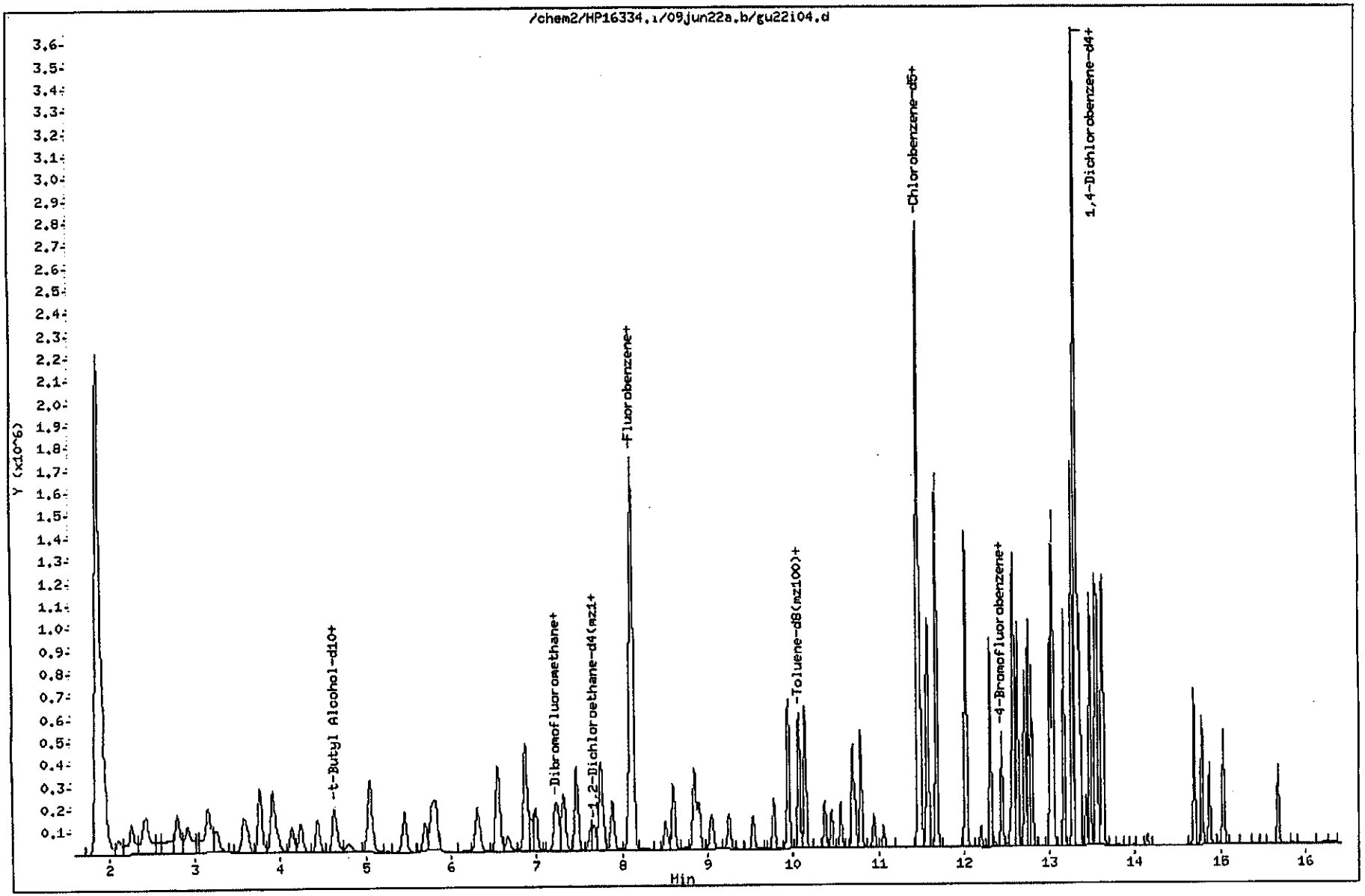
RAD19 0166

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i03 d, generated on 06/22/2009 at 19:52

Data File: /chem2/HP16334.1/09jun22a.b/gu22i04.d
Date : 22-JUN-2009 16:44
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.1

Operator: JHL01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.111	85	160684	1.891
5) Chloromethane	(1)	2.257	50	141785	1.953
6) Vinyl Chloride	(1)	2.404	62	151547	1.860
9) Bromomethane	(1)	2.794	94	128213	1.975
10) Chloroethane	(1)	2.916	64	93105M	2.041
12) Dichlorofluoromethane	(1)	3.154	67	230790M	1.893
14) Trichlorofluoromethane	(1)	3.251	101	196855M	1.929
16) Ethyl Ether	(1)	3.568	59	74955	1.858
17) Freon 123a	(1)	3.593	67	139511	1.923
22) Acrolein	(4)	3.763	56	463829	95.411
23) 1,1-Dichloroethene	(1)	3.903	96	109230	1.862
24) Freon 113	(1)	3.928	101	116753	1.847
25) Acetone	(4)	3.977	58	40608	19.724
26) Methyl Iodide	(1)	4.135	142	206803	1.893
28) Carbon Disulfide	(1)	4.239	76	309331	1.863
31) Allyl Chloride	(1)	4.434	41	147205	1.884
32) Methyl Acetate	(1)	4.470	43	32395	1.882
33) Methylene Chloride	(1)	4.635	84	160276	2.004
35) *t-Butyl Alcohol-d10	(4)	4.672	65	101013	50.000
37) t-Butyl Alcohol	(4)	4.794	59	97530	37.055
38) Acrylonitrile	(4)	5.025	53	84236	9.674
40) trans-1,2-Dichloroethene	(1)	5.050	96	125105	1.893
36) 1,2-Dichloroethene (Total)	(1)		96	257457	3.778
39) Methyl Tertiary Butyl Ether	(1)	5.050	73	240390	1.906
43) n-Hexane	(1)	5.458	57	164677	1.888
44) 1,1-Dichloroethane	(1)	5.696	63	197047	1.906
46) di-Isopropyl Ether	(1)	5.781	45	334445	1.902
47) 2-Chloro-1,3-Butadiene	(1)	5.824	53	171221	1.879
48) Ethyl t-Butyl Ether	(1)	6.312	59	304810	1.891
50) 2,2-Dichloropropane	(1)	6.543	77	160463	1.882
49) cis-1,2-Dichloroethene	(1)	6.543	96	132352	1.885
51) 2-Butanone	(4)	6.561	43	207266	19.100
52) Propionitrile	(4)	6.665	54	123886	38.532
54) Methacrylonitrile	(4)	6.872	67	229256	19.105

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0102

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.885	128	55237	1.935
56) Tetrahydrofuran	(4)	6.939	71	64015	19.313
57) Chloroform	(1)	6.994	83	204775	1.907
62) 1,1,1-Trichloroethane	(1)	7.244	97	171172	1.873
63) Cyclohexane	(1)	7.317	56	196995	1.877
64) 1,1-Dichloropropene	(1)	7.464	75	157011	1.868
65) Carbon Tetrachloride	(1)	7.470	117	150707	1.853
66) Isobutyl Alcohol	(4)	7.628	41	78052M	97.200
71) Benzene	(1)	7.750	78	487729	1.884
73) 1,2-Dichloroethane	(1)	7.775	62	107919	1.896
72) 1,2-Dichloroethane(mz98)	(1)	7.775	98	10715	1.900
74) t-Amyl Methyl Ether	(1)	7.891	73	264676	1.904
76)*Fluorobenzene	(1)	8.122	96	2281309	10.000
75) n-Heptane	(1)	8.086	43	167409M	1.871
80) n-Butanol	(4)	8.506	56	126231	178.249
82) Trichloroethene	(1)	8.598	95	128895	1.881
83) Methylcyclohexane	(1)	8.848	83	223308	1.947
84) 1,2-Dichloropropane	(1)	8.896	63	113173	1.906
87) Dibromomethane	(1)	9.055	93	50097	1.906
88) 1,4-Dioxane	(4)	9.079	88	19390	96.376
86) Methyl Methacrylate	(4)	9.037	69	43442	1.888
89) Bromodichloromethane	(1)	9.250	83	134306	1.890
90) 2-Nitropropane	(4)	9.537	41	114389M	18.863
93) cis-1,3-Dichloropropene	(1)	9.780	75	154850	1.891
95) 4-Methyl-2-Pentanone	(1)	9.945	43	510942M	18.644
100) Toluene	(2)	10.146	92	317468	1.867
101) trans-1,3-Dichloropropene	(2)	10.372	75	121414	1.880
102) Ethyl Methacrylate	(2)	10.451	69	94899	1.867
103) 1,1,2-Trichloroethane	(2)	10.561	97	71853	1.898
104) Tetrachloroethene	(2)	10.701	166	144260	1.868
105) 1,3-Dichloropropane	(2)	10.725	76	119906	1.890
106) 2-Hexanone	(2)	10.792	43	351741	18.857
107) Dibromochloromethane	(2)	10.945	129	86796	1.847
108) 1,2-Dibromoethane	(2)	11.061	107	68557	1.894

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0193

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1636524	10.000
111) Chlorobenzene	(2)	11.500	112	351021	1.887
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	112814	1.853
113) Ethylbenzene	(2)	11.585	91	606908	1.863
116) m+p-Xylene	(2)	11.682	106	489381	3.717
114) Xylene (Total)	(2)		106	723667	5.566
117) o-Xylene	(2)	12.018	106	234286	1.849
118) Styrene	(2)	12.030	104	371185	1.844
119) Bromoform	(2)	12.201	173	45105	1.828
120) Isopropylbenzene	(2)	12.310	105	588296	1.851
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	78924M	1.843
128) Bromobenzene	(3)	12.573	156	140223	1.845
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	174755M	18.630
130) 1,2,3-Trichloropropane	(3)	12.591	110	22795	1.841
131) n-Propylbenzene	(3)	12.633	91	726650	1.870
132) 2-Chlorotoluene	(3)	12.713	126	149130	1.850
134) 4-Chlorotoluene	(3)	12.792	126	154278	1.868
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	513127	1.854
137) Pentachloroethane	(3)	13.042	167	83336	1.804
136) tert-Butylbenzene	(3)	13.011	134	112173M	1.820
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	536690	1.853
139) sec-Butylbenzene	(3)	13.170	105	672694	1.854
141) 1,3-Dichlorobenzene	(3)	13.274	146	296779	1.829
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	905888	10.000
140) p-Isopropyltoluene	(3)	13.268	119	578297	1.826
143) 1,4-Dichlorobenzene	(3)	13.335	146	301883	1.864
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	234688	1.888
145) Benzyl Chloride	(3)	13.426	126	33053	1.781
146) n-Butylbenzene	(3)	13.560	92	300230	1.850
147) 1,2-Dichlorobenzene	(3)	13.609	146	255241	1.854
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	10551	1.838
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	197801	1.848
153) Hexachlorobutadiene	(3)	14.786	225	102665	1.820
154) Naphthalene	(3)	14.871	128	281633	1.847

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8184

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

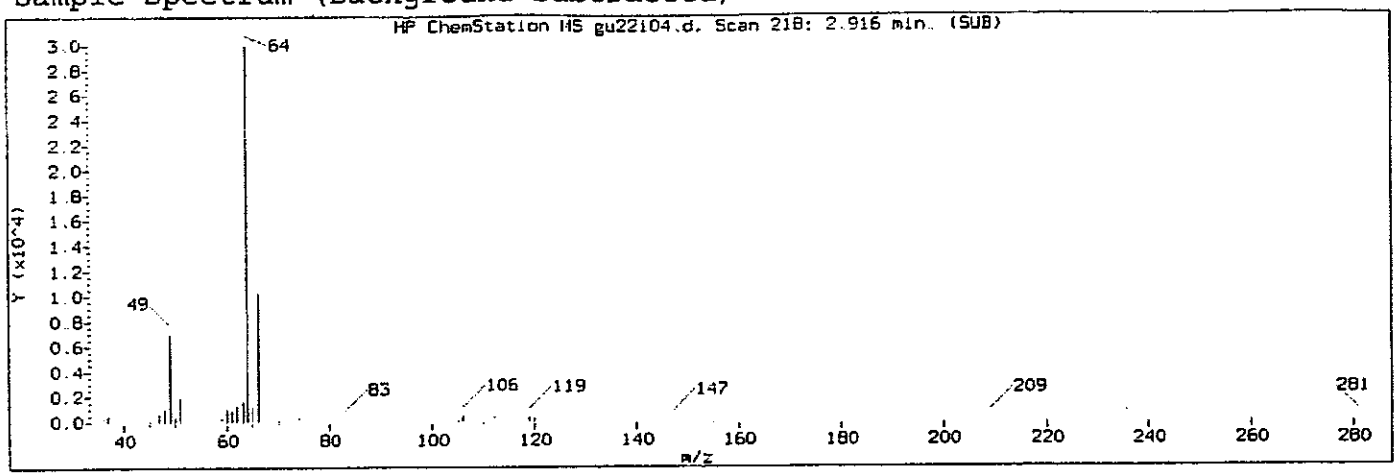
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	161000	1.850
60)$Dibromofluoromethane	(1)	7.214	113	112906	1.938
61)$Dibromofluoromethane(mz111)	(1)	7.214	111	114085	1.927
69)$1,2-Dichloroethane-d4	(1)	7.677	102	20282	1.938
67)$1,2-Dichloroethane-d4(mz104)	(1)	7.677	104	13652	2.007
68)$1,2-Dichloroethane-d4(mz65)	(1)	7.671	65	91134	1.946
96)$Toluene-d8	(2)	10.073	98	474713	1.924
97)$Toluene-d8(mz100)	(2)	10.073	100	305487	1.926
125)$4-Bromofluorobenzene	(2)	12.444	95	161563	1.901
126)$4-Bromofluorobenzene(mz174)	(2)	12.444	174	140033	1.896

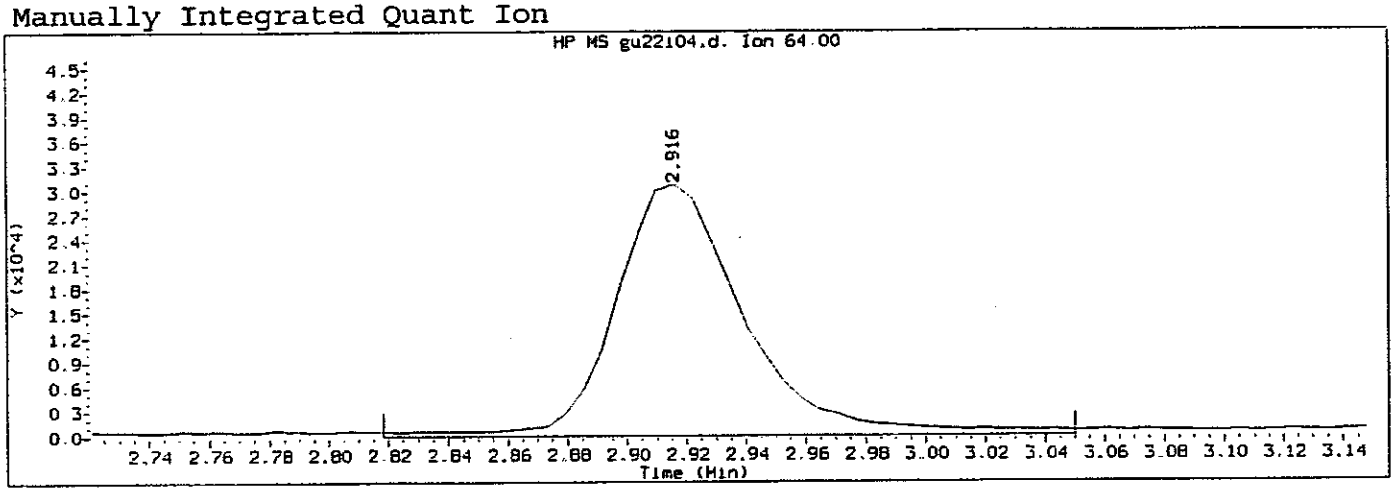
$ = Compound is a surrogate standard.

RAD19 @185

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	10
Compound Name	:	Chloroethane
Scan Number	:	218
Retention Time (minutes)	:	2.916
Quant Ion	:	64
Area (flag)	:	93105 M
Concentration (ug/L)	:	2.0406
Integration start scan	:	201 Integration stop scan: 239
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

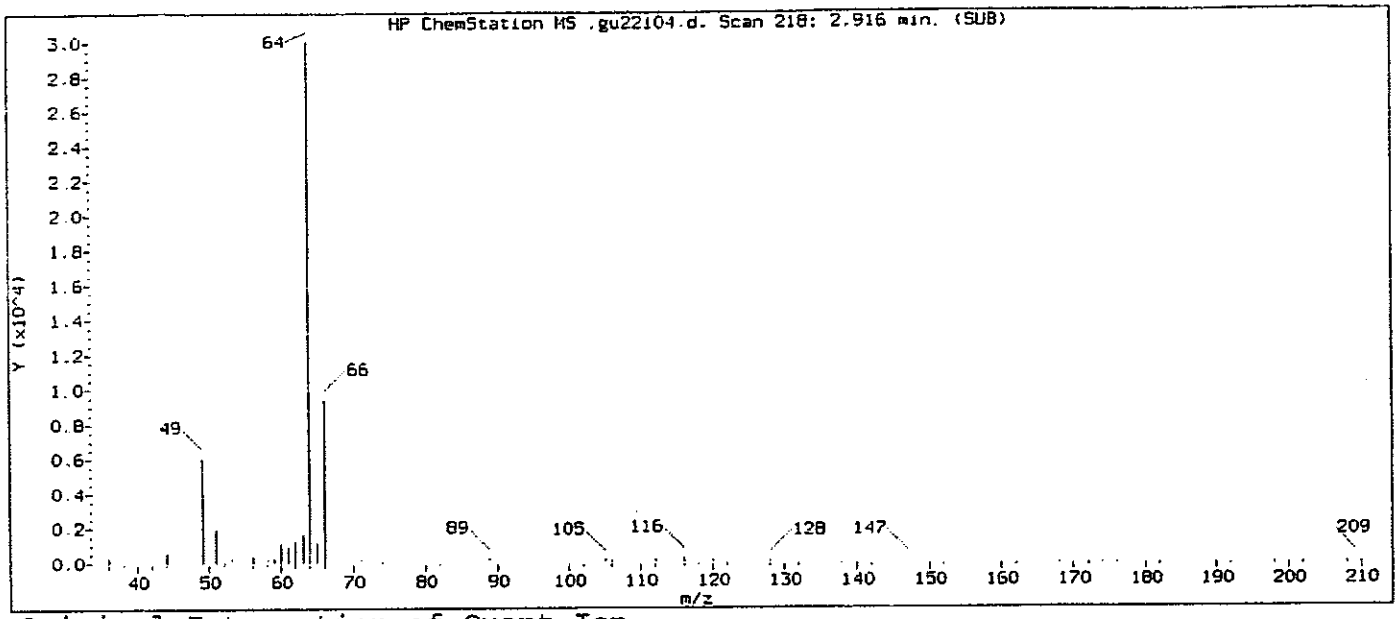
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09

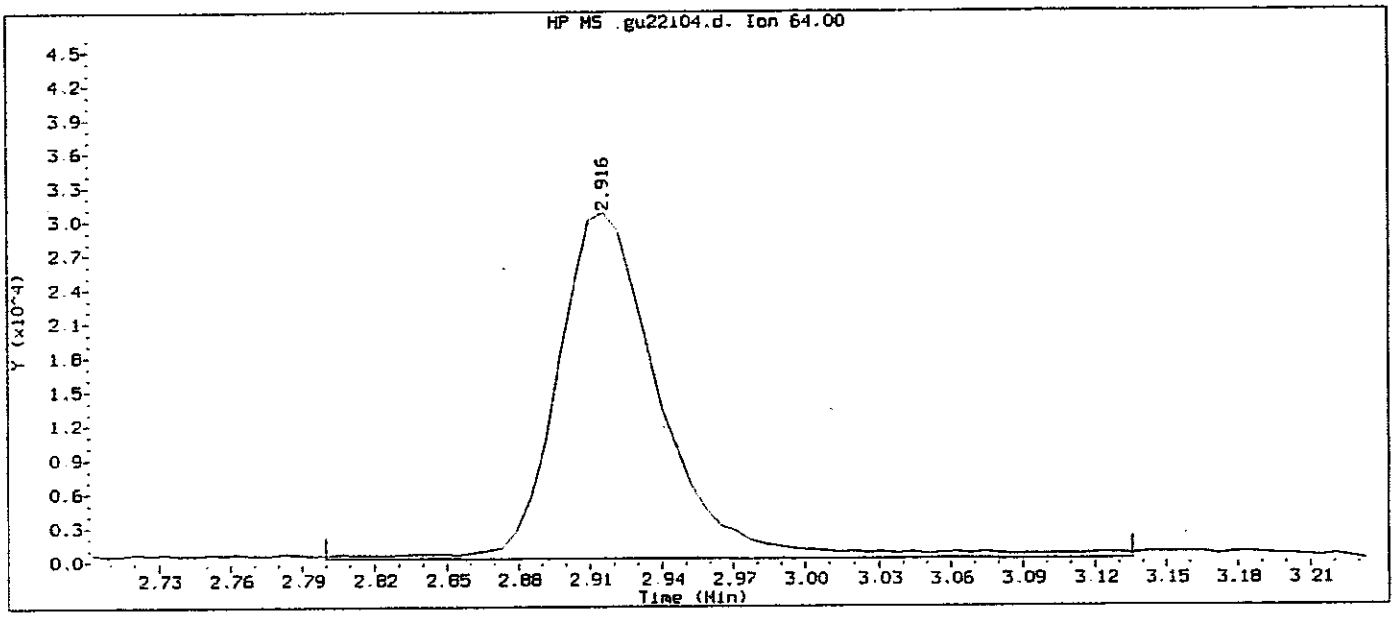
RAD19 2186

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i04.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

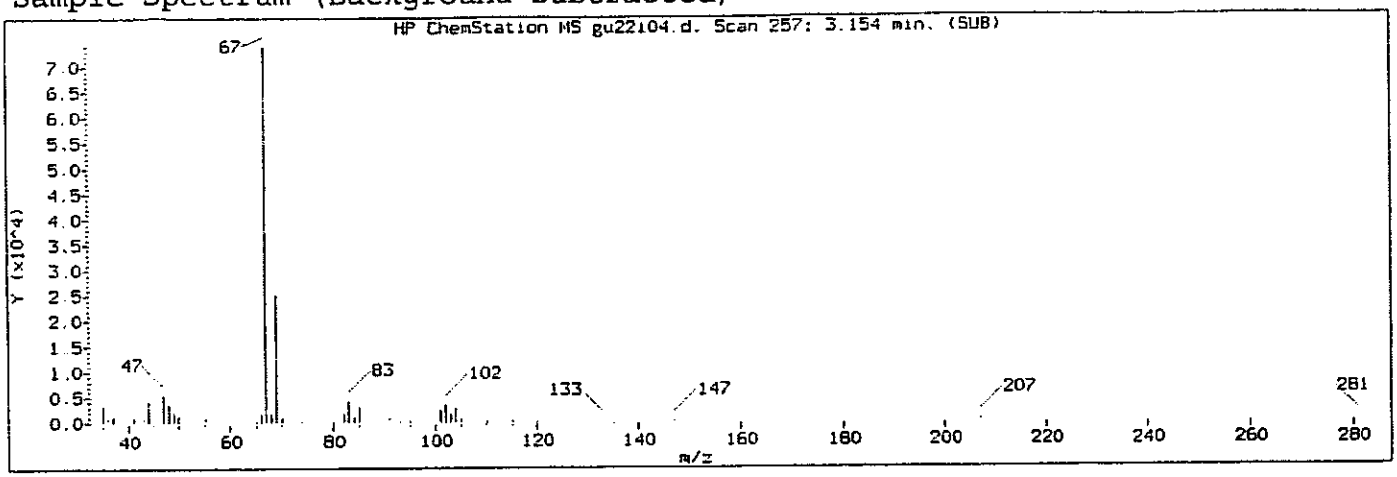
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	10
Compound Name	:	Chloroethane
Scan Number	:	218
Retention Time (minutes)	:	2.916
Quant Ion	:	64
Area	:	92787
Concentration (ug/L)	:	2.0000
Integration start scan	:	198 Integration stop scan: 253
Y at integration start	:	272 Y at integration end: 111

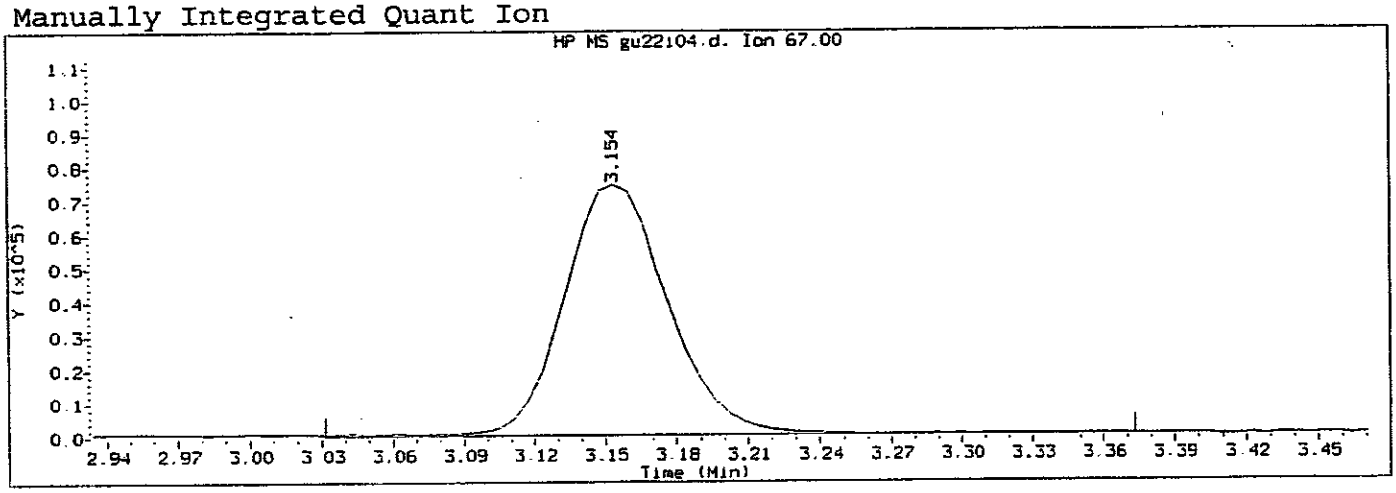
RAD19 0187

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

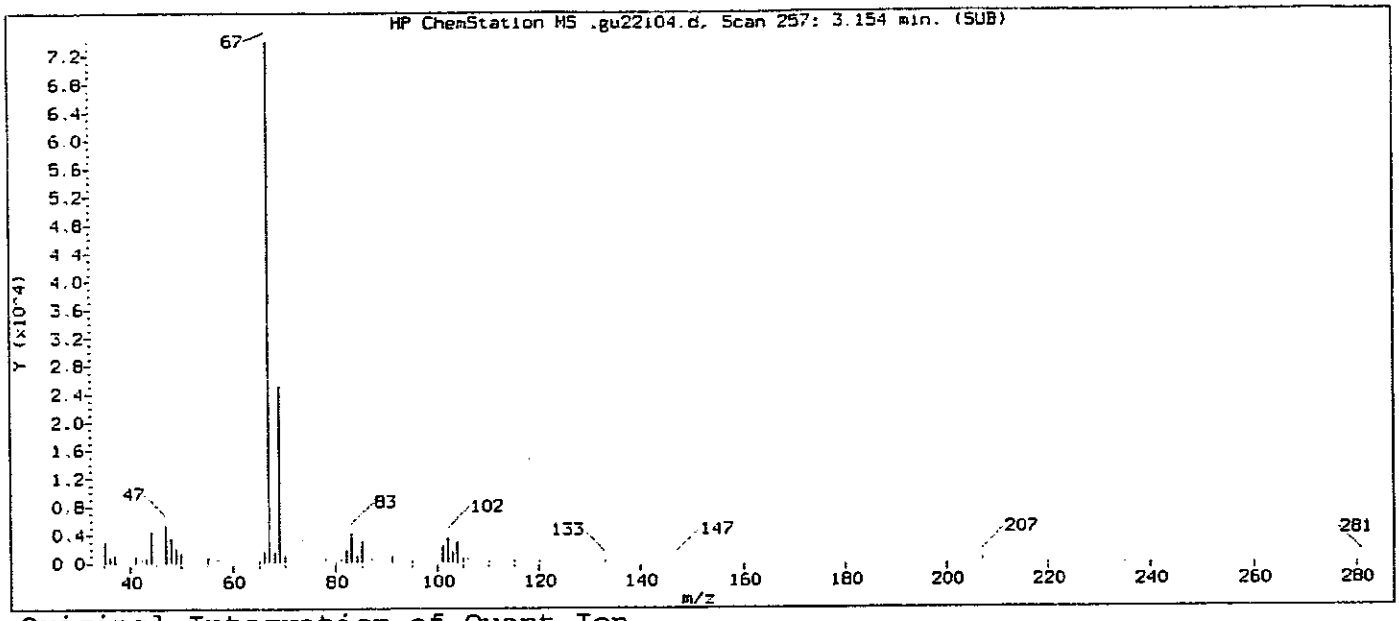
Compound Number	:	12
Compound Name	:	Dichlorofluoromethane
Scan Number	:	257
Retention Time (minutes)	:	3.154
Quant Ion	:	67
Area (flag)	:	230790 M
Concentration (ug/L)	:	1.8928
Integration start scan	:	236 Integration stop scan: 292
Y at integration start	:	275 Y at integration end: 273

Reason for manual integration (circle one): missed peak improper integration

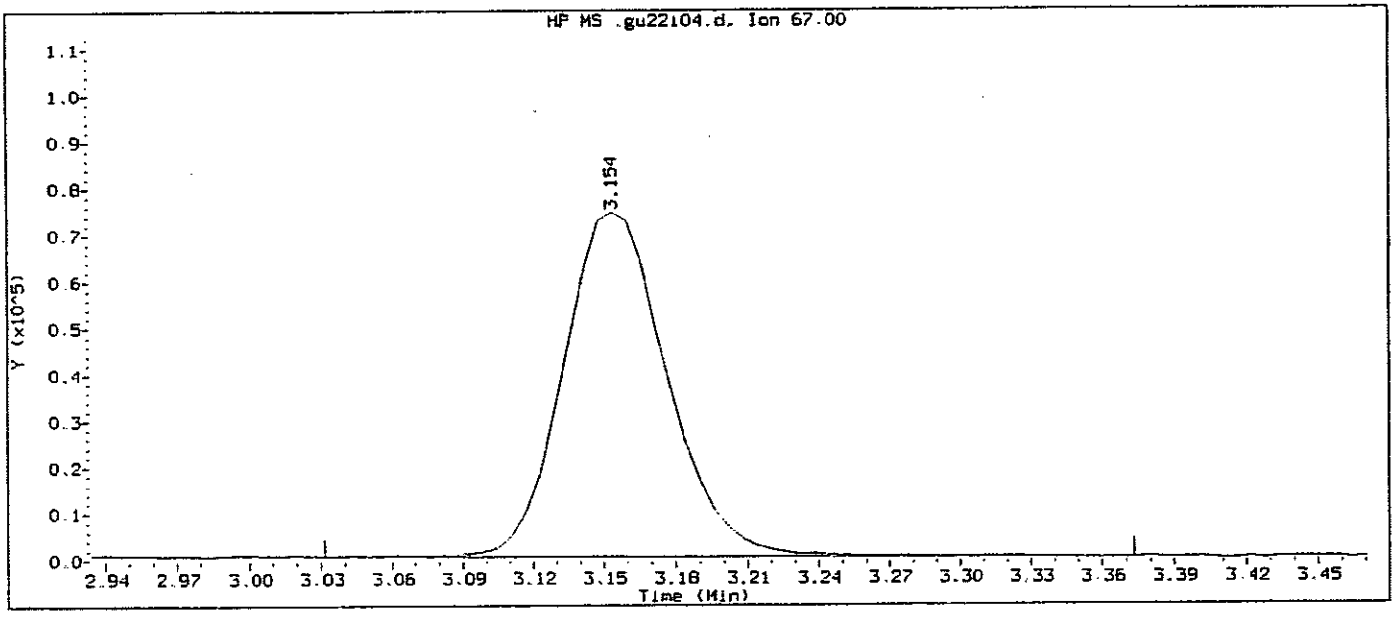
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

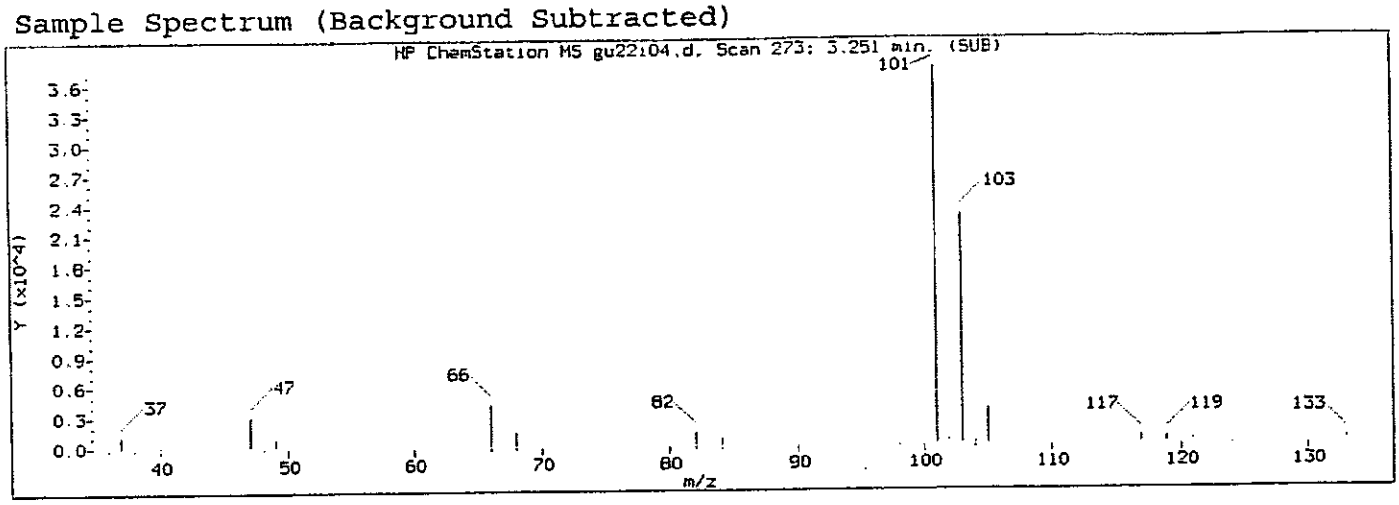
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	12
Compound Name	:	Dichlorofluoromethane
Scan Number	:	257
Retention Time (minutes)	:	3.154
Quant Ion	:	67
Area	:	226111
Concentration (ug/L)	:	2.0000
Integration start scan	:	236 Integration stop scan: 292
Y at integration start	:	723 Y at integration end: 273

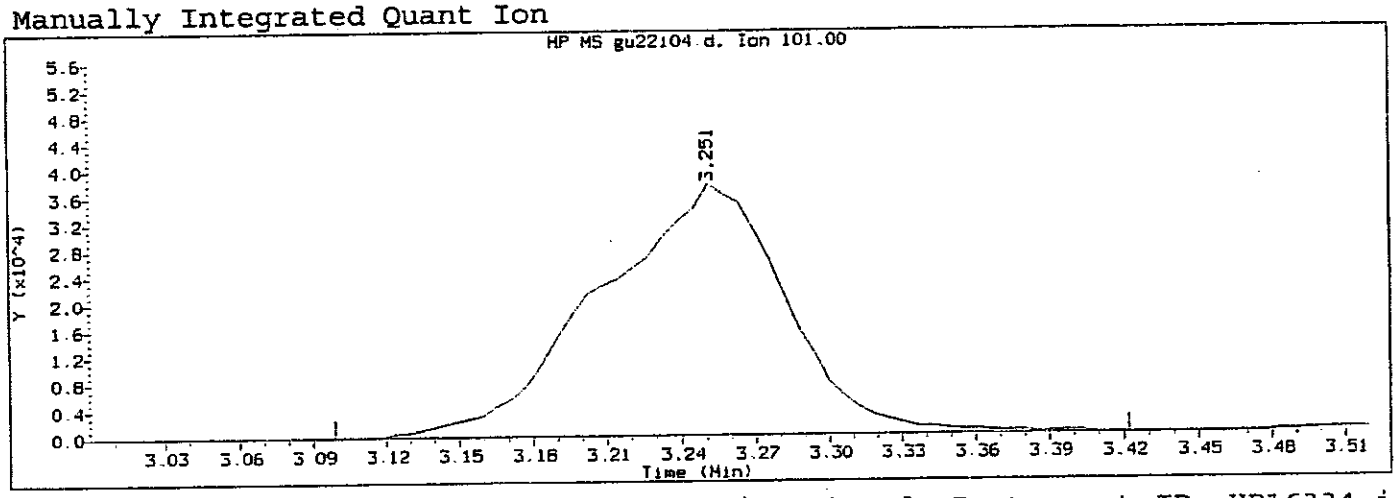
RAD19 6189

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	14
Compound Name	:	Trichlorofluoromethane
Scan Number	:	273
Retention Time (minutes)	:	3.251
Quant Ion	:	101
Area (flag)	:	196855 M
Concentration (ug/L)	:	1.9292
Integration start scan	:	247 Integration stop scan: 300
Y at integration start	:	0 Y at integration end: 0

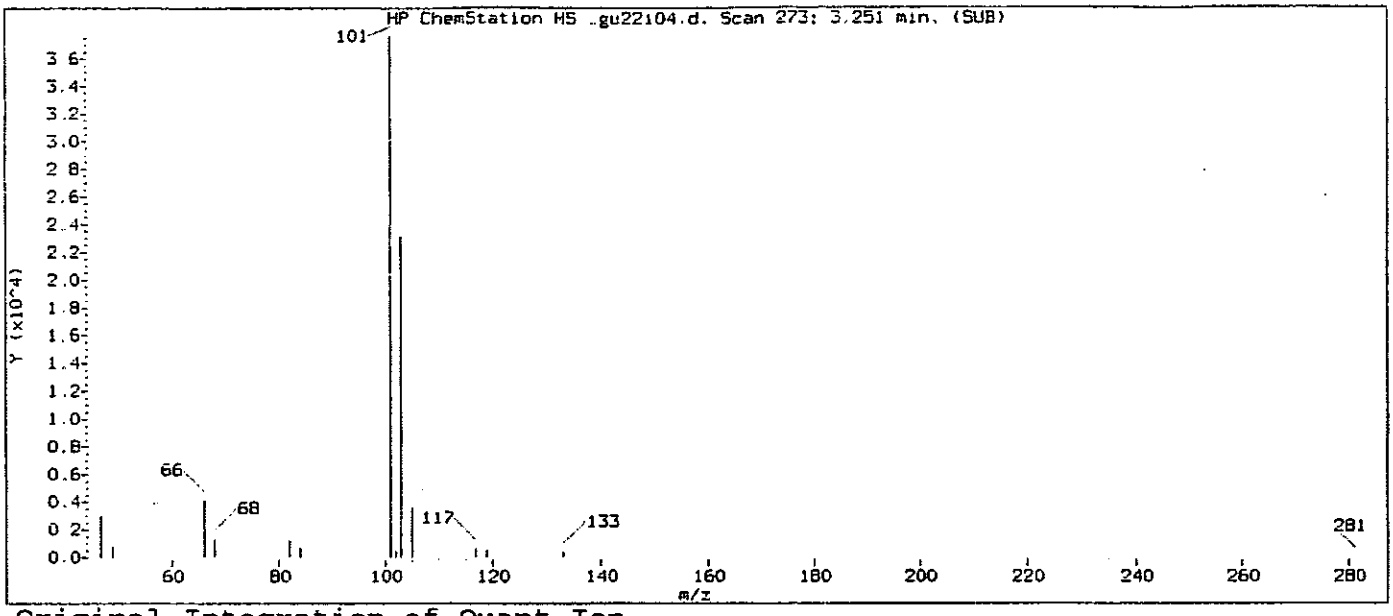
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

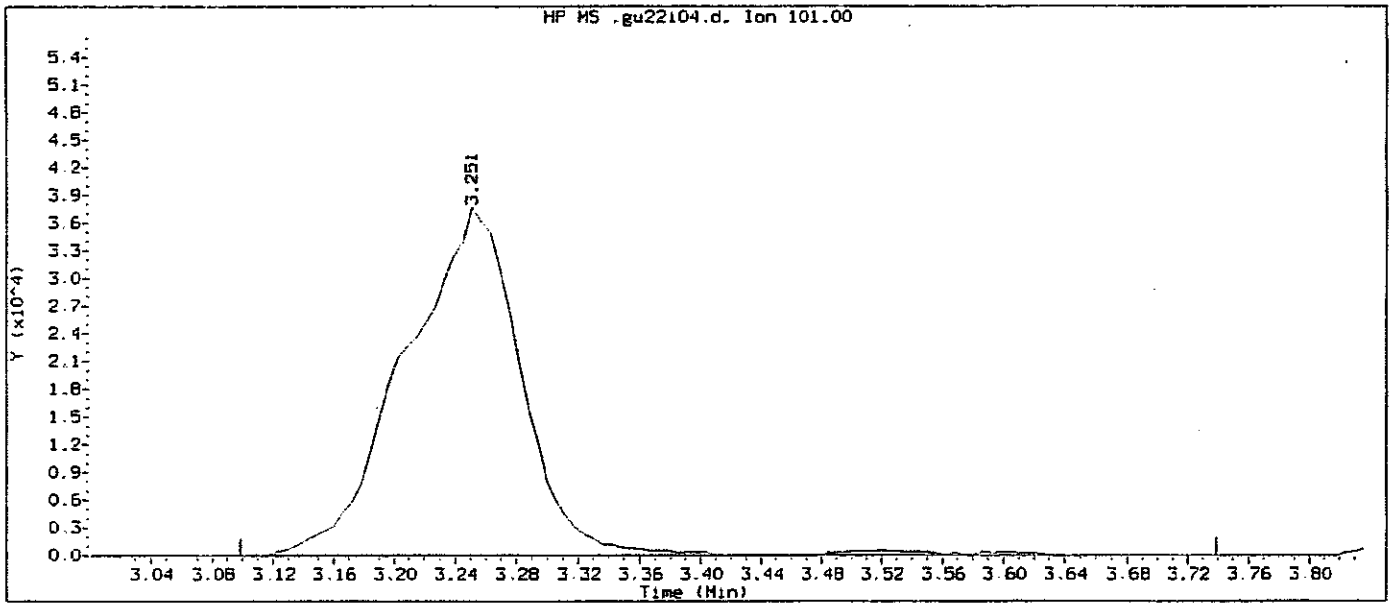
GC/MS audit/management approval: [signature] 6-23-09

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

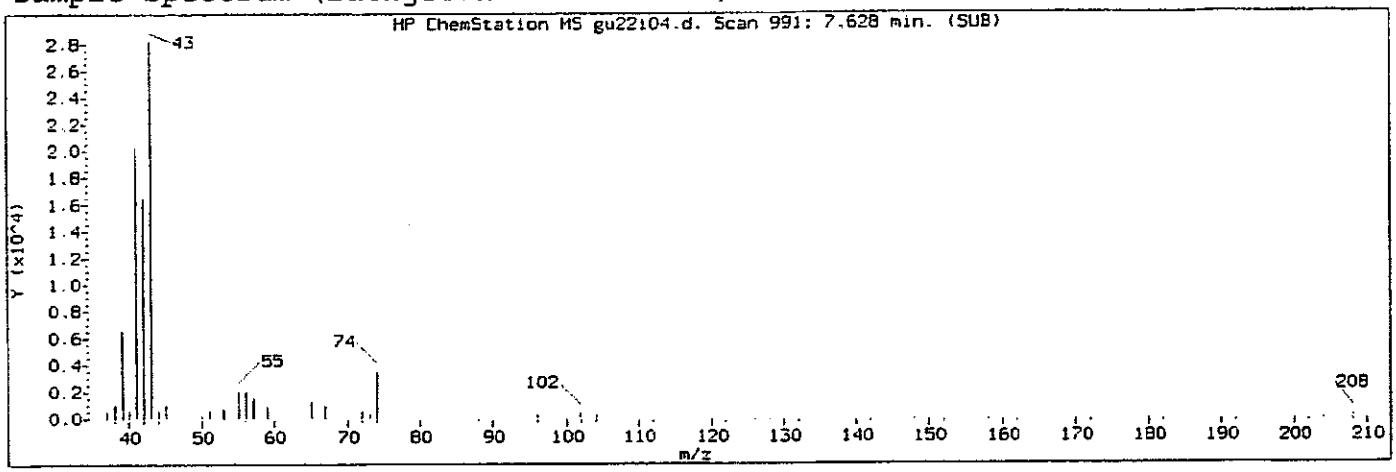
Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

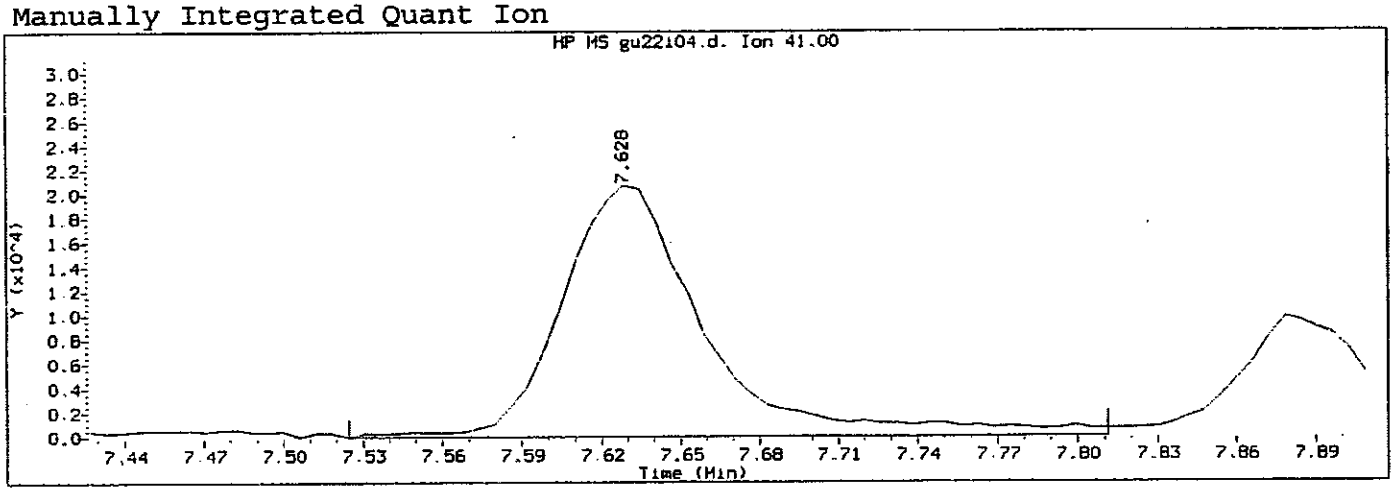
Compound Number : 14
Compound Name : Trichlorofluoromethane
Scan Number : 273
Retention Time (minutes): 3.251
Quant Ion : 101
Area : 199555
Concentration (ug/L) : 2.0000
Integration start scan : 247 Integration stop scan: 352
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i04.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	66
Compound Name	:	Isobutyl Alcohol
Scan Number	:	991
Retention Time (minutes)	:	7.628
Quant Ion	:	41
Area (flag)	:	78052 M
Concentration (ug/L)	:	97.2003
Integration start scan	:	973 Integration stop scan: 1020
Y at integration start	:	0 Y at integration end: 0

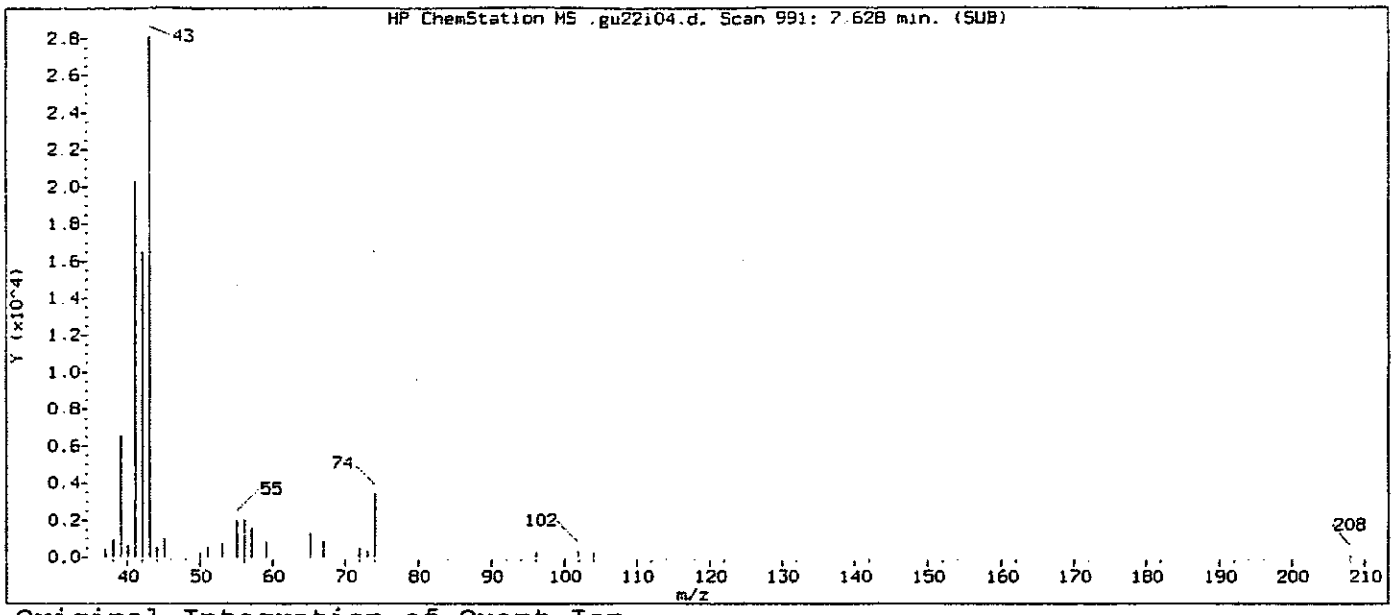
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

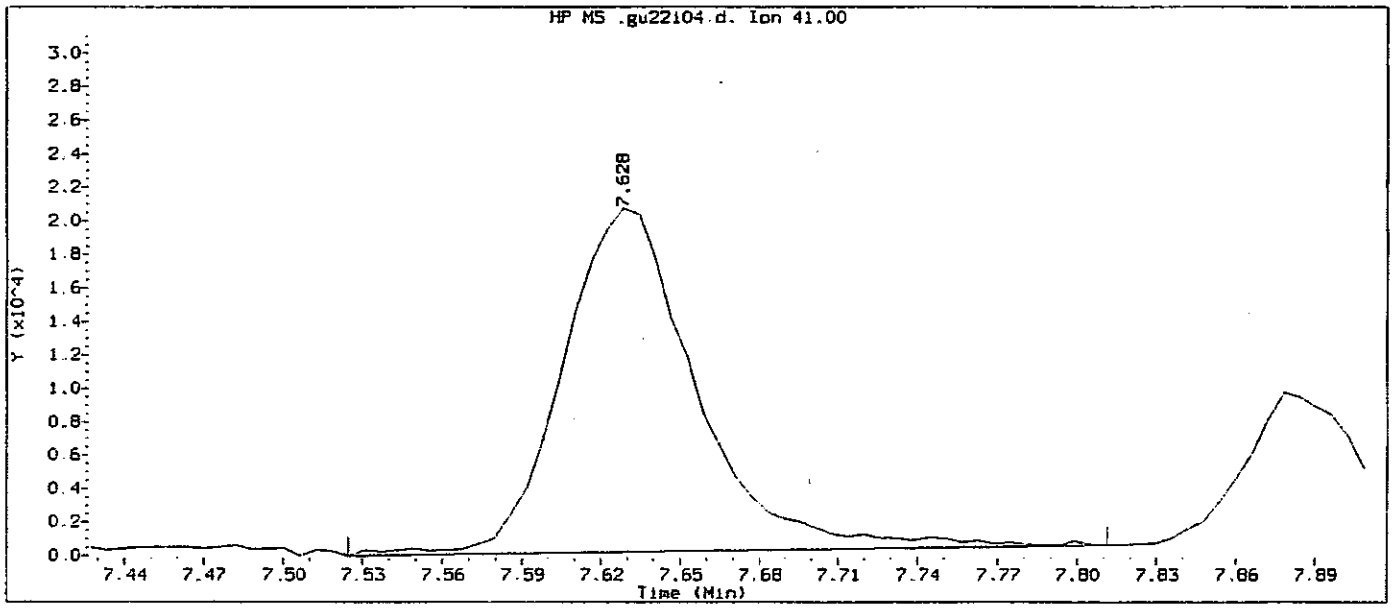
GC/MS audit/management approval: [signature] 6-23-09 RAD19 8112

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

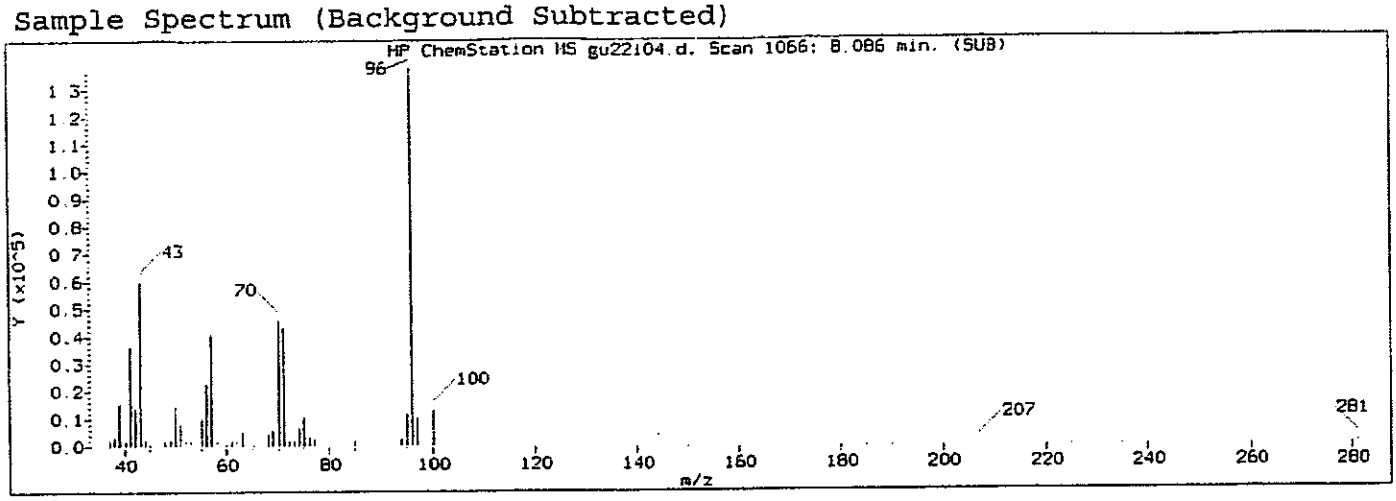
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 66
Compound Name	: Isobutyl Alcohol
Scan Number	: 991
Retention Time (minutes)	: 7.628
Quant Ion	: 41
Area	: 72441
Concentration (ug/L)	: 100.0000
Integration start scan	: 973 Integration stop scan: 1020
Y at integration start	: 0 Y at integration end: 639

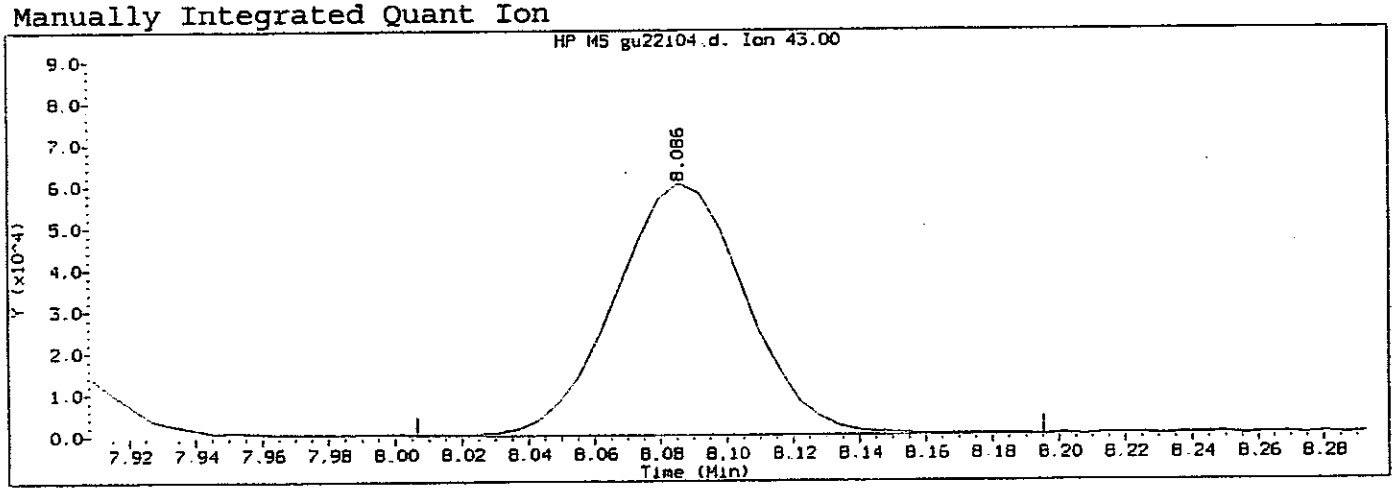
RAD19 0113

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	75
Compound Name	:	n-Heptane
Scan Number	:	1066
Retention Time (minutes)	:	8.086
Quant Ion	:	43
Area (flag)	:	167409 M
Concentration (ug/L)	:	1.8707
Integration start scan	:	1052 Integration stop scan: 1083
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

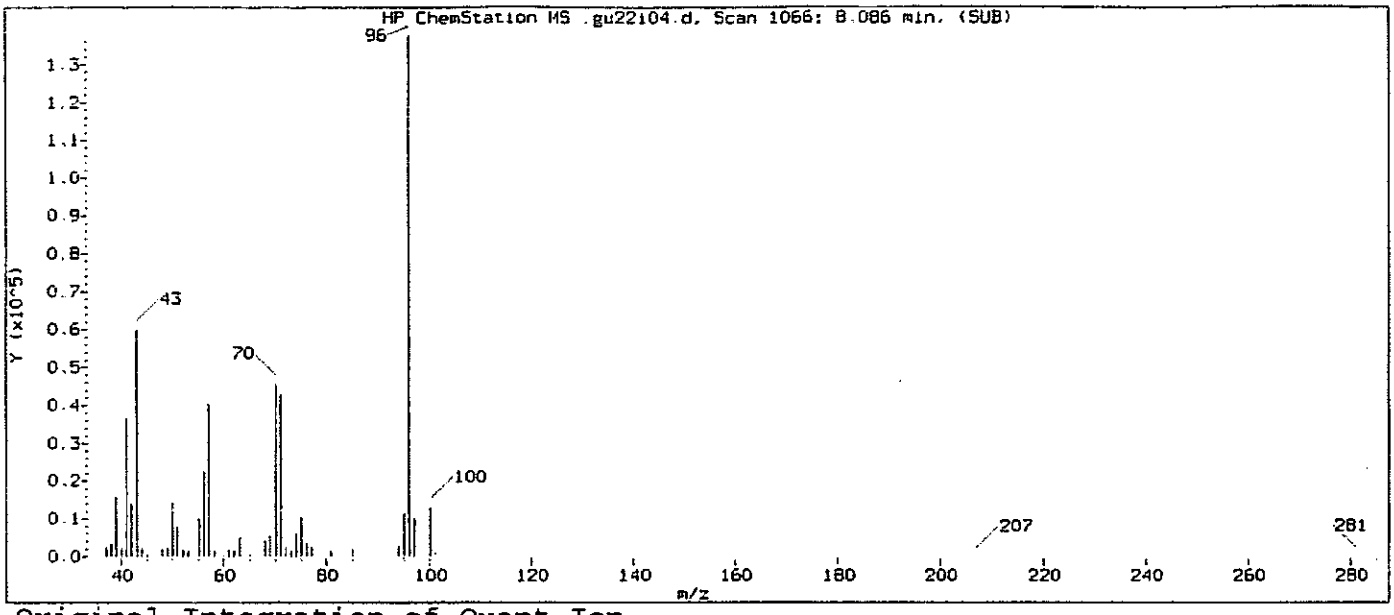
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

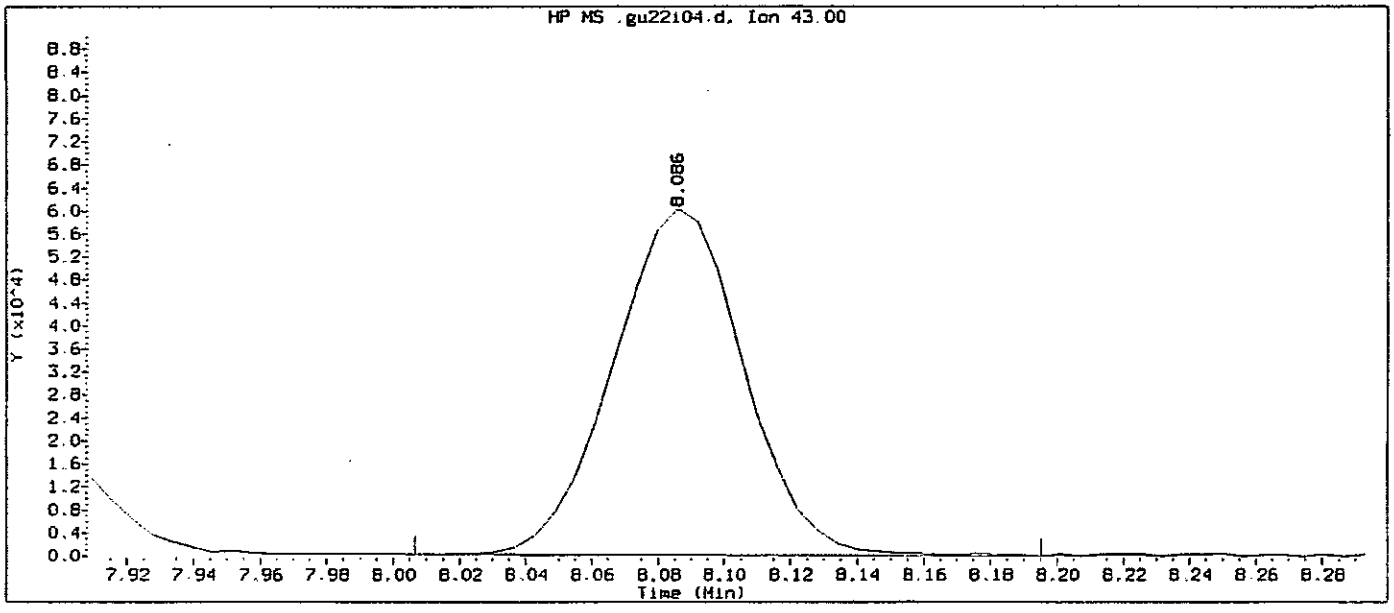
RHD19 6114

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i04.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

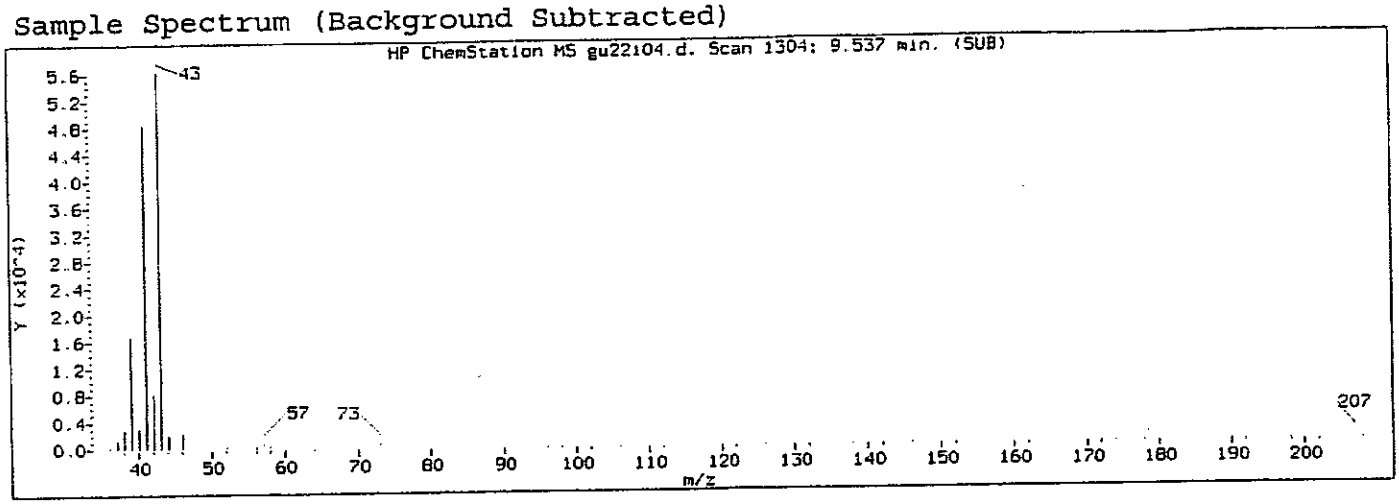
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 75
Compound Name	: n-Heptane
Scan Number	: 1066
Retention Time (minutes)	: 8.086
Quant Ion	: 43
Area	: 165584
Concentration (ug/L)	: 2.0000
Integration start scan	: 1052 Integration stop scan: 1083
Y at integration start	: 312 Y at integration end: 0

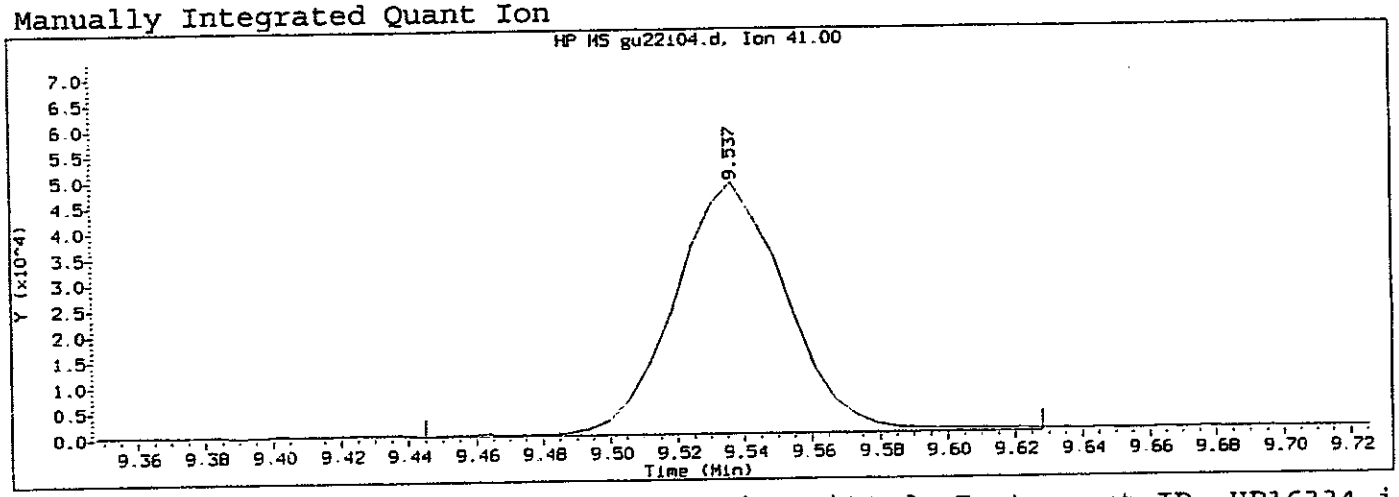
RAD19 8115

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	90
Compound Name	:	2-Nitropropane
Scan Number	:	1304
Retention Time (minutes)	:	9.537
Quant Ion	:	41
Area (flag)	:	114389 M
Concentration (ug/L)	:	18.8629
Integration start scan	:	1288 Integration stop scan: 1318
Y at integration start	:	0 Y at integration end: 0

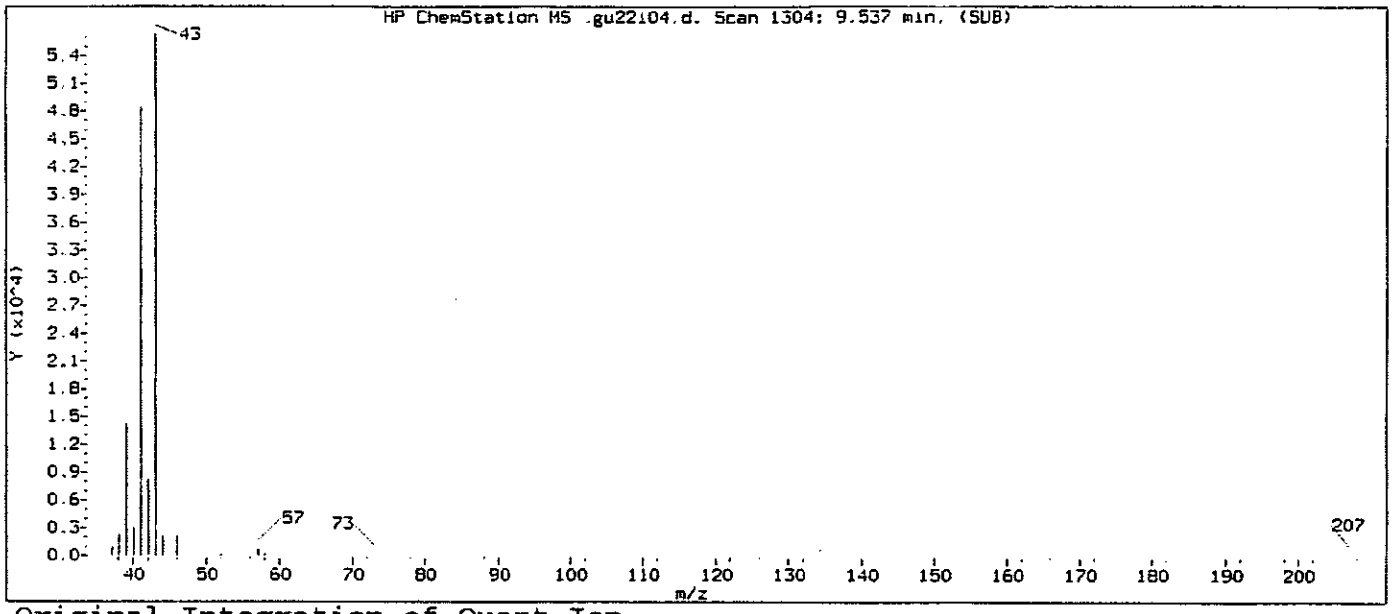
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

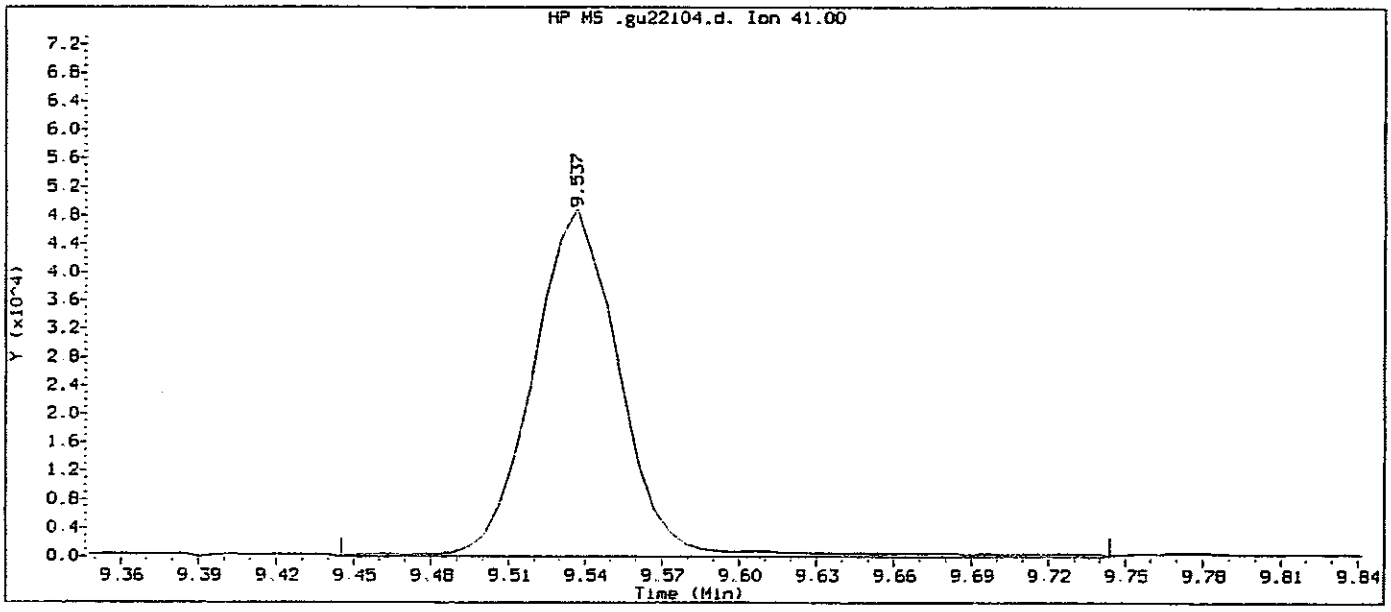
GC/MS audit/management approval: [signature] 6-23-09

RAD19 8316

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

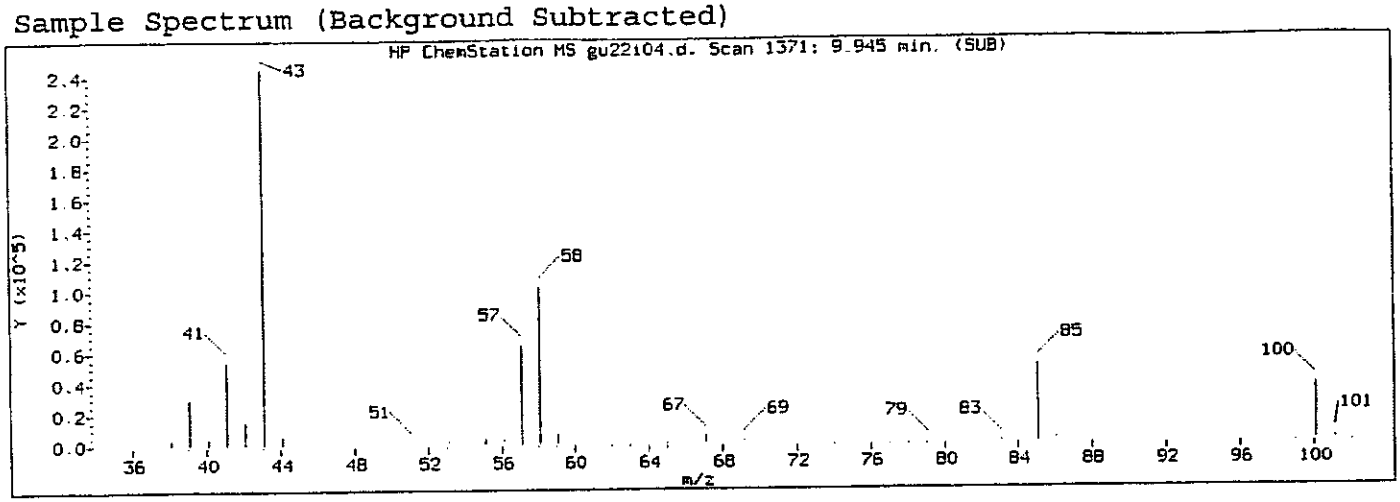
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	90
Compound Name	:	2-Nitropropane
Scan Number	:	1304
Retention Time (minutes)	:	9.537
Quant Ion	:	41
Area	:	117141
Concentration (ug/L)	:	20.0000
Integration start scan	:	1288 Integration stop scan: 1337
Y at integration start	:	0 Y at integration end: 0

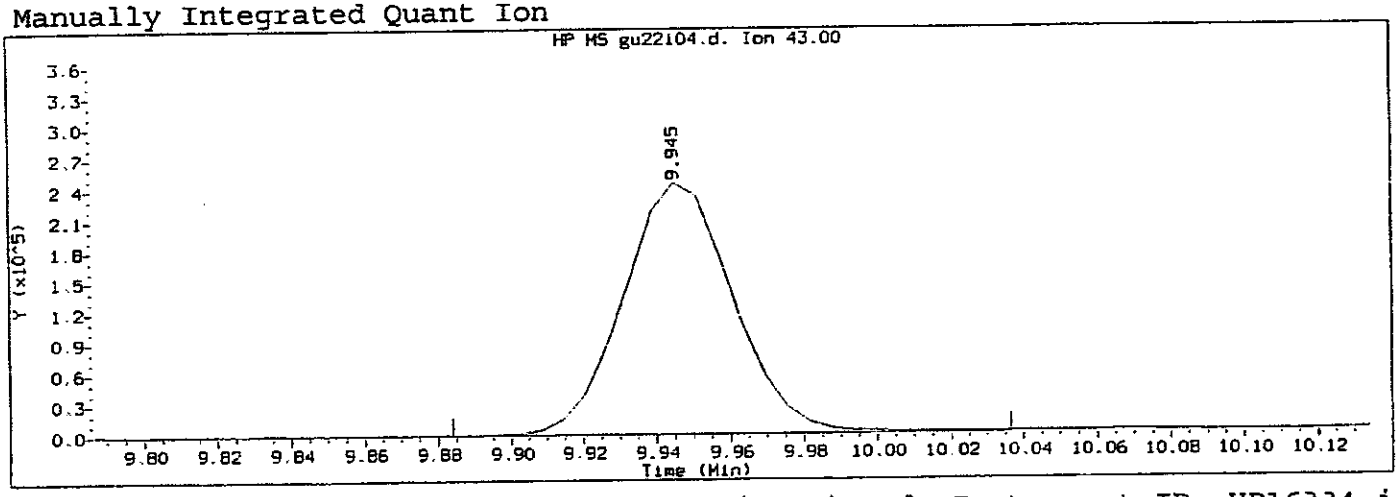
RAD19 0117

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 95
Compound Name	: 4-Methyl-2-Pentanone
Scan Number	: 1371
Retention Time (minutes)	: 9.945
Quant Ion	: 43
Area (flag)	: 510942 M
Concentration (ug/L)	: 18.6441
Integration start scan	: 1360 Integration stop scan: 1385
Y at integration start	: 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

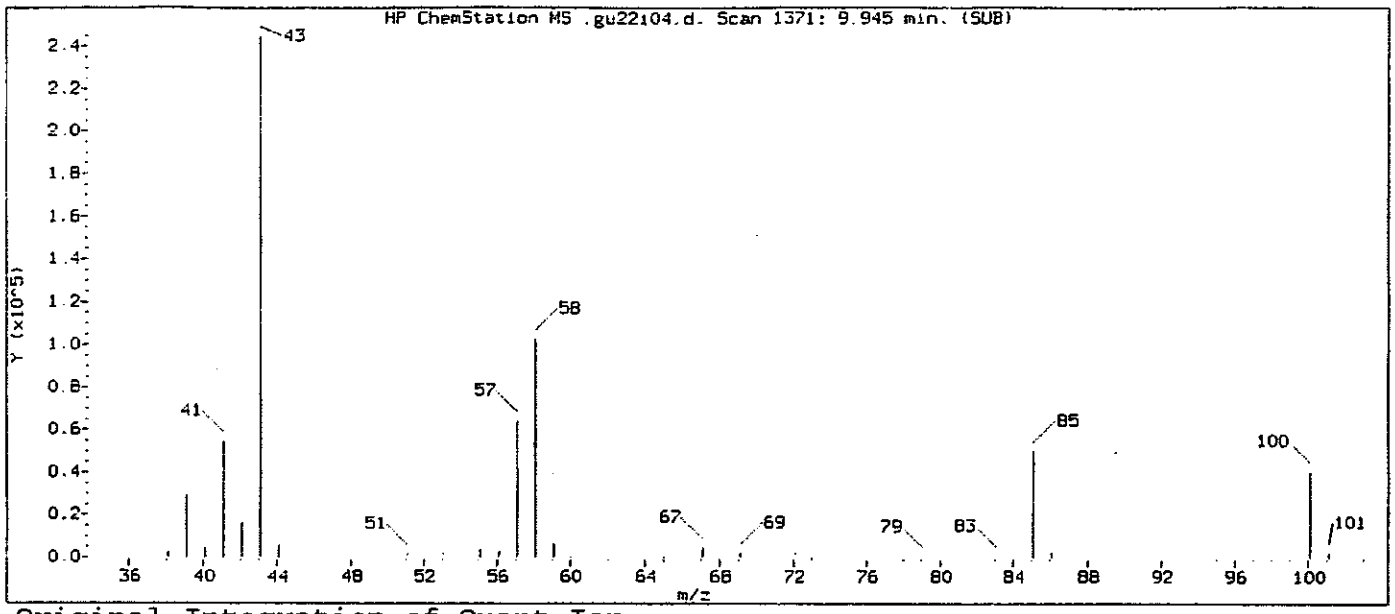
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

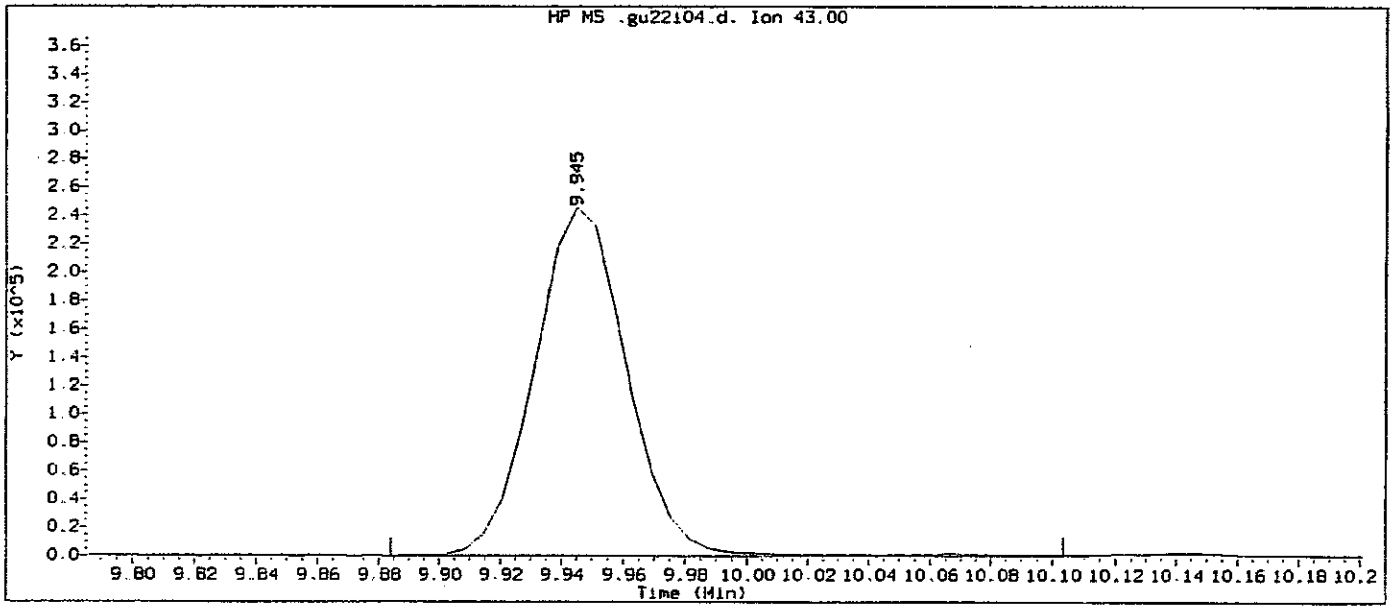
RAD19 8118

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i04.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

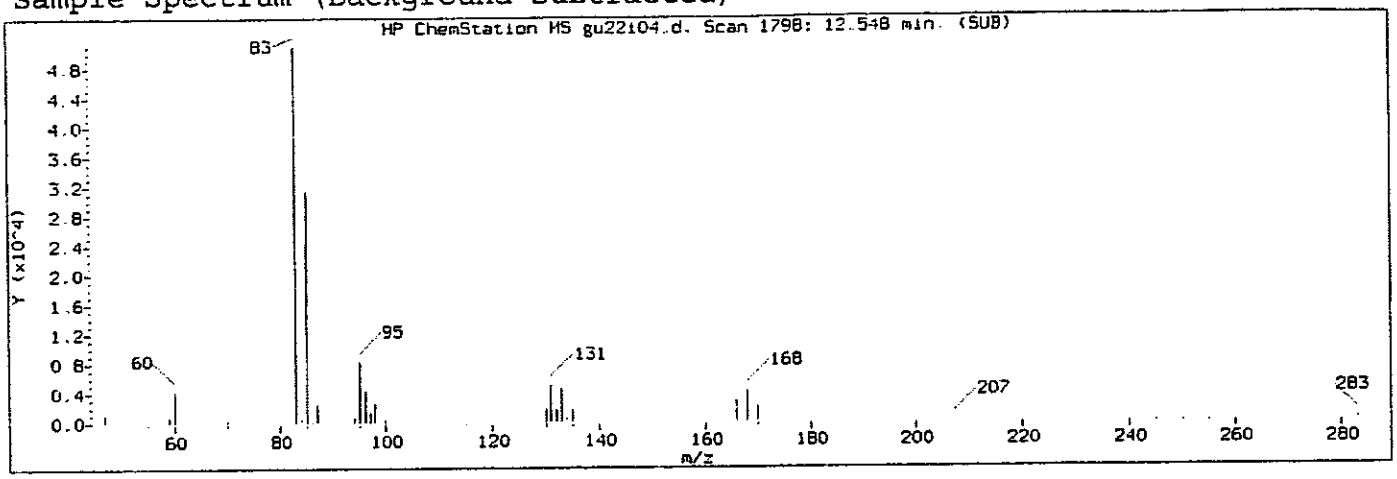
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 95
Compound Name	: 4-Methyl-2-Pentanone
Scan Number	: 1371
Retention Time (minutes)	: 9.945
Quant Ion	: 43
Area	: 514836
Concentration (ug/L)	: 20.0000
Integration start scan	: 1360 Integration stop scan: 1396
Y at integration start	: 0 Y at integration end: 82

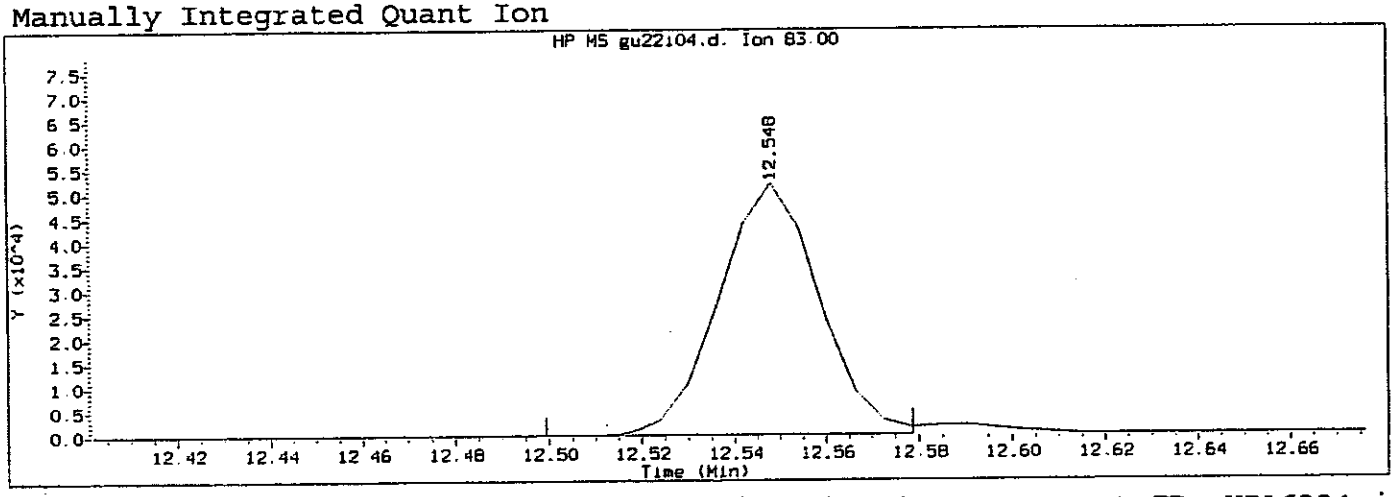
RAD19 0119

Original Integration Report for data file /chem2/HP16334 i/09jun22a.b/gu22i04 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area (flag)	:	78924 M
Concentration (ug/L)	:	1.8427
Integration start scan	:	1789 Integration stop scan: 1802
Y at integration start	:	0 Y at integration end: 0

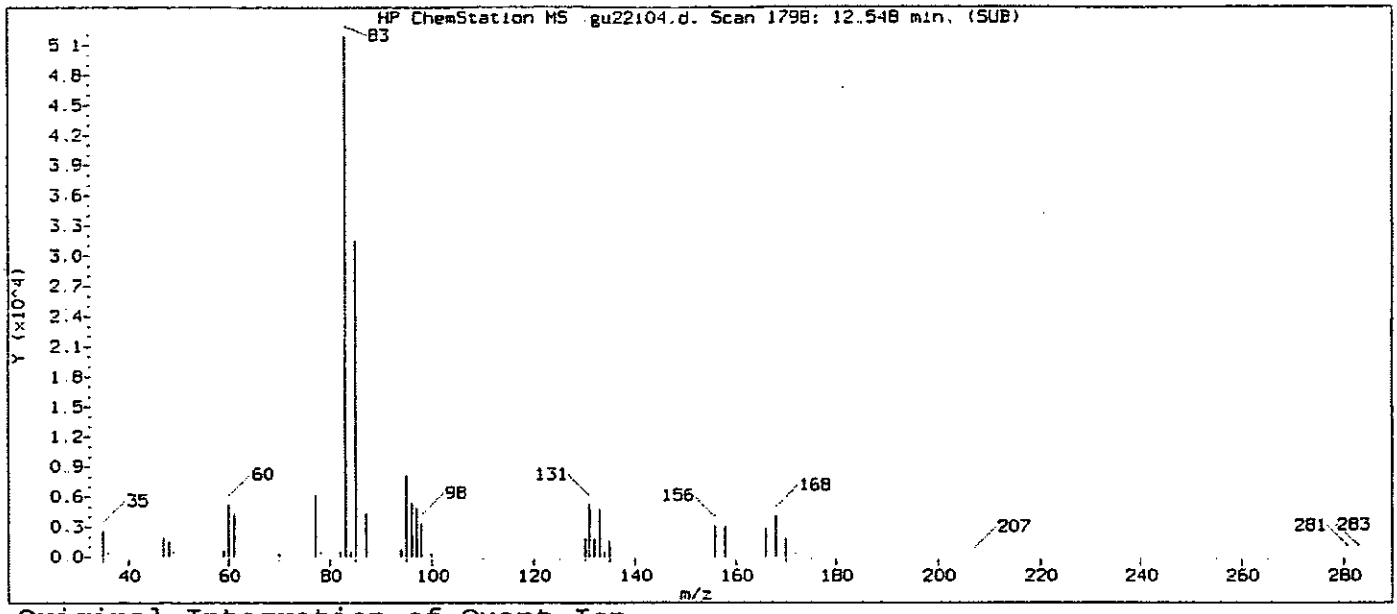
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

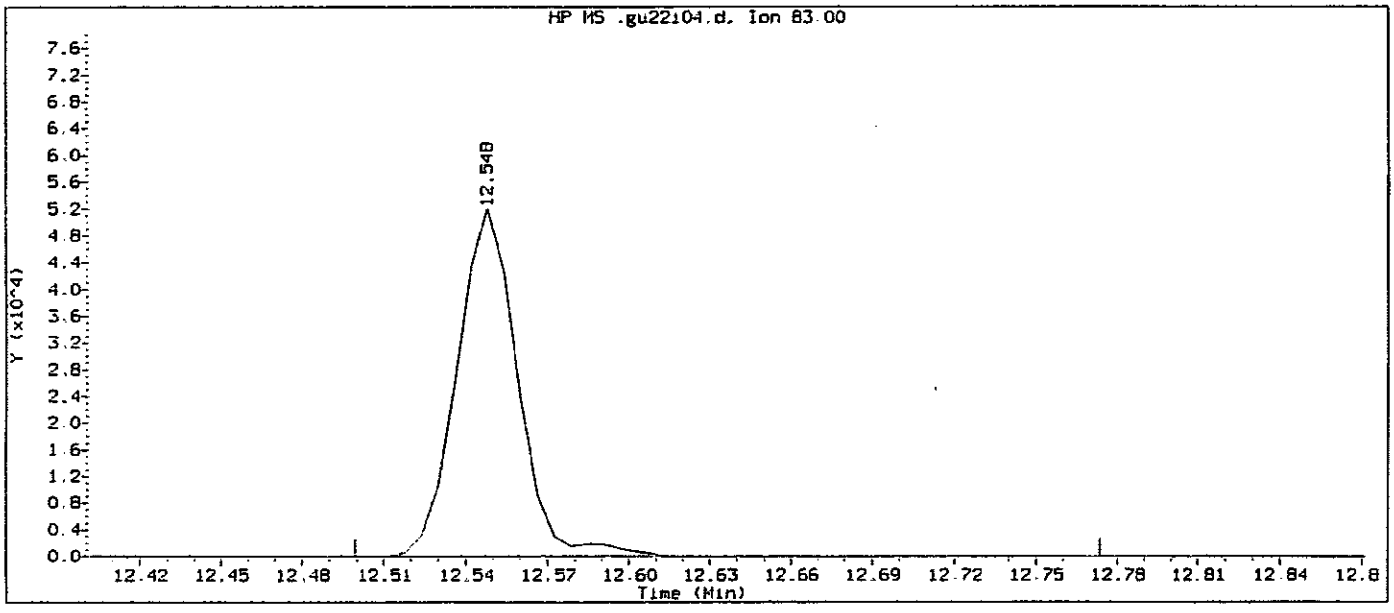
GC/MS audit/management approval: [signature] 6-23-09

AAD19 0120

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

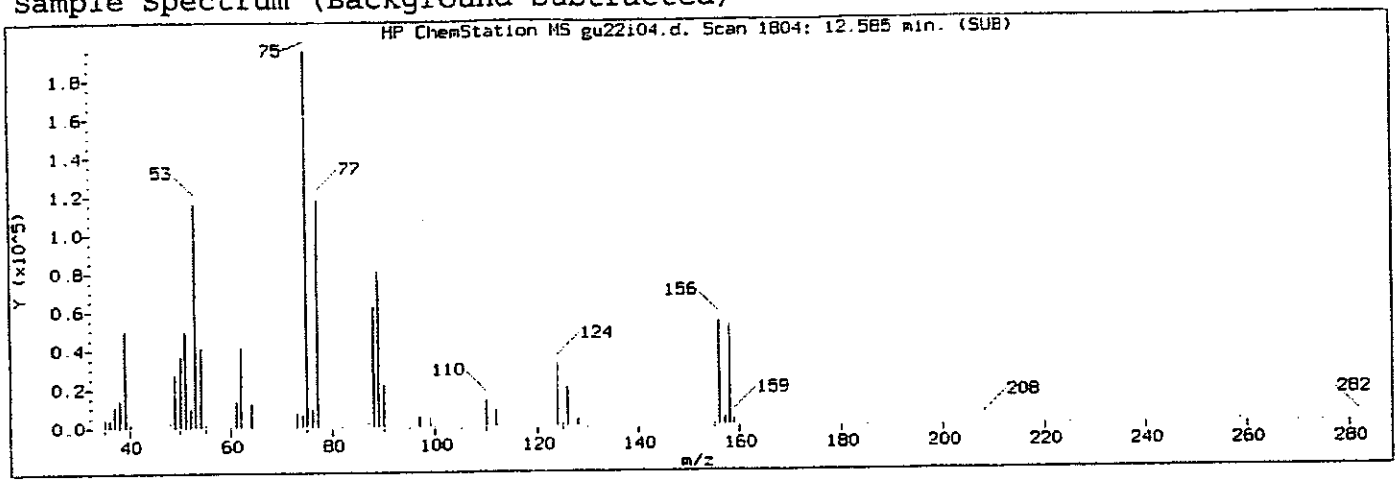
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area	:	81121
Concentration (ug/L)	:	2.0000
Integration start scan	:	1789 Integration stop scan: 1834
Y at integration start	:	0 Y at integration end: 0

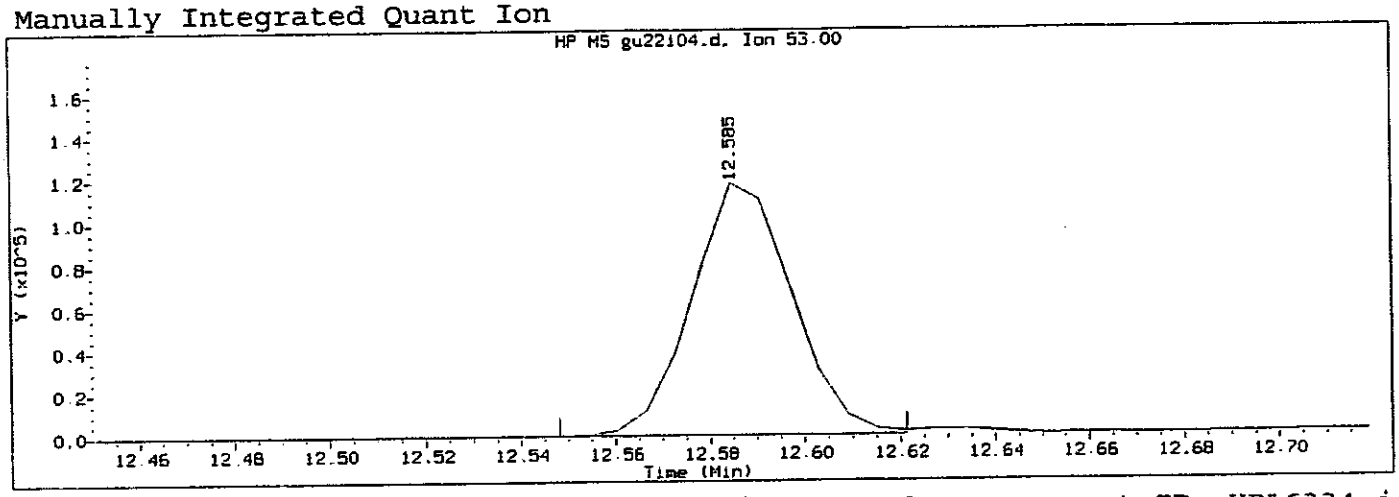
RAD19 8121

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area (flag)	:	174755 M
Concentration (ug/L)	:	18.6303
Integration start scan	:	1797 Integration stop scan: 1809
Y at integration start	:	0 Y at integration end: 0

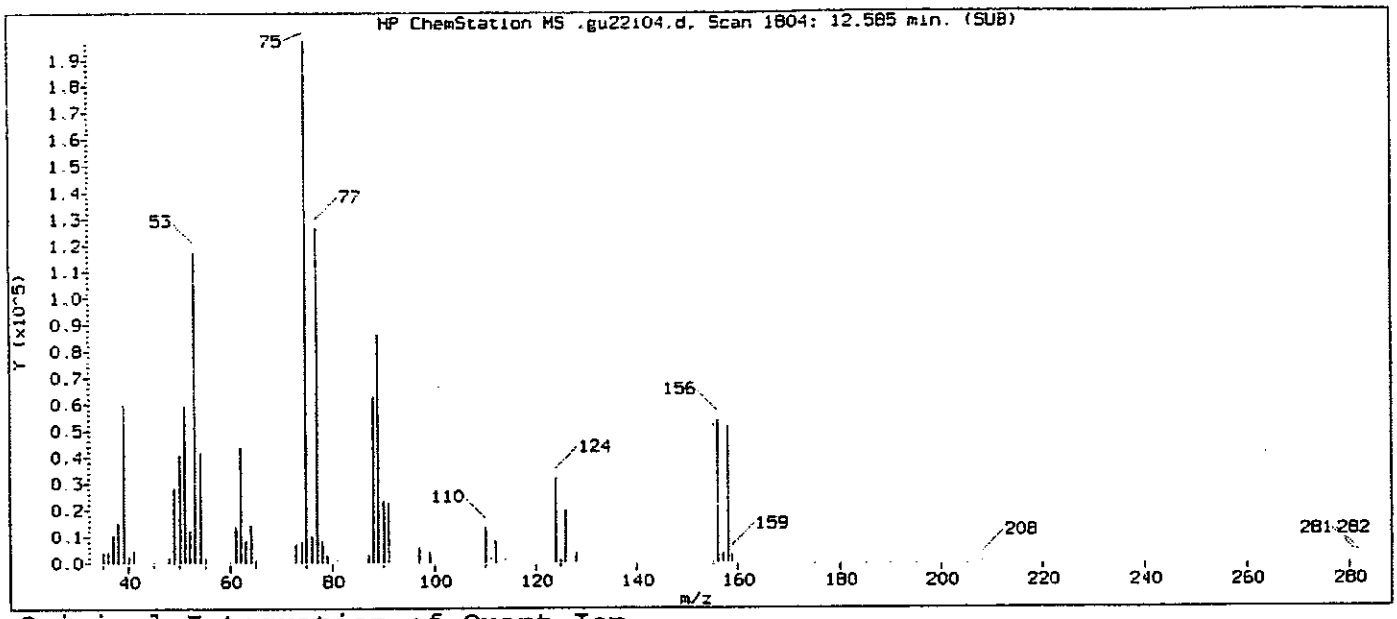
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

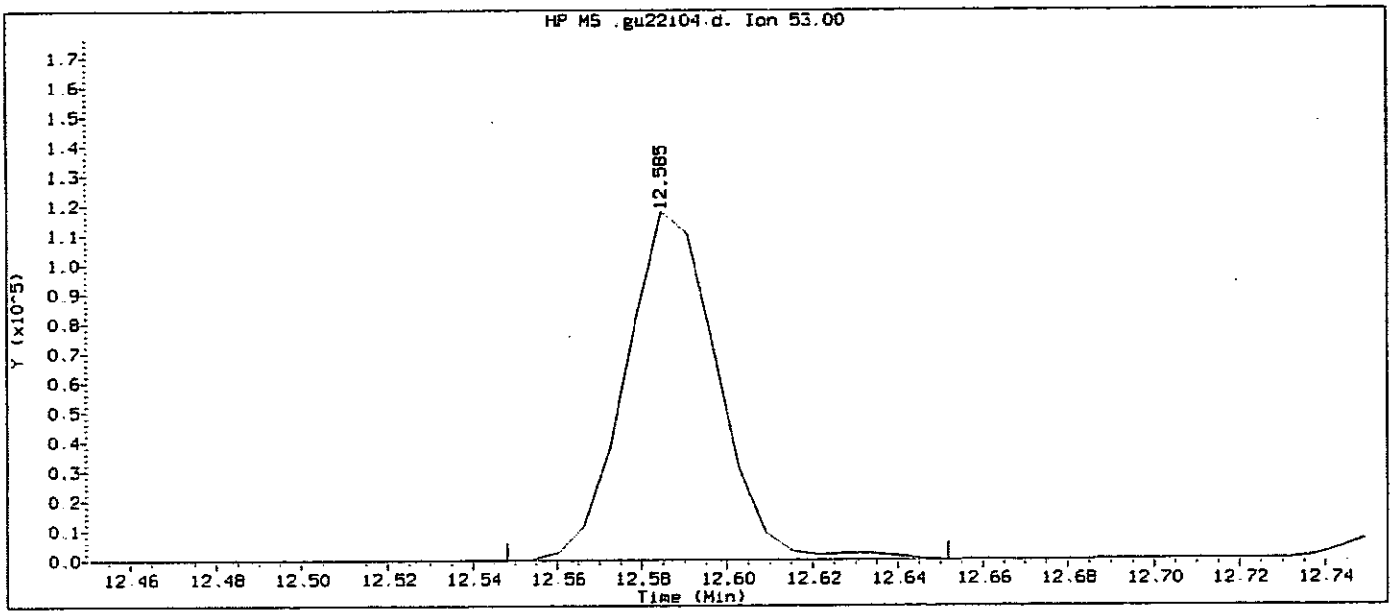
GC/MS audit/management approval: [signature] 6/23/09

KAD19 8122

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

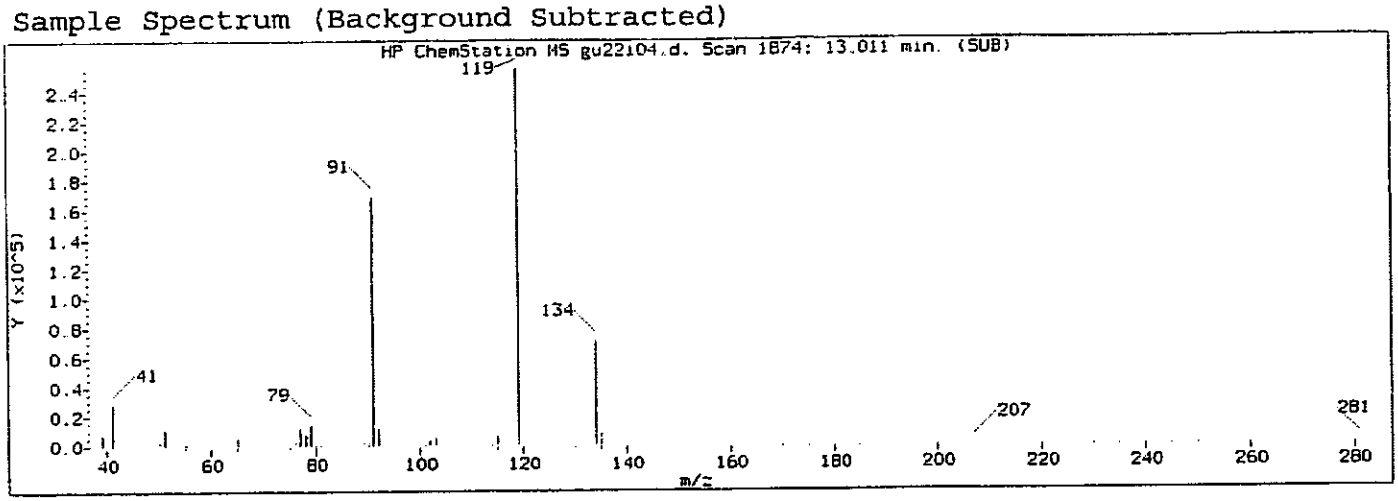
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 129
Compound Name	: trans-1,4-Dichloro-2-Butene
Scan Number	: 1804
Retention Time (minutes)	: 12.585
Quant Ion	: 53
Area	: 177212
Concentration (ug/L)	: 20.0000
Integration start scan	: 1797 Integration stop scan: 1814
Y at integration start	: 0 Y at integration end: 0

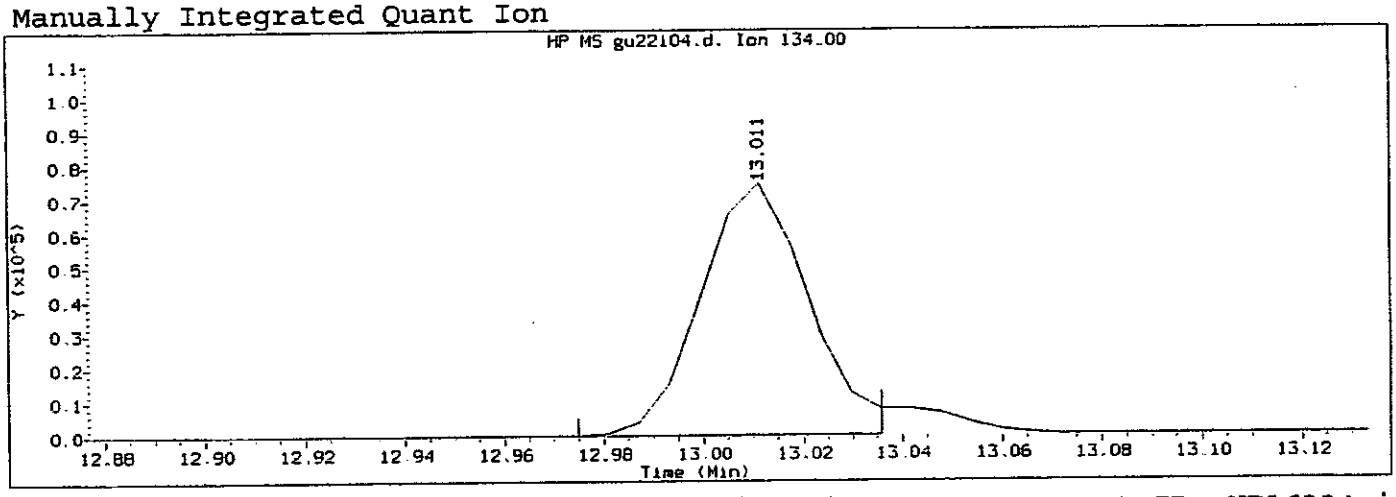
RAD19 0123

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i04.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 136
Compound Name : tert-Butylbenzene
Scan Number : 1874
Retention Time (minutes): 13.011
Quant Ion : 134
Area (flag) : 112173 M
Concentration (ug/L) : 1.8196
Integration start scan : 1867 Integration stop scan: 1877
Y at integration start : 0 Y at integration end: 0

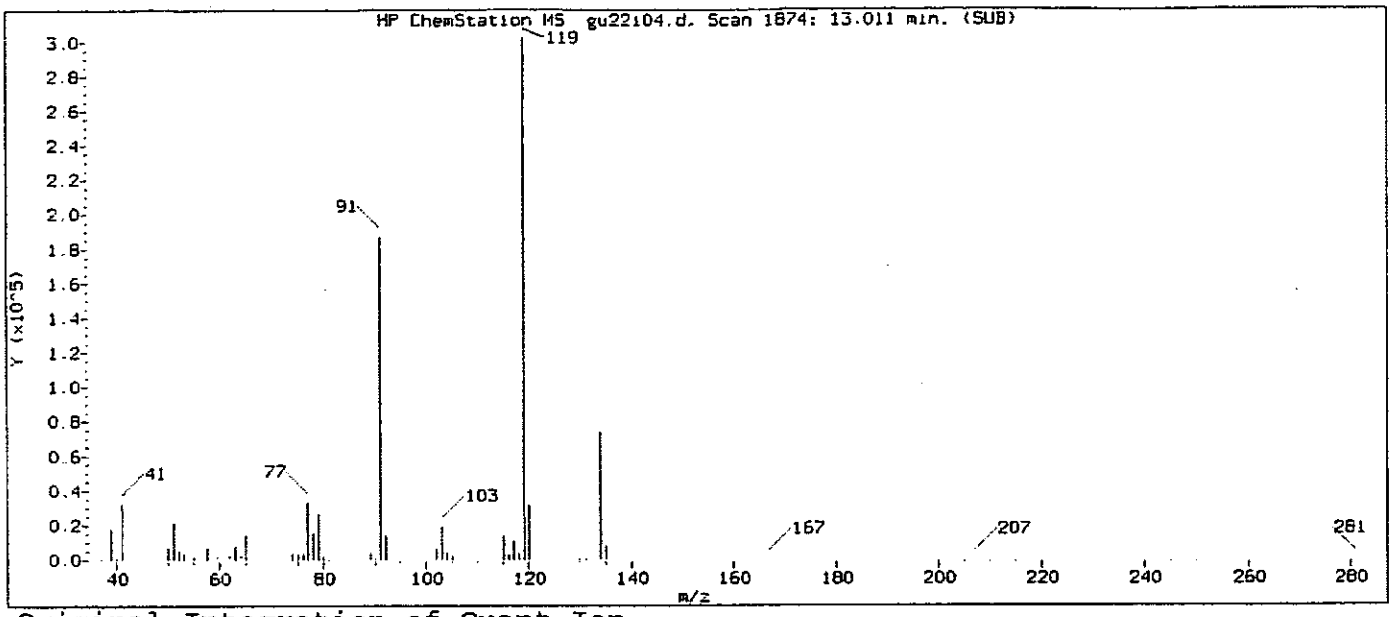
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

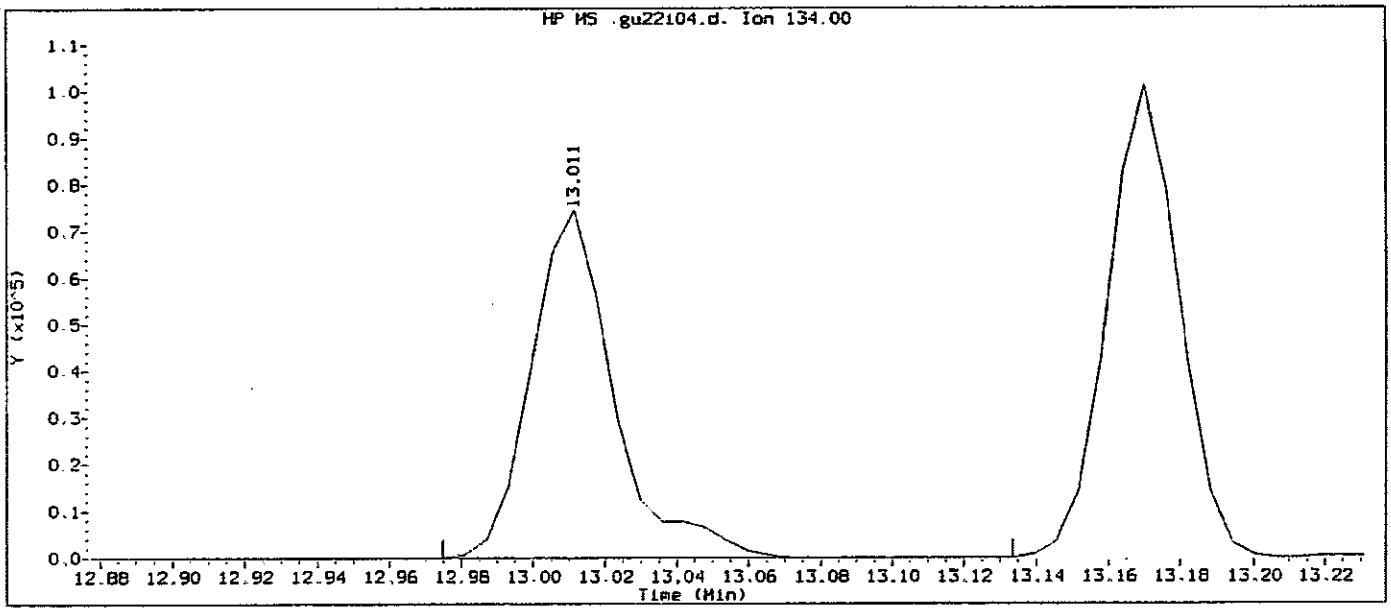
GC/MS audit/management approval: [signature] 6-23-09

RMD19 0124

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i04.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 16:44 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:00
Date, time and analyst ID of latest file update: 22-Jun-2009 17:00 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

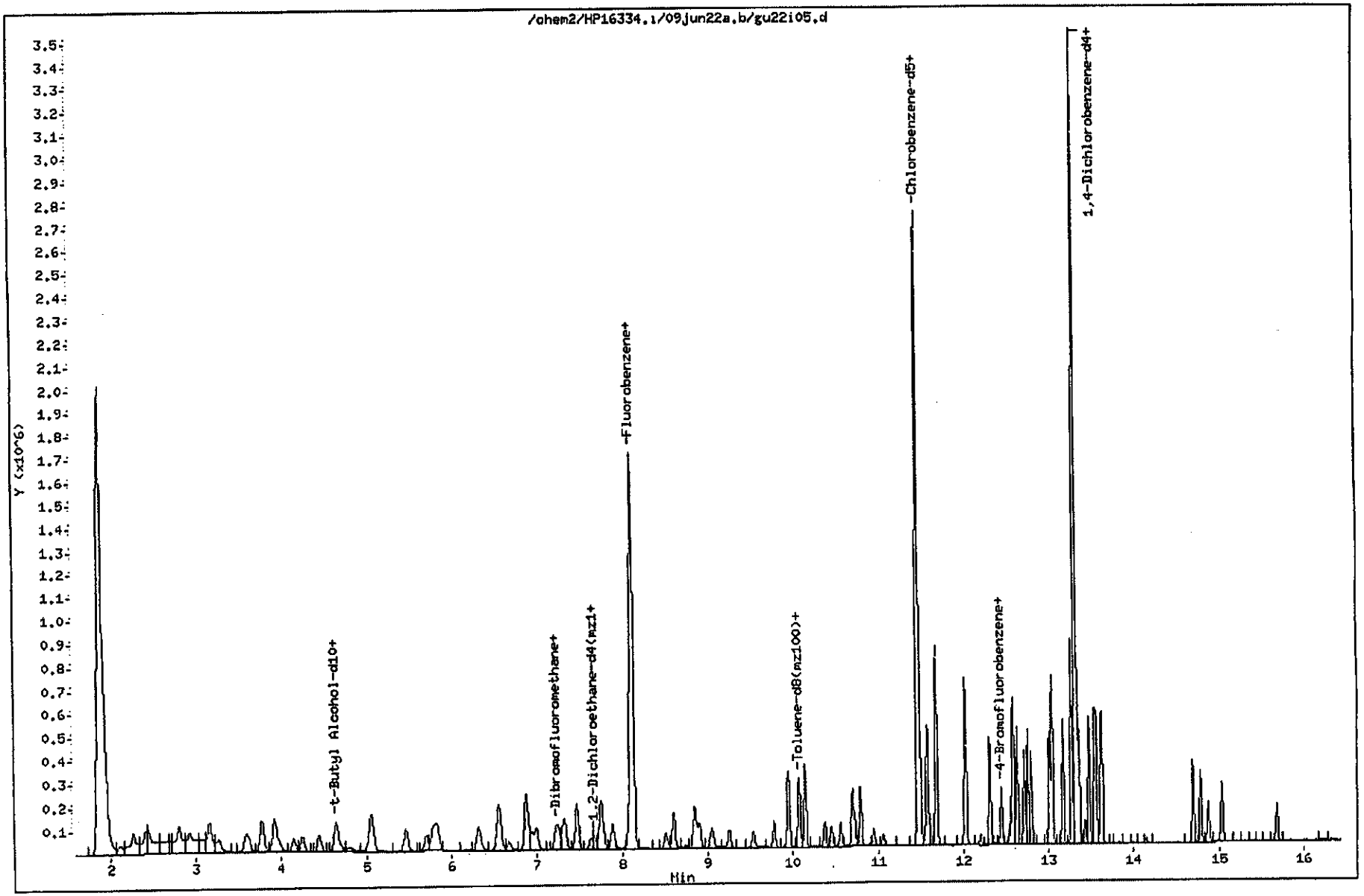
Compound Number : 136
Compound Name : tert-Butylbenzene
Scan Number : 1874
Retention Time (minutes): 13.011
Quant Ion : 134
Area : 119417
Concentration (ug/L) : 2.0000
Integration start scan : 1867 Integration stop scan: 1893
Y at integration start : 0 Y at integration end: 0

RAD19 8125

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i04 d. generated on 06/22/2009 at 19:52

Data File: /chem2/HP16334.1/09jun22a.b/gu22i05.d
Date : 22-JUN-2009 17:05
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.1
Operator: JHL01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.123	85	87801	1.058
5) Chloromethane	(1)	2.263	50	77034	1.039
6) Vinyl Chloride	(1)	2.410	62	79911	1.004
9) Bromomethane	(1)	2.800	94	70162	1.013
10) Chloroethane	(1)	2.922	64	50001M	1.011
12) Dichlorofluoromethane	(1)	3.160	67	128079M	1.044
14) Trichlorofluoromethane	(1)	3.263	101	99306	0.997
16) Ethyl Ether	(1)	3.574	59	36045	0.839
17) Freon 123a	(1)	3.605	67	72840	1.028
22) Acrolein	(4)	3.769	56	233616	49.838
23) 1,1-Dichloroethene	(1)	3.916	96	57099M	0.997
24) Freon 113	(1)	3.934	101	62581	1.014
25) Acetone	(4)	3.983	58	20066	10.108
26) Methyl Iodide	(1)	4.141	142	107190	1.005
28) Carbon Disulfide	(1)	4.251	76	162045	0.999
31) Allyl Chloride	(1)	4.440	41	73659	0.965
32) Methyl Acetate	(1)	4.470	43	19820	1.118
33) Methylene Chloride	(1)	4.641	84	97325	1.104
35)*t-Butyl Alcohol-d10	(4)	4.678	65	97401	50.000
37) t-Butyl Alcohol	(4)	4.812	59	49200M	19.386
38) Acrylonitrile	(4)	5.037	53	41954	4.997
40) trans-1,2-Dichloroethene	(1)	5.062	96	64064	0.993
36) 1,2-Dichloroethene (Total)	(1)		96	132616	1.993
39) Methyl Tertiary Butyl Ether	(1)	5.062	73	122241	0.993
43) n-Hexane	(1)	5.458	57	87286	1.025
44) 1,1-Dichloroethane	(1)	5.696	63	101139	1.002
46) di-Isopropyl Ether	(1)	5.787	45	170185	0.991
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	88159	0.991
48) Ethyl t-Butyl Ether	(1)	6.318	59	155585M	0.988
50) 2,2-Dichloropropane	(1)	6.555	77	82679	0.993
49) cis-1,2-Dichloroethene	(1)	6.549	96	68552	1.000
51) 2-Butanone	(4)	6.567	43	105357	10.069
52) Propionitrile	(4)	6.671	54	61182	19.735
54) Methacrylonitrile	(4)	6.872	67	113729	9.829

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8127

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.885	128	26181	0.939
56) Tetrahydrofuran	(4)	6.939	71	31310	9.796
57) Chloroform	(1)	6.994	83	104440	0.996
62) 1,1,1-Trichloroethane	(1)	7.250	97	89076	0.998
63) Cyclohexane	(1)	7.317	56	103368	1.008
64) 1,1-Dichloropropene	(1)	7.470	75	81960	0.999
65) Carbon Tetrachloride	(1)	7.470	117	78675	0.991
66) Isobutyl Alcohol	(4)	7.628	41	38516M	46.180
71) Benzene	(1)	7.750	78	251675	0.996
73) 1,2-Dichloroethane	(1)	7.781	62	55633	1.001
72) 1,2-Dichloroethane(mz98)	(1)	7.775	98	5294	0.961
74) t-Amyl Methyl Ether	(1)	7.890	73	133561	0.984
76)*Fluorobenzene	(1)	8.122	96	2227573	10.000
75) n-Heptane	(1)	8.092	43	91445	1.047
80) n-Butanol	(4)	8.506	56	61650	90.284
82) Trichloroethene	(1)	8.604	95	66154	0.989
83) Methylcyclohexane	(1)	8.848	83	109032	0.973
84) 1,2-Dichloropropane	(1)	8.902	63	57386	0.990
87) Dibromomethane	(1)	9.055	93	24996	0.974
88) 1,4-Dioxane	(4)	9.079	88	9395	48.429
86) Methyl Methacrylate	(4)	9.043	69	21657	0.976
89) Bromodichloromethane	(1)	9.250	83	66013	0.951
90) 2-Nitropropane	(4)	9.536	41	55694	9.525
93) cis-1,3-Dichloropropene	(1)	9.780	75	76684	0.959
95) 4-Methyl-2-Pentanone	(1)	9.945	43	253923	9.489
100) Toluene	(2)	10.146	92	174675	1.050
101) trans-1,3-Dichloropropene	(2)	10.372	75	59552	0.942
102) Ethyl Methacrylate	(2)	10.451	69	46315	0.931
103) 1,1,2-Trichloroethane	(2)	10.561	97	35948	0.970
104) Tetrachloroethene	(2)	10.701	166	74946	0.991
105) 1,3-Dichloropropane	(2)	10.725	76	61331	0.988
106) 2-Hexanone	(2)	10.792	43	174893	9.580
107) Dibromochloromethane	(2)	10.951	129	43191	0.939
108) 1,2-Dibromoethane	(2)	11.061	107	33798	0.954

M = Compound was manually integrated.

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1601628	10.000
111) Chlorobenzene	(2)	11.499	112	178338	0.980
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	55760	0.936
113) Ethylbenzene	(2)	11.585	91	313568	0.983
116) m+p-Xylene	(2)	11.682	106	251159	1.949
114) Xylene (Total)	(2)		106	371475	2.919
117) o-Xylene	(2)	12.018	106	120316	0.970
118) Styrene	(2)	12.030	104	186673	0.947
119) Bromoform	(2)	12.201	173	21742	0.901
120) Isopropylbenzene	(2)	12.310	105	301829	0.970
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	38790M	0.935
128) Bromobenzene	(3)	12.572	156	71115	0.967
129) trans-1,4-Dichloro-2-Butene	(4)	12.591	53	85096M	9.408
130) 1,2,3-Trichloropropane	(3)	12.591	110	11142	0.929
131) n-Propylbenzene	(3)	12.633	91	368227	0.979
132) 2-Chlorotoluene	(3)	12.713	126	77167	0.989
134) 4-Chlorotoluene	(3)	12.792	126	78078	0.976
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	258988	0.966
137) Pentachloroethane	(3)	13.042	167	39028	0.873
136) tert-Butylbenzene	(3)	13.011	134	57202M	0.958
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	269186	0.960
139) sec-Butylbenzene	(3)	13.170	105	345071	0.982
141) 1,3-Dichlorobenzene	(3)	13.274	146	150174	0.956
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	877003	10.000
140) p-Isopropyltoluene	(3)	13.267	119	296276	0.966
143) 1,4-Dichlorobenzene	(3)	13.334	146	152245	0.971
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	112484	0.934
145) Benzyl Chloride	(3)	13.426	126	15280	0.850
146) n-Butylbenzene	(3)	13.560	92	151302	0.963
147) 1,2-Dichlorobenzene	(3)	13.609	146	129023	0.968
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	5116	0.924
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	100672	0.972
153) Hexachlorobutadiene	(3)	14.785	225	53444	0.978
154) Naphthalene	(3)	14.877	128	138221	0.936

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8129

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

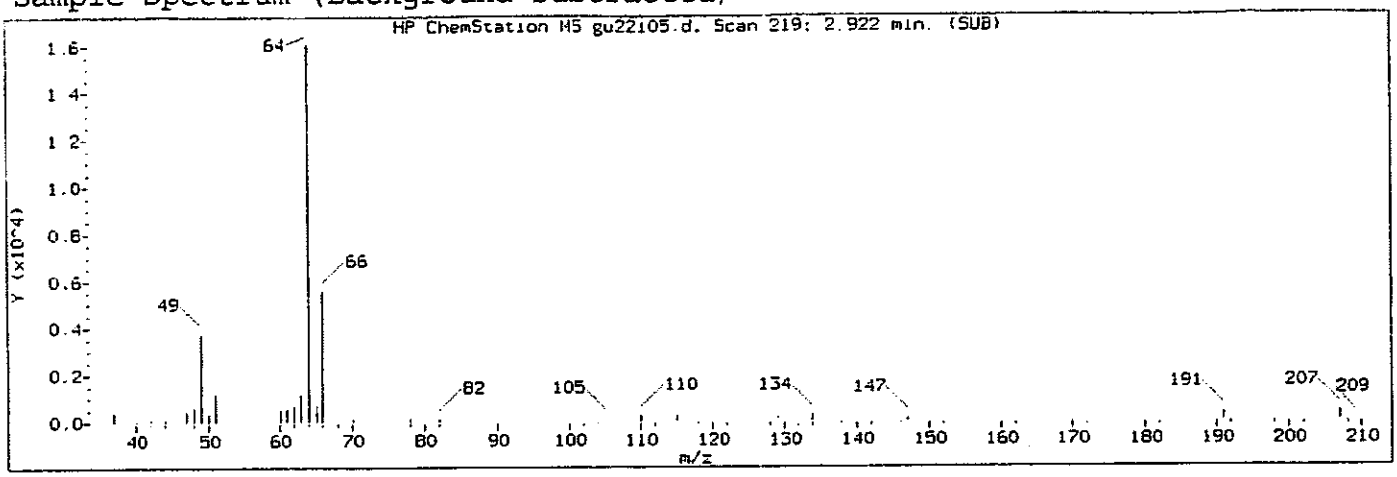
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	80928	0.961
60)$Dibromofluoromethane	(1)	7.220	113	53822	0.946
61)$Dibromofluoromethane(mz111)	(1)	7.220	111	56454	0.977
69)$1,2-Dichloroethane-d4	(1)	7.677	102	9664	0.946
67)$1,2-Dichloroethane-d4(mz104)	(1)	7.683	104	6471	0.974
68)$1,2-Dichloroethane-d4(mz65)	(1)	7.677	65	44879	0.981
96)$Toluene-d8	(2)	10.073	98	232360	0.962
97)$Toluene-d8(mz100)	(2)	10.073	100	147504	0.950
125)$4-Bromofluorobenzene	(2)	12.444	95	78079	0.939
126)$4-Bromofluorobenzene(mz174)	(2)	12.444	174	68167	0.943

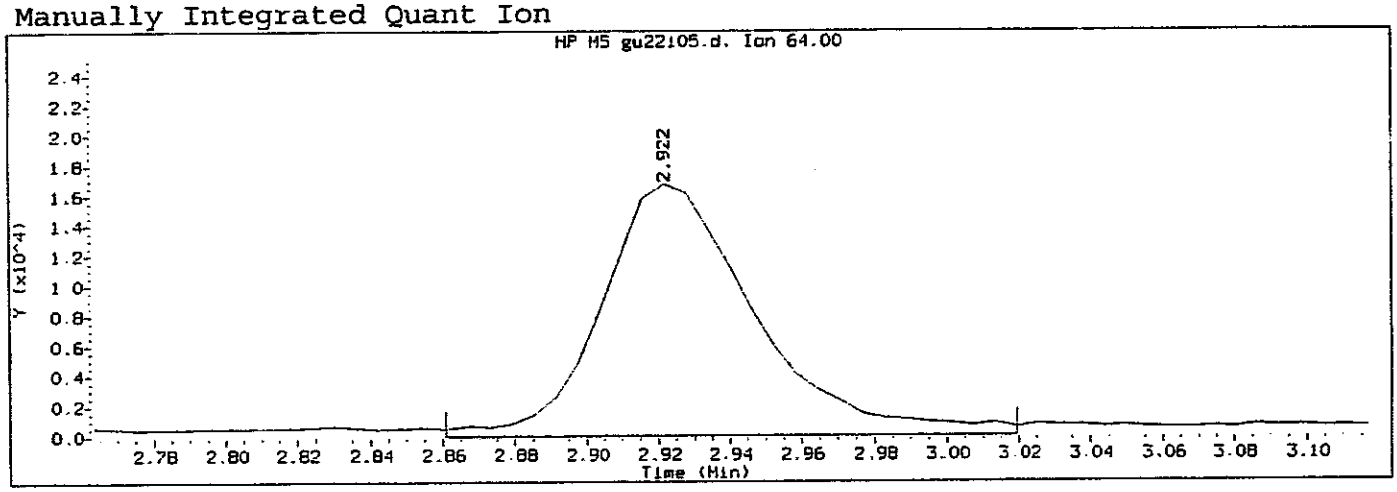
$ = Compound is a surrogate standard.

RAD19 8130

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 10
Compound Name : Chloroethane
Scan Number : 219
Retention Time (minutes): 2.922
Quant Ion : 64
Area (flag) : 50001 M
Concentration (ug/L) : 1.0106
Integration start scan : 208 Integration stop scan: 234
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

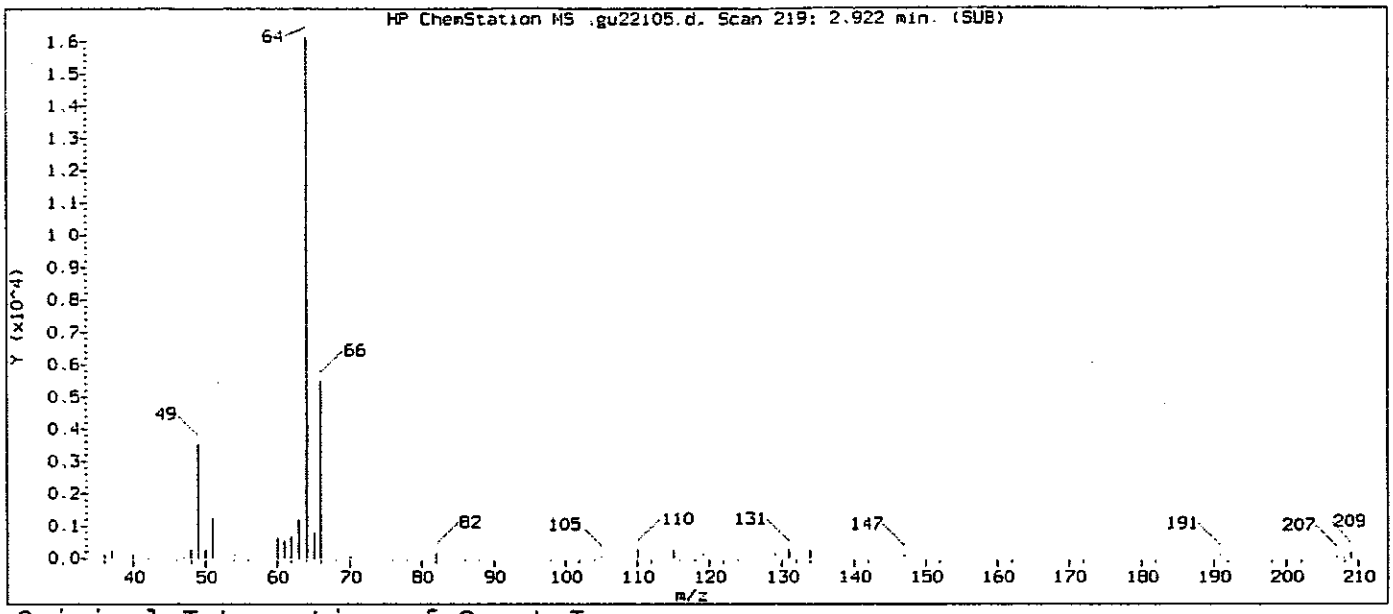
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

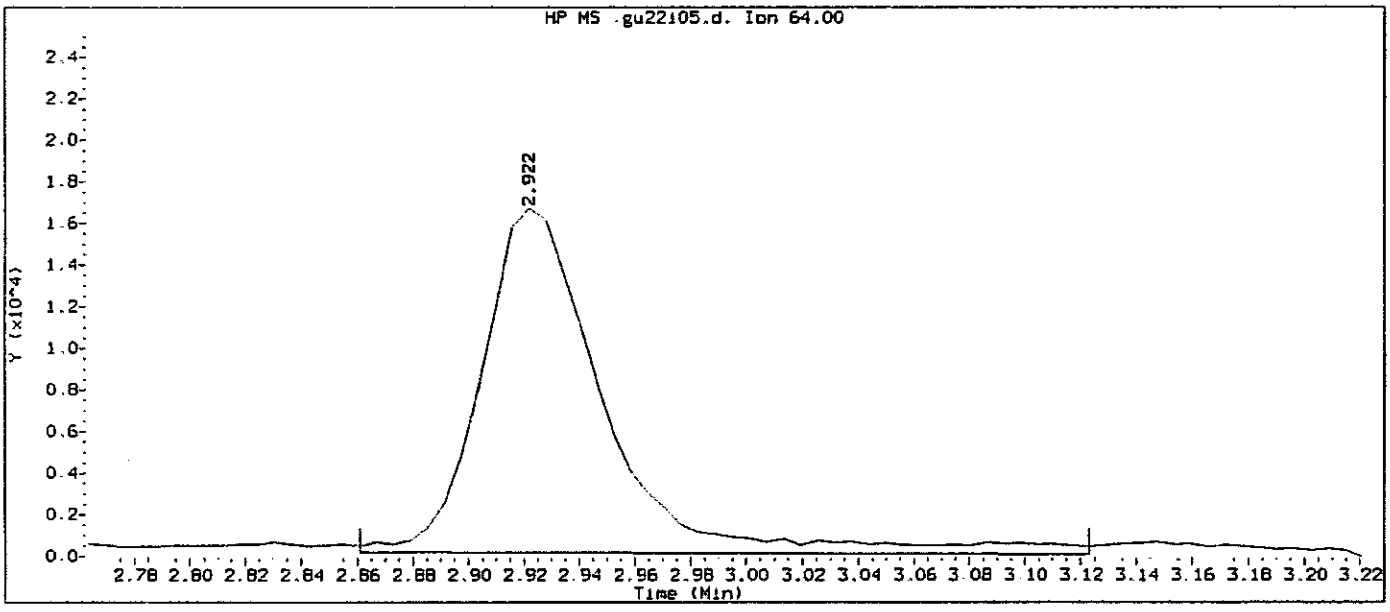
RAD19 8131

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

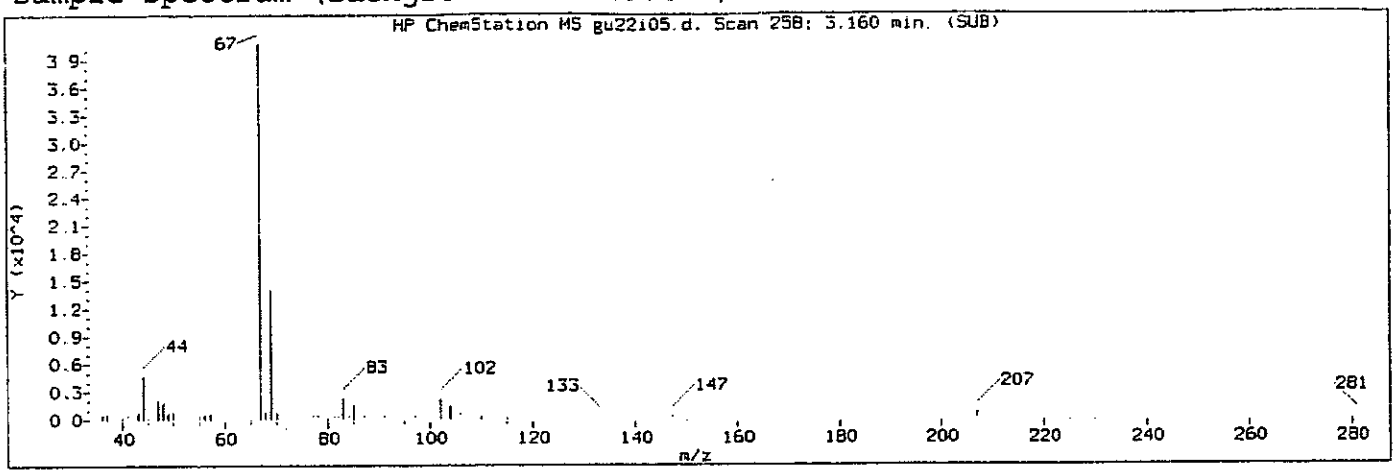
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 10		
Compound Name	: Chloroethane		
Scan Number	: 219		
Retention Time (minutes)	: 2.922		
Quant Ion	: 64		
Area	: 51193		
Concentration (ug/L)	: 1.2014		
Integration start scan	: 208	Integration stop scan:	251
Y at integration start	: 215	Y at integration end:	81

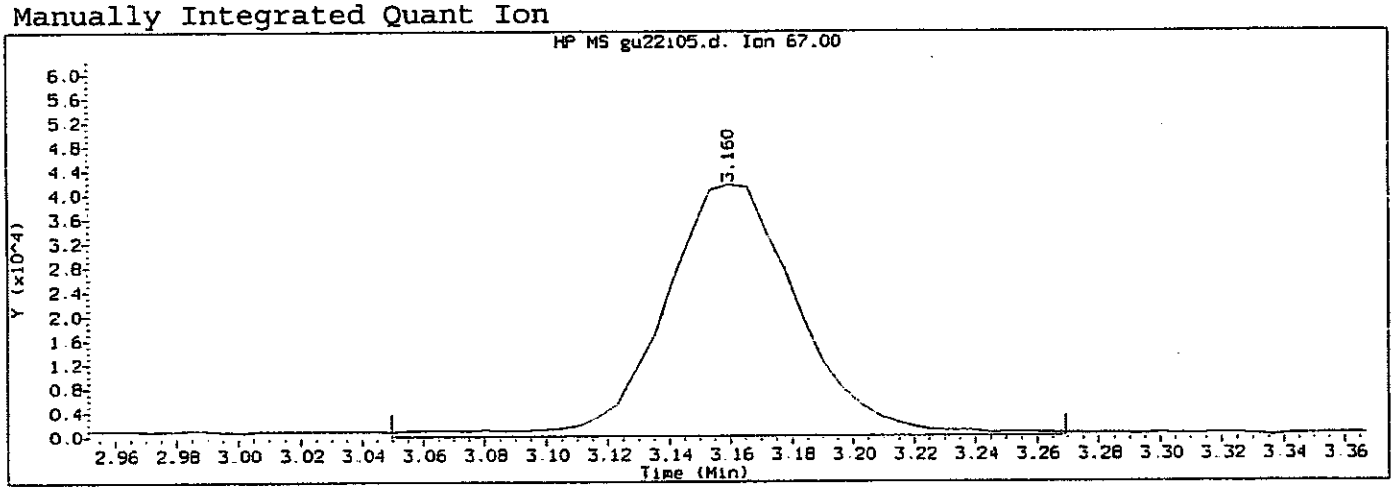
RAD19 8132

Original Integration Report for data file /chem2/HP16334 i/09jun22a.b/gu22i05 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	12
Compound Name	:	Dichlorofluoromethane
Scan Number	:	258
Retention Time (minutes)	:	3.160
Quant Ion	:	67
Area (flag)	:	128079 M
Concentration (ug/L)	:	1.0440
Integration start scan	:	239 Integration stop scan: 275
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

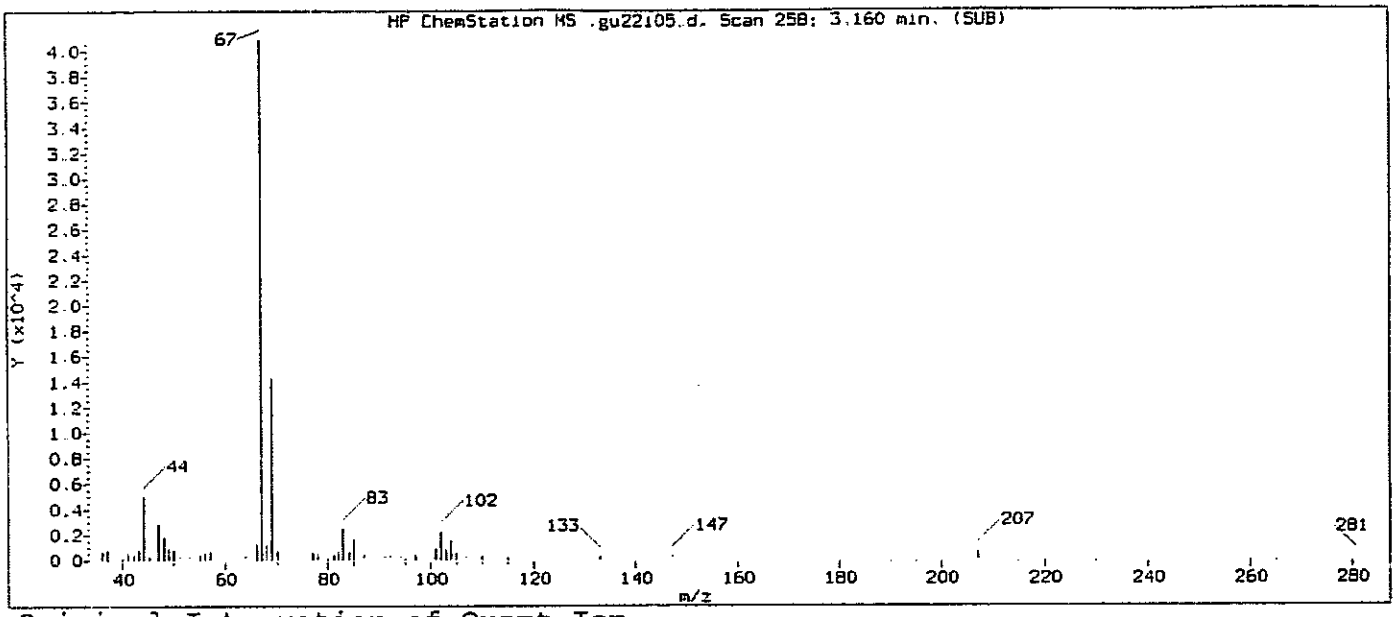
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

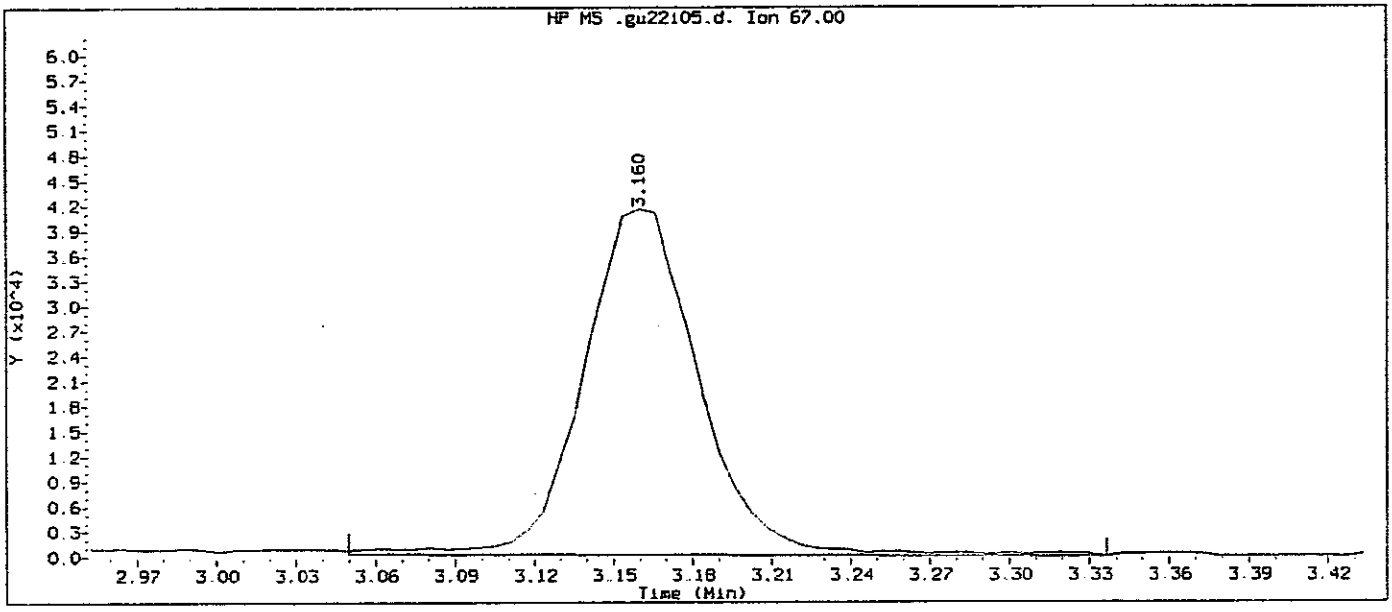
KRD19 8133

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

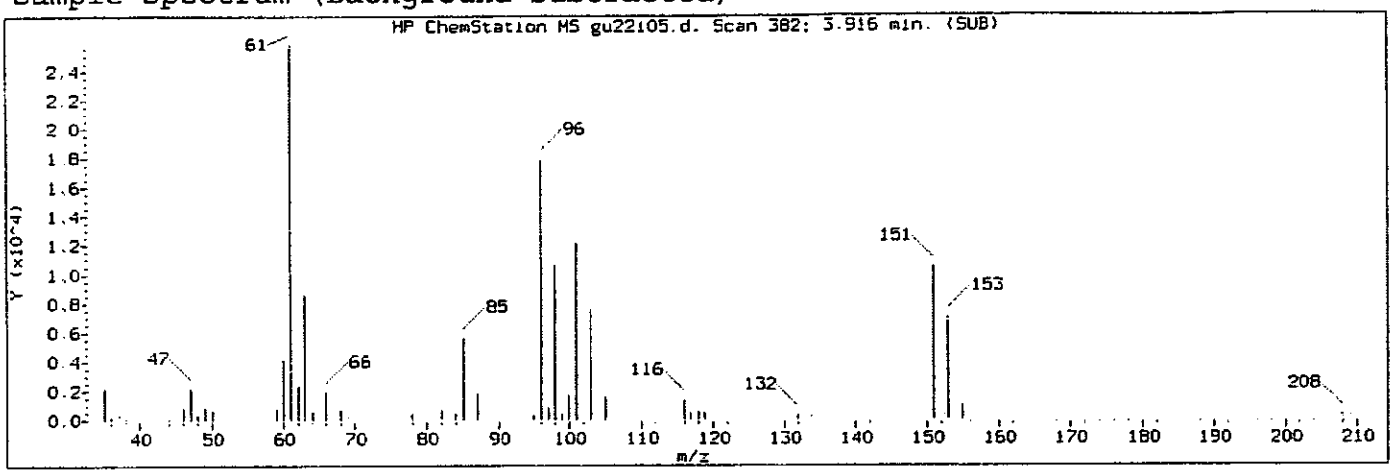
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 12		
Compound Name	: Dichlorofluoromethane		
Scan Number	: 258		
Retention Time (minutes)	: 3.160		
Quant Ion	: 67		
Area	: 126320		
Concentration (ug/L)	: 1.1025		
Integration start scan	: 239	Integration stop scan:	286
Y at integration start	: 344	Y at integration end:	0

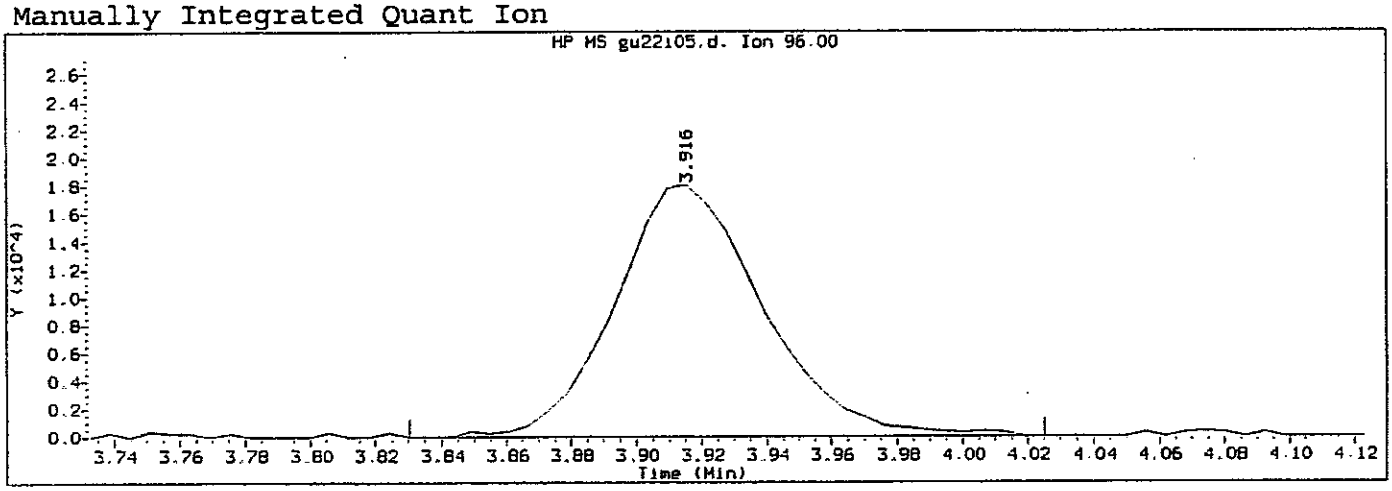
RAD19 0134

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 23
Compound Name : 1,1-Dichloroethene
Scan Number : 382
Retention Time (minutes): 3.916
Quant Ion : 96
Area (flag) : 57099 M
Concentration (ug/L) : 0.9967
Integration start scan : 367 Integration stop scan: 399
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

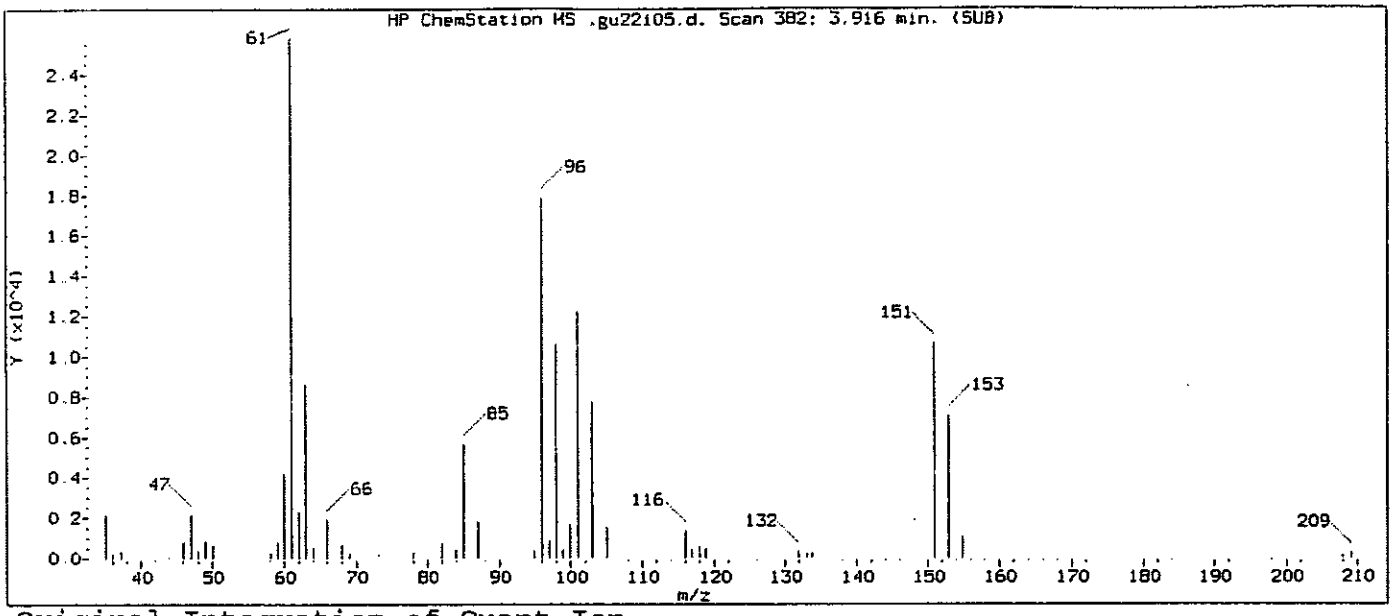
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

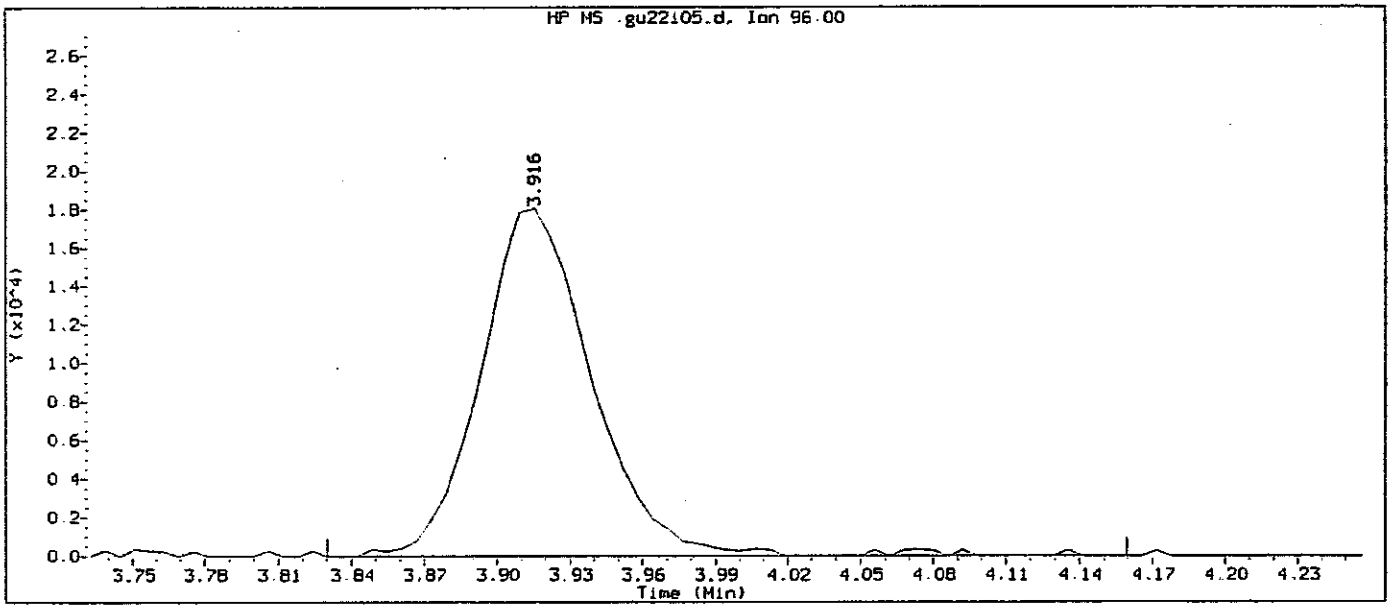
BRD19 8135

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

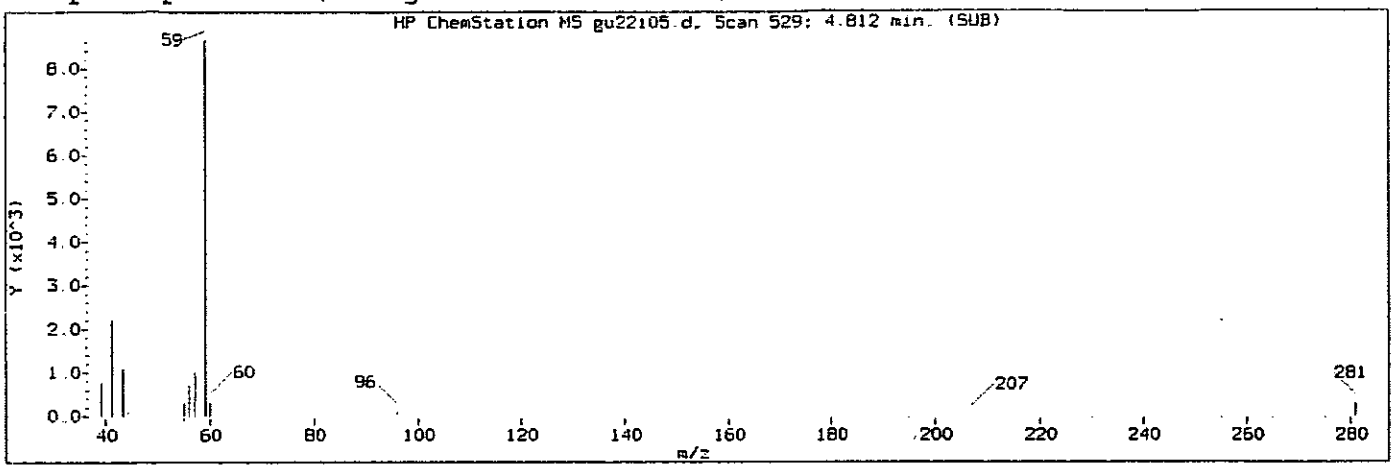
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 23
Compound Name : 1,1-Dichloroethene
Scan Number : 382
Retention Time (minutes): 3.916
Quant Ion : 96
Area : 57778
Concentration (ug/L) : 1.0440
Integration start scan : 367 Integration stop scan: 421
Y at integration start : 0 Y at integration end: 0

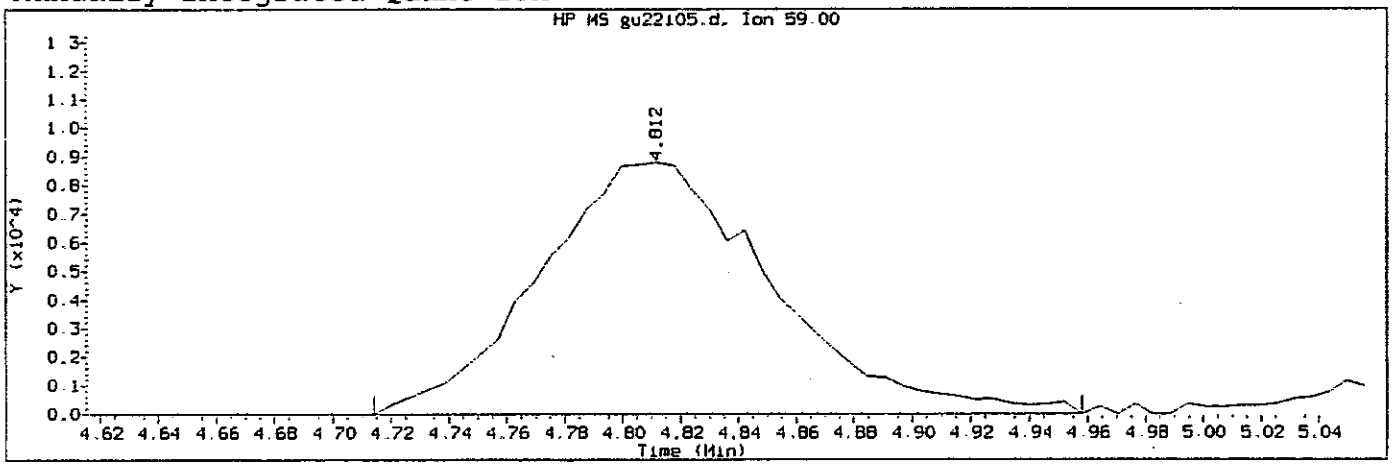
RAD19 8136

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 37
Compound Name : t-Butyl Alcohol
Scan Number : 529
Retention Time (minutes): 4.812
Quant Ion : 59
Area (flag) : 49200 M
Concentration (ug/L) : 19.3861
Integration start scan : 512 Integration stop scan: 552
Y at integration start : 0 Y at integration end: 0

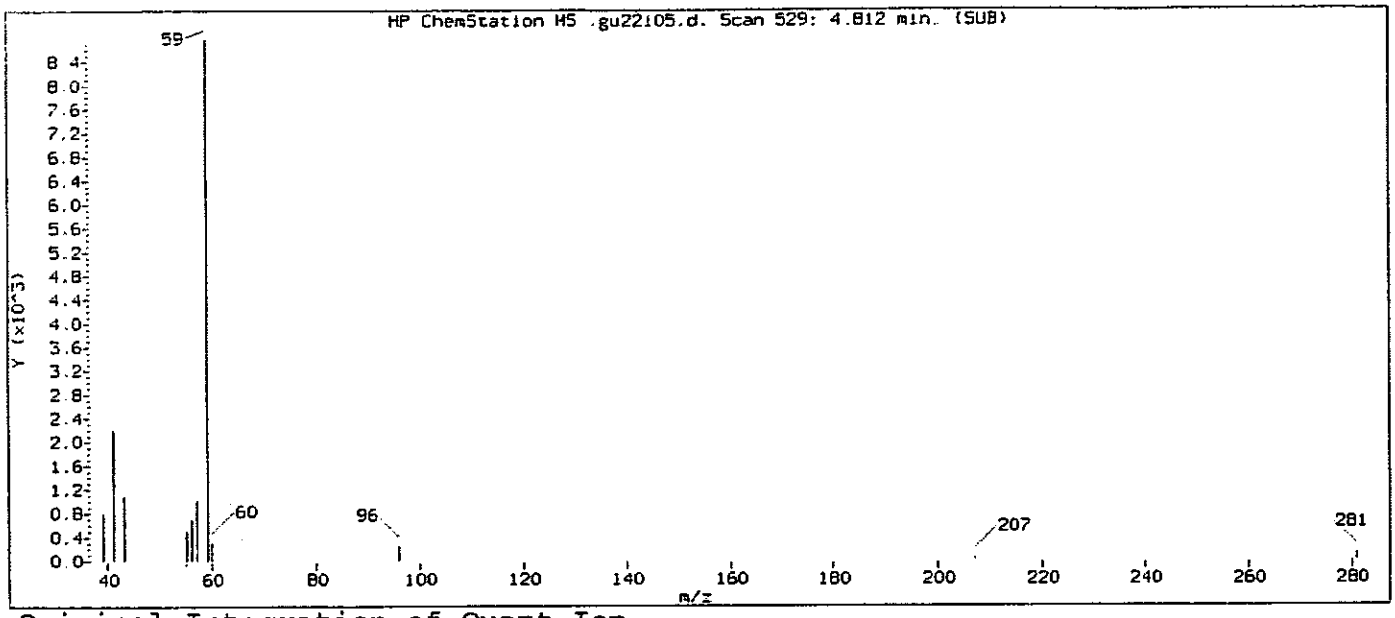
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

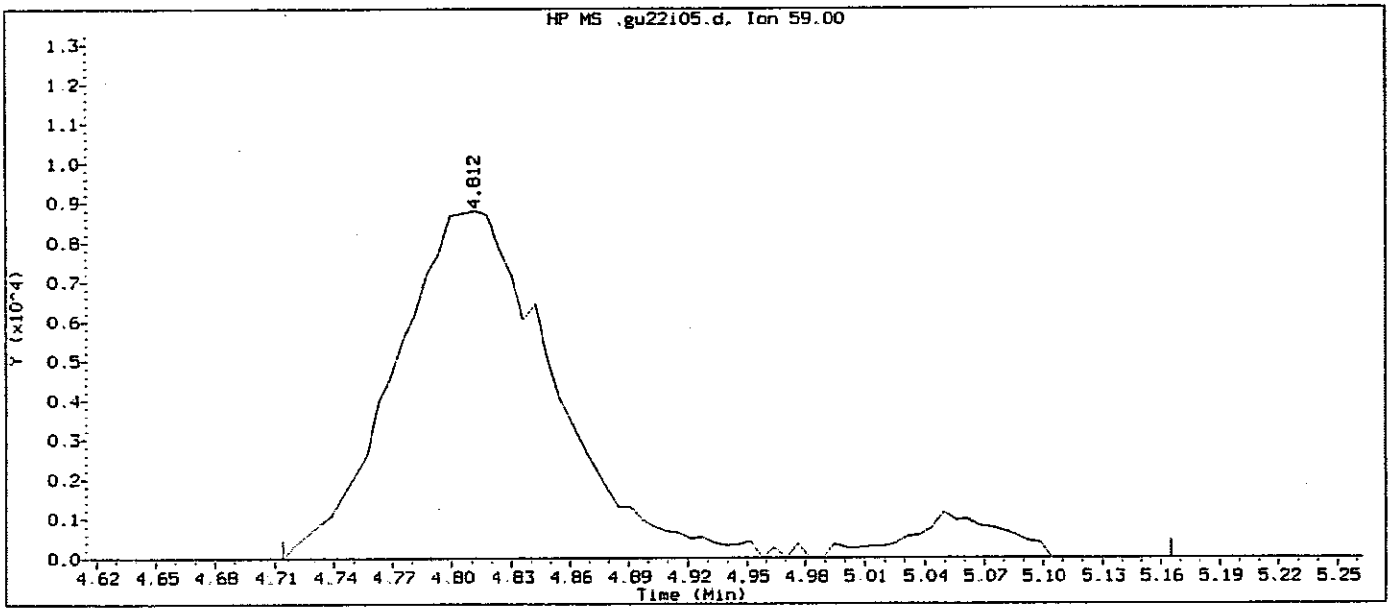
GC/MS audit/management approval: [signature] 6-23-09

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

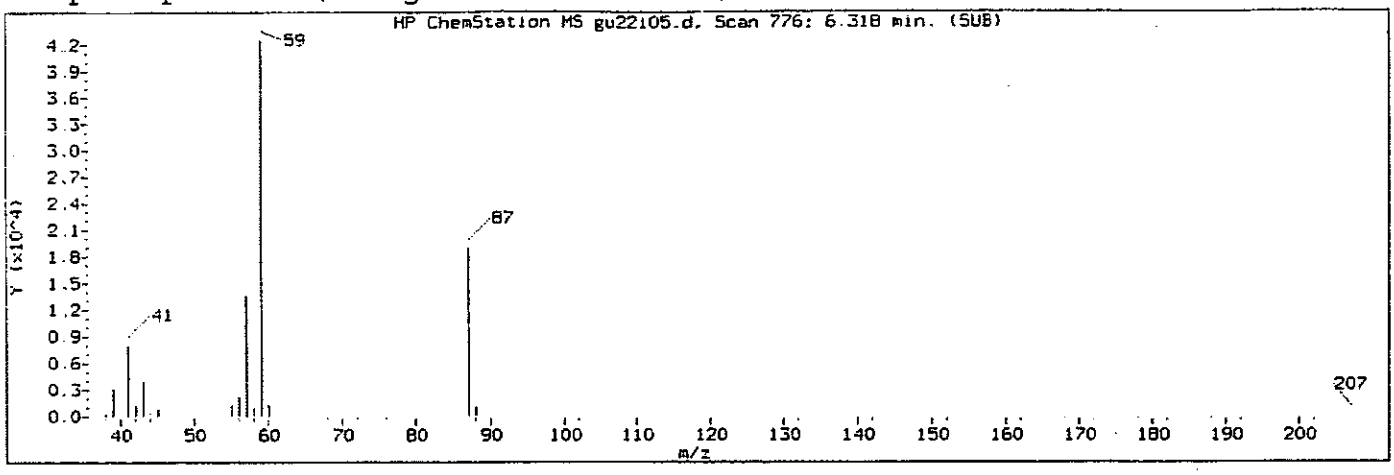
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 37
Compound Name : t-Butyl Alcohol
Scan Number : 529
Retention Time (minutes): 4.812
Quant Ion : 59
Area : 53269
Concentration (ug/L) : 21.9634
Integration start scan : 512 Integration stop scan: 586
Y at integration start : 0 Y at integration end: 0

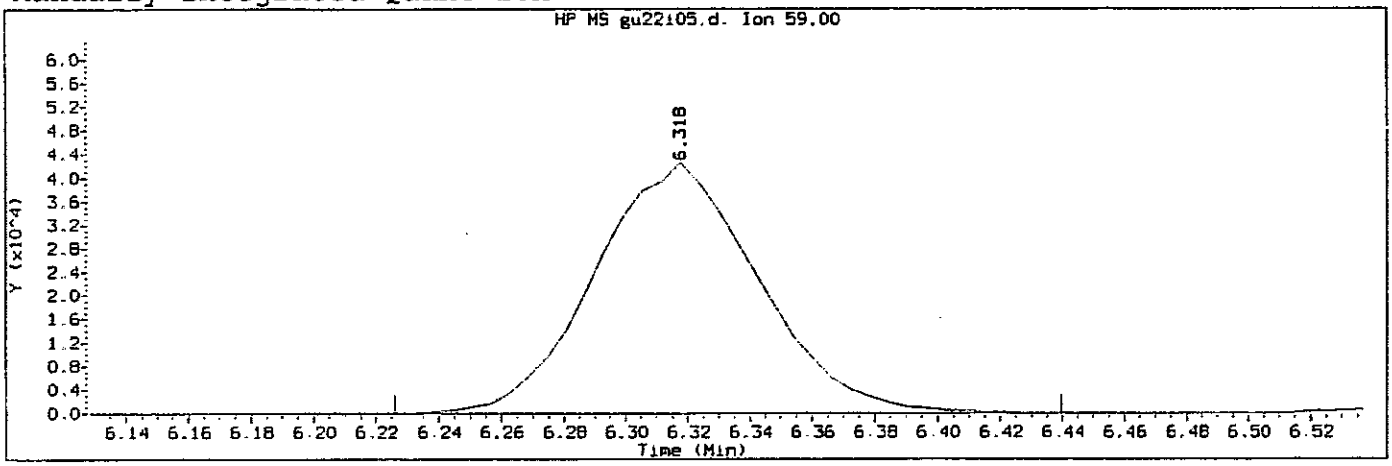
RAD19 8138

Original Integration Report for data file /chem2/HP16334 i/09jun22a.b/gu22i05 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	48
Compound Name	:	Ethyl t-Butyl Ether
Scan Number	:	776
Retention Time (minutes)	:	6.318
Quant Ion	:	59
Area (flag)	:	155585 M
Concentration (ug/L)	:	0.9883
Integration start scan	:	760 Integration stop scan: 795
Y at integration start	:	0 Y at integration end: 0

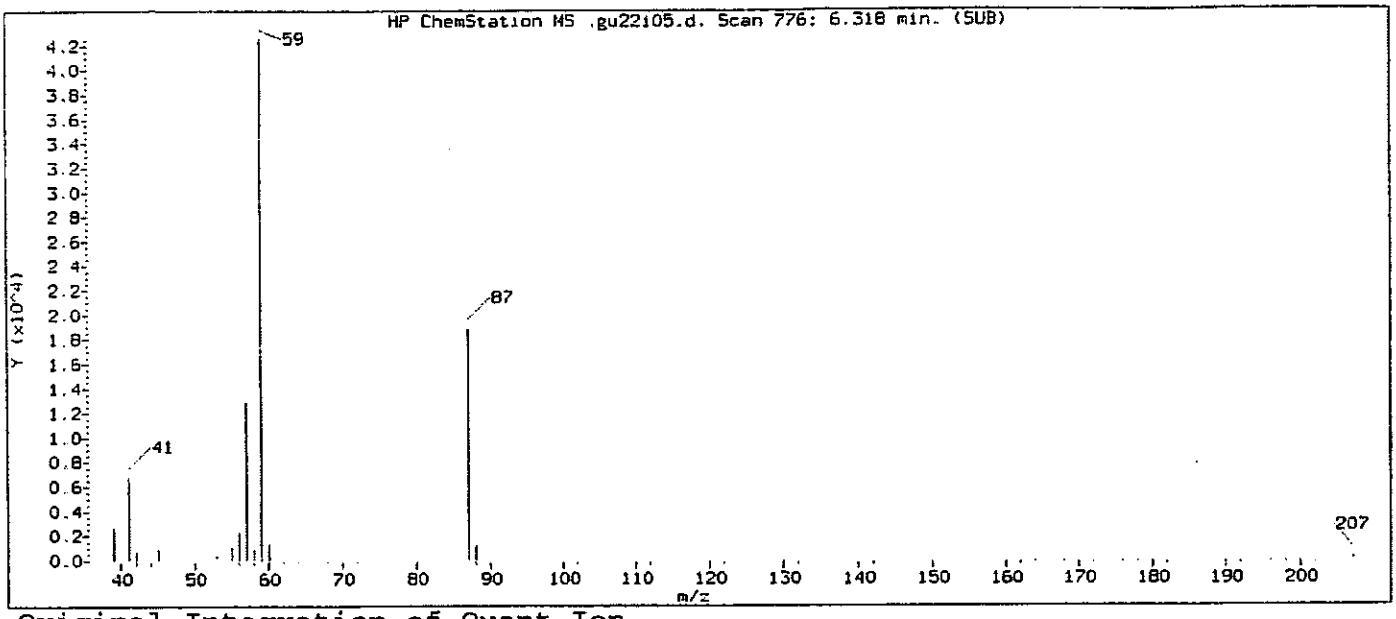
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

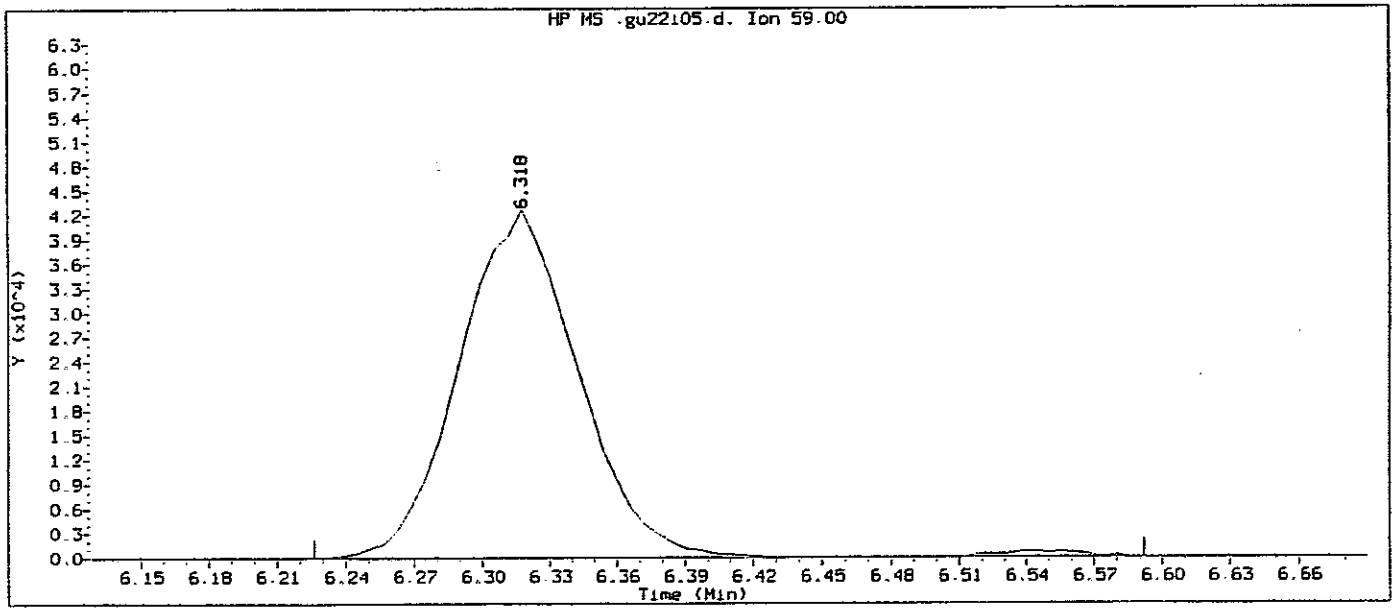
GC/MS audit/management approval: [signature] 6-23-09

RAD19 B139

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

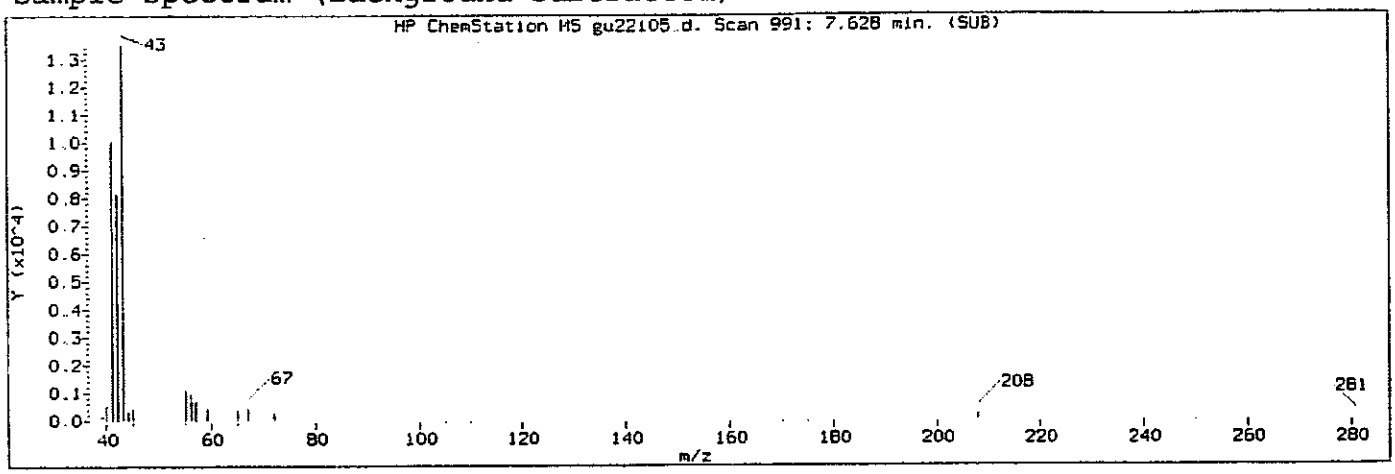
Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

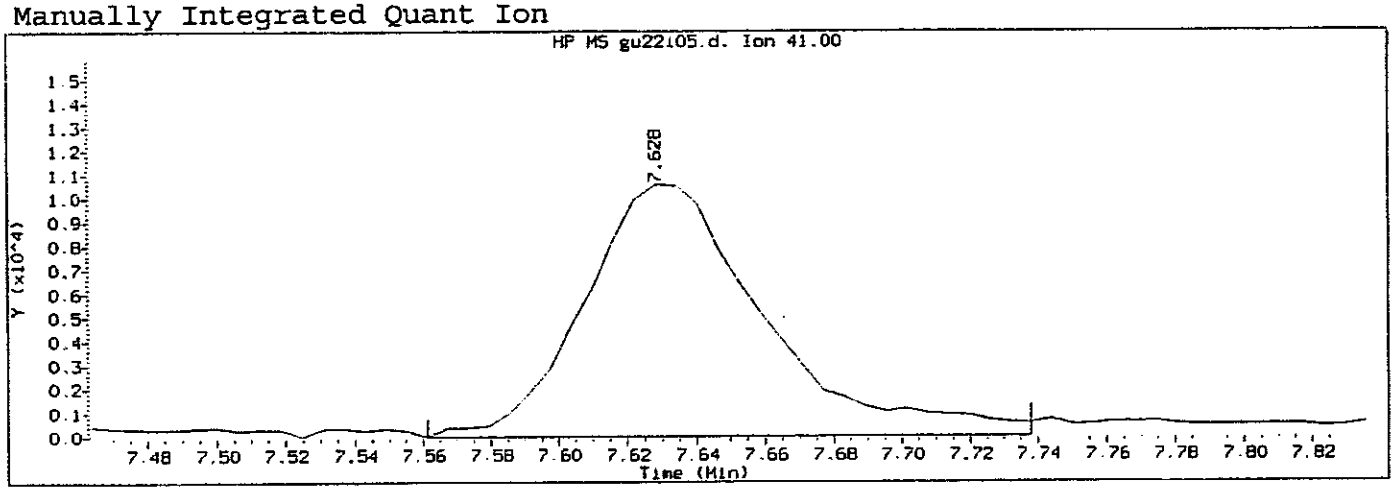
Compound Number : 48
Compound Name : Ethyl t-Butyl Ether
Scan Number : 776
Retention Time (minutes): 6.318
Quant Ion : 59
Area : 157451
Concentration (ug/L) : 1.0194
Integration start scan : 760 Integration stop scan: 820 RAB19 0140
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 66
Compound Name : Isobutyl Alcohol
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 41
Area (flag) : 38516 M
Concentration (ug/L) : 46.1801
Integration start scan : 979 Integration stop scan: 1008
Y at integration start : 0 Y at integration end: 0

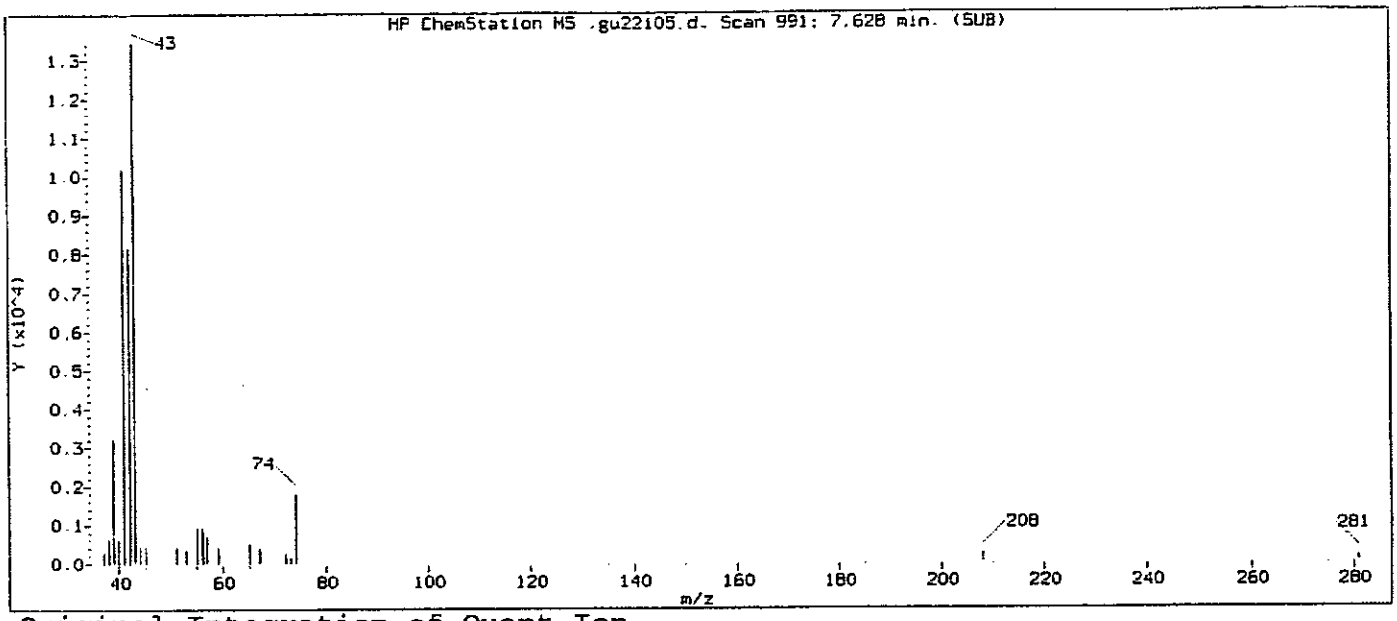
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

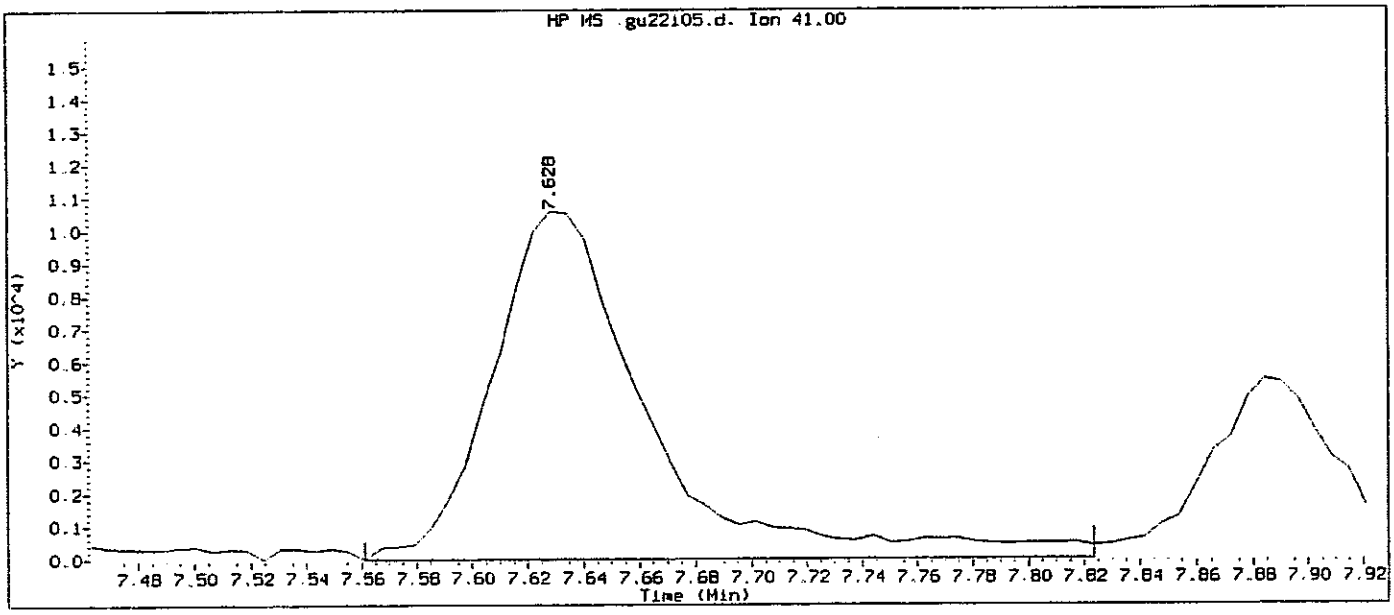
GC/MS audit/management approval: [signature] 6-23-09

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

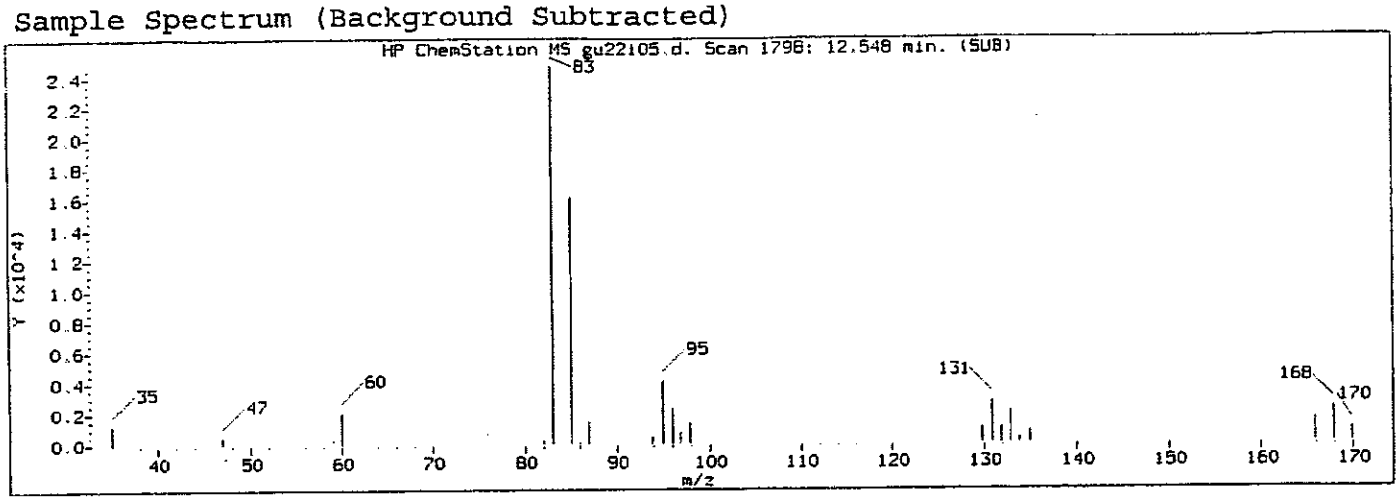
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 66
Compound Name : Isobutyl Alcohol
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 41
Area : 41121
Concentration (ug/L) : 54.4677
Integration start scan : 979 Integration stop scan: 1022
Y at integration start : 0 Y at integration end: 0

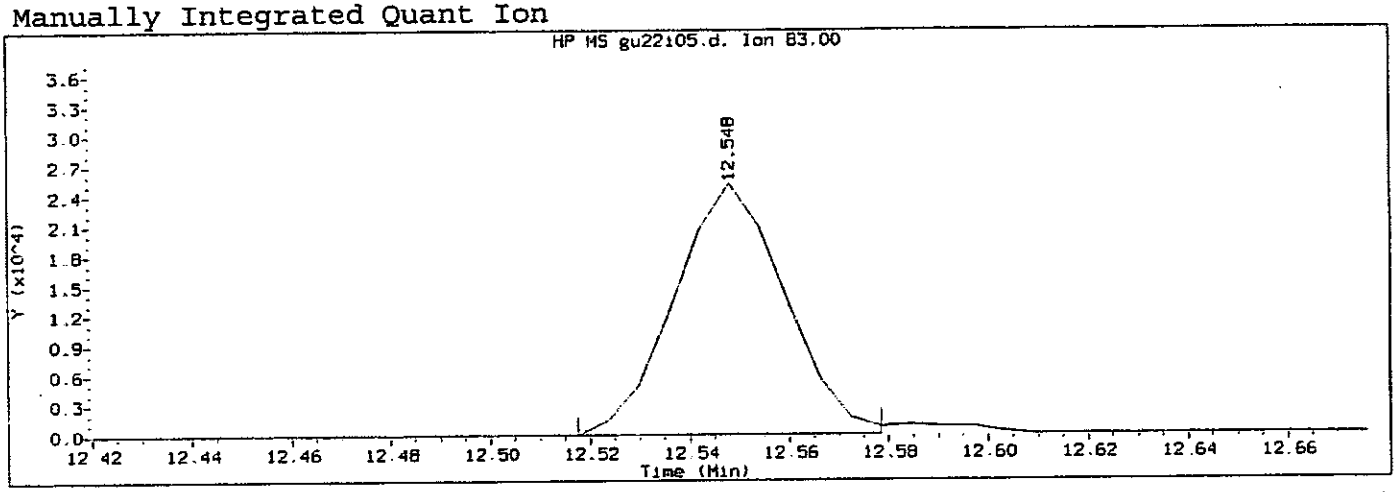
RAD19 0142

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 127
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1798
Retention Time (minutes): 12.548
Quant Ion : 83
Area (flag) : 38790 M
Concentration (ug/L) : 0.9355
Integration start scan : 1792 Integration stop scan: 1802
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

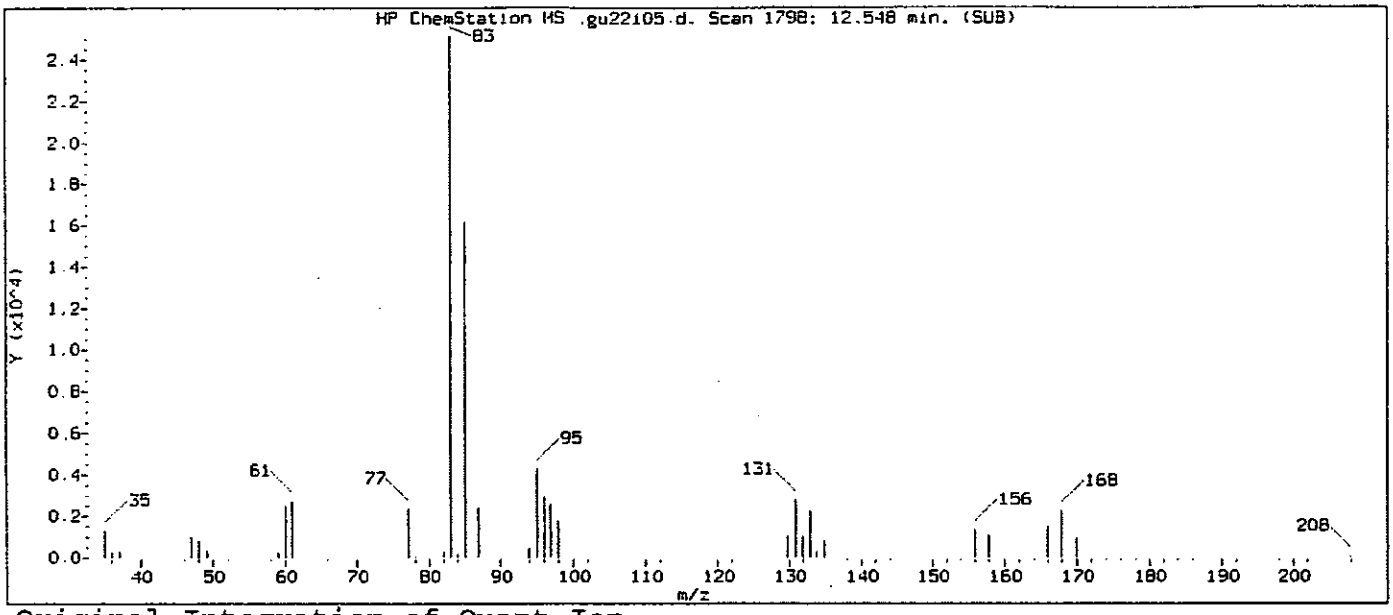
Analyst responsible for change: sew 6/22/09

GC/MS audit/management approval: 6/23/09

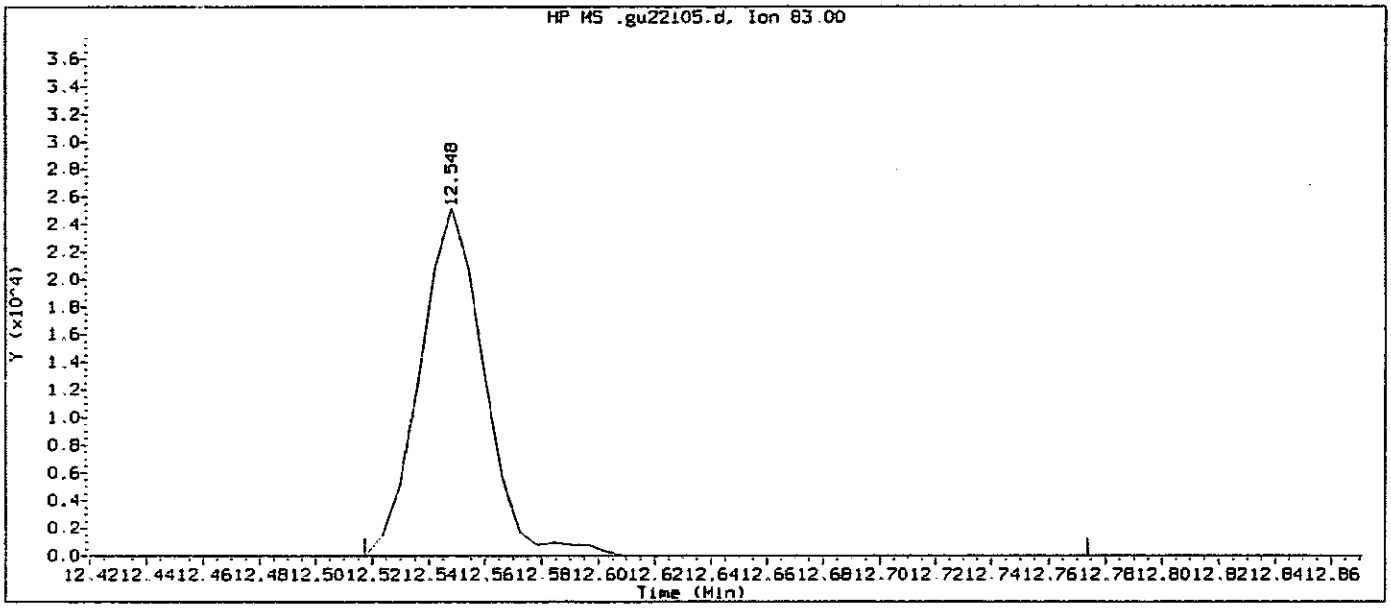
RMD19 0143

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i05.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

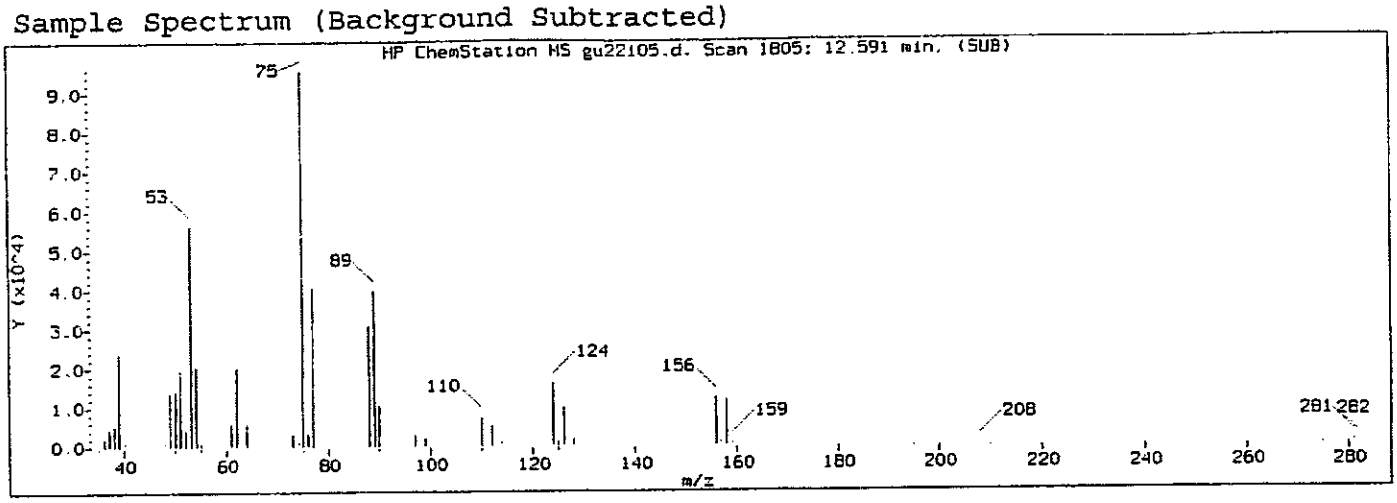
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area	:	39829
Concentration (ug/L)	:	1.0019
Integration start scan	:	1792 Integration stop scan: 1834
Y at integration start	:	0 Y at integration end: 0

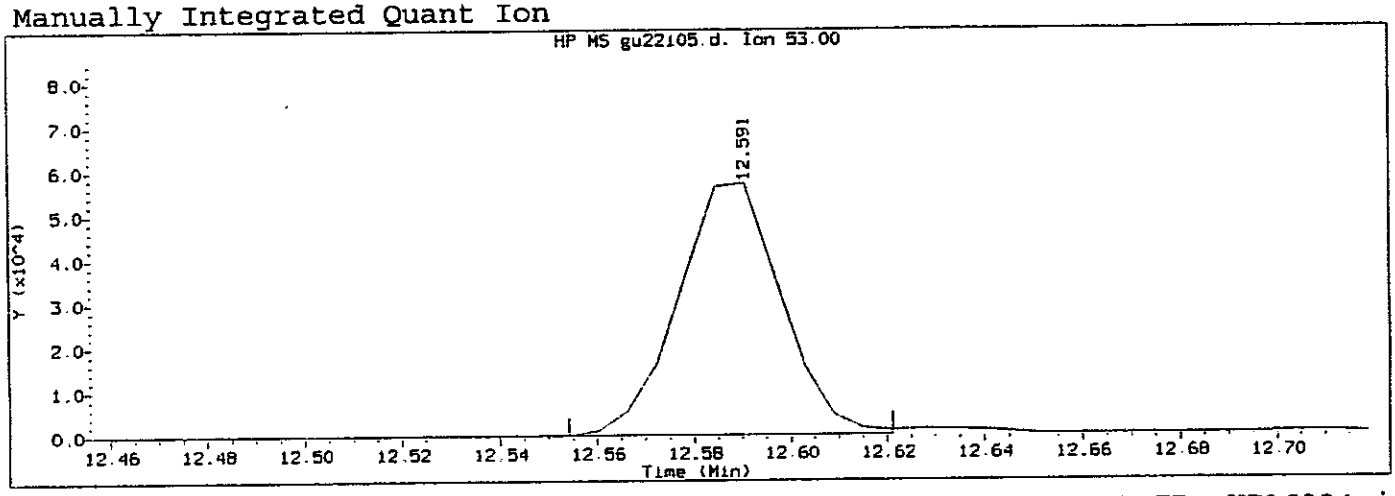
RAD19 0144

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 129
Compound Name	: trans-1,4-Dichloro-2-Butene
Scan Number	: 1805
Retention Time (minutes)	: 12.591
Quant Ion	: 53
Area (flag)	: 85096 M
Concentration (ug/L)	: 9.4083
Integration start scan	: 1798 Integration stop scan: 1809
Y at integration start	: 0 Y at integration end: 0

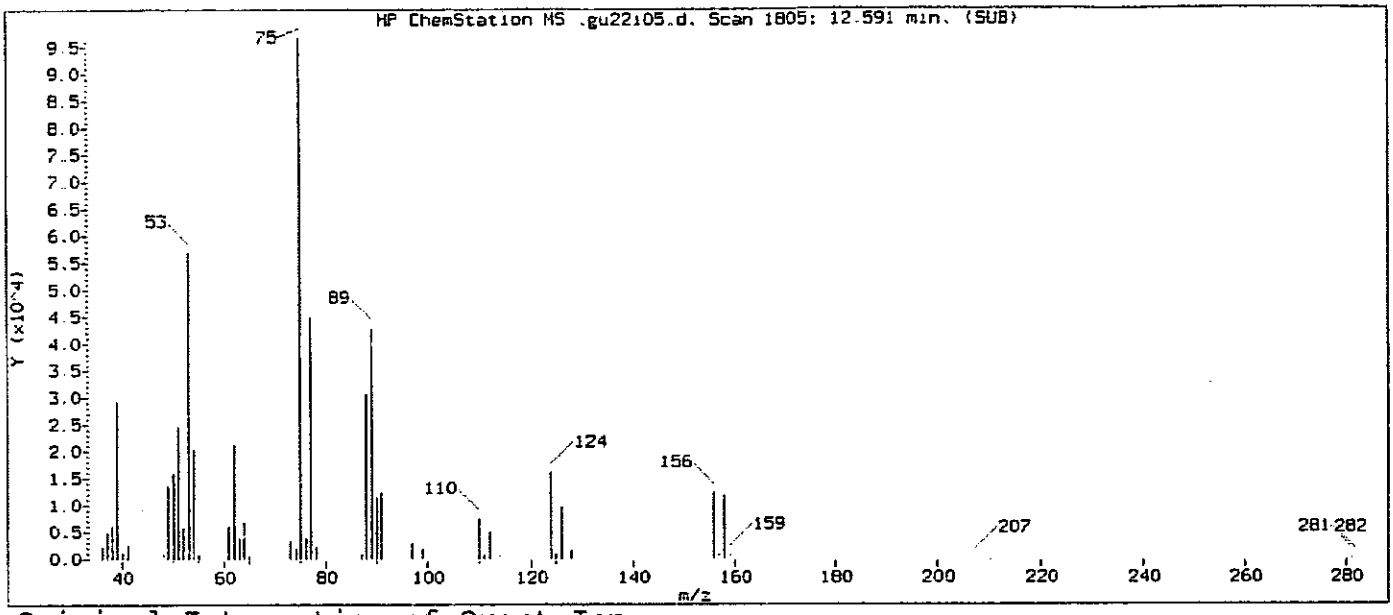
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

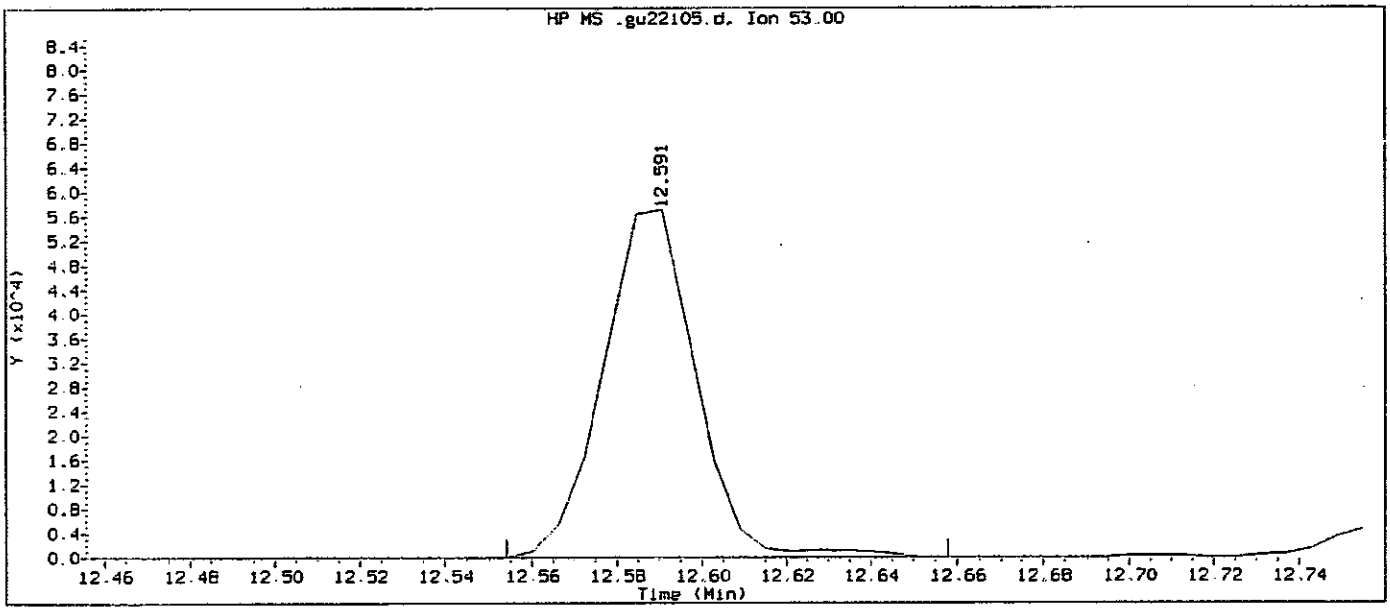
GC/MS audit/management approval: [signature] 6-23-09

RMD19 8145

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

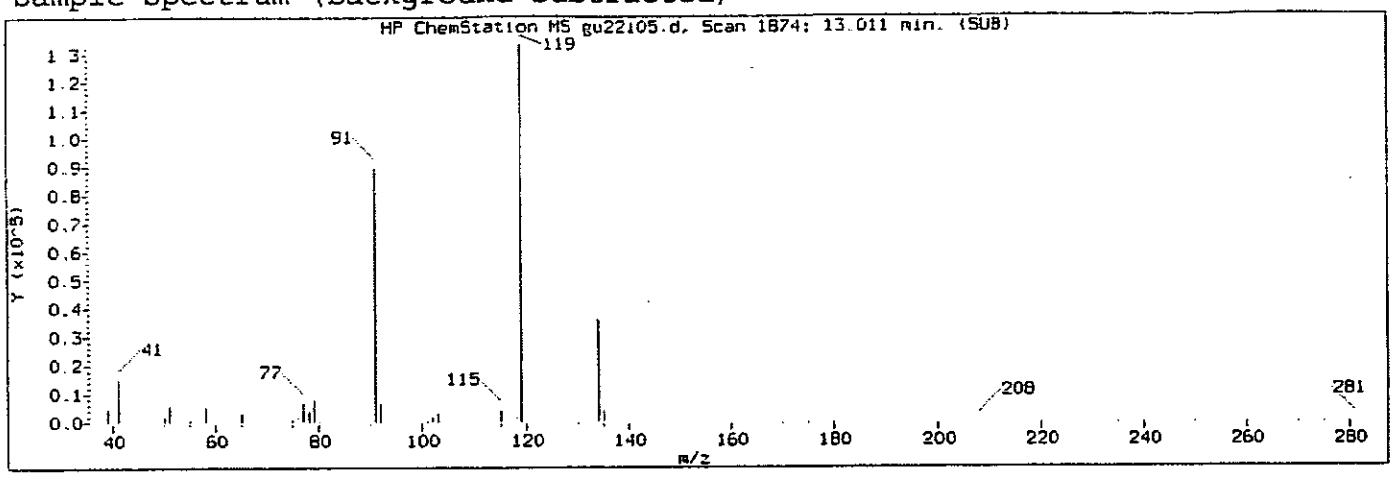
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1805
Retention Time (minutes)	:	12.591
Quant Ion	:	53
Area	:	86493
Concentration (ug/L)	:	9.7580
Integration start scan	:	1798 Integration stop scan: 1815
Y at integration start	:	0 Y at integration end: 0

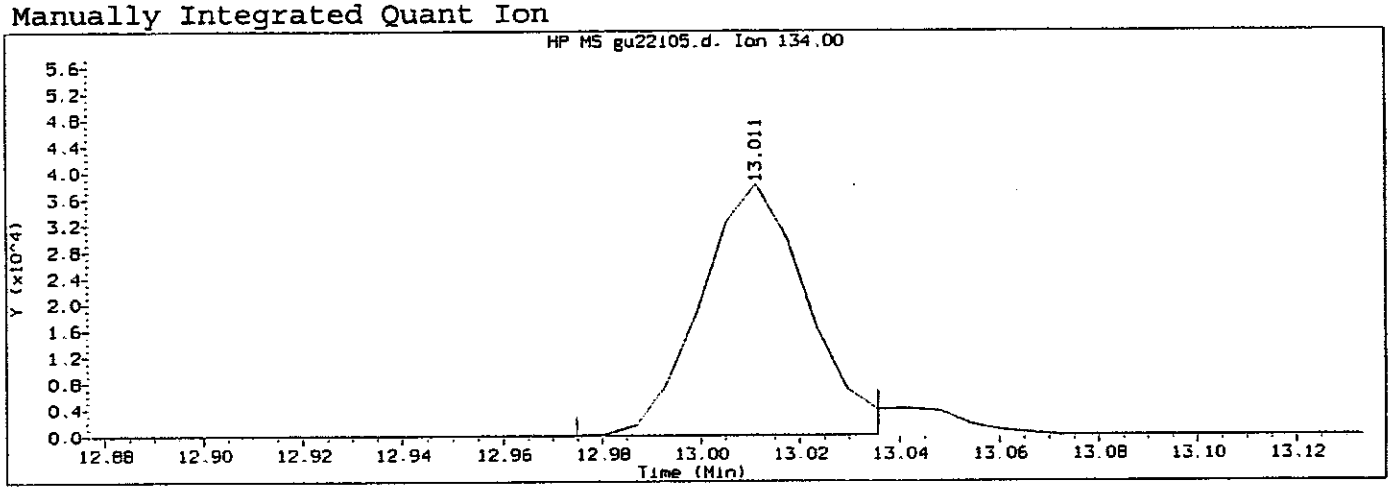
RAD19 8146

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	57202 M
Concentration (ug/L)	:	0.9585
Integration start scan	:	1867 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

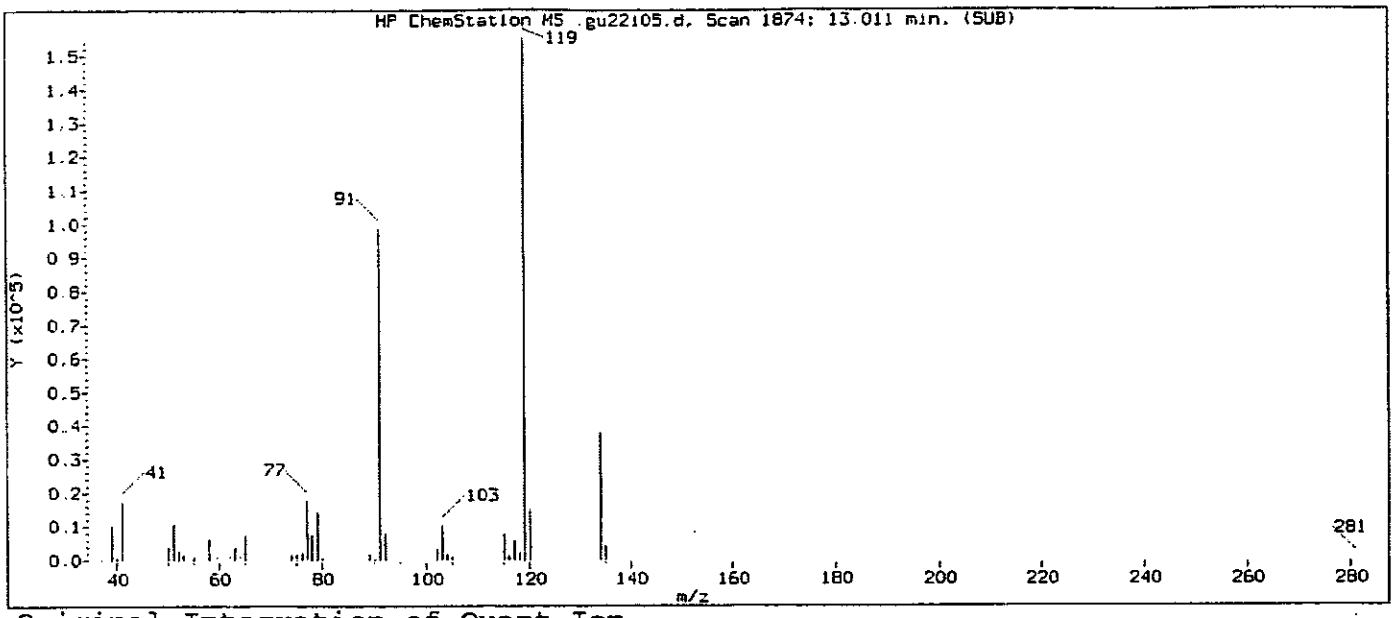
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

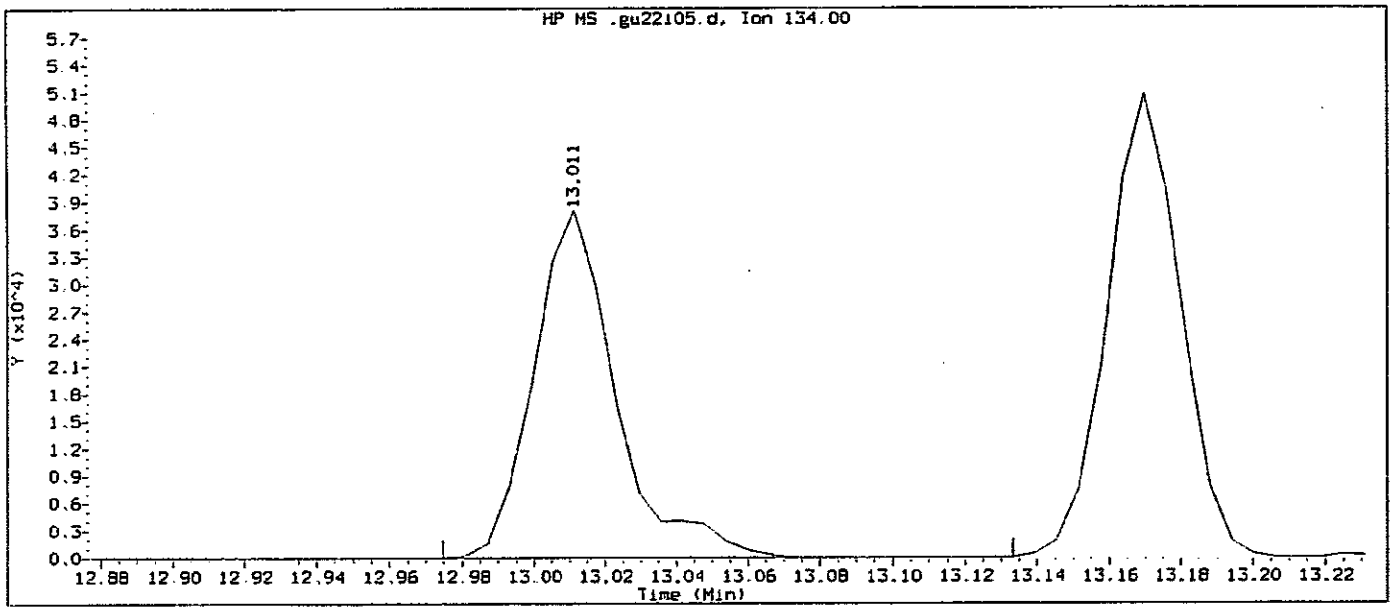
RAD13 0147

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i05.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:05 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 17:22
Date, time and analyst ID of latest file update: 22-Jun-2009 17:22 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

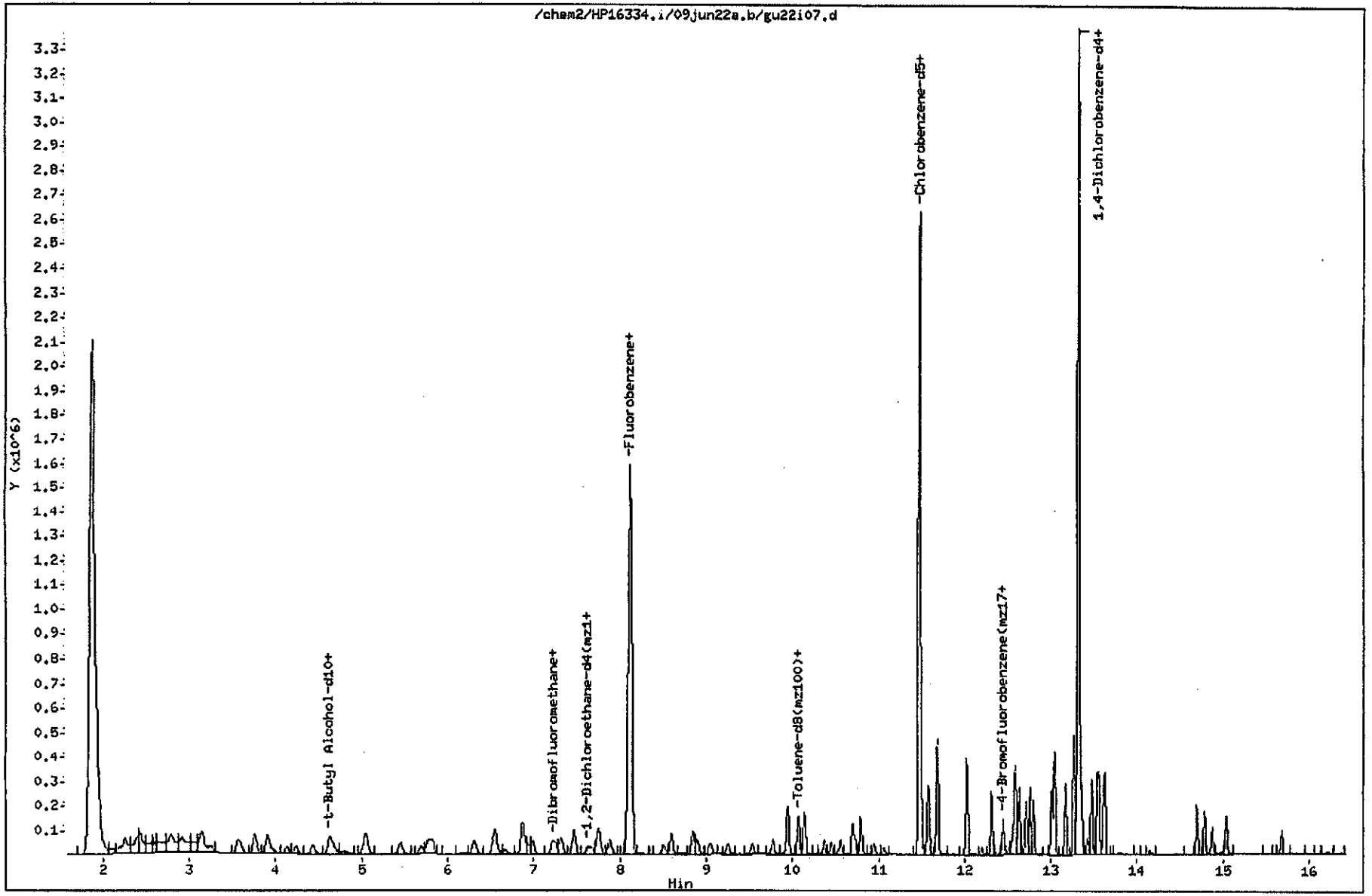
Compound Number : 136
Compound Name : tert-Butylbenzene
Scan Number : 1874
Retention Time (minutes): 13.011
Quant Ion : 134
Area : 61107
Concentration (ug/L) : 1.0369
Integration start scan : 1867 Integration stop scan: 1893
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i05.d generated on 06/22/2009 at 19:52

RA015 0149

Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d
Date : 22-JUN-2009 19:18
Client ID: VSTD0.5
Sample Info: VSTD0.5;VSTD0.5;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i
Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.105	85	47244	0.600
5) Chloromethane	(1)	2.251	50	46432M	0.621
6) Vinyl Chloride	(1)	2.392	62	48953	0.648
9) Bromomethane	(1)	2.788	94	42235	0.568
10) Chloroethane	(1)	2.910	64	28773M	0.519
12) Dichlorofluoromethane	(1)	3.147	67	76626M	0.633
14) Trichlorofluoromethane	(1)	3.251	101	54859	0.580
16) Ethyl Ether	(1)	3.562	59	39262	0.985
17) Freon 123a	(1)	3.599	67	39761	0.592
22) Acrolein	(4)	3.763	56	131468	28.091
23) 1,1-Dichloroethene	(1)	3.903	96	32122	0.591
24) Freon 113	(1)	3.916	101	31988	0.546
25) Acetone	(4)	3.970	58	11688	5.897
26) Methyl Iodide	(1)	4.129	142	57320	0.566
28) Carbon Disulfide	(1)	4.233	76	80974	0.526
31) Allyl Chloride	(1)	4.434	41	42307	0.584
32) Methyl Acetate	(1)	4.464	43	12149	0.665
33) Methylene Chloride	(1)	4.629	84	47871	0.418
35)*t-Butyl Alcohol-d10	(4)	4.659	65	97247	50.000
37) t-Butyl Alcohol	(4)	4.800	59	32987	13.018
38) Acrylonitrile	(4)	5.025	53	23301	2.780
40) trans-1,2-Dichloroethene	(1)	5.050	96	35158	0.574
36) 1,2-Dichloroethene (Total)	(1)		96	72348	1.146
39) Methyl Tertiary Butyl Ether	(1)	5.037	73	66602	0.570
43) n-Hexane	(1)	5.452	57	44301	0.548
44) 1,1-Dichloroethane	(1)	5.690	63	54840M	0.573
46) di-Isopropyl Ether	(1)	5.781	45	90991	0.558
47) 2-Chloro-1,3-Butadiene	(1)	5.824	53	47330	0.561
48) Ethyl t-Butyl Ether	(1)	6.311	59	82625M	0.553
50) 2,2-Dichloropropane	(1)	6.543	77	44119	0.558
49) cis-1,2-Dichloroethene	(1)	6.537	96	37190	0.572
51) 2-Butanone	(4)	6.561	43	60706	5.811
52) Propionitrile	(4)	6.665	54	35316	11.410
54) Methacrylonitrile	(4)	6.866	67	63768	5.520

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8158

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.878	128	15134	0.572
56) Tetrahydrofuran	(4)	6.946	71	17935	5.620
57) Chloroform	(1)	6.994	83	56379	0.567
62) 1,1,1-Trichloroethane	(1)	7.244	97	47400	0.560
63) Cyclohexane	(1)	7.311	56	54628	0.562
64) 1,1-Dichloropropene	(1)	7.464	75	44128	0.567
65) Carbon Tetrachloride	(1)	7.470	117	41833	0.555
66) Isobutyl Alcohol	(4)	7.628	41	26028M	28.905
71) Benzene	(1)	7.750	78	135821	0.566
73) 1,2-Dichloroethane	(1)	7.775	62	30241	0.573
72) 1,2-Dichloroethane(mz98)	(1)	7.775	98	2940	0.563
74) t-Amyl Methyl Ether	(1)	7.884	73	72366	0.562
76)*Fluorobenzene	(1)	8.116	96	2113725	10.000
75) n-Heptane	(1)	8.086	43	46413	0.560
80) n-Butanol	(4)	8.506	56	41627M	61.057
82) Trichloroethene	(1)	8.604	95	35919	0.566
83) Methylcyclohexane	(1)	8.848	83	57962	0.545
84) 1,2-Dichloropropane	(1)	8.896	63	30779	0.560
87) Dibromomethane	(1)	9.049	93	13753	0.565
88) 1,4-Dioxane	(4)	9.079	88	5514	28.468
86) Methyl Methacrylate	(4)	9.043	69	12303	0.556
89) Bromodichloromethane	(1)	9.250	83	36666	0.557
90) 2-Nitropropane	(4)	9.536	41	34021	5.827
93) cis-1,3-Dichloropropene	(1)	9.780	75	40646	0.536
95) 4-Methyl-2-Pentanone	(1)	9.945	43	154420	6.081
100) Toluene	(2)	10.140	92	86832	0.546
101) trans-1,3-Dichloropropene	(2)	10.372	75	32375	0.536
102) Ethyl Methacrylate	(2)	10.451	69	26650	0.560
103) 1,1,2-Trichloroethane	(2)	10.561	97	20440	0.577
104) Tetrachloroethene	(2)	10.701	166	40867	0.565
105) 1,3-Dichloropropane	(2)	10.725	76	33989	0.572
106) 2-Hexanone	(2)	10.792	43	106955	6.125
107) Dibromochloromethane	(2)	10.951	129	23510	0.534
108) 1,2-Dibromoethane	(2)	11.061	107	19327	0.571

M = Compound was manually integrated.

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1531899	10.000
111) Chlorobenzene	(2)	11.500	112	100027	0.575
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	31245	0.548
113) Ethylbenzene	(2)	11.585	91	170516	0.559
116) m+p-Xylene	(2)	11.682	106	135357	1.098
114) Xylene (Total)	(2)		106	199564	1.640
117) o-Xylene	(2)	12.018	106	64207	0.541
118) Styrene	(2)	12.030	104	102449	0.544
119) Bromoform	(2)	12.201	173	12367	0.536
120) Isopropylbenzene	(2)	12.310	105	167682	0.564
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	24608M	0.616
128) Bromobenzene	(3)	12.572	156	40319	0.569
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	50365M	5.577
130) 1,2,3-Trichloropropane	(3)	12.591	110	6868	0.594
131) n-Propylbenzene	(3)	12.633	91	205172	0.566
132) 2-Chlorotoluene	(3)	12.713	126	43711	0.581
134) 4-Chlorotoluene	(3)	12.792	126	44677	0.580
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	143315	0.555
137) Pentachloroethane	(3)	13.042	167	23517	0.546
136) tert-Butylbenzene	(3)	13.011	134	32444M	0.564
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	148778	0.551
139) sec-Butylbenzene	(3)	13.170	105	188414	0.556
141) 1,3-Dichlorobenzene	(3)	13.274	146	87258	0.576
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	845349	10.000
140) p-Isopropyltoluene	(3)	13.267	119	162165	0.549
143) 1,4-Dichlorobenzene	(3)	13.335	146	89371	0.591
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	67483	0.582
145) Benzyl Chloride	(3)	13.426	126	9379	0.541
146) n-Butylbenzene	(3)	13.560	92	85374	0.564
147) 1,2-Dichlorobenzene	(3)	13.609	146	75009	0.584
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	3116	0.564
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	58219	0.583
153) Hexachlorobutadiene	(3)	14.785	225	30440	0.578
154) Naphthalene	(3)	14.871	128	85411	0.600

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8152

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

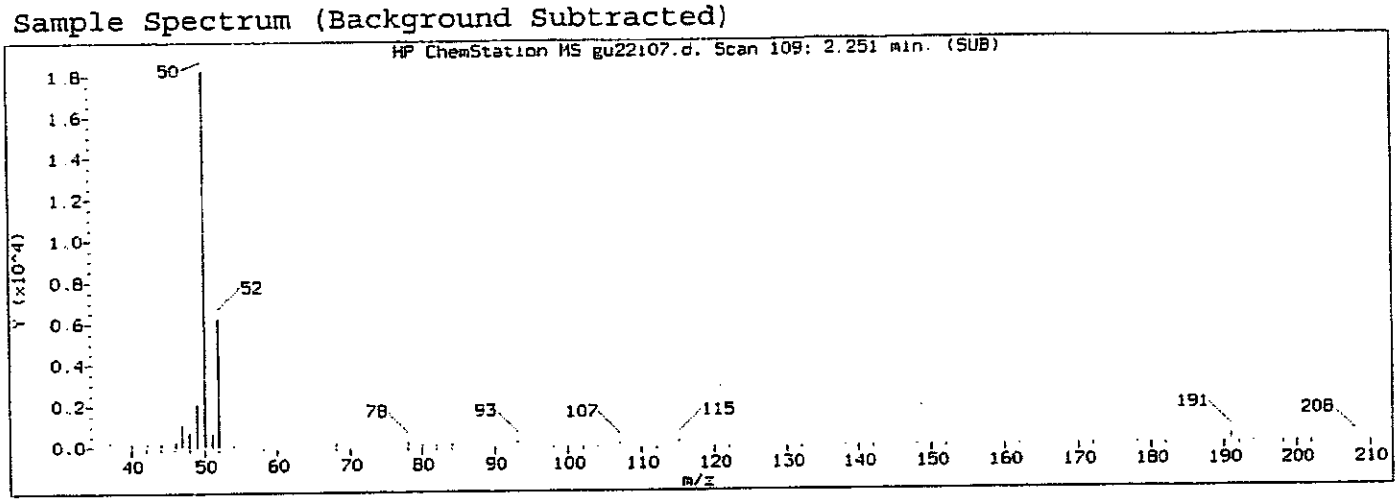
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	49427	0.609
60)$Dibromofluoromethane	(1)	7.214	113	30034	0.556
61)$Dibromofluoromethane(mz111)	(1)	7.214	111	29469	0.537
69)$1,2-Dichloroethane-d4	(1)	7.671	102	5336	0.550
67)$1,2-Dichloroethane-d4(mz104)	(1)	7.677	104	3459	0.549
68)$1,2-Dichloroethane-d4(mz65)	(1)	7.671	65	24681	0.569
96)$Toluene-d8	(2)	10.073	98	125038	0.541
97)$Toluene-d8(mz100)	(2)	10.073	100	80628	0.543
125)$4-Bromofluorobenzene	(2)	12.444	95	44820M	0.563
126)$4-Bromofluorobenzene(mz174)	(2)	12.444	174	39658	0.574

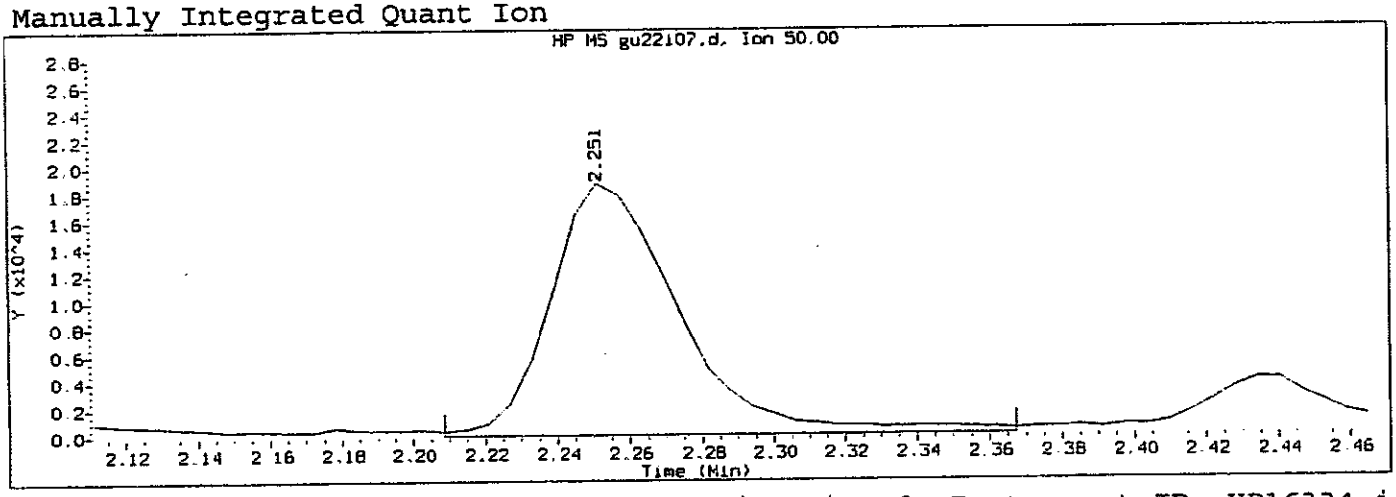
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	5
Compound Name	:	Chloromethane
Scan Number	:	109
Retention Time (minutes)	:	2.251
Quant Ion	:	50
Area (flag)	:	46432 M
Concentration (ug/L)	:	0.6207
Integration start scan	:	101 Integration stop scan: 127
Y at integration start	:	0 Y at integration end: 0

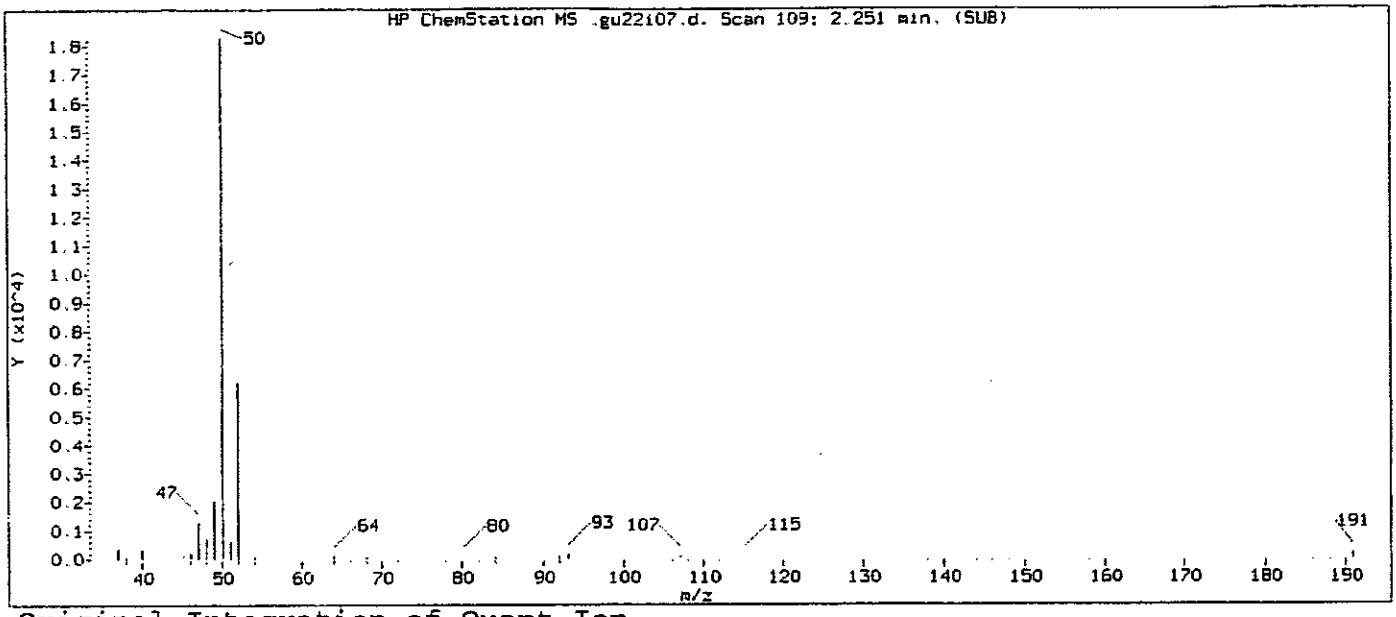
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

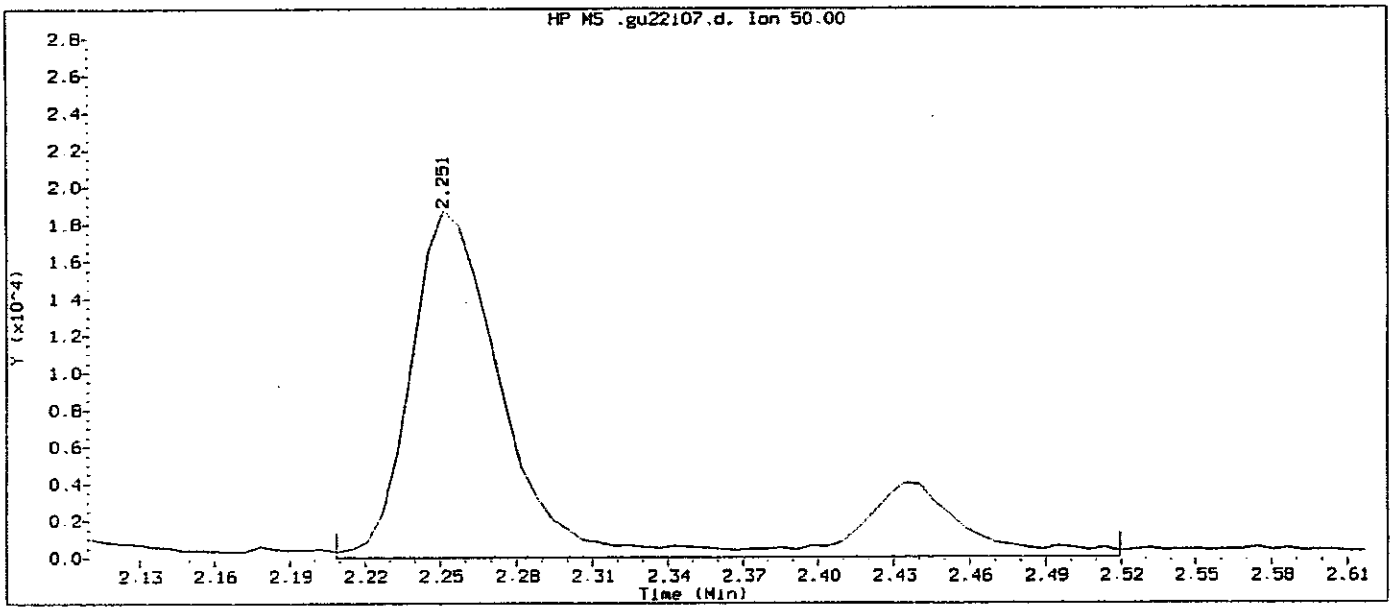
GC/MS audit/management approval: [signature] 6/23/09

RAD19 8154

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

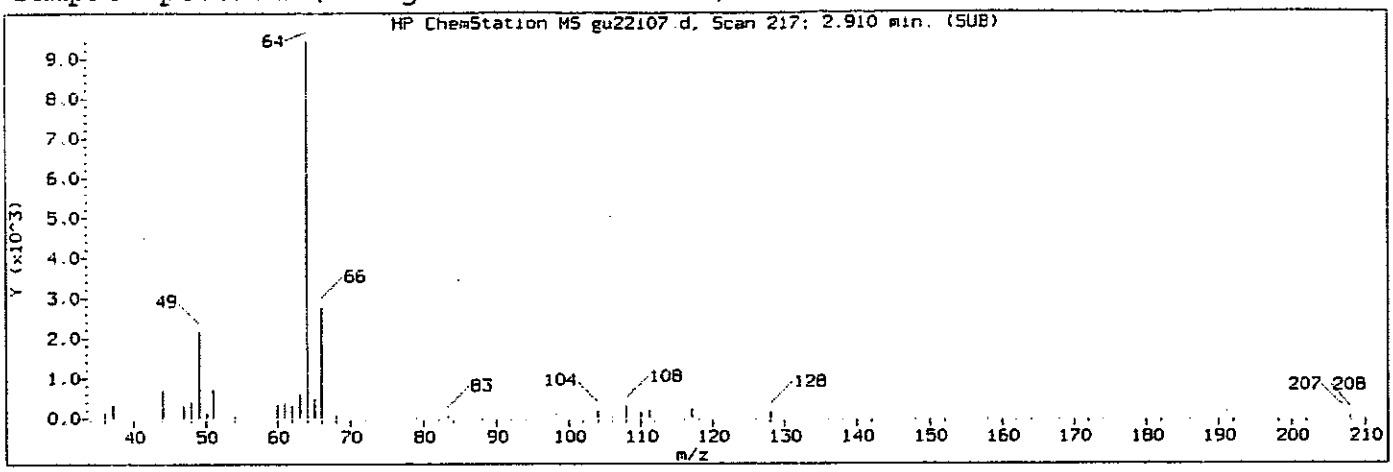
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	5
Compound Name	:	Chloromethane
Scan Number	:	109
Retention Time (minutes)	:	2.251
Quant Ion	:	50
Area	:	57967
Concentration (ug/L)	:	0.7790
Integration start scan	:	101 Integration stop scan: 152
Y at integration start	:	0 Y at integration end: 0

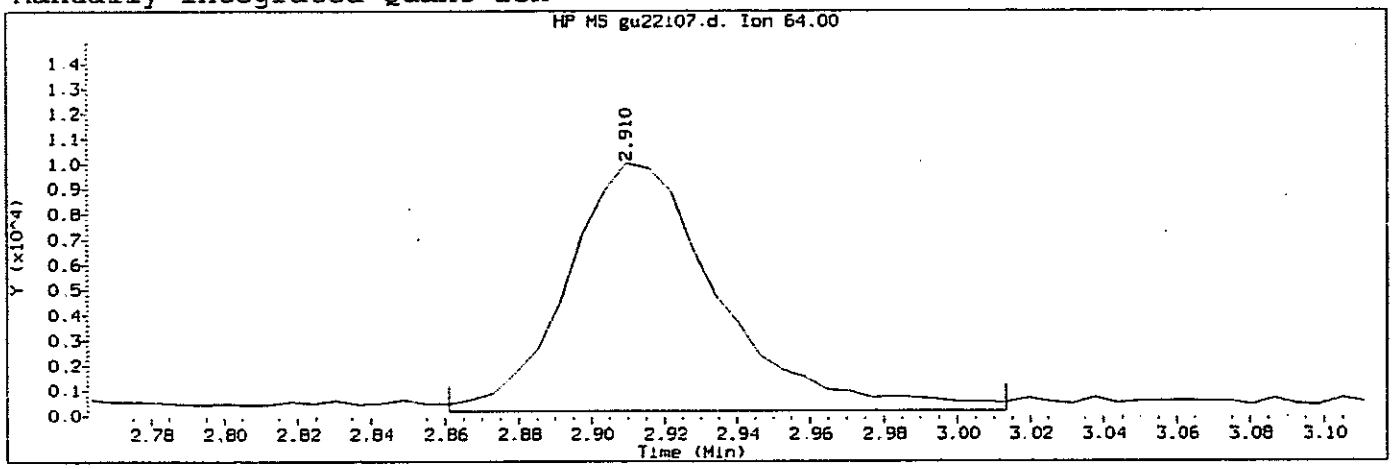
RAD19 8155

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	10
Compound Name	:	Chloroethane
Scan Number	:	217
Retention Time (minutes)	:	2.910
Quant Ion	:	64
Area (flag)	:	28773 M
Concentration (ug/L)	:	0.5190
Integration start scan	:	208 Integration stop scan: 233
Y at integration start	:	161 Y at integration end: 161

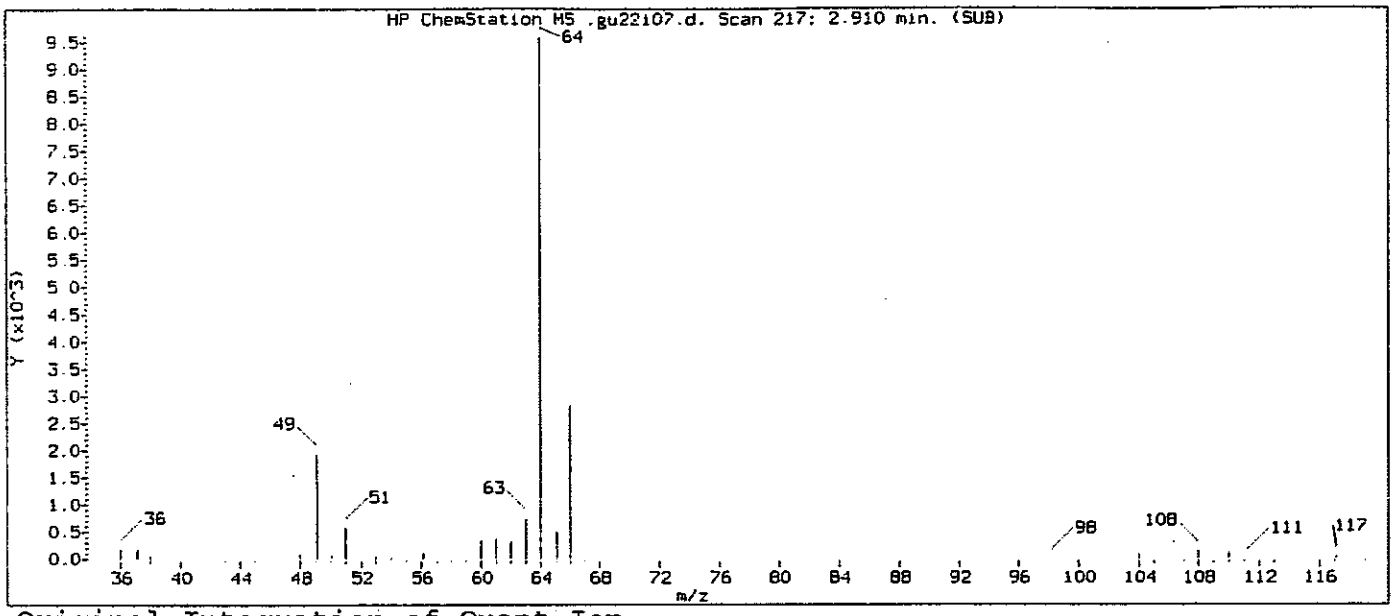
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

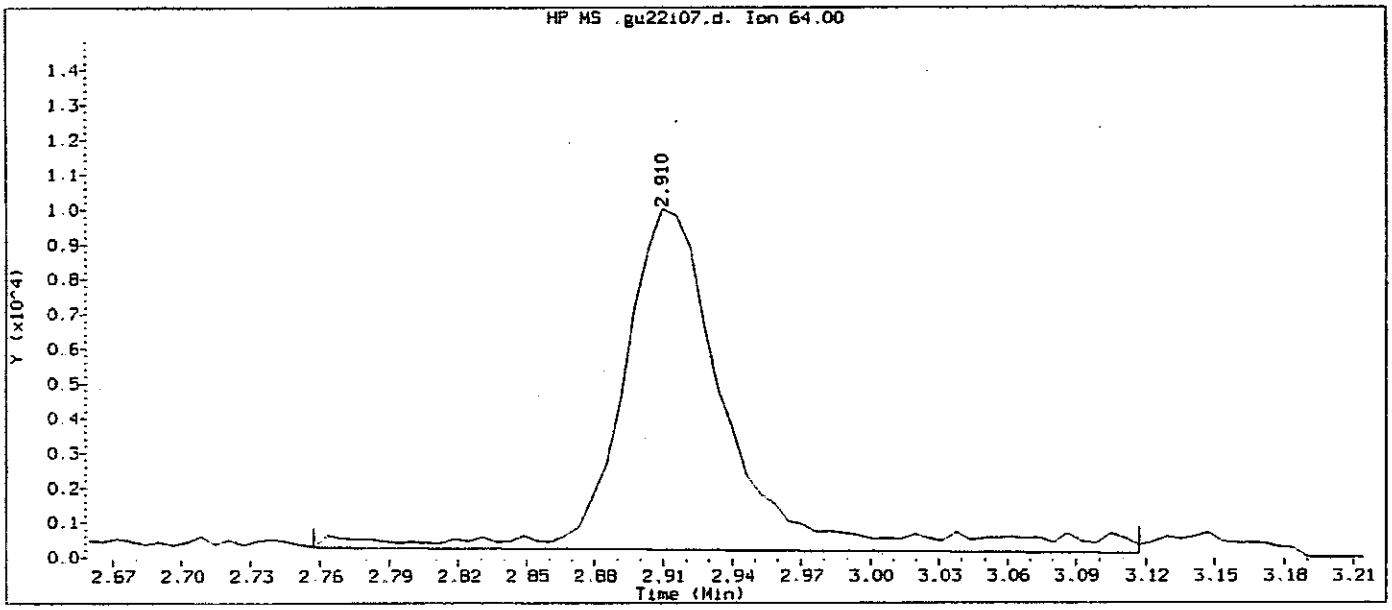
GC/MS audit/management approval: [signature] 6-23-09

RAD19 8156

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

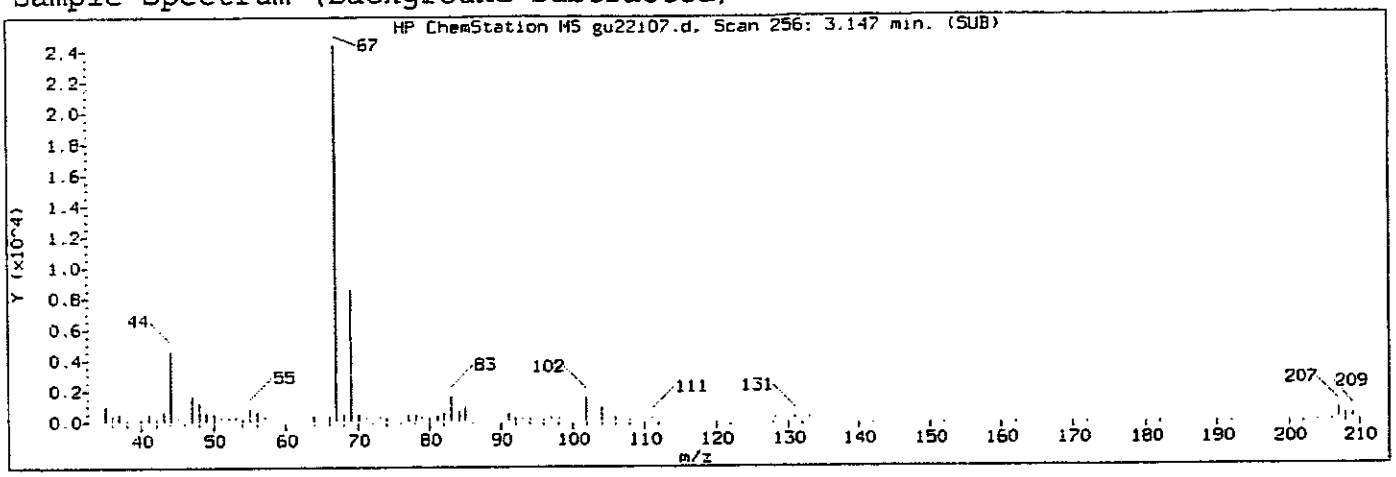
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 10
Compound Name	: Chloroethane
Scan Number	: 217
Retention Time (minutes)	: 2.910
Quant Ion	: 64
Area	: 32356
Concentration (ug/L)	: 0.7305
Integration start scan	: 191 Integration stop scan: 250
Y at integration start	: 287 Y at integration end: 106

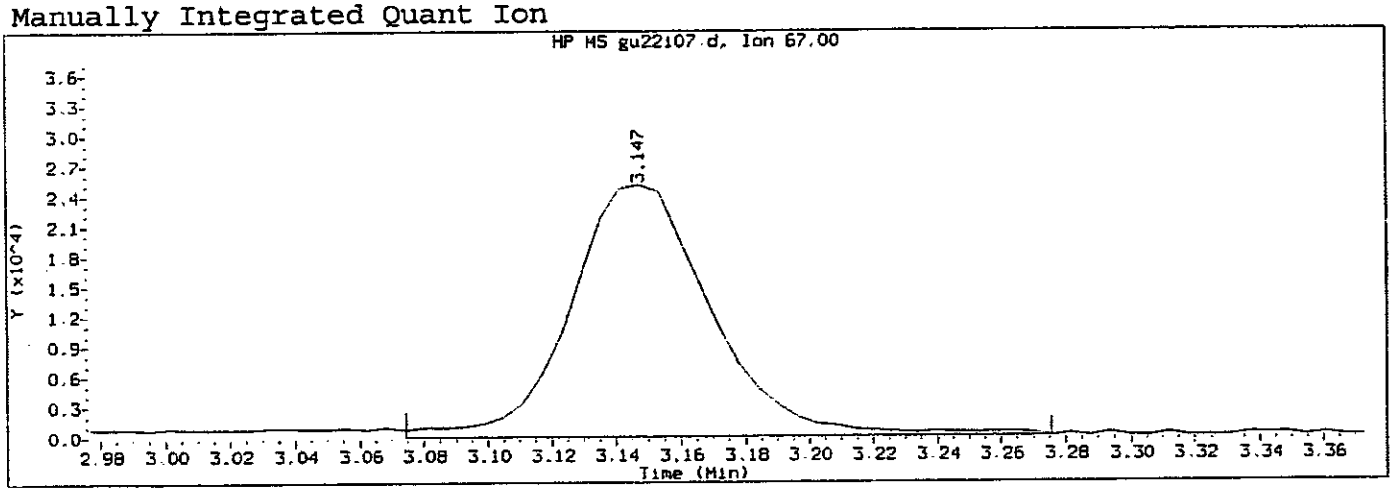
RAD19 0157

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 12
Compound Name : Dichlorofluoromethane
Scan Number : 256
Retention Time (minutes): 3.147
Quant Ion : 67
Area (flag) : 76626 M
Concentration (ug/L) : 0.6325
Integration start scan : 243 Integration stop scan: 276
Y at integration start : 0 Y at integration end: 0

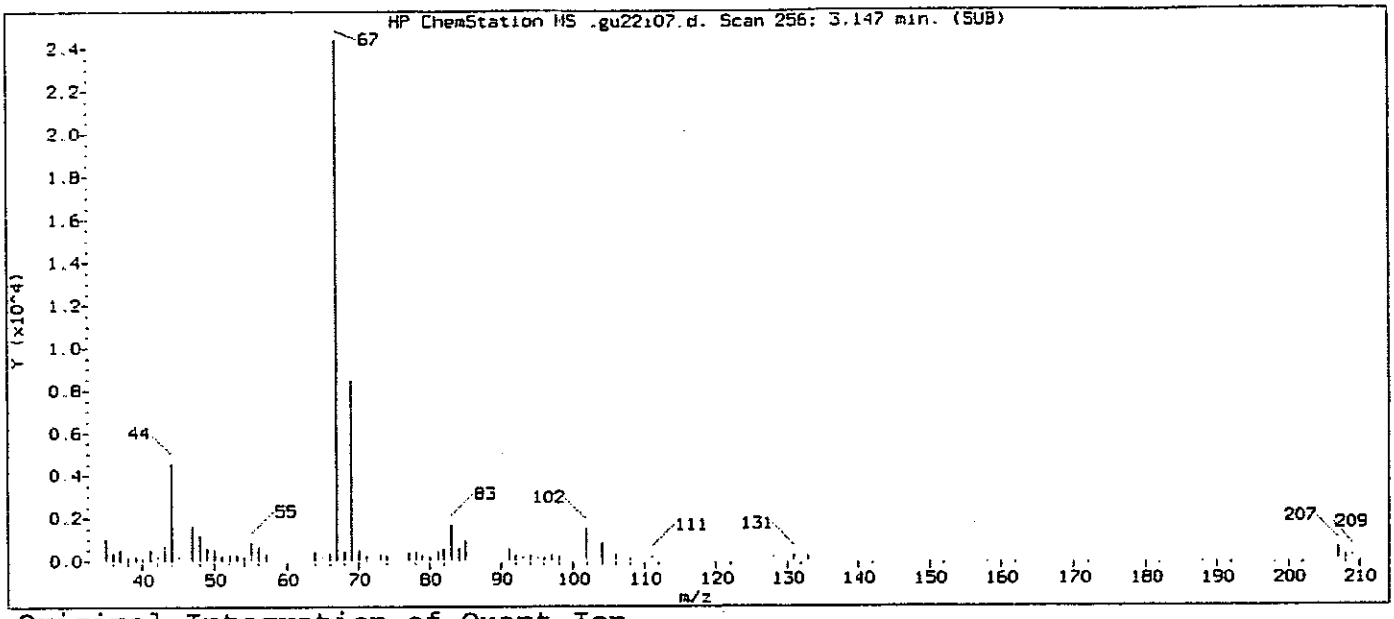
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

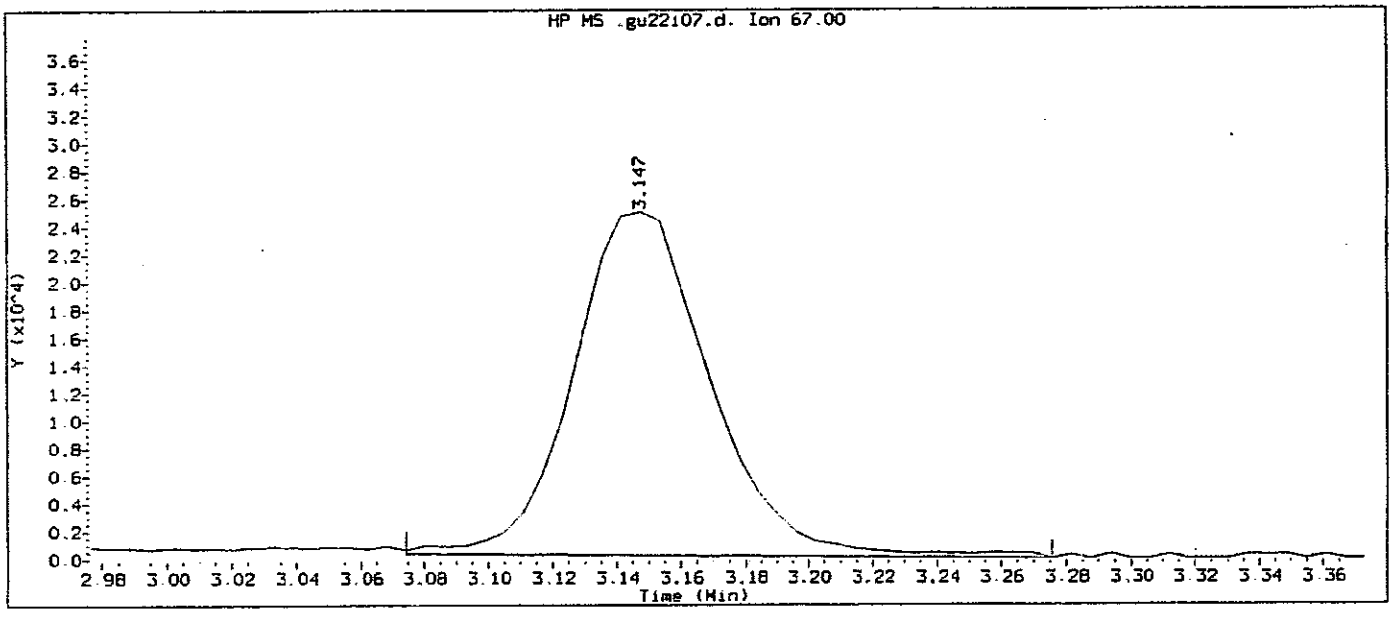
GC/MS audit/management approval: [signature] 6-23-09

RAD19 #158

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

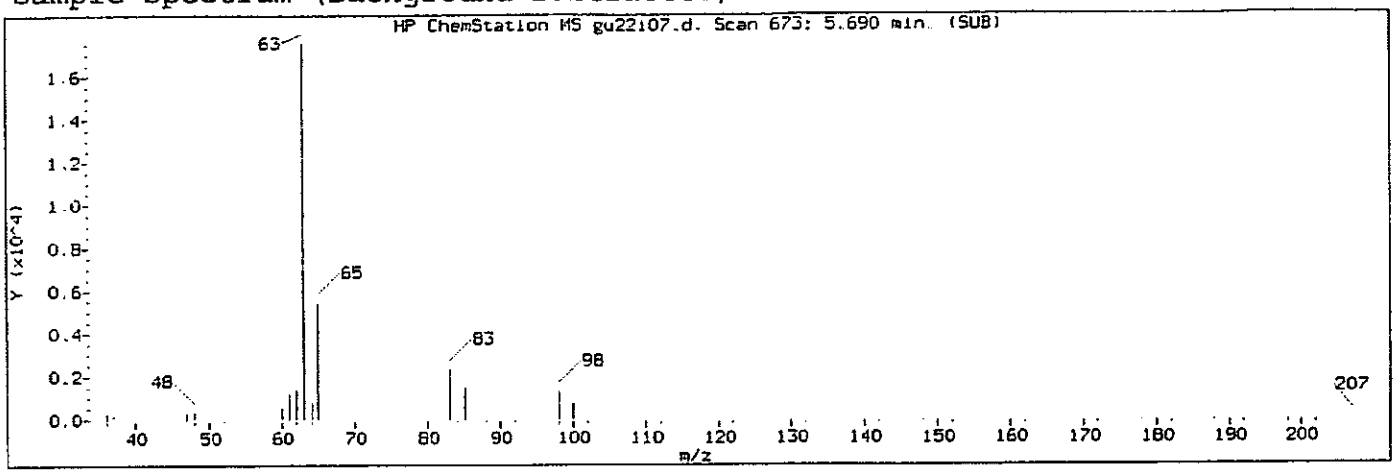
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	12
Compound Name	:	Dichlorofluoromethane
Scan Number	:	256
Retention Time (minutes)	:	3.147
Quant Ion	:	67
Area	:	73810
Concentration (ug/L)	:	0.6391
Integration start scan	:	243 Integration stop scan: 276
Y at integration start	:	445 Y at integration end: 0

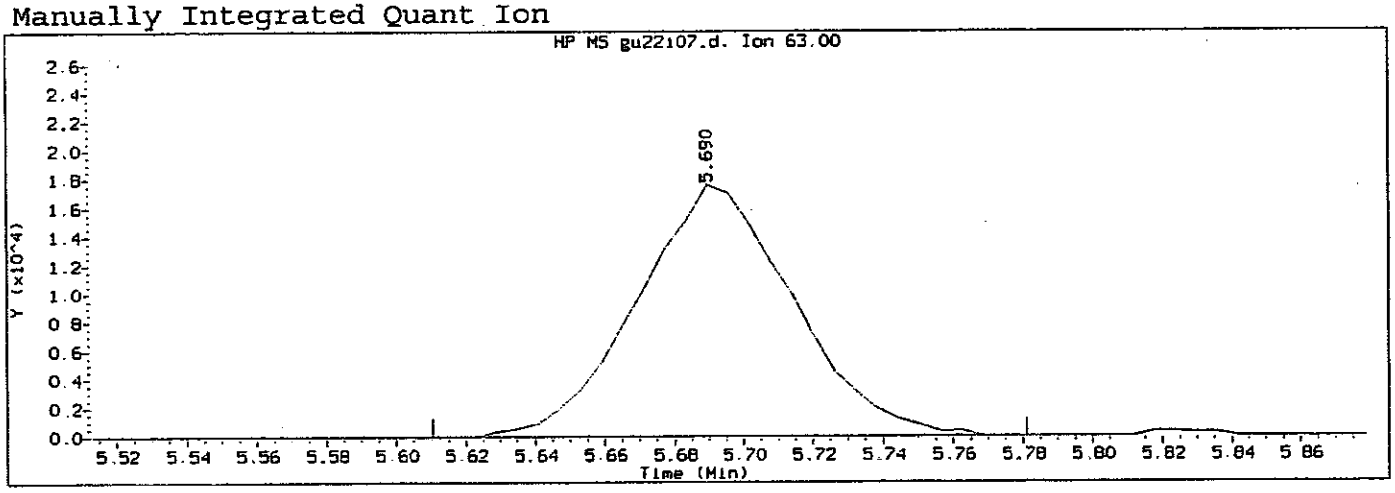
RAD19 0159

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 44
Compound Name : 1,1-Dichloroethane
Scan Number : 673
Retention Time (minutes): 5.690
Quant Ion : 63
Area (flag) : 54840 M
Concentration (ug/L) : 0.5725
Integration start scan : 659 Integration stop scan: 687
Y at integration start : 0 Y at integration end: 0

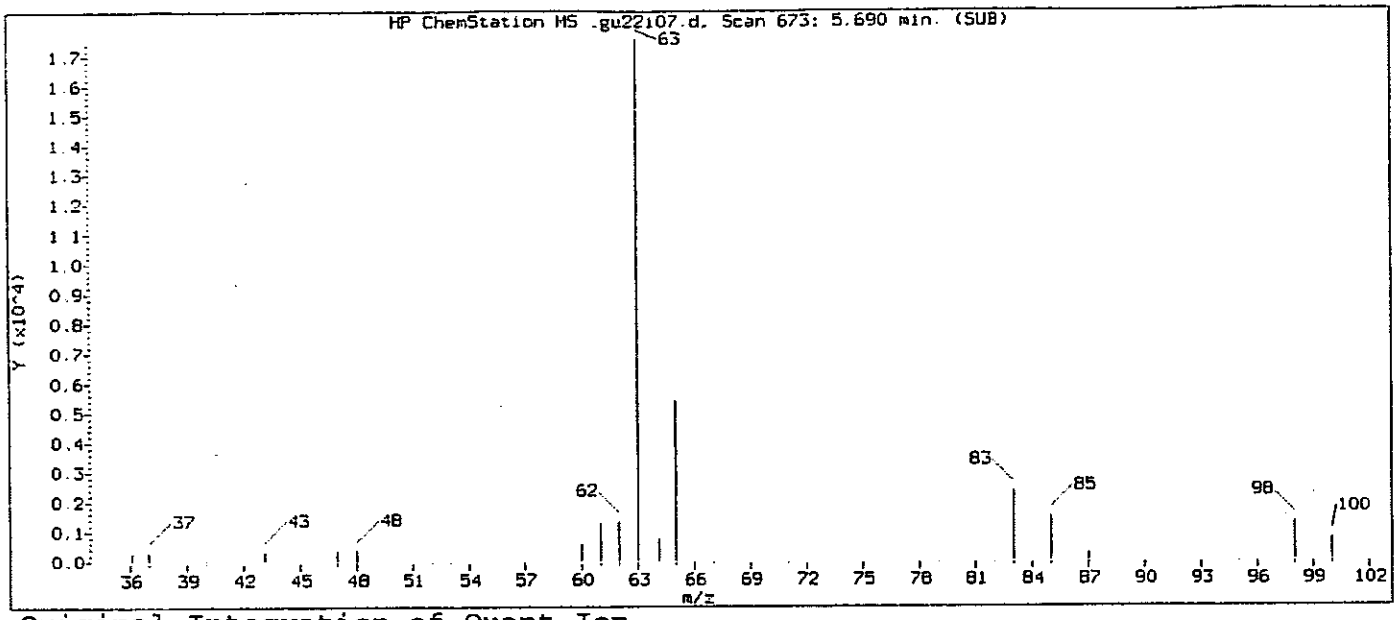
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: 6/22/09

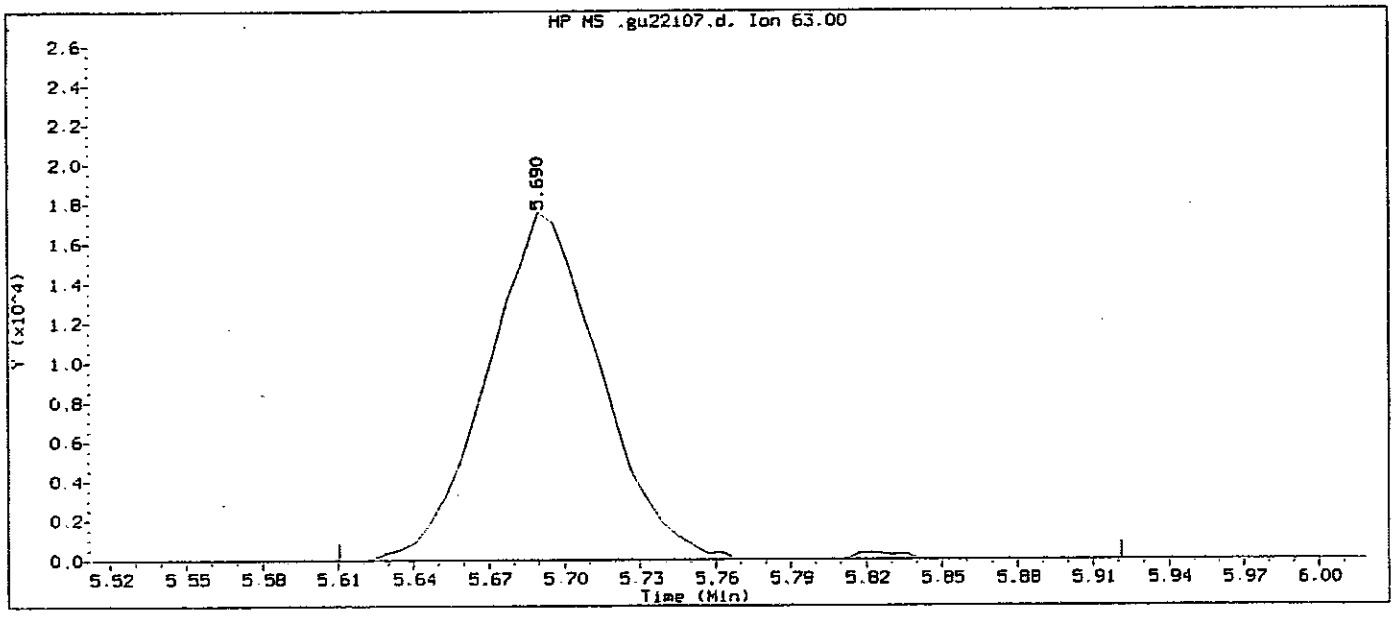
GC/MS audit/management approval: 6/23/09

RMB19 8168

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

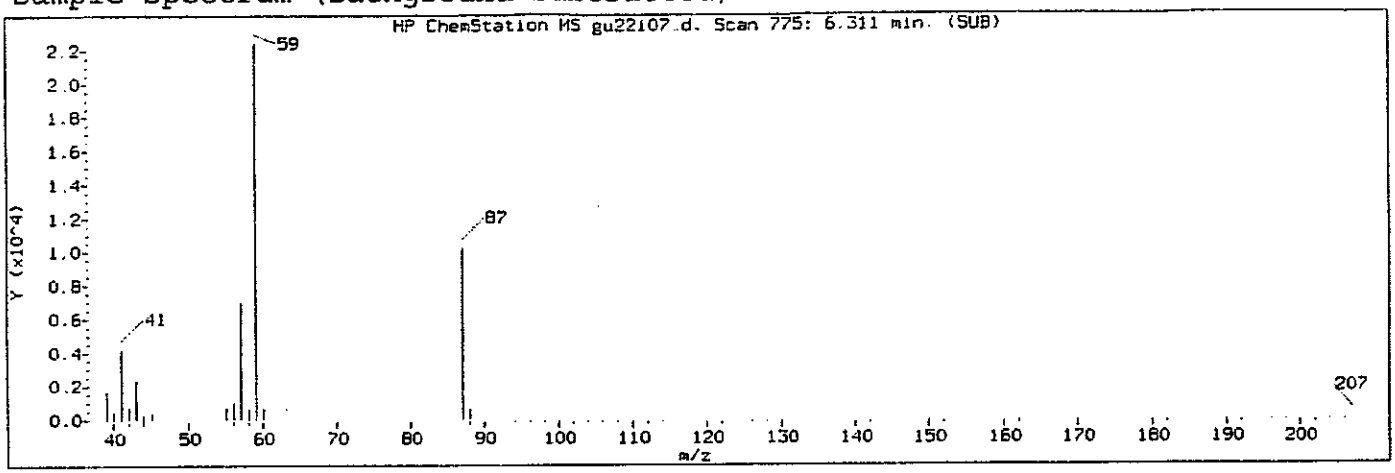
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 44
Compound Name : 1,1-Dichloroethane
Scan Number : 673
Retention Time (minutes): 5.690
Quant Ion : 63
Area : 55277
Concentration (ug/L) : 0.5762
Integration start scan : 659 Integration stop scan: 710
Y at integration start : 0 Y at integration end: 0

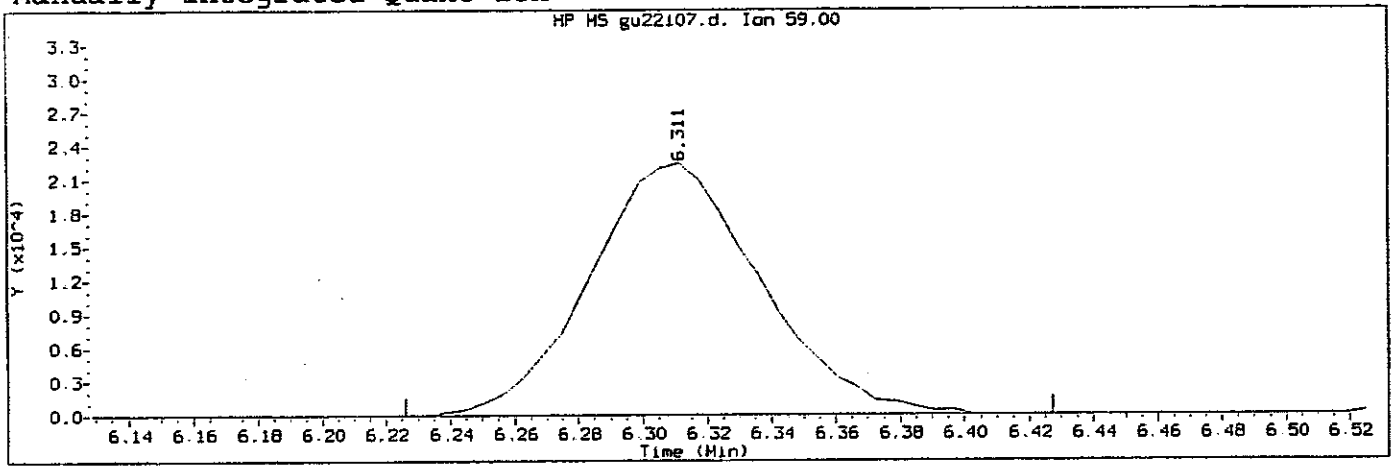
RAD19 0161

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 48
Compound Name : Ethyl t-Butyl Ether
Scan Number : 775
Retention Time (minutes): 6.311
Quant Ion : 59
Area (flag) : 82625 M
Concentration (ug/L) : 0.5531
Integration start scan : 760 Integration stop scan: 793
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

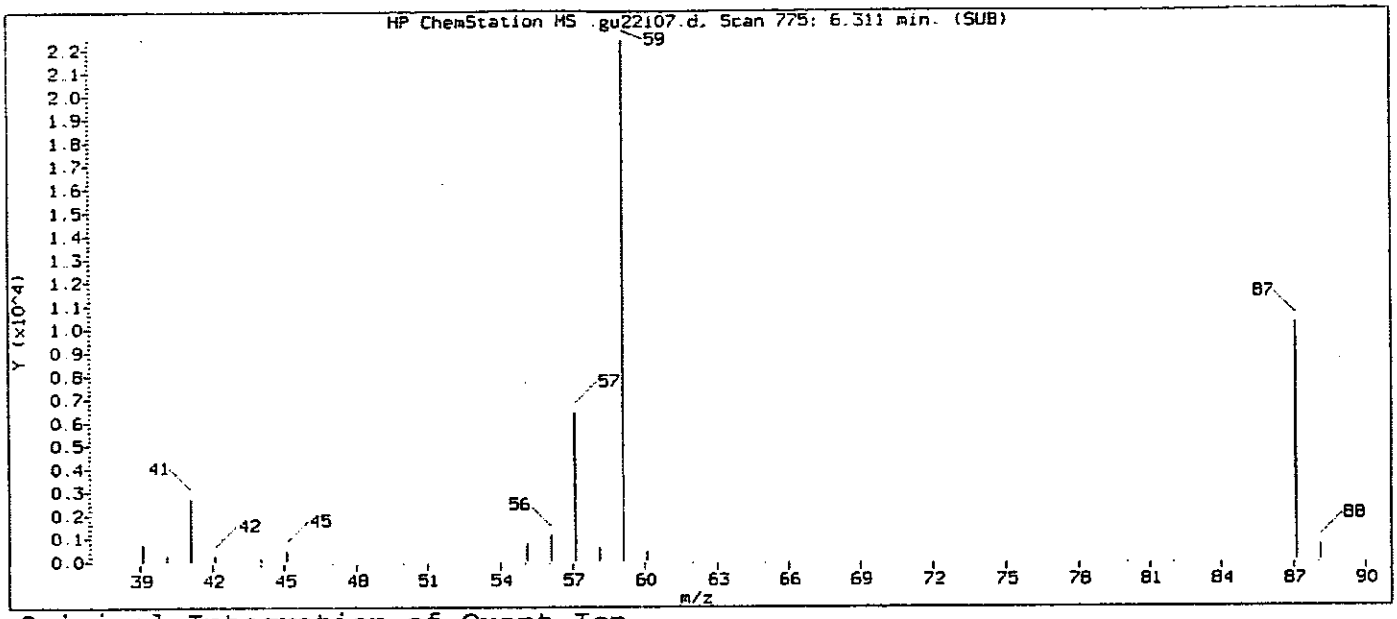
Analyst responsible for change: sew 6/22/09

GC/MS audit/management approval: 6/23/09

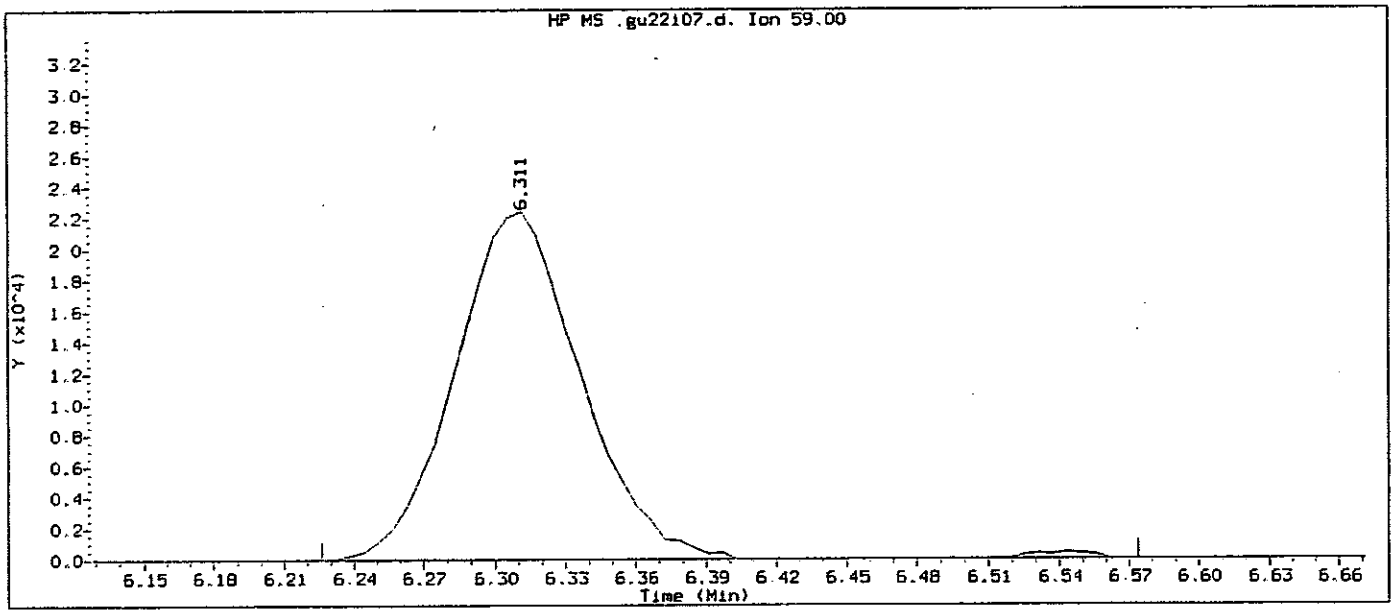
RAD19 8162

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

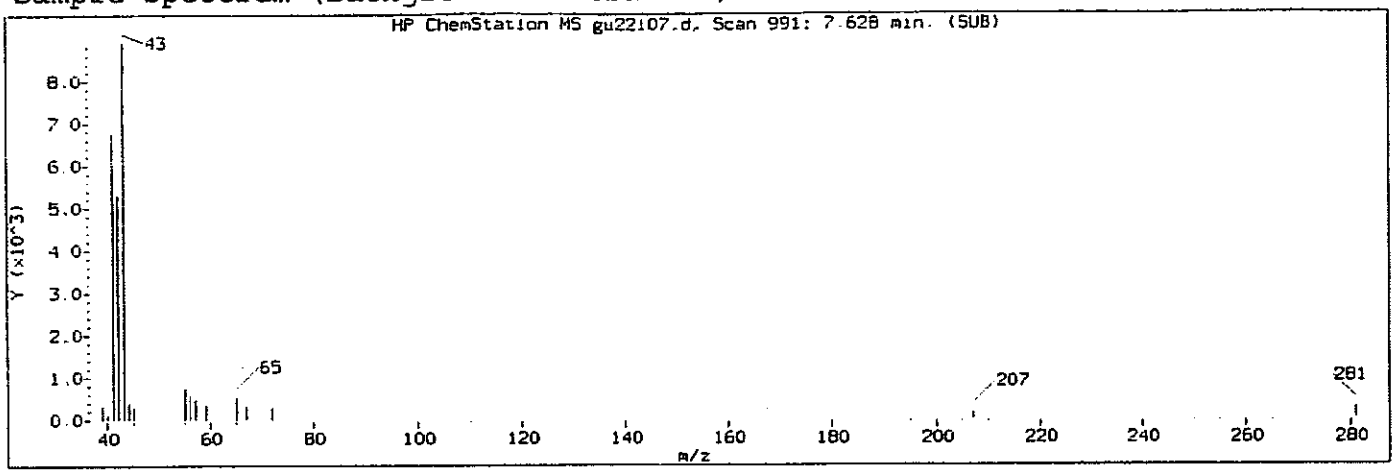
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	48
Compound Name	:	Ethyl t-Butyl Ether
Scan Number	:	775
Retention Time (minutes)	:	6.311
Quant Ion	:	59
Area	:	83363
Concentration (ug/L)	:	0.5572
Integration start scan	:	760 Integration stop scan: 817
Y at integration start	:	0 Y at integration end: 0

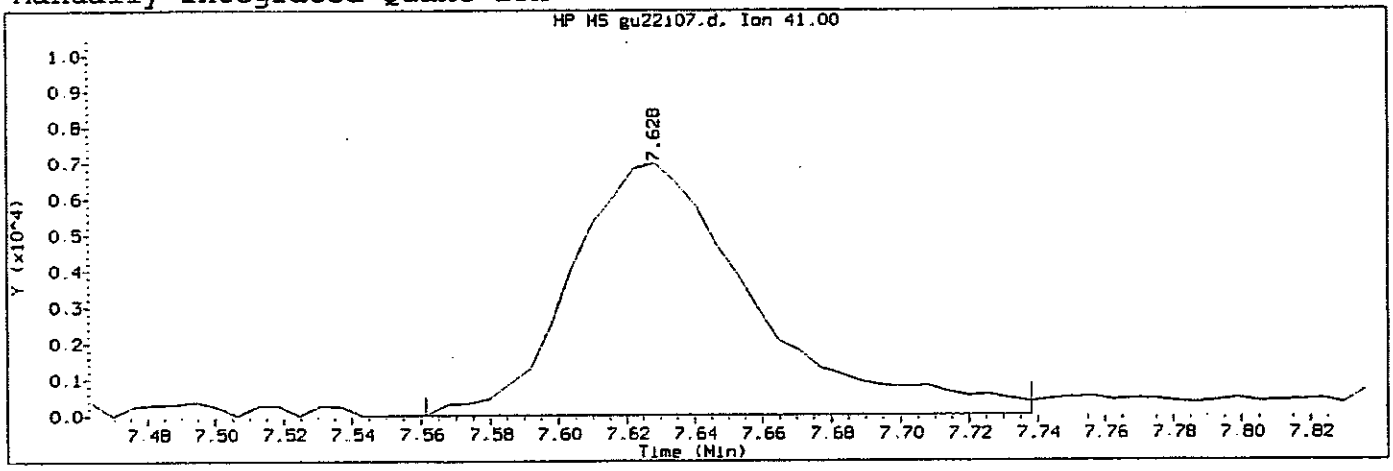
RAB19 0163

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 66
Compound Name : Isobutyl Alcohol
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 41
Area (flag) : 26028 M
Concentration (ug/L) : 28.9052
Integration start scan : 979 Integration stop scan: 1008
Y at integration start : 0 Y at integration end: 0

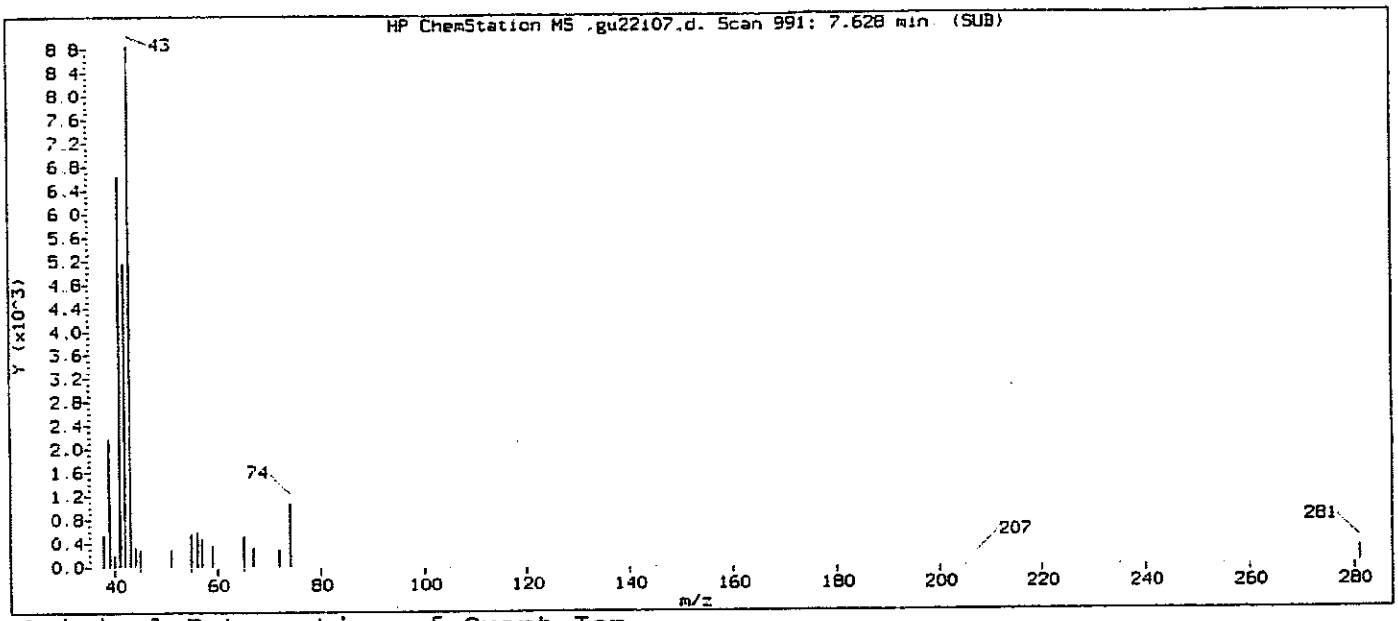
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

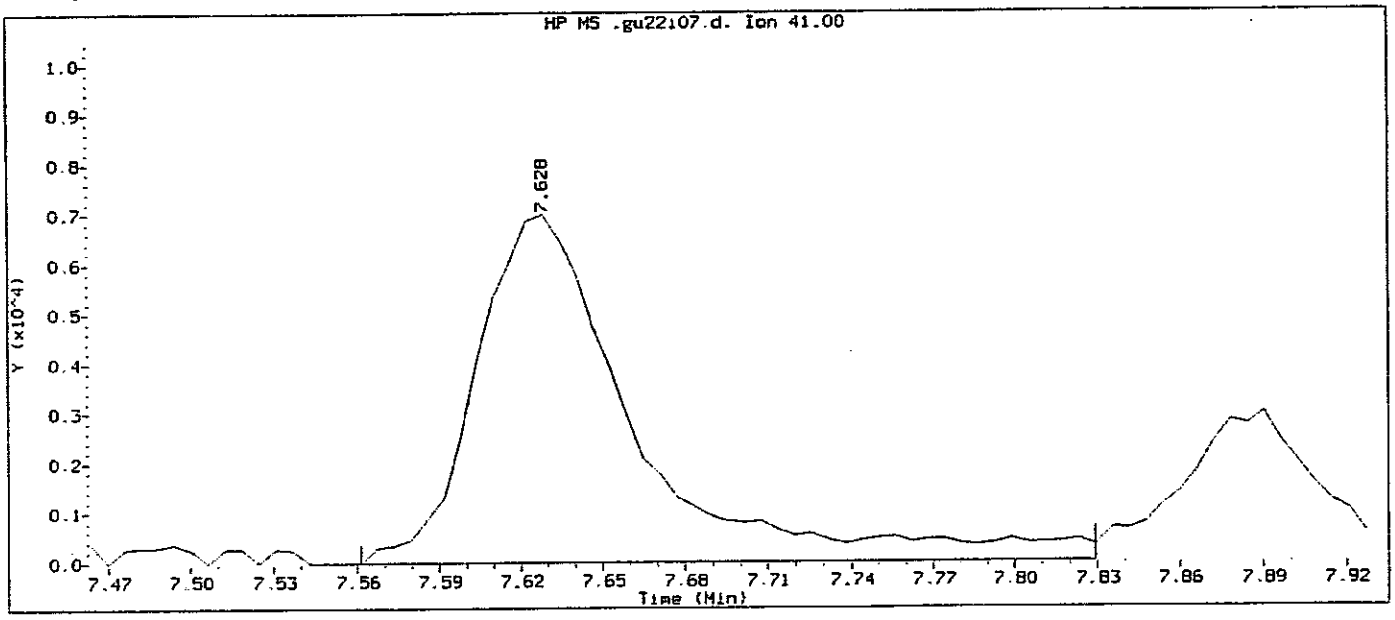
GC/MS audit/management approval: [signature] 6/23/09 RAD19 8164

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07 d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

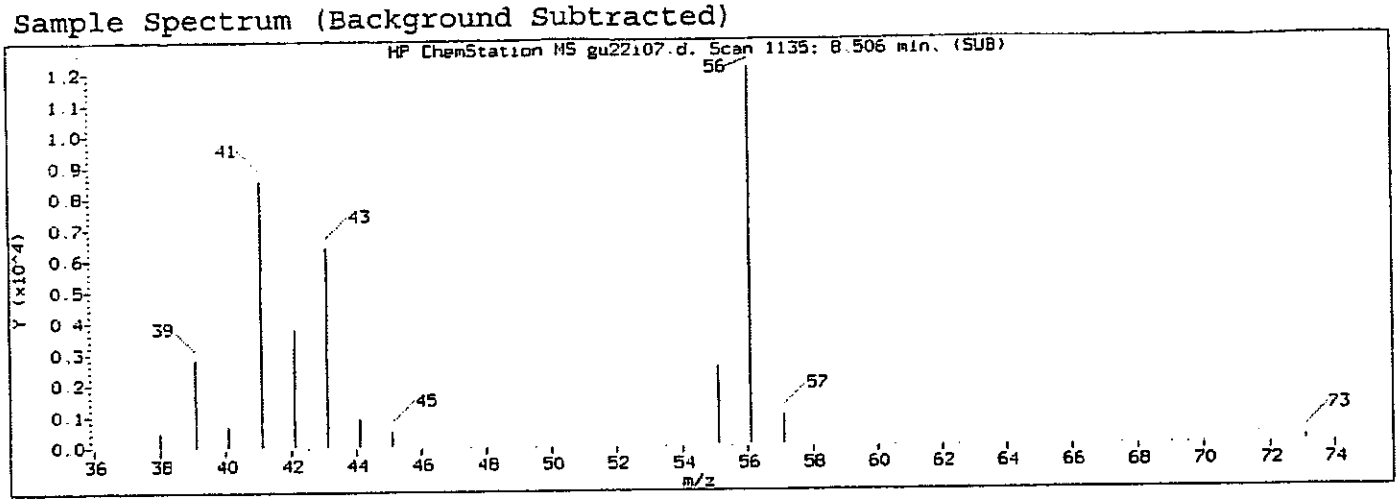
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	66
Compound Name	:	Isobutyl Alcohol
Scan Number	:	991
Retention Time (minutes)	:	7.628
Quant Ion	:	41
Area	:	28236
Concentration (ug/L)	:	34.9580
Integration start scan	:	979 Integration stop scan: 1023
Y at integration start	:	0 Y at integration end: 0

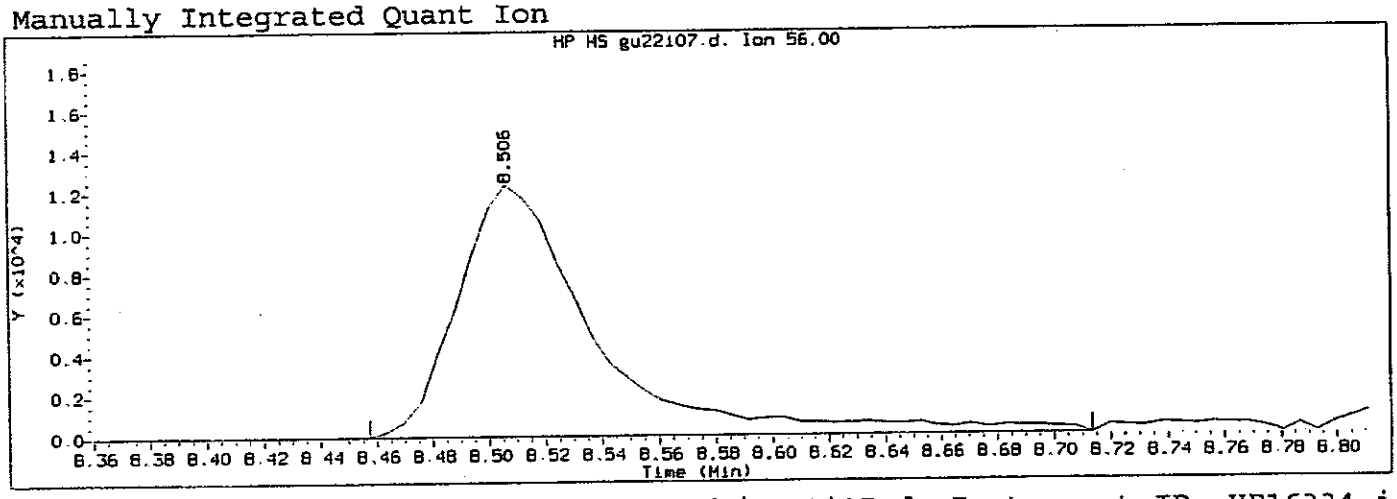
RAD19 8165

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	80
Compound Name	:	n-Butanol
Scan Number	:	1135
Retention Time (minutes)	:	8.506
Quant Ion	:	56
Area (flag)	:	41627 M
Concentration (ug/L)	:	61.0574
Integration start scan	:	1126 Integration stop scan: 1168
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

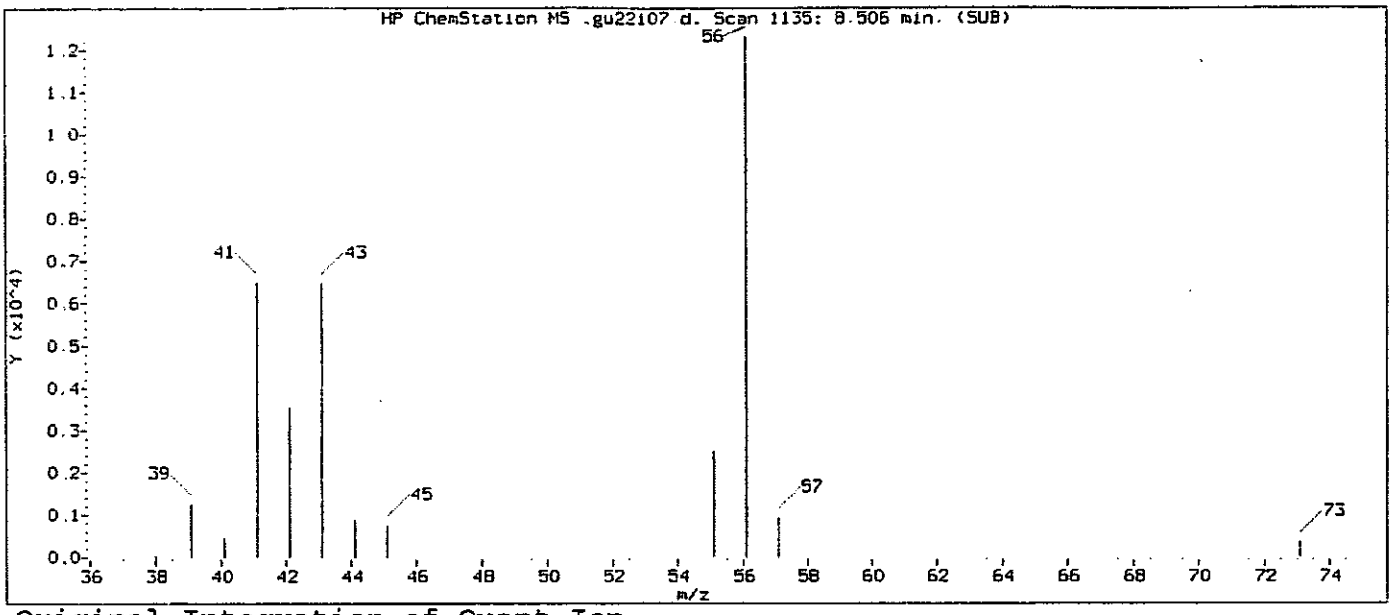
Analyst responsible for change: sew 6/22/09

GC/MS audit/management approval: 6/23/09

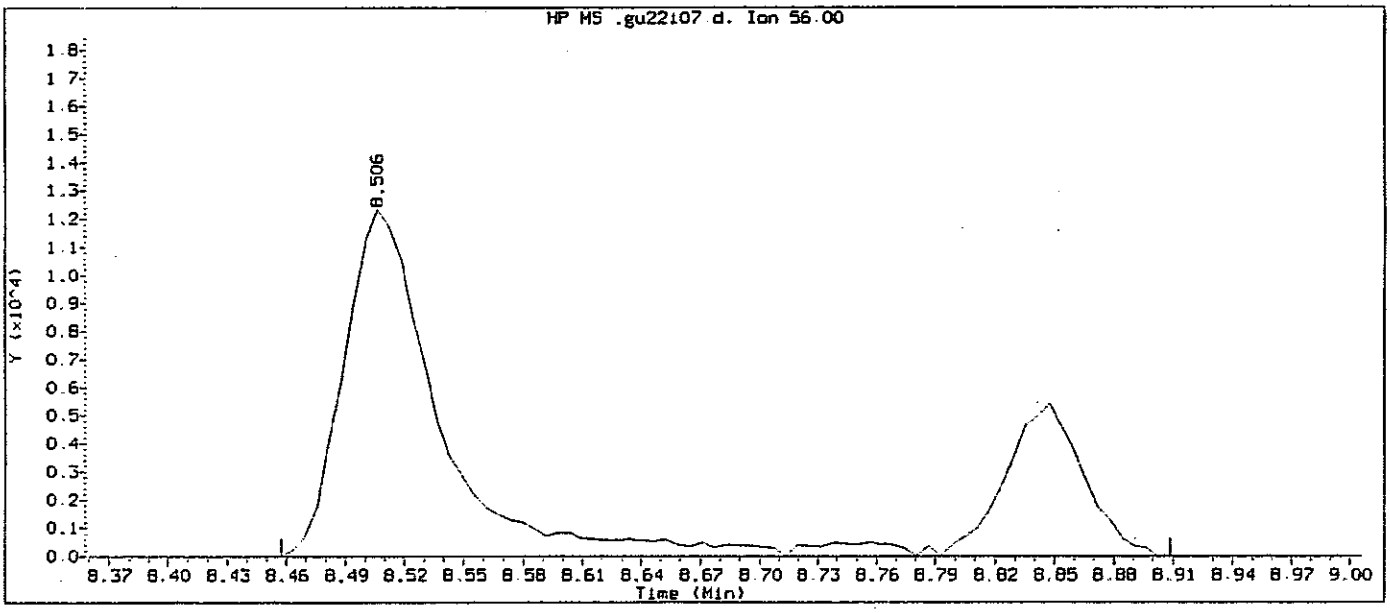
RAD19 8166

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

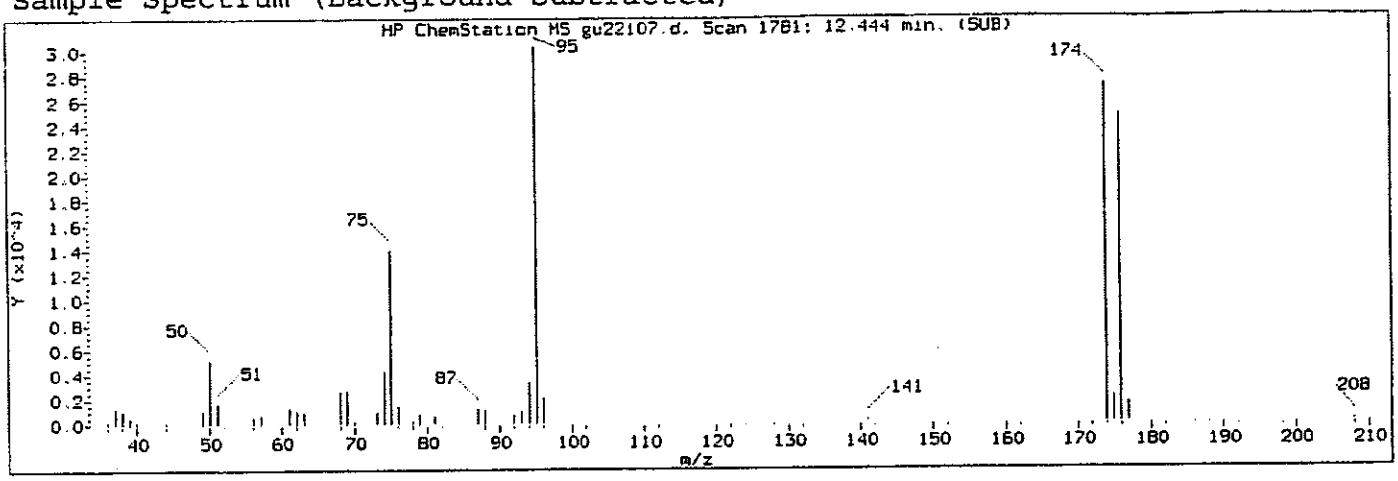
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	80
Compound Name	:	n-Butanol
Scan Number	:	1135
Retention Time (minutes)	:	8.506
Quant Ion	:	56
Area	:	57903
Concentration (ug/L)	:	78.6705
Integration start scan	:	1126 Integration stop scan: 1200
Y at integration start	:	0 Y at integration end: 0

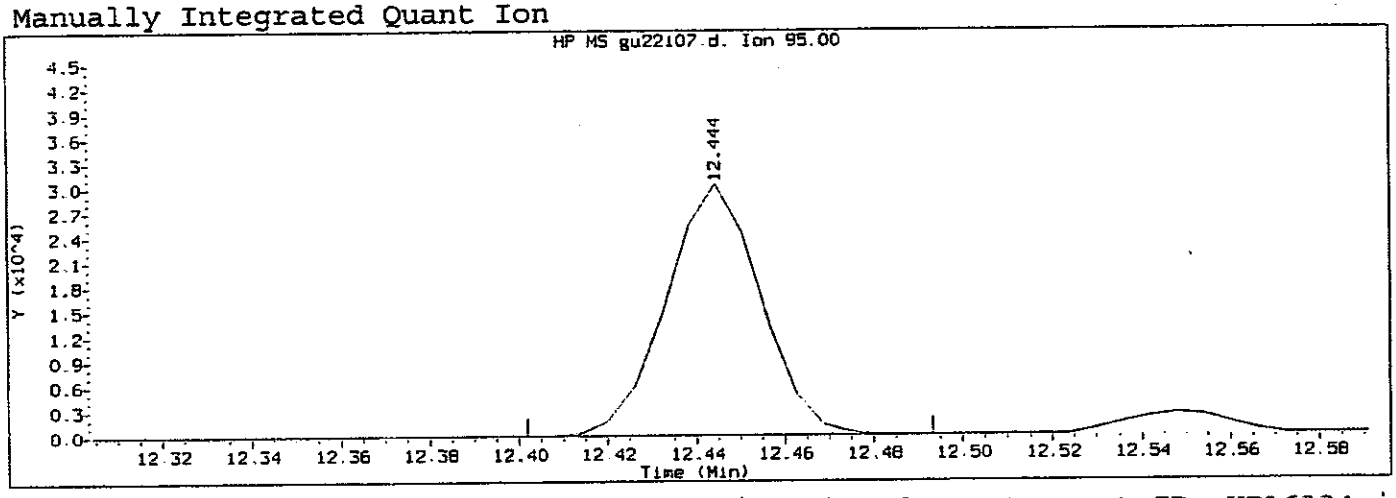
RAD19 8167

Original Integration Report for data file /chem2/HP16334.i/09jun22a b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	125
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1781
Retention Time (minutes)	:	12.444
Quant Ion	:	95
Area (flag)	:	44820 M
Concentration (ug/L)	:	0.5633
Integration start scan	:	1773 Integration stop scan: 1788
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

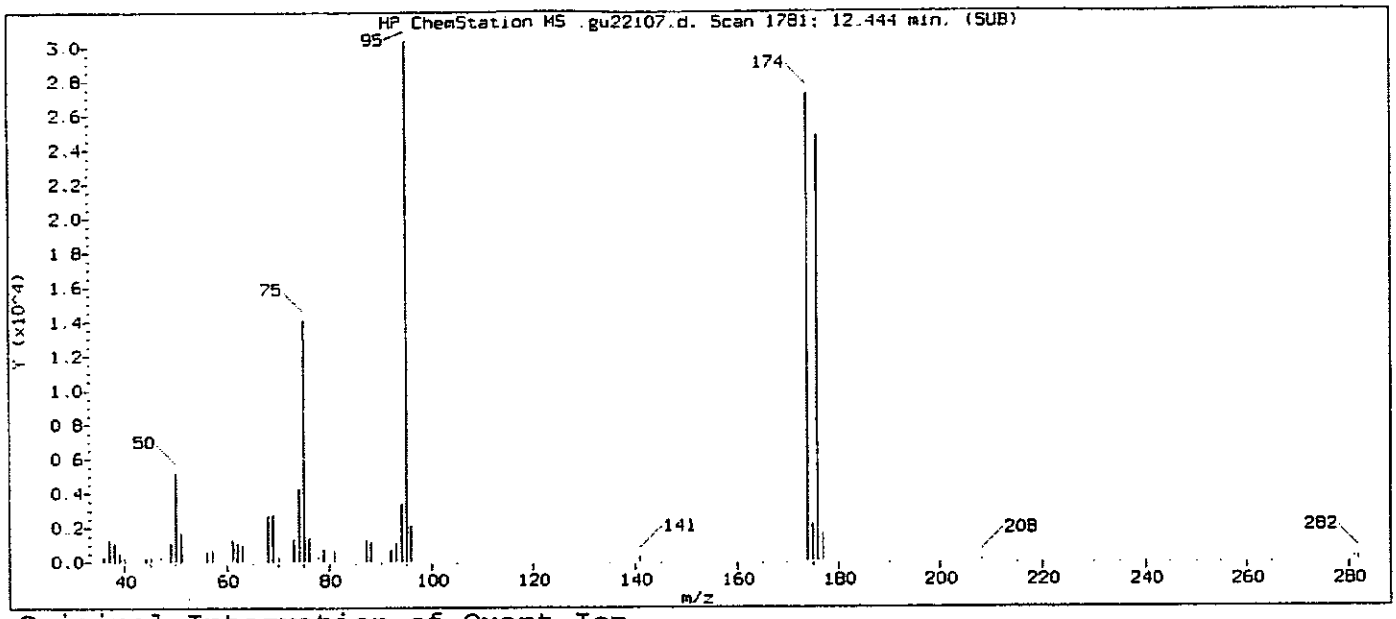
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

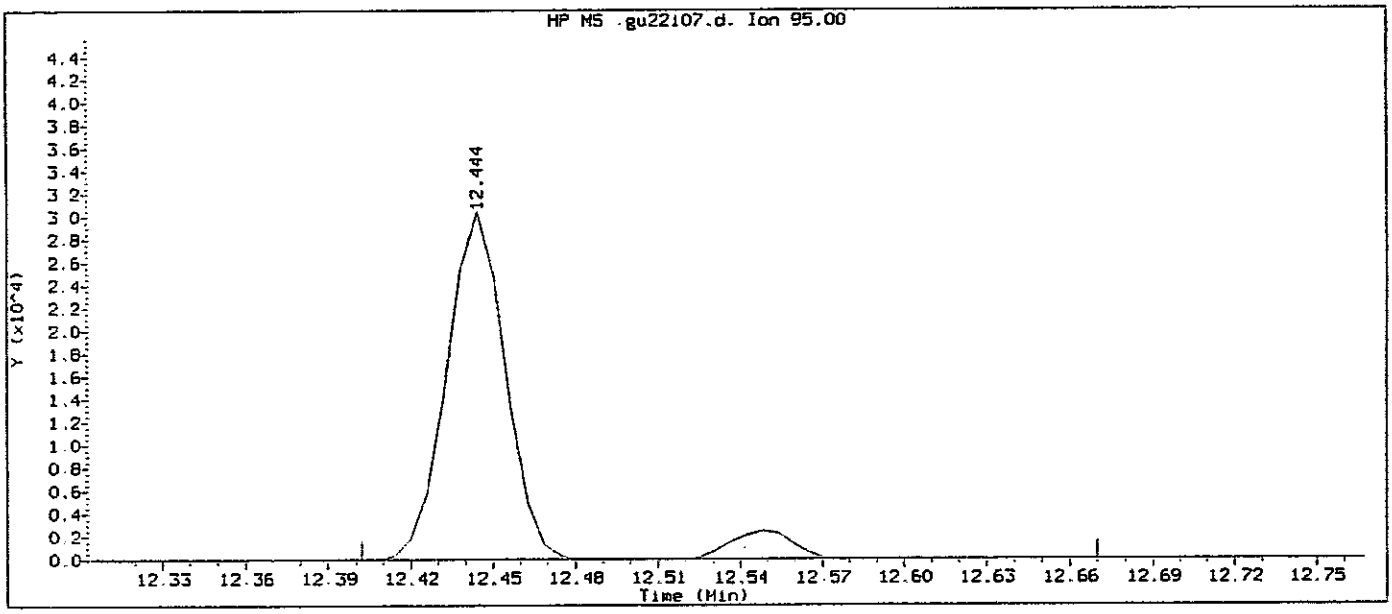
RAD19 8168

Manual Integration Report for data file /chem2/HP16334.i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

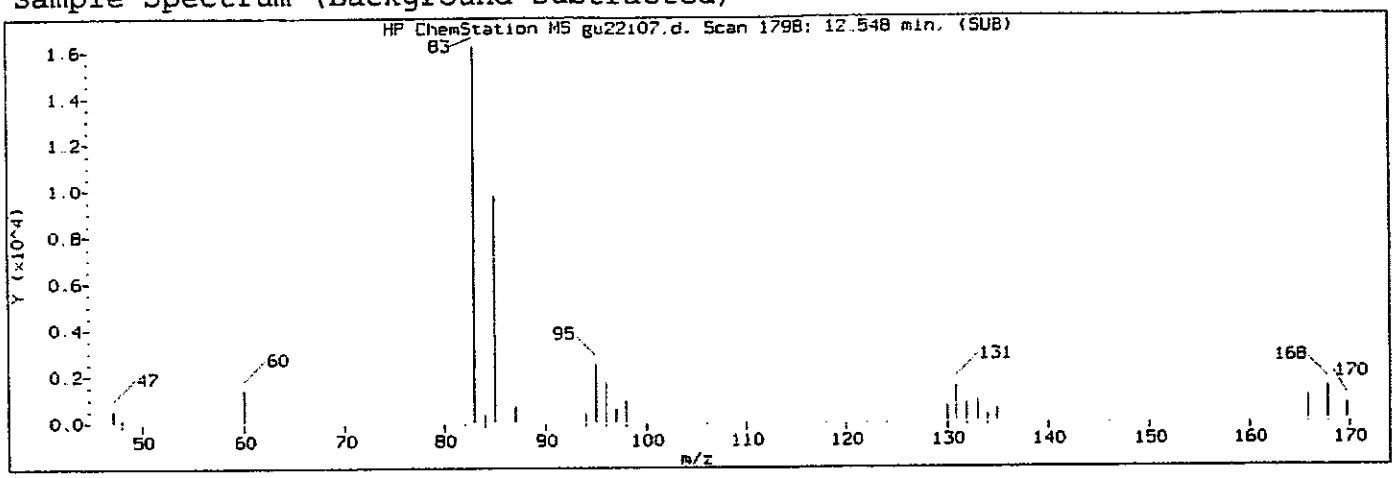
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	125
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1781
Retention Time (minutes)	:	12.444
Quant Ion	:	95
Area	:	48733
Concentration (ug/L)	:	0.6026
Integration start scan	:	1773 Integration stop scan: 1817
Y at integration start	:	0 Y at integration end: 0

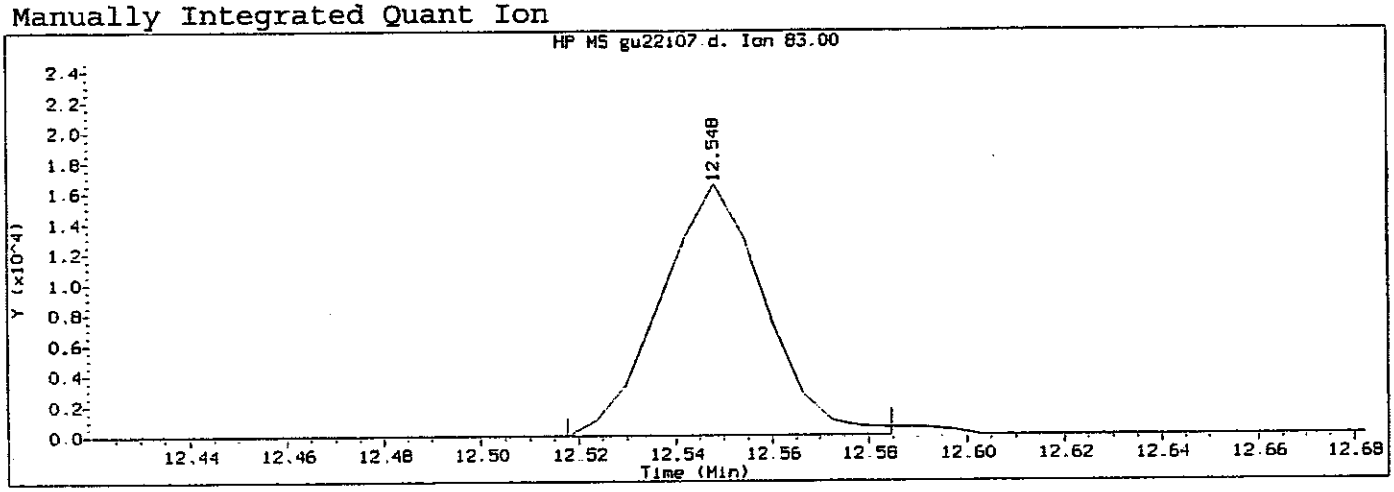
RAD19 #169

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 127
Compound Name	: 1,1,2,2-Tetrachloroethane
Scan Number	: 1798
Retention Time (minutes)	: 12.548
Quant Ion	: 83
Area (flag)	: 24608 M
Concentration (ug/L)	: 0.6157
Integration start scan	: 1792 Integration stop scan: 1803
Y at integration start	: 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

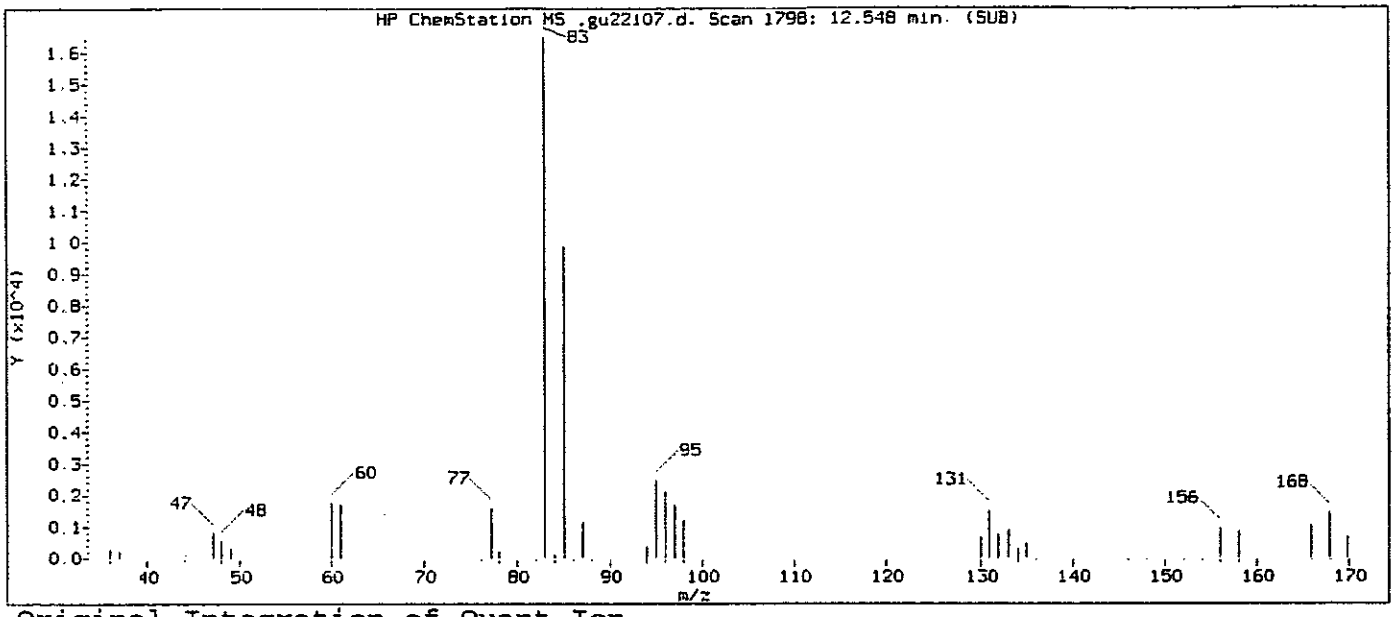
Analyst responsible for change: 6/22/09

GC/MS audit/management approval: 6-23-09

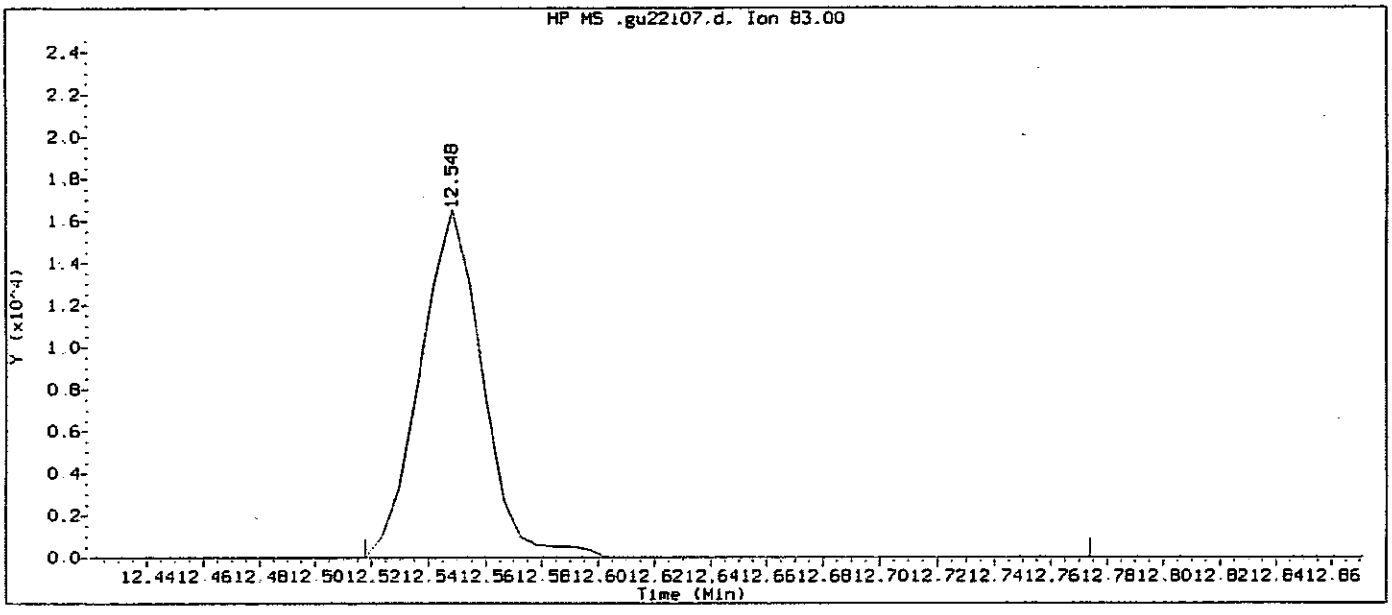
RMD19 8170

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

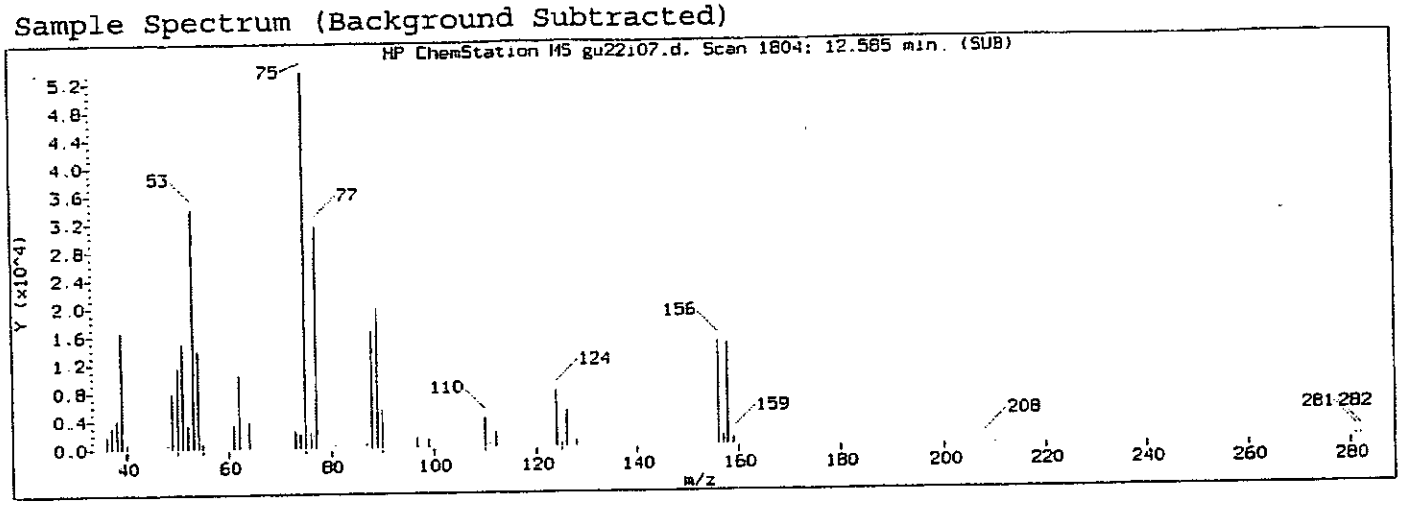
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area	:	24934
Concentration (ug/L)	:	0.6222
Integration start scan	:	1792 Integration stop scan: 1834
Y at integration start	:	0 Y at integration end: 0

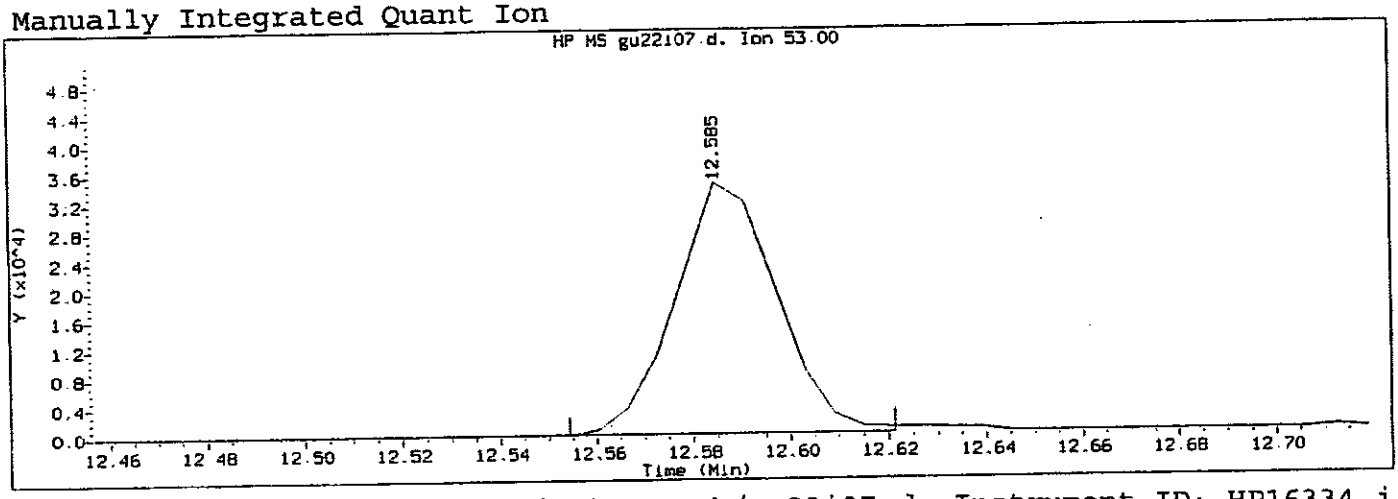
RAD19 8171

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area (flag)	:	50365 M
Concentration (ug/L)	:	5.5772
Integration start scan	:	1798 Integration stop scan: 1809
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

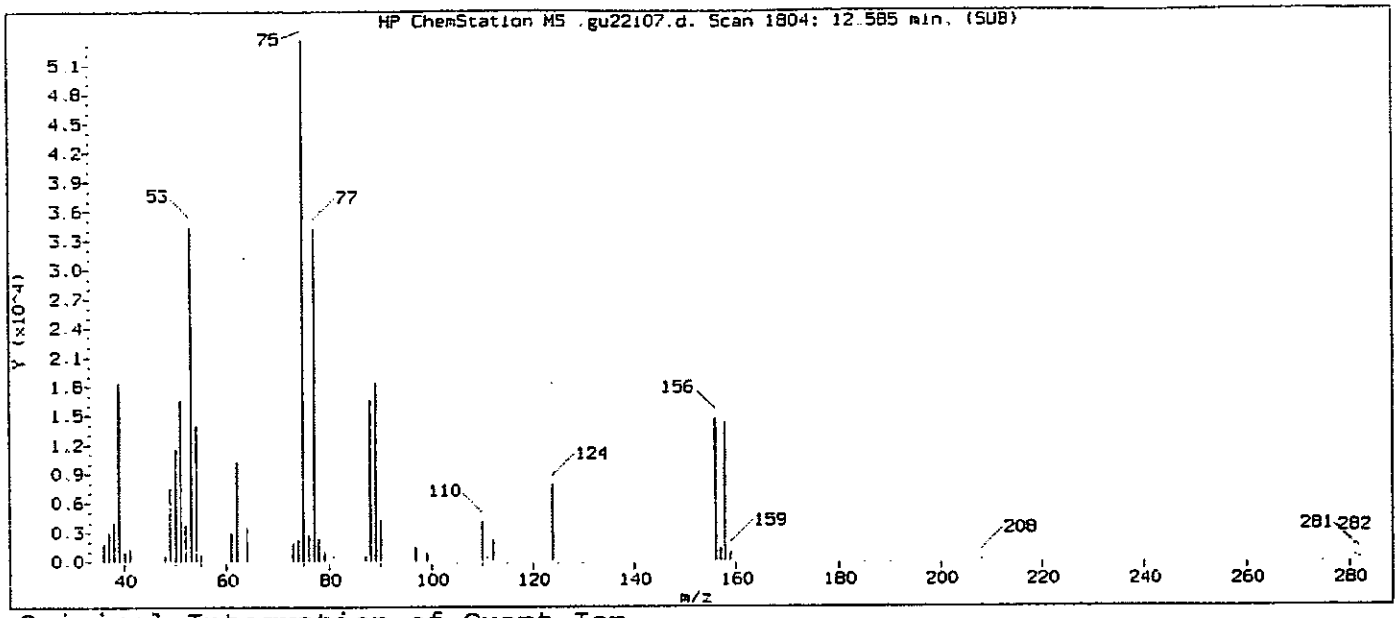
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

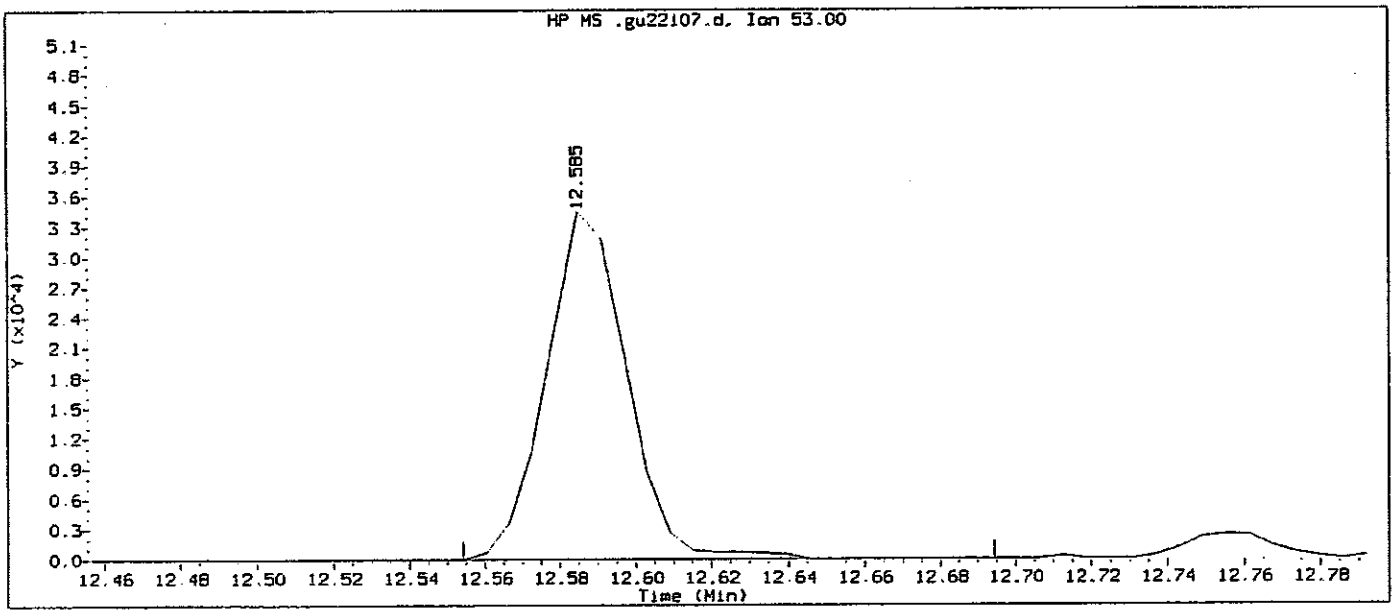
RAD19 0172

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

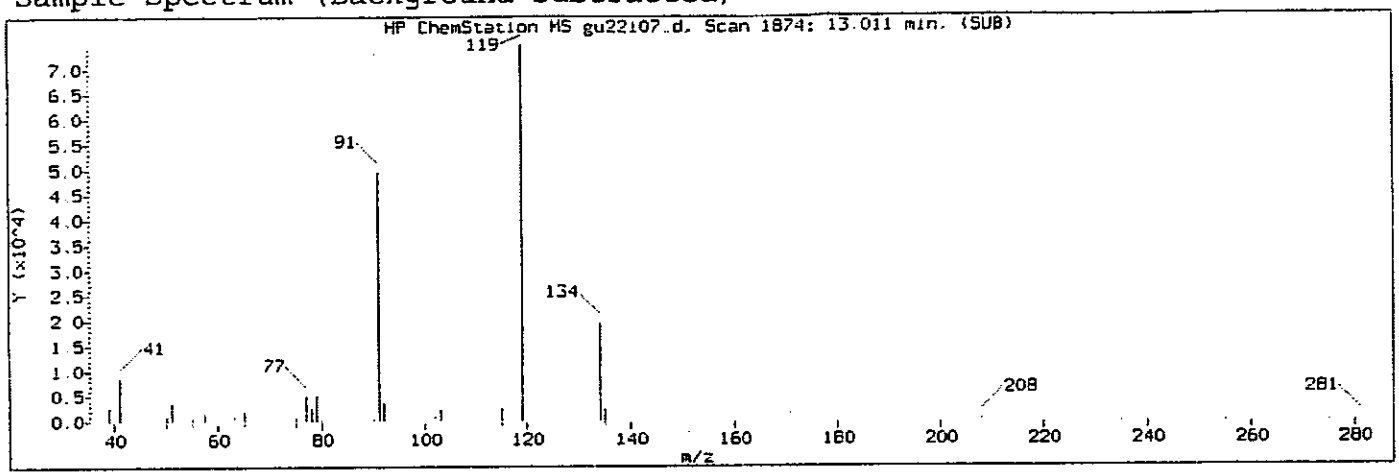
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area	:	51017
Concentration (ug/L)	:	5.6359
Integration start scan	:	1798 Integration stop scan: 1821
Y at integration start	:	0 Y at integration end: 0

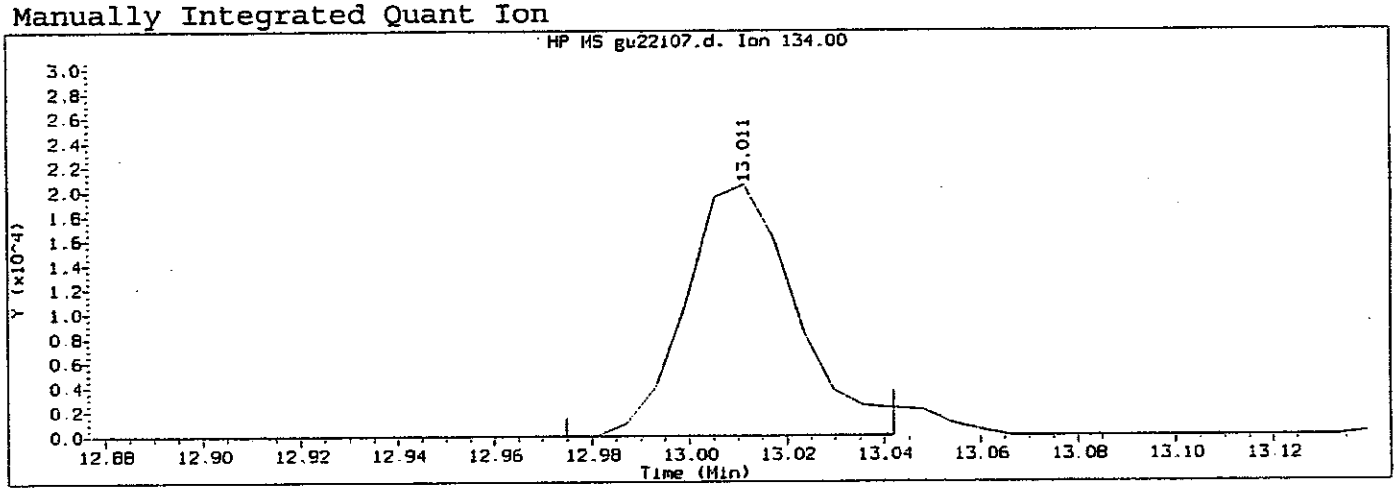
RAD19 0173

Original Integration Report for data file /chem2/HP16334.i/09jun22a b/gu22i07 d. generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 19:52 sew02002

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	32444 M
Concentration (ug/L)	:	0.5640
Integration start scan	:	1867 Integration stop scan: 1878
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

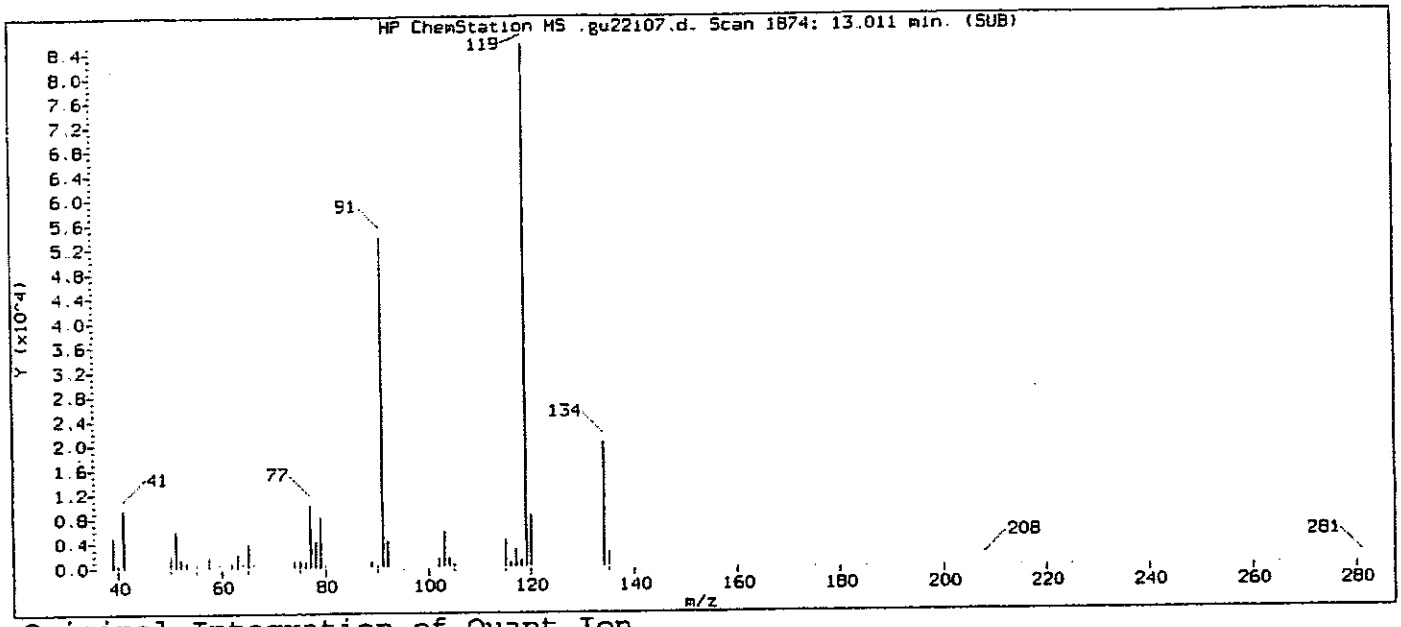
Analyst responsible for change: Susan 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

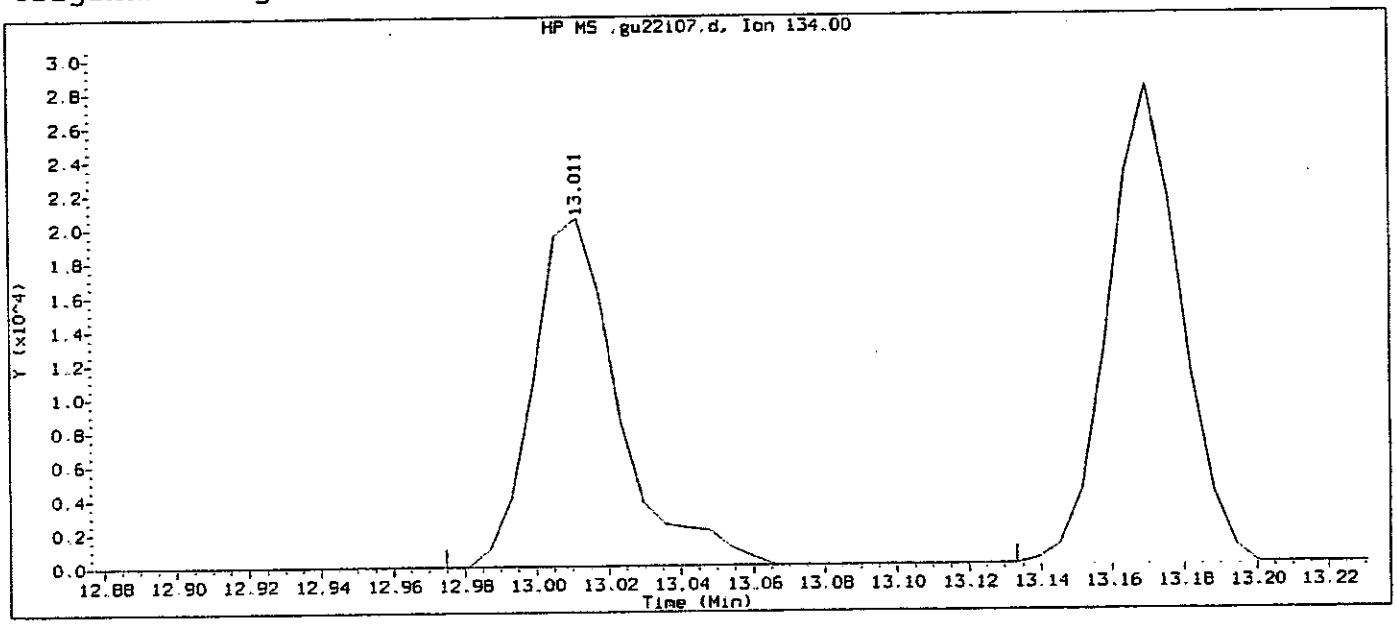
RAD19 8174

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d, generated on 06/22/2009 at 19:52

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22i07.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 19:18 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 19:34
Date, time and analyst ID of latest file update: 22-Jun-2009 19:34 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area	:	33787
Concentration (ug/L)	:	0.5828
Integration start scan	:	1867 Integration stop scan: 1893
Y at integration start	:	0 Y at integration end: 0

RAD19 0175

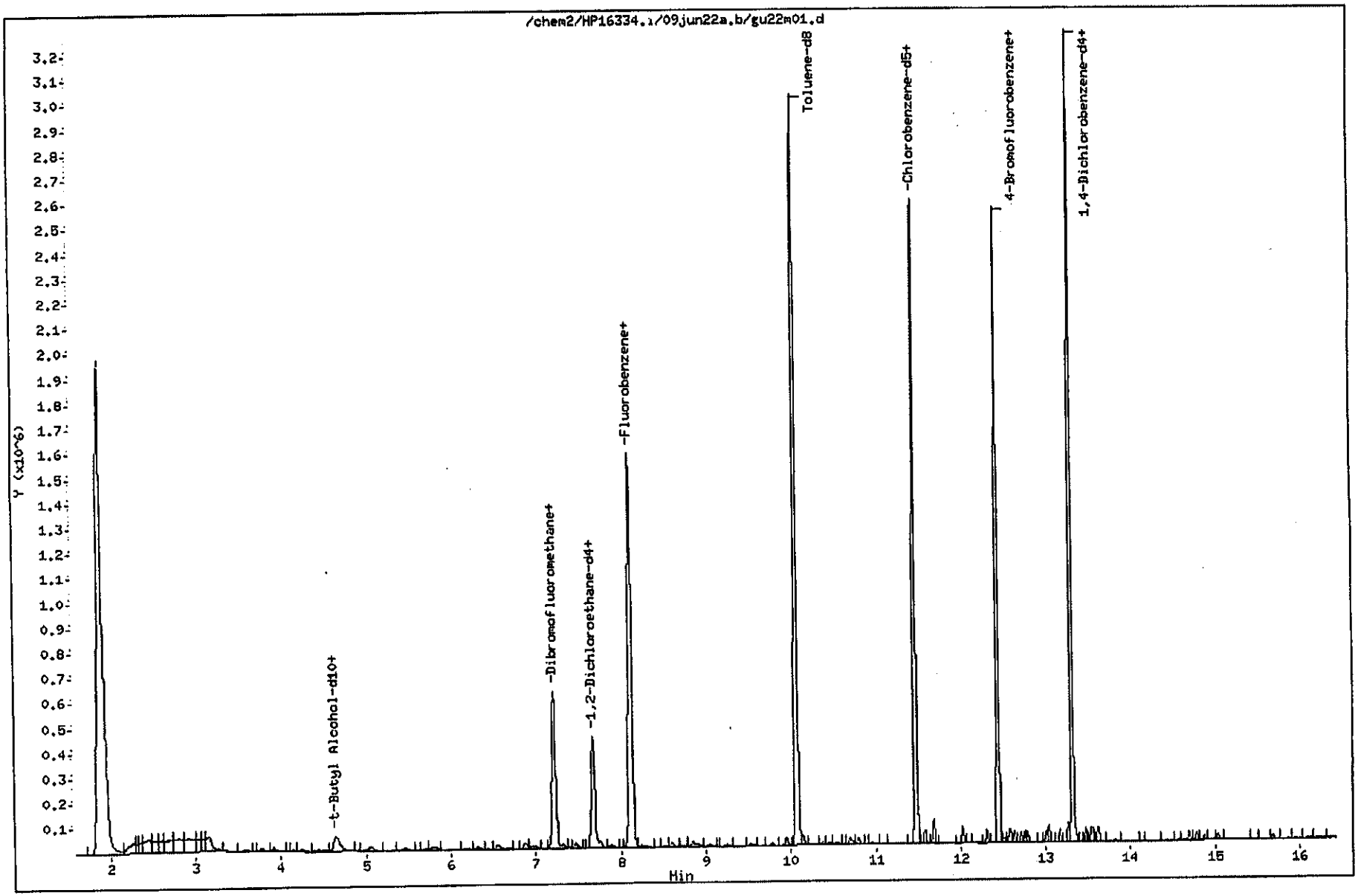
Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22i07.d. generated on 06/22/2009 at 19:52

Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d
Date : 22-JUN-2009 17:48
Client ID: MDL0.1
Sample Info: MDL0.1;MDL0.1;1;3;MDL/LOQ;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JHL01693
Column diameter: 0.25

RADIAN 0176



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:37 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.117	85	9229M	0.117
5) Chloromethane	(1)	2.263	50	10923M	0.063
6) Vinyl Chloride	(1)	2.398	62	9854	0.130
12) Dichlorofluoromethane	(1)	3.154	67	16152M	0.080
14) Trichlorofluoromethane	(1)	3.251	101	10232	0.108
17) Freon 123a	(1)	3.605	67	8539	0.127
22) Acrolein	(4)	3.769	56	23990	5.381
23) 1,1-Dichloroethene	(1)	3.909	96	7765M	0.142
24) Freon 113	(1)	3.922	101	5987	0.102
25) Acetone	(4)	4.001	58	2422	1.283
26) Methyl Iodide	(1)	4.141	142	10385	0.102
28) Carbon Disulfide	(1)	4.245	76	15034	0.097
31) Allyl Chloride	(1)	4.446	41	11586	0.159
32) Methyl Acetate	(1)	4.470	43	4155	0.119
33) Methylene Chloride	(1)	4.641	84	36937	0.107
35)*t-Butyl Alcohol-d10	(4)	4.678	65	92636	50.000
37) t-Butyl Alcohol	(4)	4.812	59	4499	1.864
38) Acrylonitrile	(4)	5.037	53	3888	0.487
40) trans-1,2-Dichloroethene	(1)	5.062	96	7639M	0.124
36) 1,2-Dichloroethene (Total)	(1)		96	15094	0.238
39) Methyl Tertiary Butyl Ether	(1)	5.056	73	13820	0.118
43) n-Hexane	(1)	5.464	57	8678	0.107
44) 1,1-Dichloroethane	(1)	5.702	63	11517	0.120
46) di-Isopropyl Ether	(1)	5.787	45	17075	0.104
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	8365	0.099
48) Ethyl t-Butyl Ether	(1)	6.311	59	14926	0.100
50) 2,2-Dichloropropane	(1)	6.543	77	8692	0.110
49) cis-1,2-Dichloroethene	(1)	6.549	96	7455	0.114
51) 2-Butanone	(4)	6.567	43	12191M	1.225
52) Propionitrile	(4)	6.671	54	5945	2.016
54) Methacrylonitrile	(4)	6.884	67	10890	0.990
55) Bromochloromethane	(1)	6.884	128	2788	0.105
56) Tetrahydrofuran	(4)	6.952	71	3234	1.064
57) Chloroform	(1)	7.000	83	10912	0.109

M = Compound was manually integrated.

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:37 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
62) 1,1,1-Trichloroethane	(1)	7.244	97	9329	0.110
63) Cyclohexane	(1)	7.323	56	12699	0.130
64) 1,1-Dichloropropene	(1)	7.470	75	8416	0.108
65) Carbon Tetrachloride	(1)	7.464	117	7731	0.102
66) Isobutyl Alcohol	(4)	7.634	41	6528	2.257
71) Benzene	(1)	7.750	78	28442	0.118
73) 1,2-Dichloroethane	(1)	7.781	62	5630	0.106
74) t-Amyl Methyl Ether	(1)	7.884	73	13448	0.104
76)*Fluorobenzene	(1)	8.122	96	2122340	10.000
75) n-Heptane	(1)	8.085	43	9912M	0.119
80) n-Butanol	(4)	8.518	56	5800M	8.931
82) Trichloroethene	(1)	8.598	95	6726	0.106
83) Methylcyclohexane	(1)	8.854	83	11786	0.110
84) 1,2-Dichloropropane	(1)	8.902	63	5836	0.106
87) Dibromomethane	(1)	9.061	93	2358	0.096
86) Methyl Methacrylate	(4)	9.043	69	2048	0.097
89) Bromodichloromethane	(1)	9.250	83	6627	0.100
90) 2-Nitropropane	(4)	9.543	41	6075M	1.092
93) cis-1,3-Dichloropropene	(1)	9.780	75	6853	0.090
95) 4-Methyl-2-Pentanone	(1)	9.951	43	24374	0.956
100) Toluene	(2)	10.140	92	19147	0.120
101) trans-1,3-Dichloropropene	(2)	10.372	75	5298	0.087
102) Ethyl Methacrylate	(2)	10.451	69	4053	0.085
103) 1,1,2-Trichloroethane	(2)	10.567	97	3706	0.104
104) Tetrachloroethene	(2)	10.695	166	7547	0.104
105) 1,3-Dichloropropane	(2)	10.725	76	5680	0.095
106) 2-Hexanone	(2)	10.798	43	16047MA	0.917
107) Dibromochloromethane	(2)	10.951	129	3656	0.083
108) 1,2-Dibromoethane	(2)	11.060	107	3242	0.095
109)*Chlorobenzene-d5	(2)	11.475	117	1535568	10.000
111) Chlorobenzene	(2)	11.499	112	19565	0.112
112) 1,1,1,2-Tetrachloroethane	(2)	11.566	131	5074	0.089
113) Ethylbenzene	(2)	11.585	91	34401	0.113
116) m+p-Xylene	(2)	11.682	106	26787	0.217

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:37 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
114) Xylene (Total)	(2)		106	39434	0.323
117) o-Xylene	(2)	12.018	106	12647	0.106
118) Styrene	(2)	12.030	104	16545	0.088
119) Bromoform	(2)	12.201	173	1799	0.078
120) Isopropylbenzene	(2)	12.310	105	32977M	0.111
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	3756M	0.096
128) Bromobenzene	(3)	12.572	156	6918	0.099
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	6758	0.786
130) 1,2,3-Trichloropropane	(3)	12.591	110	906	0.080
131) n-Propylbenzene	(3)	12.633	91	35987	0.101
132) 2-Chlorotoluene	(3)	12.713	126	7312	0.099
134) 4-Chlorotoluene	(3)	12.792	126	7549	0.100
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	25245	0.099
137) Pentachloroethane	(3)	13.042	167	3536	0.083
136) tert-Butylbenzene	(3)	13.011	134	5385M	0.095
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	24840	0.093
139) sec-Butylbenzene	(3)	13.170	105	32468	0.097
141) 1,3-Dichlorobenzene	(3)	13.273	146	14479	0.097
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	831416	10.000
140) p-Isopropyltoluene	(3)	13.267	119	26535M	0.091
143) 1,4-Dichlorobenzene	(3)	13.334	146	15358	0.103
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	11689M	0.102
145) Benzyl Chloride	(3)	13.432	126	1126	0.066
146) n-Butylbenzene	(3)	13.560	92	14104	0.095
147) 1,2-Dichlorobenzene	(3)	13.609	146	12440	0.098
149) 1,2-Dibromo-3-Chloropropane	(4)	14.151	155	322	0.061
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	9854	0.100
153) Hexachlorobutadiene	(3)	14.785	225	5398	0.104
154) Naphthalene	(3)	14.877	128	12940	0.092
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	8021	0.100
60)$Dibromofluoromethane	(1)	7.220	113	551389	10.174
69)$1,2-Dichloroethane-d4	(1)	7.677	102	98960	10.162
96)$Toluene-d8	(2)	10.073	98	2385217	10.304
125)$4-Bromofluorobenzene	(2)	12.444	95	795231	9.971

M = Compound was manually integrated.

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:37 sew02002

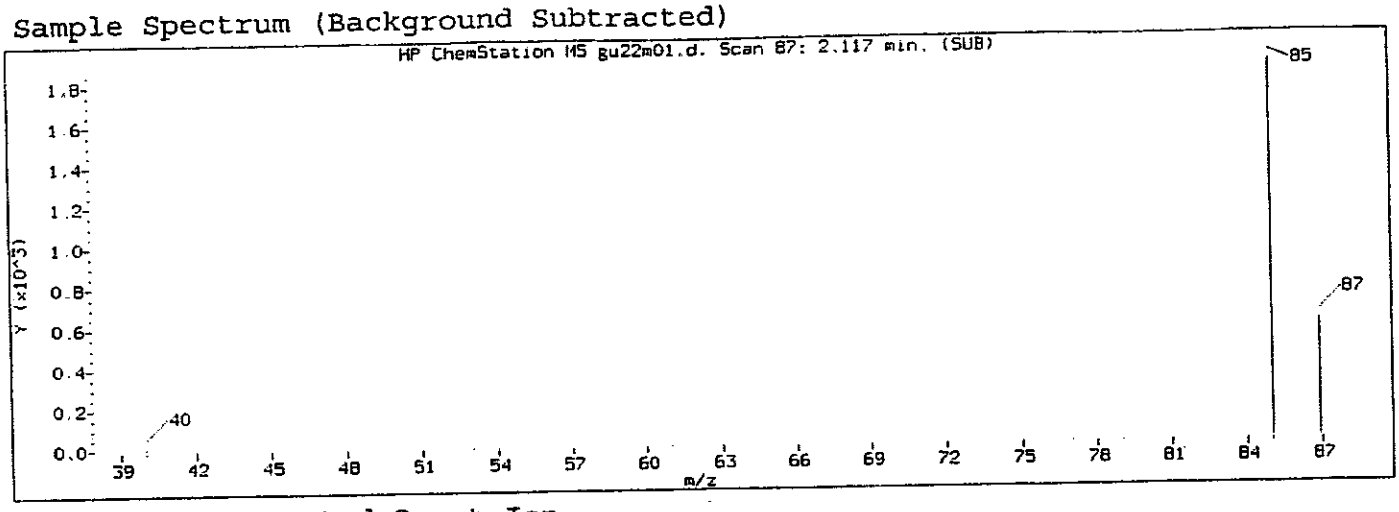
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)

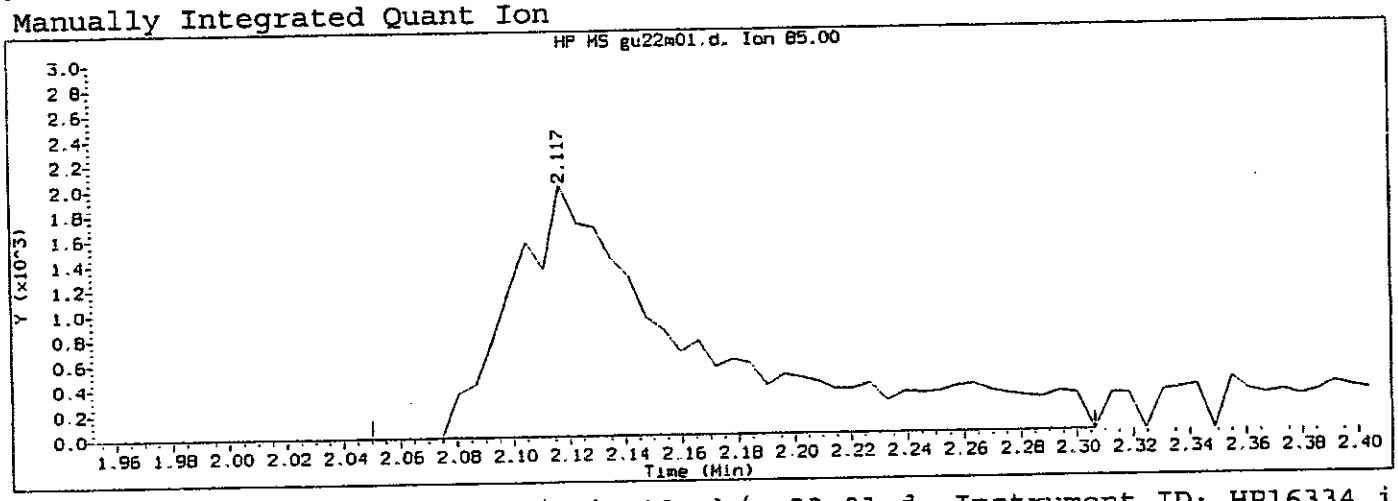
M = Compound was manually integrated.

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	2
Compound Name	:	Dichlorodifluoromethane
Scan Number	:	87
Retention Time (minutes)	:	2.117
Quant Ion	:	85
Area (flag)	:	9229 M
Concentration (ug/L)	:	0.1167
Integration start scan	:	75 Integration stop scan: 117
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

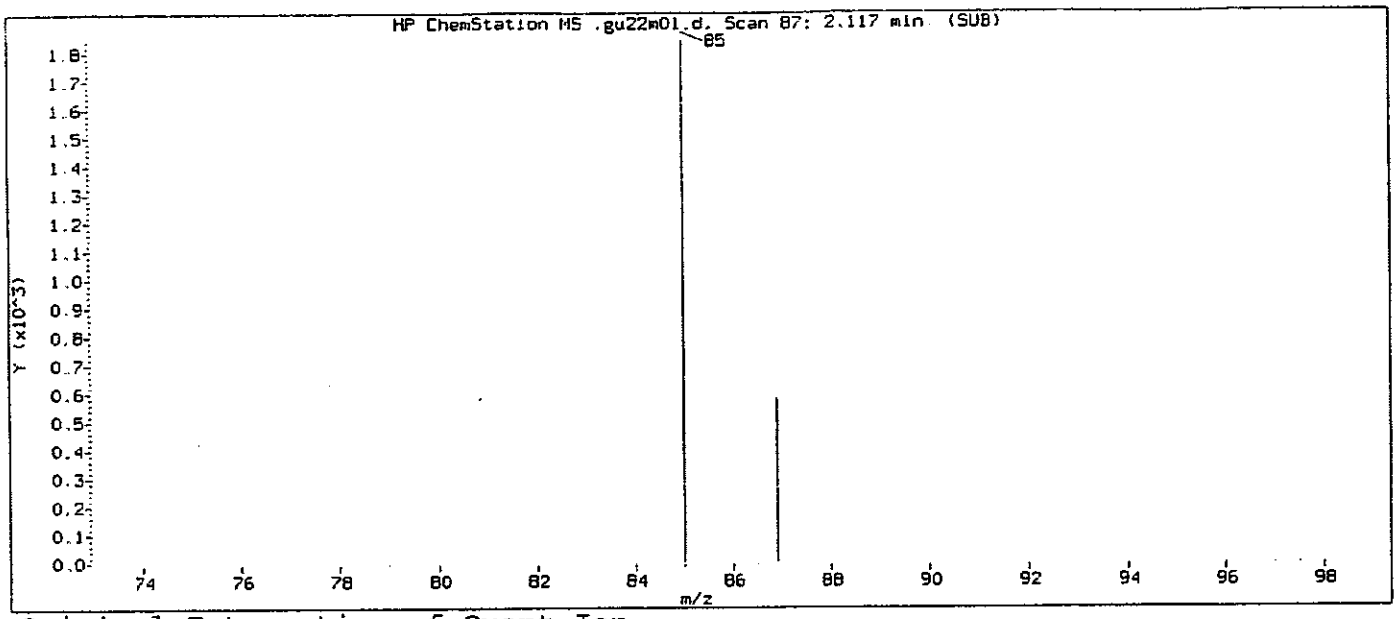
Analyst responsible for change: sew002 6/22/09

GC/MS audit/management approval: 6/23/09

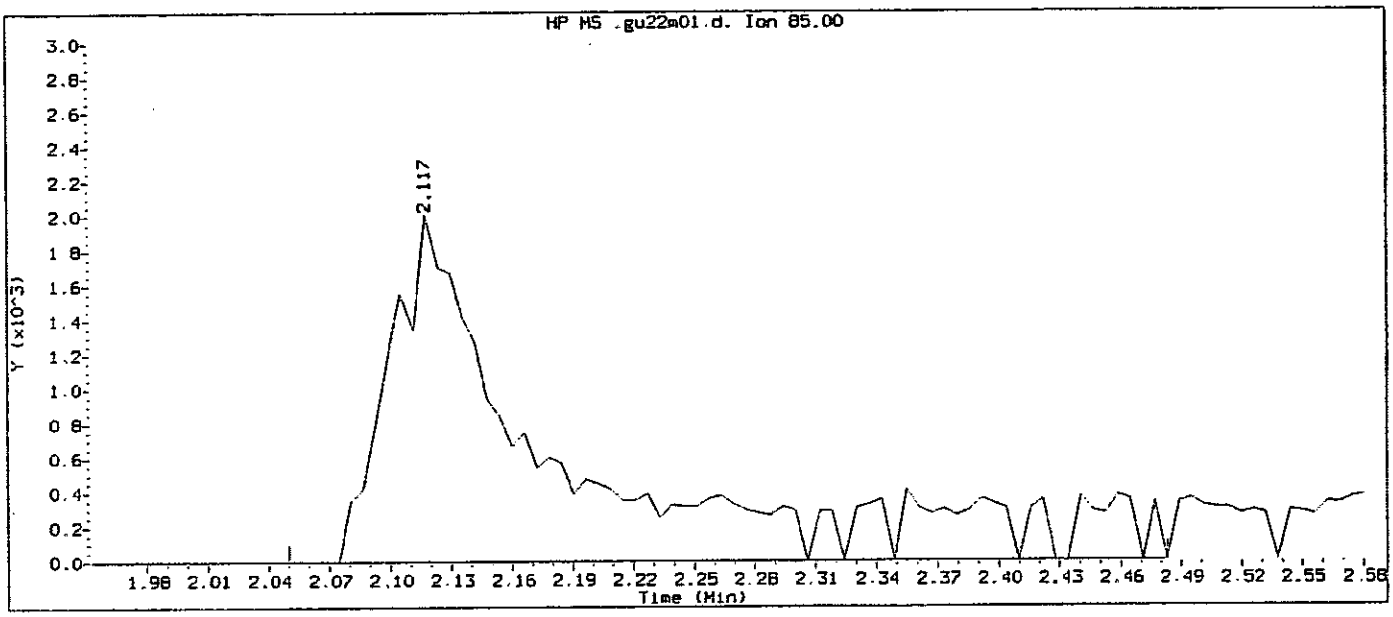
RAD19 8181

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

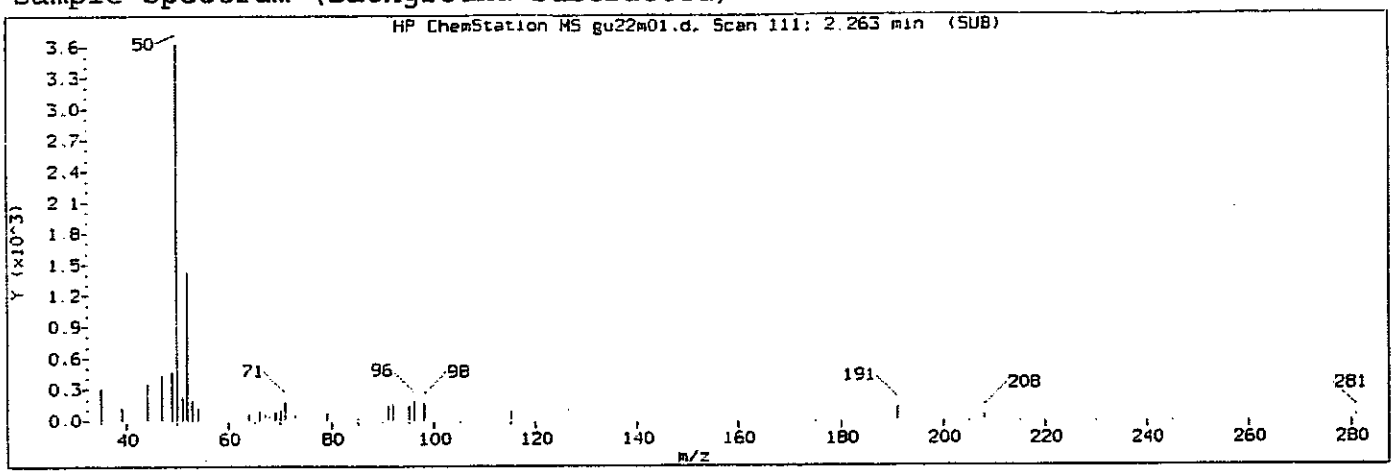
Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

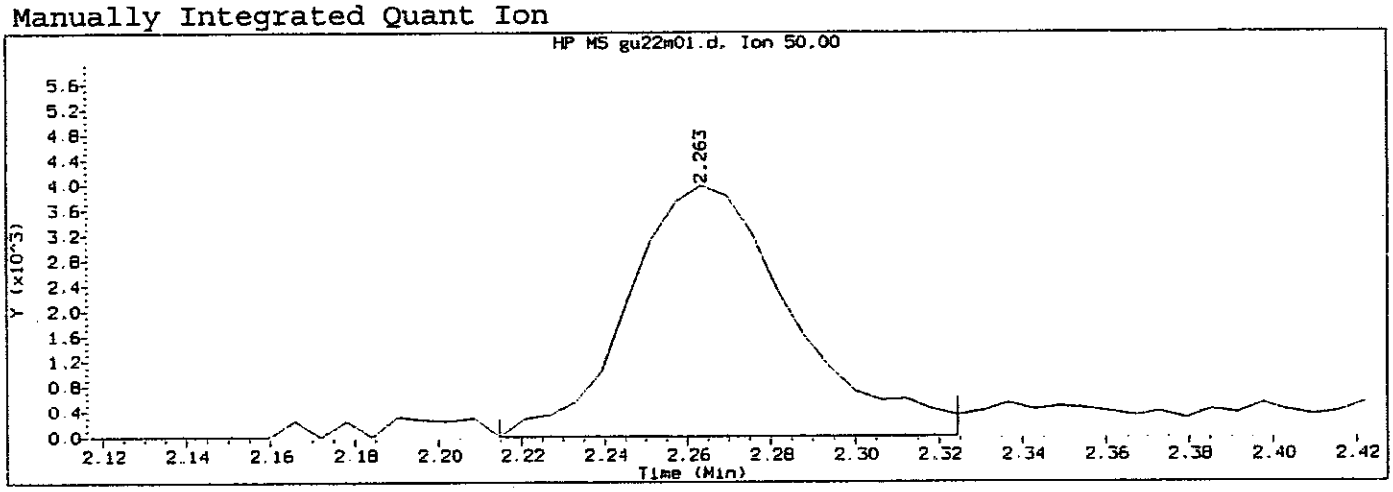
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 87
Retention Time (minutes): 2.117
Quant Ion : 85
Area : 11819
Concentration (ug/L) : 0.1526
Integration start scan : 75 Integration stop scan: 146 RAD19 8182
Y at integration start : 0 Y at integration end: 0

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01 d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 5
Compound Name : Chloromethane
Scan Number : 111
Retention Time (minutes): 2.263
Quant Ion : 50
Area (flag) : 10923 M
Concentration (ug/L) : 0.0631
Integration start scan : 102 Integration stop scan: 120
Y at integration start : 0 Y at integration end: 0

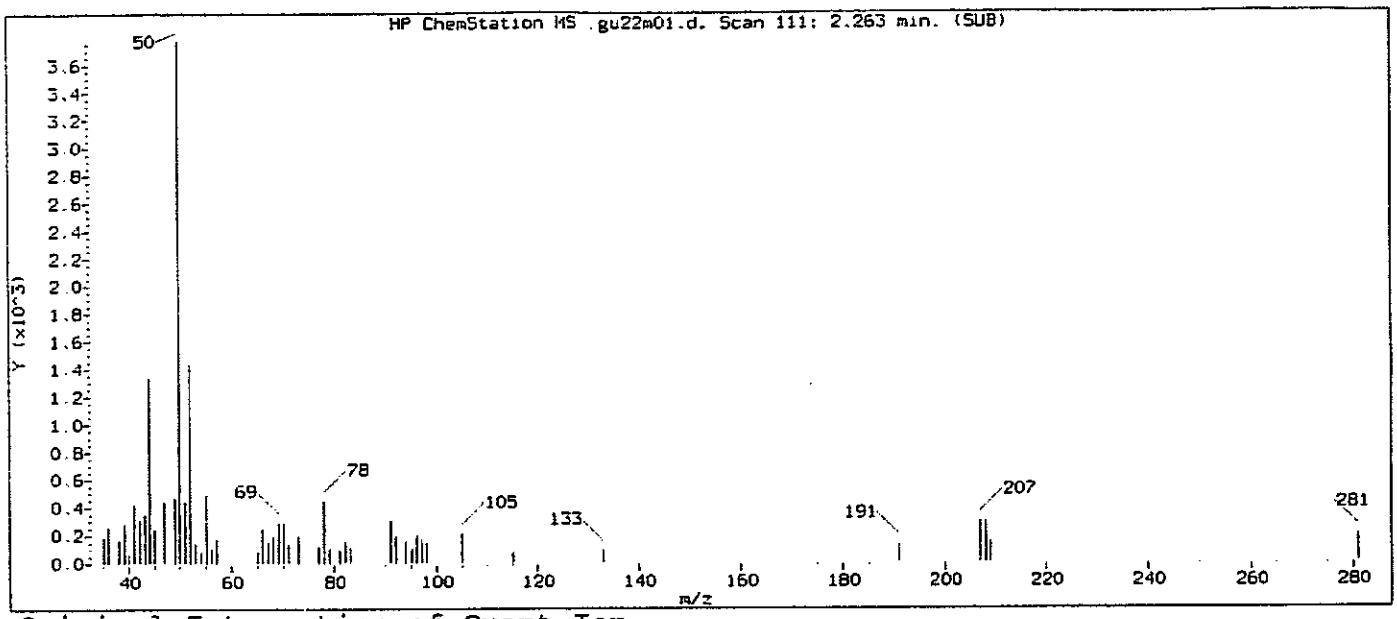
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

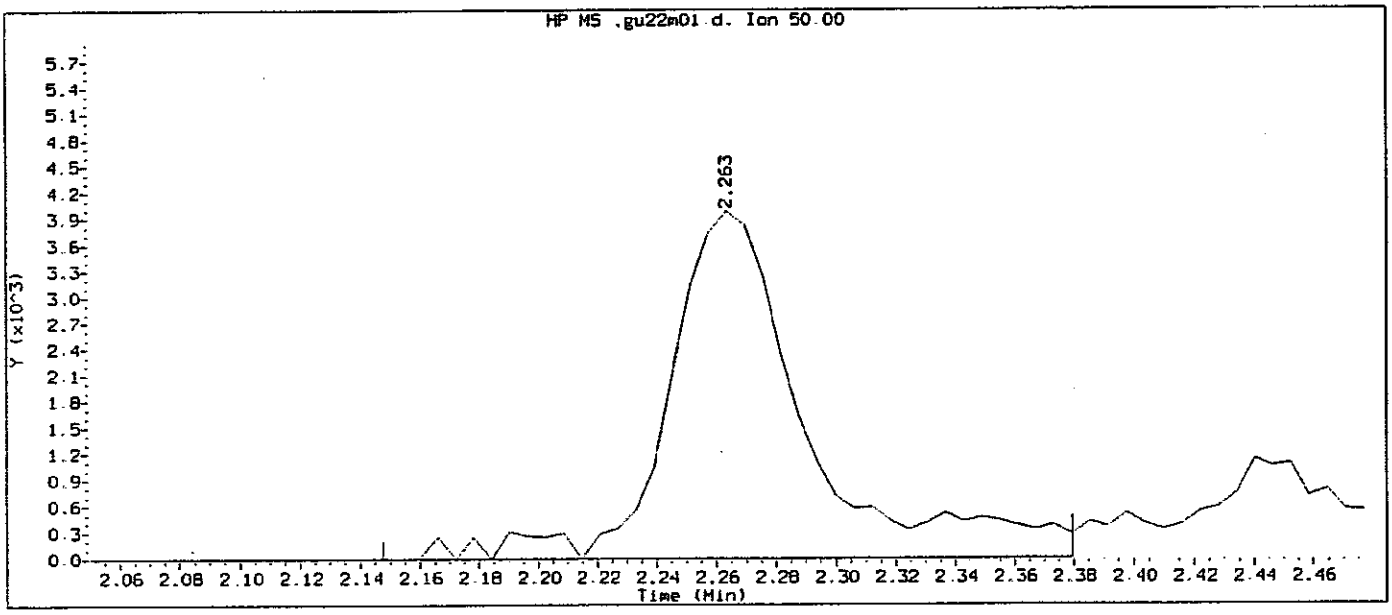
GC/MS audit/management approval: [signature] 6/23/09

RAD19 8183

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

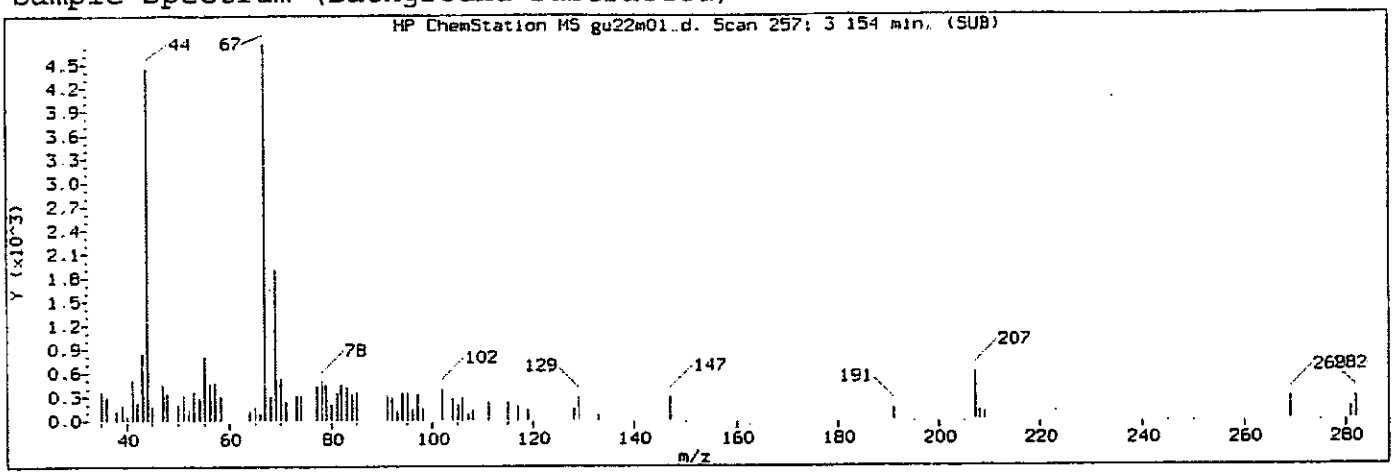
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 5
Compound Name : Chloromethane
Scan Number : 111
Retention Time (minutes): 2.263
Quant Ion : 50
Area : 12793
Concentration (ug/L) : 0.1879
Integration start scan : 91 Integration stop scan: 129
Y at integration start : 0 Y at integration end: 0

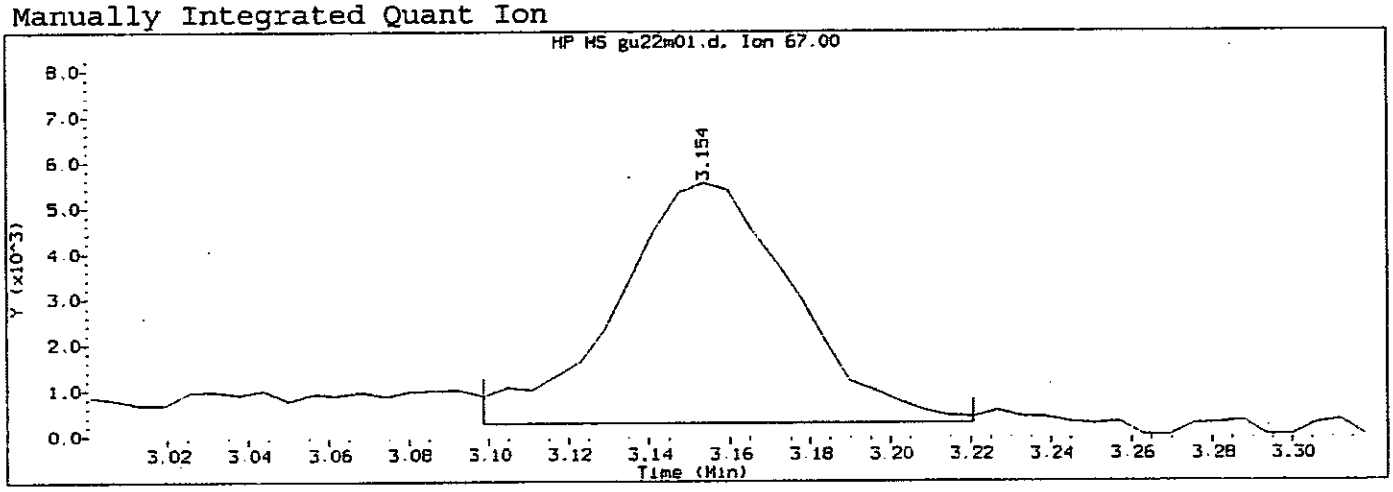
RAD19 0184

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	12
Compound Name	:	Dichlorofluoromethane
Scan Number	:	257
Retention Time (minutes)	:	3.154
Quant Ion	:	67
Area (flag)	:	16152 M
Concentration (ug/L)	:	0.0795
Integration start scan	:	247 Integration stop scan: 267
Y at integration start	:	271 Y at integration end: 271

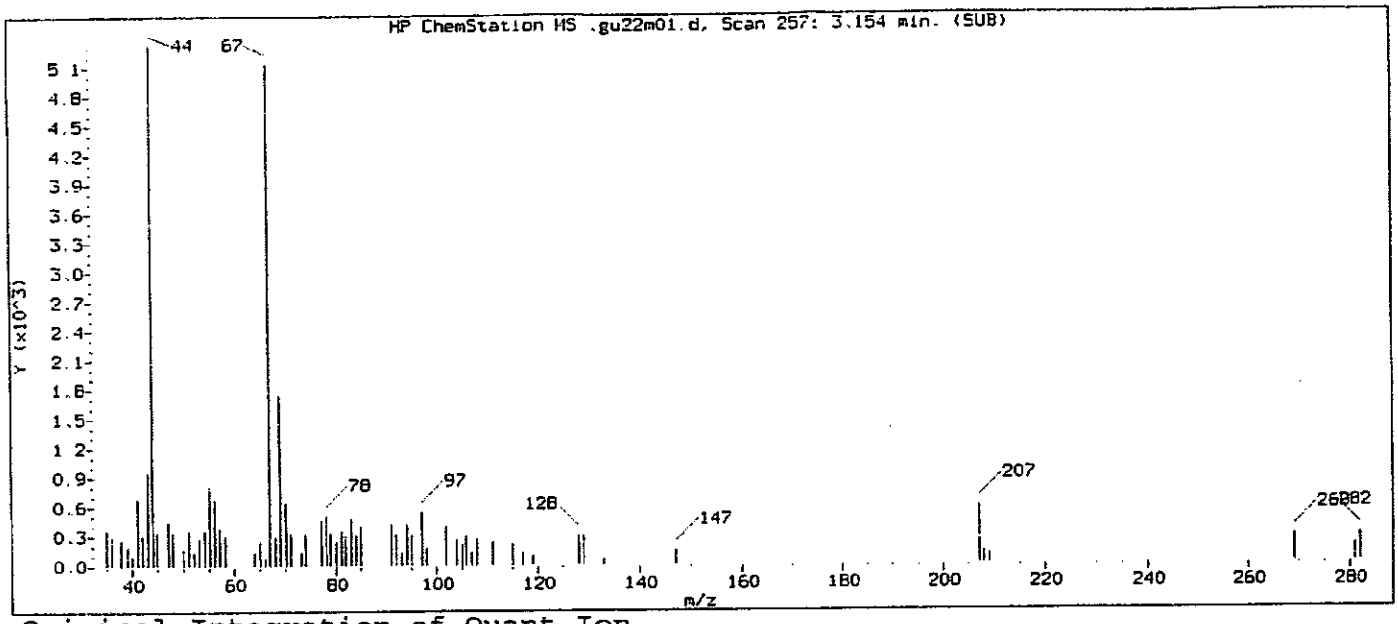
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

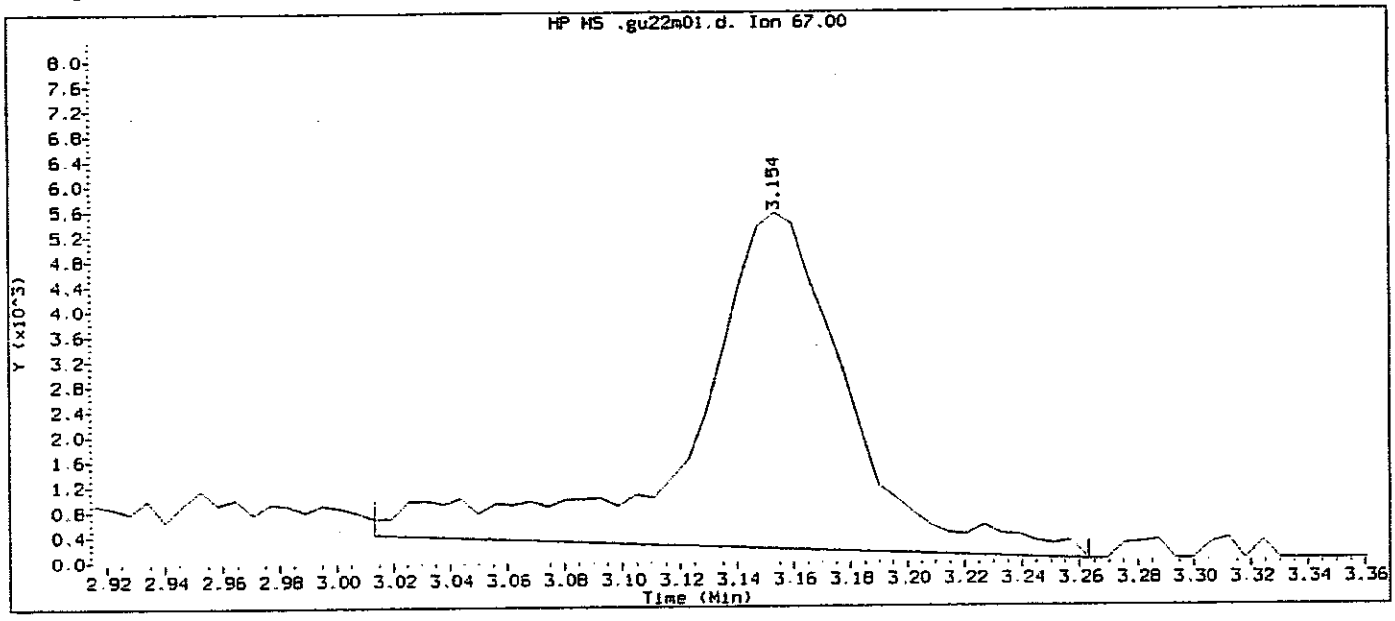
GC/MS audit/management approval: [signature] 6-23-09

RAD19 0185

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

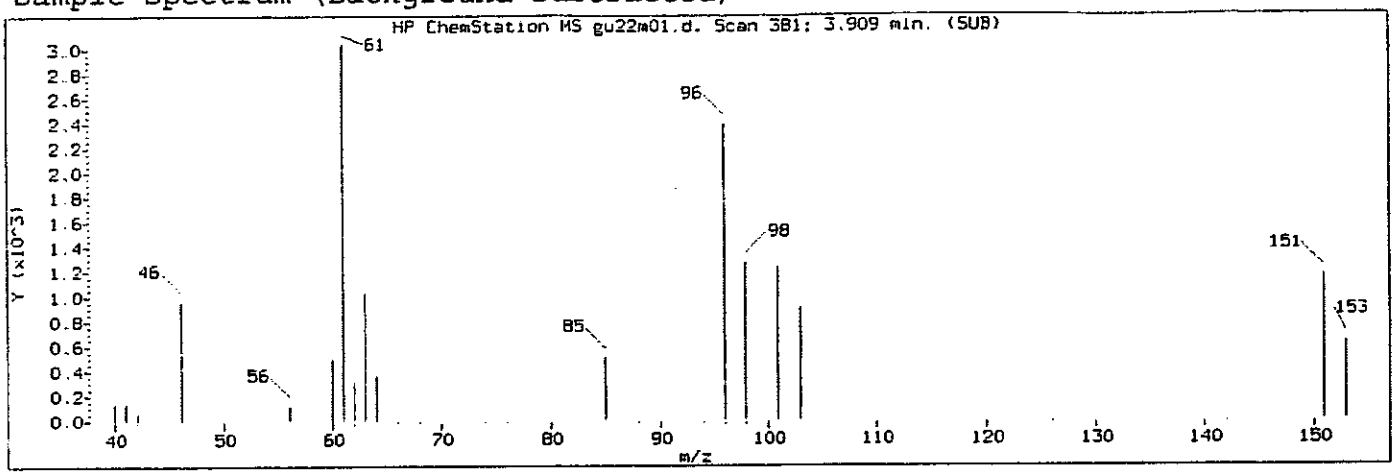
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	12
Compound Name	:	Dichlorofluoromethane
Scan Number	:	257
Retention Time (minutes)	:	3.154
Quant Ion	:	67
Area	:	20285
Concentration (ug/L)	:	0.1809
Integration start scan	:	233 Integration stop scan: 274
Y at integration start	:	433 Y at integration end: 0

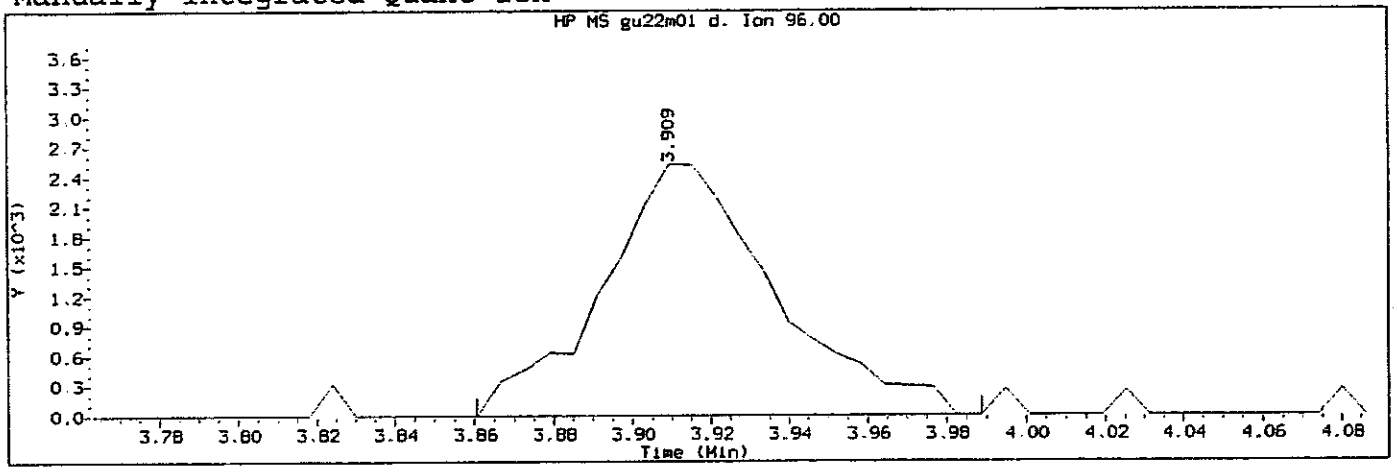
RAD19 0186

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01 d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 23
Compound Name : 1,1-Dichloroethene
Scan Number : 381
Retention Time (minutes): 3.909
Quant Ion : 96
Area (flag) : 7765 M
Concentration (ug/L) : 0.1423
Integration start scan : 372 Integration stop scan: 393
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

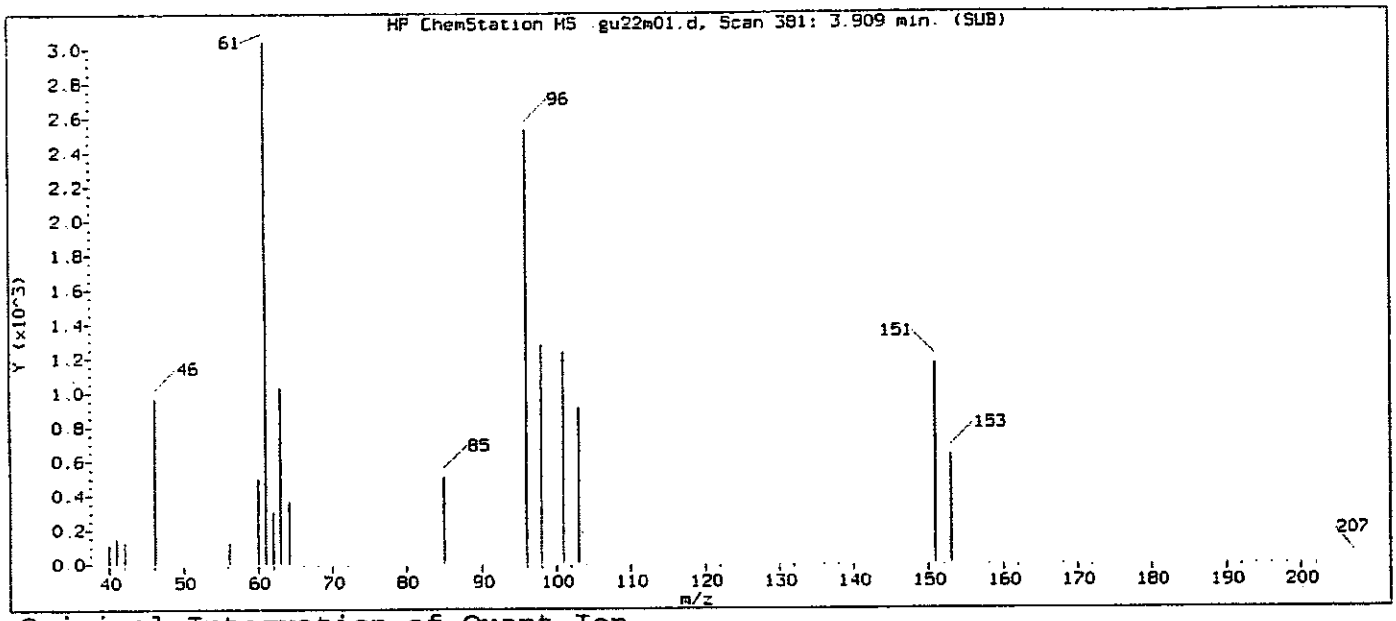
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09

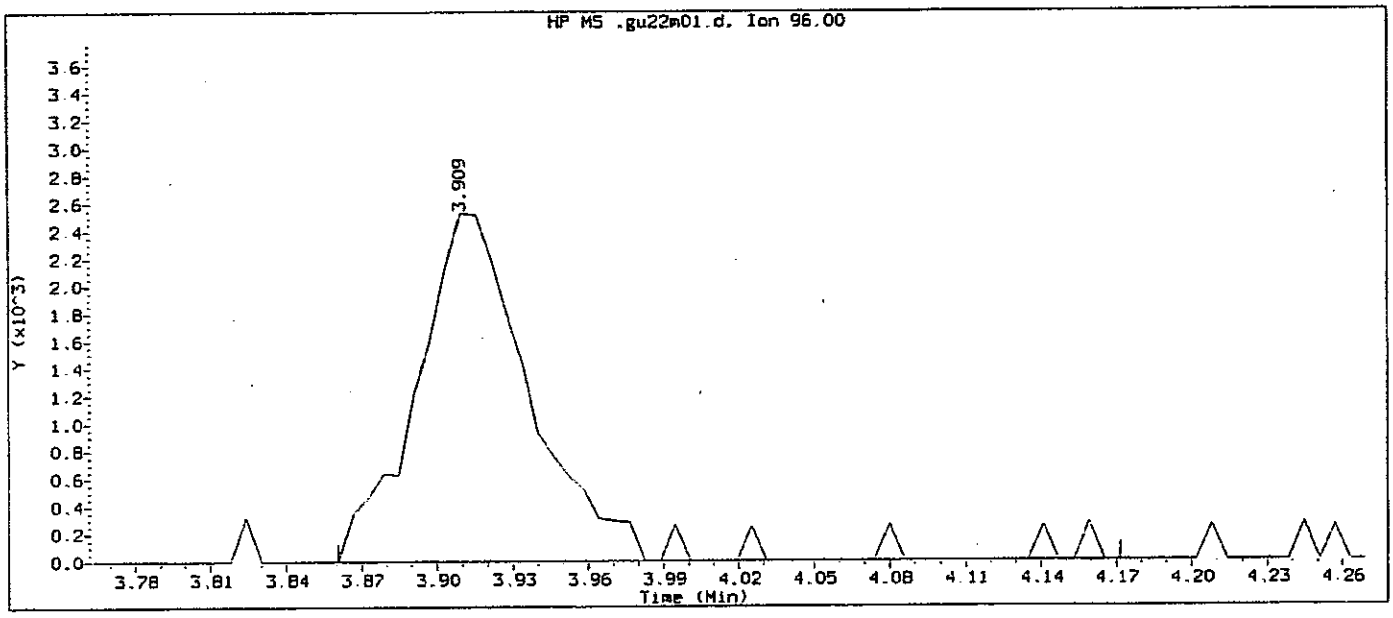
RAD19 0187

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

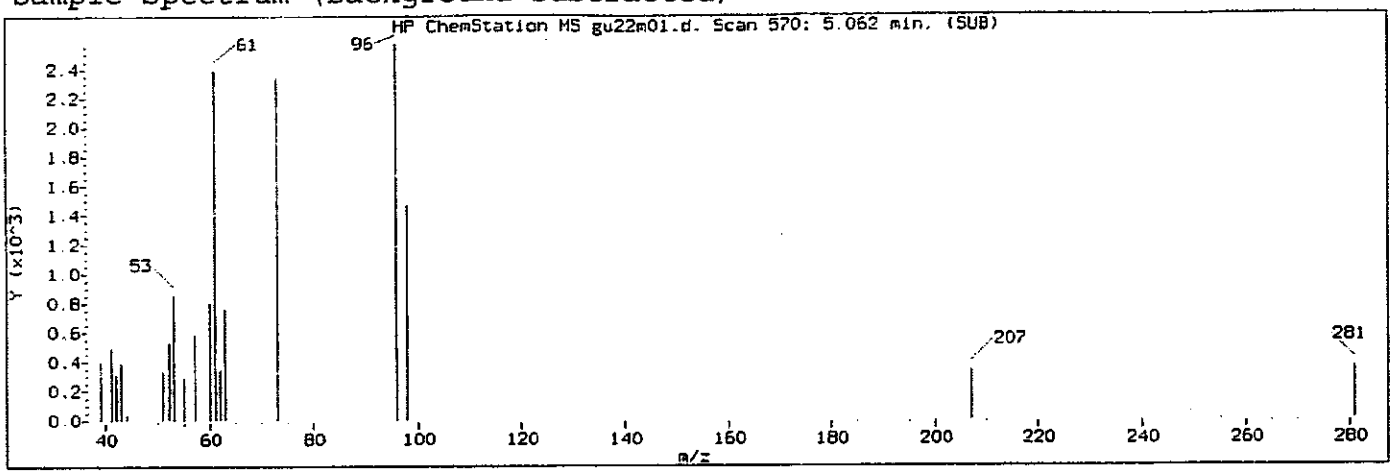
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 23
Compound Name : 1,1-Dichloroethene
Scan Number : 381
Retention Time (minutes): 3.909
Quant Ion : 96
Area : 8245
Concentration (ug/L) : 0.1558
Integration start scan : 372 Integration stop scan: 423
Y at integration start : 0 Y at integration end: 0

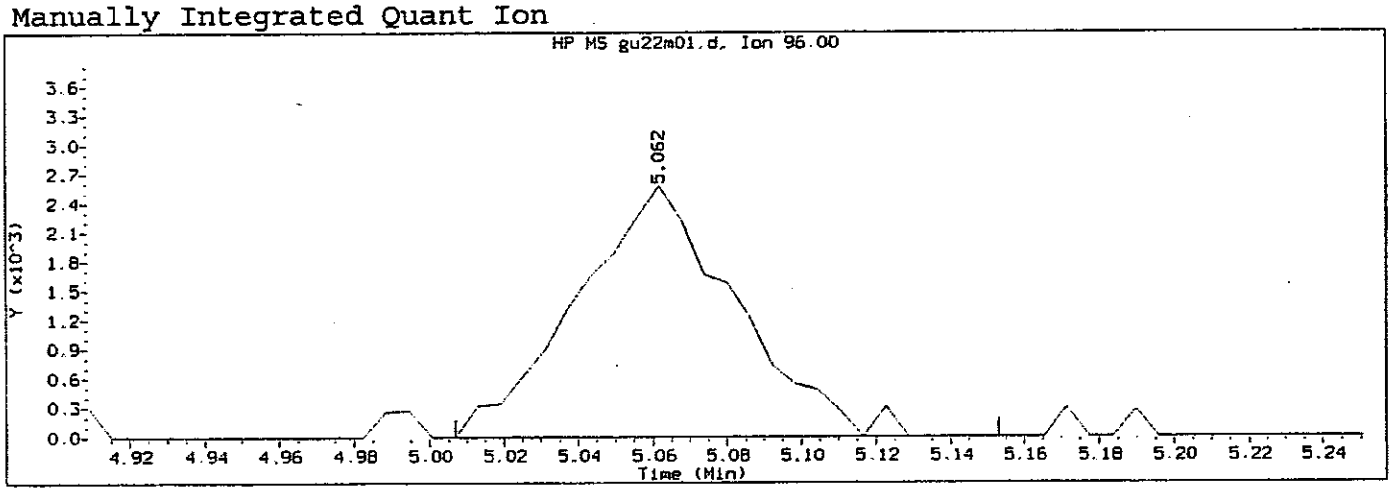
RAD19 0188

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	40
Compound Name	:	trans-1,2-Dichloroethene
Scan Number	:	570
Retention Time (minutes)	:	5.062
Quant Ion	:	96
Area (flag)	:	7639 M
Concentration (ug/L)	:	0.1243
Integration start scan	:	560 Integration stop scan: 584
Y at integration start	:	0 Y at integration end: 0

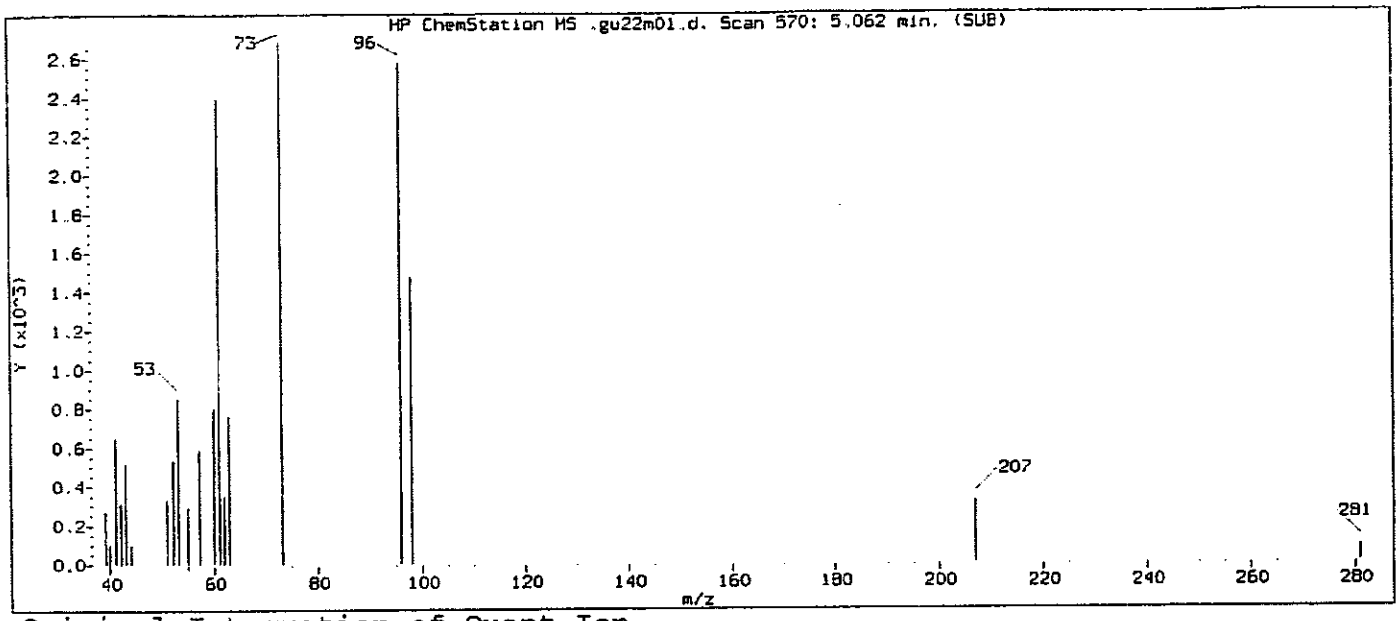
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

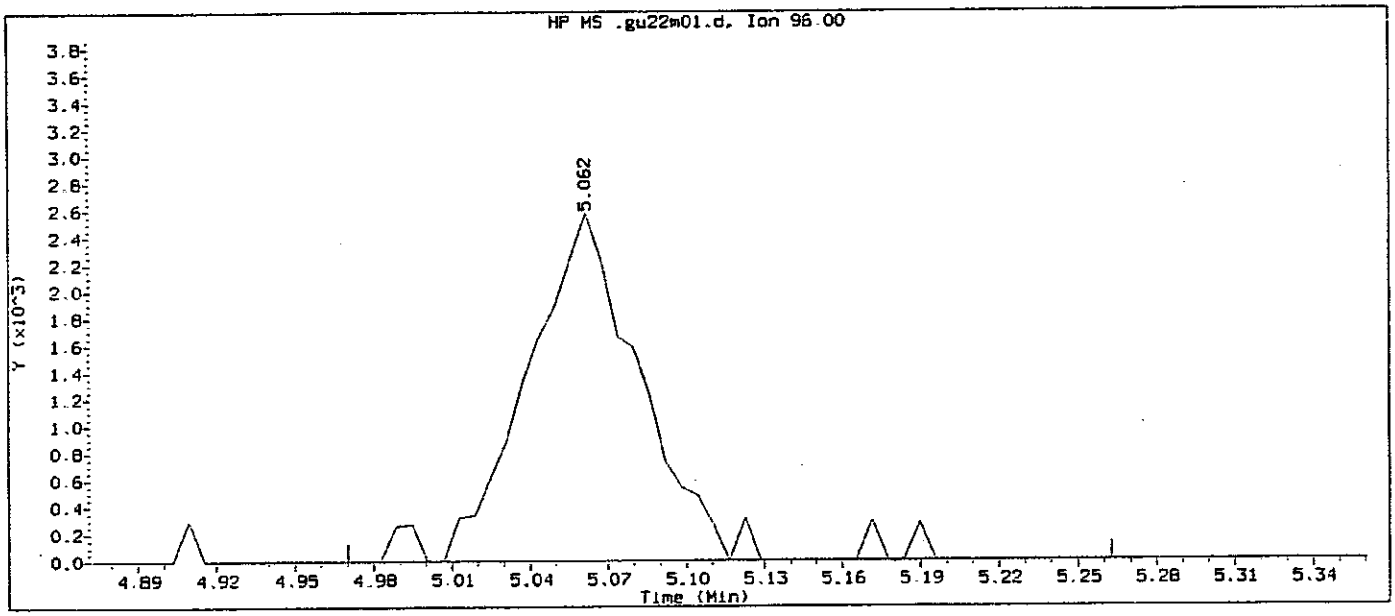
GC/MS audit/management approval: [signature] 6/23/09 RAD19 8189

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

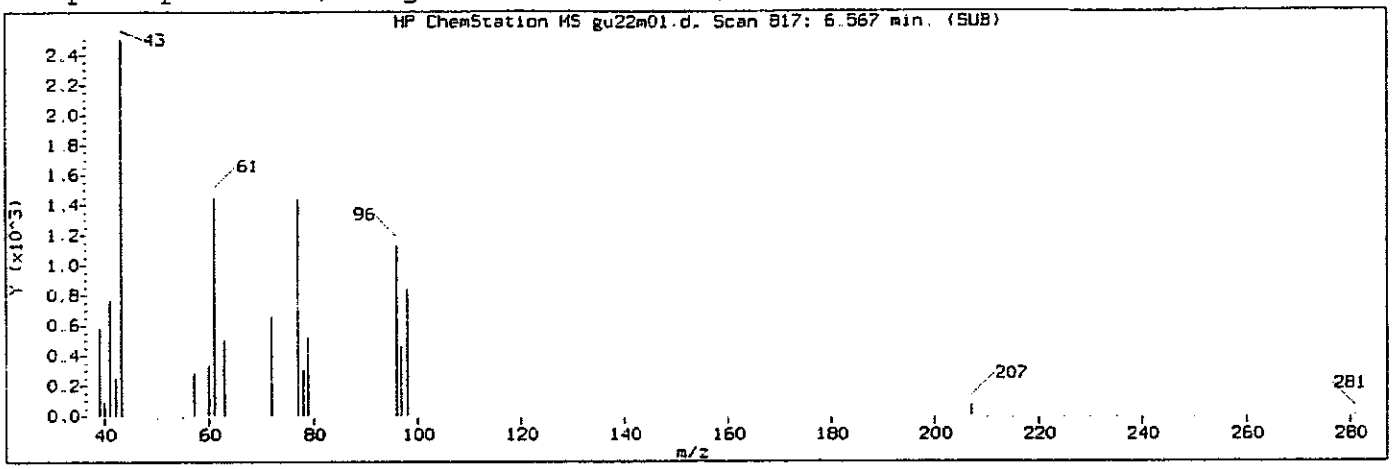
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 40
Compound Name : trans-1,2-Dichloroethene
Scan Number : 570
Retention Time (minutes): 5.062
Quant Ion : 96
Area : 8044
Concentration (ug/L) : 0.1336
Integration start scan : 554 Integration stop scan: 602
Y at integration start : 0 Y at integration end: 0

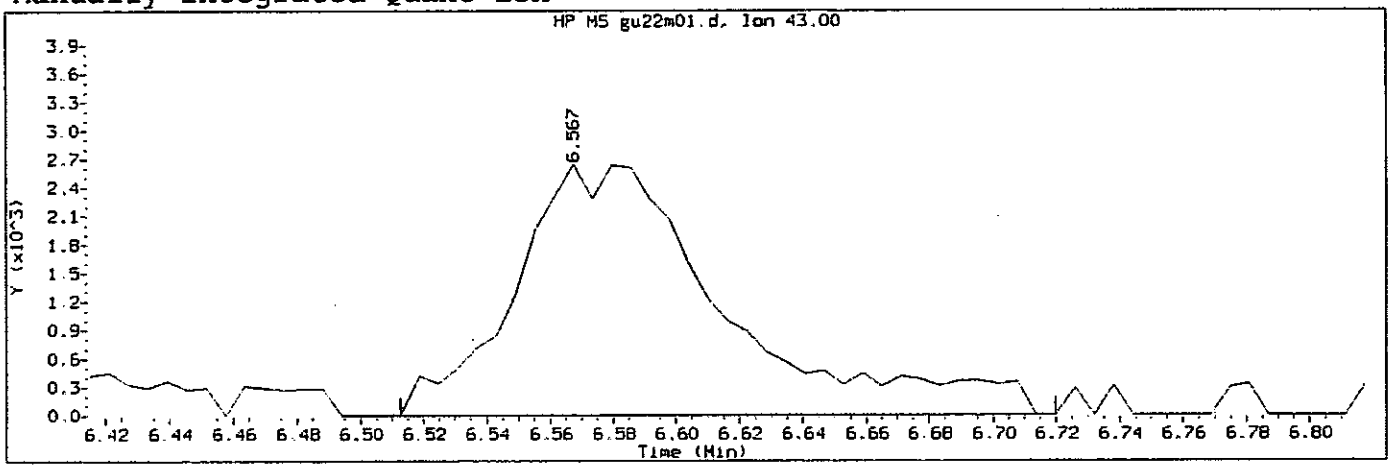
RAD19 0198

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 51
Compound Name : 2-Butanone
Scan Number : 817
Retention Time (minutes): 6.567
Quant Ion : 43
Area (flag) : 12191 M
Concentration (ug/L) : 1.2250
Integration start scan : 807 Integration stop scan: 841
Y at integration start : 0 Y at integration end: 0

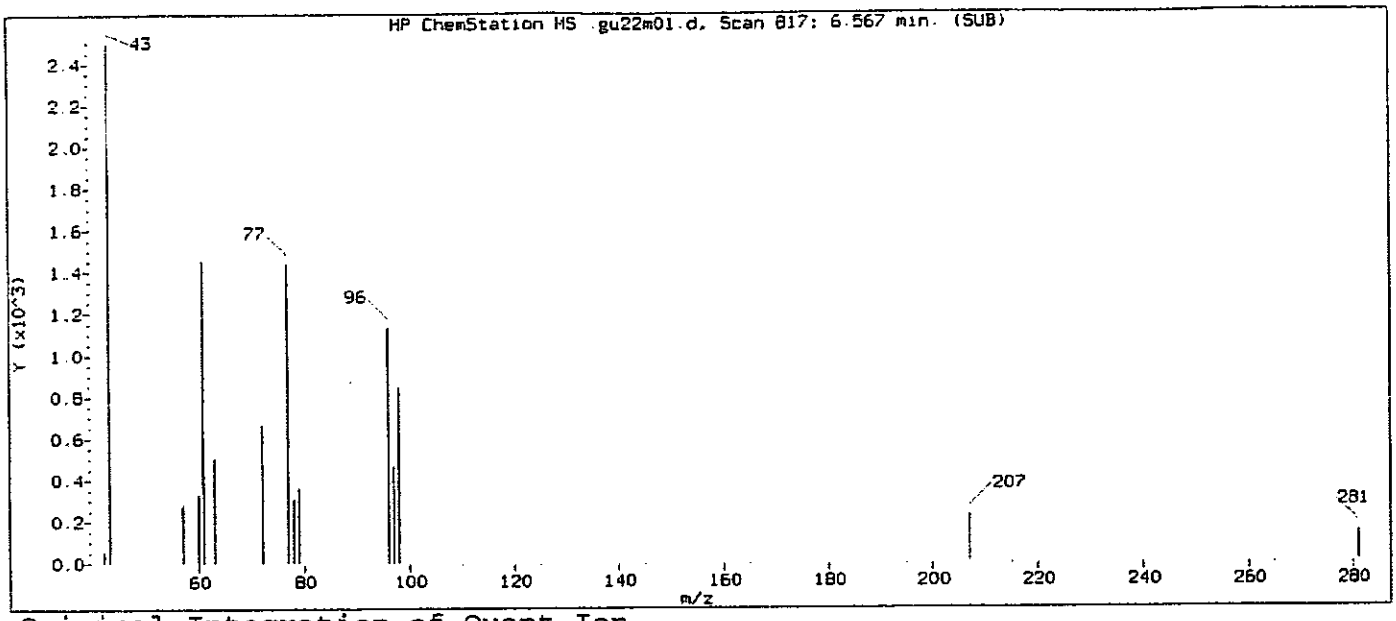
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

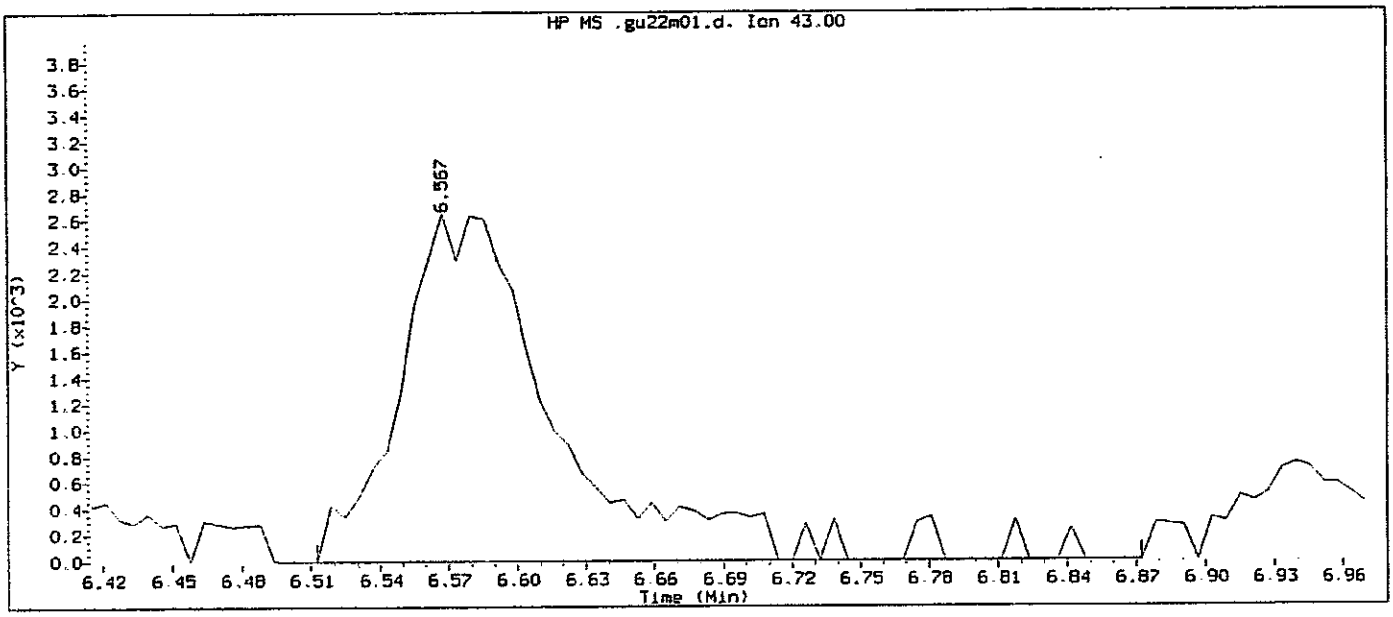
GC/MS audit/management approval: [signature] 6-23-09

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

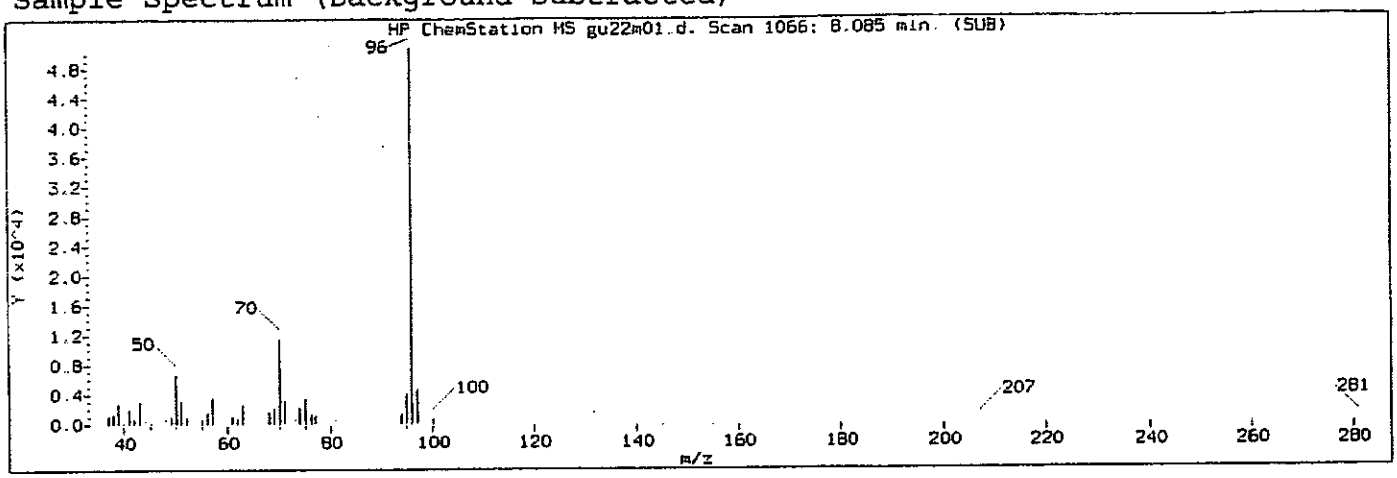
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	51
Compound Name	:	2-Butanone
Scan Number	:	817
Retention Time (minutes)	:	6.567
Quant Ion	:	43
Area	:	12846
Concentration (ug/L)	:	1.3228
Integration start scan	:	807 Integration stop scan: 866
Y at integration start	:	0 Y at integration end: 0

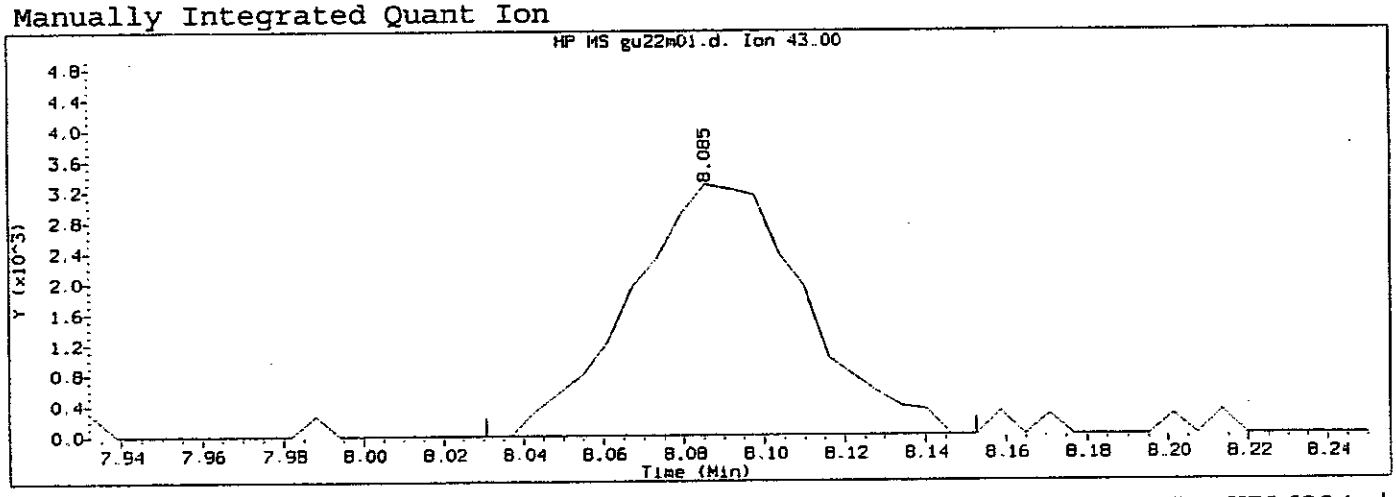
RAD19 8192

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 75
Compound Name : n-Heptane
Scan Number : 1066
Retention Time (minutes): 8.085
Quant Ion : 43
Area (flag) : 9912 M
Concentration (ug/L) : 0.1191
Integration start scan : 1056 Integration stop scan: 1076
Y at integration start : 0 Y at integration end: 0

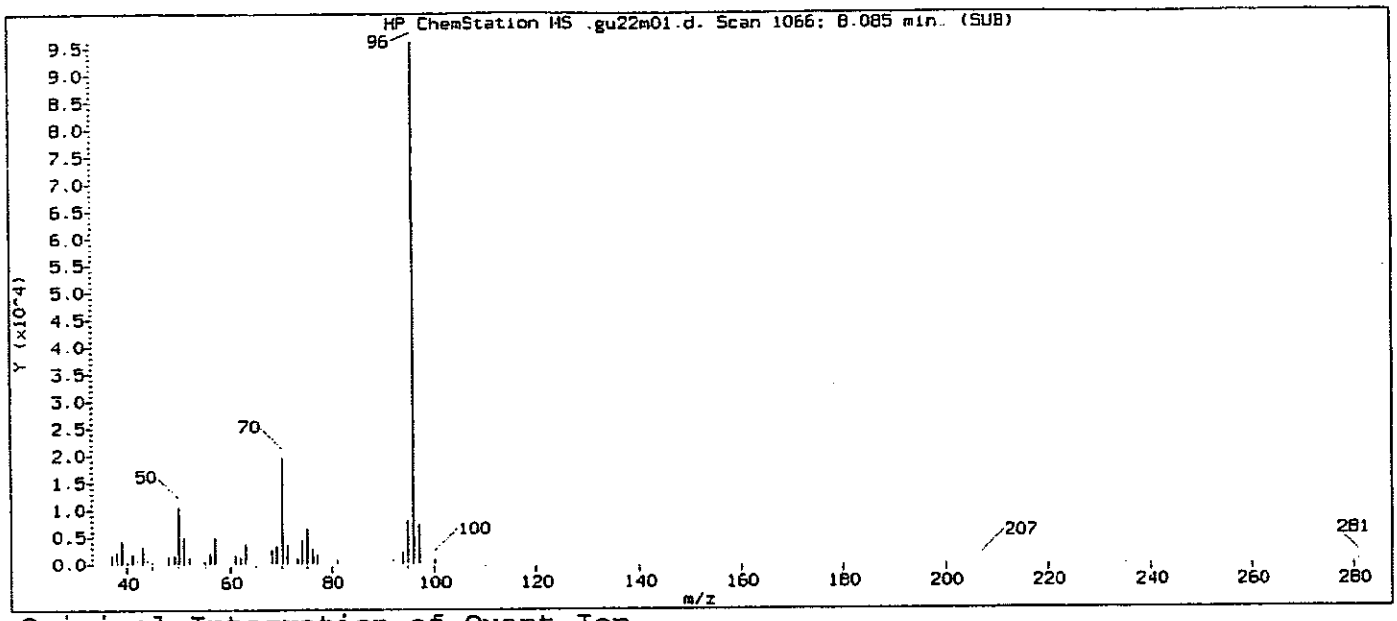
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: _____ 6/22/09

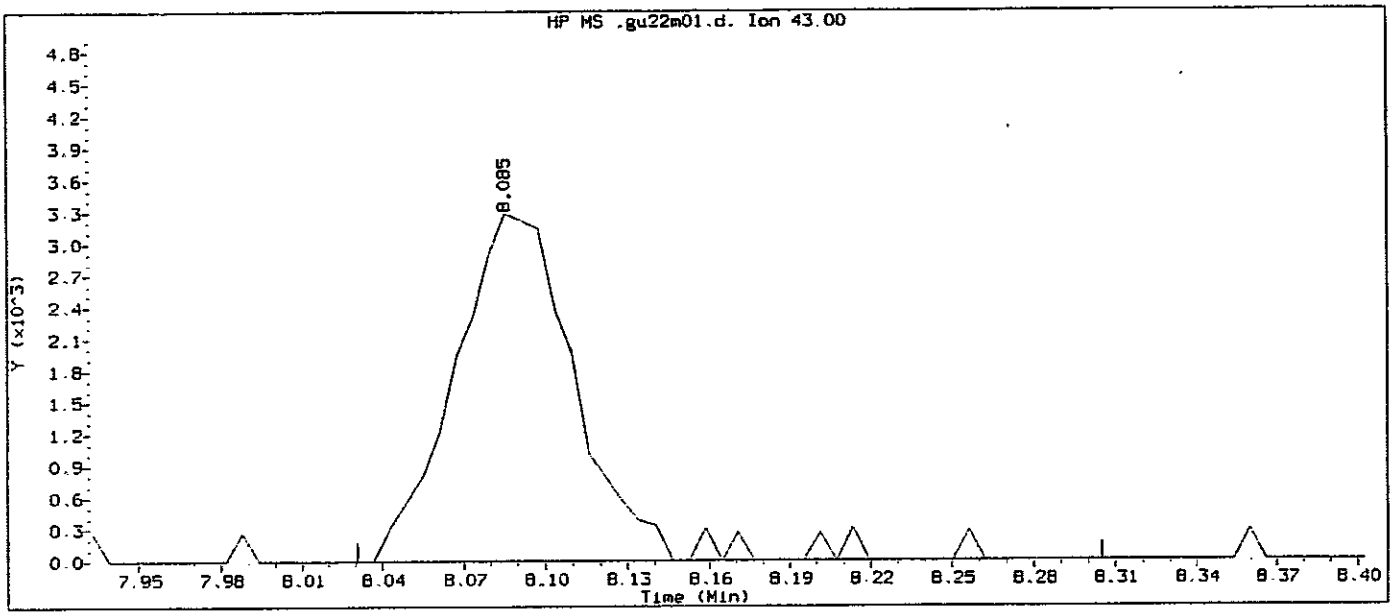
GC/MS audit/management approval: _____ 6-23-09

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

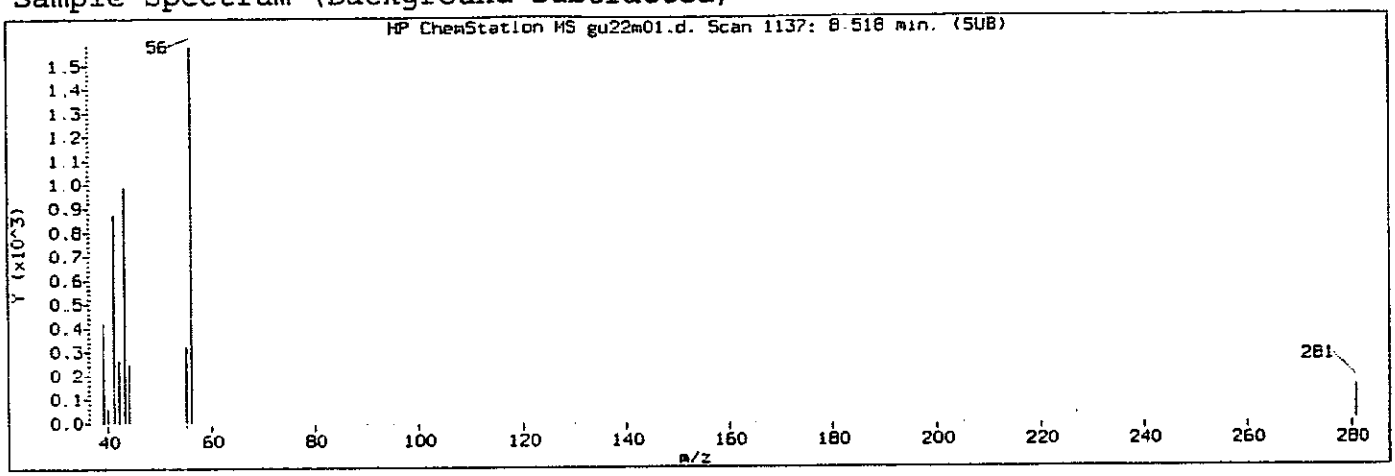
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	75
Compound Name	:	n-Heptane
Scan Number	:	1066
Retention Time (minutes)	:	8.085
Quant Ion	:	43
Area	:	10436
Concentration (ug/L)	:	0.1274
Integration start scan	:	1056 Integration stop scan: 1101
Y at integration start	:	0 Y at integration end: 0

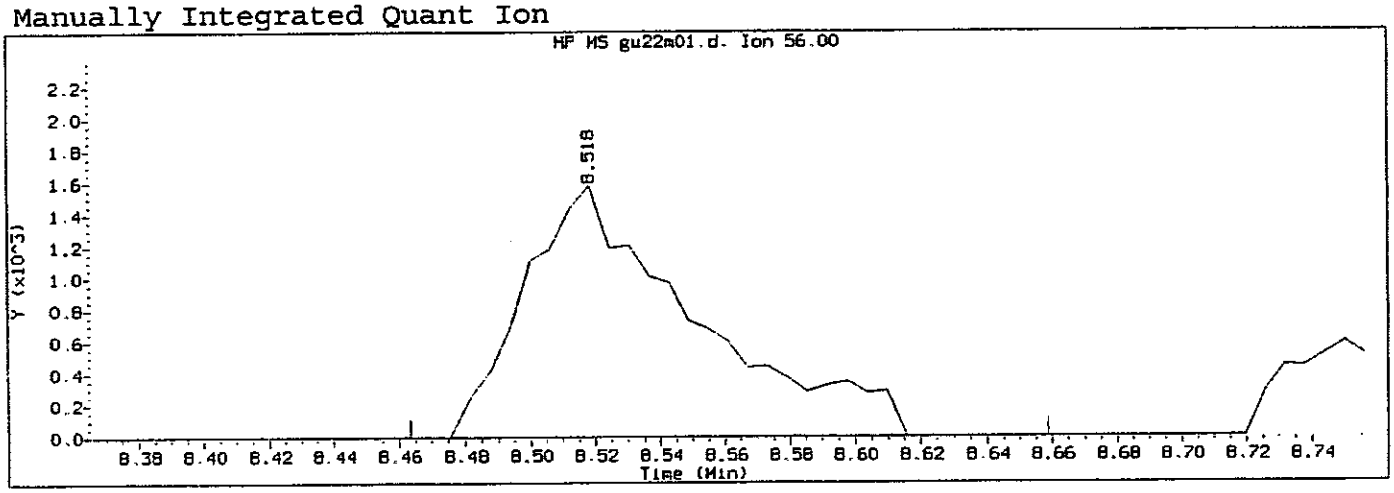
RAD19 8194

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 80
Compound Name : n-Butanol
Scan Number : 1137
Retention Time (minutes) : 8.518
Quant Ion : 56
Area (flag) : 5800 M
Concentration (ug/L) : 8.9322
Integration start scan : 1127 Integration stop scan: 1159
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

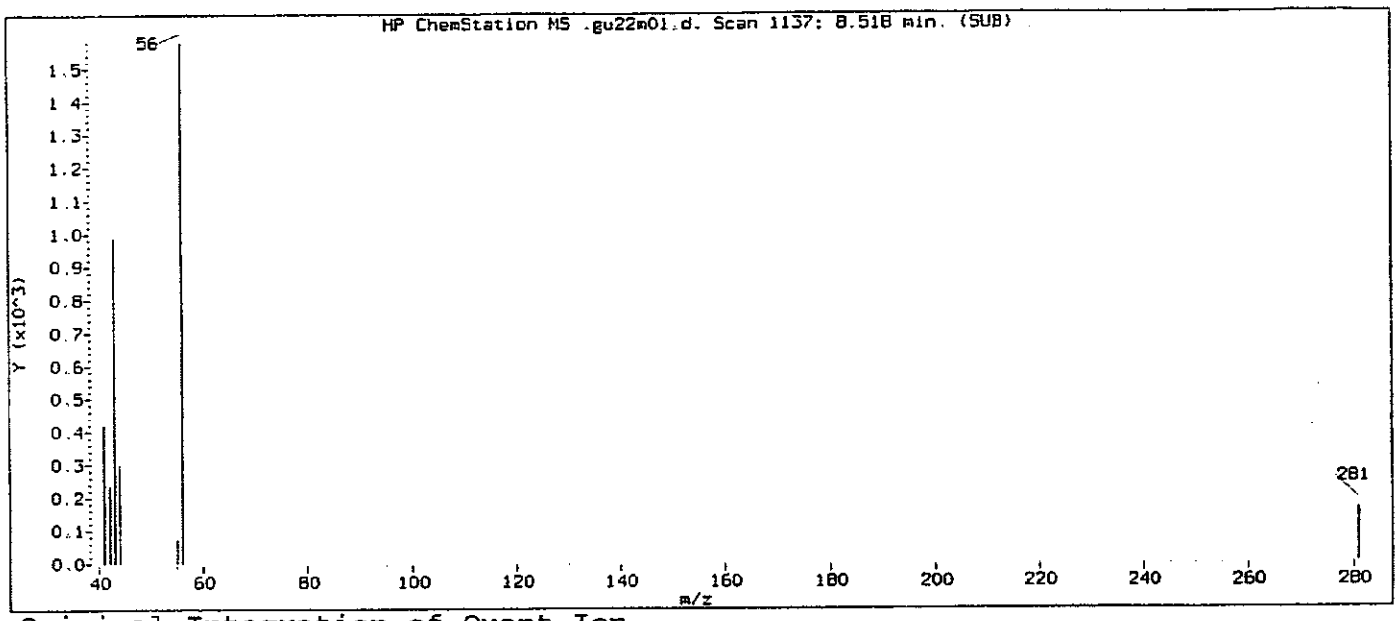
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09

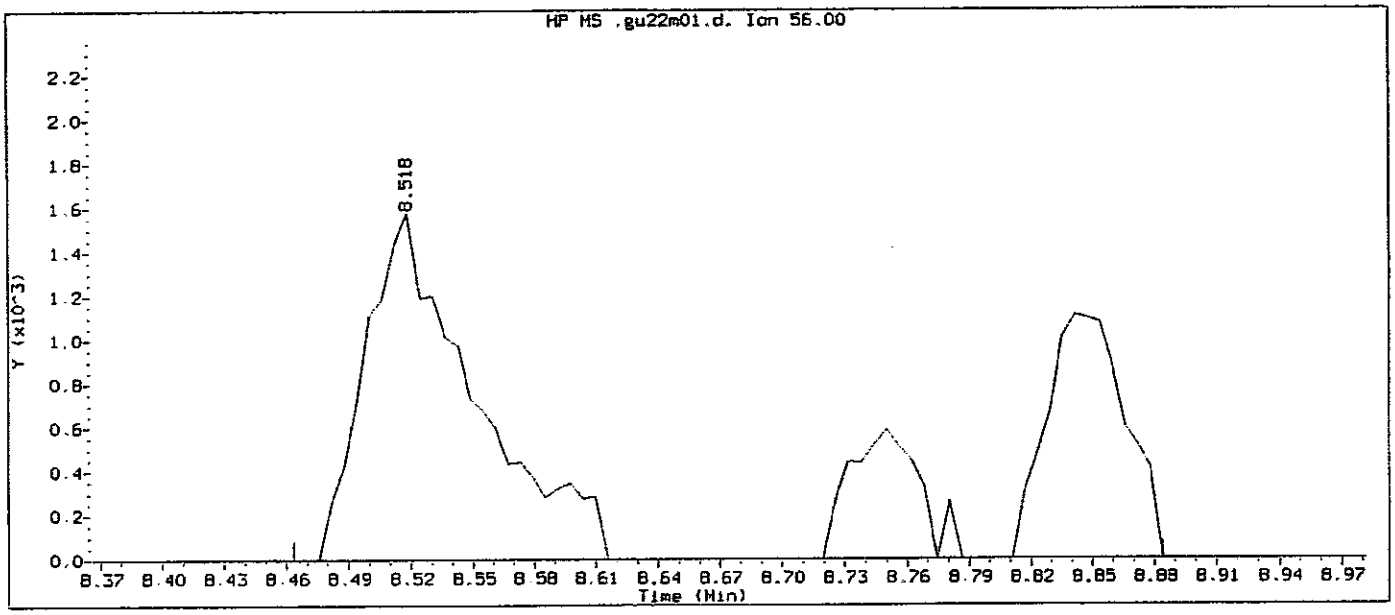
RAD19 8195

Manual Integration Report for data file /chem2/HP16334.i/09jun22a b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

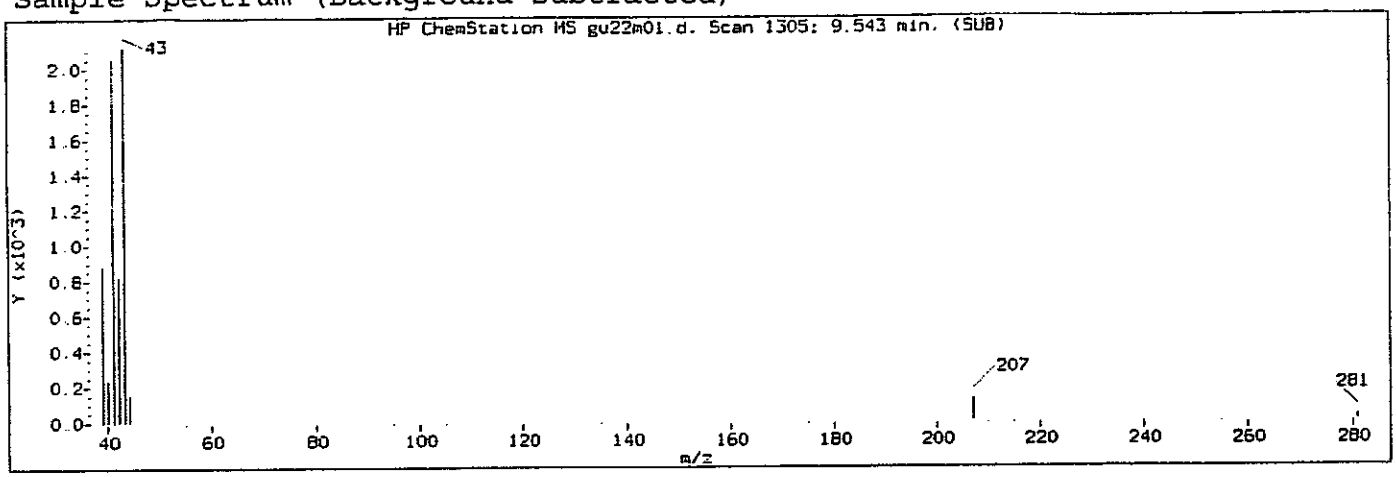
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	80
Compound Name	:	n-Butanol
Scan Number	:	1137
Retention Time (minutes)	:	8.518
Quant Ion	:	56
Area	:	10190
Concentration (ug/L)	:	16.4404
Integration start scan	:	1127 Integration stop scan: 1196
Y at integration start	:	0 Y at integration end: 0

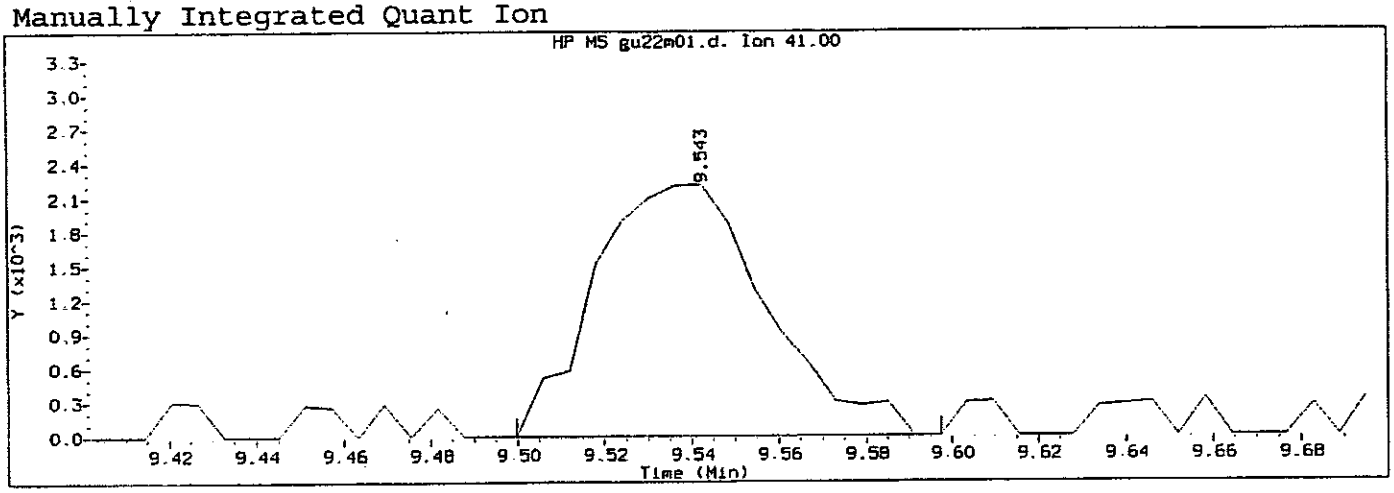
RAD19 0196

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01 d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

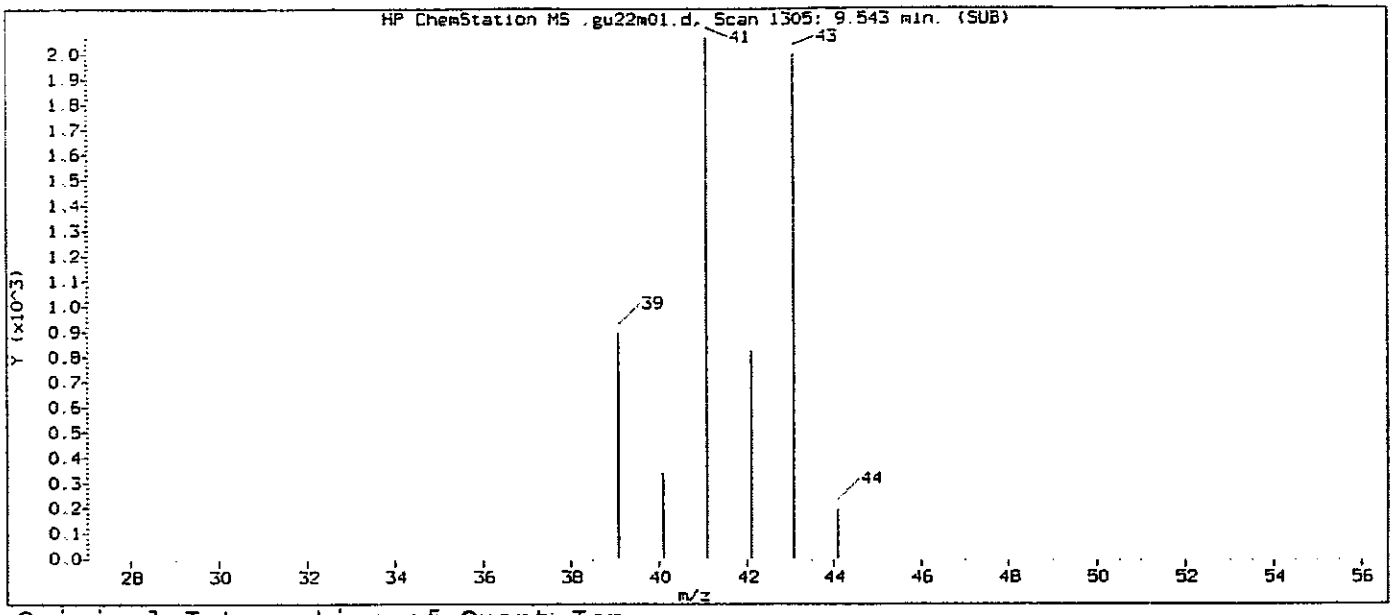
Compound Number : 90
Compound Name : 2-Nitropropane
Scan Number : 1305
Retention Time (minutes): 9.543
Quant Ion : 41
Area (flag) : 6075 M
Concentration (ug/L) : 1.0924
Integration start scan : 1297 Integration stop scan: 1313
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

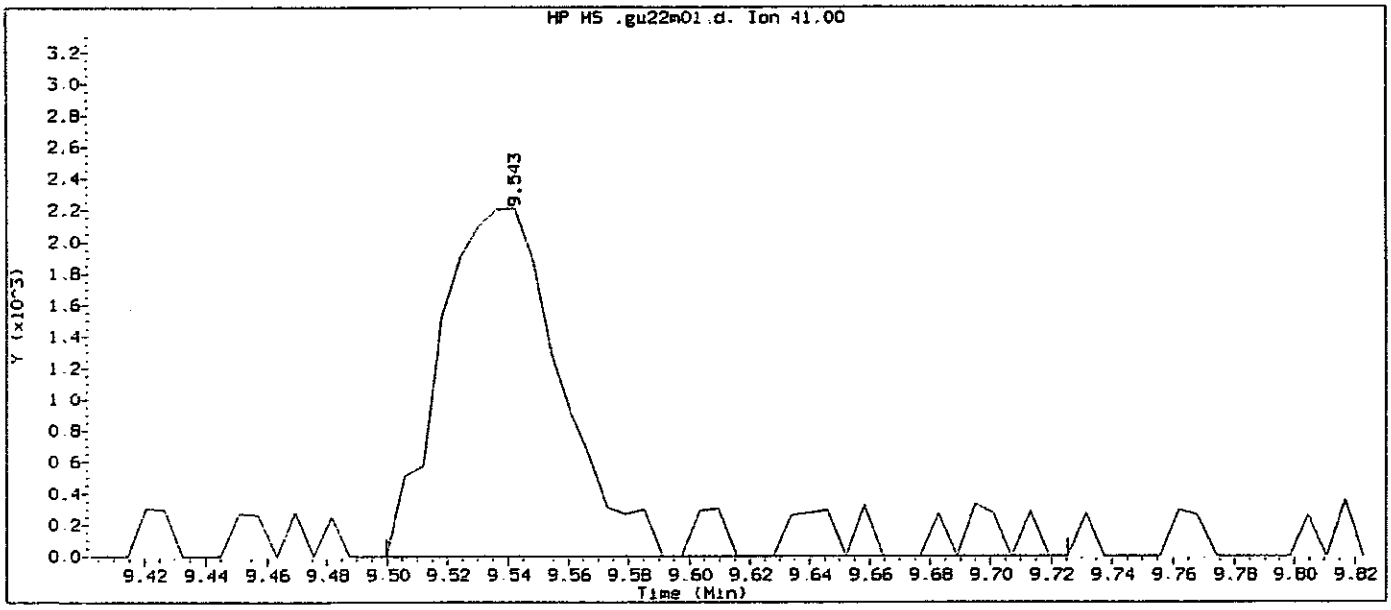
Analyst responsible for change: Sue Jan 6/22/09

GC/MS audit/management approval: [signature] 6-23-09 RAD19 #197

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

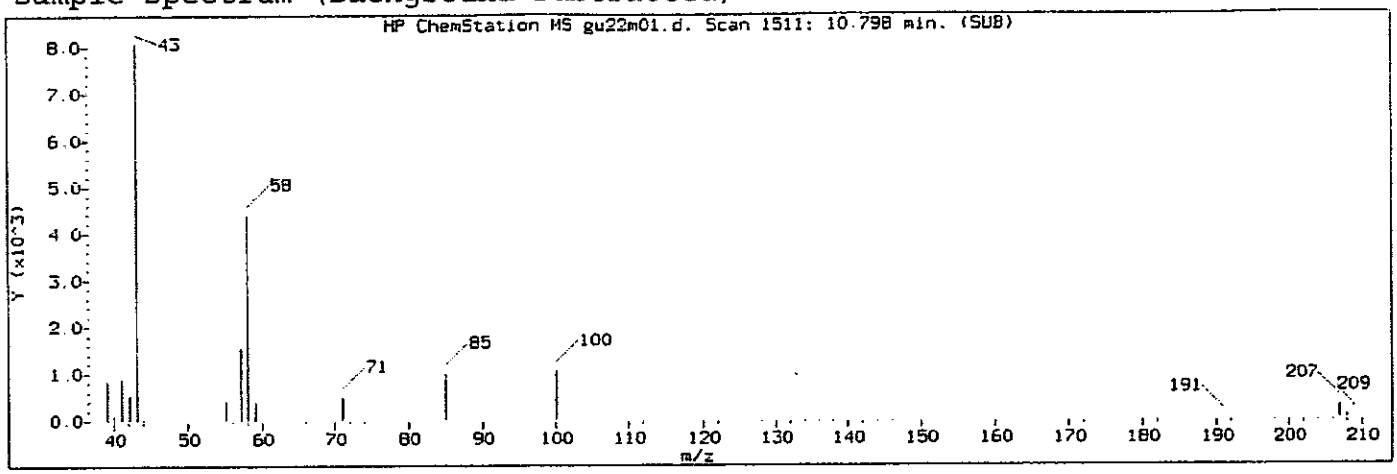
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 90
Compound Name : 2-Nitropropane
Scan Number : 1305
Retention Time (minutes): 9.543
Quant Ion : 41
Area : 7142
Concentration (ug/L) : 1.3323
Integration start scan : 1297 Integration stop scan: 1334
Y at integration start : 0 Y at integration end: 0

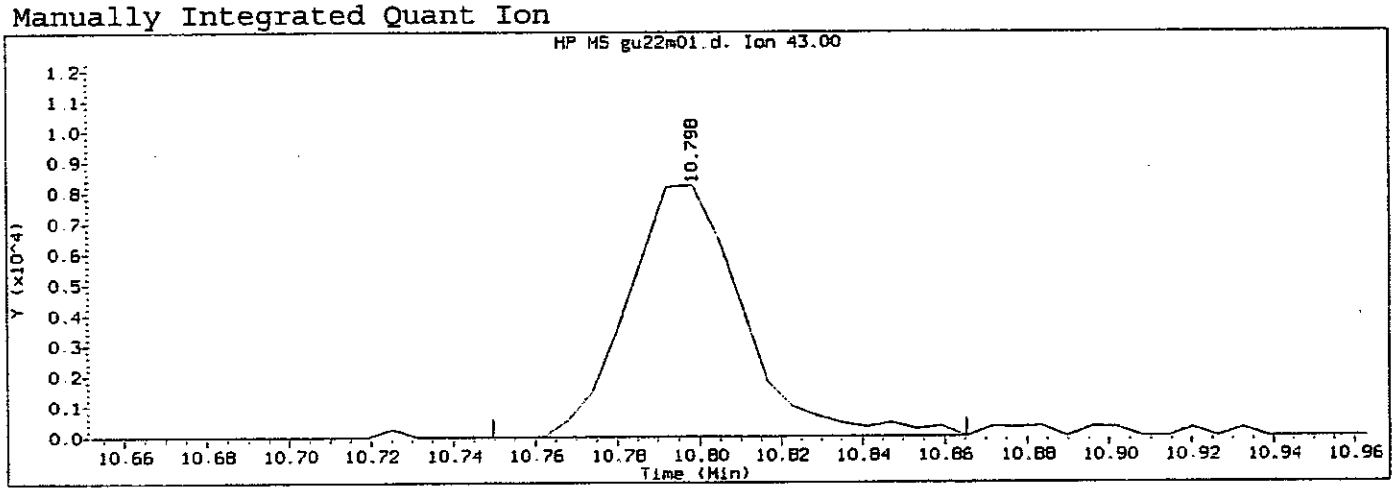
RAD19 8198

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

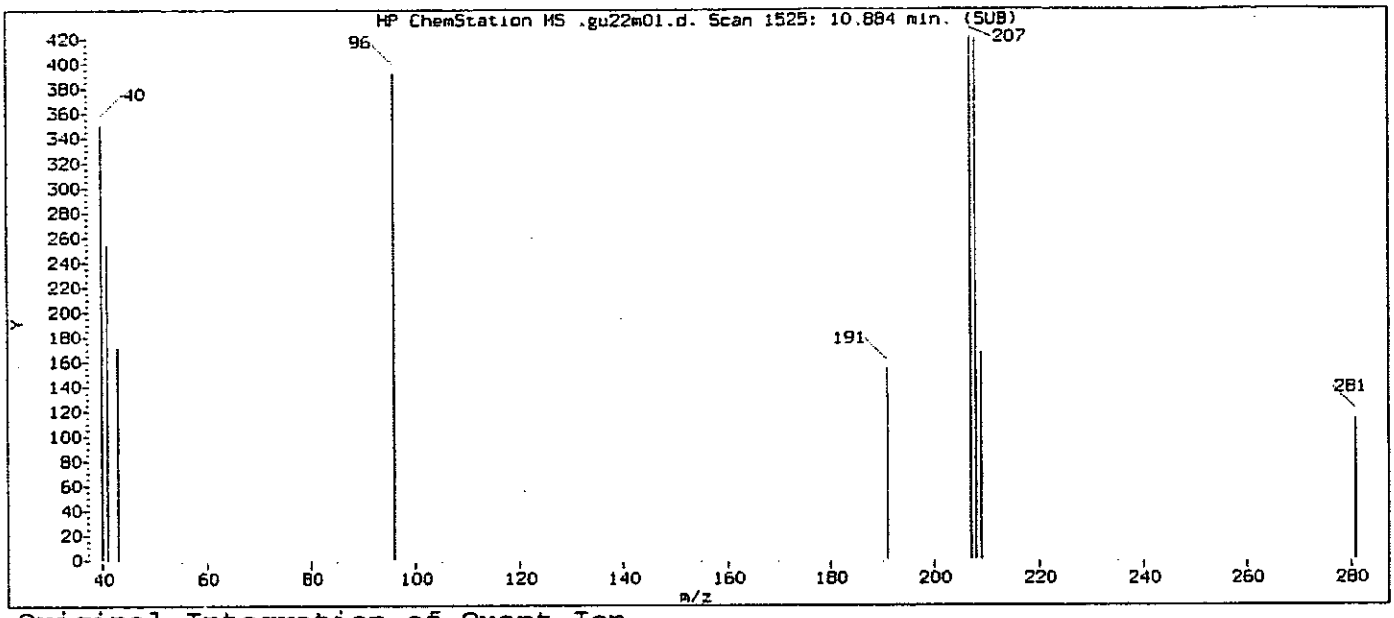
Compound Number	:	106
Compound Name	:	2-Hexanone
Scan Number	:	1511
Retention Time (minutes)	:	10.798
Quant Ion	:	43
Area (flag)	:	16047AM
Concentration (ug/L)	:	0.9169
Integration start scan	:	1502 Integration stop scan: 1521
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): (missed peak) improper integration

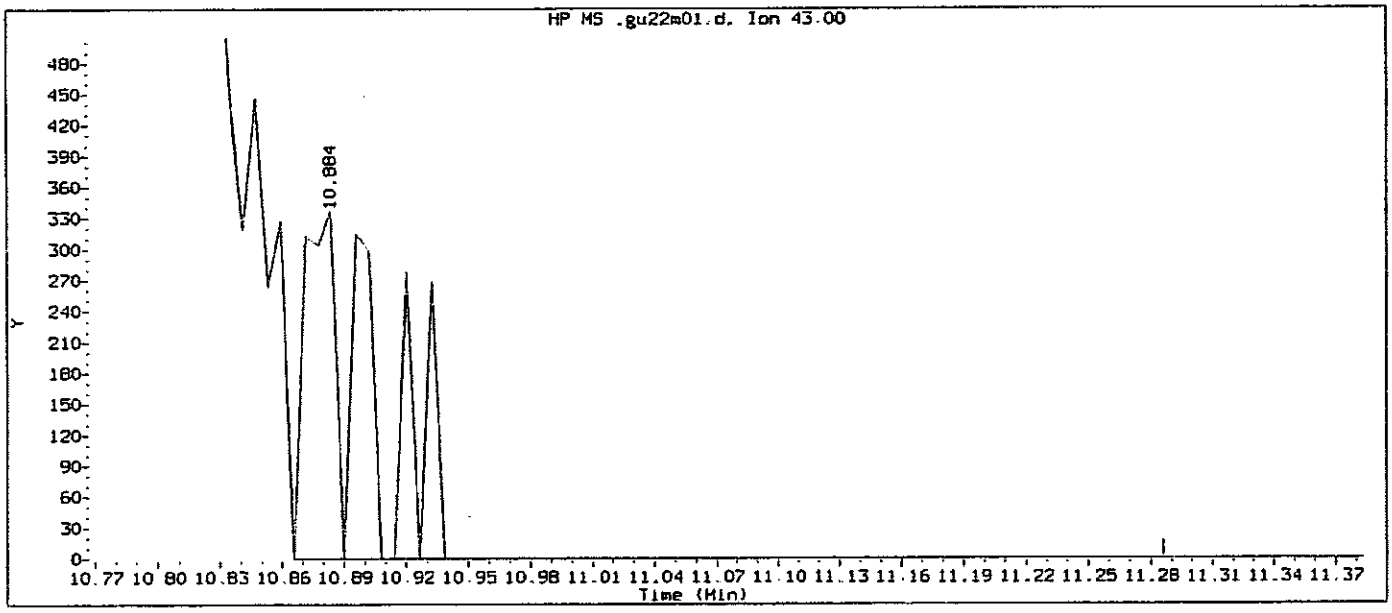
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6-23-09 RAD19 8199

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

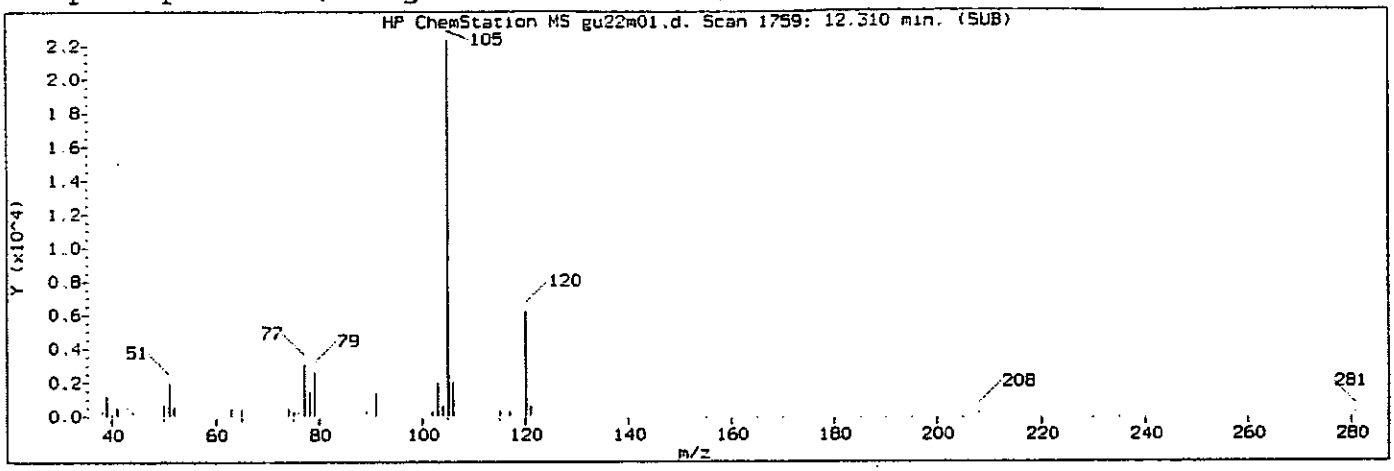
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	106
Compound Name	:	2-Hexanone
Scan Number	:	1525
Retention Time (minutes)	:	10.884
Quant Ion	:	43
Area	:	773
Concentration (ug/L)	:	0.0465
Integration start scan	:	1521 Integration stop scan: 1590
Y at integration start	:	0 Y at integration end: 0

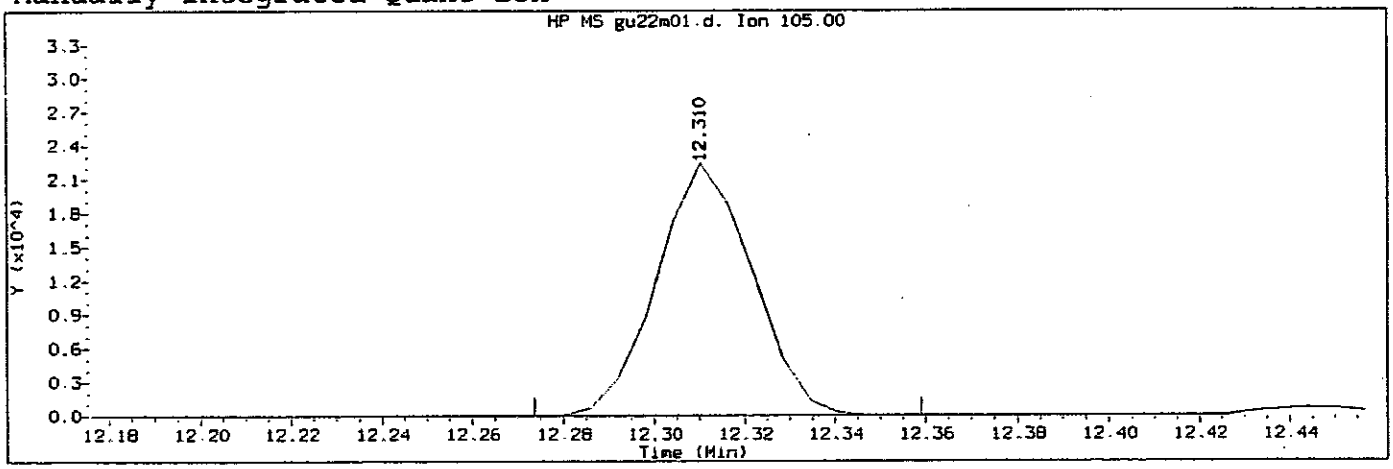
RAD19 #288

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	120
Compound Name	:	Isopropylbenzene
Scan Number	:	1759
Retention Time (minutes)	:	12.310
Quant Ion	:	105
Area (flag)	:	32977 M
Concentration (ug/L)	:	0.1106
Integration start scan	:	1752 Integration stop scan: 1766
Y at integration start	:	0 Y at integration end: 0

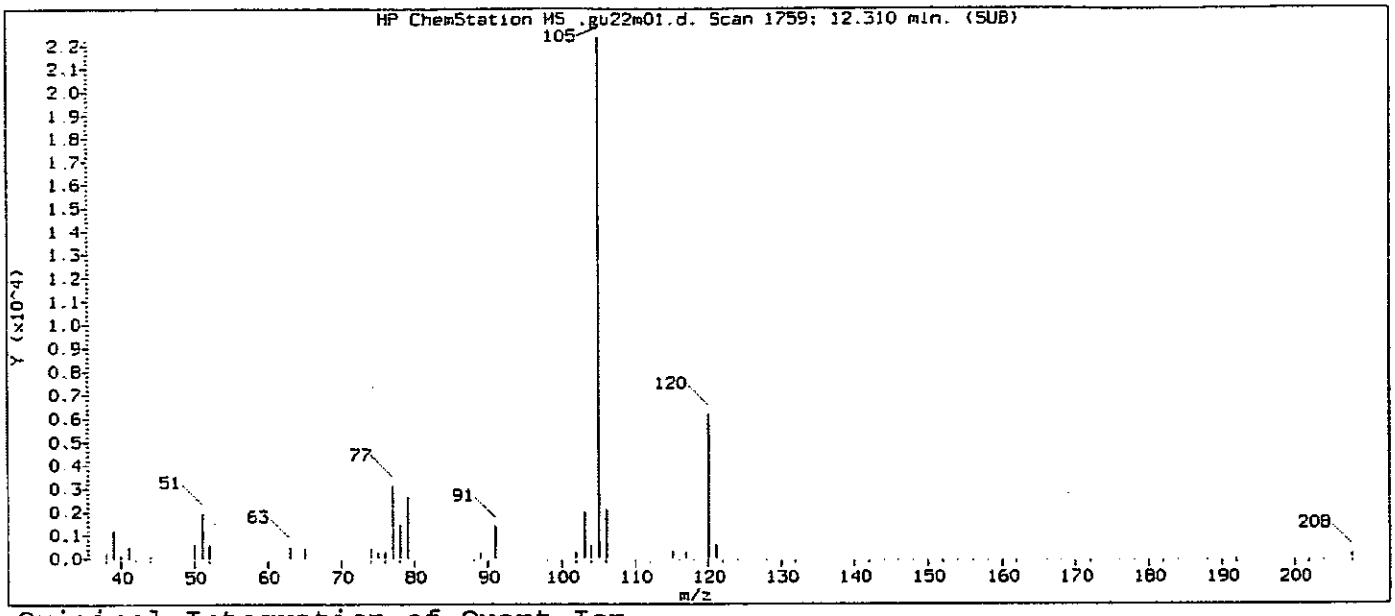
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

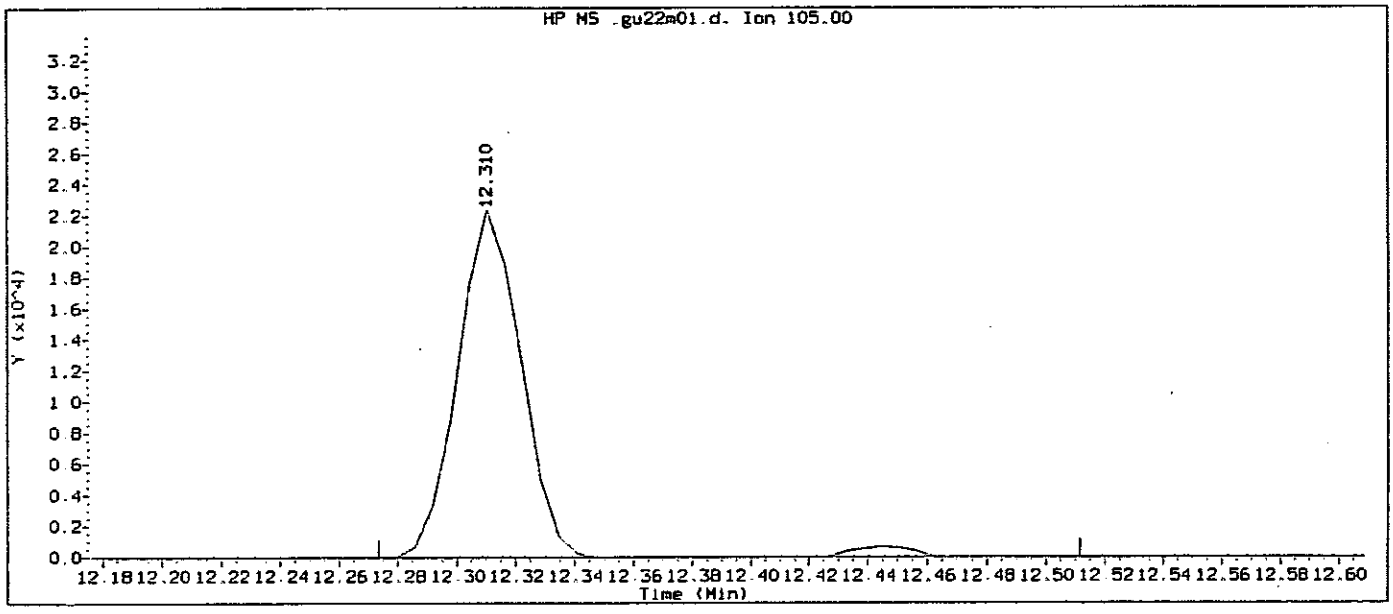
GC/MS audit/management approval: [signature] 6-23-09

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

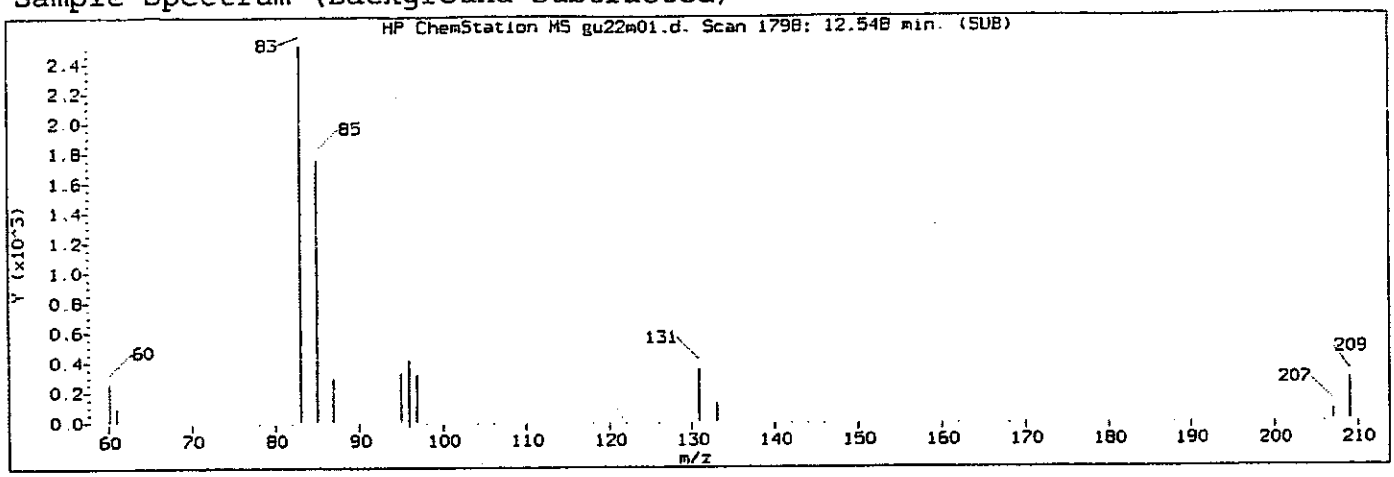
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 120
Compound Name : Isopropylbenzene
Scan Number : 1759
Retention Time (minutes): 12.310
Quant Ion : 105
Area : 33919
Concentration (ug/L) : 0.1175
Integration start scan : 1752 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

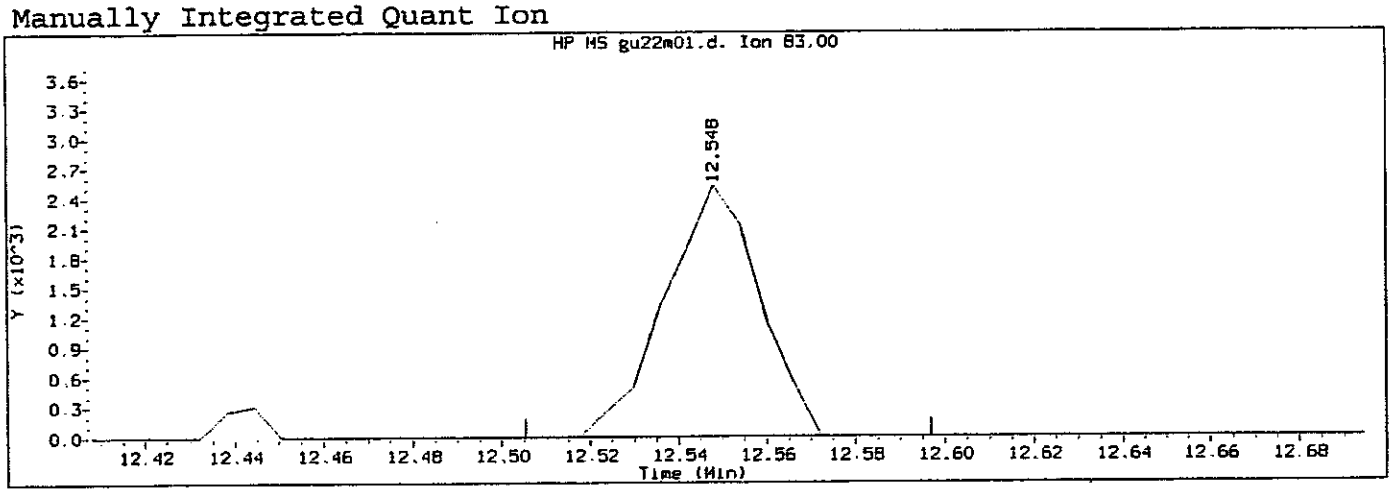
RAD19 8282

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	: 127
Compound Name	: 1,1,2,2-Tetrachloroethane
Scan Number	: 1798
Retention Time (minutes)	: 12.548
Quant Ion	: 83
Area (flag)	: 3756 M
Concentration (ug/L)	: 0.0956
Integration start scan	: 1790 Integration stop scan: 1805
Y at integration start	: 0 Y at integration end: 0

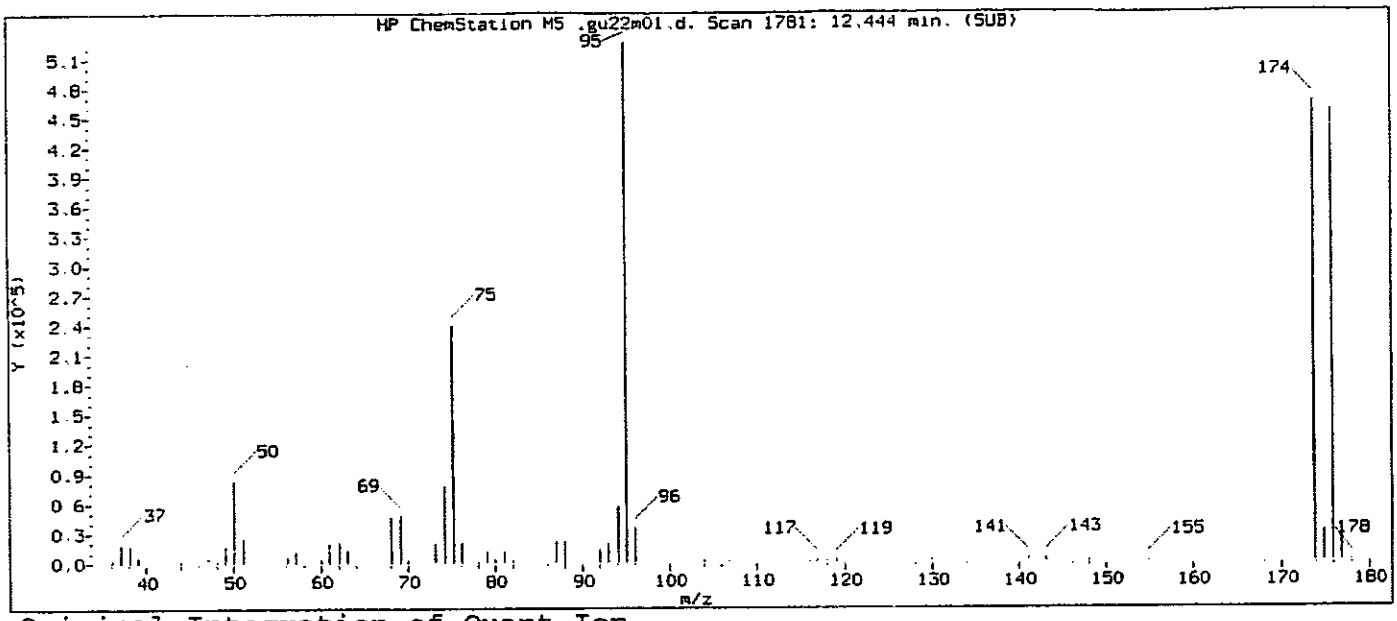
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: _____ 6/22/09

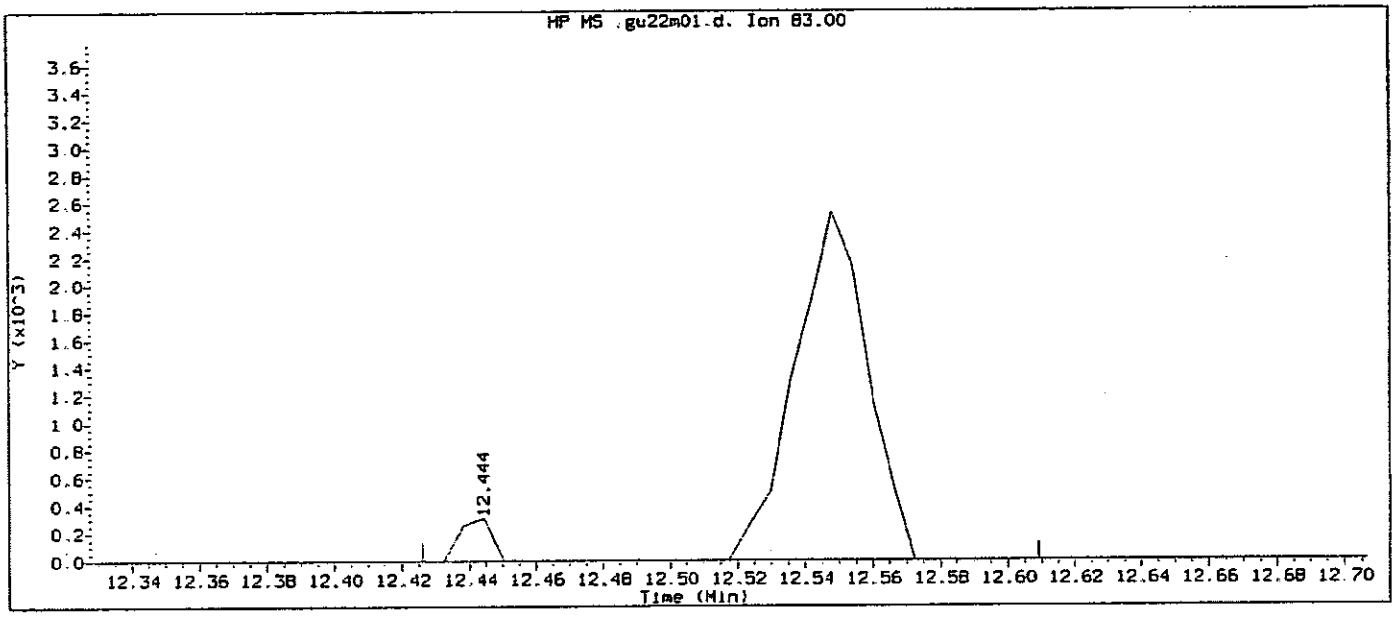
GC/MS audit/management approval: _____ 6-23-09

RAD19 8283

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

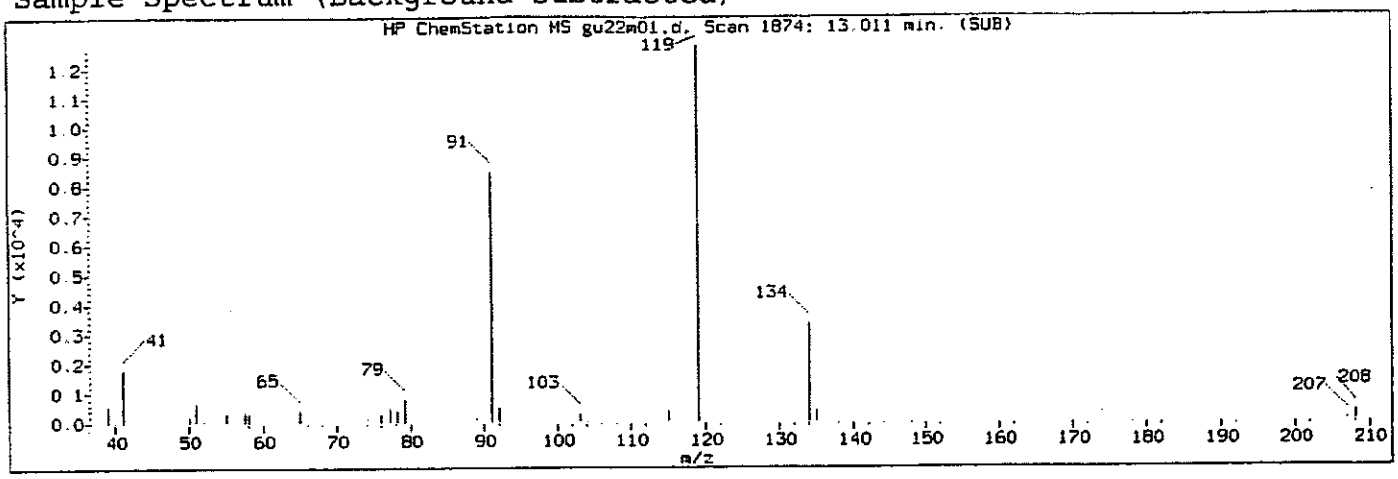
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1781
Retention Time (minutes)	:	12.444
Quant Ion	:	83
Area	:	3964
Concentration (ug/L)	:	0.1062
Integration start scan	:	1777 Integration stop scan: 1807
Y at integration start	:	0 Y at integration end: 0

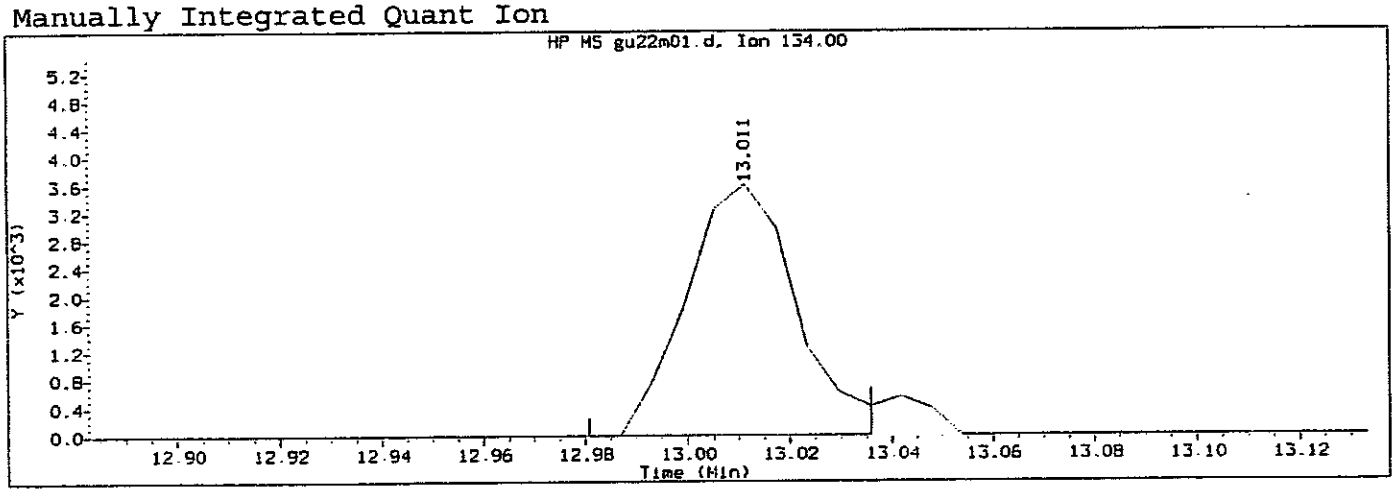
RAD19 8284

Original Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	5385 M
Concentration (ug/L)	:	0.0952
Integration start scan	:	1868 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

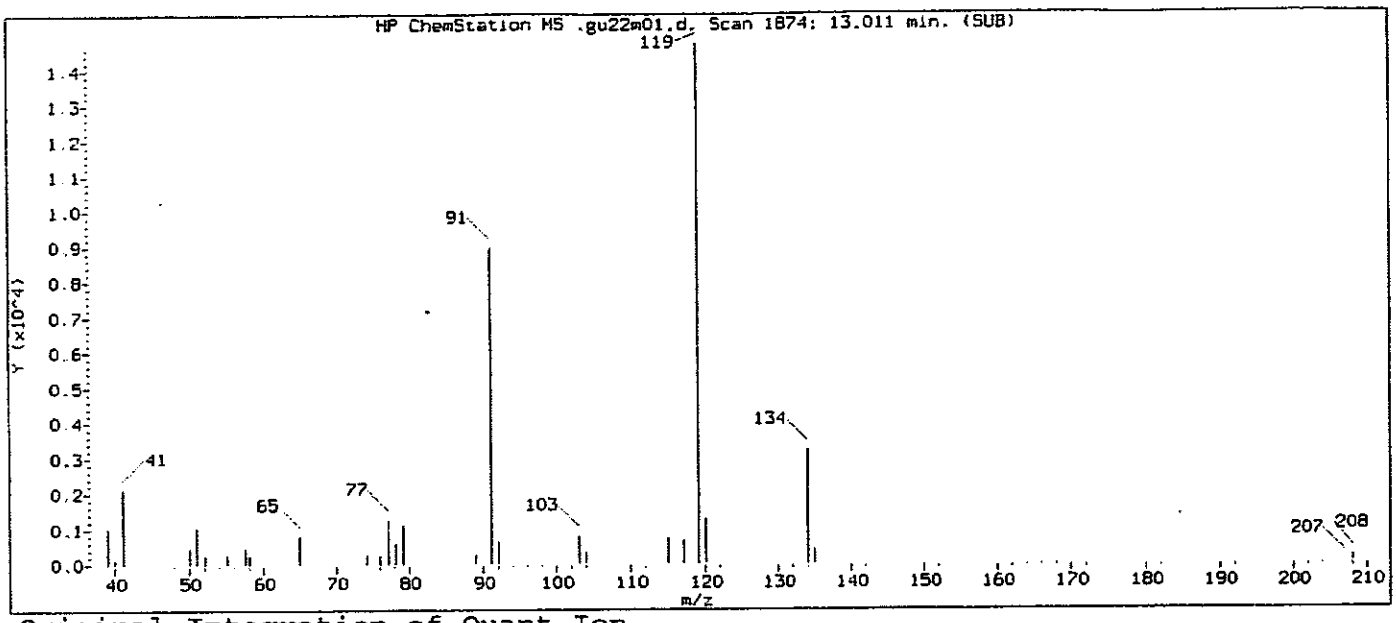
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

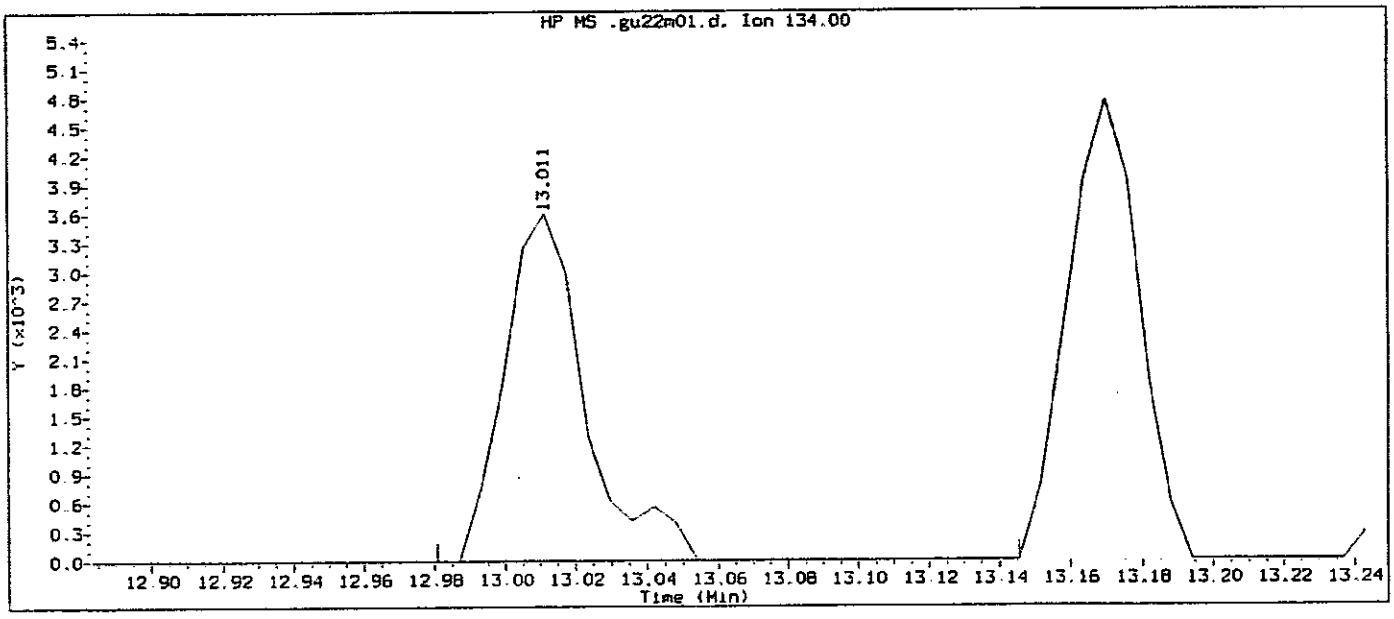
GC/MS audit/management approval: [signature] 6-23-09 RAD19 8265

Manual Integration Report for data file /chem2/HP16334.i/09jun22a b/gu22m01 d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

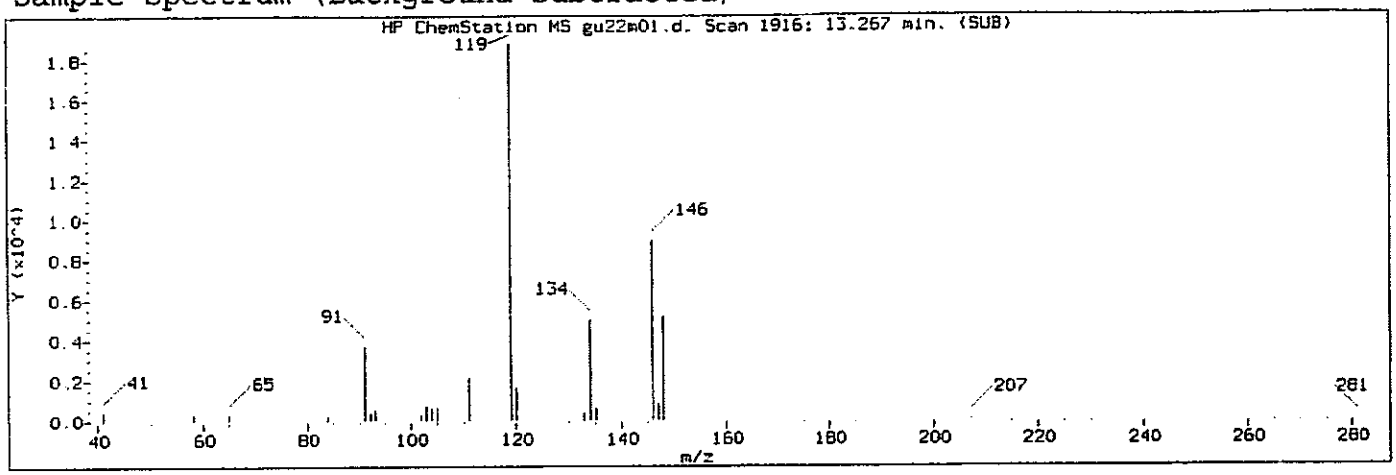
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area	:	5731
Concentration (ug/L)	:	0.1038
Integration start scan	:	1868 Integration stop scan: 1895
Y at integration start	:	0 Y at integration end: 0

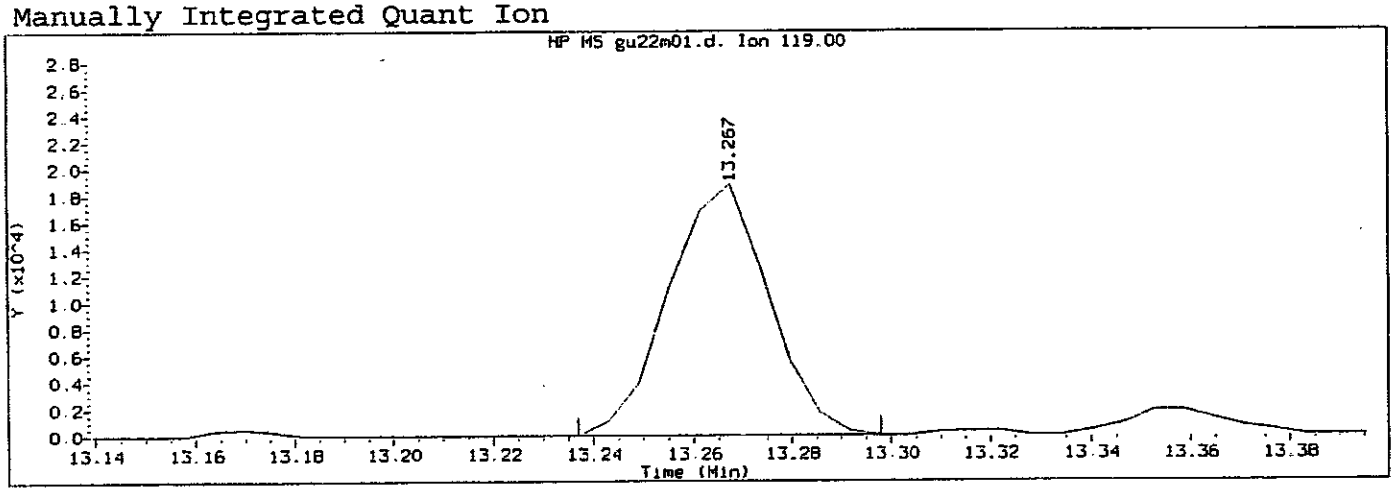
RA019 8286

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	140
Compound Name	:	p-Isopropyltoluene
Scan Number	:	1916
Retention Time (minutes)	:	13.267
Quant Ion	:	119
Area (flag)	:	26535 M
Concentration (ug/L)	:	0.0913
Integration start scan	:	1910 Integration stop scan: 1920
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

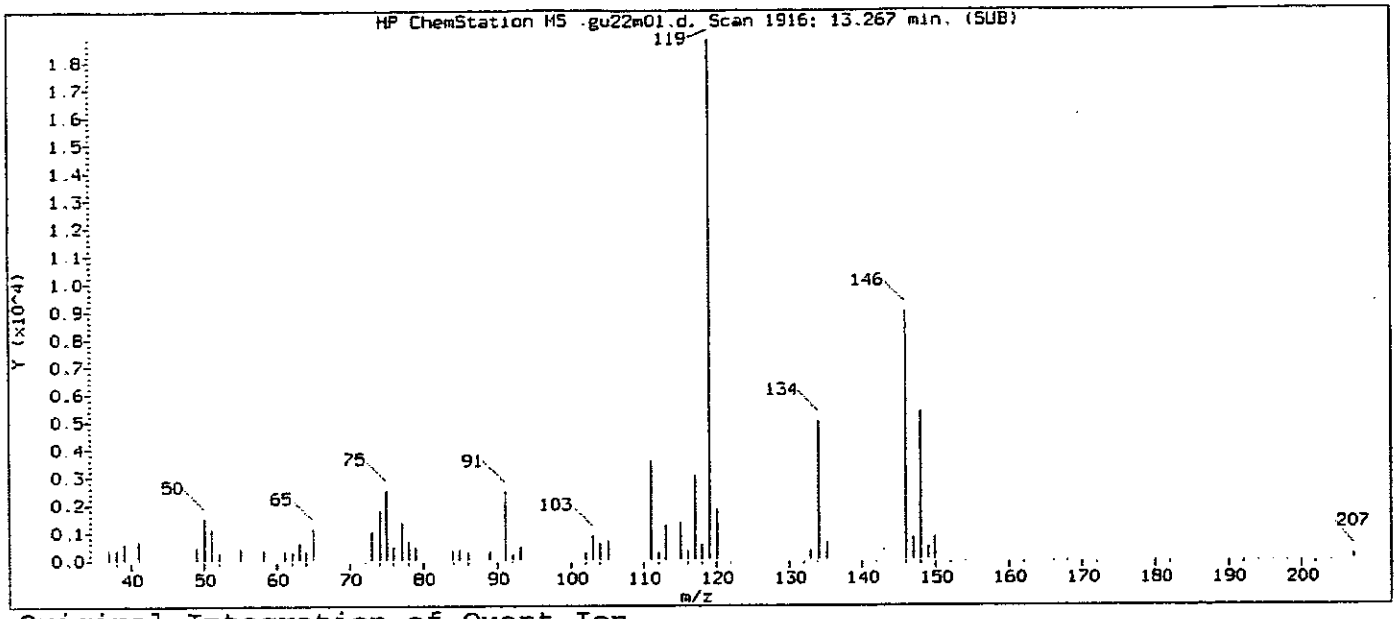
Analyst responsible for change: 6/22/09

GC/MS audit/management approval: 6/22/09

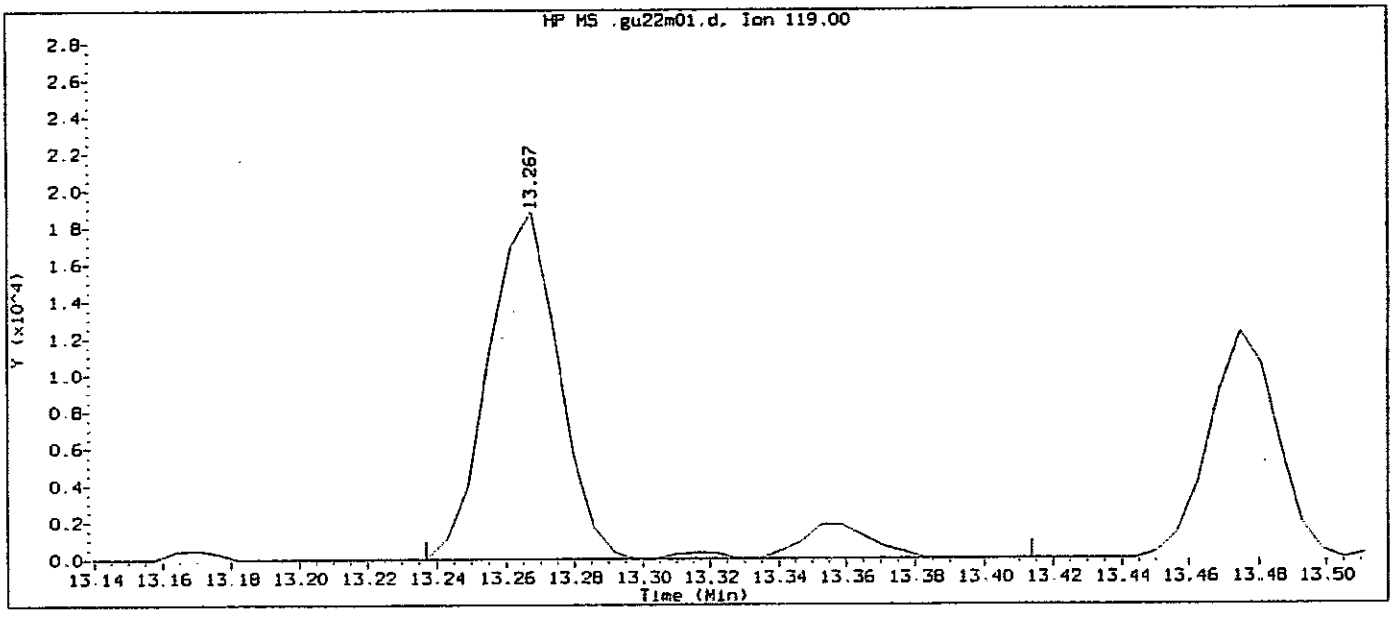
RAD19 0287

Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m01 d, generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

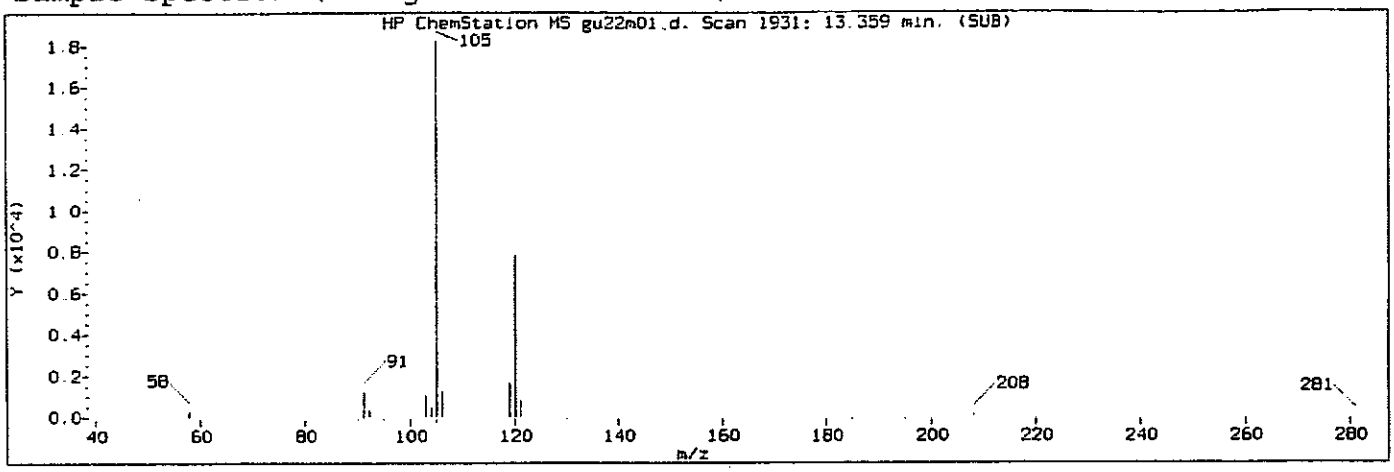
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	140
Compound Name	:	p-Isopropyltoluene
Scan Number	:	1916
Retention Time (minutes)	:	13.267
Quant Ion	:	119
Area	:	29512
Concentration (ug/L)	:	0.1047
Integration start scan	:	1910 Integration stop scan: 1939
Y at integration start	:	0 Y at integration end: 0

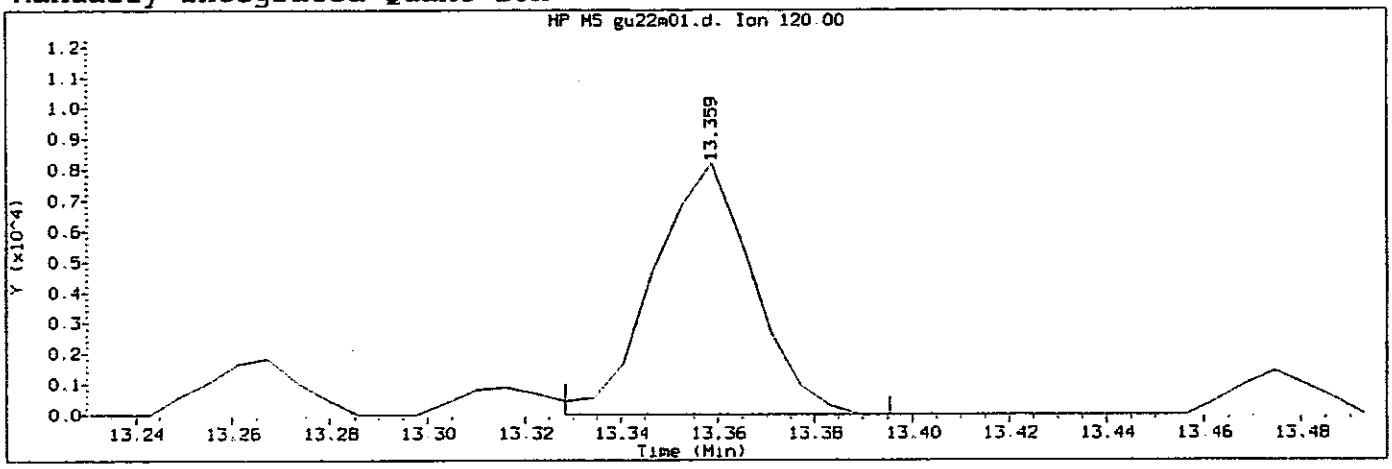
RAD19 8280

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d. generated on 06/22/2009 at 21:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:46 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 144
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1931
Retention Time (minutes): 13.359
Quant Ion : 120
Area (flag) : 11689 M
Concentration (ug/L) : 0.1024
Integration start scan : 1925 Integration stop scan: 1936
Y at integration start : 0 Y at integration end: 0

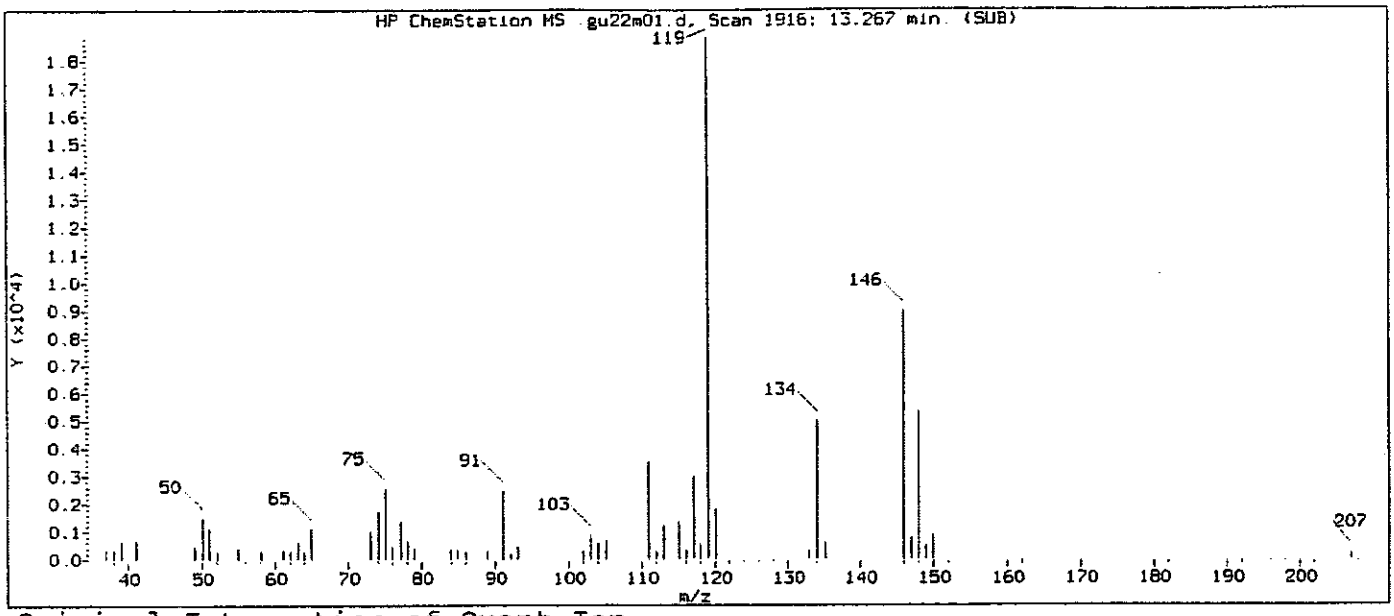
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

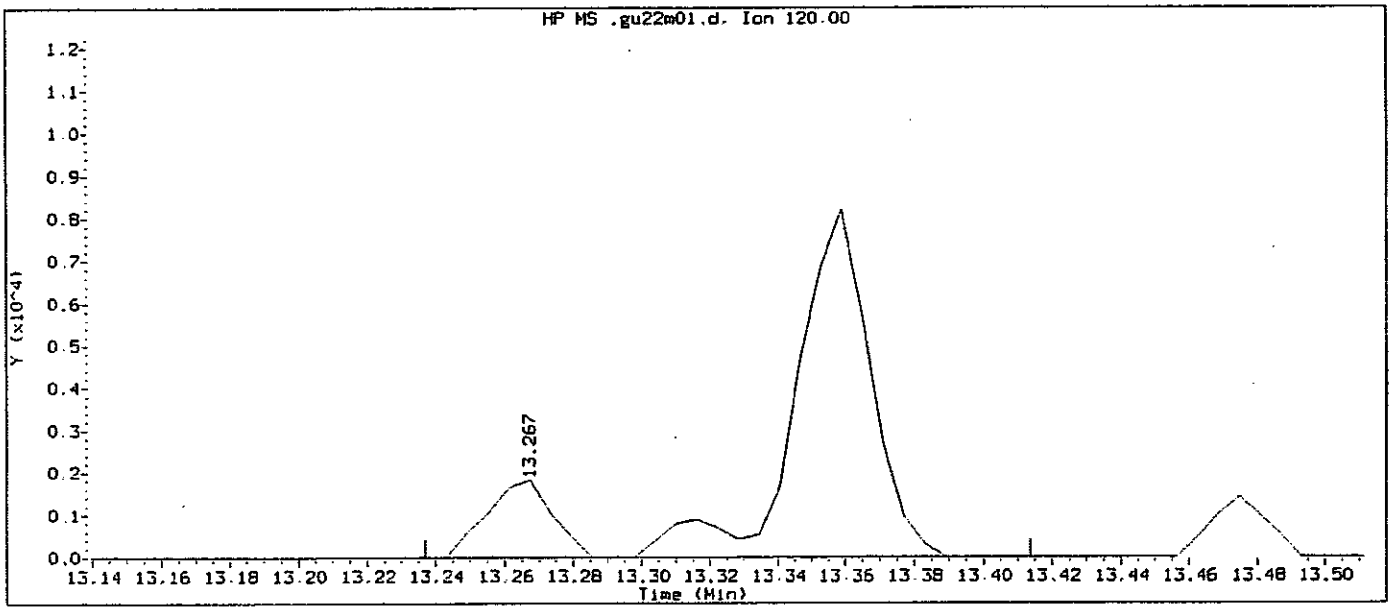
GC/MS audit/management approval: [signature] 6/23/09

RAD19 0289

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m01.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 17:48 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 17:44
Date, time and analyst ID of latest file update: 22-Jun-2009 18:05 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 144
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1916
Retention Time (minutes): 13.267
Quant Ion : 120
Area : 15137
Concentration (ug/L) : 0.1324
Integration start scan : 1910 Integration stop scan: 1939
Y at integration start : 0 Y at integration end: 0

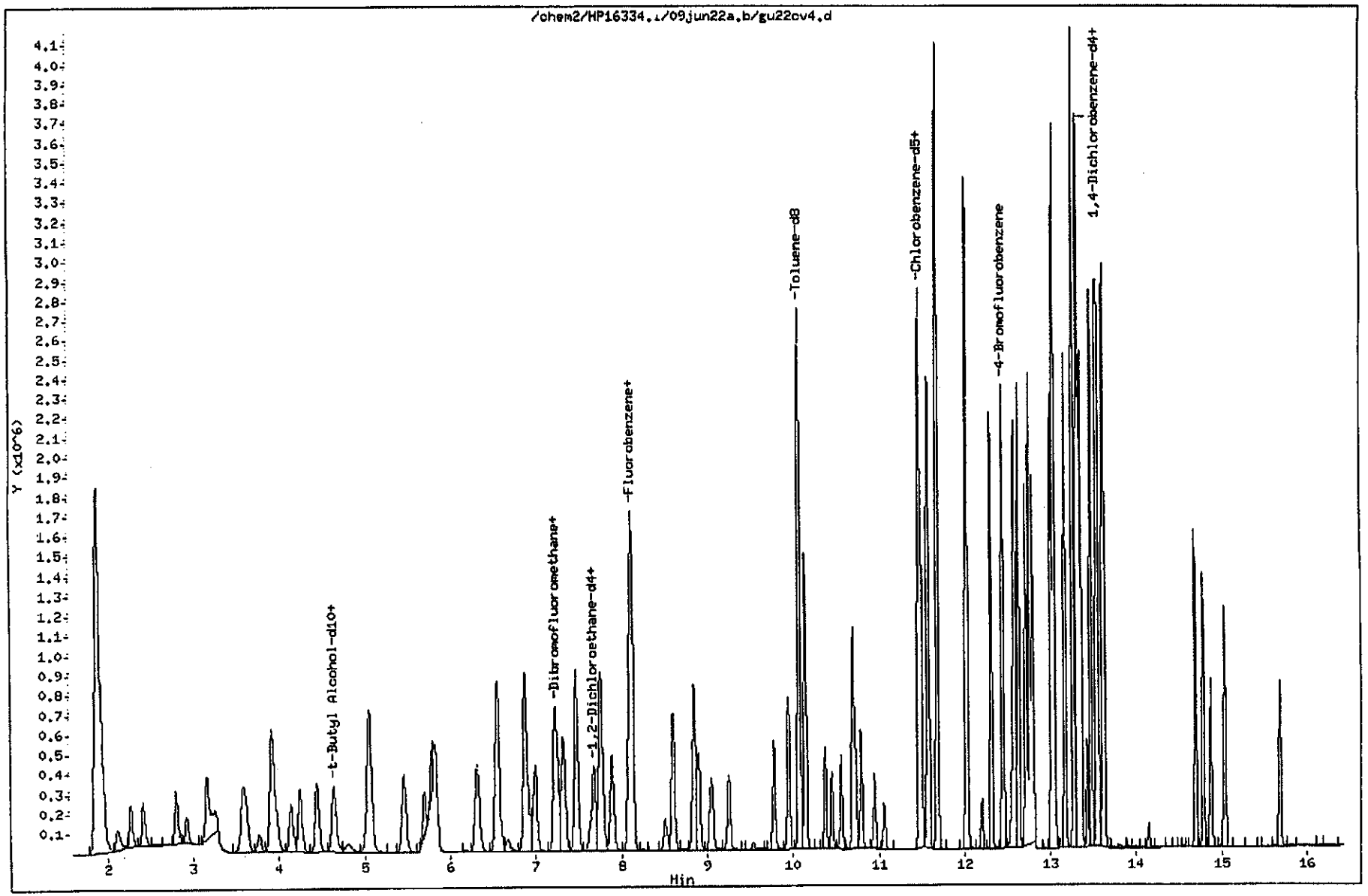
RAD19 8210

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m01.d, generated on 06/22/2009 at 21:46

Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d
Date : 22-JUN-2009 22:37
Client ID: ICVGLG
Sample Info: ICVGLG;ICVGLG;1;3;LCS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i
Operator: SEW02002
Column diameter: 0.25

RAD'S 6211



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:39 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.117	85	327584	4.139
5) Chloromethane	(1)	2.269	50	330530	5.050
6) Vinyl Chloride	(1)	2.416	62	328578	4.330
9) Bromomethane	(1)	2.800	94	281411	5.006
10) Chloroethane	(1)	2.922	64	199800	5.086
12) Dichlorofluoromethane	(1)	3.160	67	549240	4.988
14) Trichlorofluoromethane	(1)	3.257	101	473711M	4.986
16) Ethyl Ether	(1)	3.568	59	159557	4.440
17) Freon 123a	(1)	3.605	67	316798	4.689
22) Acrolein	(4)	3.769	56	140832	29.786
23) 1,1-Dichloroethene	(1)	3.909	96	257608	4.715
24) Freon 113	(1)	3.928	101	271592	4.613
25) Acetone	(4)	3.976	58	66304	33.113
26) Methyl Iodide	(1)	4.141	142	470575	4.625
28) Carbon Disulfide	(1)	4.245	76	762200	4.930
31) Allyl Chloride	(1)	4.440	41	362493	4.981
32) Methyl Acetate	(1)	4.464	43	73573	4.824
33) Methylene Chloride	(1)	4.635	84	274122	4.313
35) *t-Butyl Alcohol-d10	(4)	4.678	65	98243	50.000
37) t-Butyl Alcohol	(4)	4.806	59	116085	45.349
38) Acrylonitrile	(4)	5.025	53	192489	22.731
40) trans-1,2-Dichloroethene	(1)	5.056	96	293723	4.774
36) 1,2-Dichloroethene (Total)	(1)		96	598192	9.430
39) Methyl Tertiary Butyl Ether	(1)	5.056	73	533599	4.544
43) n-Hexane	(1)	5.458	57	356293	4.387
44) 1,1-Dichloroethane	(1)	5.696	63	458887	4.767
46) di-Isopropyl Ether	(1)	5.787	45	766125	4.679
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	410263	4.836
48) Ethyl t-Butyl Ether	(1)	6.317	59	697360	4.645
50) 2,2-Dichloropropane	(1)	6.549	77	379497	4.779
49) cis-1,2-Dichloroethene	(1)	6.543	96	304469	4.657
51) 2-Butanone	(4)	6.561	43	356746	33.802
52) Propionitrile	(4)	6.665	54	106599	34.090
54) Methacrylonitrile	(4)	6.872	67	394583	33.809

M = Compound was manually integrated.

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:39 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.884	128	126173	4.746
56) Tetrahydrofuran	(4)	6.939	71	72066	22.355
57) Chloroform	(1)	6.994	83	484286	4.843
62) 1,1,1-Trichloroethane	(1)	7.250	97	419655	4.932
63) Cyclohexane	(1)	7.317	56	445918	4.562
64) 1,1-Dichloropropene	(1)	7.470	75	368703	4.712
65) Carbon Tetrachloride	(1)	7.470	117	370951	4.898
66) Isobutyl Alcohol	(4)	7.628	41	91555M	118.744
71) Benzene	(1)	7.750	78	1125930	4.671
73) 1,2-Dichloroethane	(1)	7.781	62	258856	4.883
74) t-Amyl Methyl Ether	(1)	7.890	73	591751	4.572
76)*Fluorobenzene	(1)	8.122	96	2124268	10.000
75) n-Heptane	(1)	8.092	43	359425	4.313
80) n-Butanol	(4)	8.506	56	151846	220.466
82) Trichloroethene	(1)	8.604	95	306304	4.801
83) Methylcyclohexane	(1)	8.847	83	519542	4.864
84) 1,2-Dichloropropane	(1)	8.902	63	261076	4.723
87) Dibromomethane	(1)	9.055	93	115505	4.719
88) 1,4-Dioxane	(4)	9.073	88	25358	129.593
86) Methyl Methacrylate	(4)	9.043	69	100125	4.475
89) Bromodichloromethane	(1)	9.250	83	320145	4.838
90) 2-Nitropropane	(4)	9.536	41	25719	4.361
93) cis-1,3-Dichloropropene	(1)	9.780	75	364704	4.784
95) 4-Methyl-2-Pentanone	(1)	9.945	43	587354	23.017
100) Toluene	(2)	10.146	92	742798	4.539
101) trans-1,3-Dichloropropene	(2)	10.372	75	292882	4.713
102) Ethyl Methacrylate	(2)	10.451	69	218023	4.457
103) 1,1,2-Trichloroethane	(2)	10.561	97	167889	4.609
104) Tetrachloroethene	(2)	10.701	166	354581	4.771
105) 1,3-Dichloropropane	(2)	10.725	76	279738	4.582
106) 2-Hexanone	(2)	10.792	43	403685	22.490
107) Dibromochloromethane	(2)	10.951	129	214490	4.743
108) 1,2-Dibromoethane	(2)	11.060	107	160098	4.597
109)*Chlorobenzene-d5	(2)	11.475	117	1574770	10.000

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8213

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:39 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
111) Chlorobenzene	(2)	11.499	112	831217	4.645
112) 1,1,1,2-Tetrachloroethane	(2)	11.566	131	274112	4.678
113) Ethylbenzene	(2)	11.585	91	1441158	4.596
116) m+p-Xylene	(2)	11.682	106	1171682	9.249
114) Xylene (Total)	(2)		106	1737761	13.891
117) o-Xylene	(2)	12.018	106	566079	4.642
118) Styrene	(2)	12.030	104	897606	4.633
119) Bromoform	(2)	12.200	173	113774	4.793
120) Isopropylbenzene	(2)	12.310	105	1419217	4.640
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	188661M	4.482
128) Bromobenzene	(3)	12.572	156	336063	4.501
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	232010M	25.432
130) 1,2,3-Trichloropropane	(3)	12.591	110	53895	4.429
131) n-Propylbenzene	(3)	12.633	91	1739164	4.556
132) 2-Chlorotoluene	(3)	12.713	126	355148	4.483
134) 4-Chlorotoluene	(3)	12.792	126	364984	4.496
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	1243299	4.570
137) Pentachloroethane	(3)	13.042	167	222050	4.892
136) tert-Butylbenzene	(3)	13.011	134	280226M	4.626
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	1307517	4.595
139) sec-Butylbenzene	(3)	13.170	105	1623276	4.552
141) 1,3-Dichlorobenzene	(3)	13.273	146	729424	4.575
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	890177	10.000
140) p-Isopropyltoluene	(3)	13.267	119	1415132	4.548
143) 1,4-Dichlorobenzene	(3)	13.334	146	729597	4.583
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	576676	4.720
145) Benzyl Chloride	(3)	13.426	126	80083	4.390
146) n-Butylbenzene	(3)	13.560	92	716388	4.493
147) 1,2-Dichlorobenzene	(3)	13.609	146	618083	4.569
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	25877	4.635
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	464859	4.421
153) Hexachlorobutadiene	(3)	14.785	225	244349	4.407
154) Naphthalene	(3)	14.877	128	665554	4.442
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	380254	4.448

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0214

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 19:39 sew02002

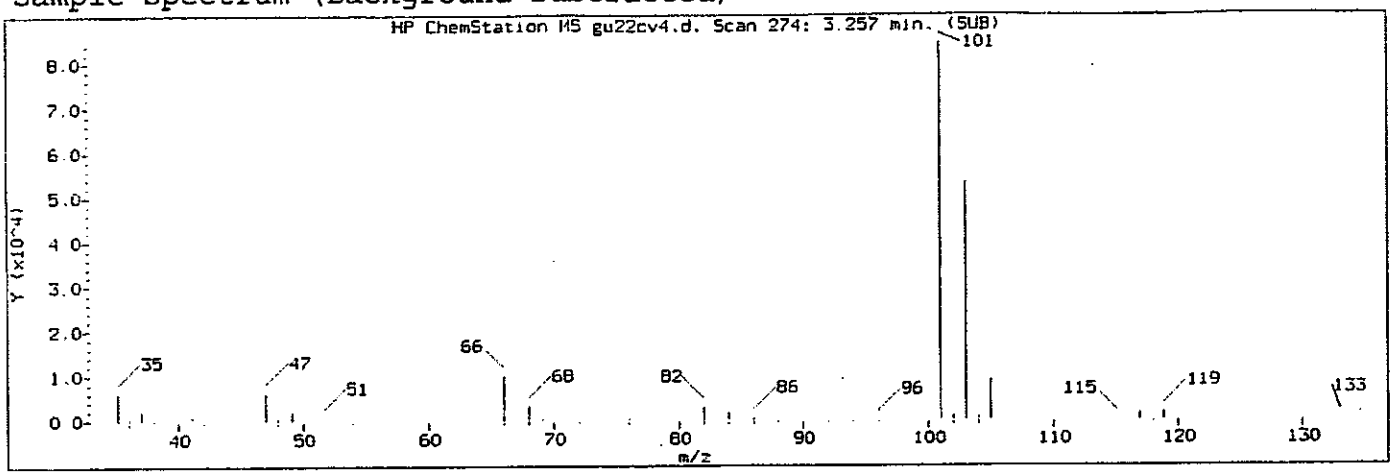
Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
60)$Dibromofluoromethane	(1)	7.220	113	490200	9.037
69)$1,2-Dichloroethane-d4	(1)	7.683	102	92100M	9.449
96)$Toluene-d8	(2)	10.073	98	2148866	9.052
125)$4-Bromofluorobenzene	(2)	12.444	95	745530	9.115

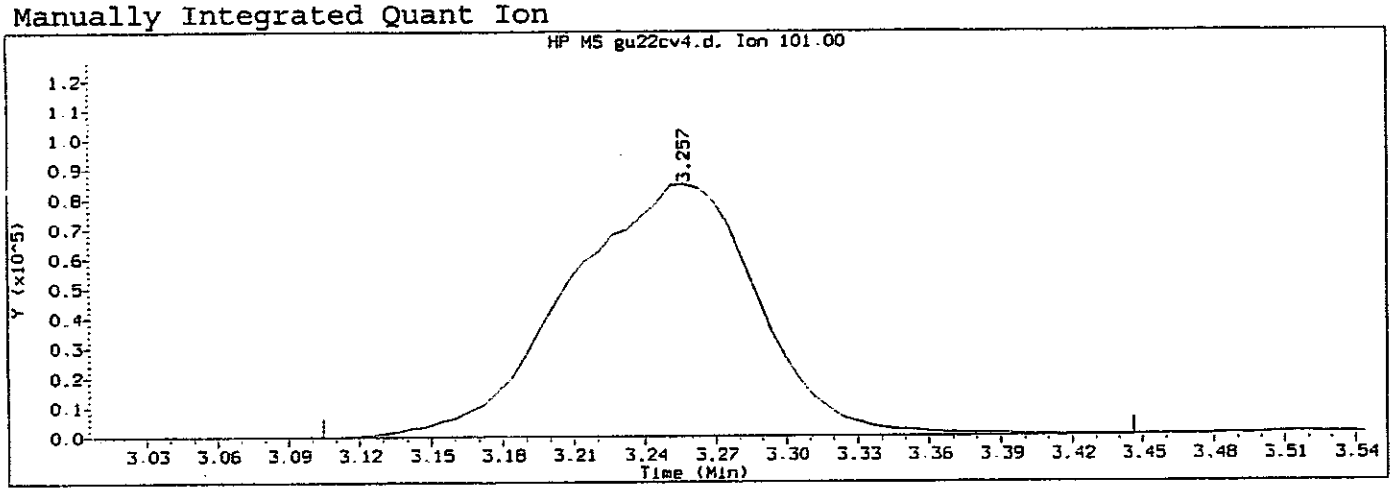
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 23:00 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number	:	14
Compound Name	:	Trichlorofluoromethane
Scan Number	:	274
Retention Time (minutes)	:	3.257
Quant Ion	:	101
Area (flag)	:	473711 M
Concentration (ug/L)	:	4.9856
Integration start scan	:	248 Integration stop scan: 304
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

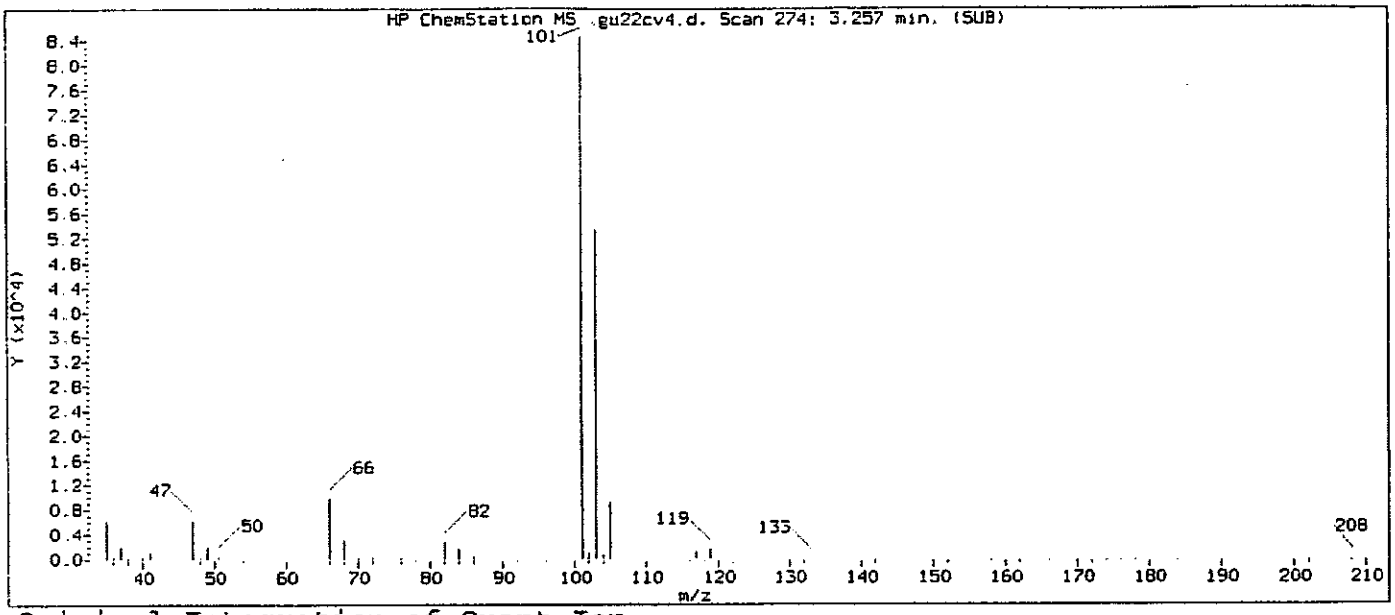
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09

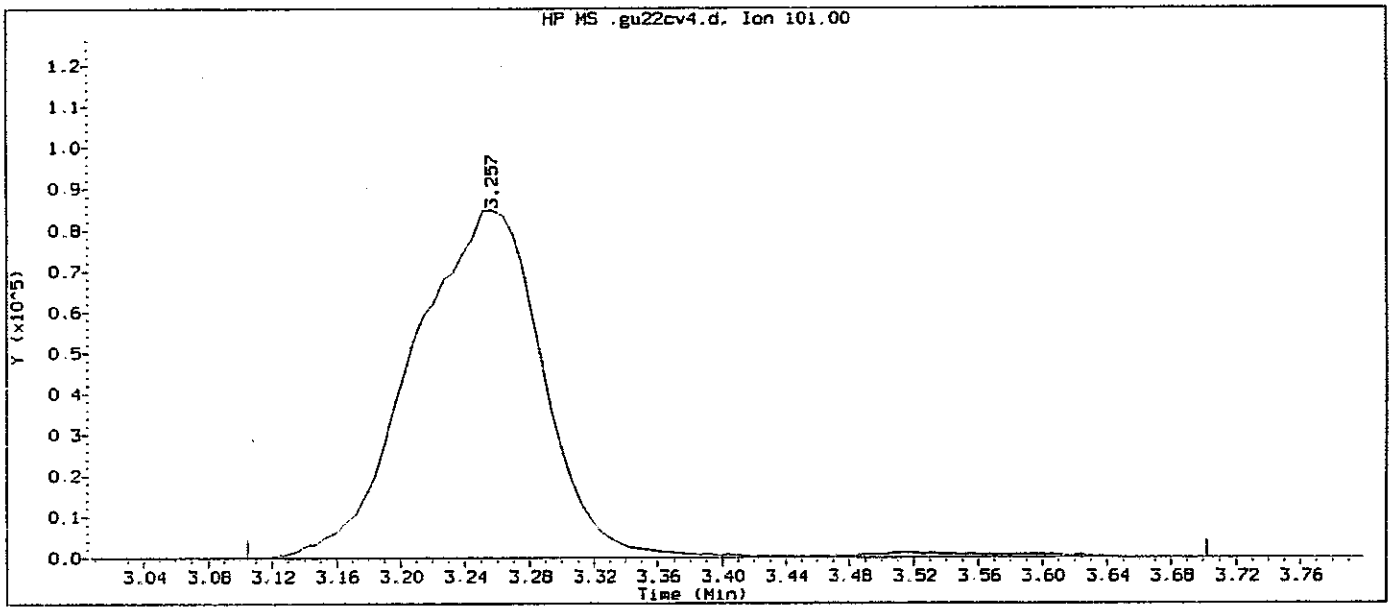
RAD19 8216

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d, generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 22:53 Automation

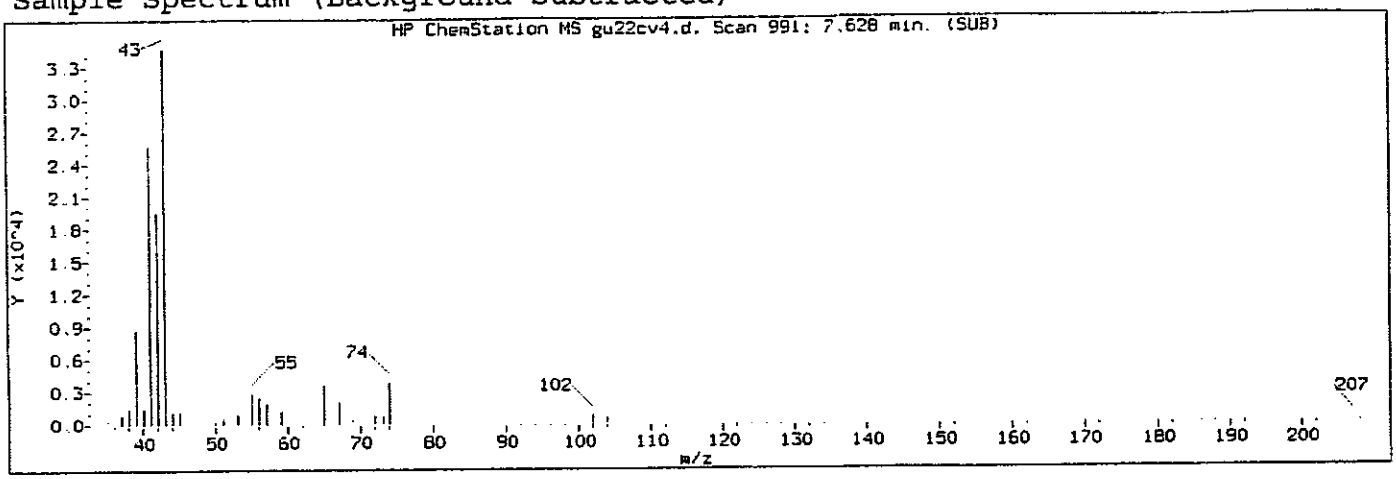
Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number : 14
Compound Name : Trichlorofluoromethane
Scan Number : 274
Retention Time (minutes): 3.257
Quant Ion : 101
Area : 481464
Concentration (ug/L) : 5.0672
Integration start scan : 248 Integration stop scan: 346
Y at integration start : 0 Y at integration end: 0

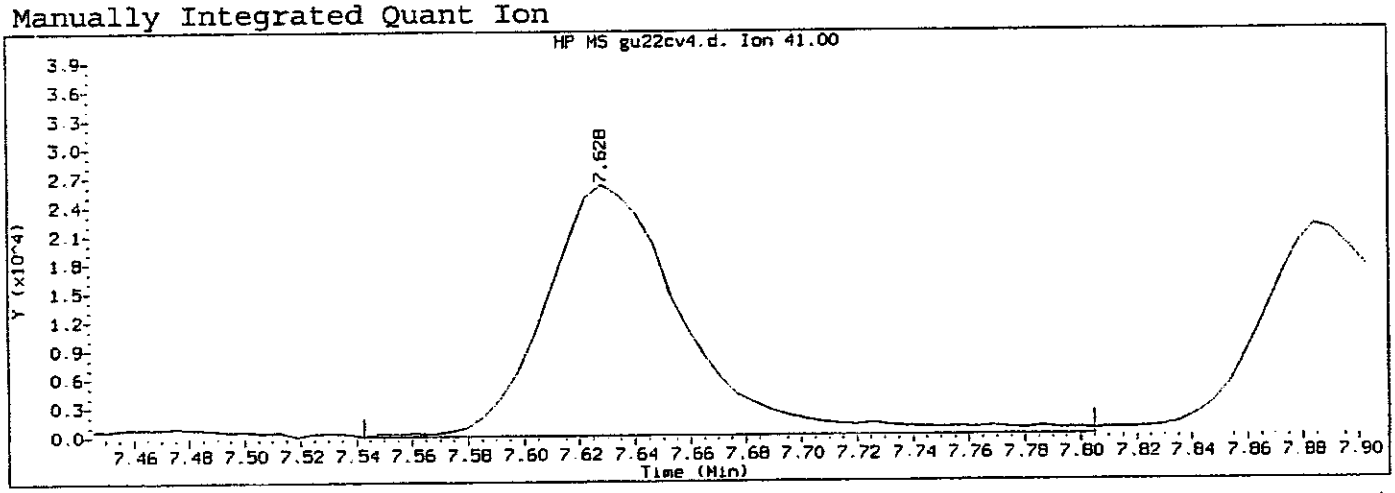
RAD19 8217

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d. generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 23:00 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number	:	66
Compound Name	:	Isobutyl Alcohol
Scan Number	:	991
Retention Time (minutes)	:	7.628
Quant Ion	:	41
Area (flag)	:	91555 M
Concentration (ug/L)	:	118.7453
Integration start scan	:	976 Integration stop scan: 1019
Y at integration start	:	0 Y at integration end: 0

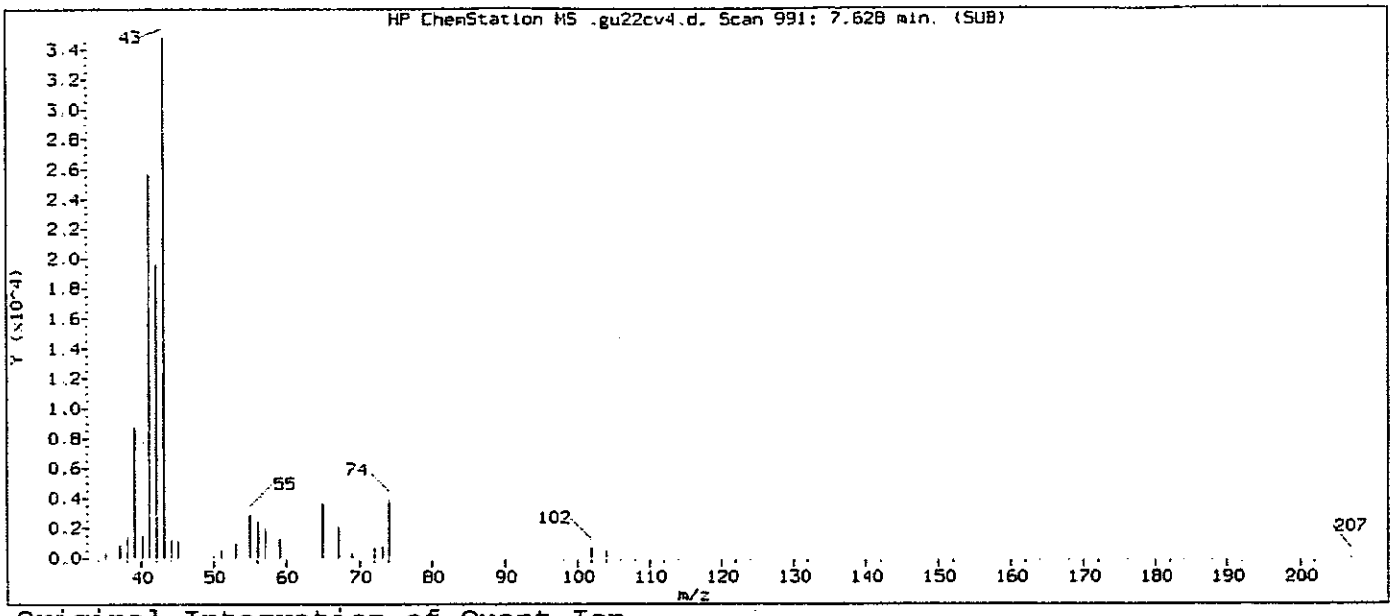
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/22/09

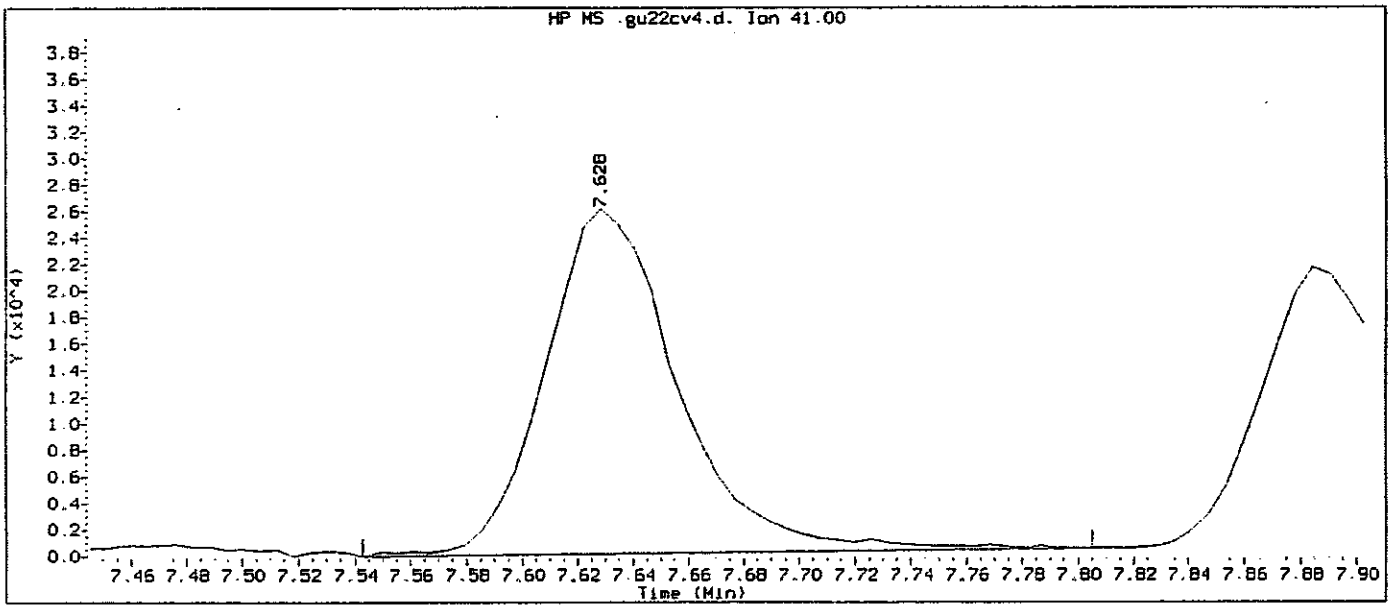
GC/MS audit/management approval: [signature] 6-23-09 RAD19 8218

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d, generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 22:53 Automation

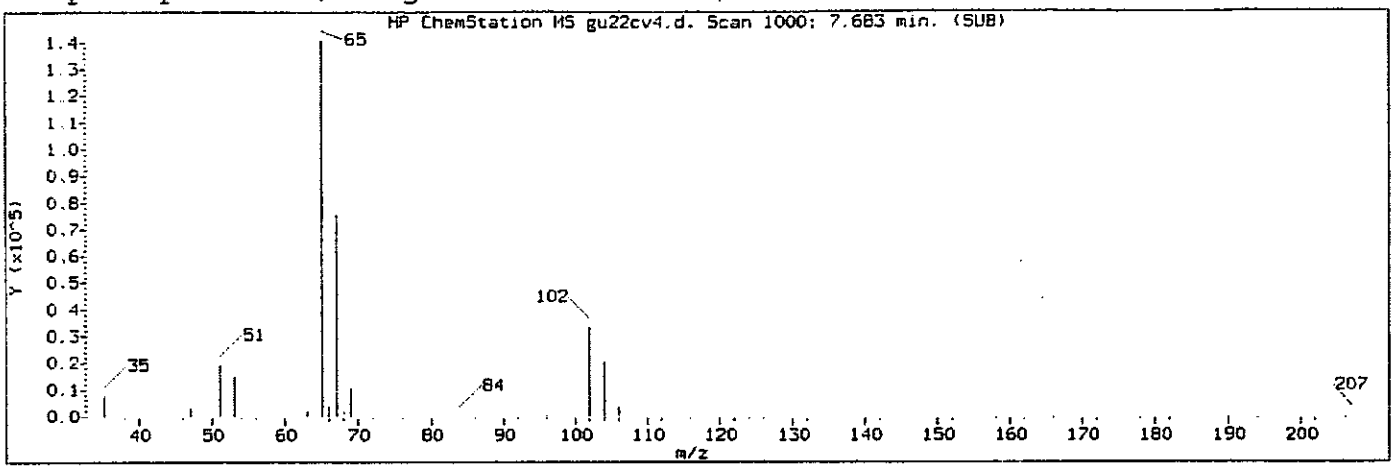
Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number : 66
Compound Name : Isobutyl Alcohol
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 41
Area : 86927
Concentration (ug/L) : 112.3707
Integration start scan : 976 Integration stop scan: 1019
Y at integration start : 0 Y at integration end: 575

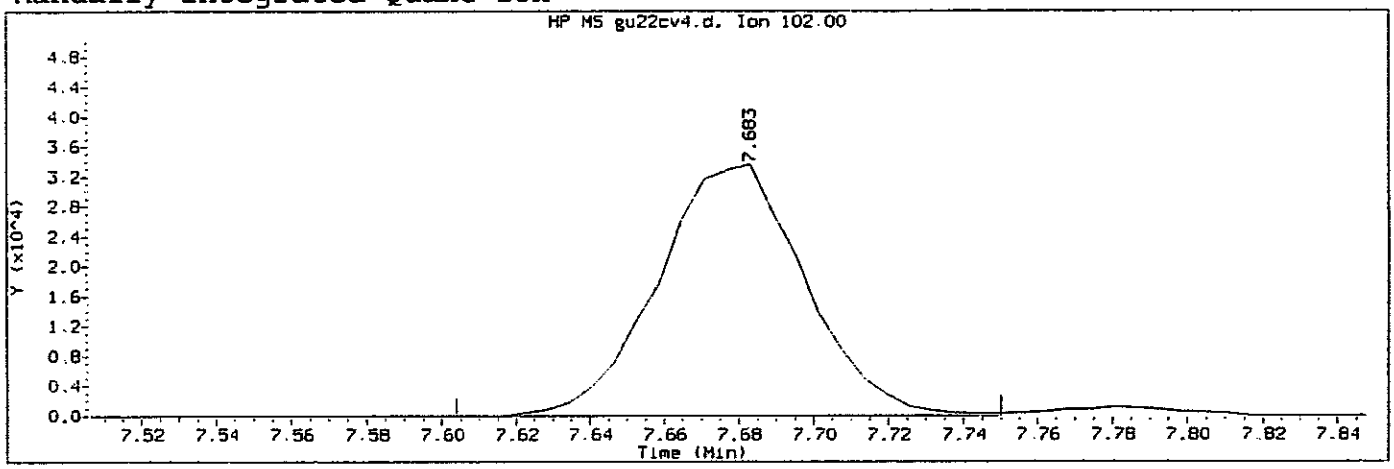
RAD19 8219

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d, generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 23:00 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number	: 69
Compound Name	: 1,2-Dichloroethane-d4
Scan Number	: 1000
Retention Time (minutes)	: 7.683
Quant Ion	: 102
Area (flag)	: 92100 M
Concentration (ug/L)	: 9.4494
Integration start scan	: 986 Integration stop scan: 1010
Y at integration start	: 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

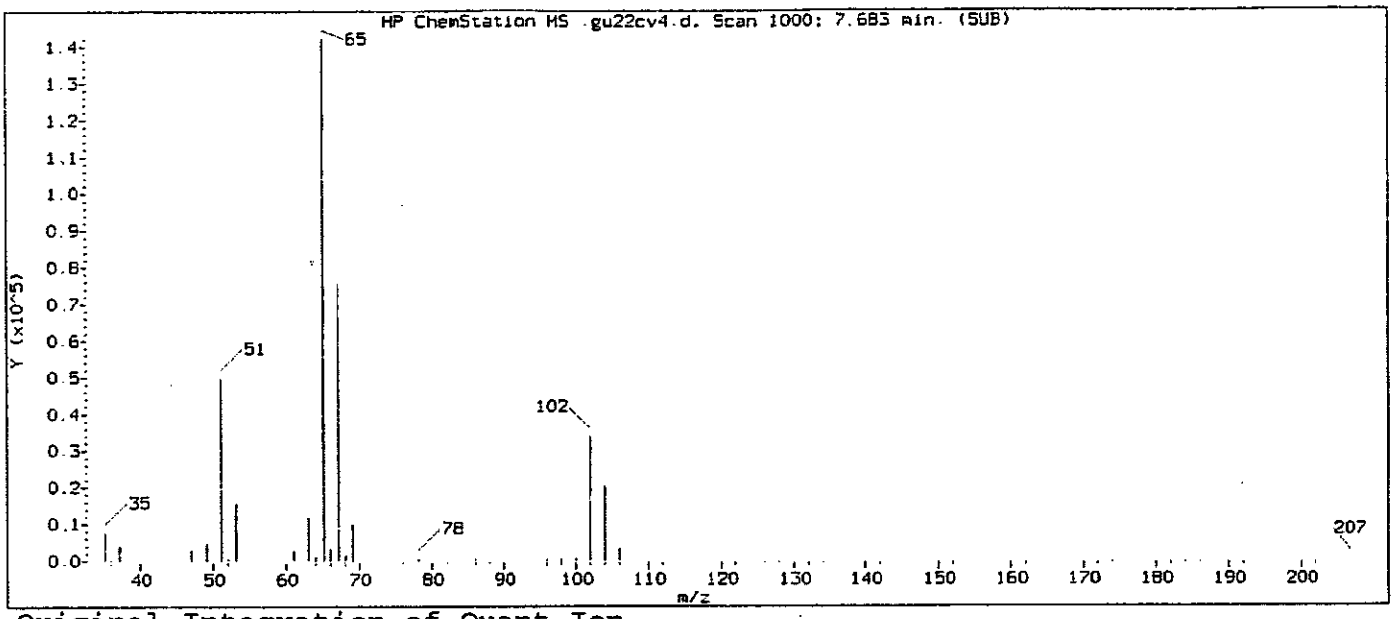
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09

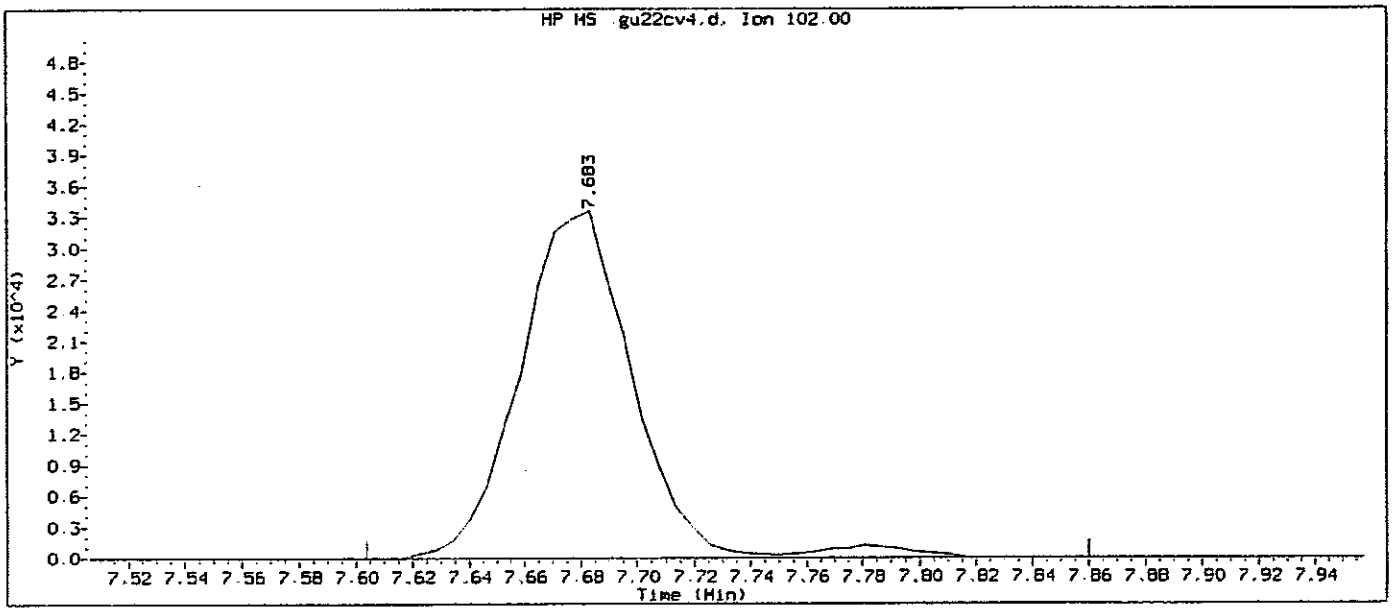
BAD19 8228

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d, generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 22:53 Automation

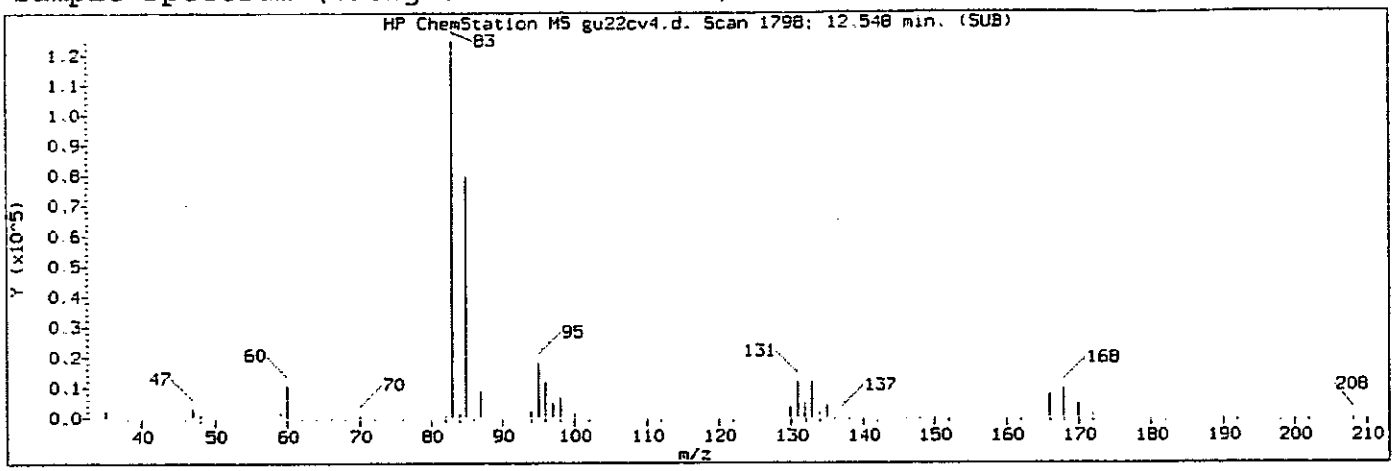
Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number	: 69
Compound Name	: 1,2-Dichloroethane-d4
Scan Number	: 1000
Retention Time (minutes)	: 7.683
Quant Ion	: 102
Area	: 94746
Concentration (ug/L)	: 9.7208
Integration start scan	: 986 Integration stop scan: 1028
Y at integration start	: 0 Y at integration end: 0

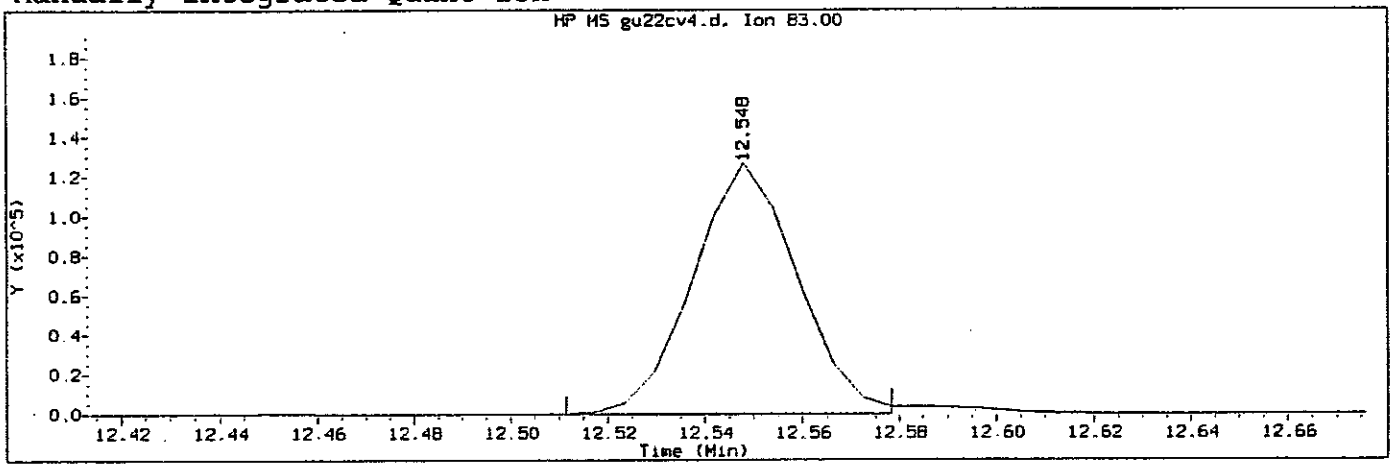
RAD19 8221

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d, generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 23:00 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

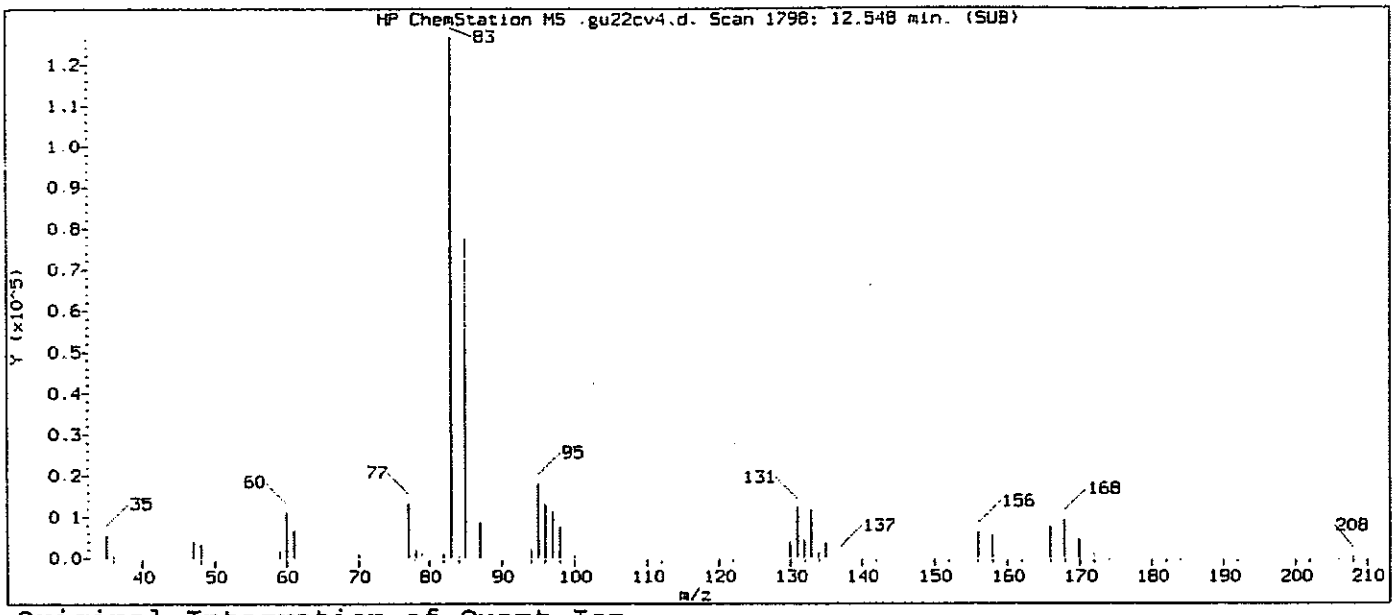
Compound Number : 127
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1798
Retention Time (minutes): 12.548
Quant Ion : 83
Area (flag) : 188661 M
Concentration (ug/L) : 4.4825
Integration start scan : 1791 Integration stop scan: 1802
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

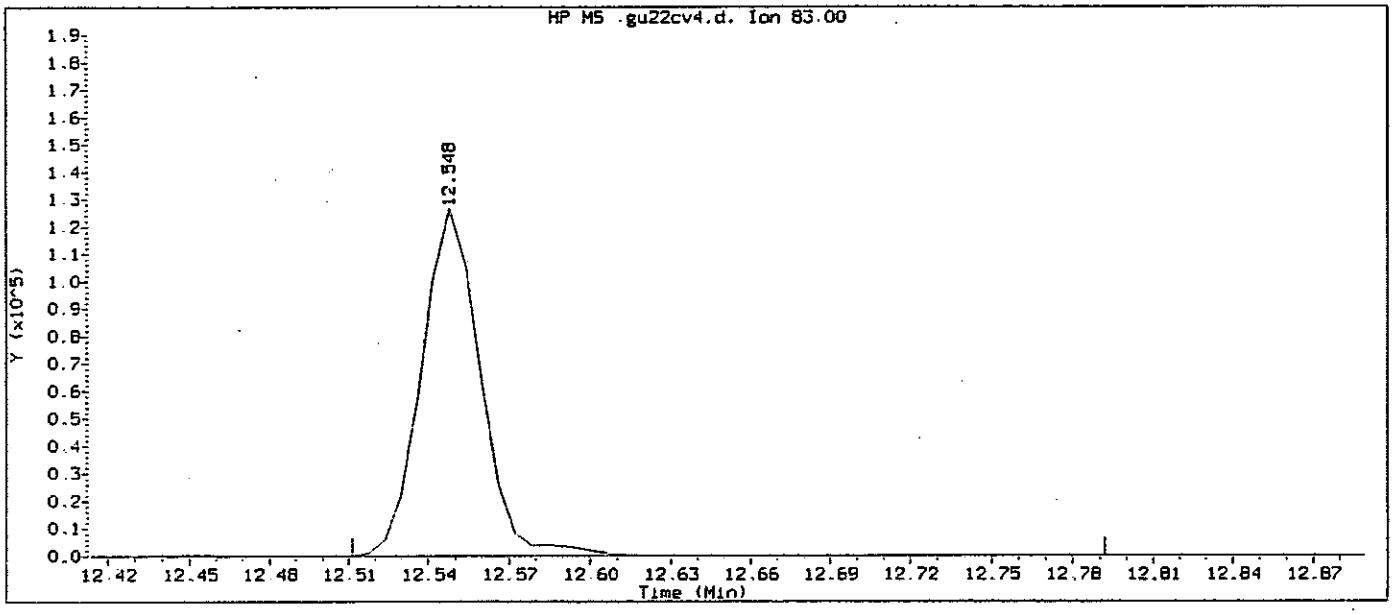
Analyst responsible for change: [signature] 6/22/09

GC/MS audit/management approval: [signature] 6/23/09 RAD19 8222

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 22:53 Automation

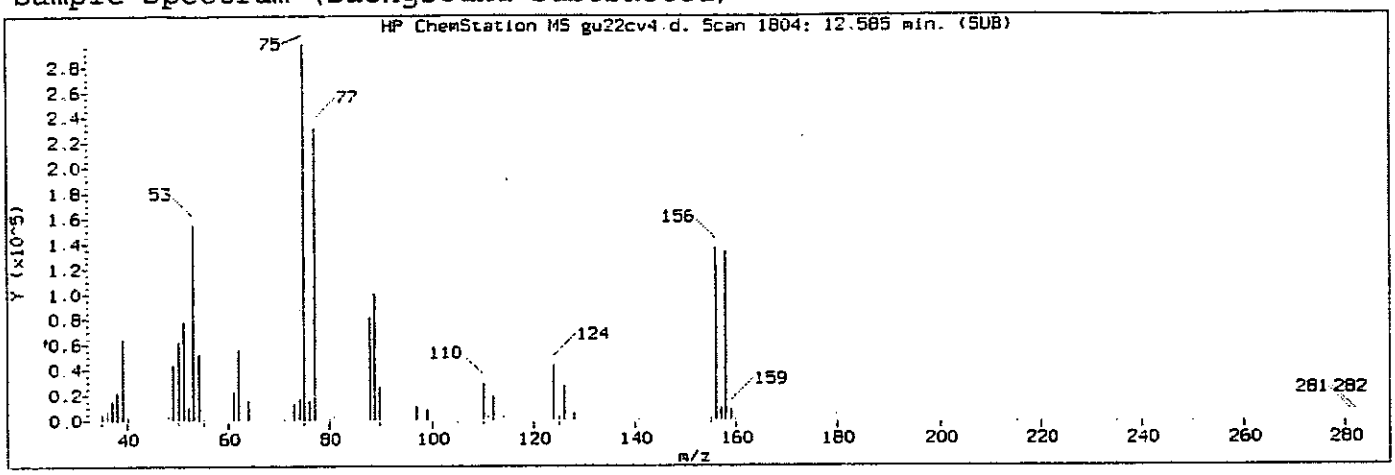
Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number : 127
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1798
Retention Time (minutes): 12.548
Quant Ion : 83
Area : 193062
Concentration (ug/L) : 4.5870
Integration start scan : 1791 Integration stop scan: 1837
Y at integration start : 0 Y at integration end: 0

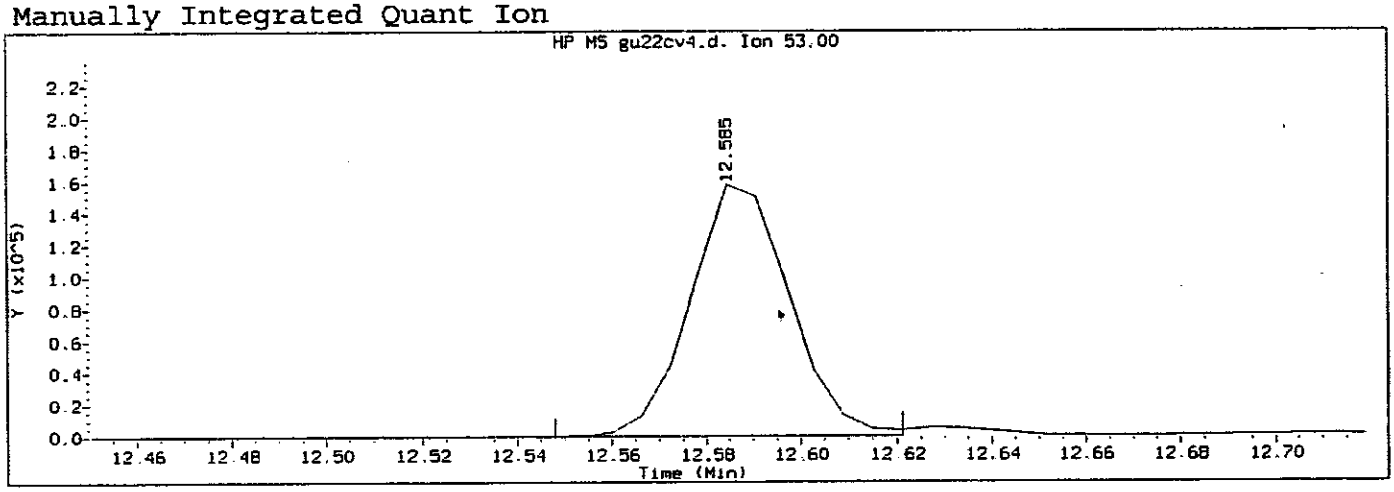
RAD19 8223

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d. generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 23:00 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number : 129
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1804
Retention Time (minutes): 12.585
Quant Ion : 53
Area (flag) : 232010 M
Concentration (ug/L) : 25.4315
Integration start scan : 1797 Integration stop scan: 1809
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

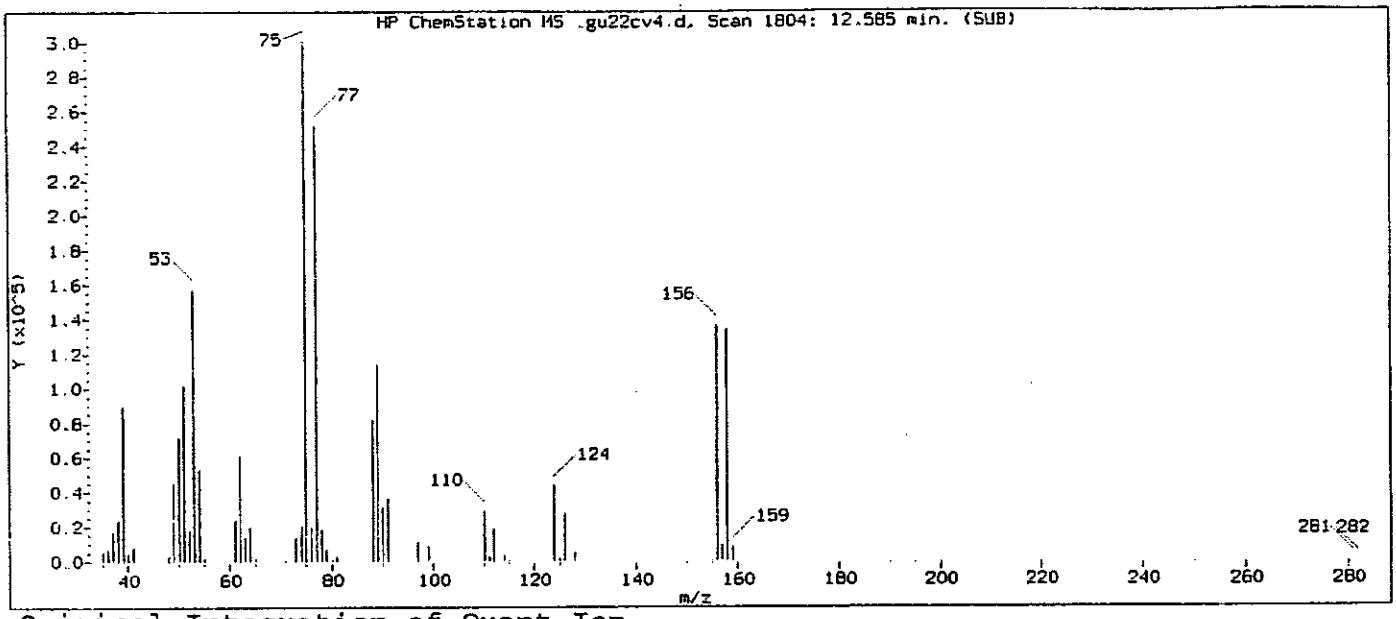
Analyst responsible for change: Sew 6/22/09

GC/MS audit/management approval: 6/23/09

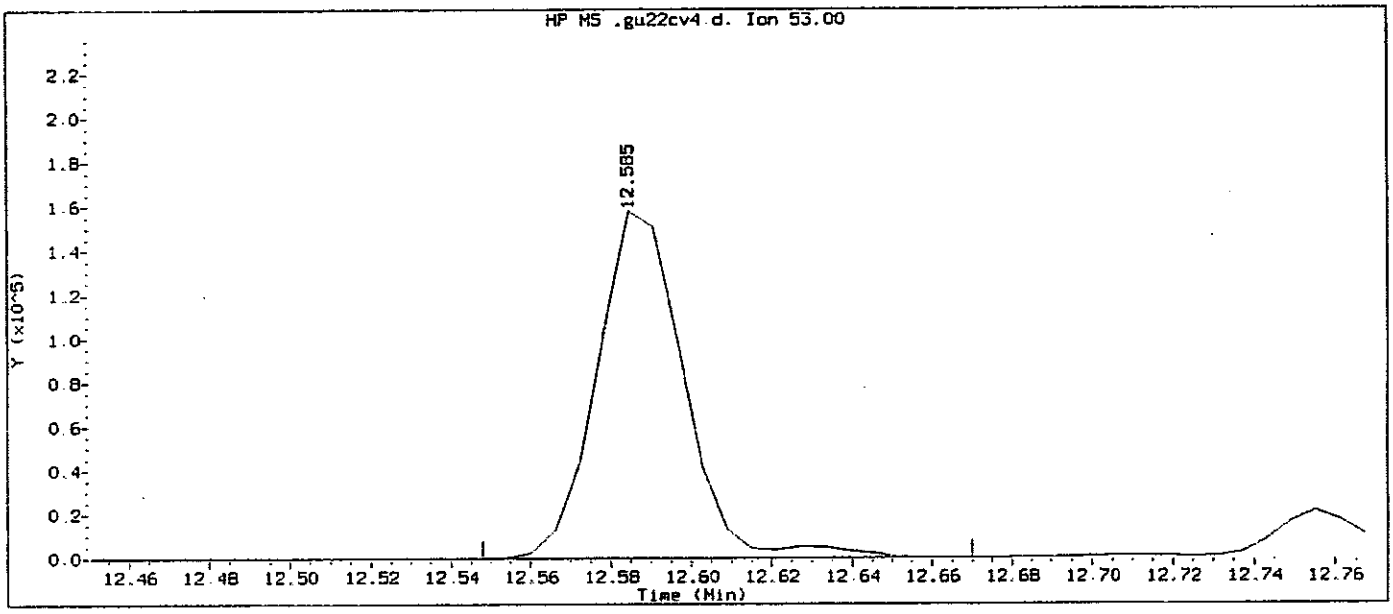
RAD19 0224

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d. generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 22:53 Automation

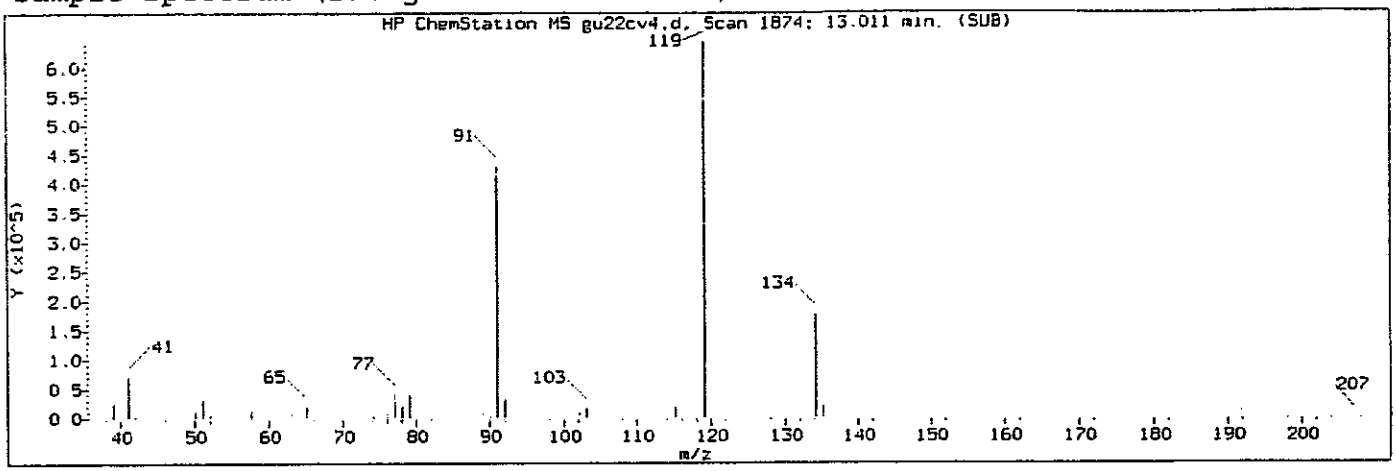
Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number	: 129
Compound Name	: trans-1,4-Dichloro-2-Butene
Scan Number	: 1804
Retention Time (minutes)	: 12.585
Quant Ion	: 53
Area	: 237946
Concentration (ug/L)	: 26.0821
Integration start scan	: 1797 Integration stop scan: 1817
Y at integration start	: 0 Y at integration end: 0

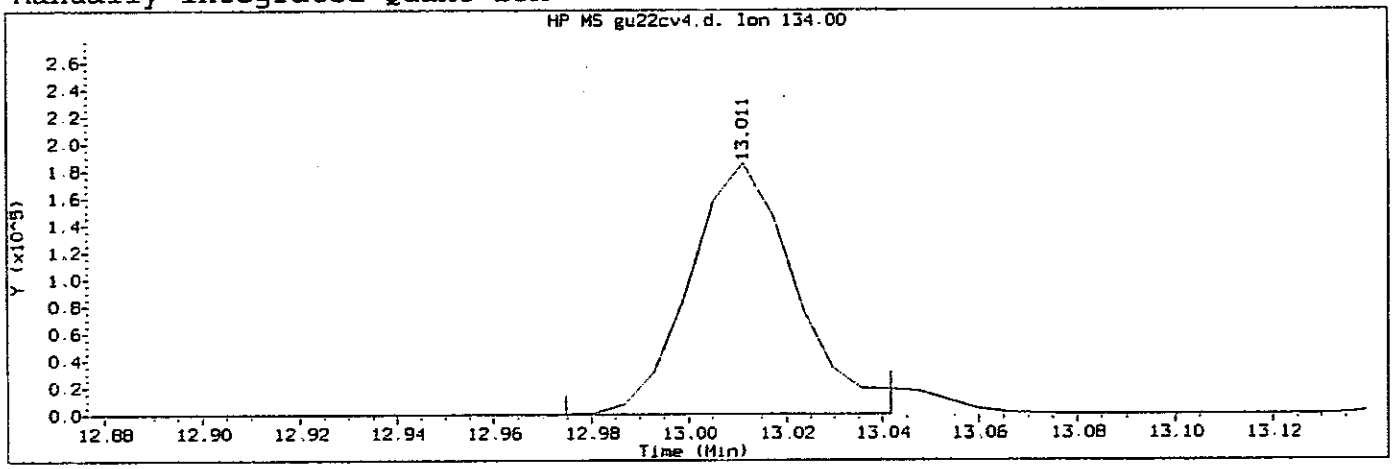
RAD19 0225

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d. generated on 06/22/2009 at 23:00

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 23:00 sew02002

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	280226 M
Concentration (ug/L)	:	4.6259
Integration start scan	:	1867 Integration stop scan: 1878
Y at integration start	:	0 Y at integration end: 0

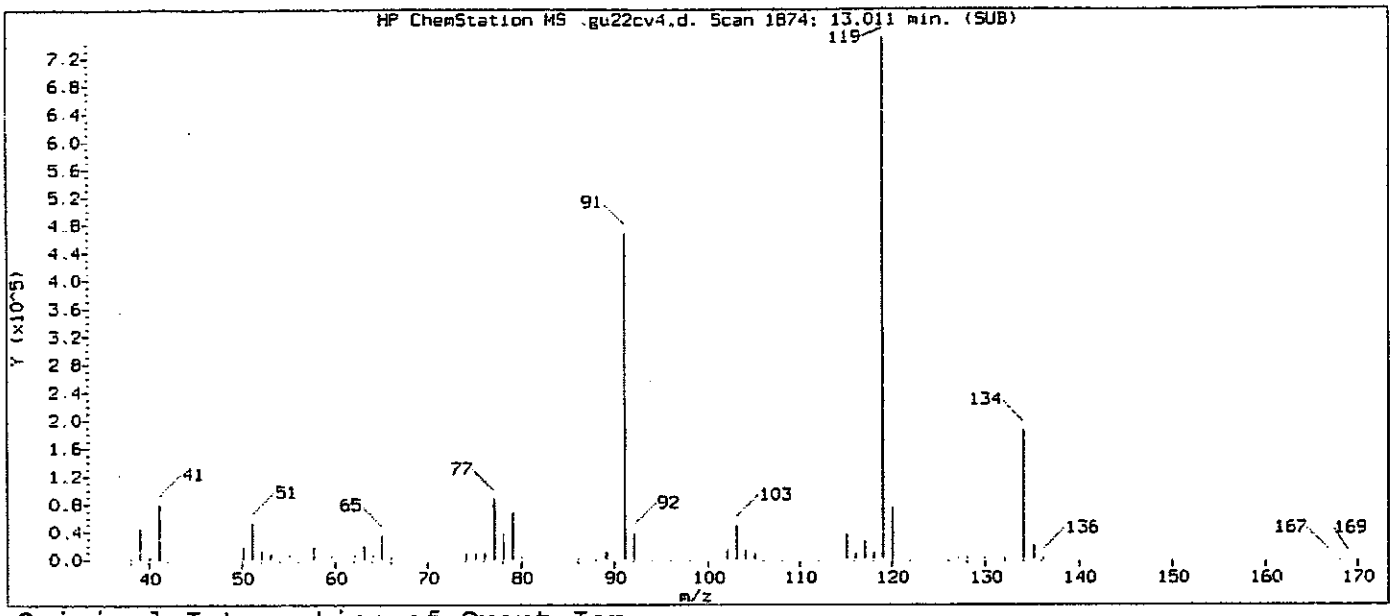
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/22/09

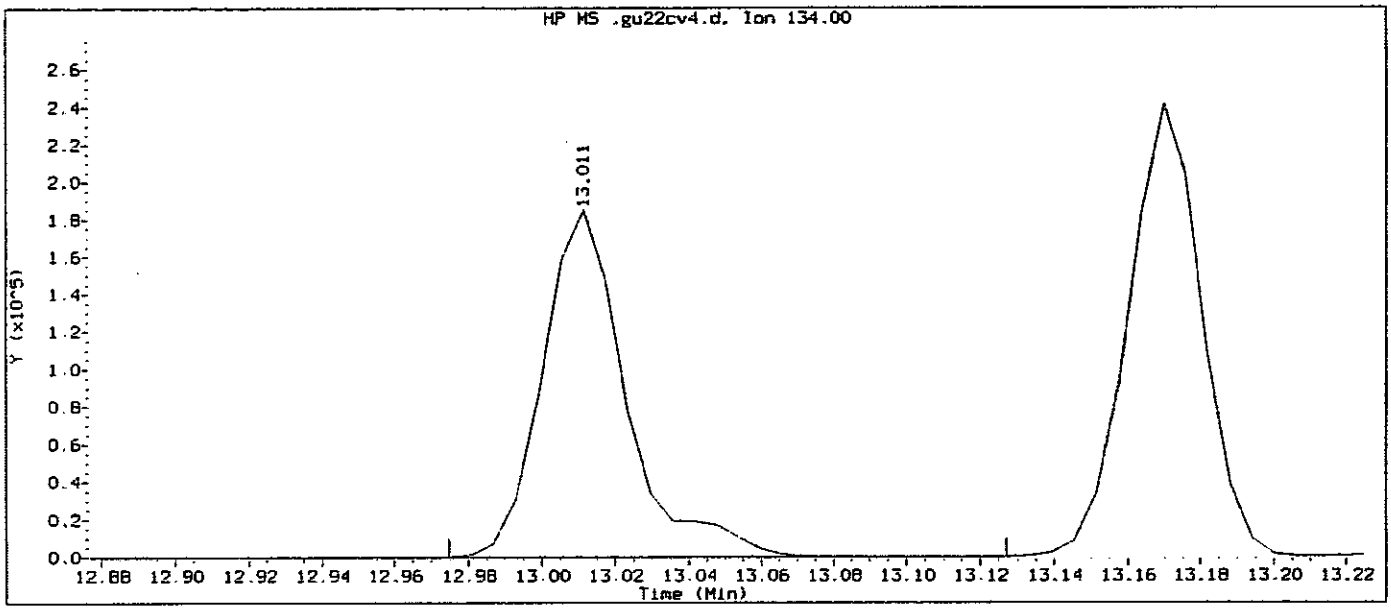
GC/MS audit/management approval: [signature] 6-23-09

RnD19 8226

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22cv4.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 22:37 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 21:28
Date, time and analyst ID of latest file update: 22-Jun-2009 22:53 Automation

Sample Name: ICVGLG Lab Sample ID: ICVGLG

Compound Number : 136
Compound Name : tert-Butylbenzene
Scan Number : 1874
Retention Time (minutes): 13.011
Quant Ion : 134
Area : 292314
Concentration (ug/L) : 4.8255
Integration start scan : 1867 Integration stop scan: 1892
Y at integration start : 0 Y at integration end: 0

RAD13 8227

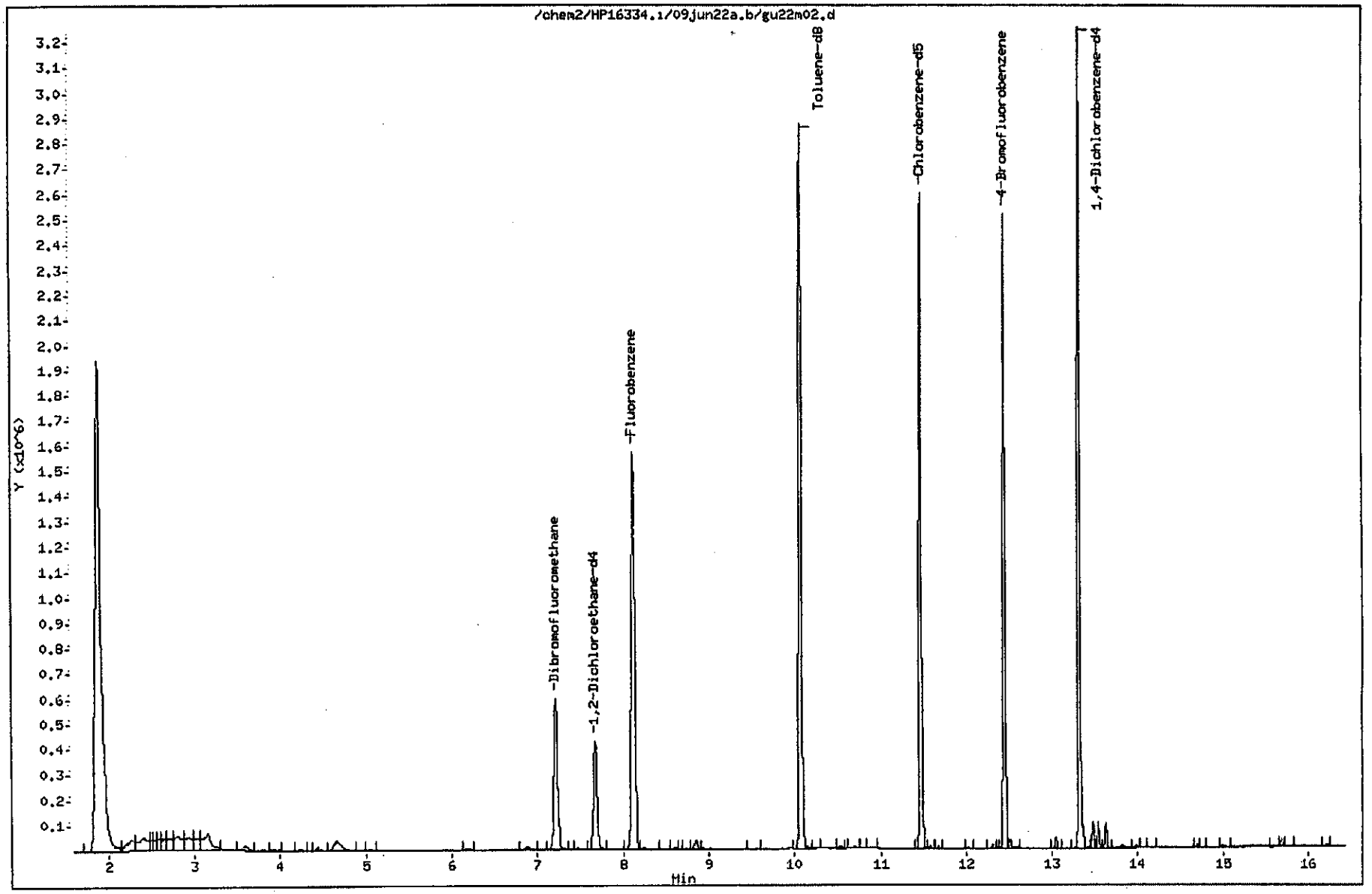
Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22cv4.d, generated on 06/22/2009 at 23:00

Data File: /chem2/HP16334.i/09jun22a.b/gu22m02.d
Date : 22-JUN-2009 20:51
Client ID: HDL0.2
Sample Info: HDL0.2;HDL0.2;1;3;HDL/LOQ;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: SEW02002
Column diameter: 0.25

RAD-3 8228



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22m02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 20:51 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: CEB
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 23-Jun-2009 16:21 sew02002

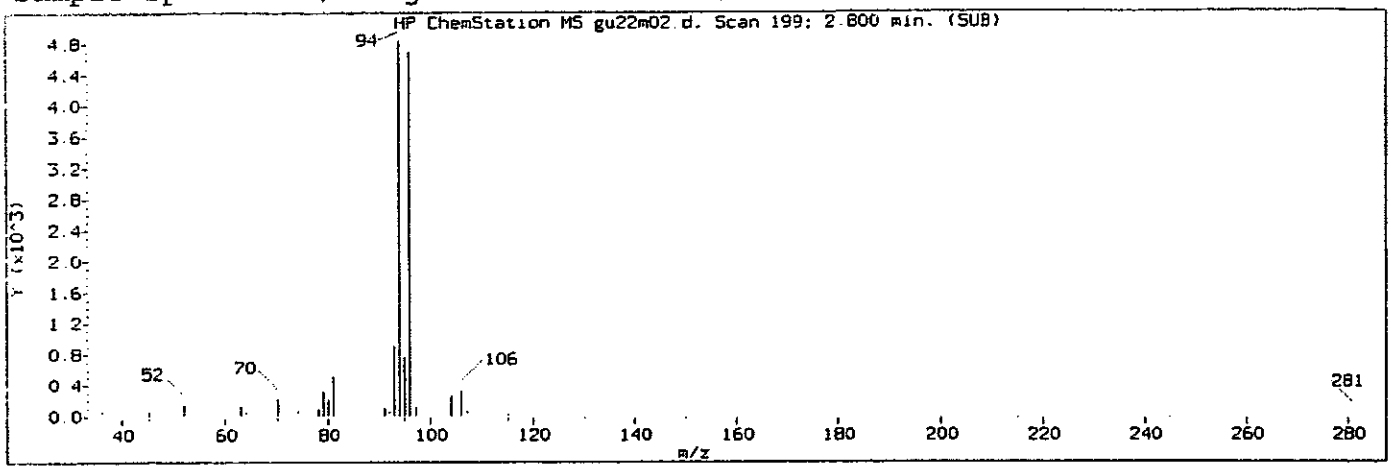
Sample Name: MDL0.2 Lab Sample ID: MDL0.2

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
9) Bromomethane	(1)	2.800	94	13256M	0.042
10) Chloroethane	(1)	2.922	64	11478M	0.068
16) Ethyl Ether	(1)	3.568	59	7657	0.073
76)*Fluorobenzene	(1)	8.122	96	2099784	10.000
109)*Chlorobenzene-d5	(2)	11.475	117	1517563	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	829097	10.000
60)$Dibromofluoromethane	(1)	7.214	113	530181	9.888
69)$1,2-Dichloroethane-d4	(1)	7.677	102	95679	9.931
96)$Toluene-d8	(2)	10.073	98	2273523	9.938
125)$4-Bromofluorobenzene	(2)	12.444	95	762591	9.675

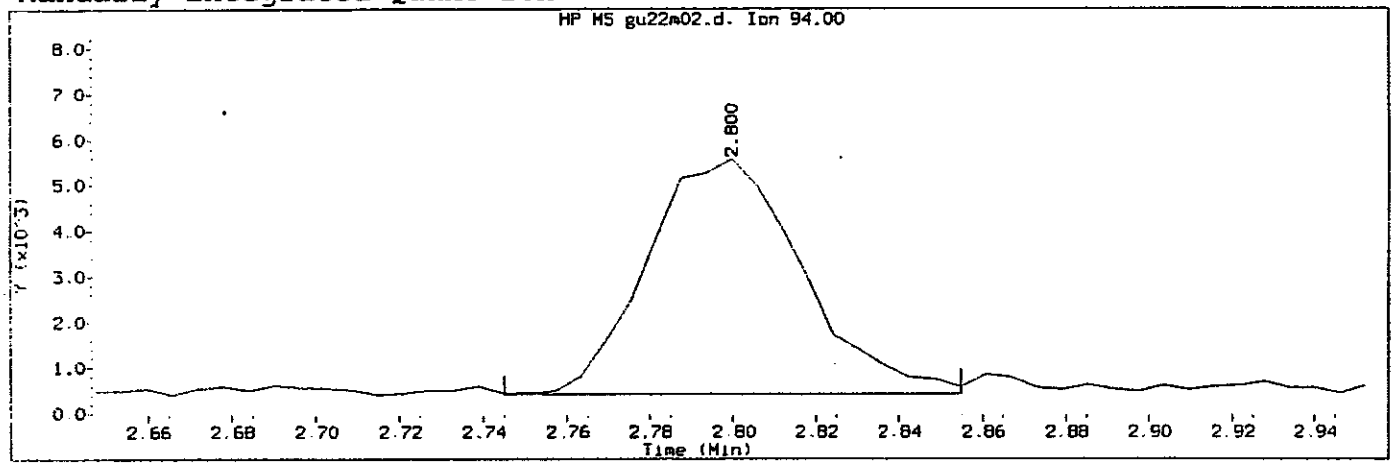
M = Compound was manually integrated.

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 20:51 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: CEB
Calibration date and time: 23-JUN-2009 16:19
Date, time and analyst ID of latest file update: 23-Jun-2009 16:21 sew02002

Sample Name: MDL0.2 Lab Sample ID: MDL0.2

Compound Number	:	9
Compound Name	:	Bromomethane
Scan Number	:	199
Retention Time (minutes)	:	2.800
Quant Ion	:	94
Area (flag)	:	13256 M
Concentration (ug/L)	:	0.0422
Integration start scan	:	189 Integration stop scan: 207
Y at integration start	:	429 Y at integration end: 429

Reason for manual integration (circle one): (missed peak) improper integration

Analyst responsible for change: [signature] 6/23/09

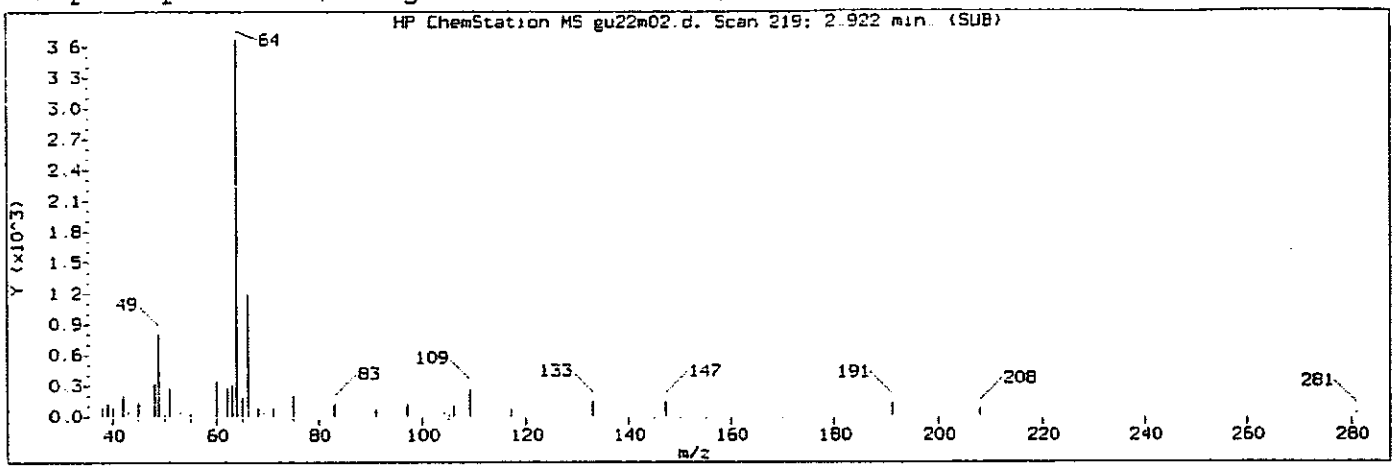
GC/MS audit/management approval: * [signature] 6-23-09

RAD19 8238

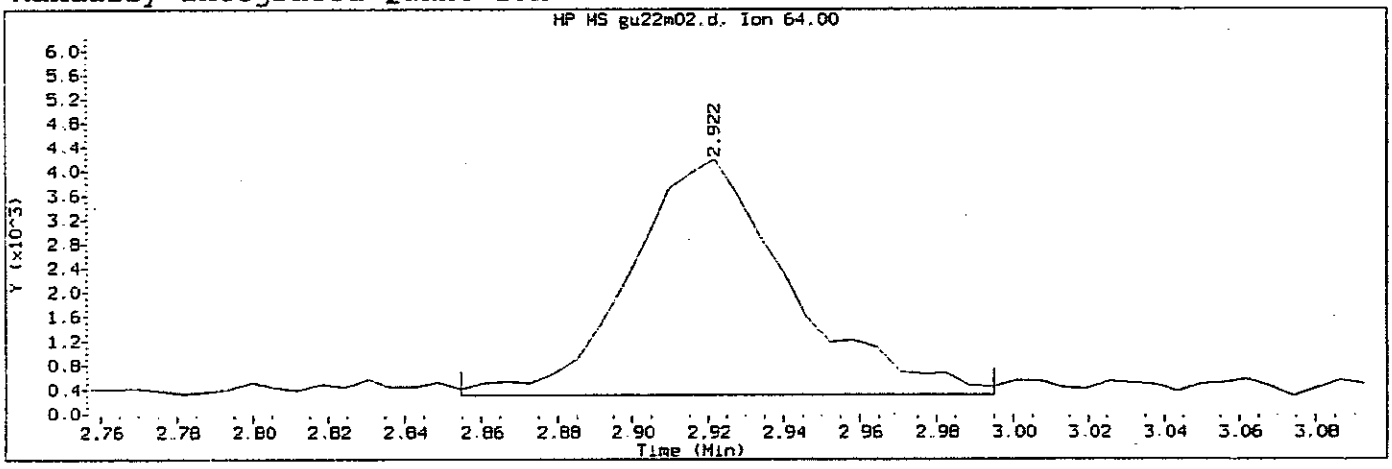
Manual Integration Report for data file /chem2/HP16334 i/09jun22a b/gu22m02 d, generated on 06/23/2009 at 16:21

* compound added - no original integration available [signature] 428 7-2-09

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 20:51 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: CE
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:11 sew02002

Sample Name: MDL0.2 Lab Sample ID: MDL0.2

Compound Number : 10
Compound Name : Chloroethane
Scan Number : 219
Retention Time (minutes): 2.922
Quant Ion : 64
Area (flag) : 11478 M
Concentration (ug/L) : 0.0678
Integration start scan : 207 Integration stop scan: 230
Y at integration start : 304 Y at integration end: 304

Reason for manual integration (circle one): missed peak ~~improper integration~~

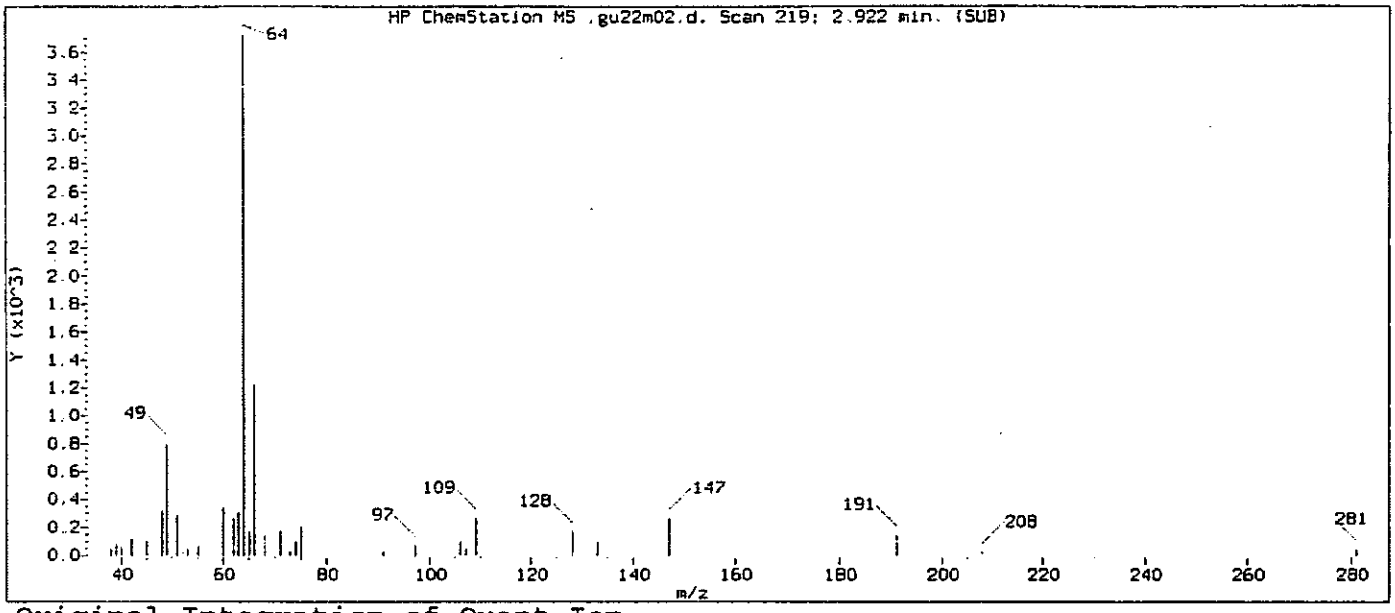
Analyst responsible for change: Sew 6/22/09

GC/MS audit/management approval: 6-23-09

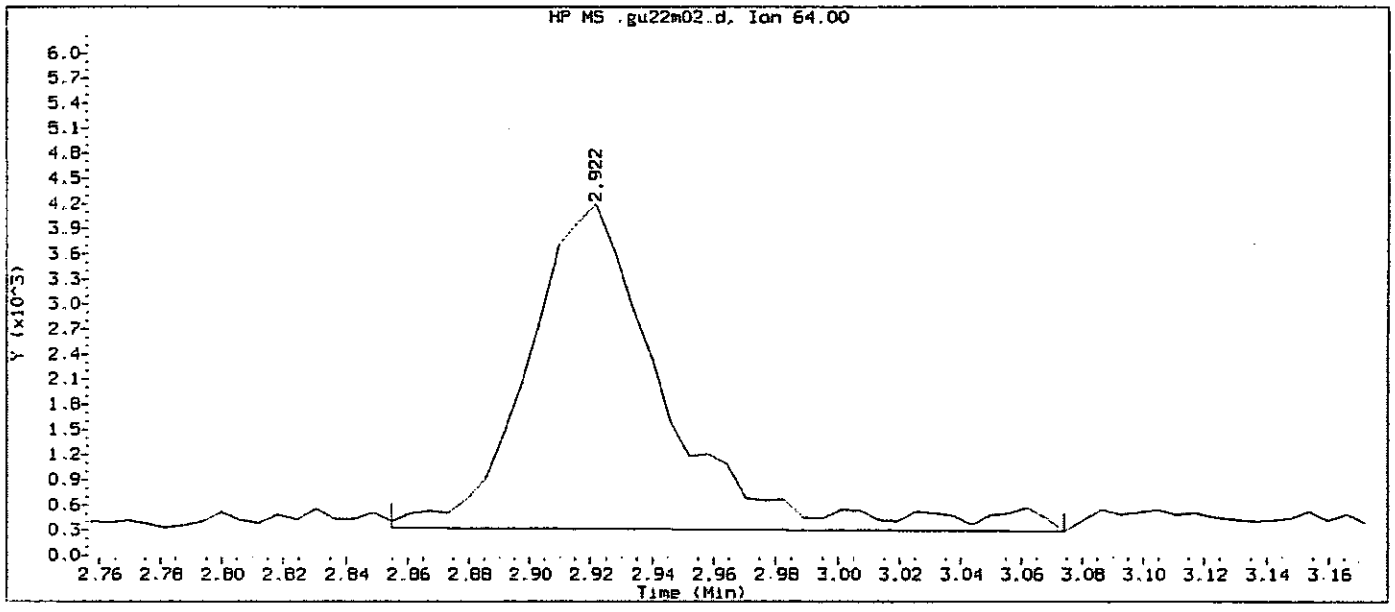
RAD19 8231

Manual Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m02.d. generated on 06/22/2009 at 21:11

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun22a.b/gu22m02.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 20:51 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: CE
Calibration date and time: 22-JUN-2009 19:52
Date, time and analyst ID of latest file update: 22-Jun-2009 21:08 Automation

Sample Name: MDL0.2 Lab Sample ID: MDL0.2

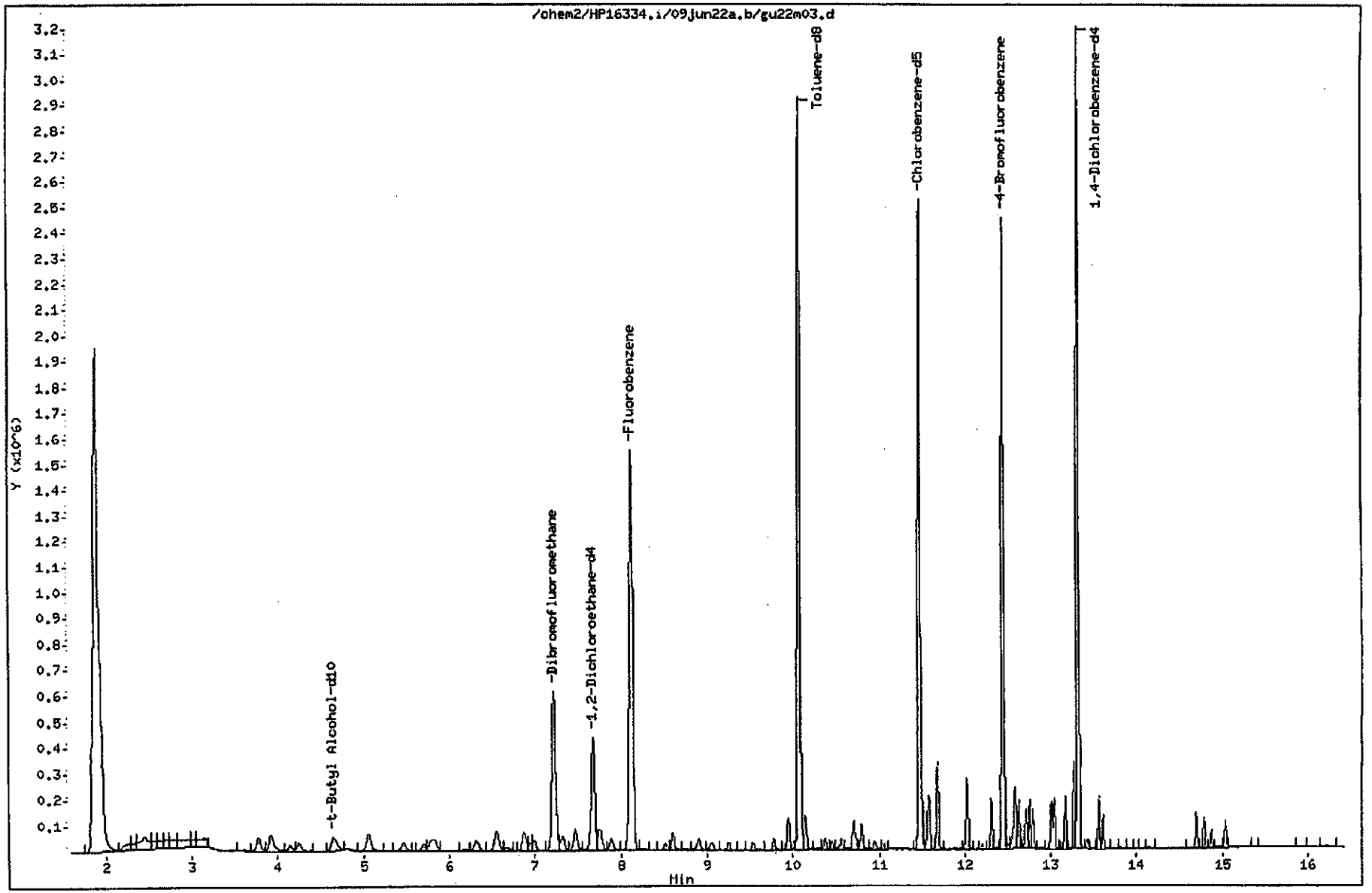
Compound Number	: 10
Compound Name	: Chloroethane
Scan Number	: 219
Retention Time (minutes)	: 2.922
Quant Ion	: 64
Area	: 12159
Concentration (ug/L)	: 0.0857
Integration start scan	: 207 Integration stop scan: 243
Y at integration start	: 331 Y at integration end: 290

RAD19 #232

Original Integration Report for data file /chem2/HP16334.i/09jun22a.b/gu22m02.d. generated on 06/22/2009 at 21:11

Data File: /chem2/HP16334.i/09jun22a.b/gu22m03.d
Date : 22-JUN-2009 21:13
Client ID: MDL20
Sample Info: MDL20;MDL20;1;3;MDL/LOQ;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i
Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun22a.b/gu22m03.d Instrument ID: HP16334.i
Injection date and time: 22-JUN-2009 21:13 Analyst ID: SEW02002

Method used: /chem2/HP16334.i/09jun22a.b/g8260w25.m Sublist used: 14DIOX
Calibration date and time: 22-JUN-2009 15:40
Date, time and analyst ID of latest file update: 22-Jun-2009 21:29 Automation

Sample Name: MDL20 Lab Sample ID: MDL20

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
35)*t-Butyl Alcohol-d10	(4)	4.678	65	86567	50.000
76)*Fluorobenzene	(1)	8.122	96	2051233	10.000
88) 1,4-Dioxane	(4)	9.079	88	2552	14.806
109)*Chlorobenzene-d5	(2)	11.475	117	1475727	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	810743	10.000
60)$Dibromofluoromethane	(1)	7.220	113	532525	10.167
69)$1,2-Dichloroethane-d4	(1)	7.677	102	95171	10.112
96)$Toluene-d8	(2)	10.073	98	2298239	10.331
125)$4-Bromofluorobenzene	(2)	12.445	95	774641	10.107

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

BAD19 8234

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP16334.i/09jun22a.b/gu22i07.d
/chem2/HP16334.i/09jun22a.b/gu22i05.d
/chem2/HP16334.i/09jun22a.b/gu22i04.d
/chem2/HP16334.i/09jun22a.b/gu22i03.d
/chem2/HP16334.i/09jun22a.b/gu22i02.d
/chem2/HP16334.i/09jun22a.b/gu22i01.d

File /chem2/HP16334.i/09jun22a.b/gu22i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP16334.i/09jun25a.b/gu25c03.d

RT Summary

File ID:

Internal Standard Name	gu25c03.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.665	4.678	Yes
Fluorobenzene	8.122	8.122	Yes
Chlorobenzene-d5	11.475	11.475	Yes
1,4-Dichlorobenzene-d4	13.316	13.316	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

File ID:

Internal Standard Name	gu25c03.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	77504	103470	51735	206940	Yes
Fluorobenzene	1936141	2308427	1154214	4616854	Yes
Chlorobenzene-d5	1419503	1663653	831826	3327306	Yes
1,4-Dichlorobenzene-d4	815886	919769	459884	1839538	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RAD19 8235

Comments: _____

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date: 06/25/09 Time: 11:52

Lab File ID: gu25c03.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.3725	0.3360	4.51	5	-10	
#	Chloromethane	0.3339	0.3477	5.65	5	13	#
*	Vinyl Chloride	0.3572	0.3952	5.53	5	11	*
	Bromomethane	0.2906	0.3156	6.03	5	21	
	Chloroethane	0.2039	0.2253	6.17	5	23	
	Dichlorofluoromethane	0.5508	0.5574	5.39	5	8	
	Trichlorofluoromethane	0.4473	0.4639	5.19	5	4	
	Ethyl Ether	0.1983	0.1658	4.92	5	-2	
	Freon 123a	0.3180	0.3202	5.03	5	1	
	Acrolein	2.4063	2.6479	275.10	250	10	
*	1,1-Dichloroethene	0.2572	0.2460	4.78	5	-4	*
	Freon 113	0.2771	0.2793	5.04	5	1	
	Acetone	1.0191	1.1259	55.24	50	10	
	Methyl Iodide	0.4790	0.4682	4.89	5	-2	
	Carbon Disulfide	0.7278	0.7761	5.33	5	7	
	Allyl Chloride	0.3426	0.3506	5.12	5	2	
	Methyl Acetate	0.0807	0.0696	4.85	5	-3	
	Methylene Chloride	0.3449	0.2634	4.41	5	-12	
	t-Butyl Alcohol	1.3028	1.2570	96.49	100	-4	
	Acrylonitrile	4.3099	4.7591	27.61	25	10	
	trans-1,2-Dichloroethene	0.2896	0.2832	4.89	5	-2	
	1,2-Dichloroethene (Total)	0.2987	0.2934	9.82	10	-2	
	Methyl Tertiary Butyl Ether	0.5529	0.5228	4.73	5	-5	
	n-Hexane	0.3823	0.3732	4.88	5	-2	
#	1,1-Dichloroethane	0.4532	0.4476	4.94	5	-1	#
	di-Isopropyl Ether	0.7708	0.7661	4.97	5	-1	
	2-Chloro-1,3-Butadiene	0.3993	0.4012	5.02	5	0	
	Ethyl t-Butyl Ether	0.7067	0.6822	4.83	5	-3	
	2,2-Dichloropropane	0.3738	0.3733	4.99	5	0	
	cis-1,2-Dichloroethene	0.3078	0.3036	4.93	5	-1	
	2-Butanone	5.3714	5.8497	54.45	50	9	
	Propionitrile	1.5914	1.6944	106.47	100	6	
	Methacrylonitrile	5.9399	6.5665	55.27	50	11	
	Bromochloromethane	0.1251	0.1256	5.02	5	0	
	Tetrahydrofuran	1.6407	1.7794	54.23	50	8	
*	Chloroform	0.4707	0.4774	5.07	5	1	*

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*)=20%

RAD19 8236

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date: 06/25/09 Time: 11:52

Lab File ID: gu25c03.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1,1,1-Trichloroethane	0.4005	0.4168	5.20	5	4	
	Cyclohexane	0.4602	0.4536	4.93	5	-1	
	1,1-Dichloropropene	0.3683	0.3677	4.99	5	0	
	Carbon Tetrachloride	0.3565	0.3569	5.01	5	0	
	Isobutyl Alcohol	0.4077	0.3979	262.01	250	5	
	Benzene	1.1348	1.1324	4.99	5	0	
	1,2-Dichloroethane	0.2495	0.2581	5.17	5	3	
	1,2-Dichloroethane(mz98)	0.0247	0.0240	4.85	5	-3	
	t-Amyl Methyl Ether	0.6093	0.5764	4.73	5	-5	
	n-Heptane	0.3923	0.3922	5.00	5	0	
	n-Butanol	0.3505	0.3369	480.61	500	-4	
	Trichloroethene	0.3004	0.2970	4.94	5	-1	
	Methylcyclohexane	0.5028	0.4950	4.92	5	-2	
*	1,2-Dichloropropane	0.2602	0.2591	4.98	5	0	*
	Dibromomethane	0.1152	0.1148	4.98	5	0	
	1,4-Dioxane	0.0996	0.0923	231.78	250	-7	
	Methyl Methacrylate	11.3860	12.1013	5.31	5	6	
	Bromodichloromethane	0.3115	0.3175	5.10	5	2	
	2-Nitropropane	3.0017	3.5321	58.83	50	18	
	cis-1,3-Dichloropropene	0.3589	0.3632	5.06	5	1	
	4-Methyl-2-Pentanone	0.1201	0.1204	50.09	50	0	
*	Toluene	1.0391	0.9994	4.81	5	-4	*
	trans-1,3-Dichloropropene	0.3946	0.4006	5.08	5	2	
	Ethyl Methacrylate	0.3106	0.2919	4.70	5	-6	
	1,1,2-Trichloroethane	0.2313	0.2262	4.89	5	-2	
	Tetrachloroethene	0.4719	0.4691	4.97	5	-1	
	1,3-Dichloropropane	0.3877	0.3831	4.94	5	-1	
	2-Hexanone	0.1140	0.1126	49.40	50	-1	
	Dibromochloromethane	0.2871	0.2860	4.98	5	0	
	1,2-Dibromoethane	0.2211	0.2157	4.88	5	-2	
#	Chlorobenzene	1.1364	1.1058	4.87	5	-3	#
	1,1,1,2-Tetrachloroethane	0.3721	0.3703	4.98	5	0	
*	Ethylbenzene	1.9910	1.9633	4.93	5	-1	*
	m+p-Xylene	0.8044	0.7916	9.84	10	-2	
	Xylene (Total)	0.7944	0.7812	14.75	15	-2	
	o-Xylene	0.7744	0.7604	4.91	5	-2	

RA019 0237

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date: 06/25/09 Time: 11:52

Lab File ID: gu25c03.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Styrene	1.2302	1.2055	4.90	5	-2	
#	Bromoform	0.1507	0.1476	4.90	5	-2	#
	Isopropylbenzene	1.9422	1.9138	4.93	5	-1	
#	1,1,2,2-Tetrachloroethane	0.4728	0.4464	4.72	5	-6	#
	Bromobenzene	0.8388	0.7960	4.74	5	-5	
	trans-1,4-Dichloro-2-Butene	4.6430	5.7938	62.39	50	25	
	1,2,3-Trichloropropane	0.1367	0.1274	4.66	5	-7	
	n-Propylbenzene	4.2887	4.1884	4.88	5	-2	
	2-Chlorotoluene	0.8899	0.8468	4.76	5	-5	
	4-Chlorotoluene	0.9119	0.8746	4.80	5	-4	
	1,3,5-Trimethylbenzene	3.0559	2.9711	4.86	5	-3	
	Pentachloroethane	0.5099	0.5074	4.98	5	0	
	tert-Butylbenzene	0.6805	0.6468	4.75	5	-5	
	1,2,4-Trimethylbenzene	3.1966	3.1142	4.87	5	-3	
	sec-Butylbenzene	4.0063	3.9381	4.91	5	-2	
	1,3-Dichlorobenzene	1.7911	1.7230	4.81	5	-4	
	p-Isopropyltoluene	3.4957	3.4247	4.90	5	-2	
	1,4-Dichlorobenzene	1.7882	1.7302	4.84	5	-3	
	1,2,3-Trimethylbenzene	1.3725	1.3299	4.84	5	-3	
	Benzyl Chloride	0.2049	0.2003	4.89	5	-2	
	n-Butylbenzene	1.7913	1.7755	4.96	5	-1	
	1,2-Dichlorobenzene	1.5196	1.4759	4.86	5	-3	
	1,2-Dibromo-3-Chloropropane	2.8415	3.1437	5.53	5	11	
	1,2,4-Trichlorobenzene	1.1813	1.1496	4.87	5	-3	
	Hexachlorobutadiene	0.6228	0.6306	5.06	5	1	
	Naphthalene	1.6832	1.6348	4.86	5	-3	
	1,2,3-Trichlorobenzene	0.9604	0.9609	5.00	5	0	
	Dibromofluoromethane	0.2553	0.2338	9.16	10	-8	
	Dibromofluoromethane(mz111)	0.2595	0.2386	9.20	10	-8	
	1,2-Dichloroethane-d4	0.0459	0.0423	9.23	10	-8	
	1,2-Dichloroethane-d4(mz104)	0.0298	0.0263	8.81	10	-12	
	1,2-Dichloroethane-d4(mz65)	0.2053	0.1919	9.35	10	-7	
	Toluene-d8	1.5074	1.3972	9.27	10	-7	
	Toluene-d8(mz100)	0.9690	0.8921	9.21	10	-8	
	4-Bromofluorobenzene	0.5194	0.4658	8.97	10	-10	

RAD19 #238

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP16334 Calibration Date: 06/25/09 Time: 11:52

Lab File ID: gu25c03.d Init. Calib. Date(s): 06/22/09 06/22/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT
4-Bromofluorobenzene(mz174)	0.4514	0.4152	9.20	10	-8

Average %Drift 4

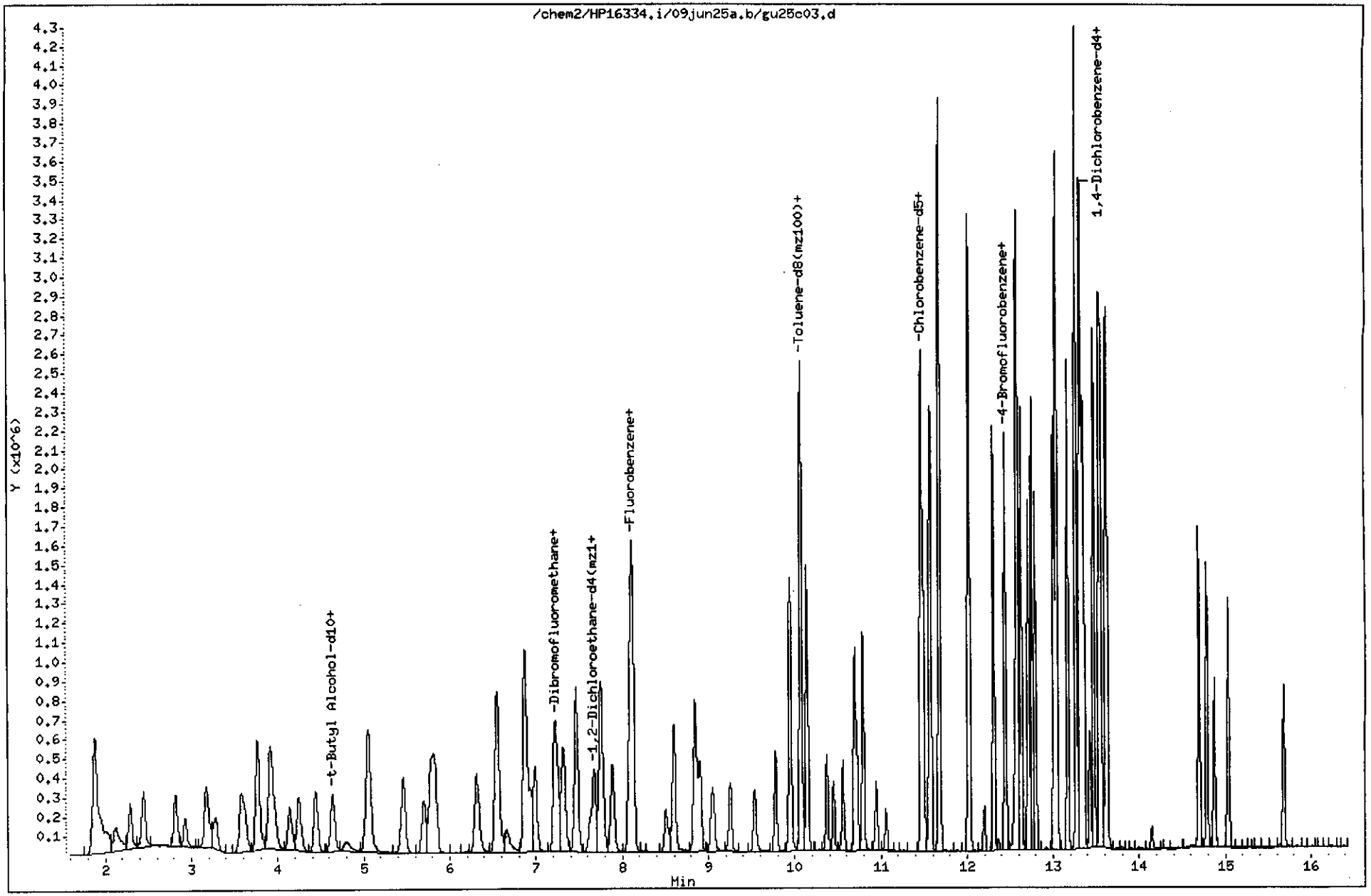
RAD19 8239

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d
Date : 25-JUN-2009 11:52
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;2;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i
Operator: JML01693
Column diameter: 0.25

BAB19@240



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.123	85	325272	4.510
5) Chloromethane	(1)	2.294	50	336585	5.655
6) Vinyl Chloride	(1)	2.440	62	382561	5.532
9) Bromomethane	(1)	2.812	94	305504	6.032
10) Chloroethane	(1)	2.922	64	218090	6.170
12) Dichlorofluoromethane	(1)	3.172	67	539604	5.389
14) Trichlorofluoromethane	(1)	3.276	101	449094M	5.186
16) Ethyl Ether	(1)	3.568	59	160507	4.916
17) Freon 123a	(1)	3.605	67	309983	5.034
22) Acrolein	(4)	3.763	56	1026127	275.104
23) 1,1-Dichloroethene	(1)	3.910	96	238182	4.783
24) Freon 113	(1)	3.934	101	270362	5.039
25) Acetone	(4)	3.977	58	87265	55.244
26) Methyl Iodide	(1)	4.141	142	453294	4.888
28) Carbon Disulfide	(1)	4.245	76	751315	5.332
31) Allyl Chloride	(1)	4.440	41	339424	5.117
32) Methyl Acetate	(1)	4.464	43	67419	4.851
33) Methylene Chloride	(1)	4.635	84	254985	4.415
35)*t-Butyl Alcohol-d10	(4)	4.665	65	77504	50.000
37) t-Butyl Alcohol	(4)	4.806	59	194851	96.487
38) Acrylonitrile	(4)	5.025	53	184423	27.606
40) trans-1,2-Dichloroethene	(1)	5.062	96	274143	4.888
36) 1,2-Dichloroethene (Total)	(1)		96	568002	9.820
39) Methyl Tertiary Butyl Ether	(1)	5.050	73	506059	4.728
43) n-Hexane	(1)	5.458	57	361285	4.881
44) 1,1-Dichloroethane	(1)	5.696	63	433342	4.939
46) di-Isopropyl Ether	(1)	5.781	45	741686	4.970
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	388415	5.023
48) Ethyl t-Butyl Ether	(1)	6.318	59	660369	4.826
50) 2,2-Dichloropropane	(1)	6.549	77	361362	4.993
49) cis-1,2-Dichloroethene	(1)	6.543	96	293859	4.931
51) 2-Butanone	(4)	6.561	43	453372	54.452
52) Propionitrile	(4)	6.665	54	262652	106.472
54) Methacrylonitrile	(4)	6.872	67	508932	55.275

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0241

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.885	128	121616	5.019
56) Tetrahydrofuran	(4)	6.939	71	137908	54.226
57) Chloroform	(1)	6.994	83	462178	5.071
62) 1,1,1-Trichloroethane	(1)	7.250	97	403529	5.203
63) Cyclohexane	(1)	7.324	56	439077	4.928
64) 1,1-Dichloropropene	(1)	7.464	75	355960	4.991
65) Carbon Tetrachloride	(1)	7.470	117	345459	5.005
66) Isobutyl Alcohol	(4)	7.628	41	154208	262.006
71) Benzene	(1)	7.750	78	1096225	4.989
73) 1,2-Dichloroethane	(1)	7.781	62	249820	5.171
72) 1,2-Dichloroethane(mz98)	(1)	7.775	98	23219	4.852
74) t-Amyl Methyl Ether	(1)	7.890	73	558021	4.730
76) *Fluorobenzene	(1)	8.122	96	1936141	10.000
75) n-Heptane	(1)	8.086	43	379671	4.999
80) n-Butanol	(4)	8.506	56	261144	480.613
82) Trichloroethene	(1)	8.604	95	287523	4.944
83) Methylcyclohexane	(1)	8.848	83	479231	4.922
84) 1,2-Dichloropropane	(1)	8.902	63	250782	4.977
87) Dibromomethane	(1)	9.055	93	111117	4.981
88) 1,4-Dioxane	(4)	9.079	88	35780	231.785
86) Methyl Methacrylate	(4)	9.037	69	93790	5.314
89) Bromodichloromethane	(1)	9.256	83	307355	5.096
90) 2-Nitropropane	(4)	9.537	41	273751	58.835
93) cis-1,3-Dichloropropene	(1)	9.780	75	351613	5.061
95) 4-Methyl-2-Pentanone	(1)	9.951	43	1165091	50.093
100) Toluene	(2)	10.146	92	709313	4.809
101) trans-1,3-Dichloropropene	(2)	10.372	75	284329	5.076
102) Ethyl Methacrylate	(2)	10.451	69	207169	4.698
103) 1,1,2-Trichloroethane	(2)	10.561	97	160526	4.889
104) Tetrachloroethene	(2)	10.701	166	332970	4.970
105) 1,3-Dichloropropane	(2)	10.731	76	271934	4.941
106) 2-Hexanone	(2)	10.792	43	799312	49.402
107) Dibromochloromethane	(2)	10.951	129	202994	4.980
108) 1,2-Dibromoethane	(2)	11.061	107	153110	4.878

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.475	117	1419503	10.000
111) Chlorobenzene	(2)	11.500	112	784837	4.865
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	262792	4.975
113) Ethylbenzene	(2)	11.585	91	1393441	4.930
116) m+p-Xylene	(2)	11.682	106	1123621	9.840
114) Xylene (Total)	(2)		106	1663319	14.749
117) o-Xylene	(2)	12.018	106	539698	4.909
118) Styrene	(2)	12.030	104	855629	4.900
119) Bromoform	(2)	12.201	173	104782	4.897
120) Isopropylbenzene	(2)	12.310	105	1358310	4.927
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	182124M	4.721
128) Bromobenzene	(3)	12.572	156	324716	4.745
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	449043	62.392
130) 1,2,3-Trichloropropane	(3)	12.591	110	51959	4.659
131) n-Propylbenzene	(3)	12.633	91	1708619	4.883
132) 2-Chlorotoluene	(3)	12.713	126	345444	4.758
134) 4-Chlorotoluene	(3)	12.792	126	356775	4.795
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	1212042	4.861
137) Pentachloroethane	(3)	13.042	167	206982	4.976
136) tert-Butylbenzene	(3)	13.011	134	263863M	4.752
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	1270400	4.871
139) sec-Butylbenzene	(3)	13.170	105	1606529	4.915
141) 1,3-Dichlorobenzene	(3)	13.274	146	702904	4.810
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	815886	10.000
140) p-Isopropyltoluene	(3)	13.267	119	1397071	4.898
143) 1,4-Dichlorobenzene	(3)	13.335	146	705820	4.838
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	542504	4.844
145) Benzyl Chloride	(3)	13.426	126	81704	4.887
146) n-Butylbenzene	(3)	13.554	92	724317	4.956
147) 1,2-Dichlorobenzene	(3)	13.609	146	602067	4.856
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	24365	5.532
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	468953	4.866
153) Hexachlorobutadiene	(3)	14.785	225	257257	5.063
154) Naphthalene	(3)	14.871	128	666922	4.856

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8243

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

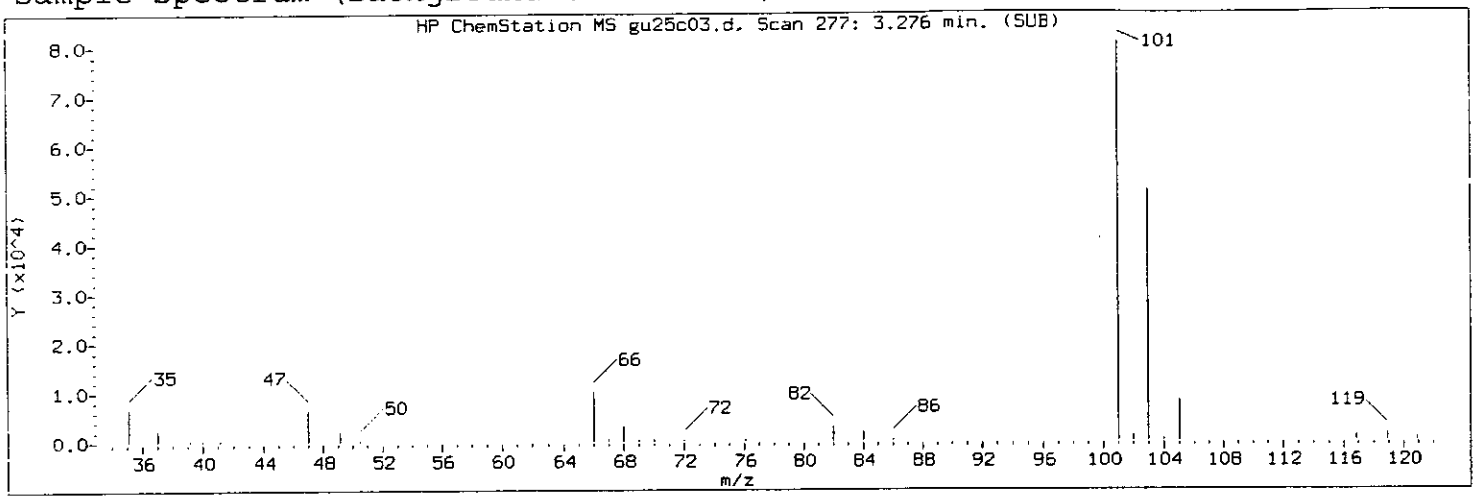
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	391995	5.002
60)$Dibromofluoromethane	(1)	7.214	113	452625	9.155
61)$Dibromofluoromethane(mz111)	(1)	7.220	111	462017	9.196
69)$1,2-Dichloroethane-d4	(1)	7.683	102	81978M	9.228
67)$1,2-Dichloroethane-d4(mz104)	(1)	7.677	104	50866	8.810
68)$1,2-Dichloroethane-d4(mz65)	(1)	7.677	65	371512	9.347
96)$Toluene-d8	(2)	10.073	98	1983396	9.269
97)$Toluene-d8(mz100)	(2)	10.073	100	1266331	9.206
125)$4-Bromofluorobenzene	(2)	12.444	95	661154	8.968
126)$4-Bromofluorobenzene(mz174)	(2)	12.444	174	589312	9.197

M = Compound was manually integrated.

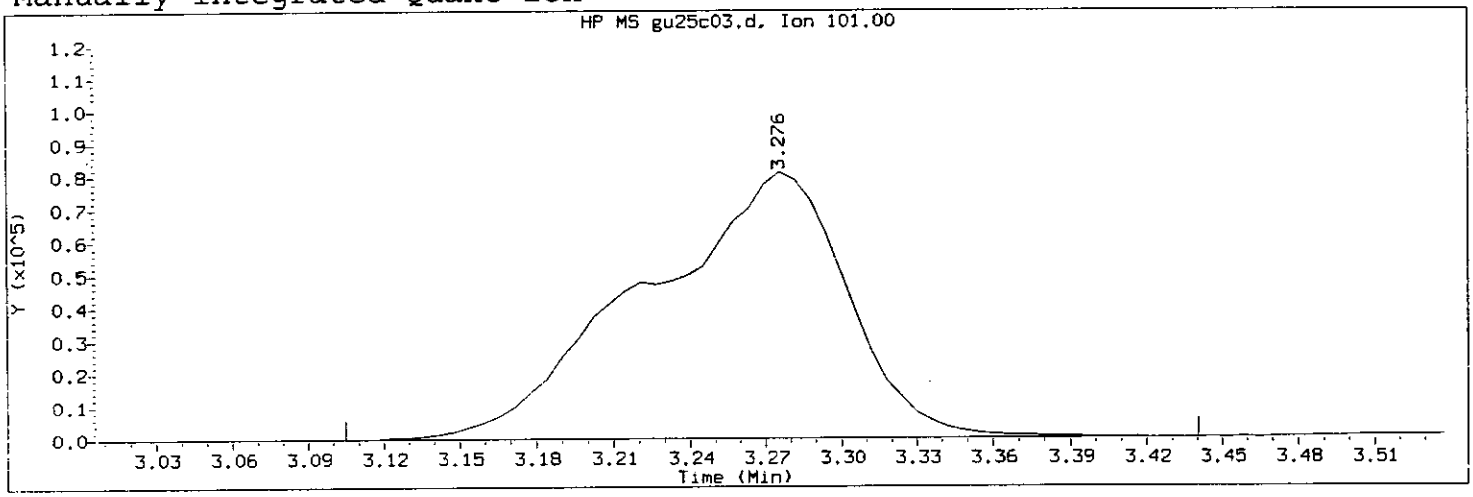
$ = Compound is a surrogate standard.

RAD19 8244

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:13
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	14
Compound Name	:	Trichlorofluoromethane
Scan Number	:	277
Retention Time (minutes)	:	3.276
Quant Ion	:	101
Area (flag)	:	449094 M
Concentration (ug/L)	:	5.1858
Integration start scan	:	248 Integration stop scan: 303
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

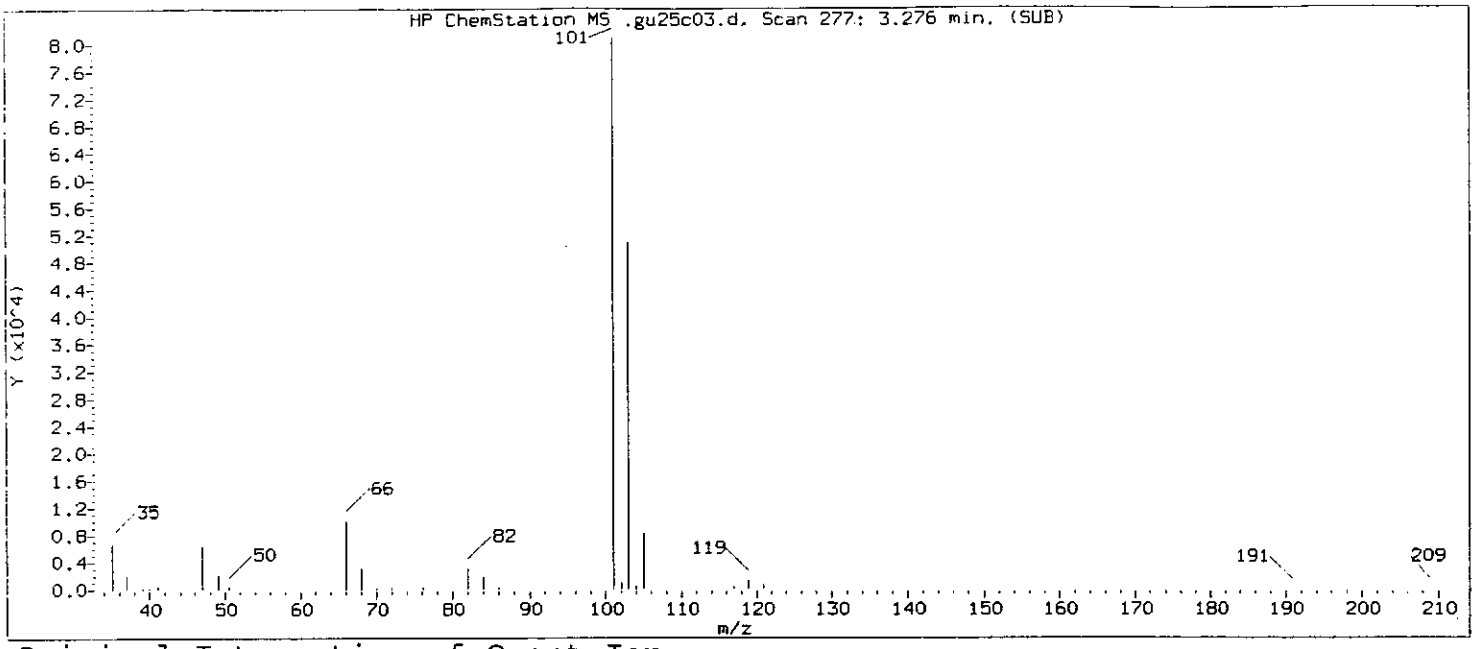
Analyst responsible for change: mc 6/25/09

GC/MS audit/management approval: 6-26-09

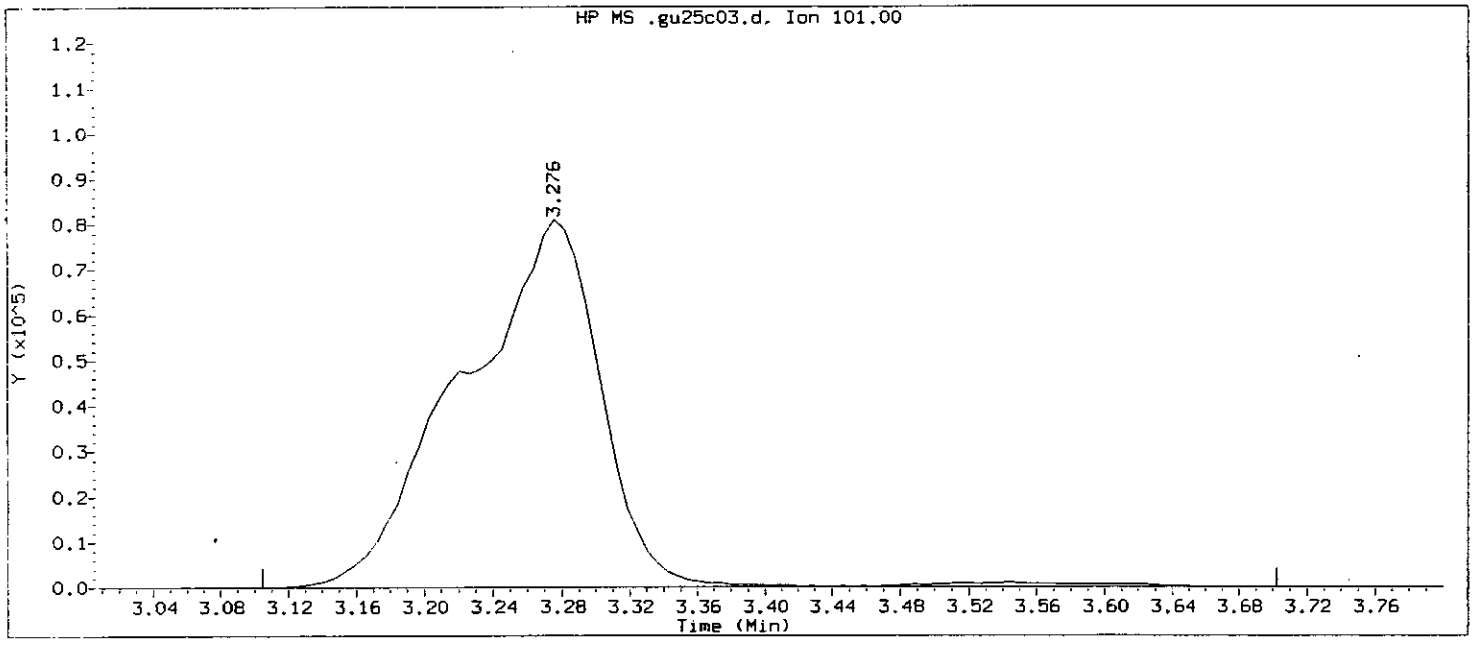
RAD19 6245

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:08
Date, time and analyst ID of latest file update: 25-Jun-2009 12:08 Automation

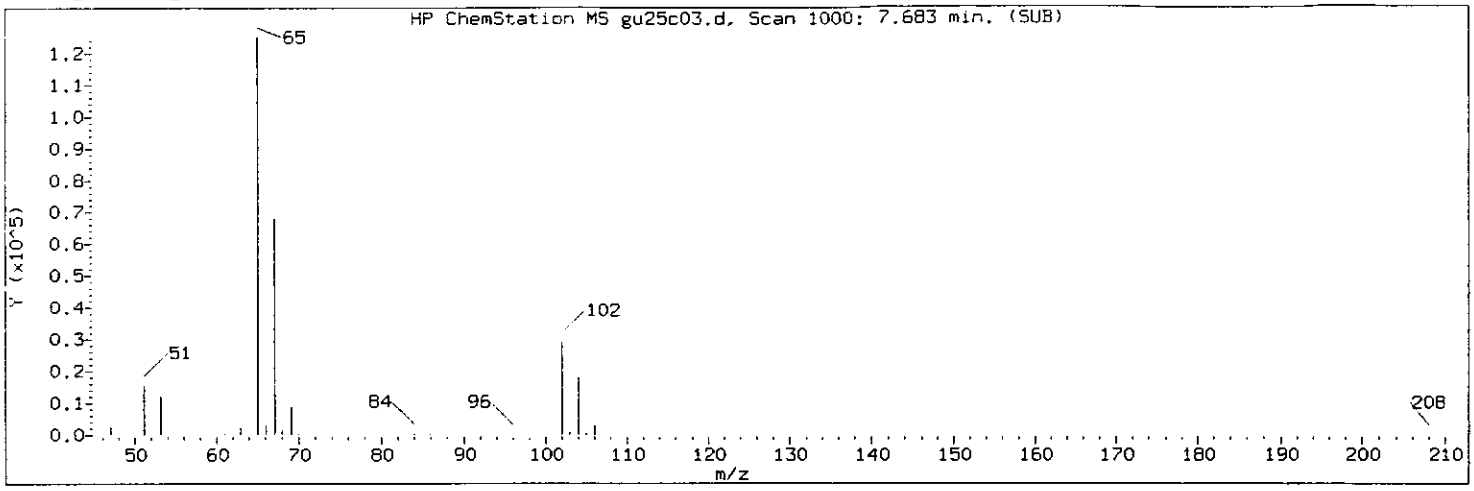
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 14
Compound Name : Trichlorofluoromethane
Scan Number : 277
Retention Time (minutes): 3.276
Quant Ion : 101
Area : 455801
Concentration (ug/L) : 5.2633
Integration start scan : 248 Integration stop scan: 346
Y at integration start : 0 Y at integration end: 0

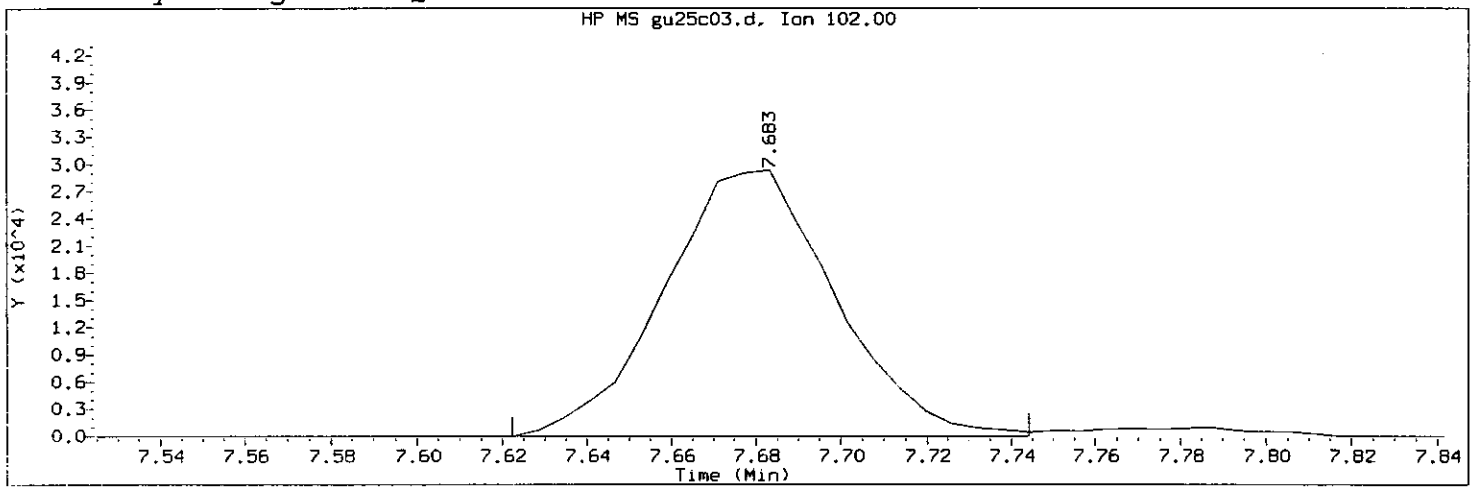
RAD19 8246

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:13
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	: 69
Compound Name	: 1,2-Dichloroethane-d4
Scan Number	: 1000
Retention Time (minutes)	: 7.683
Quant Ion	: 102
Area (flag)	: 81978 M
Concentration (ug/L)	: 9.2280
Integration start scan	: 989 Integration stop scan: 1009
Y at integration start	: 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

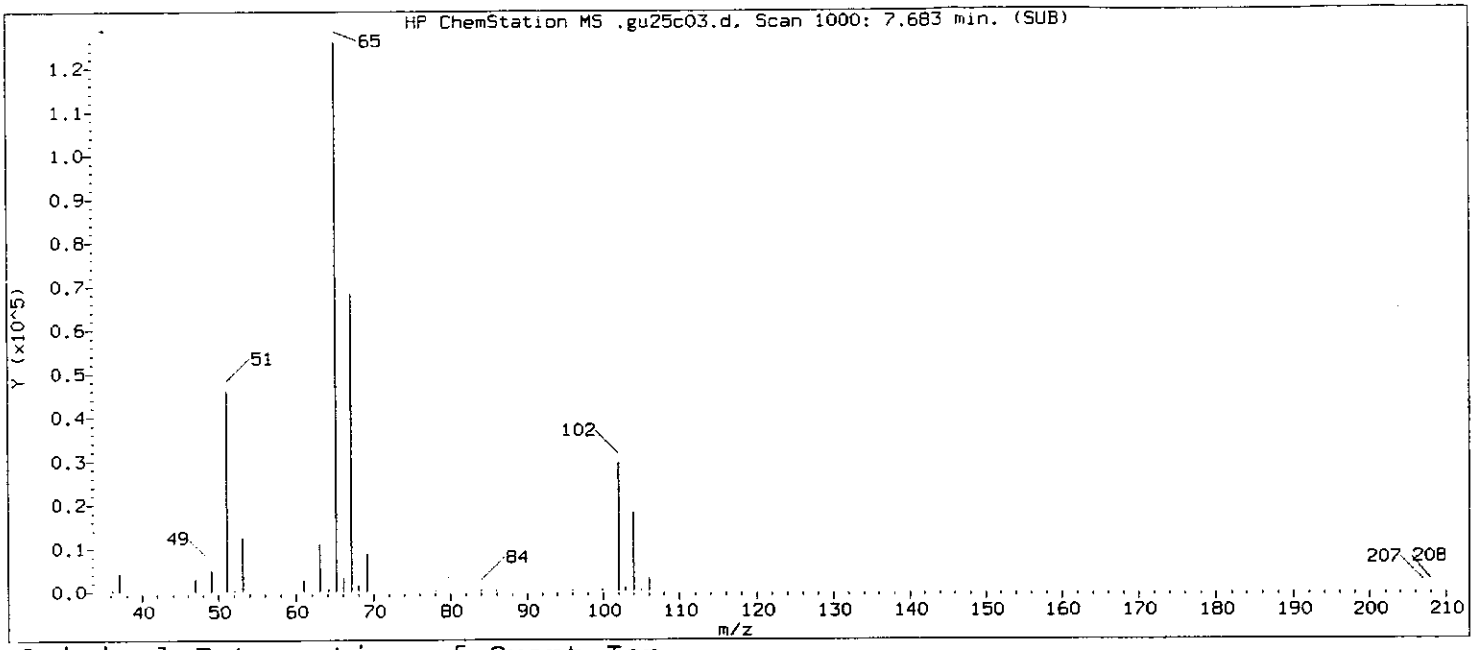
Analyst responsible for change: JML 6/25/09

GC/MS audit/management approval: [signature] 6-26-09

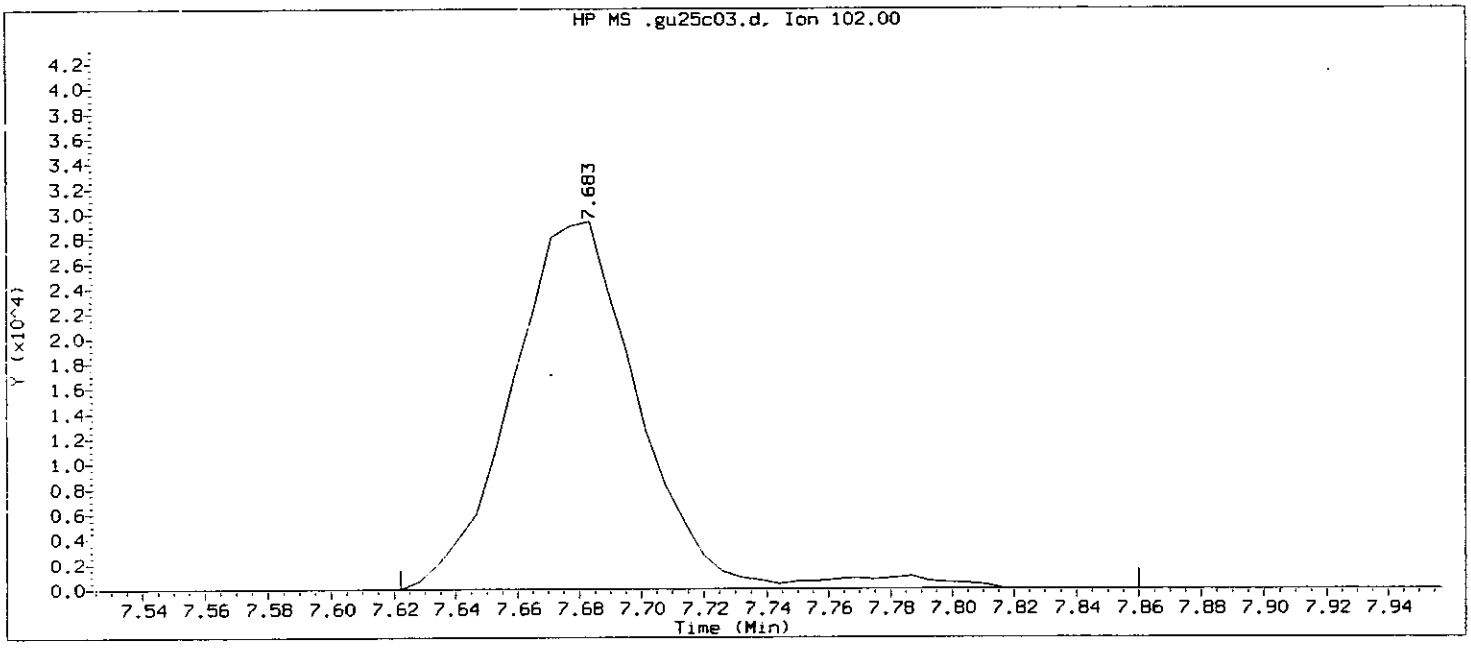
RAD19 0247

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:08
Date, time and analyst ID of latest file update: 25-Jun-2009 12:08 Automation

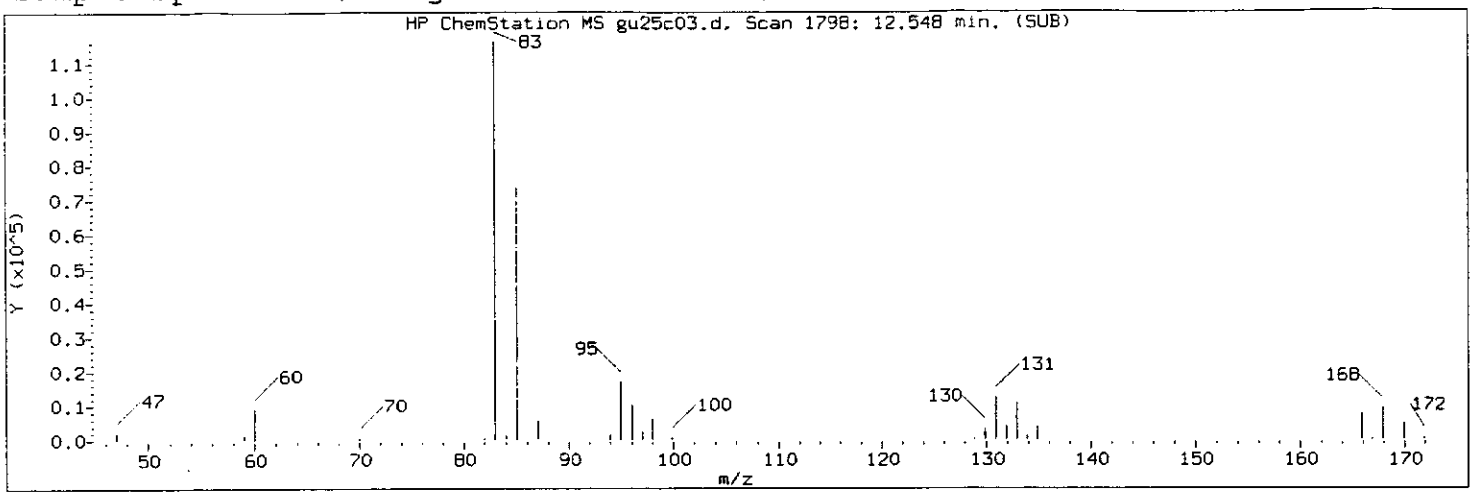
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1000
Retention Time (minutes): 7.683
Quant Ion : 102
Area : 84653
Concentration (ug/L) : 9.5292
Integration start scan : 989 Integration stop scan: 1028
Y at integration start : 0 Y at integration end: 0

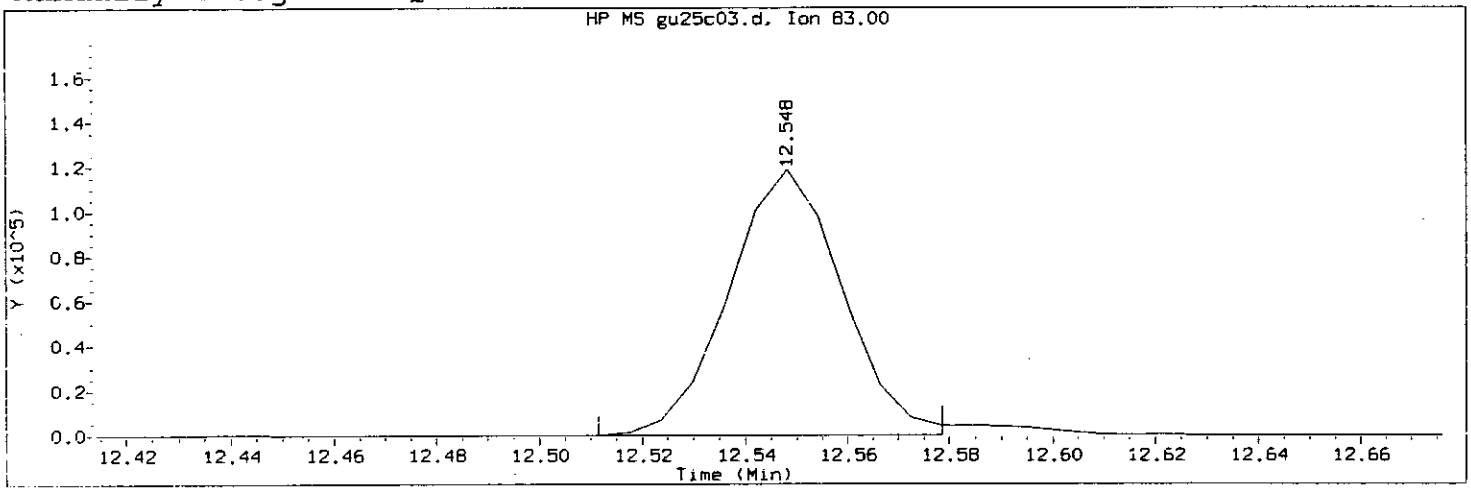
RAD19 8248

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:13
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	127
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1798
Retention Time (minutes)	:	12.548
Quant Ion	:	83
Area (flag)	:	182124 M
Concentration (ug/L)	:	4.7212
Integration start scan	:	1791 Integration stop scan: 1802
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

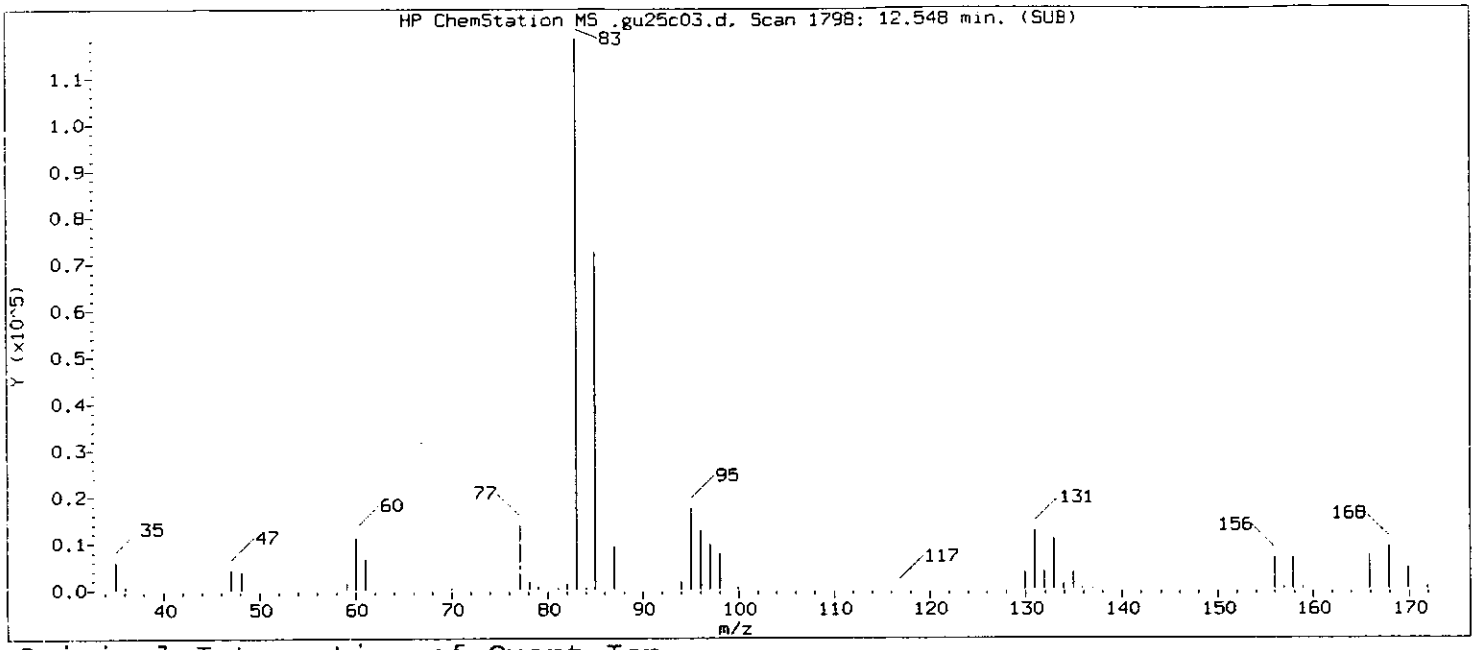
Analyst responsible for change: mc 6/25/09

GC/MS audit/management approval: 6-26-09

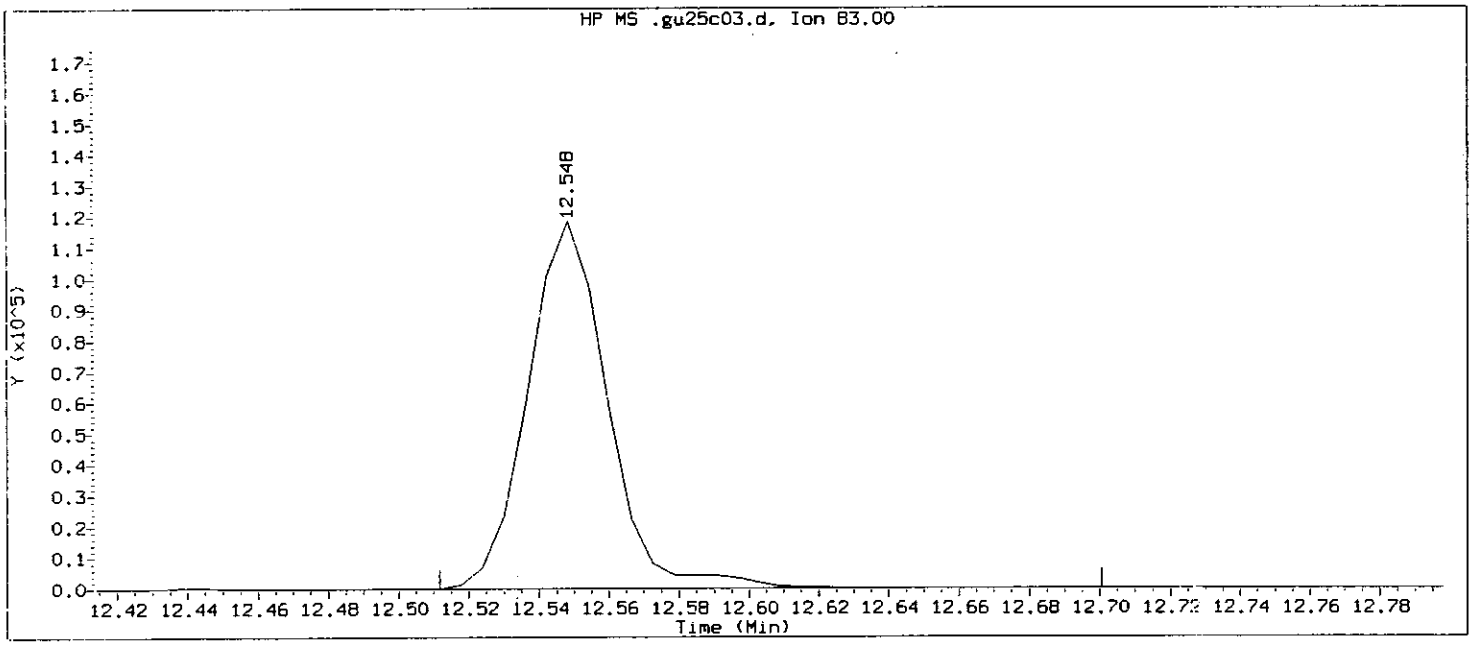
RAD19 8249

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:08
Date, time and analyst ID of latest file update: 25-Jun-2009 12:08 Automation

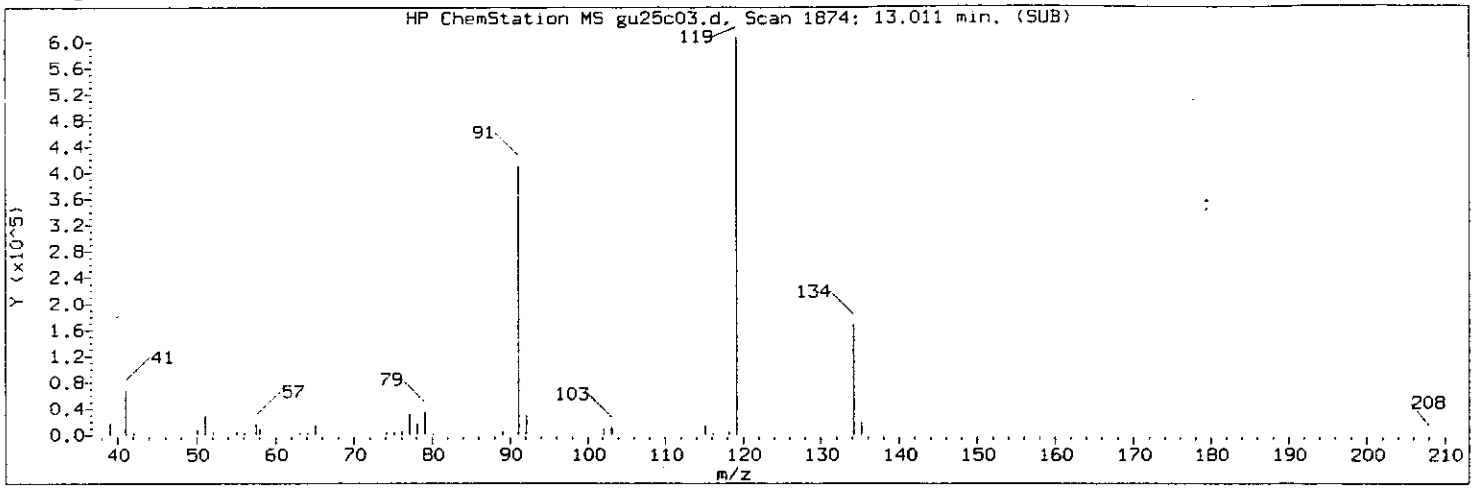
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 127
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1798
Retention Time (minutes): 12.548
Quant Ion : 83
Area : 187690
Concentration (ug/L) : 4.8655
Integration start scan : 1791 Integration stop scan: 1822
Y at integration start : 0 Y at integration end: 0

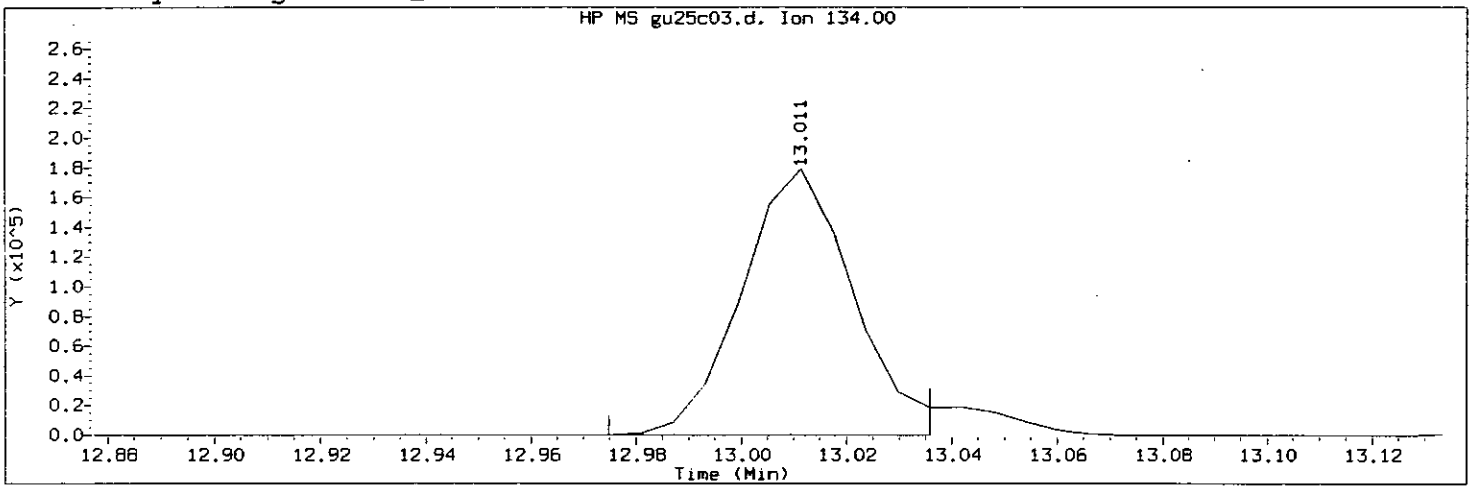
RAD19 8250

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:13
Date, time and analyst ID of latest file update: 25-Jun-2009 12:13 jml01693

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	263863 M
Concentration (ug/L)	:	4.7524
Integration start scan	:	1867 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

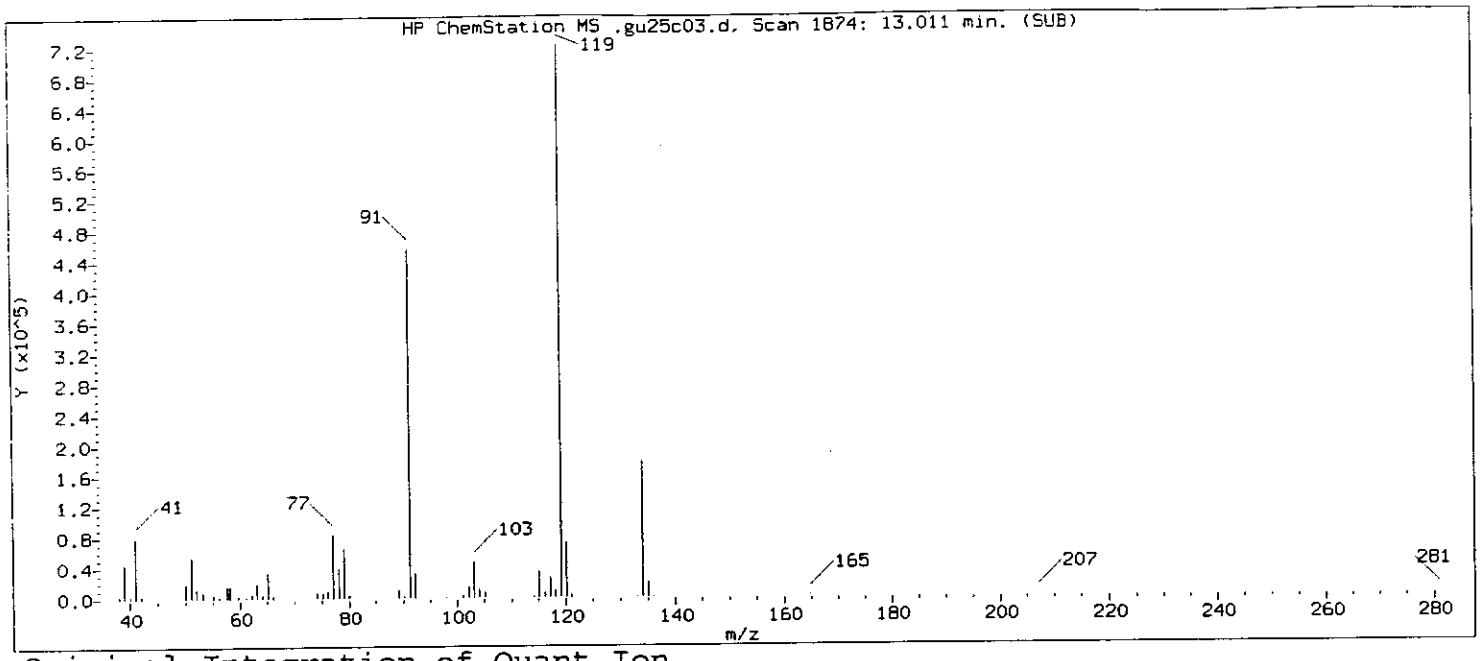
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: mca 6/25/09

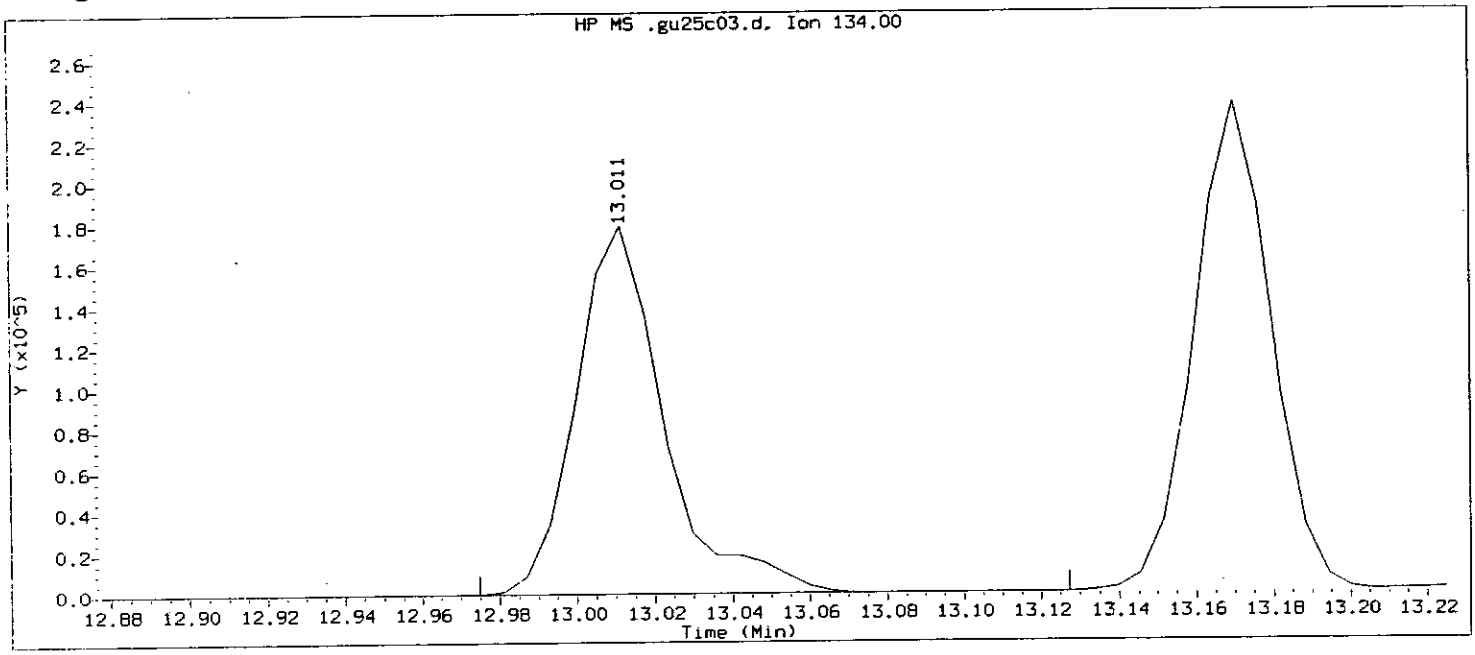
GC/MS audit/management approval: 6-26-09 RAD19 0251

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25c03.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 11:52 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260WI25
Calibration date and time: 25-JUN-2009 12:08
Date, time and analyst ID of latest file update: 25-Jun-2009 12:08 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area	:	281096
Concentration (ug/L)	:	5.0628
Integration start scan	:	1867 Integration stop scan: 1892
Y at integration start	:	0 Y at integration end: 0

RAD19 8252

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25c03.d, generated on 06/25/2009 at 12:13

Raw QC Data

Data File: /chem2/HP16334.i/09jun22a.b/gu22t01.d

Date : 22-JUN-2009 11:56

Client ID: 50ngBFB

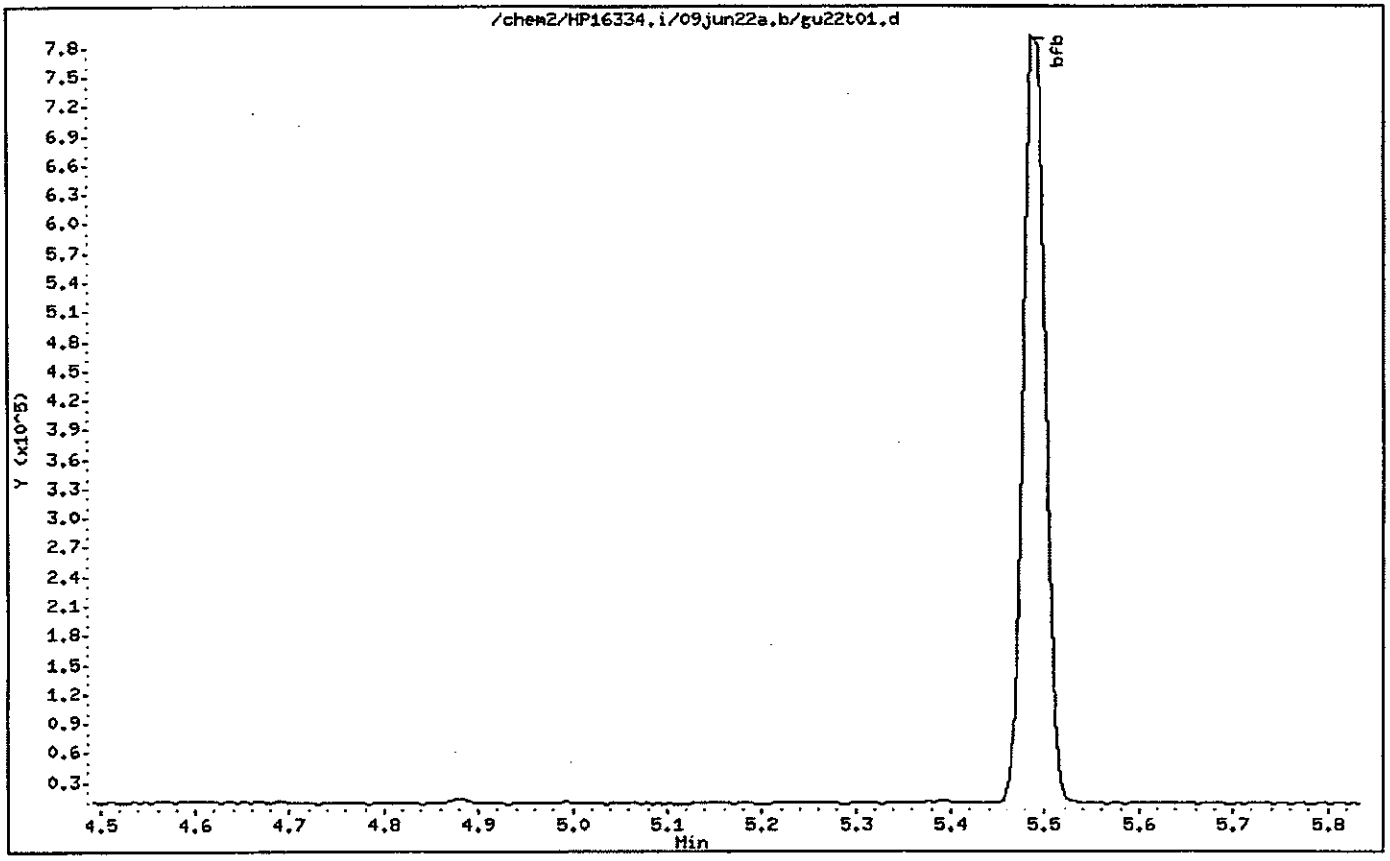
Instrument: HP16334.i

Sample Info: 50ngBFB;BFBMay27-09;1;3;;

Operator: JHL01693

Column phase: DB-624

Column diameter: 0.25



RAD19 0254

Data File: /chem2/HP16334.i/09jun22a.b/gu22t01.d

Date : 22-JUN-2009 11:56

Client ID: 50ngBFB

Instrument: HP16334.i

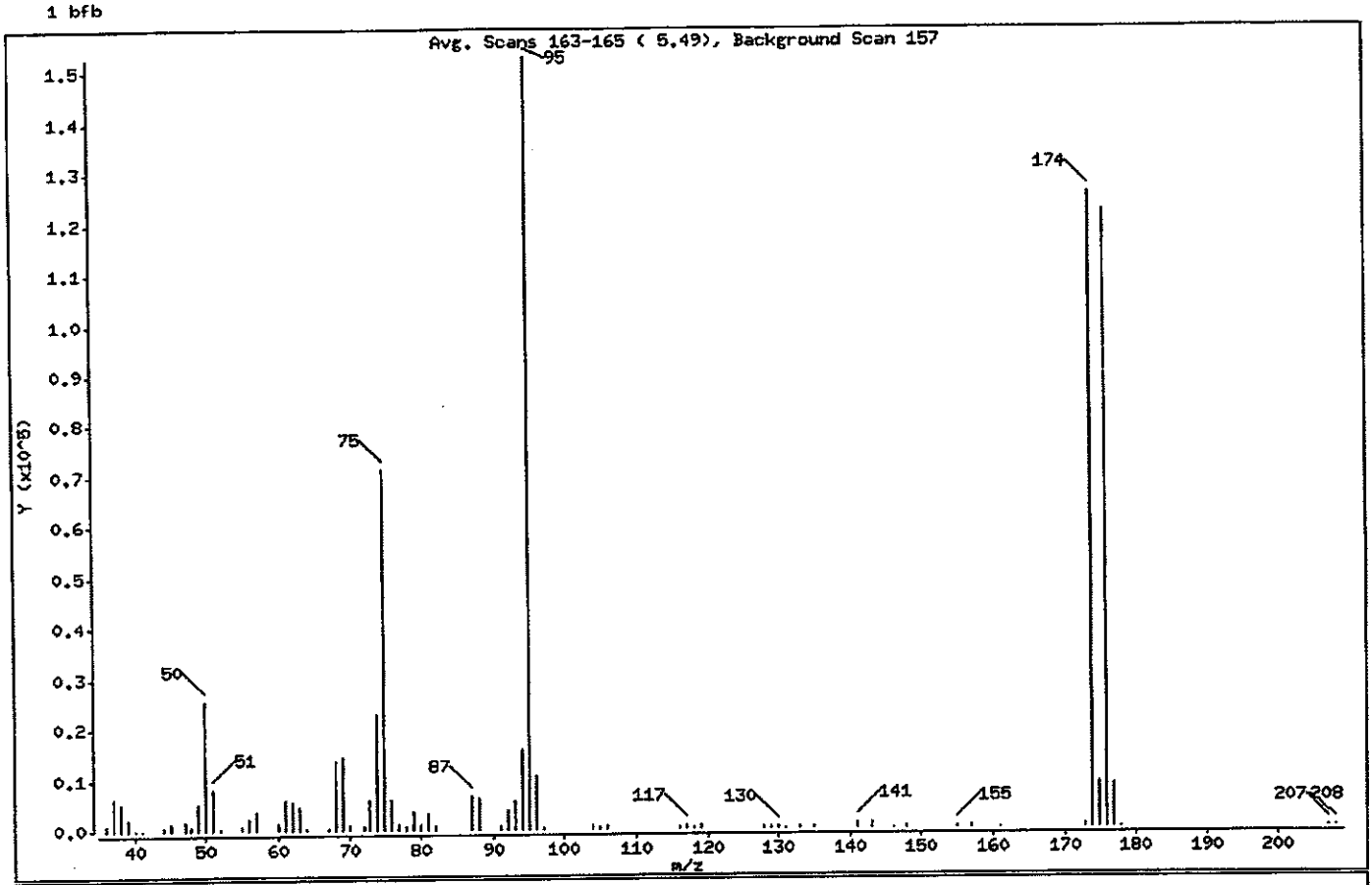
Sample Info: 50ngBFB;BFBMay27-09;1;3;;

Operator: JHL01693

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.76
75	30.00 - 60.00% of mass 95	46.64
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.45 (0.54)
174	50.00 - 100.00% of mass 95	82.21
175	5.00 - 9.00% of mass 174	5.74 (6.98)
176	95.00 - 101.00% of mass 174	80.00 (97.30)
177	5.00 - 9.00% of mass 176	5.48 (6.85)

Data File: /chem2/HP16334.i/09jun22a.b/gu22t01.d

Date : 22-JUN-2009 11:56

Client ID: 50ngBFB

Instrument: HP16334.i

Sample Info: 50ngBFB;BFBMay27-09;1;3;;

Operator: JML01693

Column phase: DB-624

Column diameter: 0.25

Data File: gu22t01.d
Spectrum: Avg. Scans 163-165 (5.49), Background Scan 157
Location of Maximum: 95.00
Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1002	62.00	5649	88.00	6189	133.00	191
37.00	6214	63.00	4456	91.00	650	135.00	185
38.00	5254	64.00	513	92.00	3872	141.00	1105
39.00	2274	67.00	426	93.00	5502	143.00	1061
40.00	45	68.00	13767	94.00	15978	146.00	103
41.00	4	69.00	14266	95.00	152960	148.00	219
44.00	646	70.00	1135	96.00	10442	155.00	272
45.00	1235	72.00	685	97.00	350	157.00	195
47.00	1683	73.00	5947	104.00	582	161.00	99
48.00	795	74.00	22928	105.00	309	173.00	683
49.00	5171	75.00	71352	106.00	593	174.00	125768
50.00	25632	76.00	5883	116.00	519	175.00	8784
51.00	7937	77.00	947	117.00	788	176.00	122376
52.00	443	78.00	675	118.00	485	177.00	8378
55.00	534	79.00	3435	119.00	657	178.00	105
56.00	2031	80.00	1038	128.00	421	207.00	108
57.00	3502	81.00	3285	129.00	191	208.00	93
60.00	1236	82.00	766	130.00	479		
61.00	6035	87.00	6675	131.00	85		

RAD19 0256

Data File: /chem2/HP16334.i/09jun25a.b/gu25t01.d

Date : 25-JUN-2009 10:54

Client ID: 50ngBFB

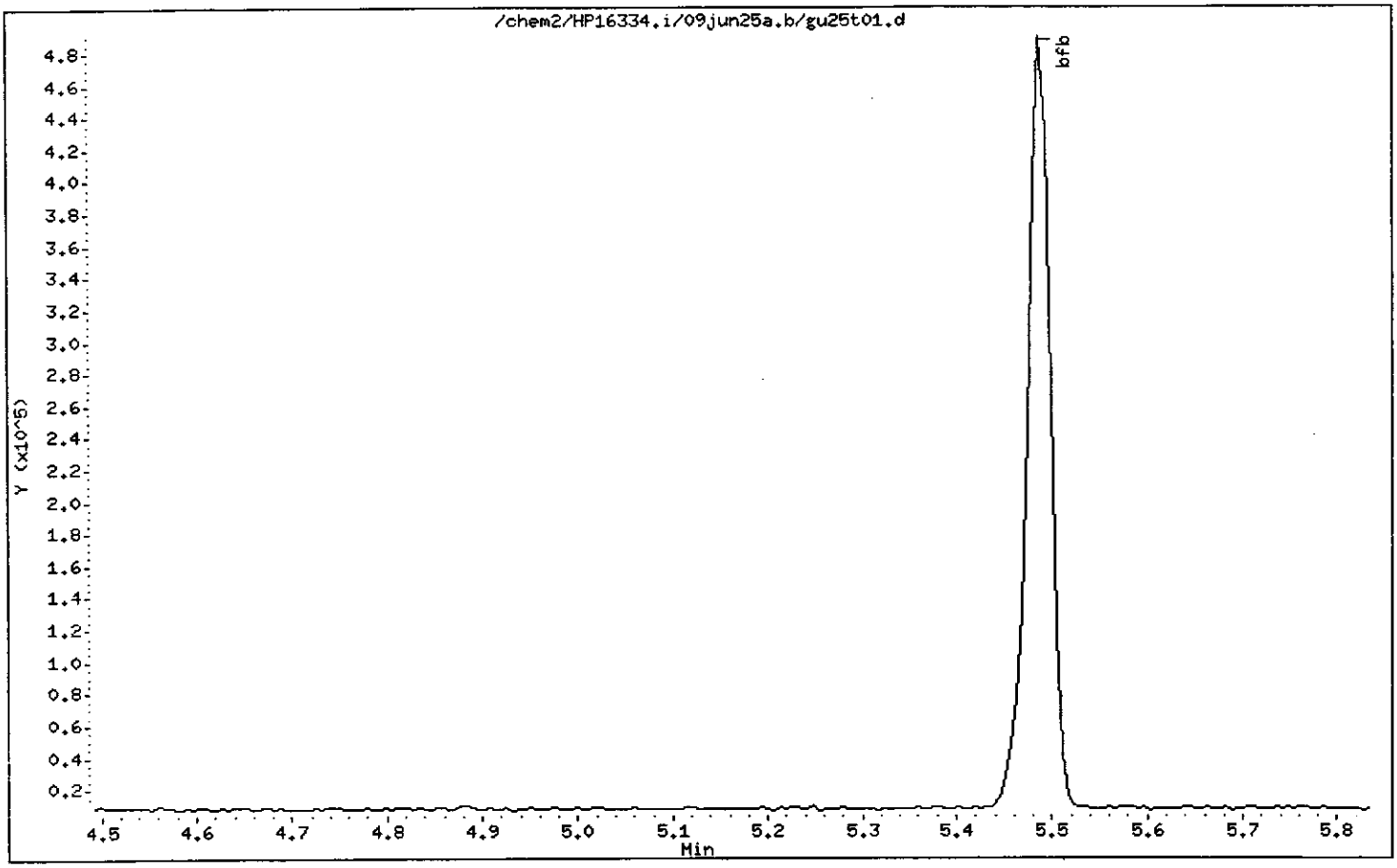
Instrument: HP16334.i

Sample Info: 50ngBFB;BFBMAY27;1;3;;

Operator: JML01693

Column phase: DB-624

Column diameter: 0.25



JMLM 6/25/09

Data File: /chem2/HP16334.i/09jun25a.b/gu25t01.d

Date : 25-JUN-2009 10:54

Client ID: 50ngBFB

Instrument: HP16334.i

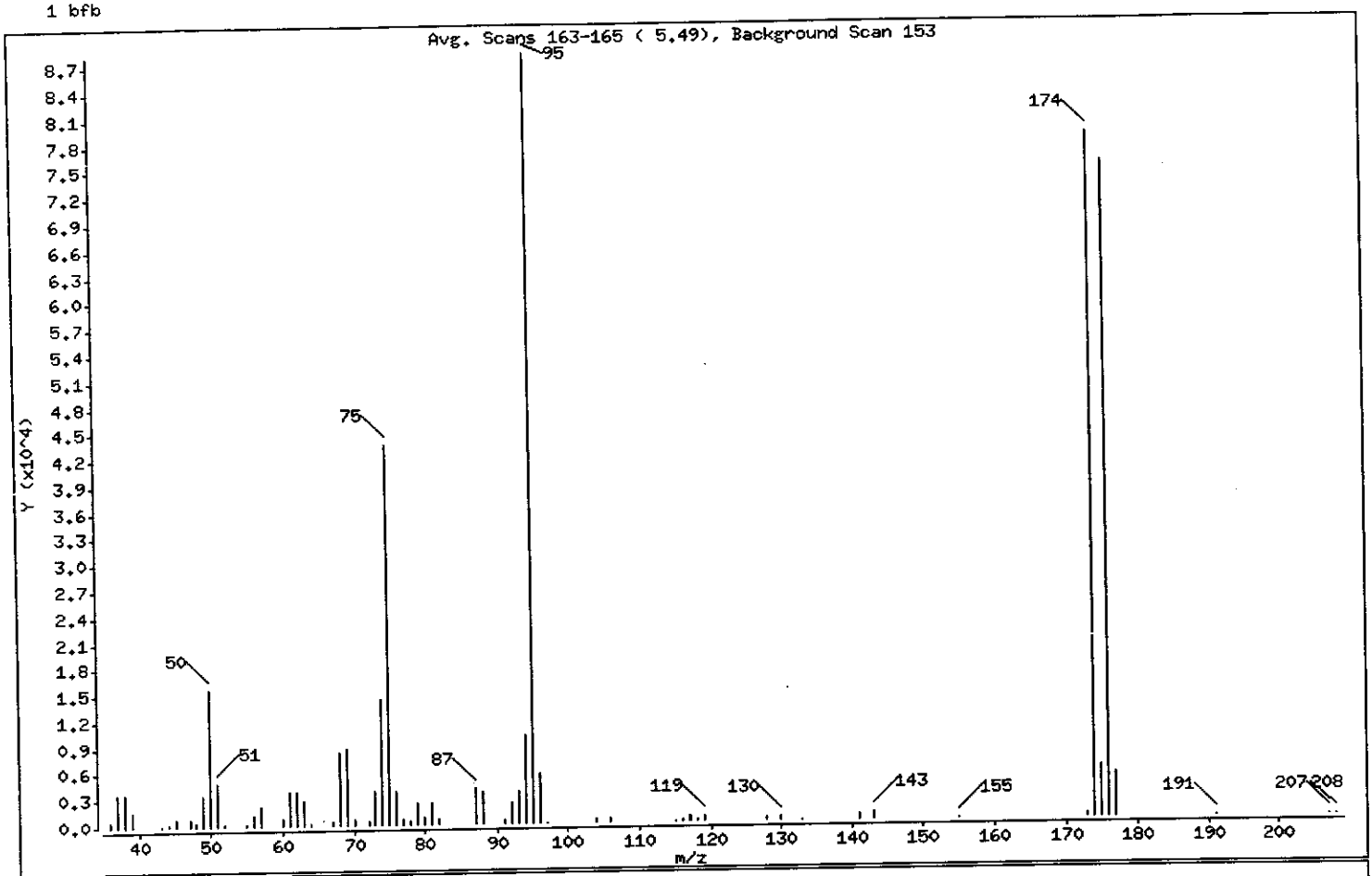
Sample Info: 50ngBFB;BFBMAY27;1;3;;

Operator: JML01693

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.64
75	30.00 - 60.00% of mass 95	49.54
96	5.00 - 9.00% of mass 95	6.39
173	Less than 2.00% of mass 174	0.40 (0.45)
174	50.00 - 100.00% of mass 95	89.02
175	5.00 - 9.00% of mass 174	6.68 (7.50)
176	95.00 - 101.00% of mass 174	85.34 (95.86)
177	5.00 - 9.00% of mass 176	5.77 (6.77)

RAD19 8258

Data File: /chem2/HP16334.i/09jun25a.b/gu25t01.d

Date : 25-JUN-2009 10:54

Client ID: 50ngBFB

Instrument: HP16334.i

Sample Info: 50ngBFB;BFBMAY27;1;3;;

Operator: JML01693

Column phase: DB-624

Column diameter: 0.25

Data File: gu25t01.d
Spectrum: Avg. Scans 163-165 (5.49), Background Scan 153
Location of Maximum: 95.00
Number of points: 66

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	638	61.00	3802	81.00	2484	119.00	546
37.00	3691	62.00	3879	82.00	639	128.00	348
38.00	3575	63.00	2911	87.00	3990	130.00	366
39.00	1554	64.00	139	88.00	3667	133.00	94
43.00	93	67.00	381	91.00	388	141.00	710
44.00	109	68.00	8343	92.00	2426	143.00	755
45.00	763	69.00	8779	93.00	3707	155.00	87
47.00	884	70.00	637	94.00	10137	173.00	353
48.00	439	72.00	446	95.00	88288	174.00	78592
49.00	3363	73.00	3812	96.00	5639	175.00	5897
50.00	15578	74.00	14373	97.00	92	176.00	75336
51.00	4961	75.00	43736	104.00	418	177.00	5097
52.00	229	76.00	3841	106.00	311	191.00	85
55.00	120	77.00	629	115.00	88	207.00	18
56.00	1206	78.00	488	116.00	177	208.00	50
57.00	2312	79.00	2419	117.00	532		
60.00	755	80.00	749	118.00	193		

VBLKG71

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKG71

File: /chem2/HP16334.i/09jun25a.b/gu25b01.d
Sample: VBLKG71;VBLKG71;1;3;;
Injected At:25-JUN-2009 13:14
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
35) t-Butyl Alcohol-d10	4.665(0.000)	505	65	81487(5)	50.00	
76) Fluorobenzene	8.116(0.006)	1071	96	1862707(-4)	10.00	
109) Chlorobenzene-d5	11.475(0.000)	1622	117	1364862(-4)	10.00	
142) 1,4-Dichlorobenzene-d4	13.316(0.000)	1924	152	749052(-8)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
60) Dibromofluoromethane	(1)	7.214(-0.001)	113	441391	9.280	93%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.677(0.000)	102	79403	9.291	93%		74 - 113
96) Toluene-d8	(2)	10.073(0.000)	98	1897227	9.221	92%		77 - 110
125) 4-Bromofluorobenzene	(2)	12.444(0.000)	95	613311	8.652	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
4) Dimethyl ether	(1)				ND	ND			0.10	0.50
5) Chloromethane	(1)				ND	ND			0.20	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
9) Bromomethane	(1)				ND	ND			0.20	0.50
10) Chloroethane	(1)				ND	ND			0.20	0.50
12) Dichlorofluoromethane	(1)				ND	ND			0.20	0.50
14) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
16) Ethyl Ether	(1)				ND	ND			0.20	0.50
17) Freon 123a	(1)				ND	ND			0.20	0.50
22) Acrolein	(4)				ND	ND			5.00	25.00
23) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
24) Freon 113	(1)				ND	ND			0.20	0.50
25) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
28) Carbon Disulfide	(1)				ND	ND			0.40	0.50
31) Allyl Chloride	(1)				ND	ND			0.10	0.50
32) Methyl Acetate	(1)				ND	ND			0.30	1.00
30) Acetonitrile	(4)				ND	ND			7.00	20.00
33) Methylene Chloride	(1)				ND	ND			0.60	2.00
37) t-Butyl Alcohol	(4)				ND	ND			4.00	10.00
38) Acrylonitrile	(4)				ND	ND			1.00	5.00
40) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
36) 1,2-Dichloroethene (Total)	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8268

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKG71

File: /chem2/HP16334.i/09jun25a.b/gu25b01.d
Sample: VBLKG71;VBLKG71;1;3;;
Injected At:25-JUN-2009 13:14
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
39) Methyl Tertiary Butyl Ether	(1)					ND	ND			0.10	0.50
43) n-Hexane	(1)					ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)					ND	ND			0.10	0.50
45) Vinyl Acetate	(1)					ND	ND			0.20	0.50
46) di-Isopropyl Ether	(1)					ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)					ND	ND			0.10	0.50
48) Ethyl t-Butyl Ether	(1)					ND	ND			0.10	0.50
50) 2,2-Dichloropropane	(1)					ND	ND			0.10	0.50
49) cis-1,2-Dichloroethene	(1)					ND	ND			0.10	0.50
51) 2-Butanone	(4)					ND	ND			1.00	5.00
52) Propionitrile	(4)					ND	ND			2.00	10.00
54) Methacrylonitrile	(4)					ND	ND			1.00	5.00
55) Bromochloromethane	(1)					ND	ND			0.10	0.50
56) Tetrahydrofuran	(4)					ND	ND			2.00	5.00
57) Chloroform	(1)					ND	ND			0.10	0.50
62) 1,1,1-Trichloroethane	(1)					ND	ND			0.10	0.50
63) Cyclohexane	(1)					ND	ND			0.10	0.50
64) 1,1-Dichloropropene	(1)					ND	ND			0.10	0.50
65) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
71) Benzene	(1)					ND	ND			0.10	0.50
73) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
74) t-Amyl Methyl Ether	(1)					ND	ND			0.10	0.50
75) n-Heptane	(1)					ND	ND			0.20	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 B261

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKG71

File: /chem2/HP16334.i/09jun25a.b/gu25b01.d
Sample: VBLKG71;VBLKG71;1;3;;
Injected At:25-JUN-2009 13:14
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
80) n-Butanol	(4)					ND	ND			20.00	50.00
82) Trichloroethene	(1)					ND	ND			0.10	0.50
83) Methylcyclohexane	(1)					ND	ND			0.10	0.50
84) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
87) Dibromomethane	(1)					ND	ND			0.10	0.50
88) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
89) Bromodichloromethane	(1)					ND	ND			0.10	0.50
90) 2-Nitropropane	(4)					ND	ND			1.00	5.00
92) 2-Chloroethyl Vinyl Ether	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
95) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
100) Toluene	(2)					ND	ND			0.10	0.50
101) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
105) 1,3-Dichloropropane	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
111) Chlorobenzene	(2)					ND	ND			0.10	0.50
112) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
113) Ethylbenzene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAB19 9262

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKG71

File: /chem2/HP16334.i/09jun25a.b/gu25b01.d
Sample: VBLKG71;VBLKG71;1;3;;
Injected At:25-JUN-2009 13:14
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) m+p-Xylene	(2)					ND	ND			0.10	0.50
114) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
120) Isopropylbenzene	(2)					ND	ND			0.10	0.50
121) cis-1,4-Dichloro-2-Butene	(4)					ND	ND			0.40	1.00
124) Cyclohexanone	(4)					ND	ND			5.00	25.00
127) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
128) Bromobenzene	(3)					ND	ND			0.10	0.50
129) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
130) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
131) n-Propylbenzene	(3)					ND	ND			0.10	0.50
132) 2-Chlorotoluene	(3)					ND	ND			0.10	0.50
134) 4-Chlorotoluene	(3)					ND	ND			0.10	0.50
133) 1,3,5-Trimethylbenzene	(3)					ND	ND			0.10	0.50
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
136) tert-Butylbenzene	(3)					ND	ND			0.10	0.50
138) 1,2,4-Trimethylbenzene	(3)					ND	ND			0.10	0.50
139) sec-Butylbenzene	(3)					ND	ND			0.10	0.50
141) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
140) p-Isopropyltoluene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
144) 1,2,3-Trimethylbenzene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAB19 8263

VBLKG71

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKG71

File: /chem2/HP16334.i/09jun25a.b/gu25b01.d
Sample: VBLKG71;VBLKG71;1;3;;
Injected At:25-JUN-2009 13:14
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
146) n-Butylbenzene	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(1)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50
155) 1,2,3-Trichlorobenzene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: [signature] Date: 6/25/09

Auditor: [signature] Date: [signature]

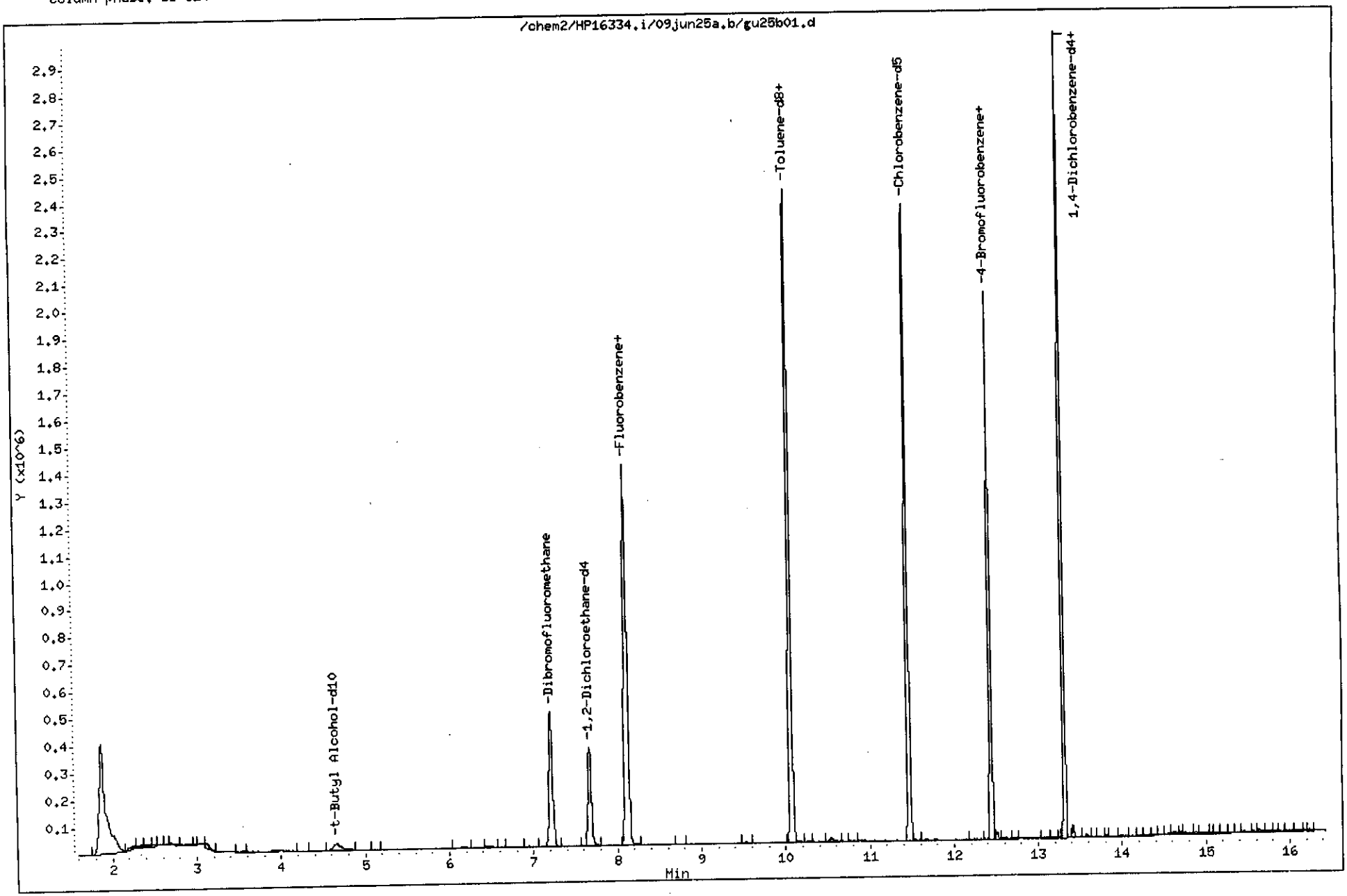
RAD19 #264

RA019 #265

Data File: /chem2/HP16334.i/09jun25a.b/gu25b01.d
Date : 25-JUN-2009 13:14
Client ID: VBLKG71
Sample Info: VBLKG71;VBLKG71;1;3;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25b01.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:14 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25+SM
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 13:54 jml01693

Sample Name: VBLKG71 Lab Sample ID: VBLKG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
35)*t-Butyl Alcohol-d10	(4)	4.665	65	81487	50.000
76)*Fluorobenzene	(1)	8.116	96	1862707	10.000
109)*Chlorobenzene-d5	(2)	11.475	117	1364862	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	749052	10.000
60)$Dibromofluoromethane	(1)	7.214	113	441391	9.280
69)$1,2-Dichloroethane-d4	(1)	7.677	102	79403	9.291
96)$Toluene-d8	(2)	10.073	98	1897227	9.221
125)$4-Bromofluorobenzene	(2)	12.444	95	613311	8.652

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

RAD19 6266

R13M3MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5702474

File: /chem2/HP16334.i/09jun25a.b/gu25s10.d
Sample: R13M3MS;5702474;1;3;MS;
Injected At:25-JUN-2009 18:40
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38B

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
35) t-Butyl Alcohol-d10	4.647(0.018)	502	65	65079(-16)	50.00	
76) Fluorobenzene	8.116(0.006)	1071	96	1801932(-7)	10.00	
109) Chlorobenzene-d5	11.475(0.000)	1622	117	1317690(-7)	10.00	
142) 1,4-Dichlorobenzene-d4	13.316(0.000)	1924	152	764089(-6)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
60) Dibromofluoromethane	(1)	7.214(-0.001)	113	421519	9.161	92%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.671(0.001)	102	74622	9.026	90%		74 - 113
96) Toluene-d8	(2)	10.073(0.000)	98	1832031	9.223	92%		77 - 110
125) 4-Bromofluorobenzene	(2)	12.445(0.000)	95	611075	8.929	89%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)	2.117(0.001)	85	341221	5.083	5.08			0.10	0.50
5) Chloromethane	(1)	2.276(0.002)	50	351454	6.358	6.36			0.20	0.50
6) Vinyl Chloride	(1)	2.434(0.001)	62	360574	5.602	5.60			0.10	0.50
9) Bromomethane	(1)	2.800(0.001)	94	301175	6.414	6.41			0.20	0.50
10) Chloroethane	(1)	2.910(0.001)	64	213910	6.526	6.53			0.20	0.50
12) Dichlorofluoromethane	(1)	3.160(0.001)	67	556797	5.992	5.99			0.20	0.50
14) Trichlorofluoromethane	(1)	3.270(0.000)	101	467683	5.803	5.80			0.10	0.50
16) Ethyl Ether	(1)	3.562(0.000)	59	140736	4.623	4.62			0.20	0.50
17) Freon 123a	(1)	3.593(0.001)	67	314641	5.491	5.49			0.20	0.50
22) Acrolein	(4)	3.757(-0.002)	56	112090	35.789	35.79			5.00	25.00
23) 1,1-Dichloroethene	(1)	3.897(0.001)	96	248719	5.367	5.37			0.10	0.50
24) Freon 113	(1)	3.922(0.001)	101	273679	5.480	5.48			0.20	0.50
25) Acetone	(4)	3.965(-0.001)	58	56697	42.745	42.75			3.00	5.00
26) Methyl Iodide	(1)	4.129(0.001)	142	440062	5.099	5.10			0.10	0.50
28) Carbon Disulfide	(1)	4.233(0.001)	76	641572	4.892	4.89			0.40	0.50
31) Allyl Chloride	(1)	4.428(0.001)	41	295650	4.789	4.79			0.10	0.50
32) Methyl Acetate	(1)	4.452(0.001)	43	66928	5.185	5.19			0.30	1.00
33) Methylene Chloride	(1)	4.629(0.000)	84	247126	4.623	4.62			0.60	2.00
37) t-Butyl Alcohol	(4)	4.788(0.000)	59	80420	47.426	47.43			4.00	10.00
38) Acrylonitrile	(4)	5.019(-0.003)	53	168019	29.952	29.95			1.00	5.00
40) trans-1,2-Dichloroethene	(1)	5.050(0.001)	96	281297	5.390	5.39			0.10	0.50
36) 1,2-Dichloroethene (Total)	(1)		96	569645	10.589	10.59			0.10	0.50
39) Methyl Tertiary Butyl Ether	(1)	5.044(0.000)	73	461629	4.634	4.63			0.10	0.50
43) n-Hexane	(1)	5.452(0.000)	57	361626	5.250	5.25			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8267

R13M3MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles **5702474**

File: /chem2/HP16334.i/09jun25a.b/gu25s10.d
Sample: R13M3MS;5702474;1;3;MS;
Injected At:25-JUN-2009 18:40
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38B

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
44) 1,1-Dichloroethane	(1)	5.690(0.000)	63	441344	5.405	5.40			0.10	0.50
46) di-Isopropyl Ether	(1)	5.775(0.000)	45	704091	5.069	5.07			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)	5.824(0.000)	53	394726	5.485	5.49			0.10	0.50
48) Ethyl t-Butyl Ether	(1)	6.312(0.000)	59	604457	4.747	4.75			0.10	0.50
50) 2,2-Dichloropropane	(1)	6.543(0.000)	77	355303	5.275	5.27			0.10	0.50
49) cis-1,2-Dichloroethene	(1)	6.537(0.000)	96	288348	5.199	5.20			0.10	0.50
51) 2-Butanone	(4)	6.555(-0.004)	43	308335	44.103	44.10			1.00	5.00
52) Propionitrile	(4)	6.665(-0.006)	54	86531	41.774	41.77			2.00	10.00
54) Methacrylonitrile	(4)	6.866(-0.004)	67	350270	45.306	45.31			1.00	5.00
55) Bromochloromethane	(1)	6.879(0.000)	128	115216	5.109	5.11			0.10	0.50
56) Tetrahydrofuran	(4)	6.927(-0.003)	71	61811	28.945	28.94			2.00	5.00
57) Chloroform	(1)	6.988(0.000)	83	479852	5.657	5.66			0.10	0.50
62) 1,1,1-Trichloroethane	(1)	7.238(0.001)	97	411839	5.706	5.71			0.10	0.50
63) Cyclohexane	(1)	7.318(0.000)	56	439818	5.304	5.30			0.10	0.50
64) 1,1-Dichloropropene	(1)	7.464(-0.001)	75	361393	5.445	5.44			0.10	0.50
65) Carbon Tetrachloride	(1)	7.464(0.000)	117	518674	8.074	8.07			0.10	0.50
66) Isobutyl Alcohol	(4)	7.622(-0.005)	41	69676	137.517	137.52			10.00	25.00
71) Benzene	(1)	7.750(-0.001)	78	1075072	5.258	5.26			0.10	0.50
73) 1,2-Dichloroethane	(1)	7.775(0.000)	62	240145	5.341	5.34			0.10	0.50
74) t-Amyl Methyl Ether	(1)	7.884(0.000)	73	512902	4.672	4.67			0.10	0.50
75) n-Heptane	(1)	8.086(-0.001)	43	378257	5.351	5.35			0.20	0.50
80) n-Butanol	(4)	8.506(-0.007)	56	102047	223.665	223.67			20.00	50.00
82) Trichloroethene	(1)	8.598(0.000)	95	319165	5.897	5.90			0.10	0.50
83) Methylcyclohexane	(1)	8.842(0.000)	83	512821	5.660	5.66			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8260

R13M3MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5702474

File: /chem2/HP16334.i/09jun25a.b/gu25s10.d
Sample: R13M3MS;5702474;1;3;MS;
Injected At:25-JUN-2009 18:40
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38B

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
84) 1,2-Dichloropropane	(1)	8.896(0.000)	63	243772	5.198	5.20			0.10	0.50
87) Dibromomethane	(1)	9.055(-0.001)	93	107367	5.171	5.17			0.10	0.50
88) 1,4-Dioxane	(4)	9.067(-0.005)	88	15333	118.292	118.29			20.00	100.00
86) Methyl Methacrylate	(4)	9.037(-0.008)	69	86131	5.812	5.81			0.10	0.50
89) Bromodichloromethane	(1)	9.250(0.000)	83	293850	5.235	5.24			0.10	0.50
90) 2-Nitropropane	(4)	9.537(-0.008)	41	22318	5.712	5.71			1.00	5.00
93) cis-1,3-Dichloropropene	(1)	9.774(0.000)	75	315046	4.872	4.87			0.10	0.50
95) 4-Methyl-2-Pentanone	(1)	9.945(0.000)	43	521086	24.073	24.07			1.00	5.00
100) Toluene	(2)	10.140(0.001)	92	703950	5.141	5.14			0.10	0.50
101) trans-1,3-Dichloropropene	(2)	10.372(0.000)	75	252981	4.865	4.86			0.10	0.50
102) Ethyl Methacrylate	(2)	10.451(0.000)	69	193619	4.730	4.73			0.10	0.50
103) 1,1,2-Trichloroethane	(2)	10.561(0.000)	97	153428	5.034	5.03			0.10	0.50
104) Tetrachloroethene	(2)	10.701(0.000)	166	340013	5.467	5.47			0.10	0.50
105) 1,3-Dichloropropane	(2)	10.725(0.001)	76	259779	5.085	5.09			0.10	0.50
106) 2-Hexanone	(2)	10.792(0.000)	43	359142	23.912	23.91			1.00	5.00
107) Dibromochloromethane	(2)	10.951(0.000)	129	185258	4.896	4.90			0.10	0.50
108) 1,2-Dibromoethane	(2)	11.061(0.000)	107	145181	4.982	4.98			0.10	0.50
111) Chlorobenzene	(2)	11.500(0.000)	112	787790	5.261	5.26			0.10	0.50
112) 1,1,1,2-Tetrachloroethane	(2)	11.567(0.000)	131	250706	5.113	5.11			0.10	0.50
113) Ethylbenzene	(2)	11.585(0.000)	91	1374912	5.241	5.24			0.10	0.50
116) m+p-Xylene	(2)	11.683(0.000)	106	1112573	10.496	10.50			0.10	0.50
114) Xylene (Total)	(2)		106	1643738	15.701	15.70			0.10	0.50
117) o-Xylene	(2)	12.018(0.000)	106	531165	5.205	5.21			0.10	0.50
118) Styrene	(2)	12.030(0.000)	104	818579	5.050	5.05			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8269

R13M3MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles **5702474**

File: /chem2/HP16334.i/09jun25a.b/gu25s10.d
Sample: R13M3MS;5702474;1;3;MS;
Injected At:**25-JUN-2009 18:40**
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:**G091761AA**
Analyst:**JML01693**
Instrument ID:**HP16334.i**
Standard Reference: gu25c03.d
Prep Factor:**1.00**
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:**38B**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
119) Bromoform	(2)	12.201	(0.000)	173	91299	4.596	4.60			0.10	0.50
120) Isopropylbenzene	(2)	12.310	(0.000)	105	1370109	5.354	5.35			0.10	0.50
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	(0.000)	83	177638	4.917	4.92			0.10	0.50
128) Bromobenzene	(3)	12.573	(0.000)	156	316124	4.932	4.93			0.10	0.50
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	(-0.011)	53	125491	20.765	20.77			1.00	5.00
130) 1,2,3-Trichloropropane	(3)	12.591	(0.000)	110	48517	4.645	4.65			0.30	1.00
131) n-Propylbenzene	(3)	12.634	(0.000)	91	1739797	5.309	5.31			0.10	0.50
132) 2-Chlorotoluene	(3)	12.713	(0.000)	126	341866	5.028	5.03			0.10	0.50
134) 4-Chlorotoluene	(3)	12.792	(0.000)	126	352680	5.062	5.06			0.10	0.50
133) 1,3,5-Trimethylbenzene	(3)	12.755	(0.000)	105	1191984	5.105	5.10			0.10	0.50
137) Pentachloroethane	(3)	13.042	(0.000)	167	192646	4.945	4.95			0.20	0.50
136) tert-Butylbenzene	(3)	13.012	(0.000)	134	284013	5.462	5.46			0.10	0.50
138) 1,2,4-Trimethylbenzene	(3)	13.042	(0.000)	105	1245196	5.098	5.10			0.10	0.50
139) sec-Butylbenzene	(3)	13.170	(0.000)	105	1616872	5.282	5.28			0.10	0.50
141) 1,3-Dichlorobenzene	(3)	13.274	(0.000)	146	707588	5.170	5.17			0.10	0.50
140) p-Isopropyltoluene	(3)	13.268	(0.000)	119	1403119	5.253	5.25			0.10	0.50
143) 1,4-Dichlorobenzene	(3)	13.335	(0.000)	146	696957	5.101	5.10			0.10	0.50
144) 1,2,3-Trimethylbenzene	(3)	13.359	(0.000)	120	522703	4.984	4.98			0.10	0.50
145) Benzyl Chloride	(3)	13.426	(0.000)	126	69934	4.466	4.47			0.10	0.50
146) n-Butylbenzene	(3)	13.560	(0.000)	92	735139	5.371	5.37			0.10	0.50
147) 1,2-Dichlorobenzene	(3)	13.609	(0.000)	146	597377	5.145	5.14			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	(-0.012)	155	21614	5.844	5.84			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)	14.694	(0.000)	180	451800	5.005	5.01			0.10	0.50
153) Hexachlorobutadiene	(3)	14.786	(0.000)	225	254833	5.355	5.35			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8278

R13M3MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5702474

File: /chem2/HP16334.i/09jun25a.b/gu25s10.d
Sample: R13M3MS;5702474;1;3;MS;
Injected At:25-JUN-2009 18:40
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38B

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
154) Naphthalene	(3)	14.871	(0.000)	128	613784	4.772	4.77			0.10	0.50
155) 1,2,3-Trichlorobenzene	(3)	15.036	(0.000)	180	369650	5.037	5.04			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: LMW Date: 6/26/09

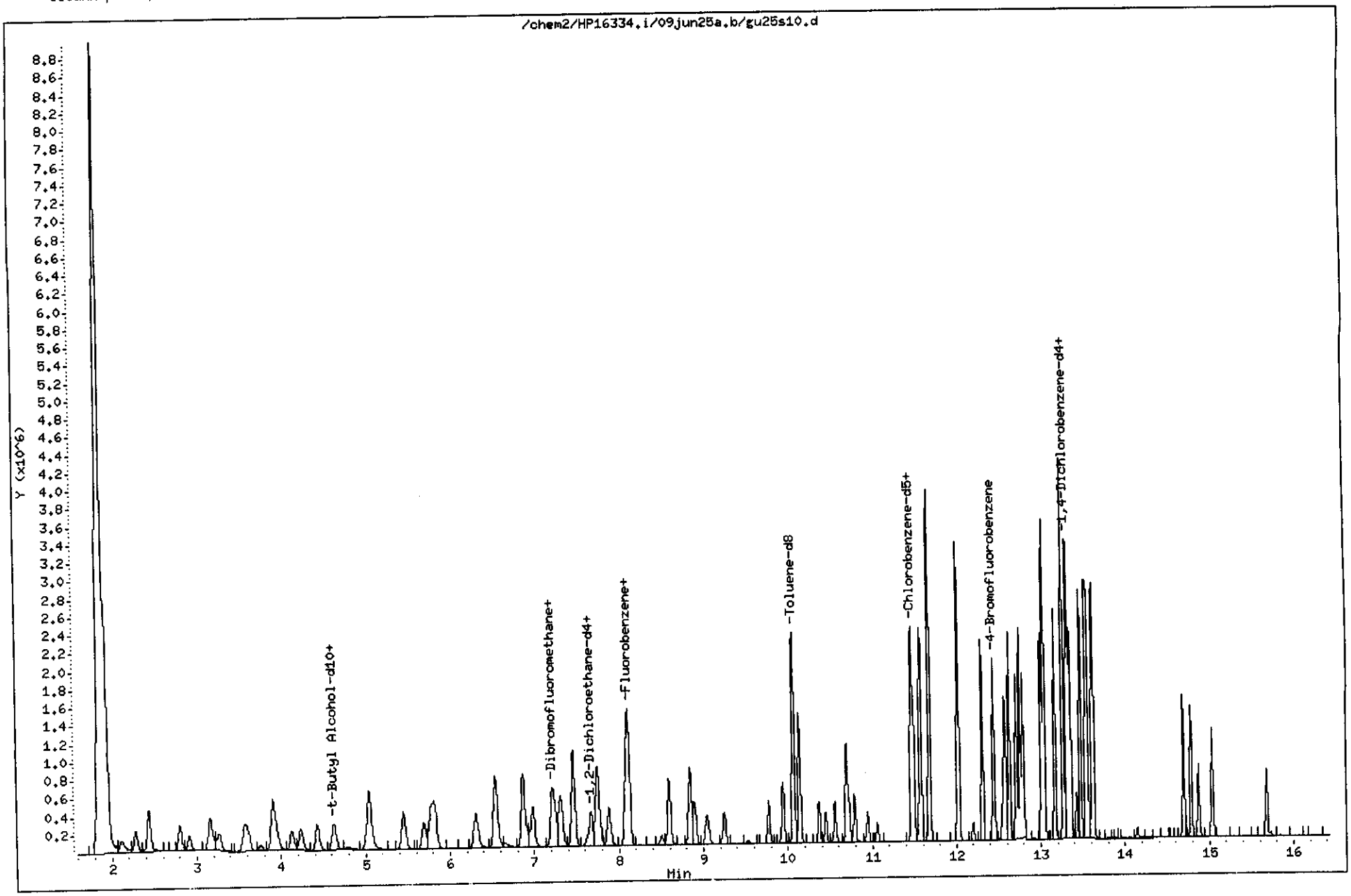
Auditor: Date: 6-26-09

RAD19 8271

Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d
Date : 25-JUN-2009 18:40
Client ID: R13M3MS
Sample Info: R13M3MS;5702474;1;3;MS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.117	85	341221	5.083
5) Chloromethane	(1)	2.276	50	351454	6.358
6) Vinyl Chloride	(1)	2.434	62	360574	5.602
9) Bromomethane	(1)	2.800	94	301175	6.414
10) Chloroethane	(1)	2.910	64	213910	6.526
12) Dichlorofluoromethane	(1)	3.160	67	556797	5.992
14) Trichlorofluoromethane	(1)	3.270	101	467683	5.803
16) Ethyl Ether	(1)	3.562	59	140736	4.623
17) Freon 123a	(1)	3.593	67	314641	5.491
22) Acrolein	(4)	3.757	56	112090	35.789
23) 1,1-Dichloroethene	(1)	3.897	96	248719	5.367
24) Freon 113	(1)	3.922	101	273679	5.480
25) Acetone	(4)	3.965	58	56697	42.745
26) Methyl Iodide	(1)	4.129	142	440062	5.099
28) Carbon Disulfide	(1)	4.233	76	641572	4.892
31) Allyl Chloride	(1)	4.428	41	295650	4.789
32) Methyl Acetate	(1)	4.452	43	66928	5.185
33) Methylene Chloride	(1)	4.629	84	247126	4.623
35) *t-Butyl Alcohol-d10	(4)	4.647	65	65079	50.000
37) t-Butyl Alcohol	(4)	4.788	59	80420	47.426
38) Acrylonitrile	(4)	5.019	53	168019	29.952
40) trans-1,2-Dichloroethene	(1)	5.050	96	281297	5.390
36) 1,2-Dichloroethene (Total)	(1)		96	569645	10.589
39) Methyl Tertiary Butyl Ether	(1)	5.044	73	461629	4.634
43) n-Hexane	(1)	5.452	57	361626	5.250
44) 1,1-Dichloroethane	(1)	5.690	63	441344M	5.405
46) di-Isopropyl Ether	(1)	5.775	45	704091	5.069
47) 2-Chloro-1,3-Butadiene	(1)	5.824	53	394726	5.485
48) Ethyl t-Butyl Ether	(1)	6.312	59	604457	4.747
50) 2,2-Dichloropropane	(1)	6.543	77	355303	5.275
49) cis-1,2-Dichloroethene	(1)	6.537	96	288348	5.199
51) 2-Butanone	(4)	6.555	43	308335	44.103
52) Propionitrile	(4)	6.665	54	86531	41.774
54) Methacrylonitrile	(4)	6.866	67	350270	45.306

M = Compound was manually integrated.

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.879	128	115216	5.109
56) Tetrahydrofuran	(4)	6.927	71	61811	28.945
57) Chloroform	(1)	6.988	83	479852	5.657
62) 1,1,1-Trichloroethane	(1)	7.238	97	411839	5.706
63) Cyclohexane	(1)	7.318	56	439818	5.304
64) 1,1-Dichloropropene	(1)	7.464	75	361393	5.445
65) Carbon Tetrachloride	(1)	7.464	117	518674	8.074
66) Isobutyl Alcohol	(4)	7.622	41	69676	137.517
71) Benzene	(1)	7.750	78	1075072	5.258
73) 1,2-Dichloroethane	(1)	7.775	62	240145	5.341
74) t-Amyl Methyl Ether	(1)	7.884	73	512902	4.672
76) *Fluorobenzene	(1)	8.116	96	1801932	10.000
75) n-Heptane	(1)	8.086	43	378257	5.351
80) n-Butanol	(4)	8.506	56	102047	223.665
82) Trichloroethene	(1)	8.598	95	319165	5.897
83) Methylcyclohexane	(1)	8.842	83	512821	5.660
84) 1,2-Dichloropropane	(1)	8.896	63	243772	5.198
87) Dibromomethane	(1)	9.055	93	107367	5.171
88) 1,4-Dioxane	(4)	9.067	88	15333	118.292
86) Methyl Methacrylate	(4)	9.037	69	86131	5.812
89) Bromodichloromethane	(1)	9.250	83	293850	5.235
90) 2-Nitropropane	(4)	9.537	41	22318	5.712
93) cis-1,3-Dichloropropene	(1)	9.774	75	315046	4.872
95) 4-Methyl-2-Pentanone	(1)	9.945	43	521086	24.073
100) Toluene	(2)	10.140	92	703950	5.141
101) trans-1,3-Dichloropropene	(2)	10.372	75	252981	4.865
102) Ethyl Methacrylate	(2)	10.451	69	193619	4.730
103) 1,1,2-Trichloroethane	(2)	10.561	97	153428	5.034
104) Tetrachloroethene	(2)	10.701	166	340013	5.467
105) 1,3-Dichloropropane	(2)	10.725	76	259779	5.085
106) 2-Hexanone	(2)	10.792	43	359142	23.912
107) Dibromochloromethane	(2)	10.951	129	185258	4.896
108) 1,2-Dibromoethane	(2)	11.061	107	145181	4.982
109) *Chlorobenzene-d5	(2)	11.475	117	1317690	10.000

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
111) Chlorobenzene	(2)	11.500	112	787790	5.261
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	250706	5.113
113) Ethylbenzene	(2)	11.585	91	1374912	5.241
116) m+p-Xylene	(2)	11.683	106	1112573	10.496
114) Xylene (Total)	(2)		106	1643738	15.701
117) o-Xylene	(2)	12.018	106	531165	5.205
118) Styrene	(2)	12.030	104	818579	5.050
119) Bromoform	(2)	12.201	173	91299	4.596
120) Isopropylbenzene	(2)	12.310	105	1370109	5.354
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	177638	4.917
128) Bromobenzene	(3)	12.573	156	316124	4.932
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	125491	20.765
130) 1,2,3-Trichloropropane	(3)	12.591	110	48517	4.645
131) n-Propylbenzene	(3)	12.634	91	1739797	5.309
132) 2-Chlorotoluene	(3)	12.713	126	341866	5.028
134) 4-Chlorotoluene	(3)	12.792	126	352680	5.062
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	1191984	5.105
137) Pentachloroethane	(3)	13.042	167	192646	4.945
136) tert-Butylbenzene	(3)	13.012	134	284013	5.462
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	1245196	5.098
139) sec-Butylbenzene	(3)	13.170	105	1616872	5.282
141) 1,3-Dichlorobenzene	(3)	13.274	146	707588	5.170
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	764089	10.000
140) p-Isopropyltoluene	(3)	13.268	119	1403119	5.253
143) 1,4-Dichlorobenzene	(3)	13.335	146	696957	5.101
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	522703	4.984
145) Benzyl Chloride	(3)	13.426	126	69934	4.466
146) n-Butylbenzene	(3)	13.560	92	735139	5.371
147) 1,2-Dichlorobenzene	(3)	13.609	146	597377	5.145
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	21614	5.844
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	451800	5.005
153) Hexachlorobutadiene	(3)	14.786	225	254833	5.355
154) Naphthalene	(3)	14.871	128	613784	4.772
155) 1,2,3-Trichlorobenzene	(3)	15.036	180	369650	5.037

* = Compound is an internal standard.

RAD13 8275

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

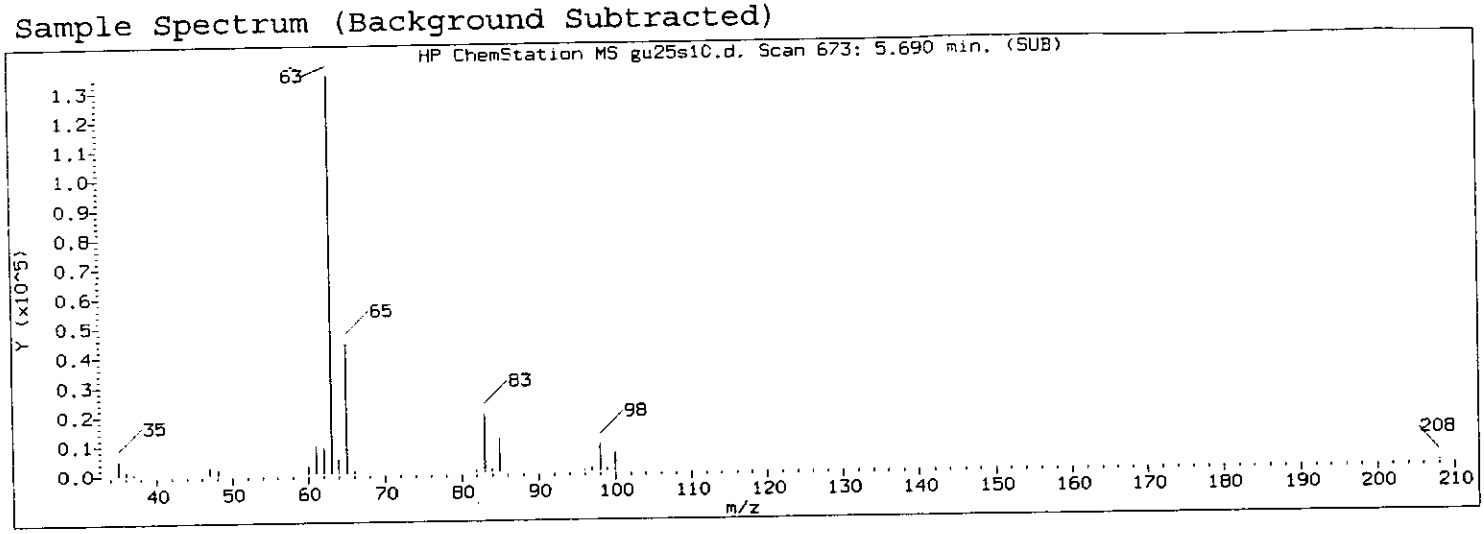
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
60) $Dibromofluoromethane	(1)	7.214	113	421519M	9.161
69) $1,2-Dichloroethane-d4	(1)	7.671	102	74622M	9.026
96) $Toluene-d8	(2)	10.073	98	1832031	9.223
125) $4-Bromofluorobenzene	(2)	12.445	95	611075	8.929

M = Compound was manually integrated.

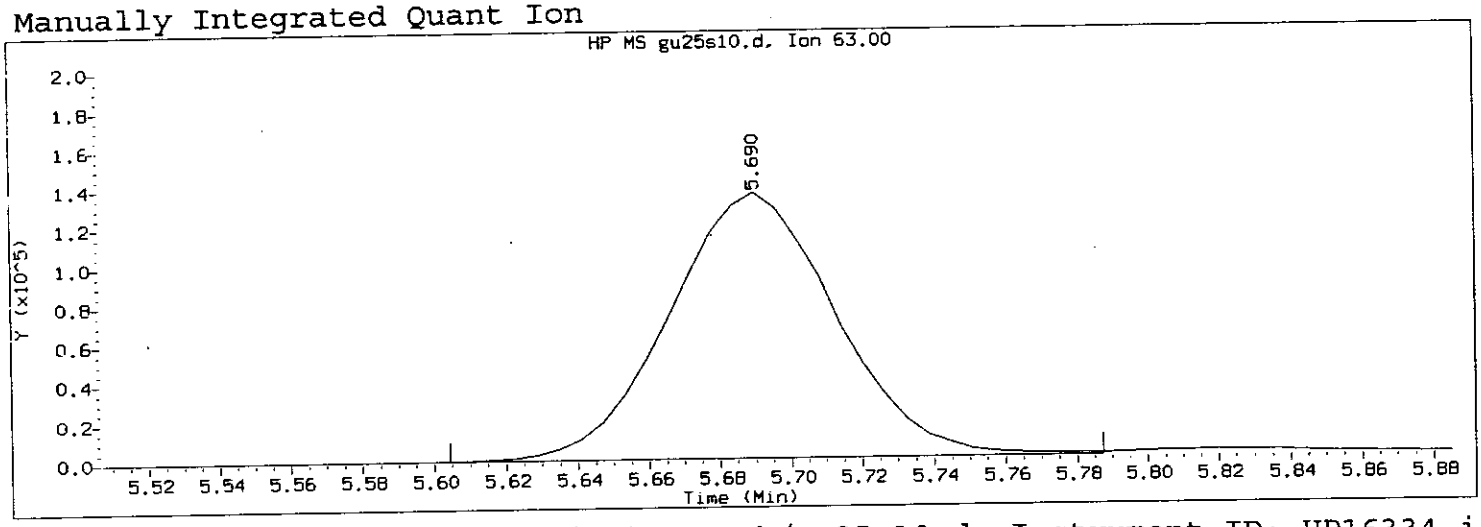
$ = Compound is a surrogate standard.

RAD19 8276

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

Compound Number	:	44
Compound Name	:	1,1-Dichloroethane
Scan Number	:	673
Retention Time (minutes)	:	5.690
Quant Ion	:	63
Area (flag)	:	441344 M
Concentration (ug/L)	:	5.4047
Integration start scan	:	658 Integration stop scan: 688
Y at integration start	:	0 Y at integration end: 0

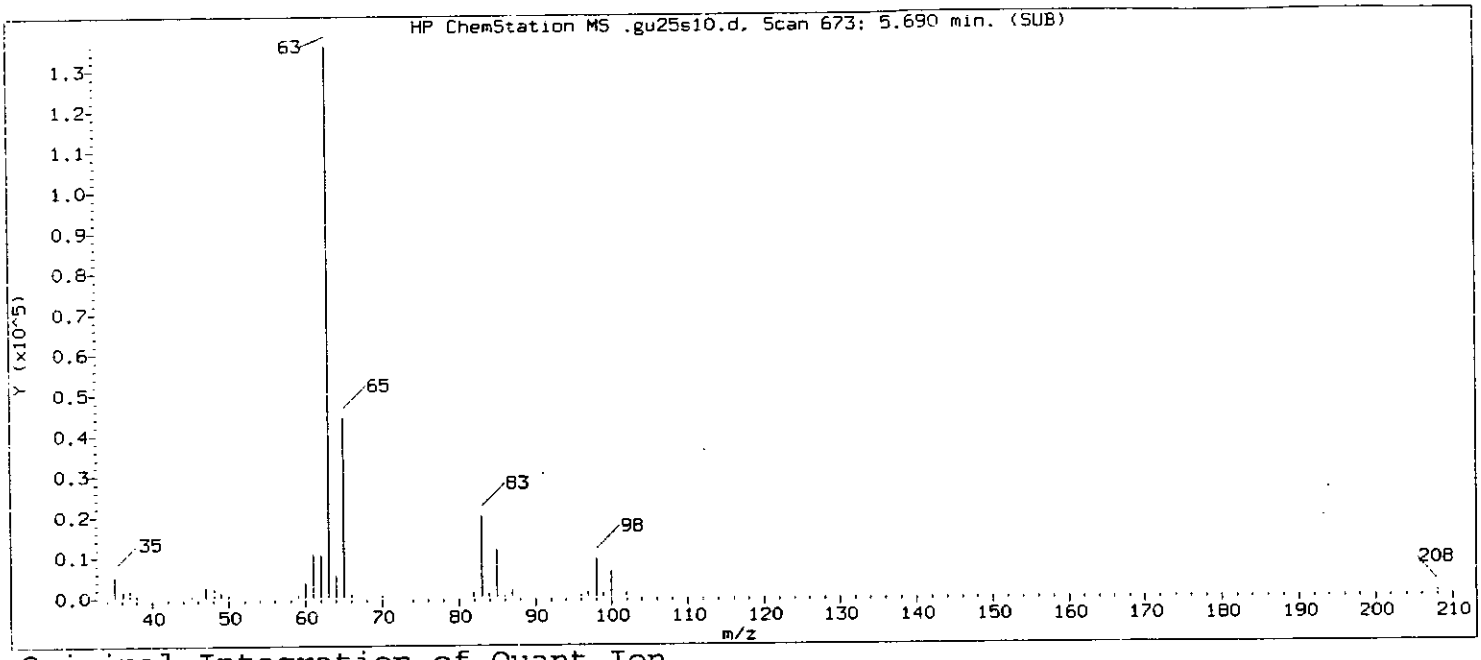
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 6/25/09

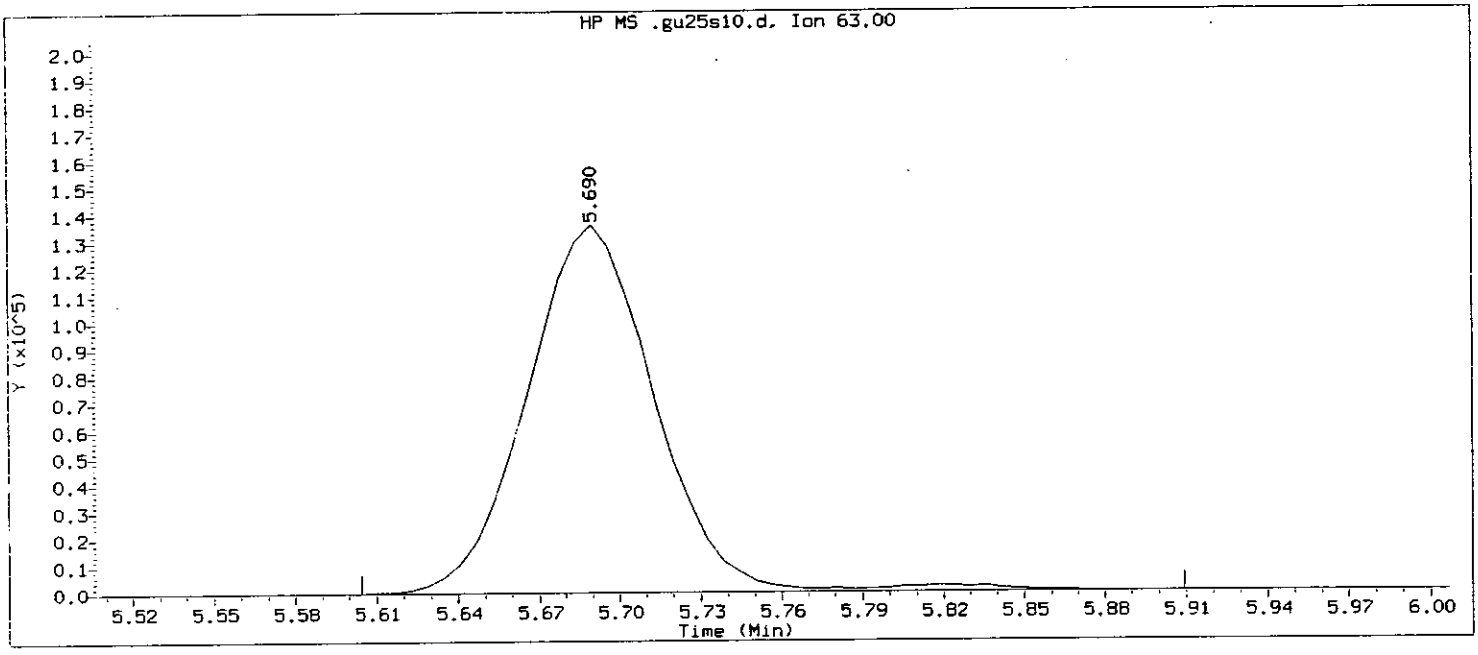
GC/MS audit/management approval: [signature] 6-26-09 RAD19 8277

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25s10.d, generated on 06/25/2009 at 20:04

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 18:56 Automation

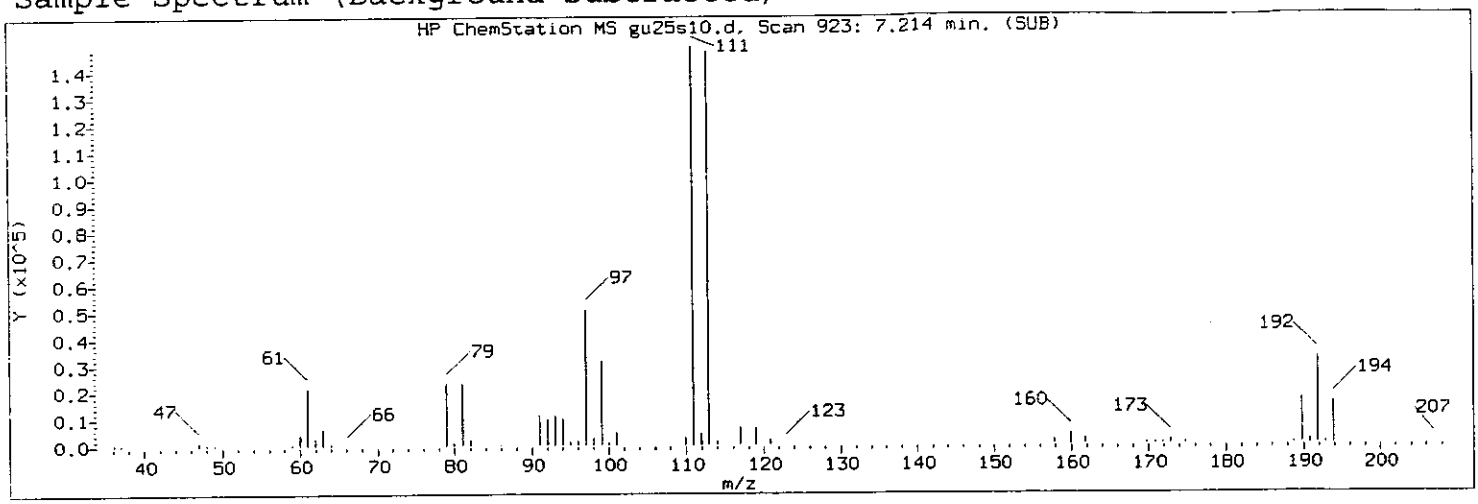
Sample Name: R13M3MS Lab Sample ID: 5702474

Compound Number : 44
Compound Name : 1,1-Dichloroethane
Scan Number : 673
Retention Time (minutes): 5.690
Quant Ion : 63
Area : 448221
Concentration (ug/L) : 5.4890
Integration start scan : 658 Integration stop scan: 708
Y at integration start : 0 Y at integration end: 0

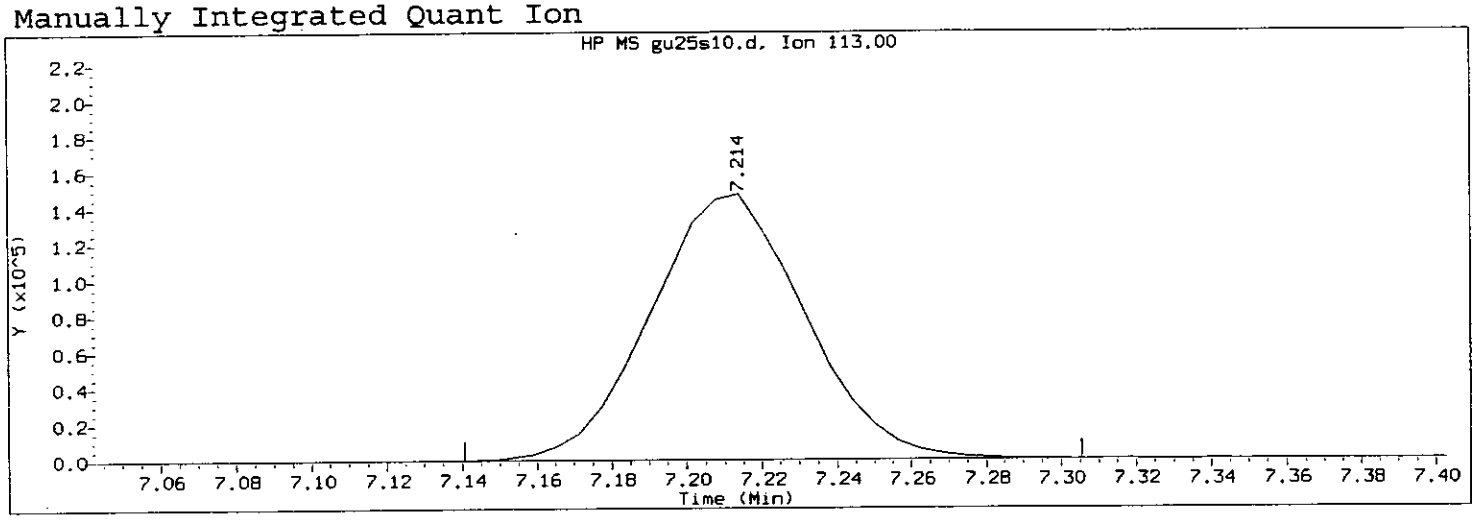
RAD19 8278

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25s10.d, generated on 06/25/2009 at 20:04

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

Compound Number : 60
Compound Name : Dibromofluoromethane
Scan Number : 923
Retention Time (minutes): 7.214
Quant Ion : 113
Area (flag) : 421519 M
Concentration (ug/L) : 9.1610
Integration start scan : 910 Integration stop scan: 937
Y at integration start : 0 Y at integration end: 0

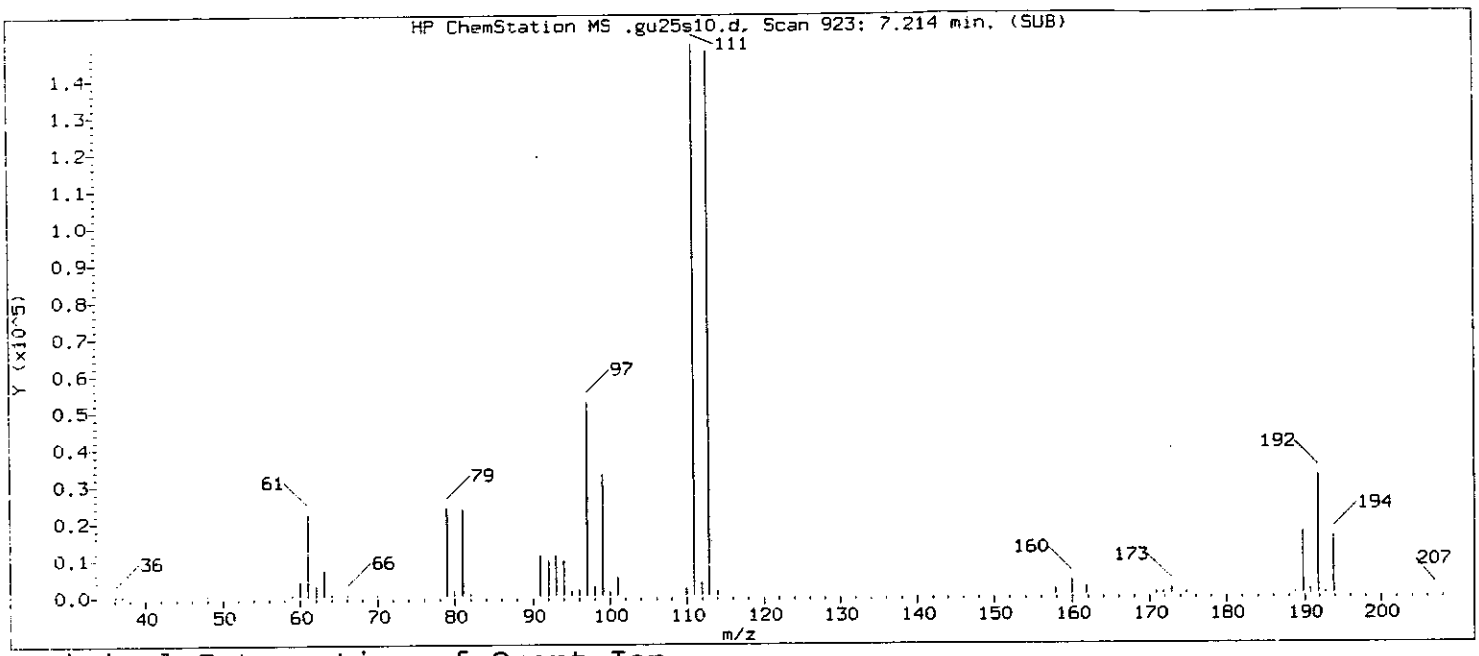
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Lmor 6/26/09

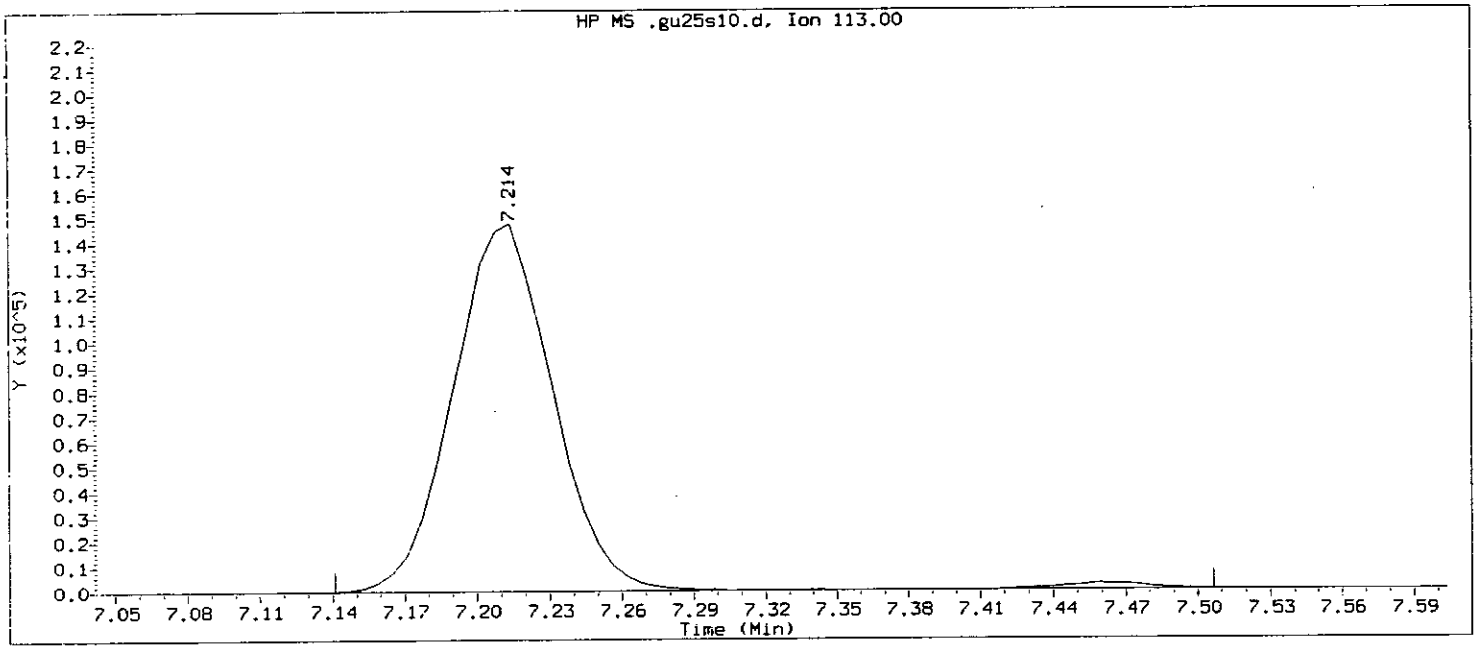
GC/MS audit/management approval: 6-26-09 RAD19 8279

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25s10.d, generated on 06/25/2009 at 20:04

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 18:56 Automation

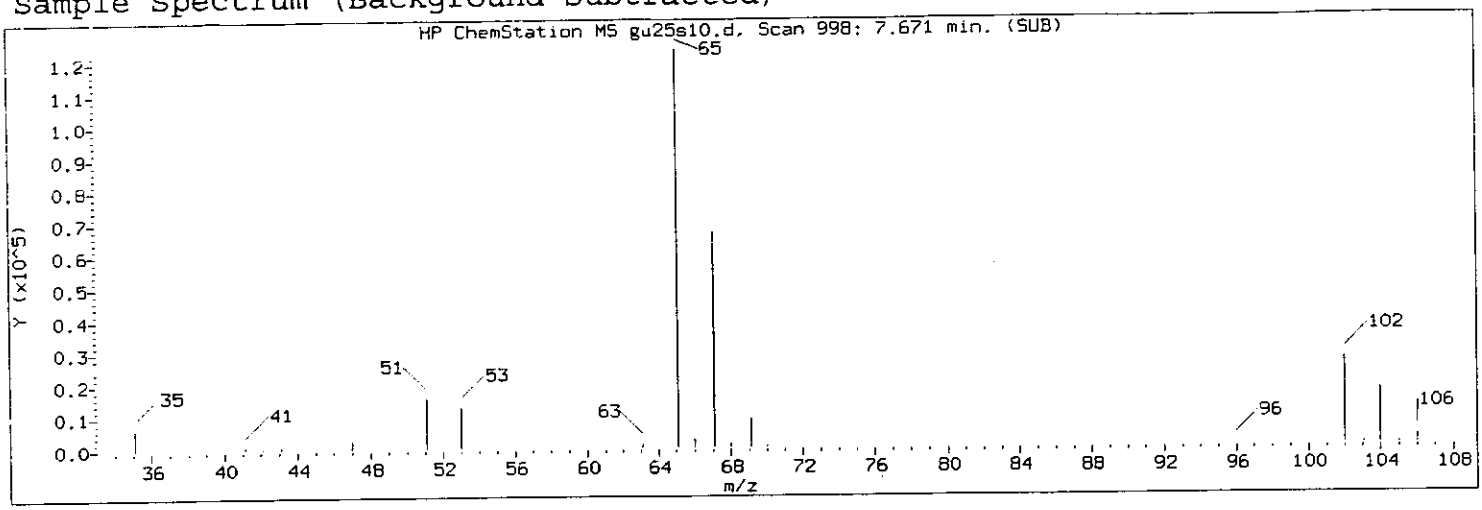
Sample Name: R13M3MS Lab Sample ID: 5702474

Compound Number	:	60
Compound Name	:	Dibromofluoromethane
Scan Number	:	923
Retention Time (minutes)	:	7.214
Quant Ion	:	113
Area	:	428115
Concentration (ug/L)	:	9.3044
Integration start scan	:	910 Integration stop scan: 970
Y at integration start	:	0 Y at integration end: 0

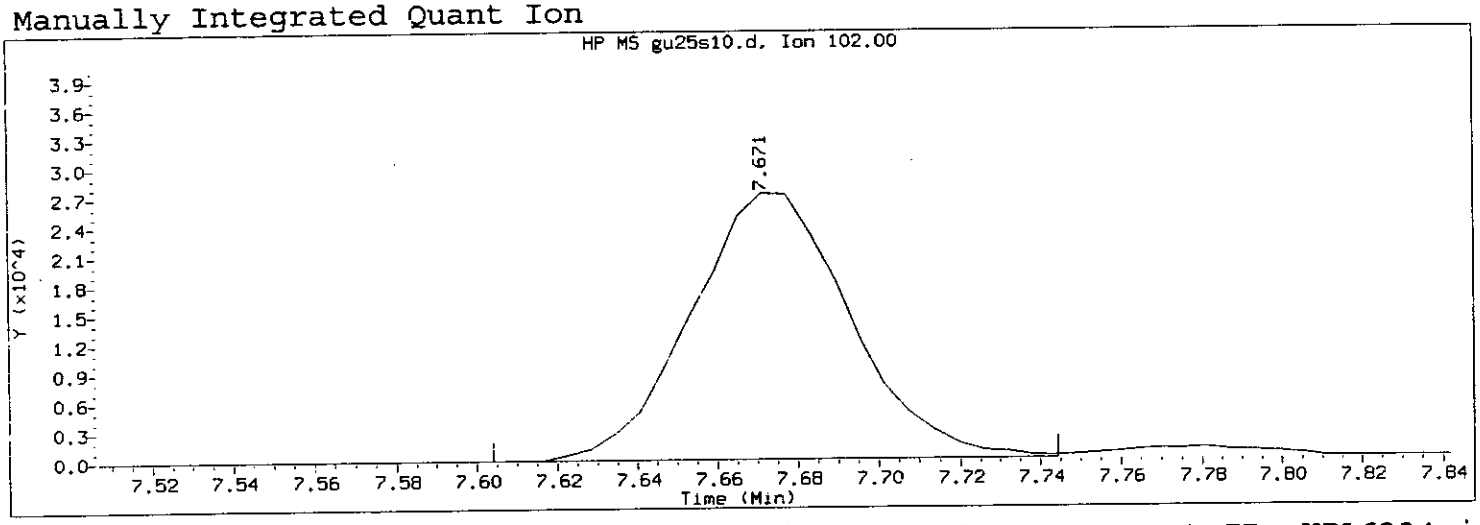
RAD19 8260B

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25s10.d, generated on 06/25/2009 at 20:04

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 20:04 lcm01518

Sample Name: R13M3MS Lab Sample ID: 5702474

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 998
Retention Time (minutes): 7.671
Quant Ion : 102
Area (flag) : 74622 M
Concentration (ug/L) : 9.0256
Integration start scan : 986 Integration stop scan: 1009
Y at integration start : 0 Y at integration end: 0

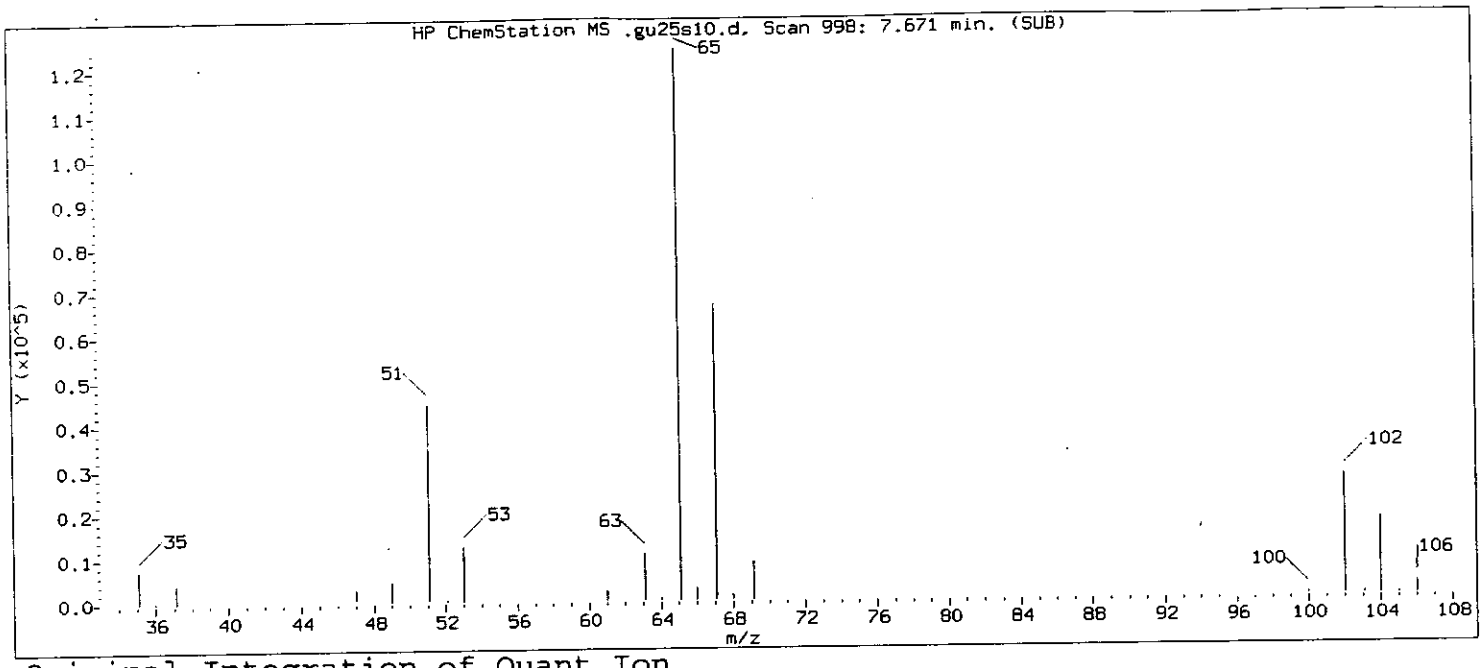
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Limor 6/25/09

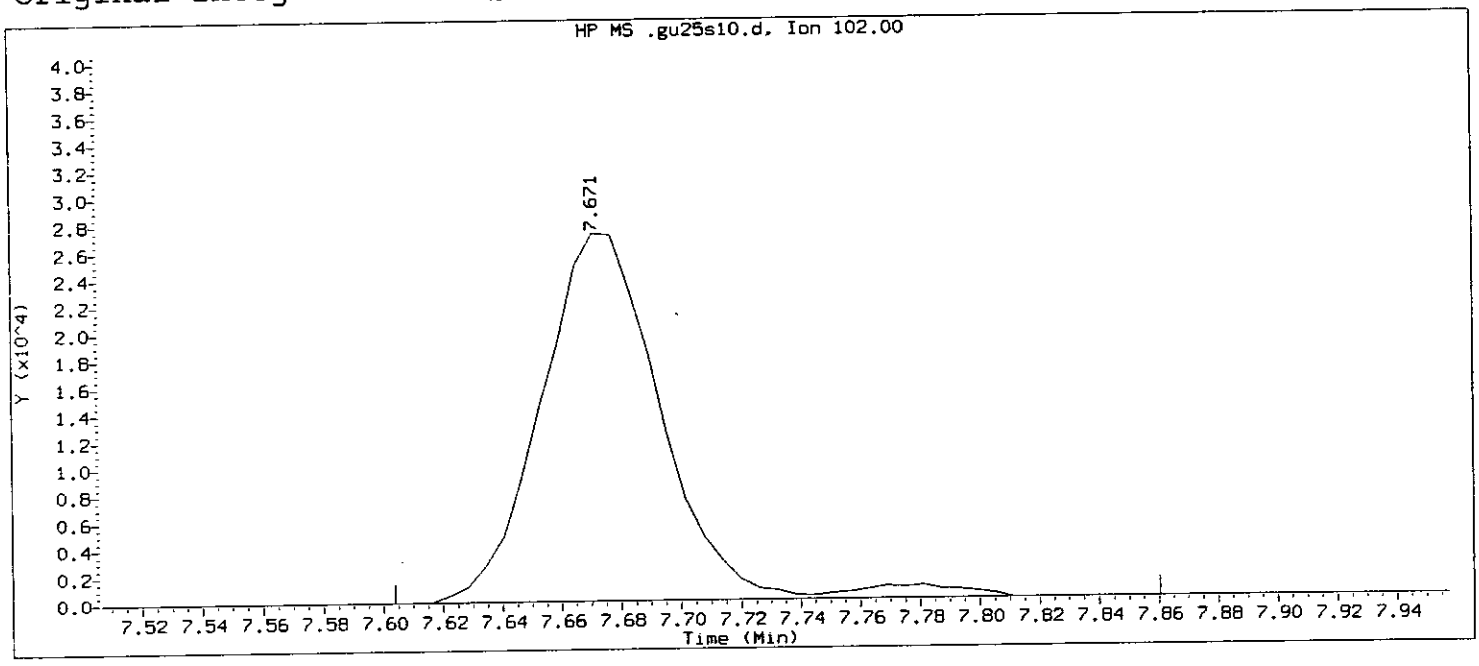
GC/MS audit/management approval: 6-26-09 RAD19 8281

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25s10.d, generated on 06/25/2009 at 20:04

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25s10.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 18:40 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 15:52
Date, time and analyst ID of latest file update: 25-Jun-2009 18:56 Automation

Sample Name: R13M3MS Lab Sample ID: 5702474

Compound Number	:	69
Compound Name	:	1,2-Dichloroethane-d4
Scan Number	:	998
Retention Time (minutes)	:	7.671
Quant Ion	:	102
Area	:	77054
Concentration (ug/L)	:	9.3199
Integration start scan	:	986 Integration stop scan: 1028
Y at integration start	:	0 Y at integration end: 0

RAD19 8282

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25s10.d, generated on 06/25/2009 at 20:04

LCSG71

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSG71

File: /chem2/HP16334.i/09jun25a.b/gu25101.d
Sample: LCSG71;LCSG71;1;3;LCS;
Injected At:25-JUN-2009 13:35
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
35) t-Butyl Alcohol-d10	4.659(0.006)	504	65	84614(9)	50.00	
76) Fluorobenzene	8.116(0.006)	1071	96	1917696(-1)	10.00	
109) Chlorobenzene-d5	11.475(0.000)	1622	117	1398317(-1)	10.00	
142) 1,4-Dichlorobenzene-d4	13.316(0.000)	1924	152	809365(-1)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
60) Dibromofluoromethane	(1)	7.214(-0.001)	113	448542	9.160	92%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.671(0.001)	102	80880	9.192	92%		74 - 113
96) Toluene-d8	(2)	10.073(0.000)	98	1952590	9.263	93%		77 - 110
125) 4-Bromofluorobenzene	(2)	12.444(0.000)	95	655164	9.021	90%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)	2.111(0.001)	85	418120	5.853	5.85			0.10	0.50
5) Chloromethane	(1)	2.282(0.001)	50	403355	6.864	6.86			0.20	0.50
6) Vinyl Chloride	(1)	2.434(0.001)	62	386038	5.636	5.64			0.10	0.50
9) Bromomethane	(1)	2.805(0.001)	94	315653	6.310	6.31			0.20	0.50
10) Chloroethane	(1)	2.910(0.001)	64	219644	6.281	6.28			0.20	0.50
12) Dichlorofluoromethane	(1)	3.160(0.001)	67	576455	5.825	5.82			0.20	0.50
14) Trichlorofluoromethane	(1)	3.269(0.000)	101	474359	5.530	5.53			0.10	0.50
16) Ethyl Ether	(1)	3.556(0.001)	59	151280	4.671	4.67			0.20	0.50
17) Freon 123a	(1)	3.592(0.001)	67	304833	4.998	5.00			0.20	0.50
22) Acrolein	(4)	3.757(0.000)	56	125380	30.790	30.79			5.00	25.00
23) 1,1-Dichloroethene	(1)	3.903(0.000)	96	236787	4.801	4.80			0.10	0.50
24) Freon 113	(1)	3.916(0.002)	101	248209	4.670	4.67			0.20	0.50
25) Acetone	(4)	3.964(0.002)	58	64473	37.385	37.39			3.00	5.00
26) Methyl Iodide	(1)	4.129(0.001)	142	430573	4.688	4.69			0.10	0.50
28) Carbon Disulfide	(1)	4.239(0.000)	76	642493	4.603	4.60			0.40	0.50
31) Allyl Chloride	(1)	4.428(0.001)	41	313748	4.776	4.78			0.10	0.50
32) Methyl Acetate	(1)	4.452(0.001)	43	74463	5.428	5.43			0.30	1.00
33) Methylene Chloride	(1)	4.623(0.001)	84	260354	4.570	4.57			0.60	2.00
37) t-Butyl Alcohol	(4)	4.787(0.003)	59	97241	44.106	44.11			4.00	10.00
38) Acrylonitrile	(4)	5.019(0.000)	53	186230	25.534	25.53			1.00	5.00
40) trans-1,2-Dichloroethene	(1)	5.043(0.002)	96	274463	4.941	4.94			0.10	0.50
36) 1,2-Dichloroethene (Total)	(1)		96	562950	9.829	9.83			0.10	0.50
39) Methyl Tertiary Butyl Ether	(1)	5.043(0.000)	73	492616	4.646	4.65			0.10	0.50
43) n-Hexane	(1)	5.452(0.000)	57	334385	4.561	4.56			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 0283

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSG71

File: /chem2/HP16334.i/09jun25a.b/gu25101.d
Sample: LCSG71;LCSG71;1;3;LCS;
Injected At:25-JUN-2009 13:35
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
44) 1,1-Dichloroethane	(1)	5.690	(0.000)	63	434561	5.000	5.00			0.10	0.50
46) di-Isopropyl Ether	(1)	5.775	(0.000)	45	725560	4.909	4.91			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)	5.824	(0.000)	53	380066	4.963	4.96			0.10	0.50
48) Ethyl t-Butyl Ether	(1)	6.311	(0.000)	59	639418	4.718	4.72			0.10	0.50
50) 2,2-Dichloropropane	(1)	6.537	(0.001)	77	355975	4.966	4.97			0.10	0.50
49) cis-1,2-Dichloroethene	(1)	6.537	(0.000)	96	288487	4.888	4.89			0.10	0.50
51) 2-Butanone	(4)	6.555	(-0.001)	43	345930	38.057	38.06			1.00	5.00
52) Propionitrile	(4)	6.653	(0.001)	54	100625	37.363	37.36			2.00	10.00
54) Methacrylonitrile	(4)	6.866	(-0.001)	67	376544	37.460	37.46			1.00	5.00
55) Bromochloromethane	(1)	6.878	(0.000)	128	120382	5.016	5.02			0.10	0.50
56) Tetrahydrofuran	(4)	6.939	(-0.002)	71	68387	24.631	24.63			2.00	5.00
57) Chloroform	(1)	6.988	(0.000)	83	461014	5.107	5.11			0.10	0.50
62) 1,1,1-Trichloroethane	(1)	7.244	(0.000)	97	395089	5.144	5.14			0.10	0.50
63) Cyclohexane	(1)	7.313	(0.001)	56	410619	4.653	4.65			0.10	0.50
64) 1,1-Dichloropropene	(1)	7.464	(-0.001)	75	345423	4.890	4.89			0.10	0.50
65) Carbon Tetrachloride	(1)	7.464	(0.000)	117	340917	4.987	4.99			0.10	0.50
66) Isobutyl Alcohol	(4)	7.622	(-0.001)	41	83216	125.722	125.72			10.00	25.00
71) Benzene	(1)	7.744	(0.000)	78	1067023	4.903	4.90			0.10	0.50
73) 1,2-Dichloroethane	(1)	7.774	(0.000)	62	250745	5.240	5.24			0.10	0.50
74) t-Amyl Methyl Ether	(1)	7.884	(0.000)	73	545635	4.670	4.67			0.10	0.50
75) n-Heptane	(1)	8.085	(-0.001)	43	349717	4.649	4.65			0.20	0.50
80) n-Butanol	(4)	8.506	(-0.002)	56	140259	236.444	236.44			20.00	50.00
82) Trichloroethene	(1)	8.598	(0.000)	95	289630	5.028	5.03			0.10	0.50
83) Methylcyclohexane	(1)	8.847	(-0.001)	83	482776	5.006	5.01			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 0284

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSG71

File: /chem2/HP16334.i/09jun25a.b/gu25101.d
Sample: LCSG71;LCSG71;1;3;LCS;
Injected At:25-JUN-2009 13:35
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
84) 1,2-Dichloropropane	(1)	8.895	(0.000)	63	248791	4.985	4.99			0.10	0.50
87) Dibromomethane	(1)	9.055	(-0.001)	93	111732	5.057	5.06			0.10	0.50
88) 1,4-Dioxane	(4)	9.073	(-0.001)	88	25361	150.485	150.48			20.00	100.00
86) Methyl Methacrylate	(4)	9.036	(-0.003)	69	94488	4.904	4.90			0.10	0.50
89) Bromodichloromethane	(1)	9.250	(0.000)	83	304230	5.093	5.09			0.10	0.50
90) 2-Nitropropane	(4)	9.536	(-0.003)	41	27740	5.461	5.46			1.00	5.00
93) cis-1,3-Dichloropropene	(1)	9.774	(0.000)	75	333192	4.842	4.84			0.10	0.50
95) 4-Methyl-2-Pentanone	(1)	9.945	(0.000)	43	568142	24.662	24.66			1.00	5.00
100) Toluene	(2)	10.140	(0.001)	92	698592	4.808	4.81			0.10	0.50
101) trans-1,3-Dichloropropene	(2)	10.372	(0.000)	75	272922	4.946	4.95			0.10	0.50
102) Ethyl Methacrylate	(2)	10.451	(0.000)	69	200718	4.621	4.62			0.10	0.50
103) 1,1,2-Trichloroethane	(2)	10.561	(0.000)	97	160221	4.954	4.95			0.10	0.50
104) Tetrachloroethene	(2)	10.701	(0.000)	166	331202	5.019	5.02			0.10	0.50
105) 1,3-Dichloropropane	(2)	10.725	(0.001)	76	268383	4.951	4.95			0.10	0.50
106) 2-Hexanone	(2)	10.792	(0.000)	43	392642	24.635	24.63			1.00	5.00
107) Dibromochloromethane	(2)	10.945	(0.001)	129	197579	4.921	4.92			0.10	0.50
108) 1,2-Dibromoethane	(2)	11.060	(0.000)	107	151185	4.889	4.89			0.10	0.50
111) Chlorobenzene	(2)	11.499	(0.000)	112	784886	4.939	4.94			0.10	0.50
112) 1,1,1,2-Tetrachloroethane	(2)	11.566	(0.000)	131	257045	4.940	4.94			0.10	0.50
113) Ethylbenzene	(2)	11.585	(0.000)	91	1359130	4.882	4.88			0.10	0.50
116) m+p-Xylene	(2)	11.682	(0.000)	106	1102507	9.801	9.80			0.10	0.50
114) Xylene (Total)	(2)			106	1634293	14.712	14.71			0.10	0.50
117) o-Xylene	(2)	12.018	(0.000)	106	531786	4.911	4.91			0.10	0.50
118) Styrene	(2)	12.030	(0.000)	104	832129	4.837	4.84			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8285

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSG71

File: /chem2/HP16334.i/09jun25a.b/gu25l01.d
Sample: LCSG71;LCSG71;1;3;LCS;
Injected At:25-JUN-2009 13:35
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
119) Bromoform	(2)	12.200	(0.000)	173	101104	4.796	4.80			0.10	0.50
120) Isopropylbenzene	(2)	12.310	(0.000)	105	1333054	4.909	4.91			0.10	0.50
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	(0.000)	83	188117	4.916	4.92			0.10	0.50
128) Bromobenzene	(3)	12.572	(0.000)	156	319071	4.700	4.70			0.10	0.50
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	(-0.004)	53	198678	25.286	25.29			1.00	5.00
130) 1,2,3-Trichloropropane	(3)	12.591	(0.000)	110	51872	4.689	4.69			0.30	1.00
131) n-Propylbenzene	(3)	12.627	(0.000)	91	1672559	4.819	4.82			0.10	0.50
132) 2-Chlorotoluene	(3)	12.713	(0.000)	126	335885	4.664	4.66			0.10	0.50
134) 4-Chlorotoluene	(3)	12.792	(0.000)	126	348807	4.726	4.73			0.10	0.50
133) 1,3,5-Trimethylbenzene	(3)	12.755	(0.000)	105	1184955	4.791	4.79			0.10	0.50
137) Pentachloroethane	(3)	13.042	(0.000)	167	201057	4.872	4.87			0.20	0.50
136) tert-Butylbenzene	(3)	13.011	(0.000)	134	258445	4.692	4.69			0.10	0.50
138) 1,2,4-Trimethylbenzene	(3)	13.042	(0.000)	105	1242416	4.802	4.80			0.10	0.50
139) sec-Butylbenzene	(3)	13.170	(0.000)	105	1553519	4.791	4.79			0.10	0.50
141) 1,3-Dichlorobenzene	(3)	13.273	(0.000)	146	704576	4.860	4.86			0.10	0.50
140) p-Isopropyltoluene	(3)	13.267	(0.000)	119	1353228	4.783	4.78			0.10	0.50
143) 1,4-Dichlorobenzene	(3)	13.334	(0.000)	146	709954	4.905	4.91			0.10	0.50
144) 1,2,3-Trimethylbenzene	(3)	13.359	(0.000)	120	536999	4.834	4.83			0.10	0.50
145) Benzyl Chloride	(3)	13.426	(0.000)	126	80465	4.851	4.85			0.10	0.50
146) n-Butylbenzene	(3)	13.554	(0.000)	92	704082	4.856	4.86			0.10	0.50
147) 1,2-Dichlorobenzene	(3)	13.609	(0.000)	146	609229	4.953	4.95			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	(-0.004)	155	24226	5.038	5.04			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)	14.694	(0.000)	180	486556	5.089	5.09			0.10	0.50
153) Hexachlorobutadiene	(3)	14.785	(0.000)	225	248831	4.936	4.94			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8206

LCSG71

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSG71

File: /chem2/HP16334.i/09jun25a.b/gu25l01.d
Sample: LCSG71;LCSG71;1;3;LCS;
Injected At:25-JUN-2009 13:35
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
154) Naphthalene	(3)	14.871	(0.000)	128	664941	4.881	4.88			0.10	0.50
155) 1,2,3-Trichlorobenzene	(3)	15.035	(0.000)	180	387977	4.991	4.99			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: JML Date: 6/25/09

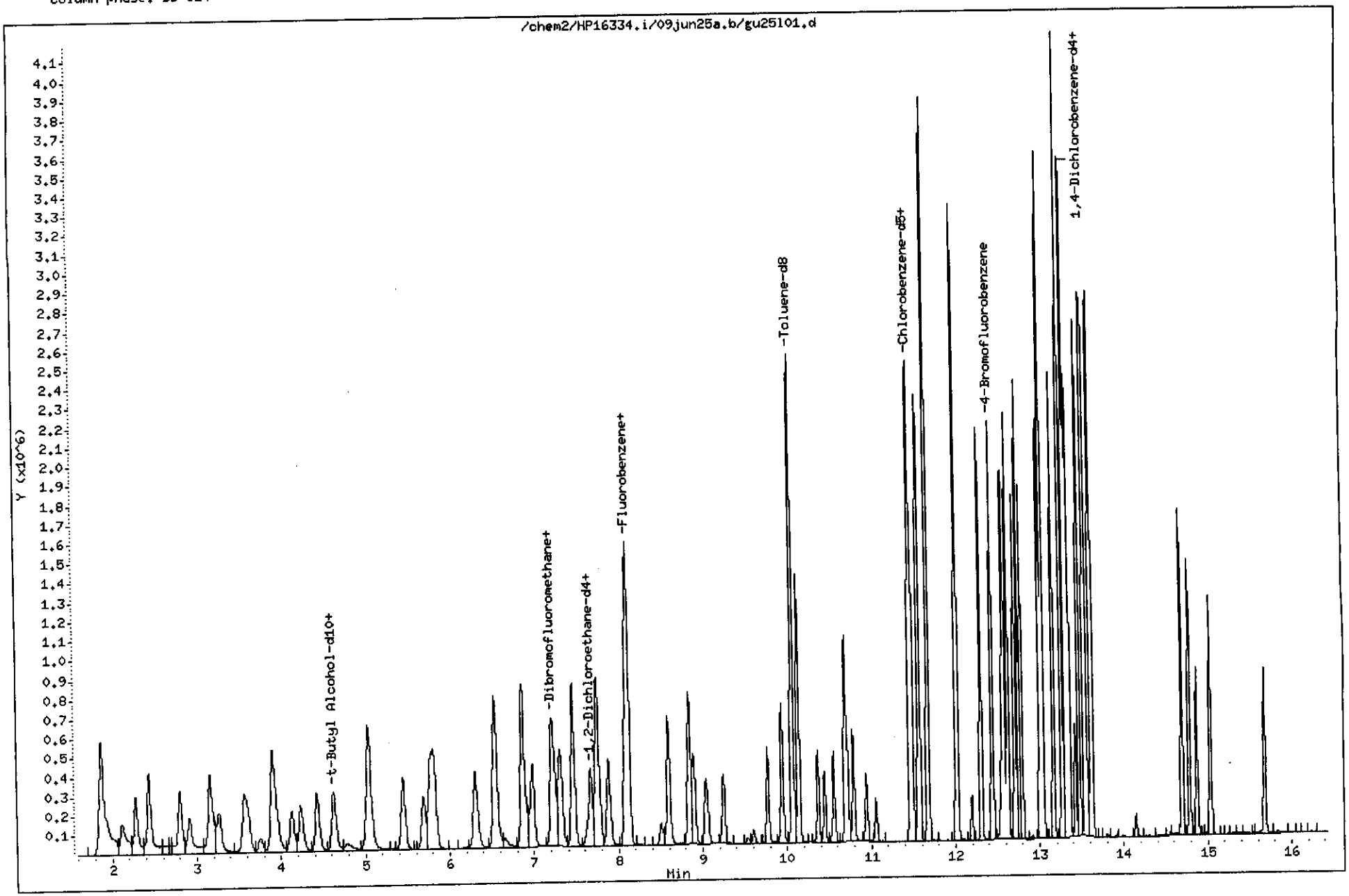
Auditor: Date: 6-26-09

RAD19 8287

Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d
Date : 25-JUN-2009 13:35
Client ID: LCSG71
Sample Info: LCSG71;LCSG71;1;3;LCS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25l01.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.111	85	418120	5.853
5) Chloromethane	(1)	2.282	50	403355	6.864
6) Vinyl Chloride	(1)	2.434	62	386038	5.636
9) Bromomethane	(1)	2.806	94	315653	6.310
10) Chloroethane	(1)	2.910	64	219644	6.281
12) Dichlorofluoromethane	(1)	3.160	67	576455	5.825
14) Trichlorofluoromethane	(1)	3.269	101	474359	5.530
16) Ethyl Ether	(1)	3.556	59	151280	4.671
17) Freon 123a	(1)	3.592	67	304833	4.998
22) Acrolein	(4)	3.757	56	125380	30.790
23) 1,1-Dichloroethene	(1)	3.903	96	236787	4.801
24) Freon 113	(1)	3.916	101	248209	4.670
25) Acetone	(4)	3.964	58	64473	37.385
26) Methyl Iodide	(1)	4.129	142	430573	4.688
28) Carbon Disulfide	(1)	4.239	76	642493	4.603
31) Allyl Chloride	(1)	4.428	41	313748	4.776
32) Methyl Acetate	(1)	4.452	43	74463	5.428
33) Methylene Chloride	(1)	4.623	84	260354	4.570
35) *t-Butyl Alcohol-d10	(4)	4.659	65	84614	50.000
37) t-Butyl Alcohol	(4)	4.787	59	97241	44.106
38) Acrylonitrile	(4)	5.019	53	186230	25.534
40) trans-1,2-Dichloroethene	(1)	5.043	96	274463	4.941
36) 1,2-Dichloroethene (Total)	(1)		96	562950	9.829
39) Methyl Tertiary Butyl Ether	(1)	5.043	73	492616	4.646
43) n-Hexane	(1)	5.452	57	334385	4.561
44) 1,1-Dichloroethane	(1)	5.690	63	434561	5.000
46) di-Isopropyl Ether	(1)	5.775	45	725560	4.909
47) 2-Chloro-1,3-Butadiene	(1)	5.824	53	380066	4.963
48) Ethyl t-Butyl Ether	(1)	6.311	59	639418	4.718
50) 2,2-Dichloropropane	(1)	6.537	77	355975	4.966
49) cis-1,2-Dichloroethene	(1)	6.537	96	288487	4.888
51) 2-Butanone	(4)	6.555	43	345930	38.057
52) Propionitrile	(4)	6.653	54	100625	37.363
54) Methacrylonitrile	(4)	6.866	67	376544	37.460

* = Compound is an internal standard.

RAD19 8289

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.878	128	120382	5.016
56) Tetrahydrofuran	(4)	6.939	71	68387	24.631
57) Chloroform	(1)	6.988	83	461014	5.107
62) 1,1,1-Trichloroethane	(1)	7.244	97	395089	5.144
63) Cyclohexane	(1)	7.311	56	410619	4.653
64) 1,1-Dichloropropene	(1)	7.464	75	345423	4.890
65) Carbon Tetrachloride	(1)	7.464	117	340917	4.987
66) Isobutyl Alcohol	(4)	7.622	41	83216M	125.722
71) Benzene	(1)	7.744	78	1067023	4.903
73) 1,2-Dichloroethane	(1)	7.774	62	250745	5.240
74) t-Amyl Methyl Ether	(1)	7.884	73	545635	4.670
76) *Fluorobenzene	(1)	8.116	96	1917696	10.000
75) n-Heptane	(1)	8.085	43	349717	4.649
80) n-Butanol	(4)	8.506	56	140259	236.444
82) Trichloroethene	(1)	8.598	95	289630	5.028
83) Methylcyclohexane	(1)	8.847	83	482776	5.006
84) 1,2-Dichloropropane	(1)	8.896	63	248791	4.985
87) Dibromomethane	(1)	9.055	93	111732	5.057
88) 1,4-Dioxane	(4)	9.073	88	25361	150.485
86) Methyl Methacrylate	(4)	9.036	69	94488	4.904
89) Bromodichloromethane	(1)	9.250	83	304230	5.093
90) 2-Nitropropane	(4)	9.536	41	27740	5.461
93) cis-1,3-Dichloropropene	(1)	9.774	75	333192	4.842
95) 4-Methyl-2-Pentanone	(1)	9.945	43	568142	24.662
100) Toluene	(2)	10.140	92	698592	4.808
101) trans-1,3-Dichloropropene	(2)	10.372	75	272922	4.946
102) Ethyl Methacrylate	(2)	10.451	69	200718	4.621
103) 1,1,2-Trichloroethane	(2)	10.561	97	160221	4.954
104) Tetrachloroethene	(2)	10.701	166	331202	5.019
105) 1,3-Dichloropropane	(2)	10.725	76	268383	4.951
106) 2-Hexanone	(2)	10.792	43	392642	24.635
107) Dibromochloromethane	(2)	10.945	129	197579	4.921
108) 1,2-Dibromoethane	(2)	11.060	107	151185	4.889
109) *Chlorobenzene-d5	(2)	11.475	117	1398317	10.000

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8296

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
111) Chlorobenzene	(2)	11.499	112	784886	4.939
112) 1,1,1,2-Tetrachloroethane	(2)	11.566	131	257045	4.940
113) Ethylbenzene	(2)	11.585	91	1359130	4.882
116) m+p-Xylene	(2)	11.682	106	1102507	9.801
114) Xylene (Total)	(2)		106	1634293	14.712
117) o-Xylene	(2)	12.018	106	531786	4.911
118) Styrene	(2)	12.030	104	832129	4.837
119) Bromoform	(2)	12.200	173	101104	4.796
120) Isopropylbenzene	(2)	12.310	105	1333054	4.909
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	188117	4.916
128) Bromobenzene	(3)	12.572	156	319071	4.700
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	198678M	25.286
130) 1,2,3-Trichloropropane	(3)	12.591	110	51872	4.689
131) n-Propylbenzene	(3)	12.627	91	1672559	4.819
132) 2-Chlorotoluene	(3)	12.713	126	335885	4.664
134) 4-Chlorotoluene	(3)	12.792	126	348807	4.726
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	1184955	4.791
137) Pentachloroethane	(3)	13.042	167	201057	4.872
136) tert-Butylbenzene	(3)	13.011	134	258445M	4.692
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	1242416	4.802
139) sec-Butylbenzene	(3)	13.170	105	1553519	4.791
141) 1,3-Dichlorobenzene	(3)	13.273	146	704576	4.860
142) *1,4-Dichlorobenzene-d4	(3)	13.316	152	809365	10.000
140) p-Isopropyltoluene	(3)	13.267	119	1353228	4.783
143) 1,4-Dichlorobenzene	(3)	13.334	146	709954	4.905
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	536999	4.834
145) Benzyl Chloride	(3)	13.426	126	80465	4.851
146) n-Butylbenzene	(3)	13.554	92	704082	4.856
147) 1,2-Dichlorobenzene	(3)	13.609	146	609229	4.953
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	24226	5.038
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	486556	5.089
153) Hexachlorobutadiene	(3)	14.785	225	248831	4.936
154) Naphthalene	(3)	14.871	128	664941	4.881
155) 1,2,3-Trichlorobenzene	(3)	15.035	180	387977	4.991

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 8291

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

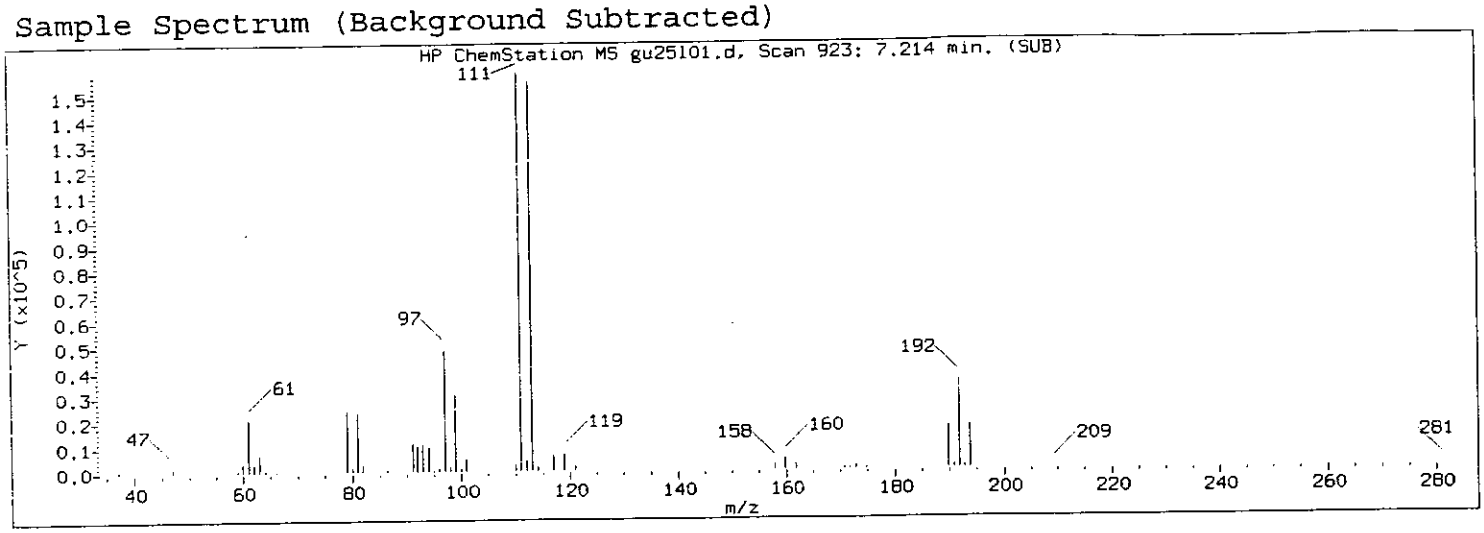
Sample Name: LCSG71 Lab Sample ID: LCSG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
60) $Dibromofluoromethane	(1)	7.214	113	448542M	9.160
69) $1,2-Dichloroethane-d4	(1)	7.671	102	80880M	9.192
96) $Toluene-d8	(2)	10.073	98	1952590	9.263
125) $4-Bromofluorobenzene	(2)	12.444	95	655164	9.021

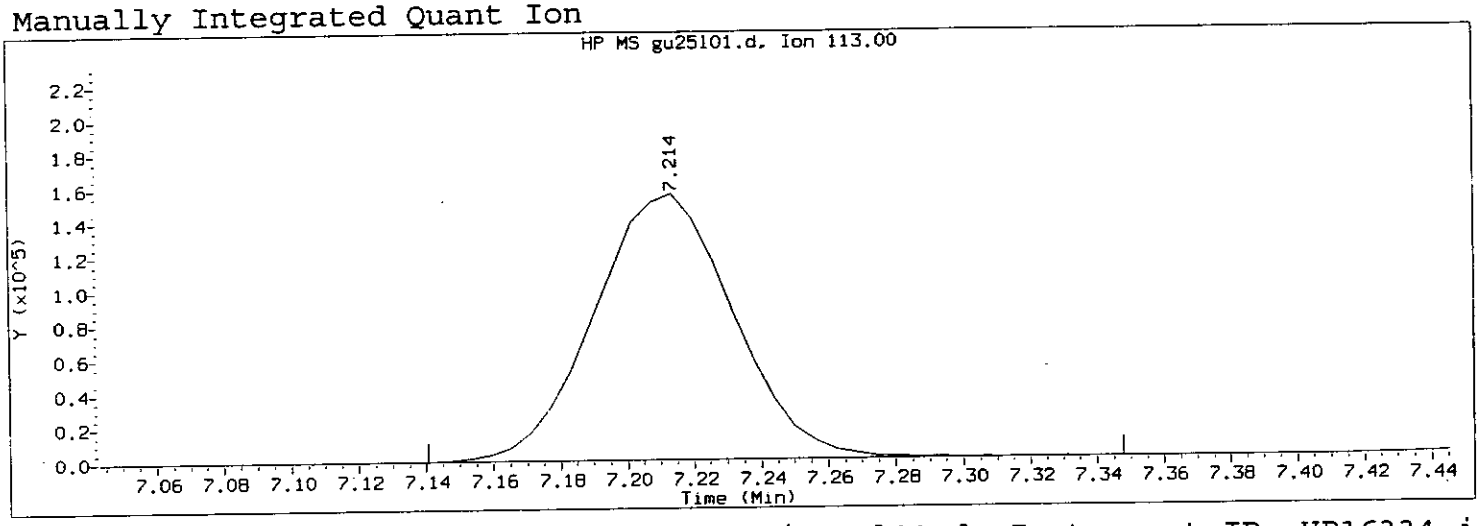
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

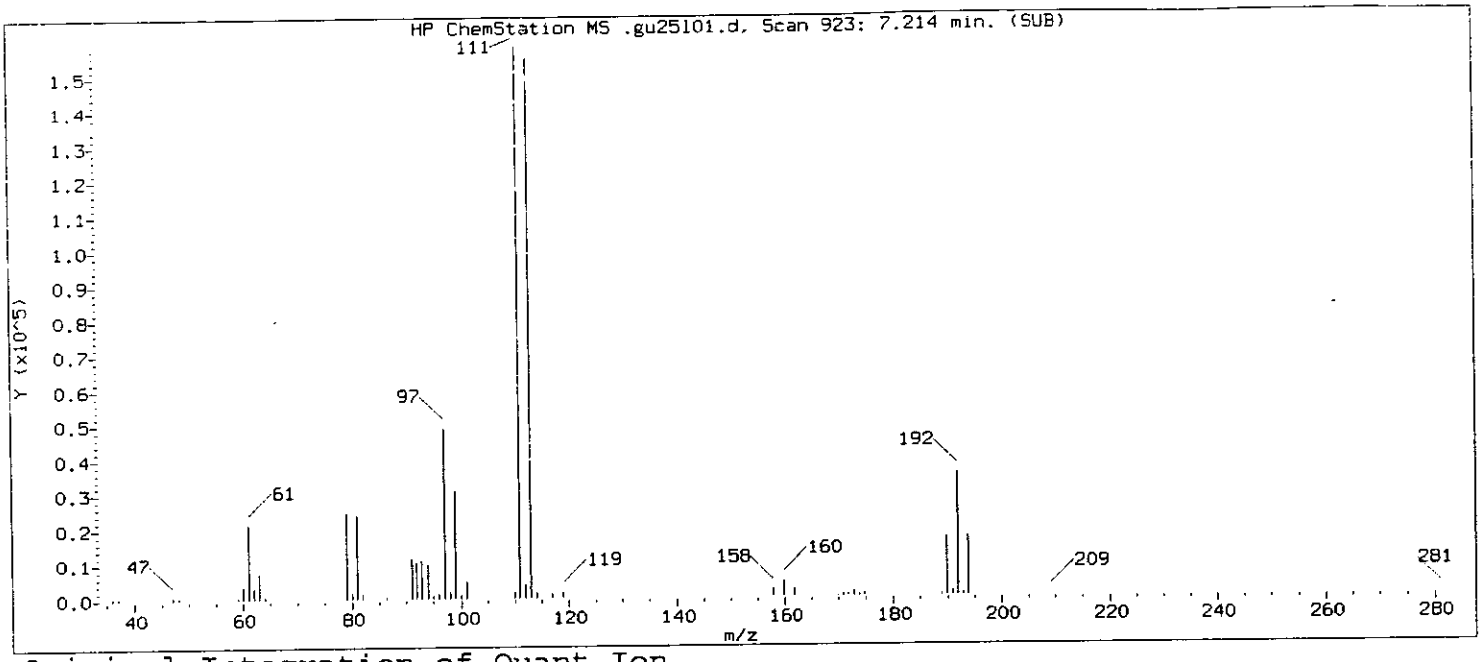
Compound Number	:	60
Compound Name	:	Dibromofluoromethane
Scan Number	:	923
Retention Time (minutes)	:	7.214
Quant Ion	:	113
Area (flag)	:	448542 M
Concentration (ug/L)	:	9.1598
Integration start scan	:	910 Integration stop scan: 944
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

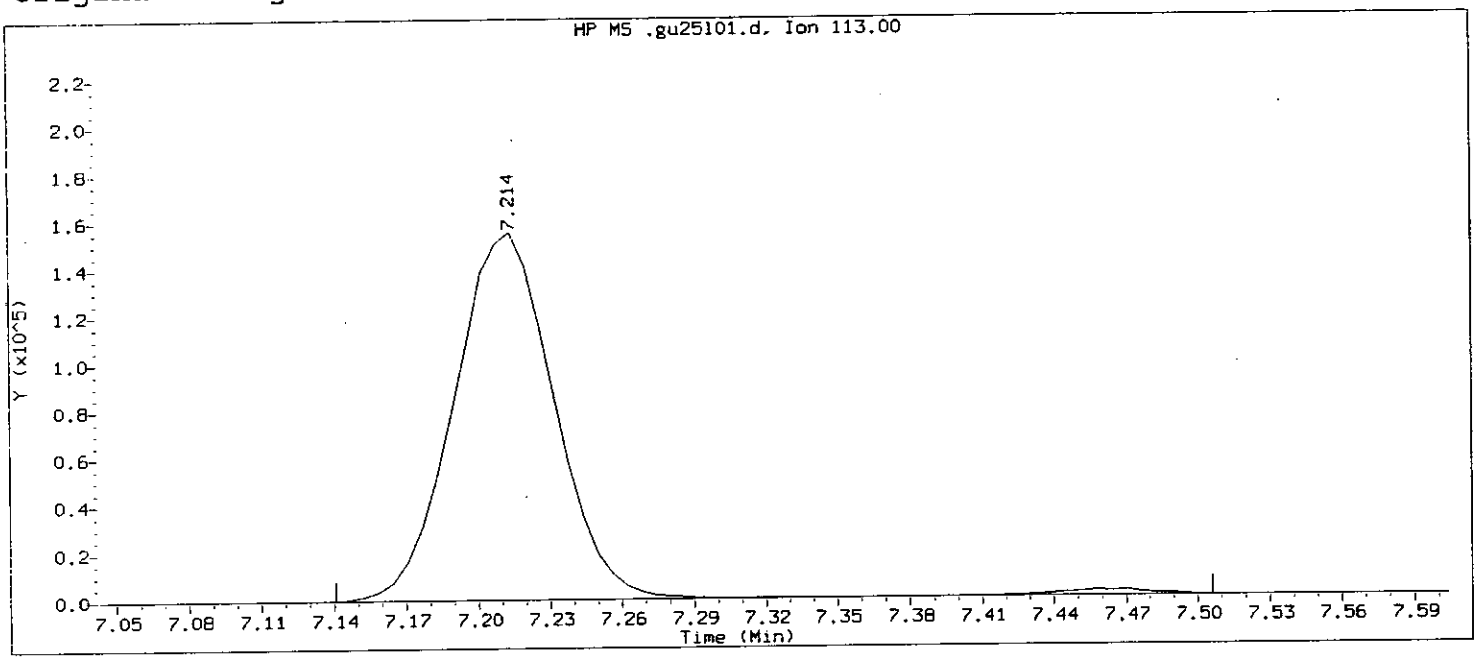
Analyst responsible for change: [signature] 6/25/09

GC/MS audit/management approval: [signature] 6-26-09 RAD19 8293

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:52 Automation

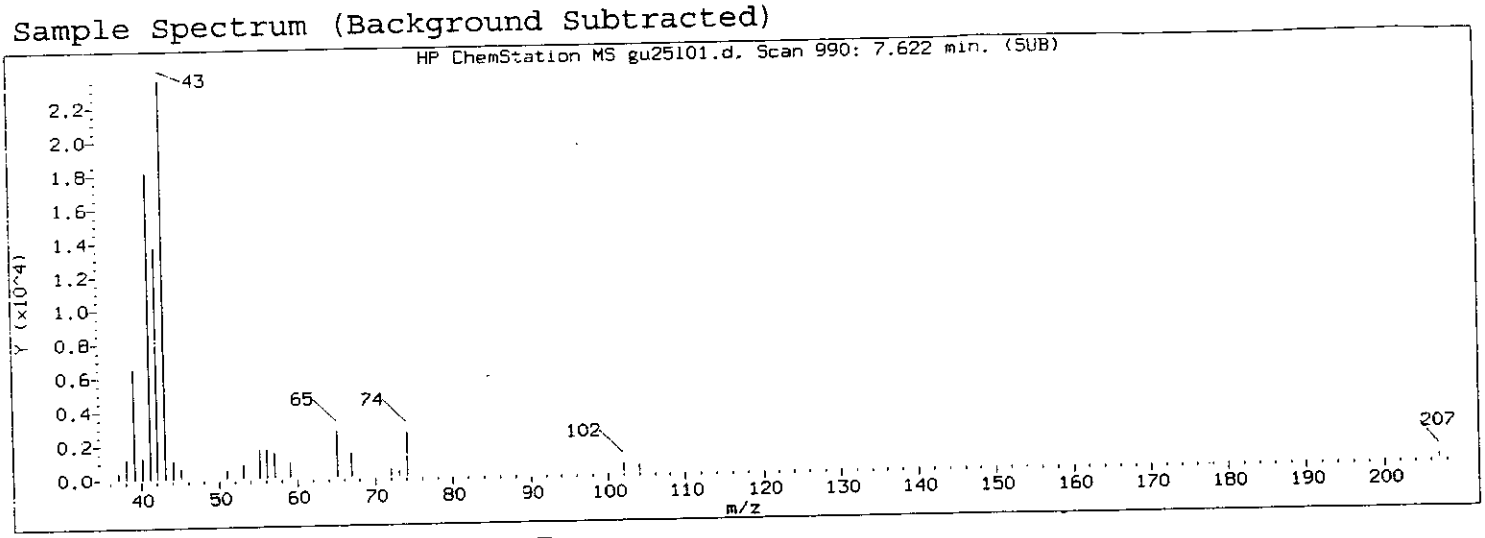
Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	:	60
Compound Name	:	Dibromofluoromethane
Scan Number	:	923
Retention Time (minutes)	:	7.214
Quant Ion	:	113
Area	:	455009
Concentration (ug/L)	:	9.2919
Integration start scan	:	910 Integration stop scan: 970
Y at integration start	:	0 Y at integration end: 0

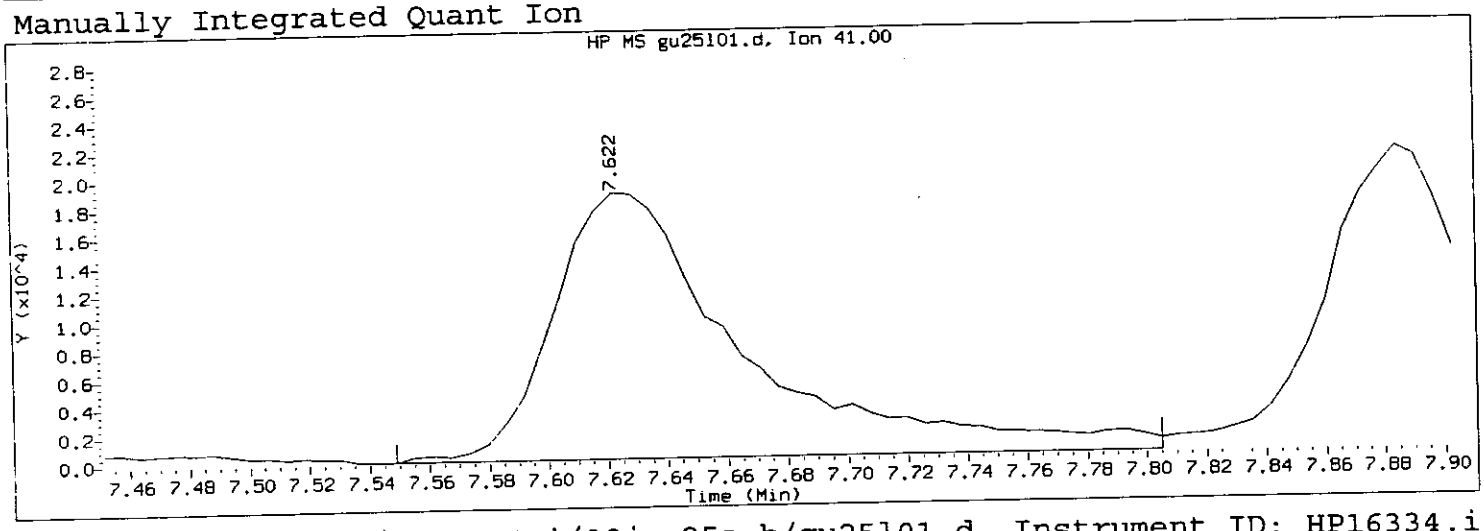
BAB19 0294

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	:	66
Compound Name	:	Isobutyl Alcohol
Scan Number	:	990
Retention Time (minutes)	:	7.622
Quant Ion	:	41
Area (flag)	:	83216 M
Concentration (ug/L)	:	125.7218
Integration start scan	:	977 Integration stop scan: 1019
Y at integration start	:	0 Y at integration end: 0

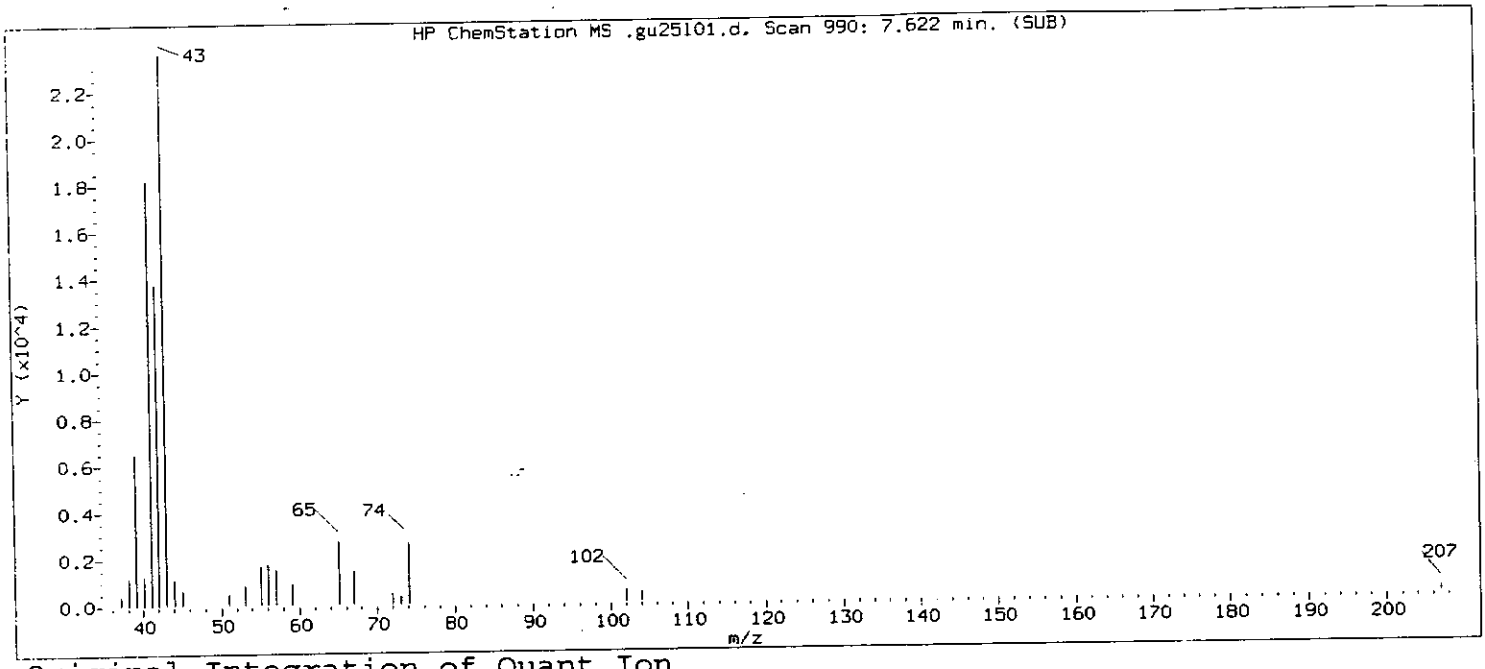
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: JML 6/25/09

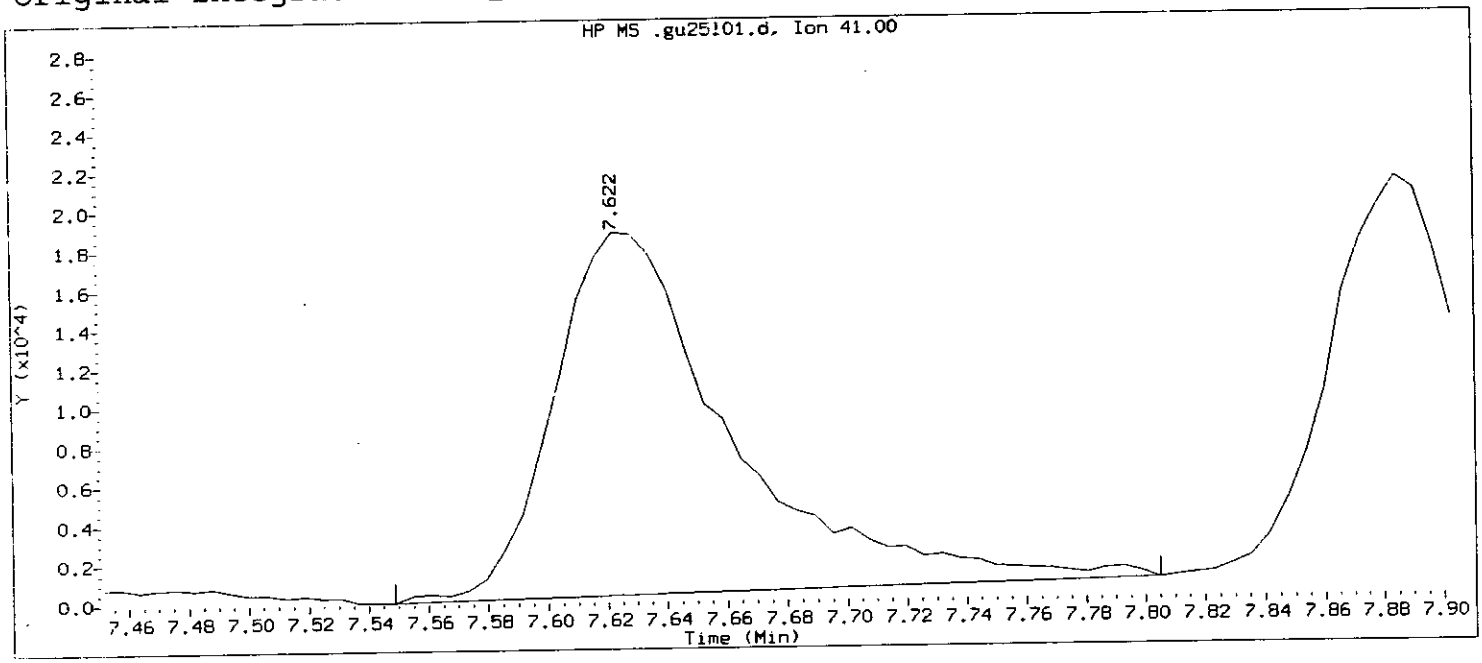
GC/MS audit/management approval: 6-26-09 BAD19 0295

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:52 Automation

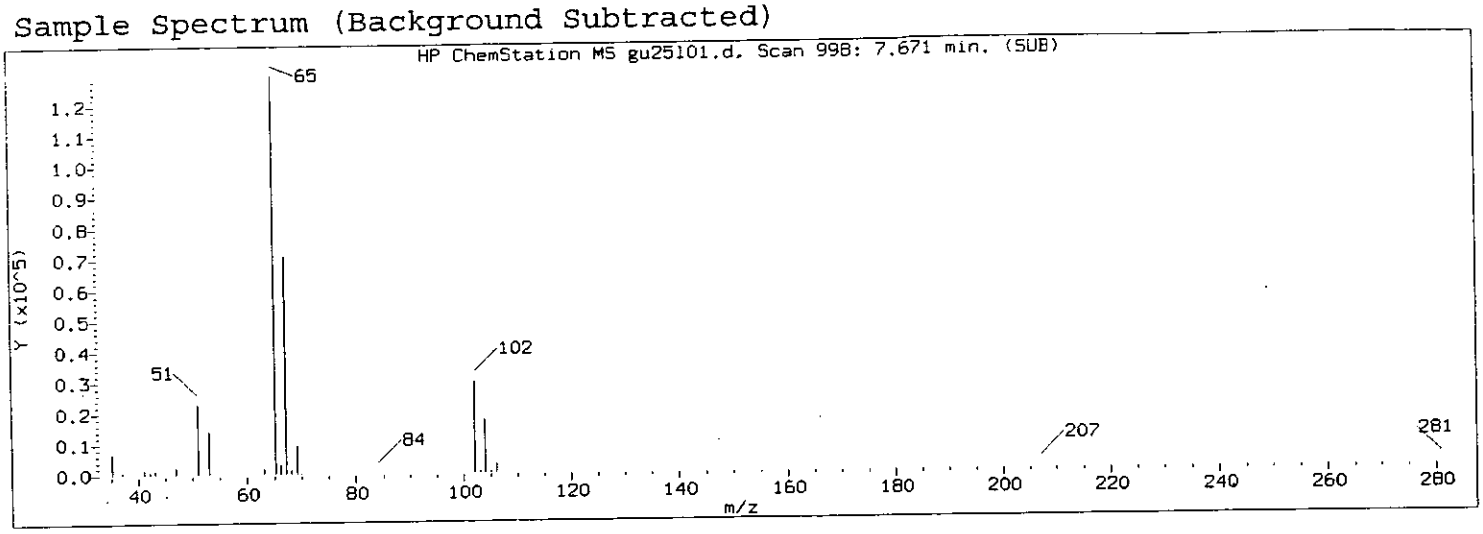
Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	: 66
Compound Name	: Isobutyl Alcohol
Scan Number	: 990
Retention Time (minutes)	: 7.622
Quant Ion	: 41
Area	: 76360
Concentration (ug/L)	: 114.7565
Integration start scan	: 977 Integration stop scan: 1019
Y at integration start	: 0 Y at integration end: 872

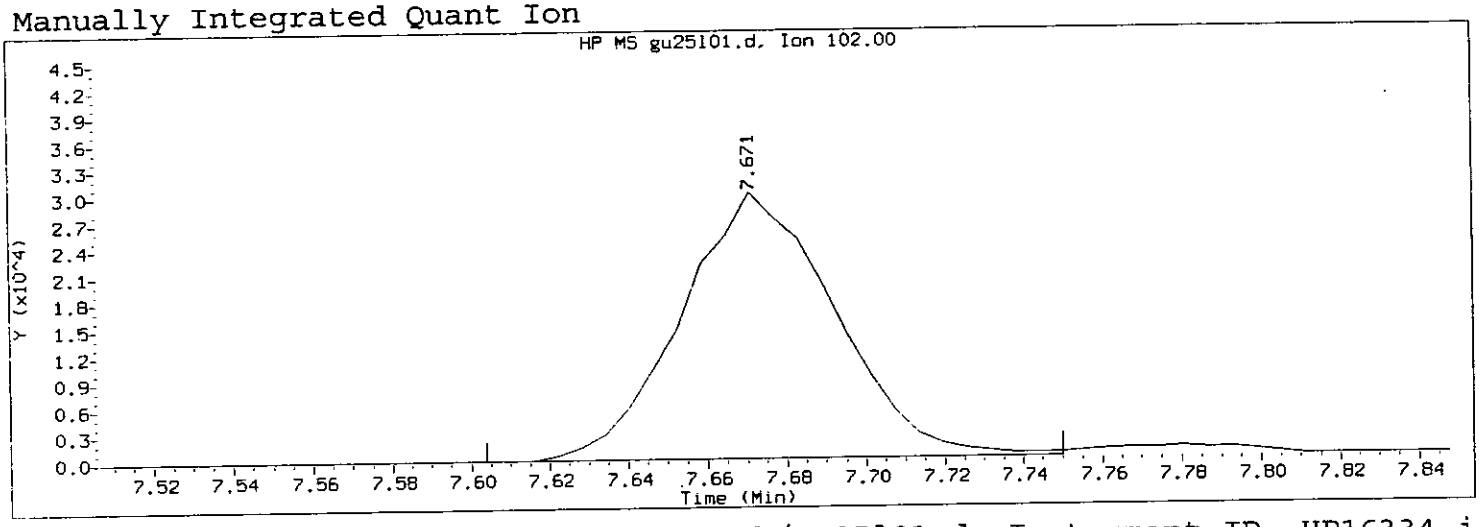
RAD19 8296

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 998
Retention Time (minutes): 7.671
Quant Ion : 102
Area (flag) : 80880 M
Concentration (ug/L) : 9.1920
Integration start scan : 986 Integration stop scan: 1010
Y at integration start : 0 Y at integration end: 0

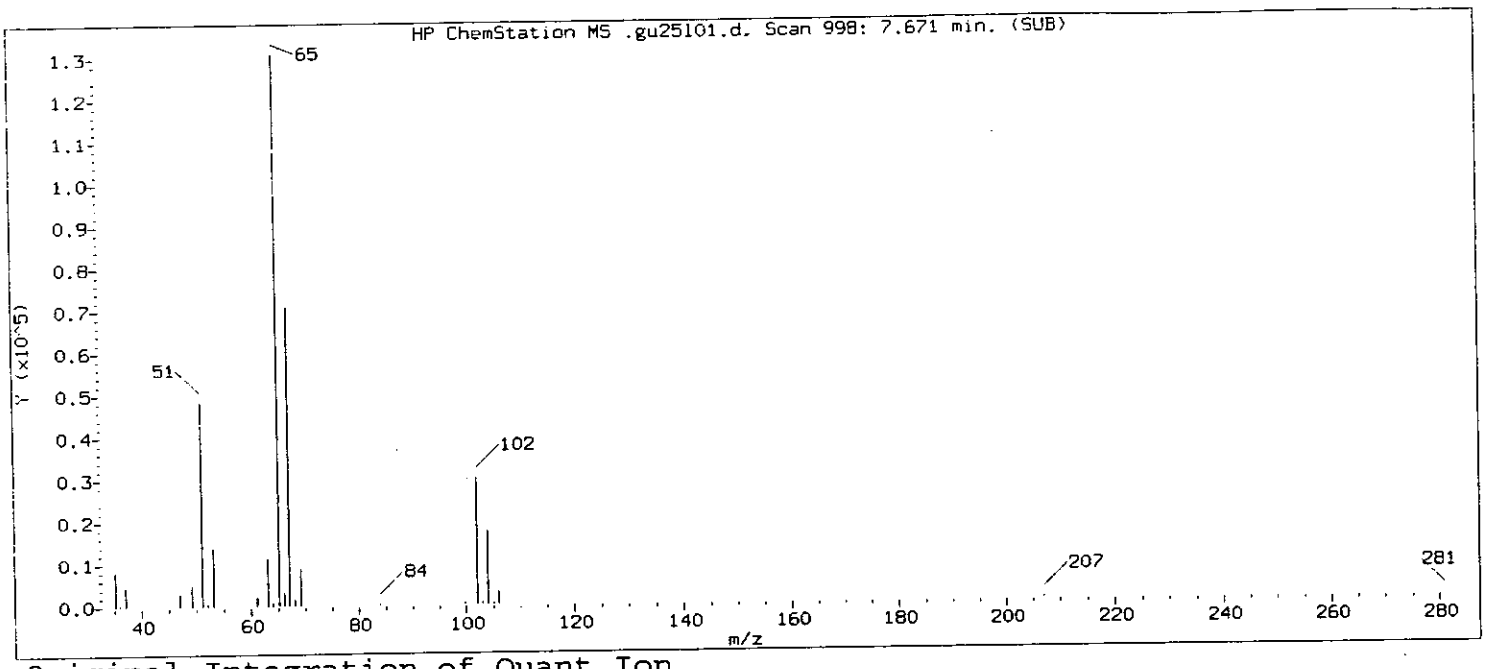
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: mc 6/25/09

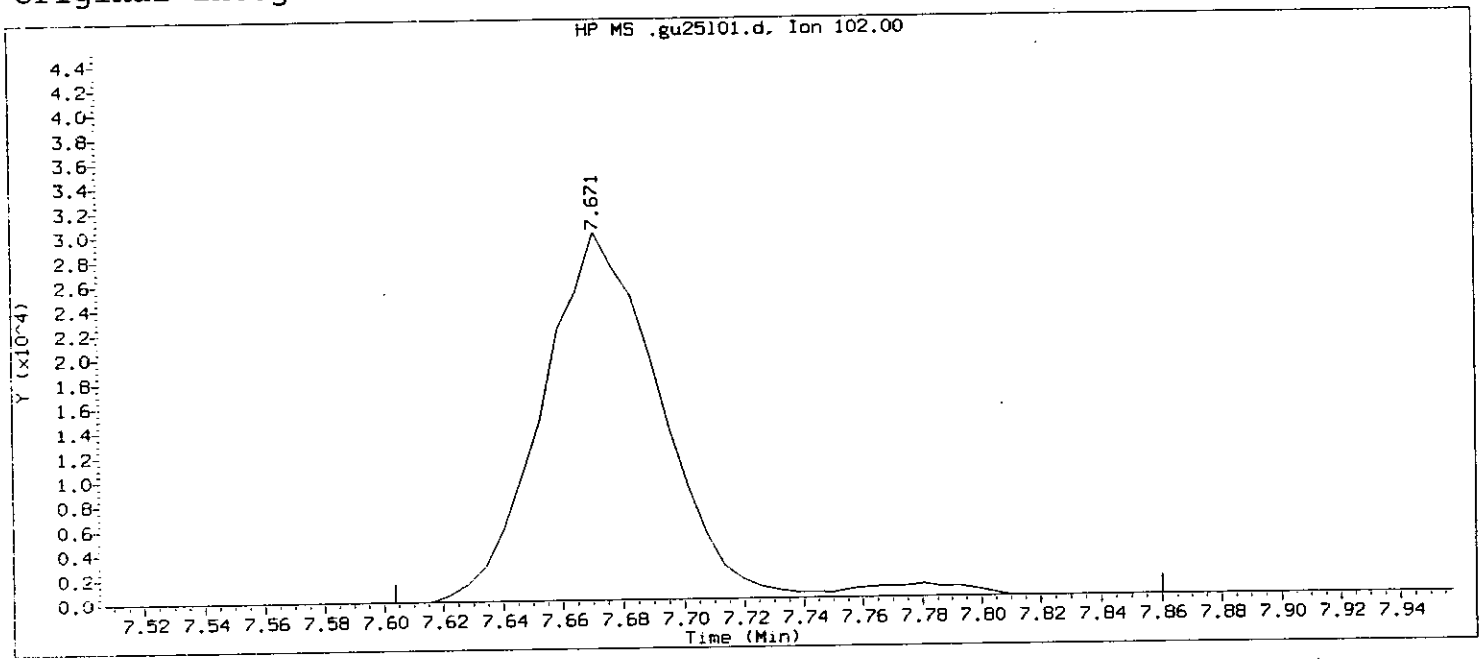
GC/MS audit/management approval: 6/26/09 RAD19 8297

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:52 Automation

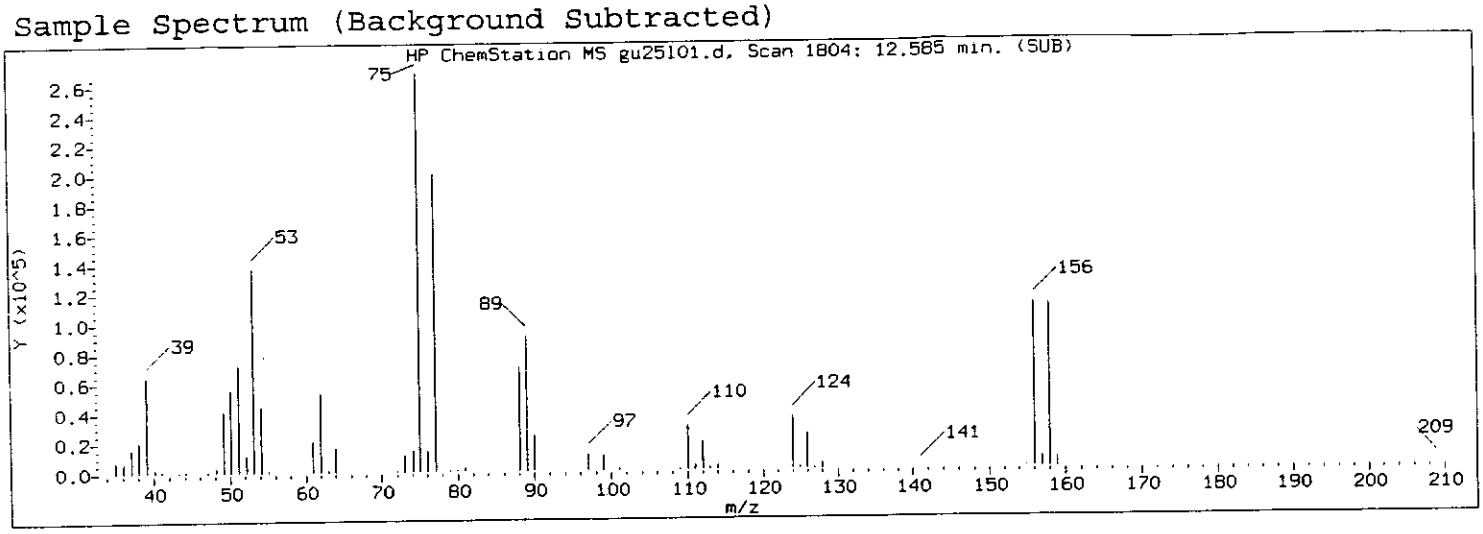
Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	: 69
Compound Name	: 1,2-Dichloroethane-d4
Scan Number	: 998
Retention Time (minutes)	: 7.671
Quant Ion	: 102
Area	: 83347
Concentration (ug/L)	: 9.4725
Integration start scan	: 986 Integration stop scan: 1028
Y at integration start	: 0 Y at integration end: 0

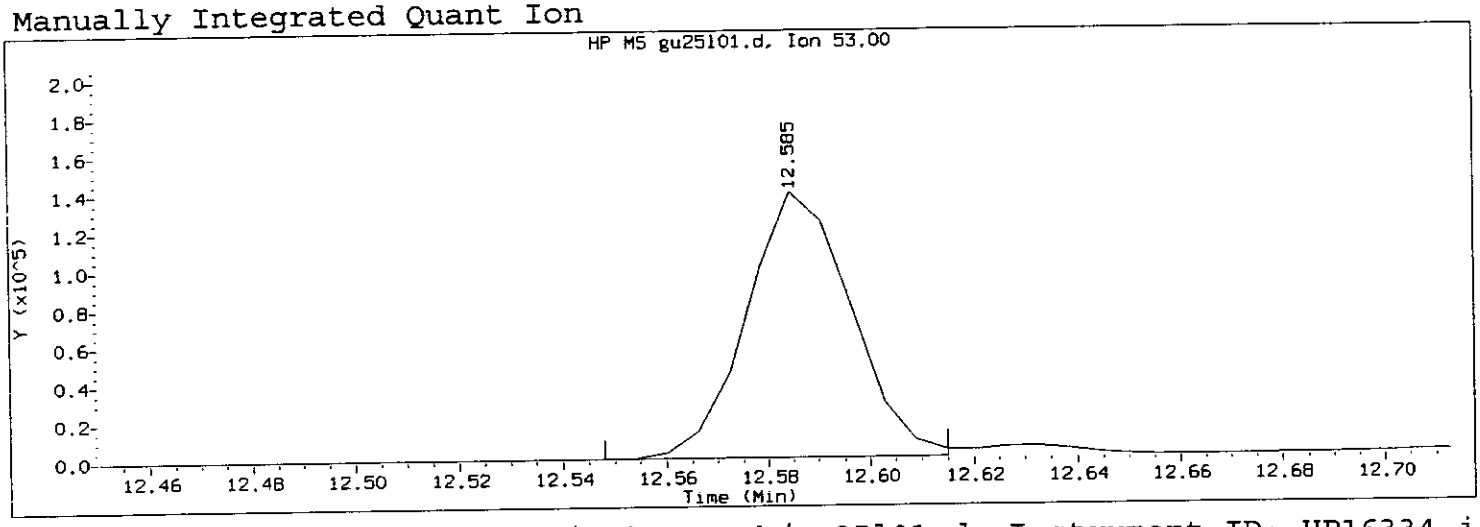
RAD19 8298

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area (flag)	:	198678 M
Concentration (ug/L)	:	25.2858
Integration start scan	:	1797 Integration stop scan: 1808
Y at integration start	:	0 Y at integration end: 0

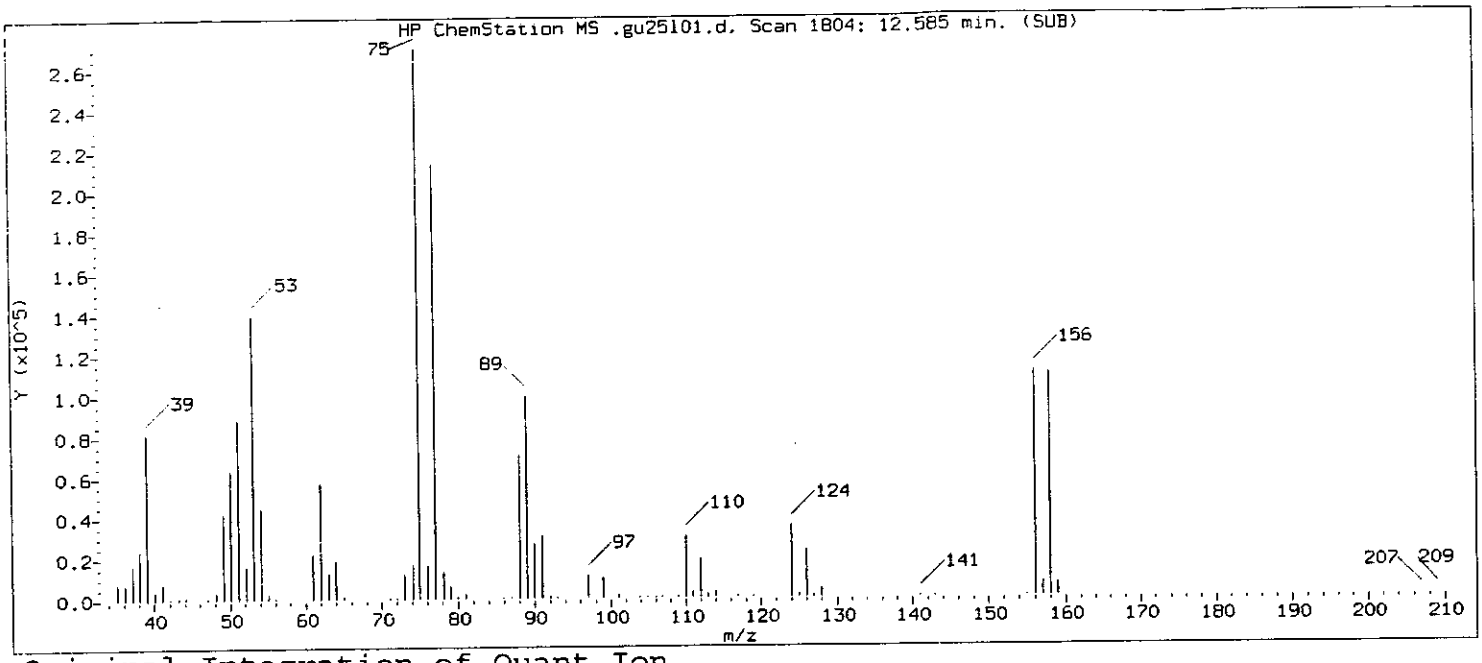
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: on 6/25th

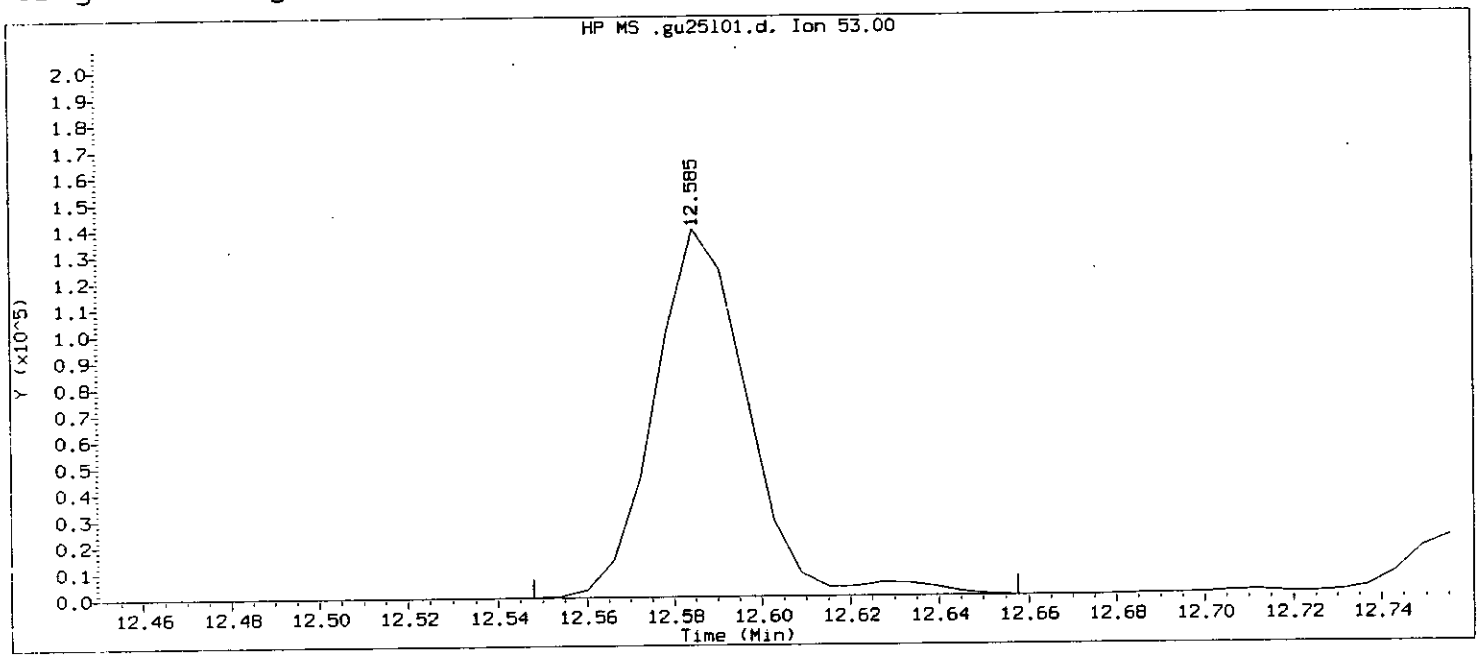
GC/MS audit/management approval: 6-26-09 RAD19 8299

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:52 Automation

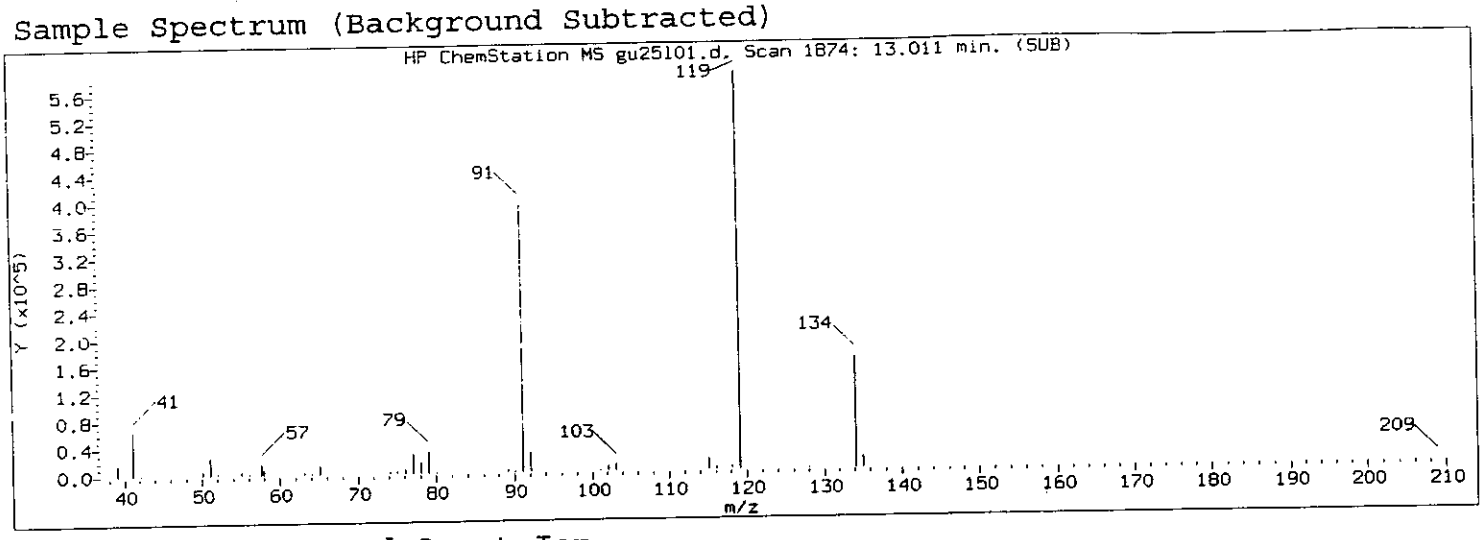
Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	:	129
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1804
Retention Time (minutes)	:	12.585
Quant Ion	:	53
Area	:	205539
Concentration (ug/L)	:	26.1588
Integration start scan	:	1797 Integration stop scan: 1815
Y at integration start	:	0 Y at integration end: 0

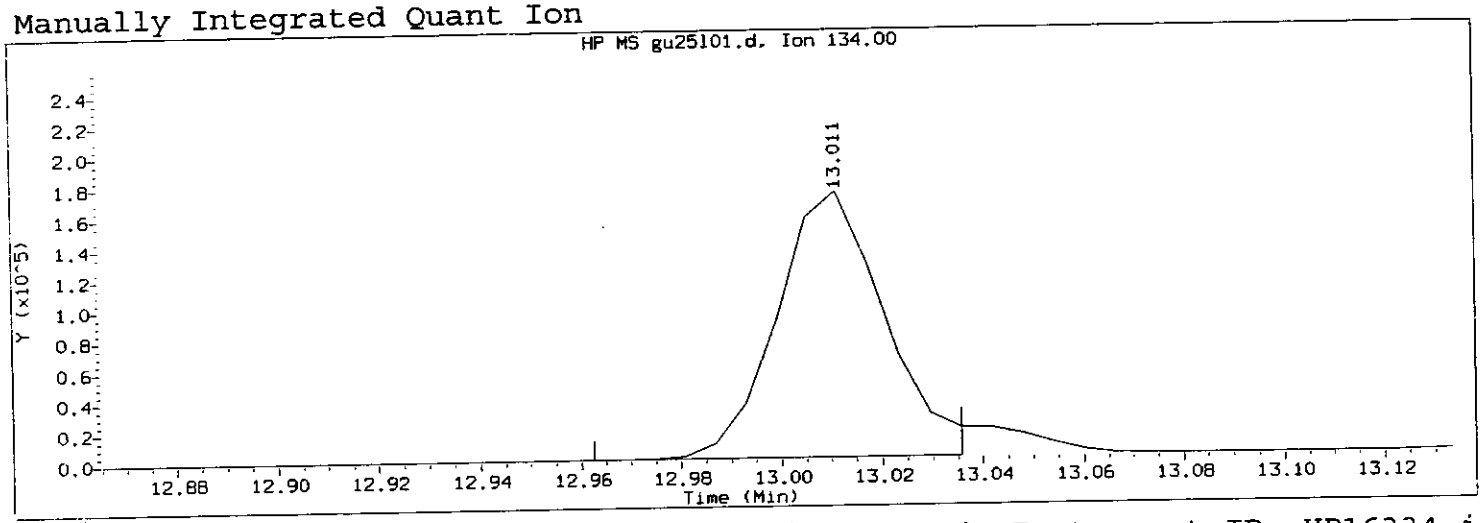
RAD19 03008

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:55 jml01693

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	258445 M
Concentration (ug/L)	:	4.6923
Integration start scan	:	1865 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

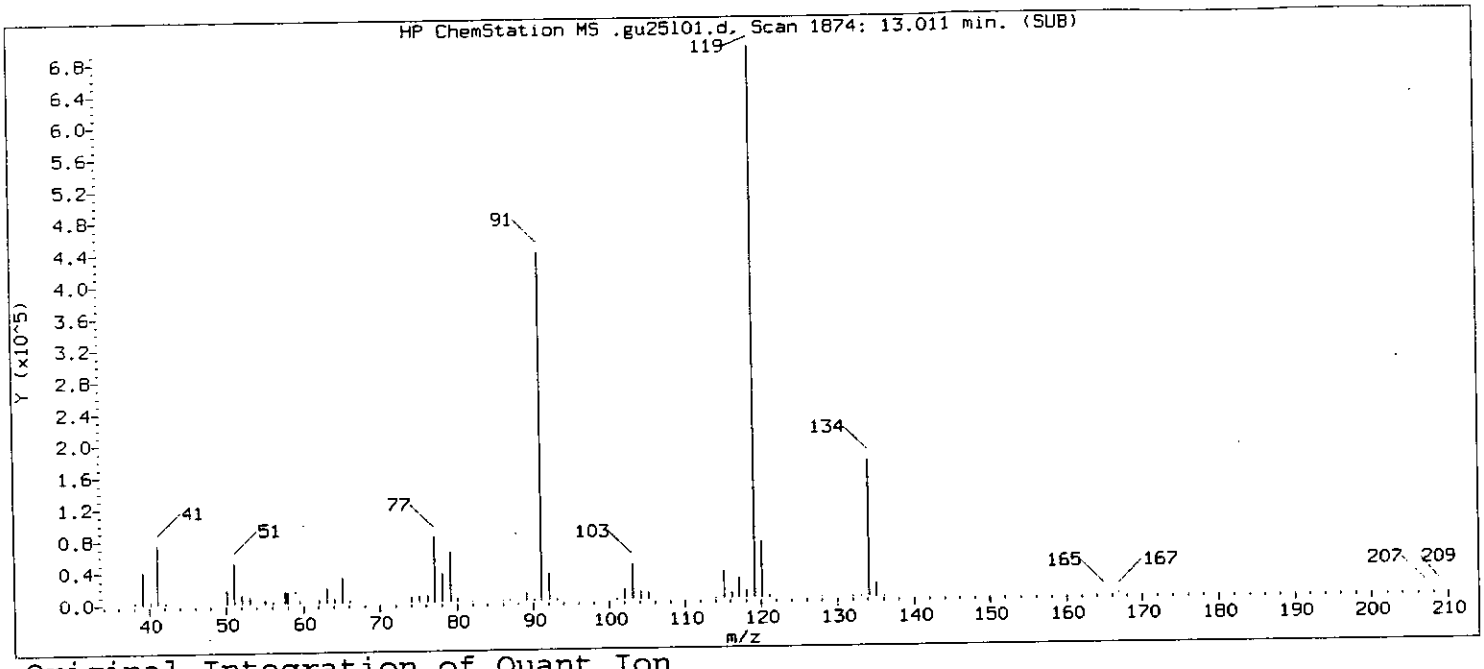
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: mc 6/25/09

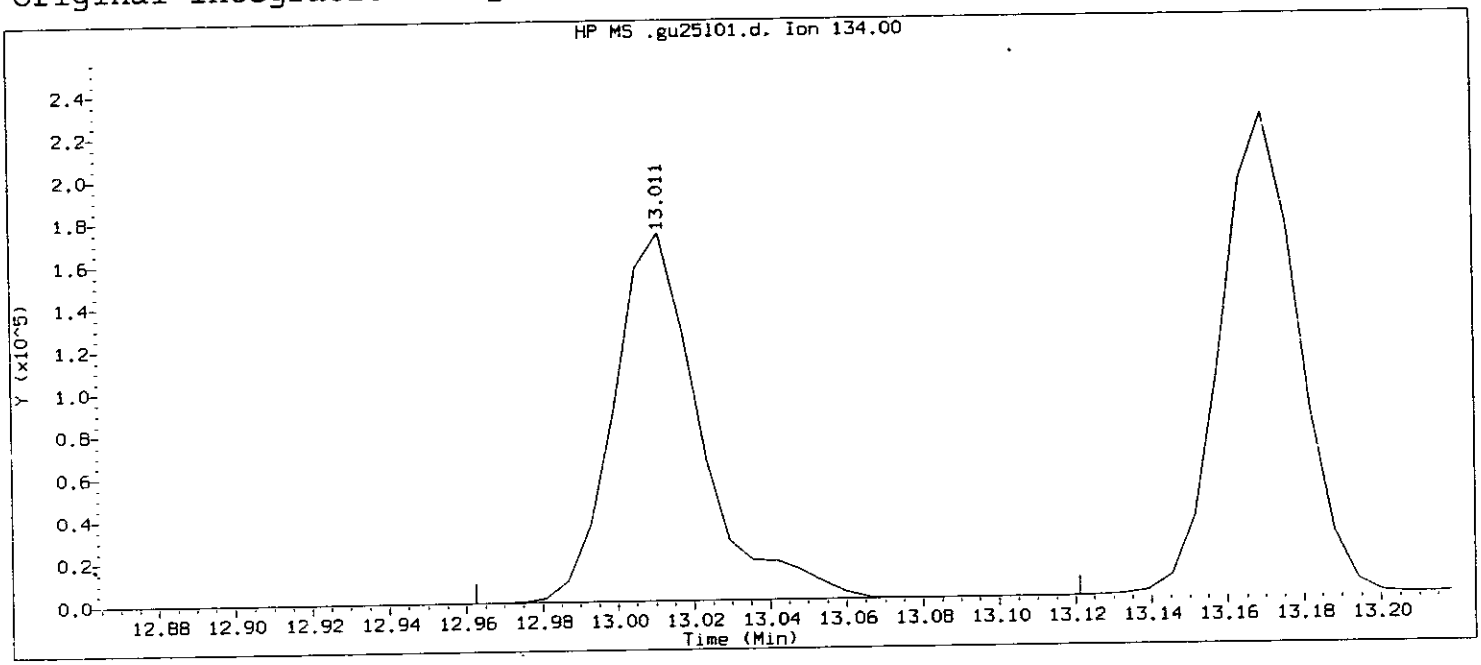
GC/MS audit/management approval: 6/26/09 RAD19 8381

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25101.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:35 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 12:14
Date, time and analyst ID of latest file update: 25-Jun-2009 13:52 Automation

Sample Name: LCSG71 Lab Sample ID: LCSG71

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area	:	274973
Concentration (ug/L)	:	4.9924
Integration start scan	:	1865 Integration stop scan: 1891
Y at integration start	:	0 Y at integration end: 0

RAD19 8382

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25101.d, generated on 06/25/2009 at 13:55

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCDG71

File: /chem2/HP16334.i/09jun25a.b/gu25102.d
Sample: LCDG71;LCDG71;1;3;LCSD;
Injected At:25-JUN-2009 13:57
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
35) t-Butyl Alcohol-d10	4.666(0.000)	505	65	77985(1)	50.00	
76) Fluorobenzene	8.122(0.000)	1072	96	1935654(0)	10.00	
109) Chlorobenzene-d5	11.475(0.000)	1622	117	1419223(0)	10.00	
142) 1,4-Dichlorobenzene-d4	13.316(0.000)	1924	152	812899(0)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
60) Dibromofluoromethane	(1)	7.214(0.000)	113	453689	9.179	92%		77 - 114
65) 1,2-Dichloroethane-d4	(1)	7.677(0.001)	102	80602	9.075	91%		74 - 113
96) Toluene-d8	(2)	10.073(0.000)	98	1977221	9.242	92%		77 - 110
125) 4-Bromofluorobenzene	(2)	12.445(0.000)	95	658732	8.937	89%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)	2.123(0.000)	85	434300	6.023	6.02			0.10	0.50
5) Chloromethane	(1)	2.288(0.001)	50	406285	6.850	6.85			0.20	0.50
6) Vinyl Chloride	(1)	2.440(0.000)	62	395041	5.714	5.71			0.10	0.50
9) Bromomethane	(1)	2.812(0.000)	94	321166	6.364	6.36			0.20	0.50
10) Chloroethane	(1)	2.922(0.000)	64	228803	6.496	6.50			0.20	0.50
12) Dichlorofluoromethane	(1)	3.172(0.000)	67	555451	5.553	5.55			0.20	0.50
14) Trichlorofluoromethane	(1)	3.269(0.001)	101	465088	5.372	5.37			0.10	0.50
16) Ethyl Ether	(1)	3.568(0.000)	59	149381	4.566	4.57			0.20	0.50
17) Freon 123a	(1)	3.605(0.000)	67	303662	4.933	4.93			0.20	0.50
22) Acrolein	(4)	3.769(-0.001)	56	126518	33.710	33.71			5.00	25.00
23) 1,1-Dichloroethene	(1)	3.910(0.000)	96	237829	4.777	4.78			0.10	0.50
24) Freon 113	(1)	3.934(0.000)	101	253592	4.727	4.73			0.20	0.50
25) Acetone	(4)	3.977(0.000)	58	64740	40.731	40.73			3.00	5.00
26) Methyl Iodide	(1)	4.135(0.001)	142	439563	4.741	4.74			0.10	0.50
28) Carbon Disulfide	(1)	4.245(0.000)	76	666395	4.730	4.73			0.40	0.50
31) Allyl Chloride	(1)	4.434(0.001)	41	323025	4.871	4.87			0.10	0.50
32) Methyl Acetate	(1)	4.464(0.000)	43	68789	4.954	4.95			0.30	1.00
33) Methylene Chloride	(1)	4.635(0.000)	84	266580	4.645	4.65			0.60	2.00
37) t-Butyl Alcohol	(4)	4.800(0.001)	59	97704	48.083	48.08			4.00	10.00
38) Acrylonitrile	(4)	5.025(0.000)	53	185412	27.582	27.58			1.00	5.00
40) trans-1,2-Dichloroethene	(1)	5.056(0.001)	96	278561	4.968	4.97			0.10	0.50
36) 1,2-Dichloroethene (Total)	(1)		96	569761	9.856	9.86			0.10	0.50
39) Methyl Tertiary Butyl Ether	(1)	5.044(0.001)	73	494961	4.625	4.63			0.10	0.50
43) n-Hexane	(1)	5.458(0.000)	57	335808	4.538	4.54			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8383

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCDG71

File: /chem2/HP16334.i/09jun25a.b/gu25102.d
Sample: LCDG71;LCDG71;1;3;LCSD;
Injected At:25-JUN-2009 13:57
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
44) 1,1-Dichloroethane	(1)	5.696	(0.000)	63	440184	5.018	5.02			0.10	0.50
46) di-Isopropyl Ether	(1)	5.781	(0.000)	45	733123	4.914	4.91			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)	5.830	(0.000)	53	385657	4.989	4.99			0.10	0.50
48) Ethyl t-Butyl Ether	(1)	6.312	(0.001)	59	654267	4.783	4.78			0.10	0.50
50) 2,2-Dichloropropane	(1)	6.549	(0.000)	77	359443	4.968	4.97			0.10	0.50
49) cis-1,2-Dichloroethene	(1)	6.543	(0.000)	96	291200	4.888	4.89			0.10	0.50
51) 2-Butanone	(4)	6.562	(0.000)	43	345090	41.191	41.19			1.00	5.00
52) Propionitrile	(4)	6.665	(0.000)	54	97840	39.417	39.42			2.00	10.00
54) Methacrylonitrile	(4)	6.872	(0.000)	67	376919	40.685	40.68			1.00	5.00
55) Bromochloromethane	(1)	6.879	(0.001)	128	122539	5.059	5.06			0.10	0.50
56) Tetrahydrofuran	(4)	6.940	(0.000)	71	70331	27.484	27.48			2.00	5.00
57) Chloroform	(1)	6.994	(0.000)	83	468169	5.138	5.14			0.10	0.50
62) 1,1,1-Trichloroethane	(1)	7.250	(0.000)	97	404754	5.220	5.22			0.10	0.50
63) Cyclohexane	(1)	7.317	(0.001)	56	413244	4.640	4.64			0.10	0.50
64) 1,1-Dichloropropene	(1)	7.464	(0.000)	75	351883	4.935	4.94			0.10	0.50
65) Carbon Tetrachloride	(1)	7.470	(0.000)	117	346940	5.028	5.03			0.10	0.50
66) Isobutyl Alcohol	(4)	7.635	(-0.001)	41	80305	131.983	131.98			10.00	25.00
71) Benzene	(1)	7.750	(0.000)	78	1075912	4.898	4.90			0.10	0.50
73) 1,2-Dichloroethane	(1)	7.781	(0.000)	62	251409	5.205	5.21			0.10	0.50
74) t-Amyl Methyl Ether	(1)	7.891	(0.000)	73	553576	4.694	4.69			0.10	0.50
75) n-Heptane	(1)	8.086	(0.000)	43	348486	4.590	4.59			0.20	0.50
80) n-Butanol	(4)	8.512	(-0.001)	56	126373	231.144	231.14			20.00	50.00
82) Trichloroethene	(1)	8.604	(0.000)	95	295330	5.080	5.08			0.10	0.50
83) Methylcyclohexane	(1)	8.848	(0.000)	83	488539	5.019	5.02			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 8384

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCDG71

File: /chem2/HP16334.i/09jun25a.b/gu25102.d
Sample: LCDG71;LCDG71;1;3;LCSD;
Injected At:25-JUN-2009 13:57
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
84) 1,2-Dichloropropane	(1)	8.903(0.000)	63	248967	4.942	4.94			0.10	0.50
87) Dibromomethane	(1)	9.055(0.000)	93	113695	5.098	5.10			0.10	0.50
88) 1,4-Dioxane	(4)	9.073(0.001)	88	18084	116.427	116.43			20.00	100.00
86) Methyl Methacrylate	(4)	9.043(-0.001)	69	95615	5.384	5.38			0.10	0.50
89) Bromodichloromethane	(1)	9.256(0.000)	83	307201	5.095	5.09			0.10	0.50
90) 2-Nitropropane	(4)	9.543(-0.001)	41	26470	5.654	5.65			1.00	5.00
93) cis-1,3-Dichloropropene	(1)	9.780(0.000)	75	337866	4.864	4.86			0.10	0.50
95) 4-Methyl-2-Pentanone	(1)	9.945(0.001)	43	564023	24.256	24.26			1.00	5.00
100) Toluene	(2)	10.146(0.000)	92	704964	4.780	4.78			0.10	0.50
101) trans-1,3-Dichloropropene	(2)	10.372(0.000)	75	273724	4.887	4.89			0.10	0.50
102) Ethyl Methacrylate	(2)	10.451(0.000)	69	202539	4.594	4.59			0.10	0.50
103) 1,1,2-Trichloroethane	(2)	10.561(0.000)	97	161504	4.920	4.92			0.10	0.50
104) Tetrachloroethene	(2)	10.701(0.000)	166	334473	4.994	4.99			0.10	0.50
105) 1,3-Dichloropropane	(2)	10.725(0.001)	76	269357	4.895	4.90			0.10	0.50
106) 2-Hexanone	(2)	10.792(0.000)	43	394428	24.382	24.38			1.00	5.00
107) Dibromochloromethane	(2)	10.951(0.000)	129	200404	4.918	4.92			0.10	0.50
108) 1,2-Dibromoethane	(2)	11.061(0.000)	107	152103	4.846	4.85			0.10	0.50
111) Chlorobenzene	(2)	11.500(0.000)	112	794394	4.925	4.93			0.10	0.50
112) 1,1,1,2-Tetrachloroethane	(2)	11.567(0.000)	131	260577	4.934	4.93			0.10	0.50
113) Ethylbenzene	(2)	11.585(0.000)	91	1384060	4.898	4.90			0.10	0.50
116) m+p-Xylene	(2)	11.682(0.000)	106	1119796	9.808	9.81			0.10	0.50
114) Xylene (Total)	(2)		106	1656499	14.691	14.69			0.10	0.50
117) o-Xylene	(2)	12.018(0.000)	106	536703	4.883	4.88			0.10	0.50
118) Styrene	(2)	12.030(0.000)	104	847304	4.853	4.85			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 0385

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCDG71

File: /chem2/HP16334.i/09jun25a.b/gu25102.d
Sample: LCDG71;LCDG71;1;3;LCSD;
Injected At:25-JUN-2009 13:57
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
119) Bromoform	(2)	12.201	(0.000)	173	102770	4.804	4.80			0.10	0.50
120) Isopropylbenzene	(2)	12.310	(0.000)	105	1354117	4.913	4.91			0.10	0.50
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	(0.000)	83	186445	4.851	4.85			0.10	0.50
128) Bromobenzene	(3)	12.573	(0.000)	156	322725	4.733	4.73			0.10	0.50
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	(0.000)	53	198181	27.366	27.37			1.00	5.00
130) 1,2,3-Trichloropropane	(3)	12.591	(0.000)	110	51778	4.660	4.66			0.30	1.00
131) n-Propylbenzene	(3)	12.634	(0.000)	91	1681649	4.824	4.82			0.10	0.50
132) 2-Chlorotoluene	(3)	12.713	(0.000)	126	341962	4.727	4.73			0.10	0.50
134) 4-Chlorotoluene	(3)	12.792	(0.000)	126	354177	4.778	4.78			0.10	0.50
133) 1,3,5-Trimethylbenzene	(3)	12.755	(0.000)	105	1202319	4.840	4.84			0.10	0.50
137) Pentachloroethane	(3)	13.042	(0.000)	167	205153	4.950	4.95			0.20	0.50
136) tert-Butylbenzene	(3)	13.013	(0.000)	134	262976	4.754	4.75			0.10	0.50
138) 1,2,4-Trimethylbenzene	(3)	13.042	(0.000)	105	1261637	4.855	4.86			0.10	0.50
139) sec-Butylbenzene	(3)	13.170	(0.000)	105	1579233	4.849	4.85			0.10	0.50
141) 1,3-Dichlorobenzene	(3)	13.274	(0.000)	146	712754	4.895	4.90			0.10	0.50
140) p-Isopropyltoluene	(3)	13.268	(0.000)	119	1380058	4.857	4.86			0.10	0.50
143) 1,4-Dichlorobenzene	(3)	13.335	(0.000)	146	705956	4.857	4.86			0.10	0.50
144) 1,2,3-Trimethylbenzene	(3)	13.359	(0.000)	120	550166	4.931	4.93			0.10	0.50
145) Benzyl Chloride	(3)	13.426	(0.000)	126	77058	4.626	4.63			0.10	0.50
146) n-Butylbenzene	(3)	13.560	(0.000)	92	711851	4.889	4.89			0.10	0.50
147) 1,2-Dichlorobenzene	(3)	13.609	(0.000)	146	610932	4.946	4.95			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	(0.000)	155	23598	5.325	5.32			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)	14.694	(0.000)	180	491505	5.118	5.12			0.10	0.50
153) Hexachlorobutadiene	(3)	14.786	(0.000)	225	248968	4.917	4.92			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD19 #386

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCDG71

File: /chem2/HP16334.i/09jun25a.b/gu25102.d
Sample: LCDG71;LCDG71;1;3;LCSD;
Injected At:25-JUN-2009 13:57
Calibration Time: 22-JUN-2009 12:27
Target Method: g8260w25.m
Blank Reference: gu25b01.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:G091761AA
Analyst:JML01693
Instrument ID:HP16334.i
Standard Reference: gu25c03.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
154) Naphthalene	(3)	14.871	(0.000)	128	664304	4.855	4.85			0.10	0.50
155) 1,2,3-Trichlorobenzene	(3)	15.036	(0.000)	180	384769	4.928	4.93			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: JMW Date: 6/25/9

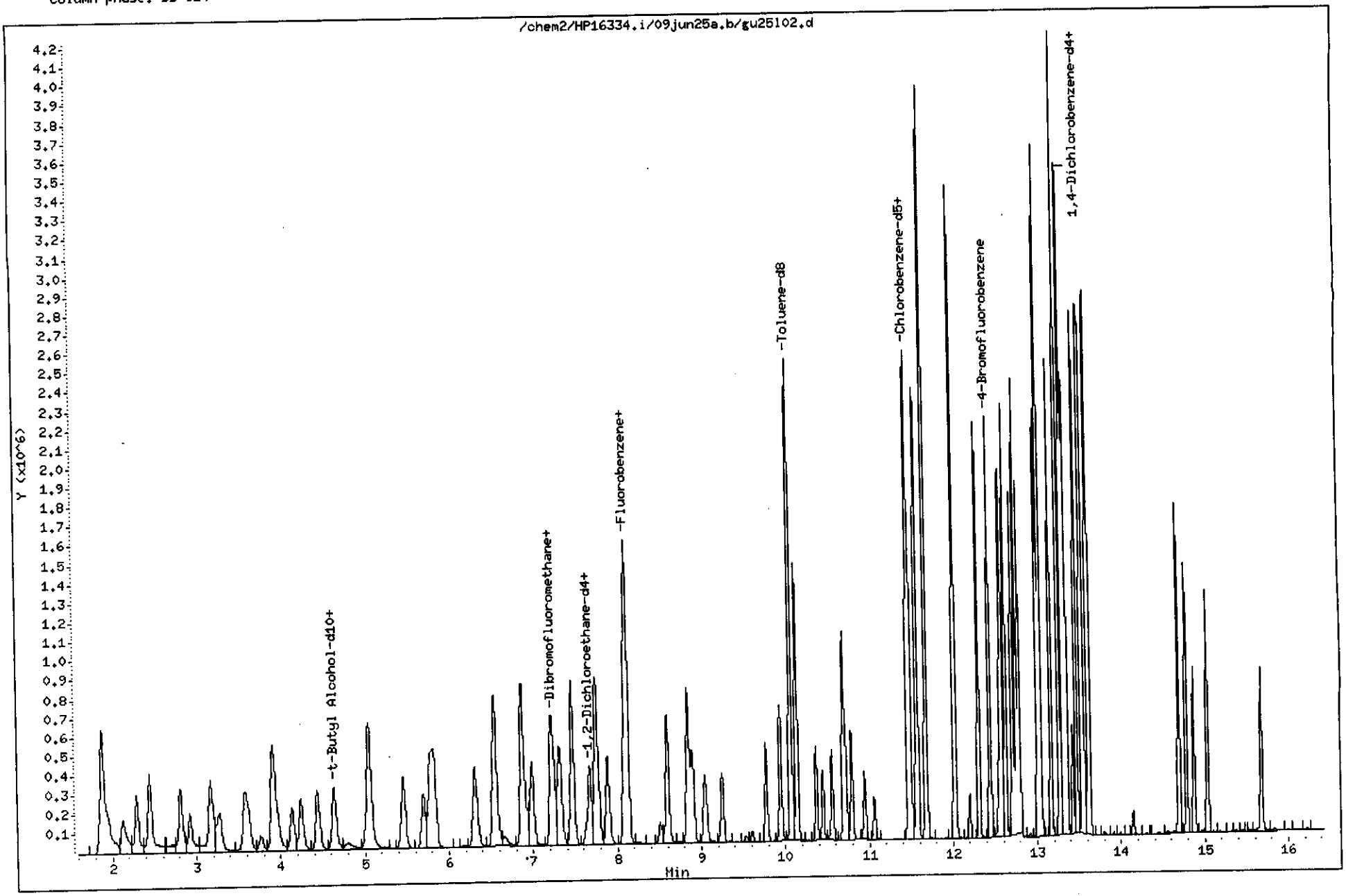
Auditor: Date: 6-26-09

BAD19 8367

Data File: /chem2/HP16334.i/09jun25a.b/gu25102.d
Date : 25-JUN-2009 13:57
Client ID: LCDG71
Sample Info: LCDG71;LCDG71;1;3;LCSD;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP16334.i

Operator: JML01693
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25102.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:57 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 14:15 jml01693

Sample Name: LCDG71 Lab Sample ID: LCDG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.123	85	434300	6.023
5) Chloromethane	(1)	2.288	50	406285	6.850
6) Vinyl Chloride	(1)	2.440	62	395041	5.714
9) Bromomethane	(1)	2.812	94	321166	6.364
10) Chloroethane	(1)	2.922	64	228803	6.496
12) Dichlorofluoromethane	(1)	3.172	67	555451	5.553
14) Trichlorofluoromethane	(1)	3.269	101	465088	5.372
16) Ethyl Ether	(1)	3.568	59	149381	4.566
17) Freon 123a	(1)	3.605	67	303662	4.933
22) Acrolein	(4)	3.769	56	126518	33.710
23) 1,1-Dichloroethene	(1)	3.910	96	237829	4.777
24) Freon 113	(1)	3.934	101	253592	4.727
25) Acetone	(4)	3.977	58	64740	40.731
26) Methyl Iodide	(1)	4.135	142	439563	4.741
28) Carbon Disulfide	(1)	4.245	76	666395	4.730
31) Allyl Chloride	(1)	4.434	41	323025	4.871
32) Methyl Acetate	(1)	4.464	43	68789	4.954
33) Methylene Chloride	(1)	4.635	84	266580	4.645
35) *t-Butyl Alcohol-d10	(4)	4.666	65	77985	50.000
37) t-Butyl Alcohol	(4)	4.800	59	97704	48.083
38) Acrylonitrile	(4)	5.025	53	185412	27.582
40) trans-1,2-Dichloroethene	(1)	5.056	96	278561	4.968
36) 1,2-Dichloroethene (Total)	(1)		96	569761	9.856
39) Methyl Tertiary Butyl Ether	(1)	5.044	73	494961	4.625
43) n-Hexane	(1)	5.458	57	335808	4.538
44) 1,1-Dichloroethane	(1)	5.696	63	440184	5.018
46) di-Isopropyl Ether	(1)	5.781	45	733123	4.914
47) 2-Chloro-1,3-Butadiene	(1)	5.830	53	385657	4.989
48) Ethyl t-Butyl Ether	(1)	6.312	59	654267	4.783
50) 2,2-Dichloropropane	(1)	6.549	77	359443	4.968
49) cis-1,2-Dichloroethene	(1)	6.543	96	291200	4.888
51) 2-Butanone	(4)	6.562	43	345090	41.191
52) Propionitrile	(4)	6.665	54	97840	39.417
54) Methacrylonitrile	(4)	6.872	67	376919	40.685

* = Compound is an internal standard.

RAD19 0369

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25102.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:57 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 14:15 jml01693

Sample Name: LCDG71 Lab Sample ID: LCDG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
55) Bromochloromethane	(1)	6.879	128	122539	5.059
56) Tetrahydrofuran	(4)	6.940	71	70331	27.484
57) Chloroform	(1)	6.994	83	468169	5.138
62) 1,1,1-Trichloroethane	(1)	7.250	97	404754	5.220
63) Cyclohexane	(1)	7.317	56	413244	4.640
64) 1,1-Dichloropropene	(1)	7.464	75	351883	4.935
65) Carbon Tetrachloride	(1)	7.470	117	346940	5.028
66) Isobutyl Alcohol	(4)	7.635	41	80305	131.983
71) Benzene	(1)	7.750	78	1075912	4.898
73) 1,2-Dichloroethane	(1)	7.781	62	251409	5.205
74) t-Amyl Methyl Ether	(1)	7.891	73	553576	4.694
76) *Fluorobenzene	(1)	8.122	96	1935654	10.000
75) n-Heptane	(1)	8.086	43	348486	4.590
80) n-Butanol	(4)	8.512	56	126373	231.144
82) Trichloroethene	(1)	8.604	95	295330	5.080
83) Methylcyclohexane	(1)	8.848	83	488539	5.019
84) 1,2-Dichloropropane	(1)	8.903	63	248967	4.942
87) Dibromomethane	(1)	9.055	93	113695	5.098
88) 1,4-Dioxane	(4)	9.073	88	18084	116.427
86) Methyl Methacrylate	(4)	9.043	69	95615	5.384
89) Bromodichloromethane	(1)	9.256	83	307201	5.095
90) 2-Nitropropane	(4)	9.543	41	26470	5.654
93) cis-1,3-Dichloropropene	(1)	9.780	75	337866	4.864
95) 4-Methyl-2-Pentanone	(1)	9.945	43	564023	24.256
100) Toluene	(2)	10.146	92	704964	4.780
101) trans-1,3-Dichloropropene	(2)	10.372	75	273724	4.887
102) Ethyl Methacrylate	(2)	10.451	69	202539	4.594
103) 1,1,2-Trichloroethane	(2)	10.561	97	161504	4.920
104) Tetrachloroethene	(2)	10.701	166	334473	4.994
105) 1,3-Dichloropropane	(2)	10.725	76	269357	4.895
106) 2-Hexanone	(2)	10.792	43	394428	24.382
107) Dibromochloromethane	(2)	10.951	129	200404	4.918
108) 1,2-Dibromoethane	(2)	11.061	107	152103	4.846
109) *Chlorobenzene-d5	(2)	11.475	117	1419223	10.000

* = Compound is an internal standard.

RAD19 8318

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25102.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:57 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 14:15 jml01693

Sample Name: LCDG71 Lab Sample ID: LCDG71

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
111) Chlorobenzene	(2)	11.500	112	794394	4.925
112) 1,1,1,2-Tetrachloroethane	(2)	11.567	131	260577	4.934
113) Ethylbenzene	(2)	11.585	91	1384060	4.898
116) m+p-Xylene	(2)	11.682	106	1119796	9.808
114) Xylene (Total)	(2)		106	1656499	14.691
117) o-Xylene	(2)	12.018	106	536703	4.883
118) Styrene	(2)	12.030	104	847304	4.853
119) Bromoform	(2)	12.201	173	102770	4.804
120) Isopropylbenzene	(2)	12.310	105	1354117	4.913
127) 1,1,2,2-Tetrachloroethane	(3)	12.548	83	186445	4.851
128) Bromobenzene	(3)	12.573	156	322725	4.733
129) trans-1,4-Dichloro-2-Butene	(4)	12.585	53	198181	27.366
130) 1,2,3-Trichloropropane	(3)	12.591	110	51778	4.660
131) n-Propylbenzene	(3)	12.634	91	1681649	4.824
132) 2-Chlorotoluene	(3)	12.713	126	341962	4.727
134) 4-Chlorotoluene	(3)	12.792	126	354177	4.778
133) 1,3,5-Trimethylbenzene	(3)	12.755	105	1202319	4.840
137) Pentachloroethane	(3)	13.042	167	205153	4.950
136) tert-Butylbenzene	(3)	13.011	134	262976M	4.754
138) 1,2,4-Trimethylbenzene	(3)	13.042	105	1261637	4.855
139) sec-Butylbenzene	(3)	13.170	105	1579233	4.849
141) 1,3-Dichlorobenzene	(3)	13.274	146	712754	4.895
142)*1,4-Dichlorobenzene-d4	(3)	13.316	152	812899	10.000
140) p-Isopropyltoluene	(3)	13.268	119	1380058	4.857
143) 1,4-Dichlorobenzene	(3)	13.335	146	705956	4.857
144) 1,2,3-Trimethylbenzene	(3)	13.359	120	550166	4.931
145) Benzyl Chloride	(3)	13.426	126	77058	4.626
146) n-Butylbenzene	(3)	13.560	92	711851	4.889
147) 1,2-Dichlorobenzene	(3)	13.609	146	610932	4.946
149) 1,2-Dibromo-3-Chloropropane	(4)	14.145	155	23598	5.325
152) 1,2,4-Trichlorobenzene	(3)	14.694	180	491505	5.118
153) Hexachlorobutadiene	(3)	14.786	225	248968	4.917
154) Naphthalene	(3)	14.871	128	664304	4.855
155) 1,2,3-Trichlorobenzene	(3)	15.036	180	384769	4.928

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD19 0311

Quant Report

Target Revision 3.5

Data File: /chem2/HP16334.i/09jun25a.b/gu25l02.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:57 Analyst ID: JML01693

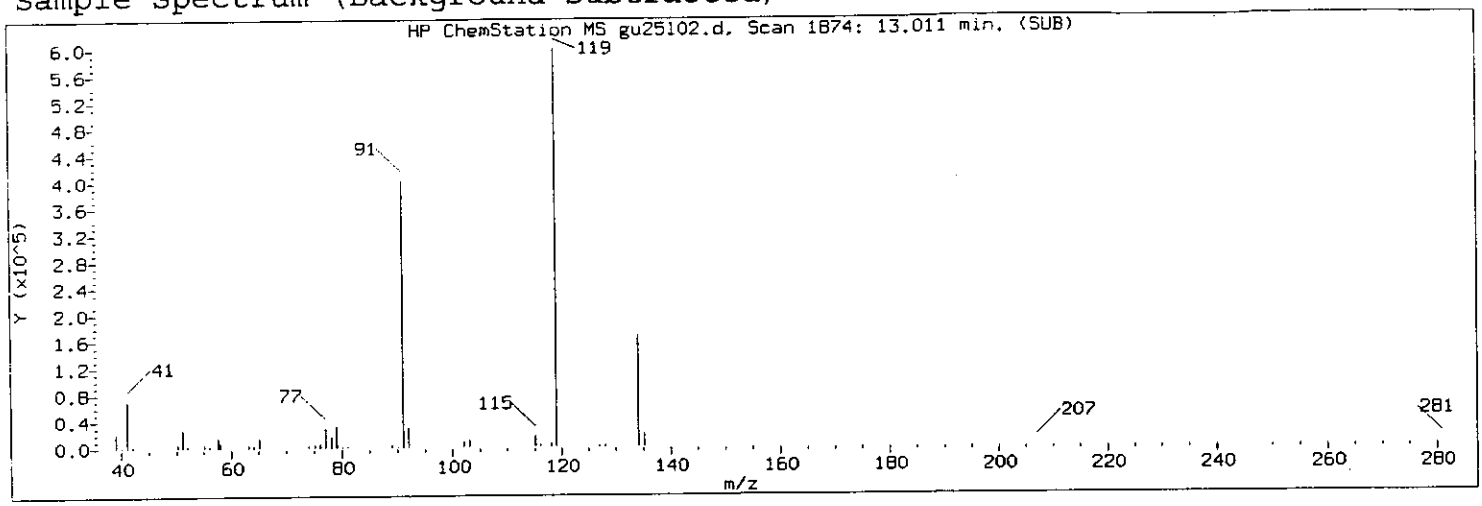
Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 22-JUN-2009 12:27
Date, time and analyst ID of latest file update: 25-Jun-2009 14:15 jml01693

Sample Name: LCDG71 Lab Sample ID: LCDG71

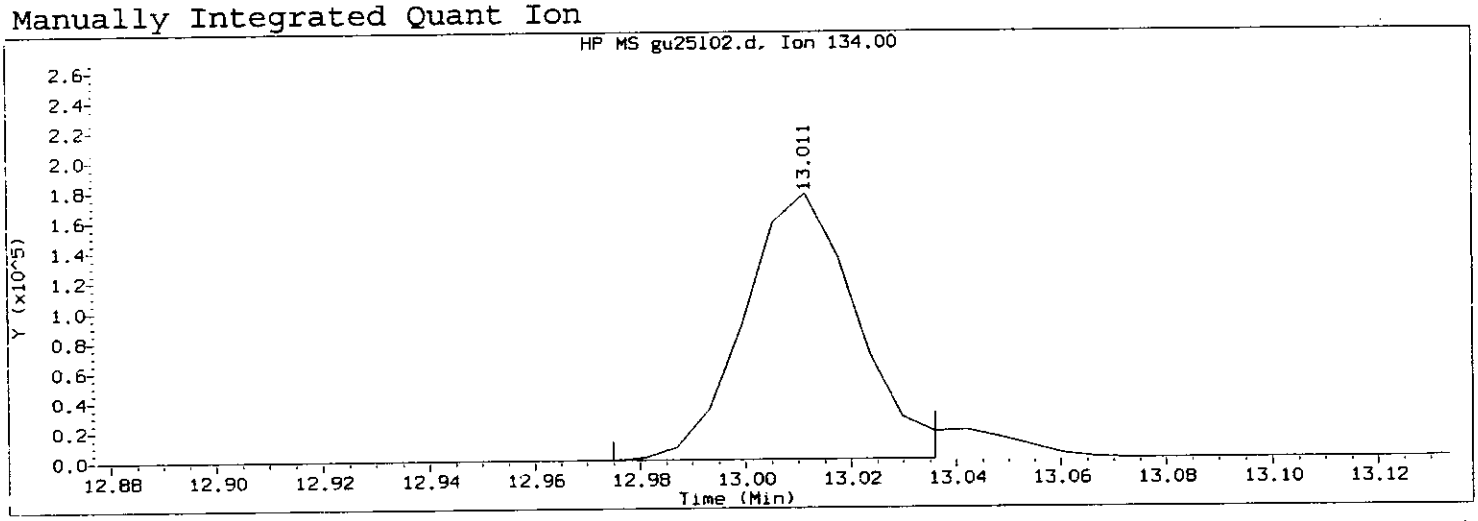
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
60)$Dibromofluoromethane	(1)	7.214	113	453689	9.179
69)$1,2-Dichloroethane-d4	(1)	7.677	102	80602	9.075
96)$Toluene-d8	(2)	10.073	98	1977221	9.242
125)$4-Bromofluorobenzene	(2)	12.445	95	658732	8.937

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25102.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:57 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 13:53
Date, time and analyst ID of latest file update: 25-Jun-2009 14:15 jml01693

Sample Name: LCDG71 Lab Sample ID: LCDG71

Compound Number	:	136
Compound Name	:	tert-Butylbenzene
Scan Number	:	1874
Retention Time (minutes)	:	13.011
Quant Ion	:	134
Area (flag)	:	262976 M
Concentration (ug/L)	:	4.7538
Integration start scan	:	1867 Integration stop scan: 1877
Y at integration start	:	0 Y at integration end: 0

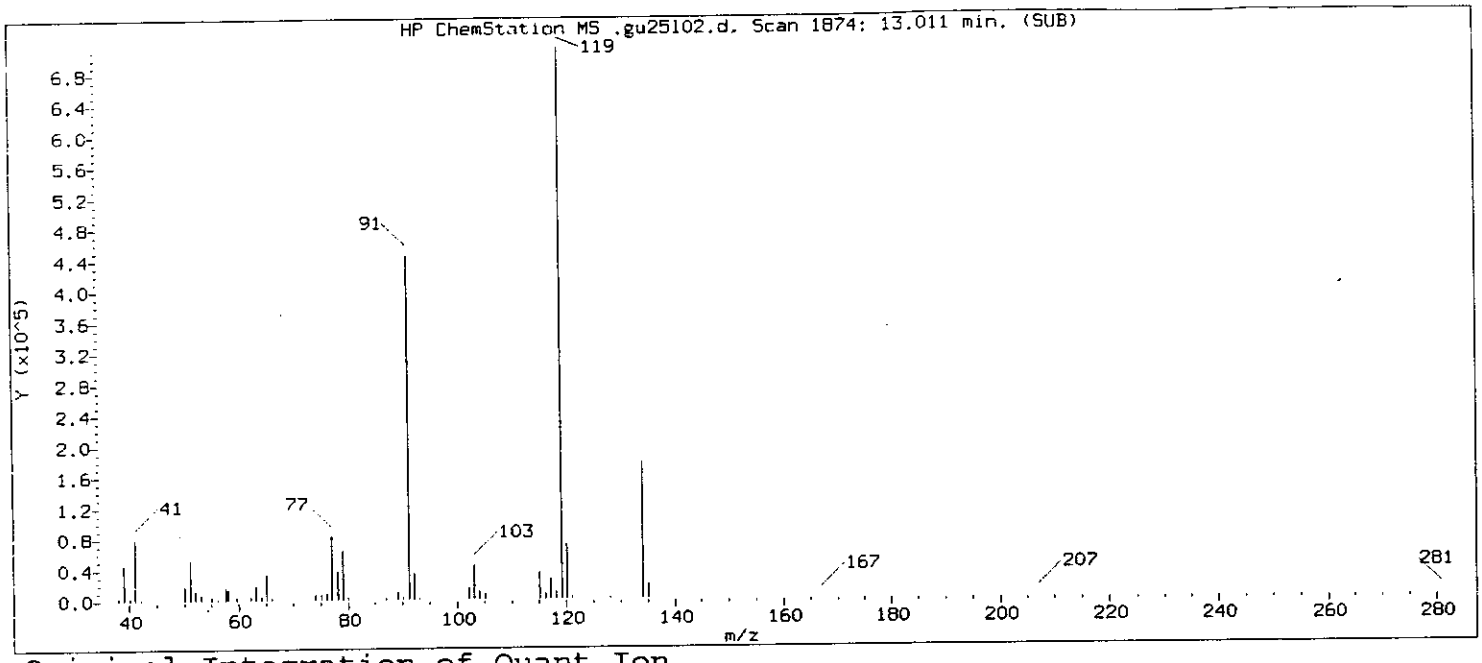
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 6/25/09

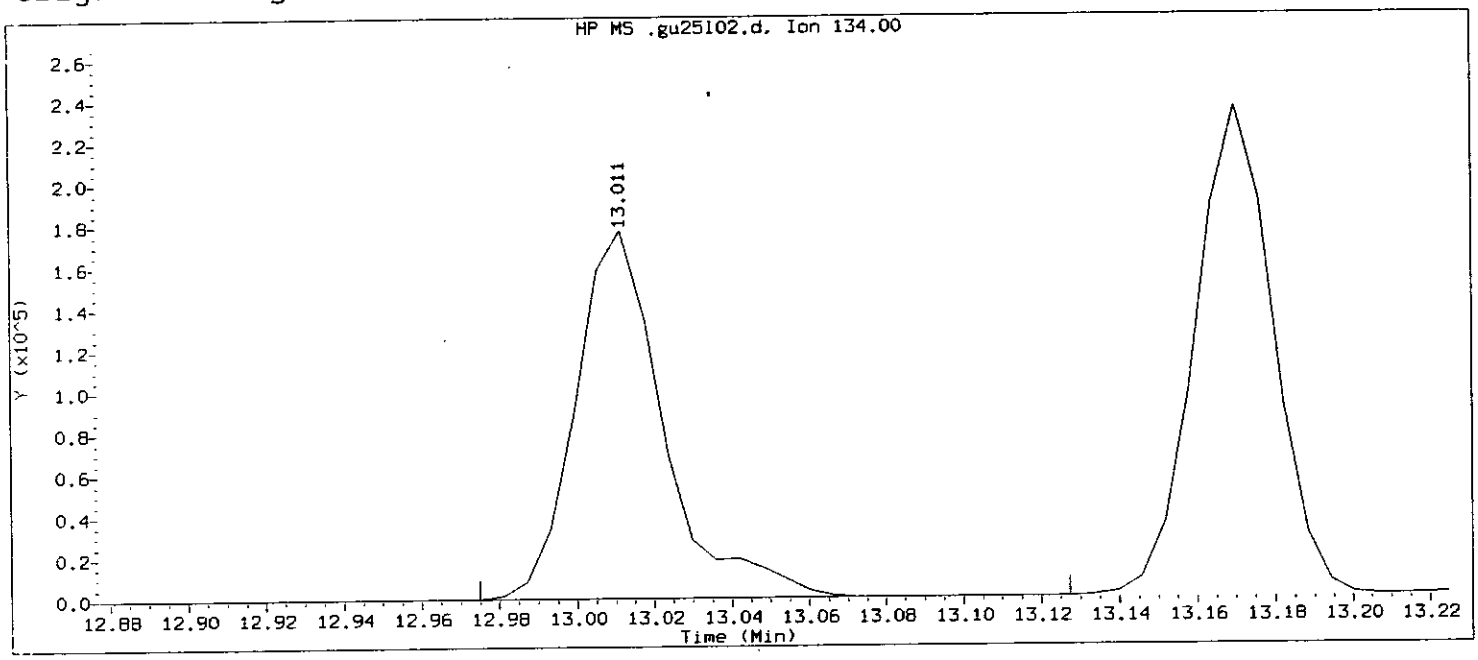
GC/MS audit/management approval: [signature] 6-26-09 RED19 8313

Manual Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25102.d, generated on 06/25/2009 at 14:15

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP16334.i/09jun25a.b/gu25102.d Instrument ID: HP16334.i
Injection date and time: 25-JUN-2009 13:57 Analyst ID: JML01693

Method used: /chem2/HP16334.i/09jun25a.b/g8260w25.m Sublist used: 8260W25
Calibration date and time: 25-JUN-2009 13:53
Date, time and analyst ID of latest file update: 25-Jun-2009 14:14 Automation

Sample Name: LCDG71 Lab Sample ID: LCDG71

Compound Number	: 136
Compound Name	: tert-Butylbenzene
Scan Number	: 1874
Retention Time (minutes)	: 13.011
Quant Ion	: 134
Area	: 280049
Concentration (ug/L)	: 5.0625
Integration start scan	: 1867 Integration stop scan: 1892
Y at integration start	: 0 Y at integration end: 0

BAD19 8314

Original Integration Report for data file /chem2/HP16334.i/09jun25a.b/gu25102.d, generated on 06/25/2009 at 14:15

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

GC/MS Volatiles pH Log

Batch: G091761AA

LLI#	pH	Date Checked	Initials/ Employee #	Comments
5698388	L2	6/25/2009	LCM/1518	38B
5698389	L2	6/25/2009	JML 1693	38B
5697897	L2	6/25/2009	LCM/1518	38B
5697898	L2	6/25/2009	LCM/1518	38B
5698731	L2	6/25/2009	LCM/1518	38C
5698732	L2	6/25/2009	LCM/1518	38B
5698741	L2	6/25/2009	LCM/1518	38B
5698726	L2	6/25/2009	LCM/1518	38A
5702474	L2	6/25/2009	LCM/1518	38A
5702474	L2	6/25/2009	LCM/1518	38B MS
5702475	L2	6/25/2009	LCM/1518	38A
5701945	L2	6/25/2009	JML 1693	38A
5703039	L2	6/25/2009	LCM/1518	38A
5704031	L2	6/25/2009	LCM/1518	38A
J710804	L2	6/25/09	LCM/1518	38A added by
J710805	L2	6/25/09	LCM/1518	38A matrix on 11.by

RAD19 8315

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP16334 **HP #29**

** Shift #1 Analyst:___JML_____** Shift #2 Analyst:__SEW_____** Shift #3 Analyst:_____*

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
S = Surrogate problem I = Internal Standard problem
NU = Not used F = Further dilution required
MR = Meets requirements IUO = Internal use only
Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

_____25ML ICALS_____

____!LINE WAS MANUALLY EDITED_____

_____

_____

Data Directory Path is - c:\msdchem\1\data\09JUN22A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
GU22T01.D	50ngBFB	BFBMAY27-09	22 Jun 2009	11:56			MR!
GU22X01.D	BLK	BLK	22 Jun 2009	12:06			NU
GU22I11.D	VSTD025	VSTD025	22 Jun 2009	12:27			MR
GU22I12.D	VSTD010	VSTD010	22 Jun 2009	12:49			MR
GU22I13.D	VSTD005	VSTD005	22 Jun 2009	13:10			MR
GU22I14.D	VSTD002	VSTD002	22 Jun 2009	13:31			MR
GU22I15.D	VSTD001	VSTD001	22 Jun 2009	13:53			MR
GU22I16.D	VSTD0.5	VSTD0.5	22 Jun 2009	14:14			MR
GU22M11.D	MDL0.1	MDL0.1	22 Jun 2009	14:35			MR
GU22CV2.D	ICVGSM	ICVGSM	22 Jun 2009	14:57	MISPREP		NU
GU22X02.D	BLK	BLK	22 Jun 2009	15:18			NU
GU22I01.D	VSTD025	VSTD025	22 Jun 2009	15:40			MR
GU22I02.D	VSTD010	VSTD010	22 Jun 2009	16:01			MR
GU22I03.D	VSTD005	VSTD005	22 Jun 2009	16:22			MR
GU22I04.D	VSTD002	VSTD002	22 Jun 2009	16:44			MR
GU22I05.D	VSTD001	VSTD001	22 Jun 2009	17:05			MR
GU22I06.D	VSTD0.5	VSTD0.5	22 Jun 2009	17:27			NU
GU22M01.D	MDL0.1	MDL0.1	22 Jun 2009	17:48			MR
GU22CV1.D	ICVGLG	ICVGLG	22 Jun 2009	18:09	MISPREP		NU
GU22CV3.D	ICVGSM	ICVGSM	22 Jun 2009	18:31			MR
GU22I07.D	VSTD0.5	VSTD0.5	22 Jun 2009	19:18			MR
GU22M02.D	MDL0.2	MDL0.2	22 Jun 2009	20:51			MR
GU22M03.D	MDL20	MDL20	22 Jun 2009	21:13			MR
GU22CV4.D	ICVGLG	ICVGLG	22 Jun 2009	22:37			MR

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP16334 **HP #29**

** Shift #1 Analyst: JML ** Shift #2 Analyst: LCM ** Shift #3 Analyst: _____ *

Comment Code:
R = Reinjection necessary
S = Surrogate problem
NU = Not used
MR = Meets requirements
Cz = Confirms z, (z = S, I or X)
X = Sample sent to be reextracted
I = Internal Standard problem
F = Further dilution required
IUO = Internal use only
T = Injected outside valid tune period

Other problems or comments are as follows:

* _____ * renamed per client request 10/19 ok kg/2w9 *
*
*
*

Data Directory Path is - c:\msdchem\1\data\09JUN25A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
GU25T01.D	50ngBFB	BFBMAY27	25 Jun 2009	10:54			MR
GU25C01.D	VSTD005	VSTD005	25 Jun 2009	11:09			NU
GU25C02.D	VSTD005	VSTD005	25 Jun 2009	11:30			NU
GU25C03.D	VSTD005	VSTD005	25 Jun 2009	11:52			MR
GU25C04.D	VSTD005	VSTD005	25 Jun 2009	12:31			IUO
GU25C05.D	VSTD005	VSTD005	25 Jun 2009	12:52			MR
GU25B01.D	VBLKG71	VBLKG71	25 Jun 2009	13:14	G091761AA		MR
GU25L01.D	LCSG71	LCSG71	25 Jun 2009	13:35	G091761AA		MR
GU25L02.D	LCDG71	LCDG71	25 Jun 2009	13:57	G091761AA		MR
GU25L03.D	LCS1G71	LCS1G71	25 Jun 2009	14:26	G091761AA		MR
GU25L04.D	LCD1SG71	LCD1G71	25 Jun 2009	14:47	G091761AA		MR
GU25S01.D	S3266	5698388	25 Jun 2009	15:27	G091761AA		MR
GU25S02.D	SS266	5698389	25 Jun 2009	15:49	G091761AA		MR
GU25S03.D	EB101	5697897	25 Jun 2009	16:10	G091761AA		MR
GU25S03atf.D	REB1-	5710804	25 Jun 2009	16:10	G091761AA		MR*
GU25S04.D	EB201	5697898	25 Jun 2009	16:31	G091761AA		MR
GU25S04atf.D	REB2-	5710805	25 Jun 2009	16:31	G091761AA		MR*
GU25S05.D	PARE2	5698731	25 Jun 2009	16:53	G091761AA		MR
GU25S06.D	PART2	5698732	25 Jun 2009	17:14	G091761AA		MR
GU25S07.D	PM10D	5698741	25 Jun 2009	17:35	G091761AA		MR
GU25S08.D	PM02S	5698726	25 Jun 2009	17:57	G091761AA		MR
GU25S09.D	R13M3	5702474	25 Jun 2009	18:18	G091761AA		MR
GU25S10.D	R13M3MS	5702474	25 Jun 2009	18:40	G091761AA		MR
GU25S11.D	RVATB	5702475	25 Jun 2009	19:01	G091761AA		MR
GU25S12.D	WM122	5701945	25 Jun 2009	19:22	G091761AA	5	MR
GU25S13.D	WM122DL	5701945	25 Jun 2009	19:43	G091761AA	20	NU
GU25S14.D	702TB	5703039	25 Jun 2009	20:05	G091761AA		MR
GU25S15.D	706TB	5704031	25 Jun 2009	20:26	G091761AA		MR
GU25S16.D	DDPWT	5704832	25 Jun 2009	20:47	G091761AA		F
GU25S17.D	GCPWT	5704833	25 Jun 2009	21:09	G091761AA		F
GU25S18.D	DYPWT	5704834	25 Jun 2009	21:30	G091761AA		F
GU25S19.D	V5700	5704835	25 Jun 2009	21:51	G091761AA		F
GU25S20.D	DDPWTDL	5704832	25 Jun 2009	22:38	G091761AA	5	MR
GU25S21.D	GCPWTDL	5704833	25 Jun 2009	22:59	G091761AA	5	NU-T

RAD19 #317

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Total # of Pages in this Document 207

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

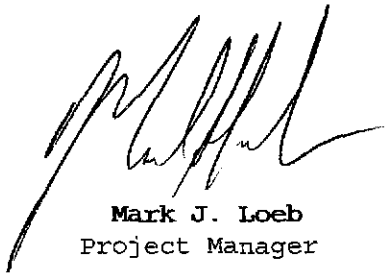
RAAP, RADFORD, VIRGINIA 2009

Lot #: A9F180214

Janet Frazier

Draper Aden & Associates Inc
2206 South Main Street
Blackburg, VA 24060

TESTAMERICA LABORATORIES, INC.



Mark J. Loeb
Project Manager

July 7, 2009

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CASE NARRATIVE

A9F180214

The following report contains the analytical results for five water samples and one quality control sample submitted to TestAmerica North Canton by Draper Aden Associates from the RAAP, Radford, Virginia 2009 Site. The samples were received June 18, 2009, according to documented sample acceptance procedures.

The Total Sulfides analysis was performed at the TestAmerica Pittsburgh Laboratory.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Janet Frazier on June 26, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.2°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The matrix spike/matrix spike duplicate(s) for batch(es) 9177173 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A9F180214

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
13MW5 06/17/09 09:15 004				
Total Sulfide	1.6 B	3.0	mg/L	SW846 9030B/9034
13MW6 06/17/09 08:25 005				
Total Sulfide	2.4 B	3.0	mg/L	SW846 9030B/9034
13MW7 06/17/09 11:55 006				
Total Sulfide	4.0	3.0	mg/L	SW846 9030B/9034

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

METHOD SUMMARY

METHODS SUMMARY

A9F180214

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Sulfides, Total 9030B/9034	SW846 9030B/903	SW846 9030B/903
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SAMPLE SUMMARY

SAMPLE SUMMARY

A9F180214

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LE6WG	001	TRIP BLANK 1	06/17/09	
LE6W8	002	13MW3	06/17/09	11:00
LE6XD	003	13MW4	06/17/09	10:10
LE6XJ	004	13MW5	06/17/09	09:15
LE6XL	005	13MW6	06/17/09	08:25
LE6XP	006	13MW7	06/17/09	11:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SHIPPING
AND
RECEIVING DOCUMENTS

CHAIN OF CUSTODY RECORD

JUF 6/15/09 Batch 02 JUF

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-330-966-9387

Client:	Draper Aden Associates	**Consultant:**	Draper Aden Associates	**Sample Site:**	RAAP, Radford, Virginia
Attn:	0	**Attn:**	Janet C. Frazier	**Location:**	HWMU13/Open Burning Ground
Address:	0	**Address:**	2206 South Main Street	**Event:**	June 2009 Verification Groundwater Monito
	0		Blacksburg, Virginia 24060	**DAA JN:**	B03204-06 07
Phone:	0	**Phone:**	(540) 552-0444	**Lab JN:**	
Fax:	0	**Fax:**	(540) 552-0291		
Fax:	0				

Project Specific (PS) QC: ☑ YES ☐ NO
Sample Collection for Project Complete? ☑ YES ☐ NO
Carrier: _____
Tracking Number: _____

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type				G	G								
Box 3 - Filtered/Unfiltered				U	U								
Required pH of Sample				>9	<2								
Box 2 - Preservative				E / F	A								
Box 5 - Sample Container Type				1-1L P	3-40 ml V								
Sample ID	**Date: 2009**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**Sulfide - 9034/9030B**	**8260B/5030B 25 ml purge volume (Sample for 1,1,1-trichloroethane& trichlorofluoromethane ONLY)**							
Trip Blank 1	6/17		T	3		X							
13MW3		1100	GW	3		X							
13MW4		1010	GW	1	X								
13MW5		0915	GW	1	X								
13MW6		0825	GW	1	X								
13MW7	6/17	1155	GW	1	X								

GENERAL NOTES: Level 4 with EDD and PDF. (Sample for 1,1,1-trichloroethane & trichlorofluoromethane ONLY)

√ report to MDL. JUF 6/15/09

8260B - 25 ml purge

JUF 6-15-09

Clients Special Instructions: Level 4 with EDD and PDF.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No

Describe problems, if any:

Sampler Name (Print): Dale Slaughter	Date: 6/17/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 6/17/09	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Tyler Emery	Date: 6/17/09	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 6-18-09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name:	Time:	Company Name: TANC	Time: 1000	

Y/1 JUF 6/19

North Canton

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A7F180214

North Canton Facility

Client Draper Aden Project RAAP Radford By: [signature] (Signature)

Cooler Received on 6-18-09 Opened on 6-18-09

FedEx ☐ UPS ☒ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____

TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 3.2 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☒ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐

Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

_____

_____

_____

_____

_____

_____

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 031909-HNO_3; *Sulfuric Acid Lot#* 100108-H_2SO_4; *Sodium Hydroxide Lot#* 073007 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 050205-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
4	7.9	6-18-09	[initials]
5	7.9	"	"
6	7.9	"	"
7	7.9	"	"

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

GCMS VOLATILE DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QC SUMMARY DATA

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F180214

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	INTRA-LAB QC	104	105	97	88	00
02	TRIP BLANK 1	104	108	97	87	00
03	13MW3	104	109	93	84	00
04	METHOD BLK. LFM6Q1AA	98	99	99	92	00
05	LCS LFM6Q1AC	98	101	102	110	00
06	LAB MS/MSD D	96	99	101	111	00
07	LCSD LFM6Q1AD	97	95	101	109	00
08	LAB MS/MSD S	99	98	102	112	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(73-122)
SRG02	= 1,2-Dichloroethane-d4	(61-128)
SRG03	= Toluene-d8	(76-110)
SRG04	= 4-Bromofluorobenzene	(74-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AC
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Chloromethane	10	7.3	73	48- 123	
Bromomethane	10	11	105	64- 129	
Vinyl chloride	10	7.2	72	61- 120	
Chloroethane	10	7.4	74	66- 126	
Methylene chloride	10	9.1	91	78- 118	
Acetone	10	8.5	85	22- 200	
Carbon disulfide	10	9.6	96	73- 139	
1,1-Dichloroethene	10	9.3	93	63- 130	
1,1-Dichloroethane	10	10	101	86- 123	
1,2-Dichloroethene (total	20	20	99	82- 116	
Chloroform	10	10	102	84- 128	
1,2-Dichloroethane	10	11	107	79- 136	
2-Butanone	10	8.7	87	28- 237	
1,1,1-Trichloroethane	10	11	114	78- 140	
Carbon tetrachloride	10	11	113	75- 149	
Bromodichloromethane	10	11	106	87- 130	
1,2-Dichloropropane	10	9.3	93	82- 115	
cis-1,3-Dichloropropene	10	9.7	97	84- 130	
Trichloroethene	10	9.4	94	75- 122	
Dibromochloromethane	10	11	109	81- 138	
1,1,2-Trichloroethane	10	9.5	95	83- 122	
Benzene	10	9.4	94	80- 116	
trans-1,3-Dichloropropene	10	11	112	84- 130	
Bromoform	10	9.9	99	76- 150	
4-Methyl-2-pentanone	10	9.2	92	78- 141	
2-Hexanone	10	10	105	35- 200	
Tetrachloroethene	10	10	100	88- 113	
1,1,2,2-Tetrachloroethane	10	9.3	93	85- 118	
Toluene	10	10	104	74- 119	
Chlorobenzene	10	10	104	76- 117	
Ethylbenzene	10	11	109	86- 116	

(Continued on next page)

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AC
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Styrene	10	10	101	85- 117	
Xylenes (total)	30	34	112	87- 116	
cis-1,2-Dichloroethene	10	10	102	85- 113	
trans-1,2-Dichloroethene	10	9.6	96	80- 120	
Dichlorodifluoromethane	10	8.0	80	70- 130	
Trichlorofluoromethane	10	11	110	70- 130	
1,1,2-Trichloro-1,2,2-tri	10	11	106	70- 130	
Methyl acetate	10	7.5	75	70- 130	
Methyl tert-butyl ether (	10	11	107	70- 130	
Cyclohexane	10	7.1	71	70- 130	
Methylcyclohexane	10	6.8	68*	70- 130	a
1,2-Dibromoethane	10	9.8	98	70- 130	
Isopropylbenzene	10	10	105	70- 130	
1,3-Dichlorobenzene	10	11	110	70- 130	
1,4-Dichlorobenzene	10	11	109	70- 130	
1,2-Dichlorobenzene	10	10	105	70- 130	
1,2-Dibromo-3-chloropropa	10	9.3	93	70- 130	
1,2,4-Trichlorobenzene	10	10	102	70- 130	
Methyl tert-butyl ether	10	11	107	70- 130	
n-Hexane	10	8.3	83	70- 130	
o-Xylene	10	11	113	70- 130	
m-Xylene & p-Xylene	20	22	111	70- 130	
2-Chloroethyl vinyl ether	10	6.2	62*	70- 130	a
Acetonitrile	30	22	73	50- 130	
Acrolein	30	25	83	50- 130	
Vinyl acetate	10	11	107	70- 130	
Acrylonitrile	30	23	77	50- 130	
Bromobenzene	10	11	108	70- 130	
Bromochloromethane	10	9.7	97	70- 130	
n-Butylbenzene	10	9.6	96	70- 130	
sec-Butylbenzene	10	11	109	70- 130	

(Continued on next page)

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AC
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
tert-Butylbenzene	10	11	113	70- 130	
2-Chlorotoluene	10	11	111	70- 130	
4-Chlorotoluene	10	11	113	70- 130	
Dibromomethane	10	9.7	97	70- 130	
1,3-Dichloropropane	10	9.6	96	70- 130	
2,2-Dichloropropane	10	12	122	70- 130	
1,1-Dichloropropene	10	9.8	98	70- 130	
Hexachlorobutadiene	10	9.6	96	70- 130	
Iodomethane	10	10	100	70- 130	
Isopropyl ether	10	10	100	70- 130	
p-Isopropyltoluene	10	11	105	70- 130	
Naphthalene	10	8.2	82	70- 130	
n-Propylbenzene	10	12	120	70- 130	
1,1,1,2-Tetrachloroethane	10	11	112	70- 130	
1,2,3-Trichlorobenzene	10	9.5	95	70- 130	
1,2,3-Trichloropropane	10	10	102	70- 130	
1,2,4-Trimethylbenzene	10	11	110	70- 130	
1,3,5-Trimethylbenzene	10	12	116	70- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 2 out of 80 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AD
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Dibromomethane	10	9.7	97	70 - 130	
1,3-Dichloropropane	10	9.5	95	70 - 130	
2,2-Dichloropropane	10	12	117	70 - 130	
1,1-Dichloropropene	10	9.6	96	70 - 130	
Hexachlorobutadiene	10	9.2	92	70 - 130	
Iodomethane	10	9.6	96	70 - 130	
Isopropyl ether	10	9.4	94	70 - 130	
p-Isopropyltoluene	10	10	102	70 - 130	
Naphthalene	10	7.3	73	70 - 130	
n-Propylbenzene	10	12	120	70 - 130	
1,1,1,2-Tetrachloroethane	10	11	106	70 - 130	
1,2,3-Trichlorobenzene	10	8.5	85	70 - 130	
1,2,3-Trichloropropane	10	11	106	70 - 130	
1,2,4-Trimethylbenzene	10	11	107	70 - 130	
1,3,5-Trimethylbenzene	10	11	115	70 - 130	
Chloromethane	10	6.1	61	48 - 123	
Bromomethane	10	8.6	86	64 - 129	
Vinyl chloride	10	6.8	68	61 - 120	
Chloroethane	10	6.0	60*	66 - 126	a
Methylene chloride	10	8.6	86	78 - 118	
Acetone	10	7.3	73	22 - 200	
Carbon disulfide	10	9.2	92	73 - 139	
1,1-Dichloroethene	10	9.1	91	63 - 130	
1,1-Dichloroethane	10	9.7	97	86 - 123	
1,2-Dichloroethene (total	20	19	95	82 - 116	
Chloroform	10	9.8	98	84 - 128	
1,2-Dichloroethane	10	10	102	79 - 136	
2-Butanone	10	8.2	82	28 - 237	
1,1,1-Trichloroethane	10	11	110	78 - 140	
Carbon tetrachloride	10	11	110	75 - 149	
Bromodichloromethane	10	10	101	87 - 130	

(Continued on next page)

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AD
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2-Dichloropropane	10	8.9	89	82 - 115	
cis-1,3-Dichloropropene	10	9.4	94	84 - 130	
Trichloroethene	10	9.1	91	75 - 122	
Dibromochloromethane	10	11	106	81 - 138	
1,1,2-Trichloroethane	10	9.2	92	83 - 122	
Benzene	10	8.9	89	80 - 116	
trans-1,3-Dichloropropene	10	11	106	84 - 130	
Bromoform	10	9.7	97	76 - 150	
4-Methyl-2-pentanone	10	8.8	88	78 - 141	
2-Hexanone	10	9.6	96	35 - 200	
Tetrachloroethene	10	10	100	88 - 113	
1,1,2,2-Tetrachloroethane	10	9.1	91	85 - 118	
Toluene	10	10	102	74 - 119	
Chlorobenzene	10	10	101	76 - 117	
Ethylbenzene	10	11	107	86 - 116	
Styrene	10	9.7	97	85 - 117	
Xylenes (total)	30	32	108	87 - 116	
cis-1,2-Dichloroethene	10	9.8	98	85 - 113	
trans-1,2-Dichloroethene	10	9.3	93	80 - 120	
Dichlorodifluoromethane	10	7.3	73	70 - 130	
Trichlorofluoromethane	10	10	102	70 - 130	
1,1,2-Trichloro-1,2,2-tri	10	10	101	70 - 130	
Methyl acetate	10	7.0	70	70 - 130	
Methyl tert-butyl ether (	10	10	102	70 - 130	
Cyclohexane	10	6.9	69*	70 - 130	a
Methylcyclohexane	10	6.6	66*	70 - 130	a
1,2-Dibromoethane	10	9.3	93	70 - 130	
Isopropylbenzene	10	10	101	70 - 130	
1,3-Dichlorobenzene	10	11	106	70 - 130	
1,4-Dichlorobenzene	10	10	104	70 - 130	
1,2-Dichlorobenzene	10	10	103	70 - 130	

(Continued on next page)

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AD
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2-Dibromo-3-chloropropa	10	8.7	87	70- 130	
1,2,4-Trichlorobenzene	10	9.3	93	70- 130	
Methyl tert-butyl ether	10	10	102	70- 130	
n-Hexane	10	7.6	76	70- 130	
o-Xylene	10	11	109	70- 130	
m-Xylene & p-Xylene	20	21	107	70- 130	
2-Chloroethyl vinyl ether	10	5.9	59*	70- 130	a
Acetonitrile	30	21	70	50- 130	
Acrolein	30	22	72	50- 130	
Vinyl acetate	10	10	105	70- 130	
Acrylonitrile	30	22	73	50- 130	
Bromobenzene	10	11	106	70- 130	
Bromochloromethane	10	9.0	90	70- 130	
n-Butylbenzene	10	9.2	92	70- 130	
sec-Butylbenzene	10	11	107	70- 130	
tert-Butylbenzene	10	11	110	70- 130	
2-Chlorotoluene	10	11	110	70- 130	
4-Chlorotoluene	10	11	111	70- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 4 out of 80 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CN
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	10	ND	9.5	95	62- 130	
Chloromethane	10	ND	7.3	73	40- 137	
Bromomethane	10	ND	12	118	55- 145	
Vinyl chloride	10	ND	7.6	76*	88- 126	a
Chloroethane	10	ND	10	102	59- 142	
Methylene chloride	10	ND	8.9	89	82- 115	
Acetone	10	ND	8.8	88	45- 128	
Carbon disulfide	10	ND	9.3	93	69- 138	
1,1-Dichloroethane	10	ND	10	101	88- 127	
1,2-Dichloroethene (total	20	ND	20	98	86- 115	
Chloroform	10	ND	10	102	83- 141	
1,2-Dichloroethane	10	ND	10	101	71- 160	
2-Butanone	10	ND	7.2	72	71- 123	
1,1,1-Trichloroethane	10	ND	11	115	71- 162	
Carbon tetrachloride	10	ND	11	113	63- 176	
Bromodichloromethane	10	ND	9.8	98	80- 146	
1,2-Dichloropropane	10	ND	8.9	89	87- 114	
cis-1,3-Dichloropropene	10	ND	8.1	81*	82- 130	a
Trichloroethene	10	ND	9.2	92	62- 130	
Dibromochloromethane	10	ND	9.7	97	71- 158	
1,1,2-Trichloroethane	10	ND	8.8	88	86- 129	
Benzene	10	ND	9.0	90	78- 118	
trans-1,3-Dichloropropene	10	ND	9.6	96	73- 147	
Bromoform	10	ND	8.1	81	58- 176	
4-Methyl-2-pentanone	10	ND	7.3	73*	82- 135	a
2-Hexanone	10	ND	8.1	81	81- 128	
Tetrachloroethene	10	ND	9.8	98	85- 121	
1,1,2,2-Tetrachloroethane	10	ND	8.2	82*	88- 116	a

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CN
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
Toluene	10	ND	10	101	70 - 119	
Chlorobenzene	10	ND	10	102	76 - 117	
Ethylbenzene	10	ND	10	104	86 - 132	
Styrene	10	ND	9.5	95	83 - 120	
Xylenes (total)	30	ND	32	107	89 - 121	
cis-1,2-Dichloroethene	10	ND	9.9	99	87 - 114	
trans-1,2-Dichloroethene	10	ND	9.8	98	85 - 116	
Dichlorodifluoromethane	10	ND	7.4	74	70 - 130	
Trichlorofluoromethane	10	ND	11	111	70 - 130	
1,1,2-Trichloro-1,2,2-tri	10	ND	10	101	70 - 130	
Methyl acetate	10	ND	6.7	67*	70 - 130	a
Methyl tert-butyl ether (	10	ND	9.5	95	70 - 130	
Cyclohexane	10	ND	6.5	65*	70 - 130	a
Methylcyclohexane	10	ND	5.9	59*	70 - 130	a
1,2-Dibromoethane	10	ND	8.8	88	70 - 130	
Isopropylbenzene	10	ND	9.9	99	70 - 130	
1,3-Dichlorobenzene	10	ND	10	104	70 - 130	
1,4-Dichlorobenzene	10	ND	10	102	70 - 130	
1,2-Dichlorobenzene	10	ND	10	100	70 - 130	
1,2-Dibromo-3-chloropropa	10	ND	7.0	70	70 - 130	
1,2,4-Trichlorobenzene	10	ND	8.4	84	70 - 130	
Methyl tert-butyl ether	10	ND	9.5	95	70 - 130	
n-Hexane	10	ND	6.4	64*	70 - 130	a
o-Xylene	10	ND	11	107	70 - 130	
m-Xylene & p-Xylene	20	ND	22	108	70 - 130	
2-Chloroethyl vinyl ether	10	ND	0.0	0*	70 - 130	a
Acetonitrile	30	ND	20	68	50 - 130	
Acrolein	30	ND	22	73	50 - 130	

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CN
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
Acrylonitrile	30	ND	20	68	50 - 130	
Vinyl acetate	10	ND	8.4	84	70 - 130	
Bromobenzene	10	ND	10	101	70 - 130	
Bromochloromethane	10	ND	9.2	92	70 - 130	
n-Butylbenzene	10	ND	8.6	86	70 - 130	
sec-Butylbenzene	10	ND	10	101	70 - 130	
tert-Butylbenzene	10	ND	10	104	70 - 130	
2-Chlorotoluene	10	ND	10	103	70 - 130	
4-Chlorotoluene	10	ND	11	108	70 - 130	
Dibromomethane	10	ND	9.1	91	70 - 130	
1,3-Dichloropropane	10	ND	8.9	89	70 - 130	
2,2-Dichloropropane	10	ND	11	114	70 - 130	
1,1-Dichloropropene	10	ND	9.5	95	70 - 130	
Hexachlorobutadiene	10	ND	8.1	81	70 - 130	
Iodomethane	10	ND	10	102	70 - 130	
Isopropyl ether	10	ND	9.3	93	70 - 130	
p-Isopropyltoluene	10	ND	9.9	99	70 - 130	
Naphthalene	10	ND	6.0	60*	70 - 130	a
n-Propylbenzene	10	ND	11	111	70 - 130	
1,1,1,2-Tetrachloroethane	10	ND	11	107	70 - 130	
1,2,3-Trichlorobenzene	10	ND	7.8	78	70 - 130	
1,2,3-Trichloropropane	10	ND	9.0	90	70 - 130	
1,2,4-Trimethylbenzene	10	ND	10	102	70 - 130	
1,3,5-Trimethylbenzene	10	ND	11	109	70 - 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 10 out of 80 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CP
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Bromomethane	10	11	113	4.3	30	55- 145	
Vinyl chloride	10	7.5	75*	1.4	30	88- 126	a
Chloroethane	10	9.1	91	11	30	59- 142	
Methylene chloride	10	8.6	86	3.4	30	82- 115	
Acetone	10	9.4	94	5.9	30	45- 128	
Carbon disulfide	10	9.2	92	1.7	41	69- 138	
1,1-Dichloroethane	10	9.9	99	1.8	30	88- 127	
1,2-Dichloroethene (total	20	19	97	1.4	30	86- 115	
Chloroform	10	9.9	99	2.5	30	83- 141	
1,2-Dichloroethane	10	10	100	0.85	30	71- 160	
2-Butanone	10	7.5	75	4.3	30	71- 123	
1,1,1-Trichloroethane	10	11	113	1.2	30	71- 162	
Carbon tetrachloride	10	11	110	3.2	30	63- 176	
Bromodichloromethane	10	9.6	96	2.2	30	80- 146	
1,2-Dichloropropane	10	8.9	89	0.47	30	87- 114	
cis-1,3-Dichloropropene	10	8.0	80*	1.2	30	82- 130	a
Trichloroethene	10	9.1	91	0.35	20	62- 130	
Dibromochloromethane	10	9.9	99	2.4	30	71- 158	
1,1-Dichloroethene	10	9.5	95	0.21	20	62- 130	
Chloromethane	10	7.2	72	0.63	39	40- 137	
1,1,2-Trichloroethane	10	8.8	88	0.27	30	86- 129	
Benzene	10	9.0	90	0.24	20	78- 118	
trans-1,3-Dichloropropene	10	9.5	95	1.5	30	73- 147	
Bromoform	10	8.2	82	1.8	30	58- 176	
4-Methyl-2-pentanone	10	7.2	72*	2.6	30	82- 135	a
2-Hexanone	10	8.3	83	1.6	30	81- 128	
Tetrachloroethene	10	9.8	98	0.35	30	85- 121	
1,1,2,2-Tetrachloroethane	10	8.3	83*	1.3	30	88- 116	a

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CP
BATCH: 9177173

COMPOUND	SPIKE ADDED	MSD CONCENT.	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Toluene	10	10	102	1.0	20	70- 119	
Chlorobenzene	10	10	102	0.26	20	76- 117	
Ethylbenzene	10	11	106	1.7	30	86- 132	
Styrene	10	9.6	96	0.95	30	83- 120	
Xylenes (total)	30	32	107	0.16	30	89- 121	
cis-1,2-Dichloroethene	10	9.8	98	0.80	30	87- 114	
trans-1,2-Dichloroethene	10	9.6	96	2.1	30	85- 116	
Dichlorodifluoromethane	10	7.5	75	0.75	30	70- 130	
Trichlorofluoromethane	10	11	112	0.77	30	70- 130	
1,1,2-Trichloro-1,2,2-tri	10	10	103	2.8	30	70- 130	
Methyl acetate	10	6.8	68*	2.1	30	70- 130	a
Methyl tert-butyl ether (	10	9.5	95	0.020	30	70- 130	
Cyclohexane	10	6.8	68*	3.8	30	70- 130	a
Methylcyclohexane	10	6.2	62*	4.8	30	70- 130	a
1,2-Dibromoethane	10	8.8	88	0.20	30	70- 130	
Isopropylbenzene	10	9.9	99	0.58	30	70- 130	
1,3-Dichlorobenzene	10	11	106	1.9	30	70- 130	
1,4-Dichlorobenzene	10	10	104	1.7	30	70- 130	
1,2-Dichlorobenzene	10	10	100	0.050	30	70- 130	
1,2-Dibromo-3-chloropropa	10	7.8	78	12	30	70- 130	
1,2,4-Trichlorobenzene	10	8.7	87	3.4	30	70- 130	
Methyl tert-butyl ether	10	9.5	95	0.020	30	70- 130	
n-Hexane	10	7.0	70	9.8	30	70- 130	
o-Xylene	10	11	107	0.29	30	70- 130	
m-Xylene & p-Xylene	20	21	107	0.38	30	70- 130	
2-Chloroethyl vinyl ether	10	0.0	0*	0.0	30	70- 130	a
Acetonitrile	30	20	66	1.7	30	50- 130	
Acrolein	30	22	74	0.86	30	50- 130	

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CP
BATCH: 9177173

COMPOUND	SPIKE ADDED	MSD CONCENT.	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Acrylonitrile	30	21	70	2.2	30	50- 130	
Vinyl acetate	10	8.7	87	3.6	30	70- 130	
Bromobenzene	10	10	101	0.11	30	70- 130	
Bromochloromethane	10	9.0	90	2.1	30	70- 130	
n-Butylbenzene	10	8.8	88	2.1	30	70- 130	
sec-Butylbenzene	10	10	102	1.3	30	70- 130	
tert-Butylbenzene	10	12	116	12	30	70- 130	
2-Chlorotoluene	10	11	105	2.3	30	70- 130	
4-Chlorotoluene	10	11	107	0.48	30	70- 130	
Dibromomethane	10	9.3	93	1.6	30	70- 130	
1,3-Dichloropropane	10	9.0	90	0.36	30	70- 130	
2,2-Dichloropropane	10	11	111	3.0	30	70- 130	
1,1-Dichloropropene	10	9.5	95	0.17	30	70- 130	
Hexachlorobutadiene	10	8.7	87	7.4	30	70- 130	
Iodomethane	10	10	100	2.2	30	70- 130	
Isopropyl ether	10	9.4	94	0.29	30	70- 130	
p-Isopropyltoluene	10	9.9	99	0.010	30	70- 130	
Naphthalene	10	6.6	66*	8.7	30	70- 130	a
n-Propylbenzene	10	11	113	1.6	30	70- 130	
1,1,1,2-Tetrachloroethane	10	11	106	1.2	30	70- 130	
1,2,3-Trichlorobenzene	10	8.4	84	8.2	30	70- 130	
1,2,3-Trichloropropane	10	9.2	92	1.7	30	70- 130	
1,2,4-Trimethylbenzene	10	10	103	0.19	30	70- 130	
1,3,5-Trimethylbenzene	10	11	109	0.38	30	70- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 80 outside limits
Spike Recovery: 9 out of 80 outside limits

COMMENTS:

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: LFM6Q1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALCAN

SDG Number:

Lab File ID: UXM8944.D

Lot Number: A9F180214

Date Analyzed: 06/25/09

Time Analyzed: 16:21

Matrix: WATER

Date Extracted: 06/25/09

GC Column: DB624 ID: .18

Extraction Method: 5030B/8260B

Instrument ID: UX16

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	LE6J31AR	UXM8956.D	06/25/09	20:48
02	LAB MS/MSD	LE6J31CN S	UXM8957.D	06/25/09	21:09
03	LAB MS/MSD	LE6J31CP D	UXM8958.D	06/25/09	21:30
04	TRIP BLANK 1	LE6WG1AA	UXM8963.D	06/25/09	23:14
05	13MW3	LE6W81AA	UXM8964.D	06/25/09	23:34
06	CHECK SAMPLE	LFM6Q1AC C	UXM8942.D	06/25/09	15:39
07	DUPLICATE CHECK	LFM6Q1AD L	UXM8943.D	06/25/09	16:00
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
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26					
27					
28					
29					
30					

COMMENTS:

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: A9F180214

Lab File ID: BFB1088 BFB Injection Date: 05/07/09

Instrument ID: A3UX16 BFB Injection Time: 1110

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	44.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 100.0% of mass 95	81.8
175	5.0 - 9.0% of mass 174	5.4 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.6 (96.1)1
177	5.0 - 9.0% of mass 176	5.2 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXM7626	05/07/09	1342
02	VSTD020	100NG-IC	UXM7627	05/07/09	1403
03	VSTD010	50NG-IC	UXM7628	05/07/09	1424
04	VSTD005	25NG-IC	UXM7629	05/07/09	1445
05	VSTD002	10NG-IC	UXM7630	05/07/09	1505
06	VSTD010	50NG-IC	UXM7631	05/07/09	1526
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: A9F180214

Lab File ID: BFB1142 BFB Injection Date: 06/25/09

Instrument ID: A3UX16 BFB Injection Time: 1350

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	51.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	76.3
175	5.0 - 9.0% of mass 174	5.7 (7.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.4 (97.6)1
177	5.0 - 9.0% of mass 176	4.8 (6.4)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXM8941	06/25/09	1518
02	LFM6Q-CHK	LFM6Q1AC	UXM8942	06/25/09	1539
03	LFM6Q-CKDUP	LFM6Q1AD	UXM8943	06/25/09	1600
04	LFM6Q-BLK	LFM6Q1AA	UXM8944	06/25/09	1621
05	TRIP BLANK 1	LE6WG1AA	UXM8963	06/25/09	2314
06	13MW3	LE6W81AA	UXM8964	06/25/09	2334
07					
08					
09					
10					
11					
12					
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15					
16					
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18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: A9F180214

Lab File ID (Standard): UXM8941 Date Analyzed: 06/25/09

Instrument ID: A3UX16 Time Analyzed: 1518

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(CBZ) AREA #	RT	IS2(DCB) AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	691311	8.34	360329	10.57	948376	5.64
	UPPER LIMIT	1382622	8.84	720658	11.07	1896752	6.14
	LOWER LIMIT	345656	7.84	180165	10.07	474188	5.14
	EPA SAMPLE NO.						
01	LFM6Q-CHK	667308	8.34	362127	10.57	943691	5.64
02	LFM6Q-CKDUP	710551	8.34	369998	10.57	1003334	5.64
03	LFM6Q-BLK	650662	8.34	289942	10.58	929285	5.64
04	TRIP BLANK 1	589271	8.34	249387	10.58	819786	5.64
05	13MW3	593418	8.34	248490	10.57	807968	5.64
06							
07							
08							
09							
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15							
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18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SAMPLE DATA

Draper Aden Associates Inc

Client Sample ID: TRIP BLANK 1

GC/MS Volatiles

Lot-Sample #...: A9F180214-001 **Work Order #...:** LE6WG1AA **Matrix.....:** WQ
Date Sampled...: 06/17/09 **Date Received..:** 06/18/09
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.21

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Lab Smp Id: LE6WG1AA Client Smp ID: TRIP BLANK 1
Inj Date : 25-JUN-2009 23:14
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LE6WG1AA,5ML/5ML
Misc Info : M90625A,8260LLUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	819786	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	589271	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.584	10.573	(1.000)	249387	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	173419	51.7762	10.355
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	206865	53.9172	10.783
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	614815	48.6704	9.734
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	181076	43.2769	8.655
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
14 Dichlorofluoromethane	67	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	3.137	3.137	(0.556)	16176	7.39520	1.479
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					
19 Iodomethane	142	Compound Not Detected.					
20 Carbon Disulfide	76	Compound Not Detected.					

21 Methylene Chloride	84	3.529	3.529 (0.626)	8051	1.78552	0.3571
22 Acetonitrile	41	Compound Not Detected.				

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					
	66 Bromoform	173	Compound Not Detected.					
	67 Isopropylbenzene	105	Compound Not Detected.					
	68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
	70 1,2,3-Trichloropropane	110	Compound Not Detected.					
	71 Bromobenzene	156	Compound Not Detected.					
	72 n-Propylbenzene	120	Compound Not Detected.					
	73 2-Chlorotoluene	126	Compound Not Detected.					
	74 1,3,5-Trimethylbenzene	105	Compound Not Detected.					

75	4-Chlorotoluene	126	Compound Not Detected.
76	tert-Butylbenzene	119	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	Compound Not Detected.					
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
89	Ethyl Ether	59	Compound Not Detected.					
91	3-Chloropropene	76	Compound Not Detected.					
92	Isopropyl Ether	87	Compound Not Detected.					
93	2-Chloro-1,3-butadiene	53	Compound Not Detected.					
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	Compound Not Detected.					
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	Compound Not Detected.					
99	n-Butanol	56	Compound Not Detected.					
100	Methyl Methacrylate	41	Compound Not Detected.					
101	2-Nitropropane	41	Compound Not Detected.					
103	Cyclohexanone	55	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	Compound Not Detected.					
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	Compound Not Detected.					
153	1,2,3-Trimethylbenzene	105	Compound Not Detected.					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

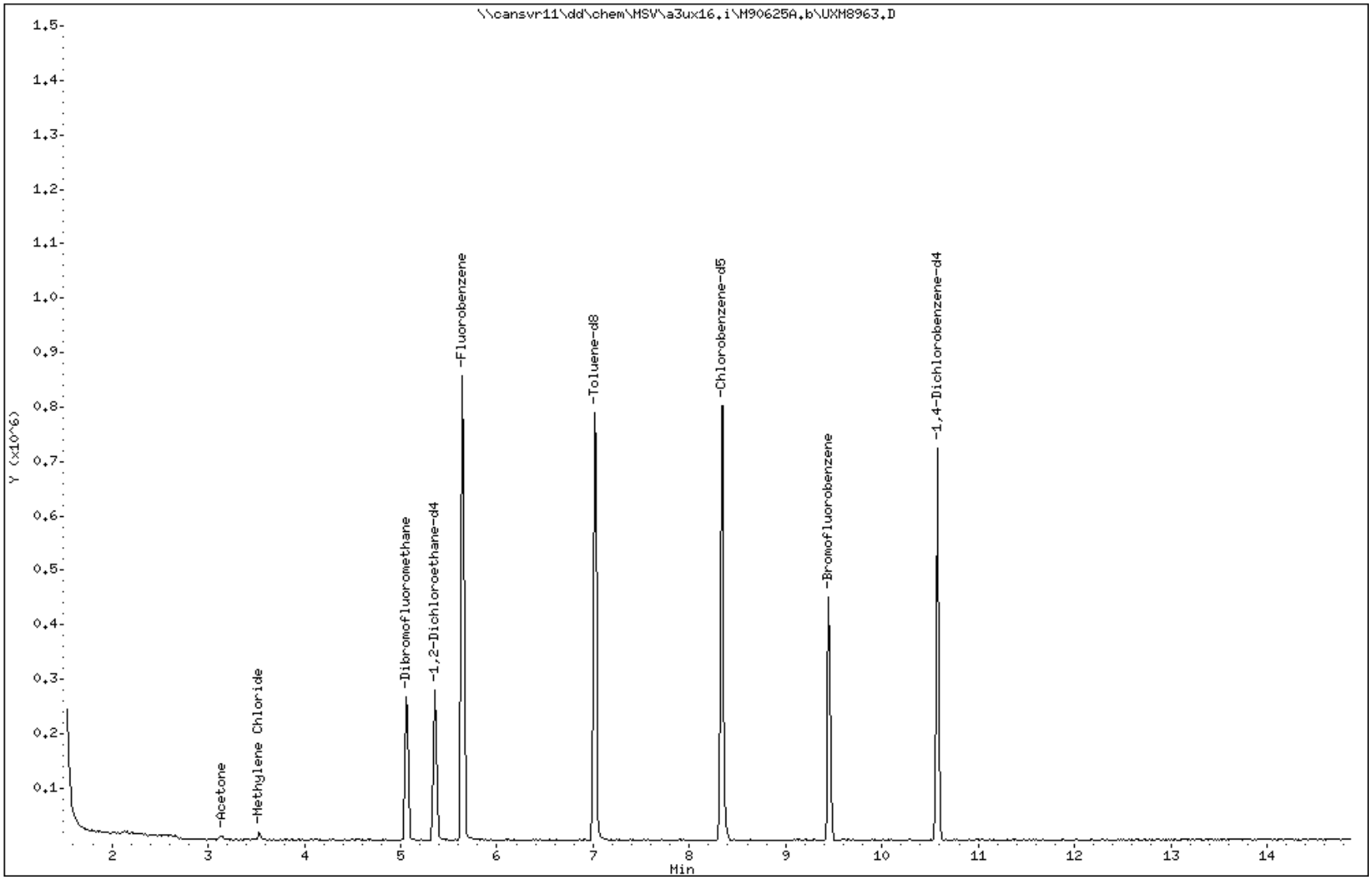
Instrument ID: a3ux16.i
Lab File ID: UXM8963.D
Lab Smp Id: LE6WG1AA
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Client Smp ID: TRIP BLANK 1
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	819786	-13.56
2 Chlorobenzene-d5	691311	345656	1382622	589271	-14.76
3 1,4-Dichlorobenze	360329	180165	720658	249387	-30.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.58	0.11

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Date : 25-JUN-2009 23:14
Client ID: TRIP BLANK 1 Instrument: a3ux16.i
Sample Info: LE6WG1AA,5ML/5ML
Purge Volume: 5.0 Operator: 1644
Column phase: DB624 Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D

Date : 25-JUN-2009 23:14

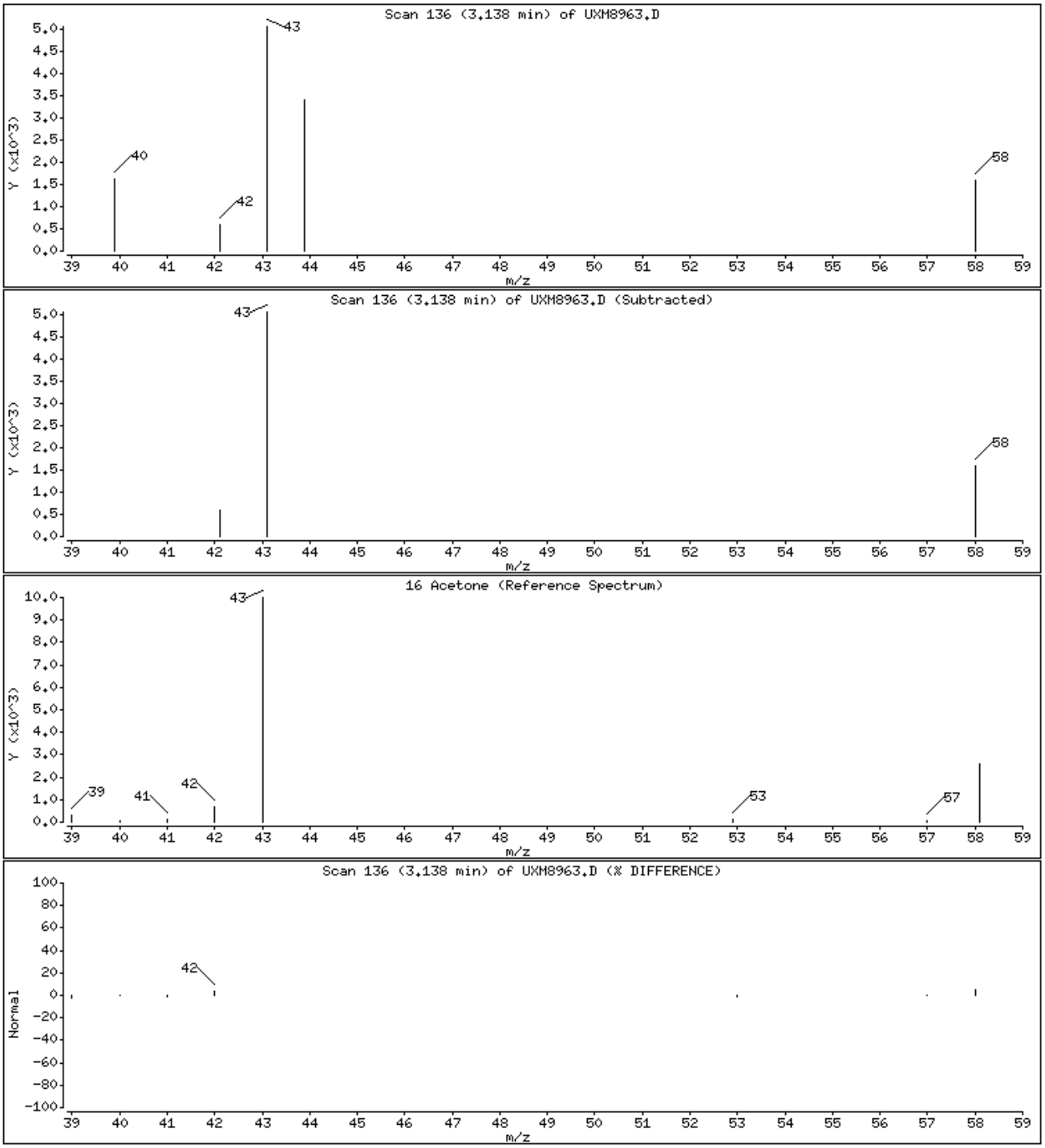
Client ID: TRIP BLANK 1 Instrument: a3ux16.i

Sample Info: LE6WG1AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

16 Acetone Concentration: 1.479 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D

Date : 25-JUN-2009 23:14

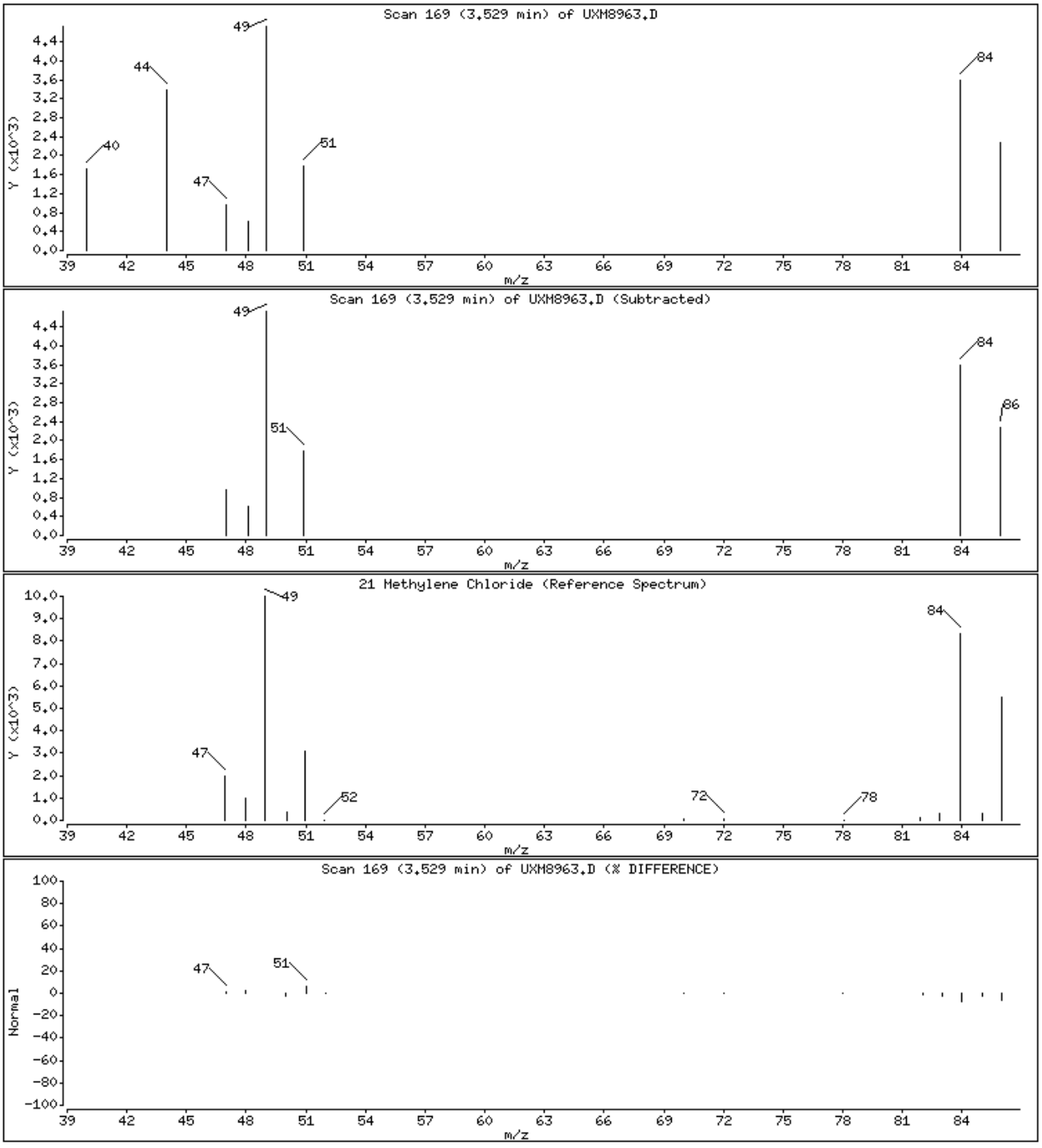
Client ID: TRIP BLANK 1 Instrument: a3ux16.i

Sample Info: LE6WG1AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

21 Methylene Chloride Concentration: 0.3571 ug/L



Draper Aden Associates Inc

Client Sample ID: 13MW3

GC/MS Volatiles

Lot-Sample #...: A9F180214-002 **Work Order #...:** LE6W81AA **Matrix.....:** WG
Date Sampled...: 06/17/09 11:00 **Date Received..:** 06/18/09
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.21

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Lab Smp Id: LE6W81AA Client Smp ID: 13MW3
Inj Date : 25-JUN-2009 23:34
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LE6W81AA,5ML/5ML
Misc Info : M90625A,8260LLUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1	Fluorobenzene	96	5.639	5.639	(1.000)	807968	50.0000	
* 2	Chlorobenzene-d5	117	8.343	8.343	(1.000)	593418	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	10.572	10.573	(1.000)	248490	50.0000	
$ 4	Dibromofluoromethane	113	5.070	5.058	(0.899)	171306	51.8934	10.379
$ 5	1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	205830	54.4322	10.886
$ 6	Toluene-d8	98	7.027	7.015	(0.842)	589731	46.3585	9.272
$ 7	Bromofluorobenzene	95	9.446	9.446	(1.132)	177101	42.0311	8.406
8	Dichlorodifluoromethane	85	Compound Not Detected.					
9	Chloromethane	50	Compound Not Detected.					
10	Vinyl Chloride	62	Compound Not Detected.					
11	Bromomethane	94	Compound Not Detected.					
12	Chloroethane	64	Compound Not Detected.					
13	Trichlorofluoromethane	101	Compound Not Detected.					
14	Dichlorofluoromethane	67	Compound Not Detected.					
15	Acrolein	56	Compound Not Detected.					
16	Acetone	43	Compound Not Detected.					
17	1,1-Dichloroethene	96	Compound Not Detected.					
18	Freon-113	151	Compound Not Detected.					
19	Iodomethane	142	Compound Not Detected.					
20	Carbon Disulfide	76	Compound Not Detected.					

21	Methylene Chloride	84	Compound Not Detected.
22	Acetonitrile	41	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	4.928	4.928	(0.874)	7115	1.11085	0.2222
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	50940	12.3894	2.478
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	5.960	5.960	(1.057)	8952	2.17411	0.4348
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					
	66 Bromoform	173	Compound Not Detected.					
	67 Isopropylbenzene	105	Compound Not Detected.					
	68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
	70 1,2,3-Trichloropropane	110	Compound Not Detected.					
	71 Bromobenzene	156	Compound Not Detected.					
	72 n-Propylbenzene	120	Compound Not Detected.					
	73 2-Chlorotoluene	126	Compound Not Detected.					
	74 1,3,5-Trimethylbenzene	105	Compound Not Detected.					

75	4-Chlorotoluene	126	Compound Not Detected.
76	tert-Butylbenzene	119	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	Compound Not Detected.					
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
89	Ethyl Ether	59	Compound Not Detected.					
91	3-Chloropropene	76	Compound Not Detected.					
92	Isopropyl Ether	87	Compound Not Detected.					
93	2-Chloro-1,3-butadiene	53	Compound Not Detected.					
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	Compound Not Detected.					
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	Compound Not Detected.					
99	n-Butanol	56	Compound Not Detected.					
100	Methyl Methacrylate	41	Compound Not Detected.					
101	2-Nitropropane	41	Compound Not Detected.					
103	Cyclohexanone	55	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	Compound Not Detected.					
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	Compound Not Detected.					
153	1,2,3-Trimethylbenzene	105	Compound Not Detected.					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

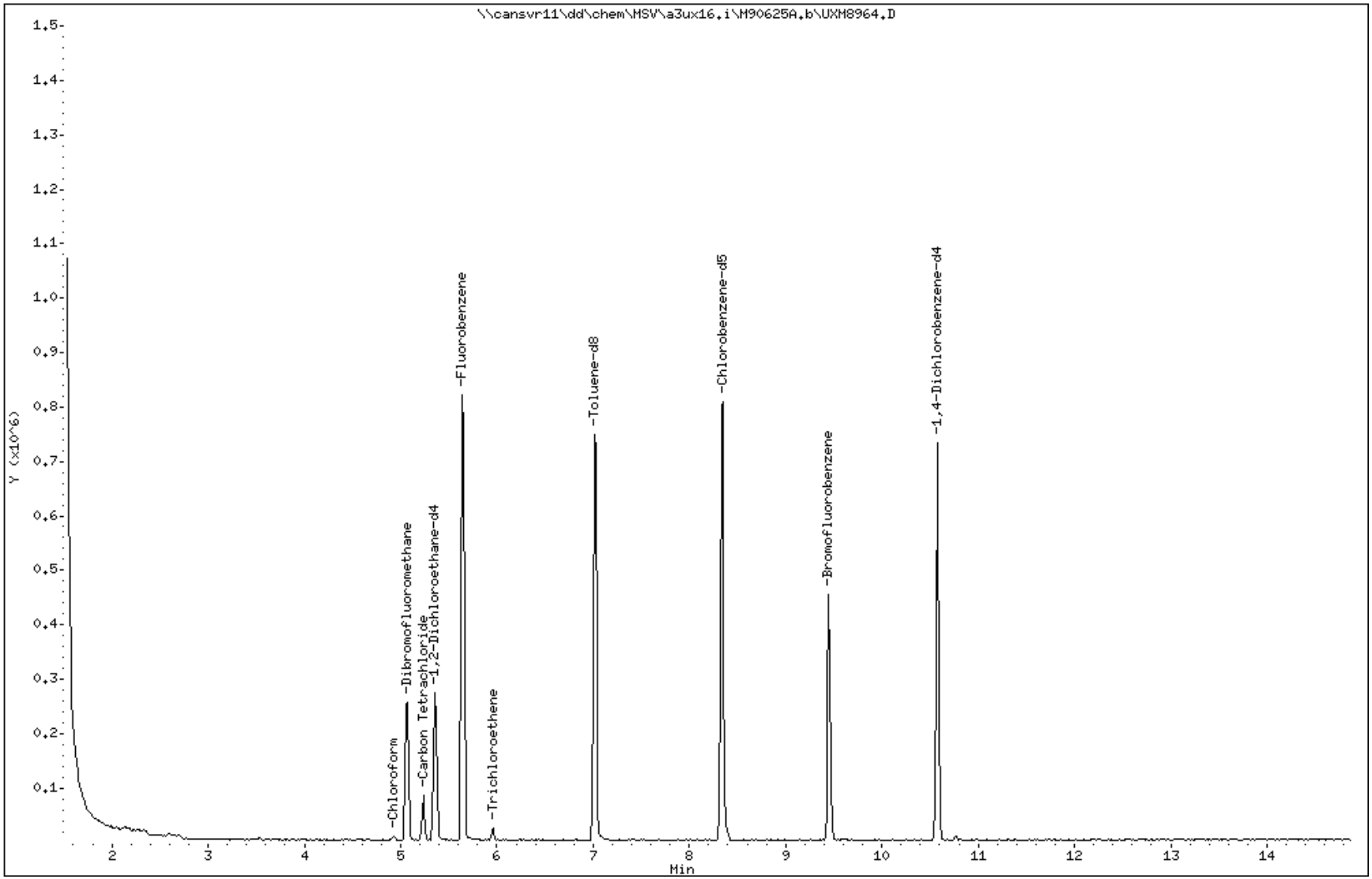
Instrument ID: a3ux16.i
Lab File ID: UXM8964.D
Lab Smp Id: LE6W81AA
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Client Smp ID: 13MW3
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	807968	-14.81
2 Chlorobenzene-d5	691311	345656	1382622	593418	-14.16
3 1,4-Dichlorobenze	360329	180165	720658	248490	-31.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Date : 25-JUN-2009 23:34
Client ID: 13MW3 Instrument: a3ux16.i
Sample Info: LE6W81AA,5ML/5ML
Purge Volume: 5.0 Operator: 1644
Column phase: DB624 Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D

Date : 25-JUN-2009 23:34

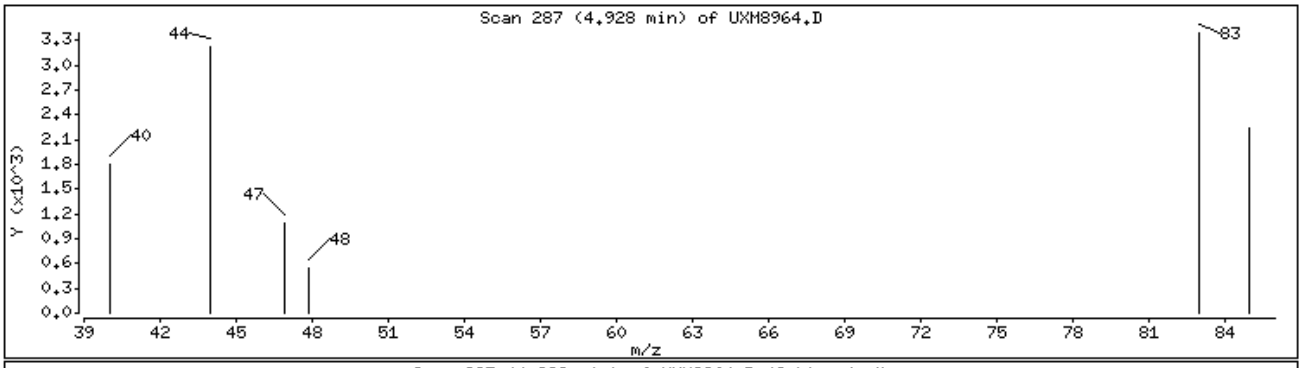
Client ID: 13MW3 Instrument: a3ux16.i

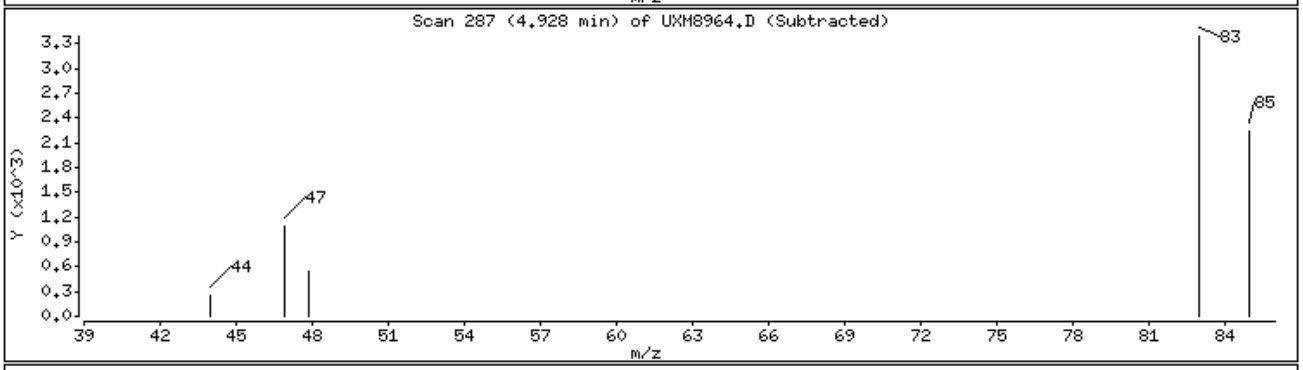
Sample Info: LE6W81AA,5ML/5ML

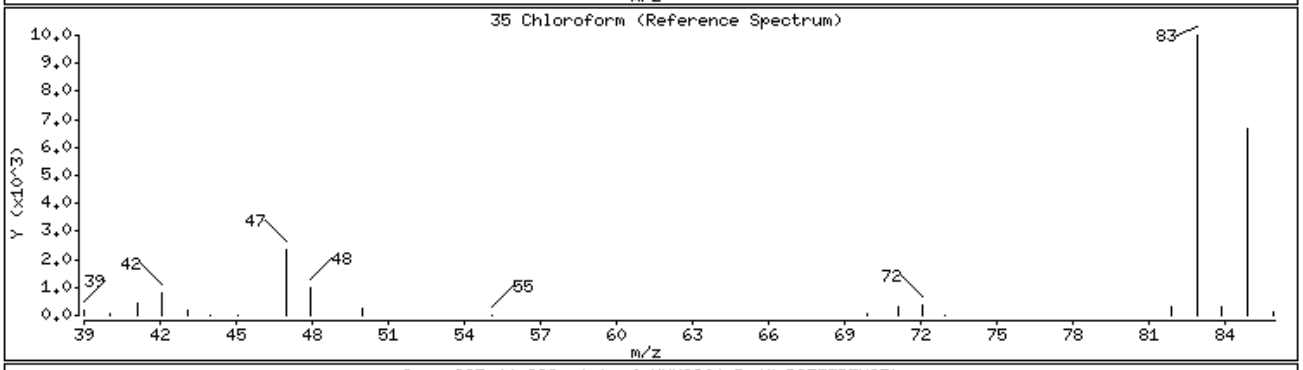
Purge Volume: 5.0 Operator: 1644

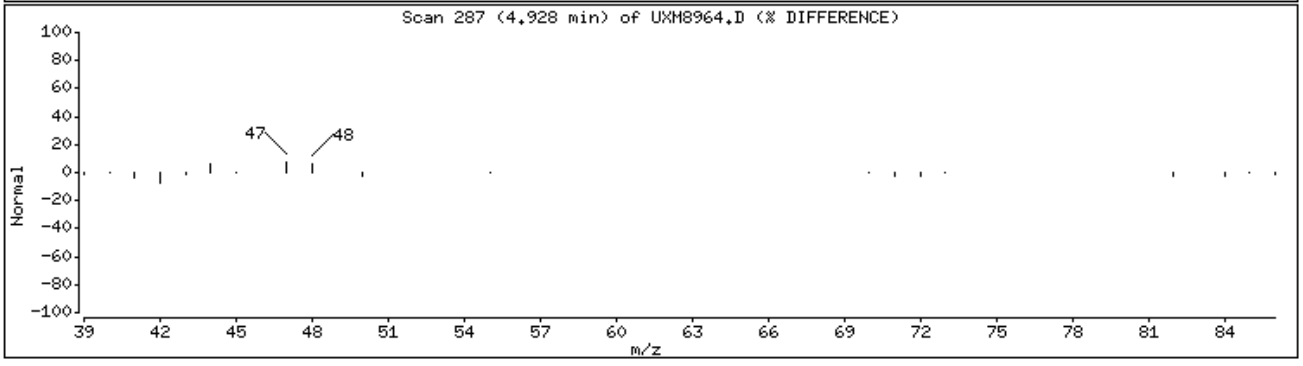
Column phase: DB624 Column diameter: 0.18

35 Chloroform Concentration: 0.2222 ug/L









Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D

Date : 25-JUN-2009 23:34

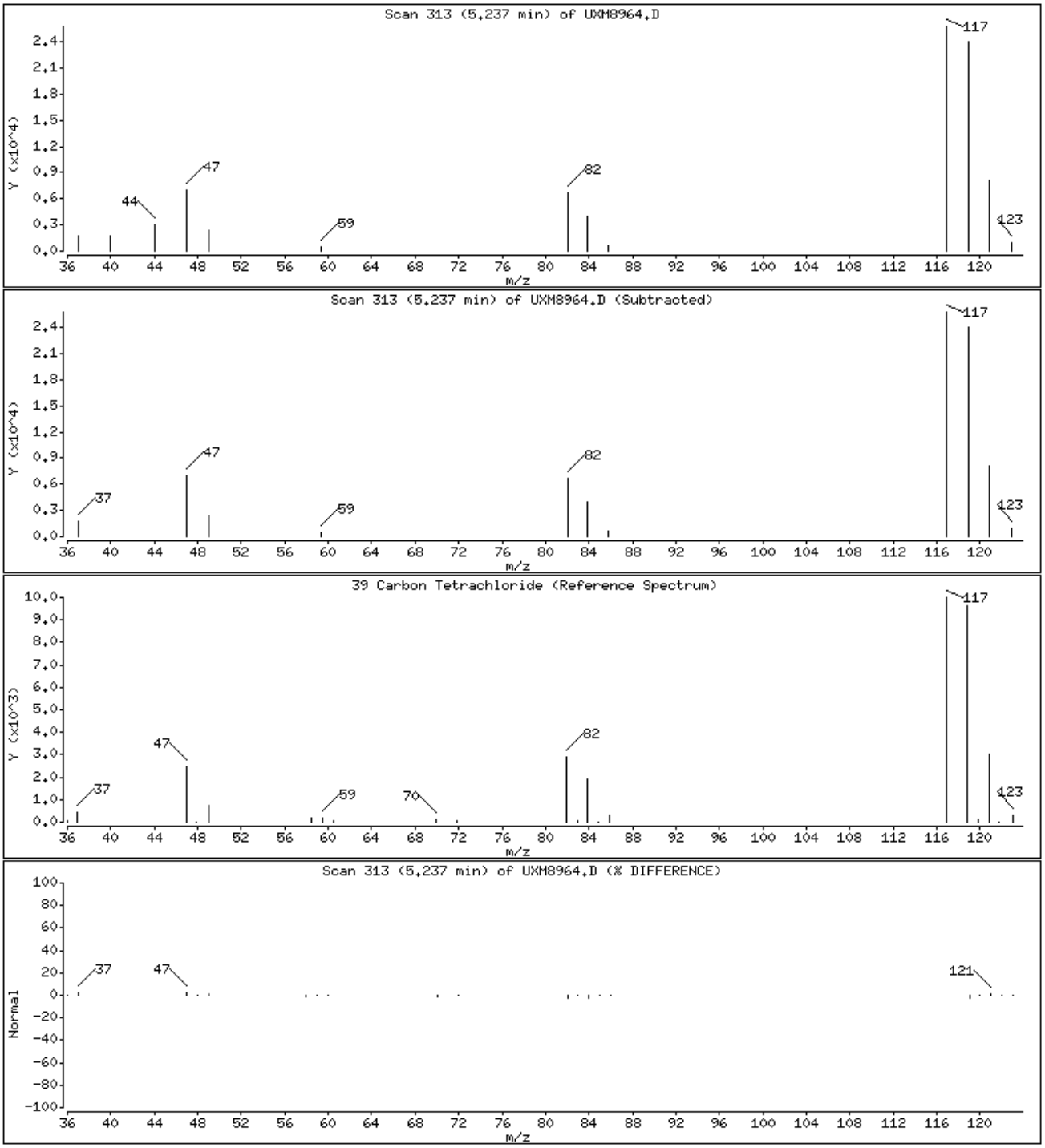
Client ID: 13MW3 Instrument: a3ux16.i

Sample Info: LE6W81AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

39 Carbon Tetrachloride Concentration: 2.478 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D

Date : 25-JUN-2009 23:34

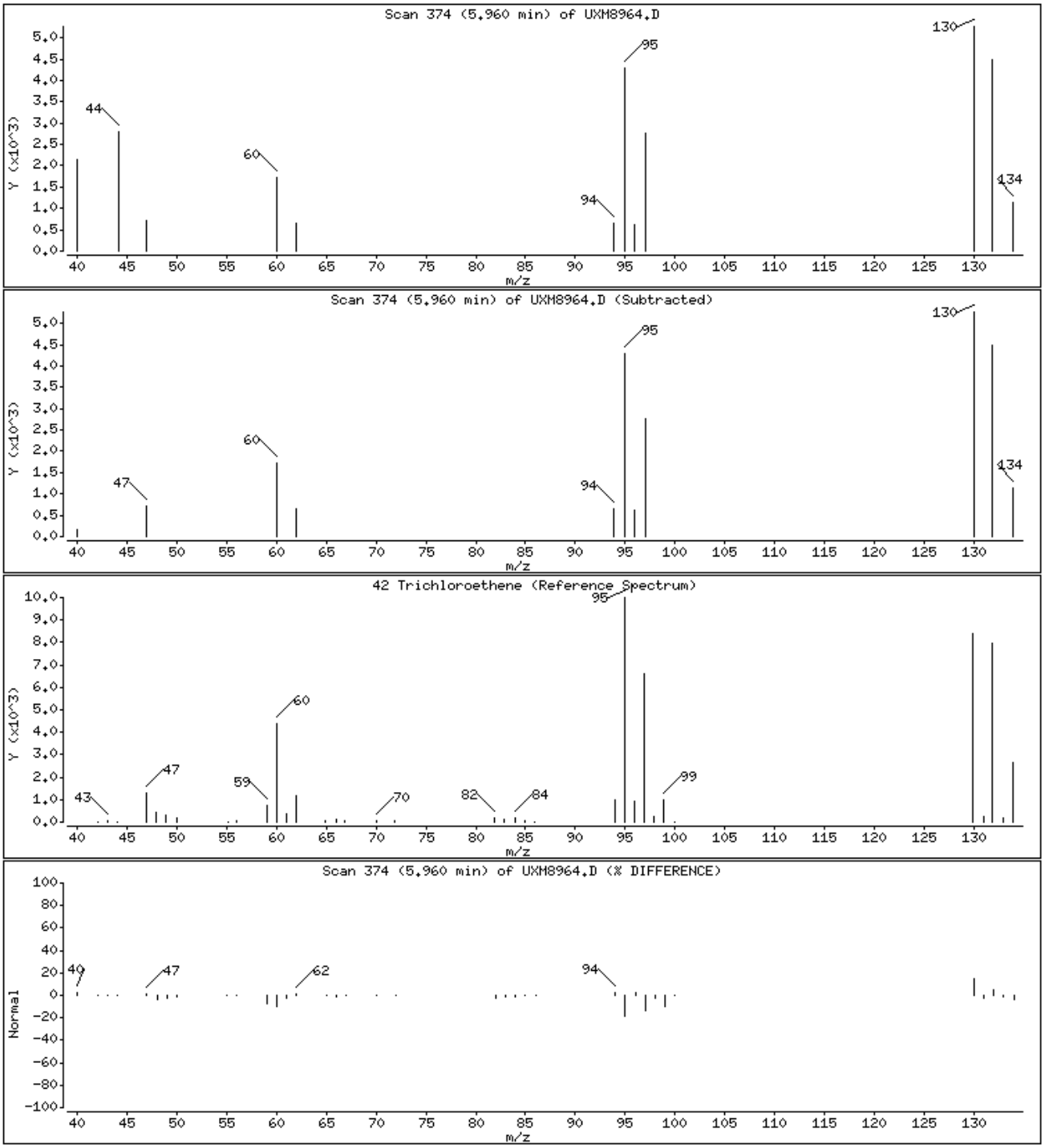
Client ID: 13MW3 Instrument: a3ux16.i

Sample Info: LE6W81AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

42 Trichloroethene Concentration: 0.4348 ug/L



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

STANDARD DATA

Report Date: 07-May-2009 15:29

Calibration History

Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Start Cal Date: 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
11-FEB-2009 20:10	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
07-MAY-2009 15:26	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Cal Level: 2 , Cal Amount: 10.00000		
11-FEB-2009 19:49	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
07-MAY-2009 15:05	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Cal Level: 3 , Cal Amount: 25.00000		
11-FEB-2009 19:28	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
07-MAY-2009 14:45	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Cal Level: 4 , Cal Amount: 50.00000		
11-FEB-2009 19:07	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
07-MAY-2009 14:24	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Cal Level: 5 , Cal Amount: 100.00000		
11-FEB-2009 18:46	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
07-MAY-2009 14:03	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Cal Level: 6 , Cal Amount: 200.00000		
11-FEB-2009 18:25	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D
07-MAY-2009 13:42	2-8260	

\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D		

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

07-MAY-2009 14:24	2-8260	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D		
07-MAY-2009 16:08	3-IX	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7633.D		

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

North Canton

Work Instruction WI-NC-041A_110308
Effective _____

Data review checklist: 8260 A/8260B/624 Initial Calibration

Method (check the applicable box): ☐ 8260A ☐8260B ☐ 624

Analysis Date: 5-7-09 **Run batch ID:** 9128-042

Curve ID: M90507 **(curve ID must include instrument designation and date reference)**

Acceptance criteria is found in the applicable laboratory SOP. If item is N/A, mark as such in Notes column

Item for review	Level I Yes	Level I No	Level II Yes	Level II No
Tune:				
BFB passes, all points within 12 hr clock (24 hr for 624)	Yes		Yes	
All calibration points ID'd on Calibration Summary Form	Yes		Yes	
Documentation: Raw data and run logs present for all points	Yes		Yes	
Run log and Raw data clearly indicate method by version	Yes		Yes	
RLs: Minimum of 5 points, lowest standards at or below RL	Yes		Yes	
Linearity: 8260 CCCs ≤ 30% RSD	Yes		Yes	
Linear Regression curve fit for all >15% RSD (35% 624) r2>0.980 (r>0.990)	Yes		Yes	
Plots for all Linear Regressions printed	Yes		Yes	
Response: SPCCs all pass minimum response factors	Yes		Yes	
ICV- Second source standard Analytes 60-140% recovery, problem compounds may be allowed outside these limits, but must be evaluated (acrolein, acrylonitrile, 2-ceve, propionitrile, trans 1,4-dichloro-2-butene) Internal Standards 50-200% of recent curve	Yes		Yes	
Manual integrations: necessary, correct & documented	NA		NA	
Other: Verify Avg RF on Cal Summary matches Avg RF on Con Cal form	NA		NA	

Reviewed by Analyst/ Level I: Jay R. Wilson Date: 5.8.09

Reviewed by Peer/Sup/ Level II: Thomas E Stalter Date: 5/13/09

By signing in "Reviewed by" above I agree that I have reviewed the data as indicated on this checklist.

*Peer/Sup only: In addition to the items above, all manual integrations in this package have been reviewed and found acceptable.

Reviewed by Peer/Sup: _____ Date: _____

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD
	8 Dichlorodifluoromethane	0.16390	0.15158	0.20307	0.21245	0.20325	0.19483	0.18818	13.042
	9 Chloromethane	0.31395	0.31457	0.27787	0.29530	0.28098	0.31411	0.29946	5.742
	10 Vinyl Chloride	0.33698	0.31953	0.31498	0.31963	0.30991	0.31895	0.31999	2.854
	11 Bromomethane	0.11237	0.12262	0.10129	0.11467	0.10848	0.11629	0.11262	6.443
	12 Chloroethane	0.11218	0.08780	0.07718	0.09060	0.08567	0.09463	0.09134	12.870
	13 Trichlorofluoromethane	0.24601	0.23167	0.27343	0.28318	0.27669	0.26875	0.26329	7.608
	14 Dichlorofluoromethane	0.24583	0.27972	0.26040	0.31727	0.27981	0.33740	0.28674	12.044
	15 Acrolein	0.03990	0.03951	0.03662	0.03781	0.03818	0.03743	0.03824	3.275
	16 Acetone	0.11435	0.08123	0.06624	0.06234	0.05857	0.05625	0.07316	30.104
	17 1,1-Dichloroethene	0.23024	0.21637	0.22159	0.22564	0.22672	0.23788	0.22641	3.251
	18 Freon-113	0.14543	0.12028	0.17743	0.17678	0.17431	0.16463	0.15981	14.273
	19 Iodomethane	0.36923	0.36662	0.35002	0.35292	0.34890	0.38113	0.36147	3.576
	20 Carbon Disulfide	0.68758	0.67127	0.68615	0.71058	0.72046	0.79004	0.71101	5.994
	21 Methylene Chloride	0.33102	0.29748	0.25737	0.25360	0.24580	0.26482	0.27501	11.915
	22 Acetonitrile	0.03425	0.03078	0.02744	0.02764	0.02681	0.02639	0.02889	10.562
	23 Acrylonitrile	0.09118	0.08561	0.08266	0.08545	0.08299	0.08317	0.08518	3.766
	24 Methyl tert-butyl ether	0.50886	0.51848	0.51153	0.54495	0.55443	0.57769	0.53599	5.143
	25 trans-1,2-Dichloroethene	0.26106	0.24984	0.24642	0.25359	0.25191	0.27055	0.25556	3.449
	26 Hexane	0.03173	0.03114	0.05876	0.05850	0.06148	0.05236	0.04899	28.430
	27 Vinyl acetate	0.30433	0.30355	0.30840	0.33434	0.34884	0.36591	0.32756	8.022
	28 1,1-Dichloroethane	0.45244	0.42760	0.40339	0.41194	0.40145	0.43491	0.42195	4.733
	29 tert-Butyl Alcohol	0.01276	0.01260	0.01241	0.01299	0.01330	0.01232	0.01273	2.893
	30 2-Butanone	0.10997	0.08711	0.08407	0.09188	0.08998	0.08505	0.09134	10.496
M	31 1,2-Dichloroethene (total)	0.26006	0.25042	0.24556	0.25402	0.25153	0.27393	0.25592	3.914
	32 cis-1,2-dichloroethene	0.25906	0.25100	0.24470	0.25444	0.25116	0.27730	0.25628	4.418
	33 2,2-Dichloropropane	0.21181	0.21497	0.21382	0.21898	0.22552	0.22371	0.21814	2.553
	34 Bromochloromethane	0.14042	0.12400	0.11833	0.11999	0.11847	0.12856	0.12496	6.825
	35 Chloroform	0.42142	0.40423	0.37945	0.39103	0.37543	0.40663	0.39637	4.439

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	36 Tetrahydrofuran	0.04747	0.04637	0.04758	0.05183	0.05110	0.05123	0.04926	4.827
	37 1,1,1-Trichloroethane	0.29001	0.28579	0.28882	0.29497	0.29659	0.30756	0.29396	2.643
	38 1,1-Dichloropropene	0.28478	0.28527	0.31791	0.32830	0.32475	0.34255	0.31393	7.578
	39 Carbon Tetrachloride	0.24834	0.23249	0.25460	0.25838	0.26293	0.26988	0.25444	5.109
	40 1,2-Dichloroethane	0.31012	0.29511	0.28097	0.28610	0.27393	0.29463	0.29014	4.380
	41 Benzene	1.11488	1.04435	1.01194	1.02782	1.00625	1.10295	1.05136	4.439
	42 Trichloroethene	0.26623	0.25141	0.24265	0.25444	0.24678	0.26734	0.25481	3.969
	43 1,2-Dichloropropane	0.25380	0.24274	0.23375	0.24313	0.23784	0.25283	0.24402	3.274
	44 1,4-Dioxane	0.00174	0.00191	0.00200	0.00217	0.00227	0.00214	0.00204	9.554
	45 Dibromomethane	0.13753	0.12472	0.12182	0.12813	0.12696	0.13363	0.12880	4.510
	46 Bromodichloromethane	0.26537	0.25355	0.24917	0.25833	0.26004	0.29032	0.26280	5.548
	47 2-Chloroethyl vinyl ether	0.09576	0.09404	0.10624	0.11666	0.13231	0.13526	0.11338	15.697
	48 cis-1,3-Dichloropropene	0.27893	0.28429	0.29674	0.32489	0.34177	0.37786	0.31741	12.045
	49 4-Methyl-2-pentanone	0.16448	0.15741	0.16169	0.17288	0.18185	0.17769	0.16933	5.684
	50 Toluene	1.29206	1.28082	1.30619	1.33118	1.33754	1.43539	1.33053	4.197
	51 trans-1,3-Dichloropropene	0.28288	0.28303	0.30822	0.33338	0.35800	0.38389	0.32490	12.648
	52 Ethyl Methacrylate	0.23536	0.25709	0.28968	0.33218	0.35241	0.36638	0.30552	17.401
	53 1,1,2-Trichloroethane	0.27262	0.25976	0.24245	0.24918	0.24729	0.25205	0.25389	4.262
	54 1,3-Dichloropropane	0.46914	0.45078	0.44697	0.44703	0.45323	0.45968	0.45447	1.890
	55 Tetrachloroethene	0.26230	0.22908	0.24816	0.25104	0.25272	0.26051	0.25064	4.750
	56 2-Hexanone	0.12901	0.12721	0.13631	0.14650	0.14999	0.14697	0.13933	7.076
	57 Dibromochloromethane	0.21563	0.20823	0.21551	0.22105	0.23353	0.25244	0.22440	7.181
	58 1,2-Dibromoethane	0.23506	0.22857	0.23353	0.23175	0.23617	0.23958	0.23411	1.618
	59 Chlorobenzene	0.90416	0.85807	0.82272	0.83883	0.83054	0.88117	0.85591	3.697
	60 1,1,1,2-Tetrachloroethane	0.28330	0.26449	0.25289	0.26253	0.26314	0.28937	0.26929	5.186
	61 Ethylbenzene	0.38479	0.38212	0.41681	0.43993	0.45437	0.48865	0.42778	9.702
	62 m + p-Xylene	0.45667	0.49111	0.53377	0.56140	0.57164	0.62146	0.53934	10.958
M	63 Xylenes (total)	0.44626	0.47755	0.51851	0.54785	0.55796	0.61000	0.52635	11.180
	64 Xylene-o	0.42543	0.45044	0.48799	0.52074	0.53060	0.58708	0.50038	11.690
	65 Styrene	0.63577	0.68764	0.78732	0.87356	0.91186	1.02450	0.82011	17.725
	66 Bromoform	0.12748	0.12135	0.12075	0.13435	0.14132	0.15493	0.13336	9.875
	67 Isopropylbenzene	0.93877	1.01896	1.15455	1.26182	1.30803	1.44104	1.18719	15.789
	68 1,1,2,2-Tetrachloroethane	0.66962	0.62768	0.57504	0.58750	0.57651	0.54768	0.59734	7.351
	69 1,4-Dichloro-2-butene	0.06090	0.06488	0.07869	0.09848	0.09265	0.11192	0.08459	23.584
	70 1,2,3-Trichloropropane	0.19396	0.16598	0.16482	0.16415	0.16055	0.15296	0.16707	8.377
	71 Bromobenzene	0.64254	0.60987	0.59186	0.60613	0.60418	0.63148	0.61434	3.076

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
72 n-Propylbenzene	0.48098	0.48964	0.57798	0.63270	0.66426	0.68412	0.58828	14.874	
73 2-Chlorotoluene	0.51936	0.54322	0.56223	0.58468	0.58649	0.61148	0.56791	5.853	
74 1,3,5-Trimethylbenzene	1.39366	1.47234	1.68837	1.84582	1.91511	2.02058	1.72265	14.525	
75 4-Chlorotoluene	0.55038	0.56266	0.57245	0.60610	0.60308	0.62865	0.58722	5.110	
76 tert-Butylbenzene	1.28191	1.22178	1.37128	1.52363	1.60832	1.69779	1.45079	13.021	
77 1,2,4-Trimethylbenzene	1.32490	1.54937	1.73847	1.90704	1.95320	2.09723	1.76170	16.191	
78 sec-Butylbenzene	1.55687	1.64349	1.89550	2.04355	2.15772	2.27788	1.92917	14.812	
79 4-Isopropyltoluene	1.16130	1.23944	1.52529	1.69381	1.78853	1.94871	1.55951	19.953	
80 1,3-Dichlorobenzene	1.17600	1.12665	1.06906	1.11167	1.11423	1.17824	1.12931	3.704	
81 1,4-Dichlorobenzene	1.24380	1.20975	1.11102	1.13911	1.14655	1.20202	1.17538	4.315	
82 n-Butylbenzene	0.98908	0.98097	1.12258	1.27122	1.39898	1.55418	1.21950	18.923	
83 1,2-Dichlorobenzene	1.16629	1.06766	1.05972	1.08774	1.08055	1.12895	1.09848	3.735	
84 1,2-Dibromo-3-chloropropane	0.08040	0.07315	0.07097	0.07781	0.08390	0.08250	0.07812	6.620	
85 1,2,4-Trichlorobenzene	0.47683	0.46326	0.43635	0.48503	0.51311	0.56454	0.48985	9.076	
86 Hexachlorobutadiene	0.24779	0.21799	0.22009	0.22399	0.22779	0.23095	0.22810	4.719	
87 Naphthalene	0.83096	0.85323	0.89683	1.13762	1.32309	1.36899	1.06845	22.623	
88 1,2,3-Trichlorobenzene	0.45541	0.44686	0.43846	0.48919	0.49263	0.50149	0.47067	5.711	
89 Ethyl Ether	0.20093	0.21483	0.21098	0.21483	0.19691	0.20397	0.20707	3.654	
90 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91 3-Chloropropene	0.09584	0.10910	0.11251	0.12423	0.12027	0.12935	0.11522	10.462	
92 Isopropyl Ether	0.18535	0.21145	0.21850	0.22774	0.21181	0.22569	0.21342	7.186	
93 2-Chloro-1,3-butadiene	0.27547	0.30036	0.29637	0.30806	0.30368	0.31680	0.30012	4.654	
94 Propionitrile	0.02998	0.03291	0.03105	0.03209	0.03133	0.03187	0.03154	3.169	
95 Ethyl Acetate	0.16199	0.16874	0.18046	0.18301	0.16979	0.17899	0.17383	4.726	
96 Methacrylonitrile	0.11347	0.11956	0.11876	0.13196	0.12096	0.12652	0.12187	5.317	
97 Isobutanol	0.00658	0.00724	0.00734	0.00768	0.00750	0.00847	0.00747	8.271	<-
98 Cyclohexane	0.31044	0.28766	0.46366	0.48258	0.50307	0.47770	0.42086	22.683	
99 n-Butanol	0.00845	0.00590	0.00627	0.00629	0.00654	0.00726	0.00679	13.754	<-
100 Methyl Methacrylate	0.13128	0.13726	0.14084	0.15269	0.14139	0.15853	0.14367	7.030	
101 2-Nitropropane	0.03706	0.03774	0.03936	0.04214	0.04432	0.04707	0.04128	9.538	
102 Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103 Cyclohexanone	0.04979	0.05350	0.06407	0.08214	0.08773	0.09488	0.07202	26.144	
104 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
134 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
135 Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
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Quant Method : ISTD
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Last Edit : 07-May-2009 15:41
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD	
136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M 137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
141 1,3,5-Trichlorobenzene	0.60668	0.60737	0.55680	0.59099	0.61745	0.66945	0.60812	6.055	
143 Methyl Acetate	0.17900	0.17351	0.16095	0.16230	0.15966	0.15754	0.16549	5.231	
144 Methylcyclohexane	0.24364	0.23161	0.41186	0.43663	0.45535	0.41745	0.36609	27.521	
145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
146 2-Methylnaphthalene	0.19951	0.21927	0.21644	0.30271	0.47593	0.47407	0.31466	41.086	
147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
149 Vinyl Acetate-86	0.03449	0.03052	0.03699	0.04004	0.04220	0.04445	0.03812	13.515	
150 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
151 t-Butyl ethyl ether	0.54040	0.62529	0.60606	0.65230	0.61732	0.64561	0.61450	6.543	
152 t-Amyl methyl ether	0.46482	0.52174	0.53632	0.59773	0.57207	0.60822	0.55015	9.753	
153 1,2,3-Trimethylbenzene	1.62037	1.82441	1.95483	2.22378	2.06577	2.23808	1.98787	12.056	
$ 4 Dibromofluoromethane	0.19617	0.21820	0.19756	0.20189	0.19823	0.21365	0.20428	4.565	
$ 5 1,2-Dichloroethane-d4	0.23960	0.24920	0.22706	0.22549	0.22486	0.23783	0.23401	4.193	
$ 6 Toluene-d8	0.98307	1.07179	1.05051	1.07269	1.09447	1.15858	1.07185	5.339	
$ 7 Bromofluorobenzene	0.29579	0.33664	0.34360	0.36506	0.37492	0.41415	0.35503	11.245	

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TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Dichlorodifluoromethane	0.16390	0.15158	0.20307	0.21245	0.20325	0.19483	AVRG		0.18818		13.04156
9 Chloromethane	0.31395	0.31457	0.27787	0.29530	0.28098	0.31411	AVRG		0.29946		5.74214
10 Vinyl Chloride	0.33698	0.31953	0.31498	0.31963	0.30991	0.31895	AVRG		0.31999		2.85385
11 Bromomethane	0.11237	0.12262	0.10129	0.11467	0.10848	0.11629	AVRG		0.11262		6.44338
12 Chloroethane	0.11218	0.08780	0.07718	0.09060	0.08567	0.09463	AVRG		0.09134		12.87030
13 Trichlorofluoromethane	0.24601	0.23167	0.27343	0.28318	0.27669	0.26875	AVRG		0.26329		7.60757
14 Dichlorofluoromethane	0.24583	0.27972	0.26040	0.31727	0.27981	0.33740	AVRG		0.28674		12.04449
15 Acrolein	0.03990	0.03951	0.03662	0.03781	0.03818	0.03743	AVRG		0.03824		3.27465
16 Acetone	35048	50026	108958	203856	389070	724366	WLINR	-0.21017	0.05511		0.99876
17 1,1-Dichloroethene	0.23024	0.21637	0.22159	0.22564	0.22672	0.23788	AVRG		0.22641		3.25110
18 Freon-113	0.14543	0.12028	0.17743	0.17678	0.17431	0.16463	AVRG		0.15981		14.27296
19 Iodomethane	0.36923	0.36662	0.35002	0.35292	0.34890	0.38113	AVRG		0.36147		3.57587
20 Carbon Disulfide	0.68758	0.67127	0.68615	0.71058	0.72046	0.79004	AVRG		0.71101		5.99391
21 Methylene Chloride	0.33102	0.29748	0.25737	0.25360	0.24580	0.26482	AVRG		0.27501		11.91483

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Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	22 Acetonitrile	0.03425	0.03078	0.02744	0.02764	0.02681	0.02639	AVRG		0.02889		10.56195
	23 Acrylonitrile	0.09118	0.08561	0.08266	0.08545	0.08299	0.08317	AVRG		0.08518		3.76641
	24 Methyl tert-butyl ether	0.50886	0.51848	0.51153	0.54495	0.55443	0.57769	AVRG		0.53599		5.14331
	25 trans-1,2-Dichloroethene	0.26106	0.24984	0.24642	0.25359	0.25191	0.27055	AVRG		0.25556		3.44892
	26 Hexane	4862	9587	48327	95647	204202	337122	LINR	-0.01985	0.05426		0.99060
	27 Vinyl acetate	0.30433	0.30355	0.30840	0.33434	0.34884	0.36591	AVRG		0.32756		8.02236
	28 1,1-Dichloroethane	0.45244	0.42760	0.40339	0.41194	0.40145	0.43491	AVRG		0.42195		4.73313
	29 tert-Butyl Alcohol	0.01276	0.01260	0.01241	0.01299	0.01330	0.01232	AVRG		0.01273		2.89334
	30 2-Butanone	0.10997	0.08711	0.08407	0.09188	0.08998	0.08505	AVRG		0.09134		10.49590
M	31 1,2-Dichloroethene (total)	0.26006	0.25042	0.24556	0.25402	0.25153	0.27393	AVRG		0.25592		3.91413
	32 cis-1,2-dichloroethene	0.25906	0.25100	0.24470	0.25444	0.25116	0.27730	AVRG		0.25628		4.41818
	33 2,2-Dichloropropane	0.21181	0.21497	0.21382	0.21898	0.22552	0.22371	AVRG		0.21814		2.55304
	34 Bromochloromethane	0.14042	0.12400	0.11833	0.11999	0.11847	0.12856	AVRG		0.12496		6.82451
	35 Chloroform	0.42142	0.40423	0.37945	0.39103	0.37543	0.40663	AVRG		0.39637		4.43899
	36 Tetrahydrofuran	0.04747	0.04637	0.04758	0.05183	0.05110	0.05123	AVRG		0.04926		4.82665
	37 1,1,1-Trichloroethane	0.29001	0.28579	0.28882	0.29497	0.29659	0.30756	AVRG		0.29396		2.64276
	38 1,1-Dichloropropene	0.28478	0.28527	0.31791	0.32830	0.32475	0.34255	AVRG		0.31393		7.57834
	39 Carbon Tetrachloride	0.24834	0.23249	0.25460	0.25838	0.26293	0.26988	AVRG		0.25444		5.10947
	40 1,2-Dichloroethane	0.31012	0.29511	0.28097	0.28610	0.27393	0.29463	AVRG		0.29014		4.37955
	41 Benzene	1.11488	1.04435	1.01194	1.02782	1.00625	1.10295	AVRG		1.05136		4.43852
	42 Trichloroethene	0.26623	0.25141	0.24265	0.25444	0.24678	0.26734	AVRG		0.25481		3.96868
	43 1,2-Dichloropropane	0.25380	0.24274	0.23375	0.24313	0.23784	0.25283	AVRG		0.24402		3.27433

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Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williams1

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	44 1,4-Dioxane	0.00174	0.00191	0.00200	0.00217	0.00227	0.00214	AVRG		0.00204		9.55370
	45 Dibromomethane	0.13753	0.12472	0.12182	0.12813	0.12696	0.13363	AVRG		0.12880		4.51036
	46 Bromodichloromethane	0.26537	0.25355	0.24917	0.25833	0.26004	0.29032	AVRG		0.26280		5.54823
	47 2-Chloroethyl vinyl ether	29349	57912	174749	381478	878964	1741893	WLINR	0.09906	0.13414		0.99671
	48 cis-1,3-Dichloropropene	0.27893	0.28429	0.29674	0.32489	0.34177	0.37786	AVRG		0.31741		12.04476
	49 4-Methyl-2-pentanone	0.16448	0.15741	0.16169	0.17288	0.18185	0.17769	AVRG		0.16933		5.68423
	50 Toluene	1.29206	1.28082	1.30619	1.33118	1.33754	1.43539	AVRG		1.33053		4.19664
	51 trans-1,3-Dichloropropene	0.28288	0.28303	0.30822	0.33338	0.35800	0.38389	AVRG		0.32490		12.64839
	52 Ethyl Methacrylate	28271	61471	187673	433745	942332	1926198	WLINR	0.03746	0.34744		0.99347
	53 1,1,2-Trichloroethane	0.27262	0.25976	0.24245	0.24918	0.24729	0.25205	AVRG		0.25389		4.26169
	54 1,3-Dichloropropane	0.46914	0.45078	0.44697	0.44703	0.45323	0.45968	AVRG		0.45447		1.89029
	55 Tetrachloroethene	0.26230	0.22908	0.24816	0.25104	0.25272	0.26051	AVRG		0.25064		4.75039
	56 2-Hexanone	0.12901	0.12721	0.13631	0.14650	0.14999	0.14697	AVRG		0.13933		7.07577
	57 Dibromochloromethane	0.21563	0.20823	0.21551	0.22105	0.23353	0.25244	AVRG		0.22440		7.18118
	58 1,2-Dibromoethane	0.23506	0.22857	0.23353	0.23175	0.23617	0.23958	AVRG		0.23411		1.61804
	59 Chlorobenzene	0.90416	0.85807	0.82272	0.83883	0.83054	0.88117	AVRG		0.85591		3.69742
	60 1,1,1,2-Tetrachloroethane	0.28330	0.26449	0.25289	0.26253	0.26314	0.28937	AVRG		0.26929		5.18637
	61 Ethylbenzene	0.38479	0.38212	0.41681	0.43993	0.45437	0.48865	AVRG		0.42778		9.70245
	62 m + p-Xylene	0.45667	0.49111	0.53377	0.56140	0.57164	0.62146	AVRG		0.53934		10.95793
M	63 Xylenes (total)	0.44626	0.47755	0.51851	0.54785	0.55796	0.61000	AVRG		0.52635		11.18032
	64 Xylene-o	0.42543	0.45044	0.48799	0.52074	0.53060	0.58708	AVRG		0.50038		11.69038
	65 Styrene	76367	164417	510083	1140662	2438271	5386241	WLINR	0.03737	0.93343		0.99161

Report Date : 07-May-2009 15:08

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
66 Bromoform	0.12748	0.12135	0.12075	0.13435	0.14132	0.15493	AVRG		0.13336		9.87512
67 Isopropylbenzene	112763	243638	748001	1647634	3497595	7576125	WLINR	0.03419	1.33396		0.99425
68 1,1,2,2-Tetrachloroethane	0.66962	0.62768	0.57504	0.58750	0.57651	0.54768	AVRG		0.59734		7.35060
69 1,4-Dichloro-2-butene	3551	8119	27369	70916	136015	341432	WLINR	0.06855	0.10765		0.99135
70 1,2,3-Trichloropropane	0.19396	0.16598	0.16482	0.16415	0.16055	0.15296	AVRG		0.16707		8.37720
71 Bromobenzene	0.64254	0.60987	0.59186	0.60613	0.60418	0.63148	AVRG		0.61434		3.07562
72 n-Propylbenzene	0.48098	0.48964	0.57798	0.63270	0.66426	0.68412	AVRG		0.58828		14.87394
73 2-Chlorotoluene	0.51936	0.54322	0.56223	0.58468	0.58649	0.61148	AVRG		0.56791		5.85262
74 1,3,5-Trimethylbenzene	1.39366	1.47234	1.68837	1.84582	1.91511	2.02058	AVRG		1.72265		14.52504
75 4-Chlorotoluene	0.55038	0.56266	0.57245	0.60610	0.60308	0.62865	AVRG		0.58722		5.11026
76 tert-Butylbenzene	1.28191	1.22178	1.37128	1.52363	1.60832	1.69779	AVRG		1.45079		13.02055
77 1,2,4-Trimethylbenzene	77256	193897	604663	1373243	2867378	6397801	WLINR	0.03647	1.99177		0.99718
78 sec-Butylbenzene	1.55687	1.64349	1.89550	2.04355	2.15772	2.27788	AVRG		1.92917		14.81209
79 4-Isopropyltoluene	67716	155110	530515	1219697	2625630	5944732	WLINR	0.04219	1.80618		0.99141
80 1,3-Dichlorobenzene	1.17600	1.12665	1.06906	1.11167	1.11423	1.17824	AVRG		1.12931		3.70416
81 1,4-Dichlorobenzene	1.24380	1.20975	1.11102	1.13911	1.14655	1.20202	AVRG		1.17538		4.31518
82 n-Butylbenzene	57674	122764	390449	915392	2053758	4741165	WLINR	0.06094	1.50635		0.99362
83 1,2-Dichlorobenzene	1.16629	1.06766	1.05972	1.08774	1.08055	1.12895	AVRG		1.09848		3.73483
84 1,2-Dibromo-3-chloropropane	0.08040	0.07315	0.07097	0.07781	0.08390	0.08250	AVRG		0.07812		6.62003
85 1,2,4-Trichlorobenzene	0.47683	0.46326	0.43635	0.48503	0.51311	0.56454	AVRG		0.48985		9.07553
86 Hexachlorobutadiene	0.24779	0.21799	0.22009	0.22399	0.22779	0.23095	AVRG		0.22810		4.71940
87 Naphthalene	48454	106778	311930	819190	1942341	4176243	WLINR	0.06763	1.35476		0.99303

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TestAmerica North Canton

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Last Edit : 07-May-2009 15:07 williamsl

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
88	1,2,3-Trichlorobenzene	0.45541	0.44686	0.43846	0.48919	0.49263	0.50149	AVRG		0.47067		5.71088	
89	Ethyl Ether	0.20093	0.21483	0.21098	0.21483	0.19691	0.20397	AVRG		0.20707		3.65393	
90	Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
91	3-Chloropropene	0.09584	0.10910	0.11251	0.12423	0.12027	0.12935	AVRG		0.11522		10.46166	
92	Isopropyl Ether	0.18535	0.21145	0.21850	0.22774	0.21181	0.22569	AVRG		0.21342		7.18596	
93	2-Chloro-1,3-butadiene	0.27547	0.30036	0.29637	0.30806	0.30368	0.31680	AVRG		0.30012		4.65421	
94	Propionitrile	0.02998	0.03291	0.03105	0.03209	0.03133	0.03187	AVRG		0.03154		3.16872	
95	Ethyl Acetate	0.16199	0.16874	0.18046	0.18301	0.16979	0.17899	AVRG		0.17383		4.72620	
96	Methacrylonitrile	0.11347	0.11956	0.11876	0.13196	0.12096	0.12652	AVRG		0.12187		5.31681	
97	Isobutanol	0.00658	0.00724	0.00734	0.00768	0.00750	0.00847	AVRG		0.00747		8.27085	<-
98	Cyclohexane	47575	88575	381316	788999	1670998	3075846	WLINR	0.04870	0.49640		0.99763	
99	n-Butanol	0.00845	0.00590	0.00627	0.00629	0.00654	0.00726	AVRG		0.00679		13.75410	<-
100	Methyl Methacrylate	0.13128	0.13726	0.14084	0.15269	0.14139	0.15853	AVRG		0.14367		7.03015	
101	2-Nitropropane	0.03706	0.03774	0.03936	0.04214	0.04432	0.04707	AVRG		0.04128		9.53811	
102	Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
103	Cyclohexanone	28907	65315	208684	534579	1187822	2553066	WLINR	0.73333	0.09343		0.99492	
104	Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
105	Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
134	Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
135	Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
136	Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
M 137	Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
141 1,3,5-Trichlorobenzene	0.60668	0.60737	0.55680	0.59099	0.61745	0.66945	AVRG		0.60812		6.05457	
143 Methyl Acetate	0.17900	0.17351	0.16095	0.16230	0.15966	0.15754	AVRG		0.16549		5.23071	
144 Methylcyclohexane	37338	71315	338714	713867	1512492	2687921	WLINR	0.05528	0.44254		0.99567	
145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
146 2-Methylnaphthalene	23168	53537	141008	393989	1288734	2551230	QUAD	0.36884	2.05394	-0.01427	0.99265	
147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
149 Vinyl Acetate-86	0.03449	0.03052	0.03699	0.04004	0.04220	0.04445	AVRG		0.03812		13.51471	
150 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
151 t-Butyl ethyl ether	0.54040	0.62529	0.60606	0.65230	0.61732	0.64561	AVRG		0.61450		6.54305	
152 t-Amyl methyl ether	0.46482	0.52174	0.53632	0.59773	0.57207	0.60822	AVRG		0.55015		9.75324	
153 1,2,3-Trimethylbenzene	1.62037	1.82441	1.95483	2.22378	2.06577	2.23808	AVRG		1.98787		12.05624	
$ 4 Dibromofluoromethane	0.19617	0.21820	0.19756	0.20189	0.19823	0.21365	AVRG		0.20428		4.56468	
$ 5 1,2-Dichloroethane-d4	0.23960	0.24920	0.22706	0.22549	0.22486	0.23783	AVRG		0.23401		4.19295	
$ 6 Toluene-d8	0.98307	1.07179	1.05051	1.07269	1.09447	1.15858	AVRG		1.07185		5.33874	
$ 7 Bromofluorobenzene	0.29579	0.33664	0.34360	0.36506	0.37492	0.41415	AVRG		0.35503		11.24496	

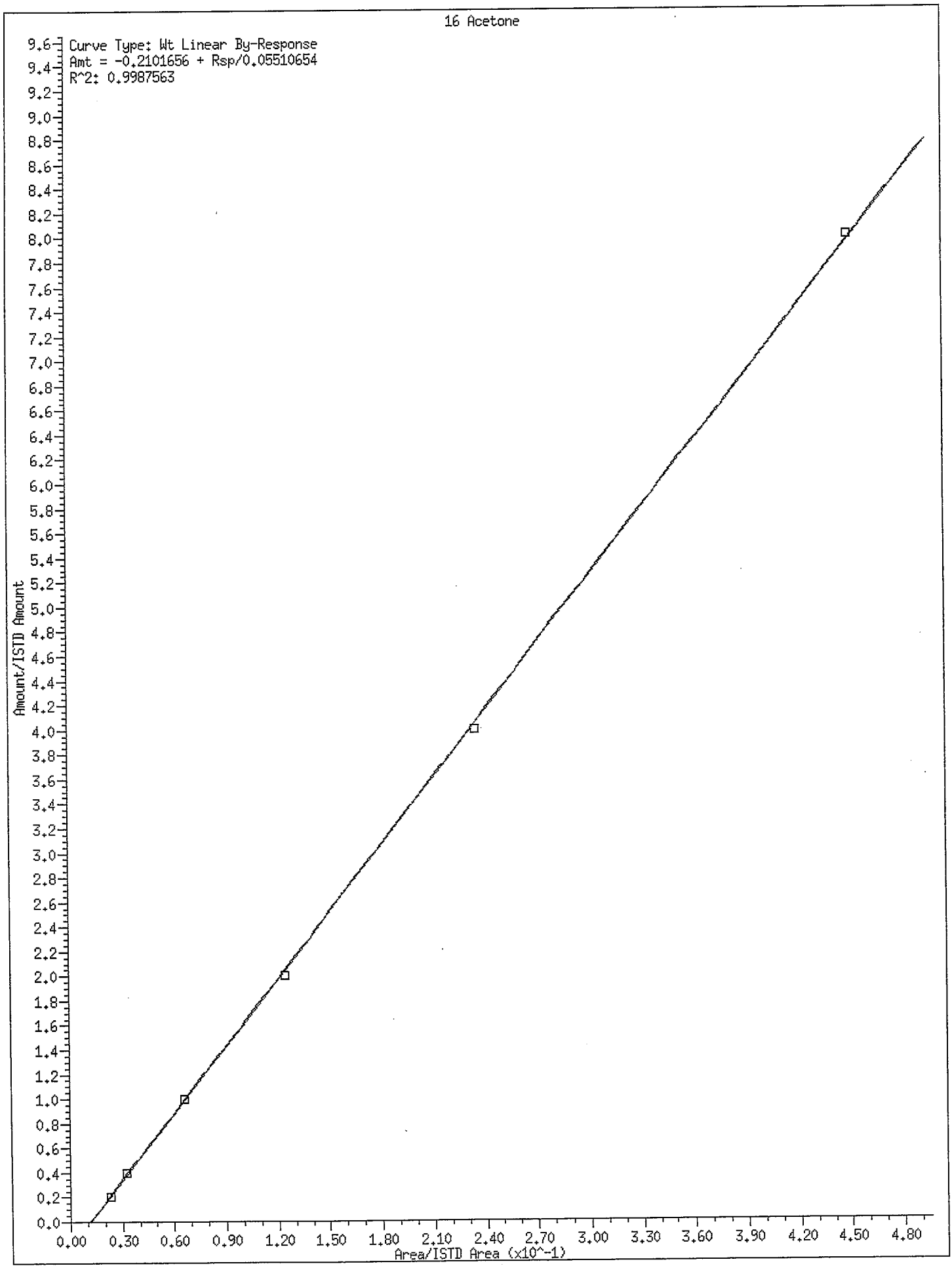
Report Date : 07-May-2009 15:08

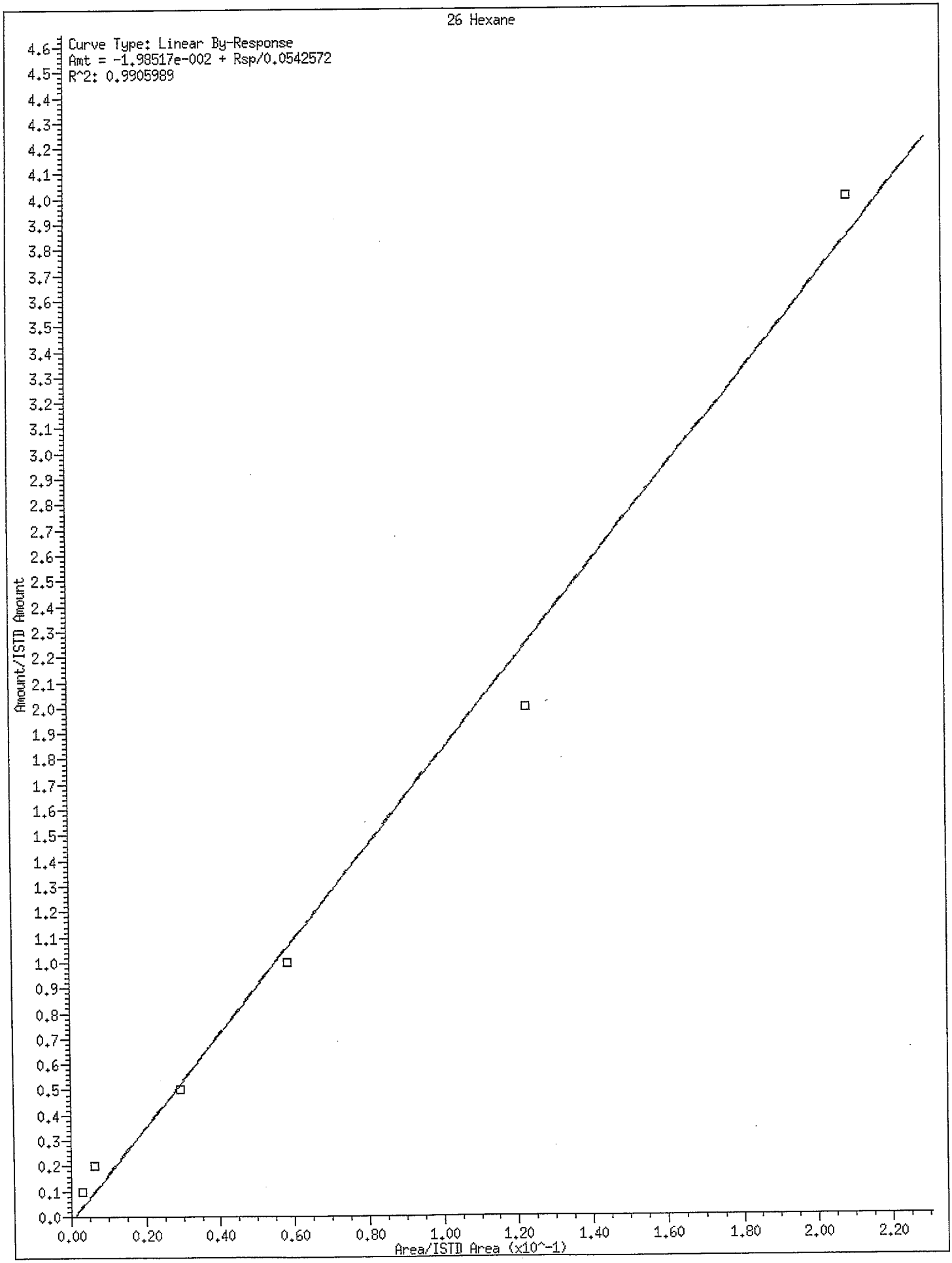
TestAmerica North Canton

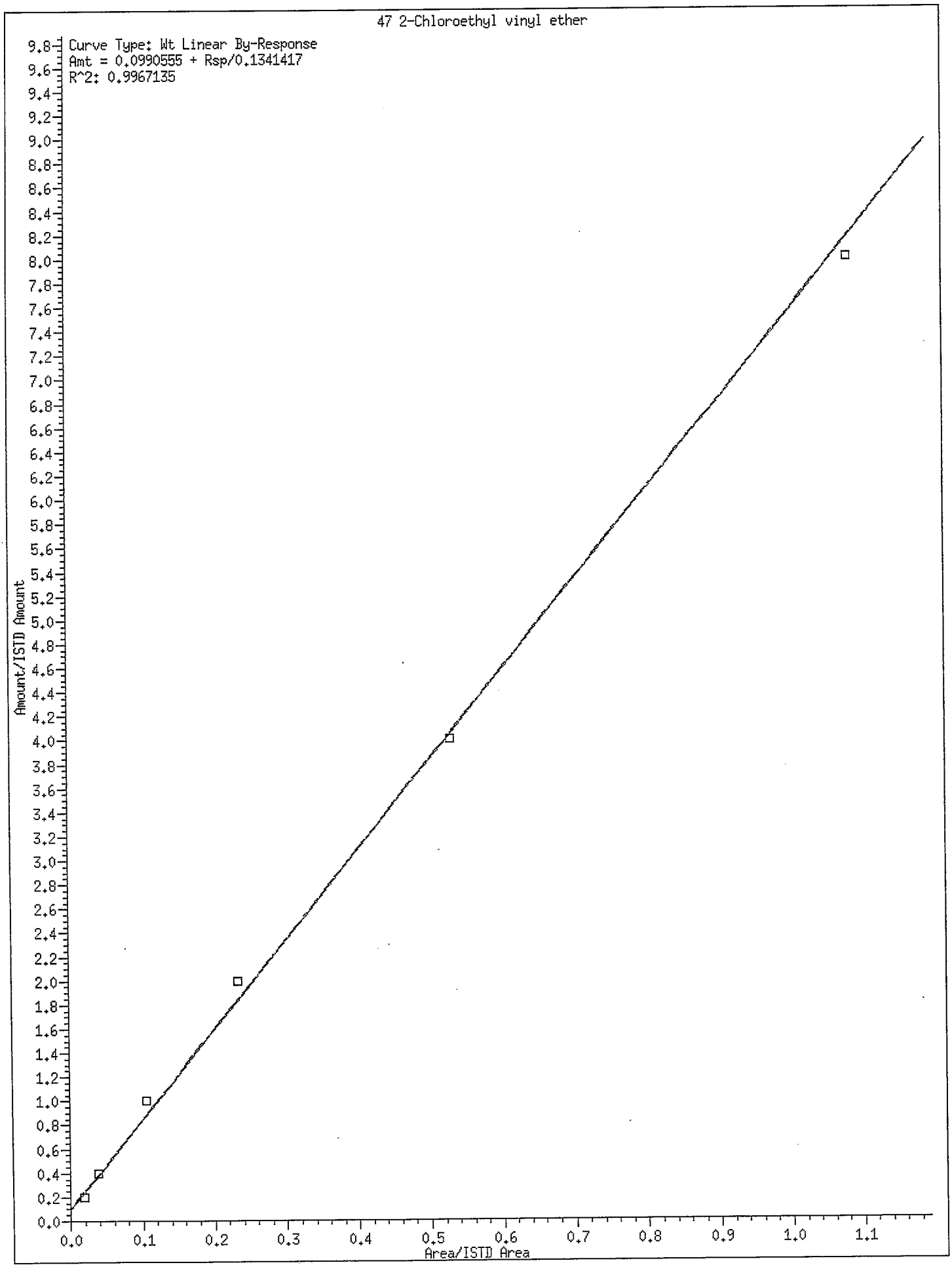
INITIAL CALIBRATION DATA

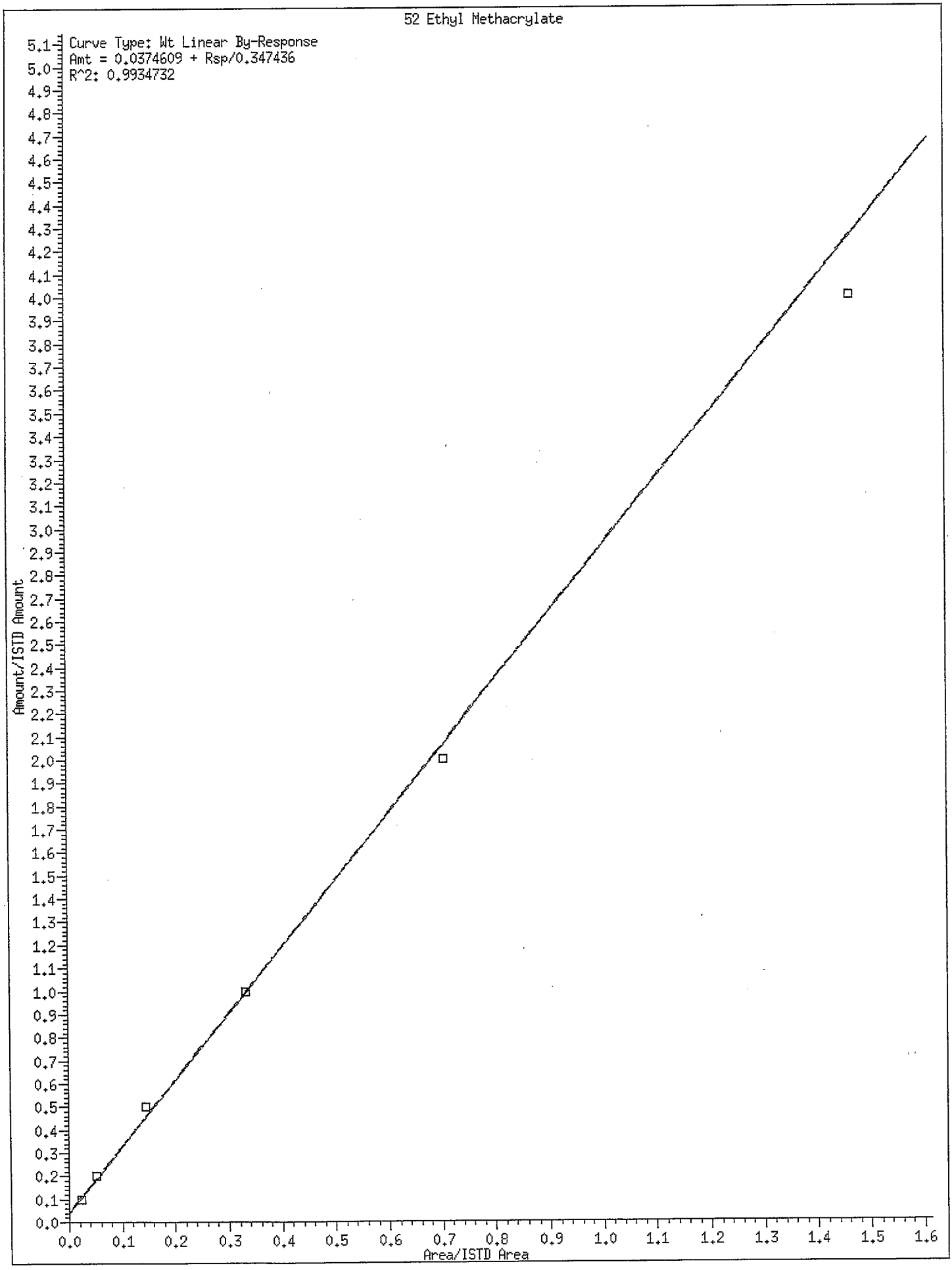
Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

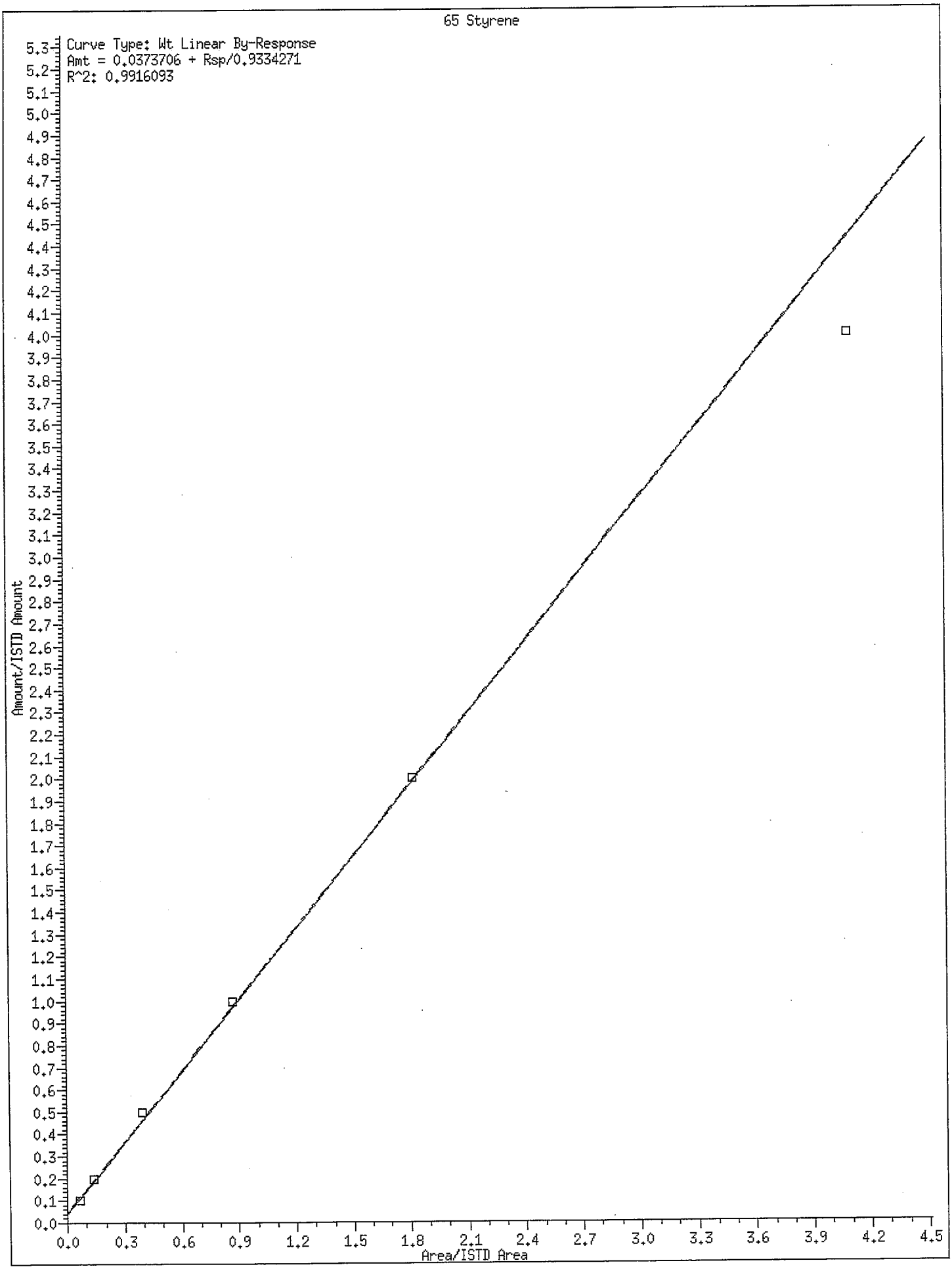
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

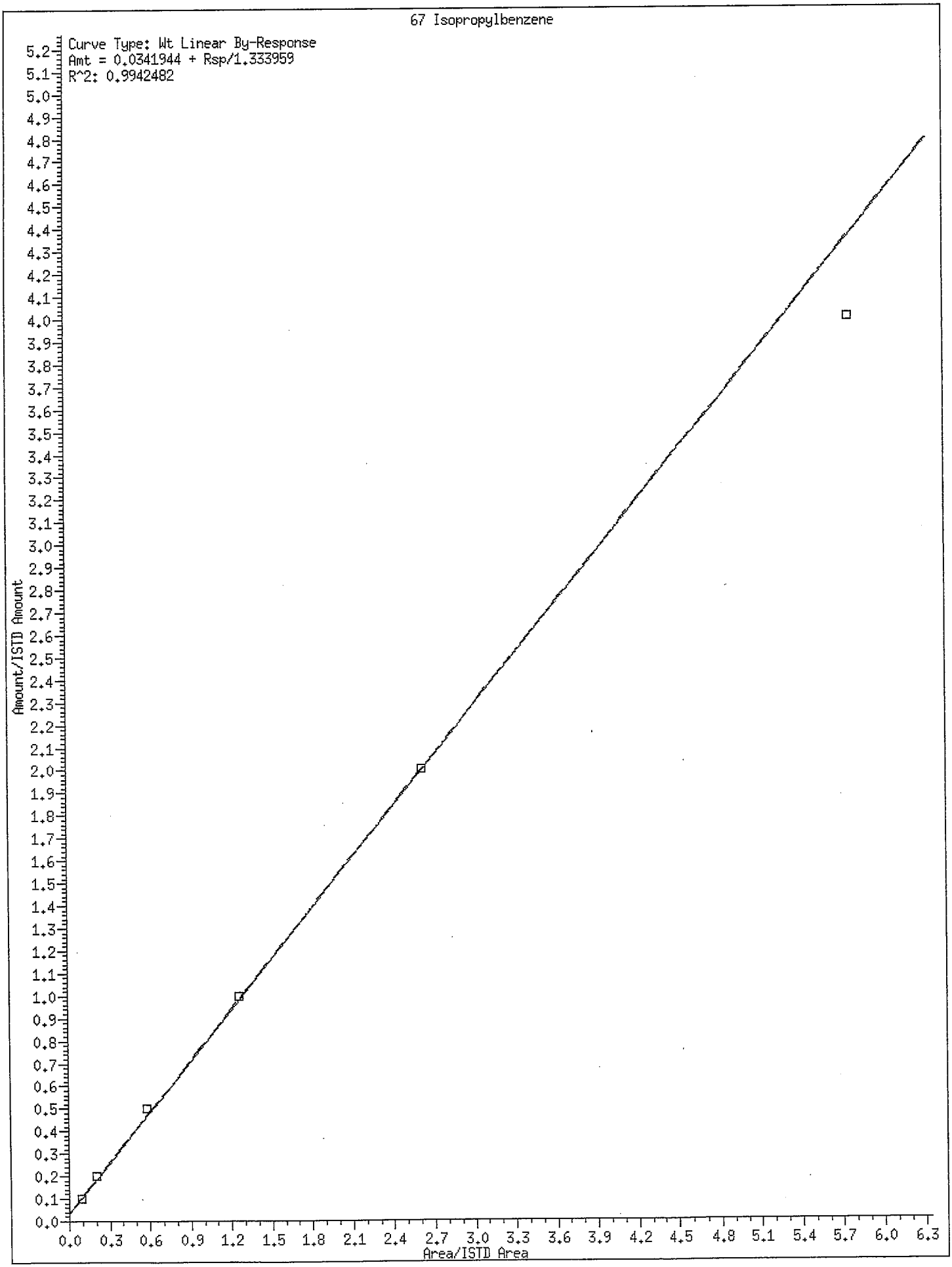

16 Acetone
Curve Type: Wt Linear By-Response
Amt = -0.2101656 + Rsp/0.05510654
R^2: 0.9987563
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
6.0
6.2
6.4
6.6
6.8
7.0
7.2
7.4
7.6
7.8
8.0
8.2
8.4
8.6
8.8
9.0
9.2
9.4
9.6
0.00
0.30
0.60
0.90
1.20
1.50
1.80
2.10
2.40
2.70
3.00
3.30
3.60
3.90
4.20
4.50
4.80

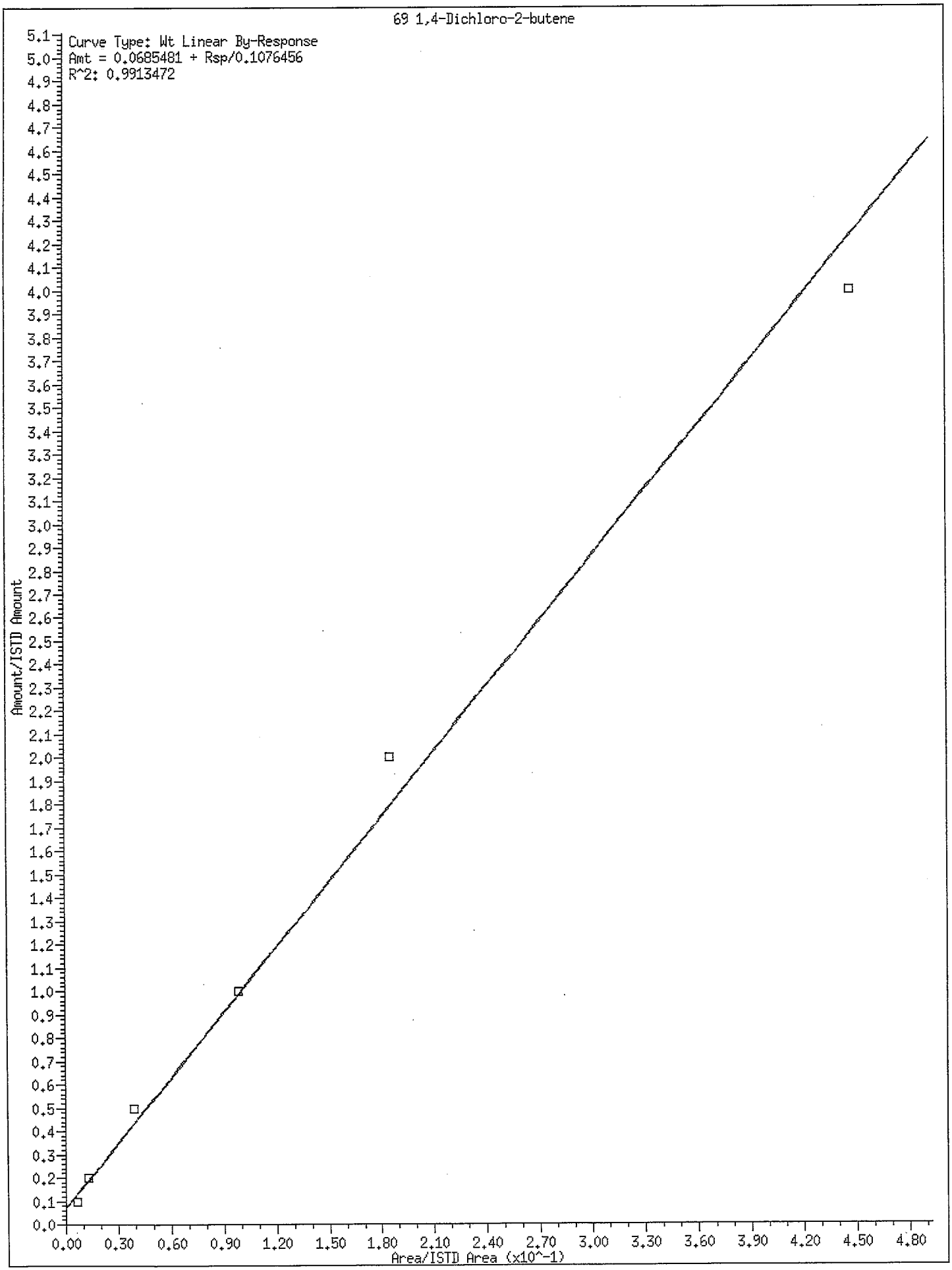

26 Hexane
Curve Type: Linear By-Response
Amt = -1.98517e-002 + Rsp/0.0542572
R^2: 0.9905989
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
4.4
4.5
4.6
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80
2.00
2.20

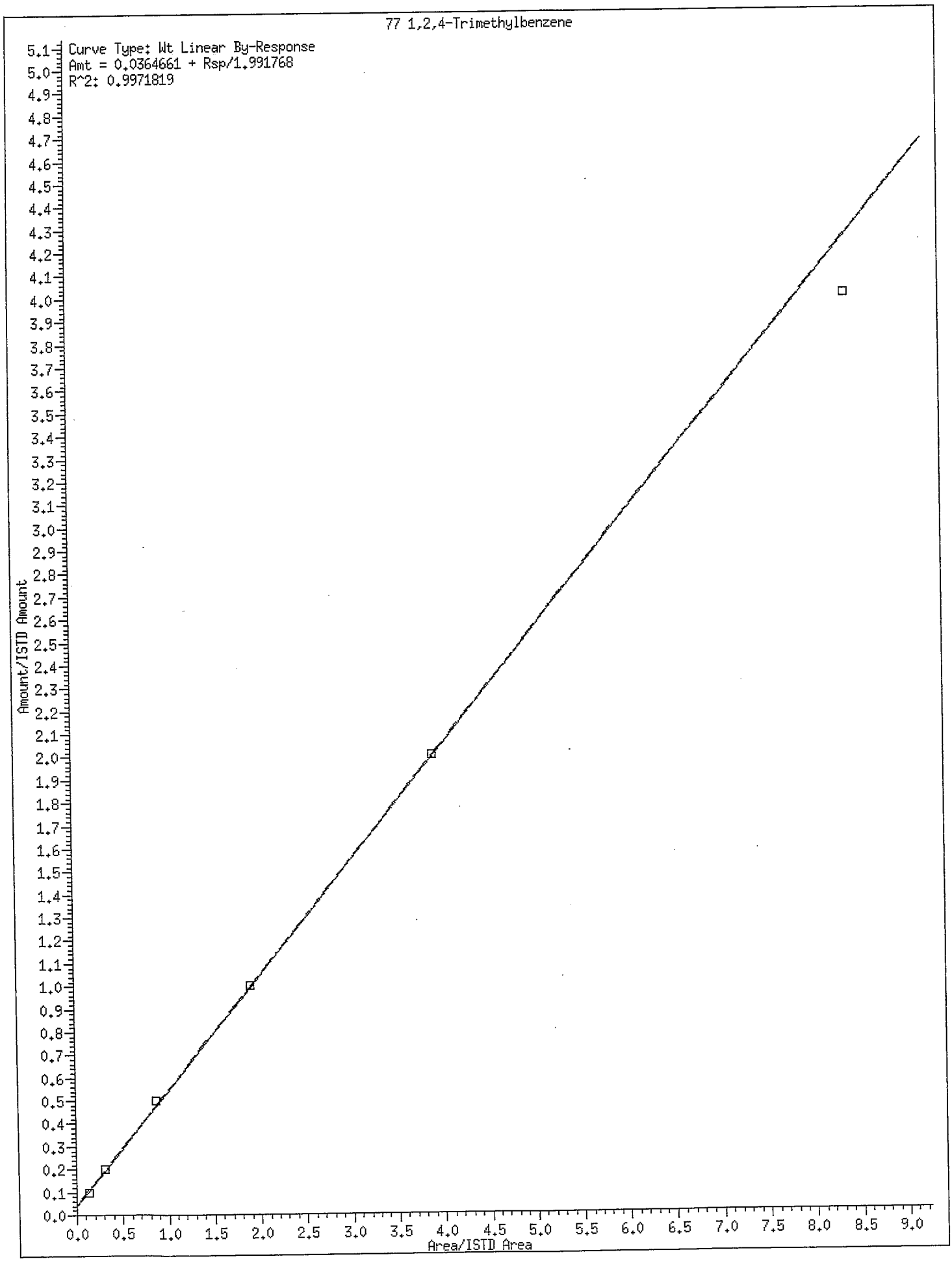

47 2-Chloroethyl vinyl ether
Curve Type: Wt Linear By-Response
Amt = 0.0990555 + Rsp/0.1341417
R^2: 0.9967135
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1

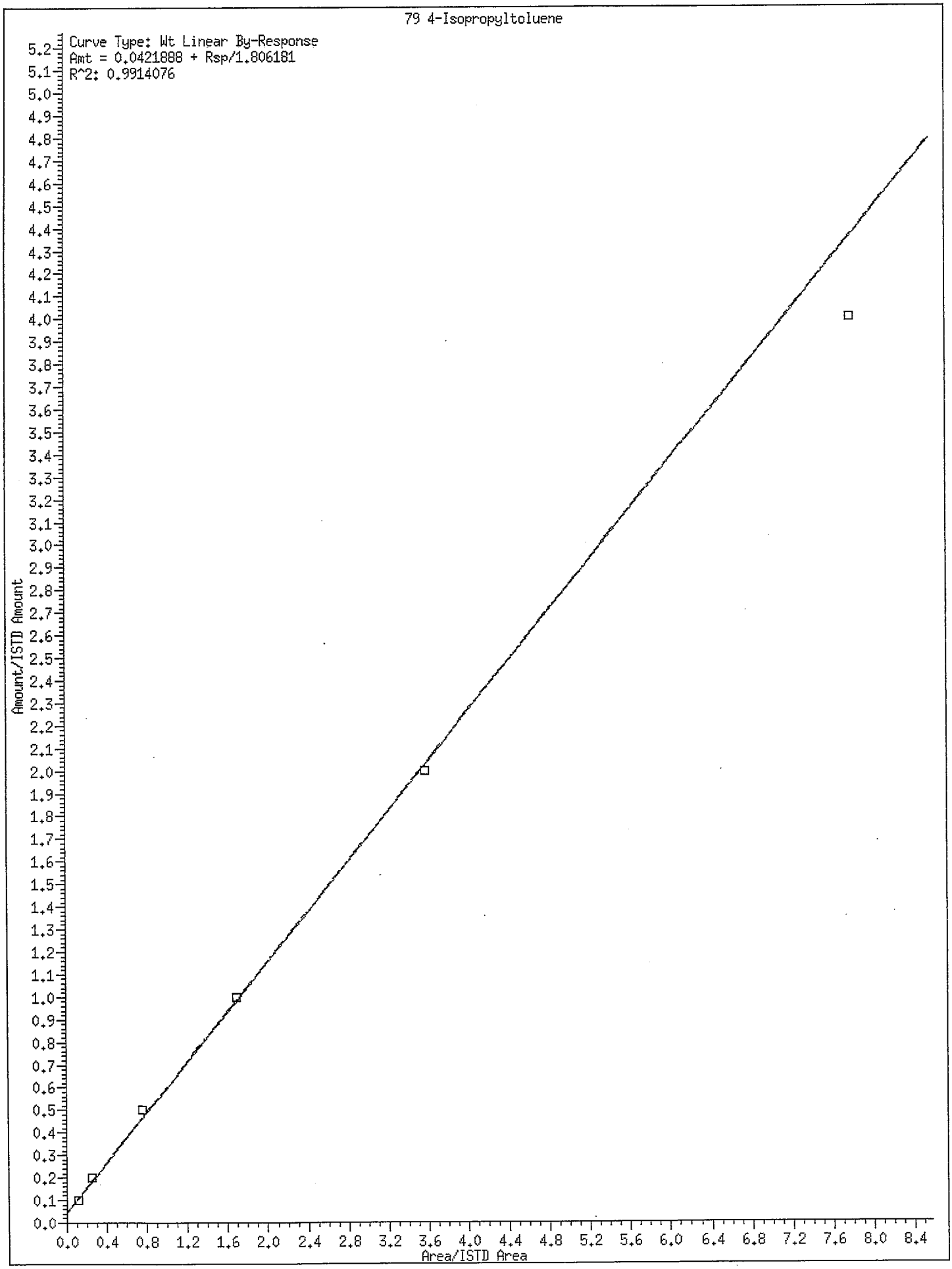

52 Ethyl Methacrylate
Curve Type: Wt Linear By-Response
Amt = 0.0374609 + Rsp/0.347436
R^2: 0.9934732
Amount/ISTD Amount
Area/ISTD Area

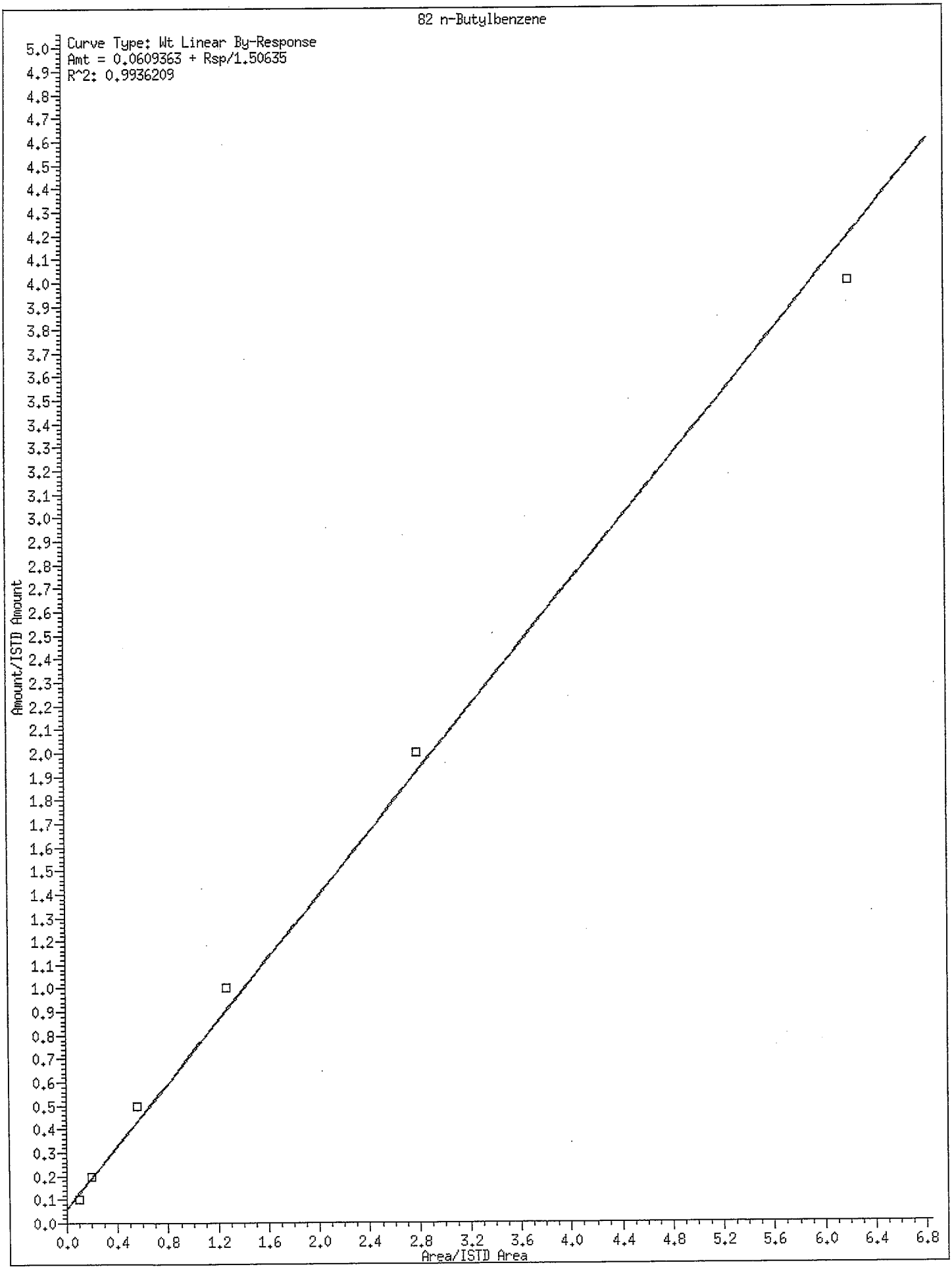

65 Styrene
Curve Type: Wt Linear By-Response
Amt = 0.0373706 + Rsp/0.9334271
R^2: 0.9916093
Amount/ISTD Amount
Area/ISTD Area
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5

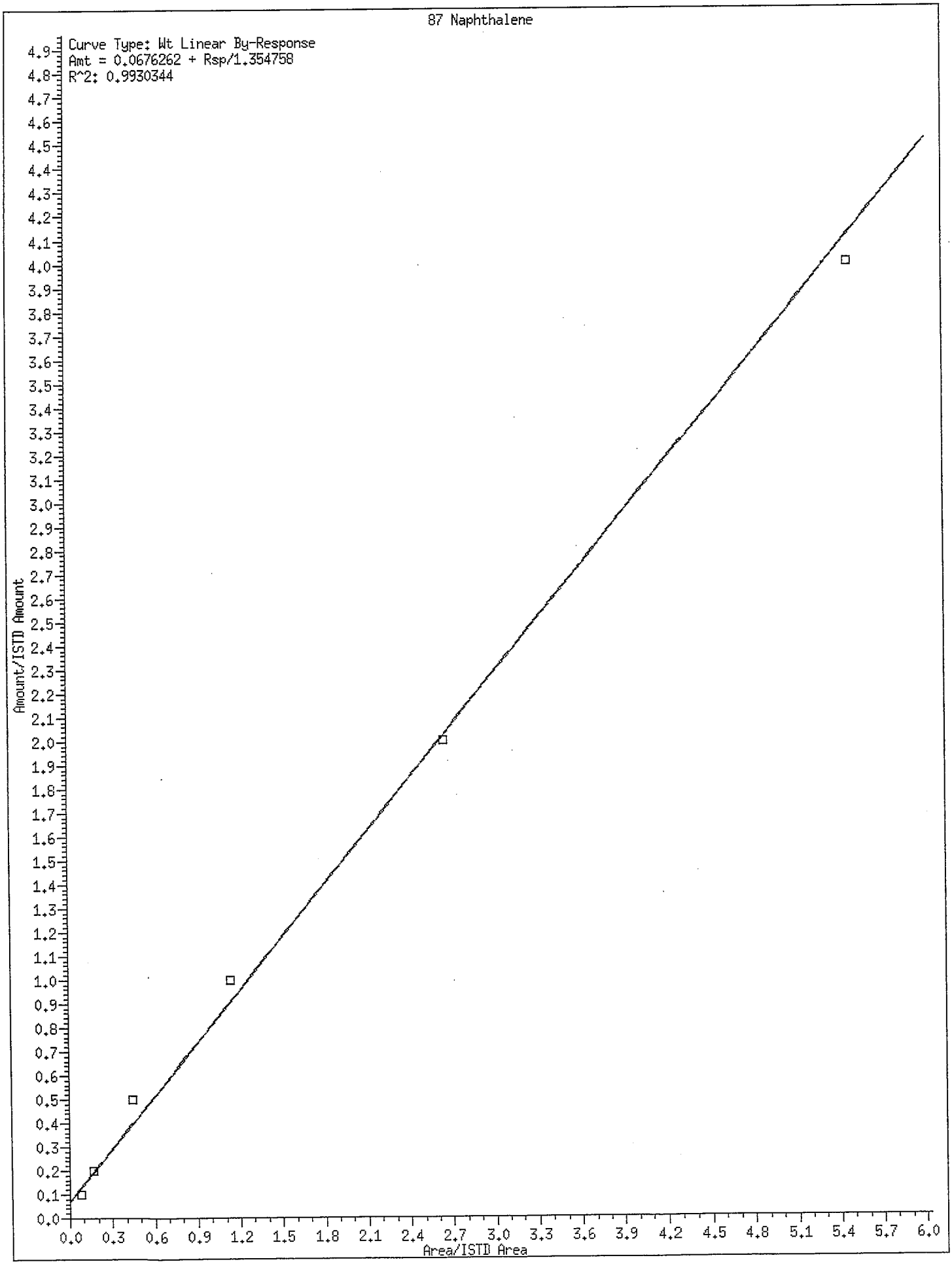

67 Isopropylbenzene
Curve Type: Wt Linear By-Response
Amt = 0.0341944 + Rsp/1.333959
R^2: 0.9942482
Amount/ISTD Amount
Area/ISTD Area
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2

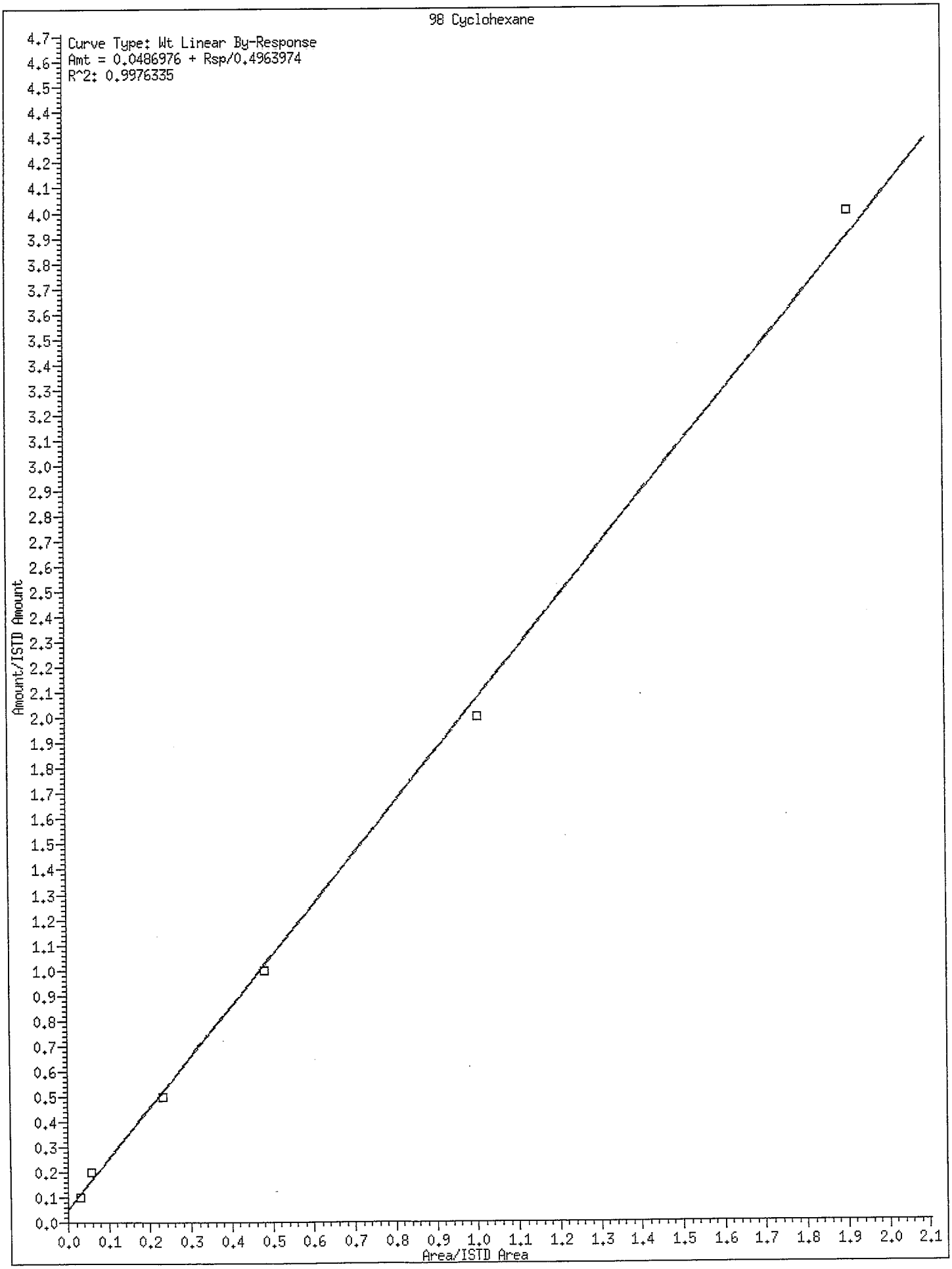

69 1,4-Dichloro-2-butene
Curve Type: Wt Linear By-Response
Amt = 0.0685481 + Rsp/0.1076456
R^2: 0.9913472
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.00 0.30 0.60 0.90 1.20 1.50 1.80 2.10 2.40 2.70 3.00 3.30 3.60 3.90 4.20 4.50 4.80

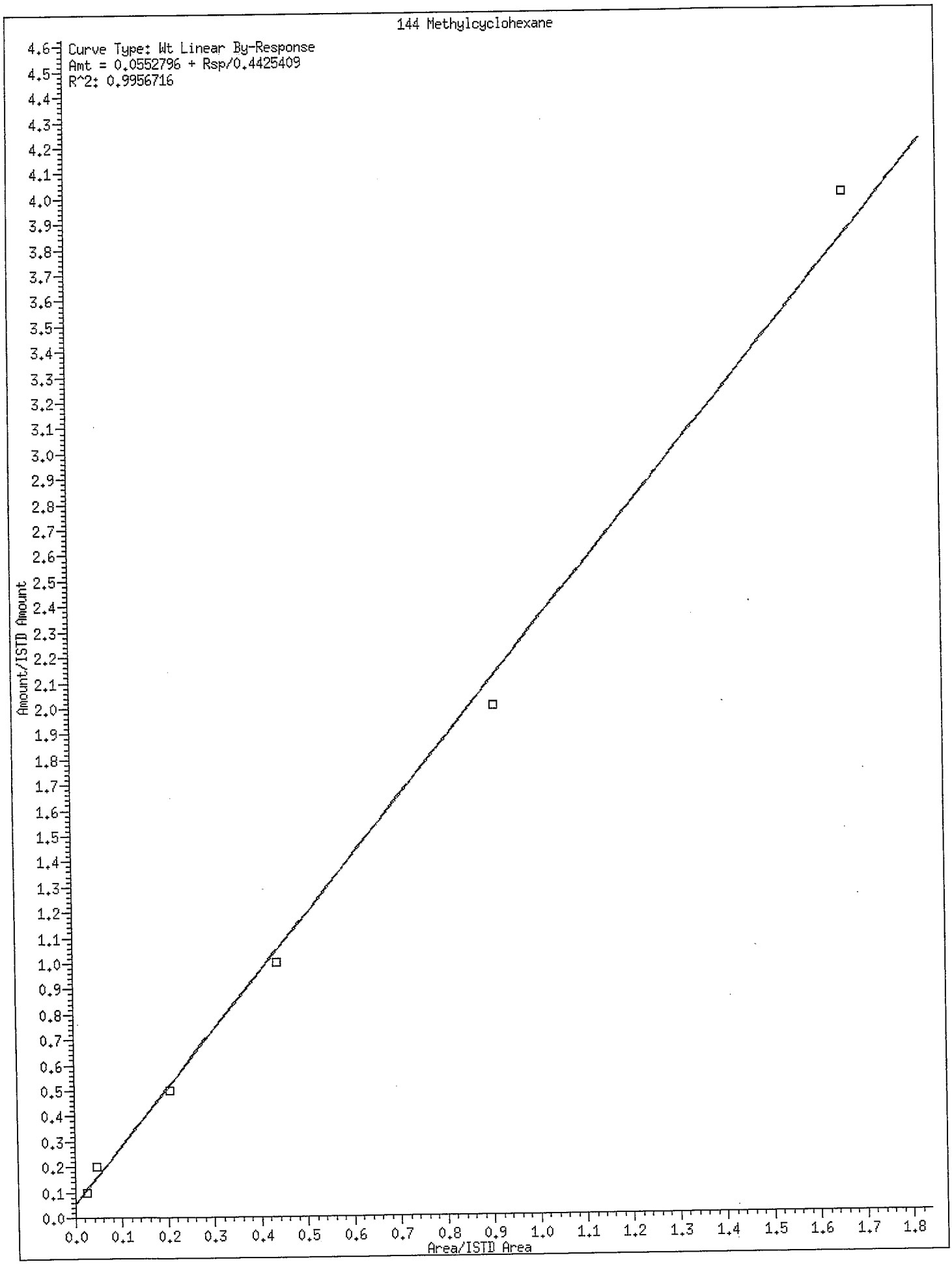

77 1,2,4-Trimethylbenzene
Curve Type: Wt Linear By-Response
Amt = 0.0364661 + Rsp/1.991768
R^2: 0.9971819
Amount/ISTD Amount
Area/ISTD Area


79 4-Isopropyltoluene
Curve Type: Wt Linear By-Response
Amt = 0.0421888 + Rsp/1.806181
R^2: 0.9914076
Amount/ISTD Amount
Area/ISTD Area


82 n-Butylbenzene
Curve Type: Wt Linear By-Response
Amt = 0.0609363 + Rsp/1.50635
R^2: 0.9936209
Amount/ISTD Amount
Area/ISTD Area
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8


87 Naphthalene
Curve Type: Wt Linear By-Response
Amt = 0.0676262 + Rsp/1.354758
R^2: 0.9930344
Amount/ISTD Amount
Area/ISTD Area


98 Cyclohexane
Curve Type: Wt Linear By-Response
Amt = 0.0486976 + Rsp/0.4963974
R^2: 0.9976335
Amount/ISTD Amount
Area/ISTD Area


144 Methylcyclohexane
Curve Type: Wt Linear By-Response
Amt = 0.0552796 + Rsp/0.4425409
R^2: 0.9956716
Amount/ISTD Amount
Area/ISTD Area
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Lab Smp Id: 200NG-IC
Inj Date : 07-MAY-2009 13:42
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 200NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,6
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 20:10 Cal File: UXM5916.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1609708	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1314354	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	762649	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	1375674	200.000	209.17
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	1531354	200.000	203.27
$	6 Toluene-d8	98	7.015	7.015	(0.841)	6091135	200.000	216.18
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	2177344	200.000	233.30
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	1254482	200.000	207.07
	9 Chloromethane	50	1.785	1.785	(0.317)	2022513	200.000	209.78
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	2053657	200.000	199.35
	11 Bromomethane	94	2.236	2.236	(0.397)	748795	200.000	206.52
	12 Chloroethane	64	2.343	2.343	(0.415)	609323	200.000	207.20
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	1730424	200.000	204.15
	15 Acrolein	56	2.983	2.983	(0.529)	2409809	2000.00	1957.3
	16 Acetone	43	3.137	3.137	(0.556)	724366	400.000	397.79
	17 1,1-Dichloroethene	96	3.078	3.078	(0.546)	1531641	200.000	210.13
	18 Freon-113	151	3.101	3.101	(0.550)	1060048	200.000	206.04
	19 Iodomethane	142	3.220	3.220	(0.571)	2454025	200.000	210.88
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	5086915	200.000	222.23
	21 Methylene Chloride	84	3.528	3.528	(0.626)	1705162	200.000	192.59
	22 Acetonitrile	41	3.398	3.398	(0.603)	1699283	2000.00	1827.3
	23 Acrylonitrile	53	3.754	3.754	(0.666)	1071060	400.000	390.58

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	3719642	200.000	215.56
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	1742030	200.000	211.73
26 Hexane	86	4.015	4.015	(0.712)	337122	200.000	192.00
27 Vinyl acetate	43	4.181	4.181	(0.741)	2356005	200.000	223.41
28 1,1-Dichloroethane	63	4.145	4.145	(0.735)	2800323	200.000	206.14
29 tert-Butyl Alcohol	59	3.635	3.635	(0.645)	1586842	4000.00	3871.7
30 2-Butanone	43	4.655	4.655	(0.825)	1095255	400.000	372.44
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	1785486	200.000	216.40
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	1440445	200.000	205.11
34 Bromochloromethane	128	4.857	4.857	(0.861)	827770	200.000	205.76
35 Chloroform	83	4.928	4.928	(0.874)	2618210	200.000	205.18
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	329878	200.000	207.99
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	1980353	200.000	209.26
38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	2205652	200.000	218.24
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	1737726	200.000	212.14
40 1,2-Dichloroethane	62	5.414	5.414	(0.960)	1897069	200.000	203.09
41 Benzene	78	5.414	5.414	(0.960)	7101696	200.000	209.81
42 Trichloroethene	130	5.959	5.959	(1.057)	1721355	200.000	209.84
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	1627921	200.000	207.22
44 1,4-Dioxane	88	6.256	6.256	(1.109)	689475	10000.0	10502
45 Dibromomethane	93	6.256	6.256	(1.109)	860432	200.000	207.51
46 Bromodichloromethane	83	6.386	6.386	(1.132)	1869330	200.000	220.95
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	1741893	400.000	408.30
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	2432974	200.000	238.09
49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	2288179	400.000	419.74
50 Toluene	91	7.074	7.074	(0.848)	7546446	200.000	215.76
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	2018244	200.000	236.31
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	1926198	200.000	212.78
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	1325143	200.000	198.55
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	2416744	200.000	202.29
55 Tetrachloroethene	164	7.572	7.572	(0.908)	1369629	200.000	207.88
56 2-Hexanone	43	7.643	7.643	(0.916)	1545329	400.000	421.92
57 Dibromochloromethane	129	7.797	7.797	(0.935)	1327184	200.000	224.99
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	1259583	200.000	204.68
59 Chlorobenzene	112	8.367	8.367	(1.003)	4632657	200.000	205.90
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	1521334	200.000	214.92
61 Ethylbenzene	106	8.461	8.461	(1.014)	2569050	200.000	228.46
62 m + p-Xylene	106	8.568	8.568	(1.027)	6534515	400.000	460.90
64 Xylene-o	106	8.948	8.948	(1.072)	3086503	200.000	234.65
65 Styrene	104	8.960	8.960	(1.074)	5386241	200.000	221.38
66 Bromoform	173	9.149	9.149	(1.097)	814514	200.000	232.33
67 Isopropylbenzene	105	9.292	9.292	(1.114)	7576125	200.000	217.76
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	1670747	200.000	183.37
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	341432	200.000	211.37
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	466620	200.000	183.11
71 Bromobenzene	156	9.600	9.600	(0.908)	1926395	200.000	205.58
72 n-Propylbenzene	120	9.695	9.695	(0.917)	2086977	200.000	232.58
73 2-Chlorotoluene	126	9.790	9.790	(0.926)	1865381	200.000	215.34
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	6163962	200.000	234.59
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	1917756	200.000	214.11
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	5179279	200.000	234.05
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	6397801	200.000	212.41
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	6948881	200.000	236.15
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	5944732	200.000	217.89

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	3594344	200.000	208.67
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	3666886	200.000	204.53
82	n-Butylbenzene	91	10.940	10.940	(1.035)	4741165	200.000	209.40
83	1,2-Dichlorobenzene	146	10.975	10.975	(1.038)	3443970	200.000	205.55
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	251685	200.000	211.22
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	1722184	200.000	230.49
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	704535	200.000	202.50
87	Naphthalene	128	12.825	12.825	(1.213)	4176243	200.000	205.48
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	1529834	200.000	213.09
98	Cyclohexane	56	5.141	5.141	(0.912)	3075846	200.000	194.90
143	Methyl Acetate	43	3.433	3.433	(0.609)	2028747	400.000	380.78
144	Methylcyclohexane	83	6.125	6.125	(1.086)	2687921	200.000	191.43
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	2042213	200.000	220.17
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	286209	200.000	233.24

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

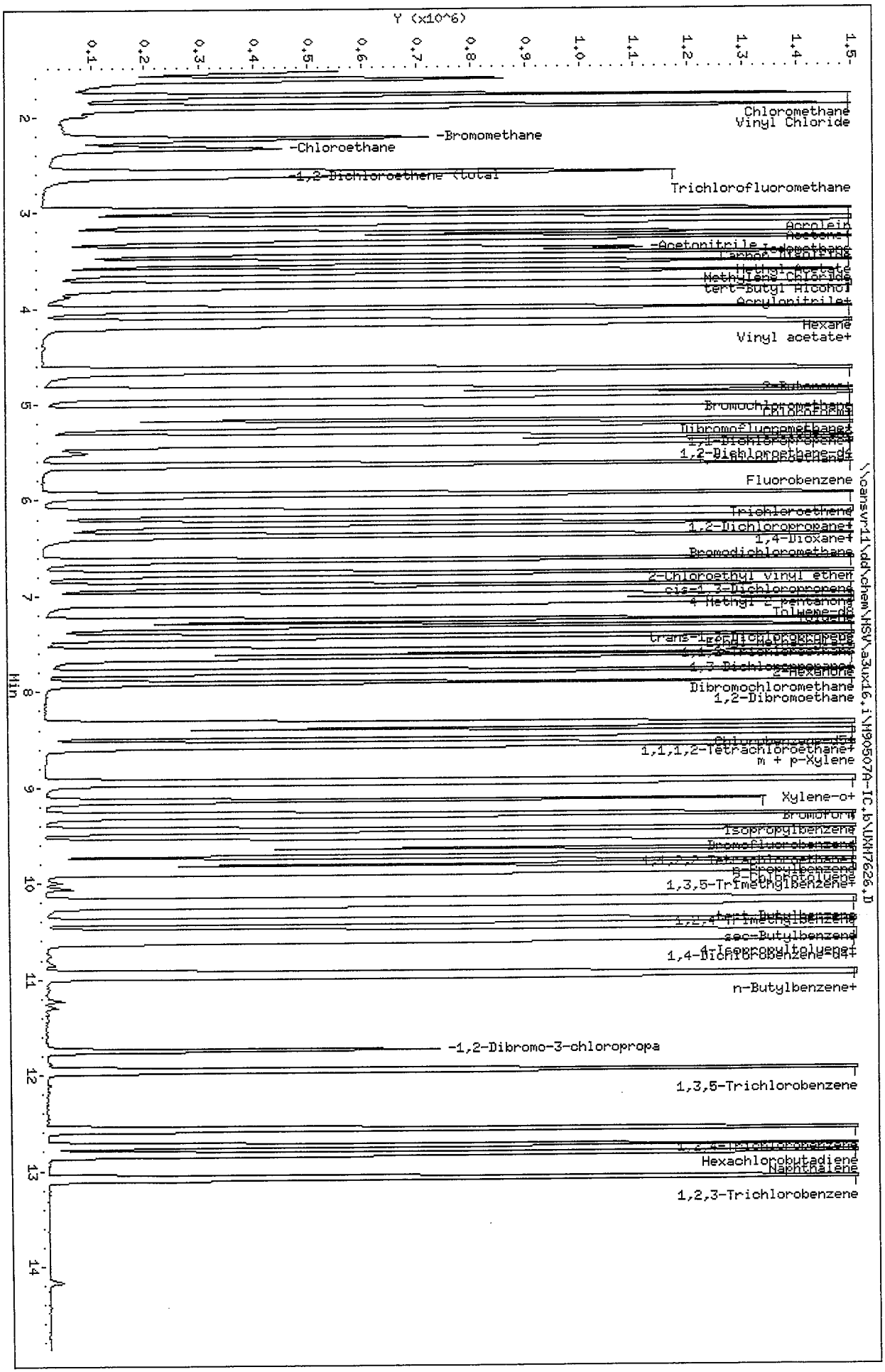
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7626.D
Lab Smp Id: 200NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,6

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1609708	-1.54
2 Chlorobenzene-d5	1305765	652883	2611530	1314354	0.66
3 1,4-Dichlorobenze	720090	360045	1440180	762649	5.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7626.D
Date : 07-MAY-2009 13:42
Client ID:
Sample Info: 200NG-IC
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18
Y (x10^6)
Min
\\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7626.D
Chloromethane
Vinyl Chloride
-Bromomethane
-Chloroethane
-1,2-Dichloroethene (total
Trichlorofluoromethane
Acrolein
Acetone+
-Acetonitrile
Methyl Acetate
Methylene Chloride
tert-Butyl Alcohol
Acrylonitrile+
Hexane
Vinyl acetate+
Bromochloromethane
Fluorobenzene
Trichloroethene
1,2-Dichloropropane+
1,4-Dioxane+
Bromodichloromethane
2-Chloroethyl vinyl ether
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene-d8
trans-1,3-Dichloropropene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane
1,1,1,2-Tetrachloroethane+
m + p-Xylene
Xylene-o+
Bromoform
Isopropylbenzene
1,3,5-Trimethylbenzene
sec-Butylbenzene
1,4-Dichlorobenzene-d4
n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
1,3,5-Trichlorobenzene
Hexachlorobutadiene
Naphthalene
1,2,3-Trichlorobenzene

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Lab Smp Id: 100NG-IC
Inj Date : 07-MAY-2009 14:03
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 100NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,5
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 18:25 Cal File: UXM5911.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1660787	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1336974	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.573	10.573	(1.000)	734019	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	658452	100.000	97.038
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	746882	100.000	96.090
$	6 Toluene-d8	98	7.015	7.015	(0.841)	2926552	100.000	102.11
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	1002504	100.000	105.60
	8 Dichlorodifluoromethane	85	1.607	1.607	(0.285)	675106	100.000	108.01
	9 Chloromethane	50	1.785	1.785	(0.317)	933282	100.000	93.826
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	1029376	100.000	96.847
	11 Bromomethane	94	2.248	2.248	(0.399)	360336	100.000	96.326
	12 Chloroethane	64	2.343	2.343	(0.415)	284563	100.000	93.789
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	919050	100.000	105.09
	15 Acrolein	56	2.983	2.983	(0.529)	1268055	1000.00	998.28
	16 Acetone	43	3.137	3.137	(0.556)	389070	200.000	202.05
	17 1,1-Dichloroethene	96	3.078	3.078	(0.546)	753083	100.000	100.14
	18 Freon-113	151	3.102	3.102	(0.550)	578967	100.000	109.07
	19 Iodomethane	142	3.220	3.220	(0.571)	1158897	100.000	96.523
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	2393059	100.000	101.33
	21 Methylene Chloride	84	3.529	3.529	(0.626)	816434	100.000	89.376
	22 Acetonitrile	41	3.386	3.386	(0.601)	890535	1000.00	928.17
	23 Acrylonitrile	53	3.754	3.754	(0.666)	551300	200.000	194.86

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	1841573	100.000	103.44
25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	836736	100.000	98.571
26 Hexane	86	4.015	4.015	(0.712)	204202	100.000	112.31
27 Vinyl acetate	43	4.193	4.193	(0.743)	1158694	100.000	106.50
28 1,1-Dichloroethane	63	4.145	4.145	(0.735)	1333433	100.000	95.140
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	883693	2000.00	2089.8
30 2-Butanone	43	4.655	4.655	(0.825)	597781	200.000	197.02
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	834238	100.000	98.002
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	749094	100.000	103.39
34 Bromochloromethane	128	4.857	4.857	(0.861)	393506	100.000	94.805
35 Chloroform	83	4.928	4.928	(0.874)	1247022	100.000	94.718
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	169727	100.000	103.72
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	985160	100.000	100.90
38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	1078671	100.000	103.45
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	873355	100.000	103.34
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	909871	100.000	94.411
41 Benzene	78	5.414	5.414	(0.960)	3342319	100.000	95.708
42 Trichloroethene	130	5.960	5.960	(1.057)	819700	100.000	96.849
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	790018	100.000	97.471
44 1,4-Dioxane	88	6.268	6.268	(1.111)	377479	5000.00	5572.7
45 Dibromomethane	93	6.256	6.256	(1.109)	421695	100.000	98.570
46 Bromodichloromethane	83	6.386	6.386	(1.132)	863731	100.000	98.950
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	878964	200.000	202.22
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	1135215	100.000	107.67
49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	1208064	200.000	214.79
50 Toluene	91	7.074	7.074	(0.848)	3576523	100.000	100.53
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	957269	100.000	110.19
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	942332	100.000	103.30
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	661240	100.000	97.399
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	1211924	100.000	99.727
55 Tetrachloroethene	164	7.572	7.572	(0.908)	675769	100.000	100.83
56 2-Hexanone	43	7.643	7.643	(0.916)	802153	200.000	215.30
57 Dibromochloromethane	129	7.798	7.798	(0.935)	624456	100.000	104.07
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	631499	100.000	100.88
59 Chlorobenzene	112	8.367	8.367	(1.003)	2220823	100.000	97.036
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	703617	100.000	97.717
61 Ethylbenzene	106	8.462	8.462	(1.014)	1214954	100.000	106.22
62 m + p-Xylene	106	8.568	8.568	(1.027)	3057086	200.000	211.98
64 Xylene-o	106	8.948	8.948	(1.072)	1418794	100.000	106.04
65 Styrene	104	8.960	8.960	(1.074)	2438271	100.000	99.558
66 Bromoform	173	9.138	9.138	(1.095)	377889	100.000	105.97
67 Isopropylbenzene	105	9.292	9.292	(1.114)	3497595	100.000	99.766
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	846345	100.000	96.514
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	136015	100.000	89.498
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	235699	100.000	96.098
71 Bromobenzene	156	9.600	9.600	(0.908)	886955	100.000	98.345
72 n-Propylbenzene	120	9.695	9.695	(0.917)	975155	100.000	112.92
73 2-Chlorotoluene	126	9.790	9.790	(0.926)	860983	100.000	103.27
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	2811453	100.000	111.17
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	885343	100.000	102.70
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	2361070	100.000	110.86
77 1,2,4-Trimethylbenzene	105	10.229	10.229	(0.967)	2867378	100.000	99.887
78 sec-Butylbenzene	105	10.395	10.395	(0.983)	3167613	100.000	111.85
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	2625630	100.000	101.13

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80 1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	1635727	100.000	98.664
81 1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	1683177	100.000	97.547
82 n-Butylbenzene	91	10.940	10.940	(1.035)	2053758	100.000	95.919
83 1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	1586287	100.000	98.367
84 1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	123169	100.000	107.40
85 1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	753270	100.000	104.75
86 Hexachlorobutadiene	225	12.743	12.743	(1.205)	334406	100.000	99.864
87 Naphthalene	128	12.826	12.826	(1.213)	1942341	100.000	101.04
88 1,2,3-Trichlorobenzene	180	13.087	13.087	(1.238)	723203	100.000	104.66
98 Cyclohexane	56	5.141	5.141	(0.912)	1670998	100.000	103.78
143 Methyl Acetate	43	3.434	3.434	(0.609)	1060652	200.000	192.95
144 Methylcyclohexane	83	6.126	6.126	(1.086)	1512492	100.000	105.66
141 1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	906447	100.000	101.53
149 Vinyl Acetate-86	86	4.193	4.193	(0.743)	140187	100.000	110.73

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7627.D
Lab Smp Id: 100NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24

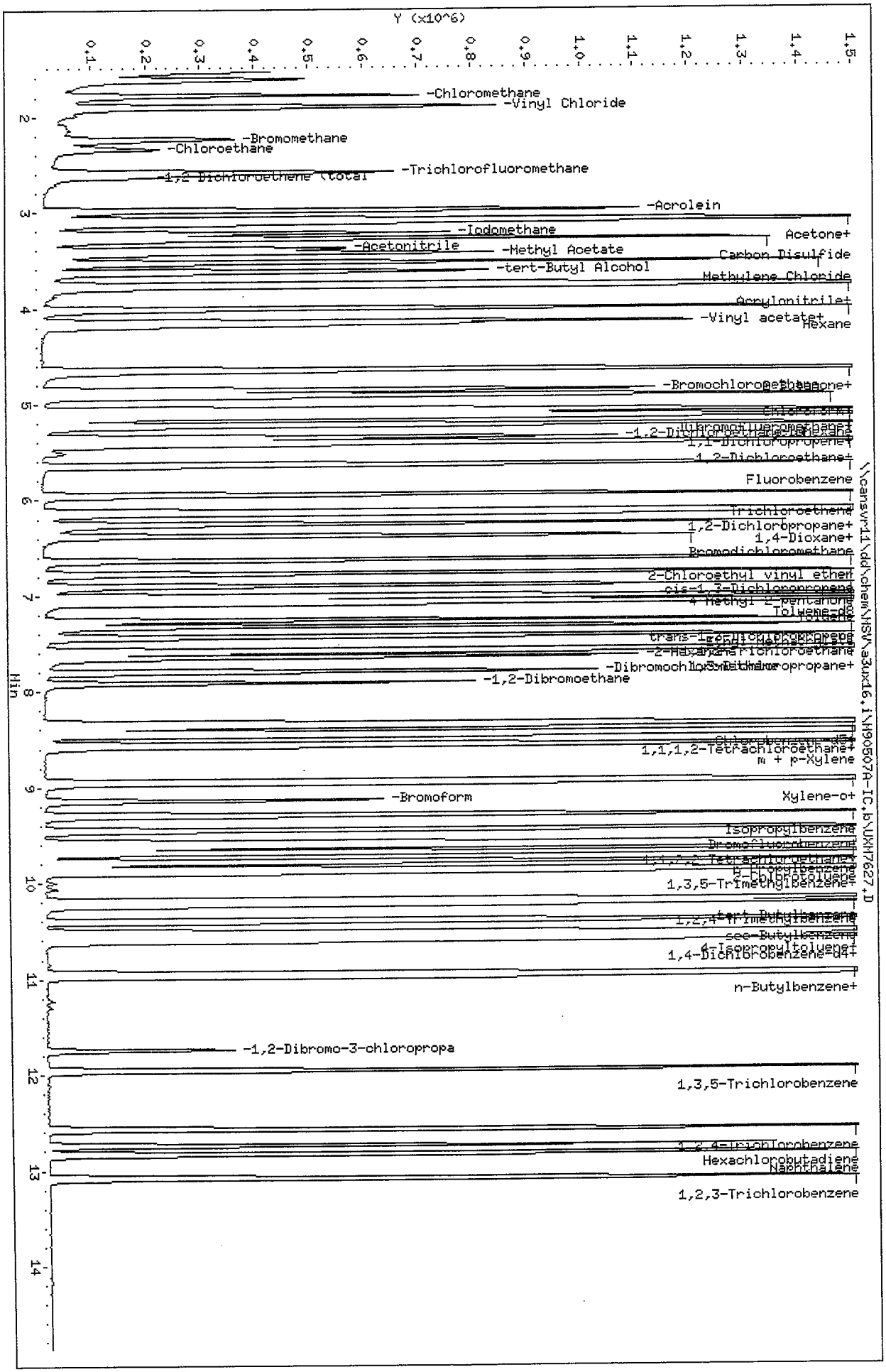
Level: LOW
Sample Type: WATER

Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1660787	1.58
2 Chlorobenzene-d5	1305765	652883	2611530	1336974	2.39
3 1,4-Dichlorobenze	720090	360045	1440180	734019	1.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7627.D
Date : 07-MAY-2009 14:03
Client ID:
Sample Info: 100NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

\\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7627.D

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Lab Smp Id: 50NG-IC
Inj Date : 07-MAY-2009 14:24
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 50NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,4
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 20:10 Cal File: UXM5916.D
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1634945	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1305765	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	720090	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	330084	50.0000	49.414
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	368670	50.0000	48.181
$	6 Toluene-d8	98	7.015	7.015	(0.841)	1400683	50.0000	50.039
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	476686	50.0000	51.414
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	347342	50.0000	56.449
	9 Chloromethane	50	1.785	1.785	(0.317)	482798	50.0000	49.305
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	522572	50.0000	49.942
	11 Bromomethane	94	2.248	2.248	(0.399)	187472	50.0000	50.908
	12 Chloroethane	64	2.354	2.354	(0.418)	148120	50.0000	49.591
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	462980	50.0000	53.777
	15 Acrolein	56	2.995	2.995	(0.531)	618218	500.000	494.38
	16 Acetone	43	3.137	3.137	(0.556)	203856	100.000	102.62
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	368904	50.0000	49.830
	18 Freon-113	151	3.113	3.113	(0.552)	289033	50.0000	55.311
	19 Iodomethane	142	3.232	3.232	(0.573)	577002	50.0000	48.817
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	1161762	50.0000	49.970
	21 Methylene Chloride	84	3.528	3.528	(0.626)	414620	50.0000	46.106
	22 Acetonitrile	41	3.398	3.398	(0.603)	451971	500.000	478.52
	23 Acrylonitrile	53	3.754	3.754	(0.666)	279408	100.000	100.32

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	890960	50.0000	50.836
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	414605	50.0000	49.614
26 Hexane	86	4.026	4.026	(0.714)	95647	50.0000	52.919
27 Vinyl acetate	43	4.192	4.192	(0.743)	546634	50.0000	51.035
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	673494	50.0000	48.813
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	424665	1000.00	1020.1
30 2-Butanone	43	4.667	4.667	(0.828)	300441	100.000	100.59
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	416002	50.0000	49.642
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	358019	50.0000	50.193
34 Bromochloromethane	128	4.868	4.868	(0.863)	196180	50.0000	48.011
35 Chloroform	83	4.928	4.928	(0.874)	639312	50.0000	49.327
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	84744	50.0000	52.607
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	482255	50.0000	50.172
38 1,1-Dichloropropene	75	5.236	5.236	(0.928)	536760	50.0000	52.290
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	422442	50.0000	50.775
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	467755	50.0000	49.303
41 Benzene	78	5.414	5.414	(0.960)	1680425	50.0000	48.880
42 Trichloroethene	130	5.959	5.959	(1.057)	416000	50.0000	49.928
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	397510	50.0000	49.819
44 1,4-Dioxane	88	6.268	6.268	(1.111)	177354	2500.00	2659.6
45 Dibromomethane	93	6.256	6.256	(1.109)	209481	50.0000	49.740
46 Bromodichloromethane	83	6.386	6.386	(1.132)	422352	50.0000	49.150
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	381478	100.000	91.923
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	531173	50.0000	51.177
49 4-Methyl-2-pentanone	43	6.908	6.908	(1.225)	565288	100.000	102.09
50 Toluene	91	7.074	7.074	(0.848)	1738203	50.0000	50.024
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	435312	50.0000	51.305
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	433745	50.0000	49.677
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	325367	50.0000	49.071
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	583716	50.0000	49.181
55 Tetrachloroethene	164	7.572	7.572	(0.908)	327800	50.0000	50.081
56 2-Hexanone	43	7.643	7.643	(0.916)	382590	100.000	105.14
57 Dibromochloromethane	129	7.797	7.797	(0.935)	288637	50.0000	49.254
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	302607	50.0000	49.496
59 Chlorobenzene	112	8.367	8.367	(1.003)	1095312	50.0000	49.002
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	342802	50.0000	48.745
61 Ethylbenzene	106	8.461	8.461	(1.014)	574451	50.0000	51.421
62 m + p-Xylene	106	8.568	8.568	(1.027)	1466113	100.000	104.09
64 Xylene-o	106	8.948	8.948	(1.072)	679969	50.0000	52.035
65 Styrene	104	8.960	8.960	(1.074)	1140662	50.0000	48.662
66 Bromoform	173	9.137	9.137	(1.095)	175436	50.0000	50.371
67 Isopropylbenzene	105	9.292	9.292	(1.114)	1647634	50.0000	49.006
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	423053	50.0000	49.176
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	70916	50.0000	49.171
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	118205	50.0000	49.126
71 Bromobenzene	156	9.600	9.600	(0.908)	436467	50.0000	49.331
72 n-Propylbenzene	120	9.695	9.695	(0.917)	455599	50.0000	53.775
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	421019	50.0000	51.476
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	1329158	50.0000	53.575
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	436445	50.0000	51.607
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	1097152	50.0000	52.510
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	1373243	50.0000	49.696
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	1471540	50.0000	52.964
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	1219697	50.0000	48.999

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	800505	50.0000	49.219
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	820260	50.0000	48.457
82	n-Butylbenzene	91	10.940	10.940	(1.035)	915392	50.0000	45.242
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	783269	50.0000	49.511
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	56033	50.0000	49.803
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	349264	50.0000	49.508
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	161296	50.0000	49.100
87	Naphthalene	128	12.825	12.825	(1.213)	819190	50.0000	45.367
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	352263	50.0000	51.967
98	Cyclohexane	56	5.141	5.141	(0.912)	788999	50.0000	51.044
143	Methyl Acetate	43	3.433	3.433	(0.609)	530702	100.000	98.070
144	Methylcyclohexane	83	6.125	6.125	(1.086)	713867	50.0000	52.096
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	425567	50.0000	48.591
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	65469	50.0000	52.529

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Report Date: 07-May-2009 15:10

TestAmerica North Canton

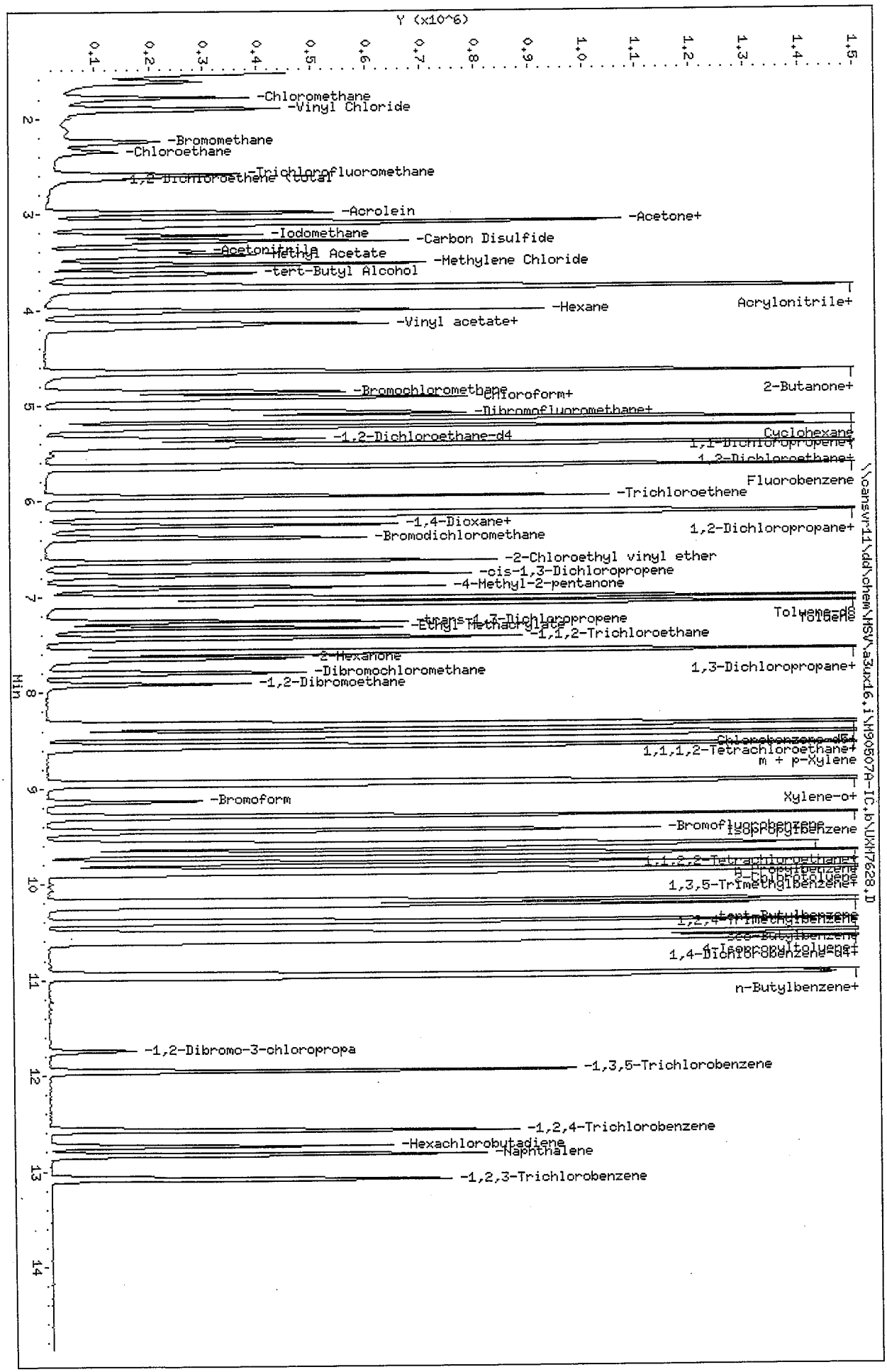
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7628.D
Lab Smp Id: 50NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,4

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1634945	0.00
2 Chlorobenzene-d5	1305765	652883	2611530	1305765	0.00
3 1,4-Dichlorobenze	720090	360045	1440180	720090	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7628.D
Date : 07-MAY-2009 14:24
Client ID:
Sample Info: 50NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Lab Smp Id: 25NG-IC
Inj Date : 07-MAY-2009 14:45
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 25NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 18:46 Cal File: UXM5912.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1644791	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1295741	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.573	10.573	(1.000)	695626	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	162470	25.0000	24.177
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	186730	25.0000	24.257
$	6 Toluene-d8	98	7.015	7.015	(0.841)	680592	25.0000	24.502
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	222609	25.0000	24.196
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	167002	25.0000	26.978
	9 Chloromethane	50	1.785	1.785	(0.317)	228515	25.0000	23.197
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	259037	25.0000	24.608
	11 Bromomethane	94	2.248	2.248	(0.399)	83300	25.0000	22.484
	12 Chloroethane	64	2.355	2.355	(0.418)	63472	25.0000	21.123
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	224866	25.0000	25.963
	15 Acrolein	56	2.995	2.995	(0.531)	301194	250.000	239.42
	16 Acetone	43	3.137	3.137	(0.556)	108958	50.0000	49.597
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	182236	25.0000	24.468
	18 Freon-113	151	3.114	3.114	(0.552)	145915	25.0000	27.756
	19 Iodomethane	142	3.232	3.232	(0.573)	287857	25.0000	24.208
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	564287	25.0000	24.126
	21 Methylene Chloride	84	3.529	3.529	(0.626)	211657	25.0000	23.396
	22 Acetonitrile	41	3.398	3.398	(0.603)	225634	250.000	237.46
	23 Acrylonitrile	53	3.754	3.754	(0.666)	135963	50.0000	48.524

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	420682	25.0000	23.859
25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	202657	25.0000	24.106
26 Hexane	86	4.015	4.015	(0.712)	48327	25.0000	26.084
27 Vinyl acetate	43	4.193	4.193	(0.743)	253626	25.0000	23.538
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	331750	25.0000	23.900
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	204149	500.000	487.47
30 2-Butanone	43	4.667	4.667	(0.828)	138273	50.0000	46.016
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	201242	25.0000	23.871
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	175846	25.0000	24.506
34 Bromochloromethane	128	4.869	4.869	(0.863)	97313	25.0000	23.673
35 Chloroform	83	4.928	4.928	(0.874)	312058	25.0000	23.933
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	39127	25.0000	24.144
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	237525	25.0000	24.563
38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	261448	25.0000	25.317
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	209385	25.0000	25.016
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	231066	25.0000	24.209
41 Benzene	78	5.414	5.414	(0.960)	832218	25.0000	24.063
42 Trichloroethene	130	5.960	5.960	(1.057)	199557	25.0000	23.807
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	192236	25.0000	23.948
44 1,4-Dioxane	88	6.268	6.268	(1.111)	82378	1250.00	1228.0
45 Dibromomethane	93	6.256	6.256	(1.109)	100183	25.0000	23.645
46 Bromodichloromethane	83	6.386	6.386	(1.132)	204917	25.0000	23.704
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	174749	50.0000	44.554
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	244039	25.0000	23.372
49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	265943	50.0000	47.743
50 Toluene	91	7.074	7.074	(0.848)	846241	25.0000	24.543
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	199689	25.0000	23.717
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	187673	25.0000	22.717
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	157079	25.0000	23.874
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	289581	25.0000	24.587
55 Tetrachloroethene	164	7.572	7.572	(0.908)	160773	25.0000	24.753
56 2-Hexanone	43	7.643	7.643	(0.916)	176619	50.0000	48.915
57 Dibromochloromethane	129	7.798	7.798	(0.935)	139620	25.0000	24.009
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	151298	25.0000	24.938
59 Chlorobenzene	112	8.367	8.367	(1.003)	533016	25.0000	24.030
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	163837	25.0000	23.477
61 Ethylbenzene	106	8.462	8.462	(1.014)	270041	25.0000	24.359
62 m + p-Xylene	106	8.568	8.568	(1.027)	691624	50.0000	49.483
64 Xylene-o	106	8.948	8.948	(1.072)	316153	25.0000	24.381
65 Styrene	104	8.960	8.960	(1.074)	510083	25.0000	22.955
66 Bromoform	173	9.138	9.138	(1.095)	78233	25.0000	22.636
67 Isopropylbenzene	105	9.292	9.292	(1.114)	748001	25.0000	23.347
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	200005	25.0000	24.066
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	27369	25.0000	21.702
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	57327	25.0000	24.663
71 Bromobenzene	156	9.600	9.600	(0.908)	205858	25.0000	24.085
72 n-Propylbenzene	120	9.695	9.695	(0.917)	201030	25.0000	24.562
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	195551	25.0000	24.750
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	587237	25.0000	24.502
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	199106	25.0000	24.371
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	476948	25.0000	23.630
77 1,2,4-Trimethylbenzene	105	10.229	10.229	(0.967)	604663	25.0000	23.644
78 sec-Butylbenzene	105	10.395	10.395	(0.983)	659280	25.0000	24.564
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	530515	25.0000	23.222

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80 1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	371834	25.0000	23.666
81 1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	386427	25.0000	23.631
82 n-Butylbenzene	91	10.940	10.940	(1.035)	390449	25.0000	21.678
83 1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	368583	25.0000	24.118
84 1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	24685	25.0000	22.712
85 1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	151768	25.0000	22.269
86 Hexachlorobutadiene	225	12.743	12.743	(1.205)	76549	25.0000	24.122
87 Naphthalene	128	12.826	12.826	(1.213)	311930	25.0000	19.931
88 1,2,3-Trichlorobenzene	180	13.087	13.087	(1.238)	152501	25.0000	23.289
98 Cyclohexane	56	5.141	5.141	(0.912)	381316	25.0000	25.786
143 Methyl Acetate	43	3.434	3.434	(0.609)	264734	50.0000	48.628
144 Methylcyclohexane	83	6.126	6.126	(1.086)	338714	25.0000	26.031
141 1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	193661	25.0000	22.890
149 Vinyl Acetate-86	86	4.193	4.193	(0.743)	30419	25.0000	24.260

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

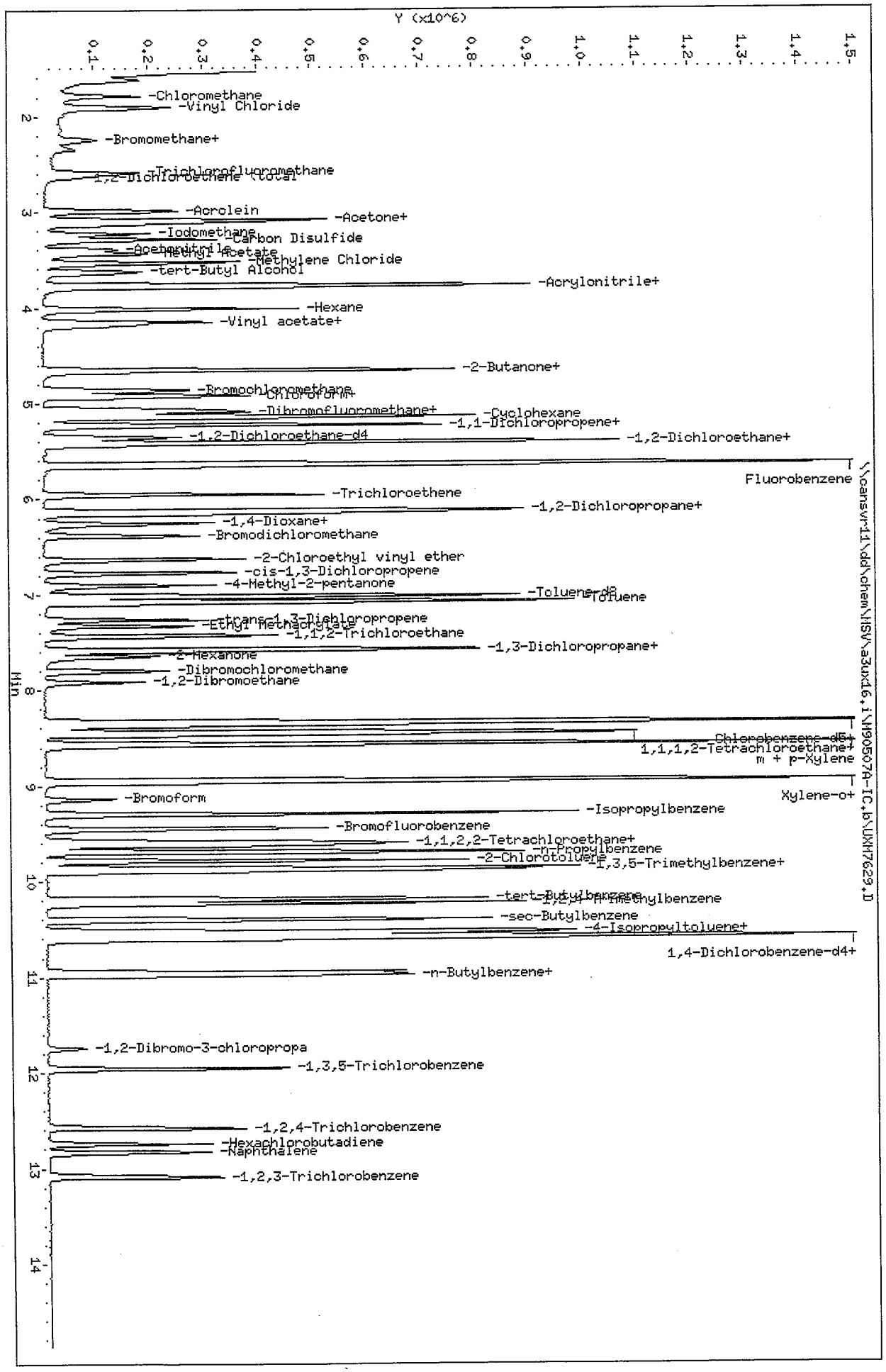
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7629.D
Lab Smp Id: 25NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1644791	0.60
2 Chlorobenzene-d5	1305765	652883	2611530	1295741	-0.77
3 1,4-Dichlorobenze	720090	360045	1440180	695626	-3.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7629.D
Date : 07-MAY-2009 14:45
Client ID:
Sample Info: 25NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Lab Smp Id: 10NG-IC
Inj Date : 07-MAY-2009 15:05
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 10NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,2
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 19:28 Cal File: UXM5914.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1539556	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1195523	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	625728	50.0000	
$	4 Dibromofluoromethane	113	5.070	5.070	(0.899)	67186	10.0000	10.681
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	76733	10.0000	10.649
$	6 Toluene-d8	98	7.015	7.015	(0.841)	256270	10.0000	9.999
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	80491	10.0000	9.482
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	46672	10.0000	8.055
	9 Chloromethane	50	1.785	1.785	(0.317)	96860	10.0000	10.504
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	98386	10.0000	9.985
	11 Bromomethane	94	2.248	2.248	(0.399)	37757	10.0000	10.888
	12 Chloroethane	64	2.343	2.343	(0.415)	27035	10.0000	9.612
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	71334	10.0000	8.799
	15 Acrolein	56	2.995	2.995	(0.531)	121655	100.000	103.31
	16 Acetone	43	3.137	3.137	(0.556)	50026	20.0000	18.974
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	66622	10.0000	9.557
	18 Freon-113	151	3.101	3.101	(0.550)	37035	10.0000	7.526
	19 Iodomethane	142	3.232	3.232	(0.573)	112885	10.0000	10.142
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	206691	10.0000	9.441
	21 Methylene Chloride	84	3.528	3.528	(0.626)	91596	10.0000	10.817
	22 Acetonitrile	41	3.398	3.398	(0.603)	94776	100.000	106.56
	23 Acrylonitrile	53	3.754	3.754	(0.666)	52723	20.0000	20.102

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	159645	10.0000	9.673
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	76927	10.0000	9.776
26 Hexane	86	4.026	4.026	(0.714)	9587	10.0000	4.746
27 Vinyl acetate	43	4.192	4.192	(0.743)	93465	10.0000	9.267
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	131664	10.0000	10.134
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	77603	200.000	197.97
30 2-Butanone	43	4.667	4.667	(0.828)	53646	20.0000	19.073
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	77287	10.0000	9.794
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	66192	10.0000	9.855
34 Bromochloromethane	128	4.868	4.868	(0.863)	38182	10.0000	9.923
35 Chloroform	83	4.928	4.928	(0.874)	124468	10.0000	10.198
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	14278	10.0000	9.413
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	87999	10.0000	9.722
38 1,1-Dichloropropene	75	5.236	5.236	(0.928)	87838	10.0000	9.087
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	71587	10.0000	9.137
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	90869	10.0000	10.171
41 Benzene	78	5.414	5.414	(0.960)	321568	10.0000	9.933
42 Trichloroethene	130	5.959	5.959	(1.057)	77412	10.0000	9.867
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	74743	10.0000	9.948
44 1,4-Dioxane	88	6.268	6.268	(1.111)	29373	500.000	467.78
45 Dibromomethane	93	6.256	6.256	(1.109)	38404	10.0000	9.684
46 Bromodichloromethane	83	6.386	6.386	(1.132)	78071	10.0000	9.648
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	57912	20.0000	18.974
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	87535	10.0000	8.956
49 4-Methyl-2-pentanone	43	6.908	6.908	(1.225)	96937	20.0000	18.592
50 Toluene	91	7.074	7.074	(0.848)	306249	10.0000	9.626
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	67673	10.0000	8.711
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	61471	10.0000	9.273
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	62111	10.0000	10.231
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	107784	10.0000	9.919
55 Tetrachloroethene	164	7.572	7.572	(0.908)	54775	10.0000	9.140
56 2-Hexanone	43	7.643	7.643	(0.916)	60833	20.0000	18.260
57 Dibromochloromethane	129	7.797	7.797	(0.935)	49789	10.0000	9.280
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	54651	10.0000	9.763
59 Chlorobenzene	112	8.367	8.367	(1.003)	205168	10.0000	10.025
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	63241	10.0000	9.822
61 Ethylbenzene	106	8.462	8.462	(1.014)	91367	10.0000	8.933
62 m + p-Xylene	106	8.568	8.568	(1.027)	234854	20.0000	18.212
64 Xylene-o	106	8.948	8.948	(1.072)	107702	10.0000	9.002
65 Styrene	104	8.960	8.960	(1.074)	164417	10.0000	9.235
66 Bromoform	173	9.137	9.137	(1.095)	29015	10.0000	9.099
67 Isopropylbenzene	105	9.292	9.292	(1.114)	243638	10.0000	9.348
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	78552	10.0000	10.508
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	8119	10.0000	9.454
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	20772	10.0000	9.935
71 Bromobenzene	156	9.600	9.600	(0.908)	76322	10.0000	9.927
72 n-Propylbenzene	120	9.695	9.695	(0.917)	61276	10.0000	8.323
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	67982	10.0000	9.565
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	184257	10.0000	8.547
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	70415	10.0000	9.582
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	152901	10.0000	8.422
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	193897	10.0000	9.602
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	205676	10.0000	8.519
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	155110	10.0000	8.972

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	140995	10.0000	9.976
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	151395	10.0000	10.292
82	n-Butylbenzene	91	10.940	10.940	(1.035)	122764	10.0000	9.559
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	133613	10.0000	9.719
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	9154	10.0000	9.363
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	57975	10.0000	9.457
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	27280	10.0000	9.556
87	Naphthalene	128	12.825	12.825	(1.213)	106778	10.0000	9.679
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	55923	10.0000	9.494
98	Cyclohexane	56	5.141	5.141	(0.912)	88575	10.0000	8.230
143	Methyl Acetate	43	3.445	3.445	(0.611)	106850	20.0000	20.968
144	Methylcyclohexane	83	6.125	6.125	(1.086)	71315	10.0000	7.998
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	76010	10.0000	9.988
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	9398	10.0000	8.008

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

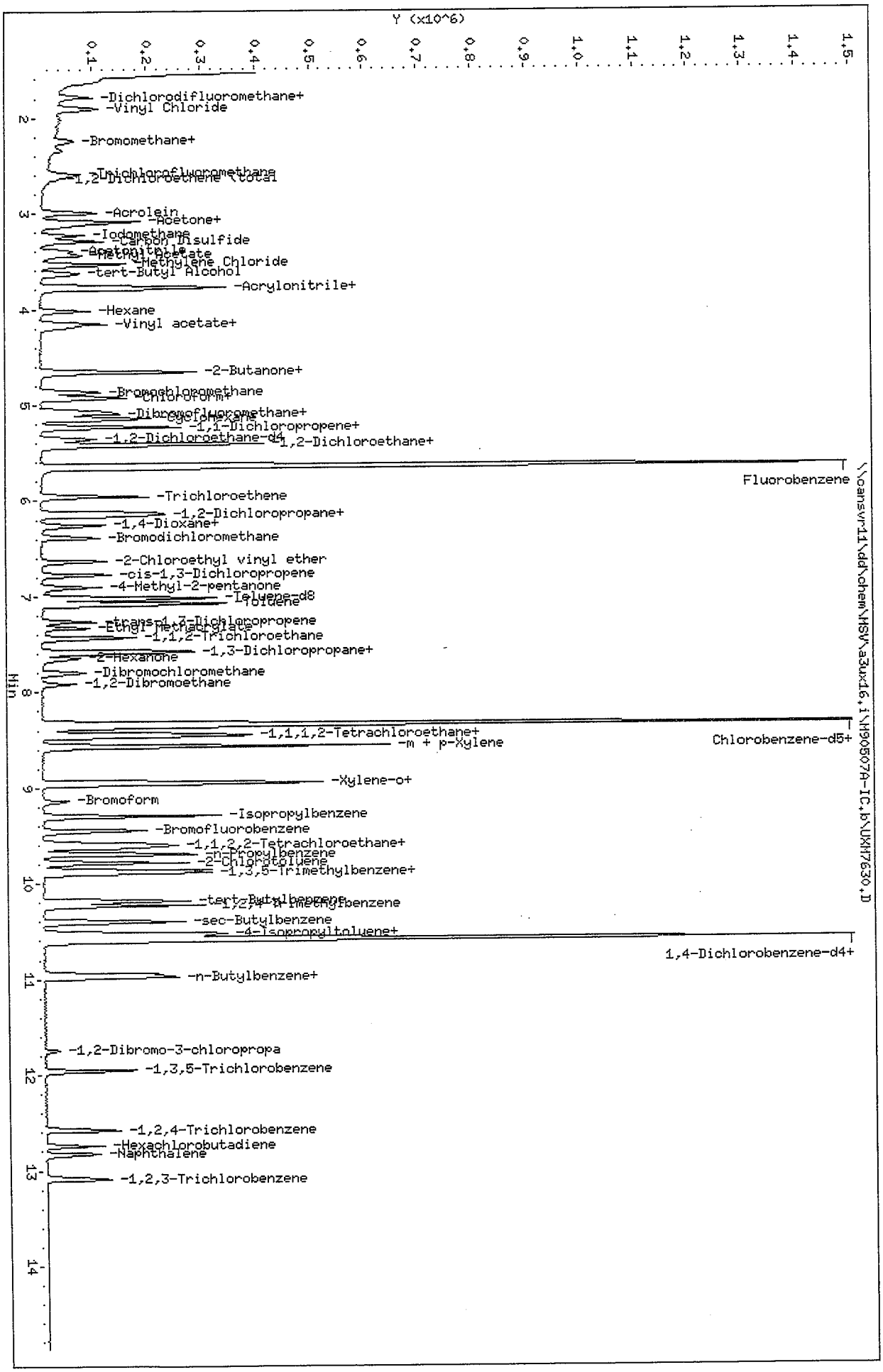
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7630.D
Lab Smp Id: 10NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,2

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1539556	-5.83
2 Chlorobenzene-d5	1305765	652883	2611530	1195523	-8.44
3 1,4-Dichlorobenze	720090	360045	1440180	625728	-13.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\MSV\a3ux16,i\H90507A-IC,b\UXH7630.D
Date : 07-MAY-2009 15:05
Client ID:
Sample Info: 10NG-IC
Purge Volume: 5.0
Column Phase: DB624

Instrument: a3ux16,i
Operator: 1644
Column diameter: 0.18

\\cansvr11\dd\chem\MSV\a3ux16,i\H90507A-IC,b\UXH7630.D

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Lab Smp Id: 50NG-IC
Inj Date : 07-MAY-2009 15:26
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 50NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,1
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 19:49 Cal File: UXM5915.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1532482	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1201181	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	583106	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	30063	5.00000	4.801
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	36718	5.00000	5.119
$	6 Toluene-d8	98	7.015	7.015	(0.841)	118084	5.00000	4.586
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	35530	5.00000	4.166
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	25117	5.00000	4.355
	9 Chloromethane	50	1.785	1.785	(0.317)	48113	5.00000	5.242
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	51642	5.00000	5.265
	11 Bromomethane	94	2.260	2.260	(0.401)	17221	5.00000	4.989
	12 Chloroethane	64	2.354	2.354	(0.418)	17192	5.00000	6.141
	13 Trichlorofluoromethane	101	2.603	2.603	(0.462)	37701	5.00000	4.672
	15 Acrolein	56	2.995	2.995	(0.531)	61152	50.0000	52.173
	16 Acetone	43	3.137	3.137	(0.556)	35048	10.0000	10.242
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	35284	5.00000	5.085
	18 Freon-113	151	3.101	3.101	(0.550)	22287	5.00000	4.550
	19 Iodomethane	142	3.232	3.232	(0.573)	56584	5.00000	5.107
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	105370	5.00000	4.835
	21 Methylene Chloride	84	3.528	3.528	(0.626)	50728	5.00000	6.018
	22 Acetonitrile	41	3.398	3.398	(0.603)	52488	50.0000	59.286
	23 Acrylonitrile	53	3.766	3.766	(0.668)	27947	10.0000	10.705

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	77982	5.00000	4.747
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	40007	5.00000	5.108
26 Hexane	86	4.026	4.026	(0.714)	4862	5.00000	1.931
27 Vinyl acetate	43	4.192	4.192	(0.743)	46638	5.00000	4.645
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	69335	5.00000	5.361
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	39109	100.000	100.23
30 2-Butanone	43	4.667	4.667	(0.828)	33706	10.0000	12.039
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	39700	5.00000	5.054
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	32459	5.00000	4.855
34 Bromochloromethane	128	4.868	4.868	(0.863)	21519	5.00000	5.618
35 Chloroform	83	4.928	4.928	(0.874)	64582	5.00000	5.316
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	7275	5.00000	4.818
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	44443	5.00000	4.933
38 1,1-Dichloropropene	75	5.236	5.236	(0.928)	43642	5.00000	4.536
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	38058	5.00000	4.880
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	47525	5.00000	5.344
41 Benzene	78	5.414	5.414	(0.960)	170853	5.00000	5.302
42 Trichloroethene	130	5.959	5.959	(1.057)	40799	5.00000	5.224
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	38894	5.00000	5.200
44 1,4-Dioxane	88	6.268	6.268	(1.111)	13337	250.000	213.38
45 Dibromomethane	93	6.256	6.256	(1.109)	21076	5.00000	5.339
46 Bromodichloromethane	83	6.386	6.386	(1.132)	40667	5.00000	5.049
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	29349	10.0000	12.091
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	42746	5.00000	4.394
49 4-Methyl-2-pentanone	43	6.908	6.908	(1.225)	50411	10.0000	9.713
50 Toluene	91	7.074	7.074	(0.848)	155200	5.00000	4.855
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	33979	5.00000	4.353
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	28271	5.00000	5.260
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	32747	5.00000	5.369
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	56352	5.00000	5.161
55 Tetrachloroethene	164	7.572	7.572	(0.908)	31507	5.00000	5.233
56 2-Hexanone	43	7.643	7.643	(0.916)	30993	10.0000	9.259
57 Dibromochloromethane	129	7.797	7.797	(0.935)	25901	5.00000	4.805
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	28235	5.00000	5.020
59 Chlorobenzene	112	8.367	8.367	(1.003)	108606	5.00000	5.282
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	34030	5.00000	5.260
61 Ethylbenzene	106	8.462	8.462	(1.014)	46220	5.00000	4.498
62 m + p-Xylene	106	8.568	8.568	(1.027)	109709	10.0000	8.467
64 Xylene-o	106	8.948	8.948	(1.072)	51102	5.00000	4.251
65 Styrene	104	8.960	8.960	(1.074)	76367	5.00000	5.274
66 Bromoform	173	9.137	9.137	(1.095)	15313	5.00000	4.779
67 Isopropylbenzene	105	9.292	9.292	(1.114)	112763	5.00000	5.228
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	39046	5.00000	5.605
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	3551	5.00000	6.256
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	11310	5.00000	5.805
71 Bromobenzene	156	9.600	9.600	(0.908)	37467	5.00000	5.230
72 n-Propylbenzene	120	9.695	9.695	(0.917)	28046	5.00000	4.088
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	30284	5.00000	4.572
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	81265	5.00000	4.045
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	32093	5.00000	4.686
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	74749	5.00000	4.418
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	77256	5.00000	5.149
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	90782	5.00000	4.035
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	67716	5.00000	5.324

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	68573	5.00000	5.207
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	72527	5.00000	5.291
82	n-Butylbenzene	91	10.940	10.940	(1.035)	57674	5.00000	6.330
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	68007	5.00000	5.309
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	4688	5.00000	5.146
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	27804	5.00000	4.867
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	14449	5.00000	5.432
87	Naphthalene	128	12.825	12.825	(1.213)	48454	5.00000	6.448
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	26555	5.00000	4.838
98	Cyclohexane	56	5.141	5.141	(0.912)	47575	5.00000	5.562
143	Methyl Acetate	43	3.434	3.434	(0.609)	54862	10.0000	10.816
144	Methylcyclohexane	83	6.125	6.125	(1.086)	37338	5.00000	5.517
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	35376	5.00000	4.988
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	5285	5.00000	4.524(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

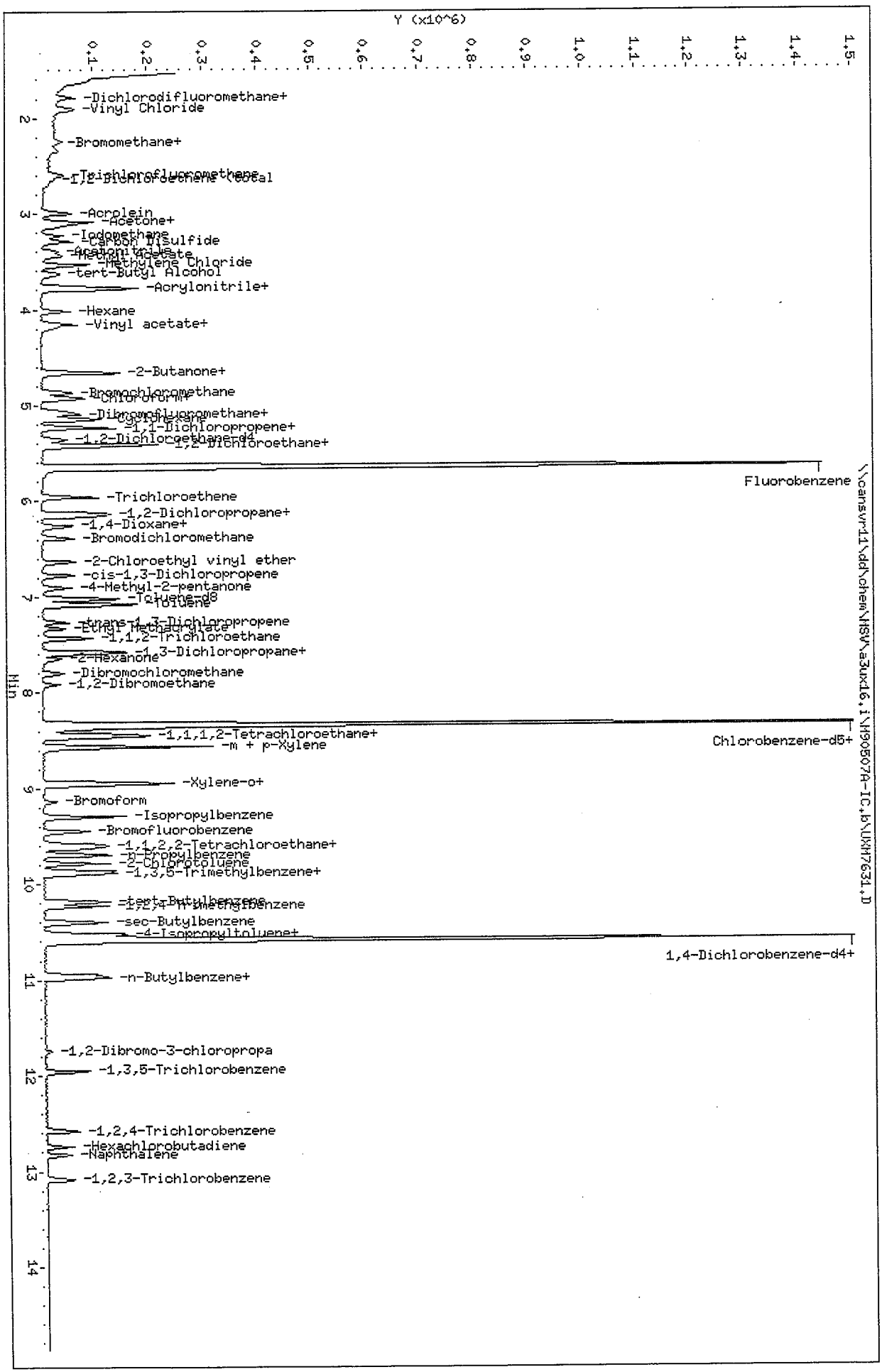
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7631.D
Lab Smp Id: 50NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,1

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1532482	-6.27
2 Chlorobenzene-d5	1305765	652883	2611530	1201181	-8.01
3 1,4-Dichlorobenze	720090	360045	1440180	583106	-19.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7631.D
Date : 07-MAY-2009 15:26
Client ID:
Sample Info: 50NG-IC
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane+
-Vinyl Chloride
-Bromomethane+
-Trichlorofluoromethane
-1,2-Dichloroethene (total
-Acrolein
-Acetone+
-Iodomethane
-Carbon Disulfide
-Acetonitrile
-Methyl Acetate
-Methylene Chloride
-tert-Butyl Alcohol
-Acrylonitrile+
-Hexane
-Vinyl acetate+
-2-Butanone+
-Bromochloromethane
-Chloroform
-Dibromofluoromethane+
-Cyclohexane
-1,1-Dichloropropene+
-1,2-Dichloroethane-d4
-1,2-Dichloroethane+
Fluorobenzene
\\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7631.D
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethyl vinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
-Toluene-d8
-Toluene
-trans-1,3-Dichloropropene
-Ethyl Methacrylate
-1,1,2-Trichloroethane
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m + p-Xylene
Chlorobenzene-d5+
-Xylene-o+
-Bromoform
-Isopropylbenzene
-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-4-Isopropyltoluene+
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
-1,3,5-Trichlorobenzene
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Lab Smp Id: ICV
Inj Date : 07-MAY-2009 15:47
Operator : 1644 Inst ID: a3ux16.i
Smp Info : ICV
Misc Info : M90507A-IC,8260LLUX16,,1644,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:12 williamsl Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 7 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	1630386	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1291470	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	709801	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	328516	49.3174	9.863
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	376560	49.3497	9.870
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	1418549	51.2384	10.248
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	495176	53.9990	10.800
8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	309361	50.4168	10.083
9 Chloromethane	50	1.785	1.785	(0.317)	434362	44.4824	8.896
10 Vinyl Chloride	62	1.904	1.904	(0.338)	488109	46.7792	9.356
11 Bromomethane	94	2.248	2.248	(0.399)	151458	41.2431	8.249
12 Chloroethane	64	2.354	2.354	(0.418)	122390	41.0908	8.218
13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	456436	53.1653	10.633
14 Dichlorofluoromethane	67	Compound Not Detected.					
15 Acrolein	56	2.995	2.995	(0.531)	195774	156.997	31.399
16 Acetone	43	3.137	3.137	(0.556)	102703	46.6474	9.329
17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	375825	50.9069	10.181
18 Freon-113	151	3.113	3.113	(0.552)	330726	63.4665	12.693
19 Iodomethane	142	3.232	3.232	(0.573)	587923	49.8802	9.976
20 Carbon Disulfide	76	3.291	3.291	(0.584)	1221690	52.6943	10.539
21 Methylene Chloride	84	3.528	3.528	(0.626)	417727	46.5820	9.316
22 Acetonitrile	41	3.398	3.398	(0.603)	122596	130.160	26.032

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	23 Acrylonitrile	53	3.754	3.754	(0.666)	386079	139.005	27.801
	24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	872601	49.9274	9.985
	25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	413520	49.6228	9.924
	26 Hexane	86	4.015	4.026	(0.712)	104773	58.2278	11.646
	27 Vinyl acetate	43	4.192	4.192	(0.743)	1122391	105.083	21.016
	28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	691069	50.2267	10.045
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	386528	931.112	186.22
	30 2-Butanone	43	4.667	4.667	(0.828)	137309	46.0994	9.220
M	31 1,2-Dichloroethene (total)	96				837964	100.414	20.083
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	424444	50.7913	10.158
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	369813	51.9918	10.398
	34 Bromochloromethane	128	4.868	4.868	(0.863)	196361	48.1900	9.638
	35 Chloroform	83	4.928	4.928	(0.874)	635525	49.1718	9.834
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	81336	50.6330	10.127
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	490594	51.1820	10.236
	38 1,1-Dichloropropene	75	5.224	5.236	(0.926)	518070	50.6102	10.122
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	433490	52.2485	10.450
	40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	458886	48.5035	9.701
	41 Benzene	78	5.414	5.414	(0.960)	1691624	49.3435	9.869
	42 Trichloroethene	130	5.959	5.959	(1.057)	400891	48.2493	9.650
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	393359	49.4368	9.887
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	6.256	6.256	(1.109)	208314	49.6009	9.920
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	427812	49.9246	9.985
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	176629	45.3338	9.067
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	508293	49.1099	9.822
	49 4-Methyl-2-pentanone	43	6.896	6.908	(1.223)	255521	46.2774	9.255
	50 Toluene	91	7.074	7.074	(0.848)	1718020	49.9907	9.998
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	434930	51.8272	10.365
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	313479	47.8016	9.560
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	578422	49.2745	9.855
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	326217	50.3905	10.078
	56 2-Hexanone	43	7.643	7.643	(0.916)	169499	47.0981	9.420
	57 Dibromochloromethane	129	7.797	7.797	(0.935)	297350	51.3020	10.260
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	301246	49.8183	9.964
	59 Chlorobenzene	112	8.367	8.367	(1.003)	1087116	49.1735	9.835
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	333222	47.9077	9.582
	61 Ethylbenzene	106	8.461	8.461	(1.014)	566639	51.2829	10.256
	62 m + p-Xylene	106	8.568	8.568	(1.027)	1474885	105.872	21.174
M	63 Xylenes (total)	106				2160841	158.946	31.789
	64 Xylene-o	106	8.948	8.948	(1.072)	685956	53.0741	10.615
	65 Styrene	104	8.960	8.960	(1.074)	1113063	48.0348	9.607
	66 Bromoform	173	9.137	9.137	(1.095)	171178	49.6926	9.938
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	1640122	49.3111	9.862
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	418063	49.3008	9.860
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	112451	77.0143	15.403
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	125460	52.8975	10.579
	71 Bromobenzene	156	9.600	9.600	(0.908)	420206	48.1820	9.636
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	457961	54.8376	10.968
	73 2-Chlorotoluene	126	9.790	9.778	(0.926)	402636	49.9422	9.988
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	1297553	53.0594	10.612
	75 4-Chlorotoluene	126	9.885	9.885	(0.935)	431901	51.8103	10.362
	76 tert-Butylbenzene	119	10.181	10.181	(0.963)	1071159	52.0097	10.402

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	1343439	49.3363	9.867
78	sec-Butylbenzene	105	10.394	10.394	(0.983)	1431838	52.2826	10.456
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	1211093	49.3429	9.868
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	780834	48.7057	9.741
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	810600	48.5806	9.716
82	n-Butylbenzene	91	10.940	10.940	(1.035)	913797	45.7792	9.156
83	1,2-Dichlorobenzene	146	10.975	10.976	(1.038)	751034	48.1614	9.632
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	54648	49.2757	9.855
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	325526	46.8116	9.362
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	142579	44.0315	8.806
87	Naphthalene	128	12.825	12.825	(1.213)	700609	39.8103	7.962
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	323013	48.3430	9.669
89	Ethyl Ether	59	2.864	2.865	(0.508)	331089	49.0340	9.807
91	3-Chloropropene	76	3.291	3.422	(0.584)	1221690	325.183	65.037
92	Isopropyl Ether	87	4.204	4.205	(0.746)	337247	48.4605	9.692
93	2-Chloro-1,3-butadiene	53	4.015	4.229	(0.712)	19807	2.02394	0.4048
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	4.667	4.703	(0.828)	137309	24.2244	4.845
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	5.295	5.296	(0.635)	459285	2380.69	476.14
99	n-Butanol	56	5.639	5.865	(0.676)	7990	45.5892	9.118
100	Methyl Methacrylate	41	6.137	6.233	(1.088)	427384	91.2314	18.246
101	2-Nitropropane	41	6.635	6.577	(1.177)	8780	6.52235	1.304
103	Cyclohexanone	55	9.398	9.399	(0.889)	80188	97.1250	19.425
98	Cyclohexane	56	5.141	5.141	(0.912)	692579	45.2226	9.044
143	Methyl Acetate	43	3.433	3.433	(0.609)	219687	40.7103	8.142
144	Methylcyclohexane	83	6.125	6.125	(1.086)	620350	45.7535	9.151
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	69421	55.8552	11.171
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	5.414	5.486	(0.960)	28753	1.60281	0.3206(a)
153	1,2,3-Trimethylbenzene	105	10.643	10.644	(1.007)	1365012	48.3706	9.674

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Lab Smp Id: ICV
Inj Date : 07-MAY-2009 15:47
Operator : 1644 Inst ID: a3ux16.i
Smp Info : ICV
Misc Info : M90507A-IC,8260LLUX16,,1644,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:12 williamsl Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 7 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANPMSV23

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7632.D
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,,1644,3

Calibration Date: 07-MAY-2009
Calibration Time: 14:24

Level: LOW
Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1630386	-0.28
2 Chlorobenzene-d5	1305765	652883	2611530	1291470	-1.09
3 1,4-Dichlorobenze	720090	360045	1440180	709801	-1.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

RECOVERY REPORT

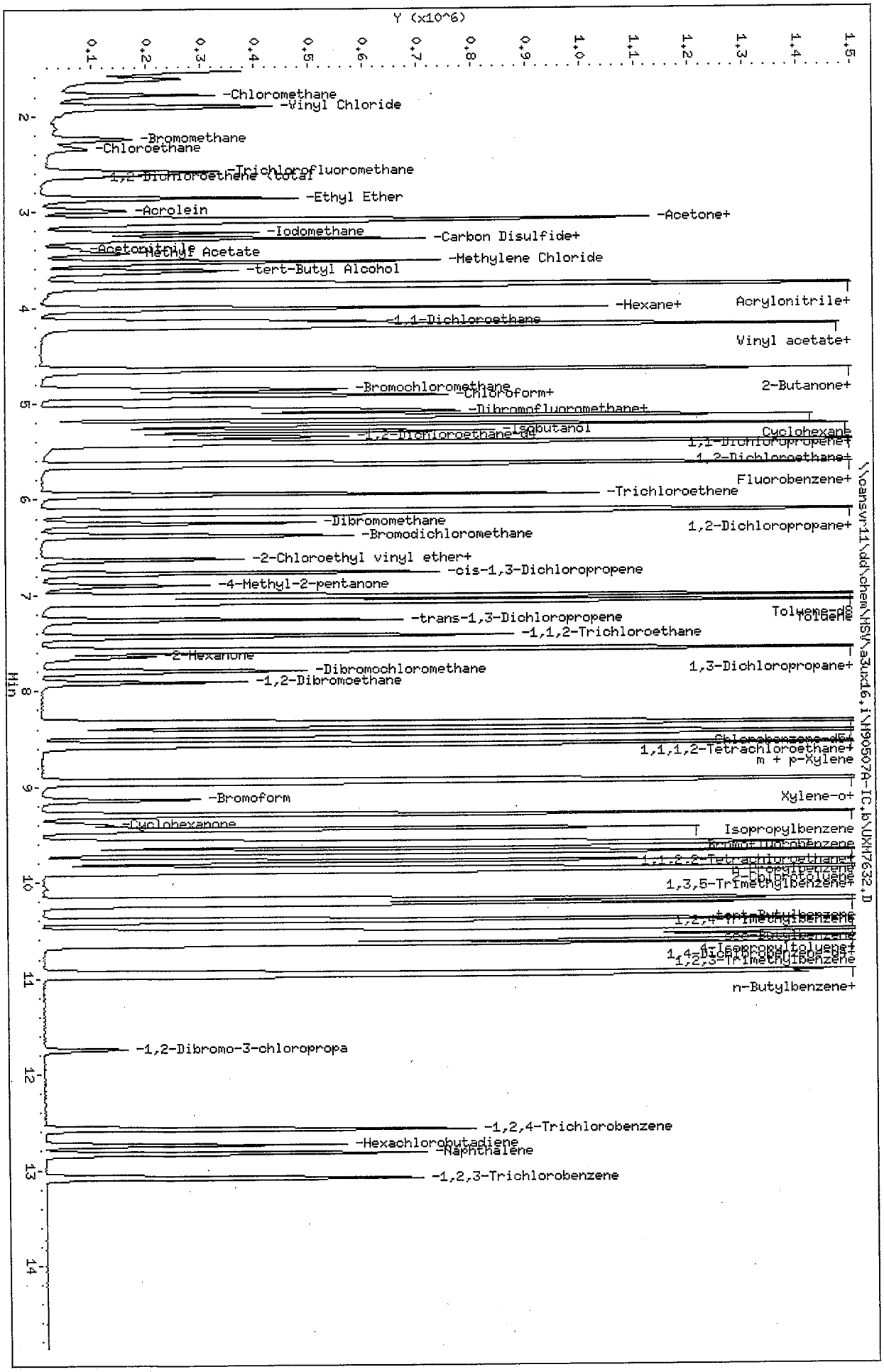
Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: DOD-ck.spk
Sublist File: 4-8260+IX.sub
Client SDG: SDGa00932
Fraction: VOA
Operator: 1644
SampleType: METHSPIKE
Quant Type: ISTD
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,,1644,3

	SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	17	1,1-Dichloroethene	10.000	10.181	101.81	45-155
	42	Trichloroethene	10.000	9.650	96.50	45-155
	59	Chlorobenzene	10.000	9.835	98.35	45-155
	50	Toluene	10.000	9.998	99.98	45-155
	41	Benzene	10.000	9.869	98.69	45-155
	16	Acetone	10.000	9.329	93.29	45-155
	20	Carbon Disulfide	10.000	10.539	105.39	45-155
	9	Chloromethane	10.000	8.896	88.96	45-155
	11	Bromomethane	10.000	8.249	82.49	45-155
	10	Vinyl Chloride	10.000	9.356	93.56	45-155
	12	Chloroethane	10.000	8.218	82.18	45-155
	21	Methylene Chloride	10.000	9.316	93.16	45-155
	28	1,1-Dichloroethane	10.000	10.045	100.45	45-155
M	31	1,2-Dichloroethene	20.000	20.083	100.41	45-155
	35	Chloroform	10.000	9.834	98.34	45-155
	40	1,2-Dichloroethane	10.000	9.701	97.01	45-155
	30	2-Butanone	10.000	9.220	92.20	45-155
	37	1,1,1-Trichloroeth	10.000	10.236	102.36	45-155
	39	Carbon Tetrachlori	10.000	10.450	104.50	45-155
	46	Bromodichlorometha	10.000	9.985	99.85	45-155
	43	1,2-Dichloropropan	10.000	9.887	98.87	45-155
	48	cis-1,3-Dichloropr	10.000	9.822	98.22	45-155
	54	1,3-Dichloropropan	10.000	9.855	98.55	45-155
	57	Dibromochlorometha	10.000	10.260	102.60	45-155
	53	1,1,2-Trichloroeth	10.000	9.560	95.60	45-155
	51	trans-1,3-Dichloro	10.000	10.365	103.65	45-155
	66	Bromoform	10.000	9.938	99.39	45-155
	49	4-Methyl-2-pentano	10.000	9.255	92.55	45-155
	56	2-Hexanone	10.000	9.420	94.20	45-155
	55	Tetrachloroethene	10.000	10.078	100.78	45-155
	68	1,1,2,2-Tetrachlor	10.000	9.860	98.60	45-155
	61	Ethylbenzene	10.000	10.256	102.57	45-155
	65	Styrene	10.000	9.607	96.07	45-155
M	63	Xylenes (total)	30.000	31.789	105.96	45-155
	32	cis-1,2-dichloroet	10.000	10.158	101.58	45-155
	25	trans-1,2-Dichloro	10.000	9.924	99.25	45-155
	8	Dichlorodifluorome	10.000	10.083	100.83	45-155
	13	Trichlorofluoromet	10.000	10.633	106.33	45-155
	70	1,2,3-Trichloropro	10.000	10.579	105.79	45-155
	18	Freon-113	10.000	12.693	126.93	45-155

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
24 Methyl tert-butyl	10.000	9.985	99.85	45-155
58 1,2-Dibromoethane	10.000	9.964	99.64	45-155
67 Isopropylbenzene	10.000	9.862	98.62	45-155
80 1,3-Dichlorobenzen	10.000	9.741	97.41	45-155
81 1,4-Dichlorobenzen	10.000	9.716	97.16	45-155
83 1,2-Dichlorobenzen	10.000	9.632	96.32	45-155
84 1,2-Dibromo-3-chlo	10.000	9.855	98.55	45-155
85 1,2,4-Trichloroben	10.000	9.362	93.62	45-155
98 Cyclohexane	10.000	9.044	90.45	45-155
143 Methyl Acetate	10.000	8.142	81.42	45-155
144 Methylcyclohexane	10.000	9.151	91.51	45-155
71 Bromobenzene	10.000	9.636	96.36	45-155
34 Bromochloromethane	10.000	9.638	96.38	45-155
82 n-Butylbenzene	10.000	9.156	91.56	45-155
78 sec-Butylbenzene	10.000	10.456	104.57	45-155
76 tert-Butylbenzene	10.000	10.402	104.02	45-155
73 2-Chlorotoluene	10.000	9.988	99.88	45-155
75 4-Chlorotoluene	10.000	10.362	103.62	45-155
45 Dibromomethane	10.000	9.920	99.20	45-155
33 2,2-Dichloropropan	10.000	10.398	103.98	45-155
38 1,1-Dichloropropen	10.000	10.122	101.22	45-155
86 Hexachlorobutadien	10.000	8.806	88.06	45-155
19 Iodomethane	10.000	9.976	99.76	45-155
92 Isopropyl Ether	10.000	9.692	96.92	45-155
79 4-Isopropyltoluene	10.000	9.868	98.69	45-155
87 Naphthalene	10.000	7.962	79.62	45-155
72 n-Propylbenzene	10.000	10.968	109.68	45-155
60 1,1,1,2-Tetrachlor	10.000	9.582	95.82	45-155
88 1,2,3-Trichloroben	10.000	9.669	96.69	45-155
77 1,2,4-Trimethylben	10.000	9.867	98.67	45-155
74 1,3,5-Trimethylben	10.000	10.612	106.12	45-155
149 Vinyl Acetate-86	10.000	11.171	111.71	45-155
62 m + p-Xylene	20.000	21.174	105.87	45-155
64 Xylene-o	10.000	10.615	106.15	45-155

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 Dibromofluorometha	10.000	9.863	98.63	73-122
$ 5 1,2-Dichloroethane	10.000	9.870	98.70	61-128
$ 6 Toluene-d8	10.000	10.248	102.48	76-110
$ 7 Bromofluorobenzene	10.000	10.800	108.00	74-116


Data File: \\cansvr11\dd\chem\HSV\a3ux16,i\M90507A-IC,b\UXM7632,D
Date : 07-MAY-2009 15:47
Client ID:
Sample Info: ICV
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16,i
Operator: 1644
Column diameter: 0.18
Y (x10^6)
Min
-Chloromethane
-Vinyl Chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Ethyl Ether
-Acrolein
-Acetone+
-Iodomethane
-Carbon Disulfide+
-Methyl Acetate
-Methylene Chloride
-tert-Butyl Alcohol
-Hexane+
Acrylonitrile+
-1,1-Dichloroethane
Vinyl acetate+
2-Butanone+
-Bromochloromethane
-Chloroform+
-Dibromofluoromethane+
-Isobutanol
Cyclohexane
1,1-Dichloropropene+
1,2-Dichloroethane+
Fluorobenzene+
-Trichloroethene
1,2-Dichloropropane+
-Dibromomethane
-Bromodichloromethane
-2-Chloroethyl vinyl ether+
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
Toluene-d8
Toluene
-trans-1,3-Dichloropropene
-1,1,2-Trichloroethane
-2-Hexanone
1,3-Dichloropropane+
-Dibromochloromethane
-1,2-Dibromoethane
Chlorobenzene-d5+
1,1,1,2-Tetrachloroethane+
m + p-Xylene
-Bromoform
Xylene-o+
-Cyclohexanone
Isopropylbenzene
Bromofluorobenzene+
1,1,2,2-Tetrachloroethane+
Chlorobenzene+
p-Chlorotoluene+
1,3,5-Trimethylbenzene+
tert-Butylbenzene
1,2,4-Trimethylbenzene
sec-Butylbenzene
p-Isopropyltoluene+
1,4-Dichlorobenzene-d4+
1,2,3-Trimethylbenzene
n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
\\cansvr11\dd\chem\HSV\a3ux16,i\M90507A-IC,b\UXM7632,D

Report Date: 26-Jun-2009 09:16

Calibration History

Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Start Cal Date: 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
11-FEB-2009 20:10	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
07-MAY-2009 15:26	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Cal Level: 2 , Cal Amount: 10.00000		
11-FEB-2009 19:49	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
07-MAY-2009 15:05	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Cal Level: 3 , Cal Amount: 25.00000		
11-FEB-2009 19:28	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
07-MAY-2009 14:45	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Cal Level: 4 , Cal Amount: 50.00000		
11-FEB-2009 19:07	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
07-MAY-2009 14:24	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Cal Level: 5 , Cal Amount: 100.00000		
11-FEB-2009 18:46	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
07-MAY-2009 14:03	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Cal Level: 6 , Cal Amount: 200.00000		
11-FEB-2009 18:25	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D
07-MAY-2009 13:42	2-8260	

\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D		

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

25-JUN-2009 15:18	2-8260	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D		
25-JUN-2009 14:57	3-IX	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8940.D		

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 25-JUN-2009 15:18
Lab File ID: UXM8941.D Init. Cal. Date(s): 11-FEB-2009 07-MAY-2009
Analysis Type: WATER Init. Cal. Times: 16:00 15:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Dibromofluoromethane	0.20428	0.20346	0.20346	0.010	0.40406	50.00000	Averaged
$ 5 1,2-Dichloroethane-d4	0.23401	0.23564	0.23564	0.010	-0.69634	50.00000	Averaged
$ 6 Toluene-d8	1.07185	1.12027	1.12027	0.010	-4.51699	50.00000	Averaged
$ 7 Bromofluorobenzene	0.35503	0.37712	0.37712	0.010	-6.22203	50.00000	Averaged
8 Dichlorodifluoromethane	0.18818	0.20185	0.20185	0.010	-7.26435	50.00000	Averaged
9 Chloromethane	0.29946	0.24653	0.24653	0.100	17.67531	50.00000	Averaged
10 Vinyl Chloride	0.31999	0.26102	0.26102	0.010	18.42935	20.00000	Averaged
11 Bromomethane	0.11262	0.12148	0.12148	0.010	-7.86795	50.00000	Averaged
12 Chloroethane	0.09134	0.06940	0.06940	0.010	24.02276	50.00000	Averaged
13 Trichlorofluoromethane	0.26329	0.31250	0.31250	0.010	-18.69229	50.00000	Averaged
15 Acrolein	0.03824	0.02728	0.02728	0.010	28.67447	50.00000	Averaged
16 Acetone	100	89.58888	0.05516	0.010	10.41112	0.000e+000	Wt Linear
17 1,1-Dichloroethene	0.22641	0.20412	0.20412	0.010	9.84557	20.00000	Averaged
18 Freon-113	0.15981	0.13625	0.13625	0.010	14.74124	50.00000	Averaged
19 Iodomethane	0.36147	0.35443	0.35443	0.010	1.94857	50.00000	Averaged
20 Carbon Disulfide	0.71101	0.65760	0.65760	0.010	7.51231	50.00000	Averaged
21 Methylene Chloride	0.27501	0.24154	0.24154	0.010	12.17341	50.00000	Averaged
22 Acetonitrile	0.02889	0.02157	0.02157	0.010	25.33087	50.00000	Averaged
23 Acrylonitrile	0.08518	0.06803	0.06803	0.010	20.13312	50.00000	Averaged
24 Methyl tert-butyl ether	0.53599	0.57051	0.57051	0.010	-6.44057	50.00000	Averaged
25 trans-1,2-Dichloroethene	0.25556	0.23421	0.23421	0.010	8.35389	50.00000	Averaged
26 Hexane	50.00000	34.73196	0.03877	0.010	30.53609	0.000e+000	Linear
27 Vinyl acetate	0.32756	0.31149	0.31149	0.010	4.90534	50.00000	Averaged
28 1,1-Dichloroethane	0.42195	0.40553	0.40553	0.100	3.89354	50.00000	Averaged
29 tert-Butyl Alcohol	0.01273	0.01250	0.01250	0.010	1.79036	50.00000	Averaged
30 2-Butanone	0.09134	0.08187	0.08187	0.010	10.37254	50.00000	Averaged
M 31 1,2-Dichloroethene (total)	0.25592	0.23885	0.23885	0.010	6.66921	50.00000	Averaged
32 cis-1,2-dichloroethene	0.25628	0.24349	0.24349	0.010	4.98970	50.00000	Averaged
33 2,2-Dichloropropane	0.21814	0.24704	0.24704	0.010	-13.25114	50.00000	Averaged
34 Bromochloromethane	0.12496	0.11527	0.11527	0.010	7.75788	50.00000	Averaged
35 Chloroform	0.39637	0.39117	0.39117	0.010	1.30979	20.00000	Averaged
36 Tetrahydrofuran	0.04926	0.04957	0.04957	0.010	-0.61283	50.00000	Averaged
37 1,1,1-Trichloroethane	0.29396	0.32492	0.32492	0.010	-10.53170	50.00000	Averaged
38 1,1-Dichloropropene	0.31393	0.29528	0.29528	0.010	5.93931	50.00000	Averaged
39 Carbon Tetrachloride	0.25444	0.27505	0.27505	0.010	-8.10121	50.00000	Averaged
40 1,2-Dichloroethane	0.29014	0.30602	0.30602	0.010	-5.47161	50.00000	Averaged
41 Benzene	1.05136	0.94220	0.94220	0.010	10.38289	50.00000	Averaged
42 Trichloroethene	0.25481	0.23002	0.23002	0.010	9.72704	50.00000	Averaged
43 1,2-Dichloropropane	0.24402	0.22563	0.22563	0.010	7.53487	20.00000	Averaged
44 1,4-Dioxane	0.00204	0.00166	0.00166	0.001	18.39033	50.00000	Averaged
45 Dibromomethane	0.12880	0.12209	0.12209	0.010	5.20490	50.00000	Averaged
46 Bromodichloromethane	0.26280	0.26959	0.26959	0.010	-2.58473	50.00000	Averaged
47 2-Chloroethyl vinyl ether	100	66.65846	0.08277	0.010	33.34154	0.000e+000	Wt Linear

|_____|_____|_____|_____|____|_____|_____|_____|

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 25-JUN-2009 15:18
Lab File ID: UXM8941.D Init. Cal. Date(s): 11-FEB-2009 07-MAY-2009
Analysis Type: WATER Init. Cal. Times: 16:00 15:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.31741	0.32241	0.32241	0.010	-1.57330	50.00000	Averaged
49 4-Methyl-2-pentanone	0.16933	0.16762	0.16762	0.010	1.01232	50.00000	Averaged
50 Toluene	1.33053	1.36556	1.36556	0.010	-2.63275	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.32490	0.36473	0.36473	0.010	-12.26064	50.00000	Averaged
52 Ethyl Methacrylate	50.00000	49.42966	0.33046	0.010	1.14067	0.000e+000	Wt Linear
53 1,1,2-Trichloroethane	0.25389	0.24329	0.24329	0.010	4.17701	50.00000	Averaged
54 1,3-Dichloropropane	0.45447	0.44035	0.44035	0.010	3.10726	50.00000	Averaged
55 Tetrachloroethene	0.25064	0.24308	0.24308	0.010	3.01304	50.00000	Averaged
56 2-Hexanone	0.13933	0.15116	0.15116	0.010	-8.48992	50.00000	Averaged
57 Dibromochloromethane	0.22440	0.24390	0.24390	0.010	-8.69222	50.00000	Averaged
58 1,2-Dibromoethane	0.23411	0.22546	0.22546	0.010	3.69312	50.00000	Averaged
59 Chlorobenzene	0.85591	0.85887	0.85887	0.300	-0.34500	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.26929	0.28802	0.28802	0.010	-6.95499	50.00000	Averaged
61 Ethylbenzene	0.42778	0.44535	0.44535	0.010	-4.10658	20.00000	Averaged
62 m + p-Xylene	0.53934	0.56948	0.56948	0.010	-5.58792	50.00000	Averaged
M 63 Xylenes (total)	0.52635	0.56106	0.56106	0.010	-6.59309	50.00000	Averaged
64 Xylene-o	0.50038	0.54421	0.54421	0.010	-8.75964	50.00000	Averaged
65 Styrene	50.00000	50.62068	0.91013	0.010	-1.24137	0.000e+000	Wt Linear
66 Bromoform	0.13336	0.13555	0.13555	0.100	-1.63710	50.00000	Averaged
67 Isopropylbenzene	50.00000	49.03824	1.26269	0.010	1.92353	0.000e+000	Wt Linear
68 1,1,2,2-Tetrachloroethane	0.59734	0.55390	0.55390	0.300	7.27269	50.00000	Averaged
69 1,4-Dichloro-2-butene	50.00000	59.12270	0.11991	0.010	-18.24539	0.000e+000	Wt Linear
70 1,2,3-Trichloropropane	0.16707	0.16609	0.16609	0.010	0.58788	50.00000	Averaged
71 Bromobenzene	0.61434	0.65210	0.65210	0.010	-6.14611	50.00000	Averaged
72 n-Propylbenzene	0.58828	0.67125	0.67125	0.010	-14.10368	50.00000	Averaged
73 2-Chlorotoluene	0.56791	0.62167	0.62167	0.010	-9.46570	50.00000	Averaged
74 1,3,5-Trimethylbenzene	1.72265	1.93961	1.93961	0.010	-12.59453	50.00000	Averaged
75 4-Chlorotoluene	0.58722	0.64733	0.64733	0.010	-10.23687	50.00000	Averaged
76 tert-Butylbenzene	1.45079	1.56007	1.56007	0.010	-7.53249	50.00000	Averaged
77 1,2,4-Trimethylbenzene	50.00000	52.86059	2.03309	0.010	-5.72119	0.000e+000	Wt Linear
78 sec-Butylbenzene	1.92917	2.01141	2.01141	0.010	-4.26287	50.00000	Averaged
79 4-Isopropyltoluene	50.00000	49.69991	1.71914	0.010	0.60018	0.000e+000	Wt Linear
80 1,3-Dichlorobenzene	1.12931	1.20321	1.20321	0.010	-6.54412	50.00000	Averaged
81 1,4-Dichlorobenzene	1.17538	1.23948	1.23948	0.010	-5.45428	50.00000	Averaged
82 n-Butylbenzene	50.00000	44.94322	1.26221	0.010	10.11356	0.000e+000	Wt Linear
83 1,2-Dichlorobenzene	1.09848	1.17193	1.17193	0.010	-6.68607	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.07812	0.07468	0.07468	0.010	4.40049	50.00000	Averaged
85 1,2,4-Trichlorobenzene	0.48985	0.46448	0.46448	0.010	5.18062	50.00000	Averaged
86 Hexachlorobutadiene	0.22810	0.20051	0.20051	0.010	12.09394	50.00000	Averaged
87 Naphthalene	50.00000	39.93039	0.99030	0.010	20.13922	0.000e+000	Wt Linear
88 1,2,3-Trichlorobenzene	0.47067	0.40769	0.40769	0.010	13.38240	50.00000	Averaged
98 Cyclohexane	50.00000	38.85223	0.36155	0.010	22.29553	0.000e+000	Wt Linear
143 Methyl Acetate	0.16549	0.14555	0.14555	0.010	12.05176	50.00000	Averaged

|_____|_____|_____|_____|____|_____|_____|_____|

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 25-JUN-2009 15:18
Lab File ID: UXM8941.D Init. Cal. Date(s): 11-FEB-2009 07-MAY-2009
Analysis Type: WATER Init. Cal. Times: 16:00 15:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	50.00000	35.52276	0.28994	0.010	28.95449	0.000e+000	Wt Linear
141 1,3,5-Trichlorobenzene	0.60812	0.59055	0.59055	0.010	2.89001	50.00000	Averaged
149 Vinyl Acetate-86	0.03812	0.03425	0.03425	0.010	10.13670	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Lab Smp Id: 50NG-CC
Inj Date : 25-JUN-2009 15:18
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 50NG-CC
Misc Info : M90625A,8260LLUX16,2-8260.SUB,1644,2
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	948376	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	691311	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.573	10.573	(1.000)	360329	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	192956	50.0000	49.798
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	223472	50.0000	50.348
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	774452	50.0000	52.258
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	260704	50.0000	53.111
8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	191428	50.0000	53.632
9 Chloromethane	50	1.785	1.785	(0.317)	233805	50.0000	41.162
10 Vinyl Chloride	62	1.904	1.904	(0.338)	247547	50.0000	40.785
11 Bromomethane	94	2.248	2.248	(0.399)	115211	50.0000	53.934
12 Chloroethane	64	2.355	2.355	(0.418)	65818	50.0000	37.989
13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	296370	50.0000	59.346
15 Acrolein	56	2.995	2.995	(0.531)	258683	500.000	356.63
16 Acetone	43	3.137	3.137	(0.556)	104625	100.000	89.589
17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	193578	50.0000	45.077
18 Freon-113	151	3.114	3.114	(0.552)	129218	50.0000	42.629
19 Iodomethane	142	3.232	3.232	(0.573)	336129	50.0000	49.026
20 Carbon Disulfide	76	3.291	3.291	(0.584)	623651	50.0000	46.244

21 Methylene Chloride	84	3.529	3.529 (0.626)	229066	50.0000	43.913
22 Acetonitrile	41	3.398	3.398 (0.603)	204551	500.000	373.34
23 Acrylonitrile	53	3.754	3.754 (0.666)	129034	100.000	79.867

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	541058	50.0000	53.220
	25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	222121	50.0000	45.823
	26 Hexane	86	4.027	4.027	(0.714)	36765	50.0000	34.732
	27 Vinyl acetate	43	4.193	4.193	(0.743)	295412	50.0000	47.547
	28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	384591	50.0000	48.053
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	237150	1000.00	982.10
	30 2-Butanone	43	4.667	4.667	(0.828)	155287	100.000	89.627
M	31 1,2-Dichloroethene (total)	96				453041	100.000	93.328
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	230920	50.0000	47.505
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	234288	50.0000	56.626
	34 Bromochloromethane	128	4.869	4.869	(0.863)	109317	50.0000	46.121
	35 Chloroform	83	4.928	4.928	(0.874)	370980	50.0000	49.345
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	47007	50.0000	50.306
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	308143	50.0000	55.266
	38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	280039	50.0000	47.030
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	260853	50.0000	54.051
	40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	290220	50.0000	52.736
	41 Benzene	78	5.414	5.414	(0.960)	893562	50.0000	44.808
	42 Trichloroethene	130	5.960	5.960	(1.057)	218149	50.0000	45.136
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	213982	50.0000	46.232
	44 1,4-Dioxane	88	6.268	6.268	(1.111)	78918	2500.00	2040.2
	45 Dibromomethane	93	6.256	6.256	(1.109)	115791	50.0000	47.398
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	255671	50.0000	51.292
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	157000	100.000	66.658
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	305763	50.0000	50.787
	49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	317928	100.000	98.988
	50 Toluene	91	7.074	7.074	(0.848)	944026	50.0000	51.316
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	252144	50.0000	56.130
	52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	228449	50.0000	49.430
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	168188	50.0000	47.911
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	304420	50.0000	48.446
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	168047	50.0000	48.493
	56 2-Hexanone	43	7.643	7.643	(0.916)	208998	100.000	108.49
	57 Dibromochloromethane	129	7.798	7.798	(0.935)	168613	50.0000	54.346
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	155865	50.0000	48.153
	59 Chlorobenzene	112	8.367	8.367	(1.003)	593744	50.0000	50.172
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	199108	50.0000	53.477
	61 Ethylbenzene	106	8.462	8.462	(1.014)	307873	50.0000	52.053
	62 m + p-Xylene	106	8.568	8.568	(1.027)	787375	100.000	105.59
M	63 Xylenes (total)	106				1163594	150.000	159.97
	64 Xylene-o	106	8.948	8.948	(1.072)	376219	50.0000	54.380
	65 Styrene	104	8.960	8.960	(1.074)	629184	50.0000	50.621
	66 Bromoform	173	9.149	9.149	(1.097)	93706	50.0000	50.818
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	872909	50.0000	49.038
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	199585	50.0000	46.364
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	43206	50.0000	59.123
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	59847	50.0000	49.706
	71 Bromobenzene	156	9.600	9.600	(0.908)	234971	50.0000	53.073
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	241870	50.0000	57.052
	73 2-Chlorotoluene	126	9.790	9.790	(0.926)	224004	50.0000	54.733
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	698896	50.0000	56.297
	75 4-Chlorotoluene	126	9.885	9.885	(0.935)	233253	50.0000	55.118

76 tert-Butylbenzene	119	10.181	10.181 (0.963)	562137	50.0000	53.766
77 1,2,4-Trimethylbenzene	105	10.229	10.229 (0.967)	732581	50.0000	52.860

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
78	sec-Butylbenzene	105	10.395	10.395	(0.983)	724768	50.0000	52.131
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	619456	50.0000	49.700
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	433552	50.0000	53.272
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	446622	50.0000	52.727
82	n-Butylbenzene	91	10.940	10.940	(1.035)	454812	50.0000	44.943
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	422280	50.0000	53.343
84	1,2-Dibromo-3-chloropropane	157	11.747	11.747	(1.111)	26911	50.0000	47.800
85	1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	167364	50.0000	47.410
86	Hexachlorobutadiene	225	12.743	12.743	(1.205)	72251	50.0000	43.953
87	Naphthalene	128	12.826	12.826	(1.213)	356835	50.0000	39.930
88	1,2,3-Trichlorobenzene	180	13.087	13.087	(1.238)	146901	50.0000	43.309
98	Cyclohexane	56	5.141	5.141	(0.912)	342885	50.0000	38.852
143	Methyl Acetate	43	3.434	3.434	(0.609)	276069	100.000	87.948
144	Methylcyclohexane	83	6.126	6.126	(1.086)	274974	50.0000	35.523
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	212792	50.0000	48.555
149	Vinyl Acetate-86	86	4.193	4.193	(0.743)	32484	50.0000	44.932

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

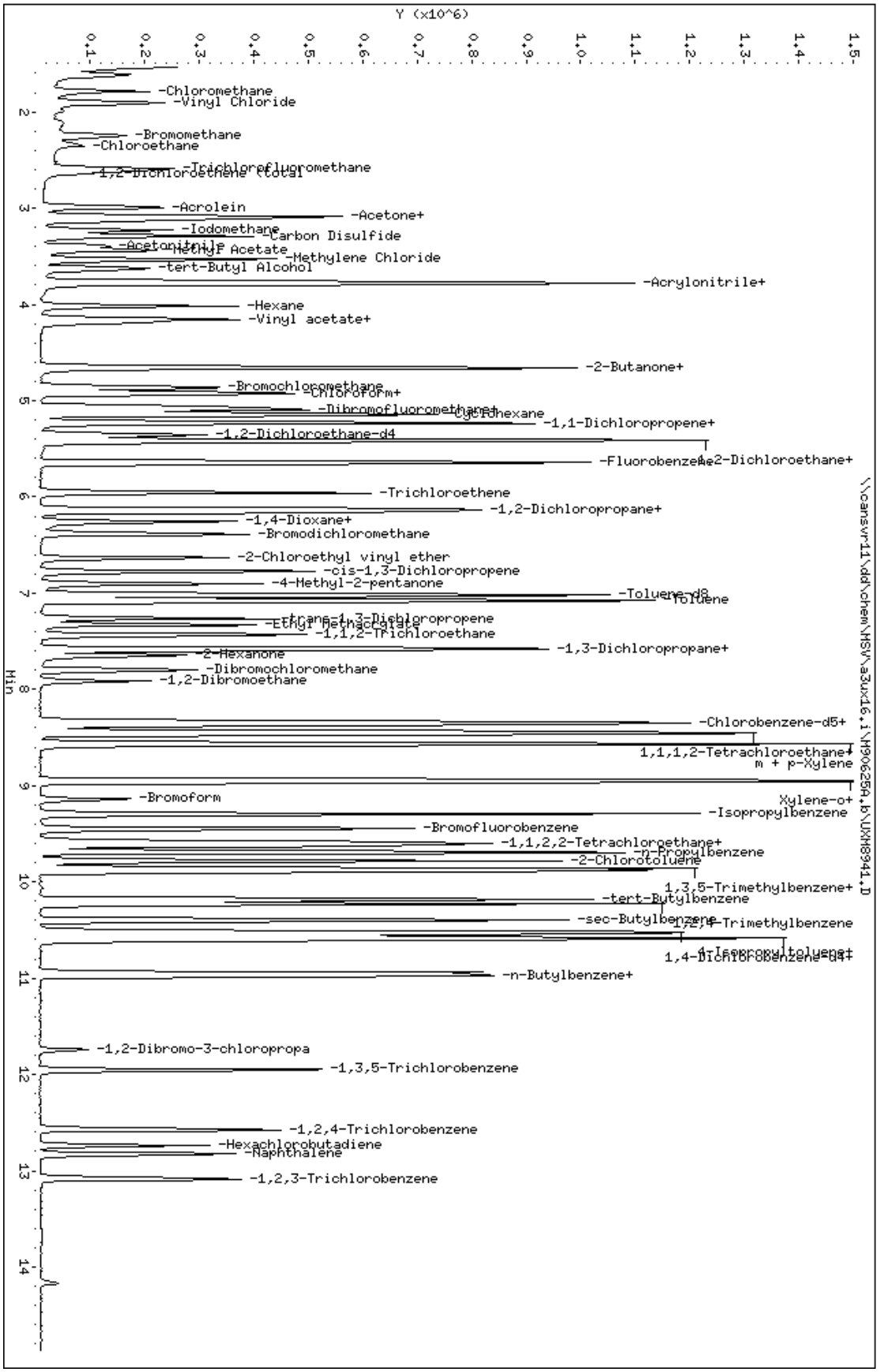
Instrument ID: a3ux16.i
Lab File ID: UXM8941.D
Lab Smp Id: 50NG-CC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,2-8260.SUB,1644,2

Calibration Date: 25-JUN-2009
Calibration Time: 14:57
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1005010	502505	2010020	948376	-5.64
2 Chlorobenzene-d5	697970	348985	1395940	691311	-0.95
3 1,4-Dichlorobenze	297356	148678	594712	360329	21.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXN8941.D
Date : 25-JUN-2009 15:18
Client ID:
Sample Info: 50NG-CC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RAW QC DATA

TestAmerica North Canton

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A.b\BFB1088.D
Lab Smp Id: 50ng bfb Client Smp ID: 50NG BFB
Inj Date : 07-MAY-2009 11:10
Operator : 1644 Inst ID: a3ux16.i
Smp Info :
Misc Info : M90507A,BFBUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A.b\BFBUX16.m
Meth Date : 05-Feb-2009 13:38 quayler Quant Type: ESTD
Cal Date : 01-MAR-2000 19:29 Cal File: uxx0287.d
Als bottle: 27 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: CANSVR11

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
3.739	3.740	-0.001	95	63144			100.00- 100.00	100.00
3.739	3.740	-0.001	50	10002			15.00- 40.00	15.84
3.739	3.740	-0.001	75	28096			30.00- 60.00	44.50
3.739	3.740	-0.001	96	4256			5.00- 9.00	6.74
3.739	3.740	-0.001	173	219			0.00- 2.00	0.42
3.739	3.740	-0.001	174	51648			50.00- 100.00	81.79
3.739	3.740	-0.001	175	3400			5.00- 9.00	6.58
3.739	3.740	-0.001	176	49624			95.00- 101.00	96.08
3.739	3.740	-0.001	177	3296			5.00- 9.00	6.64

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\BFB1088.D Page 1

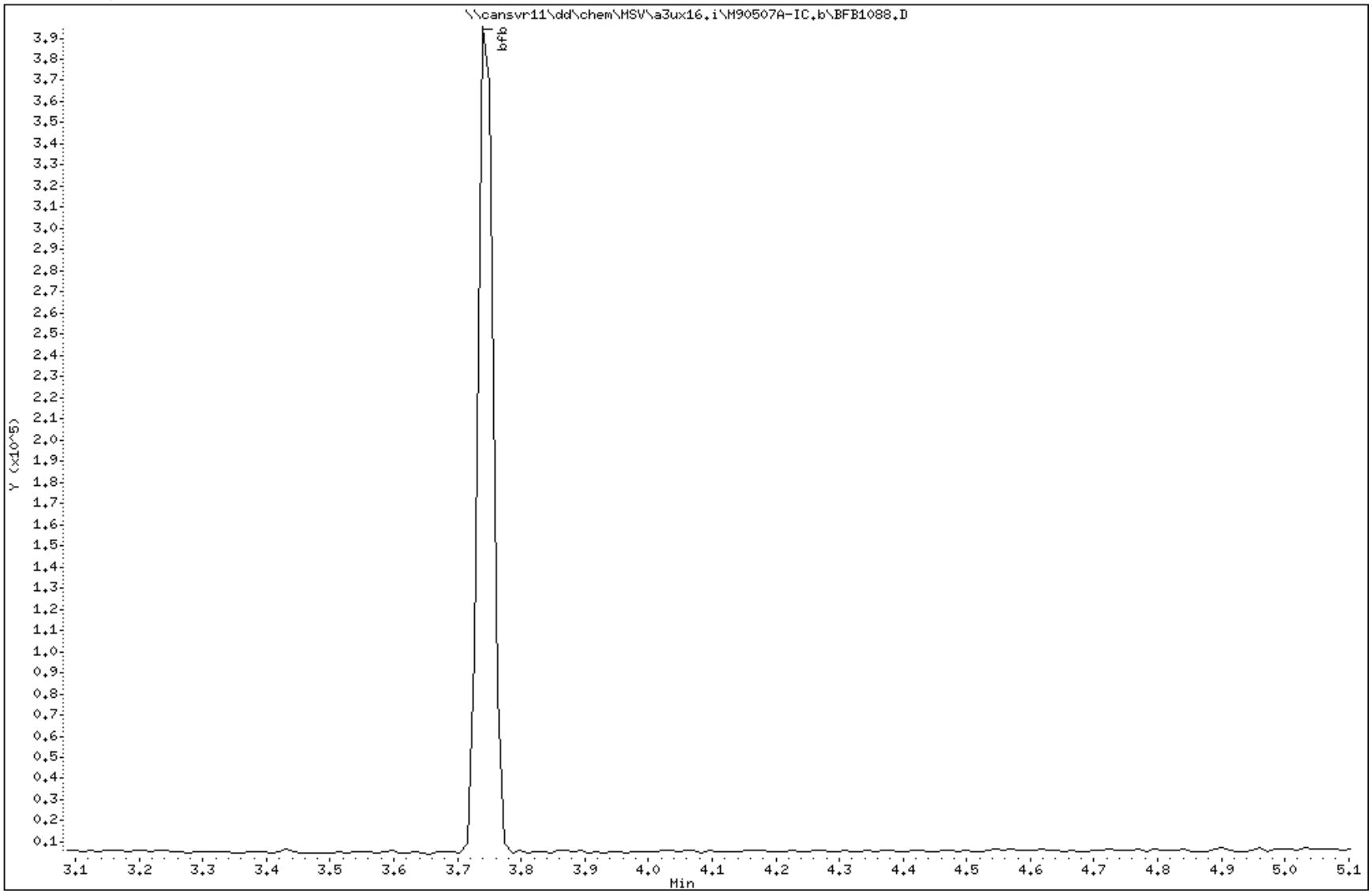
Date : 07-MAY-2009 11:10

Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\BFB1088.D

Date : 07-MAY-2009 11:10

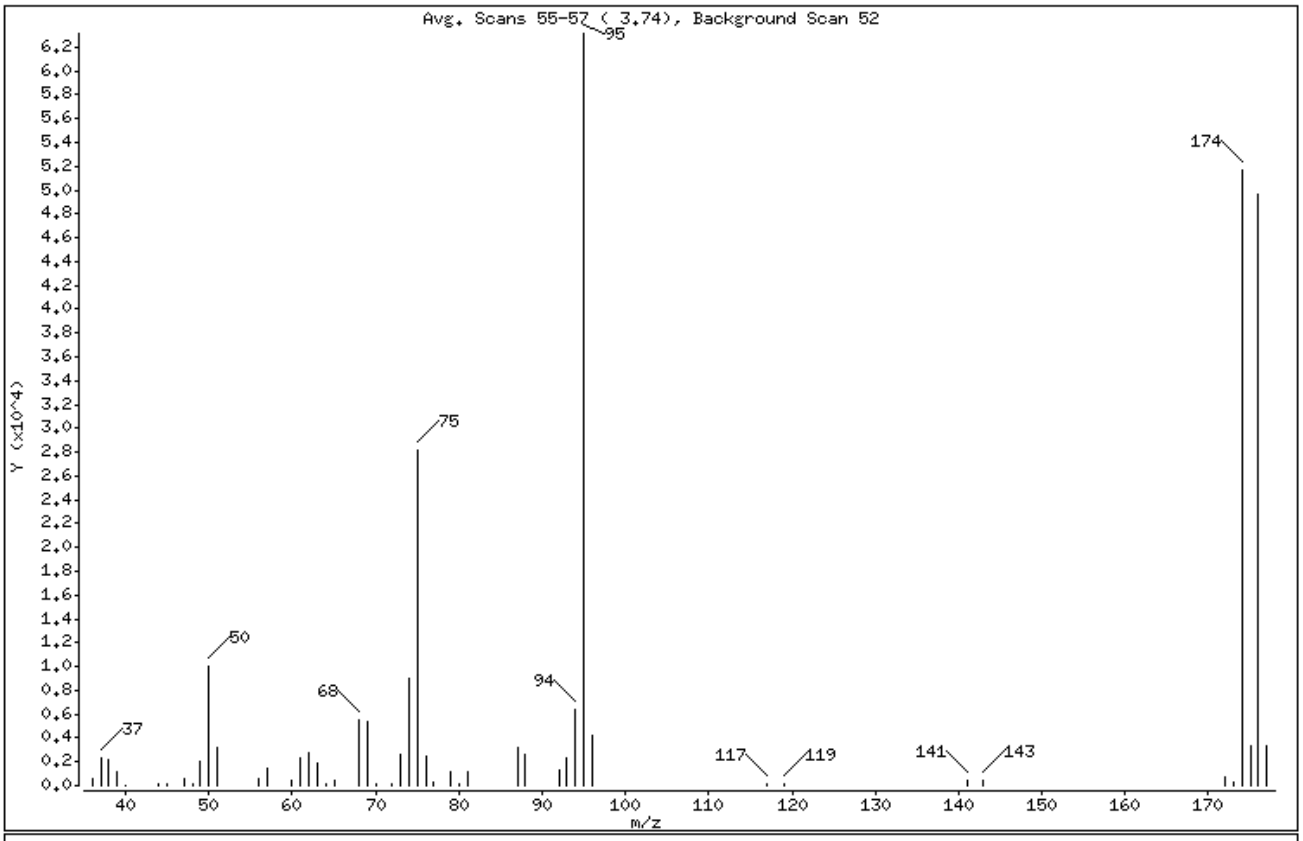
Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.84
75	30.00 - 60.00% of mass 95	44.50
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.35 (0.42)
174	50.00 - 100.00% of mass 95	81.79
175	5.00 - 9.00% of mass 174	5.38 (6.58)
176	95.00 - 101.00% of mass 174	78.59 (96.08)
177	5.00 - 9.00% of mass 176	5.22 (6.64)

Date : 07-MAY-2009 11:10

Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18

Data File: BFB1088.D
Spectrum: Avg. Scans 55-57 (3.74), Background Scan 52
Location of Maximum: 95.00
Number of points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	525	57.00	1412	75.00	28096	117.00	211
37.00	2257	60.00	398	76.00	2412	119.00	174
38.00	2199	61.00	2298	77.00	225	141.00	387
39.00	1144	62.00	2755	79.00	1189	143.00	462
40.00	12	63.00	1829	80.00	184	172.00	661
44.00	172	64.00	173	81.00	1211	173.00	219
45.00	211	65.00	433	87.00	3126	174.00	51648
47.00	642	68.00	5520	88.00	2606	175.00	3400
48.00	172	69.00	5427	92.00	1291	176.00	49624
49.00	2046	70.00	198	93.00	2347	177.00	3296
50.00	10002	72.00	167	94.00	6382		
51.00	3221	73.00	2568	95.00	63144		
56.00	592	74.00	8948	96.00	4256		

TestAmerica North Canton

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D
Lab Smp Id: 50ng bfb Client Smp ID: 50NG BFB
Inj Date : 25-JUN-2009 13:50
Operator : 1644 Inst ID: a3ux16.i
Smp Info :
Misc Info : M90625A,BFBUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFBUX16.m
Meth Date : 05-Feb-2009 13:38 quayler Quant Type: ESTD
Cal Date : 01-MAR-2000 19:29 Cal File: uxx0287.d
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: CANSVR11

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
3.739	3.740	-0.001	95	48680			100.00- 100.00	100.00
3.739	3.740	-0.001	50	9977			15.00- 40.00	20.50
3.739	3.740	-0.001	75	24968			30.00- 60.00	51.29
3.739	3.740	-0.001	96	3329			5.00- 9.00	6.84
3.739	3.740	-0.001	173	0	0.0	0.0	0.00- 2.00	0.00
3.739	3.740	-0.001	174	37136			50.00- 100.00	76.29
3.739	3.740	-0.001	175	2758			5.00- 9.00	7.43
3.739	3.740	-0.001	176	36232			95.00- 101.00	97.57
3.739	3.740	-0.001	177	2337			5.00- 9.00	6.45

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D Page 1

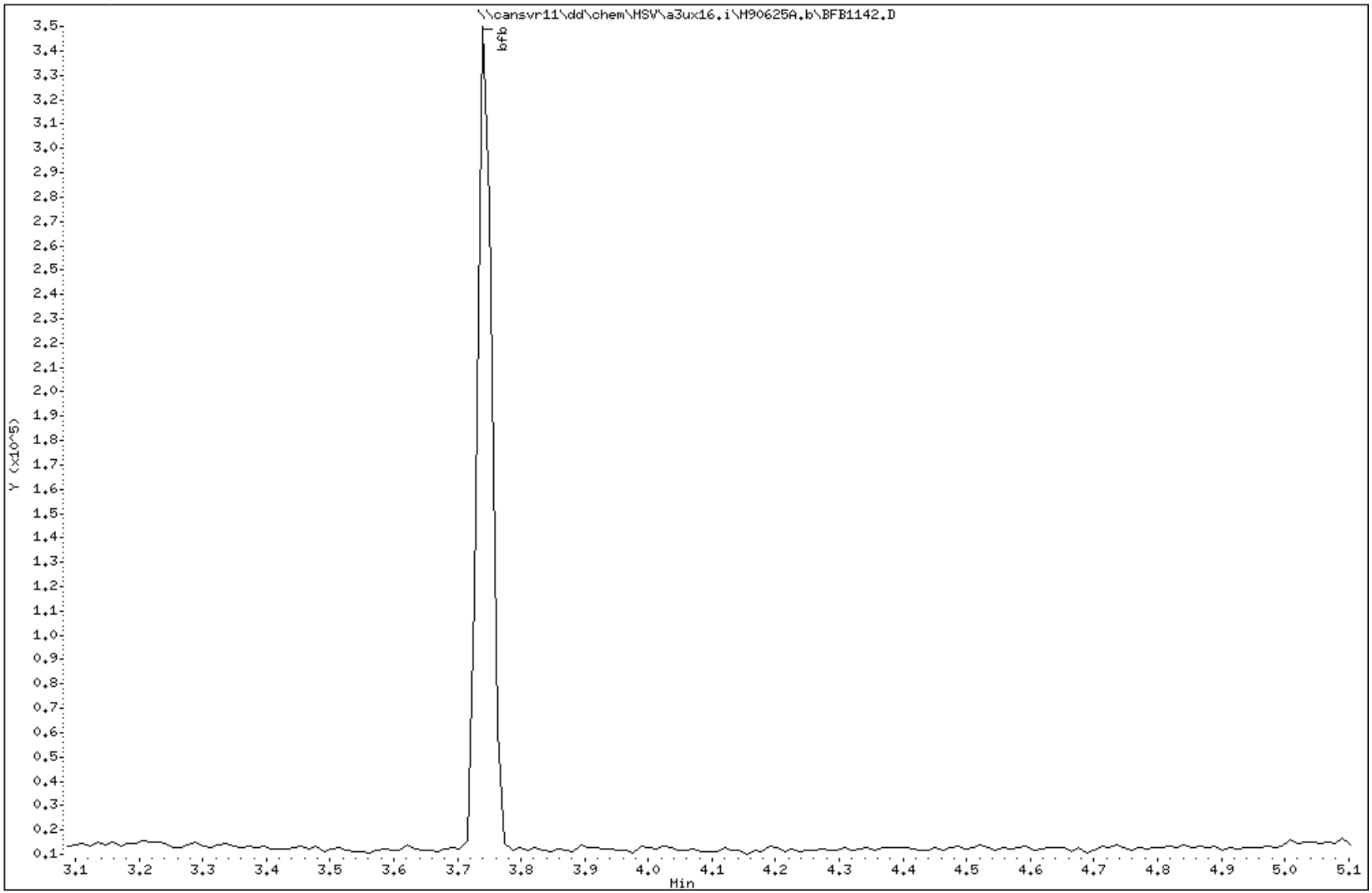
Date : 25-JUN-2009 13:50

Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D

Date : 25-JUN-2009 13:50

Client ID: 50NG BFB

Instrument: a3ux16.i

Sample Info:

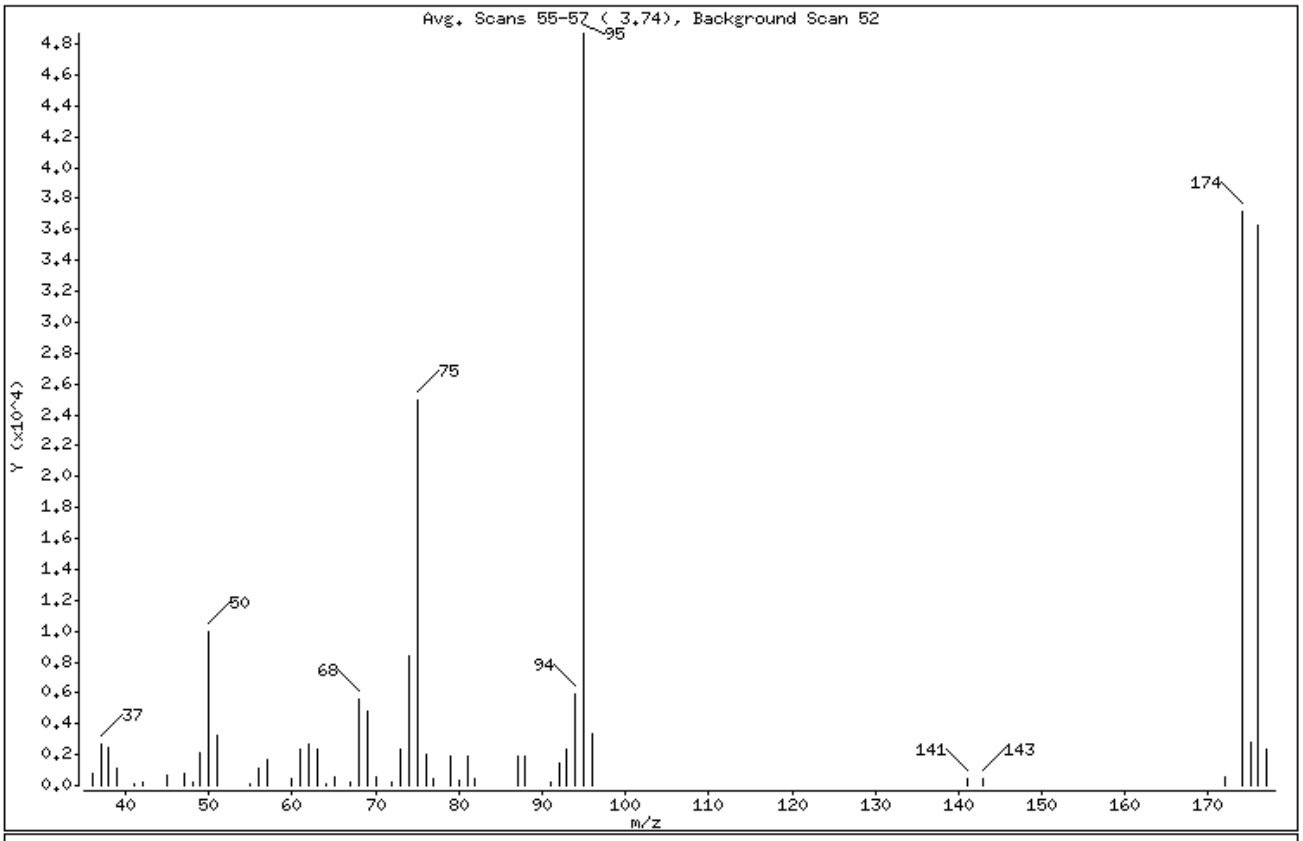
Volume Injected (uL): 1.0

Operator: 1644

Column phase: DB624 20M

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.50
75	30.00 - 60.00% of mass 95	51.29
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	76.29
175	5.00 - 9.00% of mass 174	5.67 (7.43)
176	95.00 - 101.00% of mass 174	74.43 (97.57)
177	5.00 - 9.00% of mass 176	4.80 (6.45)

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D

Date : 25-JUN-2009 13:50

Client ID: 50NG BFB

Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0

Operator: 1644

Column phase: DB624 20M

Column diameter: 0.18

Data File: BFB1142.D
Spectrum: Avg. Scans 55-57 (3.74), Background Scan 52
Location of Maximum: 95.00
Number of points: 50

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	747	56.00	1069	73.00	2321	93.00	2358
37.00	2692	57.00	1635	74.00	8367	94.00	5942
38.00	2480	60.00	466	75.00	24968	95.00	48680
39.00	1115	61.00	2385	76.00	2040	96.00	3329
41.00	151	62.00	2689	77.00	459	141.00	433
42.00	171	63.00	2366	79.00	1891	143.00	470
45.00	682	64.00	167	80.00	301	172.00	512
47.00	737	65.00	566	81.00	1874	174.00	37136
48.00	196	67.00	168	82.00	480	175.00	2758
49.00	2178	68.00	5568	87.00	1913	176.00	36232
50.00	9977	69.00	4818	88.00	1953	177.00	2337
51.00	3198	70.00	613	91.00	208		
55.00	118	72.00	190	92.00	1423		

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1,1-Trichloroethane	114	(78 - 140)			SW846 8260B
	110	(78 - 140)	3.4	(0-30)	SW846 8260B
Trichlorofluoromethane	110	(70 - 130)			SW846 8260B
	102	(70 - 130)	7.2	(0-30)	SW846 8260B
Chloromethane	73	(48 - 123)			SW846 8260B
	61	(48 - 123)	18	(0-30)	SW846 8260B
Bromomethane	105	(64 - 129)			SW846 8260B
	86	(64 - 129)	20	(0-30)	SW846 8260B
Vinyl chloride	72	(61 - 120)			SW846 8260B
	68	(61 - 120)	5.3	(0-30)	SW846 8260B
Chloroethane	74	(66 - 126)			SW846 8260B
	60 a	(66 - 126)	21	(0-30)	SW846 8260B
Methylene chloride	91	(78 - 118)			SW846 8260B
	86	(78 - 118)	5.2	(0-30)	SW846 8260B
Acetone	85	(22 - 200)			SW846 8260B
	73	(22 - 200)	15	(0-95)	SW846 8260B
Carbon disulfide	96	(73 - 139)			SW846 8260B
	92	(73 - 139)	4.9	(0-30)	SW846 8260B
1,1-Dichloroethene	**93**	**(63 - 130)**			**SW846 8260B**
	91	**(63 - 130)**	**2.8**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethane	101	(86 - 123)			SW846 8260B
	97	(86 - 123)	4.5	(0-30)	SW846 8260B
1,2-Dichloroethene (total)	99	(82 - 116)			SW846 8260B
	95	(82 - 116)	3.6	(0-30)	SW846 8260B
Chloroform	102	(84 - 128)			SW846 8260B
	98	(84 - 128)	4.4	(0-30)	SW846 8260B
1,2-Dichloroethane	107	(79 - 136)			SW846 8260B
	102	(79 - 136)	4.7	(0-30)	SW846 8260B
2-Butanone	87	(28 - 237)			SW846 8260B
	82	(28 - 237)	6.3	(0-65)	SW846 8260B
Carbon tetrachloride	113	(75 - 149)			SW846 8260B
	110	(75 - 149)	2.0	(0-30)	SW846 8260B
Bromodichloromethane	106	(87 - 130)			SW846 8260B
	101	(87 - 130)	4.7	(0-30)	SW846 8260B
1,2-Dichloropropane	93	(82 - 115)			SW846 8260B
	89	(82 - 115)	4.5	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
cis-1,3-Dichloropropene	97	(84 - 130)			SW846 8260B
	94	(84 - 130)	2.8	(0-30)	SW846 8260B
Trichloroethene	**94**	**(75 - 122)**			**SW846 8260B**
	91	**(75 - 122)**	**3.2**	**(0-20)**	**SW846 8260B**
Dibromochloromethane	109	(81 - 138)			SW846 8260B
	106	(81 - 138)	2.8	(0-30)	SW846 8260B
1,1,2-Trichloroethane	95	(83 - 122)			SW846 8260B
	92	(83 - 122)	3.5	(0-30)	SW846 8260B
Benzene	**94**	**(80 - 116)**			**SW846 8260B**
	89	**(80 - 116)**	**5.2**	**(0-20)**	**SW846 8260B**
trans-1,3-Dichloropropene	112	(84 - 130)			SW846 8260B
	106	(84 - 130)	4.9	(0-30)	SW846 8260B
Bromoform	99	(76 - 150)			SW846 8260B
	97	(76 - 150)	2.0	(0-30)	SW846 8260B
4-Methyl-2-pentanone	92	(78 - 141)			SW846 8260B
	88	(78 - 141)	4.0	(0-32)	SW846 8260B
2-Hexanone	105	(35 - 200)			SW846 8260B
	96	(35 - 200)	9.0	(0-52)	SW846 8260B
Tetrachloroethene	100	(88 - 113)			SW846 8260B
	100	(88 - 113)	0.030	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	93	(85 - 118)			SW846 8260B
	91	(85 - 118)	1.2	(0-30)	SW846 8260B
Toluene	**104**	**(74 - 119)**			**SW846 8260B**
	102	**(74 - 119)**	**2.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**			**SW846 8260B**
	101	**(76 - 117)**	**3.1**	**(0-20)**	**SW846 8260B**
Ethylbenzene	109	(86 - 116)			SW846 8260B
	107	(86 - 116)	1.9	(0-30)	SW846 8260B
Styrene	101	(85 - 117)			SW846 8260B
	97	(85 - 117)	4.6	(0-30)	SW846 8260B
Xylenes (total)	112	(87 - 116)			SW846 8260B
	108	(87 - 116)	3.5	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	102	(85 - 113)			SW846 8260B
	98	(85 - 113)	3.7	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	96	(80 - 120)			SW846 8260B
	93	(80 - 120)	3.6	(0-30)	SW846 8260B
Dichlorodifluoromethane	80	(70 - 130)			SW846 8260B
	73	(70 - 130)	8.8	(0-30)	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	106	(70 - 130)			SW846 8260B
	101	(70 - 130)	4.9	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Methyl acetate	75	(70 - 130)			SW846 8260B
	70	(70 - 130)	7.0	(0-30)	SW846 8260B
Methyl tert-butyl ether (MTBE)	107	(70 - 130)			SW846 8260B
	102	(70 - 130)	4.6	(0-30)	SW846 8260B
Cyclohexane	71	(70 - 130)			SW846 8260B
	69 a	(70 - 130)	2.8	(0-30)	SW846 8260B
Methylcyclohexane	68 a	(70 - 130)			SW846 8260B
	66 a	(70 - 130)	1.8	(0-30)	SW846 8260B
1,2-Dibromoethane	98	(70 - 130)			SW846 8260B
	93	(70 - 130)	5.3	(0-30)	SW846 8260B
Isopropylbenzene	105	(70 - 130)			SW846 8260B
	101	(70 - 130)	3.2	(0-30)	SW846 8260B
1,3-Dichlorobenzene	110	(70 - 130)			SW846 8260B
	106	(70 - 130)	3.2	(0-30)	SW846 8260B
1,4-Dichlorobenzene	109	(70 - 130)			SW846 8260B
	104	(70 - 130)	5.2	(0-30)	SW846 8260B
1,2-Dichlorobenzene	105	(70 - 130)			SW846 8260B
	103	(70 - 130)	1.9	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro-propane	93	(70 - 130)			SW846 8260B
	87	(70 - 130)	7.3	(0-30)	SW846 8260B
1,2,4-Trichloro-benzene	102	(70 - 130)			SW846 8260B
	93	(70 - 130)	9.9	(0-30)	SW846 8260B
Methyl tert-butyl ether	107	(70 - 130)			SW846 8260B
	102	(70 - 130)	4.6	(0-30)	SW846 8260B
n-Hexane	83	(70 - 130)			SW846 8260B
	76	(70 - 130)	8.5	(0-30)	SW846 8260B
o-Xylene	113	(70 - 130)			SW846 8260B
	109	(70 - 130)	3.2	(0-30)	SW846 8260B
m-Xylene & p-Xylene	111	(70 - 130)			SW846 8260B
	107	(70 - 130)	3.7	(0-30)	SW846 8260B
2-Chloroethyl vinyl ether	62 a	(70 - 130)			SW846 8260B
	59 a	(70 - 130)	4.4	(0-30)	SW846 8260B
Acetonitrile	73	(50 - 130)			SW846 8260B
	70	(50 - 130)	4.5	(0-30)	SW846 8260B
Acrolein	83	(50 - 130)			SW846 8260B
	72	(50 - 130)	15	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl acetate	107	(70 - 130)			SW846 8260B
	105	(70 - 130)	1.7	(0-30)	SW846 8260B
Acrylonitrile	77	(50 - 130)			SW846 8260B
	73	(50 - 130)	5.3	(0-30)	SW846 8260B
Bromobenzene	108	(70 - 130)			SW846 8260B
	106	(70 - 130)	1.5	(0-30)	SW846 8260B
Bromochloromethane	97	(70 - 130)			SW846 8260B
	90	(70 - 130)	7.4	(0-30)	SW846 8260B
n-Butylbenzene	96	(70 - 130)			SW846 8260B
	92	(70 - 130)	3.9	(0-30)	SW846 8260B
sec-Butylbenzene	109	(70 - 130)			SW846 8260B
	107	(70 - 130)	1.7	(0-30)	SW846 8260B
tert-Butylbenzene	113	(70 - 130)			SW846 8260B
	110	(70 - 130)	2.0	(0-30)	SW846 8260B
2-Chlorotoluene	111	(70 - 130)			SW846 8260B
	110	(70 - 130)	0.64	(0-30)	SW846 8260B
4-Chlorotoluene	113	(70 - 130)			SW846 8260B
	111	(70 - 130)	2.2	(0-30)	SW846 8260B
Dibromomethane	97	(70 - 130)			SW846 8260B
	97	(70 - 130)	0.77	(0-30)	SW846 8260B
1,3-Dichloropropane	96	(70 - 130)			SW846 8260B
	95	(70 - 130)	1.7	(0-30)	SW846 8260B
2,2-Dichloropropane	122	(70 - 130)			SW846 8260B
	117	(70 - 130)	4.1	(0-30)	SW846 8260B
1,1-Dichloropropene	98	(70 - 130)			SW846 8260B
	96	(70 - 130)	1.6	(0-30)	SW846 8260B
Hexachlorobutadiene	96	(70 - 130)			SW846 8260B
	92	(70 - 130)	4.5	(0-30)	SW846 8260B
Iodomethane	100	(70 - 130)			SW846 8260B
	96	(70 - 130)	4.0	(0-30)	SW846 8260B
Isopropyl ether	100	(70 - 130)			SW846 8260B
	94	(70 - 130)	5.8	(0-30)	SW846 8260B
p-Isopropyltoluene	105	(70 - 130)			SW846 8260B
	102	(70 - 130)	3.0	(0-30)	SW846 8260B
Naphthalene	82	(70 - 130)			SW846 8260B
	73	(70 - 130)	12	(0-30)	SW846 8260B
n-Propylbenzene	120	(70 - 130)			SW846 8260B
	120	(70 - 130)	0.43	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	112	(70 - 130)			SW846 8260B
	106	(70 - 130)	4.8	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	95	(70 - 130)			SW846 8260B
	85	(70 - 130)	11	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,2,3-Trichloropropane	102	(70 - 130)			SW846 8260B
	106	(70 - 130)	3.2	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	110	(70 - 130)			SW846 8260B
	107	(70 - 130)	2.7	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	116	(70 - 130)			SW846 8260B
	115	(70 - 130)	0.89	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	95	(61 - 128)
Toluene-d8	102	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	109	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1,1-Trichloroethane	10	11	ug/L	114		SW846 8260B
	10	11	ug/L	110	3.4	SW846 8260B
Trichlorofluoromethane	10	11	ug/L	110		SW846 8260B
	10	10	ug/L	102	7.2	SW846 8260B
Chloromethane	10	7.3	ug/L	73		SW846 8260B
	10	6.1	ug/L	61	18	SW846 8260B
Bromomethane	10	11	ug/L	105		SW846 8260B
	10	8.6	ug/L	86	20	SW846 8260B
Vinyl chloride	10	7.2	ug/L	72		SW846 8260B
	10	6.8	ug/L	68	5.3	SW846 8260B
Chloroethane	10	7.4	ug/L	74		SW846 8260B
	10	6.0 a	ug/L	60	21	SW846 8260B
Methylene chloride	10	9.1	ug/L	91		SW846 8260B
	10	8.6	ug/L	86	5.2	SW846 8260B
Acetone	10	8.5	ug/L	85		SW846 8260B
	10	7.3	ug/L	73	15	SW846 8260B
Carbon disulfide	10	9.6	ug/L	96		SW846 8260B
	10	9.2	ug/L	92	4.9	SW846 8260B
1,1-Dichloroethene	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	10	**9.1**	**ug/L**	**91**	**2.8**	**SW846 8260B**
1,1-Dichloroethane	10	10	ug/L	101		SW846 8260B
	10	9.7	ug/L	97	4.5	SW846 8260B
1,2-Dichloroethene (total)	20	20	ug/L	99		SW846 8260B
	20	19	ug/L	95	3.6	SW846 8260B
Chloroform	10	10	ug/L	102		SW846 8260B
	10	9.8	ug/L	98	4.4	SW846 8260B
1,2-Dichloroethane	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	102	4.7	SW846 8260B
2-Butanone	10	8.7	ug/L	87		SW846 8260B
	10	8.2	ug/L	82	6.3	SW846 8260B
Carbon tetrachloride	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	110	2.0	SW846 8260B
Bromodichloromethane	10	11	ug/L	106		SW846 8260B
	10	10	ug/L	101	4.7	SW846 8260B
1,2-Dichloropropane	10	9.3	ug/L	93		SW846 8260B
	10	8.9	ug/L	89	4.5	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
cis-1,3-Dichloropropene	10	9.7	ug/L	97		SW846 8260B
	10	9.4	ug/L	94	2.8	SW846 8260B
Trichloroethene	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	10	**9.1**	**ug/L**	**91**	**3.2**	**SW846 8260B**
Dibromochloromethane	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	106	2.8	SW846 8260B
1,1,2-Trichloroethane	10	9.5	ug/L	95		SW846 8260B
	10	9.2	ug/L	92	3.5	SW846 8260B
Benzene	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	10	**8.9**	**ug/L**	**89**	**5.2**	**SW846 8260B**
trans-1,3-Dichloropropene	10	11	ug/L	112		SW846 8260B
	10	11	ug/L	106	4.9	SW846 8260B
Bromoform	10	9.9	ug/L	99		SW846 8260B
	10	9.7	ug/L	97	2.0	SW846 8260B
4-Methyl-2-pentanone	10	9.2	ug/L	92		SW846 8260B
	10	8.8	ug/L	88	4.0	SW846 8260B
2-Hexanone	10	10	ug/L	105		SW846 8260B
	10	9.6	ug/L	96	9.0	SW846 8260B
Tetrachloroethene	10	10	ug/L	100		SW846 8260B
	10	10	ug/L	100	0.030	SW846 8260B
1,1,2,2-Tetrachloroethane	10	9.3	ug/L	93		SW846 8260B
	10	9.1	ug/L	91	1.2	SW846 8260B
Toluene	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	10	**10**	**ug/L**	**102**	**2.4**	**SW846 8260B**
Chlorobenzene	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	10	**10**	**ug/L**	**101**	**3.1**	**SW846 8260B**
Ethylbenzene	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	107	1.9	SW846 8260B
Styrene	10	10	ug/L	101		SW846 8260B
	10	9.7	ug/L	97	4.6	SW846 8260B
Xylenes (total)	30	34	ug/L	112		SW846 8260B
	30	32	ug/L	108	3.5	SW846 8260B
cis-1,2-Dichloroethene	10	10	ug/L	102		SW846 8260B
	10	9.8	ug/L	98	3.7	SW846 8260B
trans-1,2-Dichloroethene	10	9.6	ug/L	96		SW846 8260B
	10	9.3	ug/L	93	3.6	SW846 8260B
Dichlorodifluoromethane	10	8.0	ug/L	80		SW846 8260B
	10	7.3	ug/L	73	8.8	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	10	11	ug/L	106		SW846 8260B
	10	10	ug/L	101	4.9	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Methyl acetate	10	7.5	ug/L	75		SW846 8260B
	10	7.0	ug/L	70	7.0	SW846 8260B
Methyl tert-butyl ether (MTBE)	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	102	4.6	SW846 8260B
Cyclohexane	10	7.1	ug/L	71		SW846 8260B
	10	6.9 a	ug/L	69	2.8	SW846 8260B
Methylcyclohexane	10	6.8 a	ug/L	68		SW846 8260B
	10	6.6 a	ug/L	66	1.8	SW846 8260B
1,2-Dibromoethane	10	9.8	ug/L	98		SW846 8260B
	10	9.3	ug/L	93	5.3	SW846 8260B
Isopropylbenzene	10	10	ug/L	105		SW846 8260B
	10	10	ug/L	101	3.2	SW846 8260B
1,3-Dichlorobenzene	10	11	ug/L	110		SW846 8260B
	10	11	ug/L	106	3.2	SW846 8260B
1,4-Dichlorobenzene	10	11	ug/L	109		SW846 8260B
	10	10	ug/L	104	5.2	SW846 8260B
1,2-Dichlorobenzene	10	10	ug/L	105		SW846 8260B
	10	10	ug/L	103	1.9	SW846 8260B
1,2-Dibromo-3-chloro-propane	10	9.3	ug/L	93		SW846 8260B
	10	8.7	ug/L	87	7.3	SW846 8260B
1,2,4-Trichloro-benzene	10	10	ug/L	102		SW846 8260B
	10	9.3	ug/L	93	9.9	SW846 8260B
Methyl tert-butyl ether	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	102	4.6	SW846 8260B
n-Hexane	10	8.3	ug/L	83		SW846 8260B
	10	7.6	ug/L	76	8.5	SW846 8260B
o-Xylene	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	109	3.2	SW846 8260B
m-Xylene & p-Xylene	20	22	ug/L	111		SW846 8260B
	20	21	ug/L	107	3.7	SW846 8260B
2-Chloroethyl vinyl ether	10	6.2 a	ug/L	62		SW846 8260B
	10	5.9 a	ug/L	59	4.4	SW846 8260B
Acetonitrile	30	22	ug/L	73		SW846 8260B
	30	21	ug/L	70	4.5	SW846 8260B
Acrolein	30	25	ug/L	83		SW846 8260B
	30	22	ug/L	72	15	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl acetate	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	105	1.7	SW846 8260B
Acrylonitrile	30	23	ug/L	77		SW846 8260B
	30	22	ug/L	73	5.3	SW846 8260B
Bromobenzene	10	11	ug/L	108		SW846 8260B
	10	11	ug/L	106	1.5	SW846 8260B
Bromochloromethane	10	9.7	ug/L	97		SW846 8260B
	10	9.0	ug/L	90	7.4	SW846 8260B
n-Butylbenzene	10	9.6	ug/L	96		SW846 8260B
	10	9.2	ug/L	92	3.9	SW846 8260B
sec-Butylbenzene	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	107	1.7	SW846 8260B
tert-Butylbenzene	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	110	2.0	SW846 8260B
2-Chlorotoluene	10	11	ug/L	111		SW846 8260B
	10	11	ug/L	110	0.64	SW846 8260B
4-Chlorotoluene	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	111	2.2	SW846 8260B
Dibromomethane	10	9.7	ug/L	97		SW846 8260B
	10	9.7	ug/L	97	0.77	SW846 8260B
1,3-Dichloropropane	10	9.6	ug/L	96		SW846 8260B
	10	9.5	ug/L	95	1.7	SW846 8260B
2,2-Dichloropropane	10	12	ug/L	122		SW846 8260B
	10	12	ug/L	117	4.1	SW846 8260B
1,1-Dichloropropene	10	9.8	ug/L	98		SW846 8260B
	10	9.6	ug/L	96	1.6	SW846 8260B
Hexachlorobutadiene	10	9.6	ug/L	96		SW846 8260B
	10	9.2	ug/L	92	4.5	SW846 8260B
Iodomethane	10	10	ug/L	100		SW846 8260B
	10	9.6	ug/L	96	4.0	SW846 8260B
Isopropyl ether	10	10	ug/L	100		SW846 8260B
	10	9.4	ug/L	94	5.8	SW846 8260B
p-Isopropyltoluene	10	11	ug/L	105		SW846 8260B
	10	10	ug/L	102	3.0	SW846 8260B
Naphthalene	10	8.2	ug/L	82		SW846 8260B
	10	7.3	ug/L	73	12	SW846 8260B
n-Propylbenzene	10	12	ug/L	120		SW846 8260B
	10	12	ug/L	120	0.43	SW846 8260B
1,1,1,2-Tetrachloroethane	10	11	ug/L	112		SW846 8260B
	10	11	ug/L	106	4.8	SW846 8260B
1,2,3-Trichlorobenzene	10	9.5	ug/L	95		SW846 8260B
	10	8.5	ug/L	85	11	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,2,3-Trichloropropane	10	10	ug/L	102		SW846 8260B
	10	11	ug/L	106	3.2	SW846 8260B
1,2,4-Trimethylbenzene	10	11	ug/L	110		SW846 8260B
	10	11	ug/L	107	2.7	SW846 8260B
1,3,5-Trimethylbenzene	10	12	ug/L	116		SW846 8260B
	10	11	ug/L	115	0.89	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	95	(61 - 128)
Toluene-d8	102	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	109	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Report Date: 25-Jun-2009 15:54

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Lab Smp Id: LCS
Inj Date : 25-JUN-2009 15:39
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LCS
Misc Info : M90625A,8260LLUX16,,1644,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 3 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	943691	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	667308	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.572	10.573	(1.000)	362127	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	189552	49.1623	9.832
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	223711	50.6522	10.130
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	728486	50.9250	10.185
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	260316	54.9395	10.988
8 Dichlorodifluoromethane	85	1.607	1.619	(0.285)	142594	40.1487	8.030
9 Chloromethane	50	1.773	1.785	(0.315)	205941	36.4368	7.287
10 Vinyl Chloride	62	1.904	1.904	(0.338)	216272	35.8094	7.162
11 Bromomethane	94	2.248	2.248	(0.399)	111815	52.6041	10.521
12 Chloroethane	64	2.343	2.355	(0.415)	63773	36.9910	7.398
13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	272313	54.7996	10.960
14 Dichlorofluoromethane	67	2.604	2.556	(0.462)	6044	1.11681	0.2234
15 Acrolein	56	2.995	2.995	(0.531)	90268	125.064	25.013
16 Acetone	43	3.137	3.137	(0.556)	55167	42.5333	8.507
17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	199713	46.7367	9.347
18 Freon-113	151	3.102	3.114	(0.550)	160338	53.1586	10.632
19 Iodomethane	142	3.232	3.232	(0.573)	341671	50.0814	10.016
20 Carbon Disulfide	76	3.291	3.291	(0.584)	646030	48.1411	9.628

21 Methylene Chloride	84	3.528	3.529 (0.626)	235745	45.4181	9.084
22 Acetonitrile	41	3.398	3.398 (0.603)	59709	109.522	21.904

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Report Date: 25-Jun-2009 15:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	23 Acrylonitrile	53	3.754	3.754	(0.666)	186444	115.974	23.195
	24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	541522	53.5304	10.706
	25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	231992	48.0970	9.619
	26 Hexane	86	4.015	4.027	(0.712)	43580	41.5643	8.313
	27 Vinyl acetate	43	4.193	4.193	(0.743)	697286	112.787	22.557
	28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	403284	50.6390	10.128
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	230417	958.951	191.79
	30 2-Butanone	43	4.667	4.667	(0.828)	75310	43.6827	8.736
M	31 1,2-Dichloroethene (total)	96				477886	98.9338	19.787
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	245894	50.8368	10.167
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	250865	60.9331	12.187
	34 Bromochloromethane	128	4.868	4.869	(0.863)	114648	48.6104	9.722
	35 Chloroform	83	4.928	4.928	(0.874)	382196	51.0894	10.218
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	44331	47.6781	9.536
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	316482	57.0433	11.409
	38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	289485	48.8581	9.772
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	270167	56.2585	11.252
	40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	291953	53.3141	10.663
	41 Benzene	78	5.414	5.414	(0.960)	930697	46.9024	9.380
	42 Trichloroethene	130	5.959	5.960	(1.057)	225569	46.9034	9.381
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	213883	46.4406	9.288
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	6.256	6.256	(1.109)	118288	48.6600	9.732
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	262942	53.0129	10.602
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	65923	30.9911	6.198
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	290850	48.5495	9.710
	49 4-Methyl-2-pentanone	43	6.908	6.896	(1.225)	147022	46.0029	9.200
	50 Toluene	91	7.074	7.074	(0.848)	926426	52.1711	10.434
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	241938	55.7956	11.159
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	161715	47.7246	9.545
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	291620	48.0787	9.616
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	167959	50.2115	10.042
	56 2-Hexanone	43	7.643	7.643	(0.916)	97542	52.4549	10.491
	57 Dibromochloromethane	129	7.798	7.798	(0.935)	163546	54.6090	10.922
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	153303	49.0655	9.813
	59 Chlorobenzene	112	8.367	8.367	(1.003)	592709	51.8866	10.377
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	200509	55.7909	11.158
	61 Ethylbenzene	106	8.462	8.462	(1.014)	310737	54.4273	10.885
	62 m + p-Xylene	106	8.568	8.568	(1.027)	802058	111.426	22.285
M	63 Xylenes (total)	106				1178281	167.762	33.552
	64 Xylene-o	106	8.948	8.948	(1.072)	376223	56.3365	11.267
	65 Styrene	104	8.960	8.960	(1.074)	607448	50.6295	10.126
	66 Bromoform	173	9.138	9.149	(1.095)	88408	49.6699	9.934
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	899851	52.2540	10.451
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	200156	46.2654	9.253
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	78402	103.991	20.798
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	61888	51.1460	10.229
	71 Bromobenzene	156	9.600	9.600	(0.908)	239649	53.8609	10.772
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	255479	59.9627	11.992
	73 2-Chlorotoluene	126	9.778	9.790	(0.925)	227400	55.2867	11.057
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	720860	57.7782	11.556

75 4-Chlorotoluene	126	9.885	9.885 (0.935)	240579	56.5673	11.313
76 tert-Butylbenzene	119	10.181	10.181 (0.963)	591086	56.2544	11.251

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Report Date: 25-Jun-2009 15:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	10.229	10.229	(0.967)	768564	55.1016	11.020
78	sec-Butylbenzene	105	10.395	10.395	(0.983)	760890	54.4579	10.892
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	661115	52.6482	10.530
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	448847	54.8776	10.976
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	465660	54.7018	10.940
82	n-Butylbenzene	91	10.940	10.940	(1.035)	490525	48.0087	9.602
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	417492	52.4764	10.495
84	1,2-Dibromo-3-chloropropane	157	11.746	11.747	(1.111)	26351	46.5727	9.314
85	1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	181219	51.0796	10.216
86	Hexachlorobutadiene	225	12.743	12.743	(1.205)	79505	48.1258	9.625
87	Naphthalene	128	12.826	12.826	(1.213)	370088	41.0996	8.220
88	1,2,3-Trichlorobenzene	180	13.086	13.087	(1.238)	161494	47.3747	9.475
89	Ethyl Ether	59	2.864	2.864	(0.508)	174473	44.6418	8.928
91	3-Chloropropene	76	3.291	3.422	(0.584)	646030	297.085	59.417
92	Isopropyl Ether	87	4.204	4.204	(0.746)	201152	49.9373	9.987
93	2-Chloro-1,3-butadiene	53	4.015	4.228	(0.712)	9333	1.64764	0.3295
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	4.667	4.702	(0.828)	71629	21.8325	4.366
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	5.295	5.295	(0.635)	251752	2525.52	505.10
99	n-Butanol	56	5.639	5.865	(0.676)	7142	78.8667	15.773
100	Methyl Methacrylate	41	6.256	6.232	(1.109)	4971	1.83329	0.3666
101	2-Nitropropane	41	6.635	6.588	(1.177)	6100	7.82889	1.566
103	Cyclohexanone	55	9.398	9.398	(0.889)	45582	104.029	20.806
98	Cyclohexane	56	5.141	5.141	(0.912)	310842	35.6129	7.122
143	Methyl Acetate	43	3.434	3.434	(0.609)	117270	37.5446	7.509
144	Methylcyclohexane	83	6.125	6.126	(1.086)	259025	33.7759	6.755
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	14.177	14.166	(1.341)	3048	19.3065	3.861
149	Vinyl Acetate-86	86	4.193	4.193	(0.743)	38404	53.3839	10.677
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	5.414	5.497	(0.960)	15672	1.50933	0.3019(a)
153	1,2,3-Trimethylbenzene	105	10.644	10.644	(1.007)	771360	53.5769	10.715

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Report Date: 25-Jun-2009 15:54

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

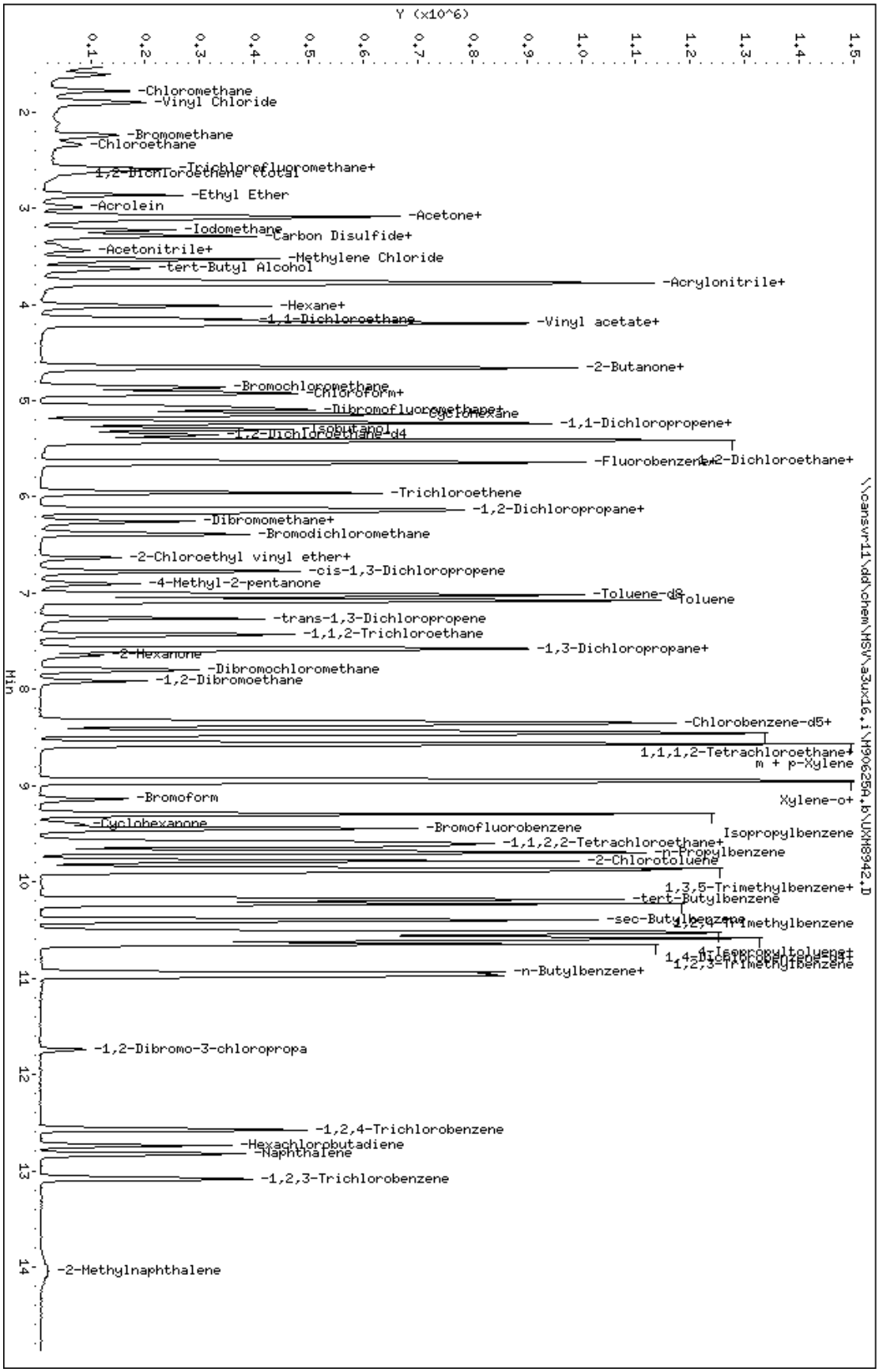
Instrument ID: a3ux16.i
Lab File ID: UXM8942.D
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644,3

Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	943691	-0.49
2 Chlorobenzene-d5	691311	345656	1382622	667308	-3.47
3 1,4-Dichlorobenze	360329	180165	720658	362127	0.50

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Date : 25-JUN-2009 15:39
Client ID:
Sample Info: LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Lab Smp Id: LCSD
Inj Date : 25-JUN-2009 16:00
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LCSD
Misc Info : M90625A,8260LLUX16,,1644,3
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 4 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1003334	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	710551	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.573	(1.000)	369998	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	198094	48.3236	9.665
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	223552	47.6074	9.521
$	6 Toluene-d8	98	7.015	7.015	(0.841)	769795	50.5377	10.108
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	275261	54.5582	10.912
	8 Dichlorodifluoromethane	85	1.607	1.619	(0.285)	138752	36.7447	7.349
	9 Chloromethane	50	1.785	1.785	(0.317)	182888	30.4345	6.087
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	218040	33.9561	6.791
	11 Bromomethane	94	2.248	2.248	(0.399)	97111	42.9706	8.594
	12 Chloroethane	64	2.343	2.355	(0.415)	54820	29.9077	5.982
	13 Trichlorofluoromethane	101	2.580	2.592	(0.458)	269342	50.9797	10.196
	14 Dichlorofluoromethane	67	2.343	2.556	(0.415)	4978	0.86516	0.1730
	15 Acrolein	56	2.983	2.995	(0.529)	82891	108.016	21.603
	16 Acetone	43	3.125	3.137	(0.554)	52046	36.5579	7.312
	17 1,1-Dichloroethene	96	3.078	3.090	(0.546)	206418	45.4343	9.087
	18 Freon-113	151	3.102	3.114	(0.550)	162272	50.6016	10.120
	19 Iodomethane	142	3.232	3.232	(0.573)	348924	48.1043	9.621
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	653979	45.8365	9.167

21 Methylene Chloride	84	3.528	3.529 (0.626)	237824	43.0949	8.619
22 Acetonitrile	41	3.386	3.398 (0.600)	60674	104.676	20.935

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	23 Acrylonitrile	53	3.754	3.754	(0.666)	188037	110.012	22.002
	24 Methyl tert-butyl ether	73	3.777	3.778	(0.670)	550040	51.1402	10.228
	25 trans-1,2-Dichloroethene	96	3.777	3.778	(0.670)	238021	46.4135	9.283
	26 Hexane	86	4.015	4.027	(0.712)	42650	38.1804	7.636
	27 Vinyl acetate	43	4.192	4.193	(0.743)	722549	109.926	21.985
	28 1,1-Dichloroethane	63	4.145	4.157	(0.735)	409735	48.3907	9.678
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	220813	864.352	172.87
	30 2-Butanone	43	4.655	4.667	(0.825)	75184	41.0172	8.203
M	31 1,2-Dichloroethene (total)	96				489932	95.3983	19.080
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	251911	48.9848	9.797
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	256014	58.4873	11.697
	34 Bromochloromethane	128	4.868	4.869	(0.863)	113175	45.1333	9.027
	35 Chloroform	83	4.928	4.928	(0.874)	388703	48.8705	9.774
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	43687	44.1925	8.838
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	325341	55.1542	11.031
	38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	303018	48.1020	9.620
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	281453	55.1246	11.025
	40 1,2-Dichloroethane	62	5.414	5.426	(0.960)	296216	50.8770	10.175
	41 Benzene	78	5.414	5.414	(0.960)	939271	44.5207	8.904
	42 Trichloroethene	130	5.959	5.960	(1.057)	232405	45.4522	9.090
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	217284	44.3745	8.875
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	6.256	6.256	(1.109)	124790	48.2832	9.657
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	266653	50.5653	10.113
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	66476	29.6487	5.930
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	300711	47.2116	9.442
	49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	150116	44.1788	8.836
	50 Toluene	91	7.074	7.074	(0.848)	963148	50.9382	10.188
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	245342	53.1372	10.627
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	166255	46.0784	9.216
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	305282	47.2680	9.454
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	178885	50.2232	10.045
	56 2-Hexanone	43	7.643	7.643	(0.916)	94951	47.9540	9.591
	57 Dibromochloromethane	129	7.797	7.798	(0.935)	169328	53.0988	10.620
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	154751	46.5147	9.303
	59 Chlorobenzene	112	8.367	8.367	(1.003)	611808	50.2991	10.060
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	203538	53.1871	10.637
	61 Ethylbenzene	106	8.462	8.462	(1.014)	324590	53.3937	10.679
	62 m + p-Xylene	106	8.568	8.568	(1.027)	822963	107.372	21.474
M	63 Xylenes (total)	106				1211054	161.949	32.390
	64 Xylene-o	106	8.948	8.948	(1.072)	388091	54.5769	10.915
	65 Styrene	104	8.960	8.960	(1.074)	616467	48.3419	9.668
	66 Bromoform	173	9.149	9.149	(1.097)	92295	48.6980	9.740
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	927376	50.6299	10.126
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	202083	45.7172	9.143
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	77157	100.289	20.058
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	65266	52.7903	10.558
	71 Bromobenzene	156	9.600	9.600	(0.908)	241181	53.0521	10.610
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	262162	60.2223	12.044
	73 2-Chlorotoluene	126	9.790	9.790	(0.926)	230854	54.9325	10.986
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	729972	57.2639	11.453

75	4-Chlorotoluene	126	9.885	9.885 (0.935)	240423	55.3281	11.066
76	tert-Butylbenzene	119	10.181	10.181 (0.963)	592134	55.1553	11.031

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	10.228	10.229	(0.967)	763483	53.6235	10.725
78	sec-Butylbenzene	105	10.394	10.395	(0.983)	764438	53.5479	10.710
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	654865	51.1055	10.221
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	444390	53.1768	10.635
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	451617	51.9235	10.385
82	n-Butylbenzene	91	10.940	10.940	(1.035)	480833	46.1827	9.236
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	418492	51.4830	10.297
84	1,2-Dibromo-3-chloropropane	157	11.746	11.747	(1.111)	25029	43.2951	8.659
85	1,2,4-Trichlorobenzene	180	12.576	12.577	(1.190)	167765	46.2814	9.256
86	Hexachlorobutadiene	225	12.742	12.743	(1.205)	77639	45.9965	9.199
87	Naphthalene	128	12.825	12.826	(1.213)	333148	36.6125	7.322
88	1,2,3-Trichlorobenzene	180	13.086	13.087	(1.238)	147582	42.3726	8.474
89	Ethyl Ether	59	2.864	2.864	(0.508)	181181	43.6024	8.720
91	3-Chloropropene	76	3.291	3.422	(0.584)	653979	282.863	56.572
92	Isopropyl Ether	87	4.204	4.204	(0.746)	201789	47.1175	9.423
93	2-Chloro-1,3-butadiene	53	4.015	4.228	(0.712)	9575	1.58988	0.3180
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	4.655	4.702	(0.825)	76161	21.8339	4.367
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	5.295	5.295	(0.635)	246270	2320.18	464.04
99	n-Butanol	56	5.639	5.865	(0.676)	7371	76.4418	15.288
100	Methyl Methacrylate	41	6.137	6.232	(1.088)	254218	88.1815	17.636
101	2-Nitropropane	41	6.635	6.588	(1.177)	6049	7.30194	1.460
103	Cyclohexanone	55	9.398	9.398	(0.889)	45016	101.777	20.355
98	Cyclohexane	56	5.141	5.141	(0.912)	320788	34.6391	6.928
143	Methyl Acetate	43	3.434	3.434	(0.609)	116297	35.0198	7.004
144	Methylcyclohexane	83	6.125	6.126	(1.086)	270031	33.1718	6.634
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	4.192	4.193	(0.743)	40118	52.4514	10.490
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	5.414	5.497	(0.960)	15744	1.42613	0.2852(a)
153	1,2,3-Trimethylbenzene	105	10.644	10.644	(1.007)	771544	52.4497	10.490

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

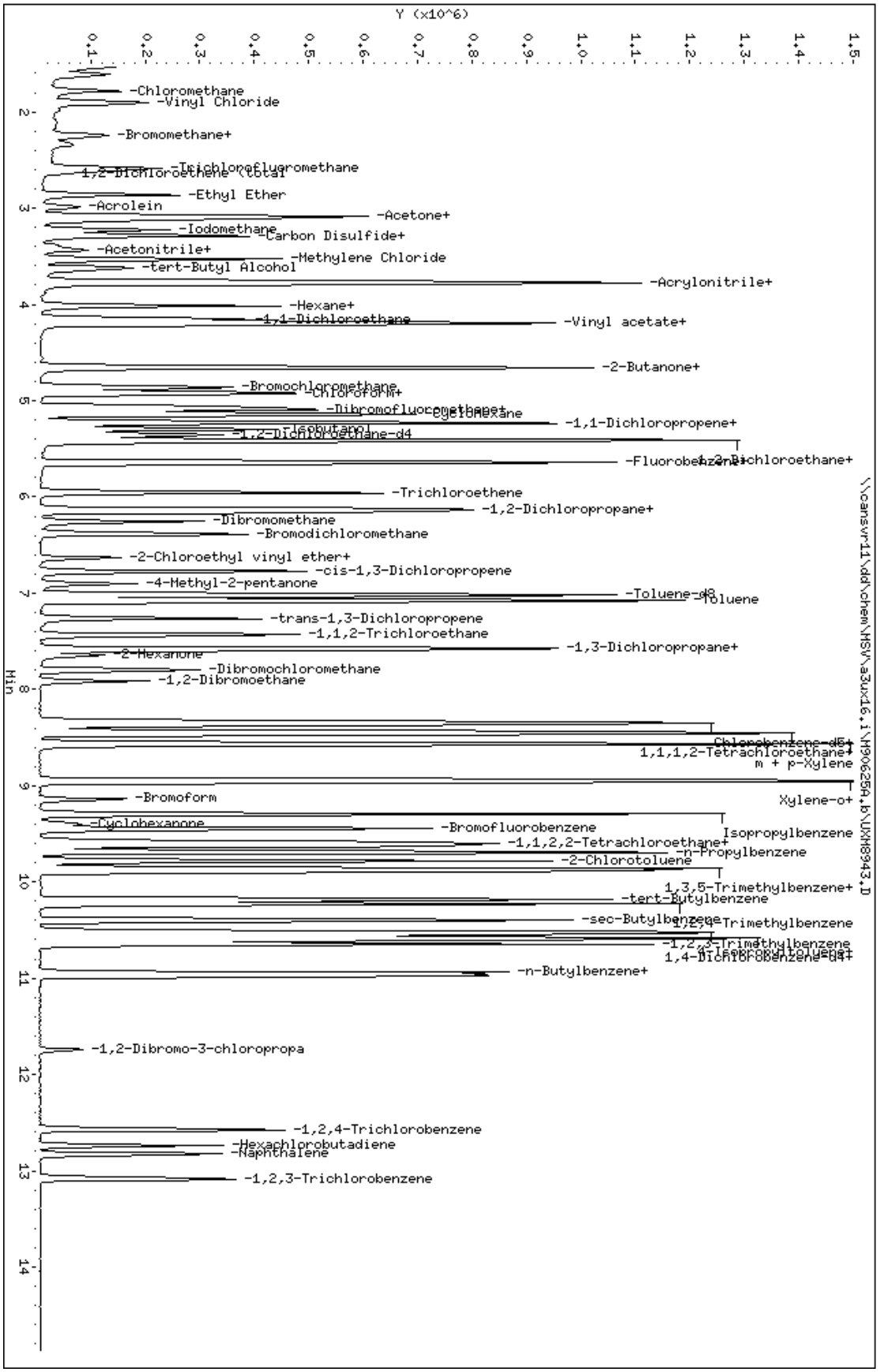
Instrument ID: a3ux16.i
Lab File ID: UXM8943.D
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644,3

Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	1003334	5.79
2 Chlorobenzene-d5	691311	345656	1382622	710551	2.78
3 1,4-Dichlorobenze	360329	180165	720658	369998	2.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Y (x10^6)
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0.2
0.3
0.4
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Min
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11
12
13
14
-Chloromethane
-Vinyl Chloride
-Bromomethane+
-Trichlorofluoromethane
1,2-Dichloroethene (total
-Ethyl Ether
-Acrolein
-Acetone+
-Iodomethane
-Carbon Disulfide+
-Acetonitrile+
-Methylene Chloride
-tert-Butyl Alcohol
-Acrylonitrile+
-Hexane+
-1,1-Dichloroethane
-Vinyl acetate+
-2-Butanone+
-Bromochloromethane
-Chloroform+
-Dibromofluoromethane+
Cyclohexane
-1,1-Dichloropropene+
Isobutanol
-1,2-Dichloroethane-d4
-Fluorobenzene+
1,2-Dichloroethane+
-Trichloroethene
-1,2-Dichloropropane+
-Dibromomethane
-Bromodichloromethane
-2-Chloroethyl vinyl ether+
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
-Toluene-d8
-Toluene
-trans-1,3-Dichloropropene
-1,1,2-Trichloroethane
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane
Chlorobenzene-d5+
1,1,1,2-Tetrachloroethane+
m + p-Xylene
Xylene-o+
-Bromoform
-Cyclohexanone
-Bromofluorobenzene
Isopropylbenzene
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene
-2-Chlorotoluene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-sec-Butylbenzene
1,2,4-Trimethylbenzene
-1,2,3-Trimethylbenzene
4-Isopropyltoluene+
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Date : 25-JUN-2009 16:00
Client ID:
Sample Info: LCSD
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AA **Matrix.....:** WATER
MB Lot-Sample #: A9F260000-173

Prep Date.....: 06/25/09 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 06/25/09 **Prep Batch #...:** 9177173
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Lab Smp Id: VBLK
Inj Date : 25-JUN-2009 16:21
Operator : 1644 Inst ID: a3ux16.i
Smp Info : VBLK,5ML/5ML
Misc Info : M90625A,8260LLUX16,,1644,3,,BLANK,,0
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1	Fluorobenzene	96	5.639	5.639	(1.000)	929285	50.0000	
* 2	Chlorobenzene-d5	117	8.343	8.343	(1.000)	650662	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	10.584	10.573	(1.000)	289942	50.0000	
$ 4	Dibromofluoromethane	113	5.058	5.058	(0.897)	186244	49.0532	9.811
$ 5	1,2-Dichloroethane-d4	65	5.354	5.355	(0.950)	215653	49.5847	9.917
$ 6	Toluene-d8	98	7.015	7.015	(0.841)	688051	49.3289	9.866
$ 7	Bromofluorobenzene	95	9.446	9.446	(1.132)	211885	45.8622	9.172
8	Dichlorodifluoromethane	85	Compound Not Detected.					
9	Chloromethane	50	Compound Not Detected.					
10	Vinyl Chloride	62	Compound Not Detected.					
11	Bromomethane	94	Compound Not Detected.					
12	Chloroethane	64	Compound Not Detected.					
13	Trichlorofluoromethane	101	Compound Not Detected.					
14	Dichlorofluoromethane	67	Compound Not Detected.					
15	Acrolein	56	Compound Not Detected.					
16	Acetone	43	Compound Not Detected.					
17	1,1-Dichloroethene	96	Compound Not Detected.					
18	Freon-113	151	Compound Not Detected.					
19	Iodomethane	142	Compound Not Detected.					
20	Carbon Disulfide	76	Compound Not Detected.					

21 Methylene Chloride	84	3.540	3.529 (0.628)	8208	1.60585	0.3212
22 Acetonitrile	41	3.398	3.398 (0.603)	4747	8.84220	1.768
23 Acrylonitrile	53	Compound Not Detected.				

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					
	66 Bromoform	173	Compound Not Detected.					
	67 Isopropylbenzene	105	Compound Not Detected.					
	68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
	70 1,2,3-Trichloropropane	110	Compound Not Detected.					
	71 Bromobenzene	156	Compound Not Detected.					
	72 n-Propylbenzene	120	Compound Not Detected.					
	73 2-Chlorotoluene	126	Compound Not Detected.					
	74 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	75 4-Chlorotoluene	126	Compound Not Detected.					

76	tert-Butylbenzene	119	Compound Not Detected.
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

						CONCENTRATIONS	
	QUANT SIG					ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ug/L)
78 sec-Butylbenzene	105	Compound Not Detected.					
79 4-Isopropyltoluene	119	Compound Not Detected.					
80 1,3-Dichlorobenzene	146	Compound Not Detected.					
81 1,4-Dichlorobenzene	146	Compound Not Detected.					
82 n-Butylbenzene	91	10.940	10.940	(1.034)	2195	3.29810	0.6596
83 1,2-Dichlorobenzene	146	Compound Not Detected.					
84 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86 Hexachlorobutadiene	225	Compound Not Detected.					
87 Naphthalene	128	Compound Not Detected.					
88 1,2,3-Trichlorobenzene	180	13.086	13.087	(1.236)	3873	1.41901	0.2838
89 Ethyl Ether	59	Compound Not Detected.					
91 3-Chloropropene	76	Compound Not Detected.					
92 Isopropyl Ether	87	Compound Not Detected.					
93 2-Chloro-1,3-butadiene	53	Compound Not Detected.					
94 Propionitrile	54	Compound Not Detected.					
95 Ethyl Acetate	43	Compound Not Detected.					
96 Methacrylonitrile	41	Compound Not Detected.					
97 Isobutanol	41	Compound Not Detected.					
99 n-Butanol	56	Compound Not Detected.					
100 Methyl Methacrylate	41	Compound Not Detected.					
101 2-Nitropropane	41	Compound Not Detected.					
103 Cyclohexanone	55	Compound Not Detected.					
98 Cyclohexane	56	Compound Not Detected.					
143 Methyl Acetate	43	Compound Not Detected.					
144 Methylcyclohexane	83	6.125	6.126	(1.086)	760	2.85638	0.5713
141 1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146 2-Methylnaphthalene	142	Compound Not Detected.					
149 Vinyl Acetate-86	86	Compound Not Detected.					
151 t-Butyl ethyl ether	59	Compound Not Detected.					
152 t-Amyl methyl ether	73	Compound Not Detected.					
153 1,2,3-Trimethylbenzene	105	Compound Not Detected.					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

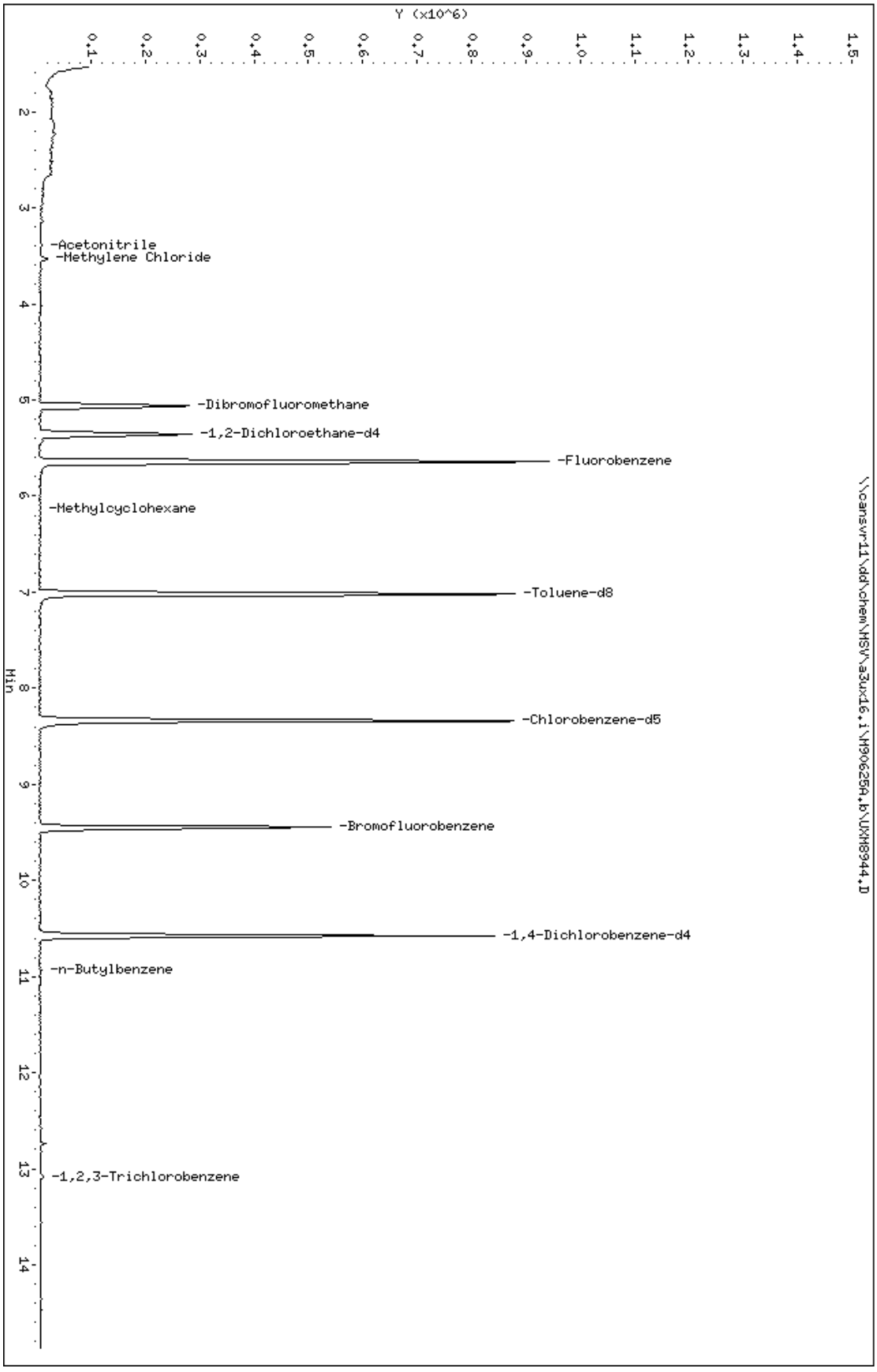
Instrument ID: a3ux16.i
Lab File ID: UXM8944.D
Lab Smp Id: VBLK
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644,3,,BLANK,,0

Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	929285	-2.01
2 Chlorobenzene-d5	691311	345656	1382622	650662	-5.88
3 1,4-Dichlorobenze	360329	180165	720658	289942	-19.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.01
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.58	0.11

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Date : 25-JUN-2009 16:21
Client ID:
Sample Info: VBLK,5ML/5ML
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Y (x10^6)
Min
-Acetonitrile
-Methylene Chloride
-Dibromofluoromethane
-1,2-Dichloroethane-d4
-Fluorobenzene
-Methylcyclohexane
-Toluene-d8
-Chlorobenzene-d5
-Bromofluorobenzene
-1,4-Dichlorobenzene-d4
-n-Butylbenzene
-1,2,3-Trichlorobenzene

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

Client ID:

Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0

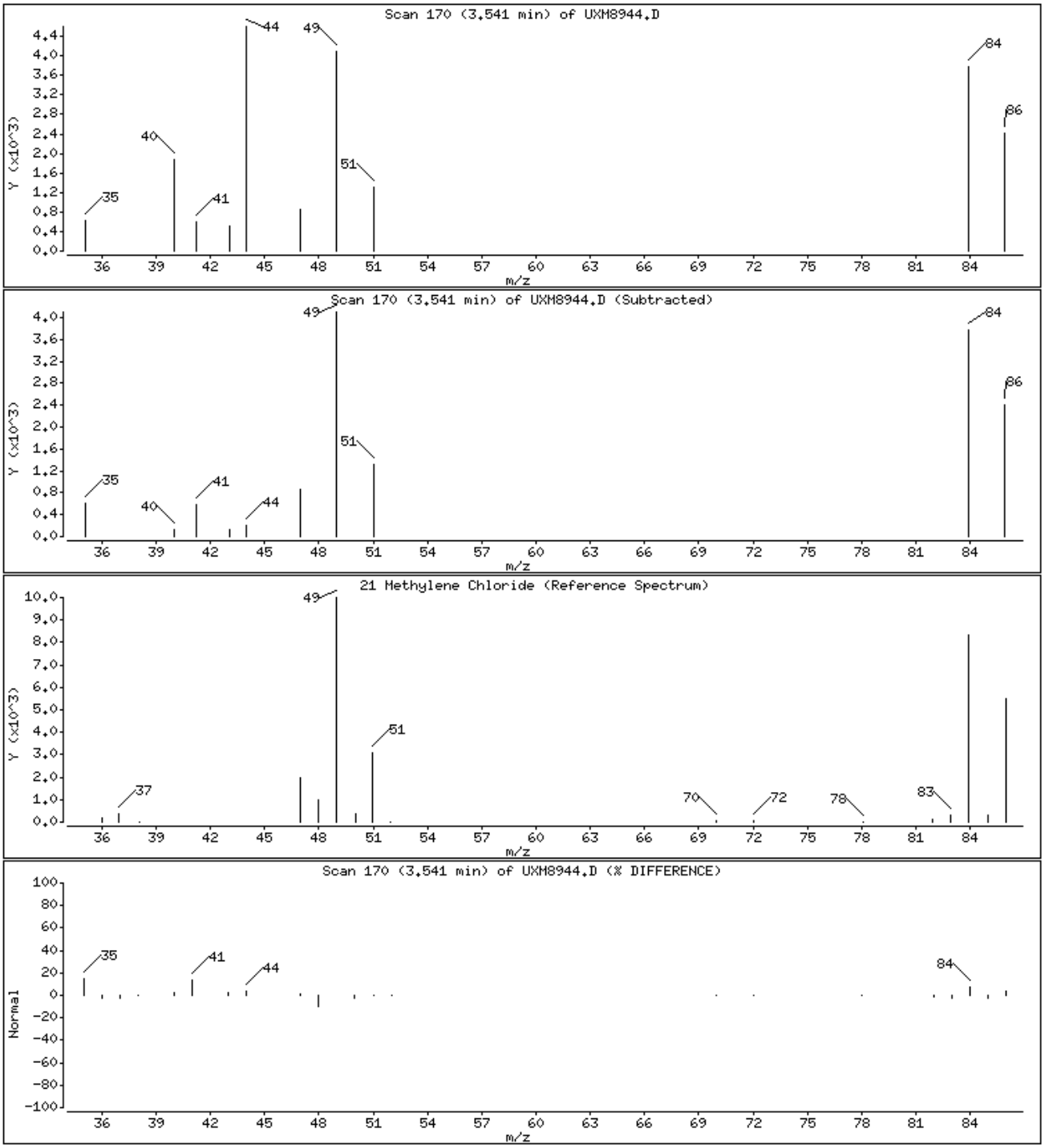
Operator: 1644

Column phase: DB624

Column diameter: 0.18

21 Methylene Chloride

Concentration: 0.3212 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

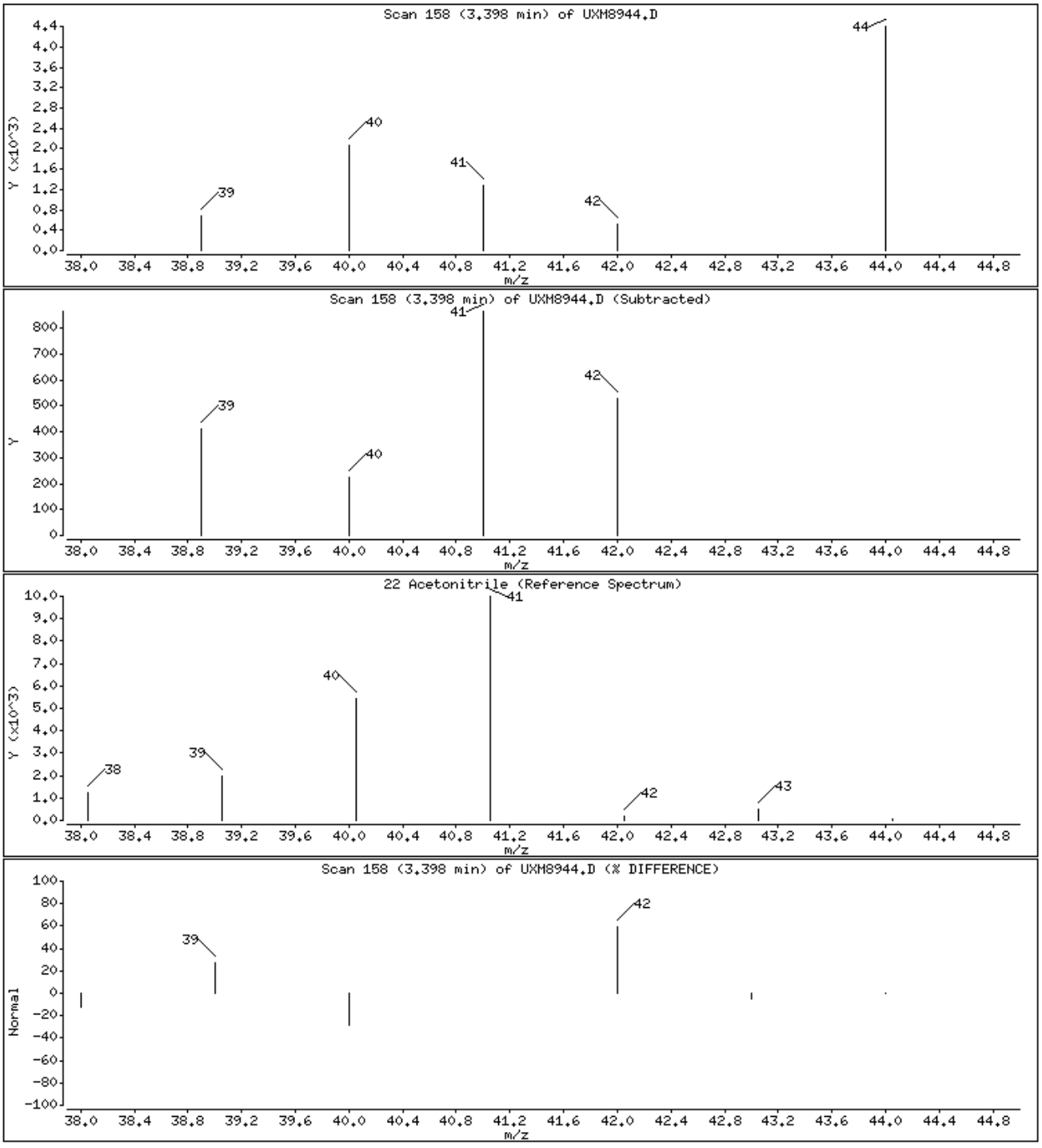
Client ID: Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

22 Acetonitrile Concentration: 1.768 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

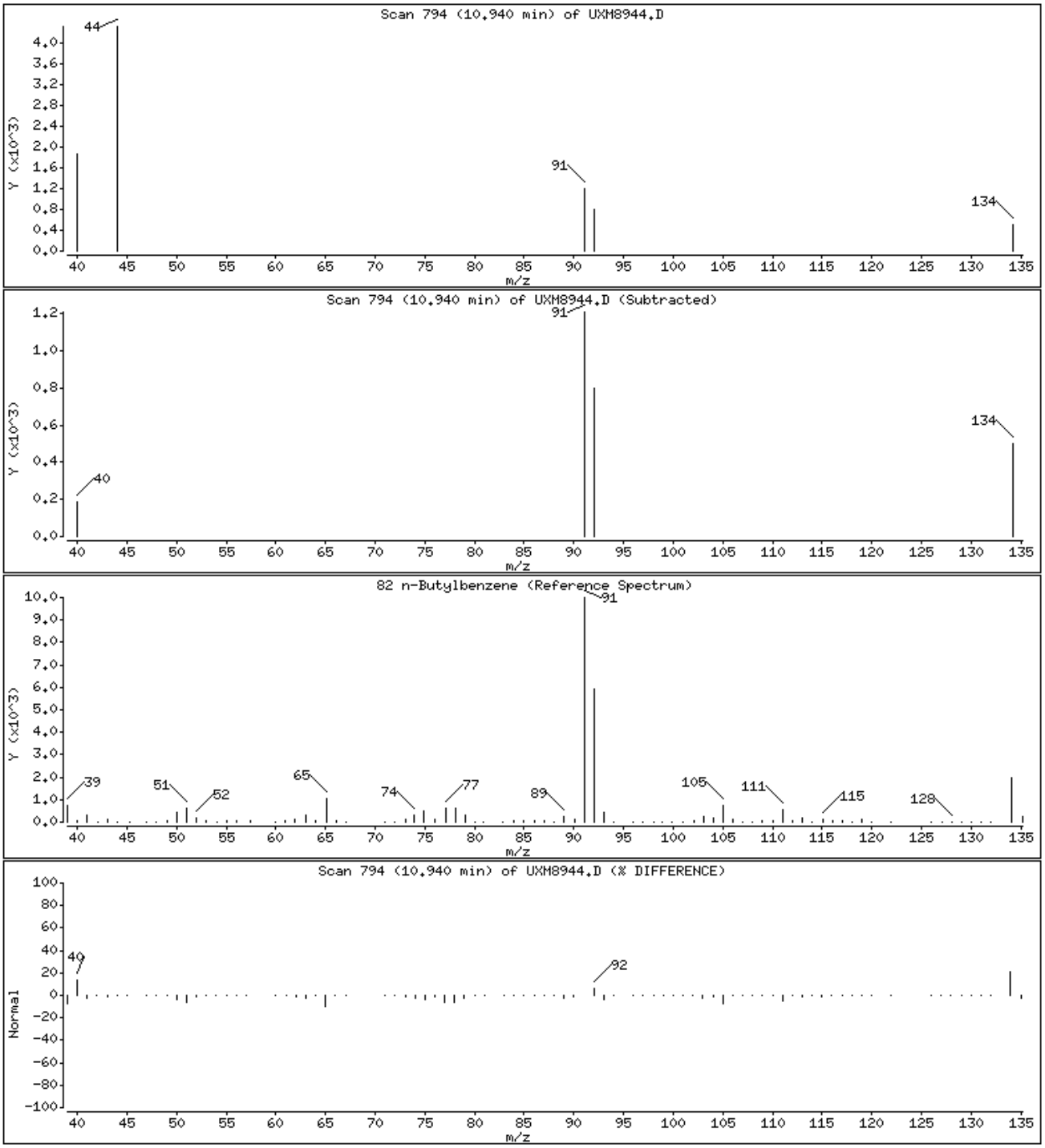
Client ID: Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

82 n-Butylbenzene Concentration: 0.6596 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

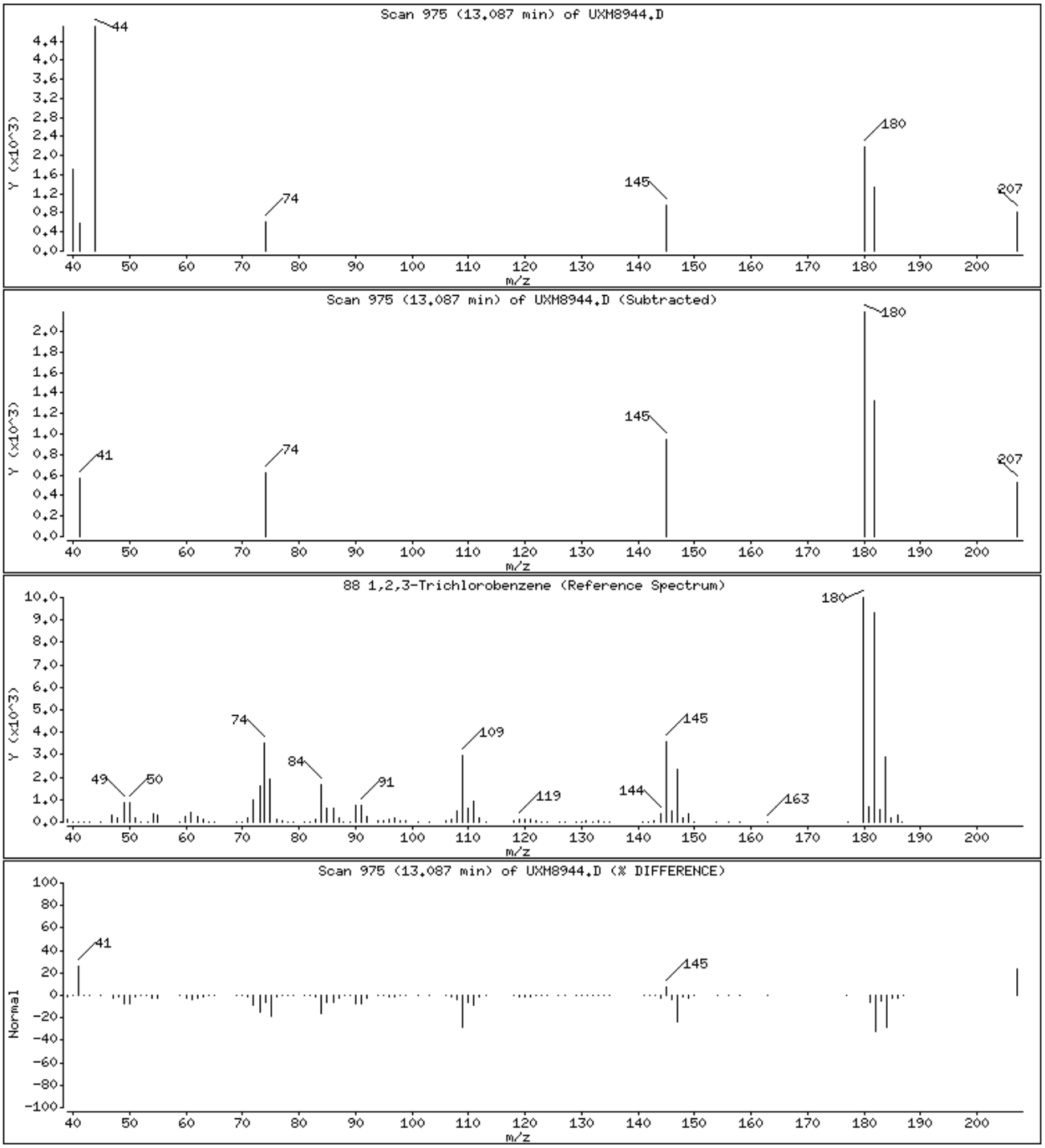
Client ID: Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

88 1,2,3-Trichlorobenzene Concentration: 0.2838 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

Client ID:

Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0

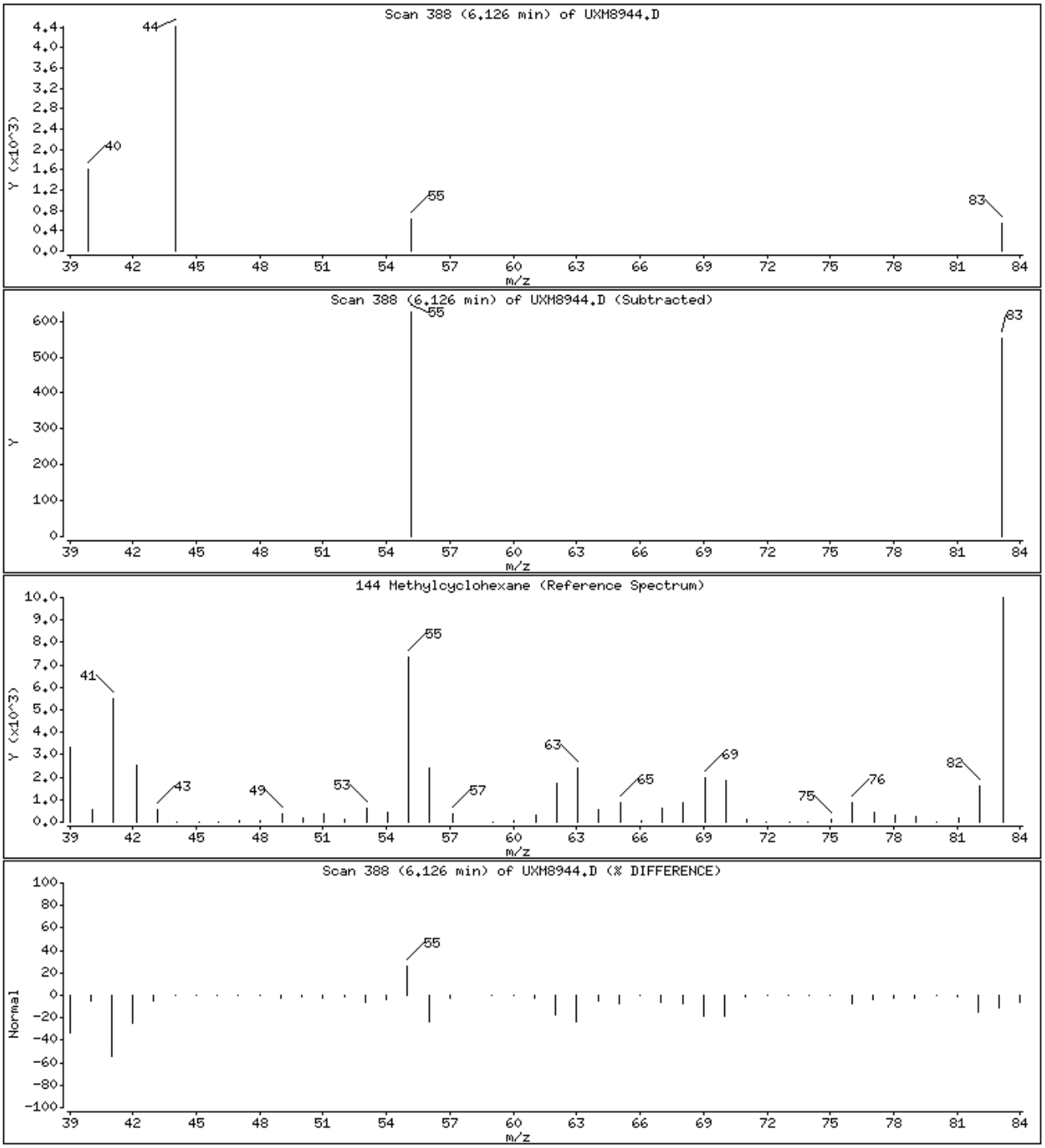
Operator: 1644

Column phase: DB624

Column diameter: 0.18

144 Methylcyclohexane

Concentration: 0.5713 ug/L



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

MISCELLANEOUS DATA

UX16
Batch # 9128-042

TestAmerica-North Canton
GC/MS VOA Run Log

Date: 5.7.09

Method: 8260B SIM

Column
Type: DB624
Length 20 M
I.D. 0.18 mm
Flow Rate 0.4ml/min

BFB
100 C for 0.1 min
to 200 C @ 20 C/min
Hold -- min
IS # V7563 SS # V7597

Analysis
40 C for 2 min
to 200 C @ 15 C/min
to -- C @ -- C/min
Hold 3 min
5/14

Purge & Trap
Trap: #10
Purge: 11
Desorb: 1 min @240 C
Bake: 5 min @ 250 C
Heated purge: Yes No

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Std number/ Sample prep	Comments	Sample status
	BFB		BFB1088	50ng	V7449	11:10	OK
1	8260CAL		UXM7626	200ng	V7598, 7599 V7593, 7592		OK
2			7627	100ng			OK
3			7628	50ng		M90507	OK
4			7629	25ng			OK
5			7630	10ng			OK
6			7631	5ng			OK
7	ICV		7632	50ng	V7588		OK
8	A9		7633		V7600, 7601	M90211	OK
9	LCS		7634		V7598	LCK8F1AC	OK
10	LCSD		7635			1AD	OK
11	BLANK		7636	5ml		1AA	OK
12	LA4HT1A0		7637				OK
13	LA4HV1AA		7638				OK
14	LA4HX1AA		7639				OK
15	LA4HX1AC	MS	7640		+50ng		OK
16	LA4HX1AD	MSD	7641				OK
17	LA4HO1AA		7642				OK
18	LA4H31A0		7643				OK
19	LA4H41A0		7644				OK
20	LA4H51AA		7645				OK
21	LA4H61AA		7646				OK
22	LA4H91AA		7647				OK
23	LA4JC1AA		7648				OK
24	LA4JD1AA		7649				OK
25	LA4JG1AA		7650				OK
26	LA4JH1AA		7651				OK
27	LA4KA1AA		7652				OK

VOID

LW 5.7.09

1634945

Analyst: LW
Level 2 review: JB Date 5/13/09

PDF Made: ✓

92

UX16
Batch # 9177173

TestAmerica-North Canton
GC/MS VOA Run Log

Date: 6.25-09

Method: (8260B) SIM

Column
Type: DB624
Length 20 M
I.D. 0.18 mm
Flow Rate 0.4ml/min

BFB
100 C for 0.1 min
to 200 C @ 20 C/min
Hold -- min
IS # V7756 SS # V7747

Analysis
40 C for 2 min
to 200 C @ 15 C/min
to -- C @ -- C/min
Hold 3 min
6/26

Purge & Trap
Trap: #10
Purge: 11
Desorb: 1 min @240 C
Bake: 5 min @ 250 C
Heated purge: Yes (No)

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Std number / Sample	Comments	Sample status
	BFB		BFB1142	50ng	V7449	(13:50)	OK
1	AQ		UXM8940		V7738 V7765	m90211	OK
2	8260		8941		V7770, V7771 V7775	m90507	OK
3	LCS		8942		V7777	LFM6QIAC	OK
4	LCSD		8943	↓	↓	↓ IAD	OK
5	BLANK		8944	5ml		↓ IAA	OK
6	LE3GAIAC		8945				OK
7	LE3GNIAA		8946				OK
8	LE3R5IAA		8947				OK
9	LE3W6IAA		8948				OK
10	LE3XEIAA		8949				OK
11	LE3XGIAA		8951				OK
12	LE3XJIAA		8953				OK
13	LFFGJIAE		8952				OK
14	LFFGNIAE		8954				OK
15	LE6JFIAR		8954				OK
16	LE6J3IAR		8955				OK
17	LE6J3ICN	MS	8956		50ng		OK
18	LE6J3ICP	MSD	8957		↓		OK
19	LE6KWIAQ		8959				OK
20	LE6KXIAQ		8959	↓			OK
21	LE6K3IAQ		8961	0.0015ng/5ml		(R) ~~75ml~~ WRONG DIL	—
22	LE6K5IAQ		8963	↓		(R)	—
23	LE6WGIAA		8962	5ml			OK
24	LE6W8IAA		8964				OK
25	LE3TDIAM		8964			(R) 2.5ml	—
26	LE3T3IAM		8966				OK
27	LE3T5IAA		8966				OK
					VOID	6.26.09	
					LW		

9178376

Analyst: LW
Level 2 review: TB Date 6/26/09
PDF Made: ✓

Lot: A9F180214

A9F180214

Sample	Work Order	SAC	Client Sample ID	pH	Free Chlorine
1	LE6WG-1AA	XX I 25 QK 01	TRIP BLANK 1	<2	N
2	LE6W8-1AA	XX I 25 QK 01	13MW3	<2	N

Lot/SDG Number: **A9F180214**

Sample Control Chain of Custody - TAL North Canton
GC/MS Volatiles

Lot Number	Sample	Work Order	Analysis Type	Analysis Date	Analyst
A9F180214	1	LE6WG1AA	Volatile Organics, GC/MS (8260B)	06/25/09	Larry Williams
A9F180214	2	LE6W81AA	Volatile Organics, GC/MS (8260B)	06/25/09	Larry Williams

TestAmerica
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PITTSBURGH DATA

Draper Aden Associates Inc

Client Sample ID: 13MW4

General Chemistry

Lot-Sample #...: A9F180214-003 **Work Order #...:** LE6XD **Matrix.....:** WG
Date Sampled...: 06/17/09 10:10 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	3.0	mg/L	SW846 9030B/9034	06/22-06/23/09	9173478

Dilution Factor: 1 MDL.....: 1.2

Draper Aden Associates Inc

Client Sample ID: 13MW5

General Chemistry

Lot-Sample #...: A9F180214-004 **Work Order #...:** LE6XJ **Matrix.....:** WG
Date Sampled...: 06/17/09 09:15 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	**1.6 B**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/22-06/23/09**	**9173478**

Dilution Factor: 1 MDL.....: 1.2

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

Draper Aden Associates Inc

Client Sample ID: 13MW6

General Chemistry

Lot-Sample #...: A9F180214-005 **Work Order #...:** LE6XL **Matrix.....:** WG
Date Sampled...: 06/17/09 08:25 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	**2.4 B**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/22-06/23/09**	**9173478**

Dilution Factor: 1 MDL.....: 1.2

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

Draper Aden Associates Inc

Client Sample ID: 13MW7

General Chemistry

Lot-Sample #...: A9F180214-006 **Work Order #...:** LE6XP **Matrix.....:** WG
Date Sampled...: 06/17/09 11:55 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	**4.0**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/22-06/23/09**	**9173478**

Dilution Factor: 1 MDL.....: 1.2

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A9F180214 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide		Work Order #: LFERF1AA		MB Lot-Sample #:	C9F220000-478	
	ND	3.0	mg/L	SW846 9030B/9034	06/22-06/23/09	9173478
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: A9F180214 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide		WO#:LFERF1AC-LCS/LFERF1AD-LCSD				LCS Lot-Sample#: C9F220000-478	
	100	(85 - 115)			SW846 9030B/9034	06/22-06/23/09	9173478
	100	(85 - 115)	0.0	(0-20)	SW846 9030B/9034	06/22-06/23/09	9173478

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: A9F180214 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	WO#:LFERF1AC-LCS/LFERF1AD-LCSD LCS Lot-Sample#: C9F220000-478							
	19.2	19.2	mg/L	100		SW846 9030B/9034	06/22-06/23/09	9173478
	19.2	19.2	mg/L	100	0.0	SW846 9030B/9034	06/22-06/23/09	9173478

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

North Canton

TestAmerica Laboratories, Inc.

SAMPLE ANALYSIS REQUISTION

Laboratory **TestAmerica Pittsburgh**
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238

Lab Request SR112869

Report Package: **Expanded Deliverables**

Need Analytical Report 2009-06-30

Client Code: 385158

Project Manager: MARK LOEB

Sample I.D.	Work Order Number	Client Sample ID	Sampling Date	Analysis Required
A9F180214-3	LE6XD	13MW4	2009-06-17 10:10	WATER, 9030B/9034, Sulfides, Total (9030
A9F180214-4	LE6XJ	13MW5	2009-06-17 9:15	WATER, 9030B/9034, Sulfides, Total (9030
A9F180214-5	LE6XL	13MW6	2009-06-17 8:25	WATER, 9030B/9034, Sulfides, Total (9030
A9F180214-6	LE6XP	13MW7	2009-06-17 11:55	WATER, 9030B/9034, Sulfides, Total (9030

1 x 500

1

Please use Client Sample ID for report

Call MARK LOEB with questions at 330-497-9396

at the TAL North Canton Laboratory

Shipping Method: FEDEX

Need detection limit and analysis date included in report.

Please send a signed copy of this form with the report at completion of analysis.

Relinquished by: _____ Date/Time: 6-18-09 3:00

Relinquished by: _____ Date/Time: _____

Received for lab by: _____ Date/Time: 6 19 9 955

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

199

Cooler Receipt Form

TestAmerica Pittsburgh

Client: TA NCANTON Project: JC Quote: _____

Cooler Rec'd & Opened for Temp. Check on: 6/19/9 ~~6/20/9~~

Coolers Opened and Unpacked on: 6/20/9 By: JC (Signature)

TestAmerica Pittsburgh Lot Number: A9F180214

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location F			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? FOAM, BUBBLE BAGS			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?	✓		
9.	Were all bottles sealed in separate plastic bags?	✓		
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?	✓		
15.	Was a sufficient amount of sample sent in each bottle?			

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Cooler Receipt Form

TestAmerica Pittsburgh

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	hrdnss PH<2			

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	2.0	10

*Acceptable Temperature Range: 4°C ± 2°C

Sample	Lot Number**

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

ORIGIN ID: PHDA
AL HAIDET
TEST AMERICA
4101 SHUFFEL DR
NORTH CANTON, OH 44720
UNITED STATES US
Ship Date: 18JUN09
ActWgt: 52.7 LB
System#: 507102/CAFE2361
Account: S *********
(412) 963-7058
TO SAMPLE RECIEVING
TEST AMERICA LABS-PA
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH, PA 15238
FedEx
Expres
Ref: AL HAIDET
Dept: AL HAIDET
Delivery Address Baroode
BILL RECIPIEN
PRIORITY OVERNIGHT
TRK# 9784 4669 6394
Form 0201
FRI
Deliver By
19JUN09
PIT
A2
15238 -PA-US
65 AGCA

Upload

TestAmerica Pittsburgh

Sulfide Log Sheet

9030B/9034/4500-S/376.1

6/23/2009 3:48 PM

Batch	Lot Number	SDG
9173478	A9F180214	N/A
	C9F170218	
	C9F180340	

Analyst:	Dennis Baker
Date:	06/23/09
Start Time:	15:25
Balance ID:	WC1493
Pipette ID:	H30608
Stock Std. ID No.:	Std 2545-09
CCV Std. ID No.:	Std 2546-09
True Value:	960 ppm
Prep: 6/17/2009	**Exp:** 06-24-09

True Value LCS/ICV:	19.2
True Value CCV:	19.2
True Value MS/MSD:	19.2

LCS 1.000 **ml of** 960 **ppm** **ID No.:** Std 2545-09 = 19.2 **ppm Range +/-15%**

CCV 1.000 **ml of** 960 **ppm** **ID No.:** Std 2546-09 = 19.2 **ppm Range +/-15%**

$$\text{sulfide mg/L} = \frac{[(\text{ml of Iodine} \times \text{N Iodine}) - \text{mL } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16{,}000}{\text{ml Sample}}$$

Iodine Standardization ID No.: Std 1591-09

$$\text{N Iodine} = \frac{10 \text{ mL } Na_2S_2O_3 \times 0.025 \text{ N of } Na_2S_2O_3}{20.0 \text{ mL of Iodine Solution}} \quad (0.025)$$

Sodium Thiosulfate Standardization Id No.: Std 1625-09

Titration 1: 10 mls, 0.025 Normality

Titration 2: 10 mls, 0.025 Normality

0.025 Avg.

$$\frac{(10 \text{ mL of } KH(IO_3)^2) \times (0.025\text{N } KH(IO_3)^2)}{\text{mL of } Na_2S_2O_3}$$

Relative Percent Difference

X1 = Orig Result X2 = Duplicate

$$\left(\frac{X1-X2}{(X1+X2)/2}\right) \times 100 = 0.0\%$$

MS Percent Recovery

$$100 \times \left(\frac{\text{Obs Conc of MS} - \text{Conc of Samp}}{\text{True Spike Conc}}\right) = \frac{-}{19.20}$$

Sample ID:

MSD Percent Recovery

$$100 \times \left(\frac{\text{Obs Conc of MSD} - \text{Conc of Samp}}{\text{True Spike Conc}}\right) = \frac{-}{19.20}$$

Sample ID:

%Rec/RPD

TestAmerica Pittsburgh

Sulfide Log Sheet

9030B/9034/4500-S/376.1

6/23/2009 3:48 PM

Upload

Sample ID	Sample ML	mL of Iodine	ml of $NA_2S_2O_3$	Conc Smp	Dilution Factor	LDL	Was sample filtered and preserved in lab? (Y/N)	Percent %
ICV	50.0	10.0	7.6	19.20	1	3.00	N	100.00
ICB	50.0	10.0	10.0	ND	1	3.00	N	
LCS	50.0	10.0	7.6	19.20	1	3.00	N	100.00
LCS-Dup	50.0	10.0	7.6	19.20	1	3.00	N	100.00
MB	50.0	10.0	10.0	ND	1	3.00	N	
A9F180214-3	50.0	10.0	10.0	ND	1	3.00	N	
A9F180214-4	50.0	10.0	9.8	1.60	1	3.00	N	
A9F180214-5	50.0	10.0	9.7	2.40	1	3.00	N	
A9F180214-6	50.0	10.0	9.5	4.00	1	3.00	N	
C9F170218-7	50.0	10.0	9.7	2.40	1	3.00	N	
C9F170218-8	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-9	50.0	10.0	9.8	1.60	1	3.00	N	
CCV	50.0	10.0	7.6	19.20	1	3.00	N	100.00
CCB	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-10	50.0	10.0	9.8	1.60	1	3.00	N	
C9F170218-11	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-12	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-13	50.0	10.0	9.7	2.40	1	3.00	N	
C9F180340-5	50.0	10.0	10.0	ND	1	3.00	N	
C9F180340-6	50.0	10.0	9.8	1.60	1	3.00	N	
C9F180340-7	50.0	10.0	9.7	2.40	1	3.00	N	
CCV	50.0	10.0	7.6	19.20	1	3.00	N	100.00
CCB	50.0	10.0	10.0	ND	1	3.00	N	

DB 6-23-09

DB 6-23-09

Analyst: DJ-a Baker Date: 6-23-09

Reviewed By: see DRC Date: ———

New Dennis Baker 6/23/2009 3:15:43 PM

TestAmerica Pittsburgh

Sulfide 9030B/9034 Distillation Worksheet

Batch No: **9173478**

Method Sulfide 9030B/9034	**Matrix** Water	**Lot Numbers** A9F180214, C9F170218, C9F180340
Start Time 16:15	**Stop Time** 17:45	
Analyst Ken Balazic	**Date** 6/22/09	
Analyst Sign: Ken Balazic		

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Expiration Date	Sulfide Present (Y/N) [1]	Comments
LFERF1AA B	50	50		NA	
LFERF1AC C					+1.0 mL of STD 2545-09
LFERF1AD L					+1.0 mL of STD 2545-09
LE4L01A4					
LE4L21A4					
LE4LH1AR					
LE4LK1A4					
LE4LL1A4					
LE4LR1A4					
LE4LV1A4					
LE6XD1AA			2009-06-24		
LE6XJ1AA			2009-06-24		
LE6XL1AA			2009-06-24		
LE6XP1AA			2009-06-24		
LE7981AJ					
LE7991AJ			6-22-09		
LE8AA1AJ	↓	↓	2009-06-24	↓	

[1] If sulfides are present, treat sample with powdered cadmium or lead carbonate until there is no reaction to the lead acetate paper.

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

Reagents:

Zinc Acetate, Std 0586-09, StandardsLog
Sulfide LCS, Std 2545-09, Standards Log
Sulfide CCV, Std 2546-09, Standards Log
Sulfide Stock, Std 0688-06, Standards Log

NOTE: Distillates are disposed of 14 days after analysis

Balance ID:	NA
Pipet #:	J20176
LCS True Value:	19.2mg/L
LCS StdsLogID:	STD2545-09
MS/MSD Conc.:	NA
MS/MSD StdsLogID:	NA

Digestate(s)	(Received) Date	Time	Analyst	Location	(Relinquished) Date	Time	Analyst	Location
ALL ABOVE	6-22-09	1829	KSB	WC	6-22-09	1829	KSB	REF 2
ALL ABOVE	6-23-09	1510	DB	REF-2	6-23-09	1550	DB	disposed

Additional Comments:

Reviewed By: D.A Balazic Date: 6-23-09

WC-82-9173478

REQUESTED BY: **BALAZICK**

9173478

METHOD: TV Sulfides, Total (9030B-dist/9034-titrat.)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
PITTSBURGH 20	LE6XD-1-AA		659279	385158	I-06-TV	A9F180214	003		WATER	1	1
PITTSBURGH 20	LE6XJ-1-AA		659280	385158	I-06-TV	A9F180214	004		WATER	1	1
PITTSBURGH 20	LE6XL-1-AA		659281	385158	I-06-TV	A9F180214	005		WATER	1	1
PITTSBURGH 20	LE6XP-1-AA		659282	385158	I-06-TV	A9F180214	006		WATER	1	1
21A,B,CLP1	LE4LH-1-AR		659272	352201	I-06-TV	C9F170218	007		WATER	15	1
21A,B,CLP1	LE4LK-1-A4		659273	352201	I-06-TV	C9F170218	008		WATER	15	1
21A,B,CLP1	LE4LL-1-A4		659274	352201	I-06-TV	C9F170218	009		WATER	15	1
21A,B,CLP1	LE4LR-1-A4		659275	352201	I-06-TV	C9F170218	010		WATER	16	1
21A,B,CLP1	LE4LV-1-A4		659276	352201	I-06-TV	C9F170218	011		WATER	15	1
21A,B,CLP1	LE4L0-1-A4		659277	352201	I-06-TV	C9F170218	012		WATER	15	1
21A,B,CLP1	LE4L2-1-A4		659278	352201	I-06-TV	C9F170218	013		WATER	15	1
22D	LE798-1-AJ		659283	048434	I-06-TV	C9F180340	005		WATER	6	1
22D	LE799-1-AJ		659284	048434	I-06-TV	C9F180340	006		WATER	6	1
22D	LE8AA-1-AJ		659285	048434	I-06-TV	C9F180340	007		WATER	6	1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
		62208 1449
		6/22/09 1520

***** END OF REPORT *****

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Type I Data Package
for
Draper Aden Associates, Inc.

SDG# RAD11

Project: RAAP - Radford, VA - HWMU13/Open Burning Ground
Groundwater and Water Samples
Collected on 04/13/09-04/14/09

GROUP	SAMPLE NUMBERS
1140835	5648234-5648245

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Prepared by Jacqueline Fellenbaum

Reviewed by Michelle M. Turner

Date 5/12/09

Lancaster Laboratories
2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Reference List for SDG Number RAD11
with a Data Package Type of I
11200 - Draper Aden Associates, Inc.
Project: RAAP - Radford, VA - HWMU13/Open Burning Ground

Lab Sample Number	Lab Sample Code	Client Sample Description
5648234	13-1-	13MW1 Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648235	13-2-	13MW2 Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648236	13-3-	13MW3 Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648237	13-4-	13MW4 Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648238	13-DU	13MWDUP Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648239	13-5-	13MW5 Unspiked Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648240	13-5-	13MW5_Matrix_Spike Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648241	13-5-	13MW5_Matrix_Spike_Dup Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648242	13-6-	13MW6 Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648243	13-7-	13MW7 Grab Groundwater Sample Appendix IX Monitoring Event 2nd Q 2009
5648244	13TB1	Trip_Blank_1 Water Sample Appendix IX Monitoring Event 2nd Q 2009
5648245	13TB2	Trip_Blank_2 Water Sample Appendix IX Monitoring Event 2nd Q 2009

A11209 / 140835 / 564823-45

CHAIN OF CUSTODY RECORD

Laboratory: Lancaster Laboratories, 2425 New Holland Pike, Lancaster, PA, 17605-2425/ Kay Hower, Manager/ (717) 656-2300

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ Yes ☐ No **Sample Collection for Project Complete?** ☑ Yes ☐ No **Carrier:** UPS: 1Z 237 301 01 5303 5807 **Tracking Number:**

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 6: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ Yes ☐ No
Bill: ☐ Client ☑ Consultant
Preserved and shipped on Ice: ☑ Yes ☐ No

Box 4 - Sample Type	G
Box 3 - Filtered/Unfiltered	U
Required pH of Sample	<2
Box 2 - Preservative	A
Box 6 - Sample Container Type	3-40 ml V

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8260B/5030B 25ml purge JUF 3.31.09								
13MW1	4/14	0935	GW	3	X								
13MW2	4/14	0815	GW	3	X								
13MW3	4/13	1200	GW	3	X								
13MW4		1035	GW	3	X								
13MWDUP		1050	GW	3	X								
13MW5		0850	GW	3	X								
13MW6	4/13	0740	GW	3	X								
13MW7	4/14	1050	GW	3	X								
Trip Blank 1	4/13		GW	3	X								
Trip Blank 2	4/14		GW	3	X								
			JUF 4/17										

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results. 1

(Full deliverable) JUF 3/18/09

* Note 13MW1 + 13MW2 have different monitoring lists than other wells. JUF 3.31.09

Clients Special Instructions: level 4 with edd. See attached target analyte list.

Received by lab in Good Condition ____ Yes ____ No Custody Seal Intact ____ Yes ____ No Temperature upon arrival ____ Received on Ice ____ Yes ____ No
Describe problems, if any:

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature):	Date: 4/15/09	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1700	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature):	Date: 4/15/09	#2 Received by (Signature):	Date: 4/16/09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: LL	Time: 0855	

JUF 4/15/09

OK JUF 1/9

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

ANALYTICAL METHOD: 8260B
TYPE METHOD: GCMS
CLASS: VOLATILE

For: 13MW1 and 13MW2

NO.	PARAMETER	CAS RN	Permit QL (ug/l)
1.	1,1-Dichloroethene	75-35-4	
2.	1,2-Dichloroethane	107-06-2	
3.	Benzene	71-43-2	
4.	Benzyl Chloride	100-44-7	
5.	Bromomethane	74-83-9	
6.	Carbon tetrachloride	56-23-5	
7.	Chlorobenzene	108-90-7	
8.	Chloroform	67-66-3	
9.	Hexachloroethane	67-72-1	
10.	Methyl chloride	74-87-3	
11.	Methylene chloride	75-09-2	
12.	Naphthalene	91-20-3	
13.	Tetrachloroethene	127-18-4	
14.	Toluene (methyl benzene)	108-88-3	
15.	Trichloroethene	79-01-6	
16.	Vinyl chloride	75-01-4	

25ml purge VOl
JCF
3-31-09

.\\BBG-FILES\Projects\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 – JCF
Revised November, 2005 – new permit – JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

RADII 00831

13MW3 - 13MW7, Trip Blank

OBG - GW

2Q09

25ml purge volume

Analyte	CAS#	MethodRef.	LOQ
1,1,1,2-Tetrachloroethane	630-20-6	8260B	1
1,1,1-Trichloroethane	71-55-6	8260B	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	1
1,1,2-Trichloroethane	79-00-5	8260B	1
1,1-Dichloroethane	75-34-3	8260B	1
1,1-Dichloroethene	75-35-4	8260B	1
1,2,3-Trichloropropane	96-18-4	8260B	1
1,2,4-Trichlorobenzene	120-82-1	8260B	1
1,2-Dibromo-3-chloropropane	96-12-8	8260B	1
1,2-Dibromoethane	106-93-4	8260B	1
1,2-Dichlorobenzene	95-50-1	8260B	1
1,2-Dichloroethane	107-06-2	8260B	1
1,2-Dichloropropane	78-87-5	8260B	1
1,3-Dichlorobenzene	541-73-1	8260B	1
1,4-Dichlorobenzene	106-46-7	8260B	1
1,4-Dioxane	123-91-1	8260B	200
2-Butanone	78-93-3	8260B	5
2-Hexanone	591-78-6	8260B	5
4-Methyl-2-pentanone	108-10-1	8260B	5
Acetone	67-64-1	8260B	5
Acetonitrile	75-05-8	8260B	100
Acrolein	107-02-8	8260B	10
Acrylonitrile	107-13-1	8260B	1
Allyl Chloride	107-05-1	8260B	1
Benzene	71-43-2	8260B	1
Bromochloromethane	74-97-5	8260B	1
Bromodichloromethane	75-27-4	8260B	1
Bromomethane	74-83-9	8260B	1
Carbon Disulfide	75-15-0	8260B	1
Carbon Tetrachloride	56-23-5	8260B	1
Chlorobenzene	108-90-7	8260B	1
Chloroethane	75-00-3	8260B	1
Chloroform	67-66-3	8260B	1
Bromoform	75-25-2	8260B	1
Chloroprene	126-99-8	8260B	1
cis-1,3-Dichloropropene	10061-01-5	8260B	1
Dibromochloromethane	124-48-1	8260B	1
Dibromomethane	74-95-3	8260B	1
Dichlorodifluoromethane	75-71-8	8260B	1
Benzyl chloride	100-44-7	8260B	1
Ethyl Methacrylate	97-63-2	8260B	1
Ethylbenzene	100-41-4	8260B	1
Hexachlorobutadiene	87-68-3	8260B	1

25ml purge vol 4/16/09

3/4

RA3441 00884

Hexachloroethane	67-72-1	8260B		1
Iodomethane	74-88-4	8260B		1
Isobutyl alcohol	78-83-1	8260B		125
Methacrylonitrile	126-98-7	8260B		10
Methyl Methacrylate	80-62-6	8260B		1
Methylene Chloride	75-09-2	8260B		1
Naphthalene	91-20-3	8260B		1
Pentachloroethane	76-01-7	8260B		1
Propionitrile	107-12-0	8260B		10
Styrene	100-42-5	8260B		1
Tetrachloroethene	127-18-4	8260B		1
Toluene	108-88-3	8260B		1
trans-1,2-Dichloroethene	156-60-5	8260B		1
trans-1,3-Dichloropropene	10061-02-6	8260B		1
trans-1,4-Dichloro-2-butene	110-57-6	8260B		1
Trichloroethene	79-01-6	8260B		1
Trichlorofluoromethane	75-69-4	8260B		1
Vinyl Acetate	108-05-4	8260B		5
Vinyl Chloride	75-01-4	8260B		1
Xylenes (Total)	1330-20-7	8260B		3

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Draper Aden

Date of Receipt: 4/16/09

Time of Receipt: 0855

Source Code: 60-1

Unpacker Emp. No.: 1454

Shipping Container Sealed: ~~YES~~ NO

Custody Seal Present * : ~~YES~~ NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: ~~Chilled~~ Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	0172	0.6	TB	WI	Y	B	
2	↓	1.1	↓	↓	↓	↓	
3	↓	0.8	↓	↓	↓	↓	
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 1

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
[signature]	4/16/09	0955	Unpacking
[signature]	4/16/09	1000	Place in Storage or (Entry)
			Entry RADIE 0015
			Entry

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030B, December 1996.

02898 EPA SW846/8260 (water-25ml) #1
02900 EPA SW846/8260 (water-25ml) #3

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996.

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

540-552-0444

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

May 01, 2009

SAMPLE GROUP

The sample group for this submittal is 1140835. Samples arrived at the laboratory on Thursday, April 16, 2009.

Client Description	Lancaster Labs Number
13MW1 Grab Groundwater Sample	5648234
13MW2 Grab Groundwater Sample	5648235
13MW3 Grab Groundwater Sample	5648236
13MW4 Grab Groundwater Sample	5648237
13MWDUP Grab Groundwater Sample	5648238
13MW5 Unspiked Grab Groundwater Sample	5648239
13MW5_Matrix_Spike Grab Groundwater Sample	5648240
13MW5_Matrix_Spike_Dup Grab Groundwater Sample	5648241
13MW6 Grab Groundwater Sample	5648242
13MW7 Grab Groundwater Sample	5648243
Trip_Blank_1 Water Sample	5648244
Trip_Blank_2 Water Sample	5648245

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Chronicle.

ELECTRONIC COPY TO	Draper Aden Associates, Inc.	Attn: Janet Frazier
1 COPY TO	Data Package Group	

RAD11 8888

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Questions? Contact your Client Services Representative
Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Christine Dulaney
Senior Specialist

BAD11E 0809

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit
N.D.	none detected
TNTC	Too Numerous To Count
IU	International Units
umhos/cm	micromhos/cm
C	degrees Celsius
meq	milliequivalents
g	gram(s)
ug	microgram(s)
ml	milliliter(s)
m3	cubic meter(s)
BMQL	Below Minimum Quantitation Level
MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units
NTU	nephelometric turbidity units
ng	nanogram(s)
F	degrees Fahrenheit
lb.	pound(s)
kg	kilogram(s)
mg	milligram(s)
l	liter(s)
ul	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648234 **Group No. 1140835**
VA

13MW1 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 09:35 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-1- SDG#: RAD11-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 16:45	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 16:45	Angela D Sneeringer	1

RAD11 0811

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648235

Group No. 1140835
VA

13MW2 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 08:15 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-2- SDG#: RAD11-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:07	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 17:07	Angela D Sneeringer	1

RAD11 0012

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648236 **Group No. 1140835**
VA

13MW3 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 12:00 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-3- SDG#: RAD11-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.6	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	0.6	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0013

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
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PO Box 12425
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717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648236 **Group No. 1140835**
VA

13MW3 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 12:00 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-3- SDG#: RAD11-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**		**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.		0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.		2.0	10	1
02898	Styrene	100-42-5	N.D.		0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.		0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.		0.1	0.5	1
02898	Toluene	108-88-3	N.D.		0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	0.1	J	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.		0.1	0.5	1
02898	Trichloroethene	79-01-6	1.0		0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	0.3	J	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.		0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.		0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.		0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.		0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:29	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:29	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 17:29	Angela D Sneeringer	1

RAD11 0814

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648237 **Group No. 1140835**
VA

13MW4 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:35 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-4- SDG#: RAD11-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0015

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648237 **Group No. 1140835**
VA

13MW4 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:35 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-4- SDG#: RAD11-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		ug/l	ug/l	ug/l	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	1.5	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:50	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 17:50	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 17:50	Angela D Sneeringer	1

RAD11 0016

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648238 **Group No. 1140835**
VA

13MWDUP Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-DU SDG#: RAD11-05FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0017

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648238 **Group No. 1140835**
VA

13MWDUP Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 10:50 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-DU SDG#: RAD11-05FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	1.5	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:12	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:12	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 18:12	Angela D Sneeringer	1

RAD11 0010

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648239 **Group No. 1140835**
VA

13MW5 Unspiked Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	0.1 J	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0019

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648239 **Group No. 1140835**
VA

13MW5 Unspiked Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:34	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:34	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 18:34	Angela D Sneeringer	1

RAD11 8020

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648240 **Group No. 1140835**
VA

13MW5_Matrix_Spike Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	52	3.0	5.0	1
02898	Acetonitrile	75-05-8	47	7.0	20	1
02898	Acrolein	107-02-8	42	5.0	25	1
02898	Acrylonitrile	107-13-1	36	1.0	5.0	1
02898	Allyl Chloride	107-05-1	6.6	0.1	0.5	1
02898	Benzene	71-43-2	7.1	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	5.6	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.9	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	7.0	0.1	0.5	1
02898	Bromoform	75-25-2	6.4	0.1	0.5	1
02898	Bromomethane	74-83-9	6.3	0.1	0.5	1
02898	2-Butanone	78-93-3	54	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	7.5	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	7.6	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	7.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	6.9	0.1	0.5	1
02898	Chloroethane	75-00-3	6.4	0.1	0.5	1
02898	Chloroform	67-66-3	7.1	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	6.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	6.6	0.1	0.5	1
02898	Dibromomethane	74-95-3	6.9	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	37	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	6.6	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	6.6	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	6.5	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	7.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	7.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	7.3	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	7.1	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	7.2	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	7.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	6.4	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	6.9	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	180	20	100	1
02898	Ethyl Methacrylate	97-63-2	6.1	0.1	0.5	1
02898	Ethylbenzene	100-41-4	7.2	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	6.7	0.1	0.5	1
02898	Hexachloroethane	67-72-1	5.3	0.1	0.5	1
02898	2-Hexanone	591-78-6	31	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	170	10	25	1
02898	Methacrylonitrile	126-98-7	53	1.0	5.0	1
02898	Methyl Iodide	74-88-4	6.2	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	7.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	30	1.0	5.0	1
02898	Methylene Chloride	75-09-2	6.6	0.2	0.5	1
02898	Naphthalene	91-20-3	6.1	0.1	0.5	1

RAD11 0021

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648240 **Group No. 1140835**
VA

13MW5_Matrix_Spike Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	5.9	0.2	0.5	1
02898	Propionitrile	107-12-0	51	2.0	10	1
02898	Styrene	100-42-5	7.3	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	6.7	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	6.9	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.8	0.1	0.5	1
02898	Toluene	108-88-3	7.2	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	6.3	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	7.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	6.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	7.1	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.9	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	6.3	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	11	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	6.1	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	21	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 19:38	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	3	C091111BB	04/22/2009 18:55	Angela D Sneeringer	1

RAD11 0022

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
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717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648241 **Group No. 1140835**
VA

13MW5_Matrix_Spike_Dup Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	51	3.0	5.0	1
02898	Acetonitrile	75-05-8	46	7.0	20	1
02898	Acrolein	107-02-8	43	5.0	25	1
02898	Acrylonitrile	107-13-1	35	1.0	5.0	1
02898	Allyl Chloride	107-05-1	6.9	0.1	0.5	1
02898	Benzene	71-43-2	7.1	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	6.0	0.1	0.5	1
02898	Bromochloromethane	74-97-5	6.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	7.1	0.1	0.5	1
02898	Bromoform	75-25-2	6.6	0.1	0.5	1
02898	Bromomethane	74-83-9	6.6	0.1	0.5	1
02898	2-Butanone	78-93-3	54	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	7.6	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	7.6	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	8.0	0.1	0.5	1
02898	Chlorobenzene	108-90-7	6.9	0.1	0.5	1
02898	Chloroethane	75-00-3	6.7	0.1	0.5	1
02898	Chloroform	67-66-3	7.1	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	6.8	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	6.7	0.1	0.5	1
02898	Dibromomethane	74-95-3	6.9	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	36	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	6.7	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	6.8	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	6.7	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	7.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	7.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	7.3	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	7.3	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	7.3	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	7.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	6.6	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	7.0	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	120	20	100	1
02898	Ethyl Methacrylate	97-63-2	6.4	0.1	0.5	1
02898	Ethylbenzene	100-41-4	7.2	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	6.5	0.1	0.5	1
02898	Hexachloroethane	67-72-1	5.3	0.1	0.5	1
02898	2-Hexanone	591-78-6	31	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	160	10	25	1
02898	Methacrylonitrile	126-98-7	53	1.0	5.0	1
02898	Methyl Iodide	74-88-4	6.4	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	7.1	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	31	1.0	5.0	1
02898	Methylene Chloride	75-09-2	6.7	0.2	0.5	1
02898	Naphthalene	91-20-3	6.0	0.1	0.5	1

RAD11 0023

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648241 **Group No. 1140835**
VA

13MW5_Matrix_Spike_Dup Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 08:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-5- SDG#: RAD11-06MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	6.1	0.2	0.5	1
02898	Propionitrile	107-12-0	51	2.0	10	1
02898	Styrene	100-42-5	7.4	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	6.8	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	7.1	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.9	0.1	0.5	1
02898	Toluene	108-88-3	7.3	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	6.1	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	7.3	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	6.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	7.1	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	7.0	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	6.6	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	11	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	6.4	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	22	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:00	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	3	C091111BB	04/22/2009 19:16	Angela D Sneeringer	1

RAD11 0024

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
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717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648242 **Group No. 1140835**
VA

13MW6 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 07:40 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-6- SDG#: RAD11-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0825

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648242 **Group No. 1140835**
VA

13MW6 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 07:40 by DS Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-6- SDG#: RAD11-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:21	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:21	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 20:21	Angela D Sneeringer	1

RAD11 0826

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648243

Group No. 1140835
VA

13MW7 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 10:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-7- SDG#: RAD11-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	GC/MS Volatiles		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0827

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648243 **Group No. 1140835**
VA

13MW7 Grab Groundwater Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 10:50 by DS

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13-7- SDG#: RAD11-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	0.1 J	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	1.4	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:43	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 20:43	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 20:43	Angela D Sneeringer	1

RAD11 0028

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648244 **Group No. 1140835**
VA

Trip_Blank_1 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB1 SDG#: RAD11-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.	7.0	20	1
02898	Acrolein	107-02-8	N.D.	5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.	1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.	1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.	20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.	0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.	1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.	10	25	1
02898	Methacrylonitrile	126-98-7	N.D.	1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.	0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.	0.1	0.5	1

RAD11 0029

*=This limit was used in the evaluation of the final result

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717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648244 **Group No. 1140835**
VA

Trip_Blank_1 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/13/2009 Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB1 SDG#: RAD11-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:05	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:05	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 21:05	Angela D Sneeringer	1

RAD11 0038

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
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PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648245 **Group No. 1140835**
VA

Trip_Blank_2 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009 Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB2 SDG#: RAD11-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.		3.0	5.0	1
02898	Acetonitrile	75-05-8	N.D.		7.0	20	1
02898	Acrolein	107-02-8	N.D.		5.0	25	1
02898	Acrylonitrile	107-13-1	N.D.		1.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.		0.1	0.5	1
02898	Benzene	71-43-2	N.D.		0.1	0.5	1
02898	Benzyl Chloride	100-44-7	N.D.		0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.		0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	1
02898	Bromoform	75-25-2	N.D.		0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.		0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.		1.0	5.0	1
02898	Carbon Disulfide	75-15-0	N.D.		0.4	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	1
02898	2-Chloro-1,3-Butadiene	126-99-8	N.D.		0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.		0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.		0.1	0.5	1
02898	Chloroform	67-66-3	N.D.		0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.		0.1	0.5	1
02898	trans-1,4-Dichloro-2-butene	110-57-6	N.D.		1.0	5.0	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.		0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.		0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.		0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.		0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.		0.1	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.		0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.1	0.5	1
02898	1,4-Dioxane	123-91-1	N.D.		20	100	1
02898	Ethyl Methacrylate	97-63-2	N.D.		0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.		0.1	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.		0.1	0.5	1
02898	Hexachloroethane	67-72-1	N.D.		0.1	0.5	1
02898	2-Hexanone	591-78-6	N.D.		1.0	5.0	1
02898	Isobutyl Alcohol	78-83-1	N.D.		10	25	1
02898	Methacrylonitrile	126-98-7	N.D.		1.0	5.0	1
02898	Methyl Iodide	74-88-4	N.D.		0.1	0.5	1
02898	Methyl Methacrylate	80-62-6	N.D.		0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.		1.0	5.0	1
02898	Methylene Chloride	75-09-2	0.3	J	0.2	0.5	1
02898	Naphthalene	91-20-3	N.D.		0.1	0.5	1

RAD11 0831

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 5648245

Group No. 1140835
VA

Trip_Blank_2 Water Sample
Appendix IX Monitoring Event 2nd Q 2009
RAAP - Radford, VA - HWMU13/Open Burning Ground

Collected: 04/14/2009

Account Number: 11200

Submitted: 04/16/2009 08:55
Reported: 05/01/2009 at 17:17
Discard: 06/01/2009

Draper Aden Associates, Inc.
2206 South Main Street
Blacksburg VA 24060

13TB2 SDG#: RAD11-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B 25mL purge	**GC/MS Volatiles**		**ug/l**	**ug/l**	**ug/l**	
02898	Pentachloroethane	76-01-7	N.D.	0.2	0.5	1
02898	Propionitrile	107-12-0	N.D.	2.0	10	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	Vinyl Acetate	108-05-4	N.D.	0.2	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02900	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

The percent drift for trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with this sample. The project requires the percent drift to be less than 25%. This compound was not detected in the sample.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:26	Angela D Sneeringer	1
02900	EPA SW846/8260 (water-25ml) #3	SW-846 8260B 25mL purge	1	C091111BB	04/22/2009 21:26	Angela D Sneeringer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C091111BB	04/22/2009 21:26	Angela D Sneeringer	1

RAD11 0032

*=This limit was used in the evaluation of the final result

Volatiles by GC/MS Data

Case Narrative
Conformance/Nonconformance Summary

CASE NARRATIVE
Client: Draper Aden Associates, Inc.
SDG#: RAD11

LANCASTER LABORATORIES
VOLATILES BY GC/MS

SAMPLE NUMBERS:

		Matrix	
LL #'s	Sample Code	Water	Comments
5648234	13-1-	X	
5648235	13-2-	X	
5648236	13-3-	X	
5648237	13-4-	X	
5648238	13-DU	X	
5648239	13-5-	X	Unspiked
5648240	13-5-MS	X	Matrix Spike
5648240	13-5-MS1	X	Matrix Spike
5648241	13-5-MSD	X	Matrix Spike Dup
5648241	13-5-MSD1	X	Matrix Spike Dup
5648242	13-6-	X	
5648243	13-7-	X	
5648244	13TB1	X	Client Blank
5648245	13TB2	X	Client Blank

LABORATORY SUBMITTED QC:

VBLKC88	VBLKC88	X	Method Blank
LCSC88	LCSC88	X	Lab Control Sample
LCS1C88	LCS1C88	X	Lab Control Sample

SAMPLE PREPARATION:

No sample preparation was necessary for the VOA fraction.

ANALYSIS:

The percent drift fro trans-1,4-dichloro-2-butene did not meet project specific limits in the continuing calibration verification standard associated with multiple samples. The project requires the percent drift to be less than 25%. This compound was not detected in the field samples.

No other problems were encountered during the analysis of these samples.

RAD11 0035

QUALITY CONTROL and NONCONFORMANCE SUMMARY:

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCD was performed, unless otherwise specified in the method or by the client.

The percent recovery is outside QC limits for multiple compounds in the MS and/or MSD. The associated LCS meets recovery criteria, indicating a matrix effect. In addition, the RPD for 1,4-dioxane between the MS/MSD was outside QC limits. Please see the MS/MSD recovery form in the QC summary section for specific information.

All other QC is within specifications.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Case Narrative reviewed and approved by:

Date 5/12/09

Dana M. Kauffman
Manager, Data Deliverables

HAD11 0036

QC Summary

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC88

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKC88

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP10193.i/09apr22a.b/ca22b02.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 04/22/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
75-71-8	Dichlorodifluoromethane		0.1	U
115-10-6	Dimethyl ether		0.1	U
74-87-3	Chloromethane		0.2	U
75-01-4	Vinyl Chloride		0.1	U
74-83-9	Bromomethane		0.1	U
75-00-3	Chloroethane		0.1	U
75-43-4	Dichlorofluoromethane		0.2	U
75-69-4	Trichlorofluoromethane		0.1	U
60-29-7	Ethyl Ether		0.1	U
354-23-4	Freon 123a		0.2	U
107-02-8	Acrolein		5.0	U
75-35-4	1,1-Dichloroethene		0.1	U
76-13-1	Freon 113		0.2	U
67-64-1	Acetone		3.0	U
74-88-4	Methyl Iodide		0.1	U
75-15-0	Carbon Disulfide		0.4	U
75-05-8	Acetonitrile		7.0	U
107-05-1	Allyl Chloride		0.1	U
79-20-9	Methyl Acetate		0.3	U
75-09-2	Methylene Chloride		0.2	U
75-65-0	t-Butyl Alcohol		4.0	U
107-13-1	Acrylonitrile		1.0	U
156-60-5	trans-1,2-Dichloroethene		0.1	U
1634-04-4	Methyl Tertiary Butyl Ether		0.1	U
540-59-0	1,2-Dichloroethene (Total)		0.1	U
110-54-3	n-Hexane		0.1	U
75-34-3	1,1-Dichloroethane		0.1	U
108-05-4	Vinyl Acetate		0.2	U
108-20-3	di-Isopropyl Ether		0.1	U
126-99-8	2-Chloro-1,3-Butadiene		0.1	U

BAD11 0039

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC88

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKC88

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP10193.i/09apr22a.b/ca22b02.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 04/22/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
637-92-3	Ethyl t-Butyl Ether		0.1	U
156-59-2	cis-1,2-Dichloroethene		0.1	U
78-93-3	2-Butanone		1.0	U
594-20-7	2,2-Dichloropropane		0.1	U
107-12-0	Propionitrile		2.0	U
126-98-7	Methacrylonitrile		1.0	U
74-97-5	Bromochloromethane		0.1	U
109-99-9	Tetrahydrofuran		2.0	U
67-66-3	Chloroform		0.1	U
71-55-6	1,1,1-Trichloroethane		0.1	U
110-82-7	Cyclohexane		0.1	U
563-58-6	1,1-Dichloropropene		0.1	U
56-23-5	Carbon Tetrachloride		0.1	U
78-83-1	Isobutyl Alcohol		10	U
71-43-2	Benzene		0.1	U
107-06-2	1,2-Dichloroethane		0.1	U
994-05-8	t-Amyl Methyl Ether		0.1	U
142-82-5	n-Heptane		0.2	U
71-36-3	n-Butanol		20	U
79-01-6	Trichloroethene		0.1	U
108-87-2	Methylcyclohexane		0.1	U
78-87-5	1,2-Dichloropropane		0.1	U
74-95-3	Dibromomethane		0.1	U
80-62-6	Methyl Methacrylate		0.1	U
123-91-1	1,4-Dioxane		20	U
75-27-4	Bromodichloromethane		0.1	U
79-46-9	2-Nitropropane		1.0	U
110-75-8	2-Chloroethyl Vinyl Ether		0.1	U
10061-01-5	cis-1,3-Dichloropropene		0.1	U
108-10-1	4-Methyl-2-Pentanone		1.0	U

RAD11 8939

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC88

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKC88

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP10193.i/09apr22a.b/ca22b02.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 04/22/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
108-88-3	Toluene		0.1	U
10061-02-6	trans-1,3-Dichloropropene		0.1	U
97-63-2	Ethyl Methacrylate		0.1	U
79-00-5	1,1,2-Trichloroethane		0.1	U
127-18-4	Tetrachloroethene		0.1	U
142-28-9	1,3-Dichloropropane		0.1	U
591-78-6	2-Hexanone		1.0	U
124-48-1	Dibromochloromethane		0.1	U
106-93-4	1,2-Dibromoethane		0.1	U
108-90-7	Chlorobenzene		0.1	U
630-20-6	1,1,1,2-Tetrachloroethane		0.1	U
100-41-4	Ethylbenzene		0.1	U
179601-23-1	m+p-Xylene		0.1	U
1330-20-7	Xylene (Total)		0.1	U
95-47-6	o-Xylene		0.1	U
100-42-5	Styrene		0.1	U
75-25-2	Bromoform		0.1	U
98-82-8	Isopropylbenzene		0.1	U
1476-11-5	cis-1,4-Dichloro-2-Butene		0.4	U
108-94-1	Cyclohexanone		5.0	U
79-34-5	1,1,2,2-Tetrachloroethane		0.1	U
108-86-1	Bromobenzene		0.1	U
110-57-6	trans-1,4-Dichloro-2-Butene		1.0	U
96-18-4	1,2,3-Trichloropropane		0.3	U
103-65-1	n-Propylbenzene		0.1	U
95-49-8	2-Chlorotoluene		0.1	U
108-67-8	1,3,5-Trimethylbenzene		0.1	U
106-43-4	4-Chlorotoluene		0.1	U
98-06-6	tert-Butylbenzene		0.1	U
76-01-7	Pentachloroethane		0.2	U

BAD11 8040

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC88

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: VBLKC88

Sample wt/vol: 25.00(g/mL) mL Lab File ID: HP10193.i/09apr22a.b/ca22b02.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 04/22/09

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/L	Q
95-63-6	1,2,4-Trimethylbenzene		0.1	U
135-98-8	sec-Butylbenzene		0.1	U
541-73-1	1,3-Dichlorobenzene		0.1	U
99-87-6	p-Isopropyltoluene		0.1	U
106-46-7	1,4-Dichlorobenzene		0.1	U
100-44-7	Benzyl Chloride		0.1	U
104-51-8	n-Butylbenzene		0.1	U
95-50-1	1,2-Dichlorobenzene		0.1	U
67-72-1	Hexachloroethane		0.1	U
96-12-8	1,2-Dibromo-3-Chloropropane		0.2	U
120-82-1	1,2,4-Trichlorobenzene		0.1	U
87-68-3	Hexachlorobutadiene		0.1	U
91-20-3	Naphthalene		0.1	U
87-61-6	1,2,3-Trichlorobenzene		0.1	U

RAD11 0841

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name:___Lancaster Laboratories___ Contract:_____

Lab Code:_____ Case No.:_____ SAS No.:_____ SDG No.:RAD11___

	LL #'s	EPA SAMPLE NO.	S1 (DBF)#	S2 (DCA)#	S3 (TOL)#	S4 (BFB)#	TOT OUT
01	5648234	13-1-	99	95	95	87	0
02	5648235	13-2-	99	96	96	86	0
03	5648236	13-3-	99	97	97	87	0
04	5648237	13-4-	100	96	97	88	0
05	5648238	13-DU	100	97	97	88	0
06	5648239	13-5-	101	97	98	87	0
07	5648240	13-5-MS	93	93	100	97	0
08	5648241	13-5-MSD	93	93	99	97	0
09	5648240	13-5-MS1	97	95	103	87	0
10	5648241	13-5-MSD1	97	96	103	87	0
11	5648242	13-6-	100	98	97	88	0
12	5648243	13-7-	99	97	97	88	0
13	5648244	13TB1	100	96	97	88	0
14	5648245	13TB2	101	98	97	88	0
15	VBLKC88	VBLKC88	97	95	94	87	0
16	LCSC88	LCSC88	94	92	98	94	0
17	LCS1C88	LCS1C88	97	94	100	92	0

	QC LIMITS
S1 (DBF) = Dibromofluoromethane	(77-114)
S2 (DCA) = 1,2-Dichloroethane-d4	(74-113)
S3 (TOL) = Toluene-d8	(77-110)
S4 (BFB) = 4-Bromofluorobenzene	(78-110)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

Lancaster Laboratories, Inc.
GC/MS Volatiles Matrix Spike/Spike Duplicate Recoveries

Unspiked: ca22s16.d
13-5- 5648239
Method: SW-846 8260B (25ML)
Instrument: HP10193

Matrix Spike: ca22s17.d
13-5-MS 5648240
Matrix/Level: WL
Dilution Factor: 1.00

Spike Duplicate: ca22s18.d
13-5-MSD 5648241
Batch: C091111BB

COMPOUND NAME	MS SPIKE	MSD SPIKE	US CONC UG/L	MS CONC UG/L	MSD CONC UG/L	MS REC %	MSD REC %	Range LOWER-UPPER	INSPEC	RPD %	RPD MAX
Dichlorodifluoromethane	5.00	5.00	ND	7.26	7.50	145	150	25-180	YES	3	30
Vinyl Chloride	5.00	5.00	ND	6.09	6.40	122	128	57-150	YES	5	30
Bromomethane	5.00	5.00	ND	6.30	6.57	126	131	66-137	YES	4	30
Chloroethane	5.00	5.00	ND	6.36	6.70	127	134	70-139	YES	5	30
Trichlorofluoromethane	5.00	5.00	ND	6.95	7.03	139	141	60-165	YES	1	30
Acrolein	37.5	37.5	ND	41.7	43.3	111	116	14-141	YES	4	30
1,1-Dichloroethene	5.00	5.00	ND	7.11	7.35	142	147	88-137	NO	3	30
Acetone	37.5	37.5	ND	51.8	51.0	138	136	57-163	YES	2	30
Methyl Iodide	5.00	5.00	ND	6.15	6.38	123	128	79-129	YES	4	30
Carbon Disulfide	5.00	5.00	ND	7.51	7.56	150	151	75-162	YES	1	30
Allyl Chloride	5.00	5.00	ND	6.60	6.91	132	138	66-148	YES	5	30
Methylene Chloride	5.00	5.00	ND	6.59	6.66	132	133	84-122	NO	1	30
Acrylonitrile	25.0	25.0	ND	35.6	35.3	142	141	56-161	YES	1	30
trans-1,2-Dichloroethene	5.00	5.00	ND	7.17	7.25	143	145	88-127	NO	1	30
1,1-Dichloroethane	5.00	5.00	ND	7.29	7.34	146	147	89-128	NO	1	30
2-Chloro-1,3-Butadiene	5.00	5.00	ND	7.94	8.02	159	160	71-159	NO	1	30
2-Butanone	37.5	37.5	ND	54.2	53.8	145	144	58-168	YES	1	30
Propionitrile	37.5	37.5	ND	51.0	51.4	136	137	63-147	YES	1	30
Methacrylonitrile	37.5	37.5	ND	53.2	52.9	142	141	58-155	YES	1	30
Bromochloromethane	5.00	5.00	ND	5.94	6.01	119	120	82-125	YES	1	30
Chloroform	5.00	5.00	ND	7.11	7.12	142	142	86-136	NO	0	30
1,1,1-Trichloroethane	5.00	5.00	ND	7.24	7.31	145	146	81-152	YES	1	30
Carbon Tetrachloride	5.00	5.00	0.14	7.56	7.62	148	150	81-162	YES	1	30
Isobutyl Alcohol	125.0	125.0	ND	175	159	140	127	54-147	YES	9	30
Benzene	5.00	5.00	ND	7.10	7.12	142	142	87-126	NO	0	30
1,2-Dichloroethane	5.00	5.00	ND	7.31	7.32	146	146	72-153	YES	0	30
Trichloroethene	5.00	5.00	ND	7.15	7.08	143	142	85-131	NO	1	30
1,2-Dichloropropane	5.00	5.00	ND	7.08	7.12	142	142	83-126	NO	0	30
Dibromomethane	5.00	5.00	ND	6.87	6.86	137	137	83-126	NO	0	30
1,4-Dioxane	125.0	125.0	ND	184	116	147	93	38-150	NO	46	30
Methyl Methacrylate	5.00	5.00	ND	6.98	7.08	140	142	48-152	YES	1	30
Bromodichloromethane	5.00	5.00	ND	7.02	7.10	140	142	82-133	NO	1	30
cis-1,3-Dichloropropene	5.00	5.00	ND	6.39	6.59	128	132	63-127	NO	3	30
4-Methyl-2-Pentanone	25.0	25.0	ND	29.8	30.7	119	123	61-140	YES	3	30
Toluene	5.00	5.00	ND	7.18	7.25	144	145	83-127	NO	1	30
trans-1,3-Dichloropropene	5.00	5.00	ND	6.88	7.02	138	140	71-128	NO	2	30
Ethyl Methacrylate	5.00	5.00	ND	6.07	6.39	121	128	58-133	YES	5	30
1,1,2-Trichloroethane	5.00	5.00	ND	6.85	6.86	137	137	71-135	NO	0	30
Tetrachloroethene	5.00	5.00	ND	6.79	6.86	136	137	86-129	NO	1	30
2-Hexanone	25.0	25.0	ND	30.8	31.5	123	126	52-156	YES	2	30
Dibromochloromethane	5.00	5.00	ND	6.69	6.81	134	136	79-125	NO	2	30
1,2-Dibromoethane	5.00	5.00	ND	6.59	6.66	132	133	80-120	NO	1	30
Chlorobenzene	5.00	5.00	ND	6.85	6.89	137	138	87-120	NO	1	30
1,1,1,2-Tetrachloroethane	5.00	5.00	ND	6.71	6.79	134	136	87-126	NO	1	30
Ethylbenzene	5.00	5.00	ND	7.20	7.24	144	145	86-128	NO	1	30
m+p-Xylene	10.0	10.0	ND	14.4	14.4	144	144	84-125	NO	0	30
Xylene (Total)	15.0	15.0	ND	21.5	21.6	143	144	84-125	NO	0	30
o-Xylene	5.00	5.00	ND	7.10	7.18	142	144	84-125	NO	1	30
Styrene	5.00	5.00	ND	7.30	7.40	146	148	27-153	YES	1	30
Bromoform	5.00	5.00	ND	6.41	6.55	128	131	65-126	NO	2	30
1,1,2,2-Tetrachloroethane	5.00	5.00	ND	6.90	7.12	138	142	70-125	NO	3	30
trans-1,4-Dichloro-2-Butene	25.0	25.0	ND	36.6	35.6	146	142	11-172	YES	3	30
1,2,3-Trichloropropane	5.00	5.00	ND	6.29	6.62	126	132	76-120	NO	5	30
Pentachloroethane	5.00	5.00	ND	5.93	6.10	119	122	78-127	YES	3	30
1,3-Dichlorobenzene	5.00	5.00	ND	6.60	6.77	132	135	81-118	NO	3	30
1,4-Dichlorobenzene	5.00	5.00	ND	6.45	6.69	129	134	79-120	NO	4	30
Benzyl Chloride	5.00	5.00	ND	5.63	5.96	113	119	62-125	YES	6	30
1,2-Dichlorobenzene	5.00	5.00	ND	6.57	6.66	131	133	83-117	NO	1	30

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

_____

Lancaster Laboratories, Inc.
GC/MS Volatiles Matrix Spike/Spike Duplicate Recoveries

Unspiked: ca22s16.d
13-5- 5648239
Method: SW-846 8260B (25ML)
Instrument: HP10193

Matrix Spike: ca22s17.d
13-5-MS 5648240
Matrix/Level: WL
Dilution Factor: 1.00

Spike Duplicate: ca22s18.d
13-5-MSD 5648241
Batch: C091111BB

COMPOUND NAME	MS SPIKE	MSD SPIKE	US CONC UG/L	MS CONC UG/L	MSD CONC UG/L	MS REC %	MSD REC %	Range LOWER-UPPER	INSPEC	RPD %	RPD MAX
1,2-Dibromo-3-Chloropropane	5.00	5.00	ND	6.54	6.50	131	130	55-156	YES	1	30
1,2,4-Trichlorobenzene	5.00	5.00	ND	6.27	6.14	125	123	63-125	YES	2	30
Hexachlorobutadiene	5.00	5.00	ND	6.71	6.55	134	131	62-142	YES	3	30
Naphthalene	5.00	5.00	ND	6.12	6.02	122	120	55-132	YES	2	30

RAPID 8844

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

_____

Lancaster Laboratories, Inc.
GC/MS Volatiles Matrix Spike/Spike Duplicate Recoveries

Unspiked: ca22s16.d
13-5- 5648239
Method: SW-846 8260B (25ML)
Instrument: HP10193

Matrix Spike: ca22s19.d
13-5-MS1 5648240
Matrix/Level: WL
Dilution Factor: 1.00

Spike Duplicate: ca22s20.d
13-5-MSD1 5648241
Batch: C091111BB

COMPOUND NAME	MS SPIKE	MSD SPIKE	US CONC UG/L	MS CONC UG/L	MSD CONC UG/L	MS REC %	MSD REC %	Range LOWER-UPPER	INSPEC	RPD %	RPD MAX
Acetonitrile	37.5	37.5	ND	47.4	46.4	126	124	29-197	YES	2	30
Vinyl Acetate	12.5	12.5	ND	11.4	11.1	91	89	27-146	YES	2	30
Hexachloroethane	5.00	5.00	ND	5.29	5.30	106	106	70-130	YES	0	30

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

_____

Lancaster Laboratories, Inc.
GC/MS Volatiles Laboratory Control Sample Recovery

File: ca22l01.d
Inst: HP10193
Dilution Factor: 1.0

Injected: 04/22/09 at 12:13
Sample: LCSC88

Method: SW-846 8260B (25ML)
Matrix/Level: WL
Batch: C091111AB

COMPOUND NAME	SPIKE LEVEL	LCS CONC UG/L	LCS REC %	Range LOWER-UPPER	INSPEC
Dichlorodifluoromethane	5.00	4.99	100	28-149	YES
Chloromethane	5.00	4.90	98	55-135	YES
Vinyl Chloride	5.00	4.35	87	55-126	YES
Bromomethane	5.00	4.85	97	66-124	YES
Chloroethane	5.00	4.70	94	67-124	YES
Dichlorofluoromethane	5.00	5.03	101	76-131	YES
Trichlorofluoromethane	5.00	5.03	101	62-142	YES
Ethyl Ether	5.00	4.52	90	61-129	YES
Freon 123a	5.00	5.07	101	74-132	YES
Acrolein	37.50	34.01	91	32-129	YES
1,1-Dichloroethene	5.00	5.15	103	85-120	YES
Freon 113	5.00	4.94	99	78-132	YES
Acetone	37.50	39.09	104	74-137	YES
Methyl Iodide	5.00	4.91	98	77-119	YES
Carbon Disulfide	5.00	5.09	102	73-133	YES
Allyl Chloride	5.00	4.81	96	71-132	YES
Methyl Acetate	5.00	4.70	94	68-134	YES
Methylene Chloride	5.00	4.93	99	86-116	YES
t-Butyl Alcohol	50.00	44.95	90	61-127	YES
Acrylonitrile	25.00	27.18	109	76-135	YES
trans-1,2-Dichloroethene	5.00	5.10	102	88-112	YES
1,2-Dichloroethene (Total)	10.00	10.15	102	89-111	YES
Methyl Tertiary Butyl Ether	5.00	4.99	100	79-117	YES
n-Hexane	5.00	4.97	99	73-128	YES
1,1-Dichloroethane	5.00	5.10	102	89-115	YES
di-Isopropyl Ether	5.00	5.09	102	74-129	YES
2-Chloro-1,3-Butadiene	5.00	5.23	105	88-130	YES
Ethyl t-Butyl Ether	5.00	4.99	100	77-117	YES
2,2-Dichloropropane	5.00	4.91	98	81-128	YES
cis-1,2-Dichloroethene	5.00	5.05	101	89-111	YES
2-Butanone	37.50	40.22	107	77-139	YES
Propionitrile	37.50	39.49	105	76-133	YES
Methacrylonitrile	37.50	41.15	110	75-134	YES
Bromochloromethane	5.00	4.72	94	85-117	YES
Tetrahydrofuran	25.00	26.16	105	77-128	YES
Chloroform	5.00	5.10	102	87-122	YES
1,1,1-Trichloroethane	5.00	5.07	101	82-130	YES
Cyclohexane	5.00	4.94	99	77-122	YES
1,1-Dichloropropene	5.00	5.01	100	89-114	YES
Carbon Tetrachloride	5.00	5.08	102	79-137	YES
Isobutyl Alcohol	125.00	122.28	98	66-140	YES
Benzene	5.00	5.01	100	88-112	YES
1,2-Dichloroethane	5.00	5.25	105	79-138	YES
t-Amyl Methyl Ether	5.00	4.96	99	79-119	YES
n-Heptane	5.00	4.72	94	72-135	YES
n-Butanol	250.00	209.33	84	59-125	YES
Trichloroethene	5.00	4.97	99	89-113	YES
Methylcyclohexane	5.00	4.92	98	82-122	YES
1,2-Dichloropropane	5.00	5.04	101	84-117	YES
Dibromomethane	5.00	5.13	103	86-120	YES
1,4-Dioxane	125.00	115.41	92	46-151	YES
Methyl Methacrylate	5.00	5.48	110	71-125	YES
Bromodichloromethane	5.00	5.09	102	85-122	YES
2-Nitropropane	5.00	4.77	95	55-158	YES
cis-1,3-Dichloropropene	5.00	4.88	98	74-116	YES
4-Methyl-2-Pentanone	25.00	22.09	88	69-130	YES
Toluene	5.00	5.05	101	88-111	YES
trans-1,3-Dichloropropene	5.00	5.10	102	78-121	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by 8846

_____ Ver. by _____

Lancaster Laboratories, Inc.
GC/MS Volatiles Laboratory Control Sample Recovery

File: ca22l01.d
Inst: HP10193
Dilution Factor: 1.0

Injected: 04/22/09 at 12:13
Sample: LCSC88

Method: SW-846 8260B (25ML)
Matrix/Level: WL
Batch: C091111AB

COMPOUND NAME	SPIKE LEVEL	LCS CONC UG/L	LCS REC %	Range LOWER-UPPER	INSPEC
Ethyl Methacrylate	5.00	4.58	92	74-116	YES
1,1,2-Trichloroethane	5.00	5.07	101	85-115	YES
Tetrachloroethene	5.00	5.00	100	85-113	YES
1,3-Dichloropropane	5.00	5.00	100	85-117	YES
2-Hexanone	25.00	21.83	87	68-134	YES
Dibromochloromethane	5.00	5.03	101	82-118	YES
1,2-Dibromoethane	5.00	4.99	100	84-115	YES
Chlorobenzene	5.00	4.95	99	89-108	YES
1,1,1,2-Tetrachloroethane	5.00	4.93	99	87-118	YES
Ethylbenzene	5.00	4.99	100	89-112	YES
m+p-Xylene	10.00	10.08	101	88-112	YES
Xylene (Total)	15.00	15.17	101	88-112	YES
o-Xylene	5.00	5.09	102	88-112	YES
Styrene	5.00	5.18	104	86-115	YES
Bromoform	5.00	5.05	101	71-121	YES
Isopropylbenzene	5.00	5.07	101	88-113	YES
1,1,2,2-Tetrachloroethane	5.00	5.05	101	75-119	YES
Bromobenzene	5.00	4.97	99	83-108	YES
trans-1,4-Dichloro-2-Butene	25.00	27.82	111	14-166	YES
1,2,3-Trichloropropane	5.00	4.82	96	80-116	YES
n-Propylbenzene	5.00	4.98	100	84-114	YES
2-Chlorotoluene	5.00	4.88	98	85-108	YES
4-Chlorotoluene	5.00	4.90	98	86-108	YES
1,3,5-Trimethylbenzene	5.00	5.02	100	86-112	YES
Pentachloroethane	5.00	4.52	90	82-119	YES
tert-Butylbenzene	5.00	4.90	98	84-110	YES
1,2,4-Trimethylbenzene	5.00	5.02	100	85-113	YES
sec-Butylbenzene	5.00	4.94	99	84-113	YES
1,3-Dichlorobenzene	5.00	4.91	98	86-107	YES
p-Isopropyltoluene	5.00	5.00	100	85-112	YES
1,4-Dichlorobenzene	5.00	4.88	98	86-107	YES
1,2,3-Trimethylbenzene	5.00	4.68	94	70-130	YES
Benzyl Chloride	5.00	4.56	91	73-122	YES
n-Butylbenzene	5.00	4.91	98	85-115	YES
1,2-Dichlorobenzene	5.00	4.88	98	86-109	YES
1,2-Dibromo-3-Chloropropane	5.00	5.31	106	70-133	YES
1,2,4-Trichlorobenzene	5.00	4.65	93	74-111	YES
Hexachlorobutadiene	5.00	4.58	92	79-112	YES
Naphthalene	5.00	4.47	89	70-114	YES
1,2,3-Trichlorobenzene	5.00	4.67	93	72-114	YES

N/C = Could not calculate

RA011 0047

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

Lancaster Laboratories, Inc.
GC/MS Volatiles Laboratory Control Sample Recovery

File: ca22102.d
Inst: HP10193
Dilution Factor: 1.0

Injected: 04/22/09 at 12:35
Sample: LCS1C88

Method: SW-846 8260B (25ML)
Matrix/Level: WL
Batch: C091111AB

COMPOUND NAME	SPIKE LEVEL	LCS CONC UG/L	LCS REC %	Range LOWER-UPPER	INSPEC
Dimethyl ether	5.00	4.44	89	70-130	YES
Acetonitrile	37.50	38.99	104	72-137	YES
Vinyl Acetate	12.50	10.58	85	45-128	YES
Cyclohexanone	125.00	87.46	70	37-133	YES
Hexachloroethane	5.00	4.57	91	70-130	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

_____ [illegible]

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: ca22b02.d Lab Sample ID: VBLKC88

Date Analyzed: 04/22/09 Time Analyzed: 11:51

Matrix (soil/water) WATER Level: (low/med) LOW

Instrument ID: HP10193

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCSC88	LCSC88	ca22l01.d	12:13
02	LCS1C88	LCS1C88	ca22l02.d	12:35
03	16MW8	5645899	ca22s01.d	13:09
04	16MW9	5645900	ca22s02.d	13:31
05	16C1A	5645901	ca22s03.d	13:52
06	16C1AMS	5645902	ca22s04.d	14:14
07	16C1AMSD	5645903	ca22s05.d	14:36
08	16C1AMS1	5645902	ca22s06.d	14:57
09	16C1AMSD1	5645903	ca22s07.d	15:19
10	16WDP	5645904	ca22s08.d	15:40
11	16C1B	5645905	ca22s09.d	16:02
12	TB1HW	5645906	ca22s10.d	16:24
13	13-1-	5648234	ca22s11.d	16:45
14	13-2-	5648235	ca22s12.d	17:07
15	13-3-	5648236	ca22s13.d	17:29
16	13-4-	5648237	ca22s14.d	17:50
17	13-DU	5648238	ca22s15.d	18:12
18	13-5-	5648239	ca22s16.d	18:34
19	13-5-MS	5648240	ca22s17.d	18:55
20	13-5-MSD	5648241	ca22s18.d	19:16
21	13-5-MS1	5648240	ca22s19.d	19:38
22	13-5-MSD1	5648241	ca22s20.d	20:00
23	13-6-	5648242	ca22s21.d	20:21
24	13-7-	5648243	ca22s22.d	20:43
25	13TB1	5648244	ca22s23.d	21:05
26	13TB2	5648245	ca22s24.d	21:26

COMMENTS: C091111AB

BADII 8849

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: ca15t01.d BFB Injection Date: 04/15/09

Instrument ID: HP10193 BFB Injection Time: 10:41

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	50.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.5 (0.7)1
174	Greater than 50.0% of mass 95	80.6
175	5.0 - 9.0% of mass 174	5.6 (6.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.4 (98.5)1
177	5.0 - 9.0% of mass 176	4.8 (6.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD025	VSTD025	ca15i01.d	04/15/09	11:26
02	VSTD010	VSTD010	ca15i02.d	04/15/09	11:48
03	VSTD005	VSTD005	ca15i03.d	04/15/09	12:10
04	VSTD002	VSTD002	ca15i05.d	04/15/09	12:53
05	VSTD001	VSTD001	ca15i06.d	04/15/09	13:15
06	VSTD0.5	VSTD0.5	ca15i07.d	04/15/09	13:37
07	MDL0.1	MDL0.1	ca15m01.d	04/15/09	13:58
08	CSMCV	CSMCV	ca15cv3.d	04/15/09	17:28

FORM V VOA

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: ca21t05.d BFB Injection Date: 04/21/09

Instrument ID: HP10193 BFB Injection Time: 19:47

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.0
75	30.0 - 60.0% of mass 95	47.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.6 (0.7)1
174	Greater than 50.0% of mass 95	83.4
175	5.0 - 9.0% of mass 174	6.4 (7.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	81.9 (98.2)1
177	5.0 - 9.0% of mass 176	5.5 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD025	VSTD025	ca21i10.d	04/21/09	20:07
02	VSTD010	VSTD010	ca21i11.d	04/21/09	20:28
03	VSTD005	VSTD005	ca21i12.d	04/21/09	20:50
04	VSTD002	VSTD002	ca21i13.d	04/21/09	21:11
05	VSTD001	VSTD001	ca21i14.d	04/21/09	21:33
06	VSTD0.5	VSTD0.5	ca21i15.d	04/21/09	21:54
07	MDL0.1	MDL0.1	ca21m10.d	04/21/09	22:16
08	CICV	CICV	ca21cv1.d	04/21/09	22:47
09	VBLKC87	VBLKC87	ca21b03.d	04/21/09	23:32
10	MDL20	MDL20	ca21b04.d	04/22/09	00:58

RAD11 0051

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: ca22t01.d BFB Injection Date: 04/22/09

Instrument ID: HP10193 BFB Injection Time: 10:23

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	47.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.6 (0.7)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.2 (98.4)1
177	5.0 - 9.0% of mass 176	5.4 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	ca22c01.d	04/22/09	10:46
02	VSTD005	VSTD005	ca22c02.d	04/22/09	11:07
03	VBLKC88	VBLKC88	ca22b02.d	04/22/09	11:51
04	LCSC88	LCSC88	ca22l01.d	04/22/09	12:13
05	LCS1C88	LCS1C88	ca22l02.d	04/22/09	12:35
06	16MW8	5645899	ca22s01.d	04/22/09	13:09
07	16MW9	5645900	ca22s02.d	04/22/09	13:31
08	16C1A	5645901	ca22s03.d	04/22/09	13:52
09	16C1AMS	5645902	ca22s04.d	04/22/09	14:14
10	16C1AMSD	5645903	ca22s05.d	04/22/09	14:36
11	16C1AMS1	5645902	ca22s06.d	04/22/09	14:57
12	16C1AMSD1	5645903	ca22s07.d	04/22/09	15:19
13	16WDP	5645904	ca22s08.d	04/22/09	15:40
14	16C1B	5645905	ca22s09.d	04/22/09	16:02
15	TB1HW	5645906	ca22s10.d	04/22/09	16:24
16	13-1-	5648234	ca22s11.d	04/22/09	16:45
17	13-2-	5648235	ca22s12.d	04/22/09	17:07
18	13-3-	5648236	ca22s13.d	04/22/09	17:29
19	13-4-	5648237	ca22s14.d	04/22/09	17:50
20	13-DU	5648238	ca22s15.d	04/22/09	18:12
21	13-5-	5648239	ca22s16.d	04/22/09	18:34
22	13-5-MS	5648240	ca22s17.d	04/22/09	18:55

SAD11 0052

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: ca22t01.d BFB Injection Date: 04/22/09

Instrument ID: HP10193 BFB Injection Time: 10:23

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	47.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.6 (0.7)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.2 (98.4)1
177	5.0 - 9.0% of mass 176	5.4 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	13-5-MSD	5648241	ca22s18.d	04/22/09	19:16
24	13-5-MS1	5648240	ca22s19.d	04/22/09	19:38
25	13-5-MSD1	5648241	ca22s20.d	04/22/09	20:00
26	13-6-	5648242	ca22s21.d	04/22/09	20:21
27	13-7-	5648243	ca22s22.d	04/22/09	20:43
28	13TB1	5648244	ca22s23.d	04/22/09	21:05
29	13TB2	5648245	ca22s24.d	04/22/09	21:26

RAD11 0053

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID (Standard): ca22c01.d Date Analyzed: 04/22/09

Instrument ID: HP10193 Time Analyzed: 10:46

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	110379	4.310	2328967	7.785	1751912	11.229	1086571	13.094
	UPPER LIMIT	220758	4.810	4657934	8.285	3503824	11.729	2173142	13.594
	LOWER LIMIT	55190	3.810	1164484	7.285	875956	10.729	543286	12.594
	EPA SAMPLE NO.								
01	VBLKC88	92807	4.328	2137186	7.790	1621578	11.229	940016	13.094
02	LCSC88	96876	4.322	2252637	7.784	1685577	11.229	1046664	13.094
03	LCS1C88	100454	4.328	2183748	7.791	1664903	11.229	963246	13.094
04	16MW8	103760	4.316	2134442	7.784	1614354	11.229	948174	13.094
05	16MW9	93611	4.310	2105178	7.784	1587015	11.229	929706	13.094
06	16C1A	93164	4.328	2055582	7.784	1551058	11.229	916604	13.094
07	16C1AMS	100676	4.316	2239189	7.790	1660446	11.229	1039511	13.094
08	16C1AMSD	104874	4.322	2298147	7.790	1705149	11.229	1056313	13.094
09	16C1AMS1	100850	4.328	2204460	7.791	1661455	11.229	956059	13.094
10	16C1AMSD1	98580	4.322	2161776	7.791	1640748	11.229	937672	13.094
11	16WDP	95802	4.340	2074486	7.790	1553665	11.229	920120	13.094
12	16C1B	91952	4.322	2035688	7.790	1545256	11.229	903988	13.094
13	TB1HW	91037	4.310	2009542	7.784	1521657	11.229	882921	13.094
14	13-1-	84306	4.328	1984095	7.791	1494932	11.229	855328	13.095
15	13-2-	82785	4.328	1954127	7.791	1471125	11.229	846343	13.094
16	13-3-	79215	4.340	1925387	7.790	1438664	11.229	823381	13.094
17	13-4-	80180	4.334	1879315	7.790	1421809	11.229	826588	13.094
18	13-DU	79631	4.322	1862166	7.790	1398299	11.229	805661	13.094
19	13-5-	74860	4.334	1858013	7.797	1386980	11.229	782771	13.094
20	13-5-MS	91805	4.322	2094721	7.791	1532991	11.229	971226	13.094
21	13-5-MSD	98042	4.322	2179343	7.790	1592134	11.229	976886	13.094
22	13-5-MS1	94322	4.322	2097917	7.790	1566129	11.229	884351	13.094

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

RAD11 [illegible]

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID (Standard): ca22c01.d Date Analyzed: 04/22/09

Instrument ID: HP10193 Time Analyzed: 10:46

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	110379	4.310	2328967	7.785	1751912	11.229	1086571	13.094
	UPPER LIMIT	220758	4.810	4657934	8.285	3503824	11.729	2173142	13.594
	LOWER LIMIT	55190	3.810	1164484	7.285	875956	10.729	543286	12.594
	EPA SAMPLE NO.								
23	13-5-MSD1	92005	4.328	2065492	7.790	1549725	11.229	862787	13.094
24	13-6-	82815	4.328	1913855	7.791	1428989	11.229	819578	13.095
25	13-7-	81992	4.310	1911175	7.791	1437049	11.229	817335	13.095
26	13TB1	79940	4.322	1863401	7.791	1393590	11.229	787326	13.094
27	13TB2	77423	4.310	1829006	7.791	1367295	11.229	777771	13.094

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

RAD11 8855

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Sample Data

LOQ/MDL LIST
EPA METHOD 8260B MODIFIED - 25ML PURGE

Compound Name	LOQ	MDL	Units
Dichlorodifluoromethane	0.5	0.1	ug/L
cis-1,2-Dichloroethene	0.5	0.1	ug/L
trans-1,3-Dichloropropene	0.5	0.1	ug/L
cis-1,3-Dichloropropene	0.5	0.1	ug/L
Chloromethane	0.5	0.1	ug/L
Bromomethane	0.5	0.1	ug/L
Vinyl Chloride	0.5	0.1	ug/L
Chloroethane	0.5	0.1	ug/L
1,1-Dichloroethene	0.5	0.1	ug/L
Methylene Chloride	0.5	0.2	ug/L
trans-1,2-Dichloroethene	0.5	0.1	ug/L
1,1-Dichloroethane	0.5	0.1	ug/L
Chloroform	0.5	0.1	ug/L
1,1,1-Trichloroethane	0.5	0.1	ug/L
Carbon Tetrachloride	0.5	0.1	ug/L
Benzene	0.5	0.1	ug/L
1,2-Dichloroethane	0.5	0.1	ug/L
Trichloroethene	0.5	0.1	ug/L
1,2-Dichloropropane	0.5	0.1	ug/L
Bromodichloromethane	0.5	0.1	ug/L
Toluene	0.5	0.1	ug/L
1,1,2-Trichloroethane	0.5	0.1	ug/L
Tetrachlorethene	0.5	0.1	ug/L
Dibromochloromethane	0.5	0.1	ug/L
m+p-Xylene	0.5	0.1	ug/L
o-Xylene	0.5	0.1	ug/L
Chlorobenzene	0.5	0.1	ug/L
Ethylbenzene	0.5	0.1	ug/L
Styrene	0.5	0.1	ug/L
Bromoform	0.5	0.1	ug/L
1,1,2,2-Tetrachloroethane	0.5	0.1	ug/L
Acetone	5.0	3.0	ug/L
Carbon Disulfide	0.5	0.1	ug/L
2-Butanone	5.0	1.0	ug/L
4-Methyl-2-Pentanone	5.0	1.0	ug/L
Trichlorofluoromethane	0.5	0.1	ug/L
Acrolein	25	5.0	ug/L
Acrylonitrile	5.0	1.0	ug/L
2-Hexanone	5.0	1.0	ug/L
2-Chloroethyl Vinyl Ether	0.5	0.1	ug/L
Methyl Tertiary Butyl Ether	0.5	0.1	ug/L
Dichlorofluoromethane	0.5	0.2	ug/L
Freon 113	0.5	0.2	ug/L
Methyl Iodide	0.5	0.1	ug/L
Allyl Chloride	0.5	0.1	ug/L
Methyl Acetate	1.0	0.3	ug/L
t-Butyl Alcohol	10	4.0	ug/L
n-Hexane	0.5	0.1	ug/L
Diisopropyl Ether	0.5	0.1	ug/L
2-Chloro-1,3-Butadiene	0.5	0.1	ug/L
Ethyl t-Butyl Ether	0.5	0.1	ug/L

MSD11 8857

LOQ/MDL LIST
EPA METHOD 8260B MODIFIED - 25ML PURGE

Compound Name	LOQ	MDL	Units
2,2-Dichloropropane	0.5	0.1	ug/L
Propionitrile	10	2.0	ug/L
Methacrylonitrile	5.0	1.0	ug/L
Bromochloromethane	0.5	0.1	ug/L
Tetrahydrofuran	5.0	2.0	ug/L
Cyclohexane	0.5	0.1	ug/L
1,1-Dichloropropene	0.5	0.1	ug/L
Isobutyl Alcohol	25	10	ug/L
t-Amyl Methyl Ether	0.5	0.1	ug/L
n-Heptane	0.5	0.2	ug/L
n-Butanol	50	20	ug/L
Methylcyclohexane	0.5	0.1	ug/L
Dibromomethane	0.5	0.1	ug/L
1,4-Dioxane	100	20	ug/L
Methyl Methacrylate	0.5	0.1	ug/L
2-Nitropropane	5.0	1.0	ug/L
Ethyl Methacrylate	0.5	0.1	ug/L
1,3-Dichloropropane	0.5	0.1	ug/L
1,2-Dibromoethane	0.5	0.1	ug/L
1,1,1,2-Tetrachloroethane	0.5	0.1	ug/L
Isopropylbenzene	0.5	0.1	ug/L
Bromobenzene	0.5	0.1	ug/L
trans-1,4-Dichloro-2-Butene	5.0	1.0	ug/L
1,2,3-Trichloropropane	1.0	0.3	ug/L
n-Propylbenzene	0.5	0.1	ug/L
2-Chlorotoluene	0.5	0.1	ug/L
4-Chlorotoluene	0.5	0.1	ug/L
1,3,5-Trimethylbenzene	0.5	0.1	ug/L
Pentachloroethane	0.5	0.2	ug/L
tert-Butylbenzene	0.5	0.1	ug/L
1,2,4-Trimethylbenzene	0.5	0.1	ug/L
sec-Butylbenzene	0.5	0.1	ug/L
1,3-Dichlorobenzene	0.5	0.1	ug/L
p-Isipropyltoluene	0.5	0.1	ug/L
1,4-Dichlorobenzene	0.5	0.1	ug/L
n-Butylbenzene	0.5	0.1	ug/L
1,2-Dichlorobenzene	0.5	0.1	ug/L
1,2-Dibromo-3-Chloropropane	2.0	0.5	ug/L
1,2,4-Trichlorobenzene	0.5	0.1	ug/L
Hexachlorobutadiene	0.5	0.1	ug/L
Naphthalene	0.5	0.1	ug/L
1,2,3-Trichlorobenzene	0.5	0.1	ug/L
Acetonitrile	20	7	ug/L
Vinyl Acetate	0.5	0.2	ug/L
Cyclohexanone	25	5	ug/L
Benzyl Chloride	0.5	0.1	ug/L

RAD11 0858

Compound Name	LOQ	MDL	Units
sec-Butylbenzene	0.5	0.1	ug/L
1,3-Dichlorobenzene	0.5	0.1	ug/L
p-Isipropyltoluene	0.5	0.1	ug/L
1,4-Dichlorobenzene	0.5	0.1	ug/L
n-Butylbenzene	0.5	0.1	ug/L
1,2-Dichlorobenzene	0.5	0.1	ug/L
1,2-Dibromo-3-Chloropropane	2.0	0.5	ug/L
1,2,4-Trichlorobenzene	0.5	0.1	ug/L
Hexachlorobutadiene	0.5	0.1	ug/L
Naphthalene	0.5	0.1	ug/L
1,2,3-Trichlorobenzene	0.5	0.1	ug/L

BAD11 9859

13-1-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648234

File: /chem2/HP10193.i/09apr22a.b/ca22s11.d
Sample: 13-1-;5648234;1;0;;;;;;
Injected At:22-APR-2009 16:45
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERB

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.328(-0.018)	451	65	84306(-24)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1984095(-15)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1494932(-15)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	855328(-21)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	516168	9.873	99%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	90194	9.537	95%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2020066	9.544	95%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	683094	8.733	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
4) Chloromethane	(1)				ND	ND			0.20	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
64) Carbon Tetrachloride	(1)				ND	ND			0.10	0.50
70) Benzene	(1)				ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)				ND	ND			0.10	0.50
80) Trichloroethene	(1)				ND	ND			0.10	0.50
97) Toluene	(2)				ND	ND			0.10	0.50
104) Tetrachloroethene	(2)				ND	ND			0.10	0.50
110) Chlorobenzene	(2)				ND	ND			0.10	0.50
145) Benzyl Chloride	(3)				ND	ND			0.10	0.50
148) Hexachloroethane	(3)				ND	ND			0.10	0.50
154) Naphthalene	(3)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/11/09

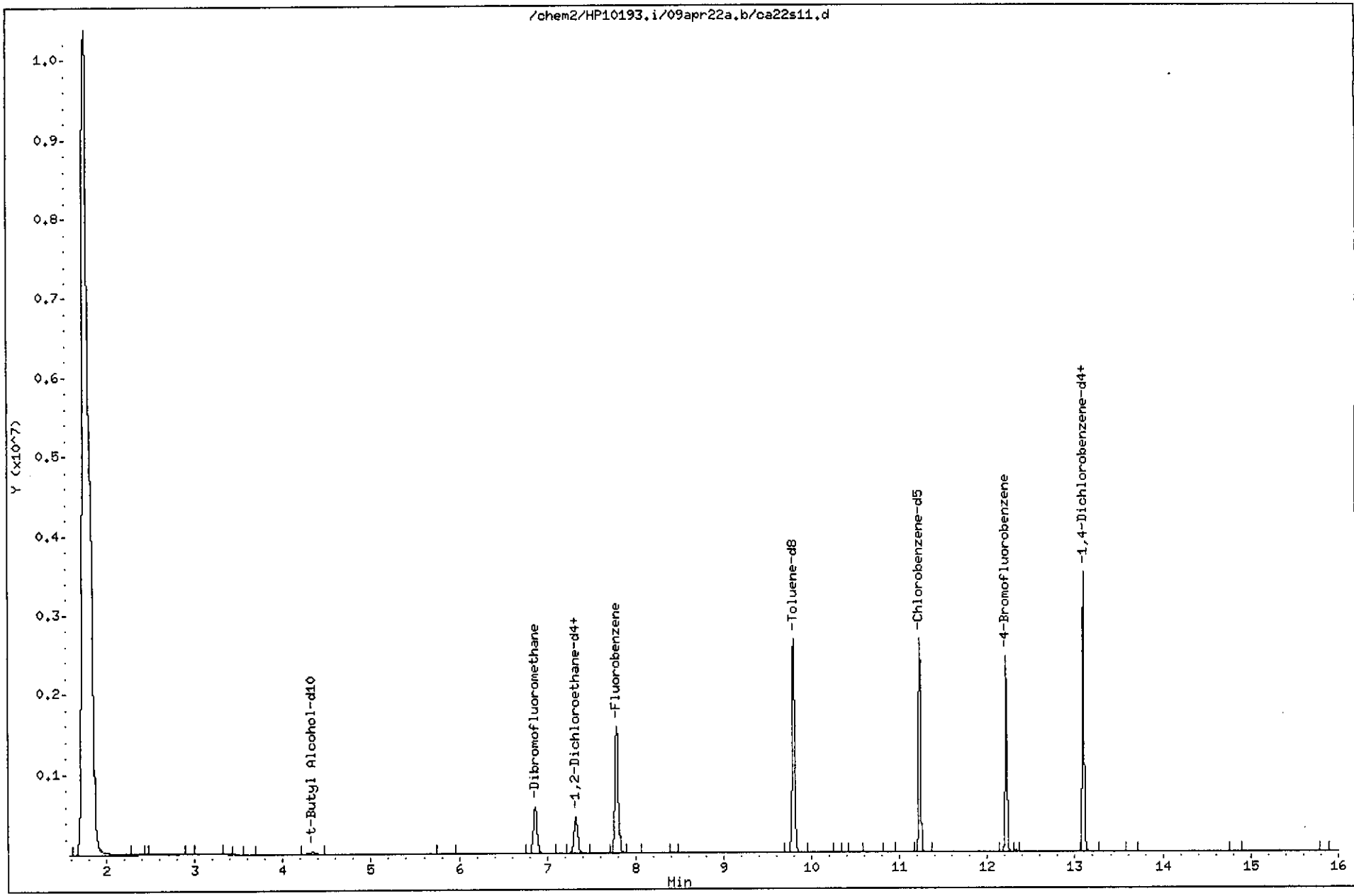
Auditor: _____ Date: 4-29-09

RAD11 0960

Data File: /chem2/HP10193.i/09apr22a.b/ca22s11.d
Date : 22-APR-2009 16:45
Client ID: 13-1-
Sample Info: 13-1-;5648234;1;0;;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s11.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 16:45 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERB
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:00 sew02002

Sample Name: 13-1- Lab Sample ID: 5648234

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.328	65	84306	50.000
75)*Fluorobenzene	(1)	7.791	96	1984095	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1494932	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	855328	10.000
58)$Dibromofluoromethane	(1)	6.870	113	516168	9.873
69)$1,2-Dichloroethane-d4	(1)	7.327	102	90194	9.537
95)$Toluene-d8	(2)	9.796	98	2020066	9.544
123)$4-Bromofluorobenzene	(2)	12.217	95	683094	8.733

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

BAD11 8862

13-2-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648235

File: /chem2/HP10193.i/09apr22a.b/ca22s12.d
Sample: 13-2-;5648235;1;0;;;;;;
Injected At:22-APR-2009 17:07
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERB

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.328(-0.018)	451	65	82785(-25)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1954127(-16)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1471125(-16)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	846343(-22)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	512247	9.948	99%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.333(0.000)	102	89733	9.634	96%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2000485	9.605	96%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	665299	8.644	86%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
4) Chloromethane	(1)				ND	ND			0.20	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
64) Carbon Tetrachloride	(1)				ND	ND			0.10	0.50
70) Benzene	(1)				ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)				ND	ND			0.10	0.50
80) Trichloroethene	(1)				ND	ND			0.10	0.50
97) Toluene	(2)				ND	ND			0.10	0.50
104) Tetrachloroethene	(2)				ND	ND			0.10	0.50
110) Chlorobenzene	(2)				ND	ND			0.10	0.50
145) Benzyl Chloride	(3)				ND	ND			0.10	0.50
148) Hexachloroethane	(3)				ND	ND			0.10	0.50
154) Naphthalene	(3)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/22/09

Auditor: _____ Date: 4/29/09

RAD11 8863

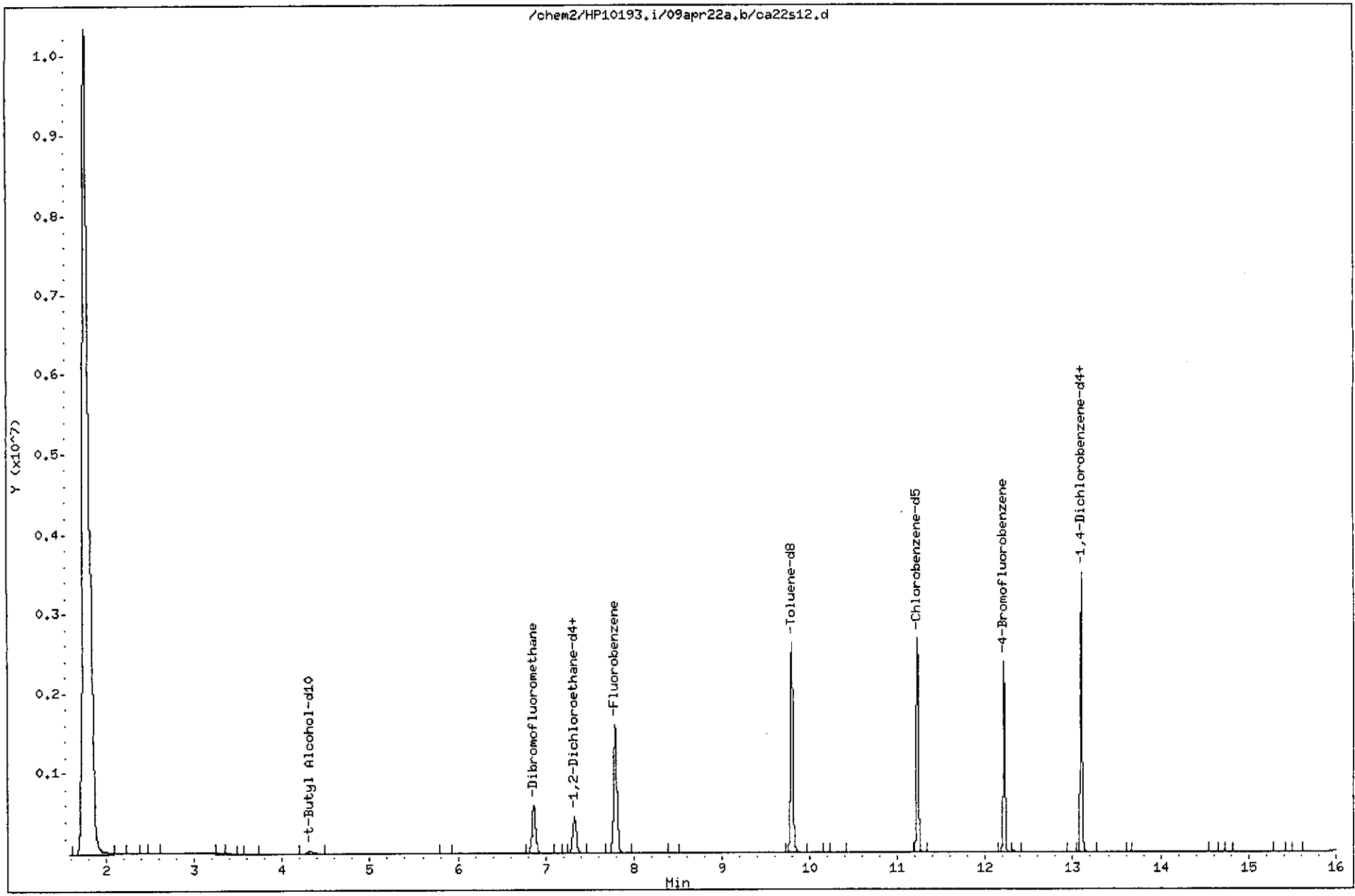
4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s12.d
Date : 22-APR-2009 17:07
Client ID: 13-2-
Sample Info: 13-2-;5648235;1;0;;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 0564



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s12.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:07 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERB
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:01 sew02002

Sample Name: 13-2- Lab Sample ID: 5648235

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.328	65	82785	50.000
75)*Fluorobenzene	(1)	7.791	96	1954127	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1471125	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	846343	10.000
58)$Dibromofluoromethane	(1)	6.870	113	512247	9.948
69)$1,2-Dichloroethane-d4	(1)	7.333	102	89733	9.634
95)$Toluene-d8	(2)	9.796	98	2000485	9.605
123)$4-Bromofluorobenzene	(2)	12.217	95	665299	8.644

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

13-3-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648236

File: /chem2/HP10193.i/09apr22a.b/ca22s13.d
Sample: 13-3-;5648236;1;0;;;;;;
Injected At:22-APR-2009 17:29
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.340(-0.030)	453	65	79215(-28)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1925387(-17)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1438664(-18)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	823381(-24)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	504170	9.937	99%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	88890	9.686	97%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1968117	9.662	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	656826	8.726	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)	3.060(0.000)	101	28066	0.322	0.32		J	0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)	6.651(0.000)	83	45267	0.569	0.57			0.10	0.50
60) 1,1,1-Trichloroethane	(1)	6.925(-0.001)	97	9250	0.127	0.13		J	0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

BAD11 8866

13-3-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648236

File: /chem2/HP10193.i/09apr22a.b/ca22s13.d
Sample: 13-3-;5648236;1;0;;;;;;
Injected At:22-APR-2009 17:29
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)	7.150(0.000)	117	442702	6.641	6.64			0.10	0.50
66) Isobutyl Alcohol	(4)				ND	ND			10.00	25.00
70) Benzene	(1)				ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)				ND	ND			0.10	0.50
80) Trichloroethene	(1)	8.278(0.000)	95	50427	1.029	1.03			0.10	0.50
83) 1,2-Dichloropropane	(1)				ND	ND			0.10	0.50
85) Dibromomethane	(1)				ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)				ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)				ND	ND			0.10	0.50
88) Bromodichloromethane	(1)				ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)				ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)				ND	ND			1.00	5.00
97) Toluene	(2)				ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)				ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)				ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)				ND	ND			0.10	0.50
104) Tetrachloroethene	(2)				ND	ND			0.10	0.50
106) 2-Hexanone	(2)				ND	ND			1.00	5.00
107) Dibromochloromethane	(2)				ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)				ND	ND			0.10	0.50
110) Chlorobenzene	(2)				ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)				ND	ND			0.10	0.50
112) Ethylbenzene	(2)				ND	ND			0.10	0.50
113) m+p-Xylene	(2)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0067

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

File: /chem2/HP10193.i/09apr22a.b/ca22s13.d
Sample: 13-3-;5648236;1;0;;;;;;
Injected At:22-APR-2009 17:29
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/24/09

Auditor: _____ Date: 4-29-09

RAD11 8868

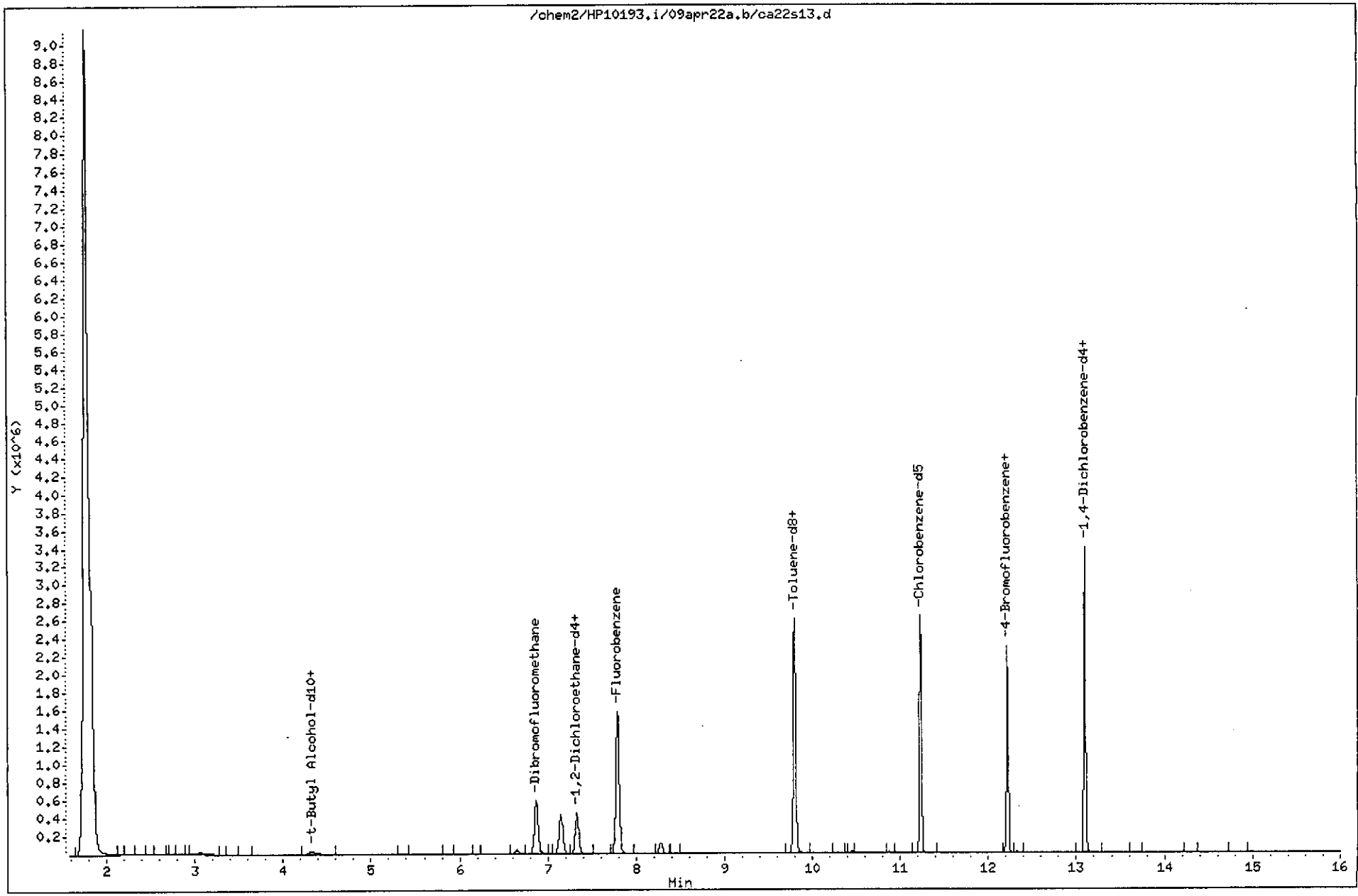
4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d
Date : 22-APR-2009 17:29
Client ID: 13-3-
Sample Info: 13-3-;5648236;1;0;;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 0969



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:29 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:03 sew02002

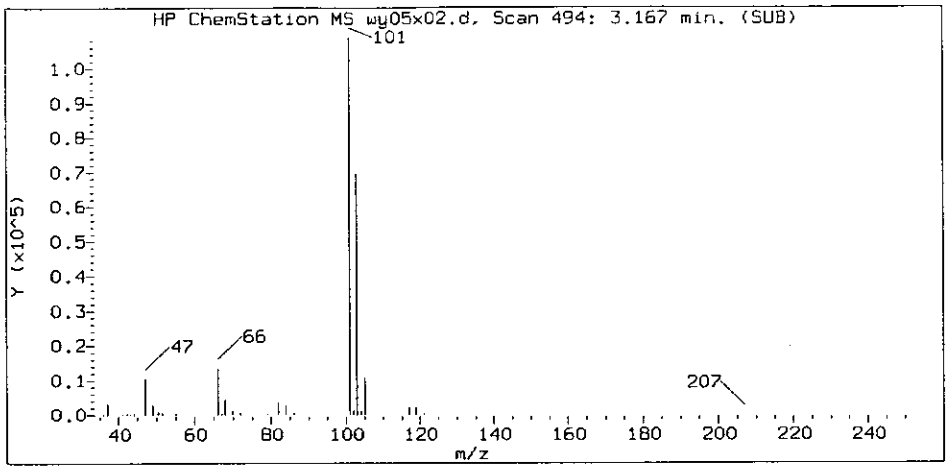
Sample Name: 13-3- Lab Sample ID: 5648236

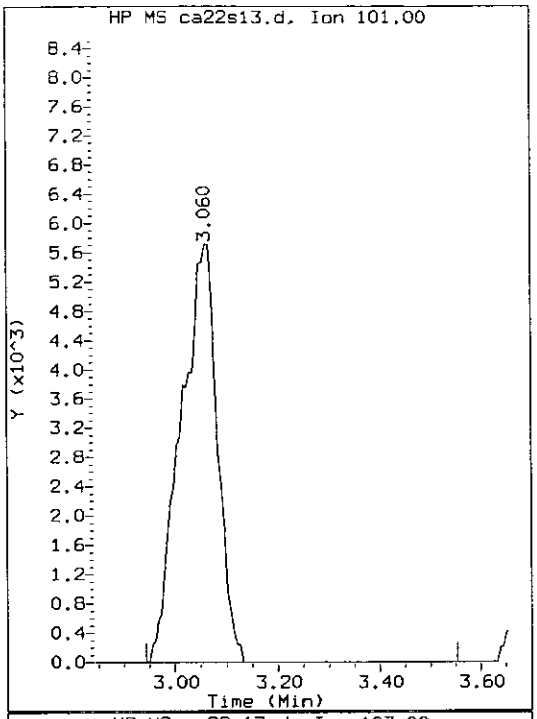
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
12) Trichlorofluoromethane	(1)	3.060	101	28066	0.322
33)*t-Butyl Alcohol-d10	(4)	4.340	65	79215	50.000
56) Chloroform	(1)	6.651	83	45267	0.569
60) 1,1,1-Trichloroethane	(1)	6.925	97	9250	0.127
64) Carbon Tetrachloride	(1)	7.150	117	442702	6.641
75)*Fluorobenzene	(1)	7.791	96	1925387	10.000
80) Trichloroethene	(1)	8.278	95	50427	1.029
109)*Chlorobenzene-d5	(2)	11.229	117	1438664	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	823381	10.000
58)$Dibromofluoromethane	(1)	6.870	113	504170	9.937
69)$1,2-Dichloroethane-d4	(1)	7.327	102	88890	9.686
95)$Toluene-d8	(2)	9.796	98	1968117	9.662
123)$4-Bromofluorobenzene	(2)	12.217	95	656826	8.726

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

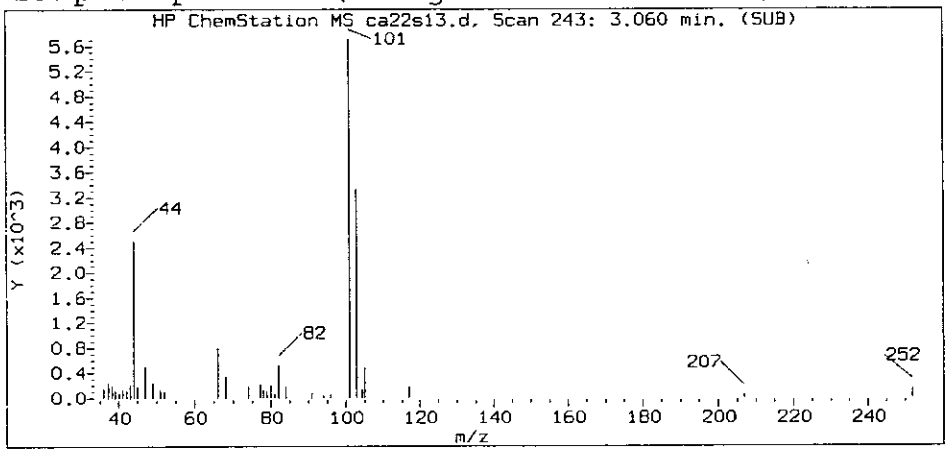
BAD11 0078

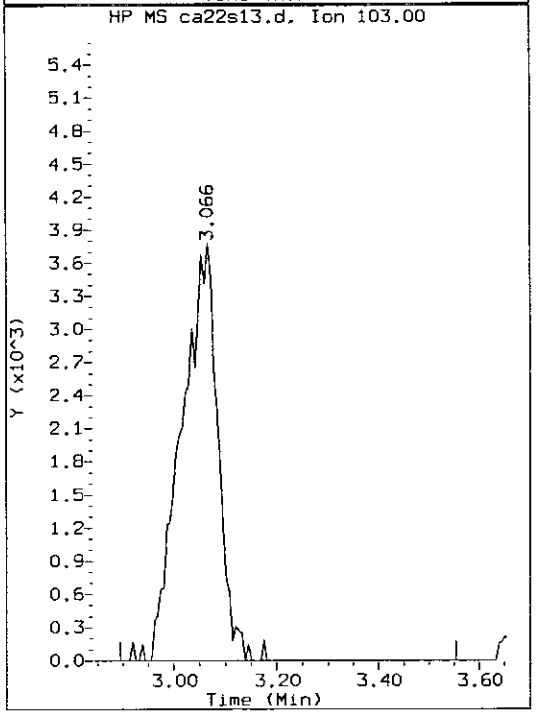
Reference Standard Spectrum for Trichlorofluoromethane



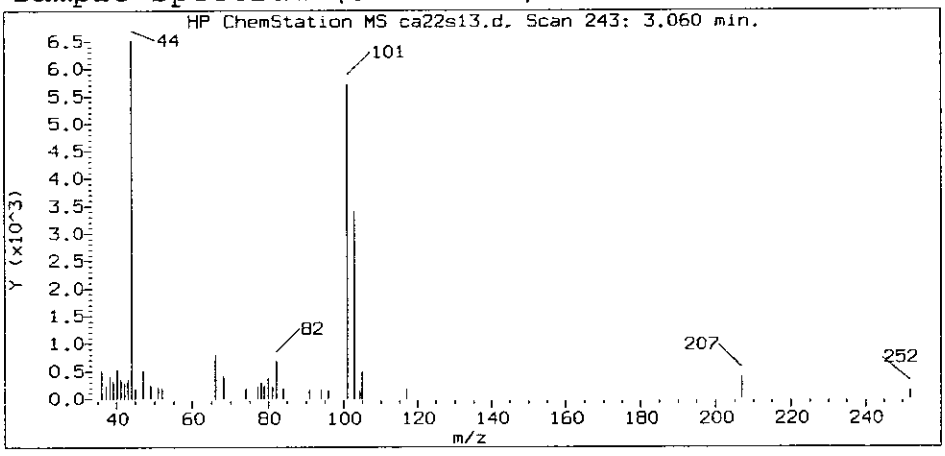


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:29 Analyst ID: ADS01731

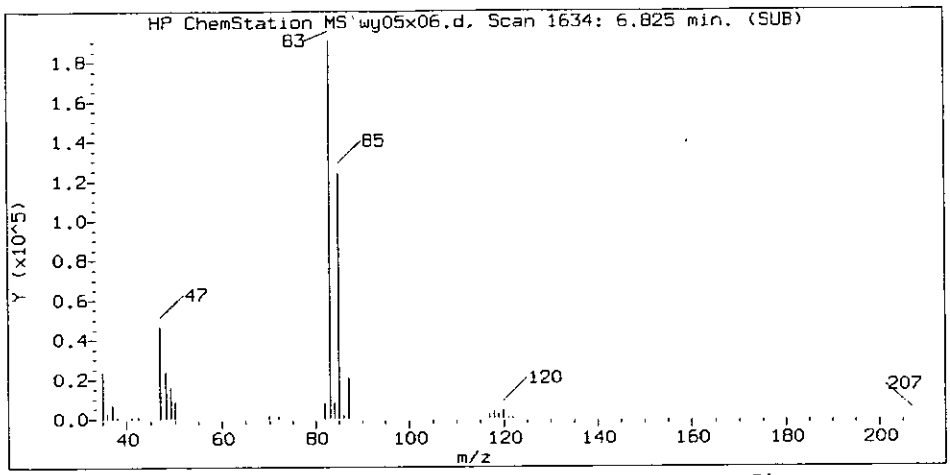
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:03 sew02002

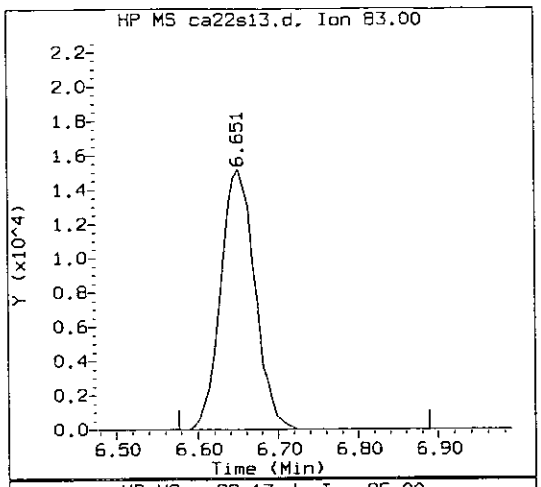
Sample Name: 13-3- Lab Sample ID: 5648236

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 243
Retention Time (minutes): 3.060
Quant Ion : 101.0
Area (flag) : 28066
Concentration (ug/L) : 0.3222

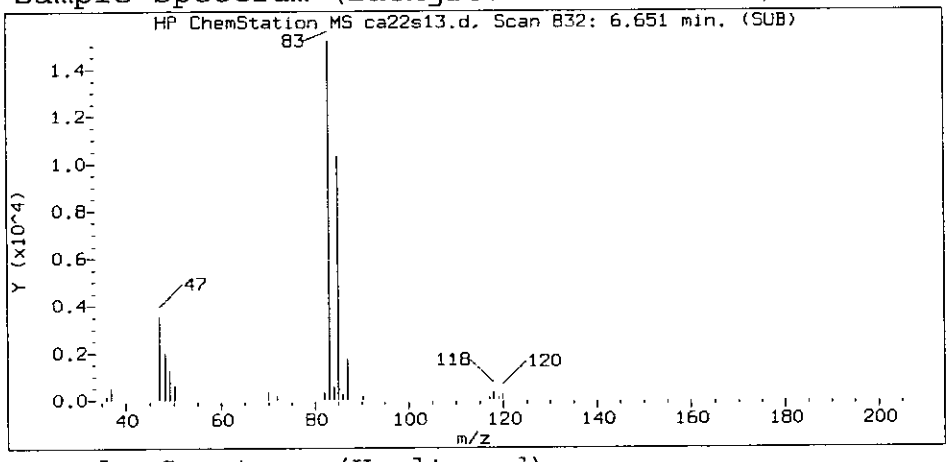
RAD11 0821

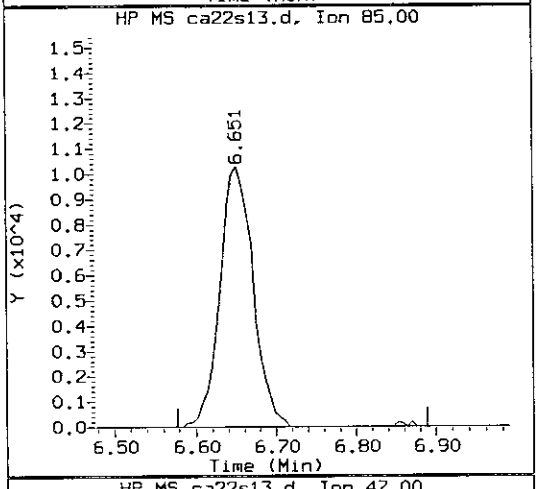
Reference Standard Spectrum for Chloroform



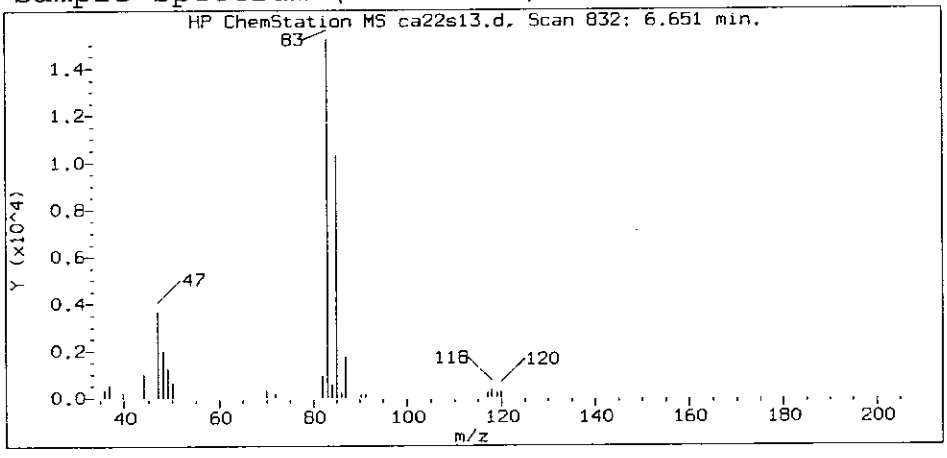


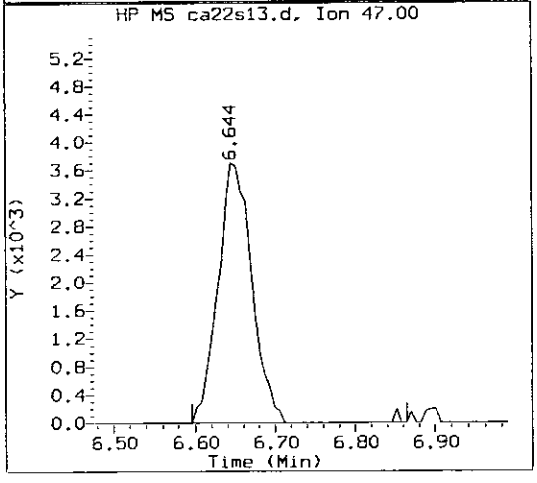
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:29 Analyst ID: ADS01731

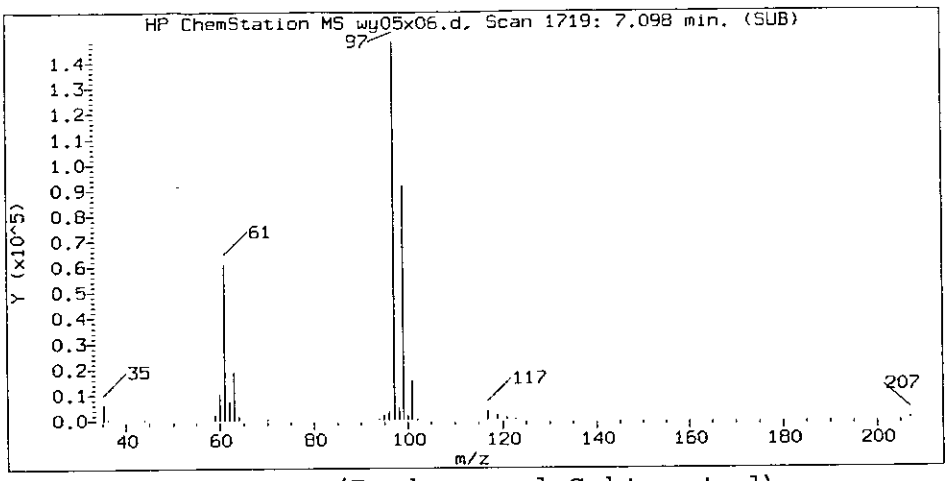
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:03 sew02002

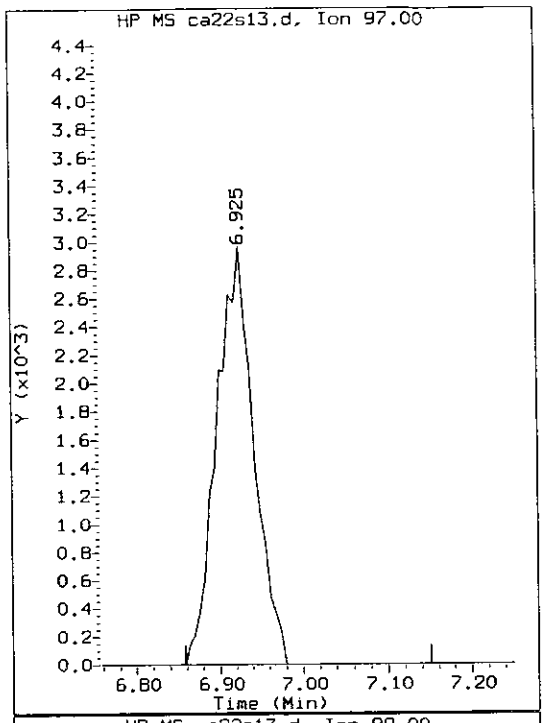
Sample Name: 13-3- Lab Sample ID: 5648236

Compound Number	: 56
Compound Name	: Chloroform
Scan Number	: 832
Retention Time (minutes)	: 6.651
Quant Ion	: 83.0
Area (flag)	: 45267
Concentration (ug/L)	: 0.5687

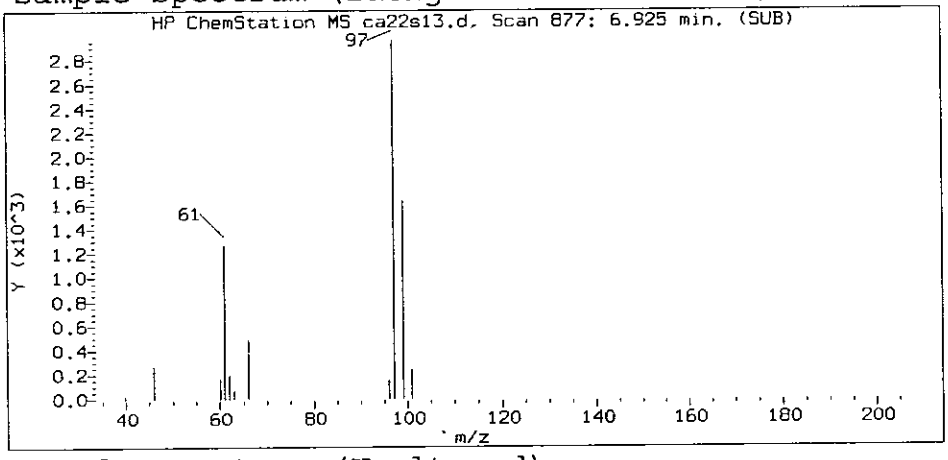
RAD11 0872

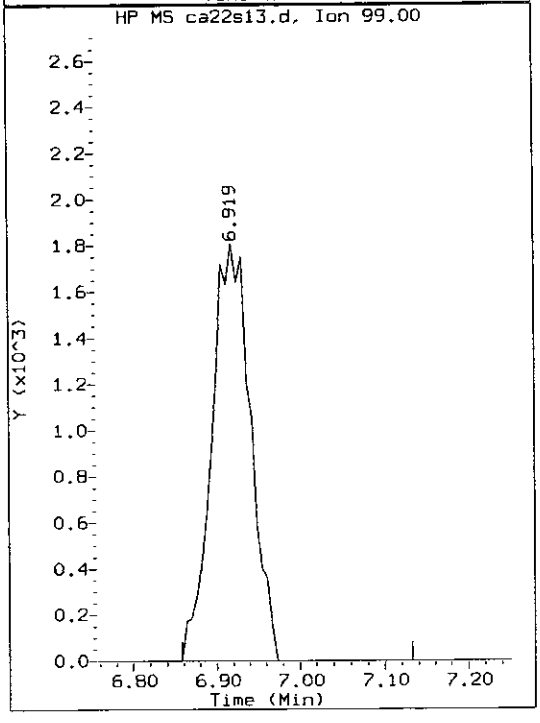
Reference Standard Spectrum for 1,1,1-Trichloroethane



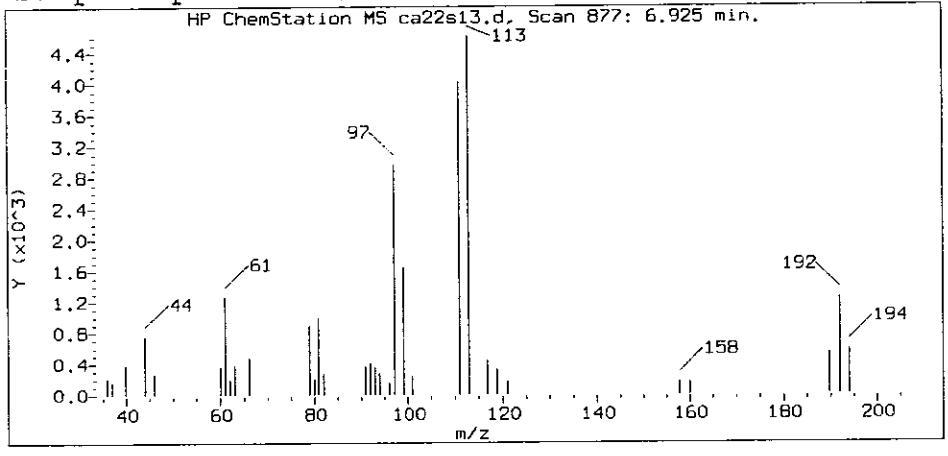


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:29 Analyst ID: ADS01731

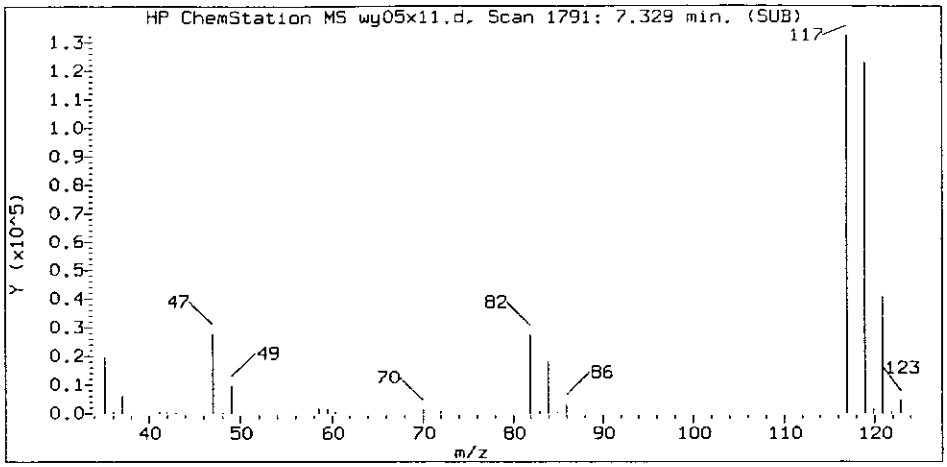
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:03 sew02002

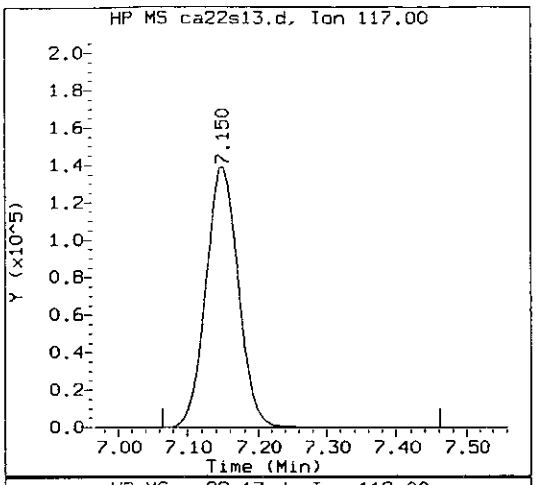
Sample Name: 13-3- Lab Sample ID: 5648236

Compound Number	: 60
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 877
Retention Time (minutes)	: 6.925
Quant Ion	: 97.0
Area (flag)	: 9250
Concentration (ug/L)	: 0.1268

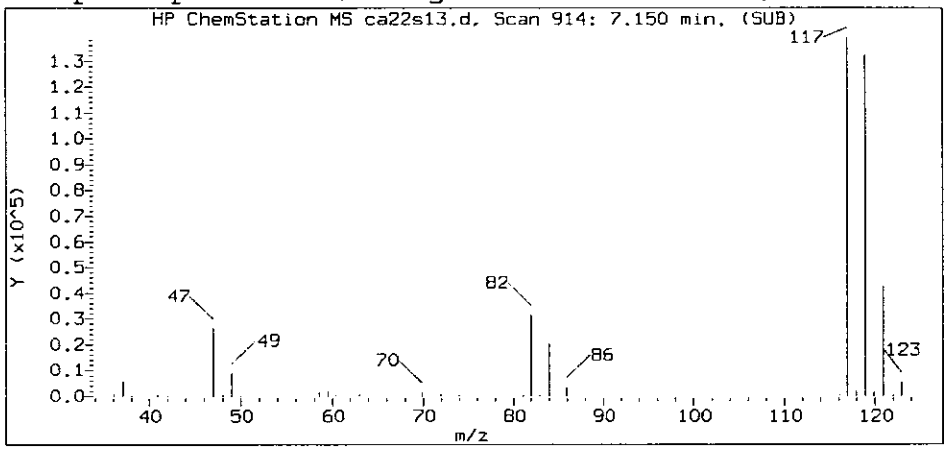
BAD11 0073

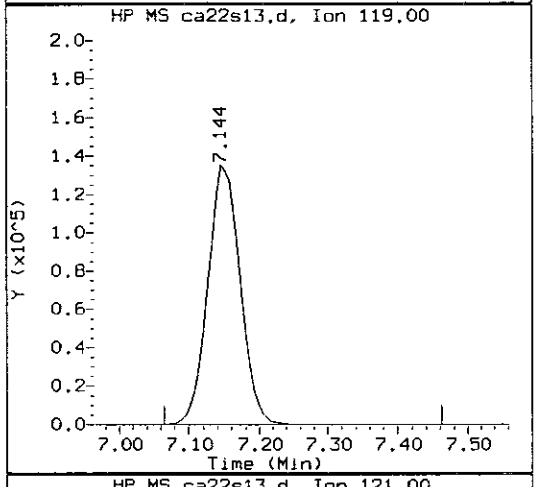
Reference Standard Spectrum for Carbon Tetrachloride



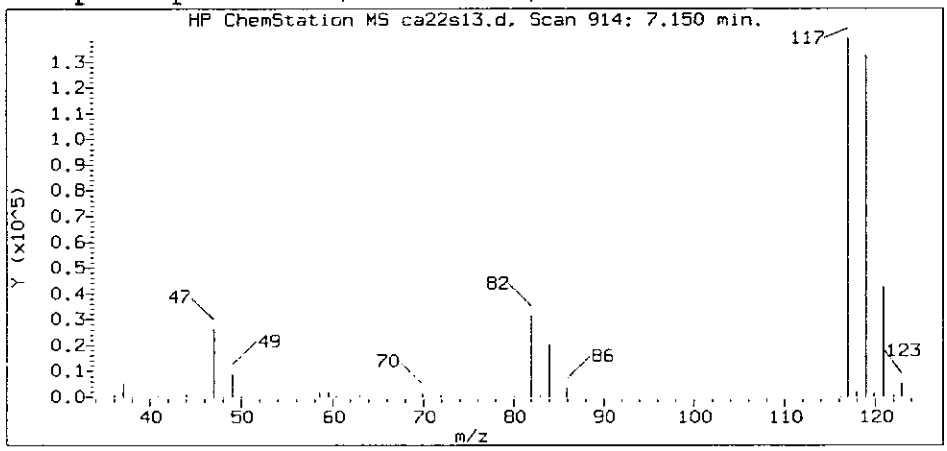


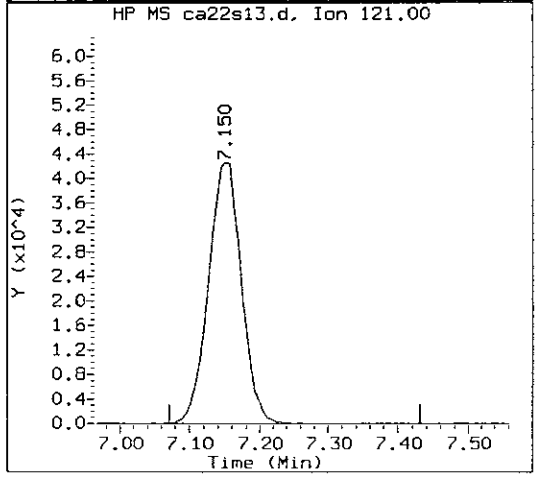
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:29 Analyst ID: ADS01731

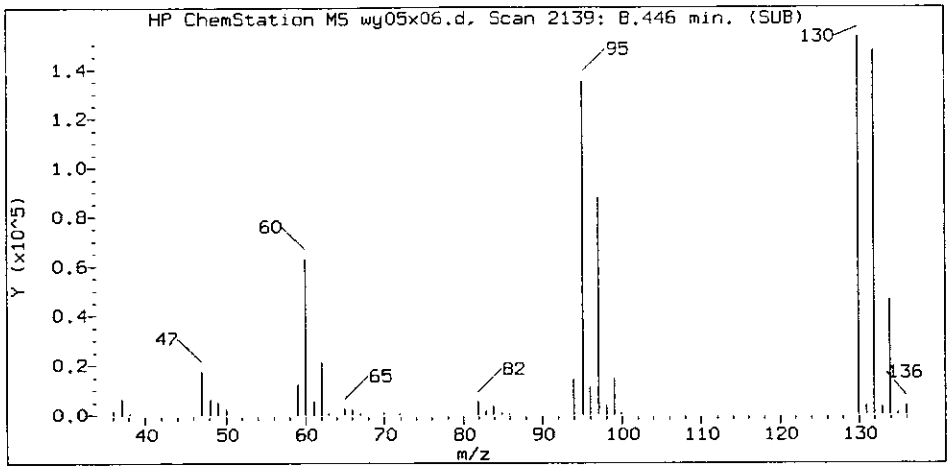
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:03 sew02002

Sample Name: 13-3- Lab Sample ID: 5648236

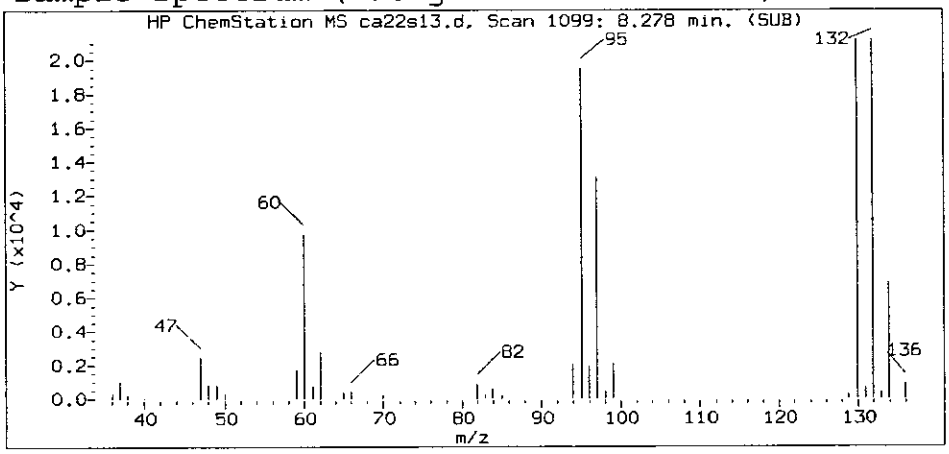
Compound Number	: 64
Compound Name	: Carbon Tetrachloride
Scan Number	: 914
Retention Time (minutes)	: 7.150
Quant Ion	: 117.0
Area (flag)	: 442702
Concentration (ug/L)	: 6.6410

RAD11 0074

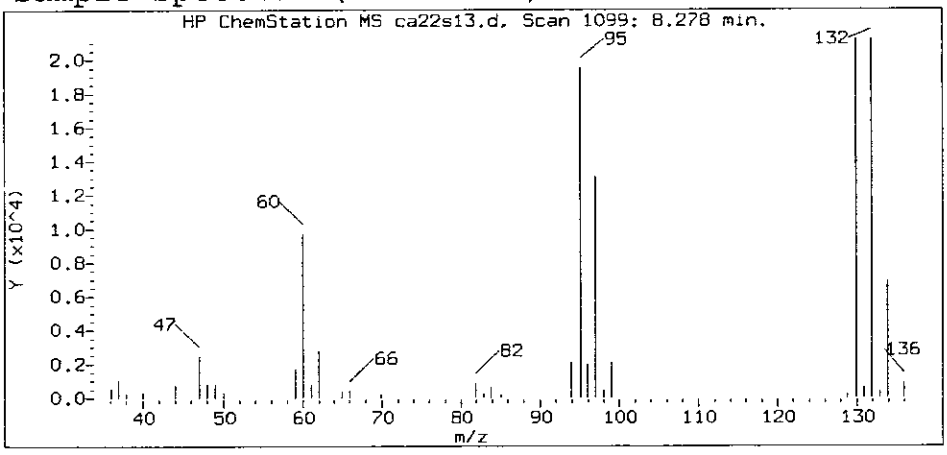
Reference Standard Spectrum for Trichloroethene

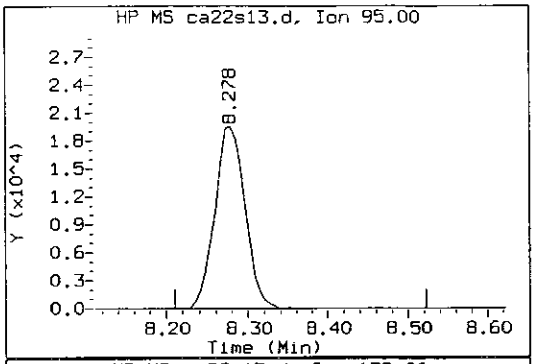


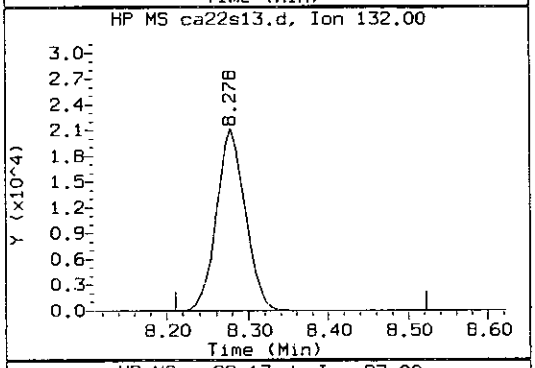
Sample Spectrum (Background Subtracted)

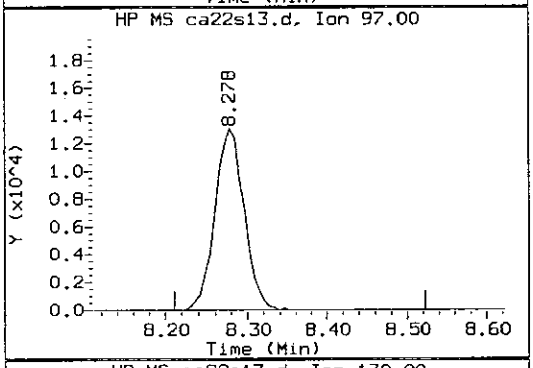


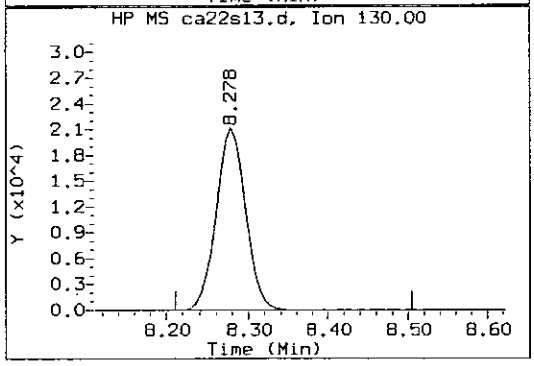
Sample Spectrum (Unaltered)











Data File: /chem2/HP10193.i/09apr22a.b/ca22s13.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:29 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:03 sew02002

Sample Name: 13-3- Lab Sample ID: 5648236

Compound Number	: 80
Compound Name	: Trichloroethene
Scan Number	: 1099
Retention Time (minutes)	: 8.278
Quant Ion	: 95.0
Area (flag)	: 50427
Concentration (ug/L)	: 1.0287

RAD11 0075

13-4-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648237

File: /chem2/HP10193.i/09apr22a.b/ca22s14.d
Sample: 13-4-;5648237;1;0;;;;;;
Injected At:22-APR-2009 17:50
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.334(-0.024)	452	65	80180(-27)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1879315(-19)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1421809(-19)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	826588(-24)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.864(0.001)	113	497650	10.049	100%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	85971	9.598	96%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1944853	9.661	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	652905	8.777	88%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

BAD11 0076

13-4-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648237

File: /chem2/HP10193.i/09apr22a.b/ca22s14.d
Sample: 13-4-;5648237;1;0;;;;;;
Injected At:22-APR-2009 17:50
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)	8.272	(0.001)	95	70310	1.470	1.47			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8877

13-4-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648237

File: /chem2/HP10193.i/09apr22a.b/ca22s14.d
Sample: 13-4-;5648237;1;0;;;;;;
Injected At:22-APR-2009 17:50
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/22/09

Auditor: _____ Date: 4-24-09

RAD11 9878

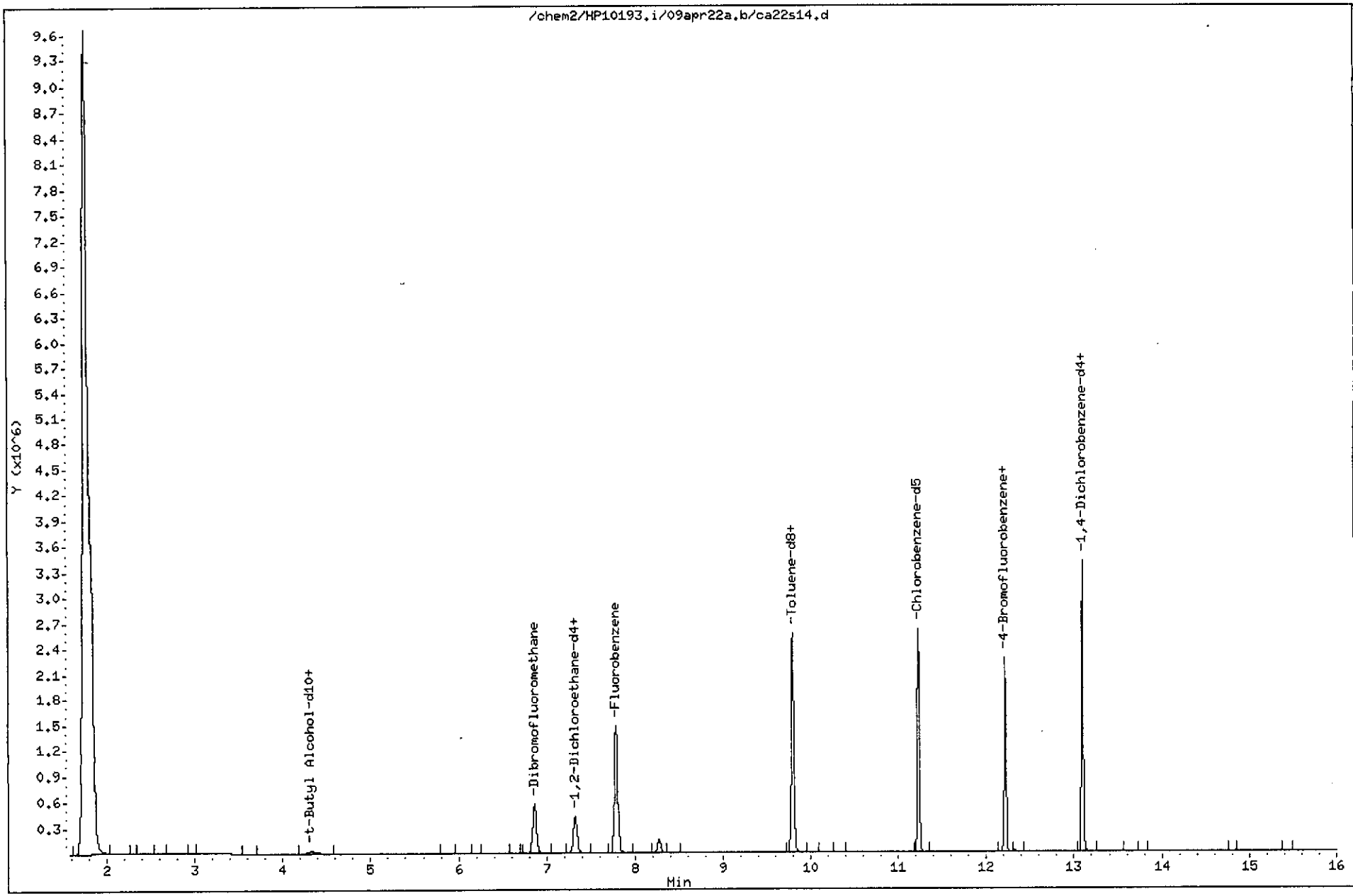
4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s14.d
Date : 22-APR-2009 17:50
Client ID: 13-4-
Sample Info: 13-4-;5648237;1;0;;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 0879



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s14.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:50 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:04 sew02002

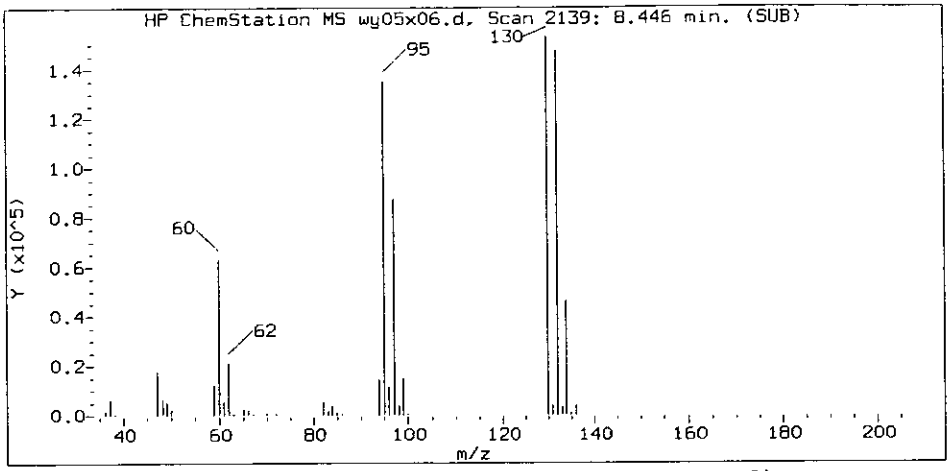
Sample Name: 13-4- Lab Sample ID: 5648237

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.334	65	80180	50.000
75)*Fluorobenzene	(1)	7.791	96	1879315	10.000
80) Trichloroethene	(1)	8.272	95	70310	1.470
109)*Chlorobenzene-d5	(2)	11.229	117	1421809	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	826588	10.000
58)$Dibromofluoromethane	(1)	6.864	113	497650	10.049
69)$1,2-Dichloroethane-d4	(1)	7.327	102	85971	9.598
95)$Toluene-d8	(2)	9.796	98	1944853	9.661
123)$4-Bromofluorobenzene	(2)	12.217	95	652905	8.777

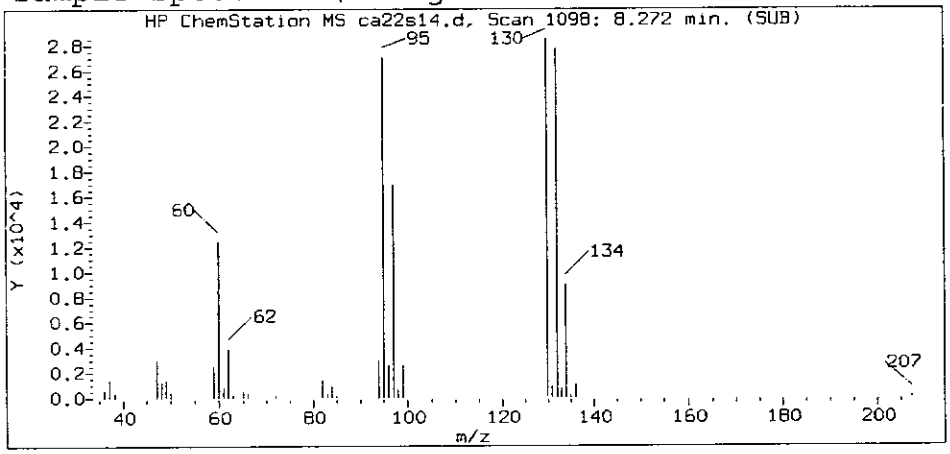
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

RAD11 0000

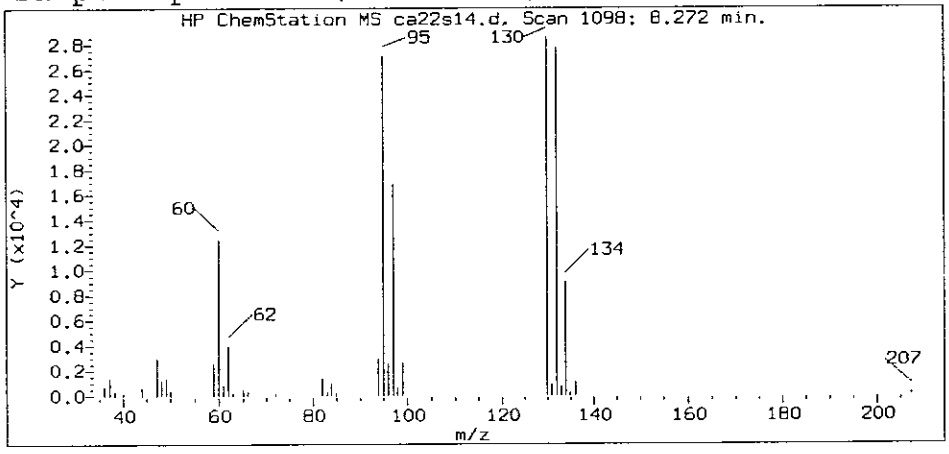
Reference Standard Spectrum for Trichloroethene

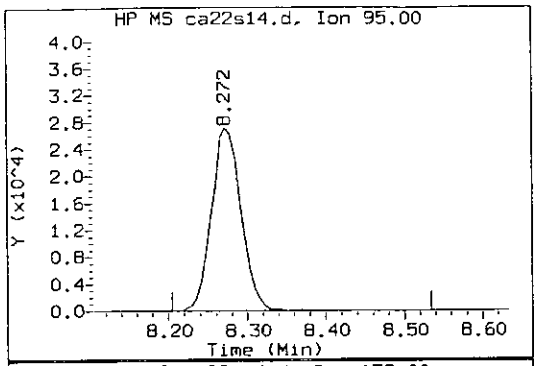


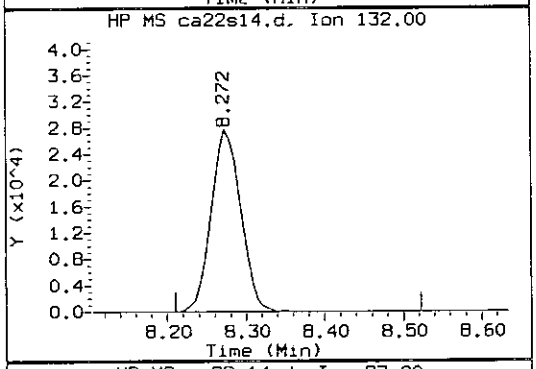
Sample Spectrum (Background Subtracted)

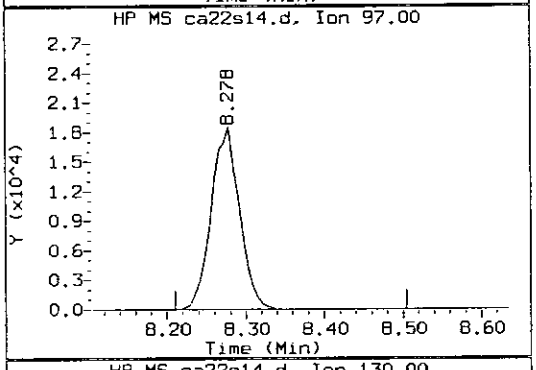


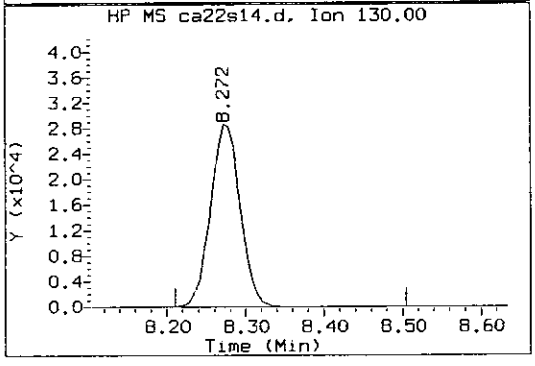
Sample Spectrum (Unaltered)











Data File: /chem2/HP10193.i/09apr22a.b/ca22s14.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 17:50 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:04 sew02002

Sample Name: 13-4- Lab Sample ID: 5648237

Compound Number	: 80
Compound Name	: Trichloroethene
Scan Number	: 1098
Retention Time (minutes)	: 8.272
Quant Ion	: 95.0
Area (flag)	: 70310
Concentration (ug/L)	: 1.4695

RAD11 0891

13-DU

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648238

File: /chem2/HP10193.i/09apr22a.b/ca22s15.d
Sample: 13-DU;5648238;1;0;;;;;;
Injected At:22-APR-2009 18:12
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.322(-0.012)	450	65	79631(-28)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1862166(-20)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1398299(-20)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	805661(-26)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	489283	9.971	100%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	85924	9.681	97%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1921931	9.708	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	644511	8.810	88%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0882

13-DU

Lancaster Laboratories
Quantitation Report GC/MS Volatiles 5648238

File: /chem2/HP10193.i/09apr22a.b/ca22s15.d
Sample: 13-DU;5648238;1;0;;;;;;
Injected At:22-APR-2009 18:12
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)	8.278	(0.000)	95	69897	1.474	1.47			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8883

13-DU

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648238

File: /chem2/HP10193.i/09apr22a.b/ca22s15.d
Sample: 13-DU;5648238;1;0;;;;;;
Injected At:22-APR-2009 18:12
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: Susan Date: 4/27/09

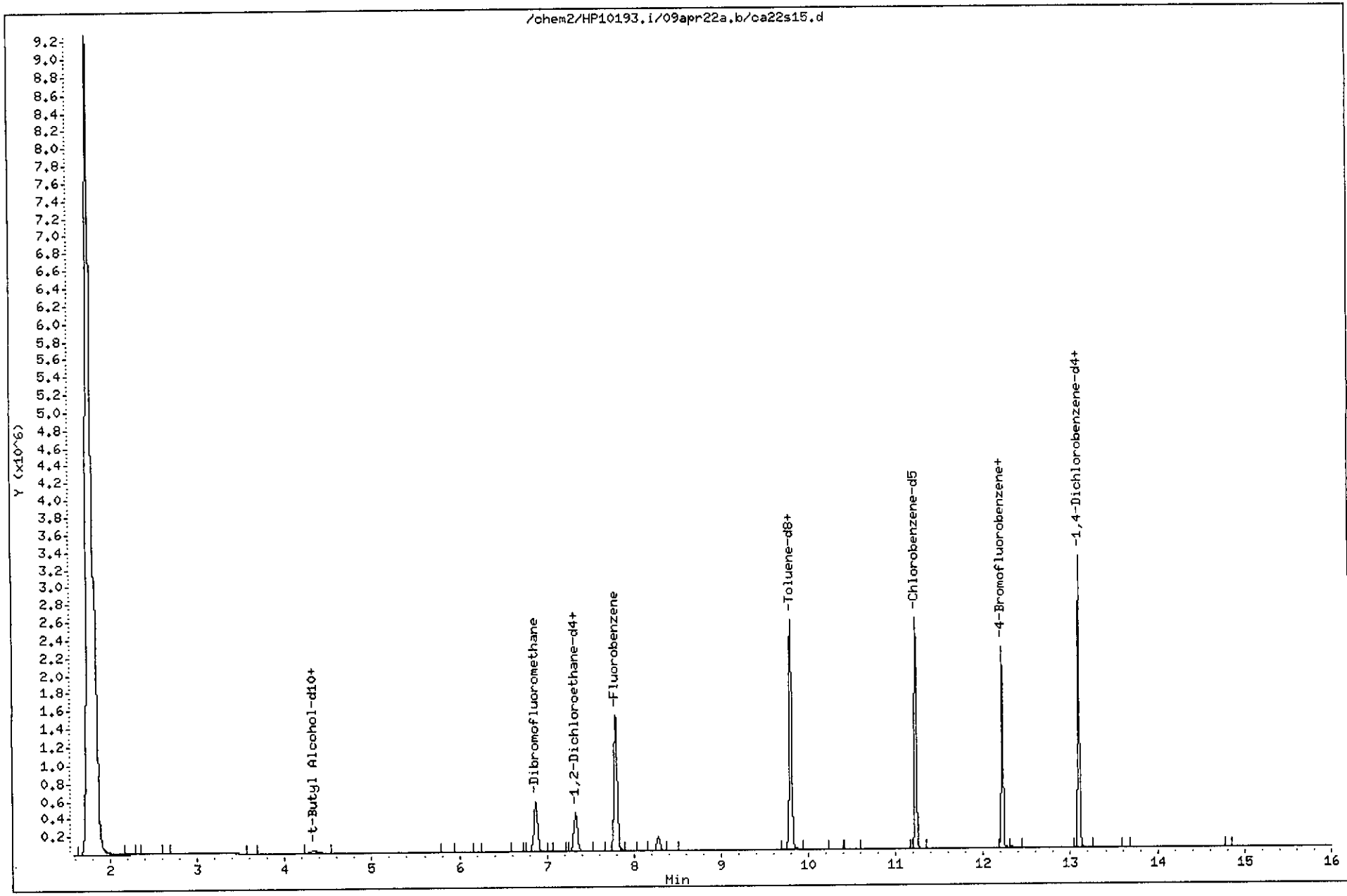
Auditor: MMM Date: 4/29/09

RAD11 0804

Data File: /chem2/HP10193.i/09apr22a.b/ca22s15.d
Date : 22-APR-2009 18:12
Client ID: 13-DU
Sample Info: 13-DU;5648238;1;0;;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s15.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:12 Analyst ID: ADS01731

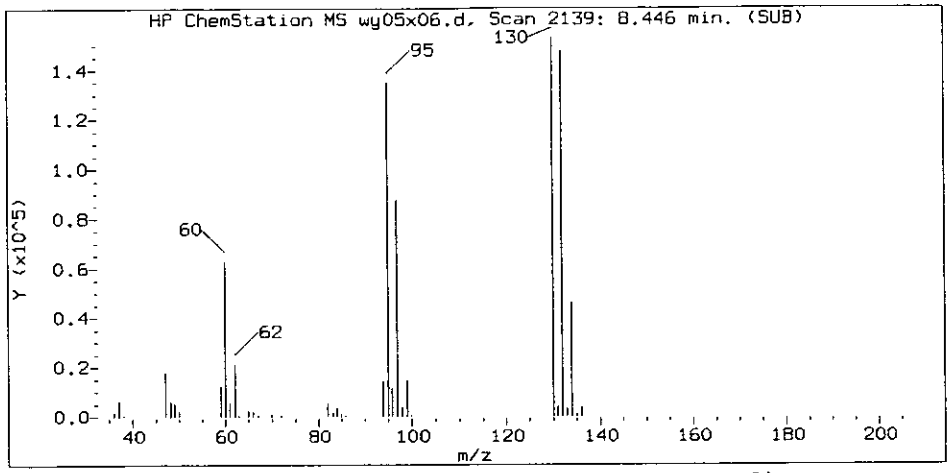
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:26 sew02002

Sample Name: 13-DU Lab Sample ID: 5648238

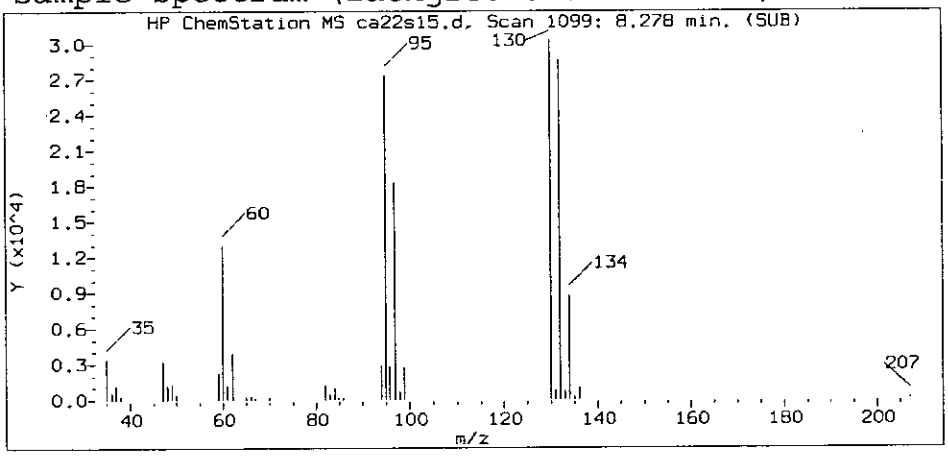
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.322	65	79631	50.000
75)*Fluorobenzene	(1)	7.791	96	1862166	10.000
80) Trichloroethene	(1)	8.278	95	69897	1.474
109)*Chlorobenzene-d5	(2)	11.229	117	1398299	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	805661	10.000
58)$Dibromofluoromethane	(1)	6.870	113	489283	9.971
69)$1,2-Dichloroethane-d4	(1)	7.327	102	85924	9.681
95)$Toluene-d8	(2)	9.796	98	1921931	9.708
123)$4-Bromofluorobenzene	(2)	12.217	95	644511	8.810

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

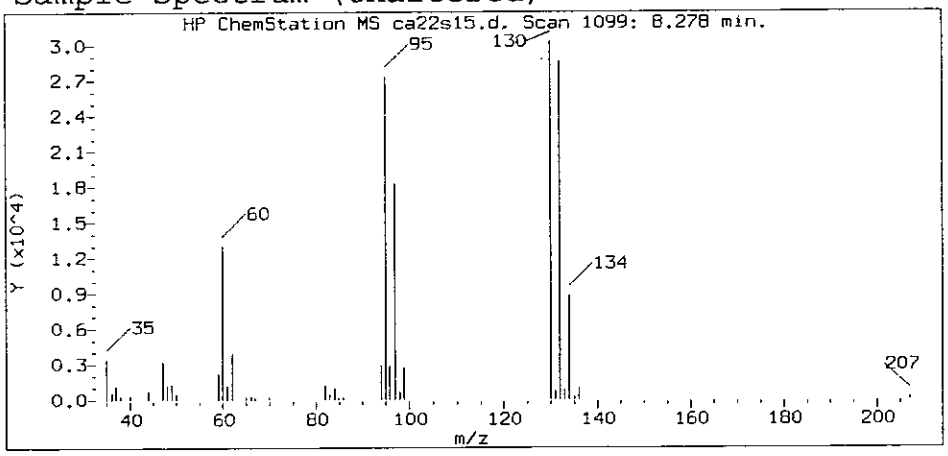
Reference Standard Spectrum for Trichloroethene

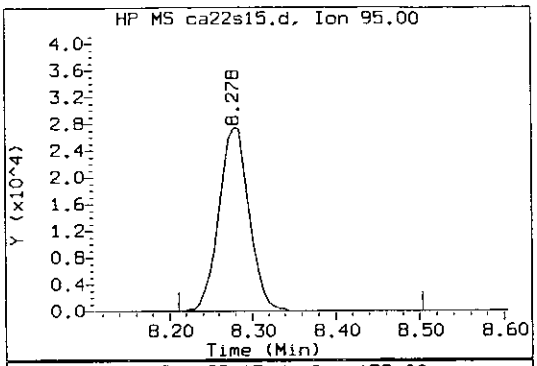


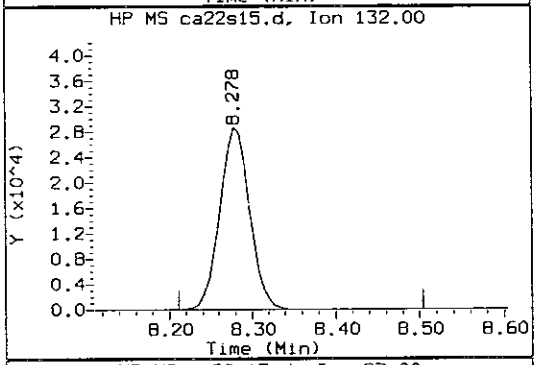
Sample Spectrum (Background Subtracted)

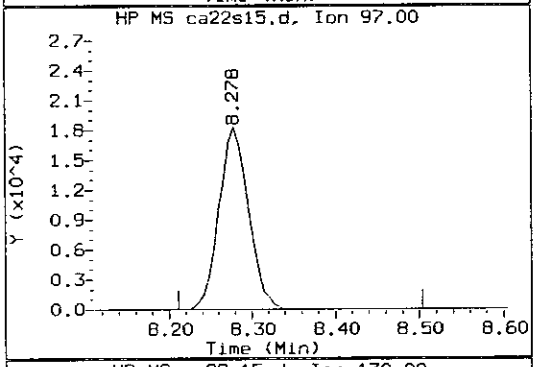


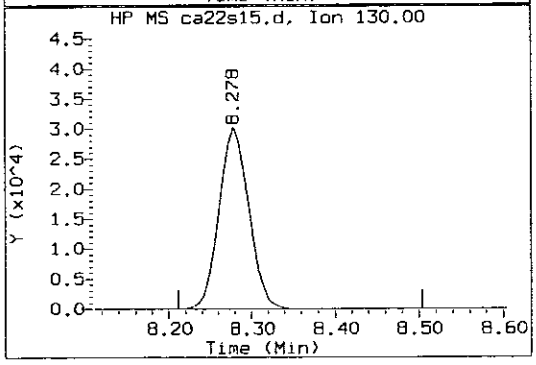
Sample Spectrum (Unaltered)











Data File: /chem2/HP10193.i/09apr22a.b/ca22s15.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:12 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:26 sew02002

Sample Name: 13-DU Lab Sample ID: 5648238

Compound Number	: 80
Compound Name	: Trichloroethene
Scan Number	: 1099
Retention Time (minutes)	: 8.278
Quant Ion	: 95.0
Area (flag)	: 69897
Concentration (ug/L)	: 1.4743

BAD11 0087

13-5-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648239

File: /chem2/HP10193.i/09apr22a.b/ca22s16.d
Sample: 13-5-;5648239;1;0;;;;;;
Injected At:22-APR-2009 18:34
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.334(-0.024)	452	65	74860(-32)	50.00	
75) Fluorobenzene	7.797(-0.012)	1020	96	1858013(-20)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1386980(-21)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	782771(-28)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.001)	113	492207	10.053	101%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.333(0.001)	102	85954	9.706	97%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1915203	9.753	98%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	634828	8.748	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8888

13-5-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648239

File: /chem2/HP10193.i/09apr22a.b/ca22s16.d
Sample: 13-5-;5648239;1;0;;;;;;
Injected At:22-APR-2009 18:34
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)	7.151	(0.001)	117	9078	0.141	0.14		J	0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)					ND	ND			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0009

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648239

File: /chem2/HP10193.i/09apr22a.b/ca22s16.d
Sample: 13-5-;5648239;1;0;;;;;;
Injected At:22-APR-2009 18:34
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/22/09

Auditor: _____ Date: 4/29/09

RAD11 0090

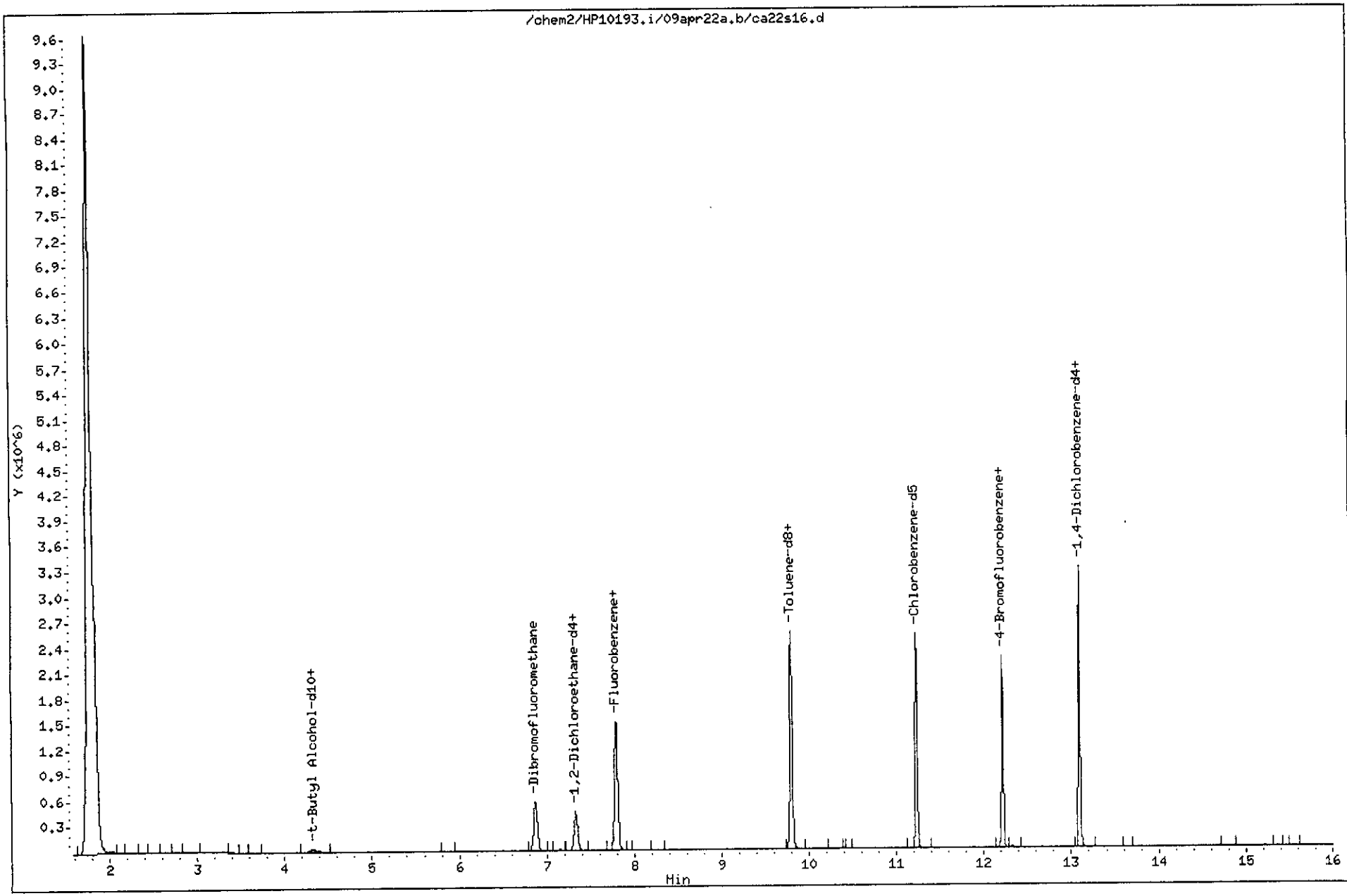
Lucas 4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s16.d
Date : 22-APR-2009 18:34
Client ID: 13-5-
Sample Info: 13-5-;5648239;1;0;;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

BAD11 0001



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s16.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:34 Analyst ID: ADS01731

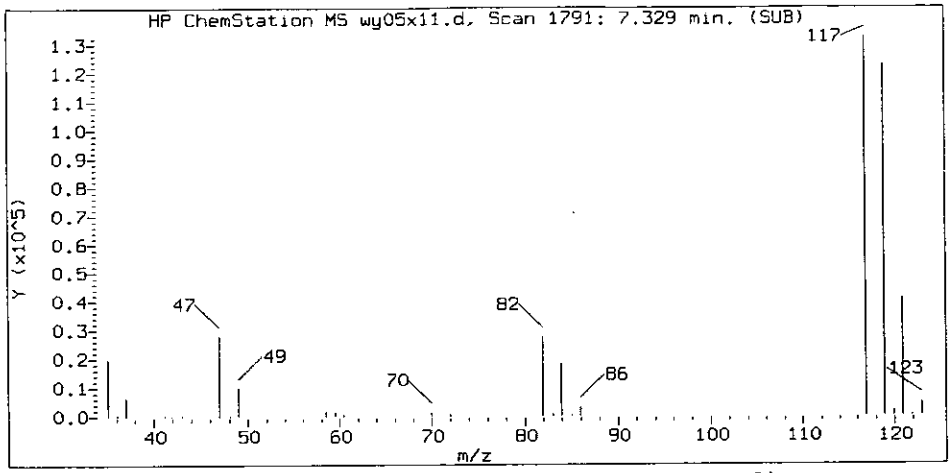
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:28 sew02002

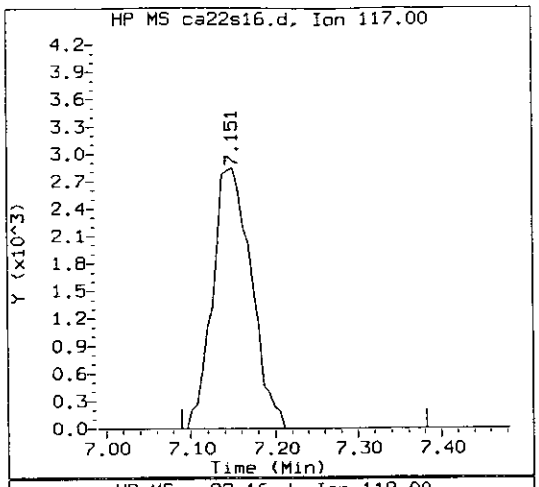
Sample Name: 13-5- Lab Sample ID: 5648239

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.334	65	74860	50.000
64) Carbon Tetrachloride	(1)	7.151	117	9078	0.141
75)*Fluorobenzene	(1)	7.797	96	1858013	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1386980	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	782771	10.000
58)$Dibromofluoromethane	(1)	6.870	113	492207	10.053
69)$1,2-Dichloroethane-d4	(1)	7.333	102	85954	9.706
95)$Toluene-d8	(2)	9.796	98	1915203	9.753
123)$4-Bromofluorobenzene	(2)	12.217	95	634828	8.748

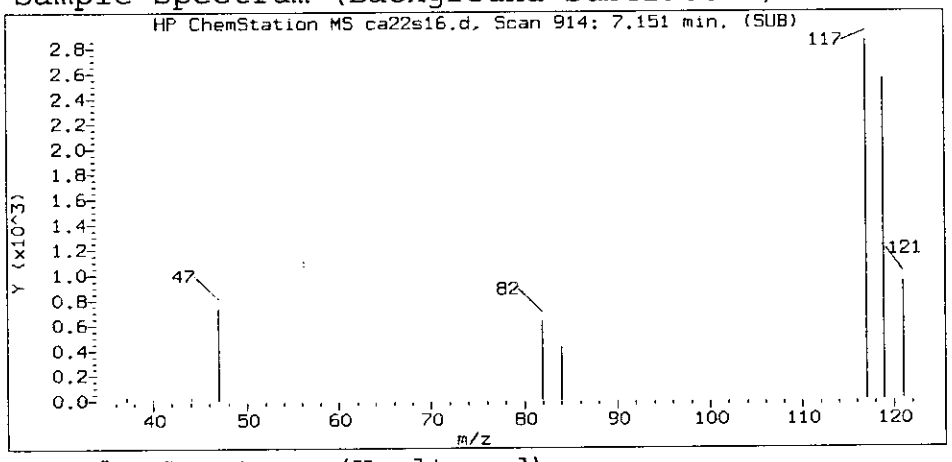
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

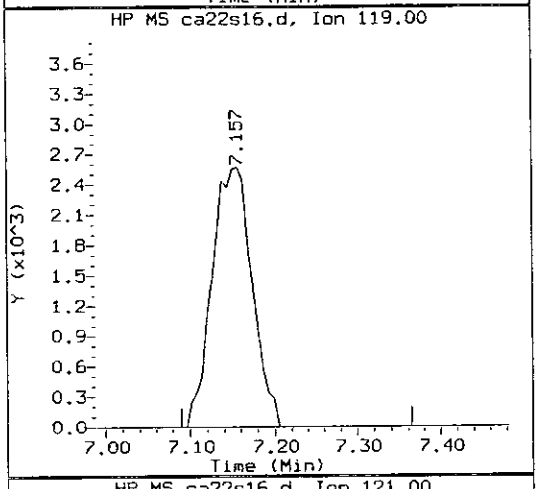
Reference Standard Spectrum for Carbon Tetrachloride



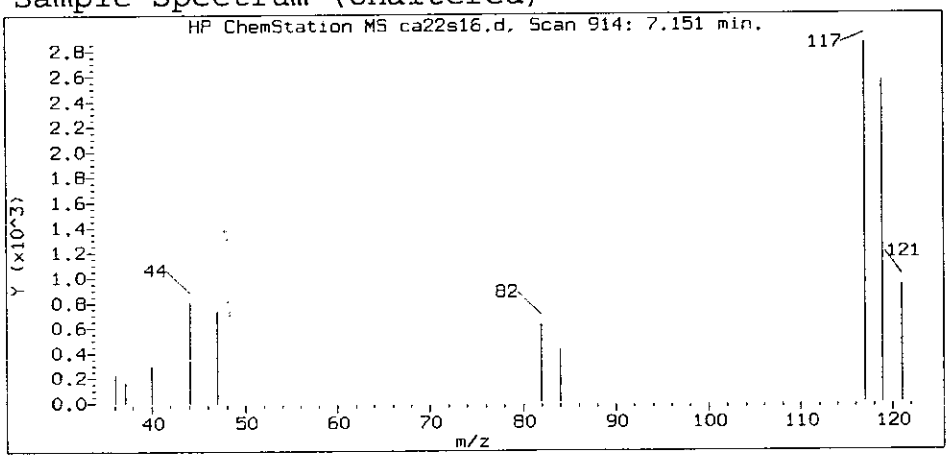


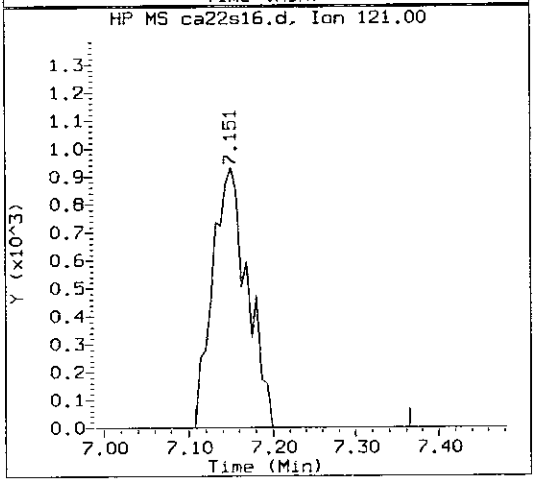
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP10193.i/09apr22a.b/ca22s16.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:34 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:28 sew02002

Sample Name: 13-5- Lab Sample ID: 5648239

Compound Number	:	64
Compound Name	:	Carbon Tetrachloride
Scan Number	:	914
Retention Time (minutes)	:	7.151
Quant Ion	:	117.0
Area (flag)	:	9078
Concentration (ug/L)	:	0.1411

RAD11 6893

13-6-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648242

File: /chem2/HP10193.i/09apr22a.b/ca22s21.d
Sample: 13-6-;5648242;1;0;;;;;
Injected At:22-APR-2009 20:21
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.328(-0.018)	451	65	82815(-25)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1913855(-18)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1428989(-18)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	819578(-25)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	501802	9.950	100%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.334(0.000)	102	89204	9.779	98%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1958609	9.681	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	658536	8.808	88%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8894

13-6-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648242

File: /chem2/HP10193.i/09apr22a.b/ca22s21.d
Sample: 13-6-;5648242;1;0;;;;;
Injected At:22-APR-2009 20:21
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)					ND	ND			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8095

13-6-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648242

File: /chem2/HP10193.i/09apr22a.b/ca22s21.d
Sample: 13-6-;5648242;1;0;;;;;
Injected At:22-APR-2009 20:21
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: [signature] Date: 4/24/09

Auditor: [signature] Date: 4/29/09

RAD11 8896

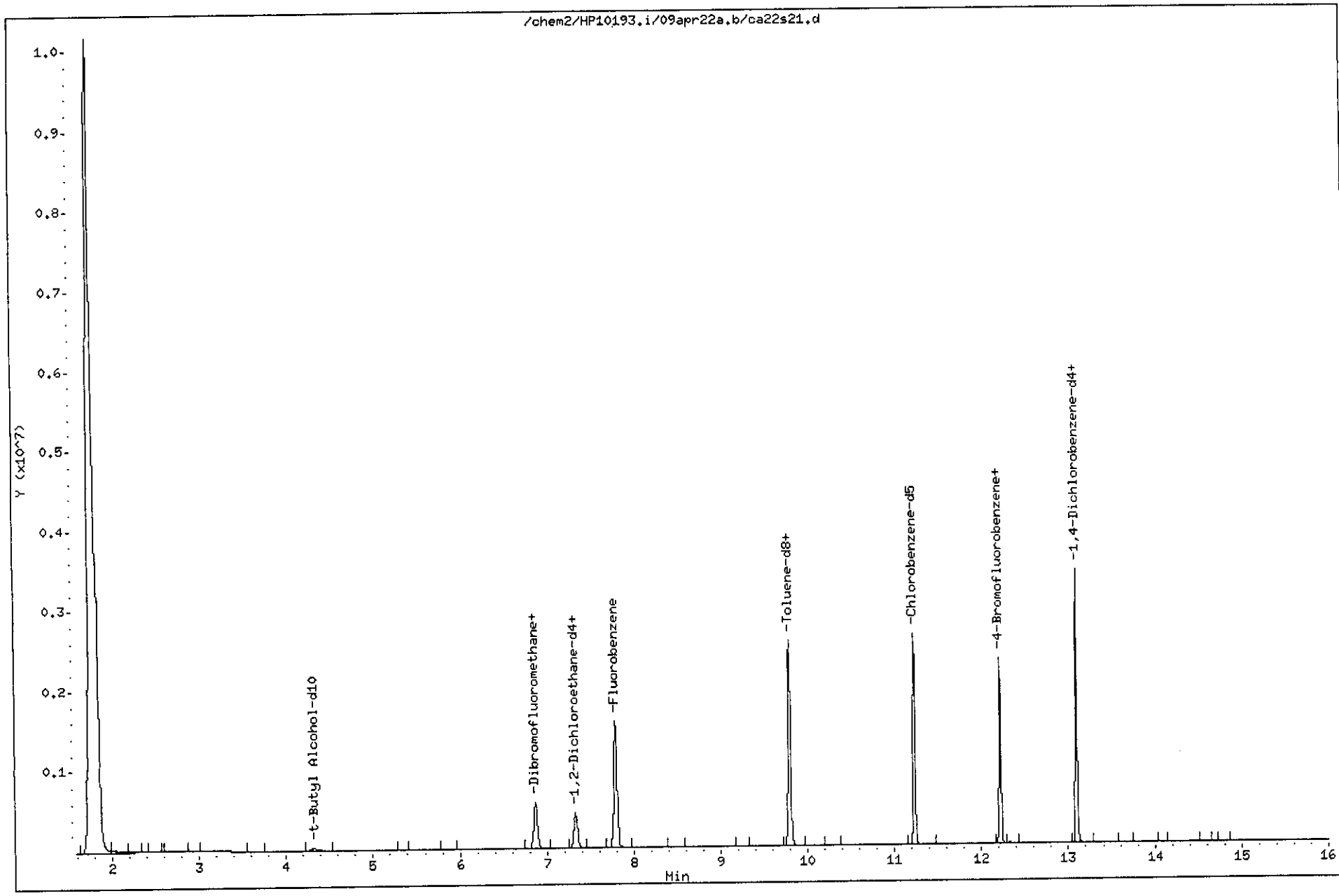
4/21/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s21.d
Date : 22-APR-2009 20:21
Client ID: 13-6-
Sample Info: 13-6-;5648242;1;0;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 0097



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s21.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 20:21 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:54 sew02002

Sample Name: 13-6- Lab Sample ID: 5648242

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.328	65	82815	50.000
75)*Fluorobenzene	(1)	7.791	96	1913855	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1428989	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	819578	10.000
58)$Dibromofluoromethane	(1)	6.870	113	501802	9.950
69)$1,2-Dichloroethane-d4	(1)	7.334	102	89204	9.779
95)$Toluene-d8	(2)	9.796	98	1958609	9.681
123)$4-Bromofluorobenzene	(2)	12.217	95	658536	8.808

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

RAD11 0898

13-7-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648243

File: /chem2/HP10193.i/09apr22a.b/ca22s22.d
Sample: 13-7-;5648243;1;0;;;;;
Injected At:22-APR-2009 20:43
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.310(0.000)	448	65	81992(-26)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1911175(-18)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1437049(-18)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	817335(-25)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	500260	9.933	99%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	88387	9.703	97%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1974063	9.703	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	658717	8.761	88%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0009

13-7-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648243

File: /chem2/HP10193.i/09apr22a.b/ca22s22.d
Sample: 13-7-;5648243;1;0;;;;;
Injected At:22-APR-2009 20:43
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)	8.279	(0.000)	95	68624	1.410	1.41			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)	10.449	(0.000)	166	7186	0.122	0.12		J	0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

DAD11 01188

13-7-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648243

File: /chem2/HP10193.i/09apr22a.b/ca22s22.d
Sample: 13-7-;5648243;1;0;;;;;
Injected At:22-APR-2009 20:43
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/22/09

Auditor: _____ Date: 4/29/09

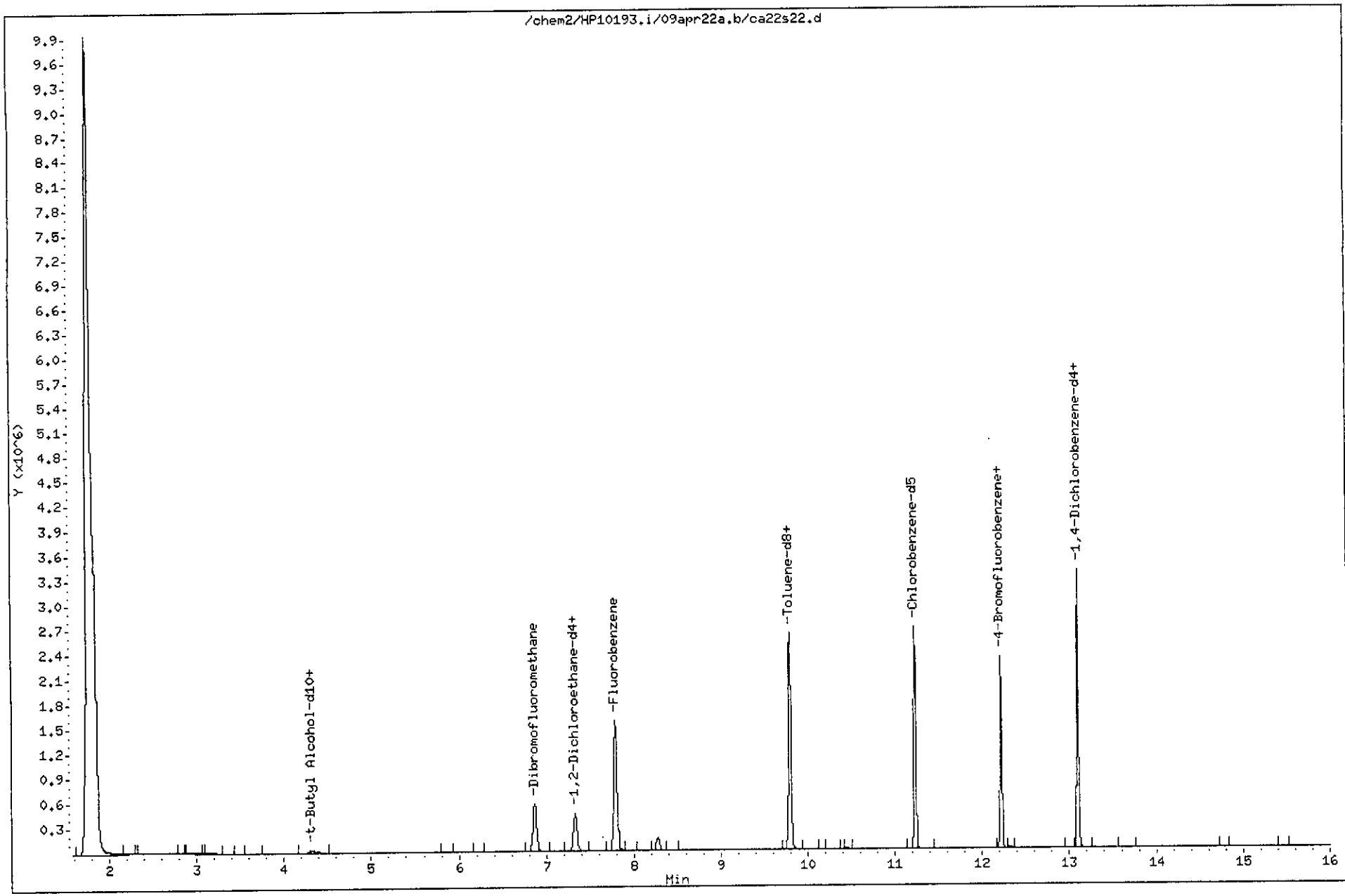
RAD11 0191

Data File: /chem2/HP10193.i/09apr22a.b/ca22s22.d
Date : 22-APR-2009 20:43
Client ID: 13-7-
Sample Info: 13-7-;5648243;1;0;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 0102



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s22.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 20:43 Analyst ID: ADS01731

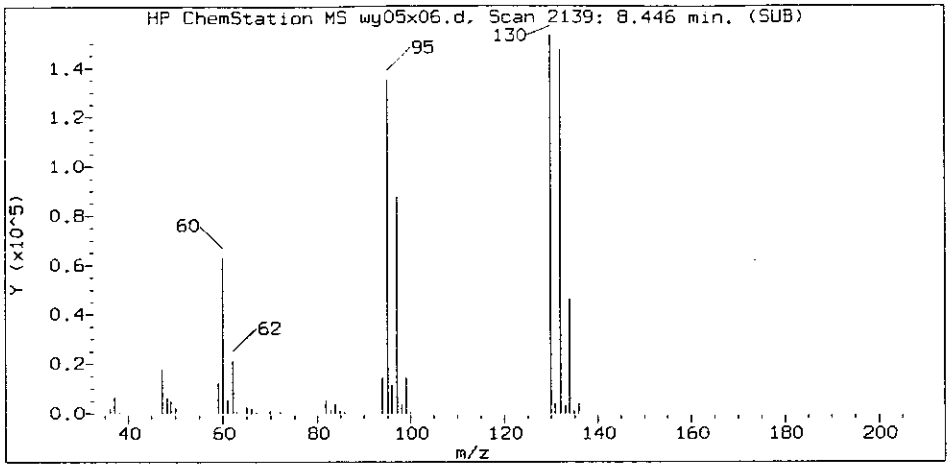
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:48 sew02002

Sample Name: 13-7- Lab Sample ID: 5648243

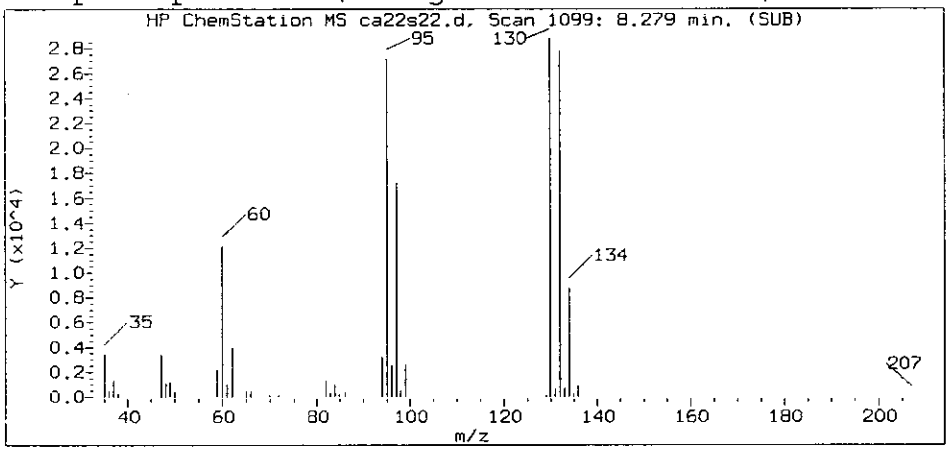
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.310	65	81992	50.000
75)*Fluorobenzene	(1)	7.791	96	1911175	10.000
80) Trichloroethene	(1)	8.279	95	68624	1.410
104) Tetrachloroethene	(2)	10.449	166	7186	0.122
109)*Chlorobenzene-d5	(2)	11.229	117	1437049	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	817335	10.000
58)$Dibromofluoromethane	(1)	6.870	113	500260	9.933
69)$1,2-Dichloroethane-d4	(1)	7.327	102	88387	9.703
95)$Toluene-d8	(2)	9.796	98	1974063	9.703
123)$4-Bromofluorobenzene	(2)	12.217	95	658717	8.761

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

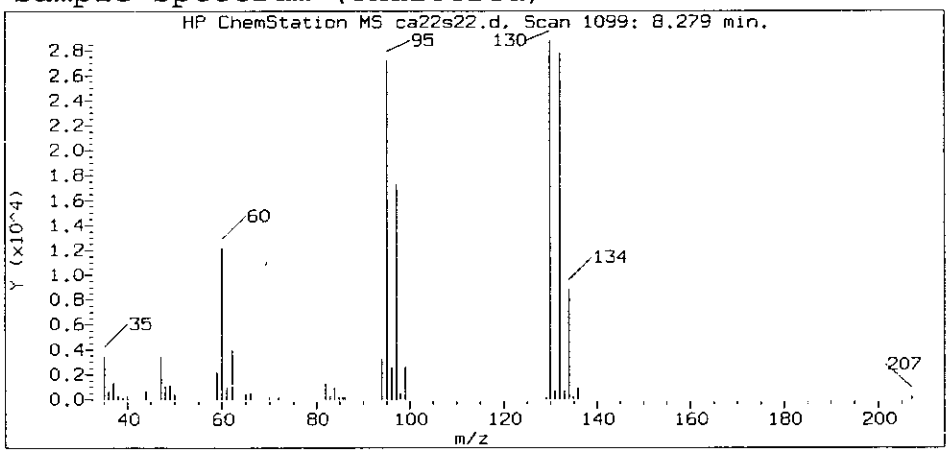
Reference Standard Spectrum for Trichloroethene

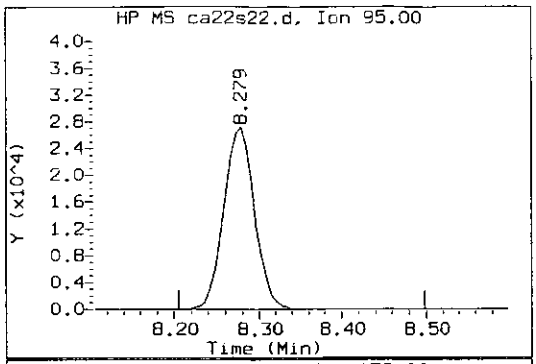


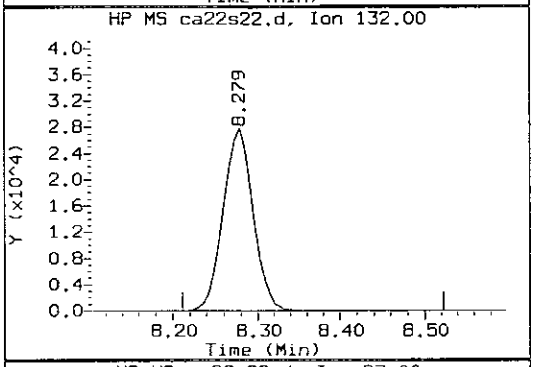
Sample Spectrum (Background Subtracted)

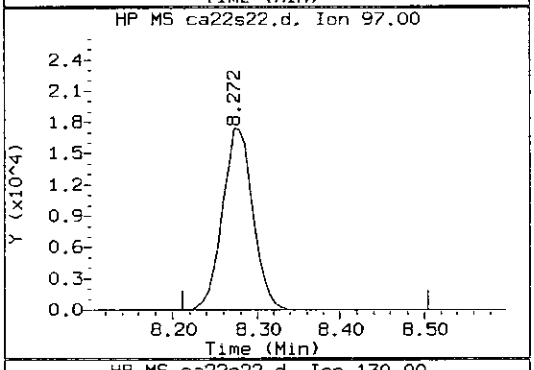


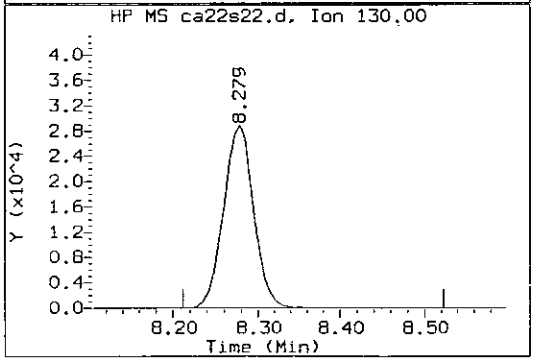
Sample Spectrum (Unaltered)











Data File: /chem2/HP10193.i/09apr22a.b/ca22s22.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 20:43 Analyst ID: ADS01731

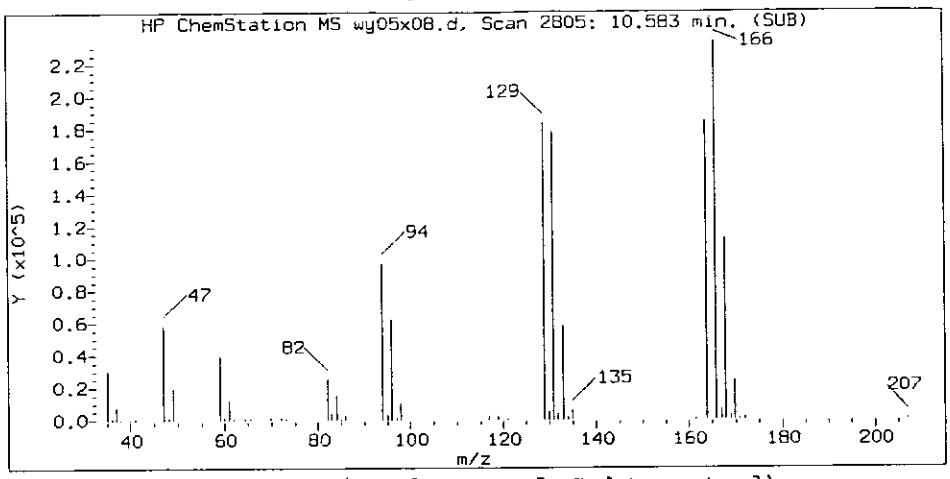
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:48 sew02002

Sample Name: 13-7- Lab Sample ID: 5648243

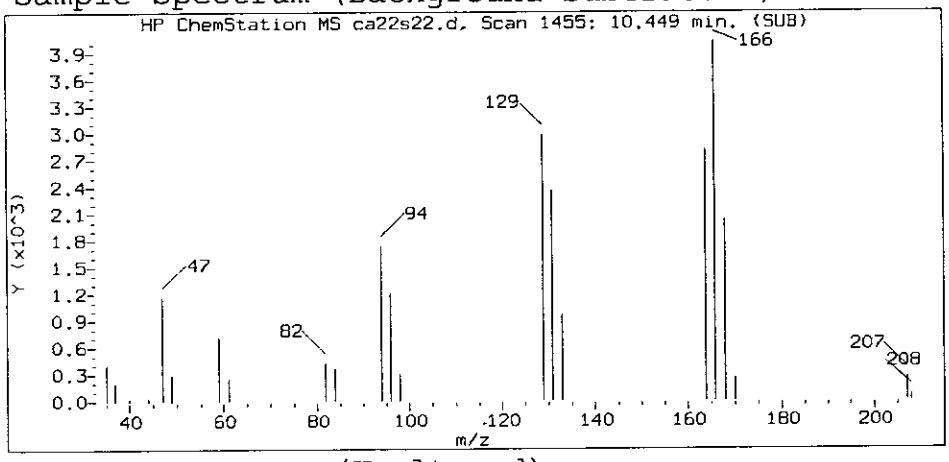
Compound Number	: 80
Compound Name	: Trichloroethene
Scan Number	: 1099
Retention Time (minutes)	: 8.279
Quant Ion	: 95.0
Area (flag)	: 68624
Concentration (ug/L)	: 1.4104

BAD11 0184

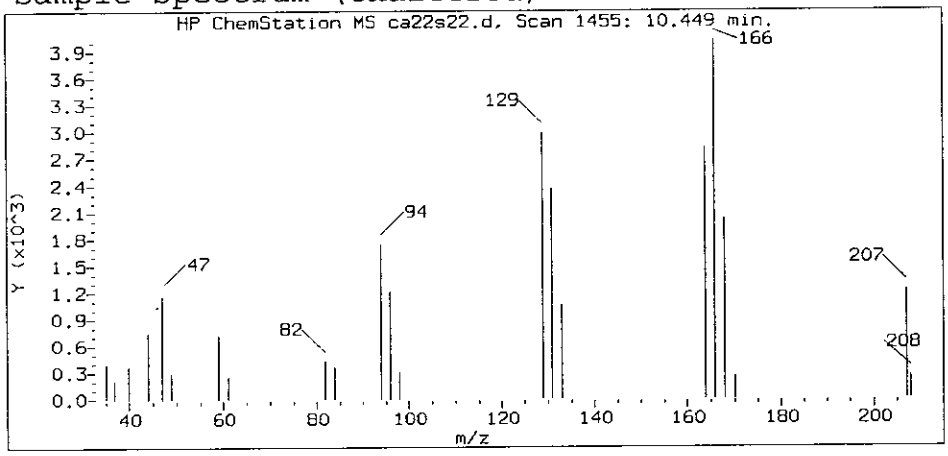
Reference Standard Spectrum for Tetrachloroethene

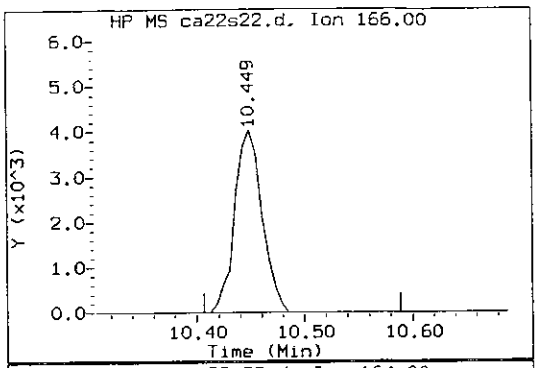


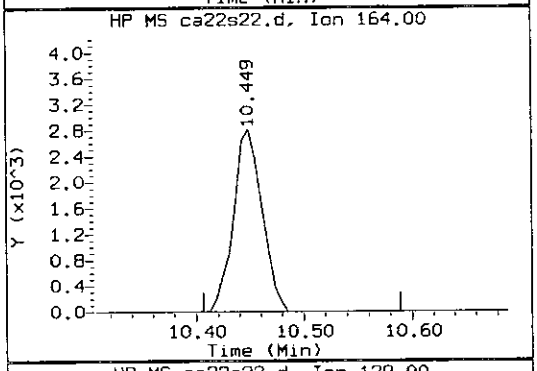
Sample Spectrum (Background Subtracted)

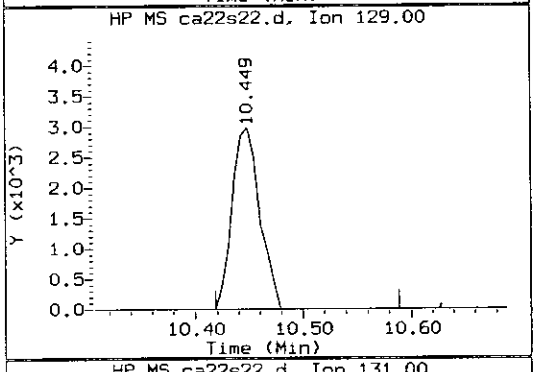


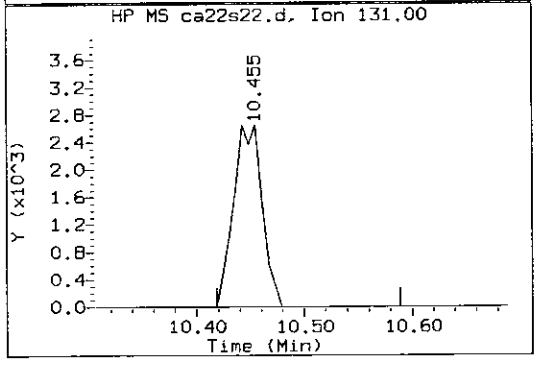
Sample Spectrum (Unaltered)











Data File: /chem2/HP10193.i/09apr22a.b/ca22s22.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 20:43 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:48 sew02002

Sample Name: 13-7- Lab Sample ID: 5648243

Compound Number	: 104
Compound Name	: Tetrachloroethene
Scan Number	: 1455
Retention Time (minutes)	: 10.449
Quant Ion	: 166.0
Area (flag)	: 7186
Concentration (ug/L)	: 0.1224

RAD11 #185

13TB1

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648244

File: /chem2/HP10193.i/09apr22a.b/ca22s23.d
Sample: 13TB1;5648244;1;0;;;;;
Injected At:22-APR-2009 21:05
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.322(-0.012)	450	65	79940(-28)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1863401(-20)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1393590(-20)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	787326(-28)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	490964	9.999	100%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	85190	9.592	96%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1919811	9.730	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	644424	8.838	88%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0186

13TB1

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648244

File: /chem2/HP10193.i/09apr22a.b/ca22s23.d
Sample: 13TB1;5648244;1;0;;;;;
Injected At:22-APR-2009 21:05
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)					ND	ND			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0107

13TB1

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648244

File: /chem2/HP10193.i/09apr22a.b/ca22s23.d
Sample: 13TB1;5648244;1;0;;;;;
Injected At:22-APR-2009 21:05
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/22/09

Auditor: _____ Date: 4/29/09

RAD11 0100

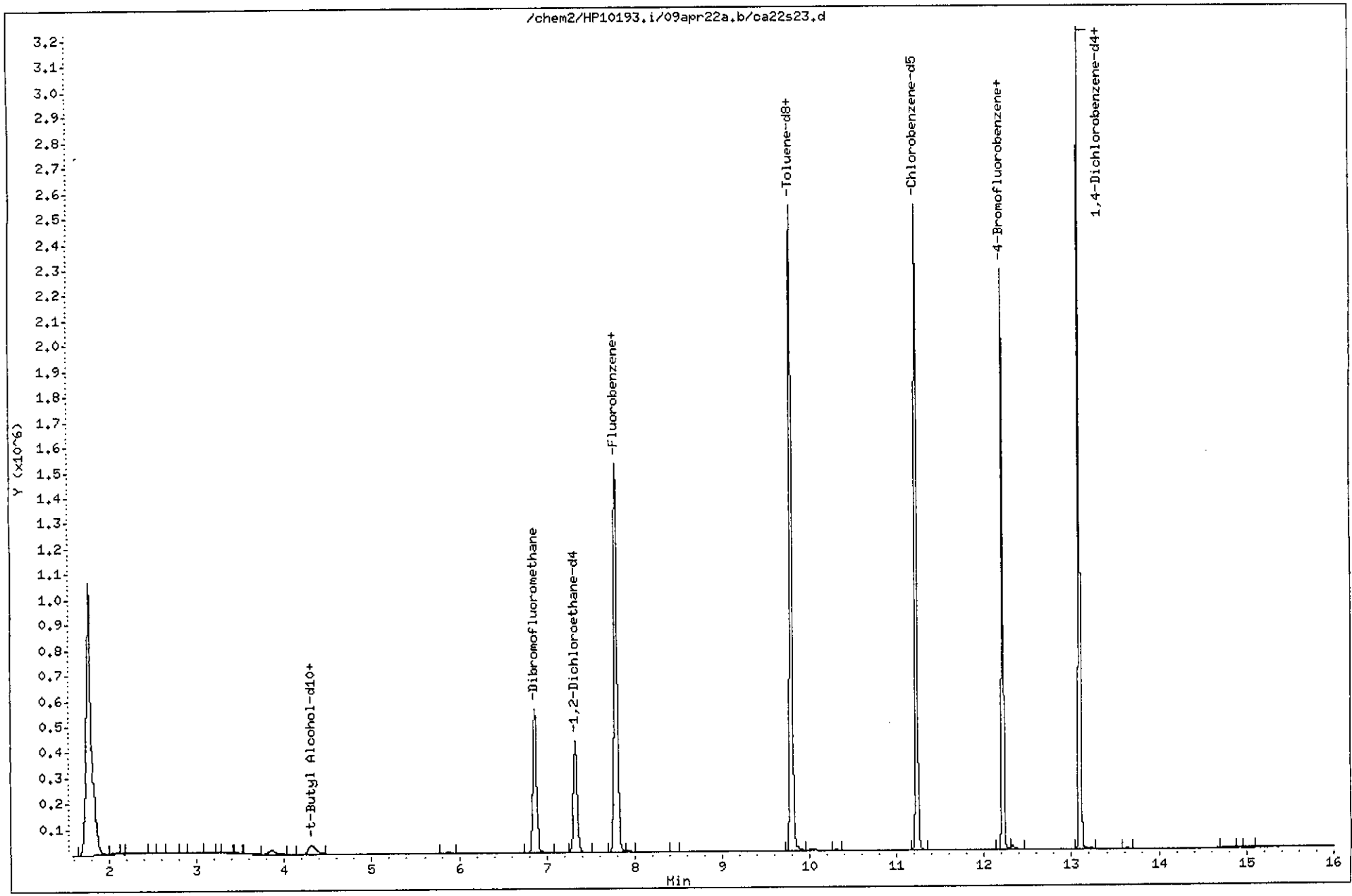
Lwm 4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s23.d
Date : 22-APR-2009 21:05
Client ID: 13TB1
Sample Info: 13TB1;5648244;1;0;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 0100 Page 1



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s23.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 21:05 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:50 sew02002

Sample Name: 13TB1 Lab Sample ID: 5648244

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.322	65	79940	50.000
75)*Fluorobenzene	(1)	7.791	96	1863401	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1393590	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	787326	10.000
58)$Dibromofluoromethane	(1)	6.870	113	490964	9.999
69)$1,2-Dichloroethane-d4	(1)	7.327	102	85190	9.592
95)$Toluene-d8	(2)	9.796	98	1919811	9.730
123)$4-Bromofluorobenzene	(2)	12.217	95	644424	8.838

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

13TB2

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648245

File: /chem2/HP10193.i/09apr22a.b/ca22s24.d
Sample: 13TB2;5648245;1;0;;;;;
Injected At:22-APR-2009 21:26
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.310(0.000)	448	65	77423(-30)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	1829006(-21)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1367295(-22)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	777771(-28)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.864(0.001)	113	485453	10.073	101%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	85180	9.771	98%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	1876429	9.693	97%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	627124	8.766	88%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Reporting Qual.	Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
23) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
28) Acetonitrile	(4)				ND	ND			0.10	0.50
32) Methylene Chloride	(1)	4.291(0.000)	84	13434	0.323	0.32		J	0.20	0.50
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)				ND	ND			0.10	0.50
45) Vinyl Acetate	(1)				ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)				ND	ND			0.10	0.50
50) 2-Butanone	(4)				ND	ND			1.00	5.00
52) Propionitrile	(4)				ND	ND			2.00	10.00
53) Methacrylonitrile	(4)				ND	ND			1.00	5.00
54) Bromochloromethane	(1)				ND	ND			0.10	0.50
56) Chloroform	(1)				ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0111

13TB2

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648245

File: /chem2/HP10193.i/09apr22a.b/ca22s24.d
Sample: 13TB2;5648245;1;0;;;;;
Injected At:22-APR-2009 21:26
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
80) Trichloroethene	(1)					ND	ND			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 0112

13TB2

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648245

File: /chem2/HP10193.i/09apr22a.b/ca22s24.d
Sample: 13TB2;5648245;1;0;;;;;
Injected At:22-APR-2009 21:26
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: Susan Date: 4/22/09

Auditor: [signature] Date: 4/29/09

RAD11 0113

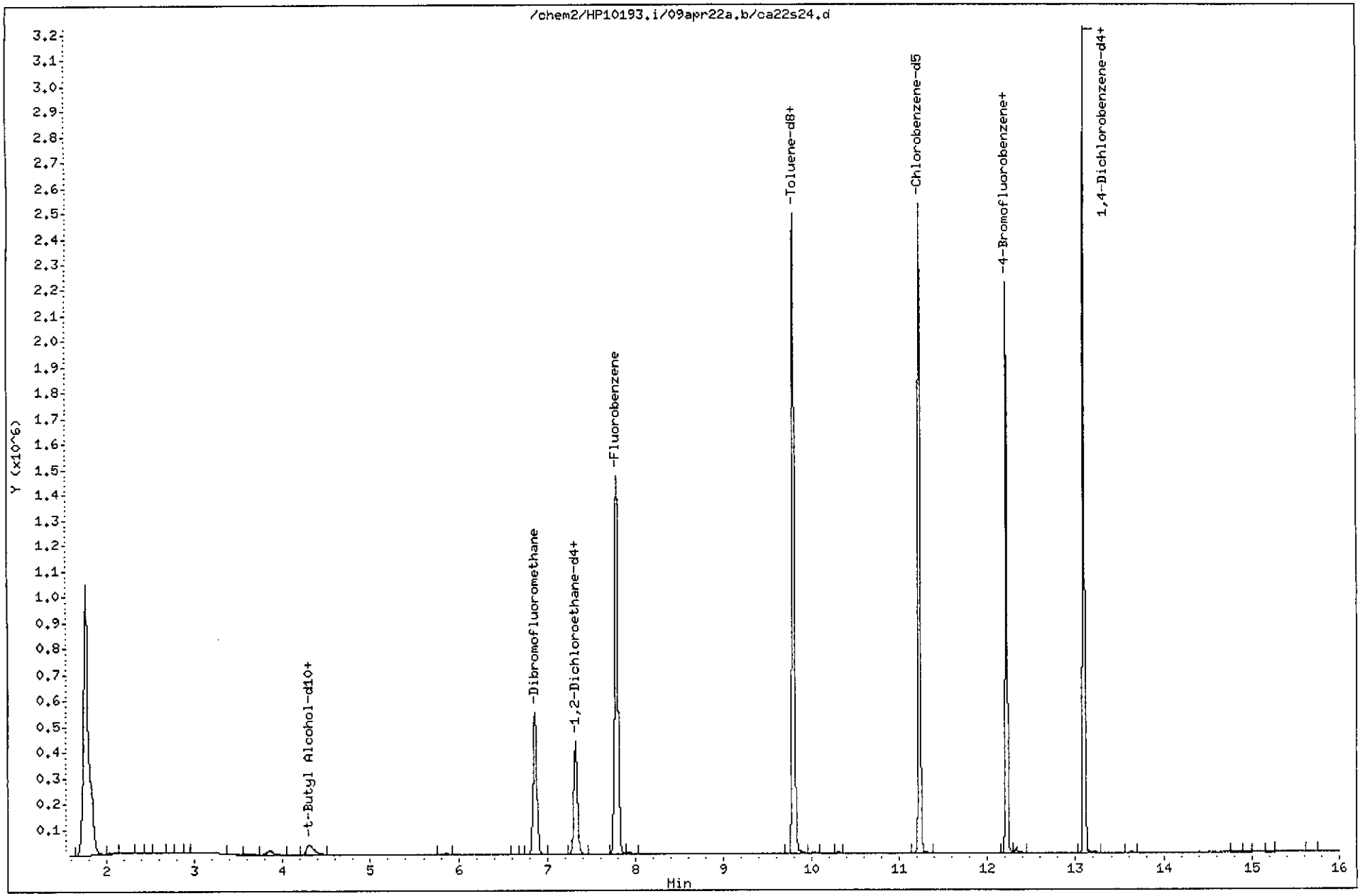
4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s24.d
Date : 22-APR-2009 21:26
Client ID: 13TB2
Sample Info: 13TB2;5648245;1;0;;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD11 01414



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s24.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 21:26 Analyst ID: ADS01731

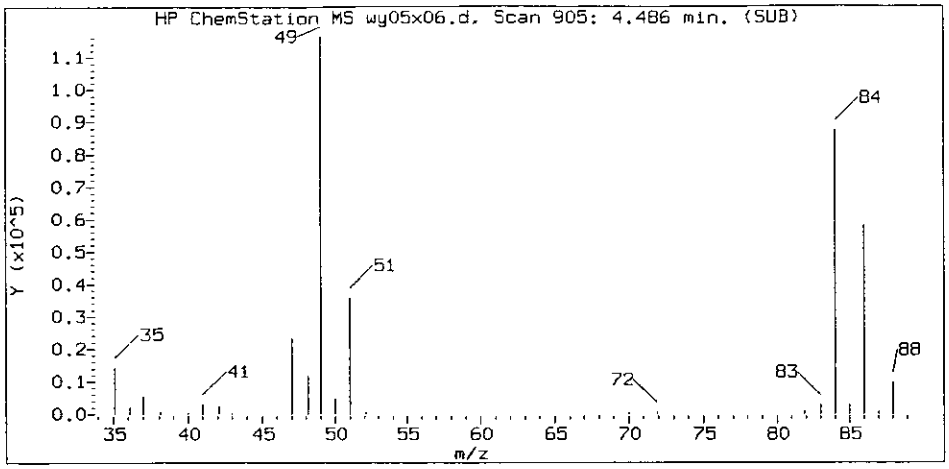
Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:51 sew02002

Sample Name: 13TB2 Lab Sample ID: 5648245

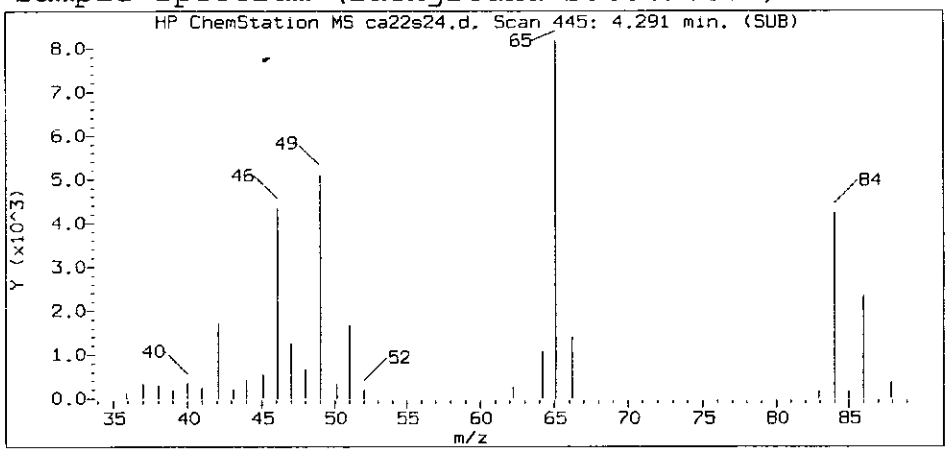
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
32) Methylene Chloride	(1)	4.291	84	13434	0.323
33)*t-Butyl Alcohol-d10	(4)	4.310	65	77423	50.000
75)*Fluorobenzene	(1)	7.791	96	1829006	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1367295	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	777771	10.000
58)$Dibromofluoromethane	(1)	6.864	113	485453	10.073
69)$1,2-Dichloroethane-d4	(1)	7.327	102	85180	9.771
95)$Toluene-d8	(2)	9.796	98	1876429	9.693
123)$4-Bromofluorobenzene	(2)	12.217	95	627124	8.766

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

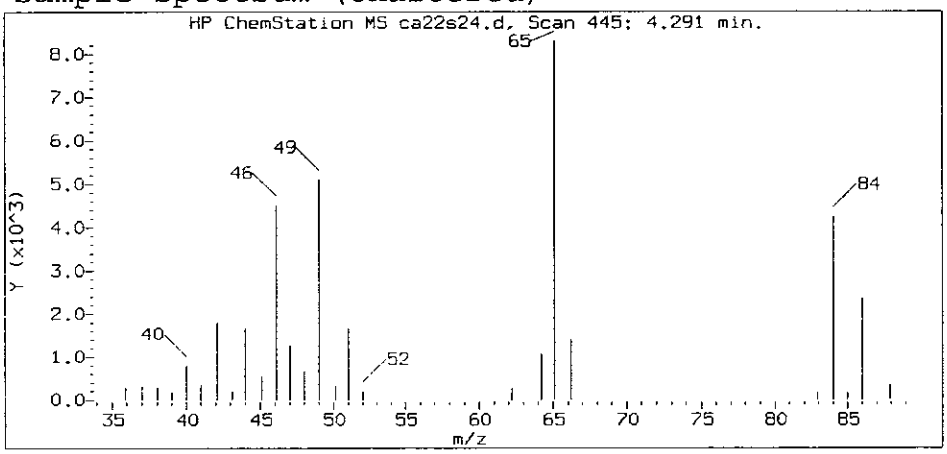
Reference Standard Spectrum for Methylene Chloride

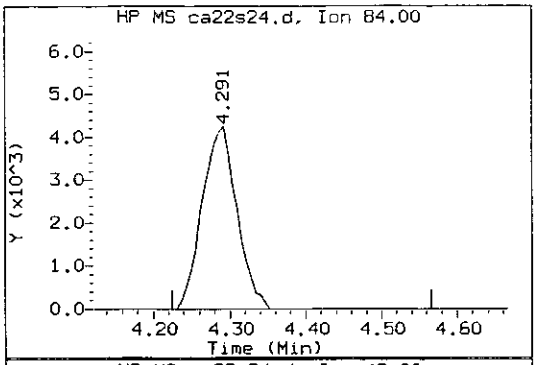


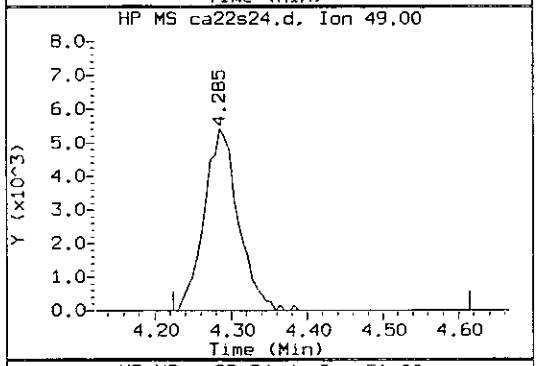
Sample Spectrum (Background Subtracted)

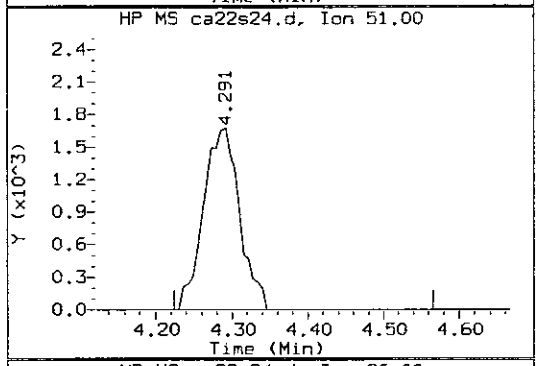


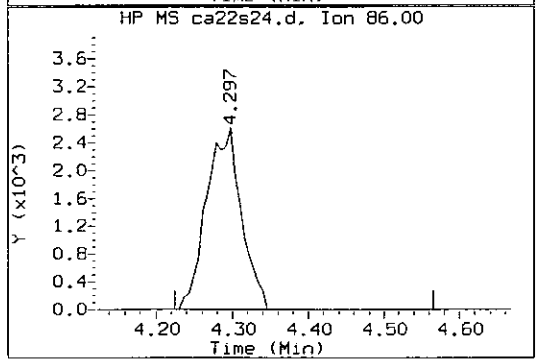
Sample Spectrum (Unaltered)











Data File: /chem2/HP10193.i/09apr22a.b/ca22s24.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 21:26 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 22:51 sew02002

Sample Name: 13TB2 Lab Sample ID: 5648245

Compound Number	: 32
Compound Name	: Methylene Chloride
Scan Number	: 445
Retention Time (minutes)	: 4.291
Quant Ion	: 84.0
Area (flag)	: 13434
Concentration (ug/L)	: 0.3227

RAD11 6116

Standards Data

RAD11 0117

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date(s): 04/21/09 04/21/09

Heated Purge: (Y/N) Y Calibration Times: 20:07 21:54

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 0.5 ca21i15.d RRF 1 = ca21i14.d RRF 2 = ca21i13.d
RRF 5 = ca21i12.d RRF 10= ca21i11.d RRF 25= ca21i10.d RRF =

COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD	
Dichlorodifluoromethane	0.2662	0.3094	0.3155	0.2900	0.2873	0.2973		0.2943	6	AVG	
Chloromethane	#0.2835	0.2828	0.2923	0.2694	0.2671	0.2603		0.2759	4	AVG	#
Vinyl Chloride	*0.2807	0.2936	0.2972	0.2738	0.2737	0.2674		0.2811	4	AVG	*
Bromomethane	0.2177	0.2174	0.2239	0.2051	0.1971	0.1950		0.2094	6	AVG	
Chloroethane	0.1695	0.1740	0.1753	0.1602	0.1578	0.1523		0.1648	6	AVG	
Dichlorofluoromethane	0.4656	0.4783	0.4847	0.4503	0.4430	0.4338		0.4593	4	AVG	
Trichlorofluoromethane	0.4319	0.4739	0.4767	0.4470	0.4403	0.4445		0.4524	4	AVG	
Ethyl Ether	0.1503	0.1701	0.1693	0.1694	0.1574	0.1631		0.1633	5	AVG	
Freon 123a	0.2824	0.2987	0.2885	0.2827	0.2649	0.2763		0.2822	4	AVG	
Acrolein	2.2032	2.2466	2.3730	2.1647	2.0941	2.2156		2.2162	4	AVG	
1,1-Dichloroethene	*0.1901	0.2079	0.2043	0.1879	0.1855	0.1855		0.1935	5	AVG	*
Freon 113	0.2163	0.2420	0.2442	0.2228	0.2213	0.2223		0.2281	5	AVG	
Acetone	1.0483	1.0130	1.1192	0.9558	0.9296	0.9780		1.0073	7	AVG	
Methyl Iodide	0.3791	0.3940	0.4101	0.3771	0.3689	0.3641		0.3822	4	AVG	
Carbon Disulfide	0.6482	0.6855	0.7014	0.6372	0.6357	0.6369		0.6575	4	AVG	
Allyl Chloride	0.3063	0.3403	0.3485	0.3410	0.3417	0.3476		0.3376	5	AVG	
Methyl Acetate	0.0853	0.0893	0.0855	0.0790	0.0763	0.0788		0.0824	6	AVG	
Methylene Chloride	0.2583	0.2369	0.2406	0.2179	0.2087	0.2032		0.2276	9	AVG	
t-Butyl Alcohol	1.1612	1.2064	1.4849	1.1218	1.1538	1.1716		1.2166	11	AVG	
Acrylonitrile	3.6537	4.0474	4.2558	3.8498	3.7946	4.1308		3.9553	6	AVG	
trans-1,2-Dichloroethene	0.2205	0.2351	0.2398	0.2244	0.2198	0.2200		0.2266	4	AVG	
1,2-Dichloroethene (Total)	0.2206	0.2411	0.2503	0.2326	0.2294	0.2295		0.2339	4	AVG	
Methyl Tertiary Butyl Ether	0.4075	0.4487	0.5012	0.4683	0.4728	0.4700		0.4614	7	AVG	
n-Hexane	0.2152	0.2611	0.2832	0.2744	0.2851	0.2992		0.2697	11	AVG	
1,1-Dichloroethane	#0.3672	0.3916	0.4056	0.3754	0.3671	0.3692		0.3793	4	AVG	#
di-Isopropyl Ether	0.5310	0.6043	0.6758	0.6501	0.6610	0.6675		0.6316	9	AVG	
2-Chloro-1,3-Butadiene	0.2670	0.3069	0.3376	0.3279	0.3357	0.3496		0.3208	9	AVG	
Ethyl t-Butyl Ether	0.4383	0.5105	0.5821	0.5649	0.5763	0.5832		0.5426	11	AVG	
2,2-Dichloropropane	0.3091	0.3354	0.3511	0.3274	0.3307	0.3309		0.3308	4	AVG	
cis-1,2-Dichloroethene	0.2208	0.2471	0.2607	0.2409	0.2390	0.2389		0.2412	5	AVG	
2-Butanone	4.3464	4.8566	5.4851	4.8612	4.8693	5.3458		4.9607	8	AVG	
Propionitrile	1.4846	1.5817	1.7312	1.4843	1.4736	1.5747		1.5550	6	AVG	
Methacrylonitrile	4.3123	5.0089	5.4859	5.0609	4.9446	5.4275		5.0400	8	AVG	
Bromochloromethane	0.1132	0.1280	0.1274	0.1209	0.1171	0.1176		0.1207	5	AVG	
Tetrahydrofuran	1.2652	1.4278	1.5196	1.3797	1.3619	1.5009		1.4092	7	AVG	
Chloroform	*0.4029	0.4221	0.4451	0.4064	0.4005	0.4033		0.4134	4	AVG	*
1,1,1-Trichloroethane	0.3547	0.3905	0.4016	0.3741	0.3729	0.3797		0.3789	4	AVG	
Cyclohexane	0.2694	0.3321	0.3602	0.3509	0.3632	0.3789		0.3424	11	AVG	
1,1-Dichloropropene	0.2689	0.3020	0.3173	0.3036	0.3031	0.3118		0.3011	6	AVG	
Carbon Tetrachloride	0.3242	0.3502	0.3640	0.3418	0.3437	0.3534		0.3462	4	AVG	
Isobutyl Alcohol	0.3936	0.4139	0.5018	0.3850	0.4094	0.4274		0.4219	10	AVG	
Benzene	0.8839	0.9552	0.9990	0.9175	0.9063	0.9187		0.9301	4	AVG	
1,2-Dichloroethane	0.2302	0.2465	0.2616	0.2426	0.2414	0.2474		0.2449	4	AVG	
1,2-Dichloroethane(mz98)	0.0220	0.0225	0.0236	0.0218	0.0209	0.0211		0.0220	5	AVG	
t-Amyl Methyl Ether	0.3801	0.4399	0.5167	0.4972	0.5064	0.5217		0.4770	12	AVG	
n-Heptane	0.2760	0.3161	0.3246	0.2987	0.3196	0.3362		0.3119	7	AVG	
n-Butanol	0.2540	0.2784	0.3856	0.3007	0.3360	0.3445		0.3165	15	AVG	
Trichloroethene	0.2458	0.2606	0.2687	0.2508	0.2500	0.2517		0.2546	3	AVG	
Methylcyclohexane	0.3009	0.3832	0.4143	0.4226	0.4287	0.4560		0.4010	14	AVG	
1,2-Dichloropropane	*0.2035	0.2214	0.2328	0.2162	0.2145	0.2199		0.2181	4	AVG	*
Dibromomethane	0.0976	0.1032	0.1108	0.1018	0.1012	0.1051		0.1033	4	AVG	
1,4-Dioxane	0.0997	0.1139	0.0938	0.0871	0.1070	0.0880		0.0983	11	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

NAD11 0119

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date(s): 04/21/09 04/21/09

Heated Purge: (Y/N) Y Calibration Times: 20:07 21:54

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 0.5 ca21i15.d RRF 1 = ca21i14.d RRF 2 = ca21i13.d
RRF 5 = ca21i12.d RRF 10= ca21i11.d RRF 25= ca21i10.d RRF =

COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD	
Methyl Methacrylate	6.2729	7.3531	8.1868	7.8965	8.2935	9.7099		7.9521	14	AVG	
Bromodichloromethane	0.2473	0.2675	0.2934	0.2724	0.2748	0.2891		0.2741	6	AVG	
2-Nitropropane	2.3427	2.7898	3.3938	3.0441	3.1300	3.5361		3.0394	14	AVG	
cis-1,3-Dichloropropene	0.2381	0.2737	0.3151	0.3028	0.3102	0.3300		0.2950	11	AVG	
4-Methyl-2-Pentanone	0.0861	0.1070	0.1426	0.1202	0.1250	0.1291		0.1183	17	2NDDEG	
Toluene	*0.7205	0.8113	0.8792	0.8224	0.8139	0.8287		0.8126	6	AVG	*
trans-1,3-Dichloropropene	0.2698	0.3086	0.3680	0.3419	0.3561	0.3771		0.3369	12	AVG	
Ethyl Methacrylate	0.1422	0.1748	0.2298	0.2219	0.2431	0.2618		0.2123	21	2NDDEG	
1,1,2-Trichloroethane	0.1844	0.1940	0.2227	0.1945	0.1941	0.1958		0.1976	7	AVG	
Tetrachloroethene	0.4003	0.4181	0.4378	0.4003	0.3920	0.4023		0.4085	4	AVG	
1,3-Dichloropropane	0.2865	0.3219	0.3639	0.3255	0.3277	0.3384		0.3273	8	AVG	
2-Hexanone	0.0756	0.0956	0.1337	0.1100	0.1158	0.1184		0.1082	19	2NDDEG	
Dibromochloromethane	0.2211	0.2457	0.2913	0.2601	0.2695	0.2818		0.2616	10	AVG	
1,2-Dibromoethane	0.1673	0.1852	0.2102	0.1882	0.1899	0.1960		0.1895	7	AVG	
Chlorobenzene	#0.9592	1.0059	1.0765	0.9565	0.9483	0.9576		0.9840	5	AVG	#
1,1,1,2-Tetrachloroethane	0.3043	0.3364	0.3749	0.3326	0.3367	0.3431		0.3380	7	AVG	
Ethylbenzene	*1.3815	1.5659	1.7415	1.6140	1.6525	1.7012		1.6094	8	AVG	*
m+p-Xylene	0.5521	0.6425	0.7176	0.6641	0.6680	0.6854		0.6549	9	AVG	
Xylene (Total)	0.5317	0.6230	0.7068	0.6535	0.6580	0.6767		0.6416	9	AVG	
o-Xylene	0.4908	0.5839	0.6854	0.6325	0.6381	0.6594		0.6150	11	AVG	
Styrene	0.6940	0.8531	1.0447	0.9819	1.0239	1.0741		0.9453	15	AVG	
Bromoform	#0.1149	0.1309	0.1608	0.1388	0.1488	0.1565		0.1418	12	AVG	#
Isopropylbenzene	1.2140	1.4661	1.7067	1.6131	1.6584	1.7088		1.5612	12	AVG	
1,1,2,2-Tetrachloroethane	#0.3156	0.3477	0.4362	0.3566	0.3627	0.3670		0.3643	11	AVG	#
Bromobenzene	0.6295	0.6973	0.8052	0.6975	0.6896	0.7067		0.7043	8	AVG	
trans-1,4-Dichloro-2-Butene	2.6994	3.6554	4.5685	4.0365	4.3552	5.3077		4.1038	22	2NDDEG	
1,2,3-Trichloropropane	0.1051	0.1189	0.1427	0.1166	0.1158	0.1175		0.1194	10	AVG	
n-Propylbenzene	2.5979	3.1374	3.5283	3.2301	3.2777	3.3794		3.1918	10	AVG	
2-Chlorotoluene	0.6077	0.6887	0.7761	0.6936	0.6898	0.7035		0.6932	8	AVG	
4-Chlorotoluene	0.6303	0.7335	0.8258	0.7216	0.7177	0.7350		0.7273	9	AVG	
1,3,5-Trimethylbenzene	1.8554	2.2806	2.6303	2.4114	2.4553	2.5443		2.3629	12	AVG	
Pentachloroethane	0.4314	0.4527	0.5173	0.4927	0.4926	0.5128		0.4832	7	AVG	
tert-Butylbenzene	0.4424	0.5198	0.5971	0.5562	0.5619	0.5805		0.5430	10	AVG	
1,2,4-Trimethylbenzene	1.9189	2.4073	2.7858	2.5302	2.5643	2.6778		2.4807	12	AVG	
sec-Butylbenzene	2.3981	2.8738	3.2464	3.0170	3.0879	3.1911		2.9690	10	AVG	
1,3-Dichlorobenzene	1.3962	1.5006	1.7039	1.4621	1.4736	1.4858		1.5037	7	AVG	
p-Isopropyltoluene	2.0724	2.5708	2.9967	2.7433	2.8256	2.9509		2.6933	13	AVG	
1,4-Dichlorobenzene	1.4815	1.5716	1.7619	1.4876	1.4737	1.4778		1.5424	7	AVG	
1,2,3-Trimethylbenzene	1.0302	1.1882	1.2957	1.2262	1.2081	1.2266		1.1958	7	AVG	
Benzyl Chloride	0.1283	0.1501	0.2018	0.1760	0.1904	0.2026		0.1749	17	2NDDEG	
n-Butylbenzene	1.1100	1.3289	1.4637	1.3144	1.3467	1.3879		1.3253	9	AVG	
1,2-Dichlorobenzene	1.2305	1.3555	1.5274	1.2888	1.2869	1.2783		1.3279	8	AVG	
1,2-Dibromo-3-Chloropropane	1.9192	2.3148	2.9601	2.2850	2.4894	2.7533		2.4536	15	AVG	
1,2,4-Trichlorobenzene	0.7850	0.9132	1.0337	0.8974	0.9546	0.9515		0.9226	9	AVG	
Hexachlorobutadiene	0.4762	0.5396	0.5370	0.4664	0.4888	0.4769		0.4975	7	AVG	
Naphthalene	0.9469	1.2379	1.5727	1.3811	1.5200	1.4657		1.3540	17	1STDEG	
1,2,3-Trichlorobenzene	0.7073	0.8243	0.8920	0.7696	0.8130	0.7432		0.7916	8	AVG	
Dibromofluoromethane	0.2694	0.2637	0.2670	0.2559	0.2723	0.2529		0.2635	3	AVG	
Dibromofluoromethane(mz111)	0.2698	0.2690	0.2708	0.2601	0.2784	0.2576		0.2676	3	AVG	
1,2-Dichloroethane-d4	0.0495	0.0481	0.0502	0.0452	0.0479	0.0451		0.0477	4	AVG	
1,2-Dichloroethane-d4(mz104)	0.0315	0.0292	0.0305	0.0294	0.0304	0.0285		0.0299	4	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

RAD11 8119

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date(s): 04/21/09 04/21/09

Heated Purge: (Y/N) Y Calibration Times: 20:07 21:54

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 0.5 ca21i15.d RRF 1 = ca21i14.d RRF 2 = ca21i13.d
RRF 5 = ca21i12.d RRF 10= ca21i11.d RRF 25= ca21i10.d RRF =

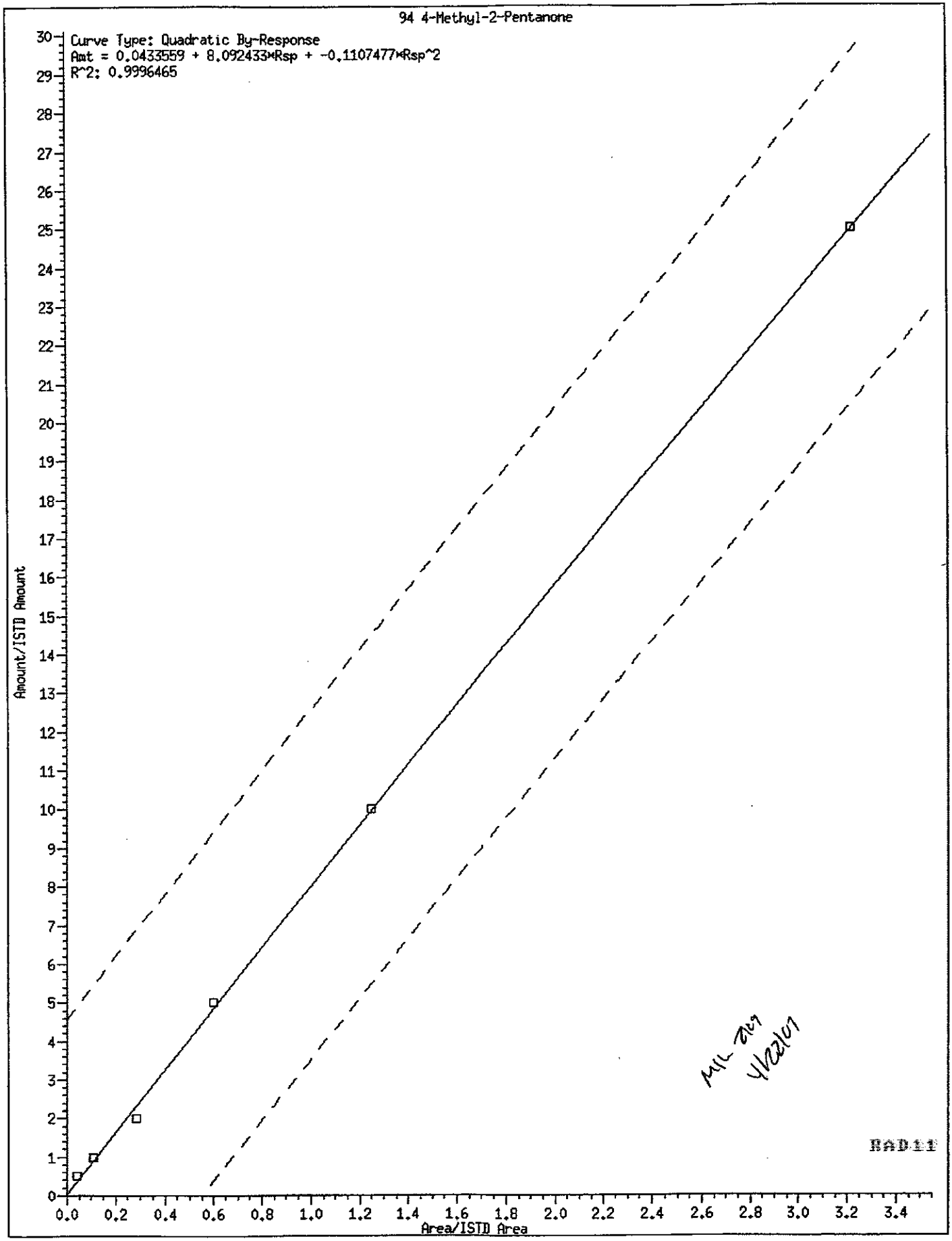
COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD
Toluene-d8	1.3267	1.4180	1.4701	1.4081	1.4950	1.3770		1.4158	4	AVG
Toluene-d8(mz100)	0.8547	0.9075	0.9313	0.8983	0.9499	0.8742		0.9026	4	AVG
4-Bromofluorobenzene	0.4586	0.4969	0.5437	0.5035	0.6148	0.5217		0.5232	10	AVG
4-Bromofluorobenzene(mz174)	0.4363	0.4668	0.5021	0.4652	0.5606	0.4700		0.4835	9	AVG

Average %RSD 8

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

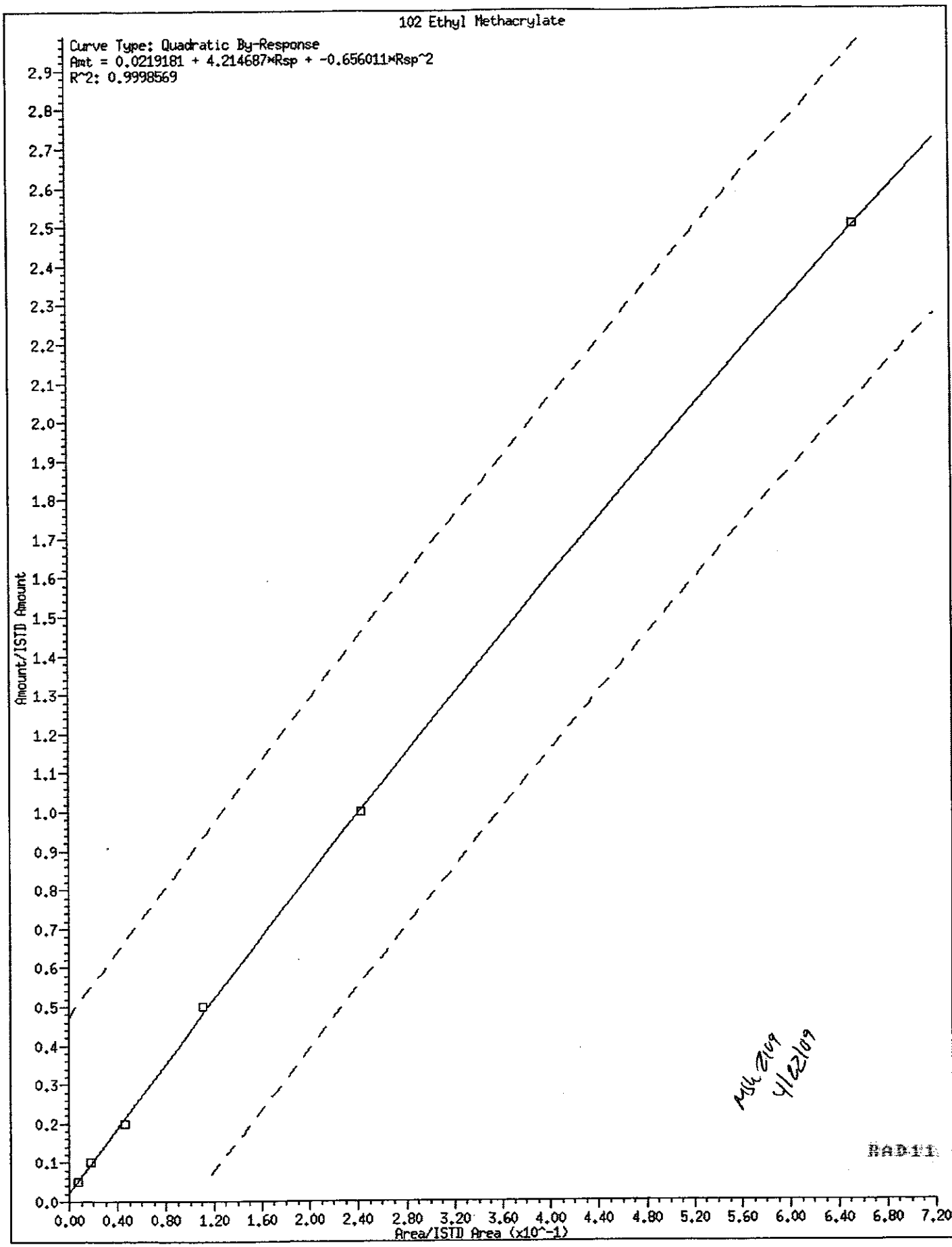
RAD11 8120

FORM VI VOA



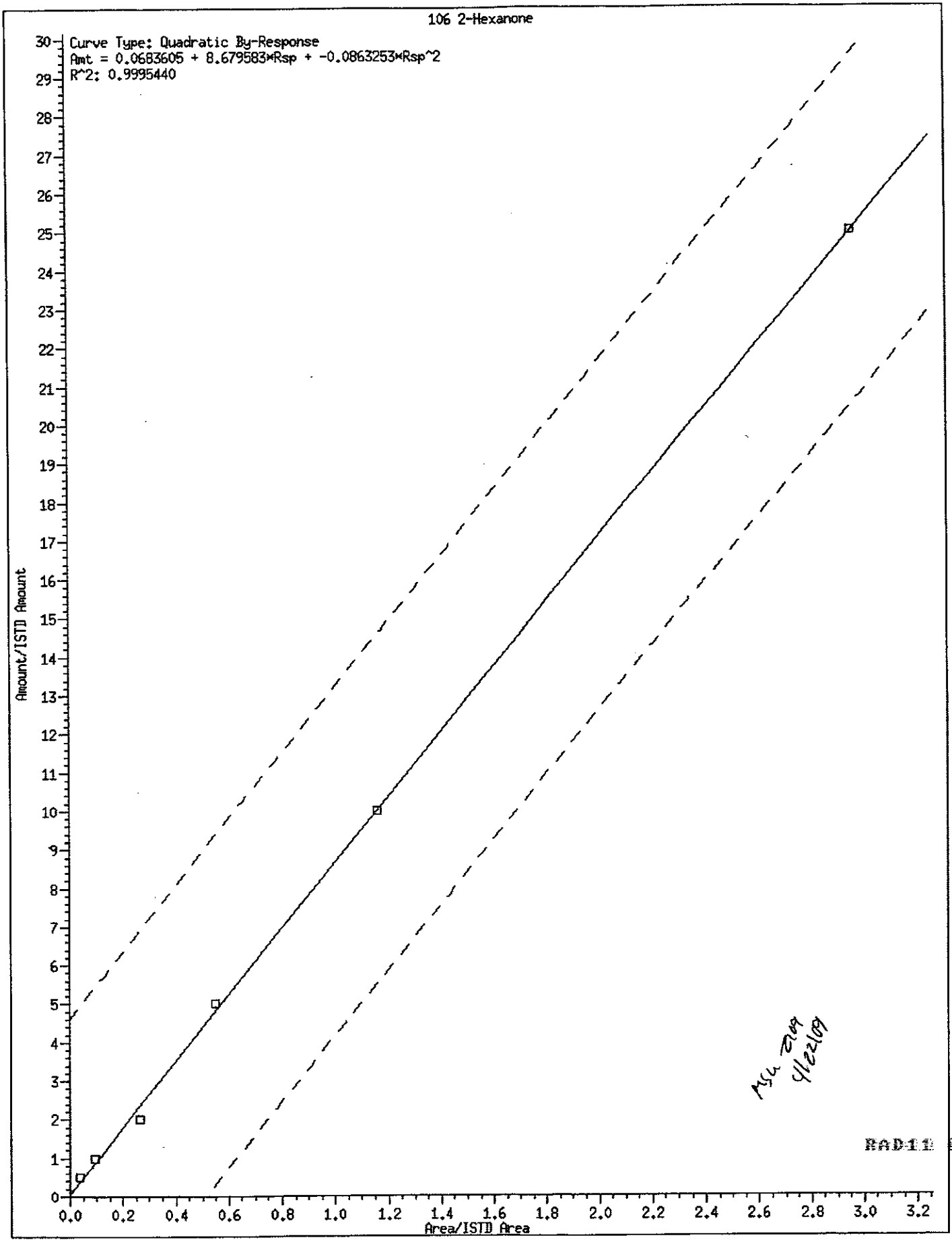
MLL 2nd 4/22/07

RAD11 0121



MSL 2109 4/22/09

RAD11 0122



MSL 2109 4/22/09

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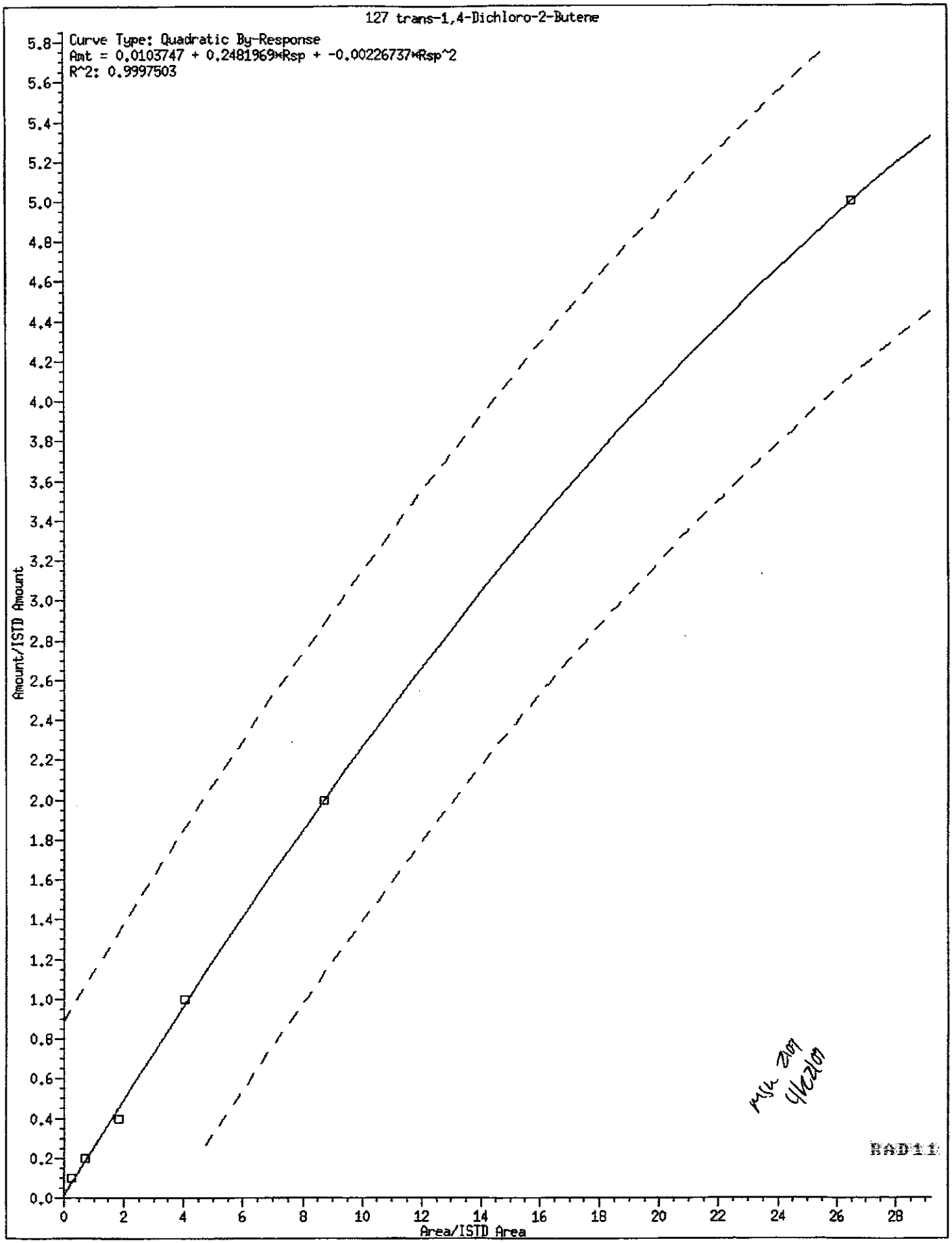
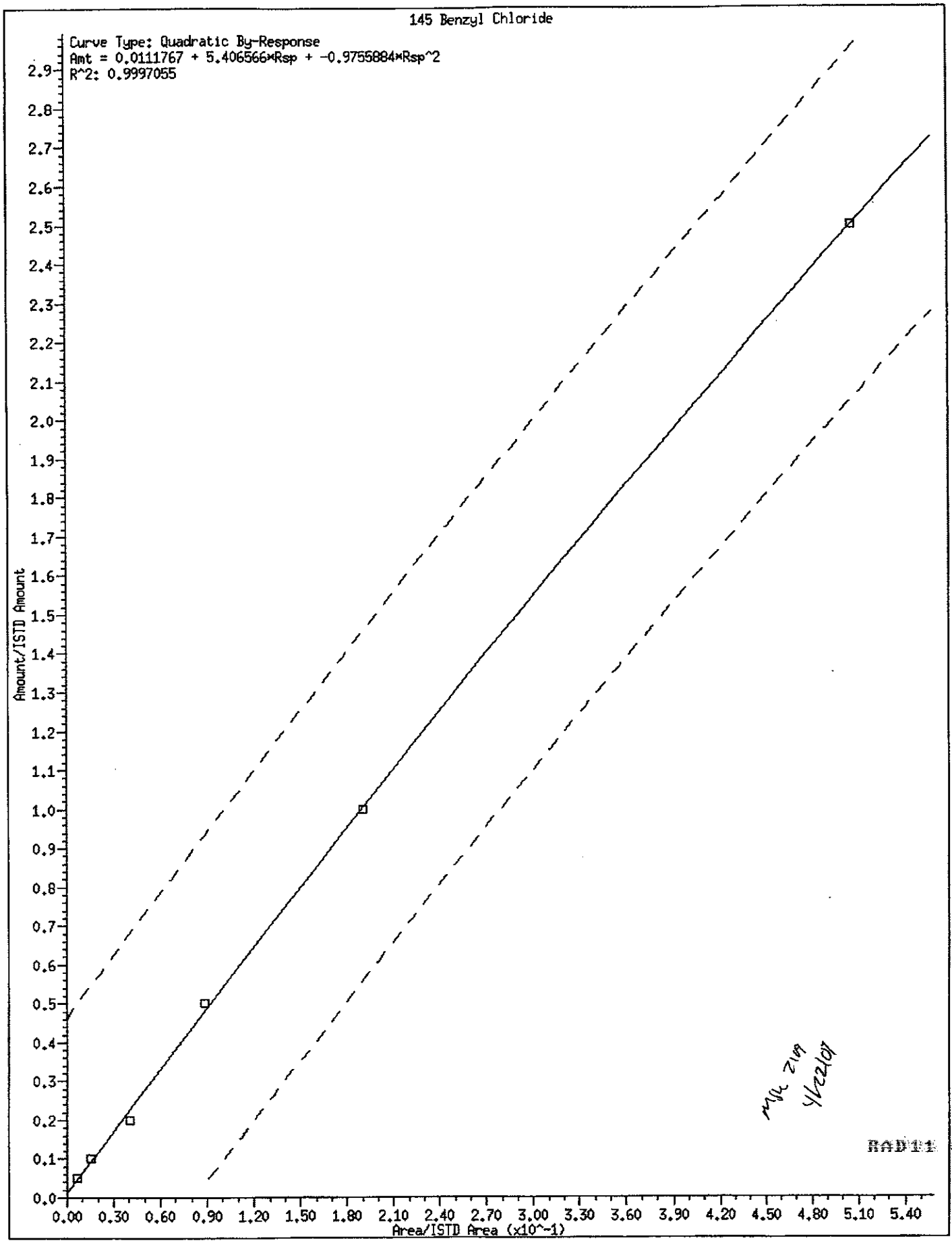


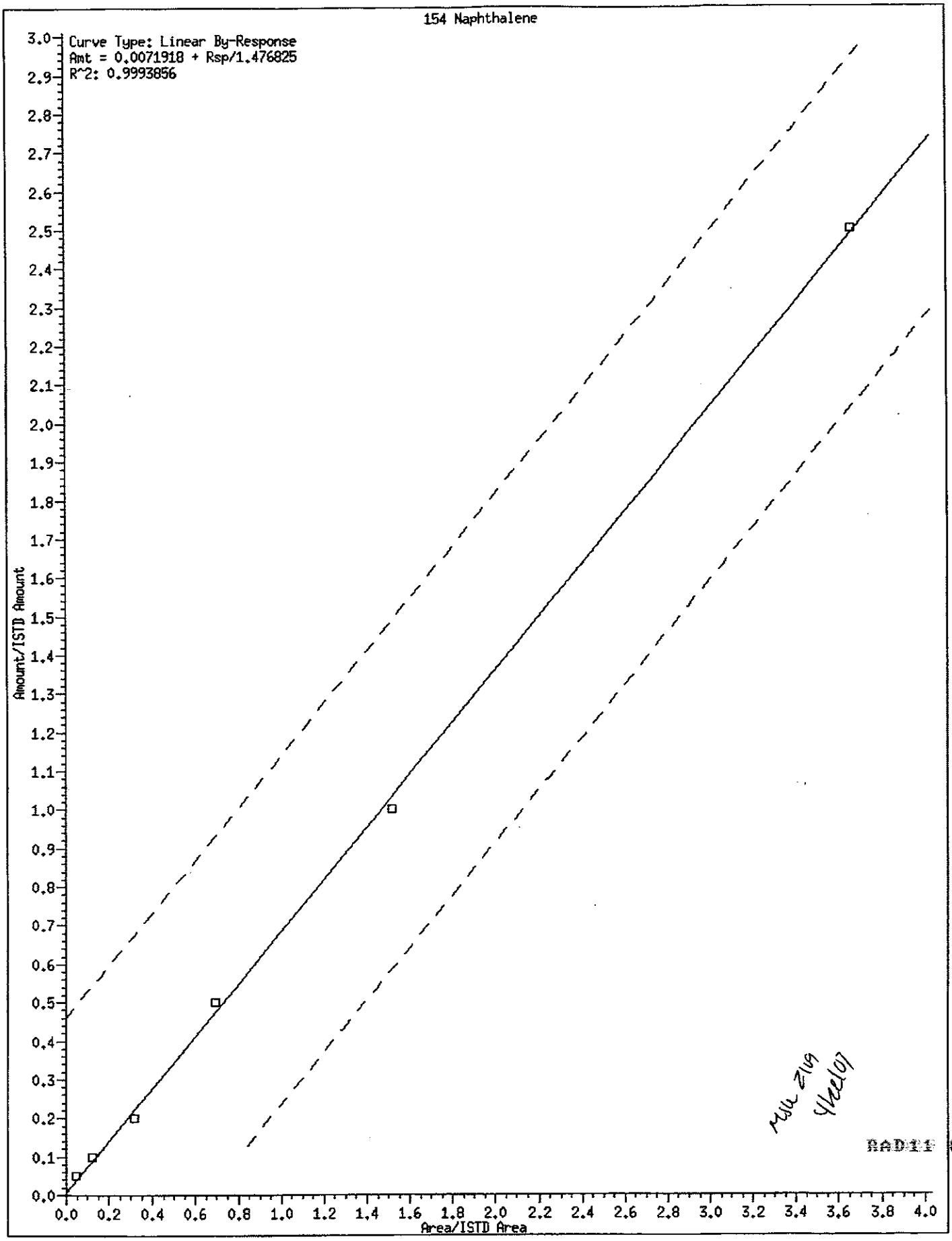
msk 2/09
4/6/10

BAD11 0124



mjk 2/19 4/22/10

RAD11 0125



RSK 219 4/26/07

RAD11 0126

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP10193.i/09apr21c.b/ca21i10.d VSTD025
/chem2/HP10193.i/09apr21c.b/ca21i11.d VSTD010
/chem2/HP10193.i/09apr21c.b/ca21i12.d VSTD005
/chem2/HP10193.i/09apr21c.b/ca21i13.d VSTD002
/chem2/HP10193.i/09apr21c.b/ca21i14.d VSTD001
/chem2/HP10193.i/09apr21c.b/ca21i15.d VSTD0.5

Area Summary

File ID:

Internal Standard Name	ca21i10.d	ca21i11.d	ca21i12.d	ca21i13.d	ca21i14.d	ca21i15.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	113618	124427	121276	121348	113897	114476	118174	4	Yes
Fluorobenzene	2414872	2467700	2439874	2421209	2378447	2398847	2420158	1	Yes
Chlorobenzene-d5	1825760	1845067	1824982	1824520	1790450	1799735	1818419	1	Yes
1,4-Dichlorobenzene-d4	1125174	1144234	1119465	1126052	1098393	1099814	1118855	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ca21i10.d	ca21i11.d	ca21i12.d	ca21i13.d	ca21i14.d	ca21i15.d	Avg. RT
t-Butyl Alcohol-d10	4.322	4.328	4.328	4.328	4.322	4.310	4.323
Fluorobenzene	7.784	7.785	7.791	7.791	7.785	7.791	7.788
Chlorobenzene-d5	11.229	11.229	11.229	11.229	11.229	11.229	11.229
1,4-Dichlorobenzene-d4	13.094	13.095	13.095	13.095	13.095	13.095	13.095

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/22/2009 at 02:42.

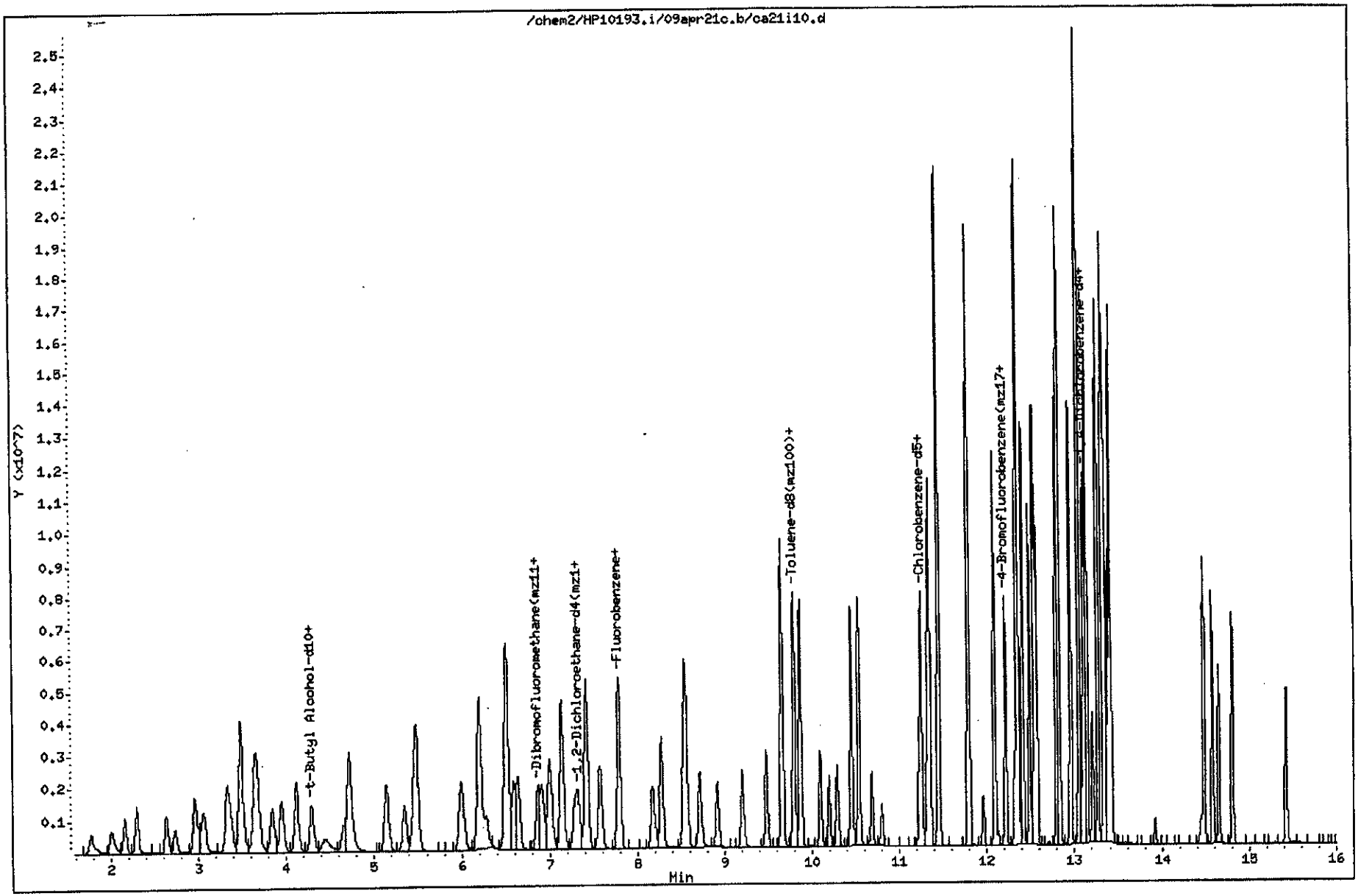
4/21/09

Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d
Date : 21-APR-2009 20:07
Client ID: VSTD025
Sample Info: VSTD025;VSTD025;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002
Column diameter: 0.25

BA1128129



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:07 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	1794934	25.257
4) Chloromethane	(1)	2.151	50	1571733	23.589
6) Vinyl Chloride	(1)	2.292	62	1614194	23.783
8) Bromomethane	(1)	2.633	94	1177113	23.282
9) Chloroethane	(1)	2.731	64	919703	23.103
11) Dichlorofluoromethane	(1)	2.956	67	2618971	23.613
12) Trichlorofluoromethane	(1)	3.060	101	2683316	24.563
15) Ethyl Ether	(1)	3.322	59	984887	24.977
16) Freon 123a	(1)	3.352	67	1668142	24.475
18) Acrolein	(4)	3.480	56	6293224	1249.635
19) 1,1-Dichloroethene	(1)	3.639	96	1119662	23.960
20) Freon 113	(1)	3.663	101	1342323	24.364
23) Acetone	(4)	3.669	58	555620	242.732
26) Methyl Iodide	(1)	3.840	142	2198233	23.816
27) Carbon Disulfide	(1)	3.950	76	3845069	24.217
29) Allyl Chloride	(1)	4.114	41	2098387	25.741
30) Methyl Acetate	(1)	4.127	43	475540	23.904
32) Methylene Chloride	(1)	4.285	84	1226708	22.317
33)*t-Butyl Alcohol-d10	(4)	4.322	65	113618	50.000
35) t-Butyl Alcohol	(4)	4.444	59	1331150	481.497
36) Acrylonitrile	(4)	4.645	53	1173341	130.546
37) trans-1,2-Dichloroethene	(1)	4.718	96	1328432	24.273
40) 1,2-Dichloroethene (Total)	(1)		96	2770812	49.034
38) Methyl Tertiary Butyl Ether	(1)	4.724	73	2837275	25.463
41) n-Hexane	(1)	5.139	57	1806057	27.730
44) 1,1-Dichloroethane	(1)	5.346	63	2228745	24.330
46) di-Isopropyl Ether	(1)	5.462	45	4029584	26.419
47) 2-Chloro-1,3-Butadiene	(1)	5.486	53	2110375	27.244
48) Ethyl t-Butyl Ether	(1)	5.998	59	3520885	26.873
51) 2,2-Dichloropropane	(1)	6.205	77	1997665	25.009
49) cis-1,2-Dichloroethene	(1)	6.193	96	1442380	24.760
50) 2-Butanone	(4)	6.205	43	3036883	269.405
52) Propionitrile	(4)	6.285	54	1789163	506.329
53) Methacrylonitrile	(4)	6.504	67	3083320	269.221

* = Compound is an internal standard.

RAD11 8129

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:07 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	709895	24.353
55) Tetrahydrofuran	(4)	6.596	71	852641	266.271
56) Chloroform	(1)	6.644	83	2434528	24.388
60) 1,1,1-Trichloroethane	(1)	6.919	97	2292480	25.053
61) Cyclohexane	(1)	7.004	56	2287437	27.661
63) 1,1-Dichloropropene	(1)	7.138	75	1882601	25.888
64) Carbon Tetrachloride	(1)	7.144	117	2133559	25.518
66) Isobutyl Alcohol	(4)	7.285	41	1213963	1266.313
70) Benzene	(1)	7.413	78	5546629	24.695
72) 1,2-Dichloroethane	(1)	7.431	62	1493483	25.250
71) 1,2-Dichloroethane(mz98)	(1)	7.431	98	127107	23.941
74) t-Amyl Methyl Ether	(1)	7.577	73	3149839	27.344
75)*Fluorobenzene	(1)	7.784	96	2414872	10.000
76) n-Heptane	(1)	7.791	43	2029956	26.953
79) n-Butanol	(4)	8.175	56	1957203	2721.051
80) Trichloroethene	(1)	8.278	95	1519661	24.718
82) Methylcyclohexane	(1)	8.540	83	2752766	28.430
83) 1,2-Dichloropropane	(1)	8.565	63	1327532	25.211
85) Dibromomethane	(1)	8.711	93	634654	25.450
87) 1,4-Dioxane	(4)	8.735	88	250058	1120.043
86) Methyl Methacrylate	(4)	8.717	69	551610	30.526
88) Bromodichloromethane	(1)	8.918	83	1745569	26.373
91) 2-Nitropropane	(4)	9.205	41	2008838	290.855
93) cis-1,3-Dichloropropene	(1)	9.479	75	1992212	27.966
94) 4-Methyl-2-Pentanone	(1)	9.656	43	7792676	250.040
97) Toluene	(2)	9.869	92	3782392	25.493
100) trans-1,3-Dichloropropene	(2)	10.095	75	1721265	27.981
102) Ethyl Methacrylate	(2)	10.199	69	1194960	24.994
103) 1,1,2-Trichloroethane	(2)	10.290	97	893510	24.770
104) Tetrachloroethene	(2)	10.449	166	1836377	24.624
105) 1,3-Dichloropropane	(2)	10.461	76	1544376	25.844
106) 2-Hexanone	(2)	10.540	43	5404095	250.029
107) Dibromochloromethane	(2)	10.686	129	1286227	26.933
108) 1,2-Dibromoethane	(2)	10.796	107	894707	25.865

* = Compound is an internal standard.

RAD11 0138

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:07 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.229	117	1825760	10.000
110) Chlorobenzene	(2)	11.253	112	4370881	24.329
111) 1,1,1,2-Tetrachloroethane	(2)	11.326	131	1566101	25.378
112) Ethylbenzene	(2)	11.351	91	7764835	26.425
113) m+p-Xylene	(2)	11.454	106	6256876	52.326
116) Xylene (Total)	(2)		106	9266688	79.130
117) o-Xylene	(2)	11.790	106	3009812	26.804
118) Styrene	(2)	11.802	104	4902430	28.406
119) Bromoform	(2)	11.960	173	714333	27.593
120) Isopropylbenzene	(2)	12.088	105	7799718	27.364
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	1032309M	25.184
126) Bromobenzene	(3)	12.345	156	1987821	25.085
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	3015279	250.014
128) 1,2,3-Trichloropropane	(3)	12.357	110	330578	24.602
132) n-Propylbenzene	(3)	12.412	91	9506138	26.470
133) 2-Chlorotoluene	(3)	12.491	126	1978959	25.371
135) 4-Chlorotoluene	(3)	12.570	126	2067374	25.263
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	7157036	26.920
137) Pentachloroethane	(3)	12.820	167	1442425	26.528
136) tert-Butylbenzene	(3)	12.796	134	1632863	26.727
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	7532516	26.986
139) sec-Butylbenzene	(3)	12.954	105	8976318	26.870
140) 1,3-Dichlorobenzene	(3)	13.052	146	4179452	24.702
142) *1,4-Dichlorobenzene-d4	(3)	13.094	152	1125174	10.000
141) p-Isopropyltoluene	(3)	13.058	119	8300784	27.391
143) 1,4-Dichlorobenzene	(3)	13.113	146	4157086	23.954
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	3450350	25.643
145) Benzyl Chloride	(3)	13.204	126	570006	24.997
146) n-Butylbenzene	(3)	13.350	92	3904188	26.182
147) 1,2-Dichlorobenzene	(3)	13.387	146	3595816	24.066
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	156412	28.053
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	2676598	25.785
153) Hexachlorobutadiene	(3)	14.582	225	1341606	23.968
154) Naphthalene	(3)	14.655	128	4122905	24.884

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0131

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:07 Analyst ID: SEW02002

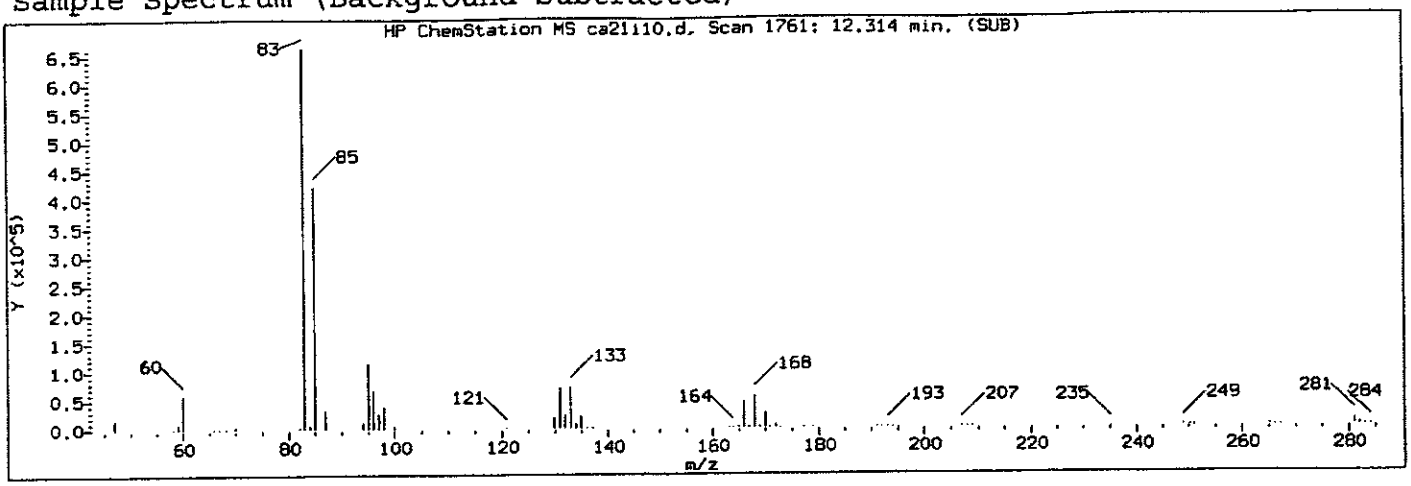
Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD025 Lab Sample ID: VSTD025

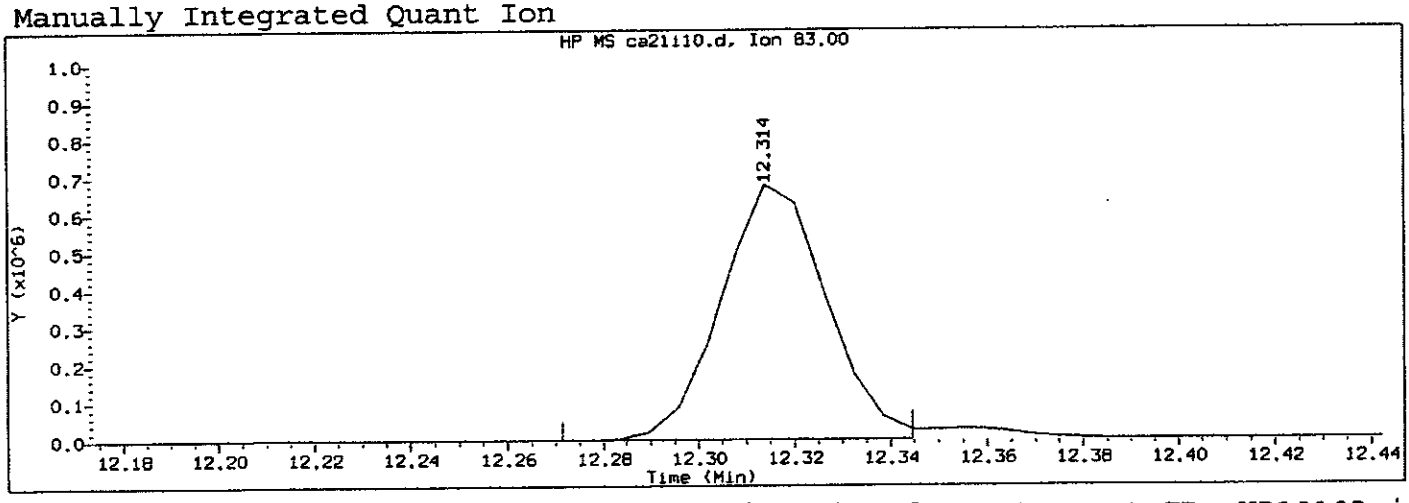
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.807	180	2090557	23.472
58)$Dibromofluoromethane	(1)	6.864	113	1526633	23.991
59)$Dibromofluoromethane(mz111)	(1)	6.864	111	1555073	24.063
69)$1,2-Dichloroethane-d4	(1)	7.327	102	272083	23.639
68)$1,2-Dichloroethane-d4(mz104)	(1)	7.327	104	172349	23.851
95)$Toluene-d8	(2)	9.796	98	6285059	24.314
96)$Toluene-d8(mz100)	(2)	9.796	100	3990337	24.213
123)$4-Bromofluorobenzene	(2)	12.217	95	2381342	24.929
124)$4-Bromofluorobenzene(mz174)	(2)	12.217	174	2145217	24.302

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:07 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	:	125
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1761
Retention Time (minutes)	:	12.314
Quant Ion	:	83
Area (flag)	:	1032309 M
Concentration (ug/L)	:	25.1845
Integration start scan	:	1753 Integration stop scan: 1765
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak (improper integration)

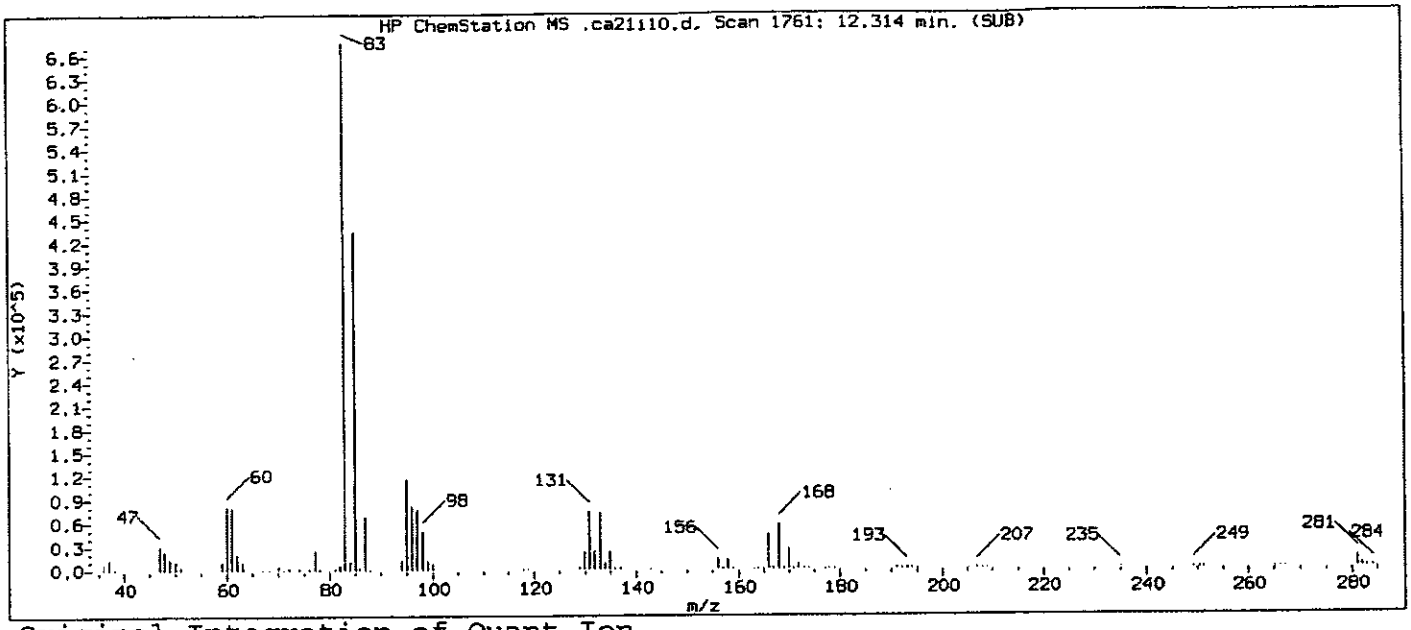
Analyst responsible for change: ADS1731 4/22/09

GC/MS audit/management approval: 4/22/09

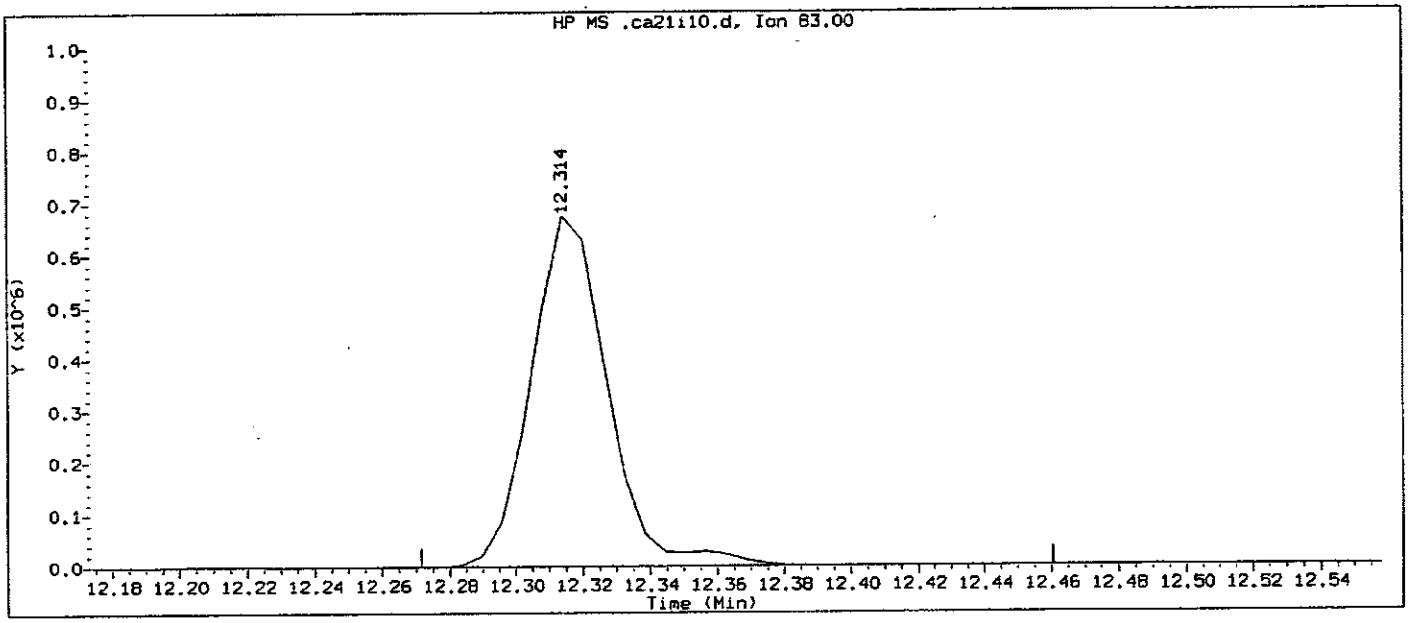
BAD11 8133

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i10.d, generated on 04/22/2009 at 14:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:07 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:24
Date, time and analyst ID of latest file update: 21-Apr-2009 20:24 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area : 1067090
Concentration (ug/L) : 24.5918
Integration start scan : 1753 Integration stop scan: 1784
Y at integration start : 0 Y at integration end: 0

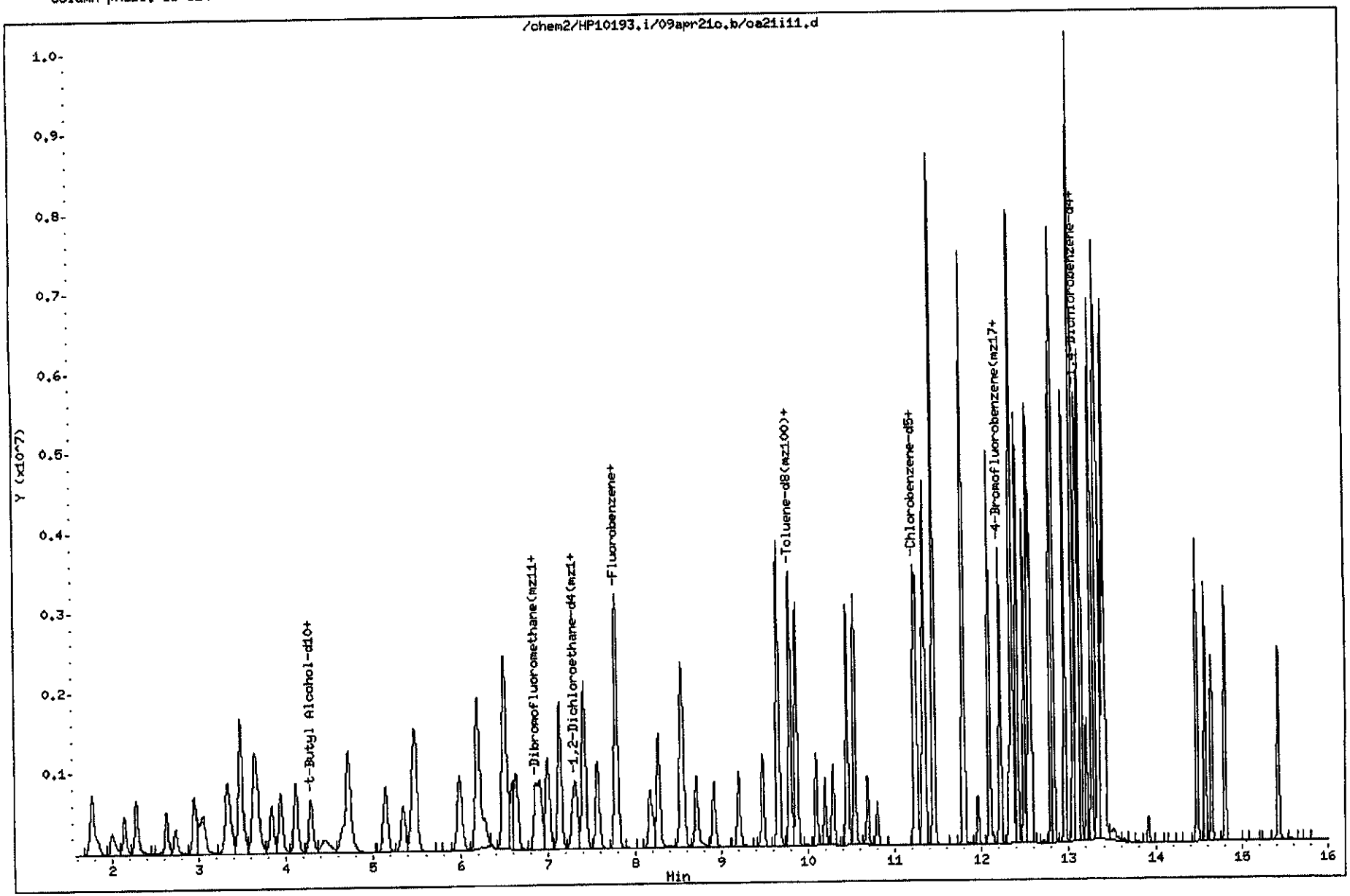
RAD11 8134

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i10.d, generated on 04/22/2009 at 14:46

Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d
Date : 21-APR-2009 20:28
Client ID: VSTD010
Sample Info: VSTD010;VSTD010;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.993	85	708847	9.761
4) Chloromethane	(1)	2.139	50	659168	9.681
6) Vinyl Chloride	(1)	2.280	62	675358	9.737
8) Bromomethane	(1)	2.621	94	486430	9.415
9) Chloroethane	(1)	2.731	64	389326	9.570
11) Dichlorofluoromethane	(1)	2.944	67	1093230	9.646
12) Trichlorofluoromethane	(1)	3.042	101	1086416	9.732
15) Ethyl Ether	(1)	3.322	59	388437	9.640
16) Freon 123a	(1)	3.346	67	653593	9.384
18) Acrolein	(4)	3.481	56	2605679	472.458
19) 1,1-Dichloroethene	(1)	3.633	96	457683	9.584
20) Freon 113	(1)	3.657	101	546030	9.698
23) Acetone	(4)	3.670	58	231331M	92.282
26) Methyl Iodide	(1)	3.834	142	910229	9.651
27) Carbon Disulfide	(1)	3.938	76	1568830	9.669
29) Allyl Chloride	(1)	4.108	41	843314	10.123
30) Methyl Acetate	(1)	4.121	43	188289	9.262
32) Methylene Chloride	(1)	4.285	84	515115	9.171
33)*t-Butyl Alcohol-d10	(4)	4.328	65	124427	50.000
35) t-Butyl Alcohol	(4)	4.450	59	574261	189.674
36) Acrylonitrile	(4)	4.645	53	472146	47.968
37) trans-1,2-Dichloroethene	(1)	4.712	96	542510	9.701
40) 1,2-Dichloroethene (Total)	(1)		96	1132328	19.609
38) Methyl Tertiary Butyl Ether	(1)	4.718	73	1166705	10.247
41) n-Hexane	(1)	5.145	57	703661	10.573
44) 1,1-Dichloroethane	(1)	5.346	63	905802	9.676
46) di-Isopropyl Ether	(1)	5.462	45	1631084	10.465
47) 2-Chloro-1,3-Butadiene	(1)	5.486	53	828425	10.466
48) Ethyl t-Butyl Ether	(1)	5.992	59	1422133	10.622
51) 2,2-Dichloropropane	(1)	6.206	77	816132	9.999
49) cis-1,2-Dichloroethene	(1)	6.193	96	589818	9.908
50) 2-Butanone	(4)	6.200	43	1211737	98.156
52) Propionitrile	(4)	6.285	54	733433	189.529
53) Methacrylonitrile	(4)	6.504	67	1230490	98.107

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0136

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	289029	9.703
55) Tetrahydrofuran	(4)	6.596	71	338904	96.642
56) Chloroform	(1)	6.645	83	988304	9.688
60) 1,1,1-Trichloroethane	(1)	6.913	97	920271	9.842
61) Cyclohexane	(1)	6.998	56	896230	10.606
63) 1,1-Dichloropropene	(1)	7.138	75	747950	10.065
64) Carbon Tetrachloride	(1)	7.144	117	848259	9.928
66) Isobutyl Alcohol	(4)	7.285	41	509462	485.266
70) Benzene	(1)	7.413	78	2236544	9.744
72) 1,2-Dichloroethane	(1)	7.425	62	595804	9.857
71) 1,2-Dichloroethane(mz98)	(1)	7.425	98	51572	9.506
74) t-Amyl Methyl Ether	(1)	7.571	73	1249687	10.617
75) *Fluorobenzene	(1)	7.785	96	2467700	10.000
76) n-Heptane	(1)	7.791	43	788619	10.247
79) n-Butanol	(4)	8.175	56	836131	1061.470
80) Trichloroethene	(1)	8.272	95	616870	9.819
82) Methylcyclohexane	(1)	8.541	83	1058025	10.693
83) 1,2-Dichloropropane	(1)	8.565	63	529431	9.839
85) Dibromomethane	(1)	8.711	93	249619	9.796
87) 1,4-Dioxane	(4)	8.754	88	133112	544.432
86) Methyl Methacrylate	(4)	8.717	69	206387	10.429
88) Bromodichloromethane	(1)	8.918	83	678059	10.025
91) 2-Nitropropane	(4)	9.205	41	778920	102.981
93) cis-1,3-Dichloropropene	(1)	9.479	75	765576	10.517
94) 4-Methyl-2-Pentanone	(1)	9.656	43	3084976	99.870
97) Toluene	(2)	9.870	92	1501643	10.015
100) trans-1,3-Dichloropropene	(2)	10.095	75	657103	10.570
102) Ethyl Methacrylate	(2)	10.193	69	448474	10.076
103) 1,1,2-Trichloroethane	(2)	10.284	97	358182	9.825
104) Tetrachloroethene	(2)	10.449	166	723206	9.596
105) 1,3-Dichloropropane	(2)	10.461	76	604676	10.013
106) 2-Hexanone	(2)	10.534	43	2136395	100.027
107) Dibromochloromethane	(2)	10.686	129	497250	10.303
108) 1,2-Dibromoethane	(2)	10.796	107	350429	10.024

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109)*Chlorobenzene-d5	(2)	11.229	117	1845067	10.000
110) Chlorobenzene	(2)	11.253	112	1749654	9.637
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	621175	9.961
112) Ethylbenzene	(2)	11.351	91	3048966	10.268
113) m+p-Xylene	(2)	11.448	106	2464928	20.398
116) Xylene (Total)	(2)		106	3642339	30.774
117) o-Xylene	(2)	11.790	106	1177411	10.376
118) Styrene	(2)	11.796	104	1889227	10.832
119) Bromoform	(2)	11.961	173	274473	10.491
120) Isopropylbenzene	(2)	12.089	105	3059942	10.623
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	415027M	9.956
126) Bromobenzene	(3)	12.345	156	789057	9.791
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	1083813	100.012
128) 1,2,3-Trichloropropane	(3)	12.357	110	132446	9.693
132) n-Propylbenzene	(3)	12.412	91	3750492	10.269
133) 2-Chlorotoluene	(3)	12.491	126	789305	9.950
135) 4-Chlorotoluene	(3)	12.570	126	821169	9.867
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	2809422	10.391
137) Pentachloroethane	(3)	12.820	167	563694	10.194
136) tert-Butylbenzene	(3)	12.796	134	642985	10.349
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	2934151	10.337
139) sec-Butylbenzene	(3)	12.954	105	3533299	10.400
140) 1,3-Dichlorobenzene	(3)	13.052	146	1686166	9.800
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	1144234	10.000
141) p-Isopropyltoluene	(3)	13.052	119	3233191	10.491
143) 1,4-Dichlorobenzene	(3)	13.113	146	1686287	9.555
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	1382387	10.103
145) Benzyl Chloride	(3)	13.204	126	217824	10.051
146) n-Butylbenzene	(3)	13.351	92	1540892	10.161
147) 1,2-Dichlorobenzene	(3)	13.387	146	1472489	9.691
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	61949	10.146
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	1092318	10.348
153) Hexachlorobutadiene	(3)	14.582	225	559287	9.825
154) Naphthalene	(3)	14.655	128	1739244	10.364

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8138

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

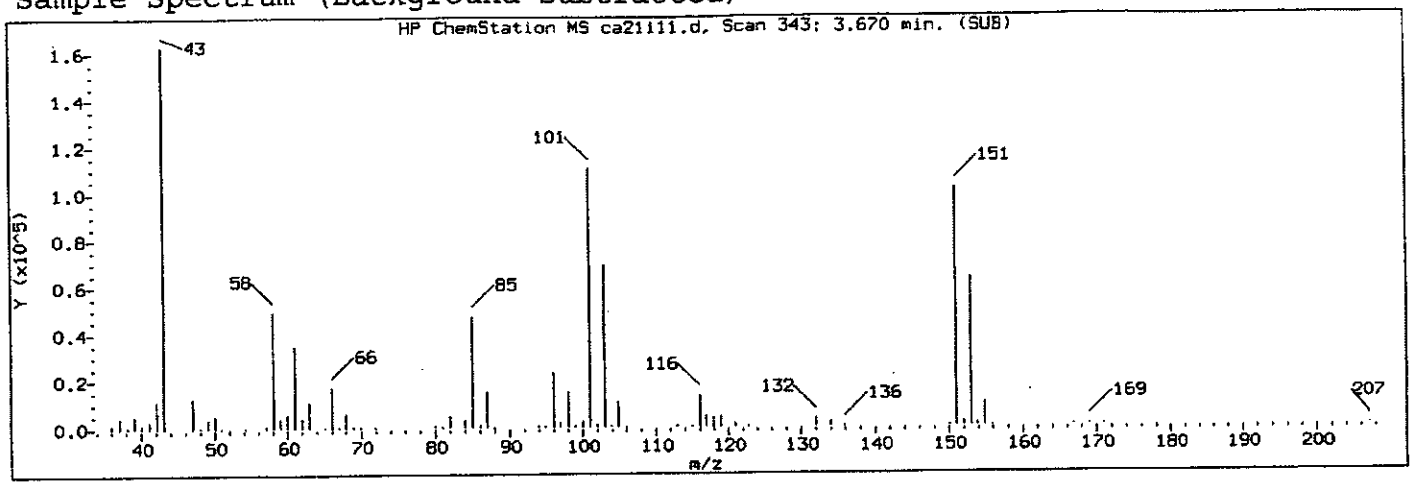
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	930221	10.270
58)$Dibromofluoromethane	(1)	6.864	113	671912	10.333
59)$Dibromofluoromethane(mz111)	(1)	6.864	111	686978	10.402
69)$1,2-Dichloroethane-d4	(1)	7.327	102	118288	10.057
68)$1,2-Dichloroethane-d4(mz104)	(1)	7.327	104	74929	10.147
95)$Toluene-d8	(2)	9.796	98	2758371	10.559
96)$Toluene-d8(mz100)	(2)	9.796	100	1752581	10.523
123)$4-Bromofluorobenzene	(2)	12.217	95	1134393M	11.751
124)$4-Bromofluorobenzene(mz174)	(2)	12.217	174	1034257	11.594

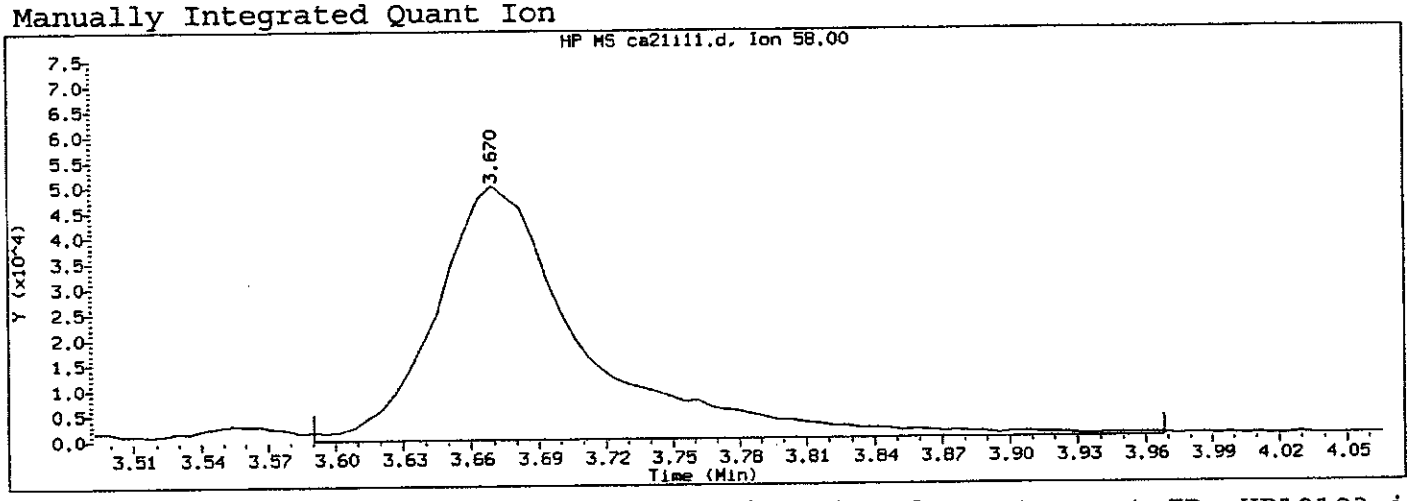
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	23
Compound Name	:	Acetone
Scan Number	:	343
Retention Time (minutes)	:	3.670
Quant Ion	:	58
Area (flag)	:	231331 M
Concentration (ug/L)	:	100.0000
Integration start scan	:	329 Integration stop scan: 391
Y at integration start	:	0 Y at integration end: 0

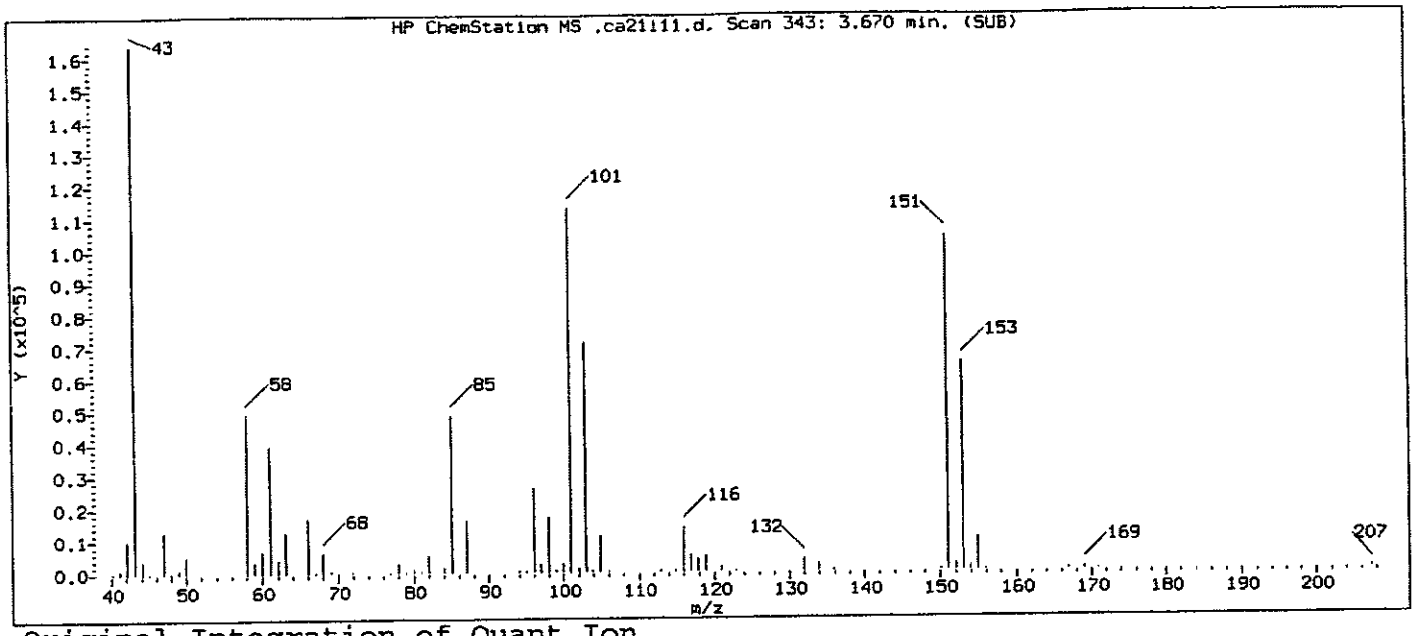
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: MW 4/22/09

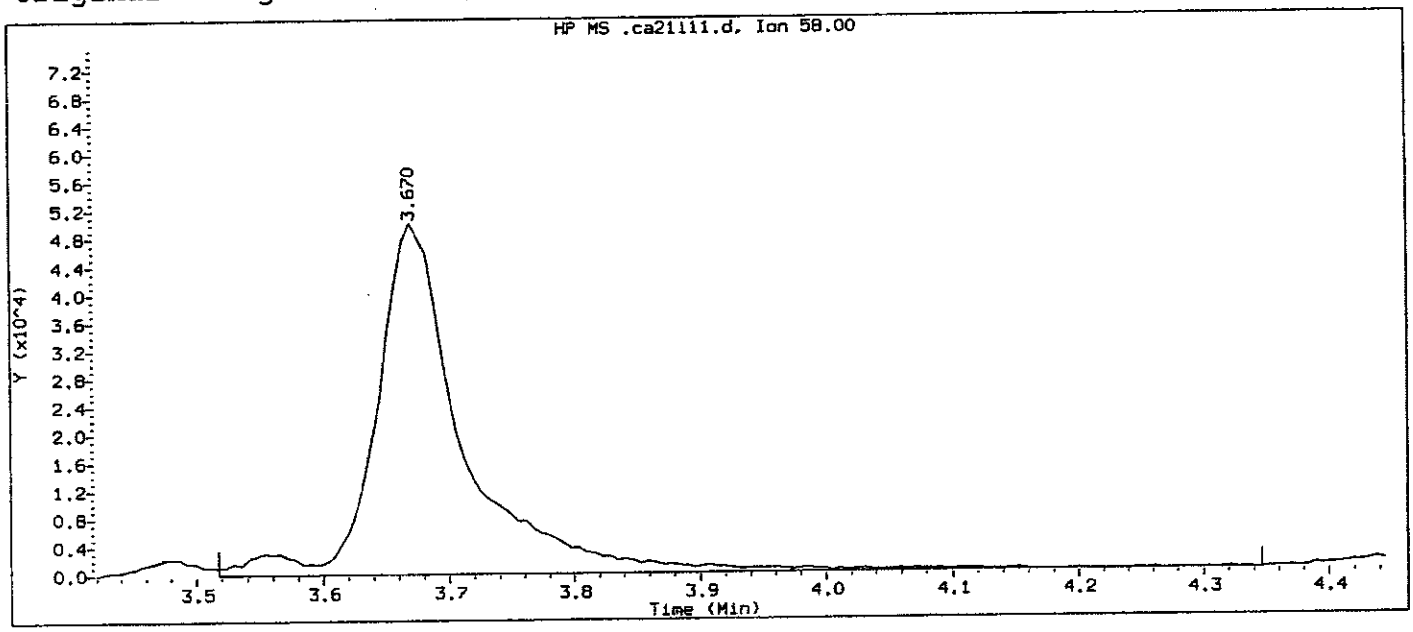
GC/MS audit/management approval: 4/22/09

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i11.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:46
Date, time and analyst ID of latest file update: 21-Apr-2009 20:46 Automation

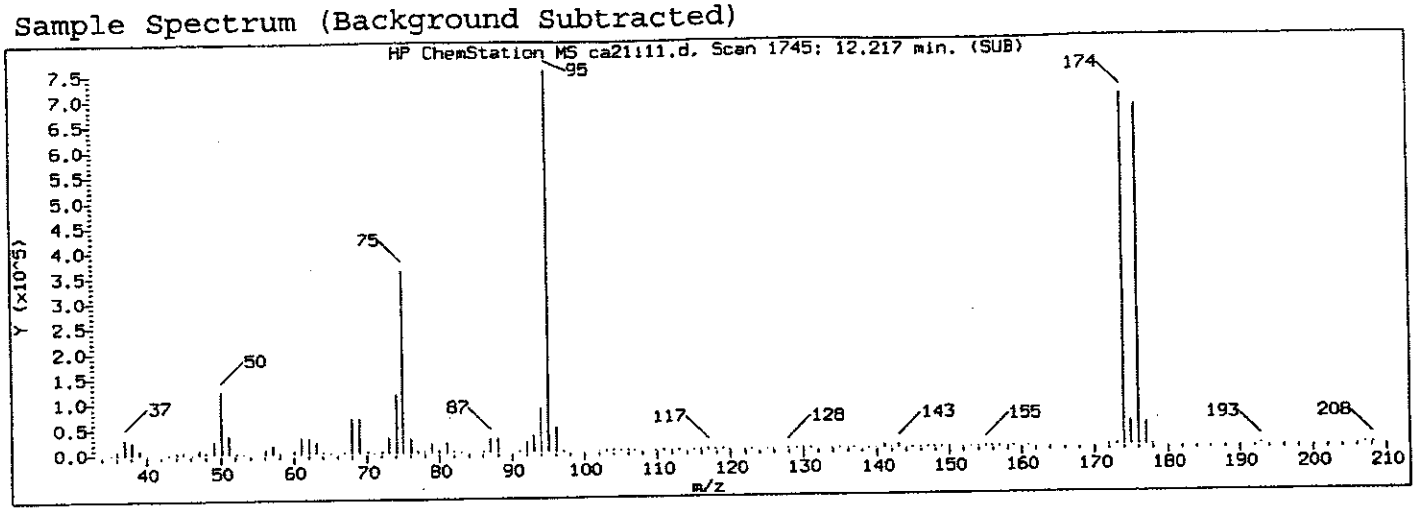
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	23
Compound Name	:	Acetone
Scan Number	:	343
Retention Time (minutes)	:	3.670
Quant Ion	:	58
Area	:	244390
Concentration (ug/L)	:	100.0000
Integration start scan	:	317 Integration stop scan: 453
Y at integration start	:	0 Y at integration end: 0

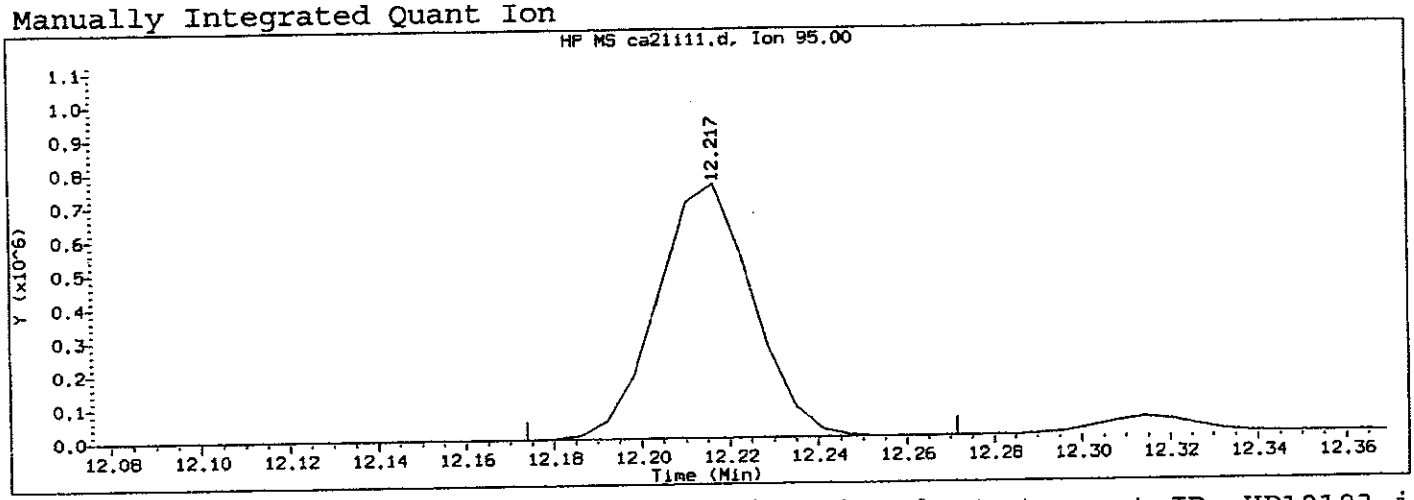
RAD11 8141

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i11.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	123
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1745
Retention Time (minutes)	:	12.217
Quant Ion	:	95
Area (flag)	:	1134393 M
Concentration (ug/L)	:	10.0000
Integration start scan	:	1737 Integration stop scan: 1753
Y at integration start	:	0 Y at integration end: 0

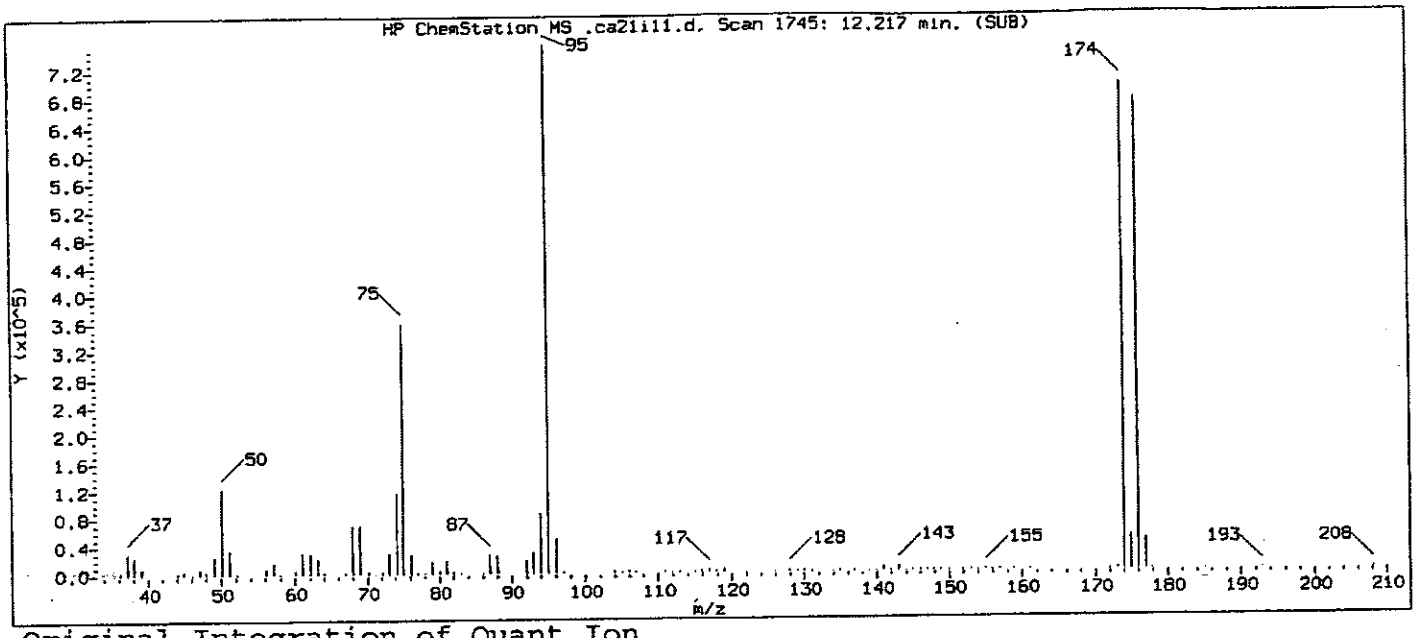
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: _____ 4/22/09

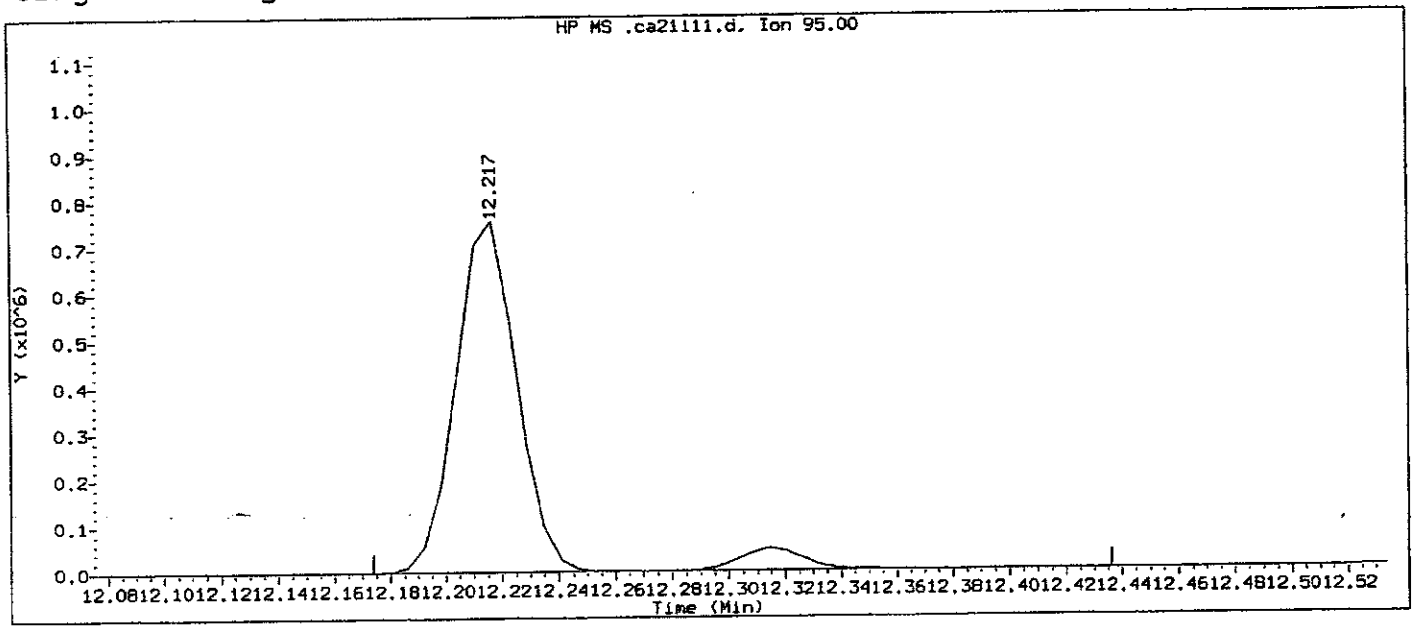
GC/MS audit/management approval: _____ 4/22/09

RAD11 0142

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:46
Date, time and analyst ID of latest file update: 21-Apr-2009 20:46 Automation

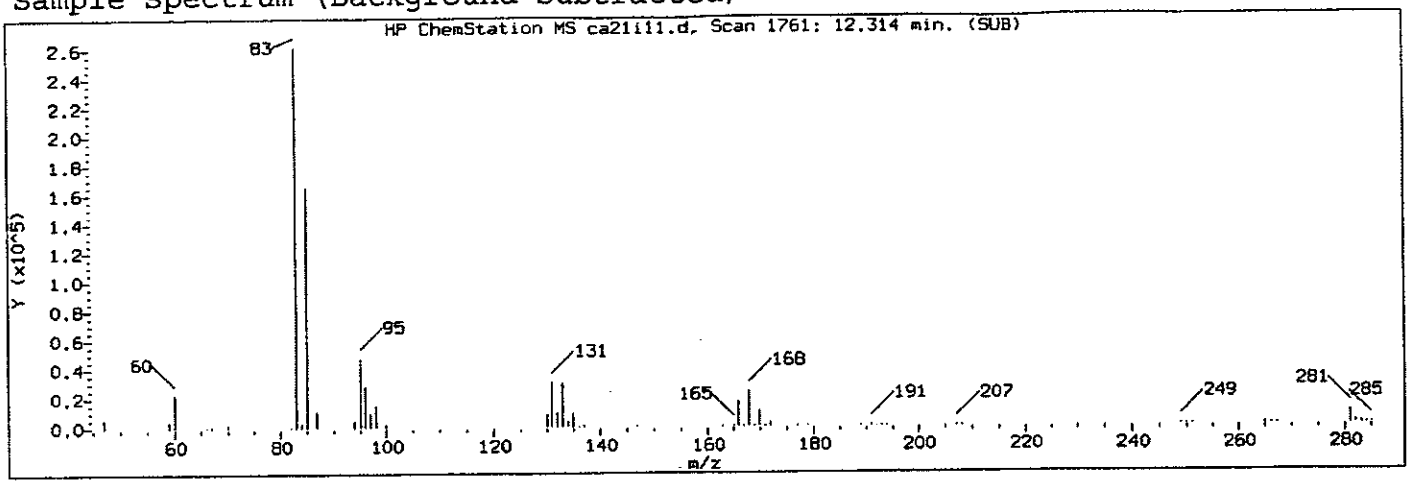
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	123
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1745
Retention Time (minutes)	:	12.217
Quant Ion	:	95
Area	:	1212493
Concentration (ug/L)	:	10.0000
Integration start scan	:	1737 Integration stop scan: 1780
Y at integration start	:	0 Y at integration end: 0

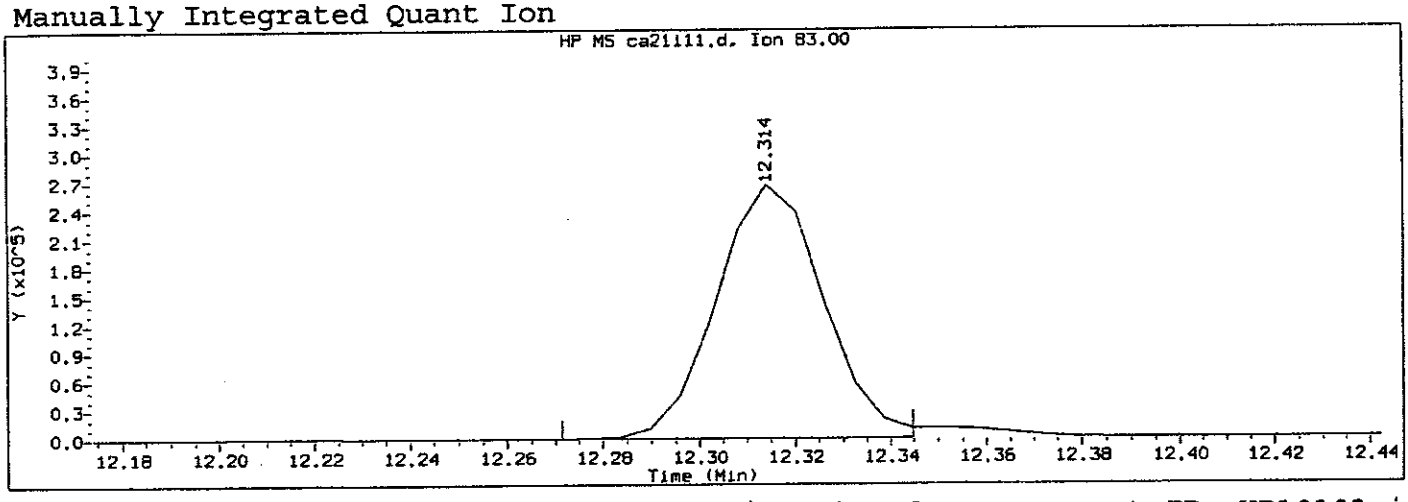
RAD11 0143

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i11.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	:	125
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1761
Retention Time (minutes)	:	12.314
Quant Ion	:	83
Area (flag)	:	415027 M
Concentration (ug/L)	:	9.9565
Integration start scan	:	1753 Integration stop scan: 1765
Y at integration start	:	0 Y at integration end: 0

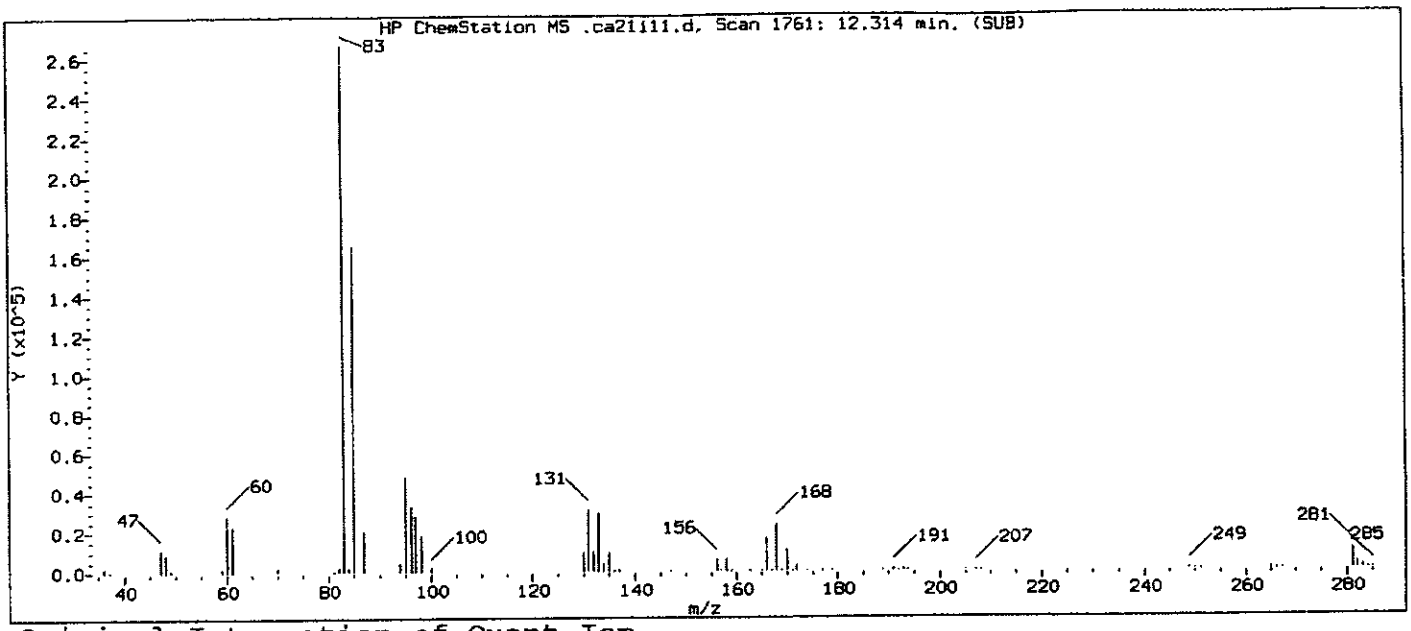
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: ADS1731 4/22/09

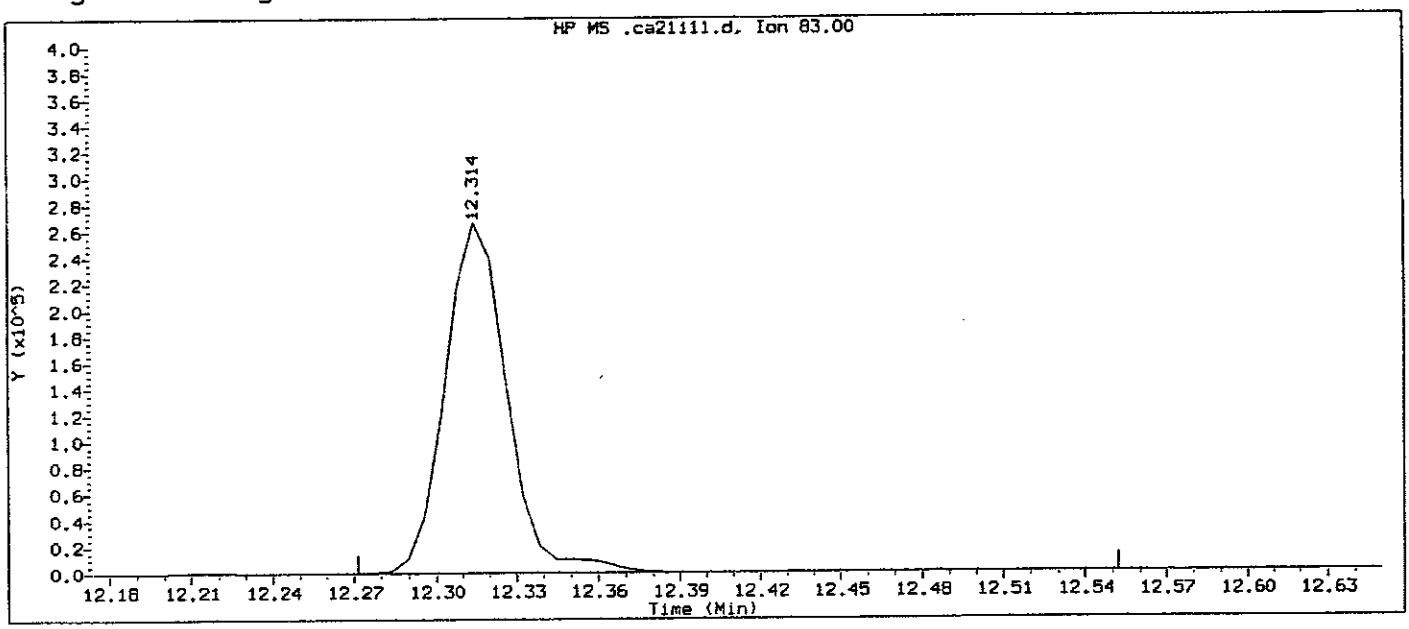
GC/MS audit/management approval: [signature] 4-22-09

RAD11 0144

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i11.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:46
Date, time and analyst ID of latest file update: 21-Apr-2009 20:46 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area : 427300
Concentration (ug/L) : 10.0000
Integration start scan : 1753 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

RAD11 8145

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i11.d, generated on 04/22/2009 at 14:46

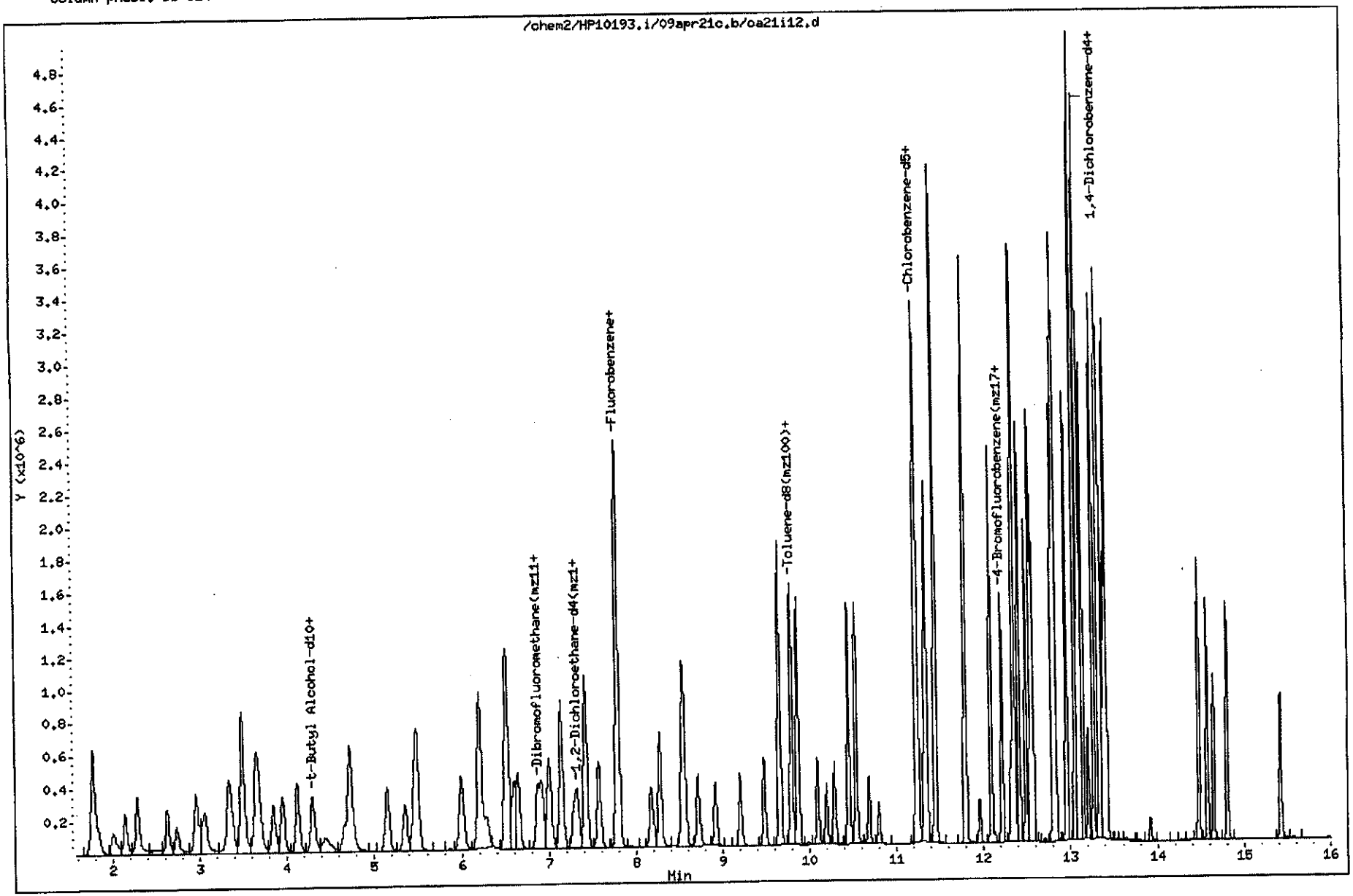
4/21/09

Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d
Date : 21-APR-2009 20:50
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002
Column diameter: 0.25

IND11@546



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	353799	4.927
4) Chloromethane	(1)	2.139	50	328688	4.883
6) Vinyl Chloride	(1)	2.280	62	334045	4.871
8) Bromomethane	(1)	2.627	94	250167	4.897
9) Chloroethane	(1)	2.737	64	195421	4.859
11) Dichlorofluoromethane	(1)	2.956	67	549352	4.902
12) Trichlorofluoromethane	(1)	3.060	101	545346	4.941
15) Ethyl Ether	(1)	3.328	59	206627	5.187
16) Freon 123a	(1)	3.353	67	344860	5.008
18) Acrolein	(4)	3.487	56	1312630	244.188
19) 1,1-Dichloroethene	(1)	3.645	96	229180	4.854
20) Freon 113	(1)	3.670	101	271803	4.883
23) Acetone	(4)	3.682	58	115918	47.443
26) Methyl Iodide	(1)	3.846	142	460049	4.933
27) Carbon Disulfide	(1)	3.950	76	777321	4.846
29) Allyl Chloride	(1)	4.121	41	415987	5.051
30) Methyl Acetate	(1)	4.133	43	96415	4.797
32) Methylene Chloride	(1)	4.298	84	265880	4.788
33)*t-Butyl Alcohol-d10	(4)	4.328	65	121276	50.000
35) t-Butyl Alcohol	(4)	4.450	59	272100	92.208
36) Acrylonitrile	(4)	4.657	53	233443	24.333
37) trans-1,2-Dichloroethene	(1)	4.724	96	273795	4.952
40) 1,2-Dichloroethene (Total)	(1)		96	567619	9.944
38) Methyl Tertiary Butyl Ether	(1)	4.724	73	571339	5.075
41) n-Hexane	(1)	5.151	57	334705	5.086
44) 1,1-Dichloroethane	(1)	5.352	63	457915	4.948
46) di-Isopropyl Ether	(1)	5.468	45	793129	5.147
47) 2-Chloro-1,3-Butadiene	(1)	5.492	53	399982	5.111
48) Ethyl t-Butyl Ether	(1)	5.998	59	689196	5.206
51) 2,2-Dichloropropane	(1)	6.212	77	399395	4.949
49) cis-1,2-Dichloroethene	(1)	6.200	96	293824	4.992
50) 2-Butanone	(4)	6.206	43	589549	48.997
52) Propionitrile	(4)	6.291	54	360029	95.454
53) Methacrylonitrile	(4)	6.511	67	613762	50.207

* = Compound is an internal standard.

RAD11 8147

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.535	128	147517	5.009
55) Tetrahydrofuran	(4)	6.602	71	167327	48.955
56) Chloroform	(1)	6.651	83	495730	4.915
60) 1,1,1-Trichloroethane	(1)	6.919	97	456359	4.936
61) Cyclohexane	(1)	7.004	56	428078	5.123
63) 1,1-Dichloropropene	(1)	7.138	75	370425	5.042
64) Carbon Tetrachloride	(1)	7.151	117	416989	4.936
66) Isobutyl Alcohol	(4)	7.291	41	233476	228.166
70) Benzene	(1)	7.419	78	1119350	4.933
72) 1,2-Dichloroethane	(1)	7.431	62	295914	4.952
71) 1,2-Dichloroethane(mz98)	(1)	7.431	98	26574	4.954
74) t-Amyl Methyl Ether	(1)	7.577	73	606580	5.212
75)*Fluorobenzene	(1)	7.791	96	2439874	10.000
76) n-Heptane	(1)	7.791	43	364410	4.789
79) n-Butanol	(4)	8.175	56	364679	474.989
80) Trichloroethene	(1)	8.278	95	305998	4.926
82) Methylcyclohexane	(1)	8.541	83	515596	5.270
83) 1,2-Dichloropropane	(1)	8.565	63	263738	4.957
85) Dibromomethane	(1)	8.711	93	124152	4.928
87) 1,4-Dioxane	(4)	8.742	88	52816	221.632
86) Methyl Methacrylate	(4)	8.724	69	95766	4.965
88) Bromodichloromethane	(1)	8.919	83	332315	4.969
91) 2-Nitropropane	(4)	9.205	41	369177	50.077
93) cis-1,3-Dichloropropene	(1)	9.479	75	369416	5.133
94) 4-Methyl-2-Pentanone	(1)	9.662	43	1466452	48.672
97) Toluene	(2)	9.870	92	750404	5.060
100) trans-1,3-Dichloropropene	(2)	10.095	75	312023	5.074
102) Ethyl Methacrylate	(2)	10.199	69	202490	4.815
103) 1,1,2-Trichloroethane	(2)	10.290	97	177497	4.923
104) Tetrachloroethene	(2)	10.449	166	365268	4.900
105) 1,3-Dichloropropane	(2)	10.461	76	296998	4.972
106) 2-Hexanone	(2)	10.534	43	1004154	48.180
107) Dibromochloromethane	(2)	10.687	129	237335	4.972
108) 1,2-Dibromoethane	(2)	10.796	107	171700	4.966

* = Compound is an internal standard.

RAD11 8148

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.229	117	1824982	10.000
110) Chlorobenzene	(2)	11.254	112	872800	4.860
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	303482	4.920
112) Ethylbenzene	(2)	11.351	91	1472791	5.014
113) m+p-Xylene	(2)	11.449	106	1211896	10.139
116) Xylene (Total)	(2)		106	1789012	15.281
117) o-Xylene	(2)	11.790	106	577116	5.142
118) Styrene	(2)	11.796	104	896000	5.194
119) Bromoform	(2)	11.961	173	126690	4.896
120) Isopropylbenzene	(2)	12.089	105	1471902	5.166
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	199589M	4.894
126) Bromobenzene	(3)	12.345	156	390428	4.952
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	489536	48.764
128) 1,2,3-Trichloropropane	(3)	12.357	110	65247	4.881
132) n-Propylbenzene	(3)	12.412	91	1807989	5.060
133) 2-Chlorotoluene	(3)	12.491	126	388235	5.003
135) 4-Chlorotoluene	(3)	12.570	126	403912	4.961
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	1349752	5.103
137) Pentachloroethane	(3)	12.820	167	275776	5.098
136) tert-Butylbenzene	(3)	12.796	134	311309	5.122
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	1416243	5.100
139) sec-Butylbenzene	(3)	12.954	105	1688707	5.081
140) 1,3-Dichlorobenzene	(3)	13.052	146	818367	4.862
142) *1,4-Dichlorobenzene-d4	(3)	13.095	152	1119465	10.000
141) p-Isopropyltoluene	(3)	13.052	119	1535508	5.093
143) 1,4-Dichlorobenzene	(3)	13.113	146	832680	4.823
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	686360	5.127
145) Benzyl Chloride	(3)	13.204	126	98537	4.795
146) n-Butylbenzene	(3)	13.345	92	735722	4.959
147) 1,2-Dichlorobenzene	(3)	13.387	146	721383	4.853
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	27712	4.656
152) 1,2,4-Trichlorobenzene	(3)	14.479	180	502299	4.864
153) Hexachlorobutadiene	(3)	14.582	225	261052	4.687
154) Naphthalene	(3)	14.655	128	773035	4.748

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0149

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

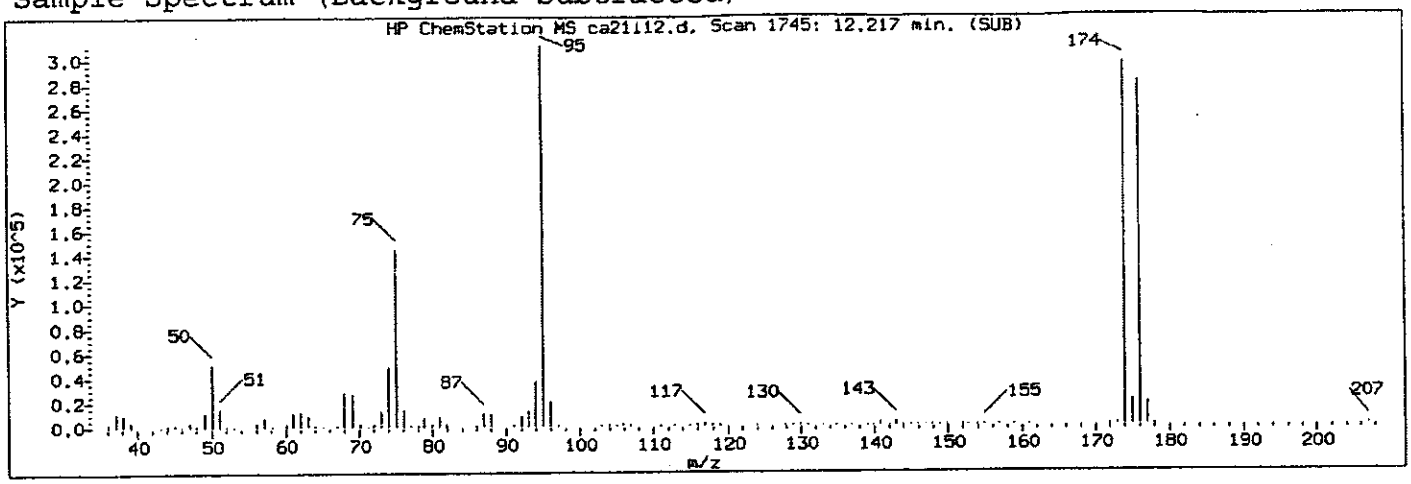
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	430764	4.861
58)$Dibromofluoromethane	(1)	6.870	113	312134	4.855
59)$Dibromofluoromethane(mz111)	(1)	6.870	111	317290	4.859
69)$1,2-Dichloroethane-d4	(1)	7.327	102	55201	4.747
68)$1,2-Dichloroethane-d4(mz104)	(1)	7.334	104	35857	4.911
95)$Toluene-d8	(2)	9.796	98	1284848	4.973
96)$Toluene-d8(mz100)	(2)	9.796	100	819722	4.976
123)$4-Bromofluorobenzene	(2)	12.217	95	459414M	4.811
124)$4-Bromofluorobenzene(mz174)	(2)	12.217	174	424533	4.811

M = Compound was manually integrated.

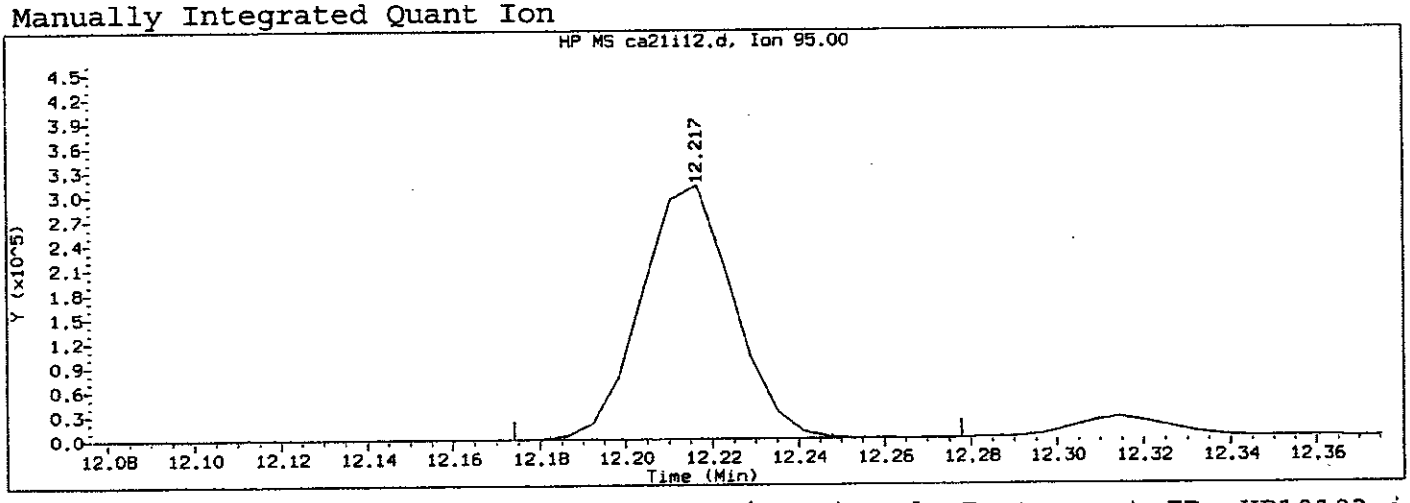
$ = Compound is a surrogate standard.

RAD11 0150

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	123
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1745
Retention Time (minutes)	:	12.217
Quant Ion	:	95
Area (flag)	:	459414 M
Concentration (ug/L)	:	4.5021
Integration start scan	:	1737 Integration stop scan: 1754
Y at integration start	:	0 Y at integration end: 0

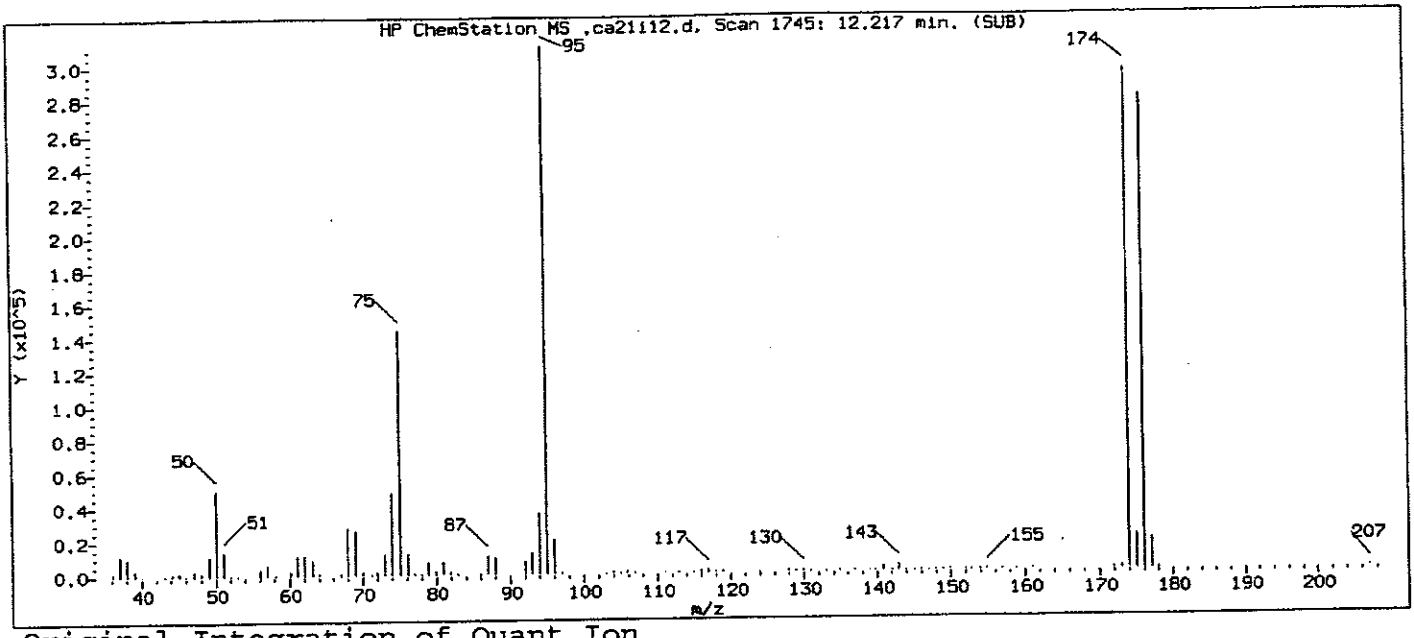
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: _____ 4/22/09

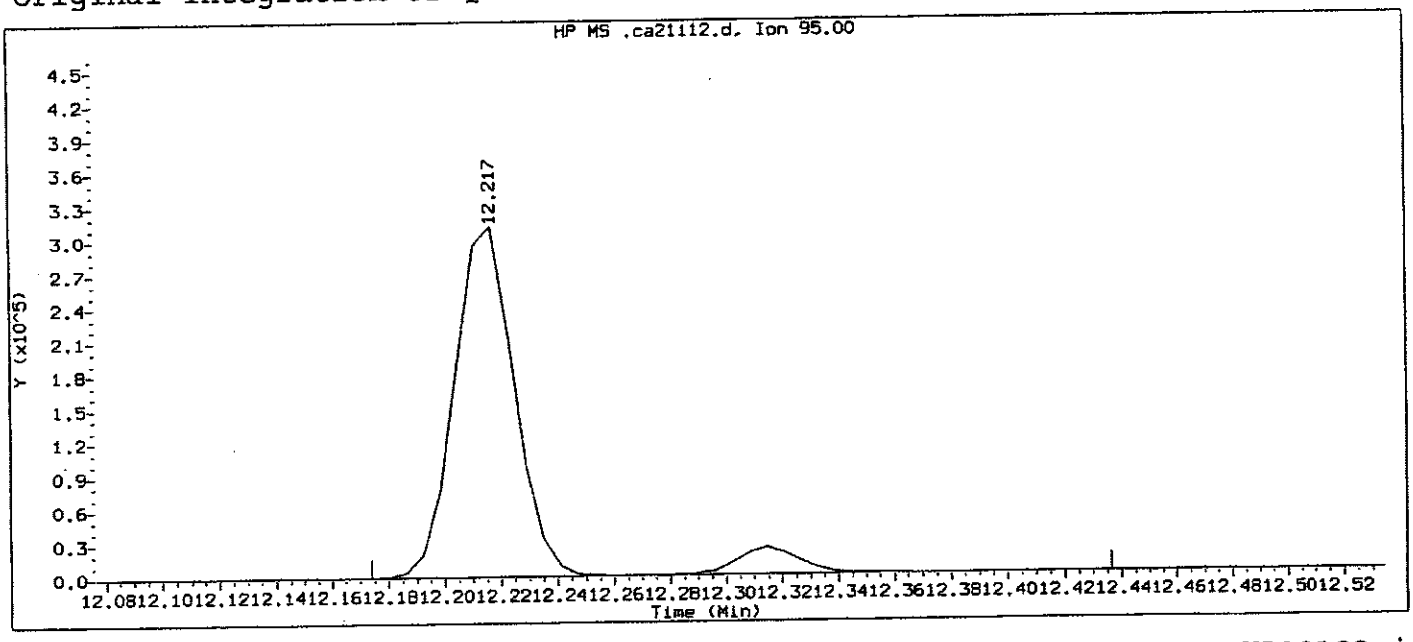
GC/MS audit/management approval: 4/22/09

RAD11 8151

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:08
Date, time and analyst ID of latest file update: 21-Apr-2009 21:08 Automation

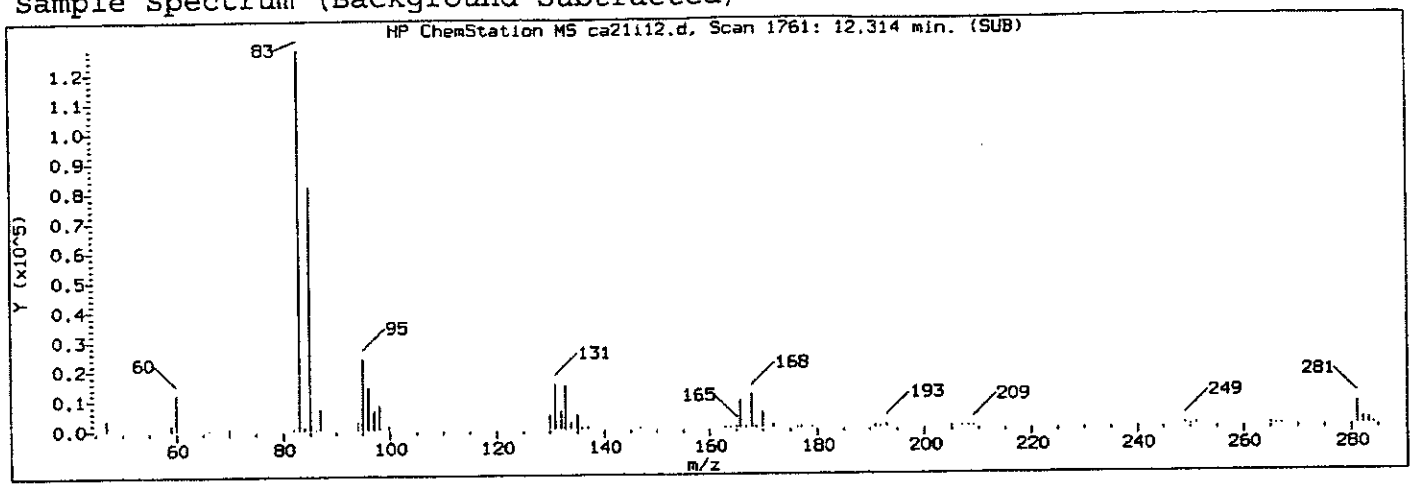
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	123
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1745
Retention Time (minutes)	:	12.217
Quant Ion	:	95
Area	:	497591
Concentration (ug/L)	:	4.7004
Integration start scan	:	1737 Integration stop scan: 1780
Y at integration start	:	0 Y at integration end: 0

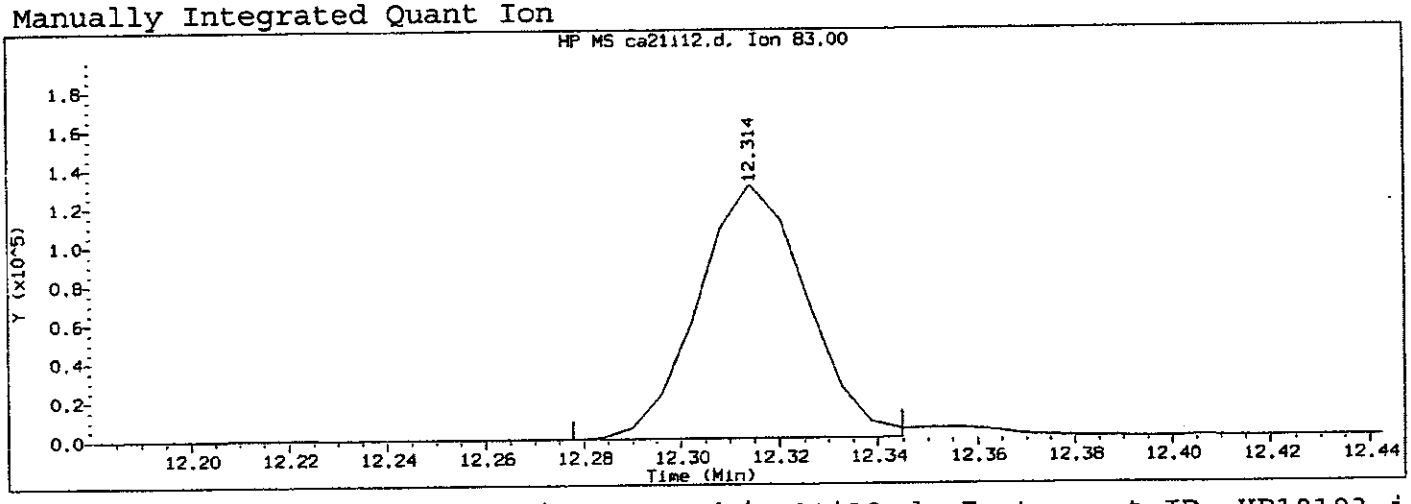
RAD11 8152

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i12.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	125
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1761
Retention Time (minutes)	:	12.314
Quant Ion	:	83
Area (flag)	:	199589 M
Concentration (ug/L)	:	4.8941
Integration start scan	:	1754 Integration stop scan: 1765
Y at integration start	:	0 Y at integration end: 0

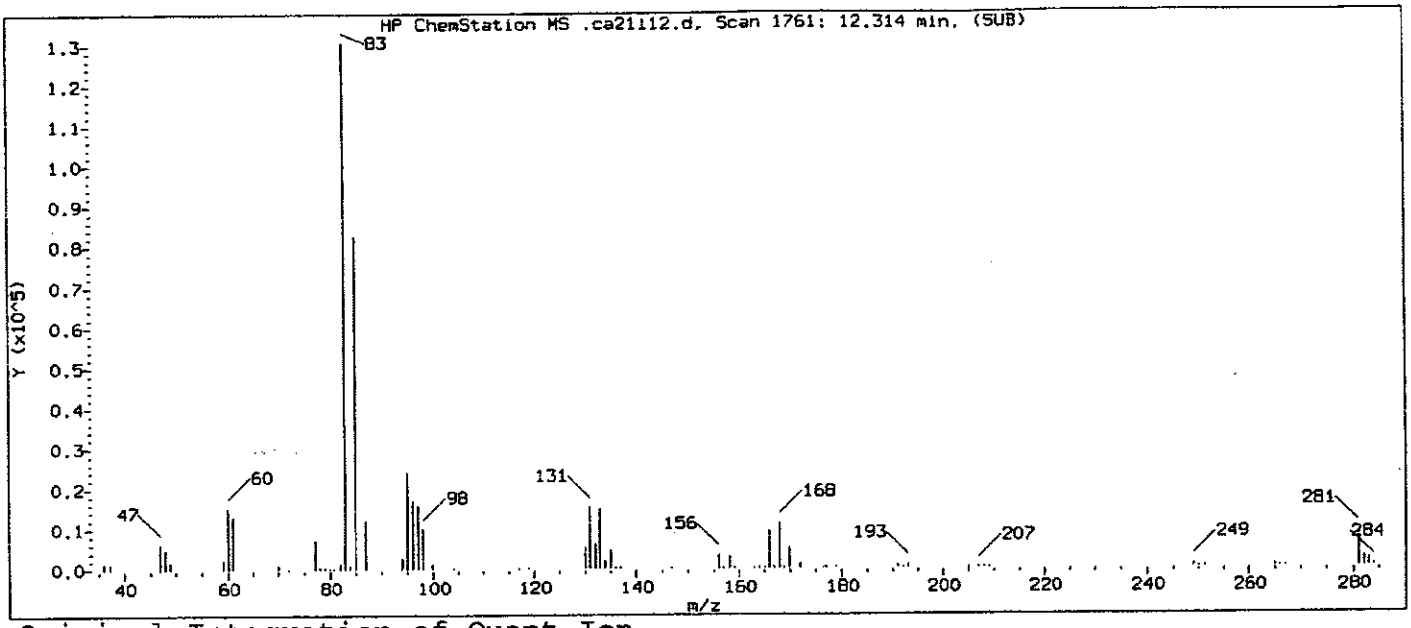
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: ADS1731 4/22/09

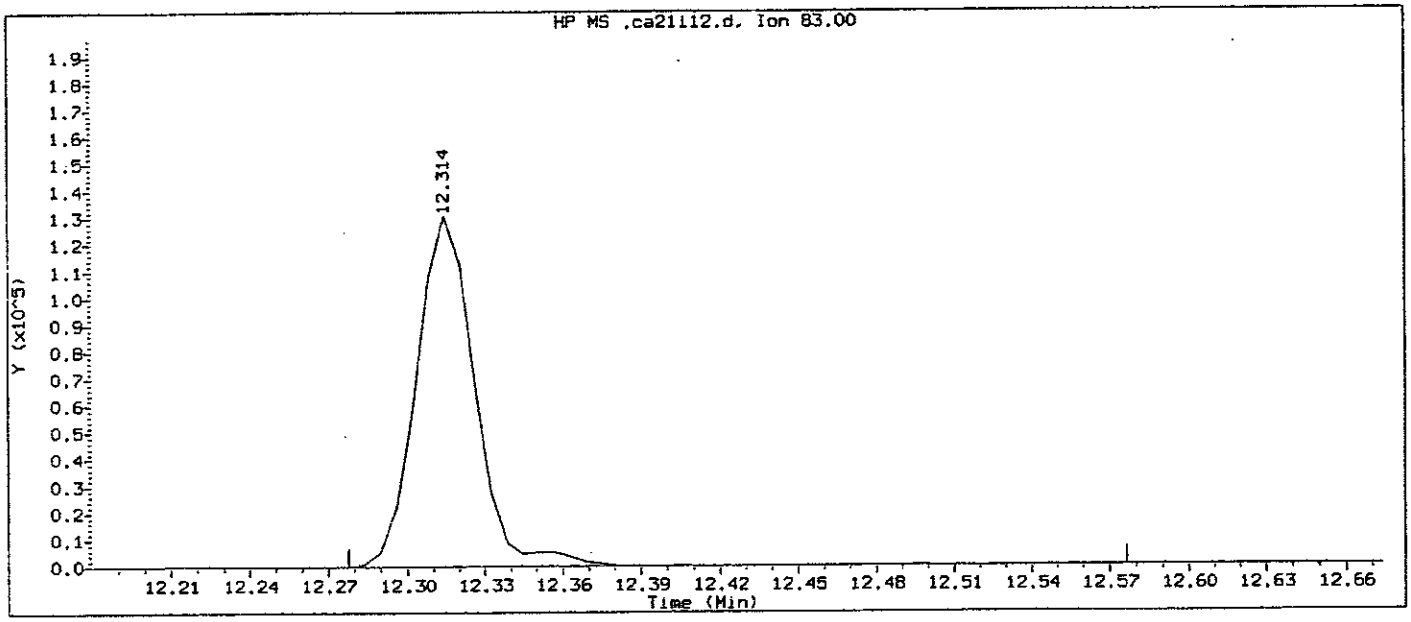
GC/MS audit/management approval: [signature] 4-22-09

BAD11 0153

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i12.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 20:50 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:08
Date, time and analyst ID of latest file update: 21-Apr-2009 21:08 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

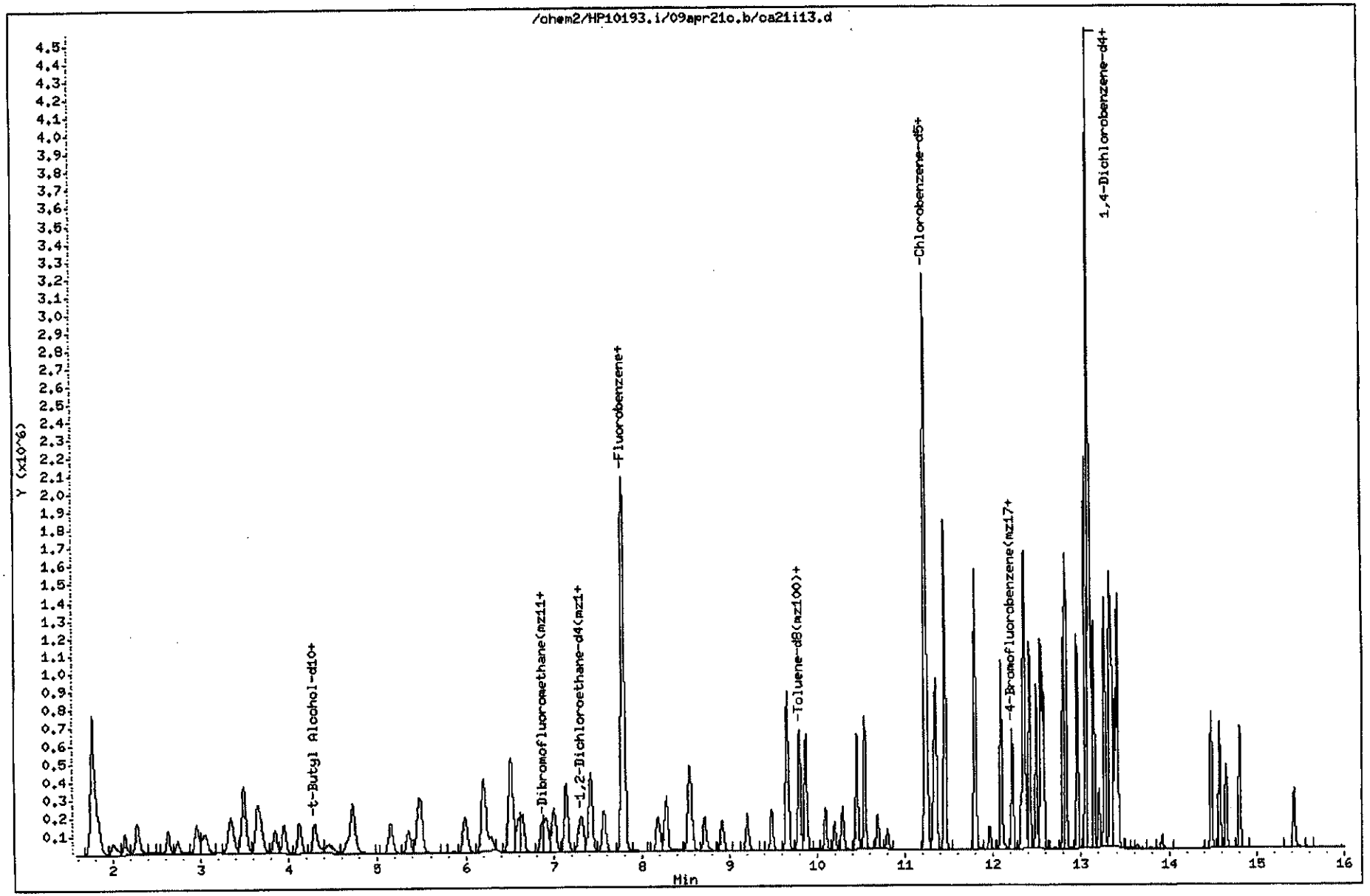
Compound Number	:	125
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1761
Retention Time (minutes)	:	12.314
Quant Ion	:	83
Area	:	205810
Concentration (ug/L)	:	4.9613
Integration start scan	:	1754 Integration stop scan: 1803
Y at integration start	:	0 Y at integration end: 0

RADII 8154

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i12.d, generated on 04/22/2009 at 14:46

Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d
Date : 21-APR-2009 21:11
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	152755	2.144
4) Chloromethane	(1)	2.133	50	141543	2.119
6) Vinyl Chloride	(1)	2.273	62	143899	2.115
8) Bromomethane	(1)	2.627	94	108401	2.138
9) Chloroethane	(1)	2.737	64	84865	2.126
11) Dichlorofluoromethane	(1)	2.950	67	234714	2.111
12) Trichlorofluoromethane	(1)	3.048	101	230839M	2.108
15) Ethyl Ether	(1)	3.328	59	81981	2.074
16) Freon 123a	(1)	3.346	67	139691	2.044
18) Acrolein	(4)	3.493	56	575927	107.076
19) 1,1-Dichloroethene	(1)	3.639	96	98917	2.111
20) Freon 113	(1)	3.670	101	118273	2.141
23) Acetone	(4)	3.682	58	54325M	22.221
26) Methyl Iodide	(1)	3.840	142	198571	2.146
27) Carbon Disulfide	(1)	3.944	76	339640	2.134
29) Allyl Chloride	(1)	4.115	41	168776	2.065
30) Methyl Acetate	(1)	4.133	43	41422	2.077
32) Methylene Chloride	(1)	4.291	84	116529	2.114
33)*t-Butyl Alcohol-d10	(4)	4.328	65	121348	50.000
35) t-Butyl Alcohol	(4)	4.450	59	144152	48.820
36) Acrylonitrile	(4)	4.657	53	103286	10.760
37) trans-1,2-Dichloroethene	(1)	4.724	96	116135	2.116
40) 1,2-Dichloroethene (Total)	(1)		96	242368	4.278
38) Methyl Tertiary Butyl Ether	(1)	4.736	73	242712	2.173
41) n-Hexane	(1)	5.151	57	137160	2.100
44) 1,1-Dichloroethane	(1)	5.352	63	196422	2.139
46) di-Isopropyl Ether	(1)	5.462	45	327227	2.140
47) 2-Chloro-1,3-Butadiene	(1)	5.492	53	163493	2.105
48) Ethyl t-Butyl Ether	(1)	5.998	59	281893	2.146
51) 2,2-Dichloropropane	(1)	6.206	77	170031	2.123
49) cis-1,2-Dichloroethene	(1)	6.200	96	126233	2.161
50) 2-Butanone	(4)	6.212	43	266243	22.114
52) Propionitrile	(4)	6.291	54	168063	44.532
53) Methacrylonitrile	(4)	6.510	67	266281	21.769

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0156

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21il3.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	61711	2.111
55) Tetrahydrofuran	(4)	6.602	71	73758	21.567
56) Chloroform	(1)	6.651	83	215550	2.154
60) 1,1,1-Trichloroethane	(1)	6.913	97	194464	2.120
61) Cyclohexane	(1)	6.998	56	174443	2.104
63) 1,1-Dichloropropene	(1)	7.138	75	153669	2.108
64) Carbon Tetrachloride	(1)	7.144	117	176256	2.103
66) Isobutyl Alcohol	(4)	7.297	41	121791M	118.950
70) Benzene	(1)	7.419	78	483737	2.148
72) 1,2-Dichloroethane	(1)	7.425	62	126654	2.136
71) 1,2-Dichloroethane(mz98)	(1)	7.431	98	11448	2.151
74) t-Amyl Methyl Ether	(1)	7.571	73	250184	2.166
75)*Fluorobenzene	(1)	7.791	96	2421209	10.000
76) n-Heptane	(1)	7.791	43	157193	2.082
79) n-Butanol	(4)	8.187	56	187157	243.625
80) Trichloroethene	(1)	8.278	95	130094	2.110
82) Methylcyclohexane	(1)	8.534	83	200619	2.067
83) 1,2-Dichloropropane	(1)	8.565	63	112725	2.135
85) Dibromomethane	(1)	8.711	93	53639	2.145
87) 1,4-Dioxane	(4)	8.760	88	22754	95.426
86) Methyl Methacrylate	(4)	8.723	69	39738	2.059
88) Bromodichloromethane	(1)	8.919	83	142087	2.141
91) 2-Nitropropane	(4)	9.205	41	164730	22.332
93) cis-1,3-Dichloropropene	(1)	9.479	75	152592	2.136
94) 4-Methyl-2-Pentanone	(1)	9.656	43	690616	23.426
97) Toluene	(2)	9.870	92	320812	2.164
100) trans-1,3-Dichloropropene	(2)	10.095	75	134285	2.184
102) Ethyl Methacrylate	(2)	10.199	69	83863	2.143
103) 1,1,2-Trichloroethane	(2)	10.290	97	81266	2.254
104) Tetrachloroethene	(2)	10.449	166	159770	2.144
105) 1,3-Dichloropropane	(2)	10.461	76	132798	2.224
106) 2-Hexanone	(2)	10.540	43	487729	23.824
107) Dibromochloromethane	(2)	10.686	129	106287	2.227
108) 1,2-Dibromoethane	(2)	10.796	107	76711	2.219

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8157

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.229	117	1824520	10.000
110) Chlorobenzene	(2)	11.253	112	392829	2.188
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	136788	2.218
112) Ethylbenzene	(2)	11.351	91	635479	2.164
113) m+p-Xylene	(2)	11.449	106	523681	4.382
116) Xylene (Total)	(2)		106	773783	6.611
117) o-Xylene	(2)	11.790	106	250102	2.229
118) Styrene	(2)	11.796	104	381213	2.210
119) Bromoform	(2)	11.961	173	58690	2.269
120) Isopropylbenzene	(2)	12.089	105	622779	2.186
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	98246M	2.395
126) Bromobenzene	(3)	12.345	156	181330	2.286
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	221750	22.818
128) 1,2,3-Trichloropropane	(3)	12.357	110	32127	2.389
132) n-Propylbenzene	(3)	12.412	91	794615	2.211
133) 2-Chlorotoluene	(3)	12.491	126	174796	2.239
135) 4-Chlorotoluene	(3)	12.570	126	185982	2.271
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	592363	2.226
137) Pentachloroethane	(3)	12.820	167	116499	2.141
136) tert-Butylbenzene	(3)	12.796	134	134467	2.199
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	627396	2.246
139) sec-Butylbenzene	(3)	12.954	105	731122	2.187
140) 1,3-Dichlorobenzene	(3)	13.052	146	383743	2.266
142) *1,4-Dichlorobenzene-d4	(3)	13.095	152	1126052	10.000
141) p-Isopropyltoluene	(3)	13.052	119	674899	2.225
143) 1,4-Dichlorobenzene	(3)	13.113	146	396798	2.285
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	291796	2.167
145) Benzyl Chloride	(3)	13.204	126	45440	2.278
146) n-Butylbenzene	(3)	13.351	92	329634	2.209
147) 1,2-Dichlorobenzene	(3)	13.387	146	343986	2.300
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	14368	2.413
152) 1,2,4-Trichlorobenzene	(3)	14.478	180	232796	2.241
153) Hexachlorobutadiene	(3)	14.582	225	120947	2.159
154) Naphthalene	(3)	14.655	128	354189	2.202

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 01158

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

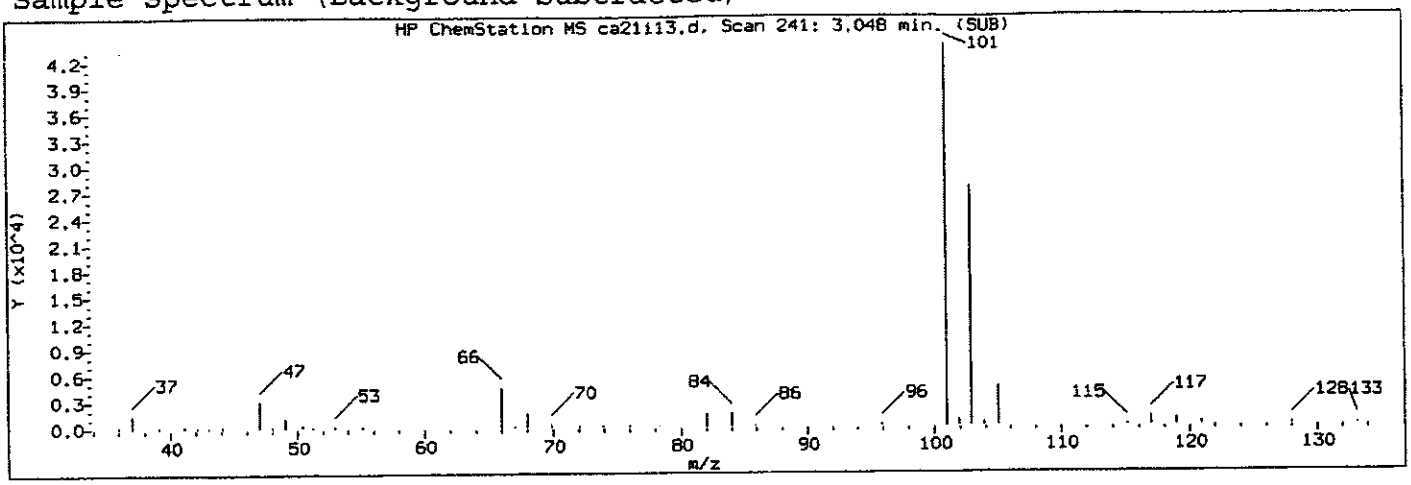
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	200898	2.254
58) $Dibromofluoromethane	(1)	6.870	113	129297	2.027
59) $Dibromofluoromethane(mz111)	(1)	6.864	111	131148	2.024
69) $1,2-Dichloroethane-d4	(1)	7.321	102	24297M	2.105
68) $1,2-Dichloroethane-d4(mz104)	(1)	7.327	104	14782	2.040
95) $Toluene-d8	(2)	9.796	98	536457	2.077
96) $Toluene-d8(mz100)	(2)	9.796	100	339820	2.063
123) $4-Bromofluorobenzene	(2)	12.217	95	198395M	2.078
124) $4-Bromofluorobenzene(mz174)	(2)	12.217	174	183218	2.077

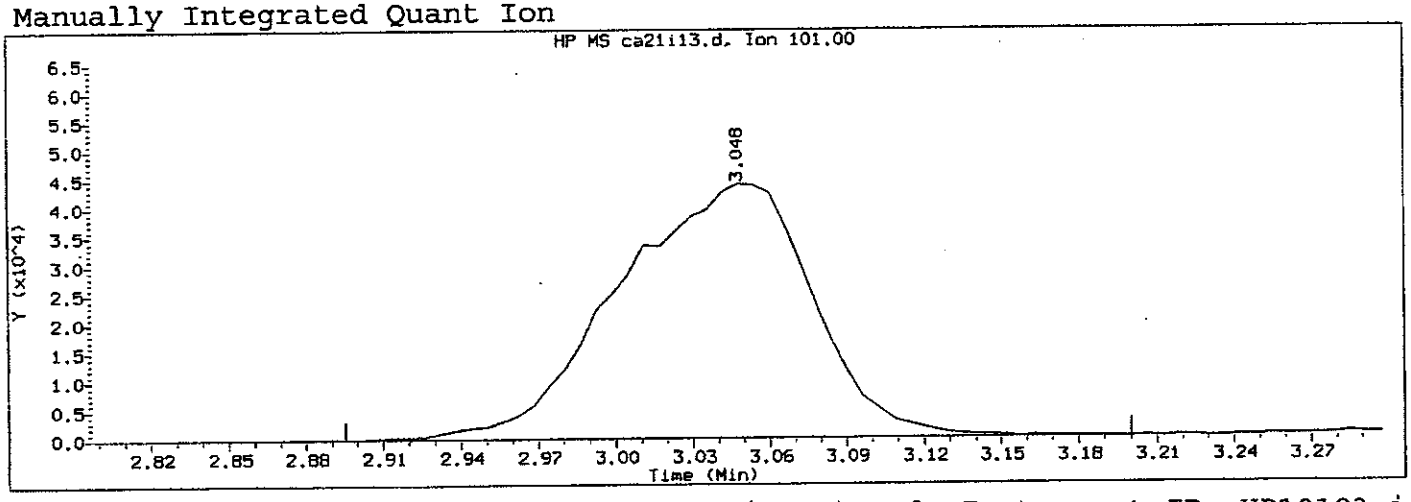
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	12
Compound Name	:	Trichlorofluoromethane
Scan Number	:	241
Retention Time (minutes)	:	3.048
Quant Ion	:	101
Area (flag)	:	230839 M
Concentration (ug/L)	:	2.0970
Integration start scan	:	215 Integration stop scan: 265
Y at integration start	:	0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

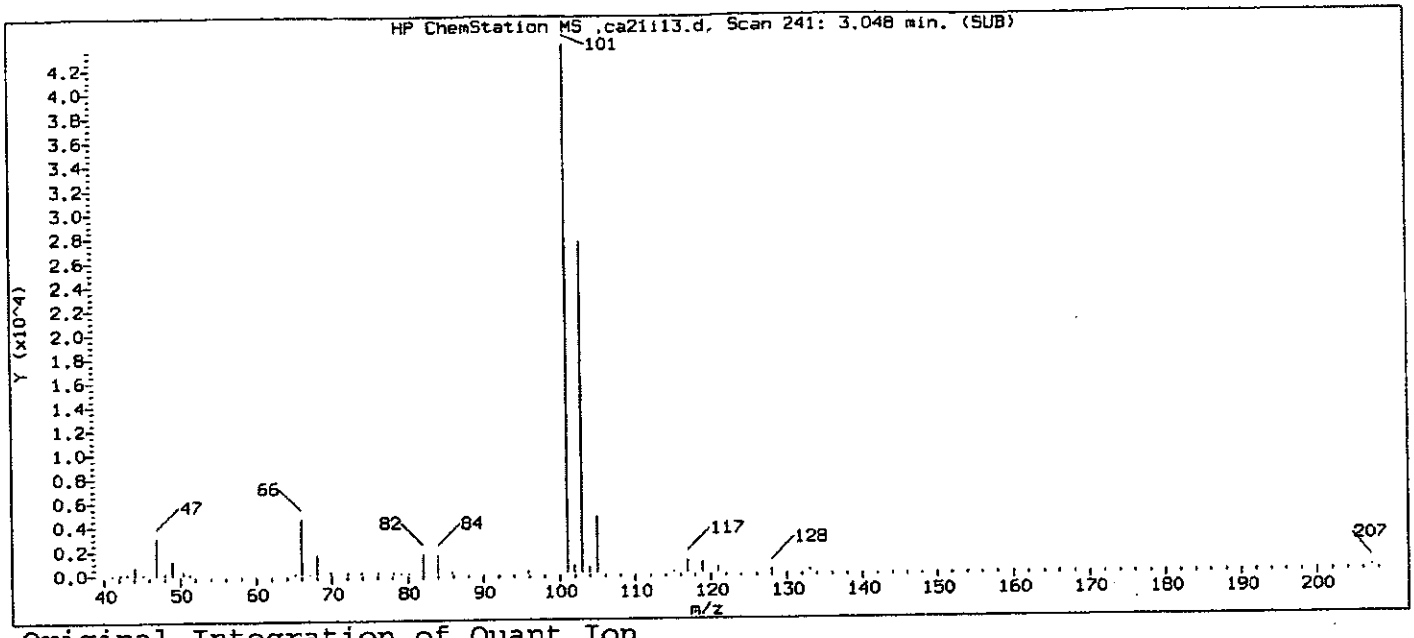
Analyst responsible for change: _____ 4/22/09

GC/MS audit/management approval: _____ 4/22/09

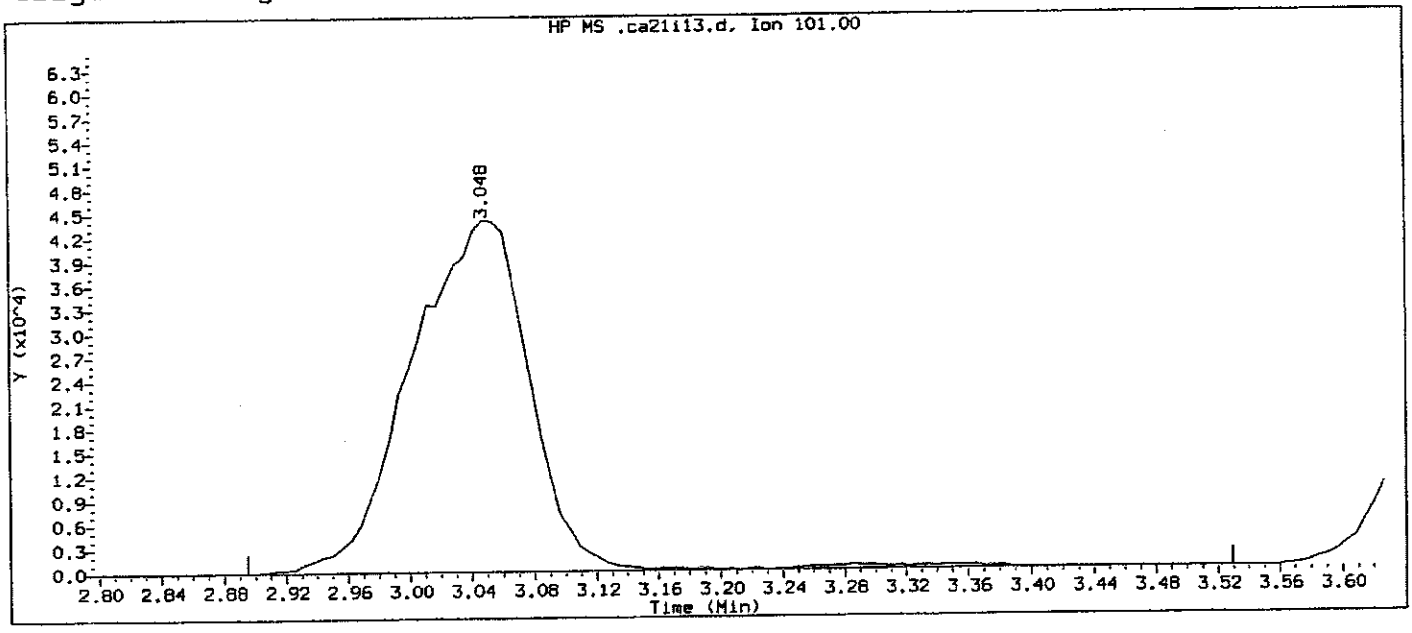
BAD11 0168

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:29
Date, time and analyst ID of latest file update: 21-Apr-2009 21:29 Automation

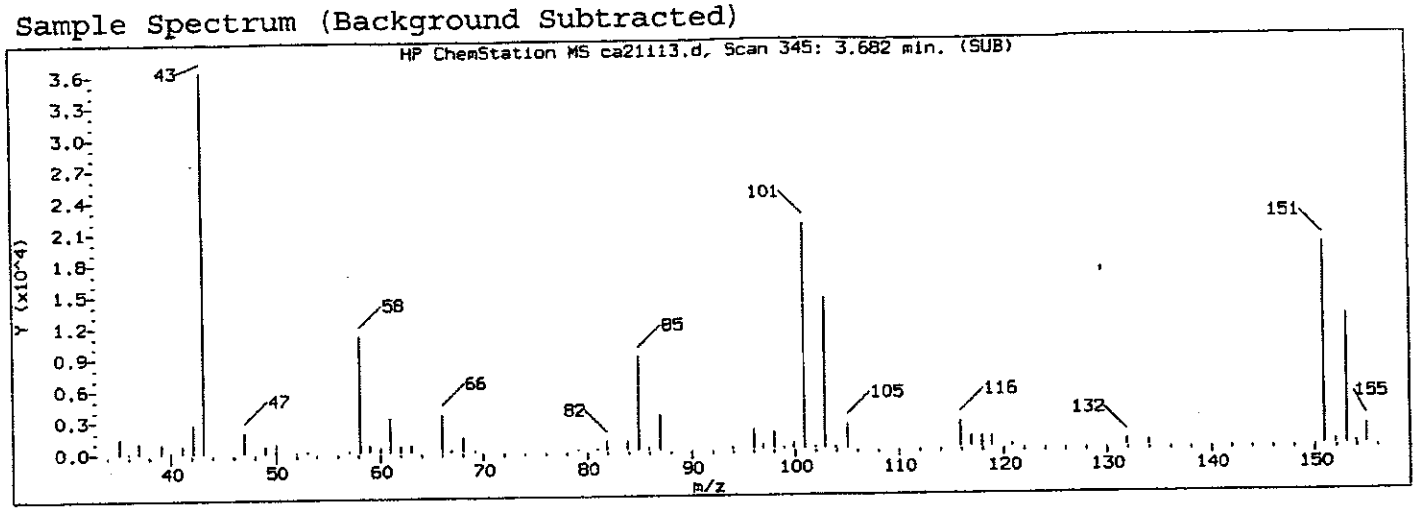
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	12
Compound Name	:	Trichlorofluoromethane
Scan Number	:	241
Retention Time (minutes)	:	3.048
Quant Ion	:	101
Area	:	234259
Concentration (ug/L)	:	2.1171
Integration start scan	:	215 Integration stop scan: 319
Y at integration start	:	0 Y at integration end: 0

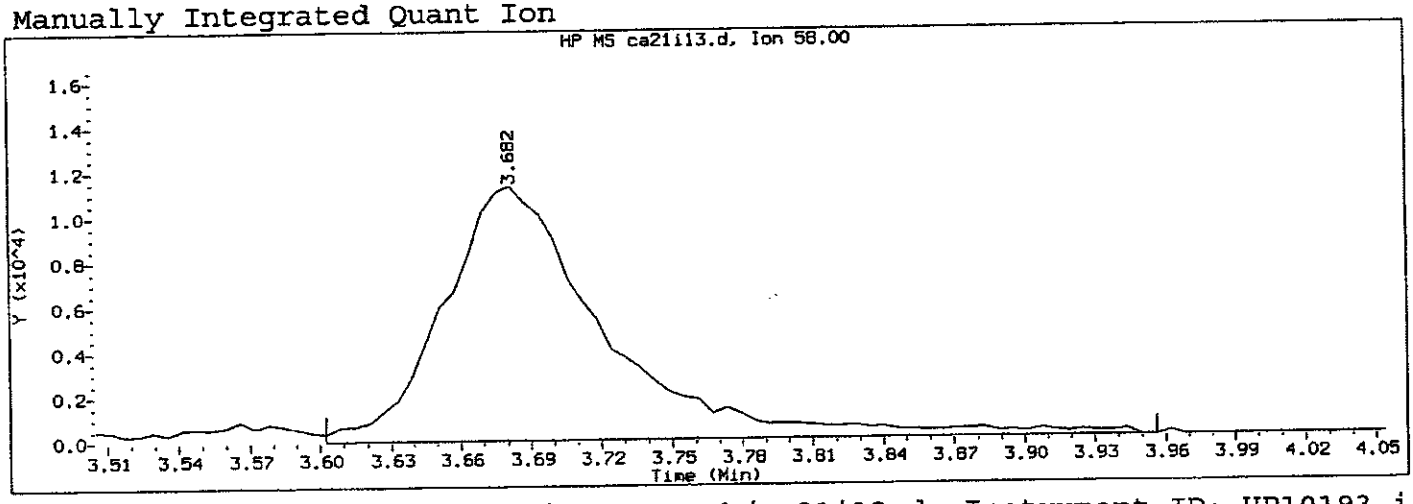
RAD11 8161

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21ii3.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 23
Compound Name : Acetone
Scan Number : 345
Retention Time (minutes): 3.682
Quant Ion : 58
Area (flag) : 54325 M
Concentration (ug/L) : 22.3497
Integration start scan : 331 Integration stop scan: 389
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

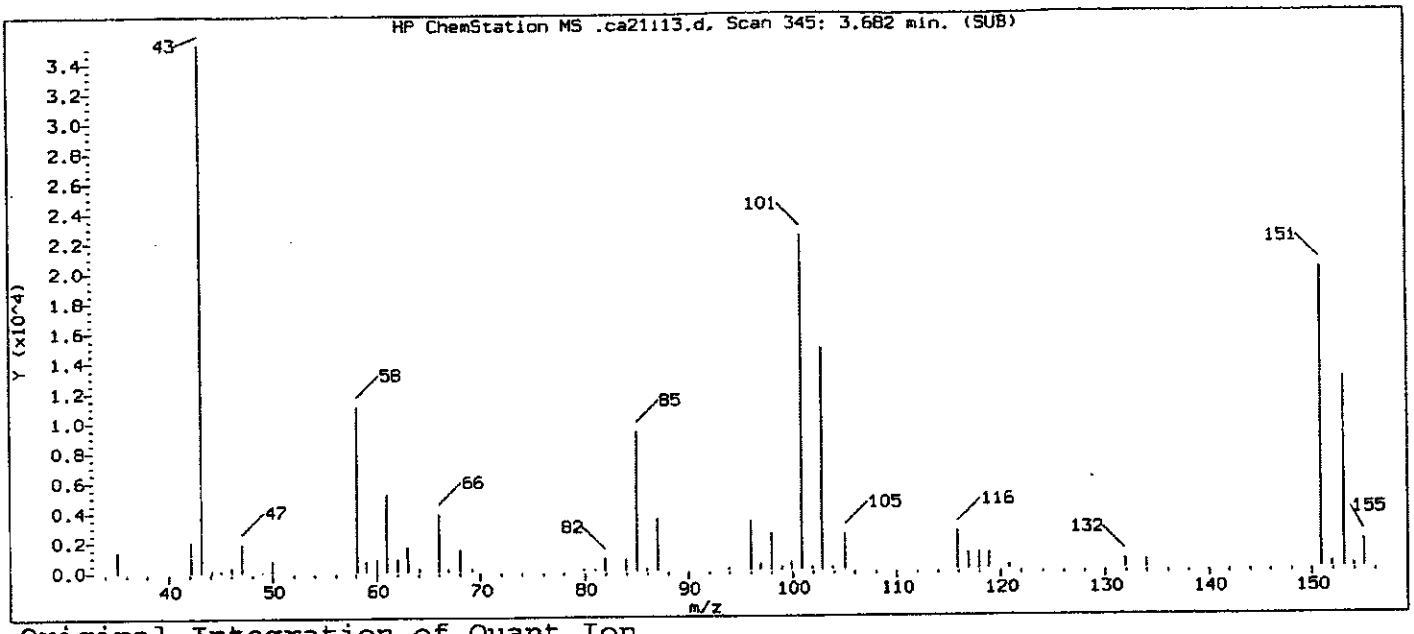
Analyst responsible for change: _____

GC/MS audit/management approval: _____ 4/22/09

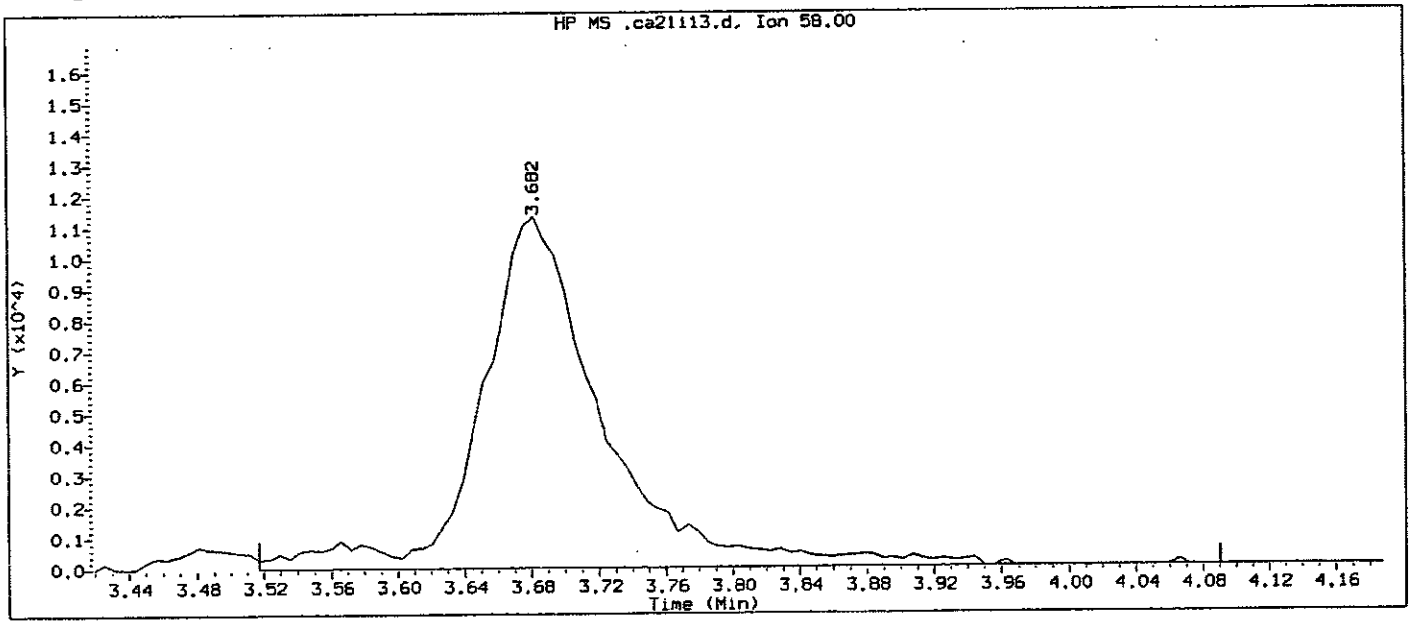
RAD11 8162

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21ii3.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:29
Date, time and analyst ID of latest file update: 21-Apr-2009 21:29 Automation

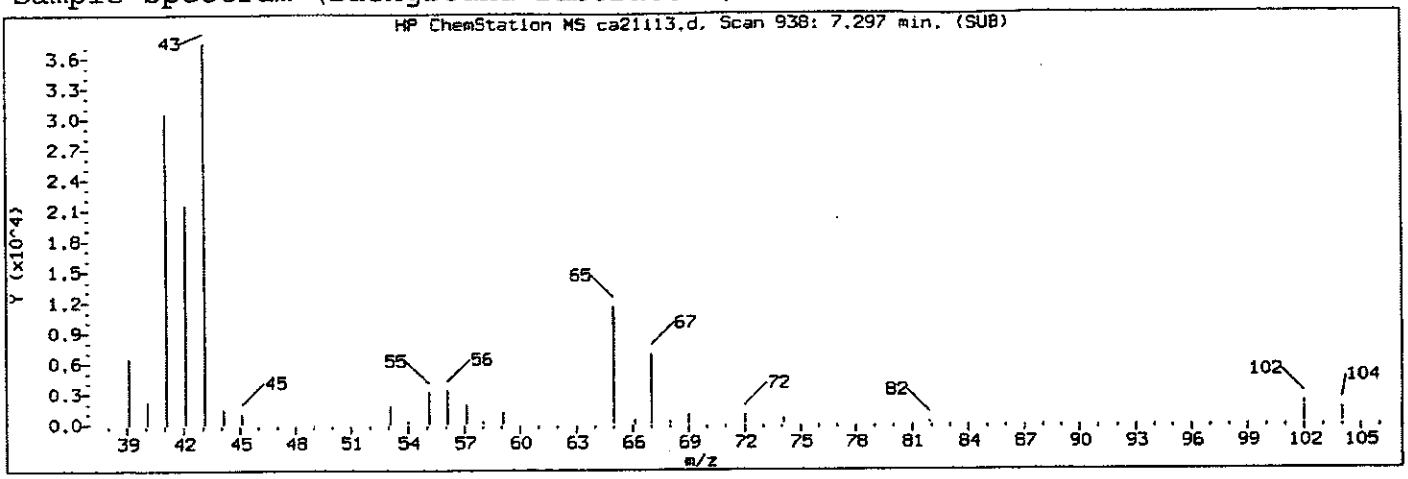
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 23
Compound Name : Acetone
Scan Number : 345
Retention Time (minutes): 3.682
Quant Ion : 58
Area : 57225
Concentration (ug/L) : 23.0838
Integration start scan : 317 Integration stop scan: 411
Y at integration start : 0 Y at integration end: 0

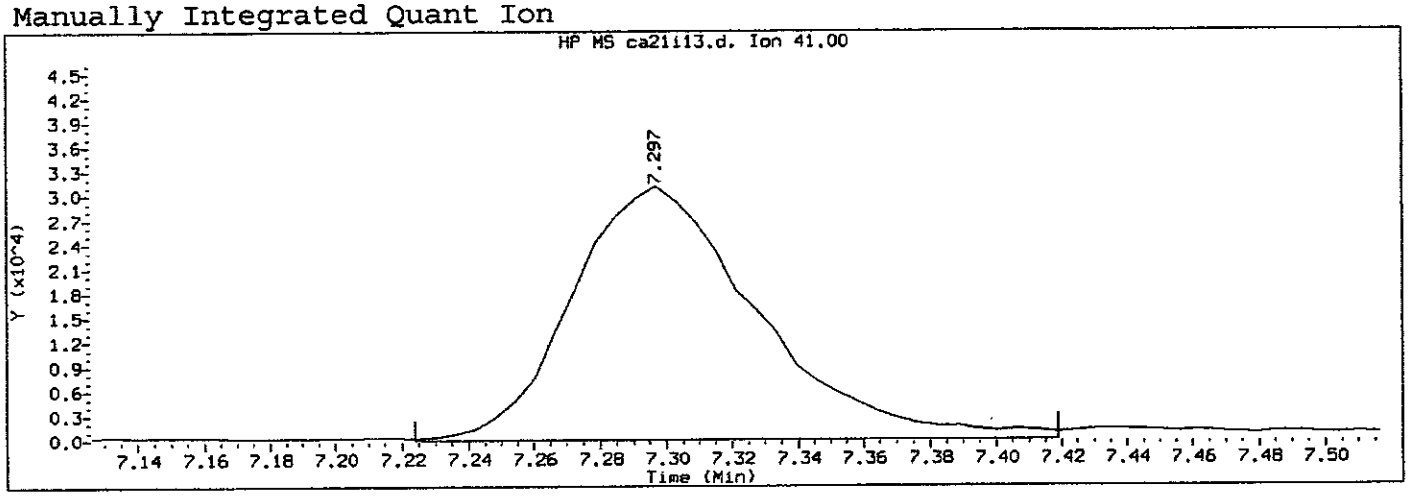
RAD11 8163

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	66
Compound Name	:	Isobutyl Alcohol
Scan Number	:	938
Retention Time (minutes)	:	7.297
Quant Ion	:	41
Area (flag)	:	121791 M
Concentration (ug/L)	:	116.1360
Integration start scan	:	925 Integration stop scan: 957
Y at integration start	:	0 Y at integration end: 0

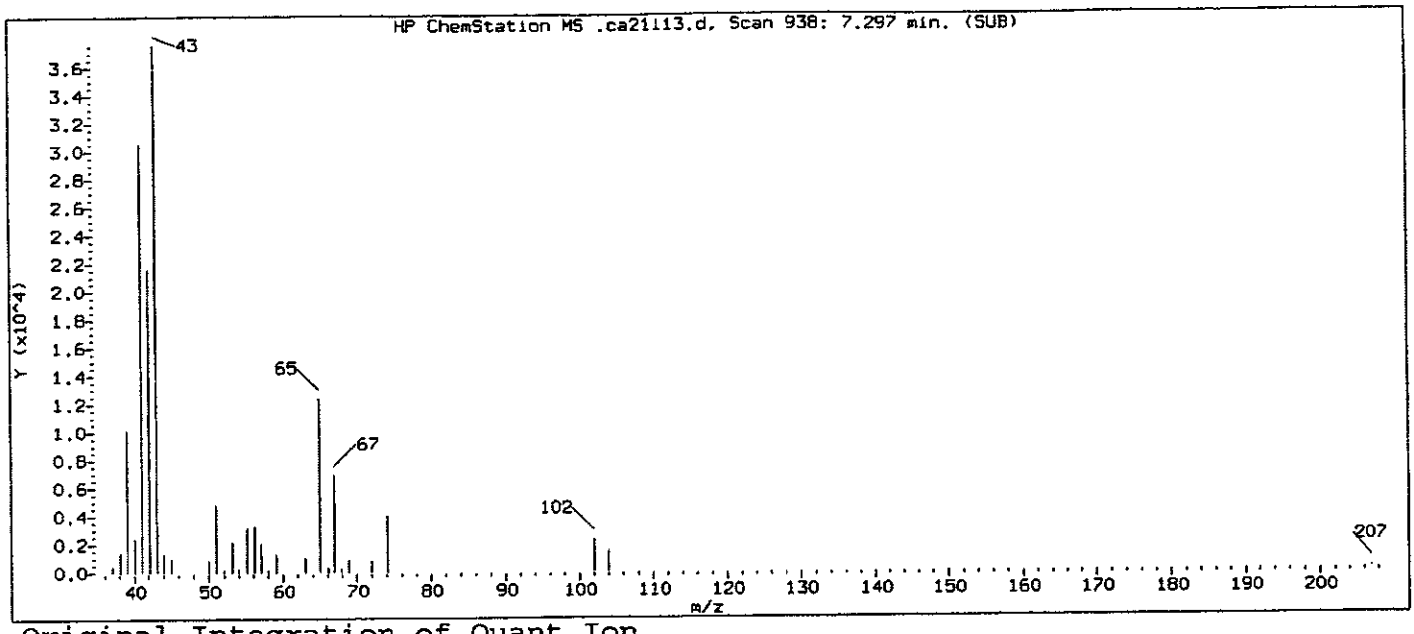
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: msw 2109 4/22/09

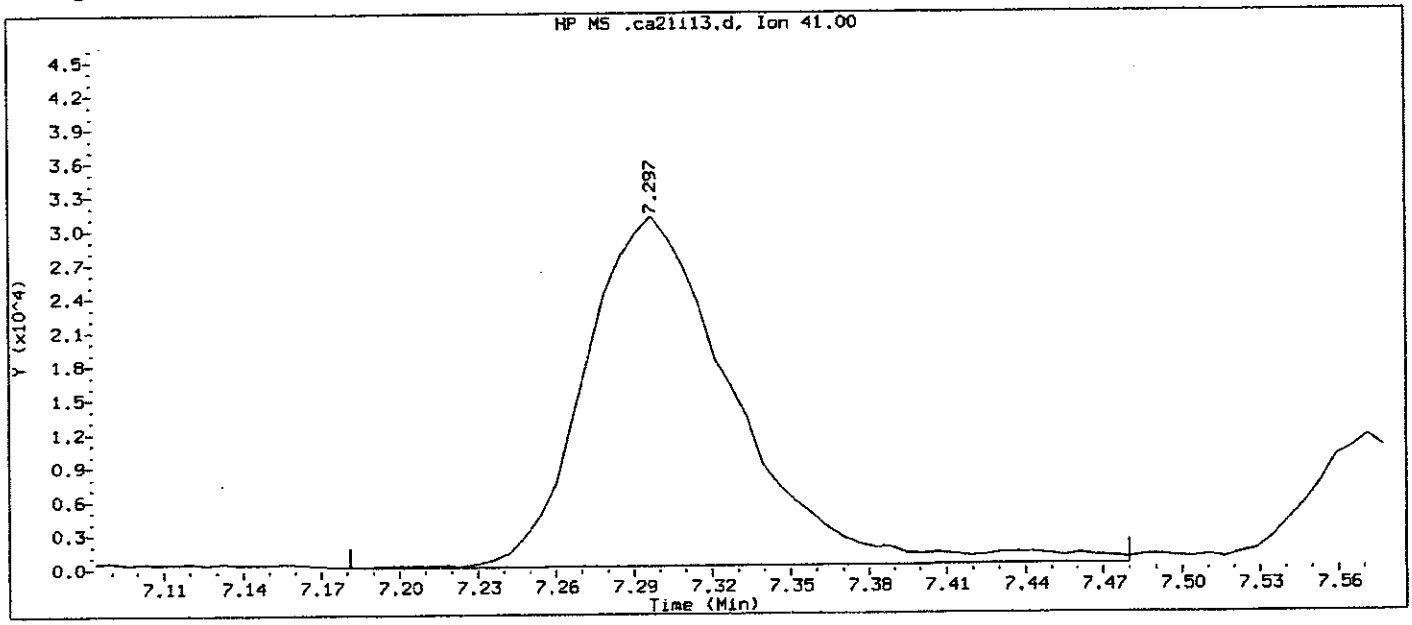
GC/MS audit/management approval: 4-22-09

BADI1 0164

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:29
Date, time and analyst ID of latest file update: 21-Apr-2009 21:29 Automation

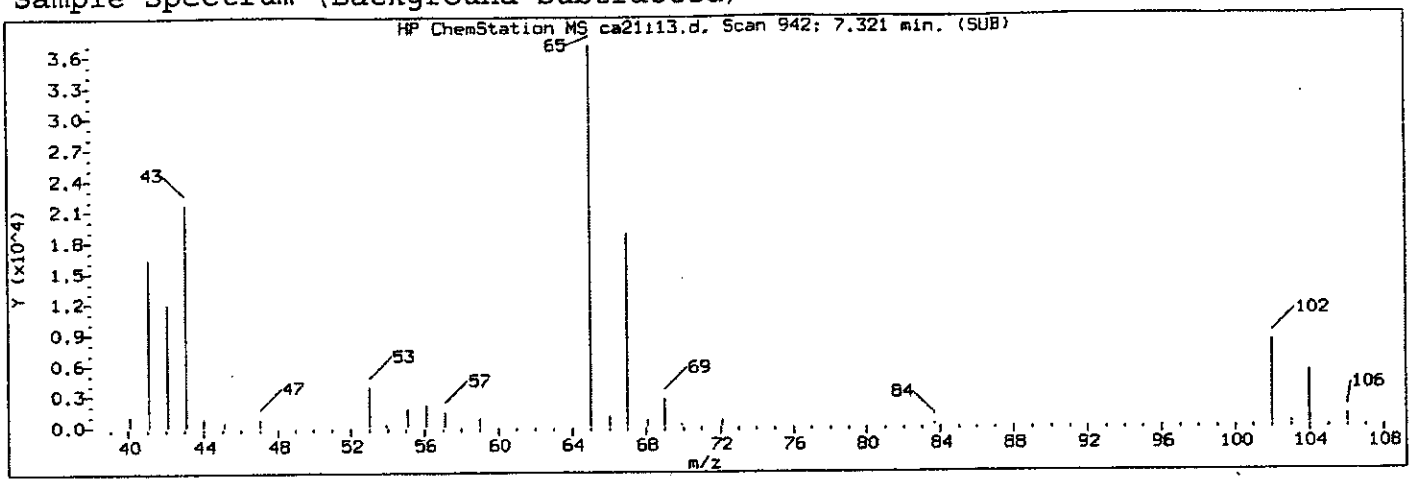
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	66
Compound Name	:	Isobutyl Alcohol
Scan Number	:	938
Retention Time (minutes)	:	7.297
Quant Ion	:	41
Area	:	123289
Concentration (ug/L)	:	117.0072
Integration start scan	:	918 Integration stop scan: 967
Y at integration start	:	102 Y at integration end: 209

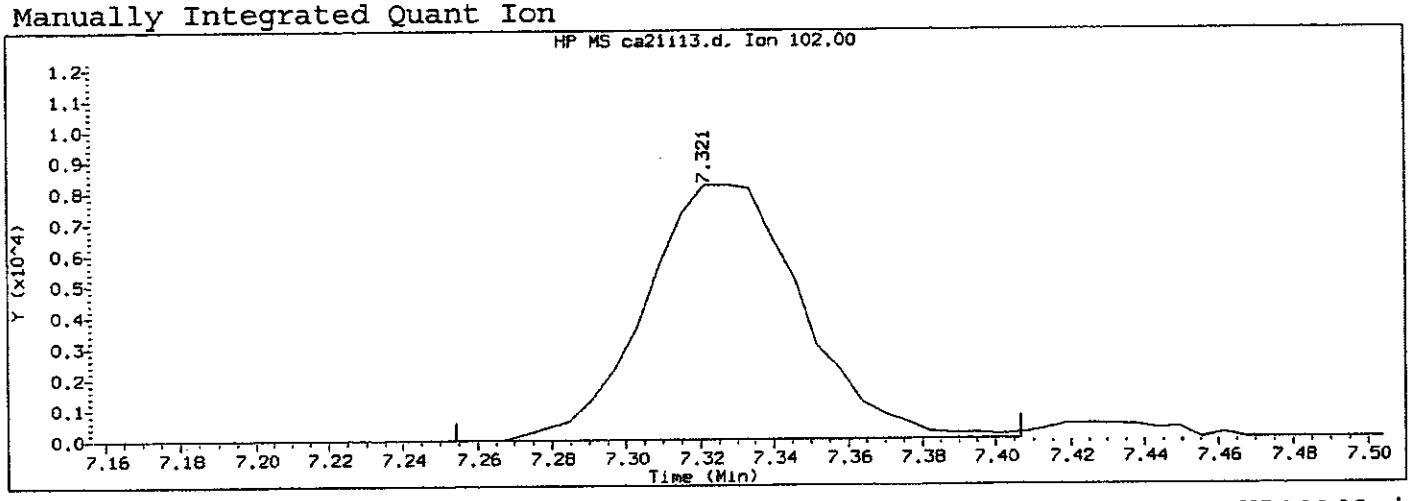
BAD11 0165

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 942
Retention Time (minutes): 7.321
Quant Ion : 102
Area (flag) : 24297 M
Concentration (ug/L) : 2.1000
Integration start scan : 930 Integration stop scan: 955
Y at integration start : 0 Y at integration end: 0

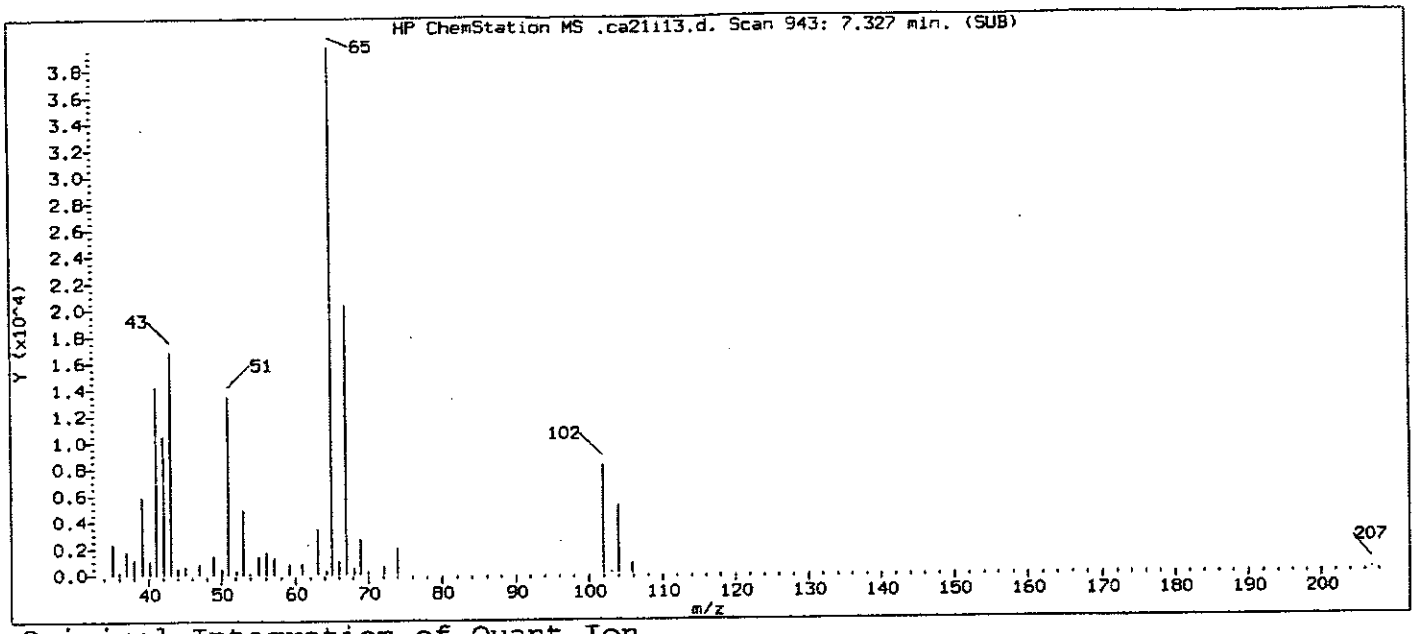
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: _____ 4/22/09

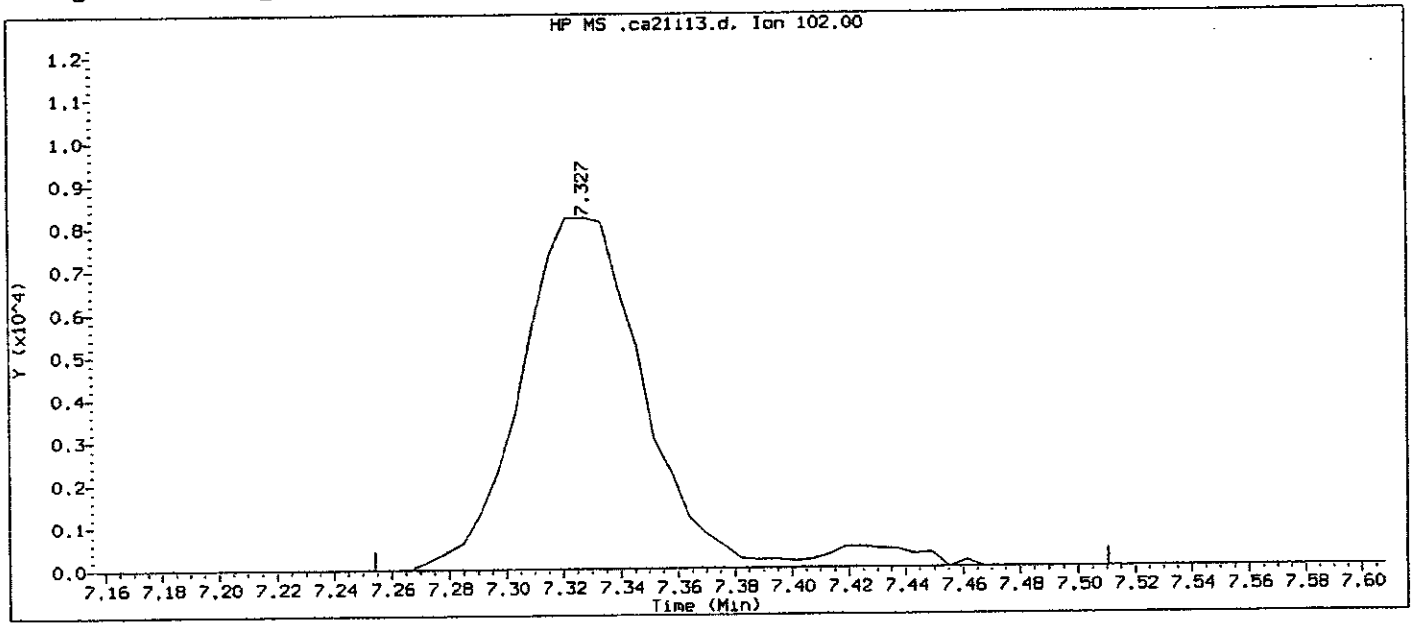
GC/MS audit/management approval: _____ 4/23/09

RAD11 8166

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:29
Date, time and analyst ID of latest file update: 21-Apr-2009 21:29 Automation

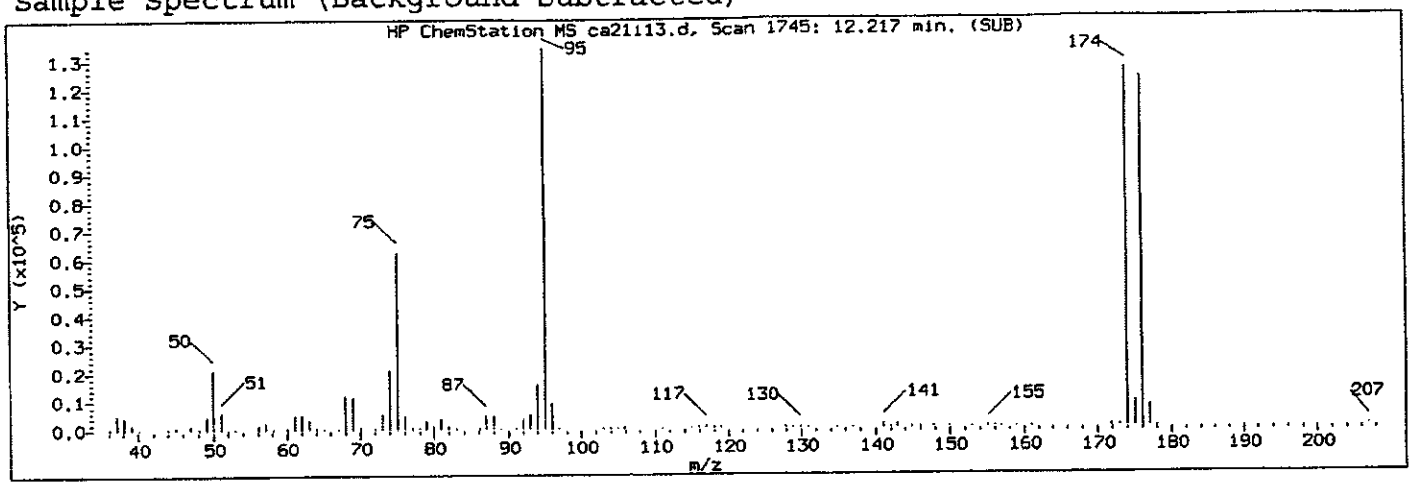
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 943
Retention Time (minutes): 7.327
Quant Ion : 102
Area : 25370
Concentration (ug/L) : 2.1594
Integration start scan : 930 Integration stop scan: 972
Y at integration start : 0 Y at integration end: 0

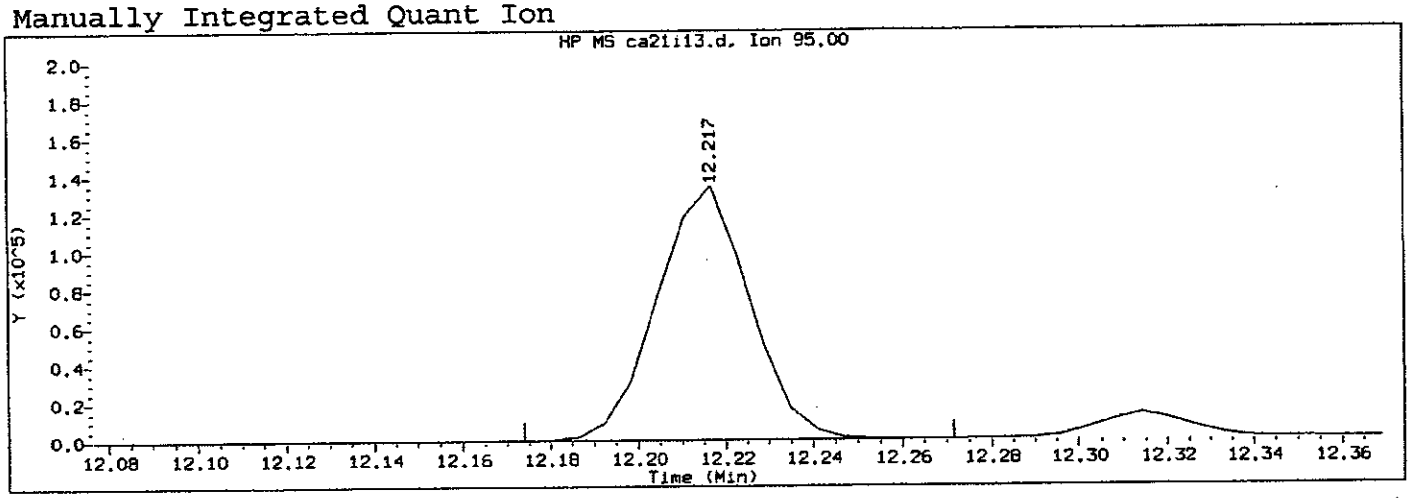
RAD11 8167

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	123
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1745
Retention Time (minutes)	:	12.217
Quant Ion	:	95
Area (flag)	:	198395 M
Concentration (ug/L)	:	1.9628
Integration start scan	:	1737 Integration stop scan: 1753
Y at integration start	:	0 Y at integration end: 0

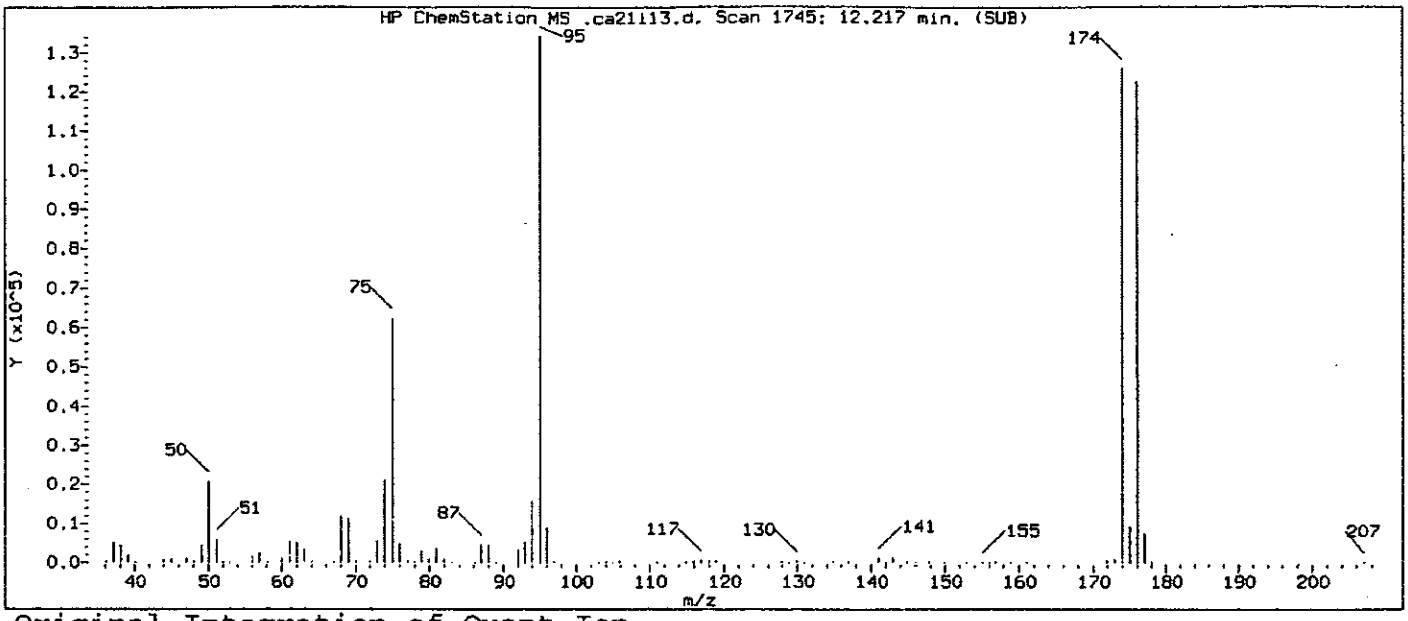
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: _____ 4/22/09

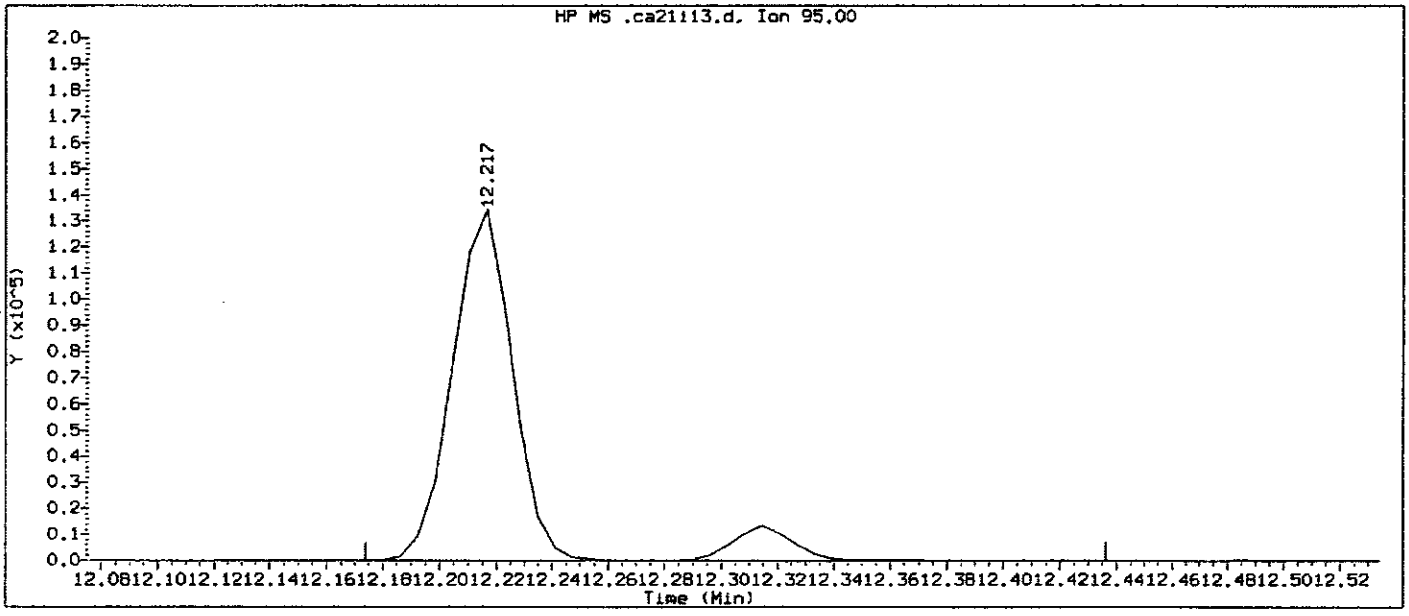
GC/MS audit/management approval: _____ 4/22/09

RAD11 8160

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:29
Date, time and analyst ID of latest file update: 21-Apr-2009 21:29 Automation

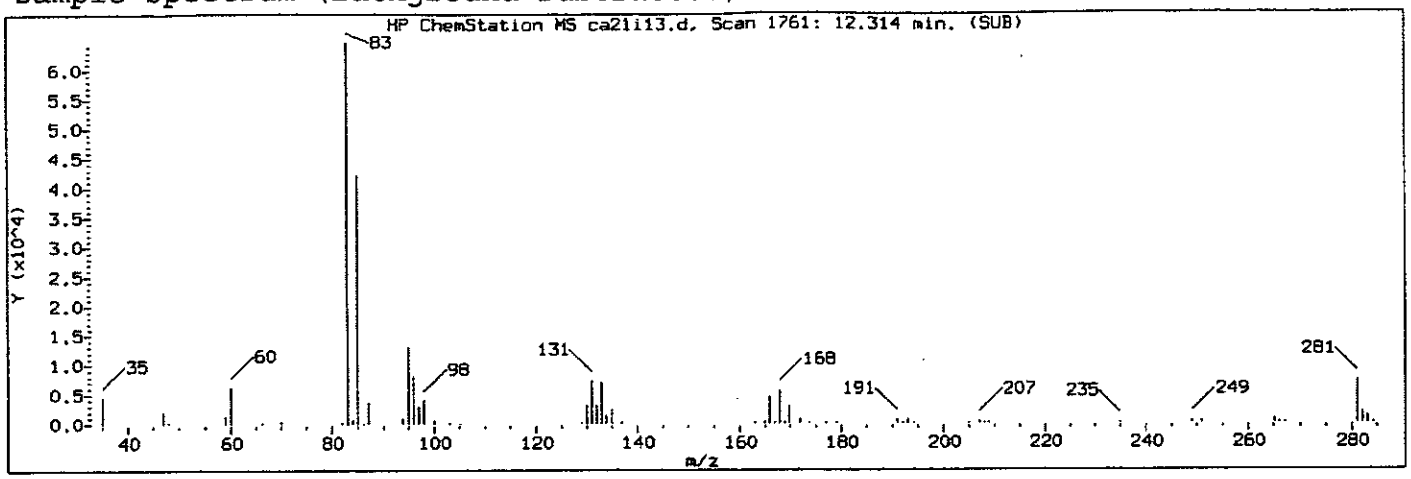
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area : 218721
Concentration (ug/L) : 2.0439
Integration start scan : 1737 Integration stop scan: 1780
Y at integration start : 0 Y at integration end: 0

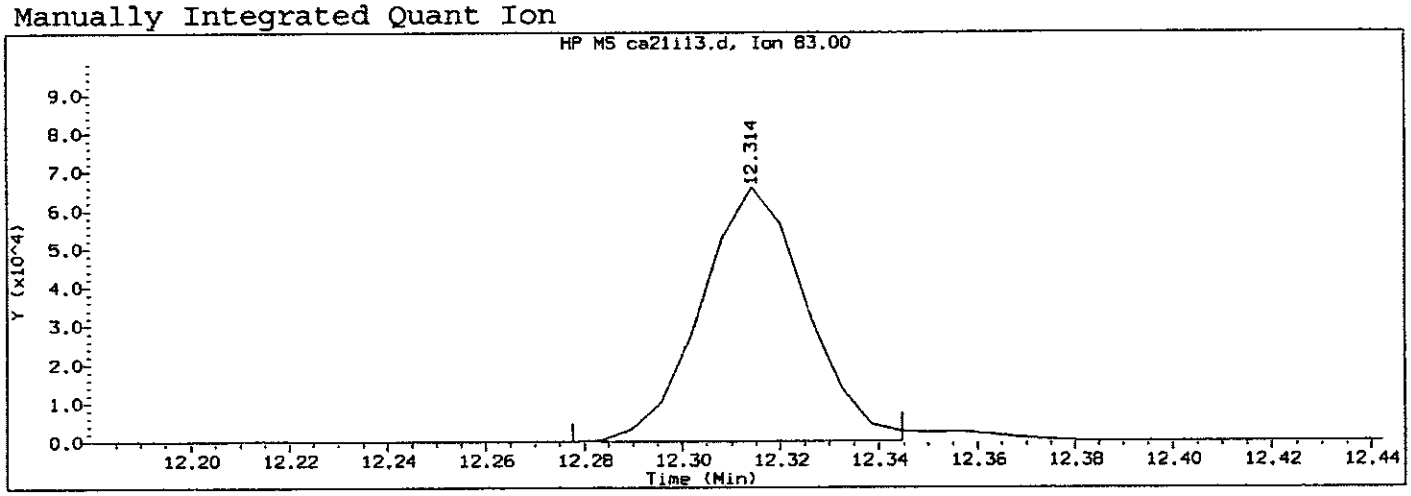
RAD11 0169

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area (flag) : 98246 M
Concentration (ug/L) : 2.3950
Integration start scan : 1754 Integration stop scan: 1765
Y at integration start : 0 Y at integration end: 0

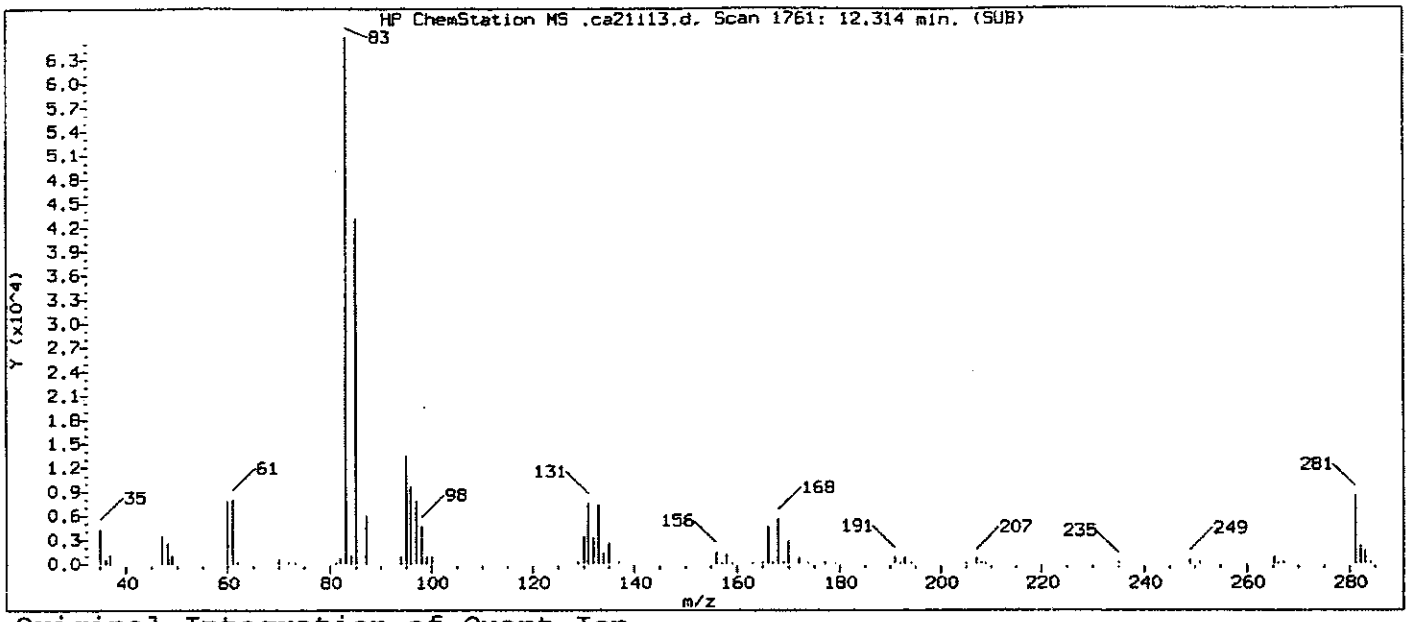
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: ADS1731 4/22/09

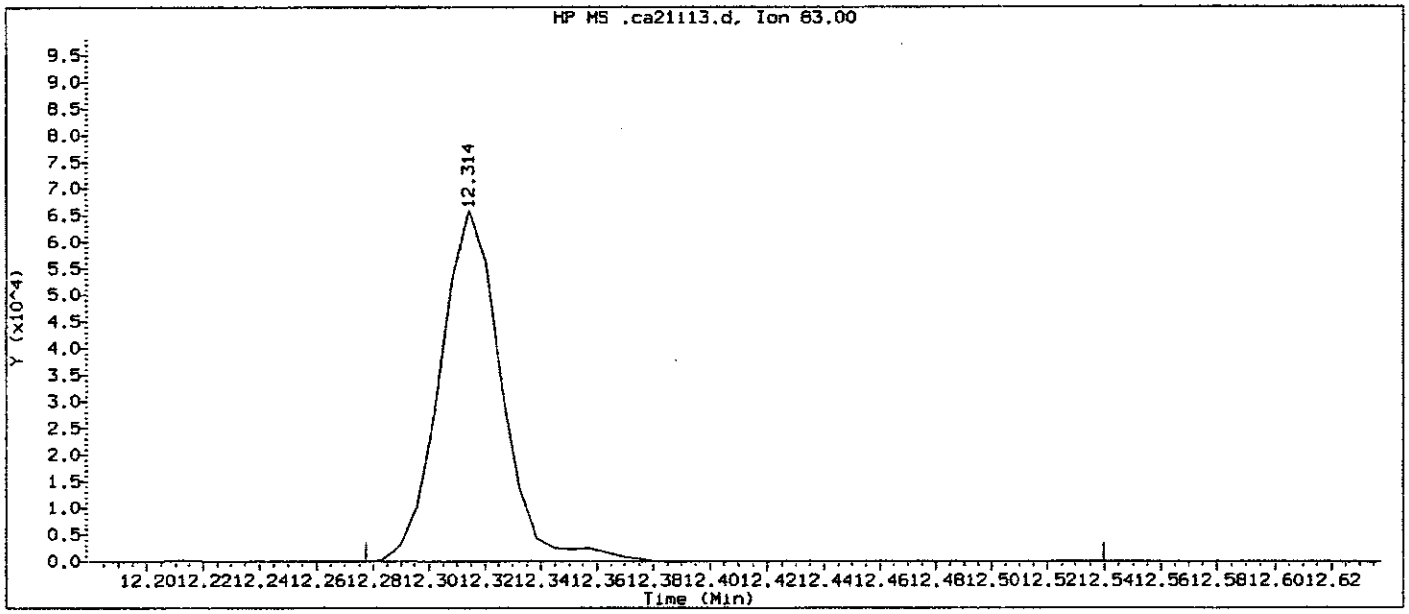
GC/MS audit/management approval: 4/22/09

BAD11 0170

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i13.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:11 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:29
Date, time and analyst ID of latest file update: 21-Apr-2009 21:29 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area : 101115
Concentration (ug/L) : 2.2636
Integration start scan : 1754 Integration stop scan: 1797
Y at integration start : 0 Y at integration end: 0

BAD11 0171

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i13.d, generated on 04/22/2009 at 14:46

Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d

Date : 21-APR-2009 21:33

Client ID: VSTD001

Sample Info: VSTD001;VSTD001;1;1;;

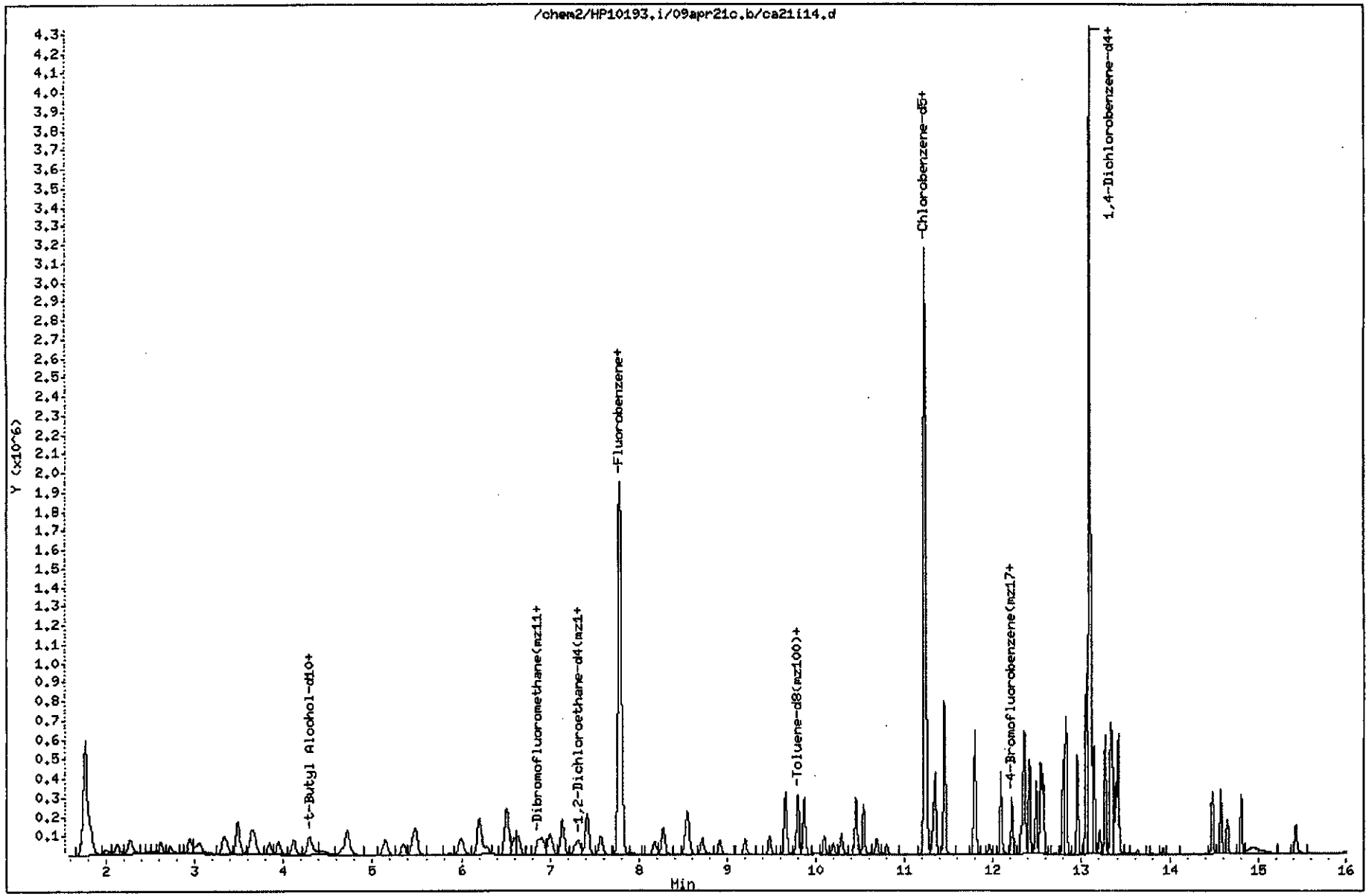
Purge Volume: 25.0

Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002

Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.993	85	73596	1.051
4) Chloromethane	(1)	2.127	50	67268	1.025
6) Vinyl Chloride	(1)	2.267	62	69841	1.045
8) Bromomethane	(1)	2.615	94	51714	1.039
9) Chloroethane	(1)	2.725	64	41390	1.056
11) Dichlorofluoromethane	(1)	2.944	67	113771	1.041
12) Trichlorofluoromethane	(1)	3.048	101	112712	1.048
15) Ethyl Ether	(1)	3.328	59	40467	1.042
16) Freon 123a	(1)	3.346	67	71040	1.058
18) Acrolein	(4)	3.481	56	255886	50.686
19) 1,1-Dichloroethene	(1)	3.633	96	49451	1.074
20) Freon 113	(1)	3.663	101	57553	1.061
23) Acetone	(4)	3.670	58	23076M	10.056
26) Methyl Iodide	(1)	3.840	142	93707	1.031
27) Carbon Disulfide	(1)	3.944	76	163048	1.043
29) Allyl Chloride	(1)	4.115	41	80949	1.008
30) Methyl Acetate	(1)	4.127	43	21248	1.084
32) Methylene Chloride	(1)	4.291	84	56347	1.041
33)*t-Butyl Alcohol-d10	(4)	4.322	65	113897	50.000
35) t-Butyl Alcohol	(4)	4.456	59	54960	19.831
36) Acrylonitrile	(4)	4.651	53	46099	5.116
37) trans-1,2-Dichloroethene	(1)	4.718	96	55929	1.038
40) 1,2-Dichloroethene (Total)	(1)		96	114700	2.062
38) Methyl Tertiary Butyl Ether	(1)	4.718	73	106728	0.973
41) n-Hexane	(1)	5.145	57	62102	0.968
44) 1,1-Dichloroethane	(1)	5.346	63	93151	1.032
46) di-Isopropyl Ether	(1)	5.462	45	143732	0.957
47) 2-Chloro-1,3-Butadiene	(1)	5.492	53	72989	0.957
48) Ethyl t-Butyl Ether	(1)	5.992	59	121412M	0.941
51) 2,2-Dichloropropane	(1)	6.212	77	79767	1.014
49) cis-1,2-Dichloroethene	(1)	6.193	96	58771	1.024
50) 2-Butanone	(4)	6.212	43	110630	9.790
52) Propionitrile	(4)	6.285	54	72060	20.343
53) Methacrylonitrile	(4)	6.510	67	114100	9.938

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8173

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	30433	1.060
55) Tetrahydrofuran	(4)	6.596	71	32524	10.132
56) Chloroform	(1)	6.645	83	100400	1.021
60) 1,1,1-Trichloroethane	(1)	6.919	97	92878	1.031
61) Cyclohexane	(1)	6.998	56	78988	0.970
63) 1,1-Dichloropropene	(1)	7.138	75	71839	1.003
64) Carbon Tetrachloride	(1)	7.144	117	83284	1.011
66) Isobutyl Alcohol	(4)	7.291	41	47147	49.060
70) Benzene	(1)	7.419	78	227178	1.027
72) 1,2-Dichloroethane	(1)	7.431	62	58625	1.006
71) 1,2-Dichloroethane(mz98)	(1)	7.425	98	5357	1.024
74) t-Amyl Methyl Ether	(1)	7.577	73	104636	0.922
75)*Fluorobenzene	(1)	7.785	96	2378447	10.000
76) n-Heptane	(1)	7.791	43	75190	1.014
79) n-Butanol	(4)	8.175	56	63423	87.959
80) Trichloroethene	(1)	8.272	95	61980	1.024
82) Methylcyclohexane	(1)	8.541	83	91141	0.956
83) 1,2-Dichloropropane	(1)	8.559	63	52656	1.015
85) Dibromomethane	(1)	8.705	93	24536	0.999
87) 1,4-Dioxane	(4)	8.748	88	12971	57.956
86) Methyl Methacrylate	(4)	8.717	69	16750	0.925
88) Bromodichloromethane	(1)	8.918	83	63623	0.976
91) 2-Nitropropane	(4)	9.205	41	63551M	9.179
93) cis-1,3-Dichloropropene	(1)	9.479	75	65089	0.928
94) 4-Methyl-2-Pentanone	(1)	9.656	43	254443	9.078
97) Toluene	(2)	9.870	92	145257	0.998
100) trans-1,3-Dichloropropene	(2)	10.095	75	55248	0.916
102) Ethyl Methacrylate	(2)	10.199	69	31291	0.954
103) 1,1,2-Trichloroethane	(2)	10.284	97	34728	0.982
104) Tetrachloroethene	(2)	10.449	166	74867	1.024
105) 1,3-Dichloropropane	(2)	10.461	76	57630	0.983
106) 2-Hexanone	(2)	10.540	43	171241	8.977
107) Dibromochloromethane	(2)	10.686	129	43989	0.939
108) 1,2-Dibromoethane	(2)	10.796	107	33154	0.977

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0174

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.229	117	1790450	10.000
110) Chlorobenzene	(2)	11.253	112	180099	1.022
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	60238	0.995
112) Ethylbenzene	(2)	11.351	91	280365	0.973
113) m+p-Xylene	(2)	11.448	106	230061	1.962
116) Xylene (Total)	(2)		106	334610	2.911
117) o-Xylene	(2)	11.790	106	104549	0.949
118) Styrene	(2)	11.796	104	152752M	0.903
119) Bromoform	(2)	11.961	173	23445	0.923
120) Isopropylbenzene	(2)	12.089	105	262505	0.939
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	38192M	0.954
126) Bromobenzene	(3)	12.345	156	76588	0.990
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	83267	9.531
128) 1,2,3-Trichloropropane	(3)	12.357	110	13064	0.996
132) n-Propylbenzene	(3)	12.412	91	344606	0.983
133) 2-Chlorotoluene	(3)	12.491	126	75645	0.993
135) 4-Chlorotoluene	(3)	12.570	126	80565	1.008
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	250499	0.965
137) Pentachloroethane	(3)	12.820	167	49725	0.937
136) tert-Butylbenzene	(3)	12.796	134	57096	0.957
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	264416	0.970
139) sec-Butylbenzene	(3)	12.954	105	315651	0.968
140) 1,3-Dichlorobenzene	(3)	13.052	146	164828	0.998
142) *1,4-Dichlorobenzene-d4	(3)	13.095	152	1098393	10.000
141) p-Isopropyltoluene	(3)	13.058	119	282371	0.955
143) 1,4-Dichlorobenzene	(3)	13.113	146	172626	1.019
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	130508	0.994
145) Benzyl Chloride	(3)	13.204	126	16488M	0.921
146) n-Butylbenzene	(3)	13.344	92	145963	1.003
147) 1,2-Dichlorobenzene	(3)	13.387	146	148890	1.021
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	5273	0.943
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	100300	0.990
153) Hexachlorobutadiene	(3)	14.582	225	59265	1.085
154) Naphthalene	(3)	14.655	128	135973	0.910

M = Compound was manually integrated.

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

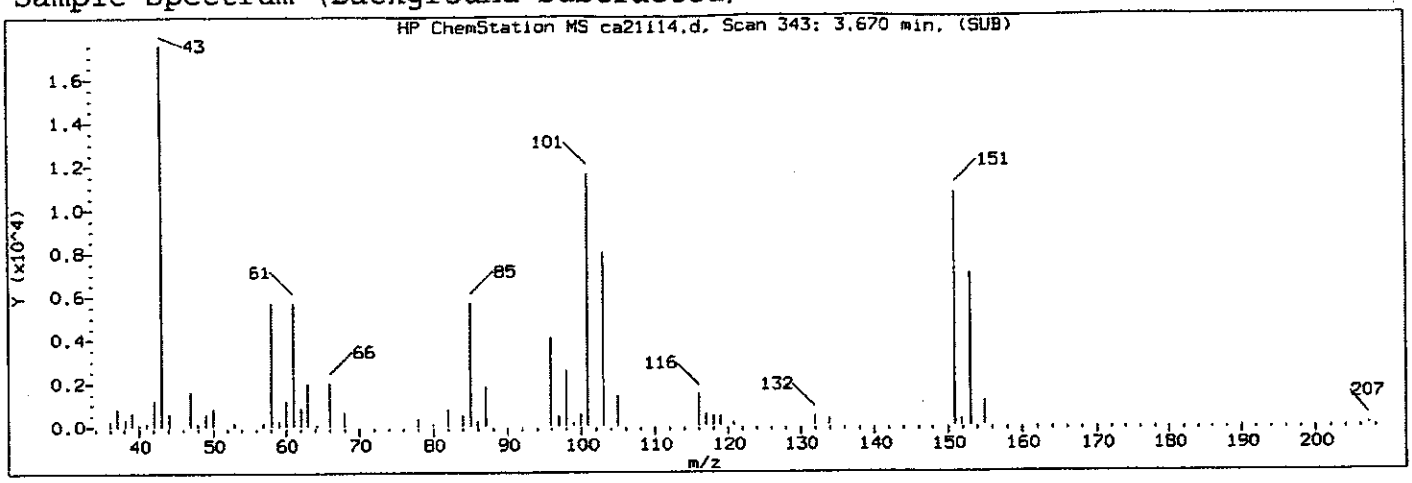
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	90542	1.041
58)$Dibromofluoromethane	(1)	6.864	113	62711	1.001
59)$Dibromofluoromethane(mz111)	(1)	6.864	111	63980	1.005
69)$1,2-Dichloroethane-d4	(1)	7.327	102	11431M	1.008
68)$1,2-Dichloroethane-d4(mz104)	(1)	7.321	104	6957	0.978
95)$Toluene-d8	(2)	9.796	98	253886	1.002
96)$Toluene-d8(mz100)	(2)	9.796	100	162481	1.005
123)$4-Bromofluorobenzene	(2)	12.217	95	88976	0.950
124)$4-Bromofluorobenzene(mz174)	(2)	12.217	174	83571	0.965

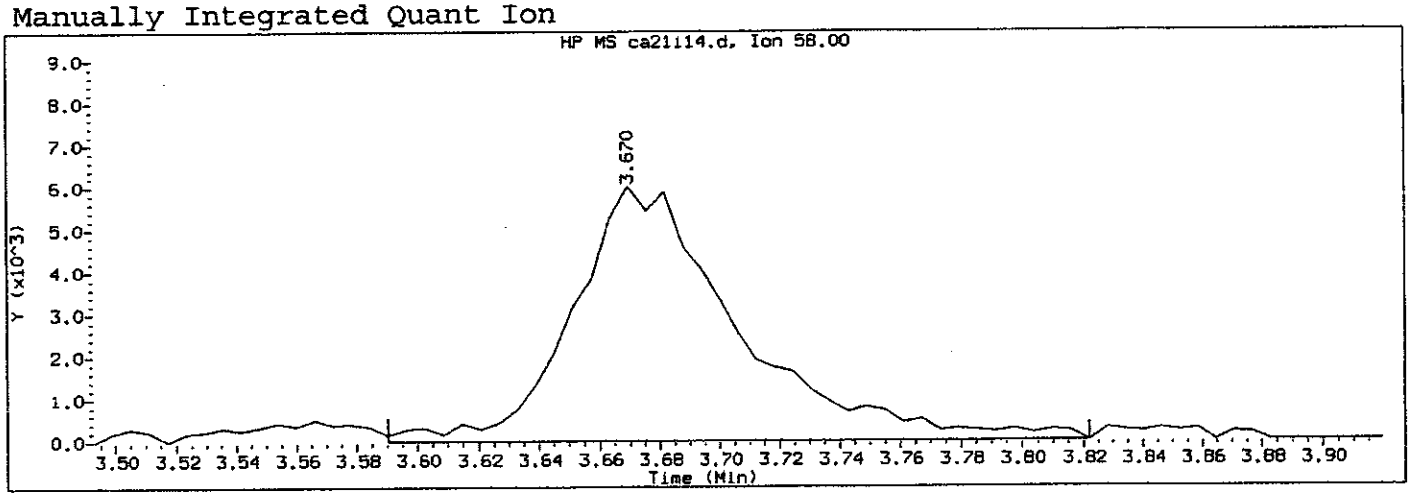
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 23
Compound Name : Acetone
Scan Number : 343
Retention Time (minutes): 3.670
Quant Ion : 58
Area (flag) : 23076 M
Concentration (ug/L) : 10.0858
Integration start scan : 329 Integration stop scan: 367
Y at integration start : 0 Y at integration end: 0

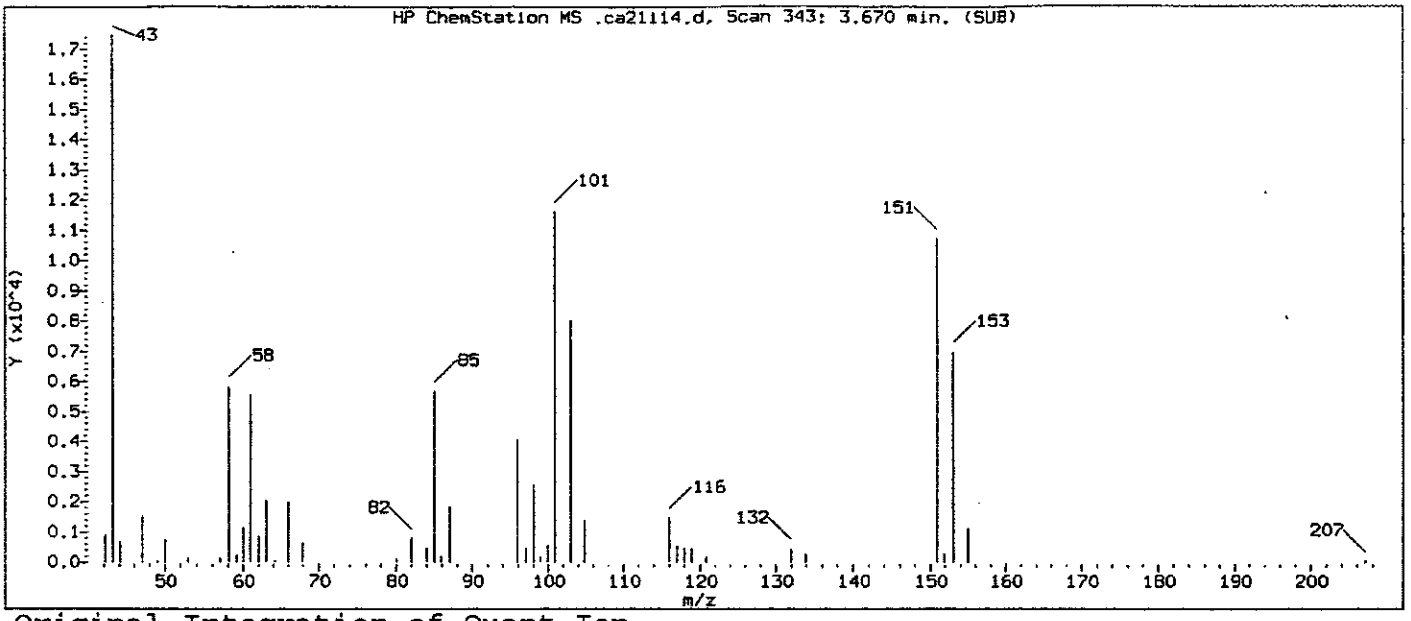
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: msw 4/22/09

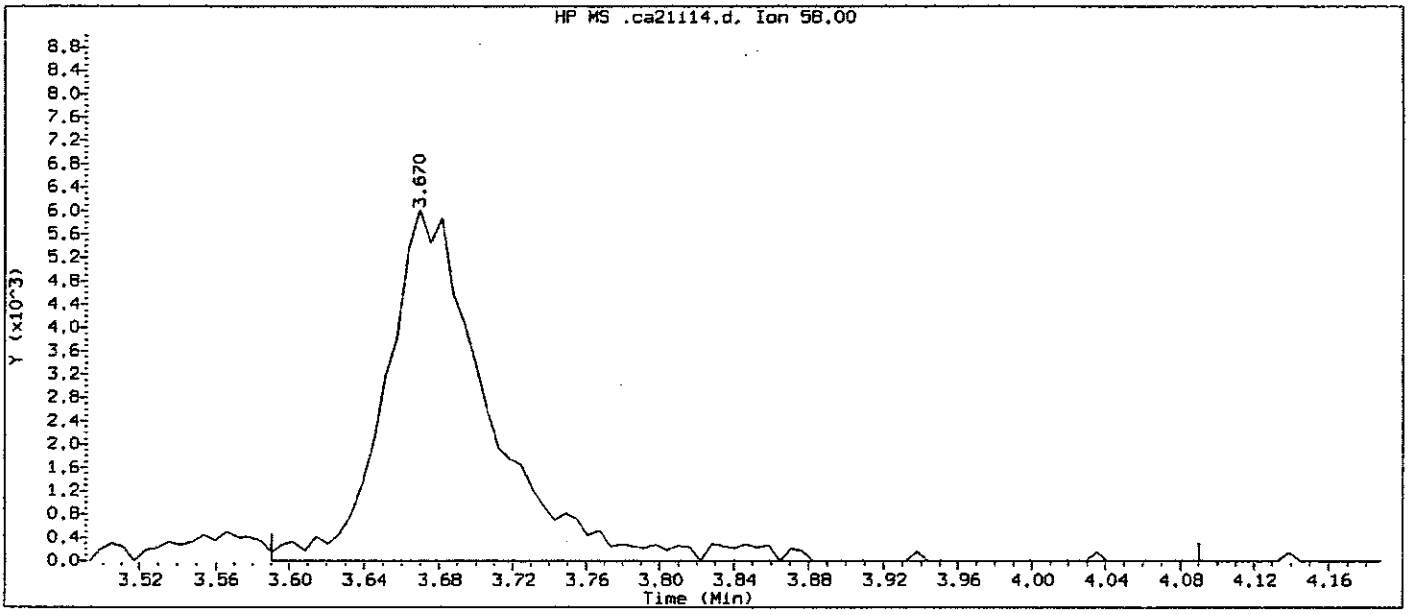
GC/MS audit/management approval: 4/22/09

BAD11 8177

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

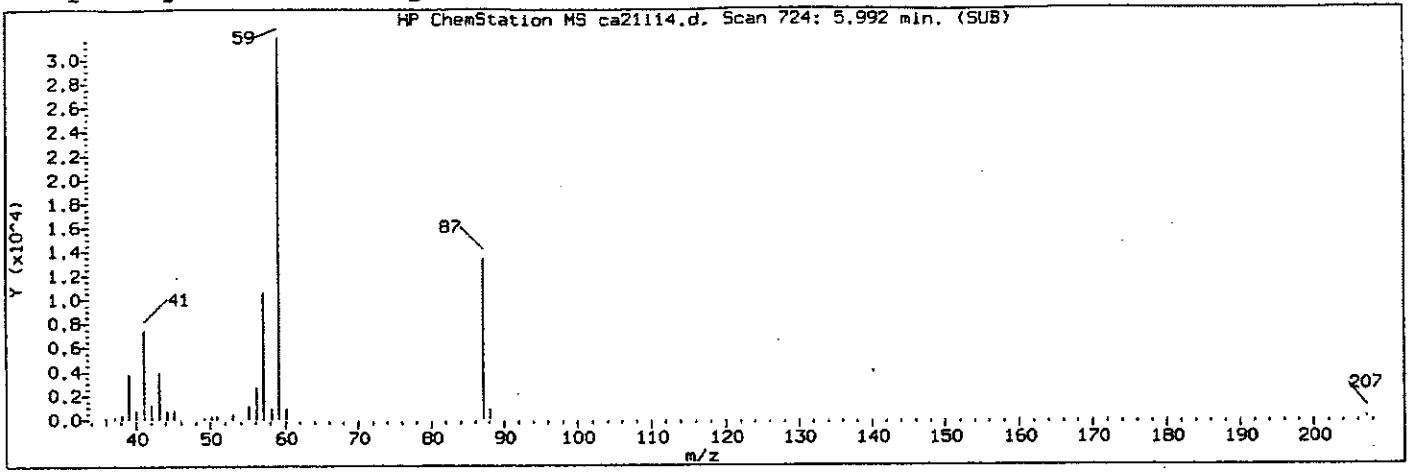
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	23
Compound Name	:	Acetone
Scan Number	:	343
Retention Time (minutes)	:	3.670
Quant Ion	:	58
Area	:	23866
Concentration (ug/L)	:	10.1916
Integration start scan	:	329 Integration stop scan: 411
Y at integration start	:	0 Y at integration end: 0

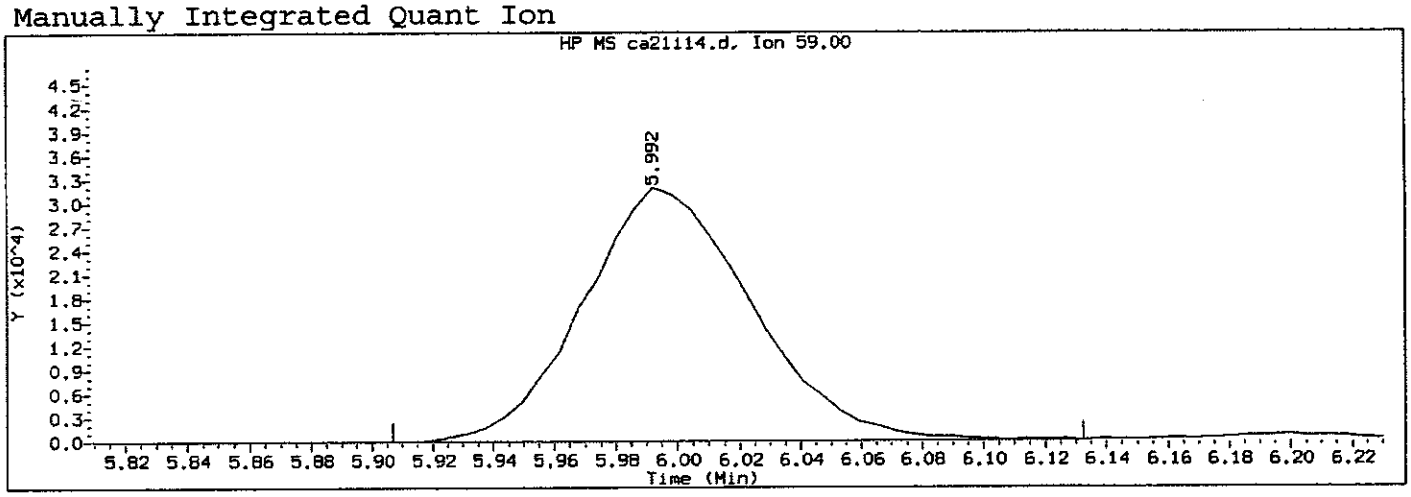
BAD11 8178

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 48
Compound Name : Ethyl t-Butyl Ether
Scan Number : 724
Retention Time (minutes): 5.992
Quant Ion : 59
Area (flag) : 121412 M
Concentration (ug/L) : 0.9141
Integration start scan : 709 Integration stop scan: 746
Y at integration start : 0 Y at integration end: 0

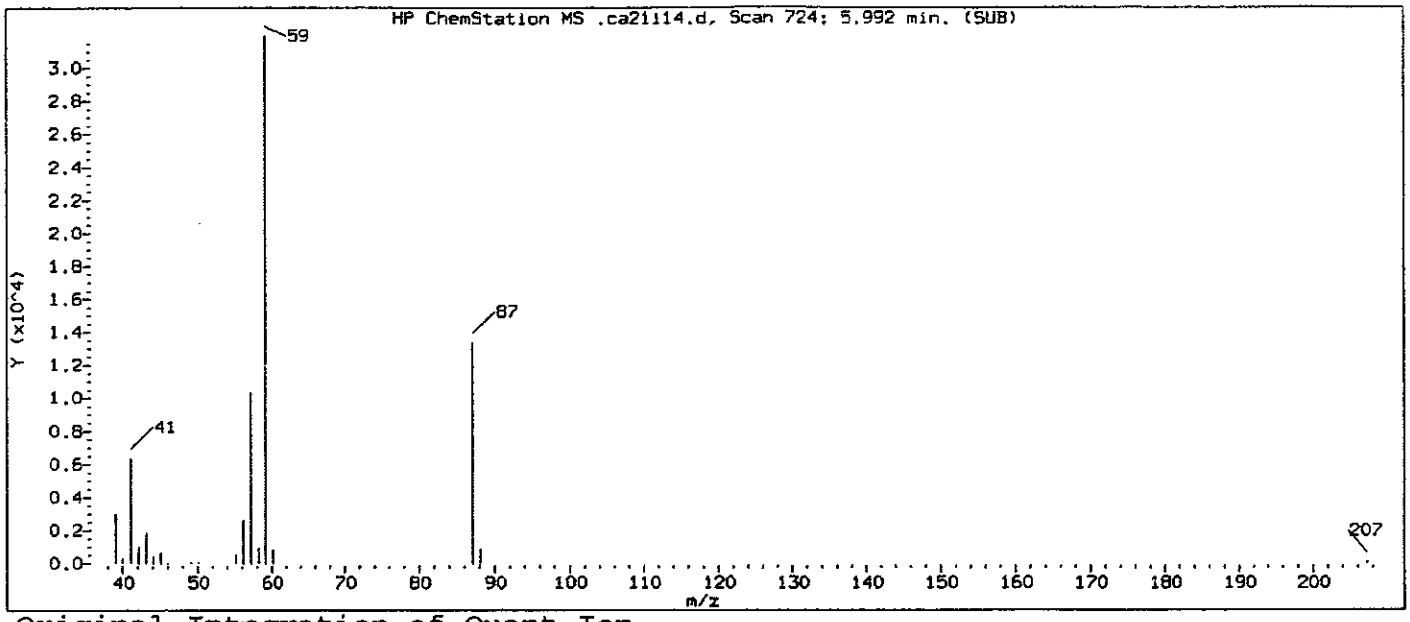
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSW 4/22/09

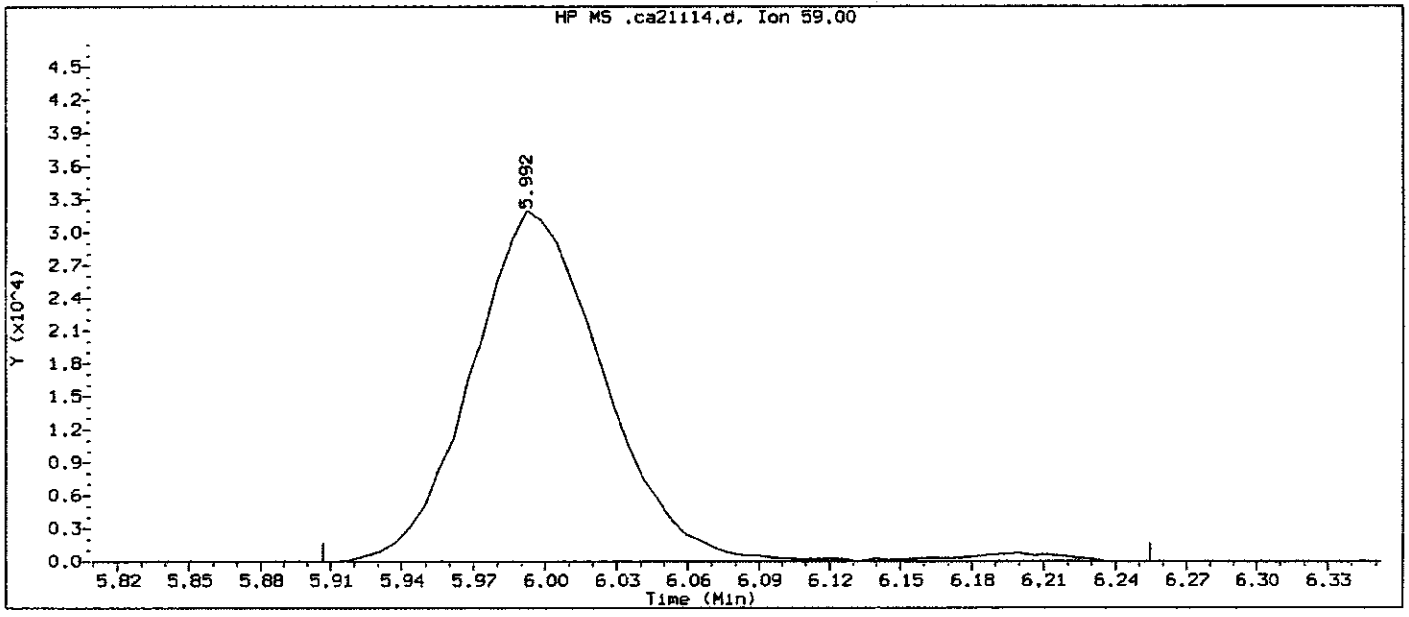
GC/MS audit/management approval: 4/22/09

R4D11 8179

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

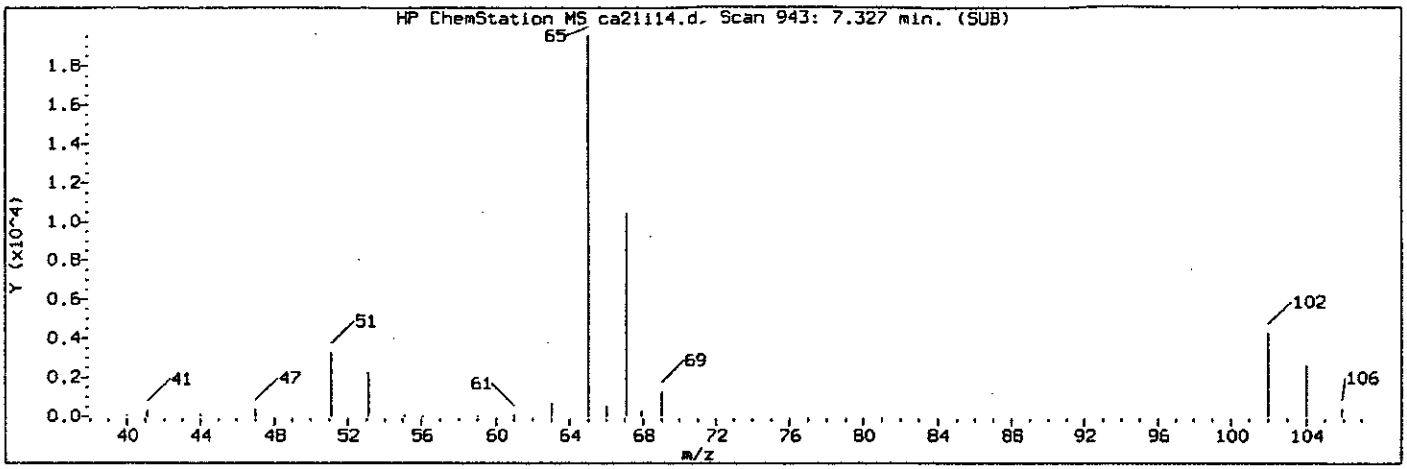
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 48
Compound Name	: Ethyl t-Butyl Ether
Scan Number	: 724
Retention Time (minutes)	: 5.992
Quant Ion	: 59
Area	: 123756
Concentration (ug/L)	: 0.9276
Integration start scan	: 709 Integration stop scan: 766
Y at integration start	: 0 Y at integration end: 0

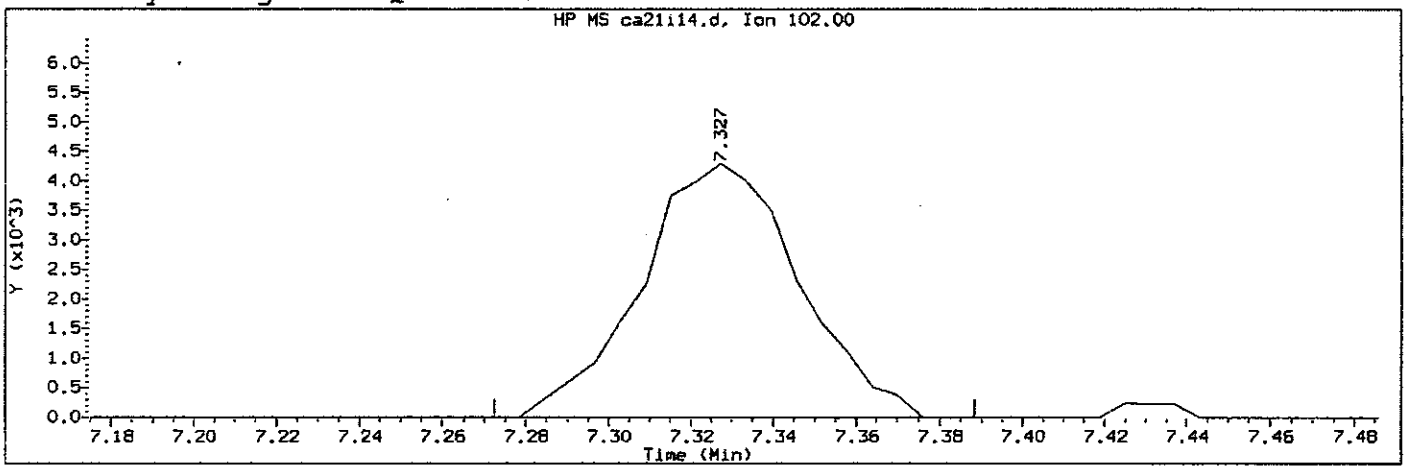
RAD11 0100

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 943
Retention Time (minutes) : 7.327
Quant Ion : 102
Area (flag) : 11431 M
Concentration (ug/L) : 1.0043
Integration start scan : 933 Integration stop scan: 952
Y at integration start : 0 Y at integration end: 0

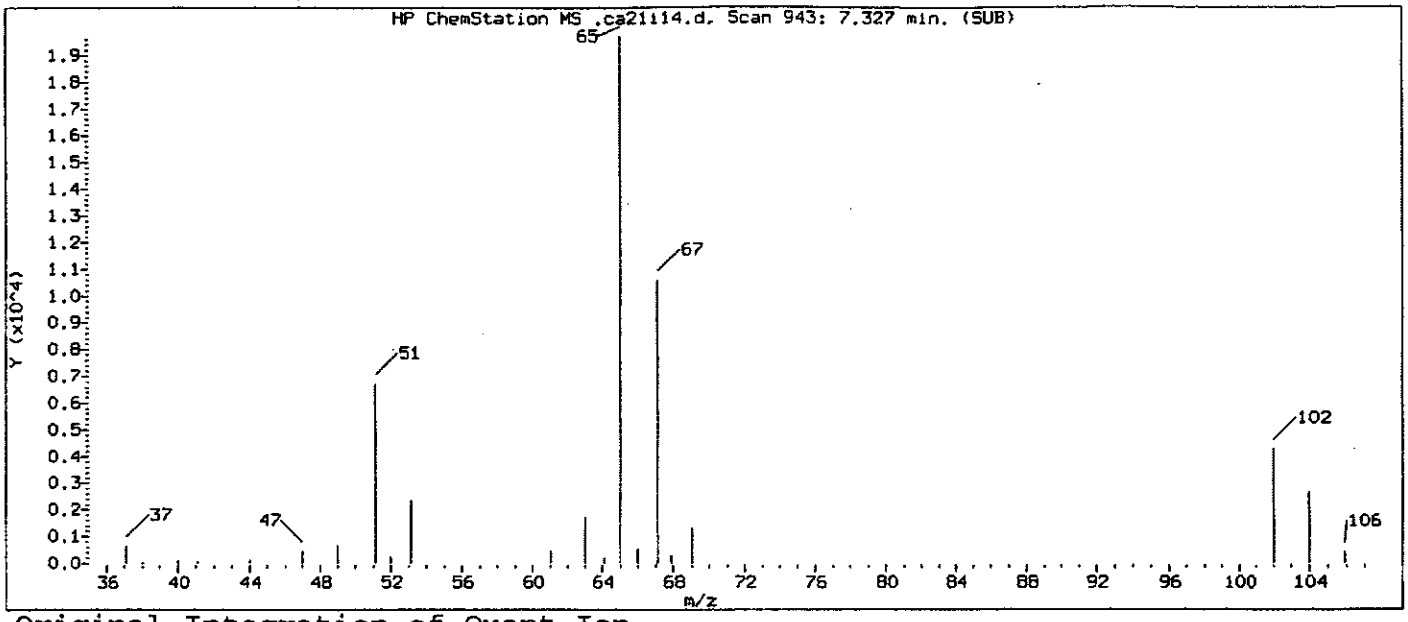
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: msw 04/22/09

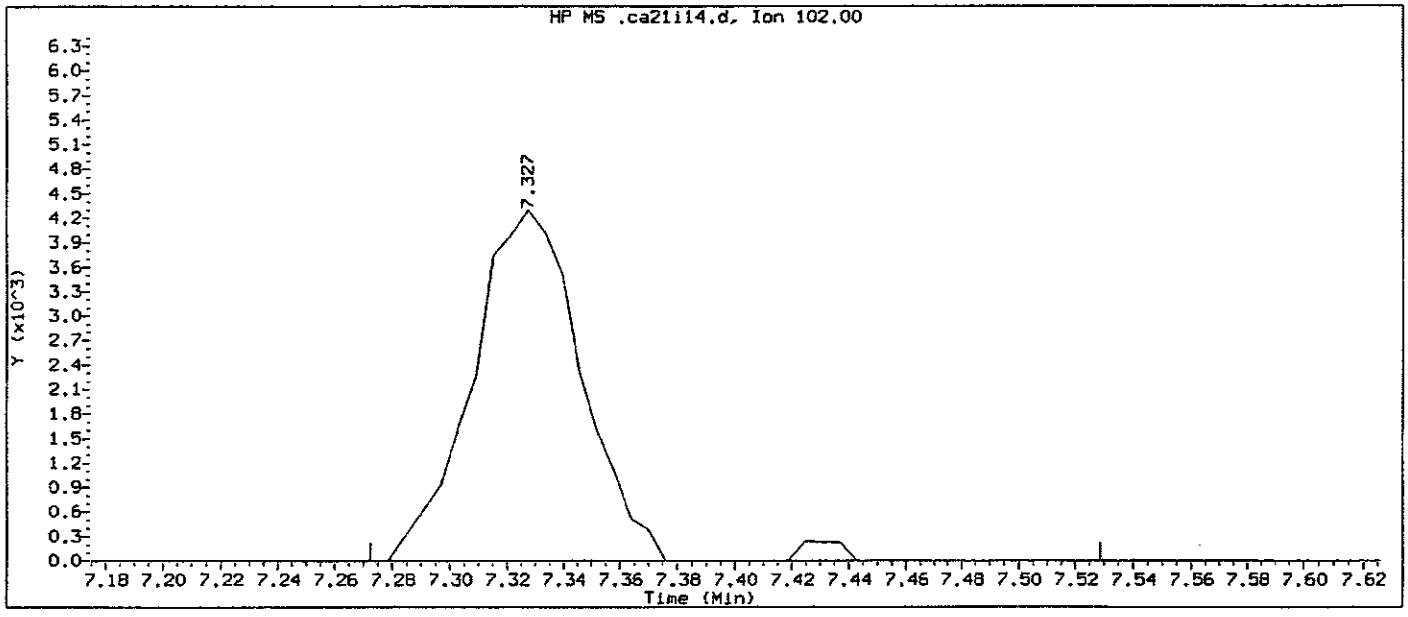
GC/MS audit/management approval: 4/22/09

RAD11 0181

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

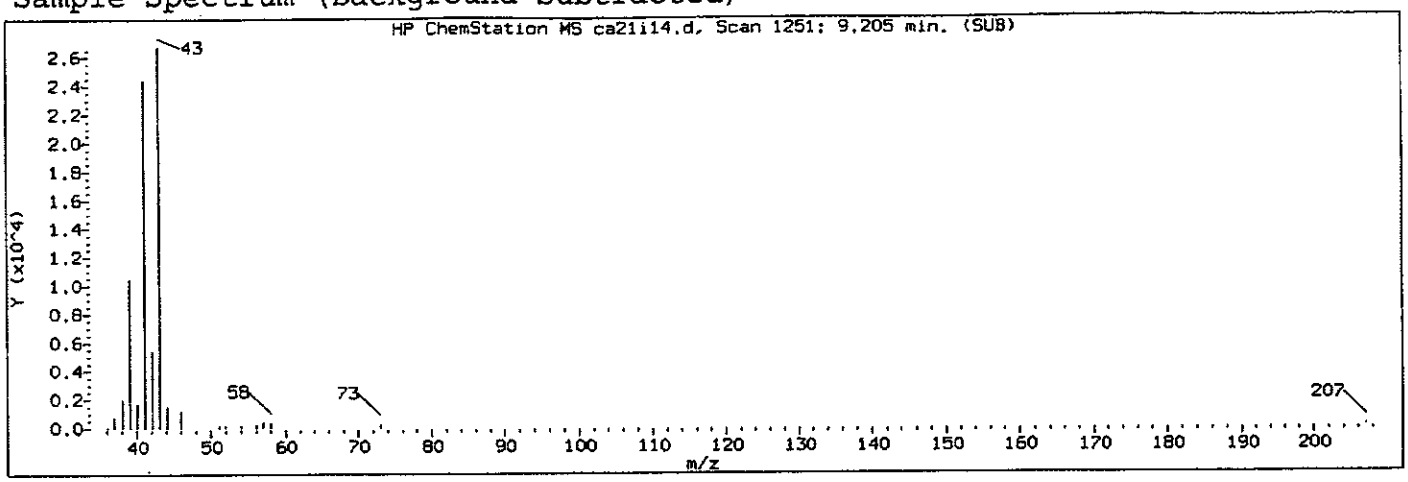
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 69
Compound Name	: 1,2-Dichloroethane-d4
Scan Number	: 943
Retention Time (minutes)	: 7.327
Quant Ion	: 102
Area	: 11683
Concentration (ug/L)	: 1.0092
Integration start scan	: 933 Integration stop scan: 975
Y at integration start	: 0 Y at integration end: 0

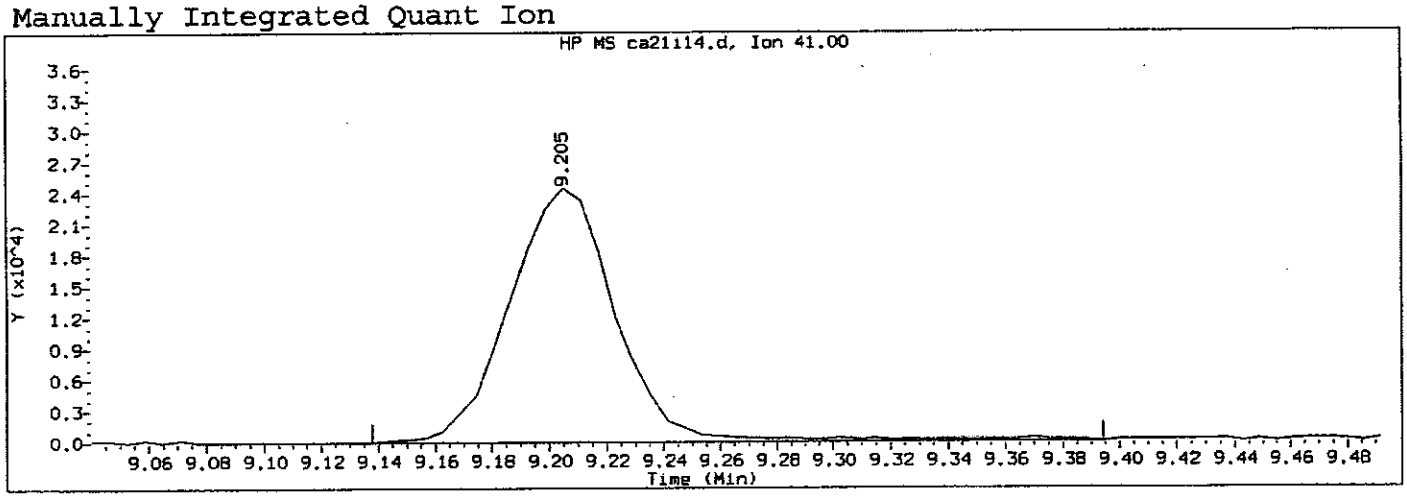
NAD11 0102

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 91
Compound Name : 2-Nitropropane
Scan Number : 1251
Retention Time (minutes): 9.205
Quant Ion : 41
Area (flag) : 63551 M
Concentration (ug/L) : 9.0303
Integration start scan : 1239 Integration stop scan: 1281
Y at integration start : 0 Y at integration end: 0

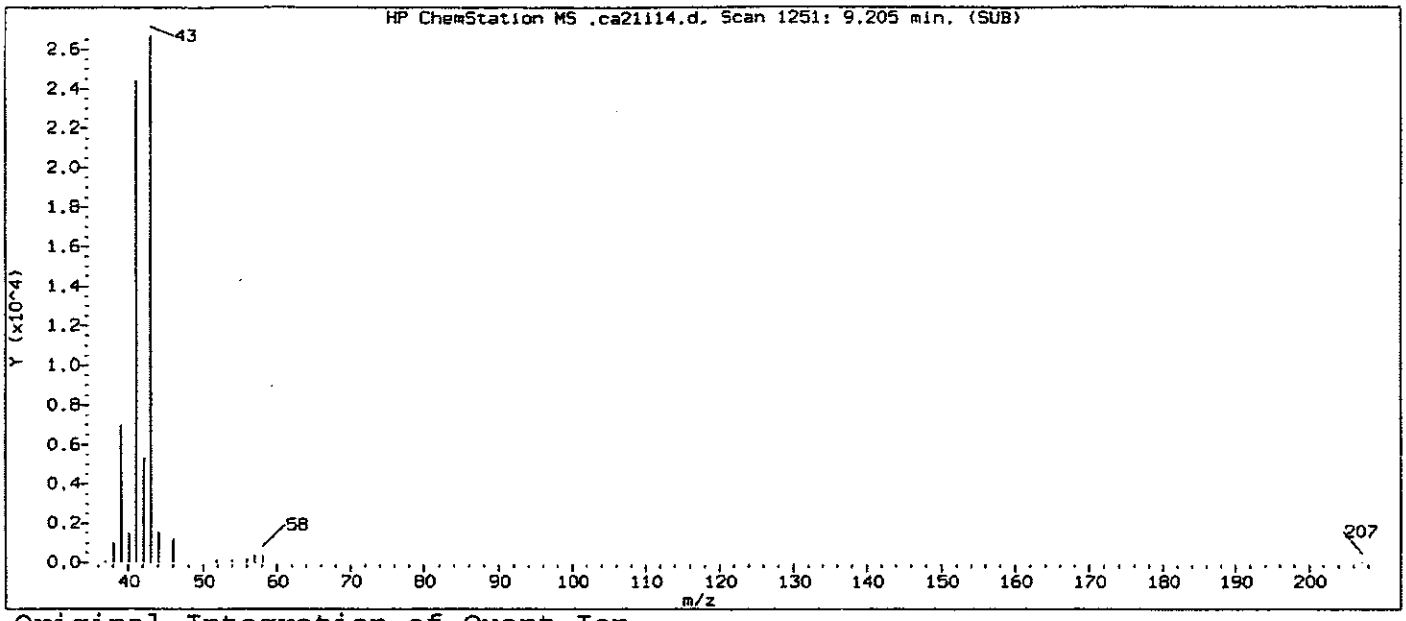
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSW 4/22/09

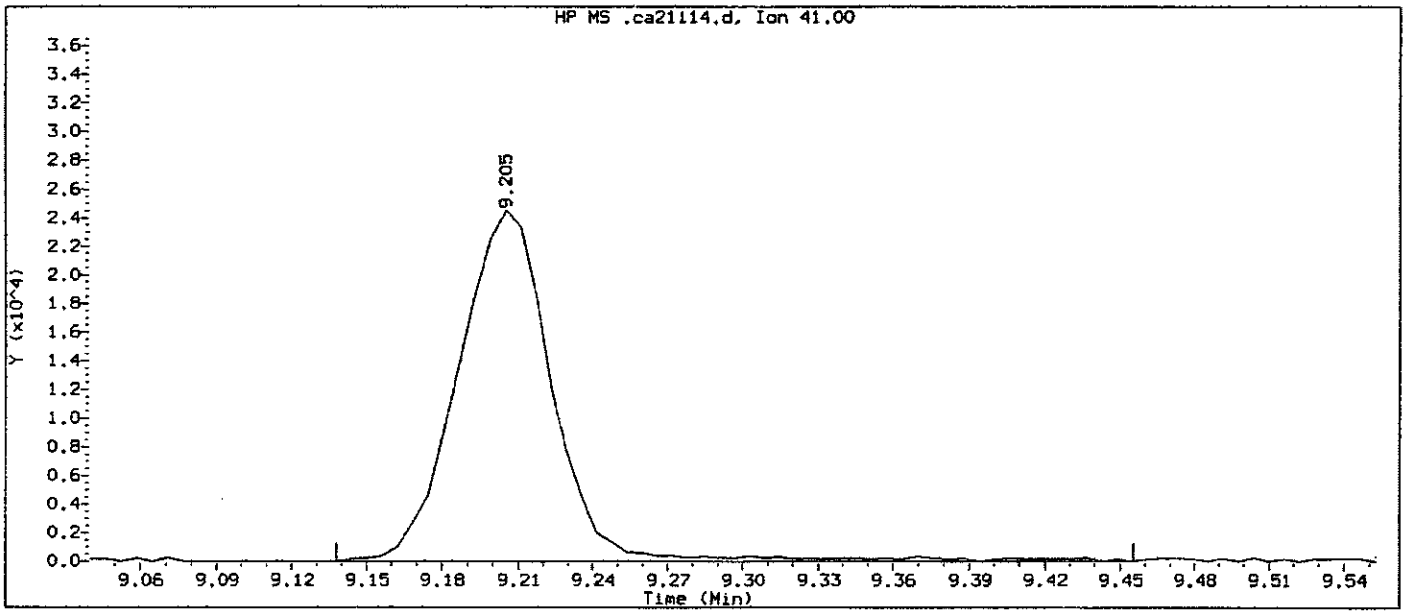
GC/MS audit/management approval: 4/22/09

BAD11 8183

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

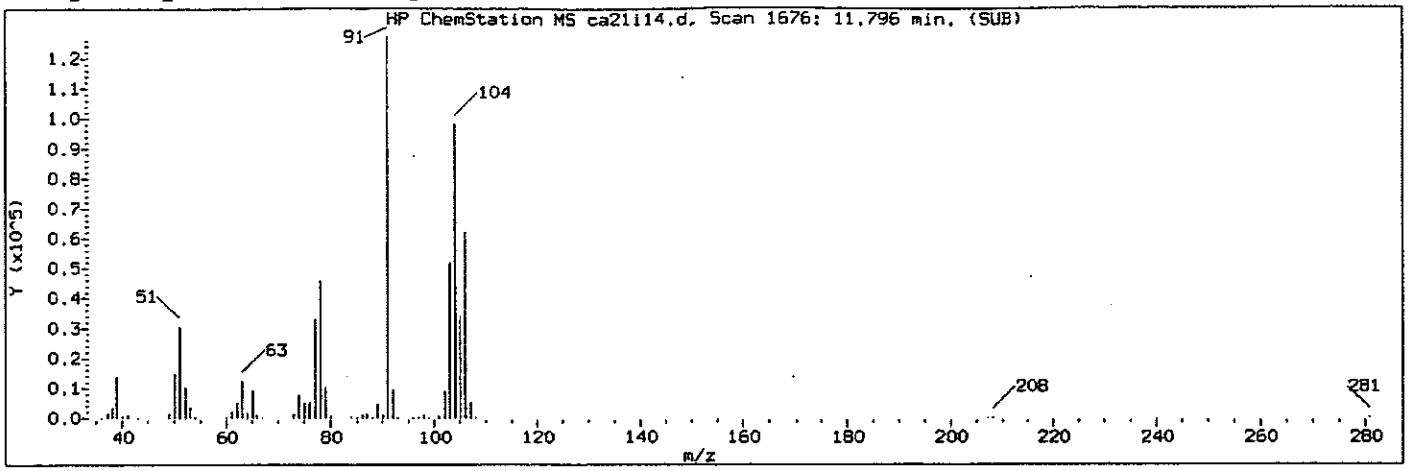
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 91
Compound Name : 2-Nitropropane
Scan Number : 1251
Retention Time (minutes): 9.205
Quant Ion : 41
Area : 64091
Concentration (ug/L) : 9.0896
Integration start scan : 1239 Integration stop scan: 1291
Y at integration start : 0 Y at integration end: 0

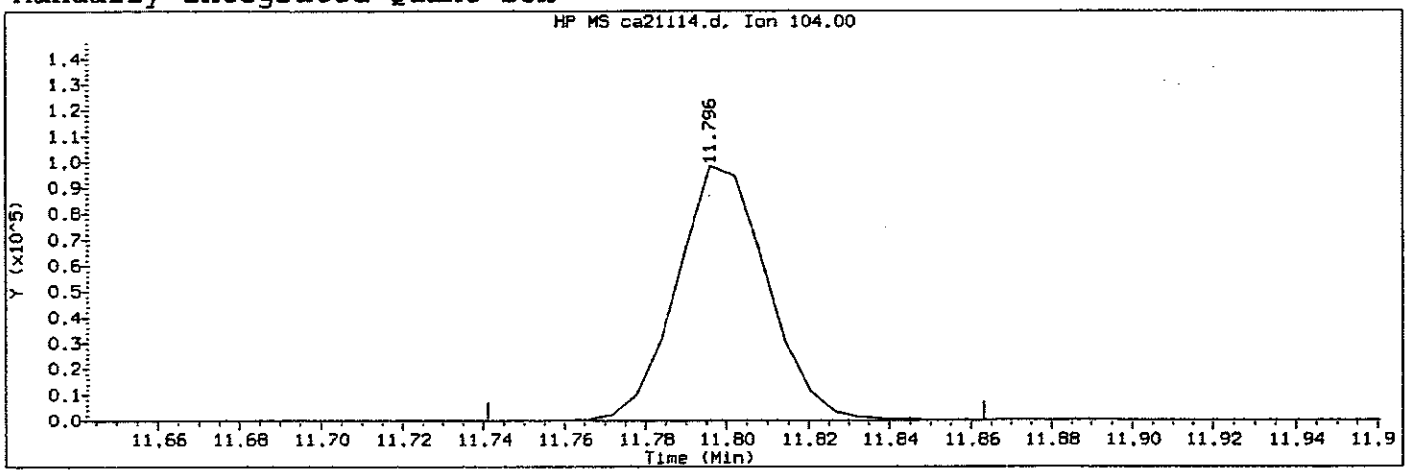
RAD11 #184

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 118
Compound Name : Styrene
Scan Number : 1676
Retention Time (minutes): 11.796
Quant Ion : 104
Area (flag) : 152752 M
Concentration (ug/L) : 0.8742
Integration start scan : 1666 Integration stop scan: 1686
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

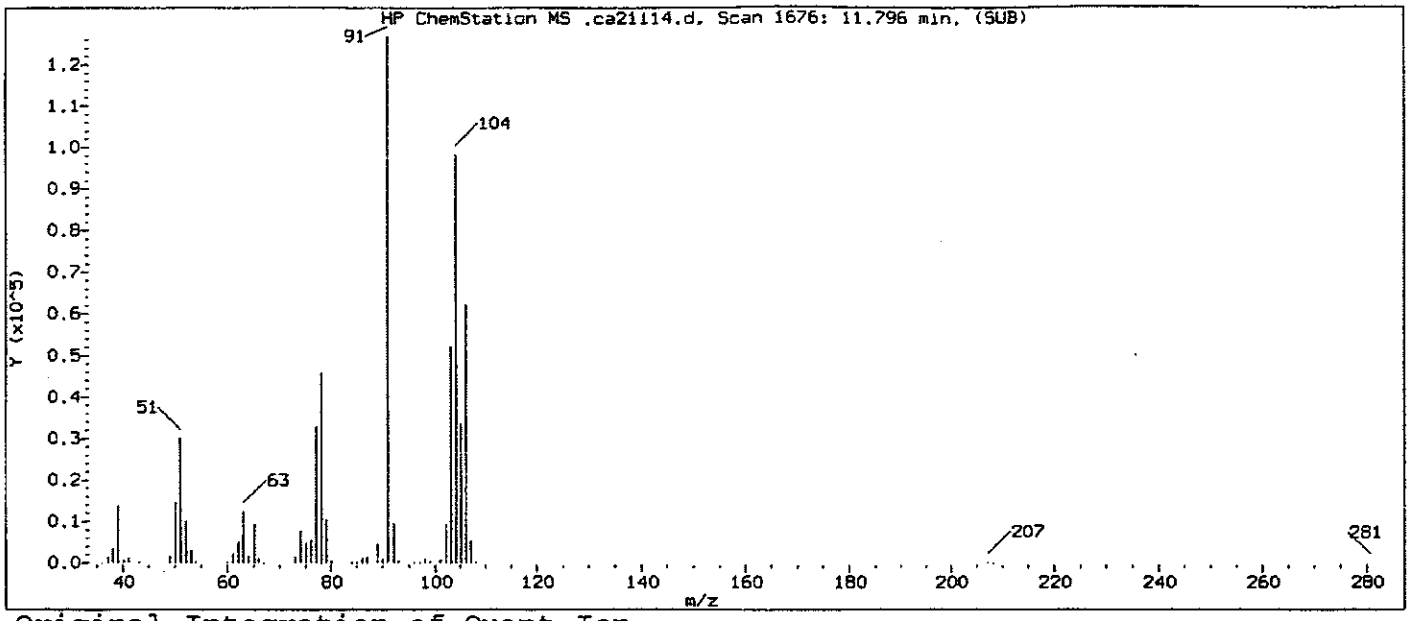
Analyst responsible for change: _____ 4/22/09

GC/MS audit/management approval: _____ 4/22/09

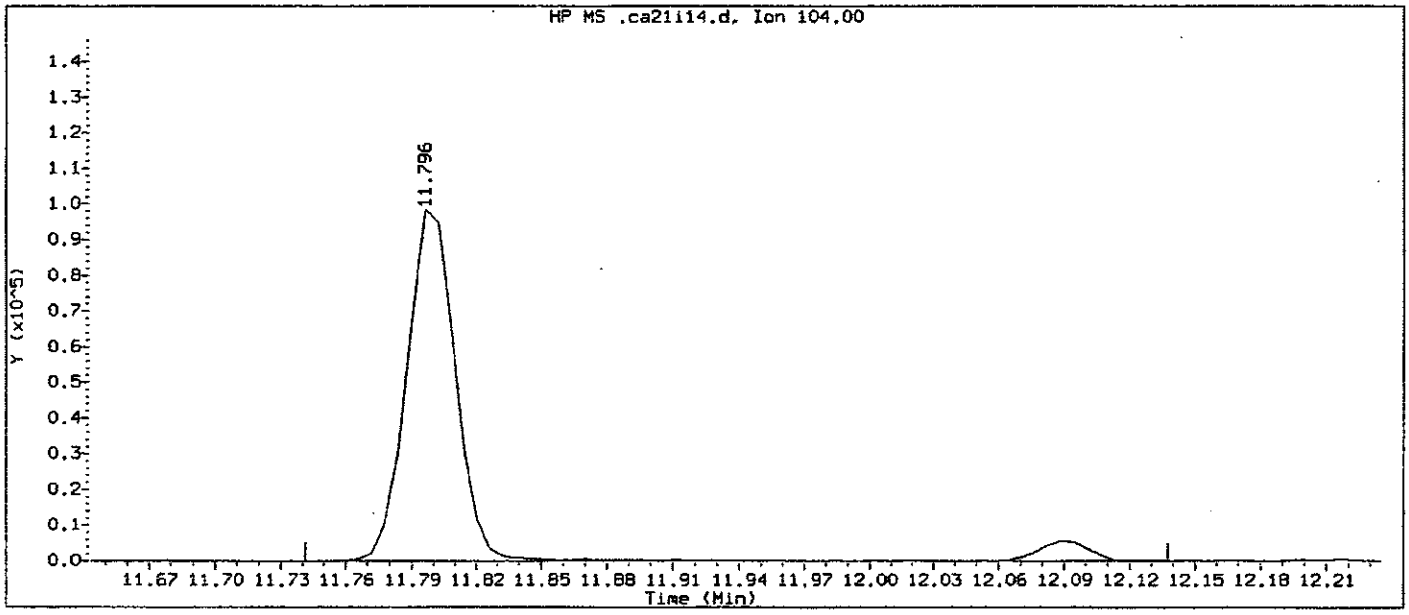
RAD11 0185

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

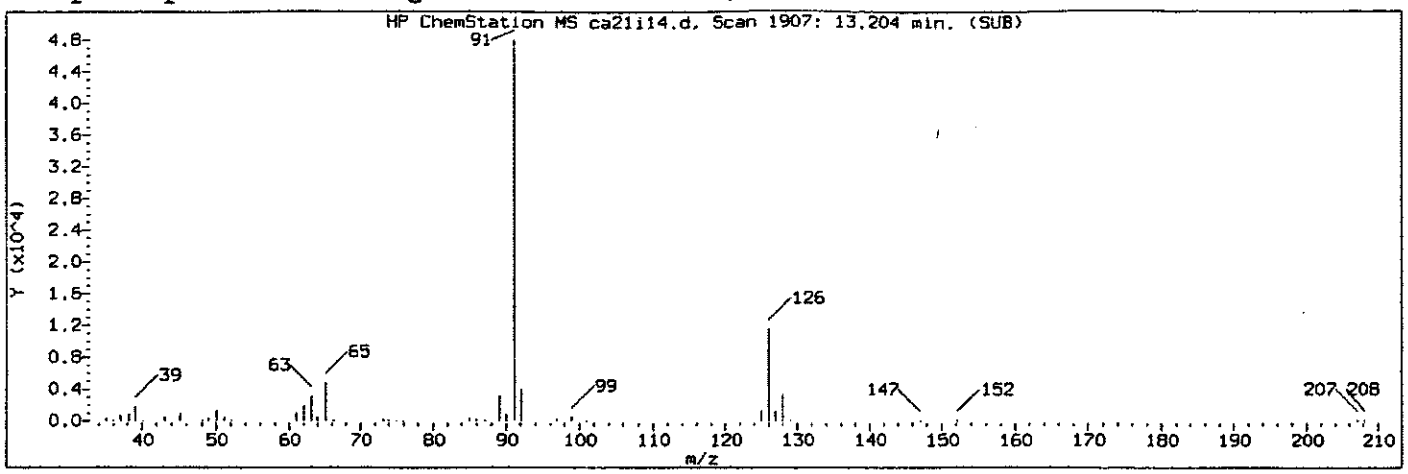
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	118
Compound Name	:	Styrene
Scan Number	:	1676
Retention Time (minutes)	:	11.796
Quant Ion	:	104
Area	:	164382
Concentration (ug/L)	:	0.9254
Integration start scan	:	1666 Integration stop scan: 1731
Y at integration start	:	0 Y at integration end: 0

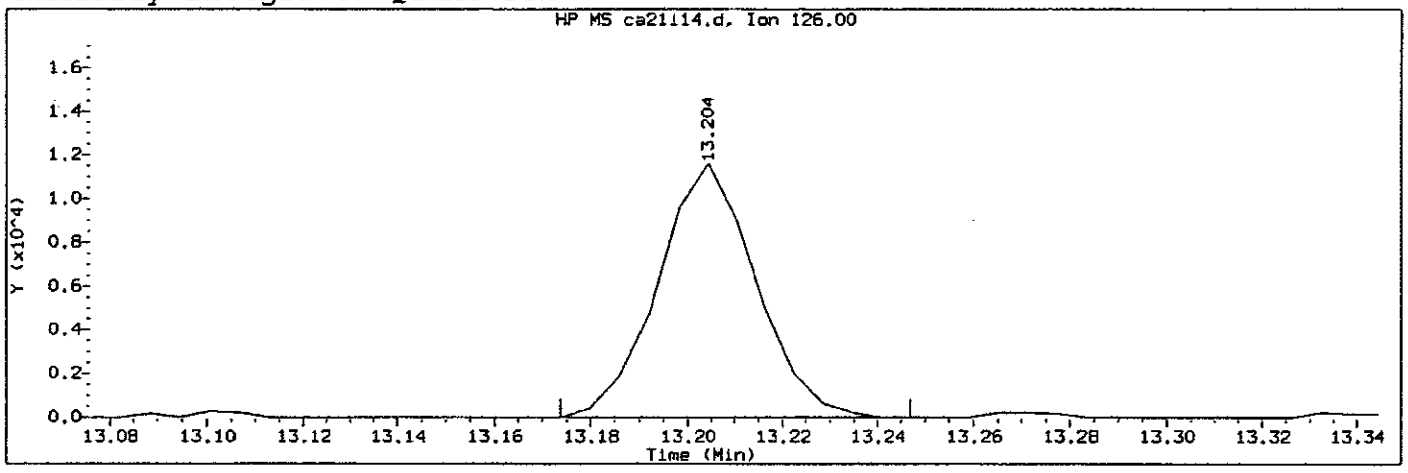
BAD11 0186

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	145
Compound Name	:	Benzyl Chloride
Scan Number	:	1907
Retention Time (minutes)	:	13.204
Quant Ion	:	126
Area (flag)	:	16488 M
Concentration (ug/L)	:	0.8359
Integration start scan	:	1901 Integration stop scan: 1913
Y at integration start	:	0 Y at integration end: 0

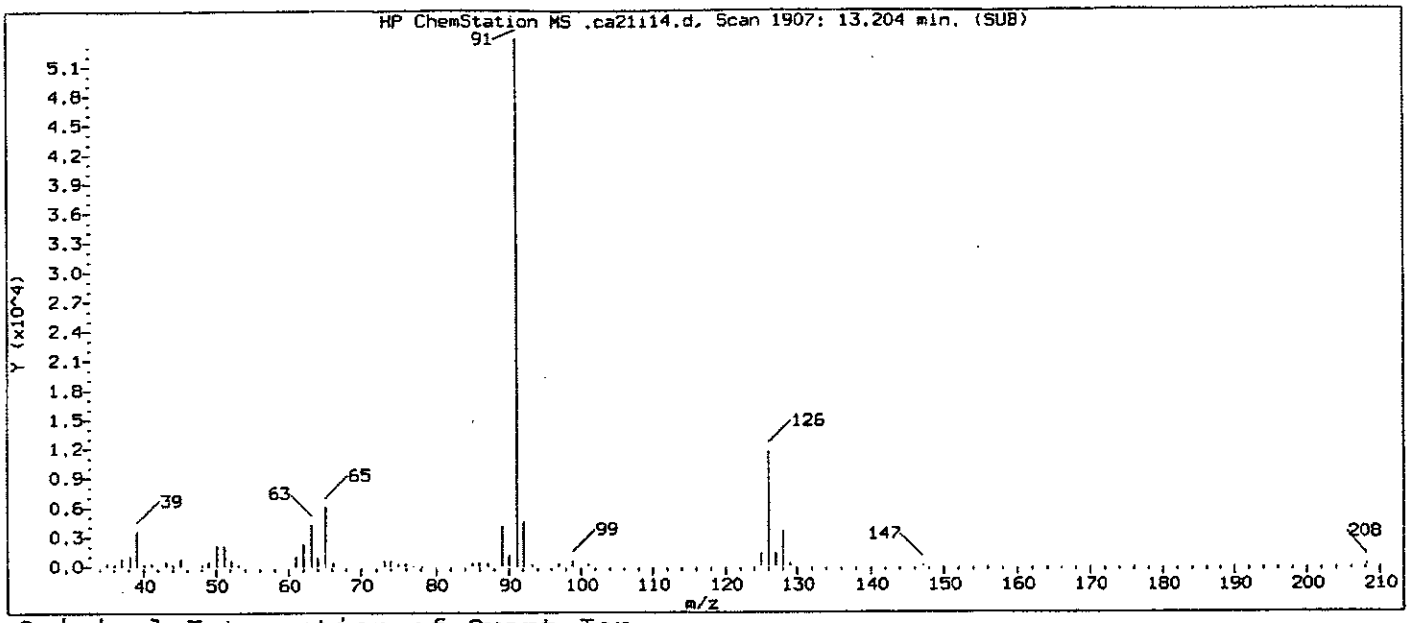
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: msw 4/22/09

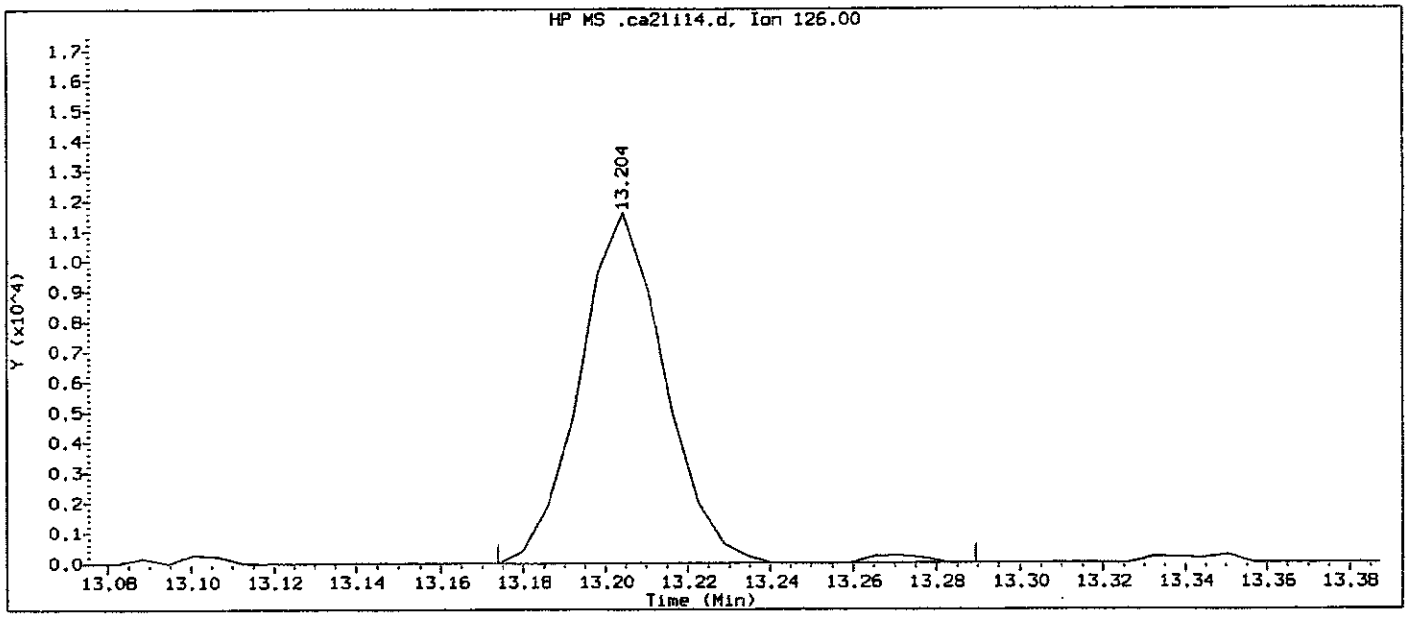
GC/MS audit/management approval: 4/22/09

RADII #187

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

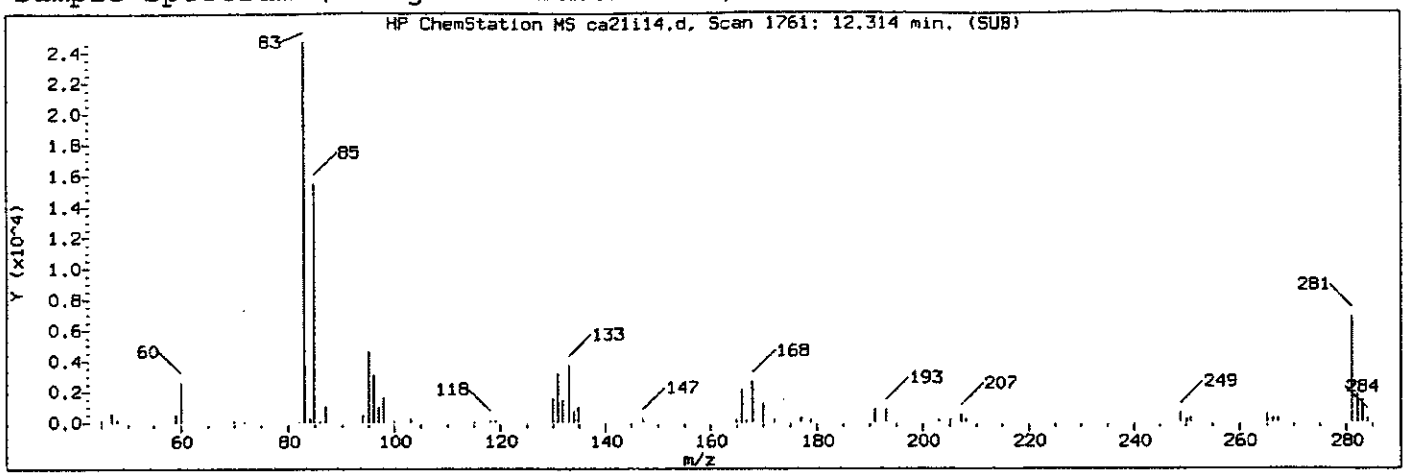
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	145
Compound Name	:	Benzyl Chloride
Scan Number	:	1907
Retention Time (minutes)	:	13.204
Quant Ion	:	126
Area	:	16716
Concentration (ug/L)	:	0.8451
Integration start scan	:	1901 Integration stop scan: 1920
Y at integration start	:	0 Y at integration end: 0

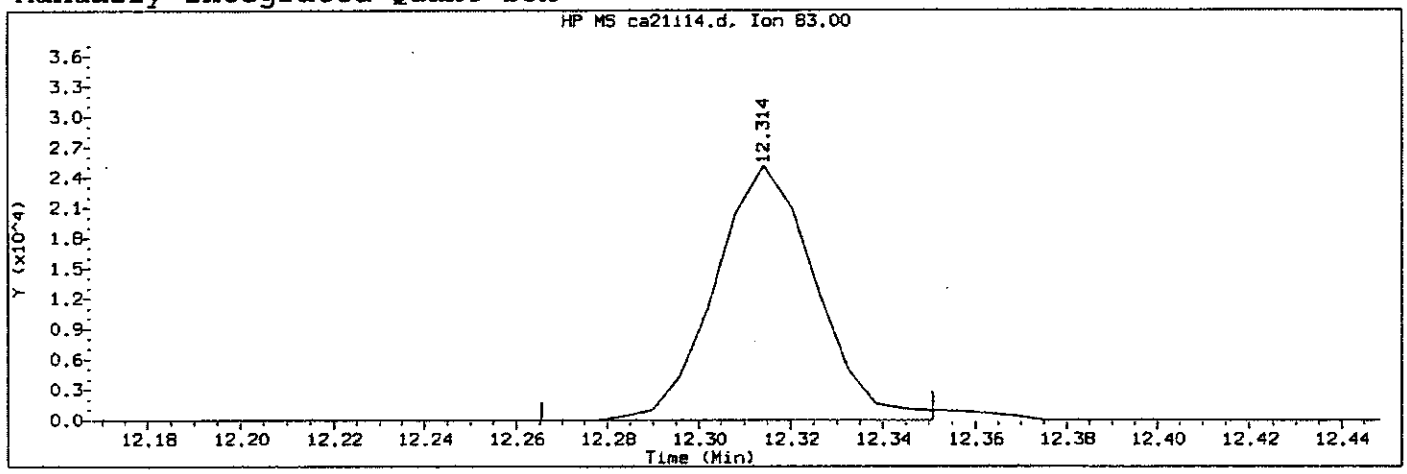
BAD11 0100

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area (flag) : 38192 M
Concentration (ug/L) : 0.9545
Integration start scan : 1752 Integration stop scan: 1766
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

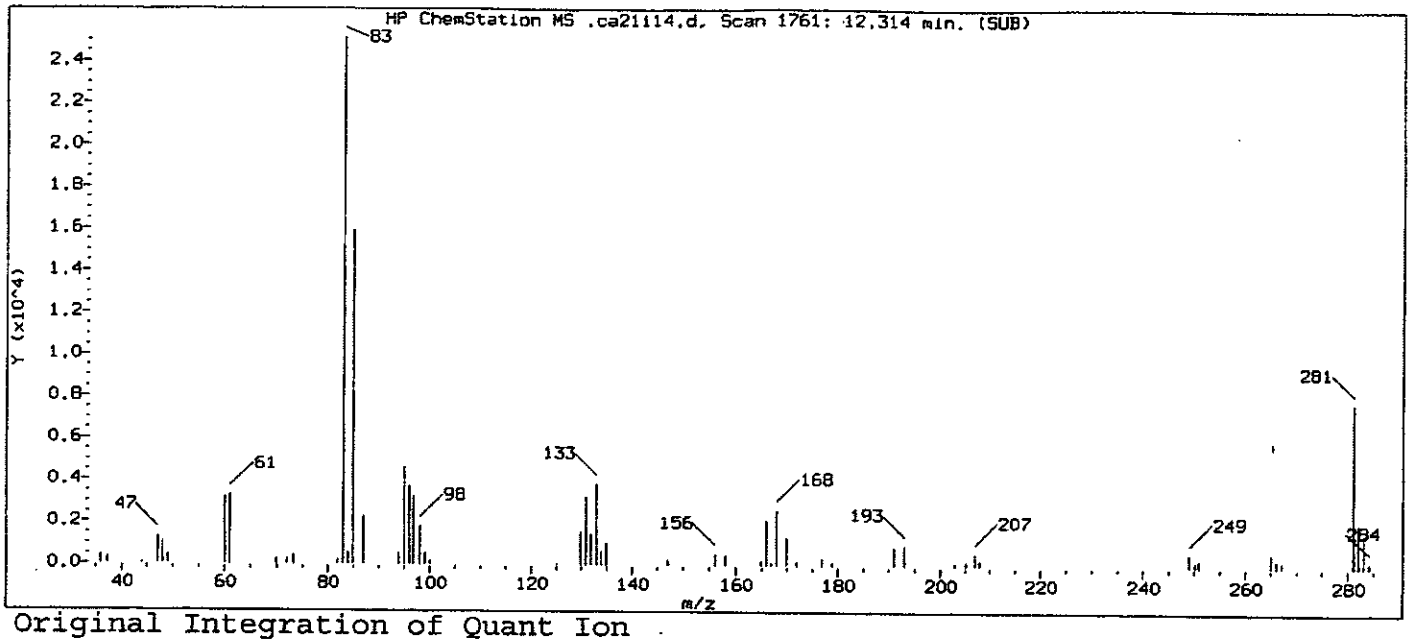
Analyst responsible for change: ADS1731 4/22/09

GC/MS audit/management approval: 4-27-09

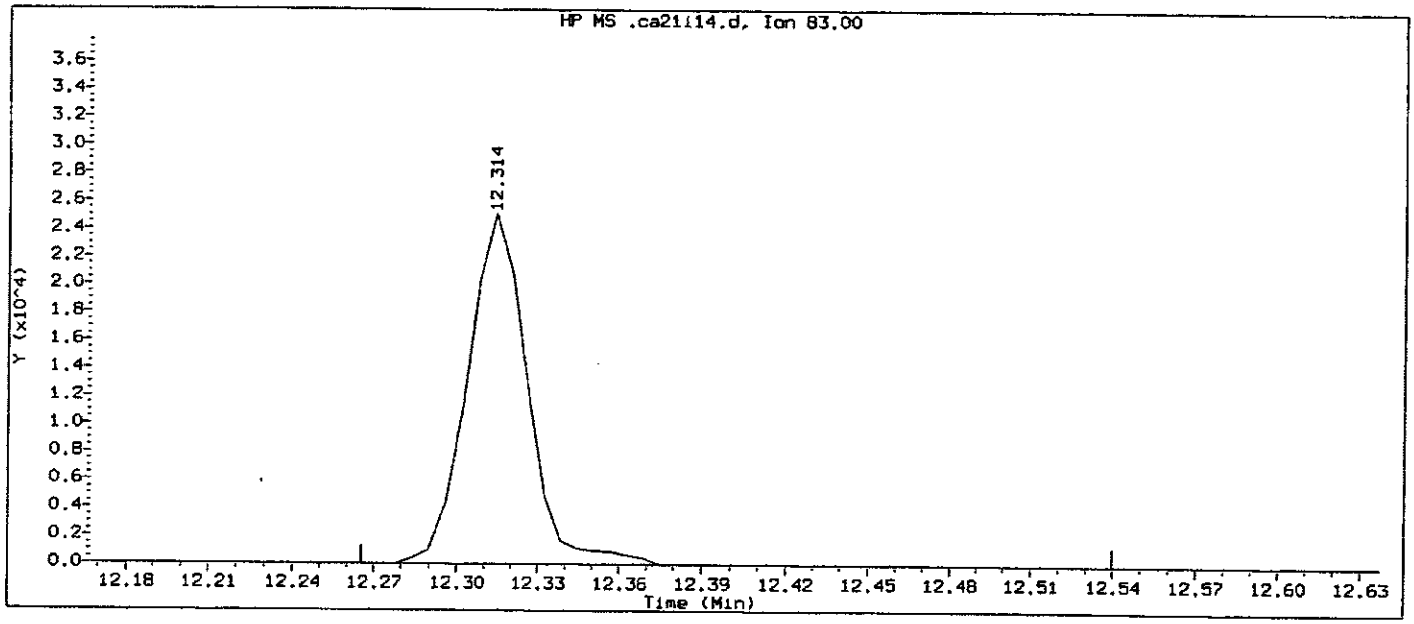
RAD11 8189

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 14:46

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i14.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:33 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 21:51
Date, time and analyst ID of latest file update: 21-Apr-2009 21:51 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 125
Compound Name	: 1,1,2,2-Tetrachloroethane
Scan Number	: 1761
Retention Time (minutes)	: 12.314
Quant Ion	: 83
Area	: 38910
Concentration (ug/L)	: 0.9175
Integration start scan	: 1752 Integration stop scan: 1797
Y at integration start	: 0 Y at integration end: 0

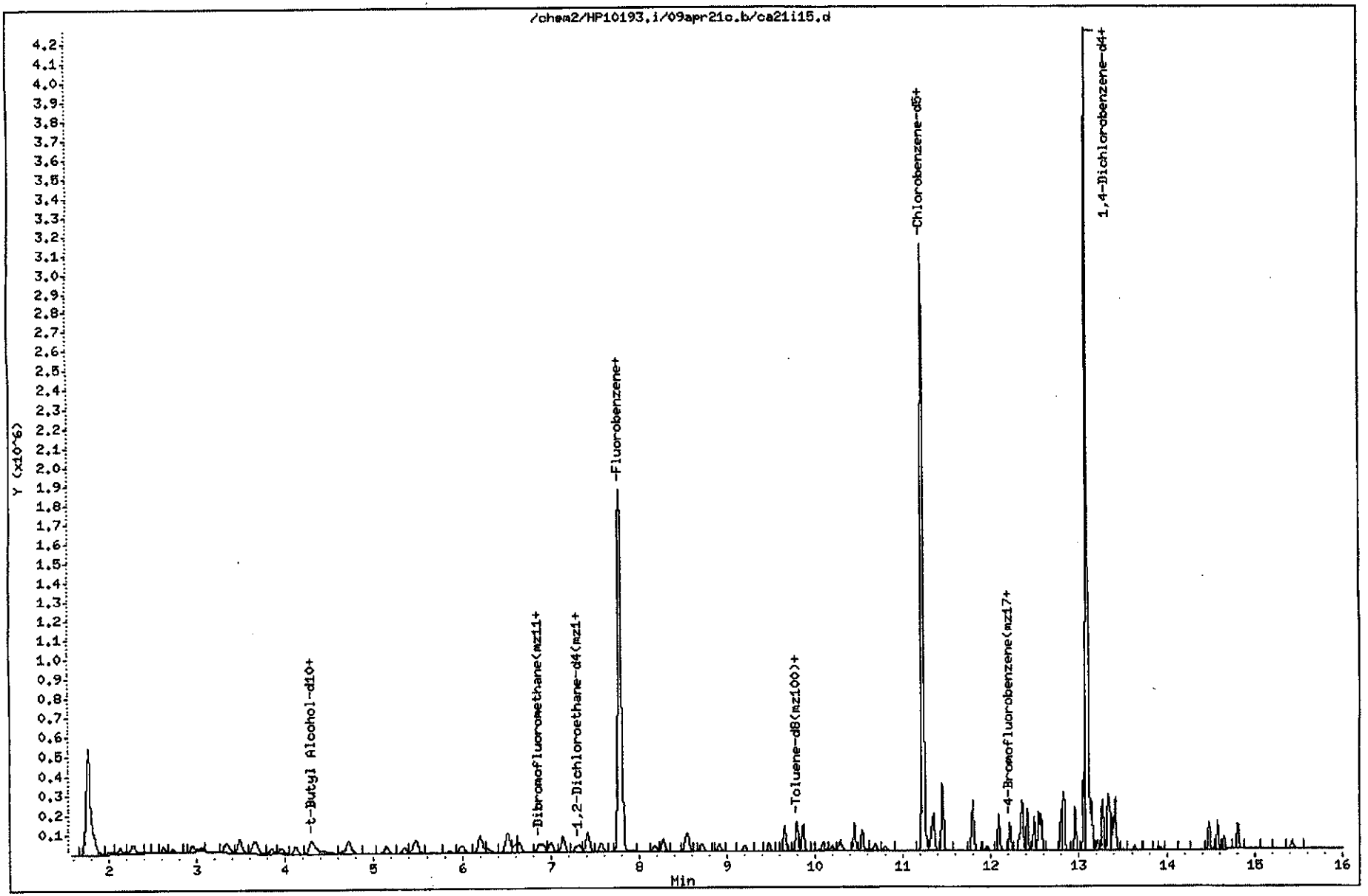
RAD11 8198

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i14.d, generated on 04/22/2009 at 14:46

Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d
Date : 21-APR-2009 21:54
Client ID: VSTD0.5
Sample Info: VSTD0.5;VSTD0.5;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.993	85	31933M	0.452
4) Chloromethane	(1)	2.127	50	33998	0.514
6) Vinyl Chloride	(1)	2.274	62	33667	0.499
8) Bromomethane	(1)	2.615	94	26114M	0.520
9) Chloroethane	(1)	2.731	64	20335M	0.514
11) Dichlorofluoromethane	(1)	2.944	67	55845	0.507
12) Trichlorofluoromethane	(1)	3.060	101	51808M	0.477
15) Ethyl Ether	(1)	3.328	59	18033	0.460
16) Freon 123a	(1)	3.347	67	33873	0.500
18) Acrolein	(4)	3.481	56	126108	24.853
19) 1,1-Dichloroethene	(1)	3.645	96	22802	0.491
20) Freon 113	(1)	3.664	101	25940	0.474
23) Acetone	(4)	3.670	58	12001M	5.204
26) Methyl Iodide	(1)	3.846	142	45476	0.496
27) Carbon Disulfide	(1)	3.950	76	77747	0.493
29) Allyl Chloride	(1)	4.115	41	36735	0.454
30) Methyl Acetate	(1)	4.127	43	10232	0.518
32) Methylene Chloride	(1)	4.291	84	30978	0.567
33) *t-Butyl Alcohol-d10	(4)	4.310	65	114476	50.000
35) t-Butyl Alcohol	(4)	4.450	59	26587M	9.545
36) Acrylonitrile	(4)	4.651	53	20913M	2.309
37) trans-1,2-Dichloroethene	(1)	4.718	96	26444	0.486
40) 1,2-Dichloroethene (Total)	(1)		96	52930	0.944
38) Methyl Tertiary Butyl Ether	(1)	4.724	73	48871	0.442
41) n-Hexane	(1)	5.145	57	25812	0.399
44) 1,1-Dichloroethane	(1)	5.346	63	44038M	0.484
46) di-Isopropyl Ether	(1)	5.468	45	63691	0.420
47) 2-Chloro-1,3-Butadiene	(1)	5.486	53	32024	0.416
48) Ethyl t-Butyl Ether	(1)	5.986	59	52574	0.404
51) 2,2-Dichloropropane	(1)	6.206	77	37076	0.467
49) cis-1,2-Dichloroethene	(1)	6.194	96	26486	0.458
50) 2-Butanone	(4)	6.206	43	49756	4.381
52) Propionitrile	(4)	6.285	54	33991	9.547
53) Methacrylonitrile	(4)	6.504	67	49366	4.278

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8192

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	13582	0.469
55) Tetrahydrofuran	(4)	6.596	71	14484	4.489
56) Chloroform	(1)	6.645	83	48324	0.487
60) 1,1,1-Trichloroethane	(1)	6.907	97	42541	0.468
61) Cyclohexane	(1)	7.004	56	32308	0.393
63) 1,1-Dichloropropene	(1)	7.138	75	32250	0.446
64) Carbon Tetrachloride	(1)	7.151	117	38891	0.468
66) Isobutyl Alcohol	(4)	7.285	41	22531	23.326
70) Benzene	(1)	7.413	78	106014	0.475
72) 1,2-Dichloroethane	(1)	7.431	62	27607	0.470
71) 1,2-Dichloroethane(mz98)	(1)	7.431	98	2640	0.501
74) t-Amyl Methyl Ether	(1)	7.571	73	45589	0.398
75)*Fluorobenzene	(1)	7.791	96	2398847	10.000
76) n-Heptane	(1)	7.791	43	33107	0.443
79) n-Butanol	(4)	8.175	56	29076M	40.121
80) Trichloroethene	(1)	8.278	95	29479	0.483
82) Methylcyclohexane	(1)	8.541	83	36091	0.375
83) 1,2-Dichloropropane	(1)	8.559	63	24408	0.467
85) Dibromomethane	(1)	8.711	93	11708	0.473
87) 1,4-Dioxane	(4)	8.748	88	5709	25.380
86) Methyl Methacrylate	(4)	8.717	69	7181	0.394
88) Bromodichloromethane	(1)	8.919	83	29658	0.451
91) 2-Nitropropane	(4)	9.205	41	26818	3.854
93) cis-1,3-Dichloropropene	(1)	9.479	75	28561	0.404
94) 4-Methyl-2-Pentanone	(1)	9.662	43	103241	3.914
97) Toluene	(2)	9.870	92	64837	0.443
100) trans-1,3-Dichloropropene	(2)	10.095	75	24279	0.400
102) Ethyl Methacrylate	(2)	10.199	69	12800	0.519
103) 1,1,2-Trichloroethane	(2)	10.290	97	16593	0.467
104) Tetrachloroethene	(2)	10.449	166	36019	0.490
105) 1,3-Dichloropropane	(2)	10.455	76	25778	0.438
106) 2-Hexanone	(2)	10.540	43	68039	3.964
107) Dibromochloromethane	(2)	10.680	129	19893	0.423
108) 1,2-Dibromoethane	(2)	10.796	107	15054	0.441

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8193

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.229	117	1799735	10.000
110) Chlorobenzene	(2)	11.254	112	86313	0.487
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	27385	0.450
112) Ethylbenzene	(2)	11.351	91	124317	0.429
113) m+p-Xylene	(2)	11.449	106	99369	0.843
116) Xylene (Total)	(2)		106	143534	1.242
117) o-Xylene	(2)	11.790	106	44165	0.399
118) Styrene	(2)	11.796	104	62447	0.367
119) Bromoform	(2)	11.955	173	10339	0.405
120) Isopropylbenzene	(2)	12.089	105	109245	0.389
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	17353M	0.433
126) Bromobenzene	(3)	12.345	156	34614	0.447
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	30902	3.860
128) 1,2,3-Trichloropropane	(3)	12.357	110	5779	0.440
132) n-Propylbenzene	(3)	12.412	91	142859	0.407
133) 2-Chlorotoluene	(3)	12.491	126	33418	0.438
135) 4-Chlorotoluene	(3)	12.570	126	34663	0.433
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	102032	0.393
137) Pentachloroethane	(3)	12.820	167	23721	0.446
136) tert-Butylbenzene	(3)	12.796	134	24327	0.407
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	105523	0.387
139) sec-Butylbenzene	(3)	12.954	105	131874	0.404
140) 1,3-Dichlorobenzene	(3)	13.052	146	76776	0.464
142) *1,4-Dichlorobenzene-d4	(3)	13.095	152	1099814	10.000
141) p-Isopropyltoluene	(3)	13.052	119	113963	0.385
143) 1,4-Dichlorobenzene	(3)	13.113	146	81468	0.480
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	56652M	0.431
145) Benzyl Chloride	(3)	13.204	126	7056	0.458
146) n-Butylbenzene	(3)	13.345	92	61040	0.419
147) 1,2-Dichlorobenzene	(3)	13.387	146	67667	0.463
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	2197	0.391
152) 1,2,4-Trichlorobenzene	(3)	14.485	180	43166	0.425
153) Hexachlorobutadiene	(3)	14.582	225	26187	0.479
154) Naphthalene	(3)	14.655	128	52069	0.392

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8194

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

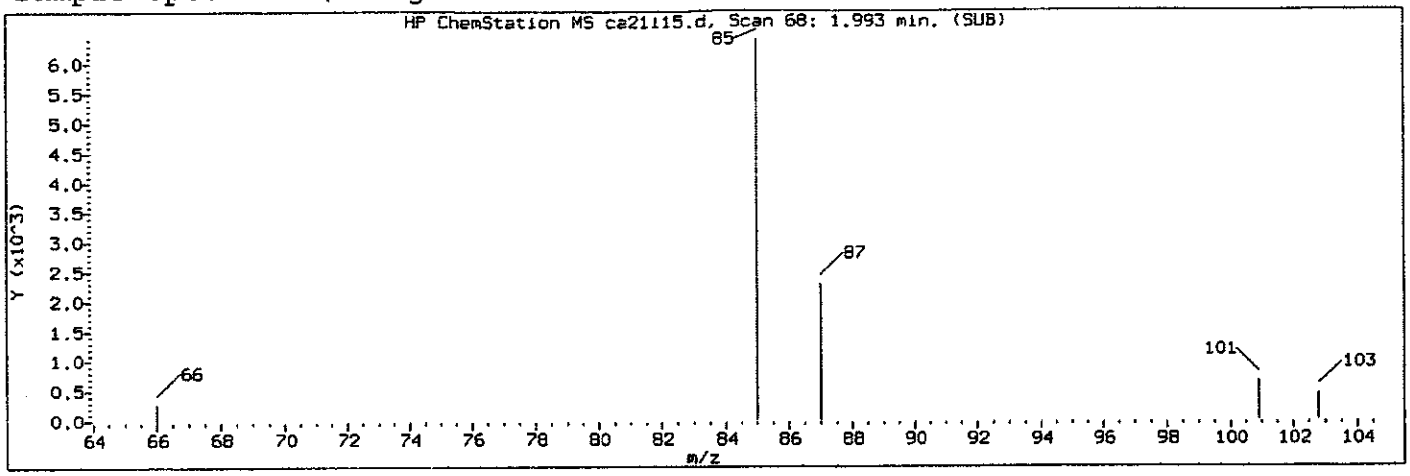
Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

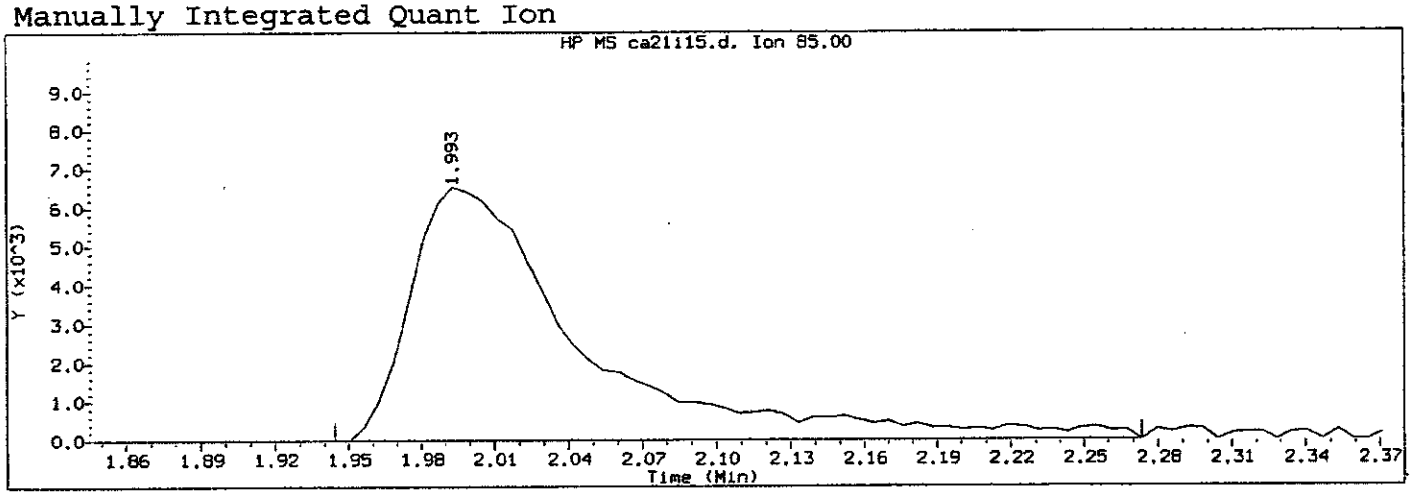
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.814	180	38897	0.447
58)$Dibromofluoromethane	(1)	6.870	113	32308	0.511
59)$Dibromofluoromethane(mz111)	(1)	6.870	111	32363	0.504
69)$1,2-Dichloroethane-d4	(1)	7.327	102	5936	0.519
68)$1,2-Dichloroethane-d4(mz104)	(1)	7.327	104	3773	0.526
95)$Toluene-d8	(2)	9.796	98	119385	0.469
96)$Toluene-d8(mz100)	(2)	9.796	100	76909	0.473
123)$4-Bromofluorobenzene	(2)	12.217	95	41267	0.438
124)$4-Bromofluorobenzene(mz174)	(2)	12.217	174	39263	0.451

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 68
Retention Time (minutes): 1.993
Quant Ion : 85
Area (flag) : 31933 M
Concentration (ug/L) : 0.4533
Integration start scan : 59 Integration stop scan: 113
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

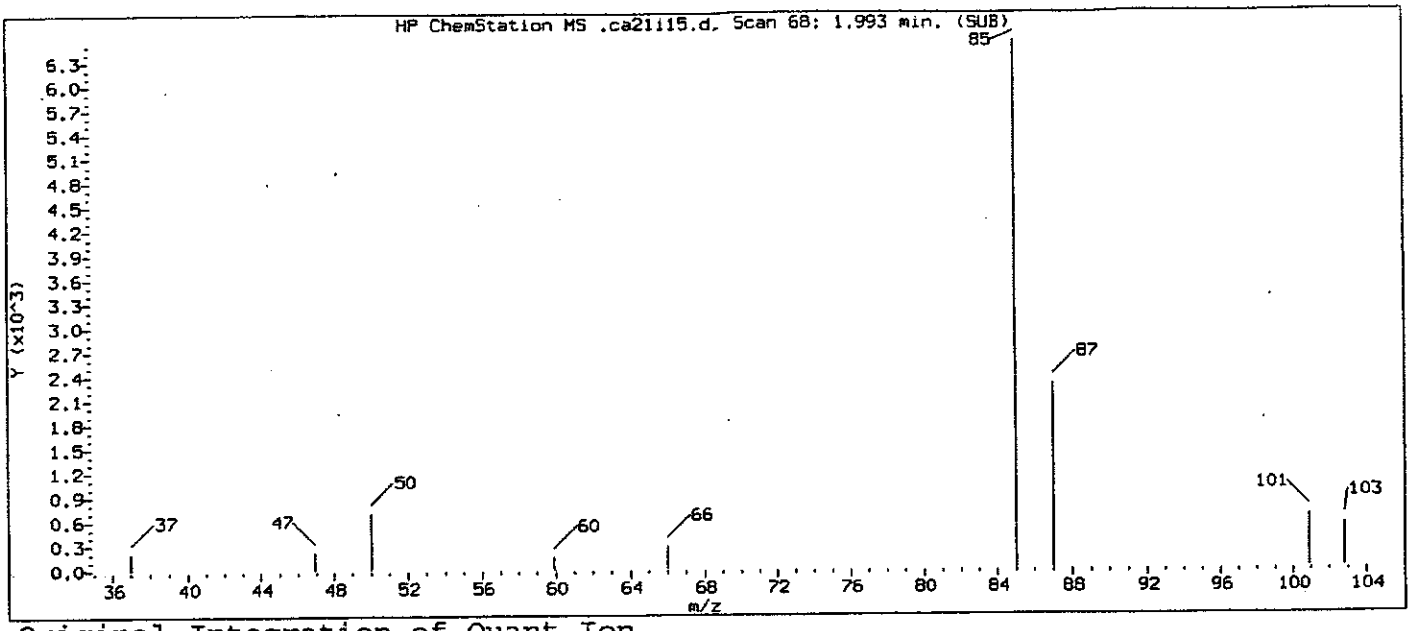
Analyst responsible for change: MSW 4/22/09

GC/MS audit/management approval: 4/22/09

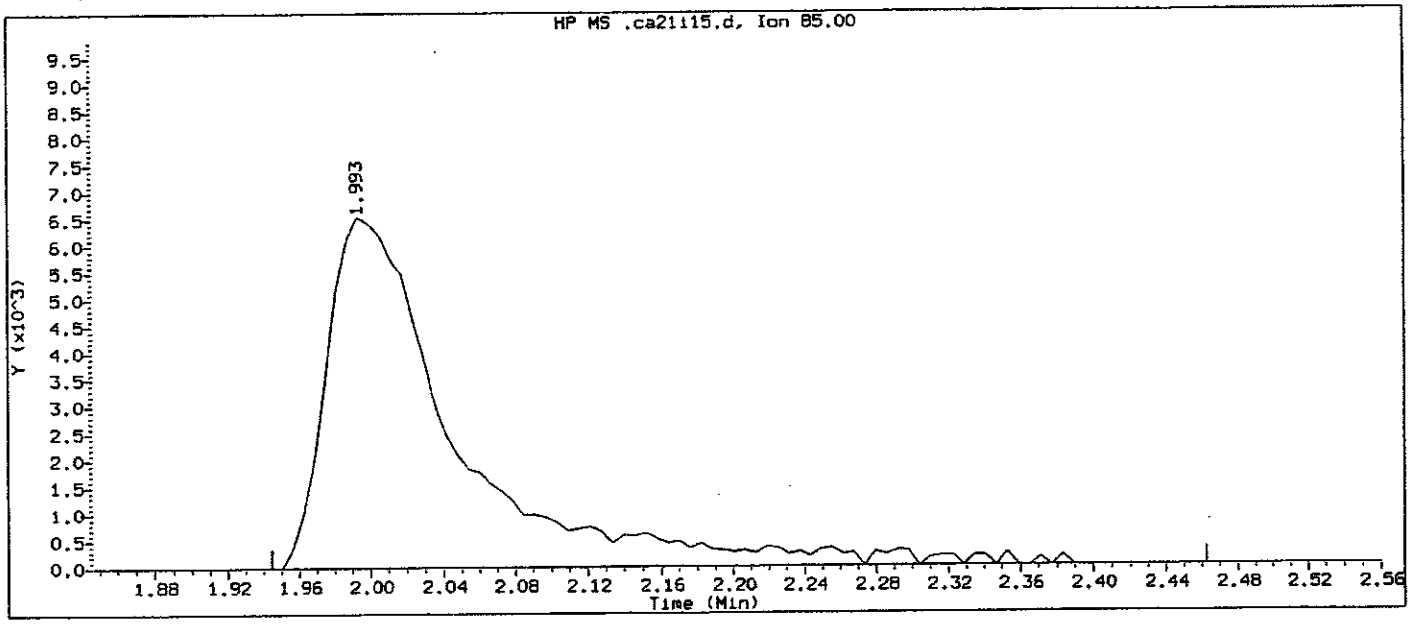
RAD11 0196

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

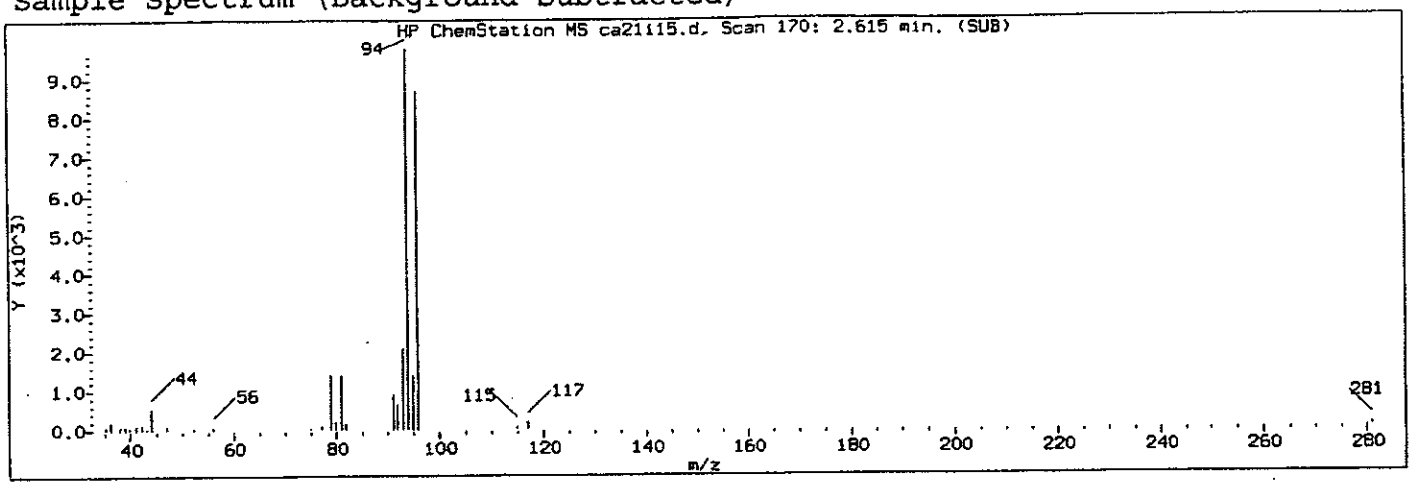
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 2
Compound Name	: Dichlorodifluoromethane
Scan Number	: 68
Retention Time (minutes)	: 1.993
Quant Ion	: 85
Area	: 32880
Concentration (ug/L)	: 0.4637
Integration start scan	: 59 Integration stop scan: 144
Y at integration start	: 0 Y at integration end: 0

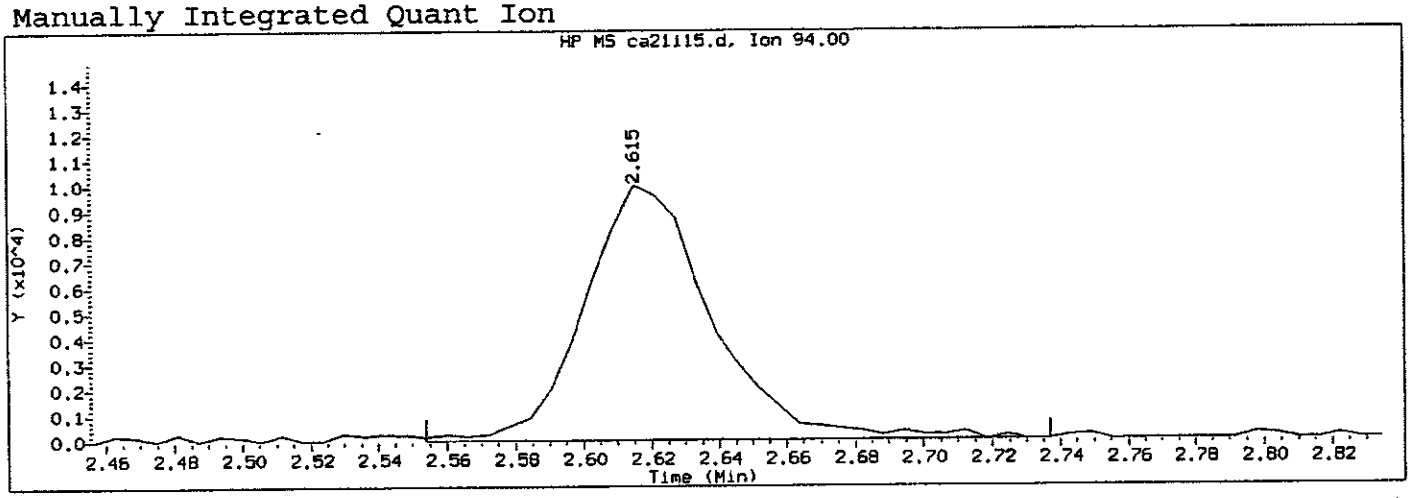
RAD11 2197

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 8
Compound Name : Bromomethane
Scan Number : 170
Retention Time (minutes): 2.615
Quant Ion : 94
Area (flag) : 26114 M
Concentration (ug/L) : 0.5129
Integration start scan : 159 Integration stop scan: 189
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

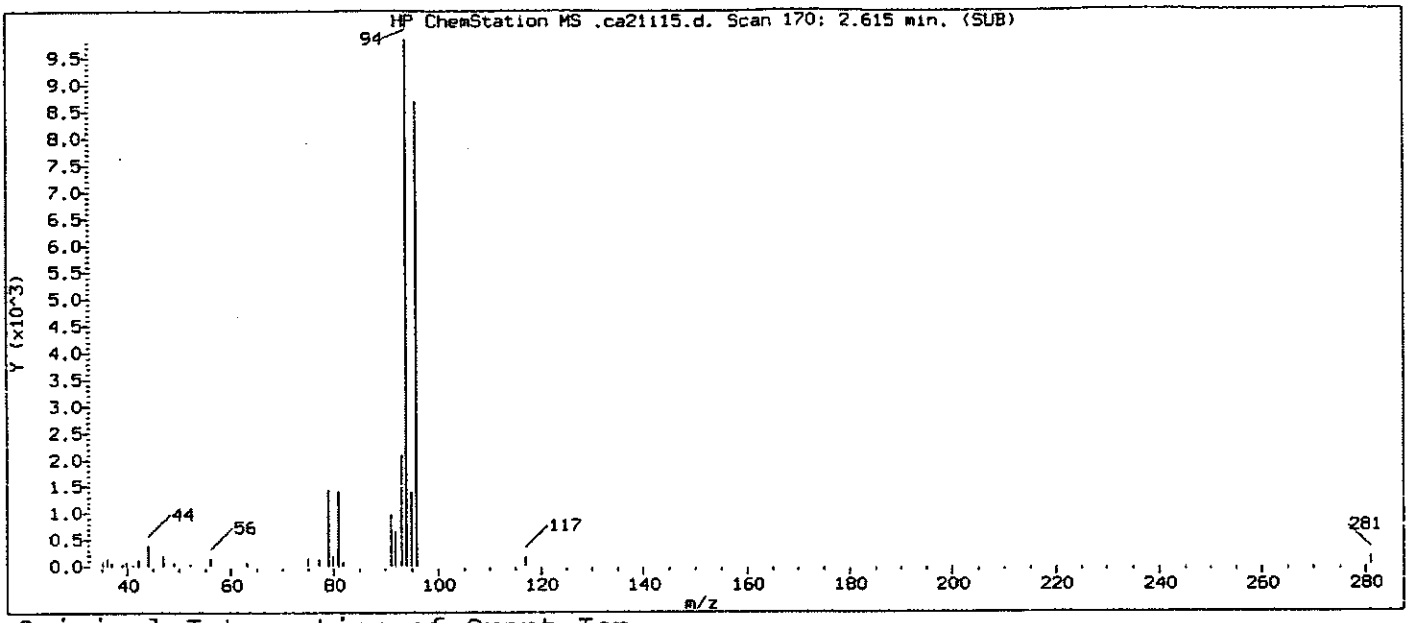
Analyst responsible for change: MSW 2109 4/22/09

GC/MS audit/management approval: 4/22/09

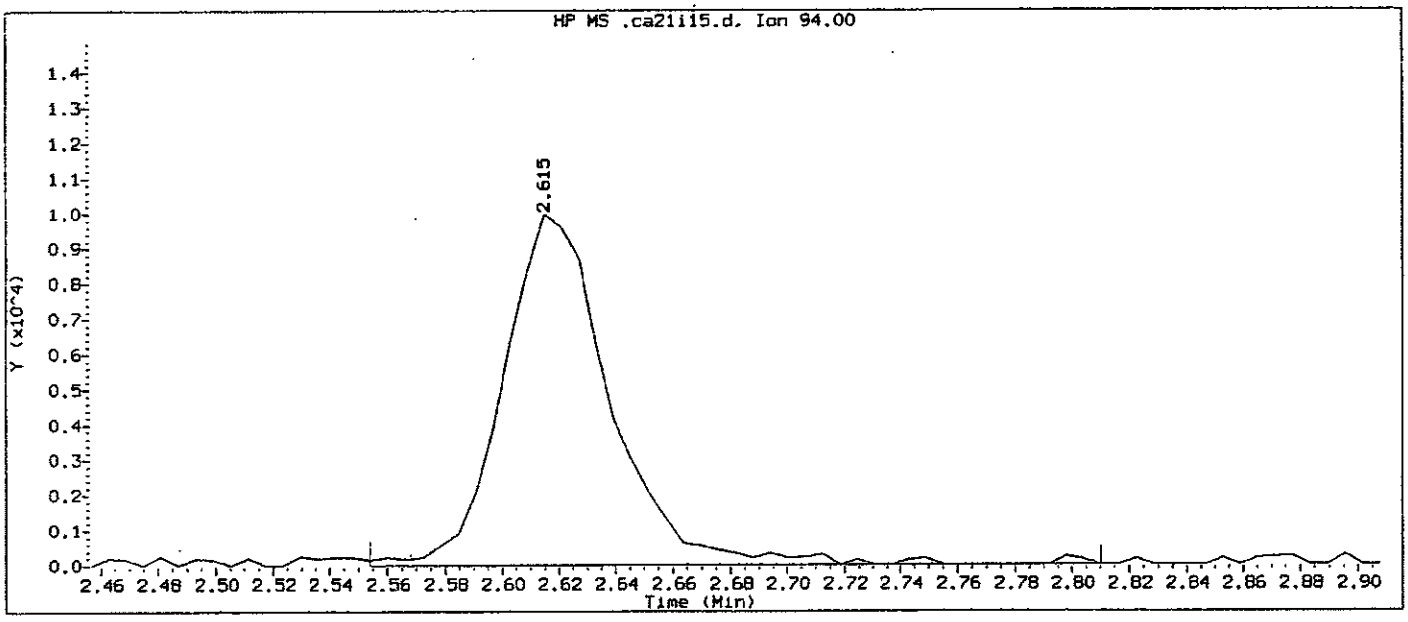
RAD11 8198

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

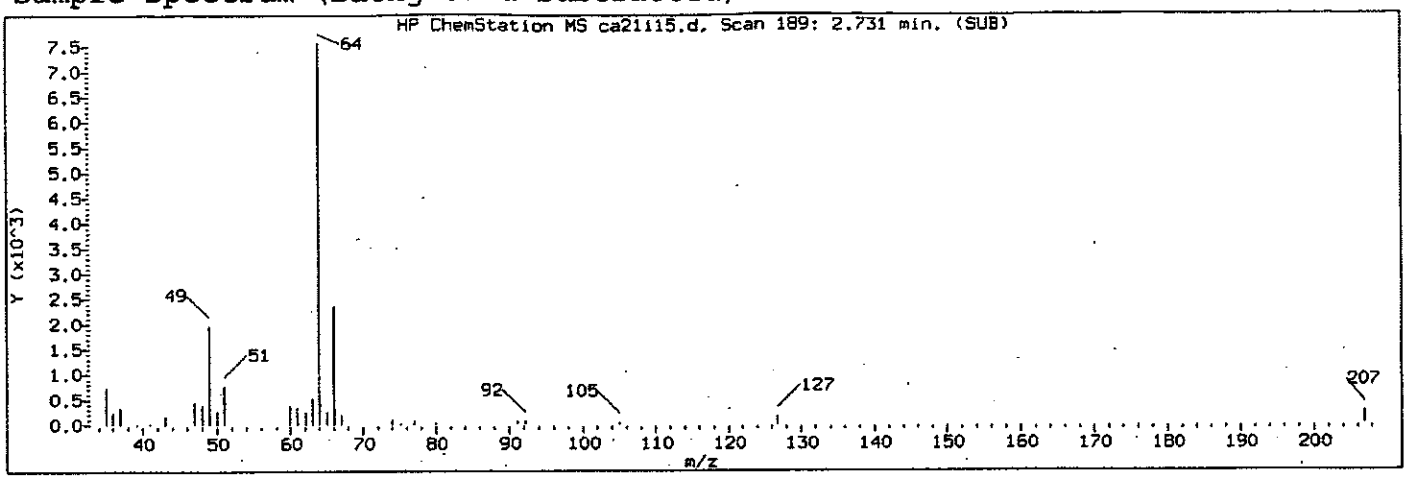
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 8
Compound Name : Bromomethane
Scan Number : 170
Retention Time (minutes): 2.615
Quant Ion : 94
Area : 26359
Concentration (ug/L) : 0.5240
Integration start scan : 159 Integration stop scan: 201
Y at integration start : 0 Y at integration end: 0

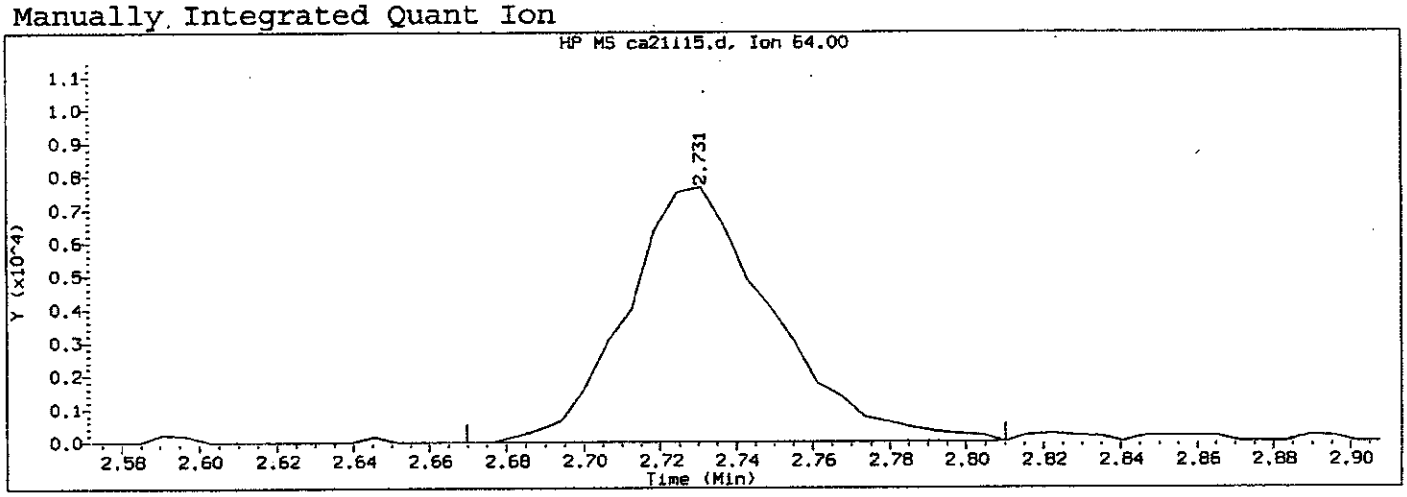
BAD11 8199

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 189
Retention Time (minutes): 2.731
Quant Ion : 64
Area (flag) : 20335 M
Concentration (ug/L) : 0.5065
Integration start scan : 178 Integration stop scan: 201
Y at integration start : 0 Y at integration end: 0

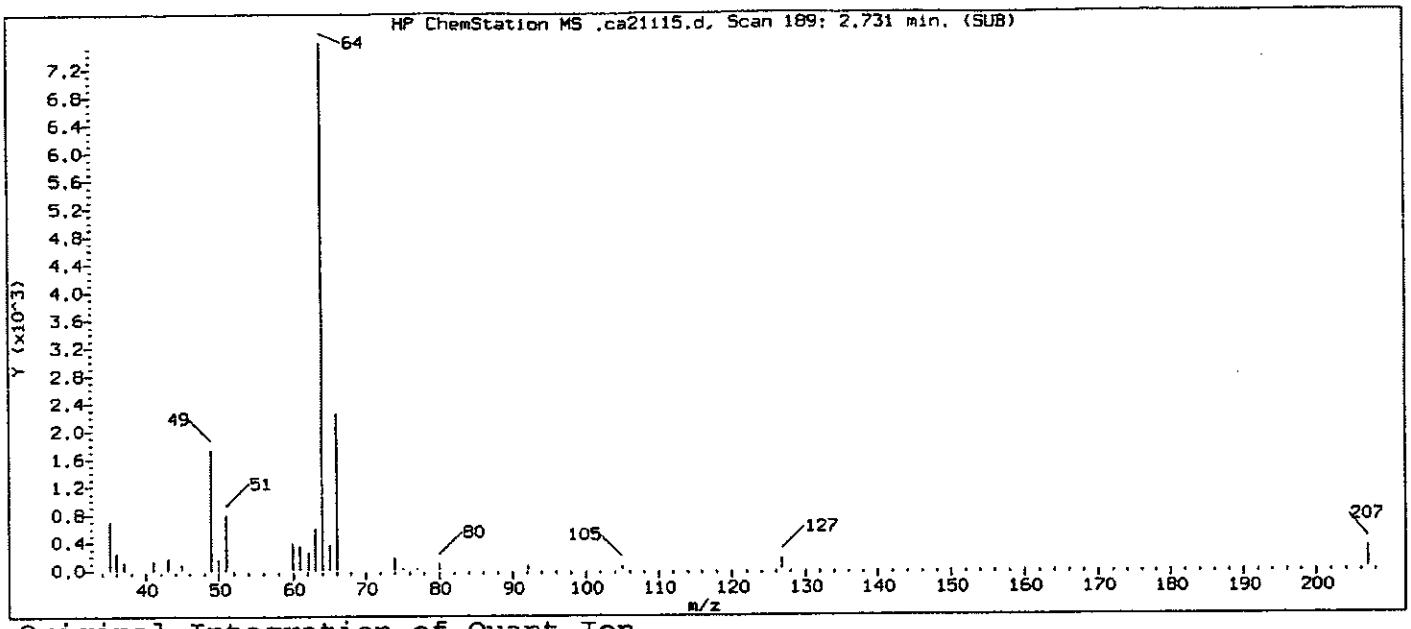
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: mwc09 4/22/09

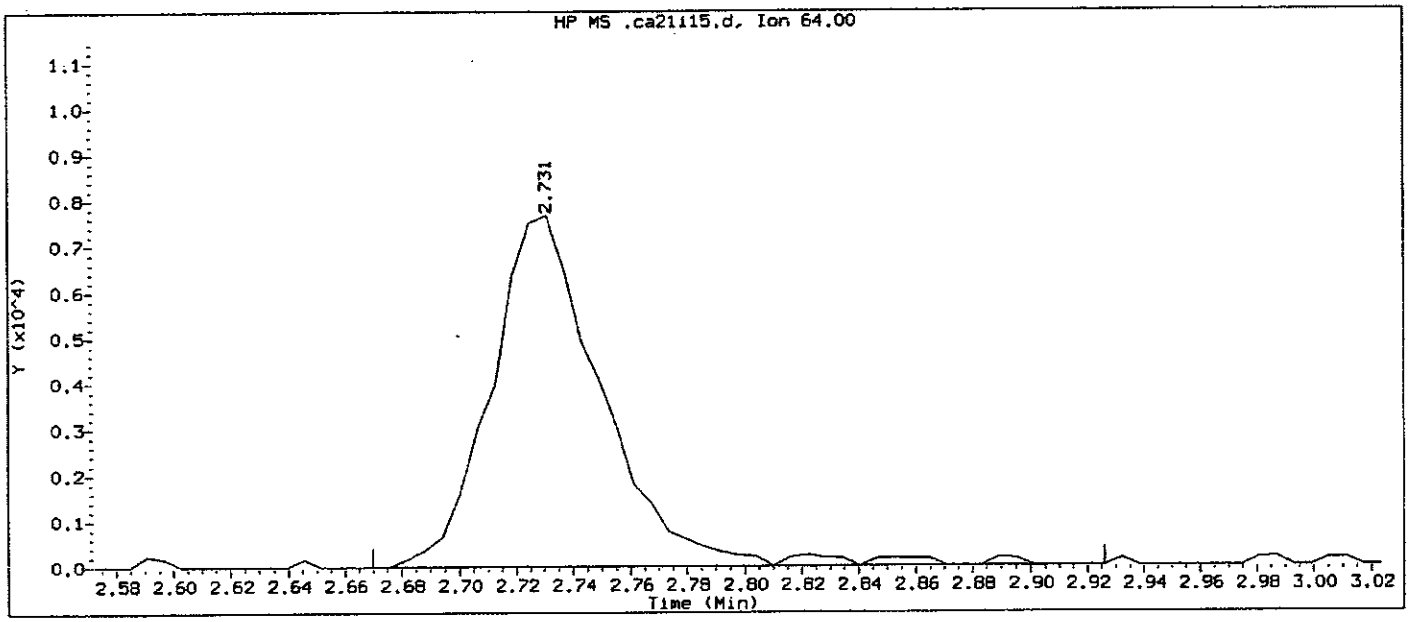
GC/MS audit/management approval: 4/22/09

RAD11 8260

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

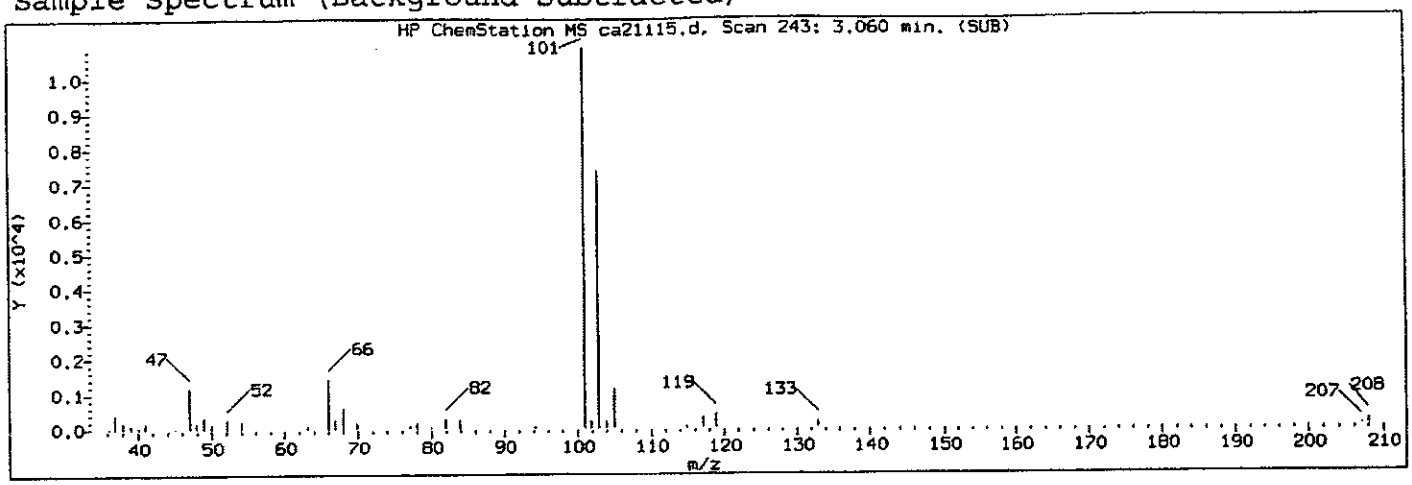
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	9
Compound Name	:	Chloroethane
Scan Number	:	189
Retention Time (minutes)	:	2.731
Quant Ion	:	64
Area	:	20992
Concentration (ug/L)	:	0.5279
Integration start scan	:	178 Integration stop scan: 220
Y at integration start	:	0 Y at integration end: 0

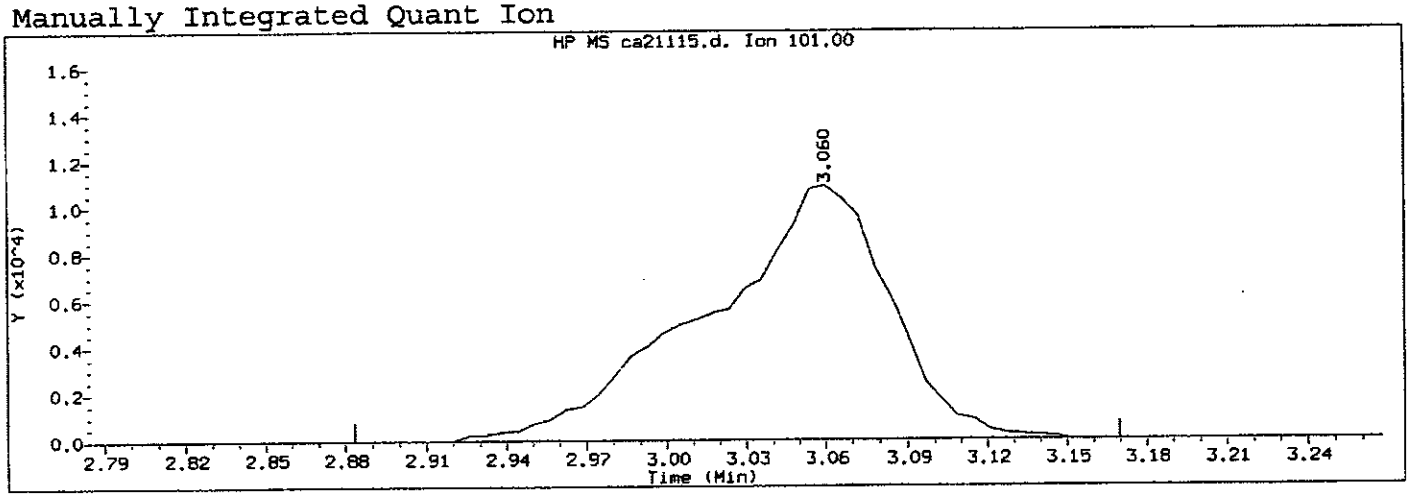
RAD11 0201

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 243
Retention Time (minutes): 3.060
Quant Ion : 101
Area (flag) : 51808 M
Concentration (ug/L) : 0.4757
Integration start scan : 213 Integration stop scan: 260
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

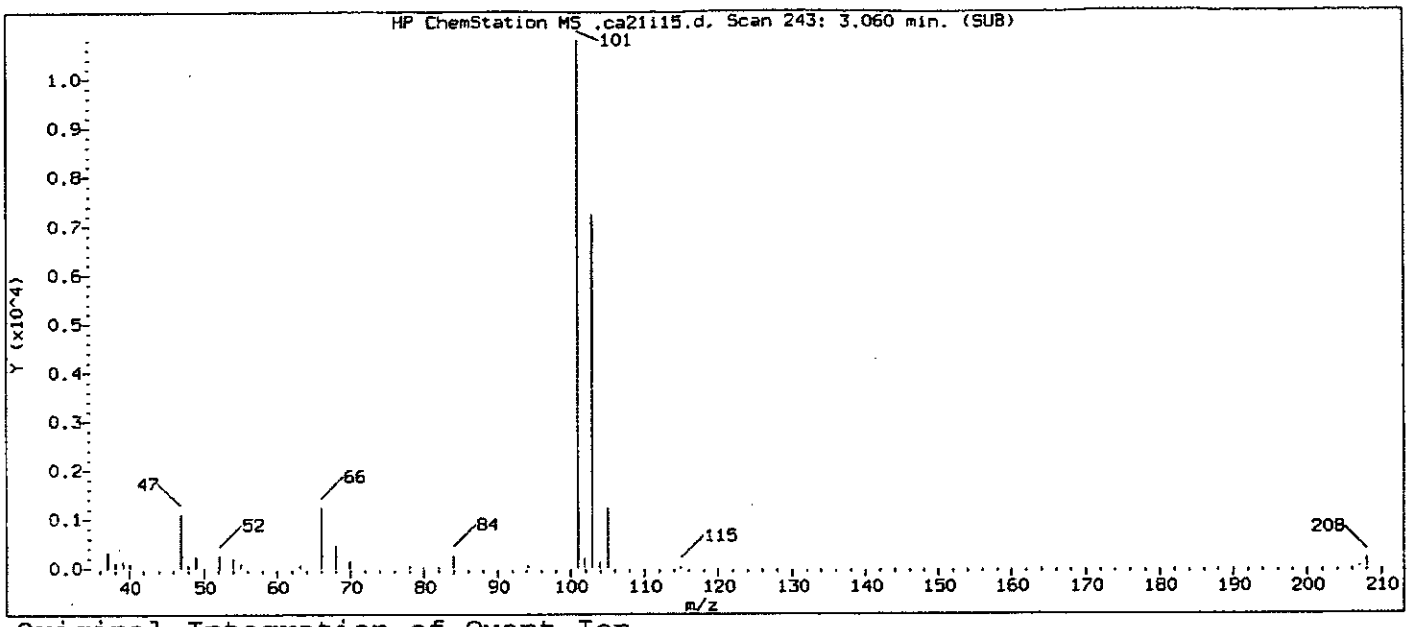
Analyst responsible for change: MSW 04/22/09

GC/MS audit/management approval: 4/22/09

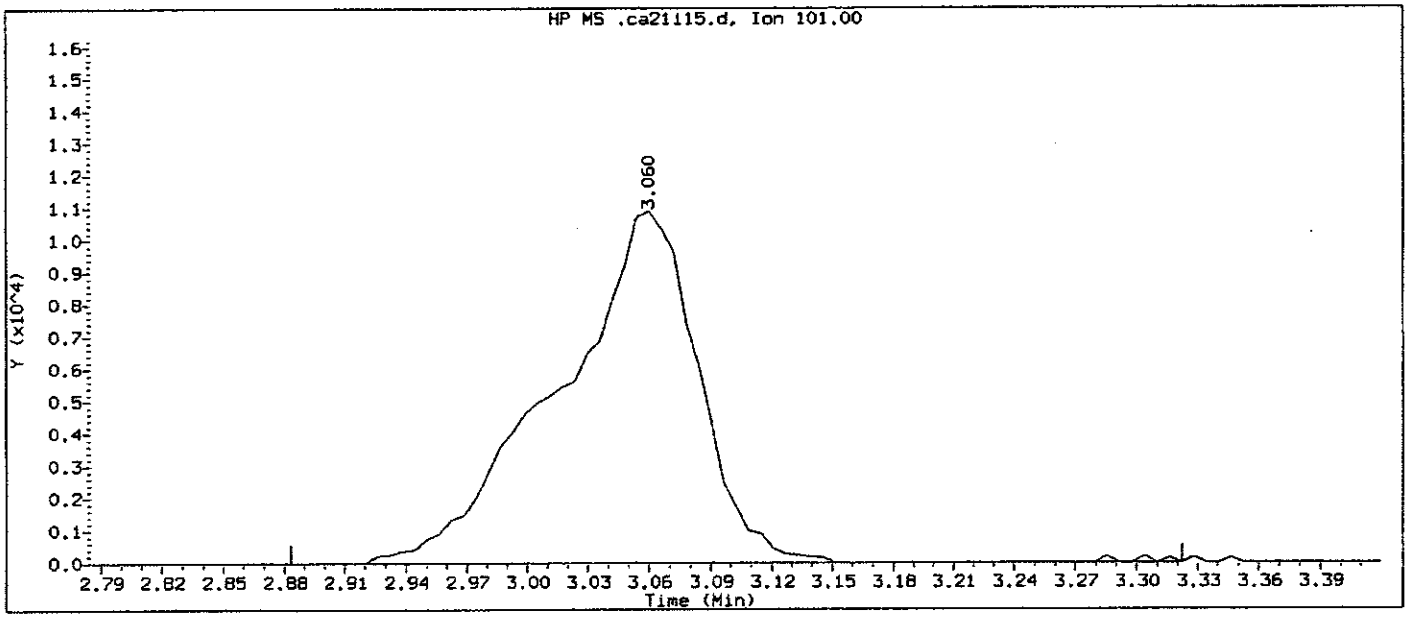
RAD11 0282

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

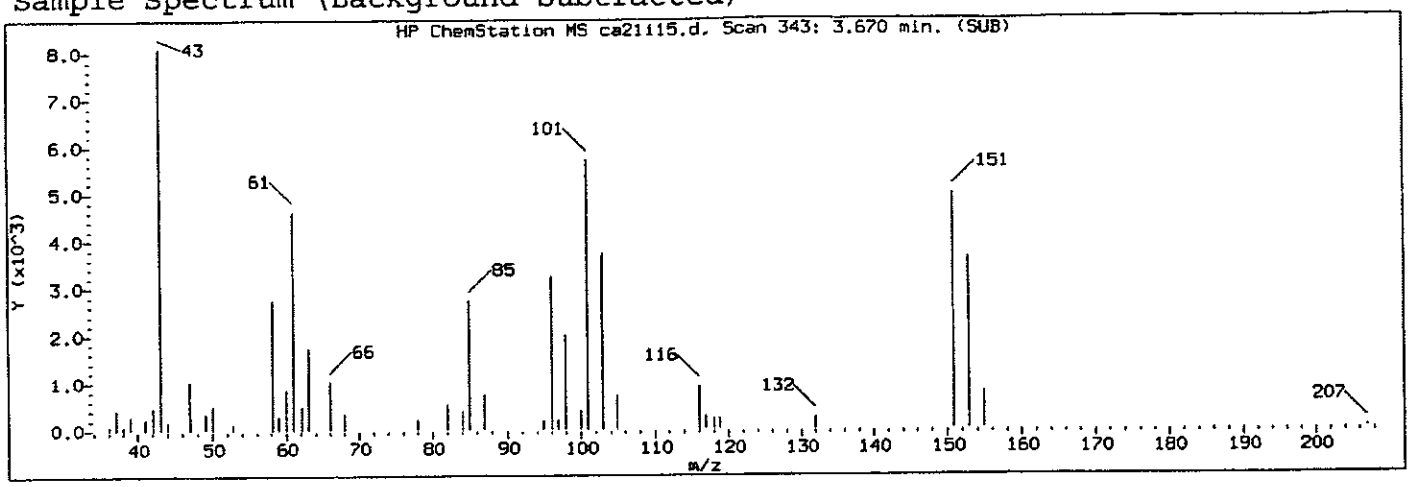
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 243
Retention Time (minutes): 3.060
Quant Ion : 101
Area : 52019
Concentration (ug/L) : 0.4790
Integration start scan : 213 Integration stop scan: 285
Y at integration start : 0 Y at integration end: 0

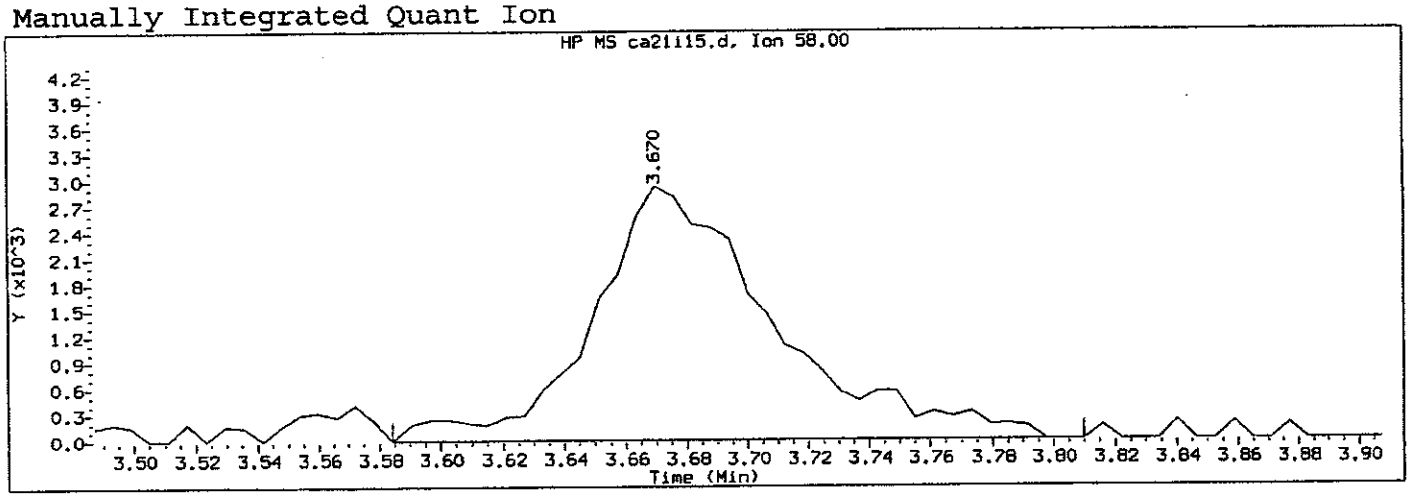
BAD11 8283

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 23
Compound Name : Acetone
Scan Number : 343
Retention Time (minutes): 3.670
Quant Ion : 58
Area (flag) : 12001 M
Concentration (ug/L) : 5.1735
Integration start scan : 328 Integration stop scan: 365
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

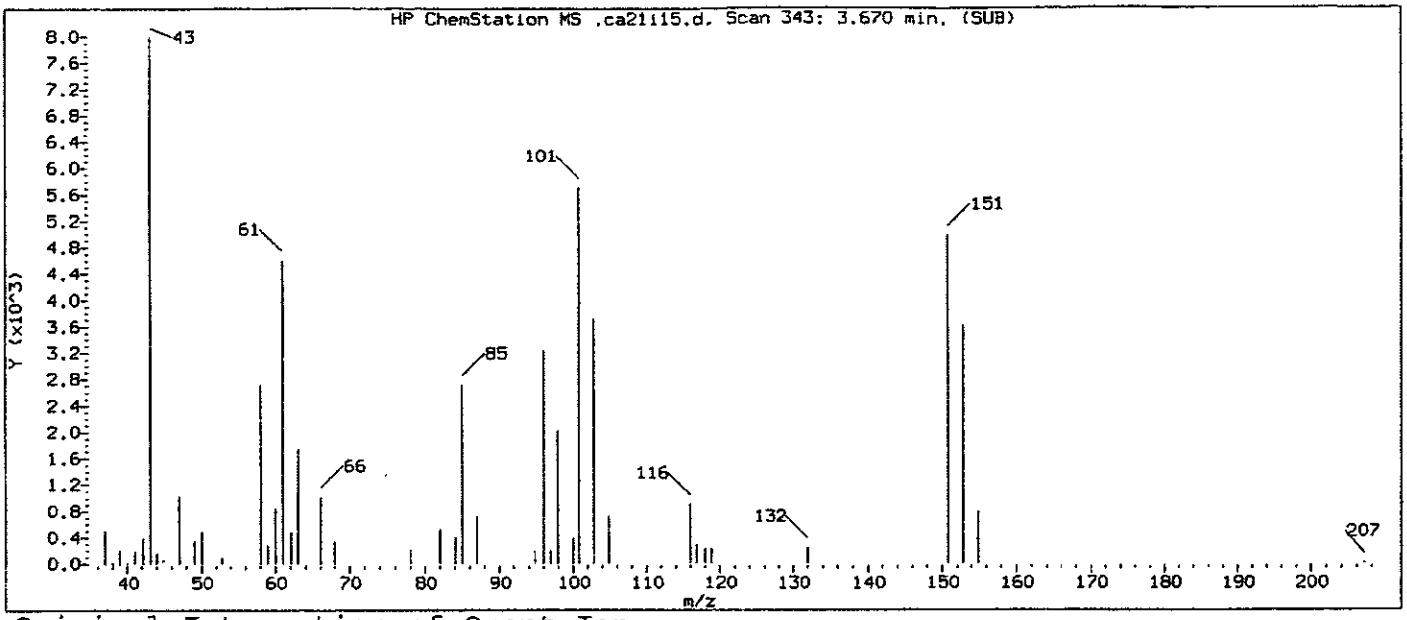
Analyst responsible for change: _____ 4/22/09

GC/MS audit/management approval: _____ 4/22/09

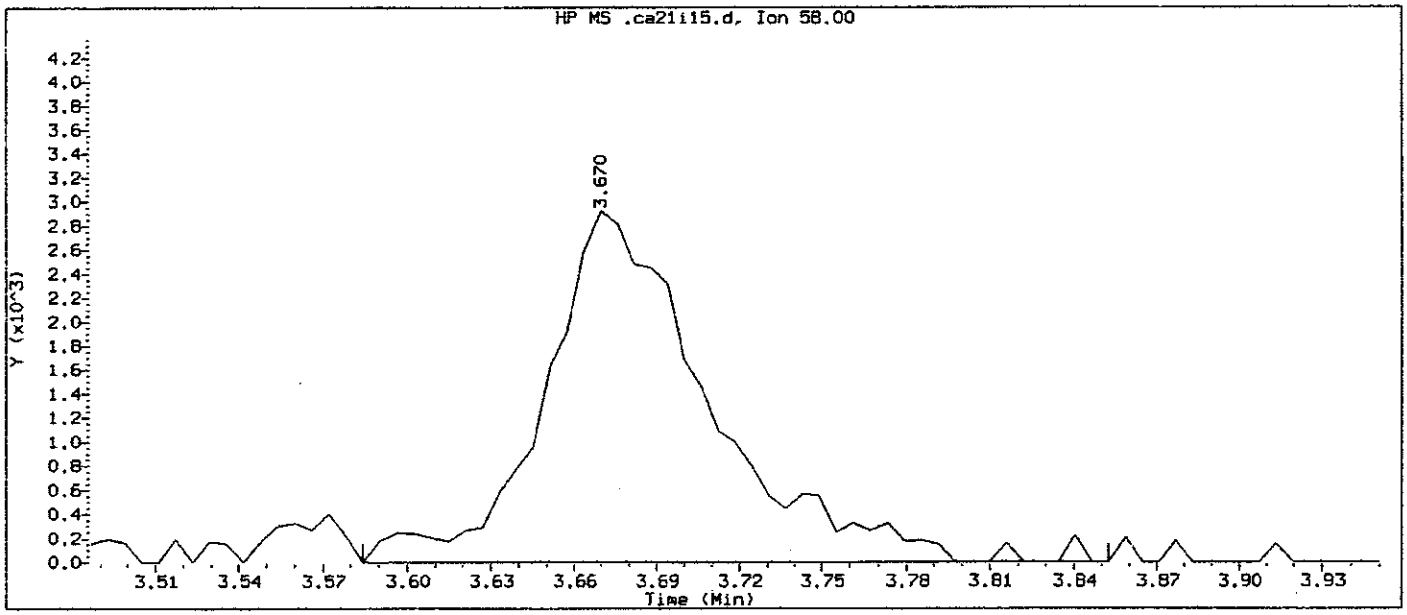
RAD11 0284

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

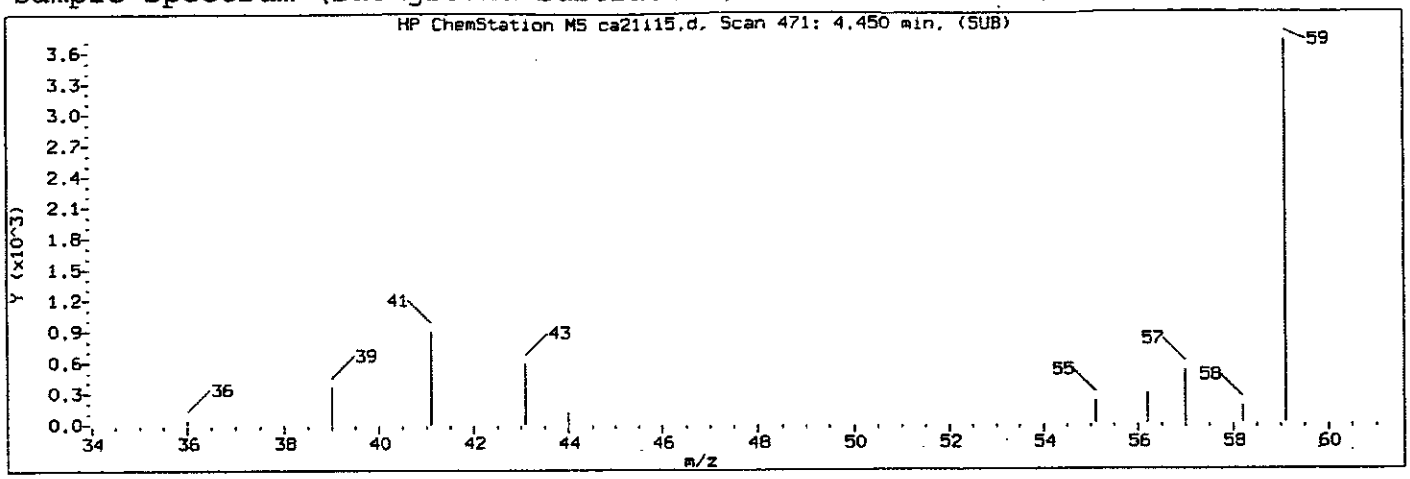
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 23
Compound Name : Acetone
Scan Number : 343
Retention Time (minutes): 3.670
Quant Ion : 58
Area : 12139
Concentration (ug/L) : 5.2532
Integration start scan : 328 Integration stop scan: 372
Y at integration start : 0 Y at integration end: 0

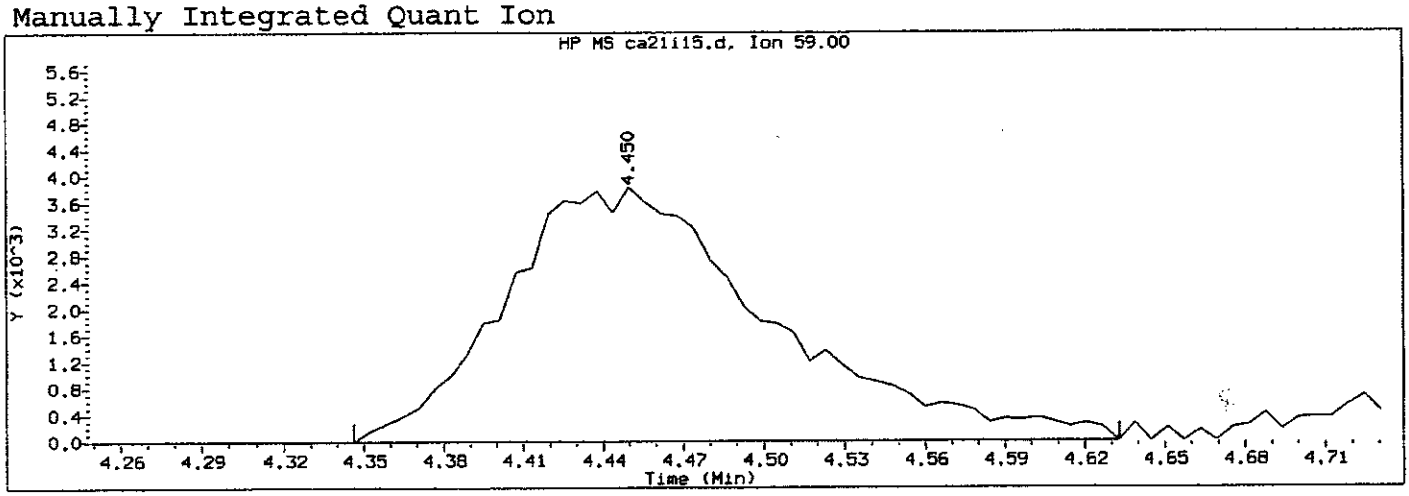
BAD11 8285

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 35
Compound Name : t-Butyl Alcohol
Scan Number : 471
Retention Time (minutes): 4.450
Quant Ion : 59
Area (flag) : 26587 M
Concentration (ug/L) : 9.4747
Integration start scan : 453 Integration stop scan: 500
Y at integration start : 0 Y at integration end: 0

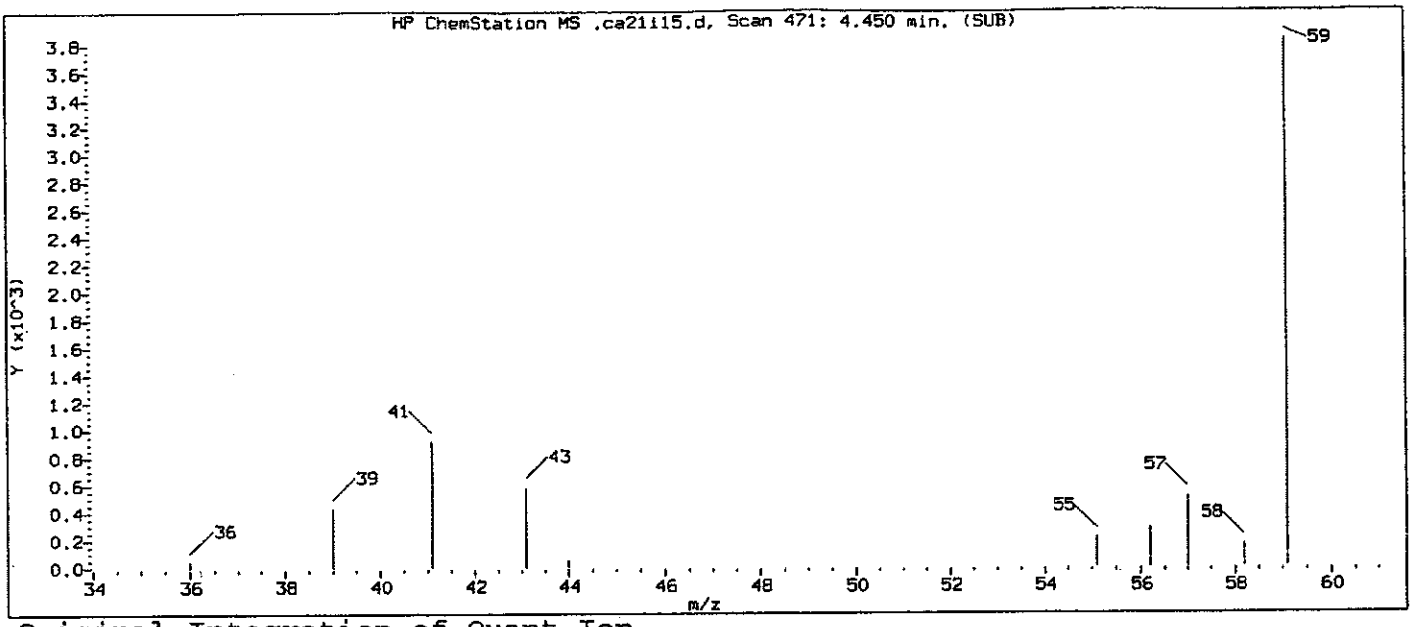
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSW 4/22/09

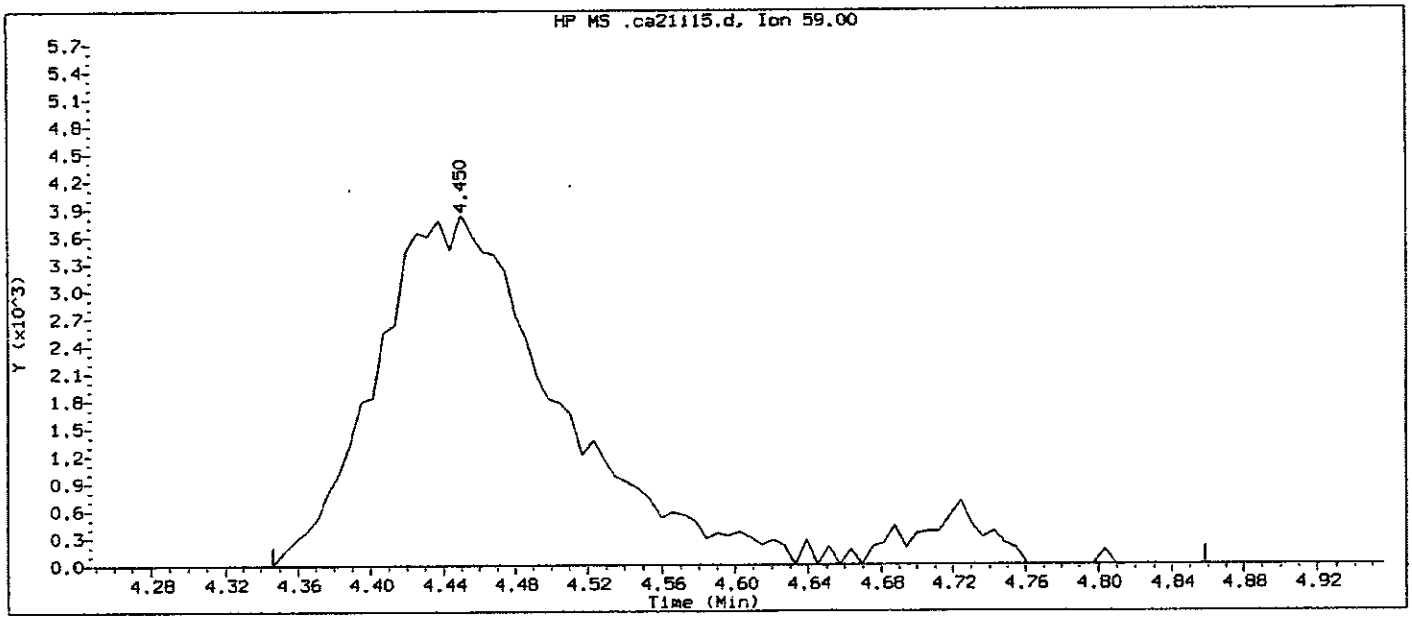
GC/MS audit/management approval: 4/22/09

RAD11 0206

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

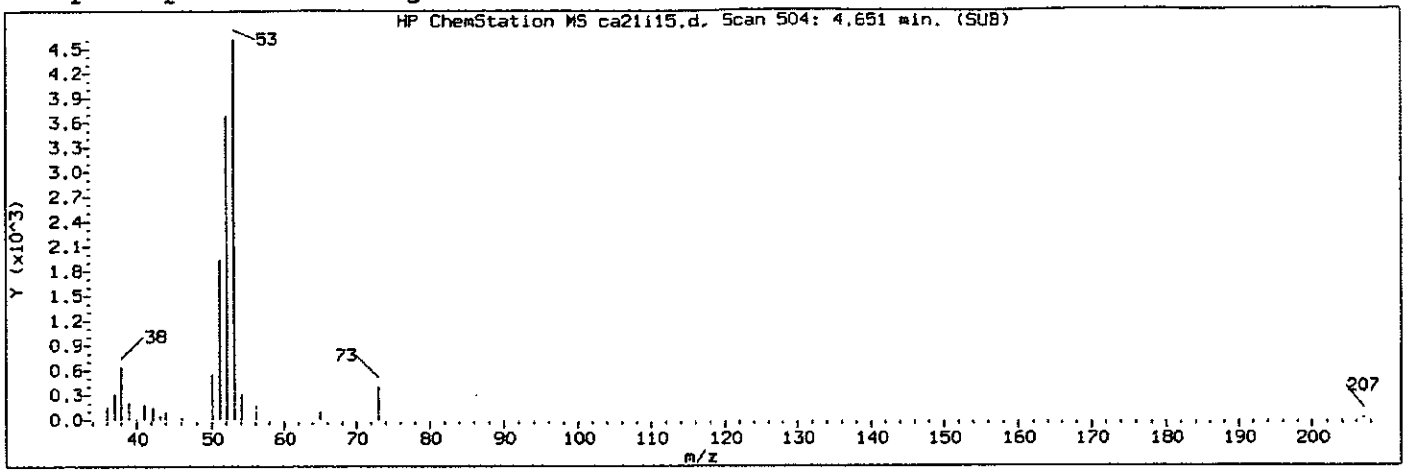
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 35
Compound Name	: t-Butyl Alcohol
Scan Number	: 471
Retention Time (minutes)	: 4.450
Quant Ion	: 59
Area	: 28652
Concentration (ug/L)	: 10.1607
Integration start scan	: 453 Integration stop scan: 537
Y at integration start	: 0 Y at integration end: 0

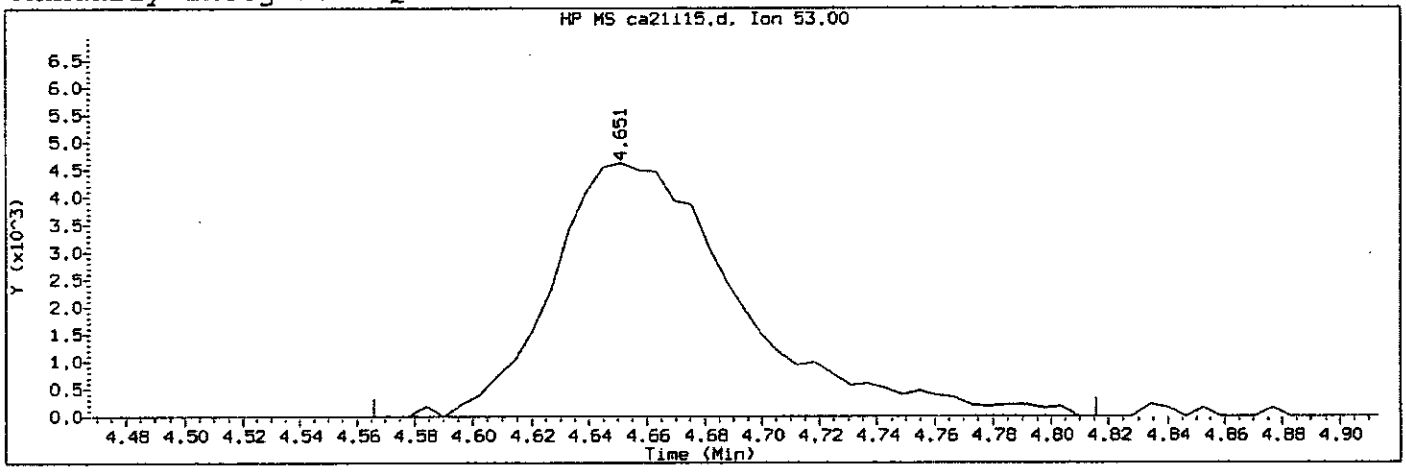
RAD11 8287

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 36
Compound Name : Acrylonitrile
Scan Number : 504
Retention Time (minutes): 4.651
Quant Ion : 53
Area (flag) : 20913 M
Concentration (ug/L) : 2.3300
Integration start scan : 489 Integration stop scan: 530
Y at integration start : 0 Y at integration end: 0

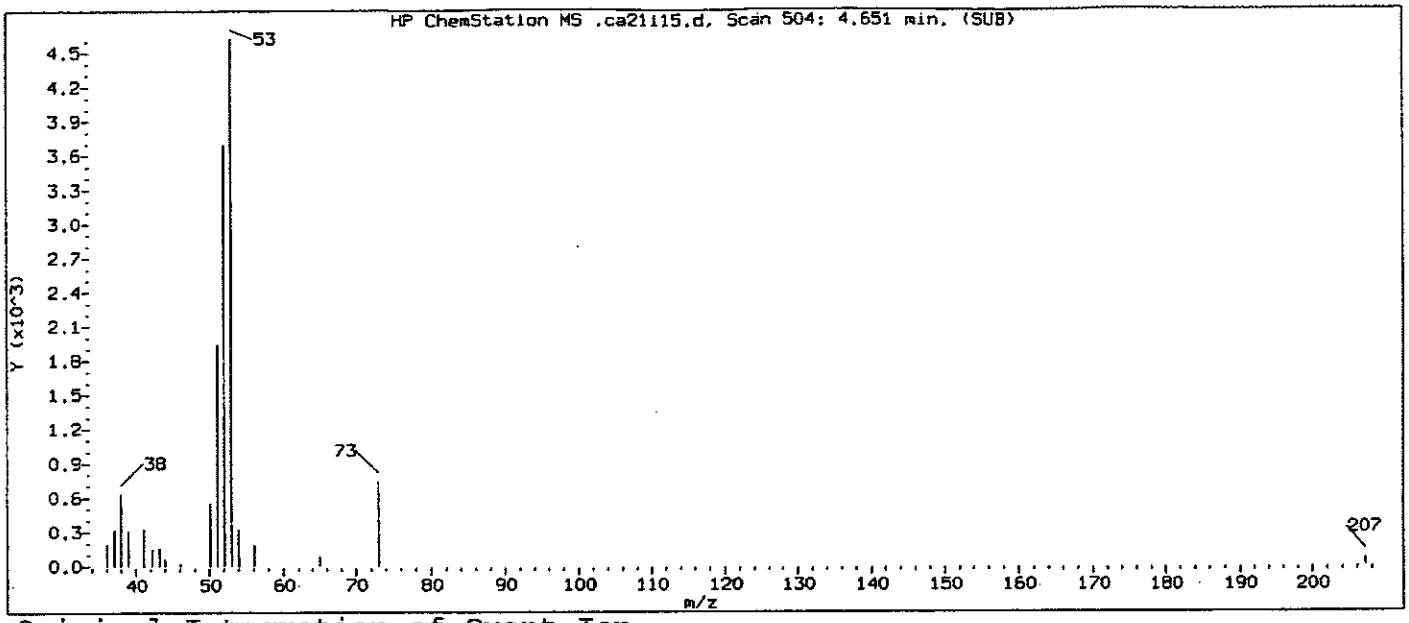
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSW 2109 4/22/09

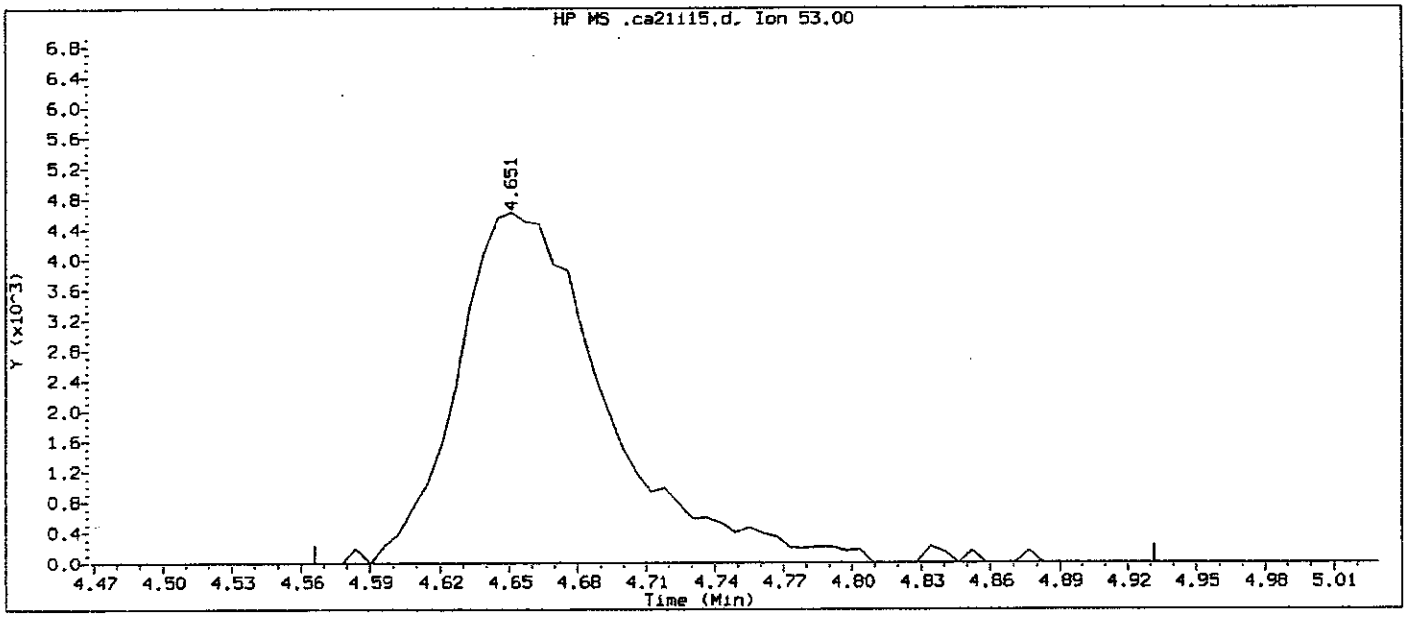
GC/MS audit/management approval: 4/22/09

RAD11 2288

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

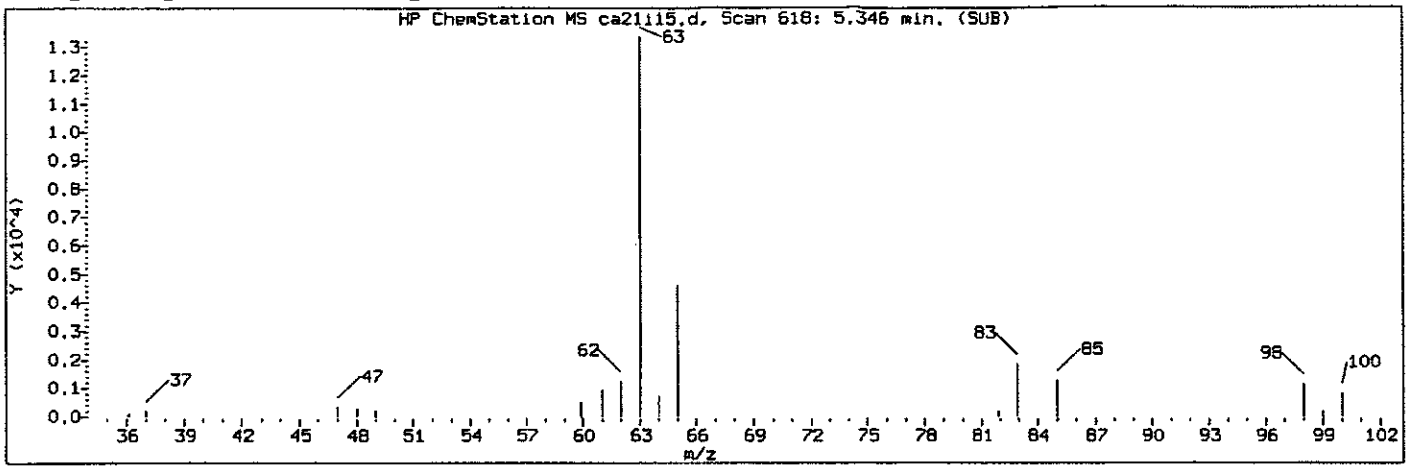
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	36
Compound Name	:	Acrylonitrile
Scan Number	:	504
Retention Time (minutes)	:	4.651
Quant Ion	:	53
Area	:	21165
Concentration (ug/L)	:	2.3329
Integration start scan	:	489 Integration stop scan: 549
Y at integration start	:	0 Y at integration end: 0

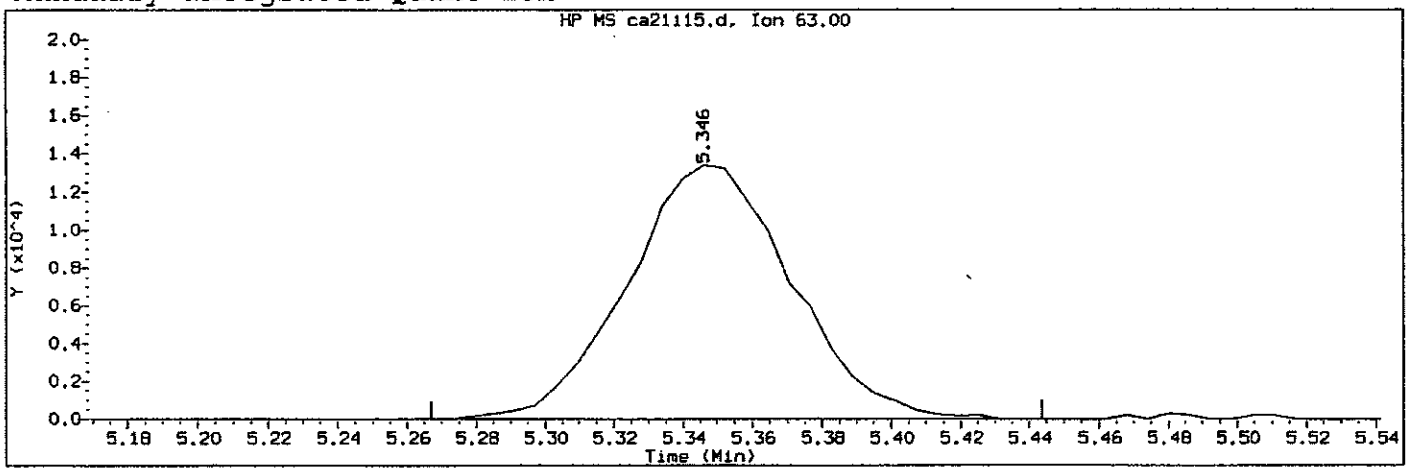
BAD11 0209

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 44
Compound Name : 1,1-Dichloroethane
Scan Number : 618
Retention Time (minutes): 5.346
Quant Ion : 63
Area (flag) : 44038 M
Concentration (ug/L) : 0.4814
Integration start scan : 604 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

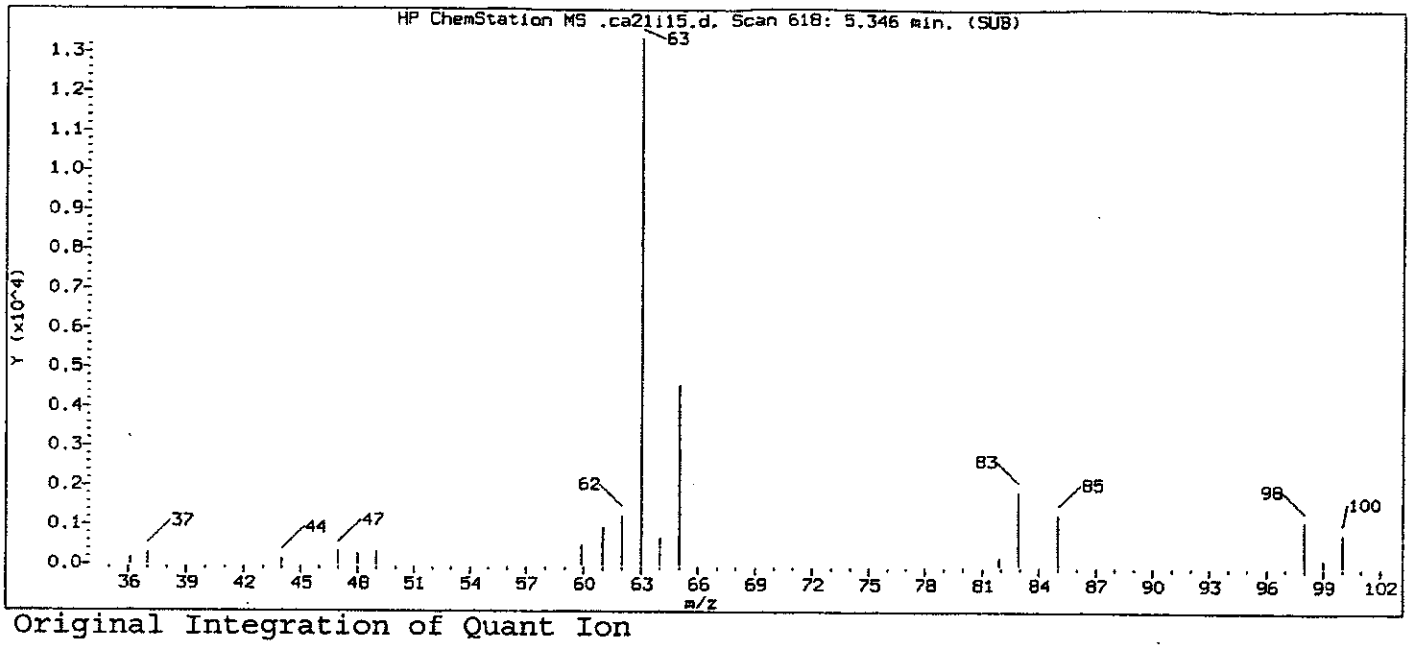
Analyst responsible for change: MSW 4/22/09

GC/MS audit/management approval: 4/22/09

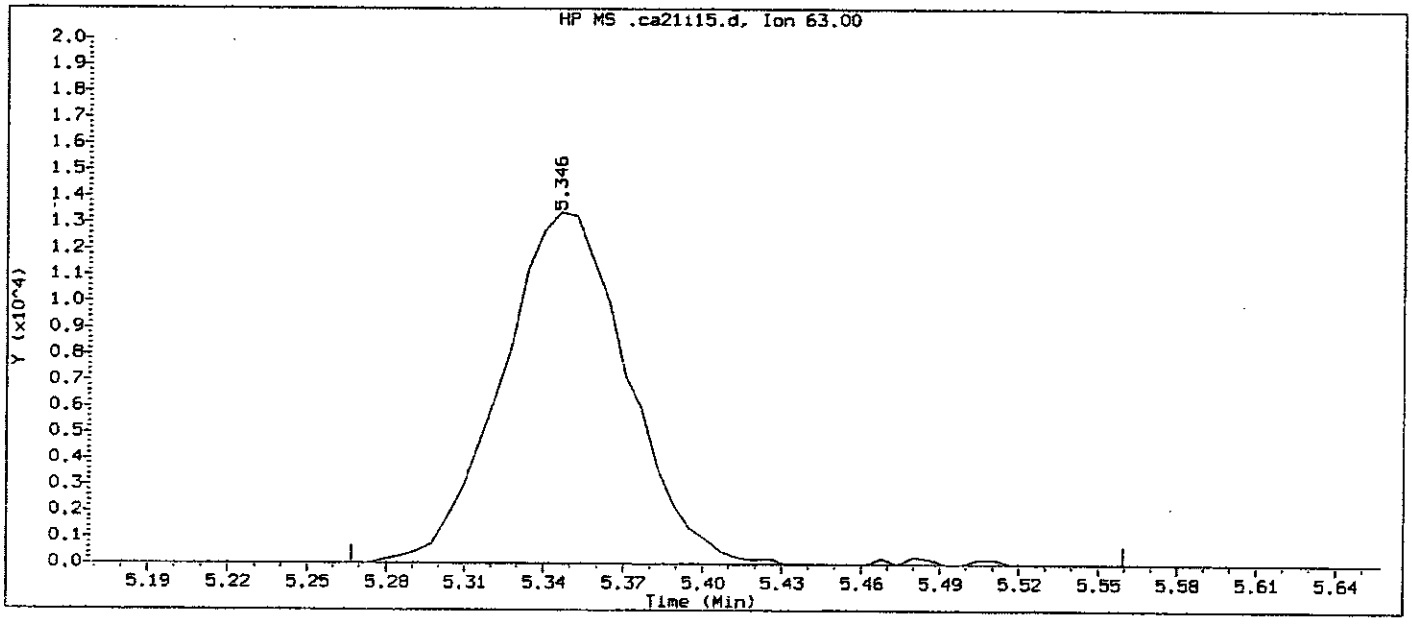
RAD11 0210

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

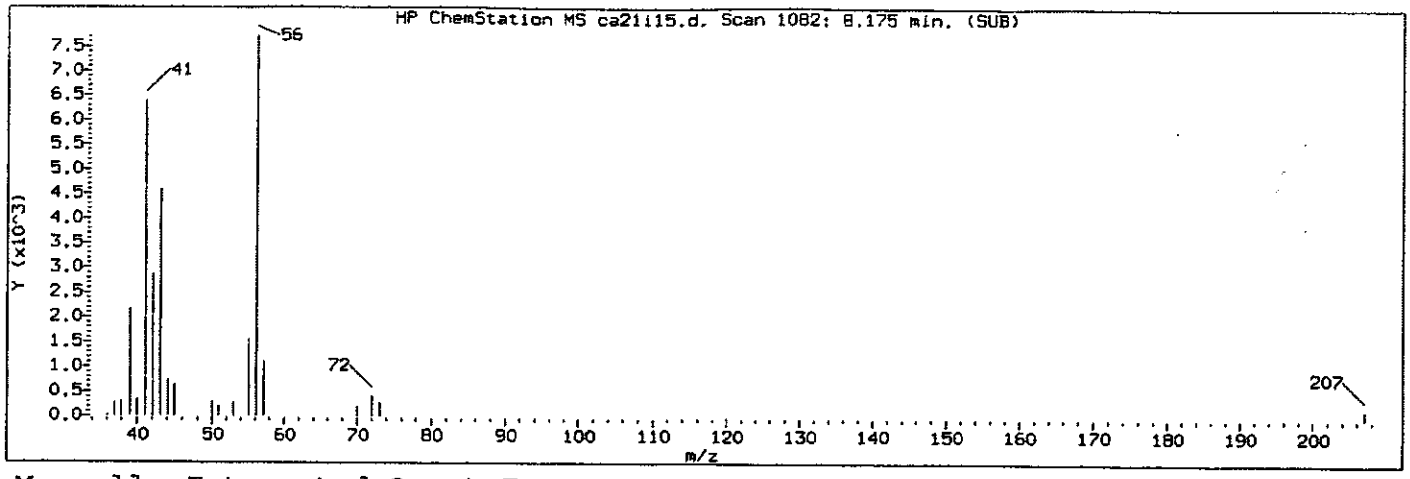
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	44
Compound Name	:	1,1-Dichloroethane
Scan Number	:	618
Retention Time (minutes)	:	5.346
Quant Ion	:	63
Area	:	44423
Concentration (ug/L)	:	0.4875
Integration start scan	:	604 Integration stop scan: 652
Y at integration start	:	0 Y at integration end: 0

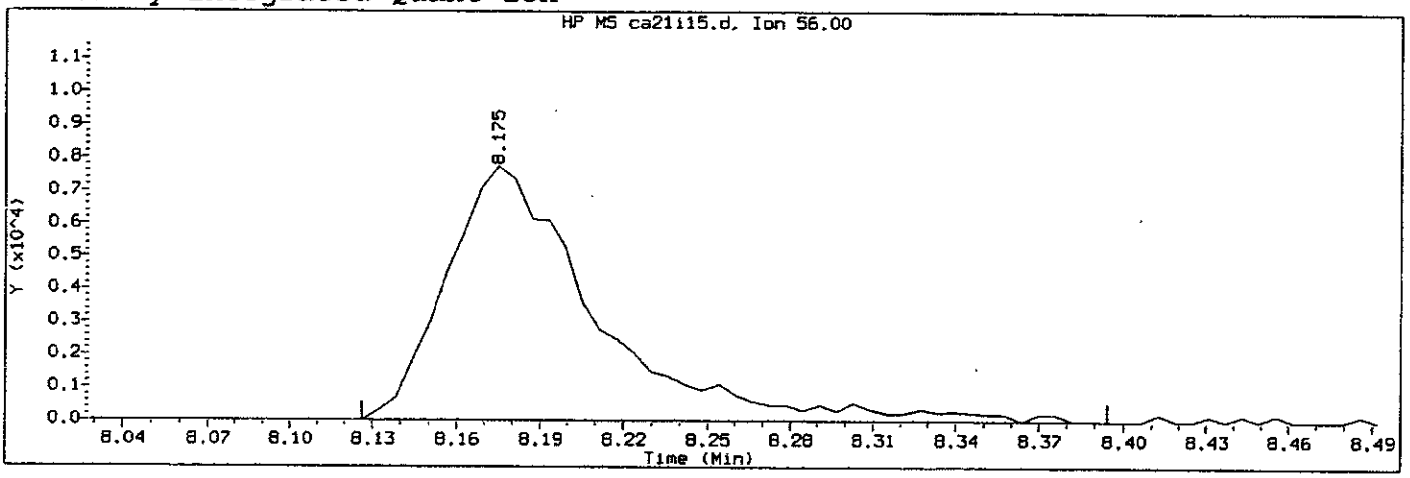
RAD11 #211

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	79
Compound Name	:	n-Butanol
Scan Number	:	1082
Retention Time (minutes)	:	8.175
Quant Ion	:	56
Area (flag)	:	29076 M
Concentration (ug/L)	:	40.1207
Integration start scan	:	1073 Integration stop scan: 1117
Y at integration start	:	0 Y at integration end: 0

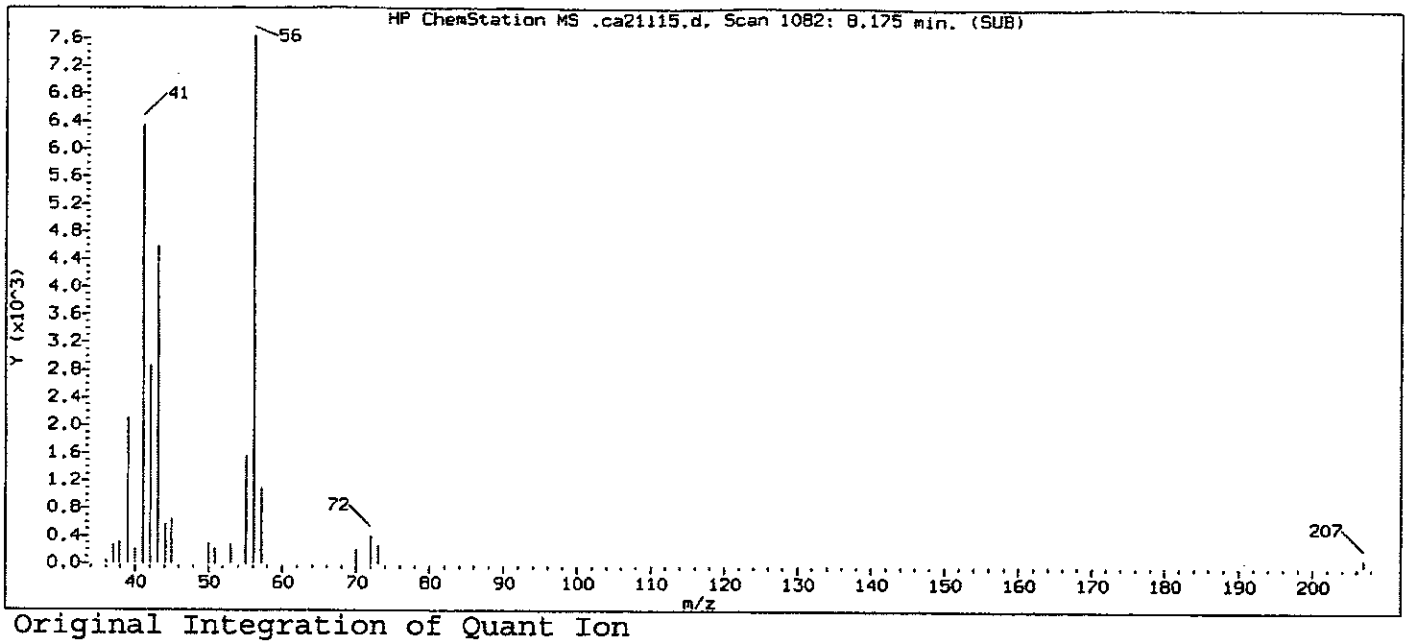
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: ADS1731 4/22/09

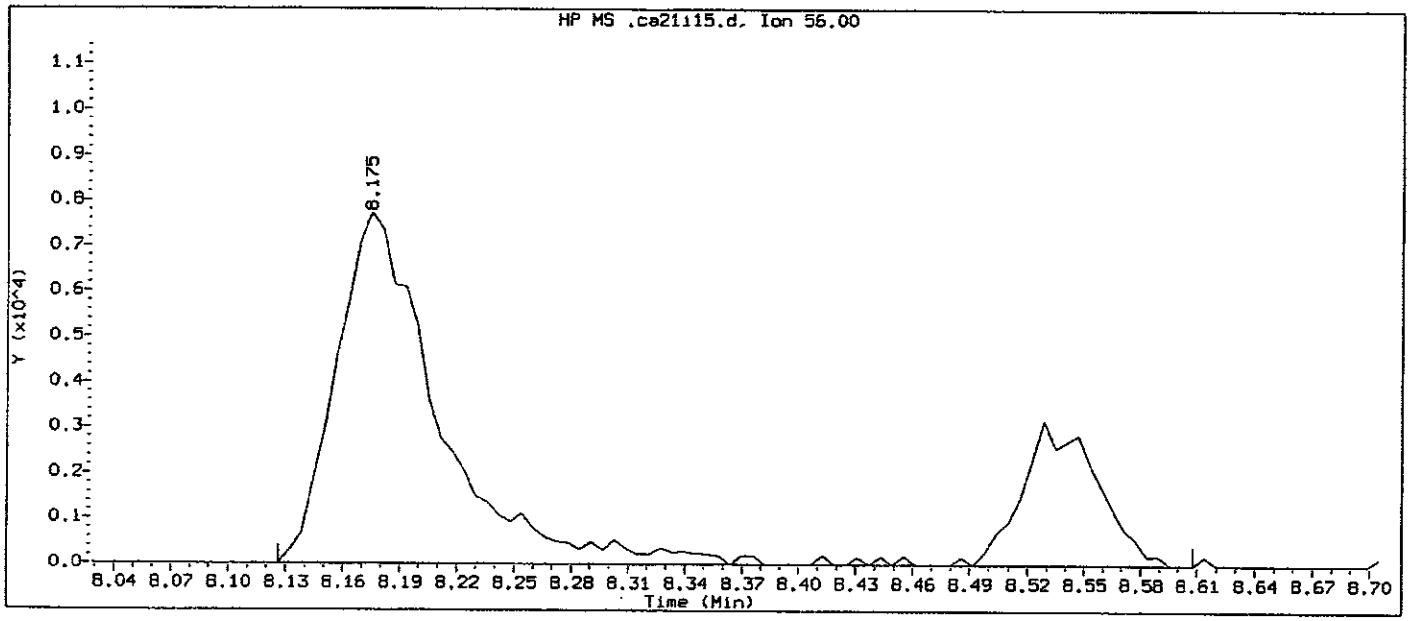
GC/MS audit/management approval: 4-22-09

BAD11 8212

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

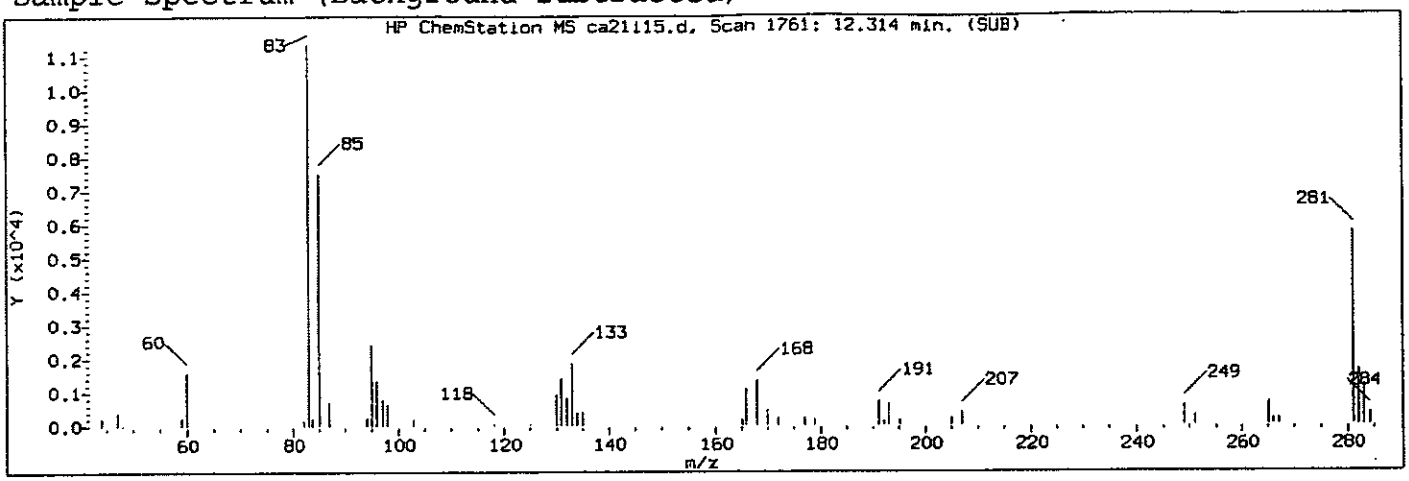
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	: 79
Compound Name	: n-Butanol
Scan Number	: 1082
Retention Time (minutes)	: 8.175
Quant Ion	: 56
Area	: 38128
Concentration (ug/L)	: 50.5082
Integration start scan	: 1073 Integration stop scan: 1152
Y at integration start	: 0 Y at integration end: 0

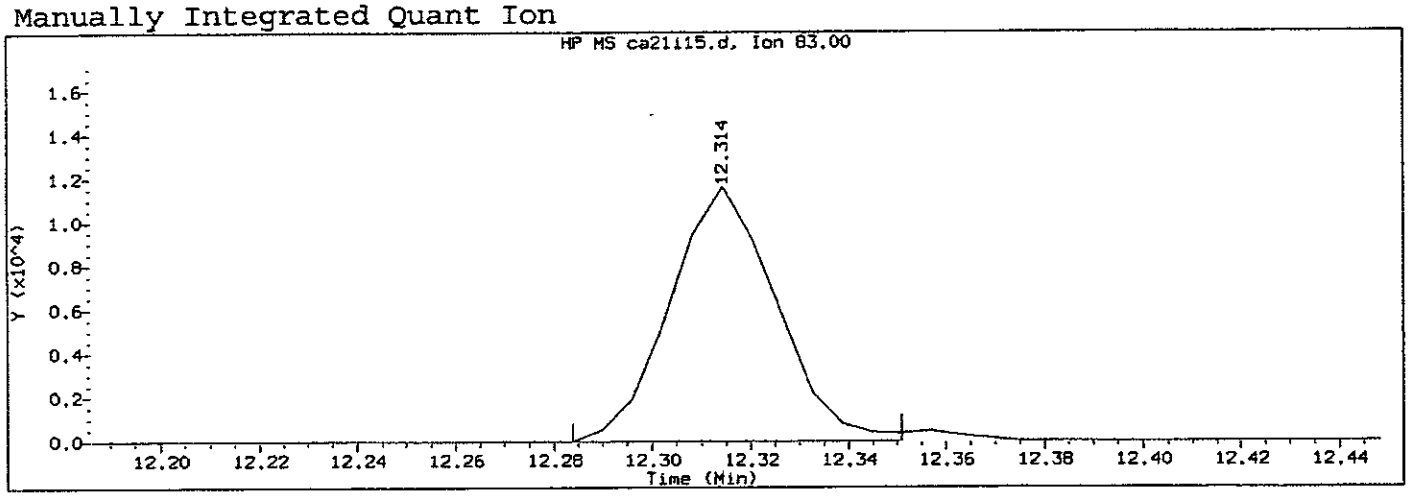
RAD11 6213

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 14:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:46 ads01731

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area (flag) : 17353 M
Concentration (ug/L) : 0.4331
Integration start scan : 1755 Integration stop scan: 1766
Y at integration start : 0 Y at integration end: 0

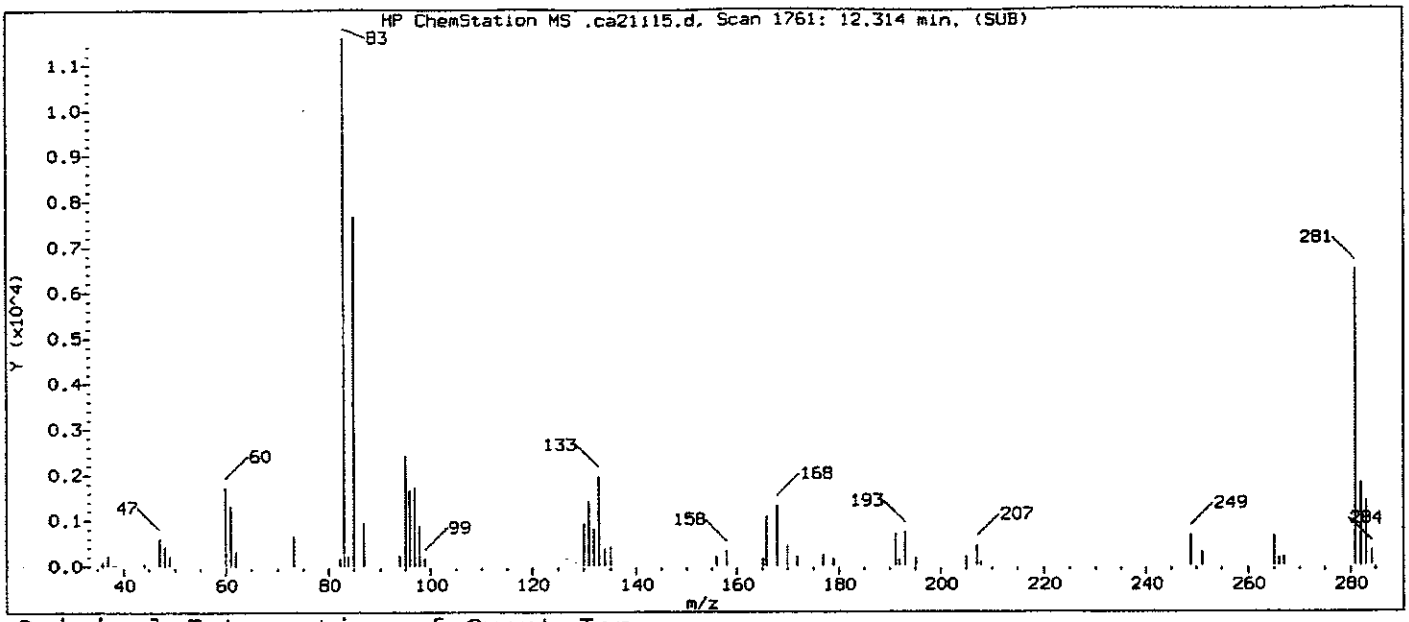
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: ADS1731 4/22/09

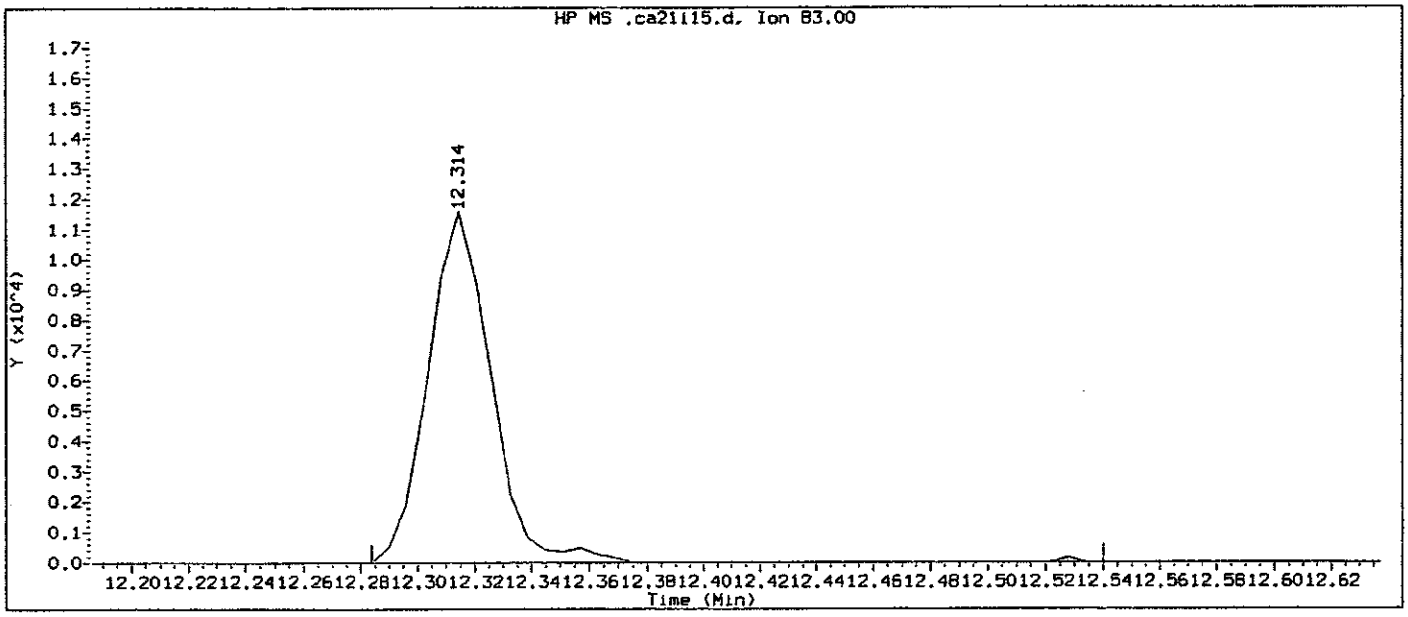
GC/MS audit/management approval: 4/22/09

RAD11 0214

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

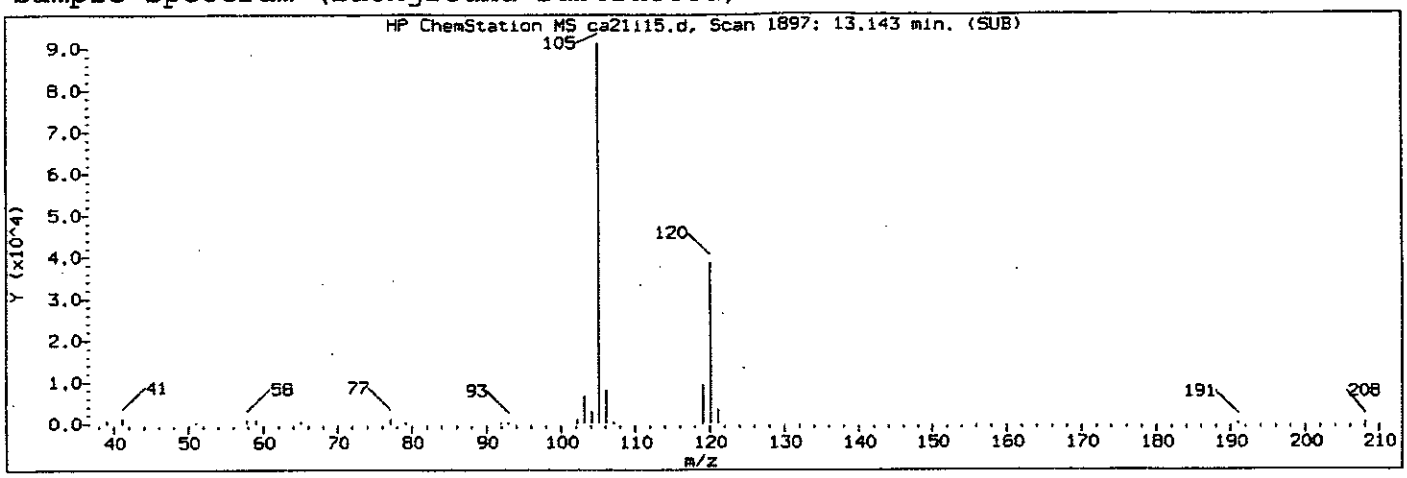
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	125
Compound Name	:	1,1,2,2-Tetrachloroethane
Scan Number	:	1761
Retention Time (minutes)	:	12.314
Quant Ion	:	83
Area	:	17737
Concentration (ug/L)	:	0.4308
Integration start scan	:	1755 Integration stop scan: 1797
Y at integration start	:	0 Y at integration end: 0

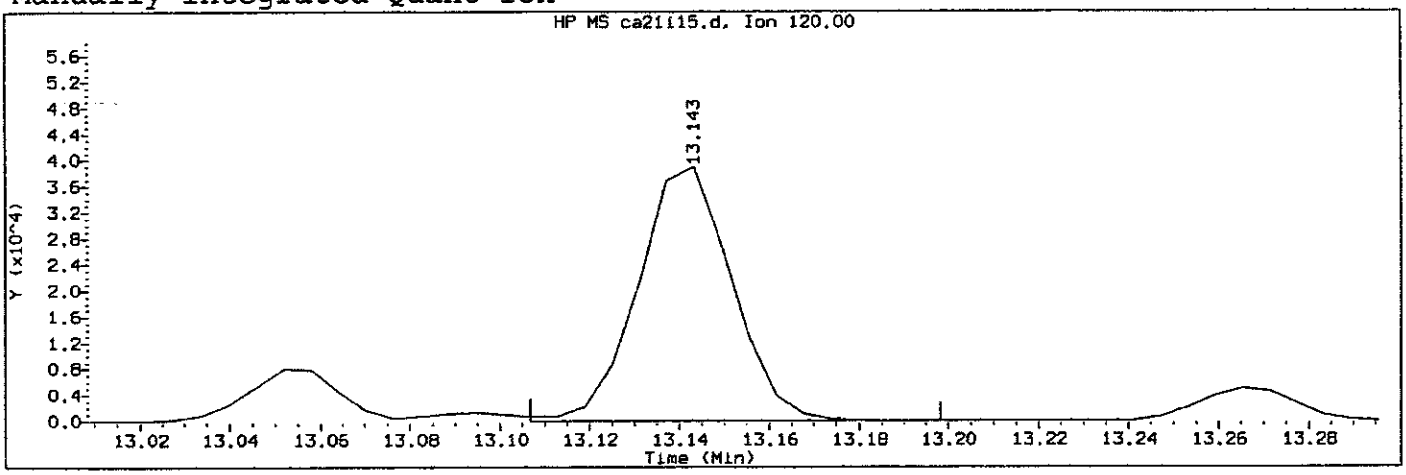
RAD11 0215

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 14:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 01:30
Date, time and analyst ID of latest file update: 22-Apr-2009 01:30 msw02109

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 144
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1897
Retention Time (minutes): 13.143
Quant Ion : 120
Area (flag) : 56652 M
Concentration (ug/L) : 0.4330
Integration start scan : 1890 Integration stop scan: 1905
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

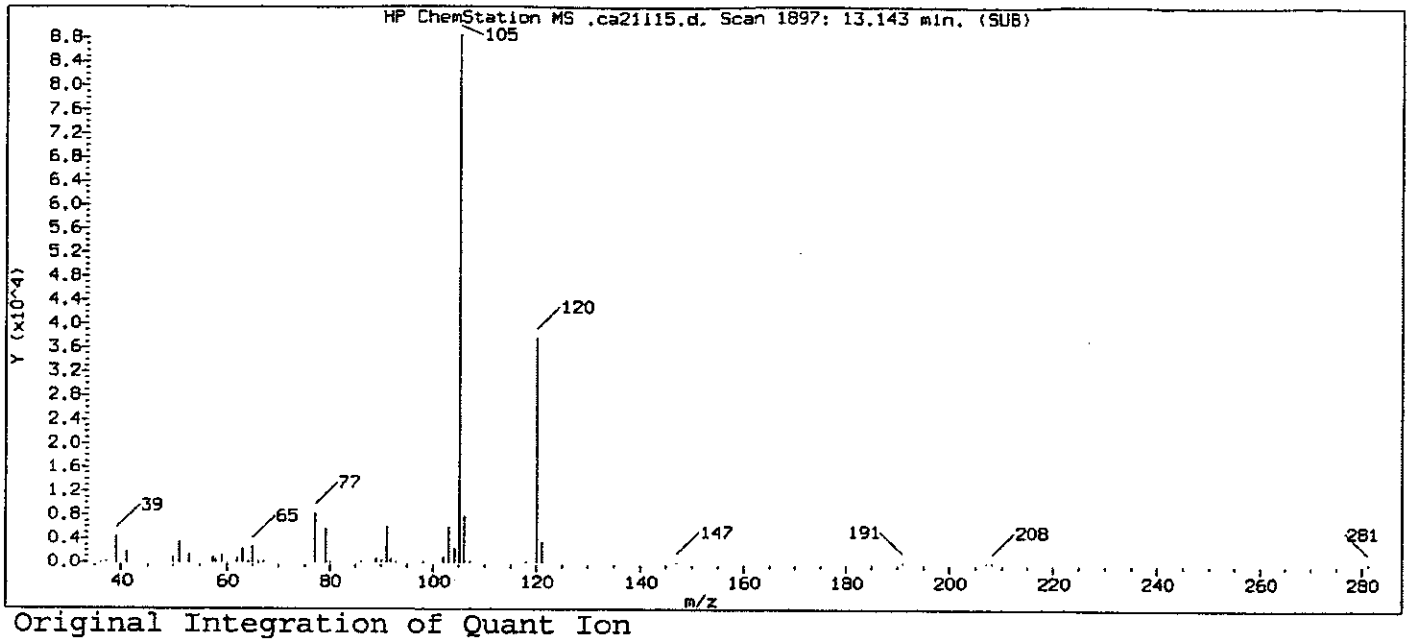
Analyst responsible for change: msw 2109 4/22/09

GC/MS audit/management approval: 4/22/09

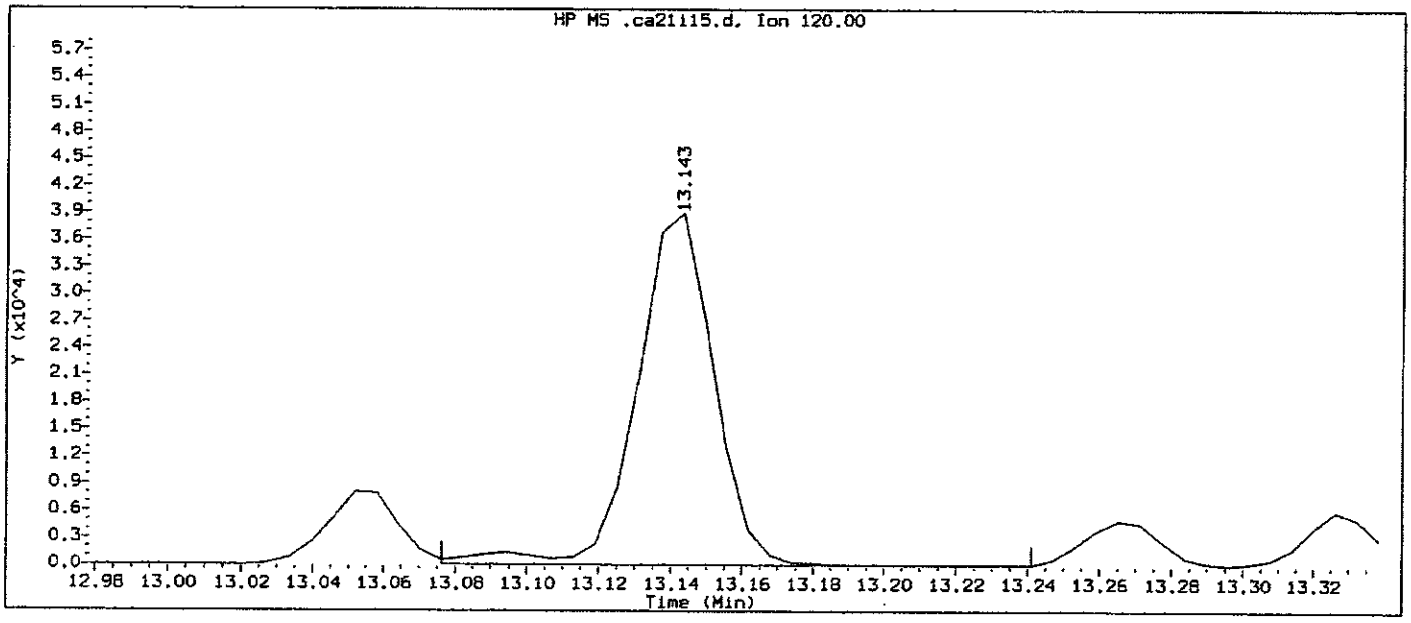
BAD11 0216

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21i15.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 21:54 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 22:12
Date, time and analyst ID of latest file update: 21-Apr-2009 22:12 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

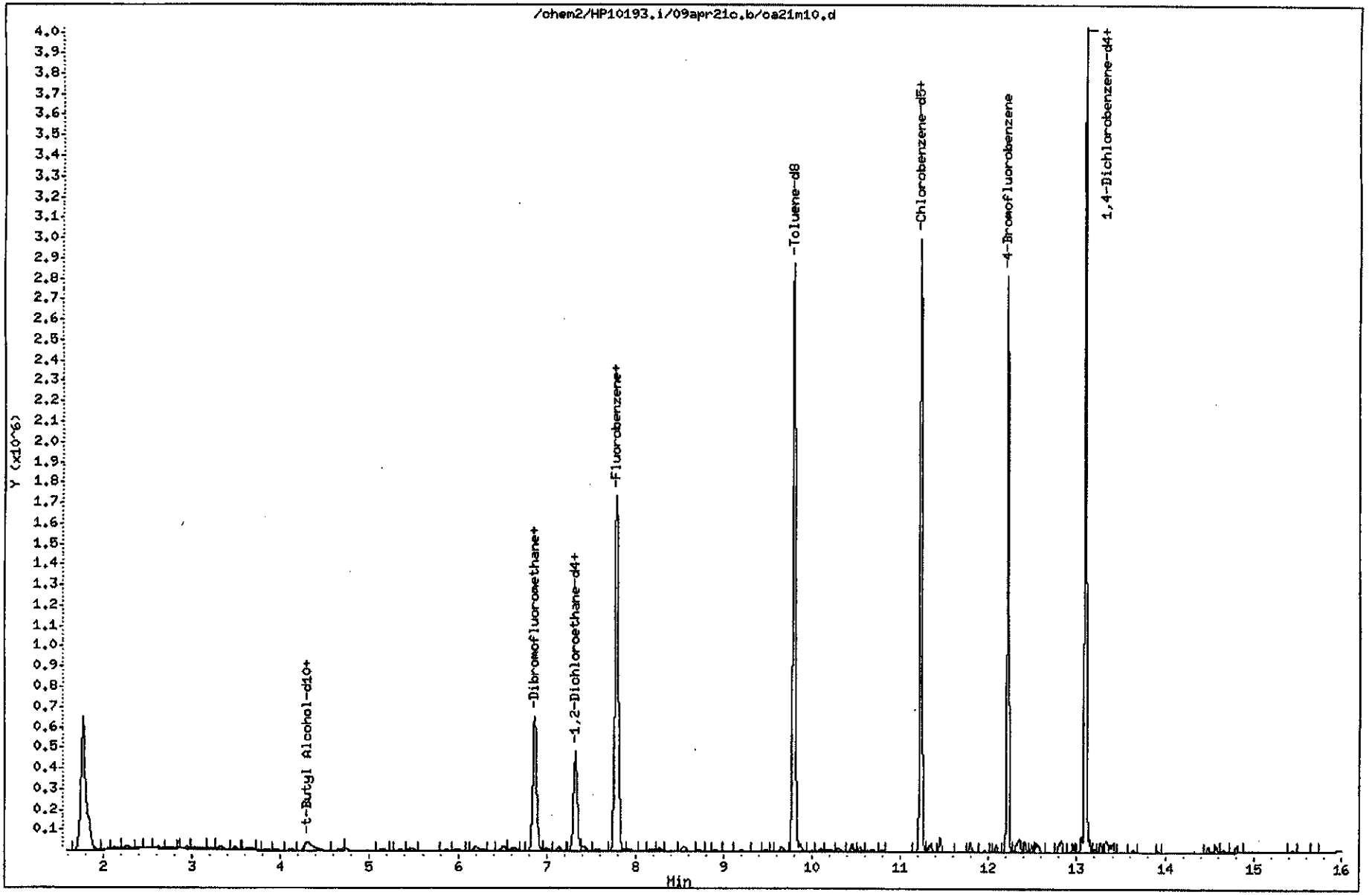
Compound Number : 144
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1897
Retention Time (minutes): 13.143
Quant Ion : 120
Area : 58304
Concentration (ug/L) : 0.4415
Integration start scan : 1885 Integration stop scan: 1912
Y at integration start : 0 Y at integration end: 0

RAD11 0217

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21i15.d, generated on 04/22/2009 at 01:30

Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d
Date : 21-APR-2009 22:16
Client ID: MDL0.1
Sample Info: MDL0.1;MDL0.1;1;3;MDL/LOQ;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:53 ads01731

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	6806	0.101
4) Chloromethane	(1)	2.121	50	8335M	0.132
6) Vinyl Chloride	(1)	2.255	62	7659	0.119
8) Bromomethane	(1)	2.621	94	6440	0.134
9) Chloroethane	(1)	2.731	64	4832M	0.128
11) Dichlorofluoromethane	(1)	2.944	67	12916M	0.123
12) Trichlorofluoromethane	(1)	3.041	101	11807	0.114
15) Ethyl Ether	(1)	3.322	59	4320	0.115
16) Freon 123a	(1)	3.340	67	7951	0.123
18) Acrolein	(4)	3.486	56	26206	5.565
19) 1,1-Dichloroethene	(1)	3.645	96	5071	0.114
20) Freon 113	(1)	3.663	101	5729	0.109
23) Acetone	(4)	3.688	58	2897	1.353
26) Methyl Iodide	(1)	3.840	142	9488	0.108
27) Carbon Disulfide	(1)	3.950	76	18233	0.121
29) Allyl Chloride	(1)	4.121	41	8784M	0.113
30) Methyl Acetate	(1)	4.133	43	2214M	0.117
32) Methylene Chloride	(1)	4.285	84	12127	0.232
33)*t-Butyl Alcohol-d10	(4)	4.310	65	106248	50.000
35) t-Butyl Alcohol	(4)	4.438	59	5537	2.142
36) Acrylonitrile	(4)	4.663	53	4657	0.554
37) trans-1,2-Dichloroethene	(1)	4.718	96	6032	0.116
40) 1,2-Dichloroethene (Total)	(1)		96	11754	0.219
38) Methyl Tertiary Butyl Ether	(1)	4.736	73	9836	0.093
41) n-Hexane	(1)	5.151	57	5397	0.087
44) 1,1-Dichloroethane	(1)	5.352	63	9725	0.112
46) di-Isopropyl Ether	(1)	5.474	45	12085	0.083
47) 2-Chloro-1,3-Butadiene	(1)	5.486	53	5911	0.080
48) Ethyl t-Butyl Ether	(1)	5.998	59	10224	0.082
51) 2,2-Dichloropropane	(1)	6.205	77	8121	0.107
49) cis-1,2-Dichloroethene	(1)	6.187	96	5722	0.103
50) 2-Butanone	(4)	6.224	43	10914	1.035
52) Propionitrile	(4)	6.303	54	6607	1.999
53) Methacrylonitrile	(4)	6.504	67	8676	0.810

M = Compound was manually integrated.

* = Compound is an internal standard.

NAD11 0219

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:53 ads01731

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	2960	0.107
55) Tetrahydrofuran	(4)	6.602	71	3425	1.144
56) Chloroform	(1)	6.657	83	10459	0.110
60) 1,1,1-Trichloroethane	(1)	6.907	97	9226	0.106
61) Cyclohexane	(1)	7.004	56	6597	0.084
63) 1,1-Dichloropropene	(1)	7.138	75	6506	0.094
64) Carbon Tetrachloride	(1)	7.150	117	8954	0.113
66) Isobutyl Alcohol	(4)	7.297	41	4931	5.500
70) Benzene	(1)	7.419	78	23971	0.112
72) 1,2-Dichloroethane	(1)	7.437	62	6269	0.112
74) t-Amyl Methyl Ether	(1)	7.571	73	8991	0.082
75)*Fluorobenzene	(1)	7.791	96	2295284	10.000
76) n-Heptane	(1)	7.797	43	7796	0.109
79) n-Butanol	(4)	8.175	56	5319M	7.909
80) Trichloroethene	(1)	8.278	95	6151	0.105
82) Methylcyclohexane	(1)	8.540	83	7264	0.079
83) 1,2-Dichloropropane	(1)	8.559	63	5137	0.103
85) Dibromomethane	(1)	8.705	93	2649	0.112
86) Methyl Methacrylate	(4)	8.723	69	1306	0.077
88) Bromodichloromethane	(1)	8.918	83	6296	0.100
91) 2-Nitropropane	(4)	9.199	41	5790	0.896
93) cis-1,3-Dichloropropene	(1)	9.479	75	5754	0.085
94) 4-Methyl-2-Pentanone	(1)	9.662	43	18219M	1.076
97) Toluene	(2)	9.869	92	15988	0.113
100) trans-1,3-Dichloropropene	(2)	10.095	75	5258	0.090
102) Ethyl Methacrylate	(2)	10.199	69	2755	0.286
103) 1,1,2-Trichloroethane	(2)	10.290	97	3534	0.103
104) Tetrachloroethene	(2)	10.442	166	7956	0.112
105) 1,3-Dichloropropane	(2)	10.461	76	5660	0.100
106) 2-Hexanone	(2)	10.211	43	12770	1.323
107) Dibromochloromethane	(2)	10.686	129	3909	0.086
108) 1,2-Dibromoethane	(2)	10.796	107	3454	0.105
109)*Chlorobenzene-d5	(2)	11.229	117	1733641	10.000
110) Chlorobenzene	(2)	11.253	112	18880	0.111

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0220

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:53 ads01731

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
111) 1,1,1,2-Tetrachloroethane	(2)	11.326	131	5611	0.096
112) Ethylbenzene	(2)	11.351	91	25626	0.092
113) m+p-Xylene	(2)	11.448	106	18606	0.164
116) Xylene (Total)	(2)		106	26193	0.235
117) o-Xylene	(2)	11.790	106	7587	0.071
118) Styrene	(2)	11.802	104	11310	0.069
119) Bromoform	(2)	11.960	173	2072	0.084
120) Isopropylbenzene	(2)	12.088	105	18721	0.069
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	3987	0.105
126) Bromobenzene	(3)	12.345	156	7792	0.106
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	6421	1.268
128) 1,2,3-Trichloropropane	(3)	12.351	110	1356	0.109
132) n-Propylbenzene	(3)	12.412	91	29275	0.088
133) 2-Chlorotoluene	(3)	12.491	126	6734	0.093
135) 4-Chlorotoluene	(3)	12.570	126	6898	0.091
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	18207	0.074
137) Pentachloroethane	(3)	12.820	167	4199	0.083
136) tert-Butylbenzene	(3)	12.796	134	4715	0.083
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	17583	0.068
139) sec-Butylbenzene	(3)	12.954	105	22293	0.072
140) 1,3-Dichlorobenzene	(3)	13.052	146	16001	0.102
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	1045997	10.000
141) p-Isopropyltoluene	(3)	13.052	119	18067M	0.064
143) 1,4-Dichlorobenzene	(3)	13.113	146	18457	0.114
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	11107M	0.089
145) Benzyl Chloride	(3)	13.204	126	1415	0.185
146) n-Butylbenzene	(3)	13.350	92	9946M	0.072
147) 1,2-Dichlorobenzene	(3)	13.387	146	13965	0.101
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	490	0.094
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	9079	0.094
153) Hexachlorobutadiene	(3)	14.576	225	5748	0.110
154) Naphthalene	(3)	14.655	128	10352	0.139
155) 1,2,3-Trichlorobenzene	(3)	14.814	180	8516	0.103
58)$Dibromofluoromethane	(1)	6.864	113	585867	9.687

M = Compound was manually integrated.

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

RAD11 8221

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:53 ads01731

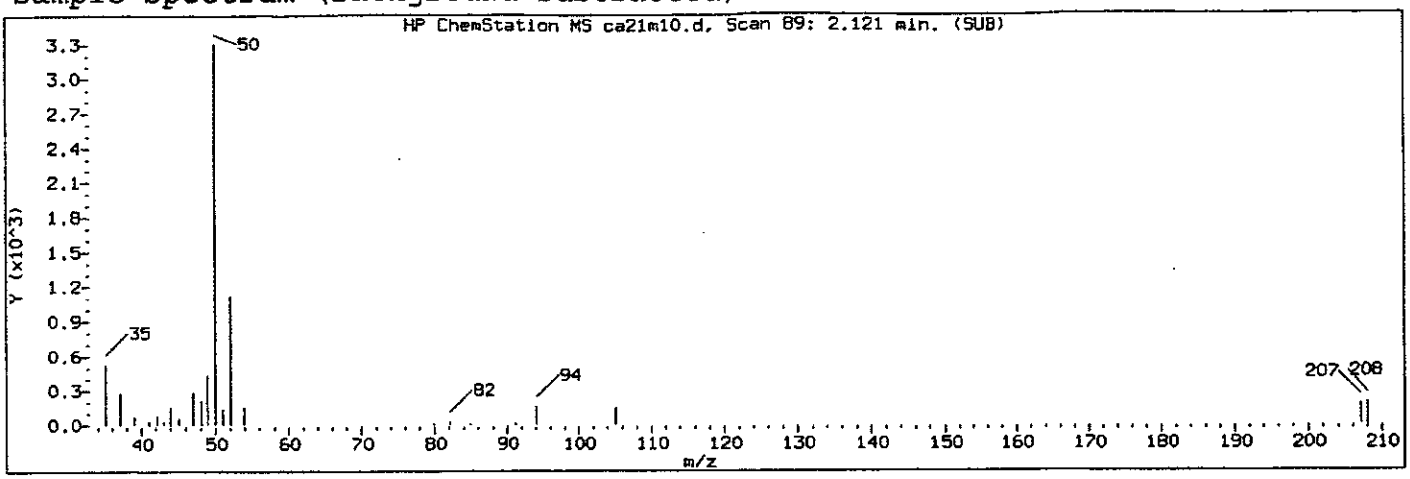
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
69)$1,2-Dichloroethane-d4	(1)	7.321	102	101429	9.271
95)$Toluene-d8	(2)	9.796	98	2279767	9.288
123)$4-Bromofluorobenzene	(2)	12.217	95	818388	9.022

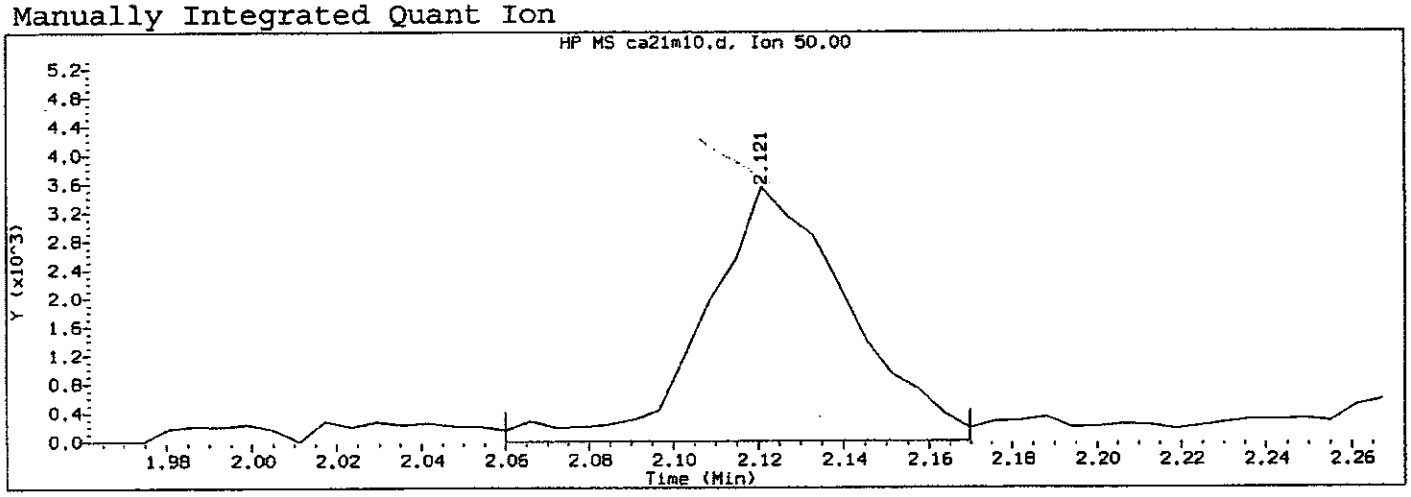
$ = Compound is a surrogate standard.

RAD11 0222

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 4
Compound Name : Chloromethane
Scan Number : 89
Retention Time (minutes): 2.121
Quant Ion : 50
Area (flag) : 8335 M
Concentration (ug/L) : 0.1316
Integration start scan : 78 Integration stop scan: 96
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

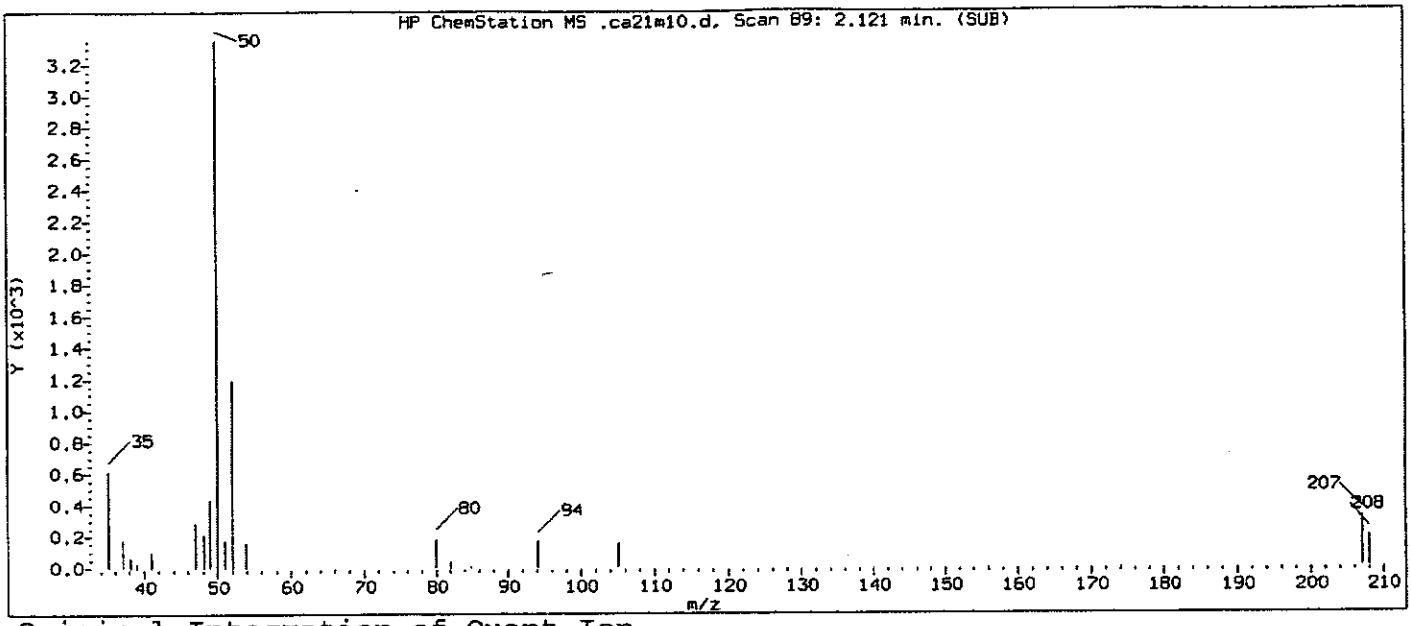
Analyst responsible for change: MSW 2009 4/22/09

GC/MS audit/management approval: 4/22/09

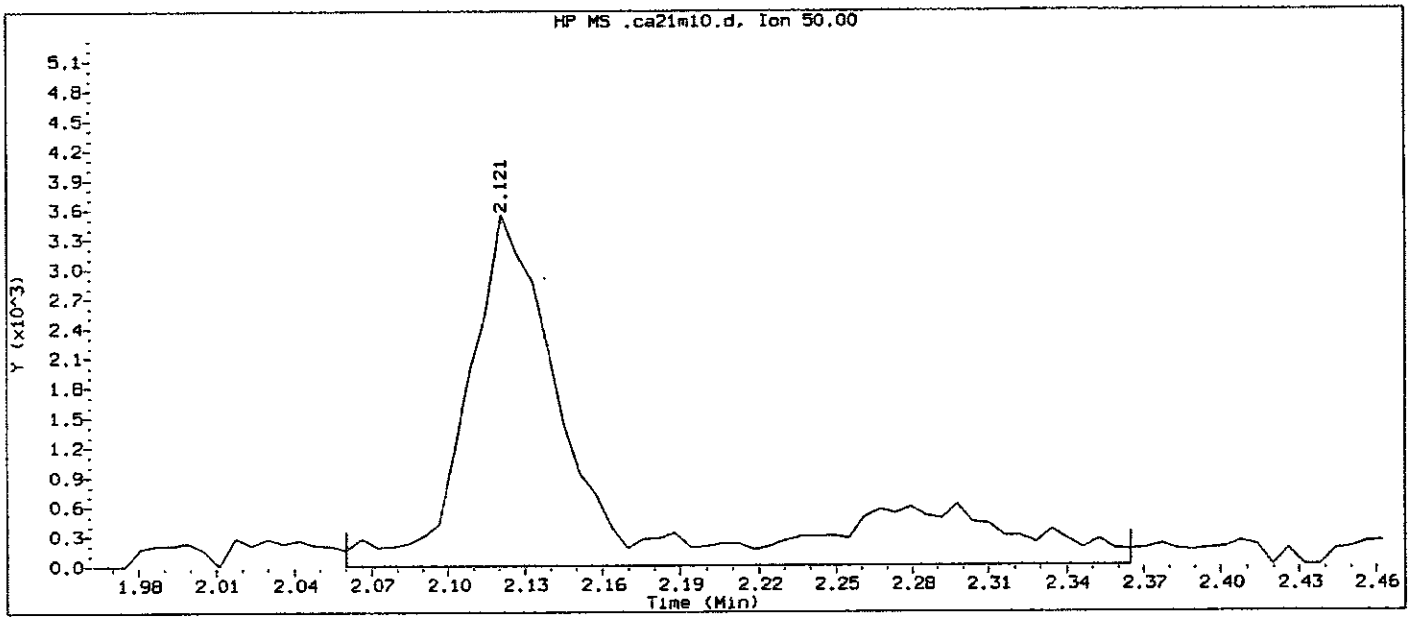
RAD11 0223

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

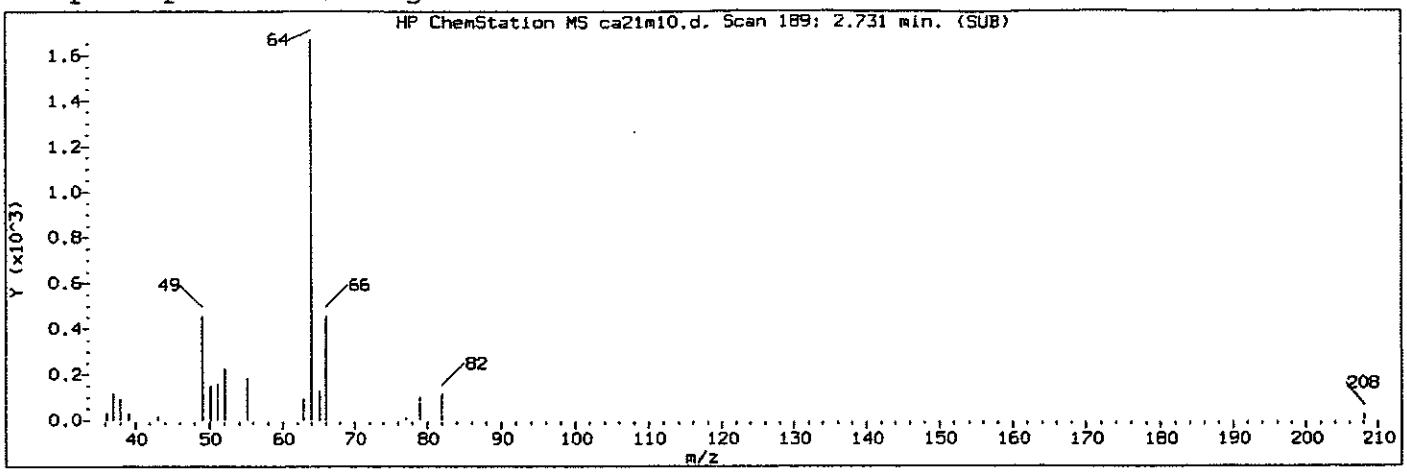
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 4
Compound Name : Chloromethane
Scan Number : 89
Retention Time (minutes): 2.121
Quant Ion : 50
Area : 12064
Concentration (ug/L) : 0.1905
Integration start scan : 78 Integration stop scan: 128
Y at integration start : 0 Y at integration end: 0

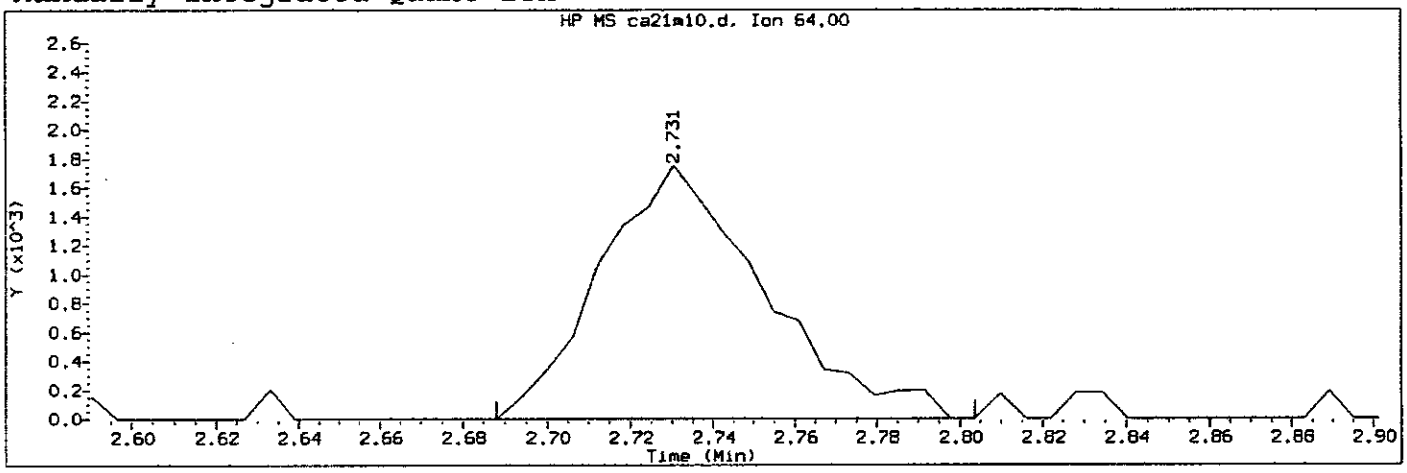
RAD11 B224

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 189
Retention Time (minutes) : 2.731
Quant Ion : 64
Area (flag) : 4832 M
Concentration (ug/L) : 0.1277
Integration start scan : 181 Integration stop scan: 200
Y at integration start : 0 Y at integration end: 0

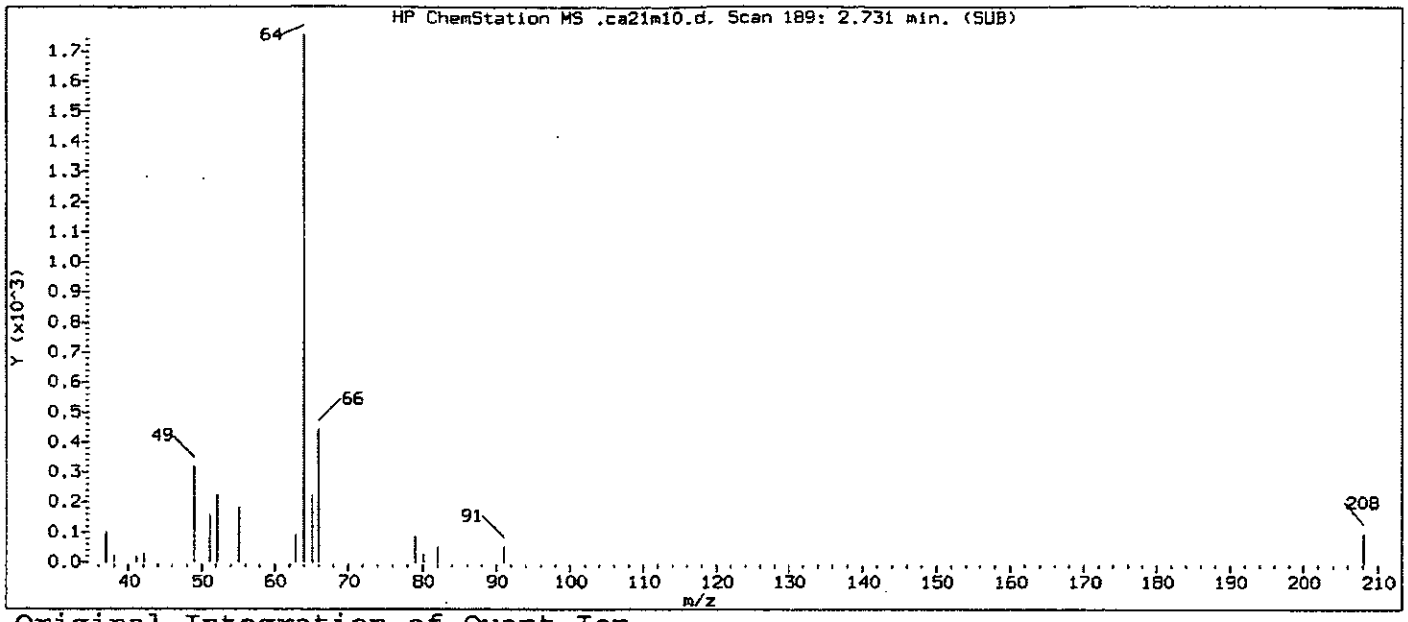
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSW 4/22/09

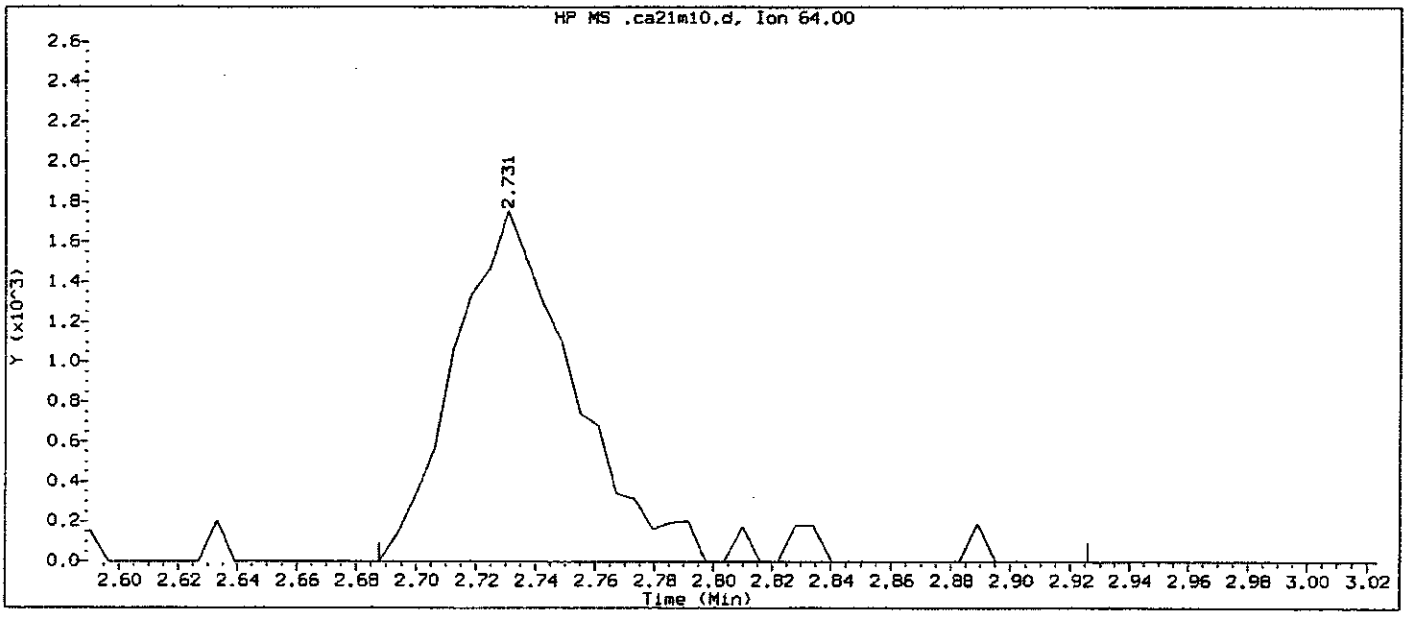
GC/MS audit/management approval: 4/22/09

RAD11 8225

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

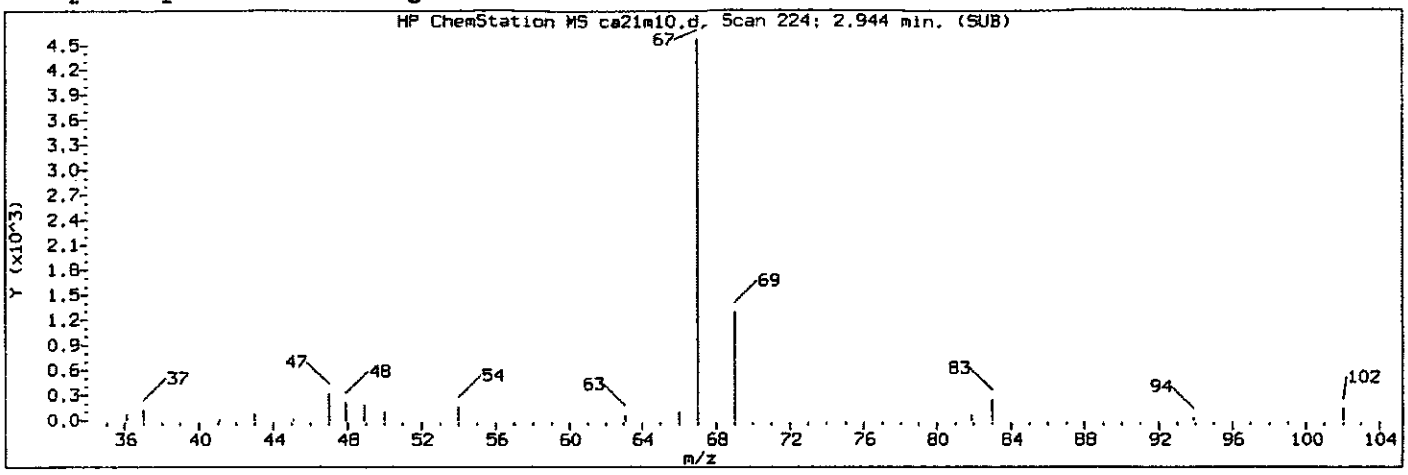
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 8
Compound Name : Chloroethane
Scan Number : 189
Retention Time (minutes): 2.731
Quant Ion : 64
Area : 5098
Concentration (ug/L) : 0.1347
Integration start scan : 181 Integration stop scan: 220
Y at integration start : 0 Y at integration end: 0

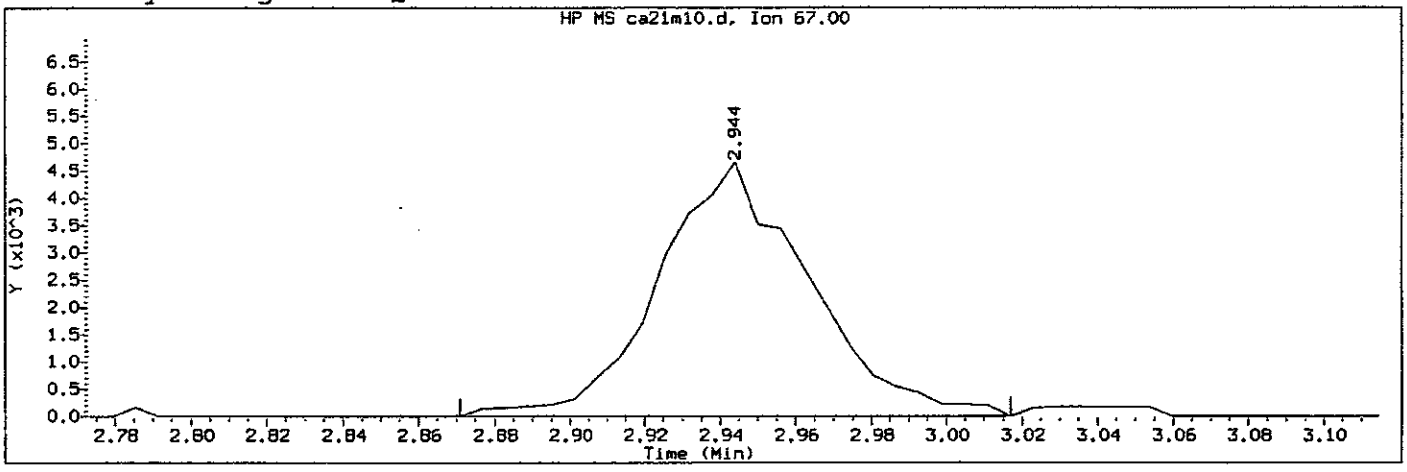
BAD11 0226

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 10
Compound Name : Dichlorofluoromethane
Scan Number : 224
Retention Time (minutes): 2.944
Quant Ion : 67
Area (flag) : 12916 M
Concentration (ug/L) : 0.1225
Integration start scan : 211 Integration stop scan: 235
Y at integration start : 0 Y at integration end: 0

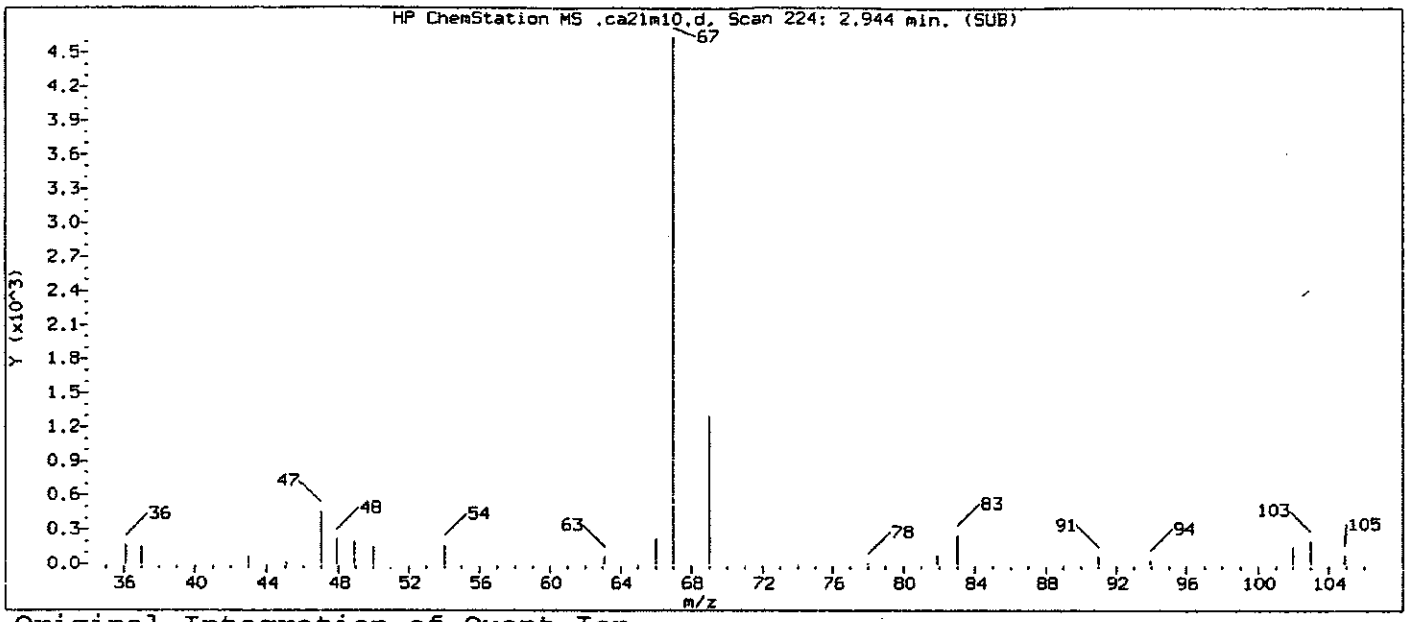
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSL 2009 4/22/09

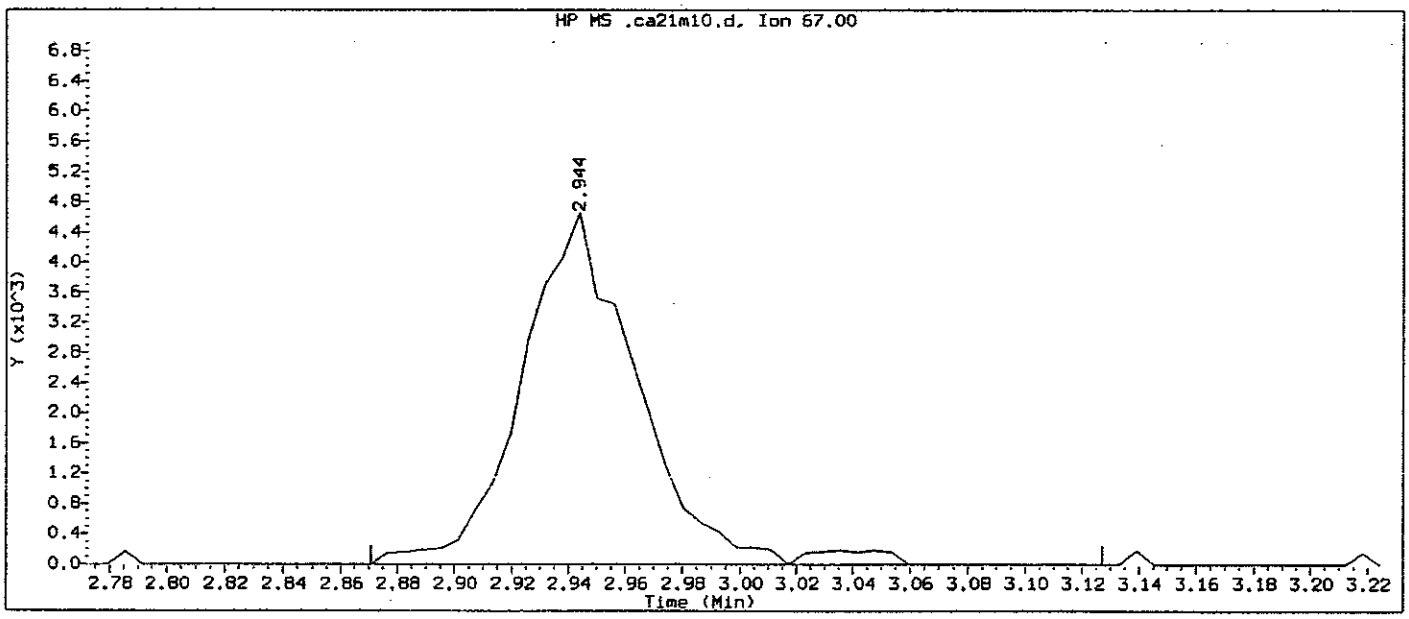
GC/MS audit/management approval: 4/22/09

RAD11 8227

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

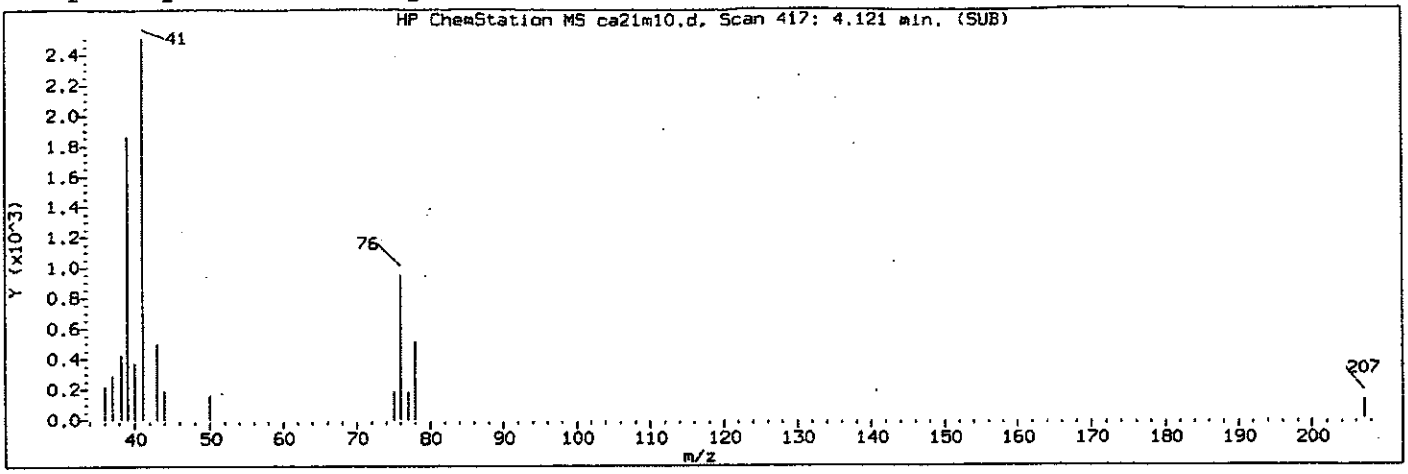
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	: 10
Compound Name	: Dichlorofluoromethane
Scan Number	: 224
Retention Time (minutes)	: 2.944
Quant Ion	: 67
Area	: 13286
Concentration (ug/L)	: 0.1260
Integration start scan	: 211 Integration stop scan: 253
Y at integration start	: 0 Y at integration end: 0

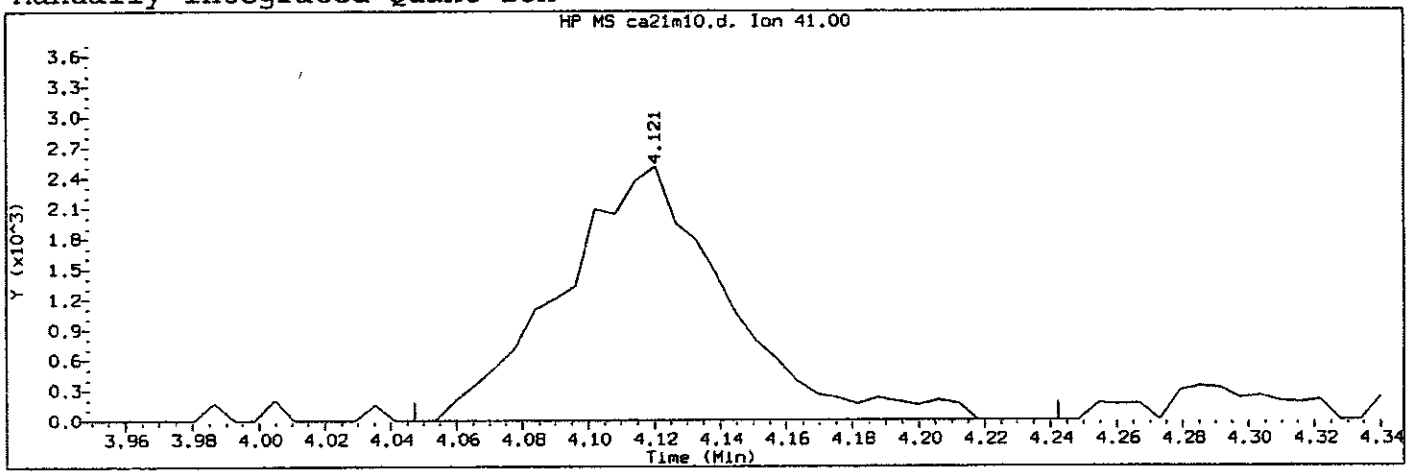
BAD11 8288

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 28
Compound Name : Allyl Chloride
Scan Number : 417
Retention Time (minutes): 4.121
Quant Ion : 41
Area (flag) : 8784 M
Concentration (ug/L) : 0.1134
Integration start scan : 404 Integration stop scan: 436
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

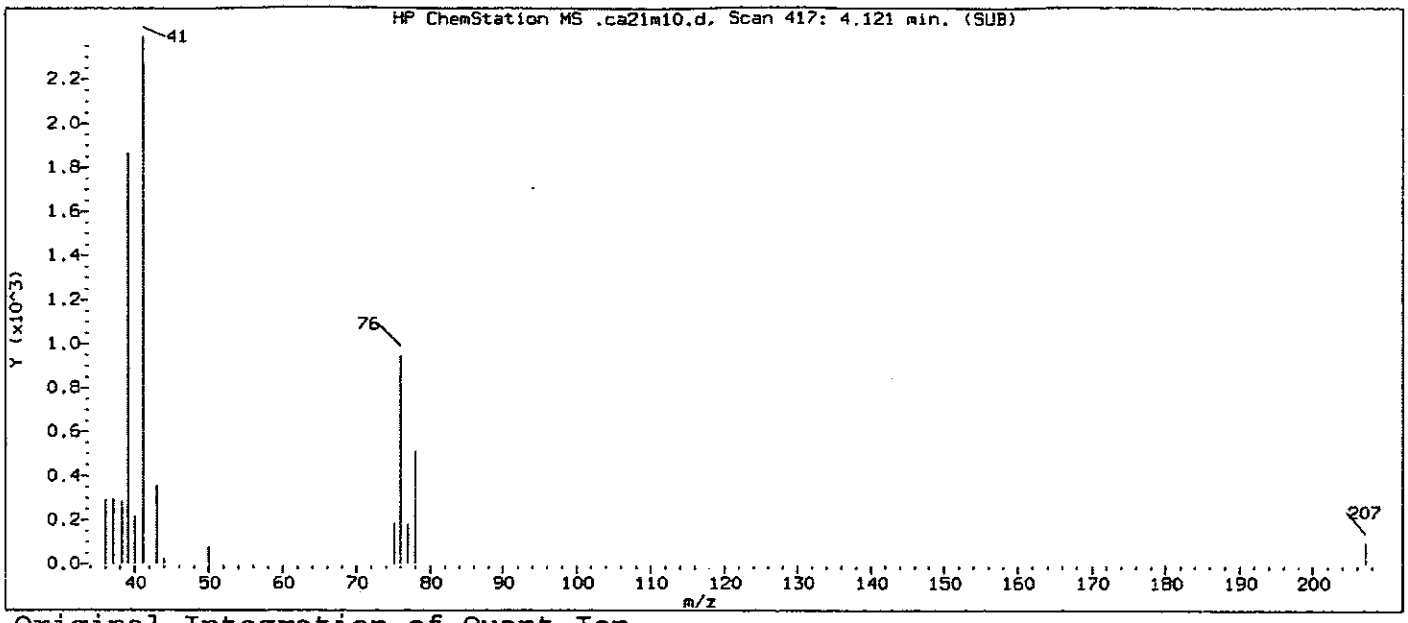
Analyst responsible for change: _____ 4/22/09

GC/MS audit/management approval: _____ 4/22/09

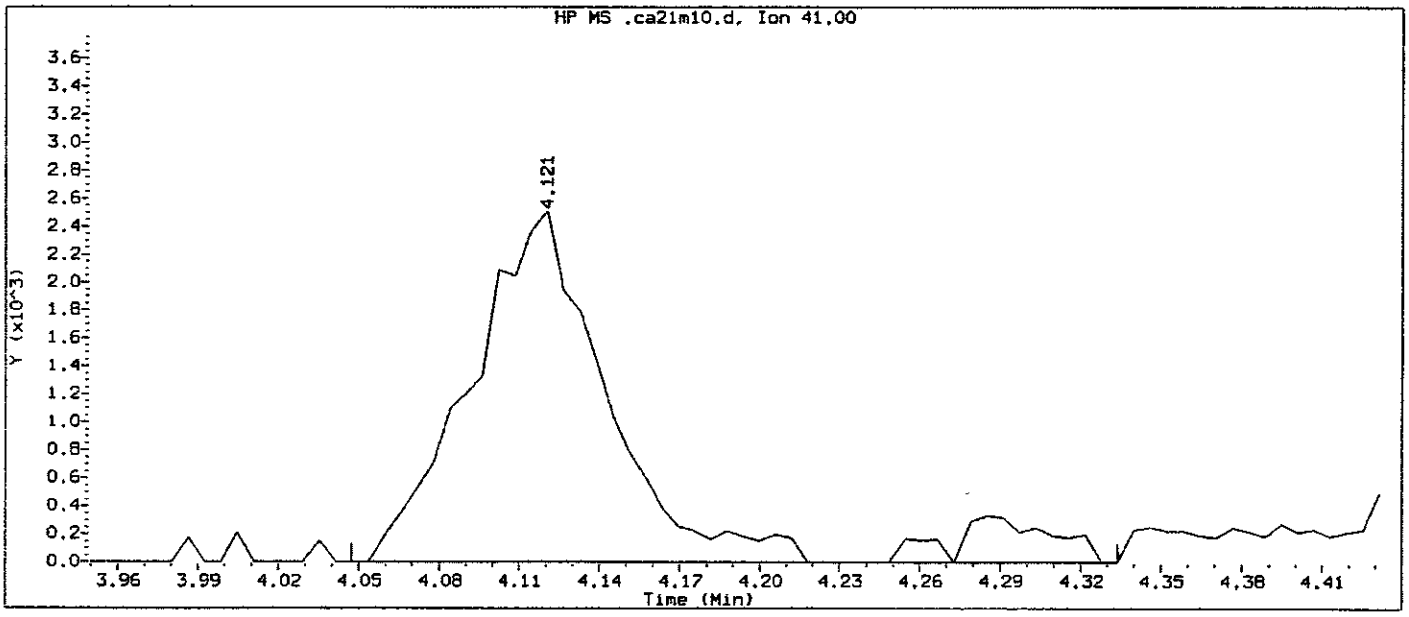
RAD11 8229

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

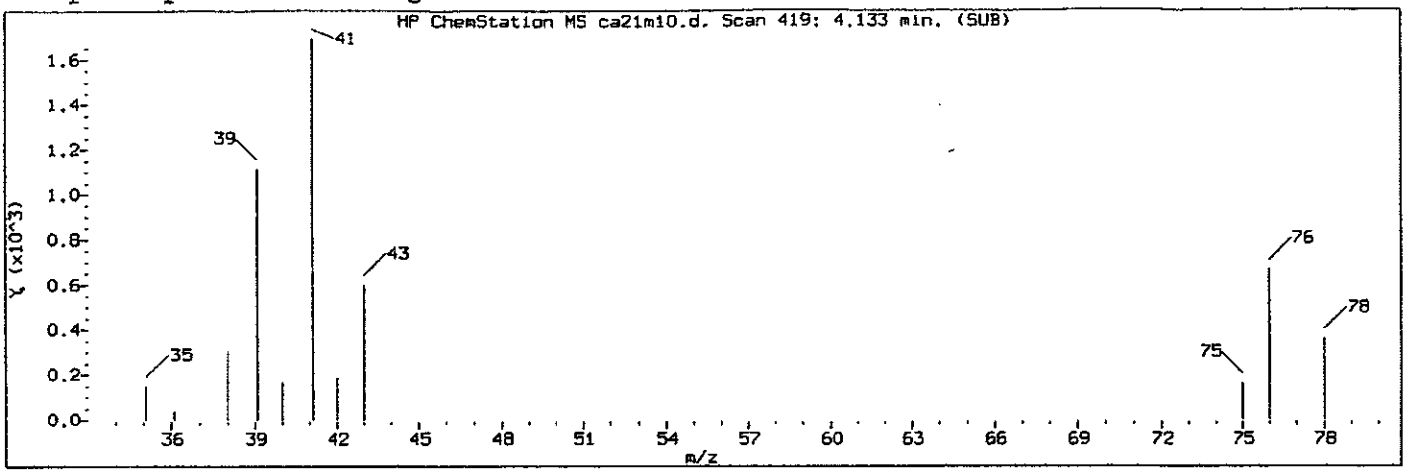
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 28
Compound Name : Allyl Chloride
Scan Number : 417
Retention Time (minutes): 4.121
Quant Ion : 41
Area : 9674
Concentration (ug/L) : 0.1249
Integration start scan : 404 Integration stop scan: 451
Y at integration start : 0 Y at integration end: 0

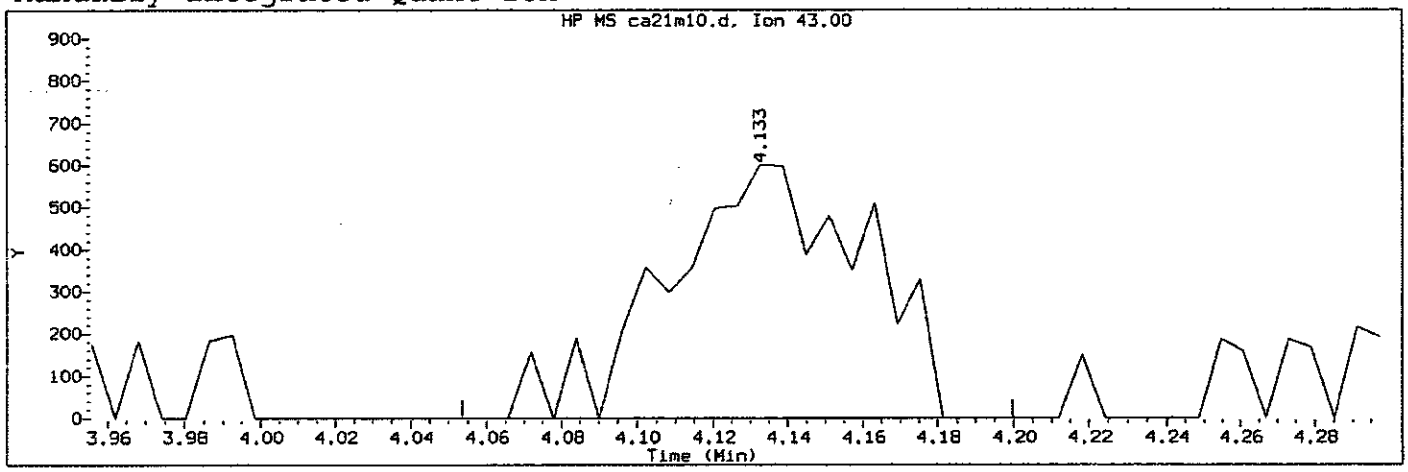
RAD11 8238

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 30
Compound Name : Methyl Acetate
Scan Number : 419
Retention Time (minutes): 4.133
Quant Ion : 43
Area (flag) : 2214 M
Concentration (ug/L) : 0.1171
Integration start scan : 405 Integration stop scan: 429
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

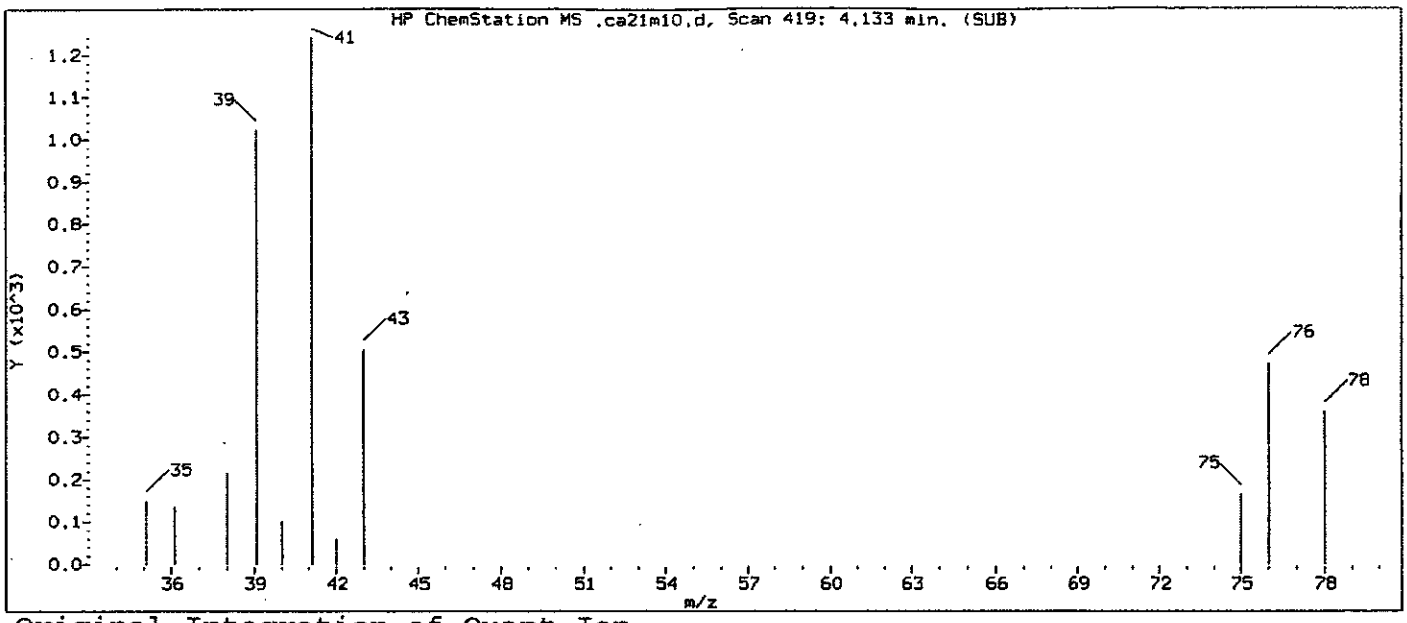
Analyst responsible for change: SEW 4/22/09

GC/MS audit/management approval: 4/22/09

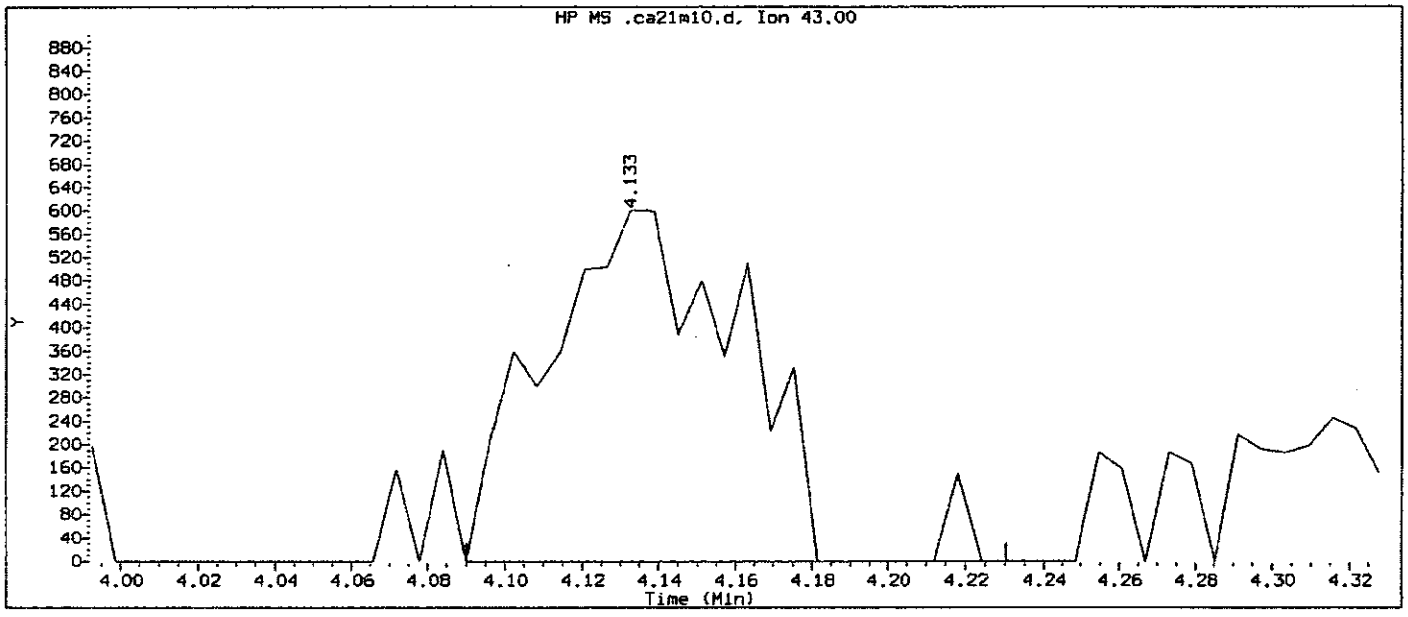
BAD11 8231

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

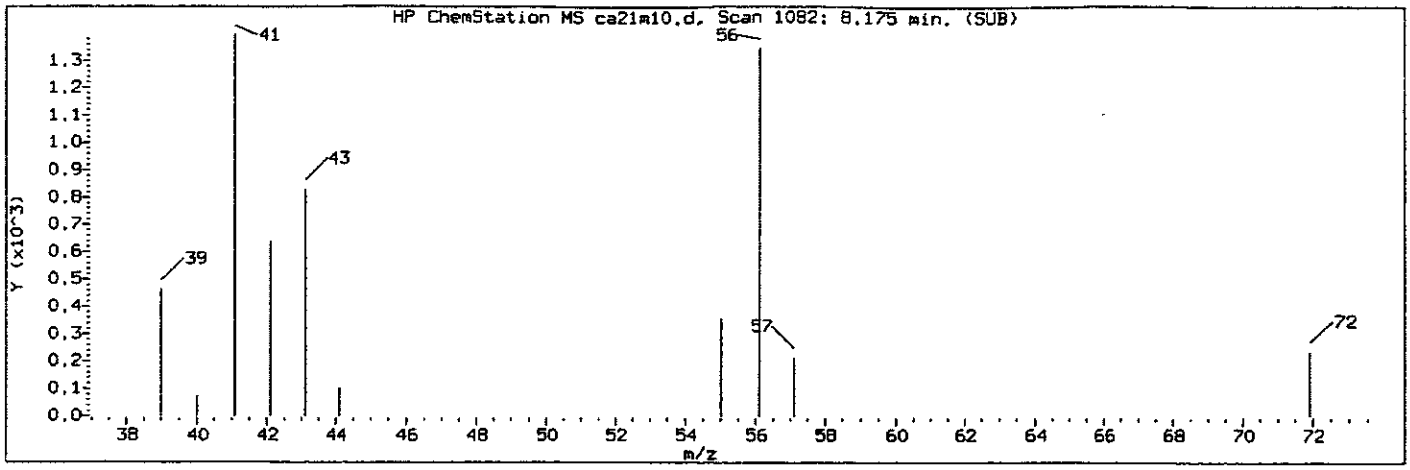
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 30
Compound Name : Methyl Acetate
Scan Number : 419
Retention Time (minutes): 4.133
Quant Ion : 43
Area : 2141
Concentration (ug/L) : 0.1133
Integration start scan : 411 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

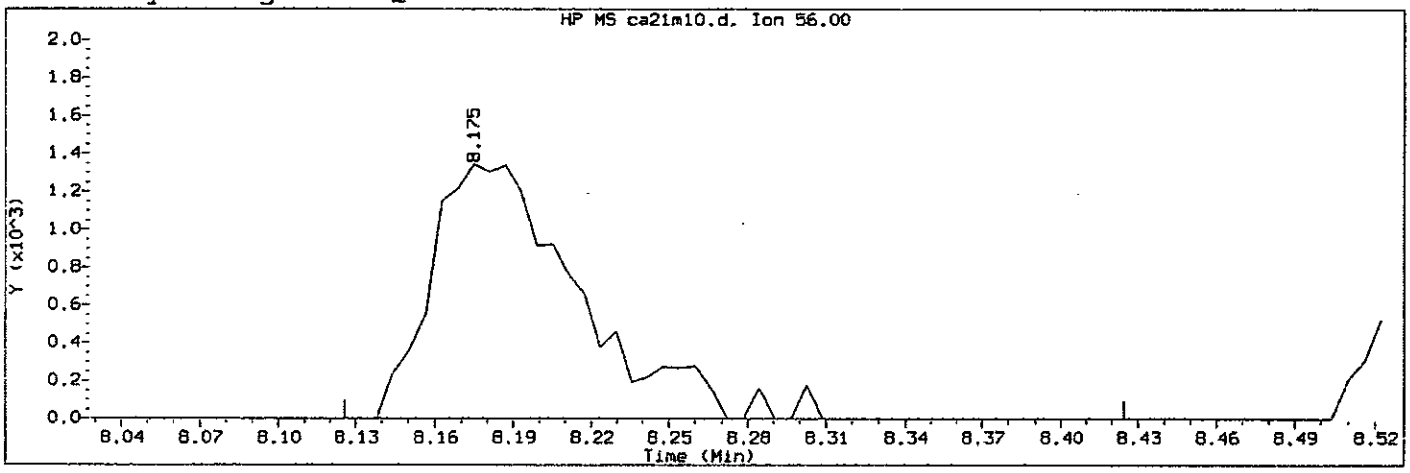
RAD11 0232

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:53 ads01731

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 79
Compound Name : n-Butanol
Scan Number : 1082
Retention Time (minutes): 8.175
Quant Ion : 56
Area (flag) : 5319 M
Concentration (ug/L) : 7.9087
Integration start scan : 1073 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

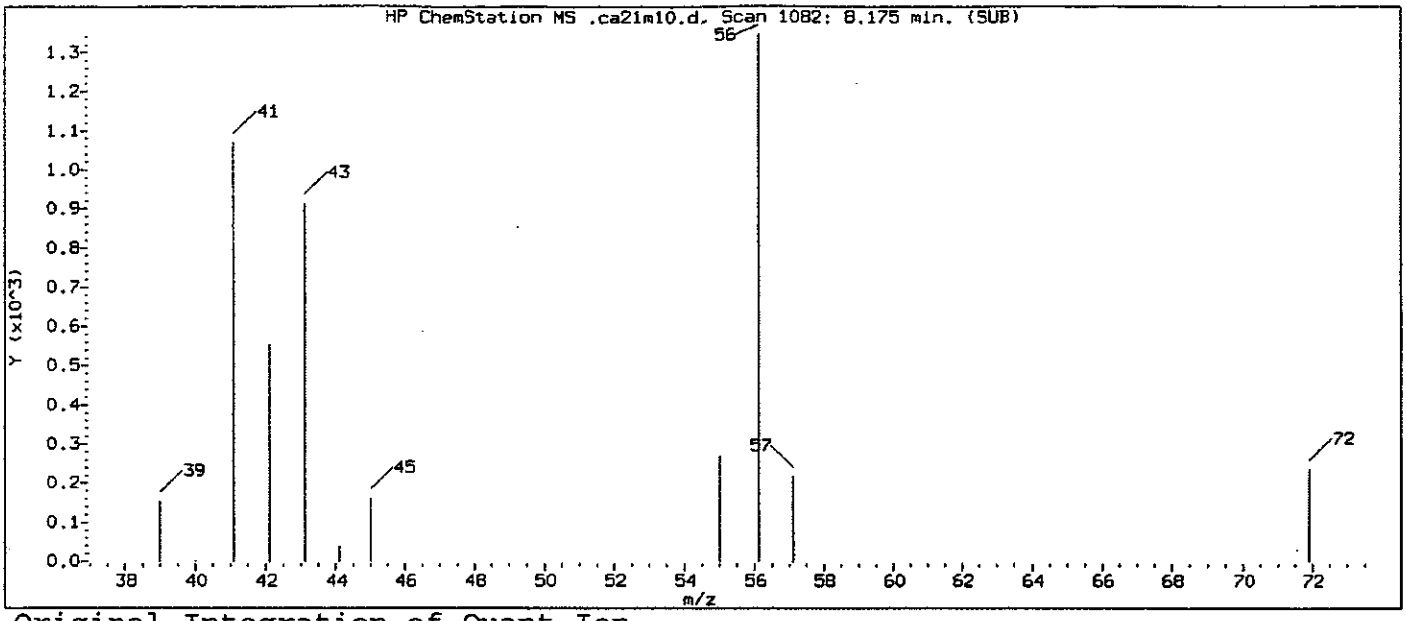
Analyst responsible for change: ADS1731 4/22/09

GC/MS audit/management approval: 4/22/09

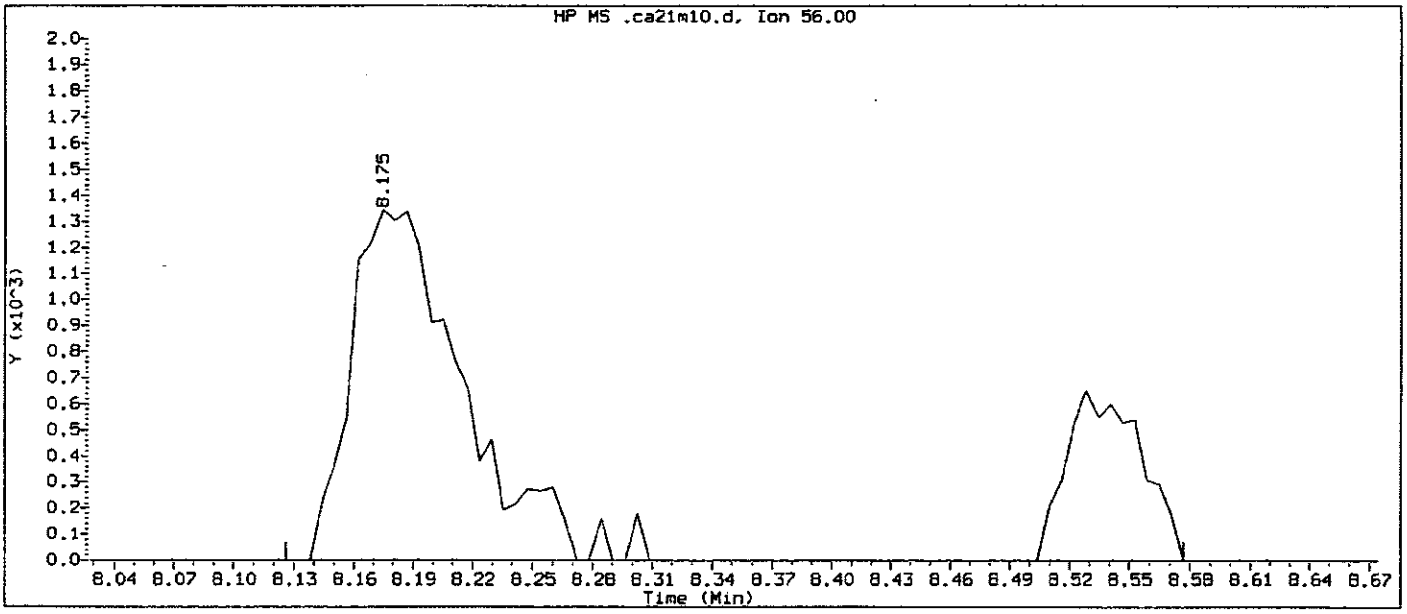
RAD11 8233

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/22/2009 at 14:53

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

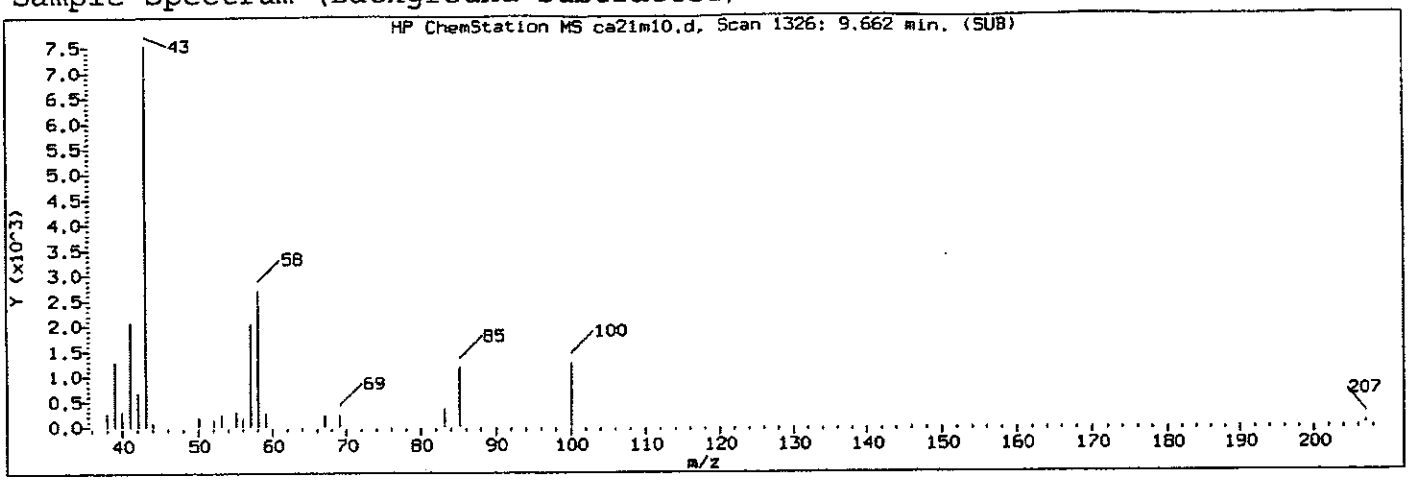
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	:	79
Compound Name	:	n-Butanol
Scan Number	:	1082
Retention Time (minutes)	:	8.175
Quant Ion	:	56
Area	:	7032
Concentration (ug/L)	:	10.0368
Integration start scan	:	1073 Integration stop scan: 1147
Y at integration start	:	0 Y at integration end: 0

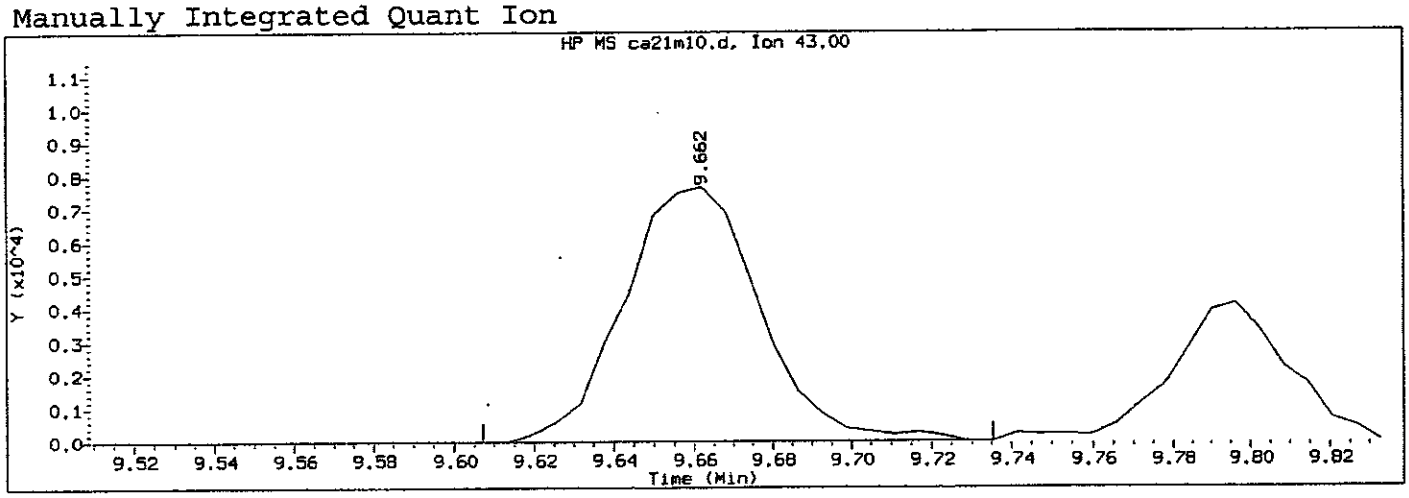
RAD11 8234

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/22/2009 at 14:53

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 93
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1326
Retention Time (minutes): 9.662
Quant Ion : 43
Area (flag) : 18219 M
Concentration (ug/L) : 1.0758
Integration start scan : 1316 Integration stop scan: 1337
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

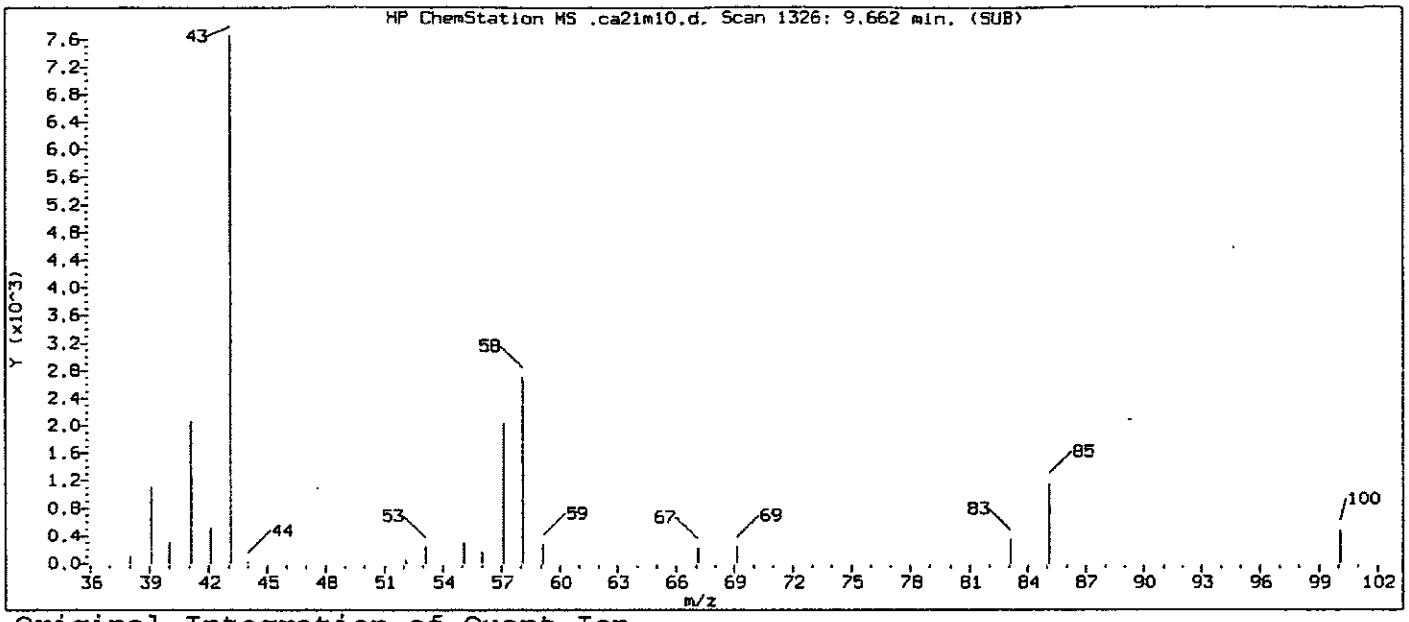
Analyst responsible for change: MH 4/22/09

GC/MS audit/management approval: 4/22/09

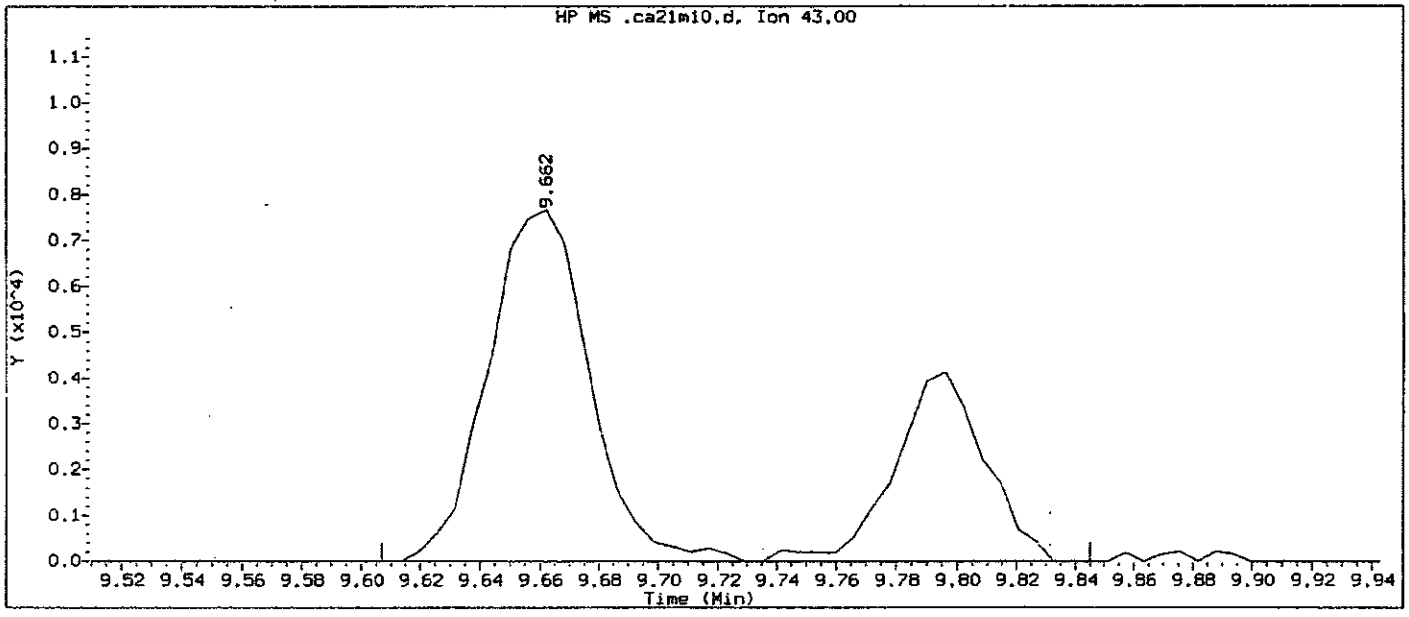
RAD11 0235

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

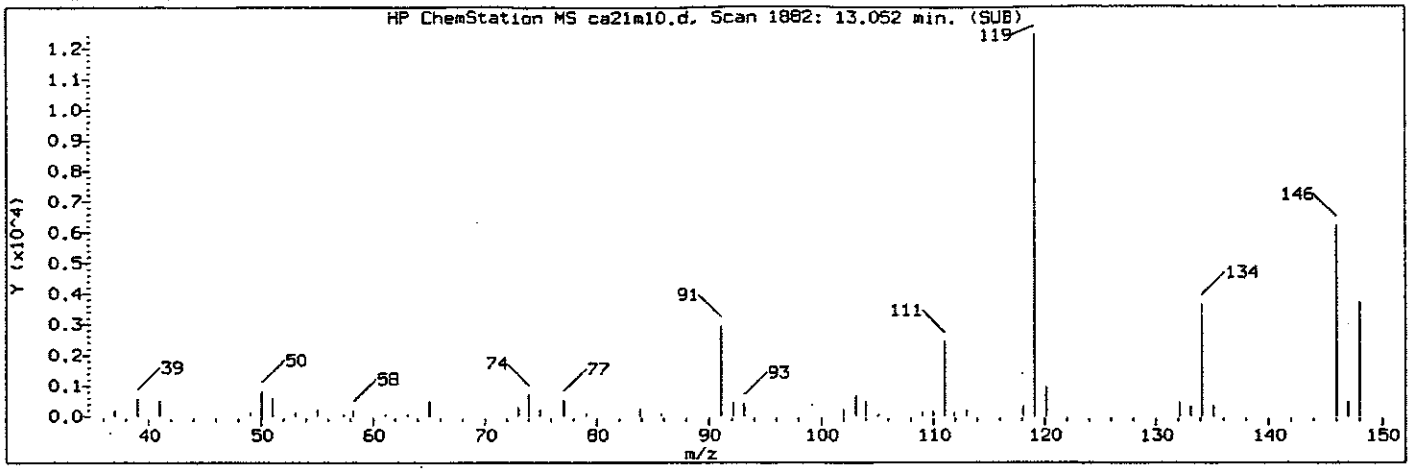
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	: 93
Compound Name	: 4-Methyl-2-Pentanone
Scan Number	: 1326
Retention Time (minutes)	: 9.662
Quant Ion	: 43
Area	: 26799
Concentration (ug/L)	: 1.3783
Integration start scan	: 1316 Integration stop scan: 1355
Y at integration start	: 0 Y at integration end: 0

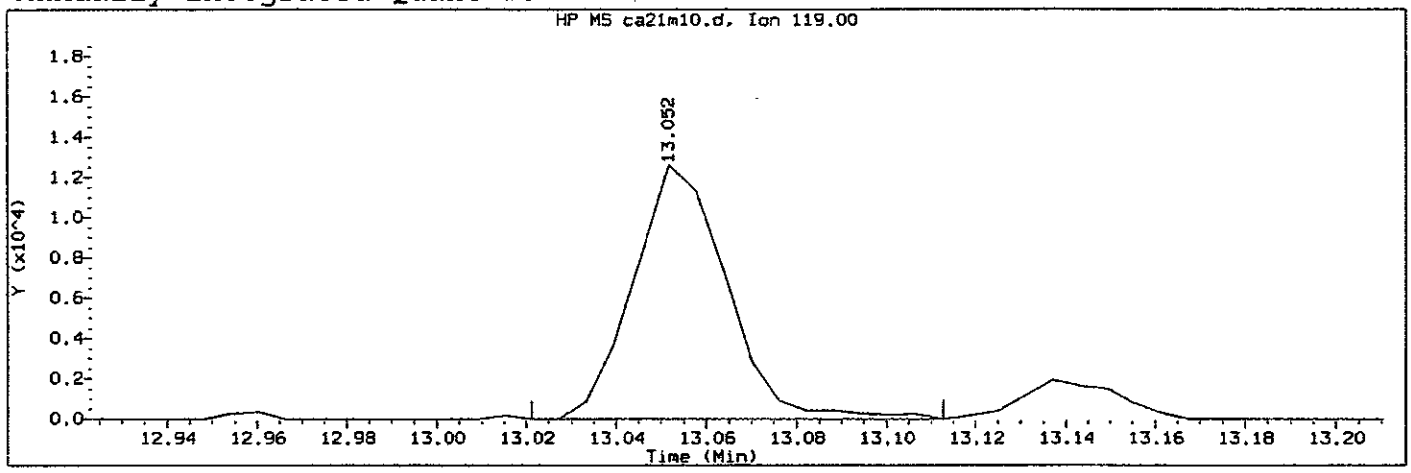
RAD11 8236

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 140
Compound Name : p-Isopropyltoluene
Scan Number : 1882
Retention Time (minutes): 13.052
Quant Ion : 119
Area (flag) : 18067 M
Concentration (ug/L) : 0.0641
Integration start scan : 1876 Integration stop scan: 1891
Y at integration start : 0 Y at integration end: 0

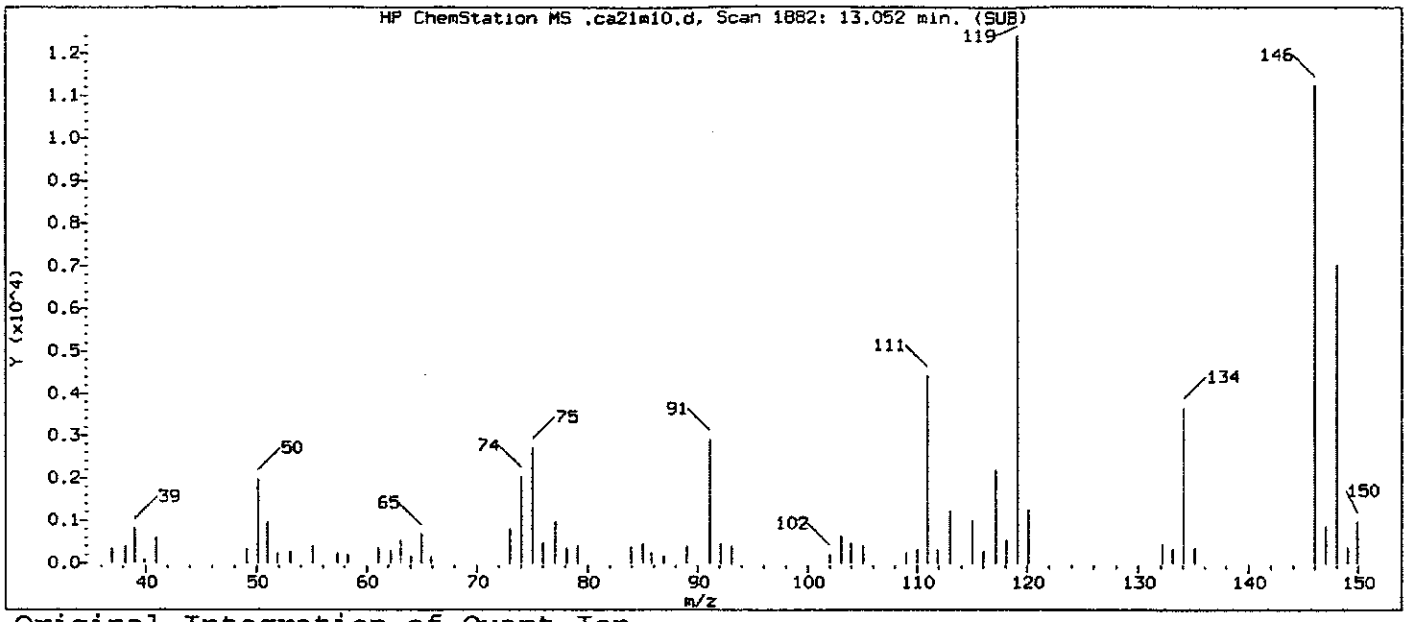
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: mkn 4/22/09

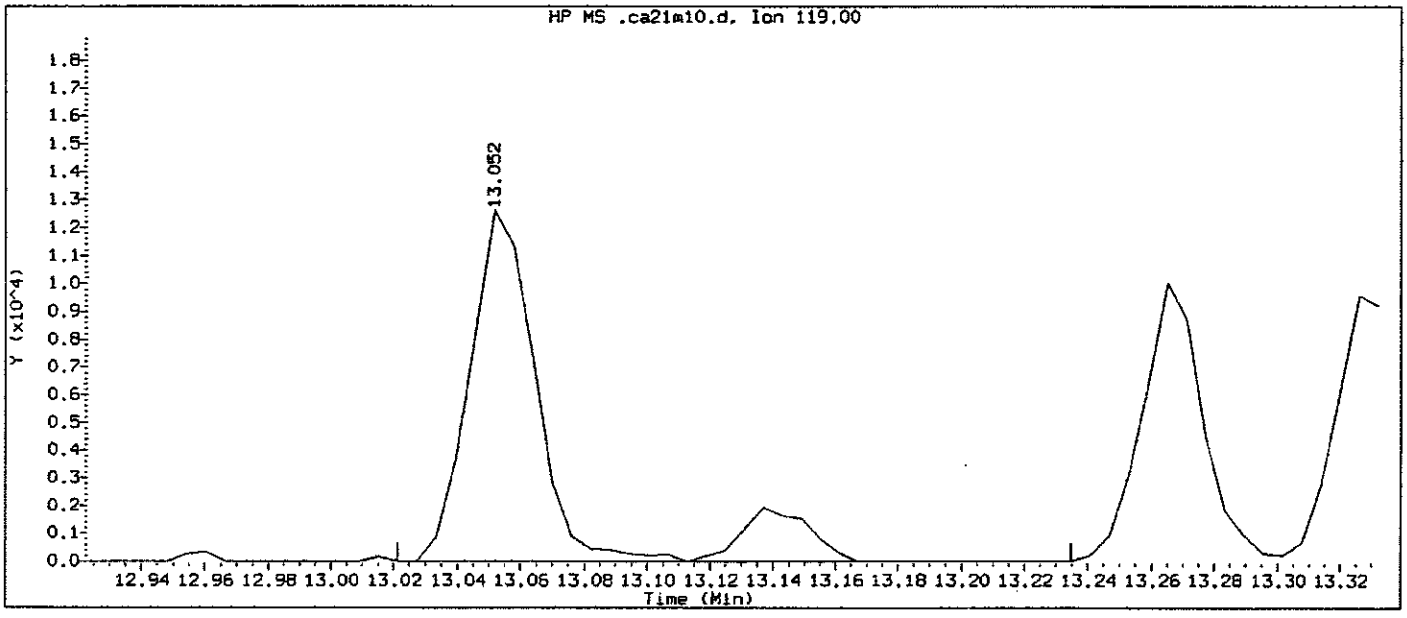
GC/MS audit/management approval: 4-22-09

RAD11 8237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

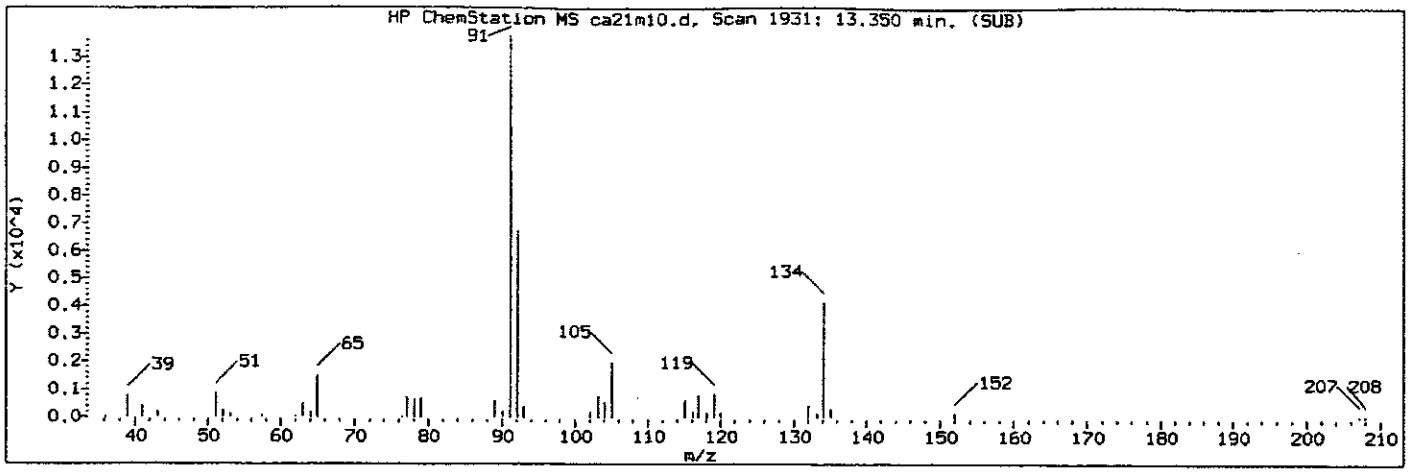
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	: 140
Compound Name	: p-Isopropyltoluene
Scan Number	: 1882
Retention Time (minutes)	: 13.052
Quant Ion	: 119
Area	: 20960
Concentration (ug/L)	: 0.0744
Integration start scan	: 1876 Integration stop scan: 1911
Y at integration start	: 0 Y at integration end: 0

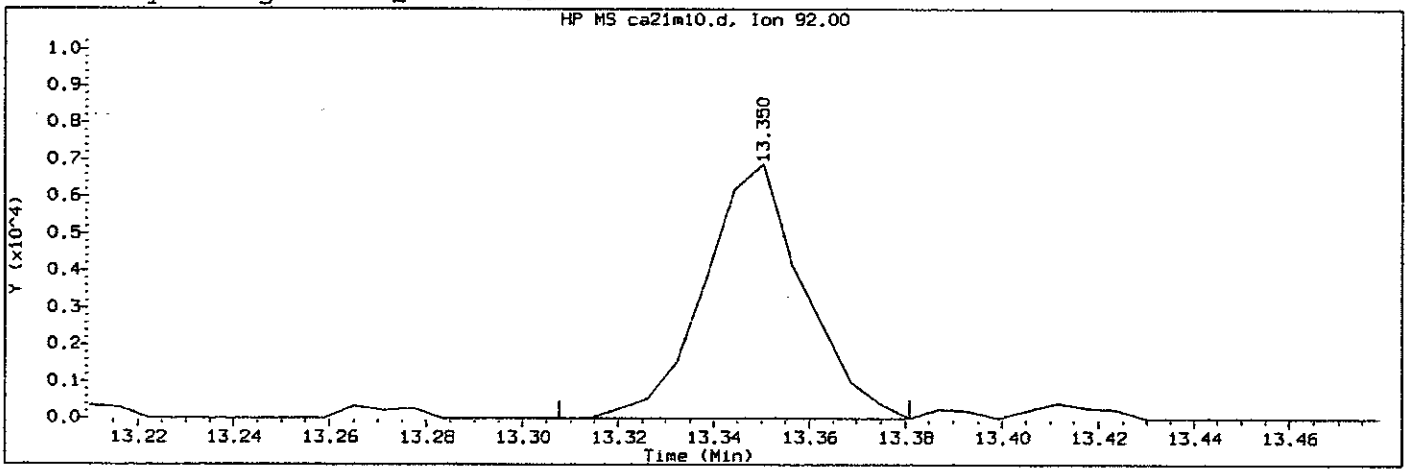
RAD11 8230

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 143
Compound Name : n-Butylbenzene
Scan Number : 1931
Retention Time (minutes): 13.350
Quant Ion : 92
Area (flag) : 9946 M
Concentration (ug/L) : 0.0718
Integration start scan : 1923 Integration stop scan: 1935
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

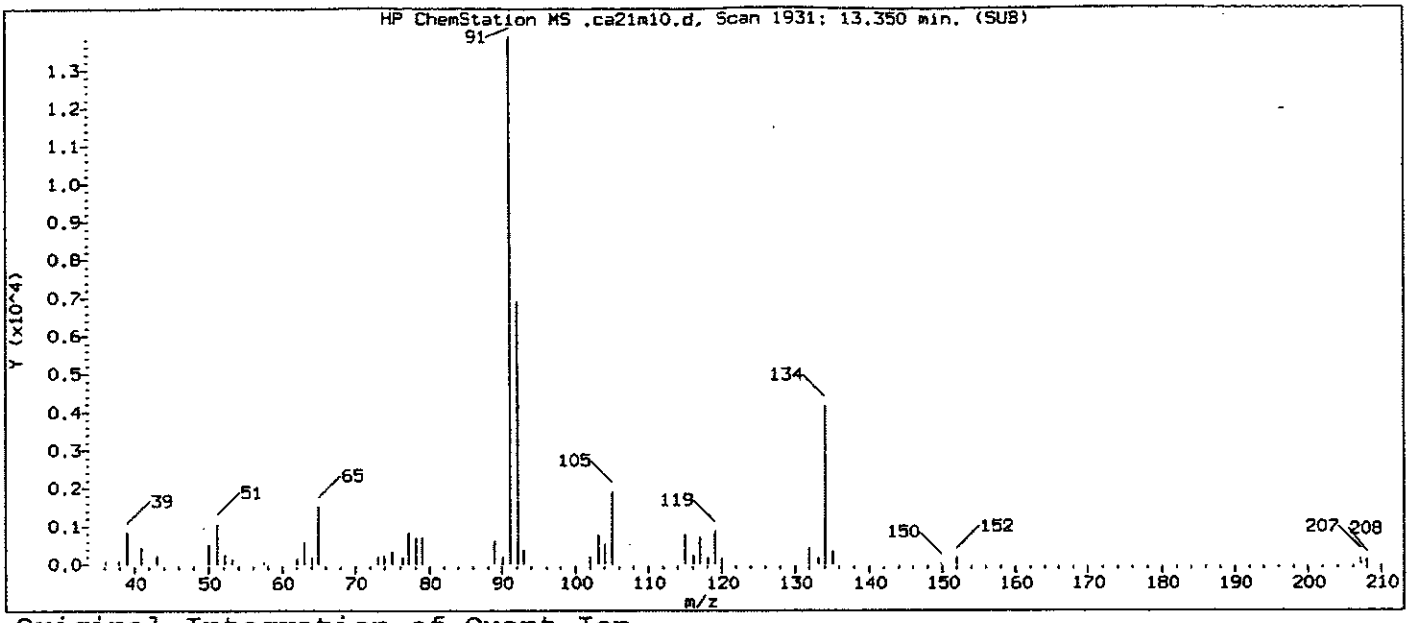
Analyst responsible for change: _____

GC/MS audit/management approval: _____ 4-22-09

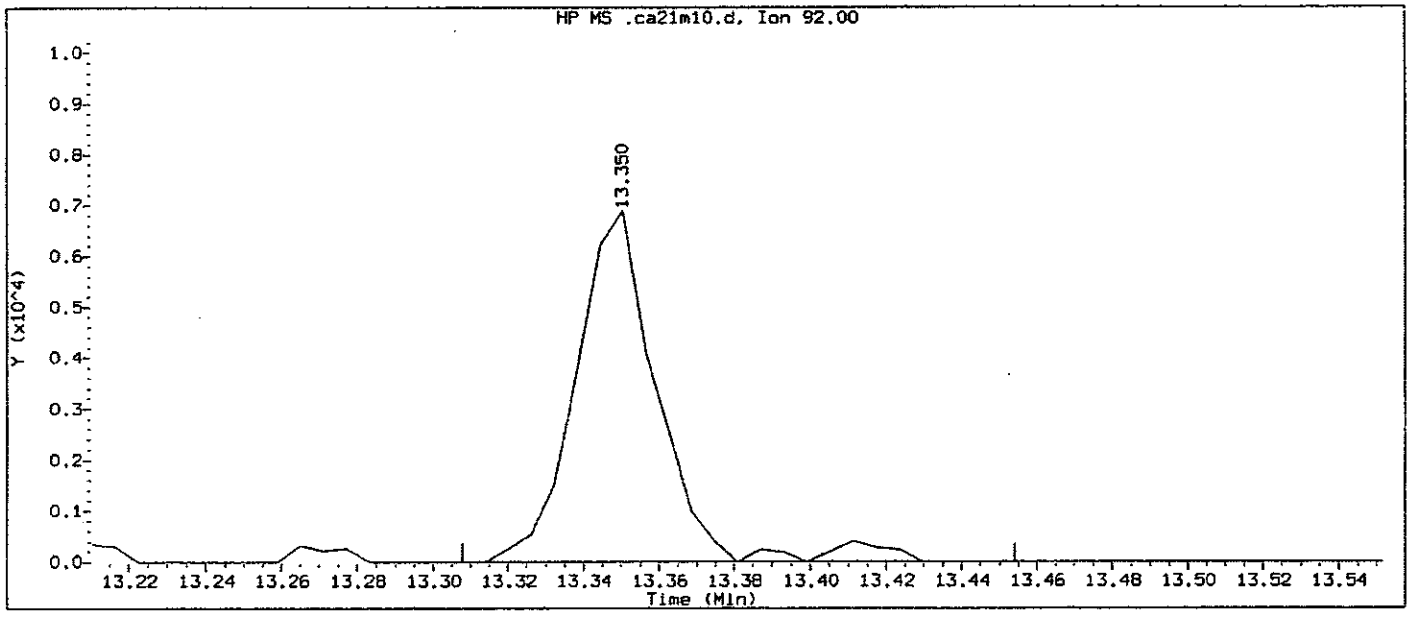
RAD11 8239

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

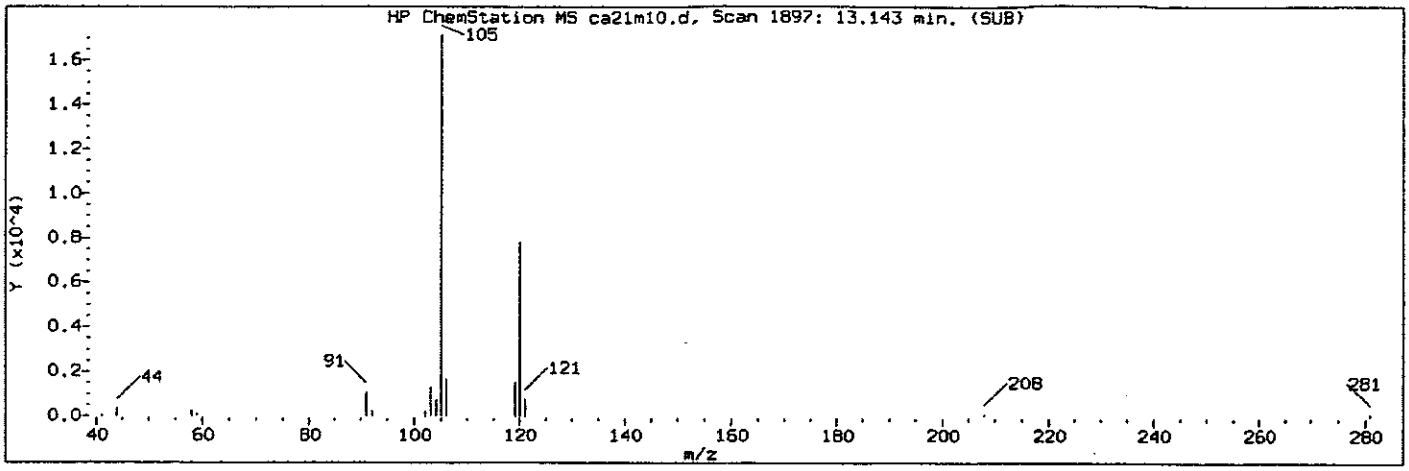
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 143
Compound Name : n-Butylbenzene
Scan Number : 1931
Retention Time (minutes): 13.350
Quant Ion : 92
Area : 10519
Concentration (ug/L) : 0.0759
Integration start scan : 1923 Integration stop scan: 1947
Y at integration start : 0 Y at integration end: 0

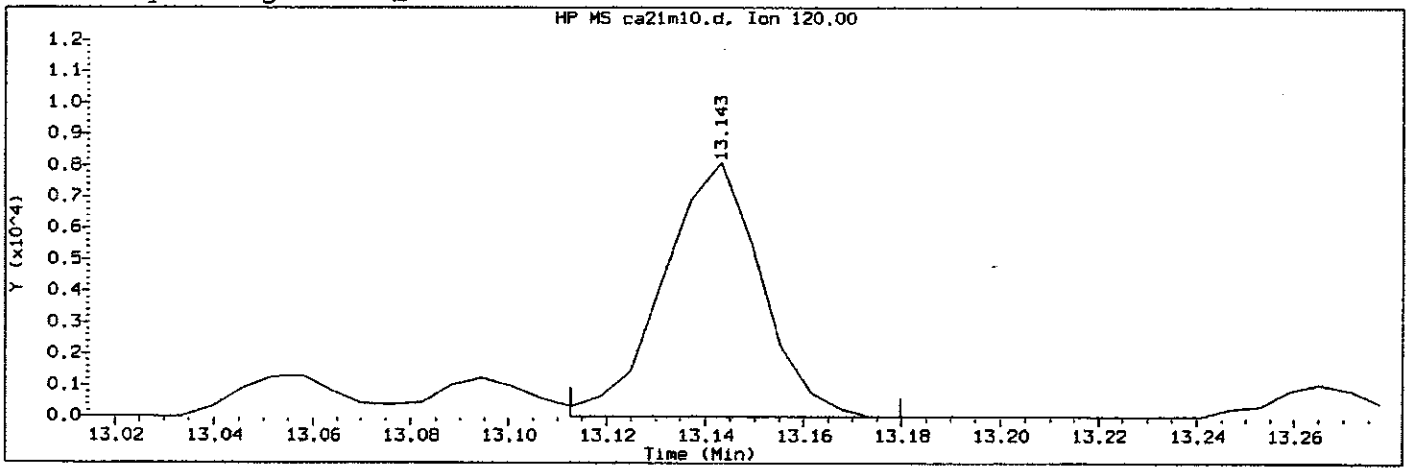
RAD11 8240

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:43 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 170
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1897
Retention Time (minutes): 13.143
Quant Ion : 120
Area (flag) : 11107 M
Concentration (ug/L) : 0.0888
Integration start scan : 1891 Integration stop scan: 1902
Y at integration start : 0 Y at integration end: 0

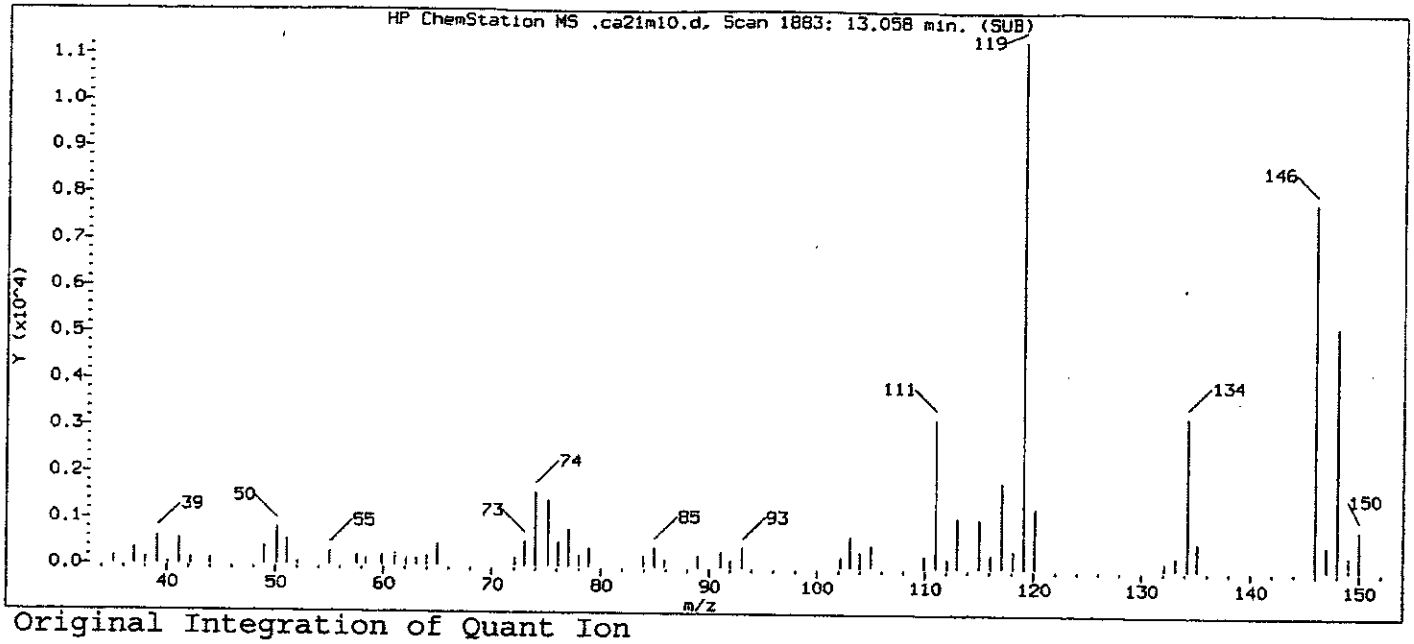
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: _____ 4/22/09

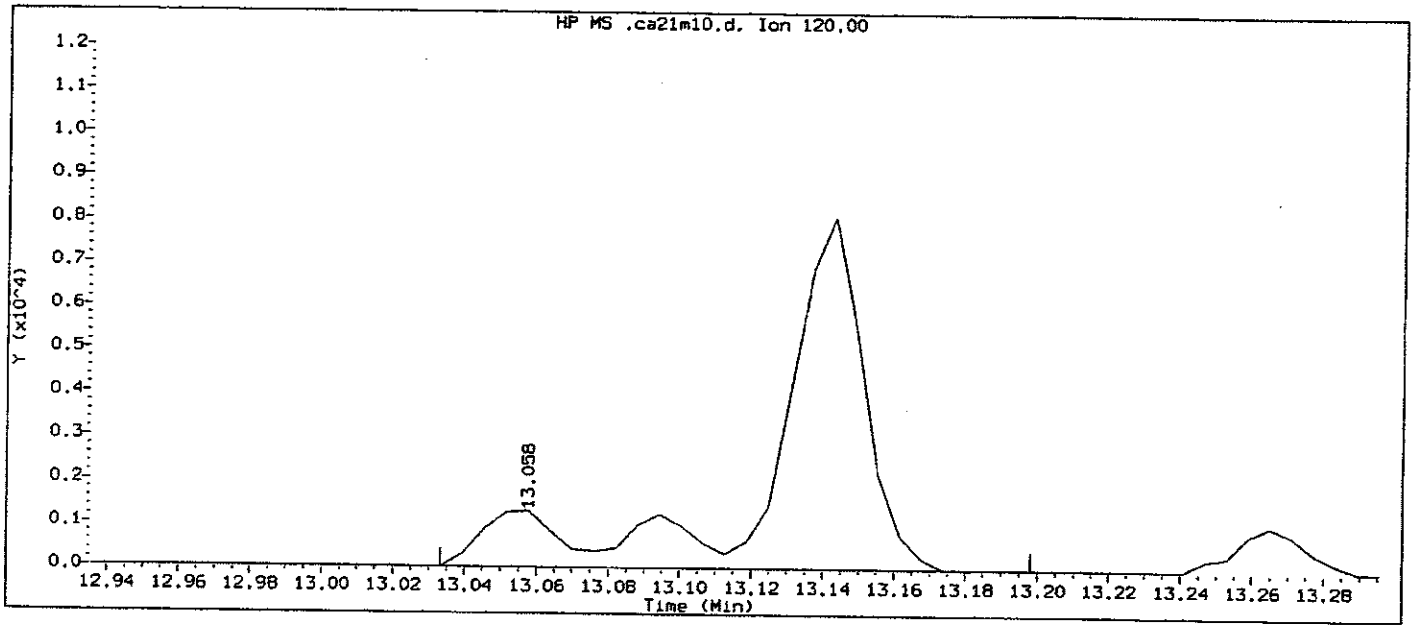
GC/MS audit/management approval: _____ 4/22/09

RAD11 #241

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21m10.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:16 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 22:23
Date, time and analyst ID of latest file update: 21-Apr-2009 22:34 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number	: 170
Compound Name	: 1,2,3-Trimethylbenzene
Scan Number	: 1883
Retention Time (minutes)	: 13.058
Quant Ion	: 120
Area	: 14629
Concentration (ug/L)	: 0.1170
Integration start scan	: 1878 Integration stop scan: 1905
Y at integration start	: 0 Y at integration end: 0

RAD11 8242

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21m10.d, generated on 04/21/2009 at 22:43

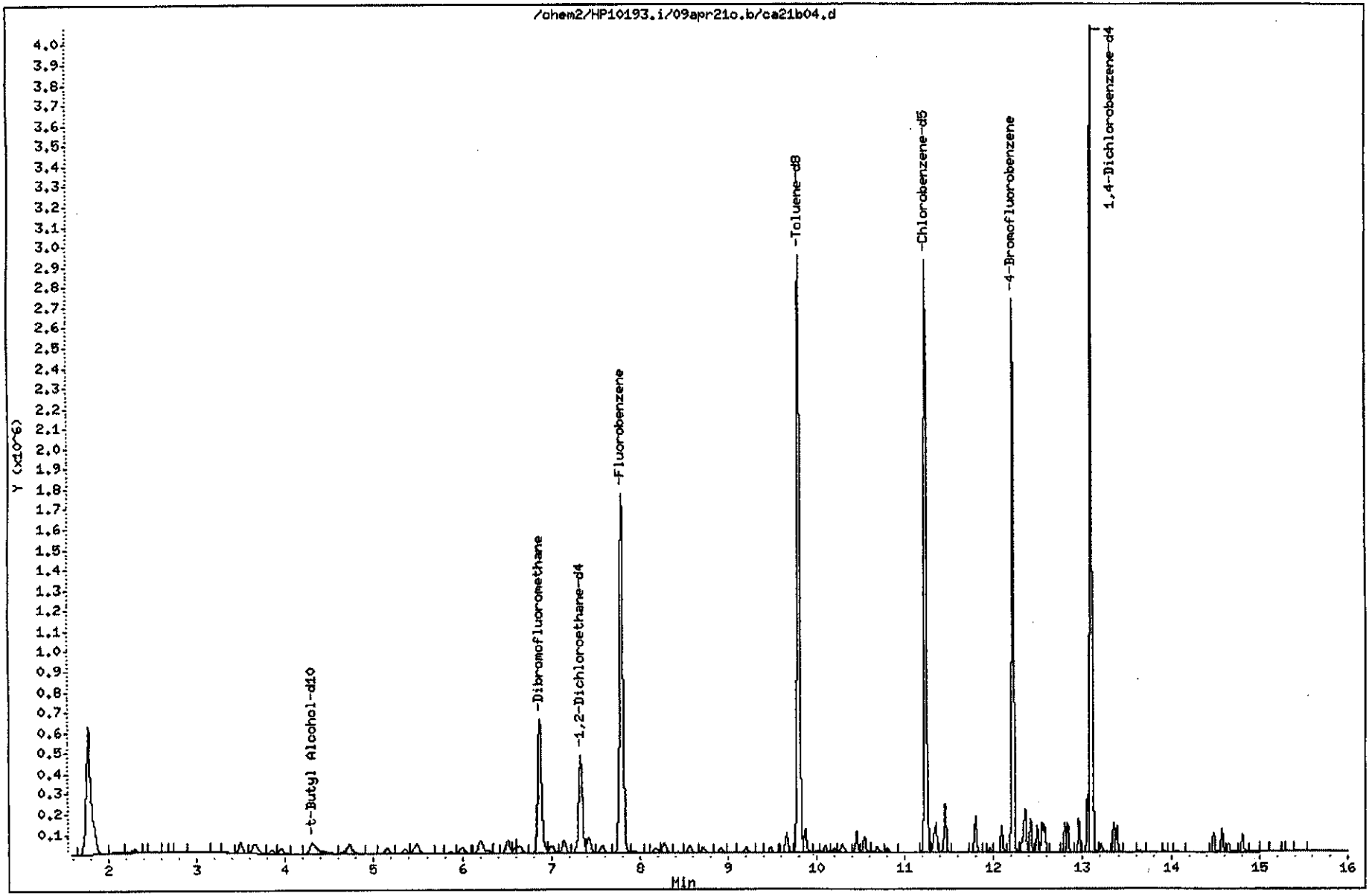
Data File: /chem2/HP10193.i/09apr21c.b/ca21b04.d
Date : 22-APR-2009 00:58
Client ID: MDL20
Sample Info: MDL20;MDL20;1;3;MDL/LOQ;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002
Column diameter: 0.25

RAD14 0243

A051731
4/22/09



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21b04.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 00:58 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 14DIOX
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 22-Apr-2009 03:01 msw02109

Sample Name: MDL20 Lab Sample ID: MDL20

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.328	65	100112	50.000
75)*Fluorobenzene	(1)	7.791	96	2251667	10.000
87) 1,4-Dioxane	(4)	8.754	88	2625	13.345
109)*Chlorobenzene-d5	(2)	11.229	117	1684283	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	1042633	10.000
58)$Dibromofluoromethane	(1)	6.870	113	574598	9.684
69)$1,2-Dichloroethane-d4	(1)	7.327	102	101346	9.443
95)$Toluene-d8	(2)	9.796	98	2311197	9.692
123)$4-Bromofluorobenzene	(2)	12.217	95	807940	9.168

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 ICV Date: 04/21/09 Time: 22:47

Lab File ID: ca21cv1.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.2943	0.2870	4.88	5	-2	
#	Chloromethane	0.2759	0.2631	4.77	5	-5	#
*	Vinyl Chloride	0.2811	0.2420	4.31	5	-14	*
	Bromomethane	0.2094	0.1957	4.67	5	-7	
	Chloroethane	0.1648	0.1514	4.59	5	-8	
	Dichlorofluoromethane	0.4593	0.4401	4.79	5	-4	
	Trichlorofluoromethane	0.4524	0.4237	4.68	5	-6	
	Ethyl Ether	0.1633	0.1412	4.32	5	-14	
	Freon 123a	0.2822	0.2637	4.67	5	-7	
	Acrolein	2.2162	1.7149	29.02	37.5	-23	
*	1,1-Dichloroethene	0.1935	0.2076	5.36	5	7	*
	Freon 113	0.2281	0.2338	5.12	5	2	
	Acetone	1.0073	0.8729	32.49	37.5	-13	
	Methyl Iodide	0.3822	0.3950	5.17	5	3	
	Carbon Disulfide	0.6575	0.6892	5.24	5	5	
	Allyl Chloride	0.3376	0.3377	5.00	5	0	
	Methyl Acetate	0.0824	0.0752	4.57	5	-9	
	Methylene Chloride	0.2276	0.2342	5.14	5	3	
	t-Butyl Alcohol	1.2166	0.9654	39.67	50	-21	
	Acrylonitrile	3.9553	3.5988	22.75	25	-9	
	trans-1,2-Dichloroethene	0.2266	0.2398	5.29	5	6	
	1,2-Dichloroethene (Total)	0.2339	0.2449	10.47	10	5	
	Methyl Tertiary Butyl Ether	0.4614	0.4680	5.07	5	1	
	n-Hexane	0.2697	0.2846	5.28	5	6	
#	1,1-Dichloroethane	0.3793	0.3971	5.23	5	5	#
	di-Isopropyl Ether	0.6316	0.6627	5.25	5	5	
	2-Chloro-1,3-Butadiene	0.3208	0.3485	5.43	5	9	
	Ethyl t-Butyl Ether	0.5426	0.5590	5.15	5	3	
	2,2-Dichloropropane	0.3308	0.3353	5.07	5	1	
	cis-1,2-Dichloroethene	0.2412	0.2500	5.18	5	4	
	2-Butanone	4.9607	4.4503	33.64	37.5	-10	
	Propionitrile	1.5550	1.3732	33.11	37.5	-12	
	Methacrylonitrile	5.0400	4.5958	34.19	37.5	-9	
	Bromochloromethane	0.1207	0.1150	4.76	5	-5	
	Tetrahydrofuran	1.4092	1.2657	22.46	25	-10	
*	Chloroform	0.4134	0.4232	5.12	5	2	*

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane) RAD11 #245
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 ICV Date: 04/21/09 Time: 22:47

Lab File ID: ca21cv1.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1,1,1-Trichloroethane	0.3789	0.3948	5.21	5	4	
	Cyclohexane	0.3424	0.3578	5.22	5	4	
	1,1-Dichloropropene	0.3011	0.3131	5.20	5	4	
	Carbon Tetrachloride	0.3462	0.3660	5.29	5	6	
	Isobutyl Alcohol	0.4219	0.3416	101.22	125	-19	
	Benzene	0.9301	0.9523	5.12	5	2	
	1,2-Dichloroethane	0.2449	0.2532	5.17	5	3	
	t-Amyl Methyl Ether	0.4770	0.4905	5.14	5	3	
	n-Heptane	0.3119	0.3093	4.96	5	-1	
	n-Butanol	0.3165	0.2439	192.66	250	-23	
	Trichloroethene	0.2546	0.2600	5.11	5	2	
	Methylcyclohexane	0.4010	0.4123	5.14	5	3	
*	1,2-Dichloropropane	0.2181	0.2205	5.06	5	1	*
	Dibromomethane	0.1033	0.1051	5.09	5	2	
	1,4-Dioxane	0.0983	0.0832	105.82	125	-15	
	Methyl Methacrylate	7.9521	7.6685	4.82	5	-4	
	Bromodichloromethane	0.2741	0.2840	5.18	5	4	
	2-Nitropropane	3.0394	2.5016	4.12	5	-18	
	cis-1,3-Dichloropropene	0.2950	0.3009	5.10	5	2	
	4-Methyl-2-Pentanone	0.1183	0.1091	22.43	25	-10	
*	Toluene	0.8126	0.8344	5.13	5	3	*
	trans-1,3-Dichloropropene	0.3369	0.3410	5.06	5	1	
	Ethyl Methacrylate	0.2123	0.2157	4.69	5	-6	
	1,1,2-Trichloroethane	0.1976	0.1988	5.03	5	1	
	Tetrachloroethene	0.4085	0.4219	5.16	5	3	
	1,3-Dichloropropane	0.3273	0.3292	5.03	5	1	
	2-Hexanone	0.1082	0.0984	21.99	25	-12	
	Dibromochloromethane	0.2616	0.2642	5.05	5	1	
	1,2-Dibromoethane	0.1895	0.1890	4.99	5	0	
#	Chlorobenzene	0.9840	0.9846	5.00	5	0	#
	1,1,1,2-Tetrachloroethane	0.3380	0.3330	4.93	5	-1	
*	Ethylbenzene	1.6094	1.6202	5.03	5	1	*
	m+p-Xylene	0.6549	0.6674	10.19	10	2	
	Xylene (Total)	0.6416	0.6557	15.33	15	2	
	o-Xylene	0.6150	0.6323	5.14	5	3	
	Styrene	0.9453	0.9833	5.20	5	4	

RAD11 0246

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 ICV Date: 04/21/09 Time: 22:47

Lab File ID: ca21cv1.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF	CONC.	CONC.	DRIFT	
# Bromoform	0.1418	0.1433	5.05	5	1	#
Isopropylbenzene	1.5612	1.6156	5.17	5	3	
# 1,1,2,2-Tetrachloroethane	0.3643	0.3447	4.73	5	-5	#
Bromobenzene	0.7043	0.6769	4.81	5	-4	
trans-1,4-Dichloro-2-Butene	4.1038	3.6723	22.92	25	-8	
1,2,3-Trichloropropane	0.1194	0.1089	4.56	5	-9	
n-Propylbenzene	3.1918	3.0911	4.84	5	-3	
2-Chlorotoluene	0.6932	0.6691	4.83	5	-3	
4-Chlorotoluene	0.7273	0.6943	4.77	5	-5	
1,3,5-Trimethylbenzene	2.3629	2.3125	4.89	5	-2	
Pentachloroethane	0.4832	0.4334	4.48	5	-10	
tert-Butylbenzene	0.5430	0.5316	4.90	5	-2	
1,2,4-Trimethylbenzene	2.4807	2.4310	4.90	5	-2	
sec-Butylbenzene	2.9690	2.8917	4.87	5	-3	
1,3-Dichlorobenzene	1.5037	1.4375	4.78	5	-4	
p-Isopropyltoluene	2.6933	2.6590	4.94	5	-1	
1,4-Dichlorobenzene	1.5424	1.4586	4.73	5	-5	
1,2,3-Trimethylbenzene	1.1958	1.0791	4.51	5	-10	
Benzyl Chloride	0.1749	0.1642	4.48	5	-10	
n-Butylbenzene	1.3253	1.2553	4.74	5	-5	
1,2-Dichlorobenzene	1.3279	1.2461	4.69	5	-6	
1,2-Dibromo-3-Chloropropane	2.4536	2.2449	4.57	5	-9	
1,2,4-Trichlorobenzene	0.9226	0.8360	4.53	5	-9	
Hexachlorobutadiene	0.4975	0.4451	4.47	5	-11	
Naphthalene	1.3540	1.2437	4.28	5	-14	
1,2,3-Trichlorobenzene	0.7916	0.6989	4.41	5	-12	

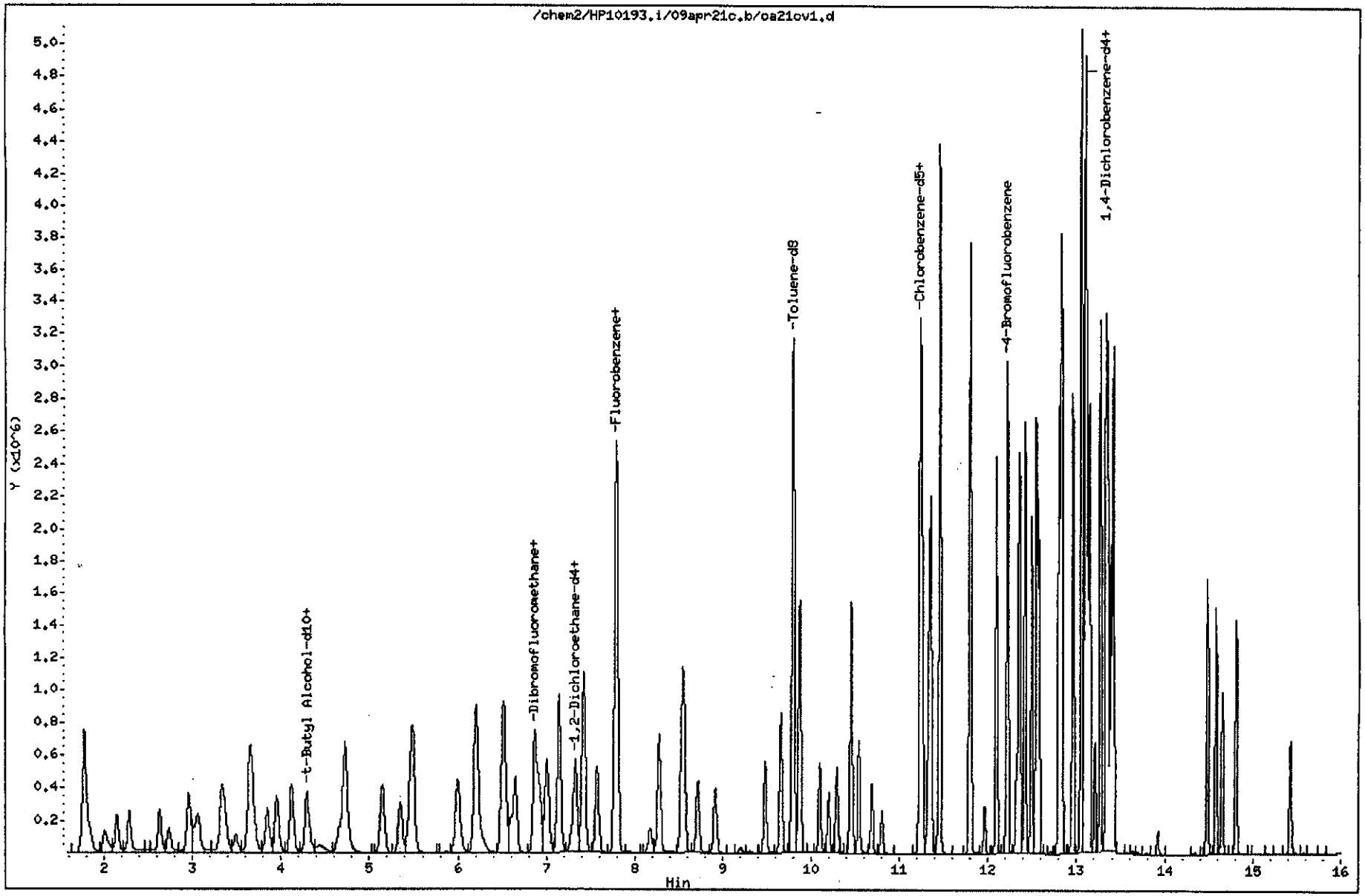
Average %Drift 6

RAD11 8247

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d
Date : 21-APR-2009 22:47
Client ID: CICV
Sample Info: CICV;CICV;1;3;LCS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: SEW02002
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:54 ads01731

Sample Name: CICV Lab Sample ID: CICV

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	2.005	85	353885	4.876
4) Chloromethane	(1)	2.145	50	324484	4.769
6) Vinyl Chloride	(1)	2.279	62	298446	4.306
8) Bromomethane	(1)	2.627	94	241299	4.673
9) Chloroethane	(1)	2.737	64	186717	4.593
11) Dichlorofluoromethane	(1)	2.956	67	542726	4.791
12) Trichlorofluoromethane	(1)	3.066	101	522447	4.683
15) Ethyl Ether	(1)	3.328	59	174122	4.324
16) Freon 123a	(1)	3.352	67	325135	4.671
18) Acrolein	(4)	3.487	56	164166	29.018
19) 1,1-Dichloroethene	(1)	3.645	96	255979	5.364
20) Freon 113	(1)	3.669	101	288341	5.125
23) Acetone	(4)	3.676	58	83556M	32.494
26) Methyl Iodide	(1)	3.846	142	487118	5.168
27) Carbon Disulfide	(1)	3.950	76	849829	5.241
29) Allyl Chloride	(1)	4.114	41	416453	5.002
30) Methyl Acetate	(1)	4.133	43	92760	4.566
32) Methylene Chloride	(1)	4.291	84	288739	5.144
33)*t-Butyl Alcohol-d10	(4)	4.322	65	127637	50.000
35) t-Butyl Alcohol	(4)	4.450	59	123216	39.674
36) Acrylonitrile	(4)	4.651	53	229669	22.746
37) trans-1,2-Dichloroethene	(1)	4.718	96	295671	5.290
40) 1,2-Dichloroethene (Total)	(1)		96	603911	10.471
38) Methyl Tertiary Butyl Ether	(1)	4.730	73	577109	5.072
41) n-Hexane	(1)	5.145	57	350908	5.276
44) 1,1-Dichloroethane	(1)	5.352	63	489708	5.235
46) di-Isopropyl Ether	(1)	5.462	45	817179	5.246
47) 2-Chloro-1,3-Butadiene	(1)	5.492	53	429755	5.432
48) Ethyl t-Butyl Ether	(1)	5.998	59	689351	5.152
51) 2,2-Dichloropropane	(1)	6.212	77	413491	5.069
49) cis-1,2-Dichloroethene	(1)	6.199	96	308240	5.181
50) 2-Butanone	(4)	6.206	43	426014	33.641
52) Propionitrile	(4)	6.285	54	131450	33.114
53) Methacrylonitrile	(4)	6.510	67	439946	34.195

M = Compound was manually integrated.

* = Compound is an internal standard.

BAD11 0249

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:54 ads01731

Sample Name: CICV Lab Sample ID: CICV

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	141816	4.764
55) Tetrahydrofuran	(4)	6.596	71	80778	22.455
56) Chloroform	(1)	6.644	83	521898	5.119
60) 1,1,1-Trichloroethane	(1)	6.913	97	486835	5.210
61) Cyclohexane	(1)	7.004	56	441165	5.224
63) 1,1-Dichloropropene	(1)	7.138	75	386050	5.198
64) Carbon Tetrachloride	(1)	7.144	117	451354	5.286
66) Isobutyl Alcohol	(4)	7.291	41	109010	101.221
70) Benzene	(1)	7.413	78	1174283	5.119
72) 1,2-Dichloroethane	(1)	7.425	62	312172	5.168
74) t-Amyl Methyl Ether	(1)	7.571	73	604861	5.142
75)*Fluorobenzene	(1)	7.791	96	2466202	10.000
76) n-Heptane	(1)	7.791	43	381425	4.959
79) n-Butanol	(4)	8.175	56	155676	192.661
80) Trichloroethene	(1)	8.272	95	320635	5.107
82) Methylcyclohexane	(1)	8.540	83	508422	5.142
83) 1,2-Dichloropropane	(1)	8.565	63	271917	5.057
85) Dibromomethane	(1)	8.711	93	129628	5.090
87) 1,4-Dioxane	(4)	8.736	88	26541	105.823
86) Methyl Methacrylate	(4)	8.717	69	97879	4.822
88) Bromodichloromethane	(1)	8.918	83	350218	5.181
91) 2-Nitropropane	(4)	9.205	41	31930	4.115
93) cis-1,3-Dichloropropene	(1)	9.479	75	371003	5.100
94) 4-Methyl-2-Pentanone	(1)	9.656	43	672840	22.429
97) Toluene	(2)	9.869	92	781070	5.134
100) trans-1,3-Dichloropropene	(2)	10.095	75	319215	5.061
102) Ethyl Methacrylate	(2)	10.199	69	201905	4.688
103) 1,1,2-Trichloroethane	(2)	10.284	97	186113	5.032
104) Tetrachloroethene	(2)	10.449	166	394912	5.164
105) 1,3-Dichloropropane	(2)	10.461	76	308173	5.029
106) 2-Hexanone	(2)	10.534	43	460736	21.993
107) Dibromochloromethane	(2)	10.686	129	247321	5.051
108) 1,2-Dibromoethane	(2)	10.796	107	176950	4.989
109)*Chlorobenzene-d5	(2)	11.229	117	1872084	10.000

* = Compound is an internal standard.

RAD11 8258

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:54 ads01731

Sample Name: CICV Lab Sample ID: CICV

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
110) Chlorobenzene	(2)	11.253	112	921670	5.003
111) 1,1,1,2-Tetrachloroethane	(2)	11.326	131	311659	4.925
112) Ethylbenzene	(2)	11.351	91	1516582	5.033
113) m+p-Xylene	(2)	11.448	106	1249489	10.191
116) Xylene (Total)	(2)		106	1841379	15.332
117) o-Xylene	(2)	11.790	106	591890	5.141
118) Styrene	(2)	11.796	104	920397	5.201
119) Bromoform	(2)	11.960	173	134166	5.054
120) Isopropylbenzene	(2)	12.089	105	1512277	5.174
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	206618M	4.731
126) Bromobenzene	(3)	12.345	156	405767	4.805
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	234362 A	22.923
128) 1,2,3-Trichloropropane	(3)	12.357	110	65257	4.558
132) n-Propylbenzene	(3)	12.412	91	1852998	4.842
133) 2-Chlorotoluene	(3)	12.491	126	401091	4.826
135) 4-Chlorotoluene	(3)	12.570	126	416183	4.773
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	1386303	4.893
137) Pentachloroethane	(3)	12.820	167	259839	4.485
136) tert-Butylbenzene	(3)	12.796	134	318663	4.895
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	1457281	4.900
139) sec-Butylbenzene	(3)	12.954	105	1733498	4.870
140) 1,3-Dichlorobenzene	(3)	13.052	146	861755	4.780
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	1198939	10.000
141) p-Isopropyltoluene	(3)	13.052	119	1593966	4.936
143) 1,4-Dichlorobenzene	(3)	13.113	146	874399	4.729
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	646871	4.512
145) Benzyl Chloride	(3)	13.204	126	98429	4.485
146) n-Butylbenzene	(3)	13.350	92	752502	4.736
147) 1,2-Dichlorobenzene	(3)	13.387	146	746972	4.692
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	28653	4.575
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	501156	4.531
153) Hexachlorobutadiene	(3)	14.582	225	266801	4.473
154) Naphthalene	(3)	14.655	128	745590	4.283
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	418959	4.415

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 14:54 ads01731

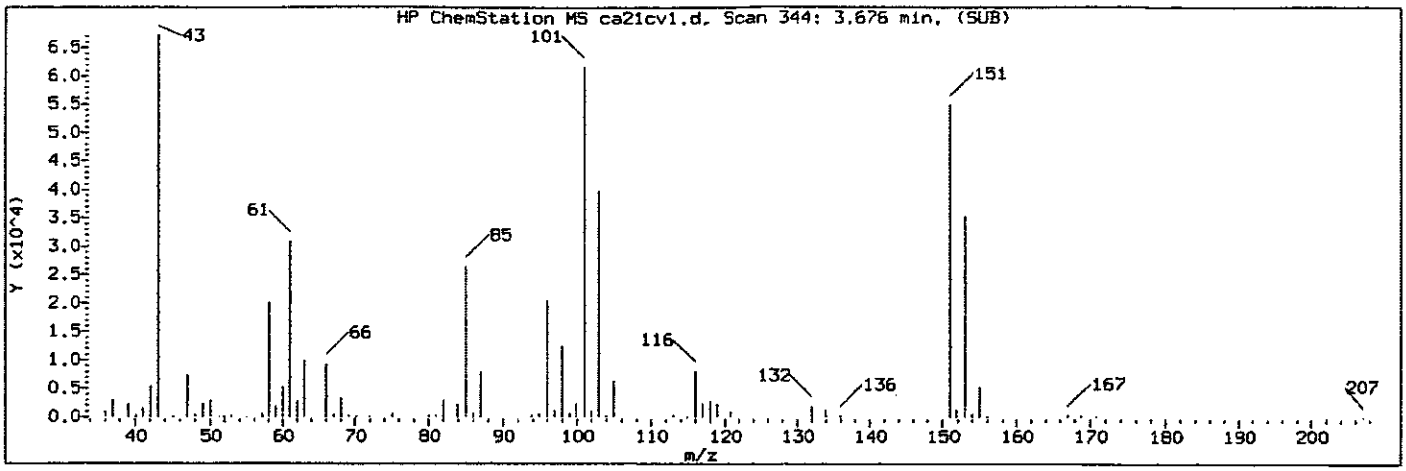
Sample Name: CICV Lab Sample ID: CICV

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
58) $Dibromofluoromethane	(1)	6.870	113	617407	9.501
69) $1,2-Dichloroethane-d4	(1)	7.327	102	112444	9.566
95) $Toluene-d8	(2)	9.796	98	2545381	9.603
123) $4-Bromofluorobenzene	(2)	12.217	95	922772M	9.421

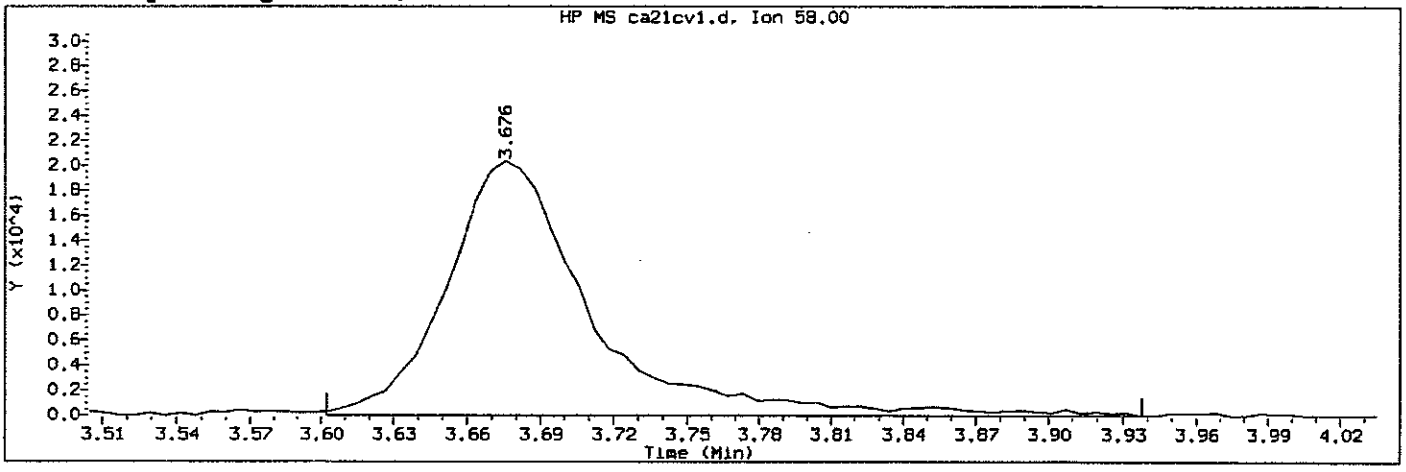
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:53 msw02109

Sample Name: CICV Lab Sample ID: CICV

Compound Number : 23
Compound Name : Acetone
Scan Number : 344
Retention Time (minutes): 3.676
Quant Ion : 58
Area (flag) : 83556 M
Concentration (ug/L) : 32.4936
Integration start scan : 331 Integration stop scan: 386
Y at integration start : 0 Y at integration end: 0

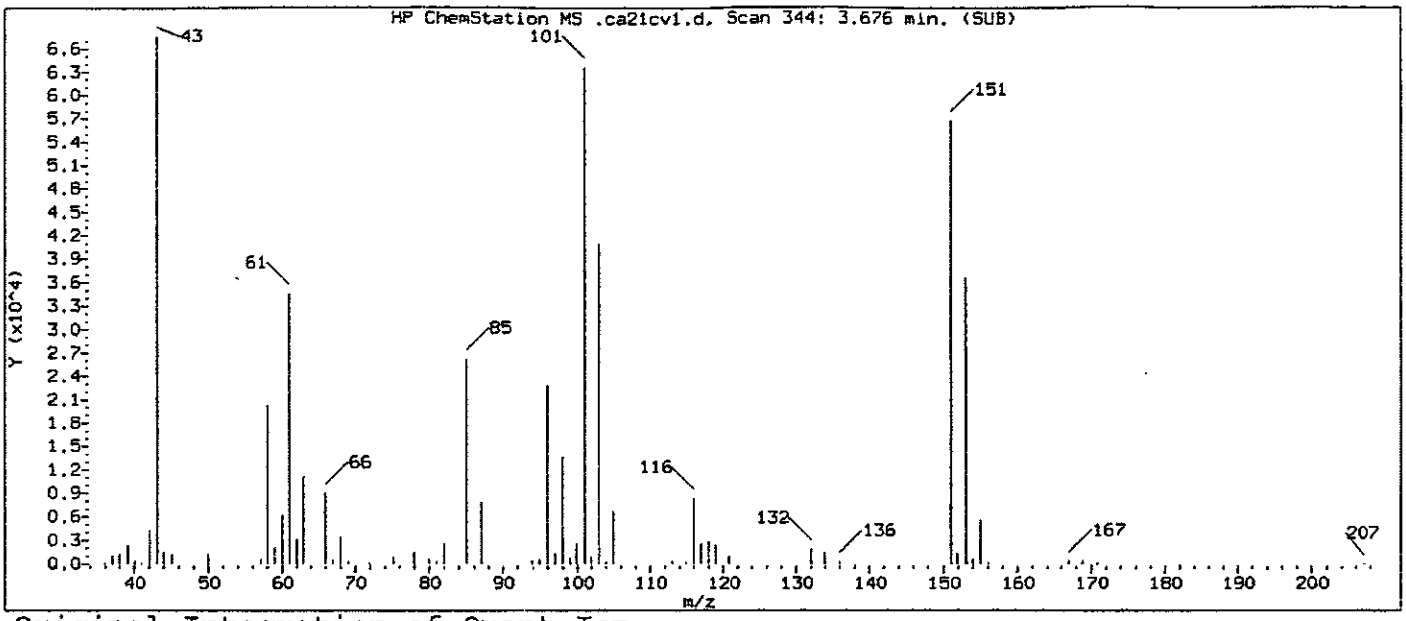
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: AL 4/22/09

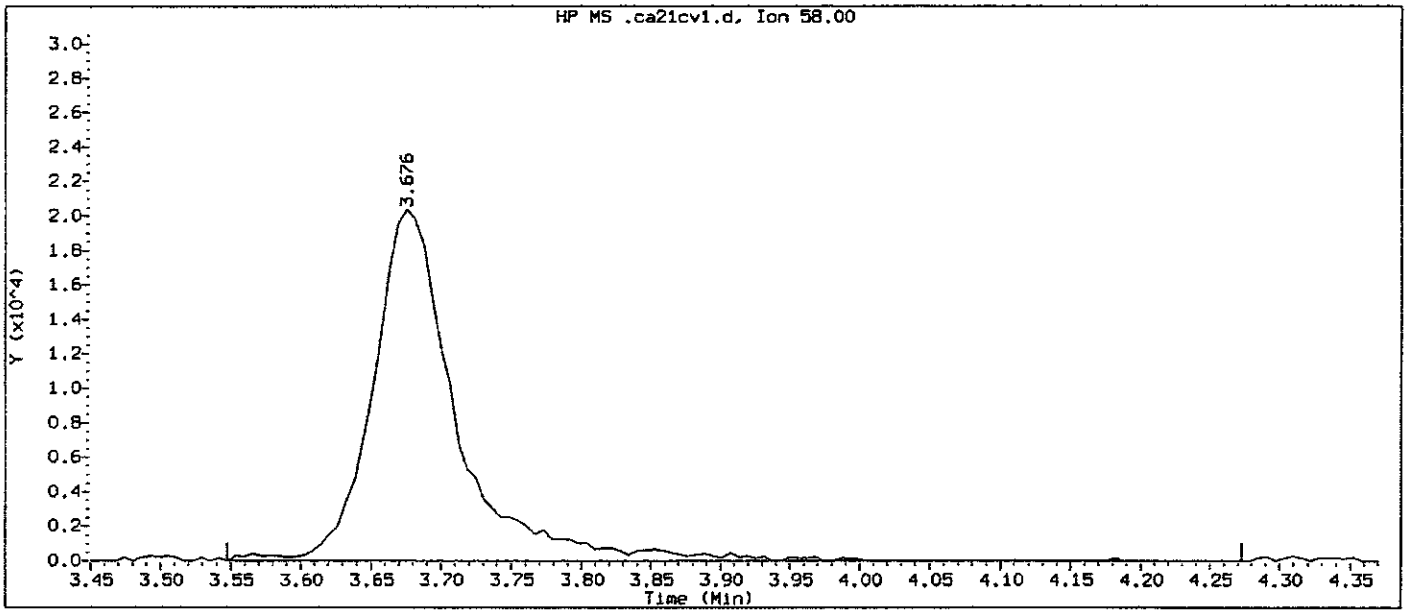
GC/MS audit/management approval: 4-22-09

BAB11 3253

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:51 msw02109

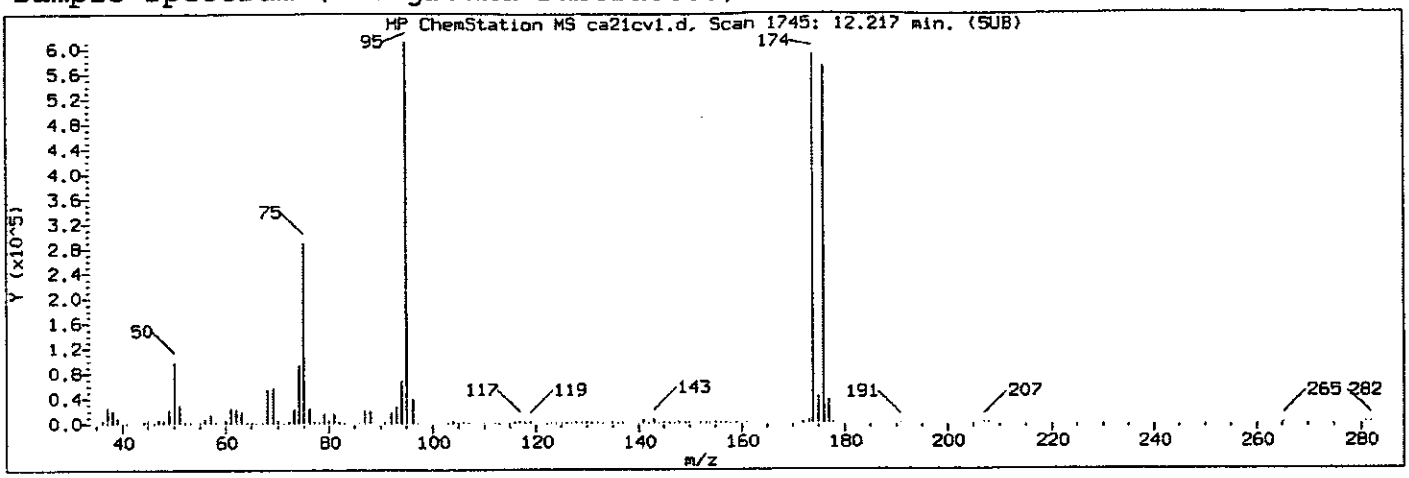
Sample Name: CICV Lab Sample ID: CICV

Compound Number : 23
Compound Name : Acetone
Scan Number : 344
Retention Time (minutes): 3.676
Quant Ion : 58
Area : 84961
Concentration (ug/L) : 33.0398
Integration start scan : 322 Integration stop scan: 441
Y at integration start : 0 Y at integration end: 0

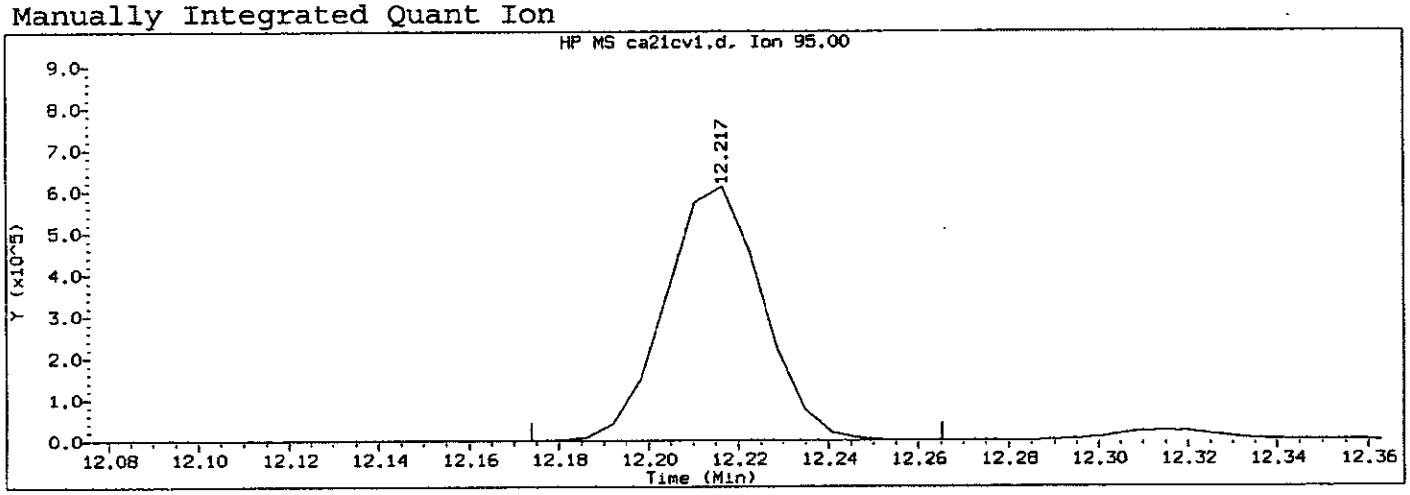
RAD11 8254

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21cv1.d, generated on 04/22/2009 at 02:53

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:53 msw02109

Sample Name: CICV Lab Sample ID: CICV

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area (flag) : 922772 M
Concentration (ug/L) : 9.4210
Integration start scan : 1737 Integration stop scan: 1752
Y at integration start : 0 Y at integration end: 0

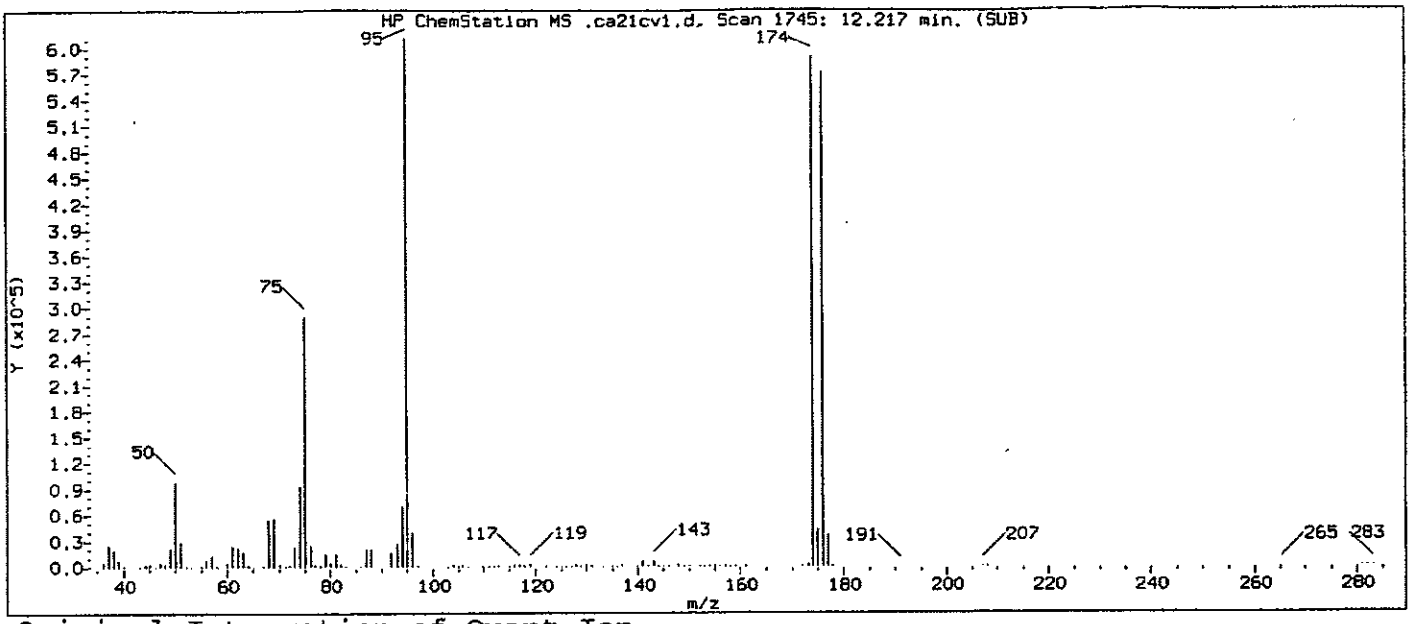
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MSW 4/22/09

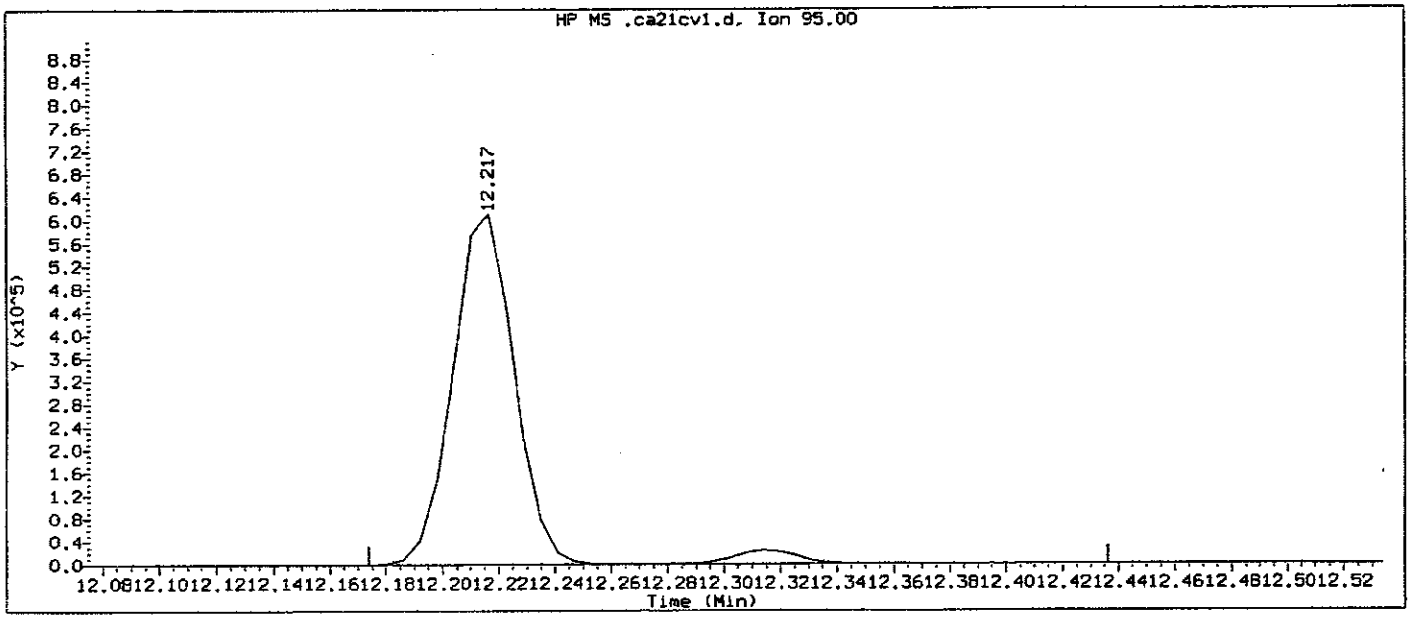
GC/MS audit/management approval: 4-22-09

RAD11 8255

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:51 msw02109

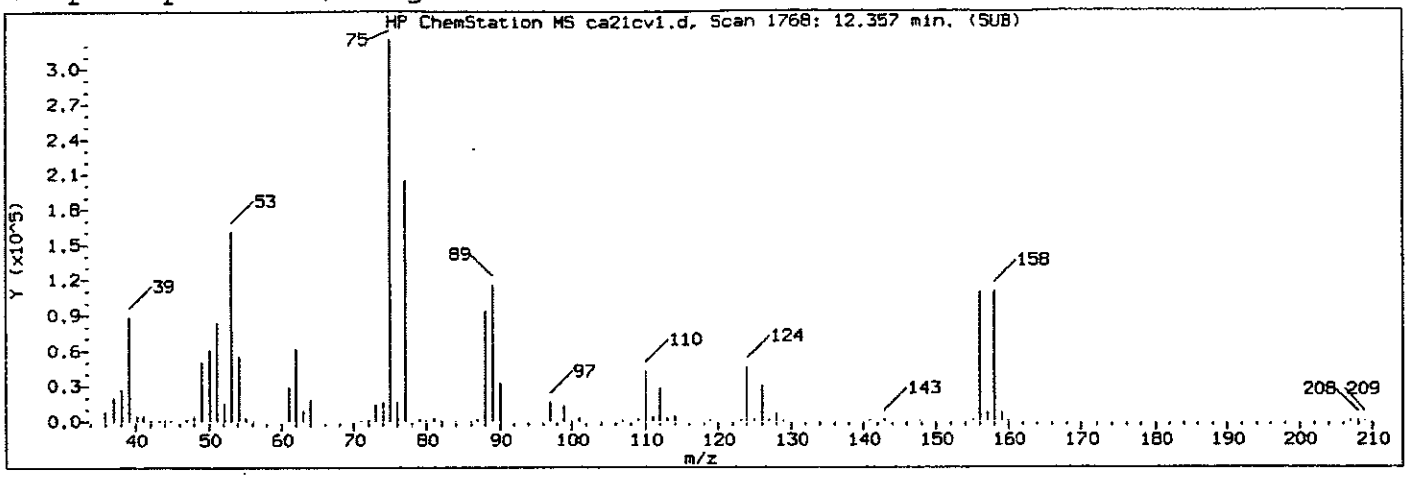
Sample Name: CICV Lab Sample ID: CICV

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area : 962756
Concentration (ug/L) : 9.8292
Integration start scan : 1737 Integration stop scan: 1780
Y at integration start : 0 Y at integration end: 0

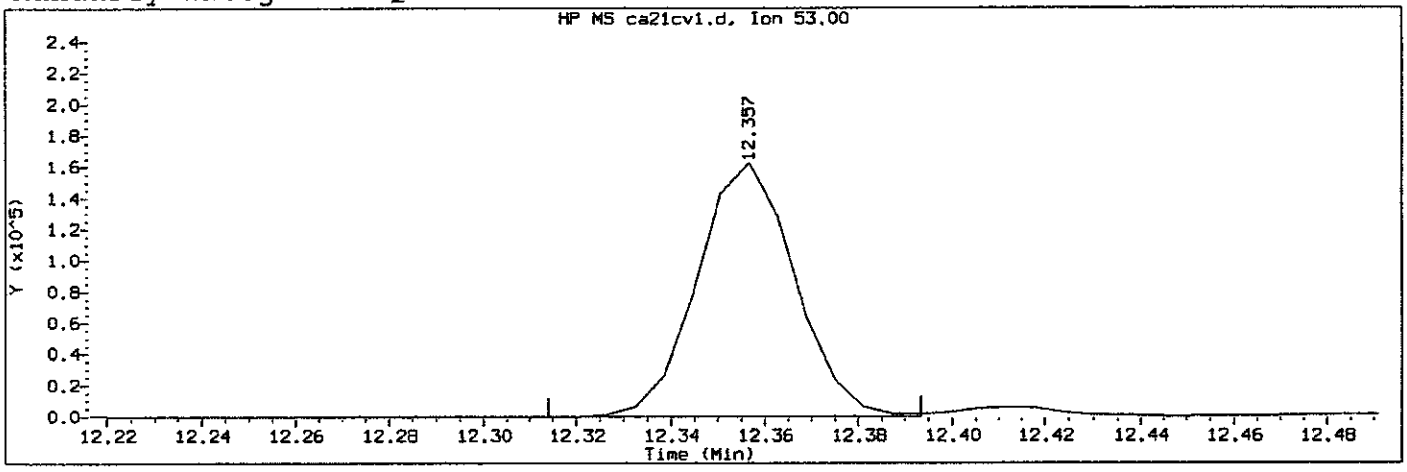
RAD11 8256

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21cv1.d, generated on 04/22/2009 at 02:53

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:53 msw02109

Sample Name: CICV Lab Sample ID: CICV

Compound Number : 127
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1768
Retention Time (minutes): 12.357
Quant Ion : 53
Area (flag) : 234362A
Concentration (ug/L) : 22.9230
Integration start scan : 1760 Integration stop scan: 1773
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): (3) missed peak ~~improper integration~~

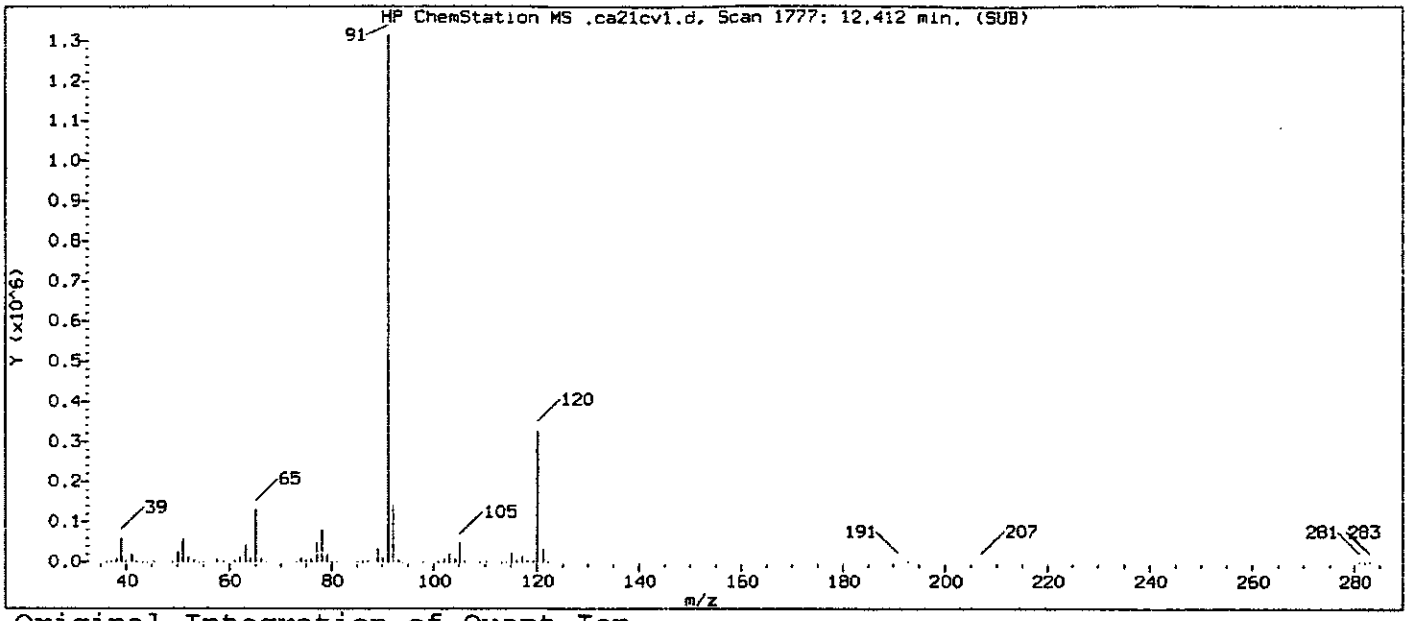
Analyst responsible for change: mL 4/22/09

GC/MS audit/management approval: (3) 4-22-09

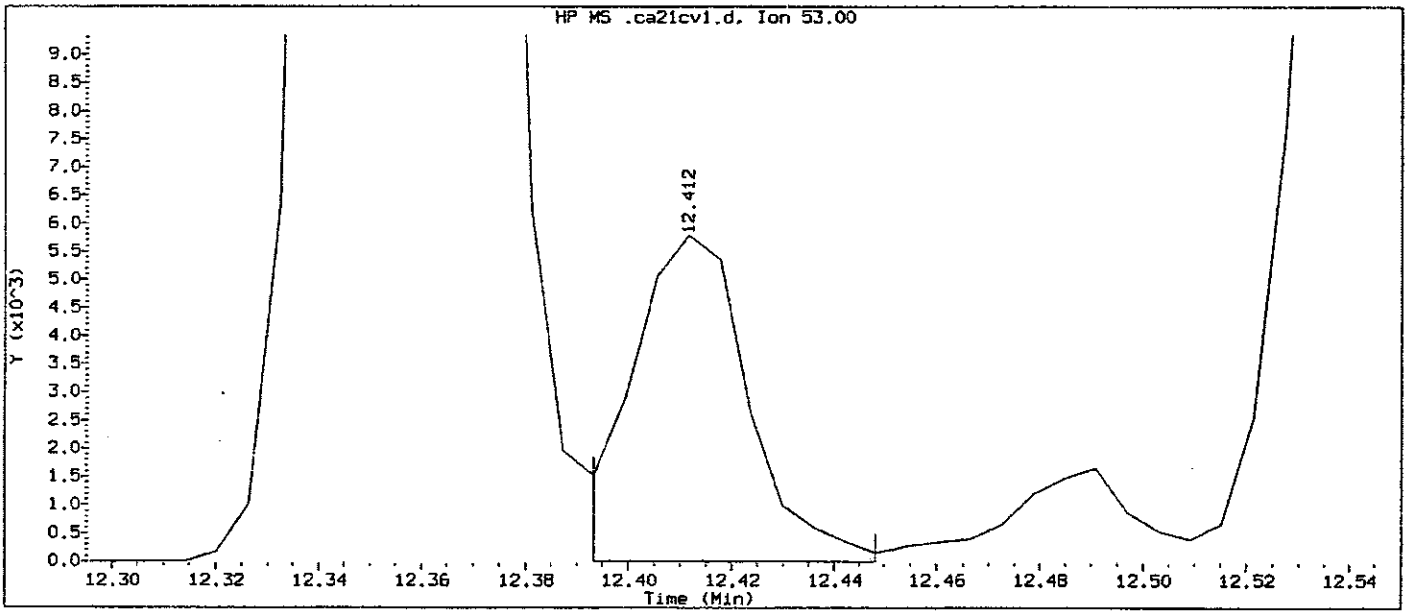
RAD11 0257

Manual Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21cv1.d, generated on 04/22/2009 at 02:53

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:51 msw02109

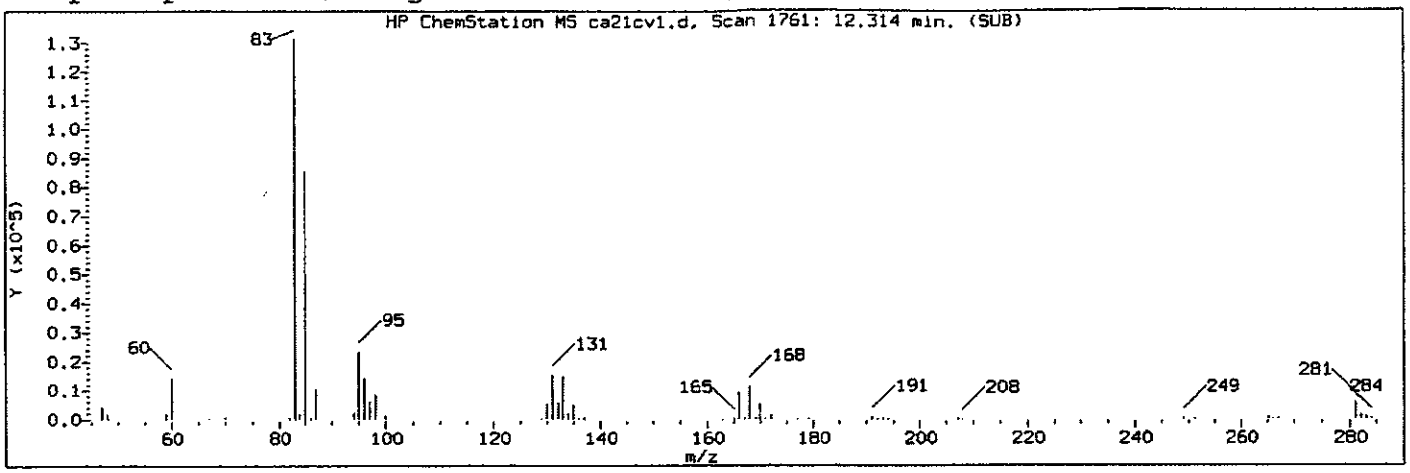
Sample Name: CICV Lab Sample ID: CICV

Compound Number	:	127
Compound Name	:	trans-1,4-Dichloro-2-Butene
Scan Number	:	1777
Retention Time (minutes)	:	12.412
Quant Ion	:	53
Area	:	8964
Concentration (ug/L)	:	1.3898
Integration start scan	:	1773 Integration stop scan: 1782
Y at integration start	:	0 Y at integration end: 0

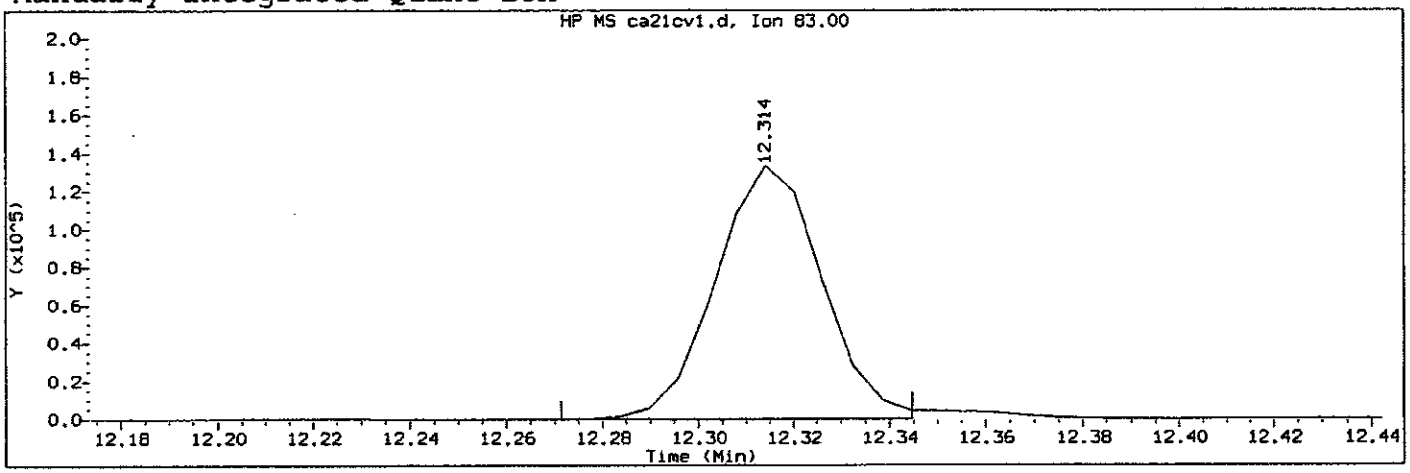
RAD11 8258

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21cv1.d, generated on 04/22/2009 at 02:53

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 14:46
Date, time and analyst ID of latest file update: 22-Apr-2009 14:54 ads01731

Sample Name: CICV Lab Sample ID: CICV

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area (flag) : 206618 M
Concentration (ug/L) : 4.7306
Integration start scan : 1753 Integration stop scan: 1765
Y at integration start : 0 Y at integration end: 0

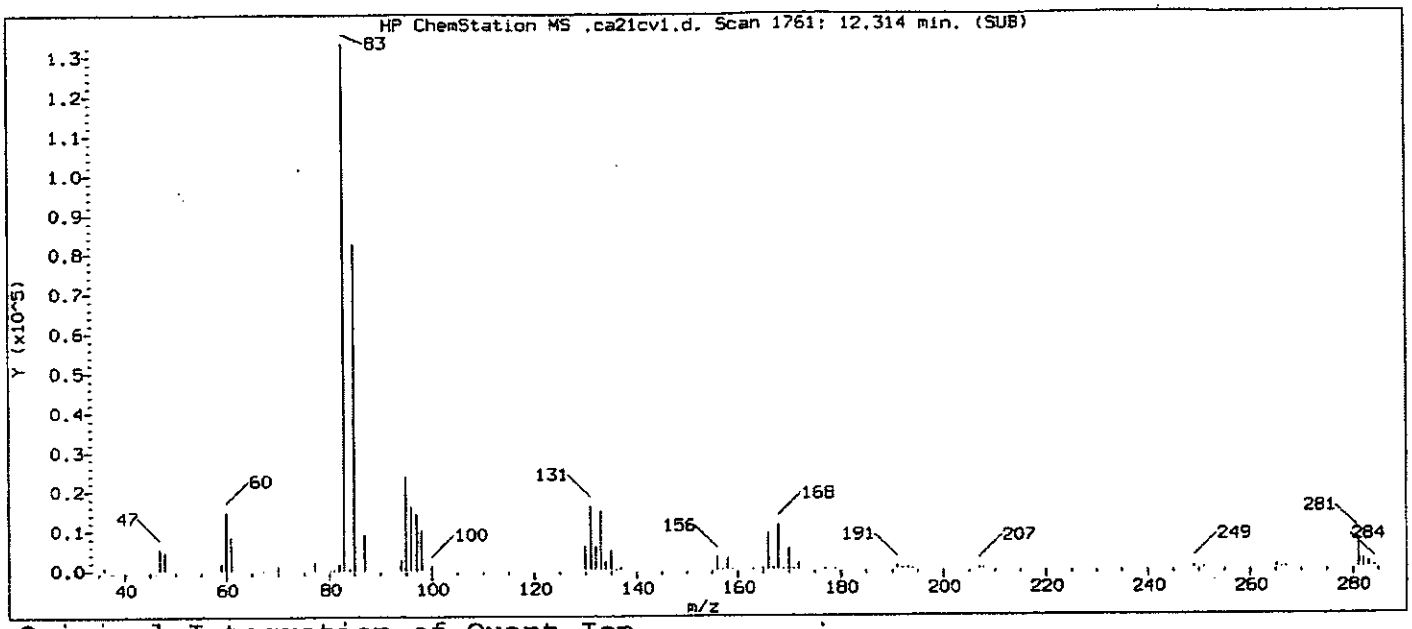
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: ADS1731 4/22/09

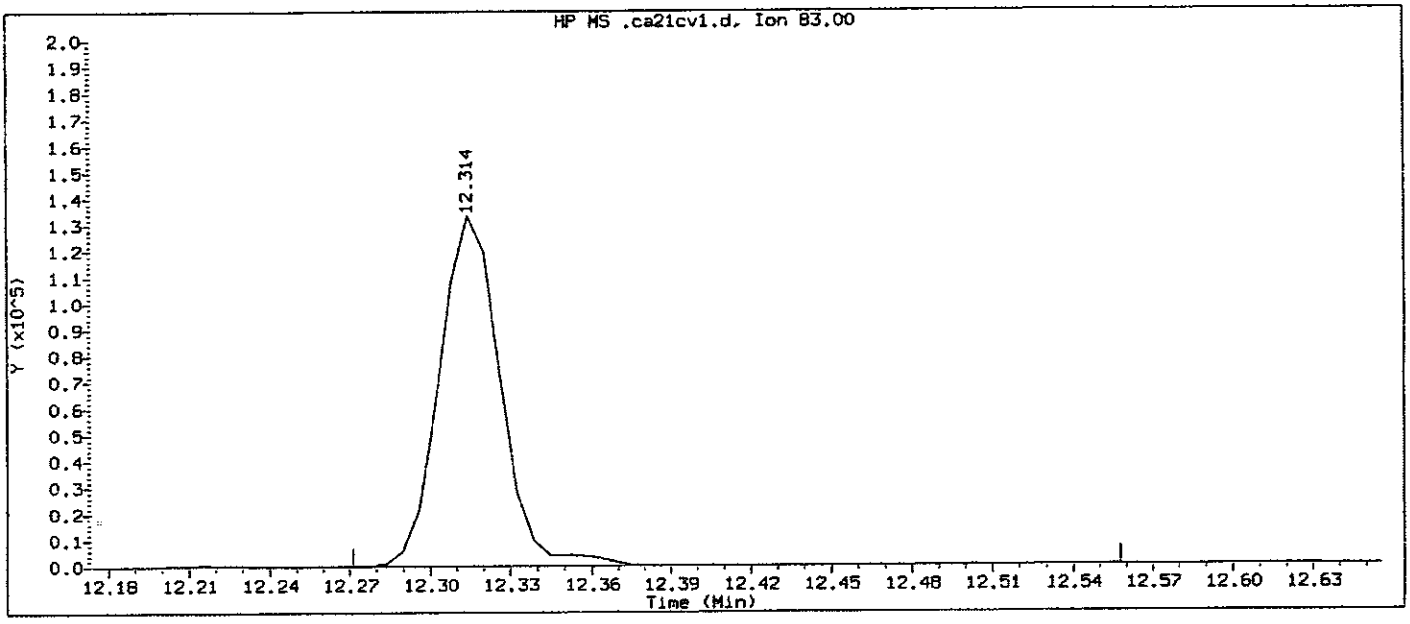
GC/MS audit/management approval: 4/21/09

RAD11 8259

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr21c.b/ca21cv1.d Instrument ID: HP10193.i
Injection date and time: 21-APR-2009 22:47 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr21c.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 02:51
Date, time and analyst ID of latest file update: 22-Apr-2009 02:51 msw02109

Sample Name: CICV Lab Sample ID: CICV

Compound Number : 125
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1761
Retention Time (minutes): 12.314
Quant Ion : 83
Area : 211707
Concentration (ug/L) : 4.7166
Integration start scan : 1753 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

RAD11 8260

Original Integration Report for data file /chem2/HP10193.i/09apr21c.b/ca21cv1.d, generated on 04/22/2009 at 14:55

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date(s): 04/15/09 04/15/09

Heated Purge: (Y/N) Y Calibration Times: 11:26 13:37

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

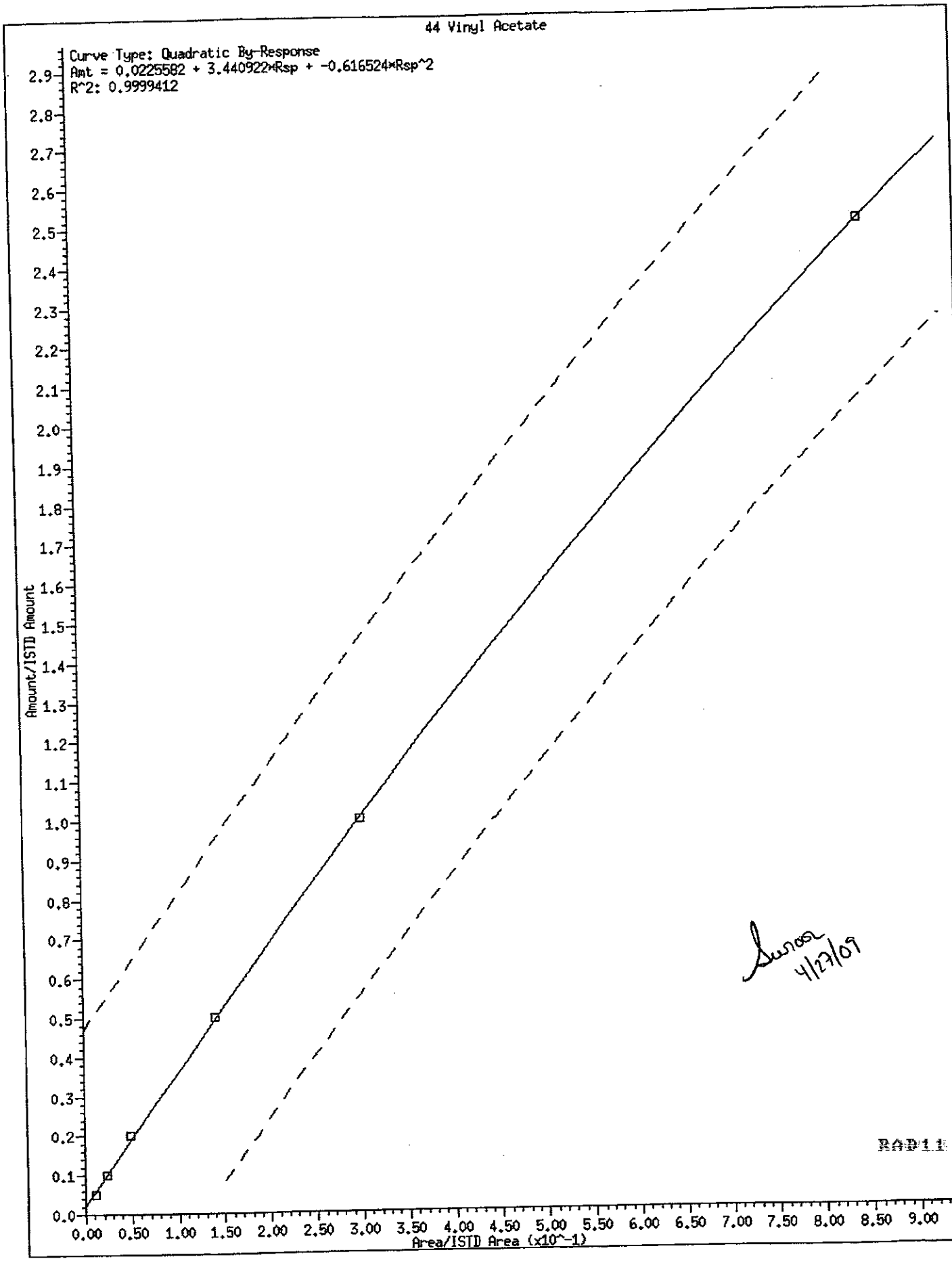
LAB FILE ID: RRF 0.5 ca15i07.d RRF 1 = ca15i06.d RRF 2 = ca15i05.d
RRF 5 = ca15i03.d RRF 10= ca15i02.d RRF 25= ca15i01.d RRF =

COMPOUND	RRF 0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	$\overline{RRF}$	% RSD	CAL. METHOD	
Dimethyl ether	|0.3314	0.3502	0.3168	0.3064	0.2765	0.3128		0.3157	8	AVG	
Chloromethane	#0.3129	0.2993	0.2926	0.3040	0.2665	0.2832		0.2931	6	AVG	#
Vinyl Chloride	*0.2911	0.2808	0.2739	0.2910	0.2524	0.2668		0.2760	5	AVG	*
1,1-Dichloroethene	*0.2216	0.2141	0.2158	0.2293	0.1993	0.2253		0.2175	5	AVG	*
Acetonitrile	|1.7069	1.6381	1.5678	1.5695	1.5106	1.6241		1.6028	4	AVG	|
1,1-Dichloroethane	#0.4666	0.4411	0.4433	0.4537	0.3960	0.4476		0.4414	5	AVG	#
Vinyl Acetate	|0.2160	0.2304	0.2424	0.2834	0.3014	0.3396		0.2689	18	2NDDEG	|
Chloroform	*0.6591	0.5964	0.5859	0.5639	0.4952	0.5354		0.5726	10	AVG	*
1,2-Dichloropropane	*0.2344	0.2253	0.2271	0.2362	0.2114	0.2467		0.2302	5	AVG	*
2-Chloroethyl Vinyl Ether	|0.0722	0.0789	0.0817	0.0932	0.0874	0.1047		0.0864	13	AVG	|
Toluene	*0.9467	0.9131	0.9232	0.9401	0.8374	0.9449		0.9176	5	AVG	*
Chlorobenzene	#1.1486	1.0914	1.0874	1.0914	0.9637	1.0948		1.0796	6	AVG	#
Ethylbenzene	*1.6019	1.6309	1.7272	1.8223	1.6310	1.9054		1.7198	7	AVG	*
Bromoform	#0.1414	0.1474	0.1533	0.1642	0.1507	0.1827		0.1566	9	AVG	#
cis-1,4-Dichloro-2-Butene	|3.6780	4.3209	5.1616	5.3520	5.6269	9.0000		5.5232	33	2NDDEG	|
Cyclohexanone	|0.2754	0.3253	0.3518	0.4021	0.4000	0.4830		0.3729	19	2NDDEG	|
1,1,2,2-Tetrachloroethane	#0.4302	0.4339	0.4413	0.4328	0.3894	0.4437		0.4286	5	AVG	#
Hexachloroethane	|0.4384	0.4541	0.4666	0.4961	0.5468	0.5547		0.4928	10	AVG	|

Average %RSD 10

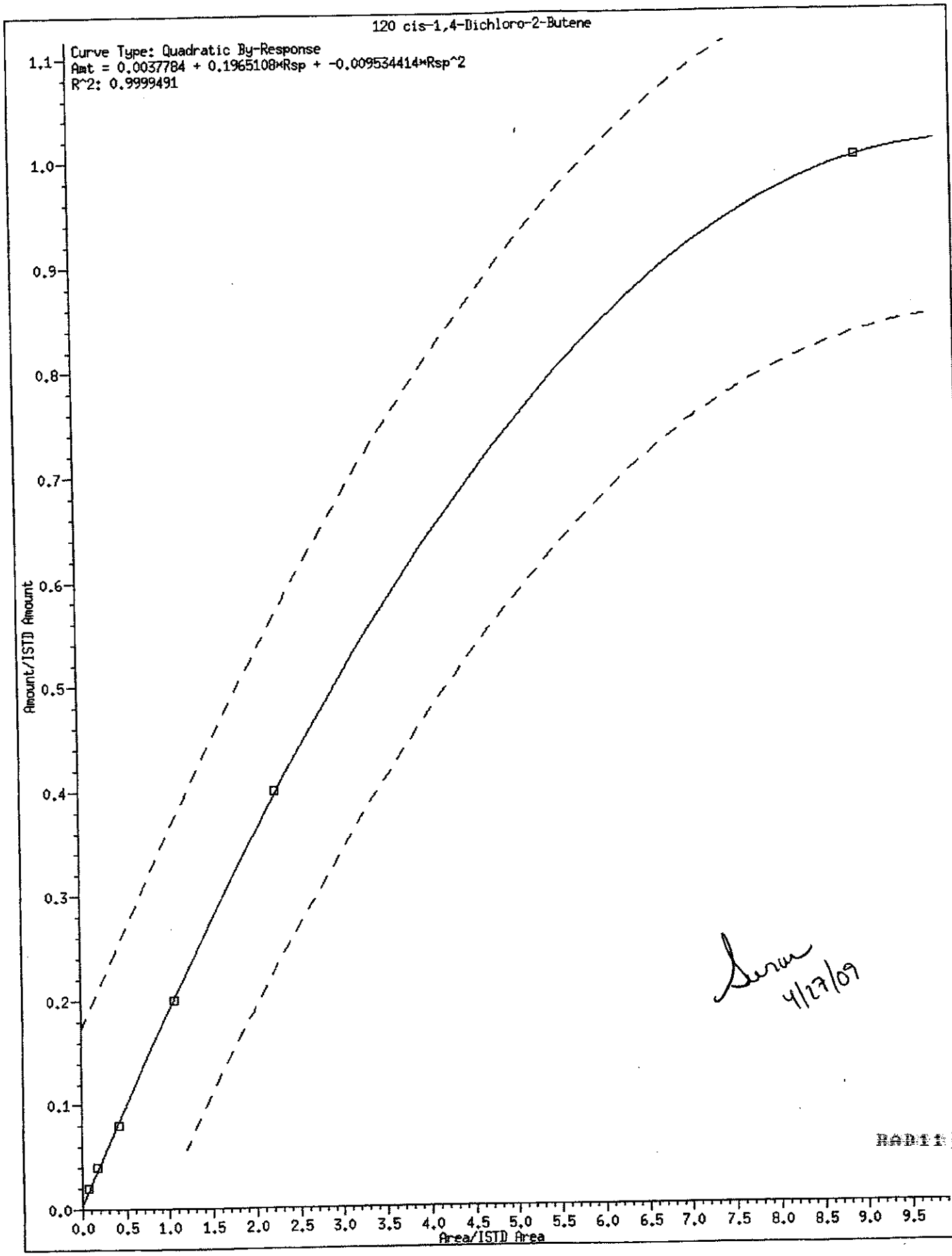
Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

RAD11 #261



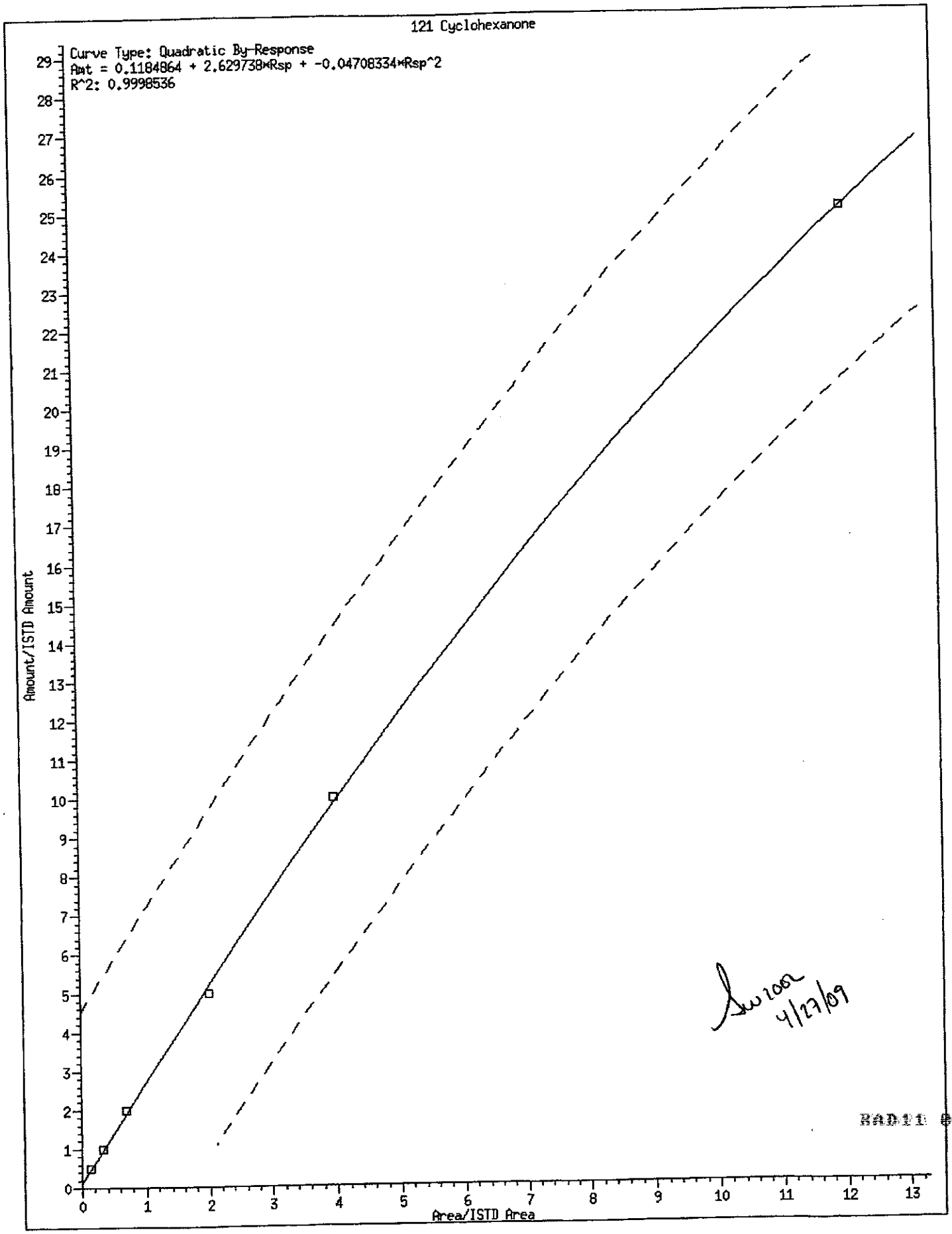
4/27/09

RAD11 0262



4/27/09

RAD11 [illegible]263



4/27/09

RAD11 #264

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP10193.i/09apr15a.b/ca15i01.d VSTD025
/chem2/HP10193.i/09apr15a.b/ca15i02.d VSTD010
/chem2/HP10193.i/09apr15a.b/ca15i03.d VSTD005
/chem2/HP10193.i/09apr15a.b/ca15i05.d VSTD002
/chem2/HP10193.i/09apr15a.b/ca15i06.d VSTD001
/chem2/HP10193.i/09apr15a.b/ca15i07.d VSTD0.5

Area Summary

File ID:

Internal Standard Name	ca15i01.d	ca15i02.d	ca15i03.d	ca15i05.d	ca15i06.d	ca15i07.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	97103	109420	106689	110988	104192	100667	104843	5	Yes
Fluorobenzene	2327528	2371087	2342668	2313793	2256944	2211421	2303907	3	Yes
Chlorobenzene-d5	1887408	1865247	1836800	1797717	1737763	1707532	1805411	4	Yes
1,4-Dichlorobenzene-d4	1097116	1069813	1059053	1025054	985432	971115	1034597	5	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ca15i01.d	ca15i02.d	ca15i03.d	ca15i05.d	ca15i06.d	ca15i07.d	Avg. RT
t-Butyl Alcohol-d10	4.334	4.334	4.322	4.322	4.316	4.328	4.326
Fluorobenzene	7.797	7.797	7.791	7.791	7.791	7.791	7.793
Chlorobenzene-d5	11.229	11.229	11.229	11.229	11.229	11.229	11.229
1,4-Dichlorobenzene-d4	13.095	13.094	13.095	13.094	13.095	13.095	13.094

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/27/2009 at 15:35.

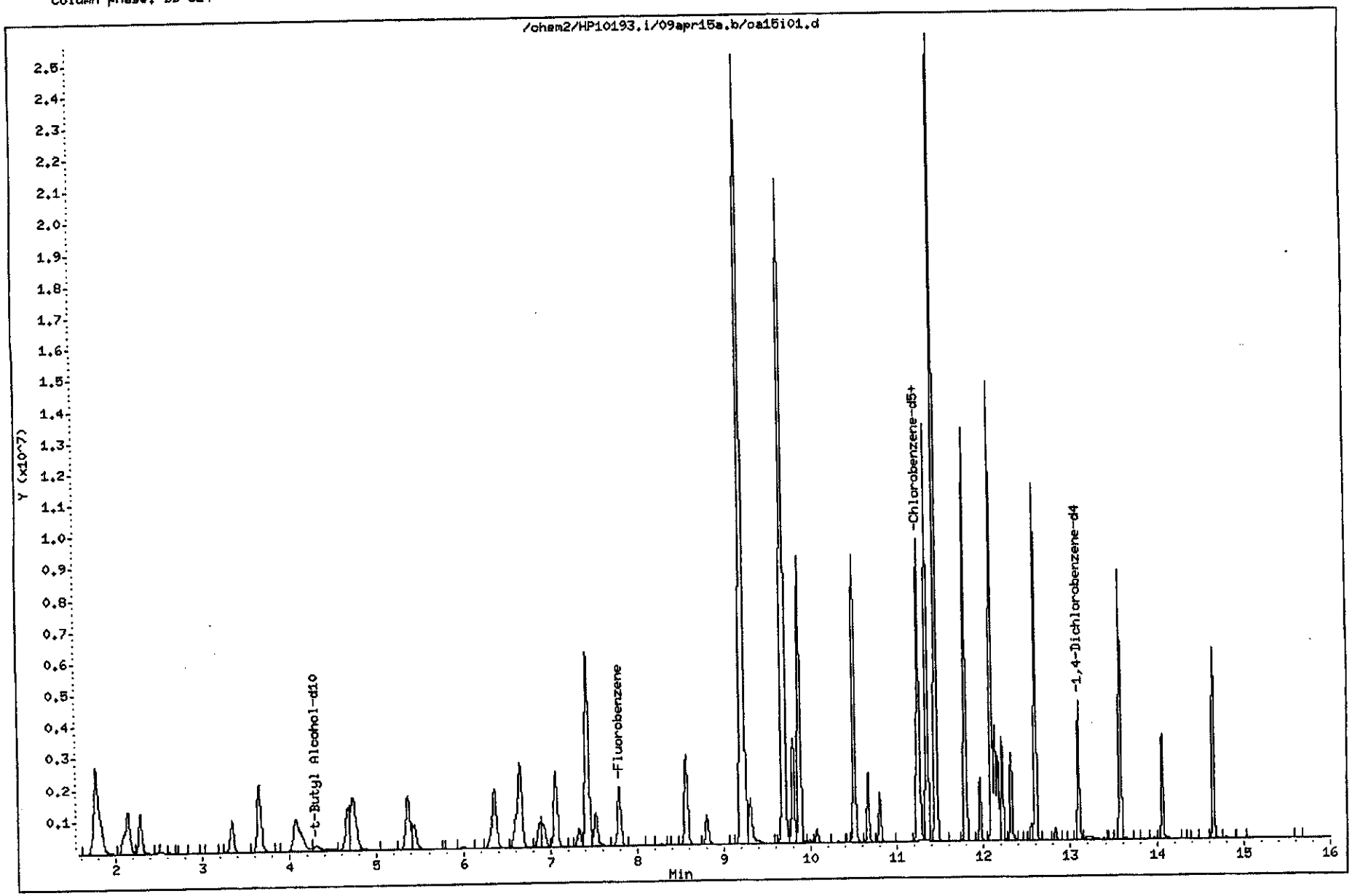
4/27/09

Data File: /chem2/HP10193.i/09apr15a.b/ca15i01.d
Date : 15-APR-2009 11:26
Client ID: VSTD025
Sample Info: VSTD025;VSTD025;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RA#11256



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15i01.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 11:26 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

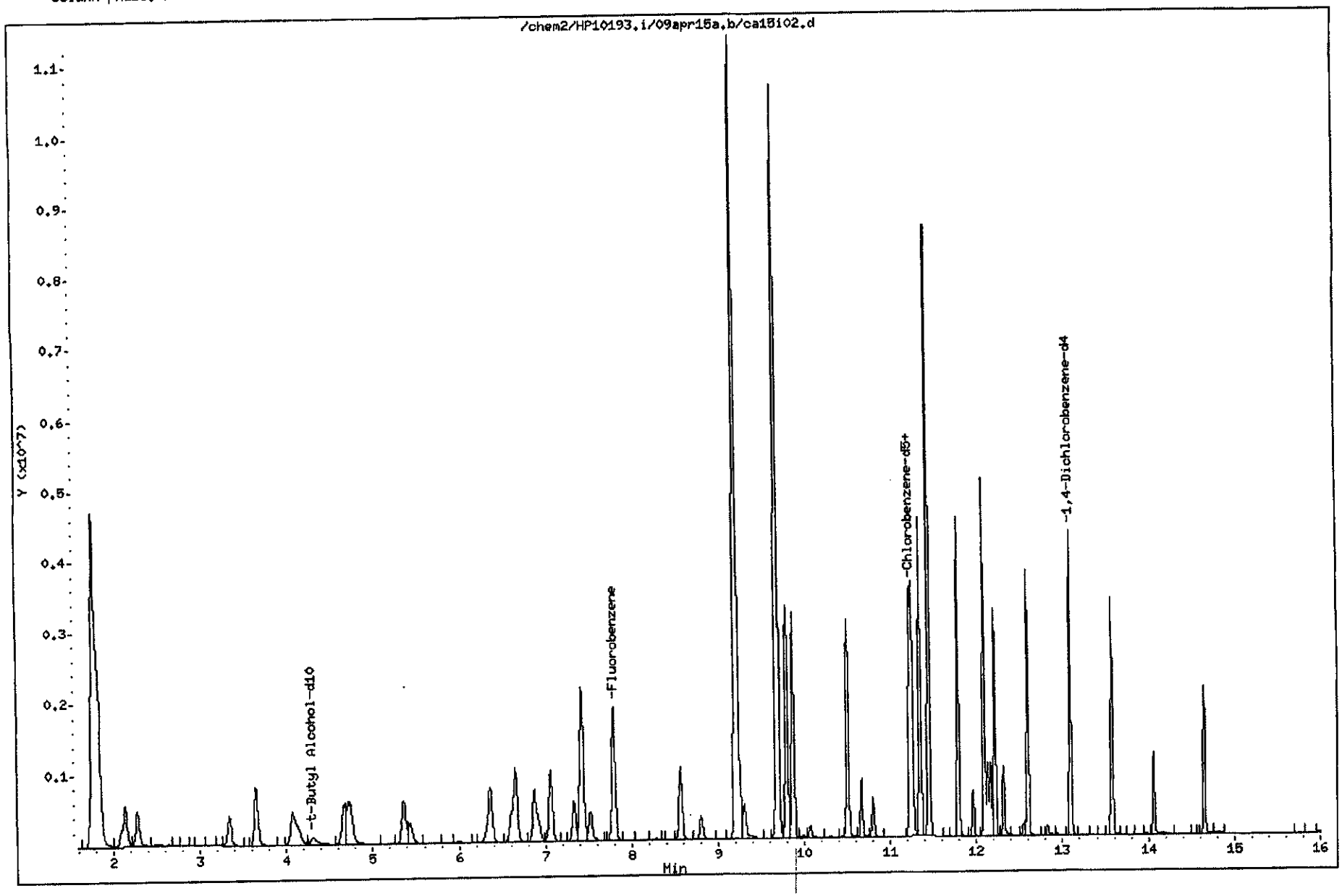
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.097	45	1820153	24.772
3) Chloromethane	(1)	2.146	50	1647920	24.158
5) Vinyl Chloride	(1)	2.286	62	1552650	24.170
20) 1,1-Dichloroethene	(1)	3.651	96	1310714	25.885
29) Acetonitrile	(4)	4.066	41	3154060	1033.994
31)*t-Butyl Alcohol-d10	(4)	4.334	65	97103	50.000
41) 1,1-Dichloroethane	(1)	5.358	63	2604585	25.352
44) Vinyl Acetate	(1)	5.431	43	1976215	24.997
54) Chloroform	(1)	6.657	83	3115279	23.373
74)*Fluorobenzene	(1)	7.797	96	2327528	10.000
80) 1,2-Dichloropropane	(1)	8.571	63	1435612	26.796
90) 2-Chloroethyl Vinyl Ether	(1)	9.309	63	609133	30.307
99) Toluene	(2)	9.876	92	4458613	25.745
107)*Chlorobenzene-d5	(2)	11.229	117	1887408	10.000
108) Chlorobenzene	(2)	11.260	112	5165894	25.353
110) Ethylbenzene	(2)	11.351	91	8990655	27.698
117) Bromoform	(2)	11.961	173	861869	29.157
121) Cyclohexanone	(4)	12.168	55	1172486	1250.352
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	873928	50.004
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	1216913	25.882
136)*1,4-Dichlorobenzene-d4	(3)	13.095	152	1097116	10.000
146) Hexachloroethane	(3)	13.576	117	1521542	28.143

* = Compound is an internal standard.

Data File: /chem2/HP10193.i/09apr15a.b/ca15i02.d
Date : 15-APR-2009 11:48
Client ID: VSTD010
Sample Info: VSTD010;VSTD010;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: ADS01731
Column diameter: 0.25



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15i02.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 11:48 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.097	45	655623	8.759
3) Chloromethane	(1)	2.133	50	631844	9.093
5) Vinyl Chloride	(1)	2.273	62	598472	9.145
20) 1,1-Dichloroethene	(1)	3.651	96	472534	9.161
29) Acetonitrile	(4)	4.072	41	1322338	384.704
31)*t-Butyl Alcohol-d10	(4)	4.334	65	109420	50.000
41) 1,1-Dichloroethane	(1)	5.358	63	938890	8.971
44) Vinyl Acetate	(1)	5.431	43	714540	10.035
54) Chloroform	(1)	6.657	83	1174134	8.647
74)*Fluorobenzene	(1)	7.797	96	2371087	10.000
80) 1,2-Dichloropropane	(1)	8.565	63	501251	9.184
90) 2-Chloroethyl Vinyl Ether	(1)	9.309	63	207185	10.119
99) Toluene	(2)	9.869	92	1562001	9.126
107)*Chlorobenzene-d5	(2)	11.229	117	1865247	10.000
108) Chlorobenzene	(2)	11.253	112	1797520	8.927
110) Ethylbenzene	(2)	11.351	91	3042259	9.484
117) Bromoform	(2)	11.960	173	281139	9.624
121) Cyclohexanone	(4)	12.168	55	437638	494.162
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	246279	19.889
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	416599	9.087
136)*1,4-Dichlorobenzene-d4	(3)	13.094	152	1069813	10.000
146) Hexachloroethane	(3)	13.576	117	584935	11.095

* = Compound is an internal standard.

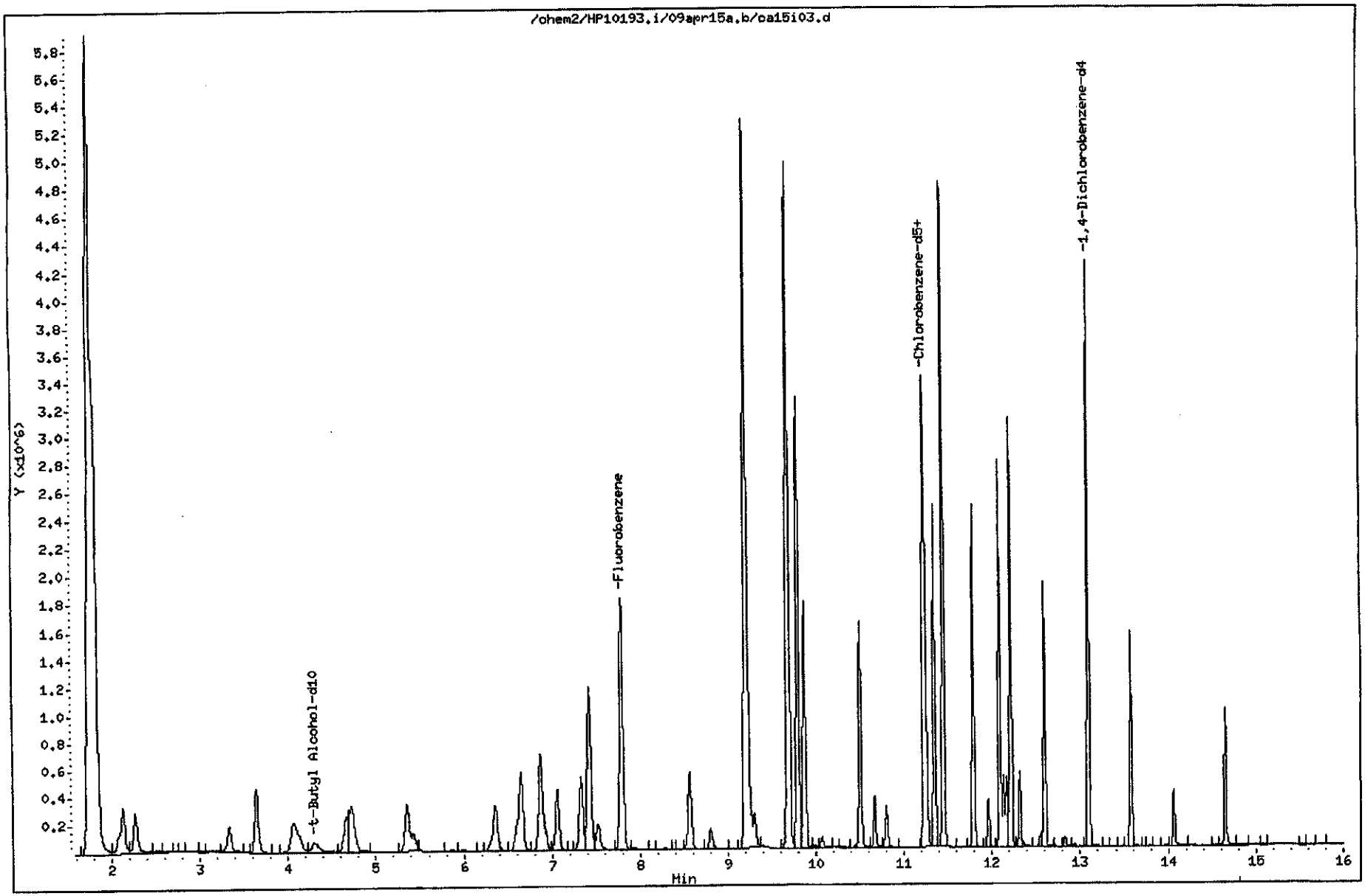
Lum 4/27/09

Data File: /chem2/HP10193.i/09apr15a.b/ca15i03.d
Date : 15-APR-2009 12:10
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAD1 B276



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15i03.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:10 Analyst ID: ADS01731

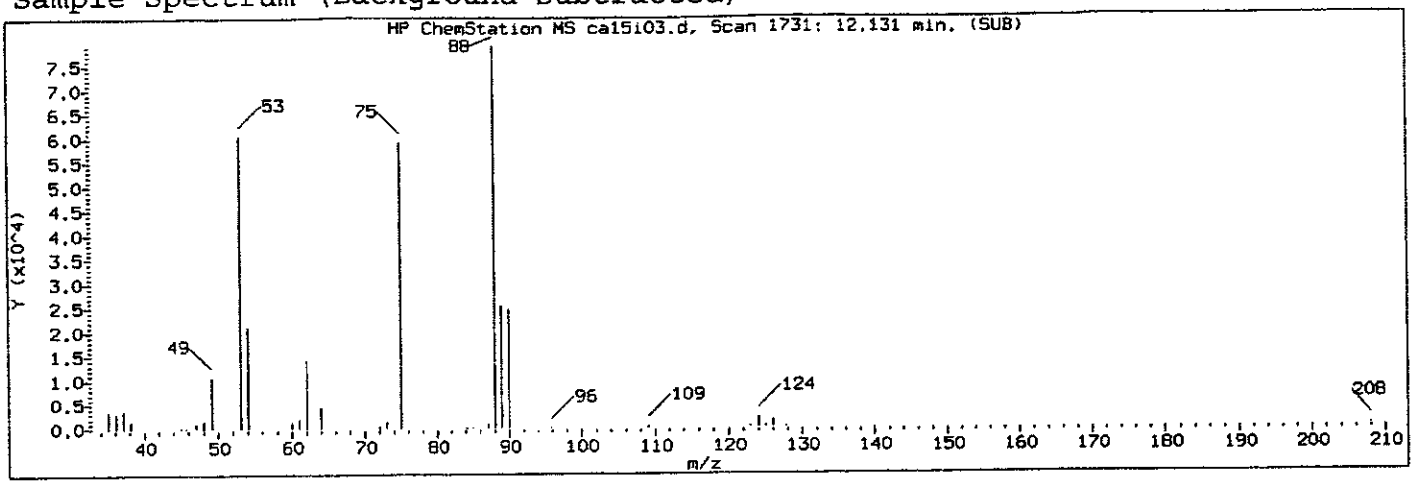
Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD005 Lab Sample ID: VSTD005

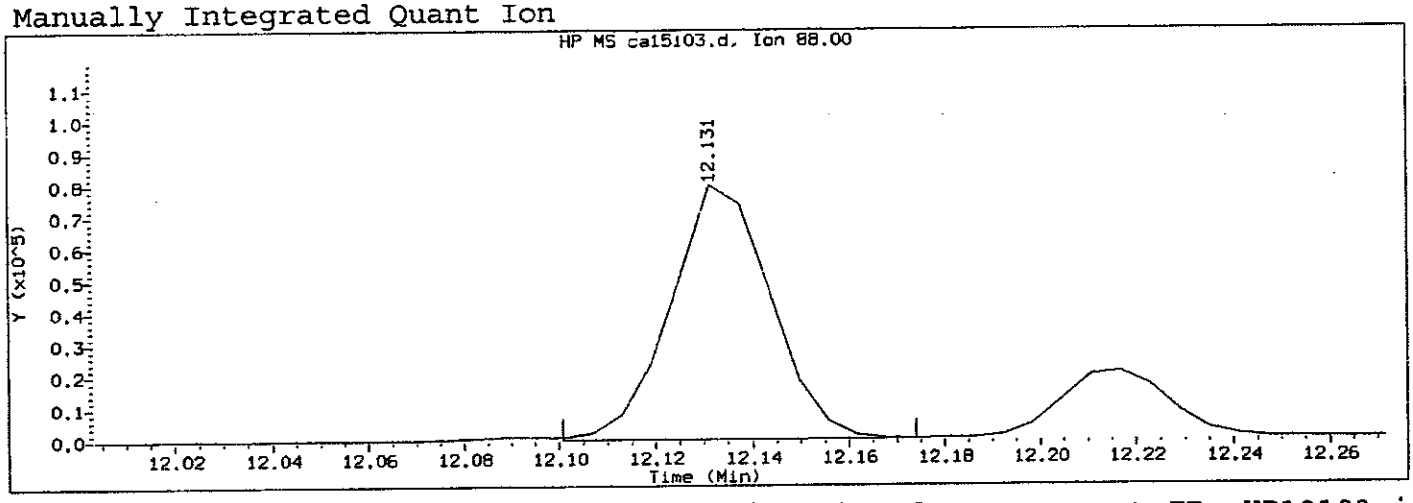
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.091	45	358868	4.852
3) Chloromethane	(1)	2.127	50	356027	5.186
5) Vinyl Chloride	(1)	2.261	62	340820	5.271
20) 1,1-Dichloroethene	(1)	3.639	96	268560	5.269
29) Acetonitrile	(4)	4.066	41	669810	199.854
31)*t-Butyl Alcohol-d10	(4)	4.322	65	106689	50.000
41) 1,1-Dichloroethane	(1)	5.352	63	531490	5.140
44) Vinyl Acetate	(1)	5.431	43	331939	4.977
54) Chloroform	(1)	6.651	83	660473	4.923
74)*Fluorobenzene	(1)	7.791	96	2342668	10.000
80) 1,2-Dichloropropane	(1)	8.565	63	276612	5.130
90) 2-Chloroethyl Vinyl Ether	(1)	9.303	63	109167	5.396
99) Toluene	(2)	9.870	92	863359	5.123
107)*Chlorobenzene-d5	(2)	11.229	117	1836800	10.000
108) Chlorobenzene	(2)	11.253	112	1002355	5.055
110) Ethylbenzene	(2)	11.351	91	1673596	5.298
117) Bromoform	(2)	11.961	173	150798	5.242
121) Cyclohexanone	(4)	12.168	55	214503	260.768
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	114199 A	10.160
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	229183	5.050
136)*1,4-Dichlorobenzene-d4	(3)	13.095	152	1059053	10.000
146) Hexachloroethane	(3)	13.576	117	262685	5.033

A = User selected an alternate hit.
* = Compound is an internal standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i03.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:10 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:58
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 120
Compound Name : cis-1,4-Dichloro-2-Butene
Scan Number : 1731
Retention Time (minutes): 12.131
Quant Ion : 88
Area (flag) : 114199A
Concentration (ug/L) : 10.1599
Integration start scan : 1725 Integration stop scan: 1737
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): (missed peak) improper integration

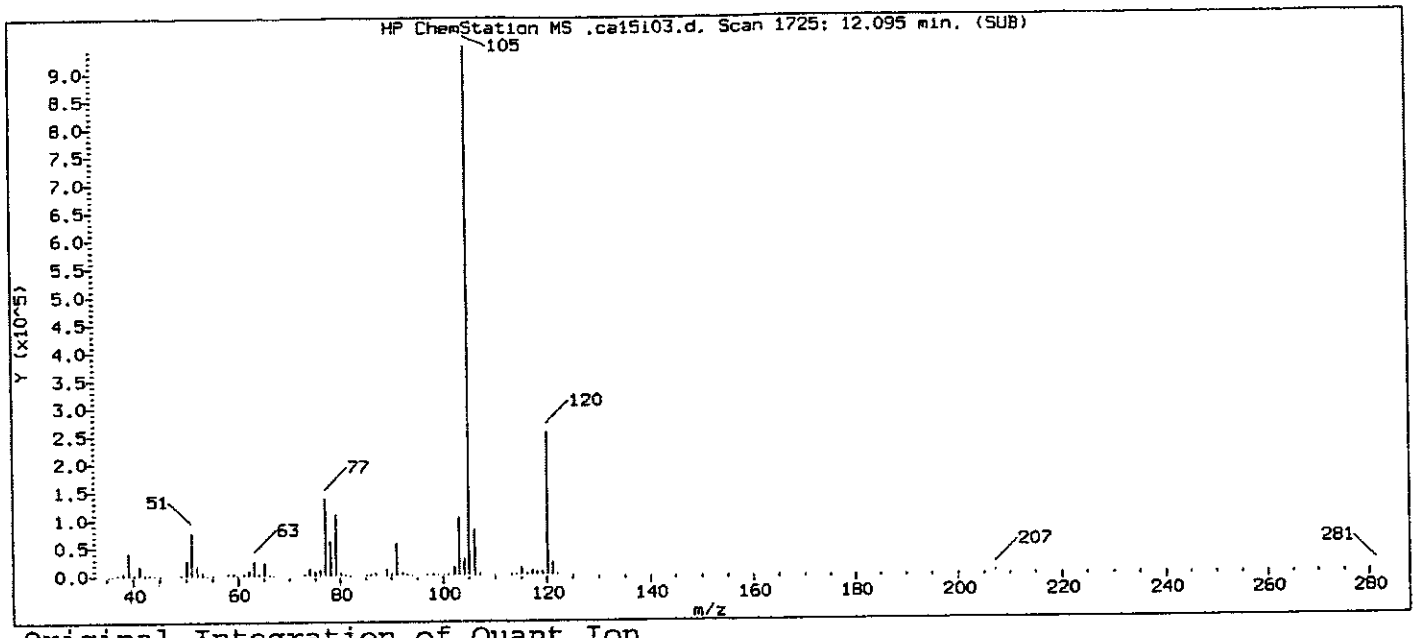
Analyst responsible for change: Swaan 4/27/09

GC/MS audit/management approval: 4-27-09

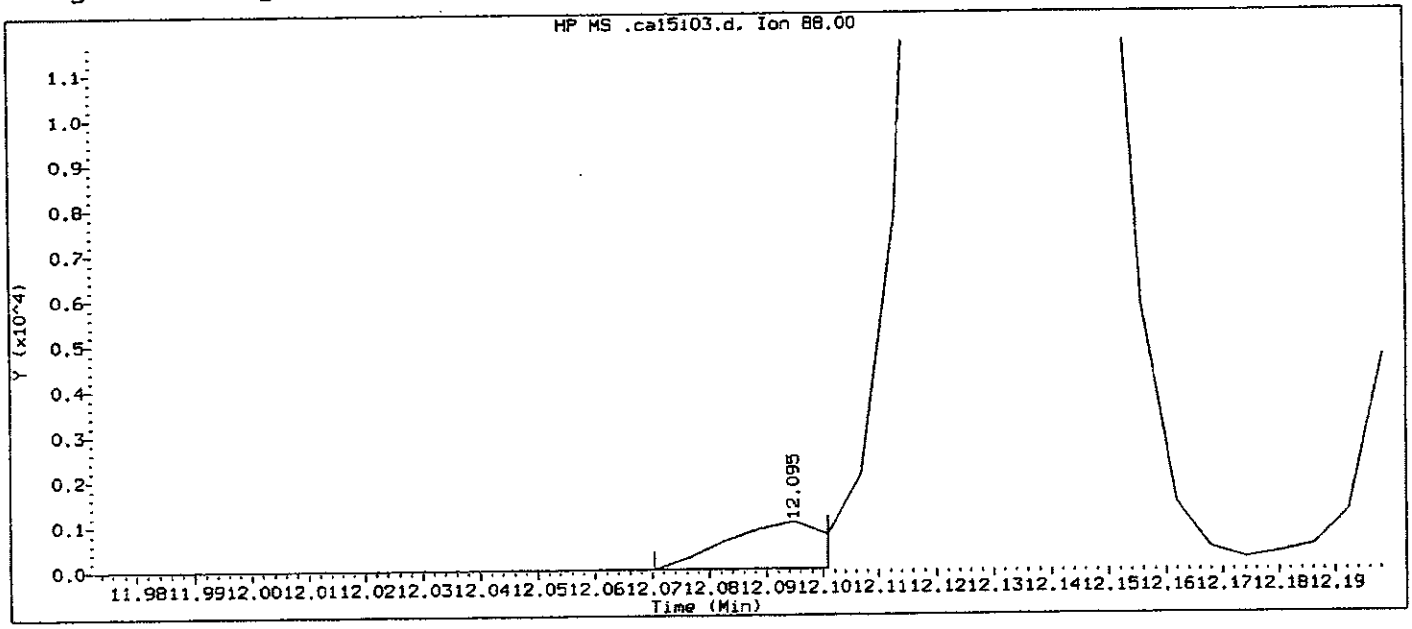
RAD11 0272

Manual Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i03.d, generated on 04/27/2009 at 14:58

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i03.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:10 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:13
Date, time and analyst ID of latest file update: 27-Apr-2009 14:13 klb01296

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	:	120
Compound Name	:	cis-1,4-Dichloro-2-Butene
Scan Number	:	1725
Retention Time (minutes)	:	12.095
Quant Ion	:	88
Area	:	1165
Concentration (ug/L)	:	0.1116
Integration start scan	:	1720 Integration stop scan: 1725
Y at integration start	:	0 Y at integration end: 0

RAD11 8273

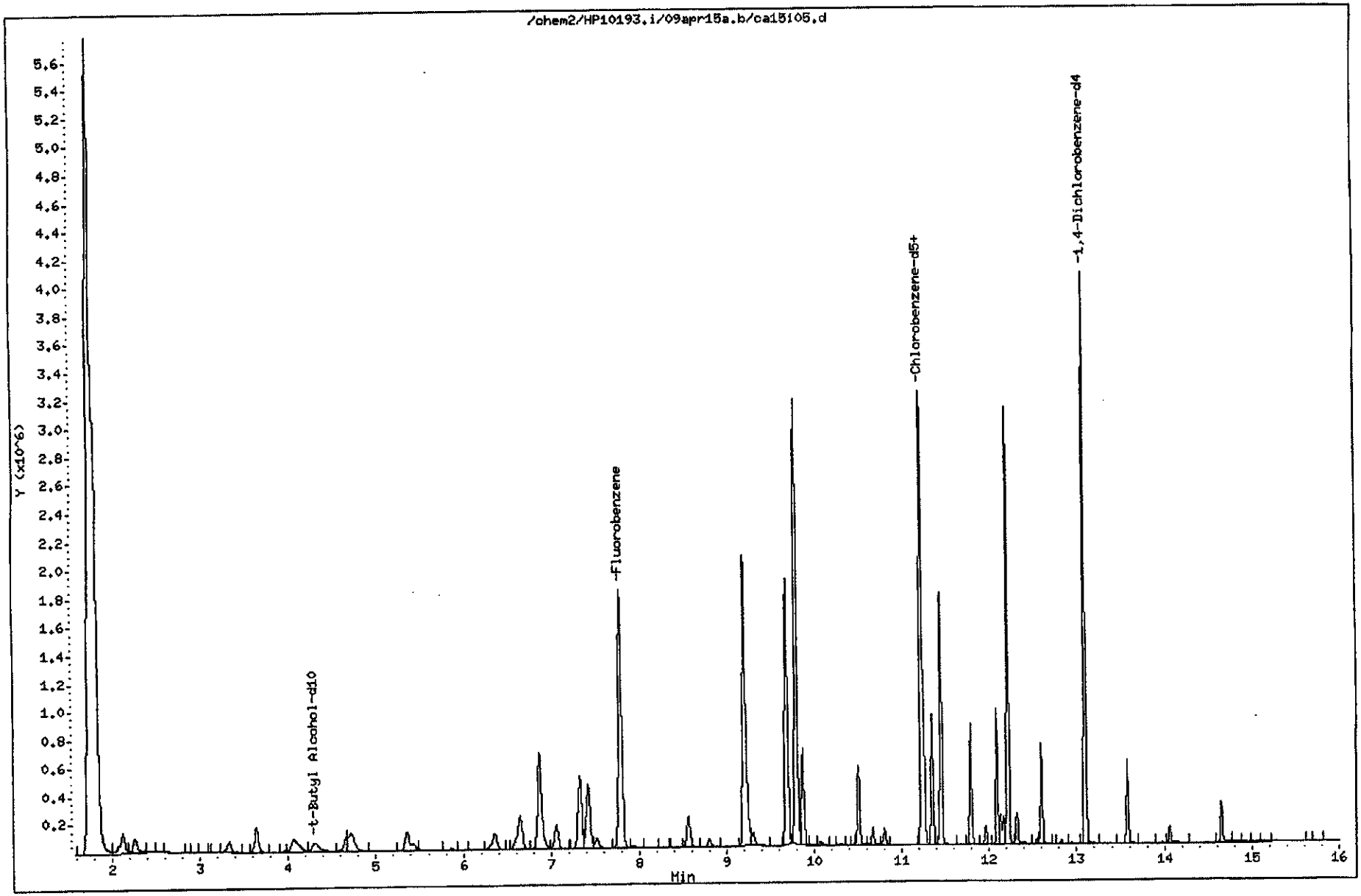
4/27/09

Data File: /chem2/HP10193.i/09apr15a.b/ca15i05.d
Date : 15-APR-2009 12:53
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

BAB11 0274



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15i05.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:53 Analyst ID: ADS01731

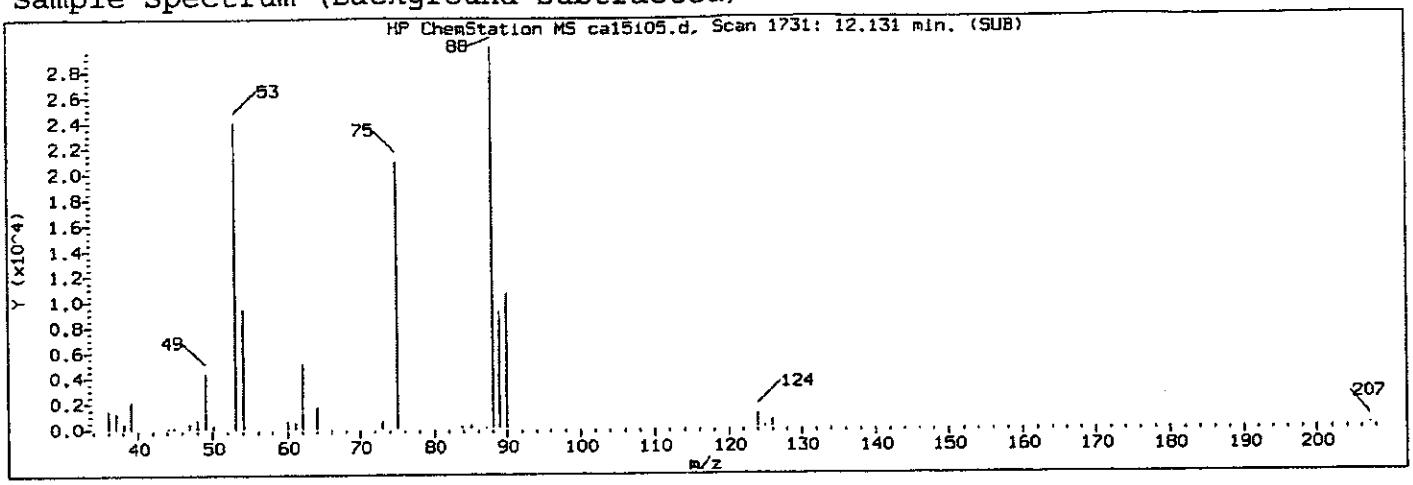
Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD002 Lab Sample ID: VSTD002

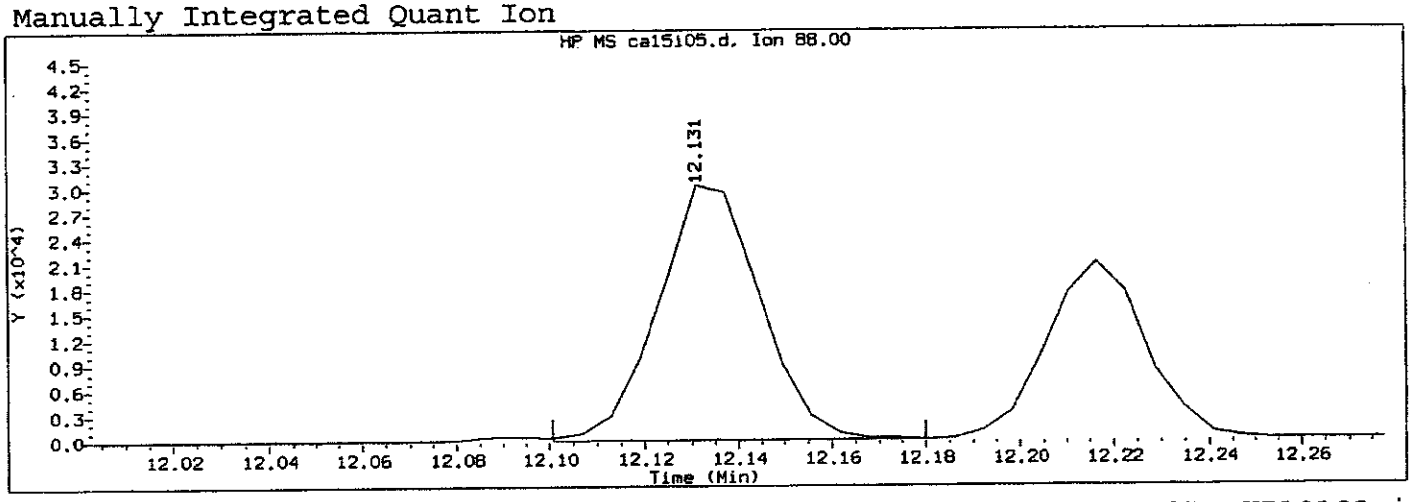
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.090	45	146602	2.007
3) Chloromethane	(1)	2.121	50	135409	1.997
5) Vinyl Chloride	(1)	2.261	62	126745	1.985
20) 1,1-Dichloroethene	(1)	3.639	96	99859	1.984
29) Acetonitrile	(4)	4.060	41	278418	79.855
31) *t-Butyl Alcohol-d10	(4)	4.322	65	110988	50.000
41) 1,1-Dichloroethane	(1)	5.358	63	205132	2.009
44) Vinyl Acetate	(1)	5.425	43	112183	1.879
54) Chloroform	(1)	6.651	83	271128	2.046
74) *Fluorobenzene	(1)	7.791	96	2313793	10.000
80) 1,2-Dichloropropane	(1)	8.565	63	105073	1.973
90) 2-Chloroethyl Vinyl Ether	(1)	9.309	63	37807	1.892
99) Toluene	(2)	9.869	92	331943	2.012
107) *Chlorobenzene-d5	(2)	11.229	117	1797717	10.000
108) Chlorobenzene	(2)	11.253	112	390967	2.015
110) Ethylbenzene	(2)	11.351	91	621008	2.009
117) Bromoform	(2)	11.960	173	55127	1.958
121) Cyclohexanone	(4)	12.168	55	78099M	97.282
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	45830 A	4.165
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	90476	2.060
136) *1,4-Dichlorobenzene-d4	(3)	13.094	152	1025054	10.000
146) Hexachloroethane	(3)	13.576	117	95668	1.894

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i05.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:53 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:58
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	120
Compound Name	:	cis-1,4-Dichloro-2-Butene
Scan Number	:	1731
Retention Time (minutes)	:	12.131
Quant Ion	:	88
Area (flag)	:	45830A
Concentration (ug/L)	:	4.1649
Integration start scan	:	1725 Integration stop scan: 1738
Y at integration start	:	0 Y at integration end: 0

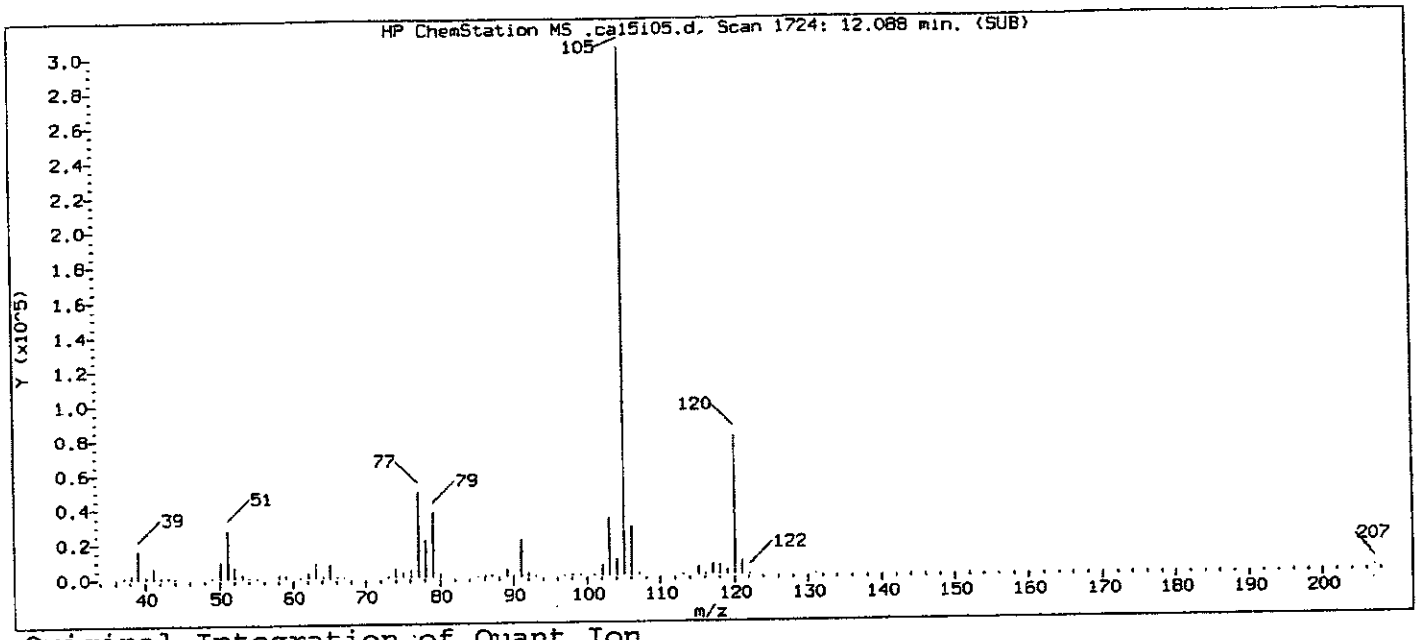
Reason for manual integration (circle one): (missed peak) improper integration

Analyst responsible for change: [signature] 4/27/09

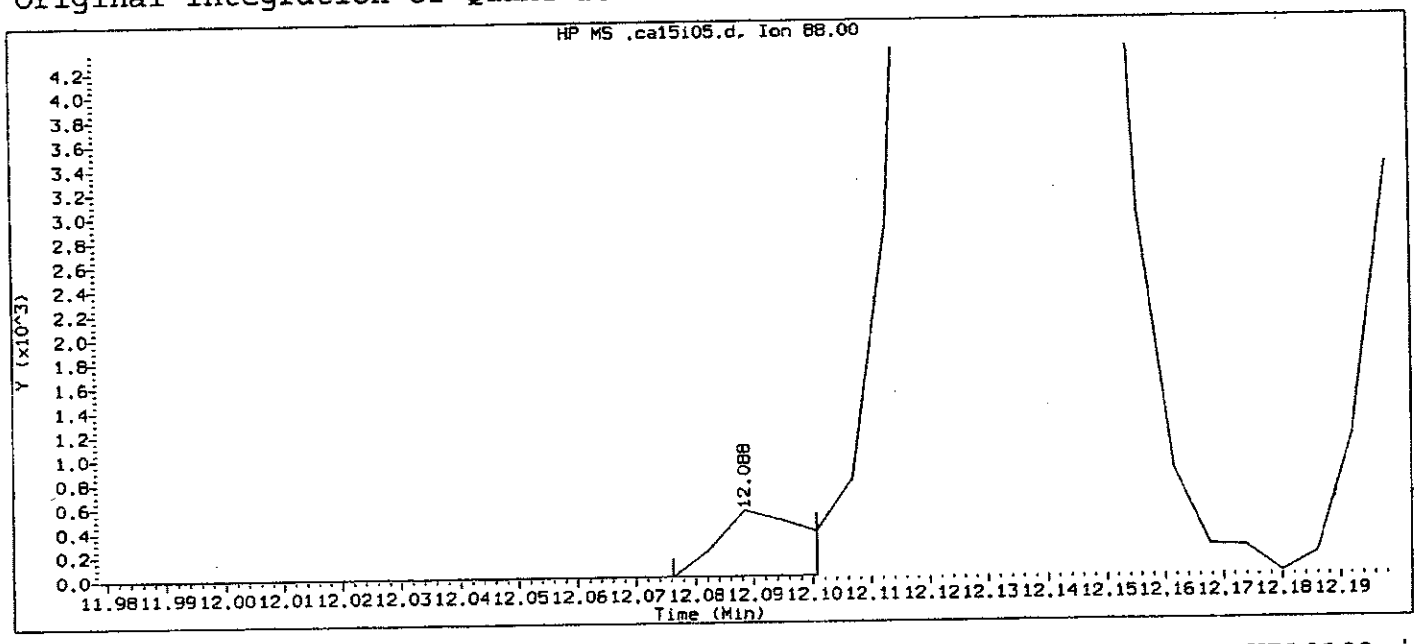
GC/MS audit/management approval: [signature] 4-27-09

RAD11 0276

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i05.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:53 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:13
Date, time and analyst ID of latest file update: 27-Apr-2009 14:13 klb01296

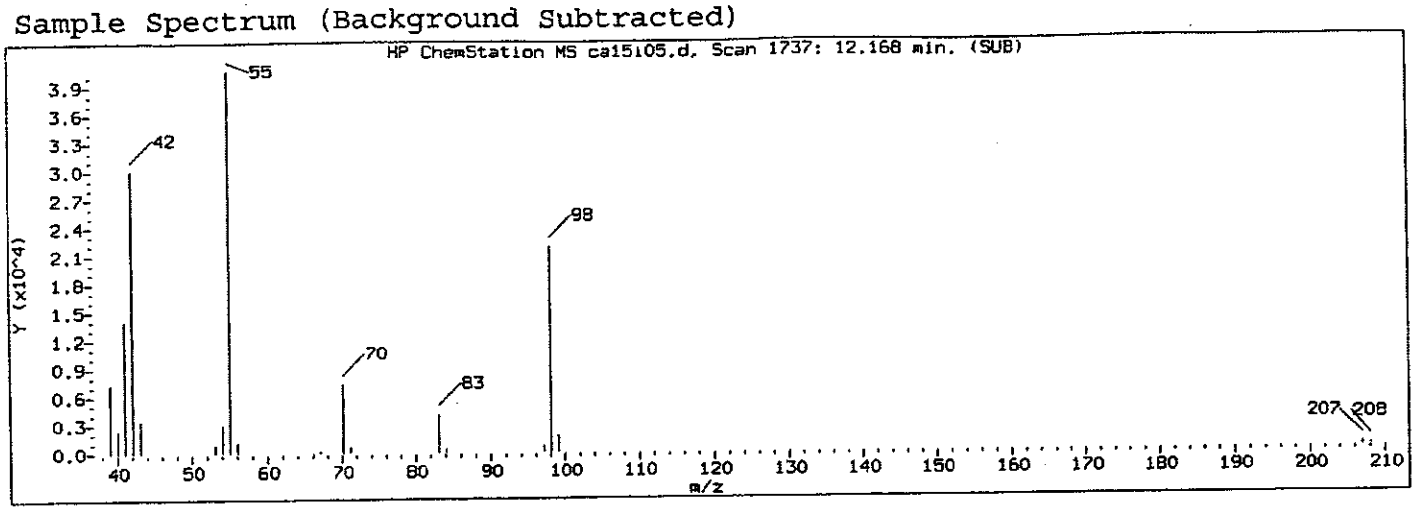
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	: 120
Compound Name	: cis-1,4-Dichloro-2-Butene
Scan Number	: 1724
Retention Time (minutes)	: 12.088
Quant Ion	: 88
Area	: 517
Concentration (ug/L)	: 0.0632
Integration start scan	: 1721 Integration stop scan: 1725
Y at integration start	: 0 Y at integration end: 0

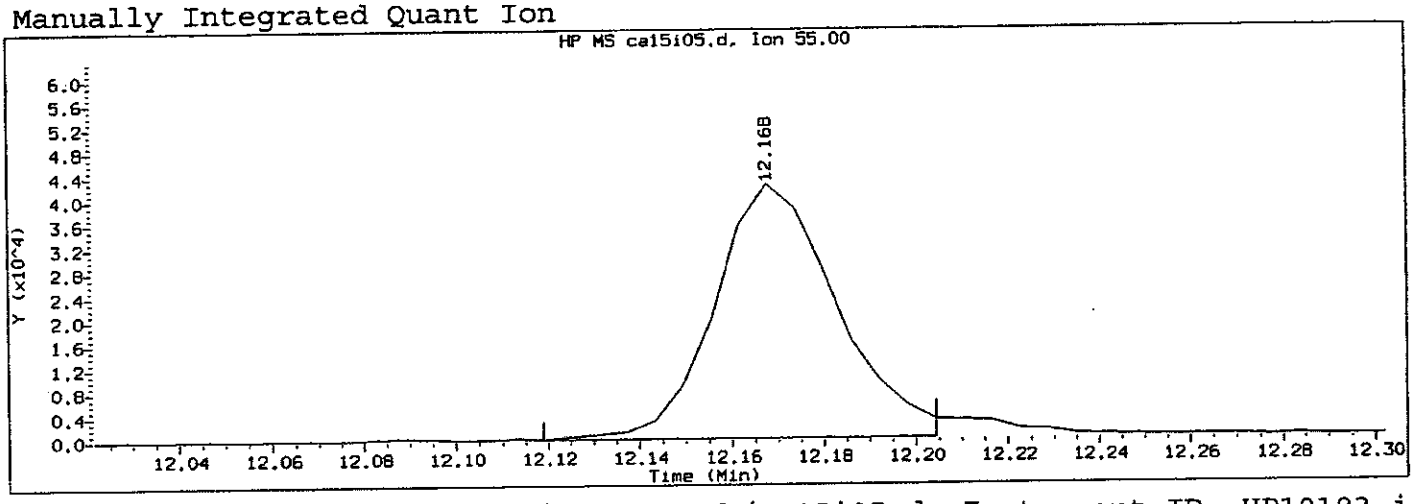
RAD11 0277

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i05.d, generated on 04/27/2009 at 14:58

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i05.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:53 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:58
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	121
Compound Name	:	Cyclohexanone
Scan Number	:	1737
Retention Time (minutes)	:	12.168
Quant Ion	:	55
Area (flag)	:	78099 M
Concentration (ug/L)	:	97.2821
Integration start scan	:	1728 Integration stop scan: 1742
Y at integration start	:	0 Y at integration end: 0

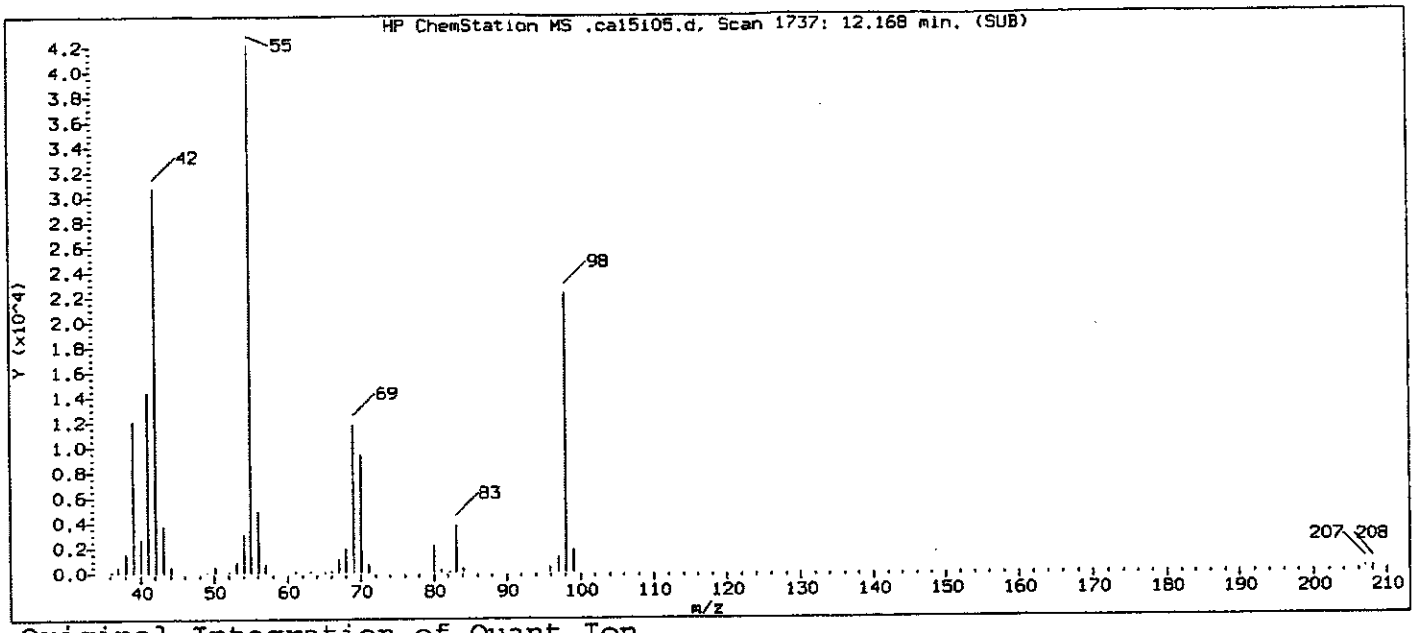
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 4/27/09

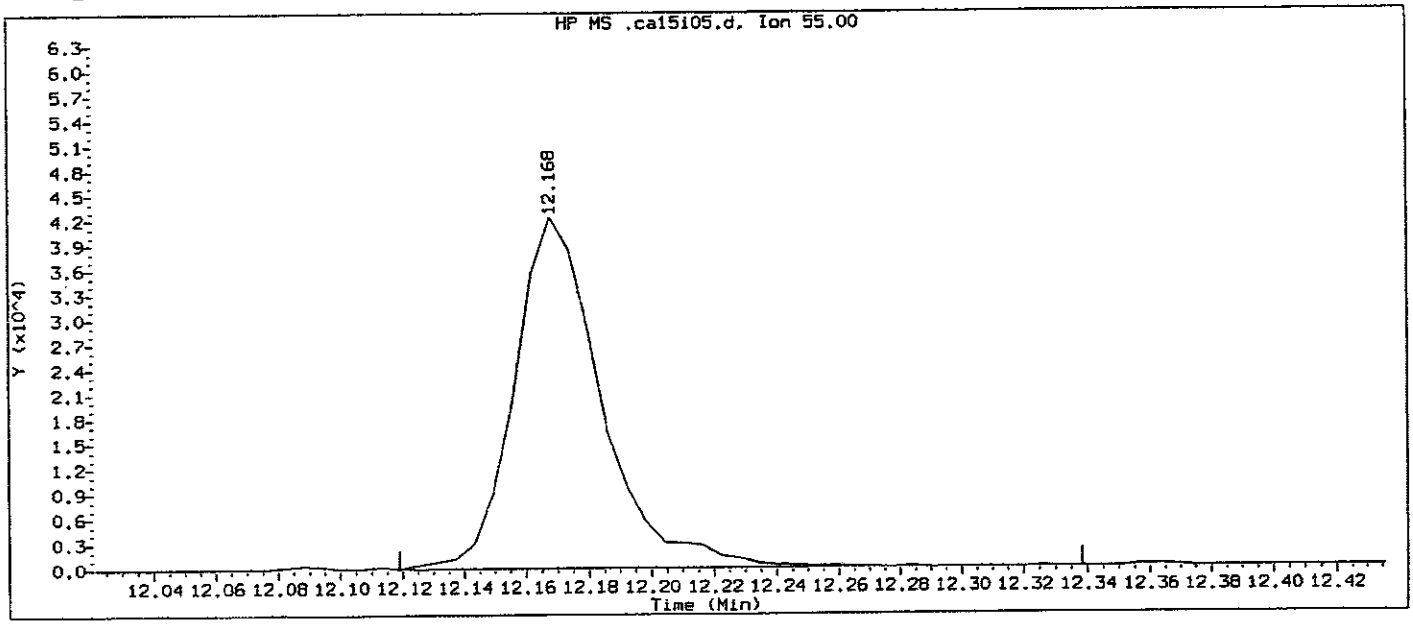
GC/MS audit/management approval: [signature] 4/27/09

RAD11 0278

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i05.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 12:53 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:13
Date, time and analyst ID of latest file update: 27-Apr-2009 14:13 klb01296

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number	:	121
Compound Name	:	Cyclohexanone
Scan Number	:	1737
Retention Time (minutes)	:	12.168
Quant Ion	:	55
Area	:	82010
Concentration (ug/L)	:	89.3211
Integration start scan	:	1728 Integration stop scan: 1764
Y at integration start	:	0 Y at integration end: 0

BAD11 0279

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i05.d, generated on 04/27/2009 at 14:58

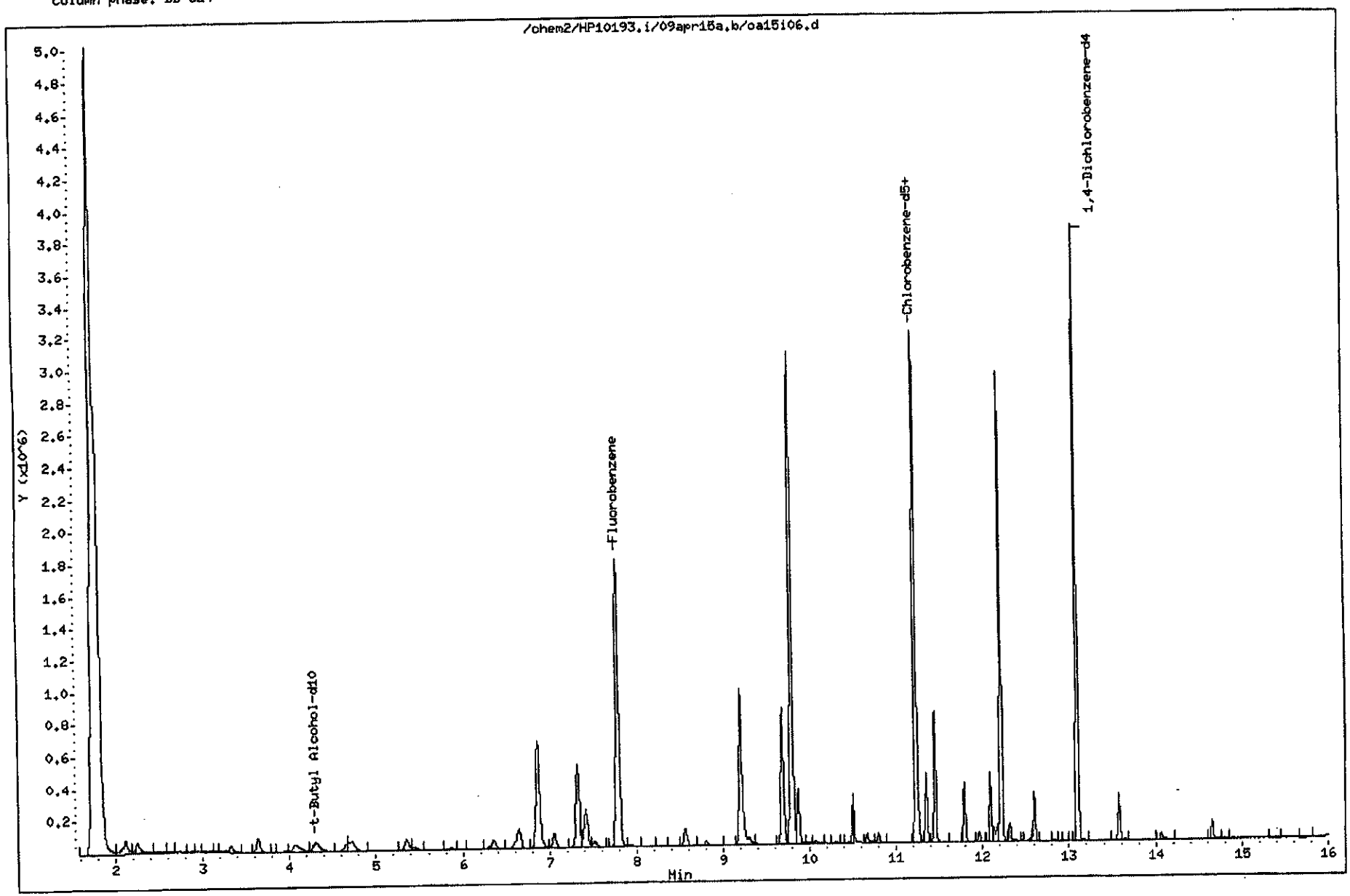
4/23/09

Data File: /chem2/HP10193.i/09apr15a.b/ca15i06.d
Date : 15-APR-2009 13:15
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RAB11 0208



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15i06.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:15 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 17:47 sew02002

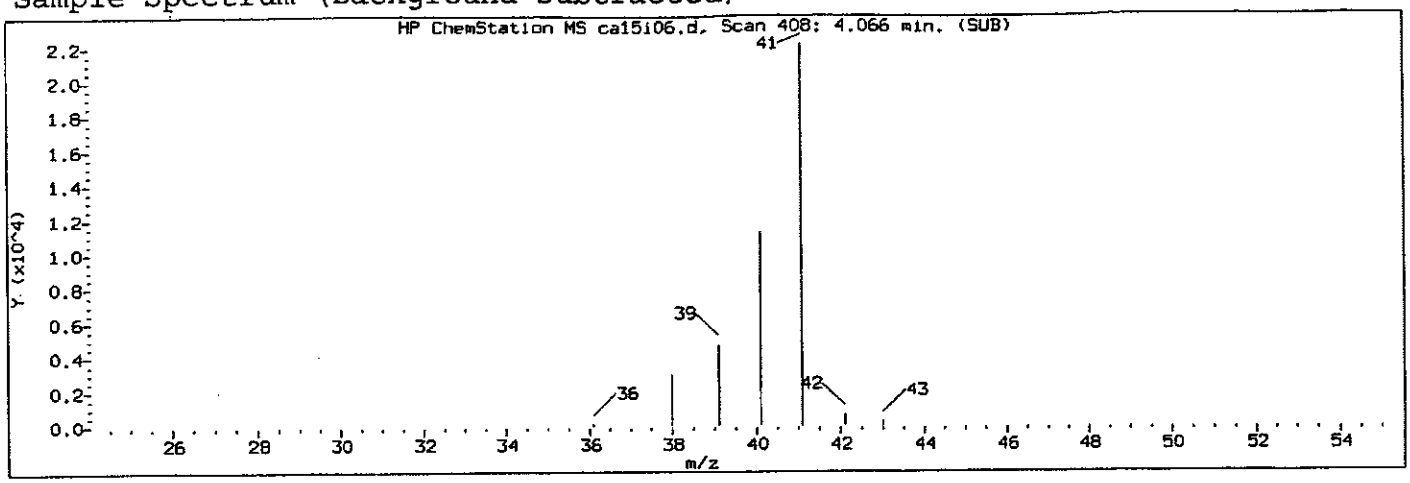
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.091	45	79049	1.109
3) Chloromethane	(1)	2.115	50	67540	1.021
5) Vinyl Chloride	(1)	2.255	62	63368	1.017
20) 1,1-Dichloroethene	(1)	3.639	96	48314	0.984
29) Acetonitrile	(4)	4.066	41	136539M	40.879
31)*t-Butyl Alcohol-d10	(4)	4.316	65	104192	50.000
41) 1,1-Dichloroethane	(1)	5.352	63	99561	0.999
44) Vinyl Acetate	(1)	5.431	43	51996	1.015
54) Chloroform	(1)	6.651	83	134608	1.042
74)*Fluorobenzene	(1)	7.791	96	2256944	10.000
80) 1,2-Dichloropropane	(1)	8.565	63	50850	0.979
90) 2-Chloroethyl Vinyl Ether	(1)	9.309	63	17814	0.914
99) Toluene	(2)	9.870	92	158676	0.995
107)*Chlorobenzene-d5	(2)	11.229	117	1737763	10.000
108) Chlorobenzene	(2)	11.253	112	189668	1.011
110) Ethylbenzene	(2)	11.351	91	283411	0.948
117) Bromoform	(2)	11.961	173	25610	0.941
121) Cyclohexanone	(4)	12.168	55	33896M	48.451
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	18008	1.873
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	42756	1.012
136)*1,4-Dichlorobenzene-d4	(3)	13.095	152	985432	10.000
146) Hexachloroethane	(3)	13.576	117	44746	0.921

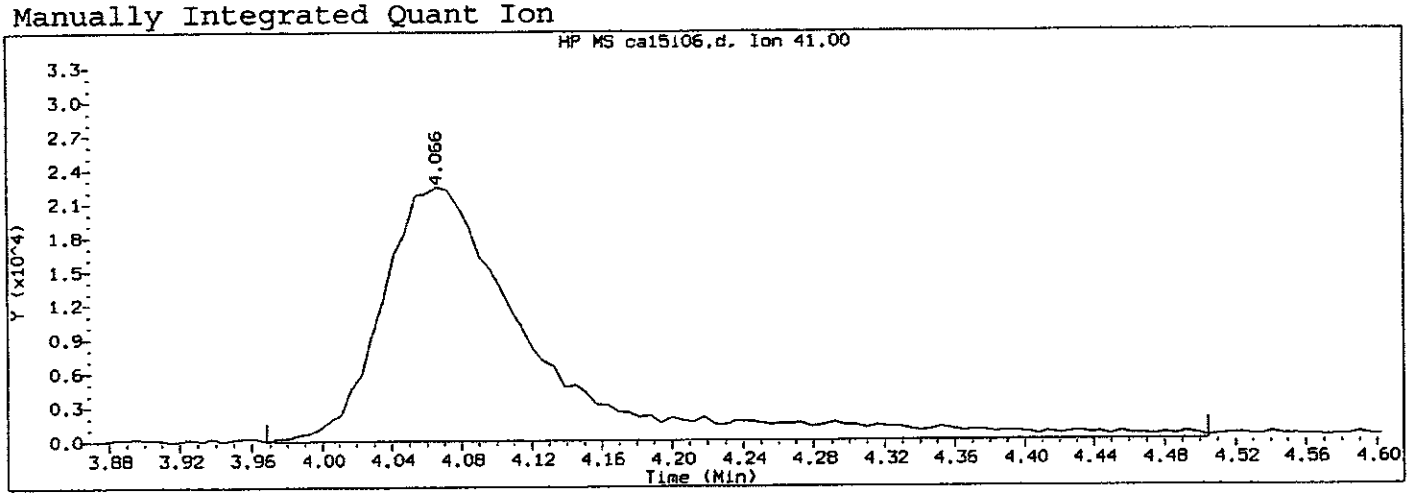
M = Compound was manually integrated.

* = Compound is an internal standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i06.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:15 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:58
Date, time and analyst ID of latest file update: 27-Apr-2009 17:47 sew02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 29
Compound Name : Acetonitrile
Scan Number : 408
Retention Time (minutes): 4.066
Quant Ion : 41
Area (flag) : 136539 M
Concentration (ug/L) : 40.8794
Integration start scan : 391 Integration stop scan: 479
Y at integration start : 0 Y at integration end: 0

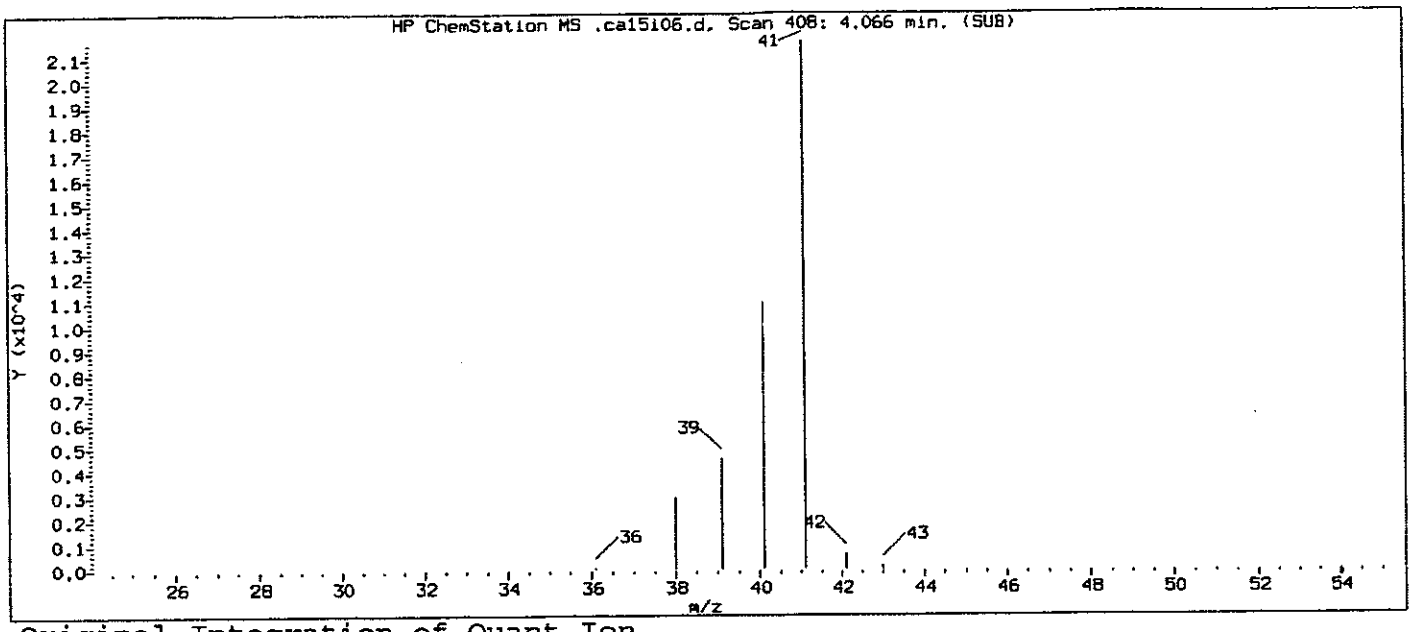
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Susan 4/27/09

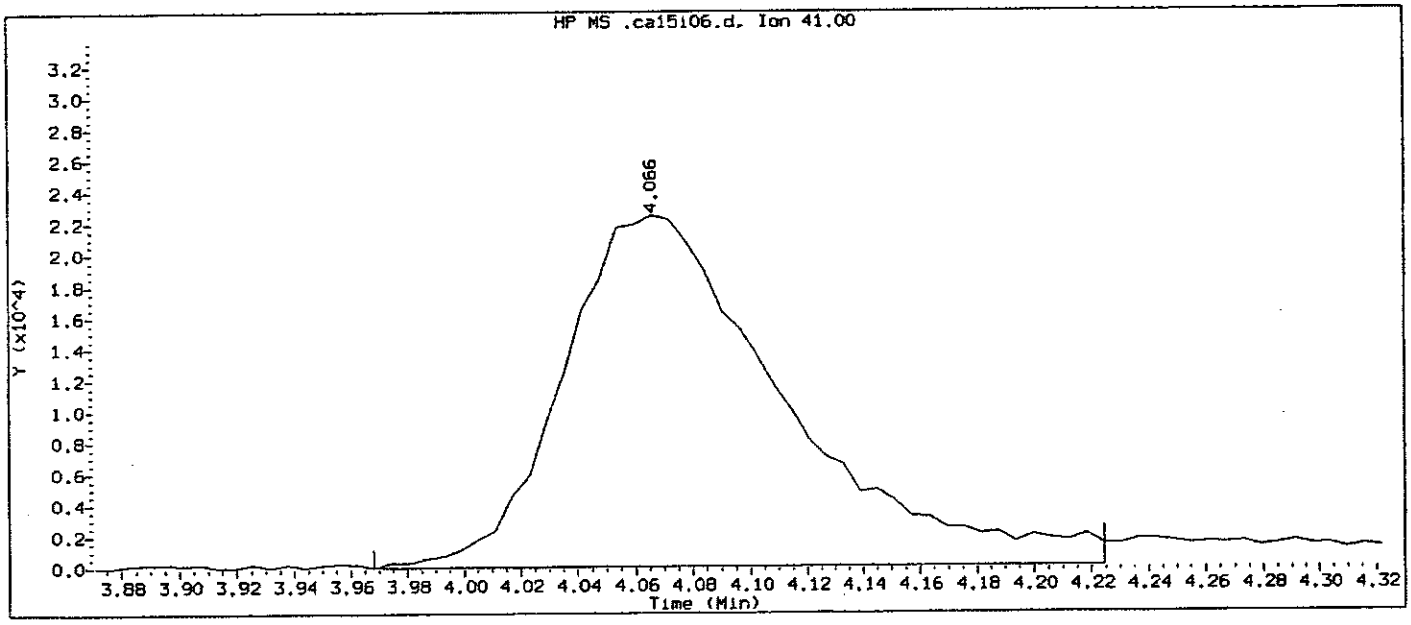
GC/MS audit/management approval: [signature] 4-27-09

RAD11 0282

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i06.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:15 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:13
Date, time and analyst ID of latest file update: 27-Apr-2009 14:13 klb01296

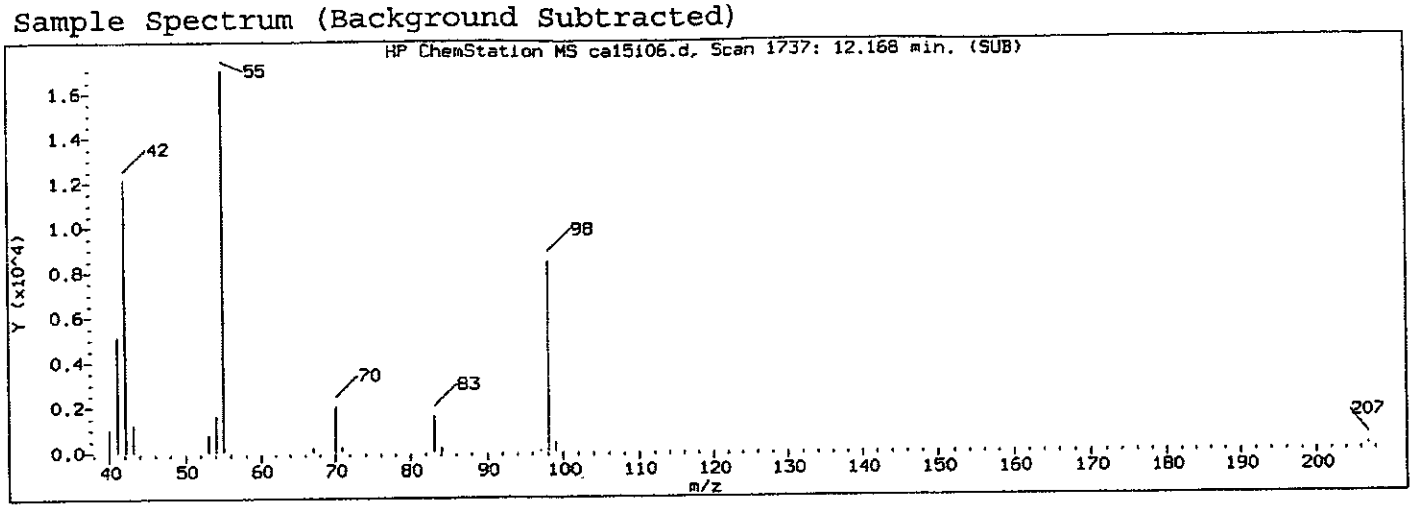
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 29
Compound Name : Acetonitrile
Scan Number : 408
Retention Time (minutes): 4.066
Quant Ion : 41
Area : 120458
Concentration (ug/L) : 37.4525
Integration start scan : 391 Integration stop scan: 433
Y at integration start : 0 Y at integration end: 0

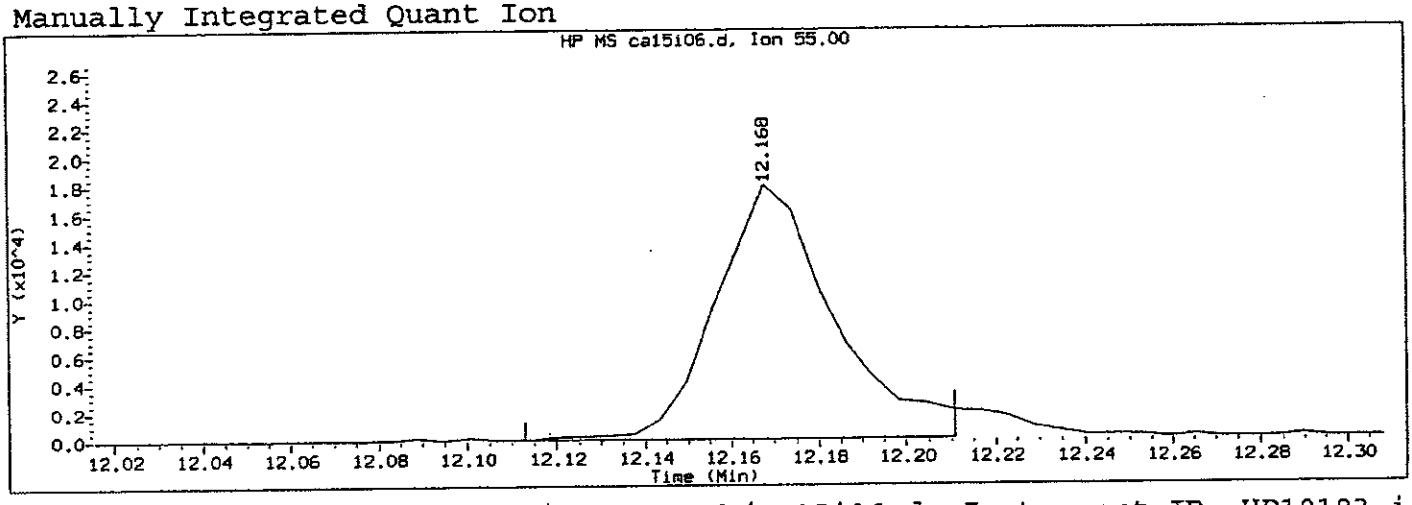
BAD11 8283

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i06.d, generated on 04/27/2009 at 17:47

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i06.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:15 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:58
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 121
Compound Name : Cyclohexanone
Scan Number : 1737
Retention Time (minutes): 12.168
Quant Ion : 55
Area (flag) : 33896 M
Concentration (ug/L) : 48.4508
Integration start scan : 1727 Integration stop scan: 1743
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

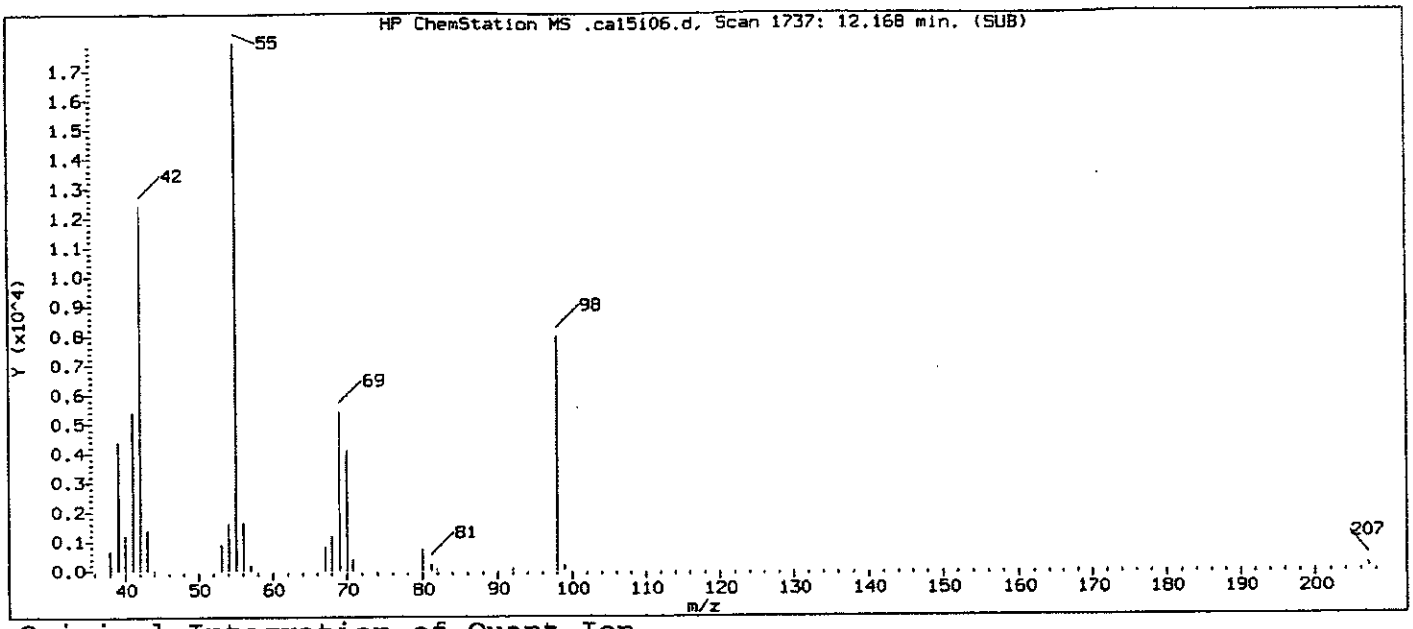
Analyst responsible for change: [signature] 4/27/09

GC/MS audit/management approval: [signature] 4/27/09

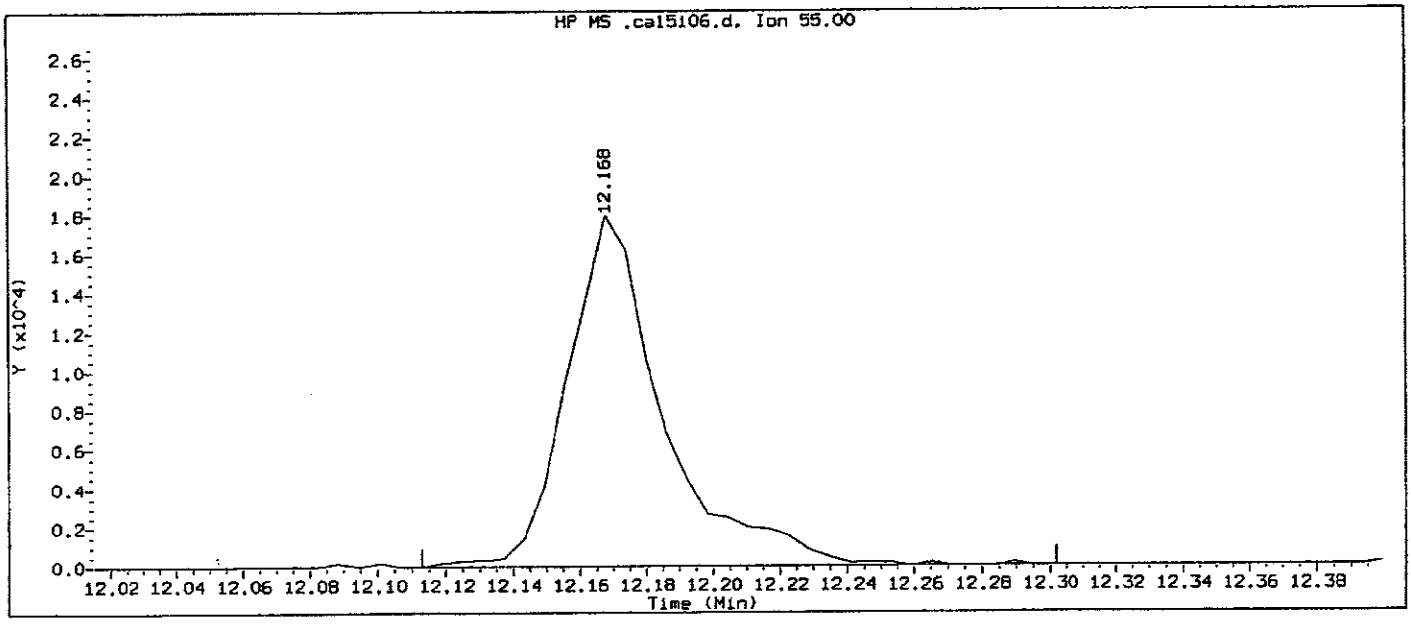
BAD11 02984

Manual Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i06.d, generated on 04/27/2009 at 14:58

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i06.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:15 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:13
Date, time and analyst ID of latest file update: 27-Apr-2009 14:13 klb01296

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	:	121
Compound Name	:	Cyclohexanone
Scan Number	:	1737
Retention Time (minutes)	:	12.168
Quant Ion	:	55
Area	:	35937
Concentration (ug/L)	:	43.1264
Integration start scan	:	1727 Integration stop scan: 1758
Y at integration start	:	0 Y at integration end: 0

BAD11 0285

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i06.d, generated on 04/27/2009 at 14:58

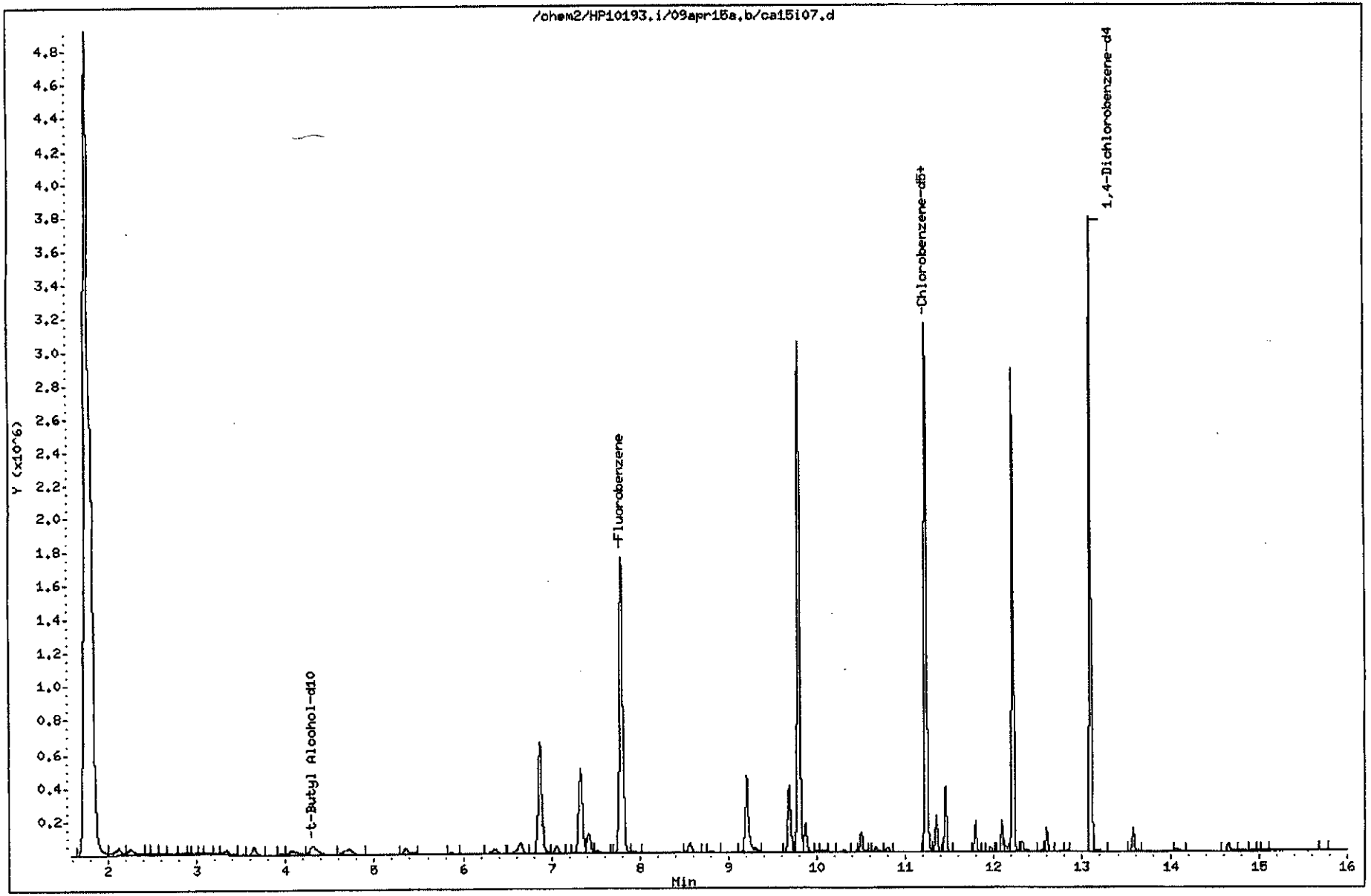
Lmm 4/27/09

Data File: /chem2/HP10193.i/09apr15a.b/ca15i07.d
Date : 15-APR-2009 13:37
Client ID: VSTD0.5
Sample Info: VSTD0.5;VSTD0.5;1;1;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RA2114 8286



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15i07.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:37 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

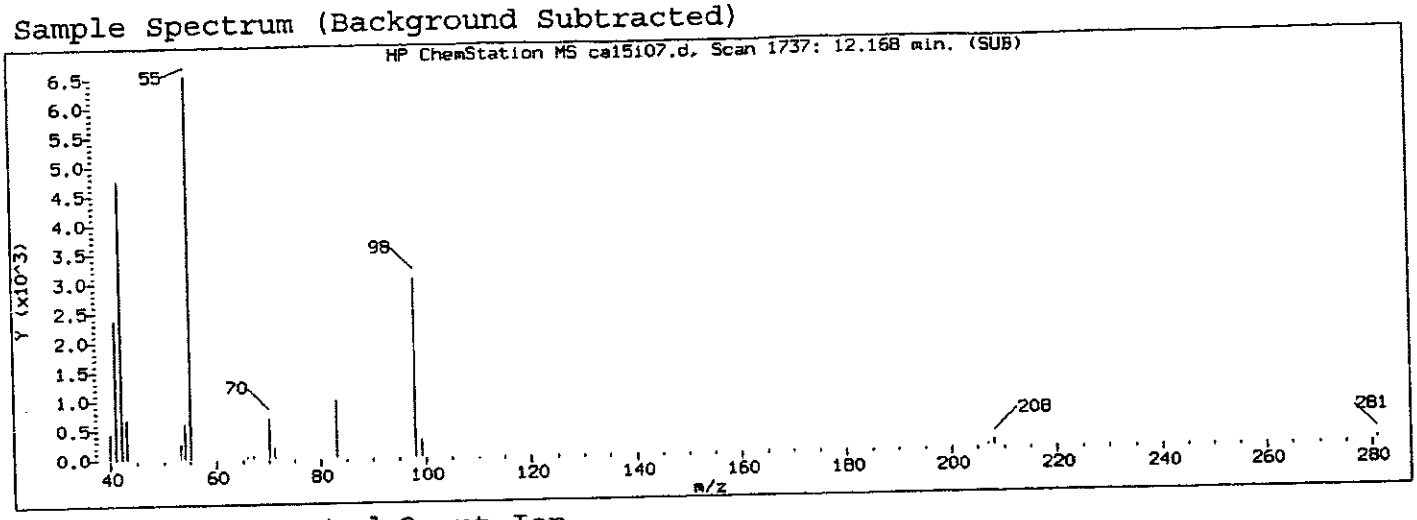
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.085	45	36643	0.525
3) Chloromethane	(1)	2.121	50	34602	0.534
5) Vinyl Chloride	(1)	2.255	62	32190	0.527
20) 1,1-Dichloroethene	(1)	3.645	96	24506	0.509
29) Acetonitrile	(4)	4.078	41	68731	21.734
31)*t-Butyl Alcohol-d10	(4)	4.328	65	100667	50.000
41) 1,1-Dichloroethane	(1)	5.352	63	51592	0.529
44) Vinyl Acetate	(1)	5.431	43	23888	0.597
54) Chloroform	(1)	6.651	83	72882	0.576
74)*Fluorobenzene	(1)	7.791	96	2211421	10.000
80) 1,2-Dichloropropane	(1)	8.565	63	25923	0.509
90) 2-Chloroethyl Vinyl Ether	(1)	9.303	63	7986	0.418
99) Toluene	(2)	9.870	92	80828	0.516
107)*Chlorobenzene-d5	(2)	11.229	117	1707532	10.000
108) Chlorobenzene	(2)	11.253	112	98065	0.532
110) Ethylbenzene	(2)	11.351	91	136762	0.466
117) Bromoform	(2)	11.961	173	12072	0.451
121) Cyclohexanone	(4)	12.168	55	13861M	23.984
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	7405	0.909
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	20890	0.502
136)*1,4-Dichlorobenzene-d4	(3)	13.095	152	971115	10.000
146) Hexachloroethane	(3)	13.576	117	21289	0.445

M = Compound was manually integrated.

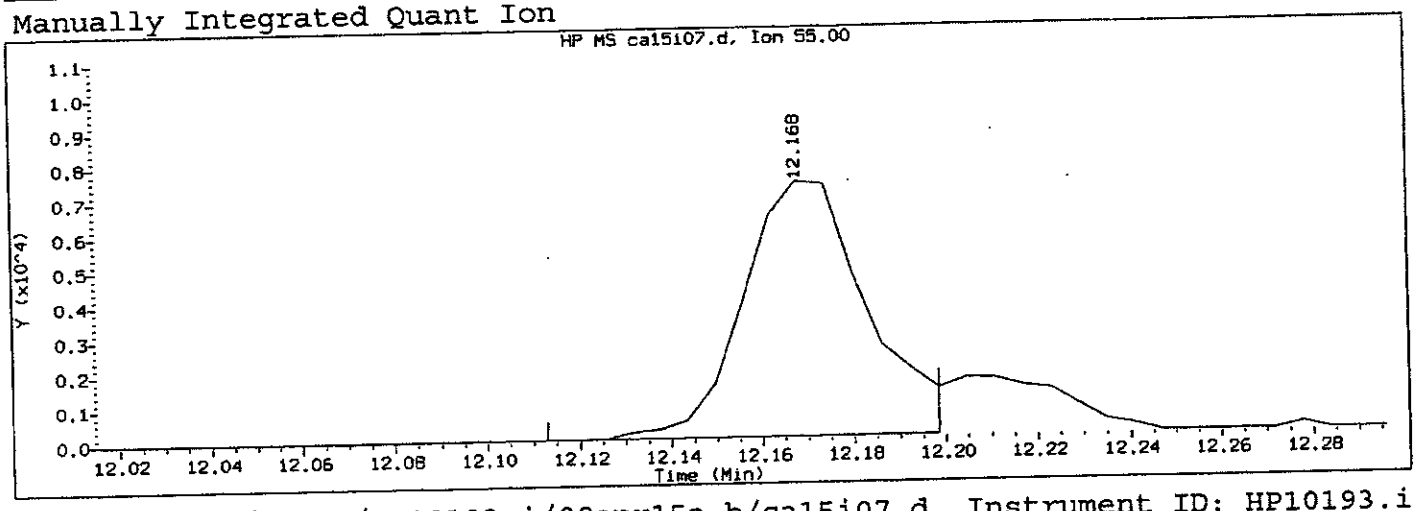
* = Compound is an internal standard.

BAB11 0287

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i07.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:37 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:58
Date, time and analyst ID of latest file update: 27-Apr-2009 14:58 klb01296

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 121
Compound Name : Cyclohexanone
Scan Number : 1737
Retention Time (minutes): 12.168
Quant Ion : 55
Area (flag) : 13861 M
Concentration (ug/L) : 23.9843
Integration start scan : 1727 Integration stop scan: 1741
Y at integration start : 0 Y at integration end: 0

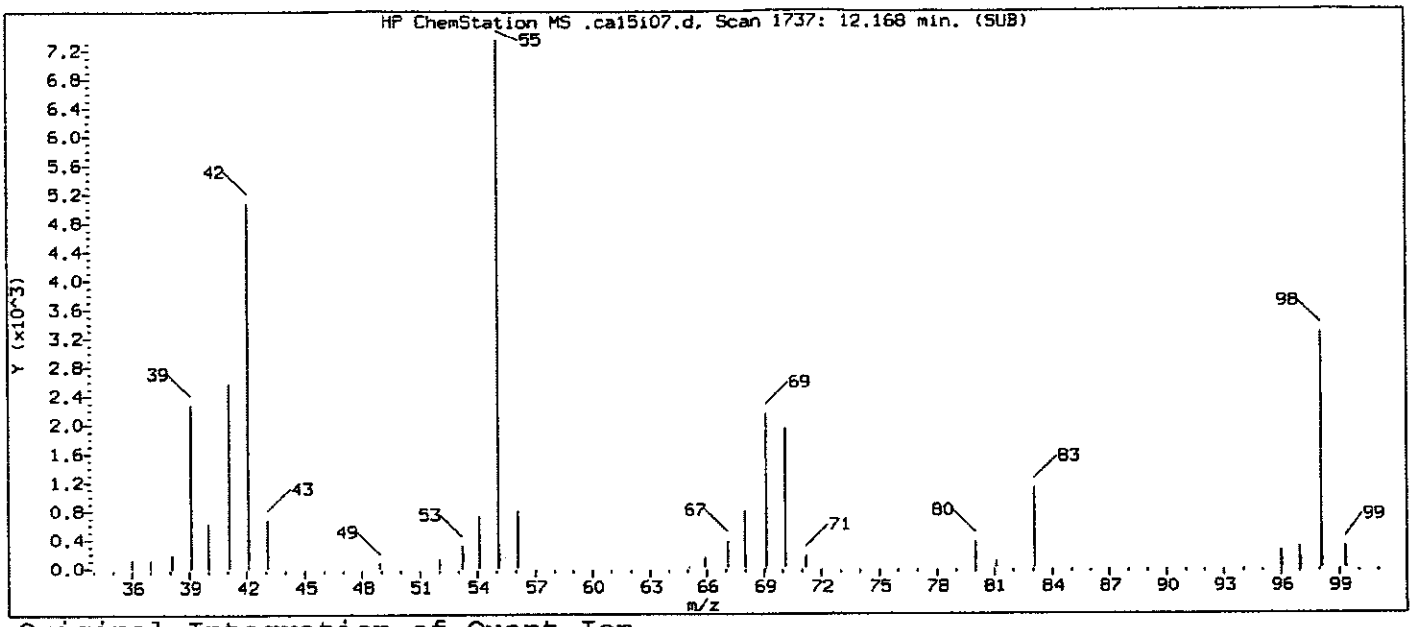
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Susan 4/27/09

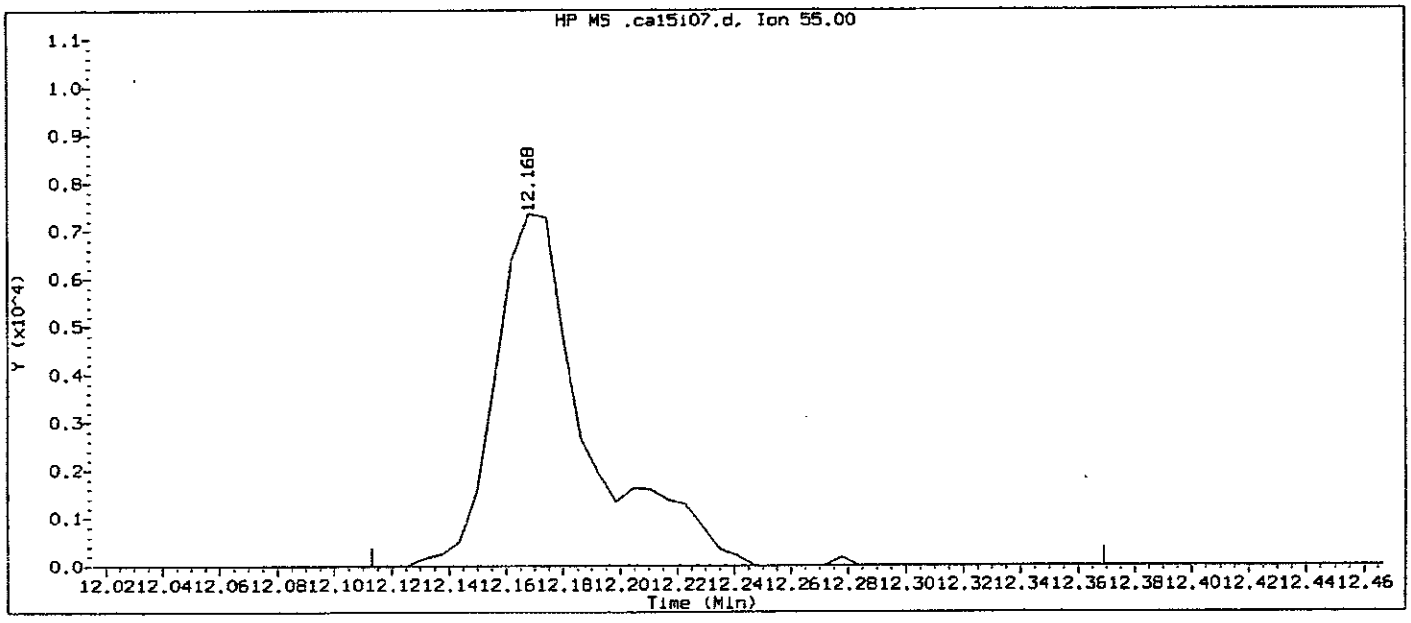
GC/MS audit/management approval: [signature] 4/27/09

RAD11 8289

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15i07.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:37 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 27-APR-2009 14:13
Date, time and analyst ID of latest file update: 27-Apr-2009 14:13 klb01296

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number	:	121
Compound Name	:	Cyclohexanone
Scan Number	:	1737
Retention Time (minutes)	:	12.168
Quant Ion	:	55
Area	:	16574
Concentration (ug/L)	:	21.2108
Integration start scan	:	1727 Integration stop scan: 1769
Y at integration start	:	0 Y at integration end: 0

RAD11 8289

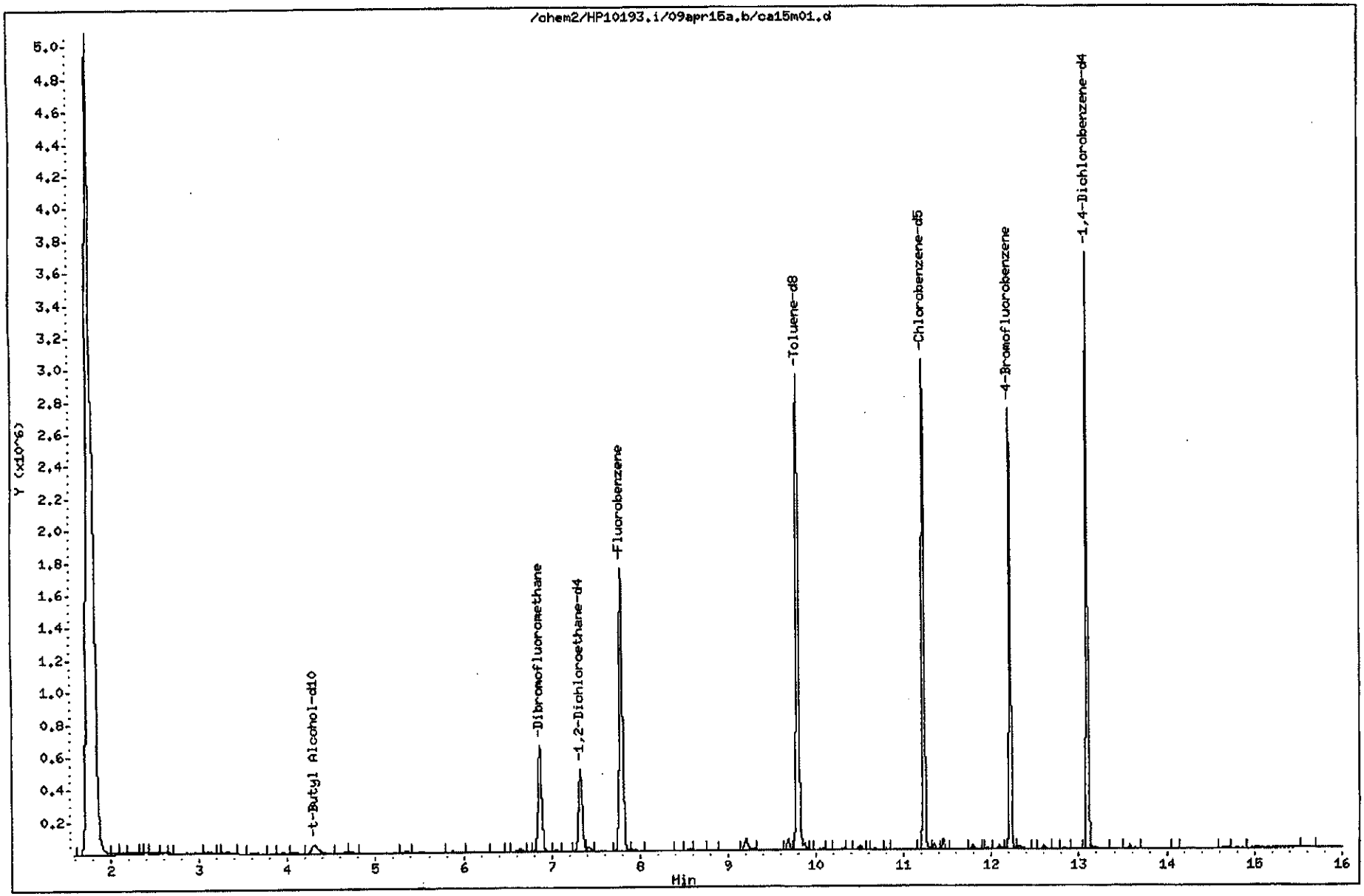
Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15i07.d, generated on 04/27/2009 at 14:58

Data File: /ohem2/HP10193.i/09apr15a.b/ca15m01.d
Date : 15-APR-2009 13:58
Client ID: MDL0.1
Sample Info: MDL0.1;MDL0.1;1;3;MDL/LOQ;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

BAD11 9299



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15m01.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:58 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 17:52 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

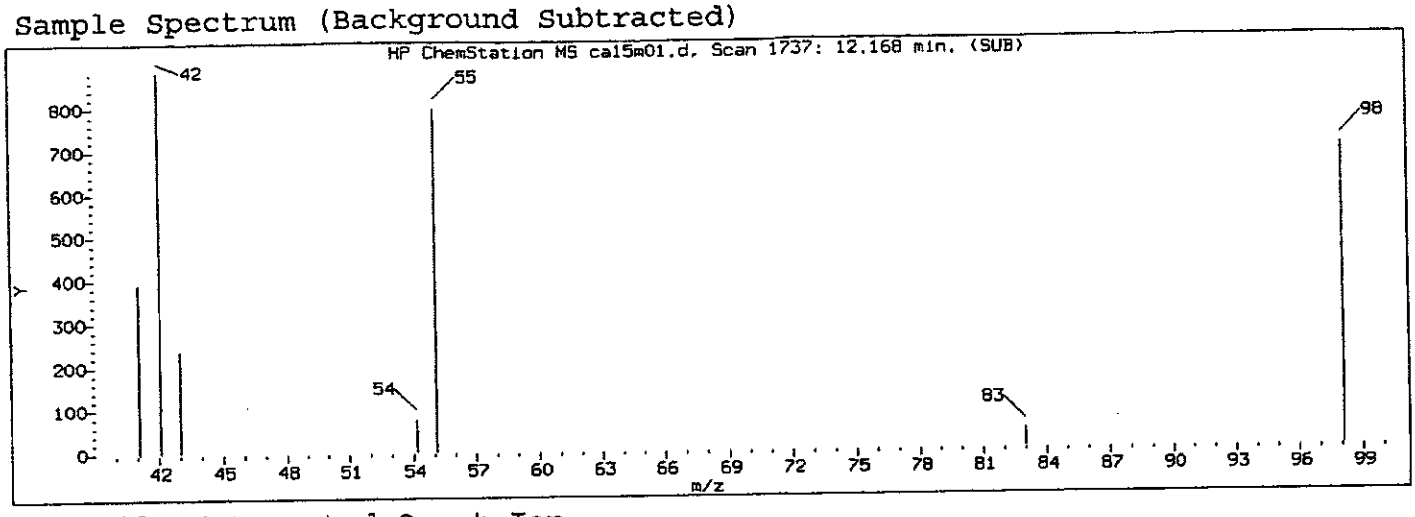
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.091	45	10177	0.149
29) Acetonitrile	(4)	4.054	41	13469	4.333
31)*t-Butyl Alcohol-d10	(4)	4.322	65	96977	50.000
44) Vinyl Acetate	(1)	5.444	43	4357	0.295
74)*Fluorobenzene	(1)	7.791	96	2168905	10.000
90) 2-Chloroethyl Vinyl Ether	(1)	9.309	63	1113	0.059
107)*Chlorobenzene-d5	(2)	11.229	117	1661720	10.000
121) Cyclohexanone	(4)	12.168	55	2350M	9.109
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	1226	0.313
136)*1,4-Dichlorobenzene-d4	(3)	13.095	152	933776	10.000
146) Hexachloroethane	(3)	13.582	117	3674M	0.080

M = Compound was manually integrated.

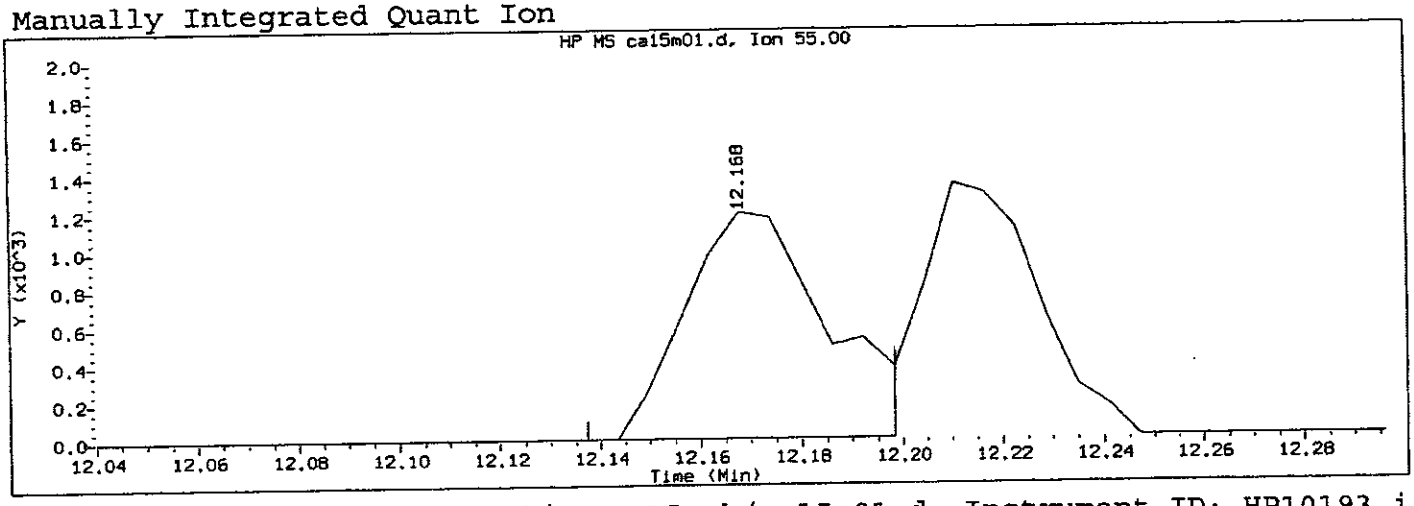
* = Compound is an internal standard.

RAD11 8291

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15m01.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:58 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC-S
Calibration date and time: 27-APR-2009 17:49
Date, time and analyst ID of latest file update: 27-Apr-2009 17:52 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 121
Compound Name : Cyclohexanone
Scan Number : 1737
Retention Time (minutes): 12.168
Quant Ion : 55
Area (flag) : 2350 M
Concentration (ug/L) : 9.1092
Integration start scan : 1731 Integration stop scan: 1741
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

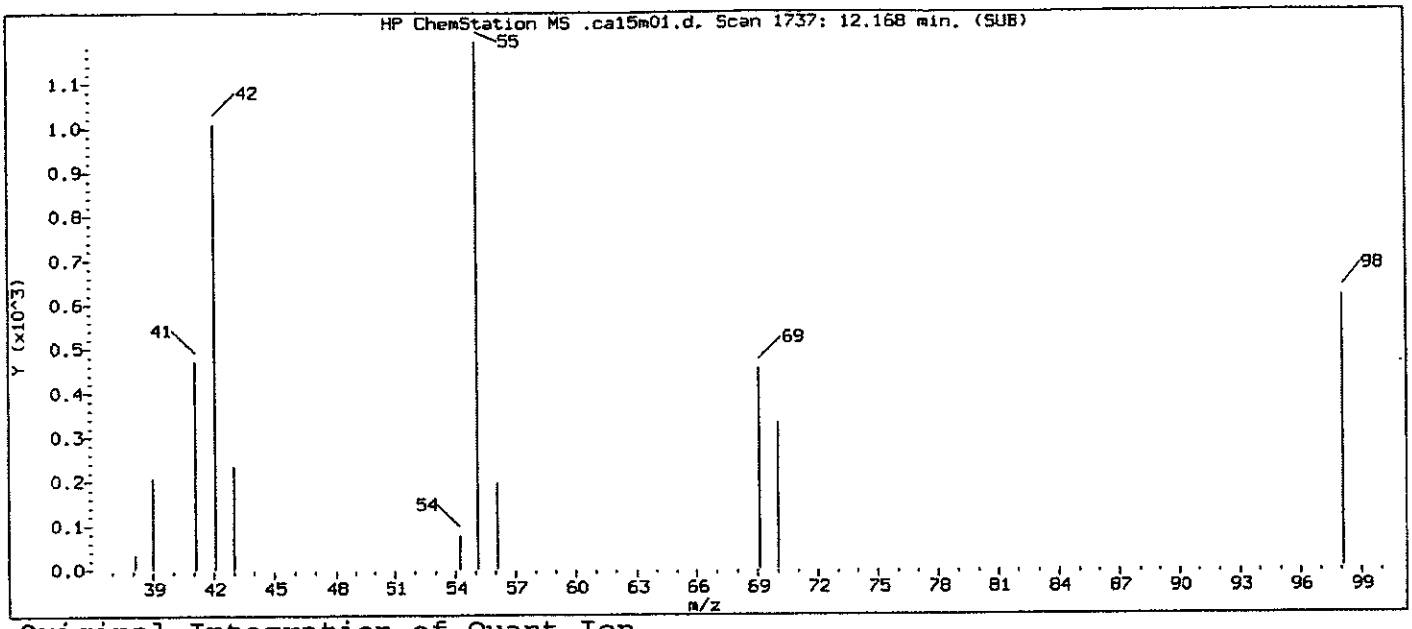
Analyst responsible for change: 4/27/09

GC/MS audit/management approval: 4-27-09

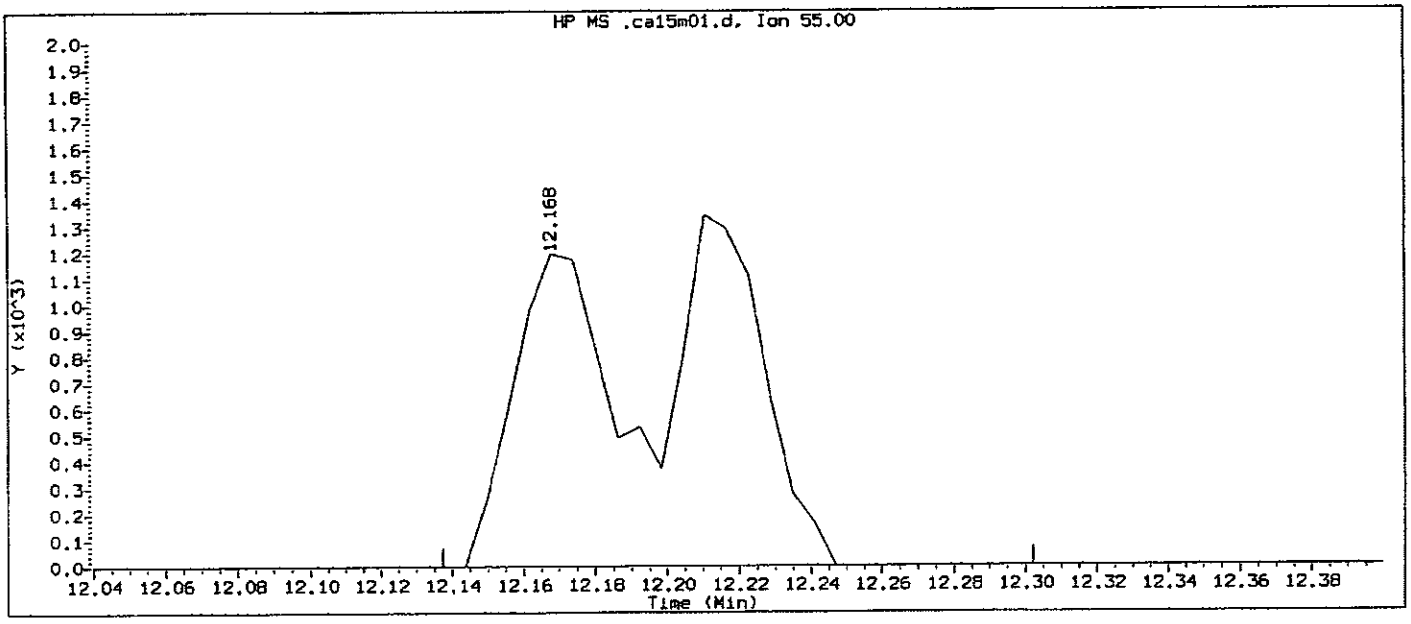
BAB11 8292

Manual Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15m01.d, generated on 04/27/2009 at 17:53

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15m01.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:58 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC
Calibration date and time: 27-APR-2009 14:28
Date, time and analyst ID of latest file update: 27-Apr-2009 14:29 klb01296

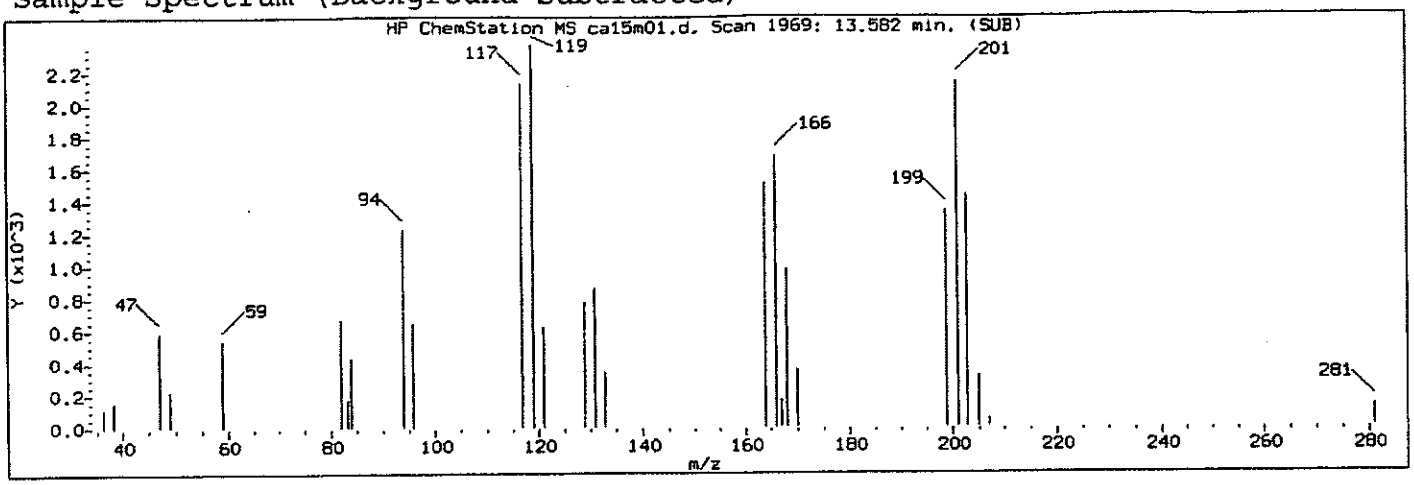
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 121
Compound Name : Cyclohexanone
Scan Number : 1737
Retention Time (minutes): 12.168
Quant Ion : 55
Area : 4402
Concentration (ug/L) : 11.8886
Integration start scan : 1731 Integration stop scan: 1758
Y at integration start : 0 Y at integration end: 0

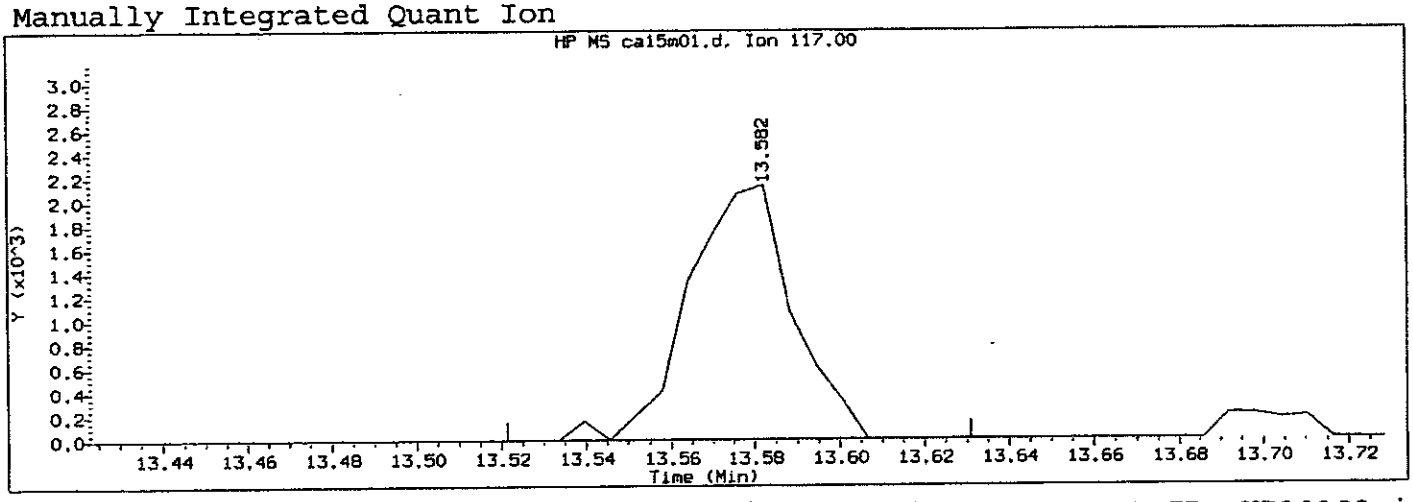
RAB11 8293

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15m01.d, generated on 04/27/2009 at 17:53

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15m01.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:58 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC-S
Calibration date and time: 27-APR-2009 17:49
Date, time and analyst ID of latest file update: 27-Apr-2009 17:52 sew02002

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 146
Compound Name : Hexachloroethane
Scan Number : 1969
Retention Time (minutes): 13.582
Quant Ion : 117
Area (flag) : 3674 M
Concentration (ug/L) : 0.0798
Integration start scan : 1958 Integration stop scan: 1976
Y at integration start : 0 Y at integration end: 0

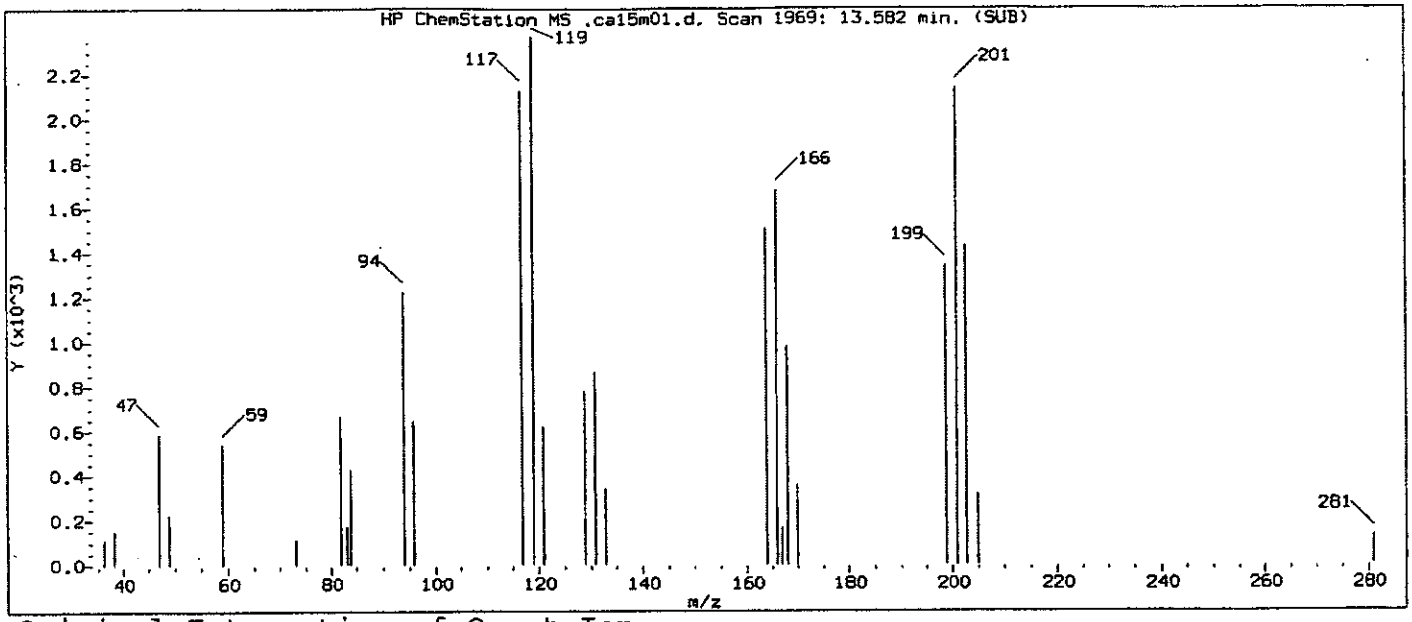
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 4/27/09

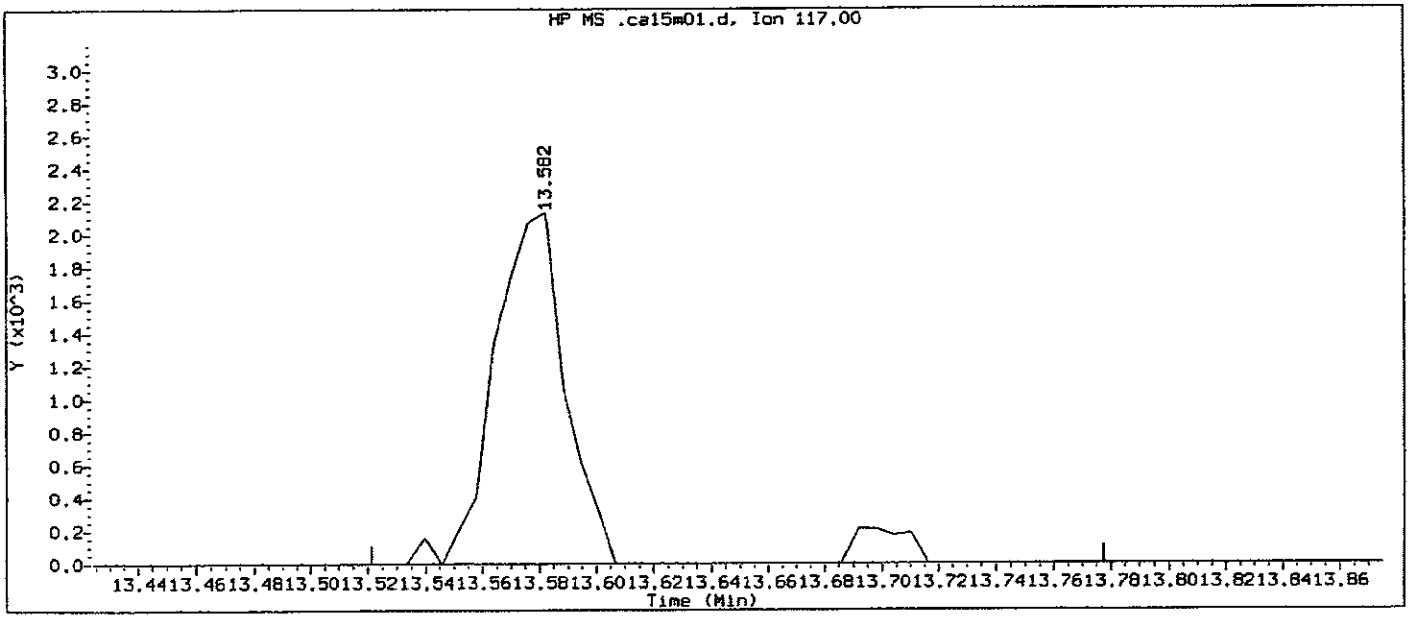
GC/MS audit/management approval: [signature] 4/27/09

RAD11 5294

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15m01.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 13:58 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC
Calibration date and time: 27-APR-2009 14:28
Date, time and analyst ID of latest file update: 27-Apr-2009 14:29 klb01296

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 146
Compound Name : Hexachloroethane
Scan Number : 1969
Retention Time (minutes): 13.582
Quant Ion : 117
Area : 3955
Concentration (ug/L) : 0.0860
Integration start scan : 1958 Integration stop scan: 2000
Y at integration start : 0 Y at integration end: 0

RAD11 8295

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15m01.d, generated on 04/27/2009 at 17:53

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 ICV Date: 04/15/09 Time: 17:28

Lab File ID: ca15cv3.d Init. Calib. Date(s): 04/15/09 04/15/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dimethyl ether	0.3157	0.3064	4.85	5	-3
Acetonitrile	1.6028	1.7555	41.07	37.5	10
Vinyl Acetate	0.2689	0.2930	12.00	12.5	-4
2-Chloroethyl Vinyl Ether	0.0864	0.0998	5.78	5	16
Cyclohexanone	0.3729	0.3509	119.47	125	-4
cis-1,4-Dichloro-2-Butene	5.5232	6.0198	13.90	12.5	11
Hexachloroethane	0.4928	0.4950	5.02	5	0

Average %Drift 7

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane) RADIX 8296
Maximum %Drift for CCC(*)=20%

FORM VII VOA

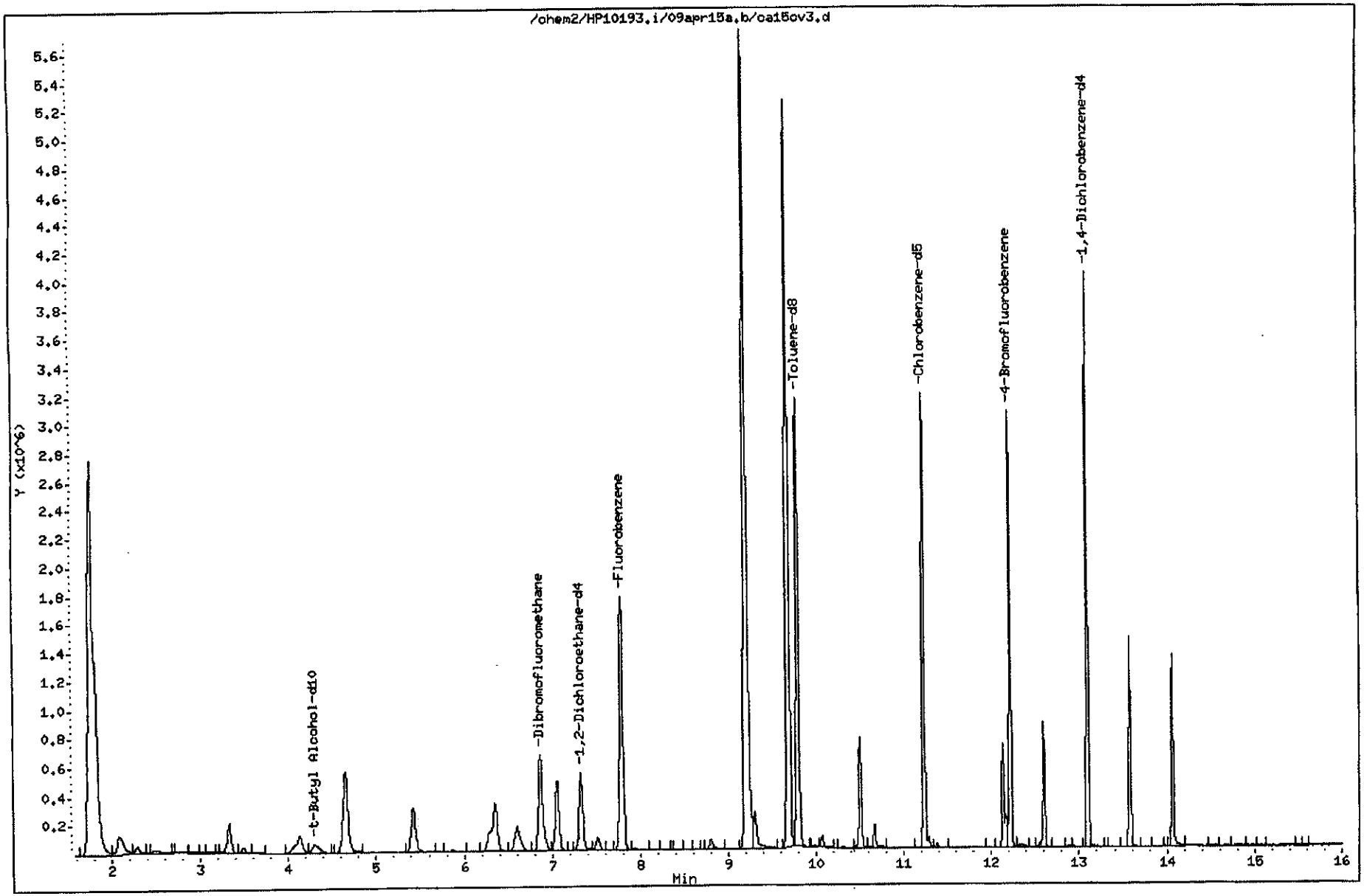
Duran 4/17/09

Data File: /chem2/HP10193.i/09apr15a.b/oa15ov3.d
Date : 15-APR-2009 17:28
Client ID: CSMCV
Sample Info: CSMCV;CSMCV;1;3;LCS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: SEW02002
Column diameter: 0.25

RAD11 0297



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr15a.b/ca15cv3.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 17:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 27-Apr-2009 17:51 sew02002

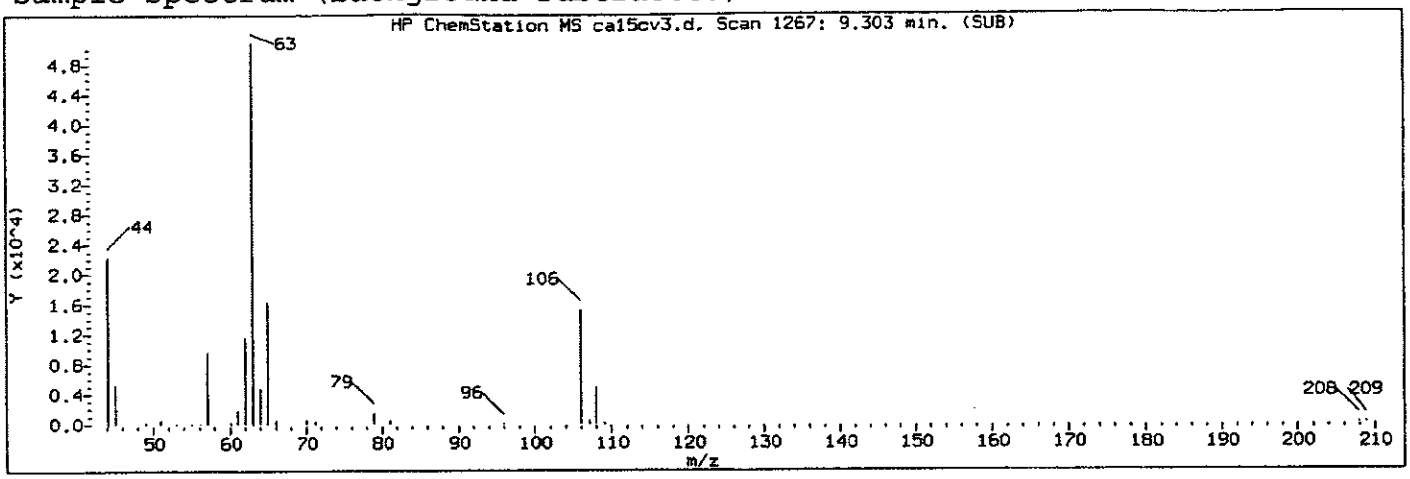
Sample Name: CSMCV Lab Sample ID: CSMCV

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.084	45	343336	4.853
29) Acetonitrile	(4)	4.066	41	148524	41.072
31)*t-Butyl Alcohol-d10	(4)	4.328	65	112805	50.000
44) Vinyl Acetate	(1)	5.419	43	820903	12.002
74)*Fluorobenzene	(1)	7.791	96	2241194	10.000
90) 2-Chloroethyl Vinyl Ether	(1)	9.303	63	111875M	5.781
107)*Chlorobenzene-d5	(2)	11.229	117	1764375	10.000
121) Cyclohexanone	(4)	12.168	55	98969	119.472
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	169765	13.896
136)*1,4-Dichlorobenzene-d4	(3)	13.095	152	994690	10.000
146) Hexachloroethane	(3)	13.576	117	246196	5.023

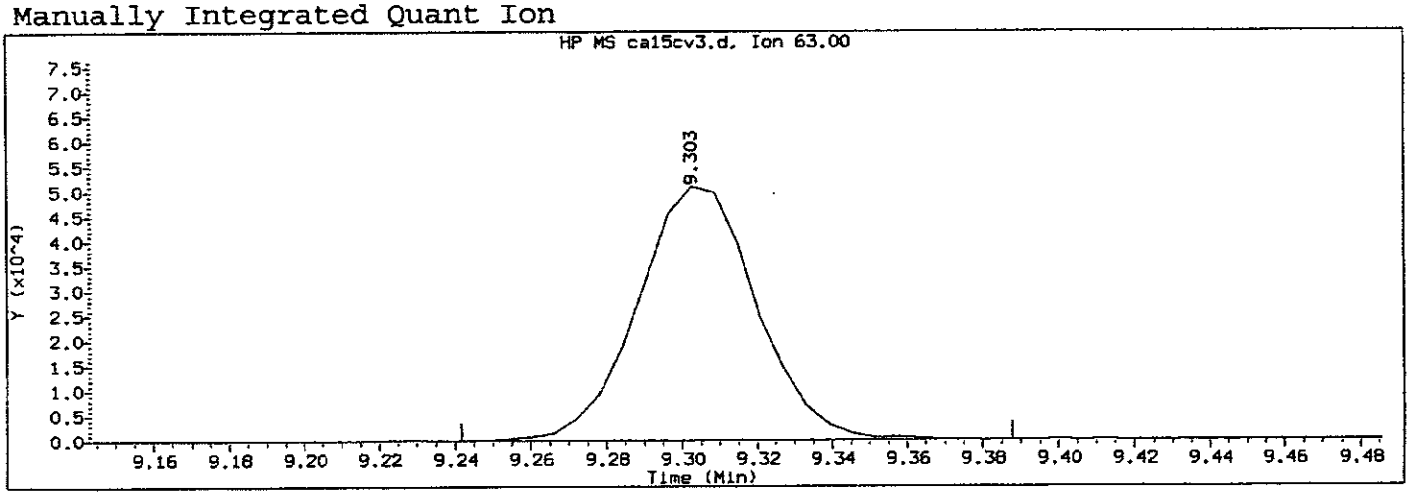
M = Compound was manually integrated.

* = Compound is an internal standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15cv3.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 17:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC-S
Calibration date and time: 27-APR-2009 17:49
Date, time and analyst ID of latest file update: 27-Apr-2009 17:51 sew02002

Sample Name: CSMCV Lab Sample ID: CSMCV

Compound Number	:	90
Compound Name	:	2-Chloroethyl Vinyl Ether
Scan Number	:	1267
Retention Time (minutes)	:	9.303
Quant Ion	:	63
Area (flag)	:	111875 M
Concentration (ug/L)	:	5.7807
Integration start scan	:	1256 Integration stop scan: 1280
Y at integration start	:	0 Y at integration end: 0

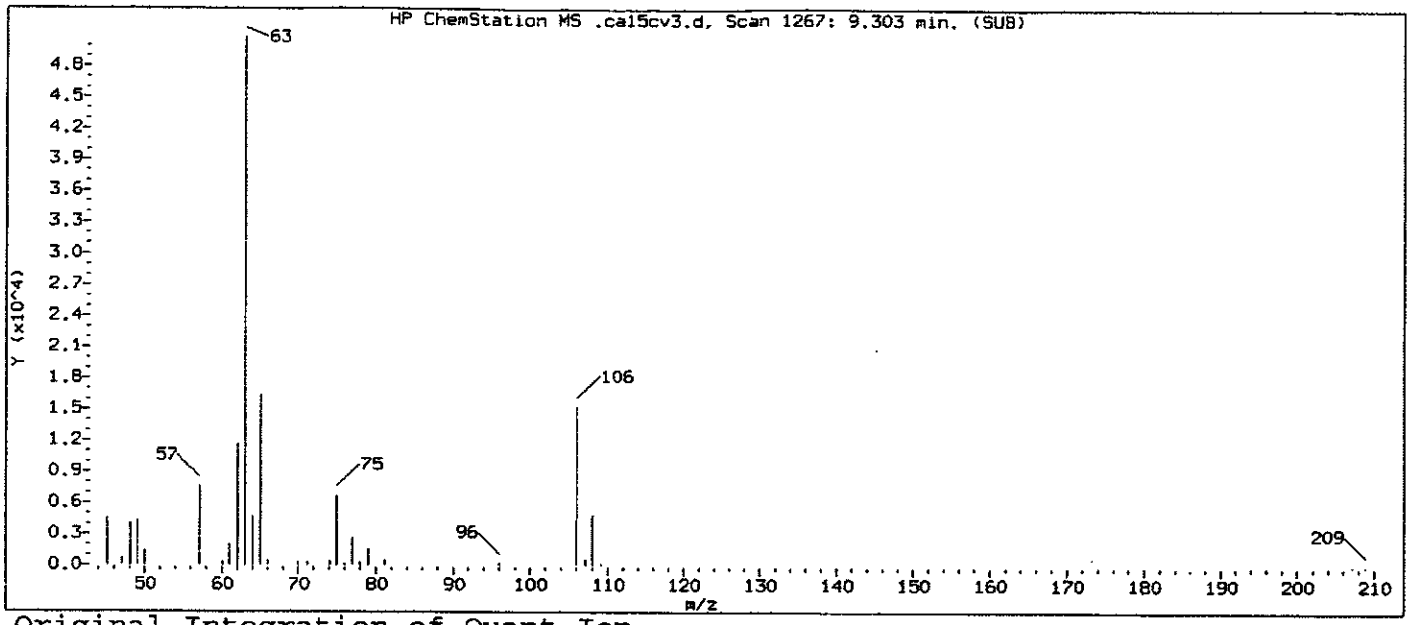
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: Susan 4/27/09

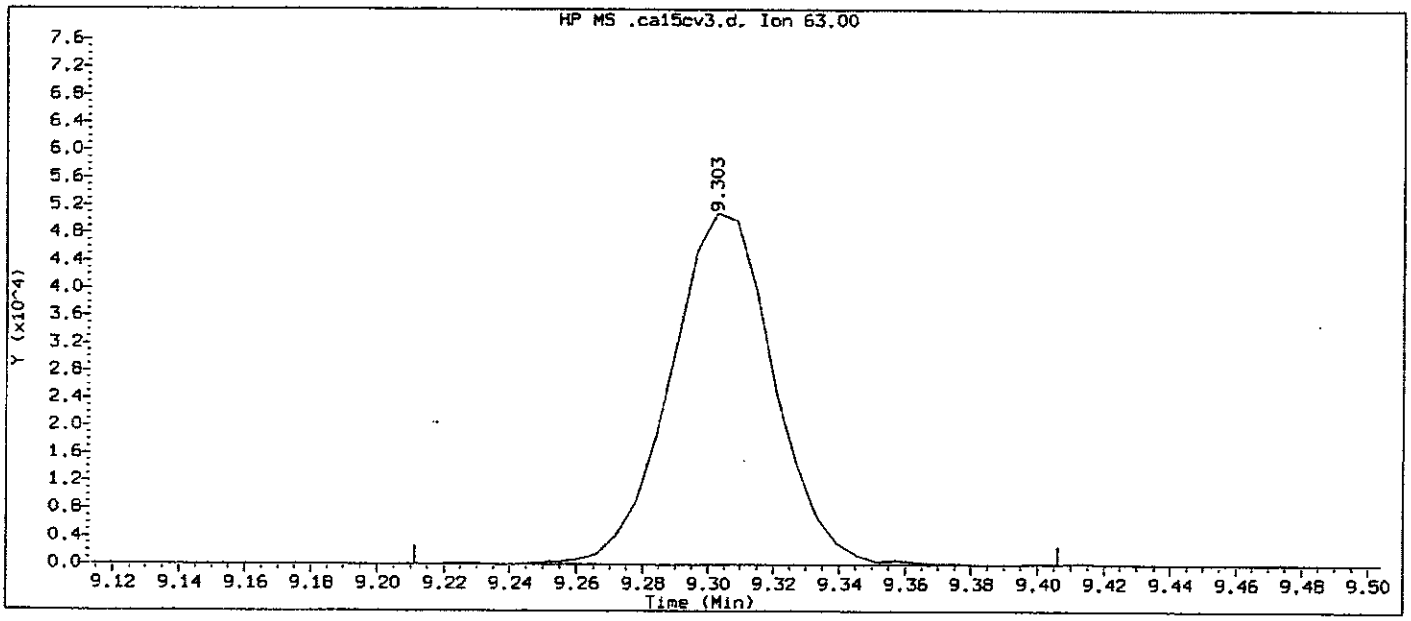
GC/MS audit/management approval: [signature] 4/27/09

RAD11 8299

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr15a.b/ca15cv3.d Instrument ID: HP10193.i
Injection date and time: 15-APR-2009 17:28 Analyst ID: SEW02002

Method used: /chem2/HP10193.i/09apr15a.b/C8260WB25.m Sublist used: SMQC+CYC
Calibration date and time: 27-APR-2009 14:28
Date, time and analyst ID of latest file update: 27-Apr-2009 14:31 klb01296

Sample Name: CSMCV Lab Sample ID: CSMCV

Compound Number	:	90
Compound Name	:	2-Chloroethyl Vinyl Ether
Scan Number	:	1267
Retention Time (minutes)	:	9.303
Quant Ion	:	63
Area	:	112056
Concentration (ug/L)	:	5.7901
Integration start scan	:	1251 Integration stop scan: 1283
Y at integration start	:	0 Y at integration end: 0

BAD11 8388

Original Integration Report for data file /chem2/HP10193.i/09apr15a.b/ca15cv3.d, generated on 04/27/2009 at 17:51

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date: 04/22/09 Time: 10:46

Lab File ID: ca22c01.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.2943	0.2701	4.59	5	-8	
#	Chloromethane	0.2759	0.2587	4.69	5	-6	#
*	Vinyl Chloride	0.2811	0.2580	4.59	5	-8	*
	Bromomethane	0.2094	0.1939	4.63	5	-7	
	Chloroethane	0.1648	0.1534	4.65	5	-7	
	Dichlorofluoromethane	0.4593	0.4357	4.74	5	-5	
	Trichlorofluoromethane	0.4524	0.4219	4.66	5	-7	
	Ethyl Ether	0.1633	0.1660	5.08	5	2	
	Freon 123a	0.2822	0.2692	4.77	5	-5	
	Acrolein	2.2162	2.3533	265.46	250	6	
*	1,1-Dichloroethene	0.1935	0.1820	4.70	5	-6	*
	Freon 113	0.2281	0.2044	4.48	5	-10	
	Acetone	1.0073	1.0624	52.73	50	5	
	Methyl Iodide	0.3822	0.3653	4.78	5	-4	
	Carbon Disulfide	0.6575	0.6166	4.69	5	-6	
	Allyl Chloride	0.3376	0.3328	4.93	5	-1	
	Methyl Acetate	0.0824	0.0776	4.71	5	-6	
	Methylene Chloride	0.2276	0.2167	4.76	5	-5	
	t-Butyl Alcohol	1.2166	1.2799	105.20	100	5	
	Acrylonitrile	3.9553	4.2820	27.06	25	8	
	trans-1,2-Dichloroethene	0.2266	0.2203	4.86	5	-3	
	1,2-Dichloroethene (Total)	0.2339	0.2313	9.88	10	-1	
	Methyl Tertiary Butyl Ether	0.4614	0.4668	5.06	5	1	
	n-Hexane	0.2697	0.2434	4.51	5	-10	
#	1,1-Dichloroethane	0.3793	0.3709	4.89	5	-2	#
	di-Isopropyl Ether	0.6316	0.6438	5.10	5	2	
	2-Chloro-1,3-Butadiene	0.3208	0.3231	5.04	5	1	
	Ethyl t-Butyl Ether	0.5426	0.5564	5.13	5	3	
	2,2-Dichloropropane	0.3308	0.3200	4.84	5	-3	
	cis-1,2-Dichloroethene	0.2412	0.2423	5.02	5	0	
	2-Butanone	4.9607	5.4738	55.17	50	10	
	Propionitrile	1.5550	1.6662	107.15	100	7	
	Methacrylonitrile	5.0400	5.6570	56.12	50	12	
	Bromochloromethane	0.1207	0.1226	5.08	5	2	
	Tetrahydrofuran	1.4092	1.5312	54.33	50	9	
*	Chloroform	0.4134	0.4147	5.02	5	0	*

RAD11 8381

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date: 04/22/09 Time: 10:46

Lab File ID: ca22c01.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1,1,1-Trichloroethane	0.3789	0.3719	4.91	5	-2	
	Cyclohexane	0.3424	0.3187	4.65	5	-7	
	1,1-Dichloropropene	0.3011	0.2952	4.90	5	-2	
	Carbon Tetrachloride	0.3462	0.3365	4.86	5	-3	
	Isobutyl Alcohol	0.4219	0.4621	273.83	250	10	
	Benzene	0.9301	0.9272	4.98	5	0	
	1,2-Dichloroethane	0.2449	0.2552	5.21	5	4	
	1,2-Dichloroethane(mz98)	0.0220	0.0221	5.02	5	0	
	t-Amyl Methyl Ether	0.4770	0.4945	5.18	5	4	
	n-Heptane	0.3119	0.2729	4.37	5	-13	
	n-Butanol	0.3165	0.3546	560.19	500	12	
	Trichloroethene	0.2546	0.2541	4.99	5	0	
	Methylcyclohexane	0.4010	0.4039	5.04	5	1	
*	1,2-Dichloropropane	0.2181	0.2198	5.04	5	1	*
	Dibromomethane	0.1033	0.1065	5.16	5	3	
	1,4-Dioxane	0.0983	0.1089	277.20	250	11	
	Methyl Methacrylate	7.9521	8.4590	5.32	5	6	
	Bromodichloromethane	0.2741	0.2830	5.16	5	3	
	2-Nitropropane	3.0394	3.4482	56.72	50	13	
	cis-1,3-Dichloropropene	0.2950	0.3072	5.21	5	4	
	4-Methyl-2-Pentanone	0.1183	0.1281	51.81	50	4	
*	Toluene	0.8126	0.8332	5.13	5	3	*
	trans-1,3-Dichloropropene	0.3369	0.3586	5.32	5	6	
	Ethyl Methacrylate	0.2123	0.2268	4.91	5	-2	
	1,1,2-Trichloroethane	0.1976	0.2035	5.15	5	3	
	Tetrachloroethene	0.4085	0.4011	4.91	5	-2	
	1,3-Dichloropropane	0.3273	0.3390	5.18	5	4	
	2-Hexanone	0.1082	0.1185	51.82	50	4	
	Dibromochloromethane	0.2616	0.2734	5.23	5	5	
	1,2-Dibromoethane	0.1895	0.1953	5.16	5	3	
#	Chlorobenzene	0.9840	0.9819	4.99	5	0	#
	1,1,1,2-Tetrachloroethane	0.3380	0.3409	5.04	5	1	
*	Ethylbenzene	1.6094	1.6377	5.09	5	2	*
	m+p-Xylene	0.6549	0.6706	10.24	10	2	
	Xylene (Total)	0.6416	0.6587	15.40	15	3	
	o-Xylene	0.6150	0.6351	5.16	5	3	

RAB11 0382

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date: 04/22/09 Time: 10:46

Lab File ID: ca22c01.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Styrene	0.9453	1.0054	5.32	5	6	
#	Bromoform	0.1418	0.1469	5.18	5	4	#
	Isopropylbenzene	1.5612	1.6025	5.13	5	3	
#	1,1,2,2-Tetrachloroethane	0.3643	0.3865	5.31	5	6	#
	Bromobenzene	0.7043	0.7186	5.10	5	2	
	trans-1,4-Dichloro-2-Butene	4.1038	5.3887	64.10	50	28	
	1,2,3-Trichloropropane	0.1194	0.1205	5.05	5	1	
	n-Propylbenzene	3.1918	3.2538	5.10	5	2	
	2-Chlorotoluene	0.6932	0.6949	5.01	5	0	
	4-Chlorotoluene	0.7273	0.7260	4.99	5	0	
	1,3,5-Trimethylbenzene	2.3629	2.4247	5.13	5	3	
	Pentachloroethane	0.4832	0.4829	5.00	5	0	
	tert-Butylbenzene	0.5430	0.5496	5.06	5	1	
	1,2,4-Trimethylbenzene	2.4807	2.5498	5.14	5	3	
	sec-Butylbenzene	2.9690	2.9821	5.02	5	0	
	1,3-Dichlorobenzene	1.5037	1.5023	5.00	5	0	
	p-Isopropyltoluene	2.6933	2.7618	5.13	5	3	
	1,4-Dichlorobenzene	1.5424	1.5201	4.93	5	-1	
	1,2,3-Trimethylbenzene	1.1958	1.1932	4.99	5	0	
	Benzyl Chloride	0.1749	0.1779	4.84	5	-3	
	n-Butylbenzene	1.3253	1.3090	4.94	5	-1	
	1,2-Dichlorobenzene	1.3279	1.3173	4.96	5	-1	
	1,2-Dibromo-3-Chloropropane	2.4536	2.5973	5.29	5	6	
	1,2,4-Trichlorobenzene	0.9226	0.9141	4.95	5	-1	
	Hexachlorobutadiene	0.4975	0.4573	4.60	5	-8	
	Naphthalene	1.3540	1.4113	4.85	5	-3	
	1,2,3-Trichlorobenzene	0.7916	0.7834	4.95	5	-1	
	Dibromofluoromethane	0.2635	0.2479	9.41	10	-6	
	Dibromofluoromethane(mz111)	0.2676	0.2542	9.50	10	-5	
	1,2-Dichloroethane-d4	0.0477	0.0442	9.27	10	-7	
	1,2-Dichloroethane-d4(mz104)	0.0299	0.0286	9.54	10	-5	
	Toluene-d8	1.4158	1.3842	9.78	10	-2	
	Toluene-d8(mz100)	0.9026	0.8784	9.73	10	-3	
	4-Bromofluorobenzene	0.5232	0.4907	9.38	10	-6	
	4-Bromofluorobenzene(mz174)	0.4835	0.4557	9.42	10	-6	

RAD11 8383

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date: 04/22/09 Time: 10:46

Lab File ID: ca22c01.d Init. Calib. Date(s): 04/21/09 04/21/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT

Average %Drift 4

RAD11 #384

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP10193.i/09apr21c.b/ca21i15.d
/chem2/HP10193.i/09apr21c.b/ca21i14.d
/chem2/HP10193.i/09apr21c.b/ca21i13.d
/chem2/HP10193.i/09apr21c.b/ca21i12.d
/chem2/HP10193.i/09apr21c.b/ca21i11.d
/chem2/HP10193.i/09apr21c.b/ca21i10.d

File /chem2/HP10193.i/09apr21c.b/ca21i12.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP10193.i/09apr22a.b/ca22c01.d

RT Summary

Internal Standard Name	File ID: ca22c01.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.310	4.328	Yes
Fluorobenzene	7.785	7.791	Yes
Chlorobenzene-d5	11.229	11.229	Yes
1,4-Dichlorobenzene-d4	13.095	13.095	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ca22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	110379	121276	60638	242552	Yes
Fluorobenzene	2328967	2439874	1219937	4879748	Yes
Chlorobenzene-d5	1751912	1824982	912491	3649964	Yes
1,4-Dichlorobenzene-d4	1086571	1119465	559732	2238930	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RAD11 0385

Comments: _____

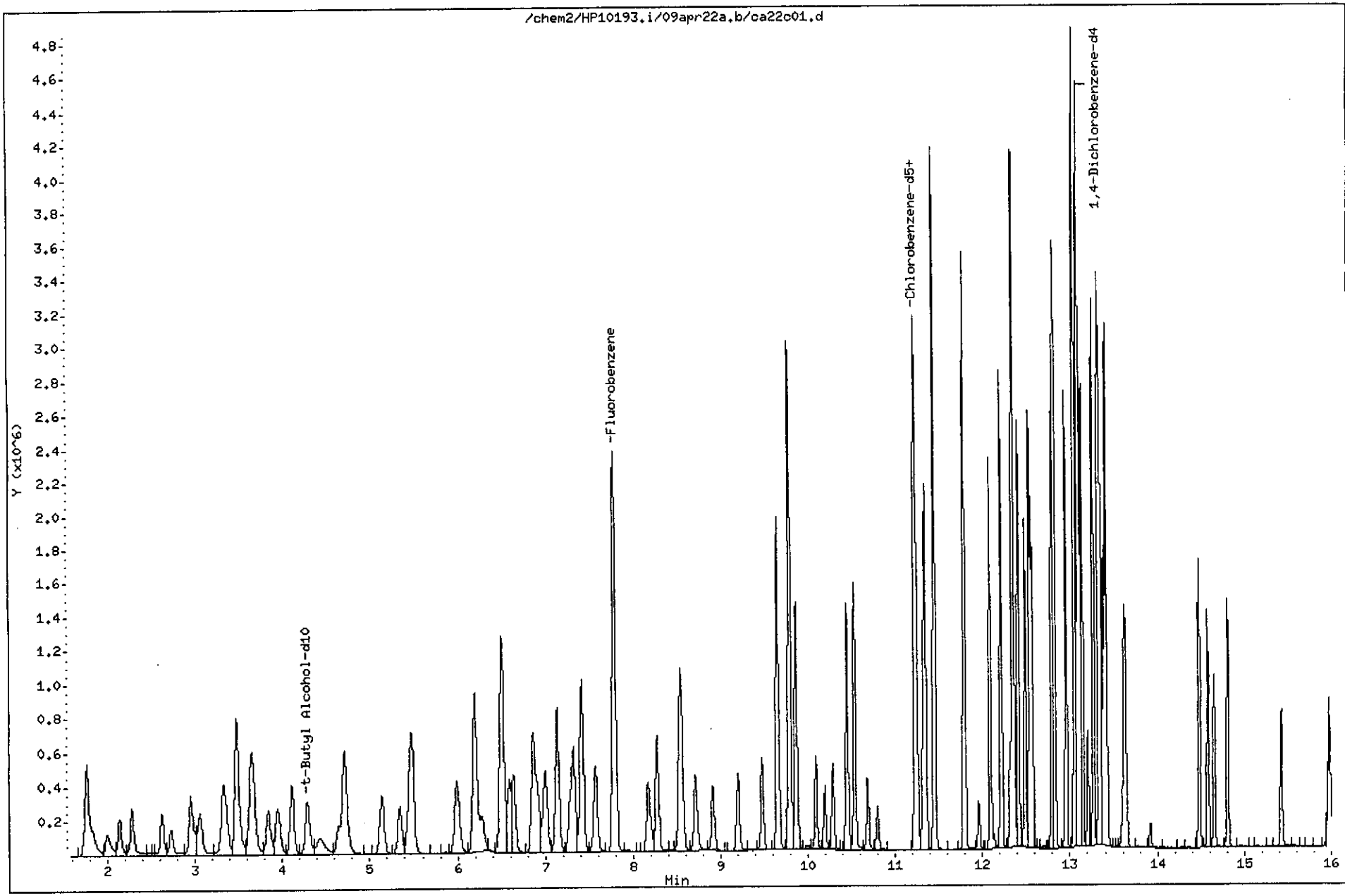
Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d
Date : 22-APR-2009 10:46
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;2;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

ADS1731
4/22/09

RAD11 0386



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	314500	4.589
4) Chloromethane	(1)	2.139	50	301261	4.688
6) Vinyl Chloride	(1)	2.280	62	300386	4.589
8) Bromomethane	(1)	2.621	94	225746	4.630
9) Chloroethane	(1)	2.725	64	178639	4.653
11) Dichlorofluoromethane	(1)	2.950	67	507387	4.743
12) Trichlorofluoromethane	(1)	3.060	101	491306	4.663
15) Ethyl Ether	(1)	3.316	59	193294	5.083
16) Freon 123a	(1)	3.353	67	313460	4.769
18) Acrolein	(4)	3.481	56	1298766	265.462
19) 1,1-Dichloroethene	(1)	3.639	96	211902	4.702
20) Freon 113	(1)	3.664	101	237973	4.479
23) Acetone	(4)	3.670	58	117262M	52.731
26) Methyl Iodide	(1)	3.846	142	425377	4.779
27) Carbon Disulfide	(1)	3.950	76	717989	4.689
29) Allyl Chloride	(1)	4.109	41	387581	4.930
30) Methyl Acetate	(1)	4.127	43	90368	4.710
32) Methylene Chloride	(1)	4.285	84	252380	4.761
33)*t-Butyl Alcohol-d10	(4)	4.310	65	110379	50.000
35) t-Butyl Alcohol	(4)	4.432	59	282552M	105.202
36) Acrylonitrile	(4)	4.639	53	236319	27.064
37) trans-1,2-Dichloroethene	(1)	4.712	96	256568	4.861
40) 1,2-Dichloroethene (Total)	(1)		96	538717	9.883
38) Methyl Tertiary Butyl Ether	(1)	4.724	73	543636	5.059
41) n-Hexane	(1)	5.139	57	283378	4.511
44) 1,1-Dichloroethane	(1)	5.340	63	431903M	4.889
46) di-Isopropyl Ether	(1)	5.456	45	749690	5.096
47) 2-Chloro-1,3-Butadiene	(1)	5.486	53	376269	5.037
48) Ethyl t-Butyl Ether	(1)	5.992	59	647928	5.128
51) 2,2-Dichloropropane	(1)	6.206	77	372643	4.837
49) cis-1,2-Dichloroethene	(1)	6.194	96	282149	5.022
50) 2-Butanone	(4)	6.200	43	604196	55.172
52) Propionitrile	(4)	6.279	54	367828	107.149
53) Methacrylonitrile	(4)	6.504	67	624418	56.121

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 0387

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.523	128	142763	5.078
55) Tetrahydrofuran	(4)	6.590	71	169013	54.330
56) Chloroform	(1)	6.645	83	482870	5.016
60) 1,1,1-Trichloroethane	(1)	6.913	97	433113	4.908
61) Cyclohexane	(1)	6.998	56	371153	4.654
63) 1,1-Dichloropropene	(1)	7.132	75	343785	4.902
64) Carbon Tetrachloride	(1)	7.145	117	391907	4.860
66) Isobutyl Alcohol	(4)	7.279	41	255025	273.829
70) Benzene	(1)	7.413	78	1079662	4.984
72) 1,2-Dichloroethane	(1)	7.425	62	297167	5.209
71) 1,2-Dichloroethane(mz98)	(1)	7.425	98	25682	5.016
74) t-Amyl Methyl Ether	(1)	7.571	73	575878	5.184
75)*Fluorobenzene	(1)	7.785	96	2328967	10.000
76) n-Heptane	(1)	7.791	43	317752	4.375
79) n-Butanol	(4)	8.169	56	391447	560.189
80) Trichloroethene	(1)	8.272	95	295881	4.990
82) Methylcyclohexane	(1)	8.541	83	470360	5.037
83) 1,2-Dichloropropane	(1)	8.559	63	255983	5.041
85) Dibromomethane	(1)	8.711	93	123981	5.155
87) 1,4-Dioxane	(4)	8.742	88	60122	277.197
86) Methyl Methacrylate	(4)	8.717	69	93370	5.319
88) Bromodichloromethane	(1)	8.912	83	329494	5.162
91) 2-Nitropropane	(4)	9.205	41	380606	56.724
93) cis-1,3-Dichloropropene	(1)	9.479	75	357746	5.207
94) 4-Methyl-2-Pentanone	(1)	9.656	43	1491809	51.815
97) Toluene	(2)	9.870	92	729805	5.126
100) trans-1,3-Dichloropropene	(2)	10.095	75	314126	5.322
102) Ethyl Methacrylate	(2)	10.193	69	198642	4.914
103) 1,1,2-Trichloroethane	(2)	10.284	97	178282	5.151
104) Tetrachloroethene	(2)	10.449	166	351351	4.910
105) 1,3-Dichloropropane	(2)	10.455	76	296927	5.178
106) 2-Hexanone	(2)	10.534	43	1038307	51.822
107) Dibromochloromethane	(2)	10.680	129	239501	5.226
108) 1,2-Dibromoethane	(2)	10.796	107	171113	5.155

RAD11 8389

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
109) *Chlorobenzene-d5	(2)	11.229	117	1751912	10.000
110) Chlorobenzene	(2)	11.254	112	860113	4.989
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	298642	5.043
112) Ethylbenzene	(2)	11.351	91	1434562	5.088
113) m+p-Xylene	(2)	11.449	106	1174787	10.239
116) Xylene (Total)	(2)		106	1731068	15.402
117) o-Xylene	(2)	11.790	106	556281	5.163
118) Styrene	(2)	11.796	104	880681	5.318
119) Bromoform	(2)	11.955	173	128652	5.179
120) Isopropylbenzene	(2)	12.089	105	1403697	5.132
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	210000	5.305
126) Bromobenzene	(3)	12.345	156	390395	5.102
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	594802	64.100
128) 1,2,3-Trichloropropane	(3)	12.357	110	65467	5.045
132) n-Propylbenzene	(3)	12.412	91	1767768	5.097
133) 2-Chlorotoluene	(3)	12.491	126	377515	5.012
135) 4-Chlorotoluene	(3)	12.570	126	394400	4.991
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	1317311	5.131
137) Pentachloroethane	(3)	12.820	167	262338	4.996
136) tert-Butylbenzene	(3)	12.796	134	298584	5.061
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	1385293	5.139
139) sec-Butylbenzene	(3)	12.954	105	1620124	5.022
140) 1,3-Dichlorobenzene	(3)	13.052	146	816189	4.995
142) *1,4-Dichlorobenzene-d4	(3)	13.095	152	1086571	10.000
141) p-Isopropyltoluene	(3)	13.052	119	1500449	5.127
143) 1,4-Dichlorobenzene	(3)	13.113	146	825849	4.928
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	648256	4.989
145) Benzyl Chloride	(3)	13.204	126	96633	4.843
146) n-Butylbenzene	(3)	13.345	92	711136	4.938
147) 1,2-Dichlorobenzene	(3)	13.387	146	715678	4.960
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	28669	5.293
152) 1,2,4-Trichlorobenzene	(3)	14.478	180	496605	4.954
153) Hexachlorobutadiene	(3)	14.582	225	248443	4.596
154) Naphthalene	(3)	14.655	128	766731	4.850

RAD11 0389

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

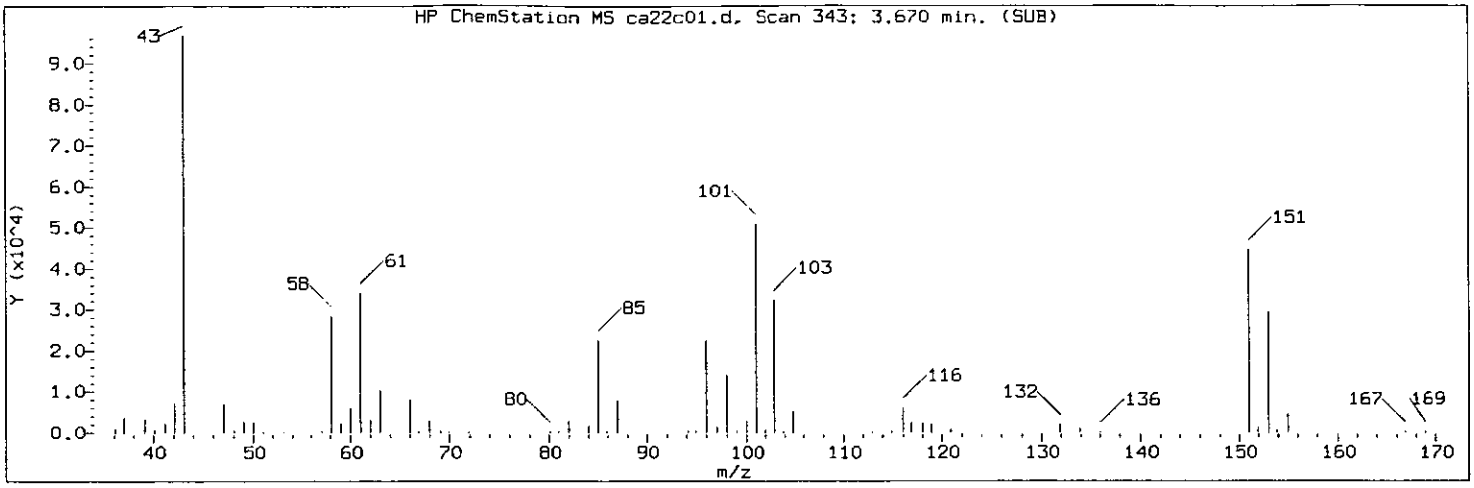
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	425631	4.949
58)$Dibromofluoromethane	(1)	6.864	113	577408	9.409
59)$Dibromofluoromethane(mz111)	(1)	6.864	111	592097	9.500
69)$1,2-Dichloroethane-d4	(1)	7.327	102	102902	9.270
68)$1,2-Dichloroethane-d4(mz104)	(1)	7.321	104	66512	9.544
95)$Toluene-d8	(2)	9.790	98	2424996	9.777
96)$Toluene-d8(mz100)	(2)	9.790	100	1538910	9.732
123)$4-Bromofluorobenzene	(2)	12.217	95	859733M	9.379
124)$4-Bromofluorobenzene(mz174)	(2)	12.217	174	798281	9.424

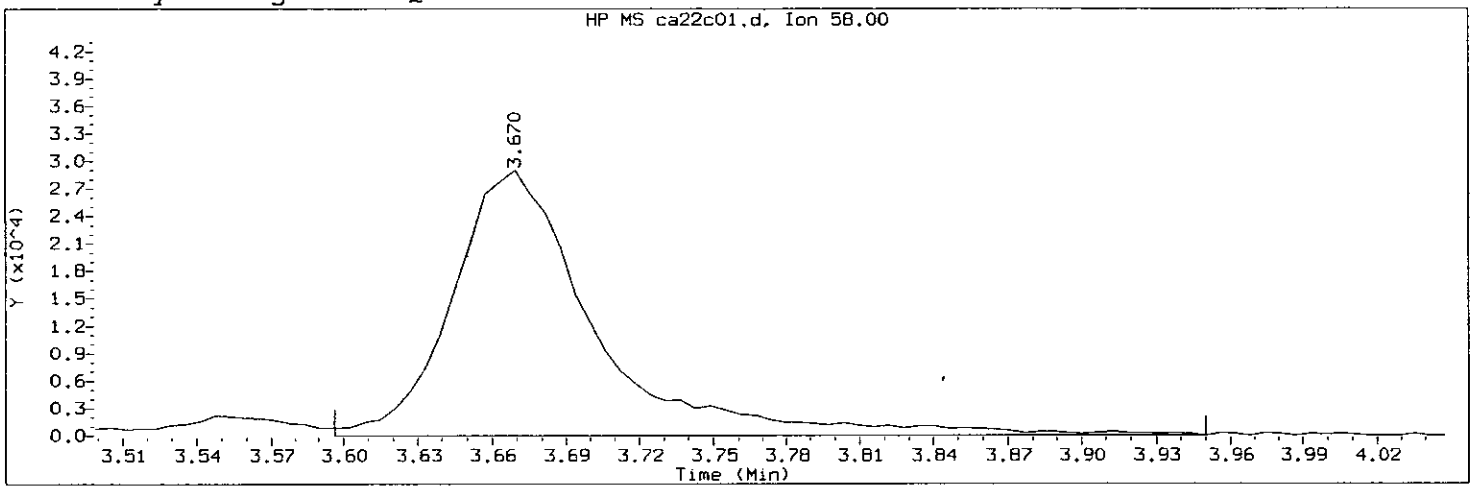
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 23
Compound Name : Acetone
Scan Number : 343
Retention Time (minutes): 3.670
Quant Ion : 58
Area (flag) : 117262 M
Concentration (ug/L) : 52.7311
Integration start scan : 330 Integration stop scan: 388
Y at integration start : 0 Y at integration end: 0

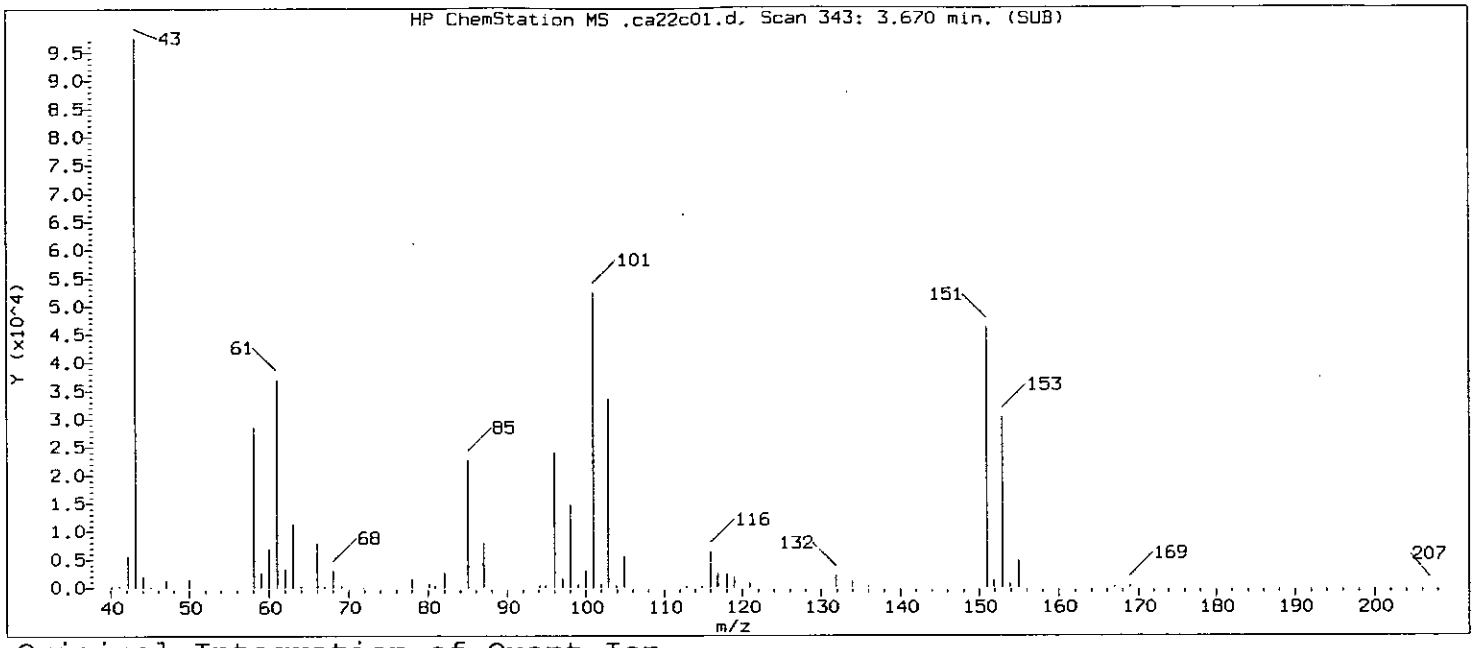
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Sue Ta 4/22/09

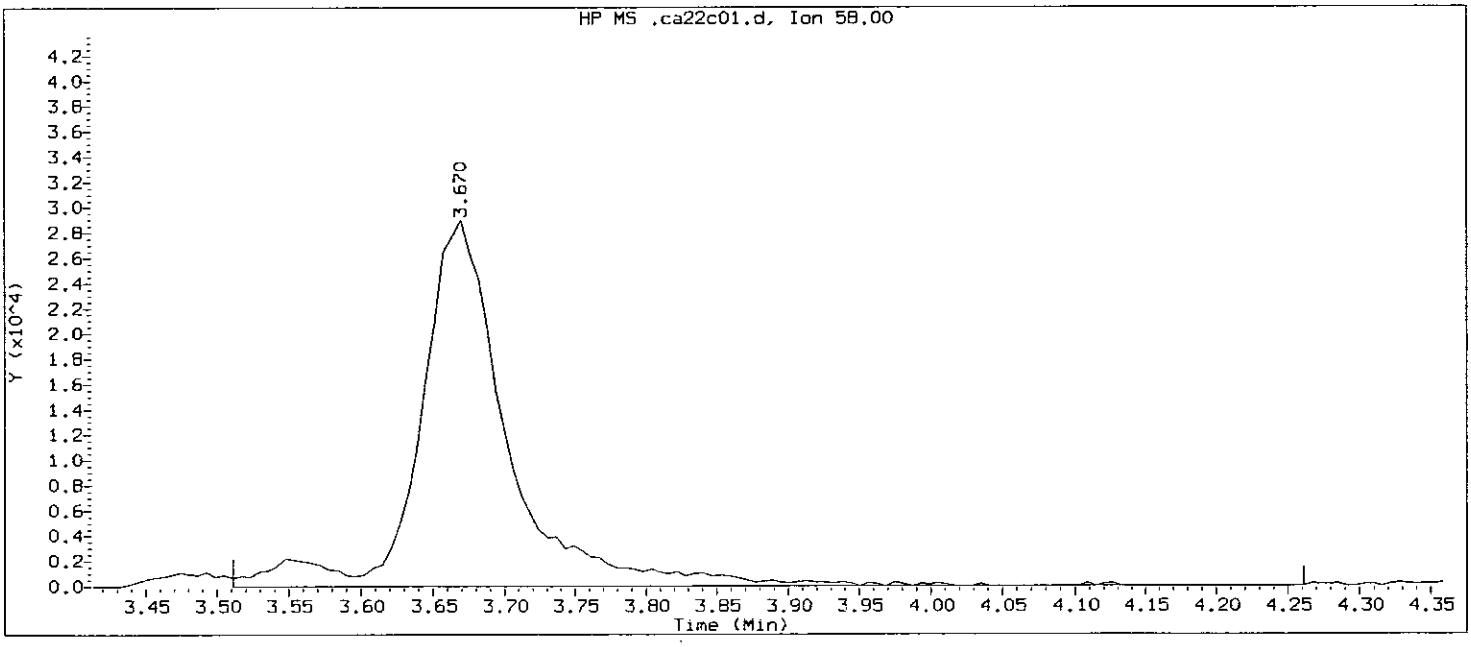
RAD11 8311

GC/MS audit/management approval: 4-24-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 11:05
Date, time and analyst ID of latest file update: 22-Apr-2009 11:05 ads01731

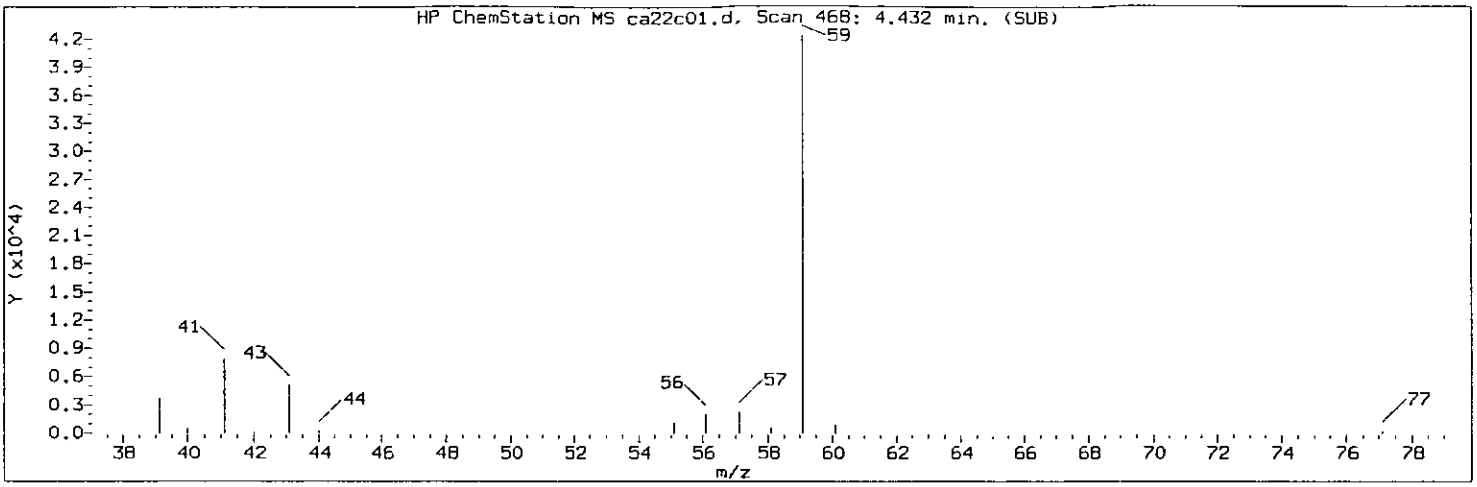
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 23
Compound Name : Acetone
Scan Number : 343
Retention Time (minutes): 3.670
Quant Ion : 58
Area : 125183
Concentration (ug/L) : 56.2933
Integration start scan : 316 Integration stop scan: 439
Y at integration start : 0 Y at integration end: 0

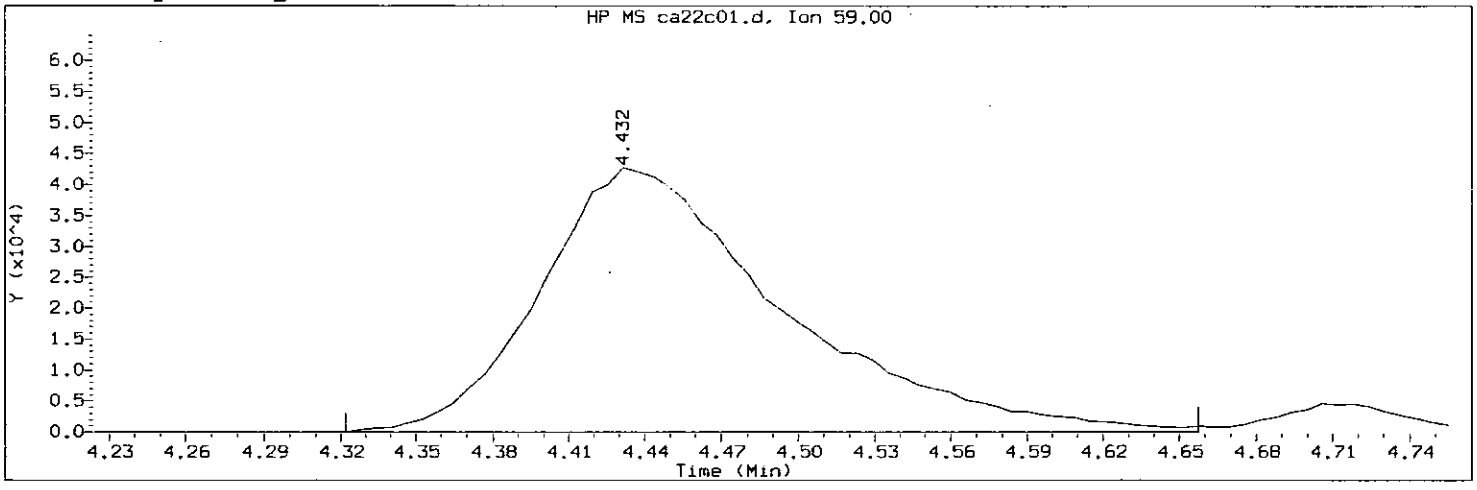
RAD11 8312

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22c01.d, generated on 04/22/2009 at 18:06

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 35
Compound Name : t-Butyl Alcohol
Scan Number : 468
Retention Time (minutes): 4.432
Quant Ion : 59
Area (flag) : 282552 M
Concentration (ug/L) : 105.2025
Integration start scan : 449 Integration stop scan: 504
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

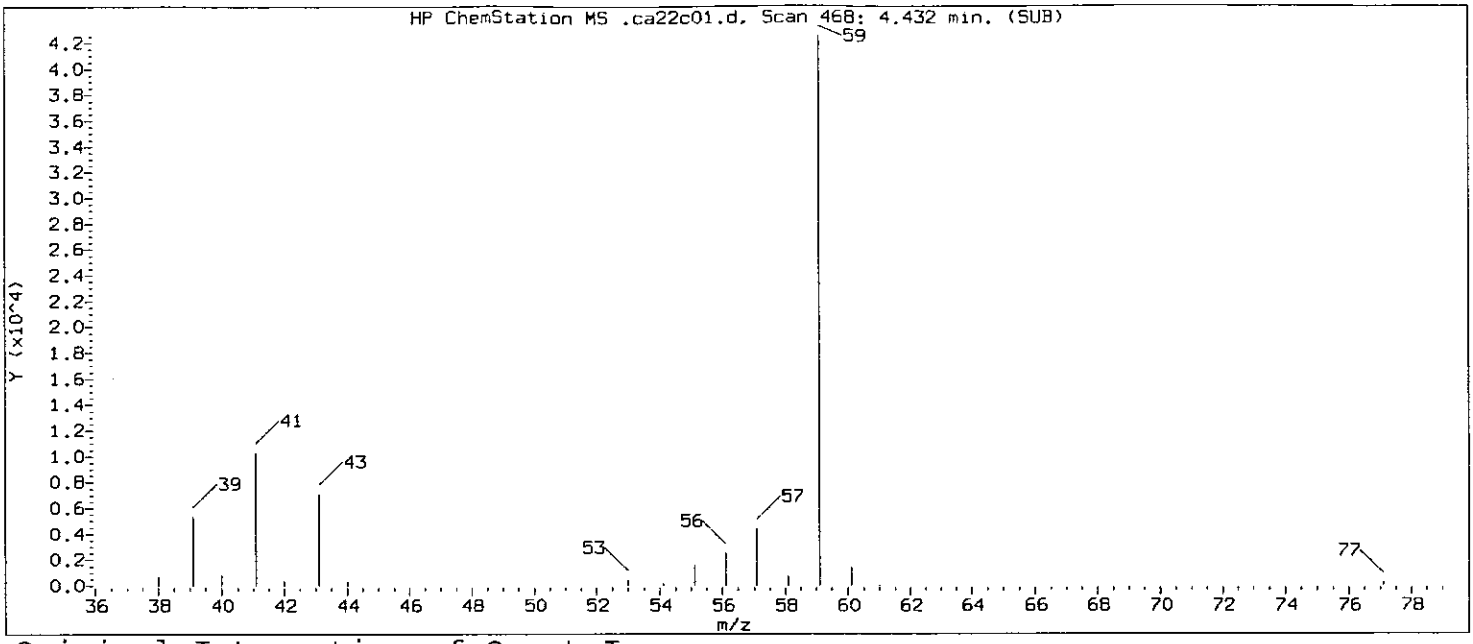
Analyst responsible for change: Susan 4/22/09

GC/MS audit/management approval: [signature] 4/24/09

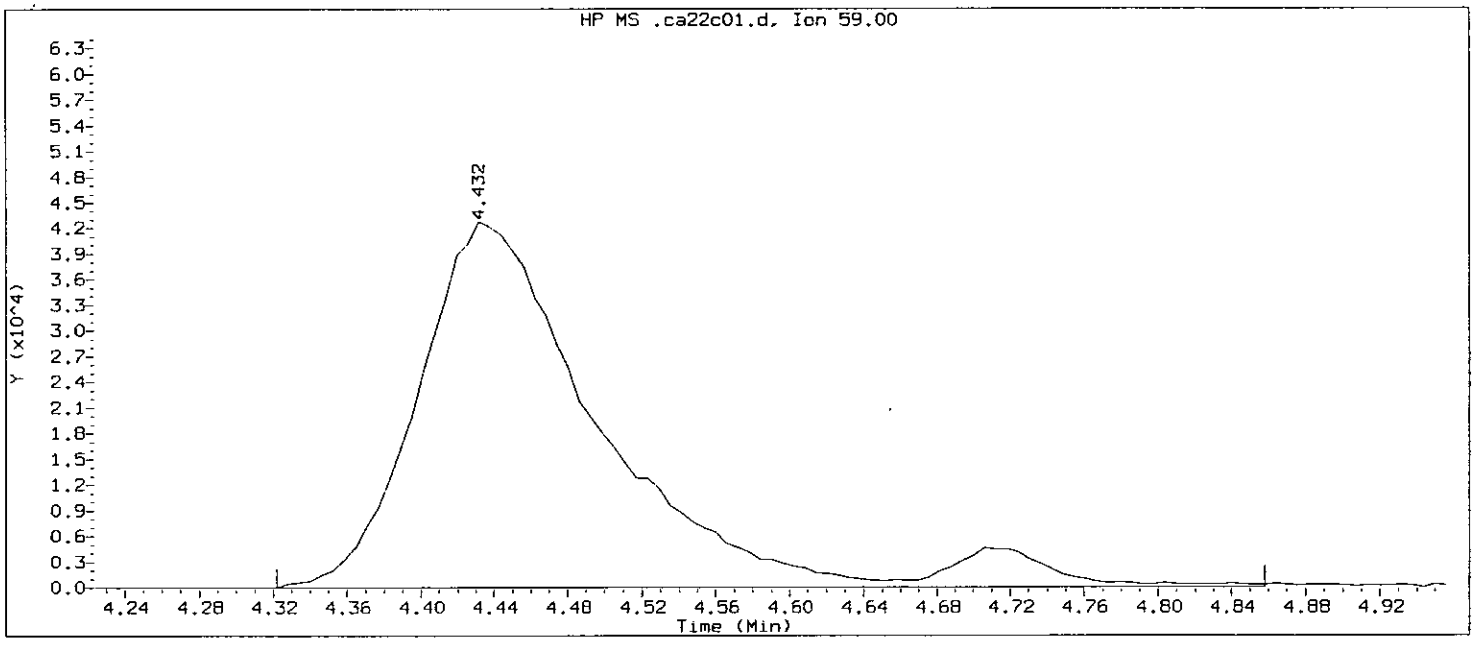
RAD11 8313

Manual Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22c01.d, generated on 04/22/2009 at 18:06

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 11:05
Date, time and analyst ID of latest file update: 22-Apr-2009 11:05 ads01731

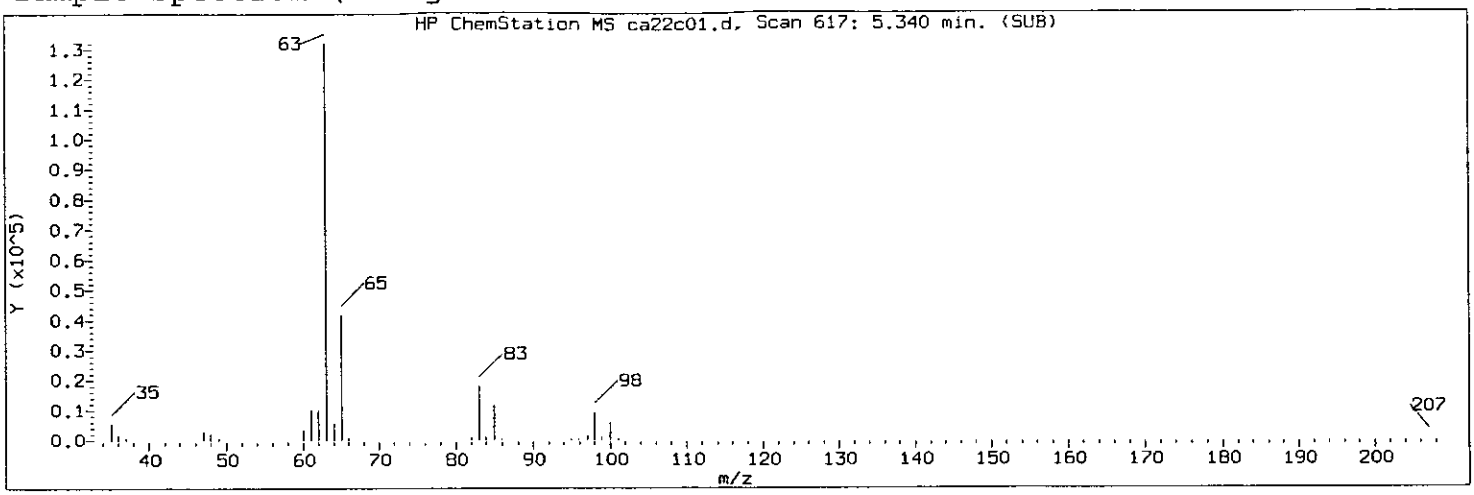
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 35
Compound Name : t-Butyl Alcohol
Scan Number : 468
Retention Time (minutes): 4.432
Quant Ion : 59
Area : 300806
Concentration (ug/L) : 111.9990
Integration start scan : 449 Integration stop scan: 537
Y at integration start : 0 Y at integration end: 0

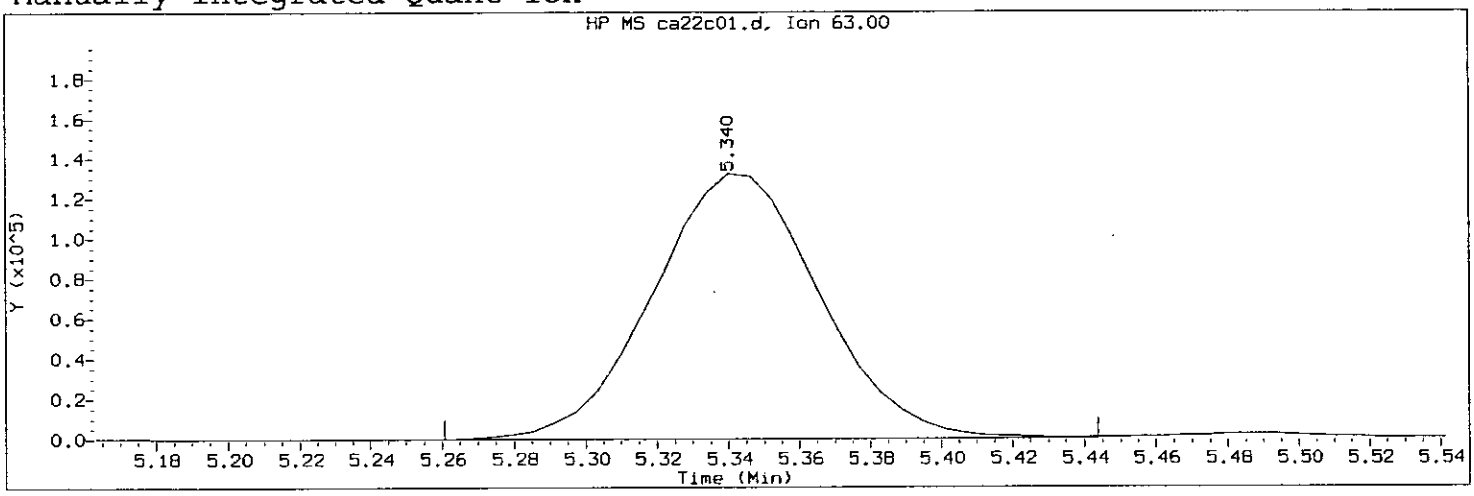
BAD11 8314

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22c01.d, generated on 04/22/2009 at 18:06

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 44
Compound Name : 1,1-Dichloroethane
Scan Number : 617
Retention Time (minutes): 5.340
Quant Ion : 63
Area (flag) : 431903 M
Concentration (ug/L) : 4.8887
Integration start scan : 603 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

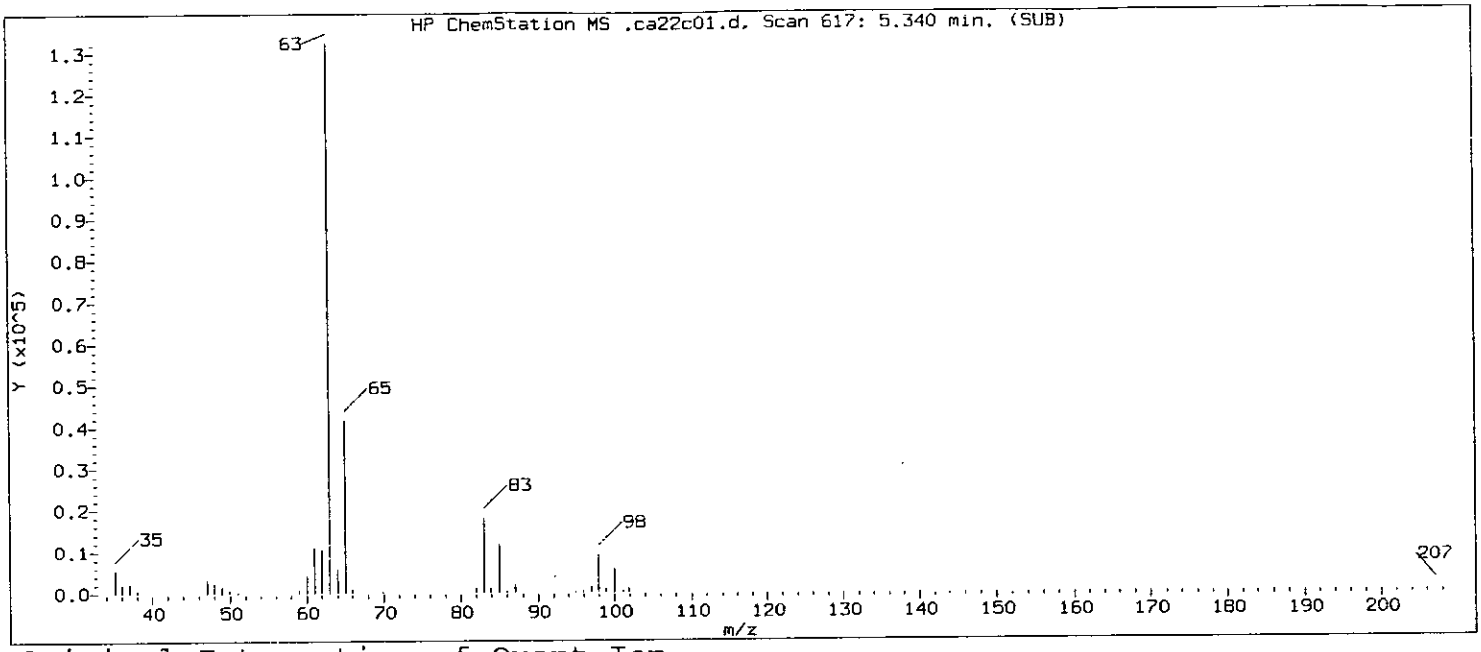
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 4/22/09

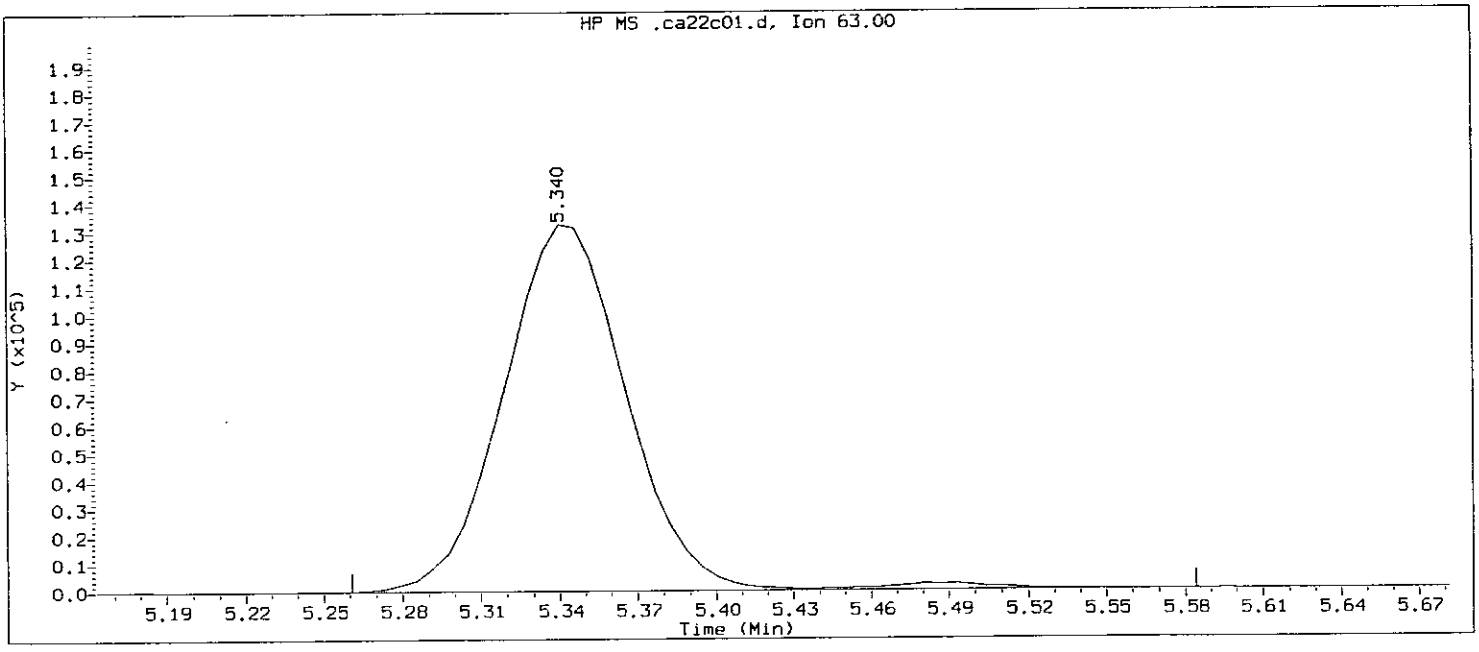
RAD11 0315

GC/MS audit/management approval: [signature] 4/24/09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 11:05
Date, time and analyst ID of latest file update: 22-Apr-2009 11:05 ads01731

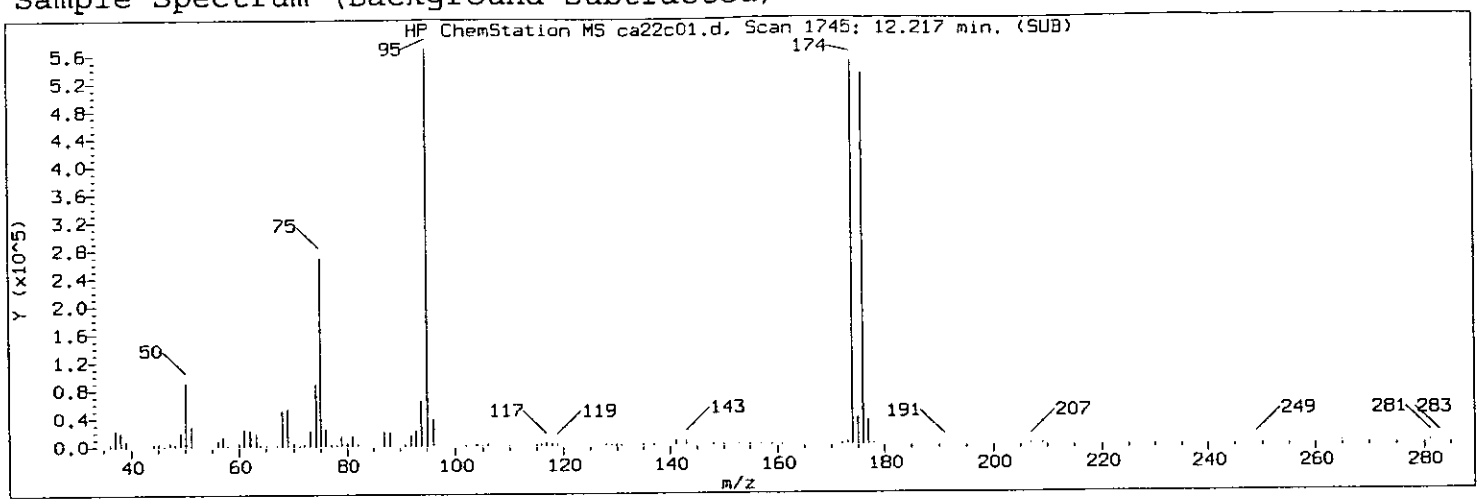
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 44
Compound Name : 1,1-Dichloroethane
Scan Number : 617
Retention Time (minutes): 5.340
Quant Ion : 63
Area : 438656
Concentration (ug/L) : 4.9652
Integration start scan : 603 Integration stop scan: 656
Y at integration start : 0 Y at integration end: 0

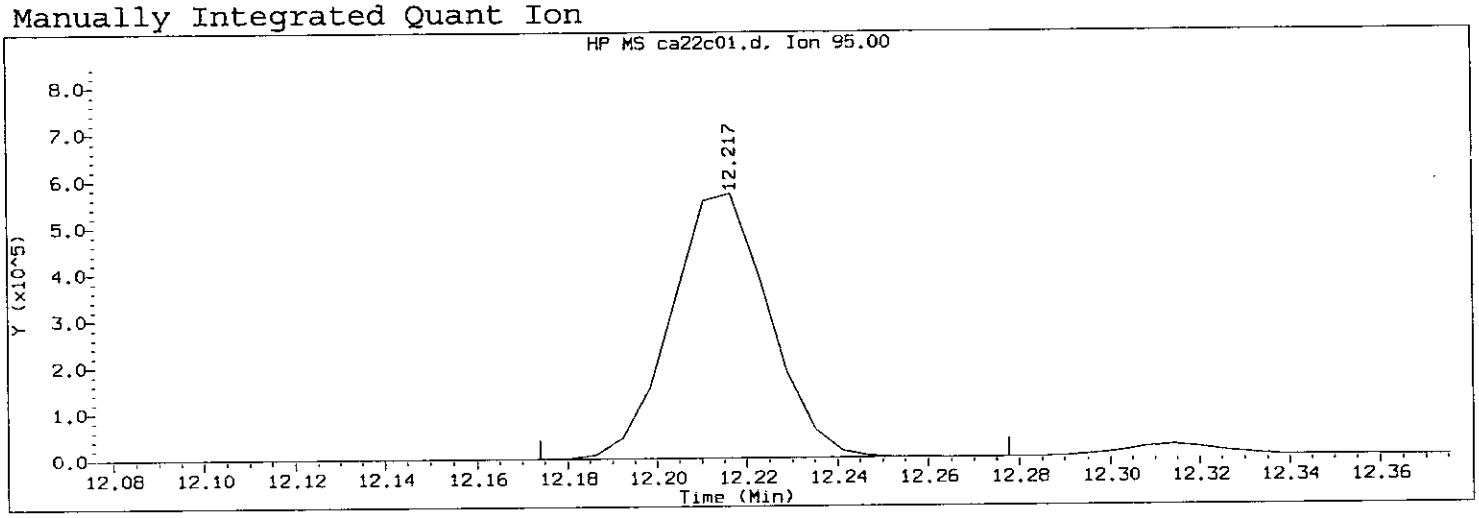
RAD11 0316

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22c01.d, generated on 04/22/2009 at 18:06

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:06 sew02002

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area (flag) : 859733 M
Concentration (ug/L) : 9.3794
Integration start scan : 1737 Integration stop scan: 1754
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

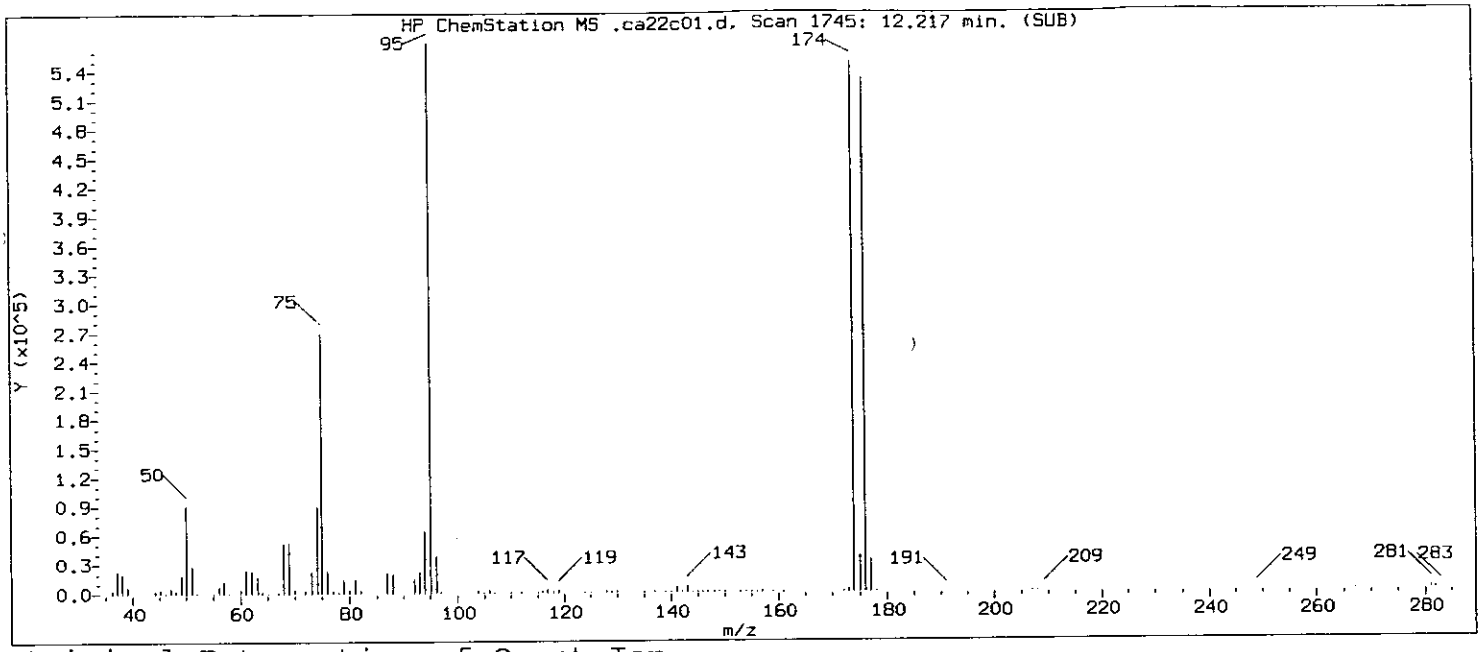
Analyst responsible for change: Sum 4/22/09

RAD11 0317

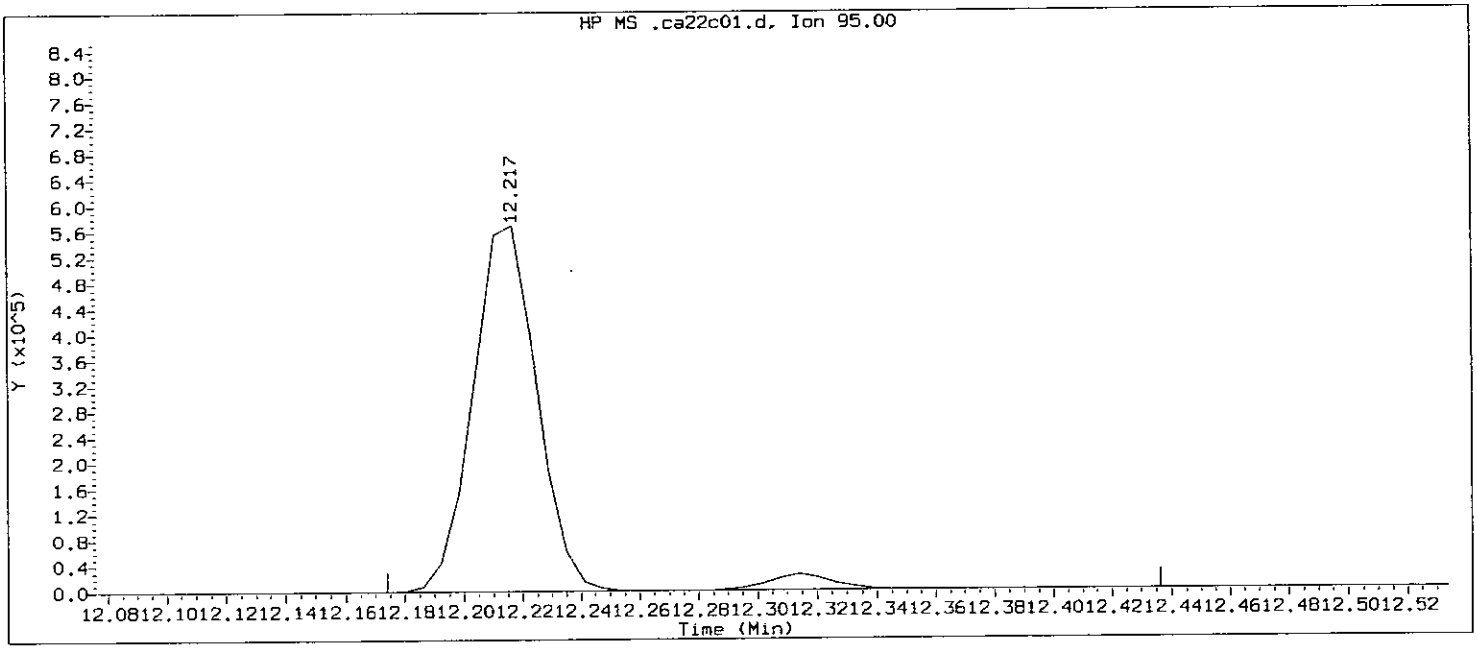
GC/MS audit/management approval: 4-24-09

Manual Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22c01.d, generated on 04/22/2009 at 18:06

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22c01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 10:46 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260WI25
Calibration date and time: 22-APR-2009 11:05
Date, time and analyst ID of latest file update: 22-Apr-2009 11:05 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number	: 123
Compound Name	: 4-Bromofluorobenzene
Scan Number	: 1745
Retention Time (minutes)	: 12.217
Quant Ion	: 95
Area	: 898432
Concentration (ug/L)	: 9.8016
Integration start scan	: 1737 Integration stop scan: 1780
Y at integration start	: 0 Y at integration end: 0

RAD1/1 8318

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22c01.d, generated on 04/22/2009 at 18:06

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10193 Calibration Date: 04/22/09 Time: 11:07

Lab File ID: ca22c02.d Init. Calib. Date(s): 04/15/09 04/15/09

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF5	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dimethyl ether	0.3157	0.3115	4.93	5	-1	
#	Chloromethane	0.2931	0.2726	4.65	5	-7	#
*	Vinyl Chloride	0.2760	0.2664	4.83	5	-3	*
*	1,1-Dichloroethene	0.2175	0.2282	5.24	5	5	*
	Acetonitrile	1.6028	1.5628	195.00	200	-2	
#	1,1-Dichloroethane	0.4414	0.4447	5.04	5	1	#
	Vinyl Acetate	0.2689	0.2762	4.86	5	-3	
*	Chloroform	0.5726	0.5049	4.41	5	-12	*
*	1,2-Dichloropropane	0.2302	0.2329	5.06	5	1	*
	2-Chloroethyl Vinyl Ether	0.0864	0.0889	5.15	5	3	
*	Toluene	0.9176	0.9528	5.19	5	4	*
#	Chlorobenzene	1.0796	1.1112	5.15	5	3	#
*	Ethylbenzene	1.7198	1.8338	5.33	5	7	*
#	Bromoform	0.1566	0.1586	5.06	5	1	#
	Cyclohexanone	0.3729	0.3981	258.35	250	3	
	cis-1,4-Dichloro-2-Butene	5.5232	6.4203	12.02	10	20	
#	1,1,2,2-Tetrachloroethane	0.4286	0.4171	4.87	5	-3	#
	Hexachloroethane	0.4928	0.4598	4.67	5	-7	

Average %Drift 5

RAD11 8319

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP10193.i/09apr15a.b/ca15i07.d
/chem2/HP10193.i/09apr15a.b/ca15i06.d
/chem2/HP10193.i/09apr15a.b/ca15i05.d
/chem2/HP10193.i/09apr15a.b/ca15i03.d
/chem2/HP10193.i/09apr15a.b/ca15i02.d
/chem2/HP10193.i/09apr15a.b/ca15i01.d

File /chem2/HP10193.i/09apr15a.b/ca15i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP10193.i/09apr22a.b/ca22c02.d

RT Summary

Internal Standard Name	File ID: ca22c02.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.310	4.322	Yes
Fluorobenzene	7.791	7.791	Yes
Chlorobenzene-d5	11.229	11.229	Yes
1,4-Dichlorobenzene-d4	13.094	13.095	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ca22c02.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	98994	106689	53344	213378	Yes
Fluorobenzene	2254256	2342668	1171334	4685336	Yes
Chlorobenzene-d5	1731846	1836800	918400	3673600	Yes
1,4-Dichlorobenzene-d4	1025878	1059053	529526	2118106	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RADIY 8328

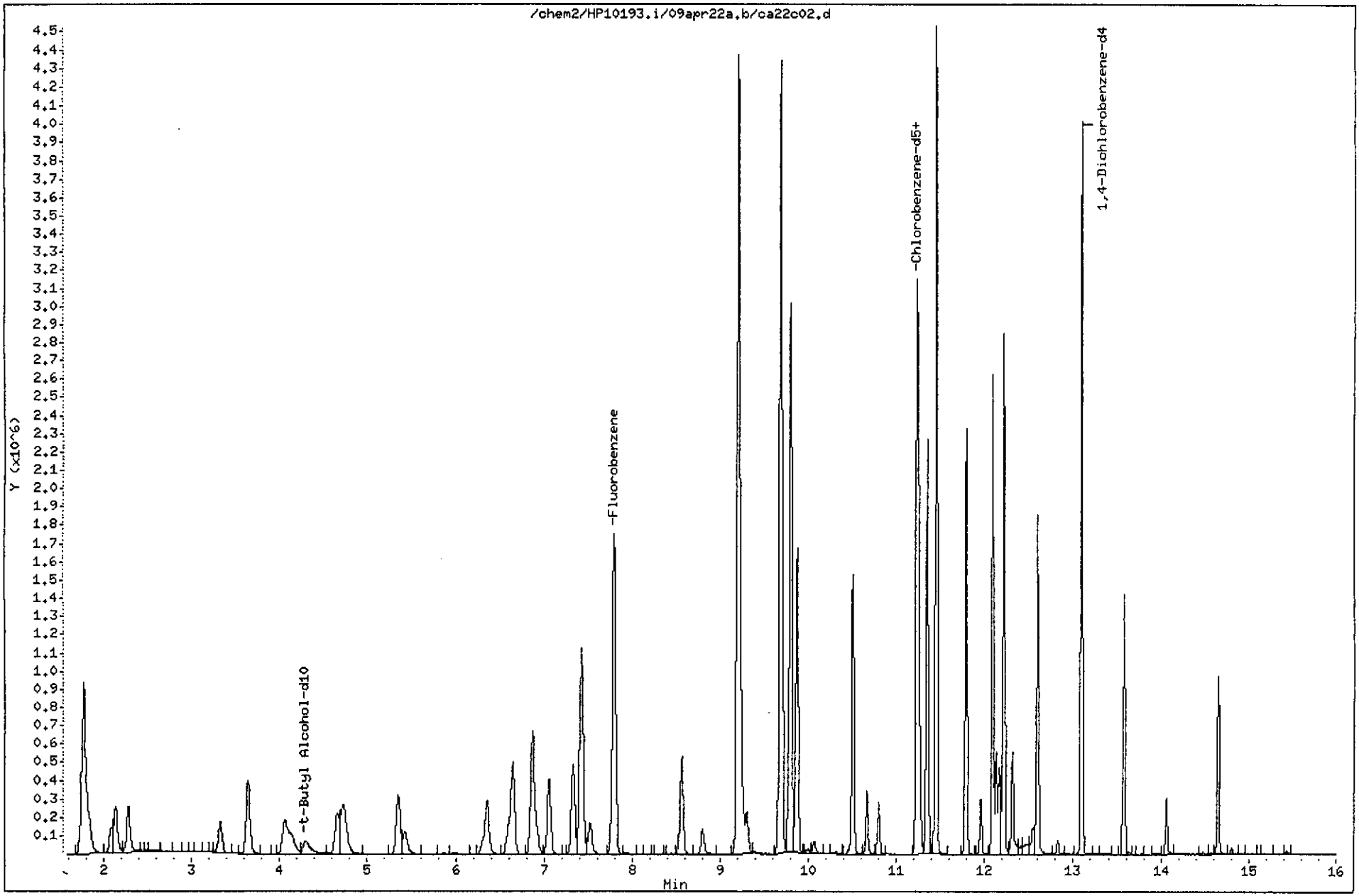
Comments: _____

Data File: /chem2/HP10193.i/09apr22a.b/ca22c02.d
Date : 22-APR-2009 11:07
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;2;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: ADS01731
Column diameter: 0.25

ADS1731
4/22/09

MAR11 9321



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22c02.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 11:07 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260WB25.m Sublist used: SMSTD+CYC-S
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 30-Apr-2009 13:52 ads01731

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
1) Dimethyl ether	(1)	2.091	45	351096	4.934
3) Chloromethane	(1)	2.139	50	307247	4.651
5) Vinyl Chloride	(1)	2.280	62	300258	4.826
20) 1,1-Dichloroethene	(1)	3.645	96	257163	5.244
29) Acetonitrile	(4)	4.060	41	618831	195.002
31)*t-Butyl Alcohol-d10	(4)	4.310	65	98994	50.000
41) 1,1-Dichloroethane	(1)	5.352	63	501261	5.038
44) Vinyl Acetate	(1)	5.425	43	311288	4.860
54) Chloroform	(1)	6.644	83	569095	4.409
74)*Fluorobenzene	(1)	7.791	96	2254256	10.000
80) 1,2-Dichloropropane	(1)	8.565	63	262534	5.060
90) 2-Chloroethyl Vinyl Ether	(1)	9.303	63	100212	5.148
99) Toluene	(2)	9.869	92	825091	5.192
107)*Chlorobenzene-d5	(2)	11.229	117	1731846	10.000
108) Chlorobenzene	(2)	11.253	112	962189	5.146
110) Ethylbenzene	(2)	11.351	91	1587892	5.331
117) Bromoform	(2)	11.961	173	137313	5.063
121) Cyclohexanone	(4)	12.168	55	197073	258.352
120) cis-1,4-Dichloro-2-Butene	(4)	12.131	88	127116	12.020
127) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	213945	4.866
136)*1,4-Dichlorobenzene-d4	(3)	13.094	152	1025878	10.000
146) Hexachloroethane	(3)	13.576	117	235859	4.665

* = Compound is an internal standard.

RnD11 #322

Raw QC Data

Data File: /chem2/HP10193.i/09apr21c.b/ca21t05.d

Date : 21-APR-2009 19:47

Client ID: BFB DEC 18-08

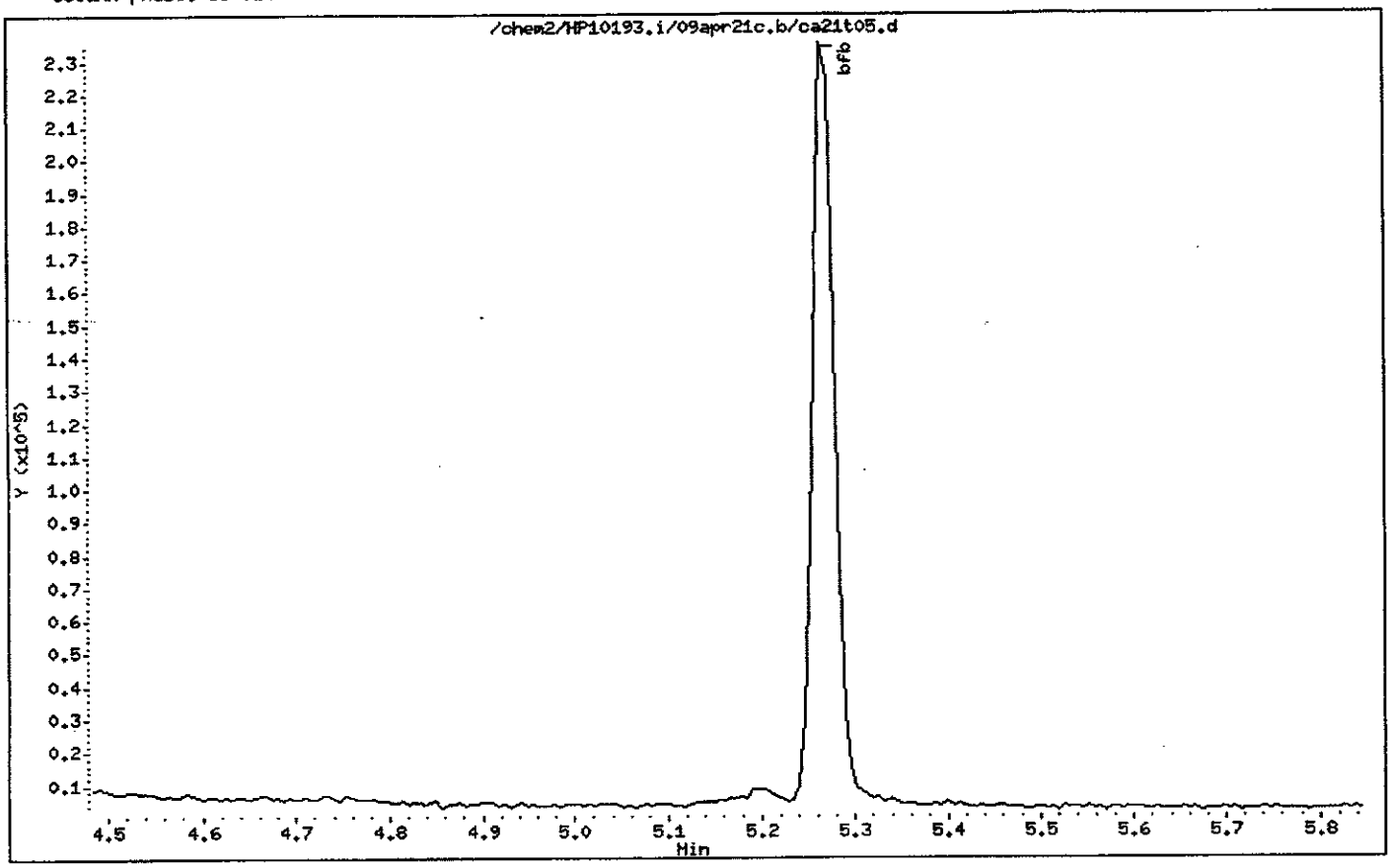
Instrument: HP10193.i

Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: SEW02002

Column phase: DB-624

Column diameter: 0.25



4/21/09

Data File: /chem2/HP10193.i/09apr21c.b/ca21t05.d

Date : 21-APR-2009 19:47

Client ID: BFB DEC 18-08

Instrument: HP10193.i

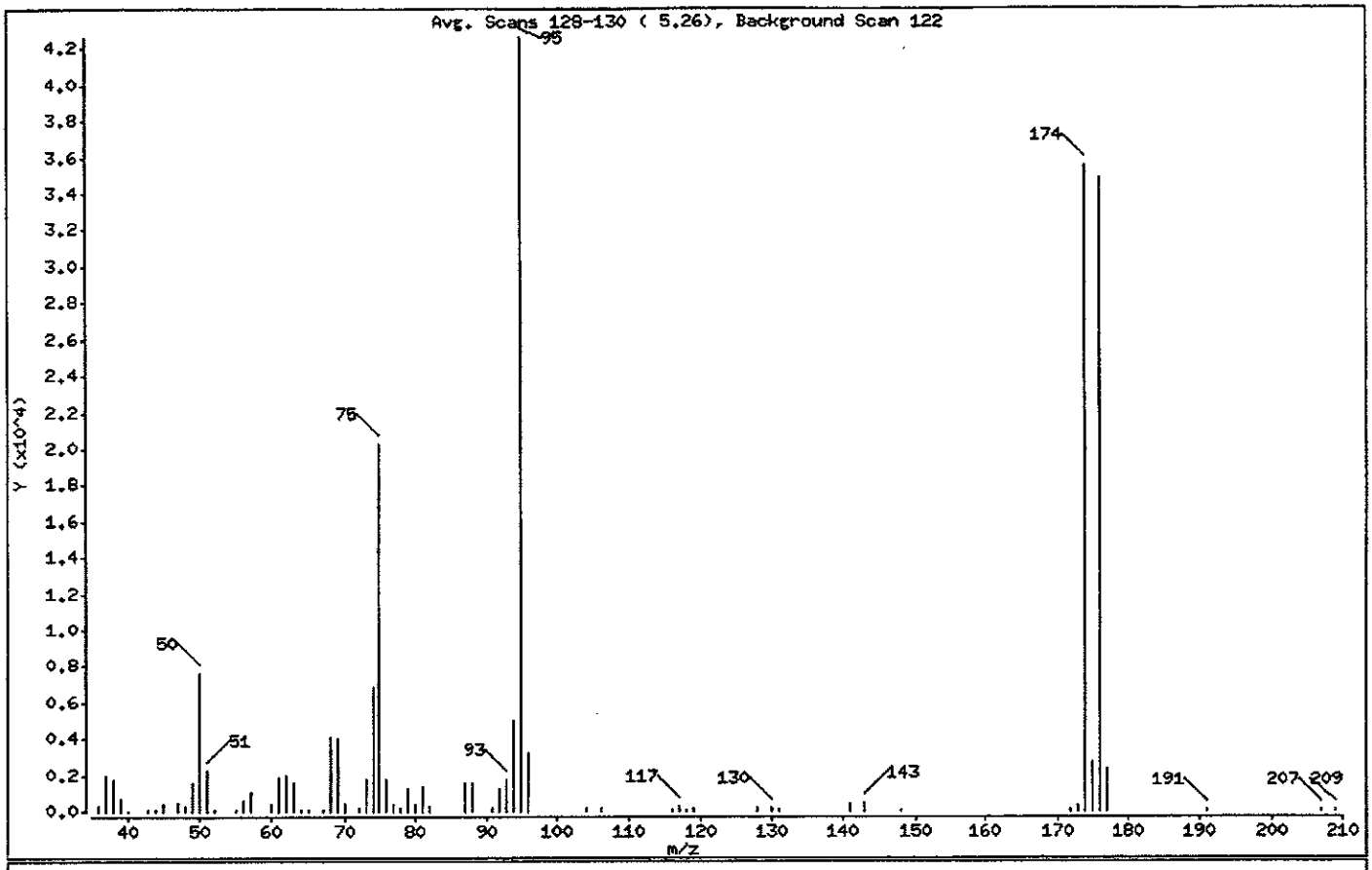
Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: SEW02002

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.00
75	30.00 - 60.00% of mass 95	47.53
96	5.00 - 9.00% of mass 95	7.59
173	Less than 2.00% of mass 174	0.58 (0.70)
174	50.00 - 100.00% of mass 95	83.37
175	5.00 - 9.00% of mass 174	6.41 (7.69)
176	95.00 - 101.00% of mass 174	81.87 (98.20)
177	5.00 - 9.00% of mass 176	5.48 (6.69)

RAD11 0325

Data File: /chem2/HP10193.i/09apr21c.b/ca21t05.d

Date : 21-APR-2009 19:47

Client ID: BFB DEC 18-08

Instrument: HP10193.i

Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: SEW02002

Column phase: DB-624

Column diameter: 0.25

Data File: ca21t05.d
Spectrum: Avg. Scans 128-130 (5.26), Background Scan 122
Location of Maximum: 95.00
Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	293	60.00	404	79.00	1267	119.00	244
37.00	1980	61.00	1834	80.00	399	128.00	198
38.00	1799	62.00	1992	81.00	1394	130.00	214
39.00	722	63.00	1553	82.00	299	131.00	52
40.00	18	64.00	120	87.00	1567	141.00	393
43.00	54	65.00	51	88.00	1523	143.00	466
44.00	129	67.00	120	91.00	223	148.00	66
45.00	406	68.00	4123	92.00	1256	172.00	129
47.00	511	69.00	4017	93.00	1803	173.00	249
48.00	342	70.00	381	94.00	5027	174.00	35544
49.00	1592	72.00	192	95.00	42632	175.00	2734
50.00	7672	73.00	1737	96.00	3236	176.00	34904
51.00	2221	74.00	6871	104.00	200	177.00	2335
52.00	119	75.00	20264	106.00	193	191.00	54
55.00	50	76.00	1787	116.00	52	207.00	85
56.00	574	77.00	411	117.00	313	209.00	123
57.00	1125	78.00	201	118.00	64		

RAD11 0326

Data File: /chem2/HP10193.i/09apr15a.b/ca15t01.d

Date : 15-APR-2009 10:41

Client ID: BFB DEC 18-08

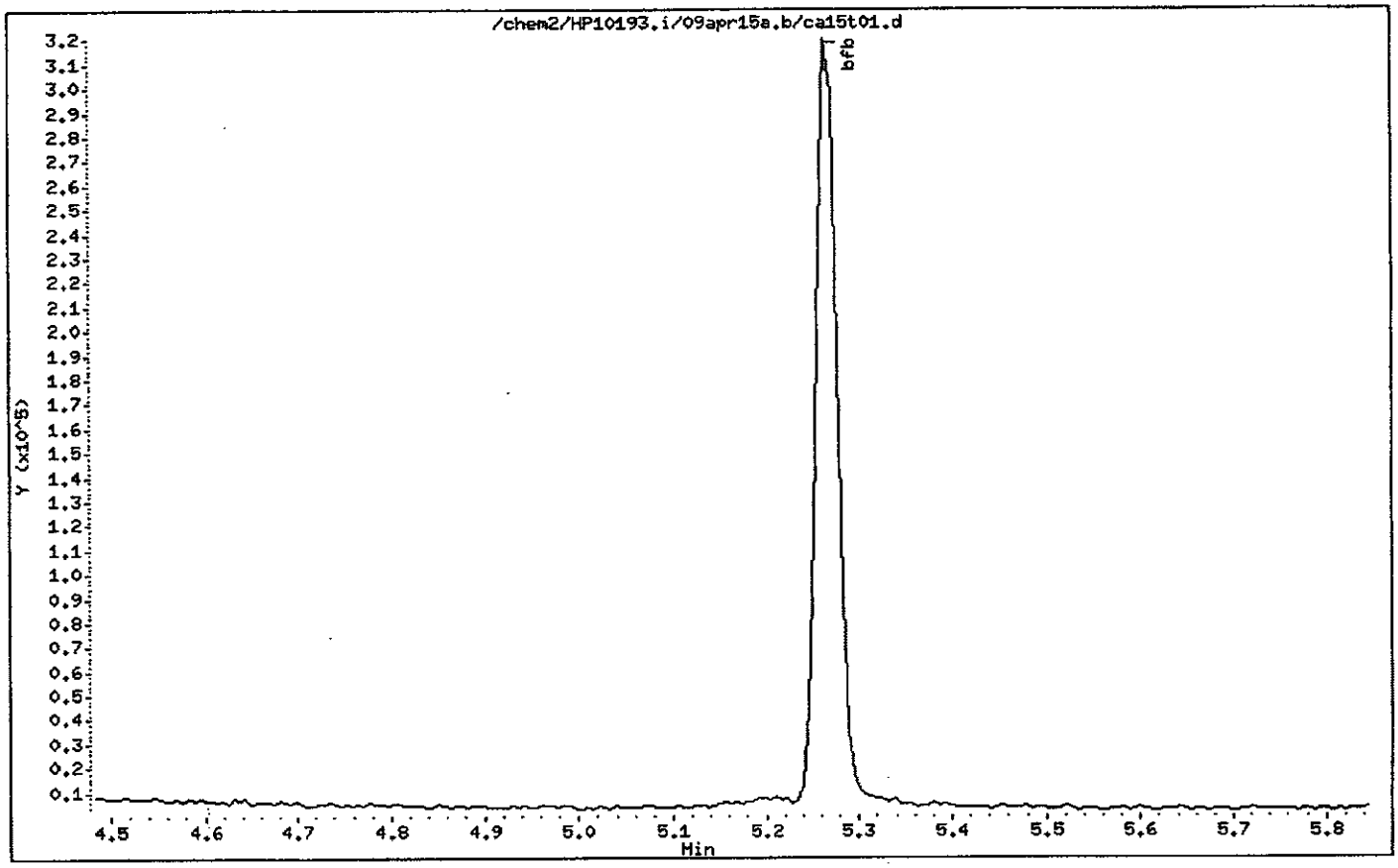
Instrument: HP10193.i

Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.25



Lw 200 4/27/09

Data File: /chem2/HP10193.i/09apr15a.b/ca15t01.d

Date : 15-APR-2009 10:41

Client ID: BFB DEC 18-08

Instrument: HP10193.i

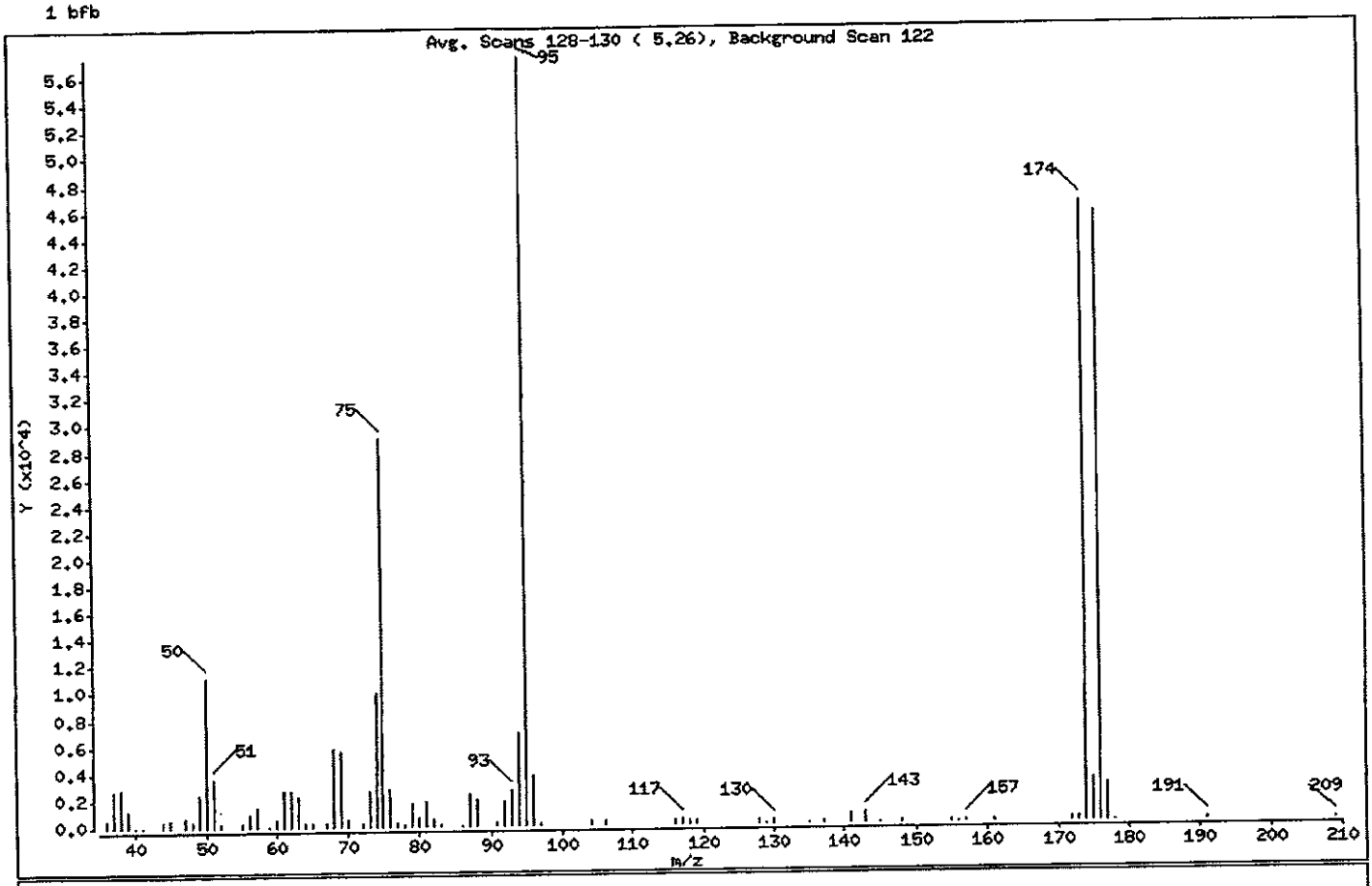
Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.40
75	30.00 - 60.00% of mass 95	50.41
96	5.00 - 9.00% of mass 95	6.45
173	Less than 2.00% of mass 174	0.54 (0.68)
174	50.00 - 100.00% of mass 95	80.60
175	5.00 - 9.00% of mass 174	5.57 (6.91)
176	95.00 - 101.00% of mass 174	79.38 (98.48)
177	5.00 - 9.00% of mass 176	4.82 (6.07)

Data File: /chem2/HP10193.i/09apr15a.b/ca15t01.d

Date : 15-APR-2009 10:41

Client ID: BFB DEC 18-08

Instrument: HP10193.i

Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.25

Data File: ca15t01.d

Spectrum: Avg. Scans 128-130 (5.26), Background Scan 122

Location of Maximum: 95.00

Number of points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	568	62.00	2683	86.00	56	137.00	108
37.00	2674	63.00	2220	87.00	2339	141.00	668
38.00	2745	64.00	260	88.00	1939	143.00	804
39.00	1137	65.00	210	91.00	268	145.00	53
40.00	1	67.00	202	92.00	1820	148.00	127
41.00	39	68.00	5852	93.00	2668	155.00	85
44.00	341	69.00	5595	94.00	6937	156.00	50
45.00	544	70.00	514	95.00	57480	157.00	118
47.00	626	72.00	289	96.00	3705	161.00	115
48.00	401	73.00	2612	97.00	138	172.00	221
49.00	2405	74.00	9973	104.00	298	173.00	313
50.00	11153	75.00	28976	106.00	296	174.00	46328
51.00	3531	76.00	2827	116.00	273	175.00	3200
52.00	240	77.00	258	117.00	432	176.00	45624
55.00	275	78.00	147	118.00	233	177.00	2771
56.00	953	79.00	1687	119.00	230	178.00	56
57.00	1421	80.00	599	128.00	206	191.00	85
59.00	54	81.00	1818	129.00	50	209.00	65
60.00	583	82.00	570	130.00	249		
61.00	2654	83.00	73	135.00	64		

RAD11 8329

Data File: /chem2/HP10193.i/09apr22a.b/ca22t01.d

Date : 22-APR-2009 10:23

Client ID: BFB DEC 18-08

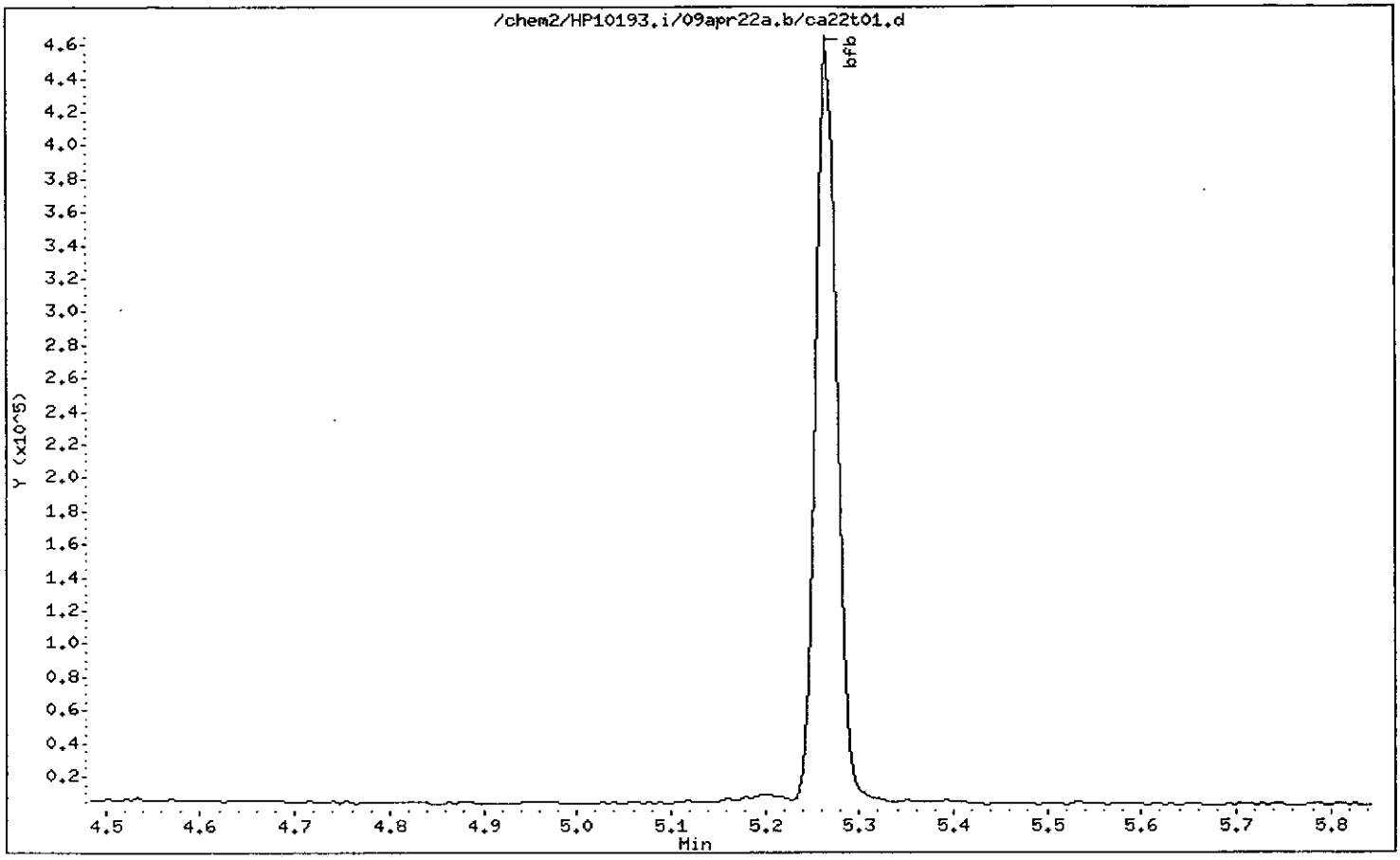
Instrument: HP10193.i

Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.25



RAD11 #338

Data File: /chem2/HP10193.i/09apr22a.b/ca22t01.d

Date : 22-APR-2009 10:23

Client ID: BFB DEC 18-08

Instrument: HP10193.i

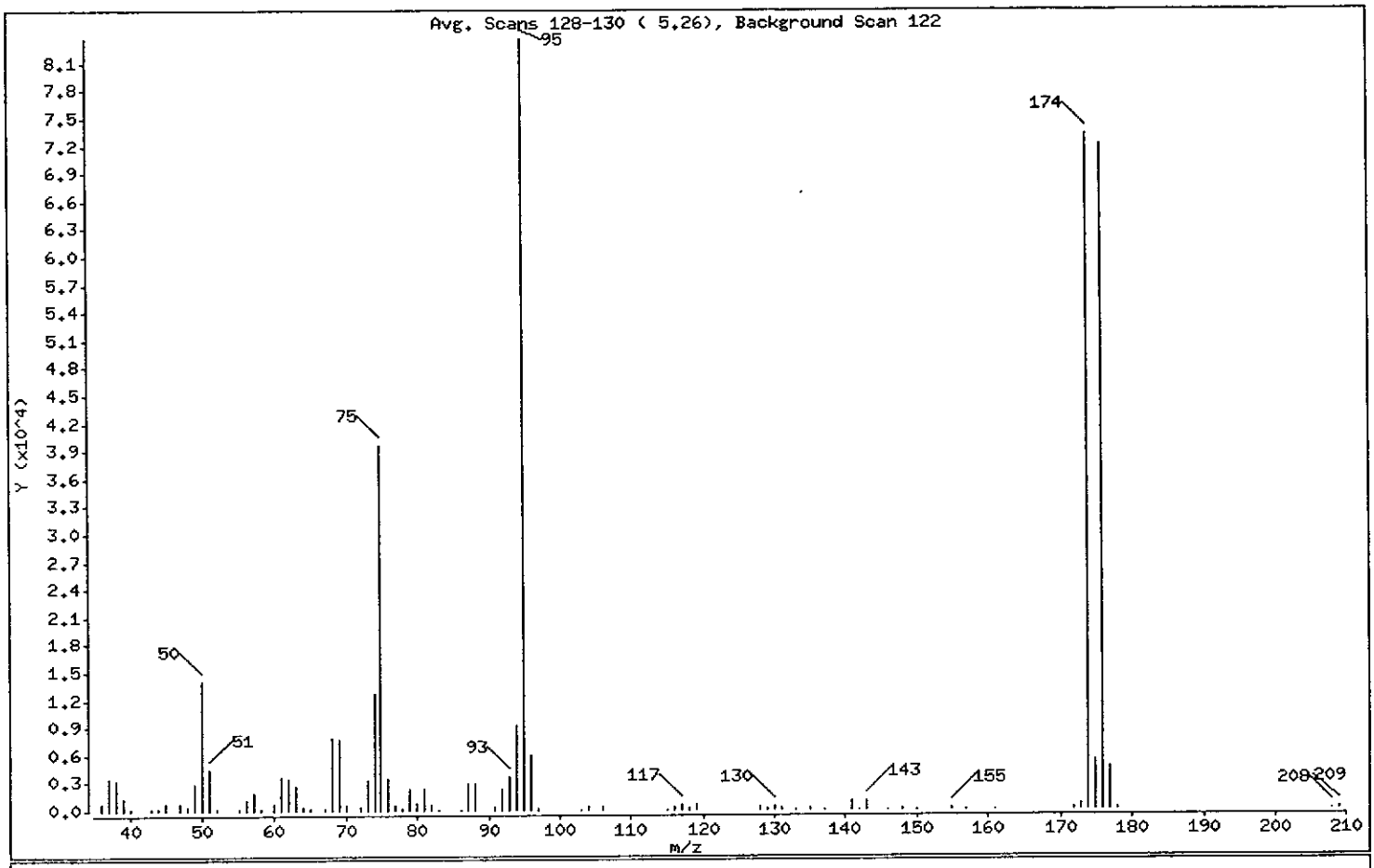
Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.82
75	30.00 - 60.00% of mass 95	47.47
96	5.00 - 9.00% of mass 95	7.09
173	Less than 2.00% of mass 174	0.63 (0.72)
174	50.00 - 100.00% of mass 95	87.64
175	5.00 - 9.00% of mass 174	6.41 (7.32)
176	95.00 - 101.00% of mass 174	86.24 (98.40)
177	5.00 - 9.00% of mass 176	5.43 (6.29)

RAD11 0331

Data File: /chem2/HP10193.i/09apr22a.b/ca22t01.d

Date : 22-APR-2009 10:23

Client ID: BFB DEC 18-08

Instrument: HP10193.i

Sample Info: BFB DEC 18-08;50ng BFB;1;3;;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.25

Data File: ca22t01.d

Spectrum: Avg. Scans 128-130 (5.26), Background Scan 122

Location of Maximum: 95.00

Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	697	63.00	2666	88.00	2799	135.00	209
37.00	3471	64.00	328	91.00	397	137.00	76
38.00	3211	65.00	197	92.00	2363	141.00	897
39.00	1342	67.00	225	93.00	3604	142.00	63
40.00	115	68.00	7873	94.00	9180	143.00	1035
43.00	112	69.00	7689	95.00	83648	146.00	52
44.00	270	70.00	668	96.00	5929	148.00	220
45.00	701	72.00	469	97.00	192	150.00	56
47.00	836	73.00	3231	103.00	69	155.00	272
48.00	399	74.00	12719	104.00	419	157.00	71
49.00	2951	75.00	39704	106.00	377	161.00	50
50.00	14073	76.00	3447	115.00	53	172.00	249
51.00	4332	77.00	597	116.00	296	173.00	529
52.00	268	78.00	234	117.00	599	174.00	73304
55.00	133	79.00	2239	118.00	275	175.00	5364
56.00	1119	80.00	771	119.00	514	176.00	72136
57.00	1957	81.00	2313	128.00	297	177.00	4539
58.00	113	82.00	663	129.00	197	178.00	155
60.00	708	83.00	69	130.00	371	208.00	57
61.00	3645	86.00	52	131.00	102	209.00	143
62.00	3439	87.00	2970	133.00	35		

RAD11 8332

VBLKC88

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKC88

File: /chem2/HP10193.i/09apr22a.b/ca22b02.d
Sample: VBLKC88;VBLKC88;1;3;;
Injected At:22-APR-2009 11:51
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.328(-0.018)	451	65	92807(-16)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	2137186(-8)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1621578(-7)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	940016(-13)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	546098	9.697	97%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	96403	9.464	95%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2162606	9.420	94%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.216(0.000)	95	737492	8.693	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)				ND	ND			0.10	0.50
3) Dimethyl ether	(1)				ND	ND			0.10	0.50
4) Chloromethane	(1)				ND	ND			0.20	0.50
6) Vinyl Chloride	(1)				ND	ND			0.10	0.50
8) Bromomethane	(1)				ND	ND			0.10	0.50
9) Chloroethane	(1)				ND	ND			0.10	0.50
11) Dichlorofluoromethane	(1)				ND	ND			0.20	0.50
12) Trichlorofluoromethane	(1)				ND	ND			0.10	0.50
15) Ethyl Ether	(1)				ND	ND			0.10	0.50
16) Freon 123a	(1)				ND	ND			0.20	0.50
18) Acrolein	(4)				ND	ND			5.00	25.00
19) 1,1-Dichloroethene	(1)				ND	ND			0.10	0.50
20) Freon 113	(1)				ND	ND			0.20	0.50
22) Acetone	(4)				ND	ND			3.00	5.00
26) Methyl Iodide	(1)				ND	ND			0.10	0.50
23) 2-Propanol	(1)				ND	ND			0.10	0.50
27) Carbon Disulfide	(1)				ND	ND			0.40	0.50
29) Allyl Chloride	(1)				ND	ND			0.10	0.50
30) Methyl Acetate	(1)				ND	ND			0.30	1.00
28) Acetonitrile	(4)				ND	ND			7.00	20.00
32) Methylene Chloride	(1)				ND	ND			0.20	0.50
35) t-Butyl Alcohol	(4)				ND	ND			4.00	10.00
36) Acrylonitrile	(4)				ND	ND			1.00	5.00
37) trans-1,2-Dichloroethene	(1)				ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

8AD11 8333

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKC88

File: /chem2/HP10193.i/09apr22a.b/ca22b02.d
Sample: VBLKC88;VBLKC88;1;3;;
Injected At:22-APR-2009 11:51
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
40) 1,2-Dichloroethene (Total)	(1)					ND	ND			0.10	0.50
38) Methyl Tertiary Butyl Ether	(1)					ND	ND			0.10	0.50
41) n-Hexane	(1)					ND	ND			0.10	0.50
44) 1,1-Dichloroethane	(1)					ND	ND			0.10	0.50
45) Vinyl Acetate	(1)					ND	ND			0.20	0.50
46) di-Isopropyl Ether	(1)					ND	ND			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)					ND	ND			0.10	0.50
48) Ethyl t-Butyl Ether	(1)					ND	ND			0.10	0.50
51) 2,2-Dichloropropane	(1)					ND	ND			0.10	0.50
49) cis-1,2-Dichloroethene	(1)					ND	ND			0.10	0.50
50) 2-Butanone	(4)					ND	ND			1.00	5.00
52) Propionitrile	(4)					ND	ND			2.00	10.00
53) Methacrylonitrile	(4)					ND	ND			1.00	5.00
54) Bromochloromethane	(1)					ND	ND			0.10	0.50
55) Tetrahydrofuran	(4)					ND	ND			2.00	5.00
56) Chloroform	(1)					ND	ND			0.10	0.50
60) 1,1,1-Trichloroethane	(1)					ND	ND			0.10	0.50
61) Cyclohexane	(1)					ND	ND			0.10	0.50
63) 1,1-Dichloropropene	(1)					ND	ND			0.10	0.50
64) Carbon Tetrachloride	(1)					ND	ND			0.10	0.50
66) Isobutyl Alcohol	(4)					ND	ND			10.00	25.00
70) Benzene	(1)					ND	ND			0.10	0.50
72) 1,2-Dichloroethane	(1)					ND	ND			0.10	0.50
74) t-Amyl Methyl Ether	(1)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8334

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKC88

File: /chem2/HP10193.i/09apr22a.b/ca22b02.d
Sample: VBLKC88;VBLKC88;1;3;;
Injected At:22-APR-2009 11:51
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
76) n-Heptane	(1)					ND	ND			0.20	0.50
79) n-Butanol	(4)					ND	ND			20.00	50.00
80) Trichloroethene	(1)					ND	ND			0.10	0.50
82) Methylcyclohexane	(1)					ND	ND			0.10	0.50
83) 1,2-Dichloropropane	(1)					ND	ND			0.10	0.50
85) Dibromomethane	(1)					ND	ND			0.10	0.50
87) 1,4-Dioxane	(4)					ND	ND			20.00	100.00
86) Methyl Methacrylate	(4)					ND	ND			0.10	0.50
88) Bromodichloromethane	(1)					ND	ND			0.10	0.50
91) 2-Nitropropane	(4)					ND	ND			1.00	5.00
92) 2-Chloroethyl Vinyl Ether	(1)					ND	ND			0.10	0.50
93) cis-1,3-Dichloropropene	(1)					ND	ND			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)					ND	ND			1.00	5.00
97) Toluene	(2)					ND	ND			0.10	0.50
100) trans-1,3-Dichloropropene	(2)					ND	ND			0.10	0.50
102) Ethyl Methacrylate	(2)					ND	ND			0.10	0.50
103) 1,1,2-Trichloroethane	(2)					ND	ND			0.10	0.50
104) Tetrachloroethene	(2)					ND	ND			0.10	0.50
105) 1,3-Dichloropropane	(2)					ND	ND			0.10	0.50
106) 2-Hexanone	(2)					ND	ND			1.00	5.00
107) Dibromochloromethane	(2)					ND	ND			0.10	0.50
108) 1,2-Dibromoethane	(2)					ND	ND			0.10	0.50
110) Chlorobenzene	(2)					ND	ND			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8335

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKC88

File: /chem2/HP10193.i/09apr22a.b/ca22b02.d
Sample: VBLKC88;VBLKC88;1;3;;
Injected At:22-APR-2009 11:51
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
112) Ethylbenzene	(2)					ND	ND			0.10	0.50
113) m+p-Xylene	(2)					ND	ND			0.10	0.50
116) Xylene (Total)	(2)					ND	ND			0.10	0.50
117) o-Xylene	(2)					ND	ND			0.10	0.50
118) Styrene	(2)					ND	ND			0.10	0.50
119) Bromoform	(2)					ND	ND			0.10	0.50
120) Isopropylbenzene	(2)					ND	ND			0.10	0.50
122) Cyclohexanone	(4)					ND	ND			5.00	25.00
121) cis-1,4-Dichloro-2-Butene	(4)					ND	ND			0.40	1.00
125) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.10	0.50
126) Bromobenzene	(3)					ND	ND			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)					ND	ND			1.00	5.00
128) 1,2,3-Trichloropropane	(3)					ND	ND			0.30	1.00
132) n-Propylbenzene	(3)					ND	ND			0.10	0.50
133) 2-Chlorotoluene	(3)					ND	ND			0.10	0.50
135) 4-Chlorotoluene	(3)					ND	ND			0.10	0.50
134) 1,3,5-Trimethylbenzene	(3)					ND	ND			0.10	0.50
137) Pentachloroethane	(3)					ND	ND			0.20	0.50
136) tert-Butylbenzene	(3)					ND	ND			0.10	0.50
138) 1,2,4-Trimethylbenzene	(3)					ND	ND			0.10	0.50
139) sec-Butylbenzene	(3)					ND	ND			0.10	0.50
140) 1,3-Dichlorobenzene	(3)					ND	ND			0.10	0.50
141) p-Isopropyltoluene	(3)					ND	ND			0.10	0.50
143) 1,4-Dichlorobenzene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8336

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

VBLKC88

File: /chem2/HP10193.i/09apr22a.b/ca22b02.d
Sample: VBLKC88;VBLKC88;1;3;;
Injected At:22-APR-2009 11:51
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference:
Sublist: 8260W25+SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
145) Benzyl Chloride	(3)					ND	ND			0.10	0.50
146) n-Butylbenzene	(3)					ND	ND			0.10	0.50
147) 1,2-Dichlorobenzene	(3)					ND	ND			0.10	0.50
148) Hexachloroethane	(3)					ND	ND			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)					ND	ND			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)					ND	ND			0.10	0.50
153) Hexachlorobutadiene	(3)					ND	ND			0.10	0.50
154) Naphthalene	(3)					ND	ND			0.10	0.50
155) 1,2,3-Trichlorobenzene	(3)					ND	ND			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: ADS1731 Date: 4/30/09

Auditor: Date: 4/30/09

BAD11 0337

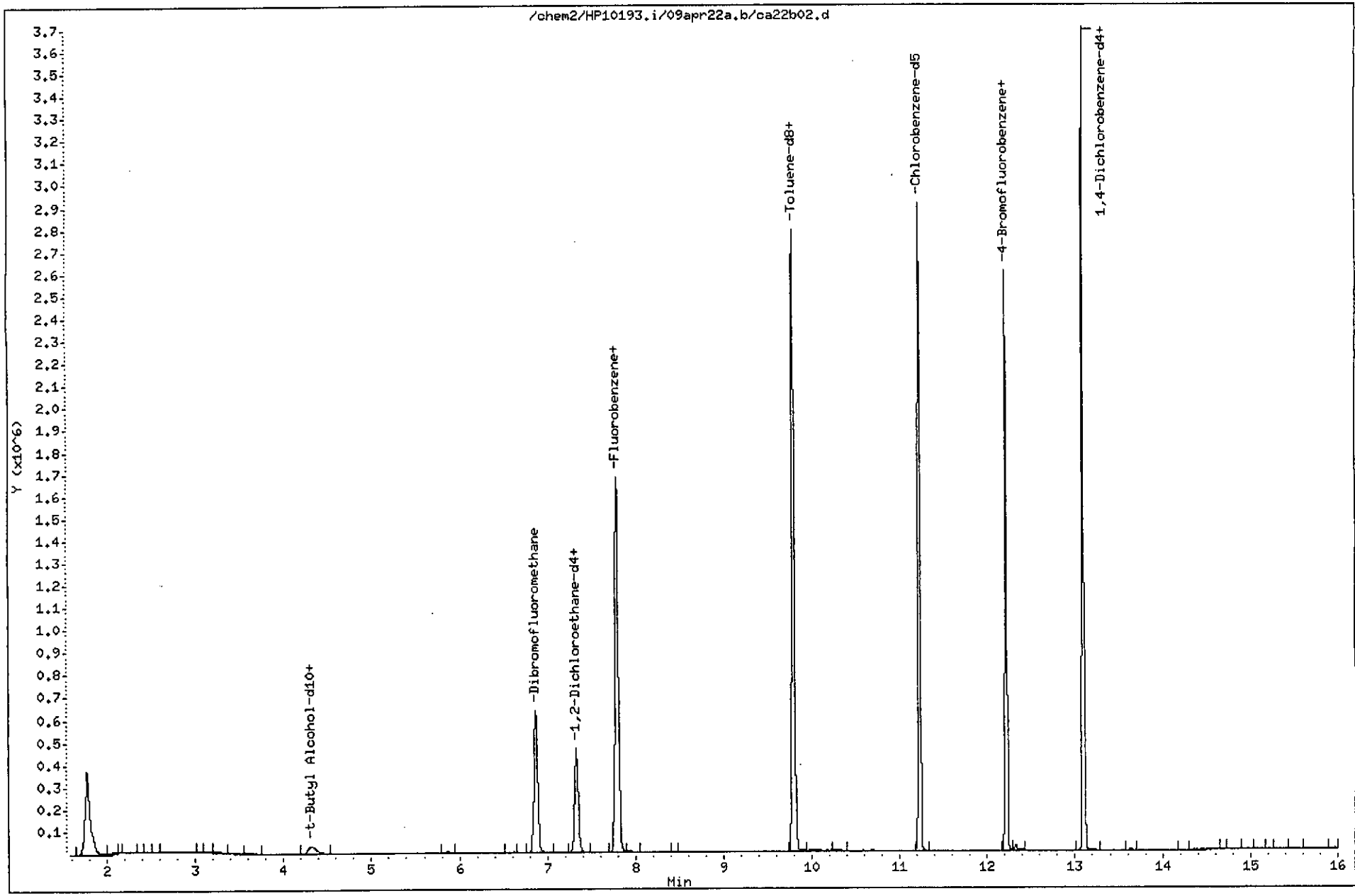
Data File: /chem2/HP10193.i/09apr22a.b/ca22b02.d
Date : 22-APR-2009 11:51
Client ID: VBLKC88
Sample Info: VBLKC88;VBLKC88;1;3;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

ADS01731
4/22/09

RAD11 0338



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22b02.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 11:51 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25+SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 12:12 ads01731

Sample Name: VBLKC88 Lab Sample ID: VBLKC88

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
33)*t-Butyl Alcohol-d10	(4)	4.328	65	92807	50.000
75)*Fluorobenzene	(1)	7.791	96	2137186	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1621578	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	940016	10.000
58)$Dibromofluoromethane	(1)	6.870	113	546098	9.697
69)$1,2-Dichloroethane-d4	(1)	7.327	102	96403	9.464
95)$Toluene-d8	(2)	9.796	98	2162606	9.420
123)$4-Bromofluorobenzene	(2)	12.216	95	737492	8.693

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

BAD11 0339

13-5-MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648240

File: /chem2/HP10193.i/09apr22a.b/ca22s17.d
Sample: 13-5-MS;5648240;1;3;MS;;;;
Injected At:22-APR-2009 18:55
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA-SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.322(-0.012)	450	65	91805(-17)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	2094721(-10)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1532991(-12)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	971226(-11)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.864(0.001)	113	513964	9.311	93%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	92579	9.273	93%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2178343	10.036	100%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	774057	9.651	97%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)	1.999(0.000)	85	447790	7.264	7.26			0.10	0.50
6) Vinyl Chloride	(1)	2.286(-0.001)	62	358343	6.087	6.09			0.10	0.50
8) Bromomethane	(1)	2.627(-0.001)	94	276215	6.298	6.30			0.10	0.50
9) Chloroethane	(1)	2.731(0.000)	64	219542	6.358	6.36			0.10	0.50
12) Trichlorofluoromethane	(1)	3.060(0.000)	101	658208	6.946	6.95			0.10	0.50
18) Acrolein	(4)	3.487(0.001)	56	169596	41.678	41.68			5.00	25.00
19) 1,1-Dichloroethene	(1)	3.639(0.000)	96	288387	7.114	7.11			0.10	0.50
23) Acetone	(4)	3.676(0.001)	58	95869	51.833	51.83			3.00	5.00
26) Methyl Iodide	(1)	3.840(0.001)	142	492705	6.154	6.15			0.10	0.50
27) Carbon Disulfide	(1)	3.950(0.000)	76	1034583	7.512	7.51			0.40	0.50
29) Allyl Chloride	(1)	4.115(0.000)	41	466835	6.602	6.60			0.10	0.50
32) Methylene Chloride	(1)	4.291(0.000)	84	314275	6.591	6.59			0.20	0.50
36) Acrylonitrile	(4)	4.651(0.000)	53	258679	35.619	35.62			1.00	5.00
37) trans-1,2-Dichloroethene	(1)	4.724(-0.001)	96	340471	7.172	7.17			0.10	0.50
44) 1,1-Dichloroethane	(1)	5.346(0.000)	63	579157	7.289	7.29			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)	5.492(0.000)	53	533632	7.942	7.94			0.10	0.50
50) 2-Butanone	(4)	6.206(0.003)	43	493739	54.207	54.21			1.00	5.00
52) Propionitrile	(4)	6.285(0.003)	54	145699	51.029	51.03			2.00	10.00
53) Methacrylonitrile	(4)	6.510(0.003)	67	492447	53.215	53.21			1.00	5.00
54) Bromochloromethane	(1)	6.529(0.000)	128	150198	5.940	5.94			0.10	0.50
56) Chloroform	(1)	6.651(0.000)	83	615689	7.110	7.11			0.10	0.50
60) 1,1,1-Trichloroethane	(1)	6.919(0.000)	97	574414	7.237	7.24			0.10	0.50
64) Carbon Tetrachloride	(1)	7.144(0.001)	117	548330	7.561	7.56			0.10	0.50
66) Isobutyl Alcohol	(4)	7.297(0.001)	41	135532	174.968	174.97			10.00	25.00

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

BAD11 0348

13-5-MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648240

File: /chem2/HP10193.i/09apr22a.b/ca22s17.d
Sample: 13-5-MS;5648240;1;3;MS;;;;
Injected At:22-APR-2009 18:55
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA-SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
70) Benzene	(1)	7.419	(0.000)	78	1384058	7.104	7.10			0.10	0.50
72) 1,2-Dichloroethane	(1)	7.431	(0.000)	62	374939	7.308	7.31			0.10	0.50
80) Trichloroethene	(1)	8.272	(0.001)	95	381201	7.148	7.15			0.10	0.50
83) 1,2-Dichloropropane	(1)	8.565	(0.000)	63	323159	7.075	7.08			0.10	0.50
85) Dibromomethane	(1)	8.711	(0.001)	93	148510	6.866	6.87			0.10	0.50
87) 1,4-Dioxane	(4)	8.742	(0.006)	88	33216	184.129	184.13			20.00	100.00
86) Methyl Methacrylate	(4)	8.717	(0.006)	69	101970	6.984	6.98			0.10	0.50
88) Bromodichloromethane	(1)	8.918	(0.000)	83	403085	7.021	7.02			0.10	0.50
93) cis-1,3-Dichloropropene	(1)	9.479	(0.001)	75	394766	6.389	6.39			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)	9.662	(0.000)	43	763611	29.787	29.79			1.00	5.00
97) Toluene	(2)	9.870	(0.000)	92	894902	7.183	7.18			0.10	0.50
100) trans-1,3-Dichloropropene	(2)	10.095	(0.000)	75	355317	6.879	6.88			0.10	0.50
102) Ethyl Methacrylate	(2)	10.199	(-0.001)	69	217457	6.066	6.07			0.10	0.50
103) 1,1,2-Trichloroethane	(2)	10.290	(-0.001)	97	207582	6.853	6.85			0.10	0.50
104) Tetrachloroethene	(2)	10.449	(0.000)	166	425300	6.792	6.79			0.10	0.50
106) 2-Hexanone	(2)	10.540	(-0.001)	43	533213	30.769	30.77			1.00	5.00
107) Dibromochloromethane	(2)	10.686	(-0.001)	129	268063	6.685	6.69			0.10	0.50
108) 1,2-Dibromoethane	(2)	10.796	(0.000)	107	191318	6.587	6.59			0.10	0.50
110) Chlorobenzene	(2)	11.253	(0.000)	112	1033932	6.854	6.85			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	(0.000)	131	347840	6.713	6.71			0.10	0.50
112) Ethylbenzene	(2)	11.351	(0.000)	91	1775952	7.198	7.20			0.10	0.50
113) m+p-Xylene	(2)	11.448	(0.000)	106	1443545	14.378	14.38			0.10	0.50
116) Xylene (Total)	(2)			106	2112799	21.476	21.48			0.10	0.50
117) o-Xylene	(2)	11.790	(0.000)	106	669254	7.098	7.10			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8341

13-5-MS

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648240

File: /chem2/HP10193.i/09apr22a.b/ca22s17.d
Sample: 13-5-MS;5648240;1;3;MS;;;;
Injected At:22-APR-2009 18:55
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA-SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
118) Styrene	(2)	11.802	(-0.001)	104	1058524	7.305	7.30			0.10	0.50
119) Bromoform	(2)	11.954	(0.000)	173	139323	6.409	6.41			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	(0.000)	83	244257	6.904	6.90			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	(0.008)	53	274114	36.562	36.56			1.00	5.00
128) 1,2,3-Trichloropropane	(3)	12.357	(0.000)	110	72932	6.288	6.29			0.30	1.00
137) Pentachloroethane	(3)	12.820	(0.000)	167	278307	5.930	5.93			0.20	0.50
140) 1,3-Dichlorobenzene	(3)	13.052	(0.000)	146	964175	6.602	6.60			0.10	0.50
143) 1,4-Dichlorobenzene	(3)	13.113	(0.000)	146	966628	6.453	6.45			0.10	0.50
145) Benzyl Chloride	(3)	13.204	(0.000)	126	101066	5.632	5.63			0.10	0.50
147) 1,2-Dichlorobenzene	(3)	13.387	(0.000)	146	847391	6.570	6.57			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	(0.009)	155	29454	6.538	6.54			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)	14.478	(0.000)	180	561599	6.268	6.27			0.10	0.50
153) Hexachlorobutadiene	(3)	14.582	(0.000)	225	324342	6.713	6.71			0.10	0.50
154) Naphthalene	(3)	14.655	(0.000)	128	867802	6.122	6.12			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: _____ Date: 4/22/09

Auditor: _____ Date: 4/29/09

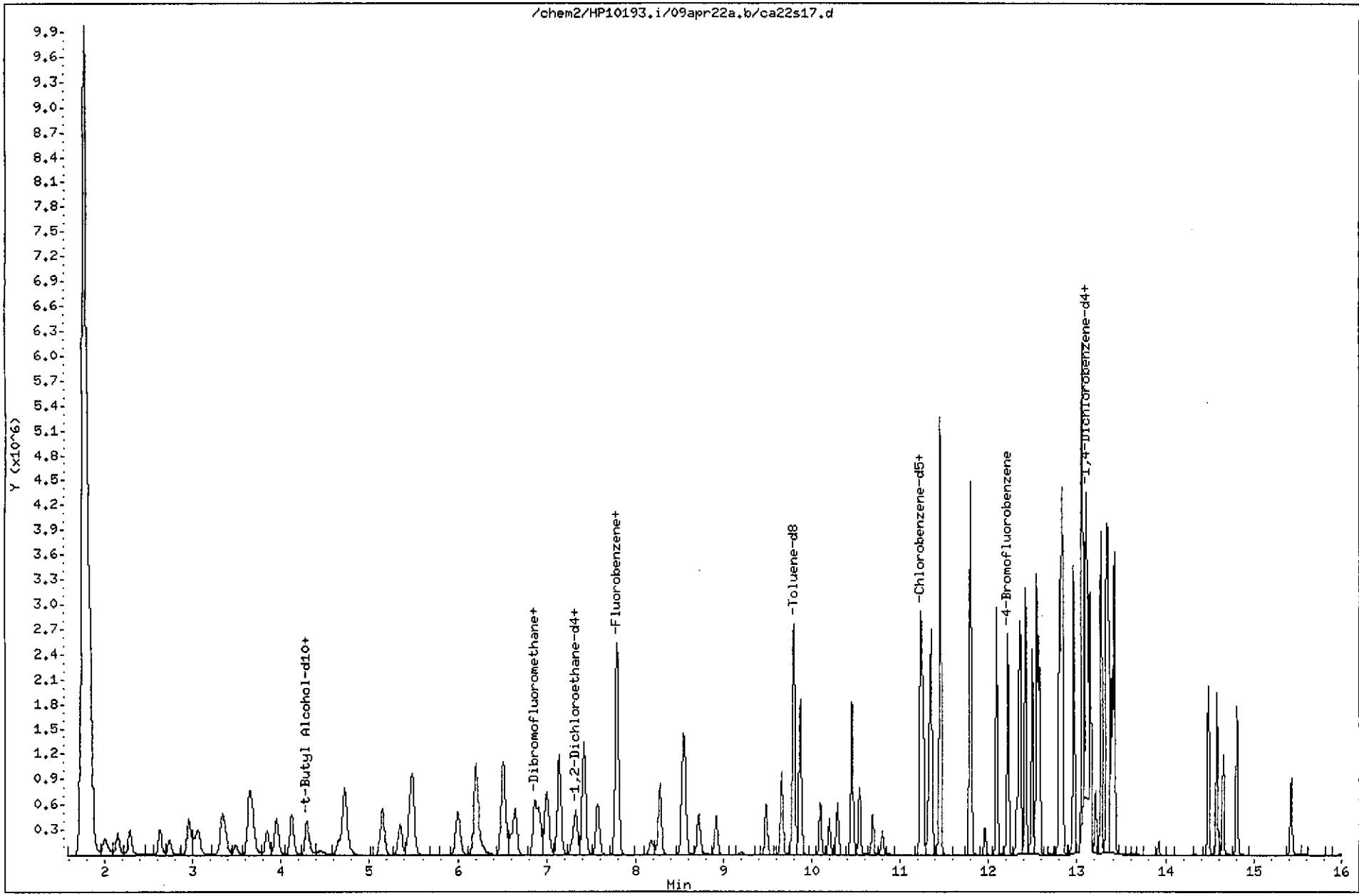
RAD11 8342

4/22/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d
Date : 22-APR-2009 18:55
Client ID: 13-5-MS
Sample Info: 13-5-MS;5648240;1;3;MS;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: ADS01731
Column diameter: 0.25

RAD11 0343



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:32 sew02002

Sample Name: 13-5-MS Lab Sample ID: 5648240

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	447790	7.264
6) Vinyl Chloride	(1)	2.286	62	358343	6.087
8) Bromomethane	(1)	2.627	94	276215	6.298
9) Chloroethane	(1)	2.731	64	219542	6.358
12) Trichlorofluoromethane	(1)	3.060	101	658208M	6.946
18) Acrolein	(4)	3.487	56	169596	41.678
19) 1,1-Dichloroethene	(1)	3.639	96	288387	7.114
23) Acetone	(4)	3.676	58	95869	51.833
26) Methyl Iodide	(1)	3.840	142	492705	6.154
27) Carbon Disulfide	(1)	3.950	76	1034583	7.512
29) Allyl Chloride	(1)	4.115	41	466835	6.602
32) Methylene Chloride	(1)	4.291	84	314275	6.591
33)*t-Butyl Alcohol-d10	(4)	4.322	65	91805	50.000
36) Acrylonitrile	(4)	4.651	53	258679	35.619
37) trans-1,2-Dichloroethene	(1)	4.724	96	340471	7.172
44) 1,1-Dichloroethane	(1)	5.346	63	579157	7.289
47) 2-Chloro-1,3-Butadiene	(1)	5.492	53	533632	7.942
50) 2-Butanone	(4)	6.206	43	493739	54.207
52) Propionitrile	(4)	6.285	54	145699	51.029
53) Methacrylonitrile	(4)	6.510	67	492447	53.215
54) Bromochloromethane	(1)	6.529	128	150198	5.940
56) Chloroform	(1)	6.651	83	615689	7.110
60) 1,1,1-Trichloroethane	(1)	6.919	97	574414	7.237
64) Carbon Tetrachloride	(1)	7.144	117	548330	7.561
66) Isobutyl Alcohol	(4)	7.297	41	135532	174.968
70) Benzene	(1)	7.419	78	1384058	7.104
72) 1,2-Dichloroethane	(1)	7.431	62	374939	7.308
75)*Fluorobenzene	(1)	7.791	96	2094721	10.000
80) Trichloroethene	(1)	8.272	95	381201	7.148
83) 1,2-Dichloropropane	(1)	8.565	63	323159	7.075
85) Dibromomethane	(1)	8.711	93	148510	6.866
87) 1,4-Dioxane	(4)	8.742	88	33216	184.129
86) Methyl Methacrylate	(4)	8.717	69	101970	6.984
88) Bromodichloromethane	(1)	8.918	83	403085	7.021

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8344

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:32 sew02002

Sample Name: 13-5-MS Lab Sample ID: 5648240

Compounds	I.S. Ref.	RT	QIon	Area		Conc. (on column)
93) cis-1,3-Dichloropropene	(1)	9.479	75	394766		6.389
94) 4-Methyl-2-Pentanone	(1)	9.662	43	763611		29.787
97) Toluene	(2)	9.870	92	894902		7.183
100) trans-1,3-Dichloropropene	(2)	10.095	75	355317		6.879
102) Ethyl Methacrylate	(2)	10.199	69	217457		6.066
103) 1,1,2-Trichloroethane	(2)	10.290	97	207582		6.853
104) Tetrachloroethene	(2)	10.449	166	425300		6.792
106) 2-Hexanone	(2)	10.540	43	533213		30.769
107) Dibromochloromethane	(2)	10.686	129	268063		6.685
108) 1,2-Dibromoethane	(2)	10.796	107	191318		6.587
109) *Chlorobenzene-d5	(2)	11.229	117	1532991		10.000
110) Chlorobenzene	(2)	11.253	112	1033932		6.854
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	347840		6.713
112) Ethylbenzene	(2)	11.351	91	1775952		7.198
113) m+p-Xylene	(2)	11.448	106	1443545		14.378
116) Xylene (Total)	(2)		106	2112799		21.476
117) o-Xylene	(2)	11.790	106	669254		7.098
118) Styrene	(2)	11.802	104	1058524		7.305
119) Bromoform	(2)	11.954	173	139323		6.409
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	244257		6.904
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	274114	A	36.562
128) 1,2,3-Trichloropropane	(3)	12.357	110	72932		6.288
137) Pentachloroethane	(3)	12.820	167	278307		5.930
140) 1,3-Dichlorobenzene	(3)	13.052	146	964175		6.602
142) *1,4-Dichlorobenzene-d4	(3)	13.094	152	971226		10.000
143) 1,4-Dichlorobenzene	(3)	13.113	146	966628		6.453
145) Benzyl Chloride	(3)	13.204	126	101066		5.632
147) 1,2-Dichlorobenzene	(3)	13.387	146	847391		6.570
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	29454		6.538
152) 1,2,4-Trichlorobenzene	(3)	14.478	180	561599		6.268
153) Hexachlorobutadiene	(3)	14.582	225	324342		6.713
154) Naphthalene	(3)	14.655	128	867802		6.122
58) $Dibromofluoromethane	(1)	6.864	113	513964		9.311
69) $1,2-Dichloroethane-d4	(1)	7.327	102	92579		9.273

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

BAD11 0345

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:32 sew02002

Sample Name: 13-5-MS Lab Sample ID: 5648240

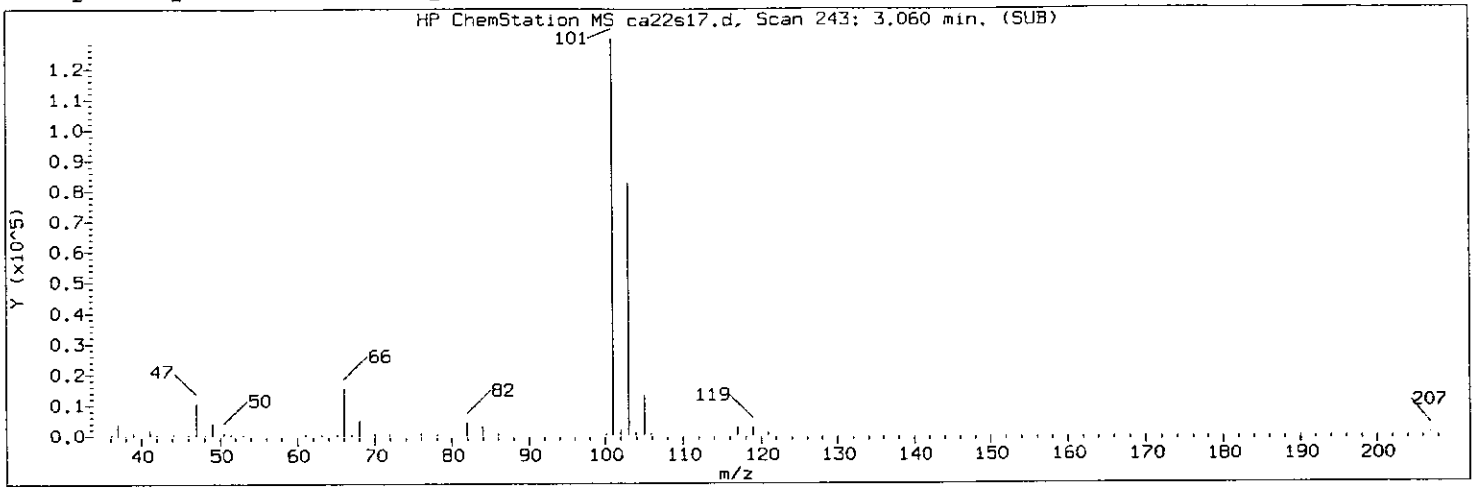
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
95)$Toluene-d8	(2)	9.796	98	2178343	10.036
123)$4-Bromofluorobenzene	(2)	12.217	95	774057M	9.651

M = Compound was manually integrated.

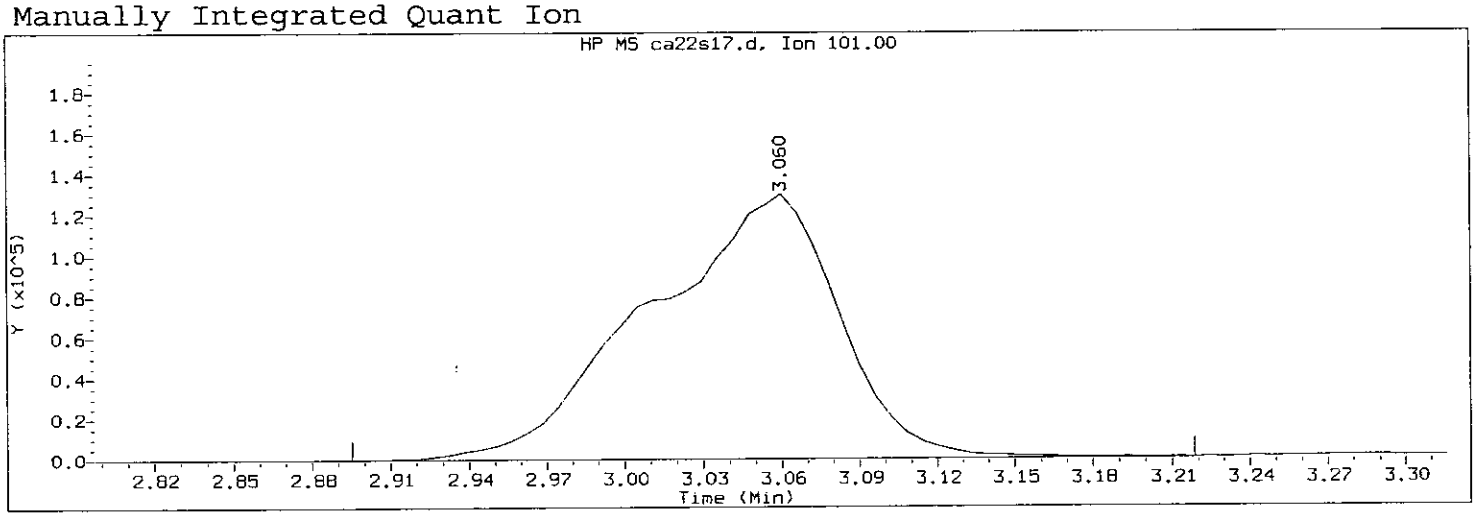
$ = Compound is a surrogate standard.

RAD11 0346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:32 sew02002

Sample Name: 13-5-MS Lab Sample ID: 5648240

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 243
Retention Time (minutes): 3.060
Quant Ion : 101
Area (flag) : 658208 M
Concentration (ug/L) : 6.9460
Integration start scan : 215 Integration stop scan: 268
Y at integration start : 0 Y at integration end: 0

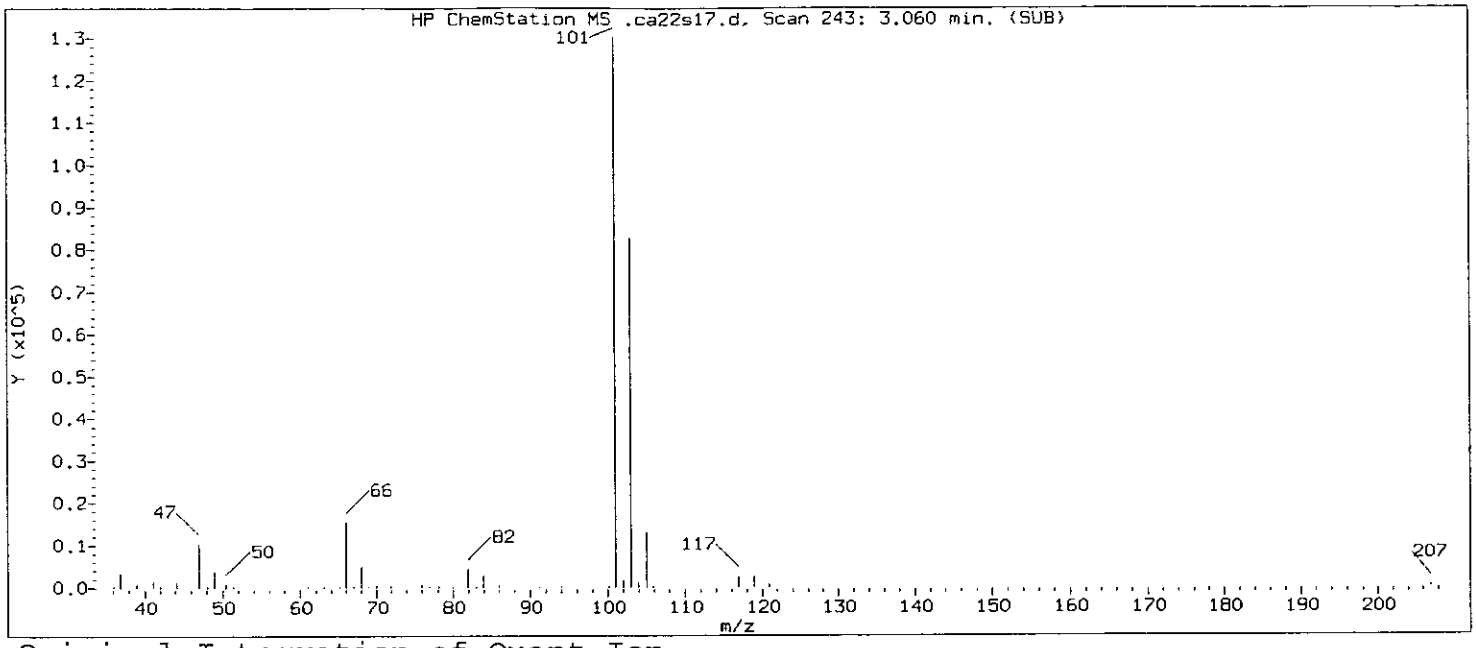
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Sue Woo 4/21/09

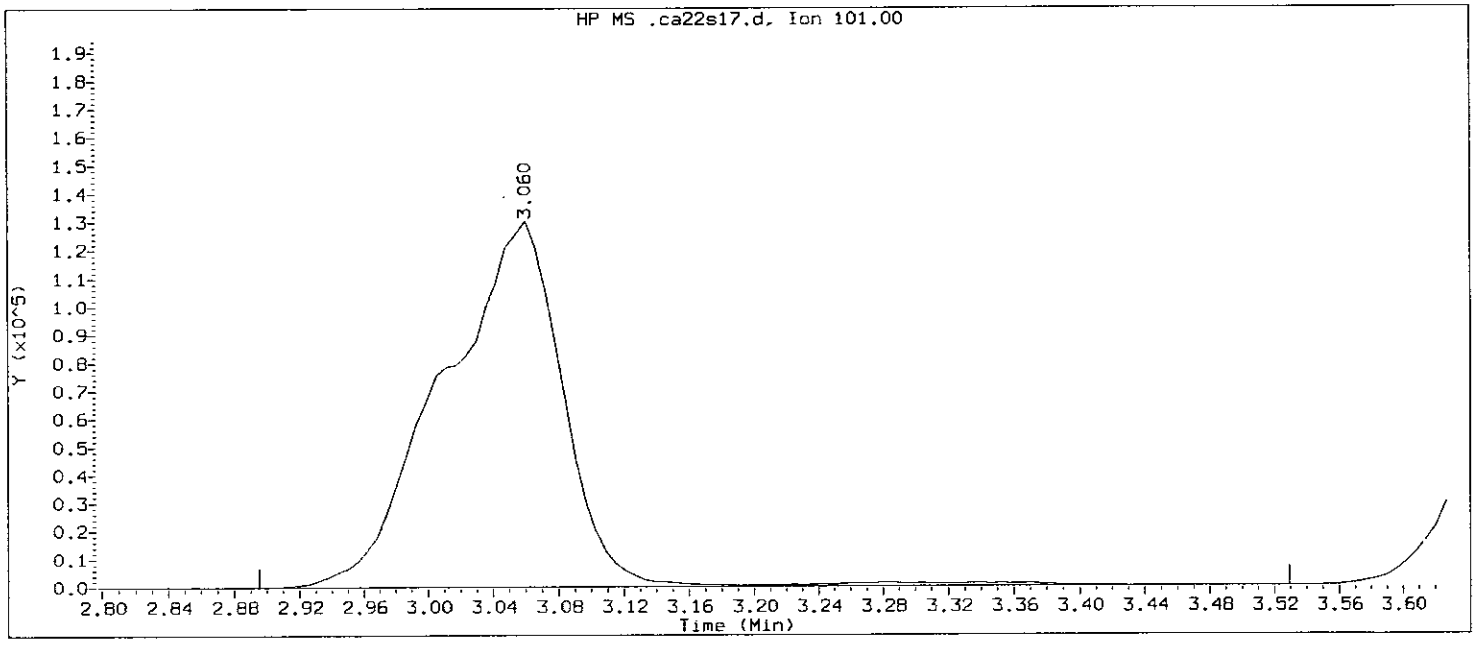
RAD11 8347

GC/MS audit/management approval: [signature] 4-29-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:13 Automation

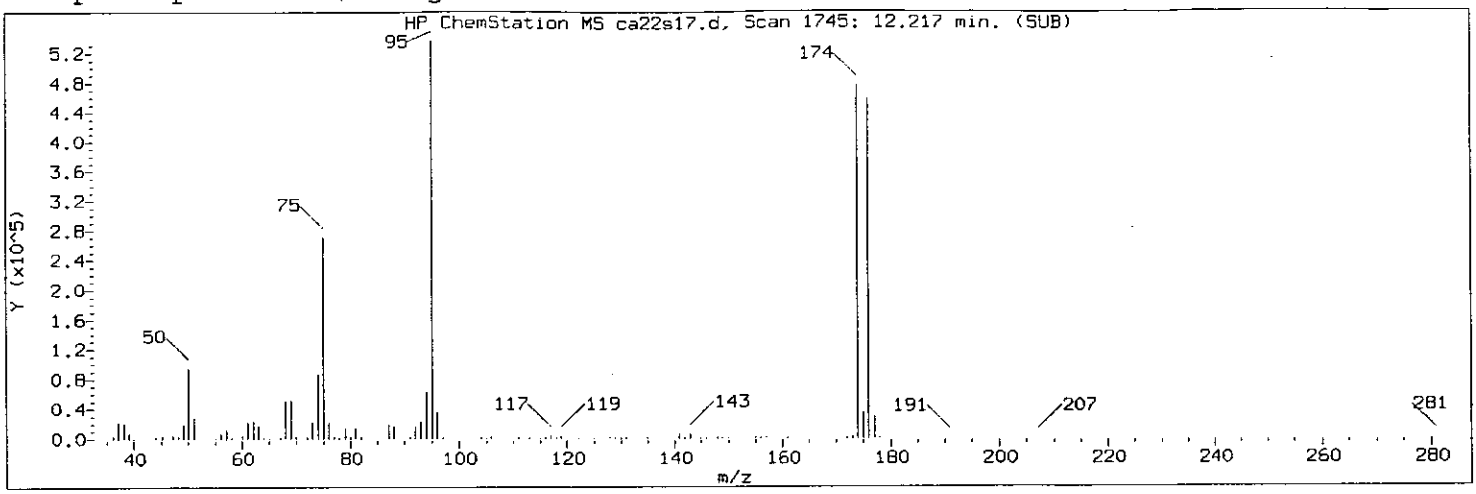
Sample Name: 13-5-MS Lab Sample ID: 5648240

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 243
Retention Time (minutes): 3.060
Quant Ion : 101
Area : 668290
Concentration (ug/L) : 7.0524
Integration start scan : 215 Integration stop scan: 319
Y at integration start : 0 Y at integration end: 0

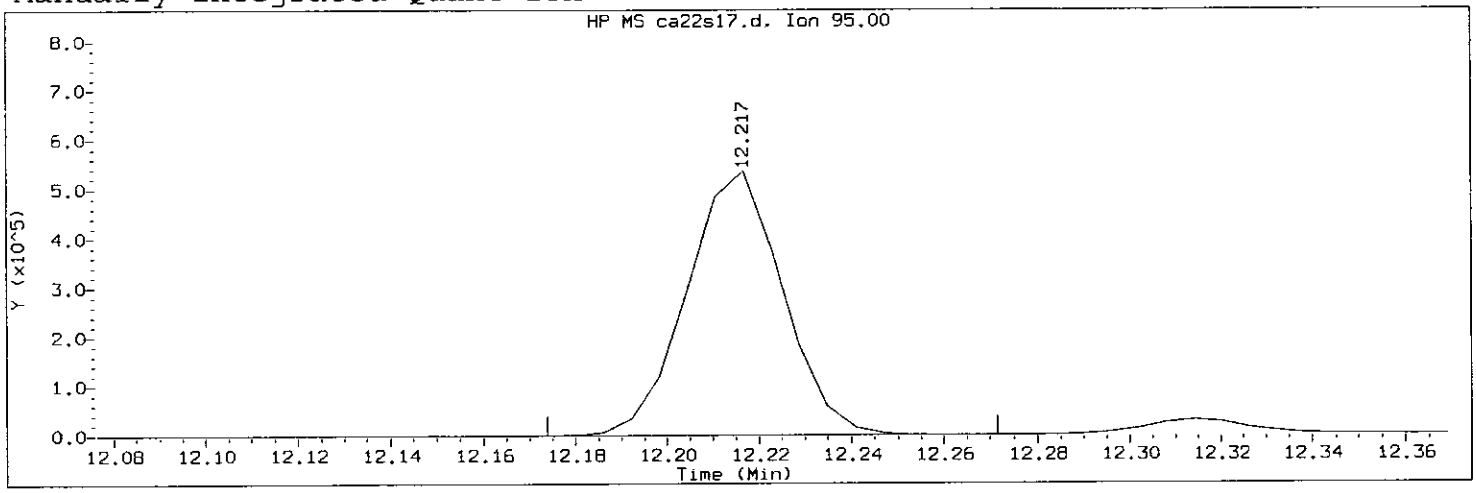
RAD11 8348

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s17.d, generated on 04/22/2009 at 22:32

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:32 sew02002

Sample Name: 13-5-MS Lab Sample ID: 5648240

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area (flag) : 774057 M
Concentration (ug/L) : 9.6507
Integration start scan : 1737 Integration stop scan: 1753
Y at integration start : 0 Y at integration end: 0

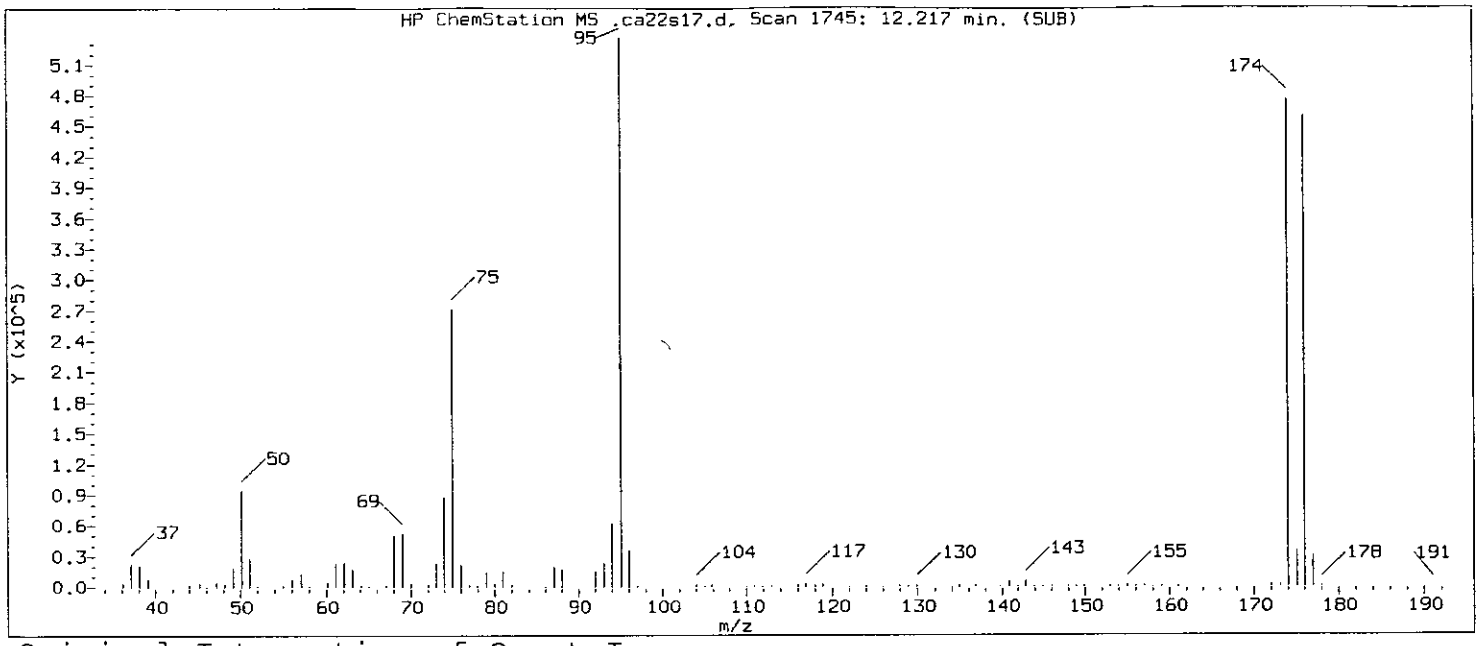
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Sew 4/22/09

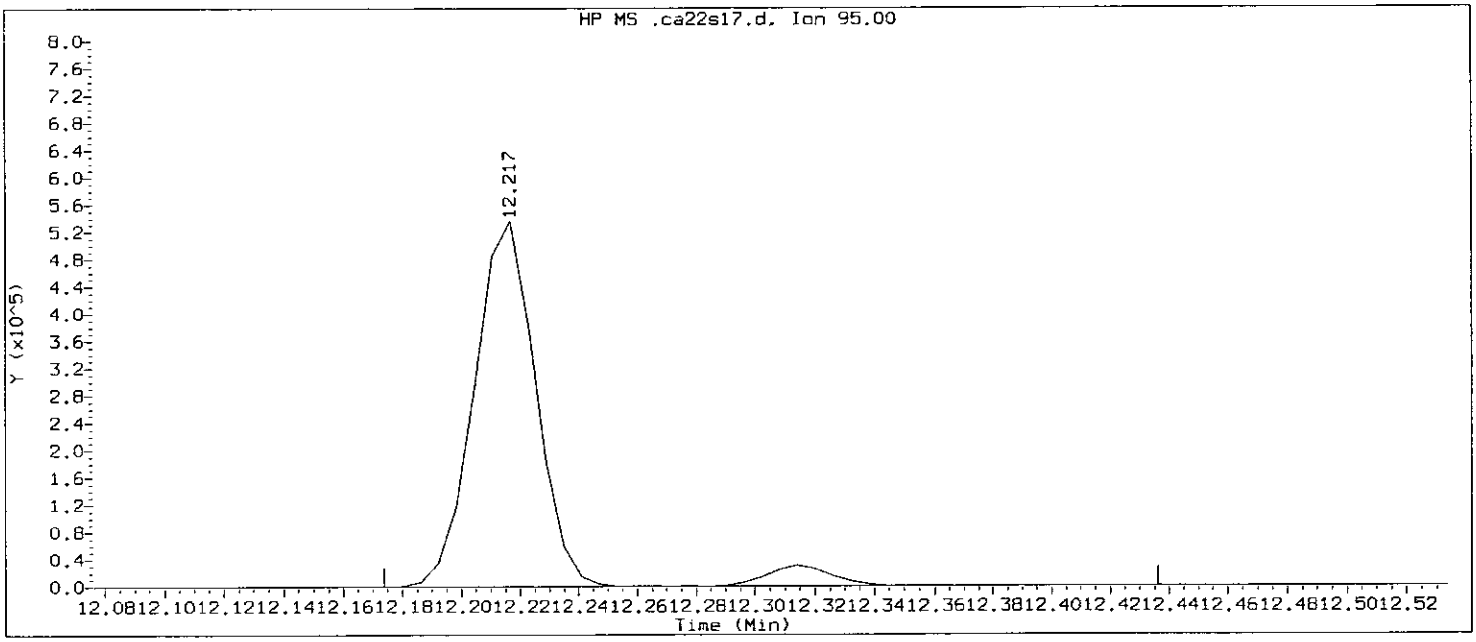
BAD11 8349

GC/MS audit/management approval: 4-29-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:13 Automation

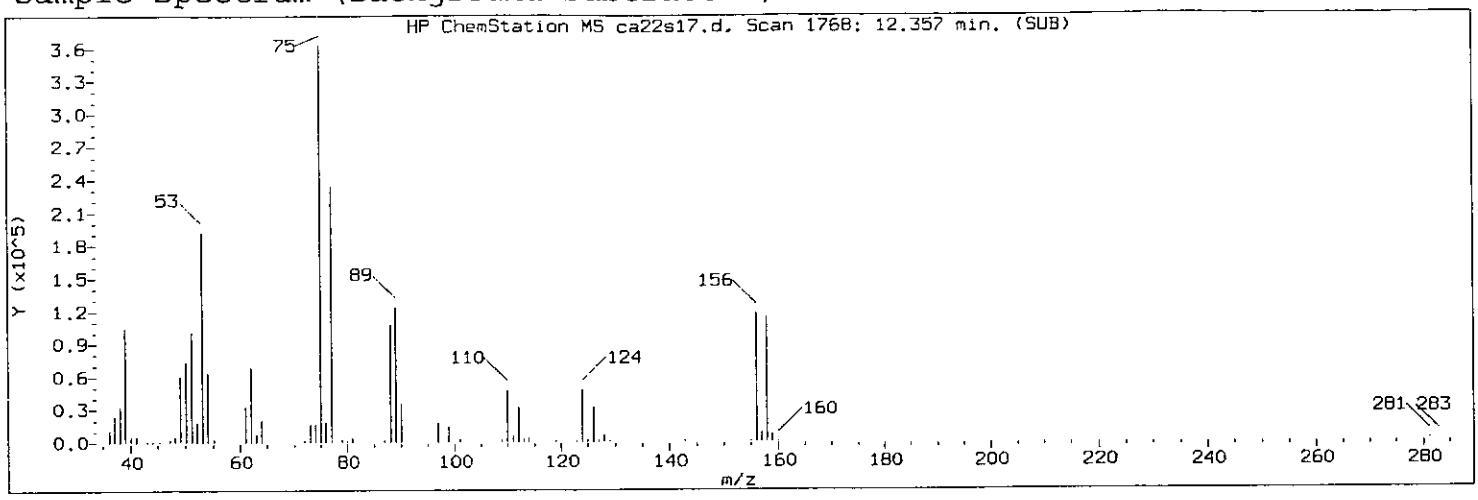
Sample Name: 13-5-MS Lab Sample ID: 5648240

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area : 821277
Concentration (ug/L) : 10.2394
Integration start scan : 1737 Integration stop scan: 1780
Y at integration start : 0 Y at integration end: 0

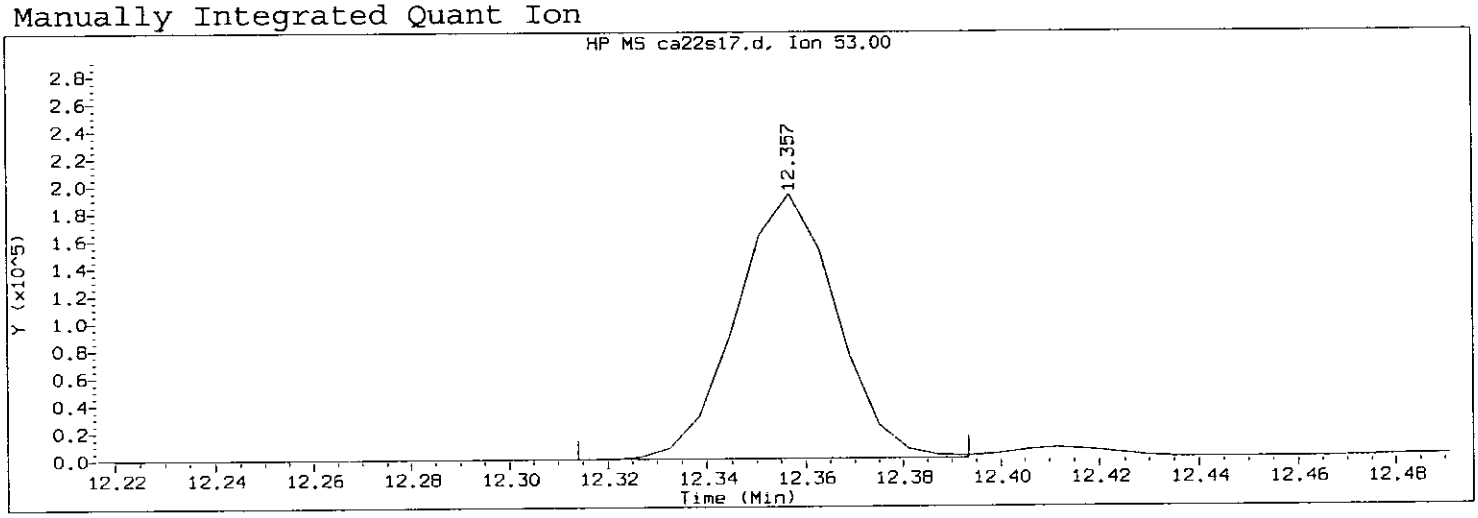
RAD11 #350

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s17.d, generated on 04/22/2009 at 22:32

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:32 sew02002

Sample Name: 13-5-MS Lab Sample ID: 5648240

Compound Number : 127
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1768
Retention Time (minutes): 12.357
Quant Ion : 53
Area (flag) : 274114A
Concentration (ug/L) : 36.5617
Integration start scan : 1760 Integration stop scan: 1773
Y at integration start : 0 Y at integration end: 0

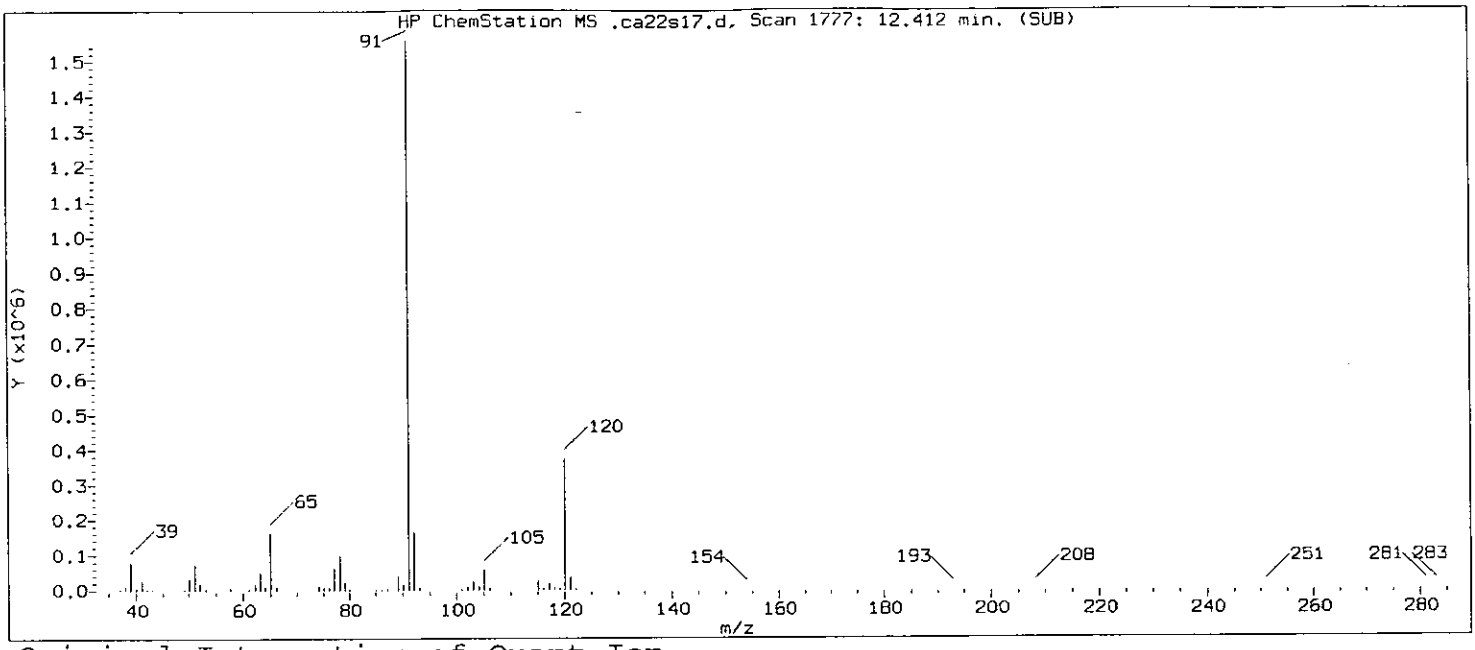
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 4/21/09

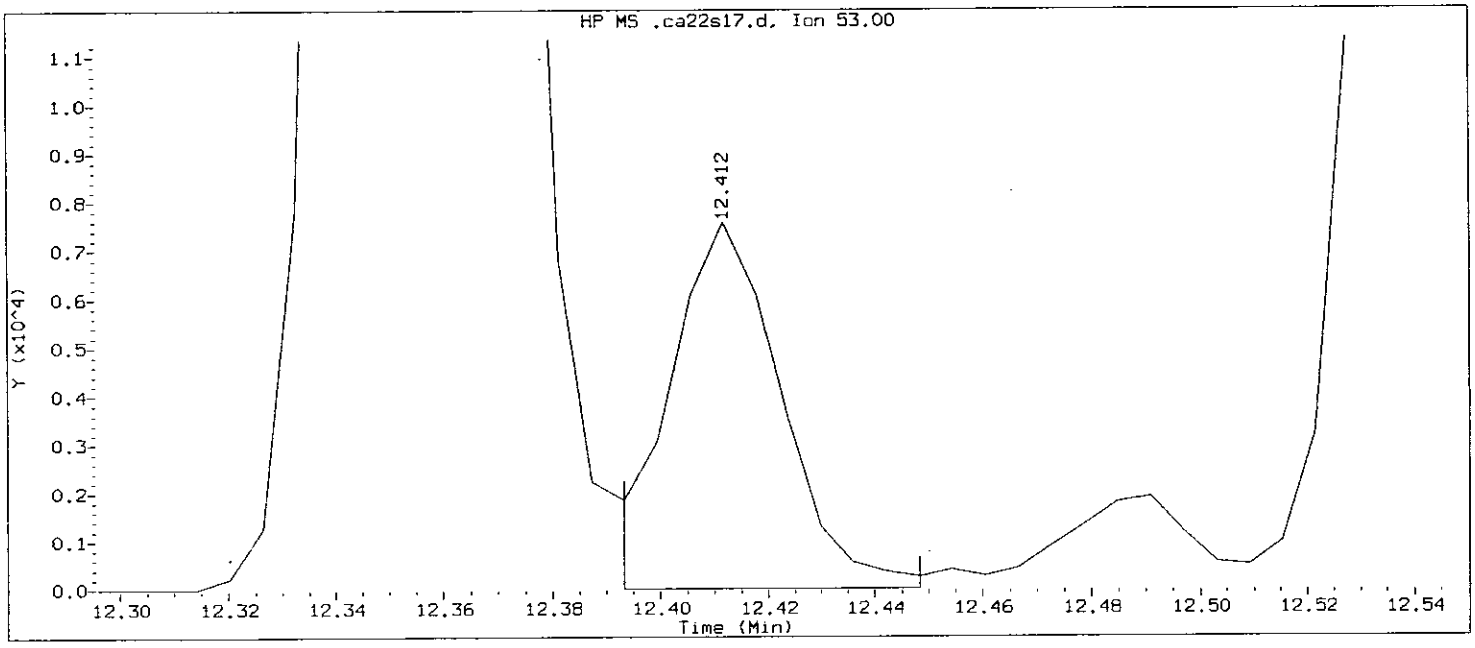
RAD11 8351

GC/MS audit/management approval: [signature] 4/29/09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s17.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 18:55 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:13 Automation

Sample Name: 13-5-MS Lab Sample ID: 5648240

Compound Number : 127
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1777
Retention Time (minutes): 12.412
Quant Ion : 53
Area : 10798
Concentration (ug/L) : 1.9769
Integration start scan : 1773 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

RAD11 8352

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s17.d, generated on 04/22/2009 at 22:32

13-5-MS1

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648240

File: /chem2/HP10193.i/09apr22a.b/ca22s19.d
Sample: 13-5-MS1;5648240;1;3;MS;;;;
Injected At:22-APR-2009 19:38
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERASM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38B

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.322(-0.012)	450	65	94322(-15)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	2097917(-10)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1566129(-11)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	884351(-19)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	534425	9.667	97%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	95333	9.534	95%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2287367	10.316	103%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	715689	8.734	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Reporting Qual.	Reporting Limit	LOQ
28) Acetonitrile	(4)	4.060(0.003)	41	143357	47.412	47.41			7.00	20.00
45) Vinyl Acetate	(1)	5.425(0.001)	43	724514	11.373	11.37			0.20	0.50
148) Hexachloroethane	(3)	13.576(0.000)	117	230746	5.295	5.29			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: ADS1731 Date: 4/30/09 (3) ADS 4/30/09

Auditor: Date: 4/30/09

RAD11 8353

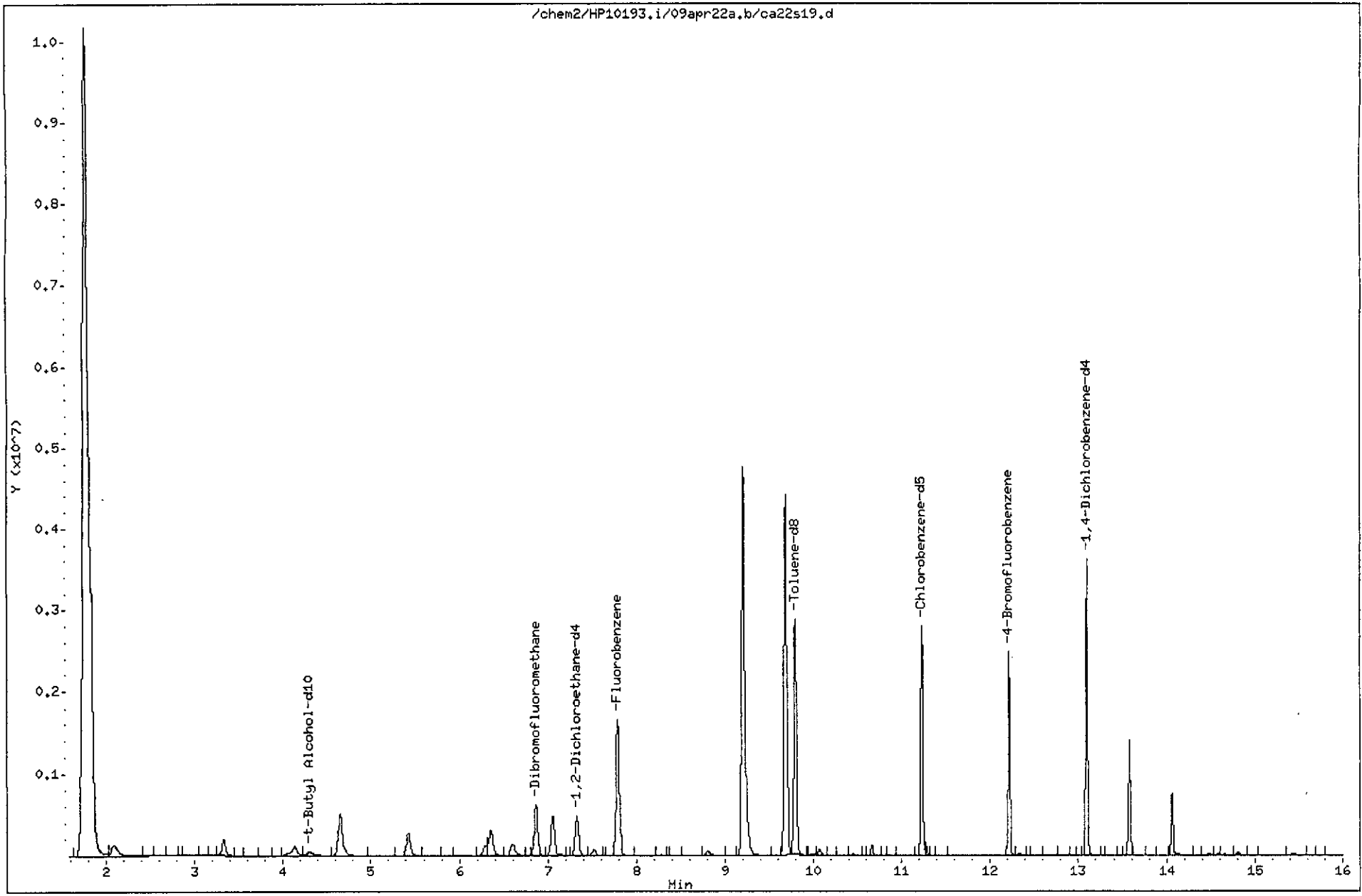
Lmin 4/27/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s19.d
Date : 22-APR-2009 19:38
Client ID: 13-5-MS1
Sample Info: 13-5-MS1;5648240;1;3;MS;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RADIAN 0354



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s19.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:38 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERASM
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 30-Apr-2009 14:01 ads01731

Sample Name: 13-5-MS1 Lab Sample ID: 5648240

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
28) Acetonitrile	(4)	4.060	41	143357	47.412
33)*t-Butyl Alcohol-d10	(4)	4.322	65	94322	50.000
45) Vinyl Acetate	(1)	5.425	43	724514	11.373
75)*Fluorobenzene	(1)	7.791	96	2097917	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1566129	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	884351	10.000
148) Hexachloroethane	(3)	13.576	117	230746	5.295
58)$Dibromofluoromethane	(1)	6.870	113	534425	9.667
69)$1,2-Dichloroethane-d4	(1)	7.327	102	95333	9.534
95)$Toluene-d8	(2)	9.796	98	2287367	10.316
123)$4-Bromofluorobenzene	(2)	12.217	95	715689	8.734

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

13-5-MSD

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648241

File: /chem2/HP10193.i/09apr22a.b/ca22s18.d
Sample: 13-5-MSD;5648241;1;3;MSD;;;;
Injected At:22-APR-2009 19:16
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA-SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38A

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.322(-0.012)	450	65	98042(-11)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	2179343(-6)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1592134(-9)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	976886(-10)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	532393	9.271	93%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.333(0.000)	102	96450	9.285	93%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2239056	9.933	99%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	806596	9.683	97%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)	1.999(0.000)	85	480929	7.499	7.50			0.10	0.50
6) Vinyl Chloride	(1)	2.286(-0.001)	62	392007	6.400	6.40			0.10	0.50
8) Bromomethane	(1)	2.627(-0.001)	94	299630	6.567	6.57			0.10	0.50
9) Chloroethane	(1)	2.737(-0.001)	64	240861	6.704	6.70			0.10	0.50
12) Trichlorofluoromethane	(1)	3.054(0.001)	101	693022	7.029	7.03			0.10	0.50
18) Acrolein	(4)	3.487(0.001)	56	188302	43.331	43.33			5.00	25.00
19) 1,1-Dichloroethene	(1)	3.639(0.000)	96	309940	7.349	7.35			0.10	0.50
23) Acetone	(4)	3.676(0.001)	58	100721	50.992	50.99			3.00	5.00
26) Methyl Iodide	(1)	3.840(0.001)	142	531303	6.378	6.38			0.10	0.50
27) Carbon Disulfide	(1)	3.944(0.001)	76	1083801	7.564	7.56			0.40	0.50
29) Allyl Chloride	(1)	4.114(0.000)	41	508641	6.914	6.91			0.10	0.50
32) Methylene Chloride	(1)	4.291(0.000)	84	330569	6.664	6.66			0.20	0.50
36) Acrylonitrile	(4)	4.651(0.000)	53	274056	35.336	35.34			1.00	5.00
37) trans-1,2-Dichloroethene	(1)	4.718(0.000)	96	358108	7.251	7.25			0.10	0.50
44) 1,1-Dichloroethane	(1)	5.352(-0.001)	63	606992	7.342	7.34			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)	5.492(0.000)	53	560395	8.016	8.02			0.10	0.50
50) 2-Butanone	(4)	6.212(0.001)	43	523590	53.827	53.83			1.00	5.00
52) Propionitrile	(4)	6.291(0.001)	54	156645	51.373	51.37			2.00	10.00
53) Methacrylonitrile	(4)	6.510(0.003)	67	522666	52.887	52.89			1.00	5.00
54) Bromochloromethane	(1)	6.529(0.000)	128	158019	6.007	6.01			0.10	0.50
56) Chloroform	(1)	6.644(0.001)	83	641625	7.122	7.12			0.10	0.50
60) 1,1,1-Trichloroethane	(1)	6.913(0.001)	97	603406	7.307	7.31			0.10	0.50
64) Carbon Tetrachloride	(1)	7.144(0.001)	117	574736	7.617	7.62			0.10	0.50
66) Isobutyl Alcohol	(4)	7.297(0.001)	41	131658	159.154	159.15			10.00	25.00

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8356

13-5-MSD

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648241

File: /chem2/HP10193.i/09apr22a.b/ca22s18.d
Sample: 13-5-MSD;5648241;1;3;MSD;;;;
Injected At:22-APR-2009 19:16
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA-SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
70) Benzene	(1)	7.419	(0.000)	78	1442244	7.115	7.12			0.10	0.50
72) 1,2-Dichloroethane	(1)	7.431	(0.000)	62	390649	7.318	7.32			0.10	0.50
80) Trichloroethene	(1)	8.278	(0.000)	95	392853	7.080	7.08			0.10	0.50
83) 1,2-Dichloropropane	(1)	8.559	(0.001)	63	338578	7.125	7.12			0.10	0.50
85) Dibromomethane	(1)	8.711	(0.001)	93	154300	6.856	6.86			0.10	0.50
87) 1,4-Dioxane	(4)	8.742	(0.006)	88	22308	115.795	115.79			20.00	100.00
86) Methyl Methacrylate	(4)	8.717	(0.006)	69	110413	7.081	7.08			0.10	0.50
88) Bromodichloromethane	(1)	8.918	(0.000)	83	424148	7.101	7.10			0.10	0.50
93) cis-1,3-Dichloropropene	(1)	9.479	(0.001)	75	423487	6.587	6.59			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)	9.662	(0.000)	43	818799	30.681	30.68			1.00	5.00
97) Toluene	(2)	9.869	(0.000)	92	938243	7.252	7.25			0.10	0.50
100) trans-1,3-Dichloropropene	(2)	10.095	(0.000)	75	376570	7.020	7.02			0.10	0.50
102) Ethyl Methacrylate	(2)	10.199	(-0.001)	69	238491	6.385	6.39			0.10	0.50
103) 1,1,2-Trichloroethane	(2)	10.290	(-0.001)	97	215691	6.857	6.86			0.10	0.50
104) Tetrachloroethene	(2)	10.449	(0.000)	166	445844	6.855	6.86			0.10	0.50
106) 2-Hexanone	(2)	10.540	(-0.001)	43	567074	31.488	31.49			1.00	5.00
107) Dibromochloromethane	(2)	10.686	(-0.001)	129	283738	6.813	6.81			0.10	0.50
108) 1,2-Dibromoethane	(2)	10.796	(0.000)	107	201027	6.664	6.66			0.10	0.50
110) Chlorobenzene	(2)	11.253	(0.000)	112	1079846	6.893	6.89			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)	11.326	(0.000)	131	365351	6.789	6.79			0.10	0.50
112) Ethylbenzene	(2)	11.351	(0.000)	91	1854792	7.238	7.24			0.10	0.50
113) m+p-Xylene	(2)	11.448	(0.000)	106	1499603	14.381	14.38			0.10	0.50
116) Xylene (Total)	(2)			106	2202352	21.558	21.56			0.10	0.50
117) o-Xylene	(2)	11.790	(0.000)	106	702749	7.177	7.18			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

BAD11 0357

13-5-MSD

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648241

File: /chem2/HP10193.i/09apr22a.b/ca22s18.d
Sample: 13-5-MSD;5648241;1;3;MSD;;;;
Injected At:22-APR-2009 19:16
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERA-SM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:38A

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
118) Styrene	(2)	11.796	(0.000)	104	1113922	7.401	7.40			0.10	0.50
119) Bromoform	(2)	11.960	(-0.001)	173	147893	6.551	6.55			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	(0.000)	83	253357	7.119	7.12			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	(0.008)	53	284510	35.576	35.58			1.00	5.00
128) 1,2,3-Trichloropropane	(3)	12.357	(0.000)	110	77241	6.621	6.62			0.30	1.00
137) Pentachloroethane	(3)	12.820	(0.000)	167	287934	6.099	6.10			0.20	0.50
140) 1,3-Dichlorobenzene	(3)	13.052	(0.000)	146	994496	6.770	6.77			0.10	0.50
143) 1,4-Dichlorobenzene	(3)	13.113	(0.000)	146	1008250	6.692	6.69			0.10	0.50
145) Benzyl Chloride	(3)	13.204	(0.000)	126	107883	5.964	5.96			0.10	0.50
147) 1,2-Dichlorobenzene	(3)	13.387	(0.000)	146	863849	6.659	6.66			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	(0.009)	155	31260	6.497	6.50			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)	14.484	(0.000)	180	553749	6.144	6.14			0.10	0.50
153) Hexachlorobutadiene	(3)	14.582	(0.000)	225	318175	6.547	6.55			0.10	0.50
154) Naphthalene	(3)	14.655	(0.000)	128	857558	6.016	6.02			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: [signature] Date: 4/24/09

Auditor: [signature] Date: 4-29-09

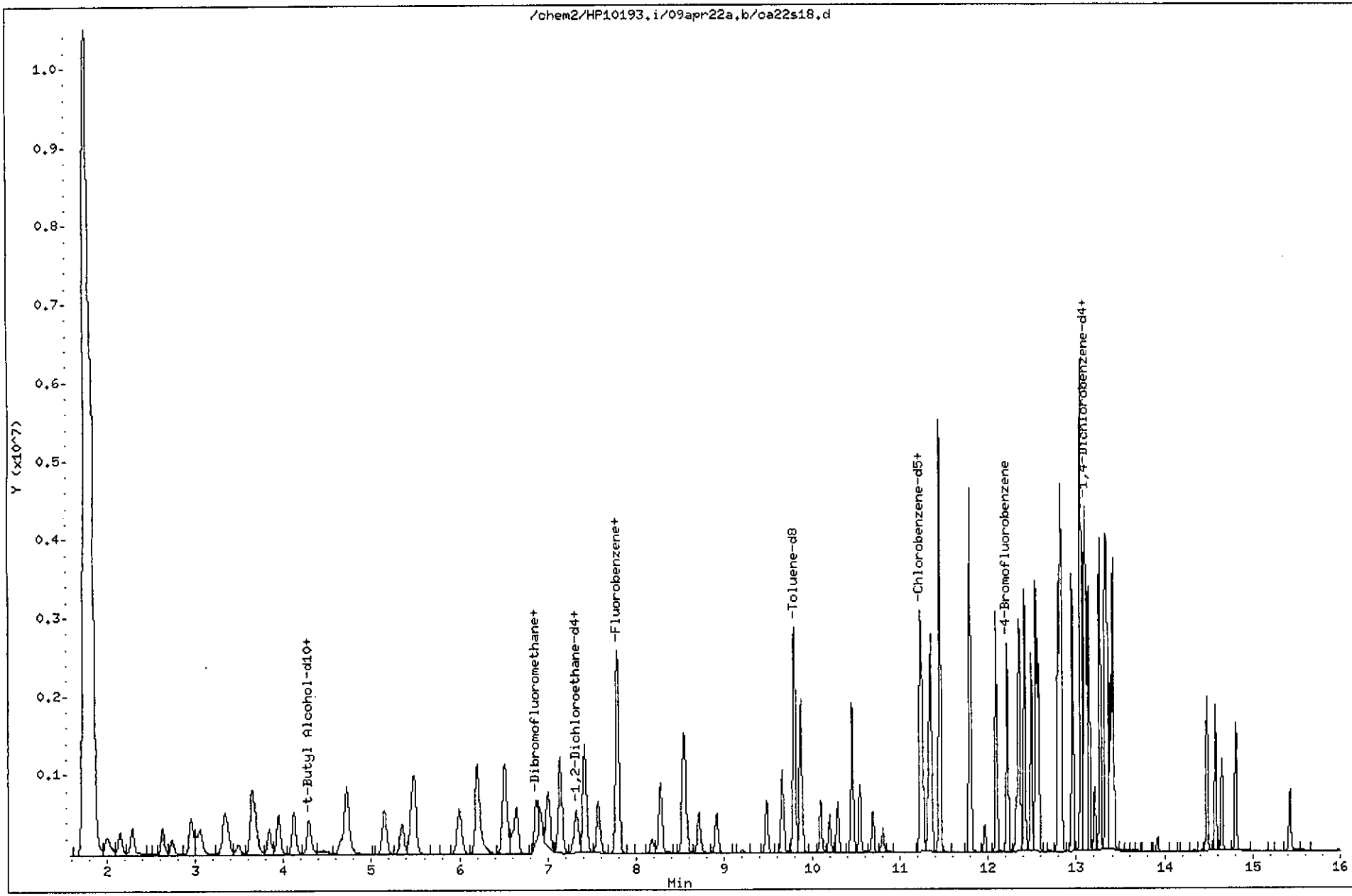
RAD11 8358

Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d
Date : 22-APR-2009 19:16
Client ID: 13-5-MSD
Sample Info: 13-5-MSD;5648241;1;3;MSD;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

RADII 0359



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.999	85	480929	7.499
6) Vinyl Chloride	(1)	2.286	62	392007	6.400
8) Bromomethane	(1)	2.627	94	299630	6.567
9) Chloroethane	(1)	2.737	64	240861	6.704
12) Trichlorofluoromethane	(1)	3.054	101	693022M	7.029
18) Acrolein	(4)	3.487	56	188302	43.331
19) 1,1-Dichloroethene	(1)	3.639	96	309940	7.349
23) Acetone	(4)	3.676	58	100721	50.992
26) Methyl Iodide	(1)	3.840	142	531303	6.378
27) Carbon Disulfide	(1)	3.944	76	1083801	7.564
29) Allyl Chloride	(1)	4.114	41	508641	6.914
32) Methylene Chloride	(1)	4.291	84	330569	6.664
33)*t-Butyl Alcohol-d10	(4)	4.322	65	98042	50.000
36) Acrylonitrile	(4)	4.651	53	274056	35.336
37) trans-1,2-Dichloroethene	(1)	4.718	96	358108	7.251
44) 1,1-Dichloroethane	(1)	5.352	63	606992	7.342
47) 2-Chloro-1,3-Butadiene	(1)	5.492	53	560395	8.016
50) 2-Butanone	(4)	6.212	43	523590	53.827
52) Propionitrile	(4)	6.291	54	156645	51.373
53) Methacrylonitrile	(4)	6.510	67	522666	52.887
54) Bromochloromethane	(1)	6.529	128	158019	6.007
56) Chloroform	(1)	6.644	83	641625	7.122
60) 1,1,1-Trichloroethane	(1)	6.913	97	603406	7.307
64) Carbon Tetrachloride	(1)	7.144	117	574736	7.617
66) Isobutyl Alcohol	(4)	7.297	41	131658	159.154
70) Benzene	(1)	7.419	78	1442244	7.115
72) 1,2-Dichloroethane	(1)	7.431	62	390649	7.318
75)*Fluorobenzene	(1)	7.791	96	2179343	10.000
80) Trichloroethene	(1)	8.278	95	392853	7.080
83) 1,2-Dichloropropane	(1)	8.559	63	338578	7.125
85) Dibromomethane	(1)	8.711	93	154300	6.856
87) 1,4-Dioxane	(4)	8.742	88	22308	115.795
86) Methyl Methacrylate	(4)	8.717	69	110413	7.081
88) Bromodichloromethane	(1)	8.918	83	424148	7.101

M = Compound was manually integrated.

* = Compound is an internal standard.

RAD11 8360

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
93) cis-1,3-Dichloropropene	(1)	9.479	75	423487	6.587
94) 4-Methyl-2-Pentanone	(1)	9.662	43	818799	30.681
97) Toluene	(2)	9.869	92	938243	7.252
100) trans-1,3-Dichloropropene	(2)	10.095	75	376570	7.020
102) Ethyl Methacrylate	(2)	10.199	69	238491	6.385
103) 1,1,2-Trichloroethane	(2)	10.290	97	215691	6.857
104) Tetrachloroethene	(2)	10.449	166	445844	6.855
106) 2-Hexanone	(2)	10.540	43	567074	31.488
107) Dibromochloromethane	(2)	10.686	129	283738	6.813
108) 1,2-Dibromoethane	(2)	10.796	107	201027	6.664
109)*Chlorobenzene-d5	(2)	11.229	117	1592134	10.000
110) Chlorobenzene	(2)	11.253	112	1079846	6.893
111) 1,1,1,2-Tetrachloroethane	(2)	11.326	131	365351	6.789
112) Ethylbenzene	(2)	11.351	91	1854792	7.238
113) m+p-Xylene	(2)	11.448	106	1499603	14.381
116) Xylene (Total)	(2)		106	2202352	21.558
117) o-Xylene	(2)	11.790	106	702749	7.177
118) Styrene	(2)	11.796	104	1113922	7.401
119) Bromoform	(2)	11.960	173	147893	6.551
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	253357	7.119
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	284510 A	35.576
128) 1,2,3-Trichloropropane	(3)	12.357	110	77241	6.621
137) Pentachloroethane	(3)	12.820	167	287934	6.099
140) 1,3-Dichlorobenzene	(3)	13.052	146	994496	6.770
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	976886	10.000
143) 1,4-Dichlorobenzene	(3)	13.113	146	1008250	6.692
145) Benzyl Chloride	(3)	13.204	126	107883	5.964
147) 1,2-Dichlorobenzene	(3)	13.387	146	863849	6.659
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	31260	6.497
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	553749	6.144
153) Hexachlorobutadiene	(3)	14.582	225	318175	6.547
154) Naphthalene	(3)	14.655	128	857558	6.016
58)$Dibromofluoromethane	(1)	6.870	113	532393	9.271
69)$1,2-Dichloroethane-d4	(1)	7.333	102	96450M	9.285

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

RAD11 0361

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

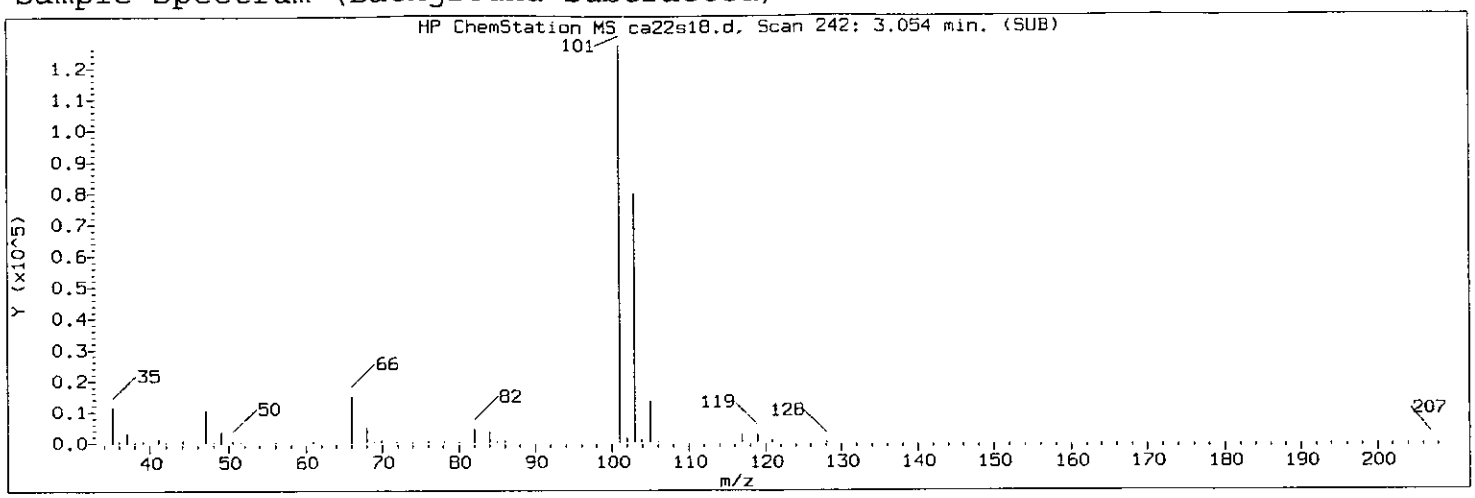
Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
95) $Toluene-d8	(2)	9.796	98	2239056	9.933
123) $4-Bromofluorobenzene	(2)	12.217	95	806596M	9.683

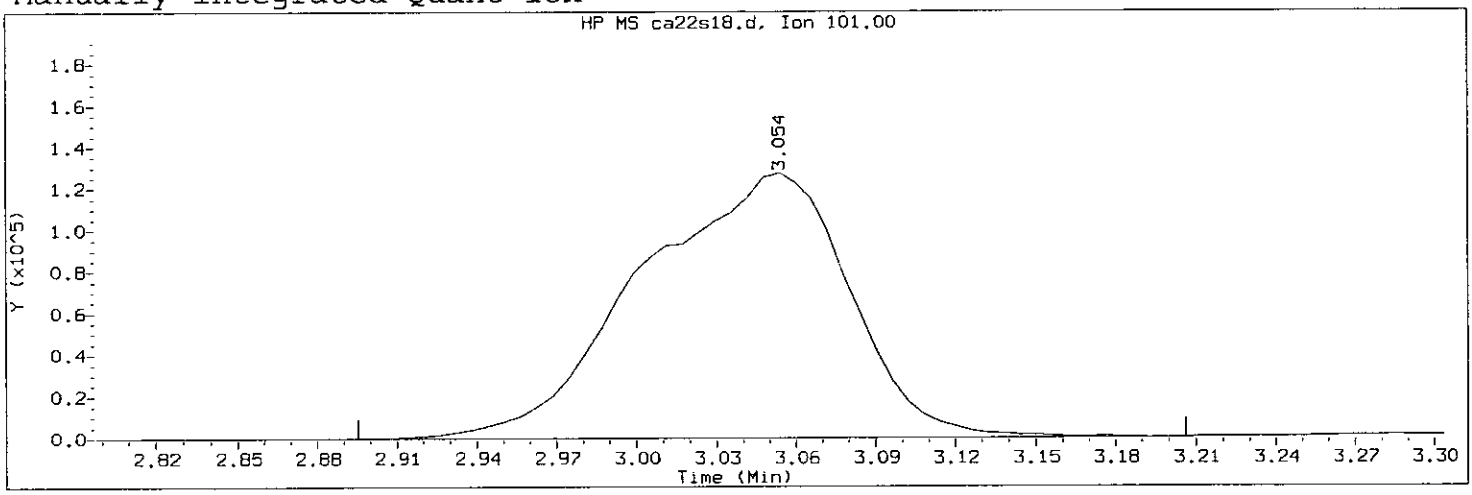
M = Compound was manually integrated.

$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 242
Retention Time (minutes): 3.054
Quant Ion : 101
Area (flag) : 693022 M
Concentration (ug/L) : 7.0294
Integration start scan : 215 Integration stop scan: 266
Y at integration start : 0 Y at integration end: 0

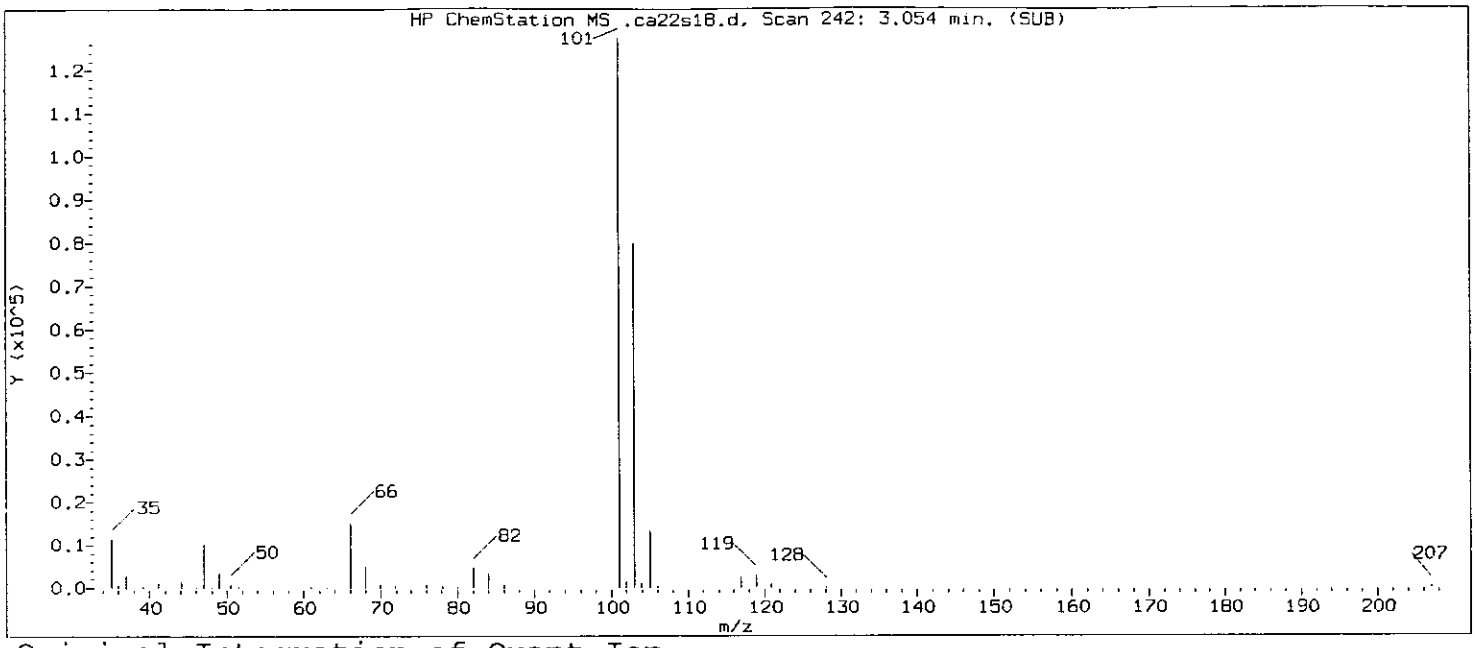
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Susan 4/22/09

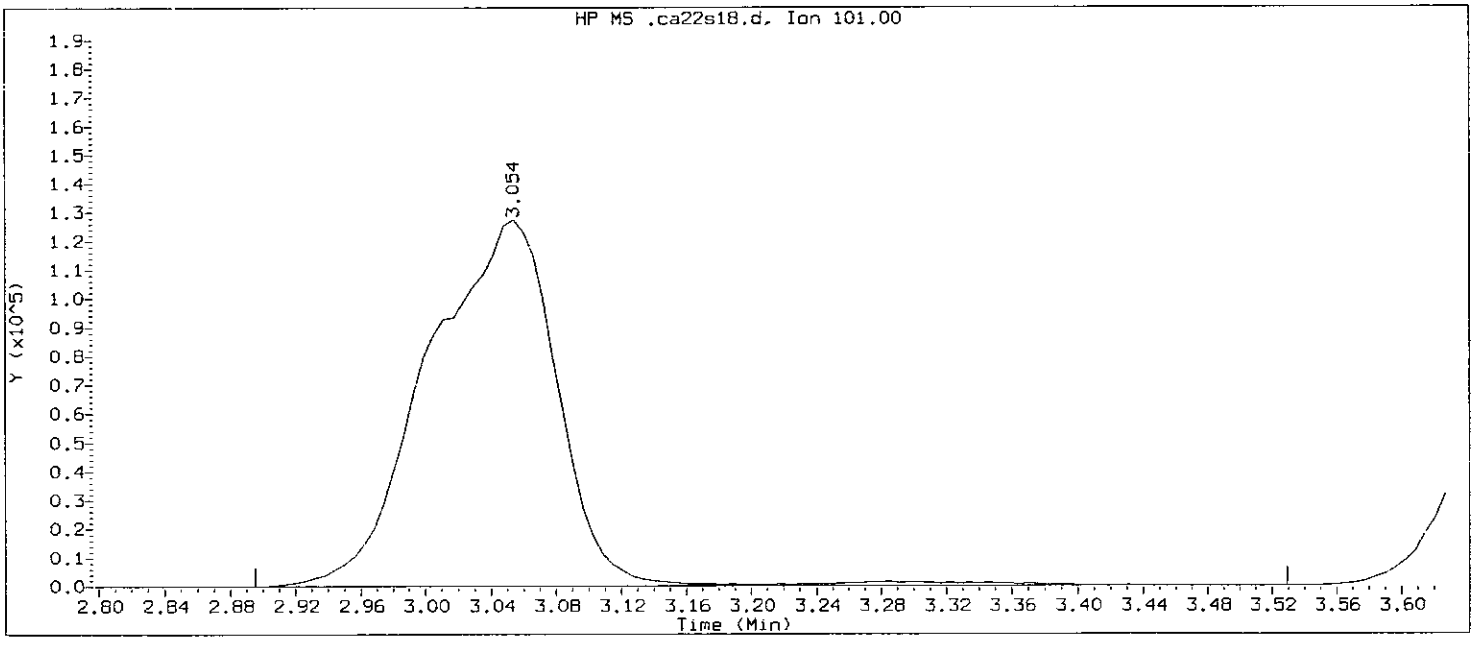
RAD11 0363

GC/MS audit/management approval: [signature] 4-29-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:34 Automation

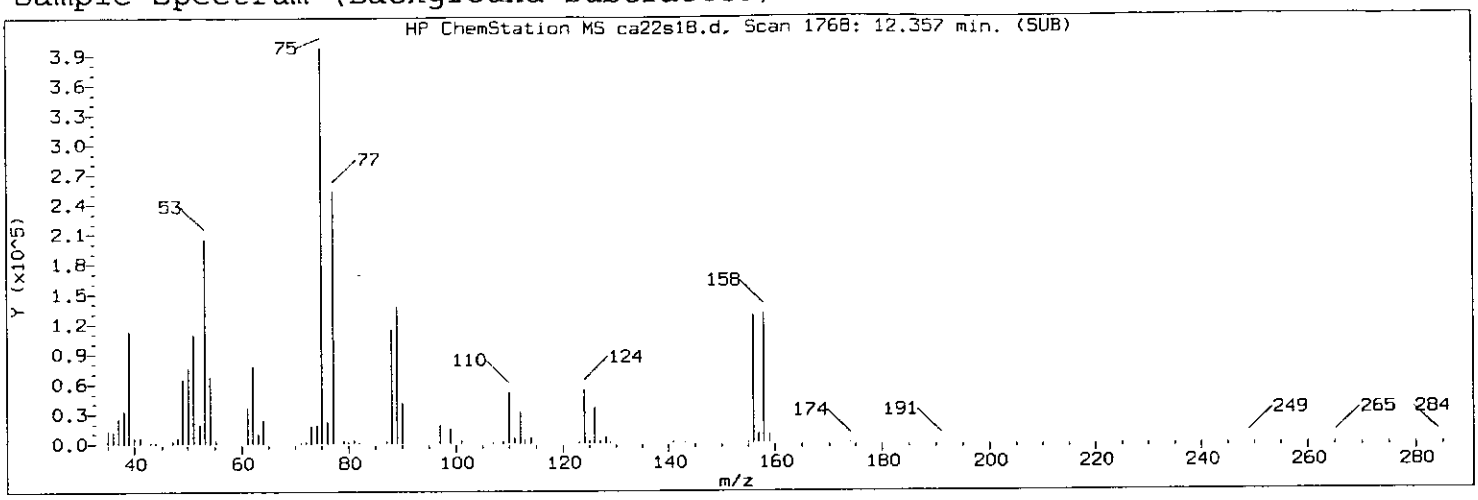
Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number : 12
Compound Name : Trichlorofluoromethane
Scan Number : 242
Retention Time (minutes): 3.054
Quant Ion : 101
Area : 703559
Concentration (ug/L) : 7.1363
Integration start scan : 215 Integration stop scan: 319
Y at integration start : 0 Y at integration end: 0

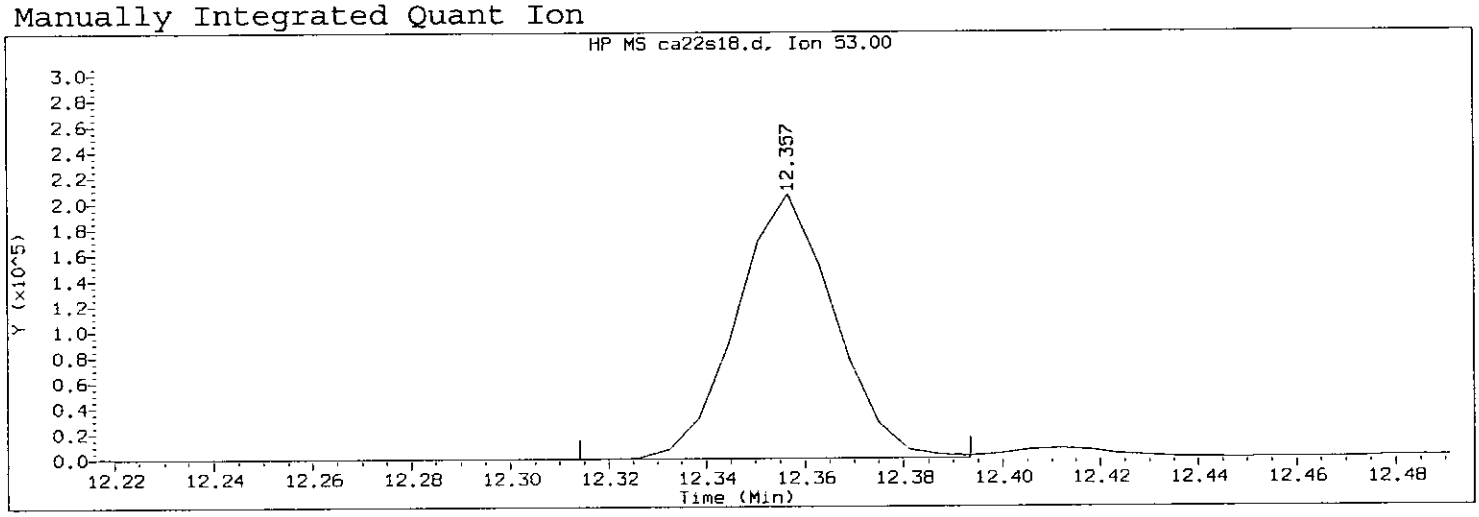
RAD11 8364

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s18.d, generated on 04/22/2009 at 22:36

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number : 127
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1768
Retention Time (minutes): 12.357
Quant Ion : 53
Area (flag) : 284510A
Concentration (ug/L) : 35.5764
Integration start scan : 1760 Integration stop scan: 1773
Y at integration start : 0 Y at integration end: 0

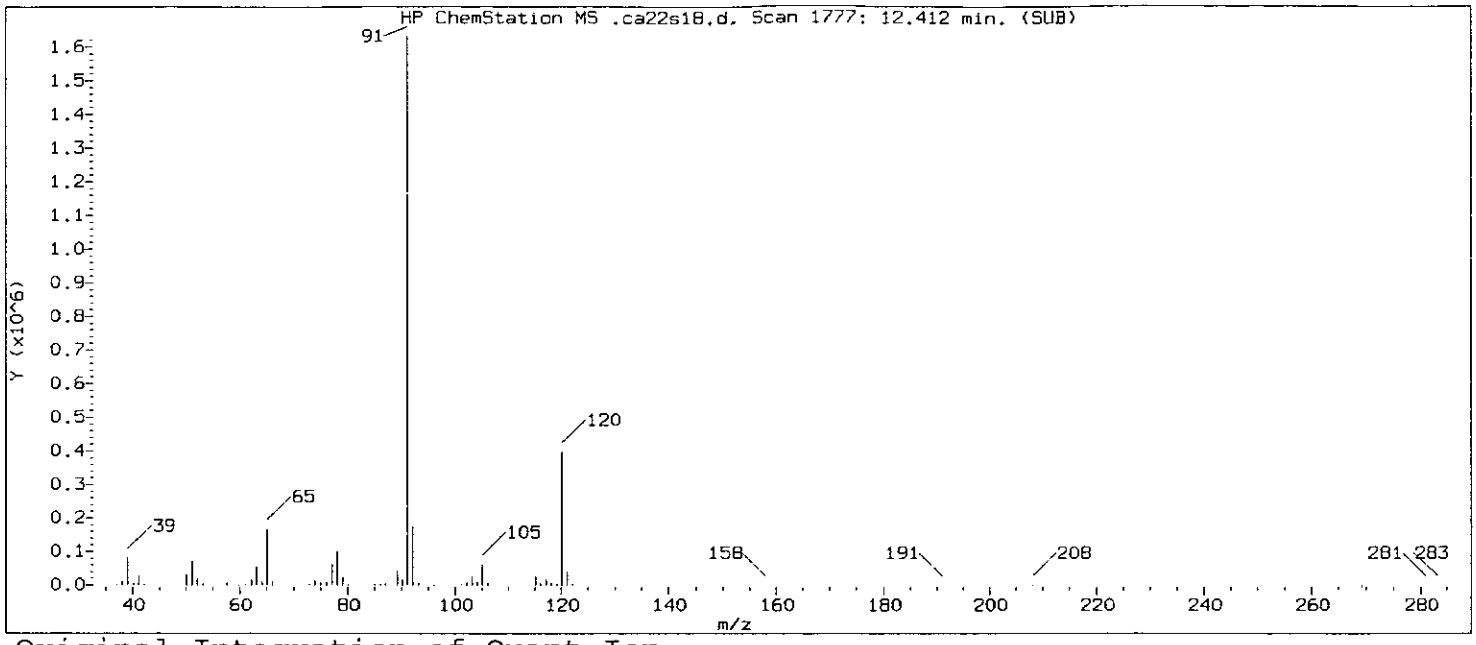
Reason for manual integration (circle one): (missed peak) improper integration

Analyst responsible for change: Sew 4/22/09

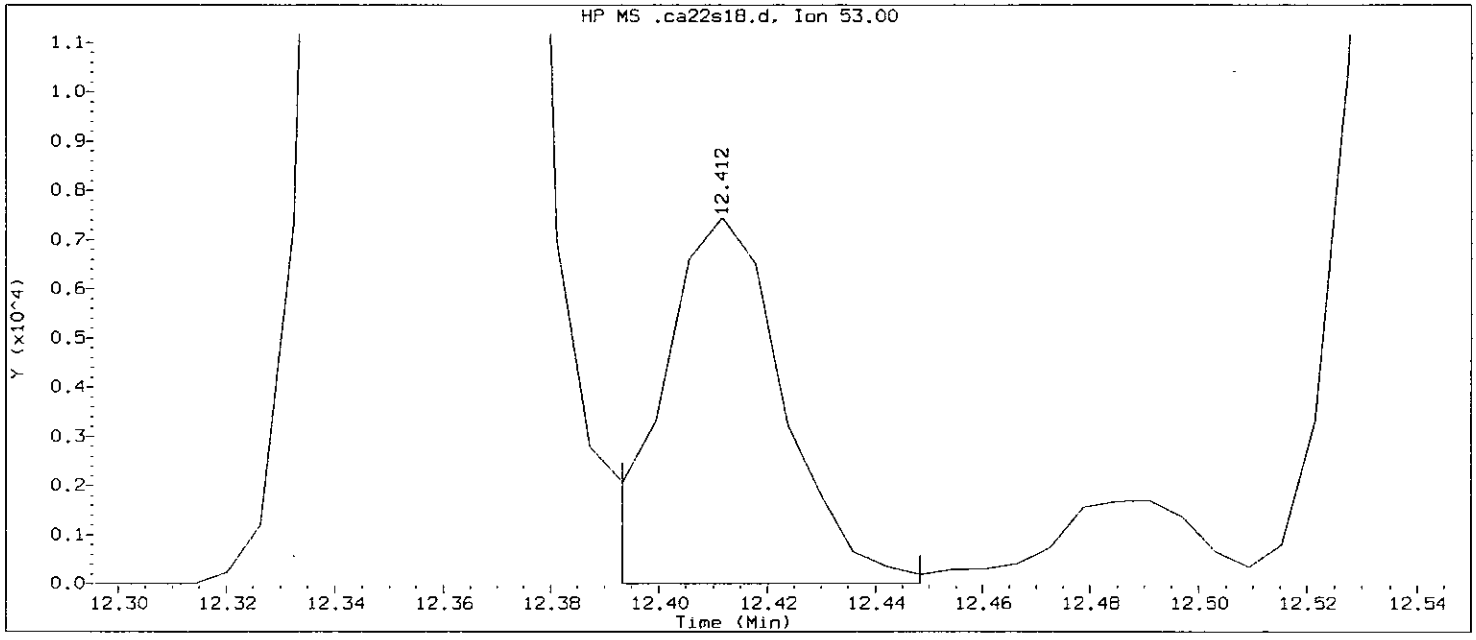
RAD11 8365

GC/MS audit/management approval: 4-24-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:34 Automation

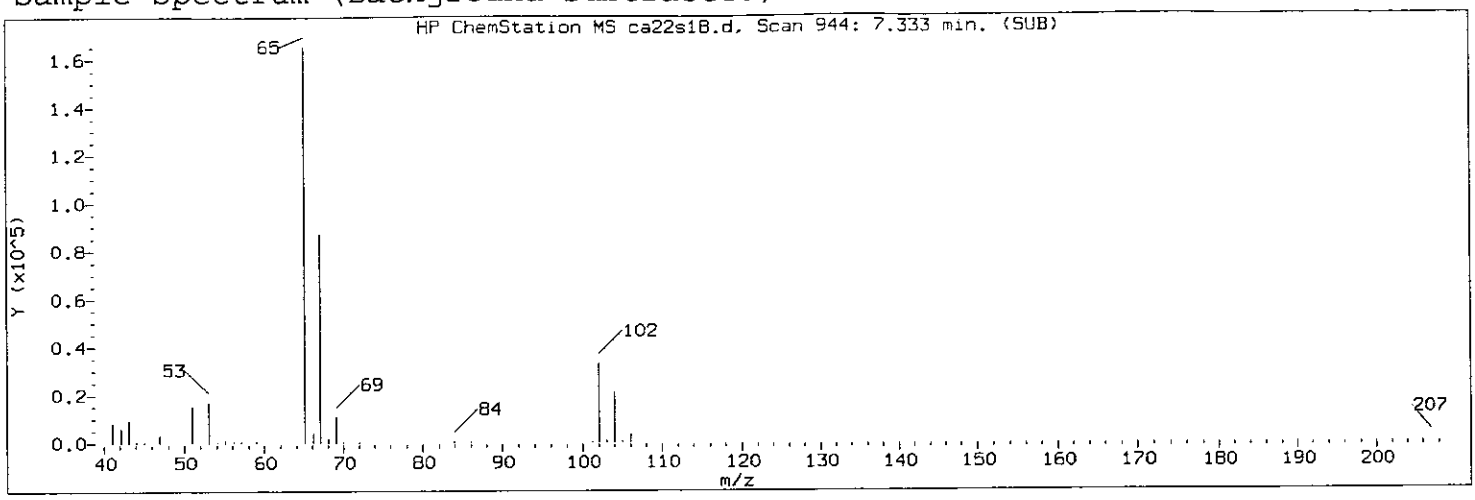
Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number : 127
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1777
Retention Time (minutes): 12.412
Quant Ion : 53
Area : 11336
Concentration (ug/L) : 1.9521
Integration start scan : 1773 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

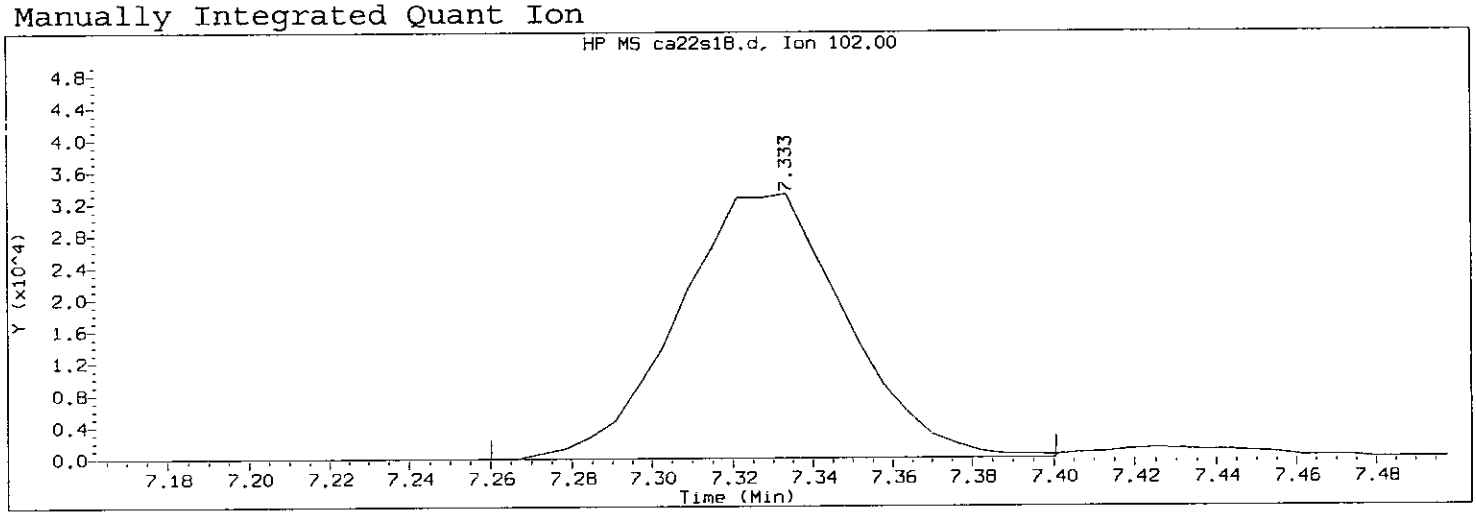
RAD11 8366

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s18.d, generated on 04/22/2009 at 22:36

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 944
Retention Time (minutes): 7.333
Quant Ion : 102
Area (flag) : 96450 M
Concentration (ug/L) : 9.2853
Integration start scan : 931 Integration stop scan: 954
Y at integration start : 0 Y at integration end: 0

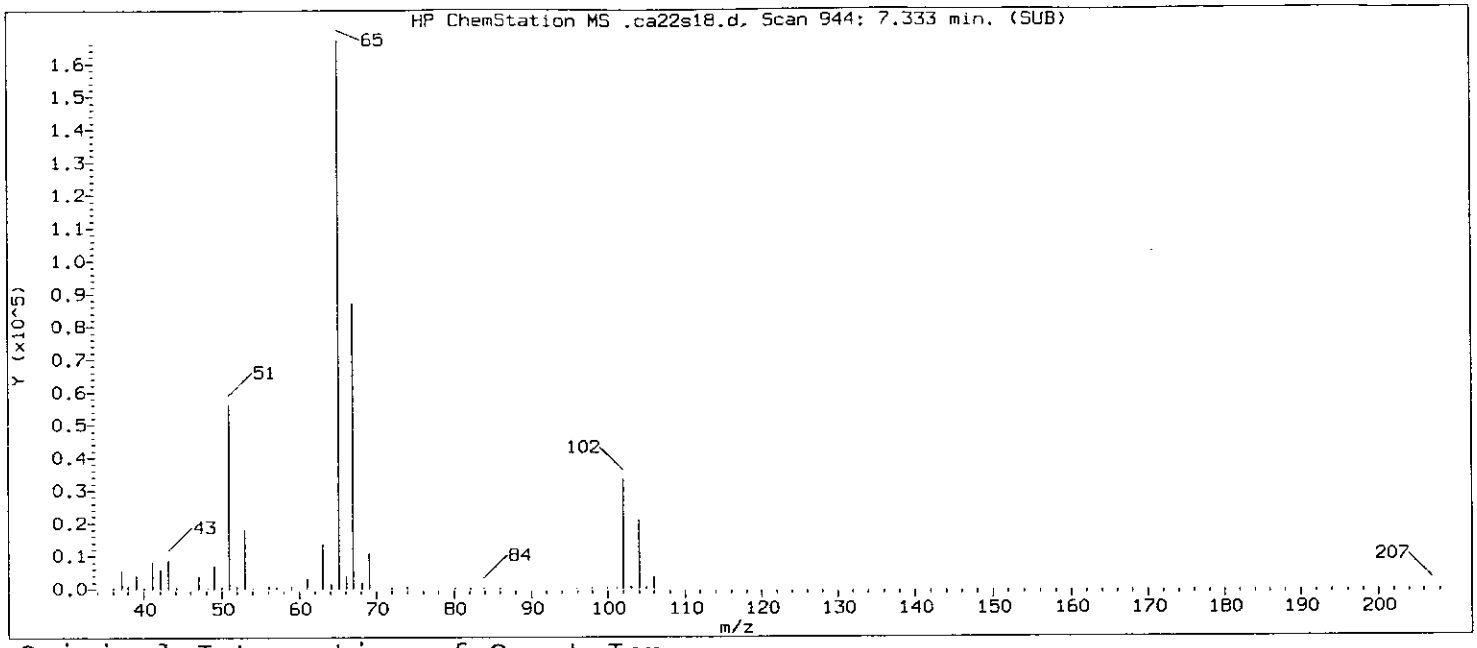
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: Susan 4/22/09

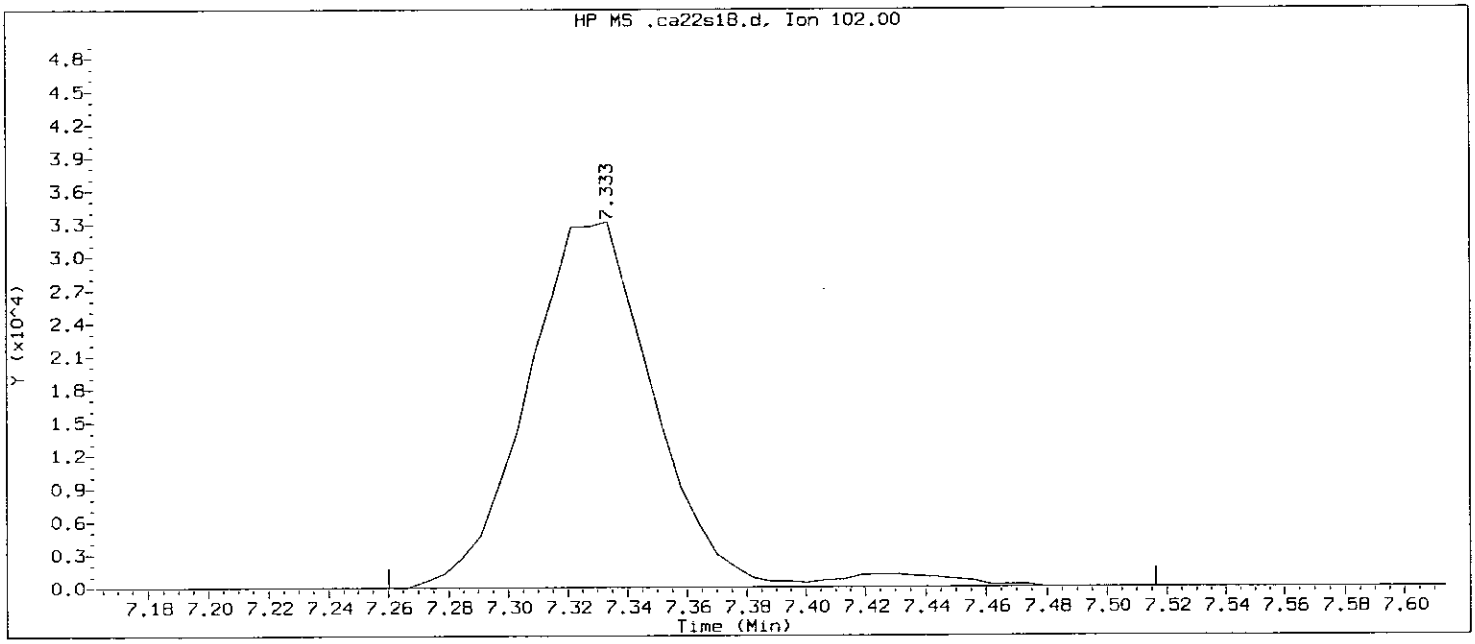
RADII 8367

GC/MS audit/management approval: 4-29-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:34 Automation

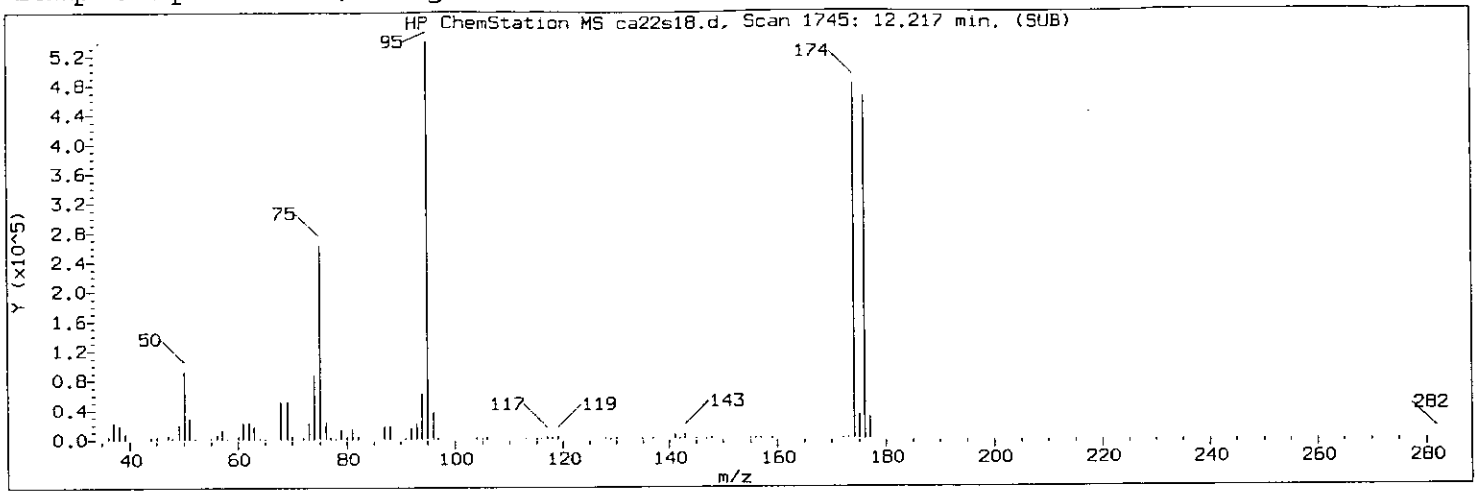
Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number : 69
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 944
Retention Time (minutes): 7.333
Quant Ion : 102
Area : 99632
Concentration (ug/L) : 9.5917
Integration start scan : 931 Integration stop scan: 973
Y at integration start : 0 Y at integration end: 0

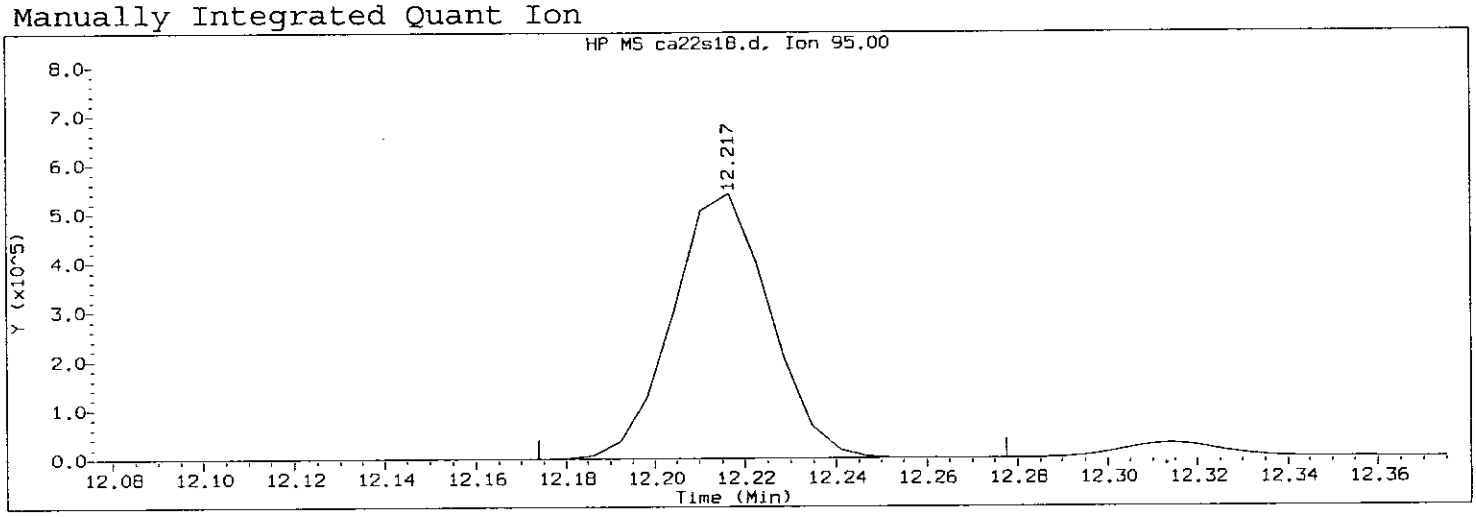
RAD11 8368

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s18.d, generated on 04/22/2009 at 22:36

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERA-SM
Calibration date and time: 22-APR-2009 21:58
Date, time and analyst ID of latest file update: 22-Apr-2009 22:36 sew02002

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number	:	123
Compound Name	:	4-Bromofluorobenzene
Scan Number	:	1745
Retention Time (minutes)	:	12.217
Quant Ion	:	95
Area (flag)	:	806596 M
Concentration (ug/L)	:	9.6828
Integration start scan	:	1737 Integration stop scan: 1754
Y at integration start	:	0 Y at integration end: 0

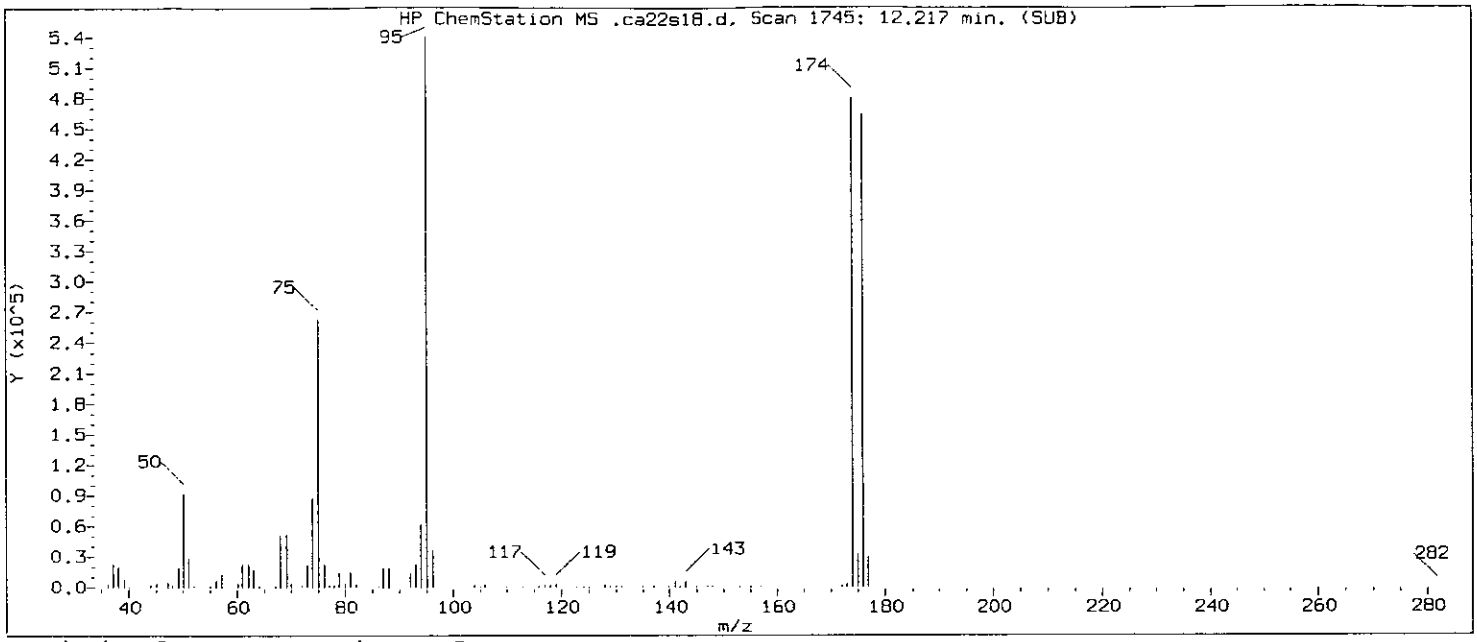
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: [signature] 4/22/09

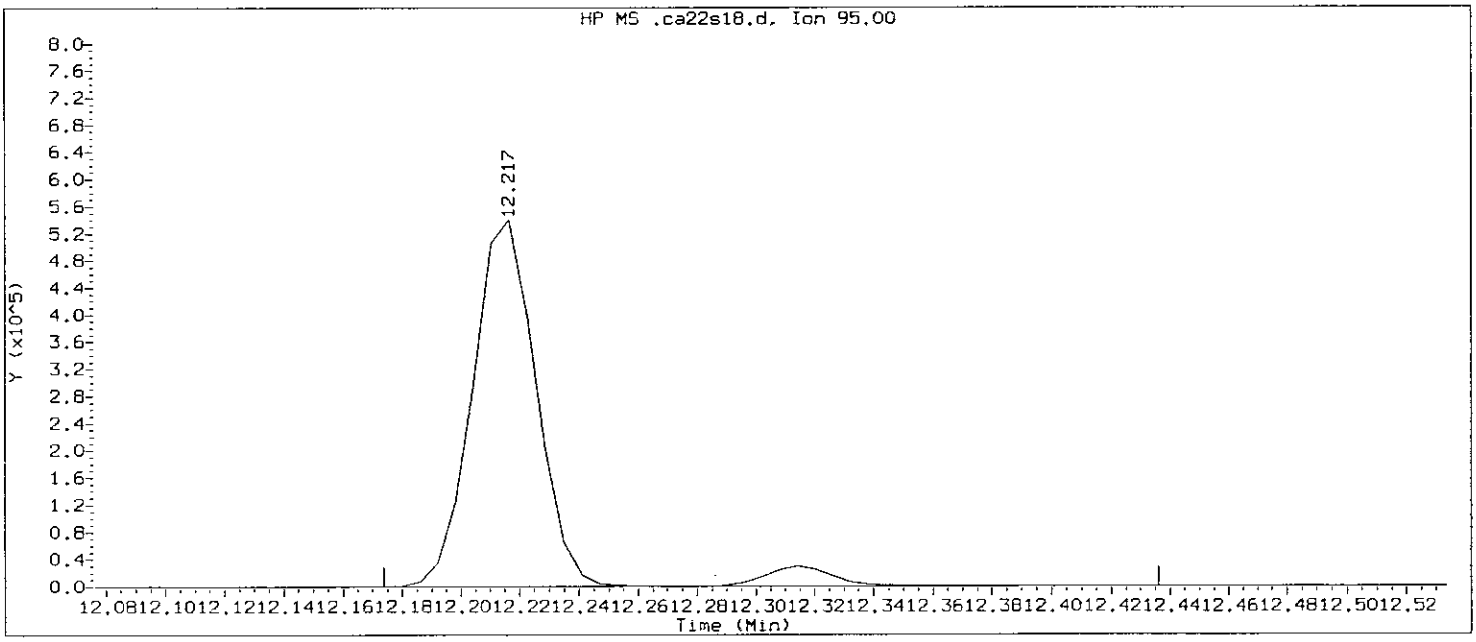
RAD11 8369

GC/MS audit/management approval: [signature] 4-29-09

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22s18.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 19:16 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 19:34 Automation

Sample Name: 13-5-MSD Lab Sample ID: 5648241

Compound Number	: 123
Compound Name	: 4-Bromofluorobenzene
Scan Number	: 1745
Retention Time (minutes)	: 12.217
Quant Ion	: 95
Area	: 854347
Concentration (ug/L)	: 10.2561
Integration start scan	: 1737 Integration stop scan: 1780
Y at integration start	: 0 Y at integration end: 0

RAD11 0378

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22s18.d, generated on 04/22/2009 at 22:36

13-5-MSD1

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

5648241

File: /chem2/HP10193.i/09apr22a.b/ca22s20.d
Sample: 13-5-MSD1;5648241;1;3;MSD;;;;
Injected At:22-APR-2009 20:00
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: DRAPERASM

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111BB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)

Bottle Code:38B

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.328(-0.018)	451	65	92005(-17)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	2065492(-11)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1549725(-12)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	862787(-21)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	527951	9.700	97%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.333(0.000)	102	94584	9.608	96%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2253414	10.270	103%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	705474	8.701	87%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
28) Acetonitrile	(4)	4.060(0.004)	41	136756	46.368	46.37			7.00	20.00
45) Vinyl Acetate	(1)	5.425(0.001)	43	696842	11.133	11.13			0.20	0.50
148) Hexachloroethane	(3)	13.576(0.000)	117	225432	5.302	5.30			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments: _____

Analyst: ADS1731 Date: 4/30/09

Auditor: _____ Date: 4-30-09

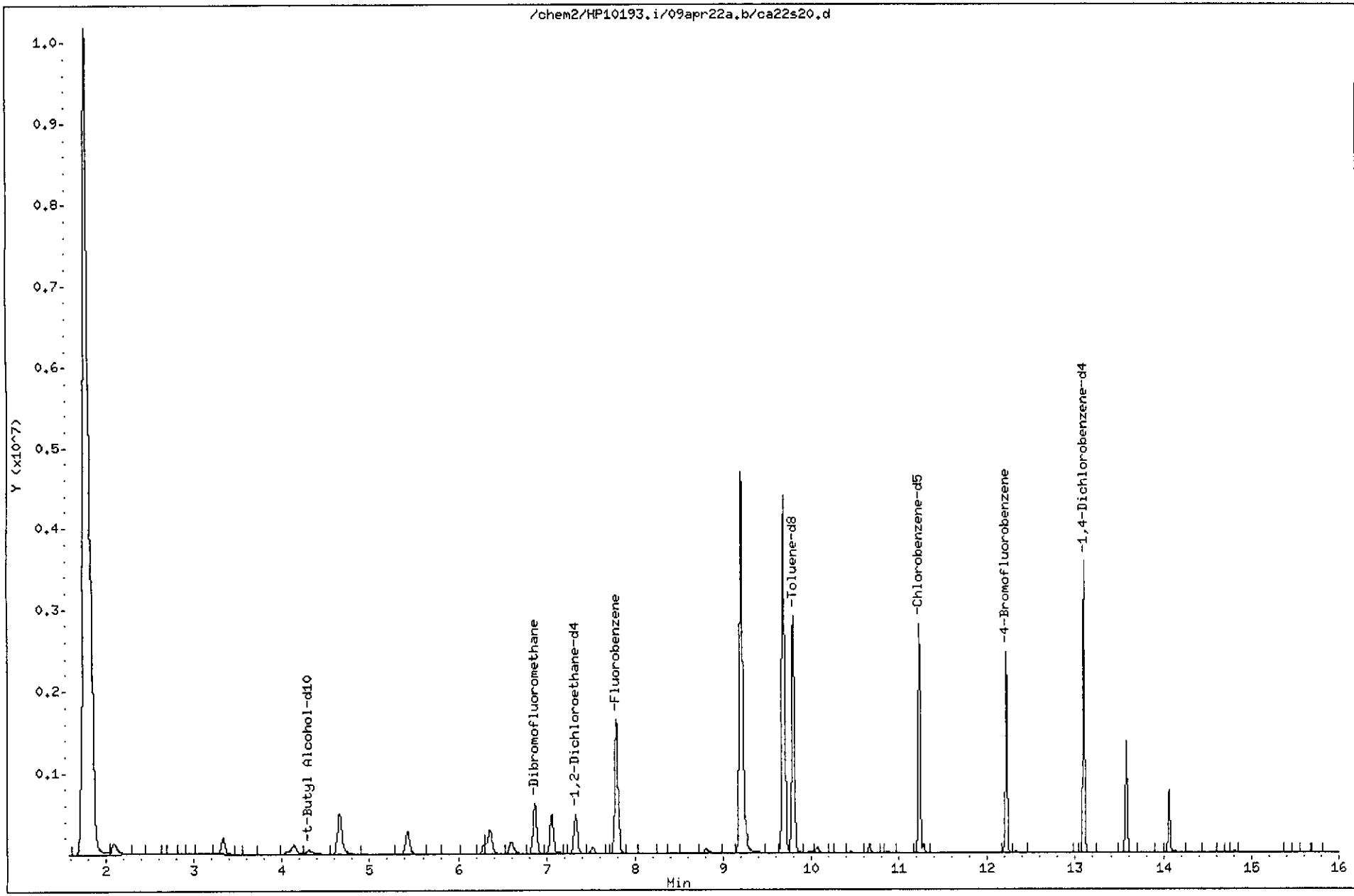
RAD11 6321

4/12/09

Data File: /chem2/HP10193.i/09apr22a.b/ca22s20.d
Date : 22-APR-2009 20:00
Client ID: 13-5-MSD1
Sample Info: 13-5-MSD1;5648241;1;3;MSD;;;;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: ADS01731
Column diameter: 0.25

RAD11 0372



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22s20.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 20:00 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: DRAPERASM
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 30-Apr-2009 14:01 ads01731

Sample Name: 13-5-MSD1 Lab Sample ID: 5648241

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
28) Acetonitrile	(4)	4.060	41	136756	46.368
33)*t-Butyl Alcohol-d10	(4)	4.328	65	92005	50.000
45) Vinyl Acetate	(1)	5.425	43	696842	11.133
75)*Fluorobenzene	(1)	7.791	96	2065492	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1549725	10.000
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	862787	10.000
148) Hexachloroethane	(3)	13.576	117	225432	5.302
58)$Dibromofluoromethane	(1)	6.870	113	527951	9.700
69)$1,2-Dichloroethane-d4	(1)	7.333	102	94584	9.608
95)$Toluene-d8	(2)	9.796	98	2253414	10.270
123)$4-Bromofluorobenzene	(2)	12.217	95	705474	8.701

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSC88

File: /chem2/HP10193.i/09apr22a.b/ca22101.d
Sample: LCSC88;LCSC88;1;3;LCS;
Injected At:22-APR-2009 12:13
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.322(-0.012)	450	65	96876(-12)	50.00	
75) Fluorobenzene	7.785(0.000)	1018	96	2252637(-3)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1685577(-4)	10.00	
142) 1,4-Dichlorobenzene-d4	13.094(0.000)	1889	152	1046664(-4)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.864(0.000)	113	558444	9.408	94%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.321(0.001)	102	98670	9.190	92%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2333721	9.779	98%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	825092	9.356	94%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Dichlorodifluoromethane	(1)	1.993(0.001)	85	331010	4.993	4.99			0.10	0.50
4) Chloromethane	(1)	2.133(0.001)	50	304742	4.903	4.90			0.20	0.50
6) Vinyl Chloride	(1)	2.273(0.001)	62	275642	4.354	4.35			0.10	0.50
8) Bromomethane	(1)	2.615(0.001)	94	228920	4.854	4.85			0.10	0.50
9) Chloroethane	(1)	2.725(0.000)	64	174588	4.701	4.70			0.10	0.50
11) Dichlorofluoromethane	(1)	2.944(0.001)	67	520590	5.032	5.03			0.20	0.50
12) Trichlorofluoromethane	(1)	3.048(0.002)	101	512669	5.031	5.03			0.10	0.50
15) Ethyl Ether	(1)	3.322(-0.001)	59	166290	4.521	4.52			0.10	0.50
16) Freon 123a	(1)	3.346(0.001)	67	322307	5.069	5.07			0.20	0.50
18) Acrolein	(4)	3.481(0.002)	56	146018	34.005	34.01			5.00	25.00
19) 1,1-Dichloroethene	(1)	3.633(0.001)	96	224547	5.151	5.15			0.10	0.50
20) Freon 113	(1)	3.663(0.000)	101	253730	4.937	4.94			0.20	0.50
23) Acetone	(4)	3.669(0.002)	58	76300	39.093	39.09			3.00	5.00
26) Methyl Iodide	(1)	3.834(0.002)	142	422548	4.908	4.91			0.10	0.50
27) Carbon Disulfide	(1)	3.944(0.001)	76	754356	5.093	5.09			0.40	0.50
29) Allyl Chloride	(1)	4.108(0.000)	41	366149	4.815	4.81			0.10	0.50
30) Methyl Acetate	(1)	4.133(-0.001)	43	87247	4.701	4.70			0.30	1.00
32) Methylene Chloride	(1)	4.285(0.000)	84	252760	4.930	4.93			0.20	0.50
35) t-Butyl Alcohol	(4)	4.450(-0.001)	59	105951	44.947	44.95			4.00	10.00
36) Acrylonitrile	(4)	4.645(0.002)	53	208260	27.175	27.18			1.00	5.00
37) trans-1,2-Dichloroethene	(1)	4.718(-0.001)	96	260587	5.104	5.10			0.10	0.50
40) 1,2-Dichloroethene (Total)	(1)		96	535032	10.155	10.15			0.10	0.50
38) Methyl Tertiary Butyl Ether	(1)	4.718(0.001)	73	518518	4.989	4.99			0.10	0.50
41) n-Hexane	(1)	5.145(-0.001)	57	301688	4.966	4.97			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

BAD11 0374

File: /chem2/HP10193.i/09apr22a.b/ca22101.d
Sample: LCSC88;LCSC88;1;3;LCS;
Injected At:22-APR-2009 12:13
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
44) 1,1-Dichloroethane	(1)	5.340	(0.000)	63	435510	5.097	5.10			0.10	0.50
46) di-Isopropyl Ether	(1)	5.462	(-0.001)	45	724503	5.092	5.09			0.10	0.50
47) 2-Chloro-1,3-Butadiene	(1)	5.486	(0.000)	53	377741	5.228	5.23			0.10	0.50
48) Ethyl t-Butyl Ether	(1)	5.992	(0.000)	59	609566	4.987	4.99			0.10	0.50
51) 2,2-Dichloropropane	(1)	6.199	(0.001)	77	365899	4.911	4.91			0.10	0.50
49) cis-1,2-Dichloroethene	(1)	6.193	(0.000)	96	274445	5.050	5.05			0.10	0.50
50) 2-Butanone	(4)	6.199	(0.004)	43	386609	40.224	40.22			1.00	5.00
52) Propionitrile	(4)	6.285	(0.003)	54	118981	39.490	39.49			2.00	10.00
53) Methacrylonitrile	(4)	6.504	(0.004)	67	401806	41.147	41.15			1.00	5.00
54) Bromochloromethane	(1)	6.529	(-0.001)	128	128275	4.717	4.72			0.10	0.50
55) Tetrahydrofuran	(4)	6.596	(0.003)	71	71421	26.159	26.16			2.00	5.00
56) Chloroform	(1)	6.645	(0.000)	83	475138	5.103	5.10			0.10	0.50
60) 1,1,1-Trichloroethane	(1)	6.913	(0.000)	97	432895	5.072	5.07			0.10	0.50
61) Cyclohexane	(1)	6.998	(0.000)	56	380845	4.937	4.94			0.10	0.50
63) 1,1-Dichloropropene	(1)	7.138	(-0.001)	75	340056	5.013	5.01			0.10	0.50
64) Carbon Tetrachloride	(1)	7.144	(0.000)	117	396427	5.083	5.08			0.10	0.50
66) Isobutyl Alcohol	(4)	7.291	(0.002)	41	99953	122.282	122.28			10.00	25.00
70) Benzene	(1)	7.413	(0.000)	78	1049753	5.010	5.01			0.10	0.50
72) 1,2-Dichloroethane	(1)	7.425	(0.000)	62	289915	5.255	5.25			0.10	0.50
74) t-Amyl Methyl Ether	(1)	7.571	(0.000)	73	533491	4.965	4.96			0.10	0.50
76) n-Heptane	(1)	7.791	(0.000)	43	331431	4.717	4.72			0.20	0.50
79) n-Butanol	(4)	8.175	(0.004)	56	128382	209.332	209.33			20.00	50.00
80) Trichloroethene	(1)	8.272	(0.000)	95	285271	4.974	4.97			0.10	0.50
82) Methylcyclohexane	(1)	8.540	(0.000)	83	444531	4.922	4.92			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD1 8375

File: /chem2/HP10193.i/09apr22a.b/ca22101.d
Sample: LCSC88;LCSC88;1;3;LCS;
Injected At:22-APR-2009 12:13
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
83) 1,2-Dichloropropane	(1)	8.559(0.000)	63	247736	5.044	5.04			0.10	0.50
85) Dibromomethane	(1)	8.711(0.000)	93	119362	5.131	5.13			0.10	0.50
87) 1,4-Dioxane	(4)	8.736(0.007)	88	21969	115.408	115.41			20.00	100.00
86) Methyl Methacrylate	(4)	8.717(0.006)	69	84392	5.477	5.48			0.10	0.50
88) Bromodichloromethane	(1)	8.918(-0.001)	83	314518	5.094	5.09			0.10	0.50
91) 2-Nitropropane	(4)	9.205(0.006)	41	28064	4.766	4.77		J	1.00	5.00
93) cis-1,3-Dichloropropene	(1)	9.479(0.000)	75	324593	4.885	4.88			0.10	0.50
94) 4-Methyl-2-Pentanone	(1)	9.656(0.000)	43	605107	22.092	22.09			1.00	5.00
97) Toluene	(2)	9.870(0.000)	92	692299	5.054	5.05			0.10	0.50
100) trans-1,3-Dichloropropene	(2)	10.095(0.000)	75	289528	5.098	5.10			0.10	0.50
102) Ethyl Methacrylate	(2)	10.199(-0.001)	69	177351	4.581	4.58			0.10	0.50
103) 1,1,2-Trichloroethane	(2)	10.290(-0.001)	97	168978	5.074	5.07			0.10	0.50
104) Tetrachloroethene	(2)	10.449(0.000)	166	344399	5.002	5.00			0.10	0.50
105) 1,3-Dichloropropane	(2)	10.455(0.000)	76	275752	4.998	5.00			0.10	0.50
106) 2-Hexanone	(2)	10.534(0.000)	43	411699	21.832	21.83			1.00	5.00
107) Dibromochloromethane	(2)	10.680(0.000)	129	221920	5.033	5.03			0.10	0.50
108) 1,2-Dibromoethane	(2)	10.796(0.000)	107	159253	4.987	4.99			0.10	0.50
110) Chlorobenzene	(2)	11.253(0.000)	112	821475	4.953	4.95			0.10	0.50
111) 1,1,1,2-Tetrachloroethane	(2)	11.327(0.000)	131	280965	4.932	4.93			0.10	0.50
112) Ethylbenzene	(2)	11.351(0.000)	91	1353401	4.989	4.99			0.10	0.50
113) m+p-Xylene	(2)	11.448(0.000)	106	1112636	10.079	10.08			0.10	0.50
116) Xylene (Total)	(2)		106	1640211	15.168	15.17			0.10	0.50
117) o-Xylene	(2)	11.790(0.000)	106	527575	5.089	5.09			0.10	0.50
118) Styrene	(2)	11.796(0.000)	104	824797	5.176	5.18			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8376

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCSC88

File: /chem2/HP10193.i/09apr22a.b/ca22101.d
Sample: LCSC88;LCSC88;1;3;LCS;
Injected At:22-APR-2009 12:13
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
119) Bromoform	(2)	11.961	(-0.001)	173	120636	5.047	5.05			0.10	0.50
120) Isopropylbenzene	(2)	12.089	(0.000)	105	1335095	5.073	5.07			0.10	0.50
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	(0.000)	83	192386	5.046	5.05			0.10	0.50
126) Bromobenzene	(3)	12.345	(0.000)	156	366212	4.968	4.97			0.10	0.50
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	(0.008)	53	217558	27.816	27.82			1.00	5.00
128) 1,2,3-Trichloropropane	(3)	12.357	(0.000)	110	60222	4.818	4.82			0.30	1.00
132) n-Propylbenzene	(3)	12.412	(0.000)	91	1664295	4.982	4.98			0.10	0.50
133) 2-Chlorotoluene	(3)	12.491	(0.000)	126	353809	4.876	4.88			0.10	0.50
135) 4-Chlorotoluene	(3)	12.570	(0.000)	126	372749	4.897	4.90			0.10	0.50
134) 1,3,5-Trimethylbenzene	(3)	12.540	(0.000)	105	1241202	5.019	5.02			0.10	0.50
137) Pentachloroethane	(3)	12.820	(0.000)	167	228853	4.525	4.52			0.20	0.50
136) tert-Butylbenzene	(3)	12.796	(0.000)	134	278390	4.899	4.90			0.10	0.50
138) 1,2,4-Trimethylbenzene	(3)	12.826	(0.000)	105	1303734	5.021	5.02			0.10	0.50
139) sec-Butylbenzene	(3)	12.954	(0.000)	105	1533824	4.936	4.94			0.10	0.50
140) 1,3-Dichlorobenzene	(3)	13.052	(0.000)	146	772147	4.906	4.91			0.10	0.50
141) p-Isopropyltoluene	(3)	13.052	(0.000)	119	1409840	5.001	5.00			0.10	0.50
143) 1,4-Dichlorobenzene	(3)	13.113	(0.000)	146	787434	4.878	4.88			0.10	0.50
144) 1,2,3-Trimethylbenzene	(3)	13.143	(0.000)	120	586326	4.684	4.68			0.10	0.50
145) Benzyl Chloride	(3)	13.204	(0.000)	126	87374	4.557	4.56			0.10	0.50
146) n-Butylbenzene	(3)	13.344	(0.000)	92	680873	4.909	4.91			0.10	0.50
147) 1,2-Dichlorobenzene	(3)	13.387	(0.000)	146	678536	4.882	4.88			0.10	0.50
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	(0.009)	155	25226	5.306	5.31			0.20	0.50
152) 1,2,4-Trichlorobenzene	(3)	14.484	(0.000)	180	449115	4.651	4.65			0.10	0.50
153) Hexachlorobutadiene	(3)	14.582	(0.000)	225	238673	4.584	4.58			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

RAD11 8377

LCSC88 Lancaster Laboratories Quantitation Report GC/MS Volatiles LCSC88

File: /chem2/HP10193.i/09apr22a.b/ca22l01.d
Sample: LCSC88;LCSC88;1;3;LCS;
Injected At:**22-APR-2009 12:13**
Calibration Time: 21-APR-2009 20:07
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: 8260W25

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:**C091111AB**
Analyst:**ADS01731**
Instrument ID:**HP10193.i**
Standard Reference: ca22c01.d
Prep Factor:**1.00**
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
154) Naphthalene	(3)	14.655	(0.000)	128	680281	4.473	4.47			0.10	0.50
155) 1,2,3-Trichlorobenzene	(3)	14.808	(0.000)	180	386566	4.666	4.67			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: Date: 4/22/09

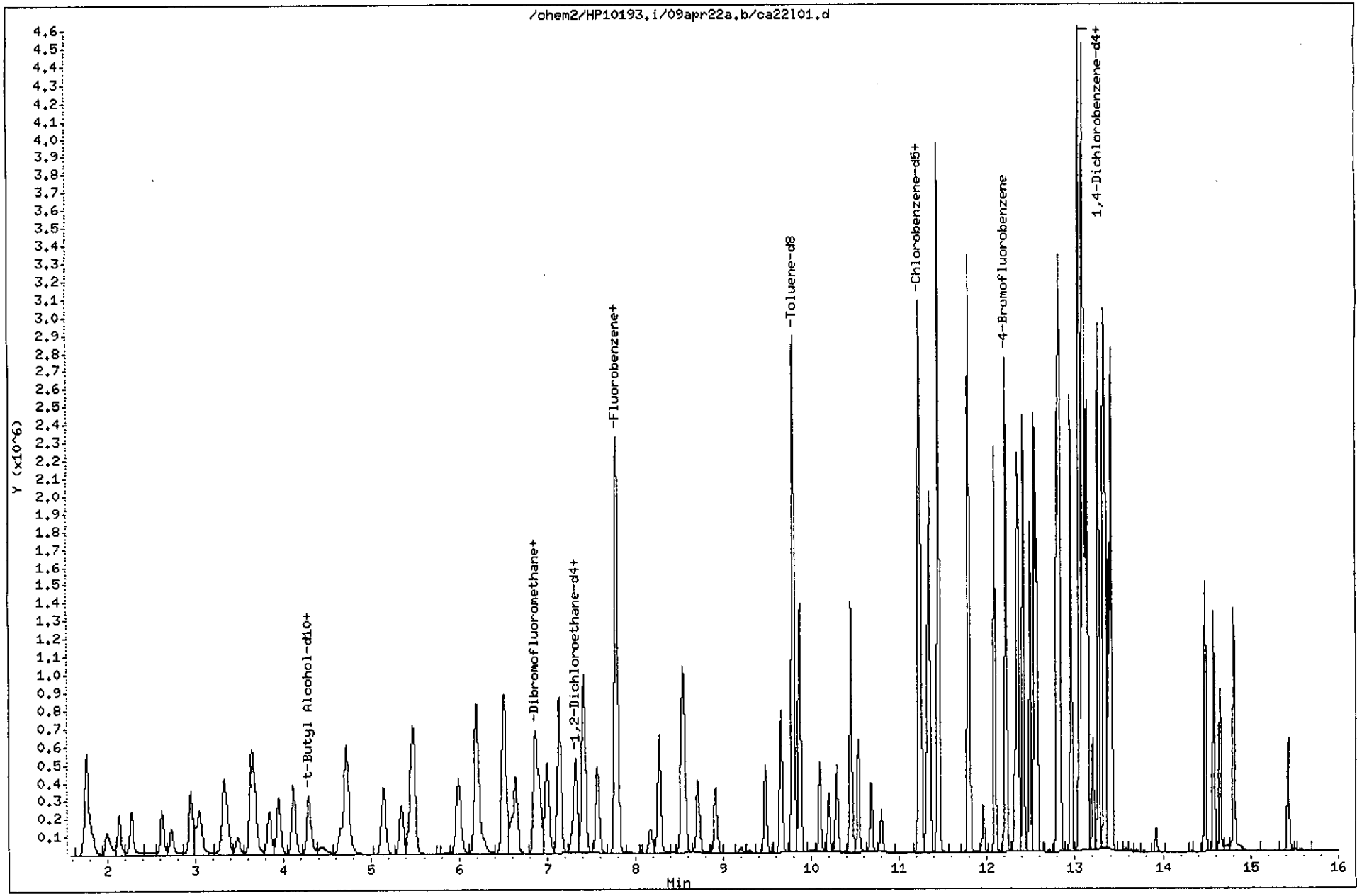
Auditor: Date: 4/29/09

RADIT 8378

Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d
Date : 22-APR-2009 12:13
Client ID: LCSC88
Sample Info: LCSC88;LCSC88;1;3;LCS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i
Operator: ADS01731
Column diameter: 0.25

ADS1731
4/22/09



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
2) Dichlorodifluoromethane	(1)	1.993	85	331010	4.993
4) Chloromethane	(1)	2.133	50	304742	4.903
6) Vinyl Chloride	(1)	2.273	62	275642	4.354
8) Bromomethane	(1)	2.615	94	228920	4.854
9) Chloroethane	(1)	2.725	64	174588	4.701
11) Dichlorofluoromethane	(1)	2.944	67	520590	5.032
12) Trichlorofluoromethane	(1)	3.048	101	512669	5.031
15) Ethyl Ether	(1)	3.322	59	166290	4.521
16) Freon 123a	(1)	3.346	67	322307	5.069
18) Acrolein	(4)	3.481	56	146018	34.005
19) 1,1-Dichloroethene	(1)	3.633	96	224547	5.151
20) Freon 113	(1)	3.663	101	253730	4.937
23) Acetone	(4)	3.669	58	76300	39.093
26) Methyl Iodide	(1)	3.834	142	422548	4.908
27) Carbon Disulfide	(1)	3.944	76	754356	5.093
29) Allyl Chloride	(1)	4.108	41	366149	4.815
30) Methyl Acetate	(1)	4.133	43	87247	4.701
32) Methylene Chloride	(1)	4.285	84	252760	4.930
33)*t-Butyl Alcohol-d10	(4)	4.322	65	96876	50.000
35) t-Butyl Alcohol	(4)	4.450	59	105951	44.947
36) Acrylonitrile	(4)	4.645	53	208260	27.175
37) trans-1,2-Dichloroethene	(1)	4.718	96	260587	5.104
40) 1,2-Dichloroethene (Total)	(1)		96	535032	10.155
38) Methyl Tertiary Butyl Ether	(1)	4.718	73	518518	4.989
41) n-Hexane	(1)	5.145	57	301688	4.966
44) 1,1-Dichloroethane	(1)	5.340	63	435510	5.097
46) di-Isopropyl Ether	(1)	5.462	45	724503	5.092
47) 2-Chloro-1,3-Butadiene	(1)	5.486	53	377741	5.228
48) Ethyl t-Butyl Ether	(1)	5.992	59	609566	4.987
51) 2,2-Dichloropropane	(1)	6.199	77	365899	4.911
49) cis-1,2-Dichloroethene	(1)	6.193	96	274445	5.050
50) 2-Butanone	(4)	6.199	43	386609	40.224
52) Propionitrile	(4)	6.285	54	118981	39.490
53) Methacrylonitrile	(4)	6.504	67	401806	41.147

RAD11 8388

* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22l01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
54) Bromochloromethane	(1)	6.529	128	128275	4.717
55) Tetrahydrofuran	(4)	6.596	71	71421	26.159
56) Chloroform	(1)	6.645	83	475138	5.103
60) 1,1,1-Trichloroethane	(1)	6.913	97	432895	5.072
61) Cyclohexane	(1)	6.998	56	380845	4.937
63) 1,1-Dichloropropene	(1)	7.138	75	340056	5.013
64) Carbon Tetrachloride	(1)	7.144	117	396427	5.083
66) Isobutyl Alcohol	(4)	7.291	41	99953	122.282
70) Benzene	(1)	7.413	78	1049753	5.010
72) 1,2-Dichloroethane	(1)	7.425	62	289915	5.255
74) t-Amyl Methyl Ether	(1)	7.571	73	533491	4.965
75) *Fluorobenzene	(1)	7.785	96	2252637	10.000
76) n-Heptane	(1)	7.791	43	331431	4.717
79) n-Butanol	(4)	8.175	56	128382	209.332
80) Trichloroethene	(1)	8.272	95	285271	4.974
82) Methylcyclohexane	(1)	8.540	83	444531	4.922
83) 1,2-Dichloropropane	(1)	8.559	63	247736	5.044
85) Dibromomethane	(1)	8.711	93	119362	5.131
87) 1,4-Dioxane	(4)	8.736	88	21969	115.408
86) Methyl Methacrylate	(4)	8.717	69	84392	5.477
88) Bromodichloromethane	(1)	8.918	83	314518	5.094
91) 2-Nitropropane	(4)	9.205	41	28064M	4.766
93) cis-1,3-Dichloropropene	(1)	9.479	75	324593	4.885
94) 4-Methyl-2-Pentanone	(1)	9.656	43	605107M	22.092
97) Toluene	(2)	9.870	92	692299	5.054
100) trans-1,3-Dichloropropene	(2)	10.095	75	289528	5.098
102) Ethyl Methacrylate	(2)	10.199	69	177351	4.581
103) 1,1,2-Trichloroethane	(2)	10.290	97	168978	5.074
104) Tetrachloroethene	(2)	10.449	166	344399	5.002
105) 1,3-Dichloropropane	(2)	10.455	76	275752	4.998
106) 2-Hexanone	(2)	10.534	43	411699	21.832
107) Dibromochloromethane	(2)	10.680	129	221920	5.033
108) 1,2-Dibromoethane	(2)	10.796	107	159253	4.987
109) *Chlorobenzene-d5	(2)	11.229	117	1685577	10.000

M = Compound was manually integrated.

* = Compound is an internal standard.

BAD11 8381

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22l01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compounds	I.S. Ref.	RT	QIon	Area		Conc. (on column)
110) Chlorobenzene	(2)	11.253	112	821475		4.953
111) 1,1,1,2-Tetrachloroethane	(2)	11.327	131	280965		4.932
112) Ethylbenzene	(2)	11.351	91	1353401		4.989
113) m+p-Xylene	(2)	11.448	106	1112636		10.079
116) Xylene (Total)	(2)		106	1640211		15.168
117) o-Xylene	(2)	11.790	106	527575		5.089
118) Styrene	(2)	11.796	104	824797		5.176
119) Bromoform	(2)	11.961	173	120636		5.047
120) Isopropylbenzene	(2)	12.089	105	1335095		5.073
125) 1,1,2,2-Tetrachloroethane	(3)	12.314	83	192386		5.046
126) Bromobenzene	(3)	12.345	156	366212		4.968
127) trans-1,4-Dichloro-2-Butene	(4)	12.357	53	217558	A	27.816
128) 1,2,3-Trichloropropane	(3)	12.357	110	60222		4.818
132) n-Propylbenzene	(3)	12.412	91	1664295		4.982
133) 2-Chlorotoluene	(3)	12.491	126	353809		4.876
135) 4-Chlorotoluene	(3)	12.570	126	372749		4.897
134) 1,3,5-Trimethylbenzene	(3)	12.540	105	1241202		5.019
137) Pentachloroethane	(3)	12.820	167	228853		4.525
136) tert-Butylbenzene	(3)	12.796	134	278390		4.899
138) 1,2,4-Trimethylbenzene	(3)	12.826	105	1303734		5.021
139) sec-Butylbenzene	(3)	12.954	105	1533824		4.936
140) 1,3-Dichlorobenzene	(3)	13.052	146	772147		4.906
142)*1,4-Dichlorobenzene-d4	(3)	13.094	152	1046664		10.000
141) p-Isopropyltoluene	(3)	13.052	119	1409840		5.001
143) 1,4-Dichlorobenzene	(3)	13.113	146	787434		4.878
144) 1,2,3-Trimethylbenzene	(3)	13.143	120	586326		4.684
145) Benzyl Chloride	(3)	13.204	126	87374		4.557
146) n-Butylbenzene	(3)	13.344	92	680873		4.909
147) 1,2-Dichlorobenzene	(3)	13.387	146	678536		4.882
149) 1,2-Dibromo-3-Chloropropane	(4)	13.924	155	25226		5.306
152) 1,2,4-Trichlorobenzene	(3)	14.484	180	449115		4.651
153) Hexachlorobutadiene	(3)	14.582	225	238673		4.584
154) Naphthalene	(3)	14.655	128	680281		4.473
155) 1,2,3-Trichlorobenzene	(3)	14.808	180	386566		4.666

A = User selected an alternate hit.
* = Compound is an internal standard.

BAB11 0382

Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22l01.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 21-APR-2009 20:07
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

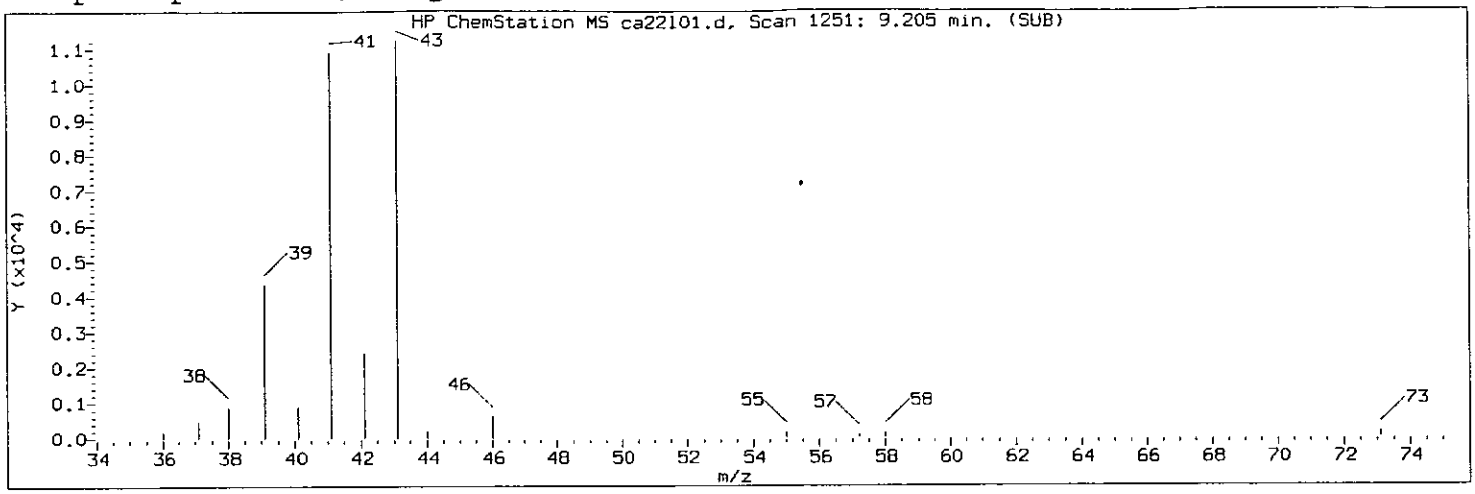
Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
58) $Dibromofluoromethane	(1)	6.864	113	558444	9.408
69) $1,2-Dichloroethane-d4	(1)	7.321	102	98670	9.190
95) $Toluene-d8	(2)	9.796	98	2333721	9.779
123) $4-Bromofluorobenzene	(2)	12.217	95	825092M	9.356

M = Compound was manually integrated.

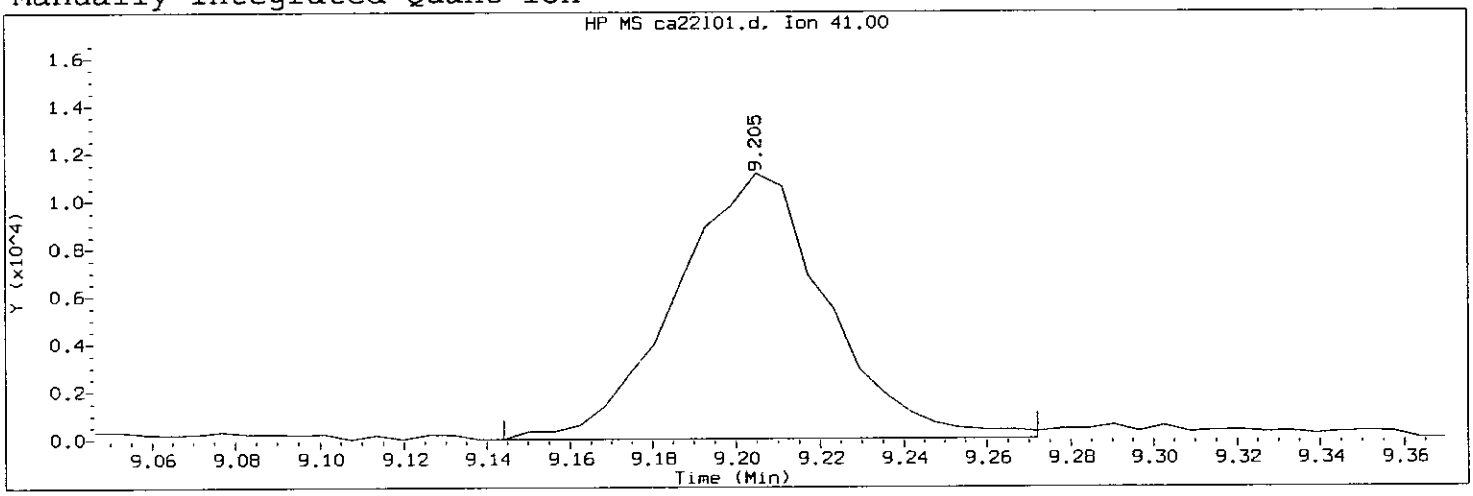
$ = Compound is a surrogate standard.

RAD11 0383

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number : 91
Compound Name : 2-Nitropropane
Scan Number : 1251
Retention Time (minutes): 9.205
Quant Ion : 41
Area (flag) : 28064 M
Concentration (ug/L) : 4.7655
Integration start scan : 1240 Integration stop scan: 1261
Y at integration start : 0 Y at integration end: 0

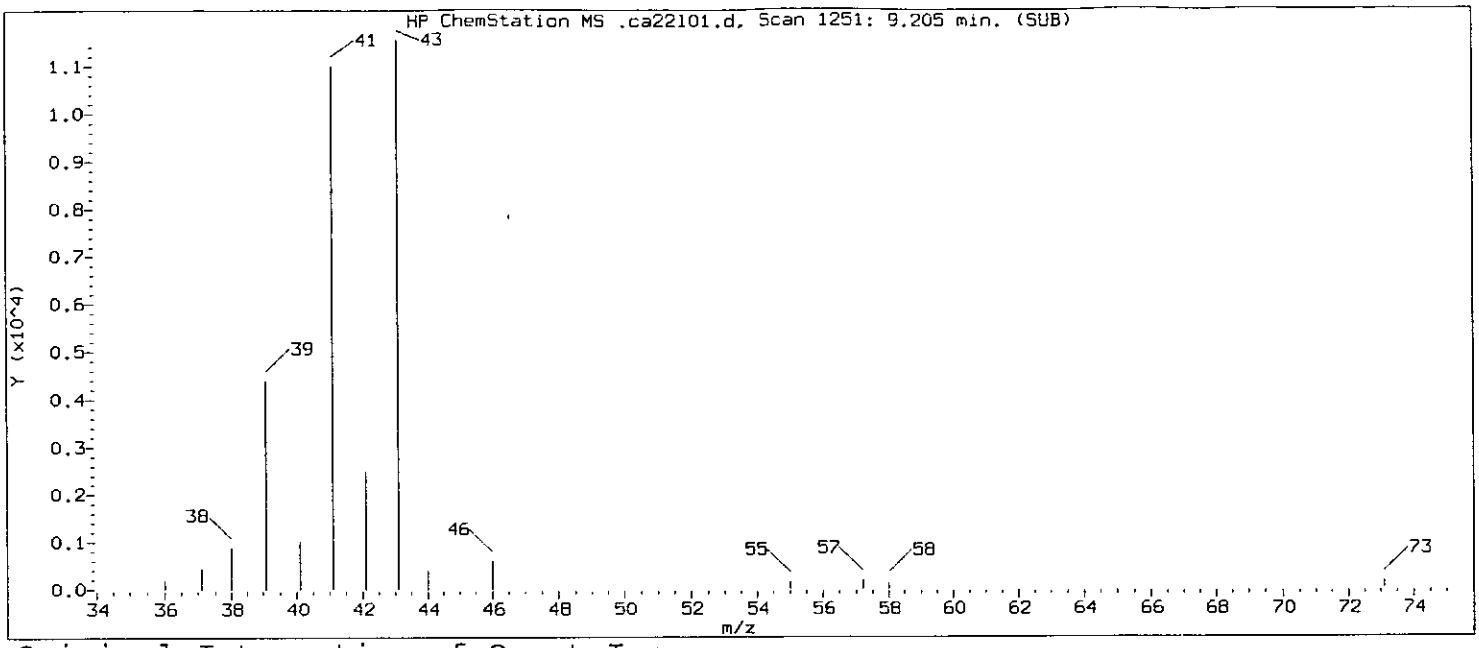
Reason for manual integration (circle one): missed peak (improper integration)

Analyst responsible for change: [signature] 4/22/09

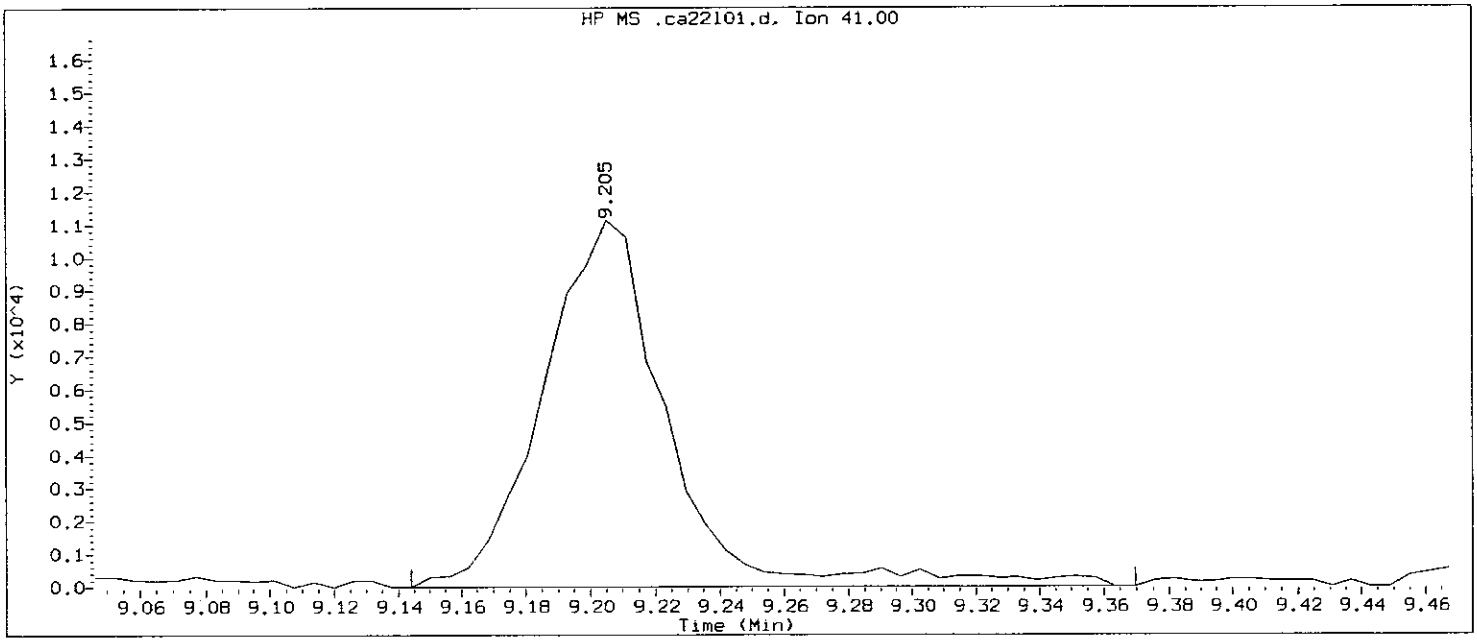
GC/MS audit/management approval: [signature] 4/29/09

RAD11 6384

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 11:11
Date, time and analyst ID of latest file update: 22-Apr-2009 12:31 Automation

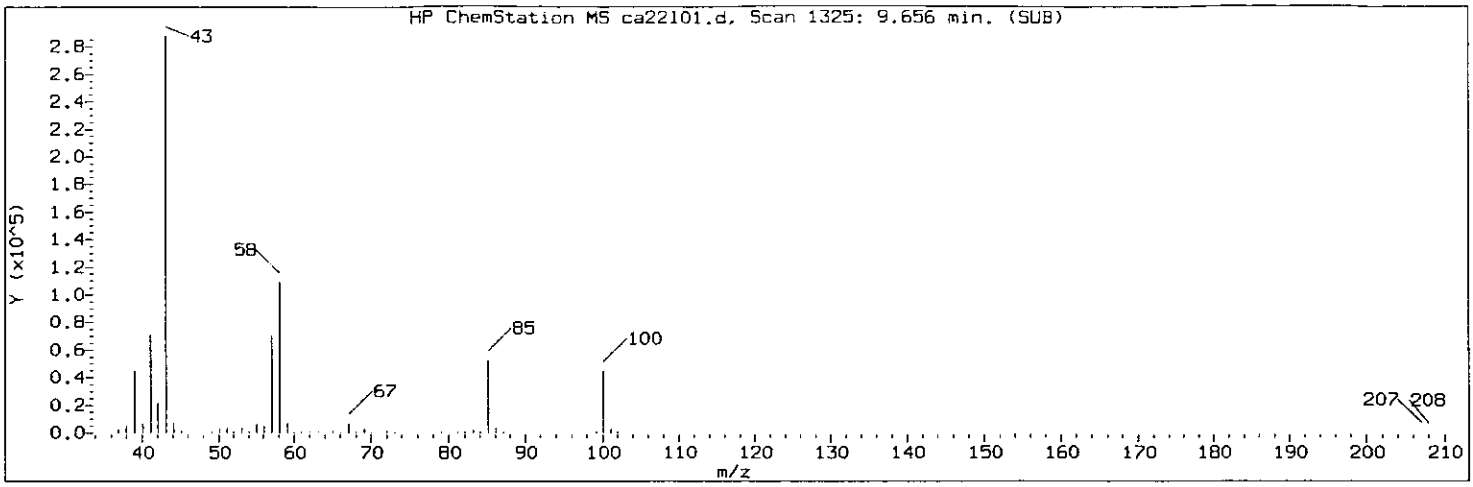
Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number	:	91
Compound Name	:	2-Nitropropane
Scan Number	:	1251
Retention Time (minutes)	:	9.205
Quant Ion	:	41
Area	:	29773
Concentration (ug/L)	:	5.0558
Integration start scan	:	1240 Integration stop scan: 1277
Y at integration start	:	0 Y at integration end: 0

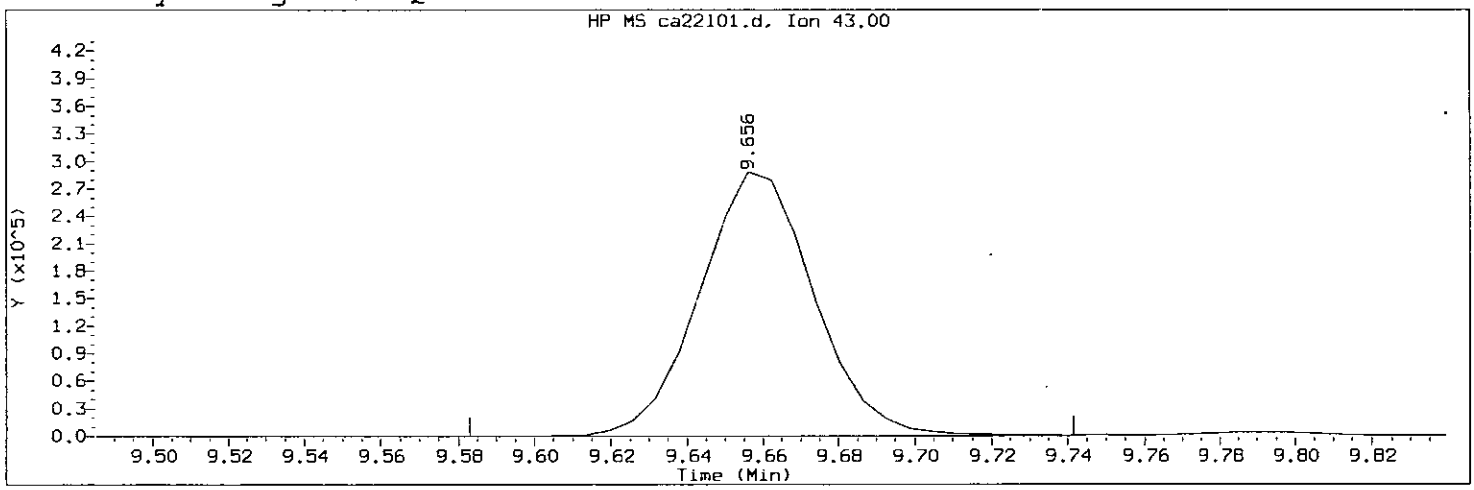
RAD11 0385

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number : 94
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1325
Retention Time (minutes): 9.656
Quant Ion : 43
Area (flag) : 605107 M
Concentration (ug/L) : 22.0917
Integration start scan : 1312 Integration stop scan: 1338
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

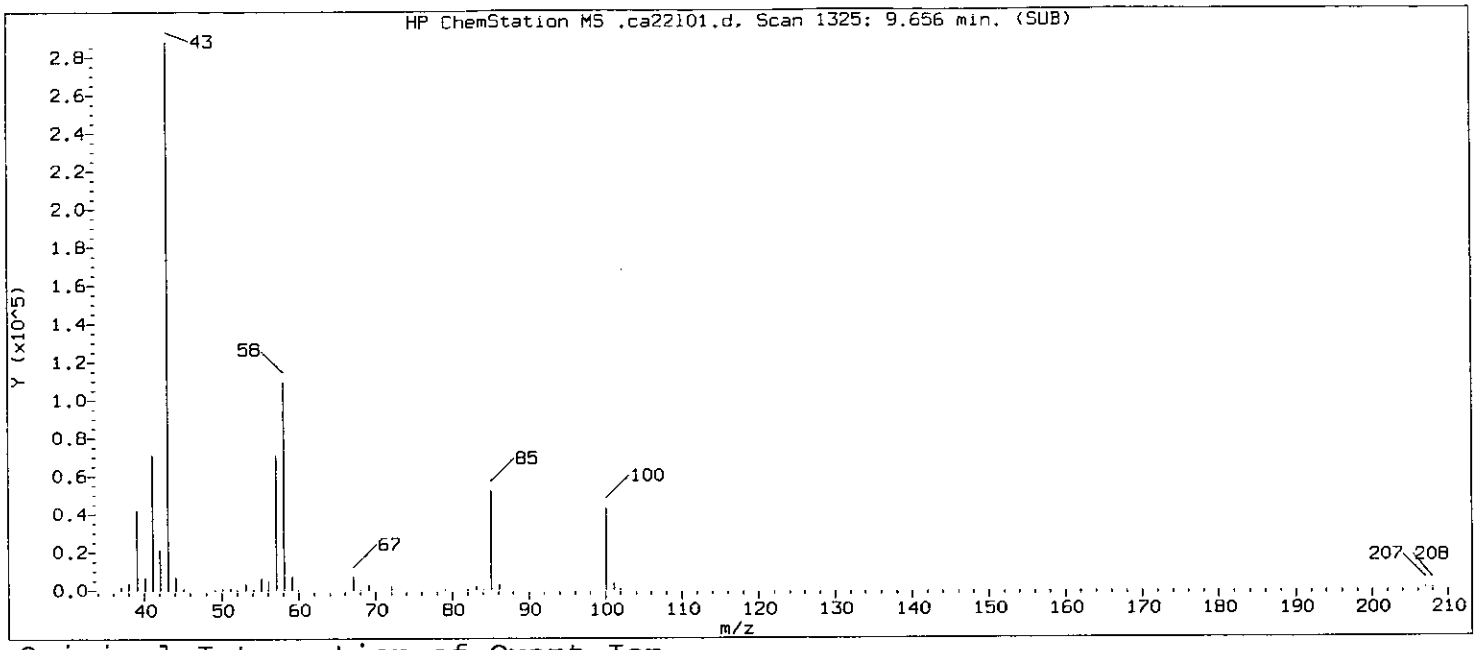
Analyst responsible for change: Susan 4/22/09

GC/MS audit/management approval: [signature] 4-29-09

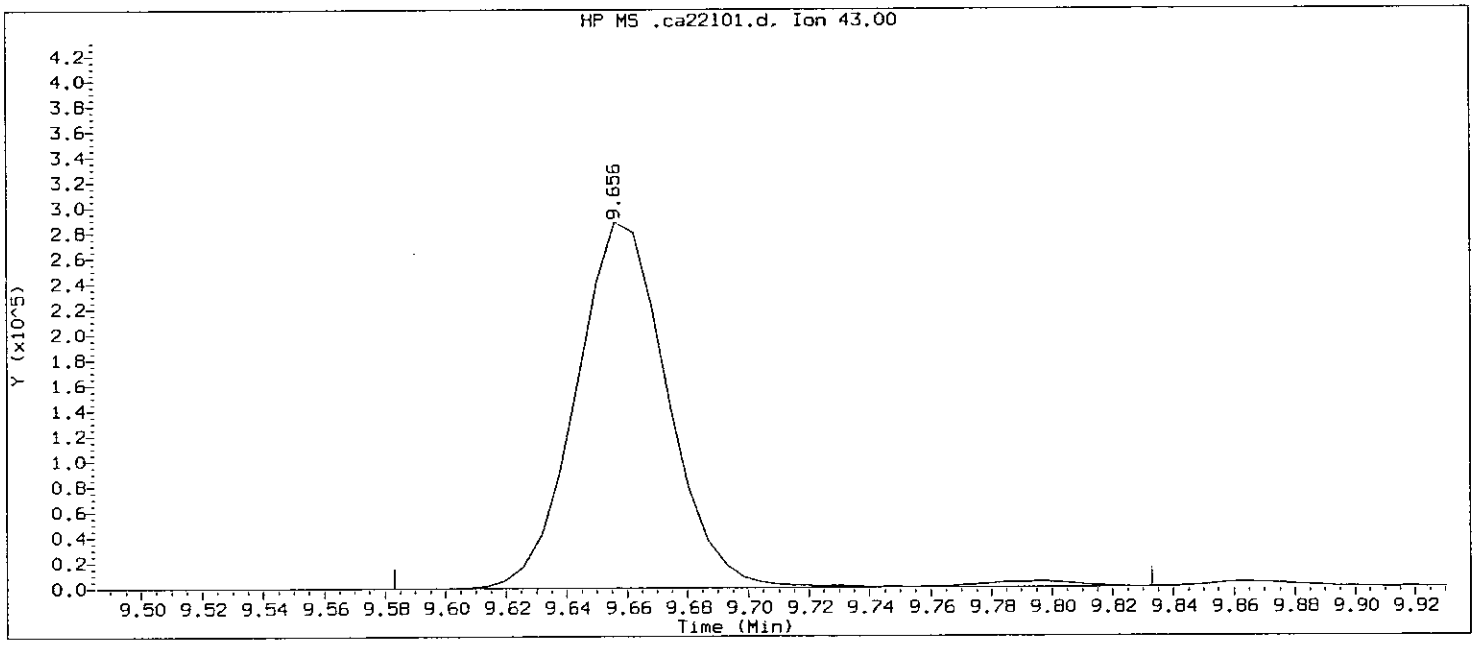
RAD11 8386

Manual Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 11:11
Date, time and analyst ID of latest file update: 22-Apr-2009 12:31 Automation

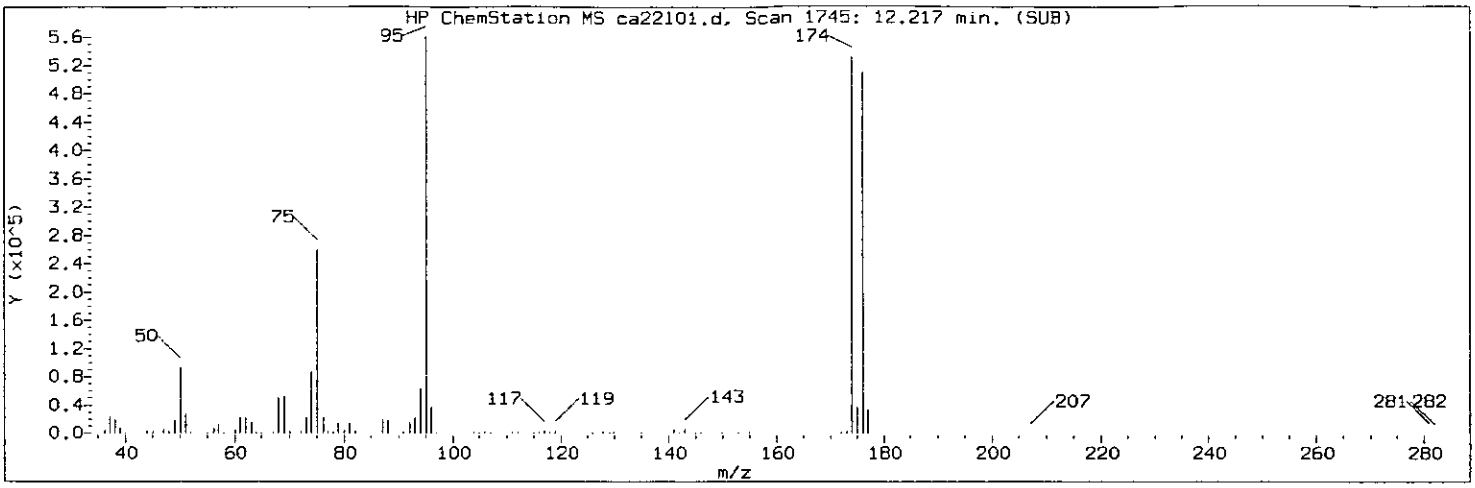
Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number : 94
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1325
Retention Time (minutes): 9.656
Quant Ion : 43
Area : 616213
Concentration (ug/L) : 22.4877
Integration start scan : 1312 Integration stop scan: 1353
Y at integration start : 0 Y at integration end: 0

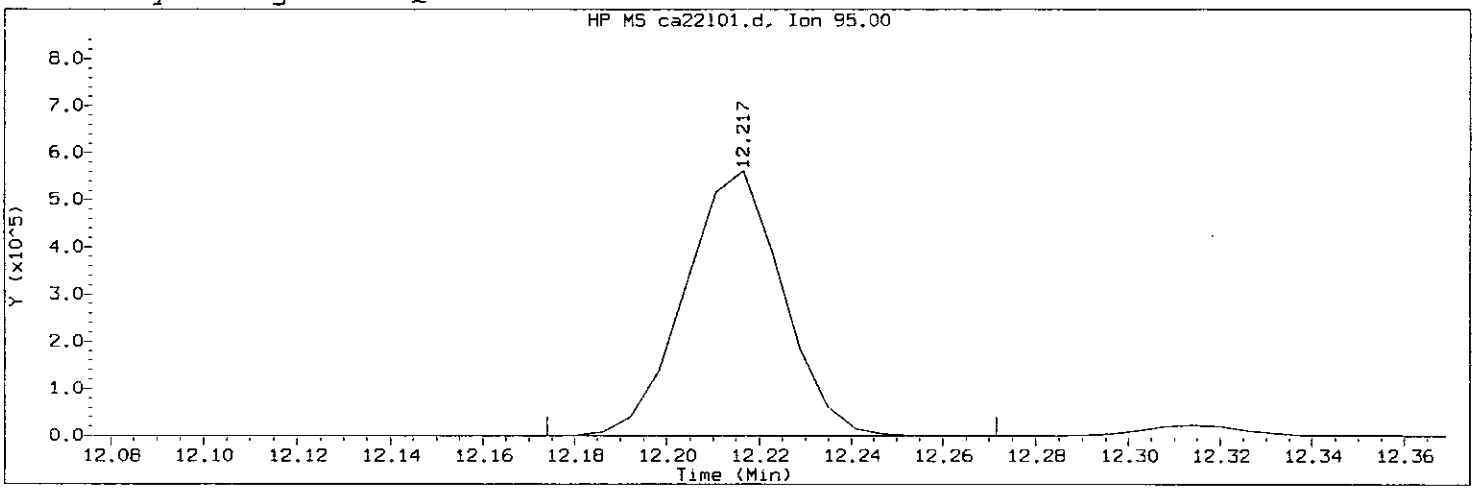
RAD11 8387

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area (flag) : 825092 M
Concentration (ug/L) : 9.3558
Integration start scan : 1737 Integration stop scan: 1753
Y at integration start : 0 Y at integration end: 0

Reason for manual integration (circle one): missed peak improper integration

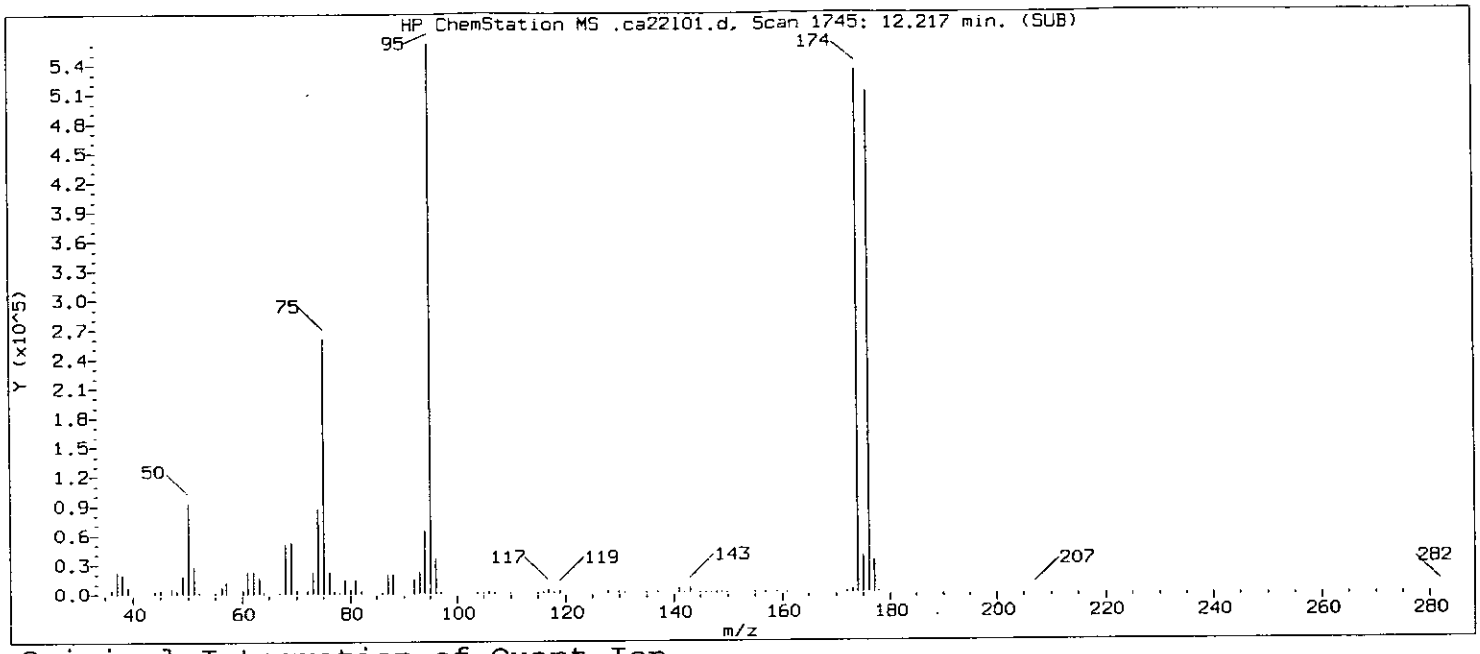
Analyst responsible for change: 4/22/09

GC/MS audit/management approval: 4/29/09

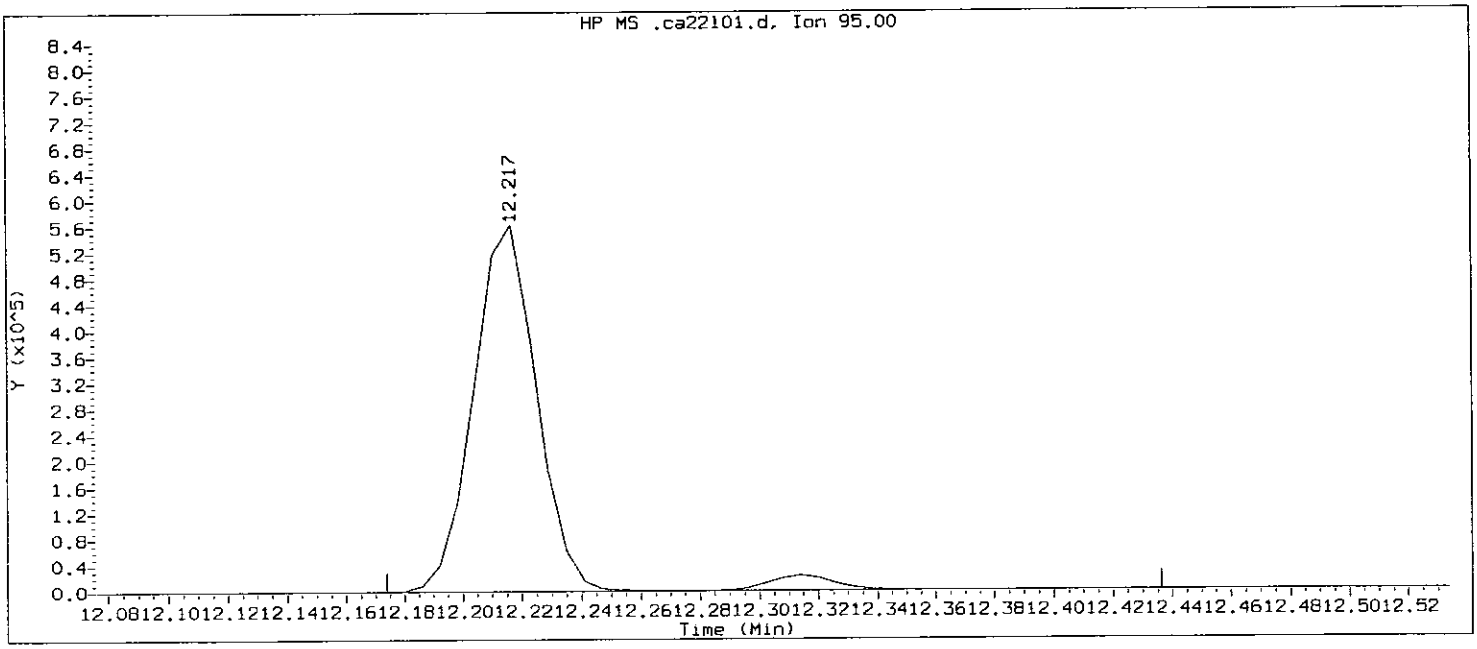
RAD11 6389

Manual Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 11:11
Date, time and analyst ID of latest file update: 22-Apr-2009 12:31 Automation

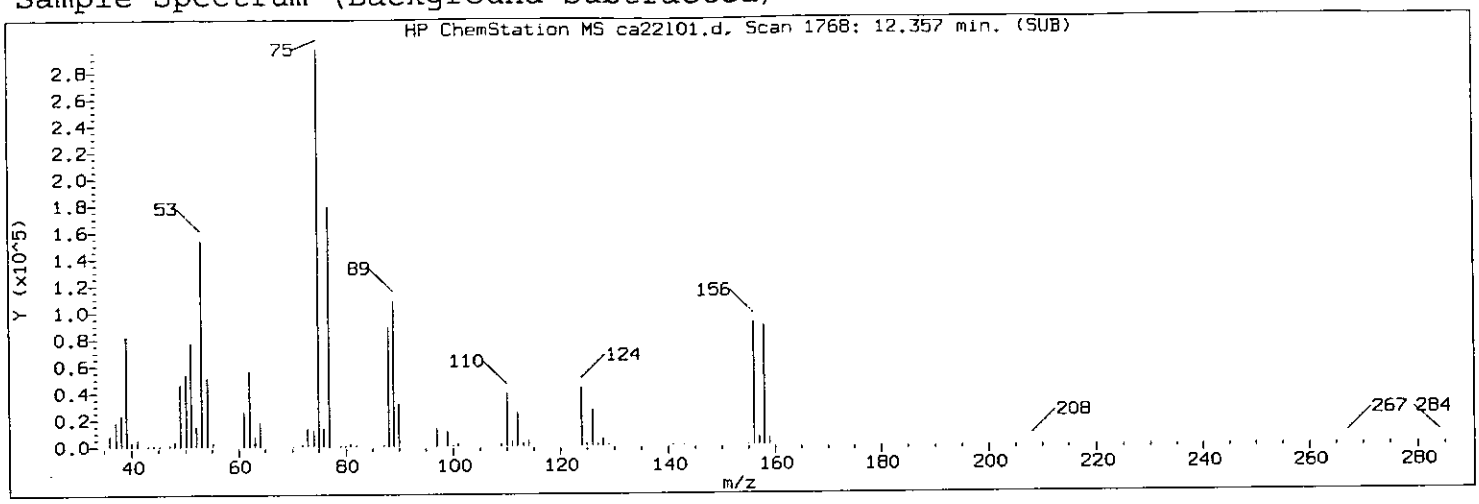
Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number : 123
Compound Name : 4-Bromofluorobenzene
Scan Number : 1745
Retention Time (minutes): 12.217
Quant Ion : 95
Area : 862635
Concentration (ug/L) : 9.7815
Integration start scan : 1737 Integration stop scan: 1780
Y at integration start : 0 Y at integration end: 0

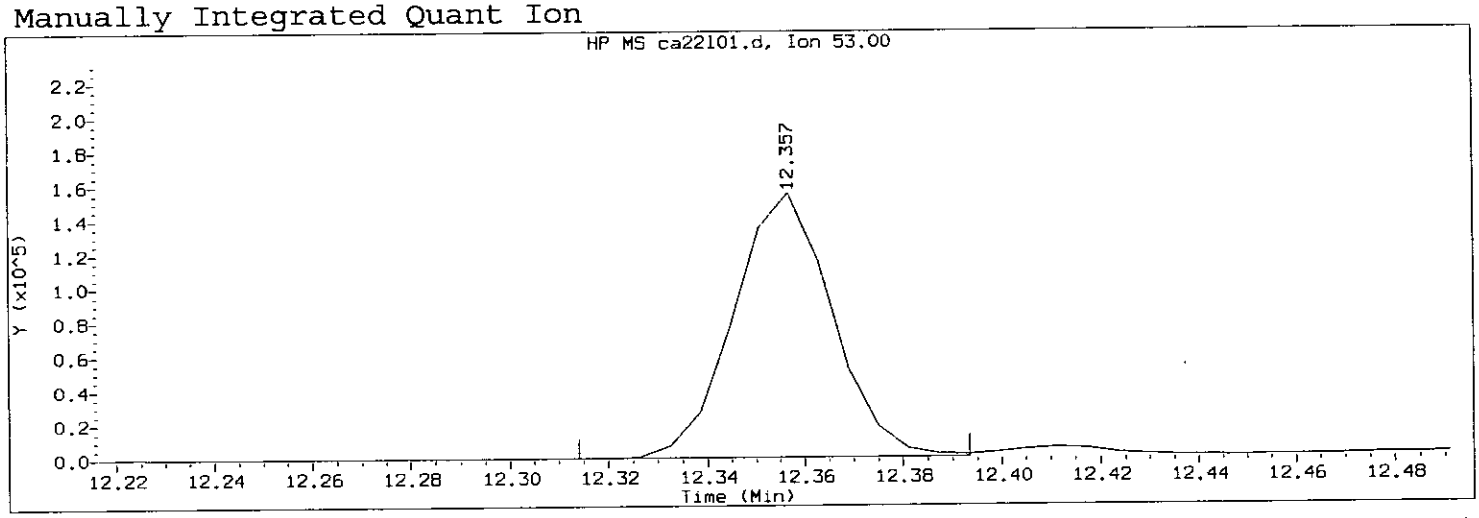
RAD11 8389

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 18:06
Date, time and analyst ID of latest file update: 22-Apr-2009 18:16 sew02002

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number	: 127
Compound Name	: trans-1,4-Dichloro-2-Butene
Scan Number	: 1768
Retention Time (minutes)	: 12.357
Quant Ion	: 53
Area (flag)	: 217558A
Concentration (ug/L)	: 27.8162
Integration start scan	: 1760 Integration stop scan: 1773
Y at integration start	: 0 Y at integration end: 0

Reason for manual integration (circle one): (missed peak) improper integration

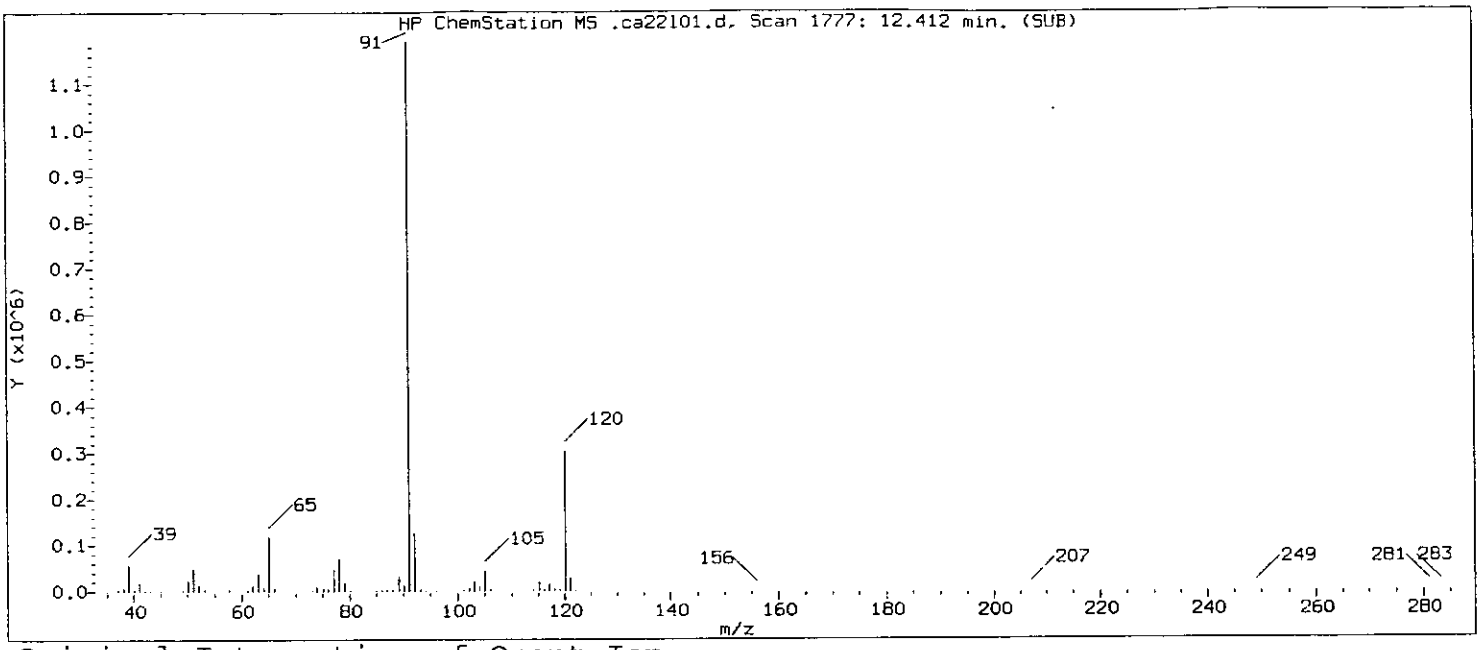
Analyst responsible for change: [signature] 4/22/09

GC/MS audit/management approval: [signature] 4/29/09

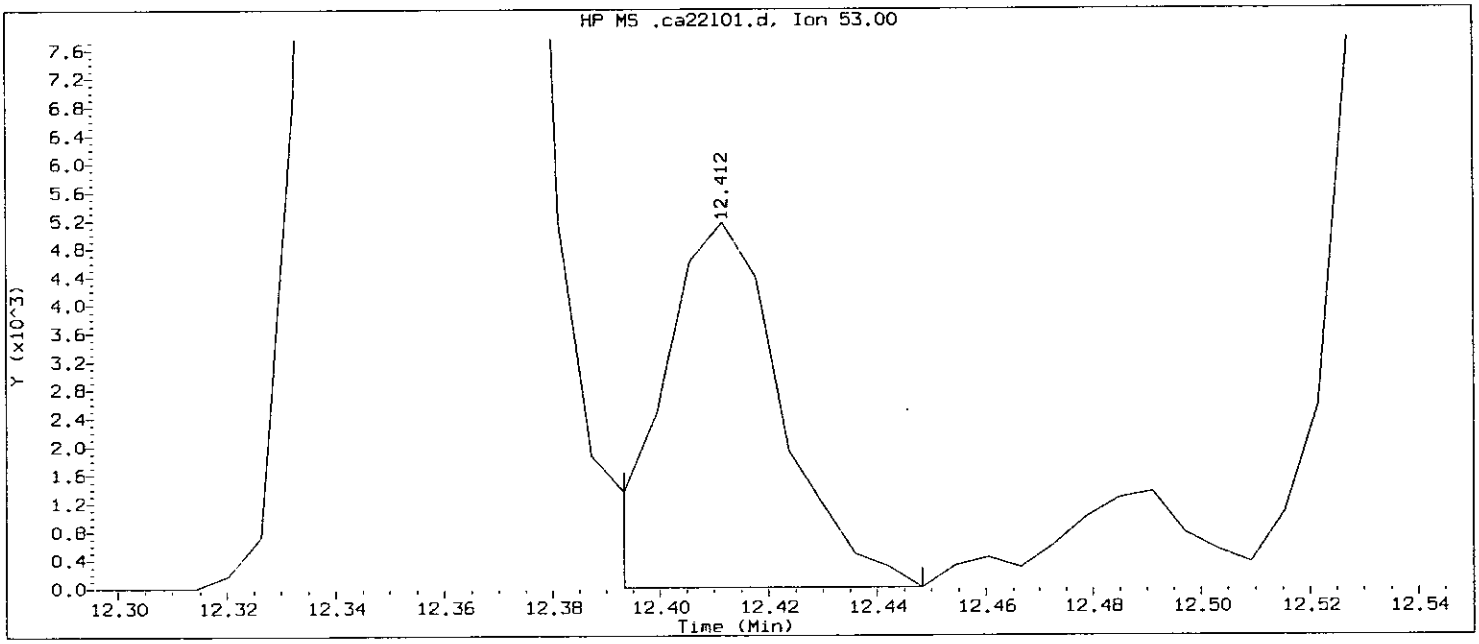
RAD11 8398

Manual Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP10193.i/09apr22a.b/ca22101.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:13 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: 8260W25
Calibration date and time: 22-APR-2009 11:11
Date, time and analyst ID of latest file update: 22-Apr-2009 12:31 Automation

Sample Name: LCSC88 Lab Sample ID: LCSC88

Compound Number : 127
Compound Name : trans-1,4-Dichloro-2-Butene
Scan Number : 1777
Retention Time (minutes): 12.412
Quant Ion : 53
Area : 7732
Concentration (ug/L) : 1.5085
Integration start scan : 1773 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

RAD11 8391

Original Integration Report for data file /chem2/HP10193.i/09apr22a.b/ca22101.d, generated on 04/22/2009 at 18:17

LCS1C88

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

LCS1C88

File: /chem2/HP10193.i/09apr22a.b/ca22102.d
Sample: LCS1C88;LCS1C88;1;3;LCS;
Injected At:22-APR-2009 12:35
Calibration Time: 15-APR-2009 11:26
Target Method: C8260W25.m
Blank Reference: ca22b02.d
Sublist: SMQC+CYC-2CC

Sample Concentration Formula: On-Column Amount * (Vt/Vo)
Batch:C091111AB
Analyst:ADS01731
Instrument ID:HP10193.i
Standard Reference: ca22c01.d
Prep Factor:1.00
Units: ug/L

Matrix: WATER
Level: Low
Sample Wt./Vol.: 25.0000 ml (Vo)
Volume Purged: 25.0 ml (Vt)
Bottle Code:

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
33) t-Butyl Alcohol-d10	4.328(-0.018)	451	65	100454(-9)	50.00	
75) Fluorobenzene	7.791(-0.006)	1019	96	2183748(-6)	10.00	
109) Chlorobenzene-d5	11.229(0.000)	1583	117	1664903(-5)	10.00	
142) 1,4-Dichlorobenzene-d4	13.095(0.000)	1889	152	963246(-11)	10.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
58) Dibromofluoromethane	(1)	6.870(0.000)	113	556359	9.668	97%		77 - 114
69) 1,2-Dichloroethane-d4	(1)	7.327(0.001)	102	97534	9.371	94%		74 - 113
95) Toluene-d8	(2)	9.796(-0.001)	98	2361980	10.020	100%		77 - 110
123) 4-Bromofluorobenzene	(2)	12.217(0.000)	95	800807	9.193	92%		78 - 110

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
3) Dimethyl ether	(1)	2.091(-0.001)	45	306076	4.440	4.44			0.10	0.50
28) Acetonitrile	(4)	4.066(0.007)	41	125541	38.985	38.99			7.00	20.00
45) Vinyl Acetate	(1)	5.425(0.001)	43	696957	10.580	10.58			0.20	0.50
122) Cyclohexanone	(4)	12.168(0.012)	55	62999	87.459	87.46			5.00	25.00
148) Hexachloroethane	(3)	13.576(0.000)	117	217119	4.574	4.57			0.10	0.50

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: ADS01731 Date: 4/30/09

Auditor: Date: 4/30/09

RAD11 8392

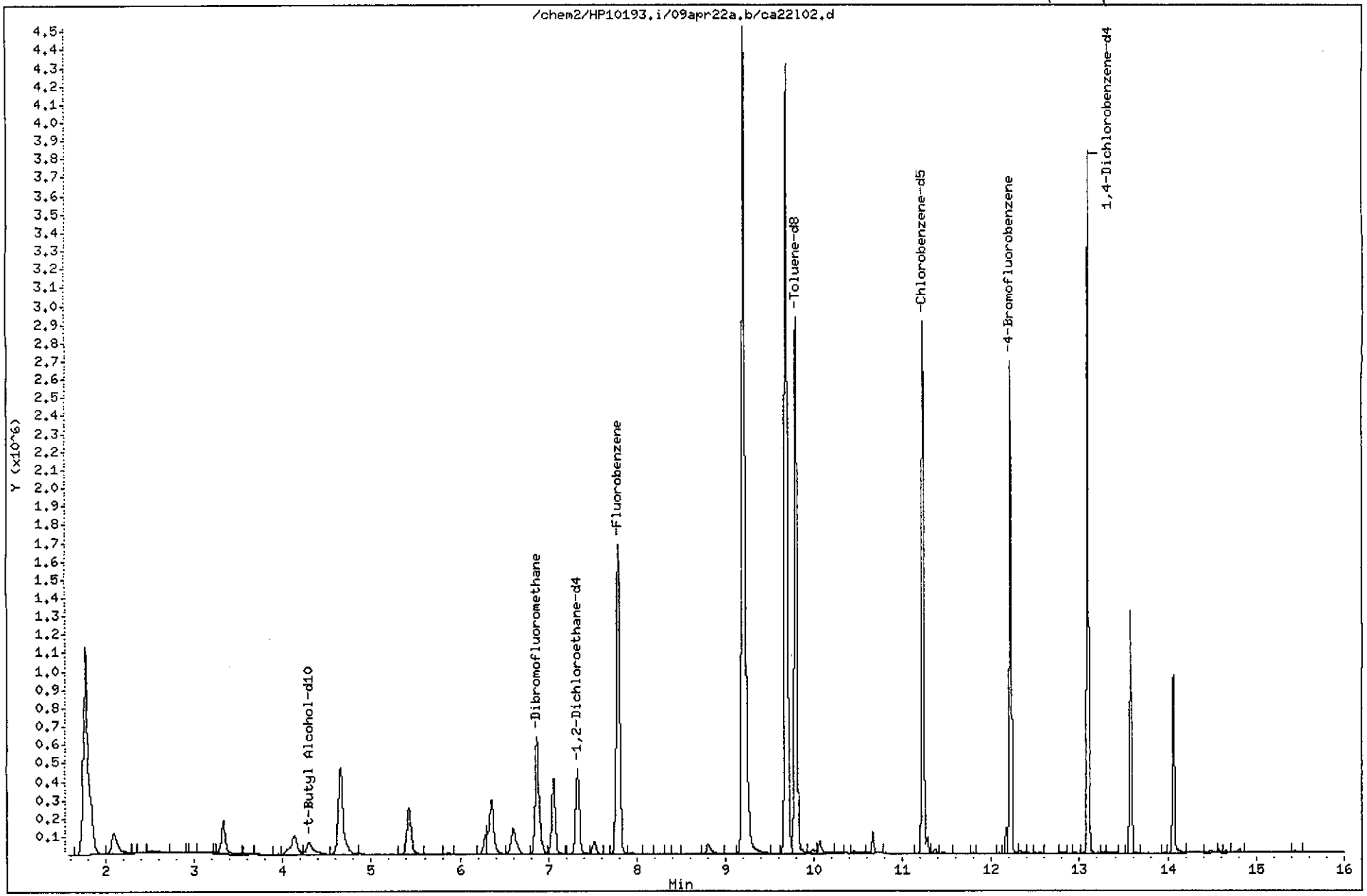
Data File: /chem2/HP10193.i/09apr22a.b/ca22102.d
Date : 22-APR-2009 12:35
Client ID: LCS1C88
Sample Info: LCS1C88;LCS1C88;1;3;LCS;
Purge Volume: 25.0
Column phase: DB-624

Instrument: HP10193.i

Operator: ADS01731
Column diameter: 0.25

ADS1731
4/30/09

RAD11 B393



Quant Report

Target Revision 3.5

Data File: /chem2/HP10193.i/09apr22a.b/ca22102.d Instrument ID: HP10193.i
Injection date and time: 22-APR-2009 12:35 Analyst ID: ADS01731

Method used: /chem2/HP10193.i/09apr22a.b/C8260W25.m Sublist used: SMQC+CYC-2CC
Calibration date and time: 15-APR-2009 11:26
Date, time and analyst ID of latest file update: 30-Apr-2009 13:45 ads01731

Sample Name: LCS1C88 Lab Sample ID: LCS1C88

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
3) Dimethyl ether	(1)	2.091	45	306076	4.440
28) Acetonitrile	(4)	4.066	41	125541	38.985
33)*t-Butyl Alcohol-d10	(4)	4.328	65	100454	50.000
45) Vinyl Acetate	(1)	5.425	43	696957	10.580
75)*Fluorobenzene	(1)	7.791	96	2183748	10.000
109)*Chlorobenzene-d5	(2)	11.229	117	1664903	10.000
122) Cyclohexanone	(4)	12.168	55	62999	87.459
142)*1,4-Dichlorobenzene-d4	(3)	13.095	152	963246	10.000
148) Hexachloroethane	(3)	13.576	117	217119	4.574
58)$Dibromofluoromethane	(1)	6.870	113	556359	9.668
69)$1,2-Dichloroethane-d4	(1)	7.327	102	97534	9.371
95)$Toluene-d8	(2)	9.796	98	2361980	10.020
123)$4-Bromofluorobenzene	(2)	12.217	95	800807	9.193

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP10193 **HP #25**

** Shift #1 Analyst:_____ADS___** Shift #2 Analyst:__SEW_____** Shift #3 Analyst:_____*

Comment Code:

R =	Reinjection necessary	X =	Sample sent to be reextracted
S =	Surrogate problem	I =	Internal Standard problem
NU =	Not used	F =	Further dilution required
MR =	Meets requirements	IUO =	Internal use only
Cz =	Confirms z, (z = S, I or X)	T =	Injected outside valid tune period

Other problems or comments are as follows:

_____

_____

_____

_____

Data Directory Path is - C:\MSDChem\1\data\09APR21C\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
CA21T05.D	BFB DEC 18-08	50ng BFB	21 Apr 09	19:47			MR
CA21I10.D	VSTD025	VSTD025	21 Apr 09	20:07			MR
CA21I11.D	VSTD010	VSTD010	21 Apr 09	20:28			MR
CA21I12.D	VSTD005	VSTD005	21 Apr 09	20:50			MR
CA21I13.D	VSTD002	VSTD002	21 Apr 09	21:11			MR
CA21I14.D	VSTD001	VSTD001	21 Apr 09	21:33			MR
CA21I15.D	VSTD0.5	VSTD0.5	21 Apr 09	21:54			MR
CA21M10.D	MDL0.1	MDL0.1	21 Apr 09	22:16			MR
CA21CV1.D	CICV	CICV	21 Apr 09	22:47			MR
CA21C06.D	VSTD005	VSTD005	21 Apr 09	23:10			MR
CA21B03.D	VBLKC87	VBLKC87	21 Apr 09	23:32	C091111AA		MR
CA21S01.D	16C1H	5645898	21 Apr 09	23:53	C091111AA		MR
CA21L01.D	LCSC87	LCSC87	22 Apr 09	00:15	C091111AA		MR
CA21L02.D	LCS1C87	LCS1C87	22 Apr 09	00:36	C091111AA		MR
CA21B04.D	VBLKC88	VBLKC88	22 Apr 09	00:58	C091111AB		MR
CA21B05.D	VBLKC88	VBLKC88	22 Apr 09	01:36	C091111AB		NU
CA21X55.D	VBLKC88	VBLKC88	22 Apr 09	09:59	C091111AB		NU

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP10193 **HP #25**

** Shift #1 Analyst:____ADS____** Shift #2 Analyst:__SEW_____** Shift #3 Analyst:_____*

Comment Code:

R =	Reinjection necessary	X =	Sample sent to be reextracted
S =	Surrogate problem	I =	Internal Standard problem
NU =	Not used	F =	Further dilution required
MR =	Meets requirements	IUO =	Internal use only
Cz =	Confirms z, (z = S, I or X)	T =	Injected outside valid tune period

Other problems or comments are as follows:

_____
_____8260B SM ICAL 25ML_____
_____
_____

Data Directory Path is - C:\MSDChem\1\data\09APR15A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
CA15T01.D	BFB DEC 18-08	50ng BFB	15 Apr 09	10:41			MR
CA15X01.D	BLANK	BLANK	15 Apr 09	11:04			NU
CA15I01.D	VSTD025	VSTD025	15 Apr 09	11:26			MR
CA15I02.D	VSTD010	VSTD010	15 Apr 09	11:48			MR
CA15I03.D	VSTD005	VSTD005	15 Apr 09	12:10			MR
CA15I04.D	VSTD002	VSTD002	15 Apr 09	12:31			NU
CA15I05.D	VSTD002	VSTD002	15 Apr 09	12:53			MR
CA15I06.D	VSTD001	VSTD001	15 Apr 09	13:15			MR
CA15I07.D	VSTD0.5	VSTD0.5	15 Apr 09	13:37			MR
CA15M01.D	MDL0.1	MDL0.1	15 Apr 09	13:58			MR
CA15CV1.D	CSMCV	CSMCV	15 Apr 09	14:20	MISPREP		NU
CA15CV2.D	CSMCV	CSMCV	15 Apr 09	16:23	MISPREP		NU
CA15CV3.D	CSMCV	CSMCV	15 Apr 09	17:28			MR

RAD11 0396

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP10193 **HP #25**

** Shift #1 Analyst:_____ADS___** Shift #2 Analyst:__SEW_____** Shift #3 Analyst:_____*

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
S = Surrogate problem I = Internal Standard problem
NU = Not used F = Further dilution required
MR = Meets requirements IUO = Internal use only
Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

_____8260 25ML_____
_____
_____
_____

Data Directory Path is - C:\MSDChem\1\data\09APR22A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
CA22T01.D	BFB DEC 18-08	50ng BFB	22 Apr 09	10:23			MR
CA22C01.D	VSTD005	VSTD005	22 Apr 09	10:46			MR
CA22C02.D	VSTD005	VSTD005	22 Apr 09	11:07			MR
CA22B01.D	VBLKC88	VBLKC88	22 Apr 09	11:29	C091111AB		NU
CA22B02.D	VBLKC88	VBLKC88	22 Apr 09	11:51	C091111AB		MR
CA22L01.D	LCSC88	LCSC88	22 Apr 09	12:13	C091111AB		MR
CA22L02.D	LCS1C88	LCS1C88	22 Apr 09	12:35	C091111AB		MR
CA22S01.D	16MW8	5645899	22 Apr 09	13:09	C091111AB		MR
CA22S02.D	16MW9	5645900	22 Apr 09	13:31	C091111AB		MR
CA22S03.D	16C1A	5645901	22 Apr 09	13:52	C091111AB		MR
CA22S04.D	16C1AMS	5645902	22 Apr 09	14:14	C091111AB		MR
CA22S05.D	16C1AMSD	5645903	22 Apr 09	14:36	C091111AB		MR
CA22S06.D	16C1AMS1	5645902	22 Apr 09	14:57	C091111AB		MR
CA22S07.D	16C1AMSD1	5645903	22 Apr 09	15:19	C091111AB		MR
CA22S08.D	16WDP	5645904	22 Apr 09	15:40	C091111AB		MR
CA22S09.D	16C1B	5645905	22 Apr 09	16:02	C091111AB		MR
CA22S10.D	TB1HW	5645906	22 Apr 09	16:24	C091111AB		MR
CA22S11.D	13-1-	5648234	22 Apr 09	16:45	C091111BB		MR
CA22S12.D	13-2-	5648235	22 Apr 09	17:07	C091111BB		MR
CA22S13.D	13-3-	5648236	22 Apr 09	17:29	C091111BB		MR
CA22S14.D	13-4-	5648237	22 Apr 09	17:50	C091111BB		MR
CA22S15.D	13-DU	5648238	22 Apr 09	18:12	C091111BB		MR
CA22S16.D	13-5-	5648239	22 Apr 09	18:34	C091111BB		MR
CA22S17.D	13-5-MS	5648240	22 Apr 09	18:55	C091111BB		MR
CA22S18.D	13-5-MSD	5648241	22 Apr 09	19:16	C091111BB		MR
CA22S19.D	13-5-MS1	5648240	22 Apr 09	19:38	C091111BB		MR
CA22S20.D	13-5-MSD1	5648241	22 Apr 09	20:00	C091111BB		MR
CA22S21.D	13-6-	5648242	22 Apr 09	20:21	C091111BB		MR
CA22S22.D	13-7-	5648243	22 Apr 09	20:43	C091111BB	RAD11	MR97
CA22S23.D	13TB1	5648244	22 Apr 09	21:05	C091111BB		MR
CA22S24.D	13TB2	5648245	22 Apr 09	21:26	C091111BB		MR

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GC/MS Volatiles pH Log

Batch: C091111AB/BB

LLI#	pH	Date Checked	Initials/ Employee #	Comments
5645899	<2	4/22/2009	SW 2002	
5645900	<2	4/22/2009	SW 2002	
5645901	<2	4/22/2009	SW 2002	
5645902	<2	4/22/2009	SW 2002	MS
5645903	<2	4/22/2009	SW 2002	MSD
5645902	<2	4/22/2009	SW 2002	MS1
5645903	<2	4/22/2009	SW 2002	MSD1
5645904	<2	4/22/2009	SW 2002	
5645905	<2	4/22/2009	SW 2002	
5645906	<2	4/22/2009	SW 2002	
5648234	<2	4/22/2009	SW 2002	
5648235	<2	4/22/2009	SW 2002	
5648236	<2	4/22/2009	SW 2002	
5648237	<2	4/22/2009	SW 2002	
5648238	<2	4/22/2009	SW 2002	
5648239	<2	4/22/2009	SW 2002	
5648240	<2	4/22/2009	SW 2002	MS
5648241	<2	4/22/2009	SW 2002	MSD
5648240	<2	4/22/2009	SW 2002	MS1
5648241	<2	4/22/2009	SW 2002	MSD1
5648242	<2	4/22/2009	SW 2002	
5648243	<2	4/22/2009	SW 2002	
5648244	<2	4/22/2009	SW 2002	
5648245	<2	↓	↓	

RAD11 0398

CompuChem

A Division Of

Liberty Analytical Corp.

5/20/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904103

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER **Work:** 0904103

Project RAAP APPIX 2009/B03204-07 **Sdg:** DRAFT 0904103

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904103-01	13MW1	Water	4/14/09 9:35 am	4/15/09 4:15 pm
0904103-02	13MW2	Water	4/14/09 8:15 am	4/15/09 4:15 pm

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

GC/MS by SW-846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)
Tentatively identified compounds (Form I, TIC)
In order by sample.

C. Surrogate spike analysis results (Form II)
By matrix (Water or Soil), and
by concentration (Low, Medium, or High)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)
Tentatively identified compounds (Form I, TIC)

F. Internal standard area response and retention time data (Form VIII)

LAB CODE : LIBRTY

METHOD: 8270C

SDG # : 0904103

A. SDG Narrative

CompuChem
A division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

SDG # 0904103
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW1, 13MW2.

The two aqueous samples listed above were received intact, properly refrigerated between 0.1-2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the semivolatile fraction. SW-846, 3rd Edition, Update 3, Separatory Funnel extraction (Method 3510C) and Method 8270C were used to prepare and analyze these samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance Notices are included in the narrative section and all pertinent Laboratory Notices for SDG # 0904103 are included in the sample data sections. Extraction and analysis holding time requirements were met for all of these samples.

There were no semivolatile project analytes identified above the quantitation limit in either of these samples. There were no Tentatively Identified Compounds (TICs) in either of these samples.

All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated with this SDG. Tailing factor criteria were met for pentachlorophenol and benzidine. The breakdown criterion was met for DDT. These three compounds have been added to the DFTPP solution and analyzed together. Overall quality control criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples. The associated method blank met all quality control criteria. The associated Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) met all accuracy and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Rebecca K Mead

Rebecca K. Mead, Ph.D.
Senior Scientist
May 19, 2009

Laboratory Notice

Calibration Date(s): 30-APR-2009 16:22 30-APR-2009 19:51

Instrument ID: 5972hp62

An initial calibration was analyzed by Method 8270C. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the initial calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8270C, Sec. 7.3.7.1, and Method 8000B, Section 7.5.1.2, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally, the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Compound Name	RSD
Diallate (trans) part of total	19.1
Bis(2-chloroethyl)ether	17.3
N-Nitrosopyrrolidine	35.1
N-Nitrosomorpholine	21.5
o-Toluidine	17.6
2,4-Dimethylphenol	15.2
Naphthalene	15.2
4-Chloroaniline	16.9
p-Phenylenediamine	54.7
Safrole	15.3
2-Chloronaphthalene	16.4
1,4-Napthoquinone	15.4
Acenaphthylene	16.3
Acenaphthene	17.9
2,4-Dinitrophenol	37.3
Pentachlorobenzene	15.1
Dibenzofuran	15.9
2-Naphthylamine	21.6
4-Chlorophenyl-phenylether	19.4
Fluorene	15.5
4,6-Dinitro-2-methylphenol	22.1
1,2-Diphenylhydrazine	16.6
1,3,5-Trinitrobenzene	22.4
Diallate (trans isomer)	19.1
Phorate	15.4
Dimethoate	17.5
Methyl Parathion	16.8
4-Nitroquinoline-1-oxide	20.6
Pyrene	16.3
Chrysene	18.2
Benzo(k)fluoranthene	17.2
Diallate Total	16.9
a,a-Dimethylphenethylamine	50.6
2-Fluorobiphenyl	15.9
Terphenyl-d14	15.5

Average %RSD for all compounds in the Initial Calibration: 12.2 %

Data Reviewer/ID: [illegible] / [illegible]

Date: 6/5/19

GC and GC/MS Column and Trap Specifications Table

SDG #:	

COLUMNS*

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
√	Restek	clpest	0.32	0.5	30
√	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
√	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
√	Restek	RTX-5MS	0.32	0.25	30
	Phenomonex	ZB-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS*

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
√	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 28

* This table contains the GC columns (and volatile organic trap) used for the analysis of volatiles, semi-volatiles, pesticides, and Aroclors by the SOM01.2 SOW. Please see the SDG Narratives(s) for the specific fraction(s) relative to this SDG.

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I and Form I - TIC

Organic Analysis Data Sheet (OADS) and Tentatively Identified Compounds (TICs)

- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5.0	U
95-57-8	2-Chlorophenol	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
98-86-2	Acetophenone	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
131-11-3	Dimethylphthalate	5.0	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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29.					
30.					

FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5.0	U
95-57-8	2-Chlorophenol	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
98-86-2	Acetophenone	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
131-11-3	Dimethylphthalate	5.0	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6203

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	20	
95-57-8	2-Chlorophenol	33	
108-39-4	3-Methylphenol	33	
106-44-5	4-Methylphenol	34	
98-86-2	Acetophenone	33	
67-72-1	Hexachloroethane	30	
98-95-3	Nitrobenzene	39	
120-83-2	2,4-Dichlorophenol	29	
131-11-3	Dimethylphthalate	34	
100-02-7	4-Nitrophenol	15	
132-64-9	Dibenzofuran	36	
84-66-2	Diethylphthalate	33	
86-30-6	N-Nitrosodiphenylamine (1)	33	
84-74-2	Di-n-butylphthalate	32	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
85-68-7	Butylbenzylphthalate	36	
119-93-7	3,3'-Dimethylbenzidine	26	
117-81-7	bis(2-ethylhexyl)Phthalate	38	
56-55-3	Benzo(a)anthracene	37	
117-84-0	Di-n-octylphthalate	33	
205-99-2	Benzo(b)fluoranthene	36	
207-08-9	Benzo(k)fluoranthene	42	
50-32-8	Benzo(a)pyrene	37	
193-39-5	Indeno(1,2,3-c,d)pyrene	38	
53-70-3	Dibenzo(a,h)anthracene	36	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6203

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	20	
95-57-8	2-Chlorophenol	32	
108-39-4	3-Methylphenol	31	
106-44-5	4-Methylphenol	32	
98-86-2	Acetophenone	33	
67-72-1	Hexachloroethane	26	
98-95-3	Nitrobenzene	38	
120-83-2	2,4-Dichlorophenol	31	
131-11-3	Dimethylphthalate	35	
100-02-7	4-Nitrophenol	16	
132-64-9	Dibenzofuran	35	
84-66-2	Diethylphthalate	34	
86-30-6	N-Nitrosodiphenylamine (1)	34	
84-74-2	Di-n-butylphthalate	33	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
85-68-7	Butylbenzylphthalate	37	
119-93-7	3,3'-Dimethylbenzidine	28	
117-81-7	bis(2-ethylhexyl)Phthalate	37	
56-55-3	Benzo(a)anthracene	37	
117-84-0	Di-n-octylphthalate	38	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	38	
50-32-8	Benzo(a)pyrene	37	
193-39-5	Indeno(1,2,3-c,d)pyrene	36	
53-70-3	Dibenzo(a,h)anthracene	37	

(1) - Cannot be separated from Diphenylamine

C. Form II

Surrogate spike analysis

- By level (low, medium, high) -

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

	CLIENT SAMPLE NO.	S1 (2FP)#	S2 (PHL)#	S3 (NBZ)#	S4 (FBP)#	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	SBLKGV	60	41	80	64	47	72			0
02	SGVLCS	69	47	84	76	66	74			0
03	SGVLCSD	61	40	82	72	66	71			0
04	13MW1	71	47	96	76	67	86			0
05	13MW2	67	45	99	75	64	90			0
06										
07										
08										
09										
10										
11										
12										
13										
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25										
26										
27										
28										

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(11-110)
S2 (PHL)	= Phenol-d5	(10-110)
S3 (NBZ)	= Nitrobenzene-d5	(35-110)
S4 (FBP)	= 2-Fluorobiphenyl	(45-110)
S5 (TBP)	= 2,4,6-Tribromophenol	(44-131)
S6 (TPH)	= Terphenyl-d14	(49-120)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate results
- By level (low, medium, high) -
Laboratory Control Sample(s)

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	40		19.59	49	20-100
2-Chlorophenol	40		32.82	82	23-100
3-Methylphenol	80		32.93	41	24-100
4-Methylphenol	80		33.85	42	24-100
Acetophenone	40		32.96	82	39-100
Hexachloroethane	40		30.47	76	50-150
Nitrobenzene	40		39.34	98	20-131
2,4-Dichlorophenol	40		28.65	72	39-103
Dimethylphthalate	40		34.54	86	53-116
4-Nitrophenol	40		15.48	39	10-100
Dibenzofuran	40		35.51	89	50-107
Diethylphthalate	40		33.16	83	52-118
N-Nitrosodiphenylamine	40		33.06	83	52-117
Di-n-butylphthalate	40		32.59	81	51-114
Fluoranthene	40		36.02	90	58-124
Pyrene	40		37.41	94	48-131
Butylbenzylphthalate	40		35.86	90	41-118
3,3'-Dimethylbenzidine	40		25.92	65	20-150
bis(2-ethylhexyl)Phthal	40		37.55	94	47-121
Benzo(a)anthracene	40		37.05	93	53-128
Di-n-octylphthalate	40		33.4	84	30-148
Benzo(b)fluoranthene	40		35.89	90	41-130
Benzo(k)fluoranthene	40		42.09	105	39-150
Benzo(a)pyrene	40		36.77	92	46-135
Indeno(1,2,3-c,d)pyrene	40		37.53	94	47-138
Dibenzo(a,h)anthracene	40		35.95	90	47-134

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	40	19.71	49	0	30	20-100
2-Chlorophenol	40	32.2	81	1	30	23-100
3-Methylphenol	80	31.24	39	5	30	24-100
4-Methylphenol	80	32.05	40	5	30	24-100
Acetophenone	40	33.23	83	1	30	39-100
Hexachloroethane	40	26.57	66	14	40	50-150
Nitrobenzene	40	38.54	96	2	30	20-131
2,4-Dichlorophenol	40	30.73	77	7	30	39-103
Dimethylphthalate	40	34.74	87	1	30	53-116
4-Nitrophenol	40	16.19	40	3	30	10-100
Dibenzofuran	40	35.21	88	1	30	50-107
Diethylphthalate	40	33.53	84	1	30	52-118
N-Nitrosodiphenylamine	40	33.86	85	2	30	52-117
Di-n-butylphthalate	40	33.02	83	2	30	51-114
Fluoranthene	40	36.51	91	1	30	58-124
Pyrene	40	36.63	92	2	30	48-131
Butylbenzylphthalate	40	37.16	93	3	30	41-118
3,3'-Dimethylbenzidine	40	28.12	70	7	30	20-150
bis(2-ethylhexyl)Phthal	40	37.28	93	1	30	47-121
Benzo(a)anthracene	40	36.92	92	1	30	53-128
Di-n-octylphthalate	40	38.38	96	13	30	30-148
Benzo(b)fluoranthene	40	39.16	98	9	30	41-130
Benzo(k)fluoranthene	40	38.29	96	9	30	39-150
Benzo(a)pyrene	40	37.44	94	2	30	46-135
Indeno(1,2,3-c,d)pyrene	40	36.59	91	3	30	47-138
Dibenzo(a,h)anthracene	40	36.93	92	2	30	47-134

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 26 outside limits
Spike Recovery: 0 out of 52 outside limits

COMMENTS: _____

E. Form IV

Method Blank Results
Form IV, Form I, and Form I - TIC

Method blank summary, OADS, and TICs
- In chronological order of analysis

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID: 9041633-BLKA6203 Lab Sample ID: 9041633-BLK

Instrument ID: 5972HP62 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 1744

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD	9041633-BSDA	05/01/09
03	13MW1	0904103-01	0904103-01A6	05/01/09
04	13MW2	0904103-02	0904103-02A6	05/01/09
05				
06				
07				
08				
09				
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30				

COMMENTS:

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6203

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5.0	U
95-57-8	2-Chlorophenol	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
98-86-2	Acetophenone	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
131-11-3	Dimethylphthalate	5.0	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA62

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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21.					
22.					
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24.					
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28.					
29.					
30.					

FORM I SV-TIC

F. Form VIII

Internal standard area and retention time data

(VOA and SV only)

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	261971	7.28	938790	9.93	466997	13.85
	UPPER LIMIT	523942	7.78	1877580	10.43	933994	14.35
	LOWER LIMIT	130985	6.78	469395	9.43	233499	13.35
	CLIENT SAMPLE NO.						
01	SBLKGV	266680	7.28	928958	9.92	452497	13.85
02	SGVLCS	252207	7.28	919937	9.93	439329	13.86
03	SGVLCSD	279423	7.29	963426	9.93	458776	13.86
04	13MW1	280905	7.28	976197	9.92	494274	13.84
05	13MW2	267691	7.28	901873	9.92	456258	13.85
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	681169	17.13	741741	23.10	773134	26.09
	UPPER LIMIT	1362338	17.63	1483482	23.60	1546268	26.59
	LOWER LIMIT	340585	16.63	370871	22.60	386567	25.59
	CLIENT SAMPLE NO.						
01	SBLKGV	743307	17.12	697980	23.10	720788	26.09
02	SGVLCS	733227	17.13	812545	23.12	871639	26.11
03	SGVLCSD	753738	17.13	837720	23.12	867138	26.10
04	13MW1	808583	17.12	776188	23.10	788267	26.10
05	13MW2	704455	17.12	708167	23.10	703398	26.09
06							
07							
08							
09							
10							
11							
12							
13							
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15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

GC/MS by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalyses, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE : LIBRTY

METHOD: 8270C

SDG # : 0904103

A. SDG Narrative

CompuChem
A division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

SDG # 0904103
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: 13MW1, 13MW2.

The two aqueous samples listed above were received intact, properly refrigerated between 0.1-2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the semivolatile fraction. SW-846, 3rd Edition, Update 3, Separatory Funnel extraction (Method 3510C) and Method 8270C were used to prepare and analyze these samples, with the exceptions and/or additions requested by the client. All pertinent Quality Assurance Notices are included in the narrative section and all pertinent Laboratory Notices for SDG # 0904103 are included in the sample data sections. Extraction and analysis holding time requirements were met for all of these samples.

There were no semivolatile project analytes identified above the quantitation limit in either of these samples. There were no Tentatively Identified Compounds (TICs) in either of these samples.

All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated with this SDG. Tailing factor criteria were met for pentachlorophenol and benzidine. The breakdown criterion was met for DDT. These three compounds have been added to the DFTPP solution and analyzed together. Overall quality control criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples. The associated method blank met all quality control criteria. The associated Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) met all accuracy and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Rebecca K Mead

Rebecca K. Mead, Ph.D.
Senior Scientist
May 19, 2009

Laboratory Notice

Calibration Date(s): 30-APR-2009 16:22 30-APR-2009 19:51

Instrument ID: 5972hp62

An initial calibration was analyzed by Method 8270C. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the initial calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8270C, Sec. 7.3.7.1, and Method 8000B, Section 7.5.1.2, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally, the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Compound Name	RSD
Diallate (trans) part of total	19.1
Bis(2-chloroethyl)ether	17.3
N-Nitrosopyrrolidine	35.1
N-Nitrosomorpholine	21.5
o-Toluidine	17.6
2,4-Dimethylphenol	15.2
Naphthalene	15.2
4-Chloroaniline	16.9
p-Phenylenediamine	54.7
Safrole	15.3
2-Chloronaphthalene	16.4
1,4-Napthoquinone	15.4
Acenaphthylene	16.3
Acenaphthene	17.9
2,4-Dinitrophenol	37.3
Pentachlorobenzene	15.1
Dibenzofuran	15.9
2-Naphthylamine	21.6
4-Chlorophenyl-phenylether	19.4
Fluorene	15.5
4,6-Dinitro-2-methylphenol	22.1
1,2-Diphenylhydrazine	16.6
1,3,5-Trinitrobenzene	22.4
Diallate (trans isomer)	19.1
Phorate	15.4
Dimethoate	17.5
Methyl Parathion	16.8
4-Nitroquinoline-1-oxide	20.6
Pyrene	16.3
Chrysene	18.2
Benzo(k)fluoranthene	17.2
Diallate Total	16.9
a,a-Dimethylphenethylamine	50.6
2-Fluorobiphenyl	15.9
Terphenyl-d14	15.5

Average %RSD for all compounds in the Initial Calibration: 12.2 %

Data Reviewer/ID: _____ / 624

Date: 6/5/19

GC and GC/MS Column and Trap Specifications Table

SDG #:	

COLUMNS*

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
√	Restek	clpest	0.32	0.5	30
√	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
√	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
√	Restek	RTX-5MS	0.32	0.25	30
	Phenomonex	ZB-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS*

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
√	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 28

* This table contains the GC columns (and volatile organic trap) used for the analysis of volatiles, semi-volatiles, pesticides, and Aroclors by the SOM01.2 SOW. Please see the SDG Narratives(s) for the specific fraction(s) relative to this SDG.

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	~~2-amber~~ 1-250 ml P	1-500 ml P		P	P	2-1L A	2-1L A	

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW-1 + 13MW-2. JLF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Sample ID		Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0 ~~6020~~ 6850	ICP 6010B/3005A/-thallium 7000 (Metals-Total) 500 mL pH ok	7470A (Mercury-Total) pH	Cyanide 9014 pH 90/2 ok 3.31.09	Sulfide 9030B pH 250 500	Appdx 9 SV 8270C AL	Appdx 9 PEST 8081A AL	Appdx 9 PCBs 8082	
13MW1	✓	4/14	0935	GW	~~3~~	X	X		X	X<2	X			X			0904103-01
13MW2	✓	4/14	0815	GW	~~3~~	X	X		X	X<2	X			X			0904103-02
13MW3	✓	4/13	1200	GW	~~3~~ 4	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-02
13MW4	✓		1035	GW	~~3~~ 4	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-03
13MWDUP	✓		1050	GW	~~3~~ 4	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-04
13MW5	✓		0850	GW	~~3~~ 2	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-01 USE FOR QC
13MW6	✓	4/13	0740	GW	~~3~~ 4	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-05
13MW7	✓	4/14	1050	GW	~~3~~ 4	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-06

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 1.9°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Coddington	Date: 4/15/09	Sample Storage Time Requested: 30 DYS ORG/8 MTHS INORG
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Coddington	Date: 4/15/09	#2 Received by (Signature): Lee H Swanson	Date: 4/15/09	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM	

9 - Rdp 4-15-09
Compuchem 1615

Y/O JLF 3.31.09

HWMU13SPC.SUB
(W/ 1/5 cutoff for J flags)

HWMU13 ~~SUB~~

4/10

Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

ANALYTICAL METHOD: 8270C
TYPE METHOD: GCMS
CLASS: SEMIVOLATILE

For: 13MW1 and 13MW2

No.	PARAMETER	CAS RN	Permit QL (ug/l)
1.	2,4-dichlorophenol	120-83-2	
2.	3,3'-dimethylbenzidine	119-93-7	
3.	2-chlorophenol	95-57-8	
4.	3-methylphenol	108-39-4	
5.	4-methylphenol	106-44-5	
6.	4-nitrophenol	100-02-7	
7.	acetophenone	98-86-2	
8.	benzo(a)anthracene	56-55-3	
9.	benzo(a)pyrene	50-32-8	
10.	benzo[b]fluoranthene	205-99-2	
11.	benzo[k]fluoranthene	207-08-9	
12.	bis(2-Ethylhexyl)phthalate	117-81-7	
13.	butyl benzyl phthalate	85-68-7	
14.	dibenz(a,h)anthracene	53-70-3	
15.	dibenzofuran	132-64-9	
16.	di-n-butyl phthalate	84-74-2	
17.	diethyl phthalate	84-66-2	
18.	dimethyl phthalate	131-11-3	
19.	di-n-octyl phthalate	117-84-0	
20.	diphenylamine	122-39-4	
21.	fluoranthene	206-44-0	
22.	indeno[1,2,3-cd]pyrene	193-39-5	
23.	nitrobenzene	98-95-3	
24.	phenol	108-95-2	
25.	pyrene	129-00-0	
~~26.~~	~~Hexachloro~~ JCF 4/12/07		
26.	Hexachloroethane JCF 4/16/07		

.\\BBG-FILES\Projects\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 – JCF
Revised November, 2005 – new permit – JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR 4-17-3 **DATE:** 4-17-09

BATCH: 9041633

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904096-01	7W11B		
2	0904096-02	7W12B		
3	0904096-03	7WCA		
4	0904096-04	7WDUP		
5	0904096-05	7MW6		
6	0904098-01	13MW5		
7	0904098-02	13MW3		
8	0904098-03	13MW4		
9	0904098-04	13MWDUP		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	0904103-01	13MW1		
13	0904103-02	13MW2		
14	9041633-BLK1	SBLKGV		
15	9041633-BS1	SGVLCS		
16	9041633-BSD1	SGVLCSD		
17	9041633-MS1	7W11BMS01		
18	9041633-MS2	13MW5MS02		
19	9041633-MSD1	7W11BMSD01		
20	9041633-MSD2	13MW5MSD02		
21				
22				
23				
24				
25				
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	M Lott	4-17-09-4:30PM	GC Ref #3	Storage
	GCMS#3	5/1 1200	TMP	Analysis
	TMP	5/1 1600	GCMS#3	Storage
				Rm 5/19/09

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE :LIBRTY METHOD: 8270C

SDG # : 0904103

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II SV)

b. Spike Summary - MS / MSD / LCS
(Form III SV)

c. Method Blank Summary (Form IV SV)

d. GC/MS Instrument Performance Check
(Form V SV)

e. Internal Standard Area and RT Summary
(Form VIII SV)

a. Surrogate Percent Recovery Summary

(Form II SV)

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

	CLIENT SAMPLE NO.	S1 (2FP)#	S2 (PHL)#	S3 (NBZ)#	S4 (FBP)#	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	SBLKGV	60	41	80	64	47	72			0
02	SGVLCS	69	47	84	76	66	74			0
03	SGVLCSD	61	40	82	72	66	71			0
04	13MW1	71	47	96	76	67	86			0
05	13MW2	67	45	99	75	64	90			0
06										
07										
08										
09										
10										
11										
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28										

	QC LIMITS
S1 (2FP) = 2-Fluorophenol	(11-110)
S2 (PHL) = Phenol-d5	(10-110)
S3 (NBZ) = Nitrobenzene-d5	(35-110)
S4 (FBP) = 2-Fluorobiphenyl	(45-110)
S5 (TBP) = 2,4,6-Tribromophenol	(44-131)
S6 (TPH) = Terphenyl-d14	(49-120)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

b. Spike Summary - MS / MSD / LCS
(Form III SV)

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	40		19.59	49	20-100
2-Chlorophenol	40		32.82	82	23-100
3-Methylphenol	80		32.93	41	24-100
4-Methylphenol	80		33.85	42	24-100
Acetophenone	40		32.96	82	39-100
Hexachloroethane	40		30.47	76	50-150
Nitrobenzene	40		39.34	98	20-131
2,4-Dichlorophenol	40		28.65	72	39-103
Dimethylphthalate	40		34.54	86	53-116
4-Nitrophenol	40		15.48	39	10-100
Dibenzofuran	40		35.51	89	50-107
Diethylphthalate	40		33.16	83	52-118
N-Nitrosodiphenylamine	40		33.06	83	52-117
Di-n-butylphthalate	40		32.59	81	51-114
Fluoranthene	40		36.02	90	58-124
Pyrene	40		37.41	94	48-131
Butylbenzylphthalate	40		35.86	90	41-118
3,3'-Dimethylbenzidine	40		25.92	65	20-150
bis(2-ethylhexyl)Phthal	40		37.55	94	47-121
Benzo(a)anthracene	40		37.05	93	53-128
Di-n-octylphthalate	40		33.4	84	30-148
Benzo(b)fluoranthene	40		35.89	90	41-130
Benzo(k)fluoranthene	40		42.09	105	39-150
Benzo(a)pyrene	40		36.77	92	46-135
Indeno(1,2,3-c,d)pyrene	40		37.53	94	47-138
Dibenzo(a,h)anthracene	40		35.95	90	47-134

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	40	19.71	49	0	30	20-100
2-Chlorophenol	40	32.2	81	1	30	23-100
3-Methylphenol	80	31.24	39	5	30	24-100
4-Methylphenol	80	32.05	40	5	30	24-100
Acetophenone	40	33.23	83	1	30	39-100
Hexachloroethane	40	26.57	66	14	40	50-150
Nitrobenzene	40	38.54	96	2	30	20-131
2,4-Dichlorophenol	40	30.73	77	7	30	39-103
Dimethylphthalate	40	34.74	87	1	30	53-116
4-Nitrophenol	40	16.19	40	3	30	10-100
Dibenzofuran	40	35.21	88	1	30	50-107
Diethylphthalate	40	33.53	84	1	30	52-118
N-Nitrosodiphenylamine	40	33.86	85	2	30	52-117
Di-n-butylphthalate	40	33.02	83	2	30	51-114
Fluoranthene	40	36.51	91	1	30	58-124
Pyrene	40	36.63	92	2	30	48-131
Butylbenzylphthalate	40	37.16	93	3	30	41-118
3,3'-Dimethylbenzidine	40	28.12	70	7	30	20-150
bis(2-ethylhexyl)Phthal	40	37.28	93	1	30	47-121
Benzo(a)anthracene	40	36.92	92	1	30	53-128
Di-n-octylphthalate	40	38.38	96	13	30	30-148
Benzo(b)fluoranthene	40	39.16	98	9	30	41-130
Benzo(k)fluoranthene	40	38.29	96	9	30	39-150
Benzo(a)pyrene	40	37.44	94	2	30	46-135
Indeno(1,2,3-c,d)pyrene	40	36.59	91	3	30	47-138
Dibenzo(a,h)anthracene	40	36.93	92	2	30	47-134

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 26 outside limits
Spike Recovery: 0 out of 52 outside limits

COMMENTS: _____

c. Method Blank Summary (Form IV SV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID: 9041633-BLKA6203 Lab Sample ID: 9041633-BLK

Instrument ID: 5972HP62 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 1744

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD	9041633-BSDA	05/01/09
03	13MW1	0904103-01	0904103-01A6	05/01/09
04	13MW2	0904103-02	0904103-02A6	05/01/09
05				
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08				
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30				

COMMENTS:

d. GC/MS Instrument Performance Check (Form V SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID: DF090430A62 DFTPP Injection Date: 04/30/09

Instrument ID: 5972HP62 DFTPP Injection Time: 1603

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	34.3	
68	Less than 2.0% of mass 69	0.2	(0.4)1
69	Mass 69 relative abundance	44.4	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	41.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	25.3	
365	Greater than 0.75% of mass 198	4.17	
441	Present, but less than mass 443	15.3	
442	40.0 - 110.0% of mass 198	104.6	
443	15.0 - 24.0% of mass 442	20.7	(19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090430A62	04/30/09	1622
02	SSTD160	SSTD160	HH090430A62	04/30/09	1704
03	SSTD010	SSTD010	HI090430A62	04/30/09	1745
04	SSTD120	SSTD120	HJ090430A62	04/30/09	1827
05	SSTD020	SSTD020	HK090430A62	04/30/09	1909
06	SSTD050	SSTD050	HL090430A62	04/30/09	1951
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID: DF090501A62 DFTPP Injection Date: 05/01/09

Instrument ID: 5972HP62 DFTPP Injection Time: 0944

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	38.8
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	49.0
70	Less than 2.0% of mass 69	0.4 (0.8)1
127	25.0 - 75.0% of mass 198	44.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	20.5
365	Greater than 0.75% of mass 198	3.25
441	Present, but less than mass 443	10.9
442	40.0 - 110.0% of mass 198	74.6
443	15.0 - 24.0% of mass 442	14.0 (18.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090501A62	05/01/09	1003
02	SBLKGV	9041633-BLK	9041633-BLKA62	05/01/09	1744
03	SGVLCS	9041633-BS	9041633-BSA620	05/01/09	1825
04	SGVLCSD	9041633-BSD	9041633-BSDA62	05/01/09	1907
05	13MW1	0904103-01	0904103-01A62	05/01/09	1949
06	13MW2	0904103-02	0904103-02A62	05/01/09	2031
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

e. Internal Standard Area and RT Summary (Form VIII SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	261971	7.28	938790	9.93	466997	13.85
	UPPER LIMIT	523942	7.78	1877580	10.43	933994	14.35
	LOWER LIMIT	130985	6.78	469395	9.43	233499	13.35
	CLIENT SAMPLE NO.						
01	SBLKGV	266680	7.28	928958	9.92	452497	13.85
02	SGVLCS	252207	7.28	919937	9.93	439329	13.86
03	SGVLCSD	279423	7.29	963426	9.93	458776	13.86
04	13MW1	280905	7.28	976197	9.92	494274	13.84
05	13MW2	267691	7.28	901873	9.92	456258	13.85
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	681169	17.13	741741	23.10	773134	26.09
	UPPER LIMIT	1362338	17.63	1483482	23.60	1546268	26.59
	LOWER LIMIT	340585	16.63	370871	22.60	386567	25.59
	CLIENT SAMPLE NO.						
01	SBLKGV	743307	17.12	697980	23.10	720788	26.09
02	SGVLCS	733227	17.13	812545	23.12	871639	26.11
03	SGVLCSD	753738	17.13	837720	23.12	867138	26.10
04	13MW1	808583	17.12	776188	23.10	788267	26.10
05	13MW2	704455	17.12	708167	23.10	703398	26.09
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I SV and Form I SV-TIC), followed by the raw data for semivolatile samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results (Form I SV)
   Tabulated results (identification and quantitation) shall be included.

b. Tentatively Identified Compounds (Form I SV-TIC)
   Lists the client specified number of organic compounds that are non-surrogate/non-internal standard compounds and are not listed on the target compound list. This form shall be included even if no compounds are found.

c. Reconstructed Ion Chromatograms
   Include for each sample or sample extract, including dilutions and reanalyses. The RIC shall contain the following header information: Client Sample ID number, date and time of analysis, GC/MS instrument identifier, lab file identifier, and analyst ID.

d. Quantitation Report showing calculations for target analytes
   - Include a printout of the Enhanced Ion Current Profile (EICP) for all manual changes to all compounds, internal standards, and surrogate compounds.

e. Copies of raw spectra and copies of background-subtracted mass spectra of target analytes identified in the sample.
   - The spectra shall include the following information: Client Sample ID number, Lab file ID, date and time of analysis, and instrument ID.
   - The compound name must be clearly marked.

f. Quantitation Report showing calculations for TICs

g. Copies of mass spectra of organic compounds not listed on the target compound list (TICs) with associated best-match spectra.
   - The spectra shall be labeled as follows: Client Sample ID number, lab file ID, date and time of analysis, and instrument ID.
   - The compound name must be clearly marked.

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5.0	U
95-57-8	2-Chlorophenol	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
98-86-2	Acetophenone	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
131-11-3	Dimethylphthalate	5.0	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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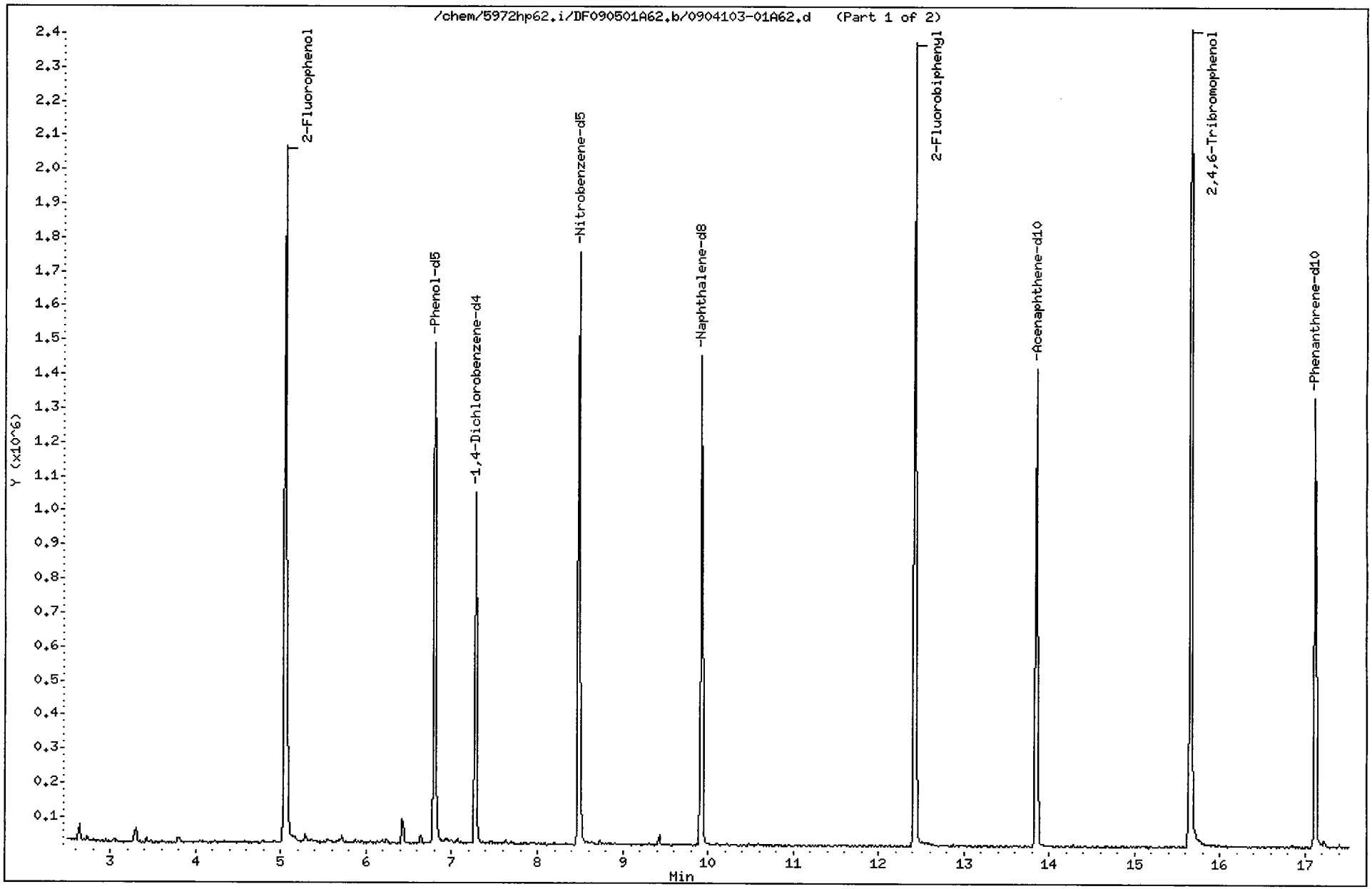
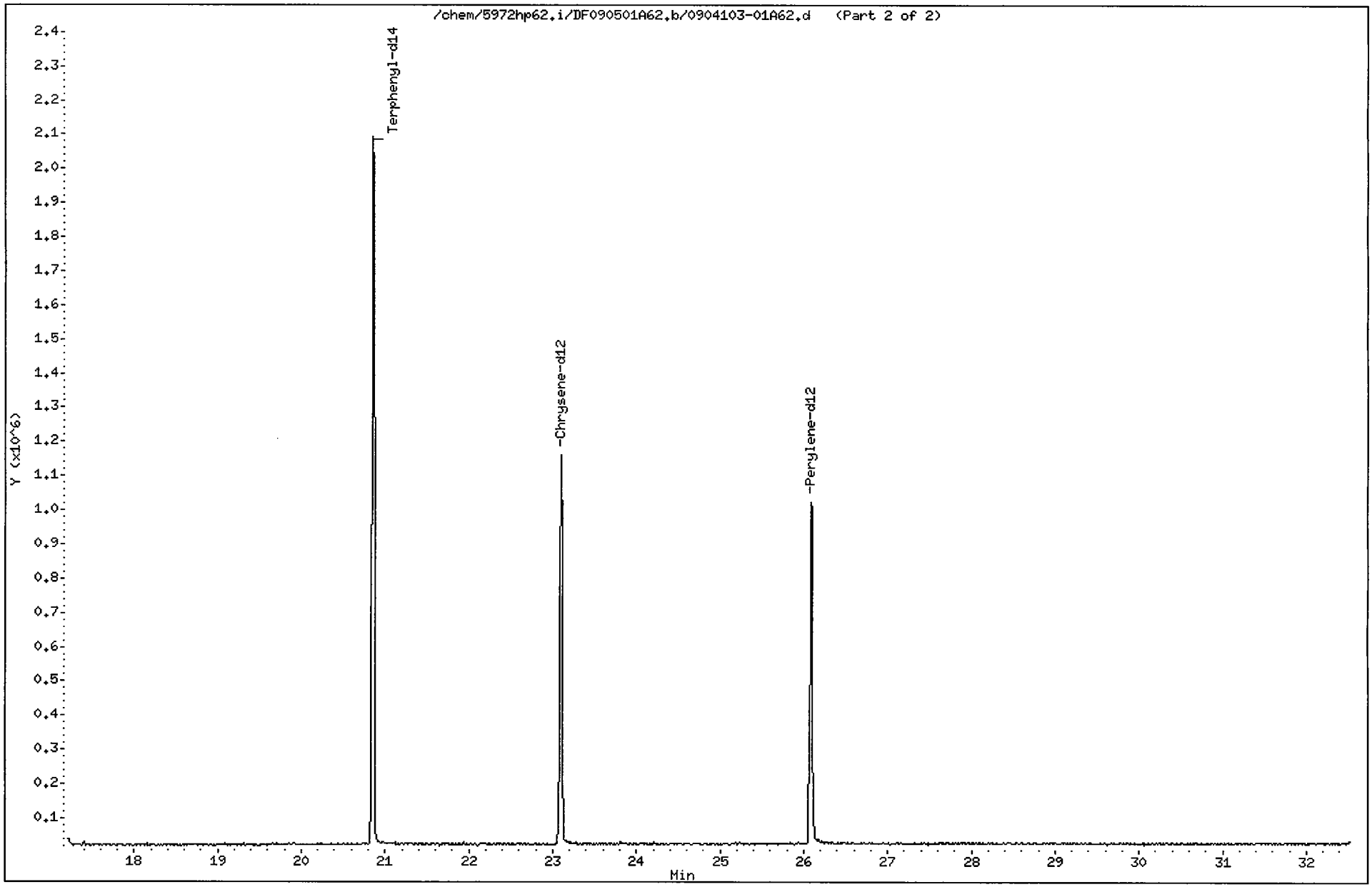
30.					

FORM I SV-TIC

Data File: /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Date : 01-MAY-2009 19:49
Client ID: 13MW1
Instrument: 5972hp62.i
Sample Info: 0904103-01:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Date : 01-MAY-2009 19:49
Client ID: 13MW1 Instrument: 5972hp62.i
Sample Info: 0904103-01:2650
Volume Injected (uL): 2.0 Operator: 2650
Column phase: RTX-5MS Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Report Date: 05-May-2009 16:54

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Data file : /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Lab Smp Id: 0904103-01 Client Smp ID: 13MW1
Inj Date : 01-MAY-2009 19:49
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904103-01:2650
Misc Info : 13MW1
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 15:11 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.284	7.279	(1.000)	280905	40.0000		
* 2 Naphthalene-d8	136	9.924	9.930	(1.000)	976197	40.0000		
* 3 Acenaphthene-d10	164	13.845	13.850	(1.000)	494274	40.0000		
* 4 Phenanthrene-d10	188	17.120	17.125	(1.000)	808583	40.0000		
* 5 Chrysene-d12	240	23.098	23.103	(1.000)	776188	40.0000		
* 6 Perylene-d12	264	26.097	26.092	(1.000)	788267	40.0000		
$ 7 2-Fluorophenol	112	5.052	5.047	(0.694)	982489	142.225	71	
$ 8 Phenol-d5	99	6.802	6.818	(0.934)	794561	93.6363	47	
$ 11 Nitrobenzene-d5	82	8.491	8.497	(0.856)	881545	96.4589	48	
$ 12 2-Fluorobiphenyl	172	12.422	12.427	(0.897)	1203820	76.4560	38	
$ 13 2,4,6-Tribromophenol	330	15.656	15.662	(1.131)	612151	133.510	67	
$ 14 Terphenyl-d14	244	20.866	20.851	(0.903)	1267042	86.5840	43	
23 Phenol	94	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Report Date: 05-May-2009 16:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
36	4-Methylphenol	108	Compound Not Detected.						
39	Acetophenone	105	Compound Not Detected.						
42	Hexachloroethane	117	Compound Not Detected.						
43	Nitrobenzene	77	Compound Not Detected.						
51	2,4-Dichlorophenol	162	Compound Not Detected.						
72	Dimethylphthalate	163	Compound Not Detected.						
79	4-Nitrophenol	139	Compound Not Detected.						
82	Dibenzofuran	168	Compound Not Detected.						
86	Diethylphthalate	149	Compound Not Detected.						
93	N-Nitrosodiphenylamine	169	Compound Not Detected.						
116	Di-n-butylphthalate	149	Compound Not Detected.						
121	Fluoranthene	202	Compound Not Detected.						
123	Pyrene	202	Compound Not Detected.						
128	Butylbenzylphthalate	149	Compound Not Detected.						
129	3,3'-Dimethylbenzidine	212	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Report Date: 05-May-2009 16:54

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Data file : /chem/5972hp62.i/DF090501A62.b/0904103-01A62.d
Lab Smp Id: 0904103-01 Client Smp ID: 13MW1
Inj Date : 01-MAY-2009 19:49
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904103-01:2650
Misc Info : 13MW1
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 15:11 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5.0	U
95-57-8	2-Chlorophenol	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
98-86-2	Acetophenone	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
131-11-3	Dimethylphthalate	5.0	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904103-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
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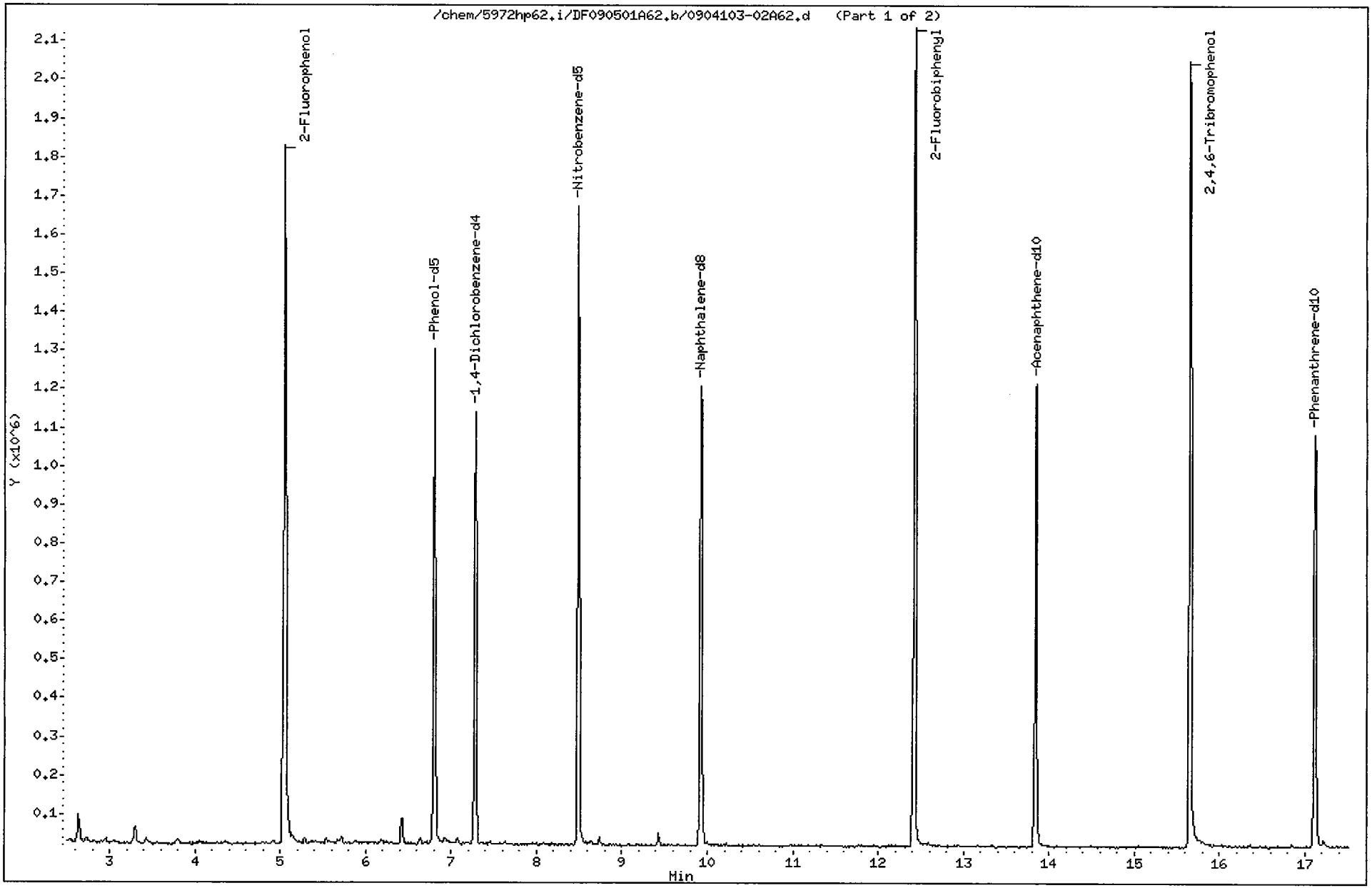
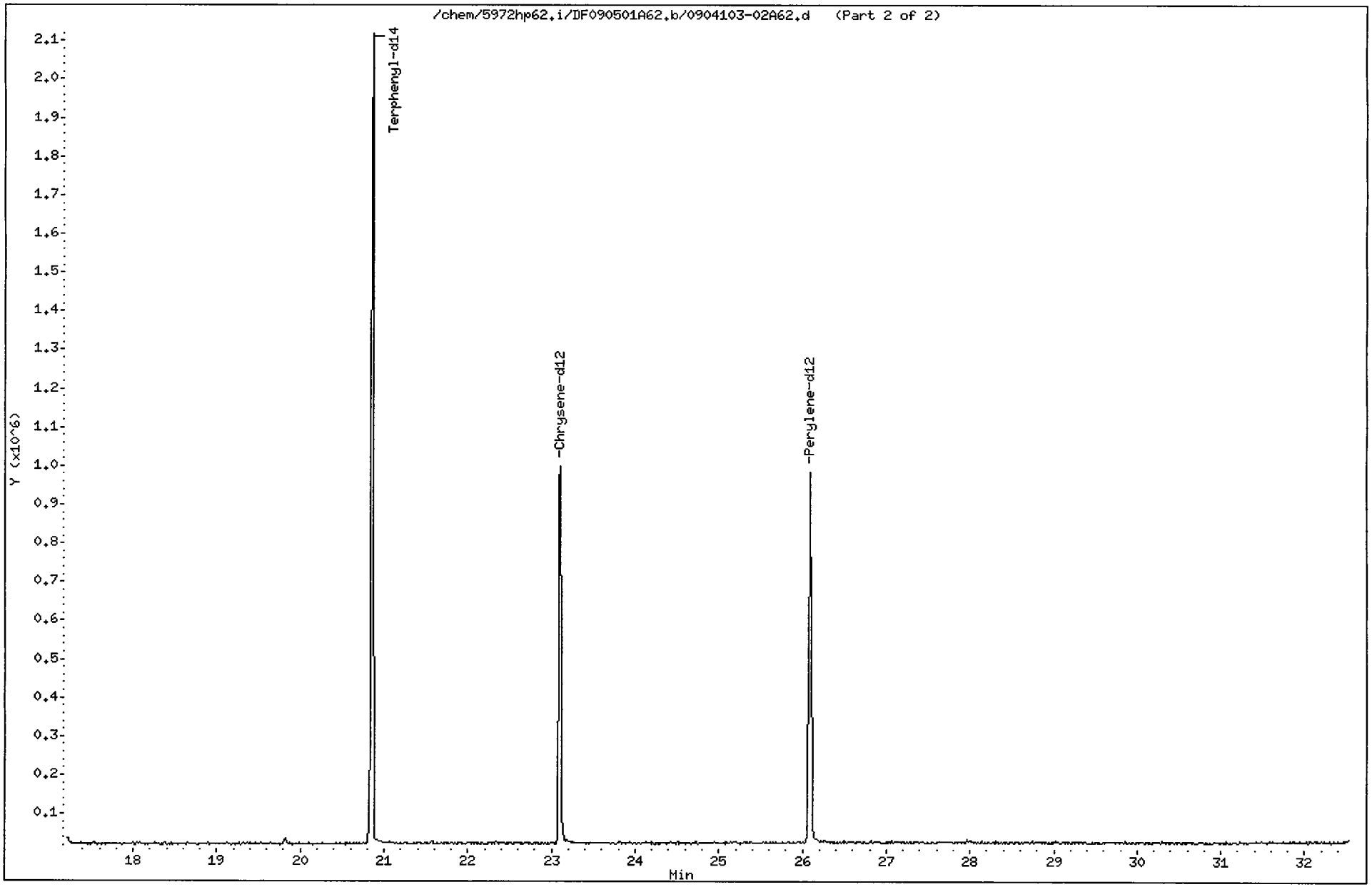
27.					
28.					
29.					
30.					

FORM I SV-TIC

Data File: /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Date : 01-MAY-2009 20:31
Client ID: 13MW2
Instrument: 5972hp62.i
Sample Info: 0904103-02:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Date : 01-MAY-2009 20:31
Client ID: 13MW2
Instrument: 5972hp62.i
Sample Info: 0904103-02:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Report Date: 05-May-2009 16:54

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Data file : /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Lab Smp Id: 0904103-02 Client Smp ID: 13MW2
Inj Date : 01-MAY-2009 20:31
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904103-02:2650
Misc Info : 13MW2
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 15:11 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.280	7.279	(1.000)	267691	40.0000		
*	2 Naphthalene-d8	136	9.920	9.930	(1.000)	901873	40.0000		
*	3 Acenaphthene-d10	164	13.851	13.850	(1.000)	456258	40.0000		
*	4 Phenanthrene-d10	188	17.116	17.125	(1.000)	704455	40.0000		
*	5 Chrysene-d12	240	23.104	23.103	(1.000)	708167	40.0000		
*	6 Perylene-d12	264	26.093	26.092	(1.000)	703398	40.0000		
$	7 2-Fluorophenol	112	5.048	5.047	(0.693)	878247	133.411	67	
$	8 Phenol-d5	99	6.799	6.818	(0.934)	726803	89.8792	45	
$	11 Nitrobenzene-d5	82	8.487	8.497	(0.856)	834604	98.8486	49	
$	12 2-Fluorobiphenyl	172	12.428	12.427	(0.897)	1092707	75.1816	38	
$	13 2,4,6-Tribromophenol	330	15.663	15.662	(1.131)	545859	128.971	64	
$	14 Terphenyl-d14	244	20.862	20.851	(0.903)	1195462	89.5393	45	
	23 Phenol	94	Compound Not Detected.						
	27 2-Chlorophenol	128	Compound Not Detected.						
	35 3-Methylphenol	108	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Report Date: 05-May-2009 16:54

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
36 4-Methylphenol	108	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
79 4-Nitrophenol	139	Compound Not Detected.						
82 Dibenzofuran	168	Compound Not Detected.						
86 Diethylphthalate	149	Compound Not Detected.						
93 N-Nitrosodiphenylamine	169	Compound Not Detected.						
116 Di-n-butylphthalate	149	Compound Not Detected.						
121 Fluoranthene	202	Compound Not Detected.						
123 Pyrene	202	Compound Not Detected.						
128 Butylbenzylphthalate	149	Compound Not Detected.						
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						
132 bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133 Benzo(a)anthracene	228	Compound Not Detected.						
135 Di-n-octylphthalate	149	Compound Not Detected.						
137 Benzo(b)fluoranthene	252	Compound Not Detected.						
138 Benzo(k)fluoranthene	252	Compound Not Detected.						
139 Benzo(a)pyrene	252	Compound Not Detected.						
141 Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142 Dibenzo(a,h)anthracene	278	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Report Date: 05-May-2009 16:54

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/0904103-02A62.d
Lab Smp Id: 0904103-02 Client Smp ID: 13MW2
Inj Date : 01-MAY-2009 20:31
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904103-02:2650
Misc Info : 13MW2
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 15:11 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

3. Standards Data

a. Initial Calibration Data (Form VI SV)

b. Continuing Calibration Data (Form VII SV)

a. Initial Calibration Data (Form VI SV)

If more than one instrument is used, forms shall be arranged in order by instrument. Multiple initial calibrations from the same instrument shall be in chronological order. Within each initial calibration, the standards are in order by level, from lowest to highest.

(1) Reconstructed Ion Chromatograms and quantitation reports for the initial (five-point) calibration. Spectra not required.

(2) EICPs displaying each manual integration.

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

LAB FILE ID: RF10: HI090430A62 RF20: HK090430A62 RF50: HL090430A62
RF80: HG090430A62 RF120: HJ090430A62RF160: HH090430A62

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
Phenol	1.423	1.376	1.340	1.224	1.120	1.011
2-Chlorophenol	1.301	1.241	1.155	1.119	1.049	0.962
3-Methylphenol	1.114	1.107	1.012	0.920	0.865	0.763
4-Methylphenol	1.114	1.107	1.012	0.920	0.865	0.763
Acetophenone	0.516	0.504	0.452	0.427	0.405	0.393
Hexachloroethane	0.703	0.673	0.638	0.582	0.536	0.503
Nitrobenzene	0.393	0.380	0.374	0.348	0.332	0.309
2,4-Dichlorophenol	0.312	0.312	0.291	0.274	0.259	0.252
Dimethylphthalate	1.472	1.361	1.236	1.119	1.094	0.986
4-Nitrophenol	0.203	0.229	0.213	0.238	0.255	0.221
Dibenzofuran	1.926	1.748	1.676	1.440	1.403	1.254
Diethylphthalate	1.562	1.446	1.295	1.170	1.169	1.076
N-Nitrosodiphenylamine	0.668	0.636	0.589	0.565	0.513	0.504
Di-n-butylphthalate	1.636	1.492	1.409	1.309	1.304	1.279
Fluoranthene	1.195	1.205	1.122	1.023	1.029	0.990
Pyrene	1.221	1.154	1.002	0.990	0.908	0.769
Butylbenzylphthalate	0.611	0.595	0.535	0.528	0.490	0.425
3,3'-Dimethylbenzidine	0.402	0.364	0.345	0.360	0.350	0.317
bis(2-ethylhexyl)Phthalate	0.825	0.806	0.717	0.733	0.671	0.571
Benzo(a)anthracene	1.079	1.026	0.982	0.942	0.878	0.776
Di-n-octylphthalate	1.298	1.164	1.148	1.068	1.076	0.967
Benzo(b)fluoranthene	1.008	1.026	0.964	0.921	1.021	1.028
Benzo(k)fluoranthene	1.001	0.983	0.952	0.922	0.739	0.633
Benzo(a)pyrene	0.959	0.919	0.884	0.853	0.834	0.749
Indeno(1,2,3-c,d)pyrene	0.829	0.828	0.791	0.781	0.794	0.811
Dibenzo(a,h)anthracene	0.881	0.836	0.823	0.725	0.797	0.722
2-Fluorophenol	0.994	1.094	1.034	0.973	0.952	0.854
Phenol-d5	1.361	1.293	1.258	1.206	1.110	1.023
Nitrobenzene-d5	0.410	0.419	0.387	0.351	0.351	0.329
2-Fluorobiphenyl	1.579	1.424	1.307	1.183	1.114	1.038
2,4,6-Tribromophenol	0.413	0.371	0.379	0.358	0.363	0.341
Terphenyl-d14	0.904	0.854	0.762	0.736	0.694	0.575

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
Phenol	AVRG	1.24909109	12.842	30.000
2-Chlorophenol	AVRG	1.13797645	10.869	90.000
3-Methylphenol	AVRG	0.96364240	14.486	90.000
4-Methylphenol	AVRG	0.96364240	14.486	90.000
Acetophenone	AVRG	0.44958633	11.352	90.000
Hexachloroethane	AVRG	0.60607928	12.950	90.000
Nitrobenzene	AVRG	0.35626801	9.035	90.000
2,4-Dichlorophenol	AVRG	0.28337591	9.244	30.000
Dimethylphthalate	AVRG	1.21118601	14.943	90.000
4-Nitrophenol	AVRG	0.22640396	8.080	90.000
Dibenzofuran	AVRG	1.57438323	15.934	90.000
Diethylphthalate	AVRG	1.28640140	14.476	90.000
N-Nitrosodiphenylamine	AVRG	0.57942471	11.315	30.000
Di-n-butylphthalate	AVRG	1.40475531	9.876	90.000
Fluoranthene	AVRG	1.09420470	8.516	30.000
Pyrene	AVRG	1.00734991	16.274	90.000
Butylbenzylphthalate	AVRG	0.53058226	12.932	90.000
3,3'-Dimethylbenzidine	AVRG	0.35649626	7.790	90.000
bis(2-ethylhexyl)Phthalate	AVRG	0.72059404	12.920	90.000
Benzo(a)anthracene	AVRG	0.94740571	11.454	90.000
Di-n-octylphthalate	AVRG	1.12036949	9.974	30.000
Benzo(b)fluoranthene	AVRG	0.99471411	4.351	90.000
Benzo(k)fluoranthene	AVRG	0.87173680	17.229	90.000
Benzo(a)pyrene	AVRG	0.86629091	8.432	30.000
Indeno(1,2,3-c,d)pyrene	AVRG	0.80576537	2.484	90.000
Dibenzo(a,h)anthracene	AVRG	0.79731878	7.930	90.000
2-Fluorophenol	AVRG	0.98367505	8.223	90.000
Phenol-d5	AVRG	1.20832482	10.264	90.000
Nitrobenzene-d5	AVRG	0.37447645	9.693	90.000
2-Fluorobiphenyl	AVRG	1.27421272	15.937	90.000
2,4,6-Tribromophenol	AVRG	0.37105520	6.539	90.000
Terphenyl-d14	AVRG	0.75413069	15.537	90.000

Average %RSD test result.

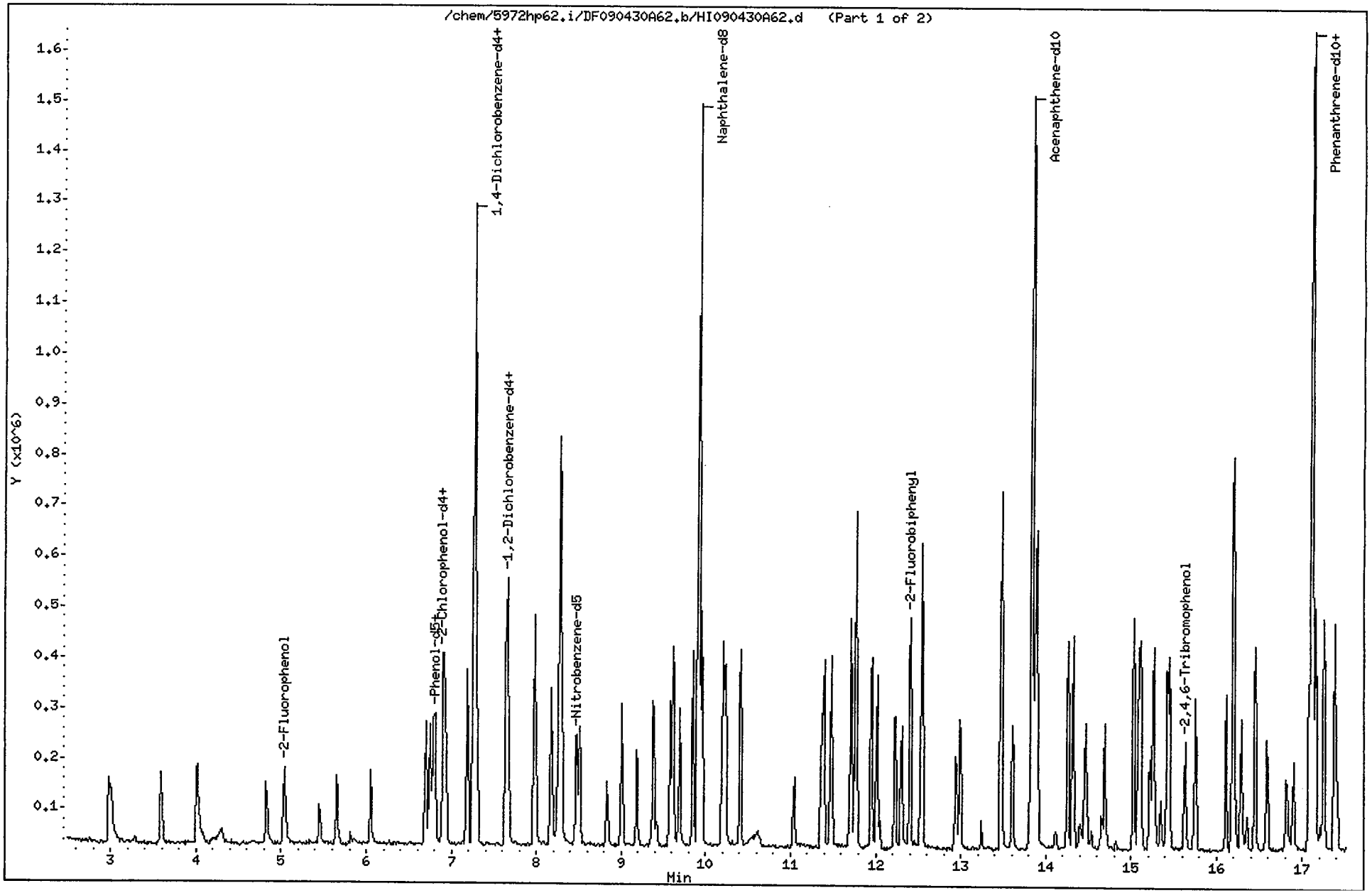
Calculate Average %RSD: 12.60028076
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

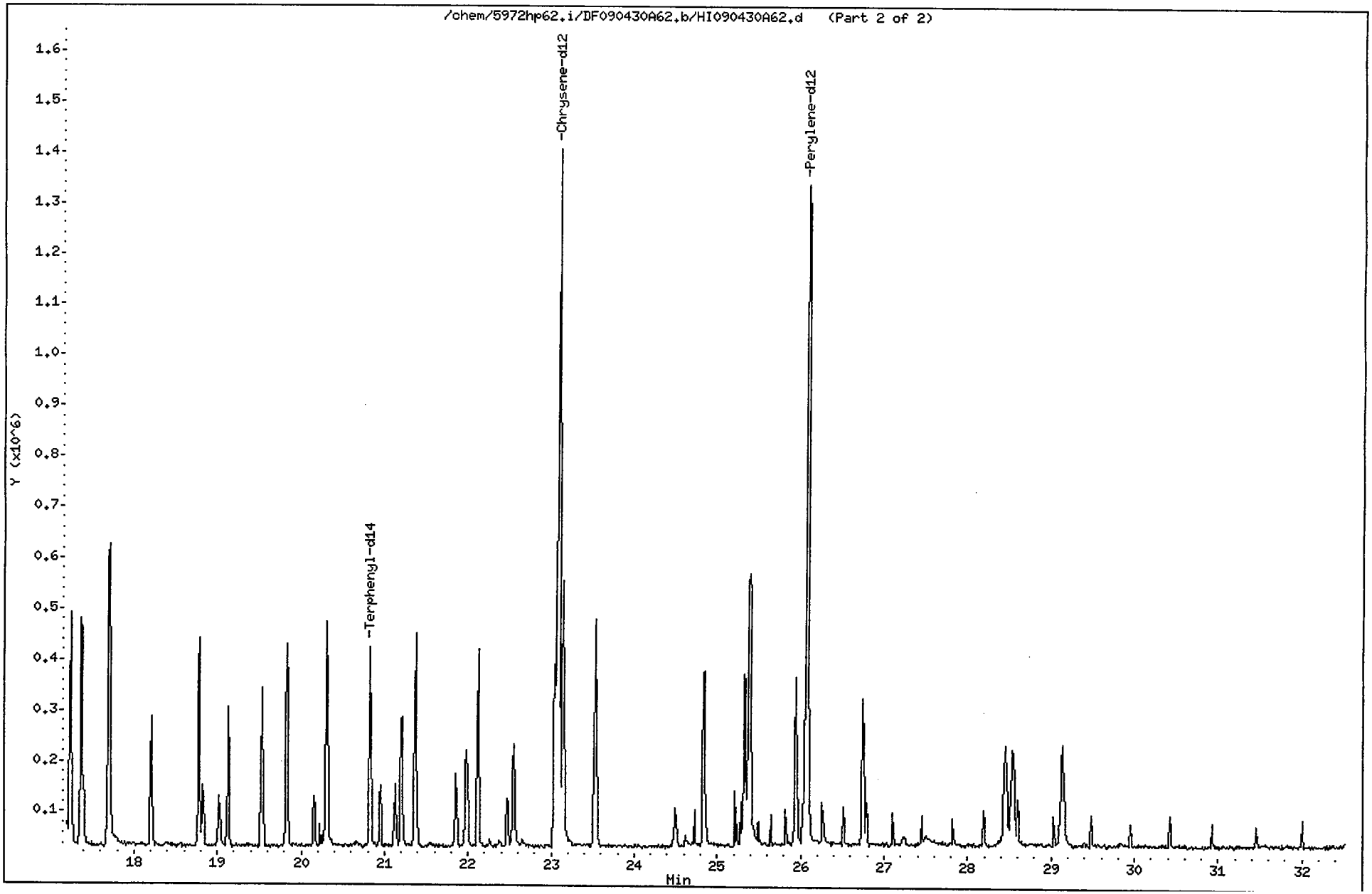
Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Date : 30-APR-2009 17:45
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Date : 30-APR-2009 17:45
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Lab Smp Id: SSTD010 Client Smp ID: SSTD010
Inj Date : 30-APR-2009 17:45
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD010:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 17:45 Cal File: HI090430A62.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	337380	40.0000		
* 2 Naphthalene-d8	136	9.909	9.919	(1.000)	1118115	40.0000		
* 3 Acenaphthene-d10	164	13.829	13.839	(1.000)	559682	40.0000		
* 4 Phenanthrene-d10	188	17.105	17.114	(1.000)	915357	40.0000		
* 5 Chrysene-d12	240	23.082	23.092	(1.000)	1003754	40.0000		
* 6 Perylene-d12	264	26.081	26.081	(1.000)	1086982	40.0000		
$ 7 2-Fluorophenol	112	5.037	5.047	(0.693)	83834	10.0000	10	
$ 8 Phenol-d5	99	6.787	6.797	(0.934)	114776	10.0000	11	
$ 9 2-Chlorophenol-d4	132	6.900	6.910	(0.949)	97065	10.0000	12	9433
$ 10 1,2-Dichlorobenzene-d4	152	7.637	7.646	(1.051)	80263	10.0000	12	9647
$ 11 Nitrobenzene-d5	82	8.466	8.486	(0.854)	114677	10.0000	11	
$ 12 2-Fluorobiphenyl	172	12.406	12.416	(0.897)	220902	10.0000	12	
$ 13 2,4,6-Tribromophenol	330	15.631	15.640	(1.130)	57774	10.0000	11	(M)
$ 14 Terphenyl-d14	244	20.830	20.840	(0.902)	226910	10.0000	12	
15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	40166	10.0000	9.8	7978(a)

1/27/09

5/5/09

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.979	2.969	(0.410)	94649	10.0000	10	9160
17 Ethylmethacrylate	69	3.583	3.593	(0.493)	77461	10.0000	11	8969
18 2-Picoline	93	4.013	4.003	(0.552)	110849	10.0000	11	8893
19 Nitrosomethylethylamine	88	4.300	4.299	(0.592)	35397	10.0000	10	8313 (M)
20 Methyl Methanesulfonate	80	4.822	4.832	(0.663)	69575	10.0000	11	8834
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.749)	29723	10.0000	10	9041
22 Ethyl Methanesulfonate	79	6.050	6.060	(0.832)	82809	10.0000	11	9179
23 Phenol	94	6.808	6.828	(0.937)	120053	10.0000	12	
24 Aniline	93	6.746	6.756	(0.928)	141932	10.0000	11	7769
25 Bis(2-chloroethyl)ether	93	6.910	6.920	(0.951)	104446	10.0000	12	
26 Pentachloroethane	167	6.695	6.705	(0.921)	52918	10.0000	11	9476
27 2-Chlorophenol	128	6.930	6.940	(0.954)	109753	10.0000	12	8968
28 1,3-Dichlorobenzene	146	7.186	7.196	(0.989)	135095	10.0000	12	
29 1,4-Dichlorobenzene	146	7.299	7.298	(1.004)	140209	10.0000	12	
30 Benzyl Alcohol	108	7.657	7.667	(1.054)	60343	10.0000	11	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.055)	121203	10.0000	12	
32 2-Methylphenol	108	7.974	7.984	(1.097)	89159	10.0000	12	(H)
33 2,2'-oxybis(1-Chloropropane)	45	7.985	7.995	(1.099)	124696	10.0000	12	8926
34 N-Nitrosopyrrolidine	100	8.200	8.209	(1.128)	16599	10.0000	11	6676
35 3-Methylphenol	108	8.292	8.312	(1.141)	187986	20.0000	24	
36 4-Methylphenol	108	8.292	8.312	(1.141)	187986	20.0000	24	
37 3-4-Methylphenol	108	8.292	8.312	(1.141)	190932	20.0000	24	9231
38 N-Nitroso-di-N-propylamine	70	8.271	8.291	(1.138)	38519	10.0000	11	8147
39 Acetophenone	105	8.179	8.189	(0.825)	144284	10.0000	12	0 (M)
40 N-Nitrosomorpholine	116	8.241	8.261	(1.134)	10128	10.0000	13	8290
41 o-Toluidine	106	8.271	8.281	(1.138)	142219	10.0000	12	8930
42 Hexachloroethane	117	8.271	8.271	(1.138)	59261	10.0000	12	9423
43 Nitrobenzene	77	8.507	8.517	(0.858)	109978	10.0000	11	8861
44 N-Nitrosopiperidine	114	8.834	8.844	(0.892)	41099	10.0000	11	8781
45 Isophorone	82	9.008	9.018	(0.909)	187908	10.0000	11	8700
46 2-Nitrophenol	139	9.182	9.192	(0.927)	59323	10.0000	11	8835
47 2,4-Dimethylphenol	122	9.377	9.397	(0.946)	84845	10.0000	12	8757
48 Benzoic Acid	122	9.622	9.755	(0.971)	32965	50.0000	38	5178 (M)
49 o,o,o-Triethylphosphorothioat	198	9.622	9.632	(0.971)	46561	10.0000	12	9258
50 Bis(2-chloroethoxy)methane	93	9.581	9.591	(0.967)	140138	10.0000	12	8912
51 2,4-Dichlorophenol	162	9.694	9.704	(0.978)	87304	10.0000	11	
52 1,2,4-Trichlorobenzene	180	9.848	9.857	(0.994)	114657	10.0000	12	
53 Naphthalene	128	9.950	9.960	(1.004)	301247	10.0000	12	8744
54 4-Chloroaniline	127	10.216	10.216	(1.031)	125062	10.0000	12	8155
55 2,6-Dichlorophenol	162	10.195	10.205	(1.029)	90194	10.0000	12	
56 Hexachloropropene	213	10.236	10.236	(1.033)	83312	10.0000	11	9580
57 Hexachlorobutadiene	225	10.410	10.410	(1.051)	73126	10.0000	12	8924
58 N-Nitroso-di-n-butylamine	84	11.045	11.055	(1.115)	35729	10.0000	11	8659
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.362	11.372	(1.147)	84691	10.0000	12	8760
61 Safrole	162	11.393	11.403	(1.150)	80678	10.0000	12	9232
62 2-Methylnaphthalene	141	11.475	11.485	(1.158)	159420	10.0000	12	

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.710	11.720	(1.182)	186690	10.0000	12	
64 Hexachlorocyclopentadiene	237	12.017	12.027	(0.869)	80685	10.0000	11	9558
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.956	(0.865)	119230	10.0000	12	9726
66 2,4,6-Trichlorophenol	196	12.232	12.232	(0.885)	66846	10.0000	12	
67 2,4,5-Trichlorophenol	196	12.304	12.314	(0.890)	73850	10.0000	12	
68 Isosafrole	162	12.048	12.048	(0.871)	11742	10.0000	11	
69 2-Chloronaphthalene	162	12.539	12.549	(0.907)	264668	10.0000	12	
70 2-Nitroaniline	65	12.939	12.959	(0.936)	50345	10.0000	11	8739 (a)
71 1,4-Napthoquinone	158	13.000	13.010	(0.940)	82358	10.0000	12	8973
72 Dimethylphthalate	163	13.481	13.501	(0.975)	205944	10.0000	12	8757
73 1,3-Dinitrobenzene	168	13.471	13.491	(0.974)	35744	10.0000	12	0 (M)
74 2,6-Dinitrotoluene	165	13.604	13.624	(0.984)	55441	10.0000	12	9549
75 Acenaphthylene	152	13.471	13.481	(0.974)	295687	10.0000	12	8429
76 3-Nitroaniline	138	13.891	13.900	(1.004)	43560	10.0000	11	0 (aM)
77 Acenaphthene	154	13.901	13.911	(1.005)	172685	10.0000	13	9578
78 2,4-Dinitrophenol	184	14.116	14.126	(1.021)	9594	10.0000	5.3	(aH)
79 4-Nitrophenol	139	14.402	14.402	(1.041)	28423	10.0000	9.2	8728 (a)
80 Pentachlorobenzene	250	14.320	14.330	(1.036)	118220	10.0000	12	9506
81 2,4-Dinitrotoluene	165	14.464	14.484	(1.046)	62665	10.0000	11	7236
82 Dibenzofuran	168	14.259	14.269	(1.031)	269529	10.0000	12	9168
83 1-Naphthylamine	143	14.474	14.494	(1.047)	52317	10.0000	11	
84 2,3,4,6-Tetrachlorophenol	232	14.689	14.699	(1.062)	57145	10.0000	11	9407
85 2-Naphthylamine	143	14.648	14.668	(1.059)	50203	10.0000	9.5	(a)
86 Diethylphthalate	149	15.088	15.108	(1.091)	218591	10.0000	12	9714
87 Zinophos	97	15.262	15.282	(1.104)	54403	10.0000	12	9003
88 4-Chlorophenyl-phenylether	204	15.109	15.118	(1.093)	112576	10.0000	13	7308
89 5-Nitro-o-toluidine	152	15.221	15.241	(1.101)	52796	10.0000	10	7948
90 Fluorene	166	15.027	15.037	(1.087)	204462	10.0000	12	8086
91 4-Nitroaniline	138	15.272	15.303	(1.104)	41794	10.0000	9.8	9219 (a)
92 4,6-Dinitro-2-methylphenol	198	15.344	15.374	(0.897)	22287	10.0000	7.1	8815 (a)
93 N-Nitrosodiphenylamine	169	15.416	15.436	(0.901)	152999	10.0000	12	9349
95 1,2-Diphenylhydrazine	77	15.446	15.456	(1.117)	249192	10.0000	12	9155
96 Sulfotep	322	16.112	16.122	(1.165)	39165	10.0000	11	9019
97 1,3,5-Trinitrobenzene	75	16.204	16.255	(0.947)	74915	10.0000	13	5737 (M)
98 Diallate (trans isomer)	86	16.183	16.193	(0.946)	70237	5.00000	6.4	(a)
99 Diallate (trans) part of total	86	16.183	16.193	(0.946)	70237	5.00000	6.4	8896 (a)
100 Phorate	75	16.194	16.203	(0.947)	134844	10.0000	12	8382 (M)
101 Phenacetin	108	16.286	16.337	(0.952)	94181	10.0000	10	9490
102 Diallate (cis isomer)	86	16.357	16.357	(0.956)	20110	5.00000	5.6	(a)
103 Diallate (cis) part of total	86	16.357	16.357	(0.956)	20110	5.00000	3.5	8003 (aH)
104 4-Bromophenyl-phenylether	248	16.194	16.193	(0.947)	70399	10.0000	12	7233
105 Hexachlorobenzene	284	16.449	16.459	(0.962)	103492	10.0000	11	9028
106 Dimethoate	87	16.583	16.613	(0.969)	71239	10.0000	12	8817
107 4-Aminobiphenyl	169	16.818	16.828	(0.983)	128004	10.0000	10	0 (M)
108 Pentachlorophenol	266	16.890	16.910	(0.987)	41179	10.0000	9.2	7995 (a)
109 Pentachloronitrobenzene	237	17.074	17.094	(0.998)	31040	10.0000	10	7462
110 Pronamide	173	17.125	17.135	(1.001)	88678	10.0000	11	8842

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

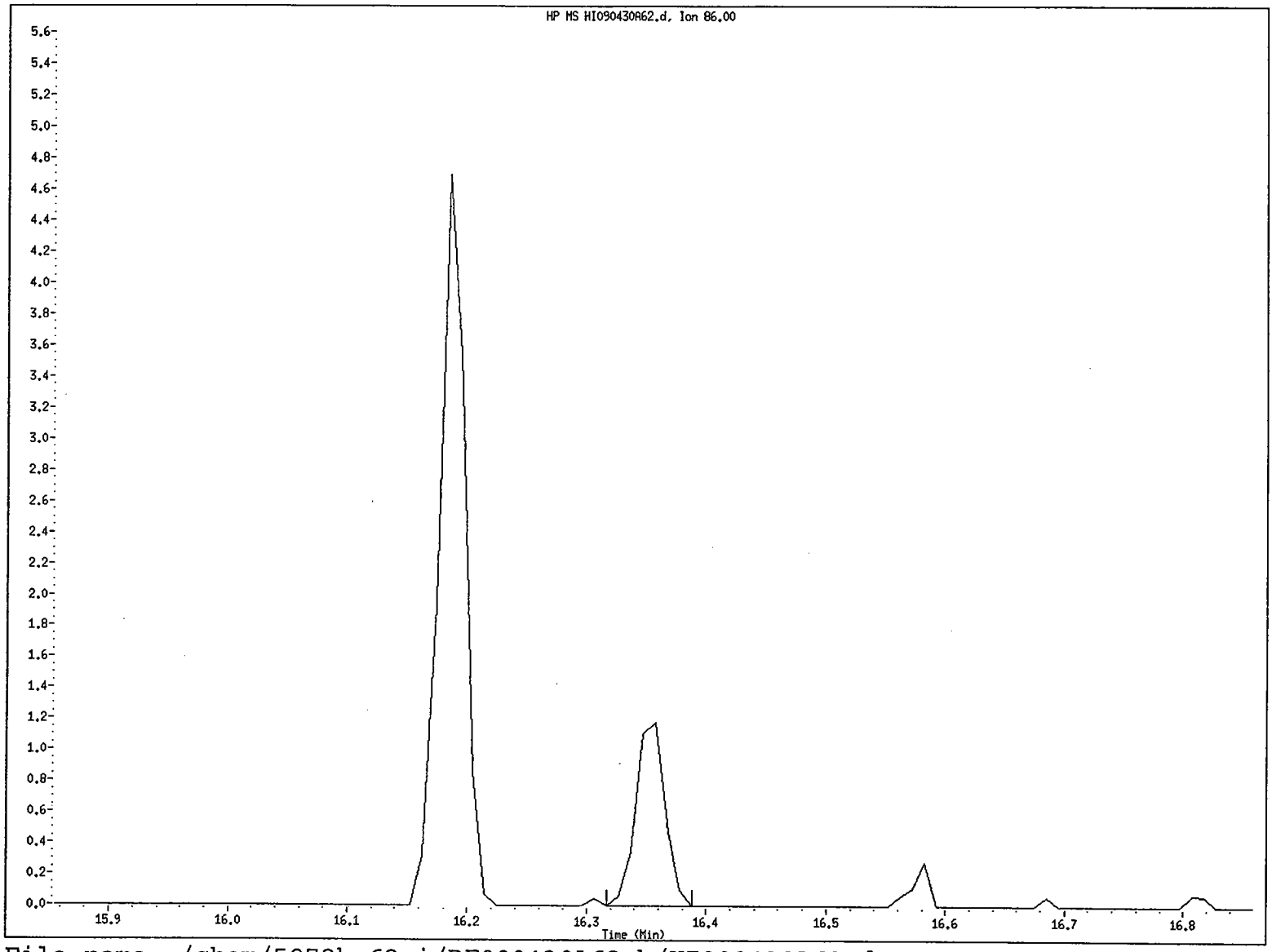
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.371	17.381	(1.016)	100188	10.0000	12	9267
112	Phenanthrene	178	17.156	17.166	(1.003)	282615	10.0000	12	
113	Anthracene	178	17.248	17.268	(1.008)	294674	10.0000	12	
114	Carbazole	167	17.708	17.739	(1.035)	523222	10.0000	9.1	9668 (a)
115	Methyl Parathion	109	18.210	18.220	(1.065)	67537	10.0000	12	9178
116	Di-n-butylphthalate	149	18.783	18.793	(1.098)	374388	10.0000	12	9413
117	Parathion	109	19.131	19.141	(1.118)	42693	10.0000	11	8056
118	4-Nitroquinoline-1-oxide	190	19.019	19.039	(1.112)	17016	10.0000	7.2	9283 (a)
119	Methapyrilene	97	19.377	19.377	(1.133)	2064	10.0000	11	0 (M)
120	Isodrin	193	19.541	19.540	(1.142)	41630	10.0000	12	8761
121	Fluoranthene	202	19.827	19.847	(1.159)	273502	10.0000	11	9633
122	Benzidine	184	20.288	20.298	(0.879)	53400	10.0000	9.7	8640 (a)
123	Pyrene	202	20.308	20.328	(0.880)	306494	10.0000	12	9702
124	p-Dimethylaminoazobenzene	225	21.209	21.219	(0.919)	56202	10.0000	12	8711
125	Chlorobenzilate	251	21.373	21.383	(0.926)	95966	10.0000	11	9440
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.120	22.130	(0.958)	153375	10.0000	12	9437
129	3,3'-Dimethylbenzidine	212	21.966	21.987	(0.952)	100911	10.0000	11	9352
130	2-Acetylaminofluorene	181	22.550	22.570	(0.977)	93828	10.0000	10	8927
131	3,3'-Dichlorobenzidine	252	23.154	23.164	(1.003)	101733	10.0000	11	8104
132	bis(2-ethylhexyl)Phthalate	149	23.533	23.542	(1.020)	207147	10.0000	12	9014
133	Benzo(a)anthracene	228	23.041	23.061	(0.998)	270730	10.0000	12	
134	Chrysene	228	23.133	23.153	(1.002)	260751	10.0000	12	
135	Di-n-octylphthalate	149	24.843	24.853	(0.953)	352658	10.0000	12	
136	7,12-Dimethylbenz(a)anthracene	256	25.395	25.416	(0.974)	122618	10.0000	12	8848
137	Benzo(b)fluoranthene	252	25.334	25.354	(0.971)	273902	10.0000	10	(H)
138	Benzo(k)fluoranthene	252	25.375	25.395	(0.973)	271966	10.0000	12	
139	Benzo(a)pyrene	252	25.948	25.968	(0.995)	260536	10.0000	11	
140	3-Methylcholanthrene	268	26.746	26.767	(1.026)	148868	10.0000	12	9562
141	Indeno(1,2,3-c,d)pyrene	276	28.456	28.486	(1.091)	225372	10.0000	10	0 (M)
142	Dibenzo(a,h)anthracene	278	28.538	28.568	(1.094)	239402	10.0000	11	7736
143	Benzo(g,h,i)perylene	276	29.131	29.172	(1.117)	253798	10.0000	11	9343
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				90347	10.0000	11	0
201	a,a-Dimethylphenethylamine	58	10.615	10.113	(1.071)	161796	10.0000	15	0 (aM)
202	Aramite	185	21.137	21.137	(0.916)	17814	10.0000	12	9275

5/5/09

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 20110 User selected



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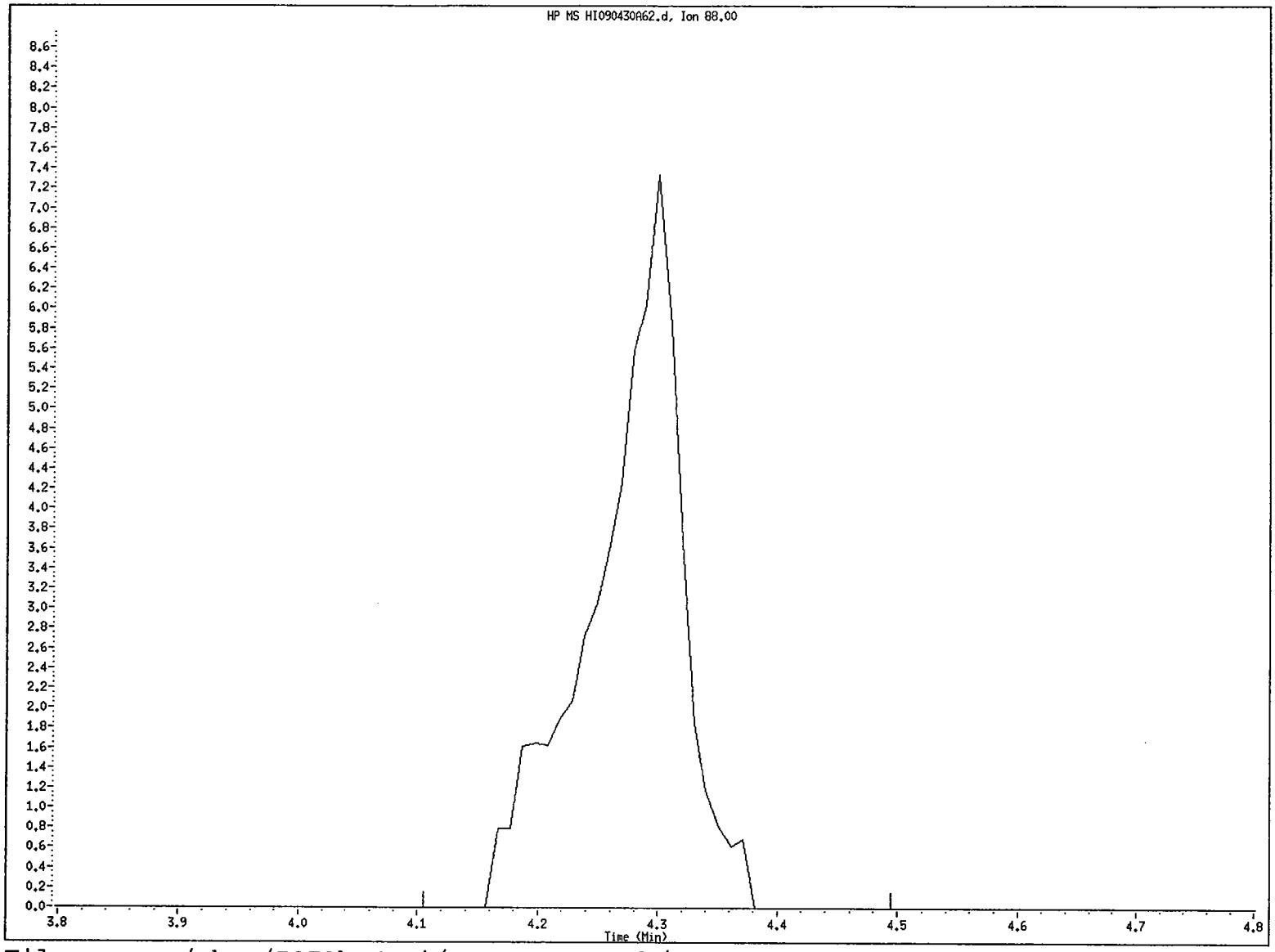
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.36
Operator ID: 2650

Nitrosomethylethylamine CAS Number 10595-95-6 Area = 35397 Manually integrated



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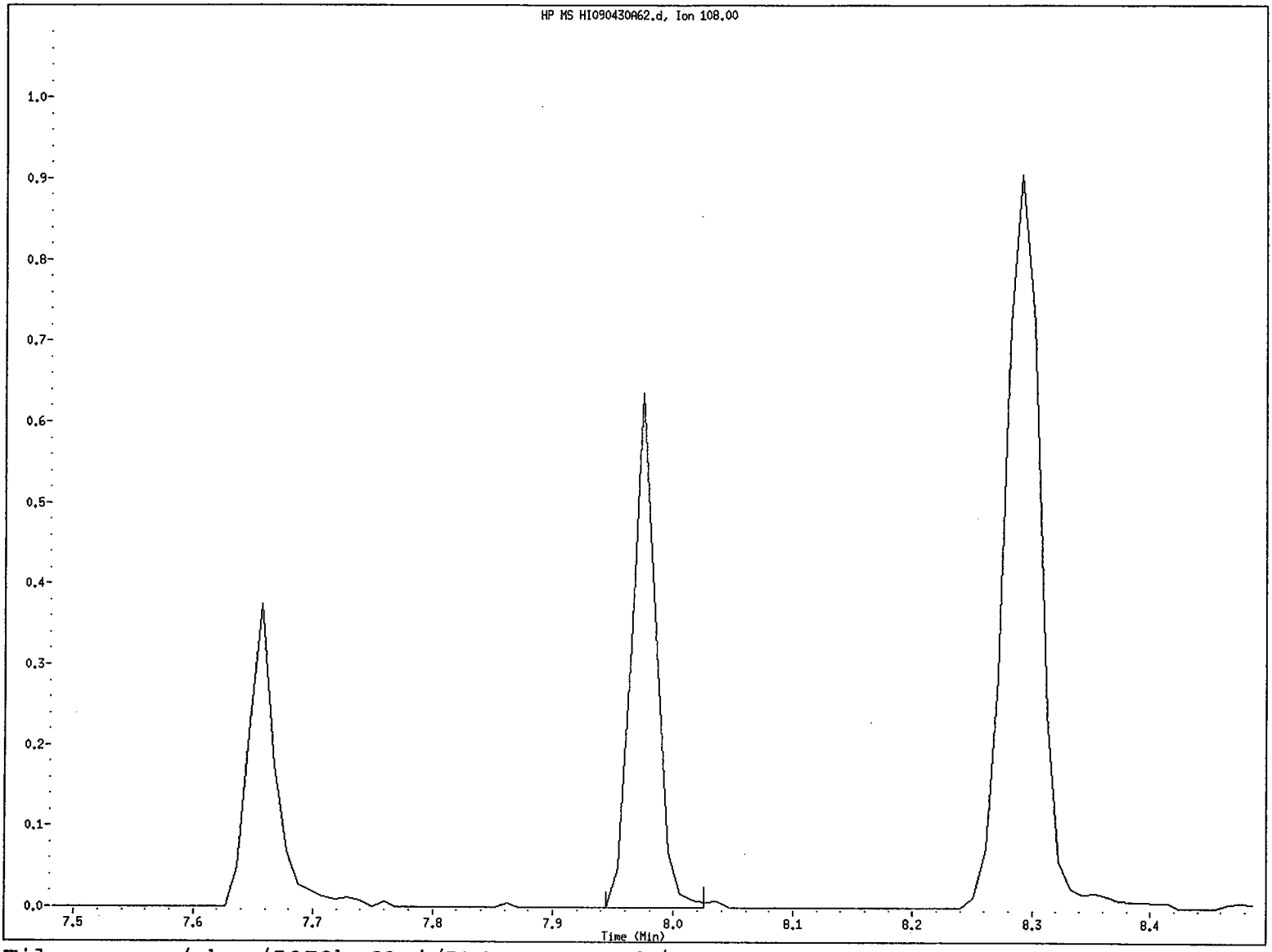
Retention Time: 4.30
Operator ID: 2650

2-Methylphenol CAS Number 95-48-7 Area = 89159 User selected hit



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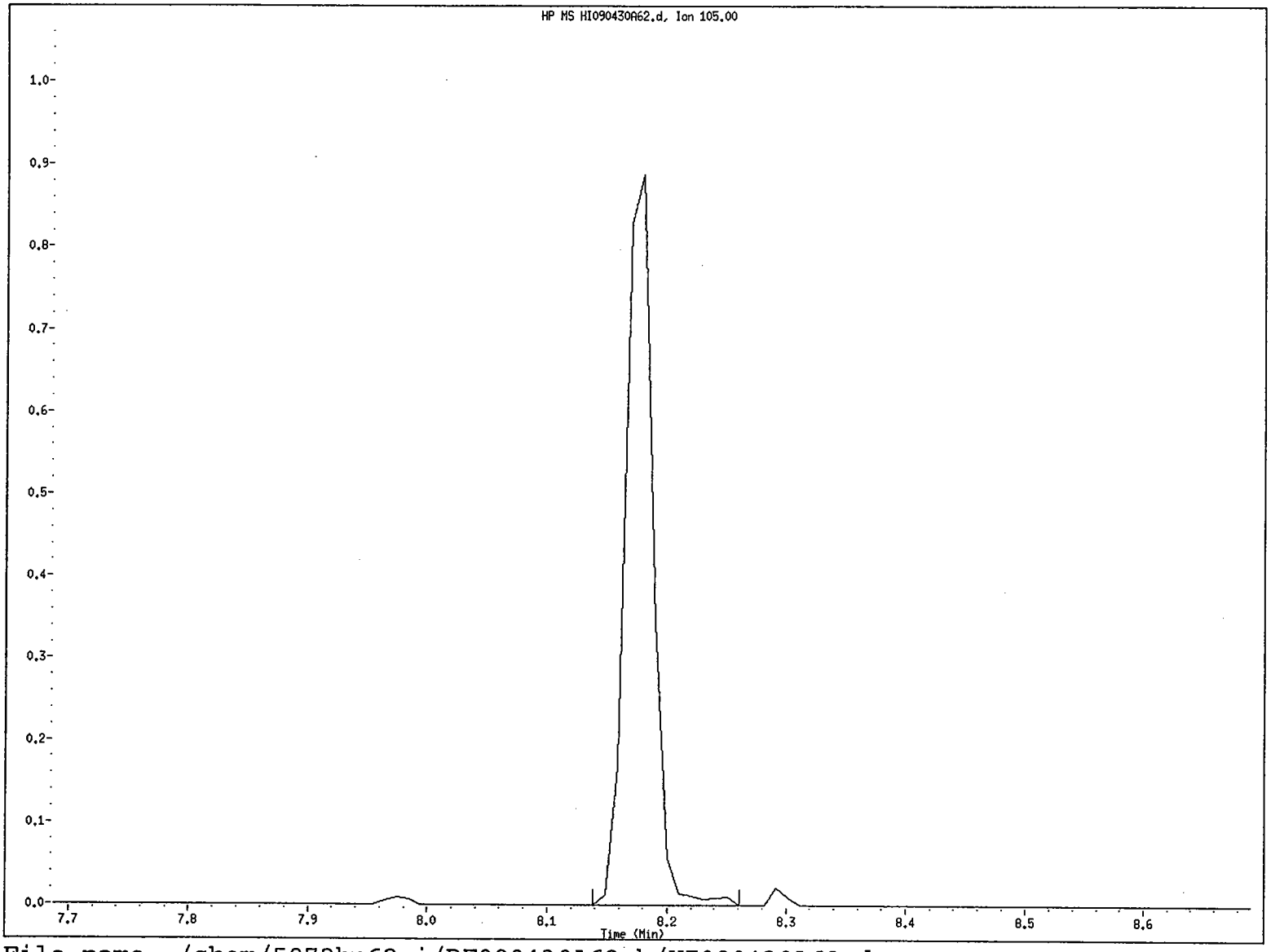
Retention Time: 7.97
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 144284 Manually integrated



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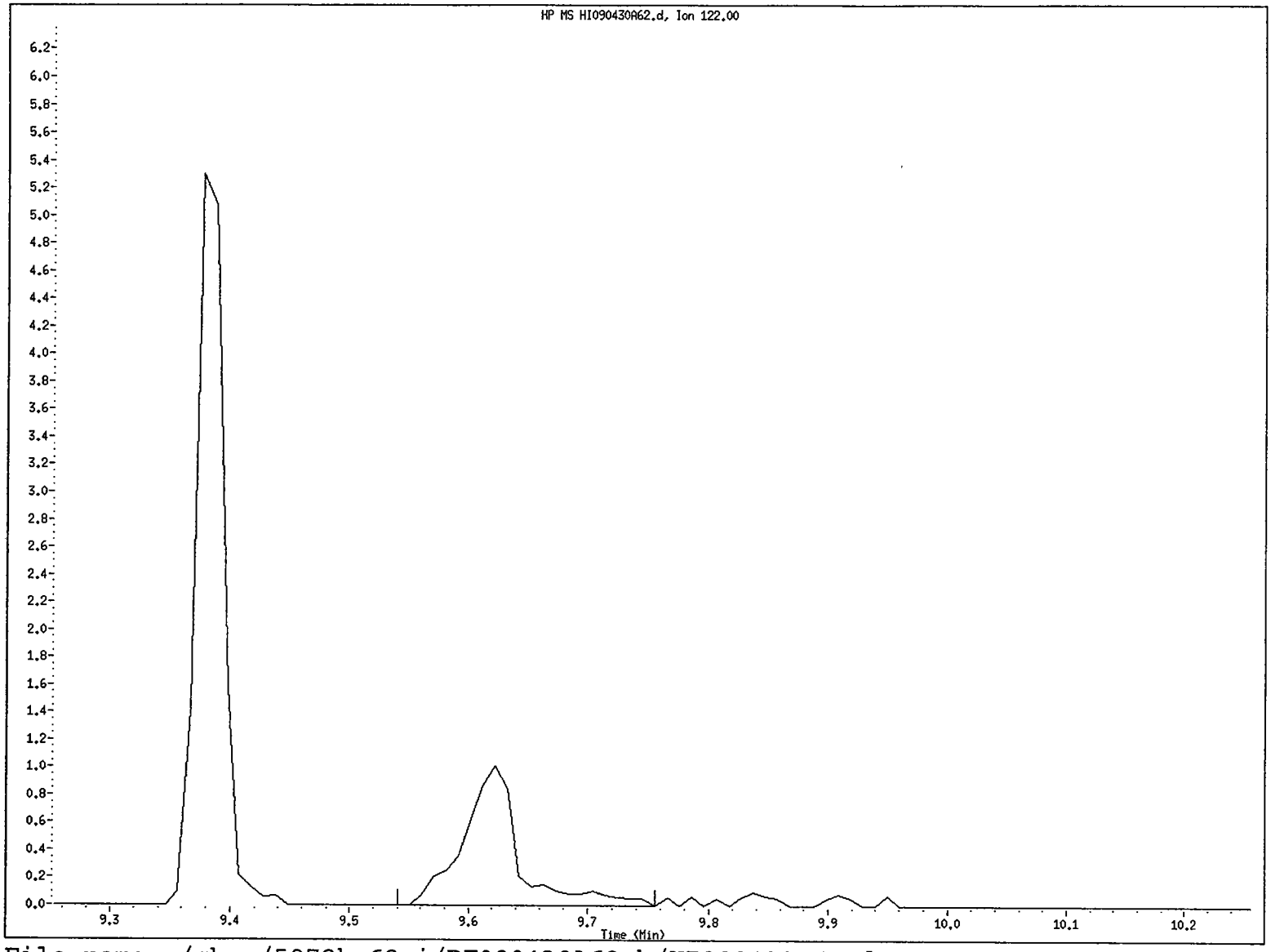
Retention Time: 8.18
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 32965 Manually integrated



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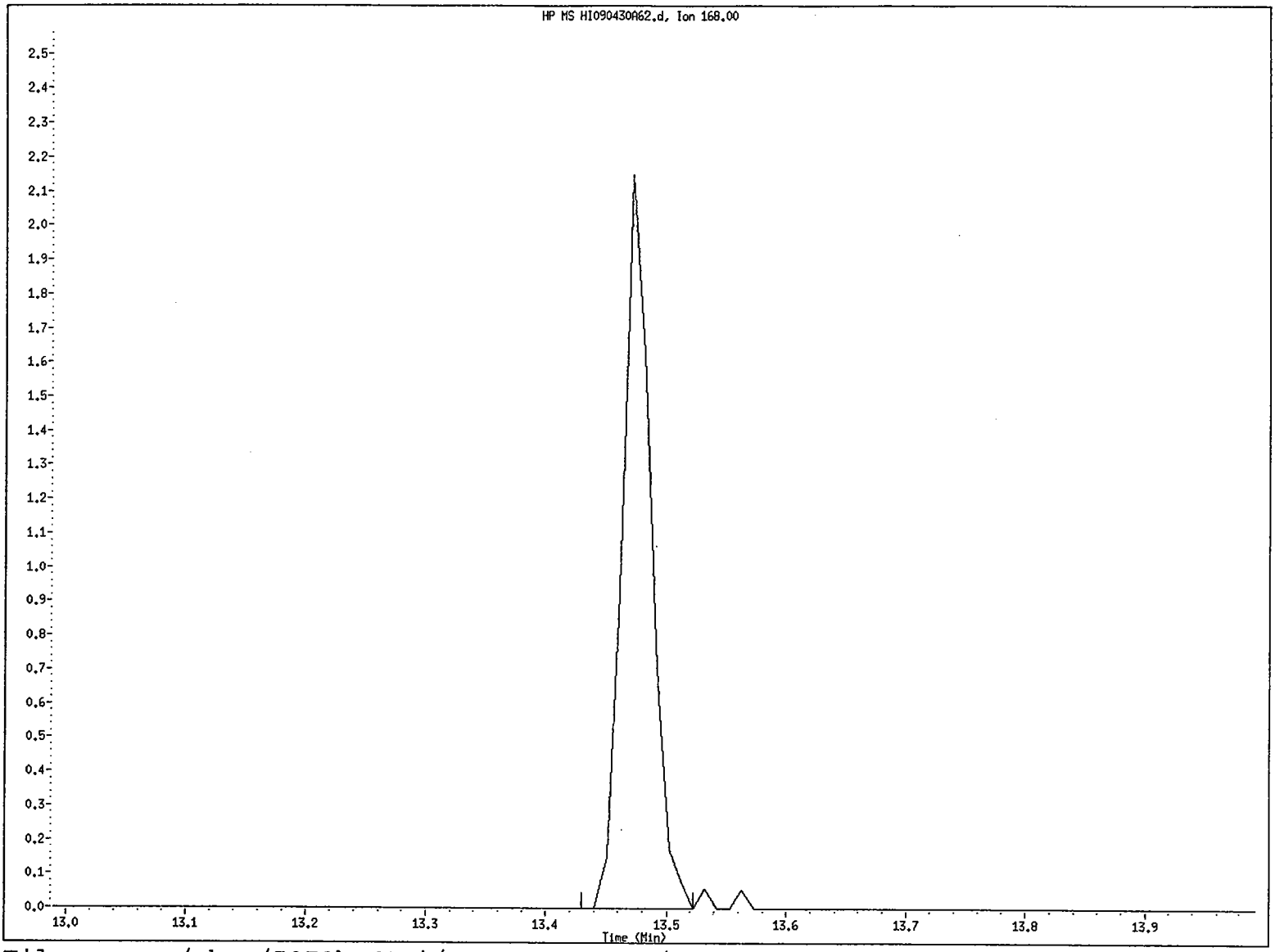
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 9.62
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 35744 Manually integrated



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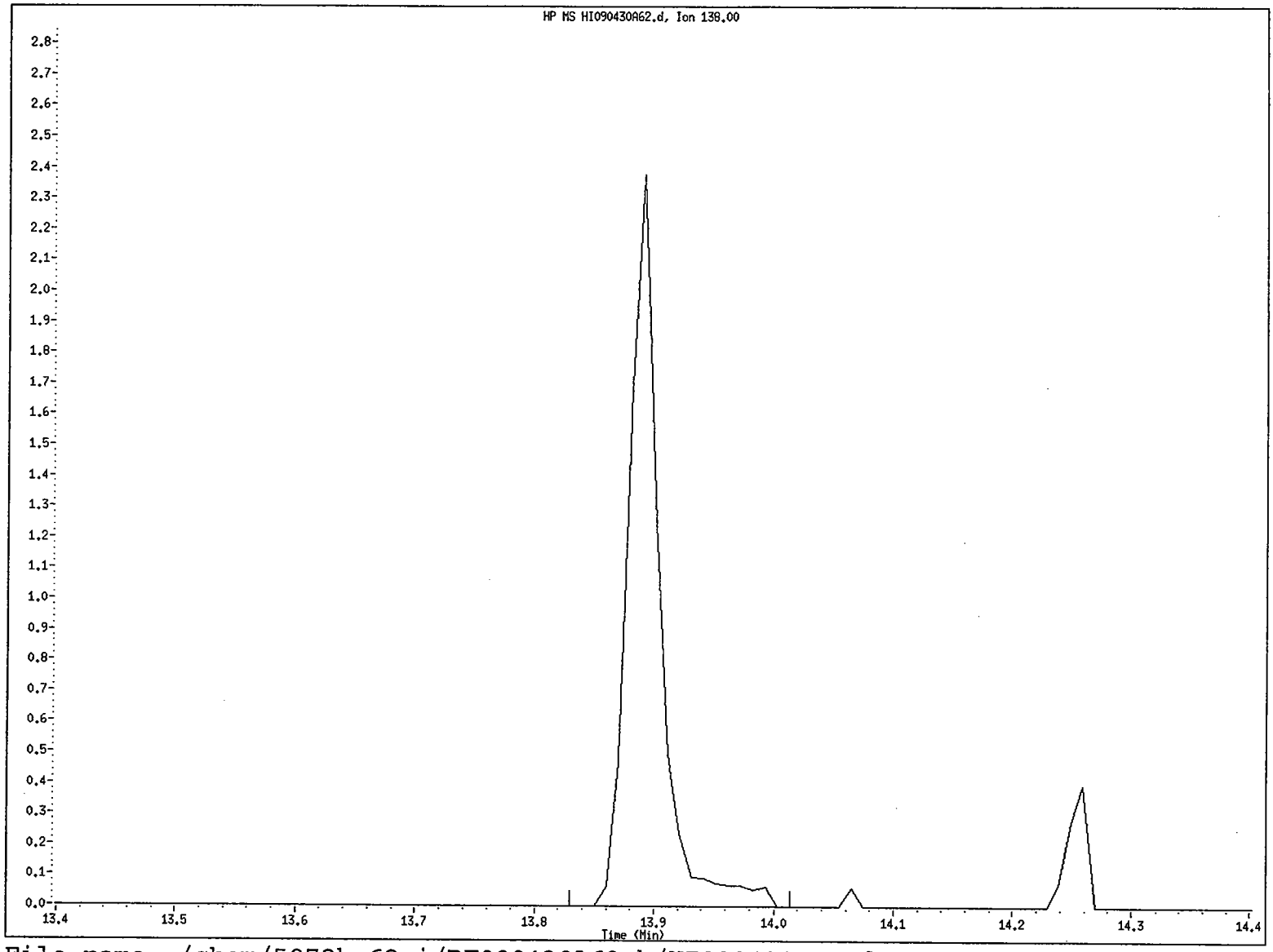
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 13.47
Operator ID: 2650

3-Nitroaniline CAS Number 99-09-2 Area = 43560 Manually integrated



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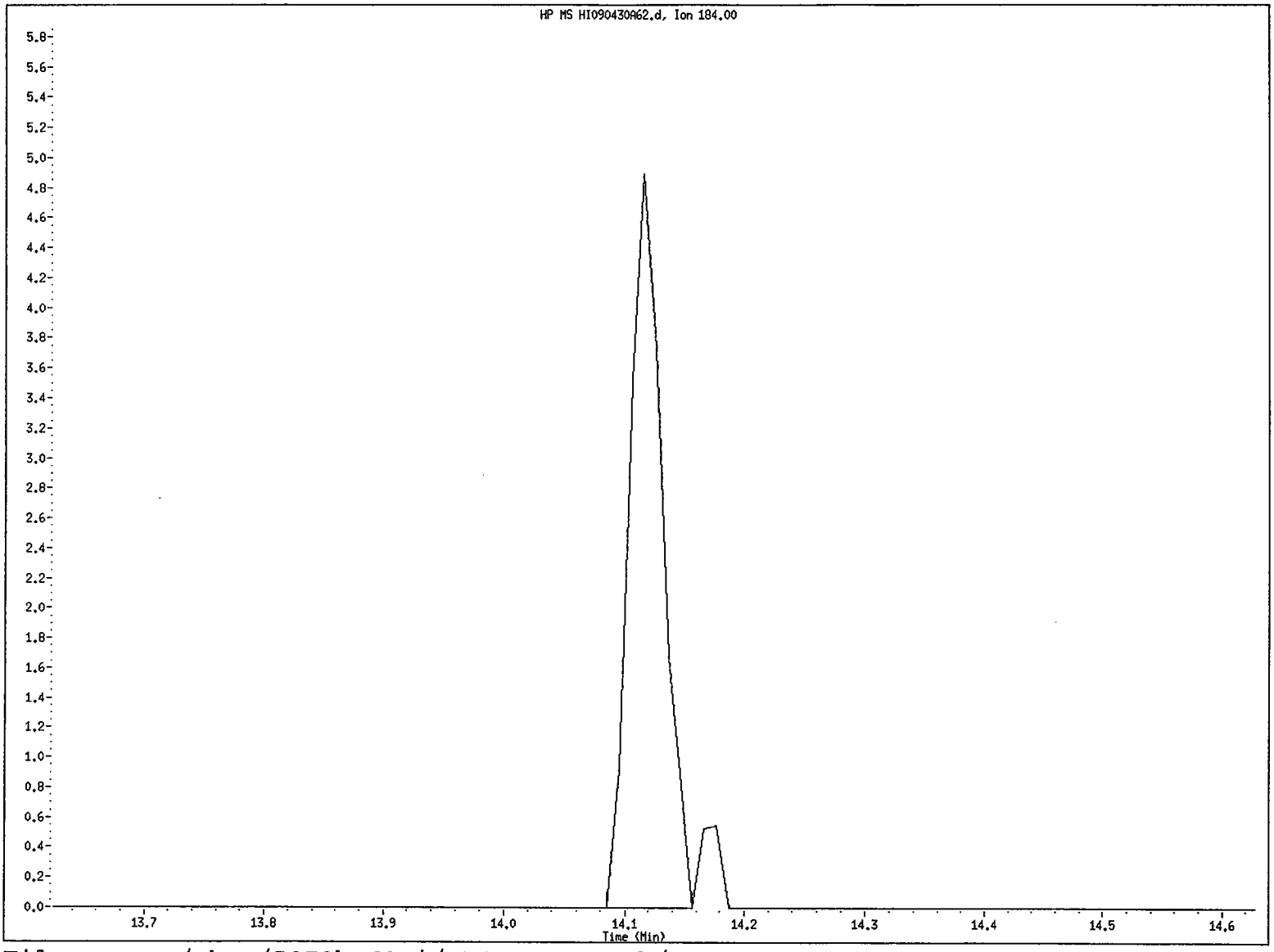
Client ID: SSTD010
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 13.89
Operator ID: 2650

2,4-Dinitrophenol CAS Number 51-28-5 Area = 9594 User selected hit



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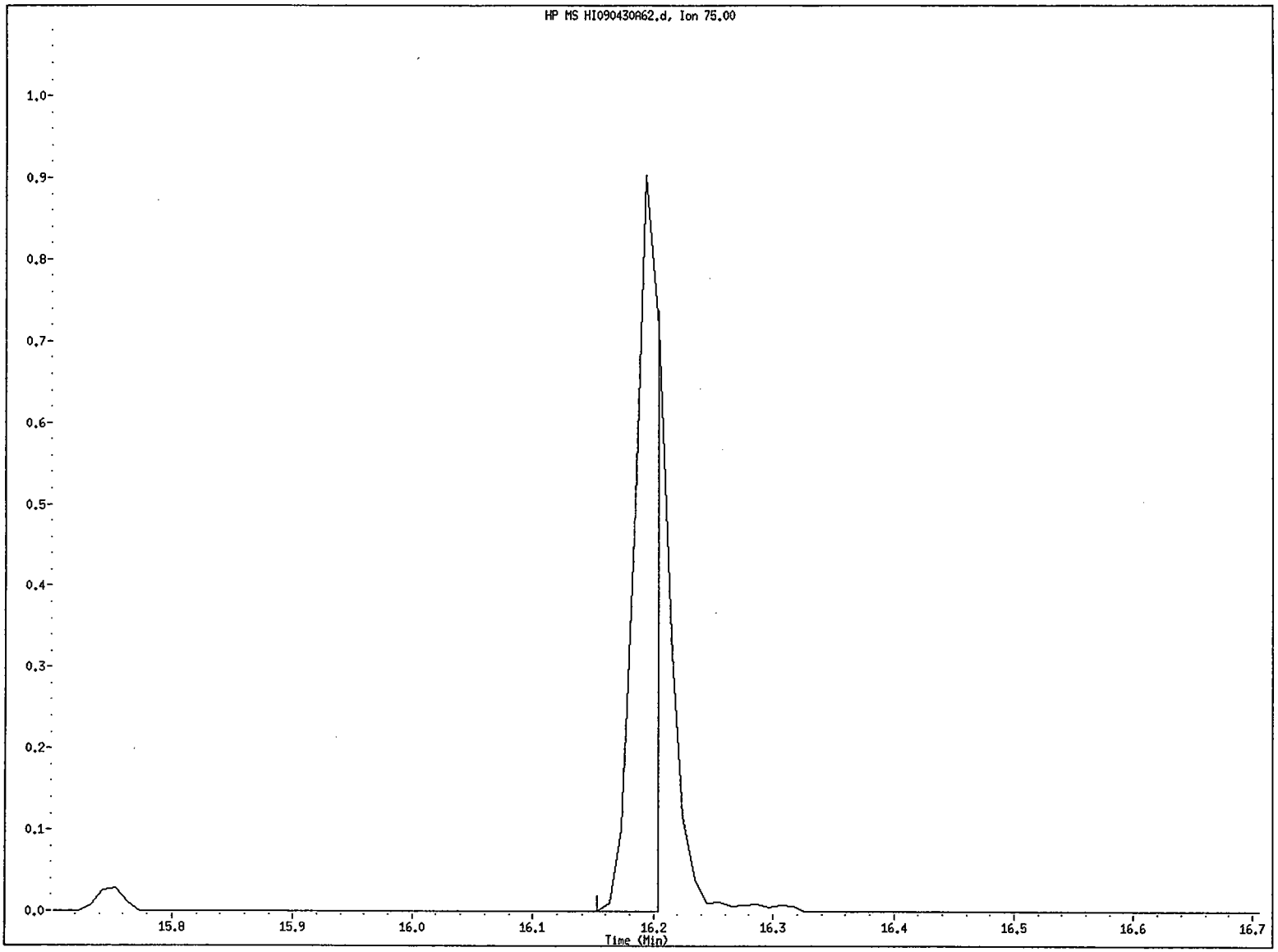
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 14.12
Operator ID: 2650

Phorate CAS Number 298-02-2 Area = 134844 Manually integrated



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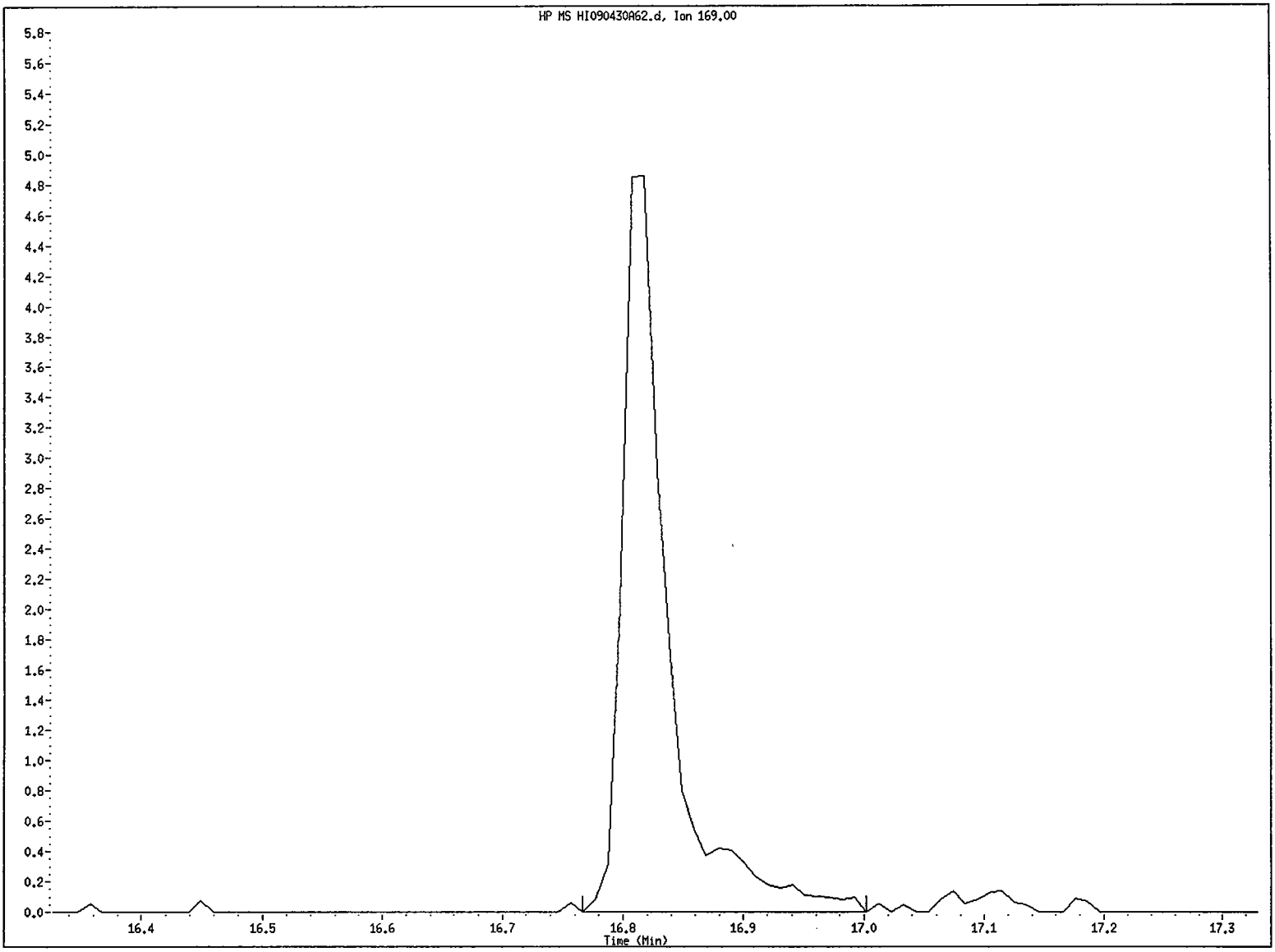
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.19
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 128004 Manually integrated



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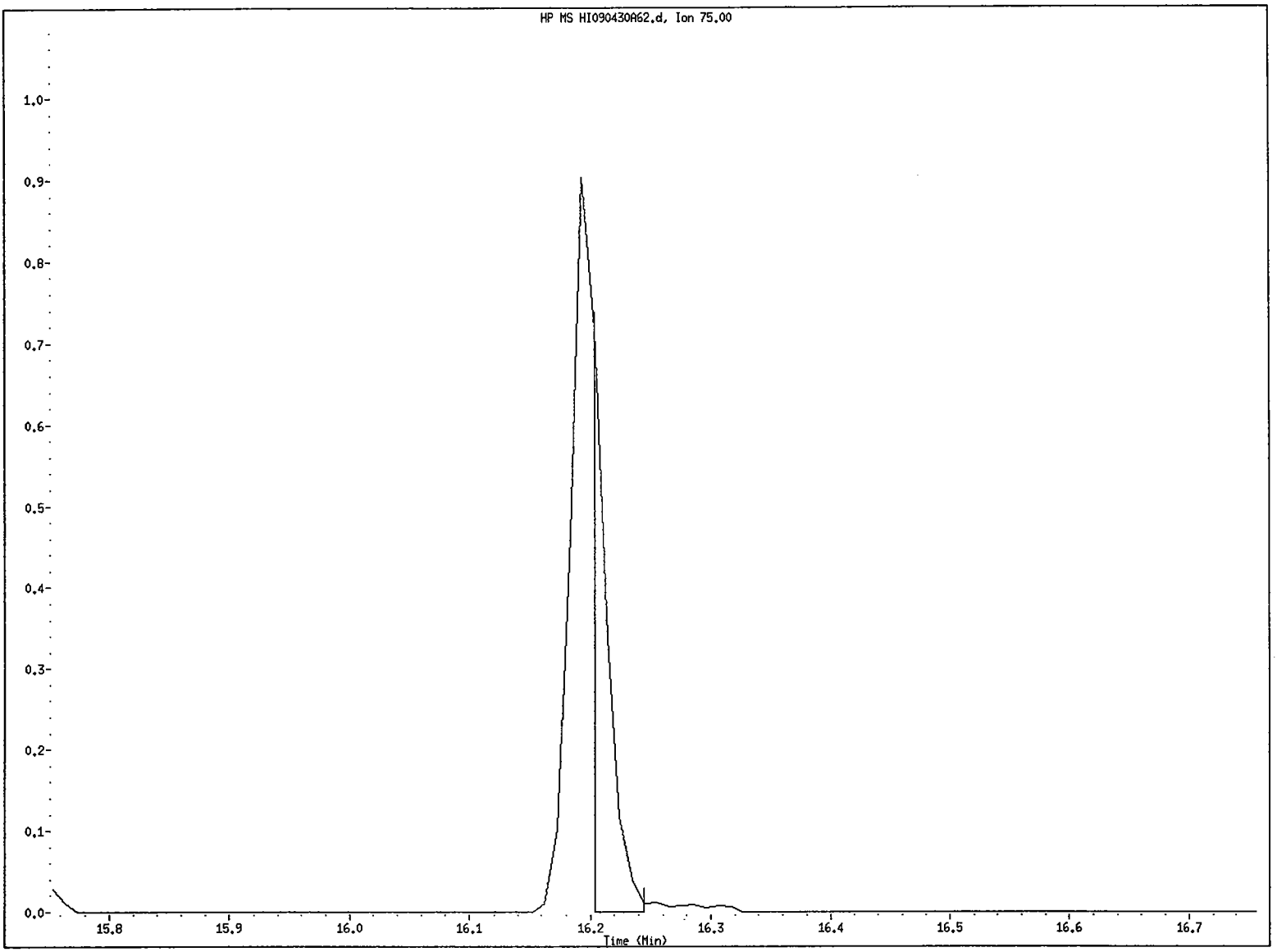
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.82
Operator ID: 2650

1,3,5-Trinitrobenzene CAS Number 99-35-4 Area = 74915 Manually integrated



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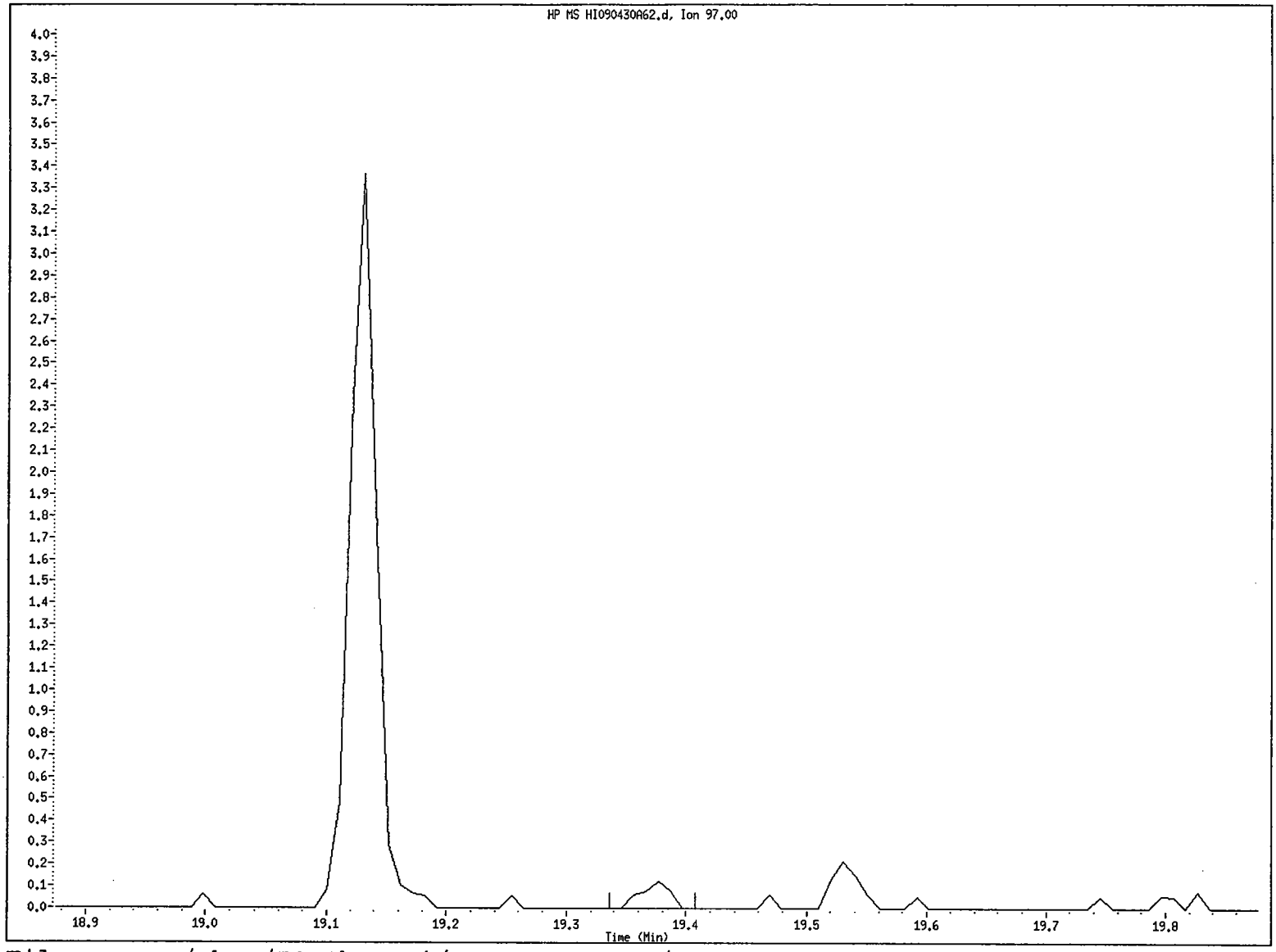
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.20
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 2064 Manually integrated



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Client ID: SSTD010
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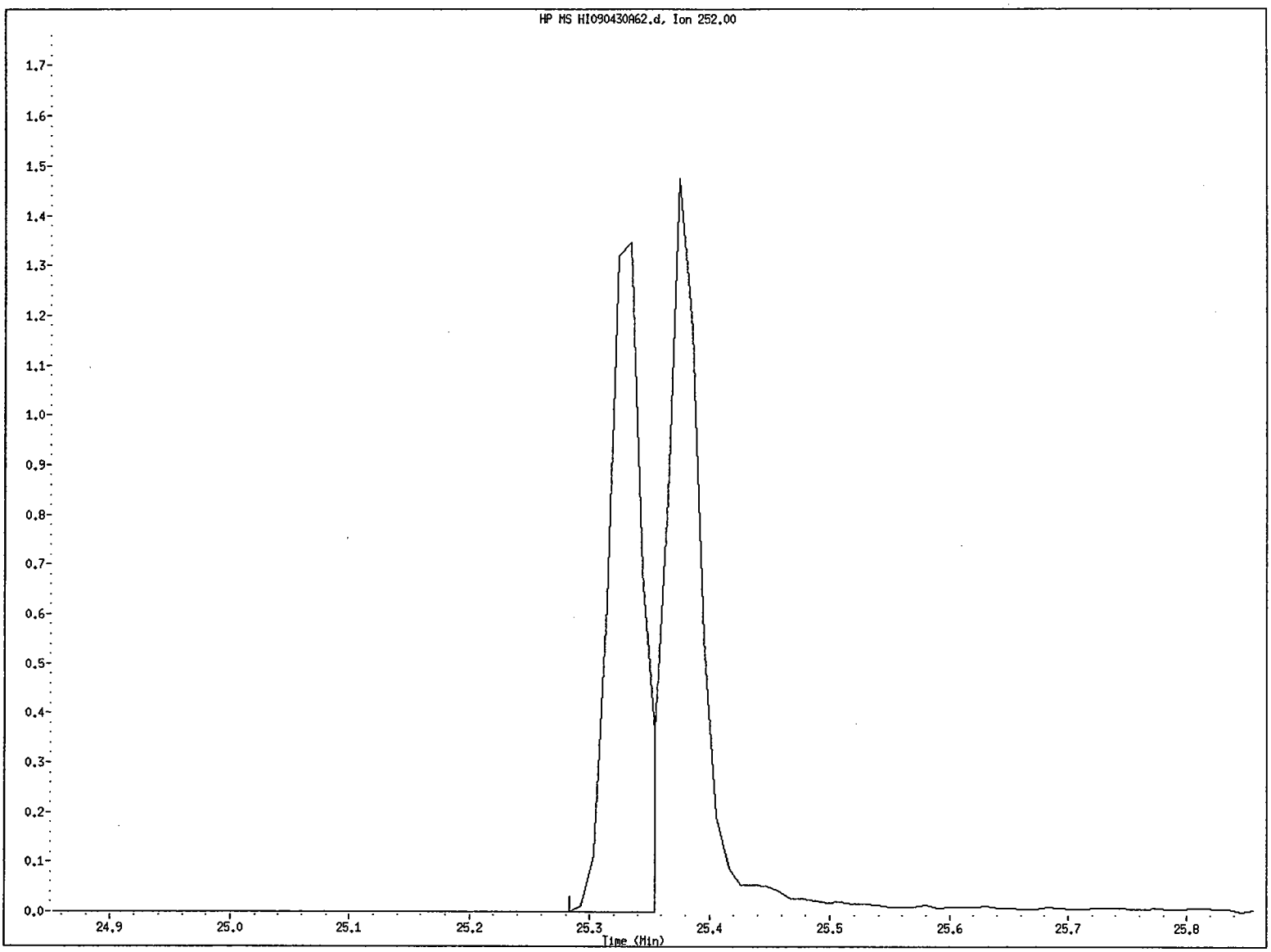
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 19.38
Operator ID: 2650

Benzo(b)fluoranthene CAS Number 205-99-2 Area = 273902 User selected hit



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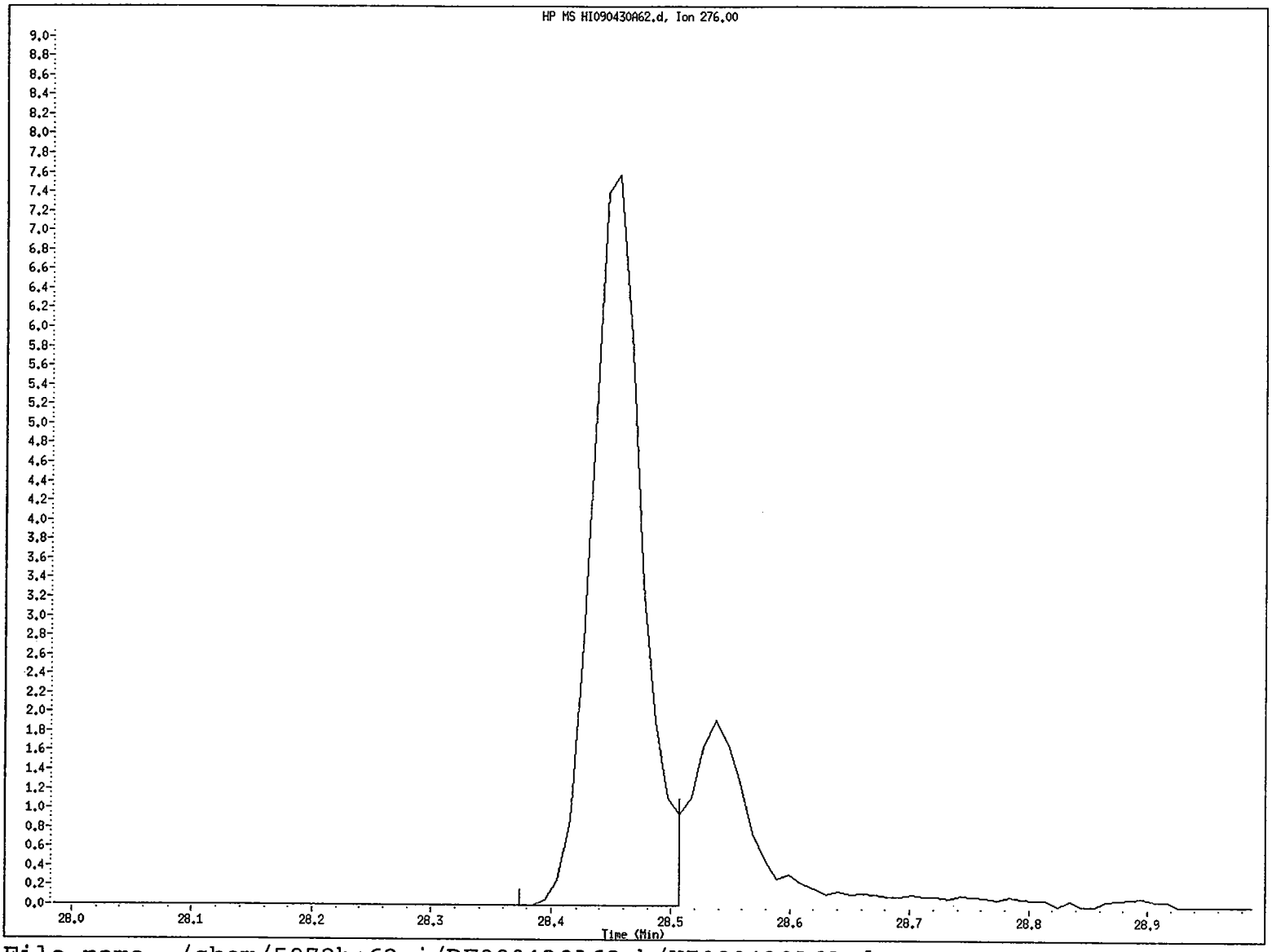
Client ID: SSTD010
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 25.33
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 225372 Manually integrated



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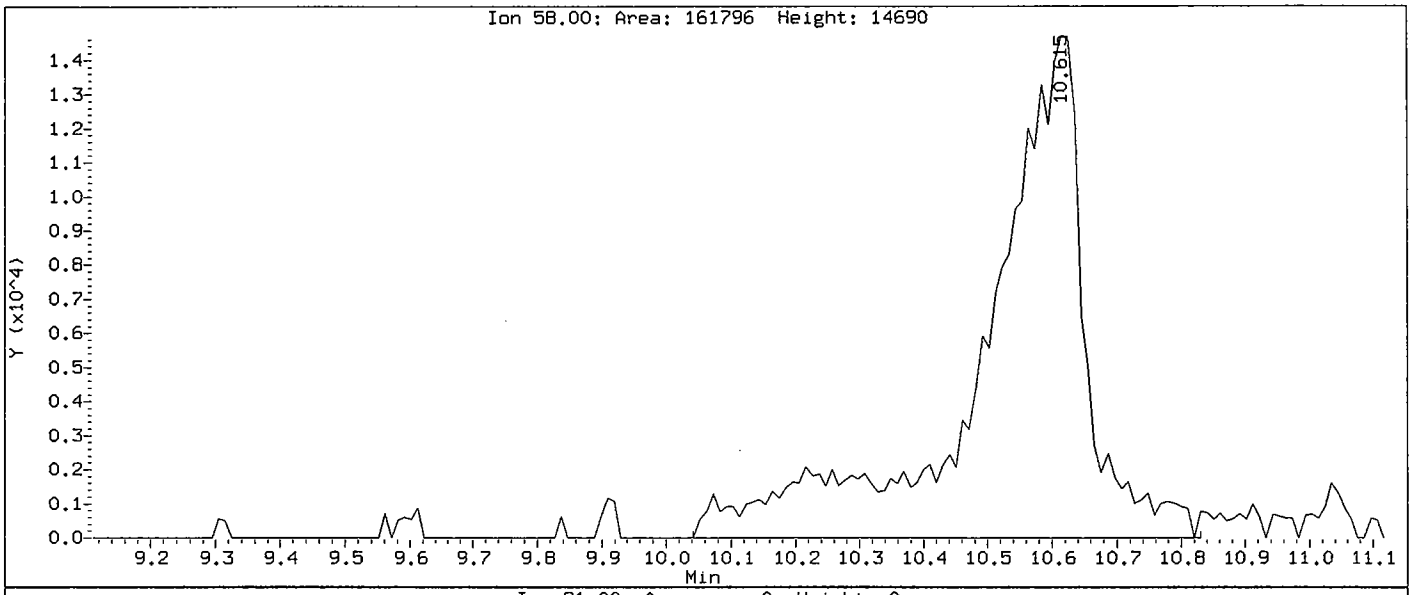
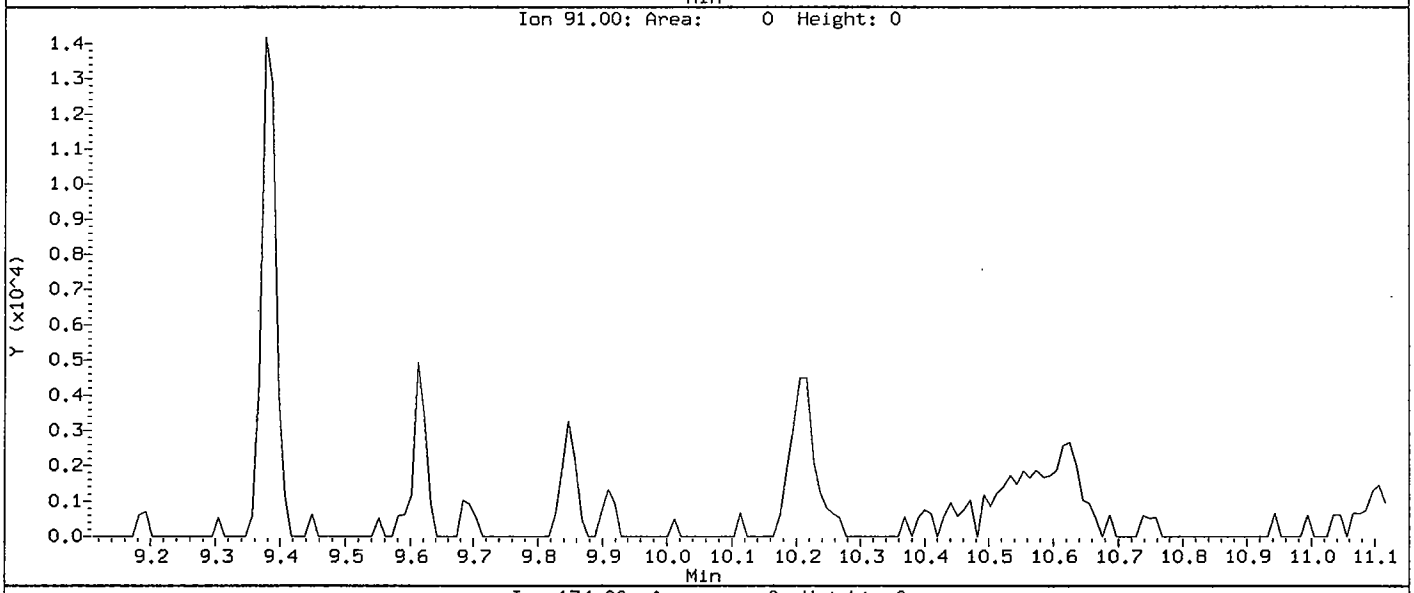
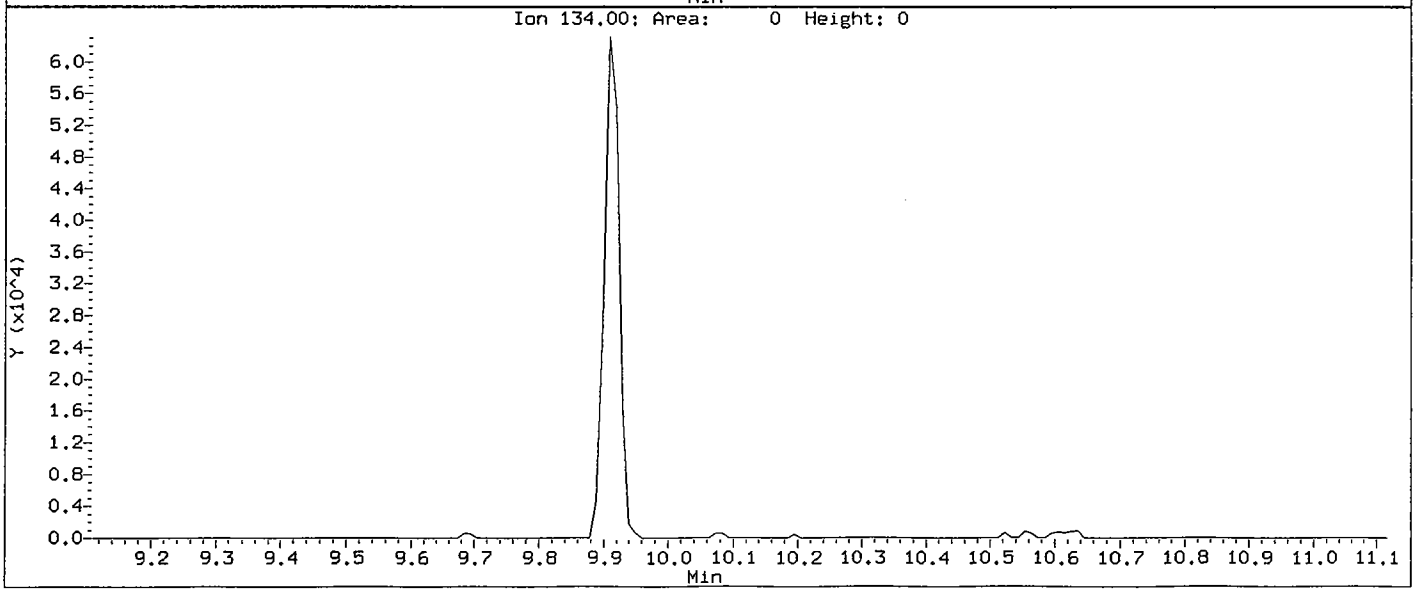
Client ID: SSTD010
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 28.46
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Injection Date: 30-APR-2009 17:45
Instrument: 5972hp62.i
Client Sample ID: SSTD010

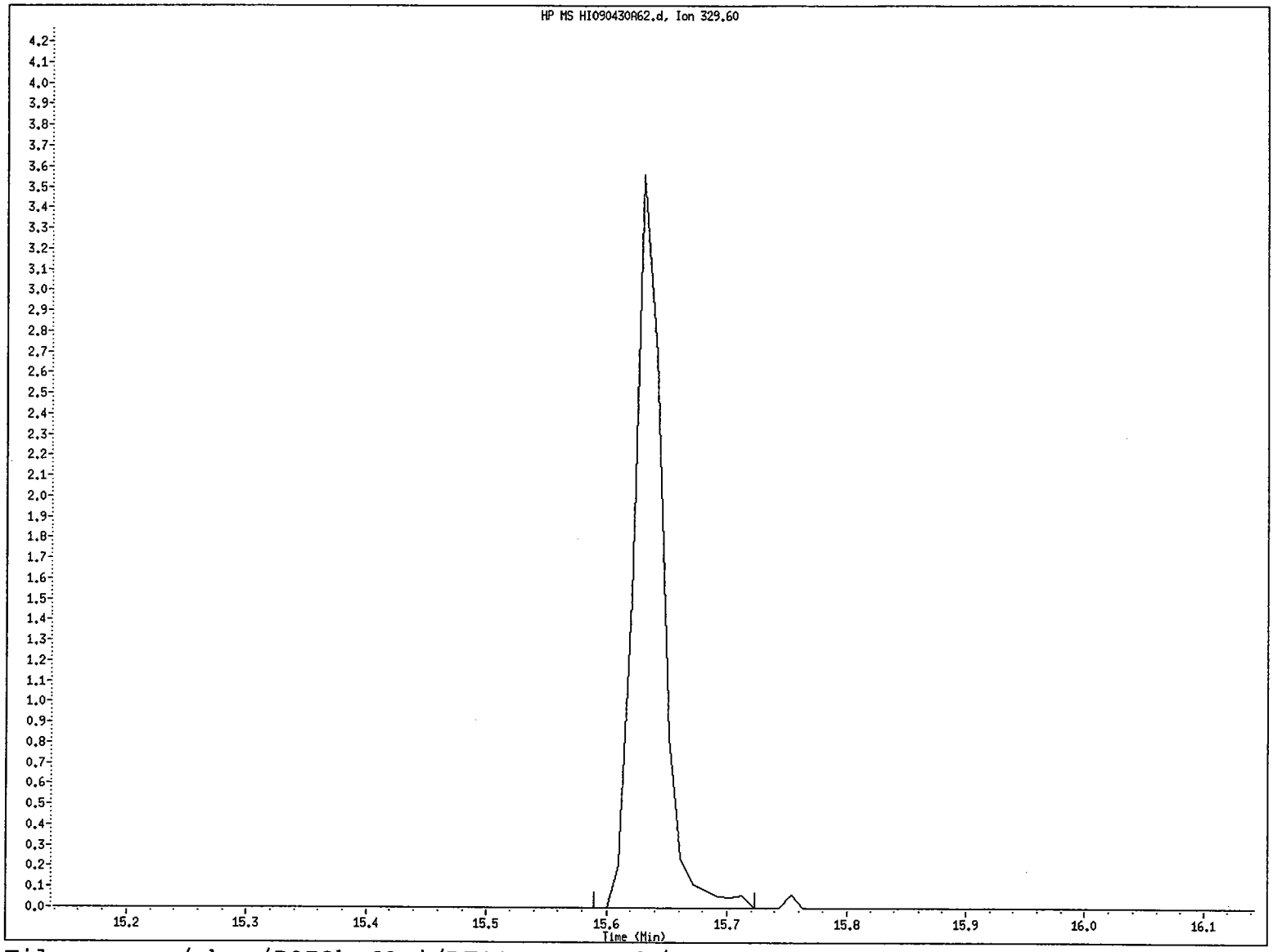
Compound: a,a-Dimethylphenethylamine
CAS Number: 122-09-8







2,4,6-Tribromophenol CAS Number 118-79-6 Area = 57774 Manually integrated



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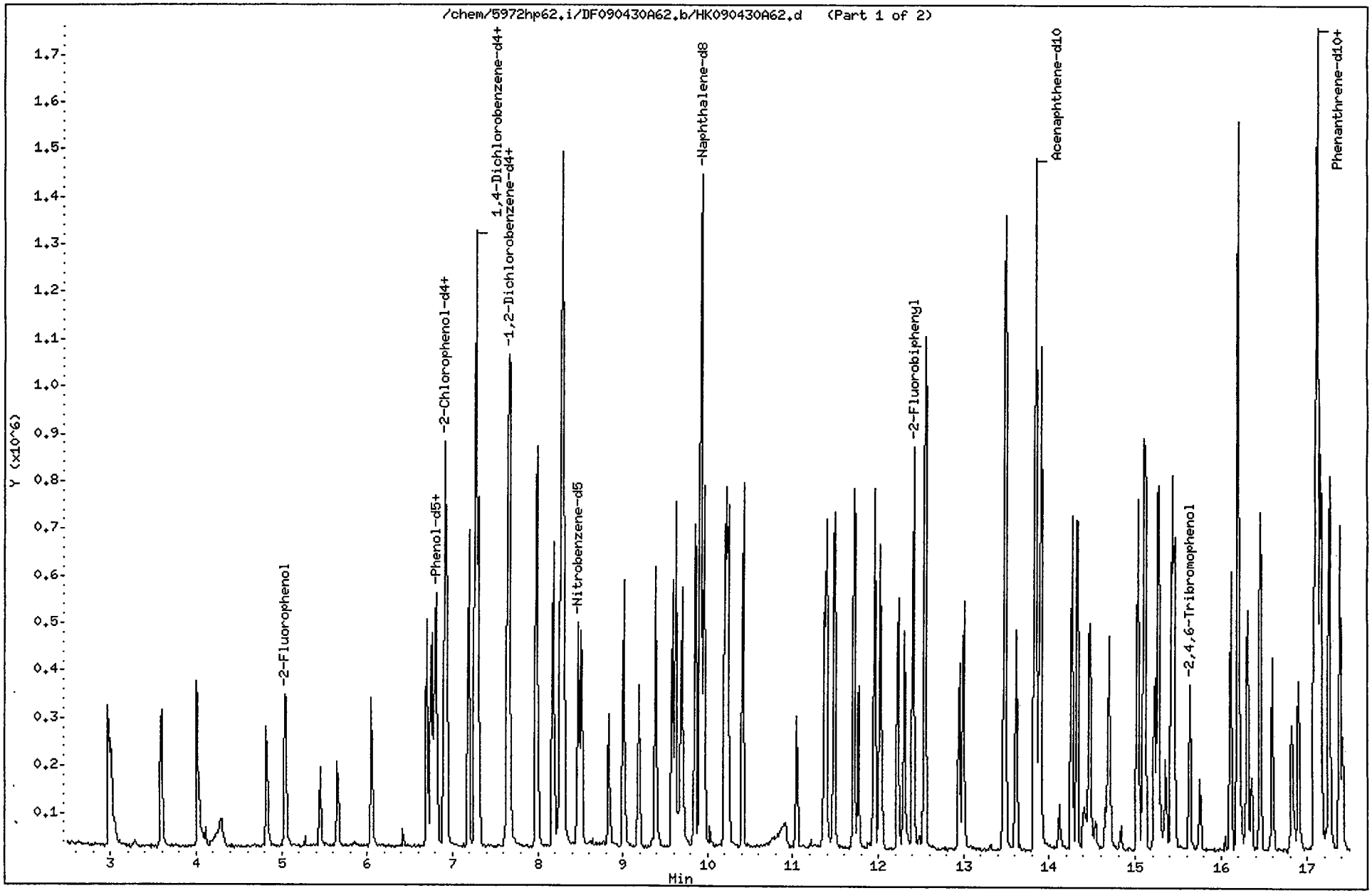
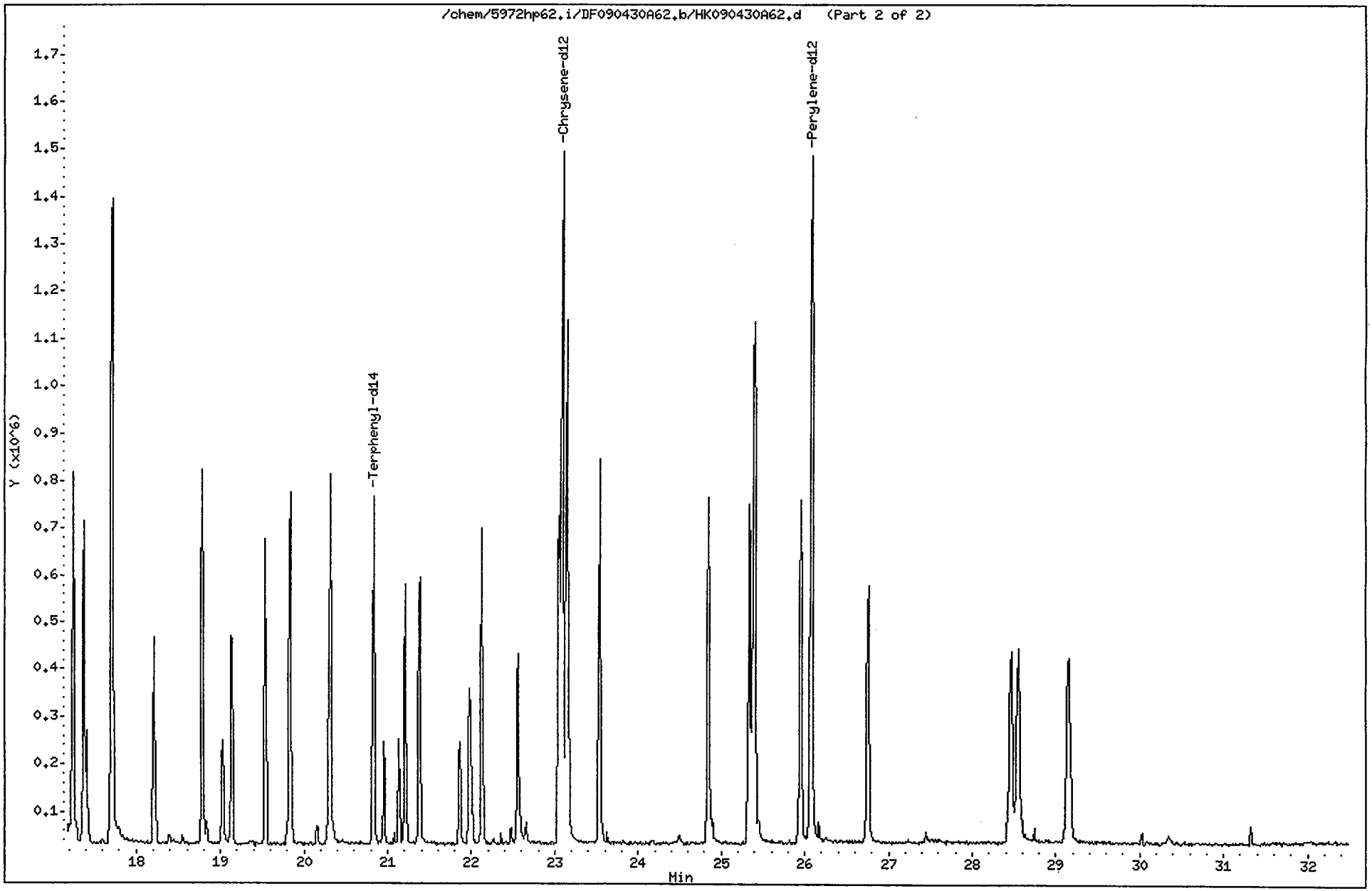
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 15.63
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Date : 30-APR-2009 19:09
Client ID: SSTD020
Sample Info: SSTD020:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Date : 30-APR-2009 19:09
Client ID: SSTD020
Instrument: 5972hp62.i
Sample Info: SSTD020:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Lab Smp Id: SSTD020 Client Smp ID: SSTD020
Inj Date : 30-APR-2009 19:09
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD020:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:09 Cal File: HK090430A62.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	336205	40.0000		
*	2 Naphthalene-d8	136	9.919	9.919	(1.000)	1090167	40.0000		
*	3 Acenaphthene-d10	164	13.839	13.839	(1.000)	562270	40.0000		
*	4 Phenanthrene-d10	188	17.115	17.114	(1.000)	908706	40.0000		
*	5 Chrysene-d12	240	23.092	23.092	(1.000)	1017110	40.0000		
*	6 Perylene-d12	264	26.081	26.081	(1.000)	1150423	40.0000		
$	7 2-Fluorophenol	112	5.047	5.047	(0.694)	183970	20.0000	22	
$	8 Phenol-d5	99	6.787	6.797	(0.934)	217292	20.0000	22	
$	9 2-Chlorophenol-d4	132	6.900	6.910	(0.949)	192411	20.0000	23	9488
$	10 1,2-Dichlorobenzene-d4	152	7.637	7.646	(1.051)	161285	20.0000	23	9609
$	11 Nitrobenzene-d5	82	8.476	8.486	(0.855)	228223	20.0000	22	
$	12 2-Fluorobiphenyl	172	12.406	12.416	(0.896)	400427	20.0000	22	
$	13 2,4,6-Tribromophenol	330	15.641	15.640	(1.130)	104441	20.0000	20	
$	14 Terphenyl-d14	244	20.830	20.840	(0.902)	434167	20.0000	23	
	15 N-Nitrosodimethylamine	42	3.000	3.010	(0.413)	90506	20.0000	21	8648

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.409)	200932	20.0000	21	9388
17 Ethylmethacrylate	69	3.594	3.593	(0.494)	156736	20.0000	22	9032
18 2-Picoline	93	4.003	4.003	(0.551)	209609	20.0000	21	8922
19 Nitrosomethylethylamine	88	4.300	4.299	(0.592)	75787	20.0000	21	8631
20 Methyl Methanesulfonate	80	4.822	4.832	(0.663)	143679	20.0000	22	9013
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.749)	60870	20.0000	21	8917
22 Ethyl Methanesulfonate	79	6.050	6.060	(0.832)	174852	20.0000	22	9158
23 Phenol	94	6.818	6.828	(0.938)	231279	20.0000	22	
24 Aniline	93	6.756	6.756	(0.930)	292938	20.0000	22	6901(H)
25 Bis(2-chloroethyl)ether	93	6.910	6.920	(0.951)	218617	20.0000	24	
26 Pentachloroethane	167	6.695	6.705	(0.921)	99073	20.0000	21	9359
27 2-Chlorophenol	128	6.930	6.940	(0.954)	208555	20.0000	22	9282
28 1,3-Dichlorobenzene	146	7.186	7.196	(0.989)	264250	20.0000	22	
29 1,4-Dichlorobenzene	146	7.299	7.298	(1.004)	269447	20.0000	23	
30 Benzyl Alcohol	108	7.657	7.667	(1.054)	123204	20.0000	23	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.055)	243533	20.0000	23	
32 2-Methylphenol	108	7.985	7.984	(1.099)	166556	20.0000	22	
33 2,2'-oxybis(1-Chloropropane)	45	7.985	7.995	(1.099)	241785	20.0000	22	8782
34 N-Nitrosopyrrolidine	100	8.200	8.209	(1.128)	40573	20.0000	23	3523
35 3-Methylphenol	108	8.302	8.312	(1.142)	372248	40.0000	46	
36 4-Methylphenol	108	8.302	8.312	(1.142)	372248	40.0000	46	
37 3-4-Methylphenol	108	8.302	8.312	(1.142)	372248	40.0000	46	9170
38 N-Nitroso-di-N-propylamine	70	8.281	8.291	(1.139)	83307	20.0000	24	8500
39 Acetophenone	105	8.179	8.189	(0.825)	274724	20.0000	22	0(M)
40 N-Nitrosomorpholine	116	8.241	8.261	(1.134)	20083	20.0000	23	8452
41 o-Toluidine	106	8.271	8.281	(1.138)	287609	20.0000	24	8959
42 Hexachloroethane	117	8.271	8.271	(1.138)	113133	20.0000	22	9619
43 Nitrobenzene	77	8.507	8.517	(0.858)	207410	20.0000	22	9003
44 N-Nitrosopiperidine	114	8.834	8.844	(0.891)	82745	20.0000	22	9012
45 Isophorone	82	9.008	9.018	(0.908)	372463	20.0000	22	8879
46 2-Nitrophenol	139	9.192	9.192	(0.927)	113453	20.0000	21	8799
47 2,4-Dimethylphenol	122	9.387	9.397	(0.946)	146674	20.0000	22	8913
48 Benzoic Acid	122	9.673	9.755	(0.975)	78869	100.000	94	8433
49 o,o,o-Triethylphosphorothioat	198	9.622	9.632	(0.970)	85466	20.0000	22	8819
50 Bis(2-chloroethoxy)methane	93	9.581	9.591	(0.966)	263957	20.0000	22	9086
51 2,4-Dichlorophenol	162	9.694	9.704	(0.977)	170300	20.0000	22	
52 1,2,4-Trichlorobenzene	180	9.848	9.857	(0.993)	216892	20.0000	22	
53 Naphthalene	128	9.950	9.960	(1.003)	562850	20.0000	23	9066
54 4-Chloroaniline	127	10.216	10.216	(1.030)	239497	20.0000	24	8273
55 2,6-Dichlorophenol	162	10.195	10.205	(1.028)	169393	20.0000	23	
56 Hexachloropropene	213	10.236	10.236	(1.032)	160041	20.0000	22	9522
57 Hexachlorobutadiene	225	10.410	10.410	(1.050)	138232	20.0000	22	9096
58 N-Nitroso-di-n-butylamine	84	11.045	11.055	(1.113)	70495	20.0000	22	8900
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.362	11.372	(1.145)	157876	20.0000	23	0(M)
61 Safrole	162	11.393	11.403	(1.149)	141368	20.0000	22	8953
62 2-Methylnaphthalene	141	11.485	11.485	(1.158)	288048	20.0000	22	

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.710	11.720	(1.181)	345284	20.0000	23	
64 Hexachlorocyclopentadiene	237	12.017	12.027	(0.868)	158334	20.0000	21	9553
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.956	(0.864)	230043	20.0000	23	9654
66 2,4,6-Trichlorophenol	196	12.232	12.232	(0.884)	122958	20.0000	21	
67 2,4,5-Trichlorophenol	196	12.304	12.314	(0.889)	140663	20.0000	22	
68 Isosafrole	162	12.048	12.048	(0.871)	24336	20.0000	22	
69 2-Chloronaphthalene	162	12.539	12.549	(0.906)	503464	20.0000	23	
70 2-Nitroaniline	65	12.949	12.959	(0.936)	108915	20.0000	22	9072
71 1,4-Napthoquinone	158	13.000	13.010	(0.939)	154490	20.0000	23	9109
72 Dimethylphthalate	163	13.491	13.501	(0.975)	382523	20.0000	22	9614
73 1,3-Dinitrobenzene	168	13.481	13.491	(0.974)	72639	20.0000	23	0 (M)
74 2,6-Dinitrotoluene	165	13.614	13.624	(0.984)	95682	20.0000	20	9555
75 Acenaphthylene	152	13.471	13.481	(0.973)	547767	20.0000	23	8503
76 3-Nitroaniline	138	13.891	13.900	(1.004)	83375	20.0000	21	8776
77 Acenaphthene	154	13.901	13.911	(1.004)	301596	20.0000	22	9689
78 2,4-Dinitrophenol	184	14.116	14.126	(1.020)	22117	20.0000	12	(a)
79 4-Nitrophenol	139	14.413	14.402	(1.041)	64363	20.0000	20	8482
80 Pentachlorobenzene	250	14.331	14.330	(1.036)	219963	20.0000	22	9317
81 2,4-Dinitrotoluene	165	14.474	14.484	(1.046)	123467	20.0000	22	7314
82 Dibenzofuran	168	14.259	14.269	(1.030)	491435	20.0000	22	9269
83 1-Naphthylamine	143	14.484	14.494	(1.047)	83734	20.0000	18	
84 2,3,4,6-Tetrachlorophenol	232	14.699	14.699	(1.062)	105431	20.0000	21	9290
85 2-Naphthylamine	143	14.658	14.668	(1.059)	68118	20.0000	14	
86 Diethylphthalate	149	15.098	15.108	(1.091)	406516	20.0000	22	9366
87 Zinophos	97	15.262	15.282	(1.103)	109121	20.0000	23	9070
88 4-Chlorophenyl-phenylether	204	15.119	15.118	(1.092)	206742	20.0000	23	7180
89 5-Nitro-o-toluidine	152	15.231	15.241	(1.101)	114707	20.0000	22	7798
90 Fluorene	166	15.037	15.037	(1.087)	391932	20.0000	23	7821
91 4-Nitroaniline	138	15.283	15.303	(1.104)	91129	20.0000	21	9056
92 4,6-Dinitro-2-methylphenol	198	15.354	15.374	(0.897)	46280	20.0000	15	8724 (a)
93 N-Nitrosodiphenylamine	169	15.426	15.436	(0.901)	288966	20.0000	22	9569
95 1,2-Diphenylhydrazine	77	15.457	15.456	(1.117)	468835	20.0000	23	9252
96 Sulfotep	322	16.122	16.122	(1.165)	75004	20.0000	22	8780
97 1,3,5-Trinitrobenzene	75	16.214	16.255	(0.947)	107946	20.0000	20	0 (M)
98 Diallate (trans isomer)	86	16.194	16.193	(0.946)	136332	10.0000	12	
99 Diallate (trans) part of total	86	16.194	16.193	(0.946)	136332	10.0000	12	8808
100 Phorate	75	16.204	16.203	(0.947)	263076	20.0000	24	7713 (M)
101 Phenacetin	108	16.306	16.337	(0.953)	184268	20.0000	20	9423
102 Diallate (cis isomer)	86	16.357	16.357	(0.956)	42566	10.0000	12	
103 Diallate (cis) part of total	86	16.357	16.357	(0.956)	42566	10.0000	8.6	6742 (aH)
104 4-Bromophenyl-phenylether	248	16.194	16.193	(0.946)	131850	20.0000	22	7881
105 Hexachlorobenzene	284	16.449	16.459	(0.961)	192352	20.0000	21	9344
106 Dimethoate	87	16.593	16.613	(0.969)	133916	20.0000	23	9043
107 4-Aminobiphenyl	169	16.818	16.828	(0.983)	211283	20.0000	17	0 (M)
108 Pentachlorophenol	266	16.900	16.910	(0.987)	80192	20.0000	18	7952 (a)
109 Pentachloronitrobenzene	237	17.084	17.094	(0.998)	61751	20.0000	21	7430
110 Pronamide	173	17.125	17.135	(1.001)	169720	20.0000	21	9320

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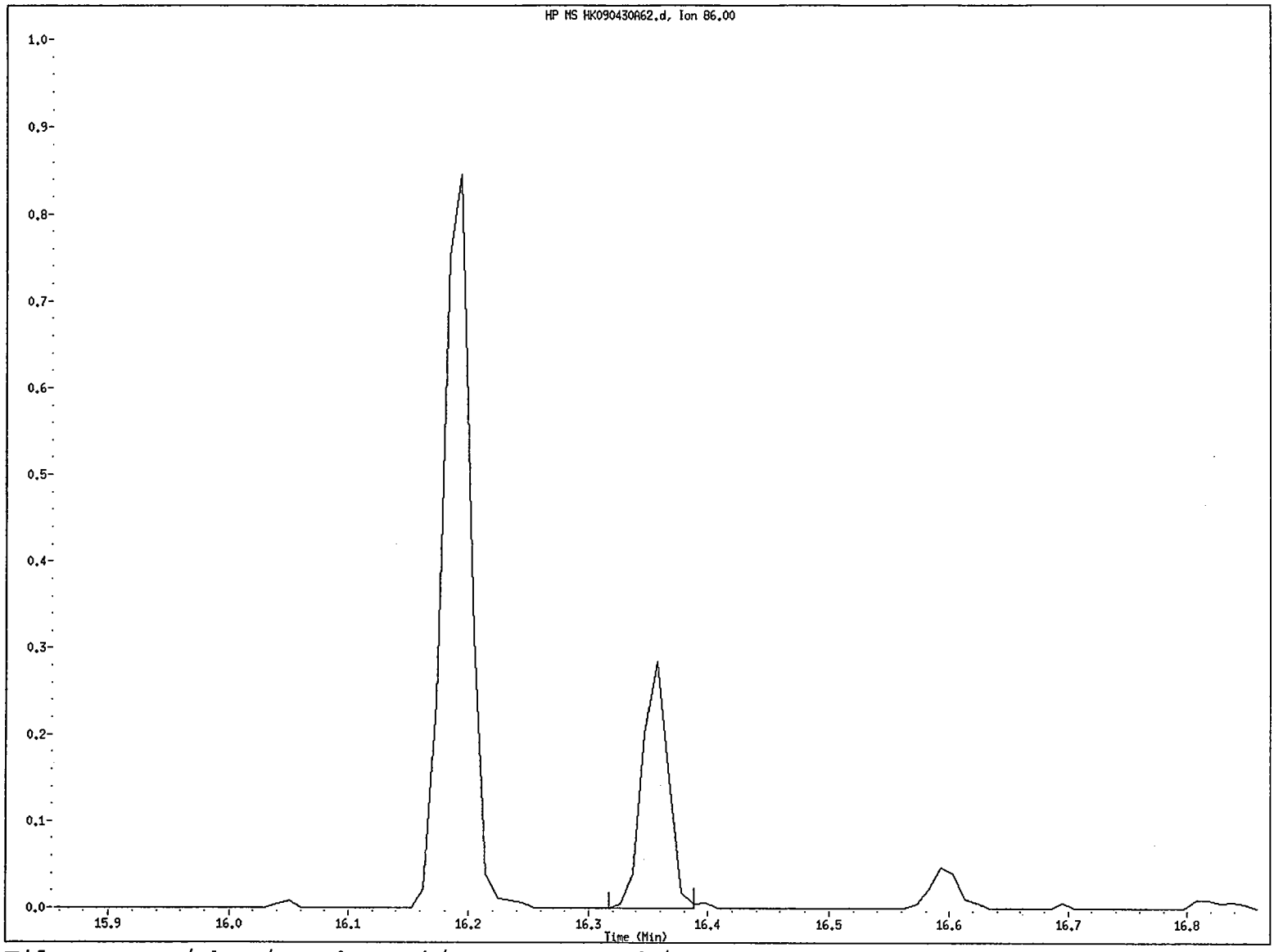
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111 Disulfoton	88	17.381	17.381	(1.016)	190517	20.0000	22	9221
112 Phenanthrene	178	17.156	17.166	(1.002)	526270	20.0000	22	
113 Anthracene	178	17.258	17.268	(1.008)	531056	20.0000	21	
114 Carbazole	167	17.719	17.739	(1.035)	1209822	20.0000	21	9713
115 Methyl Parathion	109	18.210	18.220	(1.064)	127793	20.0000	23	9290
116 Di-n-butylphthalate	149	18.783	18.793	(1.097)	677704	20.0000	21	9597
117 Parathion	109	19.131	19.141	(1.118)	79662	20.0000	20	8169
118 4-Nitroquinoline-1-oxide	190	19.029	19.039	(1.112)	37860	20.0000	16	9346
119 Methapyrilene	97	19.377	19.377	(1.132)	3531	20.0000	20	0(M)
120 Isodrin	193	19.541	19.540	(1.142)	74481	20.0000	21	8896
121 Fluoranthene	202	19.837	19.847	(1.159)	547587	20.0000	22	9675
122 Benzidine	184	20.288	20.298	(0.879)	103702	20.0000	19	8731(a)
123 Pyrene	202	20.319	20.328	(0.880)	587015	20.0000	23	9731
124 p-Dimethylaminoazobenzene	225	21.209	21.219	(0.918)	103364	20.0000	21	9024
125 Chlorobenzilate	251	21.383	21.383	(0.926)	174230	20.0000	20	9000
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.130	22.130	(0.958)	302487	20.0000	22	9167
129 3,3'-Dimethylbenzidine	212	21.977	21.987	(0.952)	184974	20.0000	20	9505
130 2-Acetylaminofluorene	181	22.560	22.570	(0.977)	180948	20.0000	20	9002
131 3,3'-Dichlorobenzidine	252	23.154	23.164	(1.003)	198311	20.0000	22	8448
132 bis(2-ethylhexyl)Phthalate	149	23.532	23.542	(1.019)	409722	20.0000	22	9118
133 Benzo(a)anthracene	228	23.051	23.061	(0.998)	521929	20.0000	22	
134 Chrysene	228	23.144	23.153	(1.002)	503135	20.0000	24	
135 Di-n-octylphthalate	149	24.843	24.853	(0.953)	669735	20.0000	21	
136 7,12-Dimethylbenz(a)anthracene	256	25.406	25.416	(0.974)	254582	20.0000	22	8541
137 Benzo(b)fluoranthene	252	25.334	25.354	(0.971)	590428	20.0000	20	(H)
138 Benzo(k)fluoranthene	252	25.385	25.395	(0.973)	565678	20.0000	23	
139 Benzo(a)pyrene	252	25.948	25.968	(0.995)	528784	20.0000	21	
140 3-Methylcholanthrene	268	26.757	26.767	(1.026)	282716	20.0000	21	9608
141 Indeno(1,2,3-c,d)pyrene	276	28.466	28.486	(1.091)	476031	20.0000	20	0(M)
142 Dibenzo(a,h)anthracene	278	28.548	28.568	(1.095)	480642	20.0000	21	7618
143 Benzo(g,h,i)perylene	276	29.152	29.172	(1.118)	510224	20.0000	21	9199
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				178898	20.0000	22	0
201 a,a-Dimethylphenethylamine	58	10.912	10.113	(1.100)	288692	20.0000	27	0(aM)
202 Aramite	185	21.137	21.137	(0.915)	31192	20.0000	20	9165

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 42566 User selected



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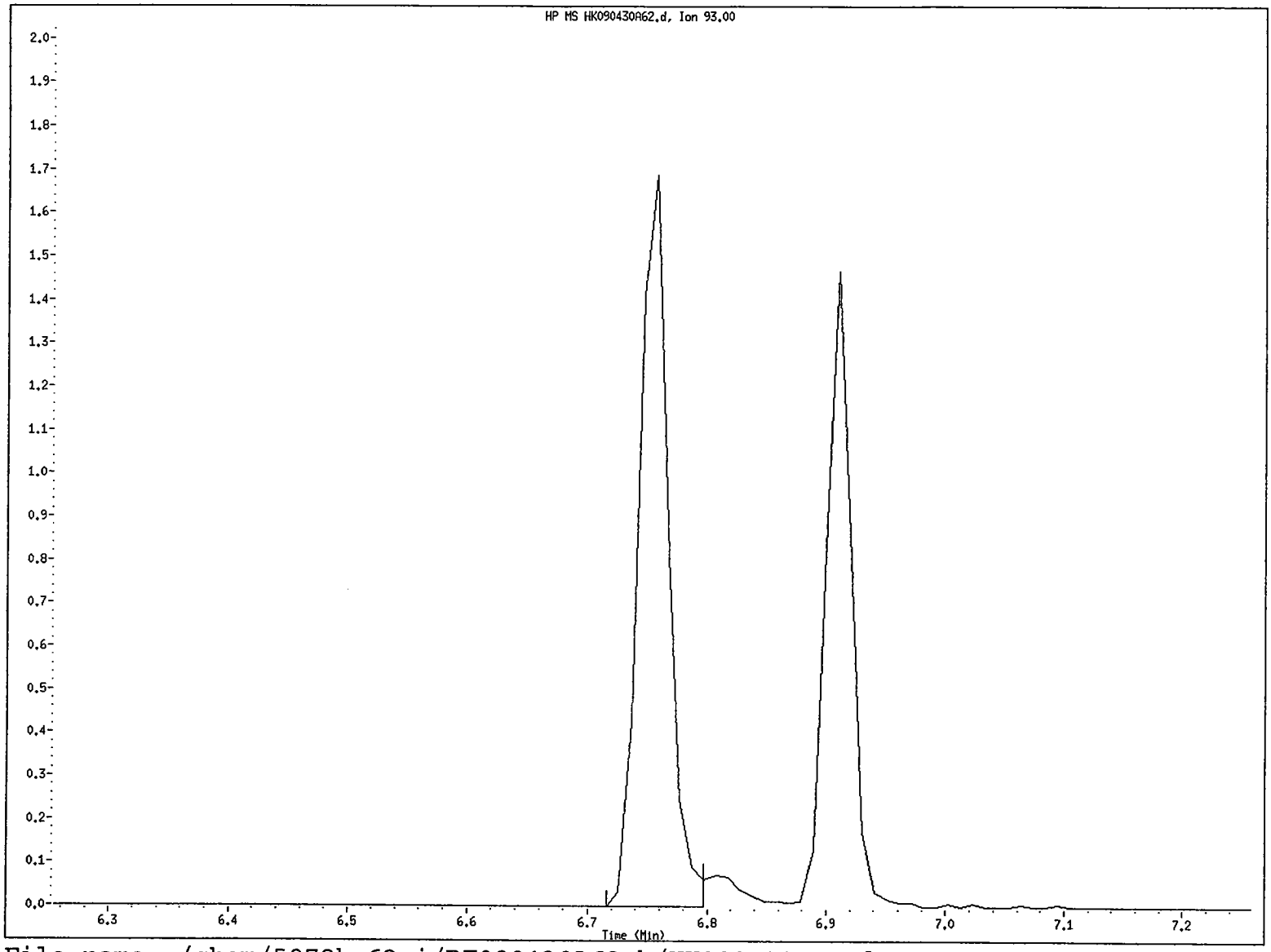
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.36
Operator ID: 2650

Aniline CAS Number 62-53-3 Area = 292938 User selected hit



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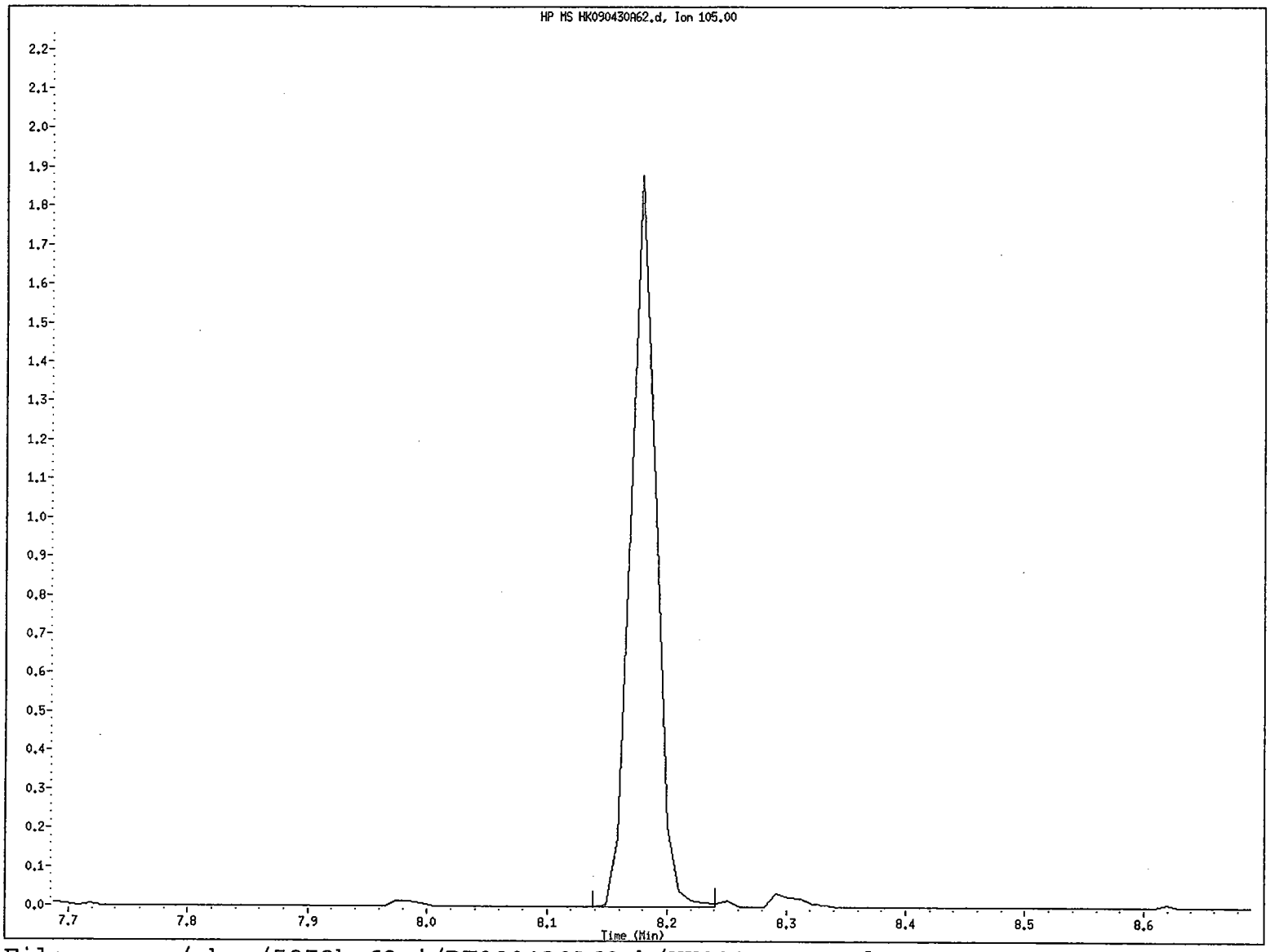
Retention Time: 6.76
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 274724 Manually integrated



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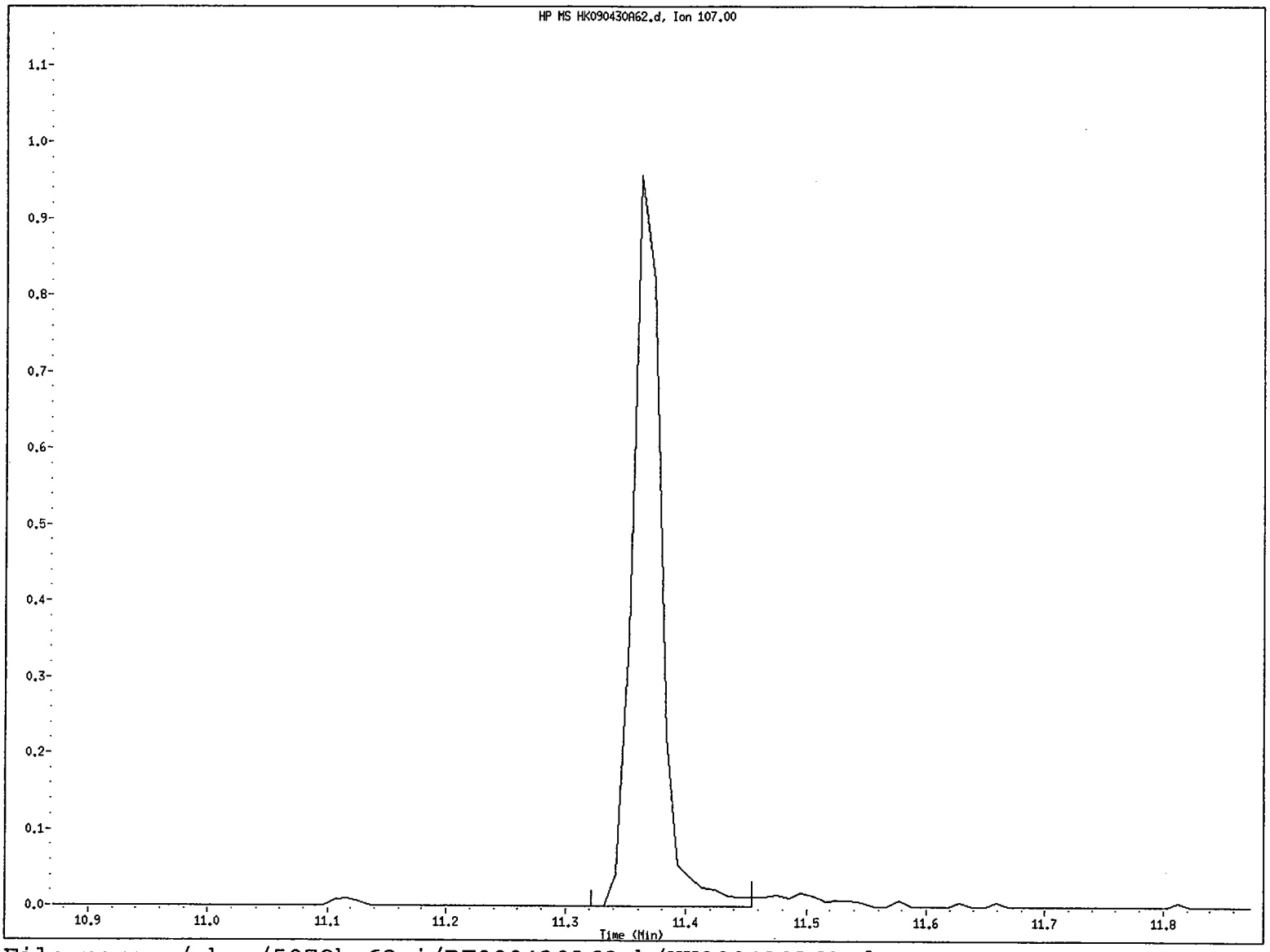
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 8.18
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 157876 Manually integrated



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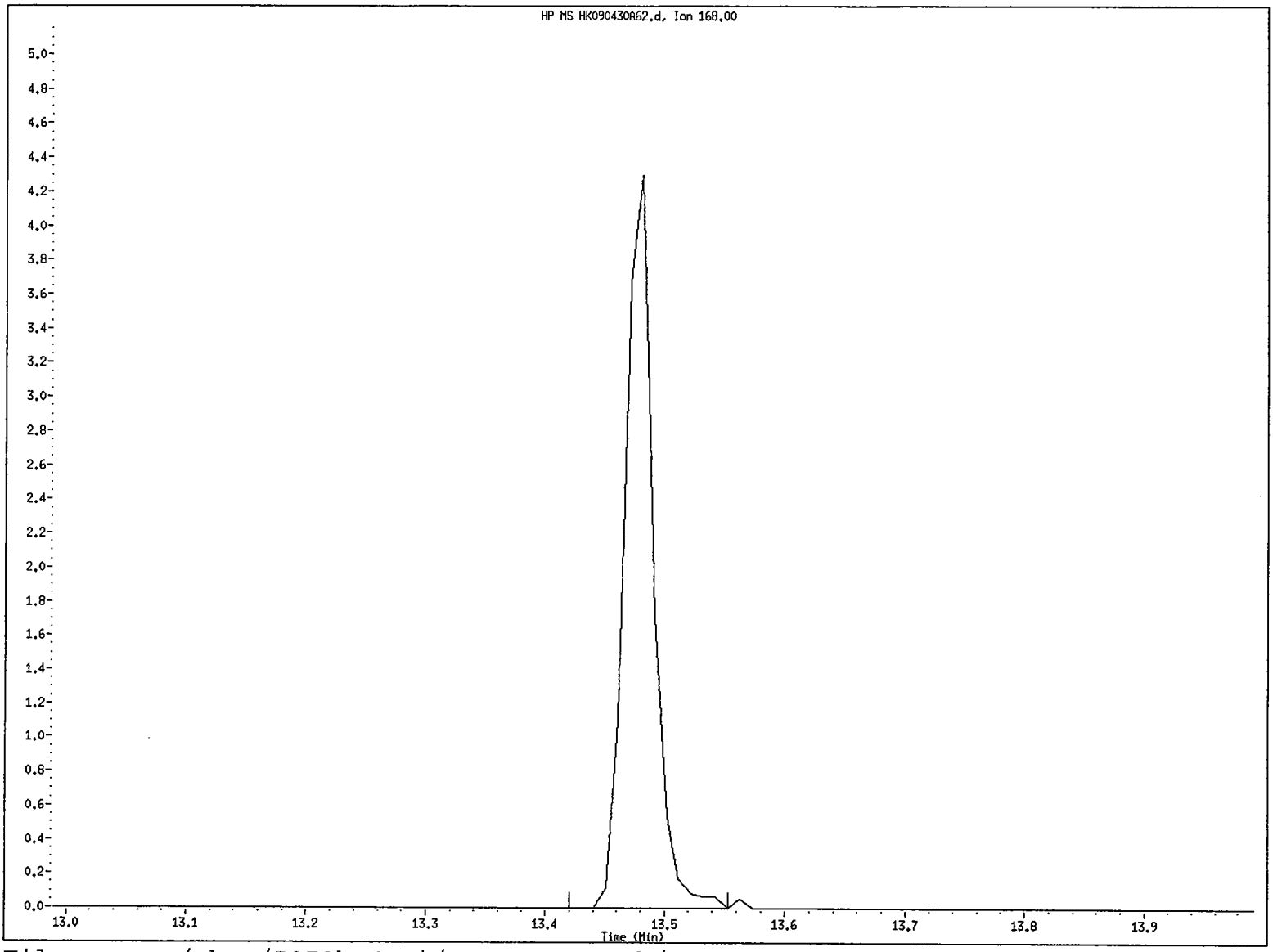
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 11.36
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 72639 Manually integrated



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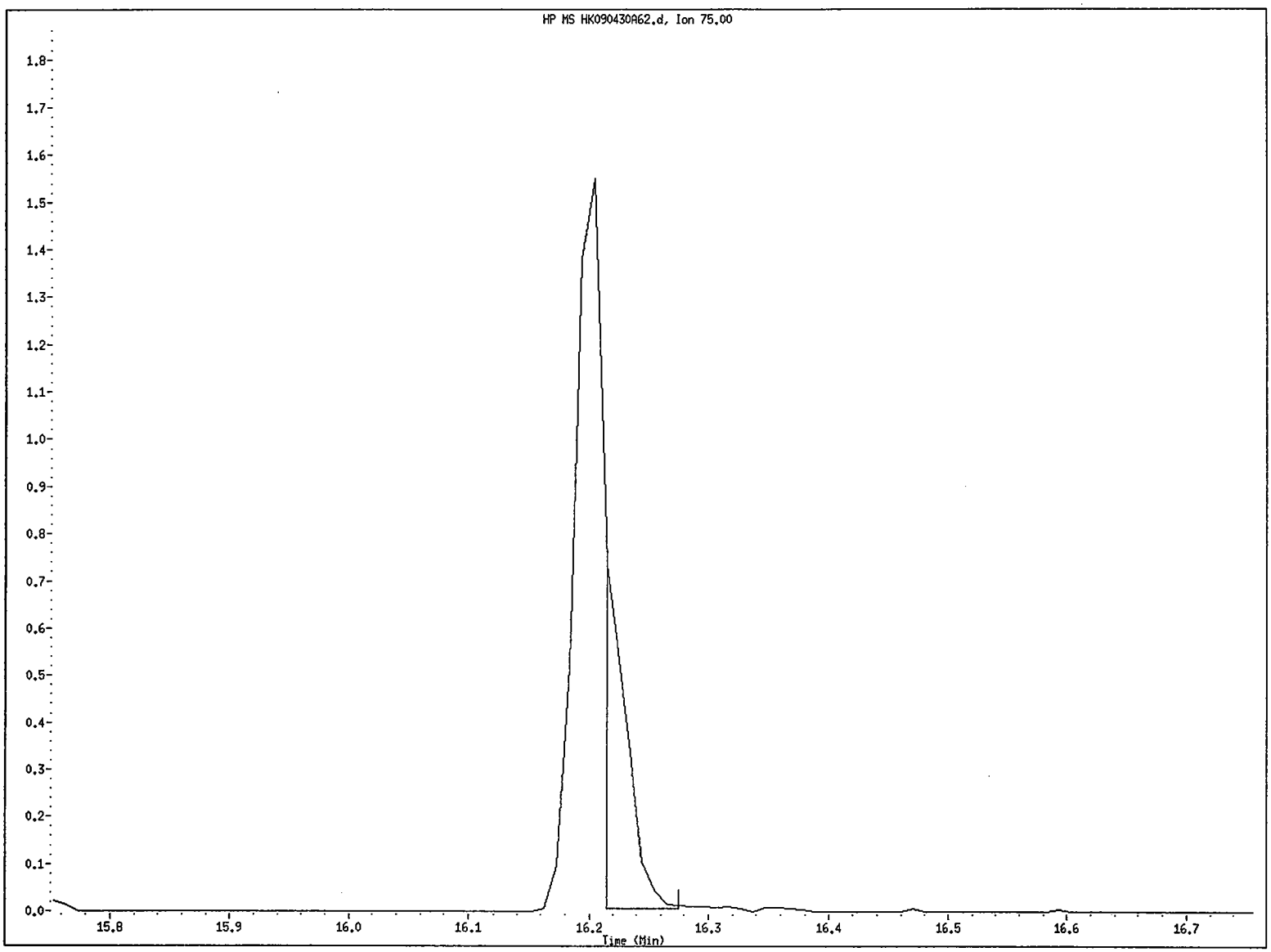
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 13.48
Operator ID: 2650

1,3,5-Trinitrobenzene CAS Number 99-35-4 Area = 107946 Manually integrated



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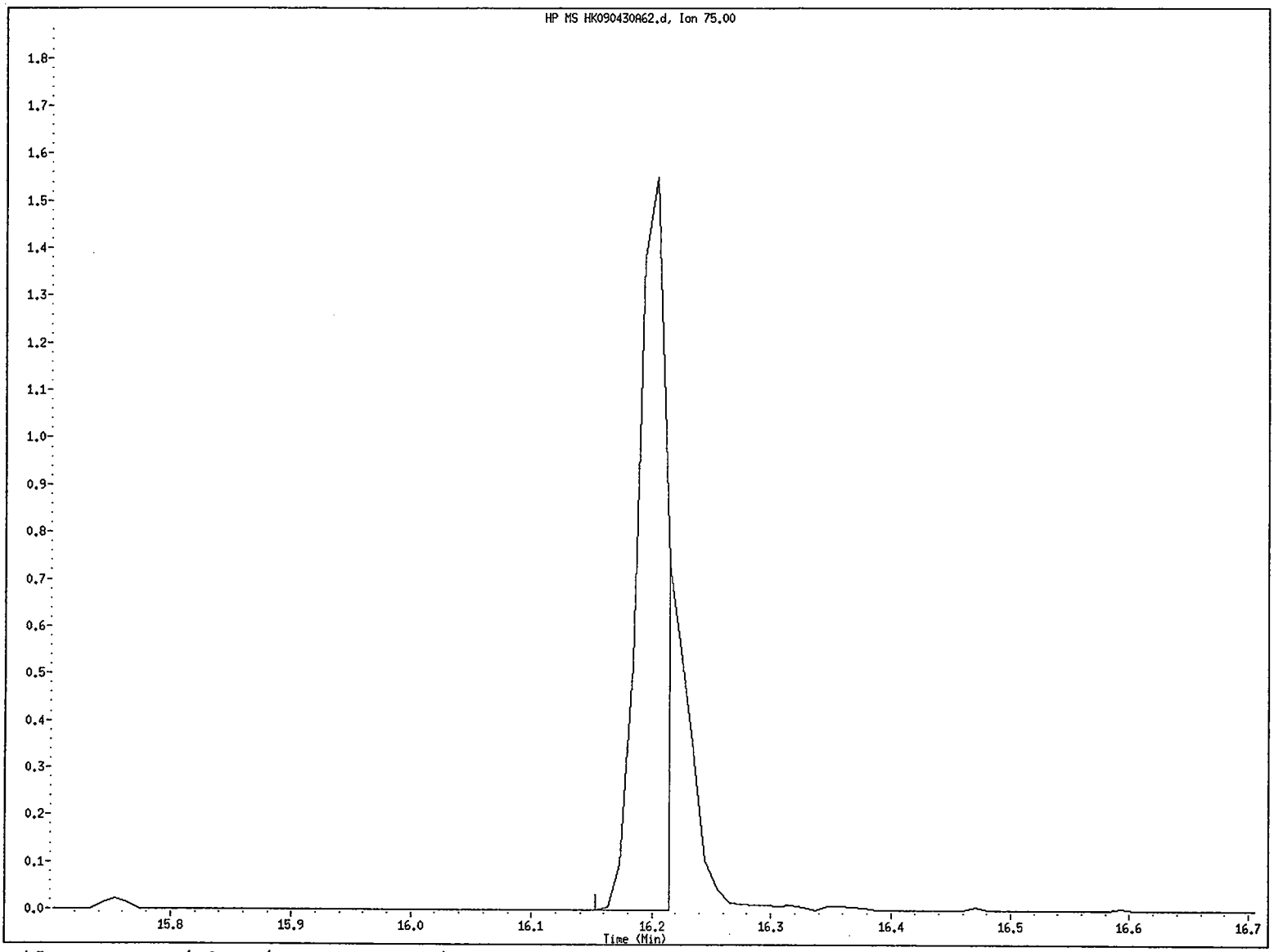
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.21
Operator ID: 2650

Phorate CAS Number 298-02-2 Area = 263076 Manually integrated



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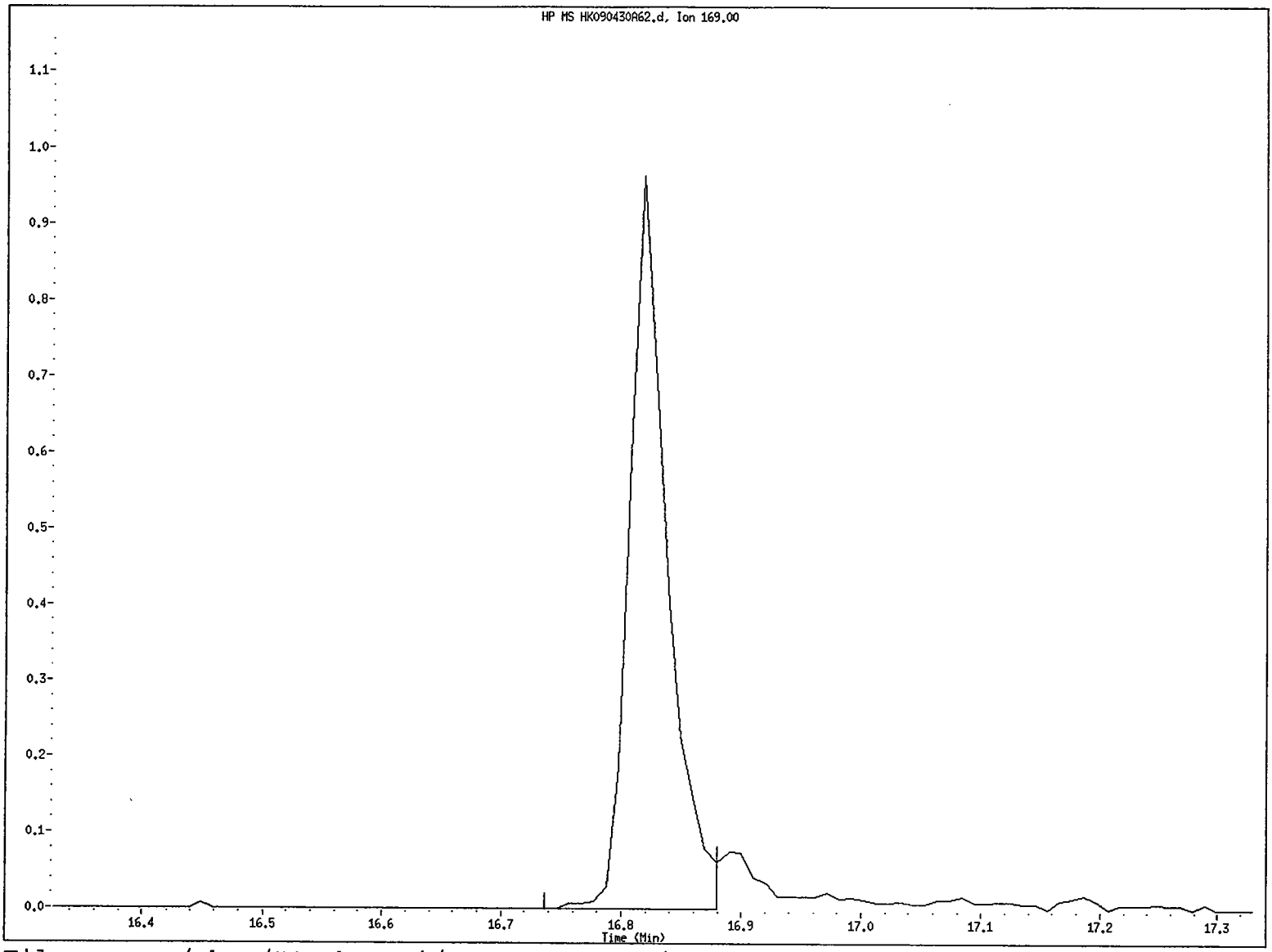
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.20
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 211283 Manually integrated



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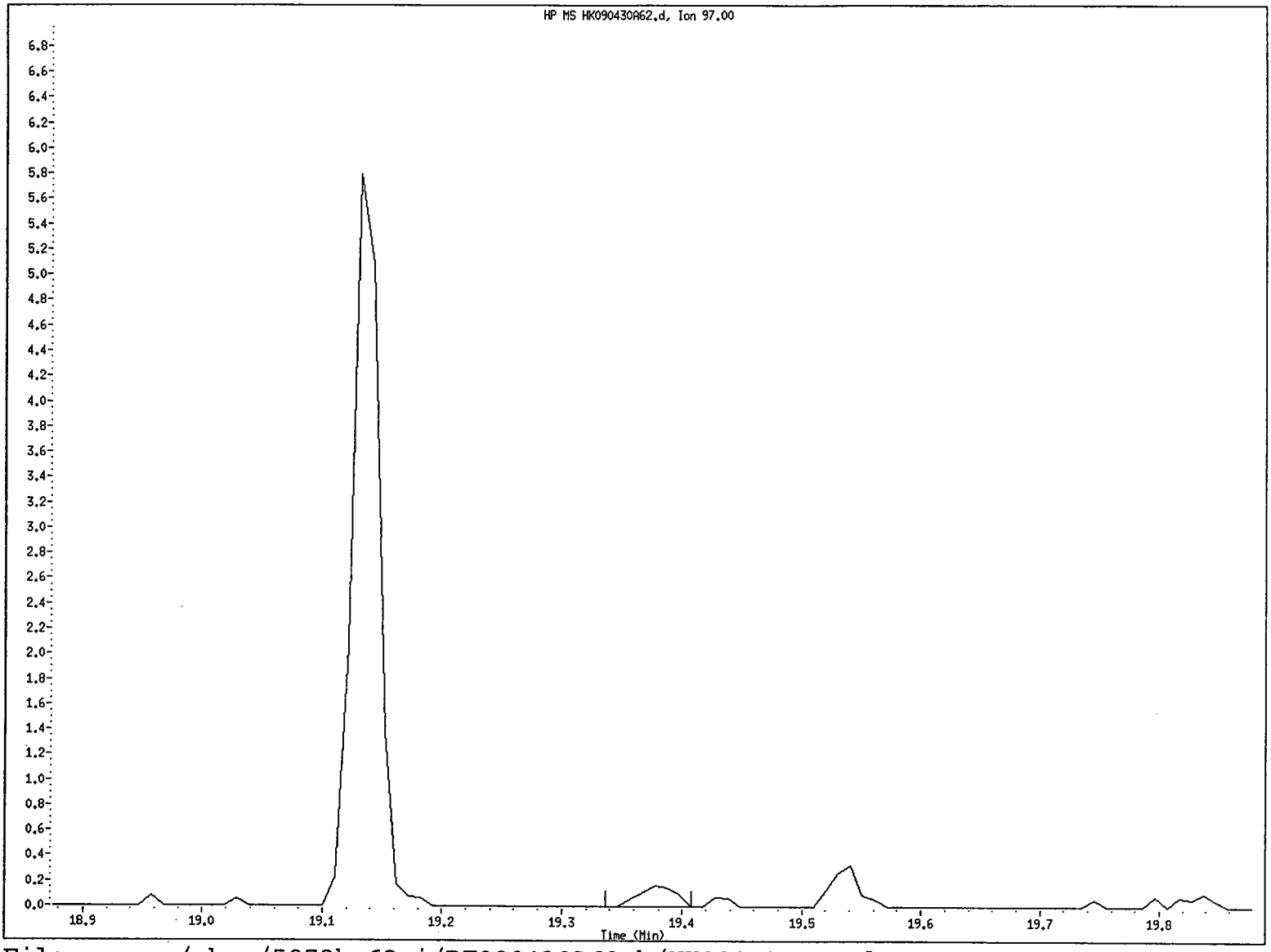
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.82
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 3531 Manually integrated



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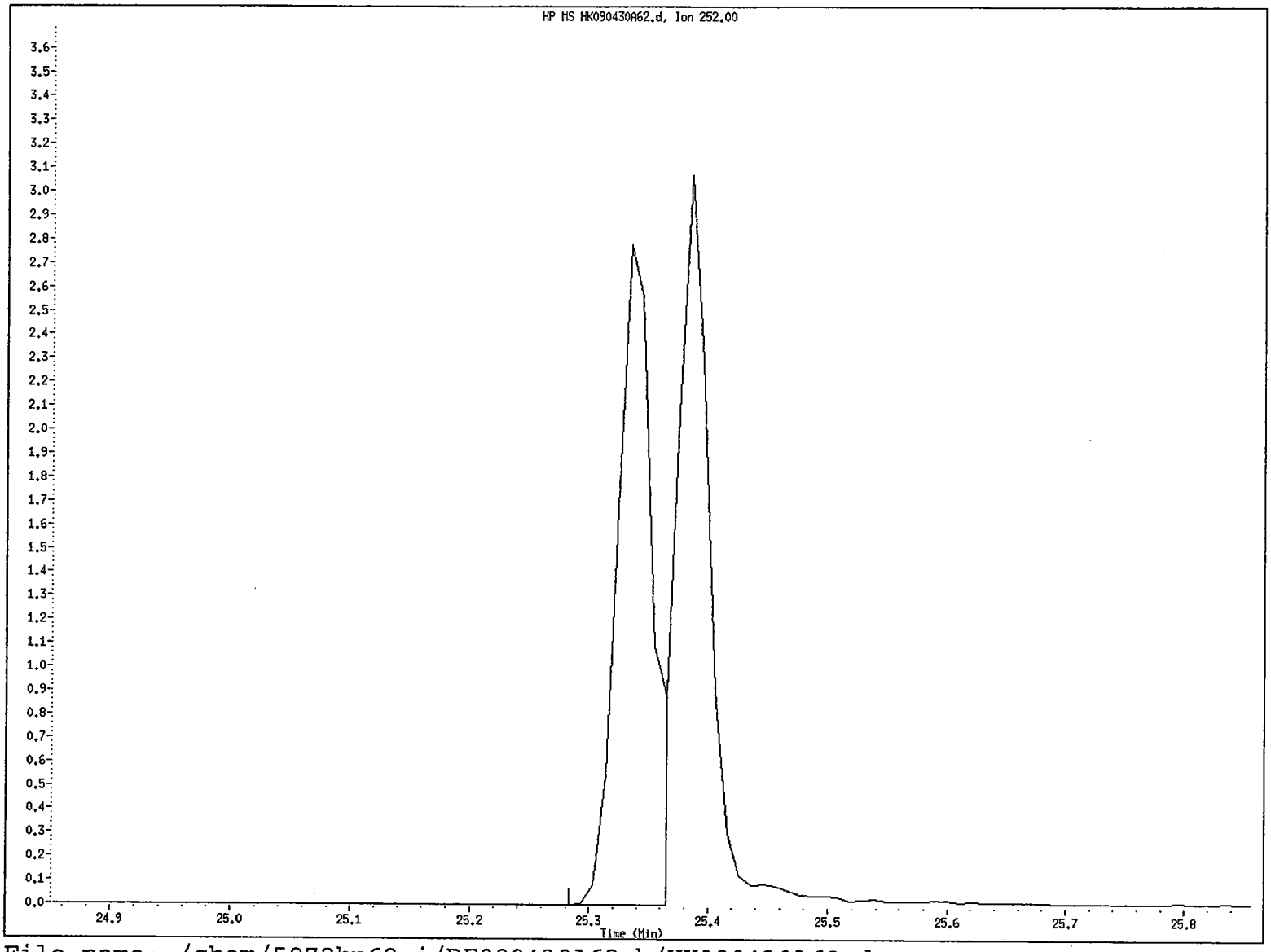
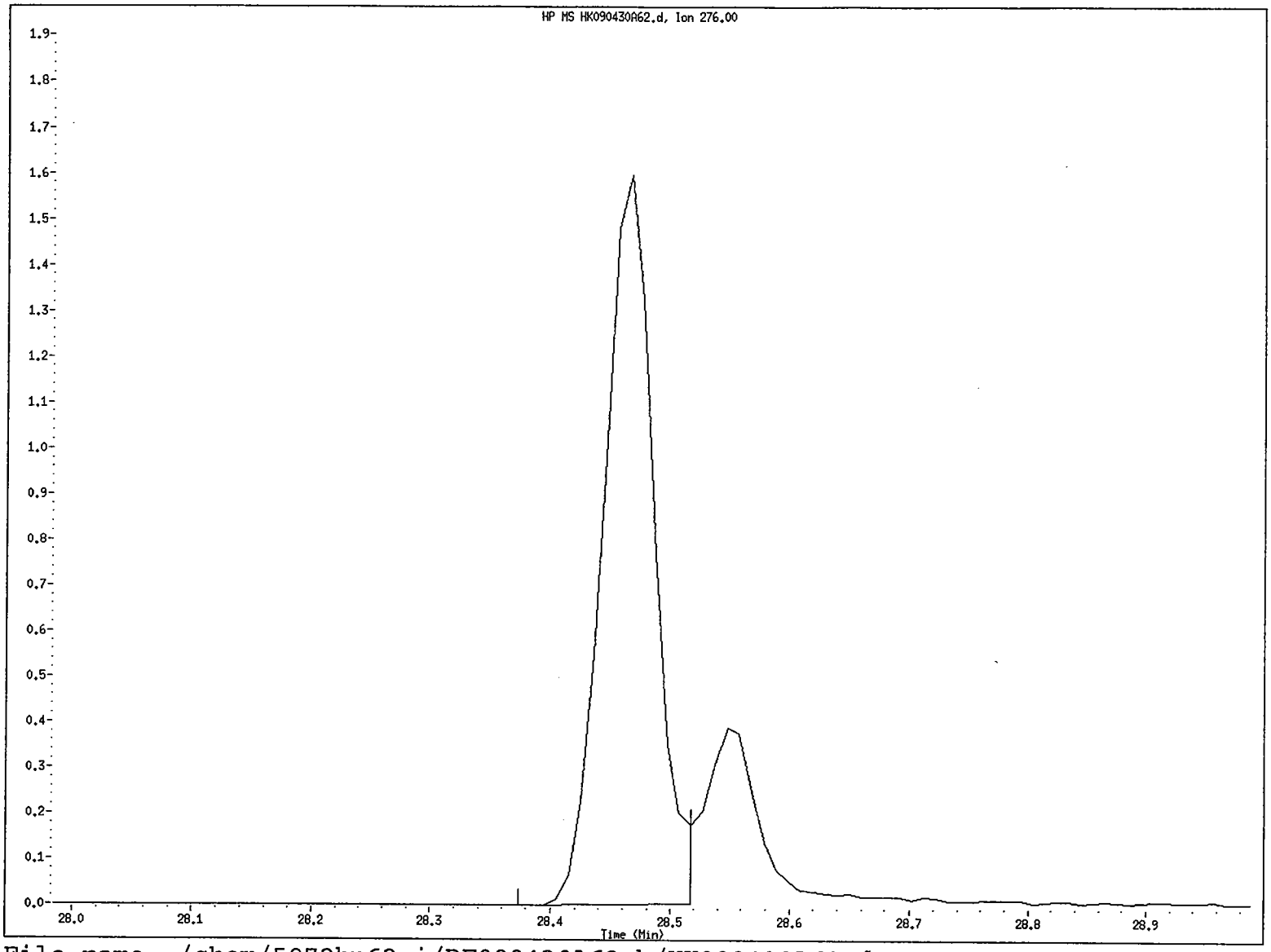
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 19.38
Operator ID: 2650

Benzo(b)fluoranthene CAS Number 205-99-2 Area = 590428 User selected hit



File name: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 25.33
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 476031 Manually integrated



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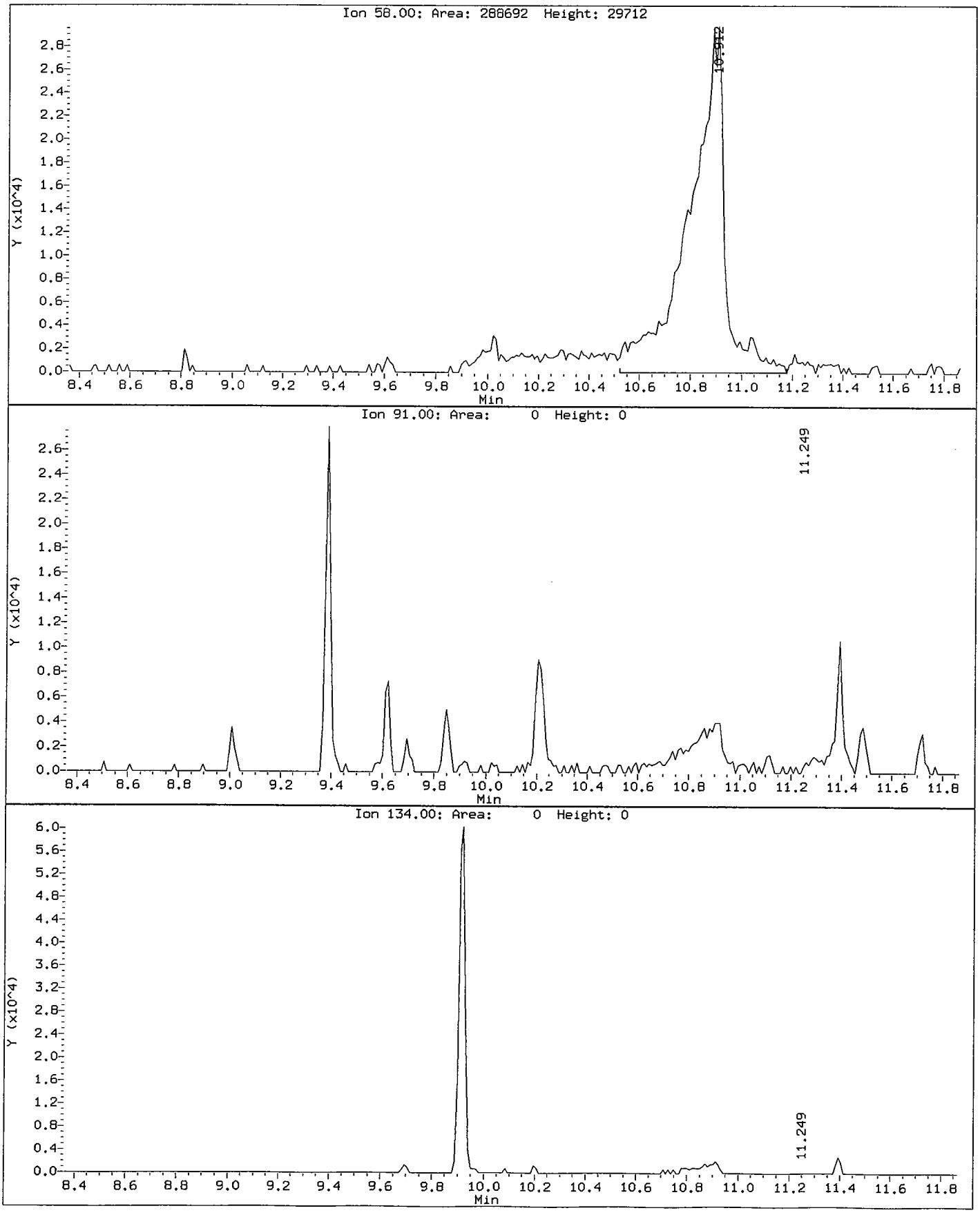
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 28.47
Operator ID: 2650

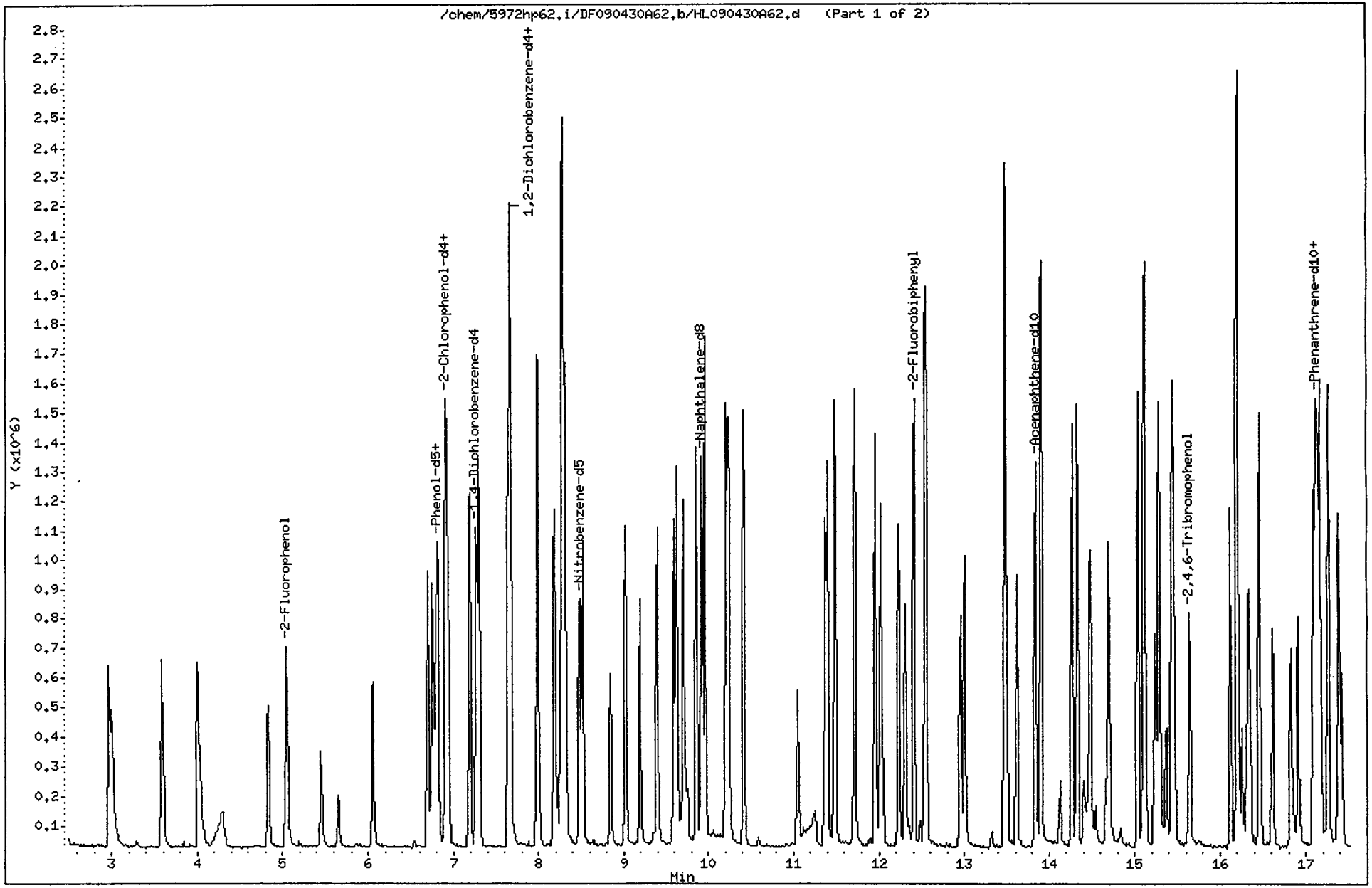
Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Injection Date: 30-APR-2009 19:09
Instrument: 5972hp62.i
Client Sample ID: SSTD020

Compound: a,a-Dimethylphenethylamine
CAS Number: 122-09-8



Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Date : 30-APR-2009 19:51
Client ID: SSTD050
Sample Info: SSTD050:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



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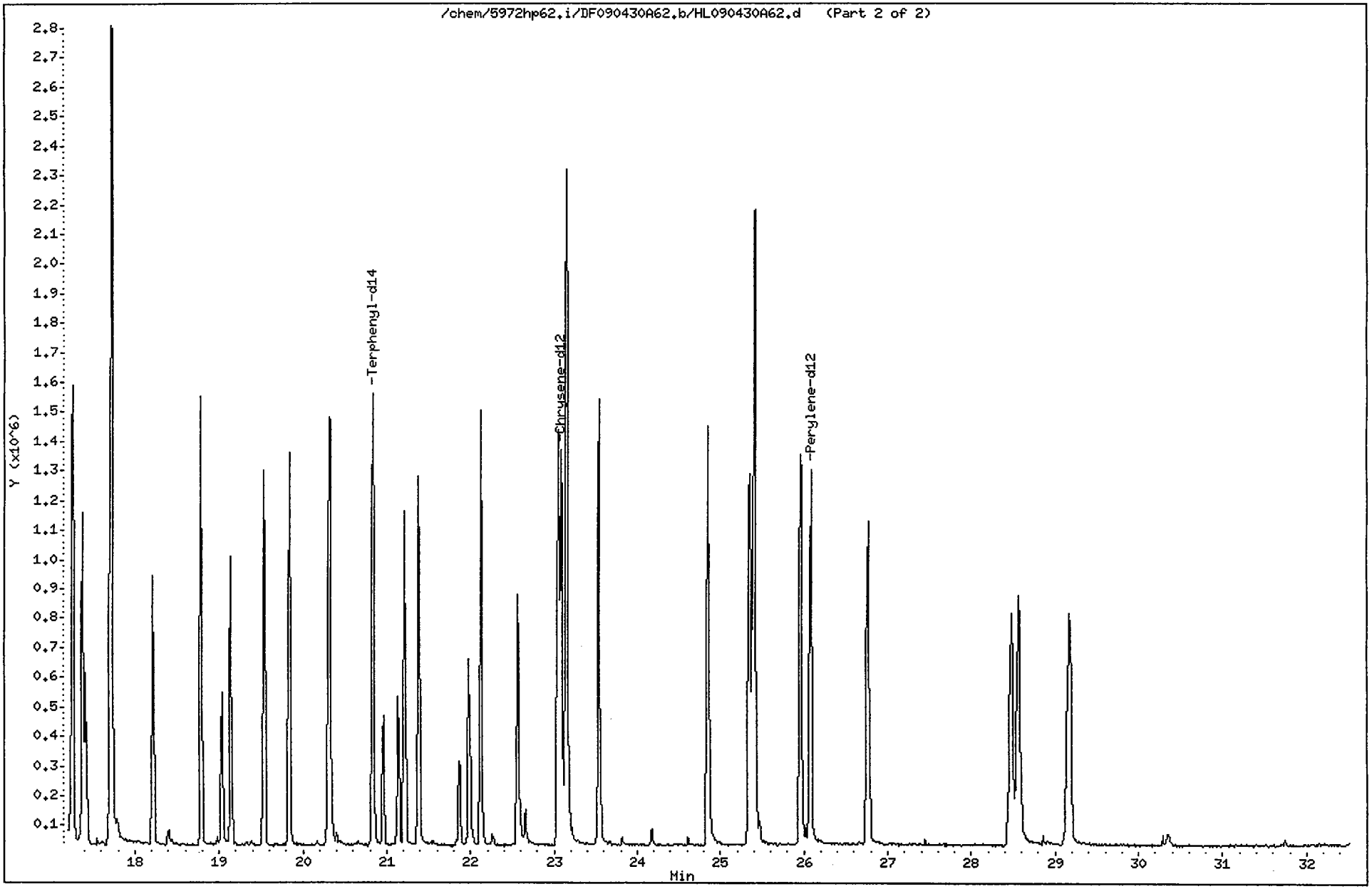
Date : 30-APR-2009 19:51
Client ID: SSTD050
Instrument: 5972hp62.i
Sample Info: SSTD050:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 30-APR-2009 19:51
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD050:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:45 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

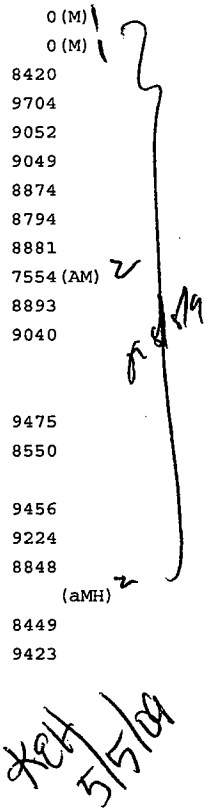
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	283516	40.0000		
*	2 Naphthalene-d8	136	9.919	9.919	(1.000)	970574	40.0000		
*	3 Acenaphthene-d10	164	13.839	13.839	(1.000)	472682	40.0000		
*	4 Phenanthrene-d10	188	17.114	17.114	(1.000)	766981	40.0000		
*	5 Chrysene-d12	240	23.092	23.092	(1.000)	911521	40.0000		
*	6 Perylene-d12	264	26.081	26.081	(1.000)	993529	40.0000		
$	7 2-Fluorophenol	112	5.047	5.047	(0.694)	366520	50.0000	52	
$	8 Phenol-d5	99	6.797	6.797	(0.935)	445829	50.0000	52	
$	9 2-Chlorophenol-d4	132	6.910	6.910	(0.951)	369166	50.0000	51	9307
$	10 1,2-Dichlorobenzene-d4	152	7.646	7.646	(1.052)	297464	50.0000	51	9546
$	11 Nitrobenzene-d5	82	8.486	8.486	(0.856)	469879	50.0000	52	
$	12 2-Fluorobiphenyl	172	12.416	12.416	(0.897)	772277	50.0000	51	
$	13 2,4,6-Tribromophenol	330	15.640	15.640	(1.130)	224191	50.0000	51	
$	14 Terphenyl-d14	244	20.840	20.840	(0.902)	868774	50.0000	50	
	15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	206405	50.0000	56	8351

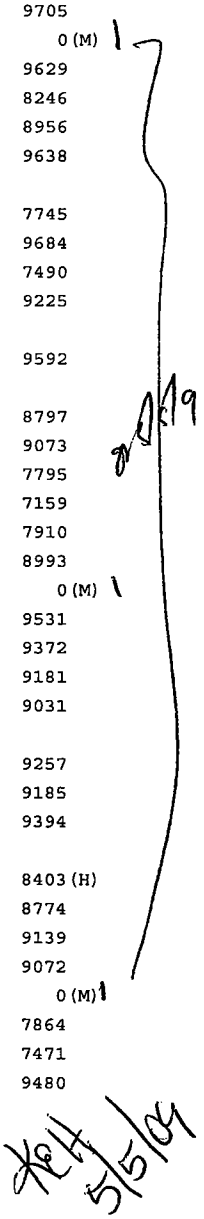
Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.408)	485818	50.0000	58	9242
17 Ethylmethacrylate	69	3.593	3.593	(0.494)	327925	50.0000	54	9071
18 2-Picoline	93	4.003	4.003	(0.551)	444623	50.0000	52	8922
19 Nitrosomethylethylamine	88	4.299	4.299	(0.592)	159723	50.0000	53	8736
20 Methyl Methanesulfonate	80	4.832	4.832	(0.665)	302891	50.0000	54	9000
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.749)	126358	50.0000	51	9278
22 Ethyl Methanesulfonate	79	6.060	6.060	(0.834)	375210	50.0000	55	9170
23 Phenol	94	6.828	6.828	(0.939)	474901	50.0000	54	
24 Aniline	93	6.756	6.756	(0.930)	602734	50.0000	52	7150
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.952)	402611	50.0000	53	
26 Pentachloroethane	167	6.705	6.705	(0.923)	209920	50.0000	53	9354
27 2-Chlorophenol	128	6.940	6.940	(0.955)	409299	50.0000	51	9205
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.990)	519157	50.0000	52	
29 1,4-Dichlorobenzene	146	7.298	7.298	(1.004)	527554	50.0000	52	
30 Benzyl Alcohol	108	7.667	7.667	(1.055)	233281	50.0000	51	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.055)	465541	50.0000	52	
32 2-Methylphenol	108	7.984	7.984	(1.099)	324997	50.0000	51	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.100)	527476	50.0000	55	8888
34 N-Nitrosopyrrolidine	100	8.209	8.209	(1.130)	97332	50.0000	63	3710(H)
35 3-Methylphenol	108	8.312	8.312	(1.144)	717075	100.000	100	
36 4-Methylphenol	108	8.312	8.312	(1.144)	717075	100.000	100	
37 3-4-Methylphenol	108	8.312	8.312	(1.144)	717075	100.000	100	9158
38 N-Nitroso-di-N-propylamine	70	8.291	8.291	(1.141)	155623	50.0000	52	8568
39 Acetophenone	105	8.189	8.189	(0.826)	547805	50.0000	50	0(M)
40 N-Nitrosomorpholine	116	8.261	8.261	(1.137)	42310	50.0000	56	0(M)
41 o-Toluidine	106	8.281	8.281	(1.139)	508080	50.0000	51	8420
42 Hexachloroethane	117	8.271	8.271	(1.138)	226283	50.0000	53	9704
43 Nitrobenzene	77	8.517	8.517	(0.859)	454365	50.0000	52	9052
44 N-Nitrosopiperidine	114	8.844	8.844	(0.892)	166143	50.0000	49	9049
45 Isophorone	82	9.018	9.018	(0.909)	761370	50.0000	52	8874
46 2-Nitrophenol	139	9.192	9.192	(0.927)	233324	50.0000	49	8794
47 2,4-Dimethylphenol	122	9.397	9.397	(0.947)	286934	50.0000	48	8881
48 Benzoic Acid	122	9.755	9.755	(0.983)	182597	250.000	250	7554(AM)
49 o,o,o-Triethylphosphorothioat	198	9.632	9.632	(0.971)	175136	50.0000	50	8893
50 Bis(2-chloroethoxy)methane	93	9.591	9.591	(0.967)	551973	50.0000	52	9040
51 2,4-Dichlorophenol	162	9.704	9.704	(0.978)	352964	50.0000	51	
52 1,2,4-Trichlorobenzene	180	9.857	9.857	(0.994)	432643	50.0000	50	
53 Naphthalene	128	9.960	9.960	(1.004)	1134987	50.0000	52	9475
54 4-Chloroaniline	127	10.216	10.216	(1.030)	462622	50.0000	51	8550
55 2,6-Dichlorophenol	162	10.205	10.205	(1.029)	334653	50.0000	50	
56 Hexachloropropene	213	10.236	10.236	(1.032)	326370	50.0000	50	9456
57 Hexachlorobutadiene	225	10.410	10.410	(1.050)	274542	50.0000	50	9224
58 N-Nitroso-di-n-butylamine	84	11.055	11.055	(1.115)	146059	50.0000	51	8848
59 p-Phenylenediamine	108	11.116	11.116	(0.803)	1391	50.0000	11	(aMH)
60 4-Chloro-3-methylphenol	107	11.372	11.372	(1.147)	327427	50.0000	52	8449
61 Safrole	162	11.403	11.403	(1.150)	286766	50.0000	50	9423
62 2-Methylnaphthalene	141	11.485	11.485	(1.158)	592529	50.0000	52	



Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.720	11.720	(1.182)	697054	50.0000	51	
64 Hexachlorocyclopentadiene	237	12.027	12.027	(0.869)	331884	50.0000	52	9517
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.956	(0.864)	446726	50.0000	52	9367
66 2,4,6-Trichlorophenol	196	12.232	12.232	(0.884)	249212	50.0000	51	
67 2,4,5-Trichlorophenol	196	12.314	12.314	(0.890)	260310	50.0000	48	
68 Isosafrole	162	12.048	12.048	(0.871)	48954	50.0000	52	
69 2-Chloronaphthalene	162	12.549	12.549	(0.907)	963960	50.0000	52	
70 2-Nitroaniline	65	12.959	12.959	(0.936)	223962	50.0000	53	8724
71 1,4-Napthoquinone	158	13.010	13.010	(0.940)	304978	50.0000	53	9093
72 Dimethylphthalate	163	13.501	13.501	(0.976)	730023	50.0000	51	9705
73 1,3-Dinitrobenzene	168	13.491	13.491	(0.975)	138402	50.0000	51	0 (M)
74 2,6-Dinitrotoluene	165	13.624	13.624	(0.984)	209392	50.0000	52	9629
75 Acenaphthylene	152	13.481	13.481	(0.974)	1025793	50.0000	51	8246
76 3-Nitroaniline	138	13.900	13.900	(1.004)	175571	50.0000	52	8956
77 Acenaphthene	154	13.911	13.911	(1.005)	588398	50.0000	52	9638
78 2,4-Dinitrophenol	184	14.126	14.126	(1.021)	56445	50.0000	40	
79 4-Nitrophenol	139	14.402	14.402	(1.041)	126007	50.0000	47	7745
80 Pentachlorobenzene	250	14.330	14.330	(1.036)	434692	50.0000	52	9684
81 2,4-Dinitrotoluene	165	14.484	14.484	(1.047)	248758	50.0000	52	7490
82 Dibenzofuran	168	14.269	14.269	(1.031)	990046	50.0000	53	9225
83 1-Naphthylamine	143	14.494	14.494	(1.047)	191570	50.0000	50	
84 2,3,4,6-Tetrachlorophenol	232	14.699	14.699	(1.062)	218949	50.0000	51	9592
85 2-Naphthylamine	143	14.668	14.668	(1.060)	173379	50.0000	42	
86 Diethylphthalate	149	15.108	15.108	(1.092)	765445	50.0000	50	8797
87 Zinophos	97	15.282	15.282	(1.104)	200735	50.0000	50	9073
88 4-Chlorophenyl-phenylether	204	15.118	15.118	(1.092)	385914	50.0000	52	7795
89 5-Nitro-o-toluidine	152	15.241	15.241	(1.101)	216277	50.0000	50	7159
90 Fluorene	166	15.037	15.037	(1.087)	751400	50.0000	52	7910
91 4-Nitroaniline	138	15.303	15.303	(1.106)	189976	50.0000	51	8993
92 4,6-Dinitro-2-methylphenol	198	15.374	15.374	(0.898)	104878	50.0000	43	0 (M)
93 N-Nitrosodiphenylamine	169	15.436	15.436	(0.902)	565107	50.0000	51	9531
95 1,2-Diphenylhydrazine	77	15.456	15.456	(1.117)	959775	50.0000	55	9372
96 Sulfotep	322	16.122	16.122	(1.165)	145019	50.0000	50	9181
97 1,3,5-Trinitrobenzene	75	16.255	16.255	(0.950)	179676	50.0000	41	9031
98 Diallate (trans isomer)	86	16.193	16.193	(0.946)	252070	25.0000	26	
99 Diallate (trans) part of total	86	16.193	16.193	(0.946)	252070	25.0000	26	9257
100 Phorate	75	16.203	16.203	(0.947)	510003	50.0000	53	9185
101 Phenacetin	108	16.337	16.337	(0.955)	397197	50.0000	52	9394
102 Diallate (cis isomer)	86	16.357	16.357	(0.956)	80804	25.0000	26	
103 Diallate (cis) part of total	86	16.357	16.357	(0.956)	80804	25.0000	26	8403 (H)
104 4-Bromophenyl-phenylether	248	16.193	16.193	(0.946)	249721	50.0000	50	8774
105 Hexachlorobenzene	284	16.459	16.459	(0.962)	397581	50.0000	51	9139
106 Dimethoate	87	16.613	16.613	(0.971)	264006	50.0000	54	9072
107 4-Aminobiphenyl	169	16.828	16.828	(0.983)	485604	50.0000	47	0 (M)
108 Pentachlorophenol	266	16.910	16.910	(0.988)	174315	50.0000	47	7864
109 Pentachloronitrobenzene	237	17.094	17.094	(0.999)	118547	50.0000	48	7471
110 Pronamide	173	17.135	17.135	(1.001)	351015	50.0000	51	9480



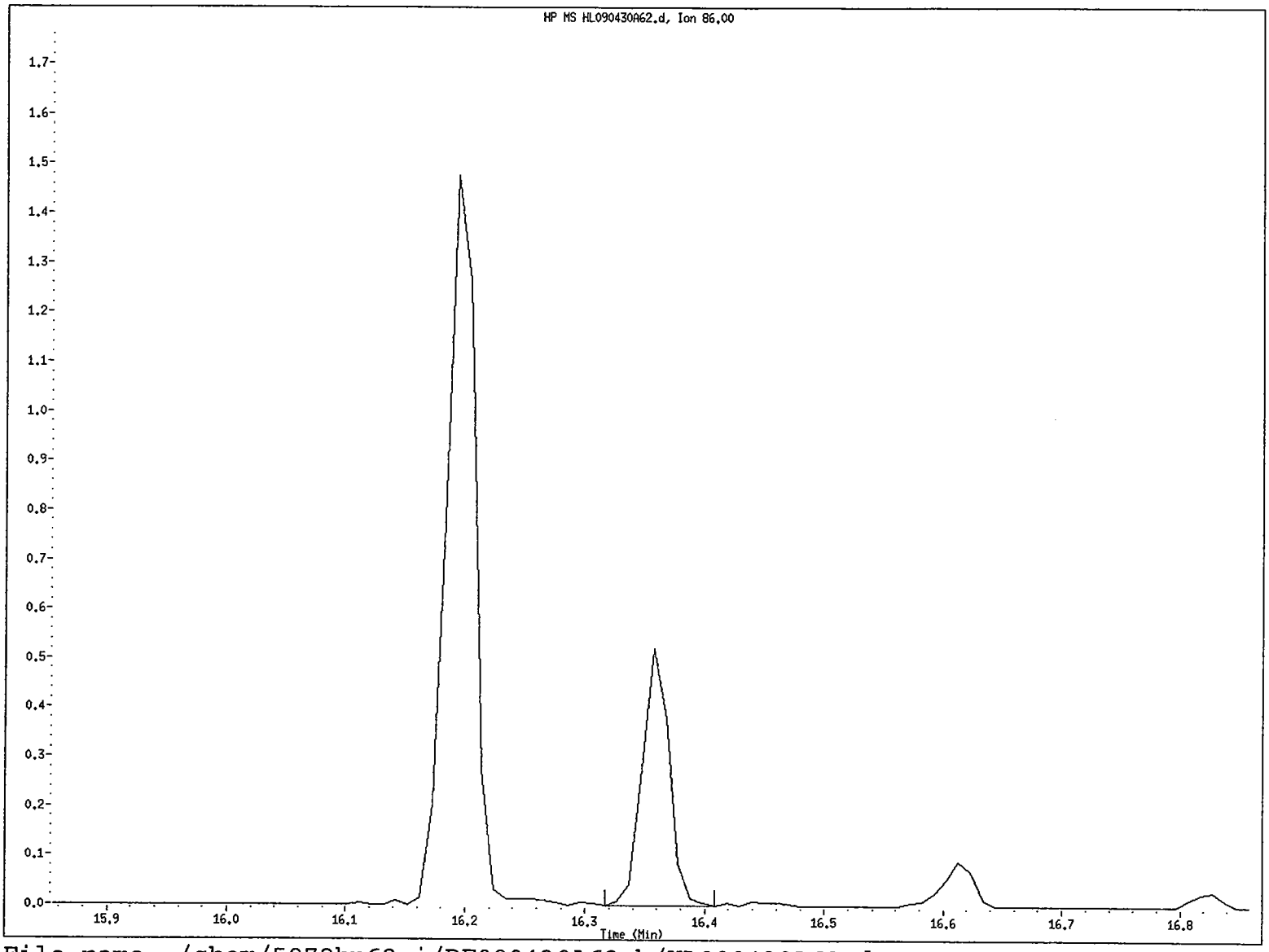
Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
111 Disulfoton	88	17.381	17.381	(1.016)	388928	50.0000	52	9277
112 Phenanthrene	178	17.166	17.166	(1.003)	1051858	50.0000	52	
113 Anthracene	178	17.268	17.268	(1.009)	1098231	50.0000	52	
114 Carbazole	167	17.739	17.739	(1.036)	2650926	50.0000	53	9599
115 Methyl Parathion	109	18.220	18.220	(1.065)	258043	50.0000	55	9202
116 Di-n-butylphthalate	149	18.793	18.793	(1.098)	1351119	50.0000	50	9591
117 Parathion	109	19.141	19.141	(1.118)	169573	50.0000	51	8174
118 4-Nitroquinoline-1-oxide	190	19.039	19.039	(1.112)	99282	50.0000	50	9274
119 Methapyrilene	97	19.377	19.377	(1.132)	7390	50.0000	51	0(M)
120 Isodrin	193	19.540	19.540	(1.142)	150293	50.0000	50	9424
121 Fluoranthene	202	19.847	19.847	(1.160)	1076189	50.0000	51	9571
122 Benzidine	184	20.298	20.298	(0.879)	233963	50.0000	48	8644(a)
123 Pyrene	202	20.328	20.328	(0.880)	1141246	50.0000	50	9696
124 p-Dimethylaminoazobenzene	225	21.219	21.219	(0.919)	227570	50.0000	52	9037
125 Chlorobenzilate	251	21.383	21.383	(0.926)	362060	50.0000	48	9467
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.130	22.130	(0.958)	609556	50.0000	50	9475
129 3,3'-Dimethylbenzidine	212	21.987	21.987	(0.952)	393459	50.0000	48	9337
130 2-Acetylaminofluorene	181	22.570	22.570	(0.977)	389226	50.0000	48	9118
131 3,3'-Dichlorobenzidine	252	23.164	23.164	(1.003)	427946	50.0000	52	8275
132 bis(2-ethylhexyl)Phthalate	149	23.542	23.542	(1.020)	817202	50.0000	50	9224
133 Benzo(a)anthracene	228	23.061	23.061	(0.999)	1119535	50.0000	52	
134 Chrysene	228	23.153	23.153	(1.003)	1010927	50.0000	52	
135 Di-n-octylphthalate	149	24.853	24.853	(0.953)	1426387	50.0000	51	
136 7,12-Dimethylbenz(a)anthracene	256	25.416	25.416	(0.974)	513077	50.0000	52	8528
137 Benzo(b)fluoranthene	252	25.354	25.354	(0.972)	1197387	50.0000	48	(H)
138 Benzo(k)fluoranthene	252	25.395	25.395	(0.974)	1182188	50.0000	54	
139 Benzo(a)pyrene	252	25.968	25.968	(0.996)	1097577	50.0000	51	
140 3-Methylcholanthrene	268	26.767	26.767	(1.026)	607030	50.0000	51	9616
141 Indeno(1,2,3-c,d)pyrene	276	28.486	28.486	(1.092)	982350	50.0000	49	0(M)
142 Dibenzo(a,h)anthracene	278	28.568	28.568	(1.095)	1022393	50.0000	52	7634
143 Benzo(g,h,i)perylene	276	29.172	29.172	(1.119)	1080711	50.0000	50	9207
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				332874	50.0000	52	0
201 a,a-Dimethylphenethylamine	58	10.113	10.113	(1.020)	170257	50.0000	20	7179(aM)
202 Aramite	185	21.137	21.137	(0.915)	66235	50.0000	48	9008(H)

QC Flag Legend

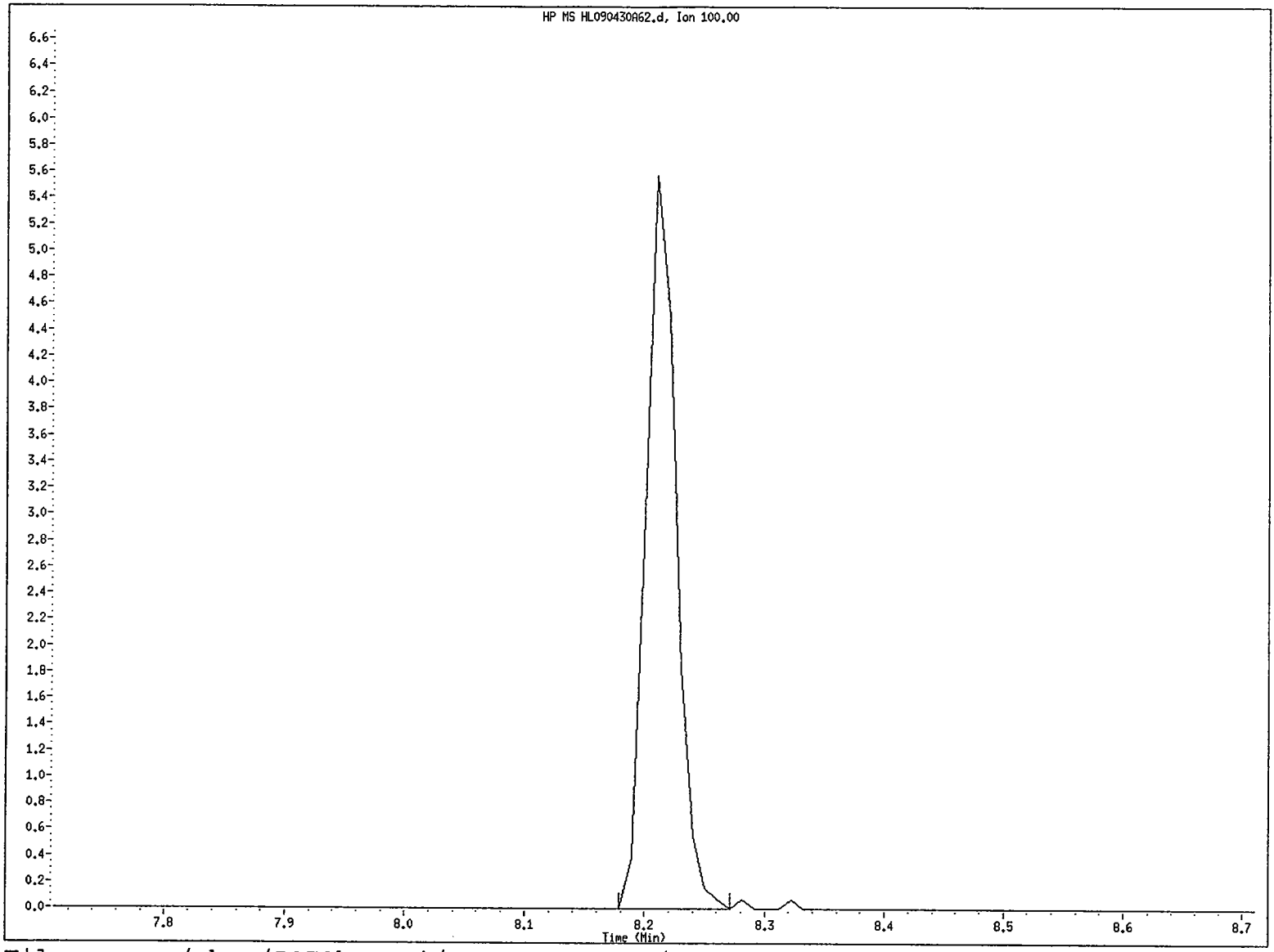
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 80804 User selected



File name: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 16.36
Operator ID: 2650

N-Nitrosopyrrolidine CAS Number 930-55-2 Area = 97332 User selected hit



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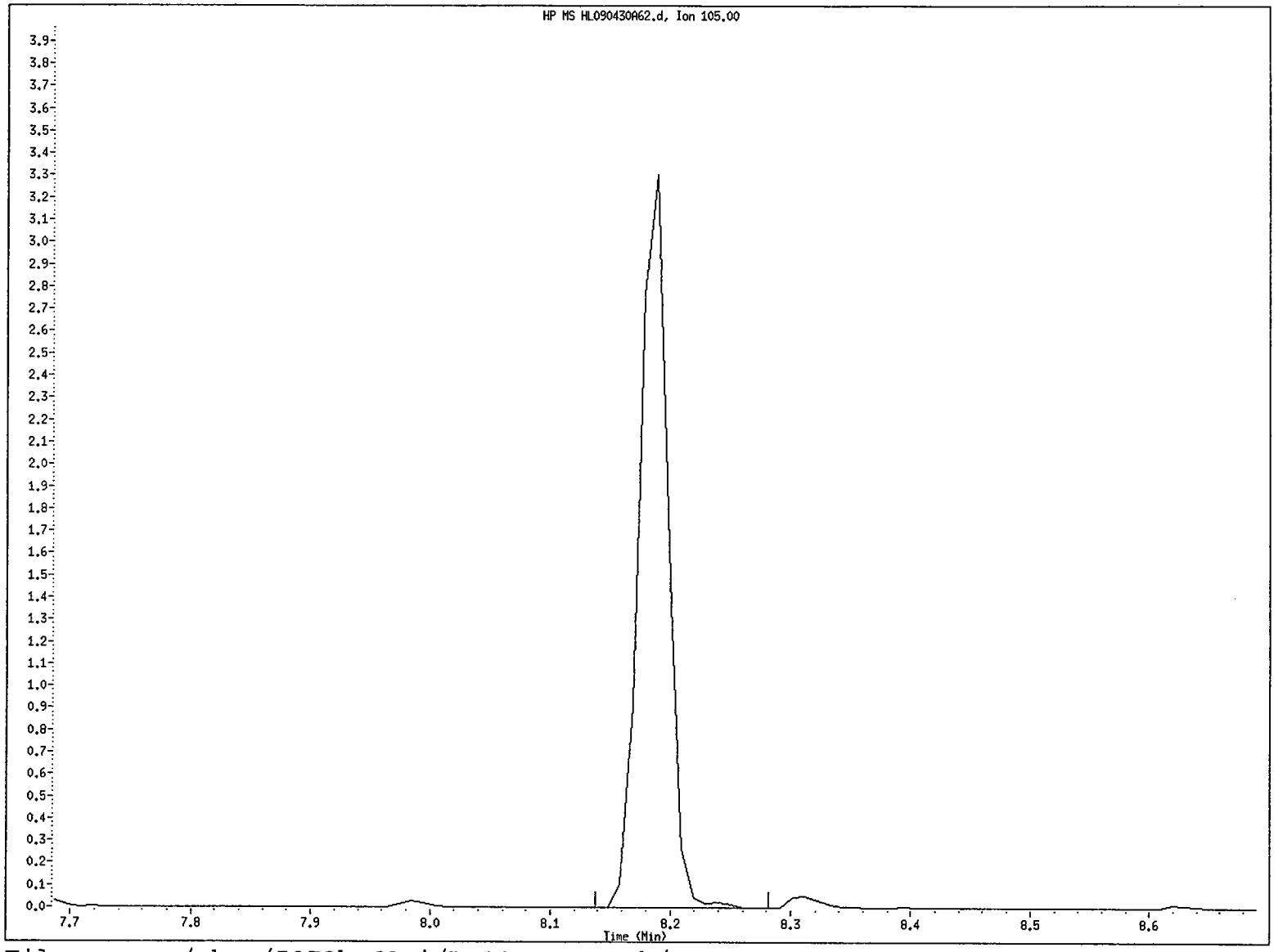
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 8.21
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 547805 Manually integrated



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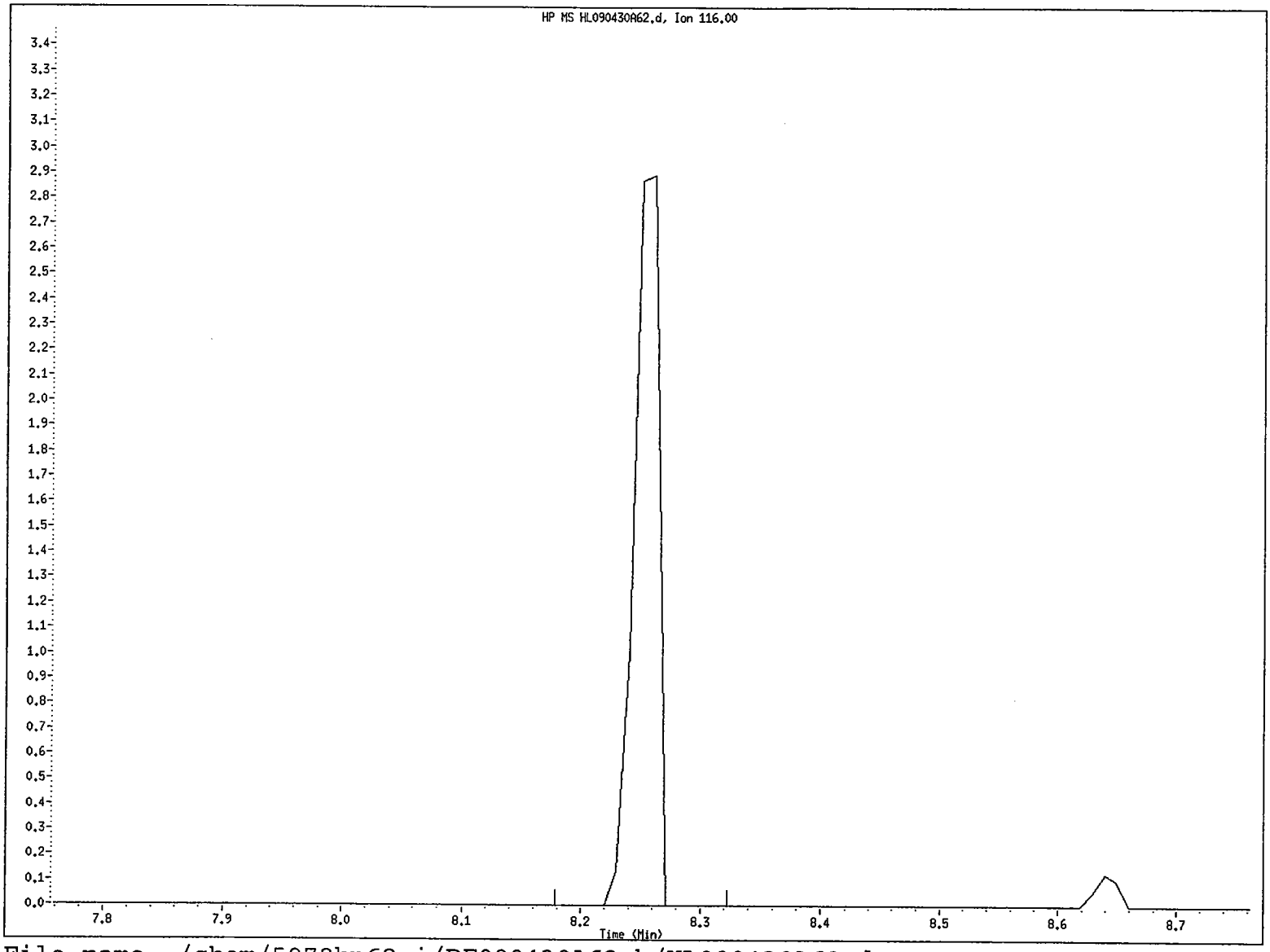
Retention Time: 8.19
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 42310 Manually integrated



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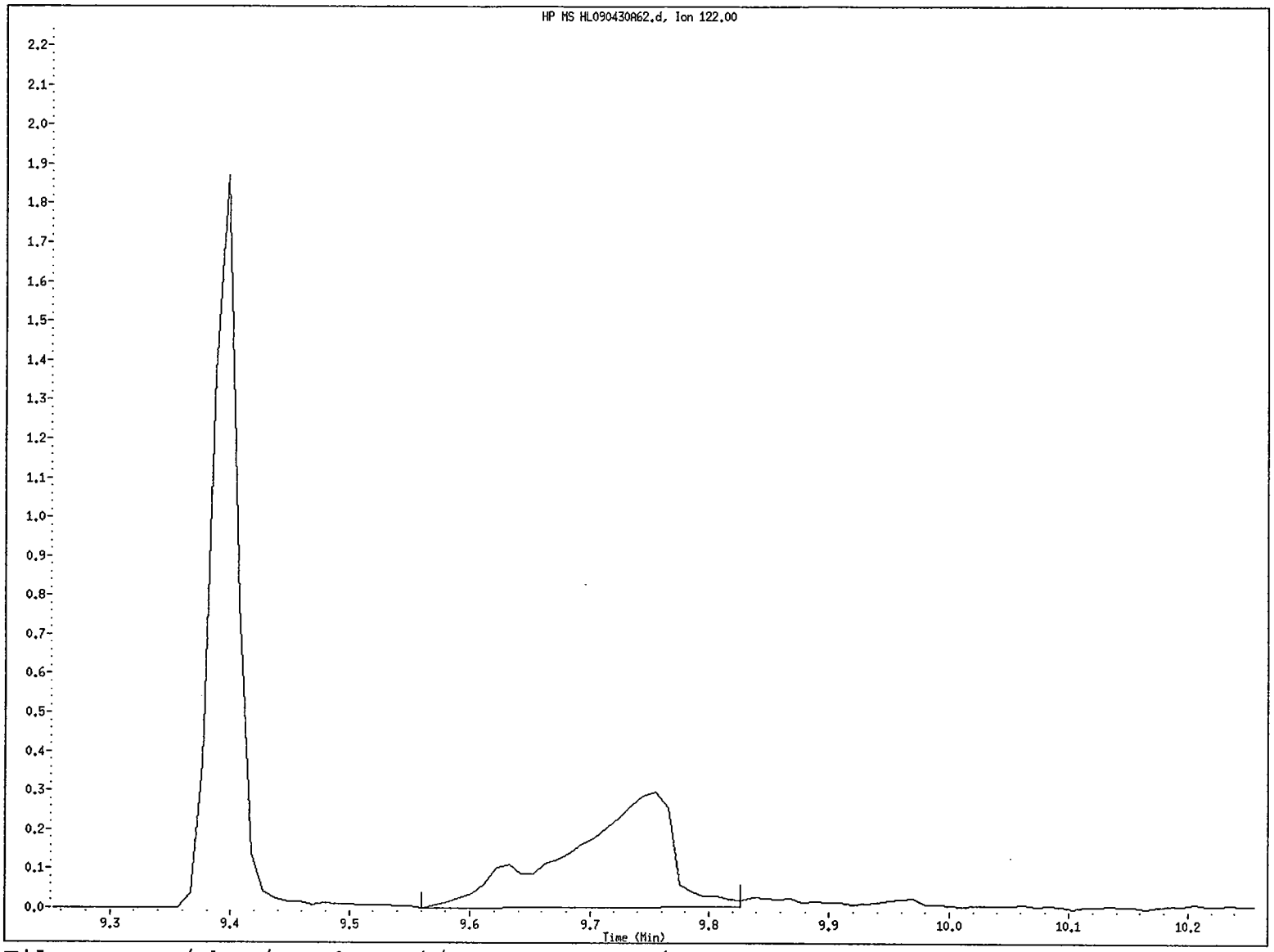
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 8.26
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 182597 Manually integrated



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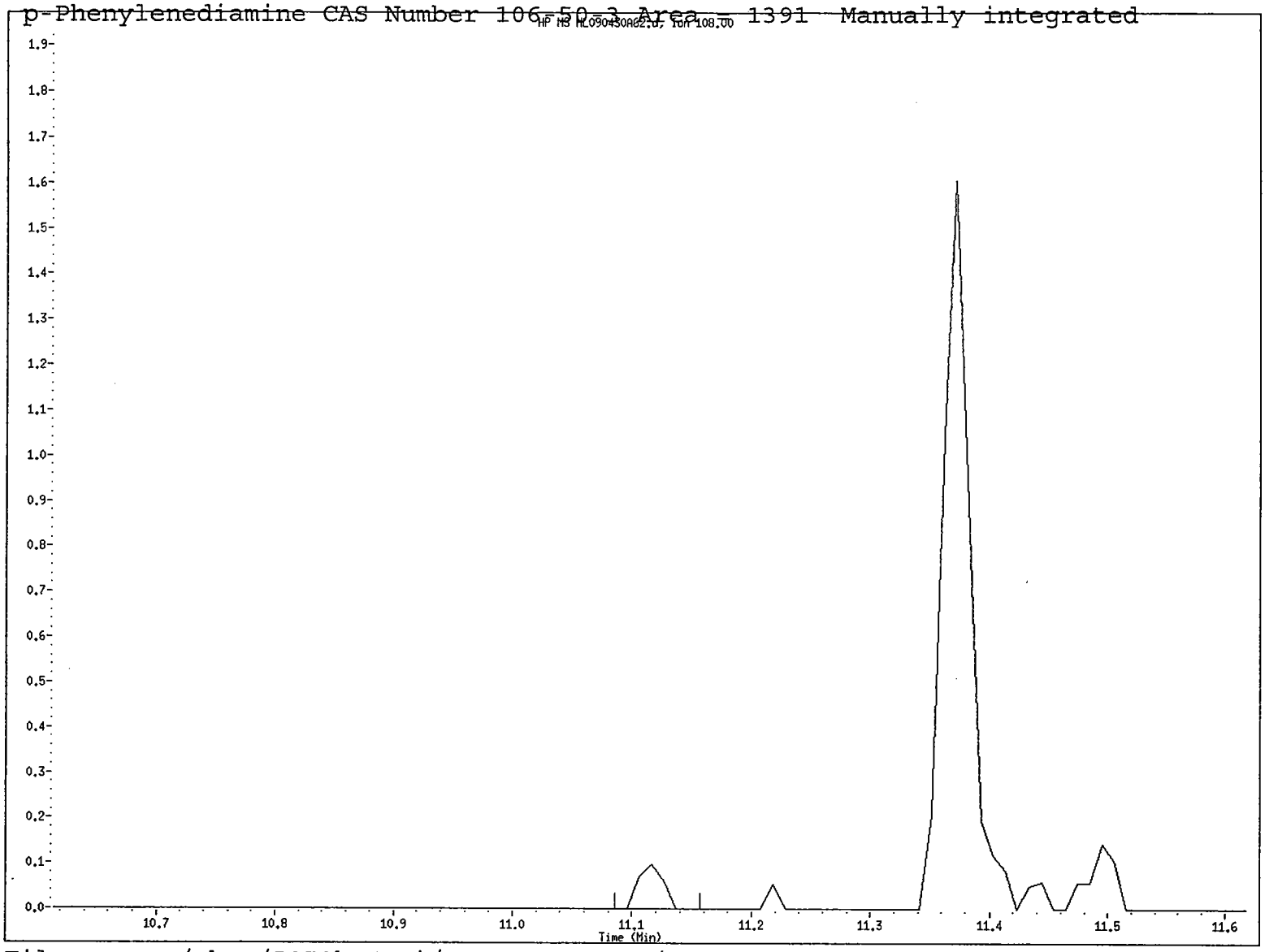
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 9.76
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 1391 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 1391 Manually integrated



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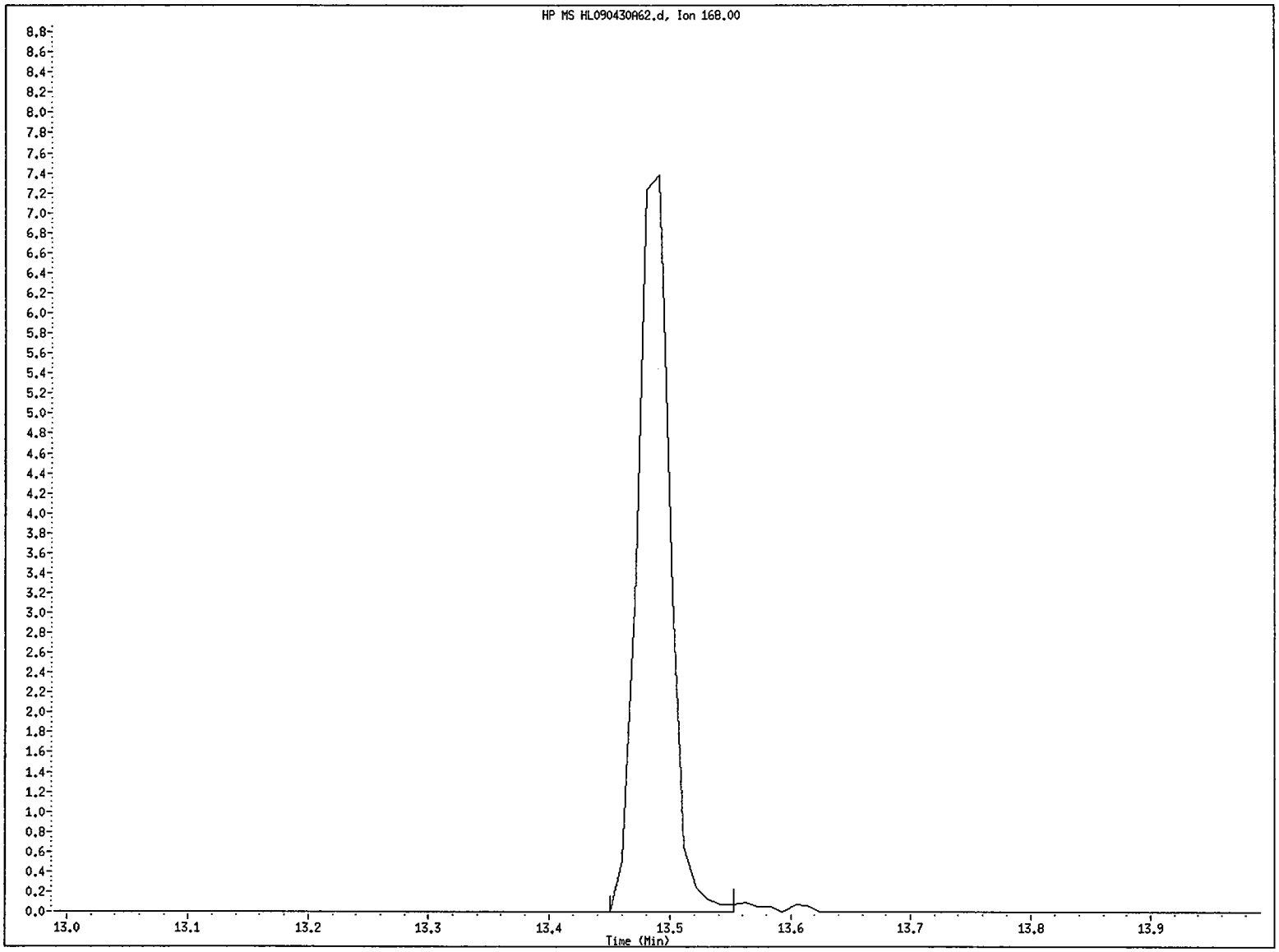
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 11.12
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 138402 Manually integrated



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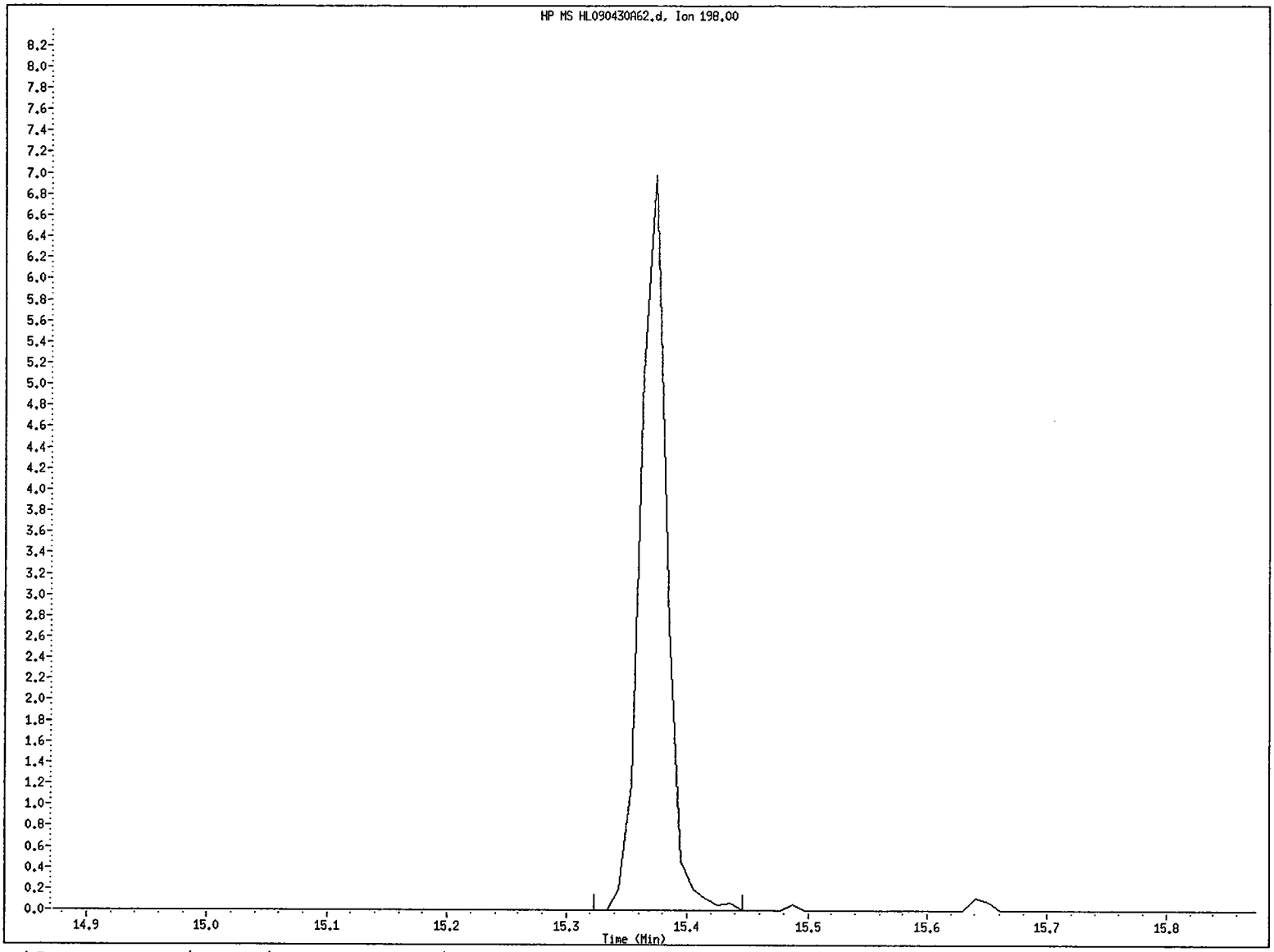
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 13.49
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 104878 Manually integrat



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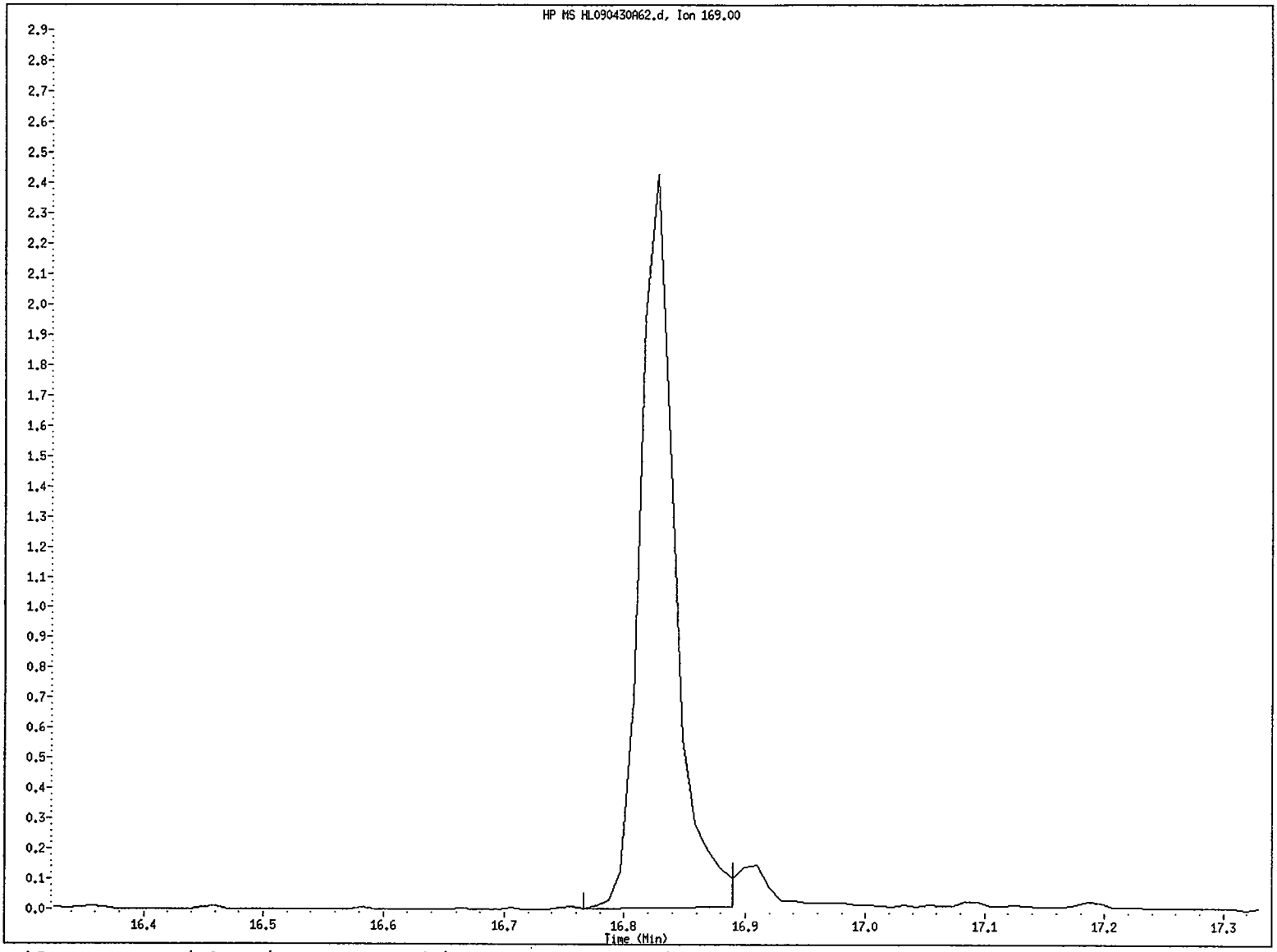
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 15.37
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 485604 Manually integrated



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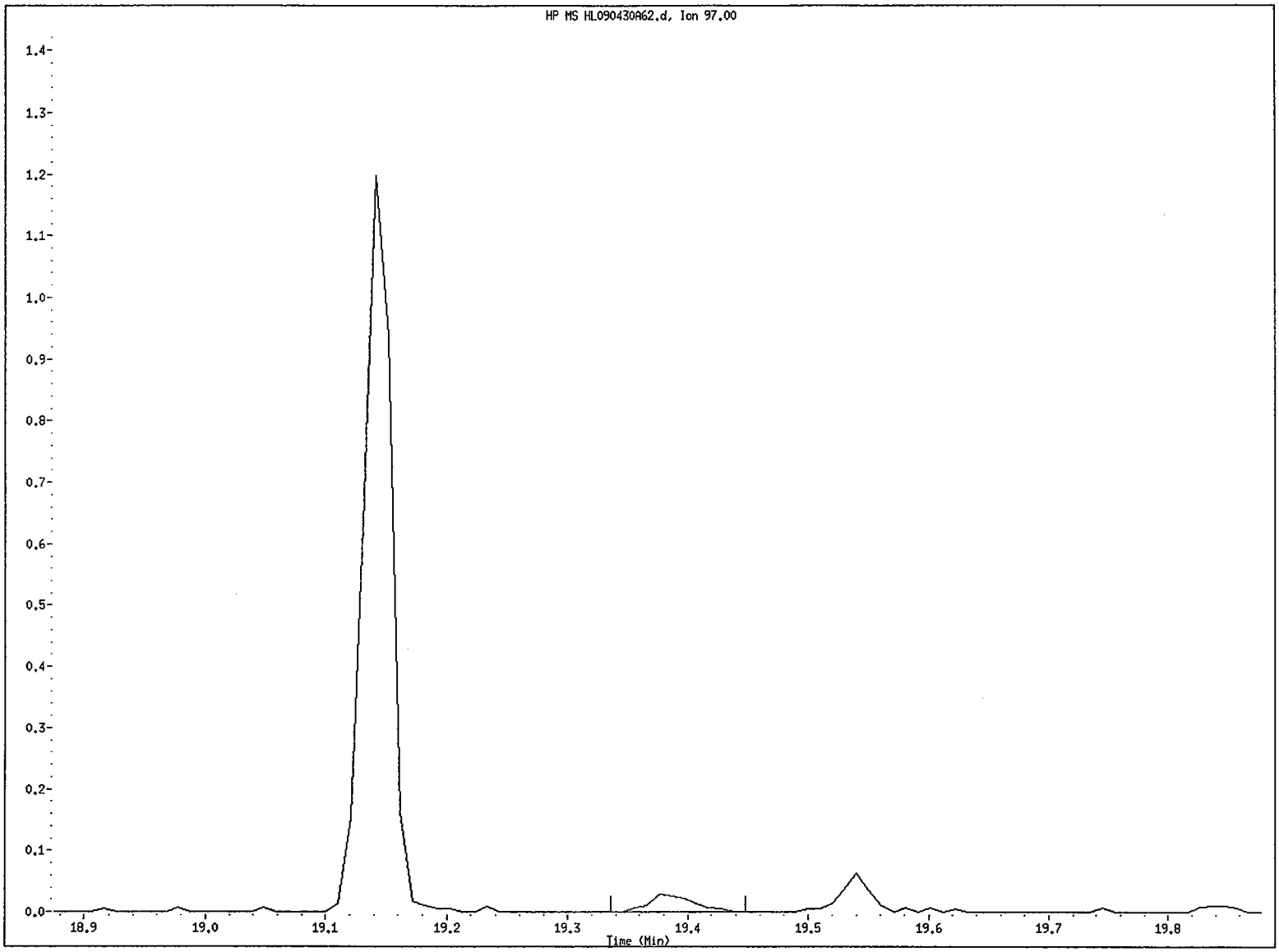
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 16.83
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 7390 Manually integrated



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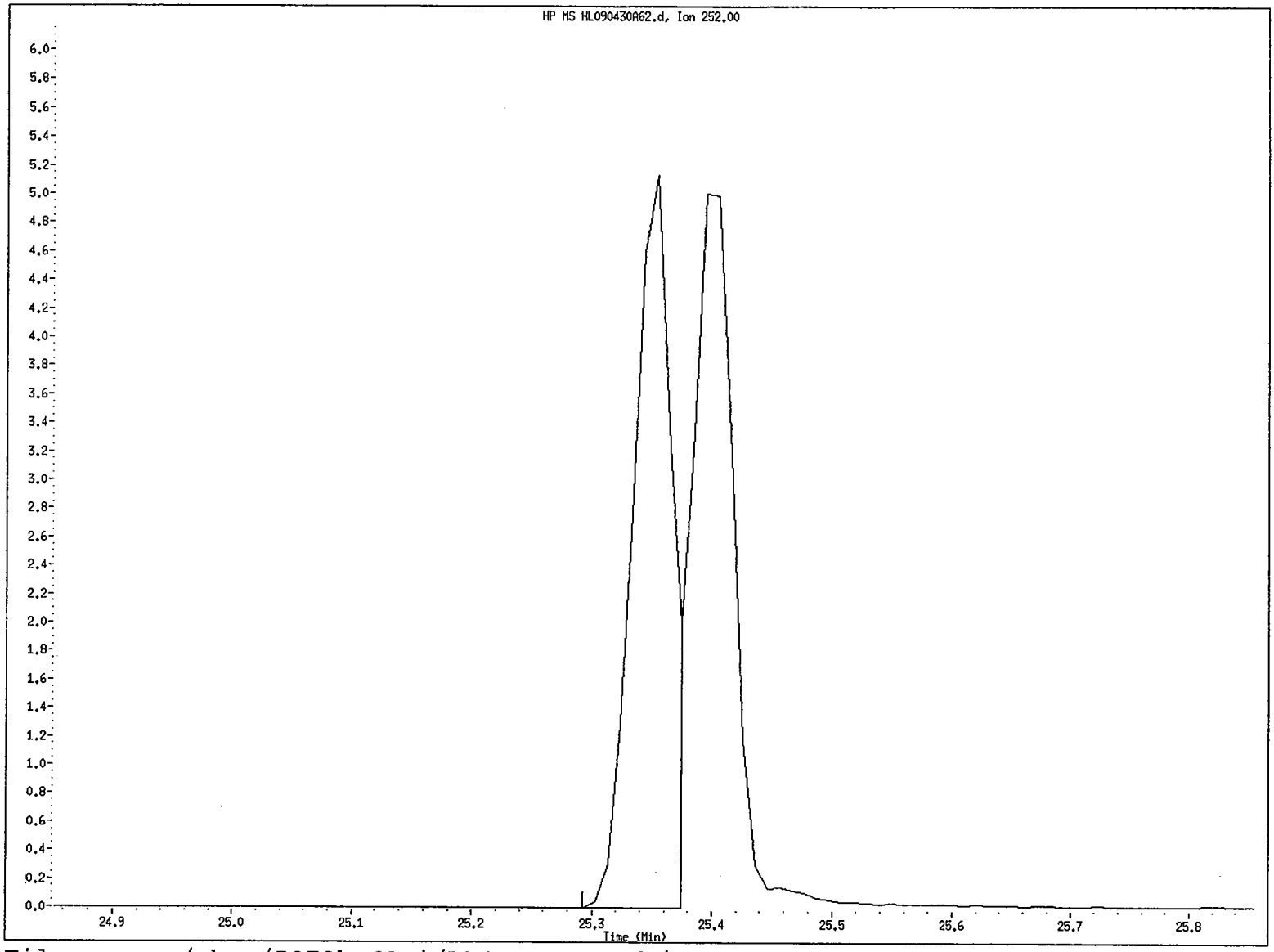
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 19.38
Operator ID: 2650

Benzo(b)fluoranthene CAS Number 205-99-2 Area = 1197387 User selected hit



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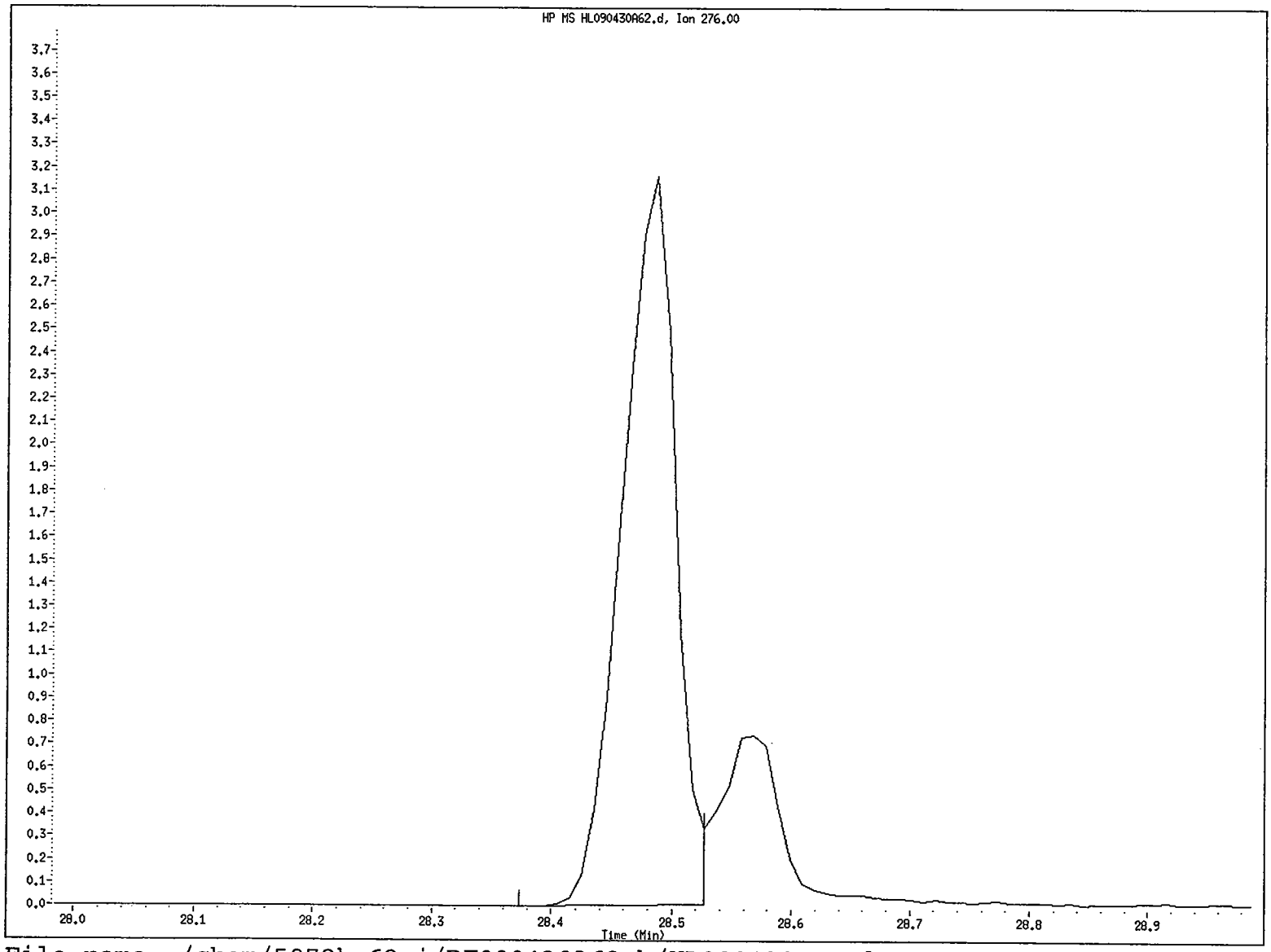
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 25.35
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 982350 Manually integrated



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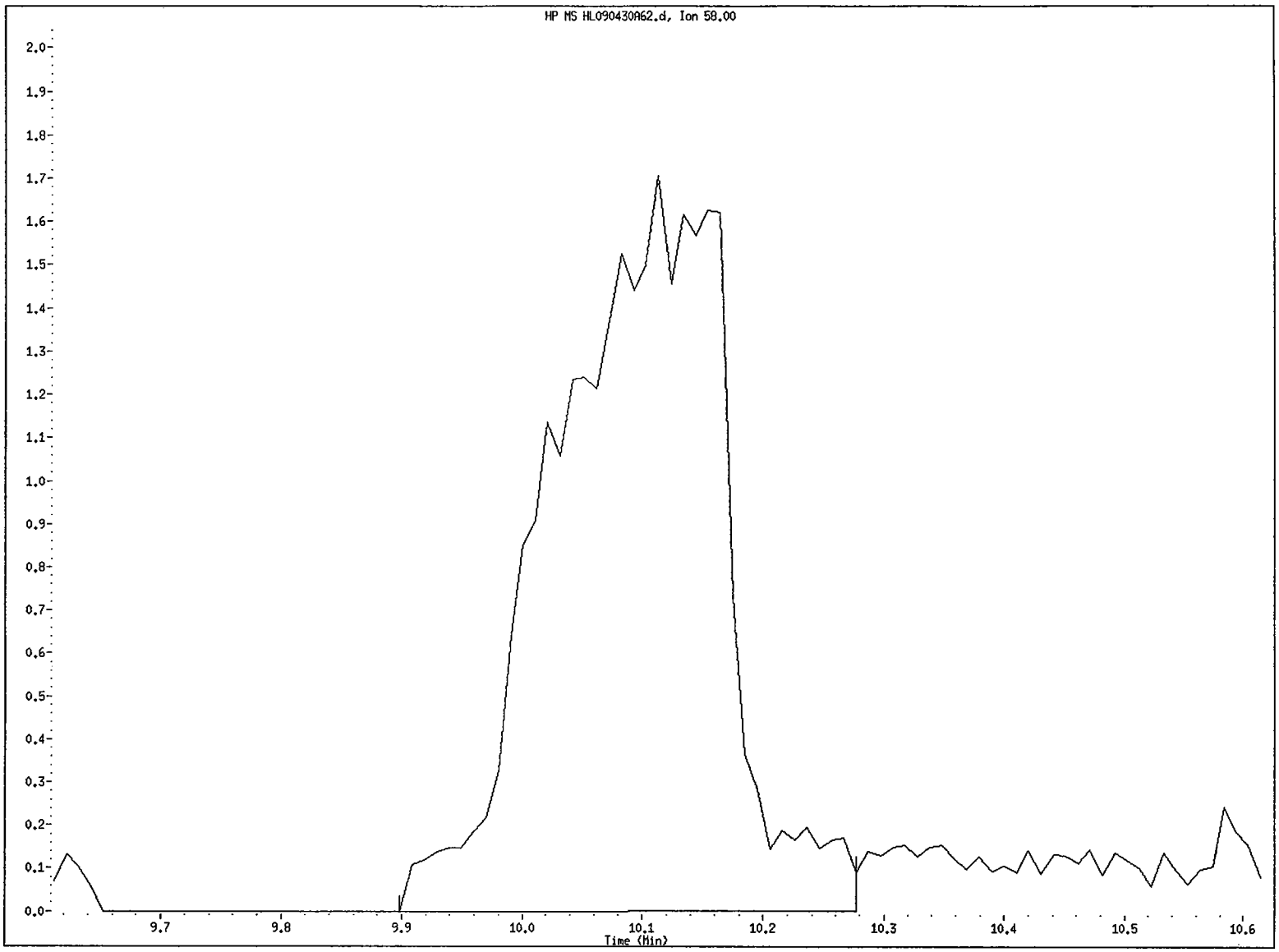
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 28.49
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 170257 Manually integrat



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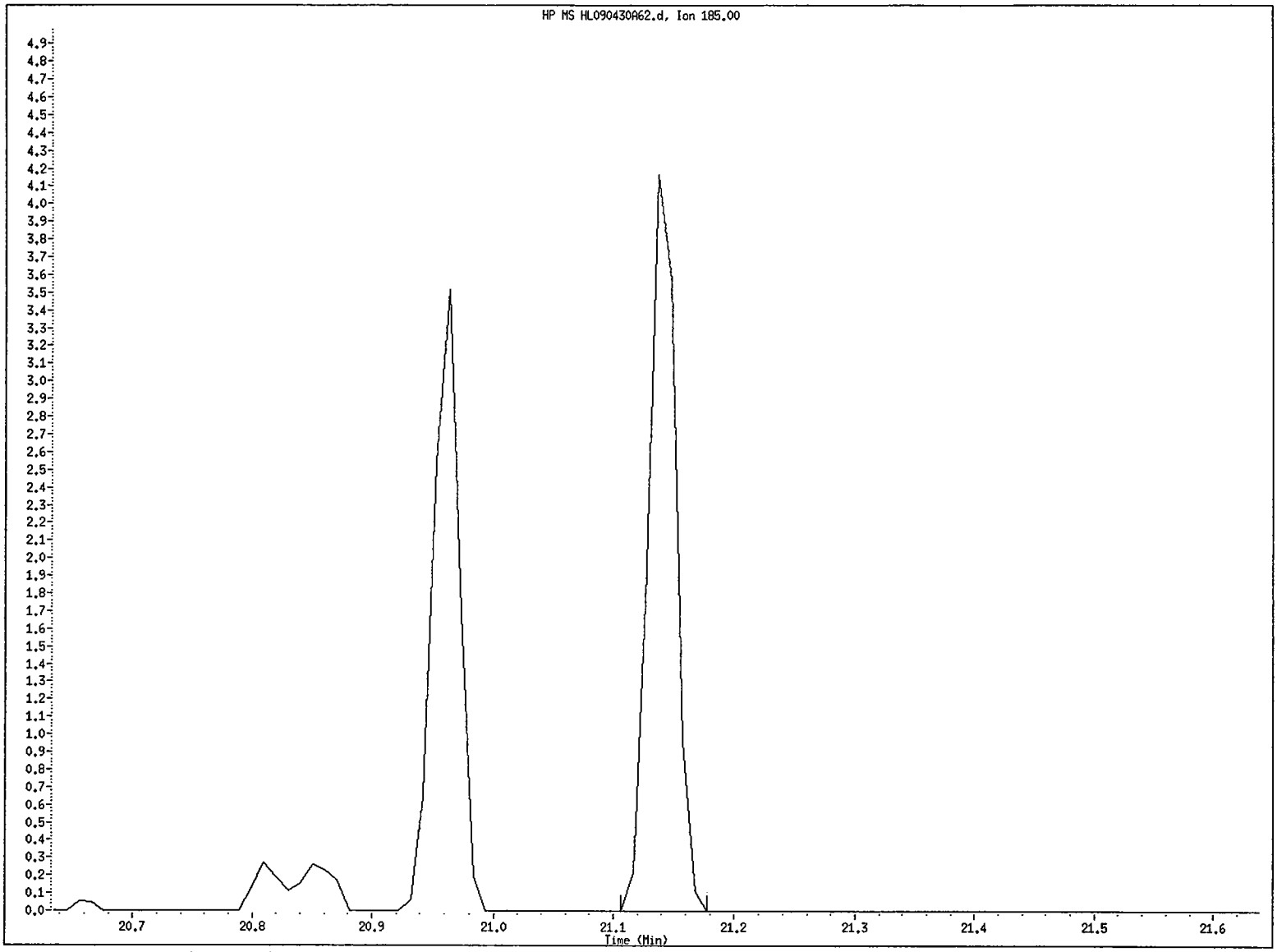
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 10.11
Operator ID: 2650

Aramite CAS Number 140-57-8 Area = 66235 User selected hit



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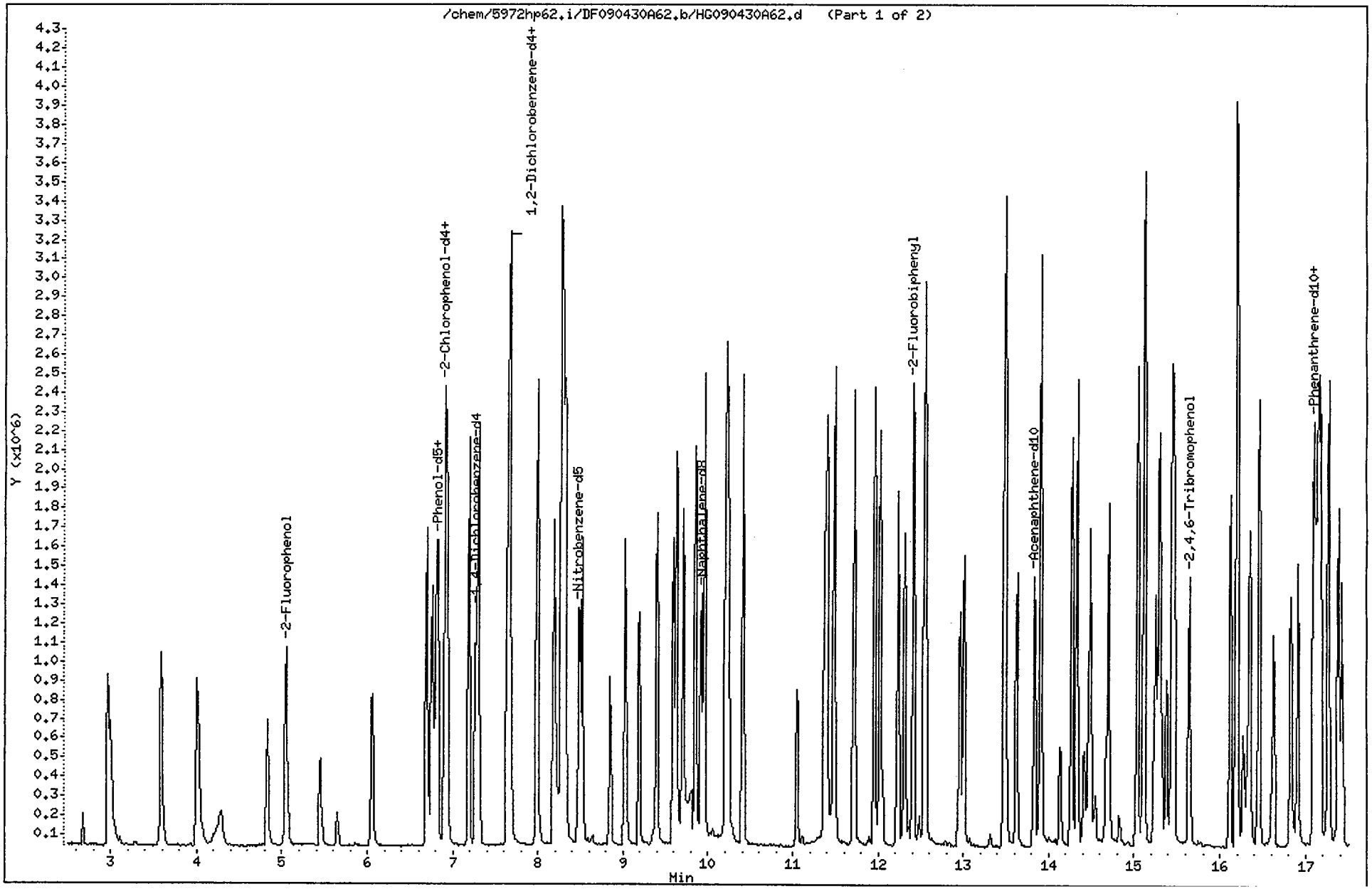
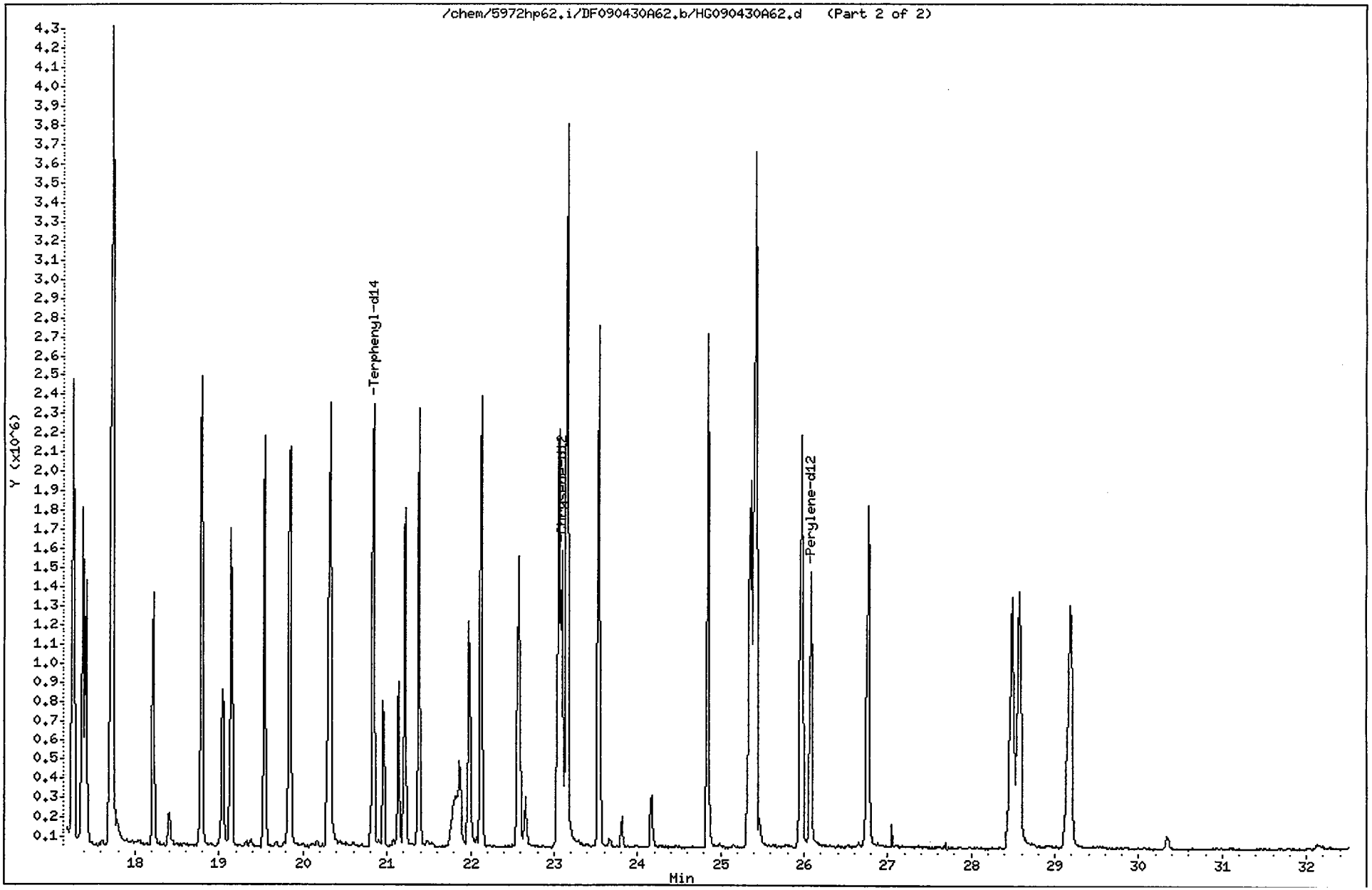
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 21.14
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HC090430A62.d
Date : 30-APR-2009 16:22
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Date : 30-APR-2009 16:22
Client ID: SSTD080
Instrument: 5972hp62.i
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 30-APR-2009 16:22
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:36 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 16:22 Cal File: HG090430A62.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.271	7.268	(1.000)	319327	40.0000		
*	2 Naphthalene-d8	136	9.922	9.919	(1.000)	1065188	40.0000		
*	3 Acenaphthene-d10	164	13.832	13.839	(1.000)	542950	40.0000		
*	4 Phenanthrene-d10	188	17.118	17.114	(1.000)	854097	40.0000		
*	5 Chrysene-d12	240	23.095	23.092	(1.000)	973733	40.0000		
*	6 Perylene-d12	264	26.084	26.081	(1.000)	1109664	40.0000		
$	7 2-Fluorophenol	112	5.050	5.047	(0.695)	621290	80.0000	79	
$	8 Phenol-d5	99	6.811	6.797	(0.937)	770057	80.0000	80	
$	9 2-Chlorophenol-d4	132	6.913	6.910	(0.951)	630149	80.0000	78	9137
$	10 1,2-Dichlorobenzene-d4	152	7.640	7.646	(1.051)	493058	80.0000	75	9492
$	11 Nitrobenzene-d5	82	8.479	8.486	(0.855)	747143	80.0000	75	
$	12 2-Fluorobiphenyl	172	12.409	12.416	(0.897)	1285123	80.0000	74	
$	13 2,4,6-Tribromophenol	330	15.644	15.640	(1.131)	388622	80.0000	77	
$	14 Terphenyl-d14	244	20.844	20.840	(0.902)	1432548	80.0000	78	
	15 N-Nitrosodimethylamine	42	3.003	3.010	(0.413)	311107	80.0000	75	8445

Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.962	2.969	(0.407)	772008	80.0000	83	9263
17 Ethylmethacrylate	69	3.586	3.593	(0.493)	516155	80.0000	76	9052
18 2-Picoline	93	4.006	4.003	(0.551)	745746	80.0000	78	8789
19 Nitrosomethylethylamine	88	4.293	4.299	(0.590)	276315	80.0000	81	8761(M)
20 Methyl Methanesulfonate	80	4.835	4.832	(0.665)	471395	80.0000	75	9021
21 N-Nitrosodiethylamine	102	5.449	5.446	(0.749)	220696	80.0000	79	9059
22 Ethyl Methanesulfonate	79	6.063	6.060	(0.834)	570321	80.0000	74	9087
23 Phenol	94	6.831	6.828	(0.939)	782016	80.0000	78	
24 Aniline	93	6.759	6.756	(0.930)	1054837	80.0000	81	6718(H)
25 Bis(2-chloroethyl)ether	93	6.913	6.920	(0.951)	643977	80.0000	75	
26 Pentachloroethane	167	6.698	6.705	(0.921)	347299	80.0000	78	9439
27 2-Chlorophenol	128	6.944	6.940	(0.955)	714819	80.0000	79	9081
28 1,3-Dichlorobenzene	146	7.189	7.196	(0.989)	899652	80.0000	80	
29 1,4-Dichlorobenzene	146	7.302	7.298	(1.004)	866539	80.0000	76	
30 Benzyl Alcohol	108	7.670	7.667	(1.055)	386440	80.0000	76	
31 1,2-Dichlorobenzene	146	7.670	7.667	(1.055)	771723	80.0000	77	
32 2-Methylphenol	108	7.998	7.984	(1.100)	532196	80.0000	74	
33 2,2'-oxybis(1-Chloropropane)	45	7.988	7.995	(1.099)	775888	80.0000	72	8753
34 N-Nitrosopyrrolidine	100	8.223	8.209	(1.131)	169309	80.0000	97	3865
35 3-Methylphenol	108	8.315	8.312	(1.144)	1175254	160.000	150	
36 4-Methylphenol	108	8.315	8.312	(1.144)	1175254	160.000	150	
37 3-4-Methylphenol	108	8.315	8.312	(1.144)	1177648	160.000	150	9241
38 N-Nitroso-di-N-propylamine	70	8.295	8.291	(1.141)	246580	80.0000	73	8828
39 Acetophenone	105	8.192	8.189	(0.826)	909981	80.0000	76	0(M)
40 N-Nitrosomorpholine	116	8.264	8.261	(1.137)	65085	80.0000	77	0(M)
41 o-Toluidine	106	8.285	8.281	(1.139)	823469	80.0000	73	8067
42 Hexachloroethane	117	8.274	8.271	(1.138)	372036	80.0000	77	9574
43 Nitrobenzene	77	8.520	8.517	(0.859)	741124	80.0000	78	8926
44 N-Nitrosopiperidine	114	8.847	8.844	(0.892)	288597	80.0000	78	9005
45 Isophorone	82	9.021	9.018	(0.909)	1225610	80.0000	76	8866
46 2-Nitrophenol	139	9.195	9.192	(0.927)	410631	80.0000	79	8818
47 2,4-Dimethylphenol	122	9.400	9.397	(0.947)	507567	80.0000	78	8866
48 Benzoic Acid	122	9.810	9.755	(0.989)	364989	400.000	450	7751(A)
49 o,o,o-Triethylphosphorothioat	198	9.636	9.632	(0.971)	288614	80.0000	76	8819
50 Bis(2-chloroethoxy)methane	93	9.595	9.591	(0.967)	857740	80.0000	74	8994
51 2,4-Dichlorophenol	162	9.707	9.704	(0.978)	583532	80.0000	77	
52 1,2,4-Trichlorobenzene	180	9.851	9.857	(0.993)	736644	80.0000	78	
53 Naphthalene	128	9.963	9.960	(1.004)	1845296	80.0000	77	9268
54 4-Chloroaniline	127	10.219	10.216	(1.030)	768749	80.0000	77	8492
55 2,6-Dichlorophenol	162	10.209	10.205	(1.029)	562722	80.0000	77	
56 Hexachloropropene	213	10.240	10.236	(1.032)	561585	80.0000	78	9550
57 Hexachlorobutadiene	225	10.414	10.410	(1.050)	466150	80.0000	77	9093
58 N-Nitroso-di-n-butylamine	84	11.048	11.055	(1.113)	236695	80.0000	75	8973
59 p-Phenylenediamine	108	11.110	11.116	(0.803)	11341	80.0000	81	(aMH)
60 4-Chloro-3-methylphenol	107	11.376	11.372	(1.146)	506059	80.0000	74	9375
61 Safrole	162	11.396	11.403	(1.149)	486877	80.0000	78	9651
62 2-Methylnaphthalene	141	11.488	11.485	(1.158)	952905	80.0000	76	

Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.724	11.720	(1.182)	1166615	80.0000	78	
64 Hexachlorocyclopentadiene	237	12.021	12.027	(0.869)	588672	80.0000	81	9634
65 1,2,4,5-Tetrachlorobenzene	216	11.959	11.956	(0.865)	749958	80.0000	76	9460
66 2,4,6-Trichlorophenol	196	12.235	12.232	(0.885)	436094	80.0000	78	
67 2,4,5-Trichlorophenol	196	12.307	12.314	(0.890)	496470	80.0000	80	
68 Isosafrole	162	12.051	12.048	(0.871)	85958	80.0000	79	
69 2-Chloronaphthalene	162	12.553	12.549	(0.907)	1614932	80.0000	76	
70 2-Nitroaniline	65	12.962	12.959	(0.937)	356563	80.0000	74	8745
71 1,4-Napthoquinone	158	13.013	13.010	(0.941)	513058	80.0000	77	9130
72 Dimethylphthalate	163	13.505	13.501	(0.976)	1214718	80.0000	74	9671
73 1,3-Dinitrobenzene	168	13.494	13.491	(0.976)	227787	80.0000	74	0 (M)
74 2,6-Dinitrotoluene	165	13.628	13.624	(0.985)	359372	80.0000	78	9501
75 Acenaphthylene	152	13.484	13.481	(0.975)	1735597	80.0000	75	8530
76 3-Nitroaniline	138	13.914	13.900	(1.006)	307018	80.0000	78	8684
77 Acenaphthene	154	13.904	13.911	(1.005)	969952	80.0000	74	9444
78 2,4-Dinitrophenol	184	14.139	14.126	(1.022)	163035	80.0000	99	
79 4-Nitrophenol	139	14.416	14.402	(1.042)	258002	80.0000	84	8878
80 Pentachlorobenzene	250	14.334	14.330	(1.036)	706459	80.0000	74	9713
81 2,4-Dinitrotoluene	165	14.487	14.484	(1.047)	417813	80.0000	76	7461
82 Dibenzofuran	168	14.272	14.269	(1.032)	1563580	80.0000	73	9157
83 1-Naphthylamine	143	14.487	14.494	(1.047)	340825	80.0000	78	
84 2,3,4,6-Tetrachlorophenol	232	14.702	14.699	(1.063)	397597	80.0000	80	9530
85 2-Naphthylamine	143	14.672	14.668	(1.061)	350381	80.0000	75	
86 Diethylphthalate	149	15.112	15.108	(1.092)	1270795	80.0000	73	8353
87 Zinophos	97	15.286	15.282	(1.105)	340740	80.0000	74	9138
88 4-Chlorophenyl-phenylether	204	15.122	15.118	(1.093)	625955	80.0000	73	7762
89 5-Nitro-o-toluidine	152	15.255	15.241	(1.103)	406523	80.0000	81	7187
90 Fluorene	166	15.040	15.037	(1.087)	1233893	80.0000	75	8105
91 4-Nitroaniline	138	15.316	15.303	(1.107)	341505	80.0000	80	9235
92 4,6-Dinitro-2-methylphenol	198	15.388	15.374	(0.899)	259814	80.0000	95	9063
93 N-Nitrosodiphenylamine	169	15.439	15.436	(0.902)	965222	80.0000	78	9339
95 1,2-Diphenylhydrazine	77	15.460	15.456	(1.118)	1487604	80.0000	74	9449
96 Sulfotep	322	16.125	16.122	(1.166)	256802	80.0000	77	8960
97 1,3,5-Trinitrobenzene	75	16.279	16.255	(0.951)	319747	80.0000	65	8952
98 Diallate (trans isomer)	86	16.197	16.193	(0.946)	364248	40.0000	34	
99 Diallate (trans) part of total	86	16.197	16.193	(0.946)	364248	40.0000	34	9234
100 Phorate	75	16.207	16.203	(0.947)	746640	80.0000	70	9282
101 Phenacetin	108	16.350	16.337	(0.955)	657465	80.0000	77	9292
102 Diallate (cis isomer)	86	16.360	16.357	(0.956)	122773	40.0000	36	
103 Diallate (cis) part of total	86	16.360	16.357	(0.956)	125932	40.0000	36	7663 (H)
104 4-Bromophenyl-phenylether	248	16.197	16.193	(0.946)	418157	80.0000	75	8713
105 Hexachlorobenzene	284	16.463	16.459	(0.962)	661202	80.0000	76	9194
106 Dimethoate	87	16.627	16.613	(0.971)	419495	80.0000	76	9036
107 4-Aminobiphenyl	169	16.831	16.828	(0.983)	934542	80.0000	82	0 (M)
108 Pentachlorophenol	266	16.913	16.910	(0.988)	339617	80.0000	82	8040
109 Pentachloronitrobenzene	237	17.097	17.094	(0.999)	209507	80.0000	76	7513
110 Pronamide	173	17.149	17.135	(1.002)	594976	80.0000	78	9422

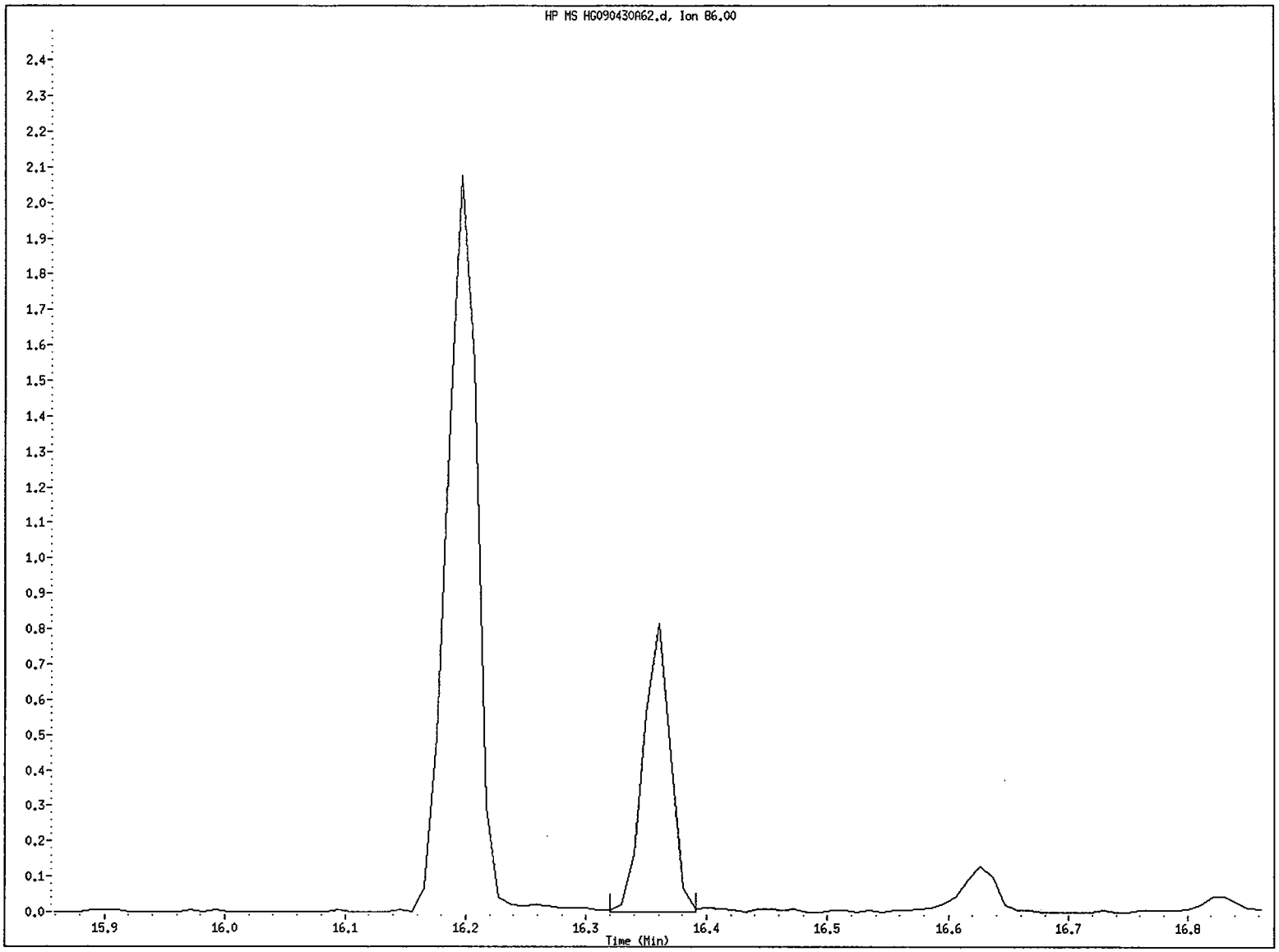
Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.384	17.381	(1.016)	630171	80.0000	76	9341
112	Phenanthrene	178	17.169	17.166	(1.003)	1721808	80.0000	76	
113	Anthracene	178	17.271	17.268	(1.009)	1788592	80.0000	75	
114	Carbazole	167	17.742	17.739	(1.036)	4335471	80.0000	78	9455
115	Methyl Parathion	109	18.223	18.220	(1.065)	383927	80.0000	73	9121
116	Di-n-butylphthalate	149	18.797	18.793	(1.098)	2235806	80.0000	74	9502
117	Parathion	109	19.145	19.141	(1.118)	287834	80.0000	78	8094
118	4-Nitroquinoline-1-oxide	190	19.042	19.039	(1.112)	203275	80.0000	91	8604
119	Methapyrilene	97	19.380	19.377	(1.132)	13286	80.0000	82	8517
120	Isodrin	193	19.544	19.540	(1.142)	251858	80.0000	76	9136
121	Fluoranthene	202	19.851	19.847	(1.160)	1747091	80.0000	75	9605
122	Benzidine	184	20.291	20.298	(0.879)	461766	80.0000	89	8579(a)
123	Pyrene	202	20.332	20.328	(0.880)	1927409	80.0000	78	9589
124	p-Dimethylaminoazobenzene	225	21.222	21.219	(0.919)	390885	80.0000	83	8879
125	Chlorobenzilate	251	21.386	21.383	(0.926)	669452	80.0000	83	9444
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.133	22.130	(0.958)	1028699	80.0000	80	9347
129	3,3'-Dimethylbenzidine	212	21.980	21.987	(0.952)	701924	80.0000	81	9551
130	2-Acetylaminofluorene	181	22.584	22.570	(0.978)	746457	80.0000	85	9083
131	3,3'-Dichlorobenzidine	252	23.167	23.164	(1.003)	728060	80.0000	83	8139
132	bis(2-ethylhexyl)Phthalate	149	23.536	23.542	(1.019)	1428093	80.0000	81	9354
133	Benzo(a)anthracene	228	23.065	23.061	(0.999)	1834713	80.0000	80	
134	Chrysene	228	23.157	23.153	(1.003)	1587052	80.0000	77	
135	Di-n-octylphthalate	149	24.846	24.853	(0.953)	2371550	80.0000	76	
136	7,12-Dimethylbenz(a)anthracene	256	25.419	25.416	(0.974)	832814	80.0000	76	8662
137	Benzo(b)fluoranthene	252	25.358	25.354	(0.972)	2043622	80.0000	74	
138	Benzo(k)fluoranthene	252	25.409	25.395	(0.974)	2046780	80.0000	85	
139	Benzo(a)pyrene	252	25.972	25.968	(0.996)	1892989	80.0000	79	
140	3-Methylcholanthrene	268	26.770	26.767	(1.026)	1037131	80.0000	78	9623
141	Indeno(1,2,3-c,d)pyrene	276	28.490	28.486	(1.092)	1733828	80.0000	78	0(M)
142	Dibenzo(a,h)anthracene	278	28.582	28.568	(1.096)	1609985	80.0000	73	7454
143	Benzo(g,h,i)perylene	276	29.186	29.172	(1.119)	1826628	80.0000	76	9052
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				490180	80.0000	69	0
201	a,a-Dimethylphenethylamine	58	10.260	10.113	(1.034)	436011	80.0000	47	3593(aM)
202	Aramite	185	21.140	21.137	(0.915)	119772	80.0000	82	9173

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 125932 User selected



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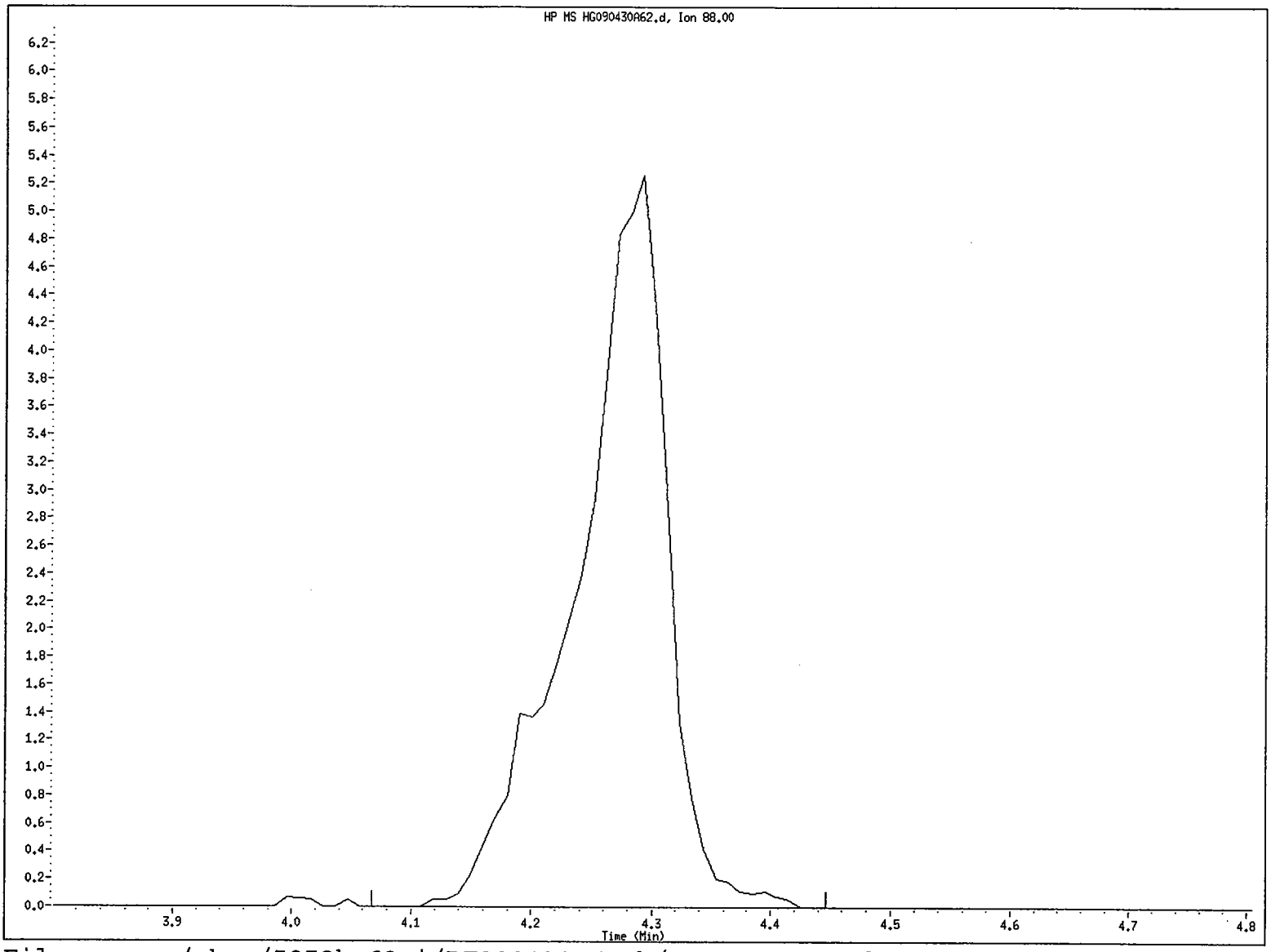
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 16.36
Operator ID: 2650

Nitrosomethylethylamine CAS Number 10595-95-6 Area = 276315 Manually integrate



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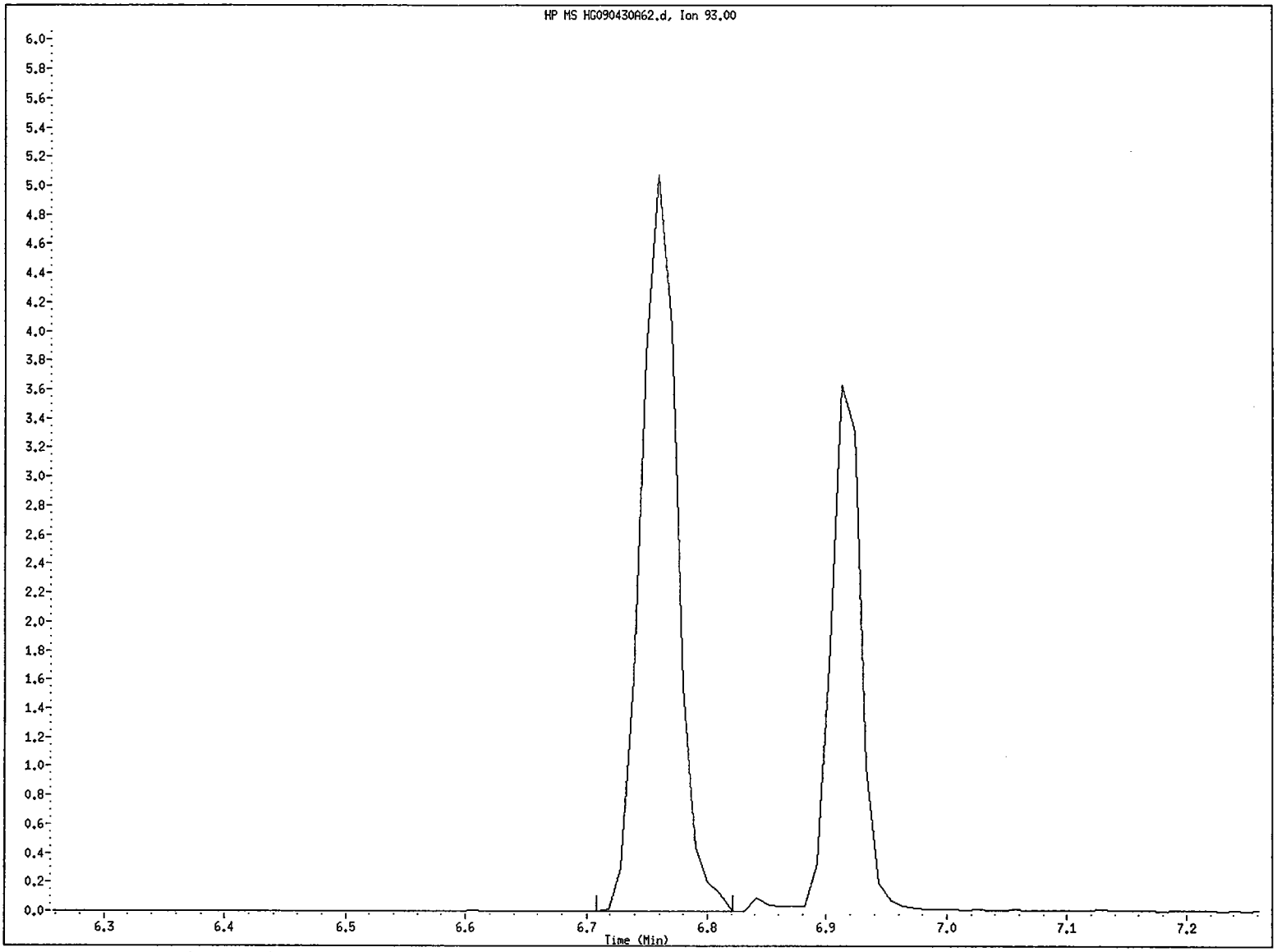
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 4.29
Operator ID: 2650

Aniline CAS Number 62-53-3 Area = 1054837 User selected hit



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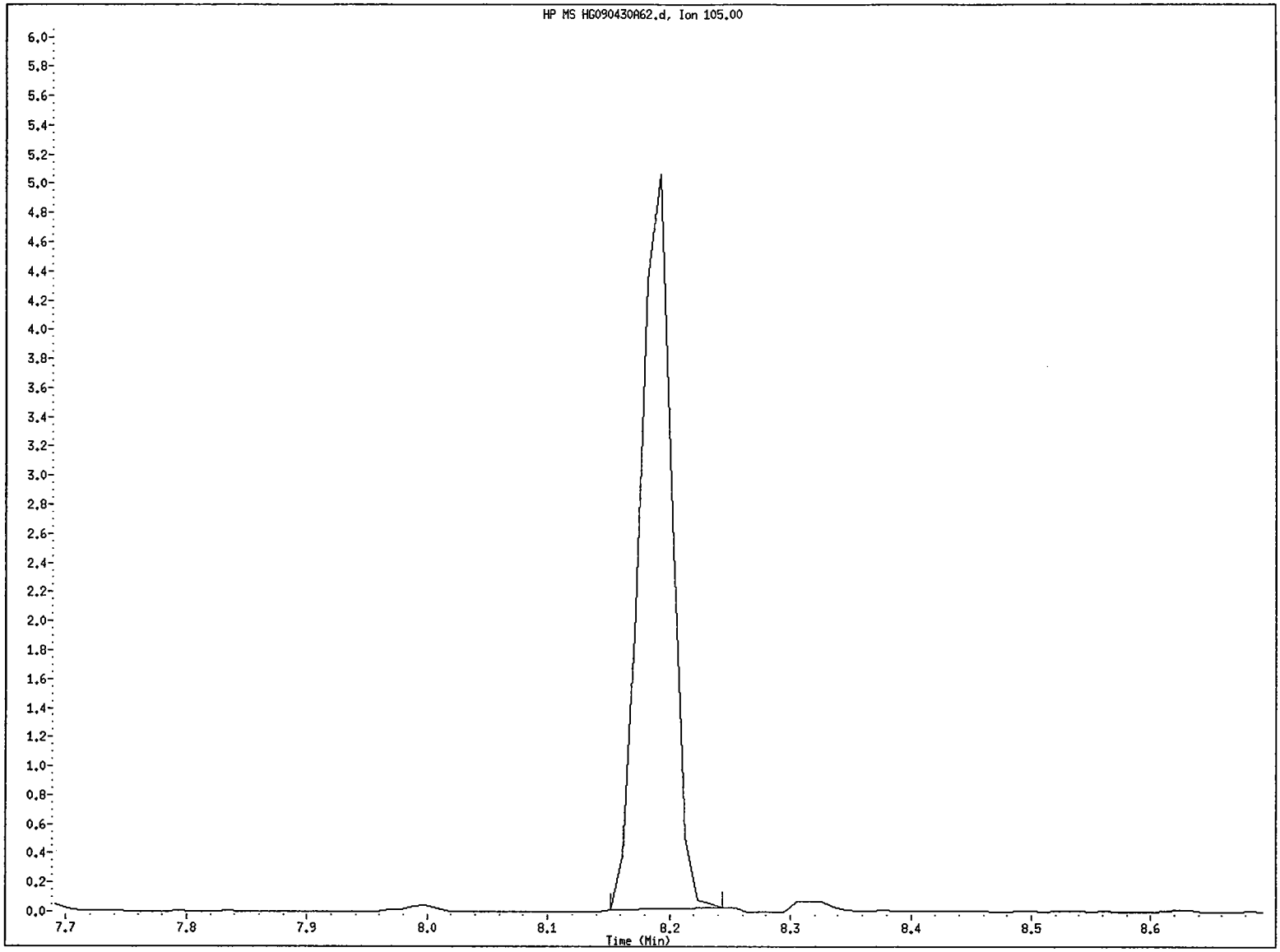
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 6.76
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 909981 Manually integrated



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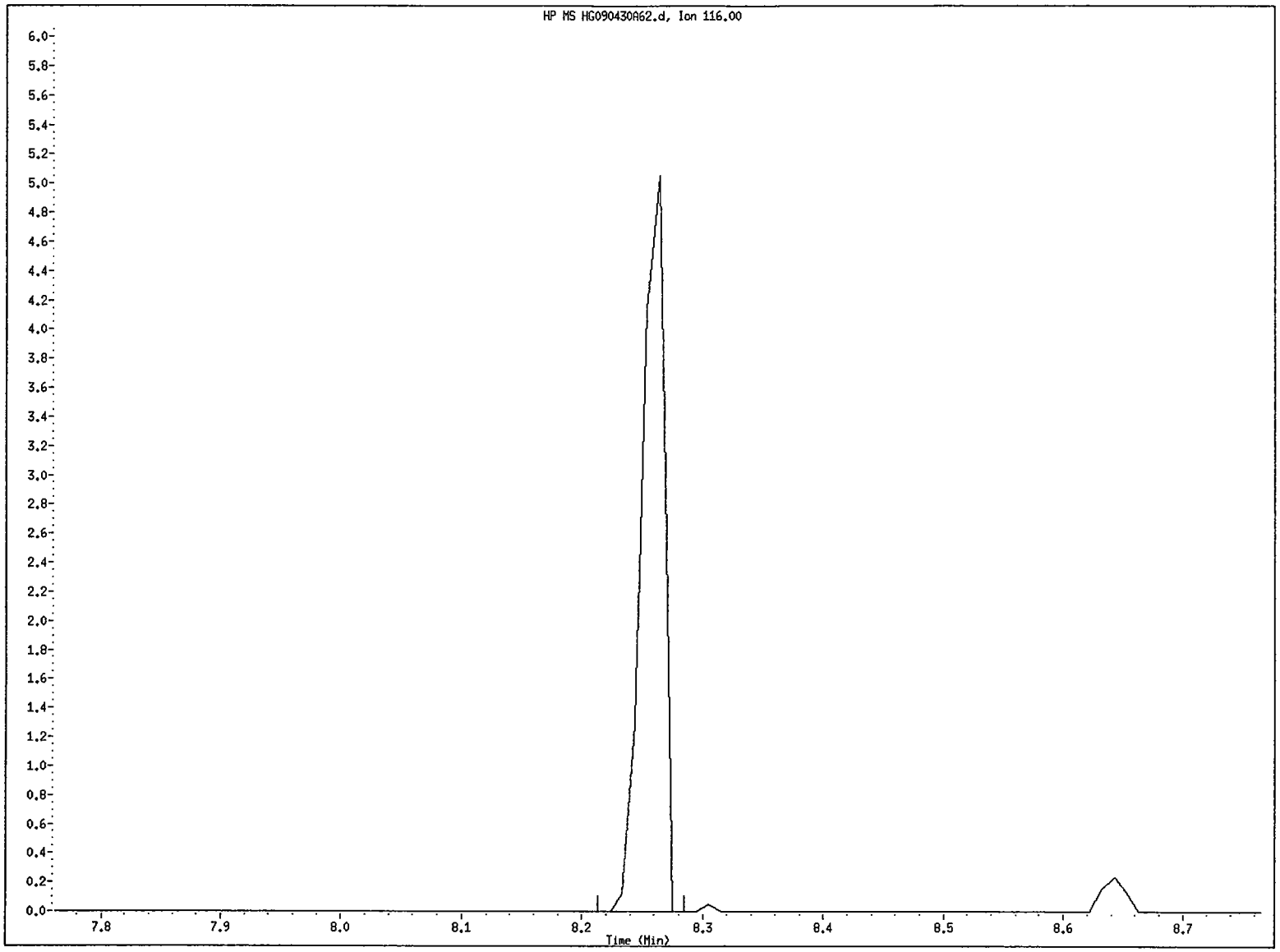
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 8.19
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 65085 Manually integrated



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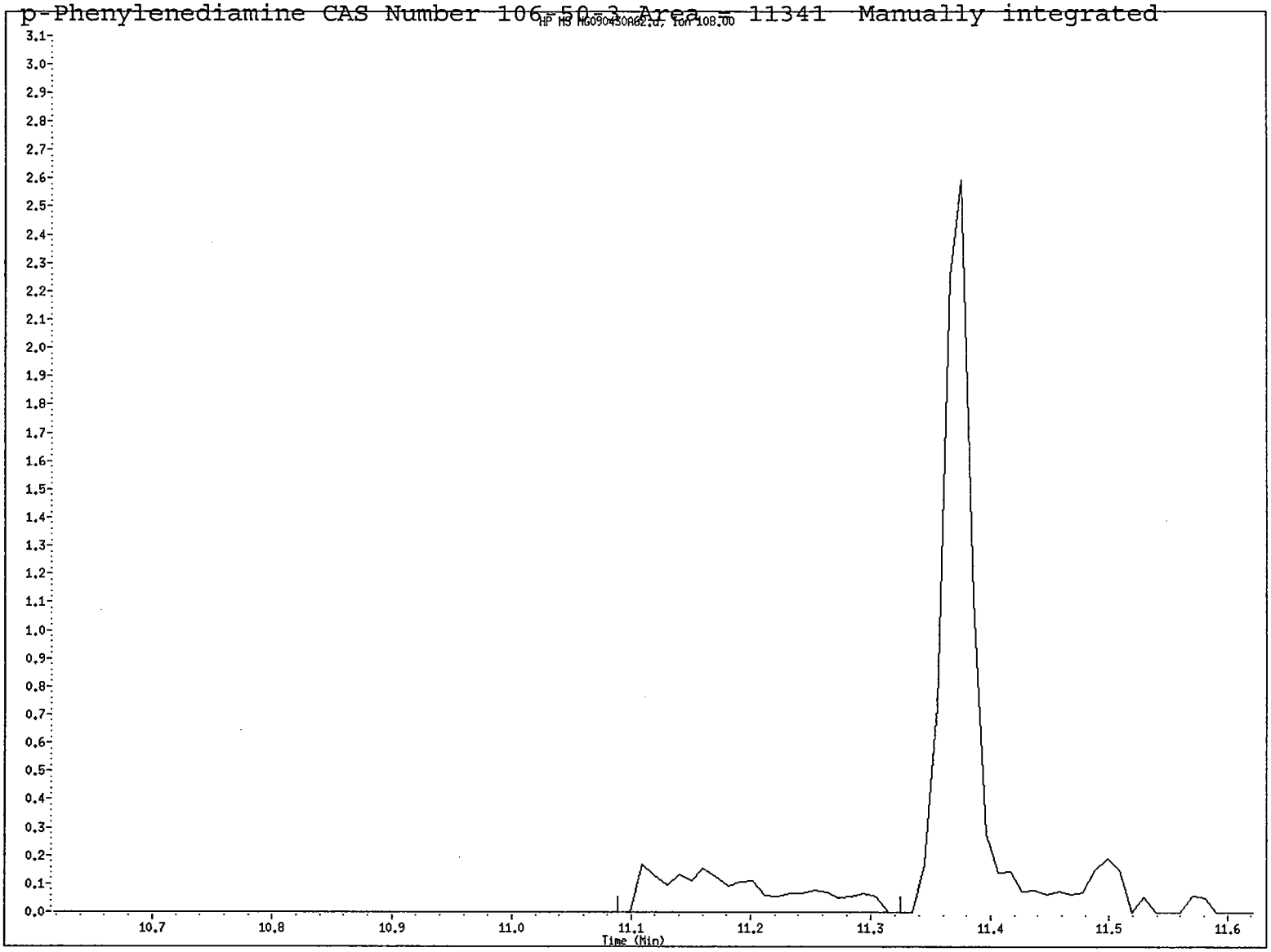
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 8.26
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 11341 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 11341 Manually integrated



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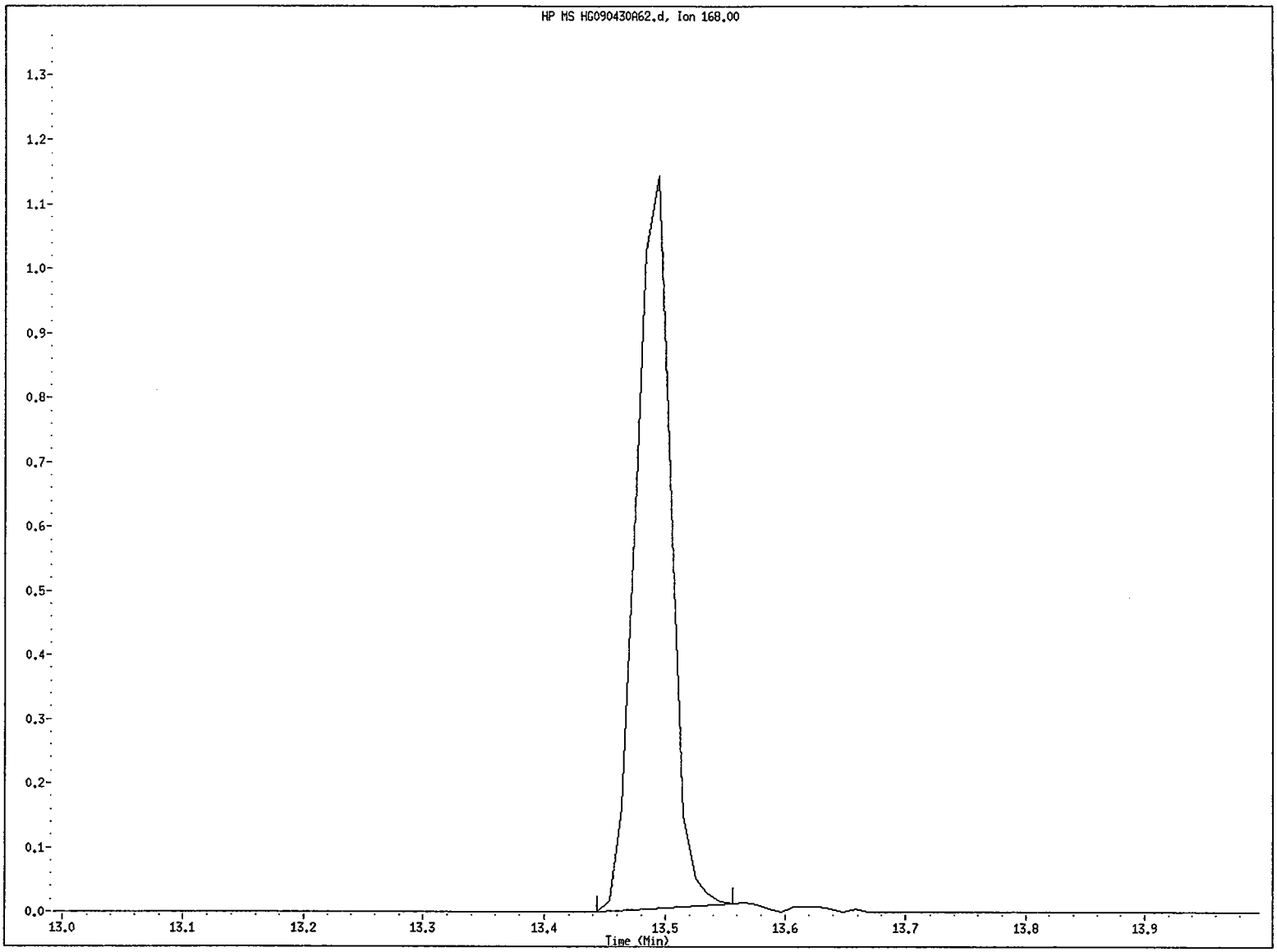
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 11.11
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 227787 Manually integrated



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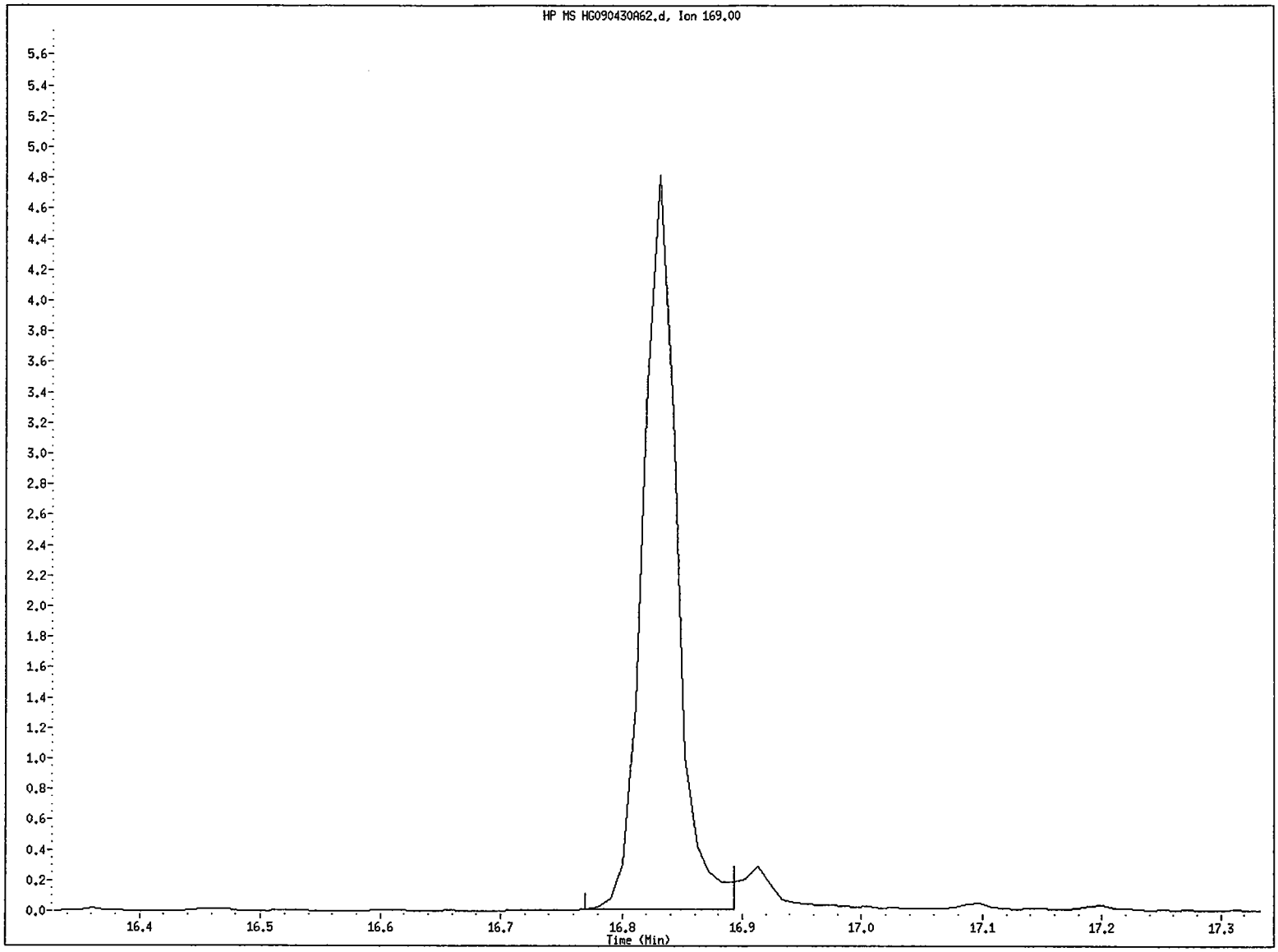
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 13.49
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 934542 Manually integrated



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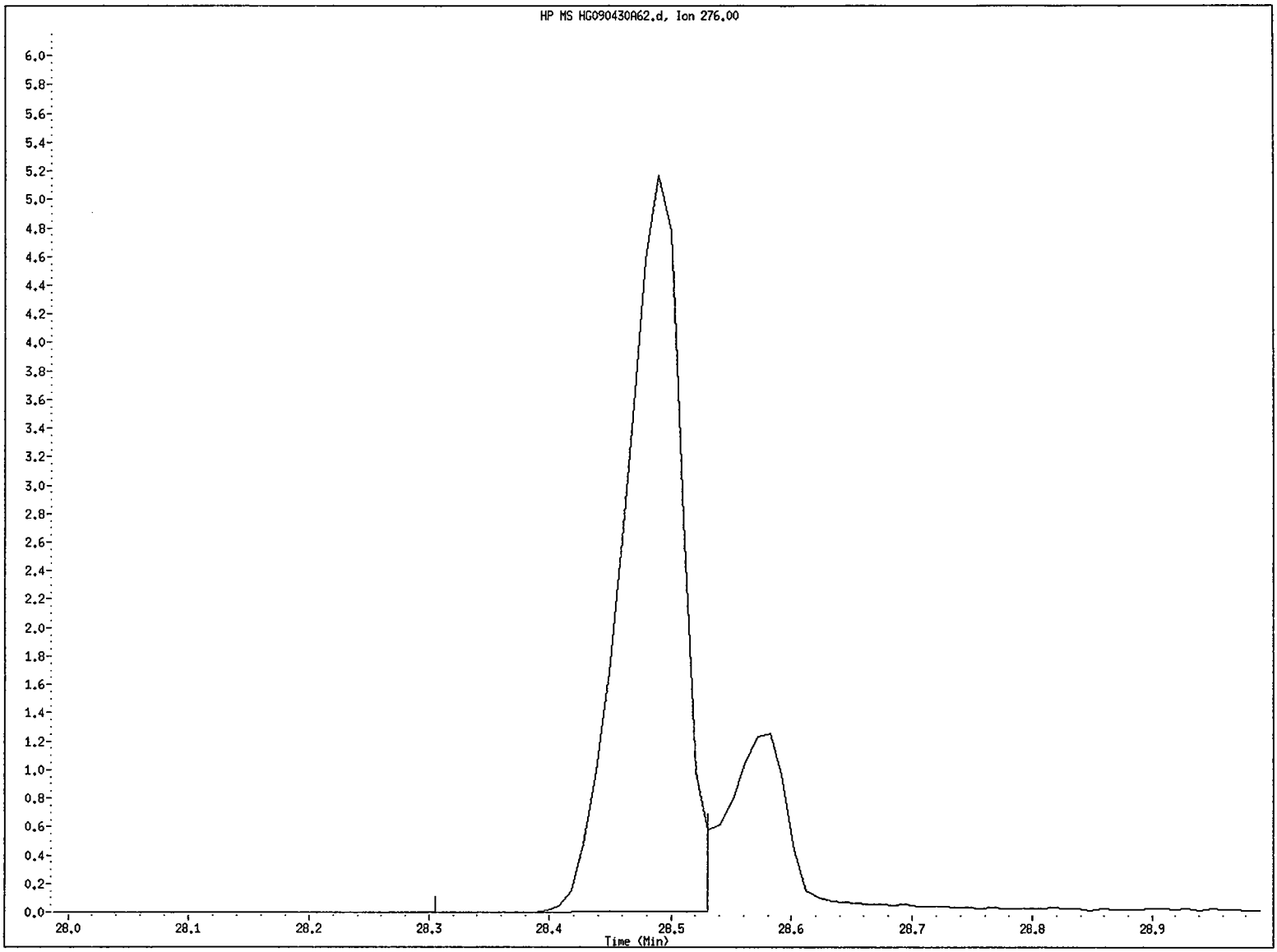
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 16.83
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1733828 Manually integrated



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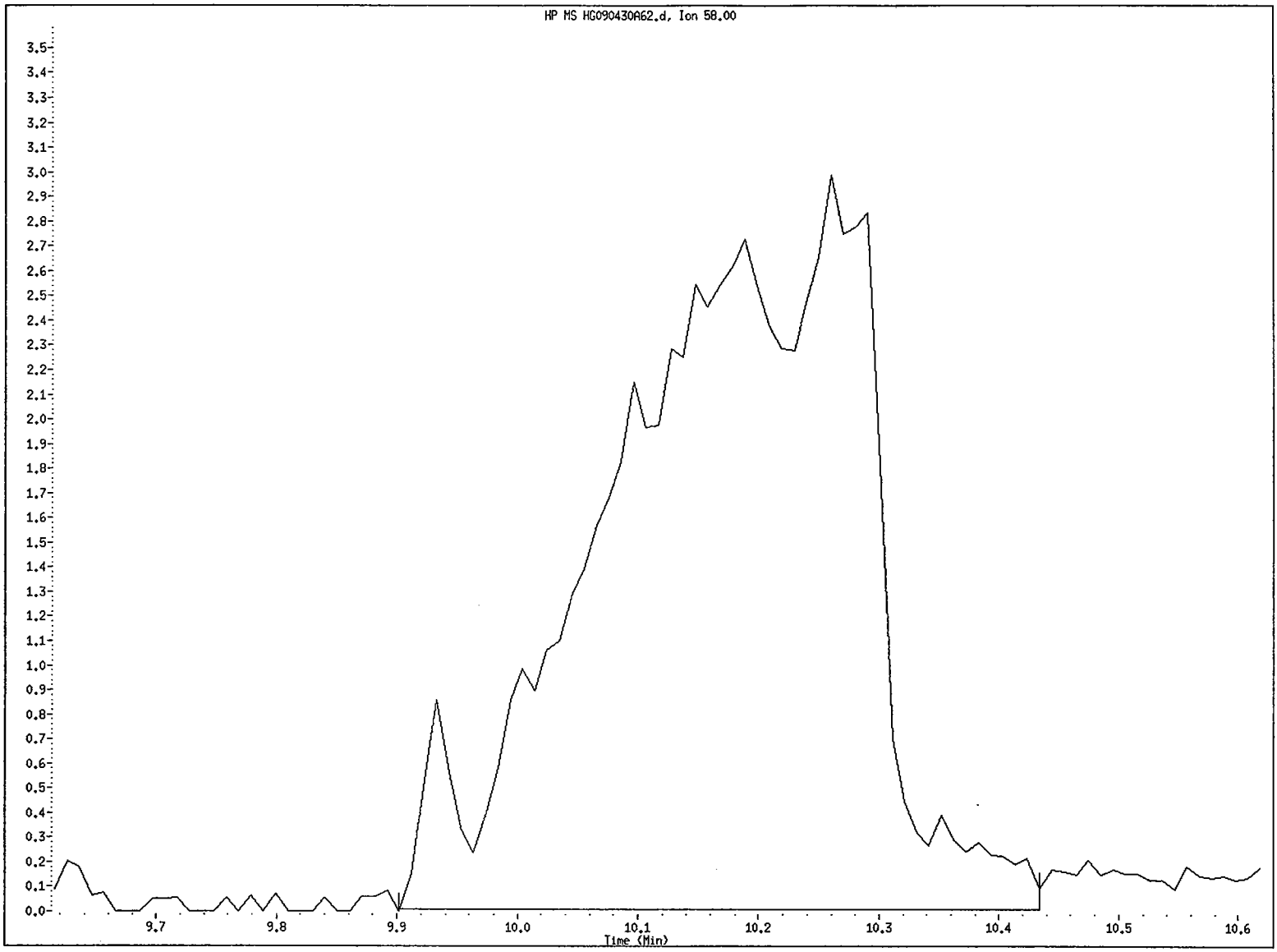
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 28.49
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 436011 Manually integrat



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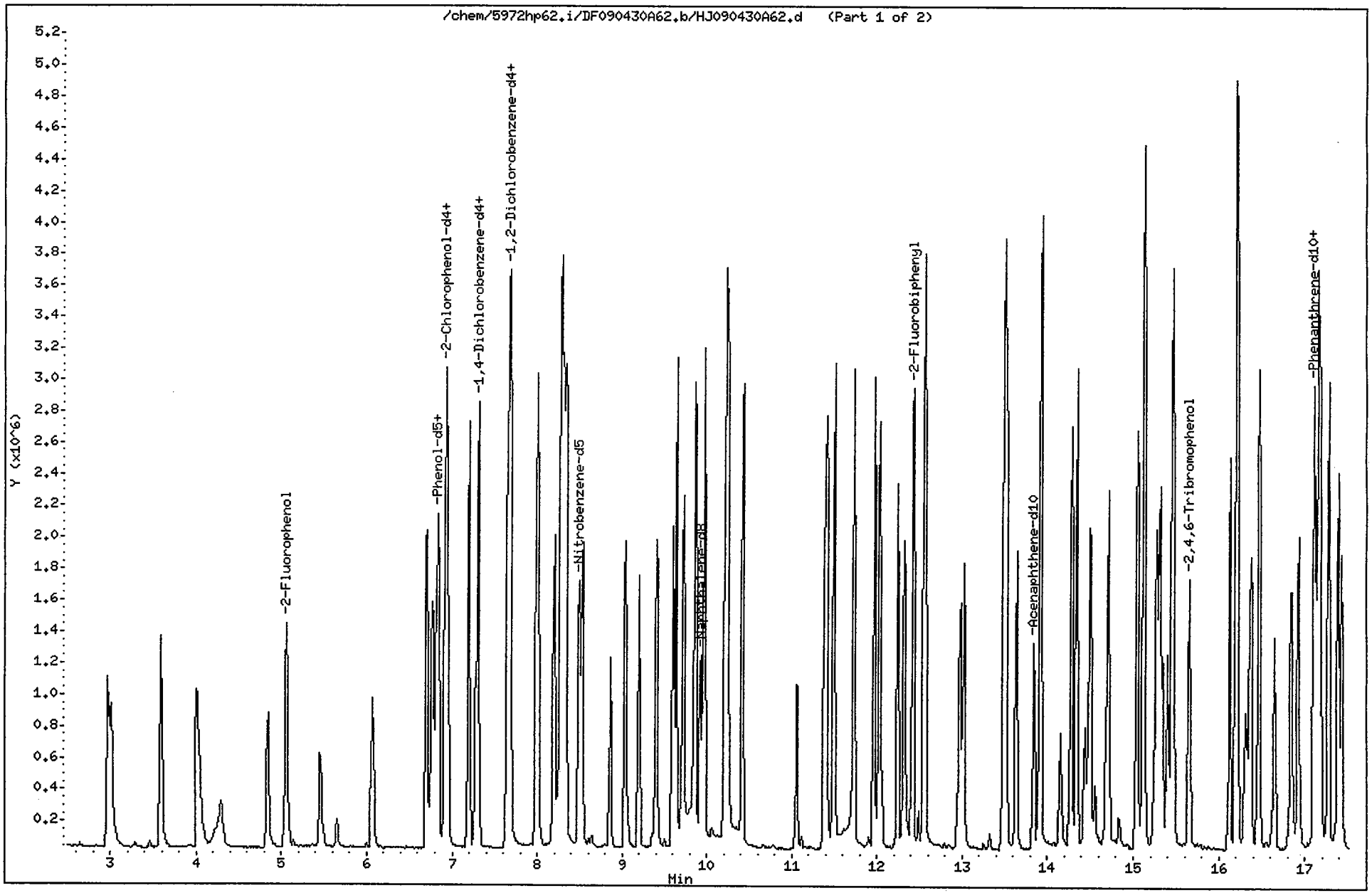
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 10.26
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Date : 30-APR-2009 18:27
Client ID: SSTD120
Sample Info: SSTD120:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



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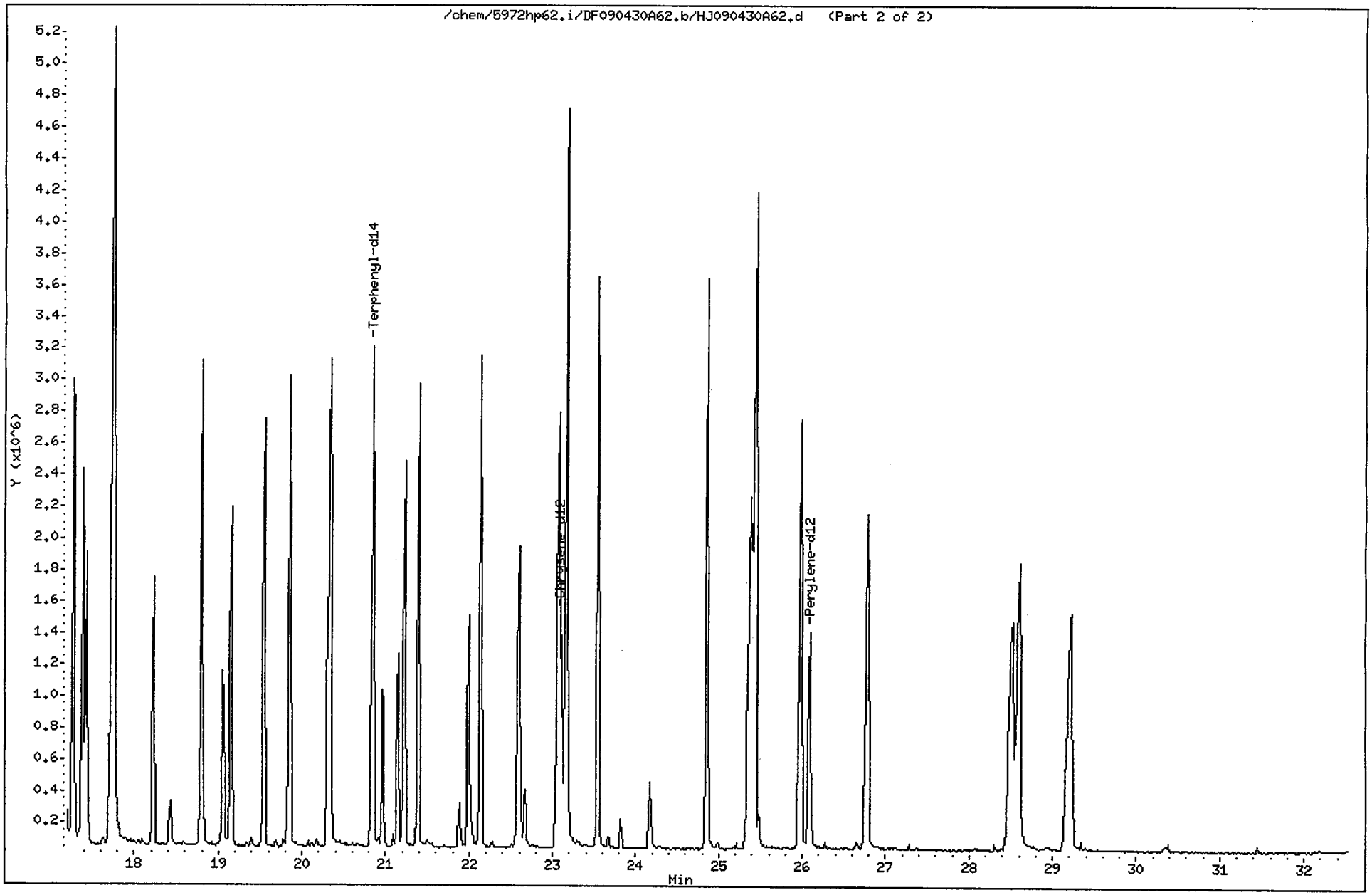
Date : 30-APR-2009 18:27
Client ID: SSTD120
Sample Info: SSTD120:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 30-APR-2009 18:27
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD120:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 18:27 Cal File: HJ090430A62.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.278	7.268	(1.000)	289451	40.0000		
*	2 Naphthalene-d8	136	9.929	9.919	(1.000)	983868	40.0000		
*	3 Acenaphthene-d10	164	13.839	13.839	(1.000)	495962	40.0000		
*	4 Phenanthrene-d10	188	17.125	17.114	(1.000)	775734	40.0000		
*	5 Chrysene-d12	240	23.102	23.092	(1.000)	939704	40.0000		
*	6 Perylene-d12	264	26.091	26.081	(1.000)	1025189	40.0000		
$	7 2-Fluorophenol	112	5.057	5.047	(0.695)	826834	120.000	120	
$	8 Phenol-d5	99	6.818	6.797	(0.937)	963874	120.000	110	
$	9 2-Chlorophenol-d4	132	6.920	6.910	(0.951)	812898	120.000	120	9145
$	10 1,2-Dichlorobenzene-d4	152	7.647	7.646	(1.051)	655521	120.000	110	9566
$	11 Nitrobenzene-d5	82	8.496	8.486	(0.856)	1035751	120.000	120	
$	12 2-Fluorobiphenyl	172	12.427	12.416	(0.898)	1657173	120.000	110	
$	13 2,4,6-Tribromophenol	330	15.661	15.640	(1.132)	540663	120.000	120	
$	14 Terphenyl-d14	244	20.851	20.840	(0.903)	1956231	120.000	110	
	15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	480067	120.000	130	8609

Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.408)	985335	120.000	120	9464
17 Ethylmethacrylate	69	3.593	3.593	(0.494)	707012	120.000	120	9300
18 2-Picoline	93	4.013	4.003	(0.551)	981453	120.000	120	8902
19 Nitrosomethylethylamine	88	4.289	4.299	(0.589)	355710	120.000	120	9147
20 Methyl Methanesulfonate	80	4.842	4.832	(0.665)	663601	120.000	120	9132
21 N-Nitrosodiethylamine	102	5.456	5.446	(0.750)	310415	120.000	120	9264
22 Ethyl Methanesulfonate	79	6.070	6.060	(0.834)	813239	120.000	120	9296
23 Phenol	94	6.848	6.828	(0.941)	972241	120.000	110	
24 Aniline	93	6.766	6.756	(0.930)	1357891	120.000	120	7294
25 Bis(2-chloroethyl)ether	93	6.930	6.920	(0.952)	837055	120.000	120	
26 Pentachloroethane	167	6.705	6.705	(0.921)	459500	120.000	120	9555
27 2-Chlorophenol	128	6.951	6.940	(0.955)	911184	120.000	110	9418
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.989)	1117809	120.000	110	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.004)	1107206	120.000	110	
30 Benzyl Alcohol	108	7.688	7.667	(1.056)	504282	120.000	110	
31 1,2-Dichlorobenzene	146	7.677	7.667	(1.055)	940346	120.000	110	
32 2-Methylphenol	108	8.015	7.984	(1.101)	721701	120.000	120	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.098)	1136536	120.000	120	9006
34 N-Nitrosopyrrolidine	100	8.251	8.209	(1.134)	225375	120.000	160	5563(H)
35 3-Methylphenol	108	8.332	8.312	(1.145)	1503100	240.000	230	
36 4-Methylphenol	108	8.332	8.312	(1.145)	1503100	240.000	230	
37 3-4-Methylphenol	108	8.332	8.312	(1.145)	1504306	240.000	220	8743
38 N-Nitroso-di-N-propylamine	70	8.312	8.291	(1.142)	341988	120.000	120	8816
39 Acetophenone	105	8.199	8.189	(0.826)	1196221	120.000	110	0(M)
40 N-Nitrosomorpholine	116	8.281	8.261	(1.138)	99839	120.000	140	0(M)
41 o-Toluidine	106	8.292	8.281	(1.139)	1062866	120.000	110	7223
42 Hexachloroethane	117	8.271	8.271	(1.136)	465899	120.000	110	9696
43 Nitrobenzene	77	8.537	8.517	(0.860)	980521	120.000	120	9086
44 N-Nitrosopiperidine	114	8.865	8.844	(0.893)	395348	120.000	120	9104
45 Isophorone	82	9.039	9.018	(0.910)	1664955	120.000	120	9097
46 2-Nitrophenol	139	9.203	9.192	(0.927)	529971	120.000	110	8879
47 2,4-Dimethylphenol	122	9.407	9.397	(0.947)	630746	120.000	110	8944
48 Benzoic Acid	122	9.878	9.755	(0.995)	466661	600.000	610	7556(AM)
49 o,o,o-Triethylphosphorothioat	198	9.643	9.632	(0.971)	391172	120.000	110	9123
50 Bis(2-chloroethoxy)methane	93	9.602	9.591	(0.967)	1162078	120.000	110	9300
51 2,4-Dichlorophenol	162	9.725	9.704	(0.979)	764832	120.000	110	
52 1,2,4-Trichlorobenzene	180	9.858	9.857	(0.993)	943885	120.000	110	
53 Naphthalene	128	9.970	9.960	(1.004)	2314256	120.000	110	9619
54 4-Chloroaniline	127	10.226	10.216	(1.030)	936671	120.000	110	8790
55 2,6-Dichlorophenol	162	10.216	10.205	(1.029)	695829	120.000	110	
56 Hexachloropropene	213	10.247	10.236	(1.032)	740660	120.000	110	9568
57 Hexachlorobutadiene	225	10.421	10.410	(1.049)	595940	120.000	110	9078
58 N-Nitroso-di-n-butylamine	84	11.065	11.055	(1.114)	329145	120.000	120	8967
59 p-Phenylenediamine	108	11.188	11.116	(0.808)	20247	120.000	120	(MH)
60 4-Chloro-3-methylphenol	107	11.383	11.372	(1.146)	664704	120.000	110	9727
61 Safrole	162	11.403	11.403	(1.148)	583872	120.000	100	9803
62 2-Methylnaphthalene	141	11.495	11.485	(1.158)	1227268	120.000	110	

Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.731	11.720	(1.181)	1425527	120.000	110	
64 Hexachlorocyclopentadiene	237	12.028	12.027	(0.869)	757672	120.000	120	9580
65 1,2,4,5-Tetrachlorobenzene	216	11.966	11.956	(0.865)	953545	120.000	110	9428
66 2,4,6-Trichlorophenol	196	12.242	12.232	(0.885)	558750	120.000	110	
67 2,4,5-Trichlorophenol	196	12.314	12.314	(0.890)	652647	120.000	120	
68 Isosafrole	162	12.058	12.048	(0.871)	113068	120.000	120	
69 2-Chloronaphthalene	162	12.560	12.549	(0.908)	2058453	120.000	110	
70 2-Nitroaniline	65	12.969	12.959	(0.937)	530165	120.000	120	8830
71 1,4-Napthoquinone	158	13.020	13.010	(0.941)	637416	120.000	110	9471
72 Dimethylphthalate	163	13.512	13.501	(0.976)	1628411	120.000	110	8809
73 1,3-Dinitrobenzene	168	13.501	13.491	(0.976)	318633	120.000	120	0(M)
74 2,6-Dinitrotoluene	165	13.635	13.624	(0.985)	488285	120.000	120	9611
75 Acenaphthylene	152	13.491	13.481	(0.975)	2271689	120.000	110	8953
76 3-Nitroaniline	138	13.921	13.900	(1.006)	417687	120.000	120	8915
77 Acenaphthene	154	13.921	13.911	(1.006)	1275551	120.000	110	9432
78 2,4-Dinitrophenol	184	14.157	14.126	(1.023)	238041	120.000	140	
79 4-Nitrophenol	139	14.443	14.402	(1.044)	378865	120.000	130	8958
80 Pentachlorobenzene	250	14.341	14.330	(1.036)	918503	120.000	110	9815
81 2,4-Dinitrotoluene	165	14.505	14.484	(1.048)	545584	120.000	110	7276
82 Dibenzofuran	168	14.279	14.269	(1.032)	2087162	120.000	110	9332
83 1-Naphthylamine	143	14.505	14.494	(1.048)	460655	120.000	110	
84 2,3,4,6-Tetrachlorophenol	232	14.719	14.699	(1.064)	504662	120.000	110	9270
85 2-Naphthylamine	143	14.689	14.668	(1.061)	599278	120.000	130	
86 Diethylphthalate	149	15.129	15.108	(1.093)	1738952	120.000	110	7434
87 Zinophos	97	15.313	15.282	(1.107)	480286	120.000	120	9026
88 4-Chlorophenyl-phenylether	204	15.129	15.118	(1.093)	803945	120.000	110	7829
89 5-Nitro-o-toluidine	152	15.272	15.241	(1.104)	540064	120.000	120	7603
90 Fluorene	166	15.047	15.037	(1.087)	1541641	120.000	110	7855
91 4-Nitroaniline	138	15.344	15.303	(1.109)	470928	120.000	120	9049
92 4,6-Dinitro-2-methylphenol	198	15.405	15.374	(0.900)	344400	120.000	130	0(M)
93 N-Nitrosodiphenylamine	169	15.456	15.436	(0.903)	1194689	120.000	110	8269
95 1,2-Diphenylhydrazine	77	15.477	15.456	(1.118)	1903648	120.000	110	9488
96 Sulfotep	322	16.132	16.122	(1.166)	328285	120.000	110	9243
97 1,3,5-Trinitrobenzene	75	16.316	16.255	(0.953)	523936	120.000	110	9067
98 Diallate (trans isomer)	86	16.204	16.193	(0.946)	498150	60.0000	55	
99 Diallate (trans) part of total	86	16.204	16.193	(0.946)	498150	60.0000	55	9101
100 Phorate	75	16.224	16.203	(0.947)	1028118	120.000	110	7184
101 Phenacetin	108	16.388	16.337	(0.957)	920146	120.000	120	9502
102 Diallate (cis isomer)	86	16.367	16.357	(0.956)	170304	60.0000	57	
103 Diallate (cis) part of total	86	16.367	16.357	(0.956)	173999	60.0000	40	7336(H)
104 4-Bromophenyl-phenylether	248	16.204	16.193	(0.946)	547047	120.000	110	8786
105 Hexachlorobenzene	284	16.470	16.459	(0.962)	908663	120.000	120	9288
106 Dimethoate	87	16.654	16.613	(0.973)	513584	120.000	110	9108
107 4-Aminobiphenyl	169	16.849	16.828	(0.984)	1302963	120.000	120	0(M)
108 Pentachlorophenol	266	16.930	16.910	(0.989)	497538	120.000	130	7648
109 Pentachloronitrobenzene	237	17.115	17.094	(0.999)	296511	120.000	120	7320
110 Pronamide	173	17.166	17.135	(1.002)	794238	120.000	120	9302

5/5/09

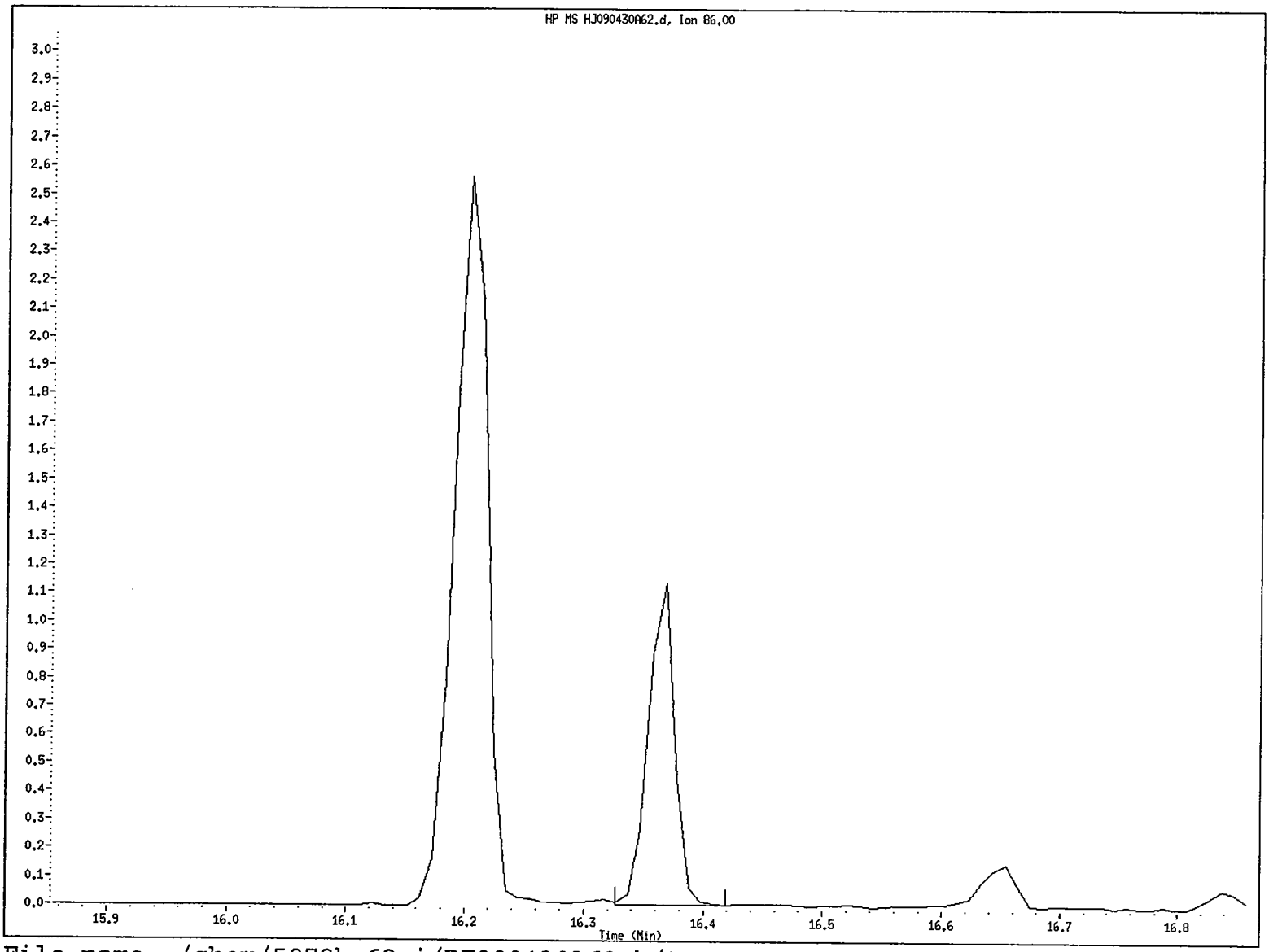
Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111 Disulfoton	88	17.391	17.381	(1.016)	864829	120.000	120	9382
112 Phenanthrene	178	17.186	17.166	(1.004)	2215449	120.000	110	
113 Anthracene	178	17.278	17.268	(1.009)	2367223	120.000	110	
114 Carbazole	167	17.759	17.739	(1.037)	6214432	120.000	120	9378
115 Methyl Parathion	109	18.230	18.220	(1.065)	508337	120.000	110	9235
116 Di-n-butylphthalate	149	18.803	18.793	(1.098)	3033728	120.000	110	9787
117 Parathion	109	19.162	19.141	(1.119)	391216	120.000	120	7793
118 4-Nitroquinoline-1-oxide	190	19.059	19.039	(1.113)	297593	120.000	140	8593
119 Methapyrilene	97	19.397	19.377	(1.133)	15379	120.000	100	9089
120 Isodrin	193	19.551	19.540	(1.142)	329878	120.000	110	9274
121 Fluoranthene	202	19.858	19.847	(1.160)	2394830	120.000	120	9669
122 Benzidine	184	20.308	20.298	(0.879)	614470	120.000	120	8636
123 Pyrene	202	20.339	20.328	(0.880)	2559788	120.000	110	9802
124 p-Dimethylaminoazobenzene	225	21.229	21.219	(0.919)	516322	120.000	120	9137
125 Chlorobenzilate	251	21.393	21.383	(0.926)	916538	120.000	120	9594
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.140	22.130	(0.958)	1380233	120.000	110	9614
129 3,3'-Dimethylbenzidine	212	21.997	21.987	(0.952)	987000	120.000	120	9500
130 2-Acetylaminofluorene	181	22.601	22.570	(0.978)	1034290	120.000	120	9303
131 3,3'-Dichlorobenzidine	252	23.174	23.164	(1.003)	931679	120.000	110	8441
132 bis(2-ethylhexyl)Phthalate	149	23.543	23.542	(1.019)	1892370	120.000	120	9548
133 Benzo(a)anthracene	228	23.072	23.061	(0.999)	2476768	120.000	110	
134 Chrysene	228	23.174	23.153	(1.003)	2059788	120.000	110	
135 Di-n-octylphthalate	149	24.853	24.853	(0.953)	3310339	120.000	120	
136 7,12-Dimethylbenz(a)anthracene	256	25.446	25.416	(0.975)	1082812	120.000	110	8437
137 Benzo(b)fluoranthene	252	25.385	25.354	(0.973)	3141149	120.000	120	
138 Benzo(k)fluoranthene	252	25.436	25.395	(0.975)	2273876	120.000	110	(H)
139 Benzo(a)pyrene	252	25.989	25.968	(0.996)	2565628	120.000	120	
140 3-Methylcholanthrene	268	26.787	26.767	(1.027)	1393721	120.000	120	9609
141 Indeno(1,2,3-c,d)pyrene	276	28.517	28.486	(1.093)	2443755	120.000	120	9250
142 Dibenzo(a,h)anthracene	278	28.599	28.568	(1.096)	2450443	120.000	120	9611
143 Benzo(g,h,i)perylene	276	29.223	29.172	(1.120)	2542860	120.000	120	8908
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				672149	120.000	100	0
201 a,a-Dimethylphenethylamine	58	10.287	10.113	(1.036)	823775	120.000	95	4864(M)
202 Aramite	185	21.147	21.137	(0.915)	168544	120.000	120	9132

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 173999 User selected



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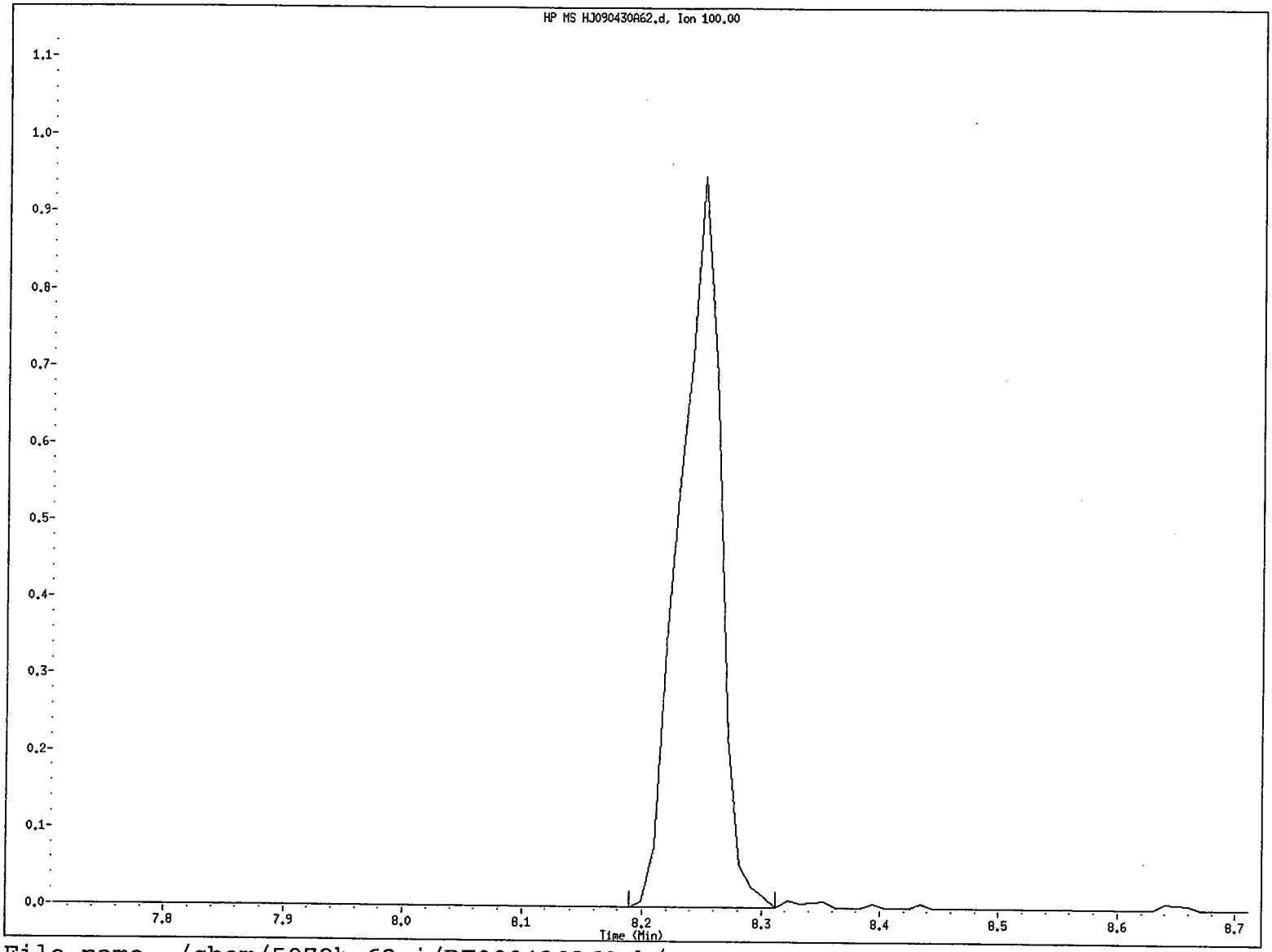
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 16.37
Operator ID: 2650

N-Nitrosopyrrolidine CAS Number 930-55-2 Area = 225375 User selected hit



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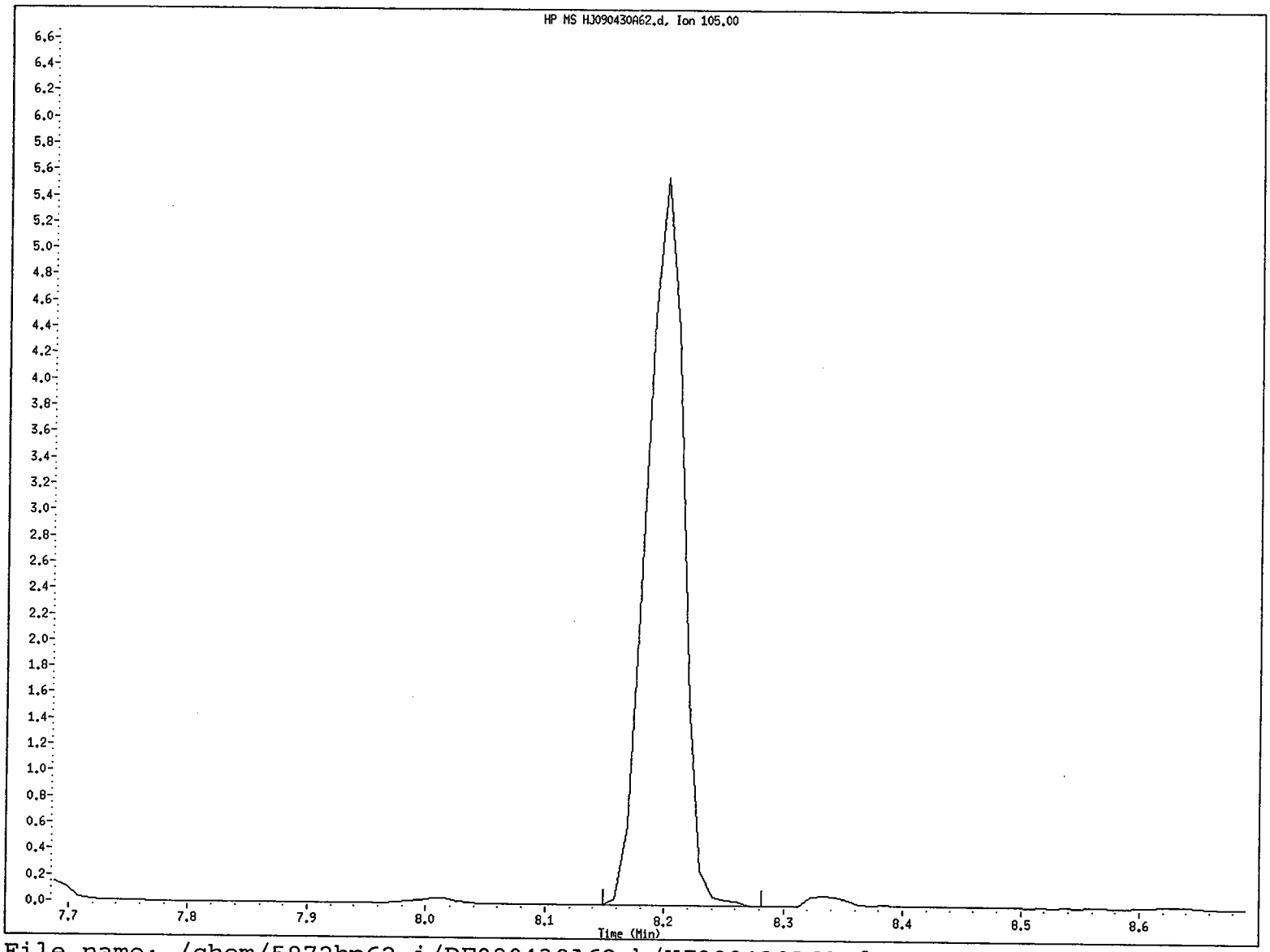
Retention Time: 8.25
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 1196221 Manually integrated



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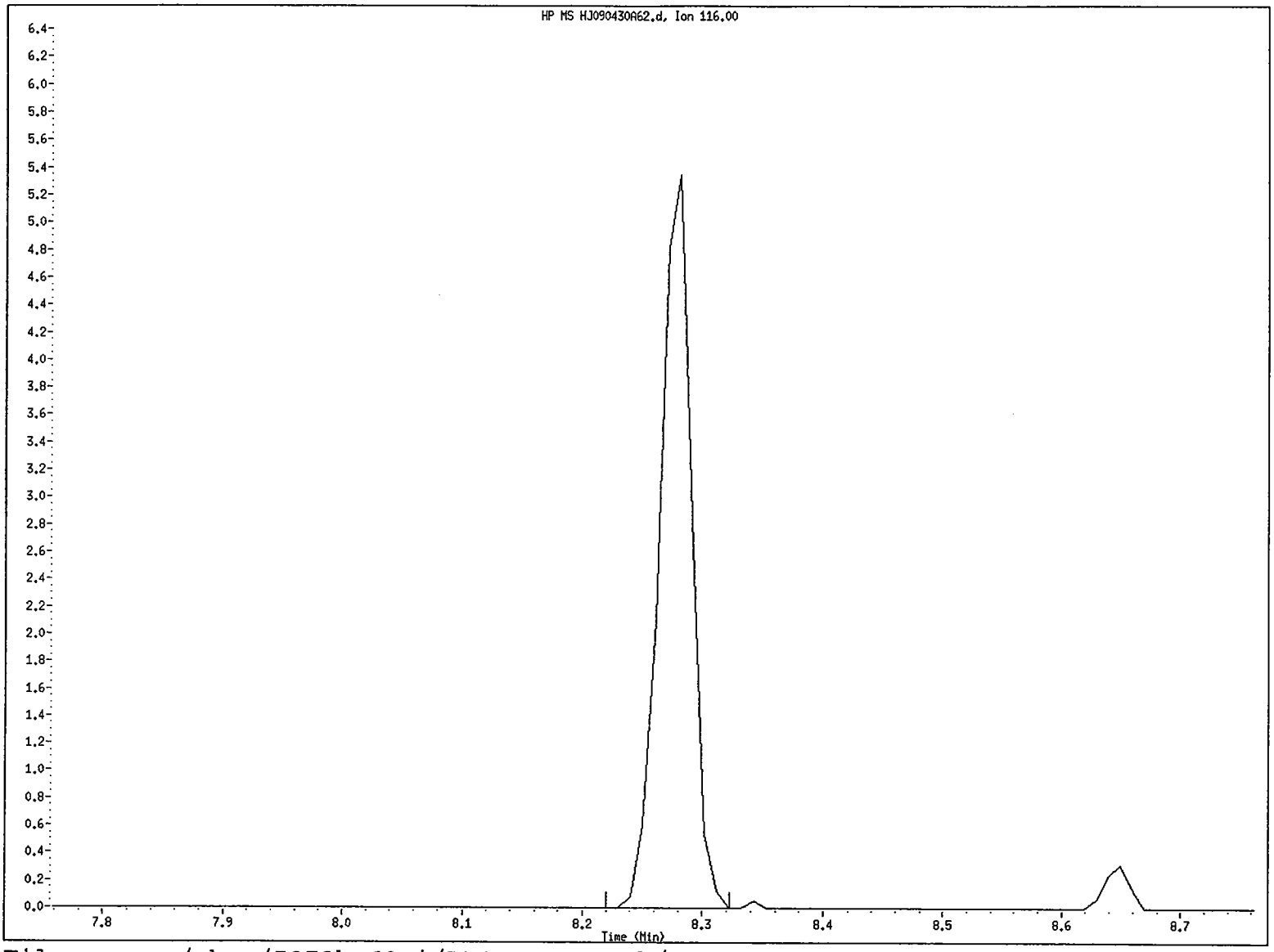
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 99839 Manually integrated



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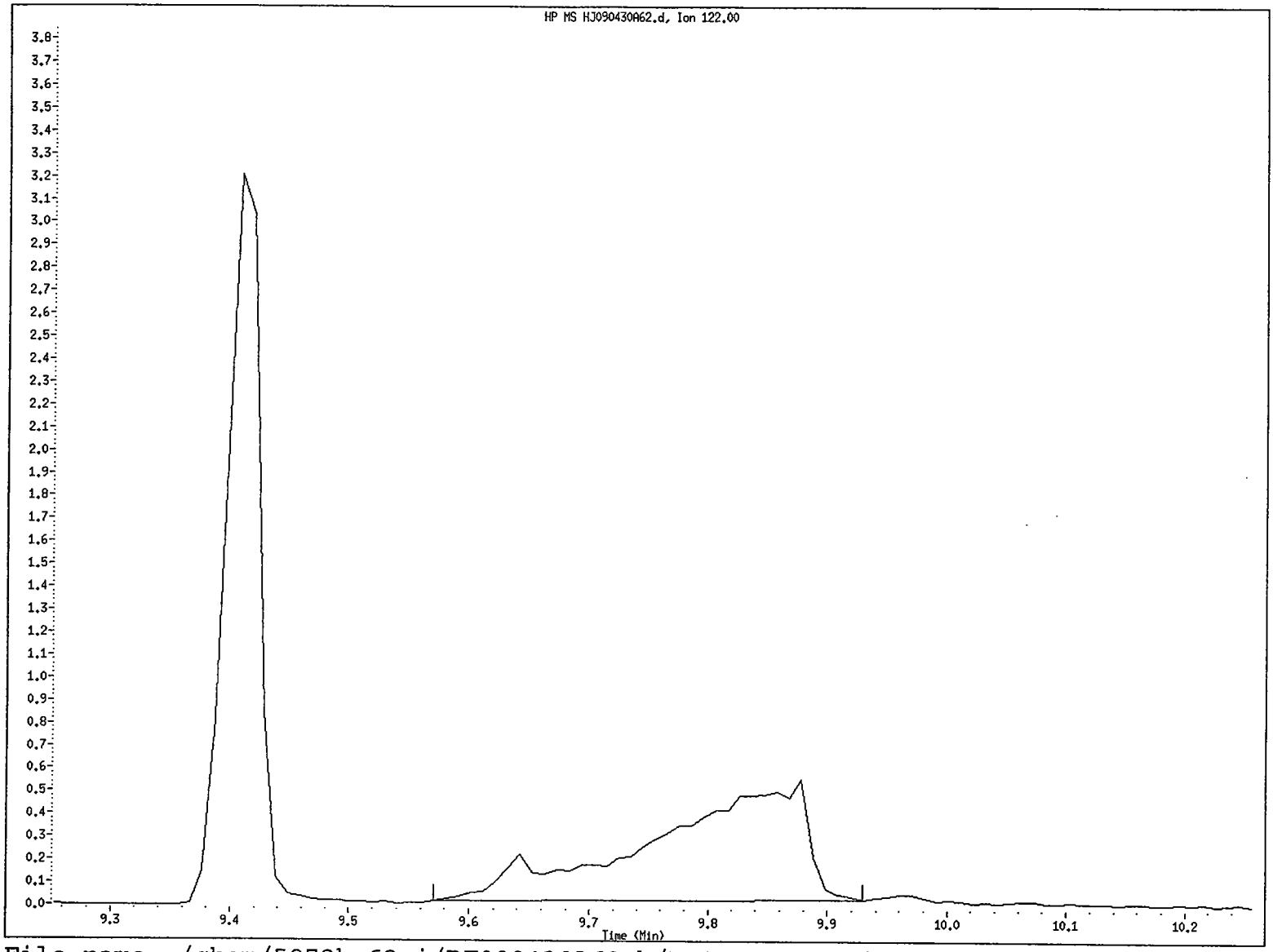
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 8.28
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 466661 Manually integrated



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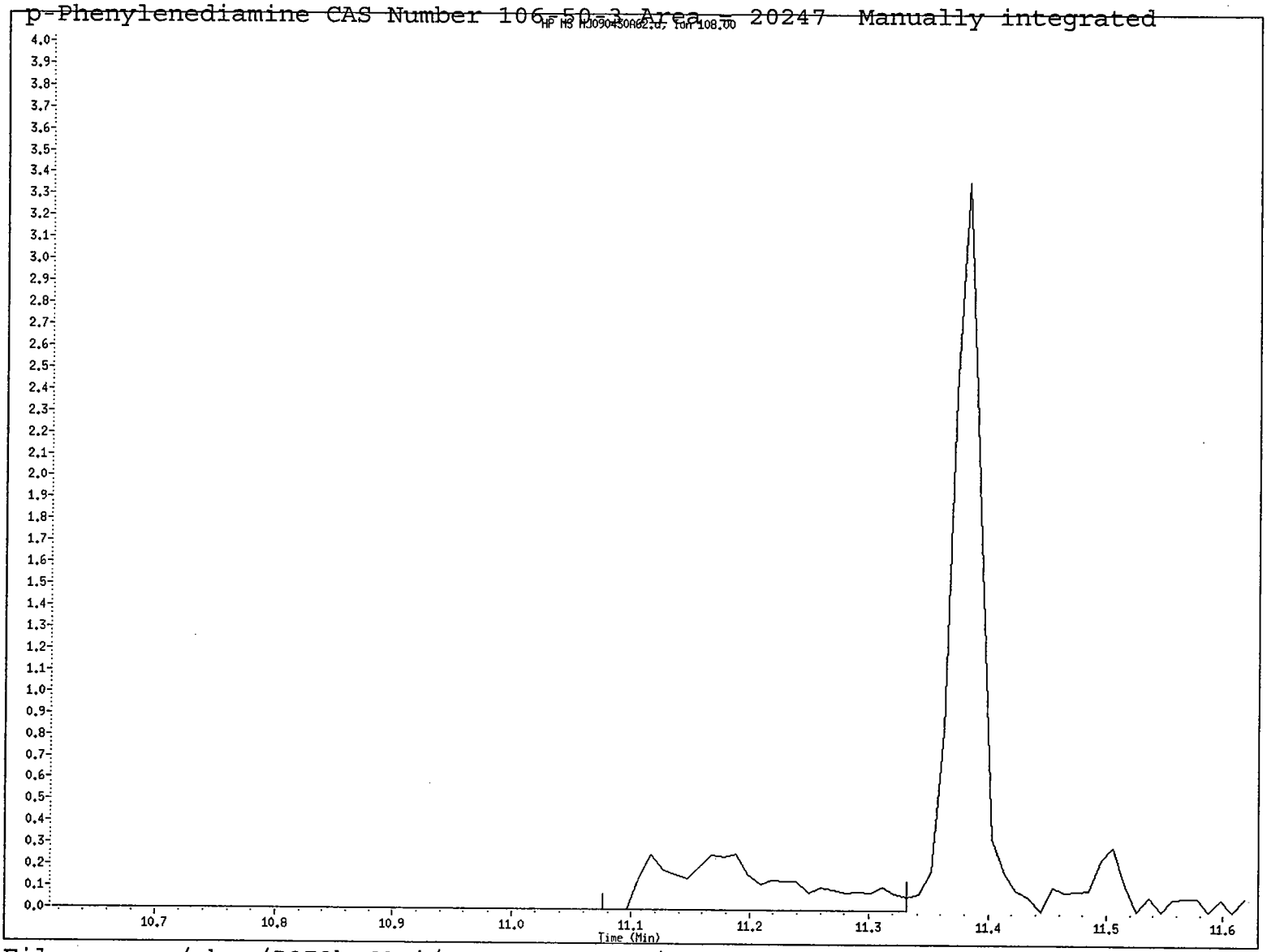
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 9.88
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 20247 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 20247 Manually integrated



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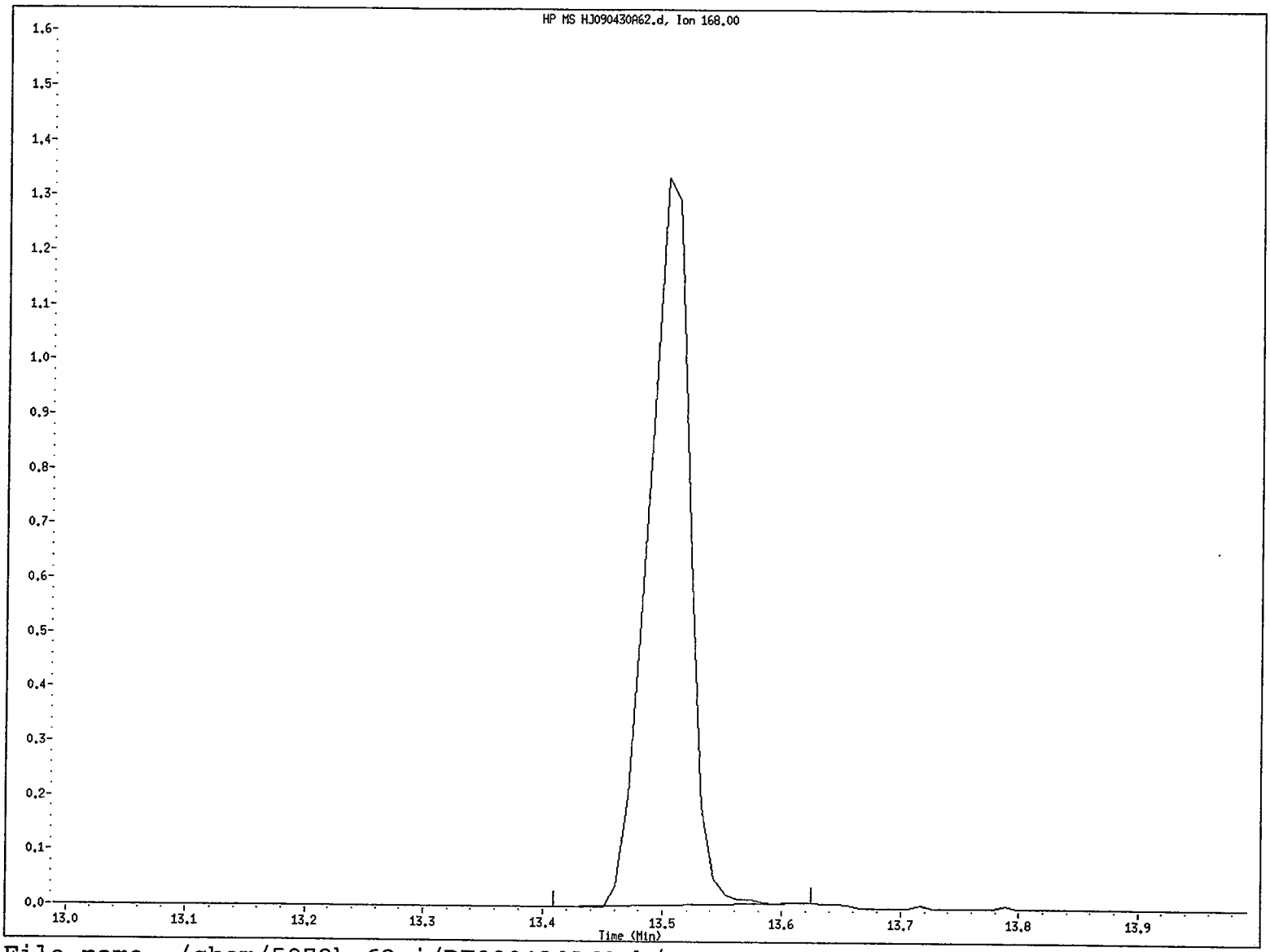
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 11.19
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 318633 Manually integrated



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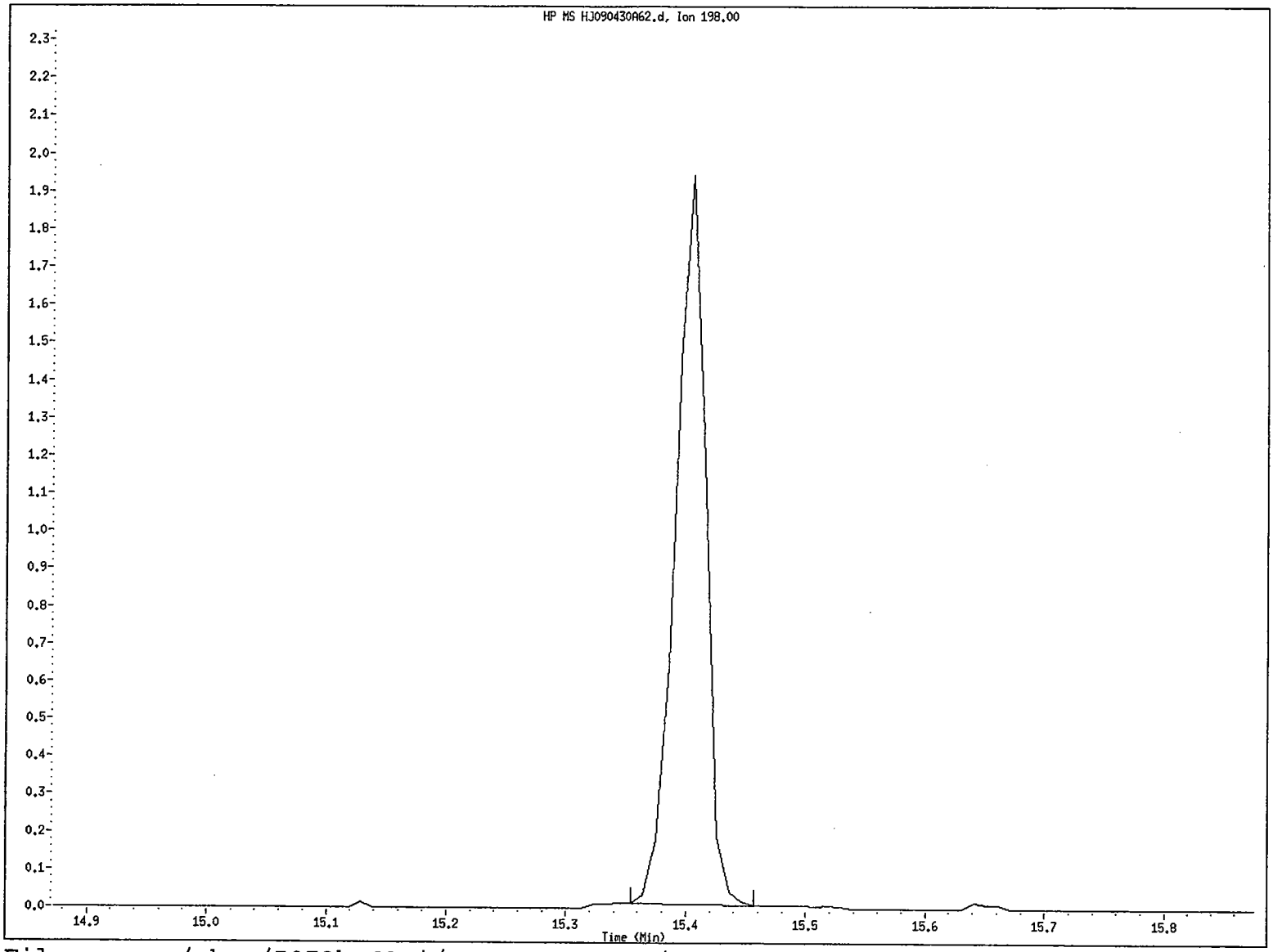
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 13.50
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 344400 Manually integrat



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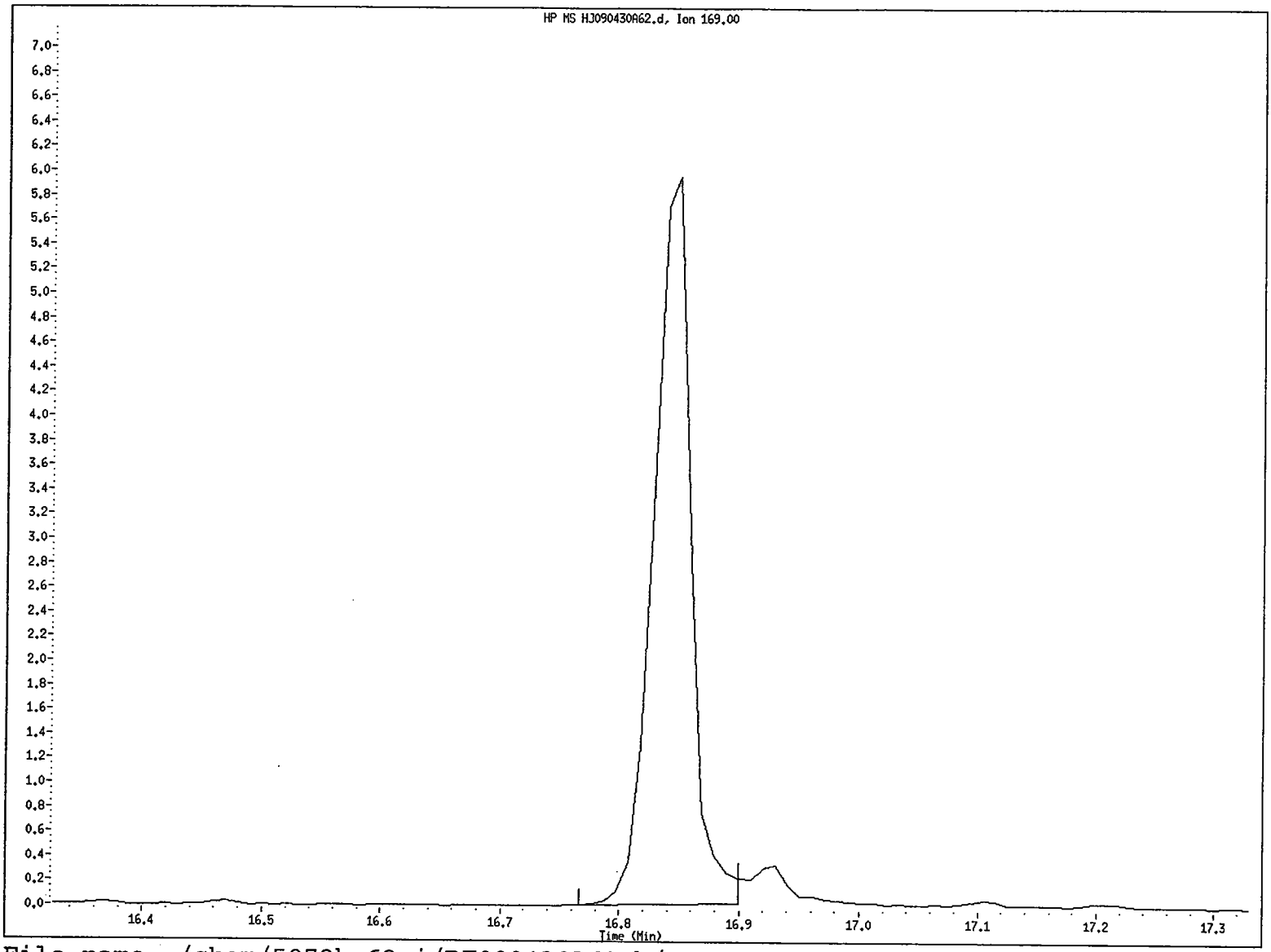
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 15.41
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 1302963 Manually integrated



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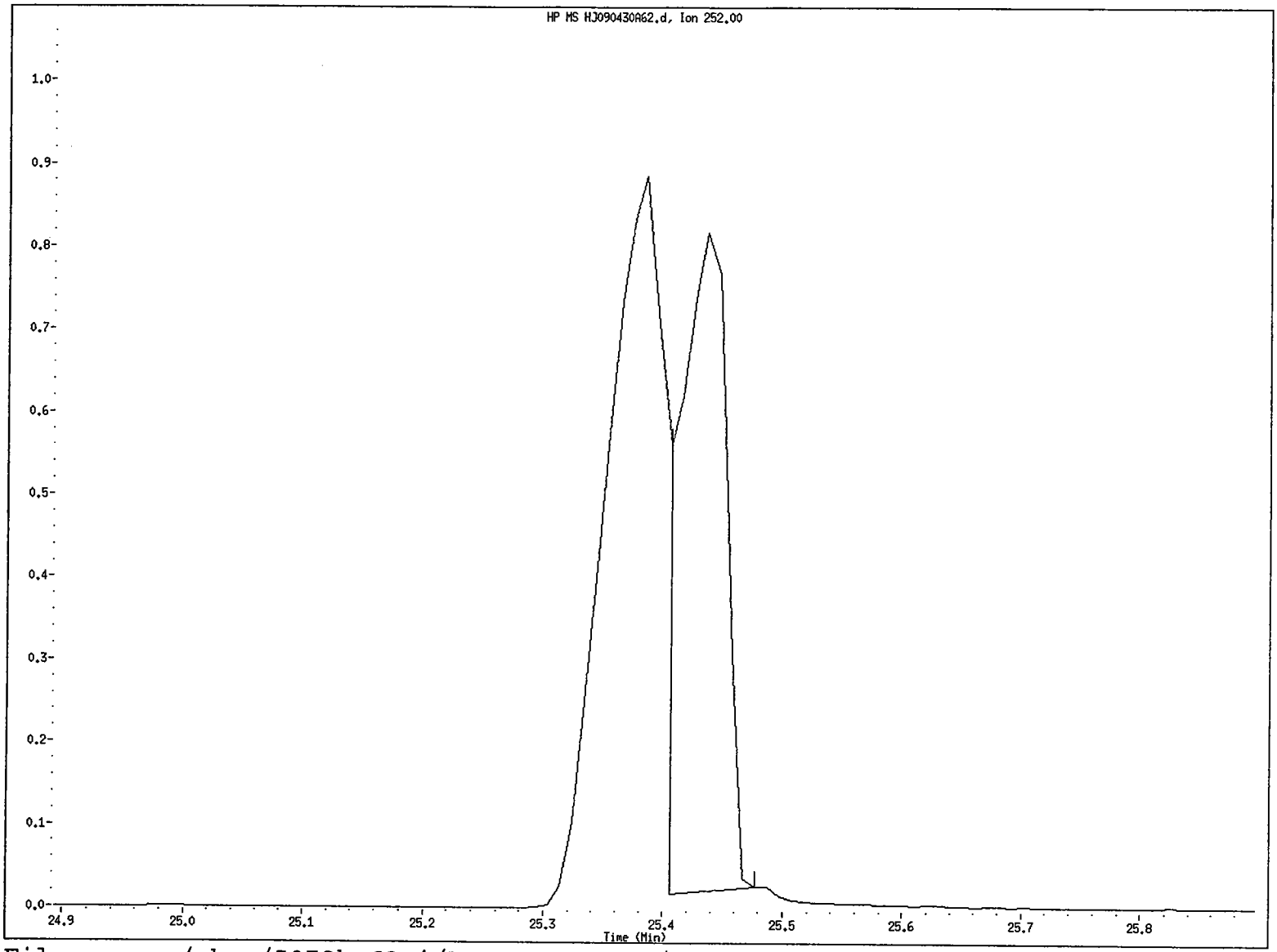
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 16.85
Operator ID: 2650

Benzo(k)fluoranthene CAS Number 207-08-9 Area = 2273876 User selected hit



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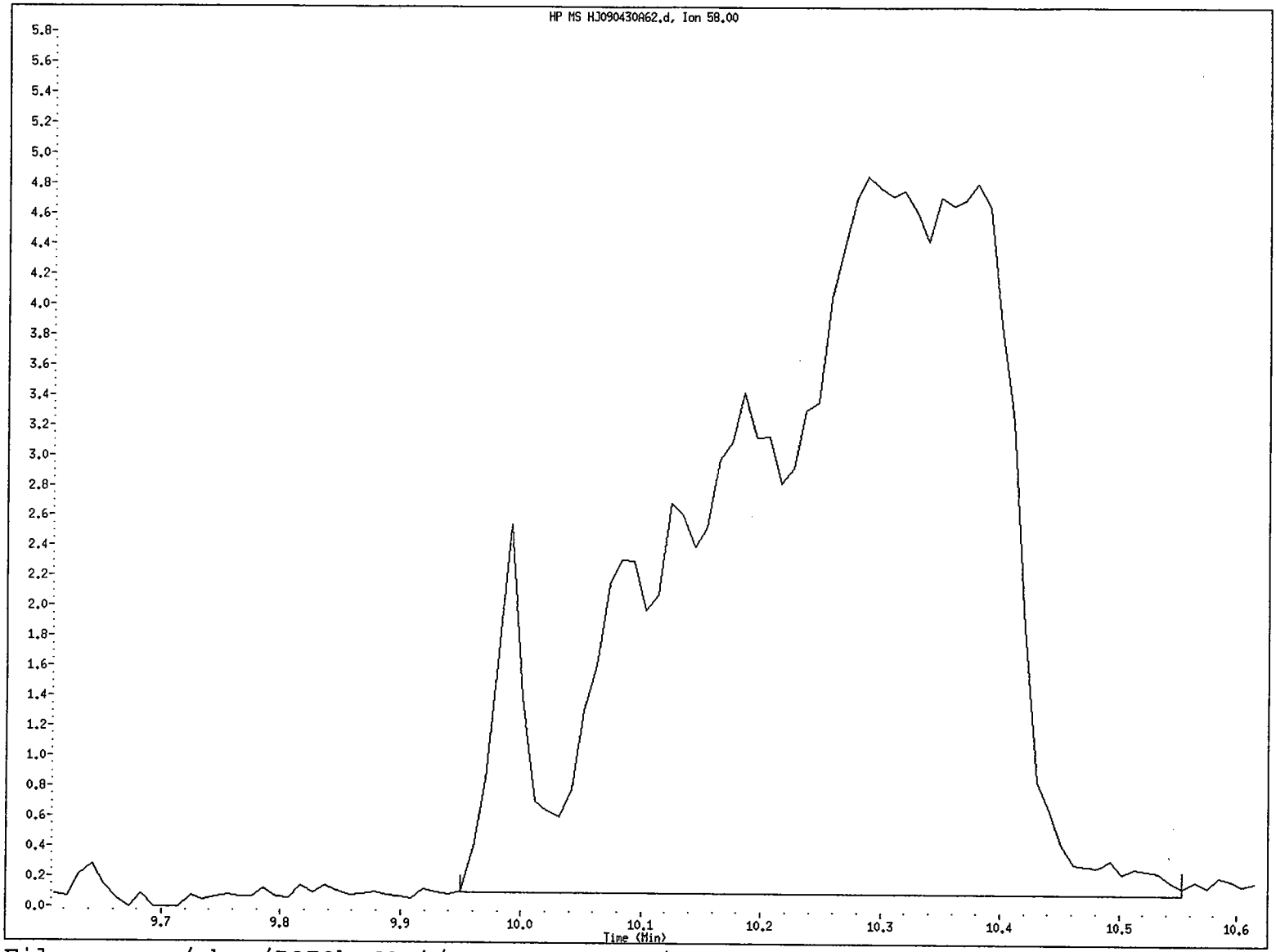
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 25.44
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 823775 Manually integrat



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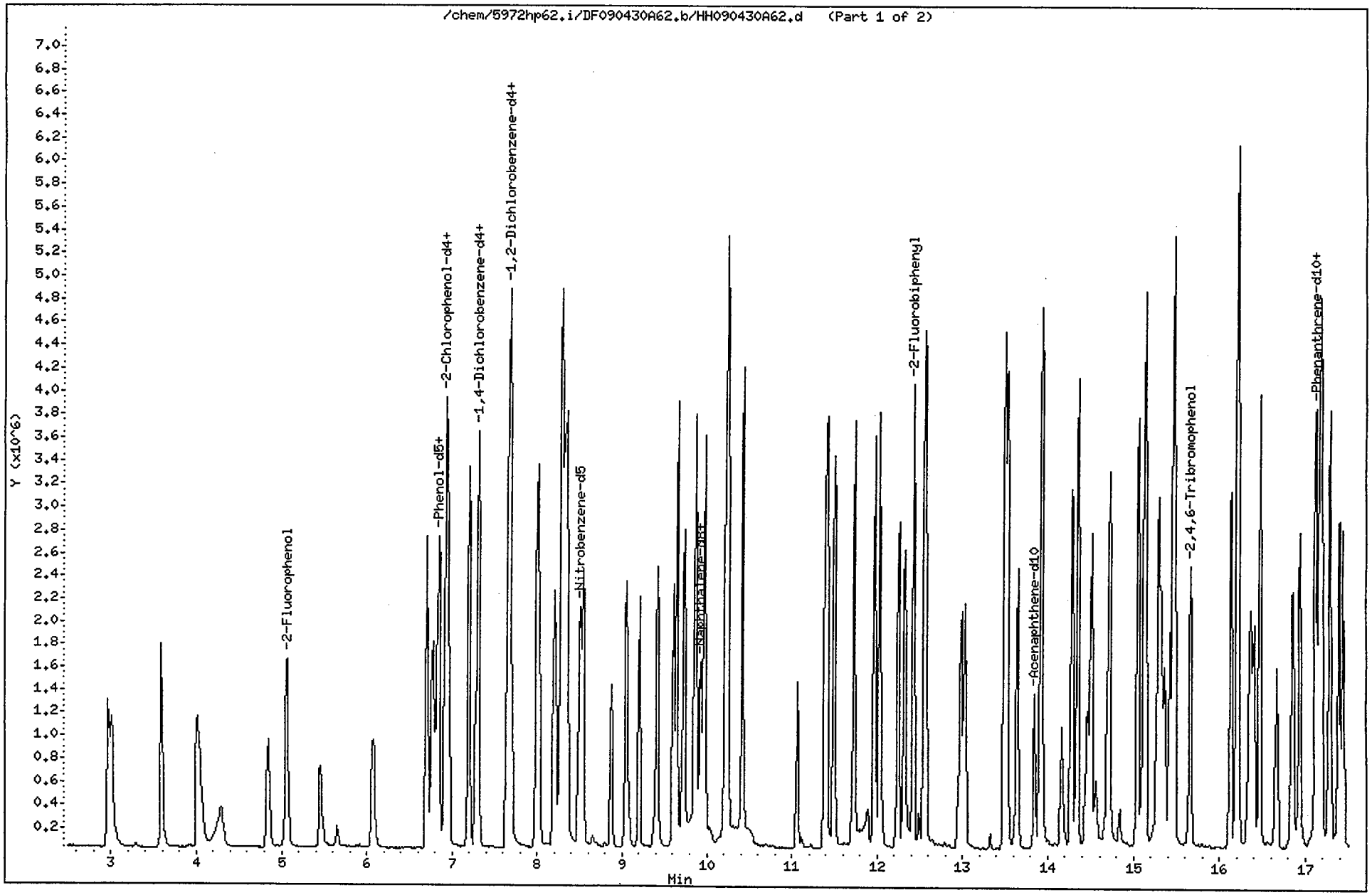
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 10.29
Operator ID: 2650

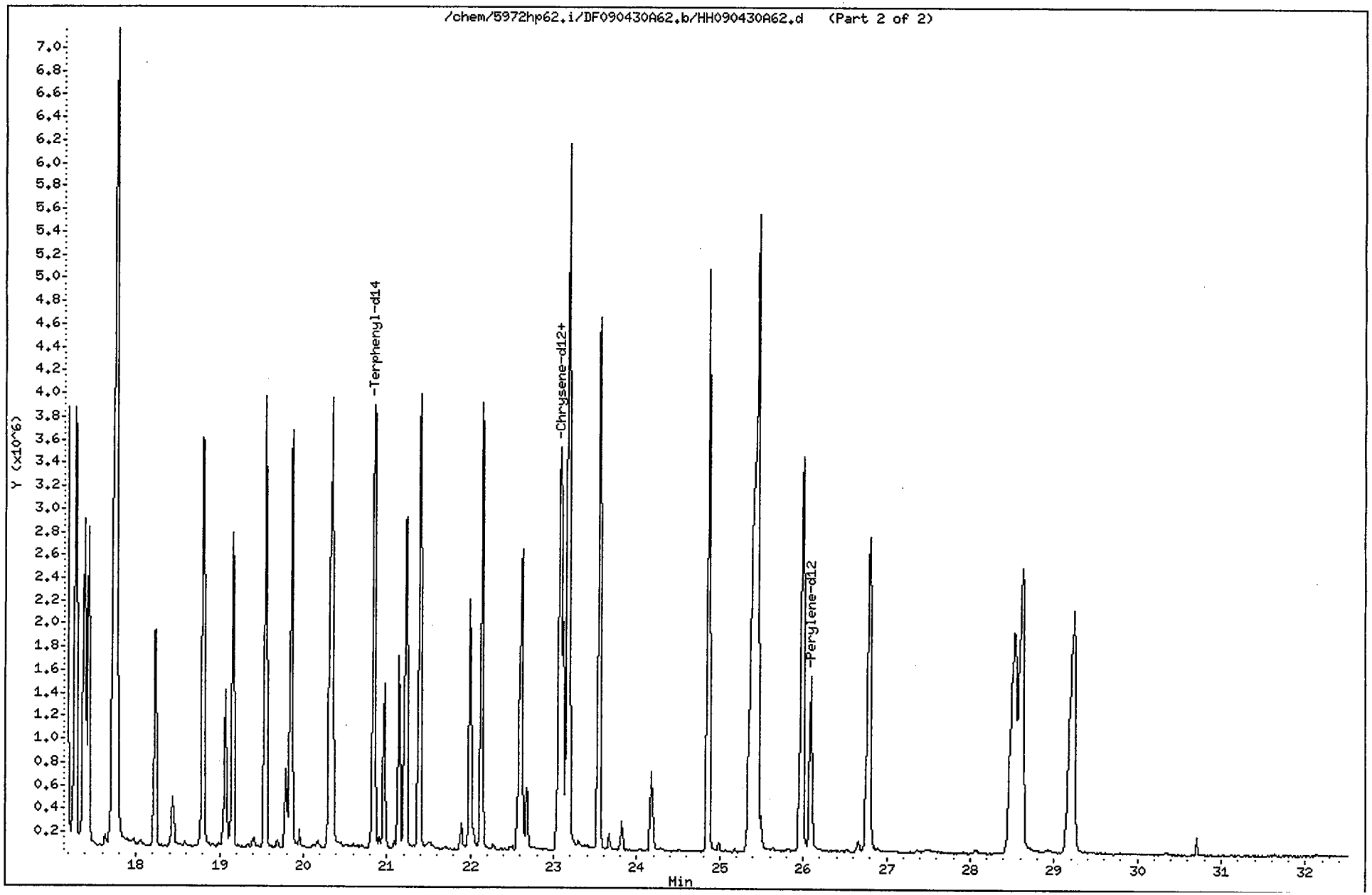
Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Date : 30-APR-2009 17:04
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Date : 30-APR-2009 17:04
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 30-APR-2009 17:04
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD160:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 17:04 Cal File: HH090430A62.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.278	7.268	(1.000)	318466	40.0000		
*	2 Naphthalene-d8	136	9.929	9.919	(1.000)	1035262	40.0000		
*	3 Acenaphthene-d10	164	13.839	13.839	(1.000)	561874	40.0000		
*	4 Phenanthrene-d10	188	17.135	17.114	(1.000)	837875	40.0000		
*	5 Chrysene-d12	240	23.112	23.092	(1.000)	1168158	40.0000		
*	6 Perylene-d12	264	26.091	26.081	(1.000)	1193436	40.0000		
$	7 2-Fluorophenol	112	5.067	5.047	(0.696)	1088524	160.000	150	
$	8 Phenol-d5	99	6.827	6.797	(0.938)	1302893	160.000	150	
$	9 2-Chlorophenol-d4	132	6.920	6.910	(0.951)	1041474	160.000	140	8592
$	10 1,2-Dichlorobenzene-d4	152	7.646	7.646	(1.051)	867158	160.000	150	9528
$	11 Nitrobenzene-d5	82	8.506	8.486	(0.857)	1362377	160.000	150	
$	12 2-Fluorobiphenyl	172	12.426	12.416	(0.898)	2332653	160.000	150	
$	13 2,4,6-Tribromophenol	330	15.661	15.640	(1.132)	766923	160.000	160	
$	14 Terphenyl-d14	244	20.861	20.840	(0.903)	2685902	160.000	140	
	15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	627483	160.000	160	8730(A)

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.408)	1263434	160.000	140	9491
17 Ethylmethacrylate	69	3.593	3.593	(0.494)	899564	160.000	150	9428
18 2-Picoline	93	4.013	4.003	(0.551)	1369866	160.000	150	8887
19 Nitrosomethylethylamine	88	4.279	4.299	(0.588)	509257	160.000	150	8857
20 Methyl Methanesulfonate	80	4.842	4.832	(0.665)	898684	160.000	160	9018
21 N-Nitrosodiethylamine	102	5.456	5.446	(0.750)	414599	160.000	160	9191
22 Ethyl Methanesulfonate	79	6.080	6.060	(0.835)	1070084	160.000	160	9281
23 Phenol	94	6.858	6.828	(0.942)	1288160	160.000	140	
24 Aniline	93	6.776	6.756	(0.931)	1791310	160.000	150	6106 (H)
25 Bis(2-chloroethyl)ether	93	6.930	6.920	(0.952)	1021819	160.000	140	
26 Pentachloroethane	167	6.705	6.705	(0.921)	617388	160.000	150	9593
27 2-Chlorophenol	128	6.961	6.940	(0.956)	1226058	160.000	150	9289
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.989)	1483054	160.000	140	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.004)	1452956	160.000	150	
30 Benzyl Alcohol	108	7.698	7.667	(1.058)	697053	160.000	150	
31 1,2-Dichlorobenzene	146	7.677	7.667	(1.055)	1278105	160.000	140	
32 2-Methylphenol	108	8.025	7.984	(1.103)	941559	160.000	150	
33 2,2'-oxybis(1-Chloropropane)	45	7.994	7.995	(1.098)	1429964	160.000	150	9064
34 N-Nitrosopyrrolidine	100	8.240	8.209	(1.132)	92467	160.000	69	5952 (M)
35 3-Methylphenol	108	8.353	8.312	(1.148)	1943869	320.000	290	
36 4-Methylphenol	108	8.353	8.312	(1.148)	1943869	320.000	290	
37 3-4-Methylphenol	108	8.353	8.312	(1.148)	1943869	320.000	290	9108
38 N-Nitroso-di-N-propylamine	70	8.322	8.291	(1.143)	447185	160.000	150	8723
39 Acetophenone	105	8.209	8.189	(0.827)	1629051	160.000	150	0 (M)
40 N-Nitrosomorpholine	116	8.291	8.261	(1.139)	78598	160.000	120	8039
41 o-Toluidine	106	8.301	8.281	(1.141)	1409025	160.000	150	0 (M)
42 Hexachloroethane	117	8.271	8.271	(1.136)	641142	160.000	150	9726
43 Nitrobenzene	77	8.537	8.517	(0.860)	1279836	160.000	150	9300
44 N-Nitrosopiperidine	114	8.875	8.844	(0.894)	541186	160.000	160	9143
45 Isophorone	82	9.049	9.018	(0.911)	2205894	160.000	150	9009
46 2-Nitrophenol	139	9.202	9.192	(0.927)	750534	160.000	160	8969
47 2,4-Dimethylphenol	122	9.417	9.397	(0.948)	840606	160.000	150	8903
48 Benzoic Acid	122	9.908	9.755	(0.998)	723197	800.000	810	5609 (AM)
49 o,o,o-Triethylphosphorothioat	198	9.653	9.632	(0.972)	514078	160.000	150	9117
50 Bis(2-chloroethoxy)methane	93	9.612	9.591	(0.968)	1539542	160.000	150	9153
51 2,4-Dichlorophenol	162	9.734	9.704	(0.980)	1041614	160.000	150	
52 1,2,4-Trichlorobenzene	180	9.867	9.857	(0.994)	1271471	160.000	150	
53 Naphthalene	128	9.970	9.960	(1.004)	3012476	160.000	150	9584
54 4-Chloroaniline	127	10.236	10.216	(1.031)	1208061	160.000	140	8635
55 2,6-Dichlorophenol	162	10.215	10.205	(1.029)	945415	160.000	150	
56 Hexachloropropene	213	10.246	10.236	(1.032)	990229	160.000	150	9492
57 Hexachlorobutadiene	225	10.420	10.410	(1.049)	801931	160.000	150	9254
58 N-Nitroso-di-n-butylamine	84	11.065	11.055	(1.114)	467799	160.000	160	9059 (A)
59 p-Phenylenediamine	108	11.208	11.116	(0.810)	33774	160.000	190	(AMH)
60 4-Chloro-3-methylphenol	107	11.393	11.372	(1.147)	897360	160.000	150	9451
61 Safrole	162	11.413	11.403	(1.149)	811275	160.000	150	9746
62 2-Methylnaphthalene	141	11.495	11.485	(1.158)	1600054	160.000	150	

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.730	11.720	(1.181)	1881963	160.000	140	
64 Hexachlorocyclopentadiene	237	12.027	12.027	(0.869)	1045405	160.000	150	9562
65 1,2,4,5-Tetrachlorobenzene	216	11.966	11.956	(0.865)	1299167	160.000	140	9337
66 2,4,6-Trichlorophenol	196	12.252	12.232	(0.885)	777448	160.000	150	
67 2,4,5-Trichlorophenol	196	12.324	12.314	(0.891)	864423	160.000	150	
68 Isosafrole	162	12.058	12.048	(0.871)	161459	160.000	150	
69 2-Chloronaphthalene	162	12.559	12.549	(0.908)	2711870	160.000	140	
70 2-Nitroaniline	65	12.979	12.959	(0.938)	712239	160.000	160	8962
71 1,4-Napthoquinone	158	13.030	13.010	(0.942)	872274	160.000	140	9363
72 Dimethylphthalate	163	13.522	13.501	(0.977)	2216026	160.000	150	8898
73 1,3-Dinitrobenzene	168	13.511	13.491	(0.976)	436411	160.000	150	0 (M)
74 2,6-Dinitrotoluene	165	13.644	13.624	(0.986)	663512	160.000	150	9628
75 Acenaphthylene	152	13.491	13.481	(0.975)	3053959	160.000	150	9767
76 3-Nitroaniline	138	13.941	13.900	(1.007)	585267	160.000	150	8700
77 Acenaphthene	154	13.921	13.911	(1.006)	1678488	160.000	140	9491
78 2,4-Dinitrophenol	184	14.166	14.126	(1.024)	386416	160.000	170	(A)
79 4-Nitrophenol	139	14.463	14.402	(1.045)	496378	160.000	150	8990
80 Pentachlorobenzene	250	14.351	14.330	(1.037)	1276600	160.000	150	9697
81 2,4-Dinitrotoluene	165	14.514	14.484	(1.049)	814633	160.000	160	7523
82 Dibenzofuran	168	14.289	14.269	(1.033)	2817625	160.000	150	9119
83 1-Naphthylamine	143	14.504	14.494	(1.048)	690599	160.000	160	
84 2,3,4,6-Tetrachlorophenol	232	14.719	14.699	(1.064)	728281	160.000	150	9787
85 2-Naphthylamine	143	14.699	14.668	(1.062)	1003855	160.000	180	(A)
86 Diethylphthalate	149	15.149	15.108	(1.095)	2417573	160.000	150	9541
87 Zinophos	97	15.313	15.282	(1.107)	664048	160.000	160	9042
88 4-Chlorophenyl-phenylether	204	15.139	15.118	(1.094)	1079858	160.000	140	7549
89 5-Nitro-o-toluidine	152	15.292	15.241	(1.105)	736380	160.000	150	7728
90 Fluorene	166	15.057	15.037	(1.088)	2256975	160.000	150	7765
91 4-Nitroaniline	138	15.364	15.303	(1.110)	673781	160.000	160	8789
92 4,6-Dinitro-2-methylphenol	198	15.425	15.374	(0.900)	537556	160.000	160	0 (AM)
93 N-Nitrosodiphenylamine	169	15.466	15.436	(0.903)	1689554	160.000	150	7757
95 1,2-Diphenylhydrazine	77	15.487	15.456	(1.119)	2606324	160.000	150	9224
96 Sulfotep	322	16.142	16.122	(1.166)	484636	160.000	150	8878
97 1,3,5-Trinitrobenzene	75	16.347	16.255	(0.954)	731348	160.000	170	8863 (A)
98 Diallate (trans isomer)	86	16.214	16.193	(0.946)	662379	80.0000	77	
99 Diallate (trans) part of total	86	16.214	16.193	(0.946)	662379	80.0000	77	9015
100 Phorate	75	16.224	16.203	(0.947)	1396686	160.000	160	8892 (M)
101 Phenacetin	108	16.408	16.337	(0.958)	1317676	160.000	160	9602 (A)
102 Diallate (cis isomer)	86	16.367	16.357	(0.955)	247946	80.0000	81	(A)
103 Diallate (cis) part of total	86	16.367	16.357	(0.955)	247946	80.0000	41	8829 (H)
104 4-Bromophenyl-phenylether	248	16.214	16.193	(0.946)	740474	160.000	150	8536
105 Hexachlorobenzene	284	16.480	16.459	(0.962)	1255155	160.000	160	9009
106 Dimethoate	87	16.674	16.613	(0.973)	649697	160.000	140	9125
107 4-Aminobiphenyl	169	16.858	16.828	(0.984)	1892306	160.000	160	0 (AM)
108 Pentachlorophenol	266	16.940	16.910	(0.989)	693929	160.000	160	8028 (A)
109 Pentachloronitrobenzene	237	17.114	17.094	(0.999)	422078	160.000	160	7349 (A)
110 Pronamide	173	17.176	17.135	(1.002)	1081039	160.000	150	9287

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
111 Disulfoton	88	17.401	17.381	(1.016)	1121892	160.000	150	9431
112 Phenanthrene	178	17.196	17.166	(1.004)	3044597	160.000	150	
113 Anthracene	178	17.299	17.268	(1.010)	3332459	160.000	160	
114 Carbazole	167	17.780	17.739	(1.038)	9045748	160.000	160	9465(A)
115 Methyl Parathion	109	18.240	18.220	(1.065)	636130	160.000	150	8963
116 Di-n-butylphthalate	149	18.813	18.793	(1.098)	4287137	160.000	160	9666
117 Parathion	109	19.161	19.141	(1.118)	540363	160.000	160	7855
118 4-Nitroquinoline-1-oxide	190	19.080	19.039	(1.113)	397275	160.000	160	8174
119 Methapyrilene	97	19.397	19.377	(1.132)	22692	160.000	150	8979
120 Isodrin	193	19.550	19.540	(1.141)	471328	160.000	160	9487
121 Fluoranthene	202	19.868	19.847	(1.159)	3319679	160.000	160	9465
122 Benzidine	184	20.308	20.298	(0.879)	961772	160.000	150	8716
123 Pyrene	202	20.349	20.328	(0.880)	3593703	160.000	140	9626
124 p-Dimethylaminoazobenzene	225	21.239	21.219	(0.919)	709739	160.000	140	8884
125 Chlorobenzilate	251	21.403	21.383	(0.926)	1296879	160.000	140	9368
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.150	22.130	(0.958)	1984415	160.000	140	9309
129 3,3'-Dimethylbenzidine	212	21.997	21.987	(0.952)	1482430	160.000	150	9545
130 2-Acetylaminofluorene	181	22.621	22.570	(0.979)	1565725	160.000	150	9216
131 3,3'-Dichlorobenzidine	252	23.184	23.164	(1.003)	1352541	160.000	140	8263
132 bis(2-ethylhexyl)Phthalate	149	23.552	23.542	(1.019)	2666309	160.000	140	9400
133 Benzo(a)anthracene	228	23.082	23.061	(0.999)	3626131	160.000	140	
134 Chrysene	228	23.184	23.153	(1.003)	2958469	160.000	140	
135 Di-n-octylphthalate	149	24.863	24.853	(0.953)	4614645	160.000	150	
136 7,12-Dimethylbenz(a)anthracene	256	25.456	25.416	(0.976)	1614682	160.000	150	8701
137 Benzo(b)fluoranthene	252	25.405	25.354	(0.974)	4905470	160.000	170	(A)
138 Benzo(k)fluoranthene	252	25.456	25.395	(0.976)	3020278	160.000	130	(H)
139 Benzo(a)pyrene	252	25.999	25.968	(0.996)	3574465	160.000	150	
140 3-Methylcholanthrene	268	26.797	26.767	(1.027)	1948093	160.000	150	9555
141 Indeno(1,2,3-c,d)pyrene	276	28.537	28.486	(1.094)	3870828	160.000	160	9042(A)
142 Dibenzo(a,h)anthracene	278	28.619	28.568	(1.097)	3446249	160.000	160	7545
143 Benzo(g,h,i)perylene	276	29.243	29.172	(1.121)	3955373	160.000	160	8788(A)
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				910325	160.000	120	0
201 a,a-Dimethylphenethylamine	58	10.451	10.113	(1.053)	1457845	160.000	200	6607(AM)2
202 Aramite	185	21.147	21.137	(0.915)	233845	160.000	140	9016(H)

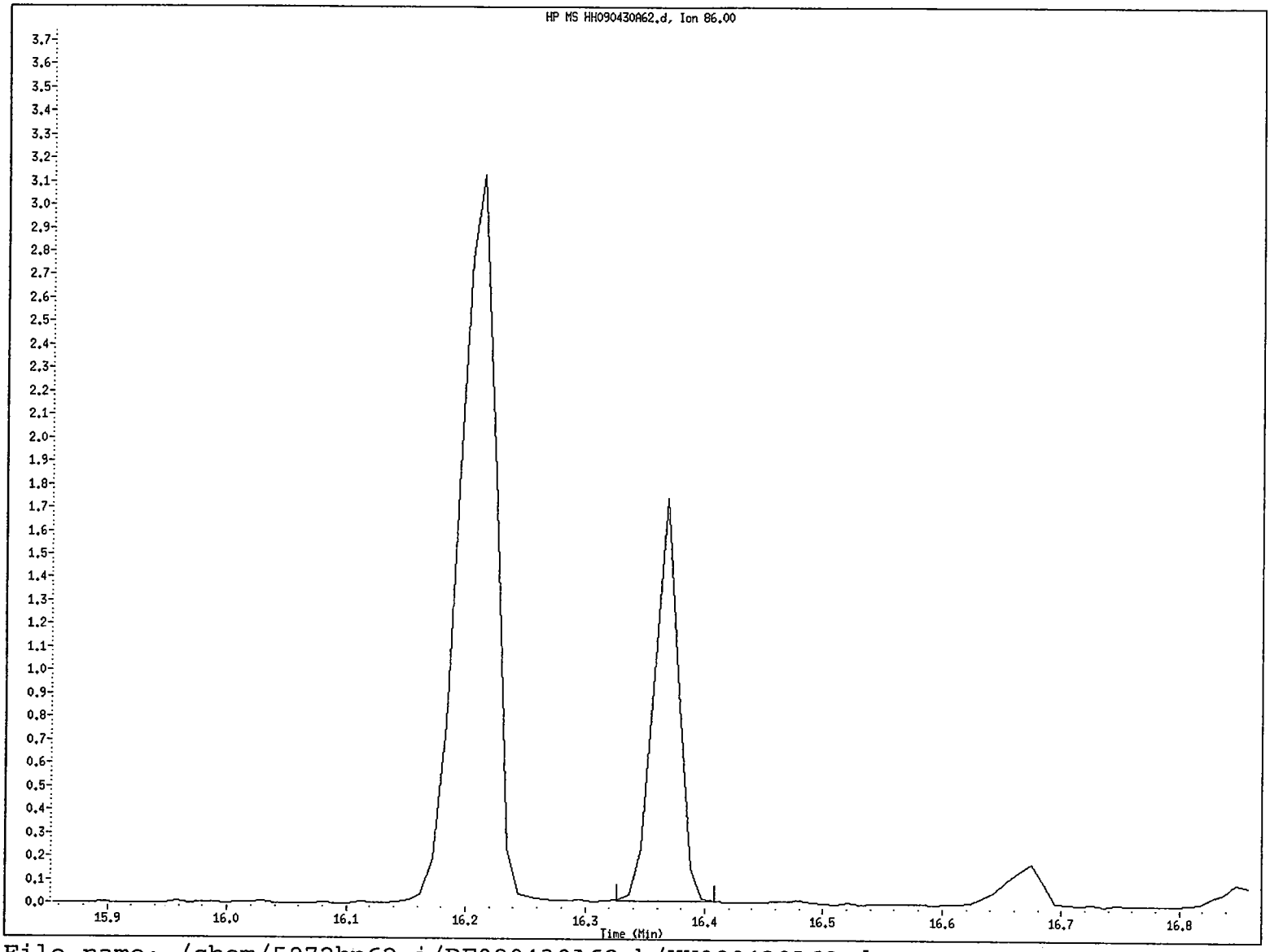
n 5/8/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

KeH 5/5/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 247946 User selected



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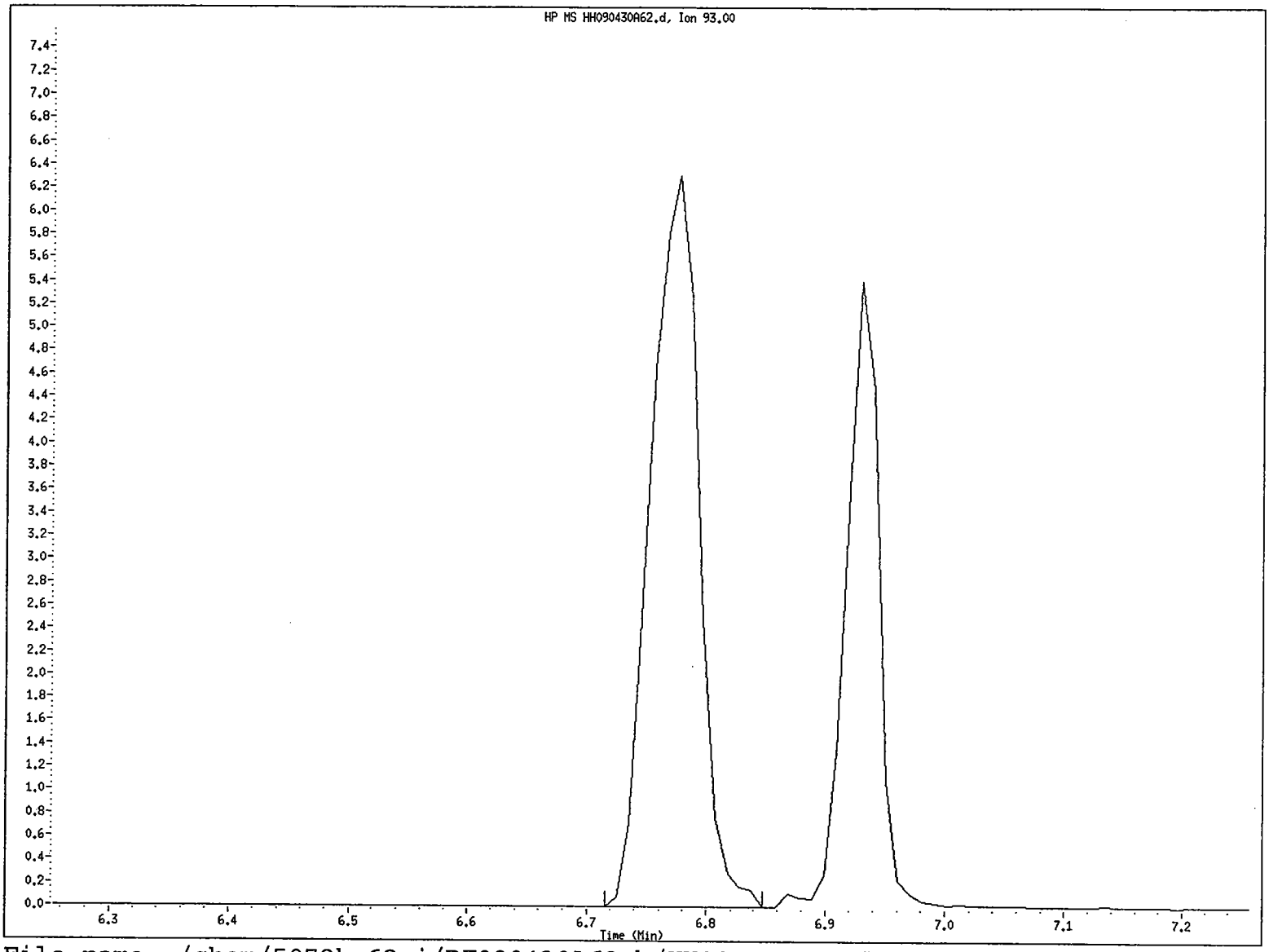
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 16.37
Operator ID: 2650

Aniline CAS Number 62-53-3 Area = 1791310 User selected hit



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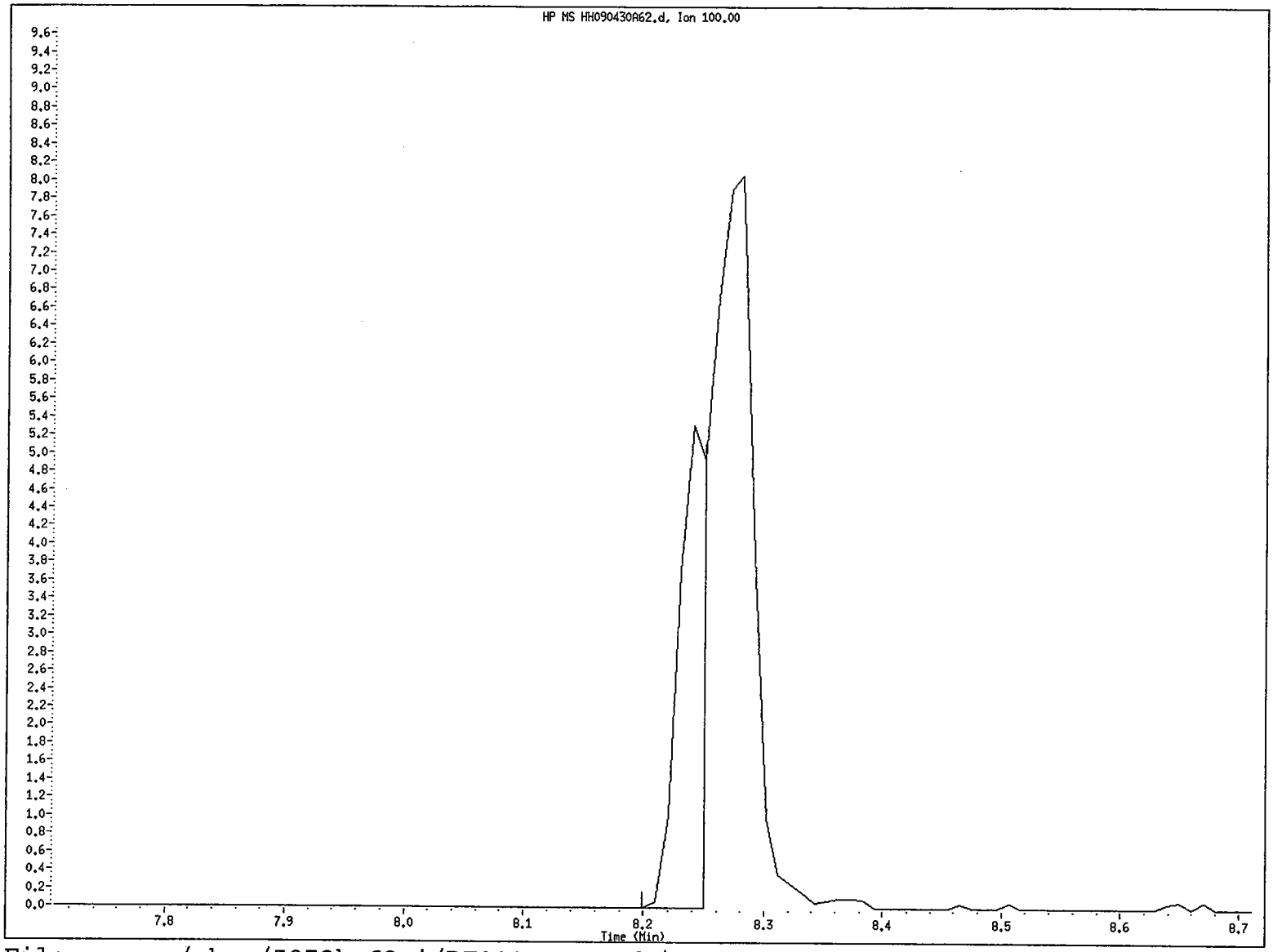
Retention Time: 6.78
Operator ID: 2650

N-Nitrosopyrrolidine CAS Number 930-55-2 Area = 92467 Manually integrated



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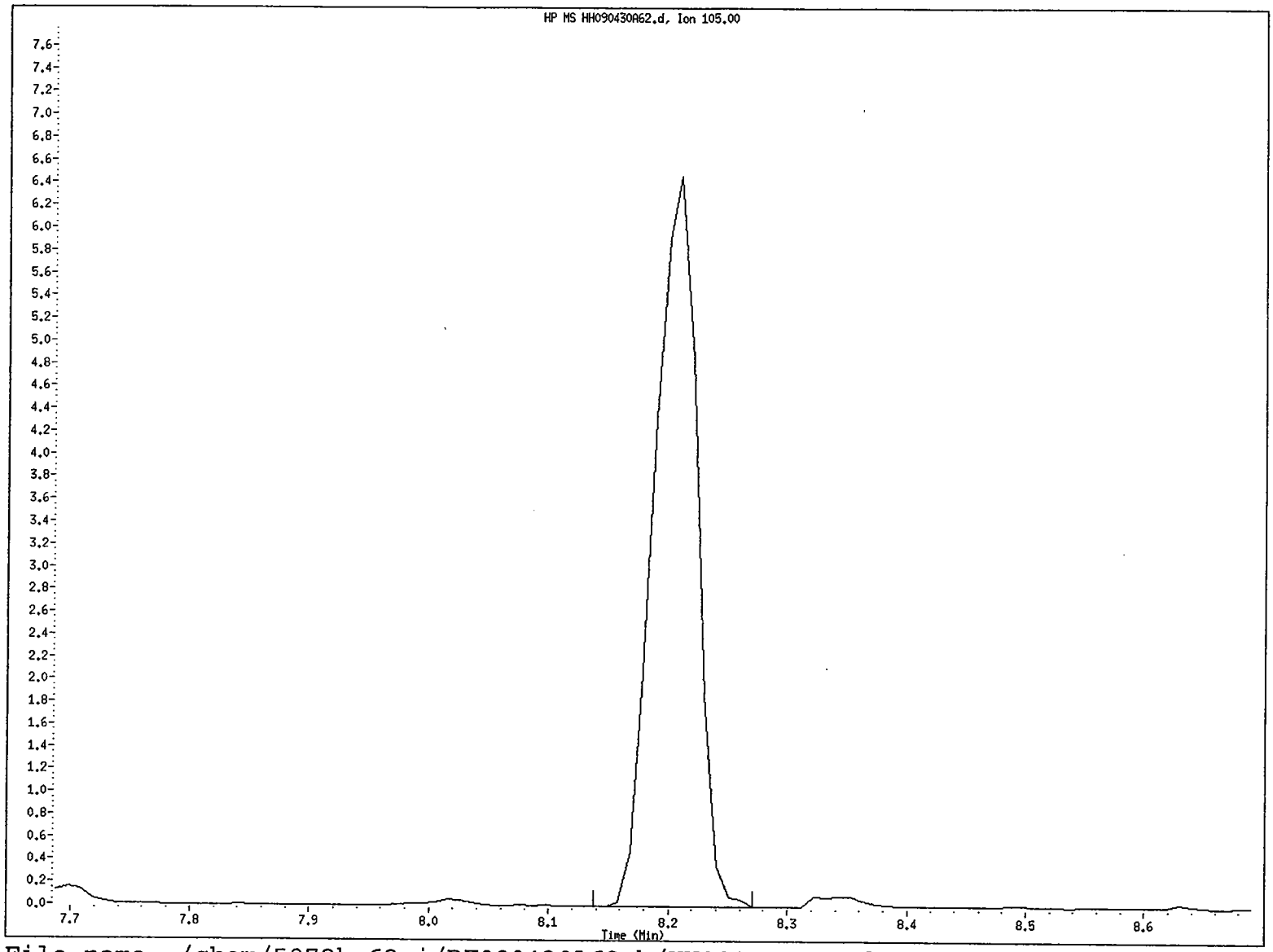
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 8.24
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 1629051 Manually integrated



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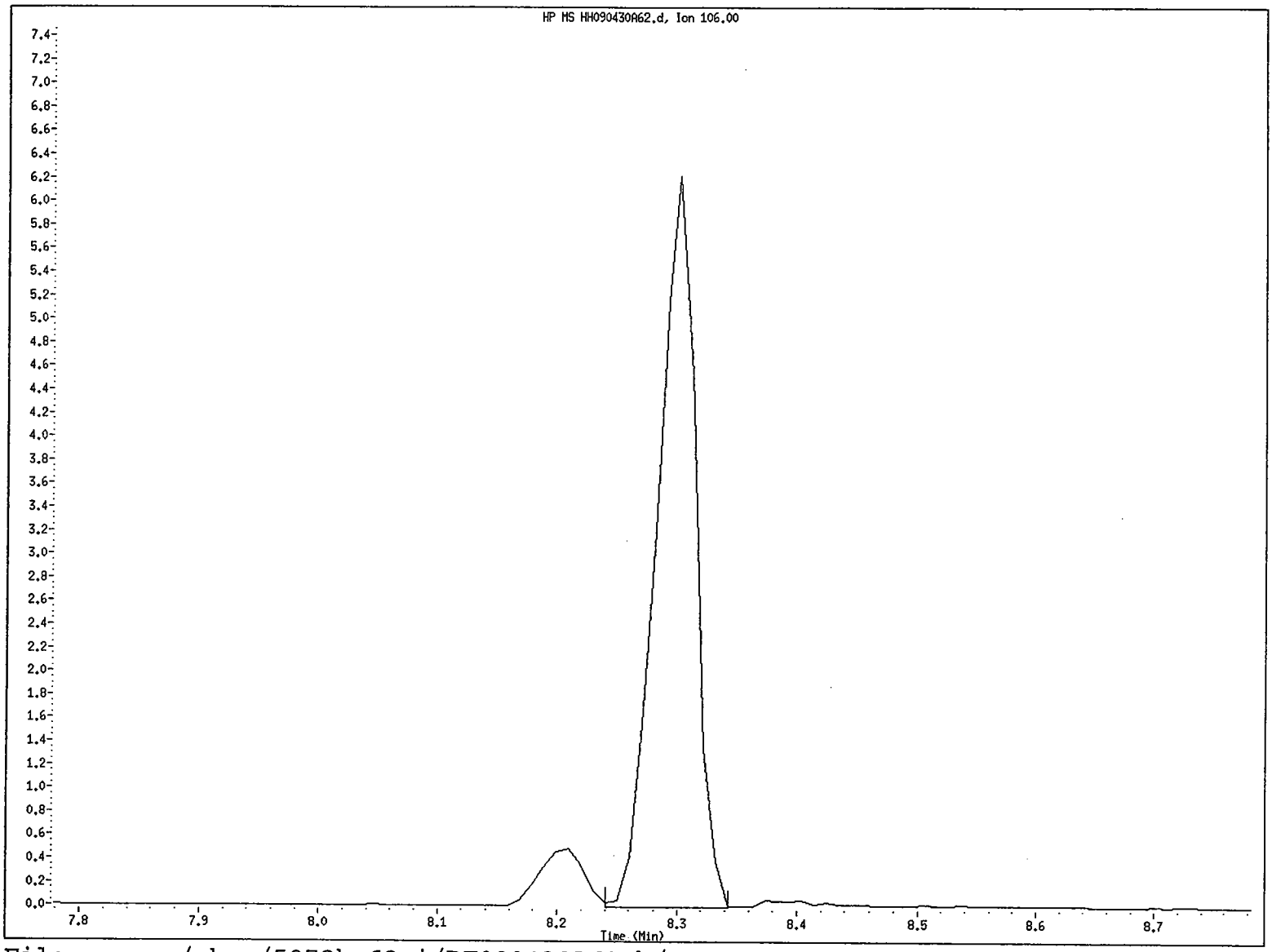
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 8.21
Operator ID: 2650

o-Toluidine CAS Number 95-53-4 Area = 1409025 Manually integrated



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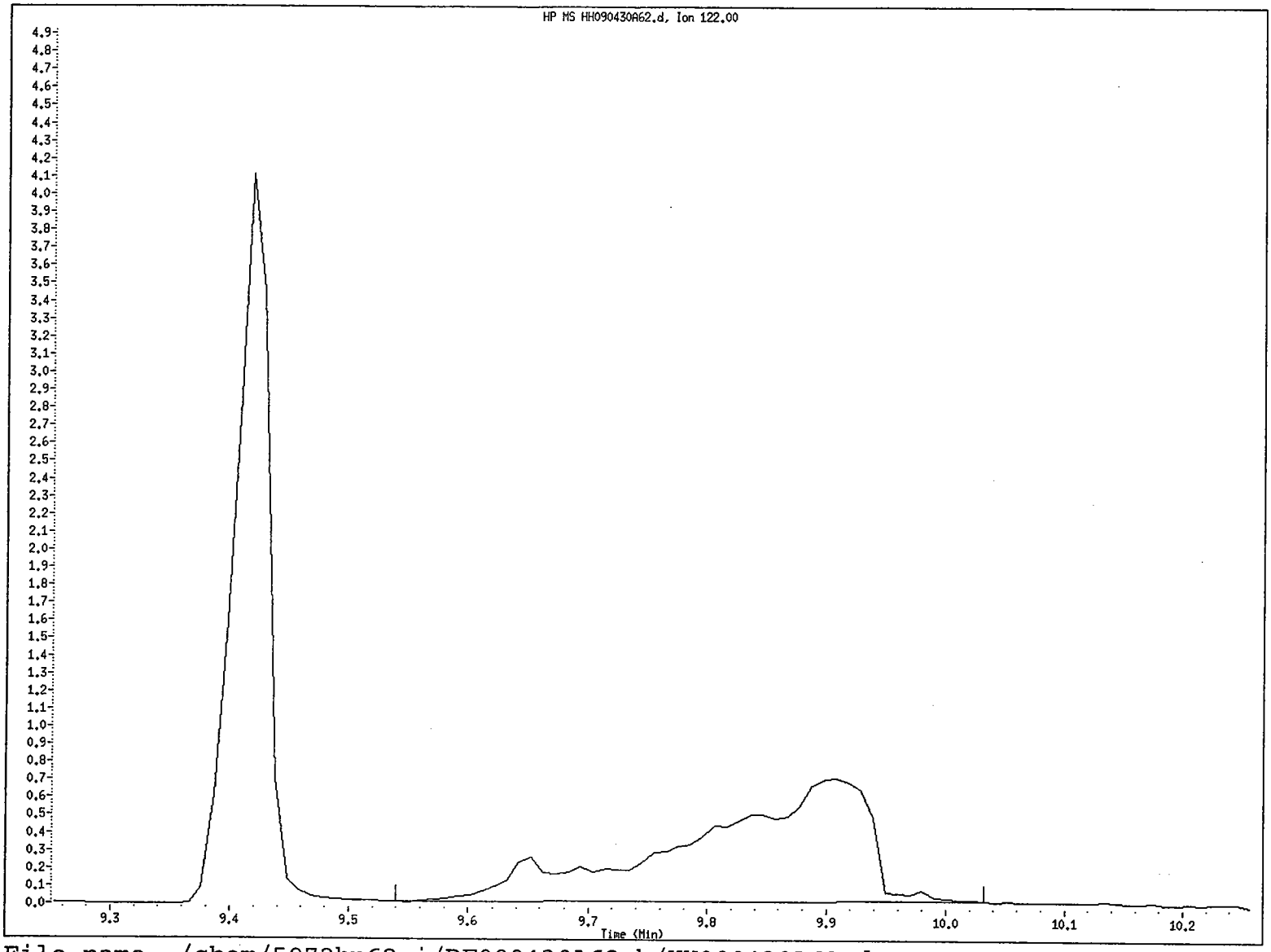
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 8.30
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 723197 Manually integrated



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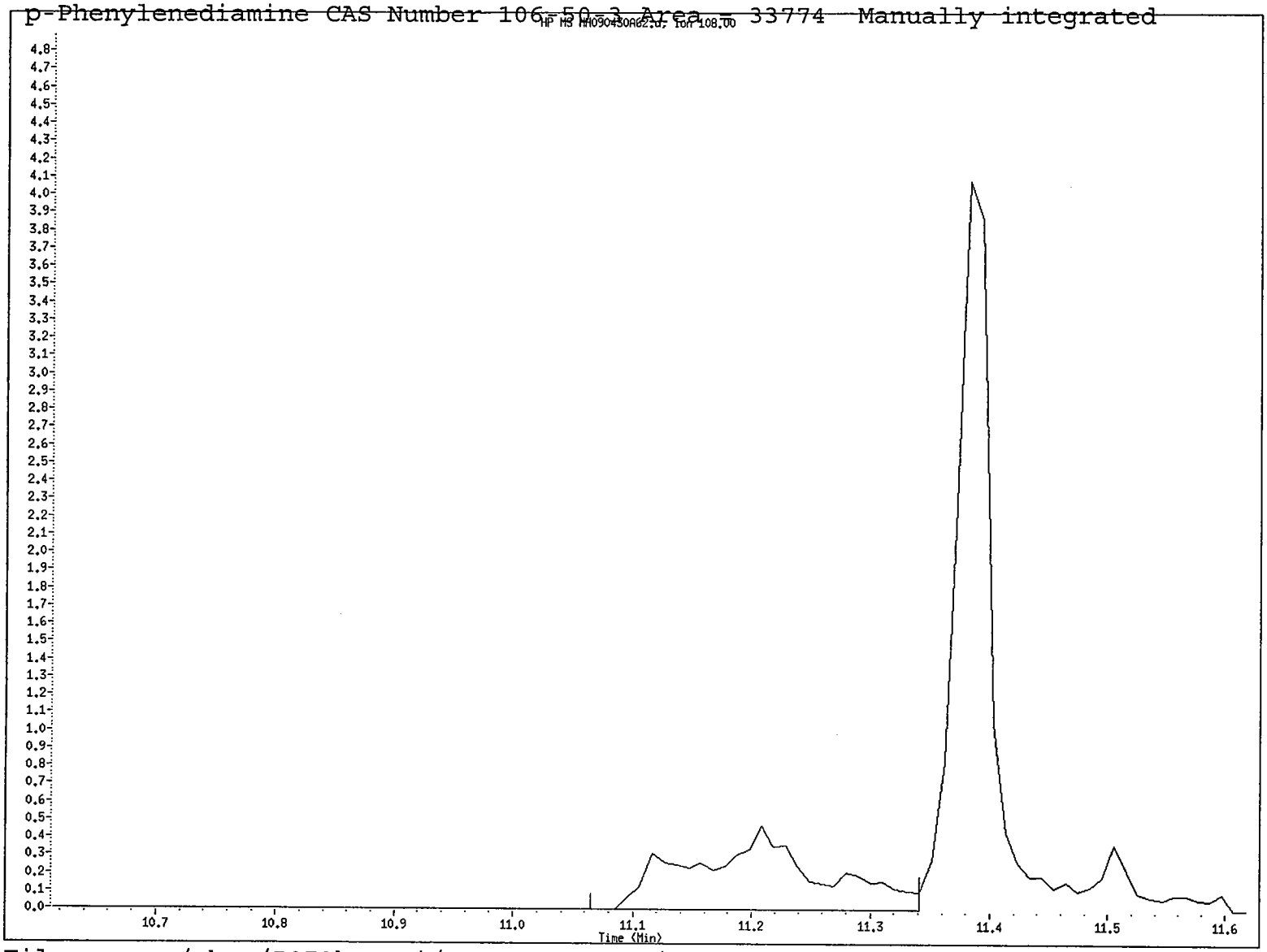
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 9.91
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 33774 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 33774 Manually integrated



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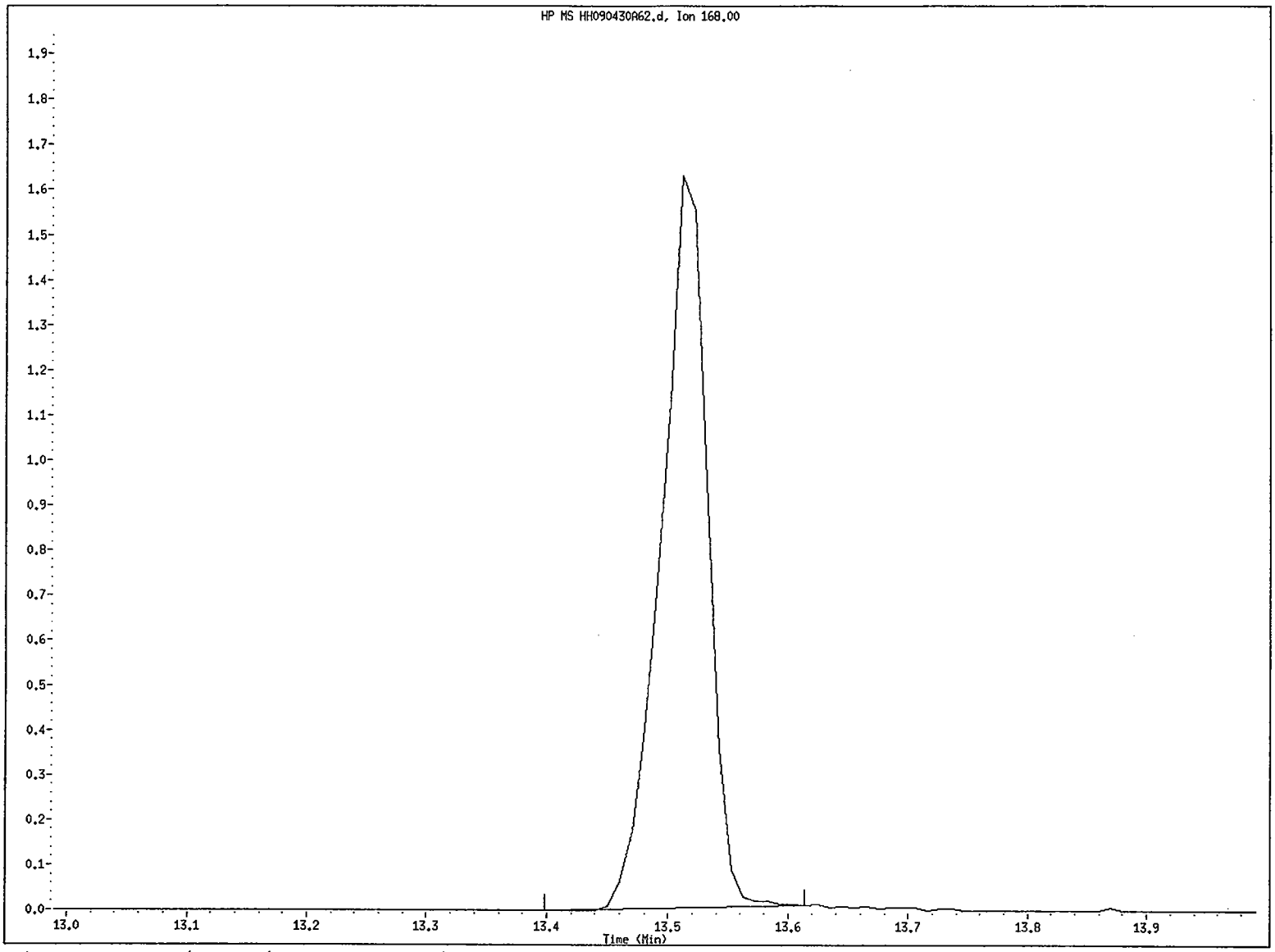
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 11.21
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 436411 Manually integrated



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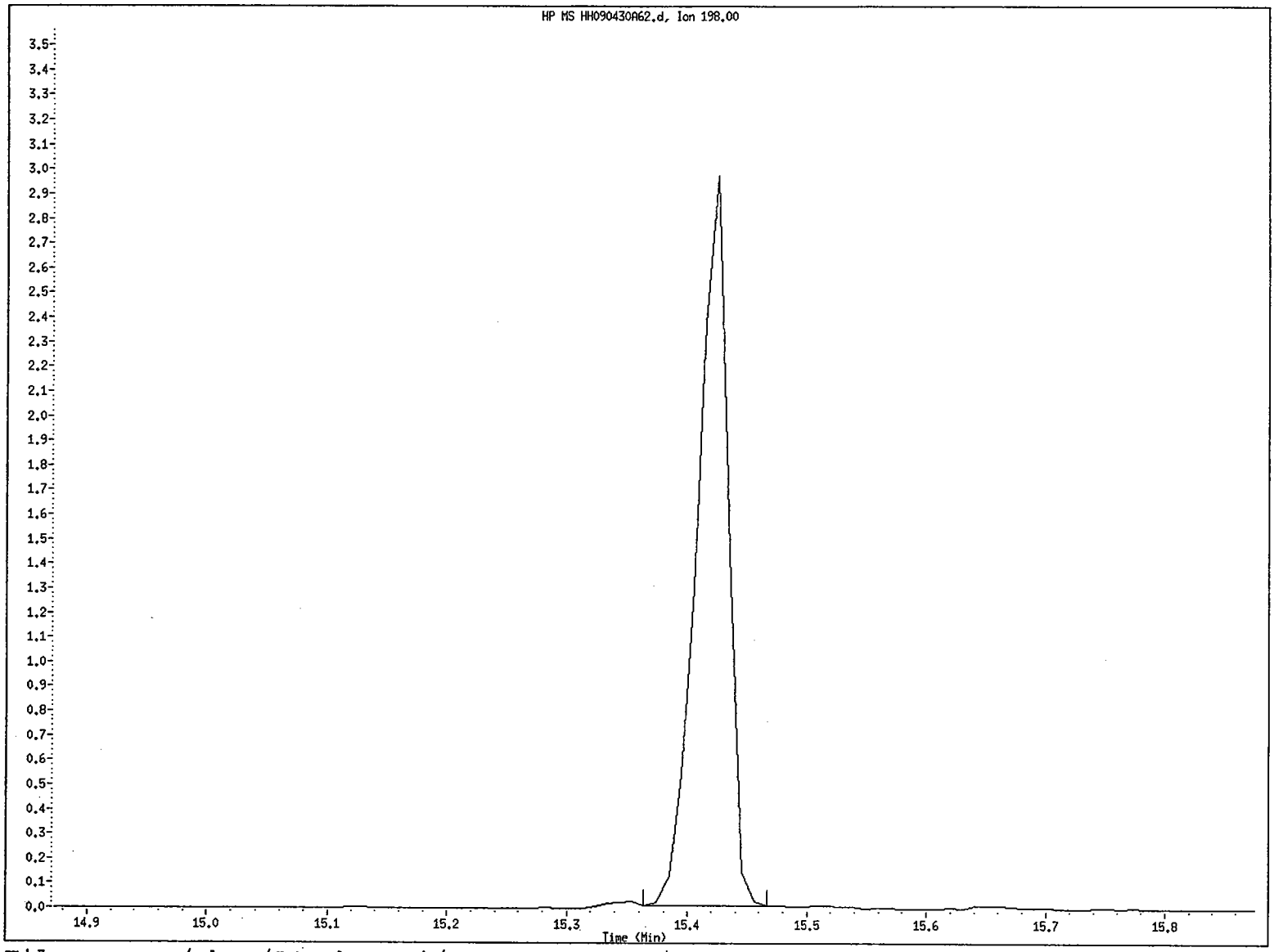
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 13.51
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 537556 Manually integrat



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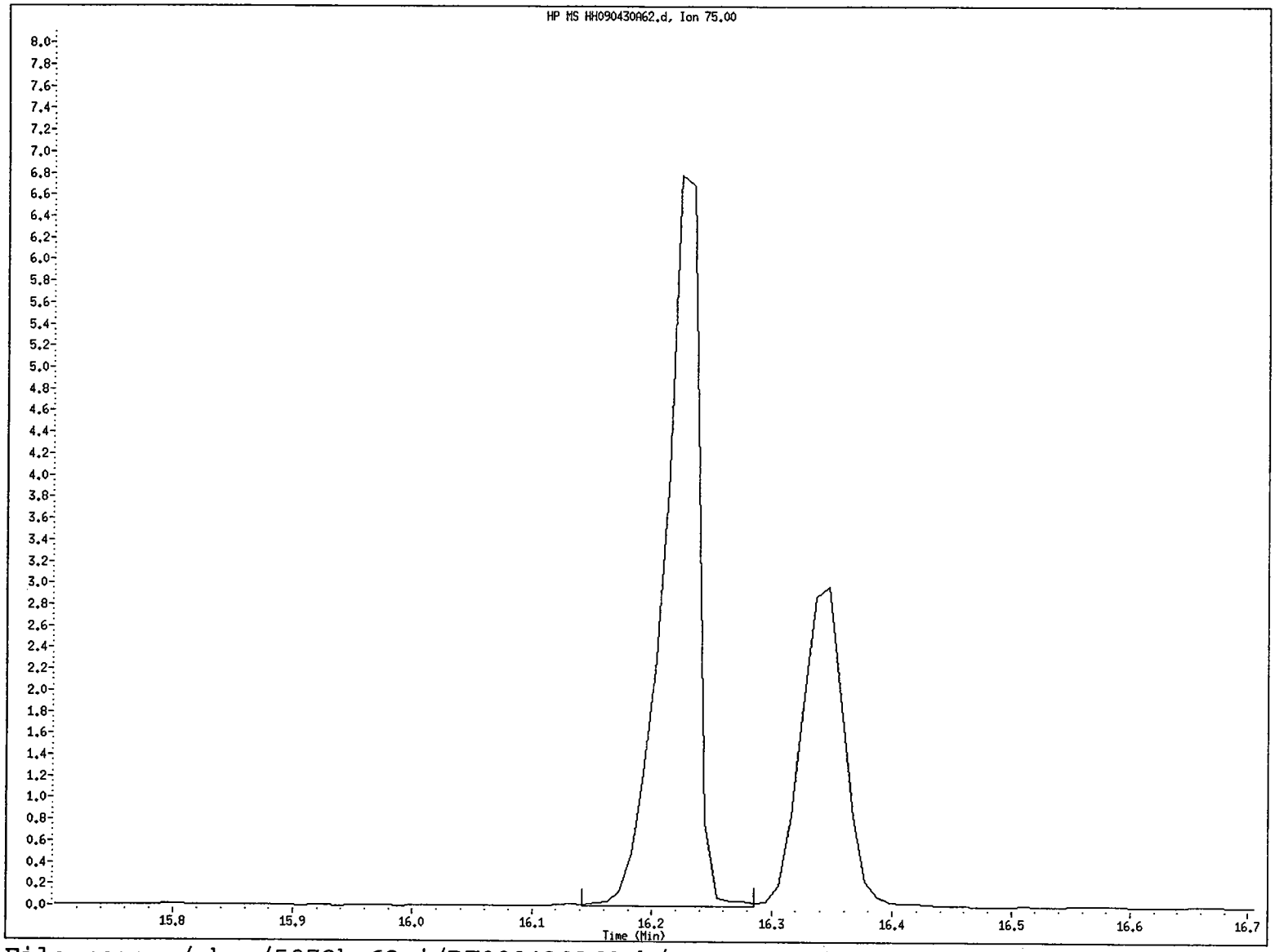
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 15.43
Operator ID: 2650

Phorate CAS Number 298-02-2 Area = 1396686 Manually integrated



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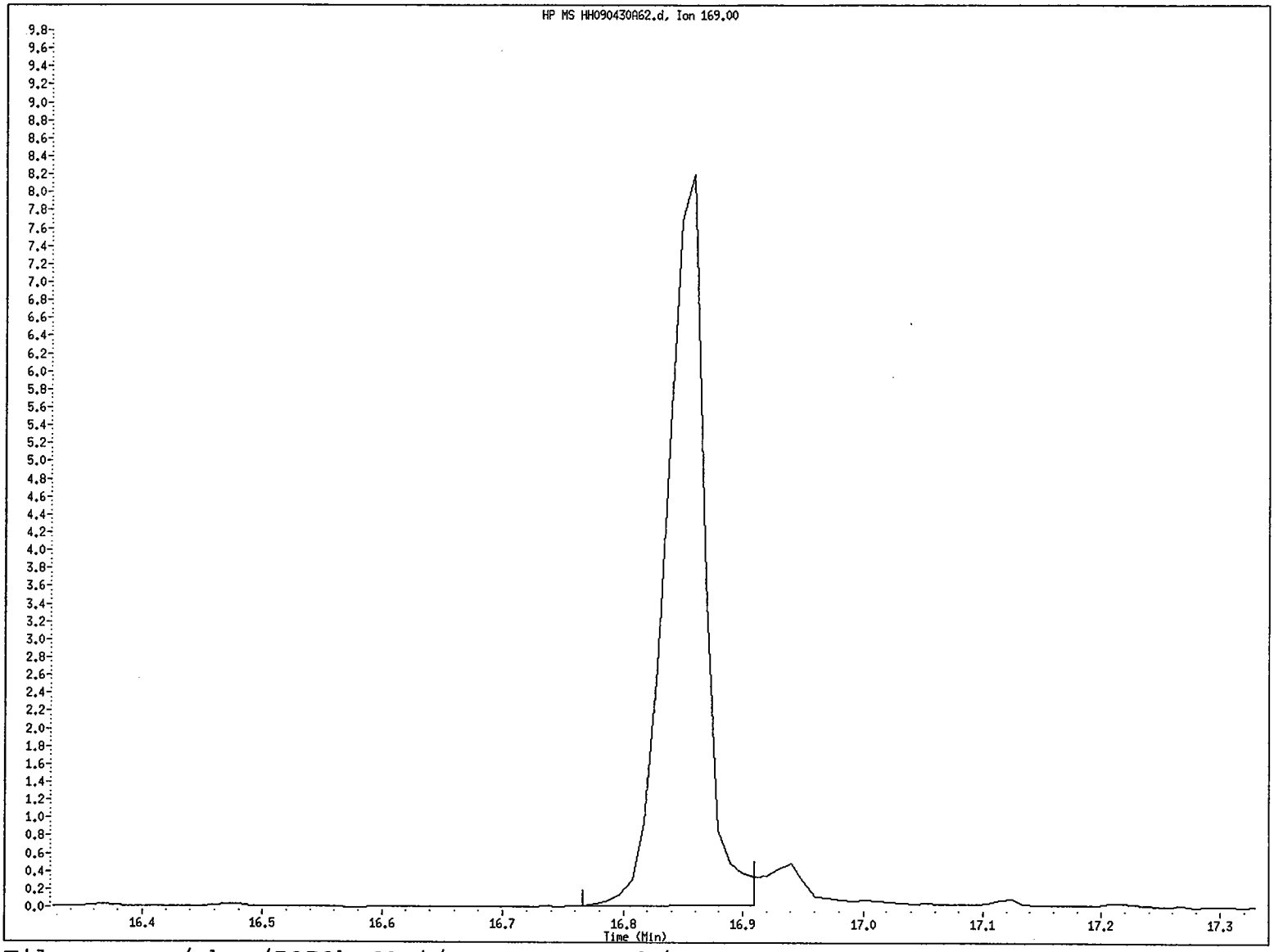
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 16.22
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 1892306 Manually integrated



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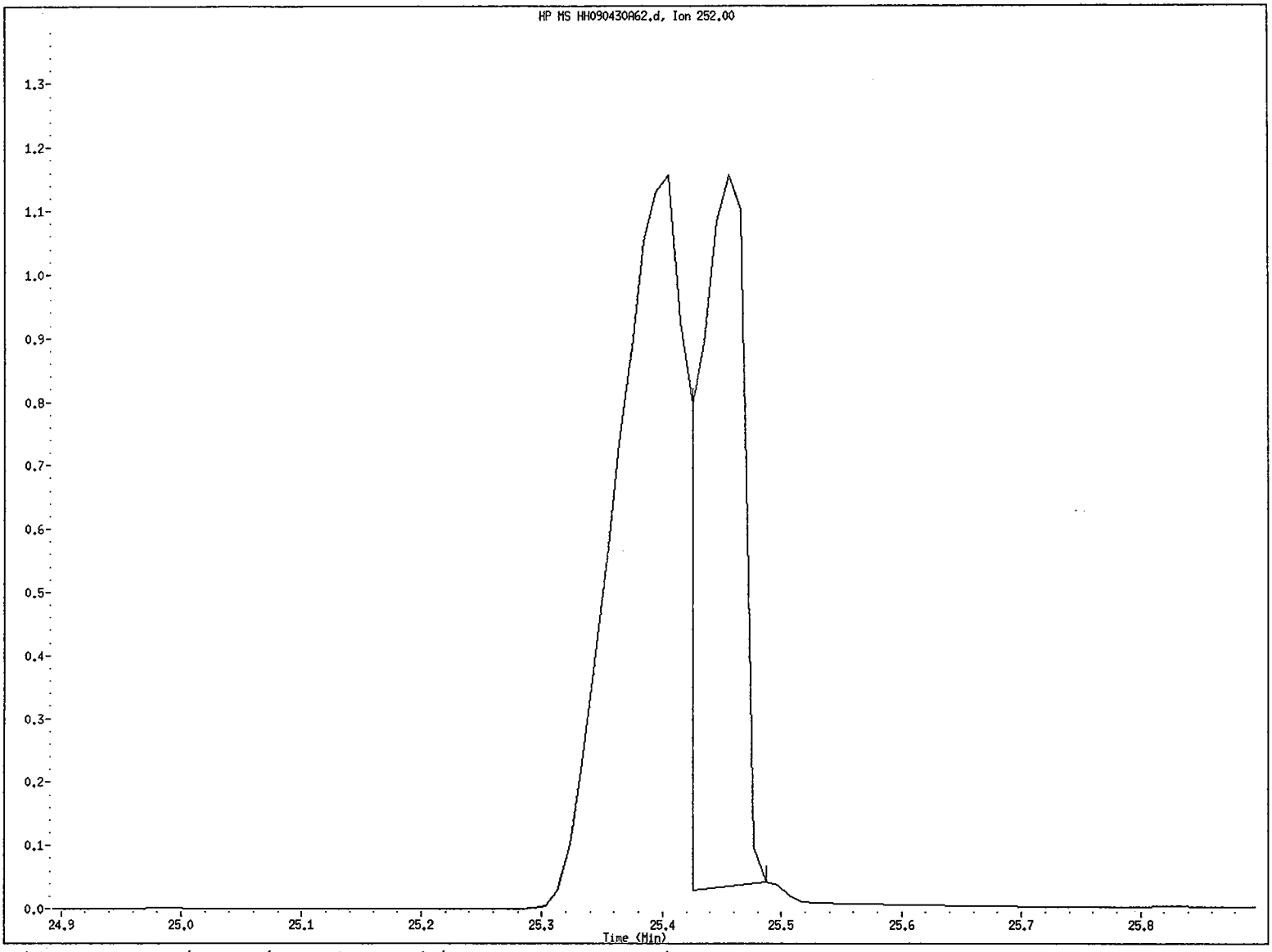
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 16.86
Operator ID: 2650

Benzo(k)fluoranthene CAS Number 207-08-9 Area = 3020278 User selected hit



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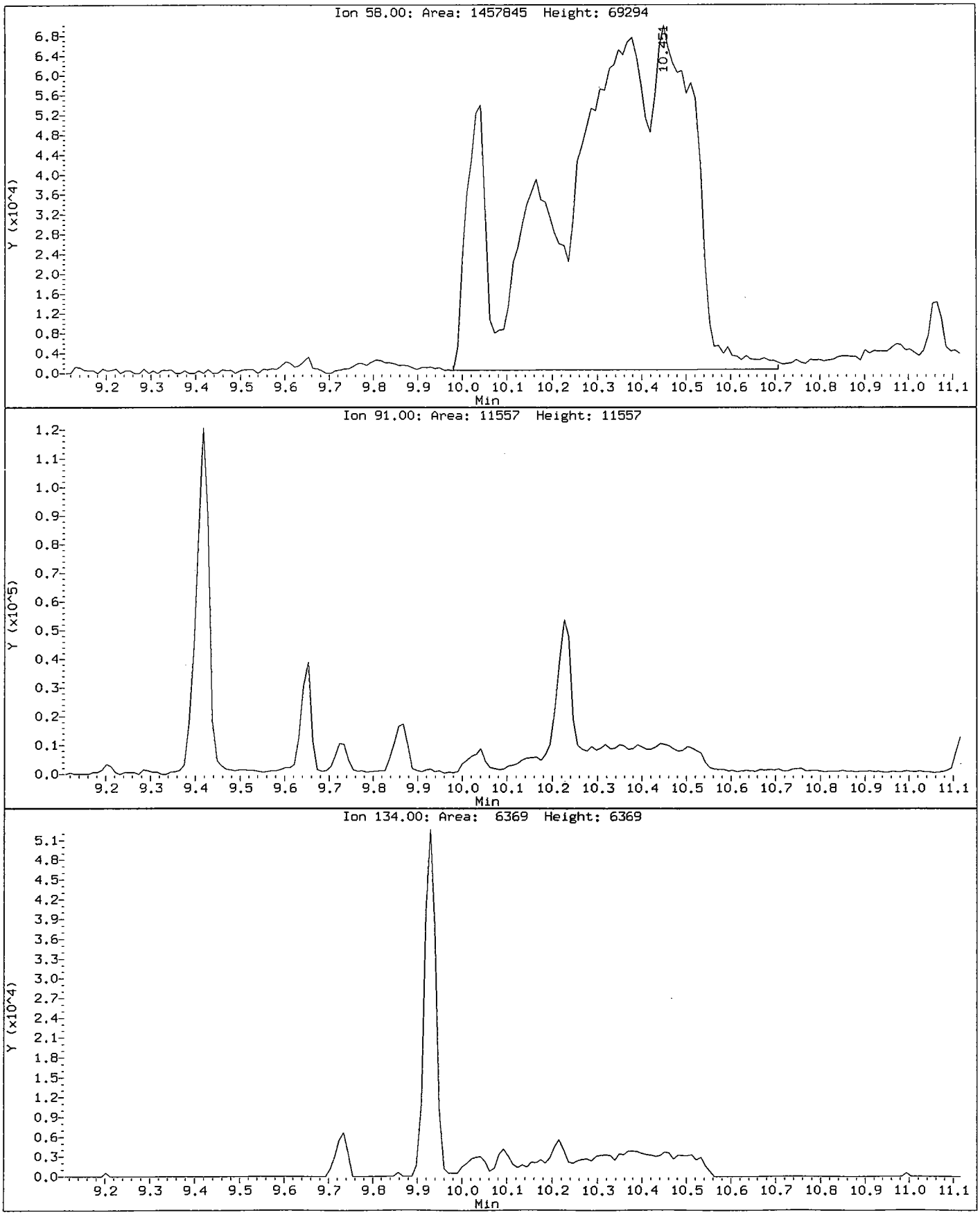
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 25.46
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Injection Date: 30-APR-2009 17:04
Instrument: 5972hp62.i
Client Sample ID: SSTD160

Compound: a,a-Dimethylphenethylamine
CAS Number: 122-09-8



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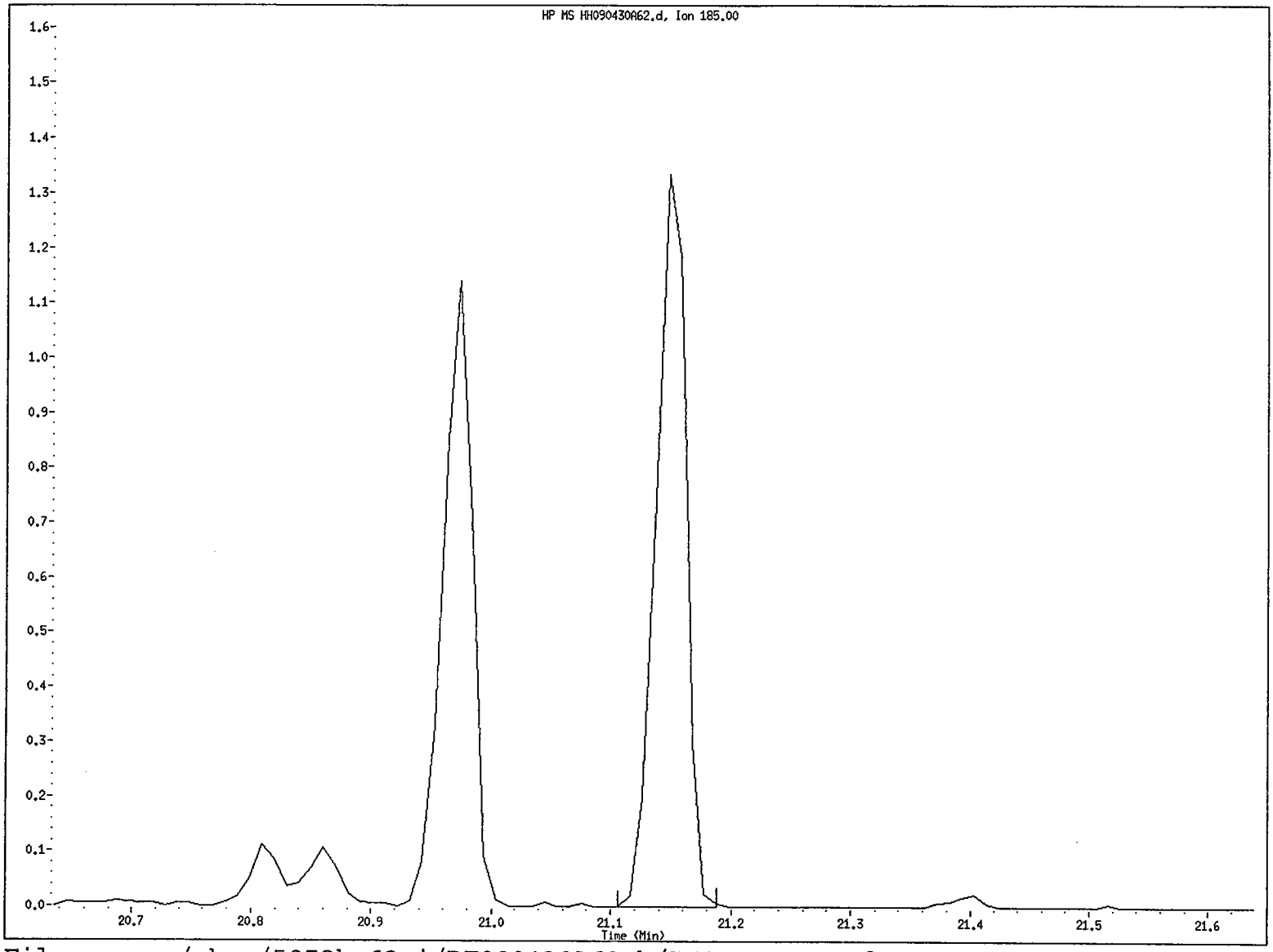


File name: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 21.15
Operator ID: 2650

Exception Report

SDG#: 8270-DF090430A62-APPENDIX IX 8270 Date: 5/5/09

Client Service Representative:_____

Sample ID#	Comments	Initials/Date

See attached documents for details:

Second source verification standard fails for the following analytes:

2,6-dichlorophenol – 171.52

n-nitrosodi-n-butylamine – 167.51

p-phenylenediamine – 768.93

1-naphthylamine – 215.88

2,3,4,6-tetrachlorophenol – 167.91

2-naphthylamine – 204.21

carbazole – 36.22/25.77

methapyrilene – 4249.76

chlorobenzilate – 164.12

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

RECOVERY REPORT

Client Name:
Client SDG: DF090430A62
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SSTD080VAL
Client Smp ID: SSTD080VAL
Level: LOW
Operator: 2650
Data Type: MS DATA
SampleType: LCS
SpikeList File: 2ndAPIX.spk
Quant Type: ISTD
Sublist File: 2ndsource.sub
Method File: /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS	
15	N-Nitrosodimethyla	80	83	103.81	70-130	
16	Pyridine	80	75	93.28	70-130	
18	2-Picoline	80	71	88.40	70-130	
19	Nitrosomethylethyl	80	74	92.33	70-130	
20	Methyl Methanesulf	80	77	96.68	70-130	
21	N-Nitrosodiethylam	80	74	92.33	70-130	
22	Ethyl Methanesulfo	80	70	87.06	70-130	
23	Phenol	80	130	158.38*	70-130	112.69
24	Aniline	80	88	110.19	70-130	
25	Bis(2-chloroethyl)	80	79	98.28	70-130	
26	Pentachloroethane	80	69	86.45	70-130	
27	2-Chlorophenol	80	120	151.11*	70-130	115.51
28	1,3-Dichlorobenzen	80	74	93.05	70-130	
29	1,4-Dichlorobenzen	80	74	92.68	70-130	
30	Benzyl Alcohol	80	78	98.04	70-130	
31	1,2-Dichlorobenzen	80	73	91.47	70-130	
32	2-Methylphenol	80	120	155.53*	70-130	111.23
33	2,2'-oxybis(1-Chlo	80	83	103.26	70-130	
34	N-Nitrosopyrrolidi	80	89	111.19	70-130	
39	Acetophenone	160	180	114.91	70-130	
35	3-Methylphenol	80	120	146.19*	70-130	116.24
36	4-Methylphenol	80	120	146.19*	70-130	
38	N-Nitroso-di-N-pro	80	75	94.13	70-130	
40	N-Nitrosomorpholin	80	76	95.01	70-130	
41	o-Toluidine	80	70	88.00	70-130	
42	Hexachloroethane	80	71	88.57	70-130	
43	Nitrobenzene	80	79	98.47	70-130	
44	N-Nitrosopiperidin	80	78	97.26	70-130	
45	Isophorone	80	91	113.84	70-130	
46	2-Nitrophenol	80	120	145.87*	70-130	109.90
47	2,4-Dimethylphenol	80	120	152.13*	70-130	92.71
49	o,o,o-Triethylphos	80	76	95.15	70-130	
50	Bis(2-chloroethoxy	80	77	96.13	70-130	

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

SPIKE	COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS	
51	2,4-Dichlorophenol	80	120	148.12*	70-130	108.30
52	1,2,4-Trichloroben	80	70	87.83	70-130	
53	Naphthalene	80	79	98.39	70-130	
54	4-Chloroaniline	80	78	97.04	70-130	
55	2,6-Dichlorophenol	80	140	171.52*	70-130	
56	Hexachloropropene	80	67	83.94	70-130	
57	Hexachlorobutadien	80	77	96.54	70-130	
58	N-Nitroso-di-n-but	80	130	167.51*	70-130	
59	p-Phenylenediamine	80	620	768.93*	70-130	
60	4-Chloro-3-methylp	80	120	144.19*	70-130	110.47
61	Safrole	80	68	84.68	70-130	
62	2-Methylnaphthalen	80	82	102.14	70-130	
63	1-Methylnaphthalen	80	72	90.52	70-130	
64	Hexachlorocyclopen	80	76	94.64	70-130	
65	1,2,4,5-Tetrachlor	80	70	87.06	70-130	
66	2,4,6-Trichlorophe	80	120	151.02*	70-130	105.61
67	2,4,5-Trichlorophe	80	120	156.74*	70-130	110.29
68	Isosafrole	160	160	101.49	70-130	
69	2-Chloronaphthalen	80	89	110.85	70-130	
70	2-Nitroaniline	80	89	110.80	70-130	
71	1,4-Napthoquinone	80	81	101.26	70-130	
72	Dimethylphthalate	80	73	90.75	70-130	
73	1,3-Dinitrobenzene	80	75	93.48	70-130	
74	2,6-Dinitrotoluene	80	75	93.78	70-130	
75	Acenaphthylene	80	78	97.25	70-130	
76	3-Nitroaniline	80	93	116.24	70-130	
77	Acenaphthene	80	80	100.14	70-130	
78	2,4-Dinitrophenol	80	180	231.44*	70-130	121.58
79	4-Nitrophenol	80	150	183.34*	70-130	108.03
80	Pentachlorobenzene	80	71	88.76	70-130	
81	2,4-Dinitrotoluene	80	77	96.43	70-130	
82	Dibenzofuran	80	75	94.26	70-130	
83	1-Naphthylamine	80	170	215.88*	70-130	
84	2,3,4,6-Tetrachlor	80	130	167.91*	70-130	
85	2-Naphthylamine	80	160	204.21*	70-130	
86	Diethylphthalate	80	74	92.56	70-130	
87	Zinophos	80	78	97.91	70-130	
88	4-Chlorophenyl-phe	80	68	84.49	70-130	
89	5-Nitro-o-toluidin	80	82	102.48	70-130	
90	Fluorene	80	78	97.89	70-130	
91	4-Nitroaniline	80	88	109.90	70-130	
92	4,6-Dinitro-2-meth	80	140	176.54*	70-130	108.61
93	N-Nitrosodiphenyla	80	120	149.61*	70-130	73.58
95	1,2-Diphenylhydraz	80	81	101.50	70-130	
96	Sulfotep	80	81	101.07	70-130	
97	1,3,5-Trinitrobenz	80	68	85.17	70-130	
98	Diallate (trans is	80	63	78.46	70-130	

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

SPIKE	COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS	
100	Phorate	80	70	87.06	70-130	
101	Phenacetin	80	69	86.80	70-130	
102	Diallate (cis isom	80	89	111.69	70-130	
104	4-Bromophenyl-phen	80	57	71.36	70-130	
105	Hexachlorobenzene	80	69	86.11	70-130	
106	Dimethoate	80	85	106.46	70-130	
107	4-Aminobiphenyl	80	72	89.77	70-130	
108	Pentachlorophenol	80	150	189.27*	70-130	109.50
109	Pentachloronitrobe	80	68	85.31	70-130	
110	Pronamide	80	74	92.95	70-130	
111	Disulfoton	80	75	93.50	70-130	
112	Phenanthrene	80	73	91.82	70-130	
113	Anthracene	80	75	93.82	70-130	
114	Carbazole	80	29	36.22*	70-130	36.22
115	Methyl Parathion	80	86	108.17	70-130	
116	Di-n-butylphthalat	80	69	86.45	70-130	
117	Parathion	80	72	90.01	70-130	
118	4-Nitroquinoline-1	80	80	100.17	70-130	
119	Methapyrilene	80	3400	4249.76*	70-130	
120	Isodrin	80	68	85.24	70-130	
121	Fluoranthene	80	78	97.46	70-130	
122	Benzidine	80	65	81.13	70-130	
123	Pyrene	80	82	103.02	70-130	
124	p-Dimethylaminoazo	80	80	99.48	70-130	
125	Chlorobenzilate	80	130	164.12*	70-130	
128	Butylbenzylphthala	80	77	96.06	70-130	
129	3,3'-Dimethylbenzi	80	73	91.75	70-130	
130	2-Acetylaminofluor	80	84	105.48	70-130	
131	3,3'-Dichlorobenzi	80	72	90.65	70-130	
132	bis(2-ethylhexyl)P	80	79	99.02	70-130	
133	Benzo(a)anthracene	80	82	102.59	70-130	
134	Chrysene	80	74	92.45	70-130	
135	Di-n-octylphthalat	80	78	97.03	70-130	
136	7,12-Dimethylbenz(	80	81	101.30	70-130	
137	Benzo(b)fluoranthe	80	80	100.36	70-130	
138	Benzo(k)fluoranthe	80	93	116.39	70-130	
139	Benzo(a)pyrene	80	86	107.67	70-130	
140	3-Methylcholanthre	80	78	97.13	70-130	
141	Indeno(1,2,3-c,d)p	80	82	103.18	70-130	
142	Dibenzo(a,h)anthra	80	86	107.64	70-130	
143	Benzo(g,h,i)peryle	80	84	105.56	70-130	

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:23

CompuChem

RECOVERY REPORT

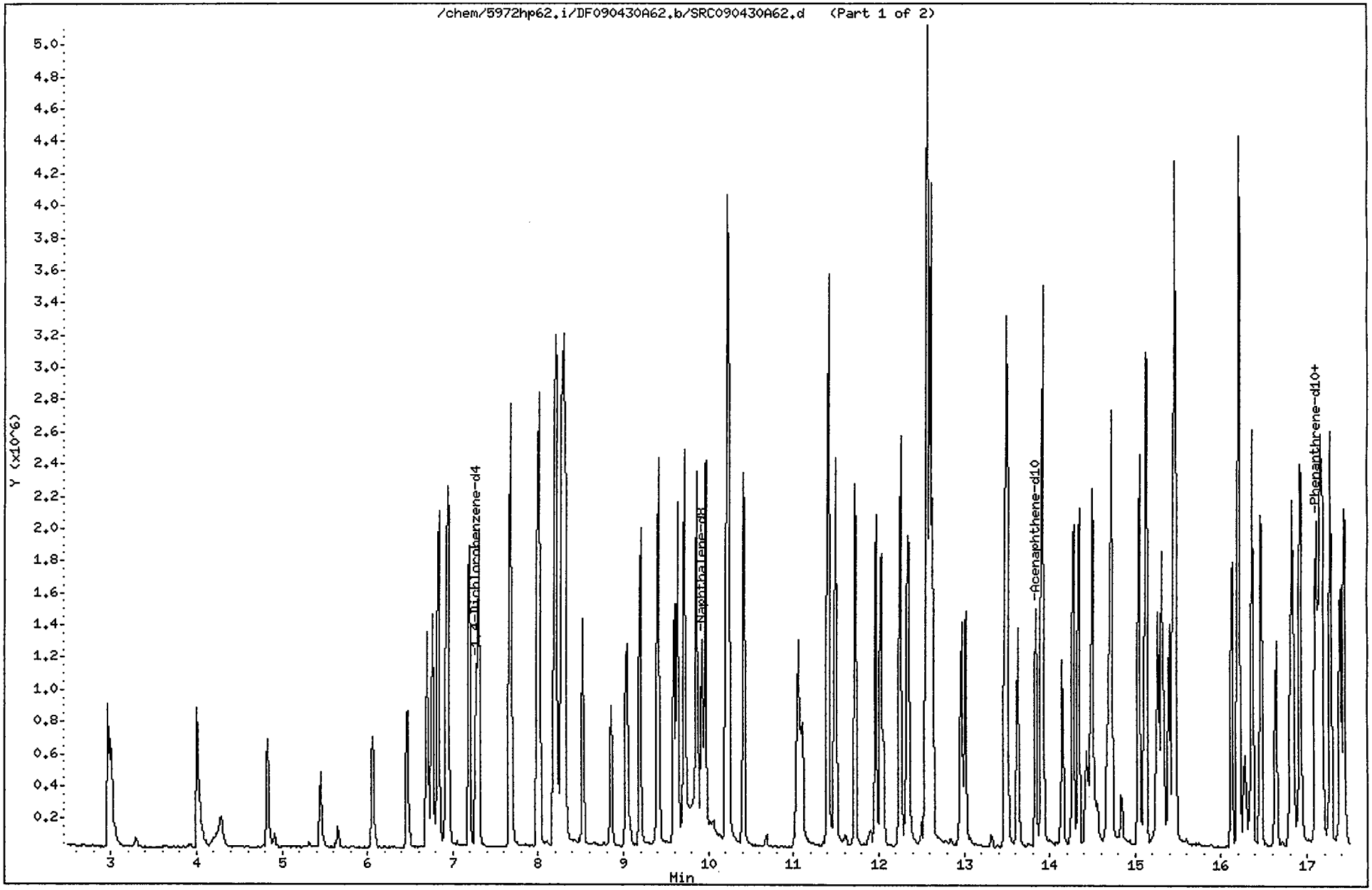
Client Name:
Client SDG: DF090430A62
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: CLP080VAL
Client Smp ID: CLP080VAL
Level: LOW
Operator: 2650
Data Type: MS DATA
SampleType: LCS
SpikeList File: 2ndclp.spk
Quant Type: ISTD
Sublist File: 2ndsource.sub
Method File: /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Misc Info:

SPIKE	COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS
15	N-Nitrosodimethyla	80	81	101.15	70-130
23	Phenol	80	90	112.69	70-130
25	Bis(2-chloroethyl)	80	76	94.80	70-130
27	2-Chlorophenol	80	89	111.51	70-130
28	1,3-Dichlorobenzen	80	81	101.84	70-130
29	1,4-Dichlorobenzen	80	83	103.46	70-130
30	Benzyl Alcohol	80	85	106.42	70-130
31	1,2-Dichlorobenzen	80	78	96.90	70-130
32	2-Methylphenol	80	89	111.23	70-130
33	2,2'-oxybis(1-Chlo	80	86	107.51	70-130
39	Acetophenone	80	83	103.42	70-130
35	3-Methylphenol	80	88	110.24	70-130
36	4-Methylphenol	80	88	110.24	70-130
38	N-Nitroso-di-N-pro	80	87	108.74	70-130
42	Hexachloroethane	80	86	107.13	70-130
43	Nitrobenzene	80	87	108.64	70-130
45	Isophorone	80	86	107.54	70-130
46	2-Nitrophenol	80	88	109.90	70-130
47	2,4-Dimethylphenol	80	78	97.71	70-130
50	Bis(2-chloroethoxy	80	74	93.17	70-130
51	2,4-Dichlorophenol	80	87	108.30	70-130
52	1,2,4-Trichloroben	80	80	100.75	70-130
53	Naphthalene	80	83	103.33	70-130
54	4-Chloroaniline	80	41	51.37*	70-130
57	Hexachlorobutadien	80	80	100.09	70-130
58	N-Nitroso-di-n-bu	0.080	0.0	*	70-130
60	4-Chloro-3-methylp	80	88	110.47	70-130
62	2-Methylnaphthalen	80	84	104.92	70-130
64	Hexachlorocyclopen	80	71	88.74	70-130
66	2,4,6-Trichlorophe	80	84	105.61	70-130
67	2,4,5-Trichlorophe	80	88	110.29	70-130
69	2-Chloronaphthalen	80	54	67.05*	70-130
70	2-Nitroaniline	80	92	114.60	70-130

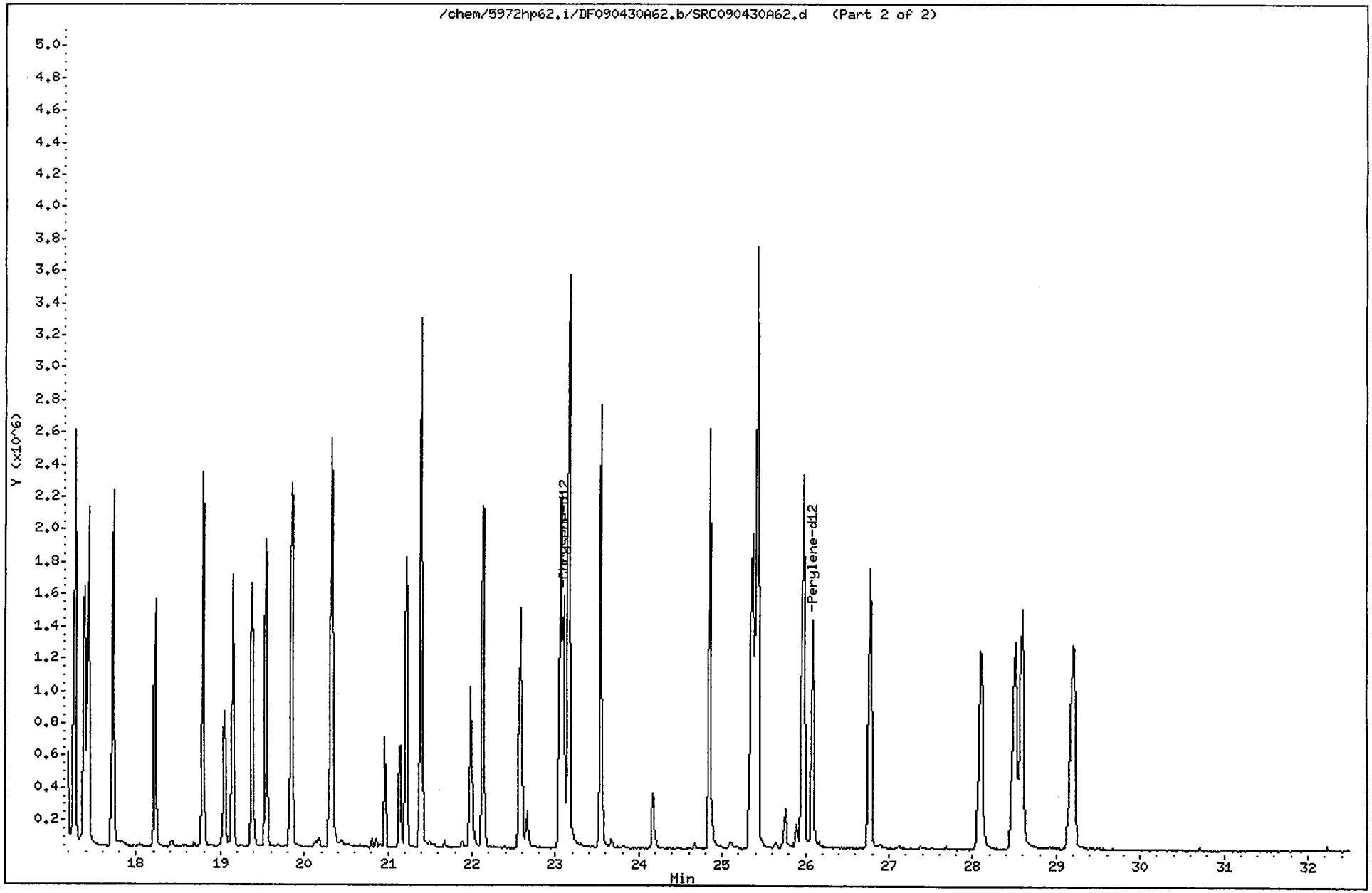
Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:23

SPIKE	COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS
72	Dimethylphthalate	80	76	95.68	70-130
74	2,6-Dinitrotoluene	80	83	103.55	70-130
75	Acenaphthylene	80	77	96.27	70-130
76	3-Nitroaniline	80	73	91.49	70-130
77	Acenaphthene	80	77	95.79	70-130
78	2,4-Dinitrophenol	80	97	121.58	70-130
79	4-Nitrophenol	80	86	108.03	70-130
81	2,4-Dinitrotoluene	80	88	109.46	70-130
82	Dibenzofuran	80	79	99.15	70-130
86	Diethylphthalate	80	79	98.53	70-130
88	4-Chlorophenyl-phe	80	72	89.77	70-130
90	Fluorene	80	79	98.83	70-130
91	4-Nitroaniline	80	65	81.53	70-130
92	4,6-Dinitro-2-meth	80	87	108.61	70-130
93	N-Nitrosodiphenyla	80	59	73.88	70-130
104	4-Bromophenyl-phen	80	75	93.69	70-130
105	Hexachlorobenzene	80	73	91.64	70-130
108	Pentachlorophenol	80	88	109.50	70-130
112	Phenanthrene	80	79	98.28	70-130
113	Anthracene	80	70	87.02	70-130
114	Carbazole	80	21	25.77*	70-130
116	Di-n-butylphthalat	80	72	89.41	70-130
121	Fluoranthene	80	80	99.91	70-130
122	Benzidine	0.080	0.0	*	70-130
123	Pyrene	80	85	105.96	70-130
128	Butylbenzylphthala	80	80	99.46	70-130
131	3,3'-Dichlorobenzi	80	60	74.52	70-130
132	bis(2-ethylhexyl)P	80	83	103.43	70-130
133	Benzo(a)anthracene	80	82	103.20	70-130
134	Chrysene	80	82	102.71	70-130
135	Di-n-octylphthalat	80	81	101.00	70-130
137	Benzo(b)fluoranthe	80	84	105.65	70-130
138	Benzo(k)fluoranthe	80	87	109.30	70-130
139	Benzo(a)pyrene	80	84	105.44	70-130
141	Indeno(1,2,3-c,d)p	80	86	107.78	70-130
142	Dibenzo(a,h)anthra	80	90	112.08	70-130
143	Benzo(g,h,i)peryle	80	87	109.23	70-130

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Date : 30-APR-2009 20:32
Client ID: SSTD080VAL
Instrument: 5972hp62.i
Sample Info: SSTD080VAL:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Date : 30-APR-2009 20:32
Client ID: SSTD080VAL
Instrument: 5972hp62.i
Sample Info: SSTD080VAL:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Lab Smp Id: SSTD080VAL Client Smp ID: SSTD080VAL
Inj Date : 30-APR-2009 20:32
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080VAL:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2ndsource.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY	
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	307972	40.0000			
*	2 Naphthalene-d8	136	9.919	9.919	(1.000)	1046988	40.0000			
*	3 Acenaphthene-d10	164	13.840	13.839	(1.000)	528141	40.0000			
*	4 Phenanthrene-d10	188	17.125	17.114	(1.000)	886703	40.0000			
*	5 Chrysene-d12	240	23.103	23.092	(1.000)	990823	40.0000			
*	6 Perylene-d12	264	26.092	26.081	(1.000)	1085958	40.0000			
	15 N-Nitrosodimethylamine	42	3.000	3.010	(0.413)	333529	83.0514	42	8657	
	16 Pyridine	79	2.969	2.969	(0.409)	672583	74.6250	37	9494	
	17 Ethylmethacrylate	69	Compound Not Detected.							
	18 2-Picoline	93	4.003	4.003	(0.551)	652402	70.7204	35	8961	
	19 Nitrosomethylethylamine	88	4.290	4.299	(0.590)	242944	73.8606	37	9267	
	20 Methyl Methanesulfonate	80	4.832	4.832	(0.665)	470623	77.3404	39	9016	
	21 N-Nitrosodiethylamine	102	5.447	5.446	(0.749)	198999	73.8626	37	9380	
	22 Ethyl Methanesulfonate	79	6.061	6.060	(0.834)	513932	69.6498	35	9383	
	23 Phenol	94	6.839	6.828	(0.941)	1218550	126.706	63		(R)

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
24 Aniline	93	6.767	6.756	(0.931)	1102643	88.1519	44	5953
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.952)	650649	78.6202	39	
26 Pentachloroethane	167	6.705	6.705	(0.923)	298773	69.1569	34	9420
27 2-Chlorophenol	128	6.951	6.940	(0.956)	1059141	120.884	60	9268 (R)
28 1,3-Dichlorobenzene	146	7.197	7.196	(0.990)	811793	74.4375	37	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.006)	811239	74.1463	37	
30 Benzyl Alcohol	108	7.678	7.667	(1.056)	386438	78.4320	39	
31 1,2-Dichlorobenzene	146	7.668	7.667	(1.055)	703721	73.1798	36	
32 2-Methylphenol	108	8.016	7.984	(1.103)	857137	124.422	62	(R)
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.100)	853470	82.6073	41	8922
34 N-Nitrosopyrrolidine	100	8.241	8.209	(1.134)	149534	88.9523	44	5512
35 3-Methylphenol	108	8.312	8.312	(1.144)	867697	116.950	58	(R)
36 4-Methylphenol	108	8.312	8.312	(1.144)	867697	116.950	58	(R)
38 N-Nitroso-di-N-propylamine	70	8.292	8.291	(1.141)	243731	75.3017	38	8278
39 Acetophenone	105	8.200	8.189	(0.827)	2163495	183.849	92	0 (AM)
40 N-Nitrosomorpholine	116	8.272	8.261	(1.138)	62179	76.0065	38	0 (M)
41 o-Toluidine	106	8.292	8.281	(1.141)	763419	70.4037	35	8669
42 Hexachloroethane	117	8.272	8.271	(1.138)	330627	70.8529	35	9692
43 Nitrobenzene	77	8.527	8.517	(0.860)	734573	78.7728	39	9023
44 N-Nitrosopiperidine	114	8.855	8.844	(0.893)	283713	77.8050	39	9076
45 Isophorone	82	9.039	9.018	(0.911)	1452236	91.0746	46	8739
46 2-Nitrophenol	139	9.203	9.192	(0.928)	593690	116.693	58	8896 (R)
47 2,4-Dimethylphenol	122	9.408	9.397	(0.948)	777301	121.702	61	8919 (R)
48 Benzoic Acid	122	9.889	9.755	(0.997)	548335	685.207	340	7276 (AM)
49 o,o,o-Triethylphosphorothioat	198	9.643	9.632	(0.972)	285531	76.1187	38	8863
50 Bis(2-chloroethoxy)methane	93	9.602	9.591	(0.968)	875176	76.9036	38	8863
51 2,4-Dichlorophenol	162	9.715	9.704	(0.979)	878917	118.496	59	(R)
52 1,2,4-Trichlorobenzene	180	9.858	9.857	(0.994)	655146	70.2654	35	
53 Naphthalene	128	9.971	9.960	(1.005)	1862368	78.7142	39	9348
54 4-Chloroaniline	127	10.227	10.216	(1.031)	757932	77.6311	39	8458
55 2,6-Dichlorophenol	162	10.216	10.205	(1.030)	980176	137.215	69	(R)
56 Hexachloropropene	213	10.247	10.236	(1.033)	472905	67.1507	34	9619
57 Hexachlorobutadiene	225	10.411	10.410	(1.050)	456814	77.2312	39	9343
58 N-Nitroso-di-n-butylamine	84	11.056	11.055	(1.115)	416885	134.005	67	9271 (R)
59 p-Phenylenediamine	108	11.127	11.116	(0.804)	84131	615.143	310	(AR)
60 4-Chloro-3-methylphenol	107	11.414	11.372	(1.151)	775920	115.350	58	0 (RM)
61 Safrole	162	11.404	11.403	(1.150)	415698	67.7446	34	8552
62 2-Methylnaphthalene	141	11.496	11.485	(1.159)	1011124	81.7090	41	
63 1-Methylnaphthalene	142	11.721	11.720	(1.182)	1061755	72.4162	36	
64 Hexachlorocyclopentadiene	237	12.028	12.027	(0.869)	536148	75.7106	38	9583
65 1,2,4,5-Tetrachlorobenzene	216	11.967	11.956	(0.865)	664593	69.6508	35	9687
66 2,4,6-Trichlorophenol	196	12.253	12.232	(0.885)	653993	120.812	60	(R)
67 2,4,5-Trichlorophenol	196	12.345	12.314	(0.892)	758598	125.393	63	(R)
68 Isosafrole	162	12.059	12.048	(0.871)	171646	162.390	81	(A)
69 2-Chloronaphthalene	162	12.560	12.549	(0.908)	1832592	88.6766	44	
70 2-Nitroaniline	65	12.970	12.959	(0.937)	415053	88.6387	44	8819
71 1,4-Napthoquinone	158	13.021	13.010	(0.941)	524689	81.0087	40	9175

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
72 Dimethylphthalate	163	13.512	13.501	(0.976)	1161027	72.6008	36	9630
73 1,3-Dinitrobenzene	168	13.502	13.491	(0.976)	223735	74.7836	37	0 (M)
74 2,6-Dinitrotoluene	165	13.635	13.624	(0.985)	337686	75.0268	38	9450
75 Acenaphthylene	152	13.481	13.481	(0.974)	1760264	77.7990	39	9067
76 3-Nitroaniline	138	13.922	13.900	(1.006)	353799	92.9926	46	8923
77 Acenaphthene	154	13.911	13.911	(1.005)	1022562	80.1149	40	9458
78 2,4-Dinitrophenol	184	14.147	14.126	(1.022)	295326	185.153	92	(AR)
79 4-Nitrophenol	139	14.433	14.402	(1.043)	438442	146.669	73	8571 (RM)
80 Pentachlorobenzene	250	14.341	14.330	(1.036)	656128	71.0087	36	9470
81 2,4-Dinitrotoluene	165	14.495	14.484	(1.047)	411143	77.1414	38	7618
82 Dibenzofuran	168	14.280	14.269	(1.032)	1567606	75.4113	38	9213
83 1-Naphthylamine	143	14.505	14.494	(1.048)	732255	172.705	86	(ARM)
84 2,3,4,6-Tetrachlorophenol	232	14.720	14.699	(1.064)	645421	134.332	67	9537 (R)
85 2-Naphthylamine	143	14.679	14.668	(1.061)	742970	163.370	82	(AR)
86 Diethylphthalate	149	15.129	15.108	(1.093)	1257732	74.0494	37	7939
87 Zinophos	97	15.303	15.282	(1.106)	353128	78.3261	39	9213
88 4-Chlorophenyl-phenylether	204	15.129	15.118	(1.093)	563777	67.5913	34	7682
89 5-Nitro-o-toluidine	152	15.262	15.241	(1.103)	399855	81.9826	41	7422
90 Fluorene	166	15.048	15.037	(1.087)	1258715	78.3148	39	7868
91 4-Nitroaniline	138	15.334	15.303	(1.108)	362786	87.9170	44	9151
92 4,6-Dinitro-2-methylphenol	198	15.396	15.374	(0.899)	401326	141.232	71	0 (RM)
93 N-Nitrosodiphenylamine	169	15.457	15.436	(0.903)	1537360	119.691	60	8725 (R)
95 1,2-Diphenylhydrazine	77	15.477	15.456	(1.118)	1587098	81.1996	40	9038
96 Sulfotep	322	16.132	16.122	(1.166)	260656	80.8577	40	8884
97 1,3,5-Trinitrobenzene	75	16.276	16.255	(0.950)	348140	68.1392	34	9060
98 Diallate (trans isomer)	86	16.204	16.193	(0.946)	693285	62.7656	31	
100 Phorate	75	16.225	16.203	(0.947)	770905	69.6492	35	7210
101 Phenacetin	108	16.368	16.337	(0.956)	616937	69.4361	35	8480
102 Diallate (cis isomer)	86	16.368	16.357	(0.956)	320139	89.3528	45	(A)
104 4-Bromophenyl-phenylether	248	16.204	16.193	(0.946)	328857	57.0908	28	8185
105 Hexachlorobenzene	284	16.470	16.459	(0.962)	621633	68.8909	34	8855
106 Dimethoate	87	16.644	16.613	(0.972)	485073	85.1700	42	9089
107 4-Aminobiphenyl	169	16.839	16.828	(0.983)	849683	71.8130	36	0 (M)
108 Pentachlorophenol	266	16.931	16.910	(0.989)	647754	151.413	76	7531 (R)
109 Pentachloronitrobenzene	237	17.105	17.094	(0.999)	194464	68.2506	34	7447
110 Pronamide	173	17.156	17.135	(1.002)	587718	74.3575	37	9554
111 Disulfoton	88	17.391	17.381	(1.016)	646167	74.8033	37	9263
112 Phenanthrene	178	17.177	17.166	(1.003)	1725773	73.4585	37	
113 Anthracene	178	17.279	17.268	(1.009)	1847006	75.0564	38	
114 Carbazole	167	17.729	17.739	(1.035)	1672170	28.9726	14	9603 (R)
115 Methyl Parathion	109	18.231	18.220	(1.065)	472702	86.5343	43	9088
116 Di-n-butylphthalate	149	18.794	18.793	(1.097)	2153651	69.1602	34	9747
117 Parathion	109	19.152	19.141	(1.118)	275774	72.0067	36	8161
118 4-Nitroquinoline-1-oxide	190	19.050	19.039	(1.112)	185532	80.1354	40	8796
119 Methapyrilene	97	19.377	19.377	(1.131)	573480	3399.81	1700	9400 (ARMH)
120 Isodrin	193	19.541	19.540	(1.141)	234913	68.1904	34	9570
121 Fluoranthene	202	19.848	19.847	(1.159)	1891095	77.9644	39	9797

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
122 Benzidine	184	20.298	20.298	(0.879)	343753	64.9004	32	8600
123 Pyrene	202	20.329	20.328	(0.880)	2056505	82.4163	41	9805
124 p-Dimethylaminoazobenzene	225	21.230	21.219	(0.919)	382004	79.5819	40	8683
125 Chlorobenzilate	251	21.404	21.383	(0.926)	1078270	131.299	66	9016(R)
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.141	22.130	(0.958)	1010001	76.8481	38	9347
129 3,3'-Dimethylbenzidine	212	21.987	21.987	(0.952)	648194	73.4030	37	9507
130 2-Acetylaminofluorene	181	22.591	22.570	(0.978)	751300	84.3842	42	9078
131 3,3'-Dichlorobenzidine	252	23.164	23.164	(1.003)	648077	72.5162	36	8655
132 bis(2-ethylhexyl)Phthalate	149	23.543	23.542	(1.019)	1413917	79.2131	40	9420
133 Benzo(a)anthracene	228	23.072	23.061	(0.999)	1926082	82.0734	41	
134 Chrysene	228	23.164	23.153	(1.003)	1555492	73.9585	37	
135 Di-n-octylphthalate	149	24.853	24.853	(0.953)	2360973	77.6205	39	
136 7,12-Dimethylbenz(a)anthracene	256	25.426	25.416	(0.975)	869959	81.0379	40	8723
137 Benzo(b)fluoranthene	252	25.365	25.354	(0.972)	2168156	80.2859	40	
138 Benzo(k)fluoranthene	252	25.416	25.395	(0.974)	2203598	93.1095	46	
139 Benzo(a)pyrene	252	25.979	25.968	(0.996)	2025780	86.1342	43	
140 3-Methylcholanthrene	268	26.778	26.767	(1.026)	1004411	77.7051	39	9638
141 Indeno(1,2,3-c,d)pyrene	276	28.507	28.486	(1.093)	1805715	82.5444	41	0(M)
142 Dibenzo(a,h)anthracene	278	28.599	28.568	(1.096)	1863970	86.1101	43	9512
143 Benzo(g,h,i)perylene	276	29.214	29.172	(1.120)	1975283	84.4445	42	9004

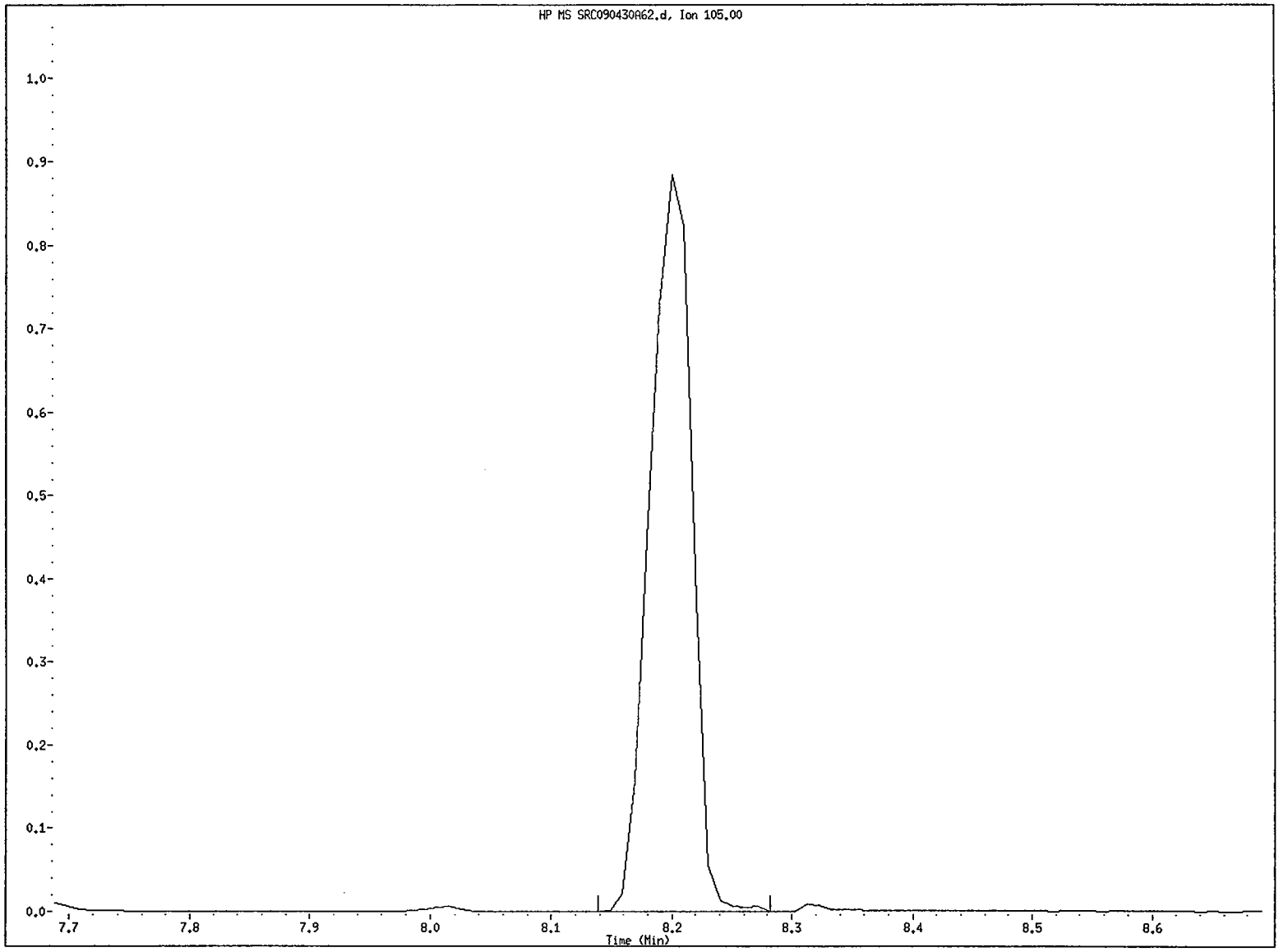
05/05/09

05/5/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Acetophenone CAS Number 98-86-2 Area = 2163495 Manually integrated



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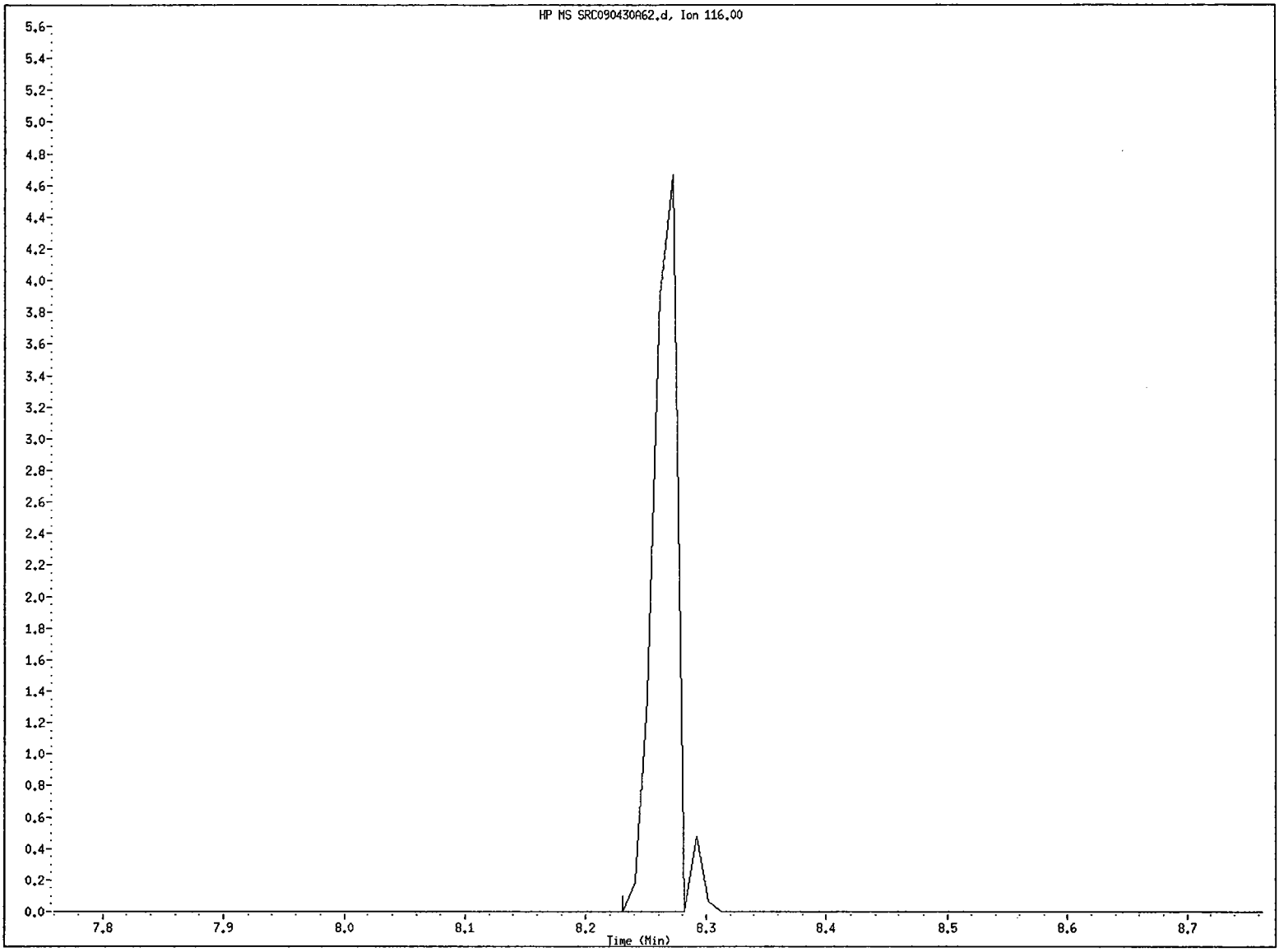
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 62179 Manually integrated



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Instrument ID: 5972hp62.i
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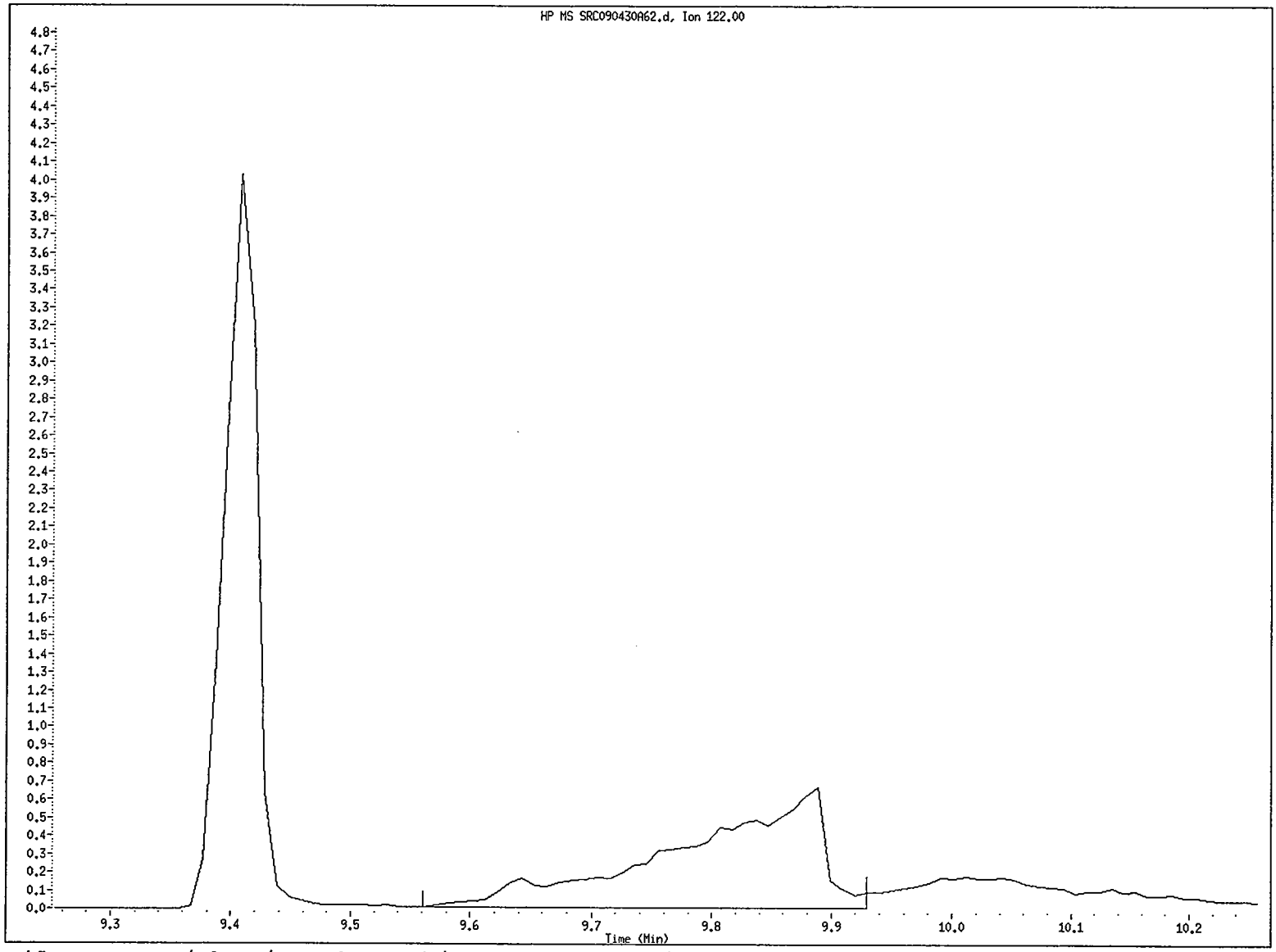
Retention Time: 8.27
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 548335 Manually integrated



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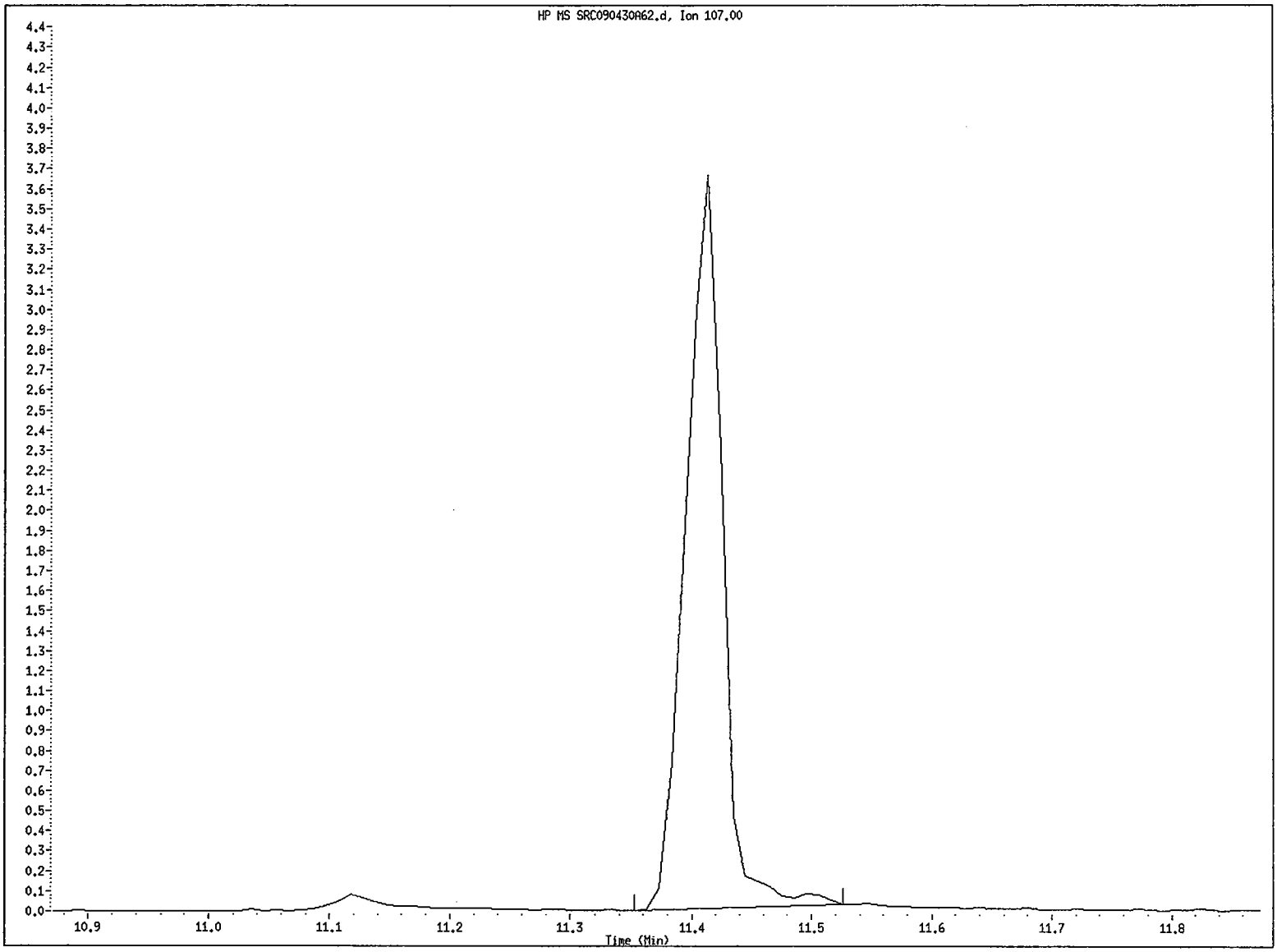
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 9.89
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 775920 Manually integrated



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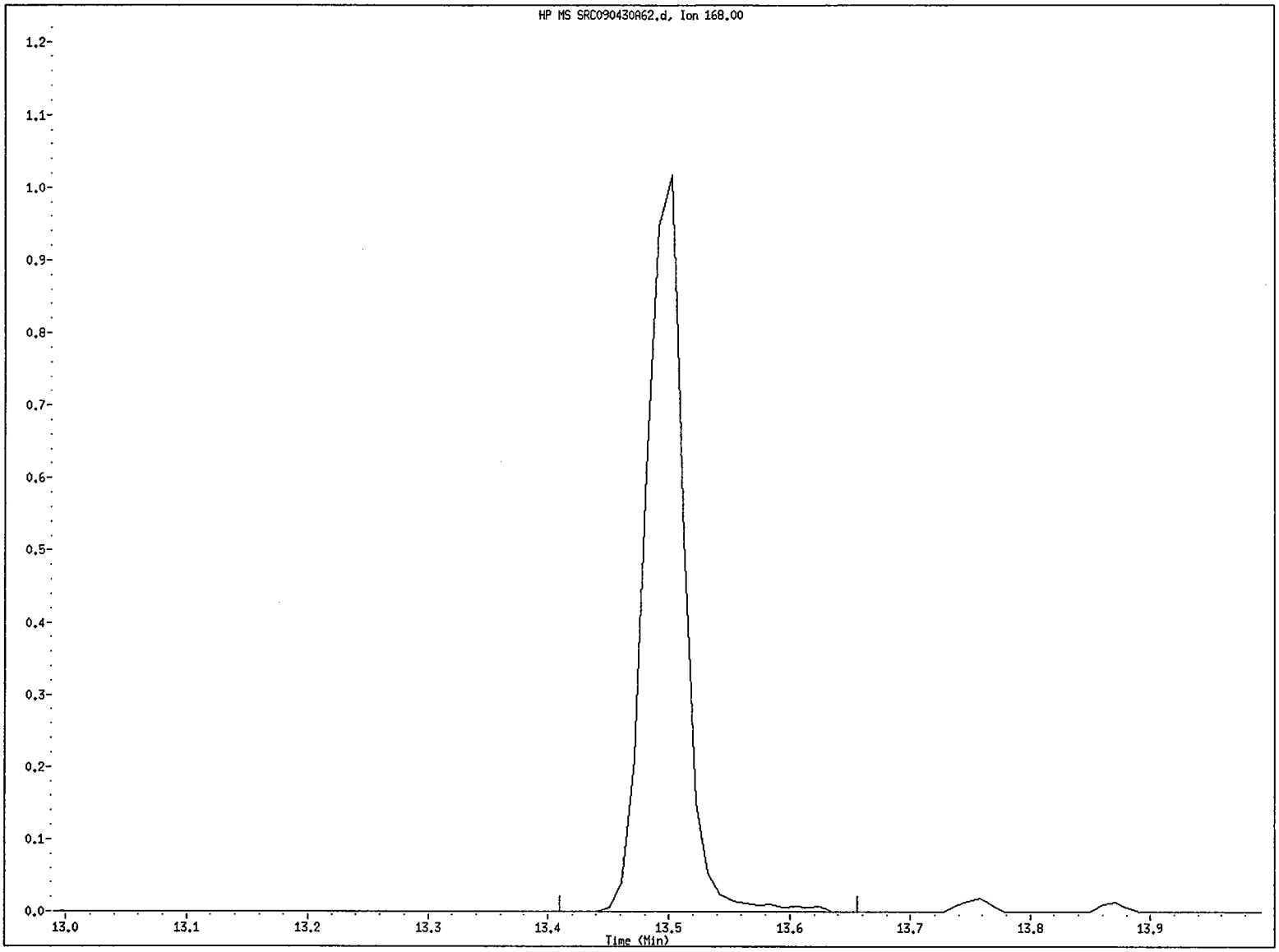
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 11.41
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 223735 Manually integrated



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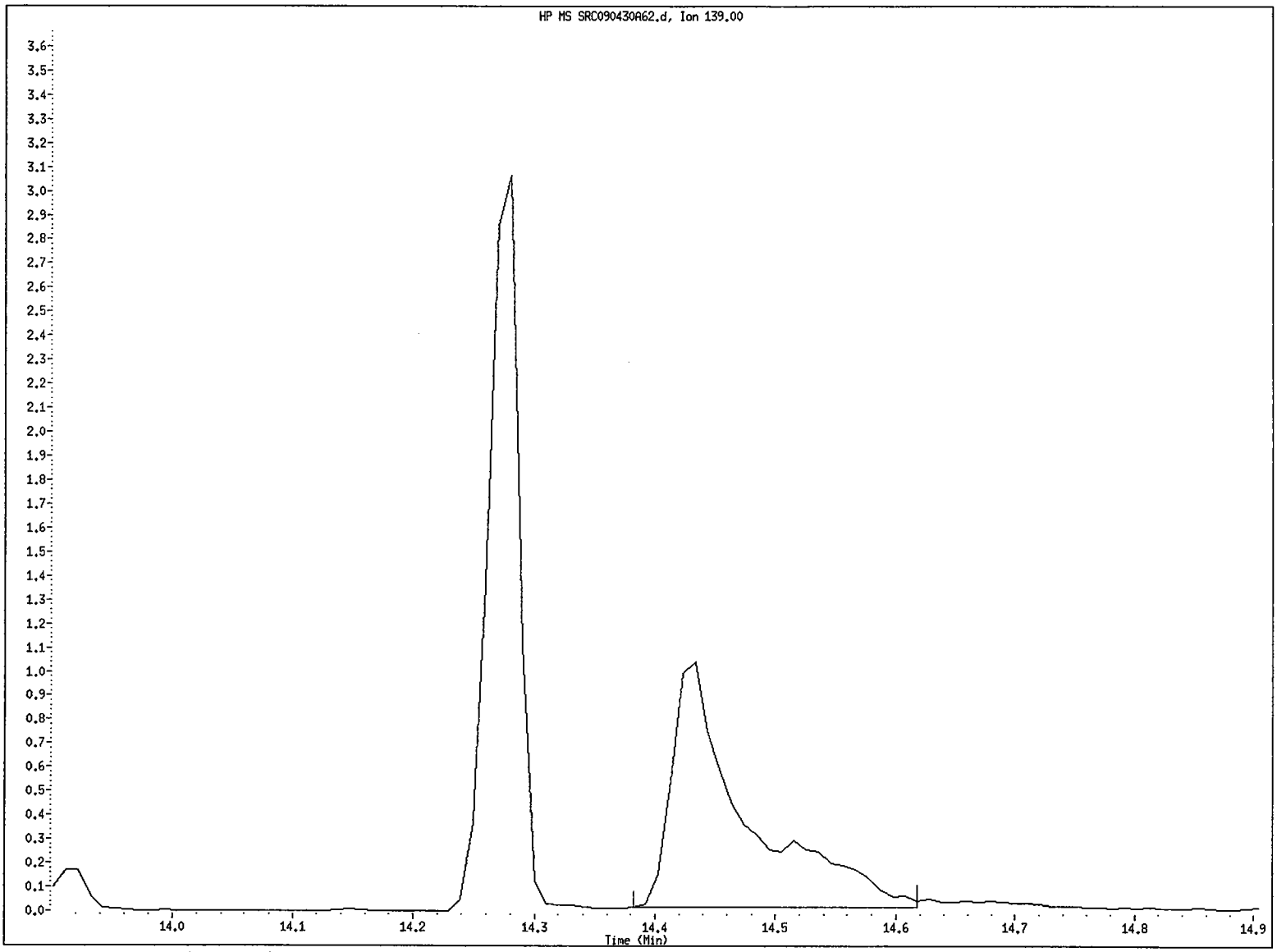
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 13.50
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 438442 Manually integrated



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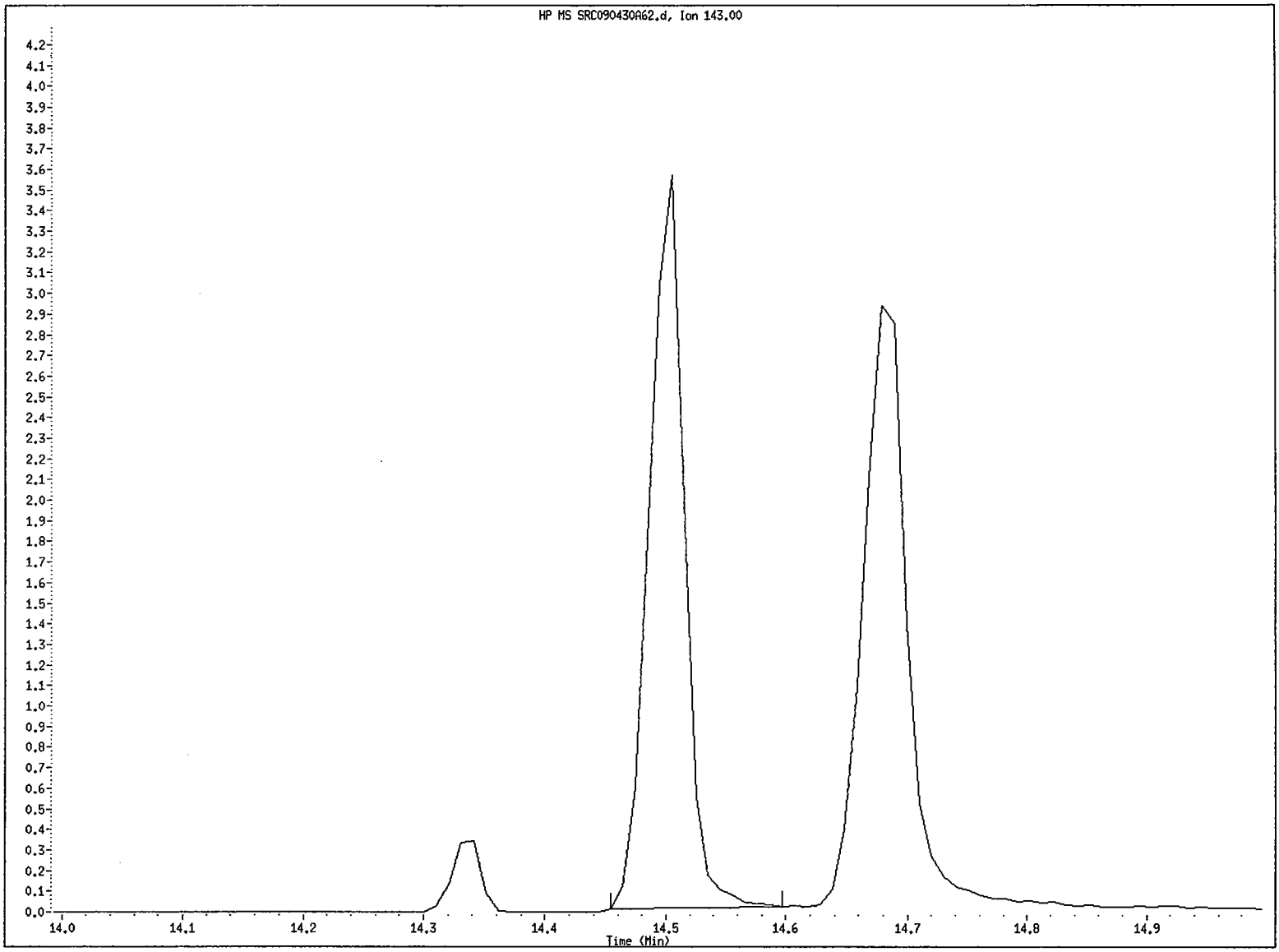
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 14.43
Operator ID: 2650

1-Naphthylamine CAS Number 134-32-7 Area = 732255 Manually integrated



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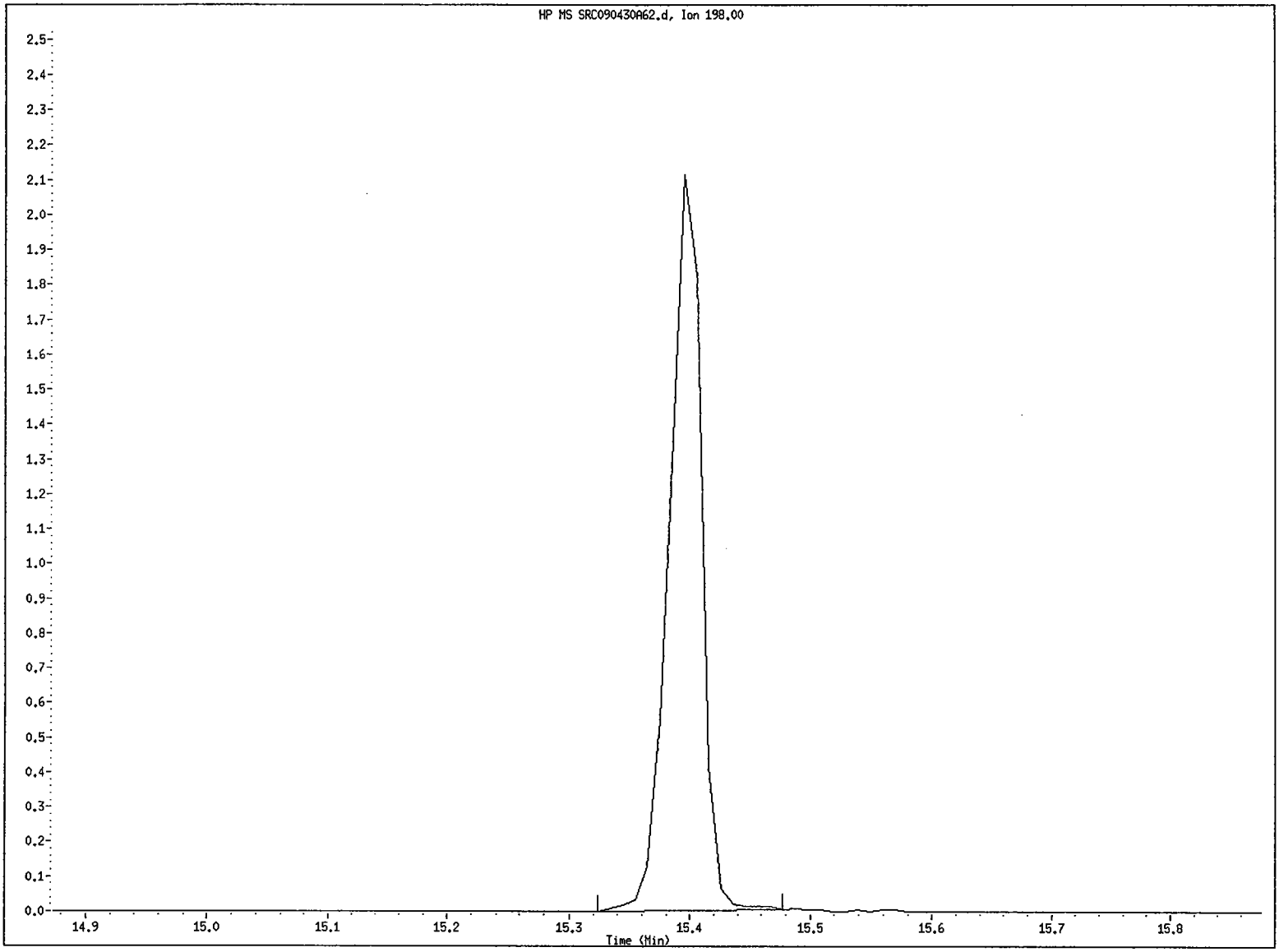
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 14.51
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 401326 Manually integrat



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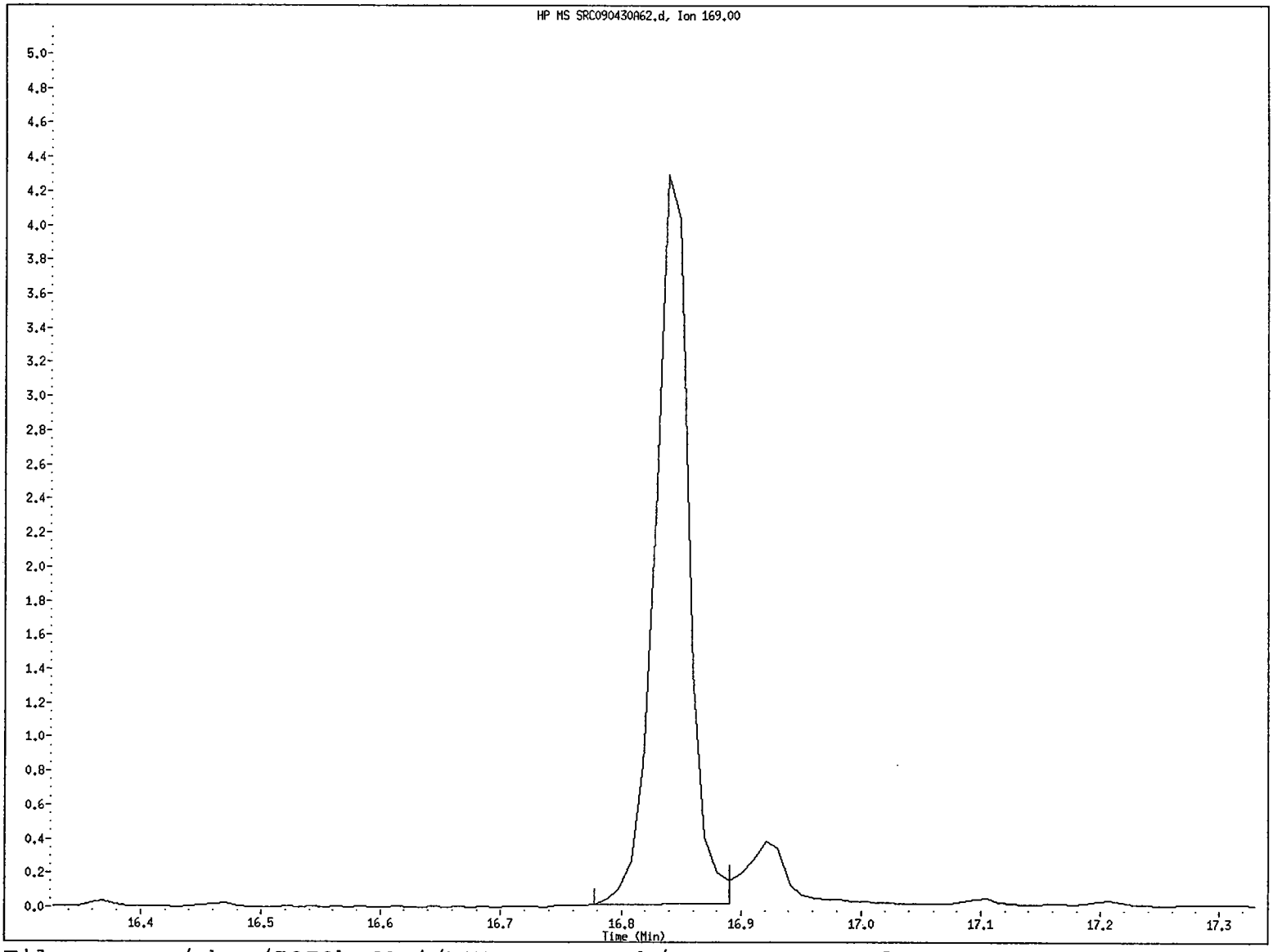
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 15.40
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 849683 Manually integrated



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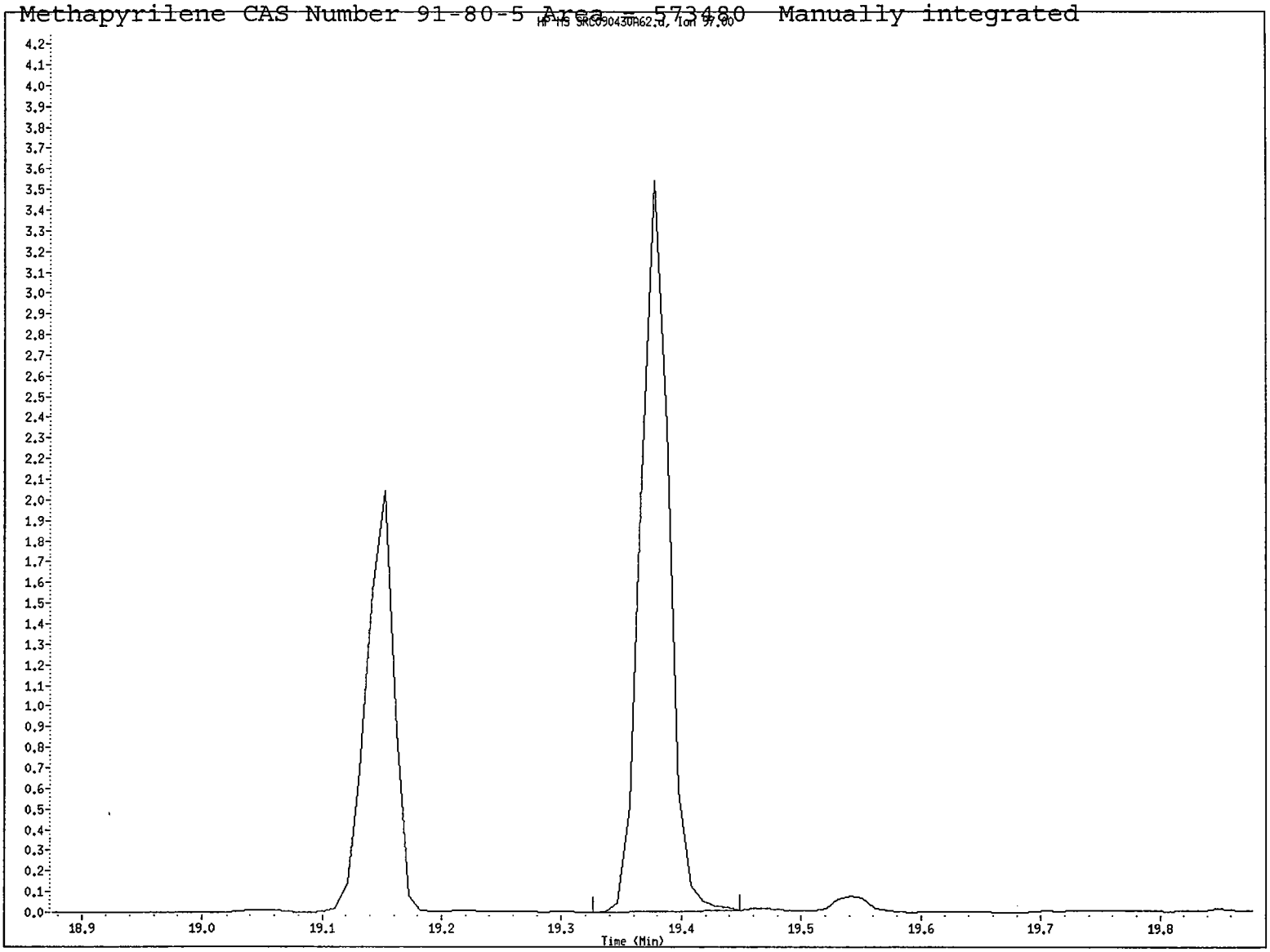
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 16.84
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 573480 User selected hit

Methapyrilene CAS Number 91-80-5 Area = 573480 Manually integrated



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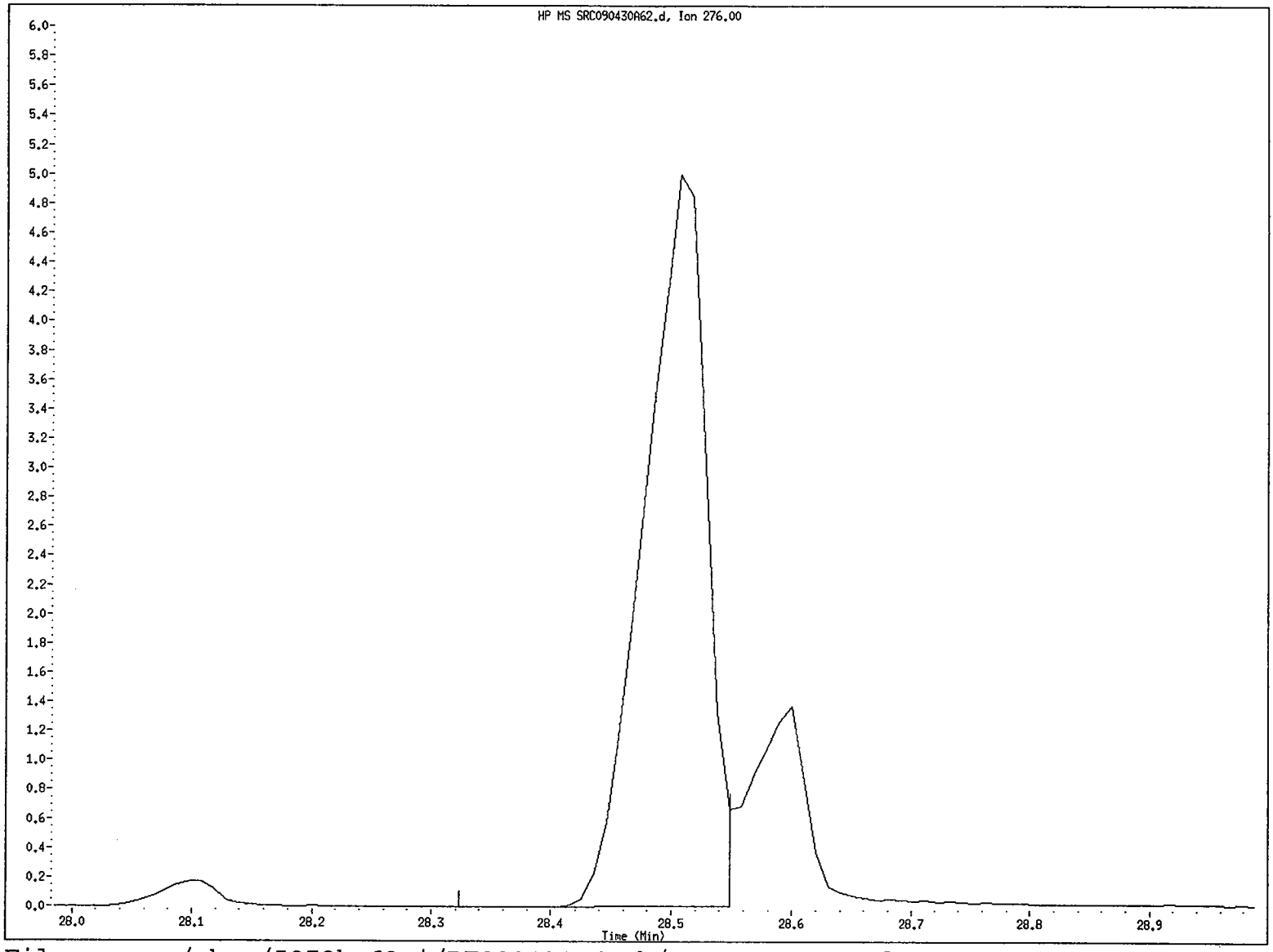
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 19.38
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1805715 Manually integrated



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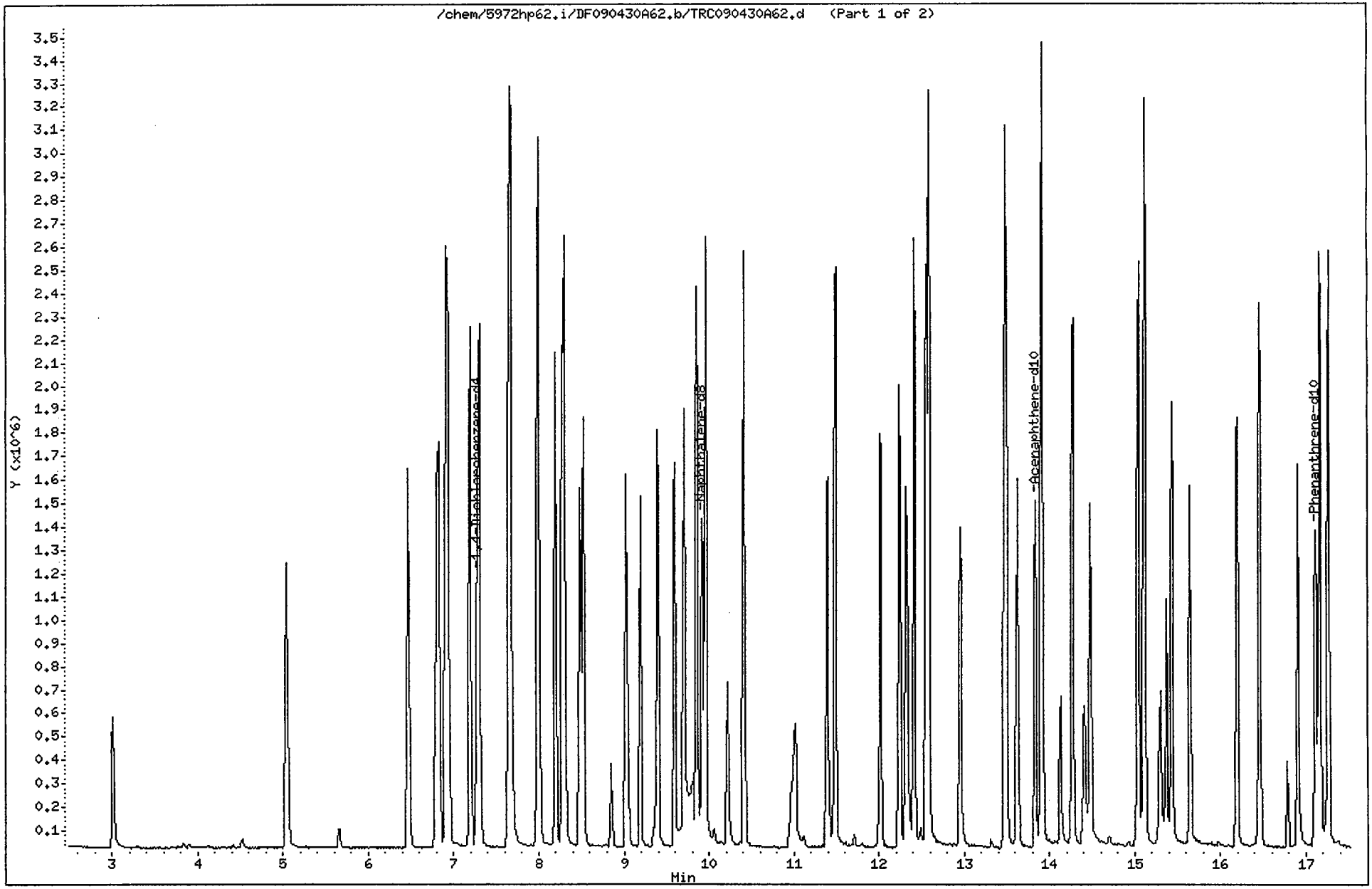
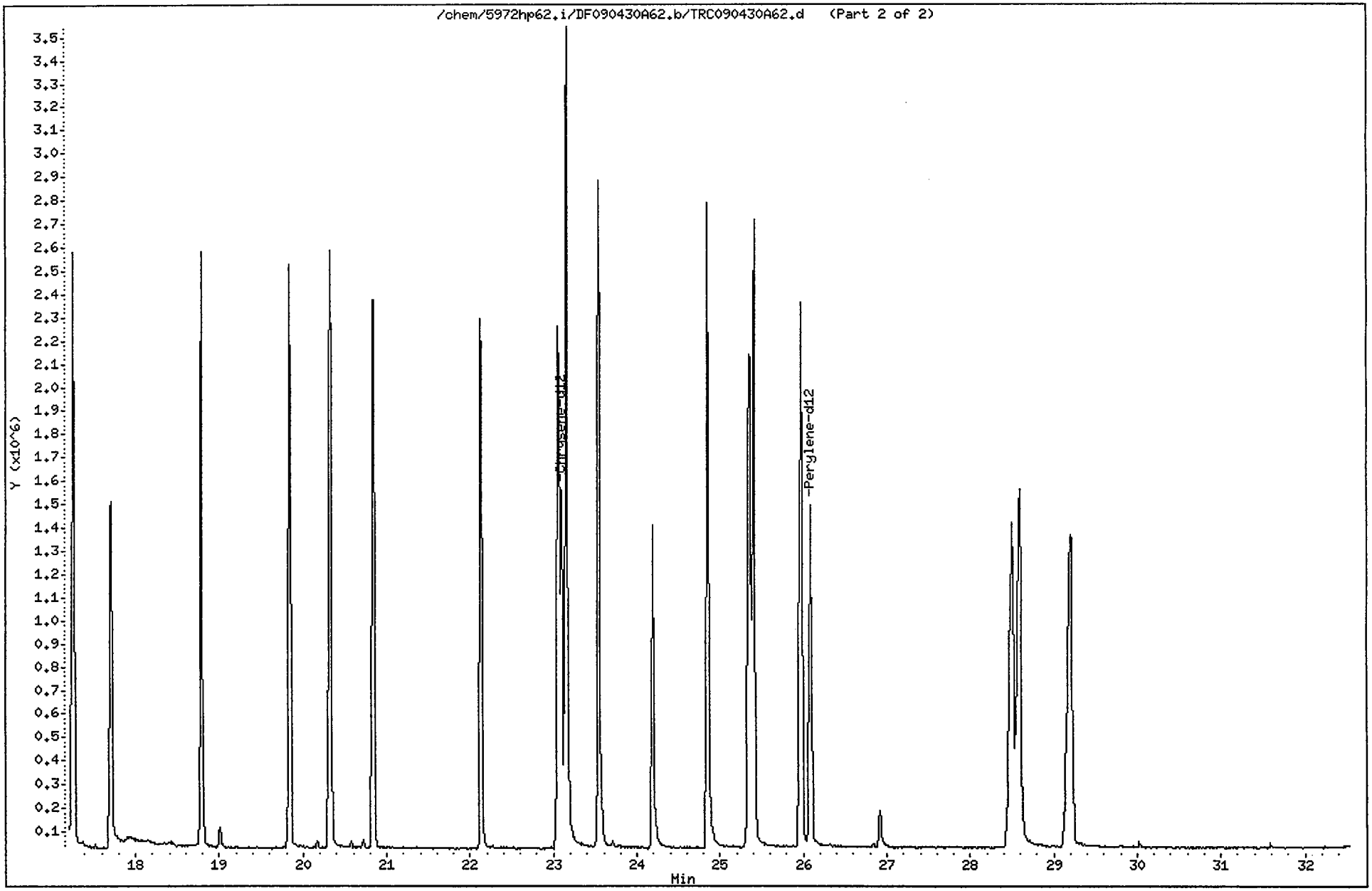
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 28.51
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Date : 30-APR-2009 21:14
Client ID: CLP080VAL
Instrument: 5972hp62.i
Sample Info: CLP080VAL:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Date : 30-APR-2009 21:14
Client ID: CLP080VAL
Instrument: 5972hp62.i
Sample Info: CLP080VAL:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Lab Smp Id: CLP080VAL Client Smp ID: CLP080VAL
Inj Date : 30-APR-2009 21:14
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : CLP080VAL:2650
Misc Info :
Comment   : 2008 MDLS SOIL/ 2007 WATER
Method   : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2ndsource.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1	1,4-Dichlorobenzene-d4	152	7.278	7.268	(1.000)	312600	40.0000		
* 2	Naphthalene-d8	136	9.919	9.919	(1.000)	1100496	40.0000		
* 3	Acenaphthene-d10	164	13.839	13.839	(1.000)	561702	40.0000		
* 4	Phenanthrene-d10	188	17.114	17.114	(1.000)	924755	40.0000		
* 5	Chrysene-d12	240	23.102	23.092	(1.000)	999919	40.0000		
* 6	Perylene-d12	264	26.091	26.081	(1.000)	1126972	40.0000		
15	N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	329868	80.9237	40	8300
16	Pyridine	79	Compound Not Detected.						
17	Ethylmethacrylate	69	Compound Not Detected.						
18	2-Picoline	93	Compound Not Detected.						
19	Nitrosomethylethylamine	88	Compound Not Detected.						
20	Methyl Methanesulfonate	80	Compound Not Detected.						
21	N-Nitrosodiethylamine	102	Compound Not Detected.						
22	Ethyl Methanesulfonate	79	Compound Not Detected.						
23	Phenol	94	6.838	6.828	(0.940)	880034	90.1522	45	
24	Aniline	93	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.951)	637084	75.8414	38	
26 Pentachloroethane	167	Compound Not Detected.						
27 2-Chlorophenol	128	6.940	6.940	(0.954)	793365	89.2094	45	9444
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.989)	901859	81.4718	41	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.004)	919146	82.7651	41	
30 Benzyl Alcohol	108	7.677	7.667	(1.055)	425767	85.1349	42	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.053)	756638	77.5177	39	
32 2-Methylphenol	108	7.995	7.984	(1.098)	622217	88.9841	44	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.098)	901952	86.0074	43	8856
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	8.302	8.312	(1.141)	664168	88.1928	44	
36 4-Methylphenol	108	8.302	8.312	(1.141)	664168	88.1928	44	
38 N-Nitroso-di-N-propylamine	70	8.291	8.291	(1.139)	285799	86.9915	43	8707
39 Acetophenone	105	8.199	8.189	(0.827)	1023348	82.7336	41	0(M)
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	8.271	8.271	(1.136)	405947	85.7059	43	9641
43 Nitrobenzene	77	8.527	8.517	(0.860)	851904	86.9131	43	9172
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	9.028	9.018	(0.910)	1441917	86.0308	43	8914
46 2-Nitrophenol	139	9.202	9.192	(0.928)	470181	87.9233	44	8794
47 2,4-Dimethylphenol	122	9.397	9.397	(0.947)	524790	78.1715	39	8948
48 Benzoic Acid	122	9.816	9.755	(0.990)	359204	427.041	210	7627(A)
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	9.602	9.591	(0.968)	891611	74.5384	37	9228
51 2,4-Dichlorophenol	162	9.714	9.704	(0.979)	675491	86.6419	43	
52 1,2,4-Trichlorobenzene	180	9.857	9.857	(0.994)	789888	80.5976	40	
53 Naphthalene	128	9.970	9.960	(1.005)	2055757	82.6633	41	9394
54 4-Chloroaniline	127	10.216	10.216	(1.030)	421717	41.0941	20	8069(R)
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
57 Hexachlorobutadiene	225	10.410	10.410	(1.050)	497838	80.0746	40	9361
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.403	11.372	(1.150)	624863	88.3771	44	0(M)
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	11.495	11.485	(1.159)	1091719	83.9324	42	
63 1-Methylnaphthalene	142	11.710	11.720	(1.181)	21472	1.39328	0.70	(a)
64 Hexachlorocyclopentadiene	237	12.027	12.027	(0.869)	534682	70.9924	35	9577
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	12.242	12.232	(0.885)	486415	84.4867	42	
67 2,4,5-Trichlorophenol	196	12.324	12.314	(0.891)	567715	88.2339	44	
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	12.560	12.549	(0.908)	1179024	53.6426	27	(R)
70 2-Nitroaniline	65	12.959	12.959	(0.936)	456592	91.6836	46	9277
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	13.501	13.501	(0.976)	1301892	76.5452	38	9613
73 1,3-Dinitrobenzene	168	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74	2,6-Dinitrotoluene	165	13.634	13.624	(0.985)	396536	82.8381	41	9557
75	Acenaphthylene	152	13.481	13.481	(0.974)	1853369	77.0197	38	9709
76	3-Nitroaniline	138	13.911	13.900	(1.005)	296164	73.1927	36	8603
77	Acenaphthene	154	13.911	13.911	(1.005)	1040238	76.6302	38	9377
78	2,4-Dinitrophenol	184	14.136	14.126	(1.021)	164994	97.2613	49	
79	4-Nitrophenol	139	14.412	14.402	(1.041)	274764	86.4231	43	7727
80	Pentachlorobenzene	250	Compound Not Detected.						
81	2,4-Dinitrotoluene	165	14.484	14.484	(1.047)	496387	87.5707	44	7290
82	Dibenzofuran	168	14.279	14.269	(1.032)	1753582	79.3176	40	9197
83	1-Naphthylamine	143	Compound Not Detected.						
84	2,3,4,6-Tetrachlorophenol	232	14.699	14.699	(1.062)	10103	1.97711	0.99	8734(a)
85	2-Naphthylamine	143	Compound Not Detected.						
86	Diethylphthalate	149	15.108	15.108	(1.092)	1423937	78.8258	39	9162
87	Zinophos	97	Compound Not Detected.						
88	4-Chlorophenyl-phenylether	204	15.129	15.118	(1.093)	637076	71.8155	36	7335
89	5-Nitro-o-toluidine	152	Compound Not Detected.						
90	Fluorene	166	15.047	15.037	(1.087)	1351535	79.0656	40	7852
91	4-Nitroaniline	138	15.303	15.303	(1.106)	286237	65.2217	33	9104
92	4,6-Dinitro-2-methylphenol	198	15.374	15.374	(0.898)	257497	86.8881	43	8972
93	N-Nitrosodiphenylamine	169	15.436	15.436	(0.902)	791698	59.1011	30	9575
95	1,2-Diphenylhydrazine	77	Compound Not Detected.						
96	Sulfotep	322	Compound Not Detected.						
97	1,3,5-Trinitrobenzene	75	Compound Not Detected.						
98	Diallate (trans isomer)	86	Compound Not Detected.						
100	Phorate	75	Compound Not Detected.						
101	Phenacetin	108	Compound Not Detected.						
102	Diallate (cis isomer)	86	Compound Not Detected.						
104	4-Bromophenyl-phenylether	248	16.203	16.193	(0.947)	450286	74.9548	37	8865
105	Hexachlorobenzene	284	16.459	16.459	(0.962)	689909	73.3114	37	9392
106	Dimethoate	87	Compound Not Detected.						
107	4-Aminobiphenyl	169	Compound Not Detected.						
108	Pentachlorophenol	266	16.910	16.910	(0.988)	390844	87.6009	44	8091
109	Pentachloronitrobenzene	237	Compound Not Detected.						
110	Pronamide	173	Compound Not Detected.						
111	Disulfoton	88	Compound Not Detected.						
112	Phenanthrene	178	17.166	17.166	(1.003)	1926467	78.6269	39	
113	Anthracene	178	17.268	17.268	(1.009)	1786645	69.6161	35	
114	Carbazole	167	17.718	17.739	(1.035)	1241029	20.6177	10	9742(R)
115	Methyl Parathion	109	Compound Not Detected.						
116	Di-n-butylphthalate	149	18.793	18.793	(1.098)	2322881	71.5253	36	9689
117	Parathion	109	Compound Not Detected.						
118	4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119	Methapyrilene	97	Compound Not Detected.						
120	Isodrin	193	Compound Not Detected.						
121	Fluoranthene	202	19.847	19.847	(1.160)	2021842	79.9249	40	9782
122	Benzidine	184	Compound Not Detected.						
123	Pyrene	202	20.328	20.328	(0.880)	2134514	84.7645	42	9829
124	p-Dimethylaminoazobenzene	225	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
125 Chlorobenzilate	251	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.130	22.130	(0.958)	1055400	79.5719	40	9627
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						
130 2-Acetylaminofluorene	181	Compound Not Detected.						
131 3,3'-Dichlorobenzidine	252	23.164	23.164	(1.003)	537698	59.6181	30	8535
132 bis(2-ethylhexyl)Phthalate	149	23.542	23.542	(1.019)	1490536	82.7460	41	9408
133 Benzo(a)anthracene	228	23.061	23.061	(0.998)	1955364	82.5633	41	
134 Chrysene	228	23.164	23.153	(1.003)	1744002	82.1672	41	
135 Di-n-octylphthalate	149	24.853	24.853	(0.953)	2550627	80.8039	40	
136 7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137 Benzo(b)fluoranthene	252	25.364	25.354	(0.972)	2368639	84.5177	42	
138 Benzo(k)fluoranthene	252	25.416	25.395	(0.974)	2147538	87.4384	44	
139 Benzo(a)pyrene	252	25.979	25.968	(0.996)	2058789	84.3519	42	
140 3-Methylcholanthrene	268	Compound Not Detected.						
141 Indeno(1,2,3-c,d)pyrene	276	28.507	28.486	(1.093)	1957412	86.2225	43	0(M)
142 Dibenzo(a,h)anthracene	278	28.599	28.568	(1.096)	2014267	89.6668	45	9567
143 Benzo(g,h,i)perylene	276	29.213	29.172	(1.120)	2121202	87.3824	44	9012

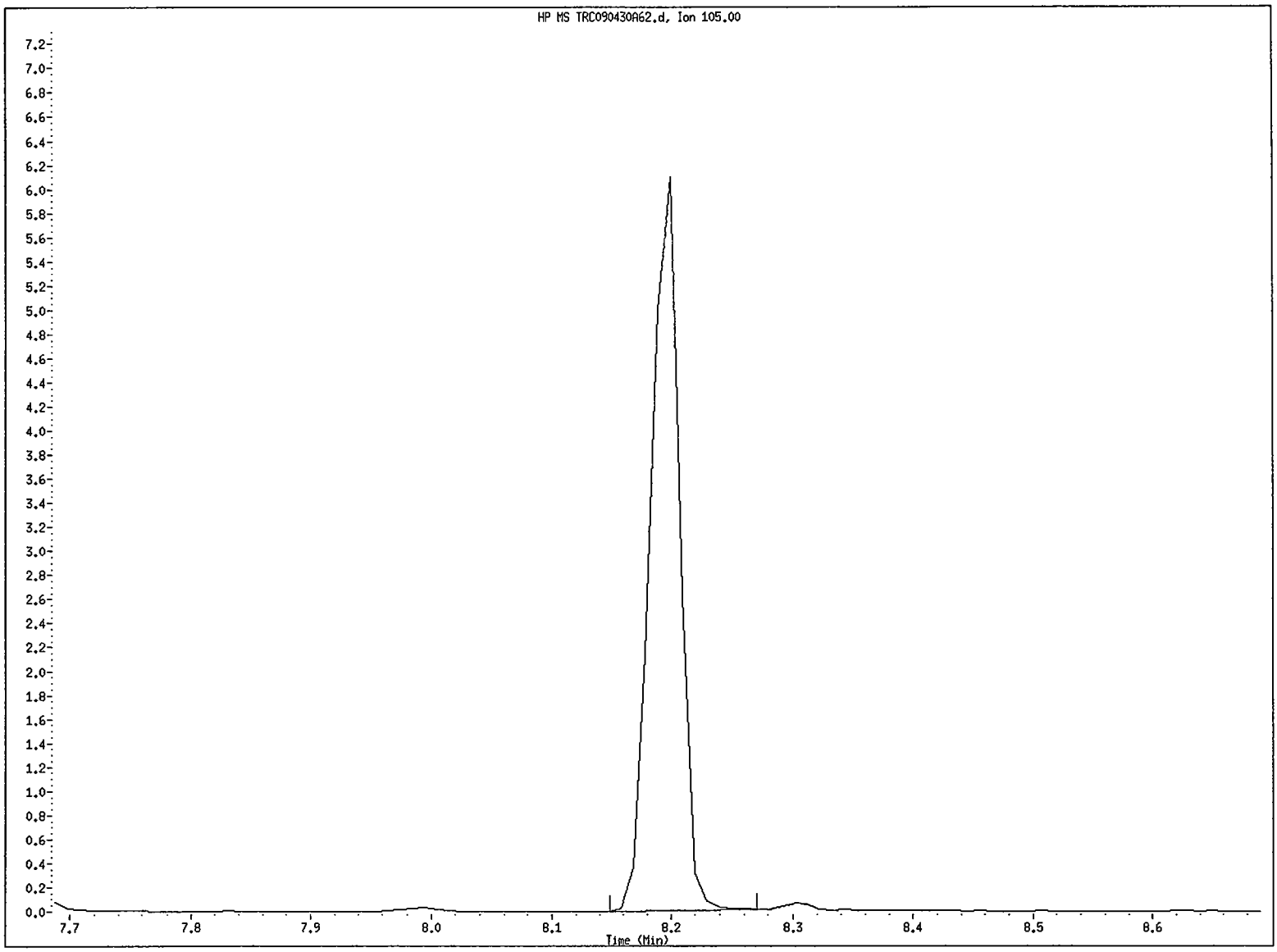
10/1/19

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

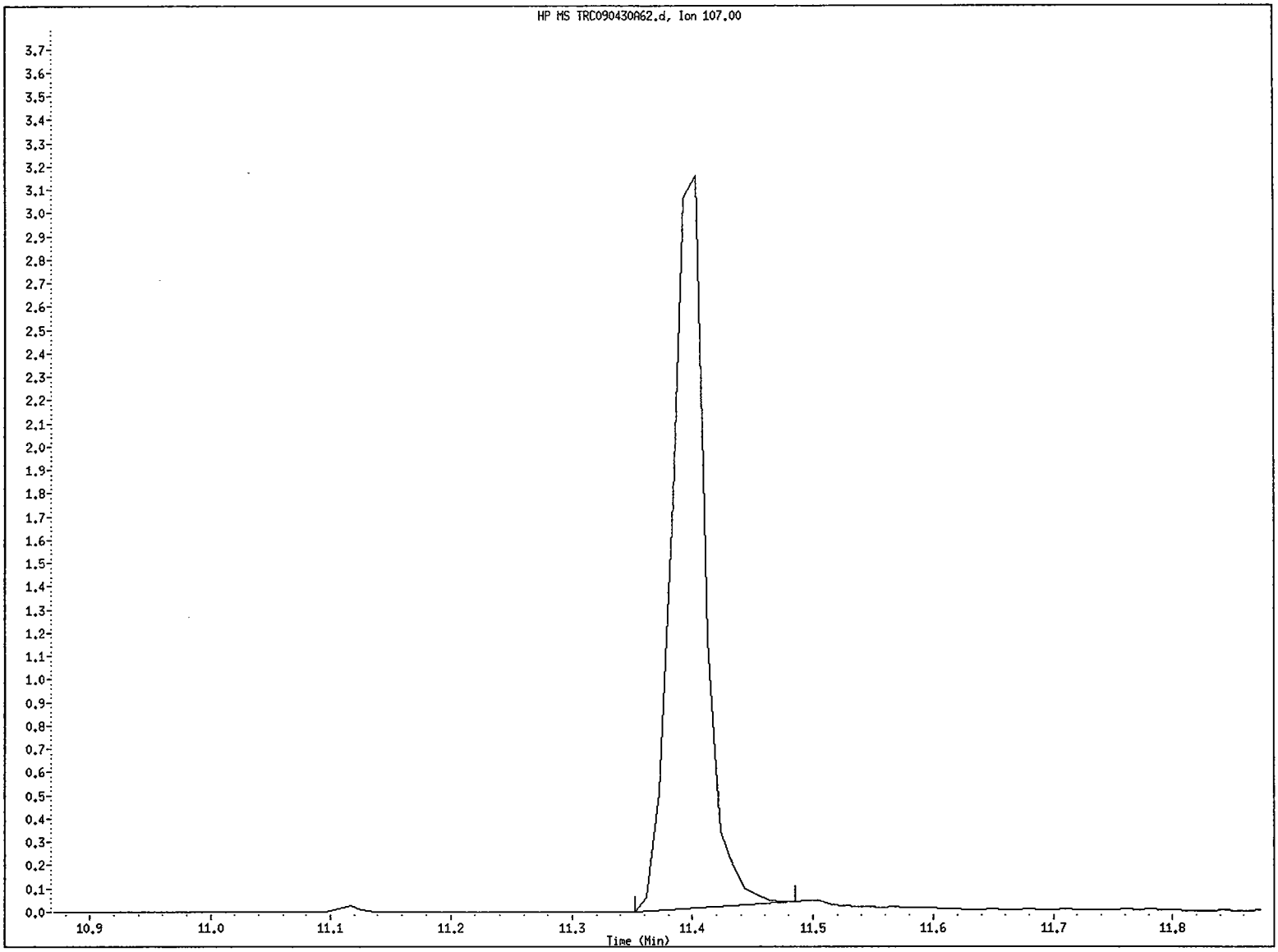
5/5/09

Acetophenone CAS Number 98-86-2 Area = 1023348 Manually integrated



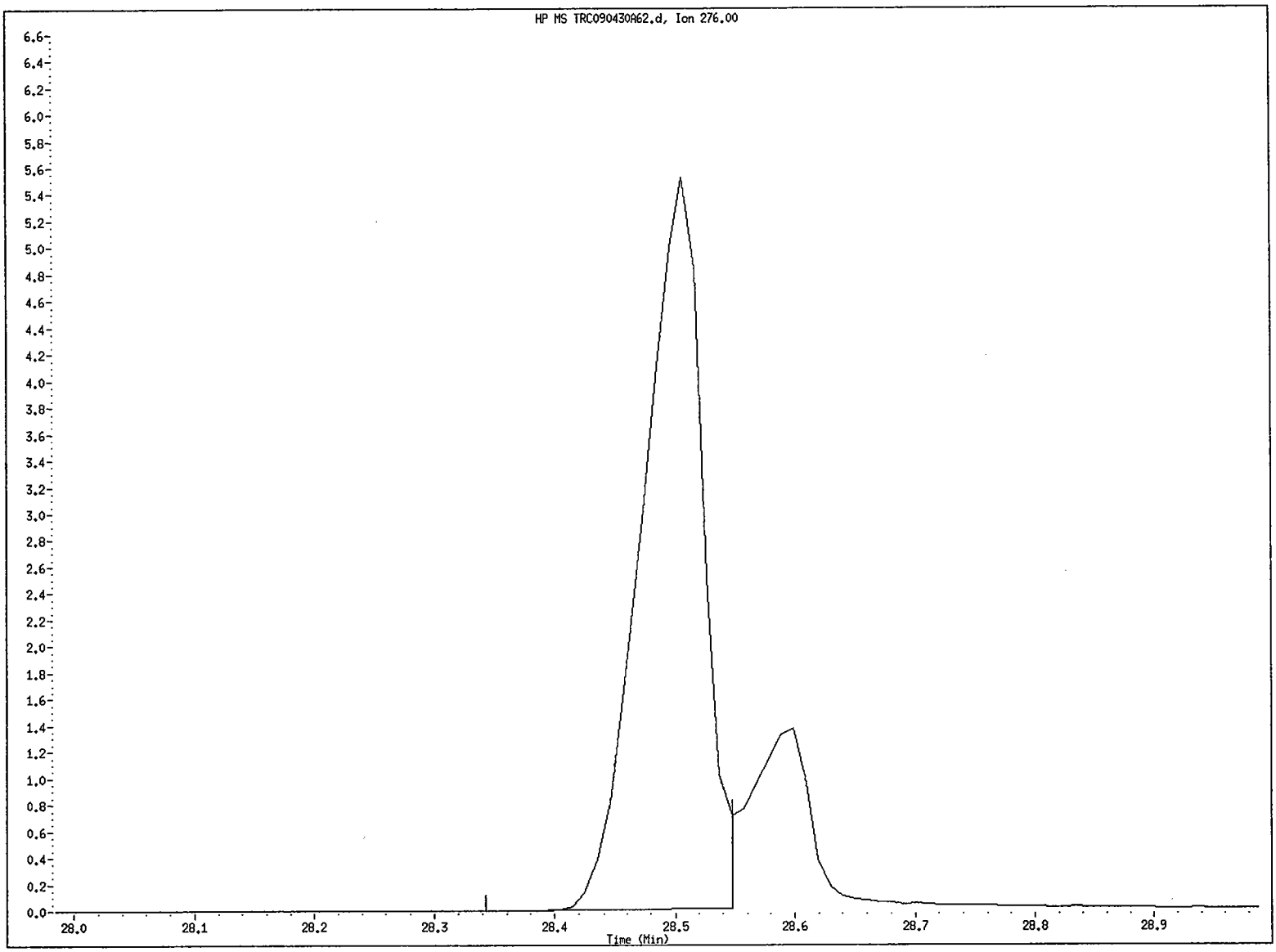
File name: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Client ID: CLP080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 21:14
Retention Time: 8.20
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 624863 Manually integrated



File name: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Client ID: CLP080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 21:14
Retention Time: 11.40
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1957412 Manually integrated



File name: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Client ID: CLP080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 21:14
Retention Time: 28.51
Operator ID: 2650

COMPUCHEM a Division of Liberty Analytical Corp
GC/MS SEMIVOLATILE RUN LOG
LOGBOOK 4 Y (4) 8 (5972hp62)

DATE 4/30/09 INITIAL TIME OF TUNE 1603 SHIFT/S(A) ✓ (B) (C)
TIME TUNE EXPIRES 0903 METHOD APIX

PREVENTIVE MAINTENANCE Replaced source/Front/Liner/seal

		FILE NAME		DATE	TIME	CLIENT ID #	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS(ETC)/DISPOSITION
1		DF090430A62	✓	4/30/09	1603	DFTPP	—	2uL	2650	SCD=LCD
2		HG090430A62	✓	/ /	1622	SSTD080	—			62090 6/30/09 + 61860 11/30/09
3		HH090430A62	✓	/ /	1704	SSTD160	—			62092
4		HI090430A62	✓	/ /	1745	SSTD010	—			62087
5		HJ090430A62	✓	/ /	1827	SSTD120	—			62091
6		HK090430A62	✓	/ /	1909	SSTD020	—			62088
7		HL090430A62	✓	/ /	1951	SSTD050	—			62089
8		SRC090430A62	✓	/ /	2032	SSTD080VAL	—			62099 8/31/09
9		TRC090430A62	✓	/ /	2114	CLP080VAL	—			61771 6/1/09
10				/ /						
11				/ /						
12				/ /						
13				/ /						
14				/ /						
15				/ /			4/3 5/1/09			
16				/ /		DFTPP				
17				/ /						
18				/ /						
19				/ /						
20				/ /						
21				/ /						
22				/ /						

DFTPP Lot #/Exp. Date: 7055 61757 6/10/09
Calibration STD Lot#/Exp. Date: See Comments
Internal STD Lot#/Exp. Date: 820 62085 10/24/09
Methylene Chloride Lot#/Exp. Date: 458028 7/1/11
Column Type: BTX-SMS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 5/1/09
12/13/08 sw

b. Continuing Calibration Data (Form VII SV)

If more than one instrument is used, forms shall be arranged in order by instrument. If multiple continuing calibrations from the same instrument are used, they shall be in chronological order.

(1) Reconstructed Ion Chromatograms and quantitation reports for all continuing (12-hour) calibrations. Spectra not required.

(2) EICPs displaying each manual integration.

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: 5972HP62 Calibration Date: 05/01/09 Time: 1003

Lab File ID: HG090501A62 Init. Calib. Date(s): 04/30/09 04/30/09

Init. Calib. Times: 1622 1951

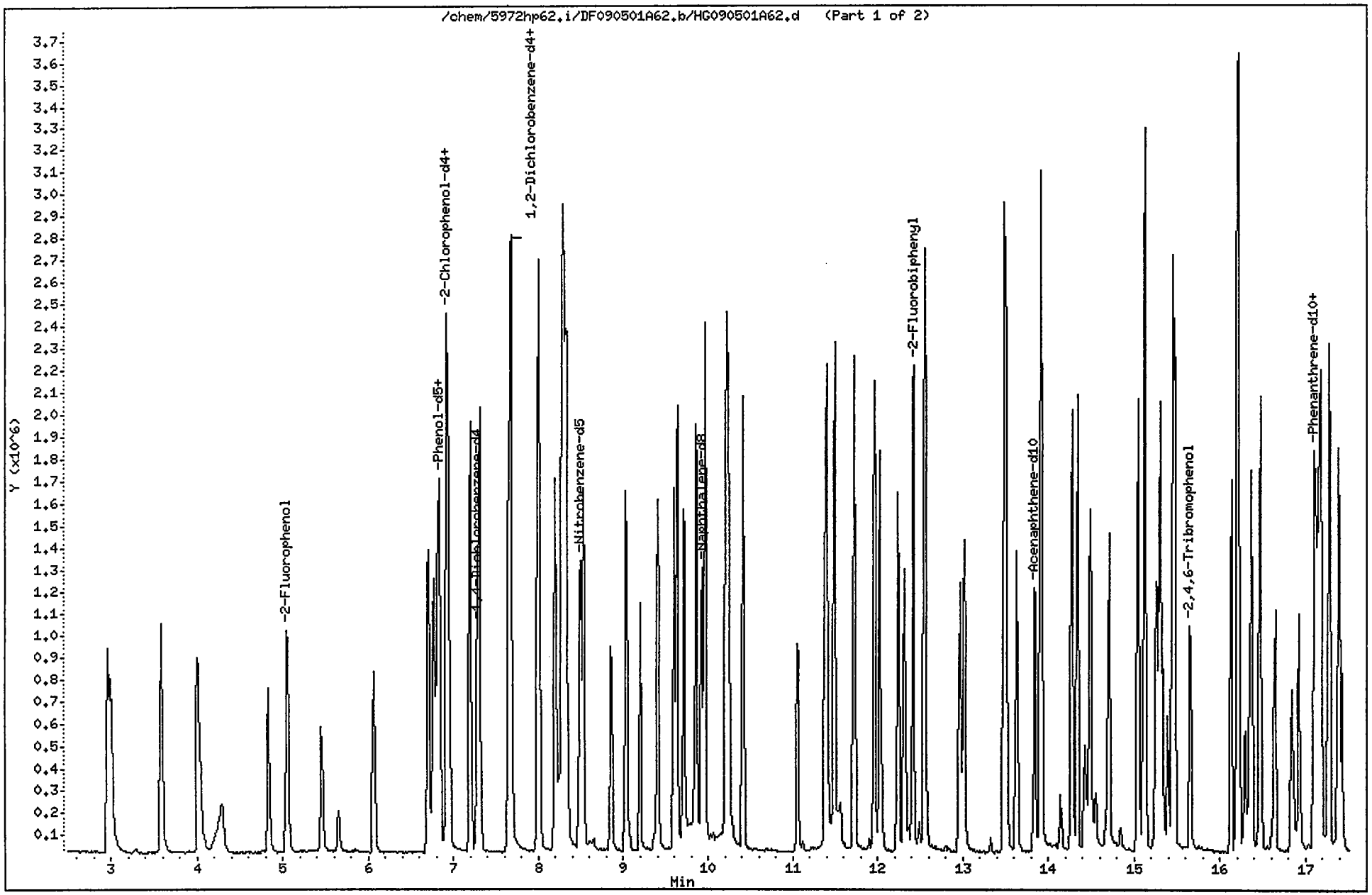
GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Phenol	1.2490000	1.4421234	0.01	15.46	20.00	AVRG
2-Chlorophenol	1.1380000	1.1895248	0.01	4.53	90.00	AVRG
3-Methylphenol	0.9640000	1.0560415	0.01	9.55	90.00	AVRG
4-Methylphenol	0.9640000	1.0560415	0.01	9.55	90.00	AVRG
Acetophenone	0.4500000	0.4734424	0.01	5.21	90.00	AVRG
Hexachloroethane	0.6060000	0.6344767	0.01	4.70	90.00	AVRG
Nitrobenzene	0.3560000	0.4102494	0.01	15.24	90.00	AVRG
2,4-Dichlorophenol	0.2830000	0.2789548	0.01	-1.43	20.00	AVRG
Dimethylphthalate	1.2110000	1.1036045	0.01	-8.87	90.00	AVRG
4-Nitrophenol	0.2260000	0.2322477	0.05	2.76	90.00	AVRG
Dibenzofuran	1.5740000	1.5245333	0.01	-3.14	90.00	AVRG
Diethylphthalate	1.2860000	1.2156909	0.01	-5.47	90.00	AVRG
N-Nitrosodiphenylamine	0.5790000	0.6139658	0.01	6.04	20.00	AVRG
Di-n-butylphthalate	1.4050000	1.5042288	0.01	7.06	90.00	AVRG
Fluoranthene	1.0940000	1.0948678	0.01	0.08	20.00	AVRG
Pyrene	1.0070000	1.1060916	0.01	9.84	90.00	AVRG
Butylbenzylphthalate	0.5310000	0.5861022	0.01	10.38	90.00	AVRG
3,3'-Dimethylbenzidine	0.3560000	0.2572367	0.01	-27.74	90.00	AVRG
bis(2-ethylhexyl)Phthalate	0.7200000	0.7975540	0.01	10.77	90.00	AVRG
Benzo(a)anthracene	0.9470000	0.9925041	0.01	4.80	90.00	AVRG
Di-n-octylphthalate	1.1200000	1.2347879	0.01	10.25	20.00	AVRG
Benzo(b)fluoranthene	0.9950000	1.0860207	0.01	9.15	90.00	AVRG
Benzo(k)fluoranthene	0.8720000	0.9323617	0.01	6.92	90.00	AVRG
Benzo(a)pyrene	0.8660000	0.9249244	0.01	6.80	20.00	AVRG
Indeno(1,2,3-c,d)pyrene	0.8060000	0.8190773	0.01	1.62	90.00	AVRG
Dibenzo(a,h)anthracene	0.7970000	0.7835052	0.01	-1.69	90.00	AVRG
2-Fluorophenol	0.9840000	1.0938844	0.01	11.17	90.00	AVRG
Phenol-d5	1.2080000	1.4072798	0.01	16.50	90.00	AVRG
Nitrobenzene-d5	0.3740000	0.4168467	0.01	11.46	90.00	AVRG
2-Fluorobiphenyl	1.2740000	1.2542607	0.01	-1.55	90.00	AVRG
2,4,6-Tribromophenol	0.3710000	0.2915811	0.01	-21.41	90.00	AVRG
Terphenyl-d14	0.7540000	0.7601697	0.01	0.82	90.00	AVRG

FORM VII SV

Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Date : 01-MAY-2009 10:03
Client ID: SSTD080
Sample Info: SSTD080;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



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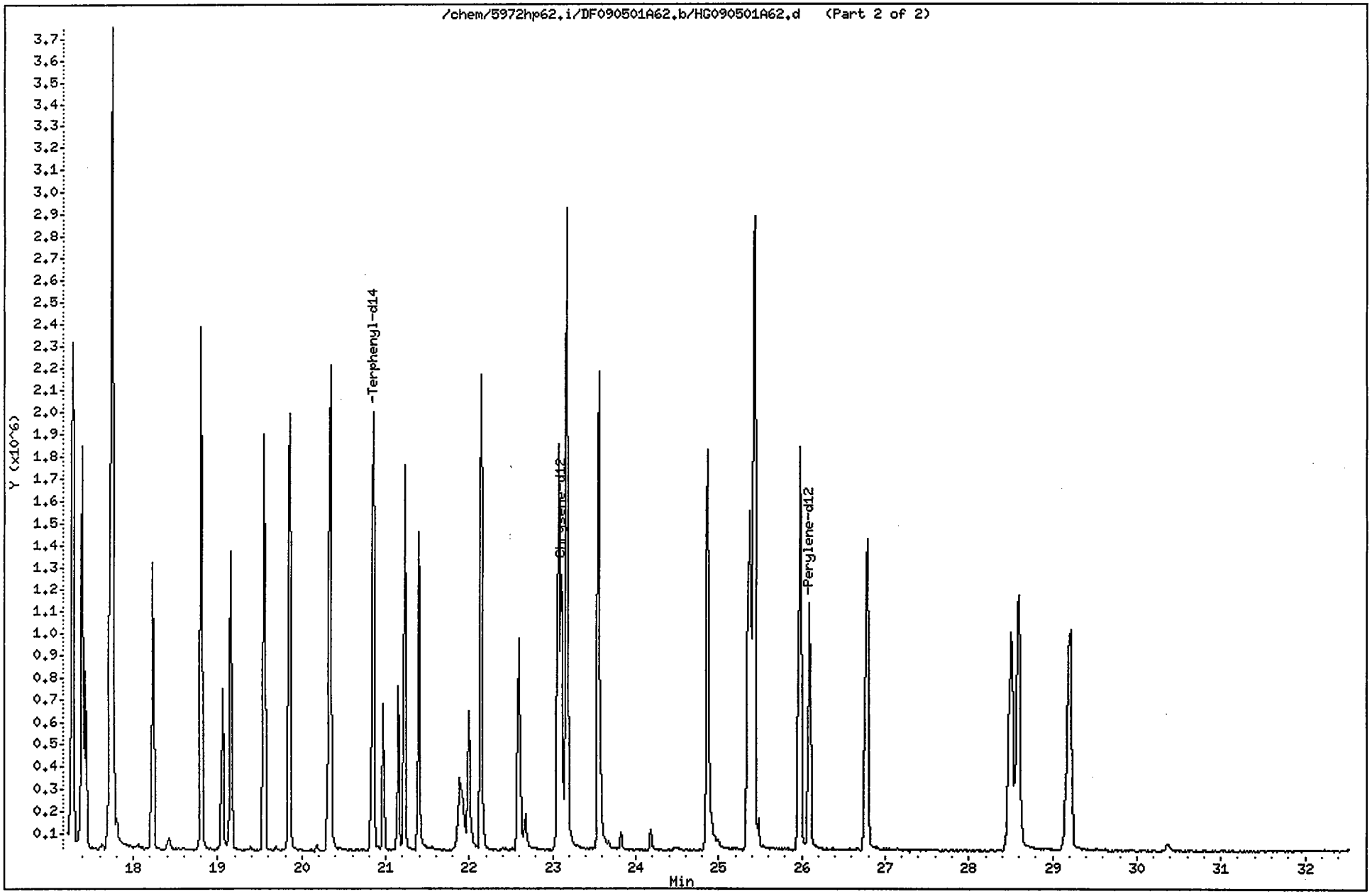
Date : 01-MAY-2009 10:03
Client ID: SSTD080
Sample Info: SSTD080;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Report Date: 01-May-2009 10:46

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 01-MAY-2009 10:03
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 01-May-2009 10:46 perry Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.279	7.279	(1.000)	261971	40.0000		
*	2 Naphthalene-d8	136	9.930	9.930	(1.000)	938790	40.0000		
*	3 Acenaphthene-d10	164	13.850	13.850	(1.000)	466997	40.0000		
*	4 Phenanthrene-d10	188	17.125	17.125	(1.000)	681169	40.0000		
*	5 Chrysene-d12	240	23.103	23.103	(1.000)	741741	40.0000		
*	6 Perylene-d12	264	26.092	26.092	(1.000)	773134	40.0000		
$	7 2-Fluorophenol	112	5.047	5.047	(0.693)	573132	80.0000	89	
$	8 Phenol-d5	99	6.818	6.818	(0.937)	737333	80.0000	93	
$	9 2-Chlorophenol-d4	132	6.910	6.910	(0.949)	546596	80.0000	82	9248
$	10 1,2-Dichlorobenzene-d4	152	7.647	7.647	(1.051)	425571	80.0000	79	9608
$	11 Nitrobenzene-d5	82	8.497	8.497	(0.856)	782663	80.0000	89	
$	12 2-Fluorobiphenyl	172	12.427	12.427	(0.897)	1171472	80.0000	79	
$	13 2,4,6-Tribromophenol	330	15.662	15.662	(1.131)	272335	80.0000	63	
$	14 Terphenyl-d14	244	20.851	20.851	(0.903)	1127698	80.0000	81	
	15 N-Nitrosodimethylamine	42	3.000	3.000	(0.412)	370011	80.0000	110	8388

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.959	2.959	(0.407)	824239	80.0000	110	9346
17 Ethylmethacrylate	69	3.584	3.584	(0.492)	582497	80.0000	100	9167
18 2-Picoline	93	4.003	4.003	(0.550)	752394	80.0000	96	8973
19 Nitrosomethylethylamine	88	4.290	4.290	(0.589)	292827	80.0000	100	9116
20 Methyl Methanesulfonate	80	4.832	4.832	(0.664)	508841	80.0000	98	9056
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.748)	230436	80.0000	100	9295
22 Ethyl Methanesulfonate	79	6.071	6.071	(0.834)	673671	80.0000	110	9176
23 Phenol	94	6.838	6.838	(0.940)	755589	80.0000	92	
24 Aniline	93	6.767	6.767	(0.930)	1005736	80.0000	94	8573
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.951)	664147	80.0000	94	
26 Pentachloroethane	167	6.705	6.705	(0.921)	290798	80.0000	79	9373
27 2-Chlorophenol	128	6.951	6.951	(0.955)	623242	80.0000	84	9327
28 1,3-Dichlorobenzene	146	7.197	7.197	(0.989)	766431	80.0000	83	
29 1,4-Dichlorobenzene	146	7.309	7.309	(1.004)	764229	80.0000	82	
30 Benzyl Alcohol	108	7.678	7.678	(1.055)	355363	80.0000	85	
31 1,2-Dichlorobenzene	146	7.678	7.678	(1.055)	645185	80.0000	79	
32 2-Methylphenol	108	8.005	8.005	(1.100)	520979	80.0000	89	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.098)	1079435	80.0000	120	8998
34 N-Nitrosopyrrolidine	100	8.241	8.241	(1.132)	175885	80.0000	110	4031
35 3-Methylphenol	108	8.333	8.333	(1.145)	1106609	160.000	180	
36 4-Methylphenol	108	8.333	8.333	(1.145)	1106609	160.000	180	
37 3-4-Methylphenol	108	8.333	8.333	(1.145)	1107305	160.000	170	9182
38 N-Nitroso-di-N-propylamine	70	8.302	8.302	(1.141)	286365	80.0000	100	8674
39 Acetophenone	105	8.200	8.200	(0.826)	888926	80.0000	84	0(M)
40 N-Nitrosomorpholine	116	8.271	8.271	(1.136)	71595	80.0000	100	0(M)
41 o-Toluidine	106	8.292	8.292	(1.139)	809406	80.0000	88	8763
42 Hexachloroethane	117	8.271	8.271	(1.136)	332429	80.0000	84	9560
43 Nitrobenzene	77	8.527	8.527	(0.859)	770276	80.0000	92	9236
44 N-Nitrosopiperidine	114	8.855	8.855	(0.892)	285265	80.0000	87	9220
45 Isophorone	82	9.029	9.029	(0.909)	1297371	80.0000	91	9109
46 2-Nitrophenol	139	9.203	9.203	(0.927)	308834	80.0000	68	8832
47 2,4-Dimethylphenol	122	9.408	9.408	(0.947)	461598	80.0000	81	8984
48 Benzoic Acid	122	9.838	9.838	(0.991)	118592	400.000	160	6723(A)
49 o,o,o-Triethylphosphorothioat	198	9.643	9.643	(0.971)	237322	80.0000	70	9099
50 Bis(2-chloroethoxy)methane	93	9.602	9.602	(0.967)	885788	80.0000	87	9107
51 2,4-Dichlorophenol	162	9.725	9.725	(0.979)	523760	80.0000	79	
52 1,2,4-Trichlorobenzene	180	9.858	9.858	(0.993)	629516	80.0000	75	
53 Naphthalene	128	9.971	9.971	(1.004)	1661944	80.0000	78	9645
54 4-Chloroaniline	127	10.226	10.226	(1.030)	685424	80.0000	78	8863
55 2,6-Dichlorophenol	162	10.216	10.216	(1.029)	502916	80.0000	78	
56 Hexachloropropene	213	10.247	10.247	(1.032)	440769	80.0000	70	9396
57 Hexachlorobutadiene	225	10.421	10.421	(1.049)	373299	80.0000	70	9233
58 N-Nitroso-di-n-butylamine	84	11.056	11.056	(1.113)	269336	80.0000	96	9211
60 4-Chloro-3-methylphenol	107	11.383	11.383	(1.146)	488562	80.0000	81	9323
61 Safrole	162	11.414	11.414	(1.149)	428769	80.0000	78	9610
62 2-Methylnaphthalene	141	11.496	11.496	(1.158)	886354	80.0000	80	
63 1-Methylnaphthalene	142	11.731	11.731	(1.181)	1017451	80.0000	77	

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Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
64 Hexachlorocyclopentadiene	237	12.028	12.028	(0.868)	440010	80.0000	70	9442
65 1,2,4,5-Tetrachlorobenzene	216	11.966	11.966	(0.864)	635260	80.0000	75	9178
66 2,4,6-Trichlorophenol	196	12.243	12.243	(0.884)	349844	80.0000	73	
67 2,4,5-Trichlorophenol	196	12.325	12.325	(0.890)	388307	80.0000	72	
68 Isosafrole	162	12.059	12.059	(0.871)	81318	80.0000	87	
69 2-Chloronaphthalene	162	12.560	12.560	(0.907)	1402675	80.0000	77	
70 2-Nitroaniline	65	12.970	12.970	(0.936)	402714	80.0000	97	8799
71 1,4-Napthoquinone	158	13.021	13.021	(0.940)	454777	80.0000	79	9390
72 Dimethylphthalate	163	13.512	13.512	(0.976)	1030760	80.0000	73	9056
73 1,3-Dinitrobenzene	168	13.502	13.502	(0.975)	185079	80.0000	70	0(M)
74 2,6-Dinitrotoluene	165	13.635	13.635	(0.984)	283994	80.0000	71	9445
75 Acenaphthylene	152	13.492	13.492	(0.974)	1502768	80.0000	75	8516
76 3-Nitroaniline	138	13.921	13.921	(1.005)	269316	80.0000	80	8725
77 Acenaphthene	154	13.921	13.921	(1.005)	890878	80.0000	79	9403
78 2,4-Dinitrophenol	184	14.147	14.147	(1.021)	56300	80.0000	40	
79 4-Nitrophenol	139	14.423	14.423	(1.041)	216918	80.0000	82	9006
80 Pentachlorobenzene	250	14.341	14.341	(1.035)	565402	80.0000	69	9718
81 2,4-Dinitrotoluene	165	14.495	14.495	(1.047)	361815	80.0000	77	7320
82 Dibenzofuran	168	14.280	14.280	(1.031)	1423905	80.0000	77	9437
83 1-Naphthylamine	143	14.505	14.505	(1.047)	241701	80.0000	64	
84 2,3,4,6-Tetrachlorophenol	232	14.710	14.710	(1.062)	303175	80.0000	71	9633
85 2-Naphthylamine	143	14.679	14.679	(1.060)	165503	80.0000	41	
86 Diethylphthalate	149	15.129	15.129	(1.092)	1135448	80.0000	76	7482
87 Zinophos	97	15.303	15.303	(1.105)	337413	80.0000	85	9204
88 4-Chlorophenyl-phenylether	204	15.129	15.129	(1.092)	515463	80.0000	70	8041
89 5-Nitro-o-toluidine	152	15.262	15.262	(1.102)	359486	80.0000	83	8213
90 Fluorene	166	15.047	15.047	(1.086)	1032275	80.0000	73	7981
91 4-Nitroaniline	138	15.334	15.334	(1.107)	294108	80.0000	81	9045
92 4,6-Dinitro-2-methylphenol	198	15.395	15.395	(0.899)	127395	80.0000	58	0(M)
93 N-Nitrosodiphenylamine	169	15.457	15.457	(0.903)	836429	80.0000	85	8066
95 1,2-Diphenylhydrazine	77	15.477	15.477	(1.117)	1637628	80.0000	95	9336
96 Sulfotep	322	16.132	16.132	(1.165)	177969	80.0000	62	9385
97 1,3,5-Trinitrobenzene	75	16.296	16.296	(0.952)	294781	80.0000	46	8891
98 Diallate (trans isomer)	86	16.204	16.204	(0.946)	396518	40.0000	47	
99 Diallate (trans) part of total	86	16.204	16.204	(0.946)	396518	40.0000	47	9154
100 Phorate	75	16.225	16.225	(0.947)	775153	80.0000	88	7561
101 Phenacetin	108	16.368	16.368	(0.956)	581837	80.0000	85	8898
102 Diallate (cis isomer)	86	16.368	16.368	(0.956)	142905	40.0000	52	
103 Diallate (cis) part of total	86	16.368	16.368	(0.956)	144101	40.0000	40	6928(H)
104 4-Bromophenyl-phenylether	248	16.204	16.204	(0.946)	331883	80.0000	75	8628
105 Hexachlorobenzene	284	16.470	16.470	(0.962)	529669	80.0000	76	9537
106 Dimethoate	87	16.644	16.644	(0.972)	425748	80.0000	97	9149
107 4-Aminobiphenyl	169	16.839	16.839	(0.983)	554693	80.0000	61	0(M)
108 Pentachlorophenol	266	16.921	16.921	(0.988)	234060	80.0000	71	8448
109 Pentachloronitrobenzene	237	17.105	17.105	(0.999)	166303	80.0000	76	7407
110 Pronamide	173	17.156	17.156	(1.002)	498459	80.0000	82	9649
111 Disulfoton	88	17.391	17.391	(1.016)	678942	80.0000	100	9196

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
112	Phenanthrene	178	17.187	17.187	(1.004)	1497762	80.0000	83	
113	Anthracene	178	17.279	17.279	(1.009)	1625575	80.0000	86	
114	Carbazole	167	17.760	17.760	(1.037)	3826279	80.0000	86	9551
115	Methyl Parathion	109	18.231	18.231	(1.065)	379515	80.0000	90	9595
116	Di-n-butylphthalate	149	18.804	18.804	(1.098)	2049268	80.0000	86	9692
117	Parathion	109	19.152	19.152	(1.118)	257031	80.0000	87	8210
118	4-Nitroquinoline-1-oxide	190	19.060	19.060	(1.113)	116278	80.0000	65	9307
119	Methapyrilene	97	19.387	19.387	(1.132)	7897	80.0000	61	0(M)
120	Isodrin	193	19.551	19.551	(1.142)	213646	80.0000	81	9609
121	Fluoranthene	202	19.858	19.858	(1.160)	1491580	80.0000	80	9760
122	Benzidine	184	20.309	20.309	(0.879)	124333	80.0000	31	8766
123	Pyrene	202	20.339	20.339	(0.880)	1640867	80.0000	88	9688
124	p-Dimethylaminoazobenzene	225	21.230	21.230	(0.919)	303910	80.0000	84	9265
125	Chlorobenzilate	251	21.393	21.393	(0.926)	384046	80.0000	62	9769
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.141	22.141	(0.958)	869472	80.0000	88	9591
129	3,3'-Dimethylbenzidine	212	21.997	21.997	(0.952)	381606	80.0000	58	9472
130	2-Acetylaminofluorene	181	22.591	22.591	(0.978)	465510	80.0000	70	9286
131	3,3'-Dichlorobenzidine	252	23.174	23.174	(1.003)	520013	80.0000	78	8640
132	bis(2-ethylhexyl)Phthalate	149	23.553	23.553	(1.019)	1183157	80.0000	88	9395
133	Benzo(a)anthracene	228	23.072	23.072	(0.999)	1472362	80.0000	84	
134	Chrysene	228	23.164	23.164	(1.003)	1267947	80.0000	80	
135	Di-n-octylphthalate	149	24.863	24.863	(0.953)	1909313	80.0000	88	
136	7,12-Dimethylbenz(a)anthracene	256	25.437	25.437	(0.975)	635158	80.0000	83	8685
137	Benzo(b)fluoranthene	252	25.375	25.375	(0.973)	1679279	80.0000	87	
138	Benzo(k)fluoranthene	252	25.426	25.426	(0.975)	1441681	80.0000	86	
139	Benzo(a)pyrene	252	25.979	25.979	(0.996)	1430181	80.0000	85	
140	3-Methylcholanthrene	268	26.788	26.788	(1.027)	781209	80.0000	85	9552
141	Indeno(1,2,3-c,d)pyrene	276	28.507	28.507	(1.093)	1266513	80.0000	81	0(M)
142	Dibenzo(a,h)anthracene	278	28.599	28.599	(1.096)	1211509	80.0000	79	7444
143	Benzo(g,h,i)perylene	276	29.214	29.214	(1.120)	1355221	80.0000	81	9573
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				540619	80.0000	90	0
202	Aramite	185	21.148	21.148	(0.915)	91184	80.0000	86	8517(H)

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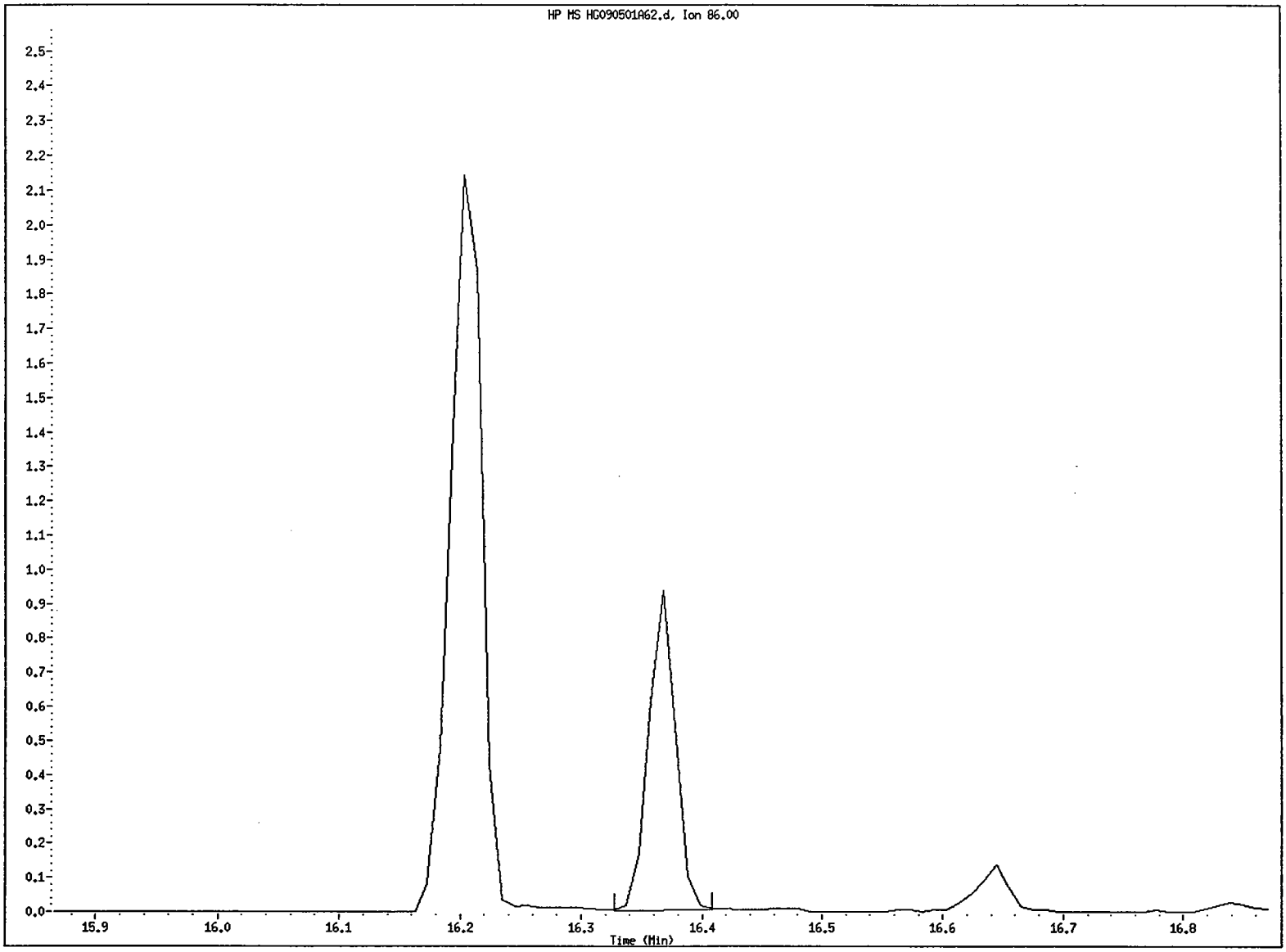
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

KEH 5/5/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 144101 User selected



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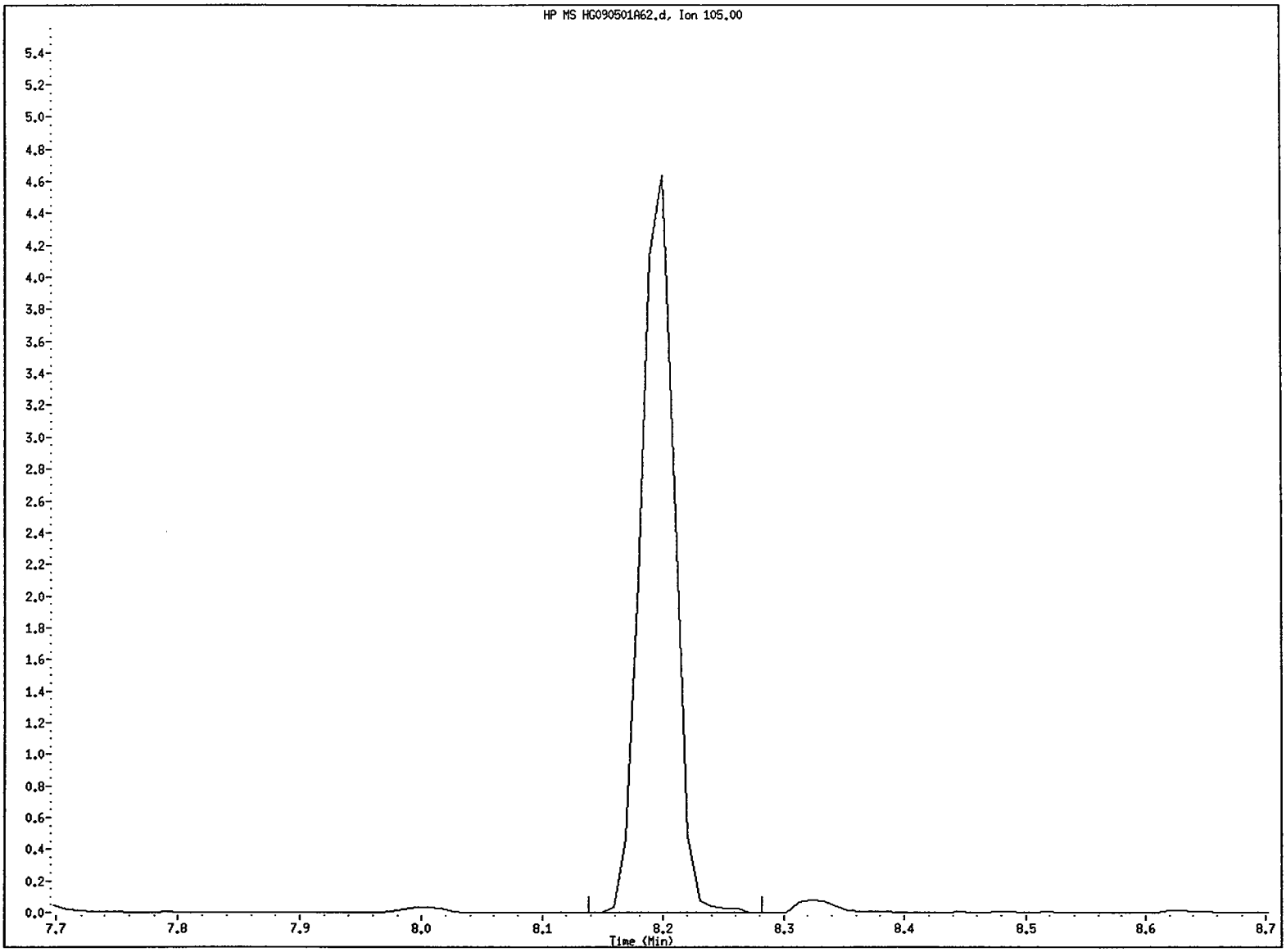
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 16.37
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 888926 Manually integrated



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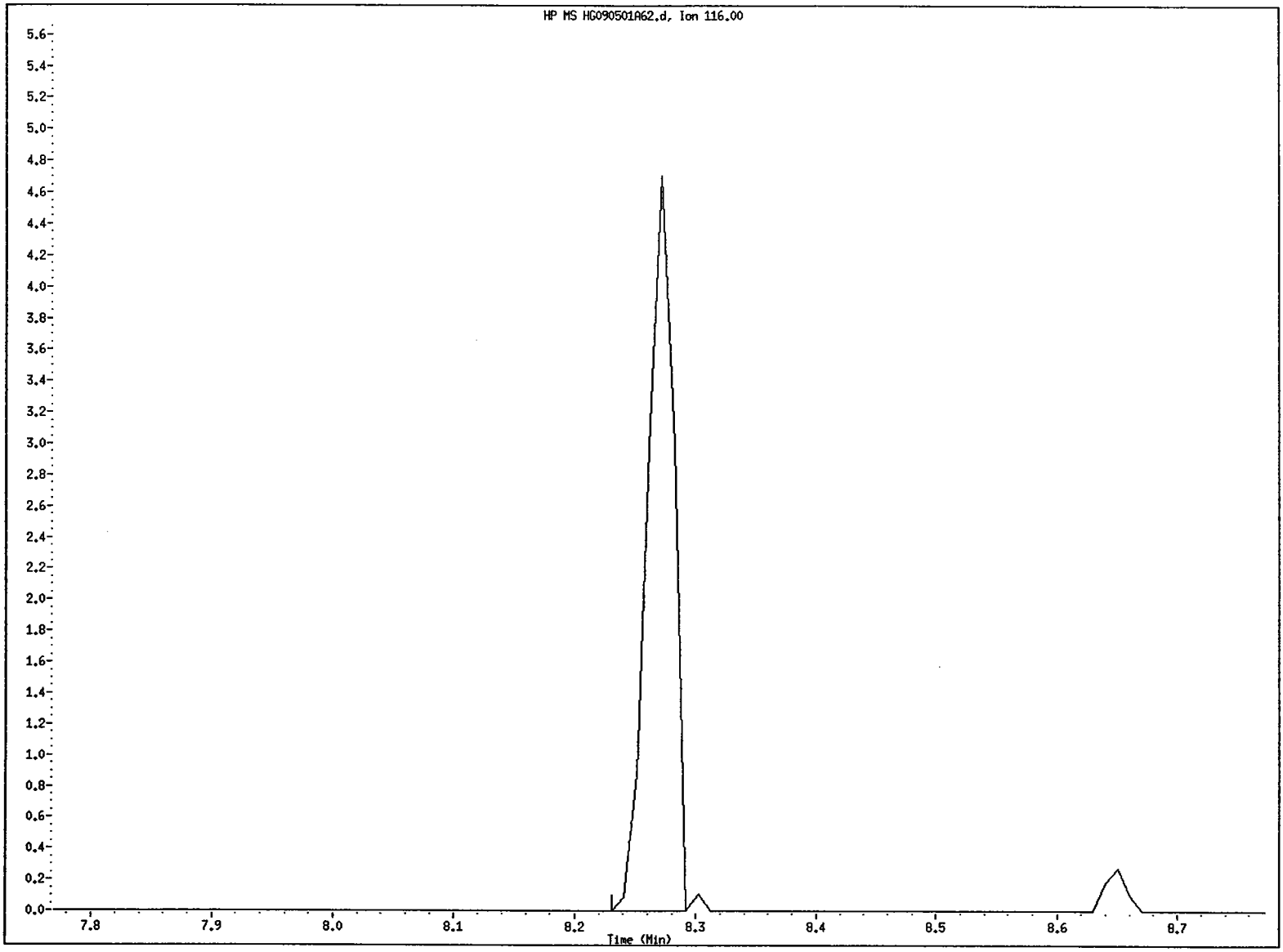
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 71595 Manually integrated



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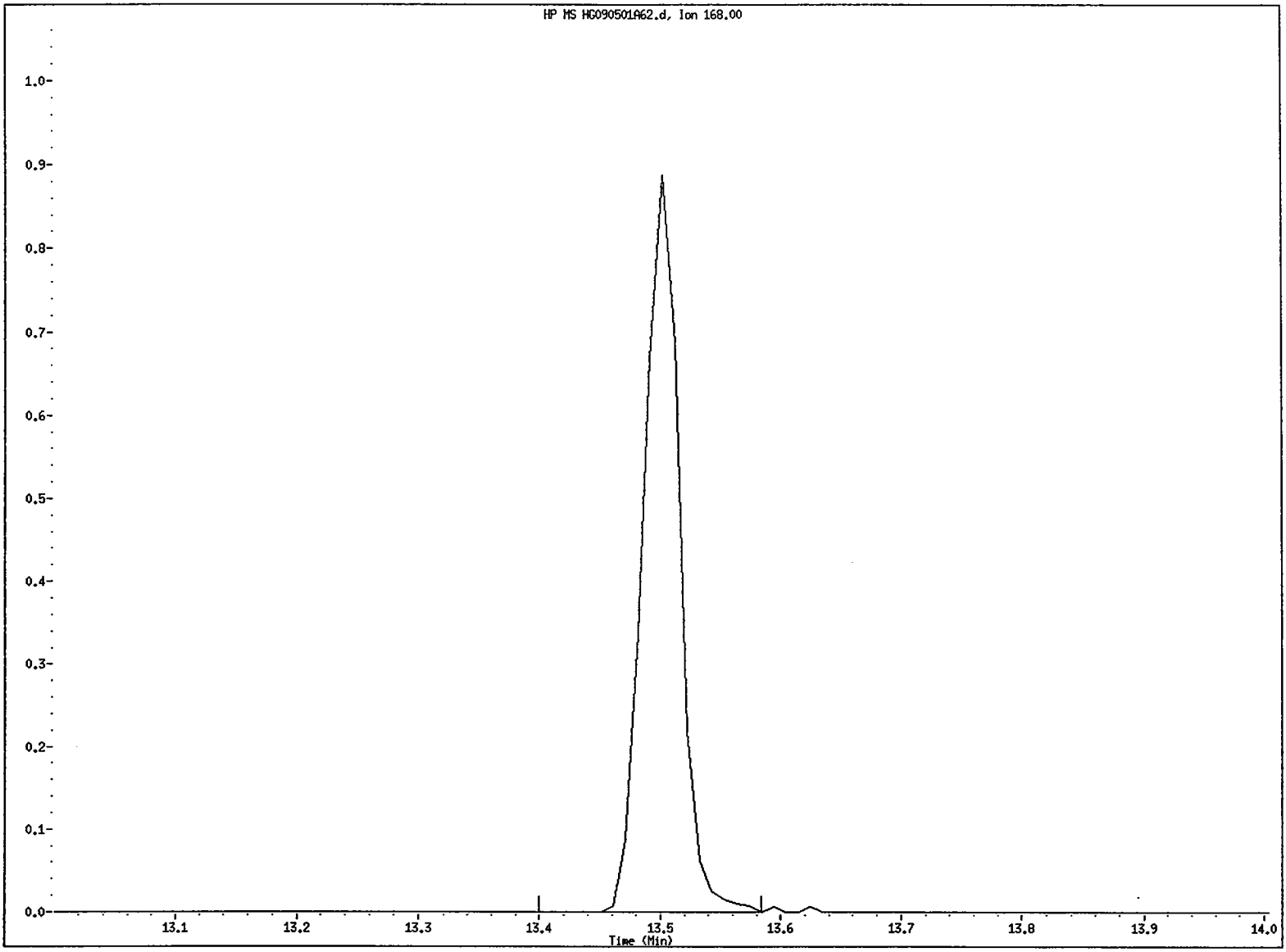
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 8.27
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 185079 Manually integrated



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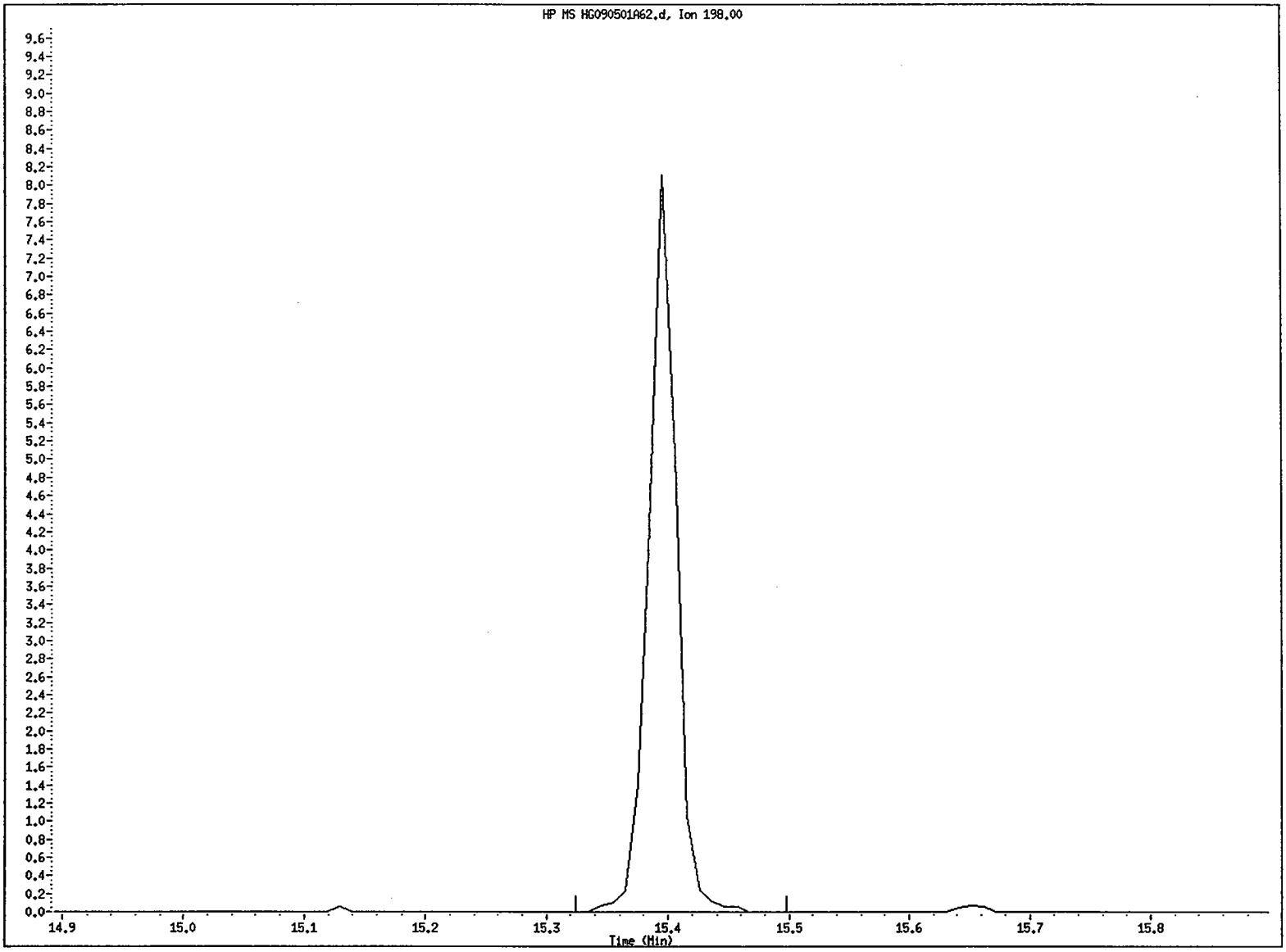
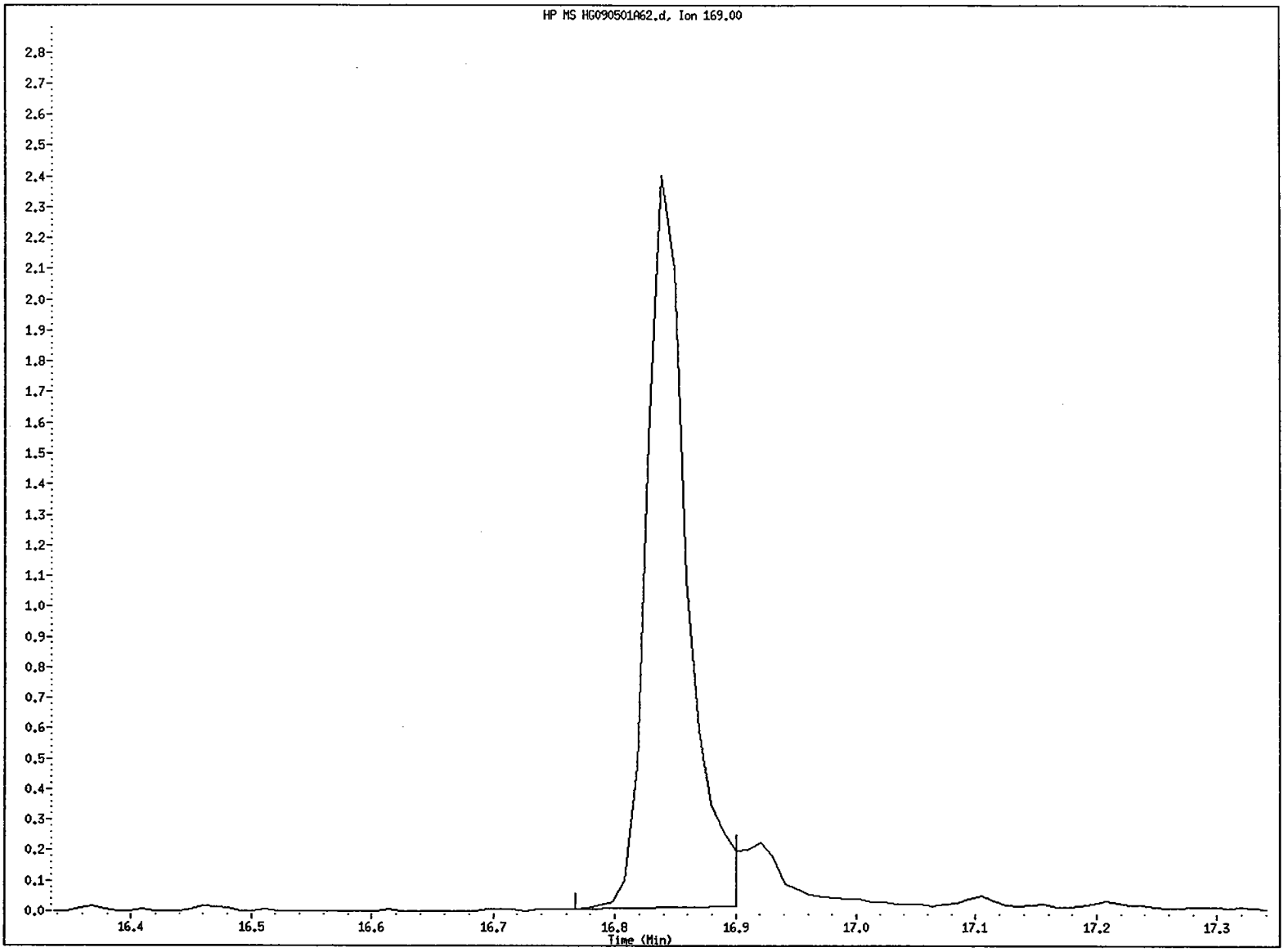
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 13.50
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 127395 Manually integrat



File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 15.40
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 554693 Manually integrated



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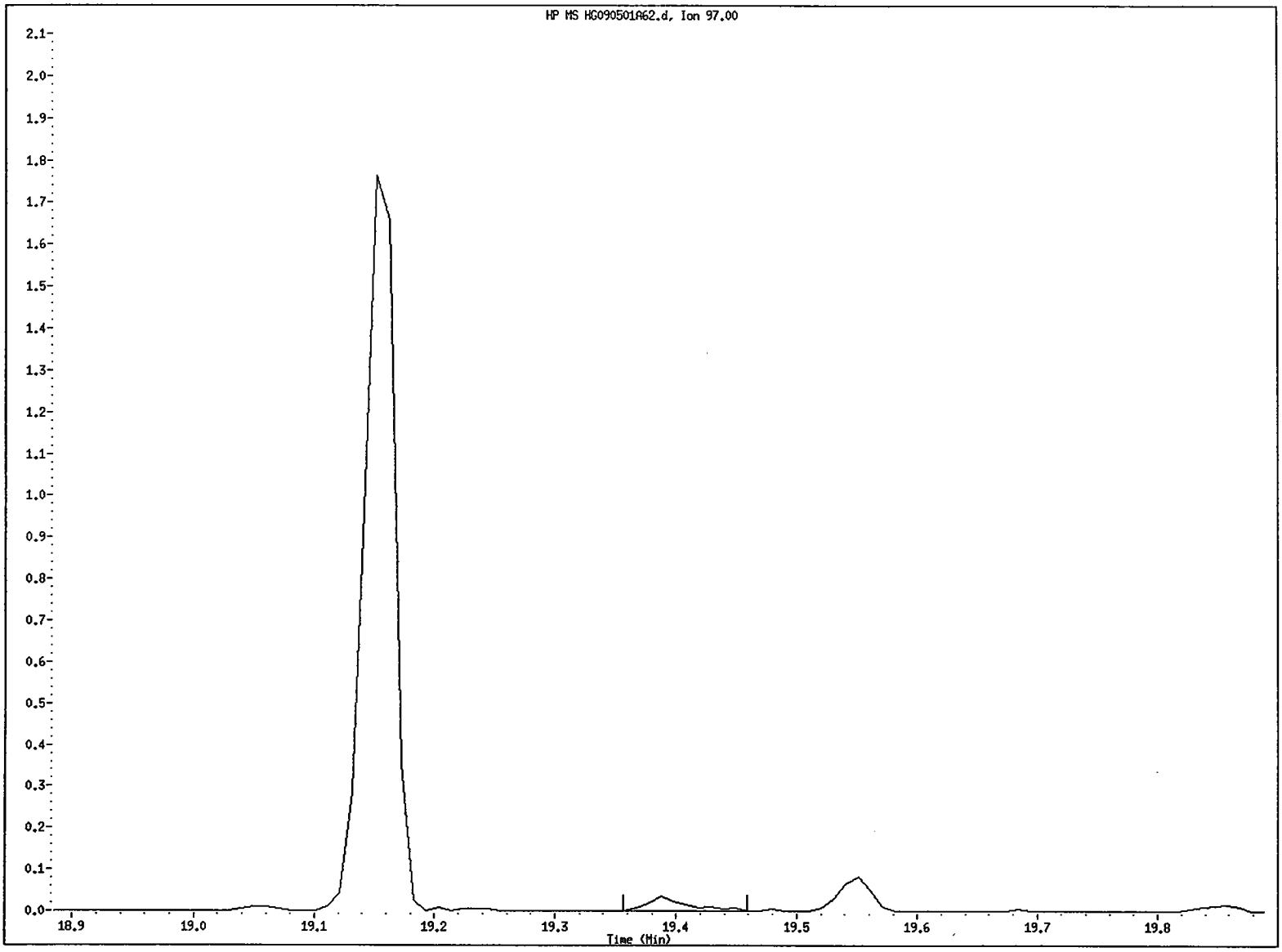
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 16.84
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 7897 Manually integrated



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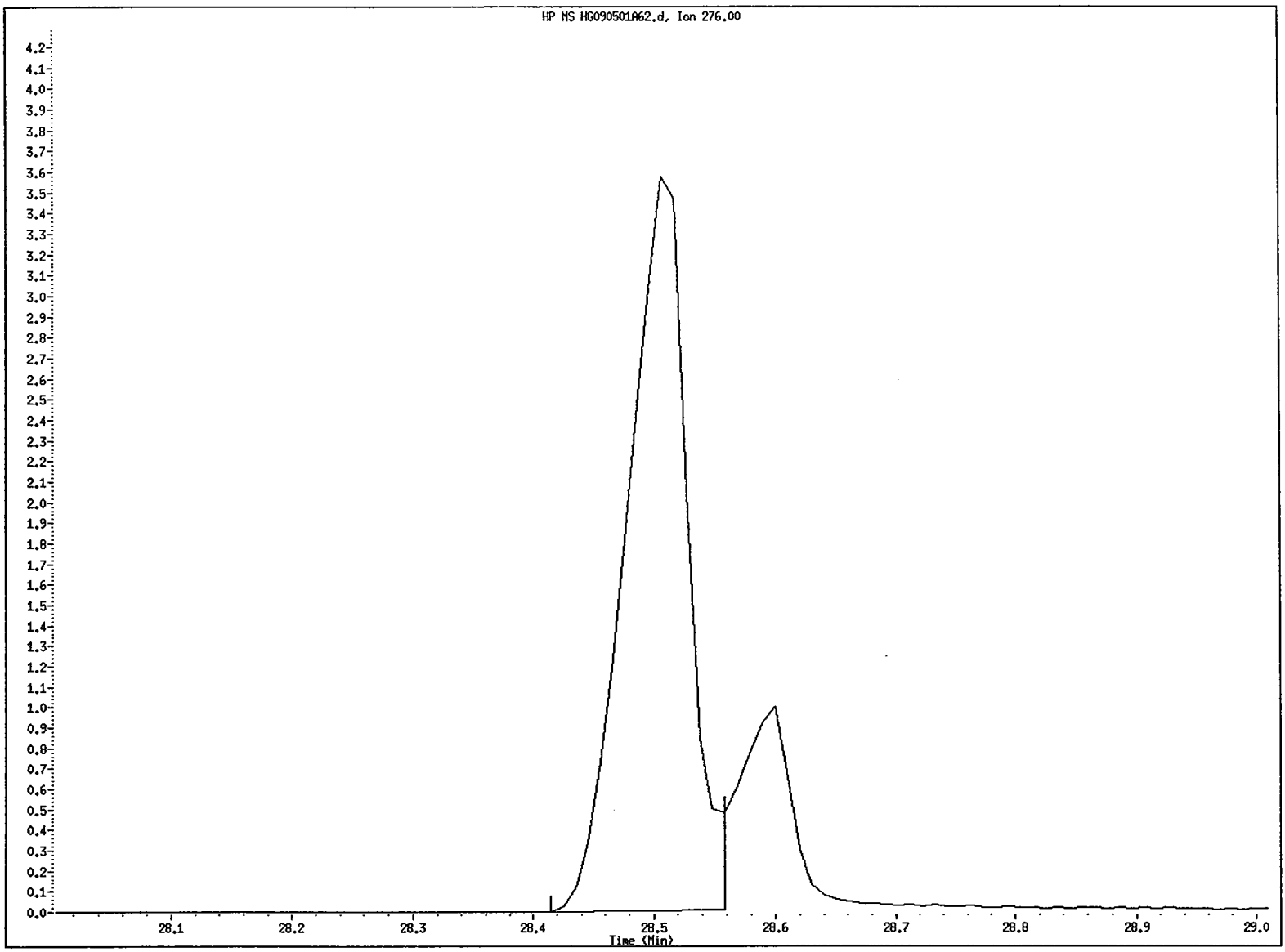
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 19.39
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1266513 Manually integrated



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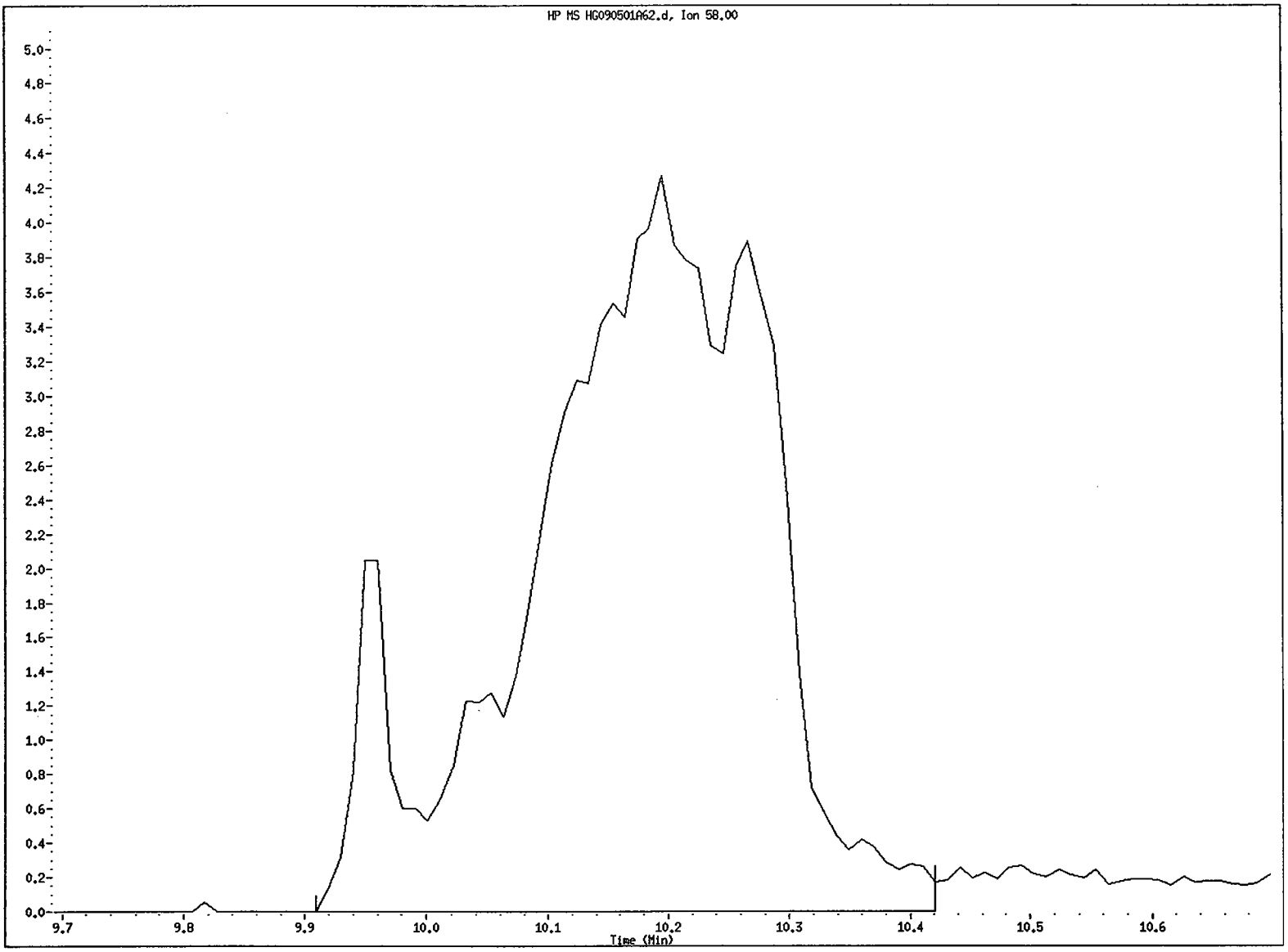
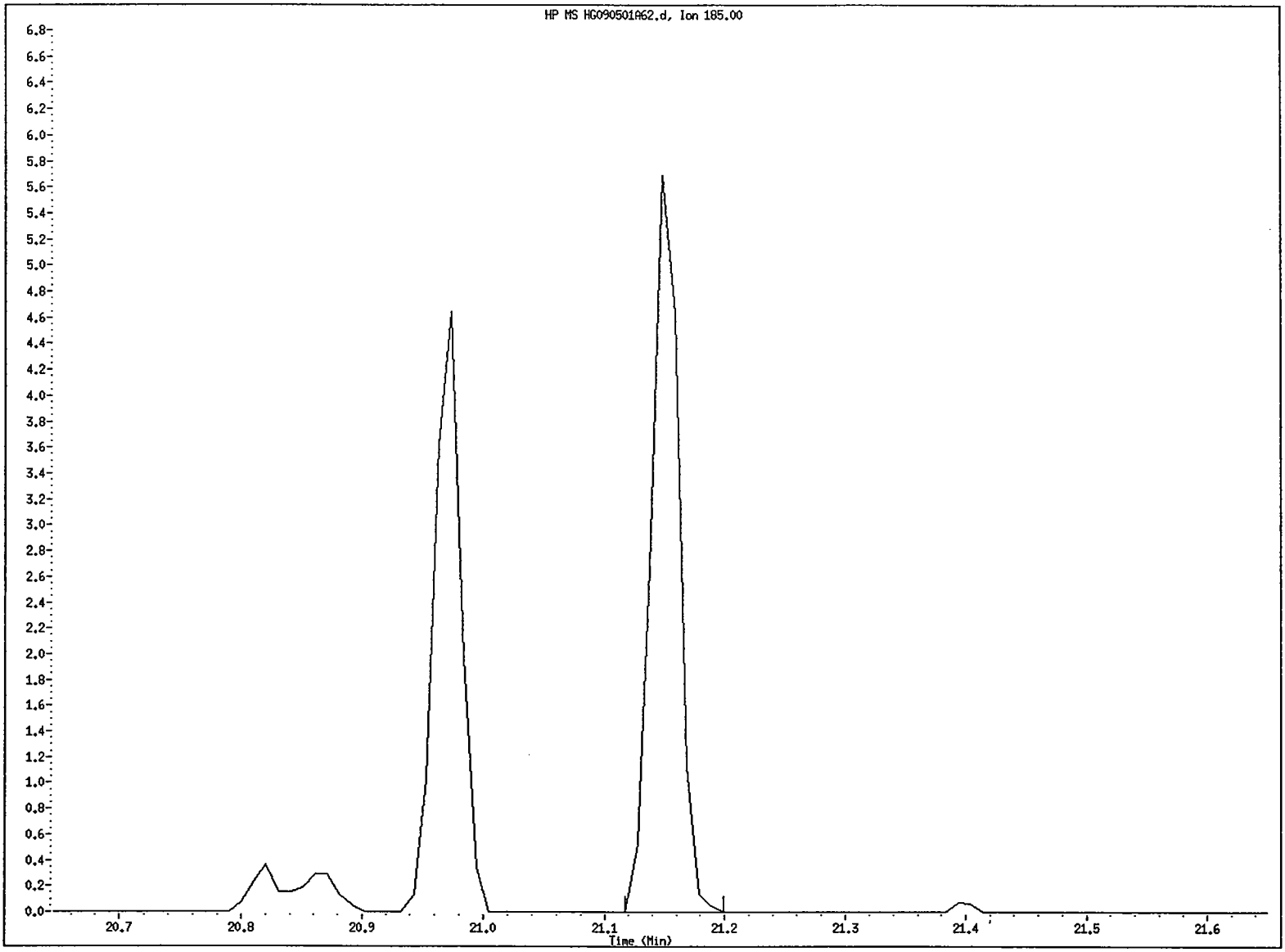
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 28.51
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 577780 Manually integrat



File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 10.20
Operator ID: 2650

Aramite CAS Number 140-57-8 Area = 91184 User selected hit



File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 21.15
Operator ID: 2650

COMPUCHEM a Division of Liberty Analytical Corp DATE 5/1/09 INITIAL TIME OF TUNE 0944 SHIFT/S(A) V (B)____ (C)____
GC/MS SEMIVOLATILE RUN LOG TIME TUNE EXPIRES 2144 METHOD APIX
LOGBOOK 4 Y (4) 8 (5972hp62)

PREVENTIVE MAINTENANCE NONE

	CAL	FILENAME	RT	DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INTICTED	CHEMIST	COMMENTS (ETC.)/DISPOSITION
1		DF090501A62	/	5/1/09	0944	DFTPP	—	2uL	2650	SCD=LCD
2		HG090501A62	/	/ /	1003	SSTD080	—			Carbazole 61860 11/30/09
3		9041318-BLKA62	/	/ /	1045	SBLKJK	0904069			
4	/	9041318-BSA62	SF	/ /	1127	SJKLCS				biased high
5	/	9041318-MSA62	SF	/ /	1209	16WC1AMS01				surrogates ok
6	/	9041318-MSDA62	SF	/ /	1251	16WC1AMSD01				
7		0904069-01A62	/	/ /	1332	16WC1A				
8		0904069-02A62	/	/ /	1414	16C1				
9		0904069-03A62	/	/ /	1456	16MW8				
10		0904069-04A62	/	/ /	1538	16MW9				
11		0904069-05A62	/	/ /	1620	16WDUP				
12		0904069-06A62	/	/ /	1702	16WC1B				
13		9041633-BLKA62	/	/ /	1744	SBLKGV	VARIOUS			
14	/	9041633-BSA62	SF	/ /	1825	SGVLCS				spikes ok for HWMW13C.sub
15	/	9041633-BSDA62	SF	/ /	1907	SGVLCSD				
16		0904103-01A62	/	/ /	1949	13MW1	0904103			
17		0904103-02A62	/	/ /	2031	13MW2				
18				/ /						
19				/ /		TMP 5/2/09				
20				/ /						
21				/ /						
22				/ /						

DFTPP Lot #/Exp. Date: 7055 61757 6/10/09
Calibration STD Lot#/Exp. Date: APIX 62090 6/30/09
Internal STD Lot#/Exp. Date: 800 62085 10/24/09
Methylene Chloride Lot#/Exp. Date: 48028 7/1/11
Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the ~~responsible~~ chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 5/2/09

12/13/08 sw

4. Raw QC Data

   a. DFTPP/PFTBA Data

   b. Blank Data

   c. Laboratory Control Sample Data

   d. Matrix Spike Data

   e. Matrix Spike Duplicate Data

a. DFTPP/PFTBA Data

For each 12 hour period, per instrument utilized, include:

- Bar Graph spectrum and Tabulated Relative Abundances

- Mass listing

- Reconstructed ion chromatogram

- Tailing Factors for Benzidine and Pentachlorophenol

- Determination of DDT Breakdown

-PFTBA (FC-43) Scan

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d

Date : 30-APR-2009 16:03

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

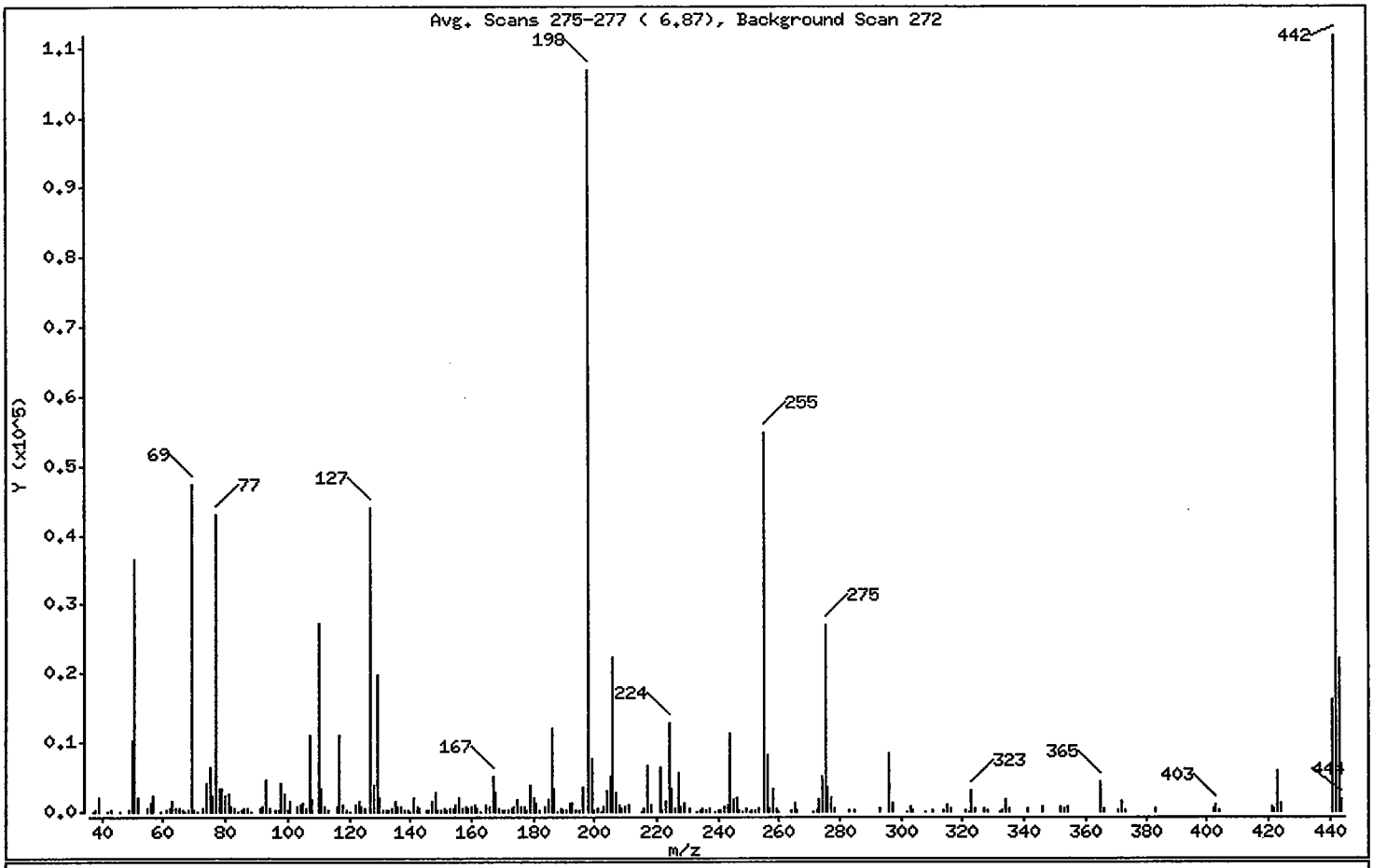
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	34.29
68	Less than 2.00% of mass 69	0.17 (0.39)
69	Mass 69 relative abundance	44.40
70	Less than 2.00% of mass 69	0.32 (0.73)
127	25.00 - 75.00% of mass 198	41.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.12
275	10.00 - 30.00% of mass 198	25.27
365	Greater than 0.75% of mass 198	4.17
441	Present, but less than mass 443	15.26
442	40.00 - 110.00% of mass 198	104.60
443	15.00 - 24.00% of mass 442	20.75 (19.84)

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d

Date : 30-APR-2009 16:03

Client ID: DFTPP Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090430A62.d

Spectrum: Avg. Scans 275-277 (6.87), Background Scan 272

Location of Maximum: 442.00

Number of points: 247

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	48	117.00	11050	184.00	648	256.00	8330
38.00	247	118.00	1077	185.00	1747	257.00	567
39.00	2008	119.00	267	186.00	12080	258.00	3331
42.00	36	120.00	115	187.00	3312	259.00	512
43.00	319	122.00	1064	188.00	91	260.00	116
46.00	117	123.00	1472	189.00	558	264.00	133
49.00	145	124.00	766	190.00	168	265.00	1331
50.00	10399	125.00	526	191.00	375	266.00	314
51.00	36632	127.00	44056	192.00	1162	271.00	125
52.00	1984	128.00	3821	193.00	1212	272.00	281
55.00	509	129.00	19752	194.00	282	273.00	1777
56.00	1176	130.00	1990	195.00	144	274.00	5102
57.00	2387	131.00	247	196.00	3477	275.00	26992
59.00	100	132.00	314	198.00	106832	276.00	3558
61.00	321	133.00	163	199.00	7610	277.00	2072
62.00	451	134.00	562	200.00	285	278.00	420
63.00	1462	135.00	1440	201.00	573	283.00	322
64.00	420	136.00	726	202.00	107	285.00	367
65.00	478	137.00	776	203.00	800	293.00	419
66.00	308	138.00	140	204.00	3189	296.00	8412
67.00	24	139.00	147	205.00	5131	297.00	1229
68.00	186	140.00	123	206.00	22456	302.00	122
69.00	47432	141.00	2153	207.00	2797	303.00	889
70.00	347	142.00	882	208.00	994	304.00	150
71.00	52	143.00	518	209.00	430	308.00	121
73.00	510	145.00	270	210.00	681	310.00	150
74.00	4208	146.00	276	211.00	936	314.00	177
75.00	6412	147.00	1452	215.00	123	315.00	1049
76.00	2357	148.00	2787	216.00	630	316.00	538
77.00	42896	149.00	369	217.00	6692	321.00	135
78.00	3301	150.00	146	218.00	929	322.00	114
79.00	3230	151.00	503	221.00	6375	323.00	2978
80.00	2350	152.00	133	222.00	215	324.00	582
81.00	2687	153.00	607	223.00	1648	327.00	485
82.00	704	154.00	446	224.00	12991	328.00	275

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d

Date : 30-APR-2009 16:03

Client ID: DFTPP Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090430A62.d

Spectrum: Avg. Scans 275-277 (6.87), Background Scan 272

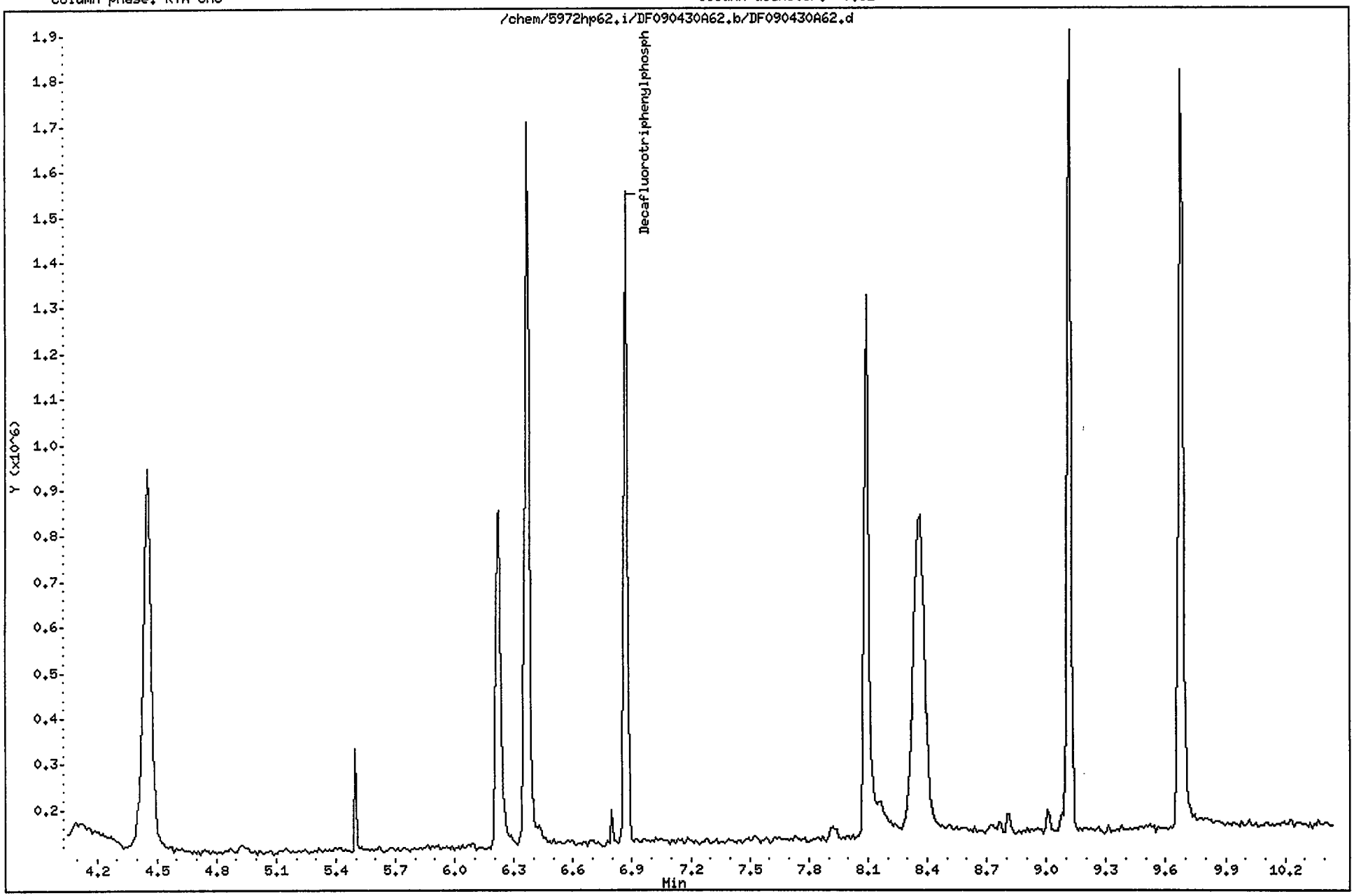
Location of Maximum: 442.00

Number of points: 247

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	503	155.00	1090	225.00	3220	332.00	127
84.00	80	156.00	2060	226.00	427	333.00	255
85.00	335	157.00	545	227.00	5682	334.00	1767
86.00	451	158.00	705	228.00	879	335.00	422
87.00	526	159.00	543	229.00	1276	341.00	444
88.00	118	160.00	806	231.00	472	346.00	678
91.00	625	161.00	1022	233.00	101	352.00	898
92.00	862	162.00	526	234.00	379	353.00	543
93.00	4762	163.00	117	235.00	466	354.00	791
94.00	590	165.00	1066	236.00	270	365.00	4452
96.00	176	166.00	674	237.00	530	366.00	603
97.00	203	167.00	5070	239.00	117	371.00	261
98.00	4061	168.00	2788	240.00	263	372.00	1661
99.00	2561	169.00	544	241.00	302	373.00	259
100.00	380	170.00	243	242.00	799	383.00	395
101.00	1650	171.00	240	243.00	963	402.00	589
103.00	759	172.00	380	244.00	11415	403.00	915
104.00	996	173.00	449	245.00	1855	404.00	251
105.00	1331	174.00	886	246.00	2044	421.00	757
106.00	519	175.00	1773	247.00	301	422.00	528
107.00	11118	176.00	789	248.00	100	423.00	5878
108.00	1887	177.00	777	249.00	498	424.00	1305
110.00	27336	178.00	145	250.00	104	441.00	16305
111.00	3449	179.00	3778	251.00	161	442.00	111736
112.00	665	180.00	2004	252.00	232	443.00	22160
113.00	134	181.00	1322	253.00	588	444.00	1819
116.00	789	182.00	284	255.00	54928		

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d
Date : 30-APR-2009 16:03
Client ID: DFTPP
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	95.61		PASS
51	30 - 80% of mass 198	34.29		PASS
68	Less than 2% of mass 69	0.17	(0.39)	PASS
69	Mass 69 relative abundance	44.40		PASS
70	Less than 2% of mass 69	0.32	(0.73)	PASS
127	25 - 75% of mass 198	41.24		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.12		PASS
275	10 - 30% of mass 198	25.27		PASS
365	Greater than 0.75% of mass 198	4.17		PASS
441	Present, but less than mass 443	15.26	(73.56)	PASS
442	40 - 110 % of mass 198	104.60		PASS
443	15 - 24% of mass 442	20.75	(19.84)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.0	5.0	PASS
Benzidine	1.2	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	502427			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	9048	1.8	20.0	PASS
4,4-DDD + DDE	9048	1.8	20.0	PASS

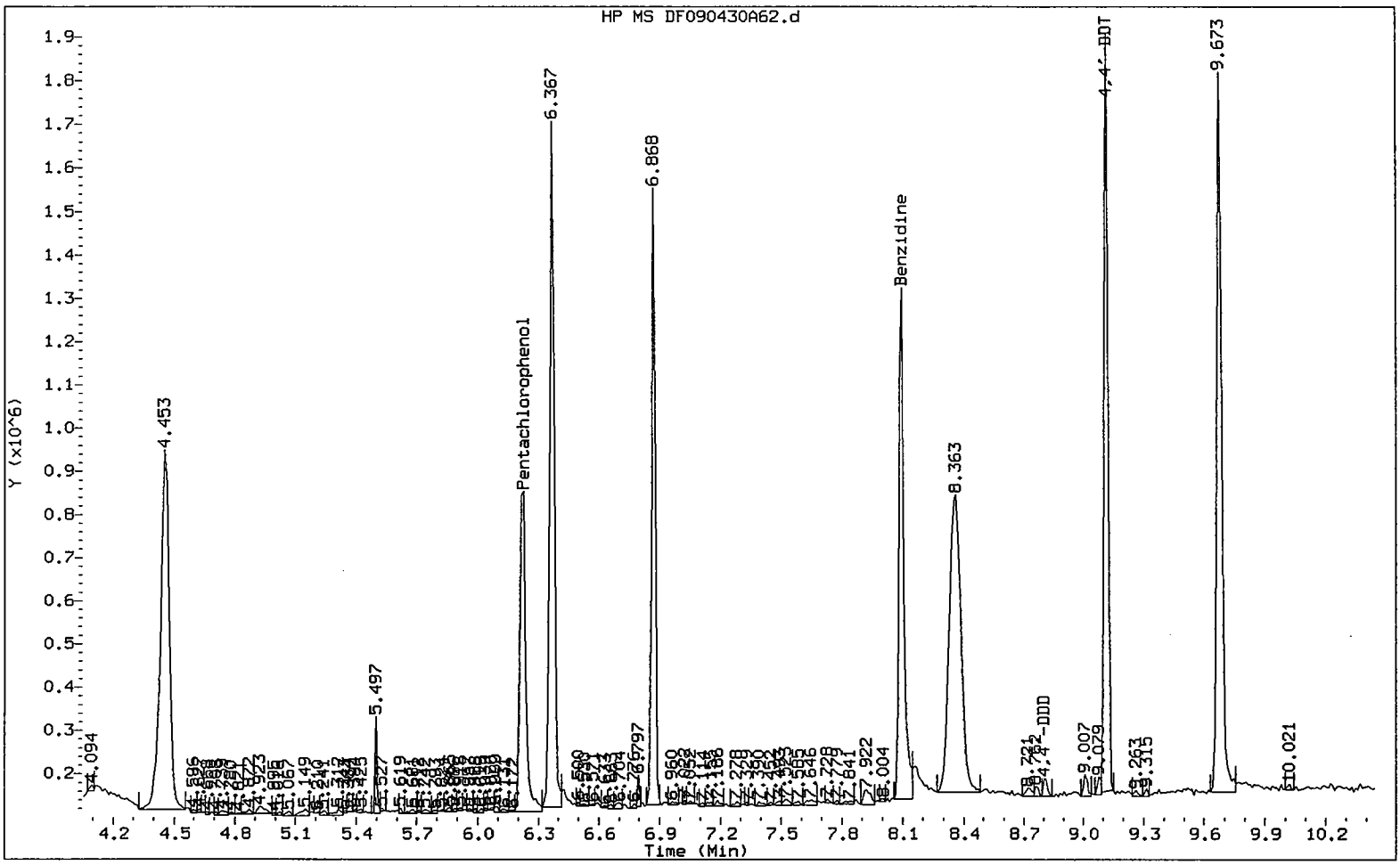
Tuning Sample, /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

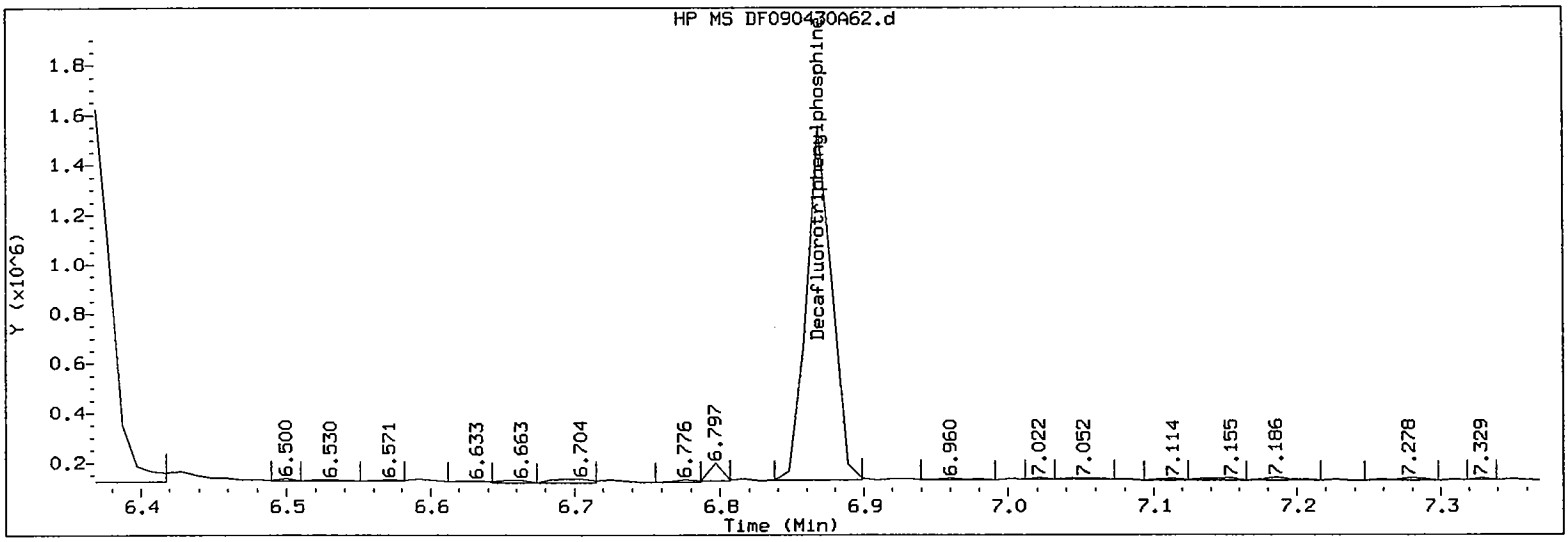
Report Date: 05/01/2009 08:50

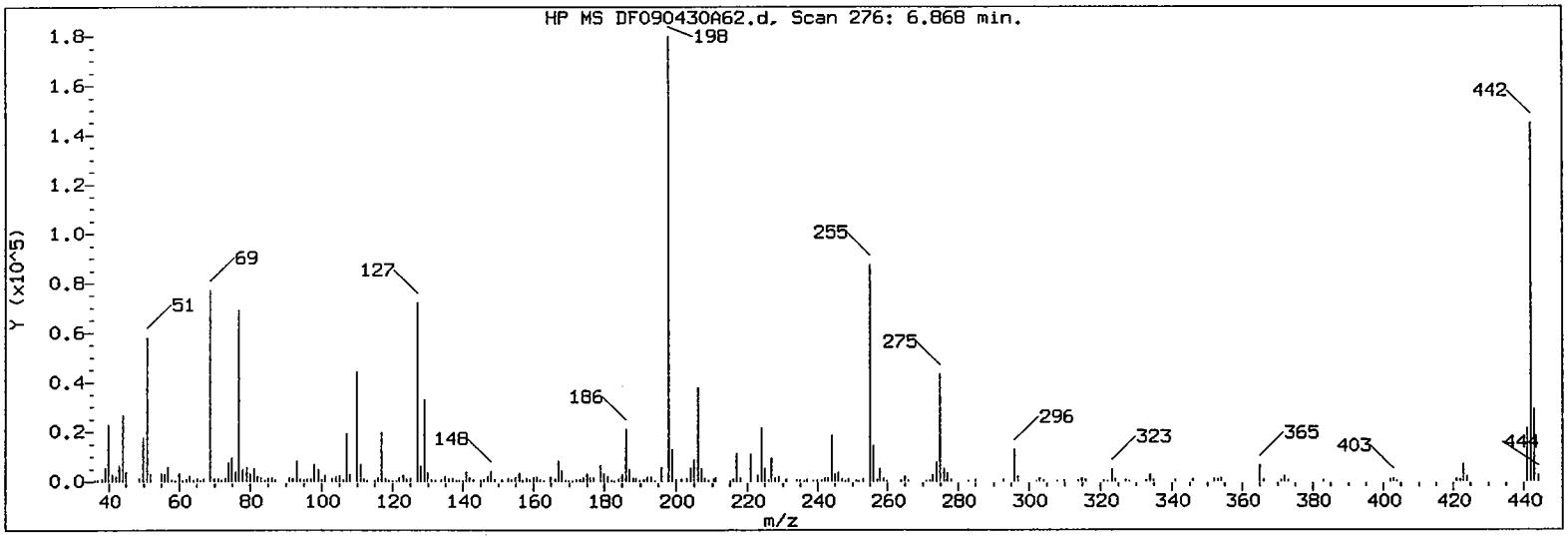
Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 30-APR-2009 16:03 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 30-APR-2009 16:03 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:





DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
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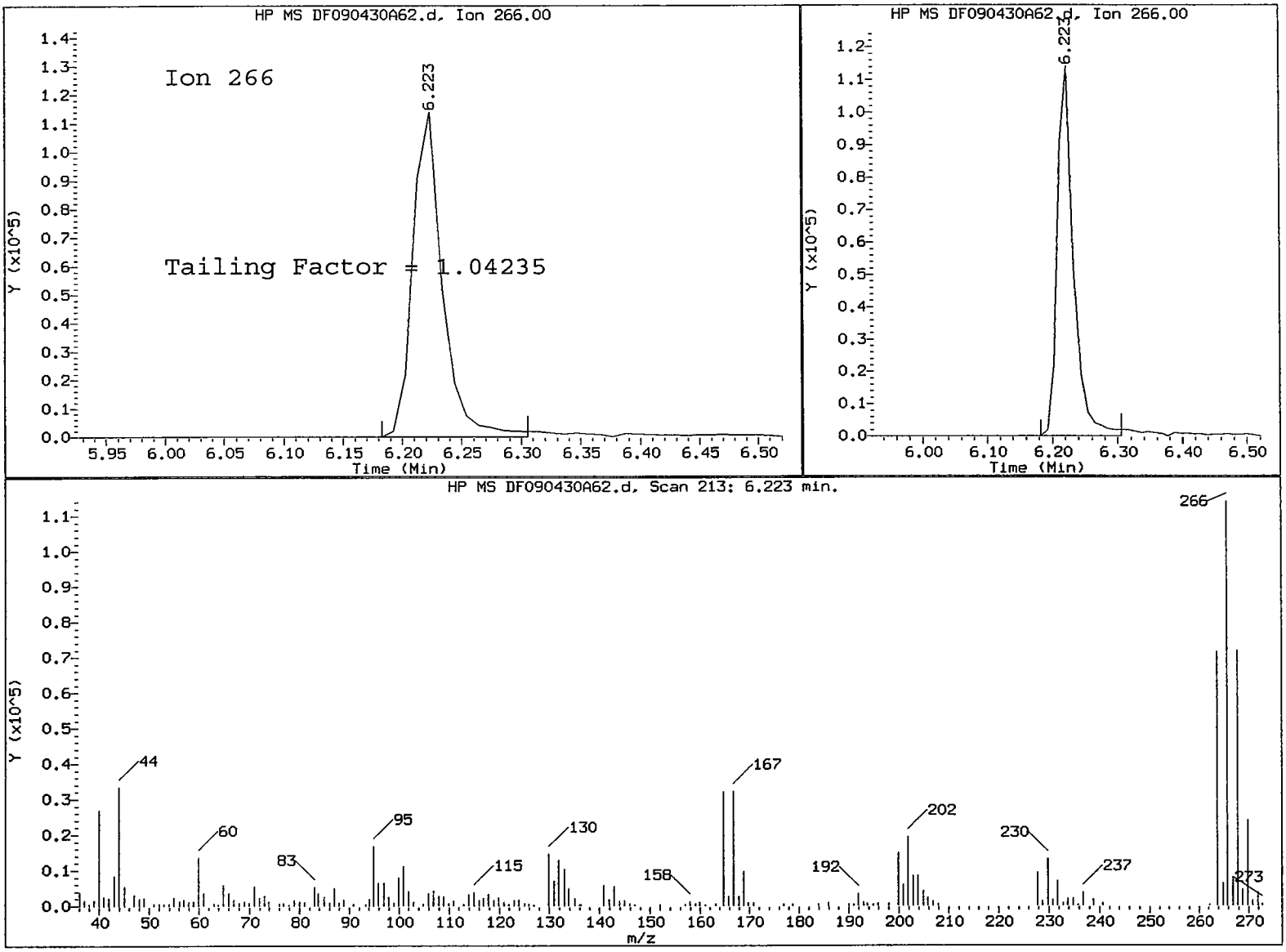
51	30 - 80% of mass 198	34.29		PASS
68	Less than 2% of mass 69	0.17	(0.39)	PASS
69	Mass 69 relative abundance	44.40		PASS
70	Less than 2% of mass 69	0.32	(0.73)	PASS
127	25 - 75% of mass 198	41.24		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.12		PASS
275	10 - 30% of mass 198	25.27		PASS
365	Greater than 0.75% of mass 198	4.17		PASS
441	Present, but less than mass 443	15.26	(73.56)	PASS
442	40 - 110% of mass 198	104.60		PASS
443	15 - 24% of mass 442	20.75	(19.84)	PASS

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Pentachlorophenol
==========

Exp. RT = 6.226
Found RT = 6.223

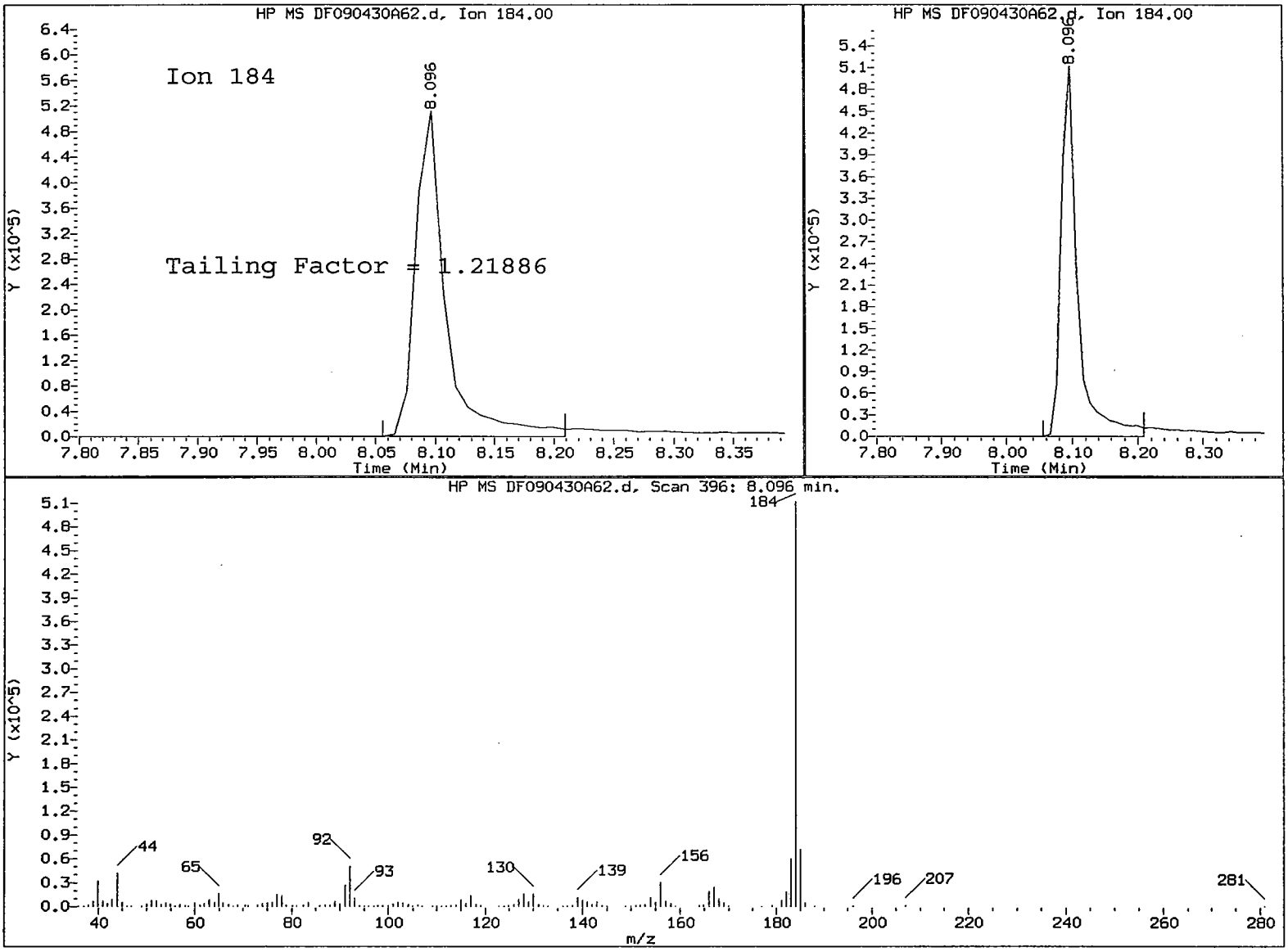
Mass	Area	Ratio
266	197118	100.00

Tailing factor for Pentachlorophenol OK

Tailing Factor = 1.0 Maximum Allowed = 5.0

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Benzidine
=========
Exp. RT = 8.099
Found RT = 8.096

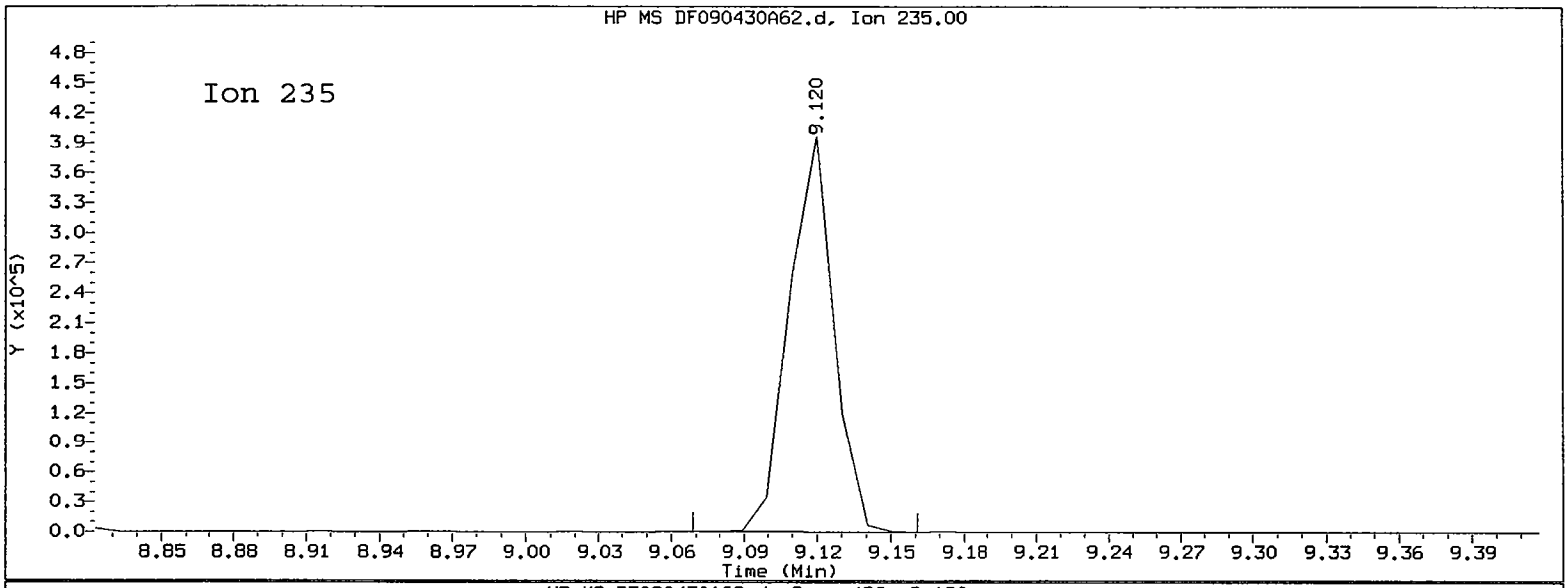
Mass	Area	Ratio
184	911934	100.00

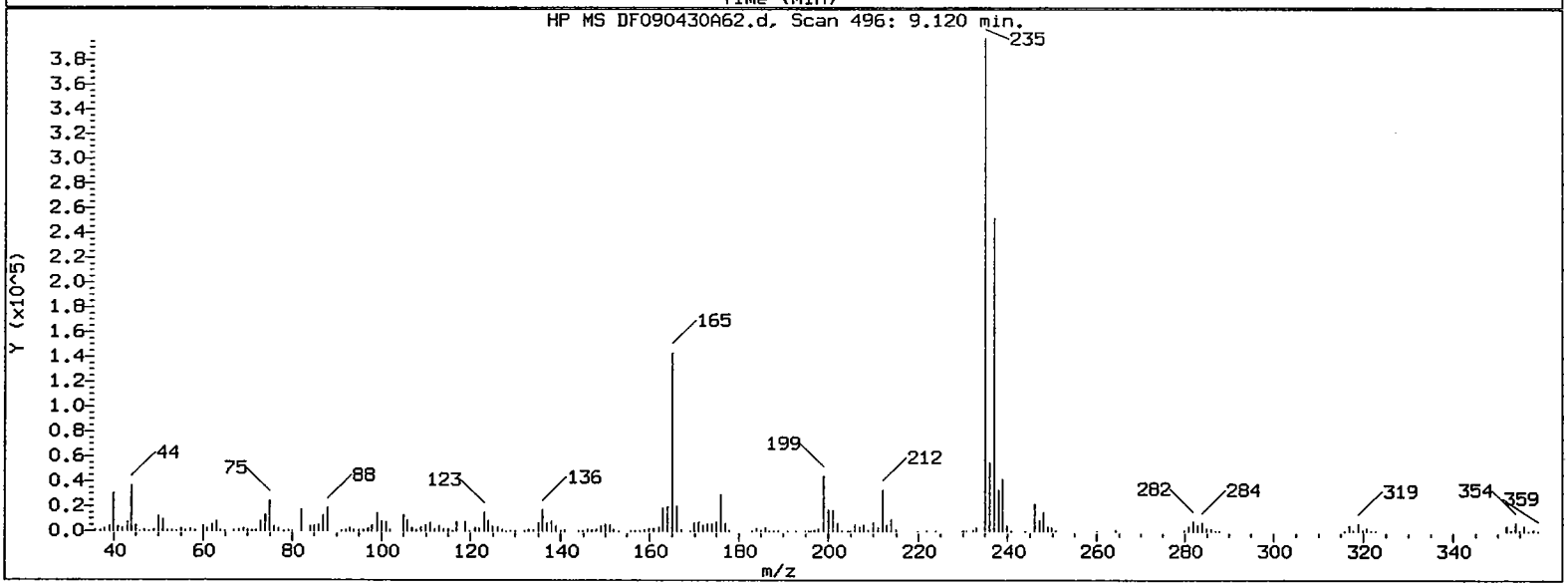
Tailing factor for Benzidine OK

Tailing Factor = 1.2 Maximum Allowed = 3.0

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



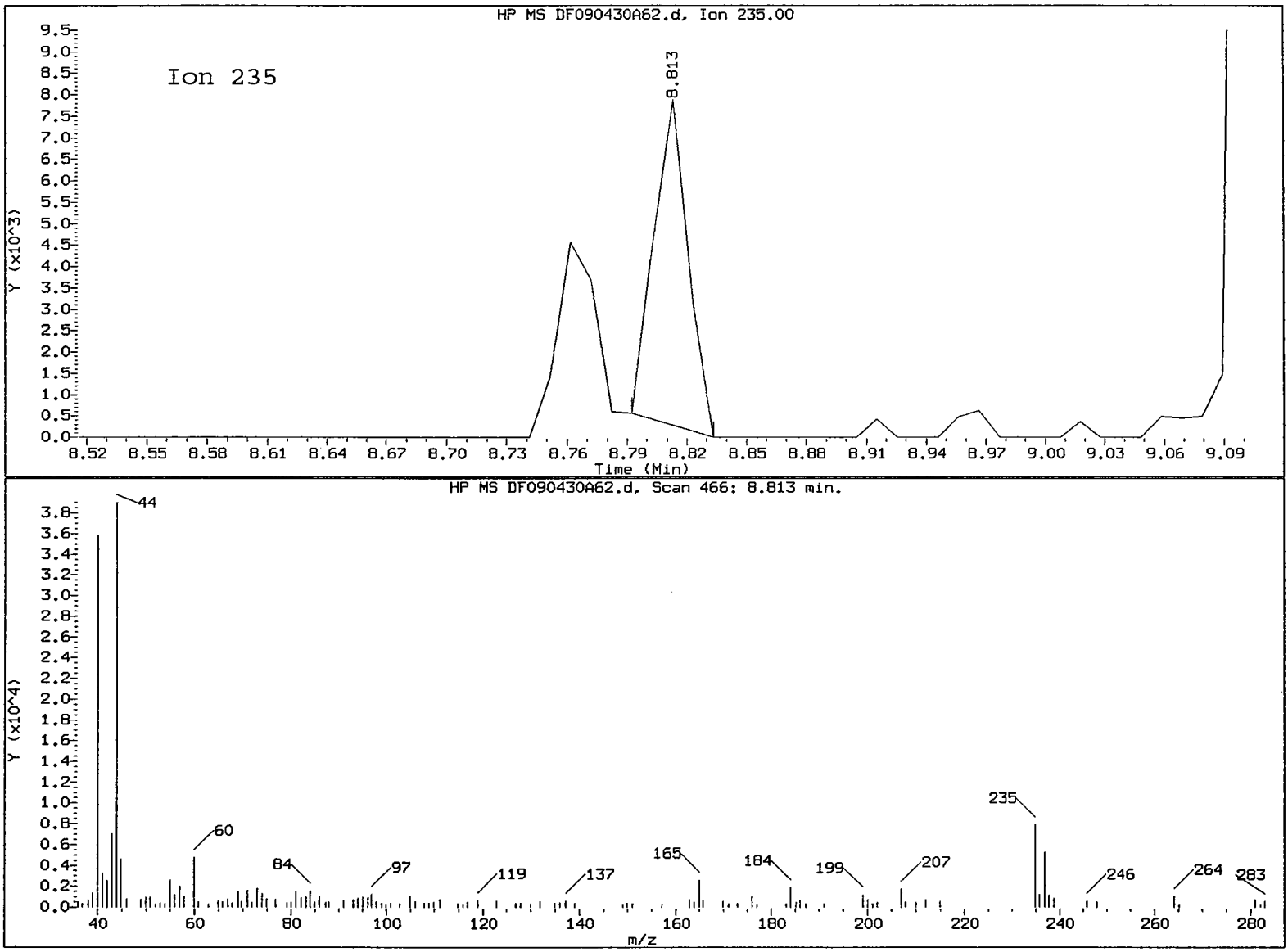


4,4'-DDT
========
Exp. RT = 8.505
Found RT = 9.120

Mass	Area	Ratio
235	502427	100.00

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

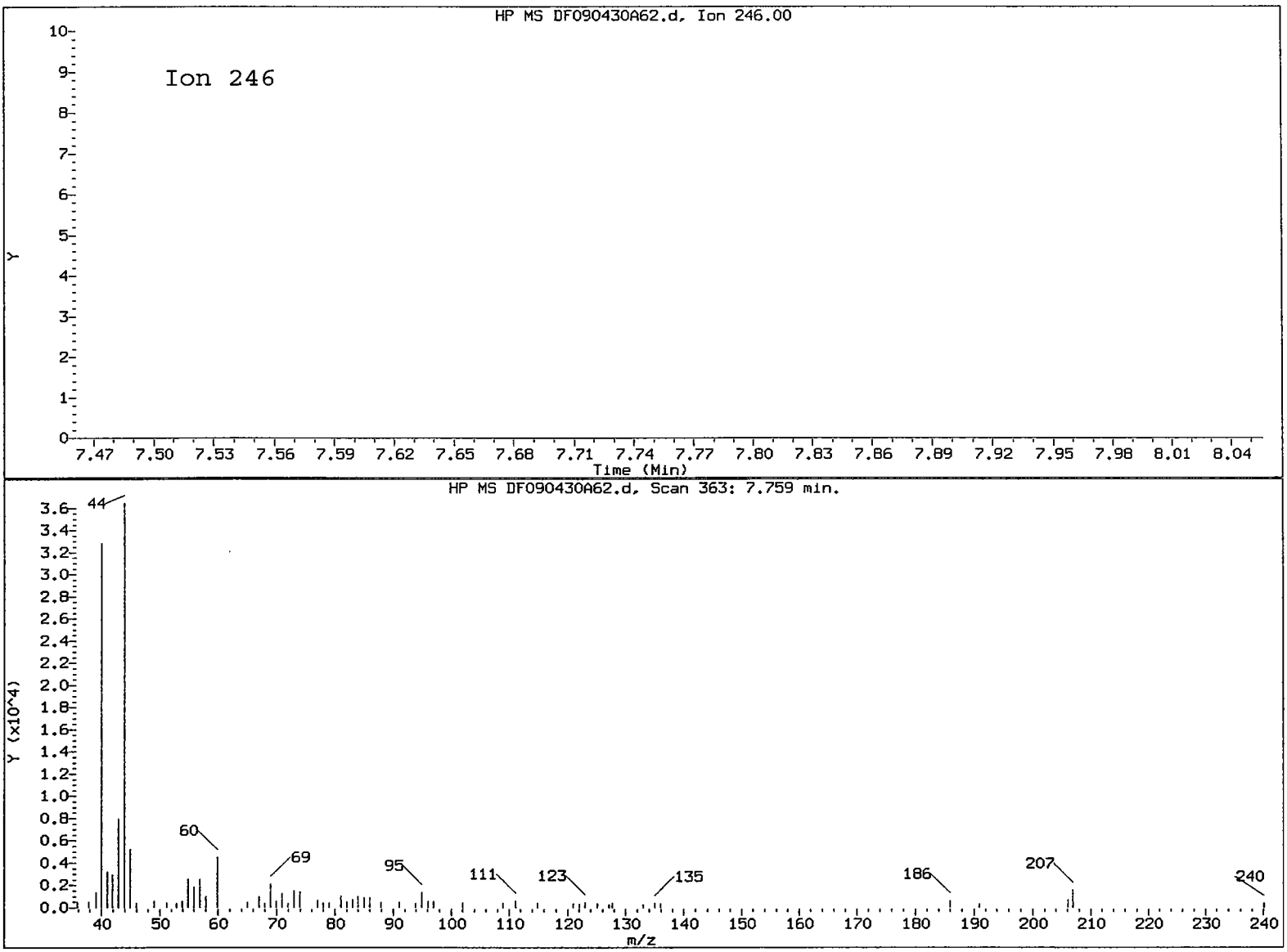


4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.813

Mass	Area	Ratio
235	9048	100.00

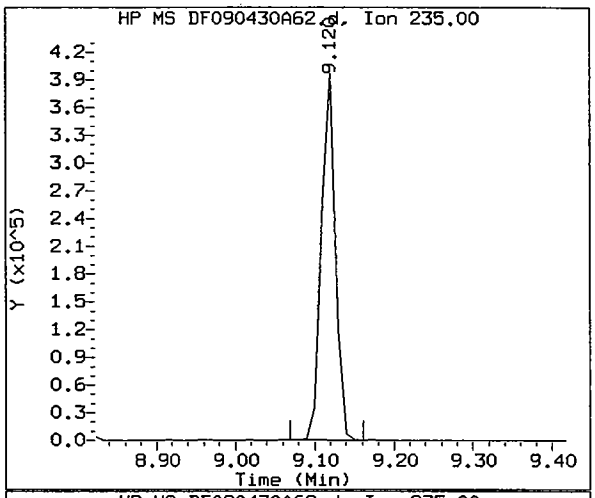
Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

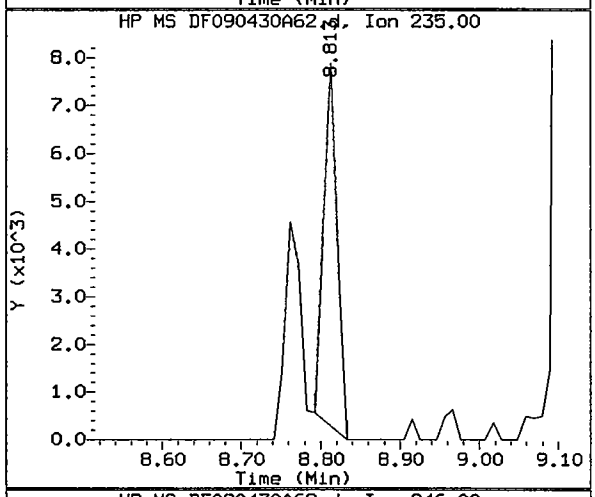


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 0.000

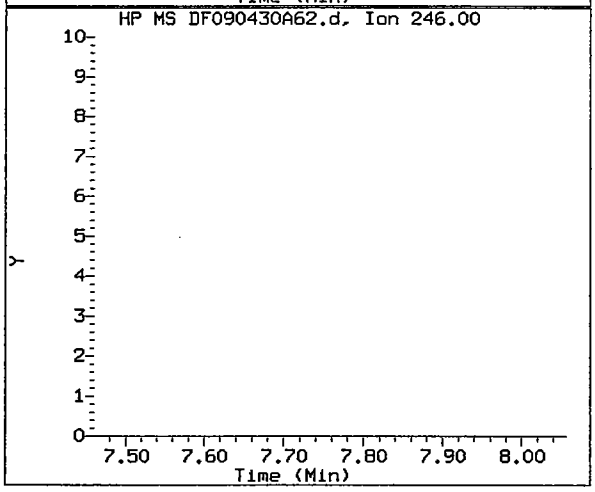
Mass	Area	Ratio
246	0	0.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.120
Area: 502427



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.813
Area: 9048



Compound: 4,4'-DDE
Quant Mass: 246
RT: 0.000
Area: 0

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	502427			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	9048	1.8	20.0	PASS
4,4-DDD + DDE	9048	1.8	20.0	PASS

****

TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

****

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d

Date : 01-MAY-2009 09:44

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP;2650

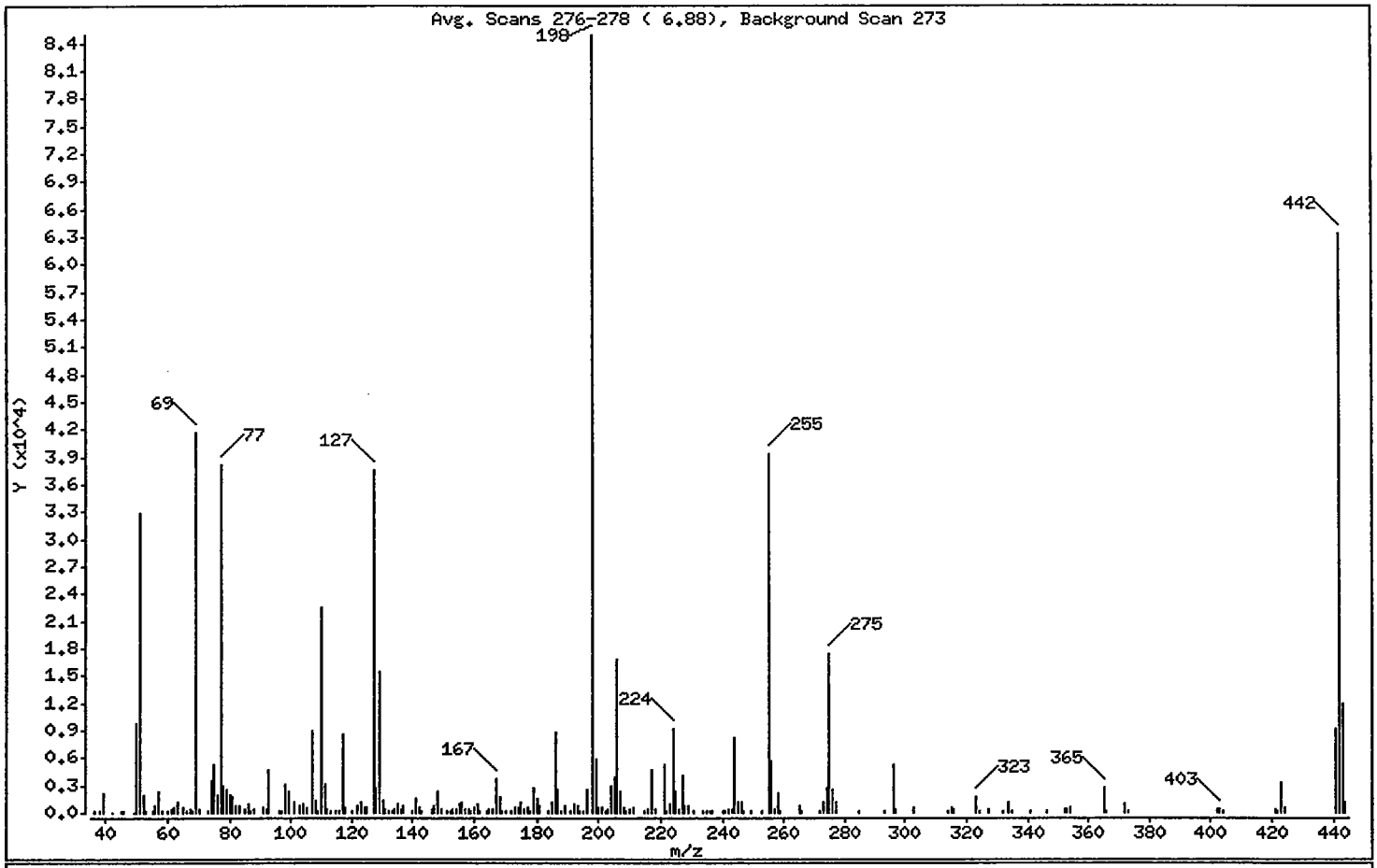
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	38.77
68	Less than 2.00% of mass 69	0.27 (0.56)
69	Mass 69 relative abundance	49.05
70	Less than 2.00% of mass 69	0.40 (0.81)
127	25.00 - 75.00% of mass 198	44.26
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	20.54
365	Greater than 0.75% of mass 198	3.25
441	Present, but less than mass 443	10.88
442	40.00 - 110.00% of mass 198	74.62
443	15.00 - 24.00% of mass 442	13.97 (18.72)

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d

Date : 01-MAY-2009 09:44

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090501A62.d

Spectrum: Avg. Scans 276-278 (6.88), Background Scan 273

Location of Maximum: 198.00

Number of points: 216

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	202	111.00	3140	177.00	654	246.00	1261
38.00	134	112.00	416	178.00	128	247.00	188
39.00	2138	113.00	110	179.00	2767	249.00	208
42.00	74	115.00	121	180.00	1526	253.00	166
45.00	184	116.00	251	181.00	823	255.00	39320
46.00	104	117.00	8655	184.00	220	256.00	5698
49.00	87	118.00	546	185.00	1132	257.00	382
50.00	9763	120.00	146	186.00	8832	258.00	2103
51.00	32904	122.00	823	187.00	2536	259.00	160
52.00	1910	123.00	1194	188.00	272	265.00	770
53.00	107	124.00	585	189.00	707	266.00	218
55.00	134	125.00	579	191.00	155	272.00	107
56.00	840	127.00	37568	192.00	1013	273.00	1263
57.00	2337	128.00	2798	193.00	687	274.00	2814
58.00	255	129.00	15395	194.00	274	275.00	17432
60.00	161	130.00	1378	195.00	182	276.00	2485
61.00	446	131.00	430	196.00	2538	277.00	1197
62.00	568	132.00	124	198.00	84888	285.00	136
63.00	1208	133.00	110	199.00	5879	293.00	190
65.00	499	134.00	297	200.00	526	296.00	5321
66.00	159	135.00	1045	201.00	500	297.00	484
67.00	295	136.00	357	202.00	137	303.00	617
68.00	233	137.00	699	203.00	416	314.00	143
69.00	41632	140.00	103	204.00	2889	315.00	638
70.00	339	141.00	1583	205.00	4001	316.00	359
73.00	105	142.00	575	206.00	16840	323.00	1695
74.00	3501	143.00	184	207.00	2271	324.00	224
75.00	5367	146.00	340	208.00	648	327.00	332
76.00	2018	147.00	753	209.00	116	332.00	201
77.00	38232	148.00	2347	210.00	451	334.00	1090
78.00	2872	149.00	435	211.00	622	335.00	178
79.00	2594	151.00	154	215.00	129	341.00	272
80.00	1883	152.00	126	216.00	294	346.00	211
81.00	1759	153.00	459	217.00	4710	352.00	344
82.00	733	154.00	421	218.00	398	353.00	346

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d

Date : 01-MAY-2009 09:44

Client ID: DFTPP Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

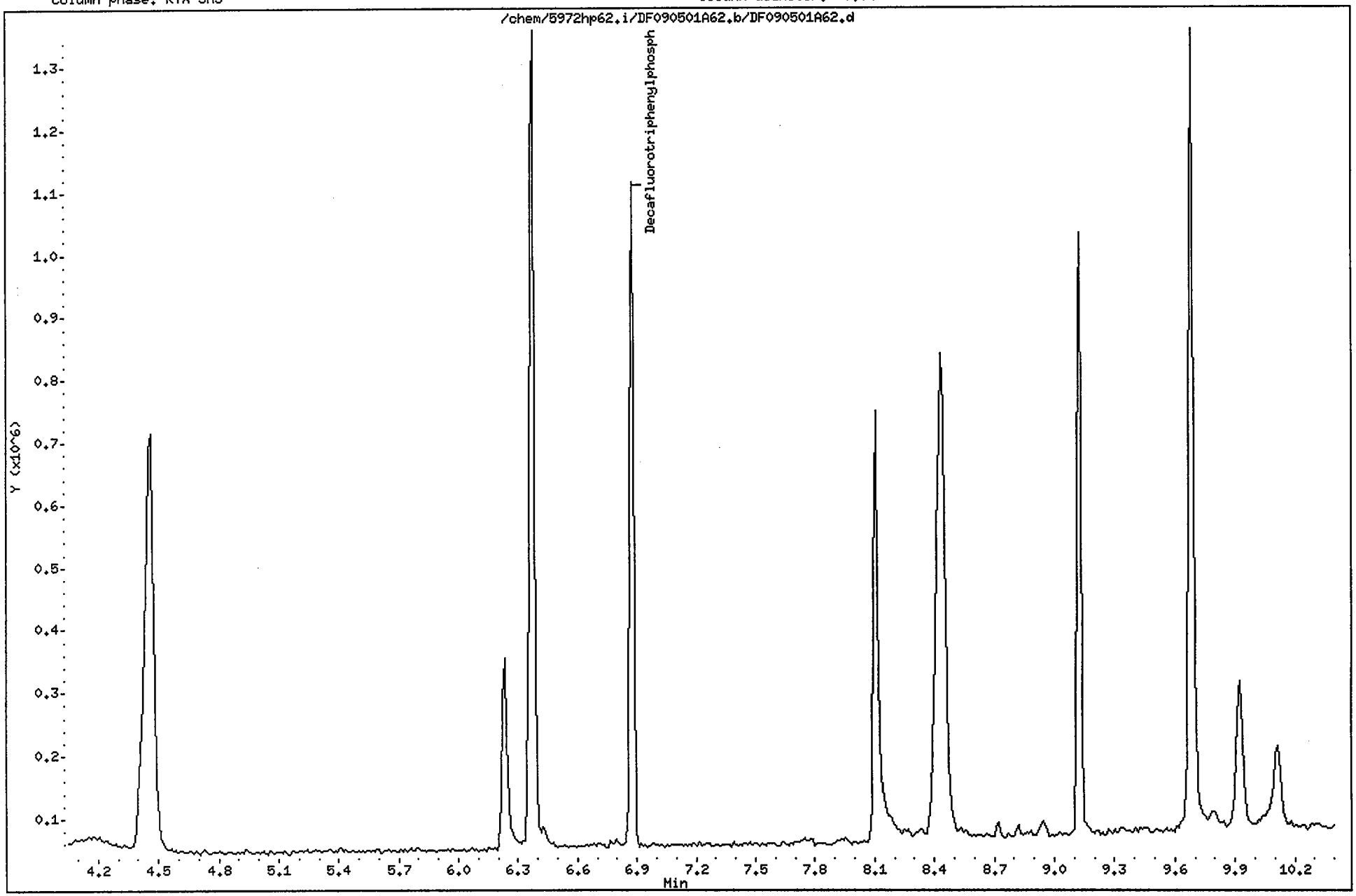
Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090501A62.d
Spectrum: Avg. Scans 276-278 (6.88), Background Scan 273
Location of Maximum: 198.00
Number of points: 216

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	691	155.00	964	221.00	5225	354.00	625
85.00	323	156.00	1197	222.00	190	365.00	2755
86.00	951	157.00	321	223.00	1072	366.00	168
87.00	212	158.00	338	224.00	9237	372.00	893
88.00	300	159.00	291	225.00	2412	373.00	115
91.00	559	160.00	557	226.00	302	402.00	359
92.00	321	161.00	904	227.00	4044	403.00	410
93.00	4601	162.00	130	228.00	691	404.00	119
96.00	127	164.00	119	229.00	690	421.00	398
97.00	246	165.00	463	231.00	187	422.00	278
98.00	3108	166.00	468	234.00	116	423.00	3234
99.00	2384	167.00	3776	235.00	213	424.00	643
101.00	1134	168.00	1771	236.00	218	441.00	9240
103.00	720	169.00	205	237.00	168	442.00	63336
104.00	947	170.00	126	240.00	141	443.00	11856
105.00	645	172.00	264	241.00	213	444.00	1212
107.00	9062	173.00	570	242.00	352		
108.00	1465	174.00	615	243.00	463		
109.00	147	175.00	1162	244.00	8179		
110.00	22464	176.00	418	245.00	1165		

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d
Date : 01-MAY-2009 09:44
Client ID: DFTPP
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	38.77		PASS
68	Less than 2% of mass 69	0.27	(0.56)	PASS
69	Mass 69 relative abundance	49.05		PASS
70	Less than 2% of mass 69	0.40	(0.81)	PASS
127	25 - 75% of mass 198	44.26		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.93		PASS
275	10 - 30% of mass 198	20.54		PASS
365	Greater than 0.75% of mass 198	3.25		PASS
441	Present, but less than mass 443	10.88	(77.94)	PASS
442	40 - 110 % of mass 198	74.62		PASS
443	15 - 24% of mass 442	13.97	(18.72)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4	5.0	PASS
Benzidine	2.1	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	251503			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3630	1.4	20.0	PASS
4,4-DDD + DDE	3630	1.4	20.0	PASS

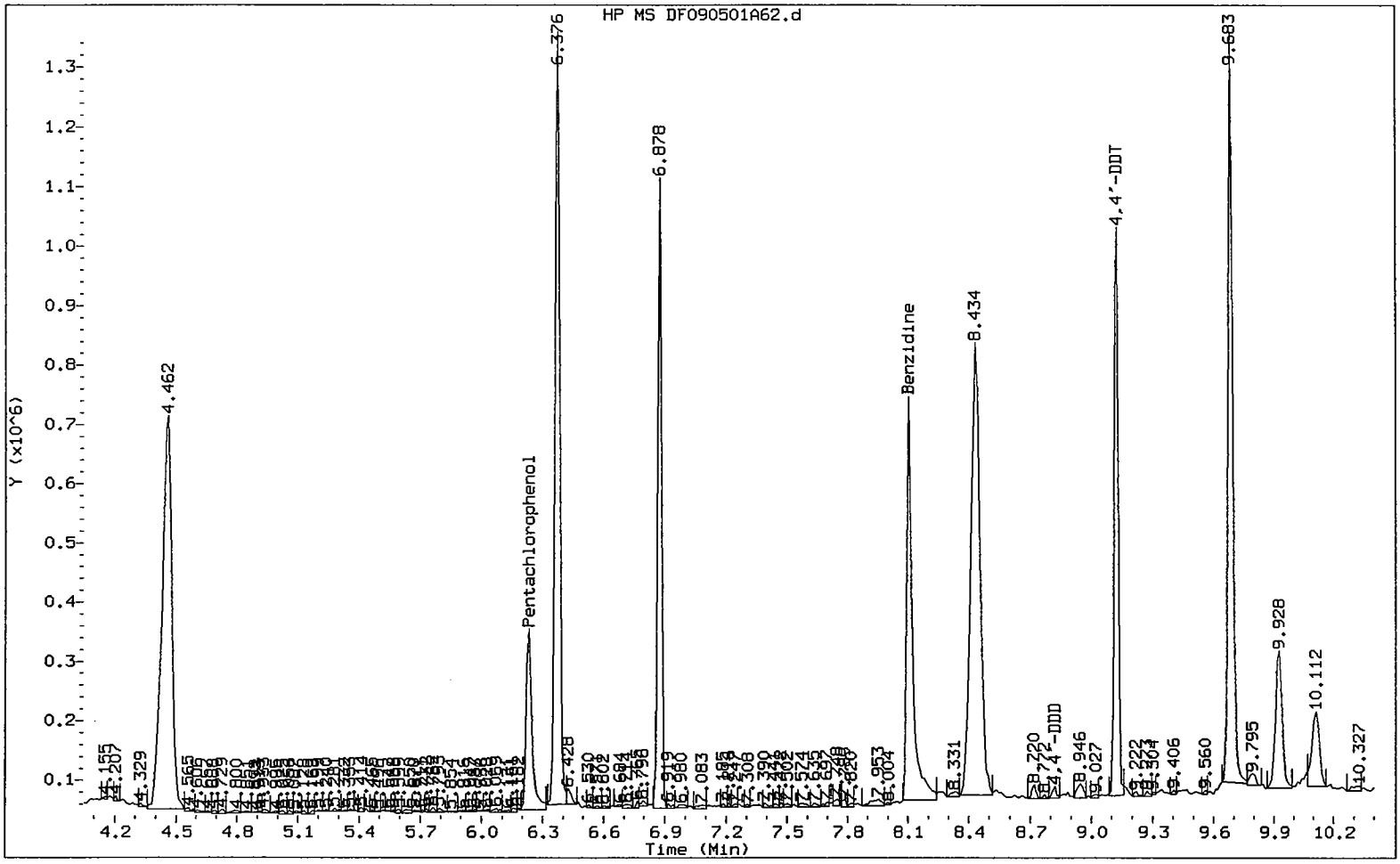
Tuning Sample, /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

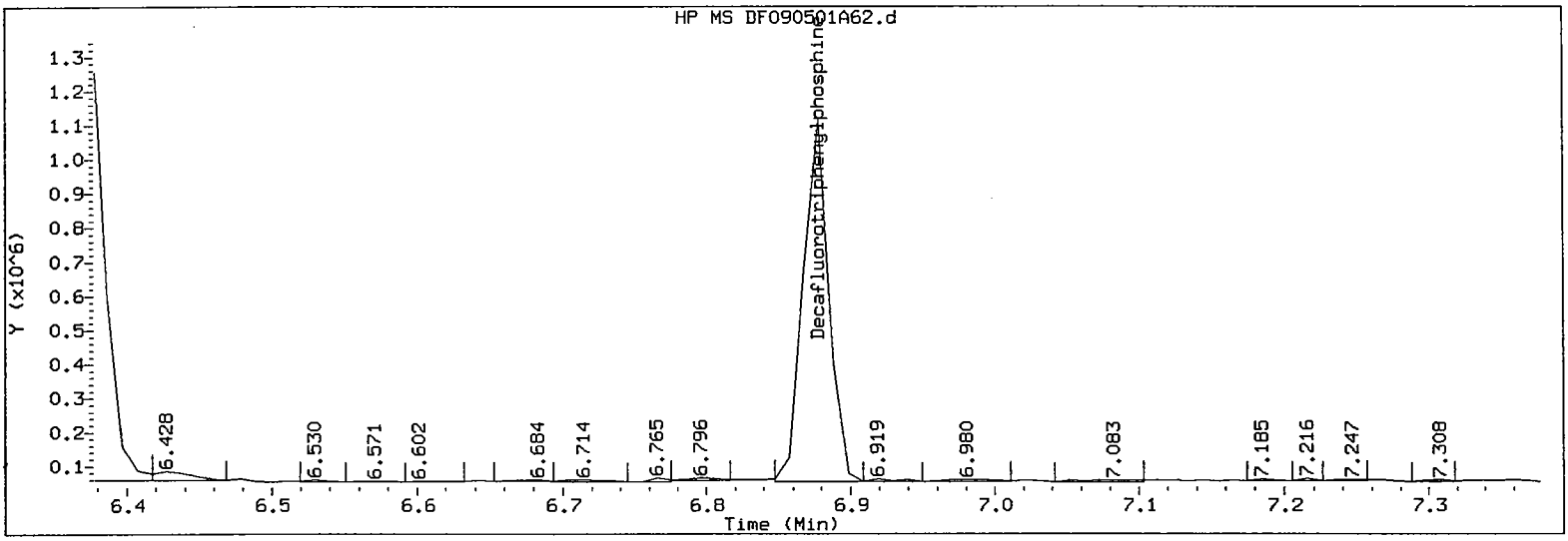
Report Date: 05/01/2009 10:46

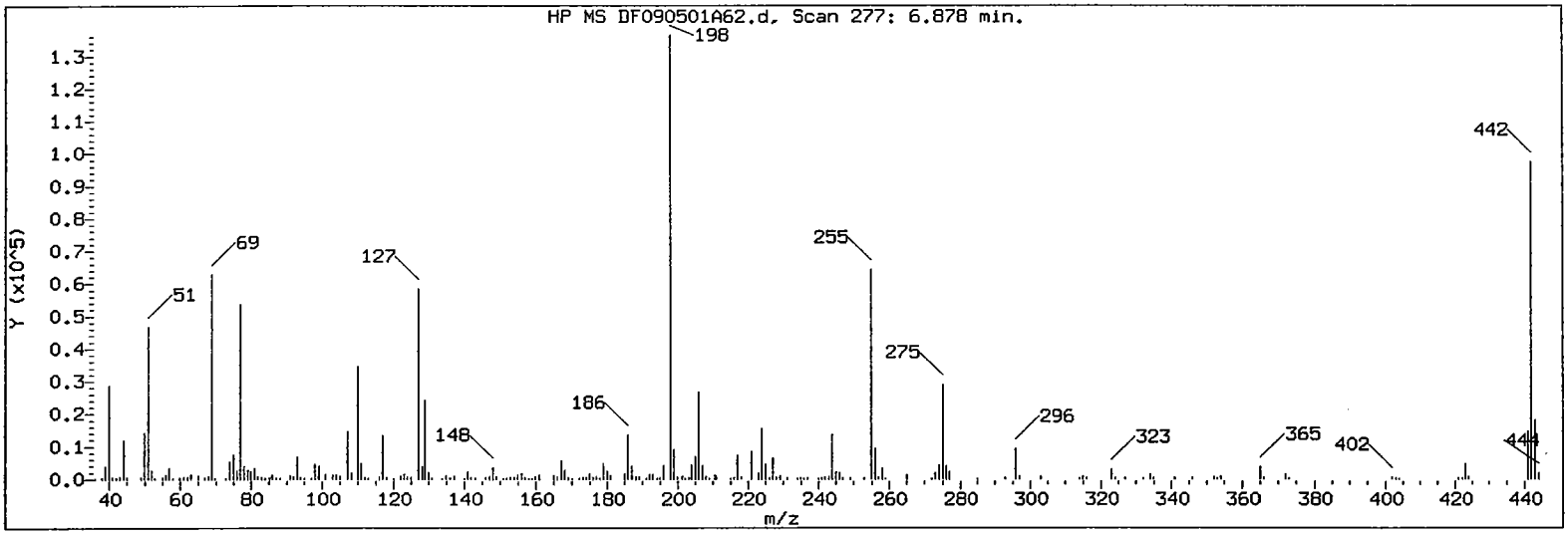
Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 01-MAY-2009 09:44 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 01-MAY-2009 09:44 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



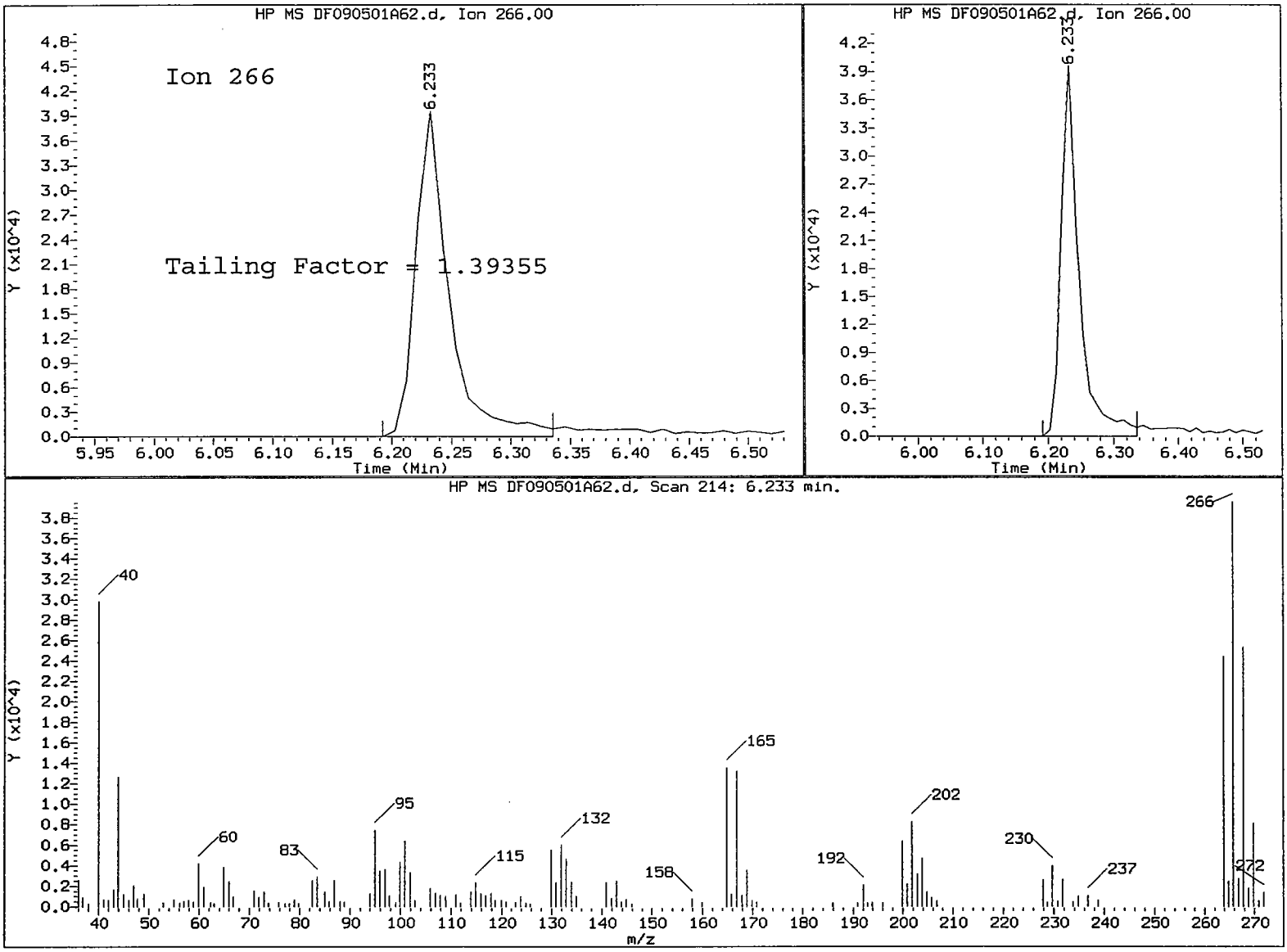


DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	38.77		PASS
68	Less than 2% of mass 69	0.27	(0.56)	PASS
69	Mass 69 relative abundance	49.05		PASS
70	Less than 2% of mass 69	0.40	(0.81)	PASS
127	25 - 75% of mass 198	44.26		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.93		PASS
275	10 - 30% of mass 198	20.54		PASS
365	Greater than 0.75% of mass 198	3.25		PASS
441	Present, but less than mass 443	10.88	(77.94)	PASS
442	40 - 110% of mass 198	74.62		PASS
443	15 - 24% of mass 442	13.97	(18.72)	PASS

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Pentachlorophenol
==========
Exp. RT = 6.226
Found RT = 6.233

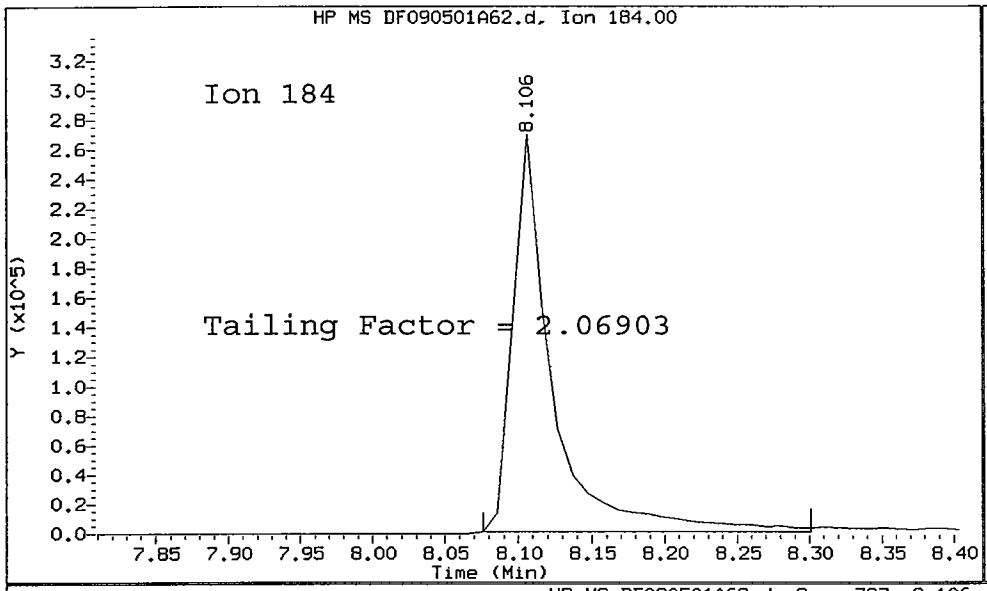
Mass	Area	Ratio
266	77003	100.00

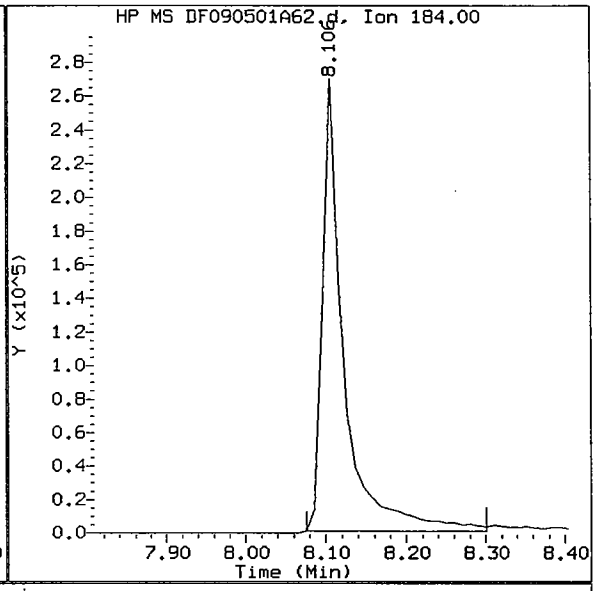
Tailing factor for Pentachlorophenol OK

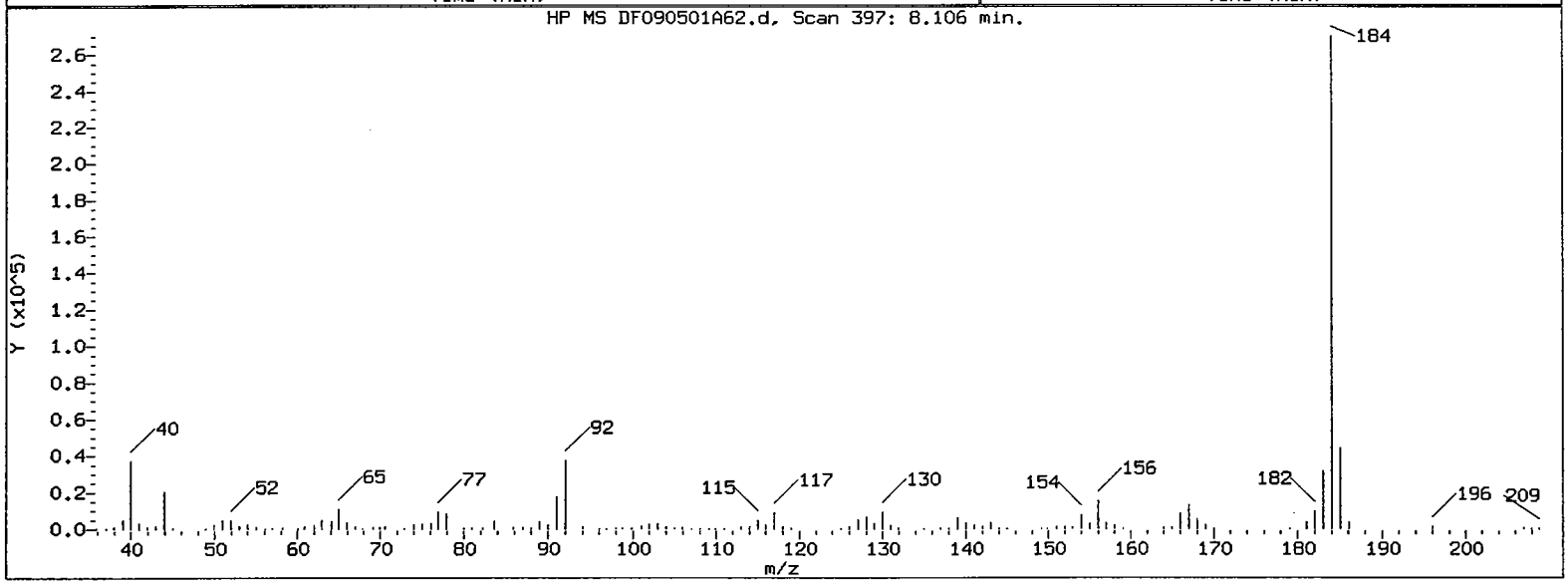
Tailing Factor = 1.4 Maximum Allowed = 5.0

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:







Benzidine
=========
Exp. RT = 8.099
Found RT = 8.106

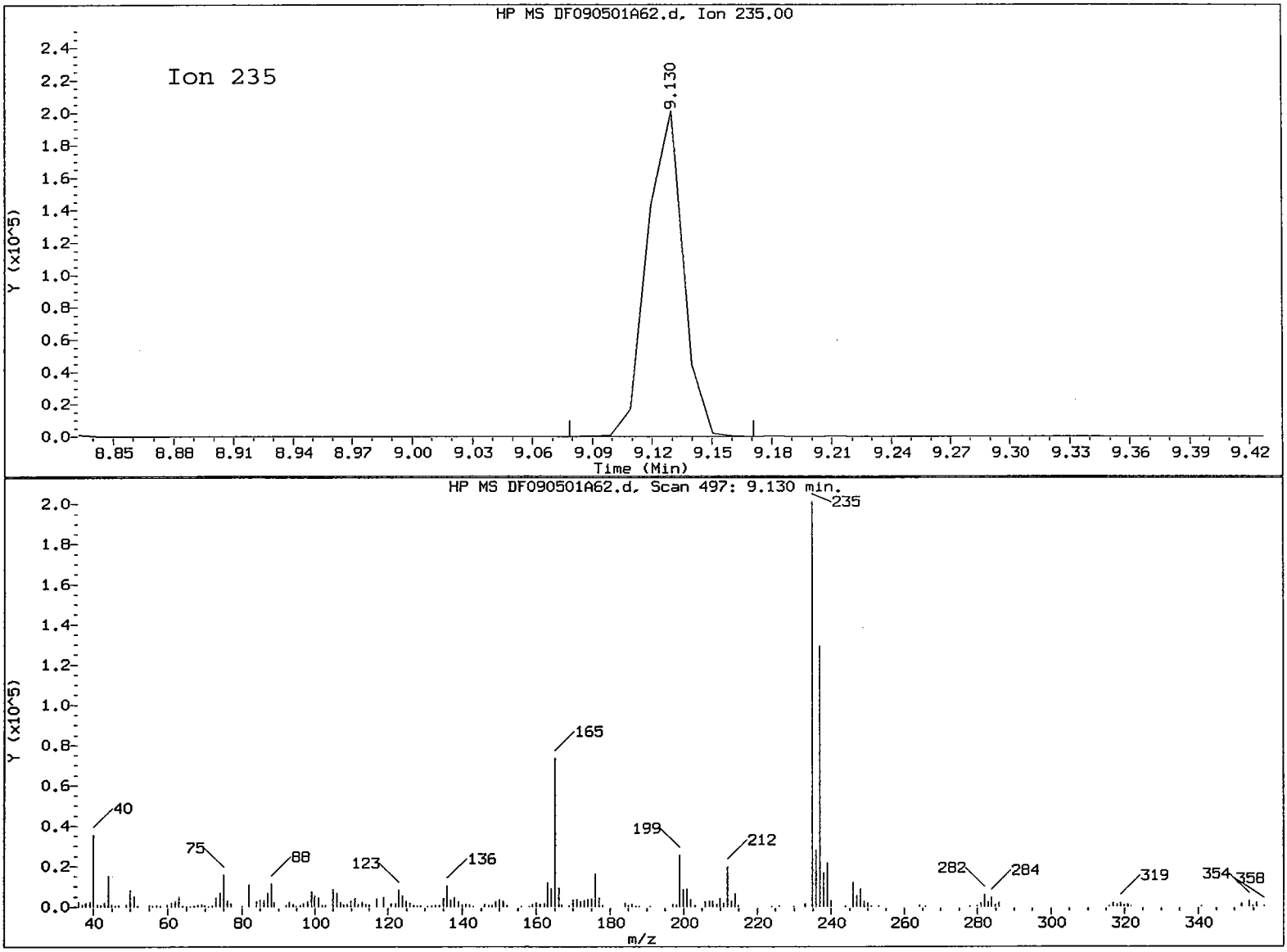
Mass	Area	Ratio
184	508766	100.00

Tailing factor for Benzidine OK

Tailing Factor = 2.1 Maximum Allowed = 3.0

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

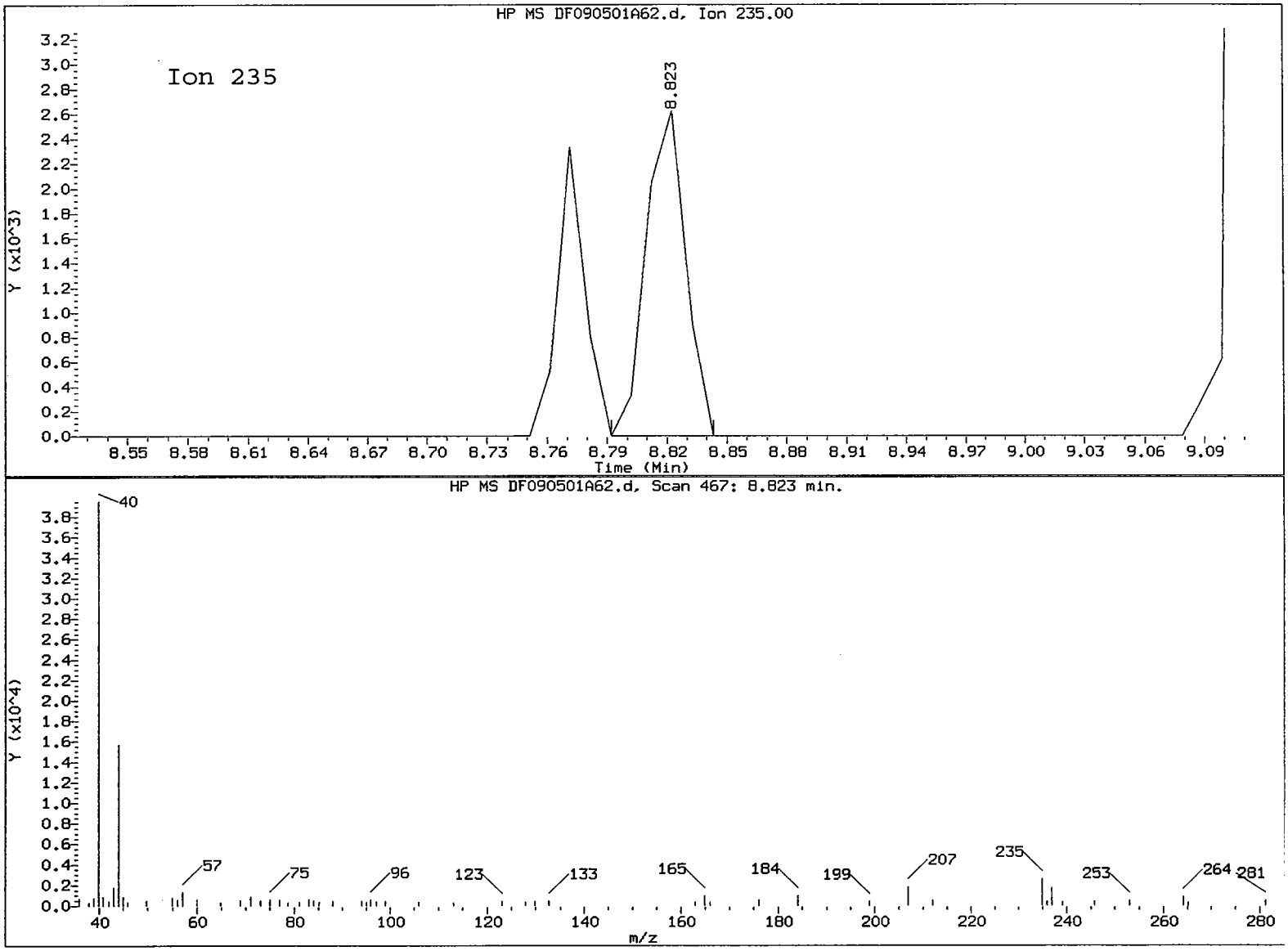


4,4'-DDT
========
Exp. RT = 8.505
Found RT = 9.130

Mass	Area	Ratio
235	251503	100.00

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

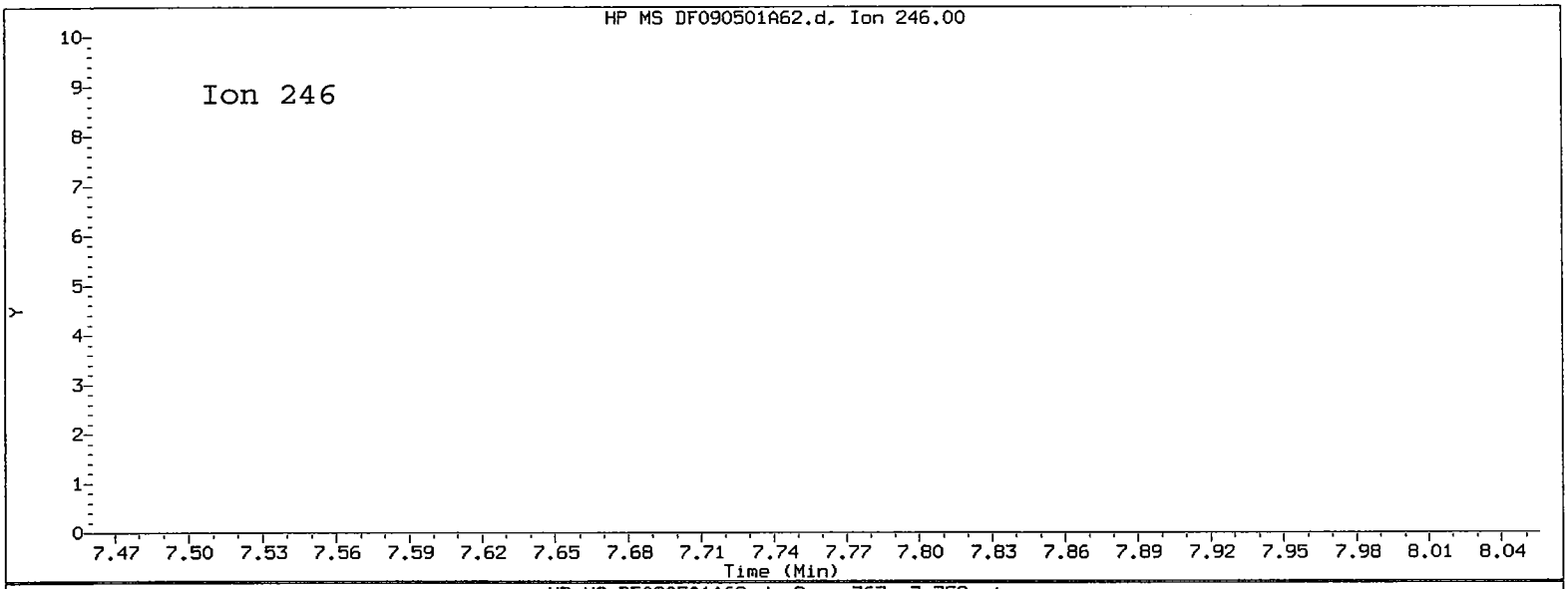


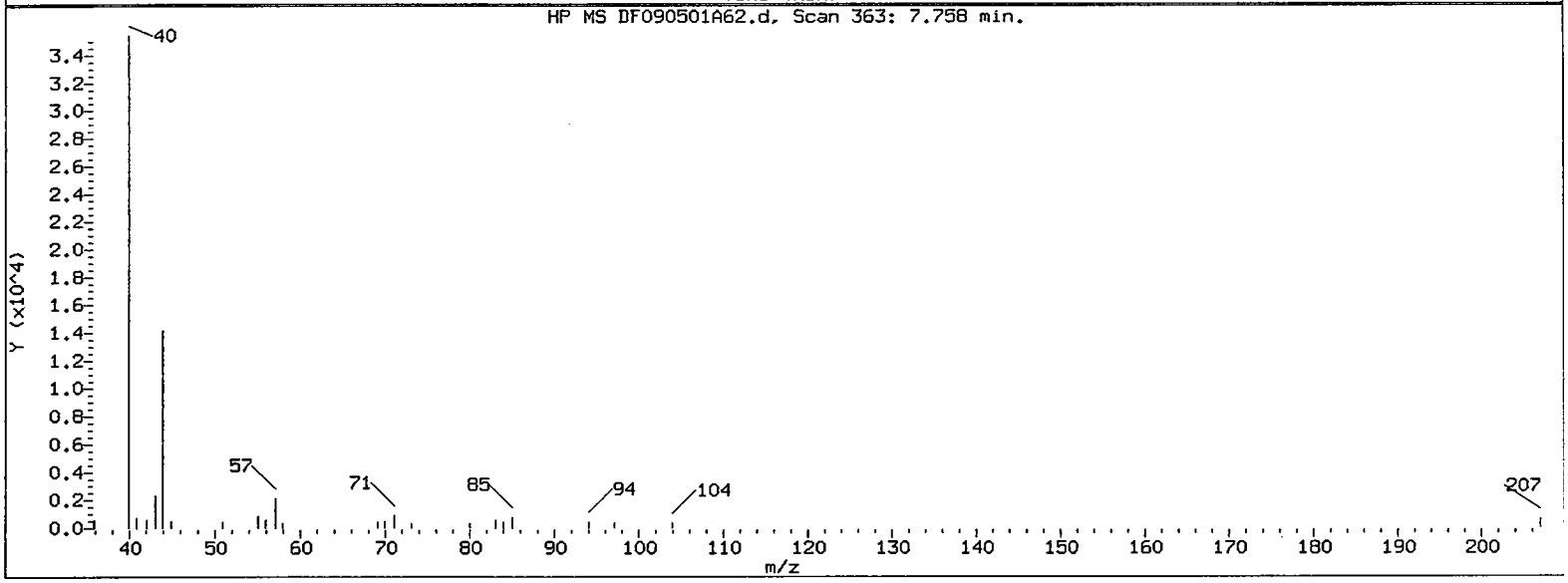
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.823

Mass	Area	Ratio
235	3630	100.00

Report Date: 05/01/2009 10:46

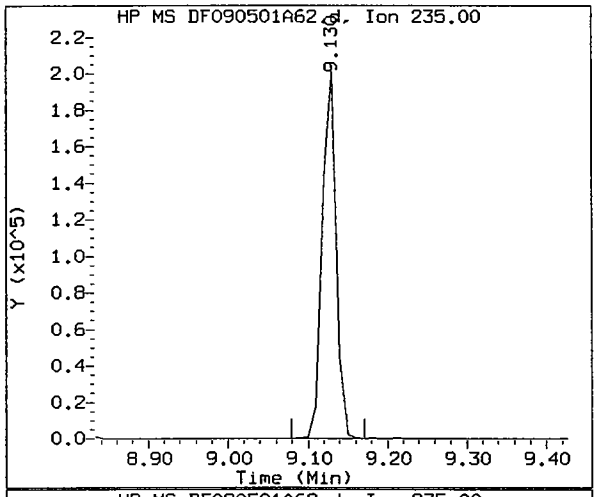
Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



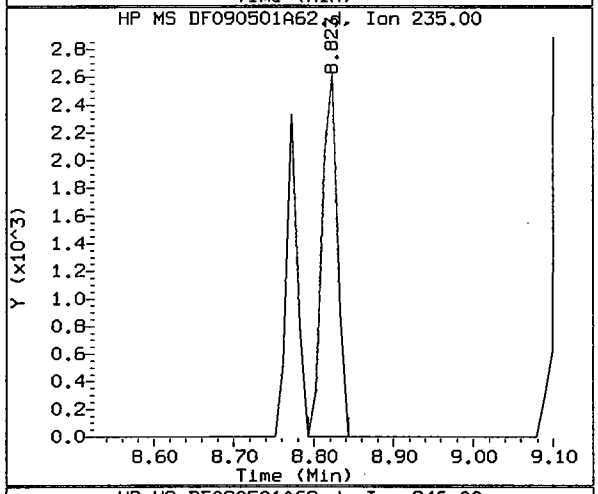


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 0.000

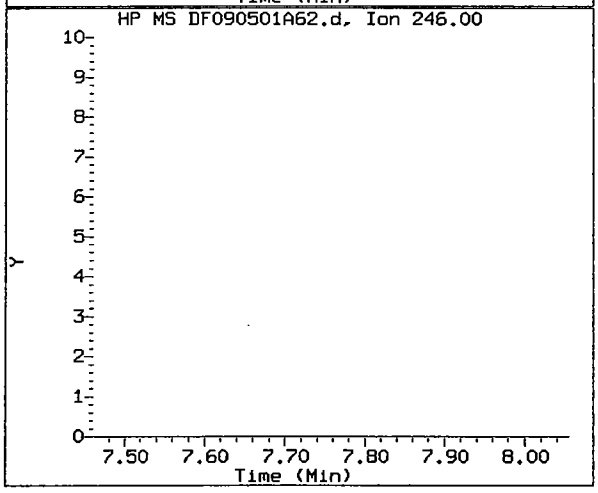
Mass	Area	Ratio
246	0	0.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.130
Area: 251503



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.823
Area: 3630



Compound: 4,4'-DDE
Quant Mass: 246
RT: 0.000
Area: 0

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	251503			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3630	1.4	20.0	PASS
4,4-DDD + DDE	3630	1.4	20.0	PASS

****

TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

****

b. Blank Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I SV)
- Tentatively Identified Compounds (Form I SV-TIC)
- Reconstructed Ion Chromatogram and quantitation report.
- Target compound spectra with lab-generated standard spectra.
- Quantitation/Calculation of TIC concentrations.
- GC/MS library search spectra for TICs.

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6203

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5.0	U
95-57-8	2-Chlorophenol	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
98-86-2	Acetophenone	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
131-11-3	Dimethylphthalate	5.0	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA62

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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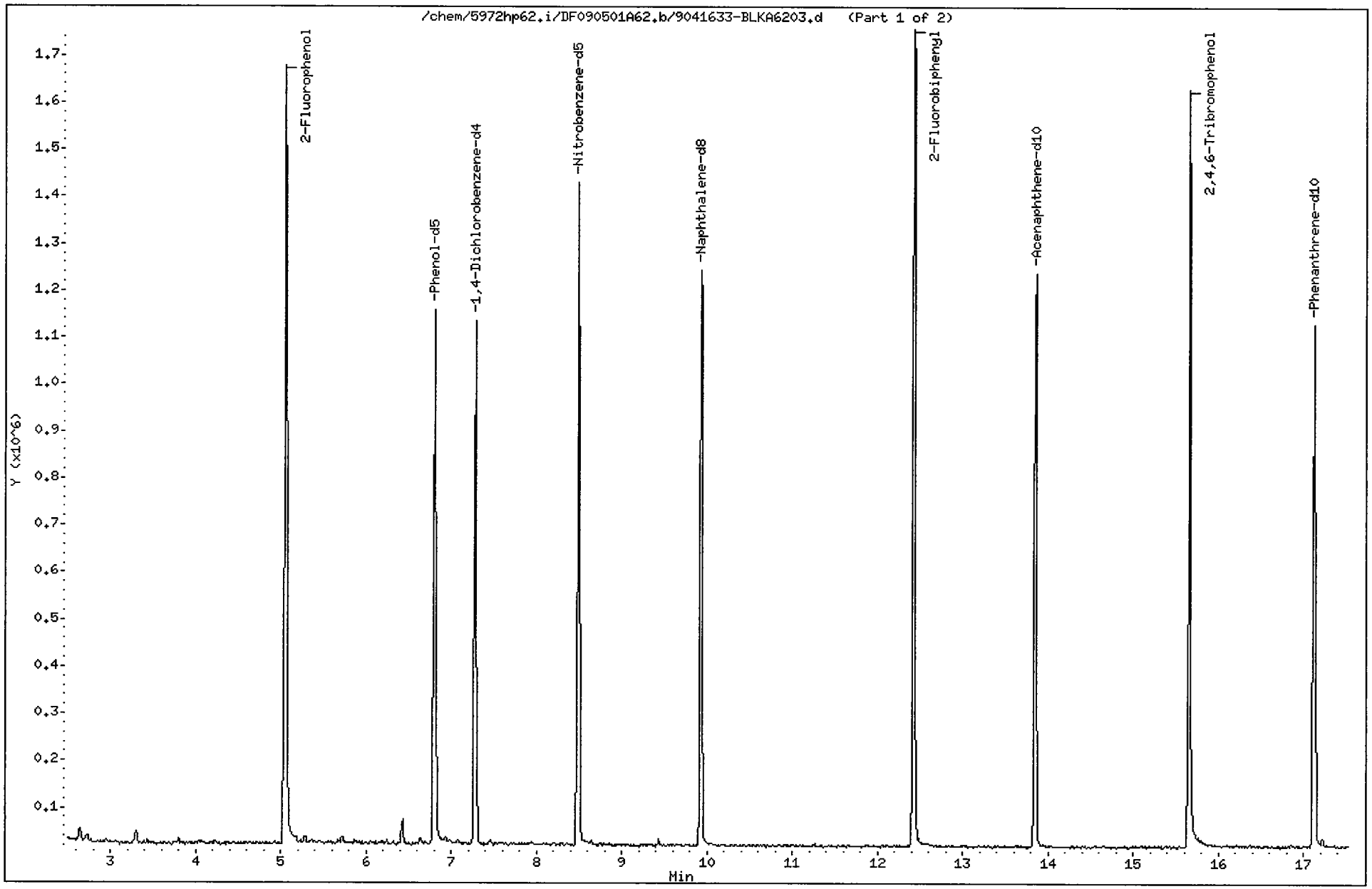
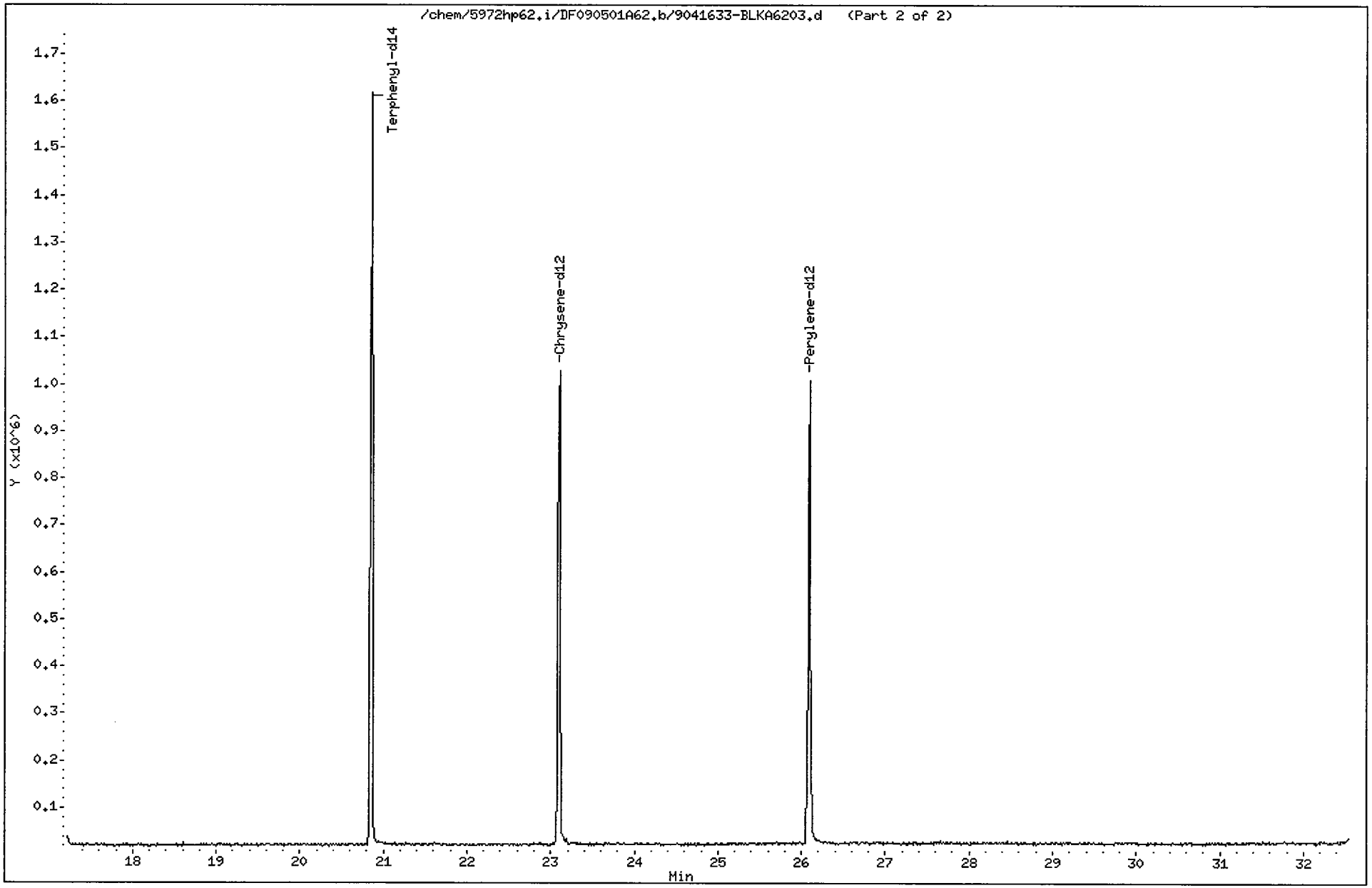
FORM I SV-TIC

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d
Date : 01-MAY-2009 17:44
Client ID: SBLKGV
Instrument: 5972hp62.i
Sample Info: 9041633-BLK:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d
Date : 01-MAY-2009 17:44
Client ID: SBLKGV
Instrument: 5972hp62.i
Sample Info: 9041633-BLK:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d
Report Date: 05-May-2009 16:54

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d
Lab Smp Id: 9041633-BLK Client Smp ID: SBLKGV
Inj Date : 01-MAY-2009 17:44
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-BLK:2650
Misc Info :
Comment   : 2008 MDLS SOIL/ 2007 WATER
Method   : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 15:11 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 13 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.279	7.279	(1.000)	266680	40.0000		
*	2 Naphthalene-d8	136	9.920	9.930	(1.000)	928958	40.0000		
*	3 Acenaphthene-d10	164	13.851	13.850	(1.000)	452497	40.0000		
*	4 Phenanthrene-d10	188	17.116	17.125	(1.000)	743307	40.0000		
*	5 Chrysene-d12	240	23.103	23.103	(1.000)	697980	40.0000		
*	6 Perylene-d12	264	26.092	26.092	(1.000)	720788	40.0000		
$	7 2-Fluorophenol	112	5.048	5.047	(0.693)	791115	120.631	60	
$	8 Phenol-d5	99	6.808	6.818	(0.935)	667111	82.8102	41	
$	11 Nitrobenzene-d5	82	8.487	8.497	(0.856)	694393	79.8445	40	
$	12 2-Fluorobiphenyl	172	12.428	12.427	(0.897)	921471	63.9270	32	
$	13 2,4,6-Tribromophenol	330	15.662	15.662	(1.131)	398164	94.8566	47	
$	14 Terphenyl-d14	244	20.862	20.851	(0.903)	942374	71.6133	36	
	23 Phenol	94	Compound Not Detected.						
	27 2-Chlorophenol	128	Compound Not Detected.						
	35 3-Methylphenol	108	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d
Report Date: 05-May-2009 16:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
36	4-Methylphenol	108	Compound Not Detected.						
39	Acetophenone	105	Compound Not Detected.						
42	Hexachloroethane	117	Compound Not Detected.						
43	Nitrobenzene	77	Compound Not Detected.						
51	2,4-Dichlorophenol	162	Compound Not Detected.						
72	Dimethylphthalate	163	Compound Not Detected.						
79	4-Nitrophenol	139	Compound Not Detected.						
82	Dibenzofuran	168	Compound Not Detected.						
86	Diethylphthalate	149	Compound Not Detected.						
93	N-Nitrosodiphenylamine	169	Compound Not Detected.						
116	Di-n-butylphthalate	149	Compound Not Detected.						
121	Fluoranthene	202	Compound Not Detected.						
123	Pyrene	202	Compound Not Detected.						
128	Butylbenzylphthalate	149	Compound Not Detected.						
129	3,3'-Dimethylbenzidine	212	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d
Report Date: 05-May-2009 16:54

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file	: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6203.d		
Lab Smp Id	: 9041633-BLK	Client Smp ID	: SBLKGV
Inj Date	: 01-MAY-2009 17:44		
Operator	: 2650	Inst ID	: 5972hp62.i
Smp Info	: 9041633-BLK:2650		
Misc Info	:		
Comment	: 2008 MDLS SOIL/ 2007 WATER		
Method	: /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m		
Meth Date	: 05-May-2009 15:11 byrd	Quant Type	: ISTD
Cal Date	: 30-APR-2009 19:51	Cal File	: HL090430A62.d
Als bottle	: 13	QC Sample	: BLANK
Dil Factor	: 1.00000		
Integrator	: HP RTE	Compound Sublist	: HWMU13SPC.sub
Target Version	: 3.50		

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

ASSIGNED TO: Billy / Martha * | CompuChem EXTRACTION WORKSHEET SEMI-VOLATILE WATER Method 3510C for 8270C | APPIX | DATE EXTRACTED/POSTED: 4/17/09 *

EMP ID NUMBER: 2713 2502 | 4-17-3 | BATCH NO.: 9041633

279

-079A *

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	0904096-01	7W11B	SAMPLE	950	1.0	1.6	12.0	QC1
2	0904096-02	7W12B	SAMPLE	1000		1.6	12.0	
3	0904096-03	7WCA	SAMPLE	950		1.6	12.0	MN 4-17-09
4	0904096-04	7WDUP	SAMPLE	1000		1.6	12.0	
5	0904096-05	7MW6	SAMPLE	1000		1.6	12.0	
6	0904098-01	13MW5	SAMPLE	1000		1.6	12.0	QC2
7	0904098-02	13MW3	SAMPLE	1000		1.6	12.0	
8	0904098-03	13MW4	SAMPLE	950		1.6	12.0	
9	0904098-04	13MWDUP	SAMPLE	975		1.6	12.0	
10	0904098-05	13MW6	SAMPLE	BFP ~~1000~~ 975		1.6	12.0	
11	0904098-06	13MW7	SAMPLE	1000		1.6	12.0	
12	0904103-01	13MW1	SAMPLE	1000		1.6	12.0	
13	0904103-02	13MW2	SAMPLE	1000		1.6	12.0	ML 4-17-09
14	9041633-BLK1	SBLKGV	MB	1000		1.6	12.0	
15	9041633-BS1	SGVLCS	LCS	1000		1.6	12.0	
16	9041633-BSD1	SGVLCSD	LCSD	1000		1.6	12.0	
17	9041633-MS1	7W11BMS01	MS1	950		1.6	12.0	
18	9041633-MS2	13MW5MS02	MS2	975		1.6	12.0	
19	9041633-MSD1	7W11BMSD01	MSD1	950		1.6	12.0	
20	9041633-MSD2	13MW5MSD02	MSD2	975	1.0	1.6	12.0	
21								
22								
23			ML	4-17-09				
24								
25								
26								

		S-VOL	8270
SURROGATE	NO.	393	
	AMT.	0.5 mL	
	LOT	032709-36	
SPIKE	NO.		APPIX SPIKE
	AMT.		0.5 mL
	LOT		61823/61824

MS2-MSD2

62060-62061

FINAL VOLUME VERIFIED: ML 4-17-09

SUPERVISOR REVIEWED: B. Patton

SURROGATE & SPIKE ADDED BY: RM / 4-17-09 (Initials / Date)

Analyst initials. Extracted BFP, ML, SB KD RM N2 BFP Bottle up ML

Witness ML / 4-17-09 (Initials / Date)

Manufacturer and lot number of reagents/solvents used CH2Cl2-G45400, H2SO4-670418, 10N NaOH-2XX6-547-4, Na2SO4-2XX6-547-2

c. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6203

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

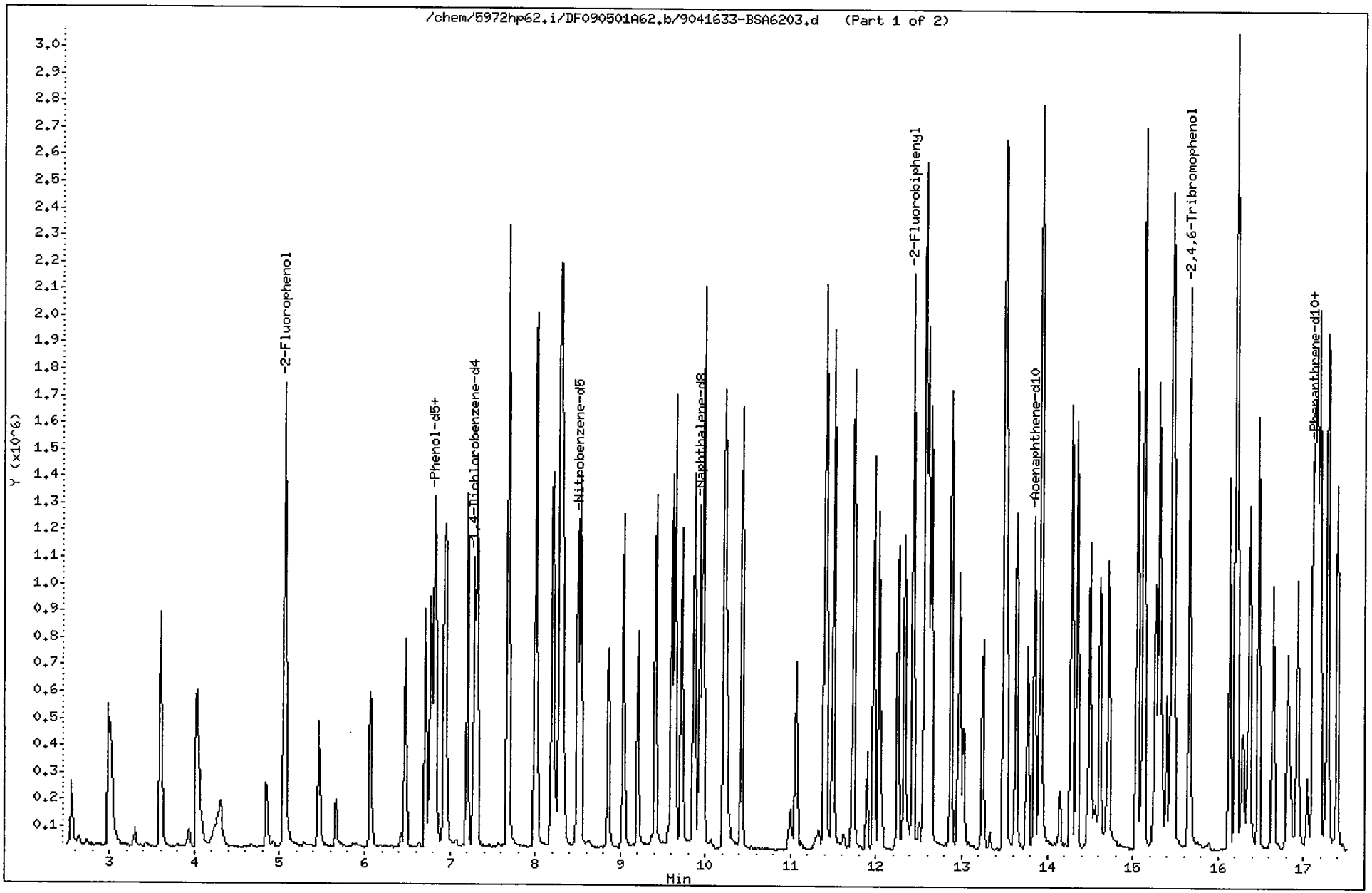
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	20	
95-57-8	2-Chlorophenol	33	
108-39-4	3-Methylphenol	33	
106-44-5	4-Methylphenol	34	
98-86-2	Acetophenone	33	
67-72-1	Hexachloroethane	30	
98-95-3	Nitrobenzene	39	
120-83-2	2,4-Dichlorophenol	29	
131-11-3	Dimethylphthalate	34	
100-02-7	4-Nitrophenol	15	
132-64-9	Dibenzofuran	36	
84-66-2	Diethylphthalate	33	
86-30-6	N-Nitrosodiphenylamine (1)	33	
84-74-2	Di-n-butylphthalate	32	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
85-68-7	Butylbenzylphthalate	36	
119-93-7	3,3'-Dimethylbenzidine	26	
117-81-7	bis(2-ethylhexyl)Phthalate	38	
56-55-3	Benzo(a)anthracene	37	
117-84-0	Di-n-octylphthalate	33	
205-99-2	Benzo(b)fluoranthene	36	
207-08-9	Benzo(k)fluoranthene	42	
50-32-8	Benzo(a)pyrene	37	
193-39-5	Indeno(1,2,3-c,d)pyrene	38	
53-70-3	Dibenzo(a,h)anthracene	36	

(1) - Cannot be separated from Diphenylamine

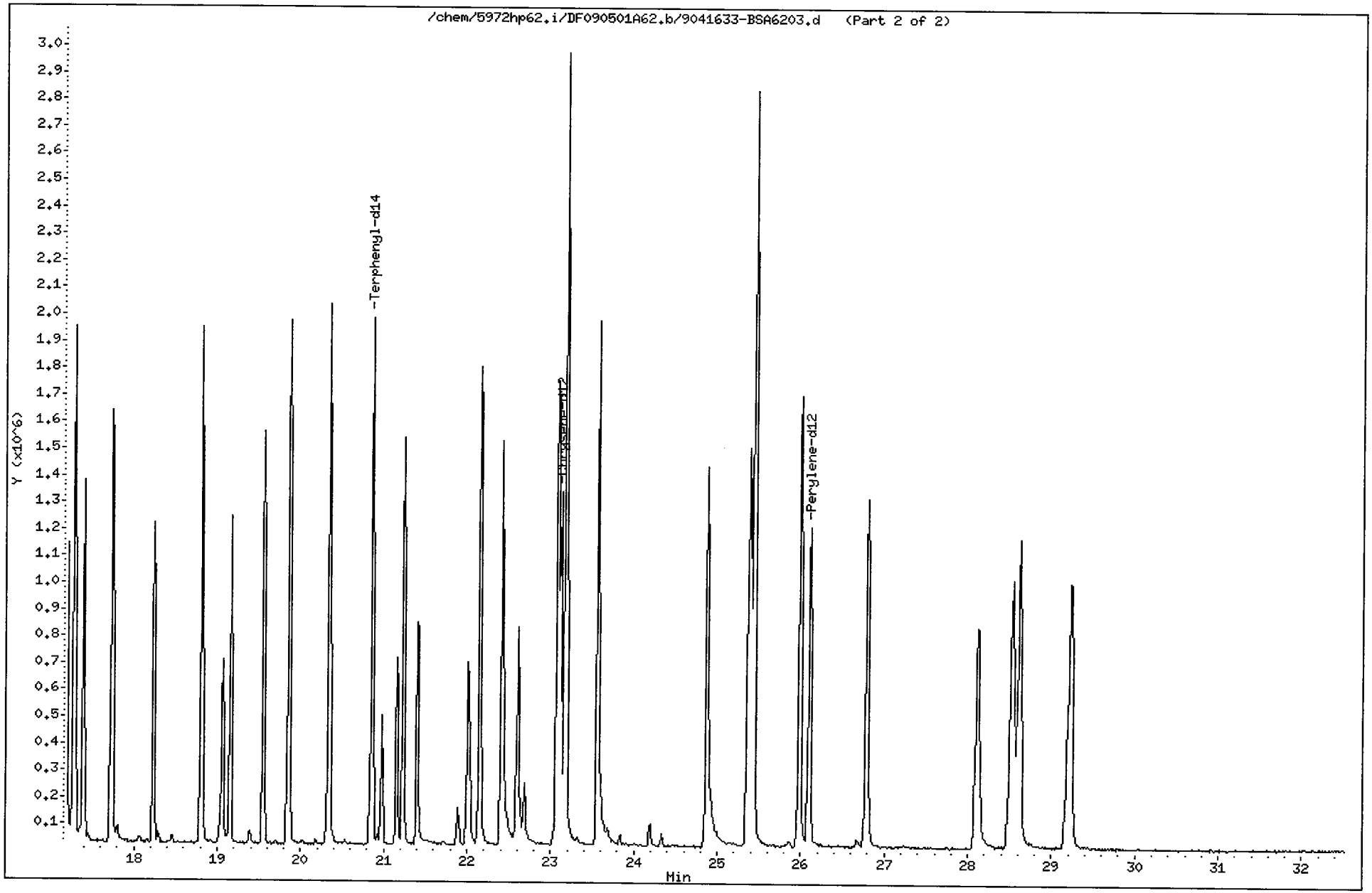
Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Date : 01-MAY-2009 18:25
Client ID: SGVLCS
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Date : 01-MAY-2009 18:25
Client ID: SGVLCS
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Report Date: 05-May-2009 16:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Lab Smp Id: 9041633-BS Client Smp ID: SGVLCS
Inj Date : 01-MAY-2009 18:25
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-BS:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 16:54 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 14 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.284	7.279	(1.000)	252207	40.0000		
* 2 Naphthalene-d8	136	9.935	9.930	(1.000)	919937	40.0000		
* 3 Acenaphthene-d10	164	13.855	13.850	(1.000)	439329	40.0000		
* 4 Phenanthrene-d10	188	17.130	17.125	(1.000)	733227	40.0000		
* 5 Chrysene-d12	240	23.118	23.103	(1.000)	812545	40.0000		
* 6 Perylene-d12	264	26.107	26.092	(1.000)	871639	40.0000		
$ 7 2-Fluorophenol	112	5.063	5.047	(0.695)	855213	137.888	69	
$ 8 Phenol-d5	99	6.823	6.818	(0.937)	710348	93.2374	47	
$ 11 Nitrobenzene-d5	82	8.502	8.497	(0.856)	723669	84.0267	42	
$ 12 2-Fluorobiphenyl	172	12.432	12.427	(0.897)	1057762	75.5816	38	
$ 13 2,4,6-Tribromophenol	330	15.667	15.662	(1.131)	542701	133.166	66	
$ 14 Terphenyl-d14	244	20.856	20.851	(0.902)	1139698	74.3971	37	
23 Phenol	94	6.844	6.838	(0.940)	308541	39.1761	20	
27 2-Chlorophenol	128	6.956	6.951	(0.955)	470996	65.6428	33	9292
35 3-Methylphenol	108	8.328	8.333	(1.143)	400151	65.8584	33	(M)

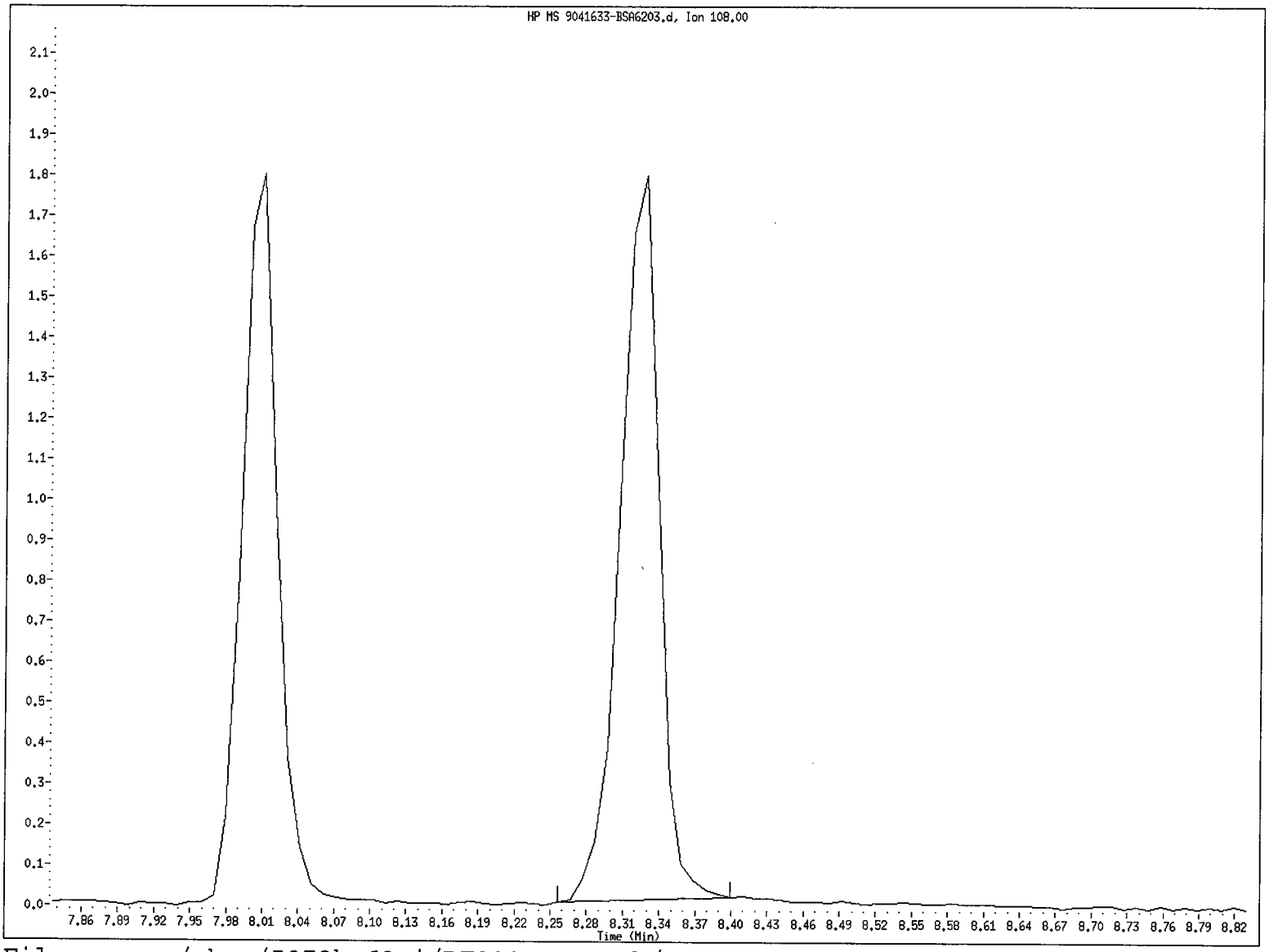
Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Report Date: 05-May-2009 16:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
36 4-Methylphenol	108	8.328	8.333	(1.143)	411378	67.7061	34	(M)
39 Acetophenone	105	8.205	8.200	(0.826)	681579	65.9181	33	0 (M)
42 Hexachloroethane	117	8.287	8.271	(1.138)	232875	60.9391	30	9776
43 Nitrobenzene	77	8.532	8.527	(0.859)	644648	78.6770	39	9216
51 2,4-Dichlorophenol	162	9.720	9.725	(0.978)	373436	57.3001	29	
72 Dimethylphthalate	163	13.517	13.512	(0.976)	918850	69.0723	34	8821
79 4-Nitrophenol	139	14.541	14.423	(1.049)	76968	30.9525	15	0 (M)
82 Dibenzofuran	168	14.285	14.280	(1.031)	1228073	71.0205	36	9473
86 Diethylphthalate	149	15.134	15.129	(1.092)	936970	66.3161	33	7538
93 N-Nitrosodiphenylamine	169	15.462	15.457	(0.903)	702208	66.1135	33	8295
116 Di-n-butylphthalate	149	18.809	18.804	(1.098)	1678223	65.1734	32	9658
121 Fluoranthene	202	19.863	19.858	(1.160)	1444941	72.0399	36	9676
123 Pyrene	202	20.344	20.339	(0.880)	1531041	74.8202	37	9628
128 Butylbenzylphthalate	149	22.146	22.141	(0.958)	772990	71.7189	36	9616
129 3,3'-Dimethylbenzidine	212	22.003	21.997	(0.952)	375343	51.8306	26	9440
132 bis(2-ethylhexyl)Phthalate	149	23.558	23.553	(1.019)	1099161	75.0902	38	9358
133 Benzo(a)anthracene	228	23.077	23.072	(0.998)	1426159	74.1045	37	
135 Di-n-octylphthalate	149	24.869	24.863	(0.953)	1631011	66.8065	33	
137 Benzo(b)fluoranthene	252	25.380	25.375	(0.972)	1555905	71.7808	36	
138 Benzo(k)fluoranthene	252	25.431	25.426	(0.974)	1599078	84.1797	42	
139 Benzo(a)pyrene	252	25.994	25.979	(0.996)	1388380	73.5475	37	
141 Indeno(1,2,3-c,d)pyrene	276	28.533	28.507	(1.093)	1317893	75.0576	38	0 (M)
142 Dibenzo(a,h)anthracene	278	28.615	28.599	(1.096)	1249130	71.8950	36	8022

QC Flag Legend

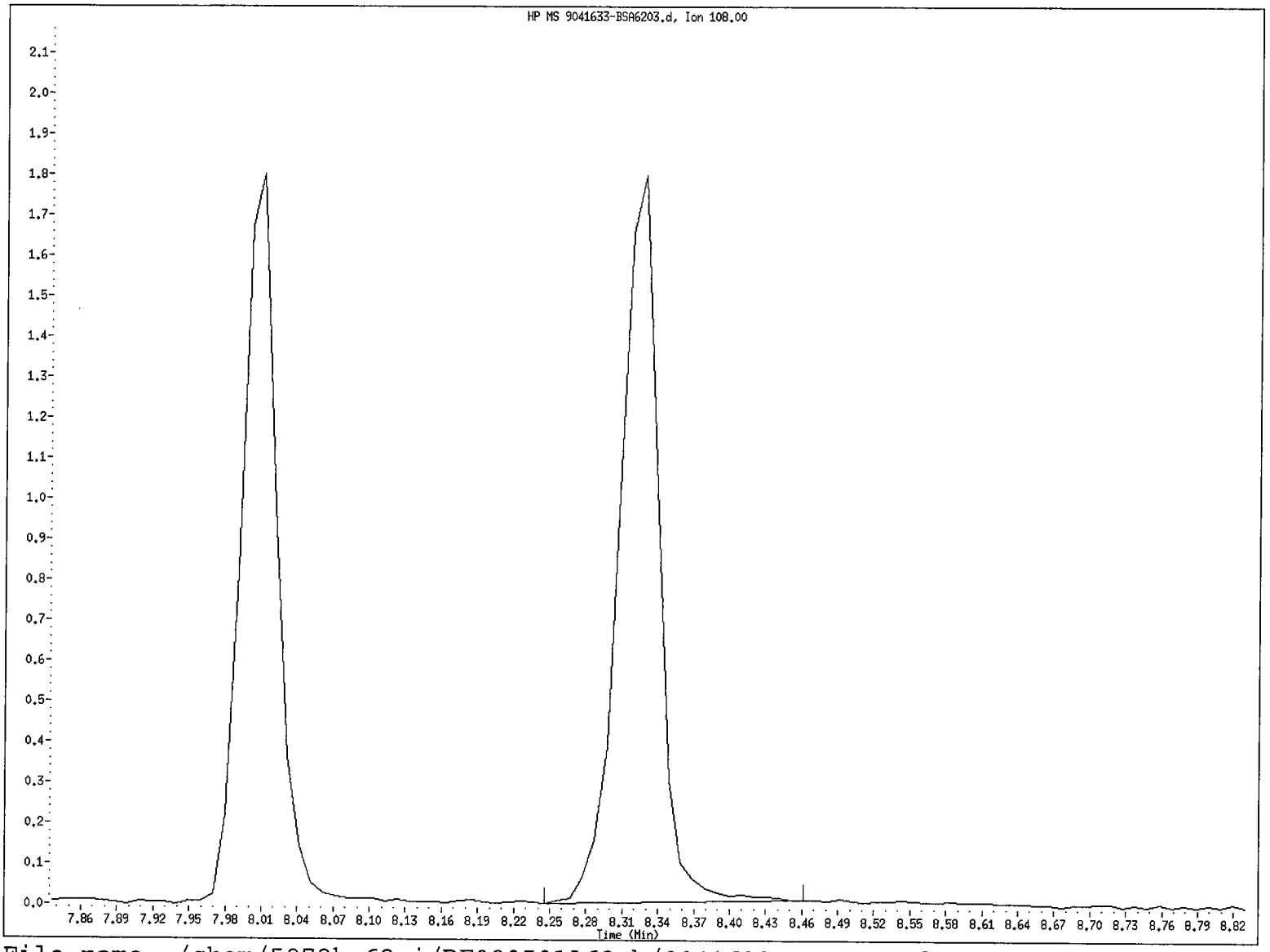
M - Compound response manually integrated.

3-Methylphenol CAS Number 108-39-4 Area = 400151 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.33
Operator ID: 2650

4-Methylphenol CAS Number 106-44-5 Area = 411378 Manually integrated



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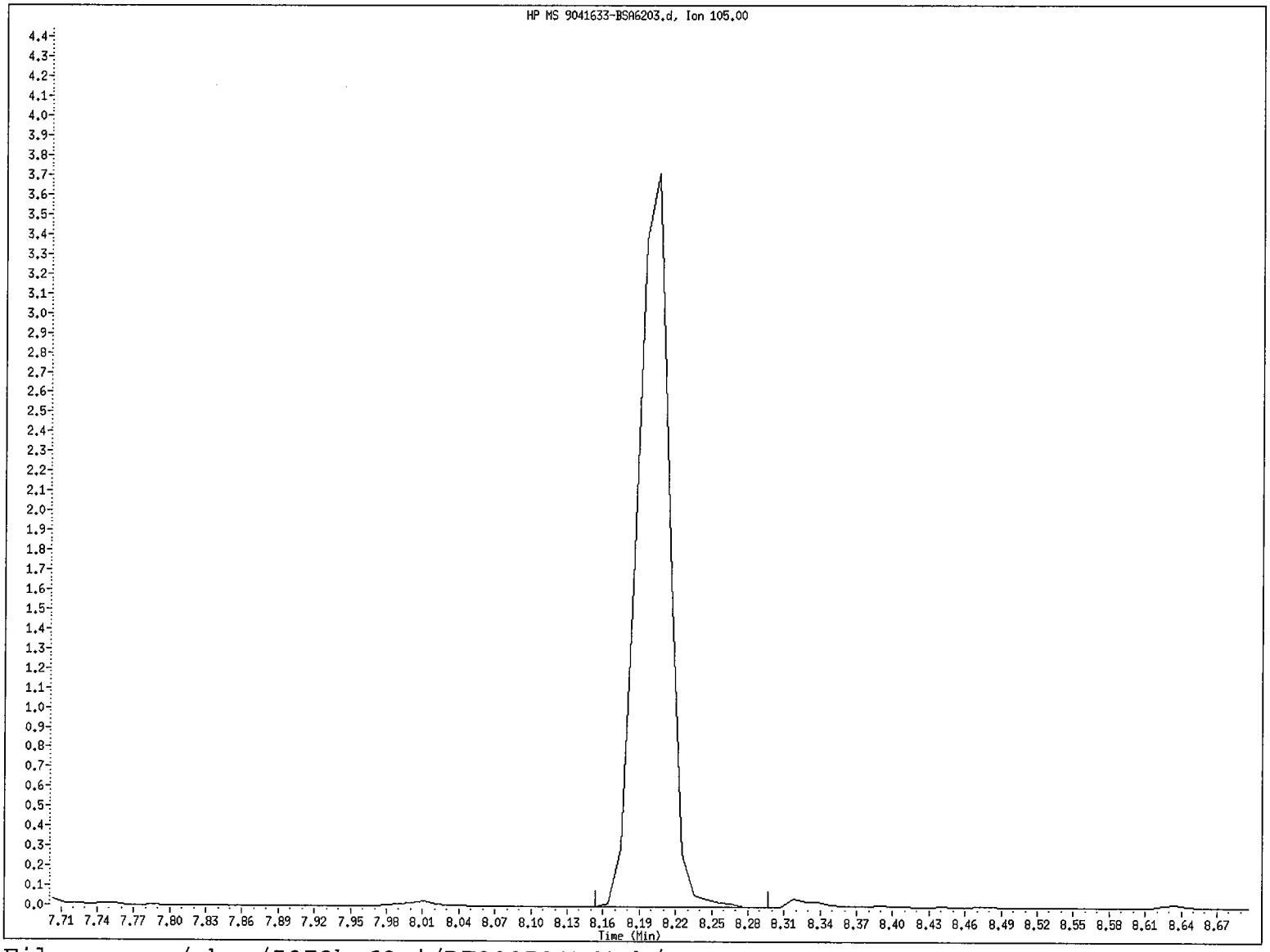
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.33
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 681579 Manually integrated



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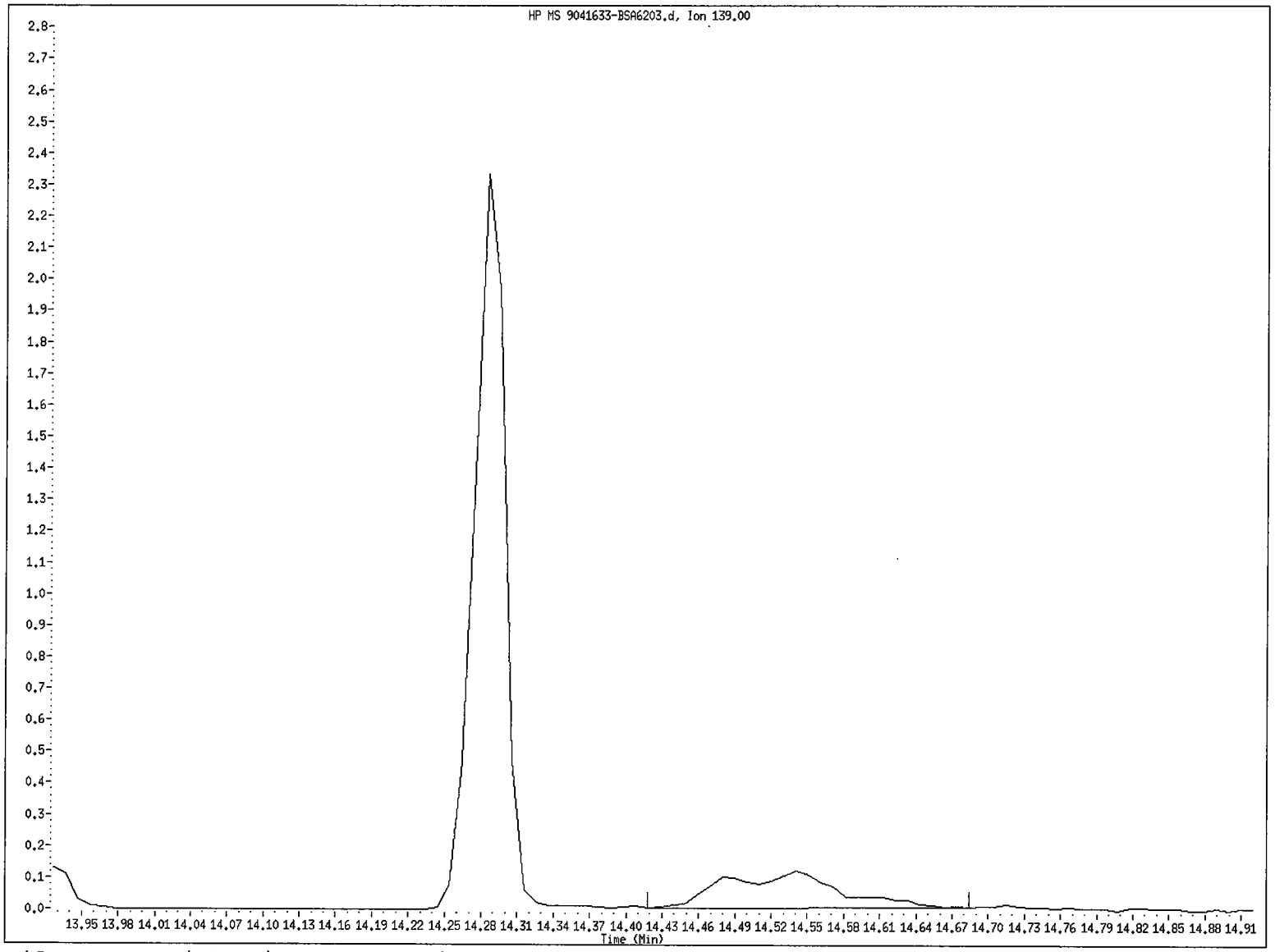
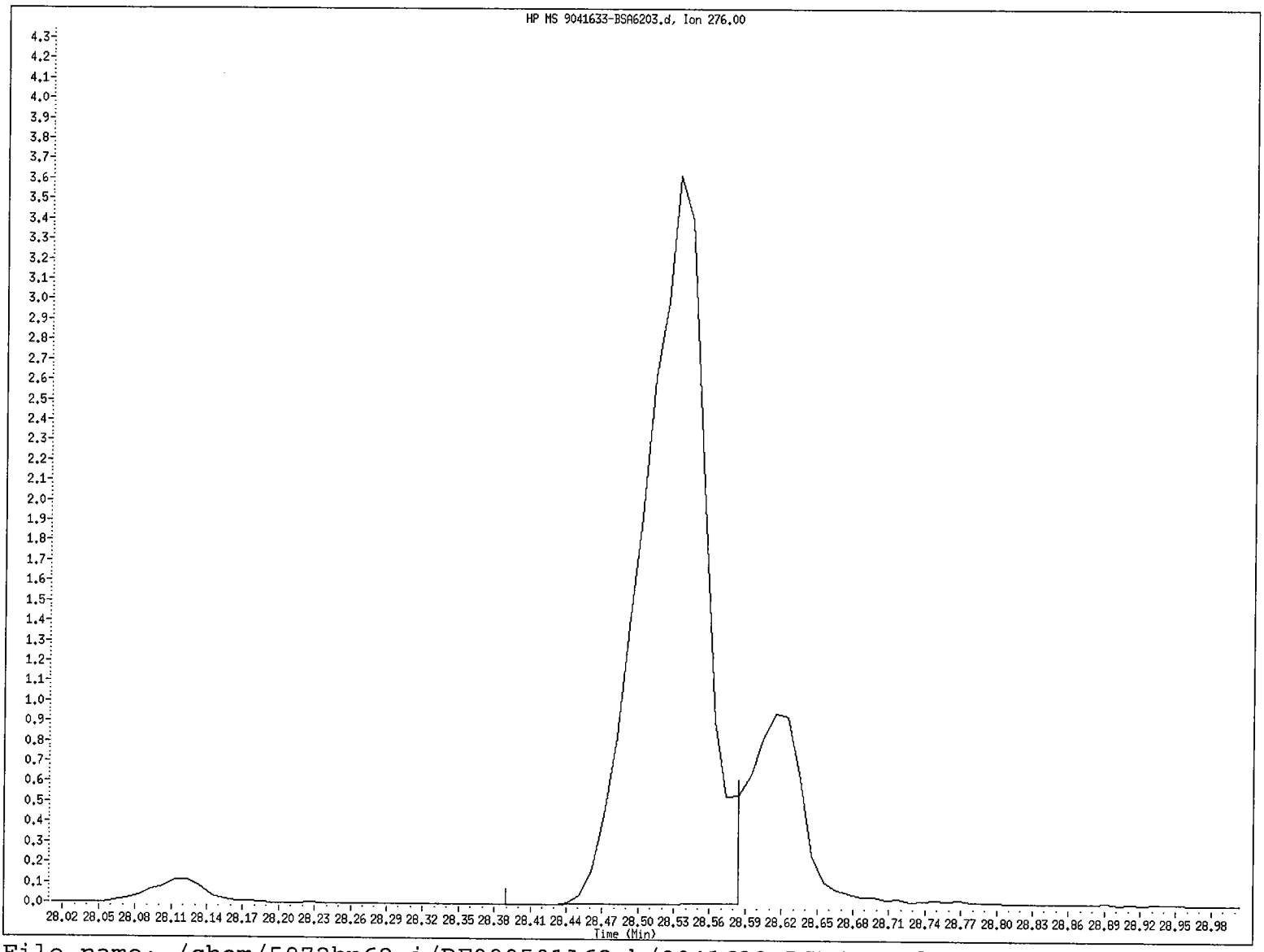
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.20
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 76968 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 14.54
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1317893 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6203.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 28.53
Operator ID: 2650

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6203

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

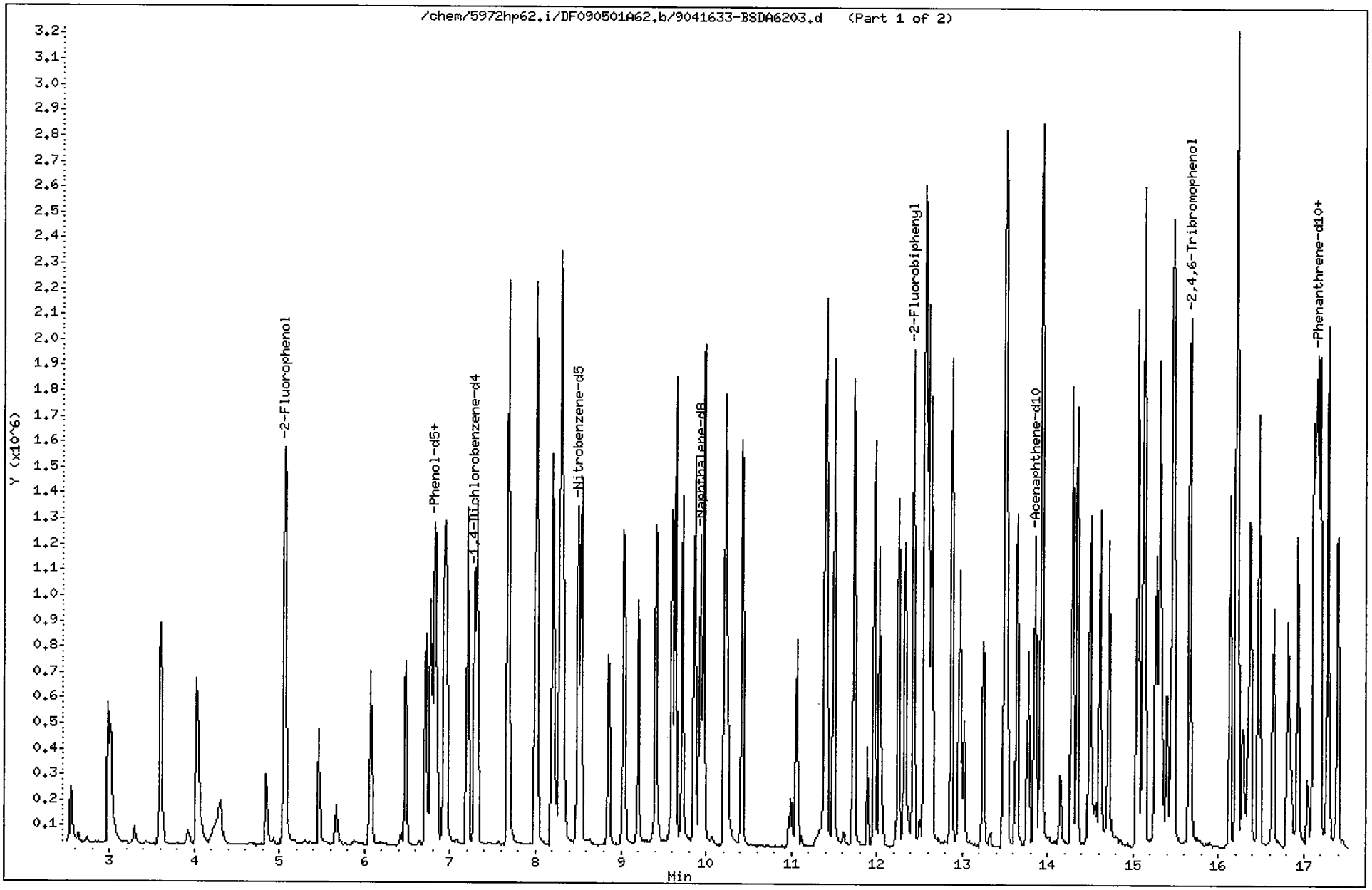
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	20	
95-57-8	2-Chlorophenol	32	
108-39-4	3-Methylphenol	31	
106-44-5	4-Methylphenol	32	
98-86-2	Acetophenone	33	
67-72-1	Hexachloroethane	26	
98-95-3	Nitrobenzene	38	
120-83-2	2,4-Dichlorophenol	31	
131-11-3	Dimethylphthalate	35	
100-02-7	4-Nitrophenol	16	
132-64-9	Dibenzofuran	35	
84-66-2	Diethylphthalate	34	
86-30-6	N-Nitrosodiphenylamine (1)	34	
84-74-2	Di-n-butylphthalate	33	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
85-68-7	Butylbenzylphthalate	37	
119-93-7	3,3'-Dimethylbenzidine	28	
117-81-7	bis(2-ethylhexyl)Phthalate	37	
56-55-3	Benzo(a)anthracene	37	
117-84-0	Di-n-octylphthalate	38	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	38	
50-32-8	Benzo(a)pyrene	37	
193-39-5	Indeno(1,2,3-c,d)pyrene	36	
53-70-3	Dibenzo(a,h)anthracene	37	

(1) - Cannot be separated from Diphenylamine

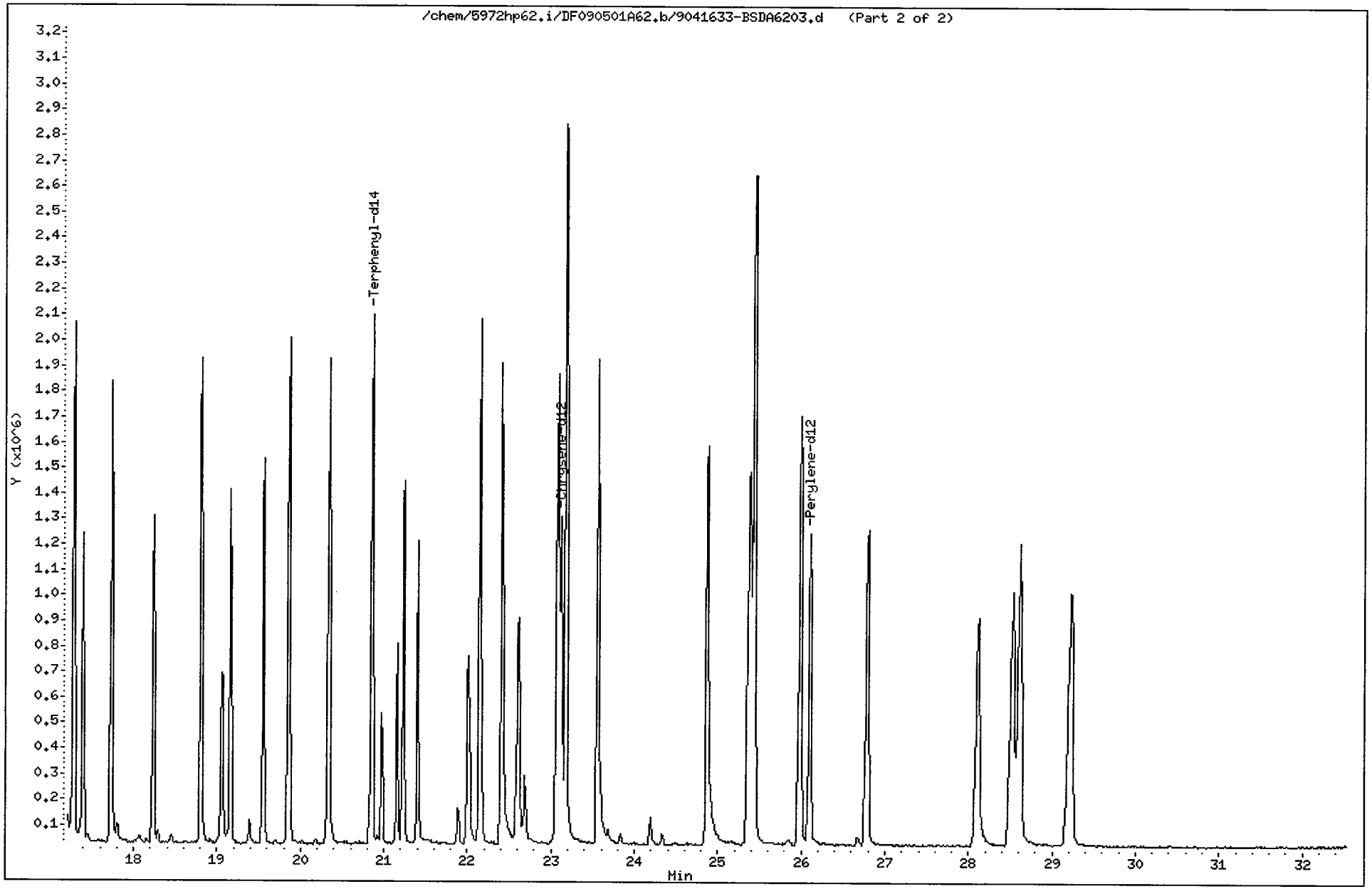
Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Date : 01-MAY-2009 19:07
Client ID: SGVLCSD
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Date : 01-MAY-2009 19:07
Client ID: SGVLCSD
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Report Date: 05-May-2009 16:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Lab Smp Id: 9041633-BSD Client Smp ID: SGVLCSD
Inj Date : 01-MAY-2009 19:07
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-BSD:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 16:54 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 15 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13SPC.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1	1,4-Dichlorobenzene-d4	152	7.288	7.279	(1.000)	279423	40.0000		
* 2	Naphthalene-d8	136	9.929	9.930	(1.000)	963426	40.0000		
* 3	Acenaphthene-d10	164	13.859	13.850	(1.000)	458776	40.0000		
* 4	Phenanthrene-d10	188	17.135	17.125	(1.000)	753738	40.0000		
* 5	Chrysene-d12	240	23.123	23.103	(1.000)	837720	40.0000		
* 6	Perylene-d12	264	26.101	26.092	(1.000)	867138	40.0000		
$ 7	2-Fluorophenol	112	5.057	5.047	(0.694)	838993	122.097	61	
$ 8	Phenol-d5	99	6.817	6.818	(0.935)	679286	80.4761	40	
$ 11	Nitrobenzene-d5	82	8.496	8.497	(0.856)	744361	82.5279	41	
$ 12	2-Fluorobiphenyl	172	12.437	12.427	(0.897)	1057870	72.3852	36	
$ 13	2,4,6-Tribromophenol	330	15.671	15.662	(1.131)	565976	132.990	66	
$ 14	Terphenyl-d14	244	20.860	20.851	(0.902)	1124626	71.2070	36	
23	Phenol	94	6.838	6.838	(0.938)	343996	39.4237	20	
27	2-Chlorophenol	128	6.950	6.951	(0.954)	511983	64.4051	32	9473
35	3-Methylphenol	108	8.322	8.333	(1.142)	420656	62.4898	31	(M)

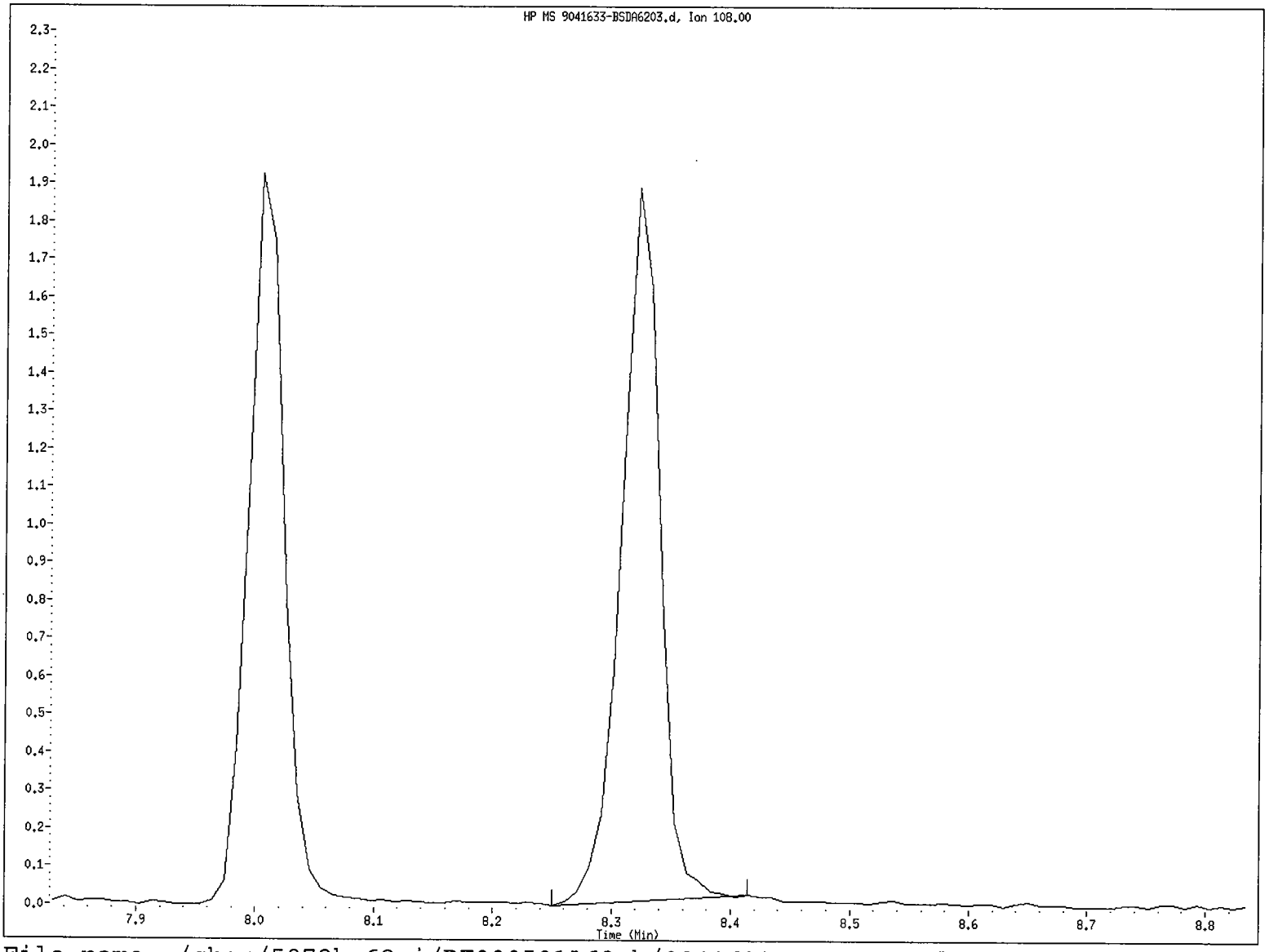
Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Report Date: 05-May-2009 16:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
36 4-Methylphenol	108	8.322	8.333	(1.142)	431442	64.0921	32	(M)
39 Acetophenone	105	8.199	8.200	(0.826)	719581	66.4520	33	0 (M)
42 Hexachloroethane	117	8.281	8.271	(1.136)	225012	53.1464	26	9666
43 Nitrobenzene	77	8.537	8.527	(0.860)	661432	77.0815	38	9096
51 2,4-Dichlorophenol	162	9.724	9.725	(0.979)	419550	61.4699	31	
72 Dimethylphthalate	163	13.521	13.512	(0.976)	965312	69.4890	35	9357
79 4-Nitrophenol	139	14.535	14.423	(1.049)	84063	32.3728	16	0 (M)
82 Dibenzofuran	168	14.289	14.280	(1.031)	1271510	70.4156	35	9379
86 Diethylphthalate	149	15.129	15.129	(1.092)	989358	67.0558	34	7630
93 N-Nitrosodiphenylamine	169	15.456	15.457	(0.902)	739362	67.7173	34	8906
116 Di-n-butylphthalate	149	18.813	18.804	(1.098)	1747929	66.0333	33	9704
121 Fluoranthene	202	19.868	19.858	(1.159)	1505724	73.0275	36	9785
123 Pyrene	202	20.349	20.339	(0.880)	1545474	73.2559	37	9688
128 Butylbenzylphthalate	149	22.150	22.141	(0.958)	825898	74.3250	37	9642
129 3,3'-Dimethylbenzidine	212	22.007	21.997	(0.952)	419869	56.2367	28	9501
132 bis(2-ethylhexyl)Phthalate	149	23.563	23.553	(1.019)	1125104	74.5527	37	9428
133 Benzo(a)anthracene	228	23.082	23.072	(0.998)	1465068	73.8385	37	
135 Di-n-octylphthalate	149	24.873	24.863	(0.953)	1864409	76.7630	38	
137 Benzo(b)fluoranthene	252	25.385	25.375	(0.973)	1688795	78.3160	39	
138 Benzo(k)fluoranthene	252	25.436	25.426	(0.975)	1447087	76.5739	38	
139 Benzo(a)pyrene	252	25.988	25.979	(0.996)	1406083	74.8719	37	
141 Indeno(1,2,3-c,d)pyrene	276	28.537	28.507	(1.093)	1278248	73.1776	36	9490
142 Dibenzo(a,h)anthracene	278	28.619	28.599	(1.096)	1276555	73.8549	37	8297

QC Flag Legend

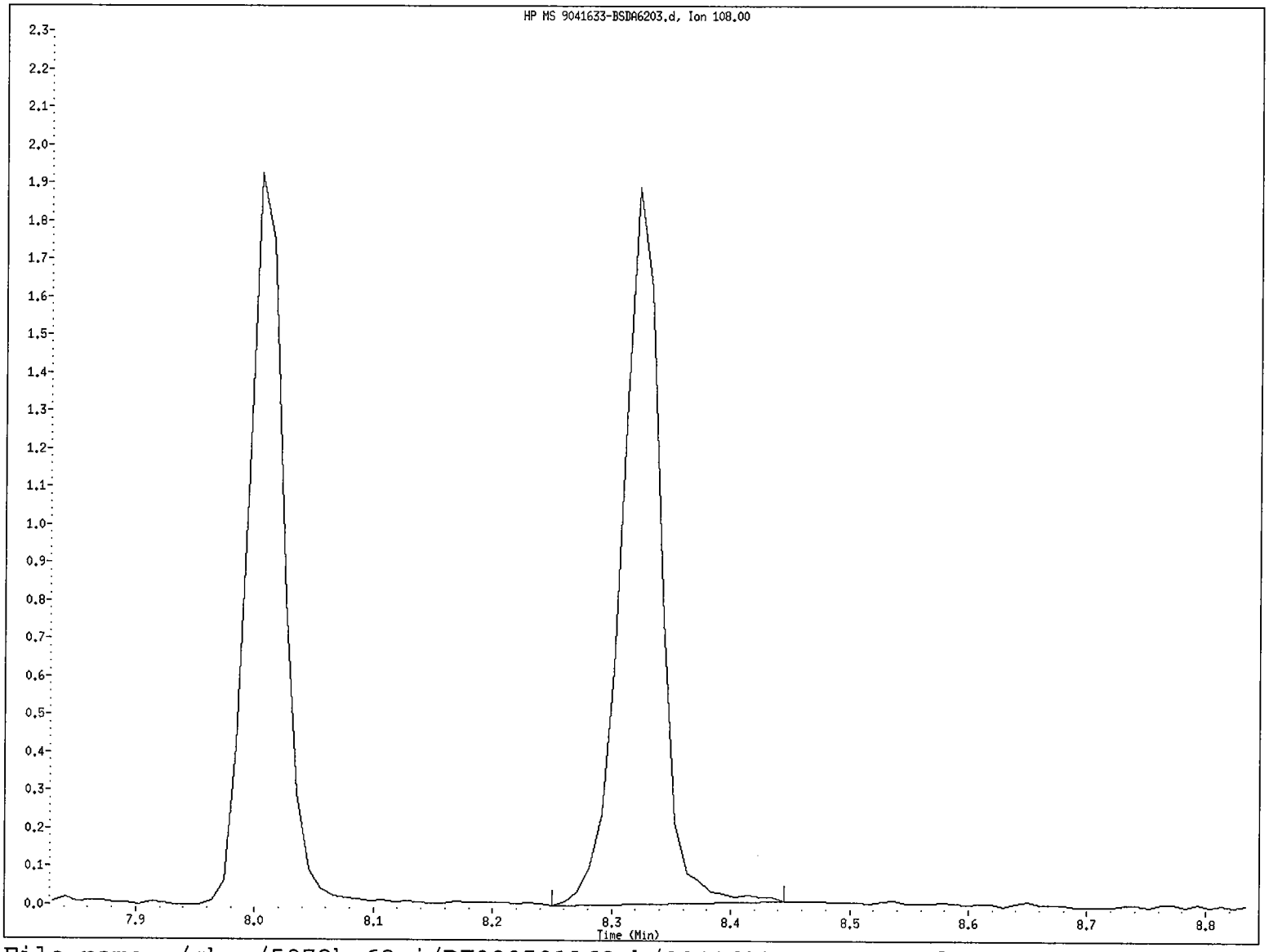
M - Compound response manually integrated.

3-Methylphenol CAS Number 108-39-4 Area = 420656 Manually integrated



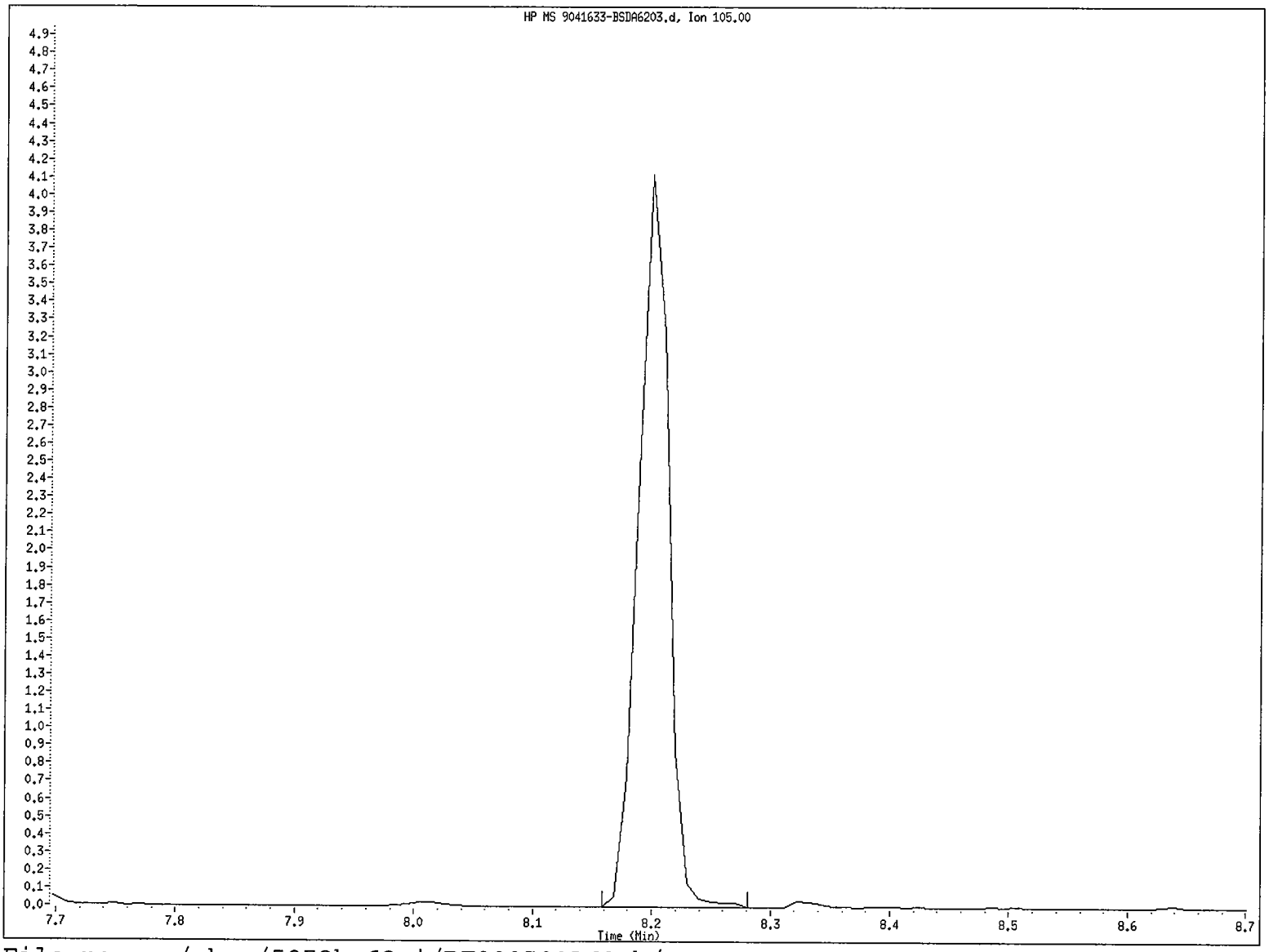
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.32
Operator ID: 2650

4-Methylphenol CAS Number 106-44-5 Area = 431442 Manually integrated



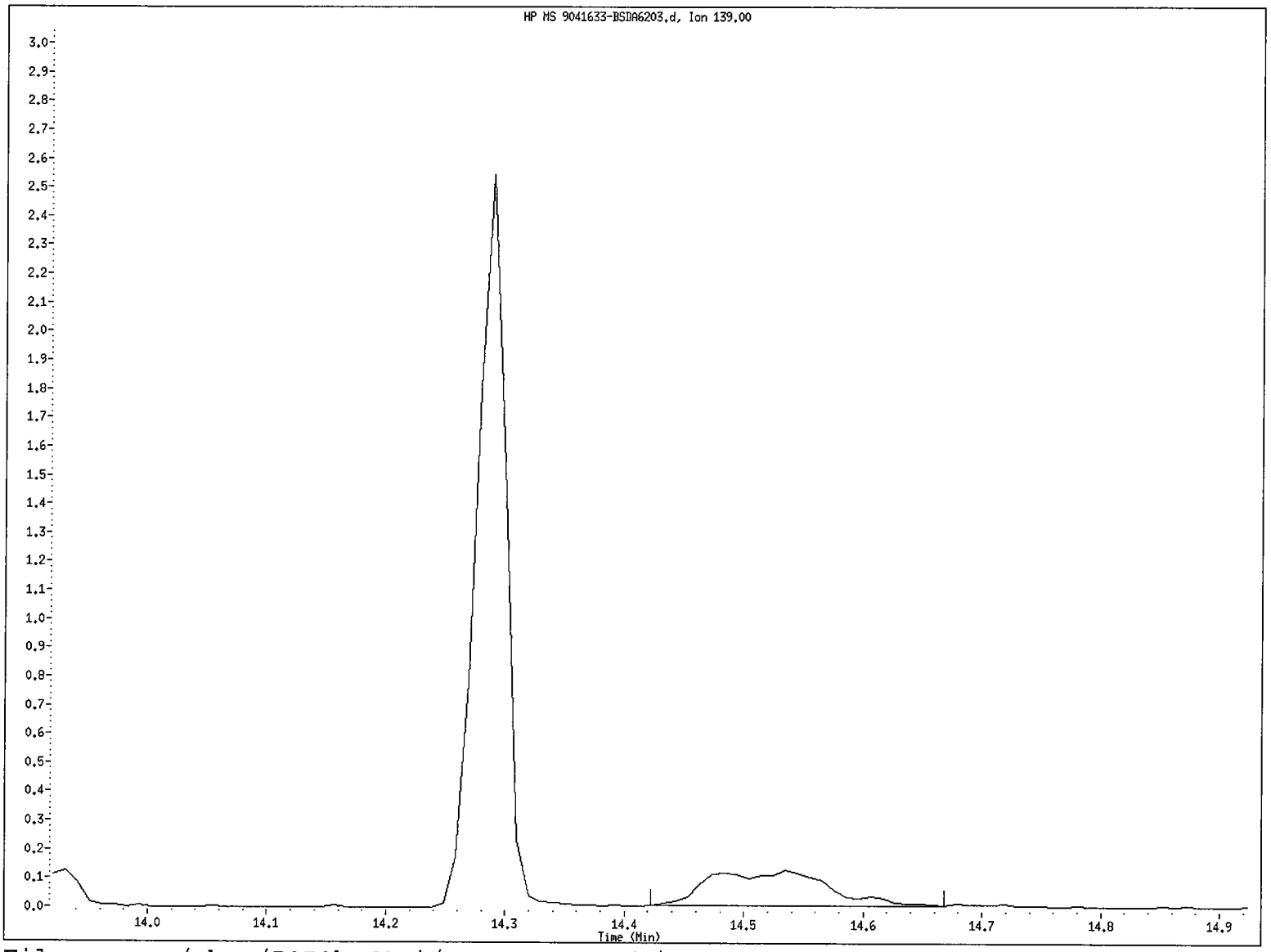
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.32
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 719581 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.20
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 84063 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6203.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 14.53
Operator ID: 2650

d. Matrix Spike Data

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

e. Matrix Spike Duplicate Data

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

CompuChem

A Division Of

Liberty Analytical Corp.

5/27/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904098

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER **Work:** 0904098

Project RAAP APPIX 2009/B03204-07 **Sdg:** 0904098

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904098-01	13MW5	Water	04/13/2009 08:50	04/15/2009 16:15
0904098-02	13MW3	Water	04/13/2009 12:00	04/15/2009 16:15
0904098-03	13MW4	Water	04/13/2009 10:35	04/15/2009 16:15
0904098-04	13MWDUP	Water	04/13/2009 10:50	04/15/2009 16:15
0904098-05	13MW6	Water	04/13/2009 07:40	04/15/2009 16:15
0904098-06	13MW7	Water	04/14/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

GC/MS by SW-846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)
Tentatively identified compounds (Form I, TIC)
In order by sample.

C. Surrogate spike analysis results (Form II)
By matrix (Water or Soil), and
by concentration (Low, Medium, or High)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)
Tentatively identified compounds (Form I, TIC)

F. Internal standard area response and retention time data (Form VIII)

LAB CODE : LIBRTY

METHOD: 8270C

SDG # : 0904098

A. SDG Narrative

CompuChem

A division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS:

13MW5	7W12B	7WCA	7WDUP	7MW6

The 6 aqueous samples listed above were received intact, properly refrigerated between 0.1°C and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the semivolatile fraction. SW-846, 3rd Edition, Update 3, Separatory Funnel extraction (Method 3510C), and Method 8270C were used to prepare and analyze these samples, with the exceptions and/or additions requested by the client. This portion of the SDG narrative deals with the semivolatile fraction only.

Semivolatile
Extraction and analysis holding time requirements were met for these samples.

There were no semivolatile Project analytes identified above the Quantitation Limit (QL) in any of these samples. No Tentatively Identified Compounds (TICs) were identified in any of these samples.

Manual integrations were performed on one or more of the process files associated with this SDG. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated to this SDG. Tailing factor criteria were met for pentachlorophenol and benzidine. The breakdown criterion was met for DDT. These three compounds have been added to the DFTPP solution and analyzed together.

There is no Form VII in the deliverables package for the batch analyzed on instrument 60 on 5/1/09 associated with the DFTPP injected at 1231. This batch included an initial calibration and the relevant relative response factors are all displayed on the appropriate Form VI. The initial calibration met all acceptance criteria and therefore samples could be analyzed without having to inject a continuing calibration verification standard.

Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG. However, the relevant response factors for p-phenylenediamine and methapyrilene failed in both the initial and continuing calibration. The client was contacted about this failure and their instructions were to proceed with analysis and reported data.

All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blanks met all quality control criteria.

13MW5 was used as the original to prepare the duplicate matrix spikes as requested. The associated duplicate matrix spikes met most of the advisory accuracy and precision criteria for the semivolatile fraction with this SDG.

The associated Laboratory Control Samples (LCS/LCSD) met overall accuracy criteria. However, SGVLCS/SGVLCSD was bias high for n-nitroso-di-n-propylamine, 2-nitroaniline, 2,2'-oxybis(1-chloropropane) and methapyrilene, and bias low for hexachloropropene. There were no detects in the associated samples.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that this data package complies with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Furthermore, I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice. Release of the data

contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Quentisha L. Forrester
Analyst II
May 14, 2009

Laboratory Notice

Calibration Date(s): 30-APR-2009 16:22 30-APR-2009 19:51

Instrument ID: 5972hp62

An initial calibration was analyzed by Method 8270C. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the initial calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8270C, Sec. 7.3.7.1, and Method 8000B, Section 7.5.1.2, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally, the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Compound Name	RSD
Diallate (trans) part of total	19.1
Bis(2-chloroethyl)ether	17.3
N-Nitrosopyrrolidine	35.1
N-Nitrosomorpholine	21.5
o-Toluidine	17.6
2,4-Dimethylphenol	15.2
Naphthalene	15.2
4-Chloroaniline	16.9
p-Phenylenediamine	54.7
Safrole	15.3
2-Chloronaphthalene	16.4
1,4-Napthoquinone	15.4
Acenaphthylene	16.3
Acenaphthene	17.9
2,4-Dinitrophenol	37.3
Pentachlorobenzene	15.1
Dibenzofuran	15.9
2-Naphthylamine	21.6
4-Chlorophenyl-phenylether	19.4
Fluorene	15.5
4,6-Dinitro-2-methylphenol	22.1
1,2-Diphenylhydrazine	16.6
1,3,5-Trinitrobenzene	22.4
Diallate (trans isomer)	19.1
Phorate	15.4
Dimethoate	17.5
Methyl Parathion	16.8
4-Nitroquinoline-1-oxide	20.6
Pyrene	16.3
Chrysene	18.2
Benzo(k)fluoranthene	17.2
Diallate Total	16.9
a,a-Dimethylphenethylamine	50.6
2-Fluorobiphenyl	15.9
Terphenyl-d14	15.5

Average %RSD for all compounds in the Initial Calibration: 12.2 %

Data Reviewer/ID: [illegible] / [illegible]

Date: 8/5/19

GC and GC/MS Column and Trap Specifications Table

SDG #:	0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
√	Restek	clpest	0.32	0.5	30
√	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
√	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
√	Restek	RTX-5MS	0.32	0.25	30
	Phenomonex	ZB-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
√	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 28

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Revision 6 (12/6/2005)

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches $\geq$ 85% in the SOM01.1 SOW), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations (responses in the SOM01.1 SOW) exceed the upper level of the calibration range (exceed the response of the high ICAL standard in the SOM01.1 SOW) of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range (greater than the response of the highest ICAL standard in the SOM01.1 SOW), the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range (with responses greater than the response of the highest ICAL standard in the SOM01.1 SOW) will have the concentration (result in the SOM01.1 SOW) flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration (response in the SOM01.1 SOW) of an analyte exceeds the upper calibration range (exceeds the response of the highest ICAL standard in the SOM01.1 SOW), the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.1 SOW, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I and Form I - TIC

Organic Analysis Data Sheet (OADS) and Tentatively Identified Compounds (TICs)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.3	U
110-86-1	Pyridine	5.3	U
109-06-8	2-Picoline	5.3	U
10595-95-6	Nitrosomethylethylamine	5.3	U
66-27-3	Methyl Methanesulfonate	5.3	U
55-18-5	N-Nitrosodiethylamine	5.3	U
62-50-0	Ethyl Methanesulfonate	5.3	U
108-95-2	Phenol	5.3	U
62-53-3	Aniline	5.3	U
111-44-4	Bis(2-chloroethyl)ether	5.3	U
95-57-8	2-Chlorophenol	5.3	U
100-51-6	Benzyl Alcohol	5.3	U
95-48-7	2-Methylphenol	5.3	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.3	U
930-55-2	N-Nitrosopyrrolidine	5.3	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.3	U
98-86-2	Acetophenone	5.3	U
59-89-2	N-Nitrosomorpholine	5.3	U
95-53-4	o-Toluidine	5.3	U
67-72-1	Hexachloroethane	5.3	U
98-95-3	Nitrobenzene	5.3	U
100-75-4	N-Nitrosopiperidine	5.3	U
78-59-1	Isophorone	5.3	U
88-75-5	2-Nitrophenol	5.3	U
105-67-9	2,4-Dimethylphenol	5.3	U
126-68-1	o,o,o-Triethylphosphorothioa	5.3	U
111-91-1	Bis(2-chloroethoxy)methane	5.3	U
120-83-2	2,4-Dichlorophenol	5.3	U
106-47-8	4-Chloroaniline	5.3	U
87-65-0	2,6-Dichlorophenol	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.3	U
924-16-3	N-Nitroso-di-n-butylamine	5.3	U
106-50-3	p-Phenylenediamine	53	U
59-50-7	4-Chloro-3-methylphenol	5.3	U
94-59-7	Safrole	5.3	U
91-57-6	2-Methylnaphthalene	5.3	U
77-47-4	Hexachlorocyclopentadiene	5.3	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.3	U
88-06-2	2,4,6-Trichlorophenol	5.3	U
95-95-4	2,4,5-Trichlorophenol	5.3	U
120-58-1	Isosafrole	5.3	U
91-58-7	2-Chloronaphthalene	5.3	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.3	U
131-11-3	Dimethylphthalate	5.3	U
208-96-8	Acenaphthylene	5.3	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.3	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.3	U
132-64-9	Dibenzofuran	5.3	U
134-32-7	1-Naphthylamine	5.3	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.3	U
91-59-8	2-Naphthylamine	5.3	U
84-66-2	Diethylphthalate	5.3	U
297-97-2	Zinophos	5.3	U
7005-72-3	4-Chlorophenyl-phenylether	5.3	U
99-55-8	5-Nitro-o-toluidine	5.3	U
86-73-7	Fluorene	5.3	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.3	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.3	U
17708-58-6	Diallate (trans isomer)	5.3	U
298-02-2	Phorate	5.3	U
62-44-2	Phenacetin	5.3	U
17708-57-5	Diallate (cis isomer)	5.3	U
101-55-3	4-Bromophenyl-phenylether	5.3	U
118-74-1	Hexachlorobenzene	5.3	U
60-51-5	Dimethoate	5.3	U
92-67-1	4-Aminobiphenyl	5.3	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.3	U
23950-58-5	Pronamide	5.3	U
298-04-4	Disulfoton	5.3	U
85-01-8	Phenanthrene	5.3	U
120-12-7	Anthracene	5.3	U
298-00-0	Methyl Parathion	5.3	U
84-74-2	Di-n-butylphthalate	5.3	U
56-38-2	Parathion	5.3	U
56-57-5	4-Nitroquinoline-1-oxide	5.3	U
91-80-5	Methapyrilene	5.3	U
465-73-6	Isodrin	5.3	U
206-44-0	Fluoranthene	5.3	U
129-00-0	Pyrene	5.3	U
60-11-7	p-Dimethylaminoazobenzene	5.3	U
510-15-6	Chlorobenzilate	5.3	U
52-85-7	Famfur	5.3	U
85-68-7	Butylbenzylphthalate	5.3	U
119-93-7	3,3'-Dimethylbenzidine	5.3	U
53-96-3	2-Acetylaminofluorene	5.3	U
91-94-1	3,3'-Dichlorobenzidine	5.3	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.3	U
56-55-3	Benzo(a)anthracene	5.3	U
218-01-9	Chrysene	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.3	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.3	U
205-99-2	Benzo(b)fluoranthene	5.3	U
207-08-9	Benzo(k)fluoranthene	5.3	U
50-32-8	Benzo(a)pyrene	5.3	U
56-49-5	3-Methylcholanthrene	5.3	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.3	U
53-70-3	Dibenzo(a,h)anthracene	5.3	U
191-24-2	Benzo(g,h,i)perylene	5.3	U
143-50-0	Kepone	5.3	U
2303-16-4	Diallate Total	5.3	U
122-09-8	a,a-Dimethylphenethylamine	53	U
140-57-8	Aramite	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-03A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.1	U
110-86-1	Pyridine	5.1	U
109-06-8	2-Picoline	5.1	U
10595-95-6	Nitrosomethylethylamine	5.1	U
66-27-3	Methyl Methanesulfonate	5.1	U
55-18-5	N-Nitrosodiethylamine	5.1	U
62-50-0	Ethyl Methanesulfonate	5.1	U
108-95-2	Phenol	5.1	U
62-53-3	Aniline	5.1	U
111-44-4	Bis(2-chloroethyl)ether	5.1	U
95-57-8	2-Chlorophenol	5.1	U
100-51-6	Benzyl Alcohol	5.1	U
95-48-7	2-Methylphenol	5.1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.1	U
930-55-2	N-Nitrosopyrrolidine	5.1	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.1	U
98-86-2	Acetophenone	5.1	U
59-89-2	N-Nitrosomorpholine	5.1	U
95-53-4	o-Toluidine	5.1	U
67-72-1	Hexachloroethane	5.1	U
98-95-3	Nitrobenzene	5.1	U
100-75-4	N-Nitrosopiperidine	5.1	U
78-59-1	Isophorone	5.1	U
88-75-5	2-Nitrophenol	5.1	U
105-67-9	2,4-Dimethylphenol	5.1	U
126-68-1	o,o,o-Triethylphosphorothioa	5.1	U
111-91-1	Bis(2-chloroethoxy)methane	5.1	U
120-83-2	2,4-Dichlorophenol	5.1	U
106-47-8	4-Chloroaniline	5.1	U
87-65-0	2,6-Dichlorophenol	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.1	U
924-16-3	N-Nitroso-di-n-butylamine	5.1	U
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	5.1	U
94-59-7	Safrole	5.1	U
91-57-6	2-Methylnaphthalene	5.1	U
77-47-4	Hexachlorocyclopentadiene	5.1	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.1	U
88-06-2	2,4,6-Trichlorophenol	5.1	U
95-95-4	2,4,5-Trichlorophenol	5.1	U
120-58-1	Isosafrole	5.1	U
91-58-7	2-Chloronaphthalene	5.1	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.1	U
131-11-3	Dimethylphthalate	5.1	U
208-96-8	Acenaphthylene	5.1	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.1	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.1	U
132-64-9	Dibenzofuran	5.1	U
134-32-7	1-Naphthylamine	5.1	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U
91-59-8	2-Naphthylamine	5.1	U
84-66-2	Diethylphthalate	5.1	U
297-97-2	Zinophos	5.1	U
7005-72-3	4-Chlorophenyl-phenylether	5.1	U
99-55-8	5-Nitro-o-toluidine	5.1	U
86-73-7	Fluorene	5.1	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.1	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.1	U
17708-58-6	Diallate (trans isomer)	5.1	U
298-02-2	Phorate	5.1	U
62-44-2	Phenacetin	5.1	U
17708-57-5	Diallate (cis isomer)	5.1	U
101-55-3	4-Bromophenyl-phenylether	5.1	U
118-74-1	Hexachlorobenzene	5.1	U
60-51-5	Dimethoate	5.1	U
92-67-1	4-Aminobiphenyl	5.1	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.1	U
23950-58-5	Pronamide	5.1	U
298-04-4	Disulfoton	5.1	U
85-01-8	Phenanthrene	5.1	U
120-12-7	Anthracene	5.1	U
298-00-0	Methyl Parathion	5.1	U
84-74-2	Di-n-butylphthalate	5.1	U
56-38-2	Parathion	5.1	U
56-57-5	4-Nitroquinoline-1-oxide	5.1	U
91-80-5	Methapyrilene	5.1	U
465-73-6	Isodrin	5.1	U
206-44-0	Fluoranthene	5.1	U
129-00-0	Pyrene	5.1	U
60-11-7	p-Dimethylaminoazobenzene	5.1	U
510-15-6	Chlorobenzilate	5.1	U
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	5.1	U
119-93-7	3,3'-Dimethylbenzidine	5.1	U
53-96-3	2-Acetylaminofluorene	5.1	U
91-94-1	3,3'-Dichlorobenzidine	5.1	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.1	U
56-55-3	Benzo(a)anthracene	5.1	U
218-01-9	Chrysene	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.1	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.1	U
205-99-2	Benzo(b)fluoranthene	5.1	U
207-08-9	Benzo(k)fluoranthene	5.1	U
50-32-8	Benzo(a)pyrene	5.1	U
56-49-5	3-Methylcholanthrene	5.1	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.1	U
53-70-3	Dibenzo(a,h)anthracene	5.1	U
191-24-2	Benzo(g,h,i)perylene	5.1	U
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	5.1	U
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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9.					
10.					
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FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-05A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
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FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.1	U
110-86-1	Pyridine	5.1	U
109-06-8	2-Picoline	5.1	U
10595-95-6	Nitrosomethylethylamine	5.1	U
66-27-3	Methyl Methanesulfonate	5.1	U
55-18-5	N-Nitrosodiethylamine	5.1	U
62-50-0	Ethyl Methanesulfonate	5.1	U
108-95-2	Phenol	5.1	U
62-53-3	Aniline	5.1	U
111-44-4	Bis(2-chloroethyl)ether	5.1	U
95-57-8	2-Chlorophenol	5.1	U
100-51-6	Benzyl Alcohol	5.1	U
95-48-7	2-Methylphenol	5.1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.1	U
930-55-2	N-Nitrosopyrrolidine	5.1	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.1	U
98-86-2	Acetophenone	5.1	U
59-89-2	N-Nitrosomorpholine	5.1	U
95-53-4	o-Toluidine	5.1	U
67-72-1	Hexachloroethane	5.1	U
98-95-3	Nitrobenzene	5.1	U
100-75-4	N-Nitrosopiperidine	5.1	U
78-59-1	Isophorone	5.1	U
88-75-5	2-Nitrophenol	5.1	U
105-67-9	2,4-Dimethylphenol	5.1	U
126-68-1	o,o,o-Triethylphosphorothioa	5.1	U
111-91-1	Bis(2-chloroethoxy)methane	5.1	U
120-83-2	2,4-Dichlorophenol	5.1	U
106-47-8	4-Chloroaniline	5.1	U
87-65-0	2,6-Dichlorophenol	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.1	U
924-16-3	N-Nitroso-di-n-butylamine	5.1	U
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	5.1	U
94-59-7	Safrole	5.1	U
91-57-6	2-Methylnaphthalene	5.1	U
77-47-4	Hexachlorocyclopentadiene	5.1	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.1	U
88-06-2	2,4,6-Trichlorophenol	5.1	U
95-95-4	2,4,5-Trichlorophenol	5.1	U
120-58-1	Isosafrole	5.1	U
91-58-7	2-Chloronaphthalene	5.1	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.1	U
131-11-3	Dimethylphthalate	5.1	U
208-96-8	Acenaphthylene	5.1	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.1	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.1	U
132-64-9	Dibenzofuran	5.1	U
134-32-7	1-Naphthylamine	5.1	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U
91-59-8	2-Naphthylamine	5.1	U
84-66-2	Diethylphthalate	5.1	U
297-97-2	Zinophos	5.1	U
7005-72-3	4-Chlorophenyl-phenylether	5.1	U
99-55-8	5-Nitro-o-toluidine	5.1	U
86-73-7	Fluorene	5.1	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.1	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.1	U
17708-58-6	Diallate (trans isomer)	5.1	U
298-02-2	Phorate	5.1	U
62-44-2	Phenacetin	5.1	U
17708-57-5	Diallate (cis isomer)	5.1	U
101-55-3	4-Bromophenyl-phenylether	5.1	U
118-74-1	Hexachlorobenzene	5.1	U
60-51-5	Dimethoate	5.1	U
92-67-1	4-Aminobiphenyl	5.1	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.1	U
23950-58-5	Pronamide	5.1	U
298-04-4	Disulfoton	5.1	U
85-01-8	Phenanthrene	5.1	U
120-12-7	Anthracene	5.1	U
298-00-0	Methyl Parathion	5.1	U
84-74-2	Di-n-butylphthalate	5.1	U
56-38-2	Parathion	5.1	U
56-57-5	4-Nitroquinoline-1-oxide	5.1	U
91-80-5	Methapyrilene	5.1	U
465-73-6	Isodrin	5.1	U
206-44-0	Fluoranthene	5.1	U
129-00-0	Pyrene	5.1	U
60-11-7	p-Dimethylaminoazobenzene	5.1	U
510-15-6	Chlorobenzilate	5.1	U
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	5.1	U
119-93-7	3,3'-Dimethylbenzidine	5.1	U
53-96-3	2-Acetylaminofluorene	5.1	U
91-94-1	3,3'-Dichlorobenzidine	5.1	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.1	U
56-55-3	Benzo(a)anthracene	5.1	U
218-01-9	Chrysene	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.1	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.1	U
205-99-2	Benzo(b)fluoranthene	5.1	U
207-08-9	Benzo(k)fluoranthene	5.1	U
50-32-8	Benzo(a)pyrene	5.1	U
56-49-5	3-Methylcholanthrene	5.1	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.1	U
53-70-3	Dibenzo(a,h)anthracene	5.1	U
191-24-2	Benzo(g,h,i)perylene	5.1	U
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	5.1	U
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	31	
110-86-1	Pyridine	31	
109-06-8	2-Picoline	34	
10595-95-6	Nitrosomethylethylamine	42	
66-27-3	Methyl Methanesulfonate	35	
55-18-5	N-Nitrosodiethylamine	41	
62-50-0	Ethyl Methanesulfonate	43	
108-95-2	Phenol	18	
62-53-3	Aniline	40	
111-44-4	Bis(2-chloroethyl)ether	44	
95-57-8	2-Chlorophenol	35	
100-51-6	Benzyl Alcohol	35	
95-48-7	2-Methylphenol	35	
108-60-1	2,2'-oxybis(1-Chloropropane)	62	
930-55-2	N-Nitrosopyrrolidine	54	
108-39-4	3-Methylphenol	35	
106-44-5	4-Methylphenol	35	
1319-77-3	3-4-Methylphenol	35	
621-64-7	N-Nitroso-di-N-propylamine	48	
98-86-2	Acetophenone	35	
59-89-2	N-Nitrosomorpholine	41	
95-53-4	o-Toluidine	40	
67-72-1	Hexachloroethane	34	
98-95-3	Nitrobenzene	43	
100-75-4	N-Nitrosopiperidine	37	
78-59-1	Isophorone	46	
88-75-5	2-Nitrophenol	34	
105-67-9	2,4-Dimethylphenol	32	
126-68-1	o,o,o-Triethylphosphorothioa	33	
111-91-1	Bis(2-chloroethoxy)methane	38	
120-83-2	2,4-Dichlorophenol	34	
106-47-8	4-Chloroaniline	38	
87-65-0	2,6-Dichlorophenol	34	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	25	
924-16-3	N-Nitroso-di-n-butylamine	44	
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	34	
94-59-7	Safrole	33	
91-57-6	2-Methylnaphthalene	37	
77-47-4	Hexachlorocyclopentadiene	30	
95-94-3	1,2,4,5-Tetrachlorobenzene	29	
88-06-2	2,4,6-Trichlorophenol	33	
95-95-4	2,4,5-Trichlorophenol	34	
120-58-1	Isosafrole	33	
91-58-7	2-Chloronaphthalene	36	
88-74-4	2-Nitroaniline	53	
130-15-4	1,4-Napthoquinone	38	
131-11-3	Dimethylphthalate	36	
208-96-8	Acenaphthylene	37	
99-09-2	3-Nitroaniline	45	
83-32-9	Acenaphthene	36	
51-28-5	2,4-Dinitrophenol	43	
100-02-7	4-Nitrophenol	18	
608-93-5	Pentachlorobenzene	31	
132-64-9	Dibenzofuran	36	
134-32-7	1-Naphthylamine	81	
58-90-2	2,3,4,6-Tetrachlorophenol	33	
91-59-8	2-Naphthylamine	74	
84-66-2	Diethylphthalate	36	
297-97-2	Zinophos	35	
7005-72-3	4-Chlorophenyl-phenylether	32	
99-55-8	5-Nitro-o-toluidine	42	
86-73-7	Fluorene	38	
100-01-6	4-Nitroaniline	47	
534-52-1	4,6-Dinitro-2-methylphenol	42	
86-30-6	N-Nitrosodiphenylamine (1)	38	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	33	
17708-58-6	Diallate (trans isomer)	22	
298-02-2	Phorate	39	
62-44-2	Phenacetin	37	
17708-57-5	Diallate (cis isomer)	11	
101-55-3	4-Bromophenyl-phenylether	28	
118-74-1	Hexachlorobenzene	33	
60-51-5	Dimethoate	42	
92-67-1	4-Aminobiphenyl	40	
87-86-5	Pentachlorophenol	42	
82-68-8	Pentachloronitrobenzene	31	
23950-58-5	Pronamide	38	
298-04-4	Disulfoton	42	
85-01-8	Phenanthrene	39	
120-12-7	Anthracene	38	
298-00-0	Methyl Parathion	47	
84-74-2	Di-n-butylphthalate	36	
56-38-2	Parathion	40	
56-57-5	4-Nitroquinoline-1-oxide	40	
91-80-5	Methapyrilene	89	E
465-73-6	Isodrin	35	
206-44-0	Fluoranthene	41	
129-00-0	Pyrene	37	
60-11-7	p-Dimethylaminoazobenzene	36	
510-15-6	Chlorobenzilate	25	
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	38	
119-93-7	3,3'-Dimethylbenzidine	58	
53-96-3	2-Acetylaminofluorene	31	
91-94-1	3,3'-Dichlorobenzidine	34	
117-81-7	bis(2-ethylhexyl)Phthalate	37	
56-55-3	Benzo(a)anthracene	38	
218-01-9	Chrysene	38	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	35	
57-97-6	7,12-Dimethylbenz(a)anthrace	38	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	44	
50-32-8	Benzo(a)pyrene	41	
56-49-5	3-Methylcholanthrene	36	
193-39-5	Indeno(1,2,3-c,d)pyrene	36	
53-70-3	Dibenzo(a,h)anthracene	34	
191-24-2	Benzo(g,h,i)perylene	36	
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	38	
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	36	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	7.7	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS2

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	6.7	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	33	
110-86-1	Pyridine	32	
109-06-8	2-Picoline	38	
10595-95-6	Nitrosomethylethylamine	44	
66-27-3	Methyl Methanesulfonate	37	
55-18-5	N-Nitrosodiethylamine	42	
62-50-0	Ethyl Methanesulfonate	46	
108-95-2	Phenol	20	
62-53-3	Aniline	42	
111-44-4	Bis(2-chloroethyl)ether	44	
95-57-8	2-Chlorophenol	37	
100-51-6	Benzyl Alcohol	38	
95-48-7	2-Methylphenol	36	
108-60-1	2,2'-oxybis(1-Chloropropane)	63	
930-55-2	N-Nitrosopyrrolidine	52	
108-39-4	3-Methylphenol	36	
106-44-5	4-Methylphenol	36	
1319-77-3	3-4-Methylphenol	36	
621-64-7	N-Nitroso-di-N-propylamine	49	
98-86-2	Acetophenone	39	
59-89-2	N-Nitrosomorpholine	47	
95-53-4	o-Toluidine	42	
67-72-1	Hexachloroethane	36	
98-95-3	Nitrobenzene	50	
100-75-4	N-Nitrosopiperidine	42	
78-59-1	Isophorone	50	
88-75-5	2-Nitrophenol	39	
105-67-9	2,4-Dimethylphenol	35	
126-68-1	o,o,o-Triethylphosphorothioa	37	
111-91-1	Bis(2-chloroethoxy)methane	42	
120-83-2	2,4-Dichlorophenol	37	
106-47-8	4-Chloroaniline	44	
87-65-0	2,6-Dichlorophenol	38	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	28	
924-16-3	N-Nitroso-di-n-butylamine	46	
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	39	
94-59-7	Safrole	36	
91-57-6	2-Methylnaphthalene	43	
77-47-4	Hexachlorocyclopentadiene	30	
95-94-3	1,2,4,5-Tetrachlorobenzene	31	
88-06-2	2,4,6-Trichlorophenol	36	
95-95-4	2,4,5-Trichlorophenol	36	
120-58-1	Isosafrole	36	
91-58-7	2-Chloronaphthalene	40	
88-74-4	2-Nitroaniline	55	
130-15-4	1,4-Napthoquinone	41	
131-11-3	Dimethylphthalate	38	
208-96-8	Acenaphthylene	39	
99-09-2	3-Nitroaniline	48	
83-32-9	Acenaphthene	39	
51-28-5	2,4-Dinitrophenol	46	
100-02-7	4-Nitrophenol	20	
608-93-5	Pentachlorobenzene	32	
132-64-9	Dibenzofuran	38	
134-32-7	1-Naphthylamine	83	E
58-90-2	2,3,4,6-Tetrachlorophenol	36	
91-59-8	2-Naphthylamine	69	
84-66-2	Diethylphthalate	37	
297-97-2	Zinophos	36	
7005-72-3	4-Chlorophenyl-phenylether	34	
99-55-8	5-Nitro-o-toluidine	44	
86-73-7	Fluorene	39	
100-01-6	4-Nitroaniline	50	
534-52-1	4,6-Dinitro-2-methylphenol	45	
86-30-6	N-Nitrosodiphenylamine (1)	38	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	34	
17708-58-6	Diallate (trans isomer)	22	
298-02-2	Phorate	40	
62-44-2	Phenacetin	40	
17708-57-5	Diallate (cis isomer)	13	
101-55-3	4-Bromophenyl-phenylether	31	
118-74-1	Hexachlorobenzene	34	
60-51-5	Dimethoate	48	
92-67-1	4-Aminobiphenyl	40	
87-86-5	Pentachlorophenol	44	
82-68-8	Pentachloronitrobenzene	33	
23950-58-5	Pronamide	37	
298-04-4	Disulfoton	44	
85-01-8	Phenanthrene	39	
120-12-7	Anthracene	40	
298-00-0	Methyl Parathion	49	
84-74-2	Di-n-butylphthalate	37	
56-38-2	Parathion	41	
56-57-5	4-Nitroquinoline-1-oxide	43	
91-80-5	Methapyrilene	140	E
465-73-6	Isodrin	34	
206-44-0	Fluoranthene	42	
129-00-0	Pyrene	40	
60-11-7	p-Dimethylaminoazobenzene	33	
510-15-6	Chlorobenzilate	26	
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	39	
119-93-7	3,3'-Dimethylbenzidine	63	
53-96-3	2-Acetylaminofluorene	33	
91-94-1	3,3'-Dichlorobenzidine	34	
117-81-7	bis(2-ethylhexyl)Phthalate	38	
56-55-3	Benzo(a)anthracene	38	
218-01-9	Chrysene	40	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	39	
57-97-6	7,12-Dimethylbenz(a)anthrace	45	
205-99-2	Benzo(b)fluoranthene	45	
207-08-9	Benzo(k)fluoranthene	49	
50-32-8	Benzo(a)pyrene	48	
56-49-5	3-Methylcholanthrene	41	
193-39-5	Indeno(1,2,3-c,d)pyrene	43	
53-70-3	Dibenzo(a,h)anthracene	40	
191-24-2	Benzo(g,h,i)perylene	42	
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	40	
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	40	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A6

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
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25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	11	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD2

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	8.4	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	29	
110-86-1	Pyridine	28	
109-06-8	2-Picoline	32	
10595-95-6	Nitrosomethylethylamine	39	
66-27-3	Methyl Methanesulfonate	16	
55-18-5	N-Nitrosodiethylamine	37	
62-50-0	Ethyl Methanesulfonate	36	
108-95-2	Phenol	20	
62-53-3	Aniline	33	
111-44-4	Bis(2-chloroethyl)ether	40	
95-57-8	2-Chlorophenol	33	
100-51-6	Benzyl Alcohol	34	
95-48-7	2-Methylphenol	33	
108-60-1	2,2'-oxybis(1-Chloropropane)	49	
930-55-2	N-Nitrosopyrrolidine	43	
108-39-4	3-Methylphenol	33	
106-44-5	4-Methylphenol	34	
1319-77-3	3-4-Methylphenol	34	
621-64-7	N-Nitroso-di-N-propylamine	46	
98-86-2	Acetophenone	33	
59-89-2	N-Nitrosomorpholine	35	
95-53-4	o-Toluidine	30	
67-72-1	Hexachloroethane	30	
98-95-3	Nitrobenzene	39	
100-75-4	N-Nitrosopiperidine	33	
78-59-1	Isophorone	36	
88-75-5	2-Nitrophenol	23	
105-67-9	2,4-Dimethylphenol	32	
126-68-1	o,o,o-Triethylphosphorothioa	29	
111-91-1	Bis(2-chloroethoxy)methane	36	
120-83-2	2,4-Dichlorophenol	29	
106-47-8	4-Chloroaniline	30	
87-65-0	2,6-Dichlorophenol	29	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	7.1	
924-16-3	N-Nitroso-di-n-butylamine	38	
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	30	
94-59-7	Safrole	30	
91-57-6	2-Methylnaphthalene	34	
77-47-4	Hexachlorocyclopentadiene	25	
95-94-3	1,2,4,5-Tetrachlorobenzene	27	
88-06-2	2,4,6-Trichlorophenol	30	
95-95-4	2,4,5-Trichlorophenol	32	
120-58-1	Isosafrole	34	
91-58-7	2-Chloronaphthalene	34	
88-74-4	2-Nitroaniline	46	
130-15-4	1,4-Napthoquinone	12	
131-11-3	Dimethylphthalate	34	
208-96-8	Acenaphthylene	35	
99-09-2	3-Nitroaniline	38	
83-32-9	Acenaphthene	35	
51-28-5	2,4-Dinitrophenol	18	
100-02-7	4-Nitrophenol	15	
608-93-5	Pentachlorobenzene	28	
132-64-9	Dibenzofuran	36	
134-32-7	1-Naphthylamine	8.6	
58-90-2	2,3,4,6-Tetrachlorophenol	29	
91-59-8	2-Naphthylamine	8.0	
84-66-2	Diethylphthalate	33	
297-97-2	Zinophos	35	
7005-72-3	4-Chlorophenyl-phenylether	29	
99-55-8	5-Nitro-o-toluidine	36	
86-73-7	Fluorene	35	
100-01-6	4-Nitroaniline	39	
534-52-1	4,6-Dinitro-2-methylphenol	25	
86-30-6	N-Nitrosodiphenylamine (1)	33	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	26	
17708-58-6	Diallate (trans isomer)	21	
298-02-2	Phorate	35	
62-44-2	Phenacetin	31	
17708-57-5	Diallate (cis isomer)	11	
101-55-3	4-Bromophenyl-phenylether	27	
118-74-1	Hexachlorobenzene	29	
60-51-5	Dimethoate	37	
92-67-1	4-Aminobiphenyl	11	
87-86-5	Pentachlorophenol	33	
82-68-8	Pentachloronitrobenzene	27	
23950-58-5	Pronamide	32	
298-04-4	Disulfoton	29	
85-01-8	Phenanthrene	35	
120-12-7	Anthracene	34	
298-00-0	Methyl Parathion	39	
84-74-2	Di-n-butylphthalate	32	
56-38-2	Parathion	33	
56-57-5	4-Nitroquinoline-1-oxide	24	
91-80-5	Methapyrilene	83	E
465-73-6	Isodrin	30	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
60-11-7	p-Dimethylaminoazobenzene	33	
510-15-6	Chlorobenzilate	17	
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	36	
119-93-7	3,3'-Dimethylbenzidine	26	
53-96-3	2-Acetylaminofluorene	27	
91-94-1	3,3'-Dichlorobenzidine	29	
117-81-7	bis(2-ethylhexyl)Phthalate	38	
56-55-3	Benzo(a)anthracene	37	
218-01-9	Chrysene	37	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	33	
57-97-6	7,12-Dimethylbenz(a)anthrace	33	
205-99-2	Benzo(b)fluoranthene	36	
207-08-9	Benzo(k)fluoranthene	42	
50-32-8	Benzo(a)pyrene	37	
56-49-5	3-Methylcholanthrene	34	
193-39-5	Indeno(1,2,3-c,d)pyrene	38	
53-70-3	Dibenzo(a,h)anthracene	36	
191-24-2	Benzo(g,h,i)perylene	37	
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	37	
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	34	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA629

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	16	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	14	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	27	
110-86-1	Pyridine	25	
109-06-8	2-Picoline	29	
10595-95-6	Nitrosomethylethylamine	36	
66-27-3	Methyl Methanesulfonate	15	
55-18-5	N-Nitrosodiethylamine	34	
62-50-0	Ethyl Methanesulfonate	35	
108-95-2	Phenol	20	
62-53-3	Aniline	32	
111-44-4	Bis(2-chloroethyl)ether	37	
95-57-8	2-Chlorophenol	32	
100-51-6	Benzyl Alcohol	34	
95-48-7	2-Methylphenol	33	
108-60-1	2,2'-oxybis(1-Chloropropane)	47	
930-55-2	N-Nitrosopyrrolidine	42	
108-39-4	3-Methylphenol	31	
106-44-5	4-Methylphenol	32	
1319-77-3	3-4-Methylphenol	33	
621-64-7	N-Nitroso-di-N-propylamine	41	
98-86-2	Acetophenone	33	
59-89-2	N-Nitrosomorpholine	32	
95-53-4	o-Toluidine	29	
67-72-1	Hexachloroethane	26	
98-95-3	Nitrobenzene	38	
100-75-4	N-Nitrosopiperidine	33	
78-59-1	Isophorone	36	
88-75-5	2-Nitrophenol	29	
105-67-9	2,4-Dimethylphenol	31	
126-68-1	o,o,o-Triethylphosphorothioa	29	
111-91-1	Bis(2-chloroethoxy)methane	37	
120-83-2	2,4-Dichlorophenol	31	
106-47-8	4-Chloroaniline	32	
87-65-0	2,6-Dichlorophenol	30	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	7.6	
924-16-3	N-Nitroso-di-n-butylamine	39	
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	32	
94-59-7	Safrole	29	
91-57-6	2-Methylnaphthalene	33	
77-47-4	Hexachlorocyclopentadiene	24	
95-94-3	1,2,4,5-Tetrachlorobenzene	28	
88-06-2	2,4,6-Trichlorophenol	31	
95-95-4	2,4,5-Trichlorophenol	33	
120-58-1	Isosafrole	34	
91-58-7	2-Chloronaphthalene	35	
88-74-4	2-Nitroaniline	47	
130-15-4	1,4-Napthoquinone	12	
131-11-3	Dimethylphthalate	35	
208-96-8	Acenaphthylene	33	
99-09-2	3-Nitroaniline	39	
83-32-9	Acenaphthene	36	
51-28-5	2,4-Dinitrophenol	22	
100-02-7	4-Nitrophenol	16	
608-93-5	Pentachlorobenzene	29	
132-64-9	Dibenzofuran	35	
134-32-7	1-Naphthylamine	12	
58-90-2	2,3,4,6-Tetrachlorophenol	30	
91-59-8	2-Naphthylamine	9.4	
84-66-2	Diethylphthalate	34	
297-97-2	Zinophos	36	
7005-72-3	4-Chlorophenyl-phenylether	29	
99-55-8	5-Nitro-o-toluidine	34	
86-73-7	Fluorene	36	
100-01-6	4-Nitroaniline	38	
534-52-1	4,6-Dinitro-2-methylphenol	30	
86-30-6	N-Nitrosodiphenylamine (1)	34	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	30	
17708-58-6	Diallate (trans isomer)	20	
298-02-2	Phorate	35	
62-44-2	Phenacetin	34	
17708-57-5	Diallate (cis isomer)	11	
101-55-3	4-Bromophenyl-phenylether	26	
118-74-1	Hexachlorobenzene	30	
60-51-5	Dimethoate	40	
92-67-1	4-Aminobiphenyl	13	
87-86-5	Pentachlorophenol	37	
82-68-8	Pentachloronitrobenzene	29	
23950-58-5	Pronamide	34	
298-04-4	Disulfoton	28	
85-01-8	Phenanthrene	36	
120-12-7	Anthracene	33	
298-00-0	Methyl Parathion	41	
84-74-2	Di-n-butylphthalate	33	
56-38-2	Parathion	36	
56-57-5	4-Nitroquinoline-1-oxide	27	
91-80-5	Methapyrilene	130	E
465-73-6	Isodrin	30	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
60-11-7	p-Dimethylaminoazobenzene	33	
510-15-6	Chlorobenzilate	21	
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	37	
119-93-7	3,3'-Dimethylbenzidine	28	
53-96-3	2-Acetylaminofluorene	28	
91-94-1	3,3'-Dichlorobenzidine	30	
117-81-7	bis(2-ethylhexyl)Phthalate	37	
56-55-3	Benzo(a)anthracene	37	
218-01-9	Chrysene	37	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	38	
57-97-6	7,12-Dimethylbenz(a)anthrace	32	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	38	
50-32-8	Benzo(a)pyrene	37	
56-49-5	3-Methylcholanthrene	33	
193-39-5	Indeno(1,2,3-c,d)pyrene	36	
53-70-3	Dibenzo(a,h)anthracene	37	
191-24-2	Benzo(g,h,i)perylene	38	
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	36	
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	36	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA62

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	15	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	14	

C. Form II

Surrogate spike analysis

- By level (low, medium, high) -

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

	CLIENT SAMPLE NO.	S1 (2FP)#	S2 (PHL)#	S3 (NBZ)#	S4 (FBP)#	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	SBLKGV	60	41	80	64	47	72			0
02	SGVLCS	69	47	84	76	66	74			0
03	SGVLCSD	61	40	82	72	66	71			0
04	13MW5	65	44	90	76	72	84			0
05	13MW5MS	65	42	97	80	88	79			0
06	13MW5MSD	70	45	107	84	84	80			0
07	13MW3	66	45	99	76	72	89			0
08	13MW4	67	46	98	82	76	90			0
09	13MWDUP	62	43	102	87	77	99			0
10	13MW6	68	44	98	78	68	95			0
11	13MW7	64	42	97	77	68	99			0
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										

	QC LIMITS
S1 (2FP) = 2-Fluorophenol	(11-110)
S2 (PHL) = Phenol-d5	(10-110)
S3 (NBZ) = Nitrobenzene-d5	(35-110)
S4 (FBP) = 2-Fluorobiphenyl	(45-110)
S5 (TBP) = 2,4,6-Tribromophenol	(44-131)
S6 (TPH) = Terphenyl-d14	(49-120)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate results
- By level (low, medium, high) -
Laboratory Control Sample(s)

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Diallate (cis) part of	41.03	0	11.71	29	20-150
Diallate (trans) part o	41.03	0	21.69	53	20-150
N-Nitrosodimethylamine	41.03	0	30.87	75	20-100
Pyridine	41.03	0	30.92	75	20-100
2-Picoline	41.03	0	33.77	82	20-150
Nitrosomethylethylamine	41.03	0	42.05	102	20-150
Methyl Methanesulfonate	41.03	0	34.68	85	20-150
N-Nitrosodiethylamine	41.03	0	40.78	99	20-150
Ethyl Methanesulfonate	41.03	0	43.22	105	20-150
Phenol	41.03	0	18.34	45	20-100
Aniline	41.03	0	40.28	98	20-150
Bis(2-chloroethyl)ether	41.03	0	44.15	108*	31-100
2-Chlorophenol	41.03	0	35.05	85	23-100
Benzyl Alcohol	41.03	0	34.71	85	29-100
2-Methylphenol	41.03	0	35.03	85	25-100
2,2'-oxybis(1-Chloropro	41.03	0	62.26	152*	24-100
N-Nitrosopyrrolidine	41.03	0	53.53	130	20-150
3-Methylphenol	82.05	0	34.78	42	24-100
4-Methylphenol	82.05	0	34.78	42	24-100
3-4-Methylphenol	82.05	0	35.34	43	24-100
N-Nitroso-di-N-prop.(1)	41.03	0	48.24	118*	34-101
Acetophenone	41.03	0	34.8	85	39-100
N-Nitrosomorpholine	41.03	0	40.82	99	20-150
o-Toluidine	41.03	0	40.28	98	20-150
Hexachloroethane	41.03	0	33.52	82	28-100
Nitrobenzene	41.03	0	43.41	106	20-131
N-Nitrosopiperidine	41.03	0	37.5	91	20-150
Isophorone	41.03	0	46.07	112*	43-105

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2-Nitrophenol	41.03	0	34.45	84	39-103
2,4-Dimethylphenol	41.03	0	32.24	79	19-109
o,o,o-Triethylphosphoro	41.03	0	32.66	80	20-150
Bis(2-chloroethoxy)meth	41.03	0	37.86	92	35-110
2,4-Dichlorophenol	41.03	0	33.77	82	39-103
4-Chloroaniline	41.03	0	37.58	92	25-115
2,6-Dichlorophenol	41.03	0	34.24	83	20-150
Hexachloropropene	41.03	0	25.35	62	20-150
N-Nitroso-di-n-butylami	41.03	0	43.92	107	20-150
p-Phenylenediamine	41.03	0	0	0*	20-150
4-Chloro-3-methylphenol	41.03	0	34.53	84	41-103
Safrole	41.03	0	32.63	80	20-150
2-Methylnaphthalene	41.03	0	37.03	90	40-100
Hexachlorocyclopentadie	41.03	0	29.73	72	20-123
1,2,4,5-Tetrachlorobenz	41.03	0	29.1	71	20-150
2,4,6-Trichlorophenol	41.03	0	33.14	81	46-113
2,4,5-Trichlorophenol	41.03	0	34.33	84	41-119
Isosafrole	41.03	0	33.43	81	20-150
2-Chloronaphthalene	41.03	0	36.58	89	46-105
2-Nitroaniline	41.03	0	52.88	129*	34-107
1,4-Napthoquinone	41.03	0	37.53	91	20-150
Dimethylphthalate	41.03	0	36.46	89	53-116
Acenaphthylene	41.03	0	36.69	89	50-115
3-Nitroaniline	41.03	0	44.88	109	20-110
Acenaphthene	41.03	0	36.45	89	53-118
2,4-Dinitrophenol	41.03	0	42.7	104*	20-102
4-Nitrophenol	41.03	0	17.97	44	10-100
Pentachlorobenzene	41.03	0	31.15	76	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Dibenzofuran	41.03	0	36.38	89	50-107
1-Naphthylamine	41.03	0	80.81	197*	20-150
2,3,4,6-Tetrachlorophen	41.03	0	32.83	80	20-150
2-Naphthylamine	41.03	0	74.03	180*	20-150
Diethylphthalate	41.03	0	35.57	87	52-118
Zinophos	41.03	0	35.44	86	20-150
4-Chlorophenyl-phenylet	41.03	0	31.83	78	51-117
5-Nitro-o-toluidine	41.03	0	41.83	102	20-150
Fluorene	41.03	0	37.55	92	53-121
4-Nitroaniline	41.03	0	46.8	114*	20-110
4,6-Dinitro-2-methylphe	41.03	0	42.5	104	38-116
N-Nitrosodiphenylamine	41.03	0	37.98	93	52-117
Sulfotep	41.03	0	33.12	81	20-150
Diallate (trans isomer)	41.03	0	21.69	53	20-150
Phorate	41.03	0	38.88	95	20-150
Phenacetin	41.03	0	36.77	90	20-150
Diallate (cis isomer)	41.03	0	11.45	28	20-150
4-Bromophenyl-phenyleth	41.03	0	28.51	69	51-115
Hexachlorobenzene	41.03	0	33.44	82	52-116
Dimethoate	41.03	0	42.49	104	20-150
4-Aminobiphenyl	41.03	0	39.85	97	20-150
Pentachlorophenol	41.03	0	42.05	102*	20-100
Pentachloronitrobenzene	41.03	0	31.04	76	20-150
Pronamide	41.03	0	37.89	92	20-150
Disulfoton	41.03	0	41.81	102	20-150
Phenanthrene	41.03	0	39	95	56-121
Anthracene	41.03	0	38.45	94	55-127
Methyl Parathion	41.03	0	46.89	114	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Di-n-butylphthalate	41.03	0	36.11	88	51-114
Parathion	41.03	0	40.35	98	20-150
4-Nitroquinoline-1-oxid	41.03	0	39.64	97	20-150
Methapyrilene	41.03	0	89.38	218*	20-150
Isodrin	41.03	0	35.21	86	20-150
Fluoranthene	41.03	0	41.13	100	58-124
Pyrene	41.03	0	36.74	90	48-131
p-Dimethylaminoazobenze	41.03	0	36.34	89	20-150
Chlorobenzilate	41.03	0	24.7	60	20-150
Famfur	41.03	0	0	0*	20-150
Butylbenzylphthalate	41.03	0	37.8	92	41-118
3,3'-Dimethylbenzidine	41.03	0	58.05	141	20-150
2-Acetylaminofluorene	41.03	0	31.03	76	20-150
3,3'-Dichlorobenzidine	41.03	0	33.98	83	20-100
bis(2-ethylhexyl)Phthal	41.03	0	36.78	90	47-121
Benzo(a)anthracene	41.03	0	38.51	94	53-128
Chrysene	41.03	0	38.43	94	50-130
Di-n-octylphthalate	41.03	0	34.81	85	30-148
7,12-Dimethylbenz(a)ant	41.03	0	37.53	91	20-150
Benzo(b)fluoranthene	41.03	0	39.49	96	41-130
Benzo(k)fluoranthene	41.03	0	44.18	108	39-150
Benzo(a)pyrene	41.03	0	40.85	100	46-135
3-Methylcholanthrene	41.03	0	35.71	87	20-150
Indeno(1,2,3-c,d)pyrene	41.03	0	36.3	88	47-138
Dibenzo(a,h)anthracene	41.03	0	34.17	83	47-134
Benzo(g,h,i)perylene	41.03	0	36.05	88	42-132
Kepone	41.03	0	0	0*	20-150
a,a-Dimethylphenethylam	41.03	0	0	0*	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aramite	41.03	0	35.96	88	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diallate (cis) part of	41.03	13.13	32	11	30	20-150
Diallate (trans) part o	41.03	22.57	55	4	30	20-150
N-Nitrosodimethylamine	41.03	33.27	81	7	30	20-100
Pyridine	41.03	32.32	79	4	30	20-100
2-Picoline	41.03	37.69	92	11	30	20-150
Nitrosomethylethylamine	41.03	43.61	106	4	30	20-150
Methyl Methanesulfonate	41.03	37.47	91	8	30	20-150
N-Nitrosodiethylamine	41.03	41.57	101	2	30	20-150
Ethyl Methanesulfonate	41.03	46.03	112	6	20	20-150
Phenol	41.03	19.53	48	6	30	20-100
Aniline	41.03	41.78	102	4	30	20-150
Bis(2-chloroethyl)ether	41.03	44.47	108*	1	30	31-100
2-Chlorophenol	41.03	37.05	90	6	30	23-100
Benzyl Alcohol	41.03	38.13	93	9	30	29-100
2-Methylphenol	41.03	36.55	89	4	30	25-100
2,2'-oxybis(1-Chloropro	41.03	63.14	154*	1	30	24-100
N-Nitrosopyrrolidine	41.03	51.98	127	3	30	20-150
3-Methylphenol	82.05	36.29	44	4	30	24-100
4-Methylphenol	82.05	36.29	44	4	30	24-100
3-4-Methylphenol	82.05	36.49	44	3	30	24-100
N-Nitroso-di-N-prop.(1)	41.03	49.2	120*	2	30	34-101
Acetophenone	41.03	39.11	95	12	30	39-100
N-Nitrosomorpholine	41.03	46.94	114	14	30	20-150
o-Toluidine	41.03	41.73	102	4	30	20-150
Hexachloroethane	41.03	36.56	89	9	30	28-100
Nitrobenzene	41.03	49.71	121	14	30	20-131
N-Nitrosopiperidine	41.03	42.11	103	12	30	20-150
Isophorone	41.03	50.03	122*	8	30	43-105

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-Nitrophenol	41.03	38.82	95	12	30	39-103
2,4-Dimethylphenol	41.03	34.81	85	8	30	19-109
o,o,o-Triethylphosphoro	41.03	37.12	90	13	30	20-150
Bis(2-chloroethoxy)meth	41.03	41.54	101	9	30	35-110
2,4-Dichlorophenol	41.03	37.17	91	10	30	39-103
4-Chloroaniline	41.03	44.03	107	16	30	25-115
2,6-Dichlorophenol	41.03	37.97	93	10	30	20-150
Hexachloropropene	41.03	28.02	68	10	30	20-150
N-Nitroso-di-n-butylami	41.03	46.19	113	5	30	20-150
p-Phenylenediamine	41.03	0	0*		30	20-150
4-Chloro-3-methylphenol	41.03	39.32	96	13	30	41-103
Safrole	41.03	36.55	89	11	30	20-150
2-Methylnaphthalene	41.03	42.94	105*	15	30	40-100
Hexachlorocyclopentadie	41.03	30.24	74	2	30	20-123
1,2,4,5-Tetrachlorobenz	41.03	31.5	77	8	30	20-150
2,4,6-Trichlorophenol	41.03	35.58	87	7	30	46-113
2,4,5-Trichlorophenol	41.03	36.17	88	5	30	41-119
Isosafrole	41.03	36.45	89	9	30	20-150
2-Chloronaphthalene	41.03	40.24	98	10	30	46-105
2-Nitroaniline	41.03	55.08	134*	4	30	34-107
1,4-Napthoquinone	41.03	41.47	101	10	30	20-150
Dimethylphthalate	41.03	38.2	93	5	30	53-116
Acenaphthylene	41.03	39.43	96	7	30	50-115
3-Nitroaniline	41.03	48.5	118*	8	30	20-110
Acenaphthene	41.03	38.85	95	6	30	53-118
2,4-Dinitrophenol	41.03	46.15	112*	8	30	20-102
4-Nitrophenol	41.03	19.98	49	10	30	10-100
Pentachlorobenzene	41.03	32.13	78	3	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dibenzofuran	41.03	38.33	93	5	30	50-107
1-Naphthylamine	41.03	82.87	202*	2	30	20-150
2,3,4,6-Tetrachlorophen	41.03	35.78	87	8	30	20-150
2-Naphthylamine	41.03	69.36	169*	6	30	20-150
Diethylphthalate	41.03	37.4	91	5	30	52-118
Zinophos	41.03	36.35	89	2	30	20-150
4-Chlorophenyl-phenylet	41.03	33.51	82	5	30	51-117
5-Nitro-o-toluidine	41.03	44.39	108	6	30	20-150
Fluorene	41.03	39.27	96	4	30	53-121
4-Nitroaniline	41.03	49.51	121*	6	30	20-110
4,6-Dinitro-2-methylphe	41.03	45.37	111	6	30	38-116
N-Nitrosodiphenylamine	41.03	38.58	94	2	30	52-117
Sulfotep	41.03	34.17	83	3	30	20-150
Diallate (trans isomer)	41.03	22.57	55	4	30	20-150
Phorate	41.03	40.11	98	3	30	20-150
Phenacetin	41.03	40.09	98	9	30	20-150
Diallate (cis isomer)	41.03	13.22	32	14	30	20-150
4-Bromophenyl-phenyleth	41.03	30.88	75	8	30	51-115
Hexachlorobenzene	41.03	34.54	84	3	30	52-116
Dimethoate	41.03	48.36	118	13	30	20-150
4-Aminobiphenyl	41.03	40.39	98	1	30	20-150
Pentachlorophenol	41.03	43.62	106*	4	30	20-100
Pentachloronitrobenzene	41.03	32.99	80	6	30	20-150
Pronamide	41.03	37.21	91	2	30	20-150
Disulfoton	41.03	43.75	107	4	30	20-150
Phenanthrene	41.03	39.42	96	1	30	56-121
Anthracene	41.03	40.45	99	5	30	55-127
Methyl Parathion	41.03	49.25	120	5	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Di-n-butylphthalate	41.03	37.12	90	3	30	51-114
Parathion	41.03	40.89	100	1	30	20-150
4-Nitroquinoline-1-oxid	41.03	42.81	104	8	30	20-150
Methapyrilene	41.03	145.4	354*	48*	30	20-150
Isodrin	41.03	34.02	83	3	30	20-150
Fluoranthene	41.03	41.61	101	1	30	58-124
Pyrene	41.03	39.61	97	8	30	48-131
p-Dimethylaminoazobenze	41.03	33.36	81	8	30	20-150
Chlorobenzilate	41.03	25.89	63	5	30	20-150
Famfur	41.03	0	0*		30	20-150
Butylbenzylphthalate	41.03	38.9	95	3	30	41-118
3,3'-Dimethylbenzidine	41.03	62.77	153*	8	30	20-150
2-Acetylaminofluorene	41.03	33.01	80	6	30	20-150
3,3'-Dichlorobenzidine	41.03	33.96	83	0	30	20-100
bis(2-ethylhexyl)Phthal	41.03	37.5	91	2	30	47-121
Benzo(a)anthracene	41.03	38.58	94	0	30	53-128
Chrysene	41.03	39.59	96	3	30	50-130
Di-n-octylphthalate	41.03	39.07	95	12	30	30-148
7,12-Dimethylbenz(a)ant	41.03	44.95	110	18	30	20-150
Benzo(b)fluoranthene	41.03	44.96	110	13	30	41-130
Benzo(k)fluoranthene	41.03	48.6	118	10	30	39-150
Benzo(a)pyrene	41.03	48.3	118	17	30	46-135
3-Methylcholanthrene	41.03	41.46	101	15	30	20-150
Indeno(1,2,3-c,d)pyrene	41.03	42.75	104	16	30	47-138
Dibenzo(a,h)anthracene	41.03	40.45	99	17	30	47-134
Benzo(g,h,i)perylene	41.03	41.79	102	15	30	42-132
Kepone	41.03	0	0*		30	20-150
a,a-Dimethylphenethylam	41.03	0	0*		30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aramite	41.03	40.16	98	11	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 113 outside limits
Spike Recovery: 33 out of 226 outside limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Famfur	41.03	0	7.662	19*	20-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Famfur	41.03	10.63	26	32*	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

COMMENTS: _____

_____

FORM III SV

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Kepone	41.03	0	6.7	16*	20-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Kepone	41.03	8.411	20	23	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

COMMENTS: _____

_____

FORM III SV

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Diallate (cis) part of	40		11.19	28	20-150
Diallate (trans) part o	40		20.68	52	20-150
N-Nitrosodimethylamine	40		28.89	72	20-100
Pyridine	40		27.81	70	20-100
2-Picoline	40		31.78	79	20-150
Nitrosomethylethylamine	40		39.07	98	20-150
Methyl Methanesulfonate	40		15.85	40	20-150
N-Nitrosodiethylamine	40		37.06	93	20-150
Ethyl Methanesulfonate	40		35.53	89	20-150
Phenol	40		19.59	49	20-100
Aniline	40		32.91	82	20-150
Bis(2-chloroethyl)ether	40		39.84	100	31-100
2-Chlorophenol	40		32.82	82	23-100
Benzyl Alcohol	40		34.22	86	29-100
2-Methylphenol	40		33.11	83	25-100
2,2'-oxybis(1-Chloropro	40		48.95	122*	24-100
N-Nitrosopyrrolidine	40		43.39	108	20-150
3-Methylphenol	80		32.93	41	24-100
4-Methylphenol	80		33.85	42	24-100
3-4-Methylphenol	80		34.32	43	24-100
N-Nitroso-di-N-prop.(1)	40		46.13	115*	34-101
Acetophenone	40		32.96	82	39-100
N-Nitrosomorpholine	40		34.93	87	20-150
o-Toluidine	40		30	75	20-150
Hexachloroethane	40		30.47	76	28-100
Nitrobenzene	40		39.34	98	20-131
N-Nitrosopiperidine	40		32.93	82	20-150
Isophorone	40		35.94	90	43-105

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2-Nitrophenol	40		23.47	59	39-103
2,4-Dimethylphenol	40		31.62	79	19-109
o,o,o-Triethylphosphoro	40		29.35	73	20-150
Bis(2-chloroethoxy)meth	40		36.2	91	35-110
2,4-Dichlorophenol	40		28.65	72	39-103
4-Chloroaniline	40		30.22	76	25-115
2,6-Dichlorophenol	40		28.79	72	20-150
Hexachloropropene	40		7.118	18*	20-150
N-Nitroso-di-n-butylami	40		37.91	95	20-150
p-Phenylenediamine					20-150
4-Chloro-3-methylphenol	40		30.44	76	41-103
Safrole	40		29.55	74	20-150
2-Methylnaphthalene	40		34	85	40-100
Hexachlorocyclopentadie	40		25.34	63	20-123
1,2,4,5-Tetrachlorobenz	40		27.08	68	20-150
2,4,6-Trichlorophenol	40		29.56	74	46-113
2,4,5-Trichlorophenol	40		31.58	79	41-119
Isosafrole	40		33.99	85	20-150
2-Chloronaphthalene	40		34.47	86	46-105
2-Nitroaniline	40		45.93	115*	34-107
1,4-Napthoquinone	40		12.58	31	20-150
Dimethylphthalate	40		34.54	86	53-116
Acenaphthylene	40		34.81	87	50-115
3-Nitroaniline	40		37.9	95	20-110
Acenaphthene	40		34.78	87	53-118
2,4-Dinitrophenol	40		18.07	45	20-102
4-Nitrophenol	40		15.48	39	10-100
Pentachlorobenzene	40		28.17	70	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Dibenzofuran	40		35.51	89	50-107
1-Naphthylamine	40		8.559	21	20-150
2,3,4,6-Tetrachlorophen	40		29.27	73	20-150
2-Naphthylamine	40		7.971	20	20-150
Diethylphthalate	40		33.16	83	52-118
Zinophos	40		35.13	88	20-150
4-Chlorophenyl-phenylet	40		29.37	73	51-117
5-Nitro-o-toluidine	40		35.6	89	20-150
Fluorene	40		34.68	87	53-121
4-Nitroaniline	40		38.74	97	20-110
4,6-Dinitro-2-methylphe	40		25.23	63	38-116
N-Nitrosodiphenylamine	40		33.06	83	52-117
Sulfotep	40		25.97	65	20-150
Diallate (trans isomer)	40		20.68	52	20-150
Phorate	40		34.7	87	20-150
Phenacetin	40		30.76	77	20-150
Diallate (cis isomer)	40		10.8	27	20-150
4-Bromophenyl-phenyleth	40		26.74	67	51-115
Hexachlorobenzene	40		29.38	73	52-116
Dimethoate	40		37.18	93	20-150
4-Aminobiphenyl	40		11.29	28	20-150
Pentachlorophenol	40		32.76	82	20-100
Pentachloronitrobenzene	40		27.39	68	20-150
Pronamide	40		32.38	81	20-150
Disulfoton	40		29.43	74	20-150
Phenanthrene	40		34.76	87	56-121
Anthracene	40		34.58	86	55-127
Methyl Parathion	40		39.47	99	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Di-n-butylphthalate	40		32.59	81	51-114
Parathion	40		33.26	83	20-150
4-Nitroquinoline-1-oxid	40		23.95	60	20-150
Methapyrilene	40		83.16	208*	20-150
Isodrin	40		30.56	76	20-150
Fluoranthene	40		36.02	90	58-124
Pyrene	40		37.41	94	48-131
p-Dimethylaminoazobenze	40		33.19	83	20-150
Chlorobenzilate	40		16.7	42	20-150
Famfur					20-150
Butylbenzylphthalate	40		35.86	90	41-118
3,3'-Dimethylbenzidine	40		25.92	65	20-150
2-Acetylaminofluorene	40		26.67	67	20-150
3,3'-Dichlorobenzidine	40		29.31	73	20-100
bis(2-ethylhexyl)Phthal	40		37.55	94	47-121
Benzo(a)anthracene	40		37.05	93	53-128
Chrysene	40		37.05	93	50-130
Di-n-octylphthalate	40		33.4	84	30-148
7,12-Dimethylbenz(a)ant	40		32.68	82	20-150
Benzo(b)fluoranthene	40		35.89	90	41-130
Benzo(k)fluoranthene	40		42.09	105	39-150
Benzo(a)pyrene	40		36.77	92	46-135
3-Methylcholanthrene	40		33.81	85	20-150
Indeno(1,2,3-c,d)pyrene	40		37.53	94	47-138
Dibenzo(a,h)anthracene	40		35.95	90	47-134
Benzo(g,h,i)perylene	40		37.22	93	42-132
Kepone					20-150
a,a-Dimethylphenethylam					20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aramite	40		34.05	85	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diallate (cis) part of	40	11.71	29	4	30	20-150
Diallate (trans) part o	40	19.9	50	4	30	20-150
N-Nitrosodimethylamine	40	27.2	68	6	30	20-100
Pyridine	40	25.49	64	9	30	20-100
2-Picoline	40	29.43	74	7	30	20-150
Nitrosomethylethylamine	40	35.79	89	10	30	20-150
Methyl Methanesulfonate	40	14.86	37	8	30	20-150
N-Nitrosodiethylamine	40	33.76	84	10	30	20-150
Ethyl Methanesulfonate	40	34.81	87	2	20	20-150
Phenol	40	19.71	49	0	30	20-100
Aniline	40	32.4	81	1	30	20-150
Bis(2-chloroethyl)ether	40	36.98	92	8	30	31-100
2-Chlorophenol	40	32.2	81	1	30	23-100
Benzyl Alcohol	40	33.68	84	2	30	29-100
2-Methylphenol	40	32.65	82	1	30	25-100
2,2'-oxybis(1-Chloropro	40	47.27	118*	3	30	24-100
N-Nitrosopyrrolidine	40	41.89	105	3	30	20-150
3-Methylphenol	80	31.24	39	5	30	24-100
4-Methylphenol	80	32.05	40	5	30	24-100
3-4-Methylphenol	80	32.62	41	5	30	24-100
N-Nitroso-di-N-prop.(1)	40	41.32	103*	11	30	34-101
Acetophenone	40	33.23	83	1	30	39-100
N-Nitrosomorpholine	40	32.6	82	6	30	20-150
o-Toluidine	40	29.28	73	3	30	20-150
Hexachloroethane	40	26.57	66	14	30	28-100
Nitrobenzene	40	38.54	96	2	30	20-131
N-Nitrosopiperidine	40	33.22	83	1	30	20-150
Isophorone	40	36.03	90	0	30	43-105

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-Nitrophenol	40	28.92	72	20	30	39-103
2,4-Dimethylphenol	40	31.46	79	0	30	19-109
o,o,o-Triethylphosphoro	40	28.68	72	1	30	20-150
Bis(2-chloroethoxy)meth	40	37.19	93	2	30	35-110
2,4-Dichlorophenol	40	30.73	77	7	30	39-103
4-Chloroaniline	40	32.37	81	6	30	25-115
2,6-Dichlorophenol	40	29.62	74	3	30	20-150
Hexachloropropene	40	7.624	19*	5	30	20-150
N-Nitroso-di-n-butylami	40	38.8	97	2	30	20-150
p-Phenylenediamine					30	20-150
4-Chloro-3-methylphenol	40	31.81	80	5	30	41-103
Safrole	40	29.08	73	1	30	20-150
2-Methylnaphthalene	40	33.03	83	2	30	40-100
Hexachlorocyclopentadie	40	24.46	61	3	30	20-123
1,2,4,5-Tetrachlorobenz	40	28.45	71	4	30	20-150
2,4,6-Trichlorophenol	40	31.47	79	7	30	46-113
2,4,5-Trichlorophenol	40	32.96	82	4	30	41-119
Isosafrole	40	33.87	85	0	30	20-150
2-Chloronaphthalene	40	34.78	87	1	30	46-105
2-Nitroaniline	40	46.61	117*	2	30	34-107
1,4-Napthoquinone	40	12.59	31	0	30	20-150
Dimethylphthalate	40	34.74	87	1	30	53-116
Acenaphthylene	40	33.31	83	5	30	50-115
3-Nitroaniline	40	39.24	98	3	30	20-110
Acenaphthene	40	35.67	89	2	30	53-118
2,4-Dinitrophenol	40	22.03	55	20	30	20-102
4-Nitrophenol	40	16.19	40	3	30	10-100
Pentachlorobenzene	40	28.83	72	3	30	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dibenzofuran	40	35.21	88	1	30	50-107
1-Naphthylamine	40	11.8	30	35*	30	20-150
2,3,4,6-Tetrachlorophen	40	30.29	76	4	30	20-150
2-Naphthylamine	40	9.382	23	14	30	20-150
Diethylphthalate	40	33.53	84	1	30	52-118
Zinophos	40	35.95	90	2	30	20-150
4-Chlorophenyl-phenylet	40	29.5	74	1	30	51-117
5-Nitro-o-toluidine	40	34.59	86	3	30	20-150
Fluorene	40	35.82	90	3	30	53-121
4-Nitroaniline	40	38.28	96	1	30	20-110
4,6-Dinitro-2-methylphe	40	29.97	75	17	30	38-116
N-Nitrosodiphenylamine	40	33.86	85	2	30	52-117
Sulfotep	40	30.46	76	16	30	20-150
Diallate (trans isomer)	40	19.9	50	4	30	20-150
Phorate	40	34.86	87	0	30	20-150
Phenacetin	40	34.15	85	10	30	20-150
Diallate (cis isomer)	40	11.48	29	7	30	20-150
4-Bromophenyl-phenyleth	40	25.87	65	3	30	51-115
Hexachlorobenzene	40	29.72	74	1	30	52-116
Dimethoate	40	40.31	101	8	30	20-150
4-Aminobiphenyl	40	12.8	32	13	30	20-150
Pentachlorophenol	40	36.93	92	11	30	20-100
Pentachloronitrobenzene	40	28.88	72	6	30	20-150
Pronamide	40	34.04	85	5	30	20-150
Disulfoton	40	27.98	70	6	30	20-150
Phenanthrene	40	35.97	90	3	30	56-121
Anthracene	40	33.49	84	2	30	55-127
Methyl Parathion	40	40.63	102	3	30	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Di-n-butylphthalate	40	33.02	83	2	30	51-114
Parathion	40	35.73	89	7	30	20-150
4-Nitroquinoline-1-oxid	40	27.38	68	13	30	20-150
Methapyrilene	40	132.9	332*	46*	30	20-150
Isodrin	40	30.37	76	0	30	20-150
Fluoranthene	40	36.51	91	1	30	58-124
Pyrene	40	36.63	92	2	30	48-131
p-Dimethylaminoazobenze	40	33.02	83	0	30	20-150
Chlorobenzilate	40	20.78	52	21	30	20-150
Famfur					30	20-150
Butylbenzylphthalate	40	37.16	93	3	30	41-118
3,3'-Dimethylbenzidine	40	28.12	70	7	30	20-150
2-Acetylaminofluorene	40	28.07	70	4	30	20-150
3,3'-Dichlorobenzidine	40	30.44	76	4	30	20-100
bis(2-ethylhexyl)Phthal	40	37.28	93	1	30	47-121
Benzo(a)anthracene	40	36.92	92	1	30	53-128
Chrysene	40	36.82	92	1	30	50-130
Di-n-octylphthalate	40	38.38	96	13	30	30-148
7,12-Dimethylbenz(a)ant	40	32.02	80	2	30	20-150
Benzo(b)fluoranthene	40	39.16	98	9	30	41-130
Benzo(k)fluoranthene	40	38.29	96	9	30	39-150
Benzo(a)pyrene	40	37.44	94	2	30	46-135
3-Methylcholanthrene	40	33.2	83	2	30	20-150
Indeno(1,2,3-c,d)pyrene	40	36.59	91	3	30	47-138
Dibenzo(a,h)anthracene	40	36.93	92	2	30	47-134
Benzo(g,h,i)perylene	40	37.79	94	1	30	42-132
Kepone					30	20-150
a,a-Dimethylphenethylam					30	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aramite	40	36.37	91	7	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 2 out of 113 outside limits
Spike Recovery: 10 out of 226 outside limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Famfur	40		15.91	40	20-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Famfur	40	15.44	39	3	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM III SV-1

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Kepone	40		14.41	36	20-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Kepone	40	14.06	35	3	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM III SV-1

E. Form IV

Method Blank Results
Form IV, Form I, and Form I - TIC

Method blank summary, OADS, and TICs
- In chronological order of analysis

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: 9041633-BLKA6298 Lab Sample ID: 9041633-BLK1

Instrument ID: 5972HP62 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 1744

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS1	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD1	9041633-BSDA	05/01/09
03	13MW5	0904098-01	0904098-01A6	05/02/09
04	13MW5MS	9041633-MS	9041633-MS2A	05/02/09
05	13MW5MSD	9041633-MSD	9041633-MSD2	05/02/09
06	13MW3	0904098-02	0904098-02A6	05/02/09
07	13MW4	0904098-03	0904098-03A6	05/02/09
08	13MWDUP	0904098-04	0904098-04A6	05/02/09
09	13MW6	0904098-05	0904098-05A6	05/02/09
10	13MW7	0904098-06	0904098-06A6	05/02/09
11				
12				
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30				

COMMENTS:

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA62

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: 9041633-BLKA60 Lab Sample ID: 9041633-BLK

Instrument ID: 5972HP60 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 2242

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD	9041633-BSDA	05/01/09
03	13MW5	0904098-01	0904098-01A6	05/01/09
04	13MW5MS	9041633-MS	9041633-MS2A	05/02/09
05	13MW4	0904098-03	0904098-03A6	05/02/09
06	13MWDUP	0904098-04	0904098-04A6	05/02/09
07	13MW3	0904098-02	0904098-02JA	05/02/09
08	13MW6	0904098-05	0904098-05A6	05/02/09
09	13MW7	0904098-06	0904098-06A6	05/02/09
10	13MW5MSD	9041633-MSD	9041633-MSD2	05/02/09
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COMMENTS:

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: 9041633-BLKA60 Lab Sample ID: 9041633-BLK

Instrument ID: 5972HP60 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 2242

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD	9041633-BSDA	05/01/09
03	13MW5	0904098-01	0904098-01A6	05/01/09
04	13MW5MS	9041633-MS2	9041633-MS2A	05/02/09
05	13MW4	0904098-03	0904098-03A6	05/02/09
06	13MWDUP	0904098-04	0904098-04A6	05/02/09
07	13MW3	0904098-02	0904098-02JA	05/02/09
08	13MW6	0904098-05	0904098-05A6	05/02/09
09	13MW7	0904098-06	0904098-06A6	05/02/09
10	13MW5MSD	9041633-MSD2	9041633-MSD2	05/02/09
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COMMENTS:

F. Form VIII

Internal standard area and retention time data

(VOA and SV only)

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	261971	7.28	938790	9.93	466997	13.85
	UPPER LIMIT	523942	7.78	1877580	10.43	933994	14.35
	LOWER LIMIT	130985	6.78	469395	9.43	233499	13.35
	CLIENT SAMPLE NO.						
01	SBLKGV	266680	7.28	928958	9.92	452497	13.85
02	SGVLCS	252207	7.28	919937	9.93	439329	13.86
03	SGVLCSD	279423	7.29	963426	9.93	458776	13.86
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS4(PHN)		IS5(CRY)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	681169	17.13	741741	23.10	773134	26.09
	UPPER LIMIT	1362338	17.63	1483482	23.60	1546268	26.59
	LOWER LIMIT	340585	16.63	370871	22.60	386567	25.59
	CLIENT SAMPLE NO.						
01	SBLKGV	743307	17.12	697980	23.10	720788	26.09
02	SGVLCS	733227	17.13	812545	23.12	871639	26.11
03	SGVLCSD	753738	17.13	837720	23.12	867138	26.10
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090502A62 Date Analyzed: 05/02/09

Instrument ID: 5972HP62 Time Analyzed: 1235

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	223121	7.26	762392	9.91	399860	13.82
	UPPER LIMIT	446242	7.76	1524784	10.41	799720	14.32
	LOWER LIMIT	111561	6.76	381196	9.41	199930	13.32
	CLIENT SAMPLE NO.						
01	13MW5	232320	7.26	769203	9.91	361687	13.82
02	13MW5MS	218330	7.26	779293	9.91	396123	13.82
03	13MW5MSD	212183	7.27	692194	9.91	367505	13.83
04	13MW3	215845	7.26	693004	9.91	350933	13.82
05	13MW4	218214	7.27	703981	9.91	340255	13.82
06	13MWDUP	201964	7.26	646163	9.90	311557	13.82
07	13MW6	210684	7.26	713847	9.91	342636	13.82
08	13MW7	212482	7.27	692293	9.91	342468	13.83
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090502A62 Date Analyzed: 05/02/09

Instrument ID: 5972HP62 Time Analyzed: 1235

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	656393	17.11	811696	23.09	852674	26.07
	UPPER LIMIT	1312786	17.61	1623392	23.59	1705348	26.57
	LOWER LIMIT	328197	16.61	405848	22.59	426337	25.57
	CLIENT SAMPLE NO.						
01	13MW5	567051	17.09	623075	23.07	659452	26.06
02	13MW5MS	660431	17.11	827078	23.09	881868	26.08
03	13MW5MSD	605814	17.10	754154	23.09	697100	26.07
04	13MW3	541558	17.09	575136	23.07	620095	26.06
05	13MW4	535861	17.10	582419	23.07	601827	26.06
06	13MWDUP	512160	17.10	536894	23.07	582789	26.06
07	13MW6	508965	17.10	553913	23.07	581619	26.06
08	13MW7	520171	17.09	567279	23.07	606691	26.06
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HK090501A60 Date Analyzed: 05/01/09

Instrument ID: 5972HP60 Time Analyzed: 1439

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	722758	10.74				
	UPPER LIMIT	1445516	11.24				
	LOWER LIMIT	361379	10.24				
	CLIENT SAMPLE NO.						
01	SBLKGV	634801	10.74				
02	SGVLCS	843369	10.76				
03	SGVLCSD	828494	10.76				
04	13MW5	642619	10.75				
05	13MW5MS	850933	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090502A60 Date Analyzed: 05/02/09

Instrument ID: 5972HP60 Time Analyzed: 0945

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	939708	10.74				
	UPPER LIMIT	1879416	11.24				
	LOWER LIMIT	469854	10.24				
	CLIENT SAMPLE NO.						
01	13MW4	683000	10.74				
02	13MWDUP	640150	10.74				
03	13MW3	661787	10.75				
04	13MW6	761897	10.74				
05	13MW7	726717	10.75				
06	13MW5MSD	588662	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HR090501A60 Date Analyzed: 05/01/09

Instrument ID: 5972HP60 Time Analyzed: 1736

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	640926	10.74				
	UPPER LIMIT	1281852	11.24				
	LOWER LIMIT	320463	10.24				
	CLIENT SAMPLE NO.						
01	SBLKGV	634801	10.74				
02	SGVLCS	843369	10.76				
03	SGVLCSD	828494	10.76				
04	13MW5	642619	10.75				
05	13MW5MS	850933	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HH090502A60 Date Analyzed: 05/02/09

Instrument ID: 5972HP60 Time Analyzed: 1011

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	902479	10.74				
	UPPER LIMIT	1804958	11.24				
	LOWER LIMIT	451239	10.24				
	CLIENT SAMPLE NO.						
01	13MW4	683000	10.74				
02	13MWDUP	640150	10.74				
03	13MW3	661787	10.75				
04	13MW6	761897	10.74				
05	13MW7	726717	10.75				
06	13MW5MSD	588662	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

GC/MS by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalyses, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE : LIBRTY

METHOD: 8270C

SDG # : 0904098

A. SDG Narrative

CompuChem

A division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS:

13MW5	7W12B	7WCA	7WDUP	7MW6

The 6 aqueous samples listed above were received intact, properly refrigerated between 0.1°C and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the semivolatile fraction. SW-846, 3rd Edition, Update 3, Separatory Funnel extraction (Method 3510C), and Method 8270C were used to prepare and analyze these samples, with the exceptions and/or additions requested by the client. This portion of the SDG narrative deals with the semivolatile fraction only.

Semivolatile
Extraction and analysis holding time requirements were met for these samples.

There were no semivolatile Project analytes identified above the Quantitation Limit (QL) in any of these samples. No Tentatively Identified Compounds (TICs) were identified in any of these samples.

Manual integrations were performed on one or more of the process files associated with this SDG. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated to this SDG. Tailing factor criteria were met for pentachlorophenol and benzidine. The breakdown criterion was met for DDT. These three compounds have been added to the DFTPP solution and analyzed together.

There is no Form VII in the deliverables package for the batch analyzed on instrument 60 on 5/1/09 associated with the DFTPP injected at 1231. This batch included an initial calibration and the relevant relative response factors are all displayed on the appropriate Form VI. The initial calibration met all acceptance criteria and therefore samples could be analyzed without having to inject a continuing calibration verification standard.

Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG. However, the relevant response factors for p-phenylenediamine and methapyrilene failed in both the initial and continuing calibration. The client was contacted about this failure and their instructions were to proceed with analysis and reported data.

All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blanks met all quality control criteria.

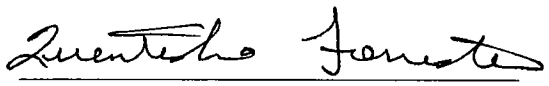
13MW5 was used as the original to prepare the duplicate matrix spikes as requested. The associated duplicate matrix spikes met most of the advisory accuracy and precision criteria for the semivolatile fraction with this SDG.

The associated Laboratory Control Samples (LCS/LCSD) met overall accuracy criteria. However, SGVLCS/SGVLCSD was bias high for n-nitroso-di-n-propylamine, 2-nitroaniline, 2,2'-oxybis(1-chloropropane) and methapyrilene, and bias low for hexachloropropene. There were no detects in the associated samples.

An uncertainty of these test results may be estimated from the recovery of the surrogates added to the sample prior to sample preparation or from the recovery of spiked compound(s) in the associated laboratory control sample. Further information is available upon request.

I certify that this data package complies with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Furthermore, I certify that the tests used in this report meet all requirements of the NELAC standards unless otherwise stated in the SDG narrative or QA notice. Release of the data

contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Quentisha L. Forrester
Analyst II
May 14, 2009

Laboratory Notice

Calibration Date(s): 30-APR-2009 16:22 30-APR-2009 19:51

Instrument ID: 5972hp62

An initial calibration was analyzed by Method 8270C. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the initial calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8270C, Sec. 7.3.7.1, and Method 8000B, Section 7.5.1.2, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally, the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Compound Name	RSD
Diallate (trans) part of total	19.1
Bis(2-chloroethyl)ether	17.3
N-Nitrosopyrrolidine	35.1
N-Nitrosomorpholine	21.5
o-Toluidine	17.6
2,4-Dimethylphenol	15.2
Naphthalene	15.2
4-Chloroaniline	16.9
p-Phenylenediamine	54.7
Safrole	15.3
2-Chloronaphthalene	16.4
1,4-Napthoquinone	15.4
Acenaphthylene	16.3
Acenaphthene	17.9
2,4-Dinitrophenol	37.3
Pentachlorobenzene	15.1
Dibenzofuran	15.9
2-Naphthylamine	21.6
4-Chlorophenyl-phenylether	19.4
Fluorene	15.5
4,6-Dinitro-2-methylphenol	22.1
1,2-Diphenylhydrazine	16.6
1,3,5-Trinitrobenzene	22.4
Diallate (trans isomer)	19.1
Phorate	15.4
Dimethoate	17.5
Methyl Parathion	16.8
4-Nitroquinoline-1-oxide	20.6
Pyrene	16.3
Chrysene	18.2
Benzo(k)fluoranthene	17.2
Diallate Total	16.9
a,a-Dimethylphenethylamine	50.6
2-Fluorobiphenyl	15.9
Terphenyl-d14	15.5

Average %RSD for all compounds in the Initial Calibration: 12.2 %

Data Reviewer/ID: _____ / 624

Date: 1/5/19

GC and GC/MS Column and Trap Specifications Table

SDG #:	0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
√	Restek	clpest	0.32	0.5	30
√	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
√	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
√	Restek	RTX-5MS	0.32	0.25	30
	Phenomonex	ZB-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
	Restek	Pinnacle Cyano	4.6	5.0	25 cm
	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

	GC and GC/MS Volatiles Laboratory	
	Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
		* 1.2 cm Carbopack B
√	Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
		* 6 cm of Carboxen 1000 (Carbon molecular sieves)
		* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 28

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Revision 6 (12/6/2005)

CompuChem

a division of Liberty Analytical Corporation

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches $\geq$ 85% in the SOM01.1 SOW), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations (responses in the SOM01.1 SOW) exceed the upper level of the calibration range (exceed the response of the high ICAL standard in the SOM01.1 SOW) of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range (greater than the response of the highest ICAL standard in the SOM01.1 SOW), the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range (with responses greater than the response of the highest ICAL standard in the SOM01.1 SOW) will have the concentration (result in the SOM01.1 SOW) flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration (response in the SOM01.1 SOW) of an analyte exceeds the upper calibration range (exceeds the response of the highest ICAL standard in the SOM01.1 SOW), the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.1 SOW, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type					G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered					U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample									<2	<2	>12	>9			
Box 2 - Preservative					H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type					2-1L A	2-1L A	2-1L A	1-250 ml P	1-500 ml P		P	P	2-1L A	2-1L A	
Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0	ICP 6010B/3005A/dissolved 7000 (Metals-Total) PH	7470A (Mercury-Total) PH	Cyanide 9012 PH	Sulfide 9030B PH	Appdx 9 SV 8270C AL	Appdx 9 PEST 8081A AL	Appdx 9 PCBs 8082
13MW1 ✓	4/14	0935	GW	3	X	X		X	X<2	X			X		
13MW2 ✓	4/14	0815	GW	3	X	X		X	X<2	X			X		
13MW3 ✓	4/13	1200	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW4 ✓		1035	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MWDUP ✓		1050	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW5 ✓		0850	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW6 ✓	4/13	0740	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X
13MW7 ✓	4/14	1050	GW	3	X	X	X	X	X<2	X	X>12	X>9	X	X	X

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW-1 + 13MW-2. JLF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Sample ID	
13MW1	0904103-01
13MW2	0904103-02
13MW3	0904098-02
13MW4	-03
13MWDUP	-04
13MW5	0904098-01 USE FOR QC
13MW6	0904098-05
13MW7	-06

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 1.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Goldwyn	Date: 4/15/09	Sample Storage Time Requested:	
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224		
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Goldwyn	Date: 4/15/09	#2 Received by (Signature): Lee A Swanson	Date: 4/15/09	30 DYS ORG/8 MTHS INORG	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0900	Company Name: NC Courier	Time: 12 24 PM		

9 - Rdf 4-15-09
Compuchem 1615

Y/O JLF 3.31.09

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

3/12

ANALYTICAL METHOD: 314.0
TYPE METHOD:

For: 13MW1 and 13MW2 AND ALL OTHER sample locations.

No.	PARAMETER	CAS RN
1.	Perchlorate	14797-73-0

.P:\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 - JCF
Revised November, 2005 - new permit - JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

HWMU13 C, SUB ½ cutoff for J flags

8270C

HWMU13 10BG 2Q09

13MW3, 13MW4 — 13MW7 JCF 3/31/09

dilute 6/12

Analyte	CAS#	MethodRef	LOQ	LOD
1,2,4,5-Tetrachlorobenzene	95-94-3	8270C	10	1
p-Phenylenediamine	106-50-3	8270C	50	33
1,4-Naphthoquinone	130-15-4	8270C	10	1
1-Naphthylamine	134-32-7	8270C	10	2
2,3,4,6-Tetrachlorophenol	58-90-2	8270C	10	1
2,4,5-Trichlorophenol	95-95-4	8270C	10	1
2,4,6-Trichlorophenol	88-06-2	8270C	10	1
2,4-Dichlorophenol	120-83-2	8270C	10	1
2,4-Dimethylphenol	105-67-9	8270C	10	1
2,4-Dinitrophenol	51-28-5	8270C	10	1
2,6-Dichlorophenol	87-65-0	8270C	10	1
2-Acetylaminofluorene	53-96-3	8270C	30	2
2-Chloronaphthalene	91-58-7	8270C	10	1
2-Chlorophenol	95-57-8	8270C	10	1
2-Methylnaphthalene	91-57-6	8270C	10	1
2-Methylphenol	95-48-7	8270C	10	1
2-Naphthylamine	91-59-8	8270C	10	2
o-Nitroaniline	88-74-4	8270C	10	1
o-Nitrophenol	88-75-5	8270C	10	1
2-Picoline	109-06-8	8270C	10	2
3 & 4-Methylphenol	m 108-39-4 p 106-44-5	8270C	10	1
3,3'-Dichlorobenzidine	91-94-1	8270C	10	2
3,3'-Dimethylbenzidine	119-93-7	8270C	20	2
3-Methylcholanthrene	56-49-5	8270C	10	1
m-Nitroaniline	99-09-2	8270C	20	1
4,6-Dinitro-o-cresol	534-52-1	8270C	20	1
4-Aminobiphenyl	92-67-1	8270C	10	2
4-Bromophenyl phenyl ether	101-55-3	8270C	10	1
p-Chloro-m-cresol	59-50-7	8270C	10	1
p-Chloroaniline	106-47-8	8270C	10	1
4-Chlorophenyl phenyl ether	7005-72-3	8270C	10	1
p-Nitroaniline	100-01-6	8270C	20	1
p-Nitrophenol	100-02-7	8270C	10	2
4-Nitroquinoline-1-oxide	56-57-5	8270C	50	1
5-Nitroso-o-toluidine	99-55-8	8270C	10	2

7,12-Dimethylbenz[a]anthracene	57-97-6	8270C	20	1
a,a-Dimethylphenethylamine	122-09-8	8270C	50	3
Acenaphthene	83-32-9	8270C	10	1
Acenaphthylene	208-96-8	8270C	10	1
Acetophenone	98-86-2	8270C	10	1
Aniline	62-53-3	8270C	10	1
Anthracene	120-12-7	8270C	10	1
Aramite	140-57-8	8270C	10	1
Benzo[a]anthracene	56-55-3	8270C	10	1
Benzo[a]pyrene	50-32-8	8270C	10	1
Benzo[b]fluoranthene	205-99-2	8270C	10	1
Benzo[ghi]perylene	191-24-2	8270C	10	1
Benzo[k]fluoranthene	207-08-9	8270C	10	1
Benzyl alcohol	100-51-6	8270C	10	1
bis(2-Chloroethoxy)methane	111-91-1	8270C	10	1
bis(2-Chloroethyl) ether	111-44-4	8270C	10	1
bis(2-Chloro-1-methylethyl)ether	108-60-1	8270C	10	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270C	6	1
Butyl benzyl phthalate	85-68-7	8270C	10	1
Chlorobenzilate	510-15-6	8270C	20	1
Chrysene	218-01-9	8270C	10	1
Diallate	2303-16-4	8270C	10	1
Dibenz(a,h)anthracene	53-70-3	8270C	10	1
Dibenzofuran	132-64-9	8270C	10	1
Diethyl phthalate	84-66-2	8270C	10	1
Dimethoate	60-51-5	8270C	20	1
p-(Dimethylamino)azobenzene	60-11-7	8270C	10	2
Dimethyl phthalate	131-11-3	8270C	10	1
Di-n-butyl phthalate	84-74-2	8270C	10	1
Di-n-octyl phthalate	117-84-0	8270C	10	1
Diphenylamine	122-39-4	8270C	10	1
Disulfoton	298-04-4	8270C	10	1

Hexachloroethane JCF 4/13/09

8/p

Ethyl methanesulfonate	62-50-0	8270C	10	1
Famphur	52-85-7	8270C	10	1
Fluoranthene	206-44-0	8270C	10	1
Fluorene	86-73-7	8270C	10	1
Hexachlorobenzene	118-74-1	8270C	10	1
Hexachlorocyclopentadiene	77-47-4	8270C	20	1
Hexachlorophene	70-30-4	8270C	500	88
Hexachloropropene	1888-71-7	8270C	10	1
Indeno[1,2,3-cd]pyrene	193-39-5	8270C	10	1
Isodrin	465-73-6	8270C	10	1
Isophorone	78-59-1	8270C	10	1
Isosafrole	120-58-1	8270C	10	1
Kepone	143-50-0	8270C	10	1
Methapyrilene	91-80-5	8270C	10	2
Methyl methane sulfonate	66-27-3	8270C	10	1
Methyl parathion	298-00-0	8270C	10	1
Nitrobenzene	98-95-3	8270C	10	1
N-Nitrosodi-n-butylamine	924-16-3	8270C	10	2
N-Nitrosodiethylamine	55-18-5	8270C	10	2
N-Nitrosodimethylamine	62-75-9	8270C	10	1
N-Nitrosodipropylamine	621-64-7	8270C	10	1
N-Nitrosodiphenylamine	86-30-6	8270C	10	1
N-Nitrosomethylethylamine	10595-95-6	8270C	10	2
N-Nitrosomorpholine	59-89-2	8270C	10	2
N-Nitrosopiperidine	100-75-4	8270C	10	2
N-Nitrosopyrrolidine	930-55-2	8270C	10	2
O,O,O-Triethyl phosphorothioate	126-68-1	8270C	10	1
o-Toluidine	95-53-4	8270C	10	2
Parathion	56-38-2	8270C	10	1
Pentachlorobenzene	608-93-5	8270C	10	1
Pentachloronitrobenzene	82-68-8	8270C	10	1

9/10

Pentachlorophenol	87-86-5	8270C	20	1
Phenacetin	62-44-2	8270C	10	1
Phenanthrene	85-01-8	8270C	10	1
Phenol	108-95-2	8270C	10	1
Phorate	298-02-2	8270C	20	1
Pronamide	23950-58-5	8270C	10	1
Pyrene	129-00-0	8270C	10	1
Pyridine	110-86-1	8270C	20	1
Safrole	94-59-7	8270C	10	1
Sulfotep	3689-24-5	8270C	10	1
O,O-Diethyl O-2-pyrazinyl	297-97-2	8270C	10	1

WORK ORDER

0904098

Printed: 5/14/2009 10:05:56AM

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Reported**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13C.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

WORK ORDER

Printed: 5/14/2009 10:05:56AM

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR 4-17-3 **DATE:** 4-17-09

BATCH: 9041633

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904096-01	7W11B		
2	0904096-02	7W12B		
3	0904096-03	7WCA		
4	0904096-04	7WDUP		
5	0904096-05	7MW6		
6	0904098-01	13MW5		
7	0904098-02	13MW3		
8	0904098-03	13MW4		
9	0904098-04	13MWDUP		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	0904103-01	13MW1		
13	0904103-02	13MW2		
14	9041633-BLK1	SBLKGV		
15	9041633-BS1	SGVLCS		
16	9041633-BSD1	SGVLCSD		
17	9041633-MS1	7W11BMS01		
18	9041633-MS2	13MW5MS02		
19	9041633-MSD1	7W11BMSD01		
20	9041633-MSD2	13MW5MSD02		
21				
22				
23				
24				
25				
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	[illegible]	4-17-09-4:30PM	GC Ref #3	Storage
	GCMS#3	5/1 1200	TAP	Analysis
	TAP	5/1 1600	GCMS#3	Storage
	GCMS#3	5/2 900	TAP	Analysis
	TAP	5/2 1200	GCMS#3	Storage

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE :LIBRTY

METHOD: 8270C

SDG # : 0904098

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II SV)

b. Spike Summary - MS / MSD / LCS
(Form III SV)

c. Method Blank Summary (Form IV SV)

d. GC/MS Instrument Performance Check
(Form V SV)

e. Internal Standard Area and RT Summary
(Form VIII SV)

a. Surrogate Percent Recovery Summary

(Form II SV)

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

	CLIENT SAMPLE NO.	S1 (2FP)#	S2 (PHL)#	S3 (NBZ)#	S4 (FBP)#	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	SBLKGV	60	41	80	64	47	72			0
02	SGVLCS	69	47	84	76	66	74			0
03	SGVLCSD	61	40	82	72	66	71			0
04	13MW5	65	44	90	76	72	84			0
05	13MW5MS	65	42	97	80	88	79			0
06	13MW5MSD	70	45	107	84	84	80			0
07	13MW3	66	45	99	76	72	89			0
08	13MW4	67	46	98	82	76	90			0
09	13MWDUP	62	43	102	87	77	99			0
10	13MW6	68	44	98	78	68	95			0
11	13MW7	64	42	97	77	68	99			0
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										

	QC LIMITS
S1 (2FP) = 2-Fluorophenol	(11-110)
S2 (PHL) = Phenol-d5	(10-110)
S3 (NBZ) = Nitrobenzene-d5	(35-110)
S4 (FBP) = 2-Fluorobiphenyl	(45-110)
S5 (TBP) = 2,4,6-Tribromophenol	(44-131)
S6 (TPH) = Terphenyl-d14	(49-120)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

b. Spike Summary - MS / MSD / LCS
(Form III SV)

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Diallate (cis) part of	41.03	0	11.71	29	20-150
Diallate (trans) part o	41.03	0	21.69	53	20-150
N-Nitrosodimethylamine	41.03	0	30.87	75	20-100
Pyridine	41.03	0	30.92	75	20-100
2-Picoline	41.03	0	33.77	82	20-150
Nitrosomethylethylamine	41.03	0	42.05	102	20-150
Methyl Methanesulfonate	41.03	0	34.68	85	20-150
N-Nitrosodiethylamine	41.03	0	40.78	99	20-150
Ethyl Methanesulfonate	41.03	0	43.22	105	20-150
Phenol	41.03	0	18.34	45	20-100
Aniline	41.03	0	40.28	98	20-150
Bis(2-chloroethyl)ether	41.03	0	44.15	108*	31-100
2-Chlorophenol	41.03	0	35.05	85	23-100
Benzyl Alcohol	41.03	0	34.71	85	29-100
2-Methylphenol	41.03	0	35.03	85	25-100
2,2'-oxybis(1-Chloropro	41.03	0	62.26	152*	24-100
N-Nitrosopyrrolidine	41.03	0	53.53	130	20-150
3-Methylphenol	82.05	0	34.78	42	24-100
4-Methylphenol	82.05	0	34.78	42	24-100
3-4-Methylphenol	82.05	0	35.34	43	24-100
N-Nitroso-di-N-prop.(1)	41.03	0	48.24	118*	34-101
Acetophenone	41.03	0	34.8	85	39-100
N-Nitrosomorpholine	41.03	0	40.82	99	20-150
o-Toluidine	41.03	0	40.28	98	20-150
Hexachloroethane	41.03	0	33.52	82	28-100
Nitrobenzene	41.03	0	43.41	106	20-131
N-Nitrosopiperidine	41.03	0	37.5	91	20-150
Isophorone	41.03	0	46.07	112*	43-105

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
2-Nitrophenol	41.03	0	34.45	84	39-103
2,4-Dimethylphenol	41.03	0	32.24	79	19-109
o,o,o-Triethylphosphoro	41.03	0	32.66	80	20-150
Bis(2-chloroethoxy)meth	41.03	0	37.86	92	35-110
2,4-Dichlorophenol	41.03	0	33.77	82	39-103
4-Chloroaniline	41.03	0	37.58	92	25-115
2,6-Dichlorophenol	41.03	0	34.24	83	20-150
Hexachloropropene	41.03	0	25.35	62	20-150
N-Nitroso-di-n-butylami	41.03	0	43.92	107	20-150
p-Phenylenediamine	41.03	0	0	0*	20-150
4-Chloro-3-methylphenol	41.03	0	34.53	84	41-103
Safrole	41.03	0	32.63	80	20-150
2-Methylnaphthalene	41.03	0	37.03	90	40-100
Hexachlorocyclopentadie	41.03	0	29.73	72	20-123
1,2,4,5-Tetrachlorobenz	41.03	0	29.1	71	20-150
2,4,6-Trichlorophenol	41.03	0	33.14	81	46-113
2,4,5-Trichlorophenol	41.03	0	34.33	84	41-119
Isosafrole	41.03	0	33.43	81	20-150
2-Chloronaphthalene	41.03	0	36.58	89	46-105
2-Nitroaniline	41.03	0	52.88	129*	34-107
1,4-Napthoquinone	41.03	0	37.53	91	20-150
Dimethylphthalate	41.03	0	36.46	89	53-116
Acenaphthylene	41.03	0	36.69	89	50-115
3-Nitroaniline	41.03	0	44.88	109	20-110
Acenaphthene	41.03	0	36.45	89	53-118
2,4-Dinitrophenol	41.03	0	42.7	104*	20-102
4-Nitrophenol	41.03	0	17.97	44	10-100
Pentachlorobenzene	41.03	0	31.15	76	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Dibenzofuran	41.03	0	36.38	89	50-107
1-Naphthylamine	41.03	0	80.81	197*	20-150
2,3,4,6-Tetrachlorophen	41.03	0	32.83	80	20-150
2-Naphthylamine	41.03	0	74.03	180*	20-150
Diethylphthalate	41.03	0	35.57	87	52-118
Zinophos	41.03	0	35.44	86	20-150
4-Chlorophenyl-phenylet	41.03	0	31.83	78	51-117
5-Nitro-o-toluidine	41.03	0	41.83	102	20-150
Fluorene	41.03	0	37.55	92	53-121
4-Nitroaniline	41.03	0	46.8	114*	20-110
4,6-Dinitro-2-methylphe	41.03	0	42.5	104	38-116
N-Nitrosodiphenylamine	41.03	0	37.98	93	52-117
Sulfotep	41.03	0	33.12	81	20-150
Diallate (trans isomer)	41.03	0	21.69	53	20-150
Phorate	41.03	0	38.88	95	20-150
Phenacetin	41.03	0	36.77	90	20-150
Diallate (cis isomer)	41.03	0	11.45	28	20-150
4-Bromophenyl-phenyleth	41.03	0	28.51	69	51-115
Hexachlorobenzene	41.03	0	33.44	82	52-116
Dimethoate	41.03	0	42.49	104	20-150
4-Aminobiphenyl	41.03	0	39.85	97	20-150
Pentachlorophenol	41.03	0	42.05	102*	20-100
Pentachloronitrobenzene	41.03	0	31.04	76	20-150
Pronamide	41.03	0	37.89	92	20-150
Disulfoton	41.03	0	41.81	102	20-150
Phenanthrene	41.03	0	39	95	56-121
Anthracene	41.03	0	38.45	94	55-127
Methyl Parathion	41.03	0	46.89	114	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Di-n-butylphthalate	41.03	0	36.11	88	51-114
Parathion	41.03	0	40.35	98	20-150
4-Nitroquinoline-1-oxid	41.03	0	39.64	97	20-150
Methapyrilene	41.03	0	89.38	218*	20-150
Isodrin	41.03	0	35.21	86	20-150
Fluoranthene	41.03	0	41.13	100	58-124
Pyrene	41.03	0	36.74	90	48-131
p-Dimethylaminoazobenze	41.03	0	36.34	89	20-150
Chlorobenzilate	41.03	0	24.7	60	20-150
Famfur	41.03	0	0	0*	20-150
Butylbenzylphthalate	41.03	0	37.8	92	41-118
3,3'-Dimethylbenzidine	41.03	0	58.05	141	20-150
2-Acetylaminofluorene	41.03	0	31.03	76	20-150
3,3'-Dichlorobenzidine	41.03	0	33.98	83	20-100
bis(2-ethylhexyl)Phthal	41.03	0	36.78	90	47-121
Benzo(a)anthracene	41.03	0	38.51	94	53-128
Chrysene	41.03	0	38.43	94	50-130
Di-n-octylphthalate	41.03	0	34.81	85	30-148
7,12-Dimethylbenz(a)ant	41.03	0	37.53	91	20-150
Benzo(b)fluoranthene	41.03	0	39.49	96	41-130
Benzo(k)fluoranthene	41.03	0	44.18	108	39-150
Benzo(a)pyrene	41.03	0	40.85	100	46-135
3-Methylcholanthrene	41.03	0	35.71	87	20-150
Indeno(1,2,3-c,d)pyrene	41.03	0	36.3	88	47-138
Dibenzo(a,h)anthracene	41.03	0	34.17	83	47-134
Benzo(g,h,i)perylene	41.03	0	36.05	88	42-132
Kepone	41.03	0	0	0*	20-150
a,a-Dimethylphenethylam	41.03	0	0	0*	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aramite	41.03	0	35.96	88	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diallate (cis) part of	41.03	13.13	32	11	30	20-150
Diallate (trans) part o	41.03	22.57	55	4	30	20-150
N-Nitrosodimethylamine	41.03	33.27	81	7	30	20-100
Pyridine	41.03	32.32	79	4	30	20-100
2-Picoline	41.03	37.69	92	11	30	20-150
Nitrosomethylethylamine	41.03	43.61	106	4	30	20-150
Methyl Methanesulfonate	41.03	37.47	91	8	30	20-150
N-Nitrosodiethylamine	41.03	41.57	101	2	30	20-150
Ethyl Methanesulfonate	41.03	46.03	112	6	20	20-150
Phenol	41.03	19.53	48	6	30	20-100
Aniline	41.03	41.78	102	4	30	20-150
Bis(2-chloroethyl)ether	41.03	44.47	108*	1	30	31-100
2-Chlorophenol	41.03	37.05	90	6	30	23-100
Benzyl Alcohol	41.03	38.13	93	9	30	29-100
2-Methylphenol	41.03	36.55	89	4	30	25-100
2,2'-oxybis(1-Chloropro	41.03	63.14	154*	1	30	24-100
N-Nitrosopyrrolidine	41.03	51.98	127	3	30	20-150
3-Methylphenol	82.05	36.29	44	4	30	24-100
4-Methylphenol	82.05	36.29	44	4	30	24-100
3-4-Methylphenol	82.05	36.49	44	3	30	24-100
N-Nitroso-di-N-prop.(1)	41.03	49.2	120*	2	30	34-101
Acetophenone	41.03	39.11	95	12	30	39-100
N-Nitrosomorpholine	41.03	46.94	114	14	30	20-150
o-Toluidine	41.03	41.73	102	4	30	20-150
Hexachloroethane	41.03	36.56	89	9	30	28-100
Nitrobenzene	41.03	49.71	121	14	30	20-131
N-Nitrosopiperidine	41.03	42.11	103	12	30	20-150
Isophorone	41.03	50.03	122*	8	30	43-105

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-Nitrophenol	41.03	38.82	95	12	30	39-103
2,4-Dimethylphenol	41.03	34.81	85	8	30	19-109
o,o,o-Triethylphosphoro	41.03	37.12	90	13	30	20-150
Bis(2-chloroethoxy)meth	41.03	41.54	101	9	30	35-110
2,4-Dichlorophenol	41.03	37.17	91	10	30	39-103
4-Chloroaniline	41.03	44.03	107	16	30	25-115
2,6-Dichlorophenol	41.03	37.97	93	10	30	20-150
Hexachloropropene	41.03	28.02	68	10	30	20-150
N-Nitroso-di-n-butylami	41.03	46.19	113	5	30	20-150
p-Phenylenediamine	41.03	0	0*		30	20-150
4-Chloro-3-methylphenol	41.03	39.32	96	13	30	41-103
Safrole	41.03	36.55	89	11	30	20-150
2-Methylnaphthalene	41.03	42.94	105*	15	30	40-100
Hexachlorocyclopentadie	41.03	30.24	74	2	30	20-123
1,2,4,5-Tetrachlorobenz	41.03	31.5	77	8	30	20-150
2,4,6-Trichlorophenol	41.03	35.58	87	7	30	46-113
2,4,5-Trichlorophenol	41.03	36.17	88	5	30	41-119
Isosafrole	41.03	36.45	89	9	30	20-150
2-Chloronaphthalene	41.03	40.24	98	10	30	46-105
2-Nitroaniline	41.03	55.08	134*	4	30	34-107
1,4-Napthoquinone	41.03	41.47	101	10	30	20-150
Dimethylphthalate	41.03	38.2	93	5	30	53-116
Acenaphthylene	41.03	39.43	96	7	30	50-115
3-Nitroaniline	41.03	48.5	118*	8	30	20-110
Acenaphthene	41.03	38.85	95	6	30	53-118
2,4-Dinitrophenol	41.03	46.15	112*	8	30	20-102
4-Nitrophenol	41.03	19.98	49	10	30	10-100
Pentachlorobenzene	41.03	32.13	78	3	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dibenzofuran	41.03	38.33	93	5	30	50-107
1-Naphthylamine	41.03	82.87	202*	2	30	20-150
2,3,4,6-Tetrachlorophen	41.03	35.78	87	8	30	20-150
2-Naphthylamine	41.03	69.36	169*	6	30	20-150
Diethylphthalate	41.03	37.4	91	5	30	52-118
Zinophos	41.03	36.35	89	2	30	20-150
4-Chlorophenyl-phenylet	41.03	33.51	82	5	30	51-117
5-Nitro-o-toluidine	41.03	44.39	108	6	30	20-150
Fluorene	41.03	39.27	96	4	30	53-121
4-Nitroaniline	41.03	49.51	121*	6	30	20-110
4,6-Dinitro-2-methylphe	41.03	45.37	111	6	30	38-116
N-Nitrosodiphenylamine	41.03	38.58	94	2	30	52-117
Sulfotep	41.03	34.17	83	3	30	20-150
Diallate (trans isomer)	41.03	22.57	55	4	30	20-150
Phorate	41.03	40.11	98	3	30	20-150
Phenacetin	41.03	40.09	98	9	30	20-150
Diallate (cis isomer)	41.03	13.22	32	14	30	20-150
4-Bromophenyl-phenyleth	41.03	30.88	75	8	30	51-115
Hexachlorobenzene	41.03	34.54	84	3	30	52-116
Dimethoate	41.03	48.36	118	13	30	20-150
4-Aminobiphenyl	41.03	40.39	98	1	30	20-150
Pentachlorophenol	41.03	43.62	106*	4	30	20-100
Pentachloronitrobenzene	41.03	32.99	80	6	30	20-150
Pronamide	41.03	37.21	91	2	30	20-150
Disulfoton	41.03	43.75	107	4	30	20-150
Phenanthrene	41.03	39.42	96	1	30	56-121
Anthracene	41.03	40.45	99	5	30	55-127
Methyl Parathion	41.03	49.25	120	5	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Di-n-butylphthalate	41.03	37.12	90	3	30	51-114
Parathion	41.03	40.89	100	1	30	20-150
4-Nitroquinoline-1-oxid	41.03	42.81	104	8	30	20-150
Methapyrilene	41.03	145.4	354*	48*	30	20-150
Isodrin	41.03	34.02	83	3	30	20-150
Fluoranthene	41.03	41.61	101	1	30	58-124
Pyrene	41.03	39.61	97	8	30	48-131
p-Dimethylaminoazobenze	41.03	33.36	81	8	30	20-150
Chlorobenzilate	41.03	25.89	63	5	30	20-150
Famfur	41.03	0	0*		30	20-150
Butylbenzylphthalate	41.03	38.9	95	3	30	41-118
3,3'-Dimethylbenzidine	41.03	62.77	153*	8	30	20-150
2-Acetylaminofluorene	41.03	33.01	80	6	30	20-150
3,3'-Dichlorobenzidine	41.03	33.96	83	0	30	20-100
bis(2-ethylhexyl)Phthal	41.03	37.5	91	2	30	47-121
Benzo(a)anthracene	41.03	38.58	94	0	30	53-128
Chrysene	41.03	39.59	96	3	30	50-130
Di-n-octylphthalate	41.03	39.07	95	12	30	30-148
7,12-Dimethylbenz(a)ant	41.03	44.95	110	18	30	20-150
Benzo(b)fluoranthene	41.03	44.96	110	13	30	41-130
Benzo(k)fluoranthene	41.03	48.6	118	10	30	39-150
Benzo(a)pyrene	41.03	48.3	118	17	30	46-135
3-Methylcholanthrene	41.03	41.46	101	15	30	20-150
Indeno(1,2,3-c,d)pyrene	41.03	42.75	104	16	30	47-138
Dibenzo(a,h)anthracene	41.03	40.45	99	17	30	47-134
Benzo(g,h,i)perylene	41.03	41.79	102	15	30	42-132
Kepone	41.03	0	0*		30	20-150
a,a-Dimethylphenethylam	41.03	0	0*		30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aramite	41.03	40.16	98	11	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 113 outside limits
Spike Recovery: 33 out of 226 outside limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Famfur	41.03	0	7.662	19*	20-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Famfur	41.03	10.63	26	32*	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

COMMENTS: _____

_____

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Kepone	41.03	0	6.7	16*	20-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Kepone	41.03	8.411	20	23	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

COMMENTS: _____

_____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Diallate (cis) part of	40		11.19	28	20-150
Diallate (trans) part o	40		20.68	52	20-150
N-Nitrosodimethylamine	40		28.89	72	20-100
Pyridine	40		27.81	70	20-100
2-Picoline	40		31.78	79	20-150
Nitrosomethylethylamine	40		39.07	98	20-150
Methyl Methanesulfonate	40		15.85	40	20-150
N-Nitrosodiethylamine	40		37.06	93	20-150
Ethyl Methanesulfonate	40		35.53	89	20-150
Phenol	40		19.59	49	20-100
Aniline	40		32.91	82	20-150
Bis(2-chloroethyl)ether	40		39.84	100	31-100
2-Chlorophenol	40		32.82	82	23-100
Benzyl Alcohol	40		34.22	86	29-100
2-Methylphenol	40		33.11	83	25-100
2,2'-oxybis(1-Chloropro	40		48.95	122*	24-100
N-Nitrosopyrrolidine	40		43.39	108	20-150
3-Methylphenol	80		32.93	41	24-100
4-Methylphenol	80		33.85	42	24-100
3-4-Methylphenol	80		34.32	43	24-100
N-Nitroso-di-N-prop.(1)	40		46.13	115*	34-101
Acetophenone	40		32.96	82	39-100
N-Nitrosomorpholine	40		34.93	87	20-150
o-Toluidine	40		30	75	20-150
Hexachloroethane	40		30.47	76	28-100
Nitrobenzene	40		39.34	98	20-131
N-Nitrosopiperidine	40		32.93	82	20-150
Isophorone	40		35.94	90	43-105

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2-Nitrophenol	40		23.47	59	39-103
2,4-Dimethylphenol	40		31.62	79	19-109
o,o,o-Triethylphosphoro	40		29.35	73	20-150
Bis(2-chloroethoxy)meth	40		36.2	91	35-110
2,4-Dichlorophenol	40		28.65	72	39-103
4-Chloroaniline	40		30.22	76	25-115
2,6-Dichlorophenol	40		28.79	72	20-150
Hexachloropropene	40		7.118	18*	20-150
N-Nitroso-di-n-butylami	40		37.91	95	20-150
p-Phenylenediamine					20-150
4-Chloro-3-methylphenol	40		30.44	76	41-103
Safrole	40		29.55	74	20-150
2-Methylnaphthalene	40		34	85	40-100
Hexachlorocyclopentadie	40		25.34	63	20-123
1,2,4,5-Tetrachlorobenz	40		27.08	68	20-150
2,4,6-Trichlorophenol	40		29.56	74	46-113
2,4,5-Trichlorophenol	40		31.58	79	41-119
Isosafrole	40		33.99	85	20-150
2-Chloronaphthalene	40		34.47	86	46-105
2-Nitroaniline	40		45.93	115*	34-107
1,4-Napthoquinone	40		12.58	31	20-150
Dimethylphthalate	40		34.54	86	53-116
Acenaphthylene	40		34.81	87	50-115
3-Nitroaniline	40		37.9	95	20-110
Acenaphthene	40		34.78	87	53-118
2,4-Dinitrophenol	40		18.07	45	20-102
4-Nitrophenol	40		15.48	39	10-100
Pentachlorobenzene	40		28.17	70	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Dibenzofuran	40		35.51	89	50-107
1-Naphthylamine	40		8.559	21	20-150
2,3,4,6-Tetrachlorophen	40		29.27	73	20-150
2-Naphthylamine	40		7.971	20	20-150
Diethylphthalate	40		33.16	83	52-118
Zinophos	40		35.13	88	20-150
4-Chlorophenyl-phenylet	40		29.37	73	51-117
5-Nitro-o-toluidine	40		35.6	89	20-150
Fluorene	40		34.68	87	53-121
4-Nitroaniline	40		38.74	97	20-110
4,6-Dinitro-2-methylphe	40		25.23	63	38-116
N-Nitrosodiphenylamine	40		33.06	83	52-117
Sulfotep	40		25.97	65	20-150
Diallate (trans isomer)	40		20.68	52	20-150
Phorate	40		34.7	87	20-150
Phenacetin	40		30.76	77	20-150
Diallate (cis isomer)	40		10.8	27	20-150
4-Bromophenyl-phenyleth	40		26.74	67	51-115
Hexachlorobenzene	40		29.38	73	52-116
Dimethoate	40		37.18	93	20-150
4-Aminobiphenyl	40		11.29	28	20-150
Pentachlorophenol	40		32.76	82	20-100
Pentachloronitrobenzene	40		27.39	68	20-150
Pronamide	40		32.38	81	20-150
Disulfoton	40		29.43	74	20-150
Phenanthrene	40		34.76	87	56-121
Anthracene	40		34.58	86	55-127
Methyl Parathion	40		39.47	99	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Di-n-butylphthalate	40		32.59	81	51-114
Parathion	40		33.26	83	20-150
4-Nitroquinoline-1-oxid	40		23.95	60	20-150
Methapyrilene	40		83.16	208*	20-150
Isodrin	40		30.56	76	20-150
Fluoranthene	40		36.02	90	58-124
Pyrene	40		37.41	94	48-131
p-Dimethylaminoazobenze	40		33.19	83	20-150
Chlorobenzilate	40		16.7	42	20-150
Famfur					20-150
Butylbenzylphthalate	40		35.86	90	41-118
3,3'-Dimethylbenzidine	40		25.92	65	20-150
2-Acetylaminofluorene	40		26.67	67	20-150
3,3'-Dichlorobenzidine	40		29.31	73	20-100
bis(2-ethylhexyl)Phthal	40		37.55	94	47-121
Benzo(a)anthracene	40		37.05	93	53-128
Chrysene	40		37.05	93	50-130
Di-n-octylphthalate	40		33.4	84	30-148
7,12-Dimethylbenz(a)ant	40		32.68	82	20-150
Benzo(b)fluoranthene	40		35.89	90	41-130
Benzo(k)fluoranthene	40		42.09	105	39-150
Benzo(a)pyrene	40		36.77	92	46-135
3-Methylcholanthrene	40		33.81	85	20-150
Indeno(1,2,3-c,d)pyrene	40		37.53	94	47-138
Dibenzo(a,h)anthracene	40		35.95	90	47-134
Benzo(g,h,i)perylene	40		37.22	93	42-132
Kepone					20-150
a,a-Dimethylphenethylam					20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aramite	40		34.05	85	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diallate (cis) part of	40	11.71	29	4	30	20-150
Diallate (trans) part o	40	19.9	50	4	30	20-150
N-Nitrosodimethylamine	40	27.2	68	6	30	20-100
Pyridine	40	25.49	64	9	30	20-100
2-Picoline	40	29.43	74	7	30	20-150
Nitrosomethylethylamine	40	35.79	89	10	30	20-150
Methyl Methanesulfonate	40	14.86	37	8	30	20-150
N-Nitrosodiethylamine	40	33.76	84	10	30	20-150
Ethyl Methanesulfonate	40	34.81	87	2	20	20-150
Phenol	40	19.71	49	0	30	20-100
Aniline	40	32.4	81	1	30	20-150
Bis(2-chloroethyl)ether	40	36.98	92	8	30	31-100
2-Chlorophenol	40	32.2	81	1	30	23-100
Benzyl Alcohol	40	33.68	84	2	30	29-100
2-Methylphenol	40	32.65	82	1	30	25-100
2,2'-oxybis(1-Chloropro	40	47.27	118*	3	30	24-100
N-Nitrosopyrrolidine	40	41.89	105	3	30	20-150
3-Methylphenol	80	31.24	39	5	30	24-100
4-Methylphenol	80	32.05	40	5	30	24-100
3-4-Methylphenol	80	32.62	41	5	30	24-100
N-Nitroso-di-N-prop.(1)	40	41.32	103*	11	30	34-101
Acetophenone	40	33.23	83	1	30	39-100
N-Nitrosomorpholine	40	32.6	82	6	30	20-150
o-Toluidine	40	29.28	73	3	30	20-150
Hexachloroethane	40	26.57	66	14	30	28-100
Nitrobenzene	40	38.54	96	2	30	20-131
N-Nitrosopiperidine	40	33.22	83	1	30	20-150
Isophorone	40	36.03	90	0	30	43-105

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-Nitrophenol	40	28.92	72	20	30	39-103
2,4-Dimethylphenol	40	31.46	79	0	30	19-109
o,o,o-Triethylphosphoro	40	28.68	72	1	30	20-150
Bis(2-chloroethoxy)meth	40	37.19	93	2	30	35-110
2,4-Dichlorophenol	40	30.73	77	7	30	39-103
4-Chloroaniline	40	32.37	81	6	30	25-115
2,6-Dichlorophenol	40	29.62	74	3	30	20-150
Hexachloropropene	40	7.624	19*	5	30	20-150
N-Nitroso-di-n-butylami	40	38.8	97	2	30	20-150
p-Phenylenediamine					30	20-150
4-Chloro-3-methylphenol	40	31.81	80	5	30	41-103
Safrole	40	29.08	73	1	30	20-150
2-Methylnaphthalene	40	33.03	83	2	30	40-100
Hexachlorocyclopentadie	40	24.46	61	3	30	20-123
1,2,4,5-Tetrachlorobenz	40	28.45	71	4	30	20-150
2,4,6-Trichlorophenol	40	31.47	79	7	30	46-113
2,4,5-Trichlorophenol	40	32.96	82	4	30	41-119
Isosafrole	40	33.87	85	0	30	20-150
2-Chloronaphthalene	40	34.78	87	1	30	46-105
2-Nitroaniline	40	46.61	117*	2	30	34-107
1,4-Napthoquinone	40	12.59	31	0	30	20-150
Dimethylphthalate	40	34.74	87	1	30	53-116
Acenaphthylene	40	33.31	83	5	30	50-115
3-Nitroaniline	40	39.24	98	3	30	20-110
Acenaphthene	40	35.67	89	2	30	53-118
2,4-Dinitrophenol	40	22.03	55	20	30	20-102
4-Nitrophenol	40	16.19	40	3	30	10-100
Pentachlorobenzene	40	28.83	72	3	30	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dibenzofuran	40	35.21	88	1	30	50-107
1-Naphthylamine	40	11.8	30	35*	30	20-150
2,3,4,6-Tetrachlorophen	40	30.29	76	4	30	20-150
2-Naphthylamine	40	9.382	23	14	30	20-150
Diethylphthalate	40	33.53	84	1	30	52-118
Zinophos	40	35.95	90	2	30	20-150
4-Chlorophenyl-phenylet	40	29.5	74	1	30	51-117
5-Nitro-o-toluidine	40	34.59	86	3	30	20-150
Fluorene	40	35.82	90	3	30	53-121
4-Nitroaniline	40	38.28	96	1	30	20-110
4,6-Dinitro-2-methylphe	40	29.97	75	17	30	38-116
N-Nitrosodiphenylamine	40	33.86	85	2	30	52-117
Sulfotep	40	30.46	76	16	30	20-150
Diallate (trans isomer)	40	19.9	50	4	30	20-150
Phorate	40	34.86	87	0	30	20-150
Phenacetin	40	34.15	85	10	30	20-150
Diallate (cis isomer)	40	11.48	29	7	30	20-150
4-Bromophenyl-phenyleth	40	25.87	65	3	30	51-115
Hexachlorobenzene	40	29.72	74	1	30	52-116
Dimethoate	40	40.31	101	8	30	20-150
4-Aminobiphenyl	40	12.8	32	13	30	20-150
Pentachlorophenol	40	36.93	92	11	30	20-100
Pentachloronitrobenzene	40	28.88	72	6	30	20-150
Pronamide	40	34.04	85	5	30	20-150
Disulfoton	40	27.98	70	6	30	20-150
Phenanthrene	40	35.97	90	3	30	56-121
Anthracene	40	33.49	84	2	30	55-127
Methyl Parathion	40	40.63	102	3	30	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Di-n-butylphthalate	40	33.02	83	2	30	51-114
Parathion	40	35.73	89	7	30	20-150
4-Nitroquinoline-1-oxid	40	27.38	68	13	30	20-150
Methapyrilene	40	132.9	332*	46*	30	20-150
Isodrin	40	30.37	76	0	30	20-150
Fluoranthene	40	36.51	91	1	30	58-124
Pyrene	40	36.63	92	2	30	48-131
p-Dimethylaminoazobenze	40	33.02	83	0	30	20-150
Chlorobenzilate	40	20.78	52	21	30	20-150
Famfur					30	20-150
Butylbenzylphthalate	40	37.16	93	3	30	41-118
3,3'-Dimethylbenzidine	40	28.12	70	7	30	20-150
2-Acetylaminofluorene	40	28.07	70	4	30	20-150
3,3'-Dichlorobenzidine	40	30.44	76	4	30	20-100
bis(2-ethylhexyl)Phthal	40	37.28	93	1	30	47-121
Benzo(a)anthracene	40	36.92	92	1	30	53-128
Chrysene	40	36.82	92	1	30	50-130
Di-n-octylphthalate	40	38.38	96	13	30	30-148
7,12-Dimethylbenz(a)ant	40	32.02	80	2	30	20-150
Benzo(b)fluoranthene	40	39.16	98	9	30	41-130
Benzo(k)fluoranthene	40	38.29	96	9	30	39-150
Benzo(a)pyrene	40	37.44	94	2	30	46-135
3-Methylcholanthrene	40	33.2	83	2	30	20-150
Indeno(1,2,3-c,d)pyrene	40	36.59	91	3	30	47-138
Dibenzo(a,h)anthracene	40	36.93	92	2	30	47-134
Benzo(g,h,i)perylene	40	37.79	94	1	30	42-132
Kepone					30	20-150
a,a-Dimethylphenethylam					30	20-150

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aramite	40	36.37	91	7	30	20-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 2 out of 113 outside limits
Spike Recovery: 10 out of 226 outside limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Famfur	40		15.91	40	20-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Famfur	40	15.44	39	3	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM III SV-1

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: SGVLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Kepone	40		14.41	36	20-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Kepone	40	14.06	35	3	30	20-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

c. Method Blank Summary (Form IV SV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: 9041633-BLKA6298 Lab Sample ID: 9041633-BLK1

Instrument ID: 5972HP62 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 1744

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS1	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD1	9041633-BSDA	05/01/09
03	13MW5	0904098-01	0904098-01A6	05/02/09
04	13MW5MS	9041633-MS	9041633-MS2A	05/02/09
05	13MW5MSD	9041633-MSD	9041633-MSD2	05/02/09
06	13MW3	0904098-02	0904098-02A6	05/02/09
07	13MW4	0904098-03	0904098-03A6	05/02/09
08	13MWDUP	0904098-04	0904098-04A6	05/02/09
09	13MW6	0904098-05	0904098-05A6	05/02/09
10	13MW7	0904098-06	0904098-06A6	05/02/09
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COMMENTS:

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: 9041633-BLKA60 Lab Sample ID: 9041633-BLK

Instrument ID: 5972HP60 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 2242

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD	9041633-BSDA	05/01/09
03	13MW5	0904098-01	0904098-01A6	05/01/09
04	13MW5MS	9041633-MS	9041633-MS2A	05/02/09
05	13MW4	0904098-03	0904098-03A6	05/02/09
06	13MWDUP	0904098-04	0904098-04A6	05/02/09
07	13MW3	0904098-02	0904098-02JA	05/02/09
08	13MW6	0904098-05	0904098-05A6	05/02/09
09	13MW7	0904098-06	0904098-06A6	05/02/09
10	13MW5MSD	9041633-MSD	9041633-MSD2	05/02/09
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COMMENTS:

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: 9041633-BLKA60 Lab Sample ID: 9041633-BLK

Instrument ID: 5972HP60 Date Extracted: 04/17/09

Matrix: (soil/water) WATER Date Analyzed: 05/01/09

Level:(low/med) LOW Time Analyzed: 2242

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SGVLCS	9041633-BS	9041633-BSA6	05/01/09
02	SGVLCSD	9041633-BSD	9041633-BSDA	05/01/09
03	13MW5	0904098-01	0904098-01A6	05/01/09
04	13MW5MS	9041633-MS2	9041633-MS2A	05/02/09
05	13MW4	0904098-03	0904098-03A6	05/02/09
06	13MWDUP	0904098-04	0904098-04A6	05/02/09
07	13MW3	0904098-02	0904098-02JA	05/02/09
08	13MW6	0904098-05	0904098-05A6	05/02/09
09	13MW7	0904098-06	0904098-06A6	05/02/09
10	13MW5MSD	9041633-MSD2	9041633-MSD2	05/02/09
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COMMENTS:

d. GC/MS Instrument Performance Check (Form V SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: DF090430A62 DFTPP Injection Date: 04/30/09

Instrument ID: 5972HP62 DFTPP Injection Time: 1603

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	34.3
68	Less than 2.0% of mass 69	0.2 (0.4)1
69	Mass 69 relative abundance	44.4
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	25.0 - 75.0% of mass 198	41.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	25.3
365	Greater than 0.75% of mass 198	4.17
441	Present, but less than mass 443	15.3
442	40.0 - 110.0% of mass 198	104.6
443	15.0 - 24.0% of mass 442	20.7 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090430A62	04/30/09	1622
02	SSTD160	SSTD160	HH090430A62	04/30/09	1704
03	SSTD010	SSTD010	HI090430A62	04/30/09	1745
04	SSTD120	SSTD120	HJ090430A62	04/30/09	1827
05	SSTD020	SSTD020	HK090430A62	04/30/09	1909
06	SSTD050	SSTD050	HL090430A62	04/30/09	1951
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: DF090501A62 DFTPP Injection Date: 05/01/09

Instrument ID: 5972HP62 DFTPP Injection Time: 0944

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	38.8
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	49.0
70	Less than 2.0% of mass 69	0.4 (0.8)1
127	25.0 - 75.0% of mass 198	44.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	20.5
365	Greater than 0.75% of mass 198	3.25
441	Present, but less than mass 443	10.9
442	40.0 - 110.0% of mass 198	74.6
443	15.0 - 24.0% of mass 442	14.0 (18.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090501A62	05/01/09	1003
02	SBLKGV	9041633-BLK1	9041633-BLKA62	05/01/09	1744
03	SGVLCS	9041633-BS1	9041633-BSA629	05/01/09	1825
04	SGVLCSD	9041633-BSD1	9041633-BSDA62	05/01/09	1907
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FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: DF090502A62 DFTPP Injection Date: 05/02/09

Instrument ID: 5972HP62 DFTPP Injection Time: 1216

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	48.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.5
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	25.0 - 75.0% of mass 198	46.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 0.75% of mass 198	3.49
441	Present, but less than mass 443	14.9
442	40.0 - 110.0% of mass 198	103.8
443	15.0 - 24.0% of mass 442	19.6 (18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090502A62	05/02/09	1235
02	13MW5	0904098-01	0904098-01A62	05/02/09	1318
03	13MW5MS	9041633-MS	9041633-MS2A62	05/02/09	1359
04	13MW5MSD	9041633-MSD	9041633-MSD2A6	05/02/09	1441
05	13MW3	0904098-02	0904098-02A62	05/02/09	1523
06	13MW4	0904098-03	0904098-03A62	05/02/09	1605
07	13MWDUP	0904098-04	0904098-04A62	05/02/09	1647
08	13MW6	0904098-05	0904098-05A62	05/02/09	1729
09	13MW7	0904098-06	0904098-06A62	05/02/09	1811
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: DF090501A60 DFTPP Injection Date: 05/01/09

Instrument ID: 5972HP60 DFTPP Injection Time: 1231

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	56.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	77.1
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	25.0 - 75.0% of mass 198	54.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	20.8
365	Greater than 0.75% of mass 198	2.57
441	Present, but less than mass 443	11.7
442	40.0 - 110.0% of mass 198	79.8
443	15.0 - 24.0% of mass 442	15.5 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090501A60	05/01/09	1257
02	SSTD160	SSTD160	HH090501A60	05/01/09	1322
03	SSTD010	SSTD010	HI090501A60	05/01/09	1348
04	SSTD120	SSTD120	HJ090501A60	05/01/09	1414
05	SSTD020	SSTD020	HK090501A60	05/01/09	1439
06	SSTD050	SSTD050	HL090501A60	05/01/09	1505
07	SBLKGV	9041633-BLK	9041633-BLKA60	05/01/09	2242
08	SGVLCS	9041633-BS	9041633-BSA60	05/01/09	2308
09	SGVLCSD	9041633-BSD	9041633-BSDA60	05/01/09	2333
10	13MW5	0904098-01	0904098-01A60	05/01/09	2359
11	13MW5MS	9041633-MS	9041633-MS2A60	05/02/09	0025
12					
13					
14					
15					
16					
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18					
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21					
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FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: DF090502A60 DFTPP Injection Date: 05/02/09

Instrument ID: 5972HP60 DFTPP Injection Time: 0926

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.7
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	25.0 - 75.0% of mass 198	50.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	23.2
365	Greater than 0.75% of mass 198	3.10
441	Present, but less than mass 443	12.9
442	40.0 - 110.0% of mass 198	85.4
443	15.0 - 24.0% of mass 442	15.9 (18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG090502A60	05/02/09	0945
02	13MW4	0904098-03	0904098-03A60	05/02/09	1106
03	13MWDUP	0904098-04	0904098-04A60	05/02/09	1131
04	13MW3	0904098-02	0904098-02JA60	05/02/09	1157
05	13MW6	0904098-05	0904098-05A60	05/02/09	1223
06	13MW7	0904098-06	0904098-06A60	05/02/09	1248
07	13MW5MSD	9041633-MSD	9041633-MSD2JA	05/02/09	1612
08					
09					
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID: DF090502A60 DFTPP Injection Date: 05/02/09

Instrument ID: 5972HP60 DFTPP Injection Time: 0926

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.7
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	25.0 - 75.0% of mass 198	50.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	23.2
365	Greater than 0.75% of mass 198	3.10
441	Present, but less than mass 443	12.9
442	40.0 - 110.0% of mass 198	85.4
443	15.0 - 24.0% of mass 442	15.9 (18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HH090502A60	05/02/09	1011
02	13MW4	0904098-03	0904098-03A60	05/02/09	1106
03	13MWDUP	0904098-04	0904098-04A60	05/02/09	1131
04	13MW3	0904098-02	0904098-02JA60	05/02/09	1157
05	13MW6	0904098-05	0904098-05A60	05/02/09	1223
06	13MW7	0904098-06	0904098-06A60	05/02/09	1248
07	13MW5MSD	9041633-MSD2	9041633-MSD2JA	05/02/09	1612
08					
09					
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22					

e. Internal Standard Area and RT Summary (Form VIII SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	261971	7.28	938790	9.93	466997	13.85
	UPPER LIMIT	523942	7.78	1877580	10.43	933994	14.35
	LOWER LIMIT	130985	6.78	469395	9.43	233499	13.35
	CLIENT SAMPLE NO.						
01	SBLKGV	266680	7.28	928958	9.92	452497	13.85
02	SGVLCS	252207	7.28	919937	9.93	439329	13.86
03	SGVLCSD	279423	7.29	963426	9.93	458776	13.86
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090501A62 Date Analyzed: 05/01/09

Instrument ID: 5972HP62 Time Analyzed: 1003

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	681169	17.13	741741	23.10	773134	26.09
	UPPER LIMIT	1362338	17.63	1483482	23.60	1546268	26.59
	LOWER LIMIT	340585	16.63	370871	22.60	386567	25.59
	CLIENT SAMPLE NO.						
01	SBLKGV	743307	17.12	697980	23.10	720788	26.09
02	SGVLCS	733227	17.13	812545	23.12	871639	26.11
03	SGVLCSD	753738	17.13	837720	23.12	867138	26.10
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090502A62 Date Analyzed: 05/02/09

Instrument ID: 5972HP62 Time Analyzed: 1235

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	223121	7.26	762392	9.91	399860	13.82
	UPPER LIMIT	446242	7.76	1524784	10.41	799720	14.32
	LOWER LIMIT	111561	6.76	381196	9.41	199930	13.32
	CLIENT SAMPLE NO.						
01	13MW5	232320	7.26	769203	9.91	361687	13.82
02	13MW5MS	218330	7.26	779293	9.91	396123	13.82
03	13MW5MSD	212183	7.27	692194	9.91	367505	13.83
04	13MW3	215845	7.26	693004	9.91	350933	13.82
05	13MW4	218214	7.27	703981	9.91	340255	13.82
06	13MWDUP	201964	7.26	646163	9.90	311557	13.82
07	13MW6	210684	7.26	713847	9.91	342636	13.82
08	13MW7	212482	7.27	692293	9.91	342468	13.83
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18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090502A62 Date Analyzed: 05/02/09

Instrument ID: 5972HP62 Time Analyzed: 1235

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	656393		17.11		811696		23.09		852674		26.07	
	UPPER LIMIT	1312786		17.61		1623392		23.59		1705348		26.57	
	LOWER LIMIT	328197		16.61		405848		22.59		426337		25.57	
	CLIENT SAMPLE NO.												
01	13MW5	567051		17.09		623075		23.07		659452		26.06	
02	13MW5MS	660431		17.11		827078		23.09		881868		26.08	
03	13MW5MSD	605814		17.10		754154		23.09		697100		26.07	
04	13MW3	541558		17.09		575136		23.07		620095		26.06	
05	13MW4	535861		17.10		582419		23.07		601827		26.06	
06	13MWDUP	512160		17.10		536894		23.07		582789		26.06	
07	13MW6	508965		17.10		553913		23.07		581619		26.06	
08	13MW7	520171		17.09		567279		23.07		606691		26.06	
09													
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17													
18													
19													
20													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HK090501A60 Date Analyzed: 05/01/09

Instrument ID: 5972HP60 Time Analyzed: 1439

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	722758	10.74				
	UPPER LIMIT	1445516	11.24				
	LOWER LIMIT	361379	10.24				
	CLIENT SAMPLE NO.						
01	SBLKGV	634801	10.74				
02	SGVLCS	843369	10.76				
03	SGVLCSD	828494	10.76				
04	13MW5	642619	10.75				
05	13MW5MS	850933	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HG090502A60 Date Analyzed: 05/02/09

Instrument ID: 5972HP60 Time Analyzed: 0945

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	939708	10.74				
	UPPER LIMIT	1879416	11.24				
	LOWER LIMIT	469854	10.24				
	CLIENT SAMPLE NO.						
01	13MW4	683000	10.74				
02	13MWDUP	640150	10.74				
03	13MW3	661787	10.75				
04	13MW6	761897	10.74				
05	13MW7	726717	10.75				
06	13MW5MSD	588662	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HR090501A60 Date Analyzed: 05/01/09

Instrument ID: 5972HP60 Time Analyzed: 1736

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	640926	10.74				
	UPPER LIMIT	1281852	11.24				
	LOWER LIMIT	320463	10.24				
	CLIENT SAMPLE NO.						
01	SBLKGV	634801	10.74				
02	SGVLCS	843369	10.76				
03	SGVLCSD	828494	10.76				
04	13MW5	642619	10.75				
05	13MW5MS	850933	10.76				
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19							
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab File ID (Standard): HH090502A60 Date Analyzed: 05/02/09

Instrument ID: 5972HP60 Time Analyzed: 1011

		IS1(CRY) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	902479	10.74				
	UPPER LIMIT	1804958	11.24				
	LOWER LIMIT	451239	10.24				
	CLIENT SAMPLE NO.						
01	13MW4	683000	10.74				
02	13MWDUP	640150	10.74				
03	13MW3	661787	10.75				
04	13MW6	761897	10.74				
05	13MW7	726717	10.75				
06	13MW5MSD	588662	10.76				
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IS1 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I SV and Form I SV-TIC), followed by the raw data for semivolatile samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results (Form I SV)
   Tabulated results (identification and quantitation) shall be included.

b. Tentatively Identified Compounds (Form I SV-TIC)
   Lists the client specified number of organic compounds that are non-surrogate/non-internal standard compounds and are not listed on the target compound list. This form shall be included even if no compounds are found.

c. Reconstructed Ion Chromatograms
   Include for each sample or sample extract, including dilutions and reanalyses. The RIC shall contain the following header information: Client Sample ID number, date and time of analysis, GC/MS instrument identifier, lab file identifier, and analyst ID.

d. Quantitation Report showing calculations for target analytes
   - Include a printout of the Enhanced Ion Current Profile (EICP) for all manual changes to all compounds, internal standards, and surrogate compounds.

e. Copies of raw spectra and copies of background-subtracted mass spectra of target analytes identified in the sample.
   - The spectra shall include the following information: Client Sample ID number, Lab file ID, date and time of analysis, and instrument ID.
   - The compound name must be clearly marked.

f. Quantitation Report showing calculations for TICs

g. Copies of mass spectra of organic compounds not listed on the target compound list (TICs) with associated best-match spectra.
   - The spectra shall be labeled as follows: Client Sample ID number, lab file ID, date and time of analysis, and instrument ID.
   - The compound name must be clearly marked.

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

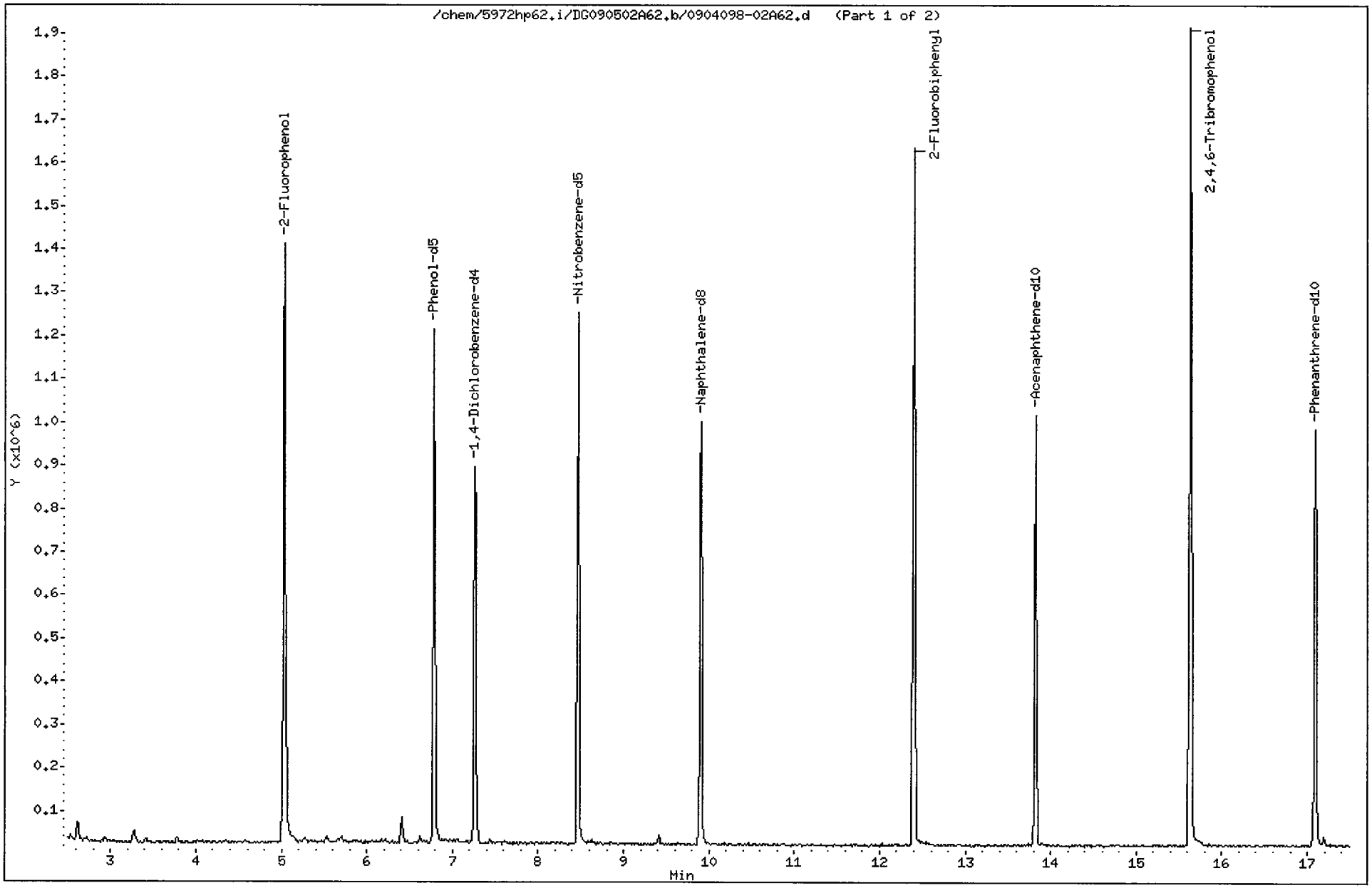
Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

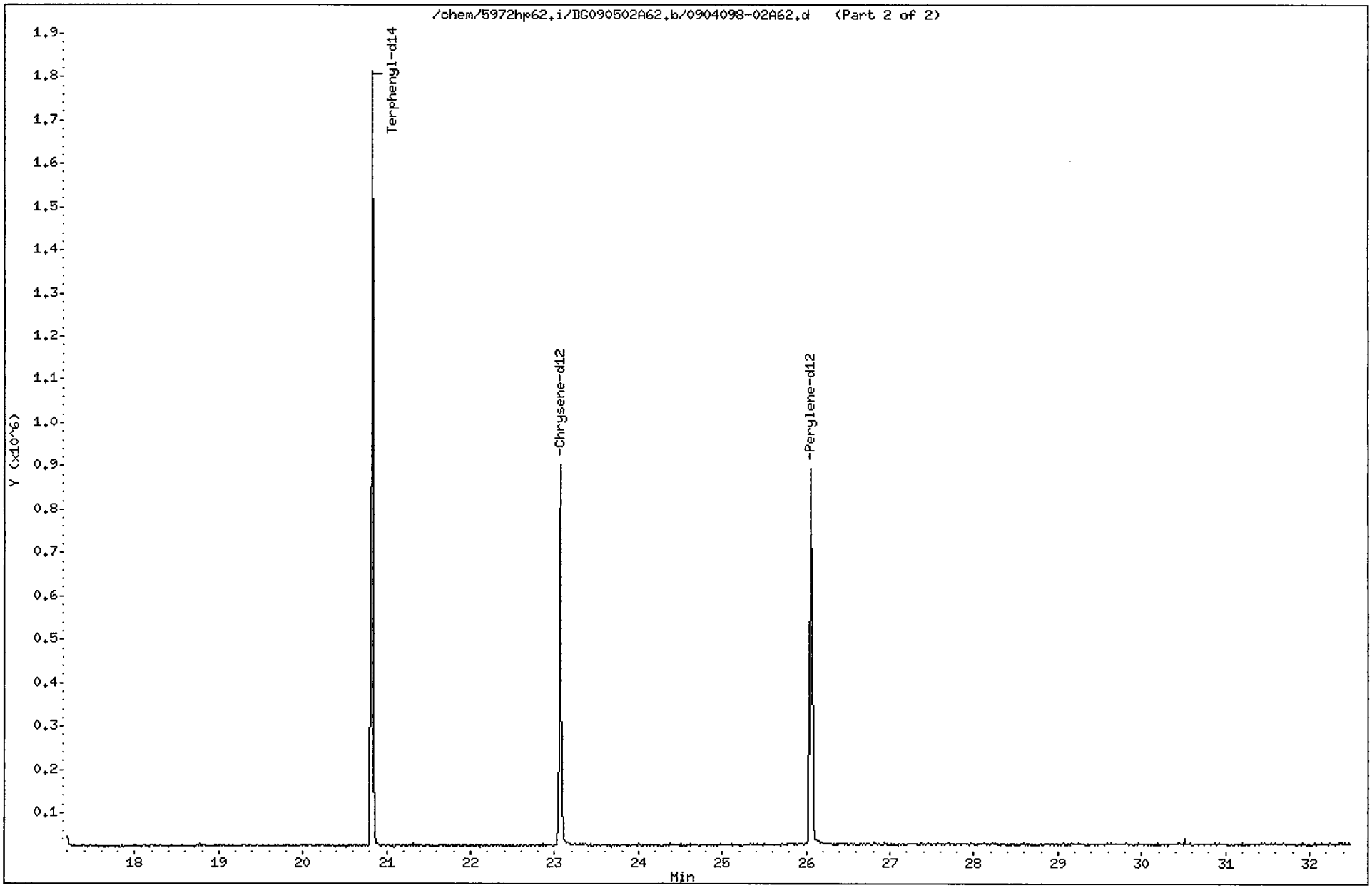
	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Date : 02-MAY-2009 15:23
Client ID: 13MW3
Instrument: 5972hp62.i
Sample Info: 0904098-02:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Date : 02-MAY-2009 15:23
Client ID: 13MW3
Instrument: 5972hp62.i
Sample Info: 0904098-02:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Lab Smp Id: 0904098-02 Client Smp ID: 13MW3
Inj Date : 02-MAY-2009 15:23
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-02:2650
Misc Info : 13MW3
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.258	7.263	(1.000)	215845	40.0000		
*	2 Naphthalene-d8	136	9.909	9.914	(1.000)	693004	40.0000		
*	3 Acenaphthene-d10	164	13.819	13.824	(1.000)	350933	40.0000		
*	4 Phenanthrene-d10	188	17.094	17.110	(1.000)	541558	40.0000		
*	5 Chrysene-d12	240	23.072	23.087	(1.000)	575136	40.0000		
*	6 Perylene-d12	264	26.060	26.066	(1.000)	620095	40.0000		
$	7 2-Fluorophenol	112	5.036	5.052	(0.694)	704229	132.672	66	
$	8 Phenol-d5	99	6.787	6.802	(0.935)	592063	90.8034	45	
$	11 Nitrobenzene-d5	82	8.465	8.481	(0.854)	641541	98.8836	49	
$	12 2-Fluorobiphenyl	172	12.406	12.401	(0.898)	850913	76.1165	38	
$	13 2,4,6-Tribromophenol	330	15.630	15.636	(1.131)	471917	144.965	72	
$	14 Terphenyl-d14	244	20.830	20.825	(0.903)	964850	88.9821	44	
	15 N-Nitrosodimethylamine	42	Compound Not Detected.						
	16 Pyridine	79	Compound Not Detected.						
	18 2-Picoline	93	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77	Acenaphthene	154	Compound Not Detected.						
78	2,4-Dinitrophenol	184	Compound Not Detected.						
79	4-Nitrophenol	139	Compound Not Detected.						
80	Pentachlorobenzene	250	Compound Not Detected.						
82	Dibenzofuran	168	Compound Not Detected.						
83	1-Naphthylamine	143	Compound Not Detected.						
84	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85	2-Naphthylamine	143	Compound Not Detected.						
86	Diethylphthalate	149	Compound Not Detected.						
87	Zinophos	97	Compound Not Detected.						
88	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89	5-Nitro-o-toluidine	152	Compound Not Detected.						
90	Fluorene	166	Compound Not Detected.						
91	4-Nitroaniline	138	Compound Not Detected.						
92	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93	N-Nitrosodiphenylamine	169	Compound Not Detected.						
96	Sulfotep	322	Compound Not Detected.						
98	Diallate (trans isomer)	86	Compound Not Detected.						
99	Diallate (trans) part of total	86	Compound Not Detected.						
100	Phorate	75	Compound Not Detected.						
101	Phenacetin	108	Compound Not Detected.						
102	Diallate (cis isomer)	86	Compound Not Detected.						
103	Diallate (cis) part of total	86	Compound Not Detected.						
104	4-Bromophenyl-phenylether	248	Compound Not Detected.						
105	Hexachlorobenzene	284	Compound Not Detected.						
106	Dimethoate	87	Compound Not Detected.						
107	4-Aminobiphenyl	169	Compound Not Detected.						
108	Pentachlorophenol	266	Compound Not Detected.						
109	Pentachloronitrobenzene	237	Compound Not Detected.						
110	Pronamide	173	Compound Not Detected.						
111	Disulfoton	88	Compound Not Detected.						
112	Phenanthrene	178	Compound Not Detected.						
113	Anthracene	178	Compound Not Detected.						
115	Methyl Parathion	109	Compound Not Detected.						
116	Di-n-butylphthalate	149	Compound Not Detected.						
117	Parathion	109	Compound Not Detected.						
118	4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119	Methapyrilene	97	Compound Not Detected.						
120	Isodrin	193	Compound Not Detected.						
121	Fluoranthene	202	Compound Not Detected.						
123	Pyrene	202	Compound Not Detected.						
124	p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125	Chlorobenzilate	251	Compound Not Detected.						
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	Compound Not Detected.						
129	3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Report Date: 06-May-2009 17:44

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Data file : /chem/5972hp62.i/DG090502A62.b/0904098-02A62.d
Lab Smp Id: 0904098-02 Client Smp ID: 13MW3
Inj Date : 02-MAY-2009 15:23
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-02:2650
Misc Info : 13MW3
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

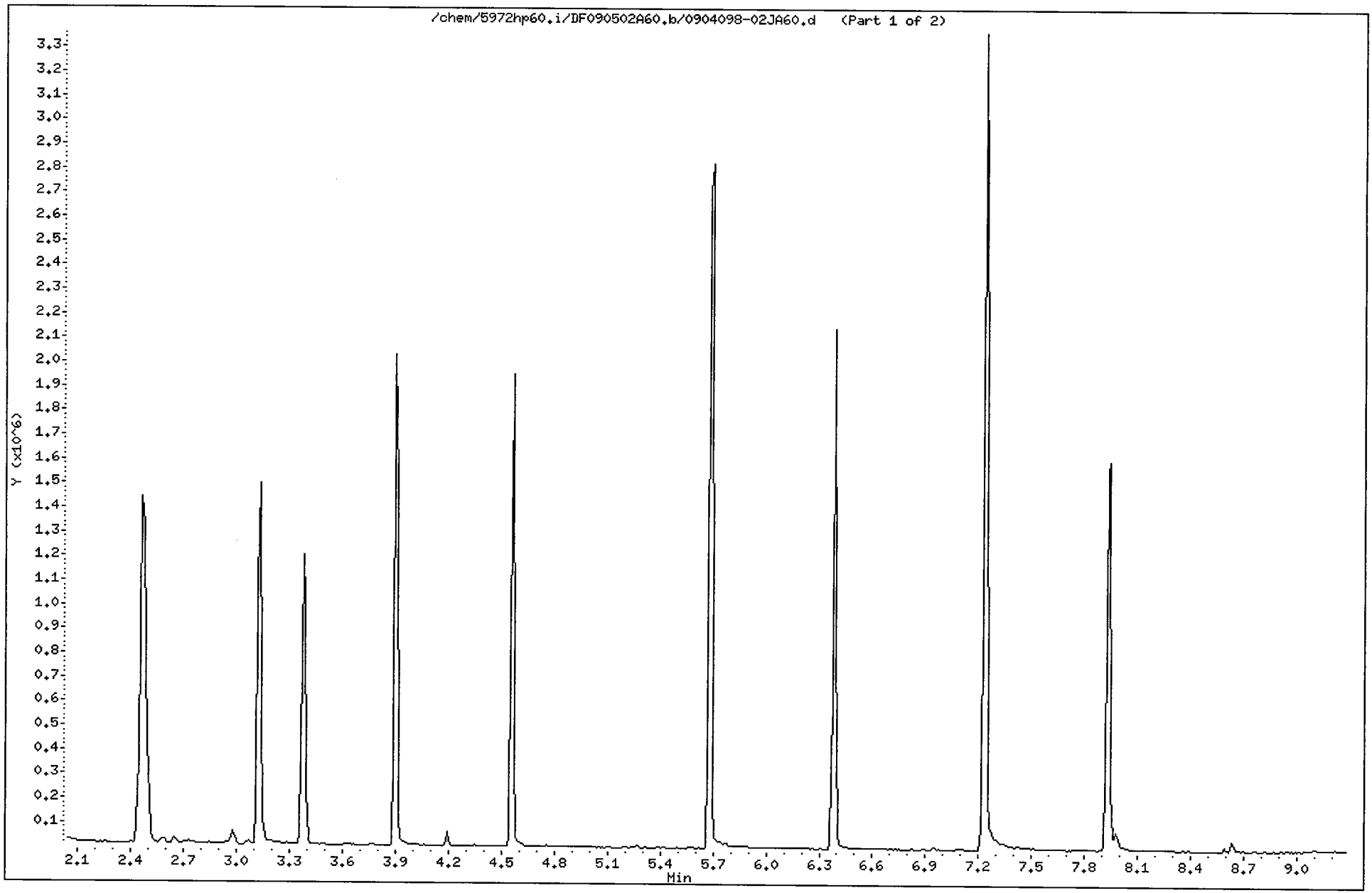
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

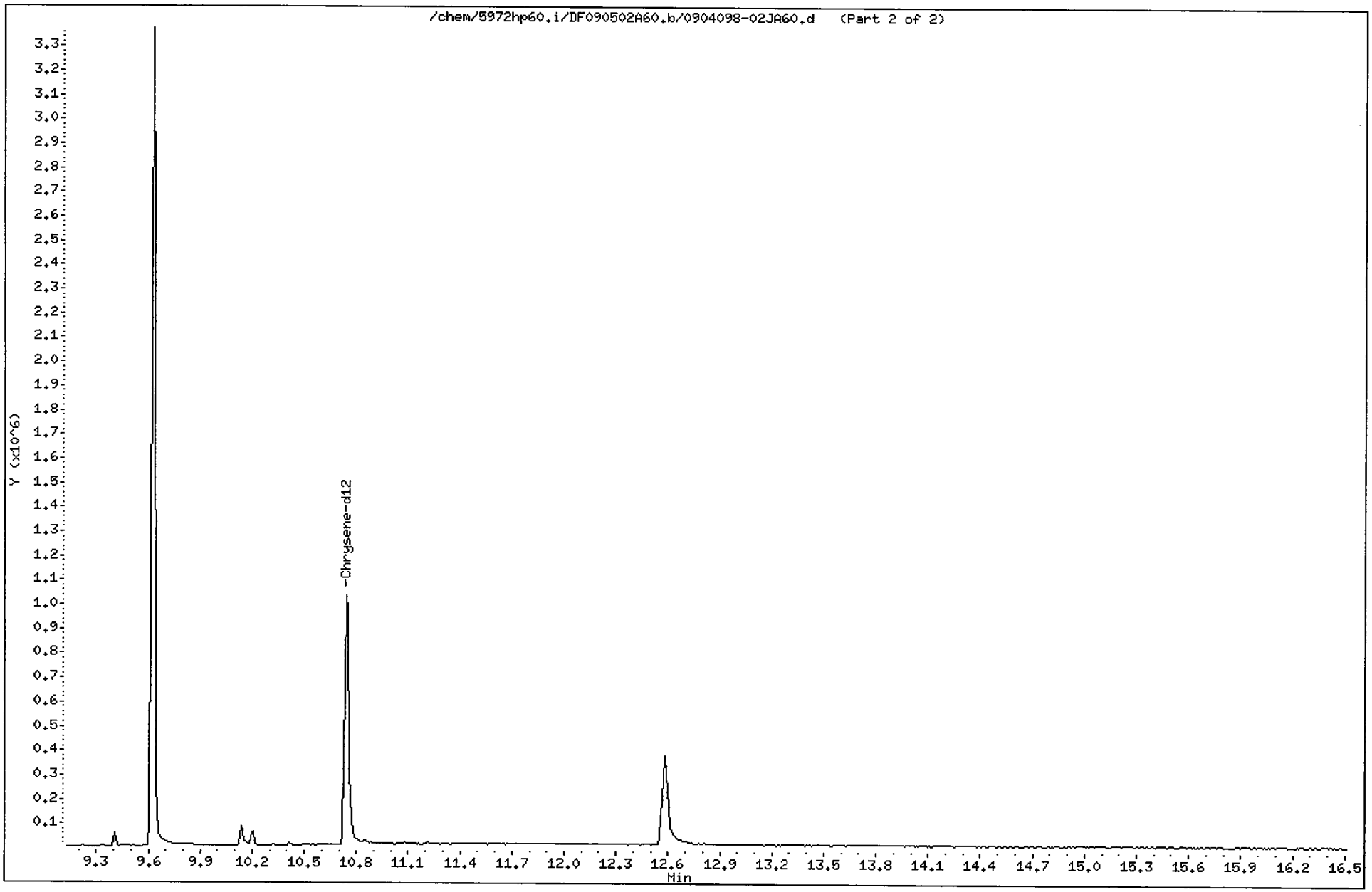
Data File: /chem/5972hp60.i/DF090502A60.b/0904098-02JA60.d
Date : 02-MAY-2009 11:57
Client ID: 13MW3
Sample Info: 0904098-02:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-02JA60.d
Date : 02-MAY-2009 11:57
Client ID: 13MW3
Sample Info: 0904098-02:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-02JA60.d
Report Date: 13-May-2009 13:51

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/0904098-02JA60.d
Lab Smp Id: 0904098-02 Client Smp ID: 13MW3
Inj Date : 02-MAY-2009 11:57
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-02:2650
Misc Info : 13MW3
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 13-May-2009 12:12 humphrie Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.750	10.745	(1.000)	661787	40.0000		
127 Famfur	218	Compound Not Detected.						

KCH 5/13/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-02JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

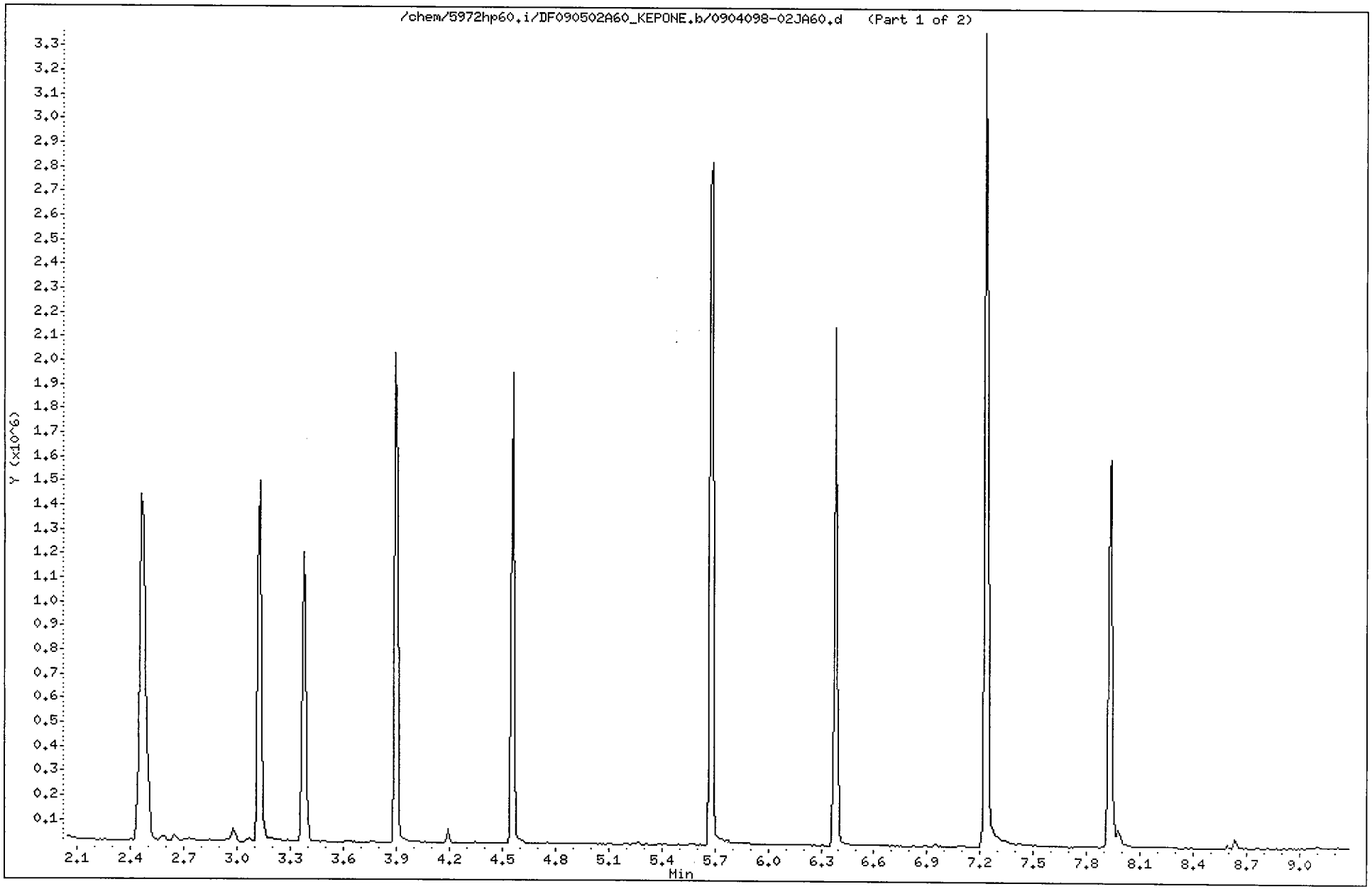
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

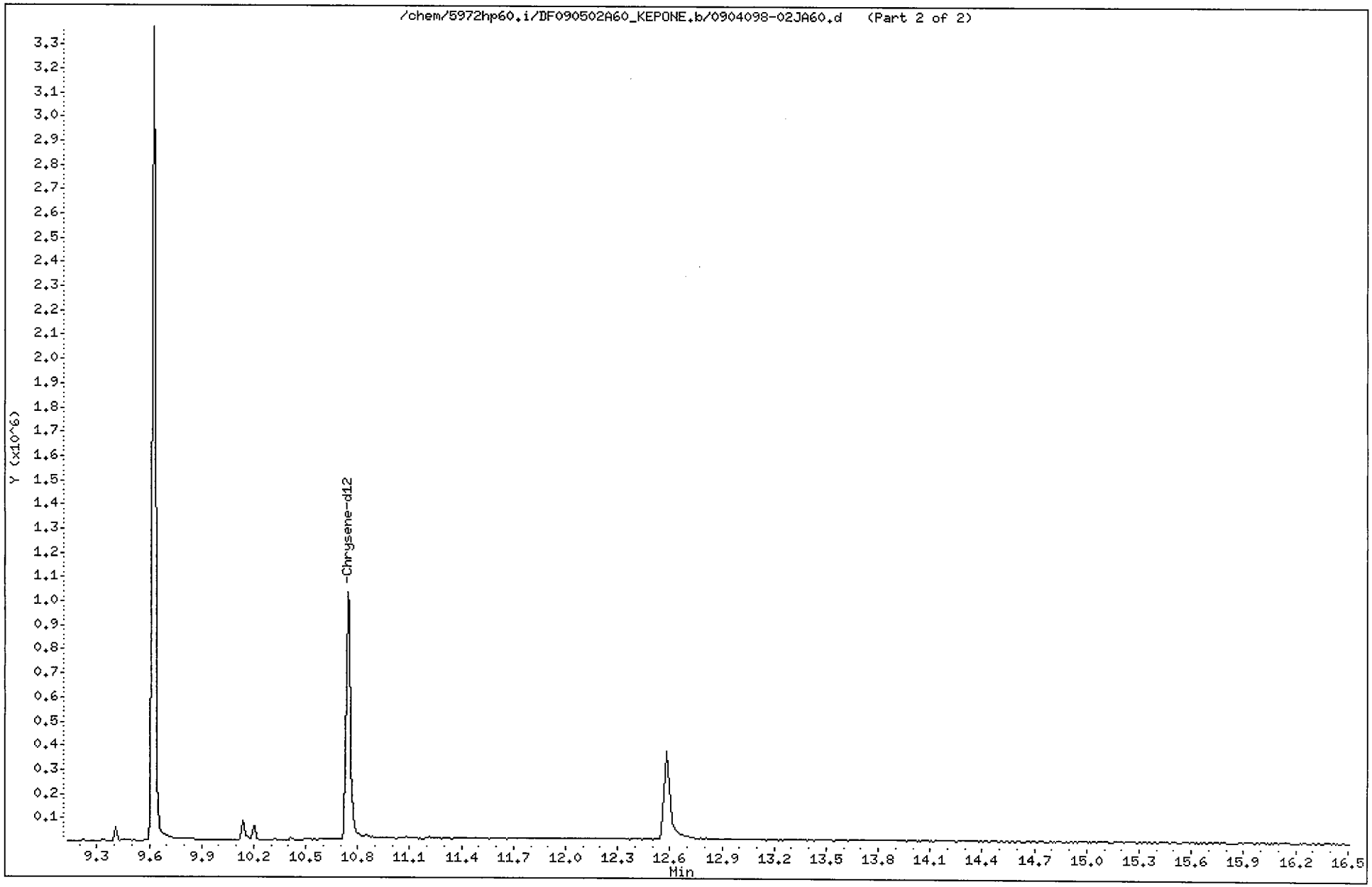
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-02JA60.d
Date : 02-MAY-2009 11:57
Client ID: 13MW3
Sample Info: 0904098-02:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-02JA60.d
Date : 02-MAY-2009 11:57
Client ID: 13MW3
Instrument: 5972hp60.i
Sample Info: 0904098-02:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-02JA60.d
Report Date: 05-May-2009 16:42

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-02JA60.d
Lab Smp Id: 0904098-02 Client Smp ID: 13MW3
Inj Date : 02-MAY-2009 11:57
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-02:2650
Misc Info : 13MW3
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 02-May-2009 11:37 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.750	10.744	(1.000)	661787	40.0000		
126 Kepone	272	Compound Not Detected.						

PKS-5-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.3	U
110-86-1	Pyridine	5.3	U
109-06-8	2-Picoline	5.3	U
10595-95-6	Nitrosomethylethylamine	5.3	U
66-27-3	Methyl Methanesulfonate	5.3	U
55-18-5	N-Nitrosodiethylamine	5.3	U
62-50-0	Ethyl Methanesulfonate	5.3	U
108-95-2	Phenol	5.3	U
62-53-3	Aniline	5.3	U
111-44-4	Bis(2-chloroethyl)ether	5.3	U
95-57-8	2-Chlorophenol	5.3	U
100-51-6	Benzyl Alcohol	5.3	U
95-48-7	2-Methylphenol	5.3	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.3	U
930-55-2	N-Nitrosopyrrolidine	5.3	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.3	U
98-86-2	Acetophenone	5.3	U
59-89-2	N-Nitrosomorpholine	5.3	U
95-53-4	o-Toluidine	5.3	U
67-72-1	Hexachloroethane	5.3	U
98-95-3	Nitrobenzene	5.3	U
100-75-4	N-Nitrosopiperidine	5.3	U
78-59-1	Isophorone	5.3	U
88-75-5	2-Nitrophenol	5.3	U
105-67-9	2,4-Dimethylphenol	5.3	U
126-68-1	o,o,o-Triethylphosphorothioa	5.3	U
111-91-1	Bis(2-chloroethoxy)methane	5.3	U
120-83-2	2,4-Dichlorophenol	5.3	U
106-47-8	4-Chloroaniline	5.3	U
87-65-0	2,6-Dichlorophenol	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.3	U
924-16-3	N-Nitroso-di-n-butylamine	5.3	U
106-50-3	p-Phenylenediamine	53	U
59-50-7	4-Chloro-3-methylphenol	5.3	U
94-59-7	Safrole	5.3	U
91-57-6	2-Methylnaphthalene	5.3	U
77-47-4	Hexachlorocyclopentadiene	5.3	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.3	U
88-06-2	2,4,6-Trichlorophenol	5.3	U
95-95-4	2,4,5-Trichlorophenol	5.3	U
120-58-1	Isosafrole	5.3	U
91-58-7	2-Chloronaphthalene	5.3	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.3	U
131-11-3	Dimethylphthalate	5.3	U
208-96-8	Acenaphthylene	5.3	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.3	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.3	U
132-64-9	Dibenzofuran	5.3	U
134-32-7	1-Naphthylamine	5.3	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.3	U
91-59-8	2-Naphthylamine	5.3	U
84-66-2	Diethylphthalate	5.3	U
297-97-2	Zinophos	5.3	U
7005-72-3	4-Chlorophenyl-phenylether	5.3	U
99-55-8	5-Nitro-o-toluidine	5.3	U
86-73-7	Fluorene	5.3	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.3	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.3	U
17708-58-6	Diallate (trans isomer)	5.3	U
298-02-2	Phorate	5.3	U
62-44-2	Phenacetin	5.3	U
17708-57-5	Diallate (cis isomer)	5.3	U
101-55-3	4-Bromophenyl-phenylether	5.3	U
118-74-1	Hexachlorobenzene	5.3	U
60-51-5	Dimethoate	5.3	U
92-67-1	4-Aminobiphenyl	5.3	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.3	U
23950-58-5	Pronamide	5.3	U
298-04-4	Disulfoton	5.3	U
85-01-8	Phenanthrene	5.3	U
120-12-7	Anthracene	5.3	U
298-00-0	Methyl Parathion	5.3	U
84-74-2	Di-n-butylphthalate	5.3	U
56-38-2	Parathion	5.3	U
56-57-5	4-Nitroquinoline-1-oxide	5.3	U
91-80-5	Methapyrilene	5.3	U
465-73-6	Isodrin	5.3	U
206-44-0	Fluoranthene	5.3	U
129-00-0	Pyrene	5.3	U
60-11-7	p-Dimethylaminoazobenzene	5.3	U
510-15-6	Chlorobenzilate	5.3	U
52-85-7	Famfur	5.3	U
85-68-7	Butylbenzylphthalate	5.3	U
119-93-7	3,3'-Dimethylbenzidine	5.3	U
53-96-3	2-Acetylaminofluorene	5.3	U
91-94-1	3,3'-Dichlorobenzidine	5.3	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.3	U
56-55-3	Benzo(a)anthracene	5.3	U
218-01-9	Chrysene	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.3	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.3	U
205-99-2	Benzo(b)fluoranthene	5.3	U
207-08-9	Benzo(k)fluoranthene	5.3	U
50-32-8	Benzo(a)pyrene	5.3	U
56-49-5	3-Methylcholanthrene	5.3	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.3	U
53-70-3	Dibenzo(a,h)anthracene	5.3	U
191-24-2	Benzo(g,h,i)perylene	5.3	U
143-50-0	Kepone	5.3	U
2303-16-4	Diallate Total	5.3	U
122-09-8	a,a-Dimethylphenethylamine	53	U
140-57-8	Aramite	5.3	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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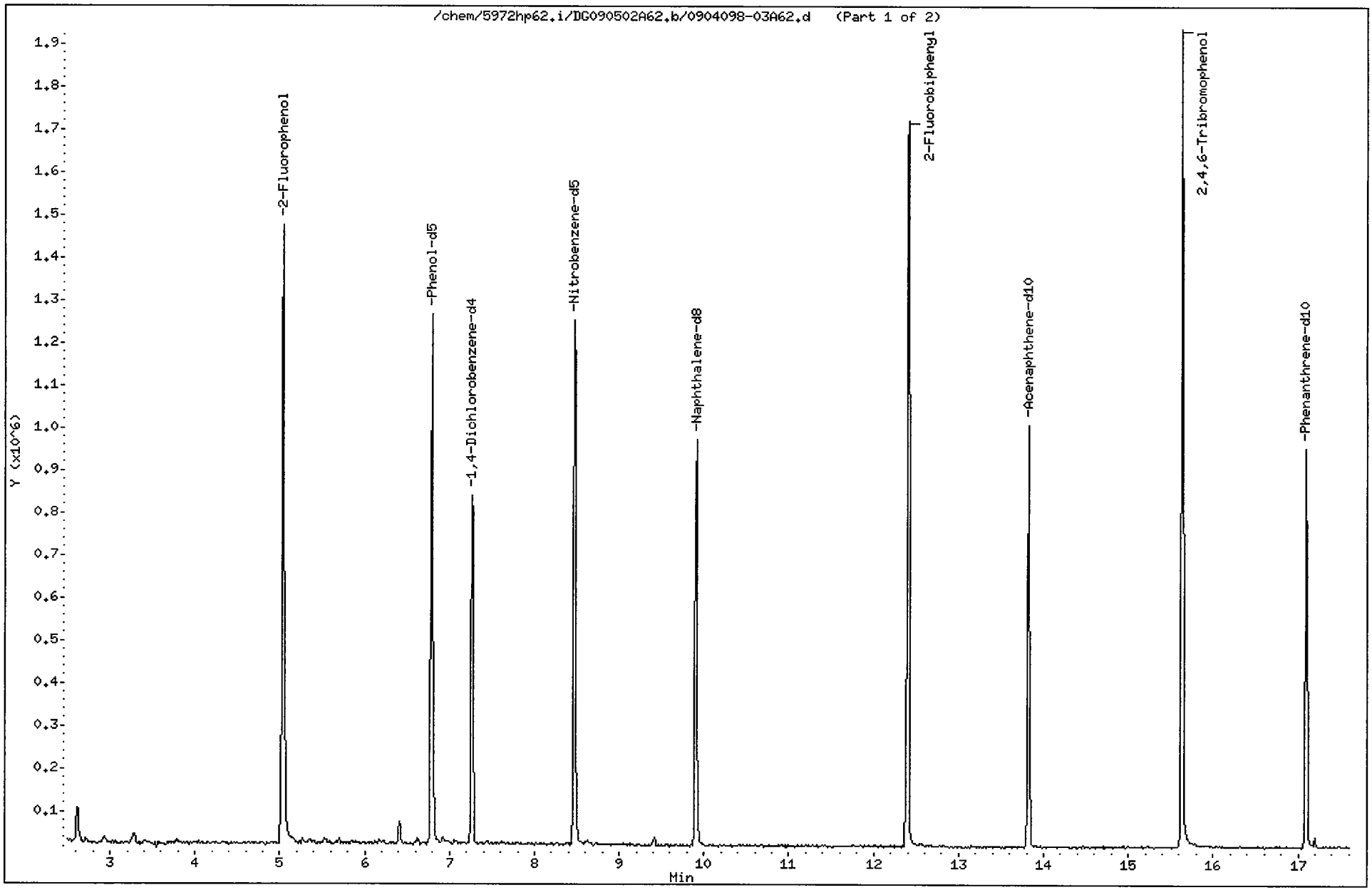
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

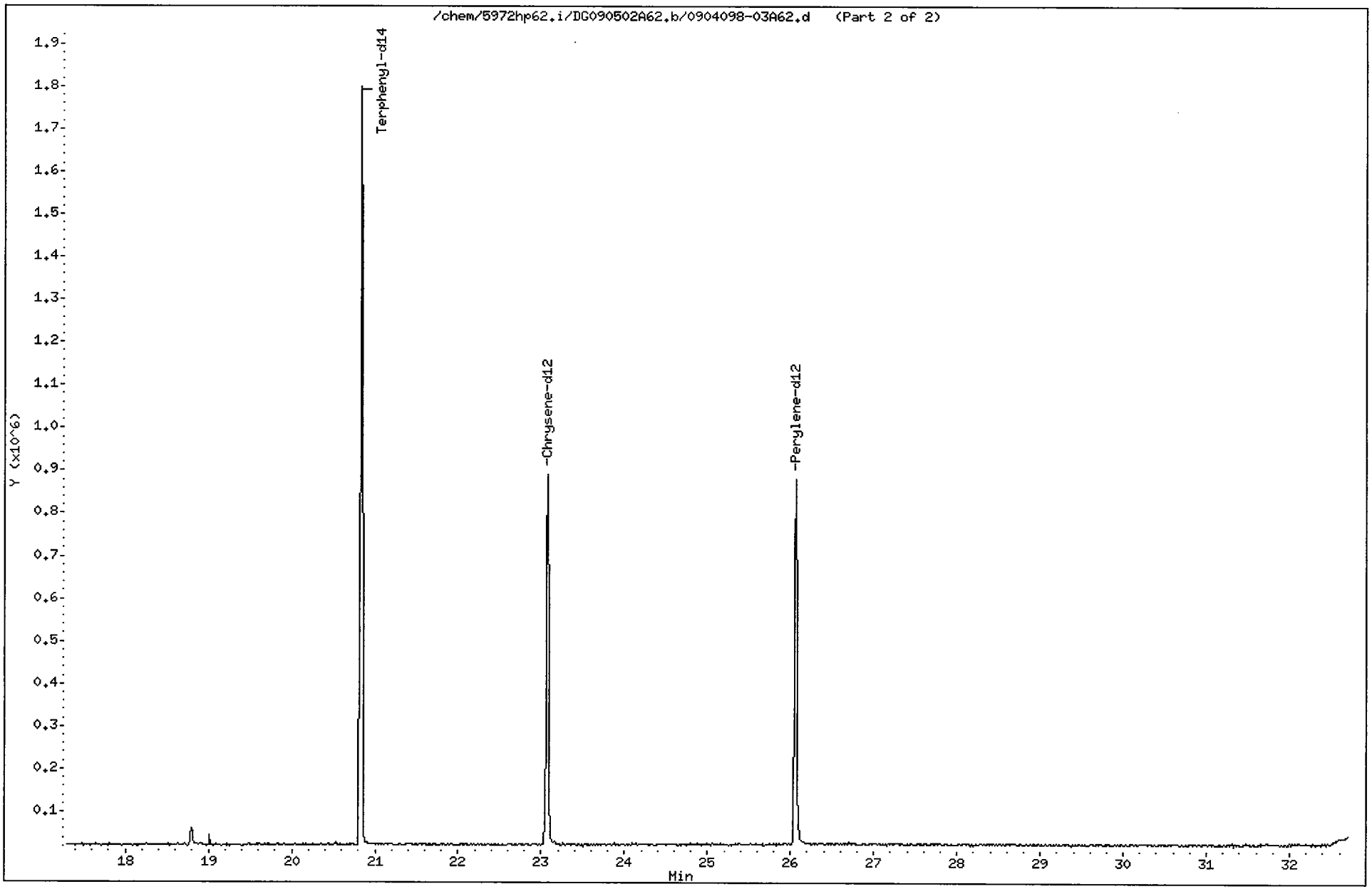
Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Date : 02-MAY-2009 16:05
Client ID: 13MW4
Sample Info: 0904098-03;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Date : 02-MAY-2009 16:05
Client ID: 13MW4
Sample Info: 0904098-03:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX
Data file : /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Lab Smp Id: 0904098-03 Client Smp ID: 13MW4
Inj Date : 02-MAY-2009 16:05
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-03:2650
Misc Info : 13MW4
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.270	7.263	(1.000)	218214	40.0000		
*	2 Naphthalene-d8	136	9.910	9.914	(1.000)	703981	40.0000		
*	3 Acenaphthene-d10	164	13.820	13.824	(1.000)	340255	40.0000		
*	4 Phenanthrene-d10	188	17.096	17.110	(1.000)	535861	40.0000		
*	5 Chrysene-d12	240	23.073	23.087	(1.000)	582419	40.0000		
*	6 Perylene-d12	264	26.062	26.066	(1.000)	601827	40.0000		
$	7 2-Fluorophenol	112	5.038	5.052	(0.693)	719097	134.003	70	
$	8 Phenol-d5	99	6.789	6.802	(0.934)	613783	93.1126	49	
$	11 Nitrobenzene-d5	82	8.467	8.481	(0.854)	647395	98.2299	52	
$	12 2-Fluorobiphenyl	172	12.408	12.401	(0.898)	892040	82.2996	43	
$	13 2,4,6-Tribromophenol	330	15.632	15.636	(1.131)	480073	152.098	80	
$	14 Terphenyl-d14	244	20.832	20.825	(0.903)	992674	90.4033	48	
	15 N-Nitrosodimethylamine	42	Compound Not Detected.						
	16 Pyridine	79	Compound Not Detected.						
	18 2-Picoline	93	Compound Not Detected.						

6/17/09

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	Compound Not Detected.						
78 2,4-Dinitrophenol	184	Compound Not Detected.						
79 4-Nitrophenol	139	Compound Not Detected.						
80 Pentachlorobenzene	250	Compound Not Detected.						
82 Dibenzofuran	168	Compound Not Detected.						
83 1-Naphthylamine	143	Compound Not Detected.						
84 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85 2-Naphthylamine	143	Compound Not Detected.						
86 Diethylphthalate	149	Compound Not Detected.						
87 Zinophos	97	Compound Not Detected.						
88 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89 5-Nitro-o-toluidine	152	Compound Not Detected.						
90 Fluorene	166	Compound Not Detected.						
91 4-Nitroaniline	138	Compound Not Detected.						
92 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93 N-Nitrosodiphenylamine	169	Compound Not Detected.						
96 Sulfotep	322	Compound Not Detected.						
98 Diallate (trans isomer)	86	Compound Not Detected.						
99 Diallate (trans) part of total	86	Compound Not Detected.						
100 Phorate	75	Compound Not Detected.						
101 Phenacetin	108	Compound Not Detected.						
102 Diallate (cis isomer)	86	Compound Not Detected.						
103 Diallate (cis) part of total	86	Compound Not Detected.						
104 4-Bromophenyl-phenylether	248	Compound Not Detected.						
105 Hexachlorobenzene	284	Compound Not Detected.						
106 Dimethoate	87	Compound Not Detected.						
107 4-Aminobiphenyl	169	Compound Not Detected.						
108 Pentachlorophenol	266	Compound Not Detected.						
109 Pentachloronitrobenzene	237	Compound Not Detected.						
110 Pronamide	173	Compound Not Detected.						
111 Disulfoton	88	Compound Not Detected.						
112 Phenanthrene	178	Compound Not Detected.						
113 Anthracene	178	Compound Not Detected.						
115 Methyl Parathion	109	Compound Not Detected.						
116 Di-n-butylphthalate	149	Compound Not Detected.						
117 Parathion	109	Compound Not Detected.						
118 4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119 Methapyrilene	97	Compound Not Detected.						
120 Isodrin	193	Compound Not Detected.						
121 Fluoranthene	202	Compound Not Detected.						
123 Pyrene	202	Compound Not Detected.						
124 p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125 Chlorobenzilate	251	Compound Not Detected.						
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	Compound Not Detected.						
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-03A62.d
Lab Smp Id: 0904098-03 Client Smp ID: 13MW4
Inj Date : 02-MAY-2009 16:05
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-03:2650
Misc Info : 13MW4
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-03A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

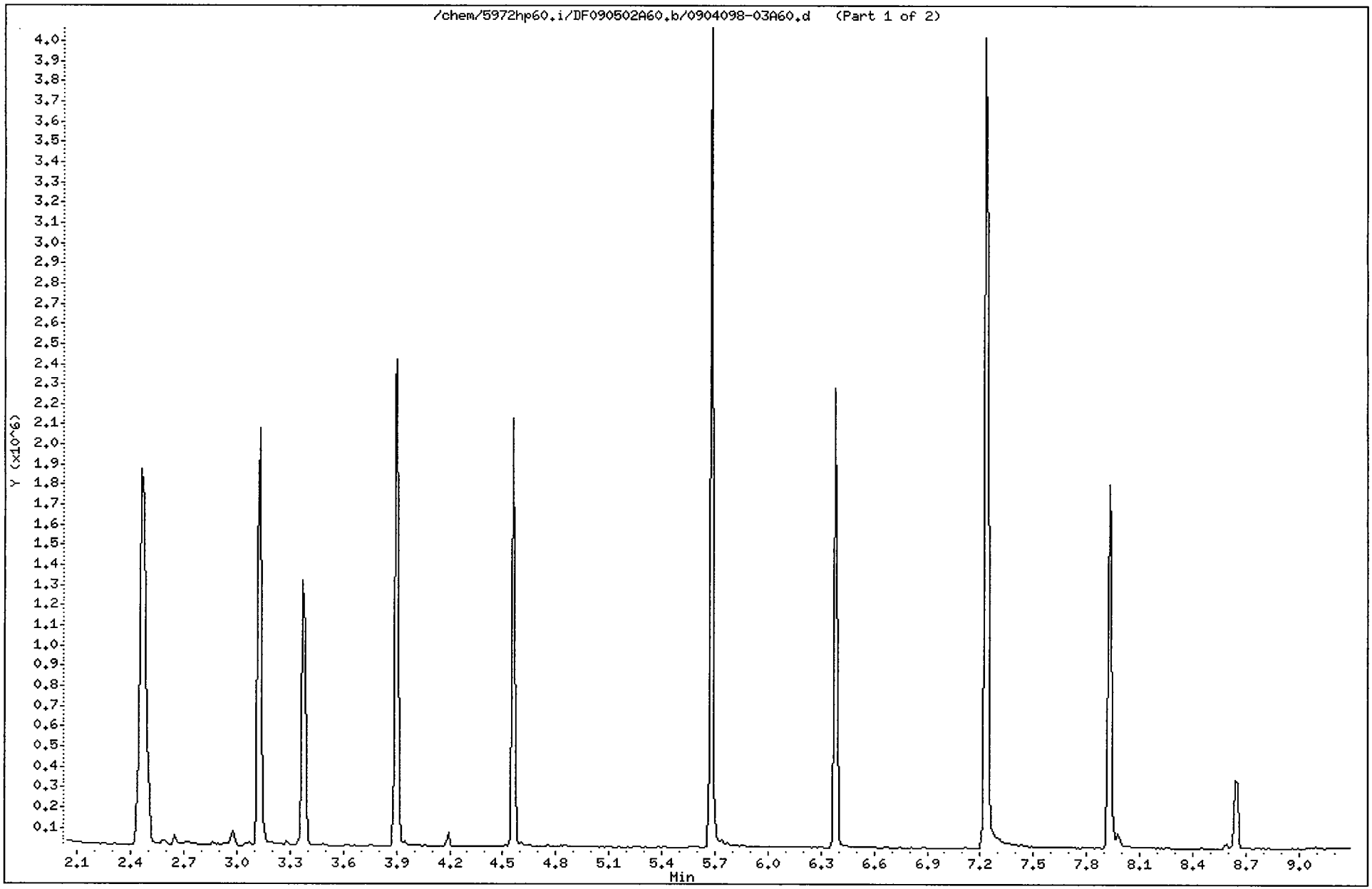
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

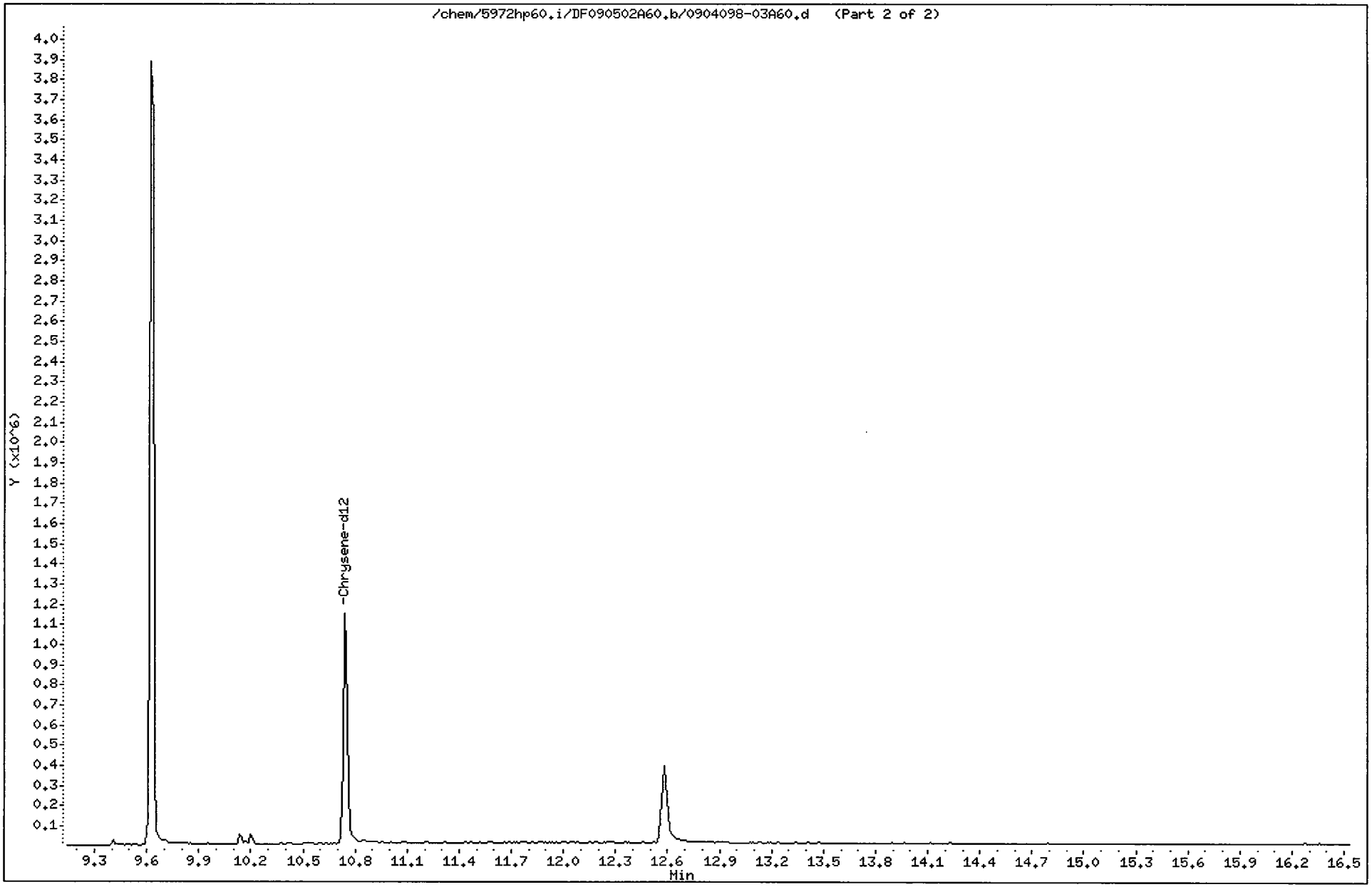
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

Data File: /chem/5972hp60.i/DF090502A60.b/0904098-03A60.d
Date : 02-MAY-2009 11:06
Client ID: 13MW4
Instrument: 5972hp60.i
Sample Info: 0904098-03:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-03A60.d
Date : 02-MAY-2009 11:06
Client ID: 13MW4 Instrument: 5972hp60.i
Sample Info: 0904098-03:2650
Volume Injected (uL): 2.0 Operator: 2650
Column phase: RTX-5MS Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-03A60.d
Report Date: 13-May-2009 12:13

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/0904098-03A60.d
Lab Smp Id: 0904098-03 Client Smp ID: 13MW4
Inj Date : 02-MAY-2009 11:06
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-03:2650
Misc Info : 13MW4
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 13-May-2009 12:12 humphrie Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.745	(1.000)	683000	40.0000		
127 Famfur	218	Compound Not Detected.						

KGH 5/13/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 950 (g/mL) ML Lab File ID: 0904098-03A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

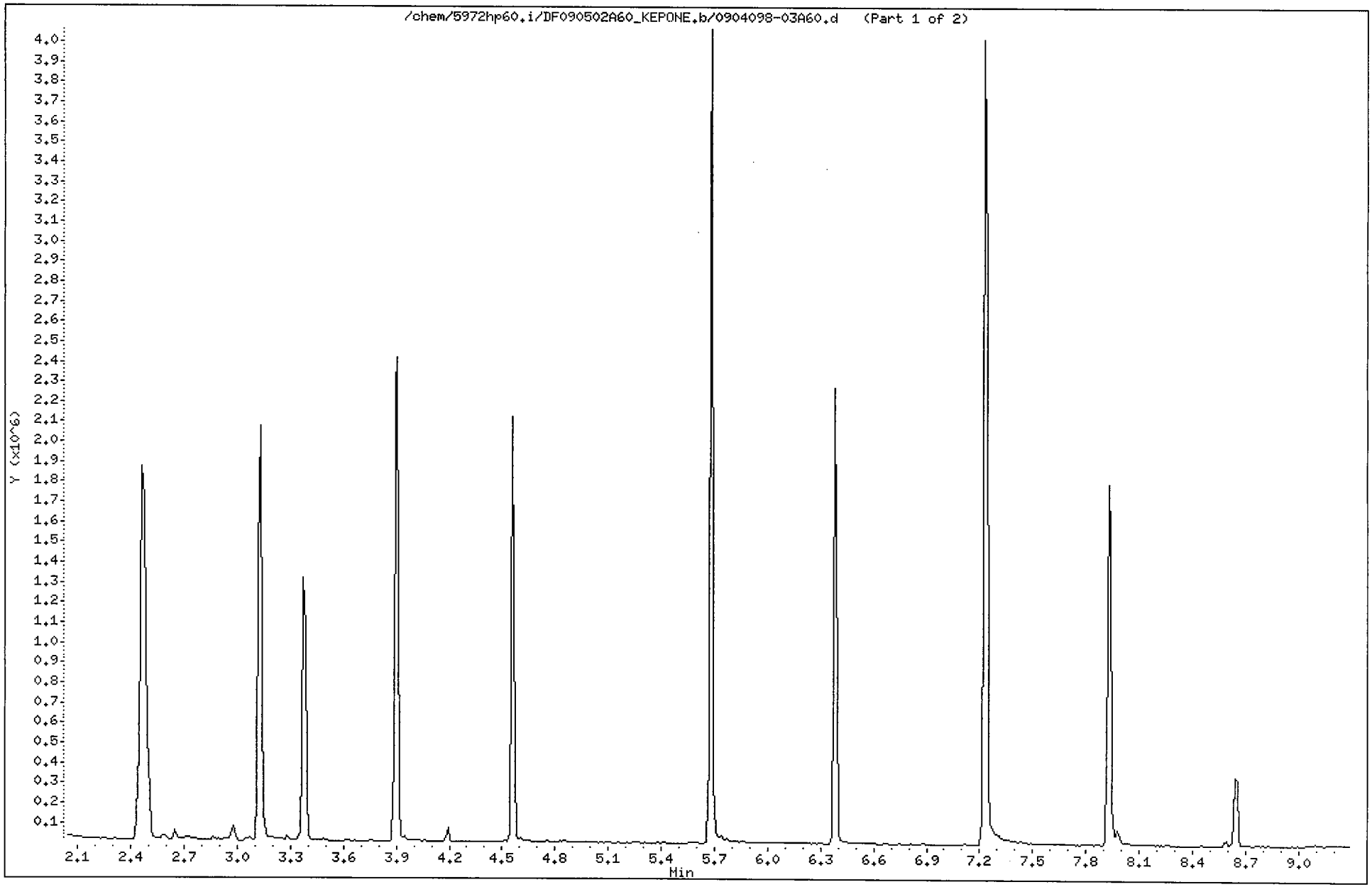
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.3	U

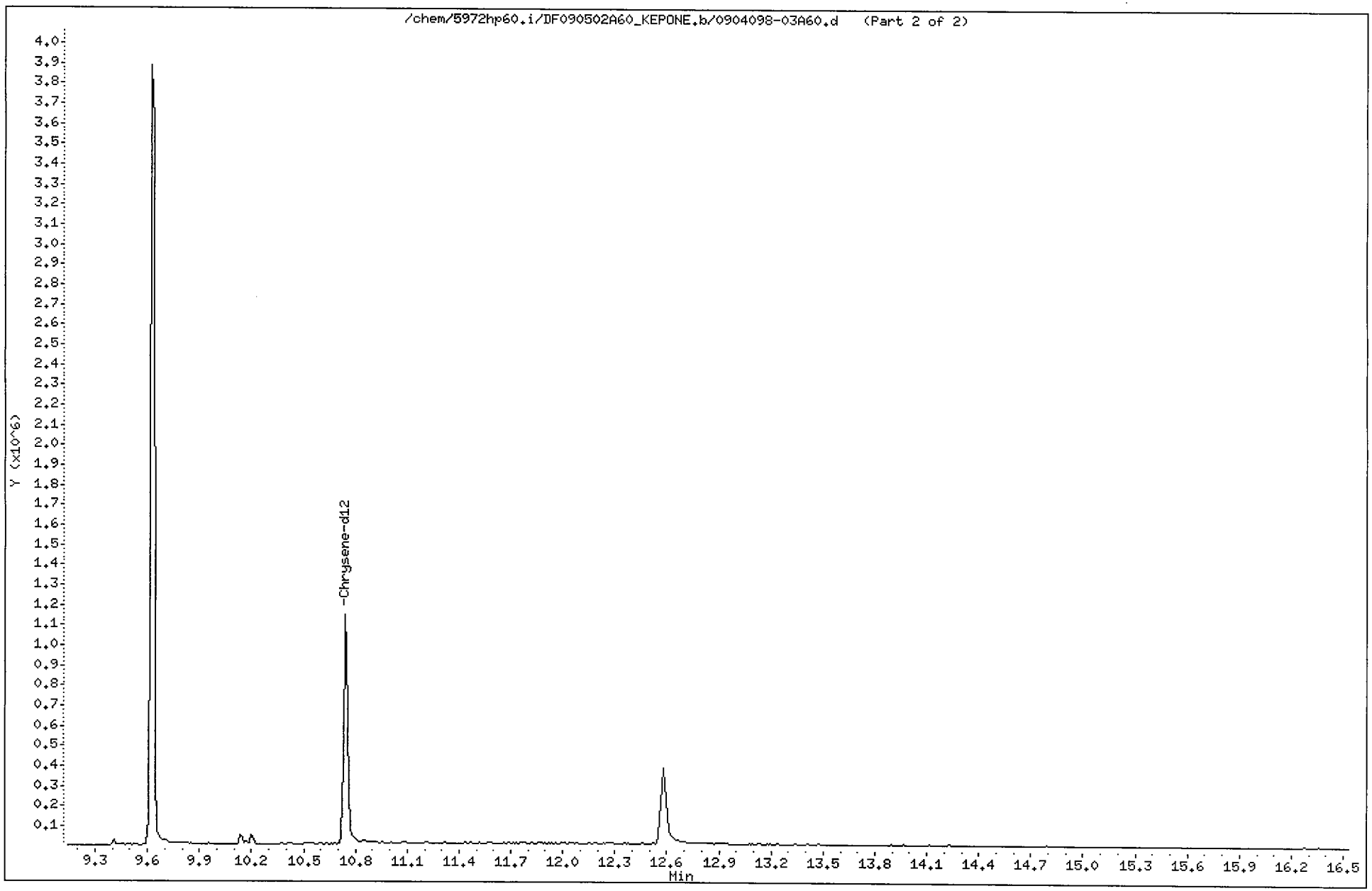
Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-03A60.d
Date : 02-MAY-2009 11:06
Client ID: 13MW4
Sample Info: 0904098-03:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-03A60.d
Date : 02-MAY-2009 11:06
Client ID: 13MW4
Sample Info: 0904098-03:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-03A60.d
Report Date: 05-May-2009 16:42

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-03A60.d
Lab Smp Id: 0904098-03 Client Smp ID: 13MW4
Inj Date : 02-MAY-2009 11:06
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-03:2650
Misc Info : 13MW4
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 02-May-2009 11:37 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.744	(1.000)	683000	40.0000		
126 Kepone	272	Compound Not Detected.						

5-5-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

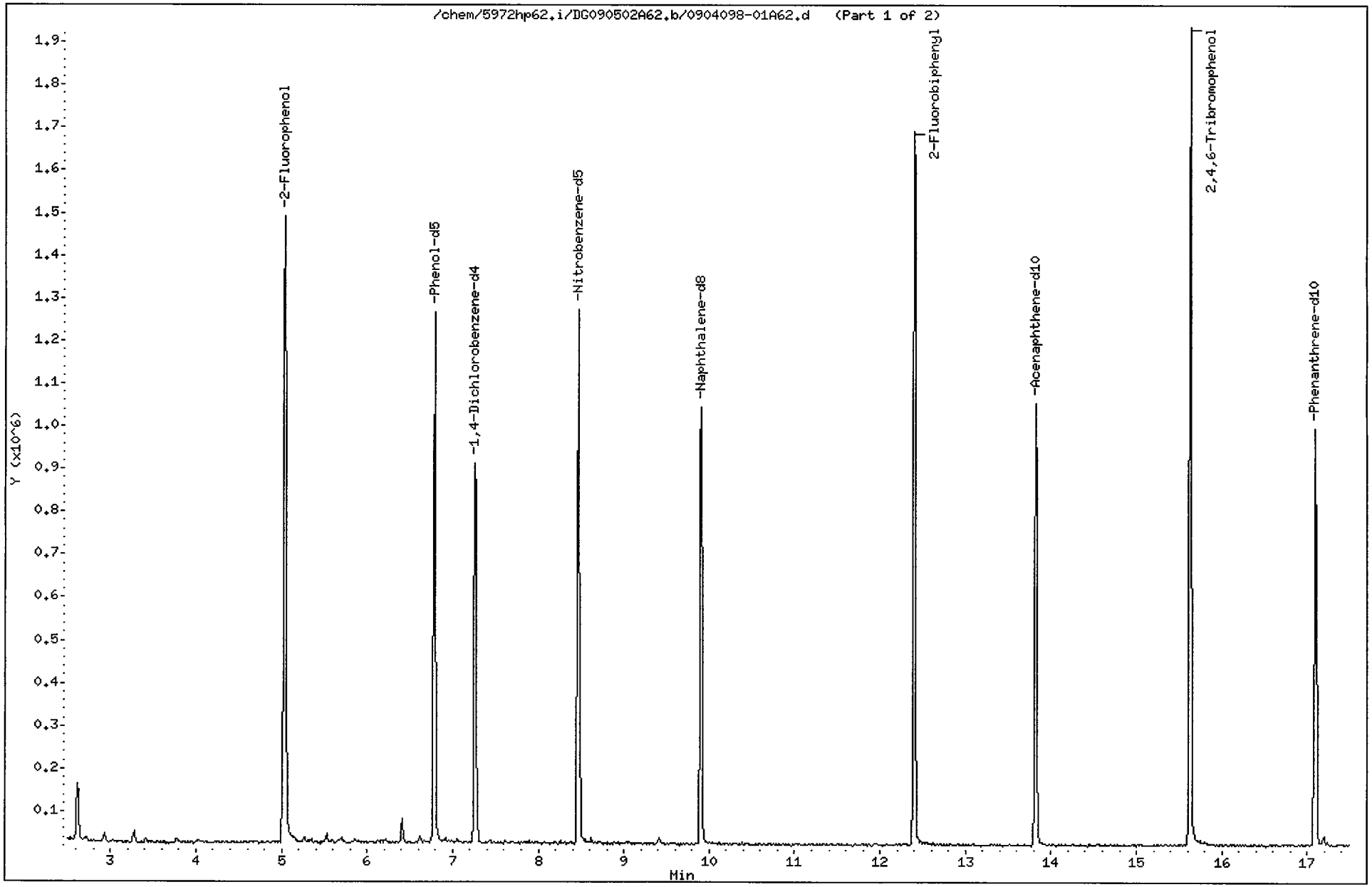
Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

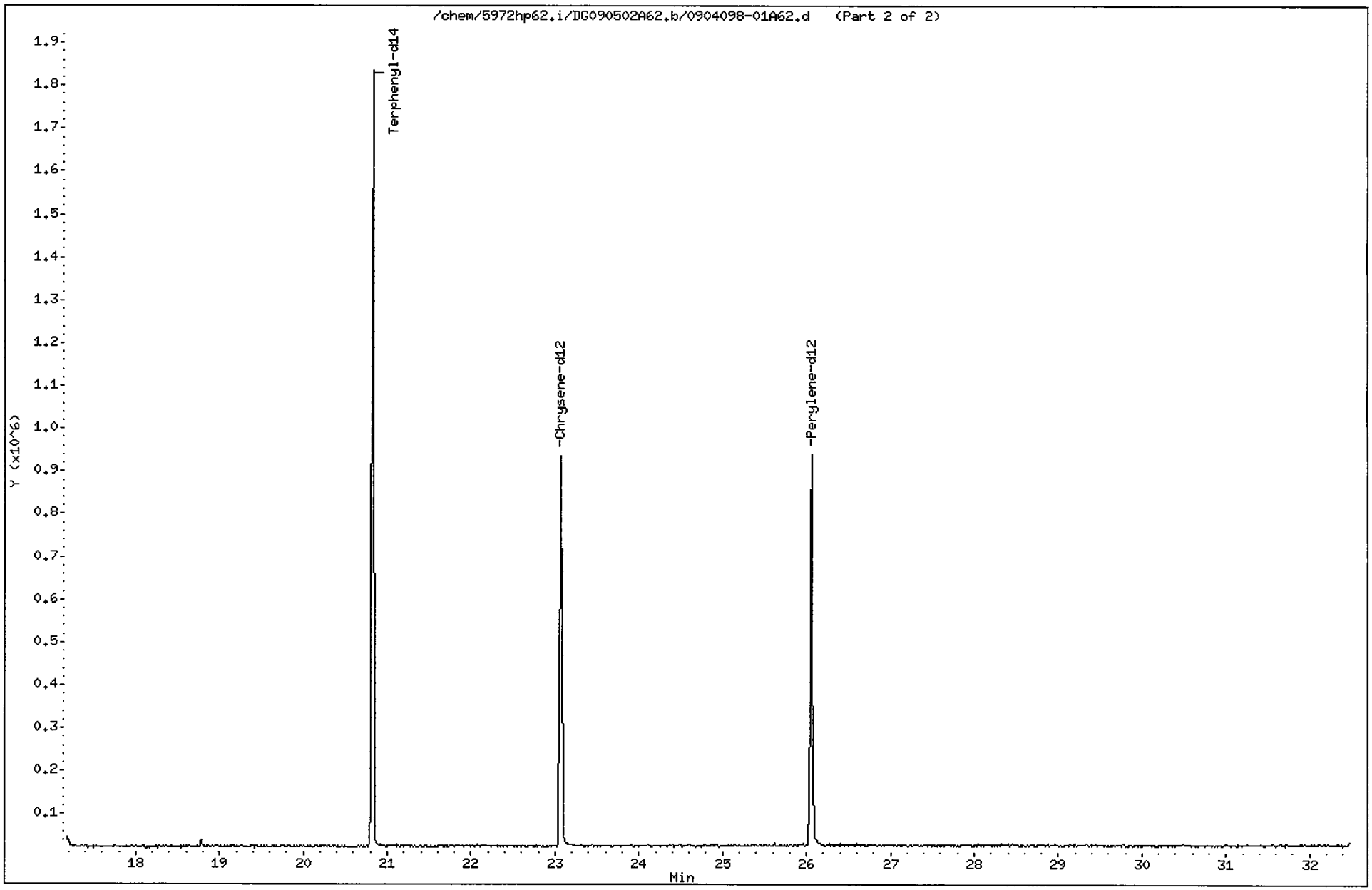
Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Date : 02-MAY-2009 13:18
Client ID: 13MW5
Sample Info: 0904098-01:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Date : 02-MAY-2009 13:18
Client ID: 13MW5
Sample Info: 0904098-01:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Report Date: 06-May-2009 17:44

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Semivolatile Report SW-846 Method 8270C Appendix IX
Data file : /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Lab Smp Id: 0904098-01 Client Smp ID: 13MW5
Inj Date : 02-MAY-2009 13:18
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-01:2650
Misc Info : 13MW5
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.257	7.263	(1.000)	232320	40.0000		
*	2 Naphthalene-d8	136	9.908	9.914	(1.000)	769203	40.0000		
*	3 Acenaphthene-d10	164	13.818	13.824	(1.000)	361687	40.0000		
*	4 Phenanthrene-d10	188	17.093	17.110	(1.000)	567051	40.0000		
*	5 Chrysene-d12	240	23.071	23.087	(1.000)	623075	40.0000		
*	6 Perylene-d12	264	26.060	26.066	(1.000)	659452	40.0000		
$	7 2-Fluorophenol	112	5.036	5.052	(0.694)	738198	129.210	65	
$	8 Phenol-d5	99	6.786	6.802	(0.935)	620700	88.4446	44	
$	11 Nitrobenzene-d5	82	8.465	8.481	(0.854)	646003	89.7076	45	
$	12 2-Fluorobiphenyl	172	12.406	12.401	(0.898)	876970	76.1149	38	
$	13 2,4,6-Tribromophenol	330	15.630	15.636	(1.131)	484490	144.402	72	
$	14 Terphenyl-d14	244	20.829	20.825	(0.903)	983673	83.7382	42	
	15 N-Nitrosodimethylamine	42	Compound Not Detected.						
	16 Pyridine	79	Compound Not Detected.						
	18 2-Picoline	93	Compound Not Detected.						

6/17/09

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77	Acenaphthene	154	Compound Not Detected.						
78	2,4-Dinitrophenol	184	Compound Not Detected.						
79	4-Nitrophenol	139	Compound Not Detected.						
80	Pentachlorobenzene	250	Compound Not Detected.						
82	Dibenzofuran	168	Compound Not Detected.						
83	1-Naphthylamine	143	Compound Not Detected.						
84	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85	2-Naphthylamine	143	Compound Not Detected.						
86	Diethylphthalate	149	Compound Not Detected.						
87	Zinophos	97	Compound Not Detected.						
88	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89	5-Nitro-o-toluidine	152	Compound Not Detected.						
90	Fluorene	166	Compound Not Detected.						
91	4-Nitroaniline	138	Compound Not Detected.						
92	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93	N-Nitrosodiphenylamine	169	Compound Not Detected.						
96	Sulfotep	322	Compound Not Detected.						
98	Diallate (trans isomer)	86	Compound Not Detected.						
99	Diallate (trans) part of total	86	Compound Not Detected.						
100	Phorate	75	Compound Not Detected.						
101	Phenacetin	108	Compound Not Detected.						
102	Diallate (cis isomer)	86	Compound Not Detected.						
103	Diallate (cis) part of total	86	Compound Not Detected.						
104	4-Bromophenyl-phenylether	248	Compound Not Detected.						
105	Hexachlorobenzene	284	Compound Not Detected.						
106	Dimethoate	87	Compound Not Detected.						
107	4-Aminobiphenyl	169	Compound Not Detected.						
108	Pentachlorophenol	266	Compound Not Detected.						
109	Pentachloronitrobenzene	237	Compound Not Detected.						
110	Pronamide	173	Compound Not Detected.						
111	Disulfoton	88	Compound Not Detected.						
112	Phenanthrene	178	Compound Not Detected.						
113	Anthracene	178	Compound Not Detected.						
115	Methyl Parathion	109	Compound Not Detected.						
116	Di-n-butylphthalate	149	Compound Not Detected.						
117	Parathion	109	Compound Not Detected.						
118	4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119	Methapyrilene	97	Compound Not Detected.						
120	Isodrin	193	Compound Not Detected.						
121	Fluoranthene	202	Compound Not Detected.						
123	Pyrene	202	Compound Not Detected.						
124	p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125	Chlorobenzilate	251	Compound Not Detected.						
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	Compound Not Detected.						
129	3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-01A62.d
Lab Smp Id: 0904098-01 Client Smp ID: 13MW5
Inj Date : 02-MAY-2009 13:18
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-01:2650
Misc Info : 13MW5
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

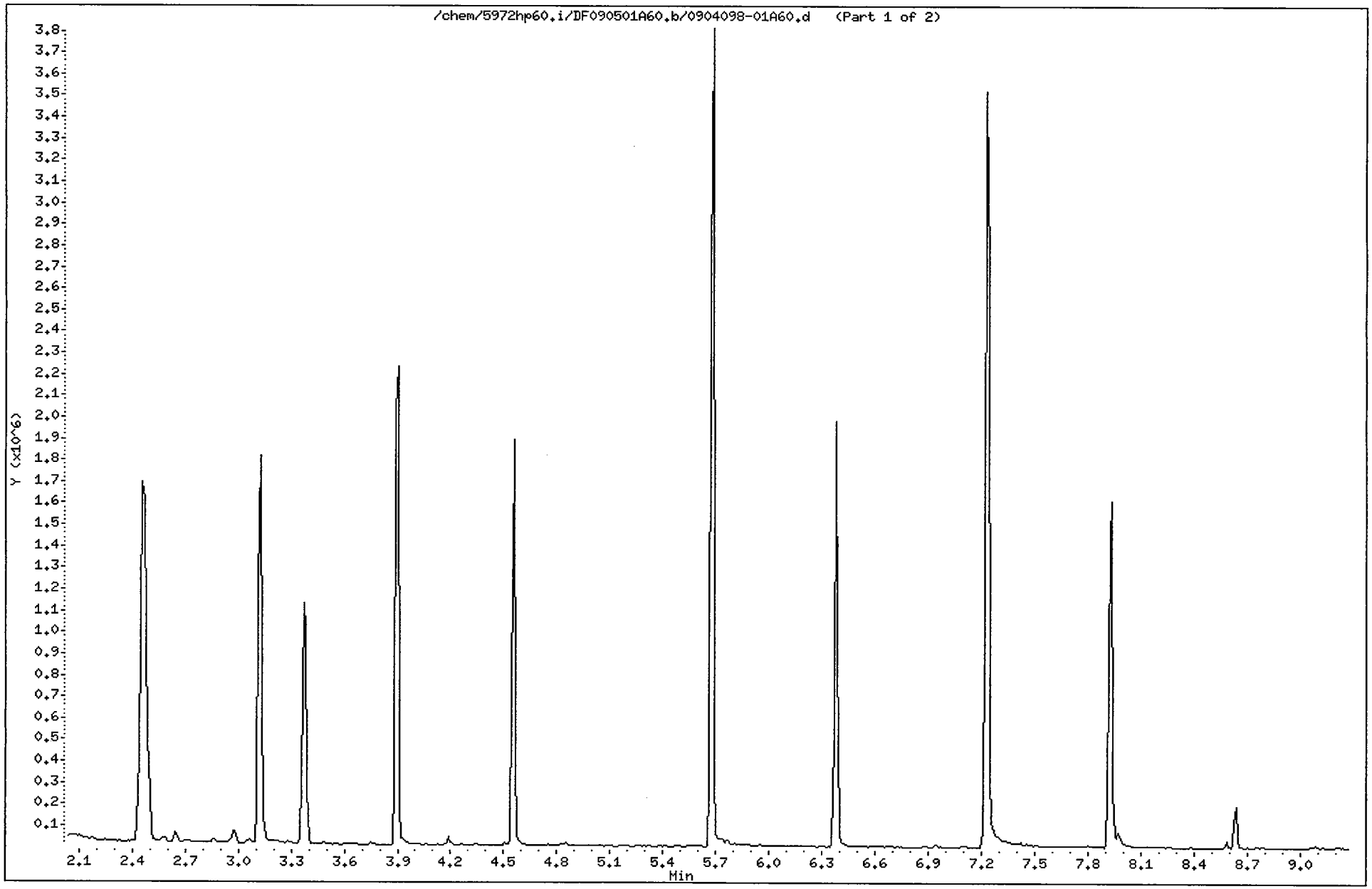
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

Data File: /chem/5972hp60.i/DF090501A60.b/0904098-01A60.d
Date : 01-MAY-2009 23:59
Client ID: 13MW5
Instrument: 5972hp60.i
Sample Info: 0904098-01:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



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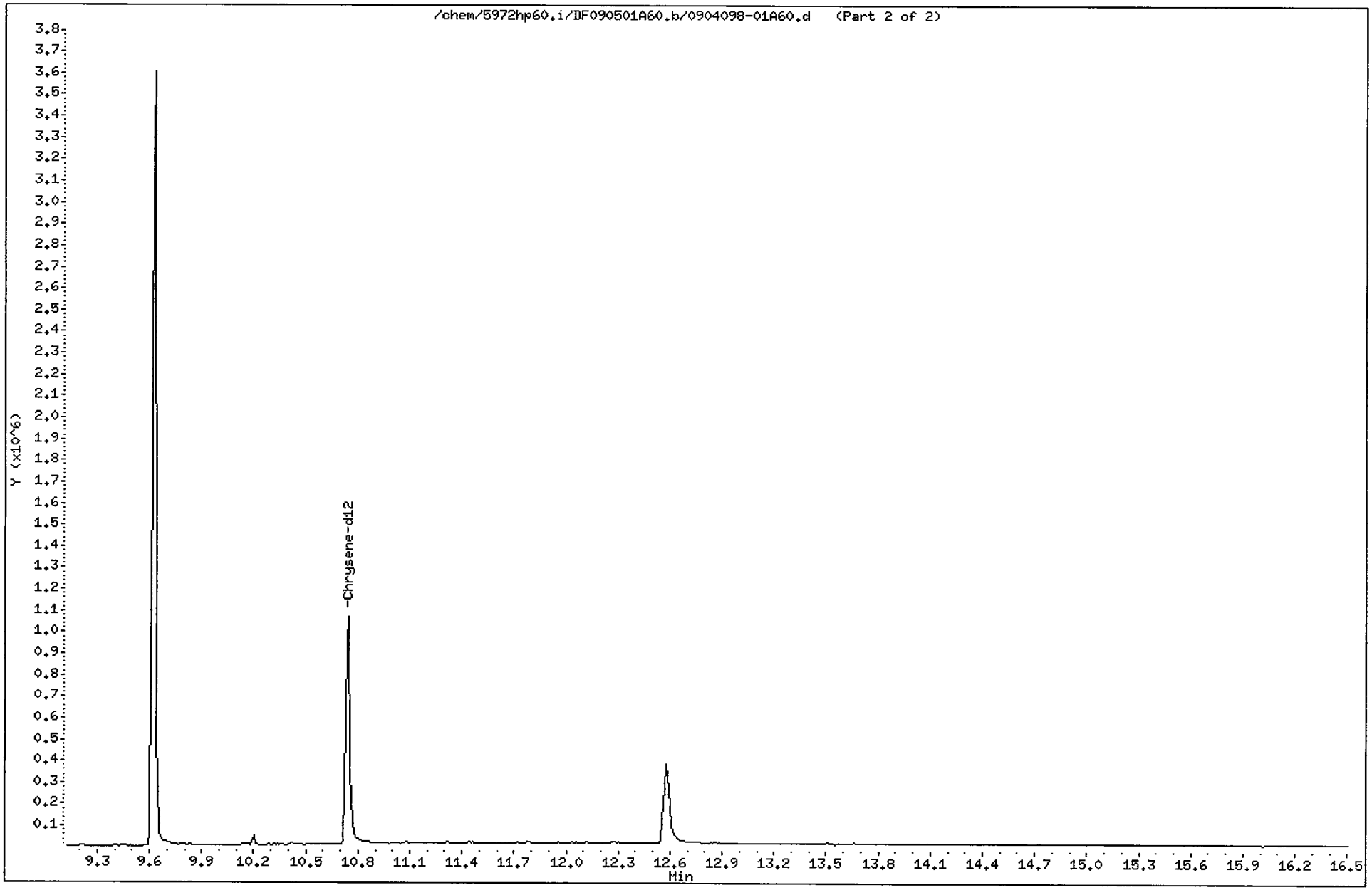
Date : 01-MAY-2009 23:59
Client ID: 13MW5
Instrument: 5972hp60.i
Sample Info: 0904098-01:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/0904098-01A60.d
Report Date: 04-May-2009 11:02

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/0904098-01A60.d
Lab Smp Id: 0904098-01 Client Smp ID: 13MW5
Inj Date : 01-MAY-2009 23:59
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-01:2650
Misc Info : 13MW5
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 11:01 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.746	10.746	(1.000)	642619	40.0000		
127 Famfur	218	Compound Not Detected.						

5/4/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-01A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

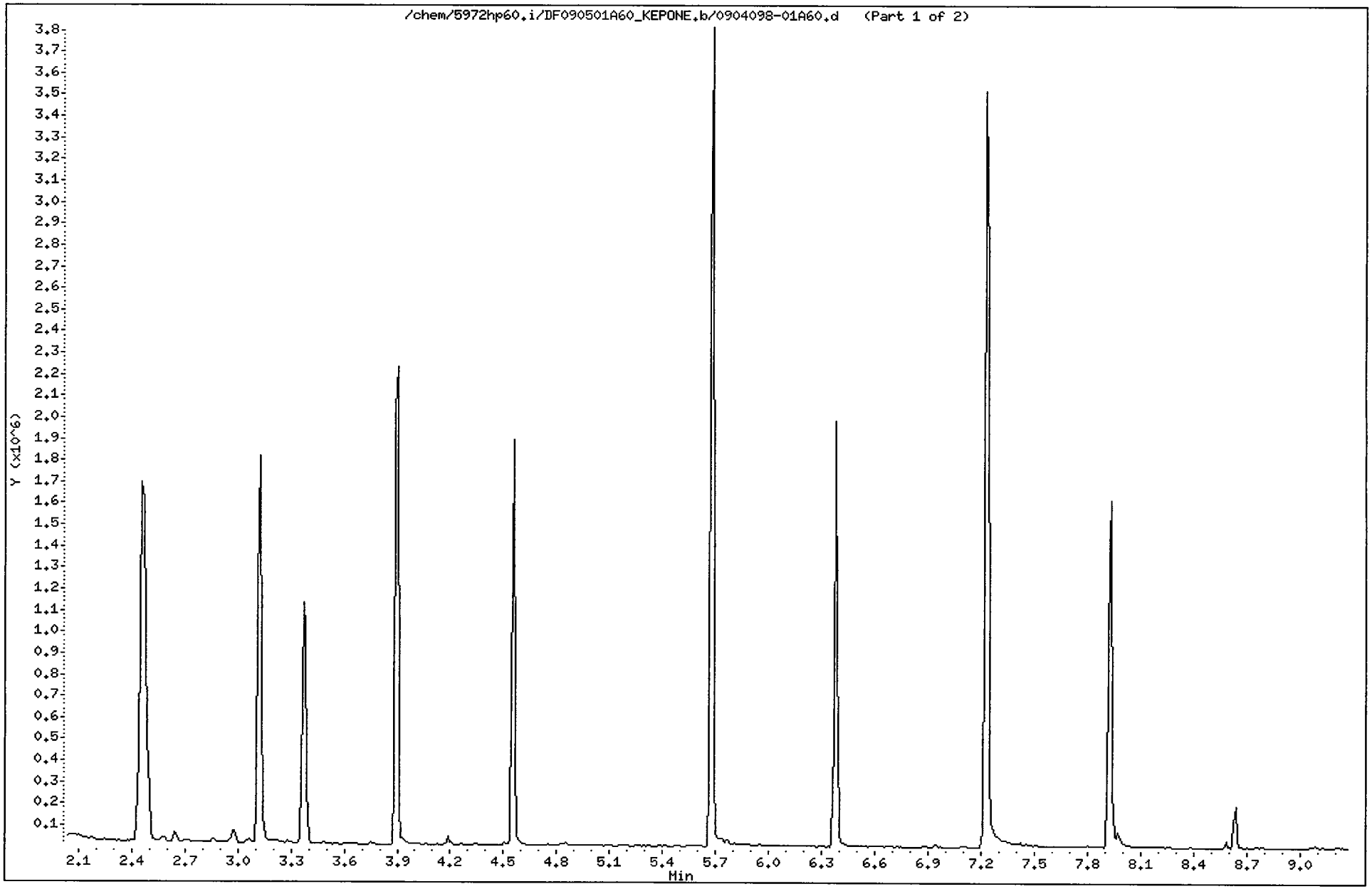
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

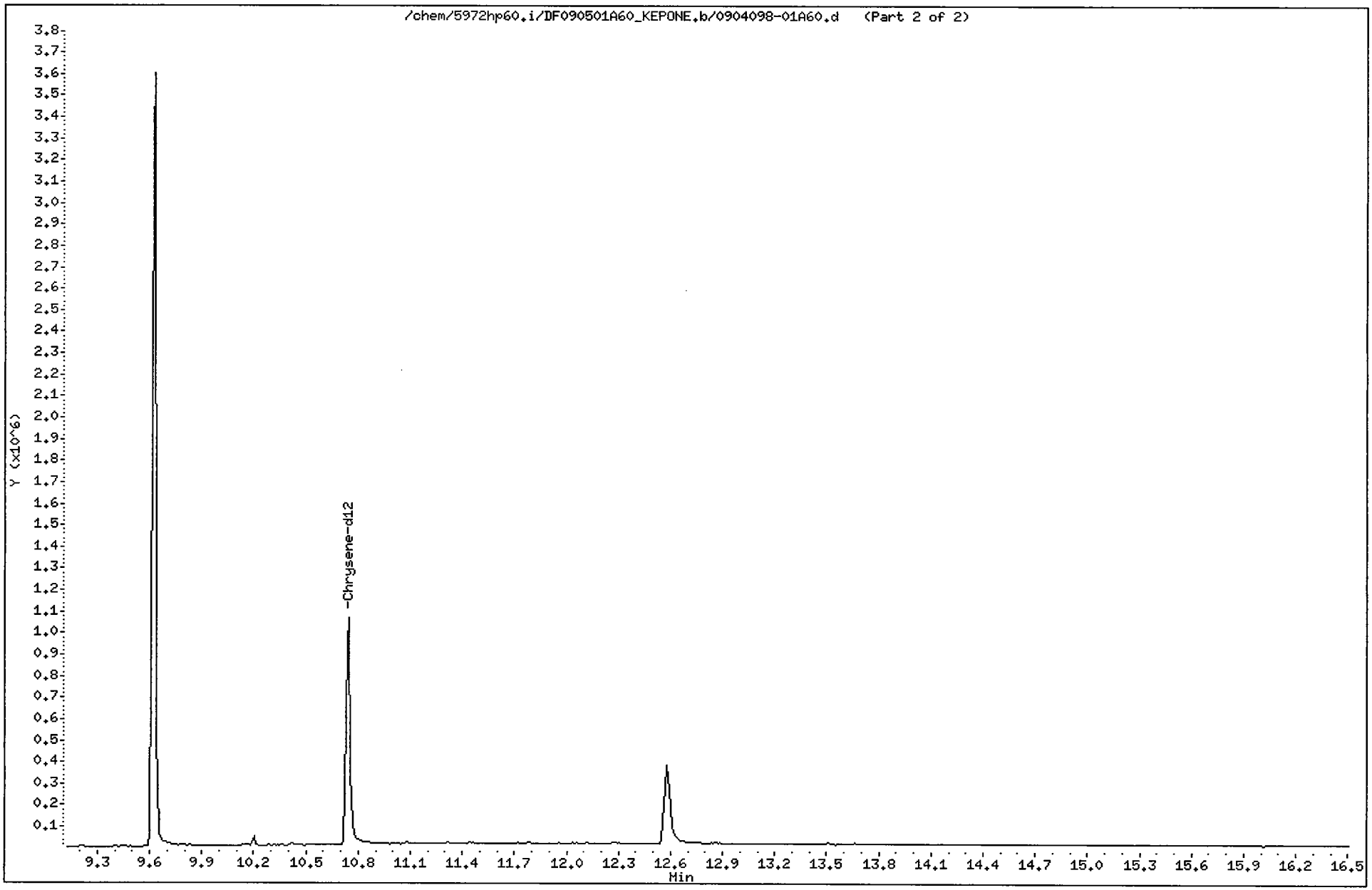
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/0904098-01A60.d
Date : 01-MAY-2009 23:59
Client ID: 13MW5
Instrument: 5972hp60.i
Sample Info: 0904098-01:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/0904098-01A60.d
Date : 01-MAY-2009 23:59
Client ID: 13MW5
Instrument: 5972hp60.i
Sample Info: 0904098-01:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/0904098-01A60.d
Report Date: 04-May-2009 14:08

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/0904098-01A60.d
Lab Smp Id: 0904098-01 Client Smp ID: 13MW5
Inj Date : 01-MAY-2009 23:59
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-01:2650
Misc Info : 13MW5
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 13:26 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.746	10.741	(1.000)	642619	40.0000		
126 Kepone	271	Compound Not Detected.						

5/4/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.1	U
110-86-1	Pyridine	5.1	U
109-06-8	2-Picoline	5.1	U
10595-95-6	Nitrosomethylethylamine	5.1	U
66-27-3	Methyl Methanesulfonate	5.1	U
55-18-5	N-Nitrosodiethylamine	5.1	U
62-50-0	Ethyl Methanesulfonate	5.1	U
108-95-2	Phenol	5.1	U
62-53-3	Aniline	5.1	U
111-44-4	Bis(2-chloroethyl)ether	5.1	U
95-57-8	2-Chlorophenol	5.1	U
100-51-6	Benzyl Alcohol	5.1	U
95-48-7	2-Methylphenol	5.1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.1	U
930-55-2	N-Nitrosopyrrolidine	5.1	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.1	U
98-86-2	Acetophenone	5.1	U
59-89-2	N-Nitrosomorpholine	5.1	U
95-53-4	o-Toluidine	5.1	U
67-72-1	Hexachloroethane	5.1	U
98-95-3	Nitrobenzene	5.1	U
100-75-4	N-Nitrosopiperidine	5.1	U
78-59-1	Isophorone	5.1	U
88-75-5	2-Nitrophenol	5.1	U
105-67-9	2,4-Dimethylphenol	5.1	U
126-68-1	o,o,o-Triethylphosphorothioa	5.1	U
111-91-1	Bis(2-chloroethoxy)methane	5.1	U
120-83-2	2,4-Dichlorophenol	5.1	U
106-47-8	4-Chloroaniline	5.1	U
87-65-0	2,6-Dichlorophenol	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.1	U
924-16-3	N-Nitroso-di-n-butylamine	5.1	U
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	5.1	U
94-59-7	Safrole	5.1	U
91-57-6	2-Methylnaphthalene	5.1	U
77-47-4	Hexachlorocyclopentadiene	5.1	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.1	U
88-06-2	2,4,6-Trichlorophenol	5.1	U
95-95-4	2,4,5-Trichlorophenol	5.1	U
120-58-1	Isosafrole	5.1	U
91-58-7	2-Chloronaphthalene	5.1	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.1	U
131-11-3	Dimethylphthalate	5.1	U
208-96-8	Acenaphthylene	5.1	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.1	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.1	U
132-64-9	Dibenzofuran	5.1	U
134-32-7	1-Naphthylamine	5.1	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U
91-59-8	2-Naphthylamine	5.1	U
84-66-2	Diethylphthalate	5.1	U
297-97-2	Zinophos	5.1	U
7005-72-3	4-Chlorophenyl-phenylether	5.1	U
99-55-8	5-Nitro-o-toluidine	5.1	U
86-73-7	Fluorene	5.1	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.1	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.1	U
17708-58-6	Diallate (trans isomer)	5.1	U
298-02-2	Phorate	5.1	U
62-44-2	Phenacetin	5.1	U
17708-57-5	Diallate (cis isomer)	5.1	U
101-55-3	4-Bromophenyl-phenylether	5.1	U
118-74-1	Hexachlorobenzene	5.1	U
60-51-5	Dimethoate	5.1	U
92-67-1	4-Aminobiphenyl	5.1	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.1	U
23950-58-5	Pronamide	5.1	U
298-04-4	Disulfoton	5.1	U
85-01-8	Phenanthrene	5.1	U
120-12-7	Anthracene	5.1	U
298-00-0	Methyl Parathion	5.1	U
84-74-2	Di-n-butylphthalate	5.1	U
56-38-2	Parathion	5.1	U
56-57-5	4-Nitroquinoline-1-oxide	5.1	U
91-80-5	Methapyrilene	5.1	U
465-73-6	Isodrin	5.1	U
206-44-0	Fluoranthene	5.1	U
129-00-0	Pyrene	5.1	U
60-11-7	p-Dimethylaminoazobenzene	5.1	U
510-15-6	Chlorobenzilate	5.1	U
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	5.1	U
119-93-7	3,3'-Dimethylbenzidine	5.1	U
53-96-3	2-Acetylaminofluorene	5.1	U
91-94-1	3,3'-Dichlorobenzidine	5.1	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.1	U
56-55-3	Benzo(a)anthracene	5.1	U
218-01-9	Chrysene	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.1	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.1	U
205-99-2	Benzo(b)fluoranthene	5.1	U
207-08-9	Benzo(k)fluoranthene	5.1	U
50-32-8	Benzo(a)pyrene	5.1	U
56-49-5	3-Methylcholanthrene	5.1	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.1	U
53-70-3	Dibenzo(a,h)anthracene	5.1	U
191-24-2	Benzo(g,h,i)perylene	5.1	U
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	5.1	U
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

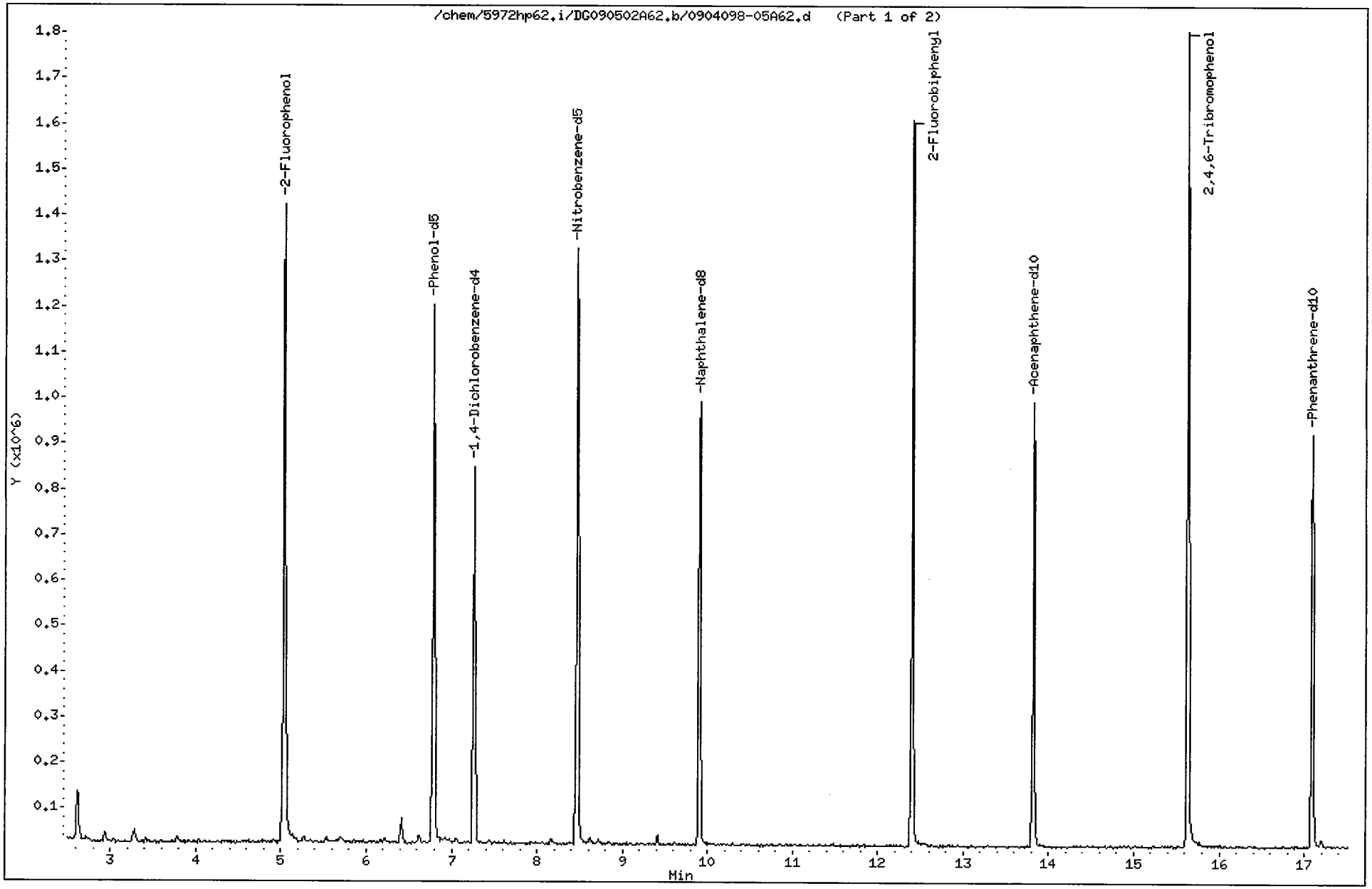
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

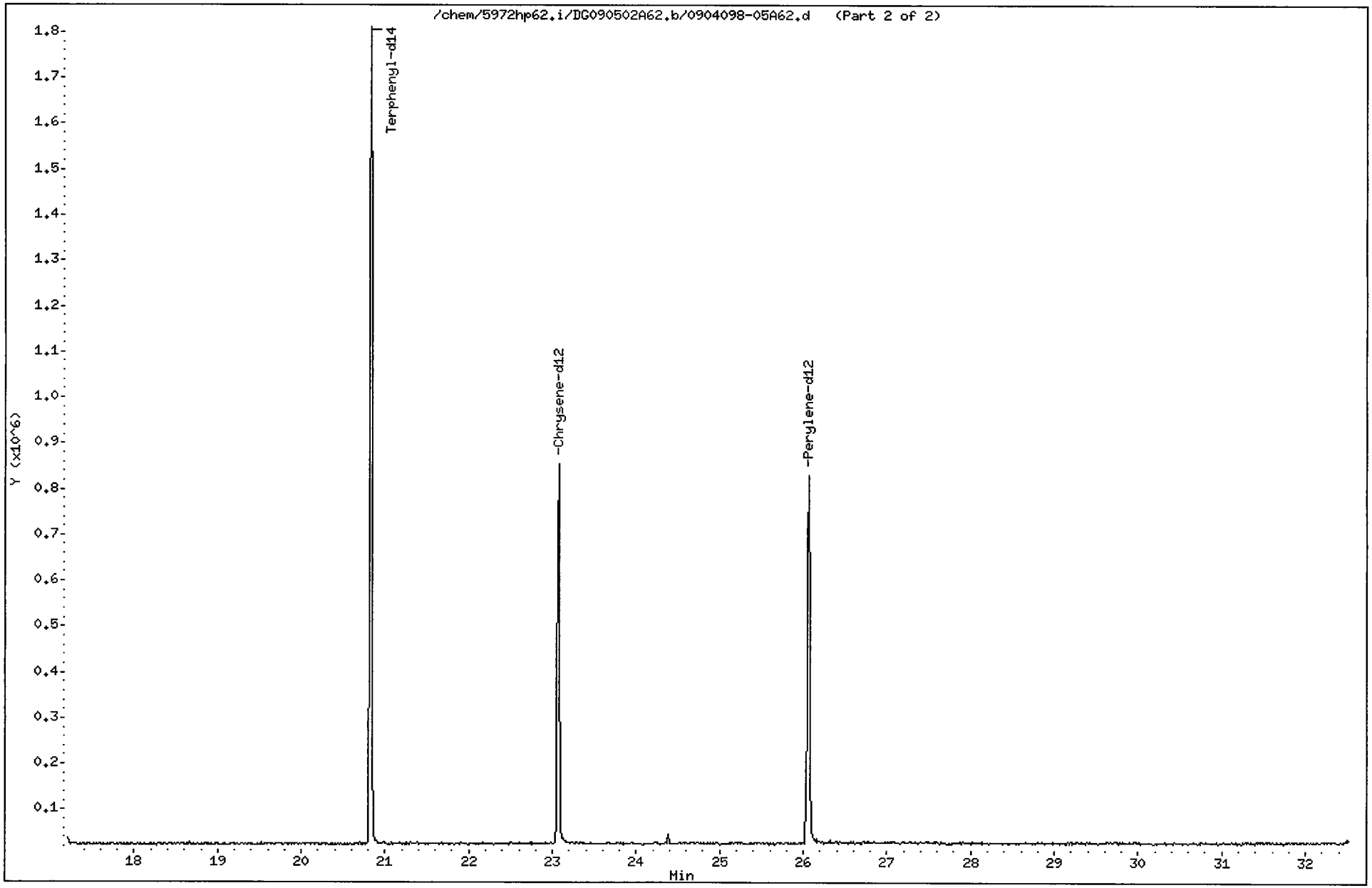
FORM I SV-TIC

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Date : 02-MAY-2009 17:29
Client ID: 13MW6
Sample Info: 0904098-05:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Date : 02-MAY-2009 17:29
Client ID: 13MW6
Instrument: 5972hp62.i
Sample Info: 0904098-05:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Lab Smp Id: 0904098-05 Client Smp ID: 13MW6
Inj Date : 02-MAY-2009 17:29
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-05:2650
Misc Info : 13MW6
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.259	7.263	(1.000)	210684	40.0000		
* 2 Naphthalene-d8	136	9.910	9.914	(1.000)	713847	40.0000		
* 3 Acenaphthene-d10	164	13.820	13.824	(1.000)	342636	40.0000		
* 4 Phenanthrene-d10	188	17.096	17.110	(1.000)	508965	40.0000		
* 5 Chrysene-d12	240	23.073	23.087	(1.000)	553913	40.0000		
* 6 Perylene-d12	264	26.062	26.066	(1.000)	581619	40.0000		
$ 7 2-Fluorophenol	112	5.038	5.052	(0.694)	705403	136.149	70	
$ 8 Phenol-d5	99	6.789	6.802	(0.935)	567252	89.1294	46	
$ 11 Nitrobenzene-d5	82	8.467	8.481	(0.854)	655054	98.0184	50	
$ 12 2-Fluorobiphenyl	172	12.408	12.401	(0.898)	857146	78.5308	40	
$ 13 2,4,6-Tribromophenol	330	15.632	15.636	(1.131)	434222	136.616	70	
$ 14 Terphenyl-d14	244	20.832	20.825	(0.903)	994084	95.1908	49	
15 N-Nitrosodimethylamine	42	Compound Not Detected.						
16 Pyridine	79	Compound Not Detected.						
18 2-Picoline	93	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	Compound Not Detected.						
78 2,4-Dinitrophenol	184	Compound Not Detected.						
79 4-Nitrophenol	139	Compound Not Detected.						
80 Pentachlorobenzene	250	Compound Not Detected.						
82 Dibenzofuran	168	Compound Not Detected.						
83 1-Naphthylamine	143	Compound Not Detected.						
84 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85 2-Naphthylamine	143	Compound Not Detected.						
86 Diethylphthalate	149	Compound Not Detected.						
87 Zinophos	97	Compound Not Detected.						
88 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89 5-Nitro-o-toluidine	152	Compound Not Detected.						
90 Fluorene	166	Compound Not Detected.						
91 4-Nitroaniline	138	Compound Not Detected.						
92 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93 N-Nitrosodiphenylamine	169	Compound Not Detected.						
96 Sulfotep	322	Compound Not Detected.						
98 Diallate (trans isomer)	86	Compound Not Detected.						
99 Diallate (trans) part of total	86	Compound Not Detected.						
100 Phorate	75	Compound Not Detected.						
101 Phenacetin	108	Compound Not Detected.						
102 Diallate (cis isomer)	86	Compound Not Detected.						
103 Diallate (cis) part of total	86	Compound Not Detected.						
104 4-Bromophenyl-phenylether	248	Compound Not Detected.						
105 Hexachlorobenzene	284	Compound Not Detected.						
106 Dimethoate	87	Compound Not Detected.						
107 4-Aminobiphenyl	169	Compound Not Detected.						
108 Pentachlorophenol	266	Compound Not Detected.						
109 Pentachloronitrobenzene	237	Compound Not Detected.						
110 Pronamide	173	Compound Not Detected.						
111 Disulfoton	88	Compound Not Detected.						
112 Phenanthrene	178	Compound Not Detected.						
113 Anthracene	178	Compound Not Detected.						
115 Methyl Parathion	109	Compound Not Detected.						
116 Di-n-butylphthalate	149	Compound Not Detected.						
117 Parathion	109	Compound Not Detected.						
118 4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119 Methapyrilene	97	Compound Not Detected.						
120 Isodrin	193	Compound Not Detected.						
121 Fluoranthene	202	Compound Not Detected.						
123 Pyrene	202	Compound Not Detected.						
124 p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125 Chlorobenzilate	251	Compound Not Detected.						
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	Compound Not Detected.						
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-05A62.d
Lab Smp Id: 0904098-05 Client Smp ID: 13MW6
Inj Date : 02-MAY-2009 17:29
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-05:2650
Misc Info : 13MW6
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-05A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

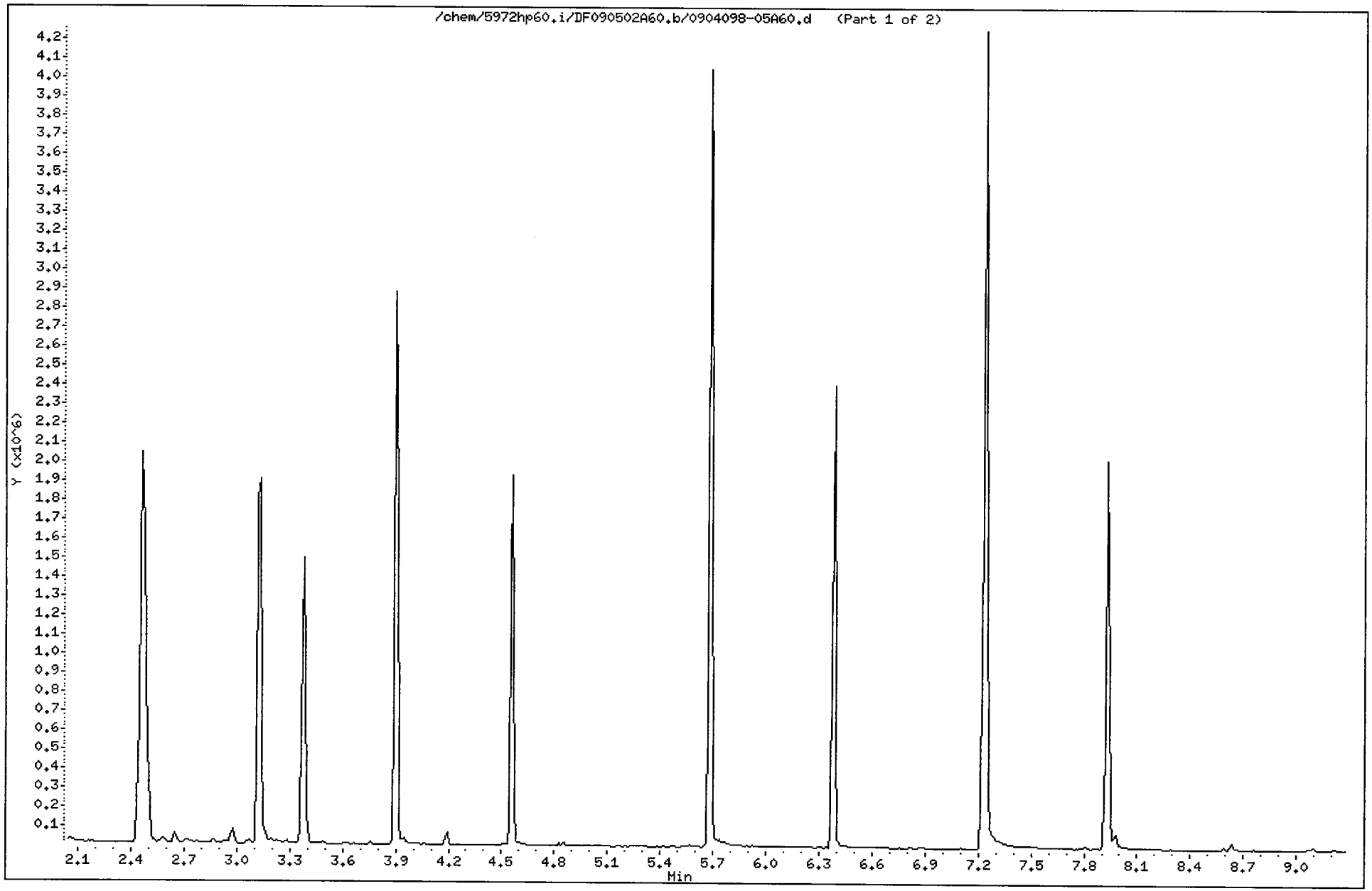
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

Data File: /chem/5972hp60.i/DF090502A60.b/0904098-05A60.d
Date : 02-MAY-2009 12:23
Client ID: 13MW6
Sample Info: 0904098-05:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



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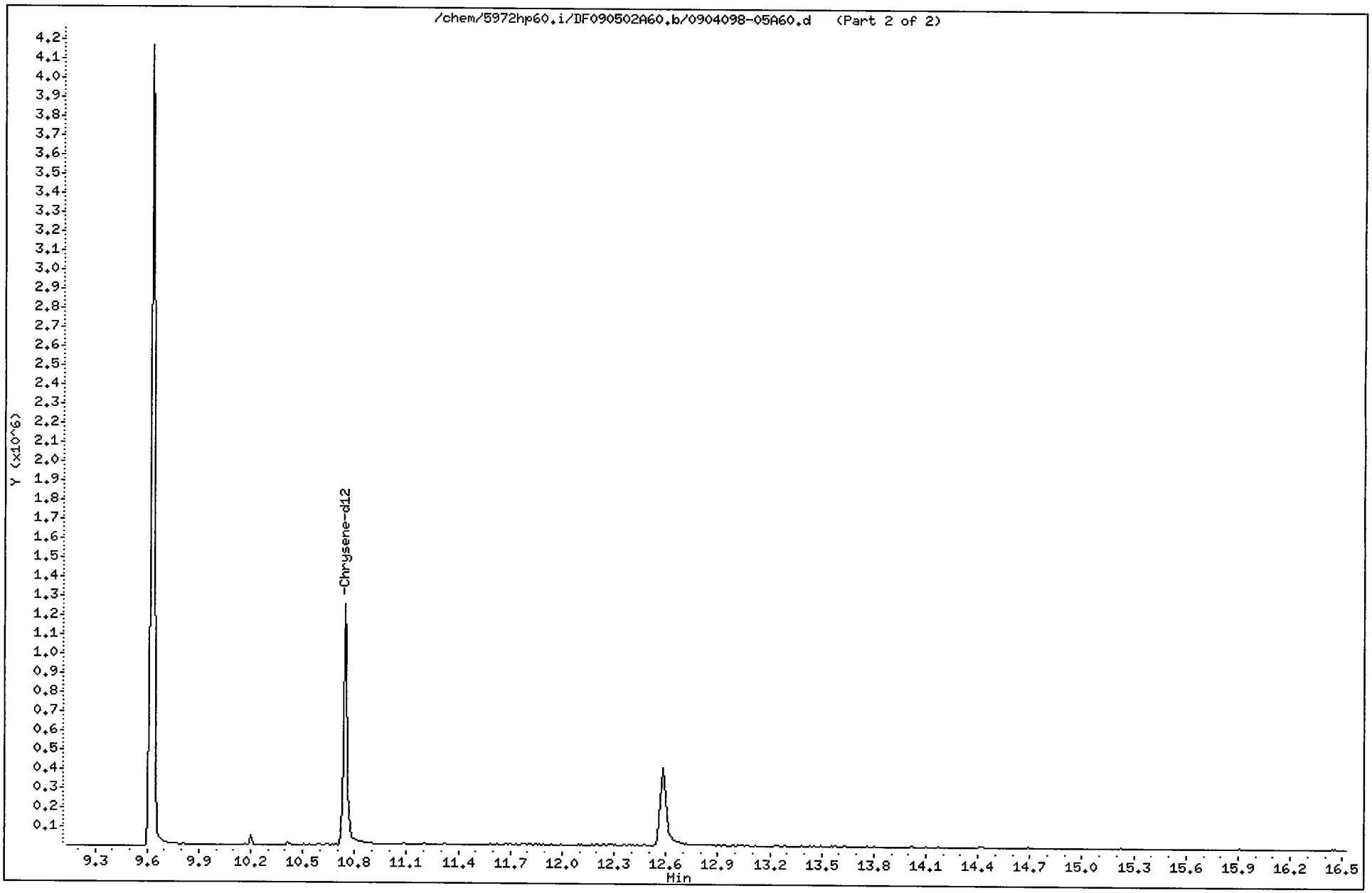
Date : 02-MAY-2009 12:23
Client ID: 13MW6
Sample Info: 0904098-05:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-05A60.d
Report Date: 13-May-2009 13:51

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/0904098-05A60.d
Lab Smp Id: 0904098-05 Client Smp ID: 13MW6
Inj Date : 02-MAY-2009 12:23
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-05:2650
Misc Info : 13MW6
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 13-May-2009 12:12 humphrie Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.741	10.745	(1.000)	761897	40.0000		
127 Famfur	218	Compound Not Detected.						

KEH 5/13/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-05A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

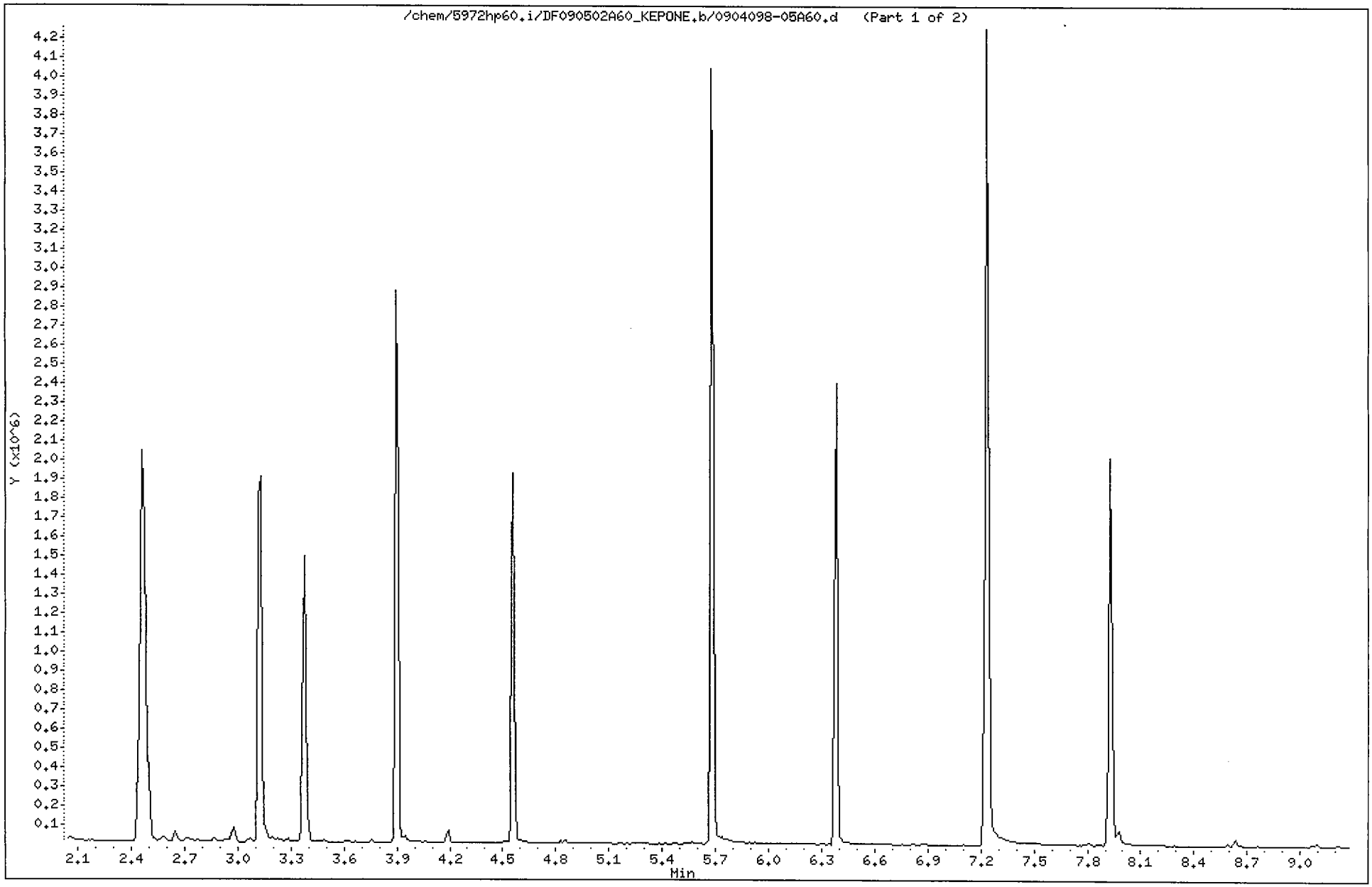
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.1	U

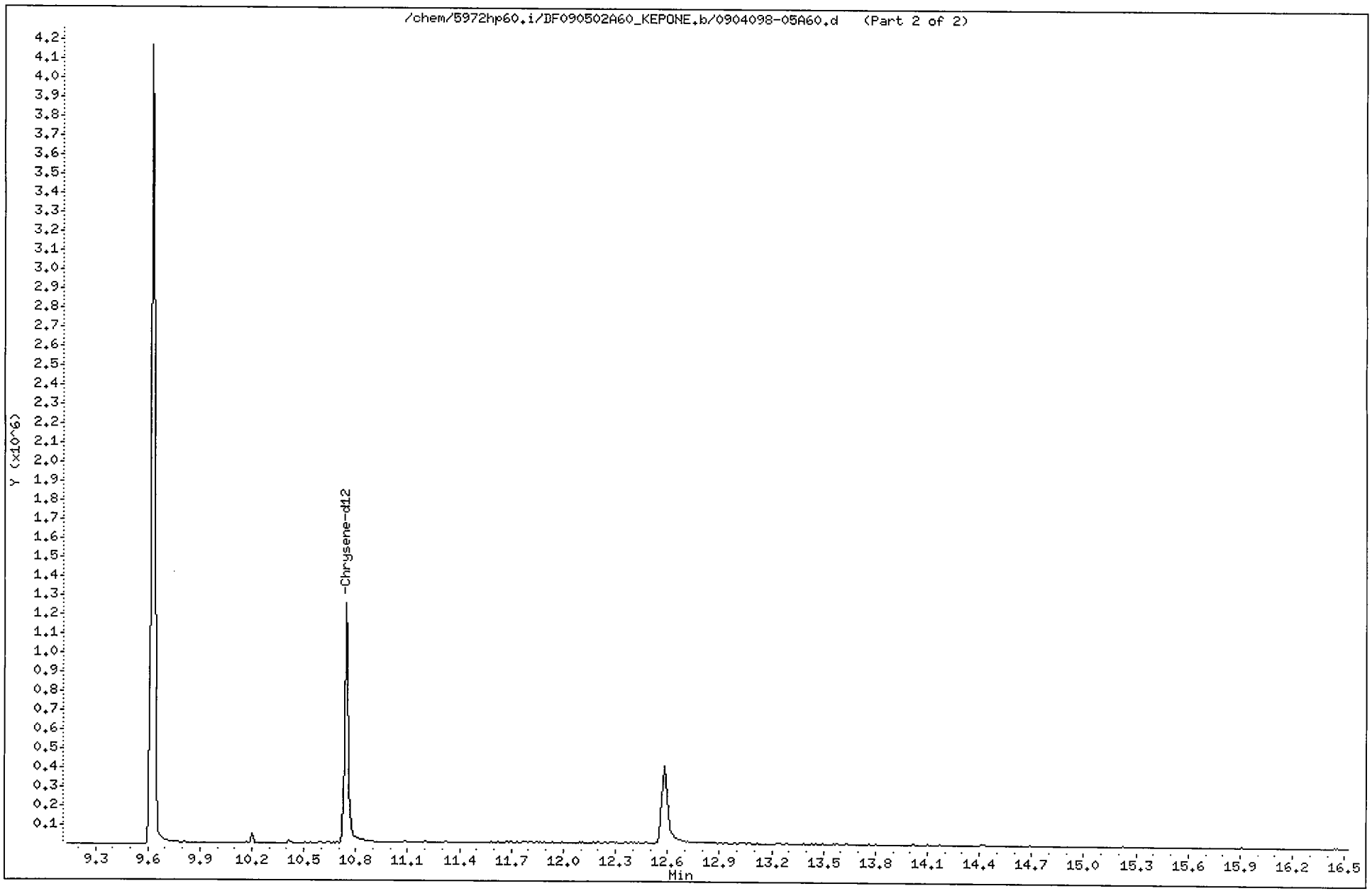
Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-05A60.d
Date : 02-MAY-2009 12:23
Client ID: 13MW6
Sample Info: 0904098-05:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-05A60.d
Date : 02-MAY-2009 12:23
Client ID: 13MW6
Sample Info: 0904098-05:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-05A60.d
Report Date: 05-May-2009 16:42

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-05A60.d
Lab Smp Id: 0904098-05 Client Smp ID: 13MW6
Inj Date : 02-MAY-2009 12:23
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-05:2650
Misc Info : 13MW6
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 02-May-2009 11:37 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.741	10.744	(1.000)	761897	40.0000		
126 Kepone	272	Compound Not Detected.						

PSS-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

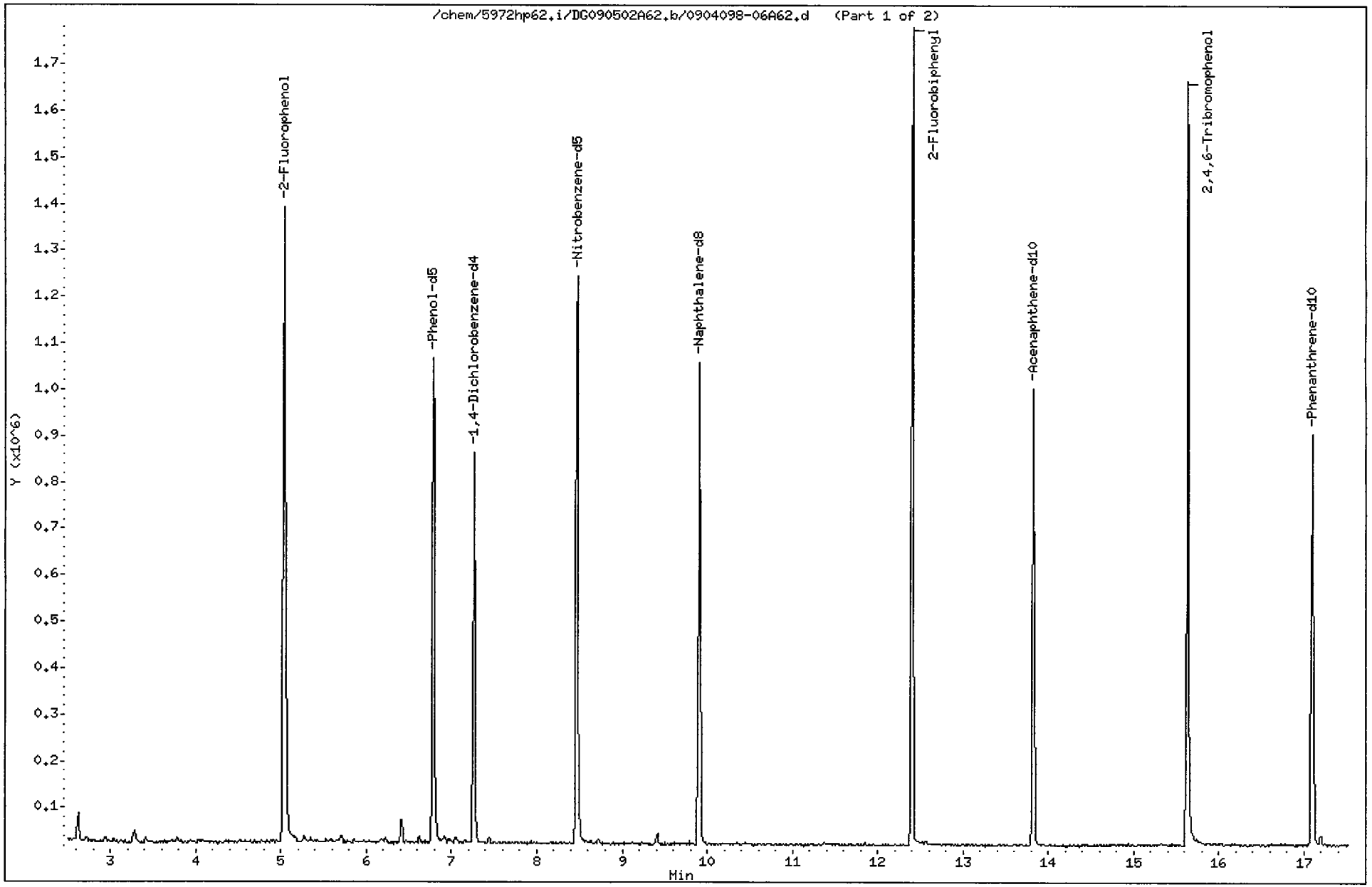
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

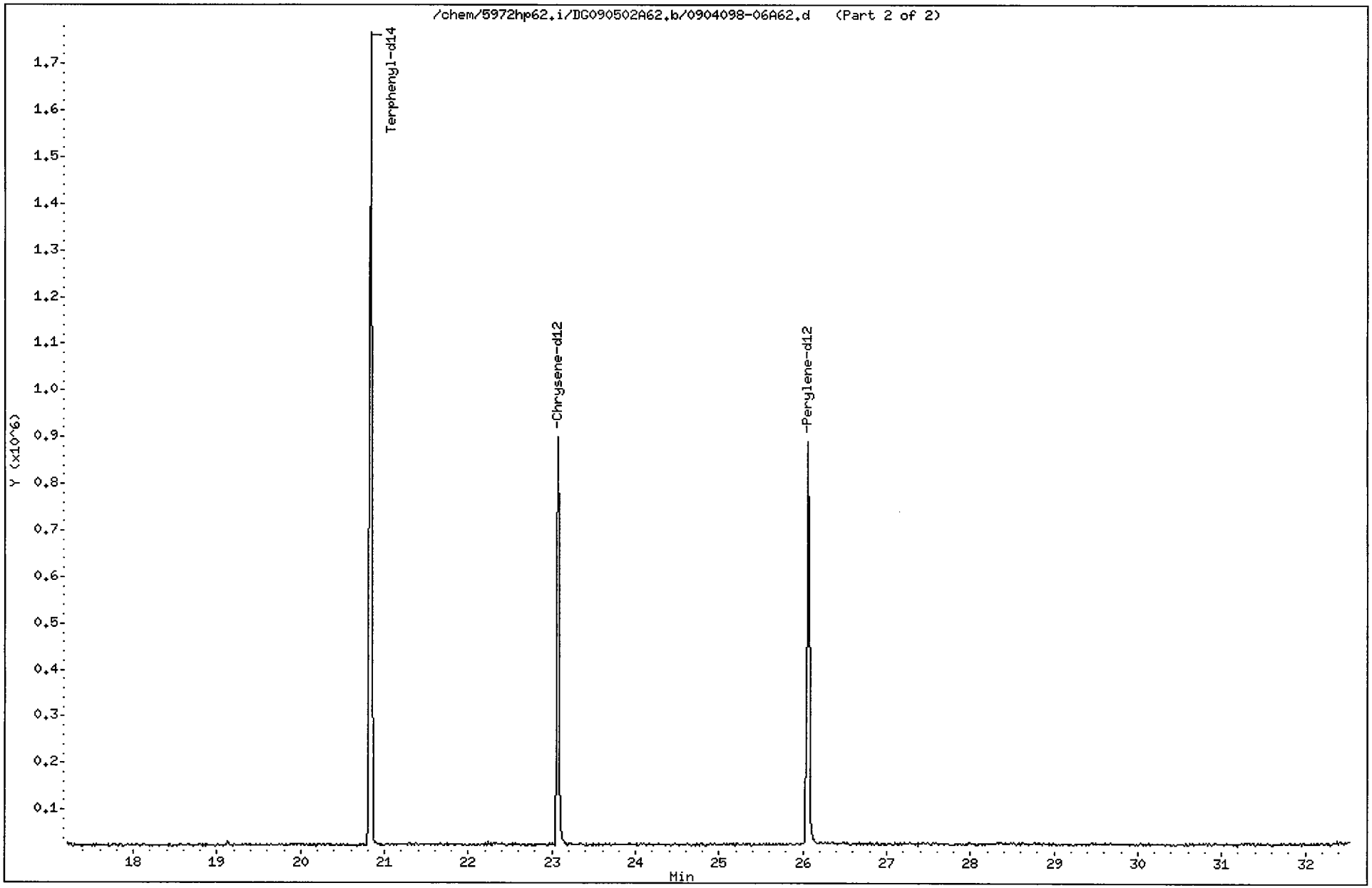
FORM I SV-TIC

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Date : 02-MAY-2009 18:11
Client ID: 13MW7
Sample Info: 0904098-06:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Date : 02-MAY-2009 18:11
Client ID: 13MW7
Instrument: 5972hp62.i
Sample Info: 0904098-06:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Lab Smp Id: 0904098-06 Client Smp ID: 13MW7
Inj Date : 02-MAY-2009 18:11
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-06:2650
Misc Info : 13MW7
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.263	(1.000)	212482	40.0000		
*	2 Naphthalene-d8	136	9.909	9.914	(1.000)	692293	40.0000		
*	3 Acenaphthene-d10	164	13.829	13.824	(1.000)	342468	40.0000		
*	4 Phenanthrene-d10	188	17.094	17.110	(1.000)	520171	40.0000		
*	5 Chrysene-d12	240	23.072	23.087	(1.000)	567279	40.0000		
*	6 Perylene-d12	264	26.060	26.066	(1.000)	606691	40.0000		
$	7 2-Fluorophenol	112	5.036	5.052	(0.693)	674418	129.067	64	
$	8 Phenol-d5	99	6.787	6.802	(0.934)	544583	84.8434	42	
$	11 Nitrobenzene-d5	82	8.476	8.481	(0.855)	631482	97.4331	49	
$	12 2-Fluorobiphenyl	172	12.406	12.401	(0.897)	841814	77.1639	38	
$	13 2,4,6-Tribromophenol	330	15.641	15.636	(1.131)	429713	135.263	68	
$	14 Terphenyl-d14	244	20.840	20.825	(0.903)	1056446	98.7789	49	
	15 N-Nitrosodimethylamine	42	Compound Not Detected.						
	16 Pyridine	79	Compound Not Detected.						
	18 2-Picoline	93	Compound Not Detected.						

5/19/9

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	Compound Not Detected.						
78 2,4-Dinitrophenol	184	Compound Not Detected.						
79 4-Nitrophenol	139	Compound Not Detected.						
80 Pentachlorobenzene	250	Compound Not Detected.						
82 Dibenzofuran	168	Compound Not Detected.						
83 1-Naphthylamine	143	Compound Not Detected.						
84 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85 2-Naphthylamine	143	Compound Not Detected.						
86 Diethylphthalate	149	Compound Not Detected.						
87 Zinophos	97	Compound Not Detected.						
88 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89 5-Nitro-o-toluidine	152	Compound Not Detected.						
90 Fluorene	166	Compound Not Detected.						
91 4-Nitroaniline	138	Compound Not Detected.						
92 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93 N-Nitrosodiphenylamine	169	Compound Not Detected.						
96 Sulfotep	322	Compound Not Detected.						
98 Diallate (trans isomer)	86	Compound Not Detected.						
99 Diallate (trans) part of total	86	Compound Not Detected.						
100 Phorate	75	Compound Not Detected.						
101 Phenacetin	108	Compound Not Detected.						
102 Diallate (cis isomer)	86	Compound Not Detected.						
103 Diallate (cis) part of total	86	Compound Not Detected.						
104 4-Bromophenyl-phenylether	248	Compound Not Detected.						
105 Hexachlorobenzene	284	Compound Not Detected.						
106 Dimethoate	87	Compound Not Detected.						
107 4-Aminobiphenyl	169	Compound Not Detected.						
108 Pentachlorophenol	266	Compound Not Detected.						
109 Pentachloronitrobenzene	237	Compound Not Detected.						
110 Pronamide	173	Compound Not Detected.						
111 Disulfoton	88	Compound Not Detected.						
112 Phenanthrene	178	Compound Not Detected.						
113 Anthracene	178	Compound Not Detected.						
115 Methyl Parathion	109	Compound Not Detected.						
116 Di-n-butylphthalate	149	Compound Not Detected.						
117 Parathion	109	Compound Not Detected.						
118 4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119 Methapyrilene	97	Compound Not Detected.						
120 Isodrin	193	Compound Not Detected.						
121 Fluoranthene	202	Compound Not Detected.						
123 Pyrene	202	Compound Not Detected.						
124 p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125 Chlorobenzilate	251	Compound Not Detected.						
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	Compound Not Detected.						
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-06A62.d
Lab Smp Id: 0904098-06 Client Smp ID: 13MW7
Inj Date : 02-MAY-2009 18:11
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-06:2650
Misc Info : 13MW7
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

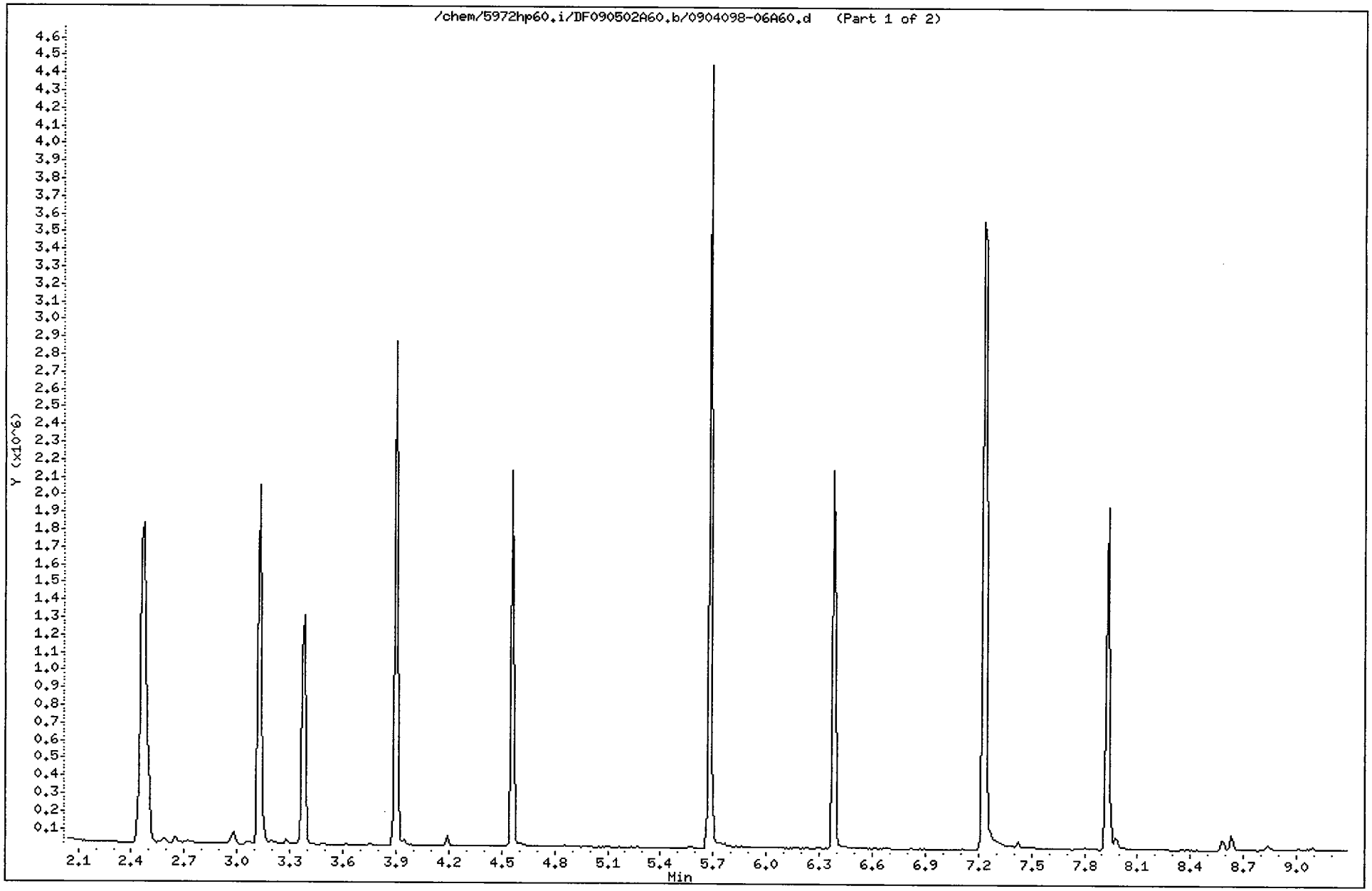
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

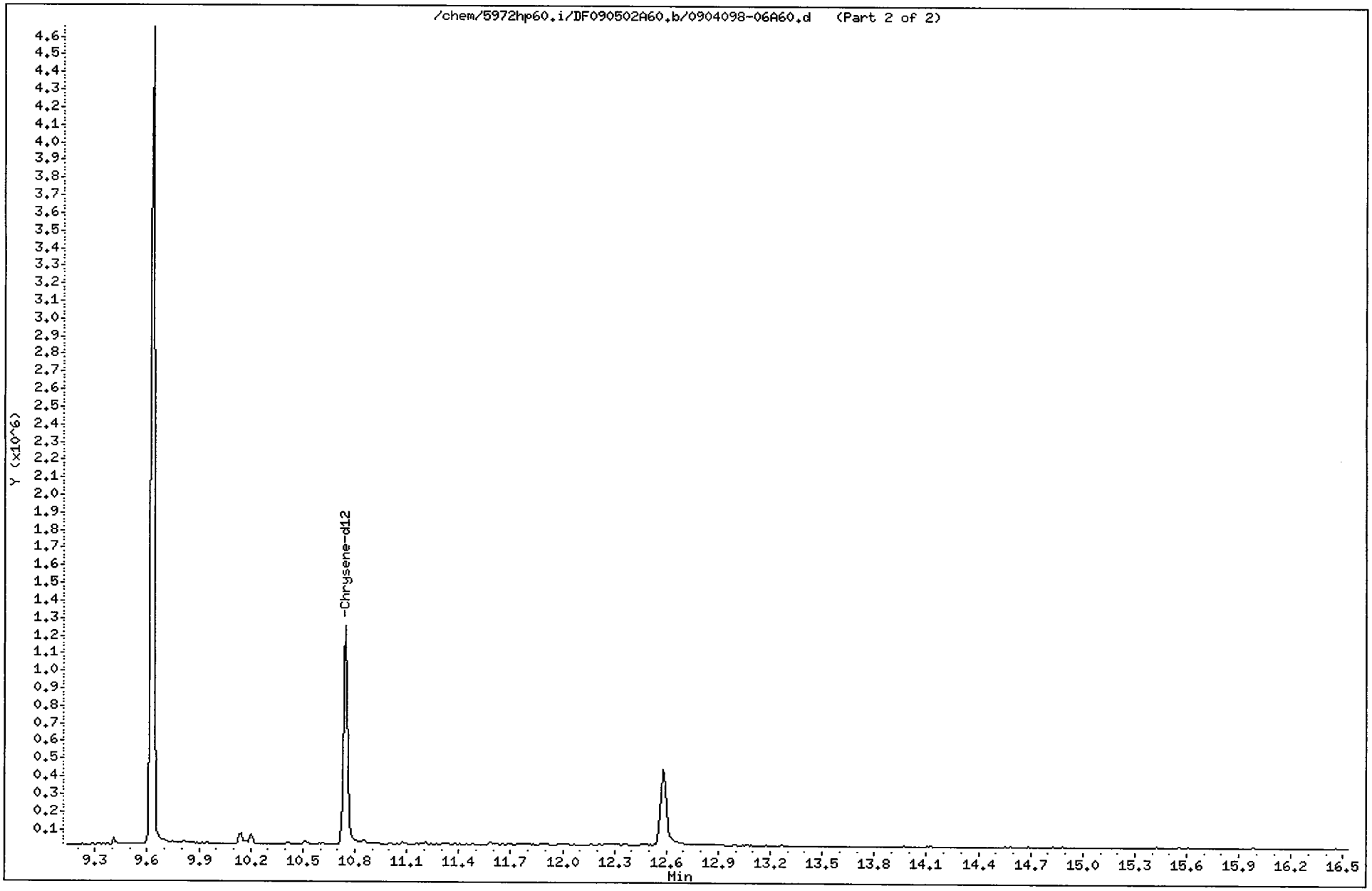
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

Data File: /chem/5972hp60.i/DF090502A60.b/0904098-06A60.d
Date : 02-MAY-2009 12:48
Client ID: 13MW7
Sample Info: 0904098-06:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-06A60.d
Date : 02-MAY-2009 12:48
Client ID: 13MW7
Instrument: 5972hp60.i
Sample Info: 0904098-06:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-06A60.d
Report Date: 04-May-2009 17:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/0904098-06A60.d
Lab Smp Id: 0904098-06 Client Smp ID: 13MW7
Inj Date : 02-MAY-2009 12:48
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-06:2650
Misc Info : 13MW7
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 04-May-2009 17:14 pkhare Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.748	10.745	(1.000)	726717	40.0000		
127 Famfur	218	Compound Not Detected.						

pk 5-5-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0904098-06A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

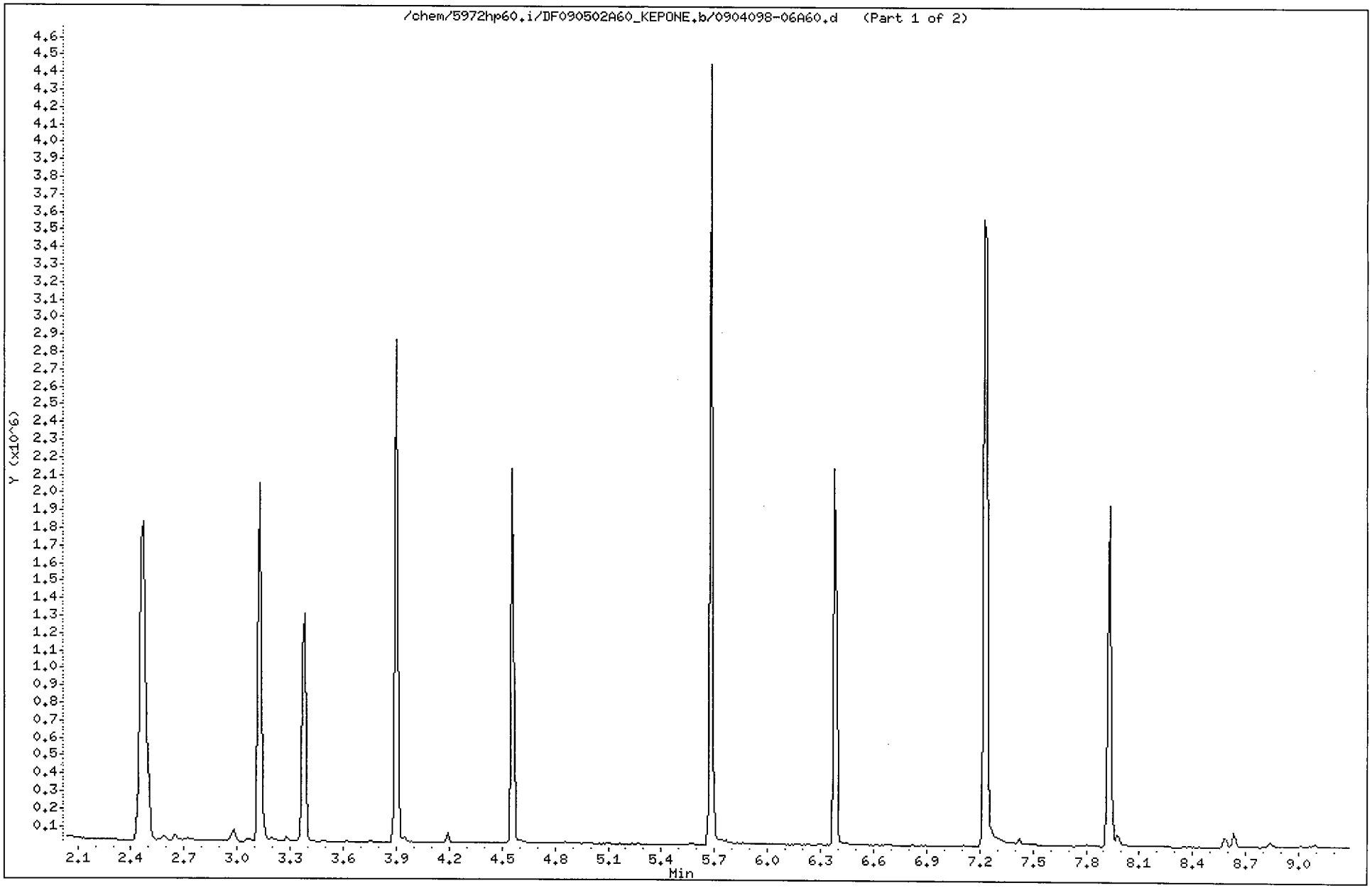
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

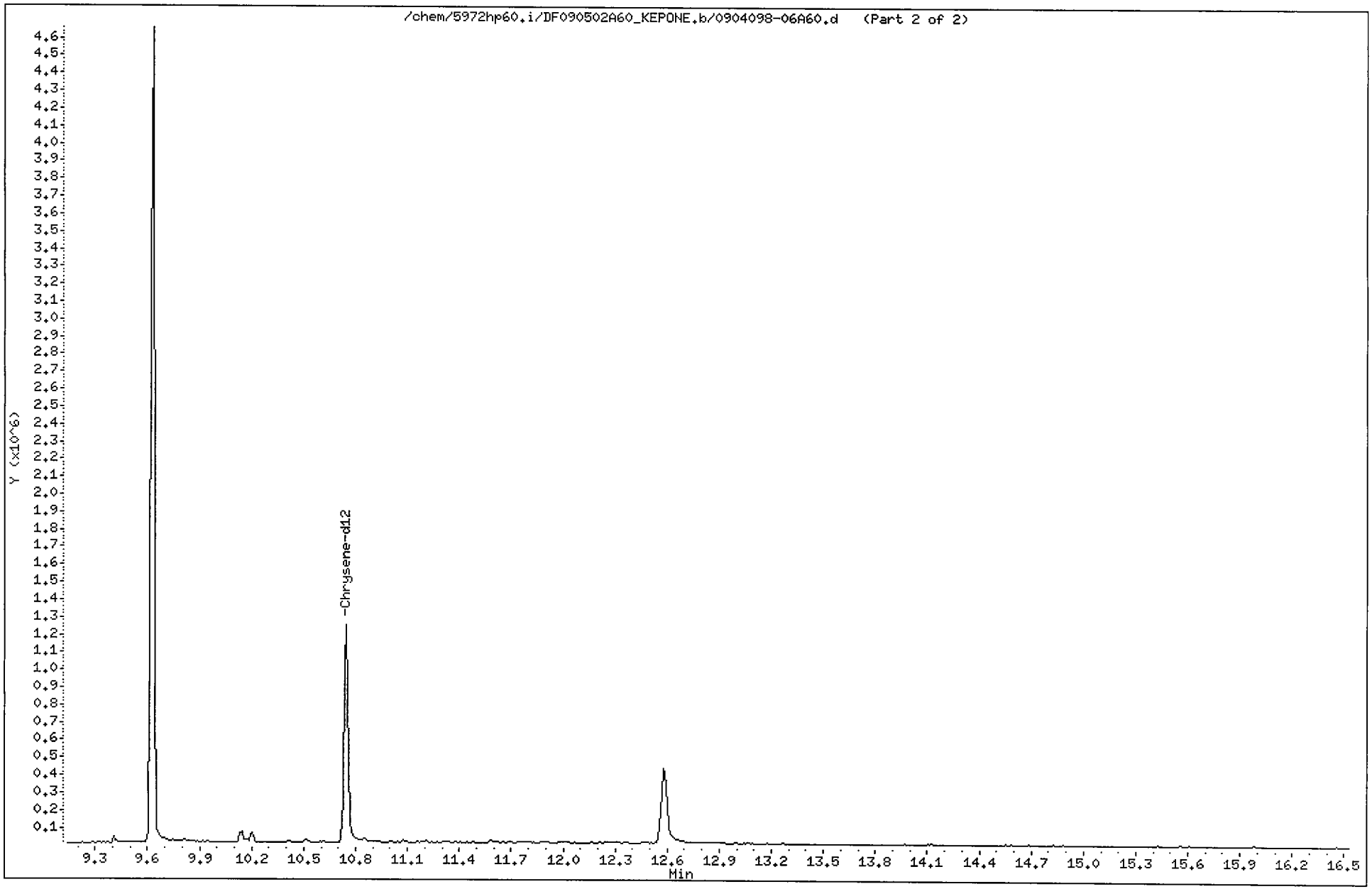
Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-06A60.d
Date : 02-MAY-2009 12:48
Client ID: 13MW7
Sample Info: 0904098-06:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-06A60.d
Date : 02-MAY-2009 12:48
Client ID: 13MW7
Sample Info: 0904098-06:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-06A60.d
Report Date: 05-May-2009 16:42

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-06A60.d
Lab Smp Id: 0904098-06 Client Smp ID: 13MW7
Inj Date : 02-MAY-2009 12:48
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-06:2650
Misc Info : 13MW7
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 02-May-2009 11:37 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.748	10.744	(1.000)	726717	40.0000		
126 Kepone	272	Compound Not Detected.						

5-5-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.1	U
110-86-1	Pyridine	5.1	U
109-06-8	2-Picoline	5.1	U
10595-95-6	Nitrosomethylethylamine	5.1	U
66-27-3	Methyl Methanesulfonate	5.1	U
55-18-5	N-Nitrosodiethylamine	5.1	U
62-50-0	Ethyl Methanesulfonate	5.1	U
108-95-2	Phenol	5.1	U
62-53-3	Aniline	5.1	U
111-44-4	Bis(2-chloroethyl)ether	5.1	U
95-57-8	2-Chlorophenol	5.1	U
100-51-6	Benzyl Alcohol	5.1	U
95-48-7	2-Methylphenol	5.1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.1	U
930-55-2	N-Nitrosopyrrolidine	5.1	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.1	U
98-86-2	Acetophenone	5.1	U
59-89-2	N-Nitrosomorpholine	5.1	U
95-53-4	o-Toluidine	5.1	U
67-72-1	Hexachloroethane	5.1	U
98-95-3	Nitrobenzene	5.1	U
100-75-4	N-Nitrosopiperidine	5.1	U
78-59-1	Isophorone	5.1	U
88-75-5	2-Nitrophenol	5.1	U
105-67-9	2,4-Dimethylphenol	5.1	U
126-68-1	o,o,o-Triethylphosphorothioa	5.1	U
111-91-1	Bis(2-chloroethoxy)methane	5.1	U
120-83-2	2,4-Dichlorophenol	5.1	U
106-47-8	4-Chloroaniline	5.1	U
87-65-0	2,6-Dichlorophenol	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.1	U
924-16-3	N-Nitroso-di-n-butylamine	5.1	U
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	5.1	U
94-59-7	Safrole	5.1	U
91-57-6	2-Methylnaphthalene	5.1	U
77-47-4	Hexachlorocyclopentadiene	5.1	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.1	U
88-06-2	2,4,6-Trichlorophenol	5.1	U
95-95-4	2,4,5-Trichlorophenol	5.1	U
120-58-1	Isosafrole	5.1	U
91-58-7	2-Chloronaphthalene	5.1	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.1	U
131-11-3	Dimethylphthalate	5.1	U
208-96-8	Acenaphthylene	5.1	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.1	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.1	U
132-64-9	Dibenzofuran	5.1	U
134-32-7	1-Naphthylamine	5.1	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U
91-59-8	2-Naphthylamine	5.1	U
84-66-2	Diethylphthalate	5.1	U
297-97-2	Zinophos	5.1	U
7005-72-3	4-Chlorophenyl-phenylether	5.1	U
99-55-8	5-Nitro-o-toluidine	5.1	U
86-73-7	Fluorene	5.1	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.1	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.1	U
17708-58-6	Diallate (trans isomer)	5.1	U
298-02-2	Phorate	5.1	U
62-44-2	Phenacetin	5.1	U
17708-57-5	Diallate (cis isomer)	5.1	U
101-55-3	4-Bromophenyl-phenylether	5.1	U
118-74-1	Hexachlorobenzene	5.1	U
60-51-5	Dimethoate	5.1	U
92-67-1	4-Aminobiphenyl	5.1	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.1	U
23950-58-5	Pronamide	5.1	U
298-04-4	Disulfoton	5.1	U
85-01-8	Phenanthrene	5.1	U
120-12-7	Anthracene	5.1	U
298-00-0	Methyl Parathion	5.1	U
84-74-2	Di-n-butylphthalate	5.1	U
56-38-2	Parathion	5.1	U
56-57-5	4-Nitroquinoline-1-oxide	5.1	U
91-80-5	Methapyrilene	5.1	U
465-73-6	Isodrin	5.1	U
206-44-0	Fluoranthene	5.1	U
129-00-0	Pyrene	5.1	U
60-11-7	p-Dimethylaminoazobenzene	5.1	U
510-15-6	Chlorobenzilate	5.1	U
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	5.1	U
119-93-7	3,3'-Dimethylbenzidine	5.1	U
53-96-3	2-Acetylaminofluorene	5.1	U
91-94-1	3,3'-Dichlorobenzidine	5.1	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.1	U
56-55-3	Benzo(a)anthracene	5.1	U
218-01-9	Chrysene	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.1	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.1	U
205-99-2	Benzo(b)fluoranthene	5.1	U
207-08-9	Benzo(k)fluoranthene	5.1	U
50-32-8	Benzo(a)pyrene	5.1	U
56-49-5	3-Methylcholanthrene	5.1	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.1	U
53-70-3	Dibenzo(a,h)anthracene	5.1	U
191-24-2	Benzo(g,h,i)perylene	5.1	U
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	5.1	U
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	5.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

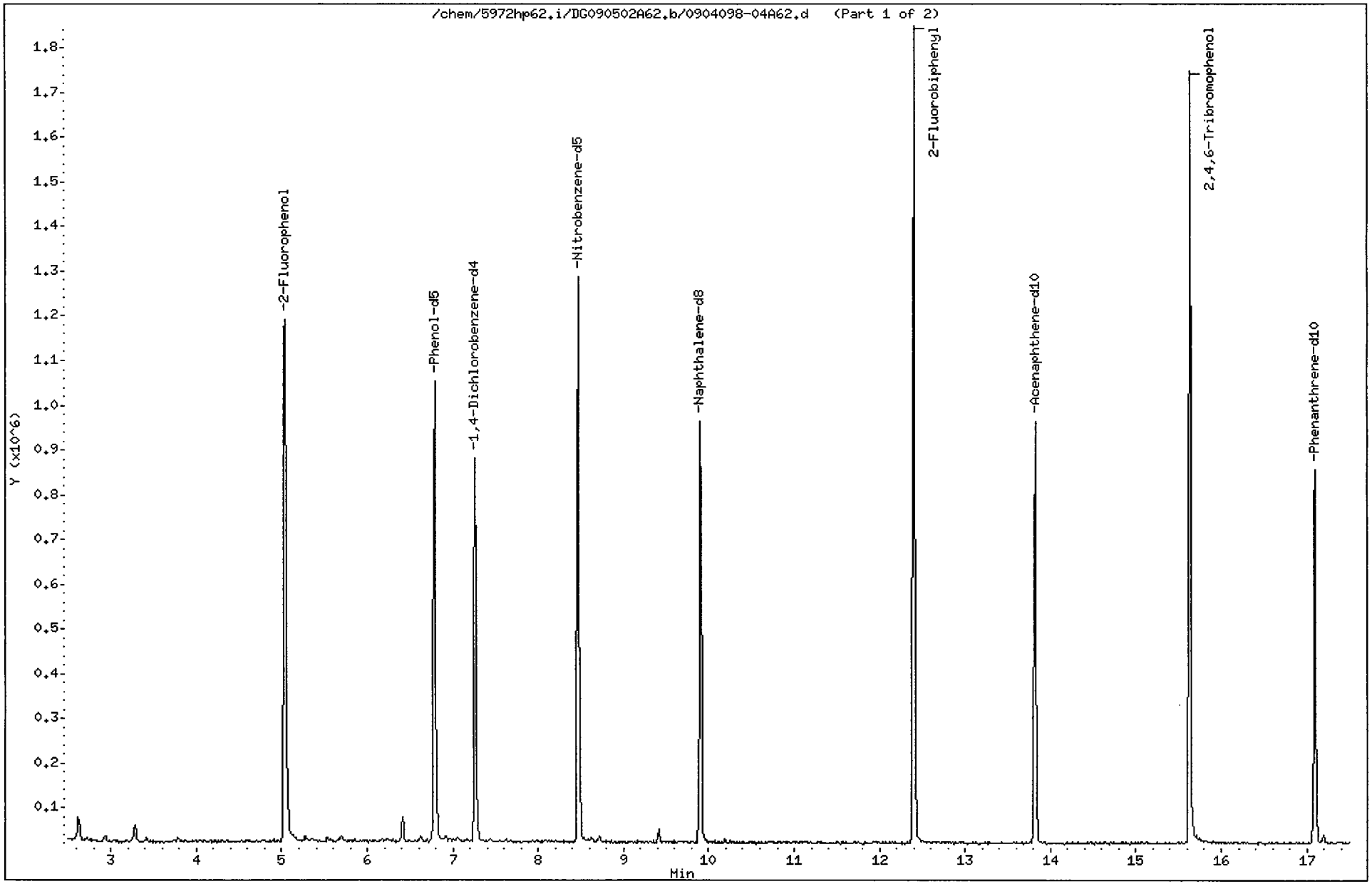
Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

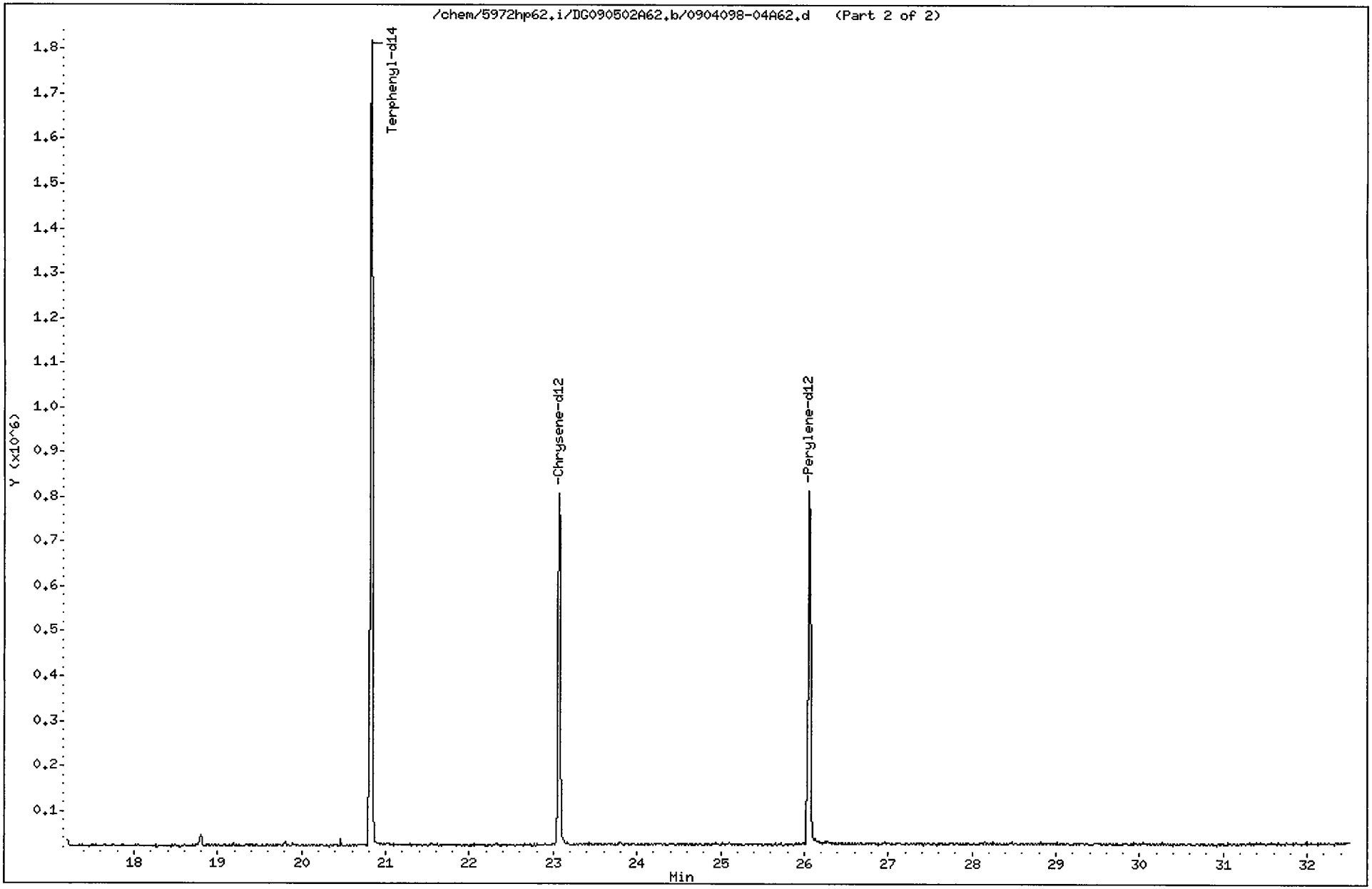
	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Date : 02-MAY-2009 16:47
Client ID: 13MWDUP
Instrument: 5972hp62.i
Sample Info: 0904098-04:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Date : 02-MAY-2009 16:47
Client ID: 13MWDUP
Instrument: 5972hp62.i
Sample Info: 0904098-04:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Lab Smp Id: 0904098-04 Client Smp ID: 13MWDUP
Inj Date : 02-MAY-2009 16:47
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-04:2650
Misc Info : 13MWDUP
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.263	7.263	(1.000)	201964	40.0000		
* 2 Naphthalene-d8	136	9.903	9.914	(1.000)	646163	40.0000		
* 3 Acenaphthene-d10	164	13.824	13.824	(1.000)	311557	40.0000		
* 4 Phenanthrene-d10	188	17.099	17.110	(1.000)	512160	40.0000		
* 5 Chrysene-d12	240	23.066	23.087	(1.000)	536894	40.0000		
* 6 Perylene-d12	264	26.055	26.066	(1.000)	582789	40.0000		
$ 7 2-Fluorophenol	112	5.041	5.052	(0.694)	612677	123.358	63	
$ 8 Phenol-d5	99	6.792	6.802	(0.935)	530485	86.9512	44	
$ 11 Nitrobenzene-d5	82	8.470	8.481	(0.855)	615584	101.761	52	
$ 12 2-Fluorobiphenyl	172	12.401	12.401	(0.897)	862790	86.9332	44	
$ 13 2,4,6-Tribromophenol	330	15.635	15.636	(1.131)	446030	154.329	79	
$ 14 Terphenyl-d14	244	20.835	20.825	(0.903)	999915	98.7843	51	
15 N-Nitrosodimethylamine	42	Compound Not Detected.						
16 Pyridine	79	Compound Not Detected.						
18 2-Picoline	93	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Report Date: 06-May-2009 17:44

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77	Acenaphthene	154	Compound Not Detected.						
78	2,4-Dinitrophenol	184	Compound Not Detected.						
79	4-Nitrophenol	139	Compound Not Detected.						
80	Pentachlorobenzene	250	Compound Not Detected.						
82	Dibenzofuran	168	Compound Not Detected.						
83	1-Naphthylamine	143	Compound Not Detected.						
84	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85	2-Naphthylamine	143	Compound Not Detected.						
86	Diethylphthalate	149	Compound Not Detected.						
87	Zinophos	97	Compound Not Detected.						
88	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89	5-Nitro-o-toluidine	152	Compound Not Detected.						
90	Fluorene	166	Compound Not Detected.						
91	4-Nitroaniline	138	Compound Not Detected.						
92	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93	N-Nitrosodiphenylamine	169	Compound Not Detected.						
96	Sulfotep	322	Compound Not Detected.						
98	Diallate (trans isomer)	86	Compound Not Detected.						
99	Diallate (trans) part of total	86	Compound Not Detected.						
100	Phorate	75	Compound Not Detected.						
101	Phenacetin	108	Compound Not Detected.						
102	Diallate (cis isomer)	86	Compound Not Detected.						
103	Diallate (cis) part of total	86	Compound Not Detected.						
104	4-Bromophenyl-phenylether	248	Compound Not Detected.						
105	Hexachlorobenzene	284	Compound Not Detected.						
106	Dimethoate	87	Compound Not Detected.						
107	4-Aminobiphenyl	169	Compound Not Detected.						
108	Pentachlorophenol	266	Compound Not Detected.						
109	Pentachloronitrobenzene	237	Compound Not Detected.						
110	Pronamide	173	Compound Not Detected.						
111	Disulfoton	88	Compound Not Detected.						
112	Phenanthrene	178	Compound Not Detected.						
113	Anthracene	178	Compound Not Detected.						
115	Methyl Parathion	109	Compound Not Detected.						
116	Di-n-butylphthalate	149	Compound Not Detected.						
117	Parathion	109	Compound Not Detected.						
118	4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119	Methapyrilene	97	Compound Not Detected.						
120	Isodrin	193	Compound Not Detected.						
121	Fluoranthene	202	Compound Not Detected.						
123	Pyrene	202	Compound Not Detected.						
124	p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125	Chlorobenzilate	251	Compound Not Detected.						
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	Compound Not Detected.						
129	3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Report Date: 06-May-2009 17:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Report Date: 06-May-2009 17:44

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/0904098-04A62.d
Lab Smp Id: 0904098-04 Client Smp ID: 13MWDUP
Inj Date : 02-MAY-2009 16:47
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 0904098-04:2650
Misc Info : 13MWDUP
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:44 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

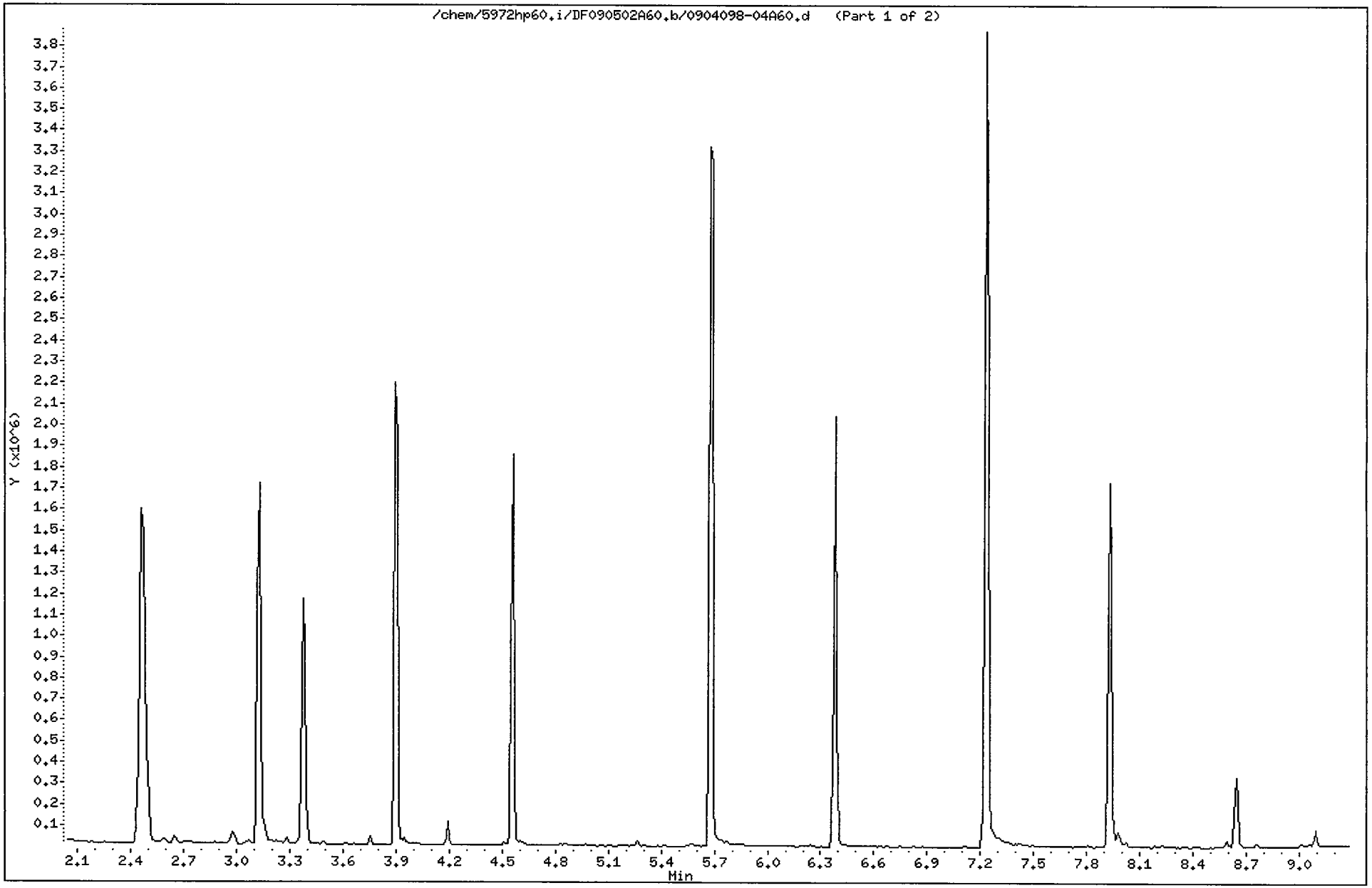
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.1	U

Data File: /chem/5972hp60.i/DF090502A60.b/0904098-04A60.d
Date : 02-MAY-2009 11:31
Client ID: 13MWDUP
Instrument: 5972hp60.i
Sample Info: 0904098-04:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



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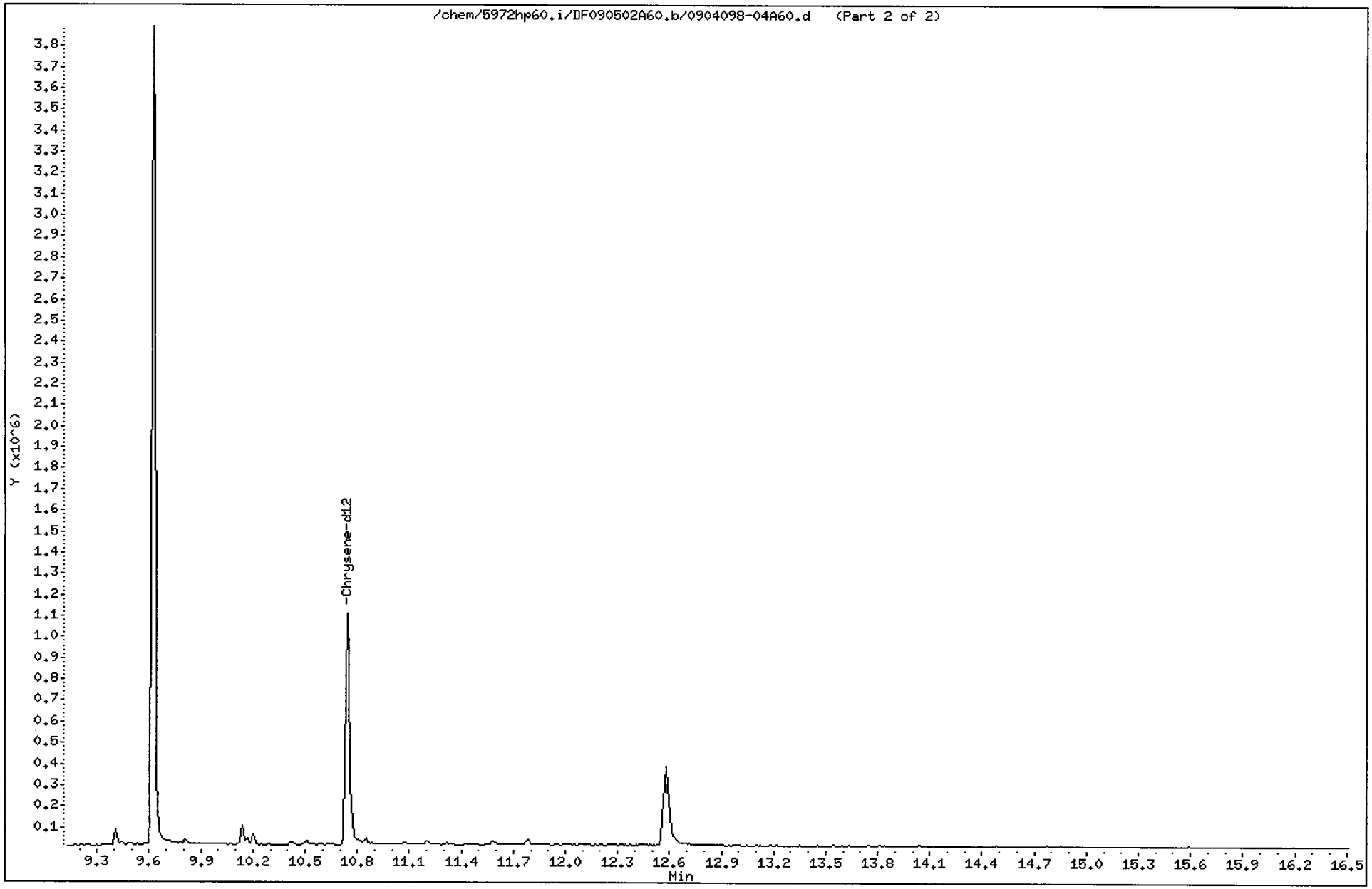
Date : 02-MAY-2009 11:31
Client ID: 13MWDUP
Instrument: 5972hp60.i
Sample Info: 0904098-04:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/0904098-04A60.d
Report Date: 04-May-2009 17:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/0904098-04A60.d
Lab Smp Id: 0904098-04 Client Smp ID: 13MWDUP
Inj Date : 02-MAY-2009 11:31
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-04:2650
Misc Info : 13MWDUP
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 04-May-2009 17:14 pkhare Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.745	(1.000)	640150	40.0000		
127 Famfur	218	Compound Not Detected.						

pk 5-5-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 975 (g/mL) ML Lab File ID: 0904098-04A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

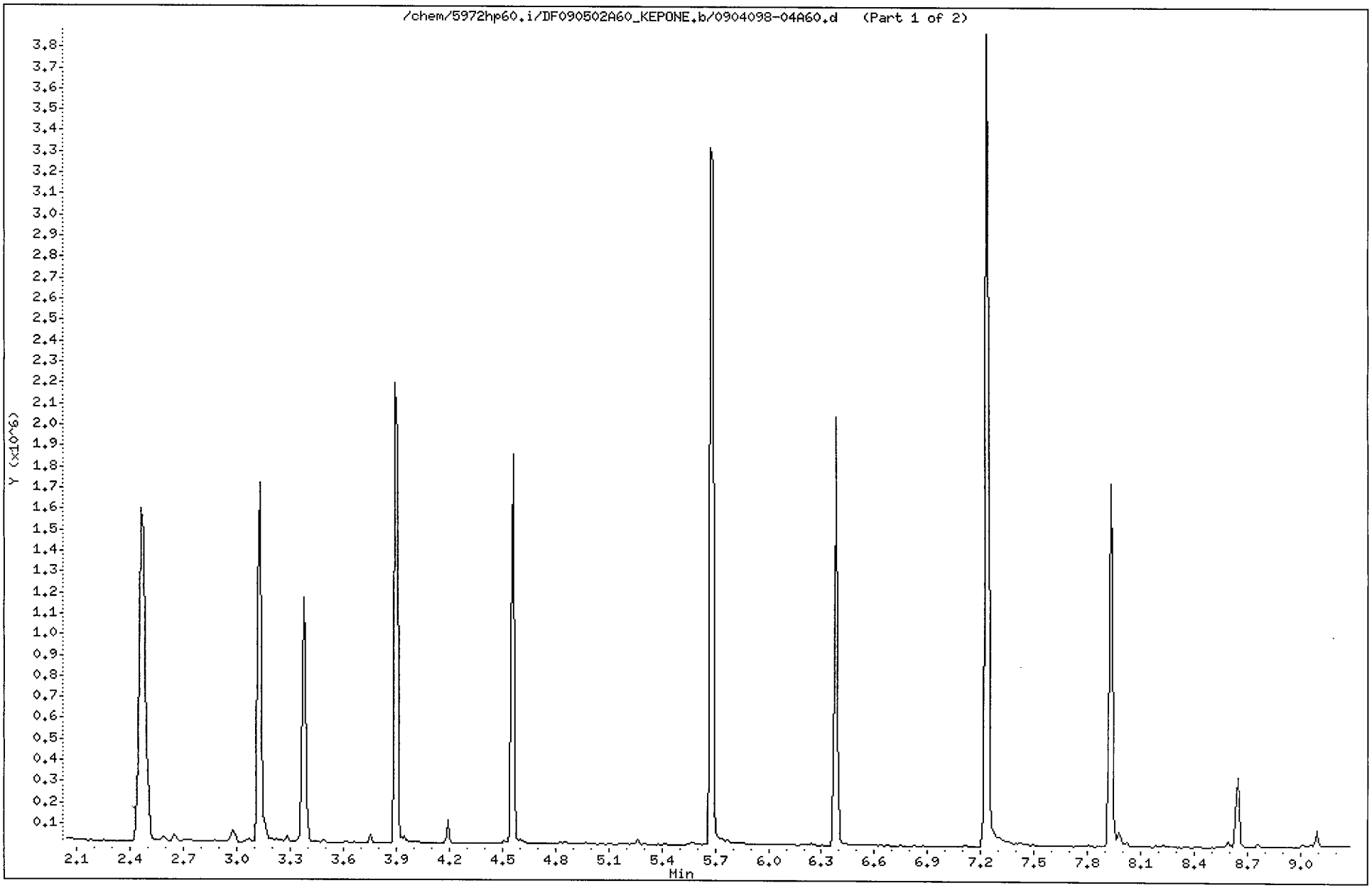
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

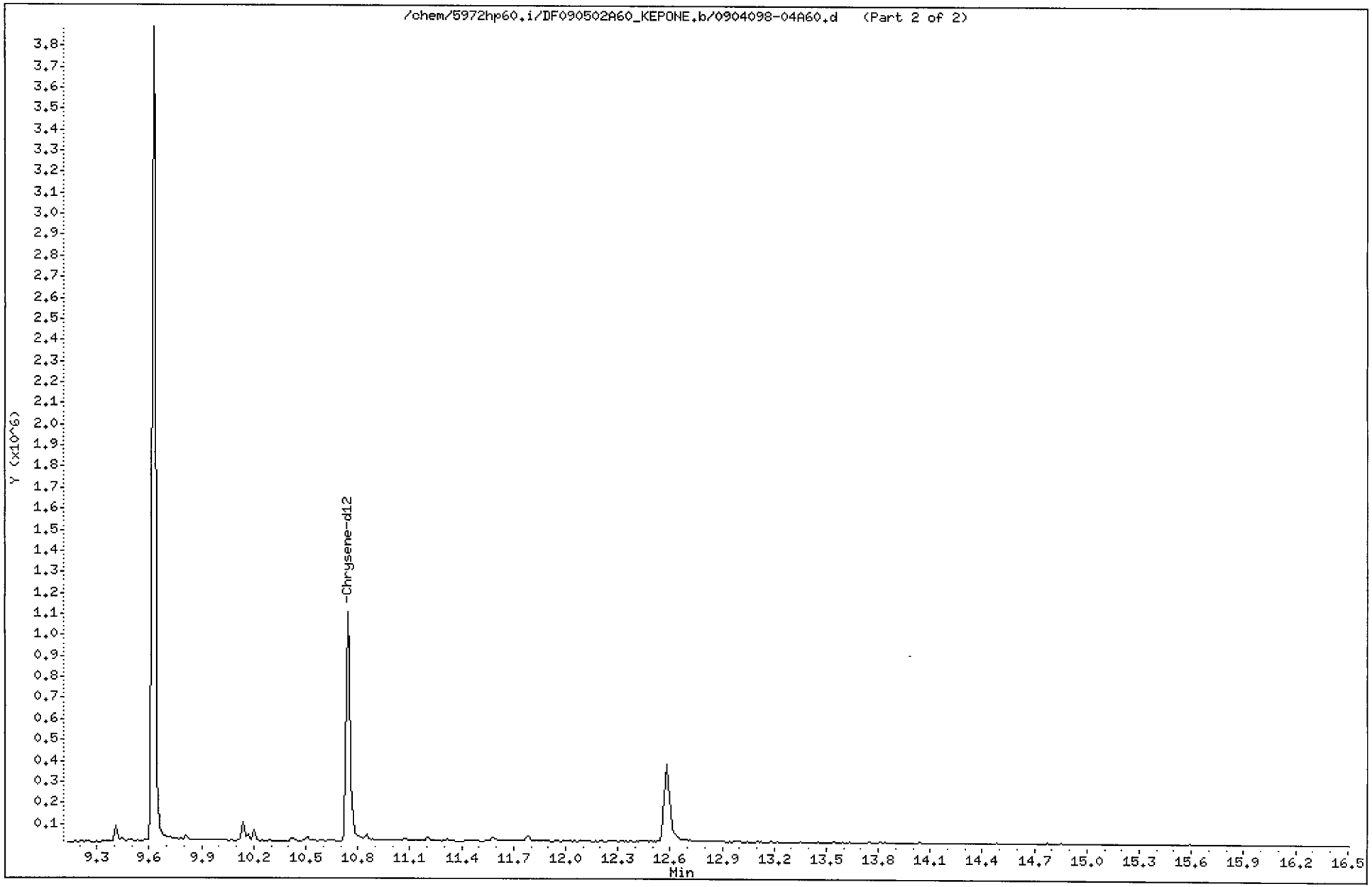
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.1	U

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-04A60.d
Date : 02-MAY-2009 11:31
Client ID: 13MWDUP
Instrument: 5972hp60.i
Sample Info: 0904098-04:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-04A60.d
Date : 02-MAY-2009 11:31
Client ID: 13MWDUP
Sample Info: 0904098-04:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-04A60.d
Report Date: 05-May-2009 16:42

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/0904098-04A60.d
Lab Smp Id: 0904098-04 Client Smp ID: 13MWDUP
Inj Date : 02-MAY-2009 11:31
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 0904098-04:2650
Misc Info : 13MWDUP
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 02-May-2009 11:37 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.744	(1.000)	640150	40.0000		
126 Kepone	272	Compound Not Detected.						

10 5-5-09

3. Standards Data

a. Initial Calibration Data (Form VI SV)

b. Continuing Calibration Data (Form VII SV)

a. Initial Calibration Data (Form VI SV)

If more than one instrument is used, forms shall be arranged in order by instrument. Multiple initial calibrations from the same instrument shall be in chronological order. Within each initial calibration, the standards are in order by level, from lowest to highest.

(1) Reconstructed Ion Chromatograms and quantitation reports for the initial (five-point) calibration. Spectra not required.

(2) EICPs displaying each manual integration.

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

LAB FILE ID: RF10: HI090430A62 RF20: HK090430A62 RF50: HL090430A62
RF80: HG090430A62 RF120: HJ090430A62RF160: HH090430A62

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
N-Nitrosodimethylamine	0.476	0.538	0.582	0.487	0.553	0.492
Pyridine	1.122	1.195	1.371	1.209	1.135	0.992
2-Picoline	1.314	1.247	1.254	1.168	1.130	1.075
Nitrosomethylethylamine	0.420	0.451	0.451	0.433	0.410	0.400
Methyl Methanesulfonate	0.825	0.855	0.855	0.738	0.764	0.705
N-Nitrosodiethylamine	0.352	0.362	0.356	0.346	0.357	0.325
Ethyl Methanesulfonate	0.982	1.040	1.059	0.893	0.936	0.840
Phenol	1.423	1.376	1.340	1.224	1.120	1.011
Aniline	1.683	1.743	1.701	1.652	1.564	1.406
Bis(2-chloroethyl)ether	1.238	1.300	1.136	1.008	0.964	0.802
2-Chlorophenol	1.301	1.241	1.155	1.119	1.049	0.962
Benzyl Alcohol	0.715	0.733	0.658	0.605	0.581	0.547
2-Methylphenol	1.057	0.991	0.917	0.833	0.831	0.739
2,2'-oxybis(1-Chloropropane)	1.478	1.438	1.488	1.215	1.309	1.122
N-Nitrosopyrrolidine	0.197	0.241	0.275	0.265	0.260	0.072
3-Methylphenol	1.114	1.107	1.012	0.920	0.865	0.763
4-Methylphenol	1.114	1.107	1.012	0.920	0.865	0.763
3-4-Methylphenol	1.132	1.107	1.012	0.922	0.866	0.763
N-Nitroso-di-N-propylamine	0.457	0.496	0.439	0.386	0.394	0.351
Acetophenone	0.516	0.504	0.452	0.427	0.405	0.393
N-Nitrosomorpholine	0.120	0.119	0.119	0.102	0.115	0.062
o-Toluidine	1.686	1.711	1.434	1.289	1.224	1.106
Hexachloroethane	0.703	0.673	0.638	0.582	0.536	0.503
Nitrobenzene	0.393	0.380	0.374	0.348	0.332	0.309
N-Nitrosopiperidine	0.147	0.152	0.137	0.135	0.134	0.131
Isophorone	0.672	0.683	0.628	0.575	0.564	0.533
2-Nitrophenol	0.212	0.208	0.192	0.193	0.180	0.181
2,4-Dimethylphenol	0.304	0.269	0.236	0.238	0.214	0.203
o,o,o-Triethylphosphorothioa	0.166	0.157	0.144	0.135	0.132	0.124
Bis(2-chloroethoxy)methane	0.501	0.484	0.455	0.403	0.394	0.372
2,4-Dichlorophenol	0.312	0.312	0.291	0.274	0.259	0.252
4-Chloroaniline	0.447	0.439	0.381	0.361	0.317	0.292
2,6-Dichlorophenol	0.323	0.311	0.276	0.264	0.236	0.228
Hexachloropropene	0.298	0.294	0.269	0.264	0.251	0.239
N-Nitroso-di-n-butylamine	0.128	0.129	0.120	0.111	0.112	0.113
p-Phenylenediamine			0.002	0.010	0.014	0.015
4-Chloro-3-methylphenol	0.303	0.290	0.270	0.238	0.225	0.217
Safrole	0.289	0.259	0.236	0.228	0.198	0.196
2-Methylnaphthalene	0.570	0.528	0.488	0.447	0.416	0.386
Hexachlorocyclopentadiene	0.577	0.563	0.562	0.542	0.509	0.465
1,2,4,5-Tetrachlorobenzene	0.852	0.818	0.756	0.691	0.641	0.578
2,4,6-Trichlorophenol	0.478	0.437	0.422	0.402	0.376	0.346
2,4,5-Trichlorophenol	0.528	0.500	0.440	0.457	0.439	0.385
Isosafrole	0.084	0.086	0.083	0.079	0.076	0.072

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

LAB FILE ID: RF10: HI090430A62 RF20: HK090430A62 RF50: HL090430A62
RF80: HG090430A62 RF120: HJ090430A62RF160: HH090430A62

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
2-Chloronaphthalene	1.892	1.791	1.631	1.487	1.383	1.207
2-Nitroaniline	0.360	0.387	0.379	0.328	0.356	0.317
1,4-Napthoquinone	0.589	0.550	0.516	0.472	0.428	0.388
Dimethylphthalate	1.472	1.361	1.236	1.119	1.094	0.986
Acenaphthylene	2.113	1.948	1.736	1.598	1.527	1.359
3-Nitroaniline	0.311	0.296	0.297	0.283	0.281	0.260
Acenaphthene	1.234	1.073	0.996	0.893	0.857	0.747
2,4-Dinitrophenol	0.068	0.079	0.096	0.150	0.160	0.172
4-Nitrophenol	0.203	0.229	0.213	0.238	0.255	0.221
Pentachlorobenzene	0.845	0.782	0.736	0.650	0.617	0.568
Dibenzofuran	1.926	1.748	1.676	1.440	1.403	1.254
1-Naphthylamine	0.374	0.298	0.324	0.314	0.310	0.307
2,3,4,6-Tetrachlorophenol	0.408	0.375	0.370	0.366	0.339	0.324
2-Naphthylamine	0.359	0.242	0.293	0.323	0.403	0.447
Diethylphthalate	1.562	1.446	1.295	1.170	1.169	1.076
Zinophos	0.389	0.388	0.340	0.314	0.323	0.295
4-Chlorophenyl-phenylether	0.804	0.735	0.653	0.576	0.540	0.480
5-Nitro-o-toluidine	0.377	0.408	0.366	0.374	0.363	0.328
Fluorene	1.461	1.394	1.272	1.136	1.036	1.004
4-Nitroaniline	0.299	0.324	0.322	0.314	0.316	0.300
4,6-Dinitro-2-methylphenol	0.097	0.102	0.109	0.152	0.148	0.160
N-Nitrosodiphenylamine	0.668	0.636	0.589	0.565	0.513	0.504
Sulfotep	0.280	0.267	0.245	0.236	0.221	0.216
Diallate (trans isomer)	0.614	0.600	0.526	0.426	0.428	0.395
Phorate	0.589	0.579	0.532	0.437	0.442	0.417
Phenacetin	0.412	0.406	0.414	0.385	0.395	0.393
Diallate (cis isomer)	0.176	0.187	0.168	0.144	0.146	0.148
4-Bromophenyl-phenylether	0.308	0.290	0.260	0.245	0.235	0.221
Hexachlorobenzene	0.452	0.423	0.415	0.387	0.390	0.374
Dimethoate	0.311	0.295	0.275	0.246	0.221	0.194
4-Aminobiphenyl	0.559	0.465	0.506	0.547	0.560	0.565
Pentachlorophenol	0.180	0.176	0.182	0.199	0.214	0.207
Pentachloronitrobenzene	0.136	0.136	0.124	0.123	0.127	0.126
Pronamide	0.388	0.374	0.366	0.348	0.341	0.322
Disulfoton	0.438	0.419	0.406	0.369	0.372	0.335
Phenanthrene	1.235	1.158	1.097	1.008	0.952	0.908
Anthracene	1.288	1.169	1.146	1.047	1.017	0.994
Methyl Parathion	0.295	0.281	0.269	0.225	0.218	0.190
Di-n-butylphthalate	1.636	1.492	1.409	1.309	1.304	1.279
Parathion	0.186	0.175	0.177	0.168	0.168	0.161
4-Nitroquinoline-1-oxide	0.074	0.083	0.104	0.119	0.128	0.118
Methapyrilene	0.009	0.008	0.008	0.008	0.007	0.007
Isodrin	0.182	0.164	0.157	0.147	0.142	0.141
Fluoranthene	1.195	1.205	1.122	1.023	1.029	0.990

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

LAB FILE ID: RF10: HI090430A62 RF20: HK090430A62 RF50: HL090430A62
RF80: HG090430A62 RF120: HJ090430A62RF160: HH090430A62

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
Pyrene	1.221	1.154	1.002	0.990	0.908	0.769
p-Dimethylaminoazobenzene	0.224	0.203	0.200	0.201	0.183	0.152
Chlorobenzilate	0.382	0.342	0.318	0.344	0.325	0.278
Famfur						
Butylbenzylphthalate	0.611	0.595	0.535	0.528	0.490	0.425
3,3'-Dimethylbenzidine	0.402	0.364	0.345	0.360	0.350	0.317
2-Acetylaminofluorene	0.374	0.356	0.342	0.383	0.367	0.335
3,3'-Dichlorobenzidine	0.405	0.390	0.376	0.374	0.330	0.289
bis(2-ethylhexyl)Phthalate	0.825	0.806	0.717	0.733	0.671	0.571
Benzo(a)anthracene	1.079	1.026	0.982	0.942	0.878	0.776
Chrysene	1.039	0.989	0.887	0.815	0.731	0.633
Di-n-octylphthalate	1.298	1.164	1.148	1.068	1.076	0.967
7,12-Dimethylbenz(a)anthrace	0.451	0.442	0.413	0.375	0.352	0.338
Benzo(b)fluoranthene	1.008	1.026	0.964	0.921	1.021	1.028
Benzo(k)fluoranthene	1.001	0.983	0.952	0.922	0.739	0.633
Benzo(a)pyrene	0.959	0.919	0.884	0.853	0.834	0.749
3-Methylcholanthrene	0.548	0.491	0.489	0.467	0.453	0.408
Indeno(1,2,3-c,d)pyrene	0.829	0.828	0.791	0.781	0.794	0.811
Dibenzo(a,h)anthracene	0.881	0.836	0.823	0.725	0.797	0.722
Benzo(g,h,i)perylene	0.934	0.887	0.870	0.823	0.827	0.828
Kepone						
Diallate Total	0.395	0.394	0.347	0.287	0.289	0.272
a,a-Dimethylphenethylamine	0.579	0.530	0.140	0.205	0.279	0.352
Aramite	0.071	0.061	0.058	0.062	0.060	0.050
2-Fluorophenol	0.994	1.094	1.034	0.973	0.952	0.854
Phenol-d5	1.361	1.293	1.258	1.206	1.110	1.023
Nitrobenzene-d5	0.410	0.419	0.387	0.351	0.351	0.329
2-Fluorobiphenyl	1.579	1.424	1.307	1.183	1.114	1.038
2,4,6-Tribromophenol	0.413	0.371	0.379	0.358	0.363	0.341
Terphenyl-d14	0.904	0.854	0.762	0.736	0.694	0.575

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2	
N-Nitrosodimethylamine	AVRG	0.52159716	8.155	90.000	
Pyridine	AVRG	1.17060521	10.653	90.000	
2-Picoline	AVRG	1.19817261	7.433	90.000	
Nitrosomethylethylamine	AVRG	0.42721040	4.974	90.000	
Methyl Methanesulfonate	AVRG	0.79034324	8.020	90.000	
N-Nitrosodiethylamine	AVRG	0.34992493	3.775	90.000	
Ethyl Methanesulfonate	AVRG	0.95837320	8.862	90.000	
Phenol	AVRG	1.24909109	12.842	30.000	
Aniline	AVRG	1.62462073	7.551	90.000	
Bis(2-chloroethyl)ether	AVRG	1.07488362	17.279	90.000	
2-Chlorophenol	AVRG	1.13797645	10.869	90.000	
Benzyl Alcohol	AVRG	0.63993446	11.694	90.000	
2-Methylphenol	AVRG	0.89474708	13.044	90.000	
2,2'-oxybis(1-Chloropropane)	AVRG	1.34189485	11.289	90.000	
N-Nitrosopyrrolidine	AVRG	0.21833900	35.056	90.000	
3-Methylphenol	AVRG	0.96364240	14.486	90.000	
4-Methylphenol	AVRG	0.96364240	14.486	90.000	
3-4-Methylphenol	AVRG	0.96698117	14.817	90.000	
N-Nitroso-di-N-propylamine	AVRG	0.42039235	12.592	90.000	
Acetophenone	AVRG	0.44958633	11.352	90.000	
N-Nitrosomorpholine	AVRG	0.10625314	21.536	90.000	
o-Toluidine	AVRG	1.40836908	17.647	90.000	
Hexachloroethane	AVRG	0.60607928	12.950	90.000	
Nitrobenzene	AVRG	0.35626801	9.035	90.000	
N-Nitrosopiperidine	AVRG	0.13931257	5.912	90.000	
Isophorone	AVRG	0.60919742	10.076	90.000	
2-Nitrophenol	AVRG	0.19437145	6.930	30.000	
2,4-Dimethylphenol	AVRG	0.24401043	15.182	90.000	
o,o,o-Triethylphosphorothioa	AVRG	0.14331114	11.116	90.000	
Bis(2-chloroethoxy)methane	AVRG	0.43477730	12.160	90.000	
2,4-Dichlorophenol	AVRG	0.28337591	9.244	30.000	
4-Chloroaniline	AVRG	0.37300345	16.897	90.000	
2,6-Dichlorophenol	AVRG	0.27291007	14.063	90.000	
Hexachloropropene	AVRG	0.26905550	8.632	90.000	
N-Nitroso-di-n-butylamine	AVRG	0.11885373	6.949	90.000	
p-Phenylenediamine	AVRG	0.01035835	54.734	90.000	<-
4-Chloro-3-methylphenol	AVRG	0.25699025	13.877	30.000	
Safrole	AVRG	0.23443447	15.286	90.000	
2-Methylnaphthalene	AVRG	0.47277318	14.720	90.000	
Hexachlorocyclopentadiene	AVRG	0.53633710	7.834	90.000	
1,2,4,5-Tetrachlorobenzene	AVRG	0.72266969	14.598	90.000	
2,4,6-Trichlorophenol	AVRG	0.40998940	11.358	30.000	
2,4,5-Trichlorophenol	AVRG	0.45819325	11.012	90.000	
Isosafrole	AVRG	0.08005431	6.840	90.000	

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2	
2-Chloronaphthalene	AVRG	1.56518930	16.401	90.000	
2-Nitroaniline	AVRG	0.35464226	7.788	90.000	
1,4-Napthoquinone	AVRG	0.49054664	15.372	90.000	
Dimethylphthalate	AVRG	1.21118601	14.943	90.000	
Acenaphthylene	AVRG	1.71361770	16.286	90.000	
3-Nitroaniline	AVRG	0.28814982	6.096	90.000	
Acenaphthene	AVRG	0.96668860	17.879	30.000	
2,4-Dinitrophenol	AVRG	0.12080422	37.301	90.000	
4-Nitrophenol	AVRG	0.22640396	8.080	90.000	
Pentachlorobenzene	AVRG	0.69982123	15.091	90.000	
Dibenzofuran	AVRG	1.57438323	15.934	90.000	
1-Naphthylamine	AVRG	0.32111949	8.488	90.000	
2,3,4,6-Tetrachlorophenol	AVRG	0.36389349	8.109	90.000	
2-Naphthylamine	AVRG	0.34443703	21.557	90.000	
Diethylphthalate	AVRG	1.28640140	14.476	90.000	
Zinophos	AVRG	0.34145678	11.459	90.000	
4-Chlorophenyl-phenylether	AVRG	0.63172330	19.435	90.000	
5-Nitro-o-toluidine	AVRG	0.36939475	7.033	90.000	
Fluorene	AVRG	1.21728876	15.523	90.000	
4-Nitroaniline	AVRG	0.31252731	3.473	90.000	
4,6-Dinitro-2-methylphenol	AVRG	0.12818731	22.053	90.000	
N-Nitrosodiphenylamine	AVRG	0.57942471	11.315	30.000	
Sulfotep	AVRG	0.24414987	10.390	90.000	
Diallate (trans isomer)	AVRG	0.49827803	19.077	90.000	
Phorate	AVRG	0.49930567	15.385	90.000	
Phenacetin	AVRG	0.40080897	2.870	90.000	
Diallate (cis isomer)	AVRG	0.16162637	11.240	90.000	
4-Bromophenyl-phenylether	AVRG	0.25984983	12.832	90.000	
Hexachlorobenzene	AVRG	0.40705557	7.035	90.000	
Dimethoate	AVRG	0.25692258	17.534	90.000	
4-Aminobiphenyl	AVRG	0.53374722	7.464	90.000	
Pentachlorophenol	AVRG	0.19298714	8.131	30.000	
Pentachloronitrobenzene	AVRG	0.12853293	4.555	90.000	
Pronamide	AVRG	0.35655435	6.632	90.000	
Disulfoton	AVRG	0.38967791	9.756	90.000	
Phenanthrene	AVRG	1.05979946	11.861	90.000	
Anthracene	AVRG	1.11010005	10.051	90.000	
Methyl Parathion	AVRG	0.24642292	16.792	90.000	
Di-n-butylphthalate	AVRG	1.40475531	9.876	90.000	
Parathion	AVRG	0.17276750	5.091	90.000	
4-Nitroquinoline-1-oxide	AVRG	0.10444227	20.586	90.000	
Methapyrilene	AVRG	0.00760932	11.393	90.000	<-
Isodrin	AVRG	0.15540512	10.156	90.000	
Fluoranthene	AVRG	1.09420470	8.516	30.000	

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date(s): 04/30/09 04/30/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1622 1951

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2	
Pyrene	AVRG	1.00734991	16.274	90.000	
p-Dimethylaminoazobenzene	AVRG	0.19378389	12.539	90.000	
Chlorobenzilate	AVRG	0.33153484	10.455	90.000	
Famfur	AVRG			0.000	<-
Butylbenzylphthalate	AVRG	0.53058226	12.932	90.000	
3,3'-Dimethylbenzidine	AVRG	0.35649626	7.790	90.000	
2-Acetylaminofluorene	AVRG	0.35943133	5.217	90.000	
3,3'-Dichlorobenzidine	AVRG	0.36079089	11.913	90.000	
bis(2-ethylhexyl)Phthalate	AVRG	0.72059404	12.920	90.000	
Benzo(a)anthracene	AVRG	0.94740571	11.454	90.000	
Chrysene	AVRG	0.84907018	18.174	90.000	
Di-n-octylphthalate	AVRG	1.12036949	9.974	30.000	
7,12-Dimethylbenz(a)anthrace	AVRG	0.39541892	11.973	90.000	
Benzo(b)fluoranthene	AVRG	0.99471411	4.351	90.000	
Benzo(k)fluoranthene	AVRG	0.87173680	17.229	90.000	
Benzo(a)pyrene	AVRG	0.86629091	8.432	30.000	
3-Methylcholanthrene	AVRG	0.47611152	9.749	90.000	
Indeno(1,2,3-c,d)pyrene	AVRG	0.80576537	2.484	90.000	
Dibenzo(a,h)anthracene	AVRG	0.79731878	7.930	90.000	
Benzo(g,h,i)perylene	AVRG	0.86159853	5.124	90.000	
Kepone	AVRG			0.000	<-
Diallate Total	AVRG	0.33052505	16.853	90.000	
a,a-Dimethylphenethylamine	AVRG	0.34743105	50.628	90.000	
Aramite	AVRG	0.06029814	11.172	90.000	
2-Fluorophenol	AVRG	0.98367505	8.223	90.000	
Phenol-d5	AVRG	1.20832482	10.264	90.000	
Nitrobenzene-d5	AVRG	0.37447645	9.693	90.000	
2-Fluorobiphenyl	AVRG	1.27421272	15.937	90.000	
2,4,6-Tribromophenol	AVRG	0.37105520	6.539	90.000	
Terphenyl-d14	AVRG	0.75413069	15.537	90.000	

Average %RSD test result.

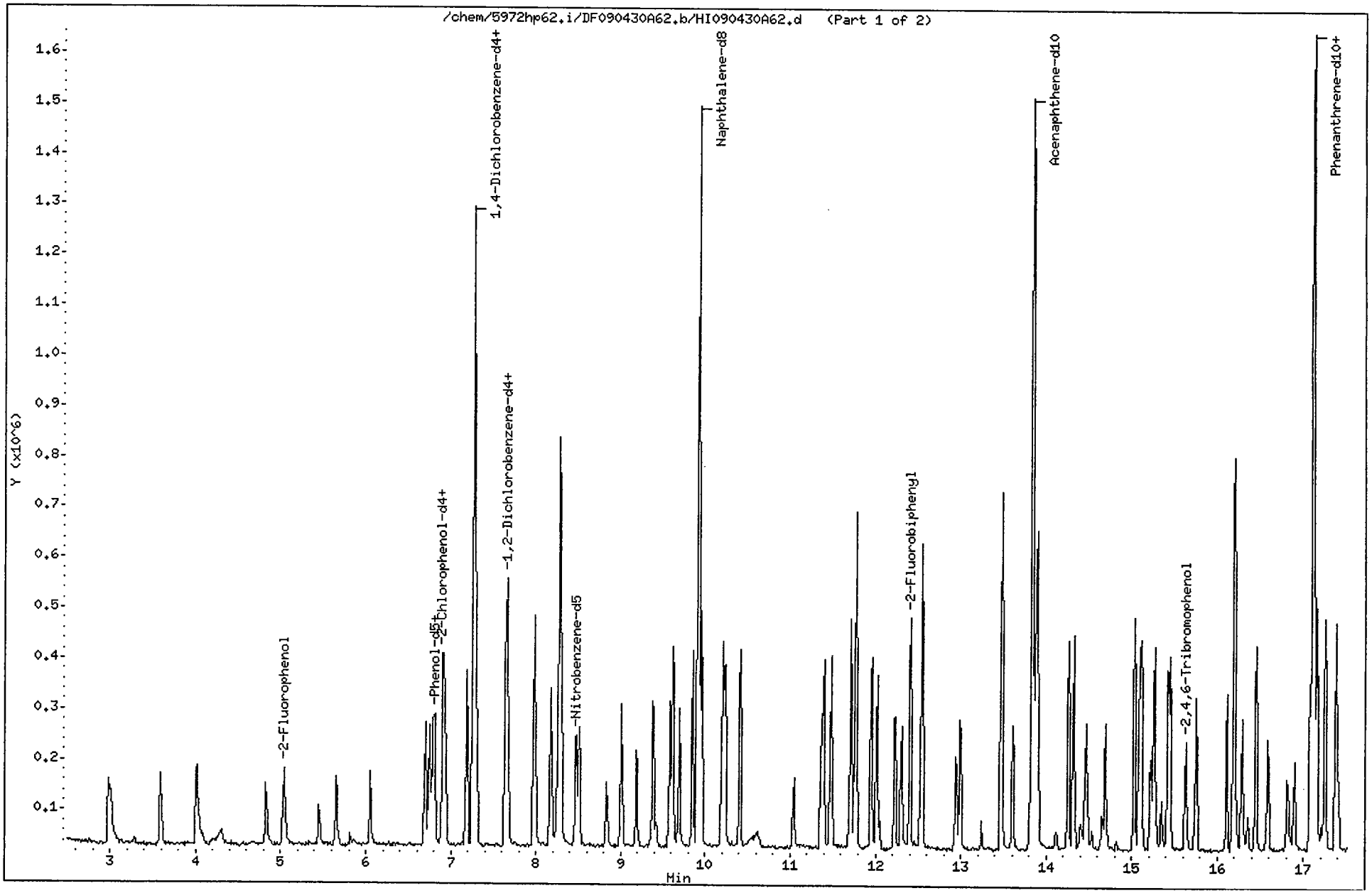
Calculate Average %RSD: 12.60028076
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

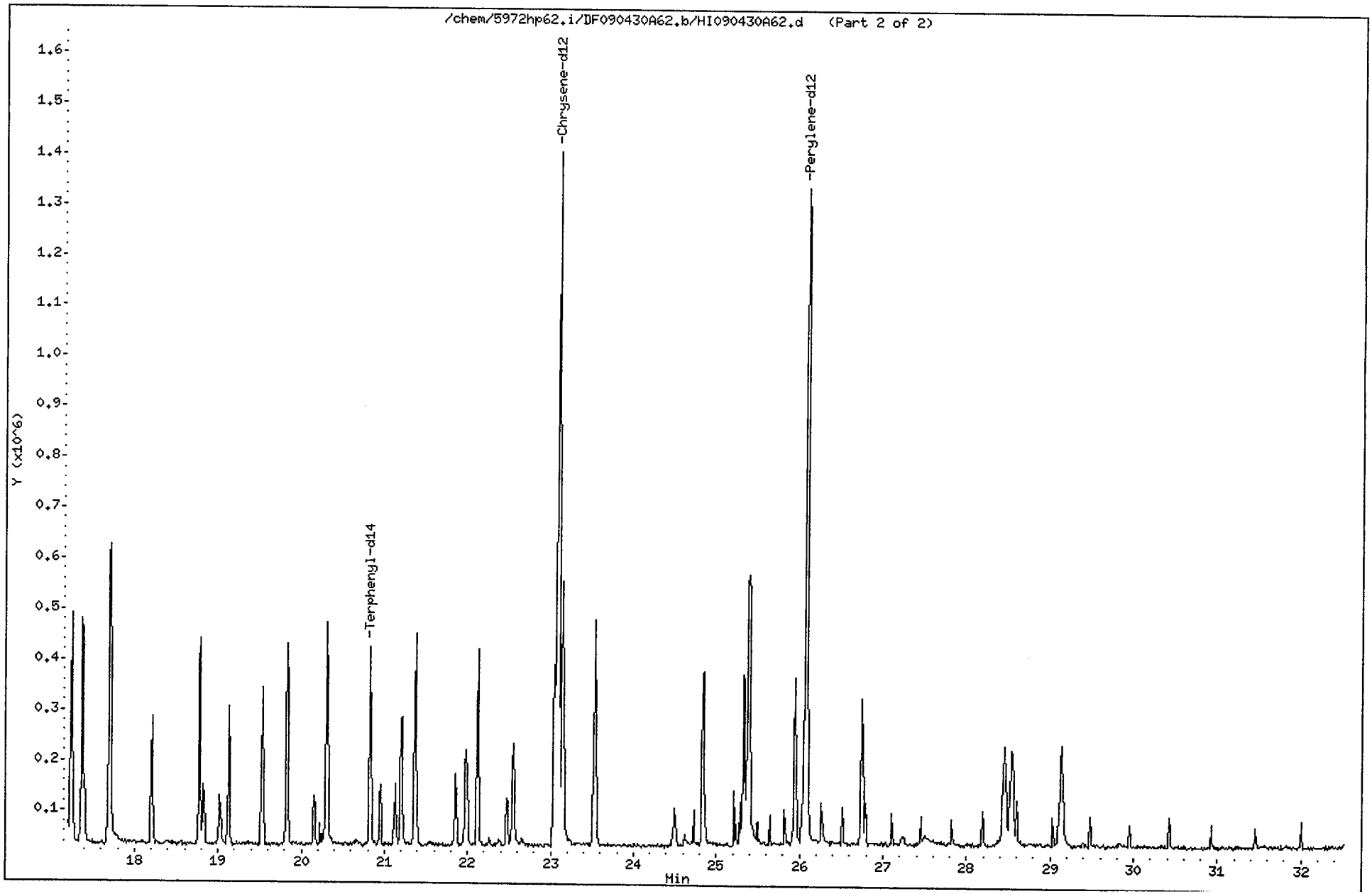
Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Date : 30-APR-2009 17:45
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Date : 30-APR-2009 17:45
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Lab Smp Id: SSTD010 Client Smp ID: SSTD010
Inj Date : 30-APR-2009 17:45
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD010:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 17:45 Cal File: HI090430A62.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	337380	40.0000		
* 2 Naphthalene-d8	136	9.909	9.919	(1.000)	1118115	40.0000		
* 3 Acenaphthene-d10	164	13.829	13.839	(1.000)	559682	40.0000		
* 4 Phenanthrene-d10	188	17.105	17.114	(1.000)	915357	40.0000		
* 5 Chrysene-d12	240	23.082	23.092	(1.000)	1003754	40.0000		
* 6 Perylene-d12	264	26.081	26.081	(1.000)	1086982	40.0000		
$ 7 2-Fluorophenol	112	5.037	5.047	(0.693)	83834	10.0000	10	
$ 8 Phenol-d5	99	6.787	6.797	(0.934)	114776	10.0000	11	
$ 9 2-Chlorophenol-d4	132	6.900	6.910	(0.949)	97065	10.0000	12	9433
$ 10 1,2-Dichlorobenzene-d4	152	7.637	7.646	(1.051)	80263	10.0000	12	9647
$ 11 Nitrobenzene-d5	82	8.466	8.486	(0.854)	114677	10.0000	11	
$ 12 2-Fluorobiphenyl	172	12.406	12.416	(0.897)	220902	10.0000	12	
$ 13 2,4,6-Tribromophenol	330	15.631	15.640	(1.130)	57774	10.0000	11	(M)
$ 14 Terphenyl-d14	244	20.830	20.840	(0.902)	226910	10.0000	12	
15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	40166	10.0000	9.8	7978(a)

1/23/09

5/5/09

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.979	2.969	(0.410)	94649	10.0000	10	9160
17 Ethylmethacrylate	69	3.583	3.593	(0.493)	77461	10.0000	11	8969
18 2-Picoline	93	4.013	4.003	(0.552)	110849	10.0000	11	8893
19 Nitrosomethylethylamine	88	4.300	4.299	(0.592)	35397	10.0000	10	8313 (M)
20 Methyl Methanesulfonate	80	4.822	4.832	(0.663)	69575	10.0000	11	8834
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.749)	29723	10.0000	10	9041
22 Ethyl Methanesulfonate	79	6.050	6.060	(0.832)	82809	10.0000	11	9179
23 Phenol	94	6.808	6.828	(0.937)	120053	10.0000	12	
24 Aniline	93	6.746	6.756	(0.928)	141932	10.0000	11	7769
25 Bis(2-chloroethyl)ether	93	6.910	6.920	(0.951)	104446	10.0000	12	
26 Pentachloroethane	167	6.695	6.705	(0.921)	52918	10.0000	11	9476
27 2-Chlorophenol	128	6.930	6.940	(0.954)	109753	10.0000	12	8968
28 1,3-Dichlorobenzene	146	7.186	7.196	(0.989)	135095	10.0000	12	
29 1,4-Dichlorobenzene	146	7.299	7.298	(1.004)	140209	10.0000	12	
30 Benzyl Alcohol	108	7.657	7.667	(1.054)	60343	10.0000	11	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.055)	121203	10.0000	12	
32 2-Methylphenol	108	7.974	7.984	(1.097)	89159	10.0000	12	(H)
33 2,2'-oxybis(1-Chloropropane)	45	7.985	7.995	(1.099)	124696	10.0000	12	8926
34 N-Nitrosopyrrolidine	100	8.200	8.209	(1.128)	16599	10.0000	11	6676
35 3-Methylphenol	108	8.292	8.312	(1.141)	187986	20.0000	24	
36 4-Methylphenol	108	8.292	8.312	(1.141)	187986	20.0000	24	
37 3-4-Methylphenol	108	8.292	8.312	(1.141)	190932	20.0000	24	9231
38 N-Nitroso-di-N-propylamine	70	8.271	8.291	(1.138)	38519	10.0000	11	8147
39 Acetophenone	105	8.179	8.189	(0.825)	144284	10.0000	12	0 (M)
40 N-Nitrosomorpholine	116	8.241	8.261	(1.134)	10128	10.0000	13	8290
41 o-Toluidine	106	8.271	8.281	(1.138)	142219	10.0000	12	8930
42 Hexachloroethane	117	8.271	8.271	(1.138)	59261	10.0000	12	9423
43 Nitrobenzene	77	8.507	8.517	(0.858)	109978	10.0000	11	8861
44 N-Nitrosopiperidine	114	8.834	8.844	(0.892)	41099	10.0000	11	8781
45 Isophorone	82	9.008	9.018	(0.909)	187908	10.0000	11	8700
46 2-Nitrophenol	139	9.182	9.192	(0.927)	59323	10.0000	11	8835
47 2,4-Dimethylphenol	122	9.377	9.397	(0.946)	84845	10.0000	12	8757
48 Benzoic Acid	122	9.622	9.755	(0.971)	32965	50.0000	38	5178 (M)
49 o,o,o-Triethylphosphorothioat	198	9.622	9.632	(0.971)	46561	10.0000	12	9258
50 Bis(2-chloroethoxy)methane	93	9.581	9.591	(0.967)	140138	10.0000	12	8912
51 2,4-Dichlorophenol	162	9.694	9.704	(0.978)	87304	10.0000	11	
52 1,2,4-Trichlorobenzene	180	9.848	9.857	(0.994)	114657	10.0000	12	
53 Naphthalene	128	9.950	9.960	(1.004)	301247	10.0000	12	8744
54 4-Chloroaniline	127	10.216	10.216	(1.031)	125062	10.0000	12	8155
55 2,6-Dichlorophenol	162	10.195	10.205	(1.029)	90194	10.0000	12	
56 Hexachloropropene	213	10.236	10.236	(1.033)	83312	10.0000	11	9580
57 Hexachlorobutadiene	225	10.410	10.410	(1.051)	73126	10.0000	12	8924
58 N-Nitroso-di-n-butylamine	84	11.045	11.055	(1.115)	35729	10.0000	11	8659
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.362	11.372	(1.147)	84691	10.0000	12	8760
61 Safrole	162	11.393	11.403	(1.150)	80678	10.0000	12	9232
62 2-Methylnaphthalene	141	11.475	11.485	(1.158)	159420	10.0000	12	

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.710	11.720	(1.182)	186690	10.0000	12	
64 Hexachlorocyclopentadiene	237	12.017	12.027	(0.869)	80685	10.0000	11	9558
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.956	(0.865)	119230	10.0000	12	9726
66 2,4,6-Trichlorophenol	196	12.232	12.232	(0.885)	66846	10.0000	12	
67 2,4,5-Trichlorophenol	196	12.304	12.314	(0.890)	73850	10.0000	12	
68 Isosafrole	162	12.048	12.048	(0.871)	11742	10.0000	11	
69 2-Chloronaphthalene	162	12.539	12.549	(0.907)	264668	10.0000	12	
70 2-Nitroaniline	65	12.939	12.959	(0.936)	50345	10.0000	11	8739 (a)
71 1,4-Napthoquinone	158	13.000	13.010	(0.940)	82358	10.0000	12	8973
72 Dimethylphthalate	163	13.481	13.501	(0.975)	205944	10.0000	12	8757
73 1,3-Dinitrobenzene	168	13.471	13.491	(0.974)	35744	10.0000	12	0 (M)
74 2,6-Dinitrotoluene	165	13.604	13.624	(0.984)	55441	10.0000	12	9549
75 Acenaphthylene	152	13.471	13.481	(0.974)	295687	10.0000	12	8429
76 3-Nitroaniline	138	13.891	13.900	(1.004)	43560	10.0000	11	0 (aM)
77 Acenaphthene	154	13.901	13.911	(1.005)	172685	10.0000	13	9578
78 2,4-Dinitrophenol	184	14.116	14.126	(1.021)	9594	10.0000	5.3	(aH)
79 4-Nitrophenol	139	14.402	14.402	(1.041)	28423	10.0000	9.2	8728 (a)
80 Pentachlorobenzene	250	14.320	14.330	(1.036)	118220	10.0000	12	9506
81 2,4-Dinitrotoluene	165	14.464	14.484	(1.046)	62665	10.0000	11	7236
82 Dibenzofuran	168	14.259	14.269	(1.031)	269529	10.0000	12	9168
83 1-Naphthylamine	143	14.474	14.494	(1.047)	52317	10.0000	11	
84 2,3,4,6-Tetrachlorophenol	232	14.689	14.699	(1.062)	57145	10.0000	11	9407
85 2-Naphthylamine	143	14.648	14.668	(1.059)	50203	10.0000	9.5	(a)
86 Diethylphthalate	149	15.088	15.108	(1.091)	218591	10.0000	12	9714
87 Zinophos	97	15.262	15.282	(1.104)	54403	10.0000	12	9003
88 4-Chlorophenyl-phenylether	204	15.109	15.118	(1.093)	112576	10.0000	13	7308
89 5-Nitro-o-toluidine	152	15.221	15.241	(1.101)	52796	10.0000	10	7948
90 Fluorene	166	15.027	15.037	(1.087)	204462	10.0000	12	8086
91 4-Nitroaniline	138	15.272	15.303	(1.104)	41794	10.0000	9.8	9219 (a)
92 4,6-Dinitro-2-methylphenol	198	15.344	15.374	(0.897)	22287	10.0000	7.1	8815 (a)
93 N-Nitrosodiphenylamine	169	15.416	15.436	(0.901)	152999	10.0000	12	9349
95 1,2-Diphenylhydrazine	77	15.446	15.456	(1.117)	249192	10.0000	12	9155
96 Sulfotep	322	16.112	16.122	(1.165)	39165	10.0000	11	9019
97 1,3,5-Trinitrobenzene	75	16.204	16.255	(0.947)	74915	10.0000	13	5737 (M)
98 Diallate (trans isomer)	86	16.183	16.193	(0.946)	70237	5.00000	6.4	(a)
99 Diallate (trans) part of total	86	16.183	16.193	(0.946)	70237	5.00000	6.4	8896 (a)
100 Phorate	75	16.194	16.203	(0.947)	134844	10.0000	12	8382 (M)
101 Phenacetin	108	16.286	16.337	(0.952)	94181	10.0000	10	9490
102 Diallate (cis isomer)	86	16.357	16.357	(0.956)	20110	5.00000	5.6	(a)
103 Diallate (cis) part of total	86	16.357	16.357	(0.956)	20110	5.00000	3.5	8003 (aH)
104 4-Bromophenyl-phenylether	248	16.194	16.193	(0.947)	70399	10.0000	12	7233
105 Hexachlorobenzene	284	16.449	16.459	(0.962)	103492	10.0000	11	9028
106 Dimethoate	87	16.583	16.613	(0.969)	71239	10.0000	12	8817
107 4-Aminobiphenyl	169	16.818	16.828	(0.983)	128004	10.0000	10	0 (M)
108 Pentachlorophenol	266	16.890	16.910	(0.987)	41179	10.0000	9.2	7995 (a)
109 Pentachloronitrobenzene	237	17.074	17.094	(0.998)	31040	10.0000	10	7462
110 Pronamide	173	17.125	17.135	(1.001)	88678	10.0000	11	8842

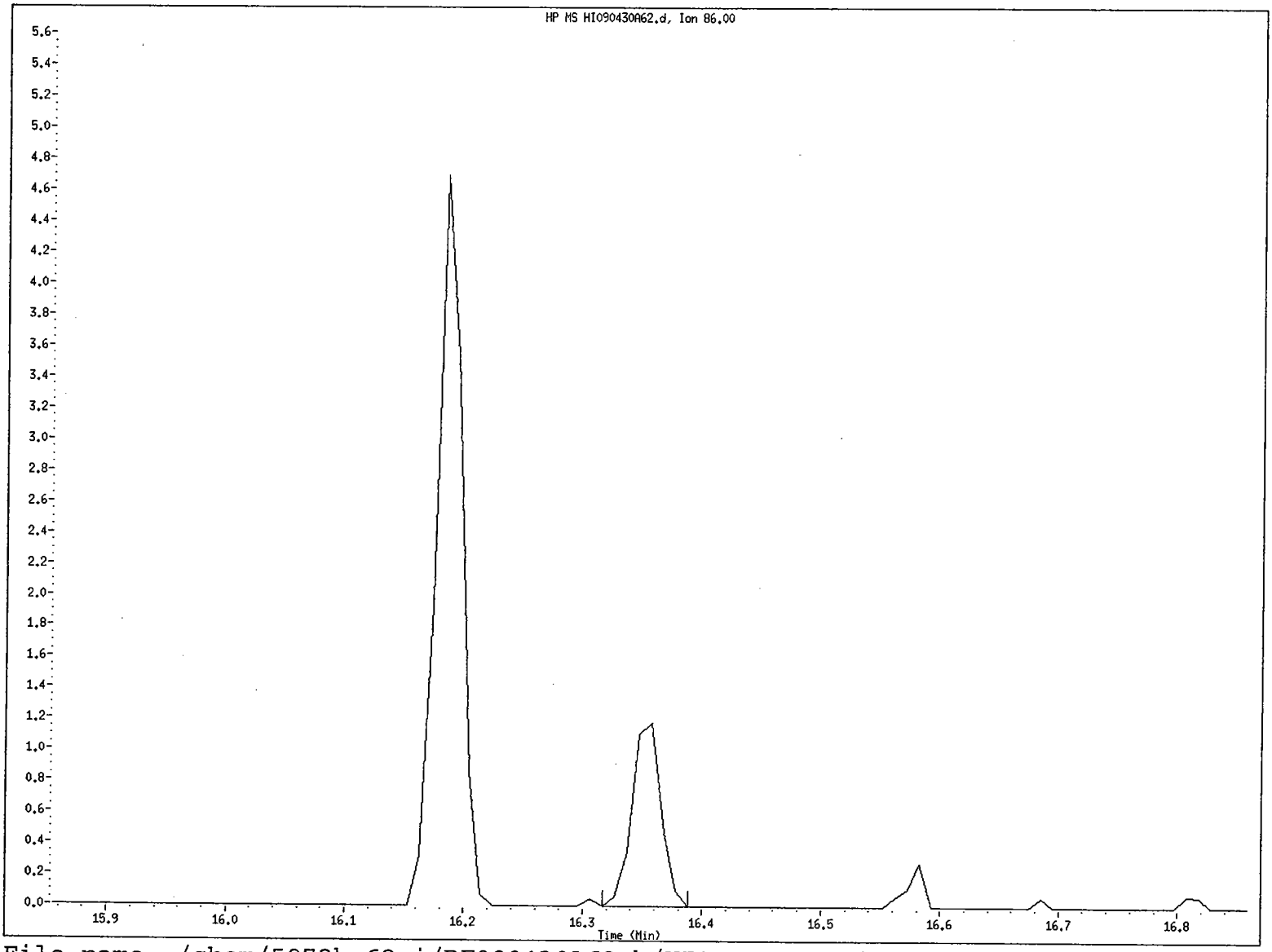
Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111 Disulfoton	88	17.371	17.381	(1.016)	100188	10.0000	12	9267
112 Phenanthrene	178	17.156	17.166	(1.003)	282615	10.0000	12	
113 Anthracene	178	17.248	17.268	(1.008)	294674	10.0000	12	
114 Carbazole	167	17.708	17.739	(1.035)	523222	10.0000	9.1	9668(a)
115 Methyl Parathion	109	18.210	18.220	(1.065)	67537	10.0000	12	9178
116 Di-n-butylphthalate	149	18.783	18.793	(1.098)	374388	10.0000	12	9413
117 Parathion	109	19.131	19.141	(1.118)	42693	10.0000	11	8056
118 4-Nitroquinoline-1-oxide	190	19.019	19.039	(1.112)	17016	10.0000	7.2	9283(a)
119 Methapyrilene	97	19.377	19.377	(1.133)	2064	10.0000	11	0(M)
120 Isodrin	193	19.541	19.540	(1.142)	41630	10.0000	12	8761
121 Fluoranthene	202	19.827	19.847	(1.159)	273502	10.0000	11	9633
122 Benzidine	184	20.288	20.298	(0.879)	53400	10.0000	9.7	8640(a)
123 Pyrene	202	20.308	20.328	(0.880)	306494	10.0000	12	9702
124 p-Dimethylaminoazobenzene	225	21.209	21.219	(0.919)	56202	10.0000	12	8711
125 Chlorobenzilate	251	21.373	21.383	(0.926)	95966	10.0000	11	9440
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.120	22.130	(0.958)	153375	10.0000	12	9437
129 3,3'-Dimethylbenzidine	212	21.966	21.987	(0.952)	100911	10.0000	11	9352
130 2-Acetylaminofluorene	181	22.550	22.570	(0.977)	93828	10.0000	10	8927
131 3,3'-Dichlorobenzidine	252	23.154	23.164	(1.003)	101733	10.0000	11	8104
132 bis(2-ethylhexyl)Phthalate	149	23.533	23.542	(1.020)	207147	10.0000	12	9014
133 Benzo(a)anthracene	228	23.041	23.061	(0.998)	270730	10.0000	12	
134 Chrysene	228	23.133	23.153	(1.002)	260751	10.0000	12	
135 Di-n-octylphthalate	149	24.843	24.853	(0.953)	352658	10.0000	12	
136 7,12-Dimethylbenz(a)anthracene	256	25.395	25.416	(0.974)	122618	10.0000	12	8848
137 Benzo(b)fluoranthene	252	25.334	25.354	(0.971)	273902	10.0000	10	(H)
138 Benzo(k)fluoranthene	252	25.375	25.395	(0.973)	271966	10.0000	12	
139 Benzo(a)pyrene	252	25.948	25.968	(0.995)	260536	10.0000	11	
140 3-Methylcholanthrene	268	26.746	26.767	(1.026)	148868	10.0000	12	9562
141 Indeno(1,2,3-c,d)pyrene	276	28.456	28.486	(1.091)	225372	10.0000	10	0(M)
142 Dibenzo(a,h)anthracene	278	28.538	28.568	(1.094)	239402	10.0000	11	7736
143 Benzo(g,h,i)perylene	276	29.131	29.172	(1.117)	253798	10.0000	11	9343
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				90347	10.0000	11	0
201 a,a-Dimethylphenethylamine	58	10.615	10.113	(1.071)	161796	10.0000	15	0(aM)
202 Aramite	185	21.137	21.137	(0.916)	17814	10.0000	12	9275

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 20110 User selected



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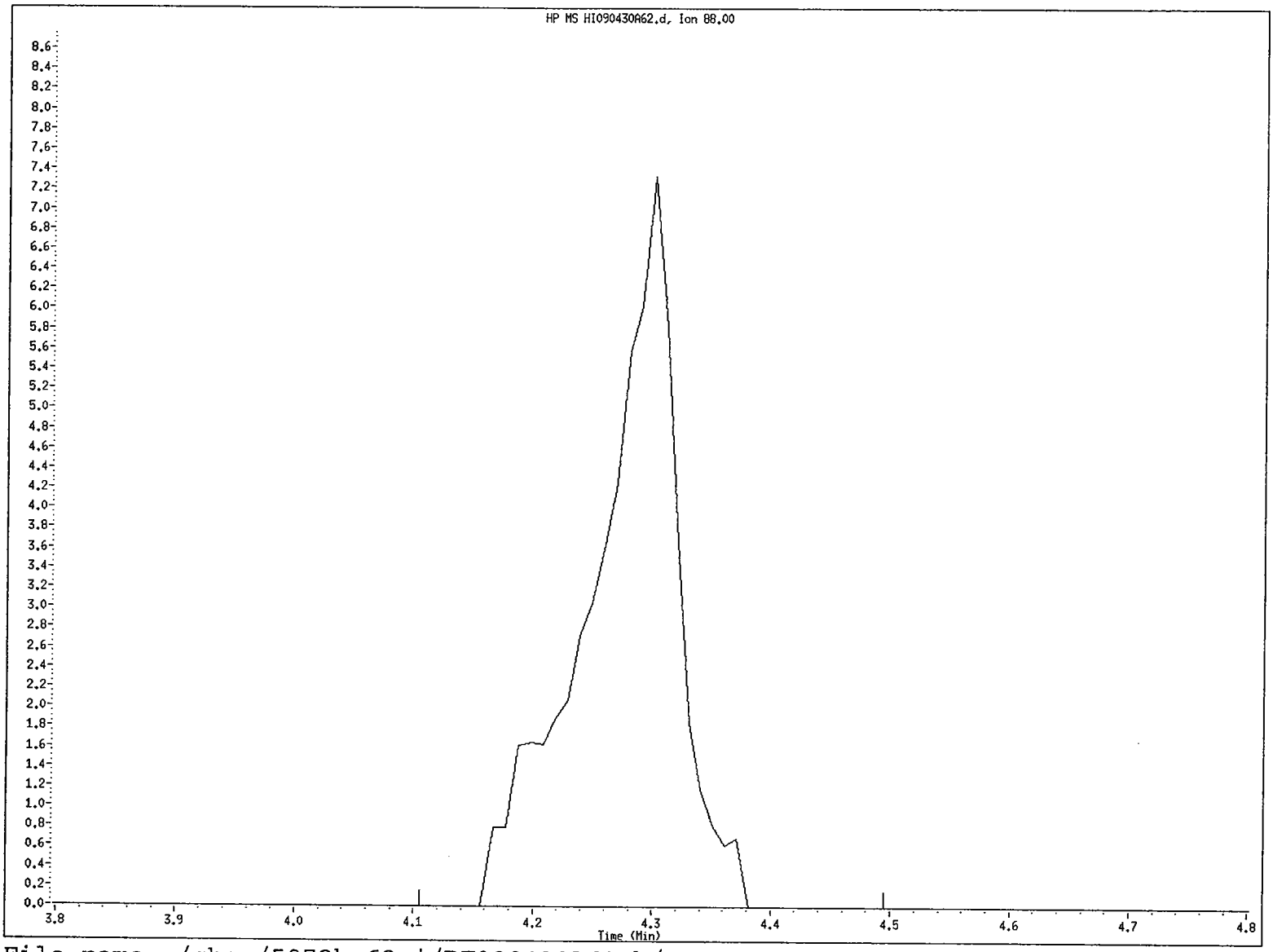
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.36
Operator ID: 2650

Nitrosomethylethylamine CAS Number 10595-95-6 Area = 35397 Manually integrated



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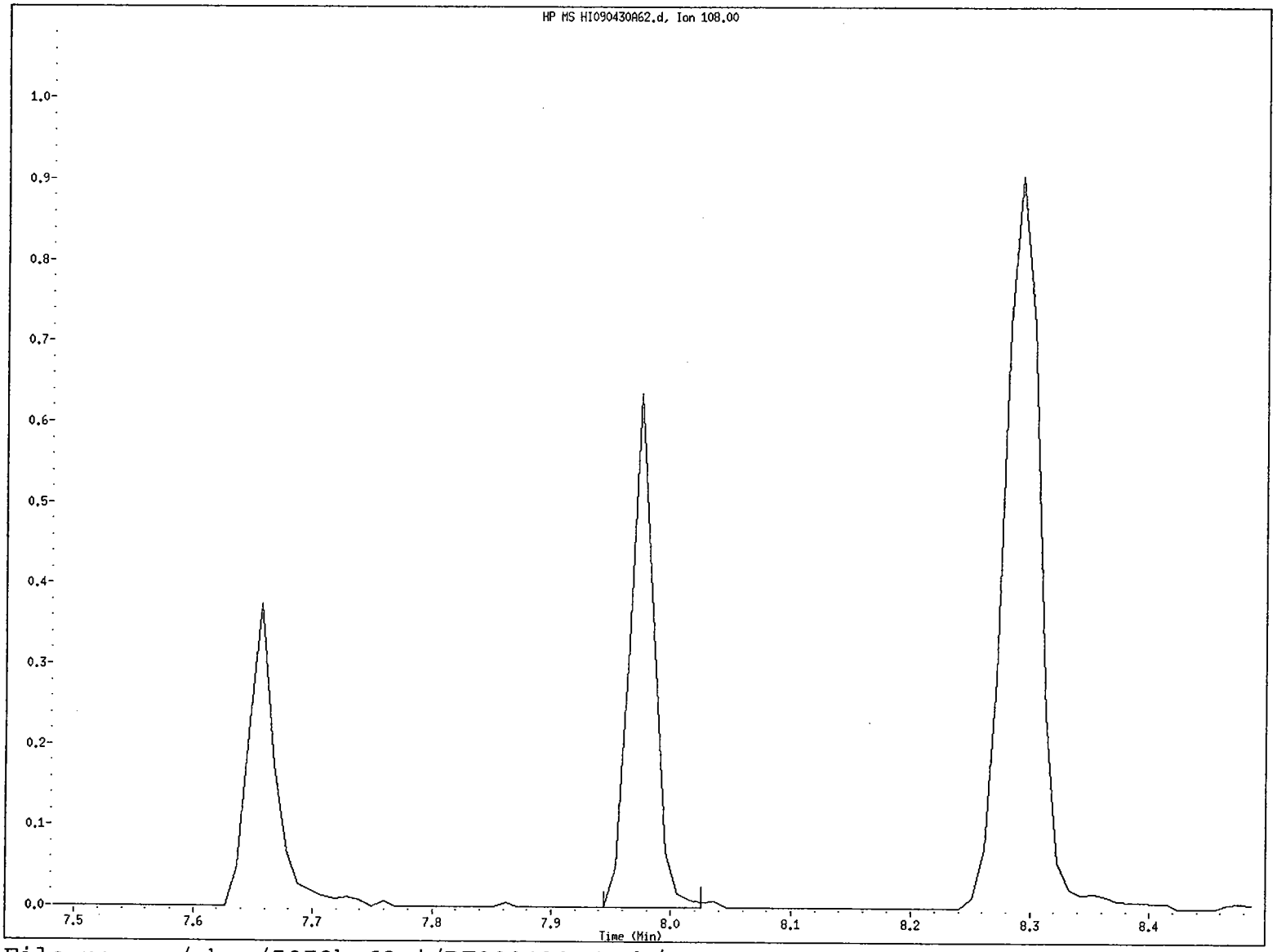
Retention Time: 4.30
Operator ID: 2650

2-Methylphenol CAS Number 95-48-7 Area = 89159 User selected hit



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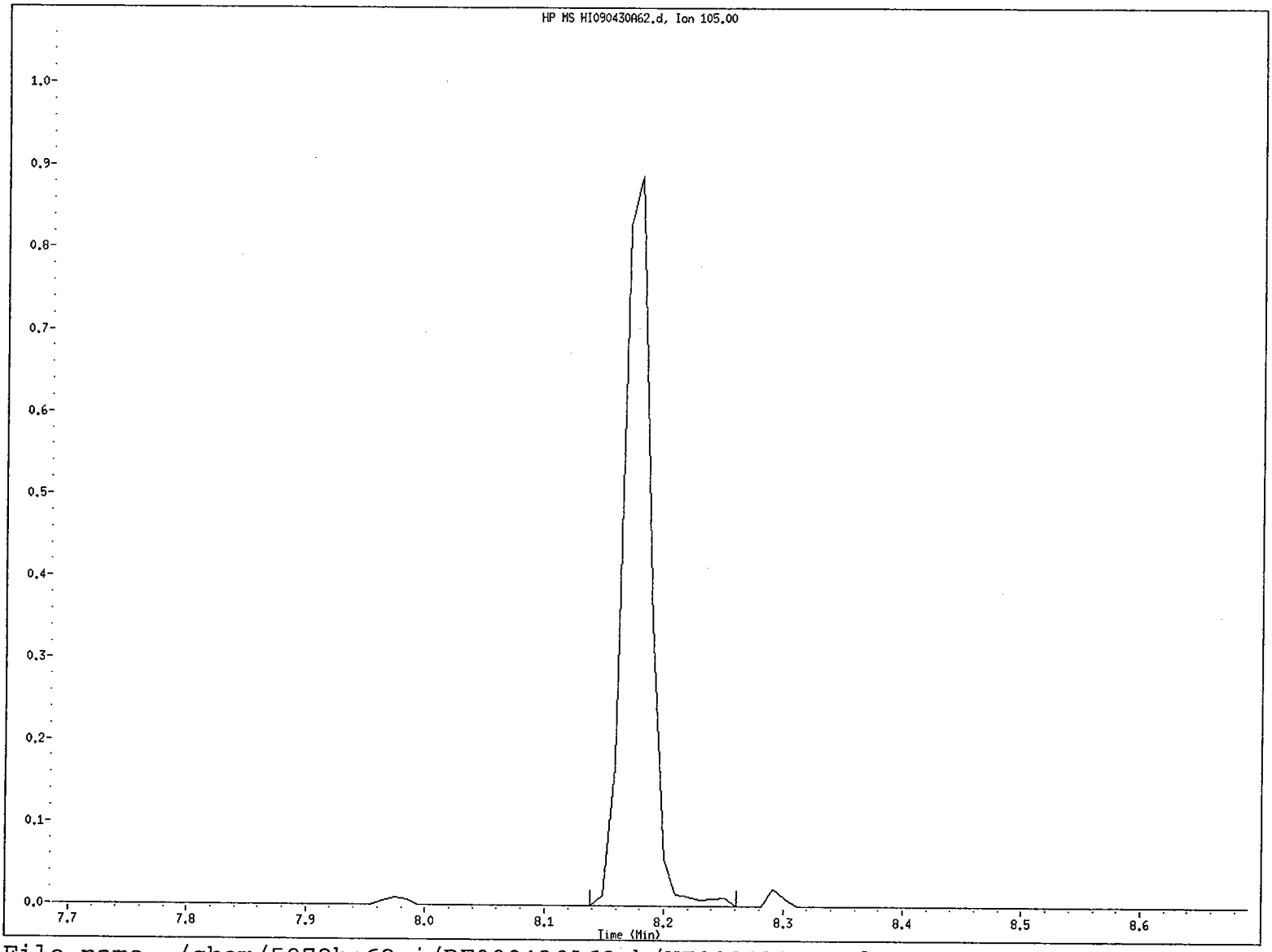
Retention Time: 7.97
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 144284 Manually integrated



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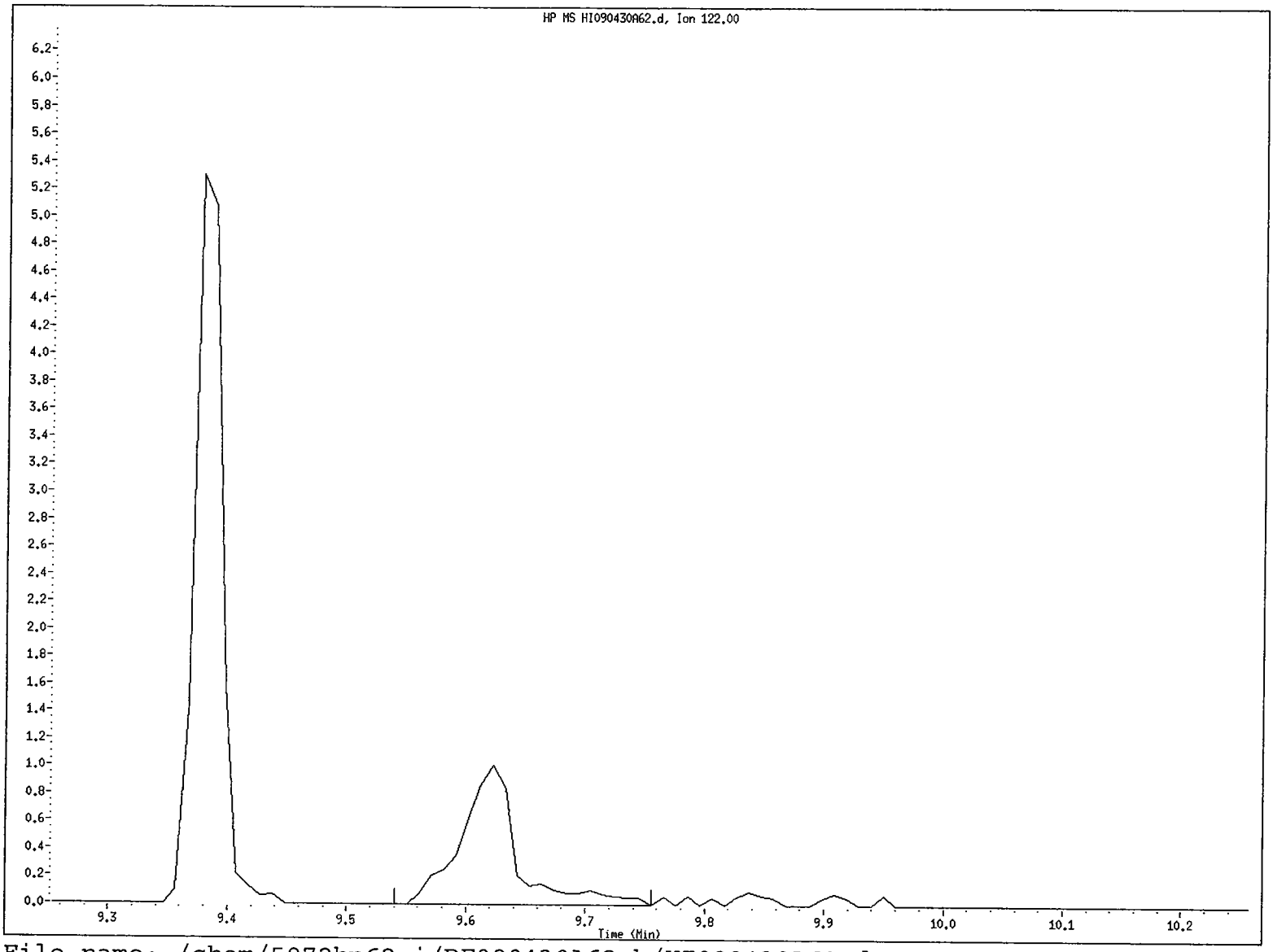
Retention Time: 8.18
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 32965 Manually integrated



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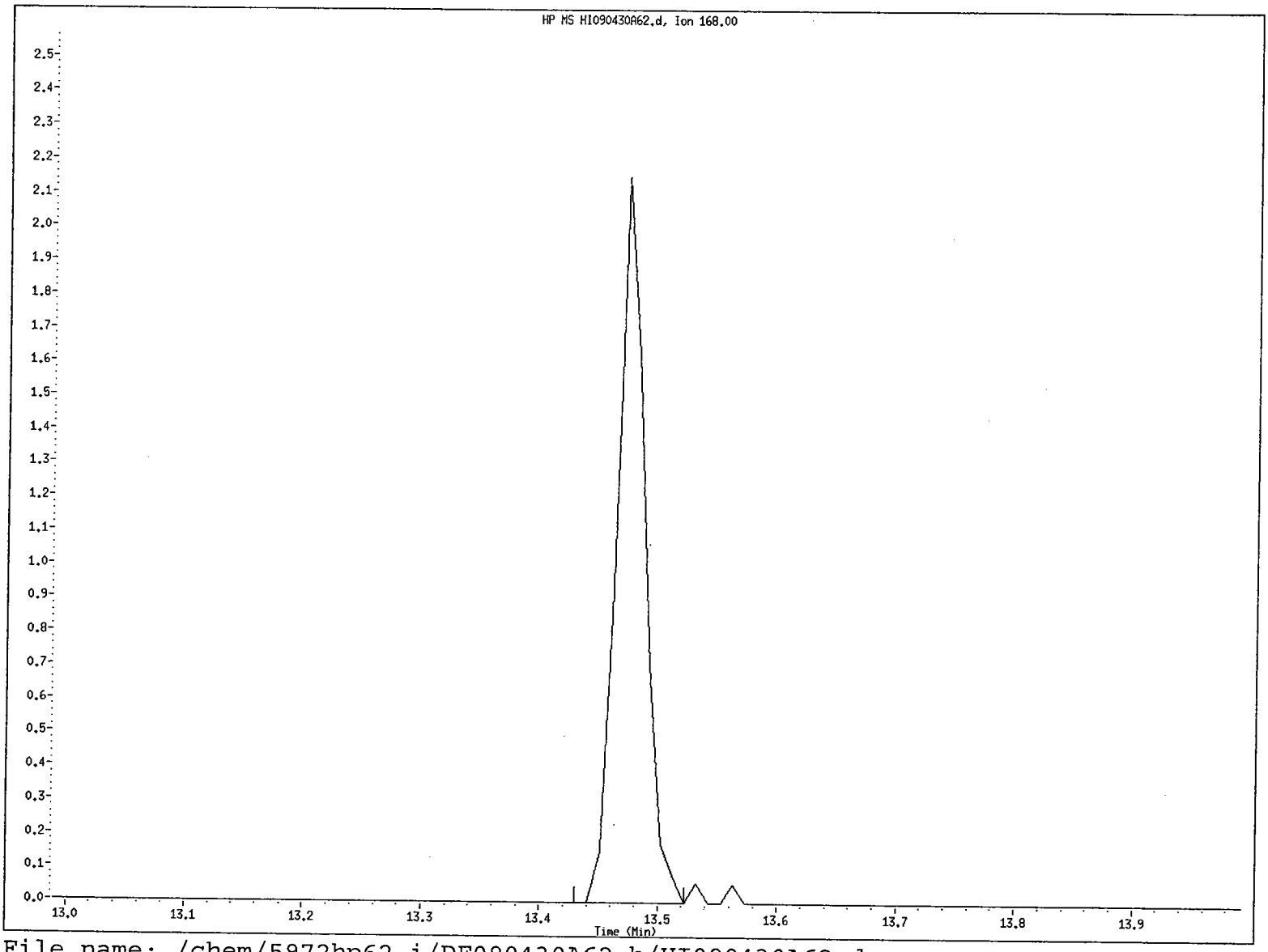
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 9.62
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 35744 Manually integrated



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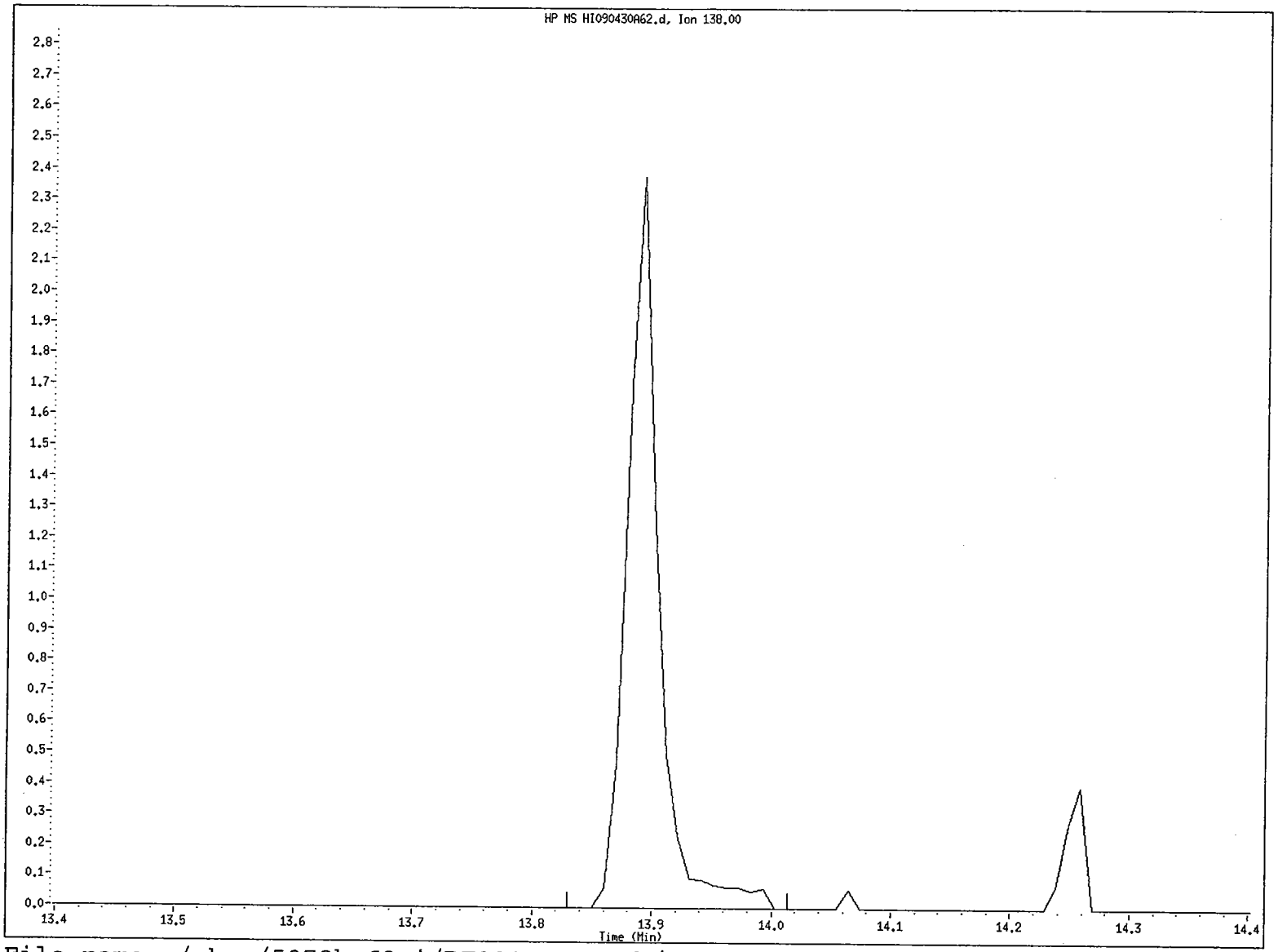
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 13.47
Operator ID: 2650

3-Nitroaniline CAS Number 99-09-2 Area = 43560 Manually integrated



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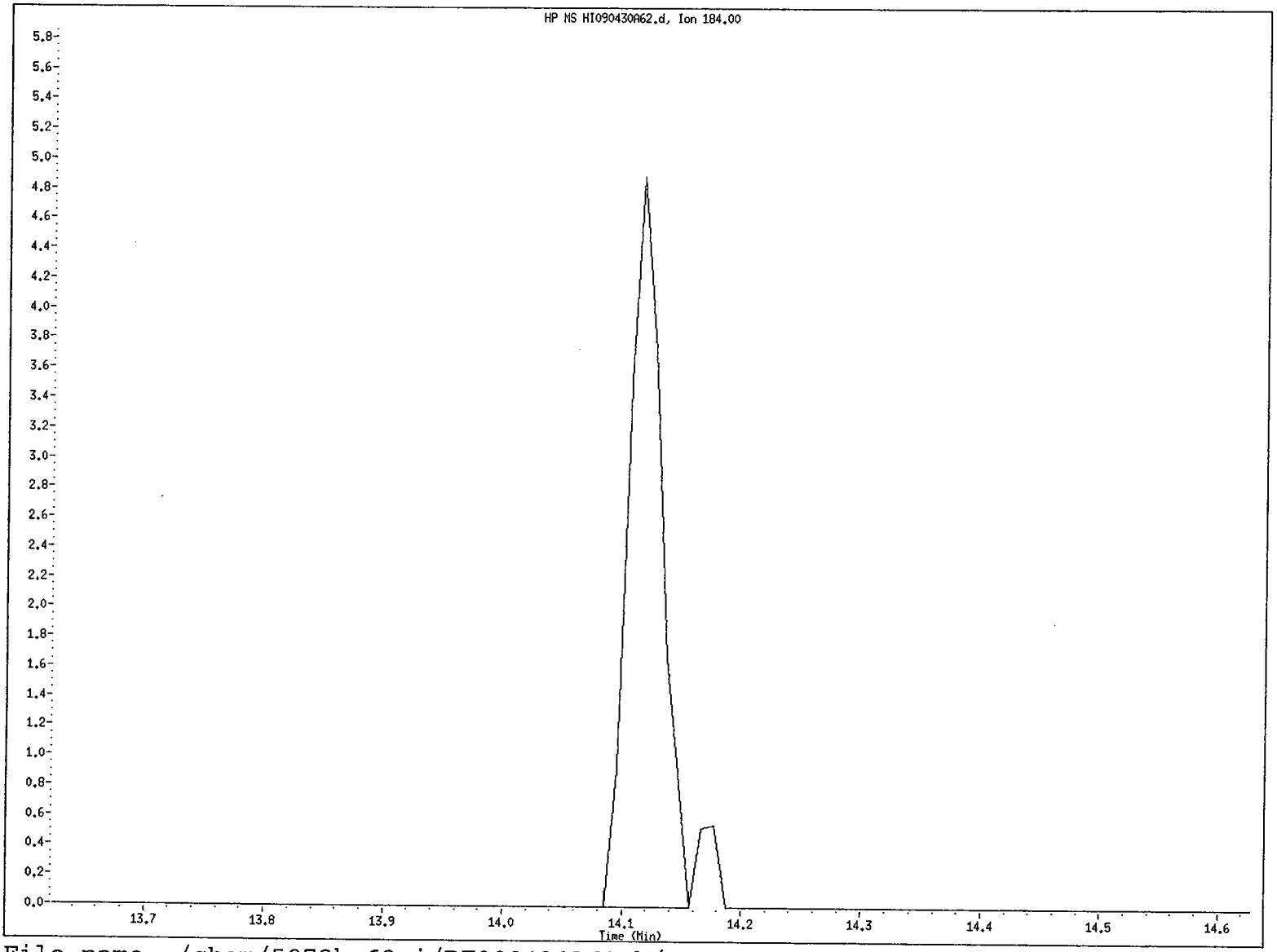
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 13.89
Operator ID: 2650

2,4-Dinitrophenol CAS Number 51-28-5 Area = 9594 User selected hit



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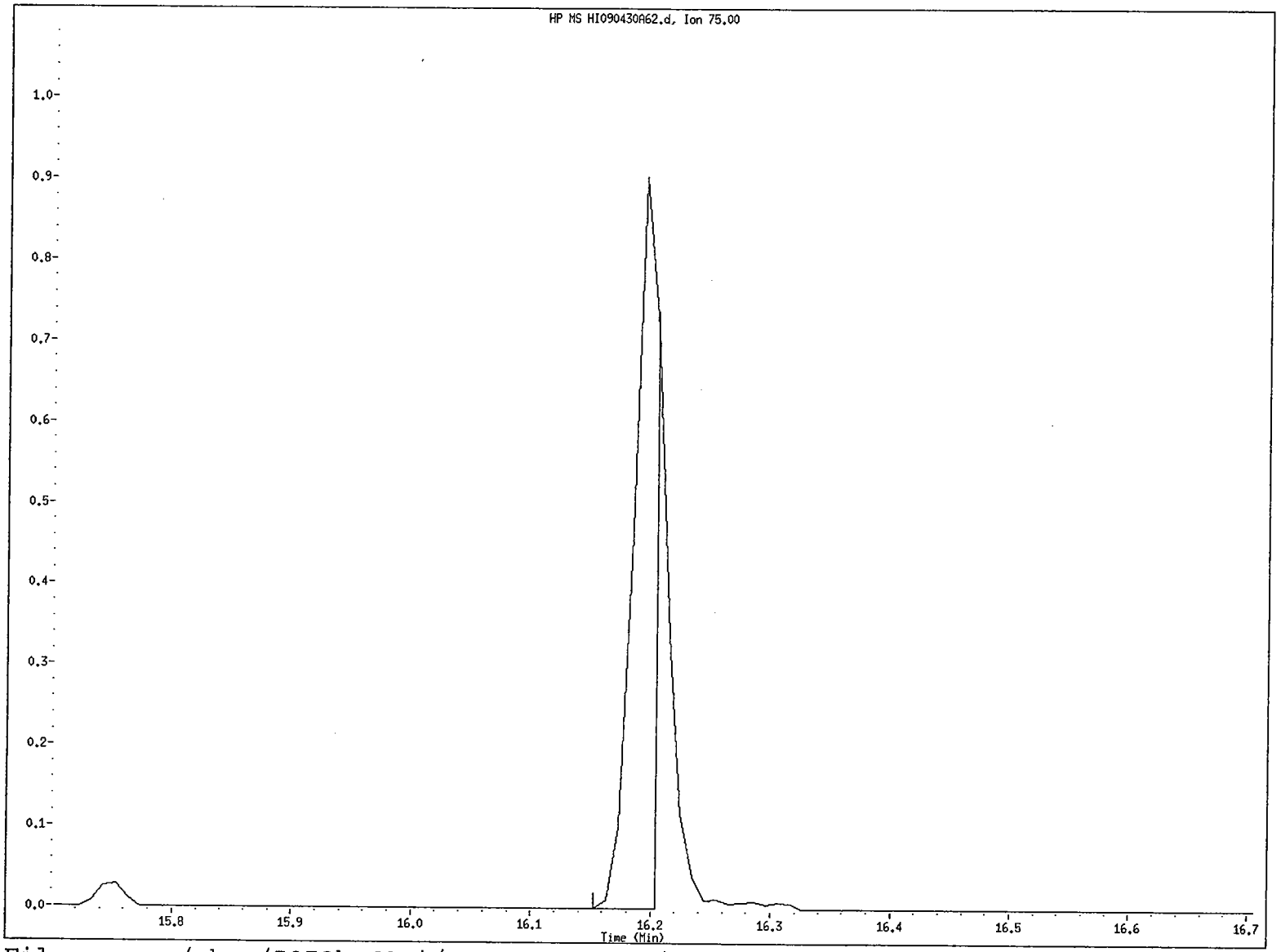
Retention Time: 14.12
Operator ID: 2650

Phorate CAS Number 298-02-2 Area = 134844 Manually integrated



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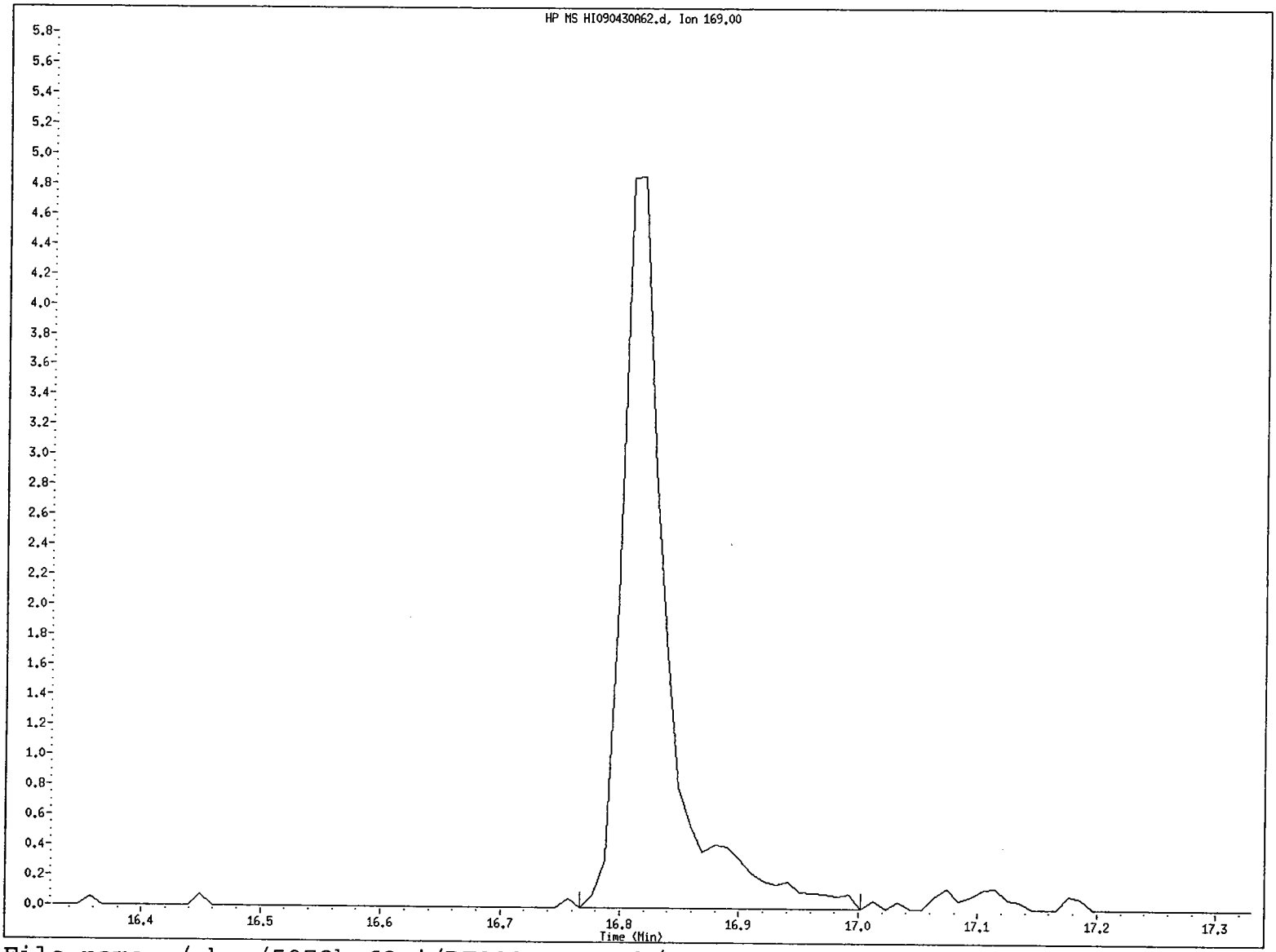
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.19
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 128004 Manually integrated



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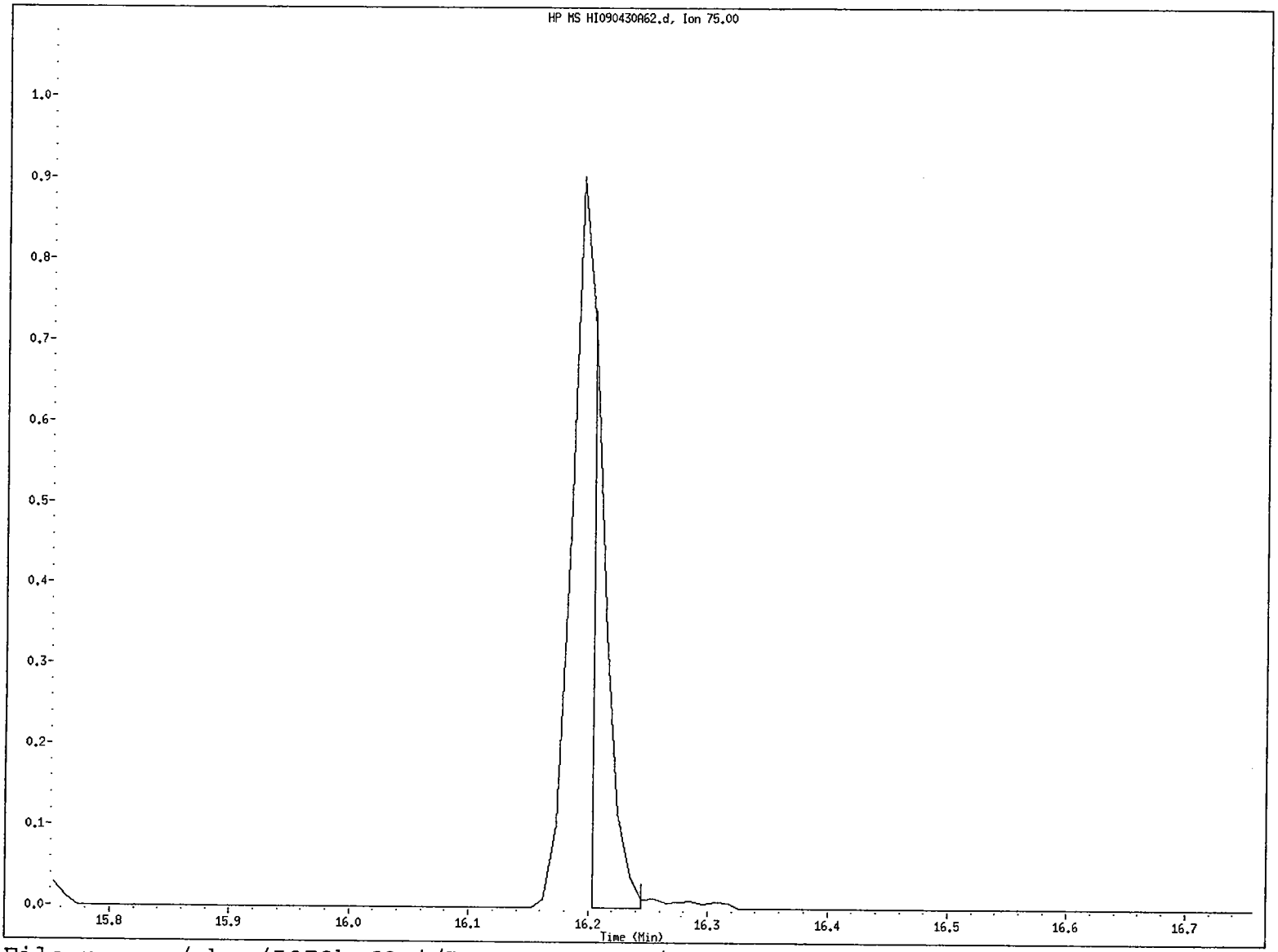
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.82
Operator ID: 2650

1,3,5-Trinitrobenzene CAS Number 99-35-4 Area = 74915 Manually integrated



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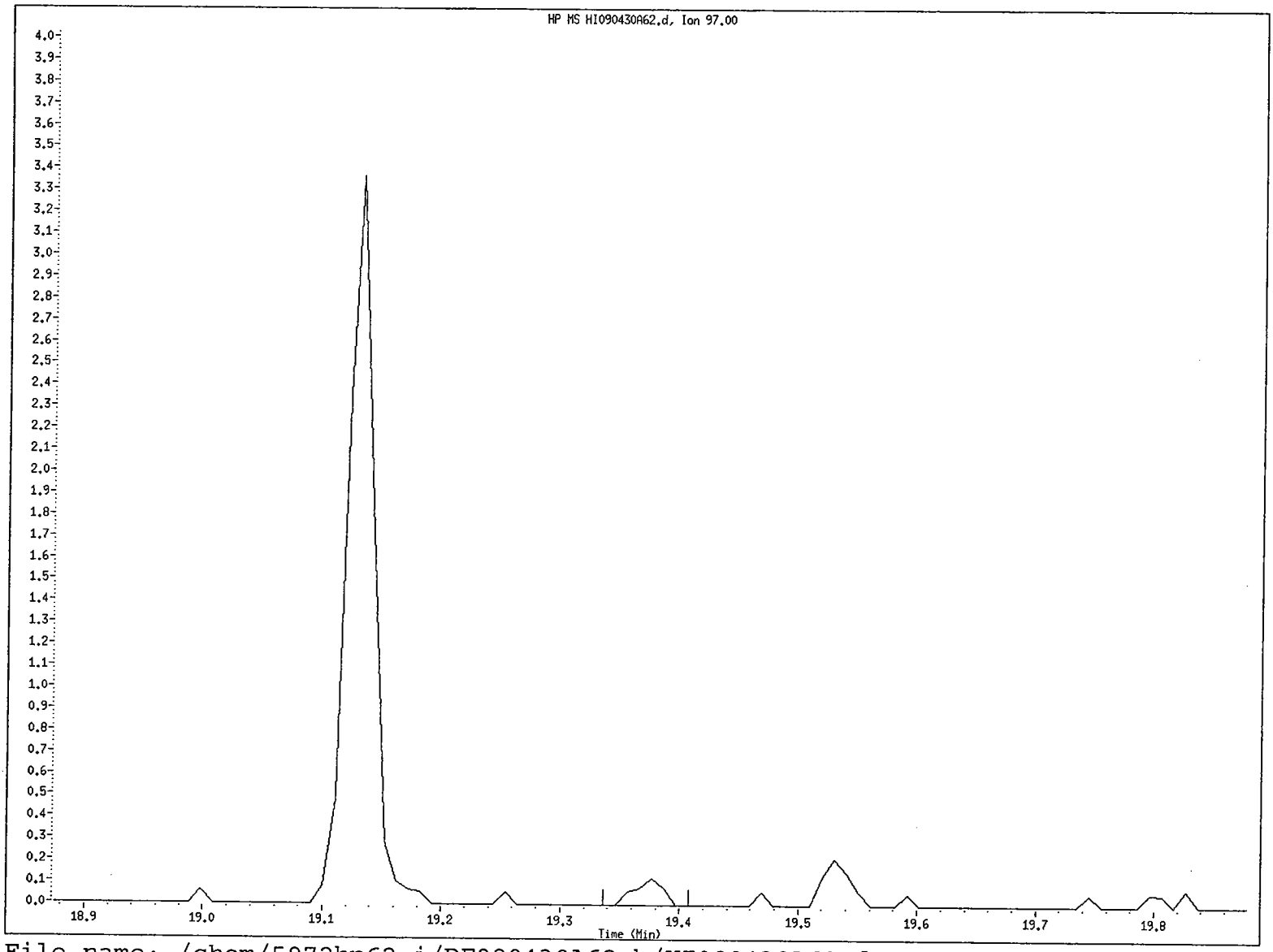
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 16.20
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 2064 Manually integrated



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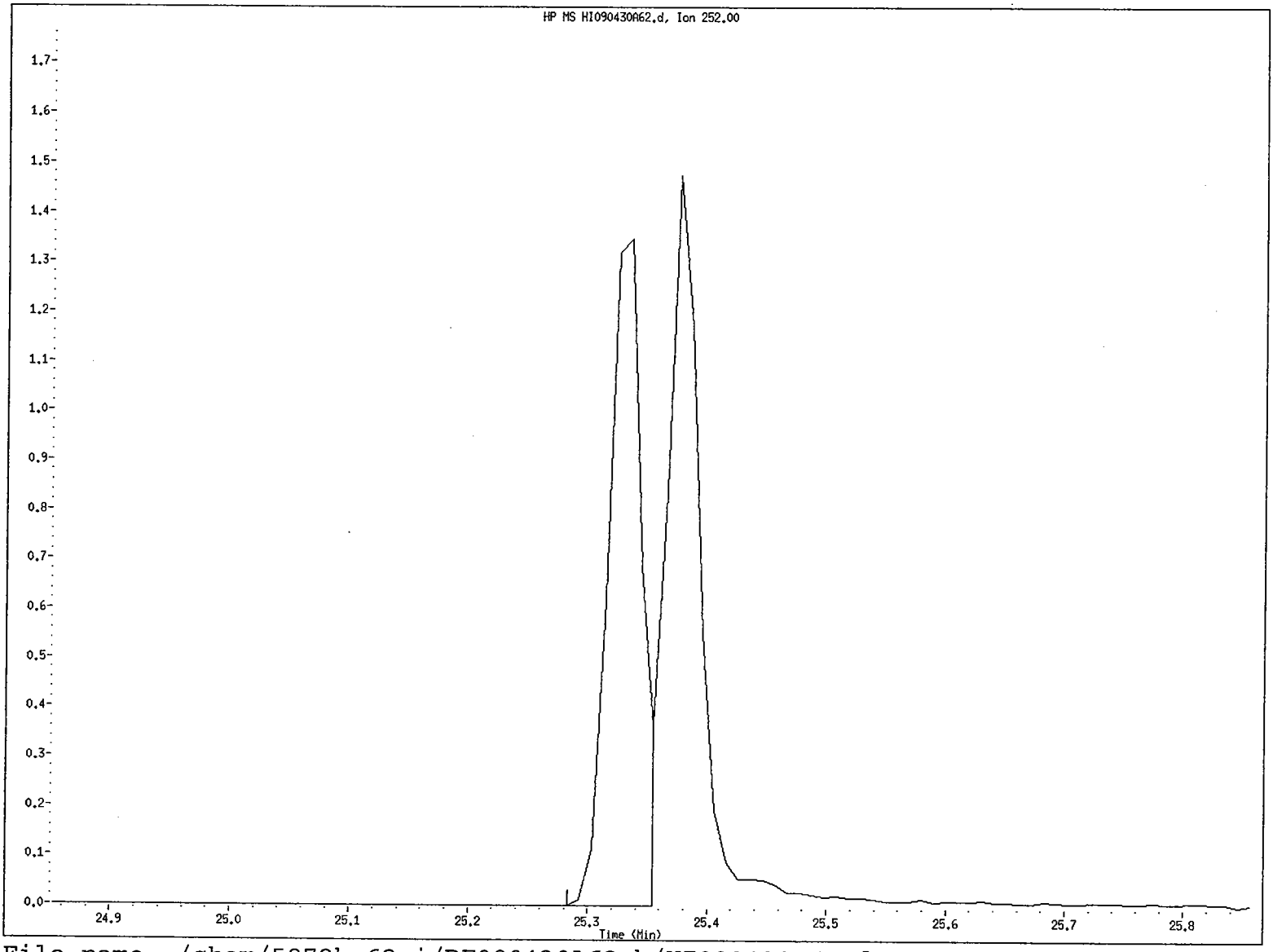
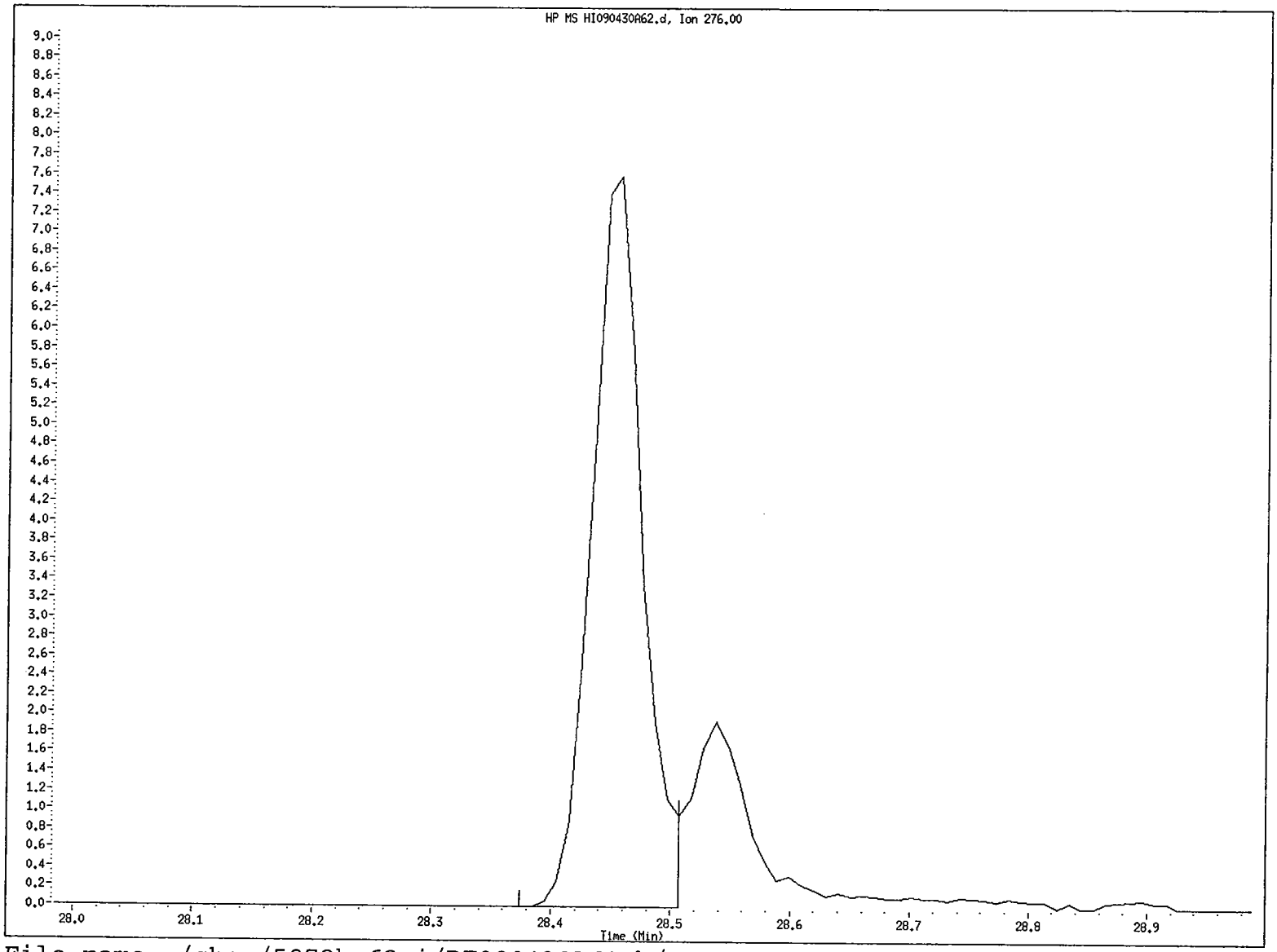
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 19.38
Operator ID: 2650

Benzo(b)fluoranthene CAS Number 205-99-2 Area = 273902 User selected hit



File name: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Client ID: SSTD010
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 25.33
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 225372 Manually integrated



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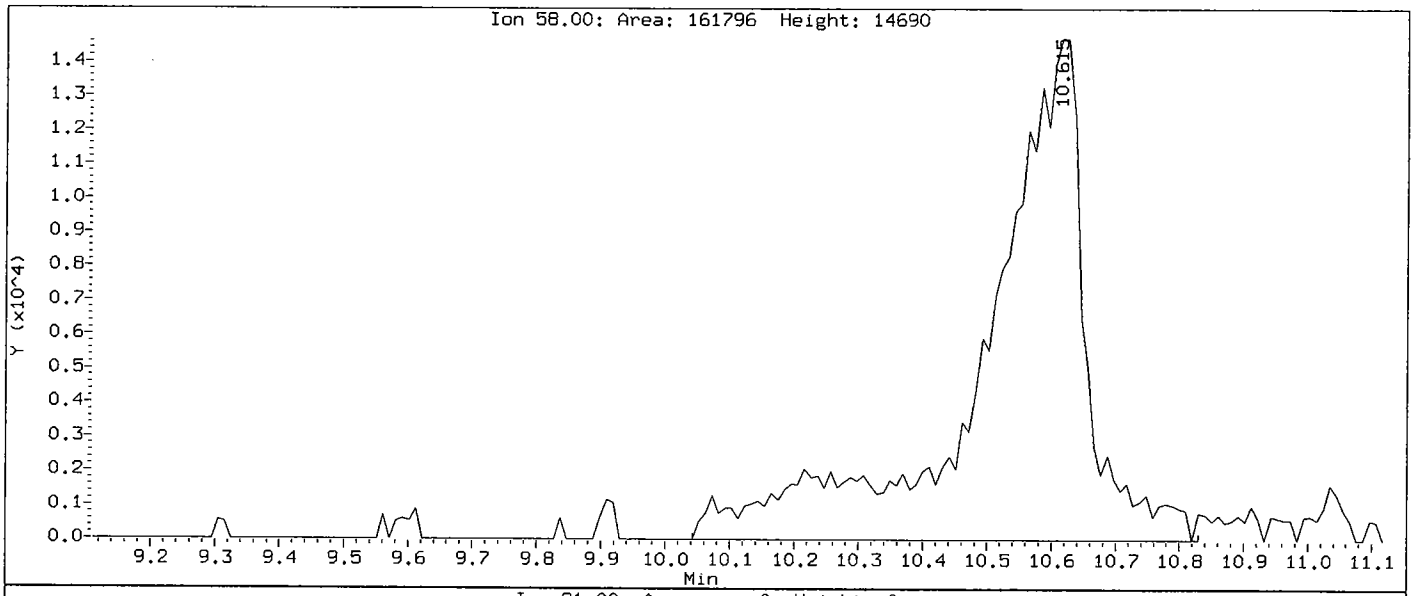
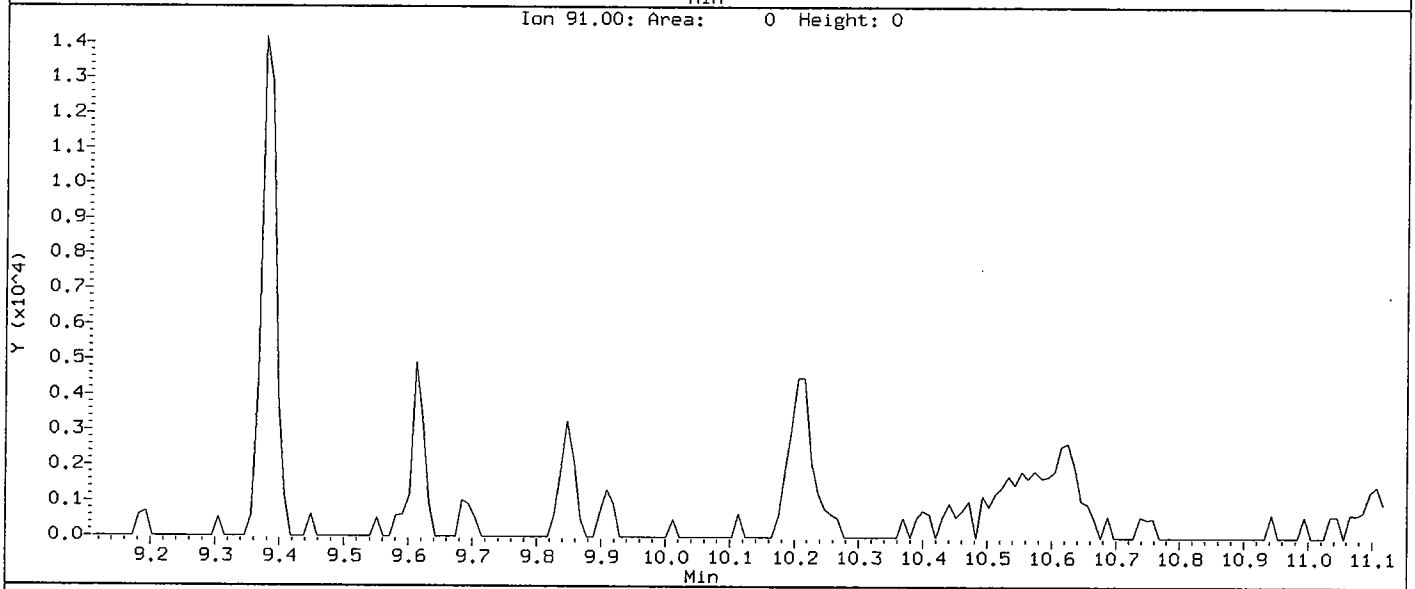
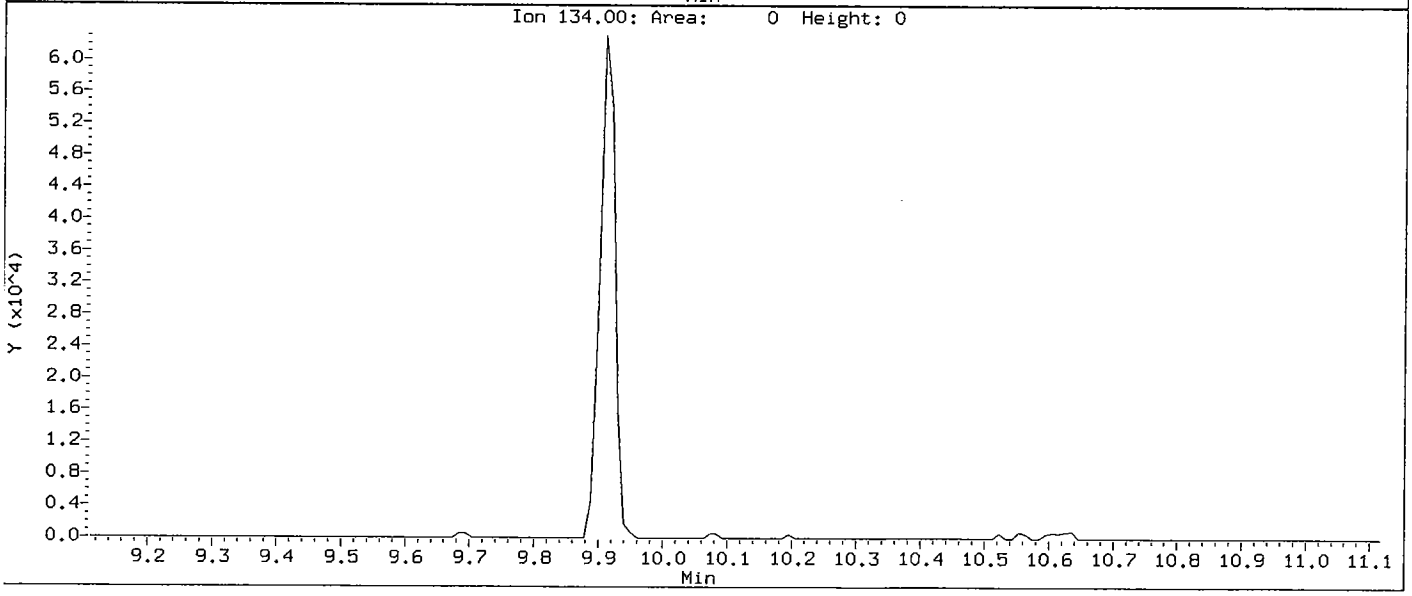
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 28.46
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HI090430A62.d
Injection Date: 30-APR-2009 17:45
Instrument: 5972hp62.i
Client Sample ID: SSTD010

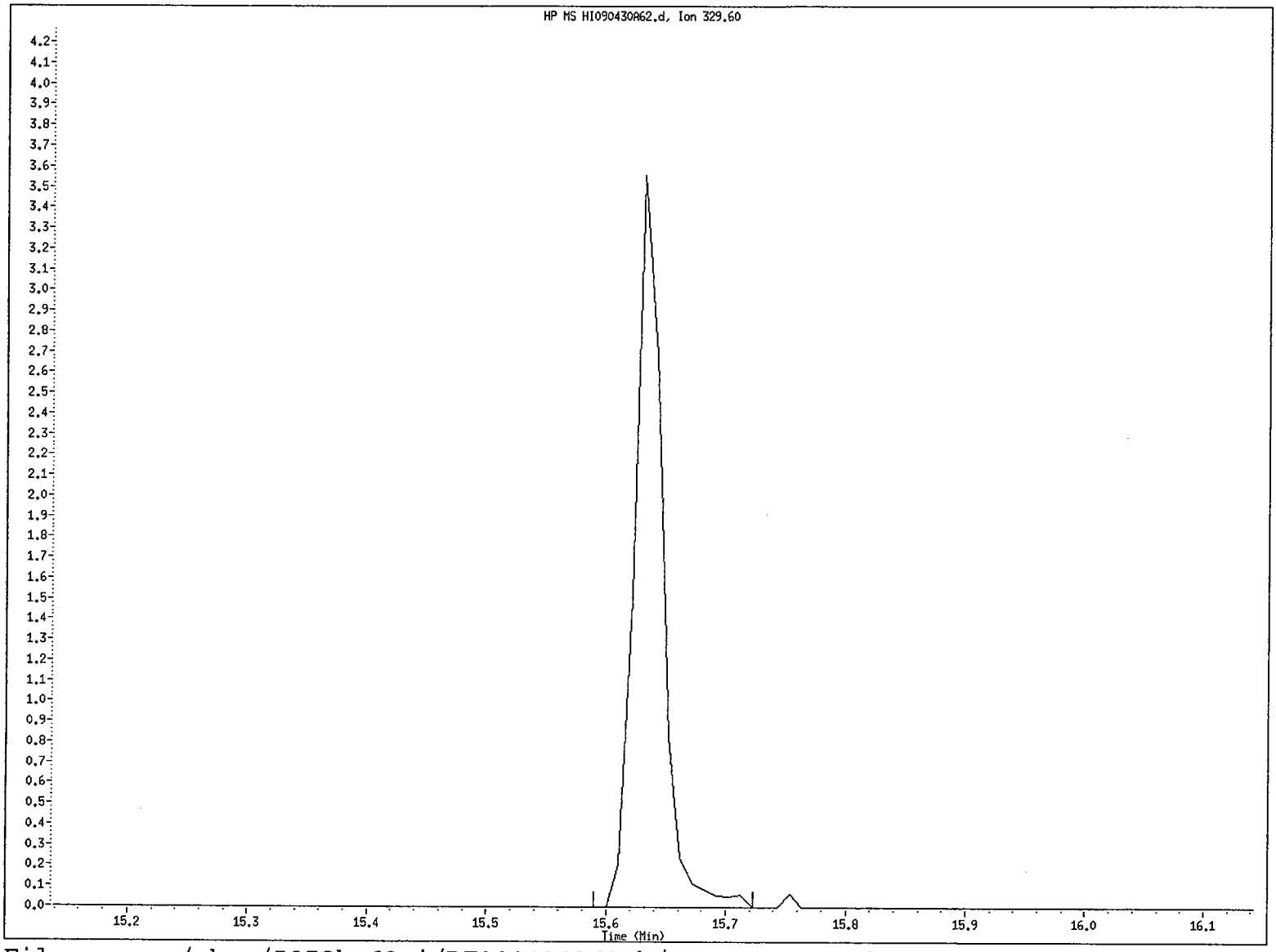
Compound: a,a-Dimethylphenethylamine
CAS Number: 122-09-8







2,4,6-Tribromophenol CAS Number 118-79-6 Area = 57774 Manually integrated



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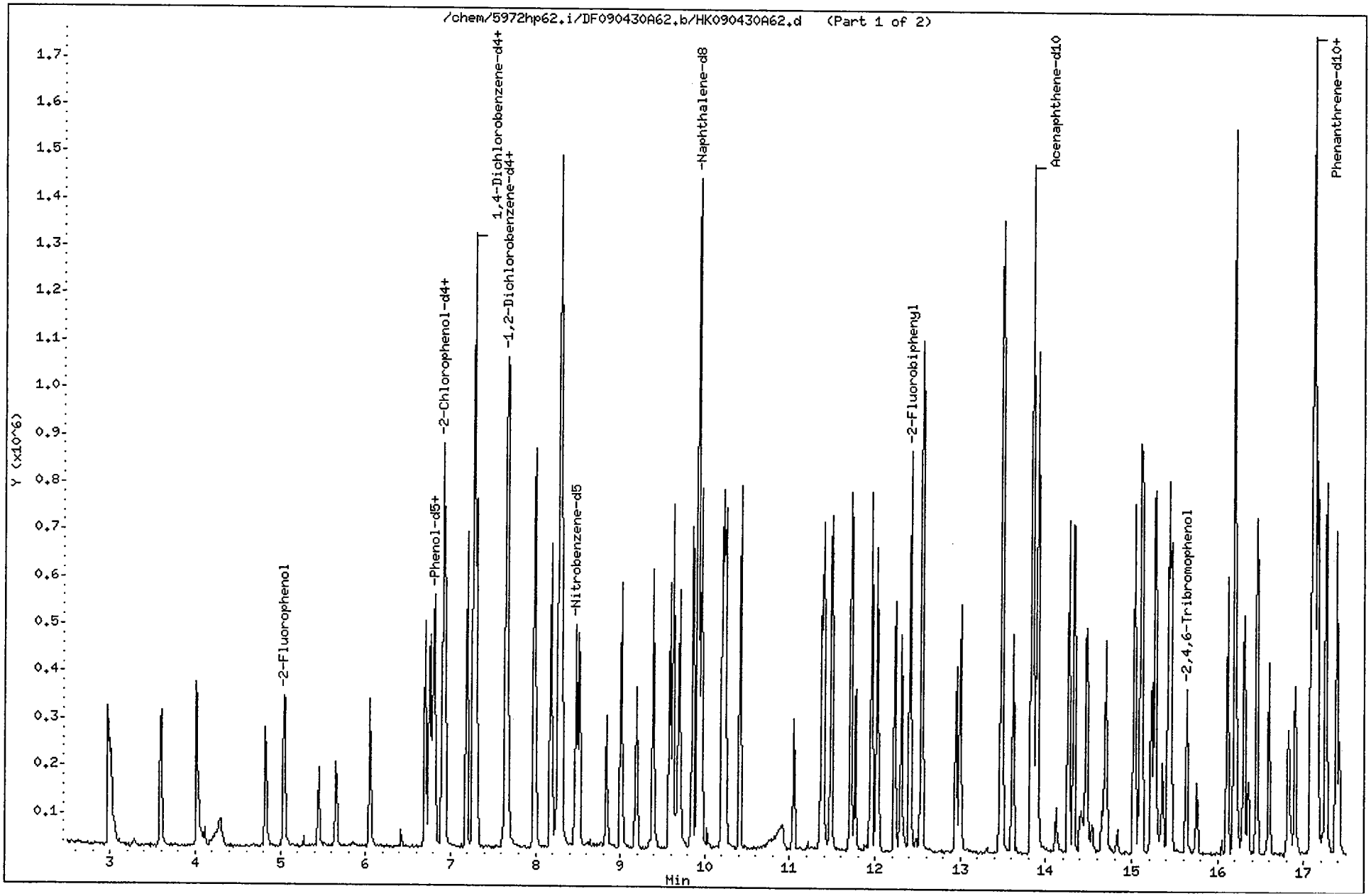
Client ID: SSTD010
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:45
Retention Time: 15.63
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Date : 30-APR-2009 19:09
Client ID: SSTD020
Sample Info: SSTD020;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

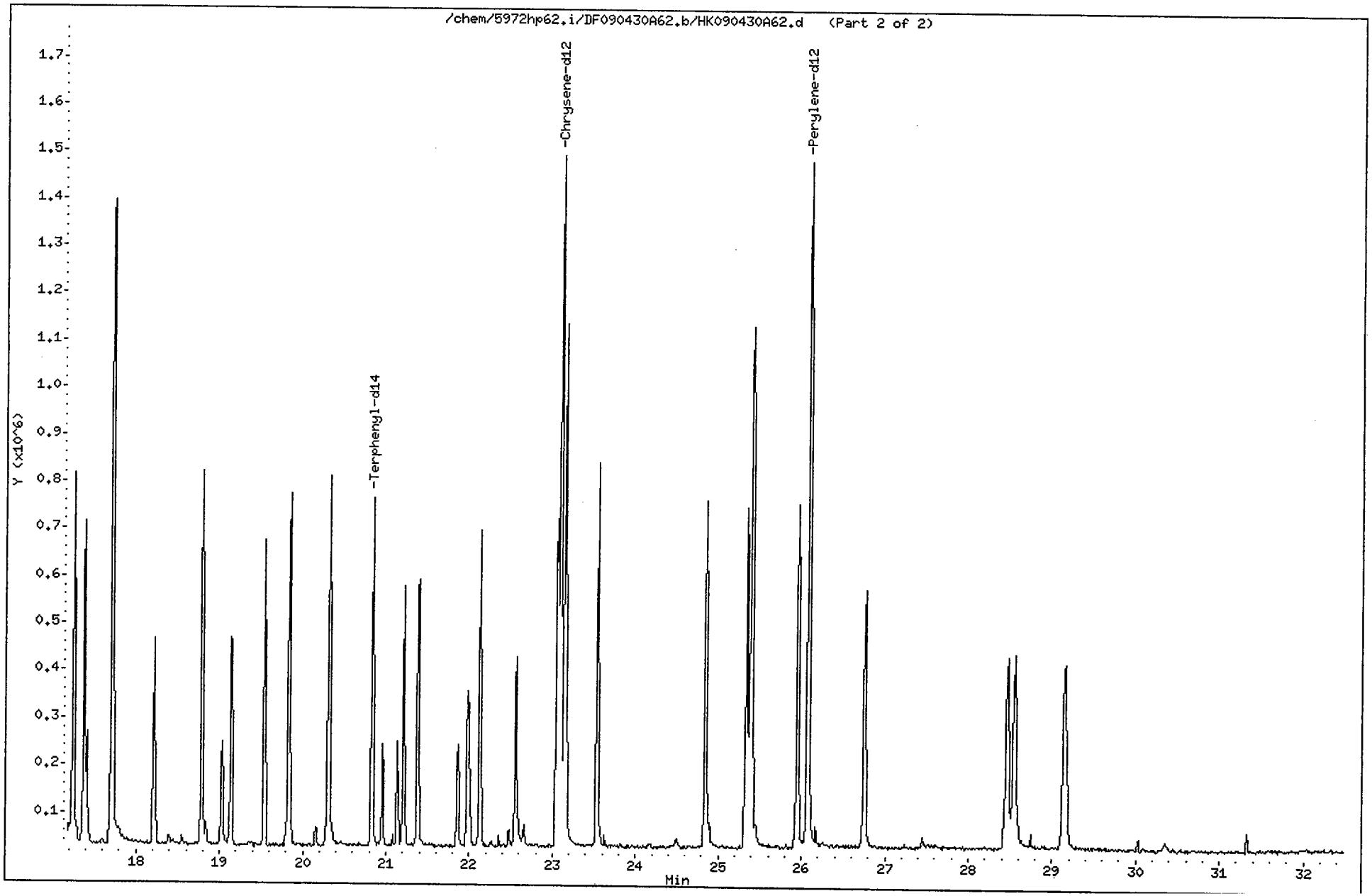
Instrument: 5972hp62.i

Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Date : 30-APR-2009 19:09
Client ID: SSTD020
Sample Info: SSTD020:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Lab Smp Id: SSTD020 Client Smp ID: SSTD020
Inj Date : 30-APR-2009 19:09
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD020:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:09 Cal File: HK090430A62.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	336205	40.0000		
*	2 Naphthalene-d8	136	9.919	9.919	(1.000)	1090167	40.0000		
*	3 Acenaphthene-d10	164	13.839	13.839	(1.000)	562270	40.0000		
*	4 Phenanthrene-d10	188	17.115	17.114	(1.000)	908706	40.0000		
*	5 Chrysene-d12	240	23.092	23.092	(1.000)	1017110	40.0000		
*	6 Perylene-d12	264	26.081	26.081	(1.000)	1150423	40.0000		
$	7 2-Fluorophenol	112	5.047	5.047	(0.694)	183970	20.0000	22	
$	8 Phenol-d5	99	6.787	6.797	(0.934)	217292	20.0000	22	
$	9 2-Chlorophenol-d4	132	6.900	6.910	(0.949)	192411	20.0000	23	9488
$	10 1,2-Dichlorobenzene-d4	152	7.637	7.646	(1.051)	161285	20.0000	23	9609
$	11 Nitrobenzene-d5	82	8.476	8.486	(0.855)	228223	20.0000	22	
$	12 2-Fluorobiphenyl	172	12.406	12.416	(0.896)	400427	20.0000	22	
$	13 2,4,6-Tribromophenol	330	15.641	15.640	(1.130)	104441	20.0000	20	
$	14 Terphenyl-d14	244	20.830	20.840	(0.902)	434167	20.0000	23	
	15 N-Nitrosodimethylamine	42	3.000	3.010	(0.413)	90506	20.0000	21	8648

Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.409)	200932	20.0000	21	9388
17 Ethylmethacrylate	69	3.594	3.593	(0.494)	156736	20.0000	22	9032
18 2-Picoline	93	4.003	4.003	(0.551)	209609	20.0000	21	8922
19 Nitrosomethylethylamine	88	4.300	4.299	(0.592)	75787	20.0000	21	8631
20 Methyl Methanesulfonate	80	4.822	4.832	(0.663)	143679	20.0000	22	9013
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.749)	60870	20.0000	21	8917
22 Ethyl Methanesulfonate	79	6.050	6.060	(0.832)	174852	20.0000	22	9158
23 Phenol	94	6.818	6.828	(0.938)	231279	20.0000	22	
24 Aniline	93	6.756	6.756	(0.930)	292938	20.0000	22	6901(H)
25 Bis(2-chloroethyl)ether	93	6.910	6.920	(0.951)	218617	20.0000	24	
26 Pentachloroethane	167	6.695	6.705	(0.921)	99073	20.0000	21	9359
27 2-Chlorophenol	128	6.930	6.940	(0.954)	208555	20.0000	22	9282
28 1,3-Dichlorobenzene	146	7.186	7.196	(0.989)	264250	20.0000	22	
29 1,4-Dichlorobenzene	146	7.299	7.298	(1.004)	269447	20.0000	23	
30 Benzyl Alcohol	108	7.657	7.667	(1.054)	123204	20.0000	23	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.055)	243533	20.0000	23	
32 2-Methylphenol	108	7.985	7.984	(1.099)	166556	20.0000	22	
33 2,2'-oxybis(1-Chloropropane)	45	7.985	7.995	(1.099)	241785	20.0000	22	8782
34 N-Nitrosopyrrolidine	100	8.200	8.209	(1.128)	40573	20.0000	23	3523
35 3-Methylphenol	108	8.302	8.312	(1.142)	372248	40.0000	46	
36 4-Methylphenol	108	8.302	8.312	(1.142)	372248	40.0000	46	
37 3-4-Methylphenol	108	8.302	8.312	(1.142)	372248	40.0000	46	9170
38 N-Nitroso-di-N-propylamine	70	8.281	8.291	(1.139)	83307	20.0000	24	8500
39 Acetophenone	105	8.179	8.189	(0.825)	274724	20.0000	22	0(M)
40 N-Nitrosomorpholine	116	8.241	8.261	(1.134)	20083	20.0000	23	8452
41 o-Toluidine	106	8.271	8.281	(1.138)	287609	20.0000	24	8959
42 Hexachloroethane	117	8.271	8.271	(1.138)	113133	20.0000	22	9619
43 Nitrobenzene	77	8.507	8.517	(0.858)	207410	20.0000	22	9003
44 N-Nitrosopiperidine	114	8.834	8.844	(0.891)	82745	20.0000	22	9012
45 Isophorone	82	9.008	9.018	(0.908)	372463	20.0000	22	8879
46 2-Nitrophenol	139	9.192	9.192	(0.927)	113453	20.0000	21	8799
47 2,4-Dimethylphenol	122	9.387	9.397	(0.946)	146674	20.0000	22	8913
48 Benzoic Acid	122	9.673	9.755	(0.975)	78869	100.000	94	8433
49 o,o,o-Triethylphosphorothioat	198	9.622	9.632	(0.970)	85466	20.0000	22	8819
50 Bis(2-chloroethoxy)methane	93	9.581	9.591	(0.966)	263957	20.0000	22	9086
51 2,4-Dichlorophenol	162	9.694	9.704	(0.977)	170300	20.0000	22	
52 1,2,4-Trichlorobenzene	180	9.848	9.857	(0.993)	216892	20.0000	22	
53 Naphthalene	128	9.950	9.960	(1.003)	562850	20.0000	23	9066
54 4-Chloroaniline	127	10.216	10.216	(1.030)	239497	20.0000	24	8273
55 2,6-Dichlorophenol	162	10.195	10.205	(1.028)	169393	20.0000	23	
56 Hexachloropropene	213	10.236	10.236	(1.032)	160041	20.0000	22	9522
57 Hexachlorobutadiene	225	10.410	10.410	(1.050)	138232	20.0000	22	9096
58 N-Nitroso-di-n-butylamine	84	11.045	11.055	(1.113)	70495	20.0000	22	8900
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.362	11.372	(1.145)	157876	20.0000	23	0(M)
61 Safrole	162	11.393	11.403	(1.149)	141368	20.0000	22	8953
62 2-Methylnaphthalene	141	11.485	11.485	(1.158)	288048	20.0000	22	

KCH 5/5/09

Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.710	11.720	(1.181)	345284	20.0000	23	
64 Hexachlorocyclopentadiene	237	12.017	12.027	(0.868)	158334	20.0000	21	9553
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.956	(0.864)	230043	20.0000	23	9654
66 2,4,6-Trichlorophenol	196	12.232	12.232	(0.884)	122958	20.0000	21	
67 2,4,5-Trichlorophenol	196	12.304	12.314	(0.889)	140663	20.0000	22	
68 Isosafrole	162	12.048	12.048	(0.871)	24336	20.0000	22	
69 2-Chloronaphthalene	162	12.539	12.549	(0.906)	503464	20.0000	23	
70 2-Nitroaniline	65	12.949	12.959	(0.936)	108915	20.0000	22	9072
71 1,4-Napthoquinone	158	13.000	13.010	(0.939)	154490	20.0000	23	9109
72 Dimethylphthalate	163	13.491	13.501	(0.975)	382523	20.0000	22	9614
73 1,3-Dinitrobenzene	168	13.481	13.491	(0.974)	72639	20.0000	23	0(M)
74 2,6-Dinitrotoluene	165	13.614	13.624	(0.984)	95682	20.0000	20	9555
75 Acenaphthylene	152	13.471	13.481	(0.973)	547767	20.0000	23	8503
76 3-Nitroaniline	138	13.891	13.900	(1.004)	83375	20.0000	21	8776
77 Acenaphthene	154	13.901	13.911	(1.004)	301596	20.0000	22	9689
78 2,4-Dinitrophenol	184	14.116	14.126	(1.020)	22117	20.0000	12	(a)
79 4-Nitrophenol	139	14.413	14.402	(1.041)	64363	20.0000	20	8482
80 Pentachlorobenzene	250	14.331	14.330	(1.036)	219963	20.0000	22	9317
81 2,4-Dinitrotoluene	165	14.474	14.484	(1.046)	123467	20.0000	22	7314
82 Dibenzofuran	168	14.259	14.269	(1.030)	491435	20.0000	22	9269
83 1-Naphthylamine	143	14.484	14.494	(1.047)	83734	20.0000	18	
84 2,3,4,6-Tetrachlorophenol	232	14.699	14.699	(1.062)	105431	20.0000	21	9290
85 2-Naphthylamine	143	14.658	14.668	(1.059)	68118	20.0000	14	
86 Diethylphthalate	149	15.098	15.108	(1.091)	406516	20.0000	22	9366
87 Zinophos	97	15.262	15.282	(1.103)	109121	20.0000	23	9070
88 4-Chlorophenyl-phenylether	204	15.119	15.118	(1.092)	206742	20.0000	23	7180
89 5-Nitro-o-toluidine	152	15.231	15.241	(1.101)	114707	20.0000	22	7798
90 Fluorene	166	15.037	15.037	(1.087)	391932	20.0000	23	7821
91 4-Nitroaniline	138	15.283	15.303	(1.104)	91129	20.0000	21	9056
92 4,6-Dinitro-2-methylphenol	198	15.354	15.374	(0.897)	46280	20.0000	15	8724(a)
93 N-Nitrosodiphenylamine	169	15.426	15.436	(0.901)	288966	20.0000	22	9569
95 1,2-Diphenylhydrazine	77	15.457	15.456	(1.117)	468835	20.0000	23	9252
96 Sulfotep	322	16.122	16.122	(1.165)	75004	20.0000	22	8780
97 1,3,5-Trinitrobenzene	75	16.214	16.255	(0.947)	107946	20.0000	20	0(M)
98 Diallate (trans isomer)	86	16.194	16.193	(0.946)	136332	10.0000	12	
99 Diallate (trans) part of total	86	16.194	16.193	(0.946)	136332	10.0000	12	8808
100 Phorate	75	16.204	16.203	(0.947)	263076	20.0000	24	7713(M)
101 Phenacetin	108	16.306	16.337	(0.953)	184268	20.0000	20	9423
102 Diallate (cis isomer)	86	16.357	16.357	(0.956)	42566	10.0000	12	
103 Diallate (cis) part of total	86	16.357	16.357	(0.956)	42566	10.0000	8.6	6742(aH)
104 4-Bromophenyl-phenylether	248	16.194	16.193	(0.946)	131850	20.0000	22	7881
105 Hexachlorobenzene	284	16.449	16.459	(0.961)	192352	20.0000	21	9344
106 Dimethoate	87	16.593	16.613	(0.969)	133916	20.0000	23	9043
107 4-Aminobiphenyl	169	16.818	16.828	(0.983)	211283	20.0000	17	0(M)
108 Pentachlorophenol	266	16.900	16.910	(0.987)	80192	20.0000	18	7952(a)
109 Pentachloronitrobenzene	237	17.084	17.094	(0.998)	61751	20.0000	21	7430
110 Pronamide	173	17.125	17.135	(1.001)	169720	20.0000	21	9320

5/5/09

Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Report Date: 05-May-2009 10:24

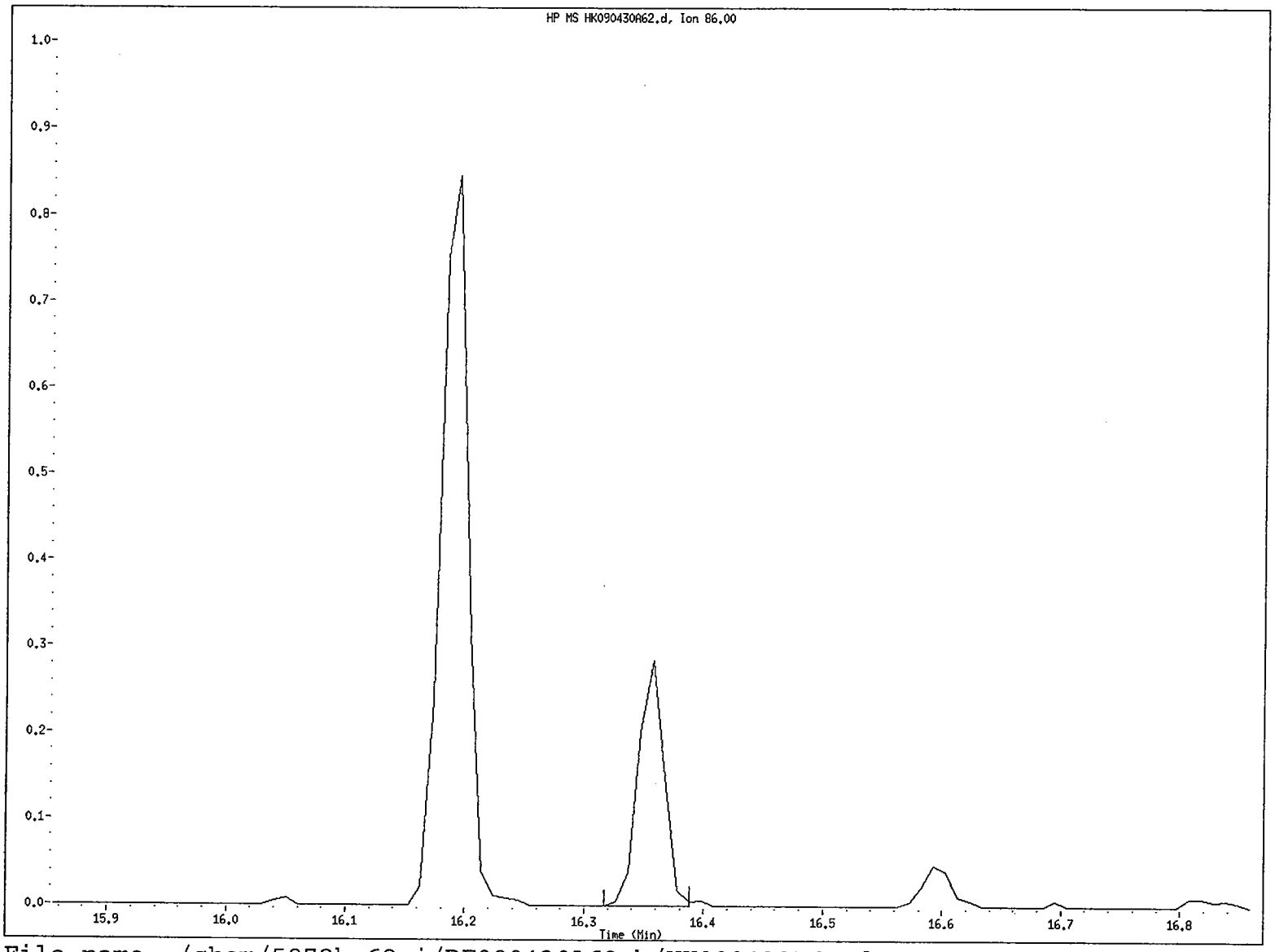
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.381	17.381	(1.016)	190517	20.0000	22	9221
112	Phenanthrene	178	17.156	17.166	(1.002)	526270	20.0000	22	
113	Anthracene	178	17.258	17.268	(1.008)	531056	20.0000	21	
114	Carbazole	167	17.719	17.739	(1.035)	1209822	20.0000	21	9713
115	Methyl Parathion	109	18.210	18.220	(1.064)	127793	20.0000	23	9290
116	Di-n-butylphthalate	149	18.783	18.793	(1.097)	677704	20.0000	21	9597
117	Parathion	109	19.131	19.141	(1.118)	79662	20.0000	20	8169
118	4-Nitroquinoline-1-oxide	190	19.029	19.039	(1.112)	37860	20.0000	16	9346
119	Methapyrilene	97	19.377	19.377	(1.132)	3531	20.0000	20	0(M)
120	Isodrin	193	19.541	19.540	(1.142)	74481	20.0000	21	8896
121	Fluoranthene	202	19.837	19.847	(1.159)	547587	20.0000	22	9675
122	Benzidine	184	20.288	20.298	(0.879)	103702	20.0000	19	8731(a)
123	Pyrene	202	20.319	20.328	(0.880)	587015	20.0000	23	9731
124	p-Dimethylaminoazobenzene	225	21.209	21.219	(0.918)	103364	20.0000	21	9024
125	Chlorobenzilate	251	21.383	21.383	(0.926)	174230	20.0000	20	9000
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.130	22.130	(0.958)	302487	20.0000	22	9167
129	3,3'-Dimethylbenzidine	212	21.977	21.987	(0.952)	184974	20.0000	20	9505
130	2-Acetylaminofluorene	181	22.560	22.570	(0.977)	180948	20.0000	20	9002
131	3,3'-Dichlorobenzidine	252	23.154	23.164	(1.003)	198311	20.0000	22	8448
132	bis(2-ethylhexyl)Phthalate	149	23.532	23.542	(1.019)	409722	20.0000	22	9118
133	Benzo(a)anthracene	228	23.051	23.061	(0.998)	521929	20.0000	22	
134	Chrysene	228	23.144	23.153	(1.002)	503135	20.0000	24	
135	Di-n-octylphthalate	149	24.843	24.853	(0.953)	669735	20.0000	21	
136	7,12-Dimethylbenz(a)anthracene	256	25.406	25.416	(0.974)	254582	20.0000	22	8541
137	Benzo(b)fluoranthene	252	25.334	25.354	(0.971)	590428	20.0000	20	(H)
138	Benzo(k)fluoranthene	252	25.385	25.395	(0.973)	565678	20.0000	23	
139	Benzo(a)pyrene	252	25.948	25.968	(0.995)	528784	20.0000	21	
140	3-Methylcholanthrene	268	26.757	26.767	(1.026)	282716	20.0000	21	9608
141	Indeno(1,2,3-c,d)pyrene	276	28.466	28.486	(1.091)	476031	20.0000	20	0(M)
142	Dibenzo(a,h)anthracene	278	28.548	28.568	(1.095)	480642	20.0000	21	7618
143	Benzo(g,h,i)perylene	276	29.152	29.172	(1.118)	510224	20.0000	21	9199
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				178898	20.0000	22	0
201	a,a-Dimethylphenethylamine	58	10.912	10.113	(1.100)	288692	20.0000	27	0(aM)
202	Aramite	185	21.137	21.137	(0.915)	31192	20.0000	20	9165

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

KEH 5/5/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 42566 User selected



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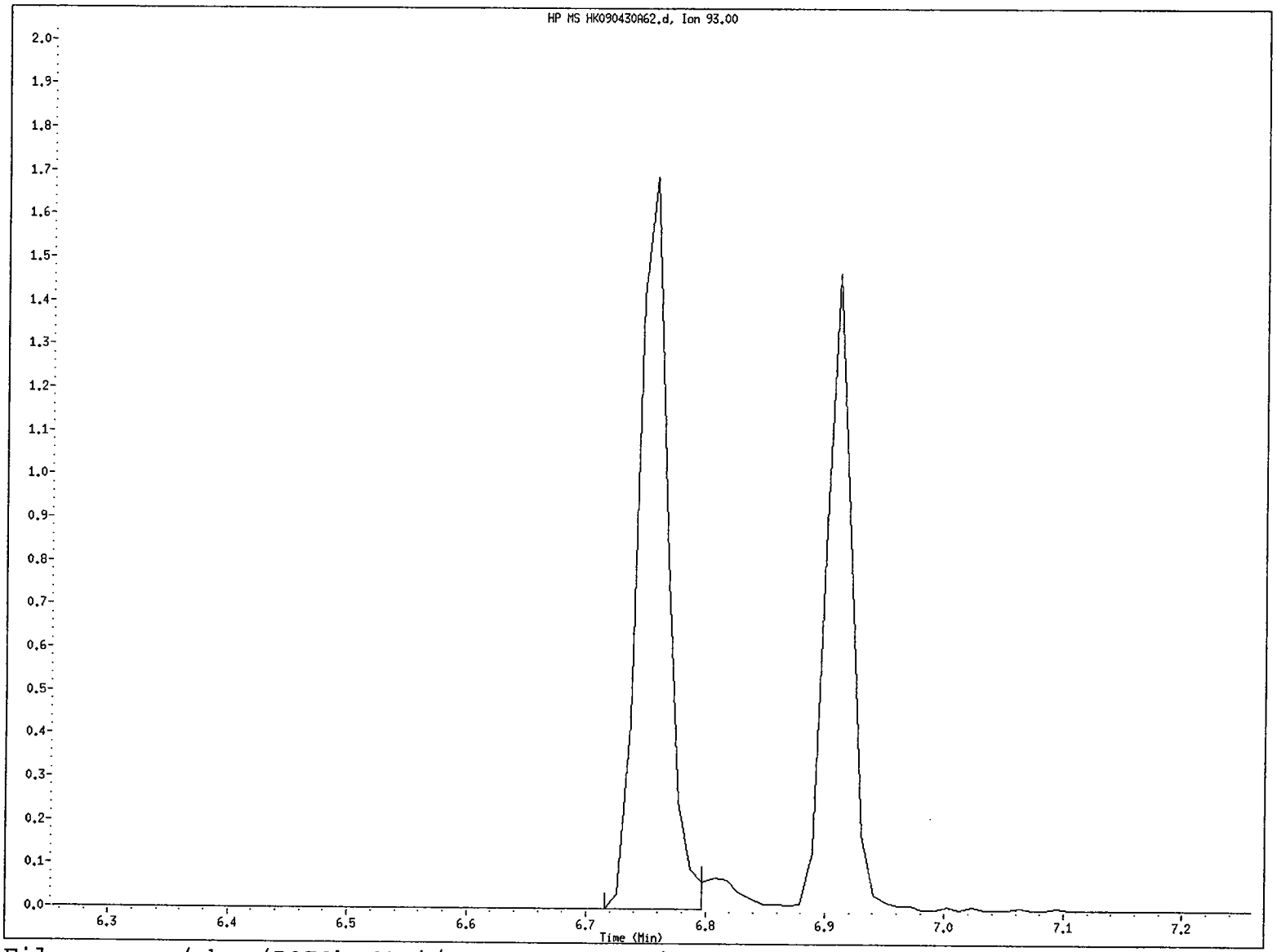
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.36
Operator ID: 2650

Aniline CAS Number 62-53-3 Area = 292938 User selected hit



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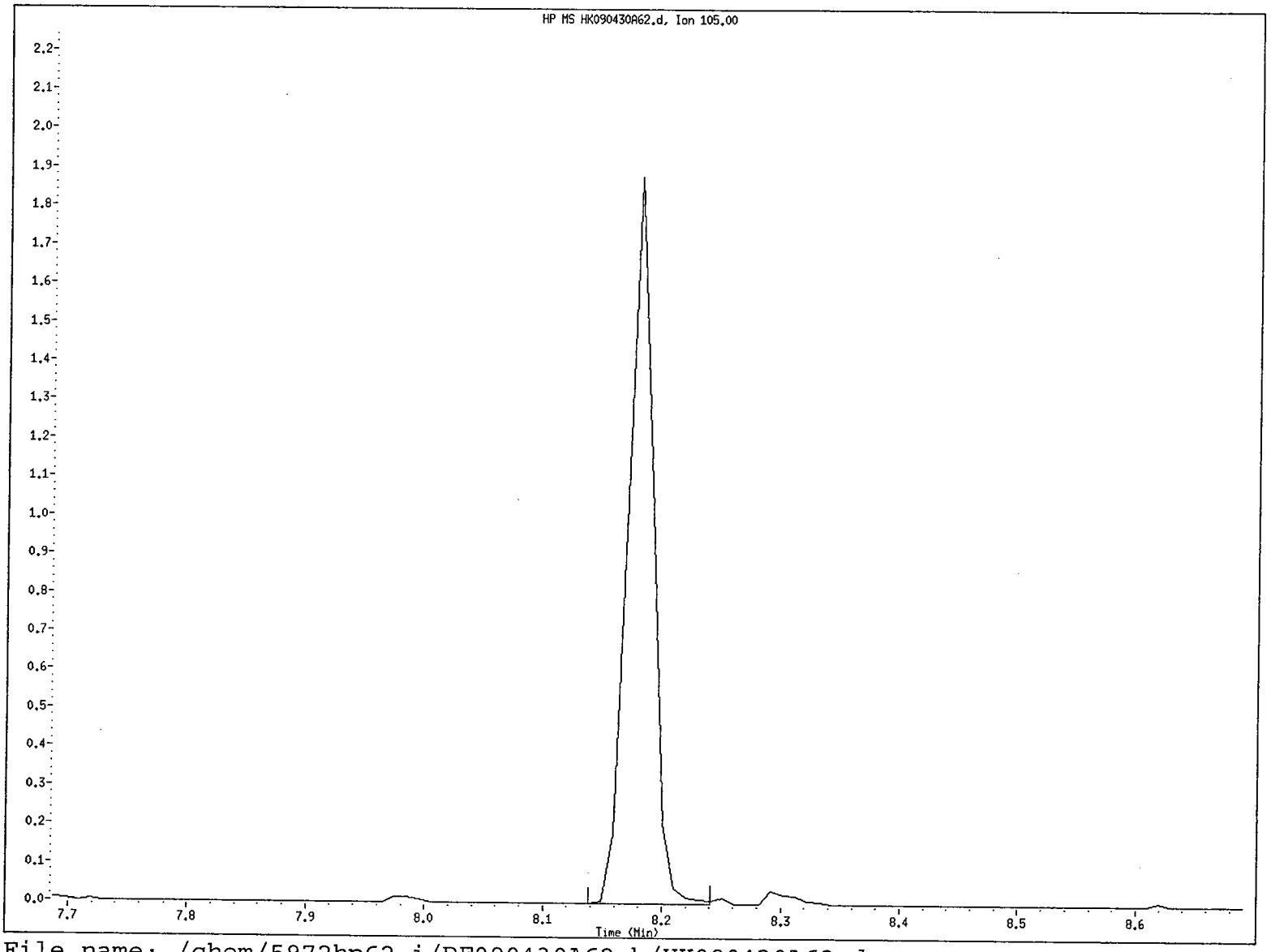
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 6.76
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 274724 Manually integrated



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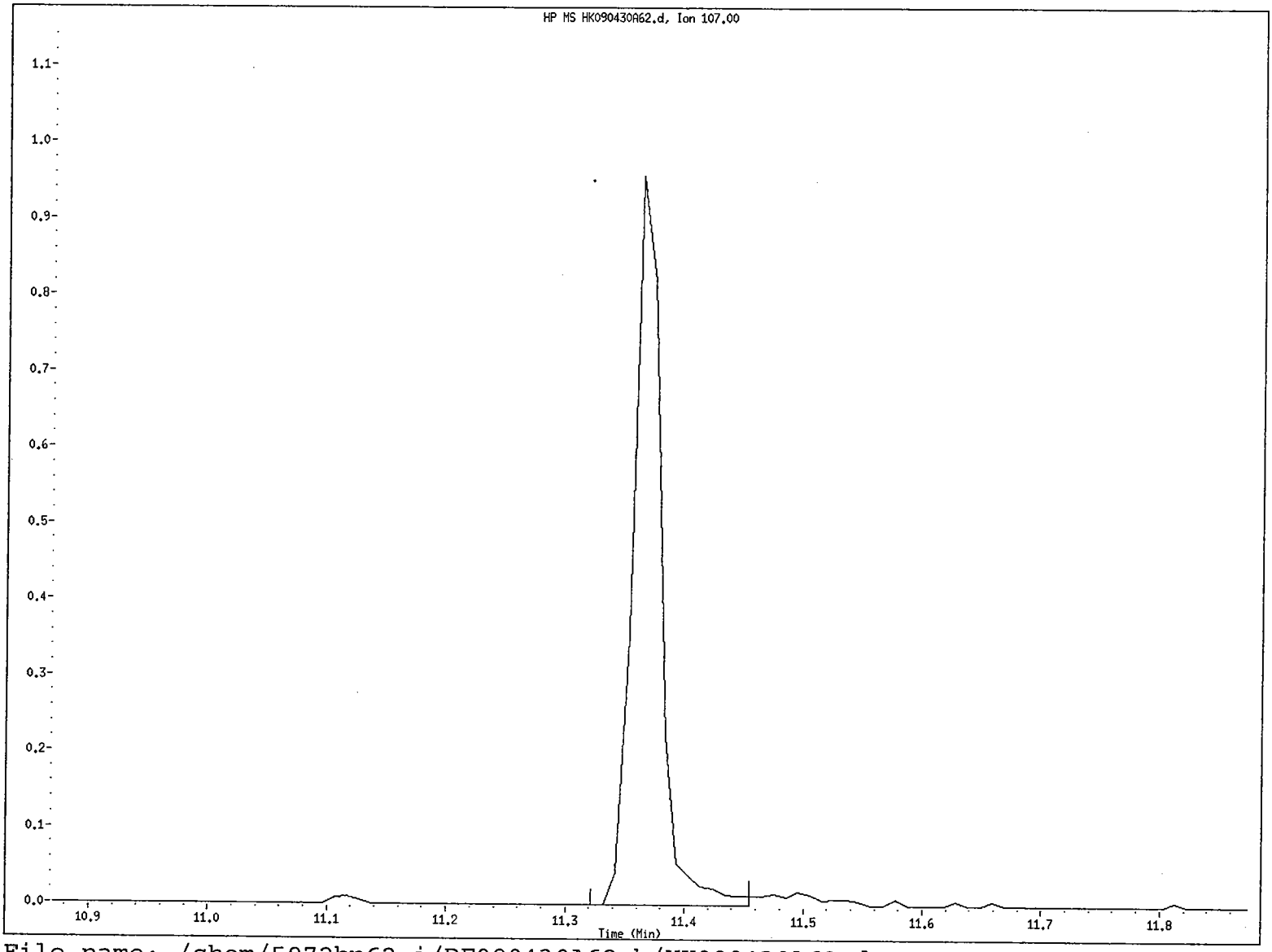
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 8.18
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 157876 Manually integrated



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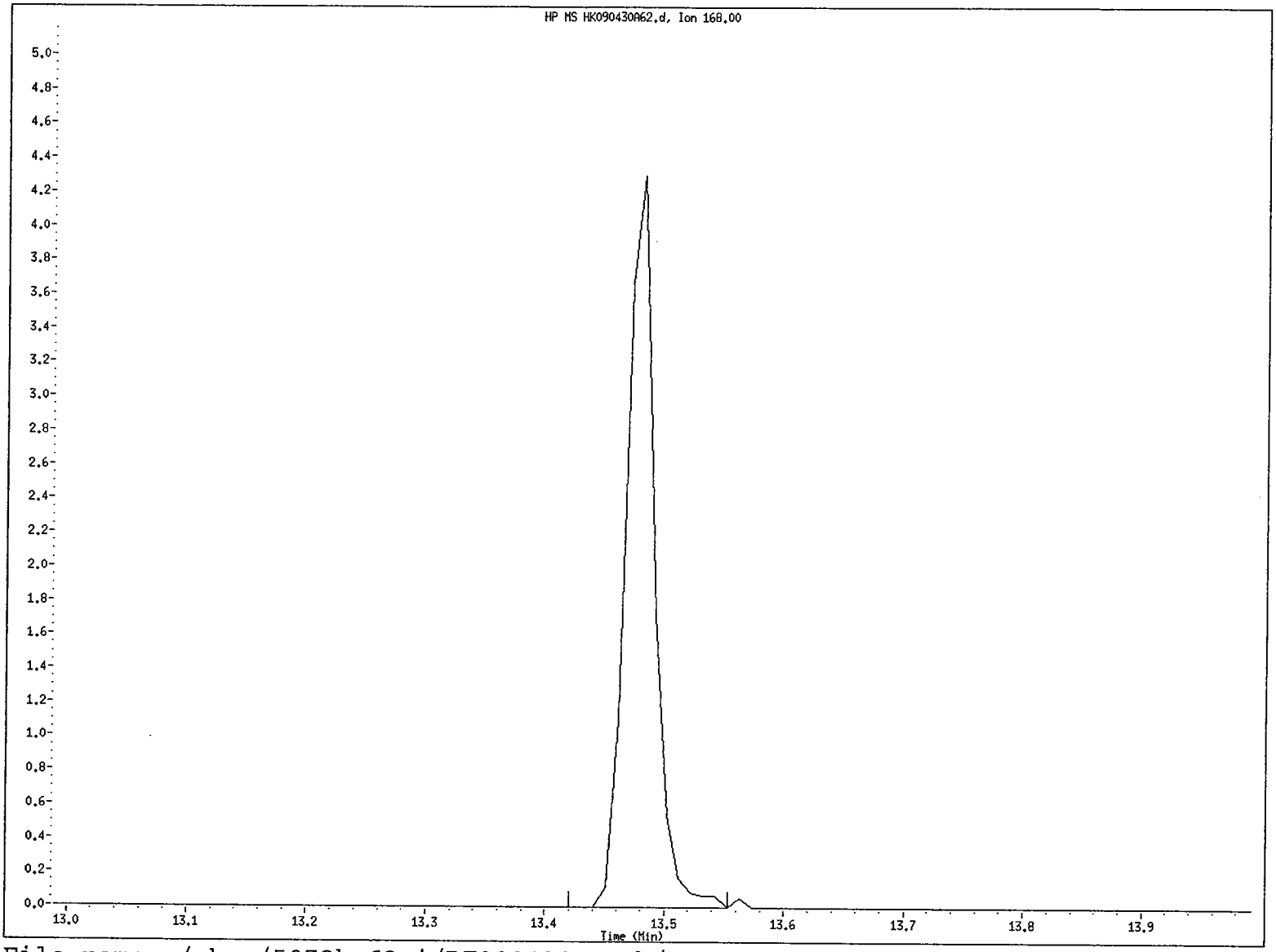
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 11.36
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 72639 Manually integrated



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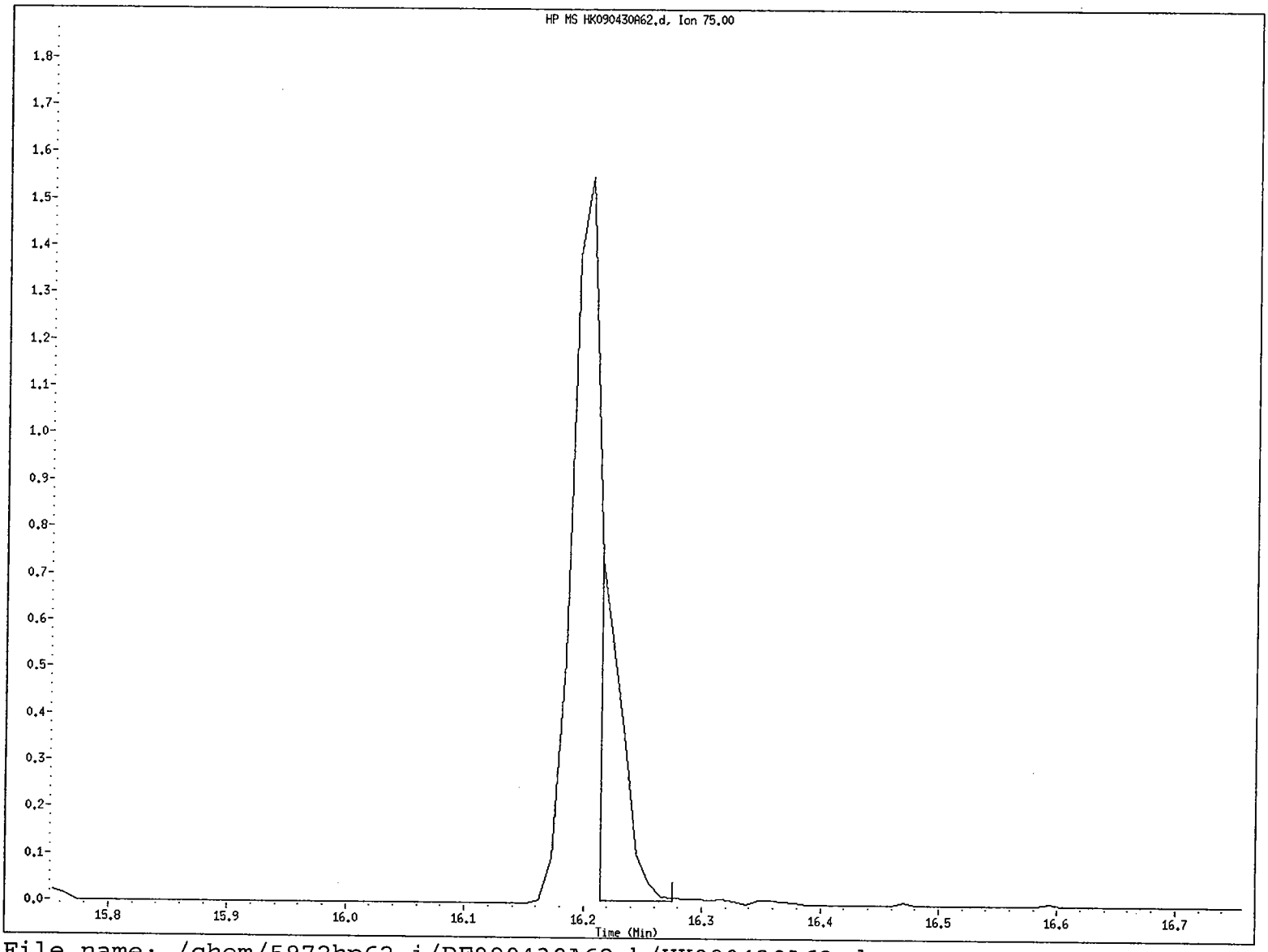
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 13.48
Operator ID: 2650

1,3,5-Trinitrobenzene CAS Number 99-35-4 Area = 107946 Manually integrated



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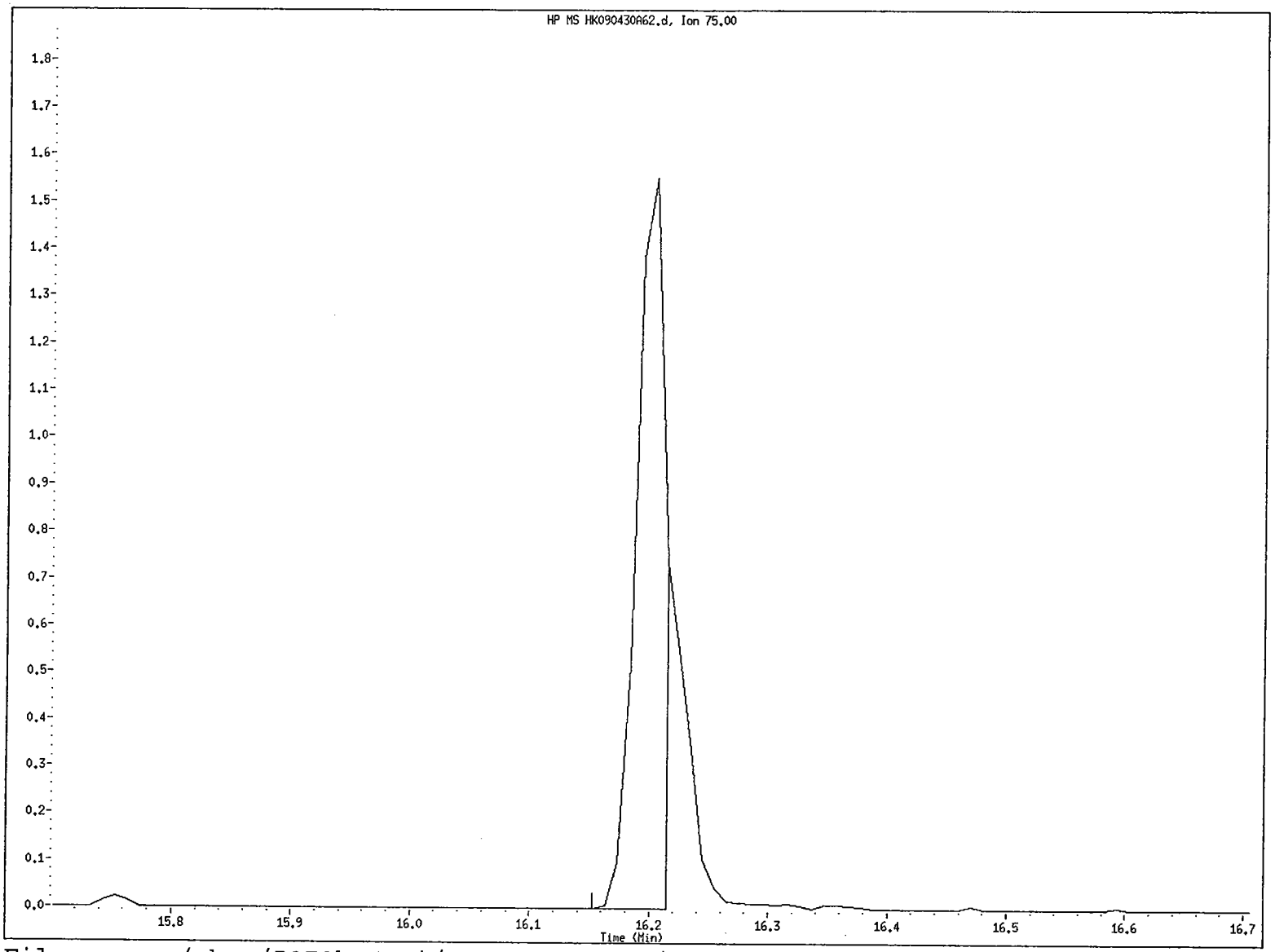
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.21
Operator ID: 2650

Phorate CAS Number 298-02-2 Area = 263076 Manually integrated



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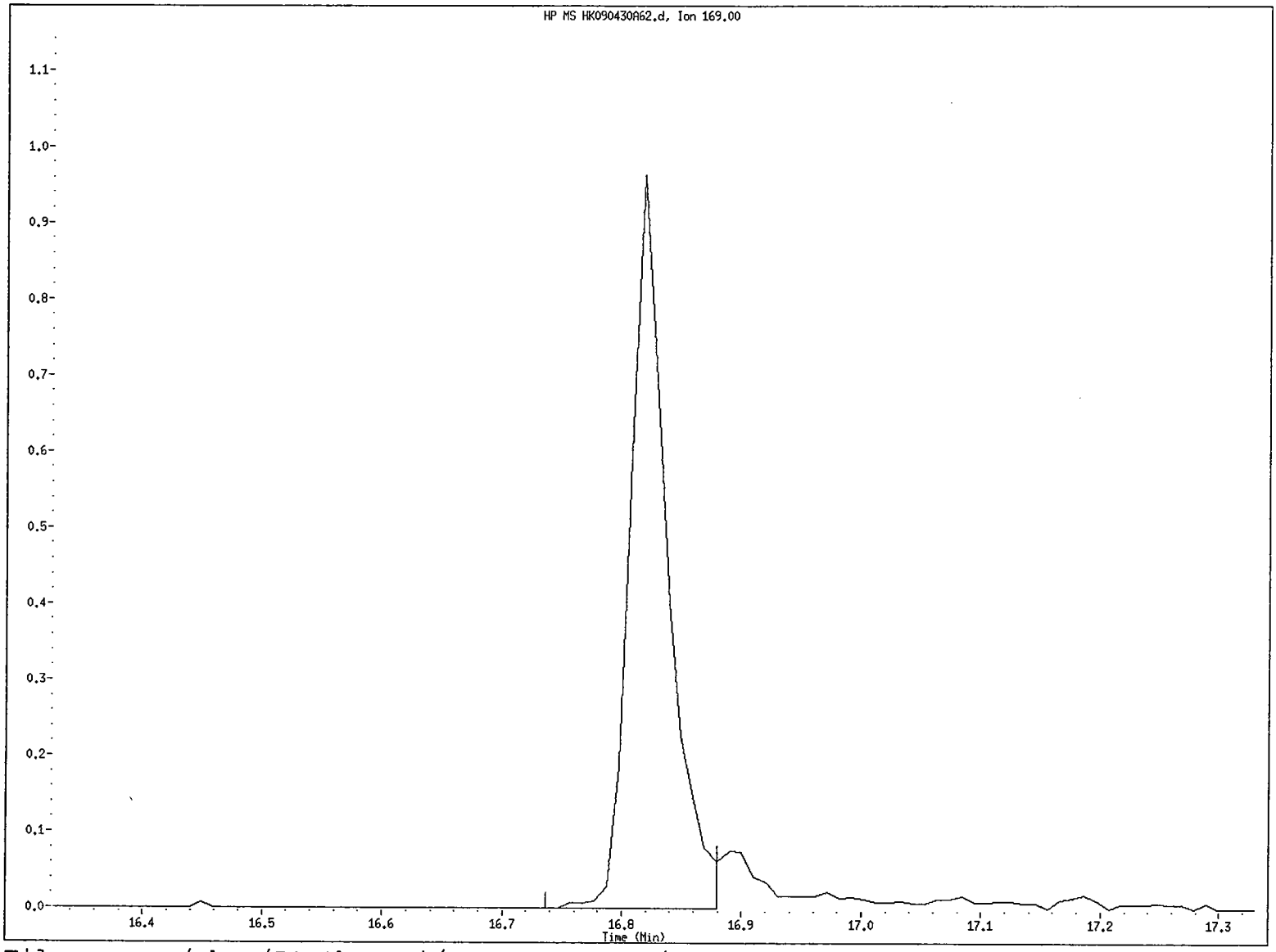
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.20
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 211283 Manually integrated



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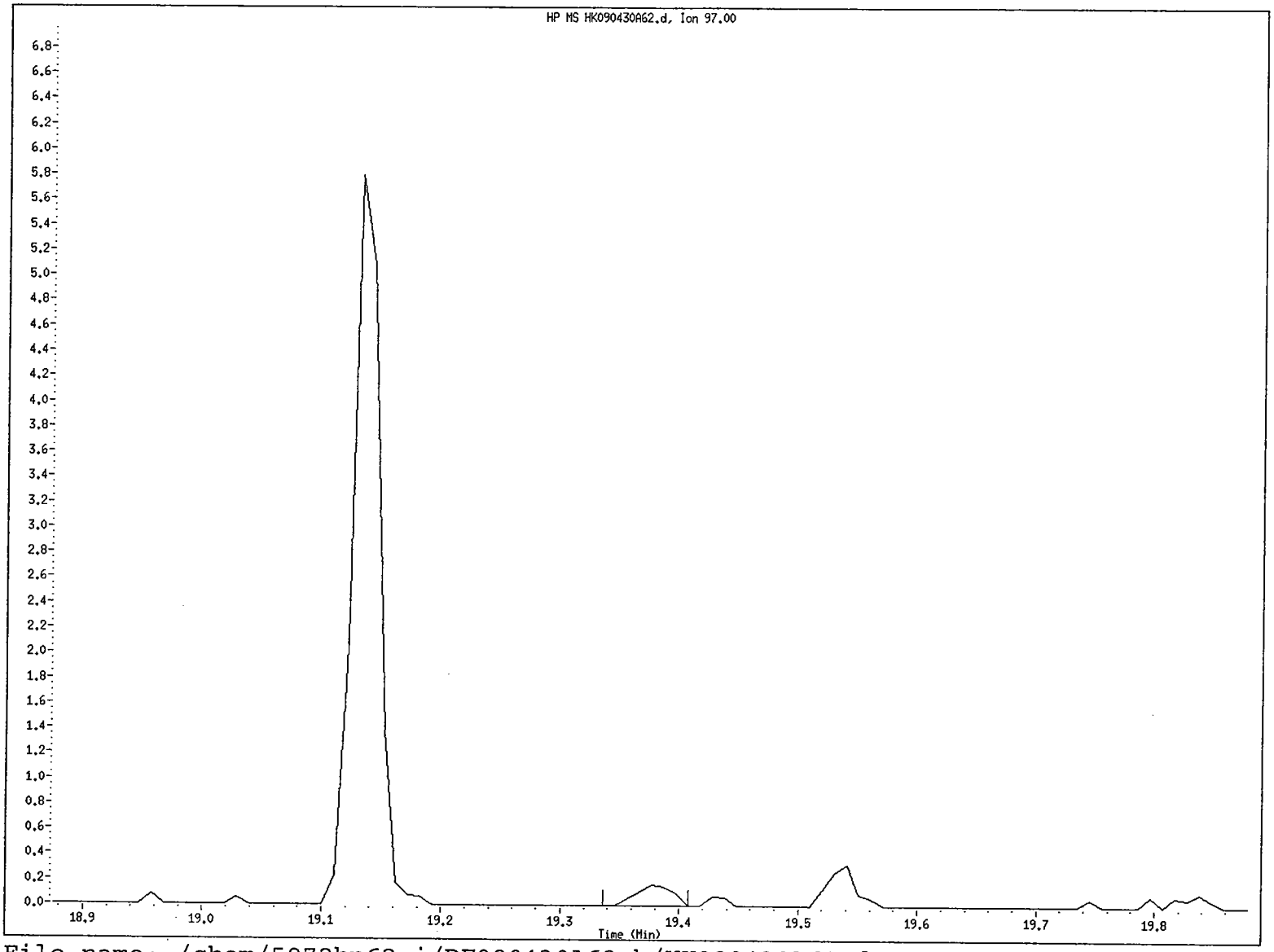
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 16.82
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 3531 Manually integrated



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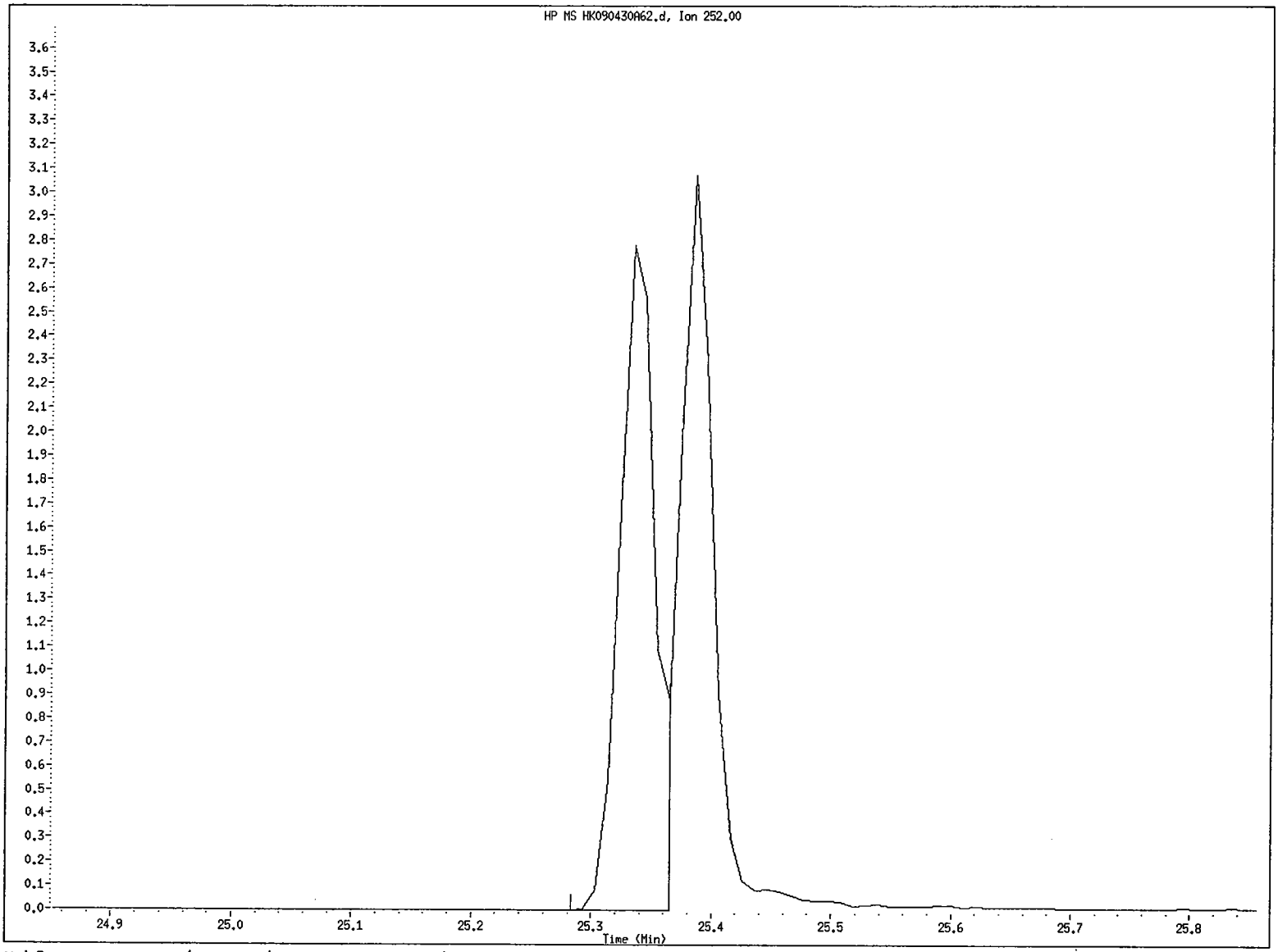
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 19.38
Operator ID: 2650

Benzo(b)fluoranthene CAS Number 205-99-2 Area = 590428 User selected hit



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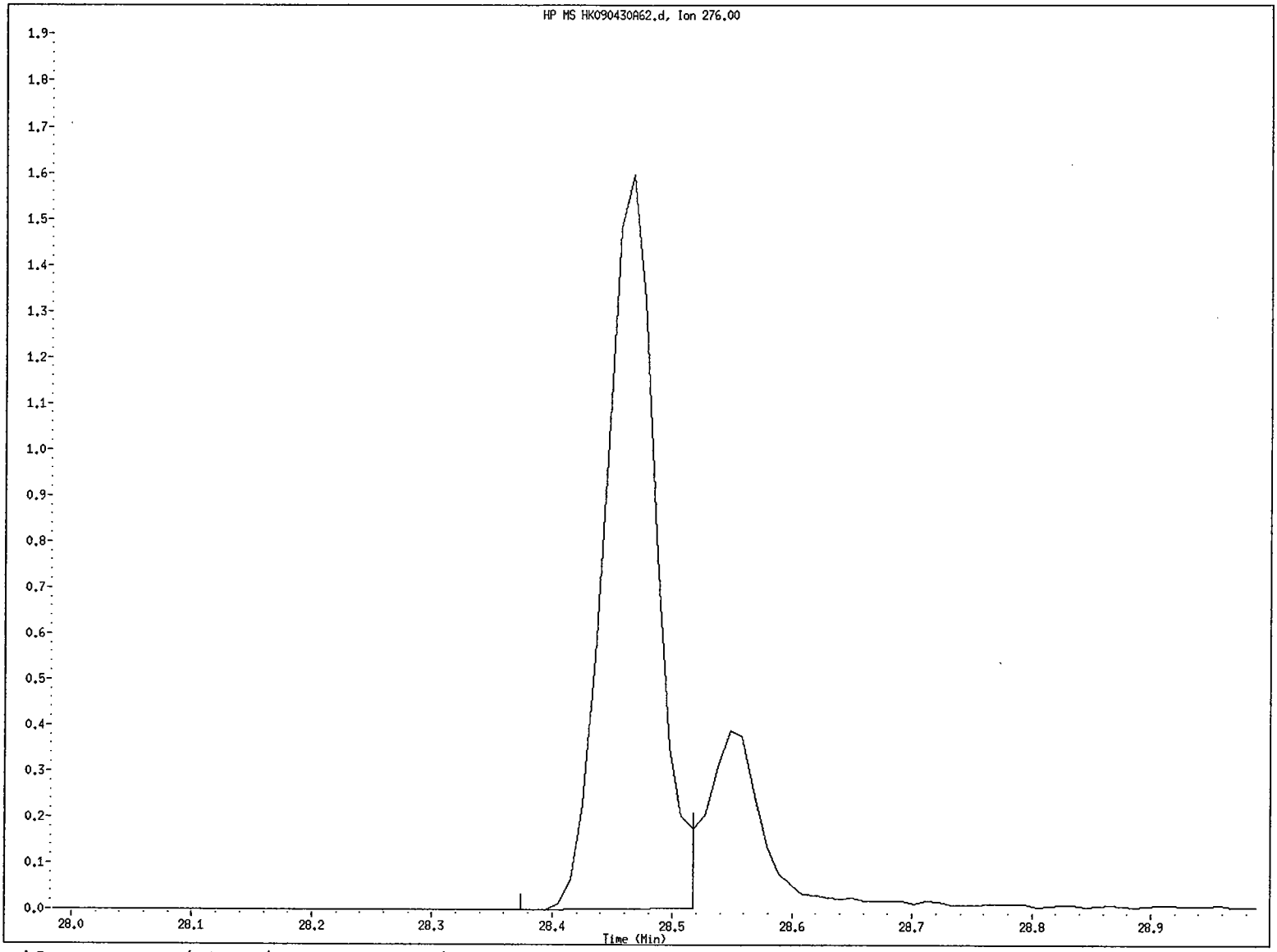
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 25.33
Operator ID: 2650

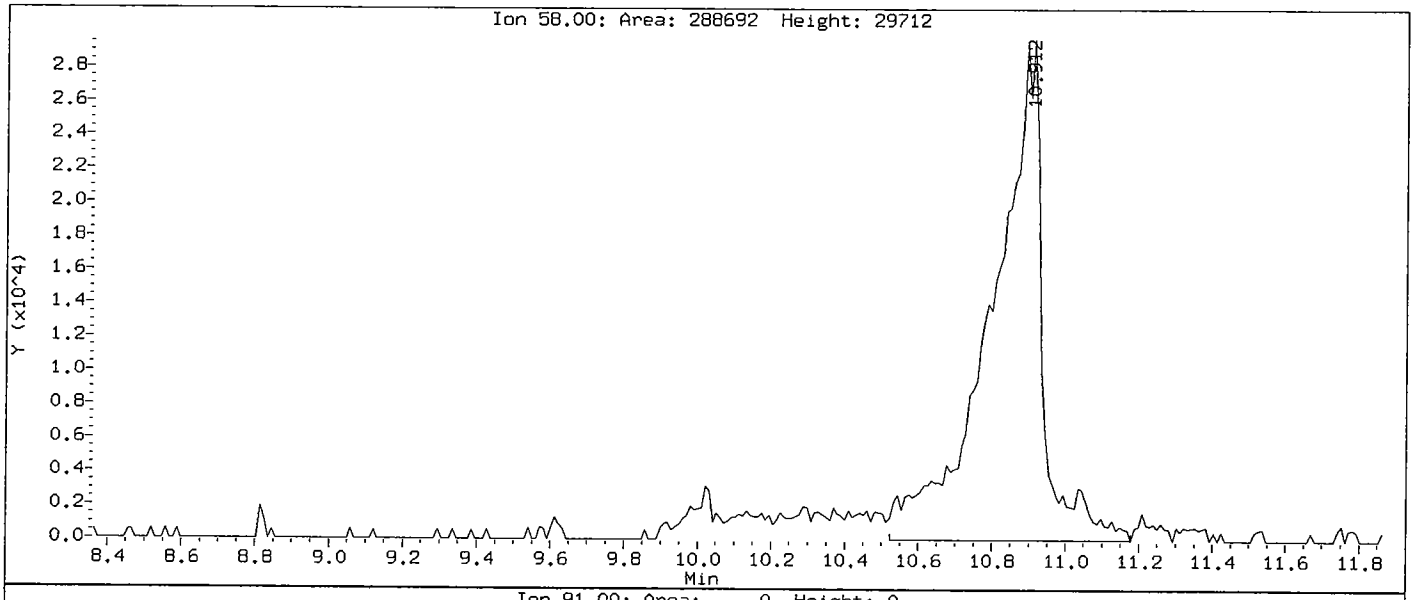
Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 476031 Manually integrated

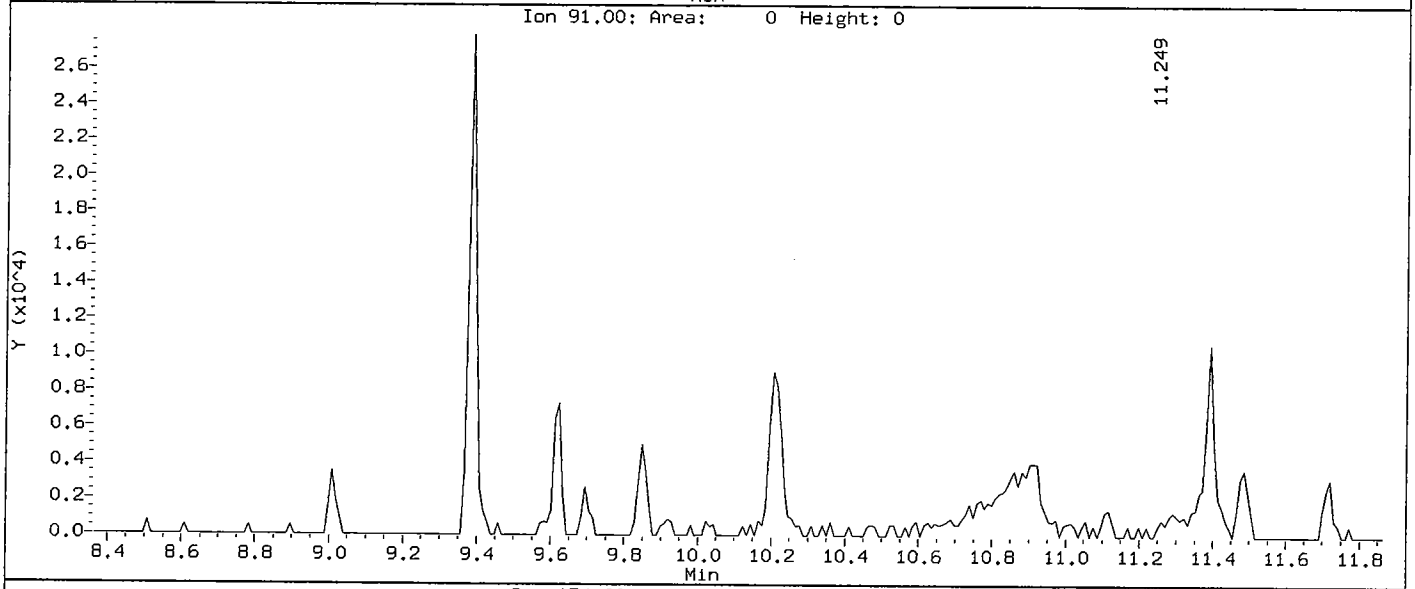


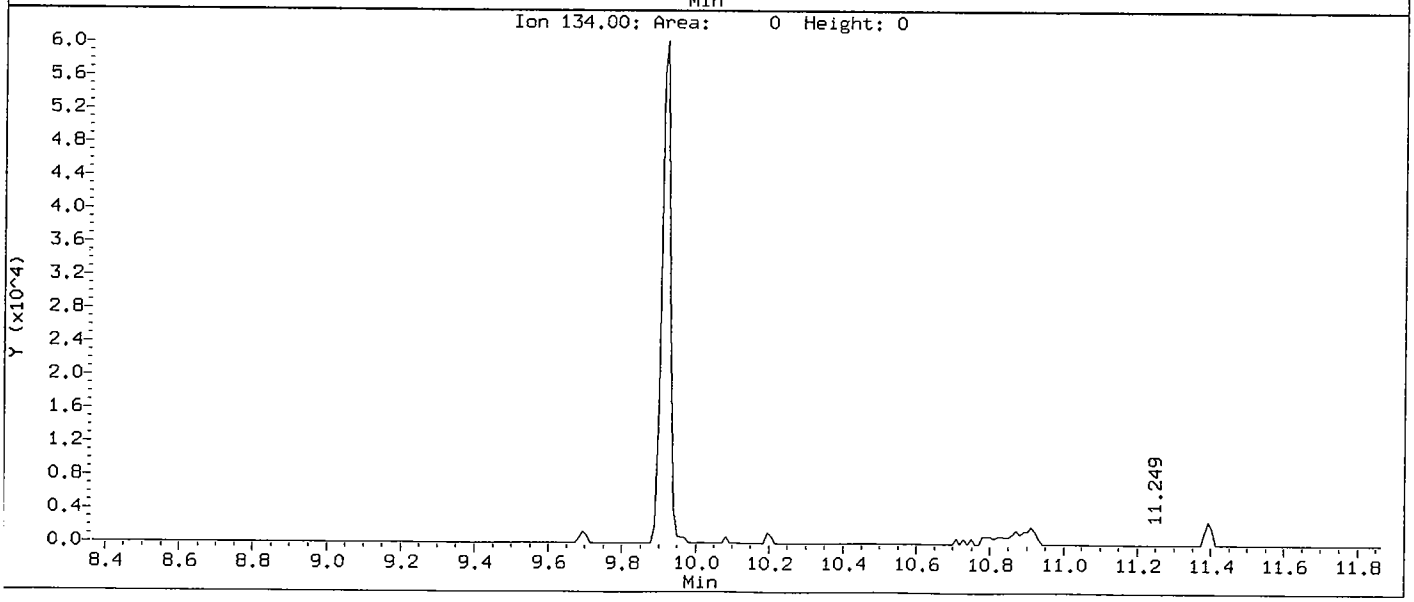
File name: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Client ID: SSTD020
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:09
Retention Time: 28.47
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HK090430A62.d
Injection Date: 30-APR-2009 19:09
Instrument: 5972hp62.i
Client Sample ID: SSTD020

Compound: a,a-Dimethylphenethylamine
CAS Number: 122-09-8

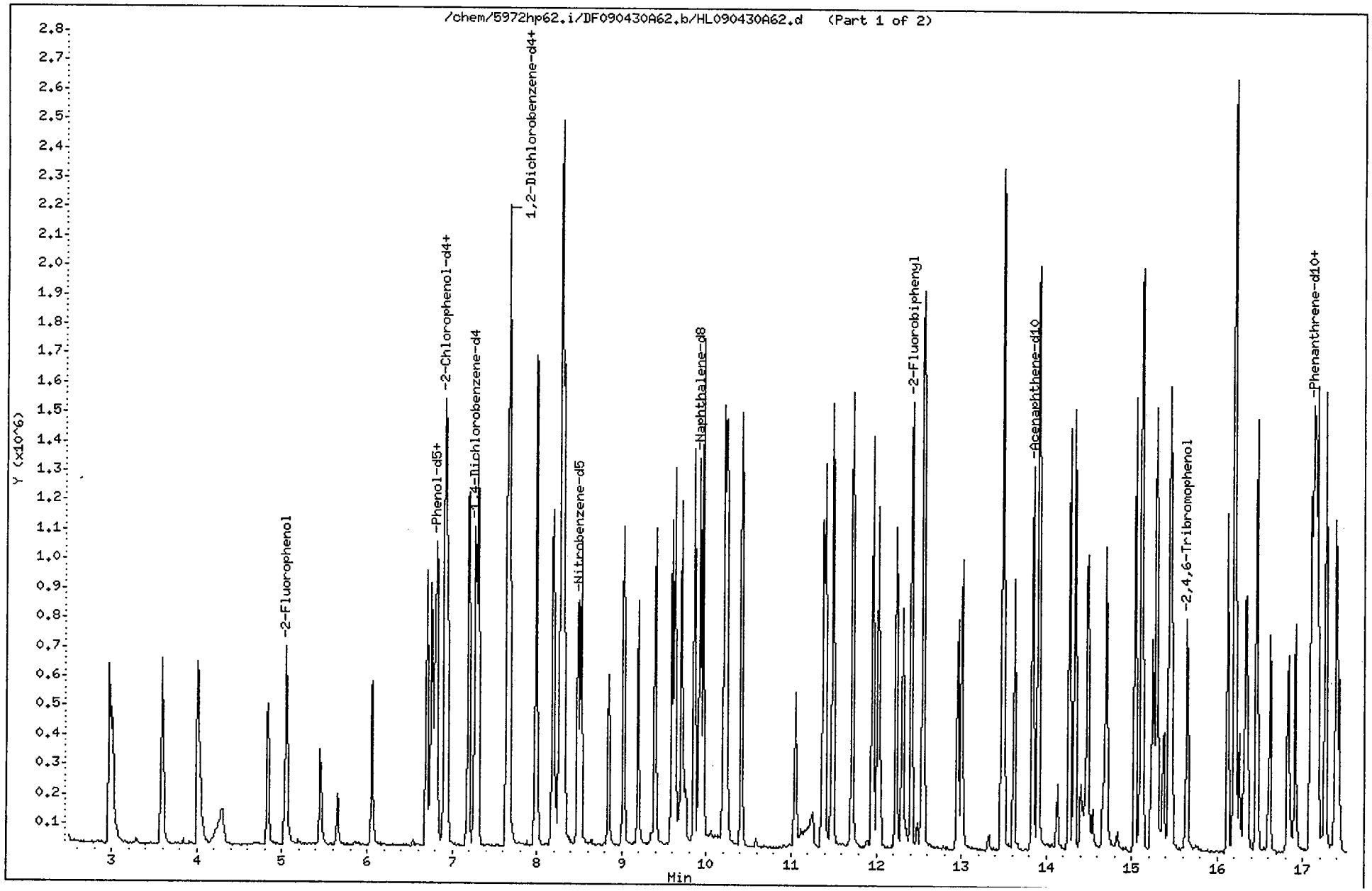






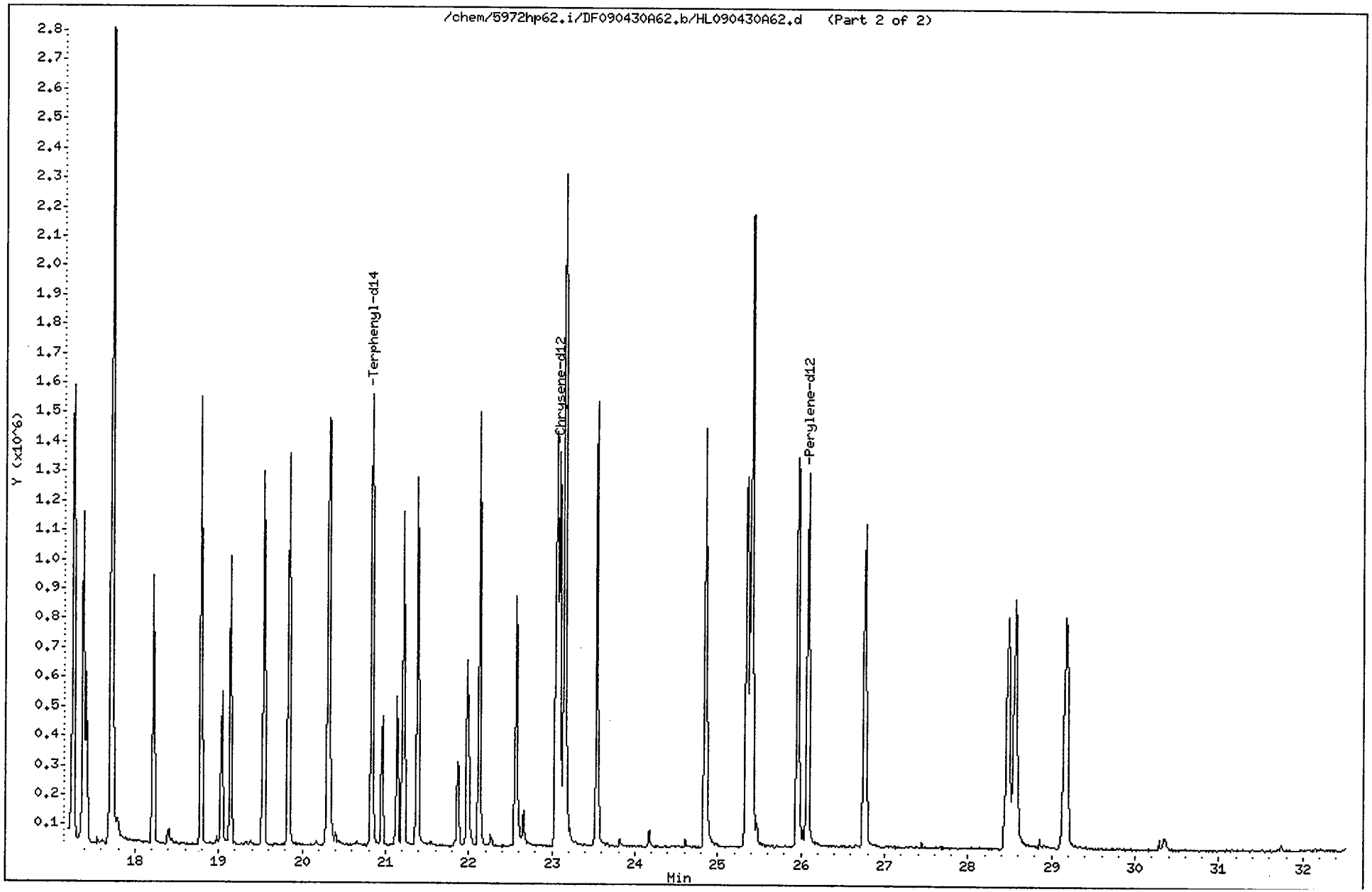
Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Date : 30-APR-2009 19:51
Client ID: SSTD050
Sample Info: SSTD050:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Date : 30-APR-2009 19:51
Client ID: SSTD050
Sample Info: SSTD050:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 30-APR-2009 19:51
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD050:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:45 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	283516	40.0000		
*	2 Naphthalene-d8	136	9.919	9.919	(1.000)	970574	40.0000		
*	3 Acenaphthene-d10	164	13.839	13.839	(1.000)	472682	40.0000		
*	4 Phenanthrene-d10	188	17.114	17.114	(1.000)	766981	40.0000		
*	5 Chrysene-d12	240	23.092	23.092	(1.000)	911521	40.0000		
*	6 Perylene-d12	264	26.081	26.081	(1.000)	993529	40.0000		
$	7 2-Fluorophenol	112	5.047	5.047	(0.694)	366520	50.0000	52	
$	8 Phenol-d5	99	6.797	6.797	(0.935)	445829	50.0000	52	
$	9 2-Chlorophenol-d4	132	6.910	6.910	(0.951)	369166	50.0000	51	9307
$	10 1,2-Dichlorobenzene-d4	152	7.646	7.646	(1.052)	297464	50.0000	51	9546
$	11 Nitrobenzene-d5	82	8.486	8.486	(0.856)	469879	50.0000	52	
$	12 2-Fluorobiphenyl	172	12.416	12.416	(0.897)	772277	50.0000	51	
$	13 2,4,6-Tribromophenol	330	15.640	15.640	(1.130)	224191	50.0000	51	
$	14 Terphenyl-d14	244	20.840	20.840	(0.902)	868774	50.0000	50	
	15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	206405	50.0000	56	8351

Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.408)	485818	50.0000	58	9242
17 Ethylmethacrylate	69	3.593	3.593	(0.494)	327925	50.0000	54	9071
18 2-Picoline	93	4.003	4.003	(0.551)	444623	50.0000	52	8922
19 Nitrosomethylethylamine	88	4.299	4.299	(0.592)	159723	50.0000	53	8736
20 Methyl Methanesulfonate	80	4.832	4.832	(0.665)	302891	50.0000	54	9000
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.749)	126358	50.0000	51	9278
22 Ethyl Methanesulfonate	79	6.060	6.060	(0.834)	375210	50.0000	55	9170
23 Phenol	94	6.828	6.828	(0.939)	474901	50.0000	54	
24 Aniline	93	6.756	6.756	(0.930)	602734	50.0000	52	7150
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.952)	402611	50.0000	53	
26 Pentachloroethane	167	6.705	6.705	(0.923)	209920	50.0000	53	9354
27 2-Chlorophenol	128	6.940	6.940	(0.955)	409299	50.0000	51	9205
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.990)	519157	50.0000	52	
29 1,4-Dichlorobenzene	146	7.298	7.298	(1.004)	527554	50.0000	52	
30 Benzyl Alcohol	108	7.667	7.667	(1.055)	233281	50.0000	51	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.055)	465541	50.0000	52	
32 2-Methylphenol	108	7.984	7.984	(1.099)	324997	50.0000	51	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.100)	527476	50.0000	55	8888
34 N-Nitrosopyrrolidine	100	8.209	8.209	(1.130)	97332	50.0000	63	3710(H)
35 3-Methylphenol	108	8.312	8.312	(1.144)	717075	100.000	100	
36 4-Methylphenol	108	8.312	8.312	(1.144)	717075	100.000	100	
37 3-4-Methylphenol	108	8.312	8.312	(1.144)	717075	100.000	100	9158
38 N-Nitroso-di-N-propylamine	70	8.291	8.291	(1.141)	155623	50.0000	52	8568
39 Acetophenone	105	8.189	8.189	(0.826)	547805	50.0000	50	0(M)
40 N-Nitrosomorpholine	116	8.261	8.261	(1.137)	42310	50.0000	56	0(M)
41 o-Toluidine	106	8.281	8.281	(1.139)	508080	50.0000	51	8420
42 Hexachloroethane	117	8.271	8.271	(1.138)	226283	50.0000	53	9704
43 Nitrobenzene	77	8.517	8.517	(0.859)	454365	50.0000	52	9052
44 N-Nitrosopiperidine	114	8.844	8.844	(0.892)	166143	50.0000	49	9049
45 Isophorone	82	9.018	9.018	(0.909)	761370	50.0000	52	8874
46 2-Nitrophenol	139	9.192	9.192	(0.927)	233324	50.0000	49	8794
47 2,4-Dimethylphenol	122	9.397	9.397	(0.947)	286934	50.0000	48	8881
48 Benzoic Acid	122	9.755	9.755	(0.983)	182597	250.000	250	7554(AM)
49 o,o,o-Triethylphosphorothioat	198	9.632	9.632	(0.971)	175136	50.0000	50	8893
50 Bis(2-chloroethoxy)methane	93	9.591	9.591	(0.967)	551973	50.0000	52	9040
51 2,4-Dichlorophenol	162	9.704	9.704	(0.978)	352964	50.0000	51	
52 1,2,4-Trichlorobenzene	180	9.857	9.857	(0.994)	432643	50.0000	50	
53 Naphthalene	128	9.960	9.960	(1.004)	1134987	50.0000	52	9475
54 4-Chloroaniline	127	10.216	10.216	(1.030)	462622	50.0000	51	8550
55 2,6-Dichlorophenol	162	10.205	10.205	(1.029)	334653	50.0000	50	
56 Hexachloropropene	213	10.236	10.236	(1.032)	326370	50.0000	50	9456
57 Hexachlorobutadiene	225	10.410	10.410	(1.050)	274542	50.0000	50	9224
58 N-Nitroso-di-n-butylamine	84	11.055	11.055	(1.115)	146059	50.0000	51	8848
59 p-Phenylenediamine	108	11.116	11.116	(0.803)	1391	50.0000	11	(aMH)
60 4-Chloro-3-methylphenol	107	11.372	11.372	(1.147)	327427	50.0000	52	8449
61 Safrole	162	11.403	11.403	(1.150)	286766	50.0000	50	9423
62 2-Methylnaphthalene	141	11.485	11.485	(1.158)	592529	50.0000	52	

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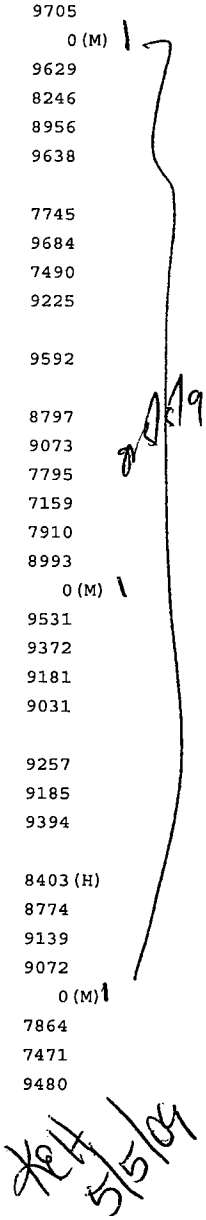
Data File: /chem/5972hp62.i/DF090430A62.b/HL090430A62.d
Report Date: 05-May-2009 10:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.720	11.720	(1.182)	697054	50.0000	51	
64 Hexachlorocyclopentadiene	237	12.027	12.027	(0.869)	331884	50.0000	52	9517
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.956	(0.864)	446726	50.0000	52	9367
66 2,4,6-Trichlorophenol	196	12.232	12.232	(0.884)	249212	50.0000	51	
67 2,4,5-Trichlorophenol	196	12.314	12.314	(0.890)	260310	50.0000	48	
68 Isosafrole	162	12.048	12.048	(0.871)	48954	50.0000	52	
69 2-Chloronaphthalene	162	12.549	12.549	(0.907)	963960	50.0000	52	
70 2-Nitroaniline	65	12.959	12.959	(0.936)	223962	50.0000	53	8724
71 1,4-Napthoquinone	158	13.010	13.010	(0.940)	304978	50.0000	53	9093
72 Dimethylphthalate	163	13.501	13.501	(0.976)	730023	50.0000	51	9705
73 1,3-Dinitrobenzene	168	13.491	13.491	(0.975)	138402	50.0000	51	0 (M)
74 2,6-Dinitrotoluene	165	13.624	13.624	(0.984)	209392	50.0000	52	9629
75 Acenaphthylene	152	13.481	13.481	(0.974)	1025793	50.0000	51	8246
76 3-Nitroaniline	138	13.900	13.900	(1.004)	175571	50.0000	52	8956
77 Acenaphthene	154	13.911	13.911	(1.005)	588398	50.0000	52	9638
78 2,4-Dinitrophenol	184	14.126	14.126	(1.021)	56445	50.0000	40	
79 4-Nitrophenol	139	14.402	14.402	(1.041)	126007	50.0000	47	7745
80 Pentachlorobenzene	250	14.330	14.330	(1.036)	434692	50.0000	52	9684
81 2,4-Dinitrotoluene	165	14.484	14.484	(1.047)	248758	50.0000	52	7490
82 Dibenzofuran	168	14.269	14.269	(1.031)	990046	50.0000	53	9225
83 1-Naphthylamine	143	14.494	14.494	(1.047)	191570	50.0000	50	
84 2,3,4,6-Tetrachlorophenol	232	14.699	14.699	(1.062)	218949	50.0000	51	9592
85 2-Naphthylamine	143	14.668	14.668	(1.060)	173379	50.0000	42	
86 Diethylphthalate	149	15.108	15.108	(1.092)	765445	50.0000	50	8797
87 Zinophos	97	15.282	15.282	(1.104)	200735	50.0000	50	9073
88 4-Chlorophenyl-phenylether	204	15.118	15.118	(1.092)	385914	50.0000	52	7795
89 5-Nitro-o-toluidine	152	15.241	15.241	(1.101)	216277	50.0000	50	7159
90 Fluorene	166	15.037	15.037	(1.087)	751400	50.0000	52	7910
91 4-Nitroaniline	138	15.303	15.303	(1.106)	189976	50.0000	51	8993
92 4,6-Dinitro-2-methylphenol	198	15.374	15.374	(0.898)	104878	50.0000	43	0 (M)
93 N-Nitrosodiphenylamine	169	15.436	15.436	(0.902)	565107	50.0000	51	9531
95 1,2-Diphenylhydrazine	77	15.456	15.456	(1.117)	959775	50.0000	55	9372
96 Sulfotep	322	16.122	16.122	(1.165)	145019	50.0000	50	9181
97 1,3,5-Trinitrobenzene	75	16.255	16.255	(0.950)	179676	50.0000	41	9031
98 Diallate (trans isomer)	86	16.193	16.193	(0.946)	252070	25.0000	26	
99 Diallate (trans) part of total	86	16.193	16.193	(0.946)	252070	25.0000	26	9257
100 Phorate	75	16.203	16.203	(0.947)	510003	50.0000	53	9185
101 Phenacetin	108	16.337	16.337	(0.955)	397197	50.0000	52	9394
102 Diallate (cis isomer)	86	16.357	16.357	(0.956)	80804	25.0000	26	
103 Diallate (cis) part of total	86	16.357	16.357	(0.956)	80804	25.0000	26	8403 (H)
104 4-Bromophenyl-phenylether	248	16.193	16.193	(0.946)	249721	50.0000	50	8774
105 Hexachlorobenzene	284	16.459	16.459	(0.962)	397581	50.0000	51	9139
106 Dimethoate	87	16.613	16.613	(0.971)	264006	50.0000	54	9072
107 4-Aminobiphenyl	169	16.828	16.828	(0.983)	485604	50.0000	47	0 (M)
108 Pentachlorophenol	266	16.910	16.910	(0.988)	174315	50.0000	47	7864
109 Pentachloronitrobenzene	237	17.094	17.094	(0.999)	118547	50.0000	48	7471
110 Pronamide	173	17.135	17.135	(1.001)	351015	50.0000	51	9480



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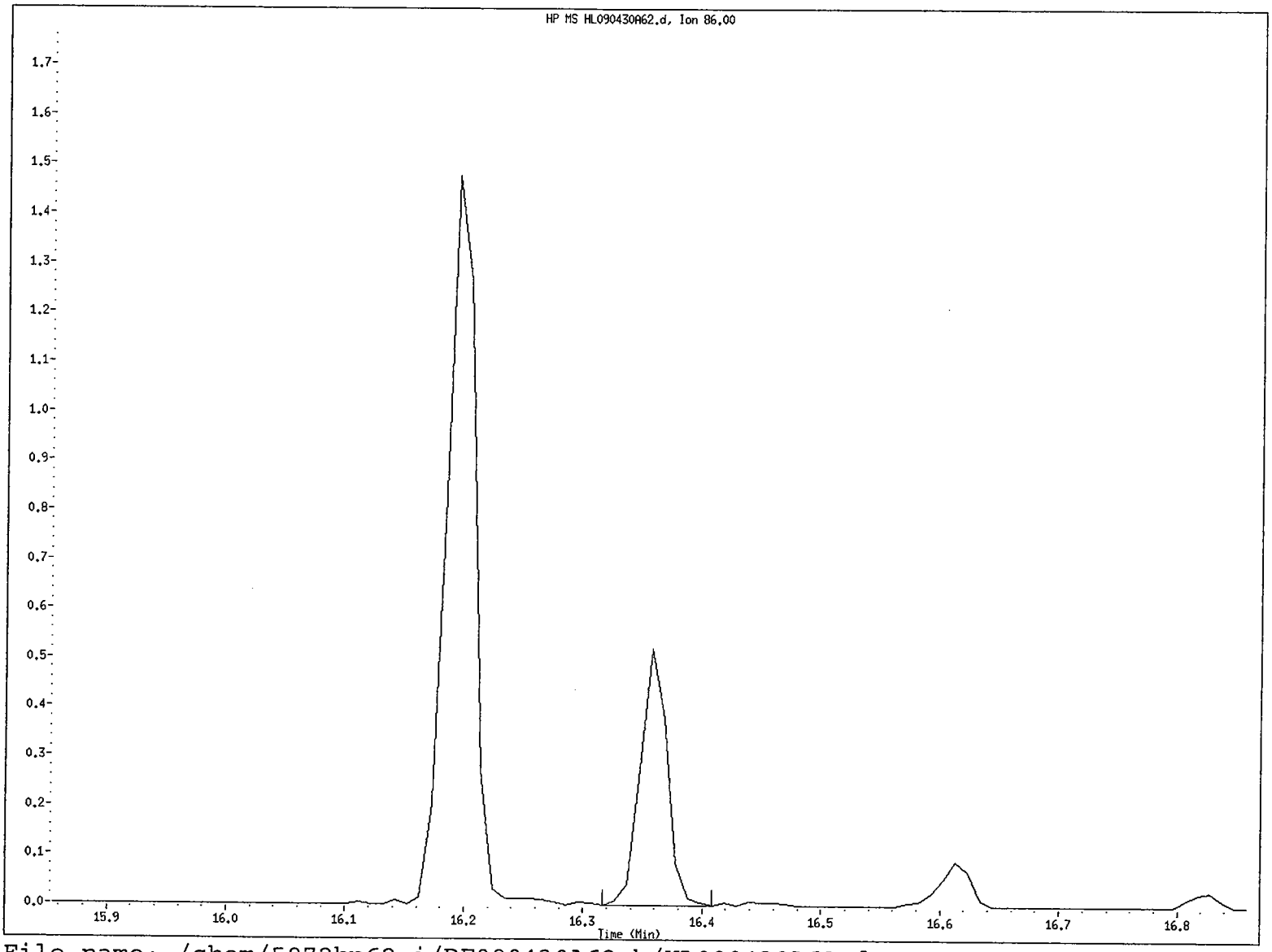
Report Date: 05-May-2009 10:45

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.381	17.381	(1.016)	388928	50.0000	52	9277
112	Phenanthrene	178	17.166	17.166	(1.003)	1051858	50.0000	52	
113	Anthracene	178	17.268	17.268	(1.009)	1098231	50.0000	52	
114	Carbazole	167	17.739	17.739	(1.036)	2650926	50.0000	53	9599
115	Methyl Parathion	109	18.220	18.220	(1.065)	258043	50.0000	55	9202
116	Di-n-butylphthalate	149	18.793	18.793	(1.098)	1351119	50.0000	50	9591
117	Parathion	109	19.141	19.141	(1.118)	169573	50.0000	51	8174
118	4-Nitroquinoline-1-oxide	190	19.039	19.039	(1.112)	99282	50.0000	50	9274
119	Methapyrilene	97	19.377	19.377	(1.132)	7390	50.0000	51	0(M)
120	Isodrin	193	19.540	19.540	(1.142)	150293	50.0000	50	9424
121	Fluoranthene	202	19.847	19.847	(1.160)	1076189	50.0000	51	9571
122	Benzidine	184	20.298	20.298	(0.879)	233963	50.0000	48	8644(a)
123	Pyrene	202	20.328	20.328	(0.880)	1141246	50.0000	50	9696
124	p-Dimethylaminoazobenzene	225	21.219	21.219	(0.919)	227570	50.0000	52	9037
125	Chlorobenzilate	251	21.383	21.383	(0.926)	362060	50.0000	48	9467
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.130	22.130	(0.958)	609556	50.0000	50	9475
129	3,3'-Dimethylbenzidine	212	21.987	21.987	(0.952)	393459	50.0000	48	9337
130	2-Acetylaminofluorene	181	22.570	22.570	(0.977)	389226	50.0000	48	9118
131	3,3'-Dichlorobenzidine	252	23.164	23.164	(1.003)	427946	50.0000	52	8275
132	bis(2-ethylhexyl)Phthalate	149	23.542	23.542	(1.020)	817202	50.0000	50	9224
133	Benzo(a)anthracene	228	23.061	23.061	(0.999)	1119535	50.0000	52	
134	Chrysene	228	23.153	23.153	(1.003)	1010927	50.0000	52	
135	Di-n-octylphthalate	149	24.853	24.853	(0.953)	1426387	50.0000	51	
136	7,12-Dimethylbenz(a)anthracene	256	25.416	25.416	(0.974)	513077	50.0000	52	8528
137	Benzo(b)fluoranthene	252	25.354	25.354	(0.972)	1197387	50.0000	48	(H)
138	Benzo(k)fluoranthene	252	25.395	25.395	(0.974)	1182188	50.0000	54	
139	Benzo(a)pyrene	252	25.968	25.968	(0.996)	1097577	50.0000	51	
140	3-Methylcholanthrene	268	26.767	26.767	(1.026)	607030	50.0000	51	9616
141	Indeno(1,2,3-c,d)pyrene	276	28.486	28.486	(1.092)	982350	50.0000	49	0(M)
142	Dibenzo(a,h)anthracene	278	28.568	28.568	(1.095)	1022393	50.0000	52	7634
143	Benzo(g,h,i)perylene	276	29.172	29.172	(1.119)	1080711	50.0000	50	9207
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				332874	50.0000	52	0
201	a,a-Dimethylphenethylamine	58	10.113	10.113	(1.020)	170257	50.0000	20	7179(aM)
202	Aramite	185	21.137	21.137	(0.915)	66235	50.0000	48	9008(H)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 80804 User selected



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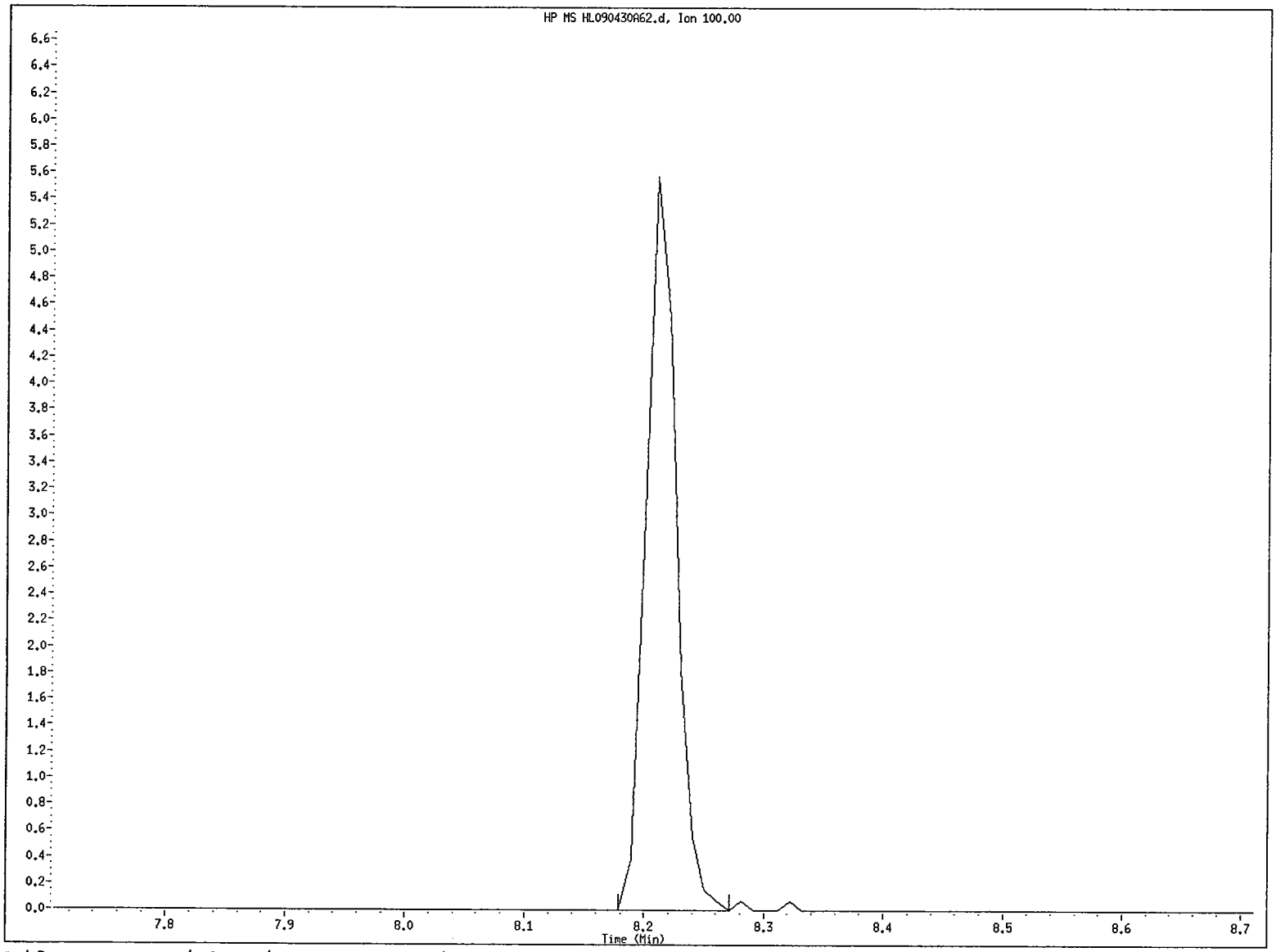
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 16.36
Operator ID: 2650

N-Nitrosopyrrolidine CAS Number 930-55-2 Area = 97332 User selected hit



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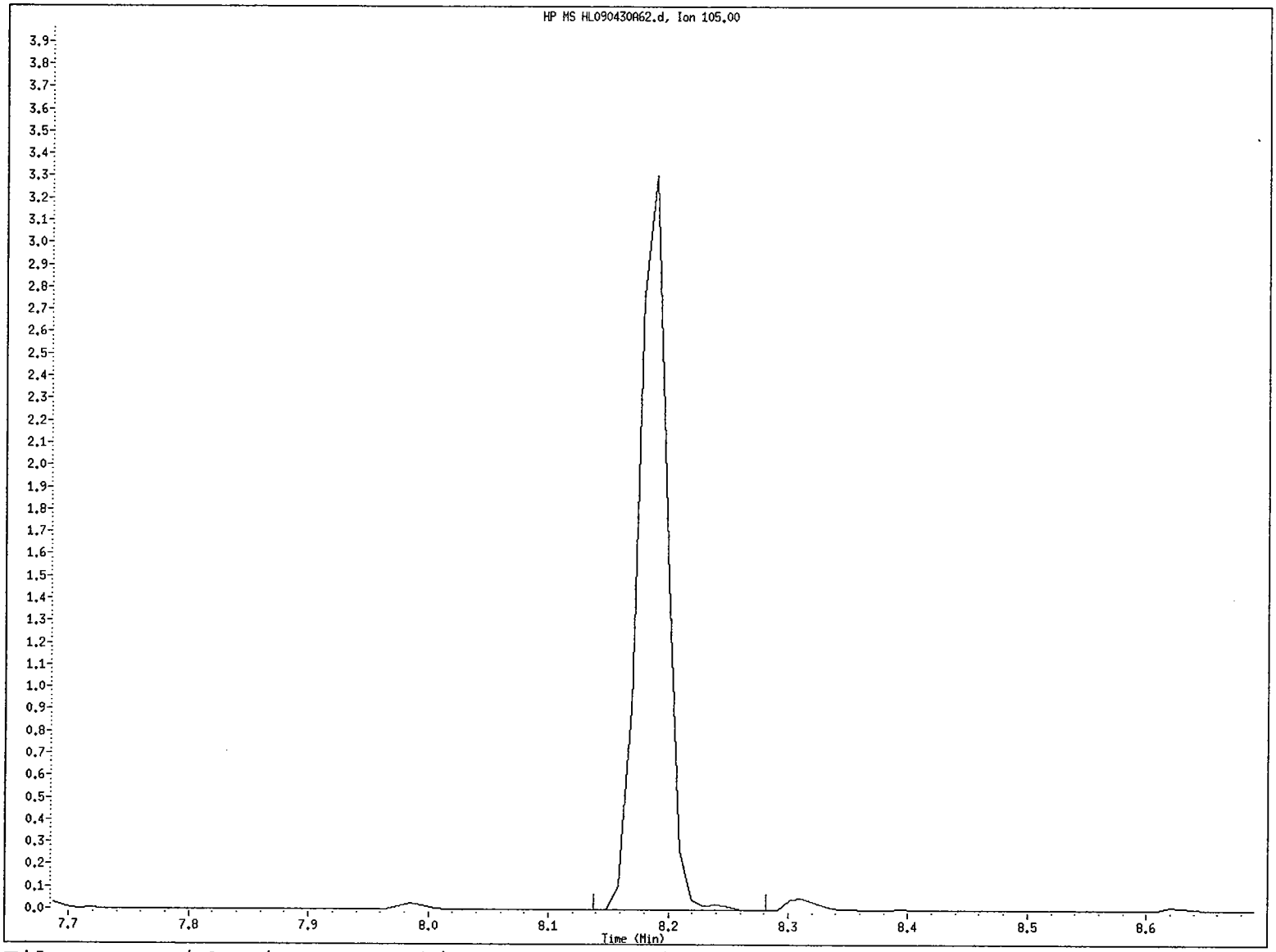
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 8.21
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 547805 Manually integrated



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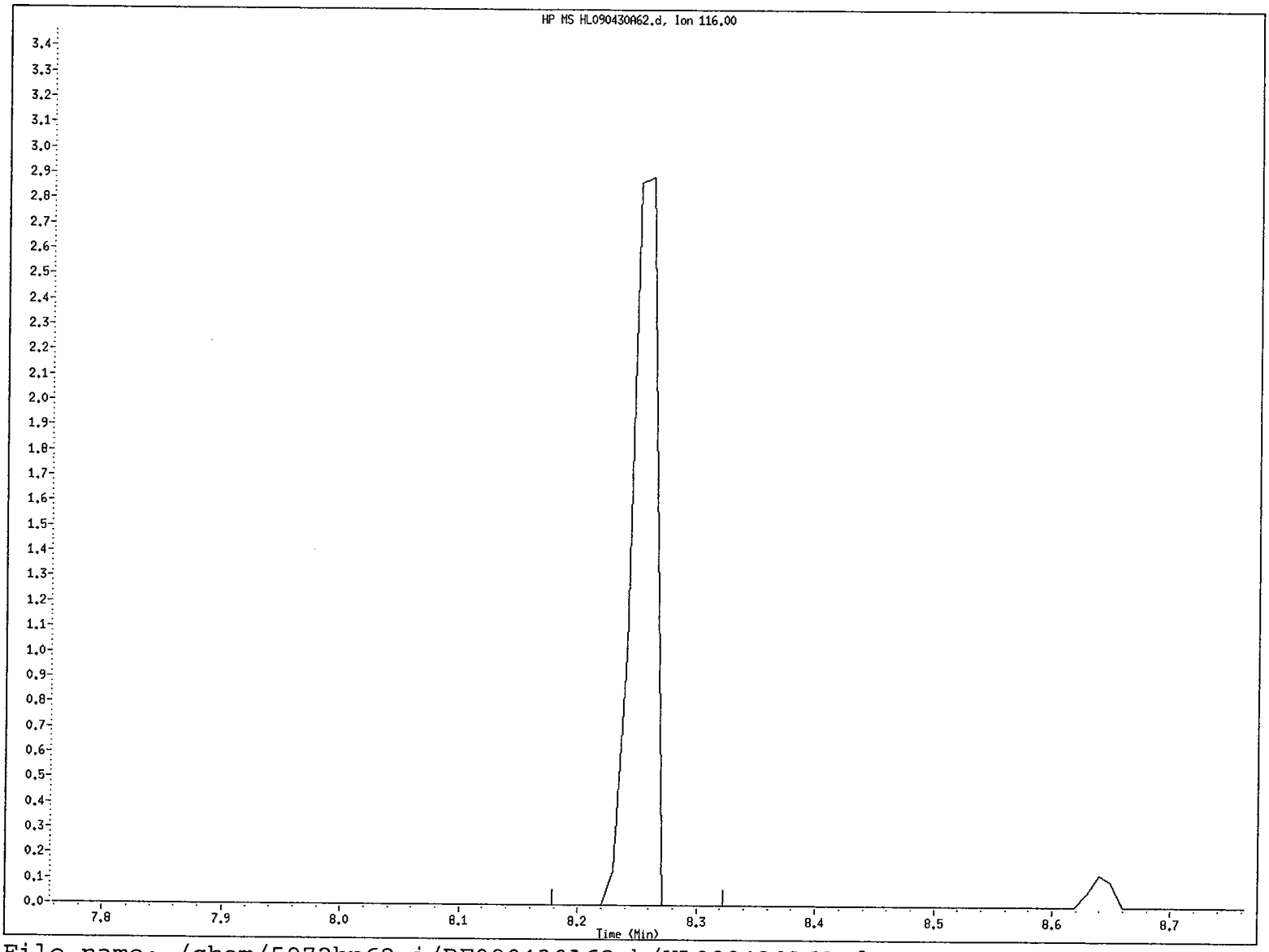
Retention Time: 8.19
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 42310 Manually integrated



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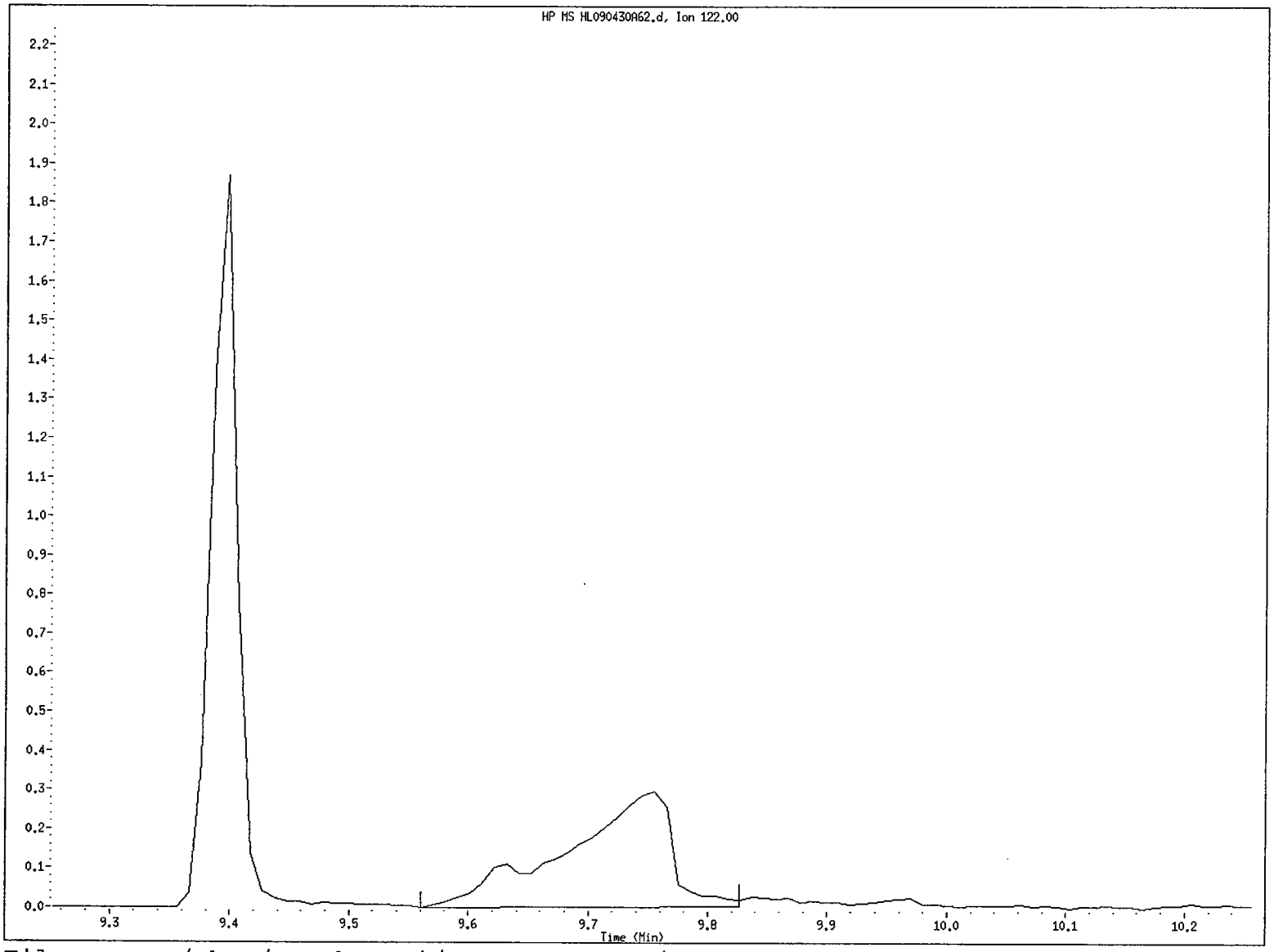
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 8.26
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 182597 Manually integrated



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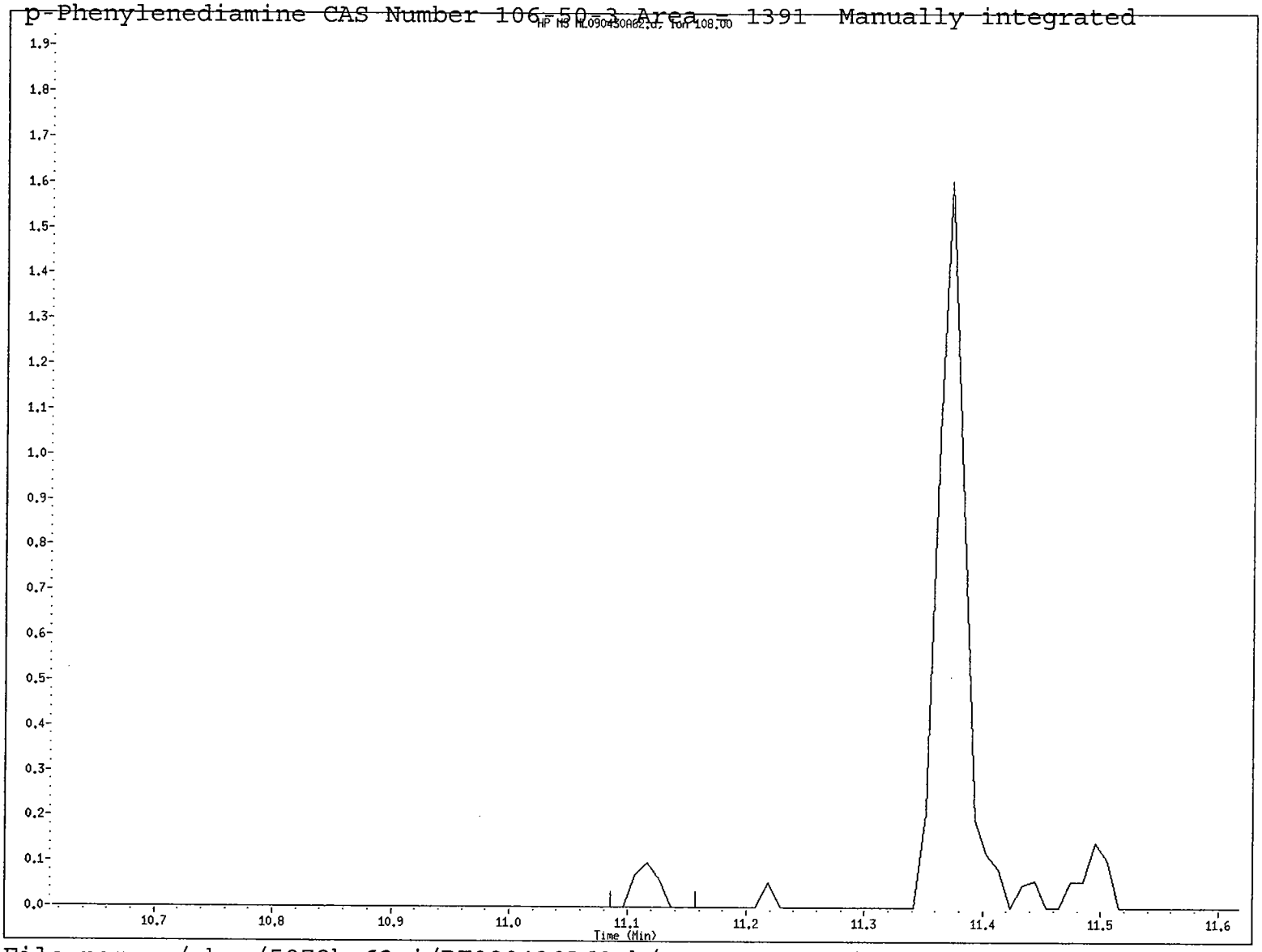
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 9.76
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 1391 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 1391 Manually integrated



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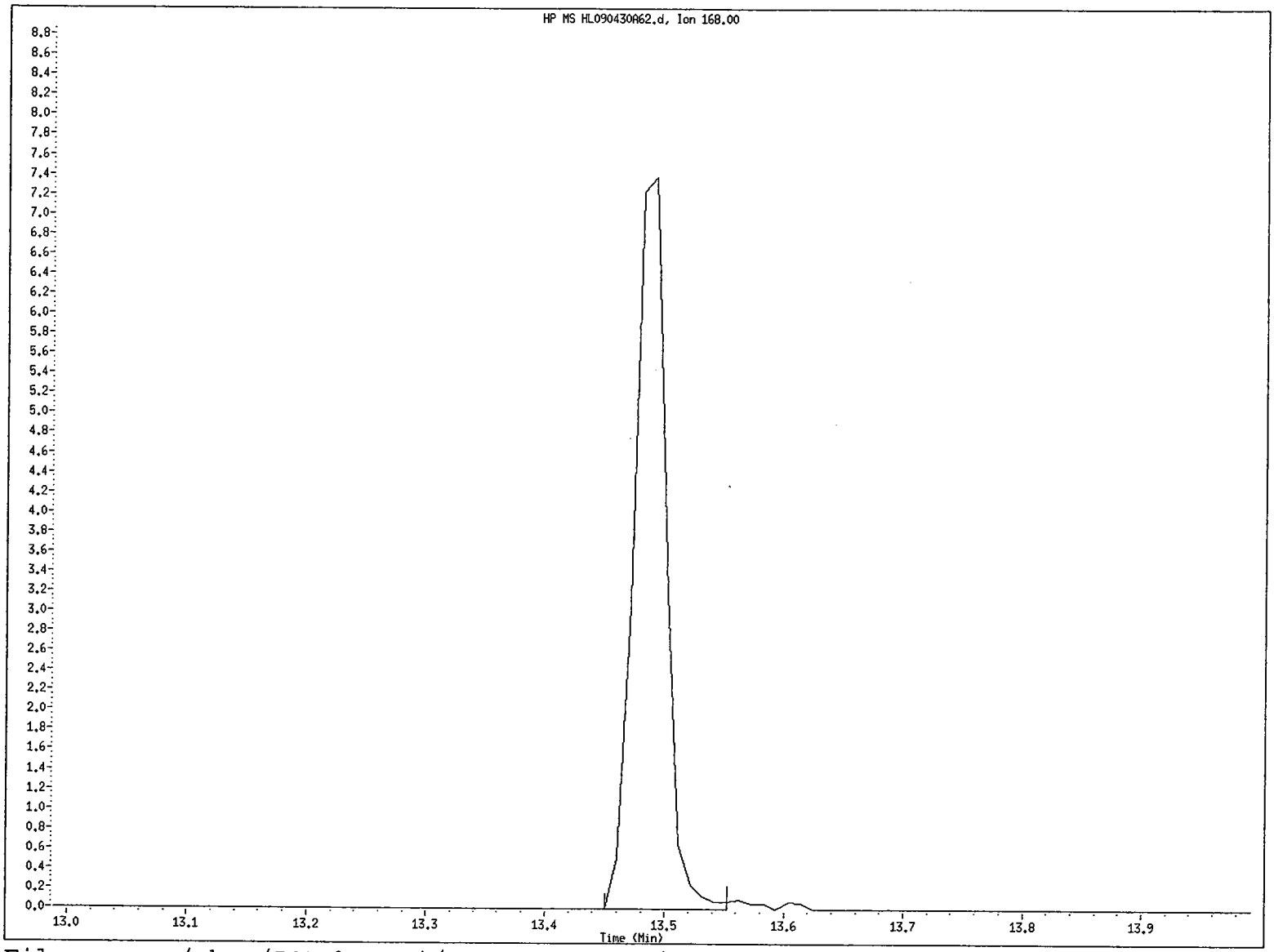
Retention Time: 11.12
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 138402 Manually integrated



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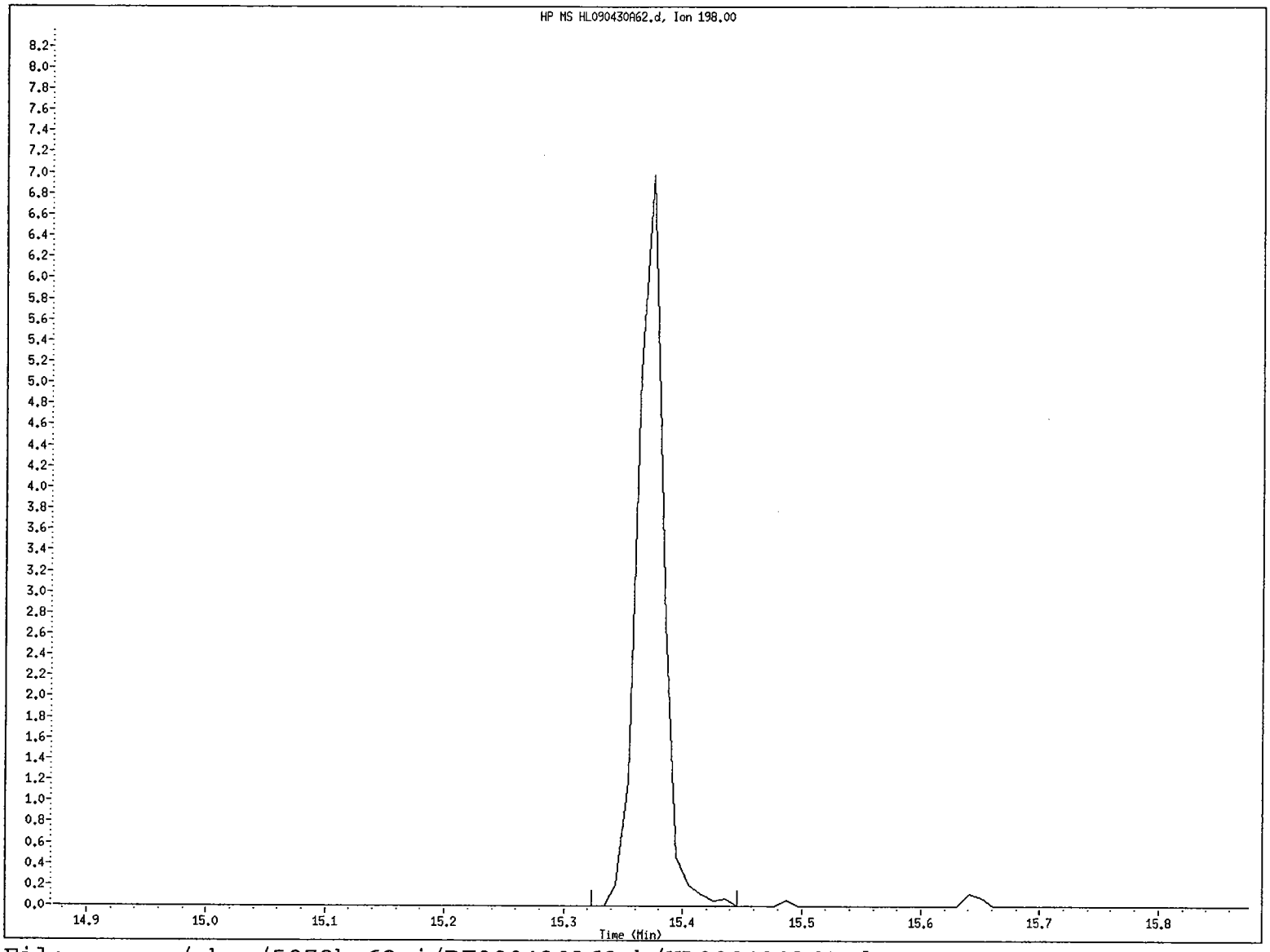
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 13.49
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 104878 Manually integrat



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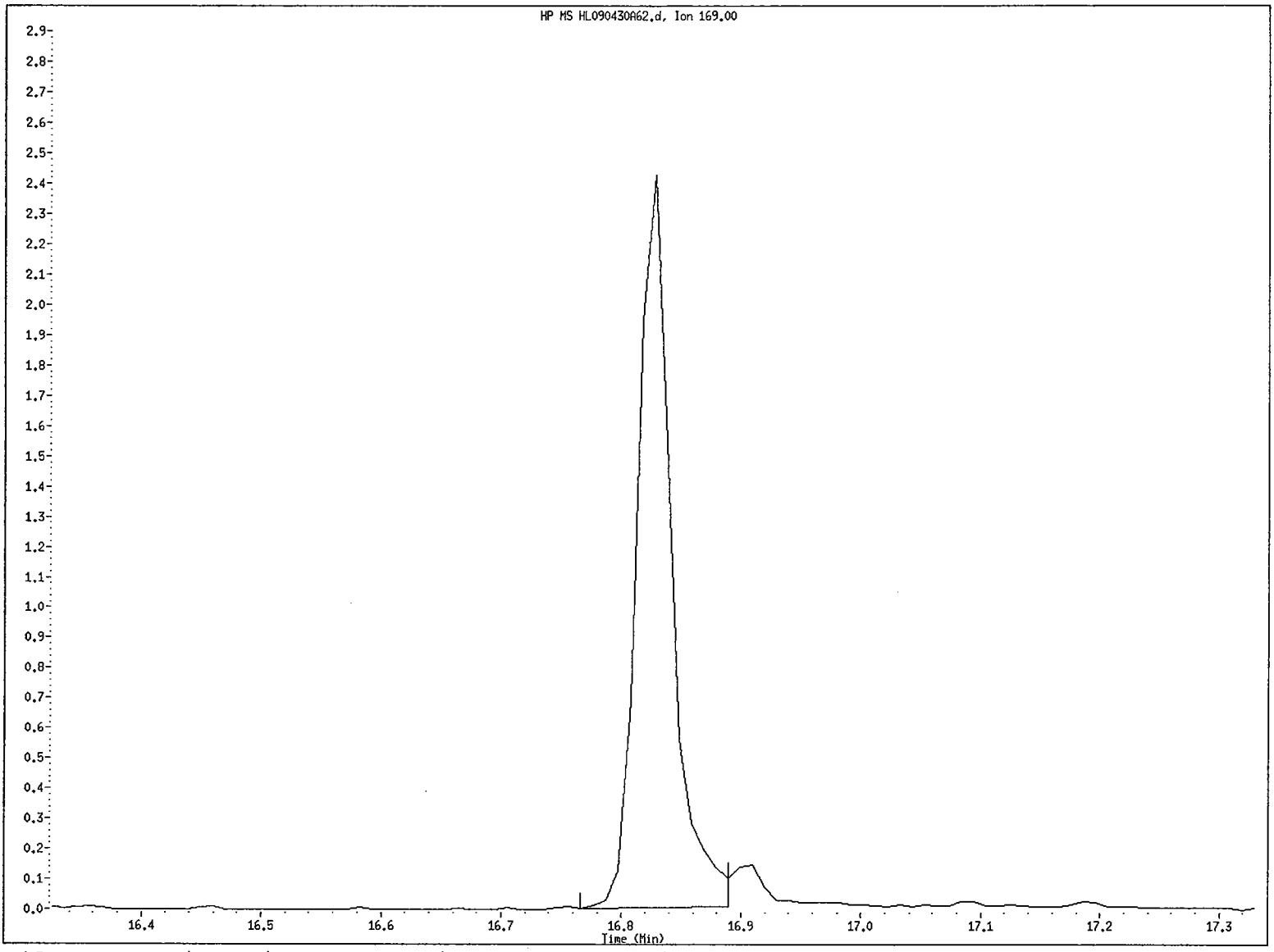
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 15.37
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 485604 Manually integrated



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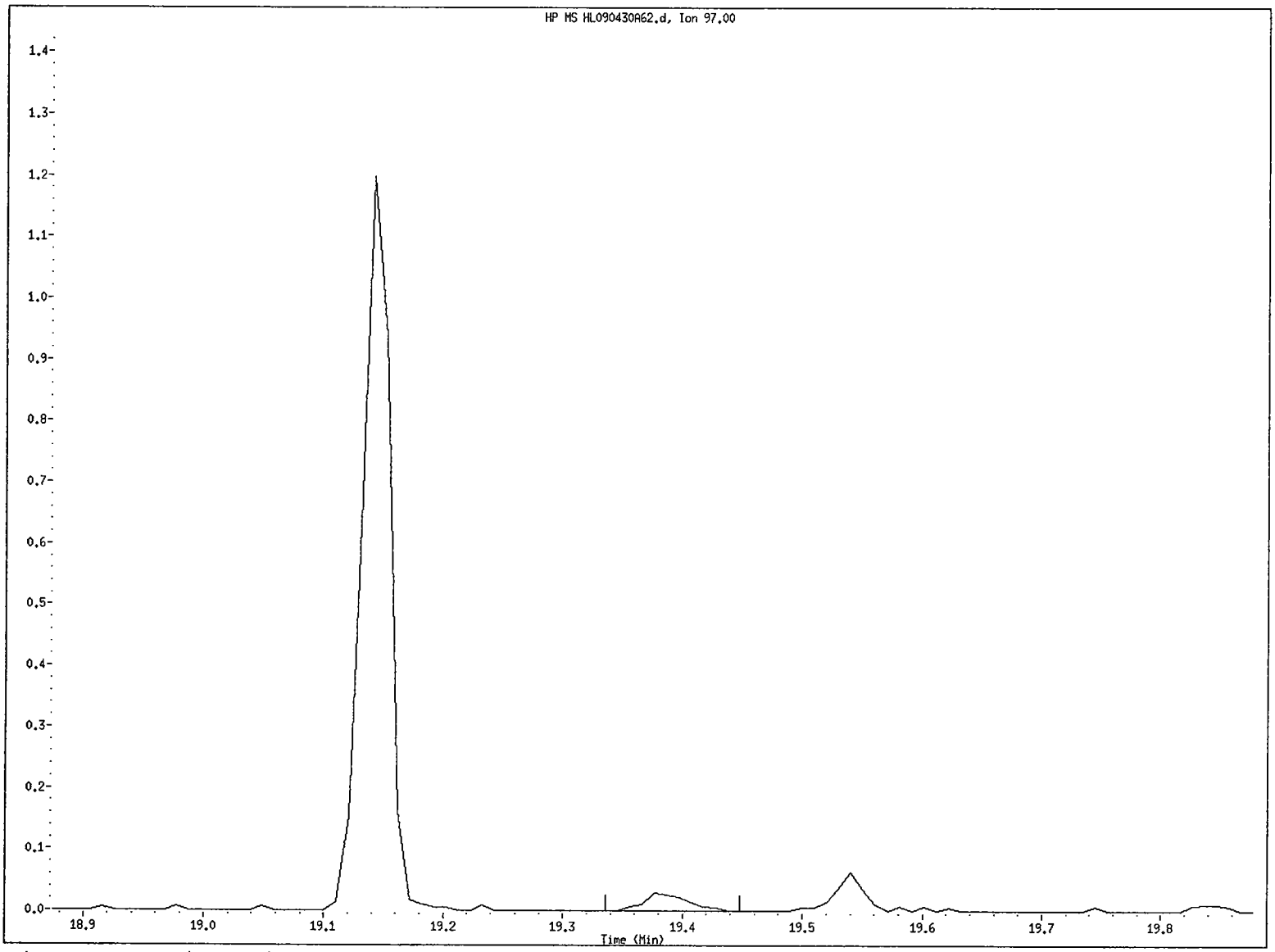
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 16.83
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 7390 Manually integrated



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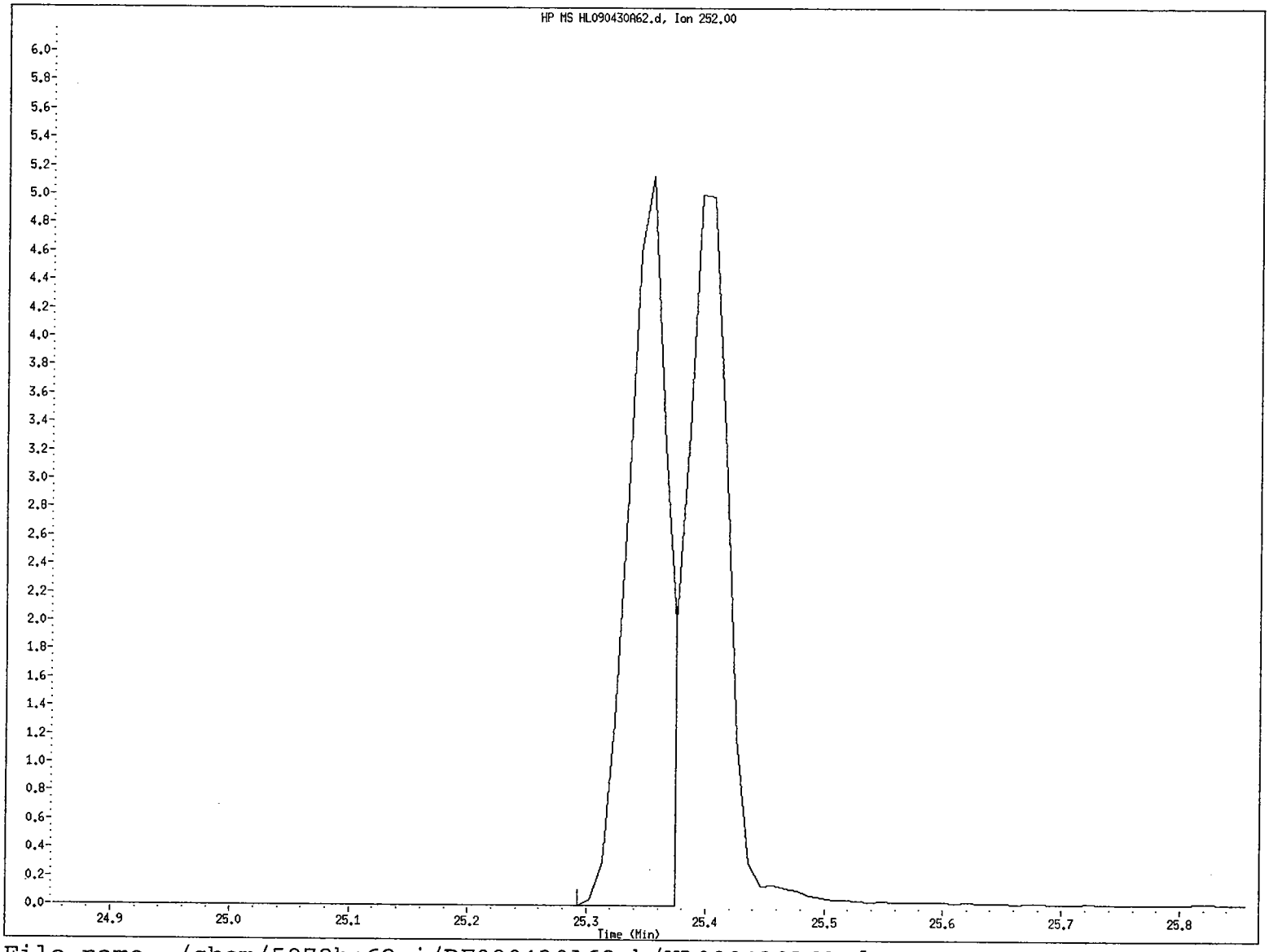
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 19.38
Operator ID: 2650

Benzo(b)fluoranthene CAS Number 205-99-2 Area = 1197387 User selected hit



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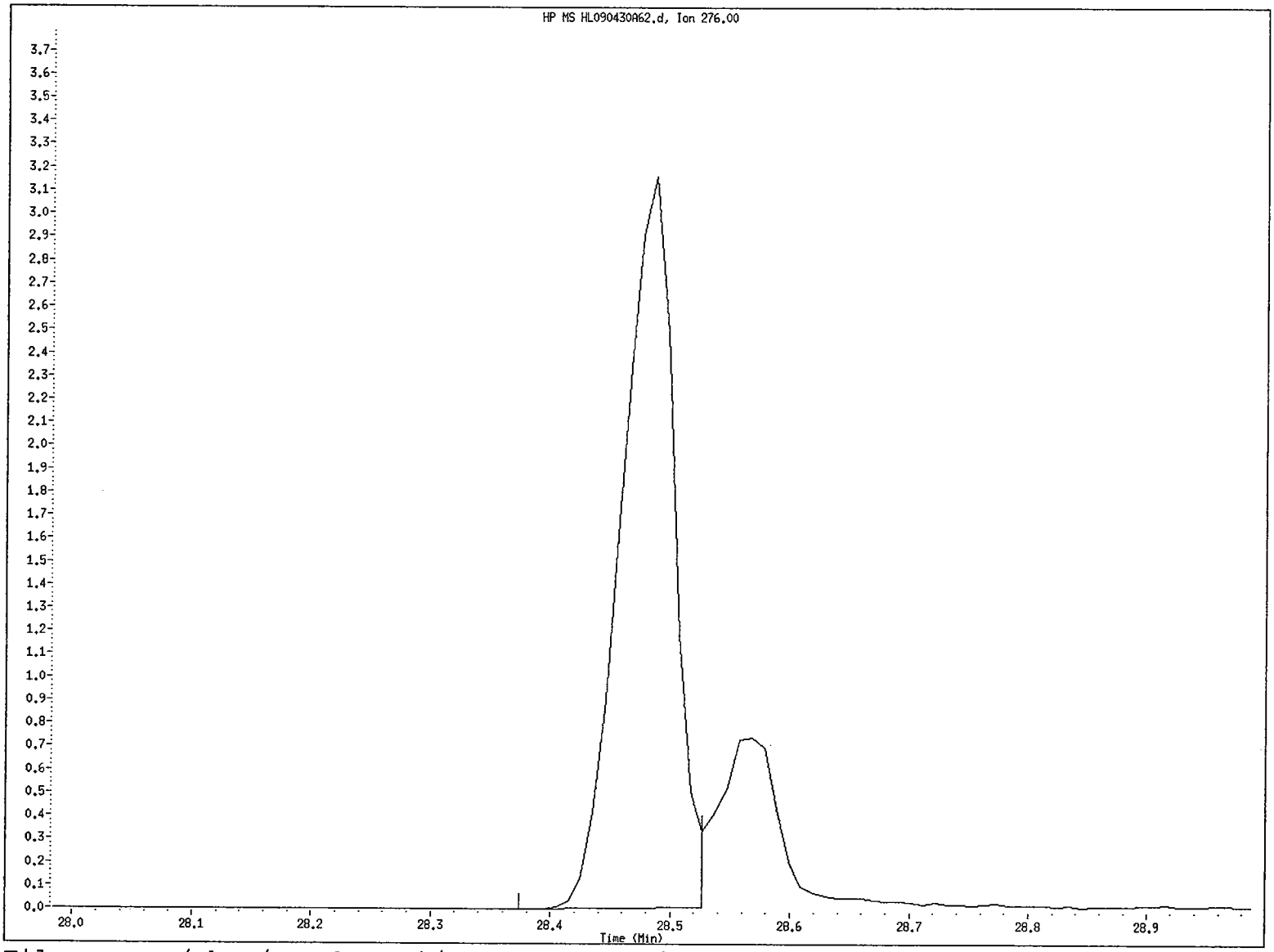
Client ID: SSTD050
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 25.35
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 982350 Manually integrated



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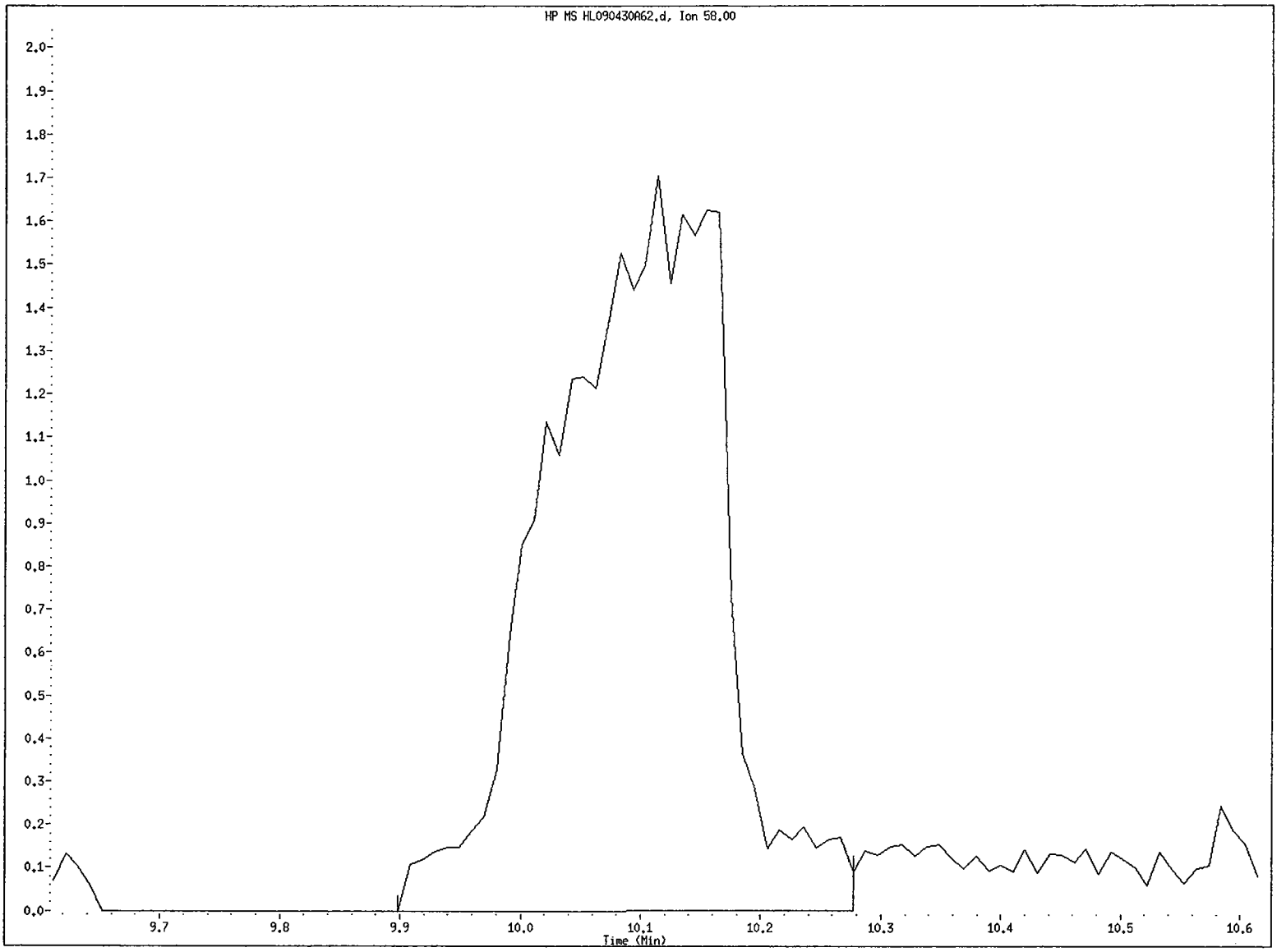
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 28.49
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 170257 Manually integrat



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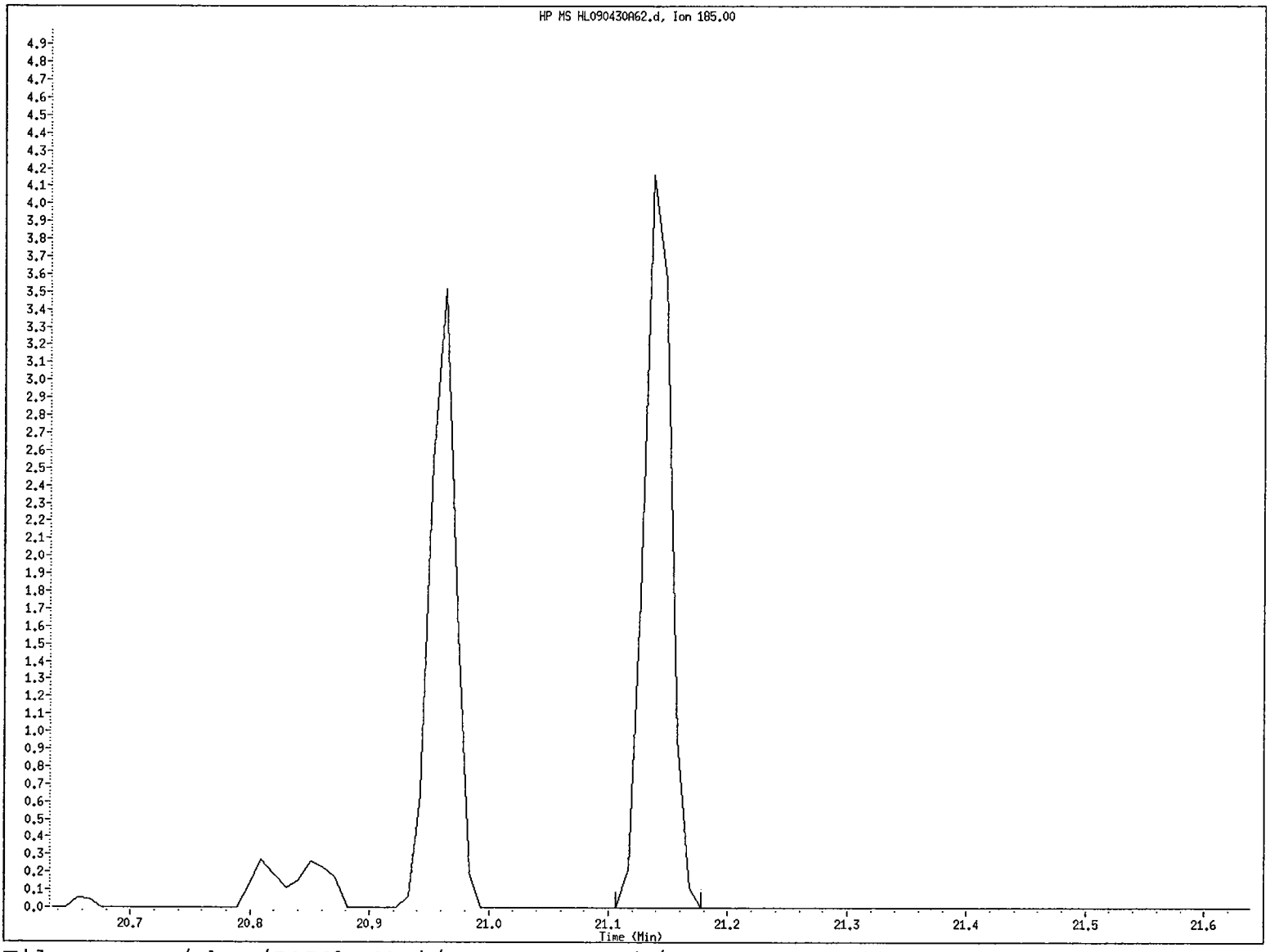
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 10.11
Operator ID: 2650

Aramite CAS Number 140-57-8 Area = 66235 User selected hit



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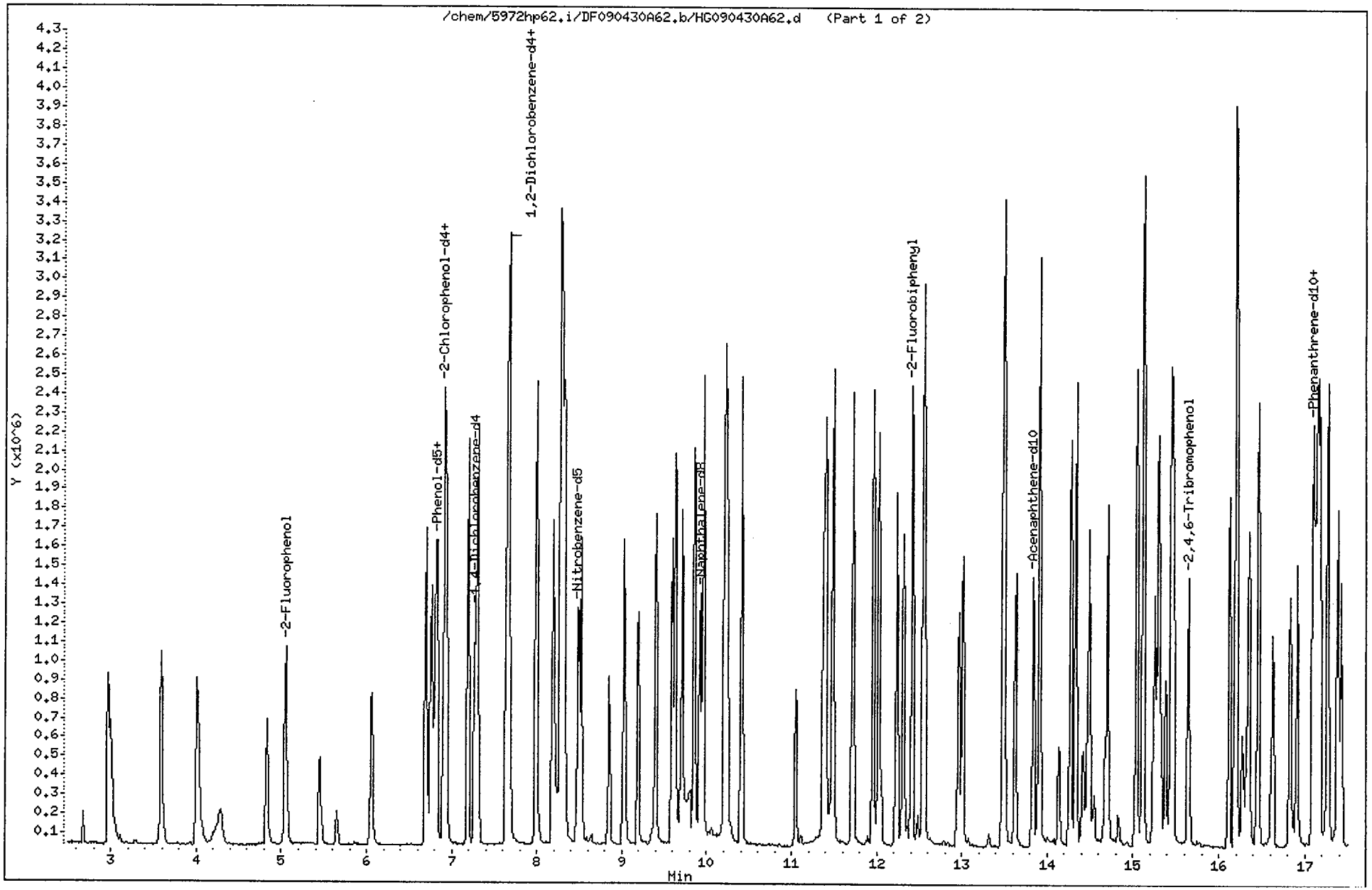
Injection Date and Time: 30-APR-2009 19:51
Retention Time: 21.14
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Date : 30-APR-2009 16:22
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



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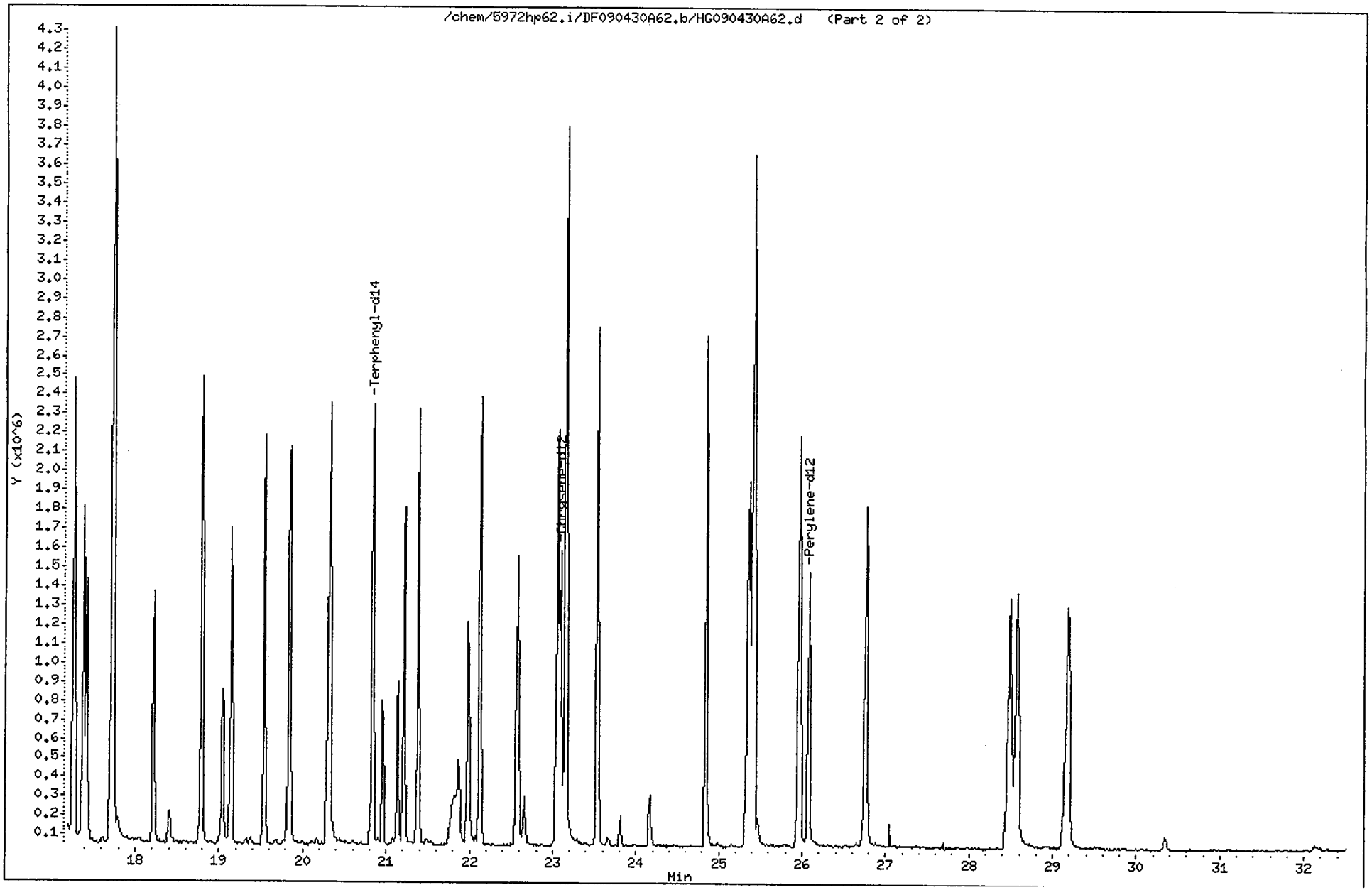
Date : 30-APR-2009 16:22
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 30-APR-2009 16:22
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:36 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 16:22 Cal File: HG090430A62.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.271	7.268	(1.000)	319327	40.0000		
*	2 Naphthalene-d8	136	9.922	9.919	(1.000)	1065188	40.0000		
*	3 Acenaphthene-d10	164	13.832	13.839	(1.000)	542950	40.0000		
*	4 Phenanthrene-d10	188	17.118	17.114	(1.000)	854097	40.0000		
*	5 Chrysene-d12	240	23.095	23.092	(1.000)	973733	40.0000		
*	6 Perylene-d12	264	26.084	26.081	(1.000)	1109664	40.0000		
$	7 2-Fluorophenol	112	5.050	5.047	(0.695)	621290	80.0000	79	
$	8 Phenol-d5	99	6.811	6.797	(0.937)	770057	80.0000	80	
$	9 2-Chlorophenol-d4	132	6.913	6.910	(0.951)	630149	80.0000	78	9137
$	10 1,2-Dichlorobenzene-d4	152	7.640	7.646	(1.051)	493058	80.0000	75	9492
$	11 Nitrobenzene-d5	82	8.479	8.486	(0.855)	747143	80.0000	75	
$	12 2-Fluorobiphenyl	172	12.409	12.416	(0.897)	1285123	80.0000	74	
$	13 2,4,6-Tribromophenol	330	15.644	15.640	(1.131)	388622	80.0000	77	
$	14 Terphenyl-d14	244	20.844	20.840	(0.902)	1432548	80.0000	78	
	15 N-Nitrosodimethylamine	42	3.003	3.010	(0.413)	311107	80.0000	75	8445

Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.962	2.969	(0.407)	772008	80.0000	83	9263
17 Ethylmethacrylate	69	3.586	3.593	(0.493)	516155	80.0000	76	9052
18 2-Picoline	93	4.006	4.003	(0.551)	745746	80.0000	78	8789
19 Nitrosomethylethylamine	88	4.293	4.299	(0.590)	276315	80.0000	81	8761 (M)
20 Methyl Methanesulfonate	80	4.835	4.832	(0.665)	471395	80.0000	75	9021
21 N-Nitrosodiethylamine	102	5.449	5.446	(0.749)	220696	80.0000	79	9059
22 Ethyl Methanesulfonate	79	6.063	6.060	(0.834)	570321	80.0000	74	9087
23 Phenol	94	6.831	6.828	(0.939)	782016	80.0000	78	
24 Aniline	93	6.759	6.756	(0.930)	1054837	80.0000	81	6718 (H)
25 Bis(2-chloroethyl)ether	93	6.913	6.920	(0.951)	643977	80.0000	75	
26 Pentachloroethane	167	6.698	6.705	(0.921)	347299	80.0000	78	9439
27 2-Chlorophenol	128	6.944	6.940	(0.955)	714819	80.0000	79	9081
28 1,3-Dichlorobenzene	146	7.189	7.196	(0.989)	899652	80.0000	80	
29 1,4-Dichlorobenzene	146	7.302	7.298	(1.004)	866539	80.0000	76	
30 Benzyl Alcohol	108	7.670	7.667	(1.055)	386440	80.0000	76	
31 1,2-Dichlorobenzene	146	7.670	7.667	(1.055)	771723	80.0000	77	
32 2-Methylphenol	108	7.998	7.984	(1.100)	532196	80.0000	74	
33 2,2'-oxybis(1-Chloropropane)	45	7.988	7.995	(1.099)	775888	80.0000	72	8753
34 N-Nitrosopyrrolidine	100	8.223	8.209	(1.131)	169309	80.0000	97	3865
35 3-Methylphenol	108	8.315	8.312	(1.144)	1175254	160.000	150	
36 4-Methylphenol	108	8.315	8.312	(1.144)	1175254	160.000	150	
37 3-4-Methylphenol	108	8.315	8.312	(1.144)	1177648	160.000	150	9241
38 N-Nitroso-di-N-propylamine	70	8.295	8.291	(1.141)	246580	80.0000	73	8828
39 Acetophenone	105	8.192	8.189	(0.826)	909981	80.0000	76	0 (M)
40 N-Nitrosomorpholine	116	8.264	8.261	(1.137)	65085	80.0000	77	0 (M)
41 o-Toluidine	106	8.285	8.281	(1.139)	823469	80.0000	73	8067
42 Hexachloroethane	117	8.274	8.271	(1.138)	372036	80.0000	77	9574
43 Nitrobenzene	77	8.520	8.517	(0.859)	741124	80.0000	78	8926
44 N-Nitrosopiperidine	114	8.847	8.844	(0.892)	288597	80.0000	78	9005
45 Isophorone	82	9.021	9.018	(0.909)	1225610	80.0000	76	8866
46 2-Nitrophenol	139	9.195	9.192	(0.927)	410631	80.0000	79	8818
47 2,4-Dimethylphenol	122	9.400	9.397	(0.947)	507567	80.0000	78	8866
48 Benzoic Acid	122	9.810	9.755	(0.989)	364989	400.000	450	7751 (A)
49 o,o,o-Triethylphosphorothioat	198	9.636	9.632	(0.971)	288614	80.0000	76	8819
50 Bis(2-chloroethoxy)methane	93	9.595	9.591	(0.967)	857740	80.0000	74	8994
51 2,4-Dichlorophenol	162	9.707	9.704	(0.978)	583532	80.0000	77	
52 1,2,4-Trichlorobenzene	180	9.851	9.857	(0.993)	736644	80.0000	78	
53 Naphthalene	128	9.963	9.960	(1.004)	1845296	80.0000	77	9268
54 4-Chloroaniline	127	10.219	10.216	(1.030)	768749	80.0000	77	8492
55 2,6-Dichlorophenol	162	10.209	10.205	(1.029)	562722	80.0000	77	
56 Hexachloropropene	213	10.240	10.236	(1.032)	561585	80.0000	78	9550
57 Hexachlorobutadiene	225	10.414	10.410	(1.050)	466150	80.0000	77	9093
58 N-Nitroso-di-n-butylamine	84	11.048	11.055	(1.113)	236695	80.0000	75	8973
59 p-Phenylenediamine	108	11.110	11.116	(0.803)	11341	80.0000	81	(aMH)
60 4-Chloro-3-methylphenol	107	11.376	11.372	(1.146)	506059	80.0000	74	9375
61 Safrole	162	11.396	11.403	(1.149)	486877	80.0000	78	9651
62 2-Methylnaphthalene	141	11.488	11.485	(1.158)	952905	80.0000	76	

Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.724	11.720	(1.182)	1166615	80.0000	78	
64 Hexachlorocyclopentadiene	237	12.021	12.027	(0.869)	588672	80.0000	81	9634
65 1,2,4,5-Tetrachlorobenzene	216	11.959	11.956	(0.865)	749958	80.0000	76	9460
66 2,4,6-Trichlorophenol	196	12.235	12.232	(0.885)	436094	80.0000	78	
67 2,4,5-Trichlorophenol	196	12.307	12.314	(0.890)	496470	80.0000	80	
68 Isosafrole	162	12.051	12.048	(0.871)	85958	80.0000	79	
69 2-Chloronaphthalene	162	12.553	12.549	(0.907)	1614932	80.0000	76	
70 2-Nitroaniline	65	12.962	12.959	(0.937)	356563	80.0000	74	8745
71 1,4-Napthoquinone	158	13.013	13.010	(0.941)	513058	80.0000	77	9130
72 Dimethylphthalate	163	13.505	13.501	(0.976)	1214718	80.0000	74	9671
73 1,3-Dinitrobenzene	168	13.494	13.491	(0.976)	227787	80.0000	74	0(M)
74 2,6-Dinitrotoluene	165	13.628	13.624	(0.985)	359372	80.0000	78	9501
75 Acenaphthylene	152	13.484	13.481	(0.975)	1735597	80.0000	75	8530
76 3-Nitroaniline	138	13.914	13.900	(1.006)	307018	80.0000	78	8684
77 Acenaphthene	154	13.904	13.911	(1.005)	969952	80.0000	74	9444
78 2,4-Dinitrophenol	184	14.139	14.126	(1.022)	163035	80.0000	99	
79 4-Nitrophenol	139	14.416	14.402	(1.042)	258002	80.0000	84	8878
80 Pentachlorobenzene	250	14.334	14.330	(1.036)	706459	80.0000	74	9713
81 2,4-Dinitrotoluene	165	14.487	14.484	(1.047)	417813	80.0000	76	7461
82 Dibenzofuran	168	14.272	14.269	(1.032)	1563580	80.0000	73	9157
83 1-Naphthylamine	143	14.487	14.494	(1.047)	340825	80.0000	78	
84 2,3,4,6-Tetrachlorophenol	232	14.702	14.699	(1.063)	397597	80.0000	80	9530
85 2-Naphthylamine	143	14.672	14.668	(1.061)	350381	80.0000	75	
86 Diethylphthalate	149	15.112	15.108	(1.092)	1270795	80.0000	73	8353
87 Zinophos	97	15.286	15.282	(1.105)	340740	80.0000	74	9138
88 4-Chlorophenyl-phenylether	204	15.122	15.118	(1.093)	625955	80.0000	73	7762
89 5-Nitro-o-toluidine	152	15.255	15.241	(1.103)	406523	80.0000	81	7187
90 Fluorene	166	15.040	15.037	(1.087)	1233893	80.0000	75	8105
91 4-Nitroaniline	138	15.316	15.303	(1.107)	341505	80.0000	80	9235
92 4,6-Dinitro-2-methylphenol	198	15.388	15.374	(0.899)	259814	80.0000	95	9063
93 N-Nitrosodiphenylamine	169	15.439	15.436	(0.902)	965222	80.0000	78	9339
95 1,2-Diphenylhydrazine	77	15.460	15.456	(1.118)	1487604	80.0000	74	9449
96 Sulfotep	322	16.125	16.122	(1.166)	256802	80.0000	77	8960
97 1,3,5-Trinitrobenzene	75	16.279	16.255	(0.951)	319747	80.0000	65	8952
98 Diallate (trans isomer)	86	16.197	16.193	(0.946)	364248	40.0000	34	
99 Diallate (trans) part of total	86	16.197	16.193	(0.946)	364248	40.0000	34	9234
100 Phorate	75	16.207	16.203	(0.947)	746640	80.0000	70	9282
101 Phenacetin	108	16.350	16.337	(0.955)	657465	80.0000	77	9292
102 Diallate (cis isomer)	86	16.360	16.357	(0.956)	122773	40.0000	36	
103 Diallate (cis) part of total	86	16.360	16.357	(0.956)	125932	40.0000	36	7663(H)
104 4-Bromophenyl-phenylether	248	16.197	16.193	(0.946)	418157	80.0000	75	8713
105 Hexachlorobenzene	284	16.463	16.459	(0.962)	661202	80.0000	76	9194
106 Dimethoate	87	16.627	16.613	(0.971)	419495	80.0000	76	9036
107 4-Aminobiphenyl	169	16.831	16.828	(0.983)	934542	80.0000	82	0(M)
108 Pentachlorophenol	266	16.913	16.910	(0.988)	339617	80.0000	82	8040
109 Pentachloronitrobenzene	237	17.097	17.094	(0.999)	209507	80.0000	76	7513
110 Pronamide	173	17.149	17.135	(1.002)	594976	80.0000	78	9422

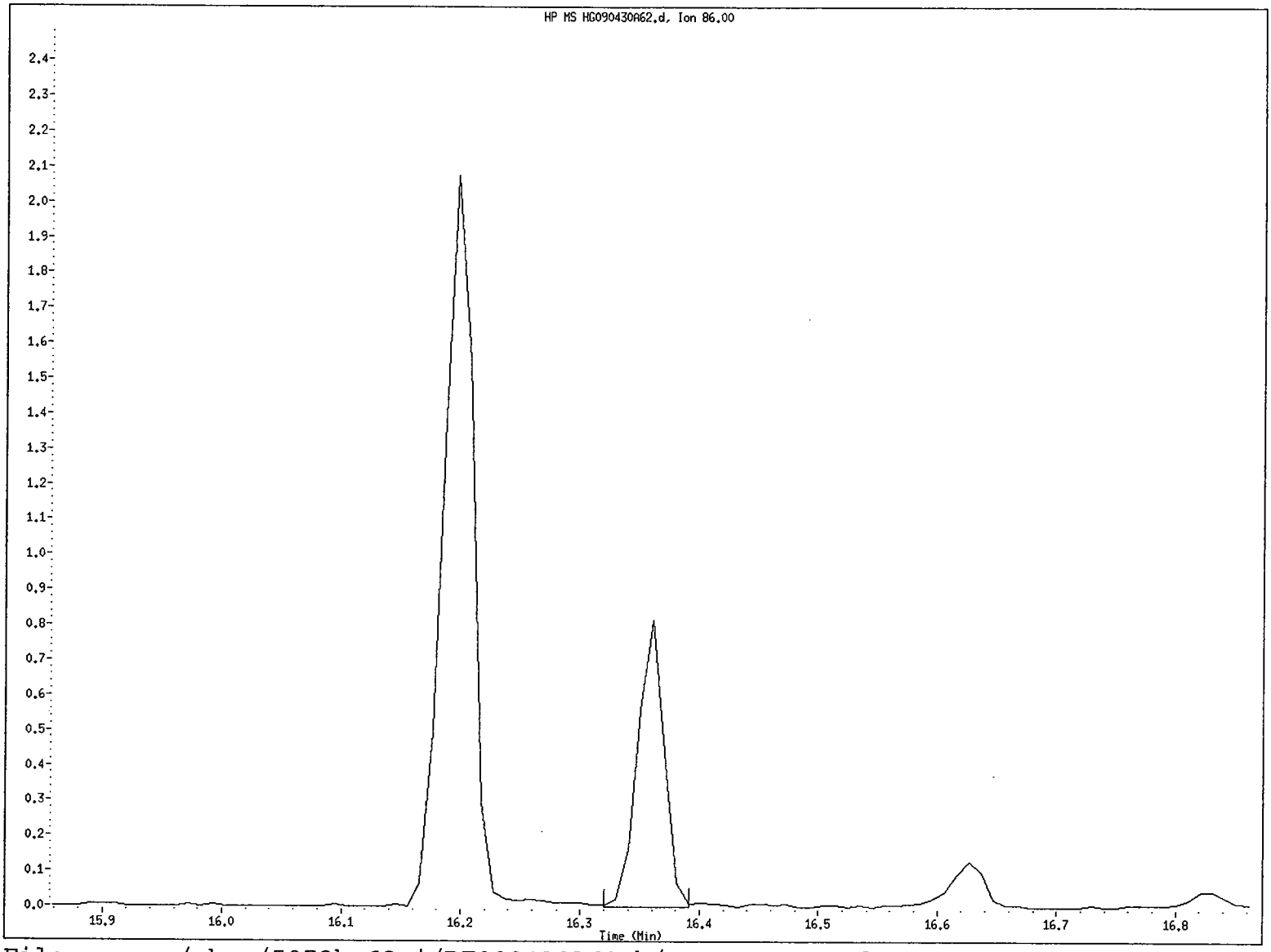
Data File: /chem/5972hp62.i/DF090430A62.b/HG090430A62.d
Report Date: 05-May-2009 10:36

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.384	17.381	(1.016)	630171	80.0000	76	9341
112	Phenanthrene	178	17.169	17.166	(1.003)	1721808	80.0000	76	
113	Anthracene	178	17.271	17.268	(1.009)	1788592	80.0000	75	
114	Carbazole	167	17.742	17.739	(1.036)	4335471	80.0000	78	9455
115	Methyl Parathion	109	18.223	18.220	(1.065)	383927	80.0000	73	9121
116	Di-n-butylphthalate	149	18.797	18.793	(1.098)	2235806	80.0000	74	9502
117	Parathion	109	19.145	19.141	(1.118)	287834	80.0000	78	8094
118	4-Nitroquinoline-1-oxide	190	19.042	19.039	(1.112)	203275	80.0000	91	8604
119	Methapyrilene	97	19.380	19.377	(1.132)	13286	80.0000	82	8517
120	Isodrin	193	19.544	19.540	(1.142)	251858	80.0000	76	9136
121	Fluoranthene	202	19.851	19.847	(1.160)	1747091	80.0000	75	9605
122	Benzidine	184	20.291	20.298	(0.879)	461766	80.0000	89	8579(a)
123	Pyrene	202	20.332	20.328	(0.880)	1927409	80.0000	78	9589
124	p-Dimethylaminoazobenzene	225	21.222	21.219	(0.919)	390885	80.0000	83	8879
125	Chlorobenzilate	251	21.386	21.383	(0.926)	669452	80.0000	83	9444
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.133	22.130	(0.958)	1028699	80.0000	80	9347
129	3,3'-Dimethylbenzidine	212	21.980	21.987	(0.952)	701924	80.0000	81	9551
130	2-Acetylaminofluorene	181	22.584	22.570	(0.978)	746457	80.0000	85	9083
131	3,3'-Dichlorobenzidine	252	23.167	23.164	(1.003)	728060	80.0000	83	8139
132	bis(2-ethylhexyl)Phthalate	149	23.536	23.542	(1.019)	1428093	80.0000	81	9354
133	Benzo(a)anthracene	228	23.065	23.061	(0.999)	1834713	80.0000	80	
134	Chrysene	228	23.157	23.153	(1.003)	1587052	80.0000	77	
135	Di-n-octylphthalate	149	24.846	24.853	(0.953)	2371550	80.0000	76	
136	7,12-Dimethylbenz(a)anthracene	256	25.419	25.416	(0.974)	832814	80.0000	76	8662
137	Benzo(b)fluoranthene	252	25.358	25.354	(0.972)	2043622	80.0000	74	
138	Benzo(k)fluoranthene	252	25.409	25.395	(0.974)	2046780	80.0000	85	
139	Benzo(a)pyrene	252	25.972	25.968	(0.996)	1892989	80.0000	79	
140	3-Methylcholanthrene	268	26.770	26.767	(1.026)	1037131	80.0000	78	9623
141	Indeno(1,2,3-c,d)pyrene	276	28.490	28.486	(1.092)	1733828	80.0000	78	0(M)
142	Dibenzo(a,h)anthracene	278	28.582	28.568	(1.096)	1609985	80.0000	73	7454
143	Benzo(g,h,i)perylene	276	29.186	29.172	(1.119)	1826628	80.0000	76	9052
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				490180	80.0000	69	0
201	a,a-Dimethylphenethylamine	58	10.260	10.113	(1.034)	436011	80.0000	47	3593(aM)
202	Aramite	185	21.140	21.137	(0.915)	119772	80.0000	82	9173

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 125932 User selected



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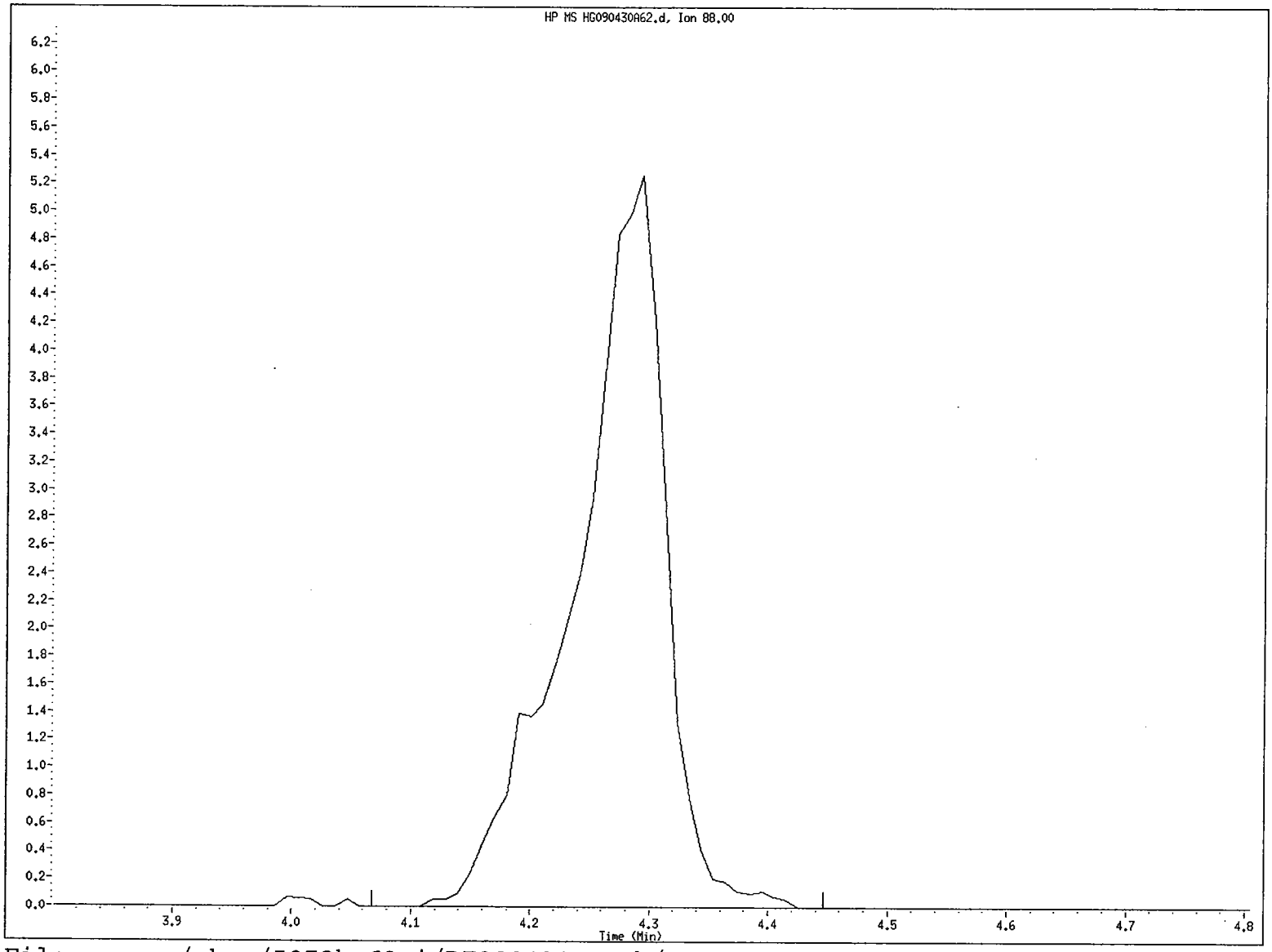
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 16.36
Operator ID: 2650

Nitrosomethylethylamine CAS Number 10595-95-6 Area = 276315 Manually integrate



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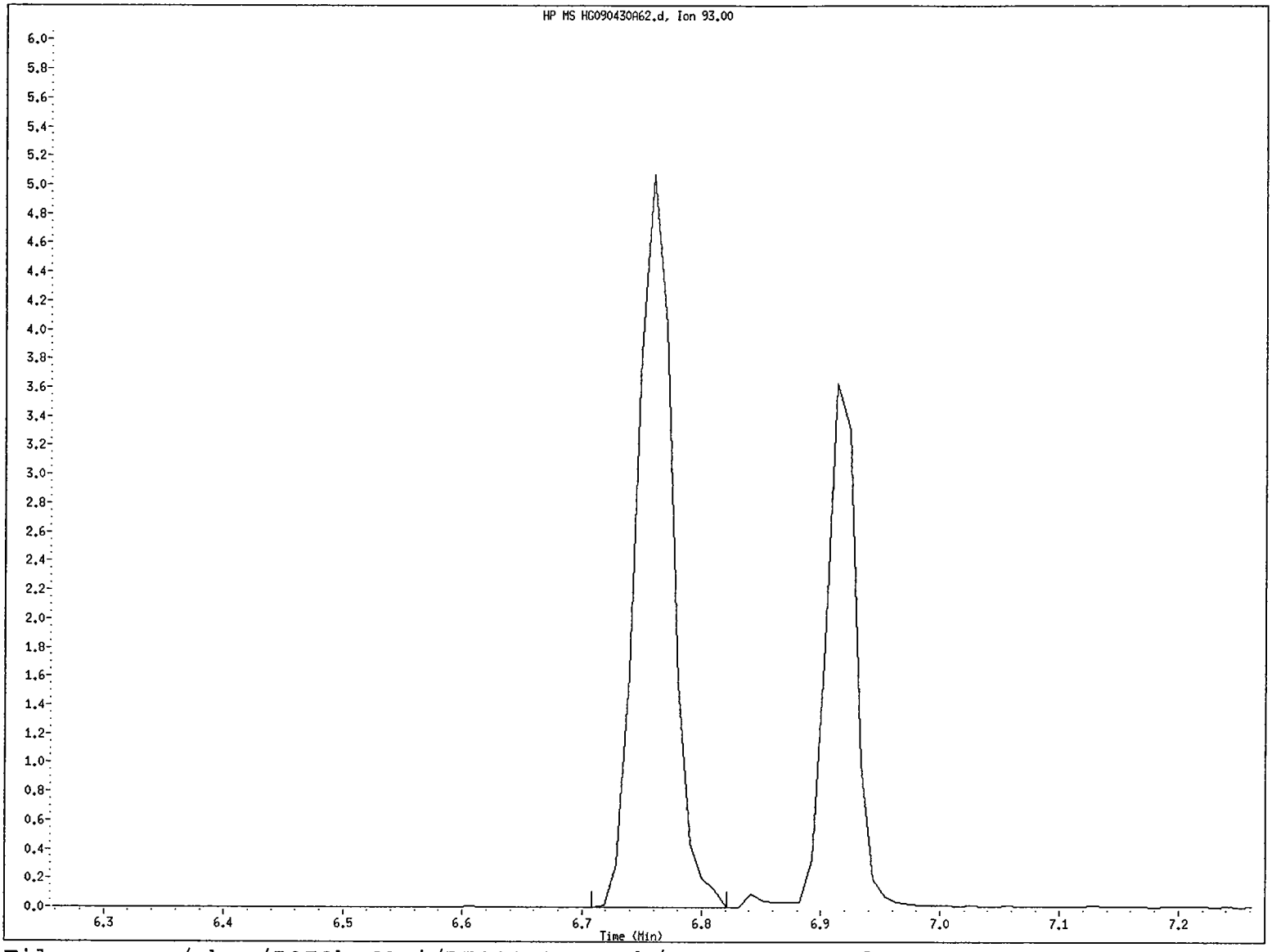
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 4.29
Operator ID: 2650

Aniline CAS Number 62-53-3 Area = 1054837 User selected hit



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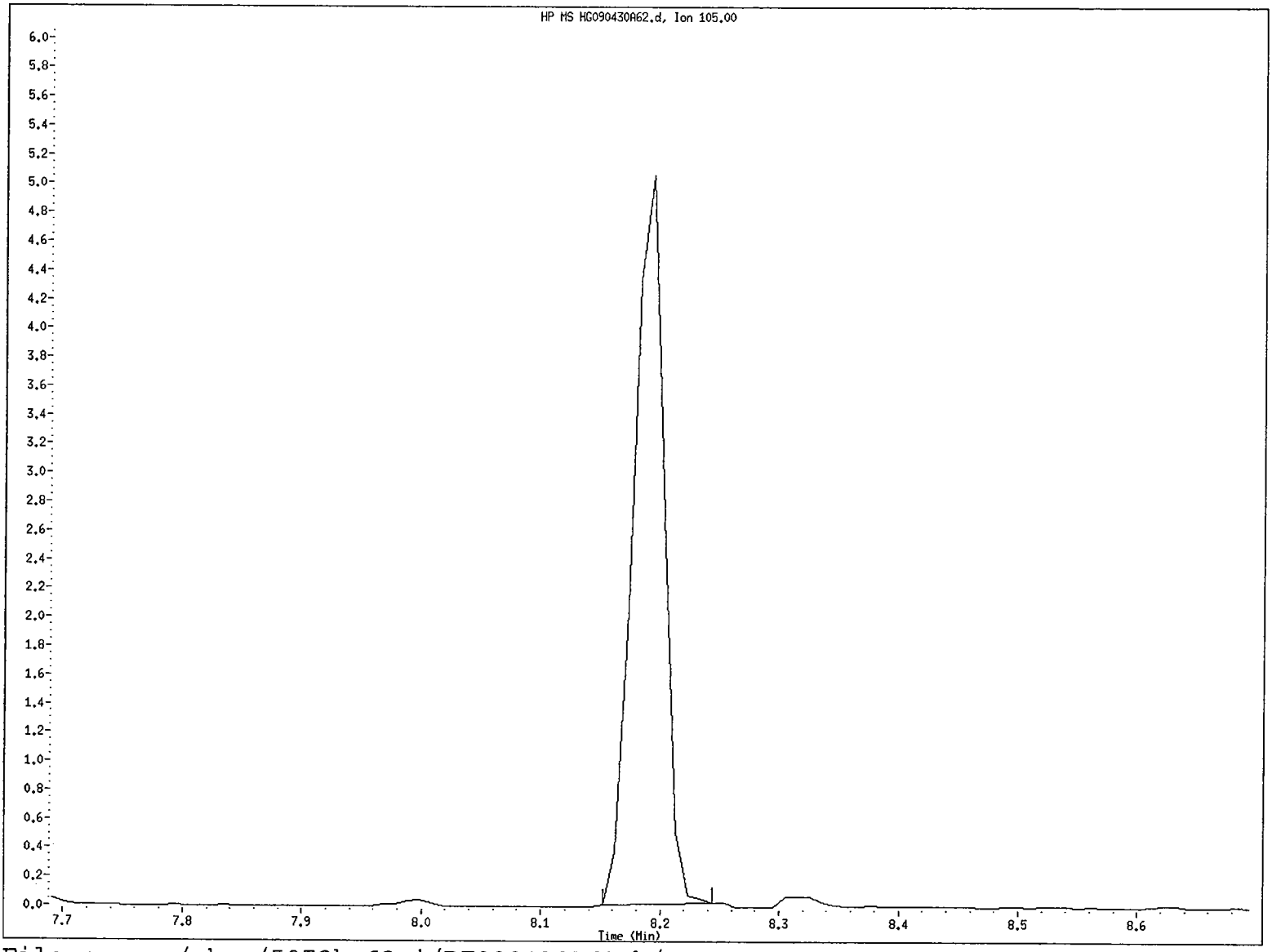
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 6.76
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 909981 Manually integrated



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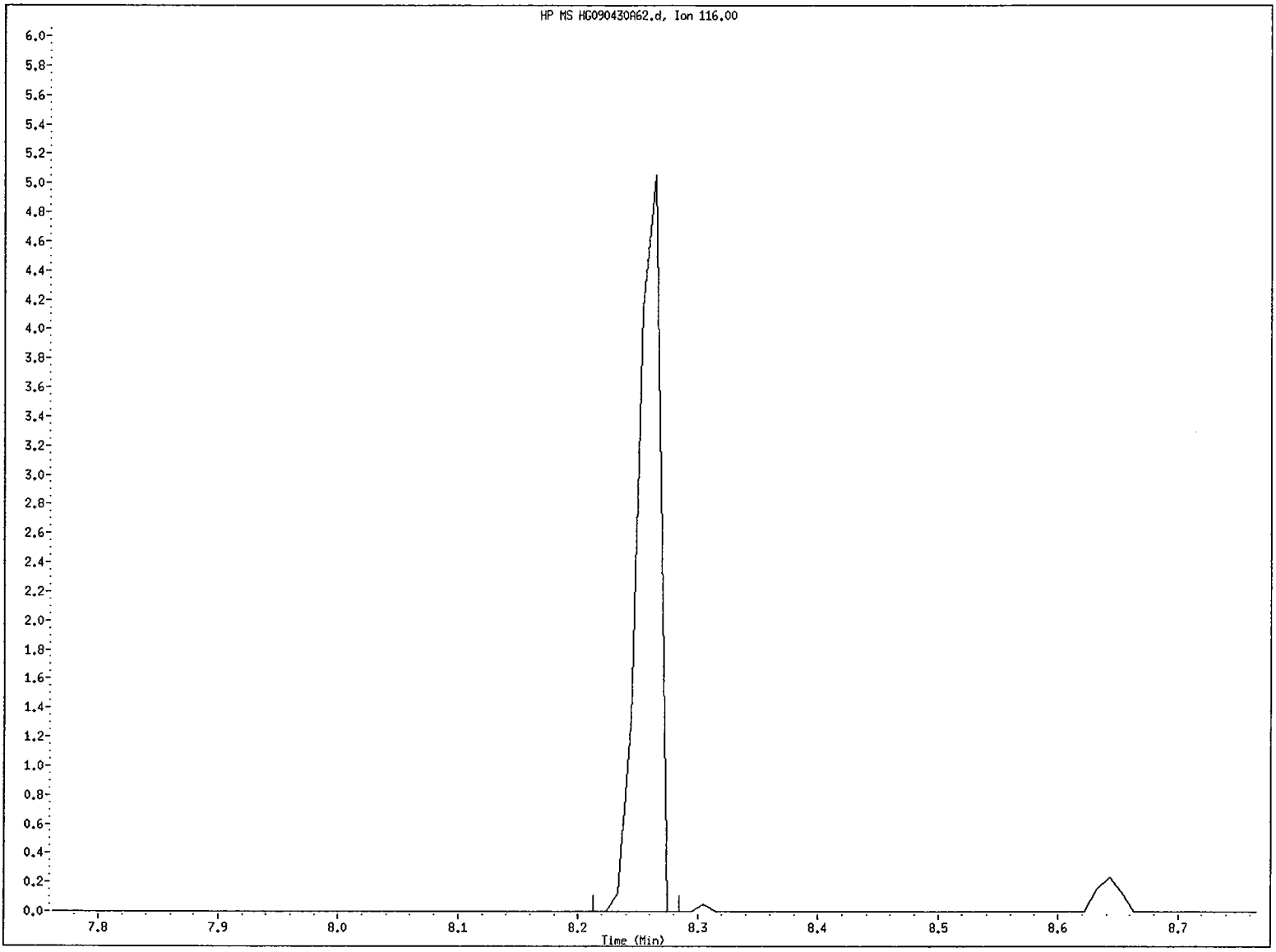
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 8.19
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 65085 Manually integrated



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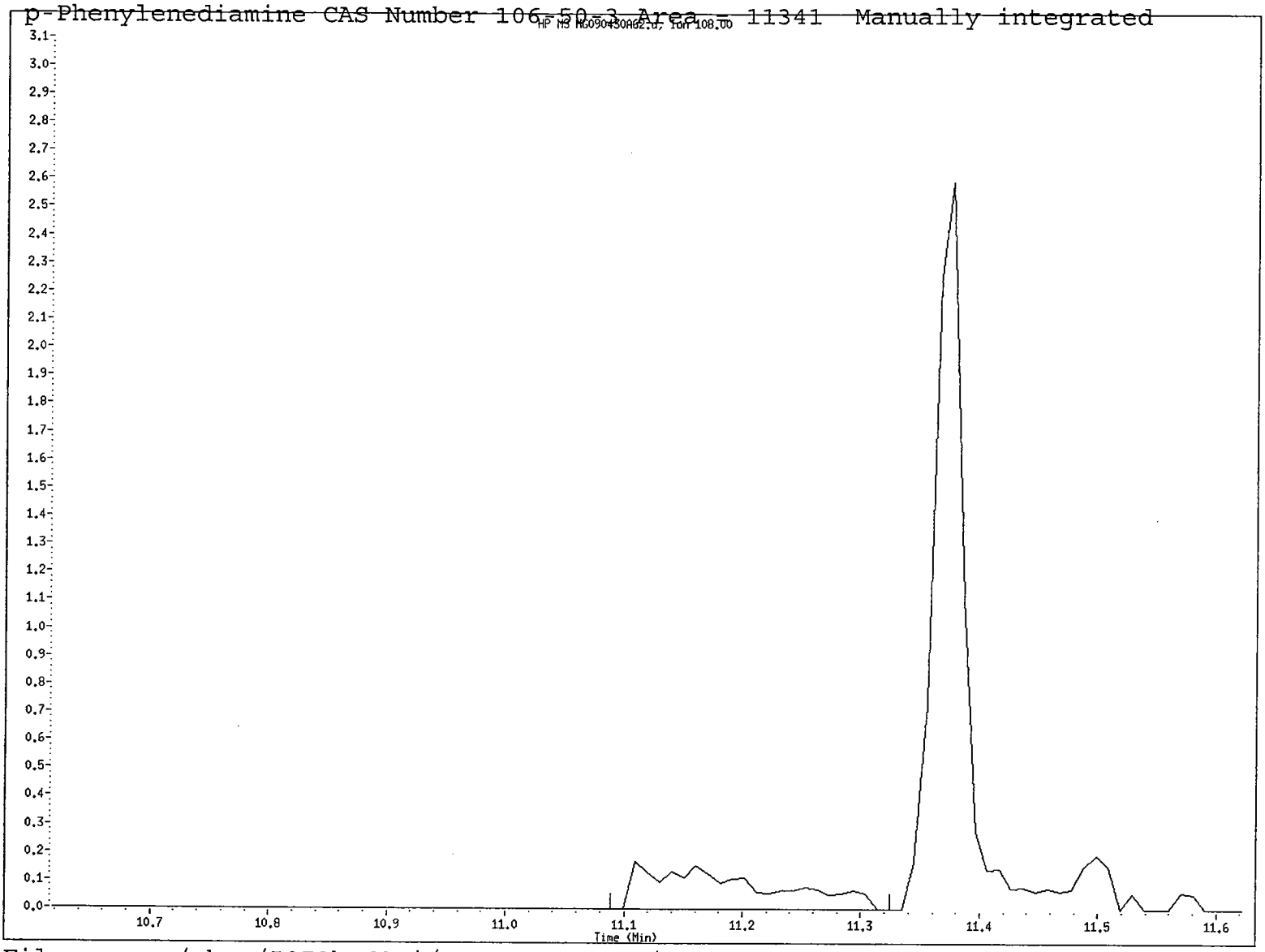
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 8.26
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 11341 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 11341 Manually integrated



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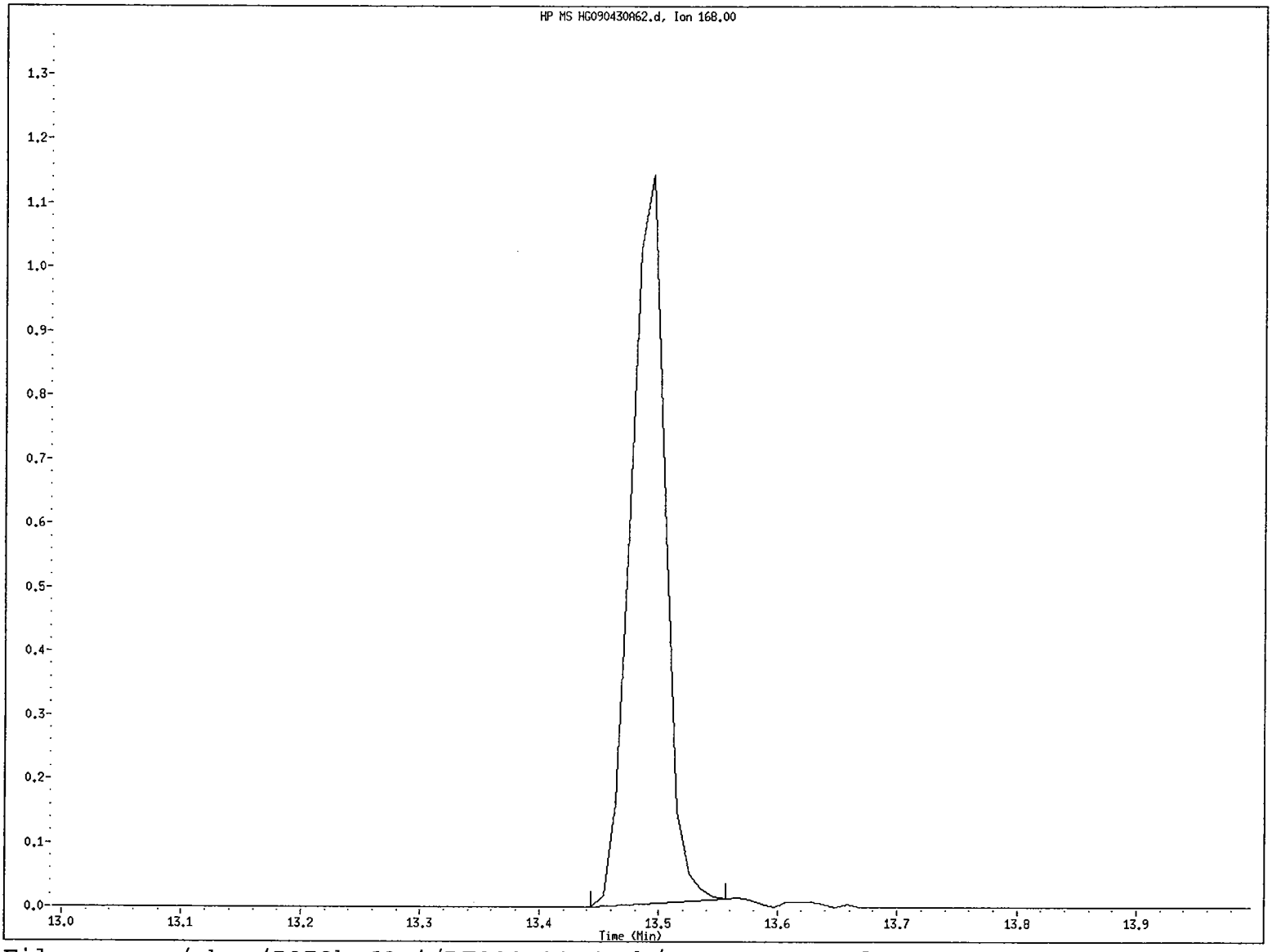
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 11.11
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 227787 Manually integrated



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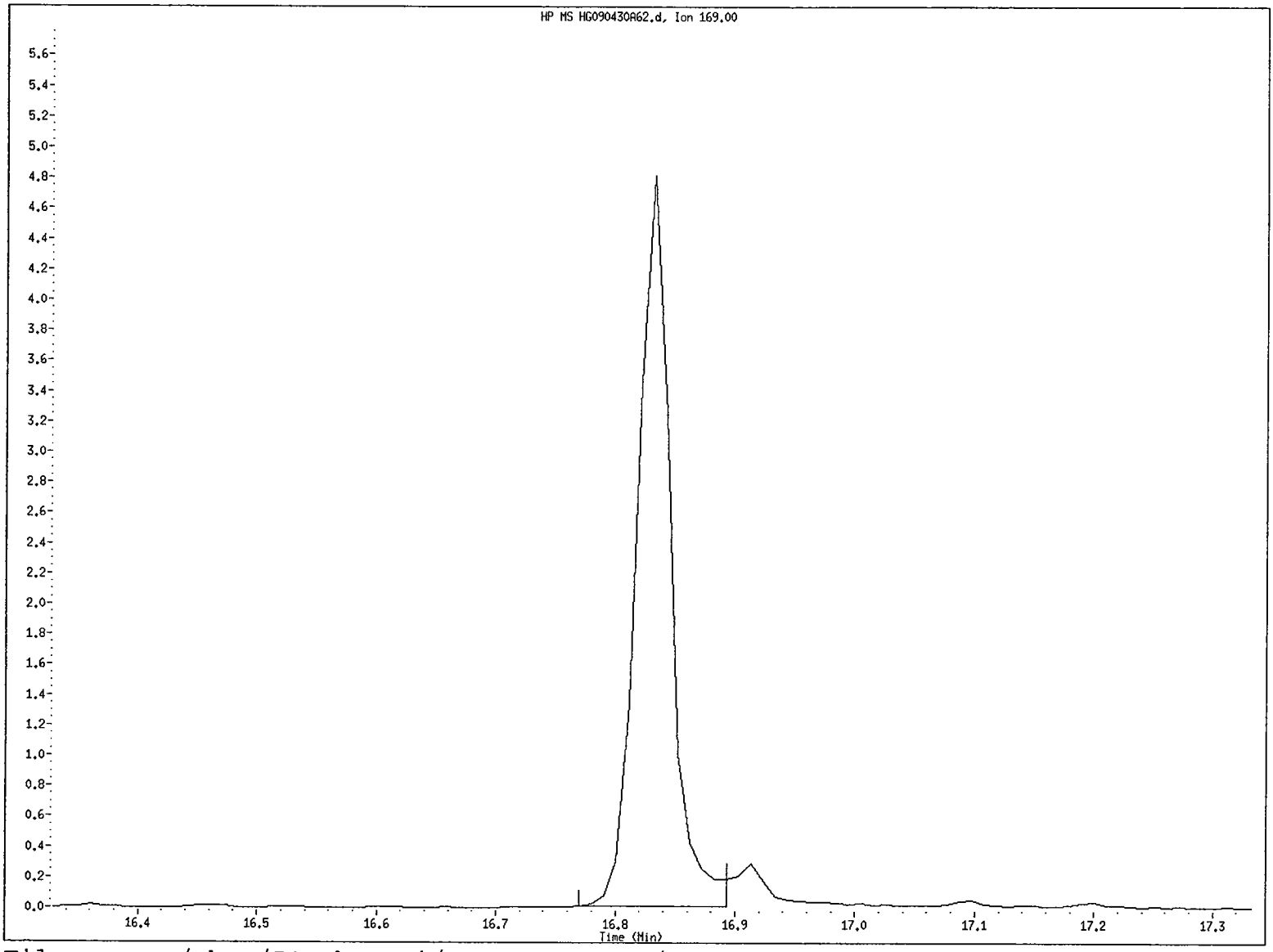
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 13.49
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 934542 Manually integrated



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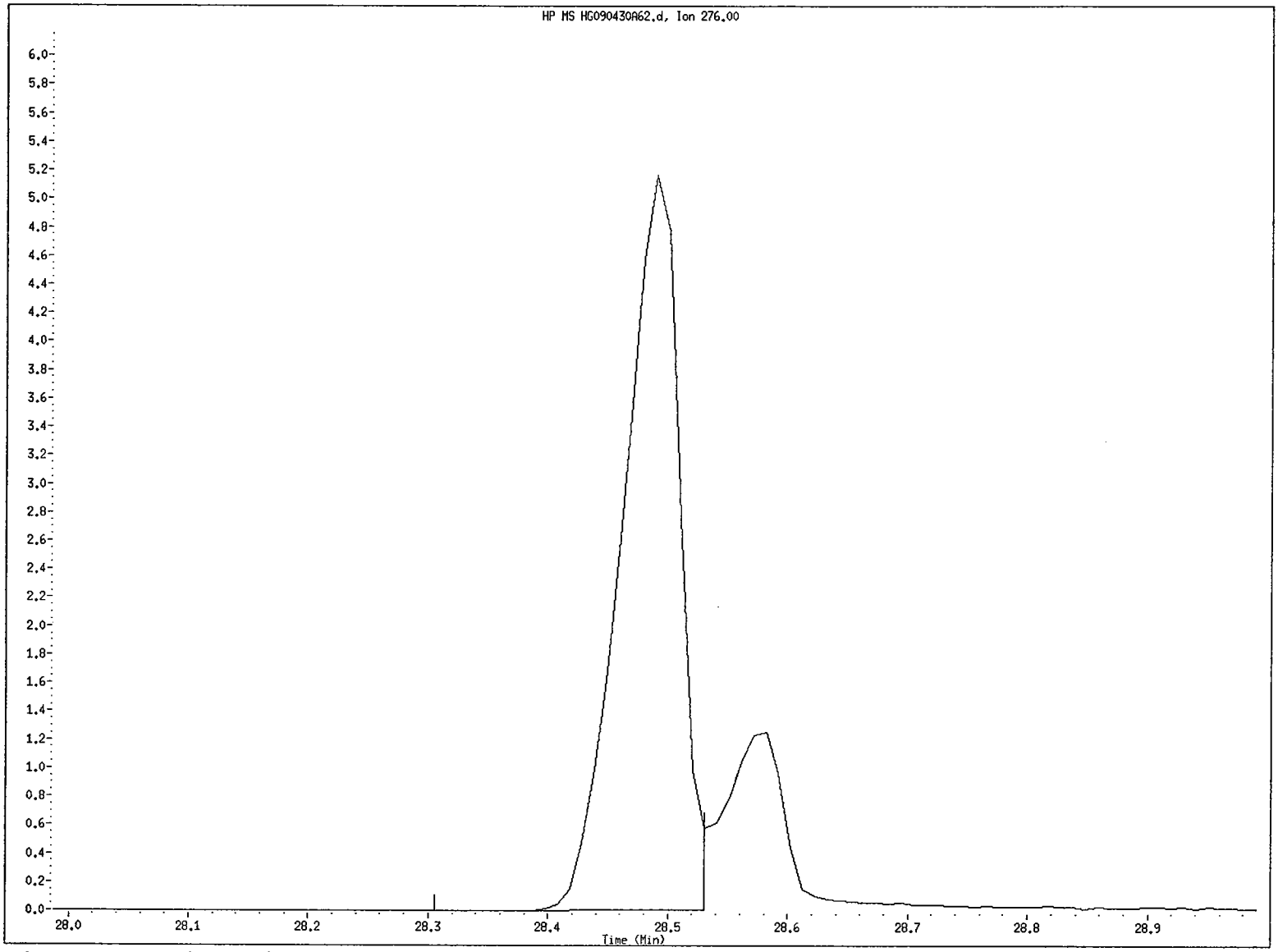
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 16.83
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1733828 Manually integrated



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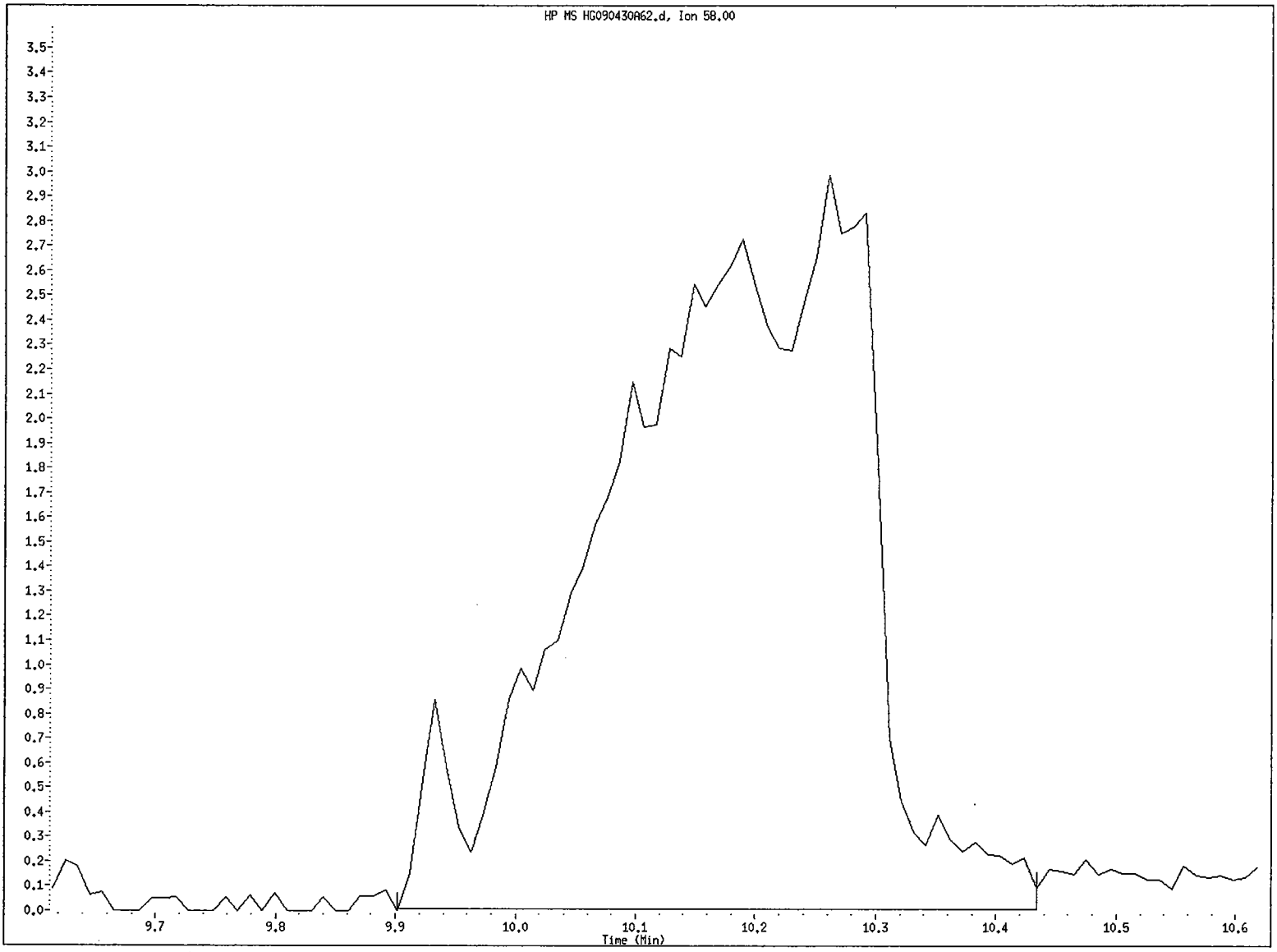
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 28.49
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 436011 Manually integrat



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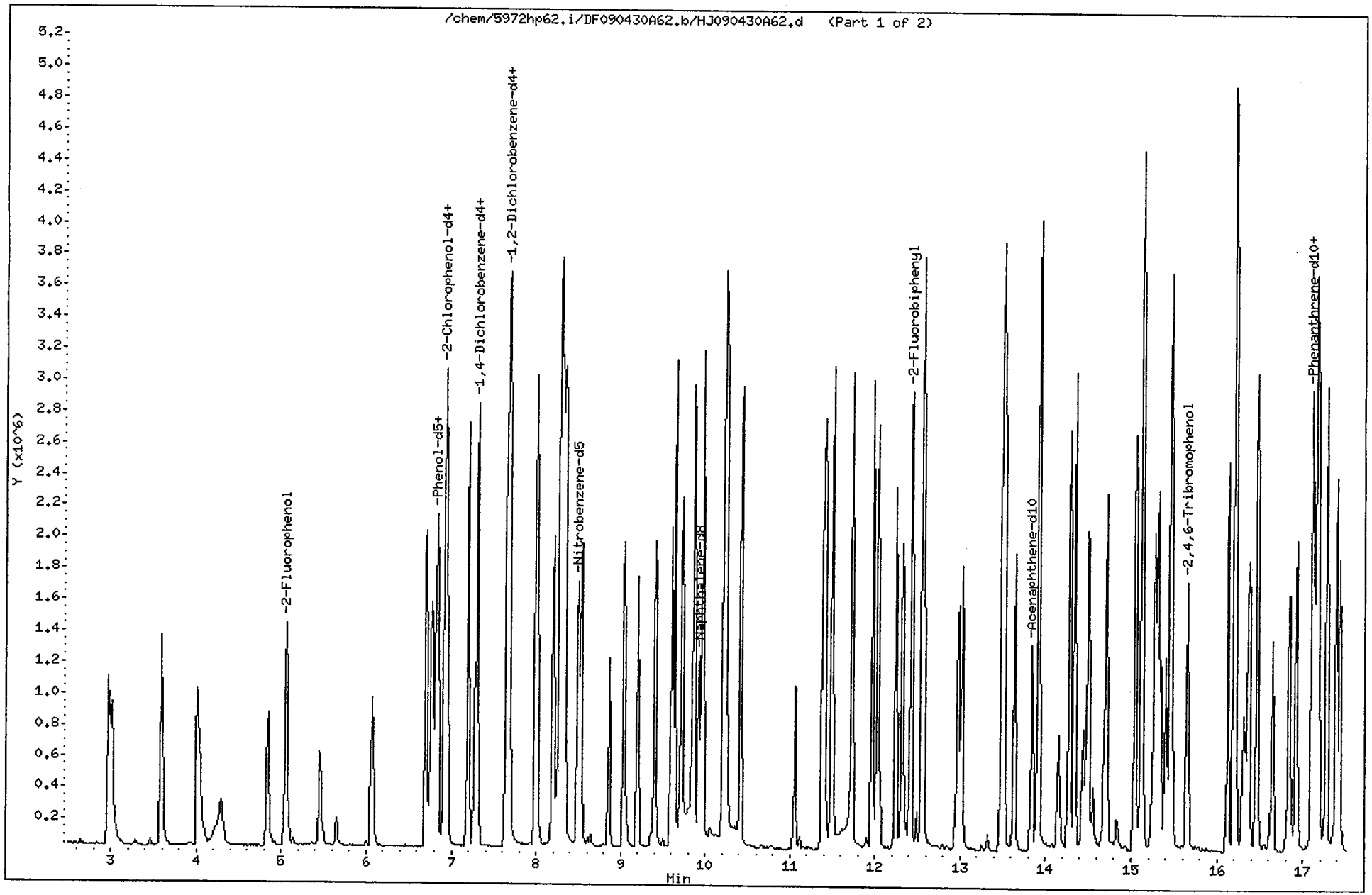
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 16:22
Retention Time: 10.26
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Date : 30-APR-2009 18:27
Client ID: SSTD120
Sample Info: SSTD120;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i

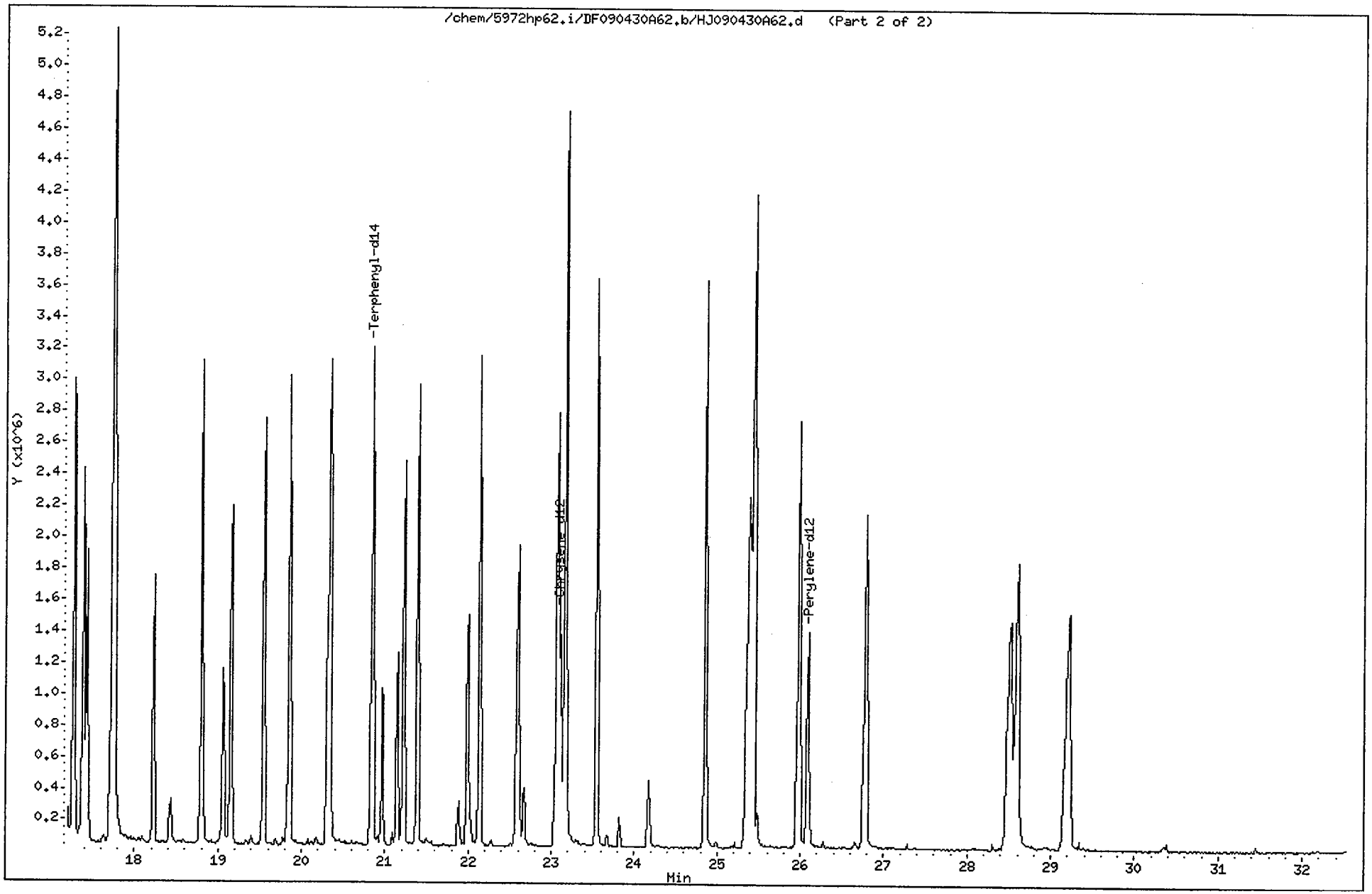
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Date : 30-APR-2009 18:27
Client ID: SSTD120
Sample Info: SSTD120:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i

Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 30-APR-2009 18:27
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD120:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 18:27 Cal File: HJ090430A62.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.278	7.268	(1.000)	289451	40.0000		
* 2 Naphthalene-d8	136	9.929	9.919	(1.000)	983868	40.0000		
* 3 Acenaphthene-d10	164	13.839	13.839	(1.000)	495962	40.0000		
* 4 Phenanthrene-d10	188	17.125	17.114	(1.000)	775734	40.0000		
* 5 Chrysene-d12	240	23.102	23.092	(1.000)	939704	40.0000		
* 6 Perylene-d12	264	26.091	26.081	(1.000)	1025189	40.0000		
$ 7 2-Fluorophenol	112	5.057	5.047	(0.695)	826834	120.000	120	
$ 8 Phenol-d5	99	6.818	6.797	(0.937)	963874	120.000	110	
$ 9 2-Chlorophenol-d4	132	6.920	6.910	(0.951)	812898	120.000	120	9145
$ 10 1,2-Dichlorobenzene-d4	152	7.647	7.646	(1.051)	655521	120.000	110	9566
$ 11 Nitrobenzene-d5	82	8.496	8.486	(0.856)	1035751	120.000	120	
$ 12 2-Fluorobiphenyl	172	12.427	12.416	(0.898)	1657173	120.000	110	
$ 13 2,4,6-Tribromophenol	330	15.661	15.640	(1.132)	540663	120.000	120	
$ 14 Terphenyl-d14	244	20.851	20.840	(0.903)	1956231	120.000	110	
15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	480067	120.000	130	8609

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.408)	985335	120.000	120	9464
17 Ethylmethacrylate	69	3.593	3.593	(0.494)	707012	120.000	120	9300
18 2-Picoline	93	4.013	4.003	(0.551)	981453	120.000	120	8902
19 Nitrosomethylethylamine	88	4.289	4.299	(0.589)	355710	120.000	120	9147
20 Methyl Methanesulfonate	80	4.842	4.832	(0.665)	663601	120.000	120	9132
21 N-Nitrosodiethylamine	102	5.456	5.446	(0.750)	310415	120.000	120	9264
22 Ethyl Methanesulfonate	79	6.070	6.060	(0.834)	813239	120.000	120	9296
23 Phenol	94	6.848	6.828	(0.941)	972241	120.000	110	
24 Aniline	93	6.766	6.756	(0.930)	1357891	120.000	120	7294
25 Bis(2-chloroethyl)ether	93	6.930	6.920	(0.952)	837055	120.000	120	
26 Pentachloroethane	167	6.705	6.705	(0.921)	459500	120.000	120	9555
27 2-Chlorophenol	128	6.951	6.940	(0.955)	911184	120.000	110	9418
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.989)	1117809	120.000	110	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.004)	1107206	120.000	110	
30 Benzyl Alcohol	108	7.688	7.667	(1.056)	504282	120.000	110	
31 1,2-Dichlorobenzene	146	7.677	7.667	(1.055)	940346	120.000	110	
32 2-Methylphenol	108	8.015	7.984	(1.101)	721701	120.000	120	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.098)	1136536	120.000	120	9006
34 N-Nitrosopyrrolidine	100	8.251	8.209	(1.134)	225375	120.000	160	5563(H)
35 3-Methylphenol	108	8.332	8.312	(1.145)	1503100	240.000	230	
36 4-Methylphenol	108	8.332	8.312	(1.145)	1503100	240.000	230	
37 3-4-Methylphenol	108	8.332	8.312	(1.145)	1504306	240.000	220	8743
38 N-Nitroso-di-N-propylamine	70	8.312	8.291	(1.142)	341988	120.000	120	8816
39 Acetophenone	105	8.199	8.189	(0.826)	1196221	120.000	110	0(M)
40 N-Nitrosomorpholine	116	8.281	8.261	(1.138)	99839	120.000	140	0(M)
41 o-Toluidine	106	8.292	8.281	(1.139)	1062866	120.000	110	7223
42 Hexachloroethane	117	8.271	8.271	(1.136)	465899	120.000	110	9696
43 Nitrobenzene	77	8.537	8.517	(0.860)	980521	120.000	120	9086
44 N-Nitrosopiperidine	114	8.865	8.844	(0.893)	395348	120.000	120	9104
45 Isophorone	82	9.039	9.018	(0.910)	1664955	120.000	120	9097
46 2-Nitrophenol	139	9.203	9.192	(0.927)	529971	120.000	110	8879
47 2,4-Dimethylphenol	122	9.407	9.397	(0.947)	630746	120.000	110	8944
48 Benzoic Acid	122	9.878	9.755	(0.995)	466661	600.000	610	7556(AM)
49 o,o,o-Triethylphosphorothioat	198	9.643	9.632	(0.971)	391172	120.000	110	9123
50 Bis(2-chloroethoxy)methane	93	9.602	9.591	(0.967)	1162078	120.000	110	9300
51 2,4-Dichlorophenol	162	9.725	9.704	(0.979)	764832	120.000	110	
52 1,2,4-Trichlorobenzene	180	9.858	9.857	(0.993)	943885	120.000	110	
53 Naphthalene	128	9.970	9.960	(1.004)	2314256	120.000	110	9619
54 4-Chloroaniline	127	10.226	10.216	(1.030)	936671	120.000	110	8790
55 2,6-Dichlorophenol	162	10.216	10.205	(1.029)	695829	120.000	110	
56 Hexachloropropene	213	10.247	10.236	(1.032)	740660	120.000	110	9568
57 Hexachlorobutadiene	225	10.421	10.410	(1.049)	595940	120.000	110	9078
58 N-Nitroso-di-n-butylamine	84	11.065	11.055	(1.114)	329145	120.000	120	8967
59 p-Phenylenediamine	108	11.188	11.116	(0.808)	20247	120.000	120	(MH)
60 4-Chloro-3-methylphenol	107	11.383	11.372	(1.146)	664704	120.000	110	9727
61 Safrole	162	11.403	11.403	(1.148)	583872	120.000	100	9803
62 2-Methylnaphthalene	141	11.495	11.485	(1.158)	1227268	120.000	110	

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.731	11.720	(1.181)	1425527	120.000	110	
64 Hexachlorocyclopentadiene	237	12.028	12.027	(0.869)	757672	120.000	120	9580
65 1,2,4,5-Tetrachlorobenzene	216	11.966	11.956	(0.865)	953545	120.000	110	9428
66 2,4,6-Trichlorophenol	196	12.242	12.232	(0.885)	558750	120.000	110	
67 2,4,5-Trichlorophenol	196	12.314	12.314	(0.890)	652647	120.000	120	
68 Isosafrole	162	12.058	12.048	(0.871)	113068	120.000	120	
69 2-Chloronaphthalene	162	12.560	12.549	(0.908)	2058453	120.000	110	
70 2-Nitroaniline	65	12.969	12.959	(0.937)	530165	120.000	120	8830
71 1,4-Napthoquinone	158	13.020	13.010	(0.941)	637416	120.000	110	9471
72 Dimethylphthalate	163	13.512	13.501	(0.976)	1628411	120.000	110	8809
73 1,3-Dinitrobenzene	168	13.501	13.491	(0.976)	318633	120.000	120	0(M)
74 2,6-Dinitrotoluene	165	13.635	13.624	(0.985)	488285	120.000	120	9611
75 Acenaphthylene	152	13.491	13.481	(0.975)	2271689	120.000	110	8953
76 3-Nitroaniline	138	13.921	13.900	(1.006)	417687	120.000	120	8915
77 Acenaphthene	154	13.921	13.911	(1.006)	1275551	120.000	110	9432
78 2,4-Dinitrophenol	184	14.157	14.126	(1.023)	238041	120.000	140	
79 4-Nitrophenol	139	14.443	14.402	(1.044)	378865	120.000	130	8958
80 Pentachlorobenzene	250	14.341	14.330	(1.036)	918503	120.000	110	9815
81 2,4-Dinitrotoluene	165	14.505	14.484	(1.048)	545584	120.000	110	7276
82 Dibenzofuran	168	14.279	14.269	(1.032)	2087162	120.000	110	9332
83 1-Naphthylamine	143	14.505	14.494	(1.048)	460655	120.000	110	
84 2,3,4,6-Tetrachlorophenol	232	14.719	14.699	(1.064)	504662	120.000	110	9270
85 2-Naphthylamine	143	14.689	14.668	(1.061)	599278	120.000	130	
86 Diethylphthalate	149	15.129	15.108	(1.093)	1738952	120.000	110	7434
87 Zinophos	97	15.313	15.282	(1.107)	480286	120.000	120	9026
88 4-Chlorophenyl-phenylether	204	15.129	15.118	(1.093)	803945	120.000	110	7829
89 5-Nitro-o-toluidine	152	15.272	15.241	(1.104)	540064	120.000	120	7603
90 Fluorene	166	15.047	15.037	(1.087)	1541641	120.000	110	7855
91 4-Nitroaniline	138	15.344	15.303	(1.109)	470928	120.000	120	9049
92 4,6-Dinitro-2-methylphenol	198	15.405	15.374	(0.900)	344400	120.000	130	0(M)
93 N-Nitrosodiphenylamine	169	15.456	15.436	(0.903)	1194689	120.000	110	8269
95 1,2-Diphenylhydrazine	77	15.477	15.456	(1.118)	1903648	120.000	110	9488
96 Sulfotep	322	16.132	16.122	(1.166)	328285	120.000	110	9243
97 1,3,5-Trinitrobenzene	75	16.316	16.255	(0.953)	523936	120.000	110	9067
98 Diallate (trans isomer)	86	16.204	16.193	(0.946)	498150	60.0000	55	
99 Diallate (trans) part of total	86	16.204	16.193	(0.946)	498150	60.0000	55	9101
100 Phorate	75	16.224	16.203	(0.947)	1028118	120.000	110	7184
101 Phenacetin	108	16.388	16.337	(0.957)	920146	120.000	120	9502
102 Diallate (cis isomer)	86	16.367	16.357	(0.956)	170304	60.0000	57	
103 Diallate (cis) part of total	86	16.367	16.357	(0.956)	173999	60.0000	40	7336(H)
104 4-Bromophenyl-phenylether	248	16.204	16.193	(0.946)	547047	120.000	110	8786
105 Hexachlorobenzene	284	16.470	16.459	(0.962)	908663	120.000	120	9288
106 Dimethoate	87	16.654	16.613	(0.973)	513584	120.000	110	9108
107 4-Aminobiphenyl	169	16.849	16.828	(0.984)	1302963	120.000	120	0(M)
108 Pentachlorophenol	266	16.930	16.910	(0.989)	497538	120.000	130	7648
109 Pentachloronitrobenzene	237	17.115	17.094	(0.999)	296511	120.000	120	7320
110 Pronamide	173	17.166	17.135	(1.002)	794238	120.000	120	9302

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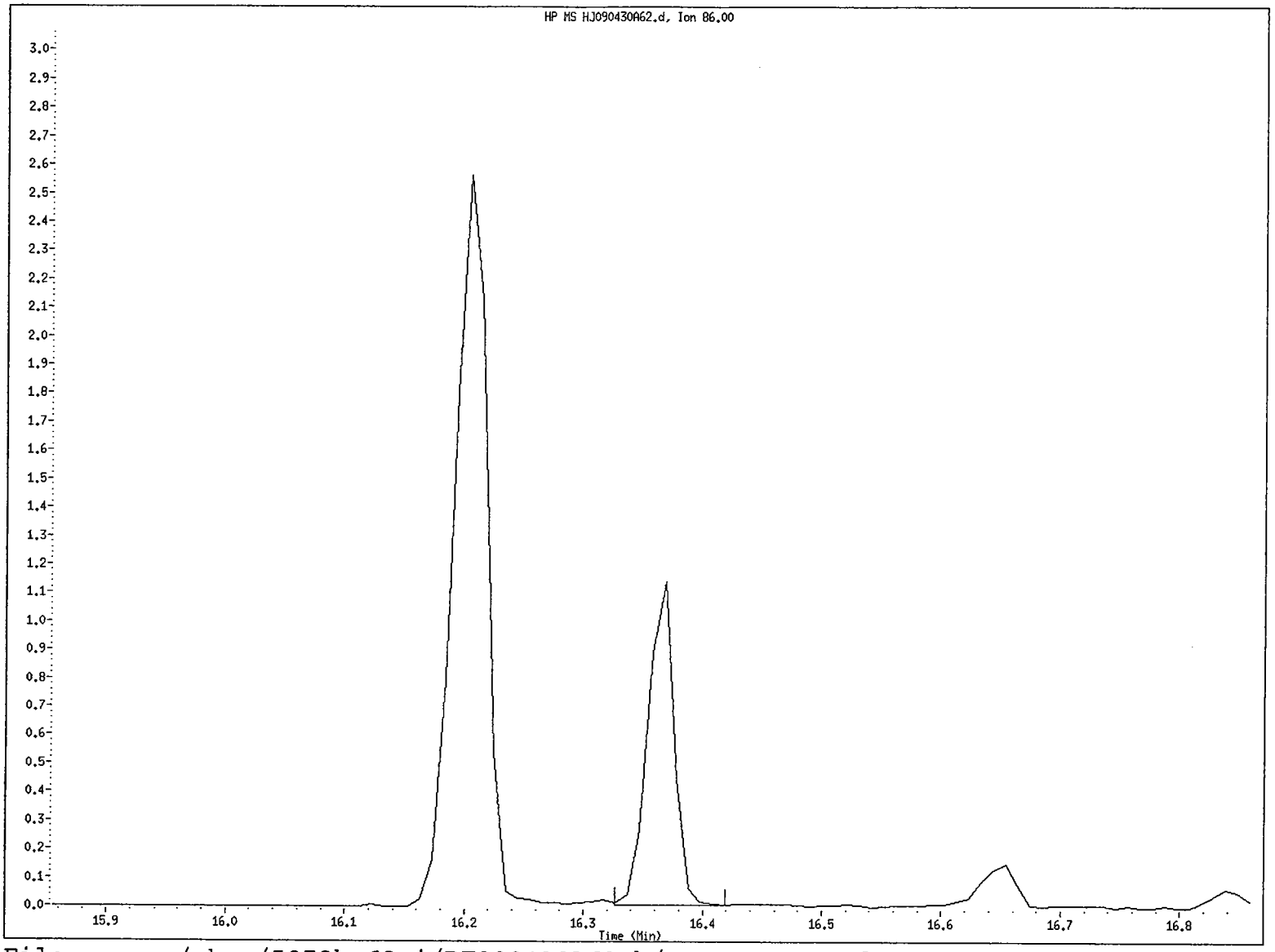
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.391	17.381	(1.016)	864829	120.000	120	9382
112	Phenanthrene	178	17.186	17.166	(1.004)	2215449	120.000	110	
113	Anthracene	178	17.278	17.268	(1.009)	2367223	120.000	110	
114	Carbazole	167	17.759	17.739	(1.037)	6214432	120.000	120	9378
115	Methyl Parathion	109	18.230	18.220	(1.065)	508337	120.000	110	9235
116	Di-n-butylphthalate	149	18.803	18.793	(1.098)	3033728	120.000	110	9787
117	Parathion	109	19.162	19.141	(1.119)	391216	120.000	120	7793
118	4-Nitroquinoline-1-oxide	190	19.059	19.039	(1.113)	297593	120.000	140	8593
119	Methapyrilene	97	19.397	19.377	(1.133)	15379	120.000	100	9089
120	Isodrin	193	19.551	19.540	(1.142)	329878	120.000	110	9274
121	Fluoranthene	202	19.858	19.847	(1.160)	2394830	120.000	120	9669
122	Benzidine	184	20.308	20.298	(0.879)	614470	120.000	120	8636
123	Pyrene	202	20.339	20.328	(0.880)	2559788	120.000	110	9802
124	p-Dimethylaminoazobenzene	225	21.229	21.219	(0.919)	516322	120.000	120	9137
125	Chlorobenzilate	251	21.393	21.383	(0.926)	916538	120.000	120	9594
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.140	22.130	(0.958)	1380233	120.000	110	9614
129	3,3'-Dimethylbenzidine	212	21.997	21.987	(0.952)	987000	120.000	120	9500
130	2-Acetylaminofluorene	181	22.601	22.570	(0.978)	1034290	120.000	120	9303
131	3,3'-Dichlorobenzidine	252	23.174	23.164	(1.003)	931679	120.000	110	8441
132	bis(2-ethylhexyl)Phthalate	149	23.543	23.542	(1.019)	1892370	120.000	120	9548
133	Benzo(a)anthracene	228	23.072	23.061	(0.999)	2476768	120.000	110	
134	Chrysene	228	23.174	23.153	(1.003)	2059788	120.000	110	
135	Di-n-octylphthalate	149	24.853	24.853	(0.953)	3310339	120.000	120	
136	7,12-Dimethylbenz(a)anthracene	256	25.446	25.416	(0.975)	1082812	120.000	110	8437
137	Benzo(b)fluoranthene	252	25.385	25.354	(0.973)	3141149	120.000	120	
138	Benzo(k)fluoranthene	252	25.436	25.395	(0.975)	2273876	120.000	110	(H)
139	Benzo(a)pyrene	252	25.989	25.968	(0.996)	2565628	120.000	120	
140	3-Methylcholanthrene	268	26.787	26.767	(1.027)	1393721	120.000	120	9609
141	Indeno(1,2,3-c,d)pyrene	276	28.517	28.486	(1.093)	2443755	120.000	120	9250
142	Dibenzo(a,h)anthracene	278	28.599	28.568	(1.096)	2450443	120.000	120	9611
143	Benzo(g,h,i)perylene	276	29.223	29.172	(1.120)	2542860	120.000	120	8908
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				672149	120.000	100	0
201	a,a-Dimethylphenethylamine	58	10.287	10.113	(1.036)	823775	120.000	95	4864 (M)
202	Aramite	185	21.147	21.137	(0.915)	168544	120.000	120	9132

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

5/5/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 173999 User selected



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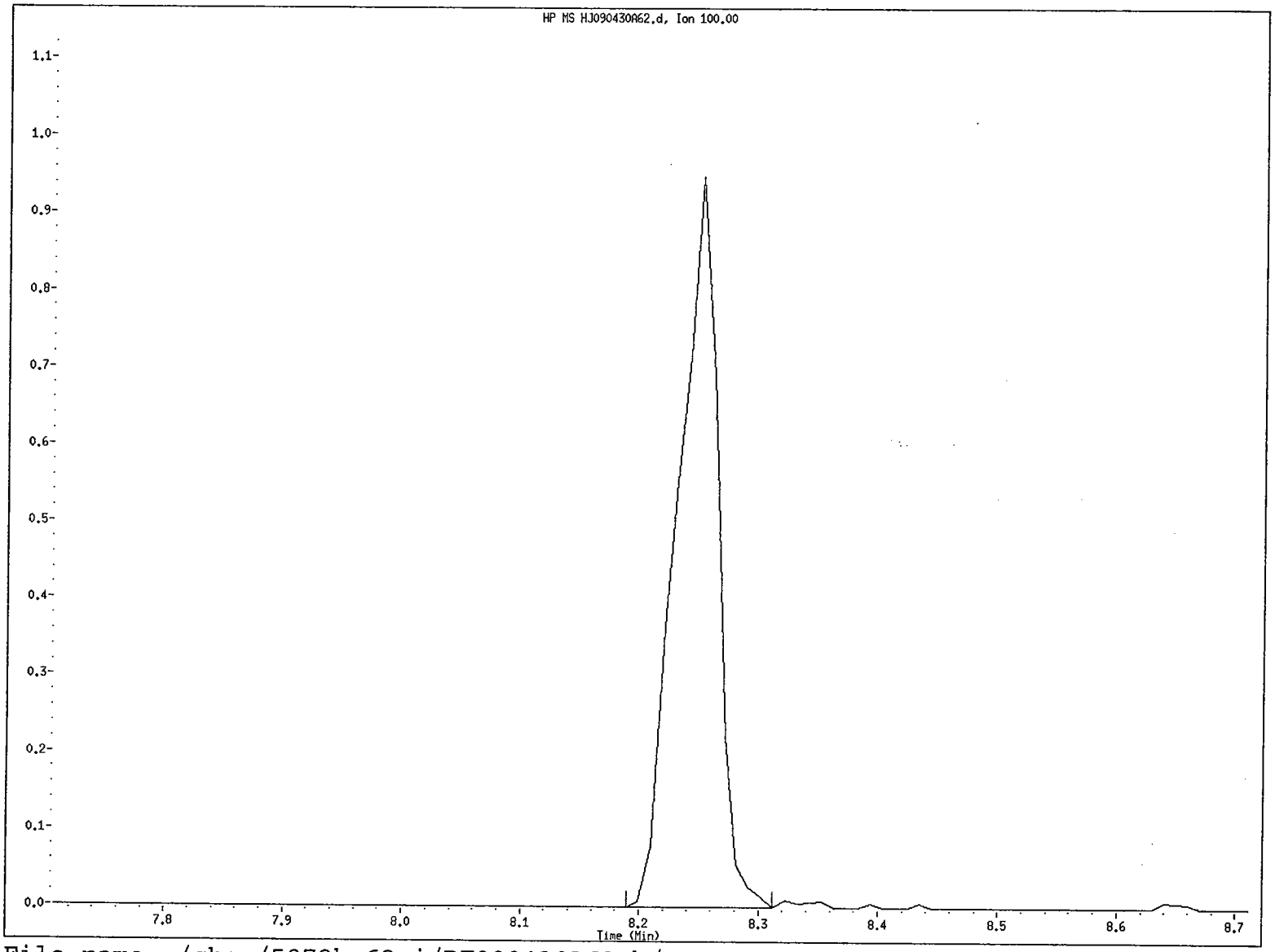
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 16.37
Operator ID: 2650

N-Nitrosopyrrolidine CAS Number 930-55-2 Area = 225375 User selected hit



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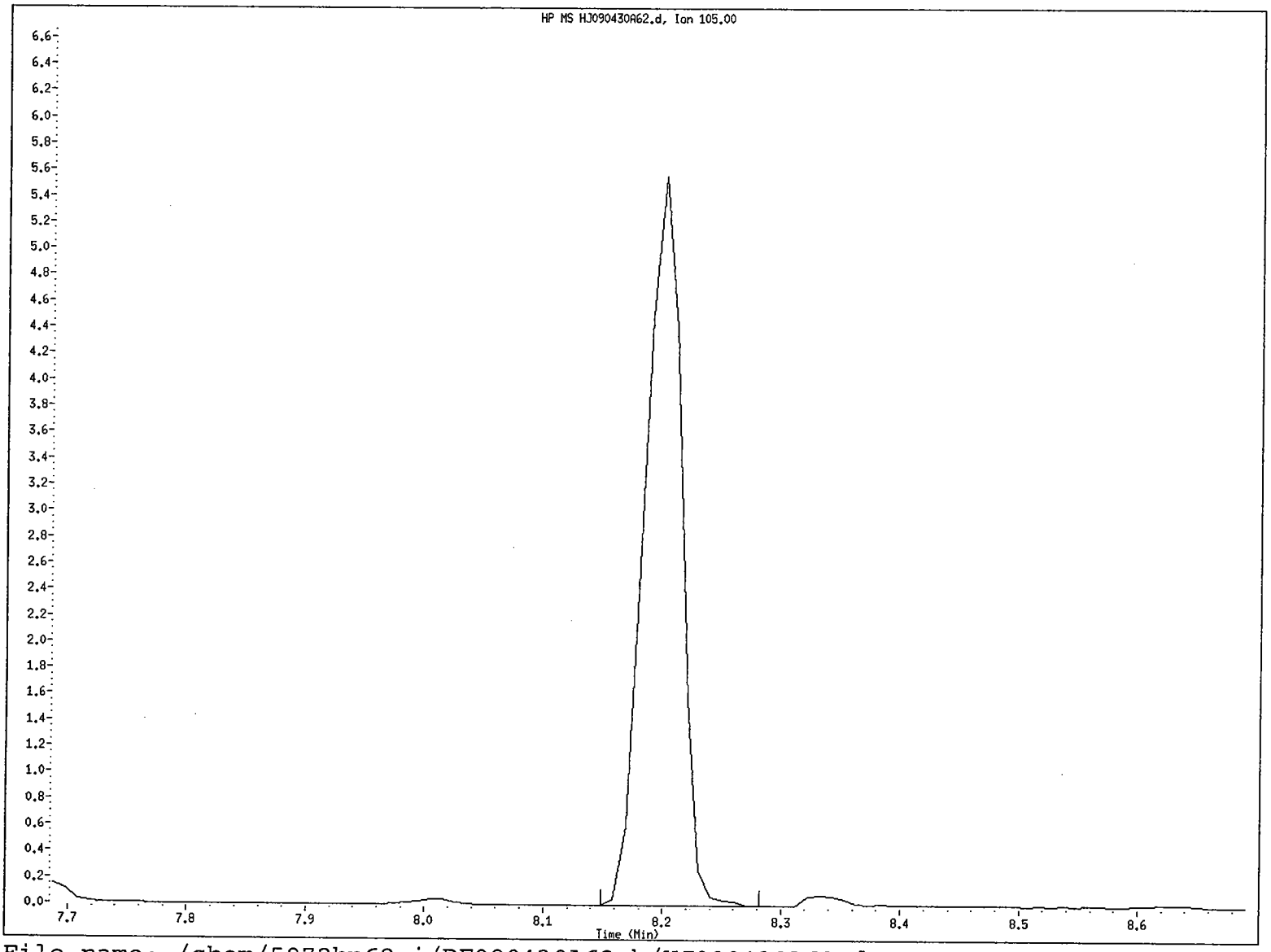
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 8.25
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 1196221 Manually integrated



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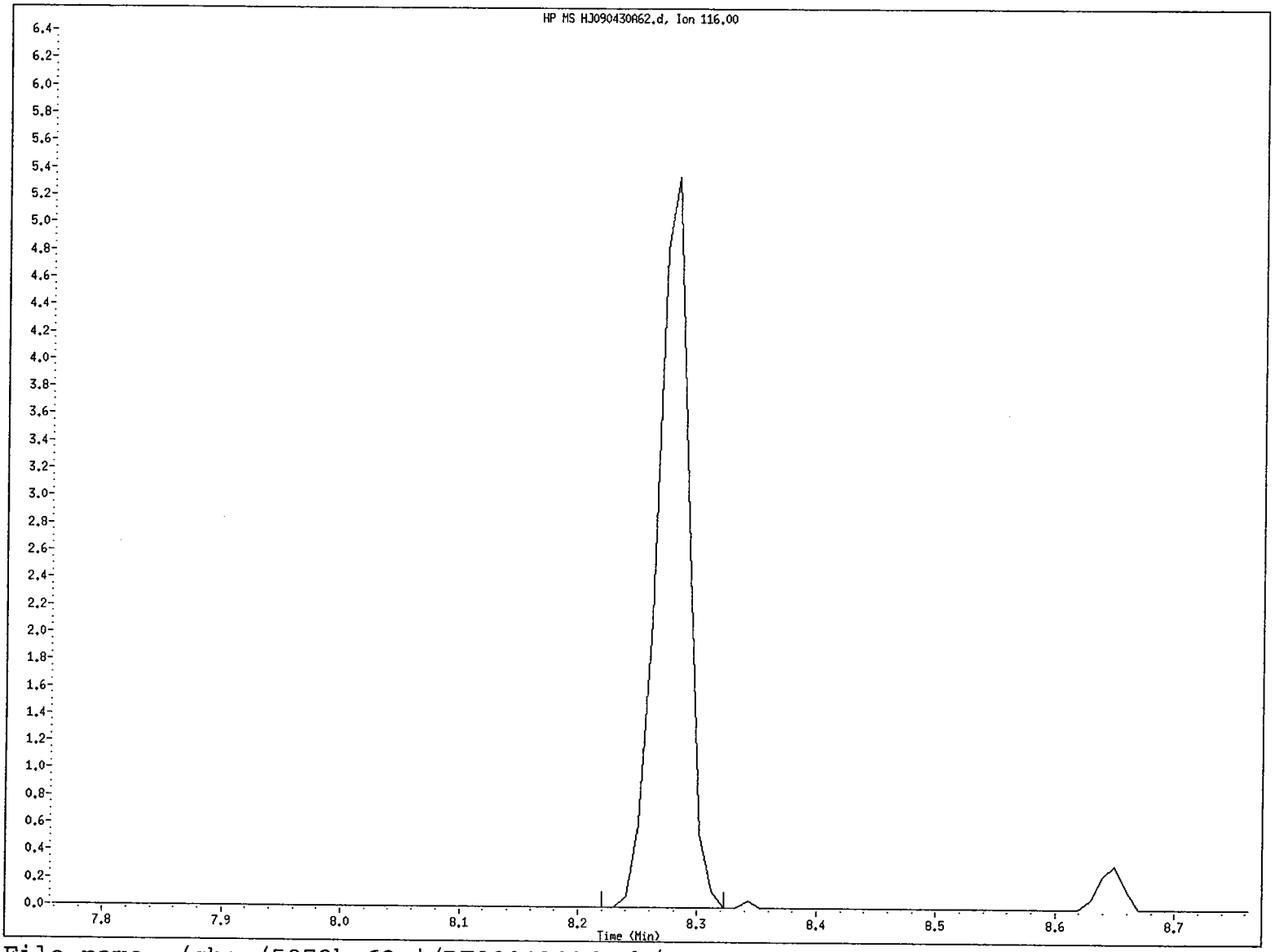
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 99839 Manually integrated



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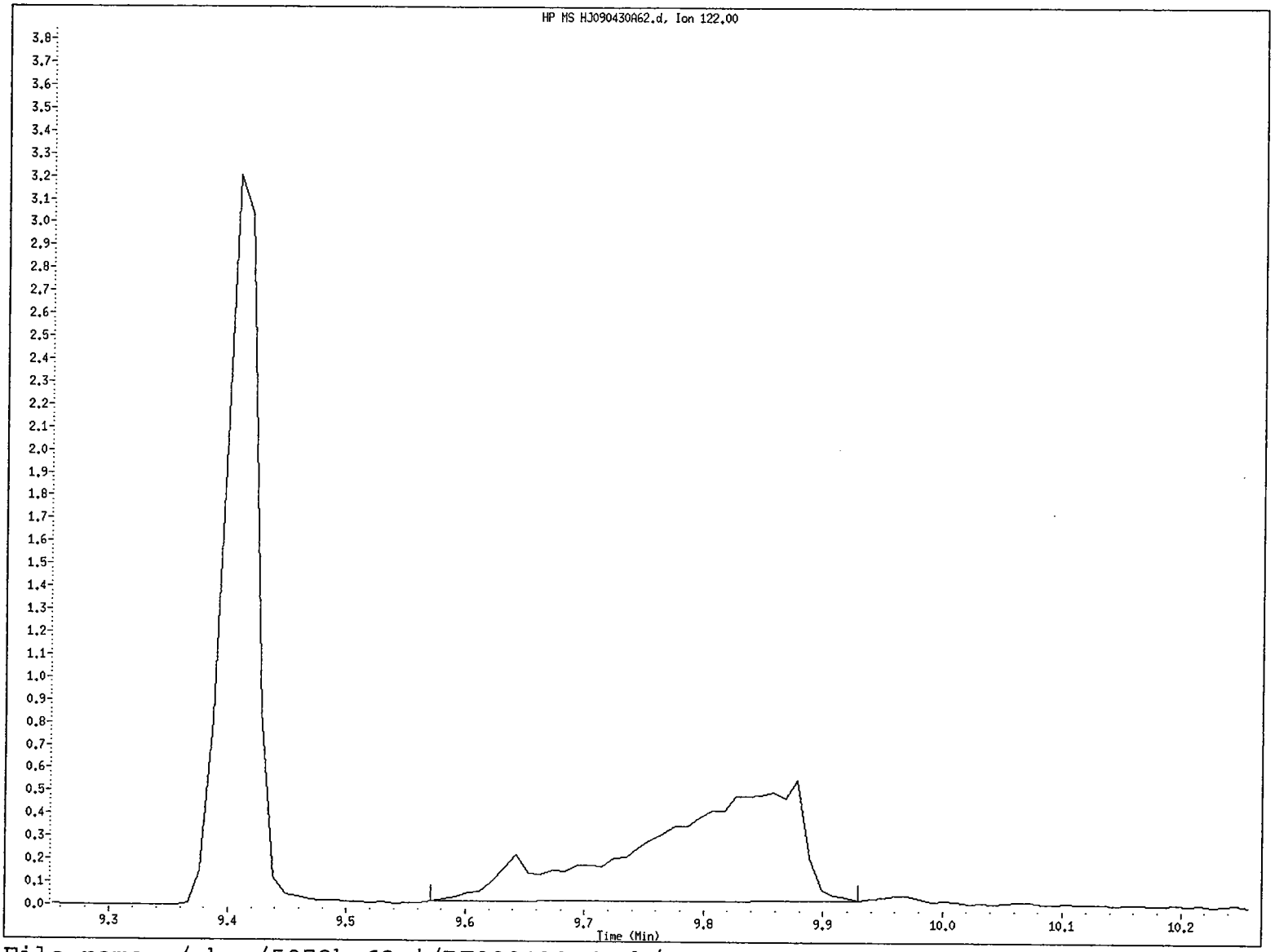
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 8.28
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 466661 Manually integrated



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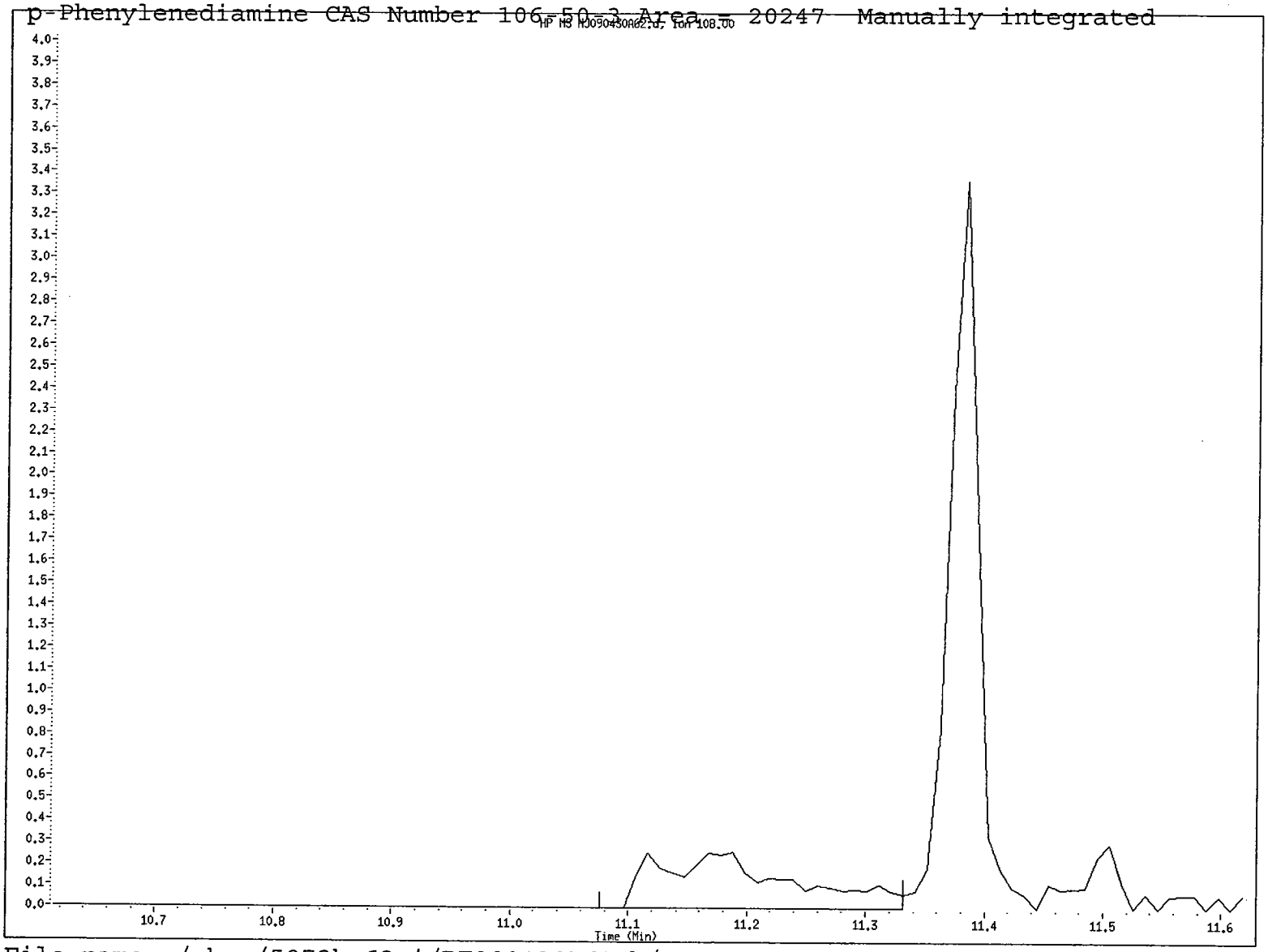
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 9.88
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 20247 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 20247 Manually integrated



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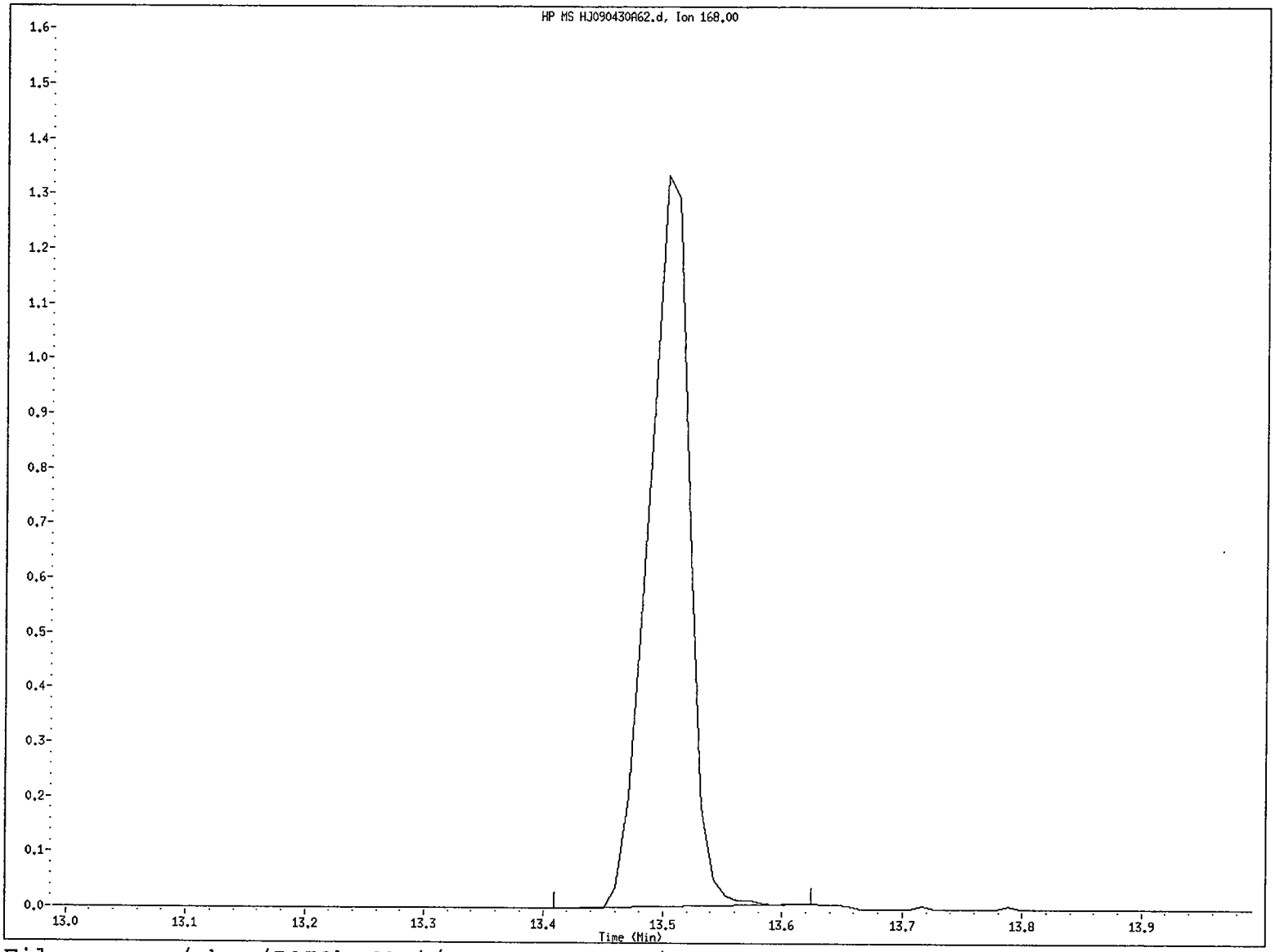
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 11.19
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 318633 Manually integrated



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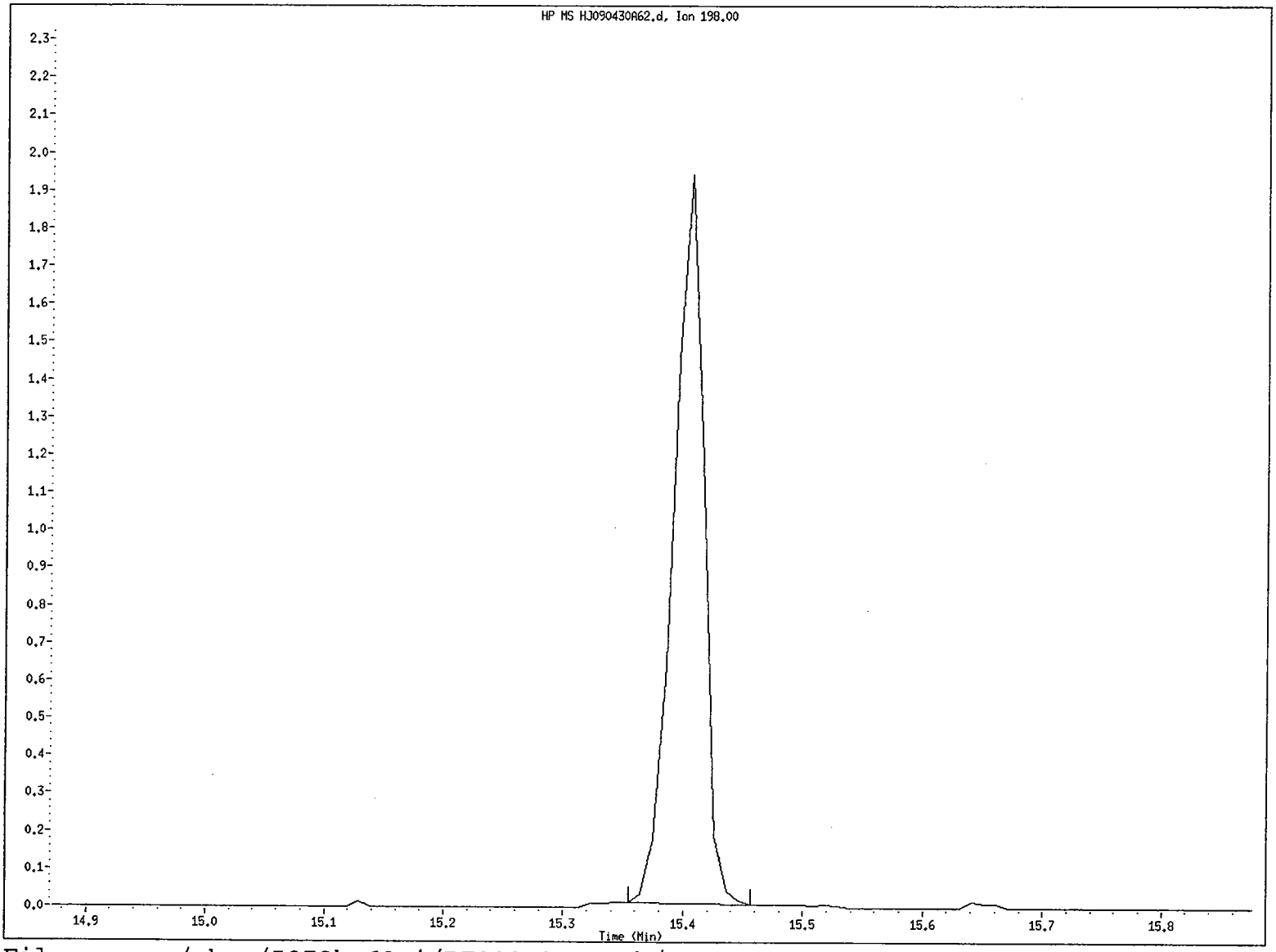
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 13.50
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 344400 Manually integrat



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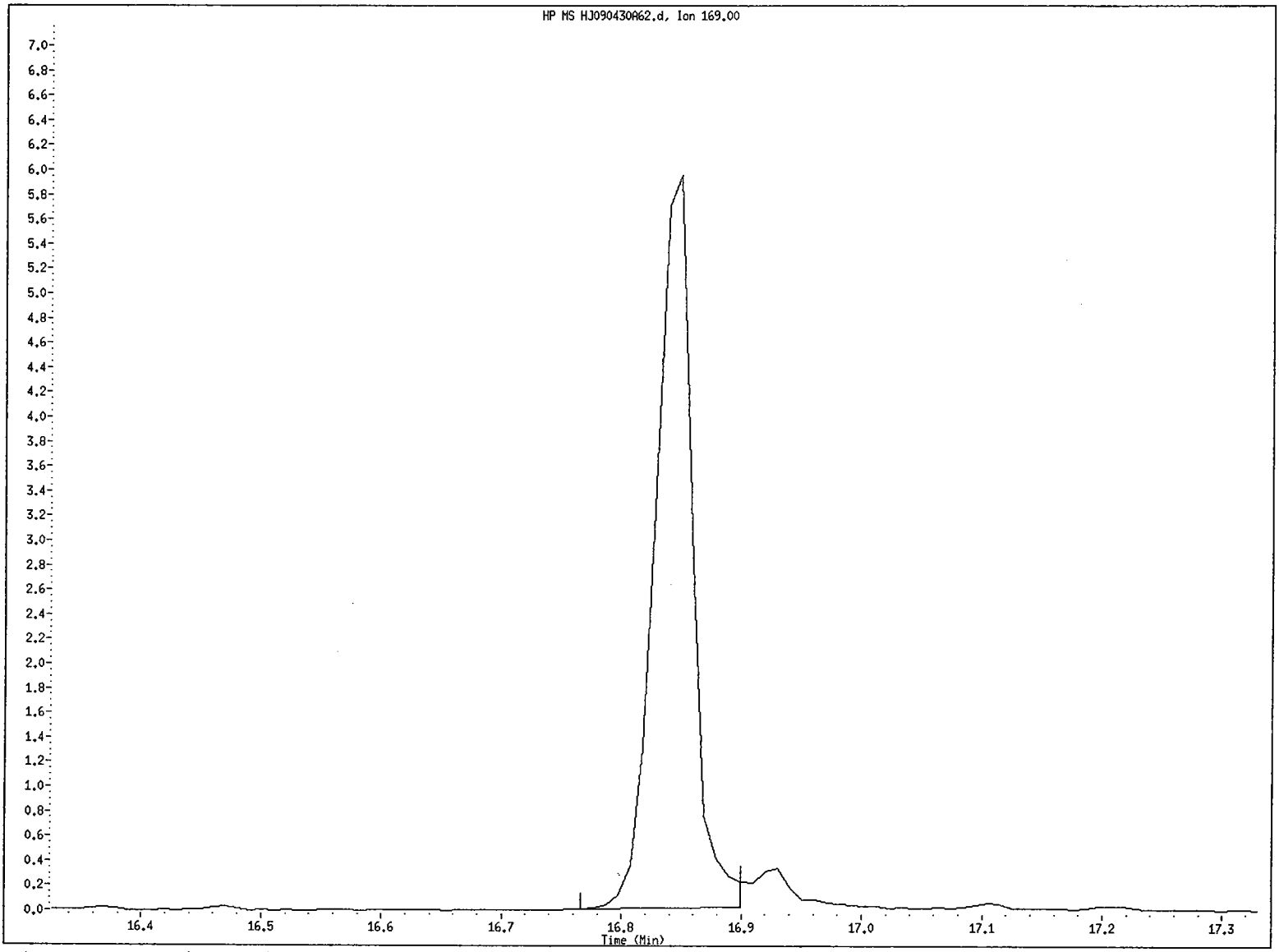
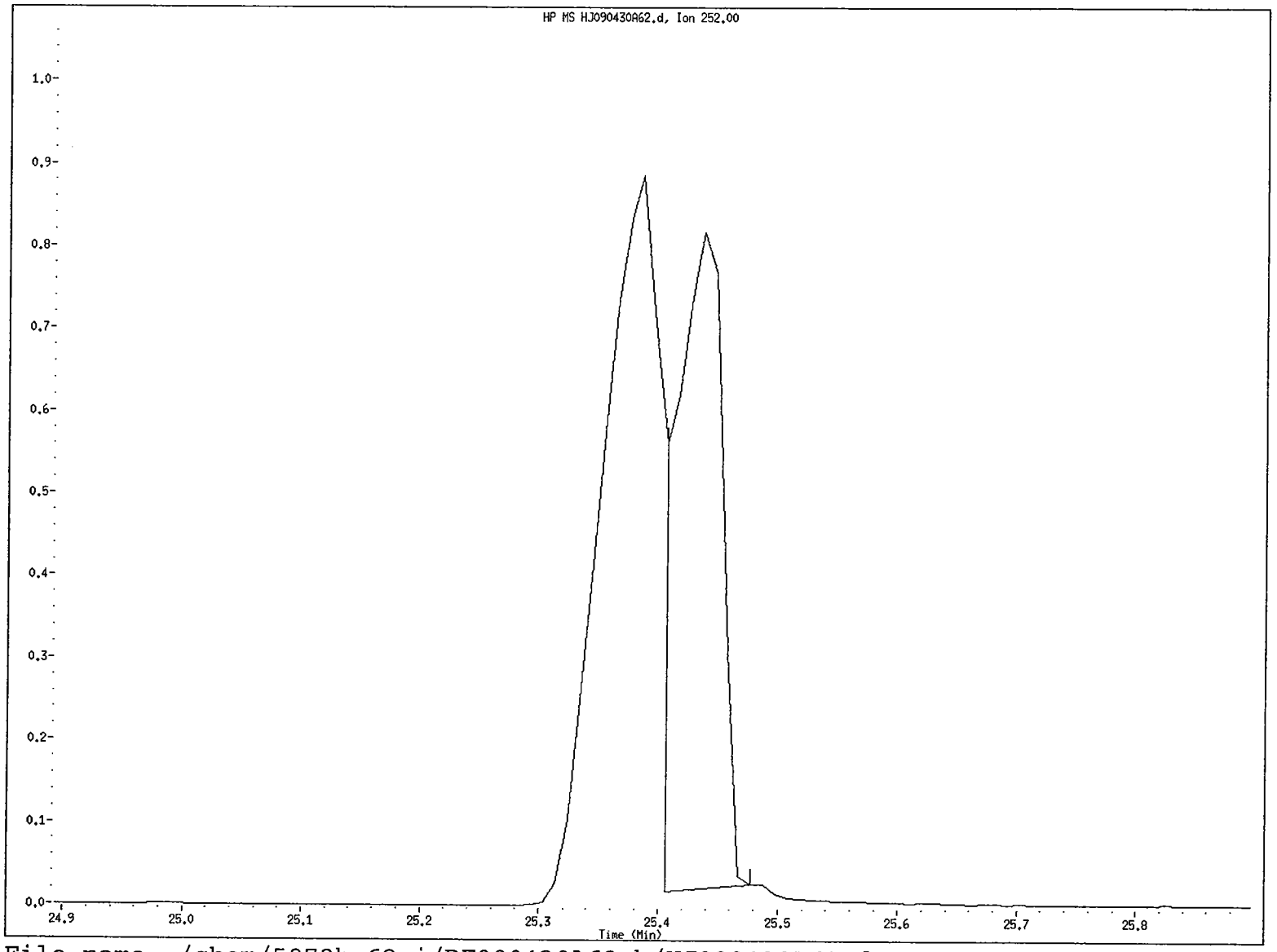
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 15.41
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 1302963 Manually integrated



File name: /chem/5972hp62.i/DF090430A62.b/HJ090430A62.d
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 16.85
Operator ID: 2650

Benzo(k)fluoranthene CAS Number 207-08-9 Area = 2273876 User selected hit



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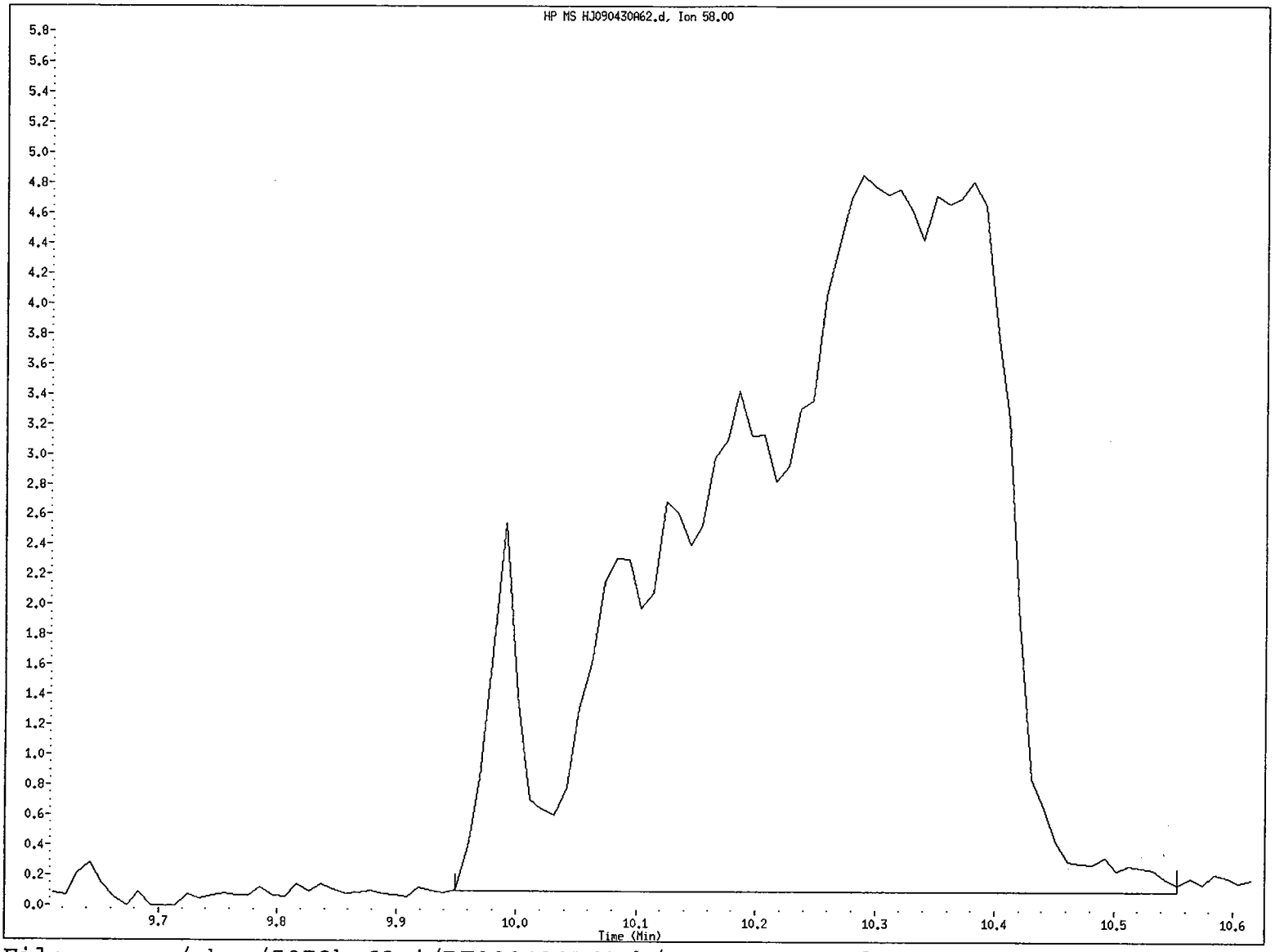
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 25.44
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 823775 Manually integrat



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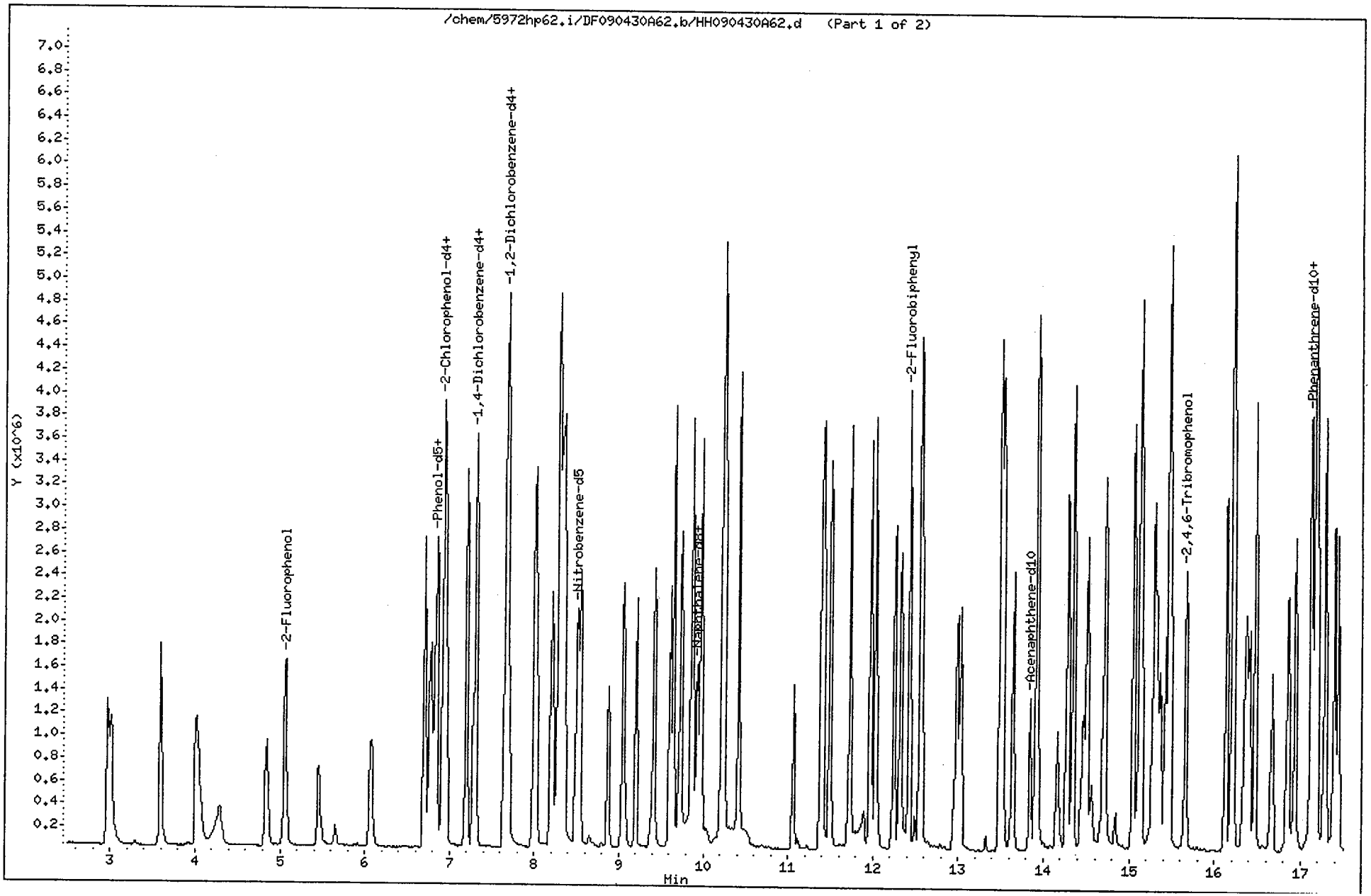
Client ID: SSTD120
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 18:27
Retention Time: 10.29
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Date : 30-APR-2009 17:04
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

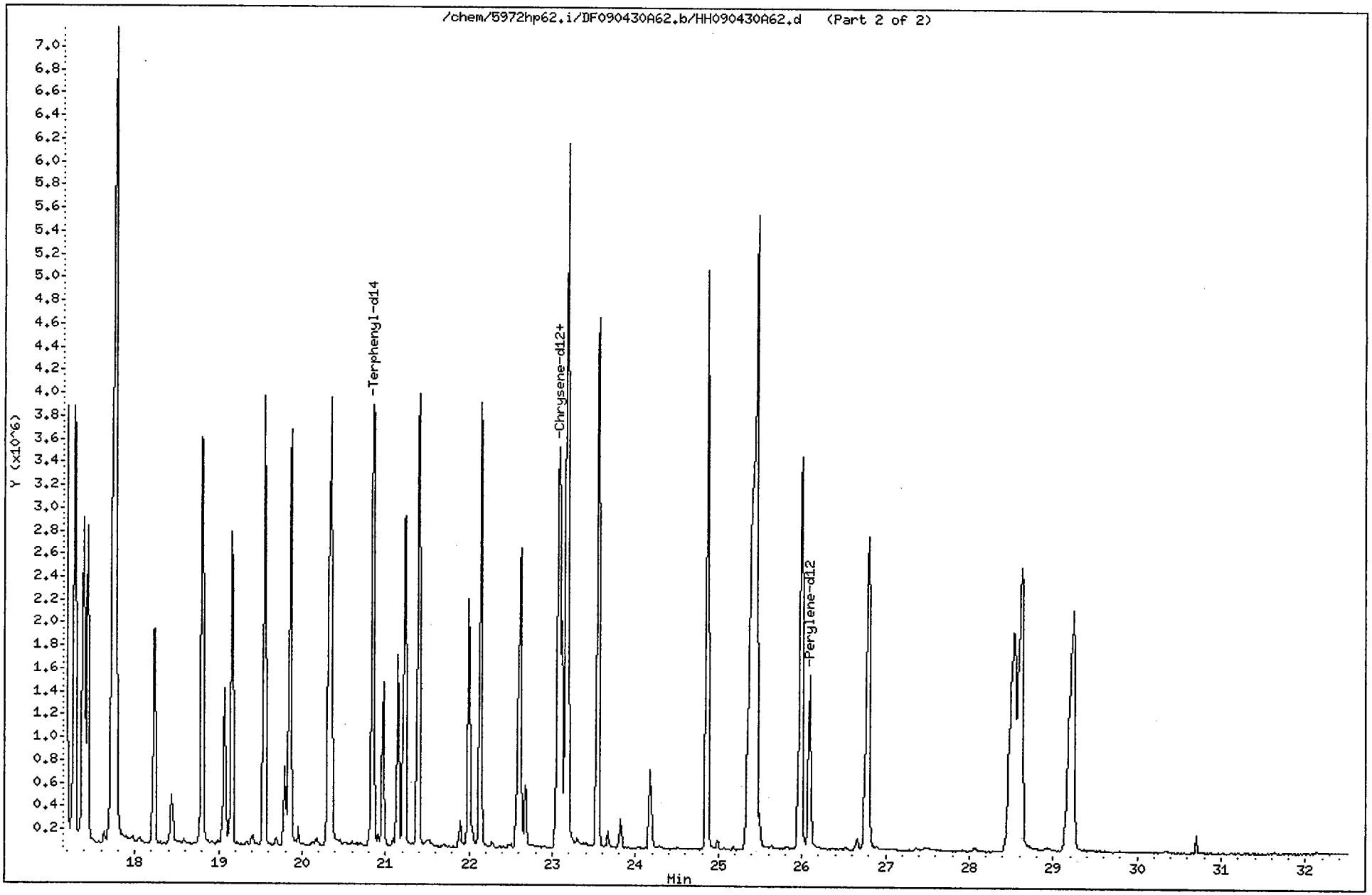
Instrument: 5972hp62.i

Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Date : 30-APR-2009 17:04
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 30-APR-2009 17:04
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD160:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 17:04 Cal File: HH090430A62.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all-ICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.278	7.268	(1.000)	318466	40.0000		
* 2 Naphthalene-d8	136	9.929	9.919	(1.000)	1035262	40.0000		
* 3 Acenaphthene-d10	164	13.839	13.839	(1.000)	561874	40.0000		
* 4 Phenanthrene-d10	188	17.135	17.114	(1.000)	837875	40.0000		
* 5 Chrysene-d12	240	23.112	23.092	(1.000)	1168158	40.0000		
* 6 Perylene-d12	264	26.091	26.081	(1.000)	1193436	40.0000		
$ 7 2-Fluorophenol	112	5.067	5.047	(0.696)	1088524	160.000	150	
$ 8 Phenol-d5	99	6.827	6.797	(0.938)	1302893	160.000	150	
$ 9 2-Chlorophenol-d4	132	6.920	6.910	(0.951)	1041474	160.000	140	8592
$ 10 1,2-Dichlorobenzene-d4	152	7.646	7.646	(1.051)	867158	160.000	150	9528
$ 11 Nitrobenzene-d5	82	8.506	8.486	(0.857)	1362377	160.000	150	
$ 12 2-Fluorobiphenyl	172	12.426	12.416	(0.898)	2332653	160.000	150	
$ 13 2,4,6-Tribromophenol	330	15.661	15.640	(1.132)	766923	160.000	160	
$ 14 Terphenyl-d14	244	20.861	20.840	(0.903)	2685902	160.000	140	
15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	627483	160.000	160	8730(A)

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.969	2.969	(0.408)	1263434	160.000	140	9491
17 Ethylmethacrylate	69	3.593	3.593	(0.494)	899564	160.000	150	9428
18 2-Picoline	93	4.013	4.003	(0.551)	1369866	160.000	150	8887
19 Nitrosomethylethylamine	88	4.279	4.299	(0.588)	509257	160.000	150	8857
20 Methyl Methanesulfonate	80	4.842	4.832	(0.665)	898684	160.000	160	9018
21 N-Nitrosodiethylamine	102	5.456	5.446	(0.750)	414599	160.000	160	9191
22 Ethyl Methanesulfonate	79	6.080	6.060	(0.835)	1070084	160.000	160	9281
23 Phenol	94	6.858	6.828	(0.942)	1288160	160.000	140	
24 Aniline	93	6.776	6.756	(0.931)	1791310	160.000	150	6106 (H)
25 Bis(2-chloroethyl)ether	93	6.930	6.920	(0.952)	1021819	160.000	140	
26 Pentachloroethane	167	6.705	6.705	(0.921)	617388	160.000	150	9593
27 2-Chlorophenol	128	6.961	6.940	(0.956)	1226058	160.000	150	9289
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.989)	1483054	160.000	140	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.004)	1452956	160.000	150	
30 Benzyl Alcohol	108	7.698	7.667	(1.058)	697053	160.000	150	
31 1,2-Dichlorobenzene	146	7.677	7.667	(1.055)	1278105	160.000	140	
32 2-Methylphenol	108	8.025	7.984	(1.103)	941559	160.000	150	
33 2,2'-oxybis(1-Chloropropane)	45	7.994	7.995	(1.098)	1429964	160.000	150	9064
34 N-Nitrosopyrrolidine	100	8.240	8.209	(1.132)	92467	160.000	69	5952 (M)
35 3-Methylphenol	108	8.353	8.312	(1.148)	1943869	320.000	290	
36 4-Methylphenol	108	8.353	8.312	(1.148)	1943869	320.000	290	
37 3-4-Methylphenol	108	8.353	8.312	(1.148)	1943869	320.000	290	9108
38 N-Nitroso-di-N-propylamine	70	8.322	8.291	(1.143)	447185	160.000	150	8723
39 Acetophenone	105	8.209	8.189	(0.827)	1629051	160.000	150	0 (M)
40 N-Nitrosomorpholine	116	8.291	8.261	(1.139)	78598	160.000	120	8039
41 o-Toluidine	106	8.301	8.281	(1.141)	1409025	160.000	150	0 (M)
42 Hexachloroethane	117	8.271	8.271	(1.136)	641142	160.000	150	9726
43 Nitrobenzene	77	8.537	8.517	(0.860)	1279836	160.000	150	9300
44 N-Nitrosopiperidine	114	8.875	8.844	(0.894)	541186	160.000	160	9143
45 Isophorone	82	9.049	9.018	(0.911)	2205894	160.000	150	9009
46 2-Nitrophenol	139	9.202	9.192	(0.927)	750534	160.000	160	8969
47 2,4-Dimethylphenol	122	9.417	9.397	(0.948)	840606	160.000	150	8903
48 Benzoic Acid	122	9.908	9.755	(0.998)	723197	800.000	810	5609 (AM)
49 o,o,o-Triethylphosphorothioat	198	9.653	9.632	(0.972)	514078	160.000	150	9117
50 Bis(2-chloroethoxy)methane	93	9.612	9.591	(0.968)	1539542	160.000	150	9153
51 2,4-Dichlorophenol	162	9.734	9.704	(0.980)	1041614	160.000	150	
52 1,2,4-Trichlorobenzene	180	9.867	9.857	(0.994)	1271471	160.000	150	
53 Naphthalene	128	9.970	9.960	(1.004)	3012476	160.000	150	9584
54 4-Chloroaniline	127	10.236	10.216	(1.031)	1208061	160.000	140	8635
55 2,6-Dichlorophenol	162	10.215	10.205	(1.029)	945415	160.000	150	
56 Hexachloropropene	213	10.246	10.236	(1.032)	990229	160.000	150	9492
57 Hexachlorobutadiene	225	10.420	10.410	(1.049)	801931	160.000	150	9254
58 N-Nitroso-di-n-butylamine	84	11.065	11.055	(1.114)	467799	160.000	160	9059 (A)
59 p-Phenylenediamine	108	11.208	11.116	(0.810)	33774	160.000	190	(AMH)
60 4-Chloro-3-methylphenol	107	11.393	11.372	(1.147)	897360	160.000	150	9451
61 Safrole	162	11.413	11.403	(1.149)	811275	160.000	150	9746
62 2-Methylnaphthalene	141	11.495	11.485	(1.158)	1600054	160.000	150	

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.730	11.720	(1.181)	1881963	160.000	140	
64 Hexachlorocyclopentadiene	237	12.027	12.027	(0.869)	1045405	160.000	150	9562
65 1,2,4,5-Tetrachlorobenzene	216	11.966	11.956	(0.865)	1299167	160.000	140	9337
66 2,4,6-Trichlorophenol	196	12.252	12.232	(0.885)	777448	160.000	150	
67 2,4,5-Trichlorophenol	196	12.324	12.314	(0.891)	864423	160.000	150	
68 Isosafrole	162	12.058	12.048	(0.871)	161459	160.000	150	
69 2-Chloronaphthalene	162	12.559	12.549	(0.908)	2711870	160.000	140	
70 2-Nitroaniline	65	12.979	12.959	(0.938)	712239	160.000	160	8962
71 1,4-Napthoquinone	158	13.030	13.010	(0.942)	872274	160.000	140	9363
72 Dimethylphthalate	163	13.522	13.501	(0.977)	2216026	160.000	150	8898
73 1,3-Dinitrobenzene	168	13.511	13.491	(0.976)	436411	160.000	150	0 (M)
74 2,6-Dinitrotoluene	165	13.644	13.624	(0.986)	663512	160.000	150	9628
75 Acenaphthylene	152	13.491	13.481	(0.975)	3053959	160.000	150	9767
76 3-Nitroaniline	138	13.941	13.900	(1.007)	585267	160.000	150	8700
77 Acenaphthene	154	13.921	13.911	(1.006)	1678488	160.000	140	9491
78 2,4-Dinitrophenol	184	14.166	14.126	(1.024)	386416	160.000	170	(A)
79 4-Nitrophenol	139	14.463	14.402	(1.045)	496378	160.000	150	8990
80 Pentachlorobenzene	250	14.351	14.330	(1.037)	1276600	160.000	150	9697
81 2,4-Dinitrotoluene	165	14.514	14.484	(1.049)	814633	160.000	160	7523
82 Dibenzofuran	168	14.289	14.269	(1.033)	2817625	160.000	150	9119
83 1-Naphthylamine	143	14.504	14.494	(1.048)	690599	160.000	160	
84 2,3,4,6-Tetrachlorophenol	232	14.719	14.699	(1.064)	728281	160.000	150	9787
85 2-Naphthylamine	143	14.699	14.668	(1.062)	1003855	160.000	180	(A)
86 Diethylphthalate	149	15.149	15.108	(1.095)	2417573	160.000	150	9541
87 Zinophos	97	15.313	15.282	(1.107)	664048	160.000	160	9042
88 4-Chlorophenyl-phenylether	204	15.139	15.118	(1.094)	1079858	160.000	140	7549
89 5-Nitro-o-toluidine	152	15.292	15.241	(1.105)	736380	160.000	150	7728
90 Fluorene	166	15.057	15.037	(1.088)	2256975	160.000	150	7765
91 4-Nitroaniline	138	15.364	15.303	(1.110)	673781	160.000	160	8789
92 4,6-Dinitro-2-methylphenol	198	15.425	15.374	(0.900)	537556	160.000	160	0 (AM)
93 N-Nitrosodiphenylamine	169	15.466	15.436	(0.903)	1689554	160.000	150	7757
95 1,2-Diphenylhydrazine	77	15.487	15.456	(1.119)	2606324	160.000	150	9224
96 Sulfotep	322	16.142	16.122	(1.166)	484636	160.000	150	8878
97 1,3,5-Trinitrobenzene	75	16.347	16.255	(0.954)	731348	160.000	170	8863 (A)
98 Diallate (trans isomer)	86	16.214	16.193	(0.946)	662379	80.0000	77	
99 Diallate (trans) part of total	86	16.214	16.193	(0.946)	662379	80.0000	77	9015
100 Phorate	75	16.224	16.203	(0.947)	1396686	160.000	160	8892 (M)
101 Phenacetin	108	16.408	16.337	(0.958)	1317676	160.000	160	9602 (A)
102 Diallate (cis isomer)	86	16.367	16.357	(0.955)	247946	80.0000	81	(A)
103 Diallate (cis) part of total	86	16.367	16.357	(0.955)	247946	80.0000	41	8829 (H)
104 4-Bromophenyl-phenylether	248	16.214	16.193	(0.946)	740474	160.000	150	8536
105 Hexachlorobenzene	284	16.480	16.459	(0.962)	1255155	160.000	160	9009
106 Dimethoate	87	16.674	16.613	(0.973)	649697	160.000	140	9125
107 4-Aminobiphenyl	169	16.858	16.828	(0.984)	1892306	160.000	160	0 (AM)
108 Pentachlorophenol	266	16.940	16.910	(0.989)	693929	160.000	160	8028 (A)
109 Pentachloronitrobenzene	237	17.114	17.094	(0.999)	422078	160.000	160	7349 (A)
110 Pronamide	173	17.176	17.135	(1.002)	1081039	160.000	150	9287

KEH 5/5/09

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111 Disulfoton	88	17.401	17.381	(1.016)	1121892	160.000	150	9431
112 Phenanthrene	178	17.196	17.166	(1.004)	3044597	160.000	150	
113 Anthracene	178	17.299	17.268	(1.010)	3332459	160.000	160	
114 Carbazole	167	17.780	17.739	(1.038)	9045748	160.000	160	9465(A)
115 Methyl Parathion	109	18.240	18.220	(1.065)	636130	160.000	150	8963
116 Di-n-butylphthalate	149	18.813	18.793	(1.098)	4287137	160.000	160	9666
117 Parathion	109	19.161	19.141	(1.118)	540363	160.000	160	7855
118 4-Nitroquinoline-1-oxide	190	19.080	19.039	(1.113)	397275	160.000	160	8174
119 Methapyrilene	97	19.397	19.377	(1.132)	22692	160.000	150	8979
120 Isodrin	193	19.550	19.540	(1.141)	471328	160.000	160	9487
121 Fluoranthene	202	19.868	19.847	(1.159)	3319679	160.000	160	9465
122 Benzidine	184	20.308	20.298	(0.879)	961772	160.000	150	8716
123 Pyrene	202	20.349	20.328	(0.880)	3593703	160.000	140	9626
124 p-Dimethylaminoazobenzene	225	21.239	21.219	(0.919)	709739	160.000	140	8884
125 Chlorobenzilate	251	21.403	21.383	(0.926)	1296879	160.000	140	9368
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.150	22.130	(0.958)	1984415	160.000	140	9309
129 3,3'-Dimethylbenzidine	212	21.997	21.987	(0.952)	1482430	160.000	150	9545
130 2-Acetylaminofluorene	181	22.621	22.570	(0.979)	1565725	160.000	150	9216
131 3,3'-Dichlorobenzidine	252	23.184	23.164	(1.003)	1352541	160.000	140	8263
132 bis(2-ethylhexyl)Phthalate	149	23.552	23.542	(1.019)	2666309	160.000	140	9400
133 Benzo(a)anthracene	228	23.082	23.061	(0.999)	3626131	160.000	140	
134 Chrysene	228	23.184	23.153	(1.003)	2958469	160.000	140	
135 Di-n-octylphthalate	149	24.863	24.853	(0.953)	4614645	160.000	150	
136 7,12-Dimethylbenz(a)anthracene	256	25.456	25.416	(0.976)	1614682	160.000	150	8701
137 Benzo(b)fluoranthene	252	25.405	25.354	(0.974)	4905470	160.000	170	(A)
138 Benzo(k)fluoranthene	252	25.456	25.395	(0.976)	3020278	160.000	130	(H)
139 Benzo(a)pyrene	252	25.999	25.968	(0.996)	3574465	160.000	150	
140 3-Methylcholanthrene	268	26.797	26.767	(1.027)	1948093	160.000	150	9555
141 Indeno(1,2,3-c,d)pyrene	276	28.537	28.486	(1.094)	3870828	160.000	160	9042(A)
142 Dibenzo(a,h)anthracene	278	28.619	28.568	(1.097)	3446249	160.000	160	7545
143 Benzo(g,h,i)perylene	276	29.243	29.172	(1.121)	3955373	160.000	160	8788(A)
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				910325	160.000	120	0
201 a,a-Dimethylphenethylamine	58	10.451	10.113	(1.053)	1457845	160.000	200	6607(AM)2
202 Aramite	185	21.147	21.137	(0.915)	233845	160.000	140	9016(H)

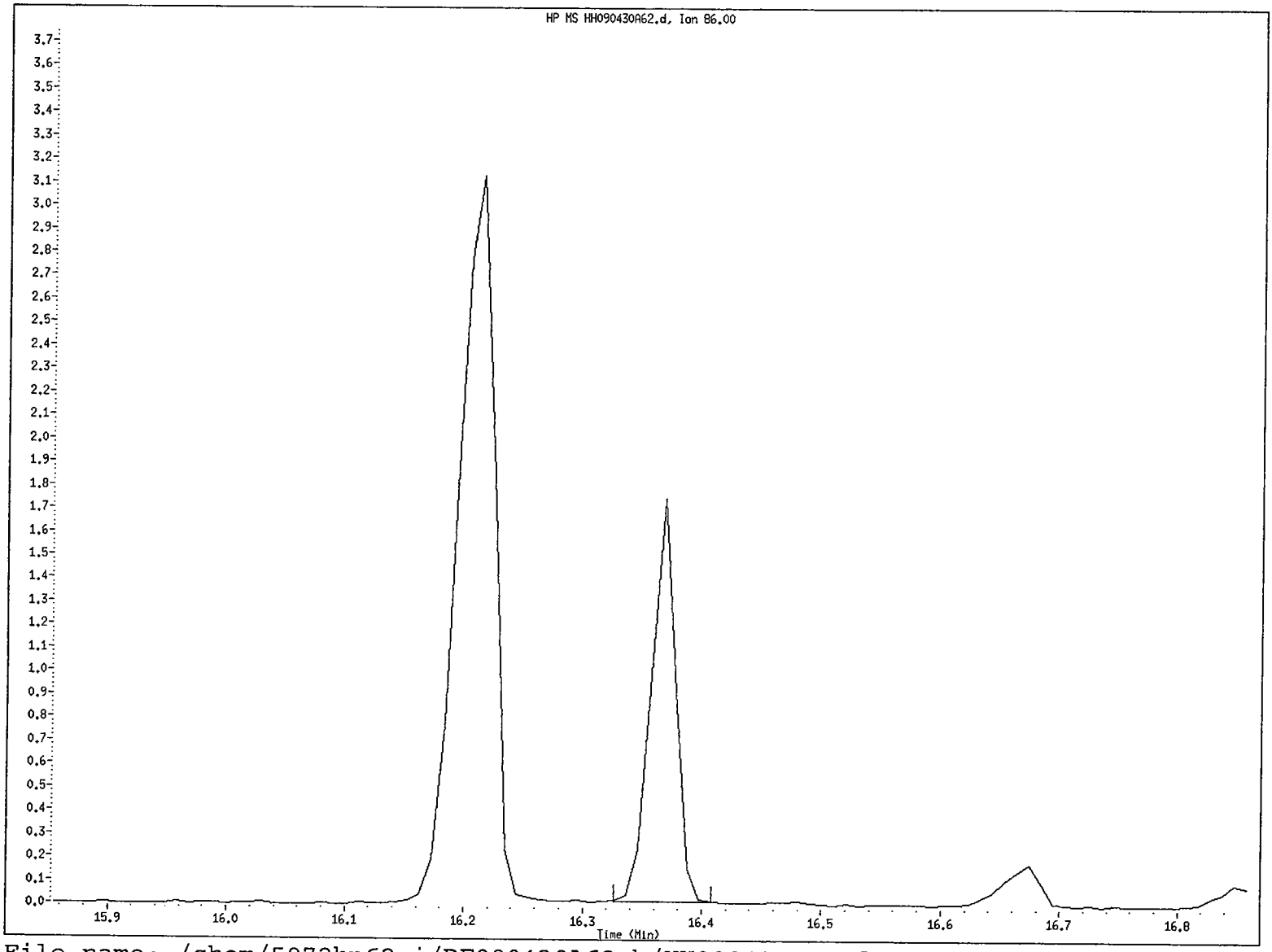
n5/8/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

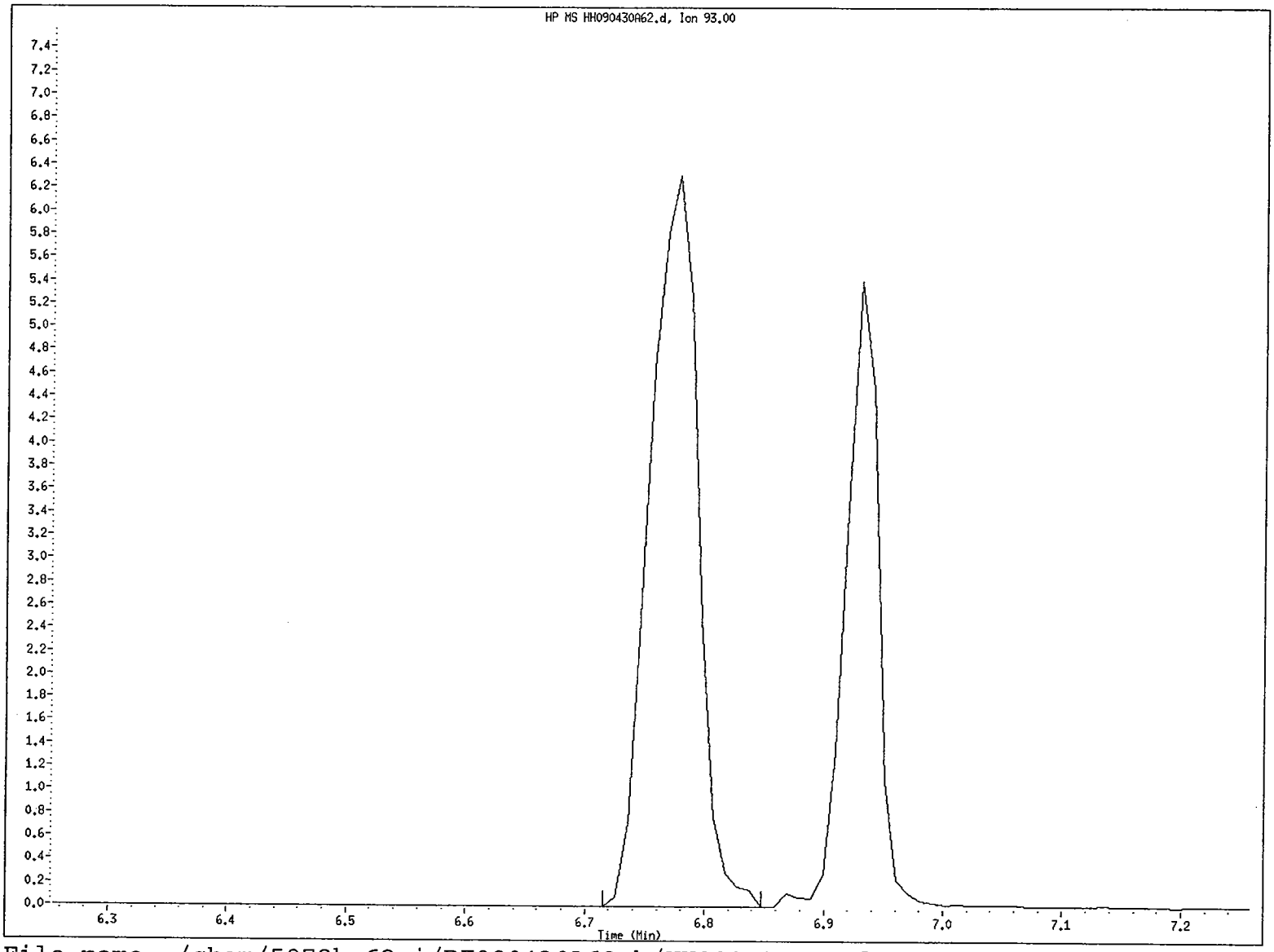
KeH 5/5/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 247946 User selected



File name: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 16.37
Operator ID: 2650

Aniline CAS Number 62-53-3 Area = 1791310 User selected hit



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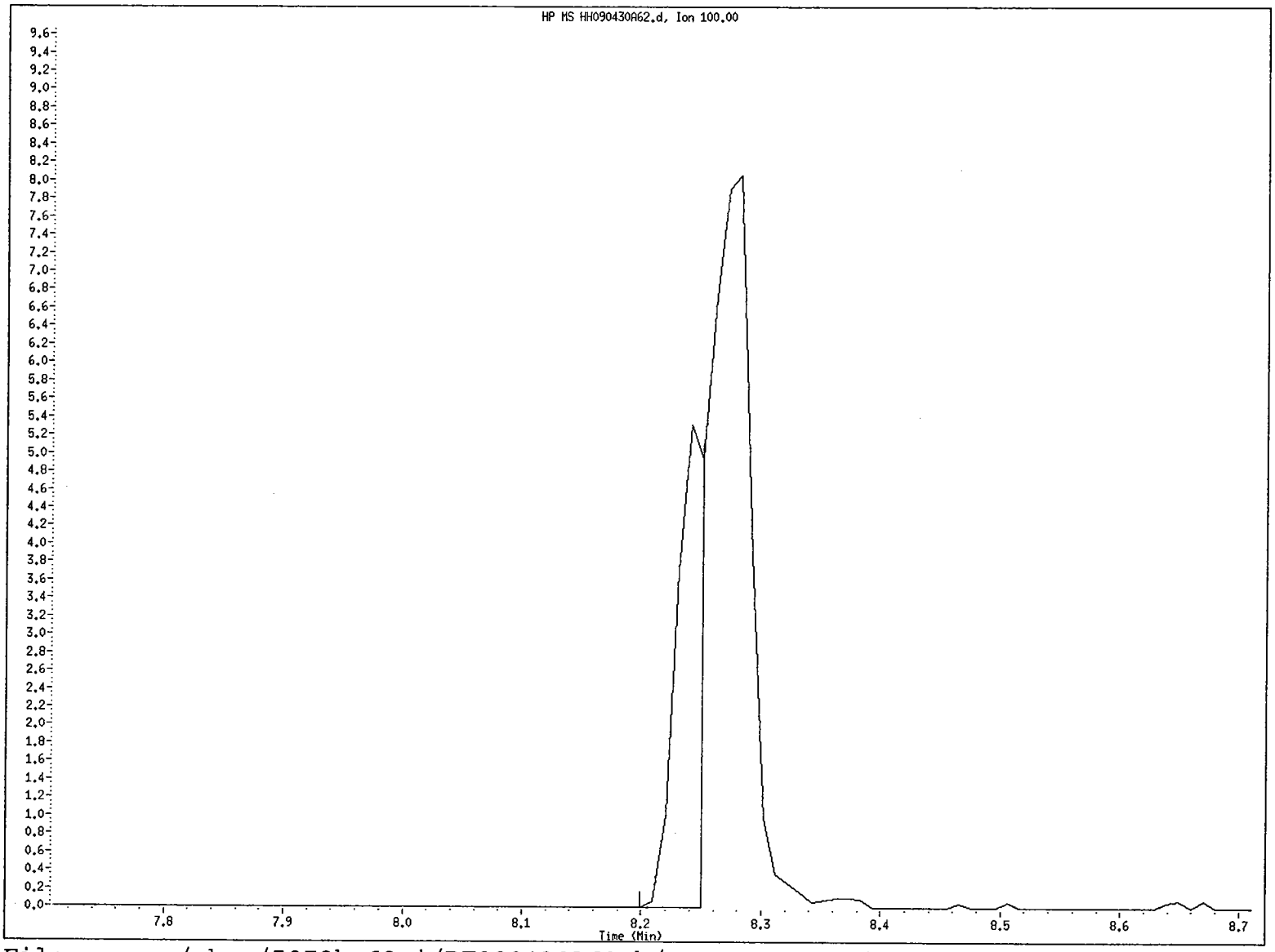
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 6.78
Operator ID: 2650

N-Nitrosopyrrolidine CAS Number 930-55-2 Area = 92467 Manually integrated



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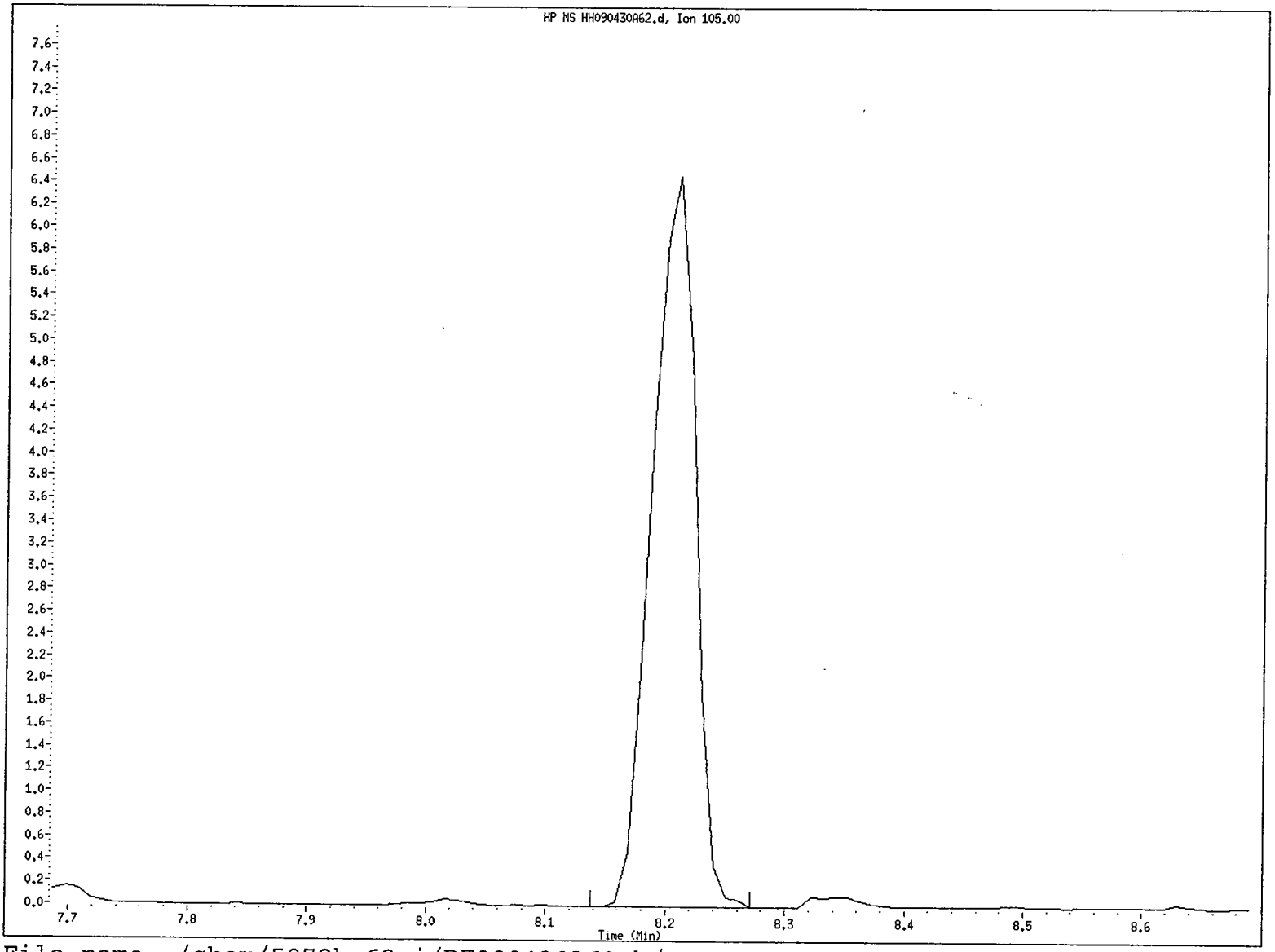
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 8.24
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 1629051 Manually integrated



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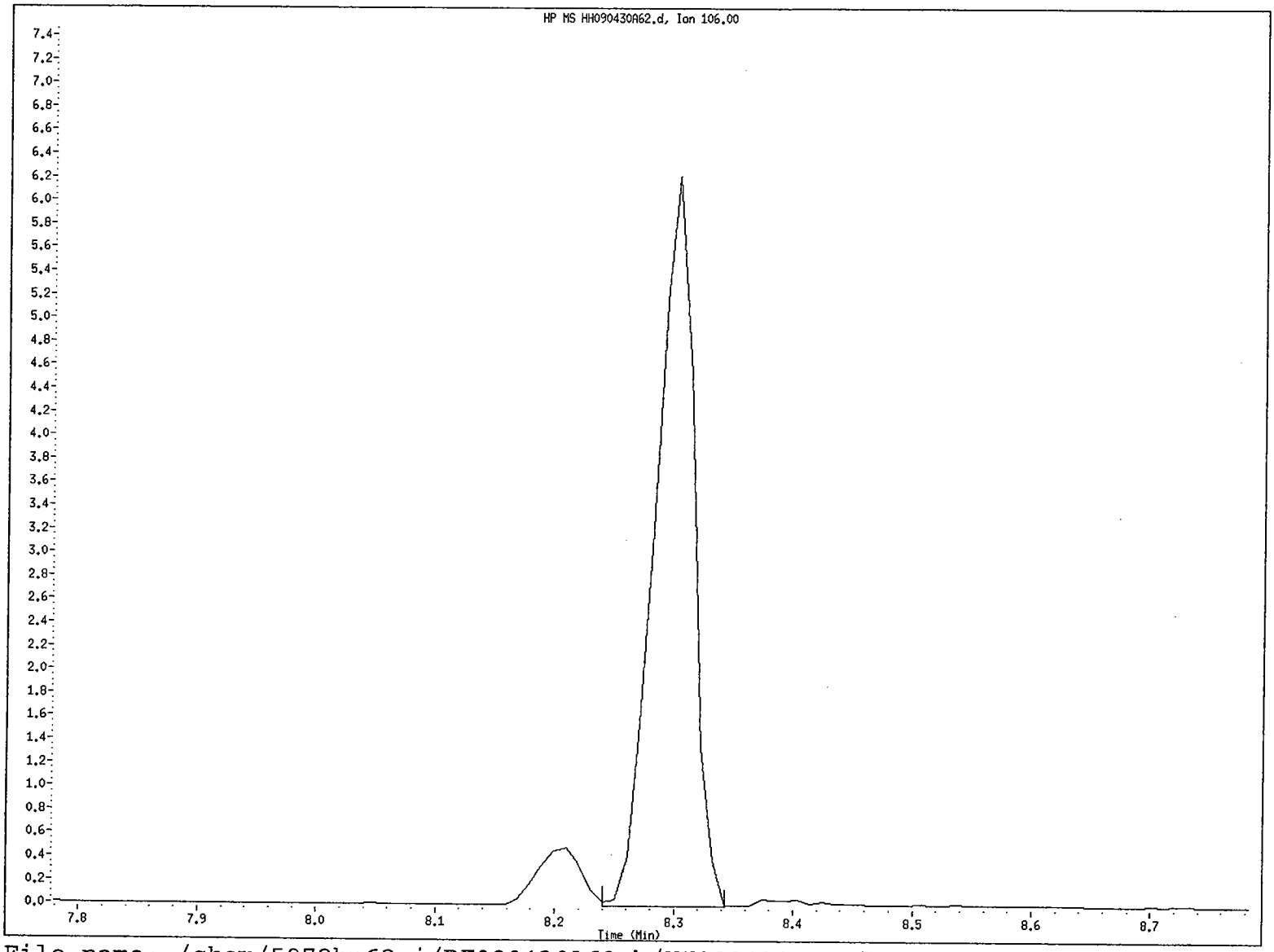
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 8.21
Operator ID: 2650

o-Toluidine CAS Number 95-53-4 Area = 1409025 Manually integrated



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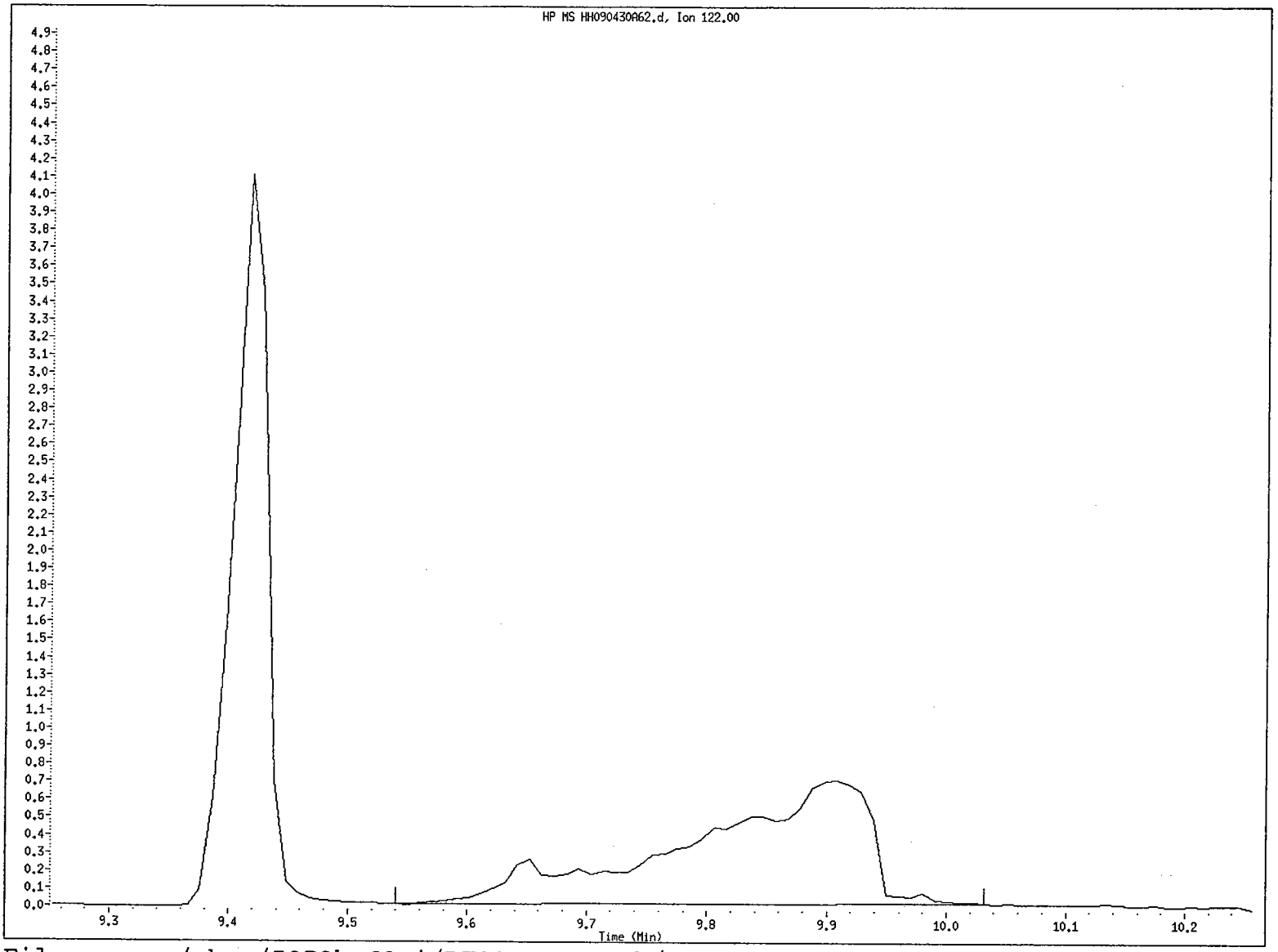
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 8.30
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 723197 Manually integrated



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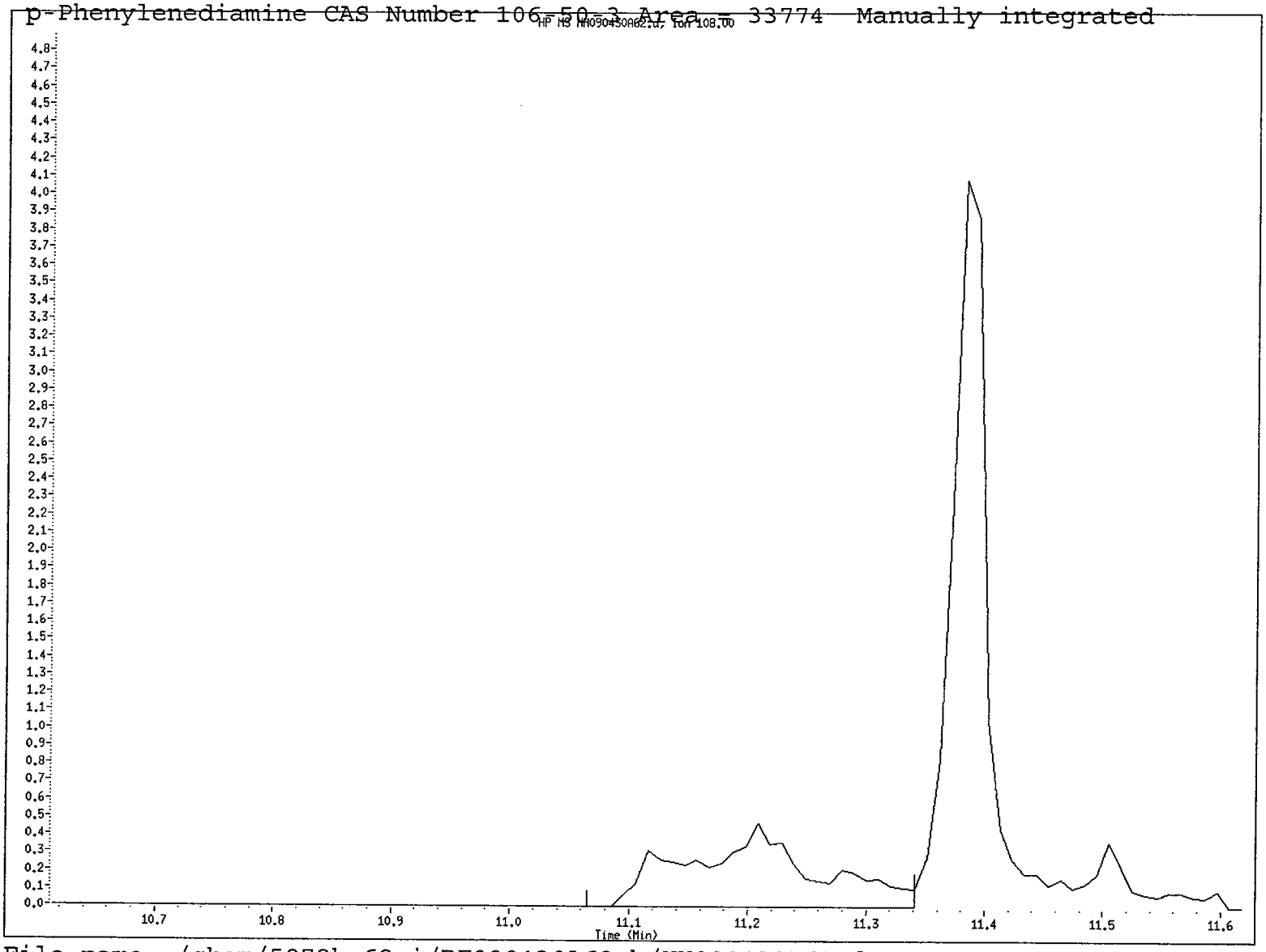
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 9.91
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 33774 User selected hit

p-Phenylenediamine CAS Number 106-50-3 Area = 33774 Manually integrated



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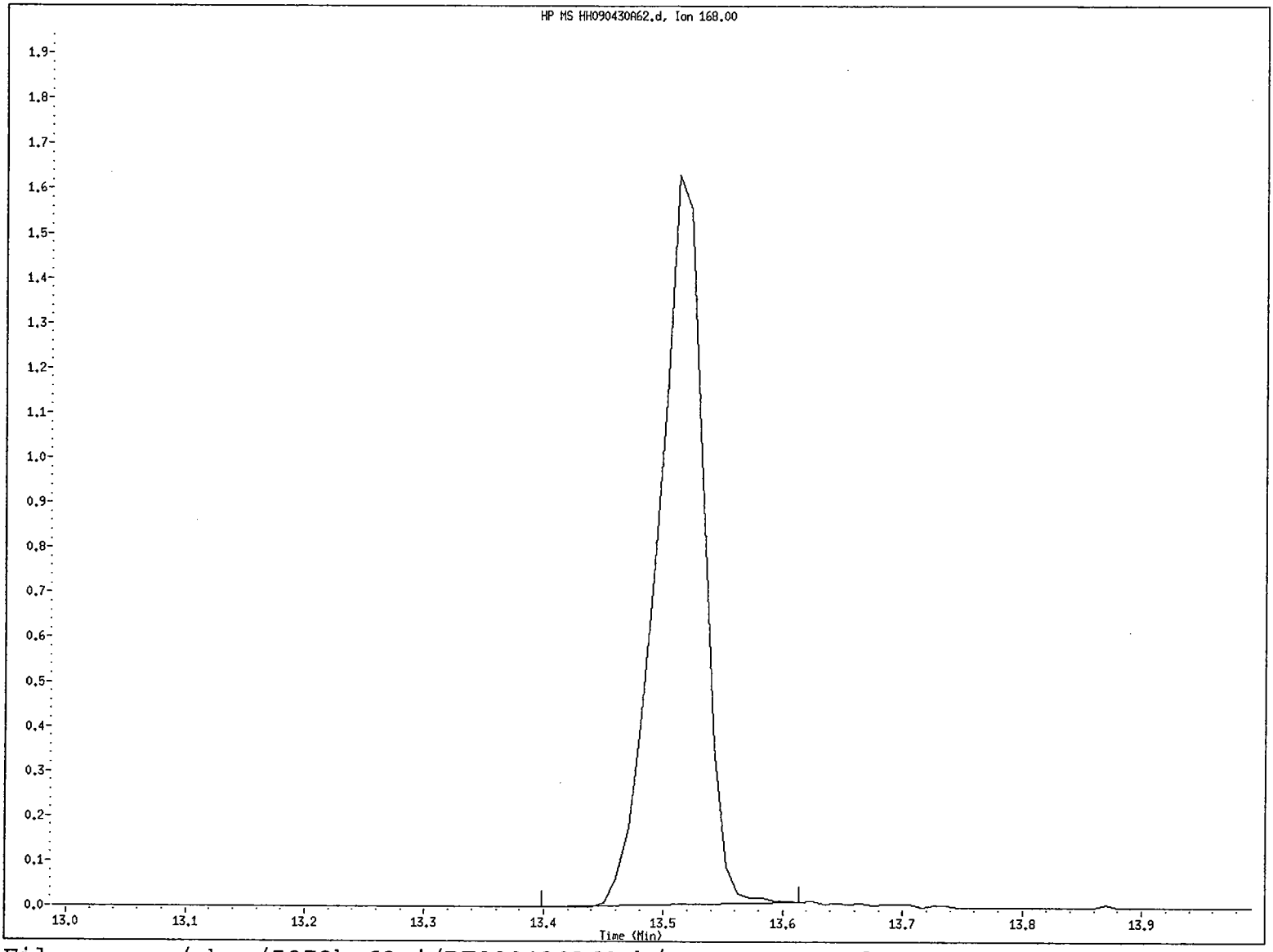
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 11.21
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 436411 Manually integrated



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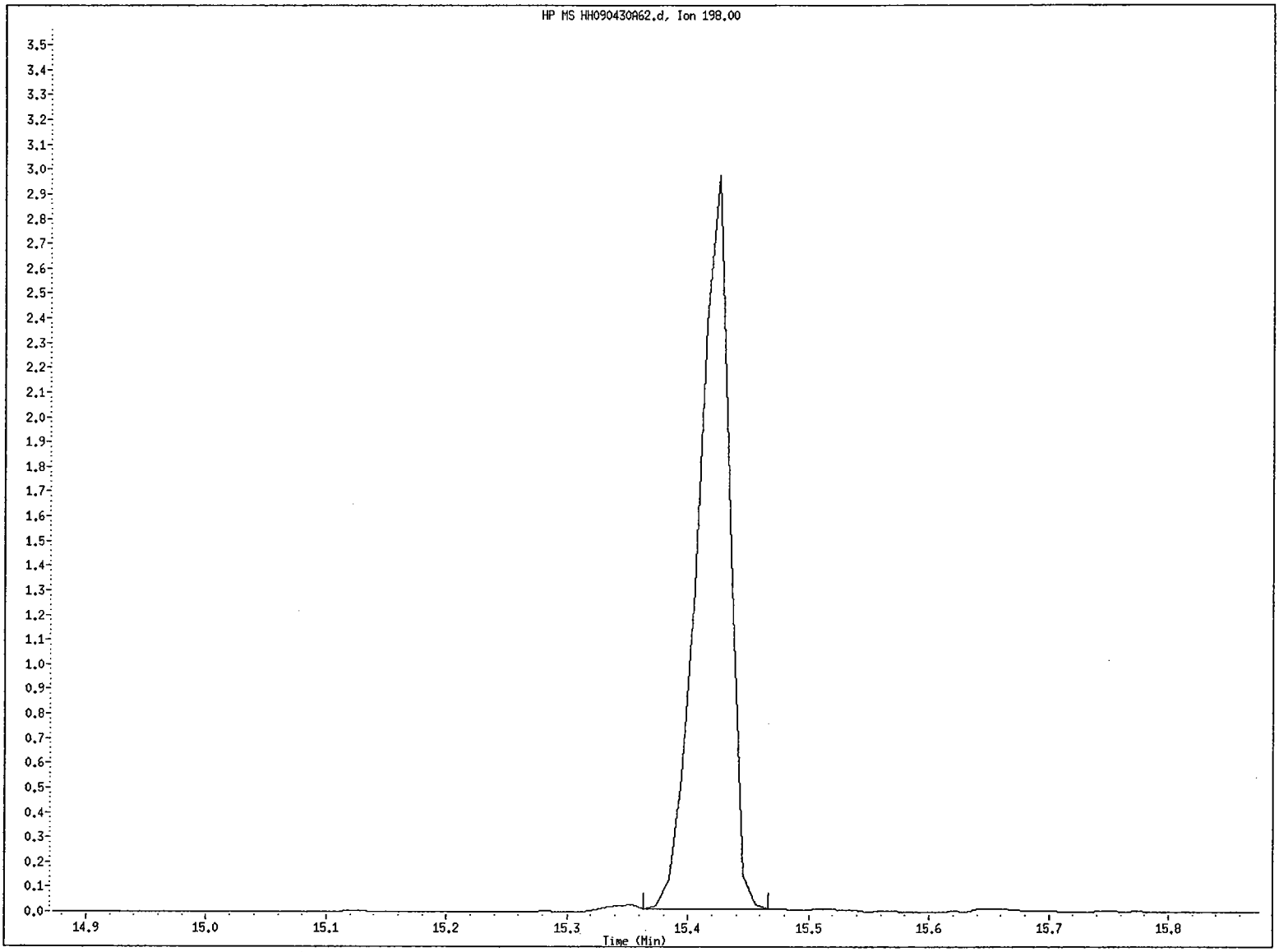
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 13.51
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 537556 Manually integrat



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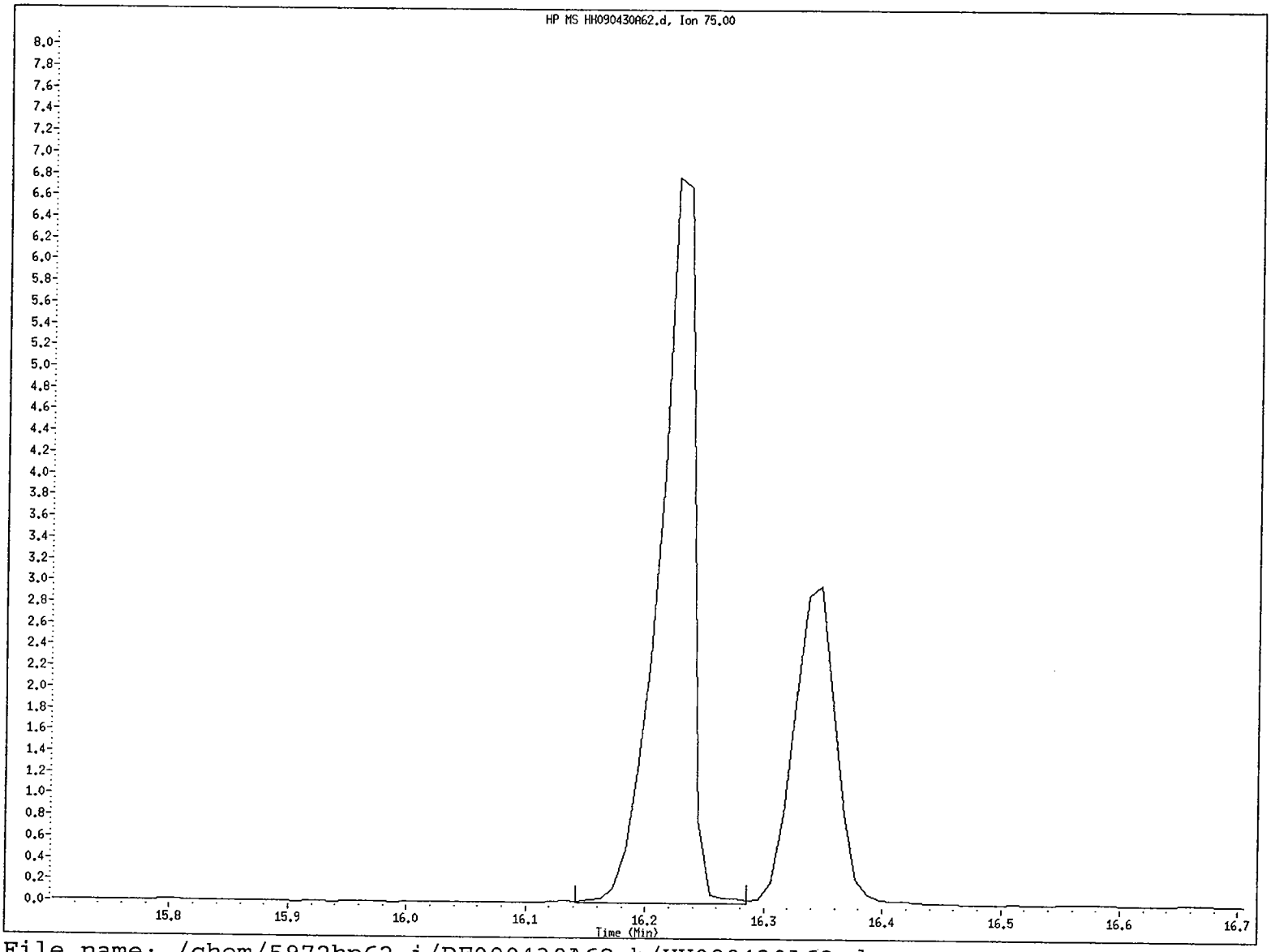
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 15.43
Operator ID: 2650

Phorate CAS Number 298-02-2 Area = 1396686 Manually integrated



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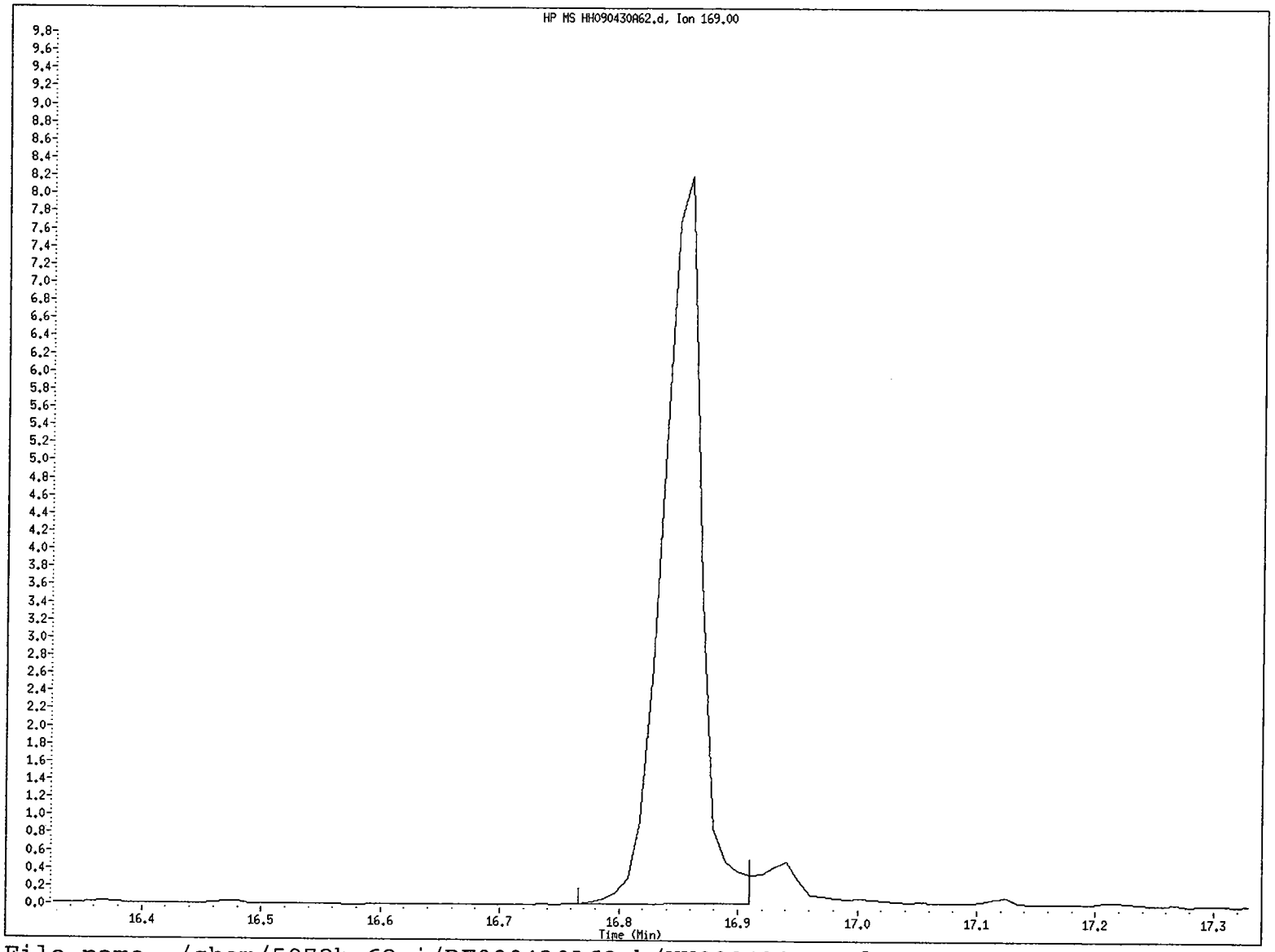
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 16.22
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 1892306 Manually integrated



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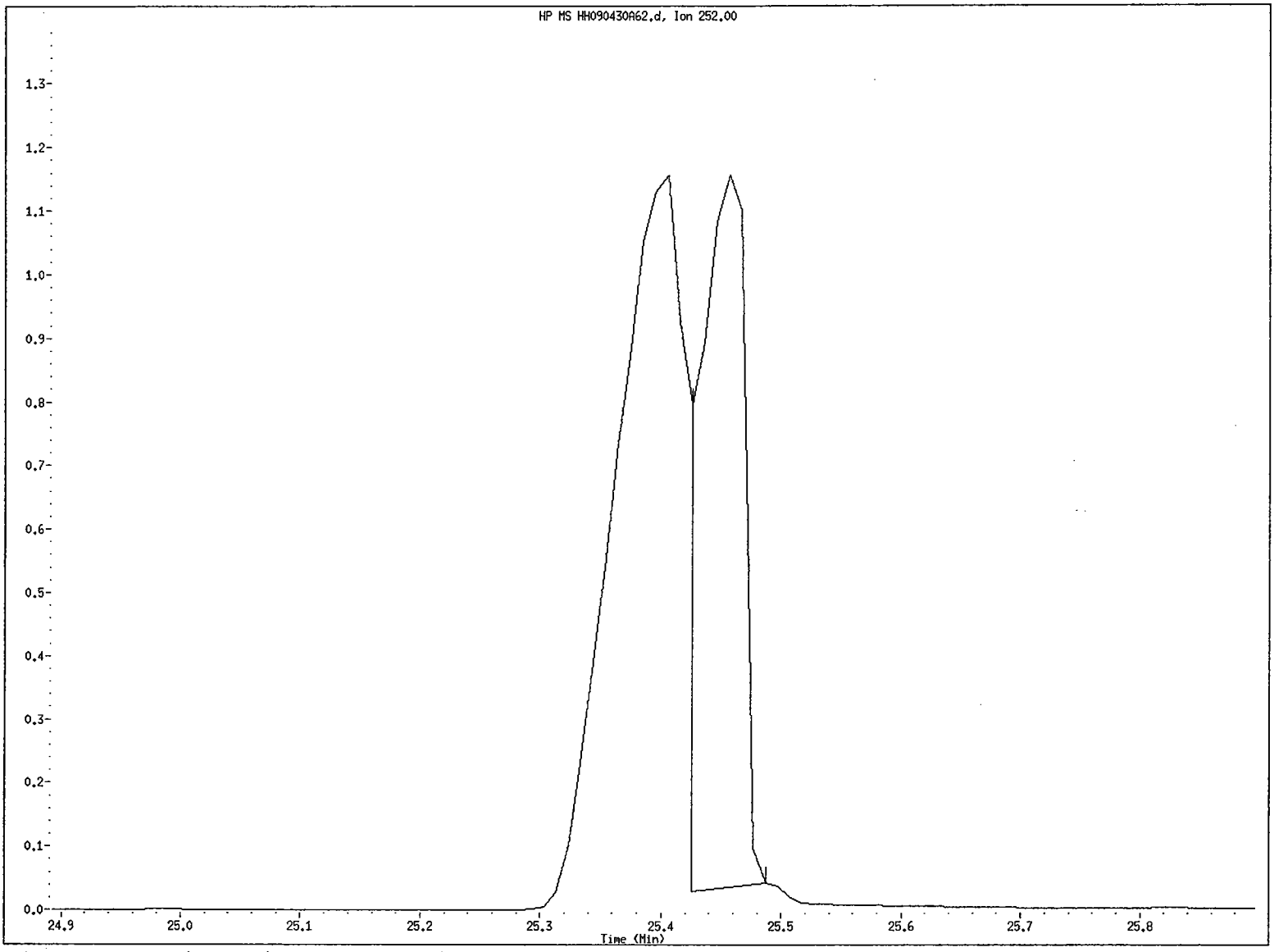
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 16.86
Operator ID: 2650

Benzo(k)fluoranthene CAS Number 207-08-9 Area = 3020278 User selected hit



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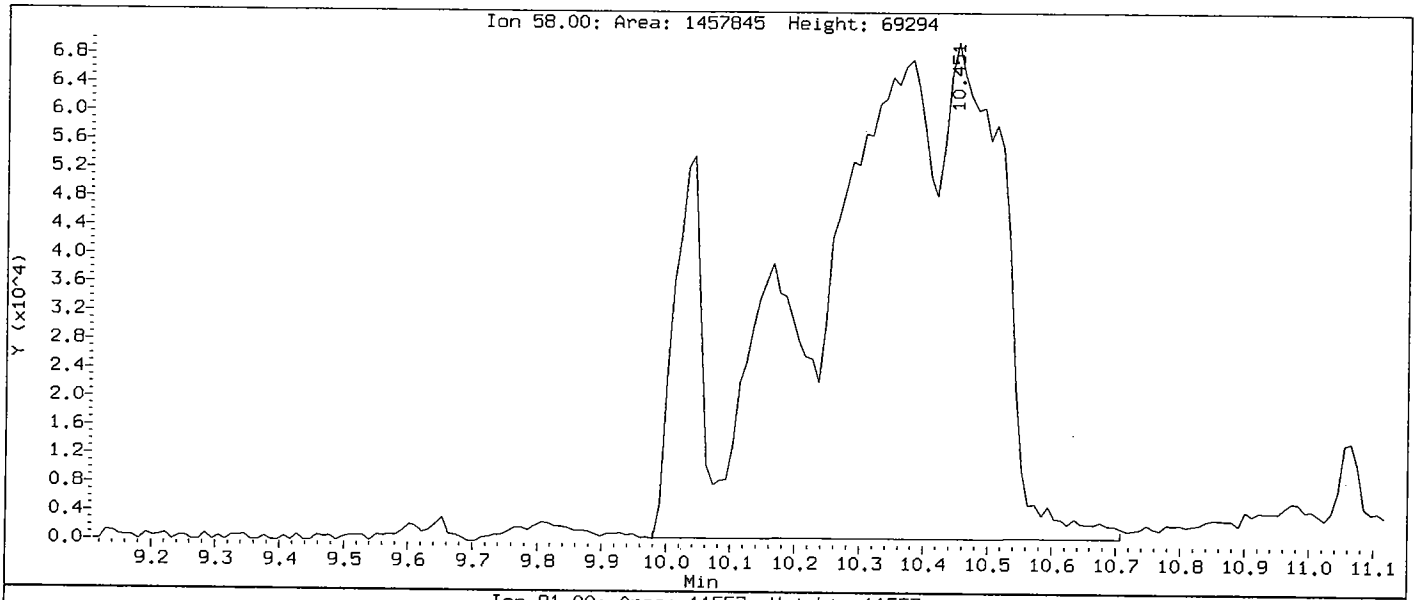
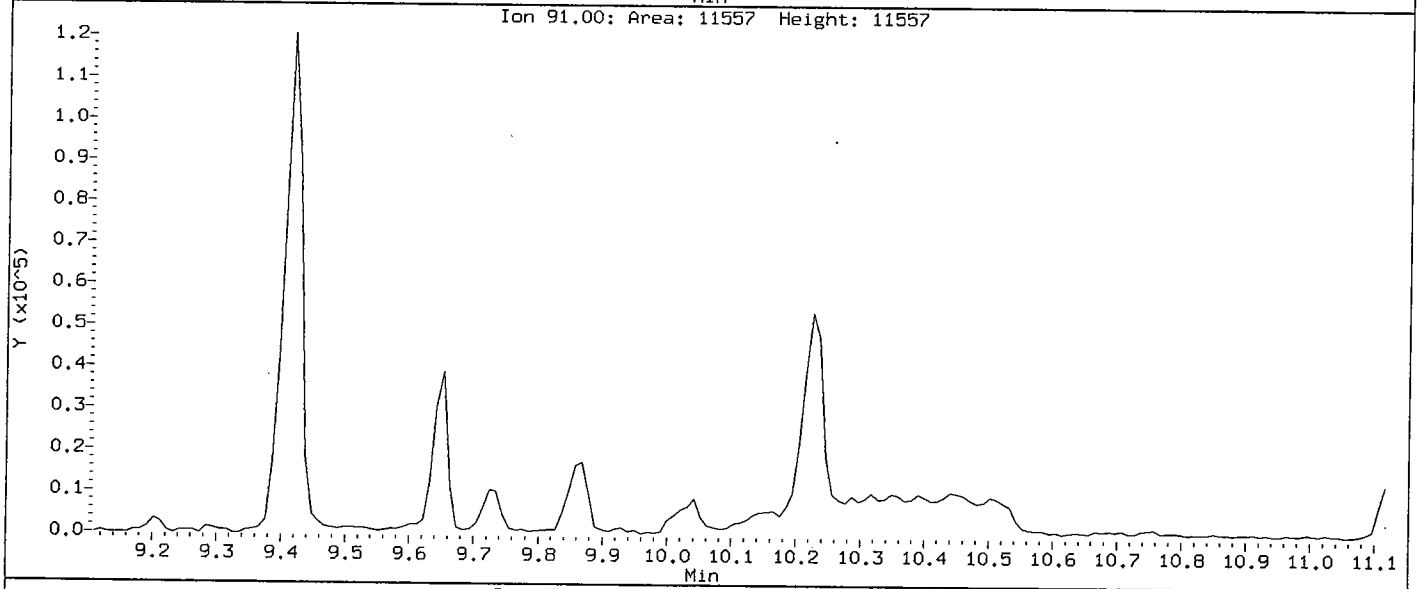
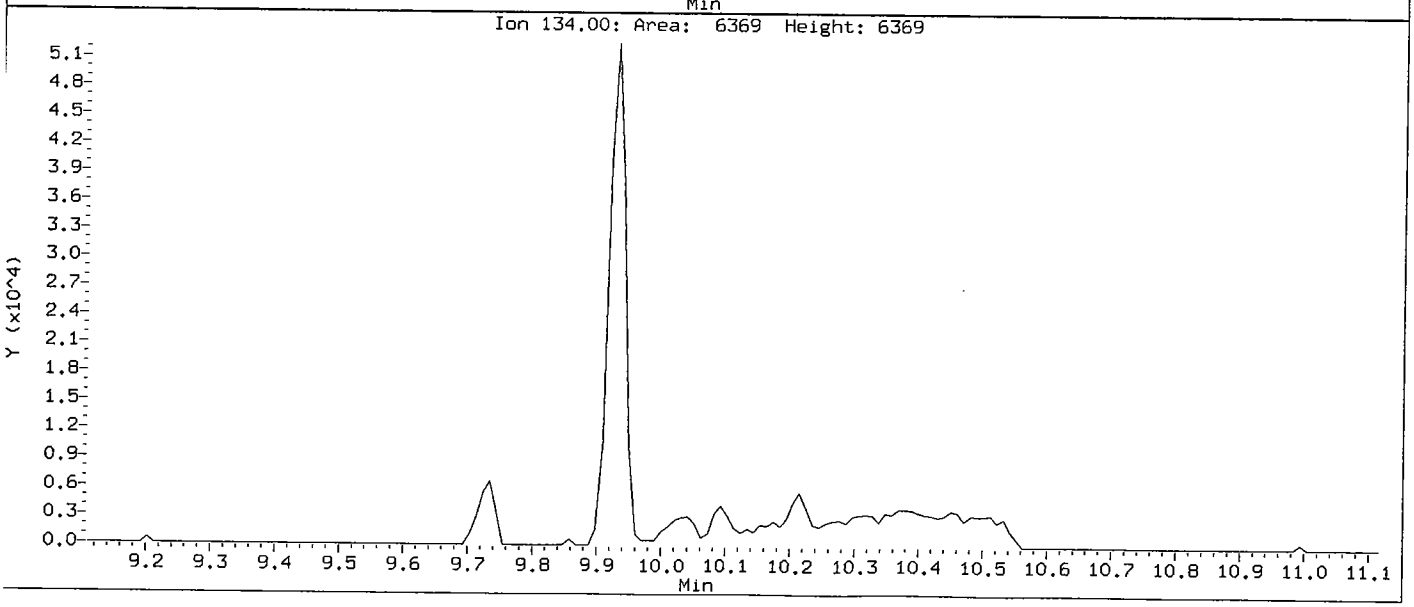
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 25.46
Operator ID: 2650

Data File: /chem/5972hp62.i/DF090430A62.b/HH090430A62.d
Injection Date: 30-APR-2009 17:04
Instrument: 5972hp62.i
Client Sample ID: SSTD160

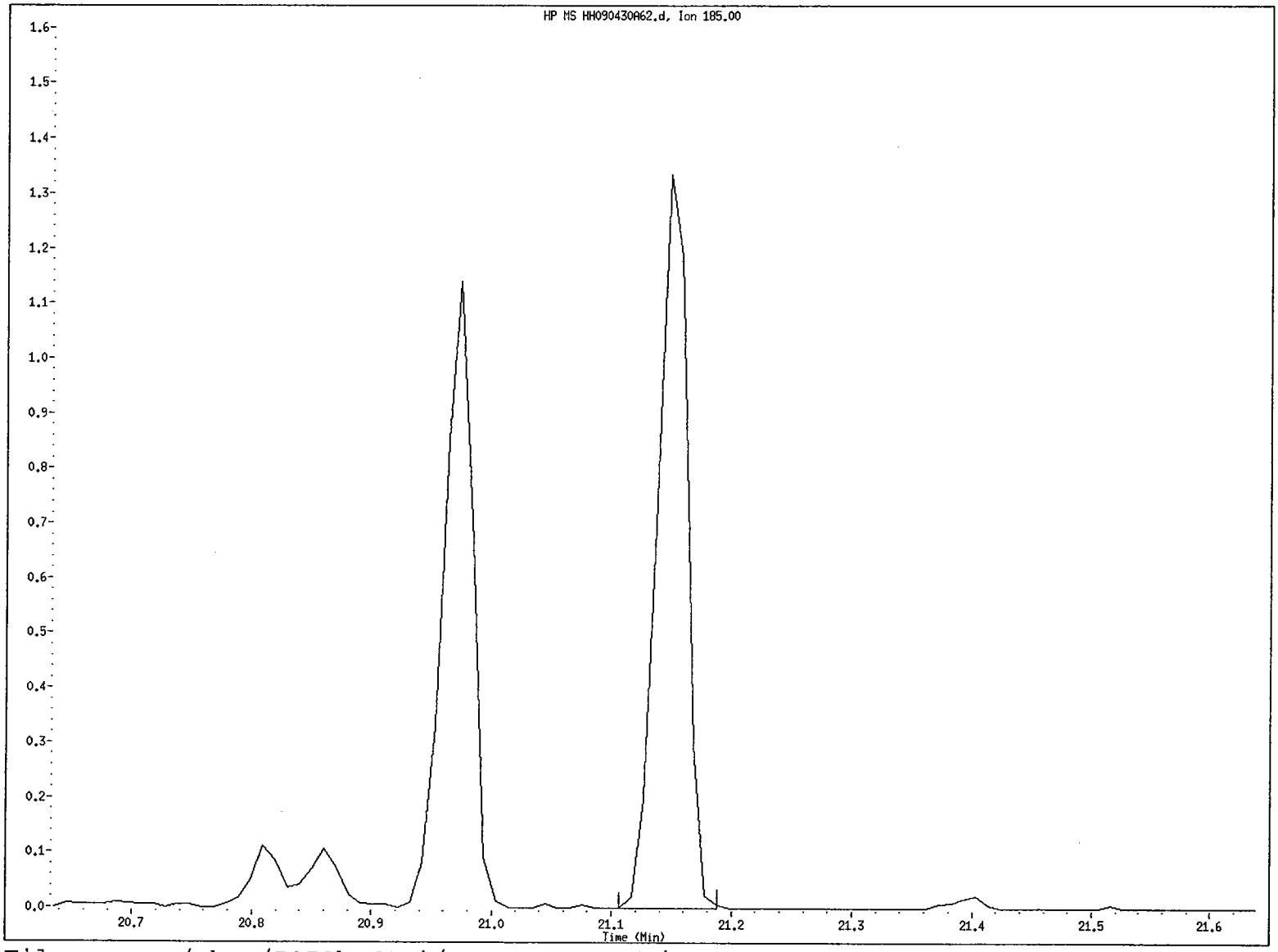
Compound: a,a-Dimethylphenethylamine
CAS Number: 122-09-8







Aramite CAS Number 140-57-8 Area = 233845 User selected hit



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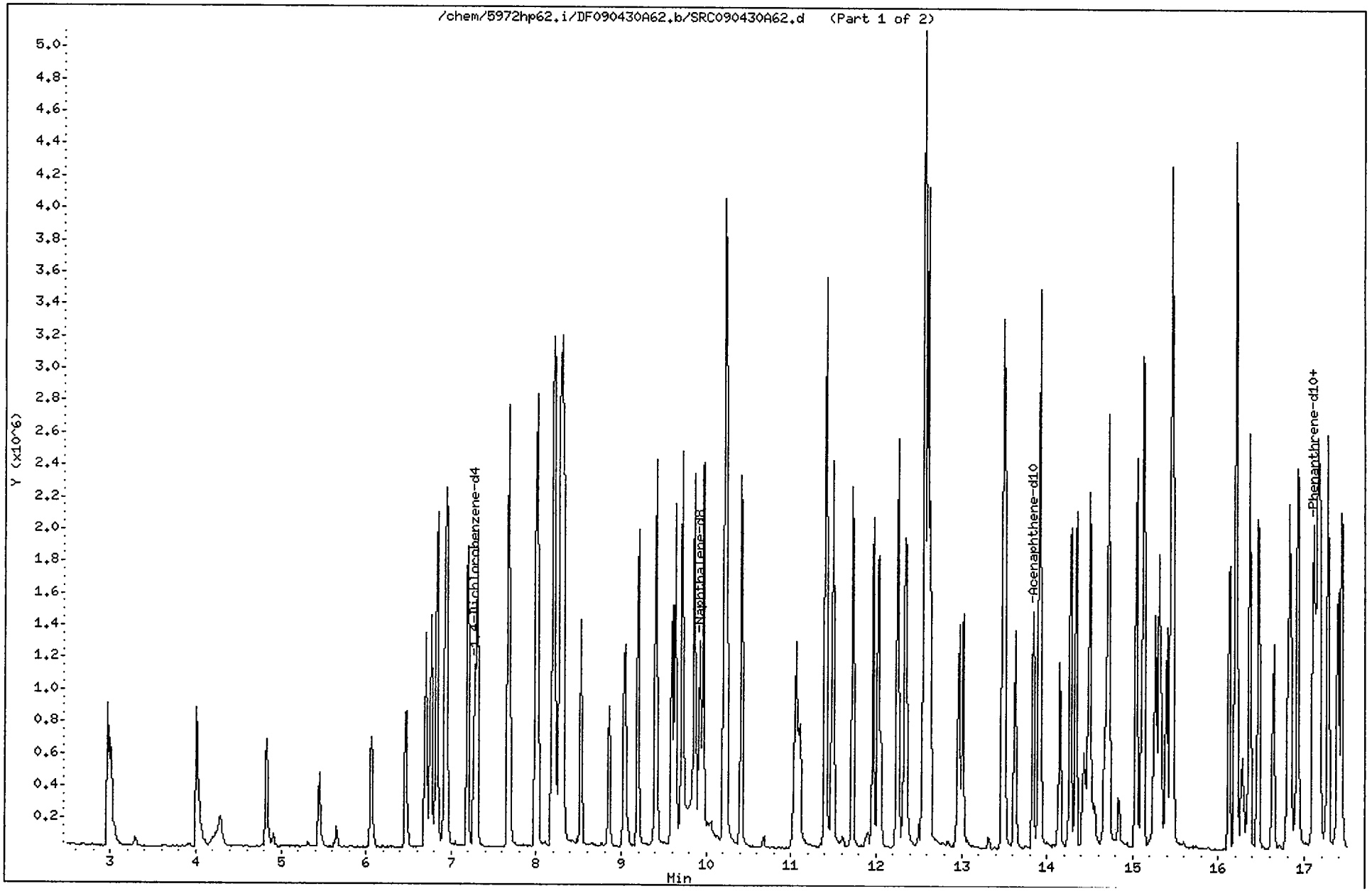
Client ID: SSTD160
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 17:04
Retention Time: 21.15
Operator ID: 2650

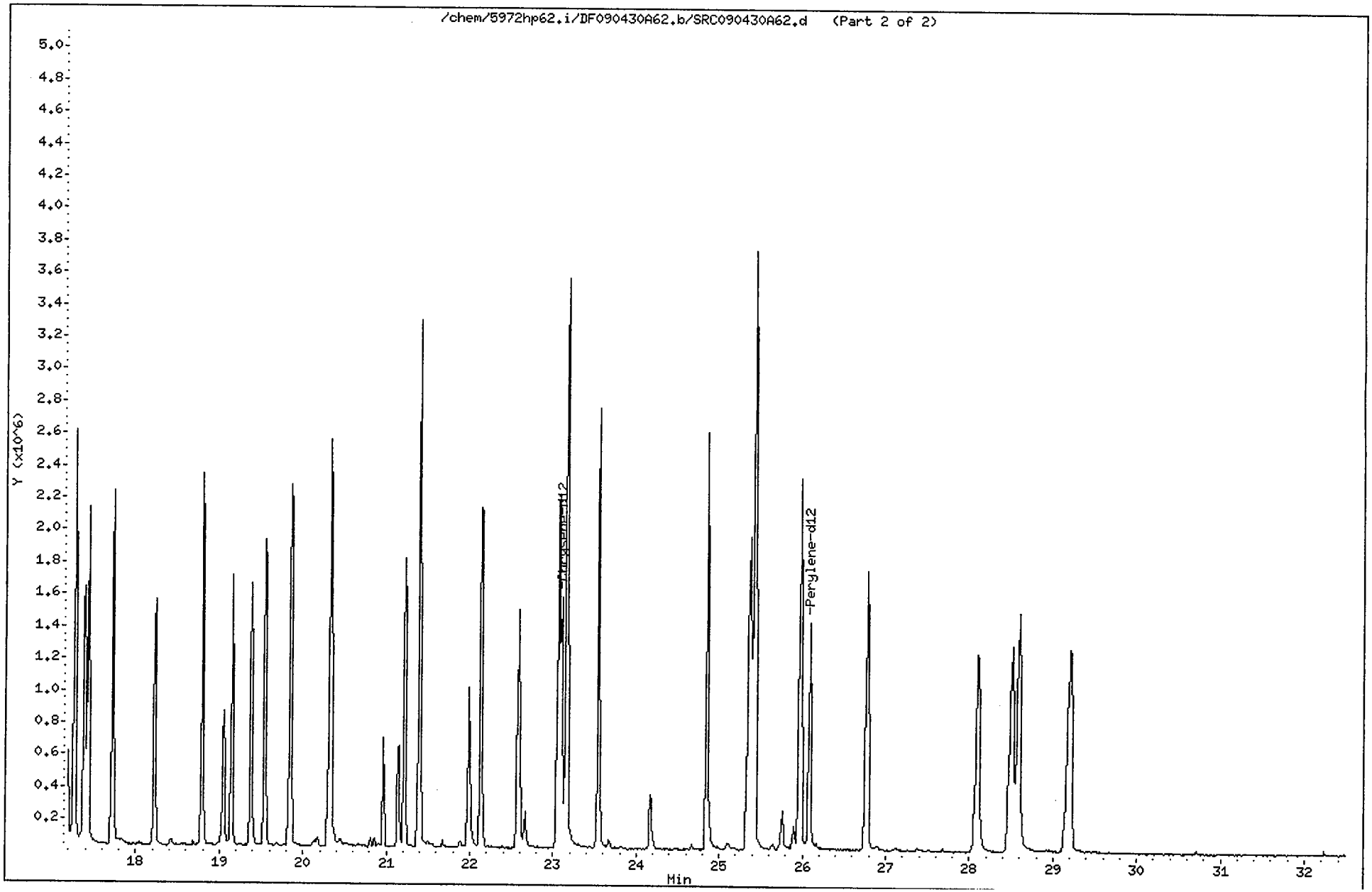
Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Date : 30-APR-2009 20:32
Client ID: SSTD080VAL
Sample Info: SSTD080VAL:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Date : 30-APR-2009 20:32
Client ID: SSTD080VAL
Sample Info: SSTD080VAL:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Lab Smp Id: SSTD080VAL Client Smp ID: SSTD080VAL
Inj Date : 30-APR-2009 20:32
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080VAL:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2ndsource.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.268	7.268	(1.000)	307972	40.0000		
* 2 Naphthalene-d8	136	9.919	9.919	(1.000)	1046988	40.0000		
* 3 Acenaphthene-d10	164	13.840	13.839	(1.000)	528141	40.0000		
* 4 Phenanthrene-d10	188	17.125	17.114	(1.000)	886703	40.0000		
* 5 Chrysene-d12	240	23.103	23.092	(1.000)	990823	40.0000		
* 6 Perylene-d12	264	26.092	26.081	(1.000)	1085958	40.0000		
15 N-Nitrosodimethylamine	42	3.000	3.010	(0.413)	333529	83.0514	42	8657
16 Pyridine	79	2.969	2.969	(0.409)	672583	74.6250	37	9494
17 Ethylmethacrylate	69	Compound Not Detected.						
18 2-Picoline	93	4.003	4.003	(0.551)	652402	70.7204	35	8961
19 Nitrosomethylethylamine	88	4.290	4.299	(0.590)	242944	73.8606	37	9267
20 Methyl Methanesulfonate	80	4.832	4.832	(0.665)	470623	77.3404	39	9016
21 N-Nitrosodiethylamine	102	5.447	5.446	(0.749)	198999	73.8626	37	9380
22 Ethyl Methanesulfonate	79	6.061	6.060	(0.834)	513932	69.6498	35	9383
23 Phenol	94	6.839	6.828	(0.941)	1218550	126.706	63	(R)

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
24 Aniline	93	6.767	6.756	(0.931)	1102643	88.1519	44	5953
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.952)	650649	78.6202	39	
26 Pentachloroethane	167	6.705	6.705	(0.923)	298773	69.1569	34	9420
27 2-Chlorophenol	128	6.951	6.940	(0.956)	1059141	120.884	60	9268 (R)
28 1,3-Dichlorobenzene	146	7.197	7.196	(0.990)	811793	74.4375	37	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.006)	811239	74.1463	37	
30 Benzyl Alcohol	108	7.678	7.667	(1.056)	386438	78.4320	39	
31 1,2-Dichlorobenzene	146	7.668	7.667	(1.055)	703721	73.1798	36	
32 2-Methylphenol	108	8.016	7.984	(1.103)	857137	124.422	62	(R)
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.100)	853470	82.6073	41	8922
34 N-Nitrosopyrrolidine	100	8.241	8.209	(1.134)	149534	88.9523	44	5512
35 3-Methylphenol	108	8.312	8.312	(1.144)	867697	116.950	58	(R)
36 4-Methylphenol	108	8.312	8.312	(1.144)	867697	116.950	58	(R)
38 N-Nitroso-di-N-propylamine	70	8.292	8.291	(1.141)	243731	75.3017	38	8278
39 Acetophenone	105	8.200	8.189	(0.827)	2163495	183.849	92	0 (AM)
40 N-Nitrosomorpholine	116	8.272	8.261	(1.138)	62179	76.0065	38	0 (M)
41 o-Toluidine	106	8.292	8.281	(1.141)	763419	70.4037	35	8669
42 Hexachloroethane	117	8.272	8.271	(1.138)	330627	70.8529	35	9692
43 Nitrobenzene	77	8.527	8.517	(0.860)	734573	78.7728	39	9023
44 N-Nitrosopiperidine	114	8.855	8.844	(0.893)	283713	77.8050	39	9076
45 Isophorone	82	9.039	9.018	(0.911)	1452236	91.0746	46	8739
46 2-Nitrophenol	139	9.203	9.192	(0.928)	593690	116.693	58	8896 (R)
47 2,4-Dimethylphenol	122	9.408	9.397	(0.948)	777301	121.702	61	8919 (R)
48 Benzoic Acid	122	9.889	9.755	(0.997)	548335	685.207	340	7276 (AM)
49 o,o,o-Triethylphosphorothioat	198	9.643	9.632	(0.972)	285531	76.1187	38	8863
50 Bis(2-chloroethoxy)methane	93	9.602	9.591	(0.968)	875176	76.9036	38	8863
51 2,4-Dichlorophenol	162	9.715	9.704	(0.979)	878917	118.496	59	(R)
52 1,2,4-Trichlorobenzene	180	9.858	9.857	(0.994)	655146	70.2654	35	
53 Naphthalene	128	9.971	9.960	(1.005)	1862368	78.7142	39	9348
54 4-Chloroaniline	127	10.227	10.216	(1.031)	757932	77.6311	39	8458
55 2,6-Dichlorophenol	162	10.216	10.205	(1.030)	980176	137.215	69	(R)
56 Hexachloropropene	213	10.247	10.236	(1.033)	472905	67.1507	34	9619
57 Hexachlorobutadiene	225	10.411	10.410	(1.050)	456814	77.2312	39	9343
58 N-Nitroso-di-n-butylamine	84	11.056	11.055	(1.115)	416885	134.005	67	9271 (R)
59 p-Phenylenediamine	108	11.127	11.116	(0.804)	84131	615.143	310	(AR)
60 4-Chloro-3-methylphenol	107	11.414	11.372	(1.151)	775920	115.350	58	0 (RM)
61 Safrole	162	11.404	11.403	(1.150)	415698	67.7446	34	8552
62 2-Methylnaphthalene	141	11.496	11.485	(1.159)	1011124	81.7090	41	
63 1-Methylnaphthalene	142	11.721	11.720	(1.182)	1061755	72.4162	36	
64 Hexachlorocyclopentadiene	237	12.028	12.027	(0.869)	536148	75.7106	38	9583
65 1,2,4,5-Tetrachlorobenzene	216	11.967	11.956	(0.865)	664593	69.6508	35	9687
66 2,4,6-Trichlorophenol	196	12.253	12.232	(0.885)	653993	120.812	60	(R)
67 2,4,5-Trichlorophenol	196	12.345	12.314	(0.892)	758598	125.393	63	(R)
68 Isosafrole	162	12.059	12.048	(0.871)	171646	162.390	81	(A)
69 2-Chloronaphthalene	162	12.560	12.549	(0.908)	1832592	88.6766	44	
70 2-Nitroaniline	65	12.970	12.959	(0.937)	415053	88.6387	44	8819
71 1,4-Napthoquinone	158	13.021	13.010	(0.941)	524689	81.0087	40	9175

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
72 Dimethylphthalate	163	13.512	13.501	(0.976)	1161027	72.6008	36	9630
73 1,3-Dinitrobenzene	168	13.502	13.491	(0.976)	223735	74.7836	37	0 (M)
74 2,6-Dinitrotoluene	165	13.635	13.624	(0.985)	337686	75.0268	38	9450
75 Acenaphthylene	152	13.481	13.481	(0.974)	1760264	77.7990	39	9067
76 3-Nitroaniline	138	13.922	13.900	(1.006)	353799	92.9926	46	8923
77 Acenaphthene	154	13.911	13.911	(1.005)	1022562	80.1149	40	9458
78 2,4-Dinitrophenol	184	14.147	14.126	(1.022)	295326	185.153	92	(AR)
79 4-Nitrophenol	139	14.433	14.402	(1.043)	438442	146.669	73	8571 (RM)
80 Pentachlorobenzene	250	14.341	14.330	(1.036)	656128	71.0087	36	9470
81 2,4-Dinitrotoluene	165	14.495	14.484	(1.047)	411143	77.1414	38	7618
82 Dibenzofuran	168	14.280	14.269	(1.032)	1567606	75.4113	38	9213
83 1-Naphthylamine	143	14.505	14.494	(1.048)	732255	172.705	86	(ARM)
84 2,3,4,6-Tetrachlorophenol	232	14.720	14.699	(1.064)	645421	134.332	67	9537 (R)
85 2-Naphthylamine	143	14.679	14.668	(1.061)	742970	163.370	82	(AR)
86 Diethylphthalate	149	15.129	15.108	(1.093)	1257732	74.0494	37	7939
87 Zinophos	97	15.303	15.282	(1.106)	353128	78.3261	39	9213
88 4-Chlorophenyl-phenylether	204	15.129	15.118	(1.093)	563777	67.5913	34	7682
89 5-Nitro-o-toluidine	152	15.262	15.241	(1.103)	399855	81.9826	41	7422
90 Fluorene	166	15.048	15.037	(1.087)	1258715	78.3148	39	7868
91 4-Nitroaniline	138	15.334	15.303	(1.108)	362786	87.9170	44	9151
92 4,6-Dinitro-2-methylphenol	198	15.396	15.374	(0.899)	401326	141.232	71	0 (RM)
93 N-Nitrosodiphenylamine	169	15.457	15.436	(0.903)	1537360	119.691	60	8725 (R)
95 1,2-Diphenylhydrazine	77	15.477	15.456	(1.118)	1587098	81.1996	40	9038
96 Sulfotep	322	16.132	16.122	(1.166)	260656	80.8577	40	8884
97 1,3,5-Trinitrobenzene	75	16.276	16.255	(0.950)	348140	68.1392	34	9060
98 Diallate (trans isomer)	86	16.204	16.193	(0.946)	693285	62.7656	31	
100 Phorate	75	16.225	16.203	(0.947)	770905	69.6492	35	7210
101 Phenacetin	108	16.368	16.337	(0.956)	616937	69.4361	35	8480
102 Diallate (cis isomer)	86	16.368	16.357	(0.956)	320139	89.3528	45	(A)
104 4-Bromophenyl-phenylether	248	16.204	16.193	(0.946)	328857	57.0908	28	8185
105 Hexachlorobenzene	284	16.470	16.459	(0.962)	621633	68.8909	34	8855
106 Dimethoate	87	16.644	16.613	(0.972)	485073	85.1700	42	9089
107 4-Aminobiphenyl	169	16.839	16.828	(0.983)	849683	71.8130	36	0 (M)
108 Pentachlorophenol	266	16.931	16.910	(0.989)	647754	151.413	76	7531 (R)
109 Pentachloronitrobenzene	237	17.105	17.094	(0.999)	194464	68.2506	34	7447
110 Pronamide	173	17.156	17.135	(1.002)	587718	74.3575	37	9554
111 Disulfoton	88	17.391	17.381	(1.016)	646167	74.8033	37	9263
112 Phenanthrene	178	17.177	17.166	(1.003)	1725773	73.4585	37	
113 Anthracene	178	17.279	17.268	(1.009)	1847006	75.0564	38	
114 Carbazole	167	17.729	17.739	(1.035)	1672170	28.9726	14	9603 (R)
115 Methyl Parathion	109	18.231	18.220	(1.065)	472702	86.5343	43	9088
116 Di-n-butylphthalate	149	18.794	18.793	(1.097)	2153651	69.1602	34	9747
117 Parathion	109	19.152	19.141	(1.118)	275774	72.0067	36	8161
118 4-Nitroquinoline-1-oxide	190	19.050	19.039	(1.112)	185532	80.1354	40	8796
119 Methapyrilene	97	19.377	19.377	(1.131)	573480	3399.81	1700	9400 (ARMH)
120 Isodrin	193	19.541	19.540	(1.141)	234913	68.1904	34	9570
121 Fluoranthene	202	19.848	19.847	(1.159)	1891095	77.9644	39	9797

Data File: /chem/5972hp62.i/DF090430A62.b/SRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
122 Benzidine	184	20.298	20.298	(0.879)	343753	64.9004	32	8600
123 Pyrene	202	20.329	20.328	(0.880)	2056505	82.4163	41	9805
124 p-Dimethylaminoazobenzene	225	21.230	21.219	(0.919)	382004	79.5819	40	8683
125 Chlorobenzilate	251	21.404	21.383	(0.926)	1078270	131.299	66	9016(R)
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.141	22.130	(0.958)	1010001	76.8481	38	9347
129 3,3'-Dimethylbenzidine	212	21.987	21.987	(0.952)	648194	73.4030	37	9507
130 2-Acetylaminofluorene	181	22.591	22.570	(0.978)	751300	84.3842	42	9078
131 3,3'-Dichlorobenzidine	252	23.164	23.164	(1.003)	648077	72.5162	36	8655
132 bis(2-ethylhexyl)Phthalate	149	23.543	23.542	(1.019)	1413917	79.2131	40	9420
133 Benzo(a)anthracene	228	23.072	23.061	(0.999)	1926082	82.0734	41	
134 Chrysene	228	23.164	23.153	(1.003)	1555492	73.9585	37	
135 Di-n-octylphthalate	149	24.853	24.853	(0.953)	2360973	77.6205	39	
136 7,12-Dimethylbenz(a)anthracene	256	25.426	25.416	(0.975)	869959	81.0379	40	8723
137 Benzo(b)fluoranthene	252	25.365	25.354	(0.972)	2168156	80.2859	40	
138 Benzo(k)fluoranthene	252	25.416	25.395	(0.974)	2203598	93.1095	46	
139 Benzo(a)pyrene	252	25.979	25.968	(0.996)	2025780	86.1342	43	
140 3-Methylcholanthrene	268	26.778	26.767	(1.026)	1004411	77.7051	39	9638
141 Indeno(1,2,3-c,d)pyrene	276	28.507	28.486	(1.093)	1805715	82.5444	41	0(M)
142 Dibenzo(a,h)anthracene	278	28.599	28.568	(1.096)	1863970	86.1101	43	9512
143 Benzo(g,h,i)perylene	276	29.214	29.172	(1.120)	1975283	84.4445	42	9004

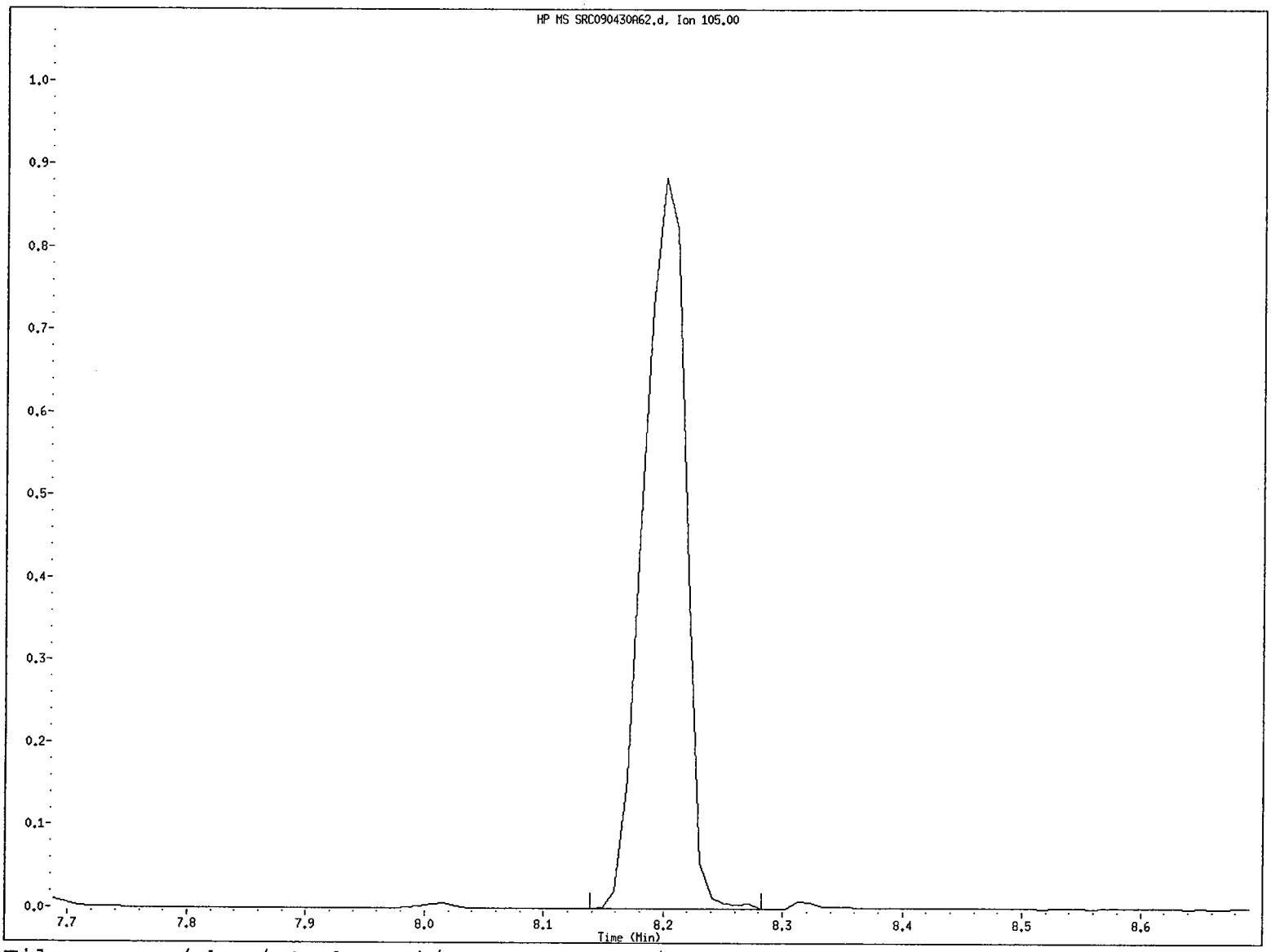
0.9819

5/5/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Acetophenone CAS Number 98-86-2 Area = 2163495 Manually integrated



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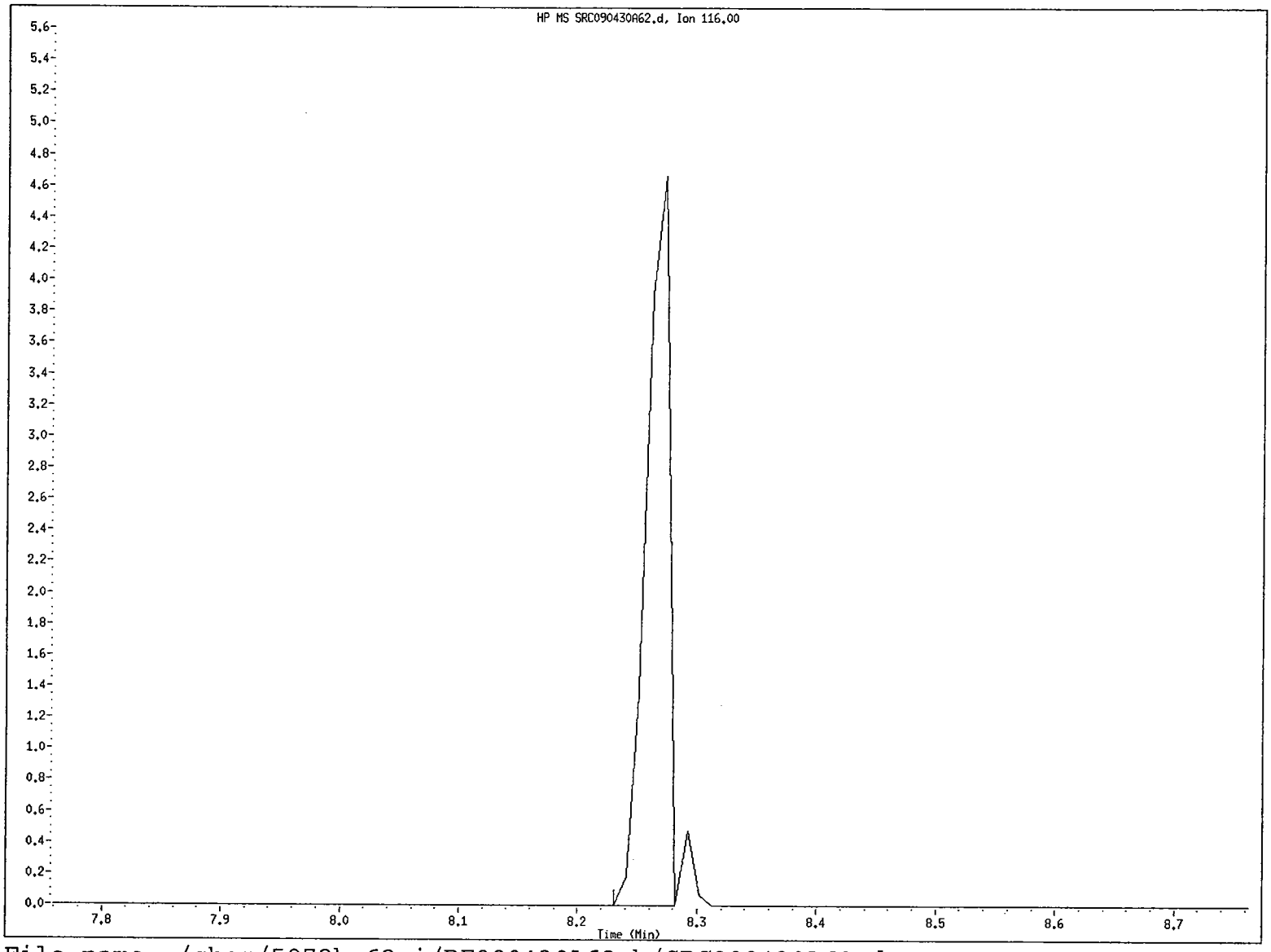
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 62179 Manually integrated



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Instrument ID: 5972hp62.i
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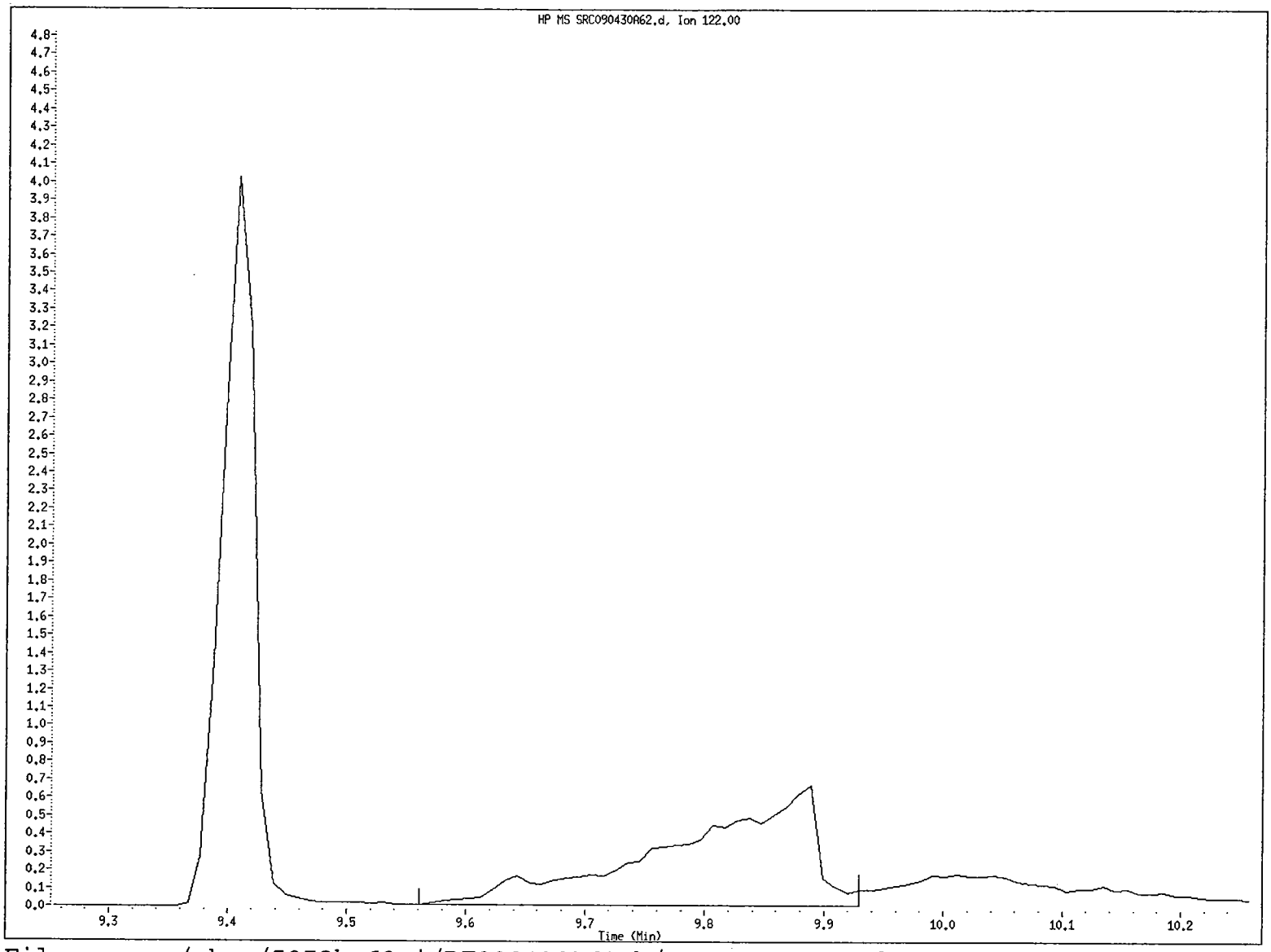
Retention Time: 8.27
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 548335 Manually integrated



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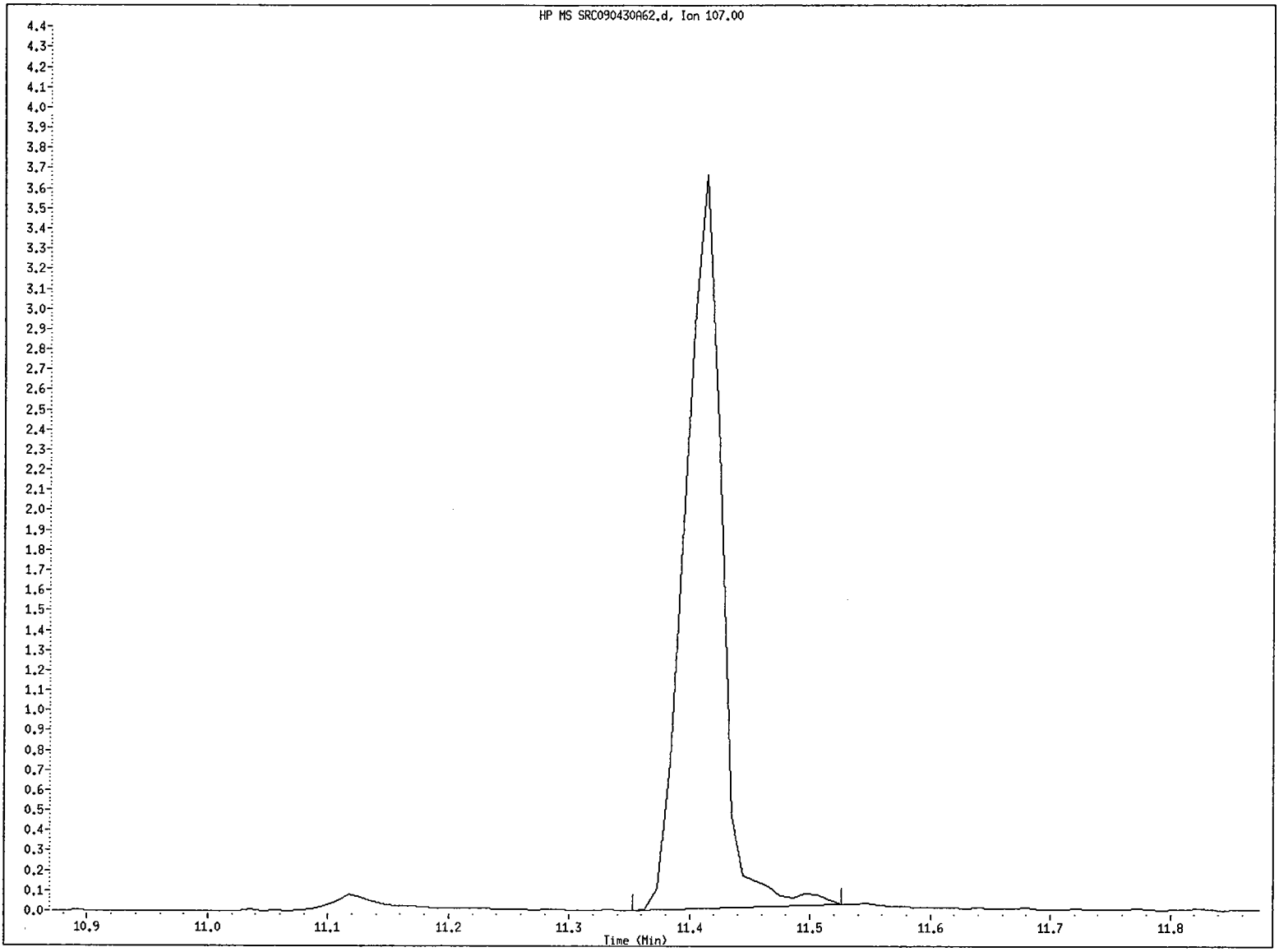
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 9.89
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 775920 Manually integrated



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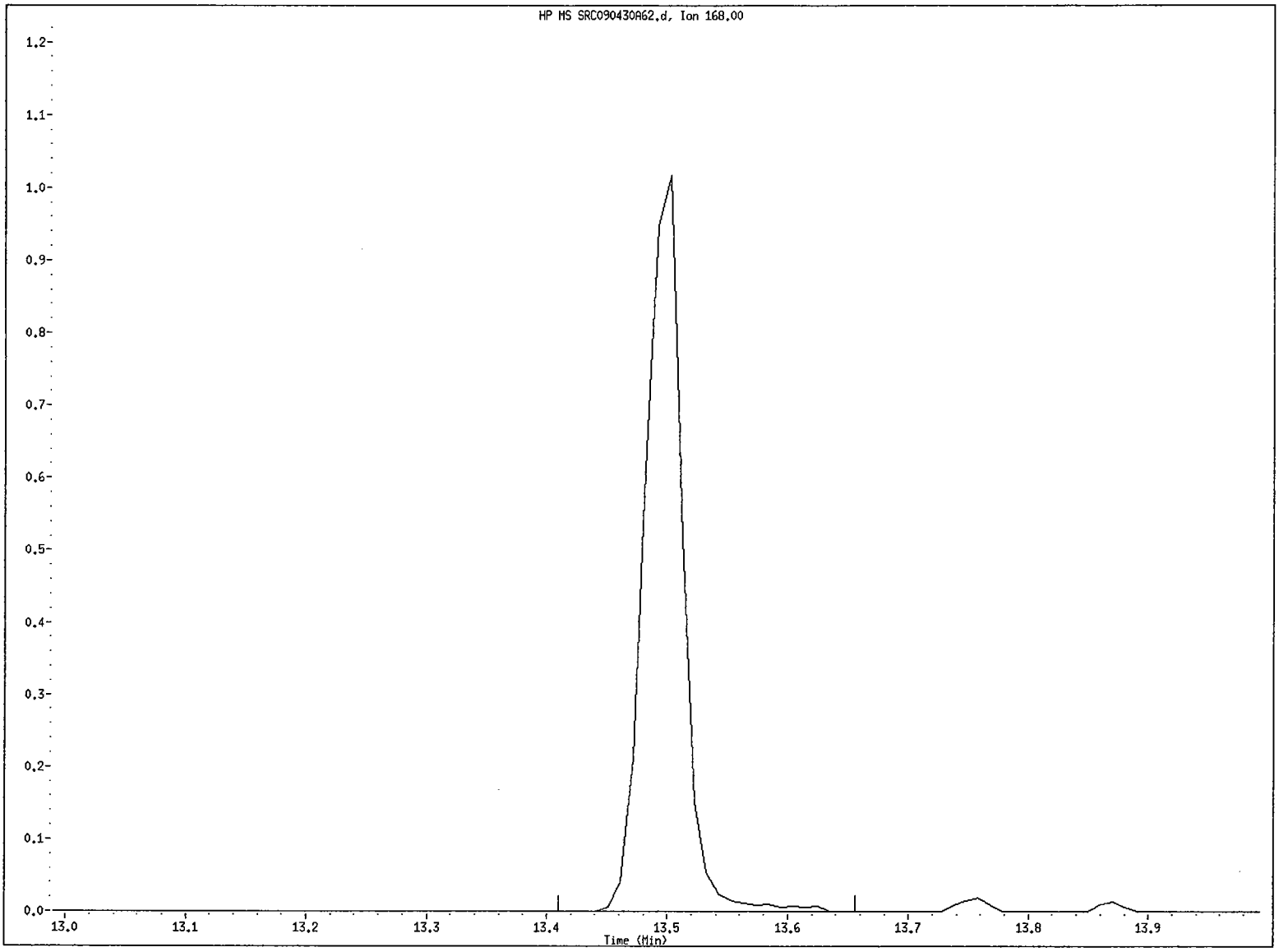
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 11.41
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 223735 Manually integrated



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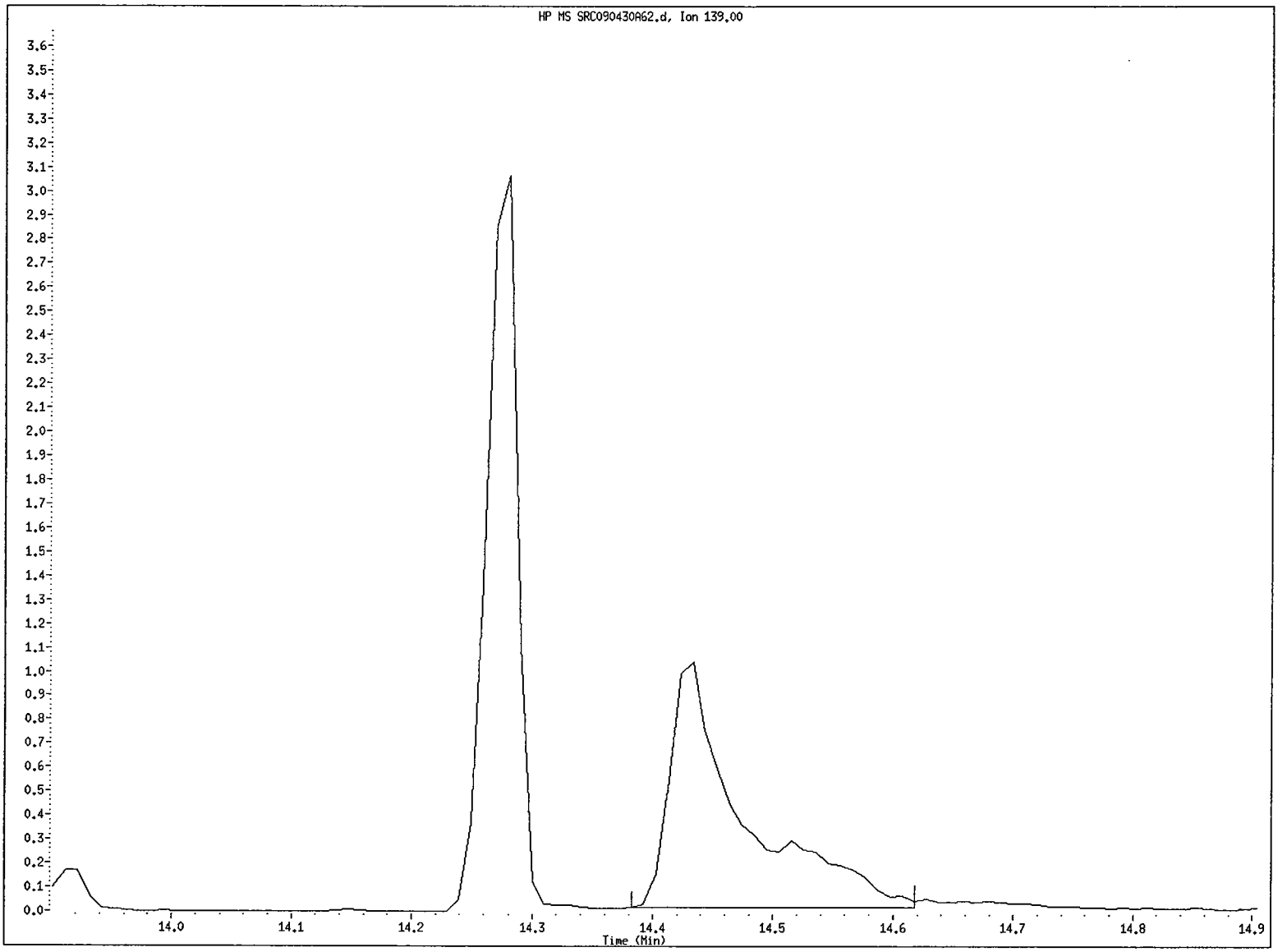
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 13.50
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 438442 Manually integrated



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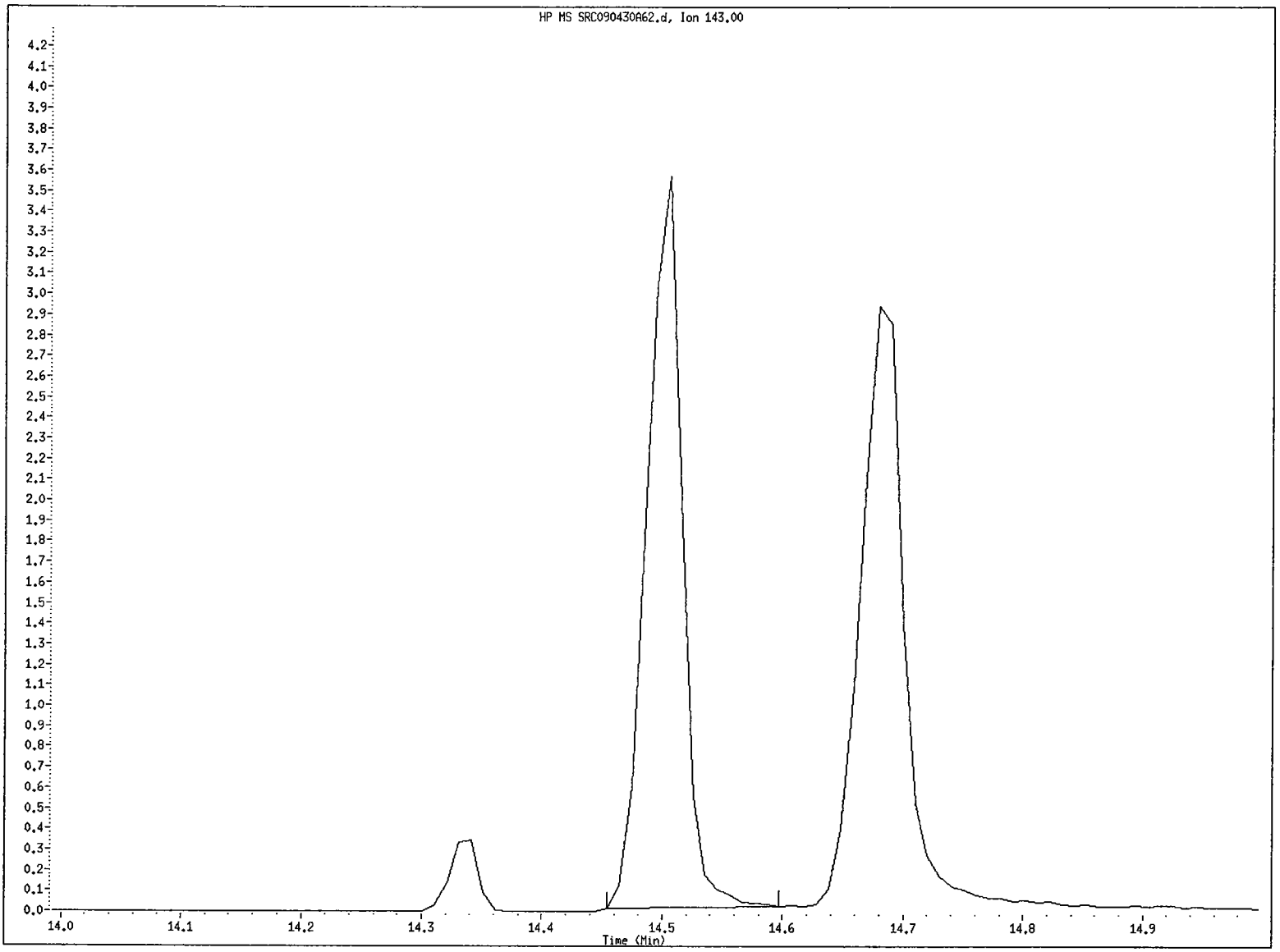
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 14.43
Operator ID: 2650

1-Naphthylamine CAS Number 134-32-7 Area = 732255 Manually integrated



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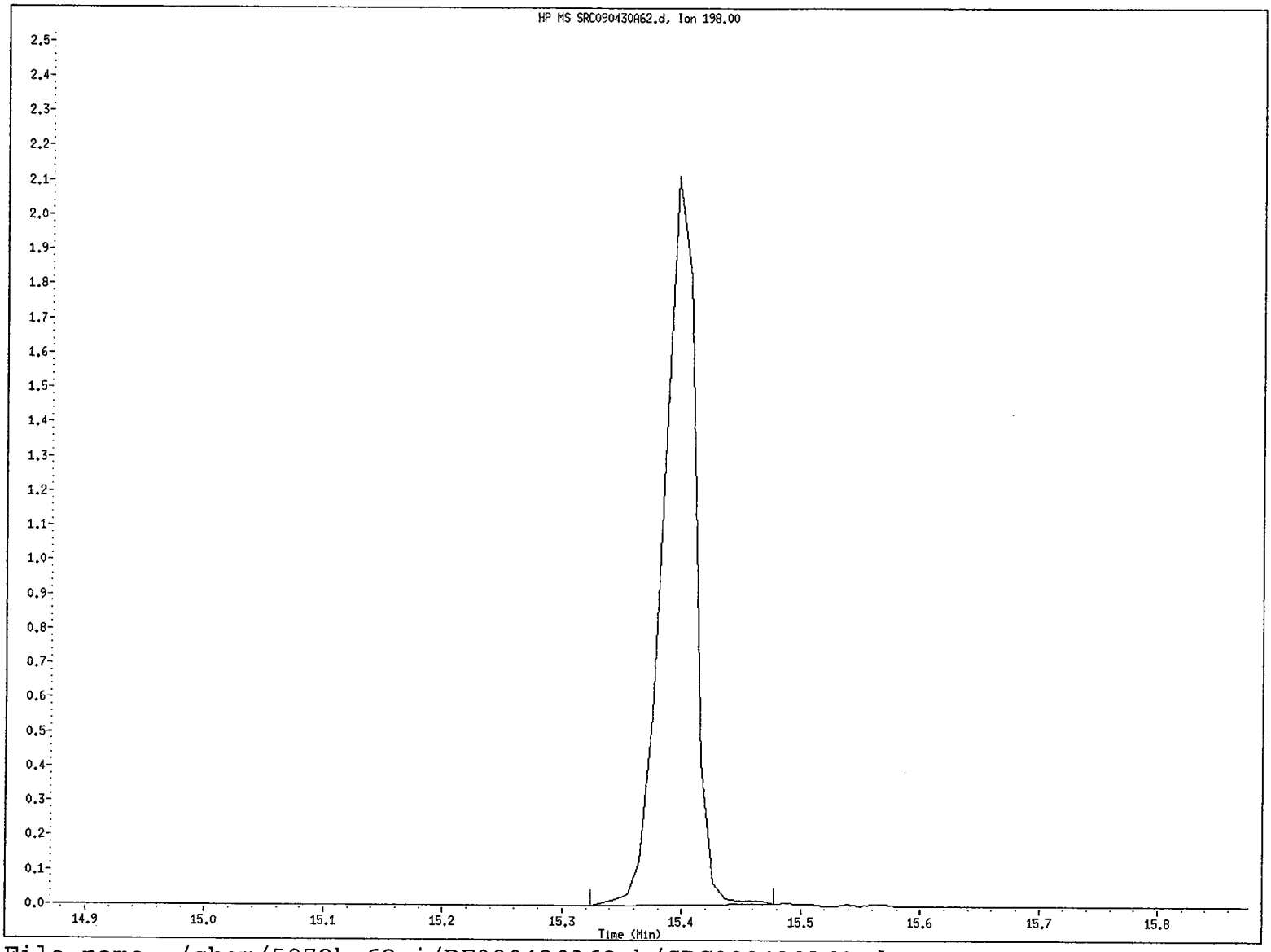
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 14.51
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 401326 Manually integrat



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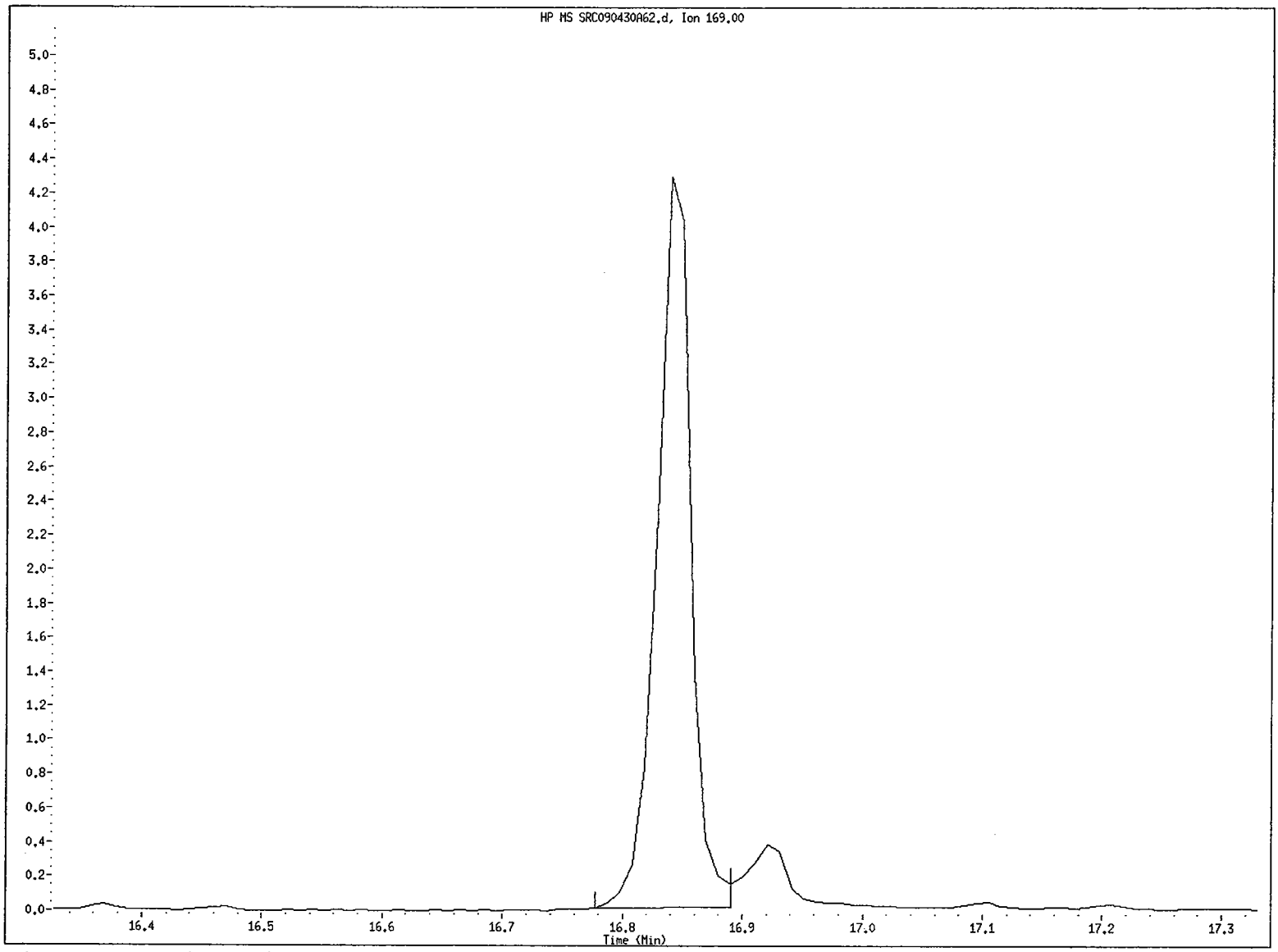
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 15.40
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 849683 Manually integrated



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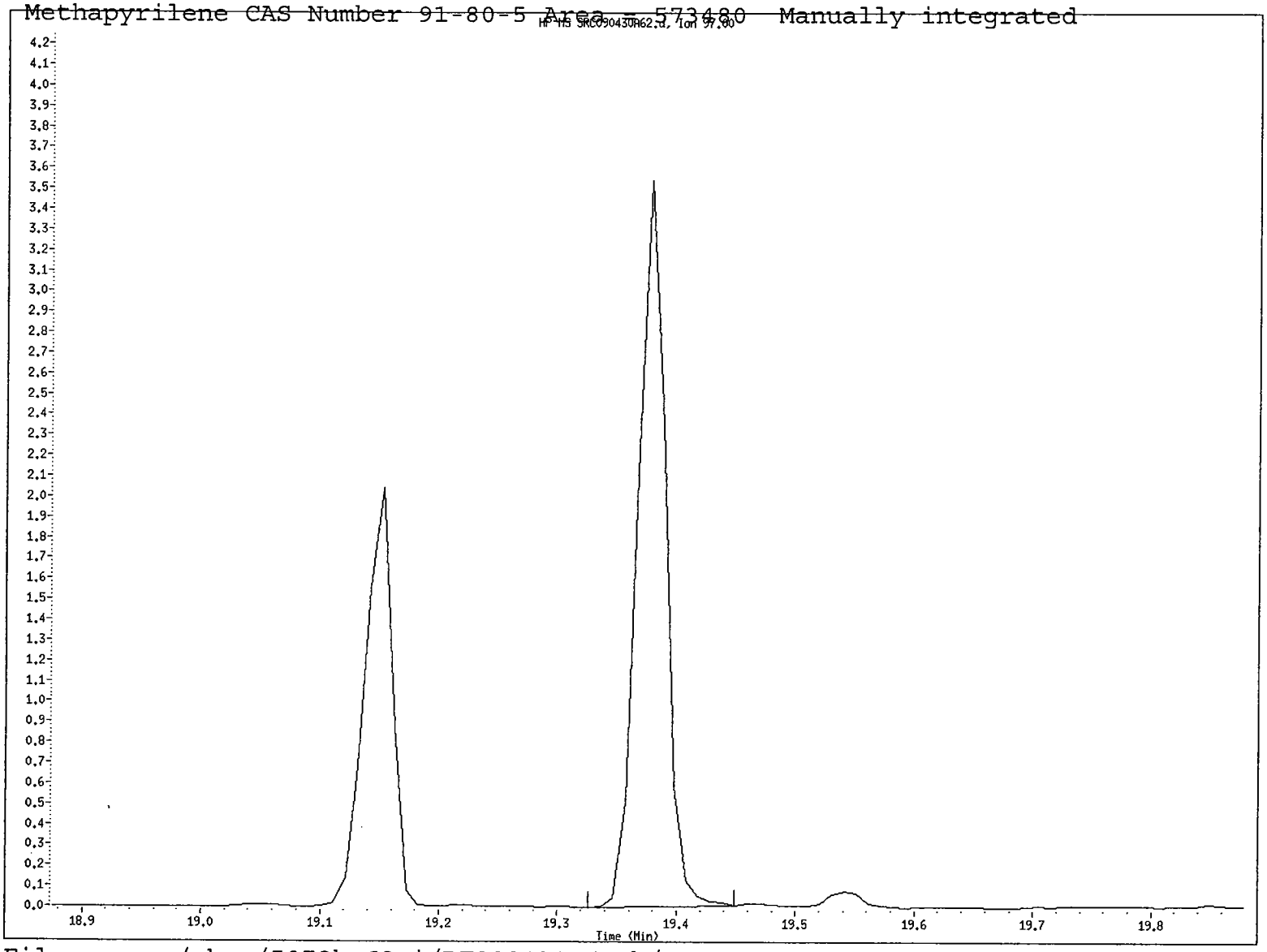
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 16.84
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 573480 User selected hit

Methapyrilene CAS Number 91-80-5 Area = 573480 Manually integrated



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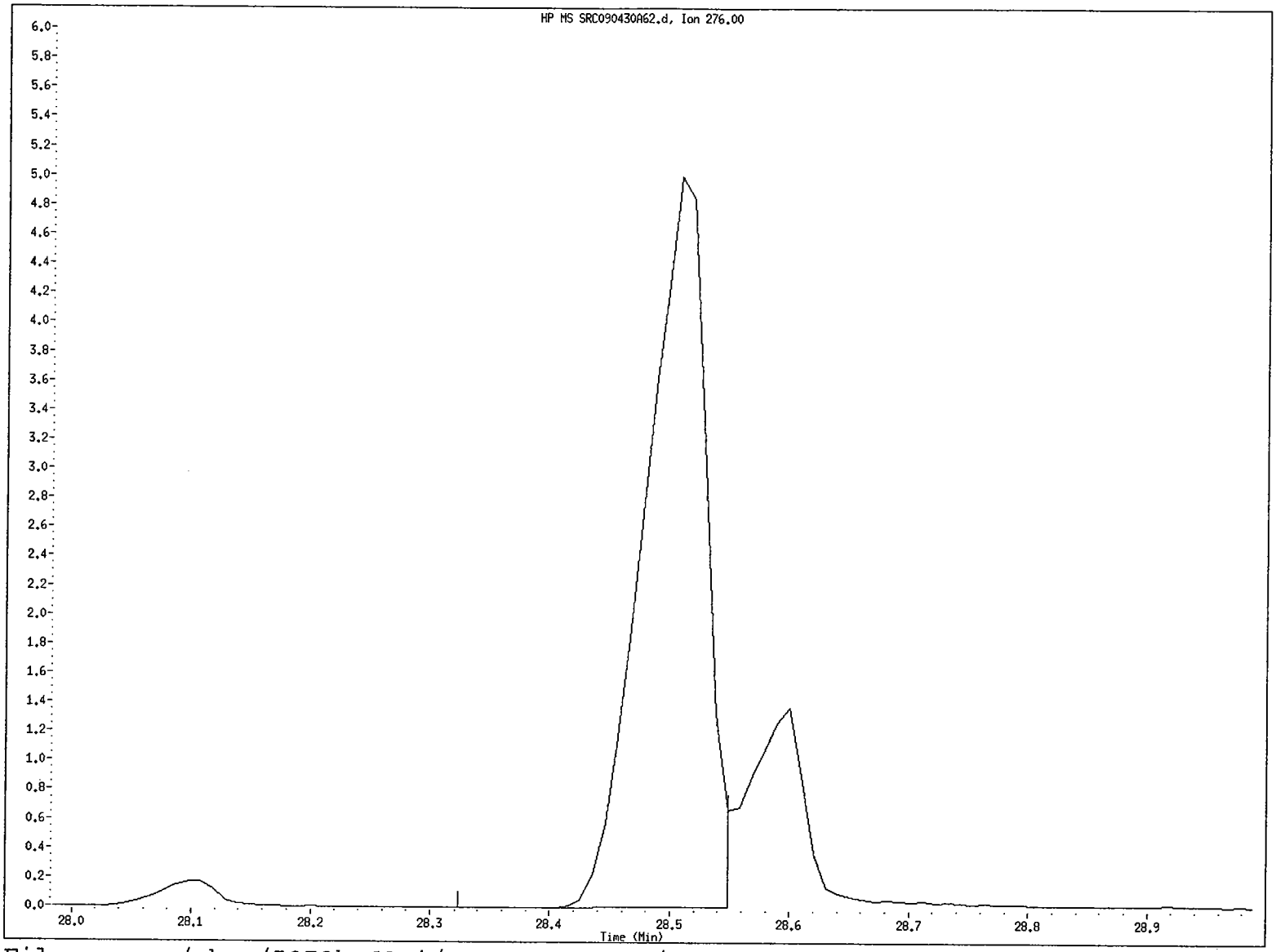
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 19.38
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1805715 Manually integrated



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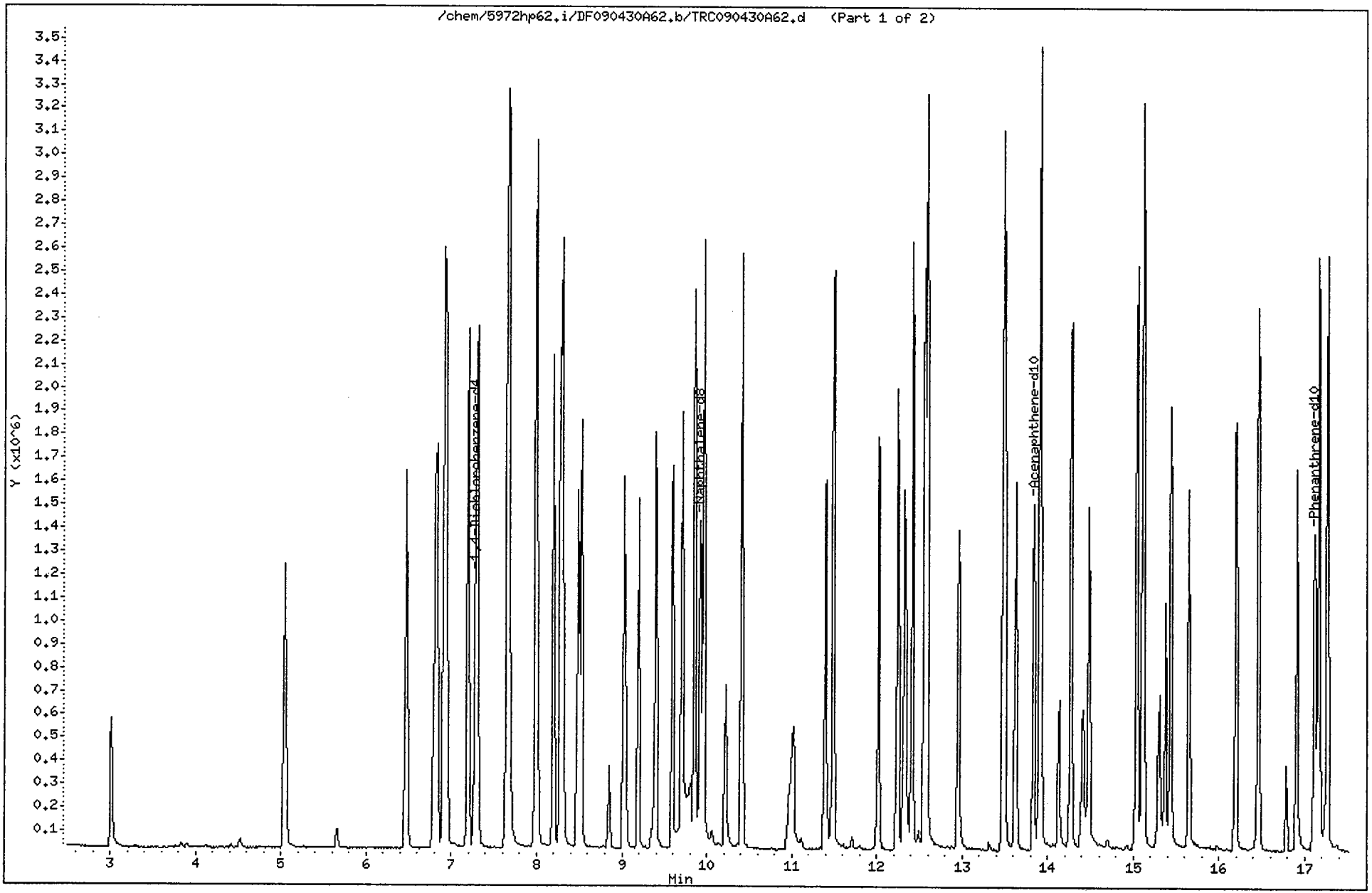
Client ID: SSTD080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 20:32
Retention Time: 28.51
Operator ID: 2650

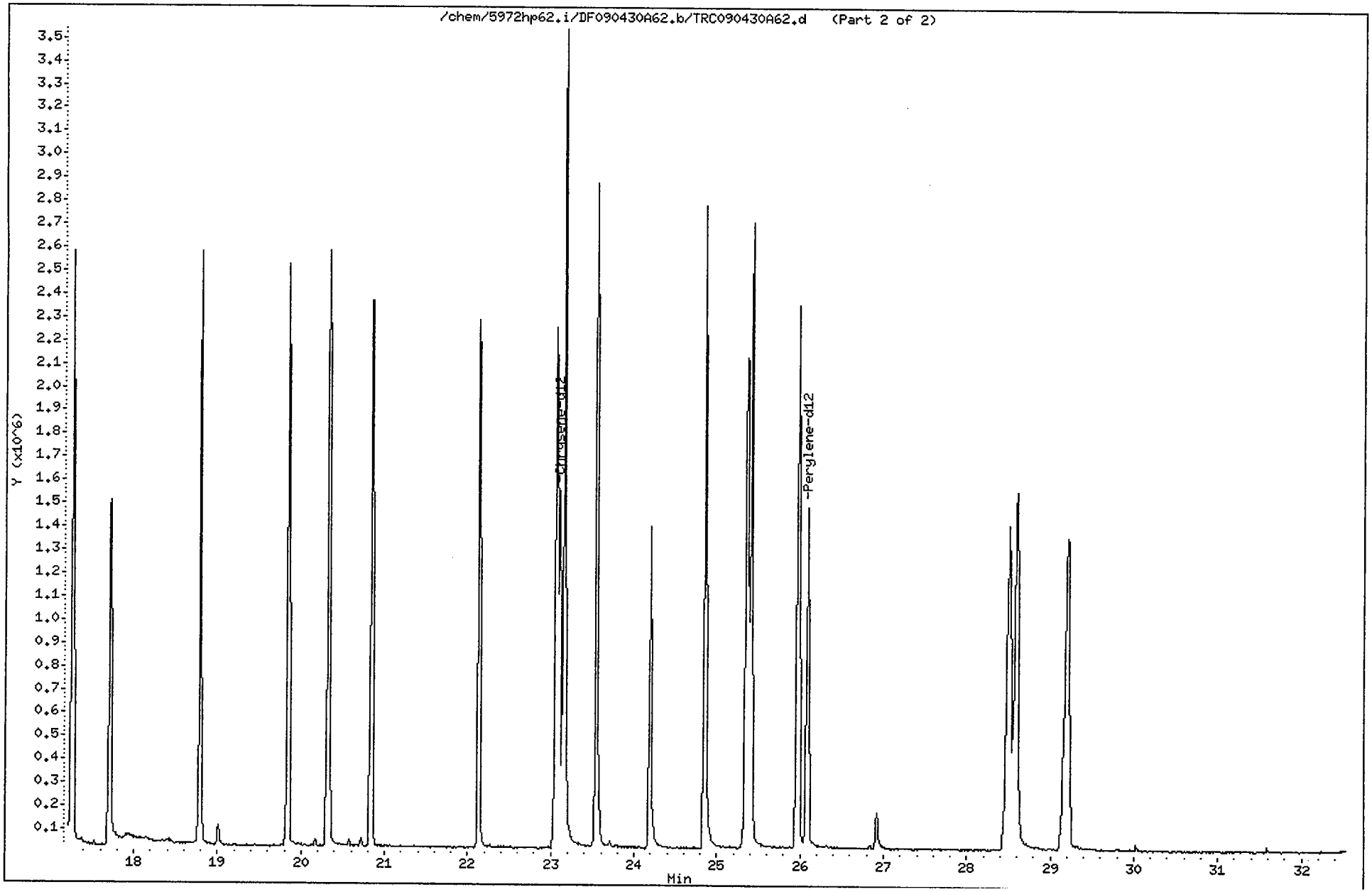
Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Date : 30-APR-2009 21:14
Client ID: CLP080VAL
Sample Info: CLP080VAL:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Date : 30-APR-2009 21:14
Client ID: CLP080VAL
Sample Info: CLP080VAL:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Lab Smp Id: CLP080VAL Client Smp ID: CLP080VAL
Inj Date : 30-APR-2009 21:14
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : CLP080VAL:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090430A62.b/8270CIXv16.m
Meth Date : 05-May-2009 10:23 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2ndsource.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	7.278	7.268	(1.000)	312600	40.0000		
* 2 Naphthalene-d8	136	9.919	9.919	(1.000)	1100496	40.0000		
* 3 Acenaphthene-d10	164	13.839	13.839	(1.000)	561702	40.0000		
* 4 Phenanthrene-d10	188	17.114	17.114	(1.000)	924755	40.0000		
* 5 Chrysene-d12	240	23.102	23.092	(1.000)	999919	40.0000		
* 6 Perylene-d12	264	26.091	26.081	(1.000)	1126972	40.0000		
15 N-Nitrosodimethylamine	42	3.010	3.010	(0.414)	329868	80.9237	40	8300
16 Pyridine	79	Compound Not Detected.						
17 Ethylmethacrylate	69	Compound Not Detected.						
18 2-Picoline	93	Compound Not Detected.						
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	6.838	6.828	(0.940)	880034	90.1522	45	
24 Aniline	93	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.951)	637084	75.8414	38	
26 Pentachloroethane	167	Compound Not Detected.						
27 2-Chlorophenol	128	6.940	6.940	(0.954)	793365	89.2094	45	9444
28 1,3-Dichlorobenzene	146	7.196	7.196	(0.989)	901859	81.4718	41	
29 1,4-Dichlorobenzene	146	7.309	7.298	(1.004)	919146	82.7651	41	
30 Benzyl Alcohol	108	7.677	7.667	(1.055)	425767	85.1349	42	
31 1,2-Dichlorobenzene	146	7.667	7.667	(1.053)	756638	77.5177	39	
32 2-Methylphenol	108	7.995	7.984	(1.098)	622217	88.9841	44	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.098)	901952	86.0074	43	8856
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	8.302	8.312	(1.141)	664168	88.1928	44	
36 4-Methylphenol	108	8.302	8.312	(1.141)	664168	88.1928	44	
38 N-Nitroso-di-N-propylamine	70	8.291	8.291	(1.139)	285799	86.9915	43	8707
39 Acetophenone	105	8.199	8.189	(0.827)	1023348	82.7336	41	0(M)
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	8.271	8.271	(1.136)	405947	85.7059	43	9641
43 Nitrobenzene	77	8.527	8.517	(0.860)	851904	86.9131	43	9172
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	9.028	9.018	(0.910)	1441917	86.0308	43	8914
46 2-Nitrophenol	139	9.202	9.192	(0.928)	470181	87.9233	44	8794
47 2,4-Dimethylphenol	122	9.397	9.397	(0.947)	524790	78.1715	39	8948
48 Benzoic Acid	122	9.816	9.755	(0.990)	359204	427.041	210	7627(A)
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	9.602	9.591	(0.968)	891611	74.5384	37	9228
51 2,4-Dichlorophenol	162	9.714	9.704	(0.979)	675491	86.6419	43	
52 1,2,4-Trichlorobenzene	180	9.857	9.857	(0.994)	789888	80.5976	40	
53 Naphthalene	128	9.970	9.960	(1.005)	2055757	82.6633	41	9394
54 4-Chloroaniline	127	10.216	10.216	(1.030)	421717	41.0941	20	8069(R)
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
57 Hexachlorobutadiene	225	10.410	10.410	(1.050)	497838	80.0746	40	9361
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.403	11.372	(1.150)	624863	88.3771	44	0(M)
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	11.495	11.485	(1.159)	1091719	83.9324	42	
63 1-Methylnaphthalene	142	11.710	11.720	(1.181)	21472	1.39328	0.70	(a)
64 Hexachlorocyclopentadiene	237	12.027	12.027	(0.869)	534682	70.9924	35	9577
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	12.242	12.232	(0.885)	486415	84.4867	42	
67 2,4,5-Trichlorophenol	196	12.324	12.314	(0.891)	567715	88.2339	44	
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	12.560	12.549	(0.908)	1179024	53.6426	27	(R)
70 2-Nitroaniline	65	12.959	12.959	(0.936)	456592	91.6836	46	9277
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	13.501	13.501	(0.976)	1301892	76.5452	38	9613
73 1,3-Dinitrobenzene	168	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 2,6-Dinitrotoluene	165	13.634	13.624	(0.985)	396536	82.8381	41	9557
75 Acenaphthylene	152	13.481	13.481	(0.974)	1853369	77.0197	38	9709
76 3-Nitroaniline	138	13.911	13.900	(1.005)	296164	73.1927	36	8603
77 Acenaphthene	154	13.911	13.911	(1.005)	1040238	76.6302	38	9377
78 2,4-Dinitrophenol	184	14.136	14.126	(1.021)	164994	97.2613	49	
79 4-Nitrophenol	139	14.412	14.402	(1.041)	274764	86.4231	43	7727
80 Pentachlorobenzene	250	Compound Not Detected.						
81 2,4-Dinitrotoluene	165	14.484	14.484	(1.047)	496387	87.5707	44	7290
82 Dibenzofuran	168	14.279	14.269	(1.032)	1753582	79.3176	40	9197
83 1-Naphthylamine	143	Compound Not Detected.						
84 2,3,4,6-Tetrachlorophenol	232	14.699	14.699	(1.062)	10103	1.97711	0.99	8734(a)
85 2-Naphthylamine	143	Compound Not Detected.						
86 Diethylphthalate	149	15.108	15.108	(1.092)	1423937	78.8258	39	9162
87 Zinophos	97	Compound Not Detected.						
88 4-Chlorophenyl-phenylether	204	15.129	15.118	(1.093)	637076	71.8155	36	7335
89 5-Nitro-o-toluidine	152	Compound Not Detected.						
90 Fluorene	166	15.047	15.037	(1.087)	1351535	79.0656	40	7852
91 4-Nitroaniline	138	15.303	15.303	(1.106)	286237	65.2217	33	9104
92 4,6-Dinitro-2-methylphenol	198	15.374	15.374	(0.898)	257497	86.8881	43	8972
93 N-Nitrosodiphenylamine	169	15.436	15.436	(0.902)	791698	59.1011	30	9575
95 1,2-Diphenylhydrazine	77	Compound Not Detected.						
96 Sulfotep	322	Compound Not Detected.						
97 1,3,5-Trinitrobenzene	75	Compound Not Detected.						
98 Diallate (trans isomer)	86	Compound Not Detected.						
100 Phorate	75	Compound Not Detected.						
101 Phenacetin	108	Compound Not Detected.						
102 Diallate (cis isomer)	86	Compound Not Detected.						
104 4-Bromophenyl-phenylether	248	16.203	16.193	(0.947)	450286	74.9548	37	8865
105 Hexachlorobenzene	284	16.459	16.459	(0.962)	689909	73.3114	37	9392
106 Dimethoate	87	Compound Not Detected.						
107 4-Aminobiphenyl	169	Compound Not Detected.						
108 Pentachlorophenol	266	16.910	16.910	(0.988)	390844	87.6009	44	8091
109 Pentachloronitrobenzene	237	Compound Not Detected.						
110 Pronamide	173	Compound Not Detected.						
111 Disulfoton	88	Compound Not Detected.						
112 Phenanthrene	178	17.166	17.166	(1.003)	1926467	78.6269	39	
113 Anthracene	178	17.268	17.268	(1.009)	1786645	69.6161	35	
114 Carbazole	167	17.718	17.739	(1.035)	1241029	20.6177	10	9742(R)
115 Methyl Parathion	109	Compound Not Detected.						
116 Di-n-butylphthalate	149	18.793	18.793	(1.098)	2322881	71.5253	36	9689
117 Parathion	109	Compound Not Detected.						
118 4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119 Methapyrilene	97	Compound Not Detected.						
120 Isodrin	193	Compound Not Detected.						
121 Fluoranthene	202	19.847	19.847	(1.160)	2021842	79.9249	40	9782
122 Benzidine	184	Compound Not Detected.						
123 Pyrene	202	20.328	20.328	(0.880)	2134514	84.7645	42	9829
124 p-Dimethylaminoazobenzene	225	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Report Date: 05-May-2009 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
125 Chlorobenzilate	251	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.130	22.130	(0.958)	1055400	79.5719	40	9627
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						
130 2-Acetylaminofluorene	181	Compound Not Detected.						
131 3,3'-Dichlorobenzidine	252	23.164	23.164	(1.003)	537698	59.6181	30	8535
132 bis(2-ethylhexyl)Phthalate	149	23.542	23.542	(1.019)	1490536	82.7460	41	9408
133 Benzo(a)anthracene	228	23.061	23.061	(0.998)	1955364	82.5633	41	
134 Chrysene	228	23.164	23.153	(1.003)	1744002	82.1672	41	
135 Di-n-octylphthalate	149	24.853	24.853	(0.953)	2550627	80.8039	40	
136 7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137 Benzo(b)fluoranthene	252	25.364	25.354	(0.972)	2368639	84.5177	42	
138 Benzo(k)fluoranthene	252	25.416	25.395	(0.974)	2147538	87.4384	44	
139 Benzo(a)pyrene	252	25.979	25.968	(0.996)	2058789	84.3519	42	
140 3-Methylcholanthrene	268	Compound Not Detected.						
141 Indeno(1,2,3-c,d)pyrene	276	28.507	28.486	(1.093)	1957412	86.2225	43	0(M)
142 Dibenzo(a,h)anthracene	278	28.599	28.568	(1.096)	2014267	89.6668	45	9567
143 Benzo(g,h,i)perylene	276	29.213	29.172	(1.120)	2121202	87.3824	44	9012

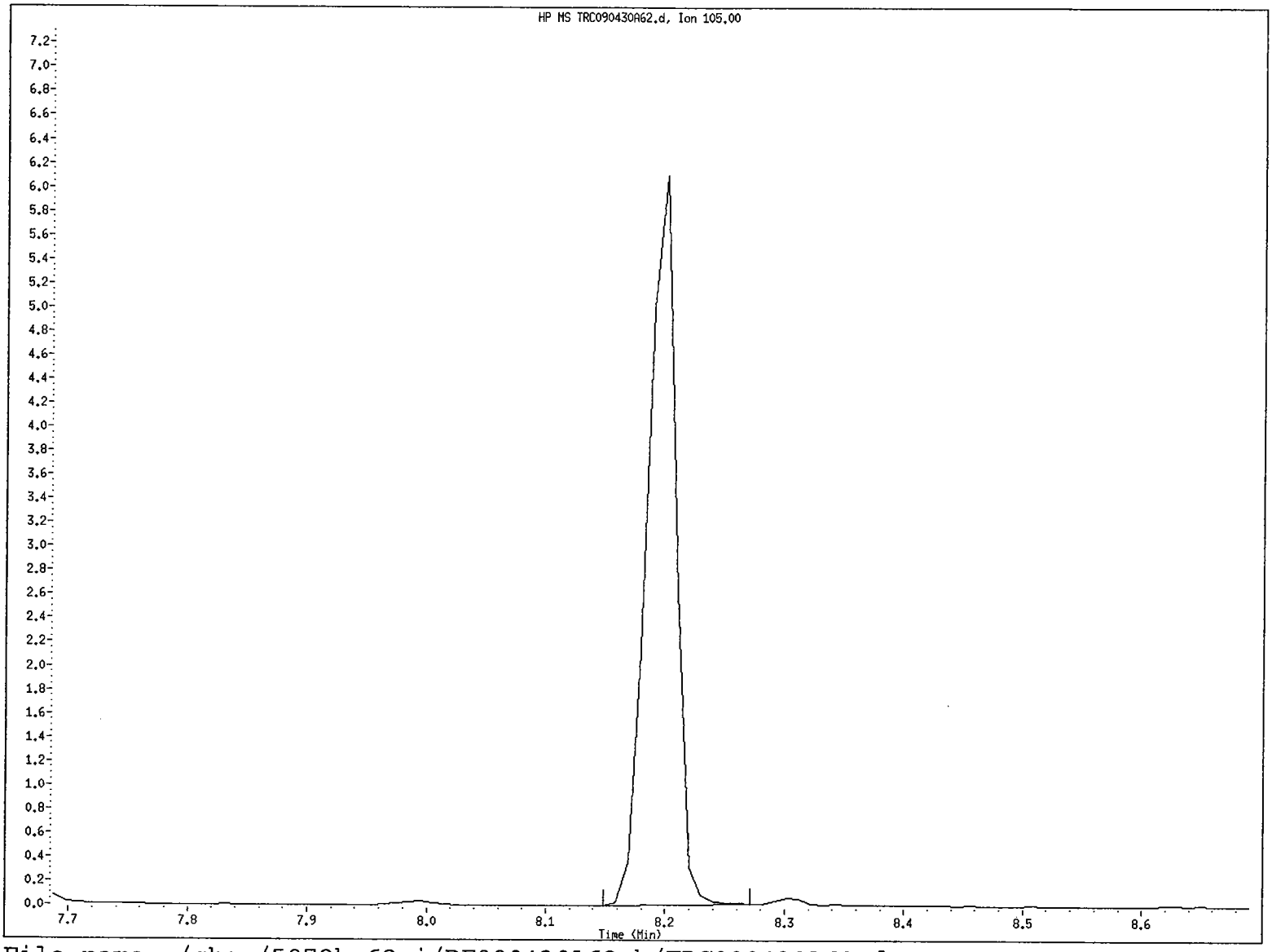
10/1/19

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

5/5/09

Acetophenone CAS Number 98-86-2 Area = 1023348 Manually integrated



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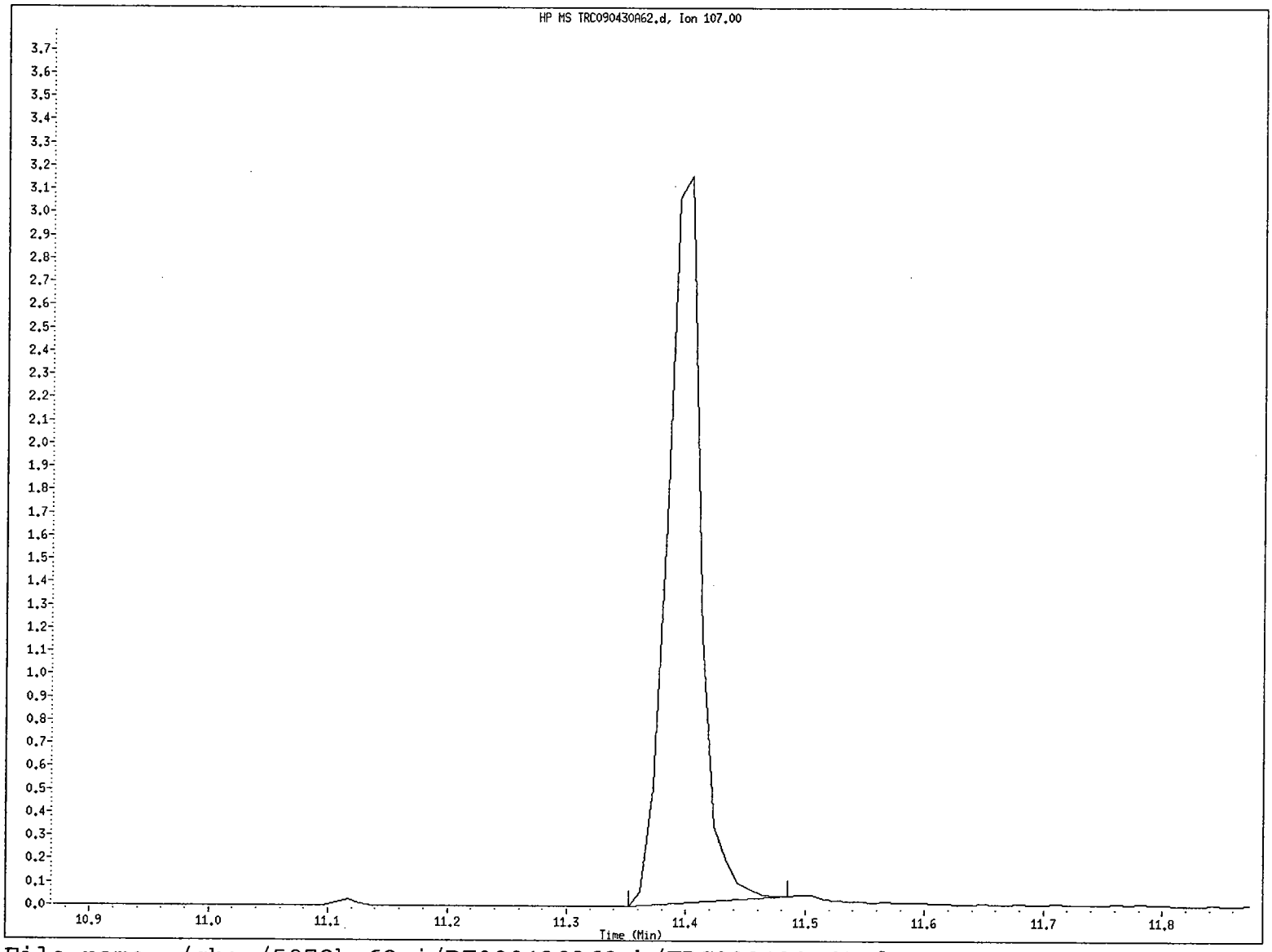
Client ID: CLP080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 21:14
Retention Time: 8.20
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 624863 Manually integrated



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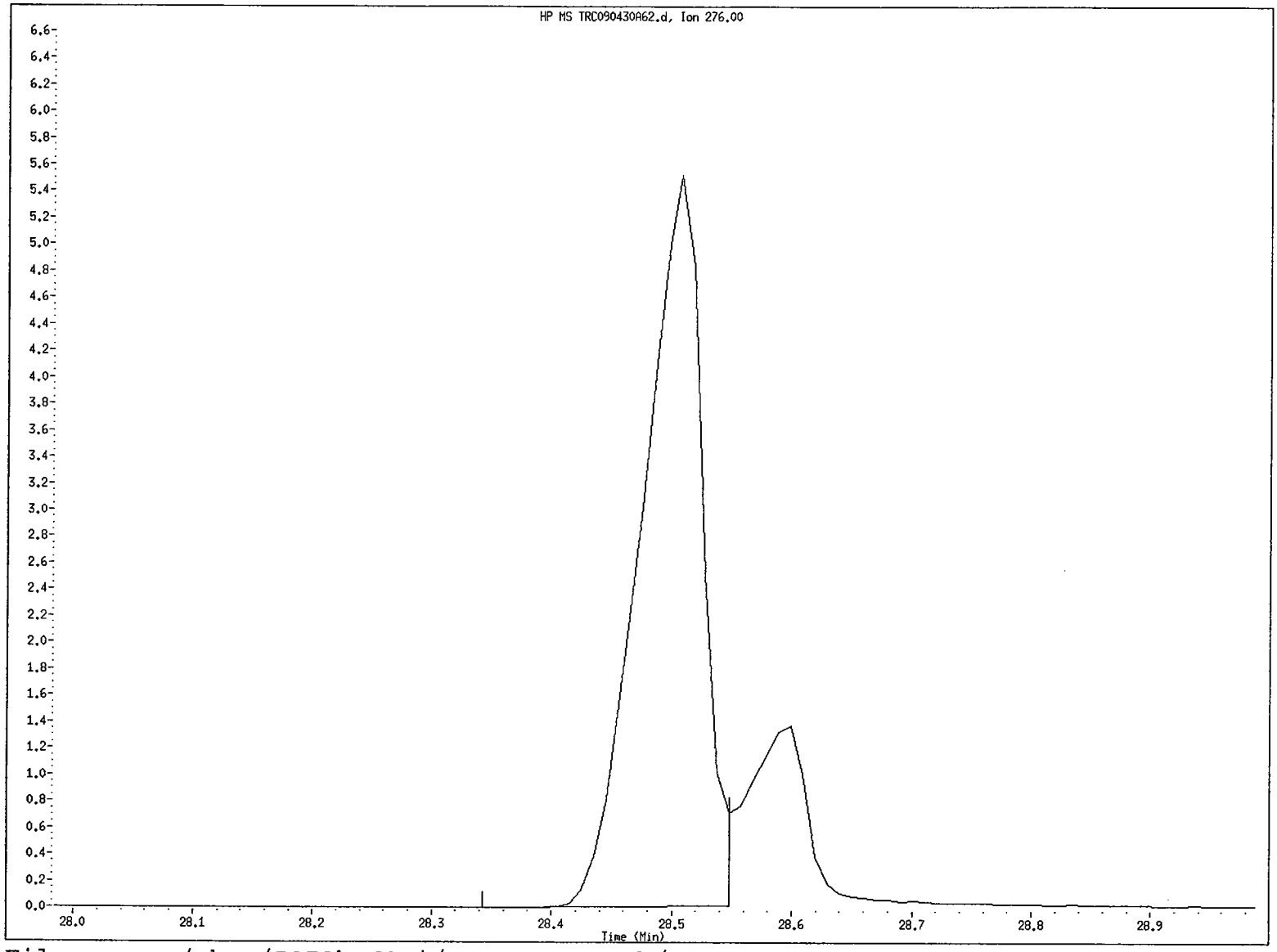
Client ID: CLP080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 21:14
Retention Time: 11.40
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1957412 Manually integrated



File name: /chem/5972hp62.i/DF090430A62.b/TRC090430A62.d
Client ID: CLP080VAL
Instrument ID: 5972hp62.i
Injection Date and Time: 30-APR-2009 21:14
Retention Time: 28.51
Operator ID: 2650

COMPUCHEM a Division of Liberty Analytical Corp
GC/MS SEMIVOLATILE RUN LOG
LOGBOOK 4 Y (4) 8 (5972hp62)

DATE 4/30/09 INITIAL TIME OF TUNE 1603 SHIFT/S(A) ✓ (B)_____ (C)_____
TIME TUNE EXPIRES 0403 METHOD APIx

PREVENTIVE MAINTENANCE Replaced source/Front/Liner/seal

		FILE NAME		DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS (ETC.) DISPOSITION
1		DF090430A62	/	4/30/09	1603	DFTPP	—	2µL	2650	SCD=LCD
2		HG090430A62	/	/ /	1622	SSTD080	—			62090 6/30/09 + 61860 11/30/09
3		HH090430A62	/	/ /	1704	SSTD160	—			62092
4		HI090430A62	/	/ /	1745	SSTD010	—			62087
5		HJ090430A62	/	/ /	1827	SSTD120	—			62091
6		HK090430A62	/	/ /	1909	SSTD020	—			62088
7		HL090430A62	/	/ /	1951	SSTD050	—			62089
8		SRC090430A62	/	/ /	2032	SSTD080VAL	—			62099 8/31/09
9		TRC090430A62	/	/ /	2114	CLP080VAL	—			61771 6/1/09
10				/ /						
11				/ /						
12				/ /						
13				/ /						
14				/ /						
15				/ /			4/3 5/1/09			
16				/ /		DFTPP				
17				/ /						
18				/ /						
19				/ /						
20				/ /						
21				/ /						
22				/ /						

DFTPP Lot #/Exp. Date: 705S 61757 6/10/09
Calibration STD Lot#/Exp. Date: See Comments
Internal STD Lot#/Exp. Date: 810 62085 10/24/09
Methylene Chloride Lot#/Exp. Date: 458028 7/1/11
Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: A Standley DATE 5/1/09
12/13/08 sw

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP60 Calibration Date(s): 05/01/09 05/01/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1257 1505

LAB FILE ID: RF10: HI090501A60 RF20: HK090501A60 RF50: HL090501A60
RF80: HG090501A60 RF120: HJ090501A60RF160: HH090501A60

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
Famfur	0.632	0.639	0.740	0.727	0.654	0.668

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP60 Calibration Date(s): 05/01/09 05/01/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1257 1505

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
Famfur	AVRG	0.67668907	6.766	90.000

Average %RSD test result.

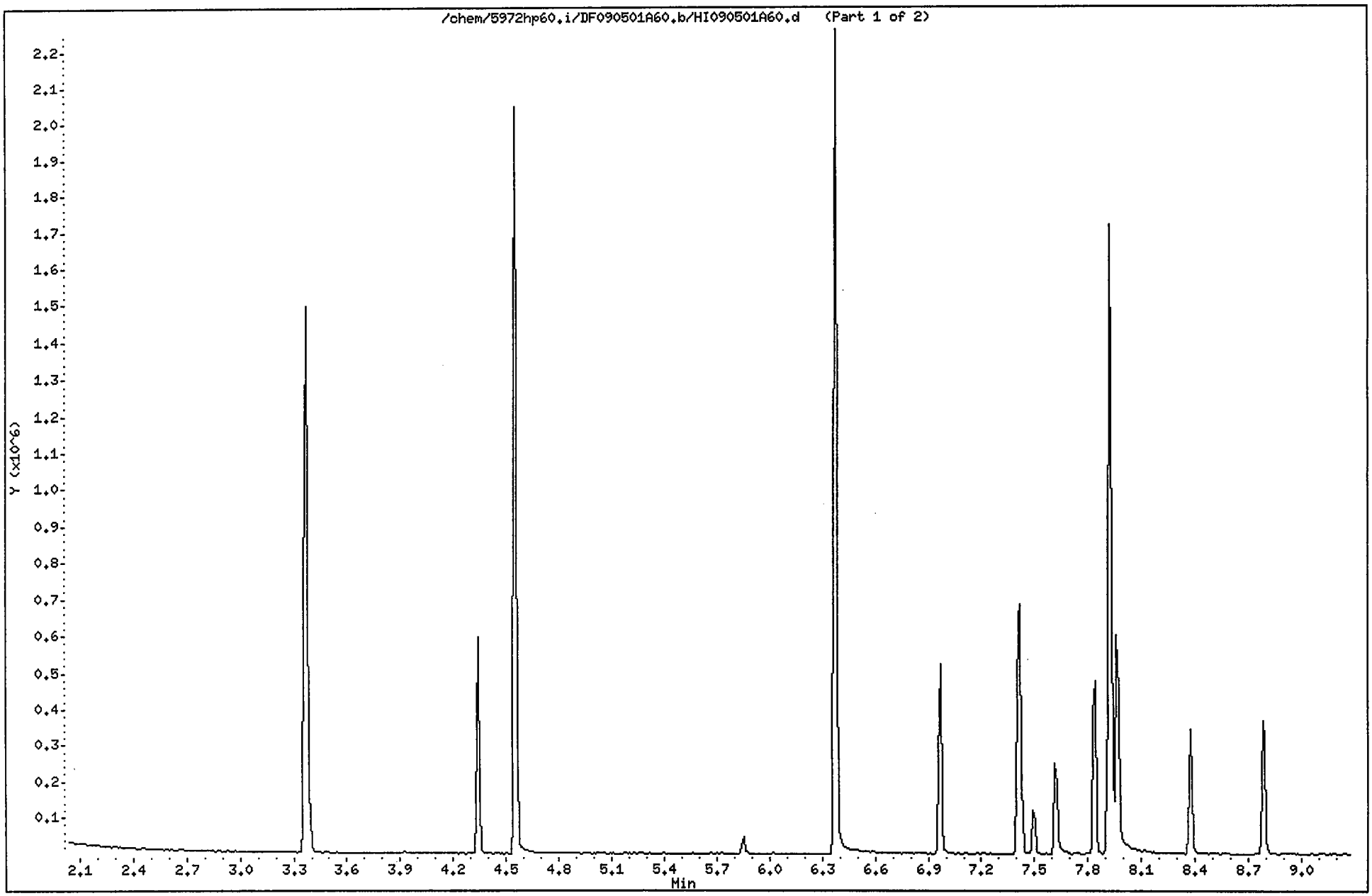
Calculate Average %RSD: 6.766328335
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

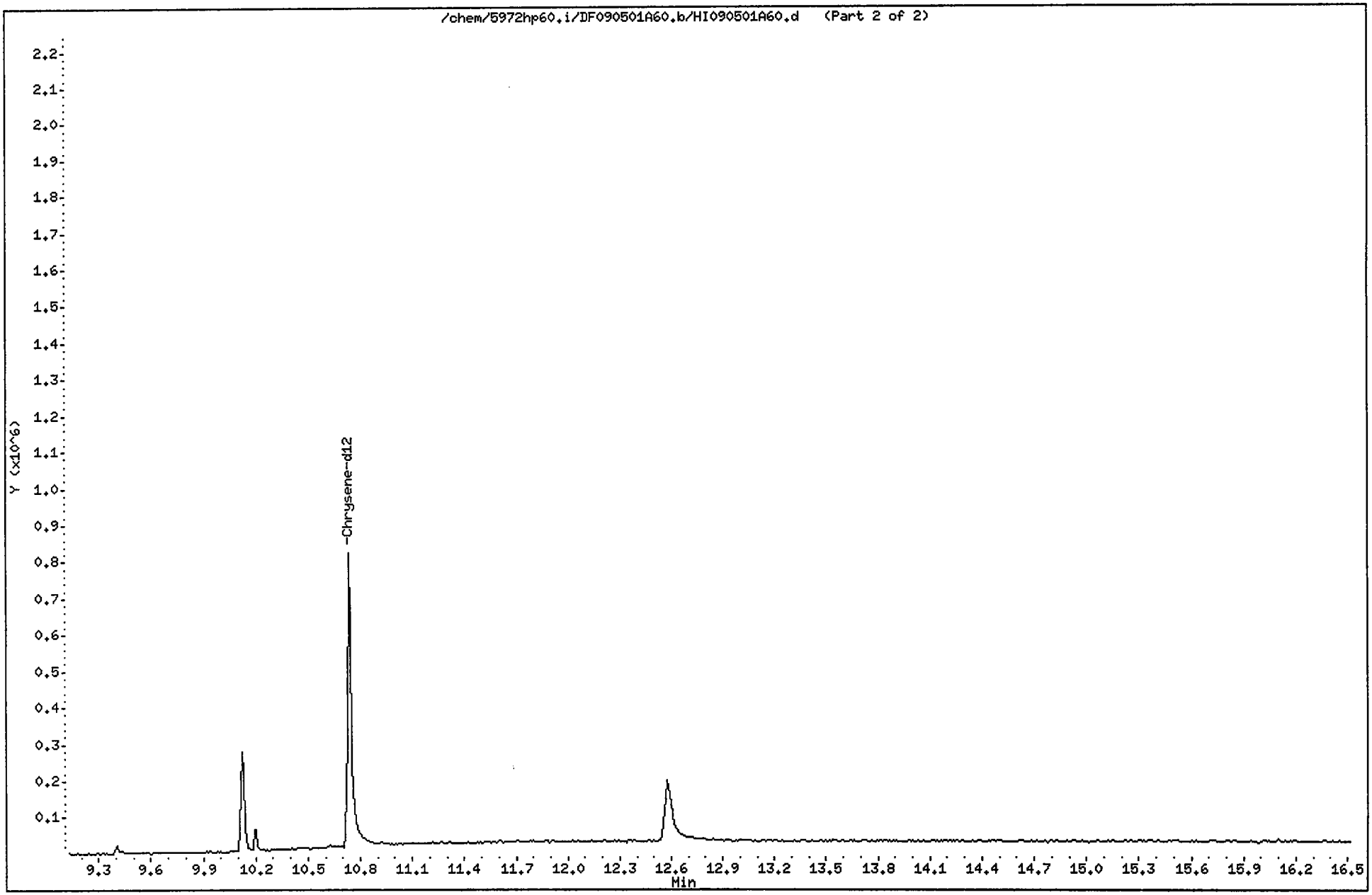
Data File: /chem/5972hp60.i/DF090501A60.b/HI090501A60.d
Date : 01-MAY-2009 13:48
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HI090501A60.d
Date : 01-MAY-2009 13:48
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HI090501A60.d
Report Date: 04-May-2009 11:01

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/HI090501A60.d
Lab Smp Id: SSTD010 Client Smp ID: SSTD010
Inj Date : 01-MAY-2009 13:48
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD010:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 11:01 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 13:48 Cal File: HI090501A60.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

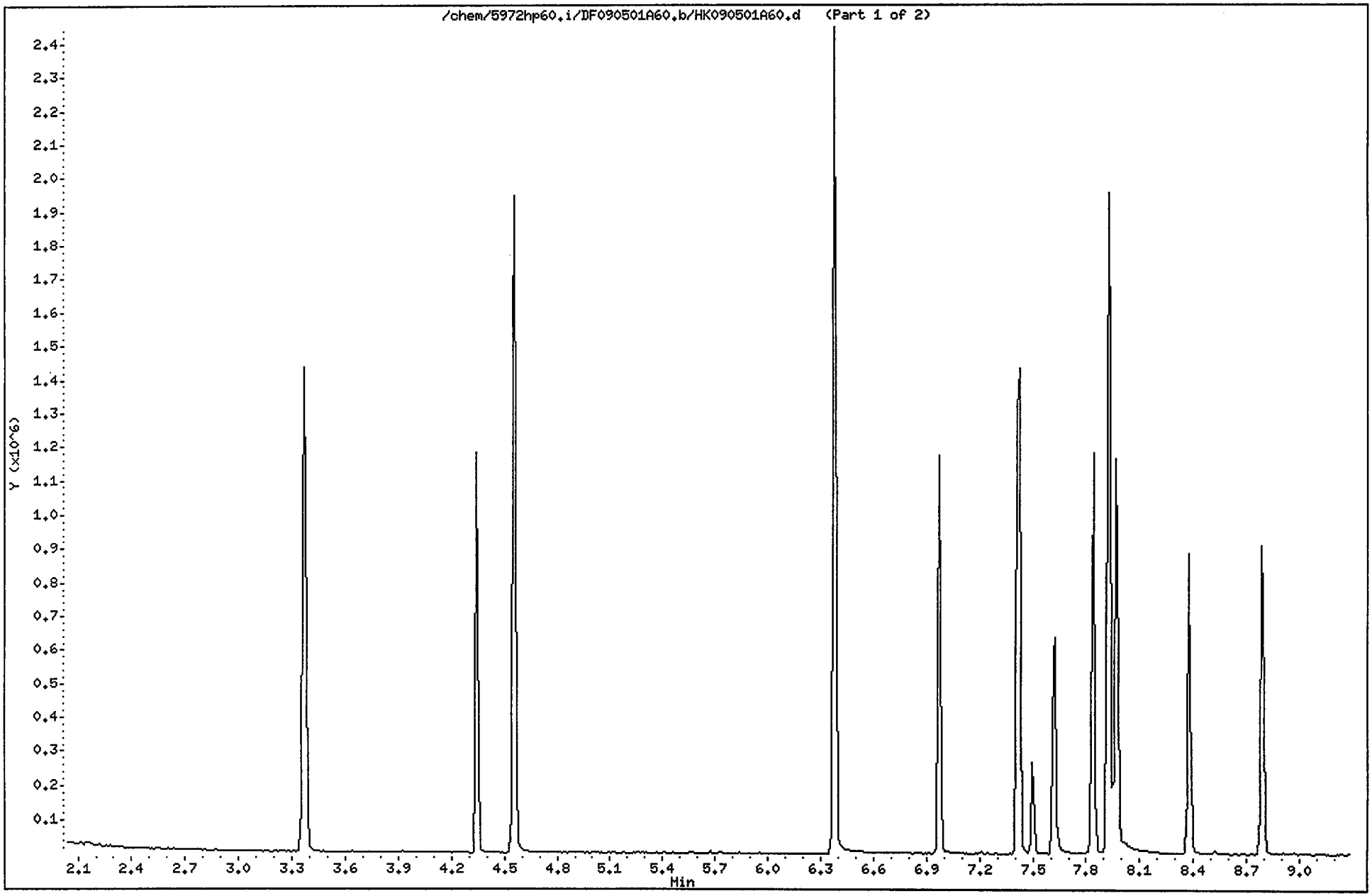
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.735	10.746	(1.000)	457508	40.0000		
127 Famfur	218	10.121	10.132	(0.943)	72272	10.0000	9.4	8945

5/8/4/9

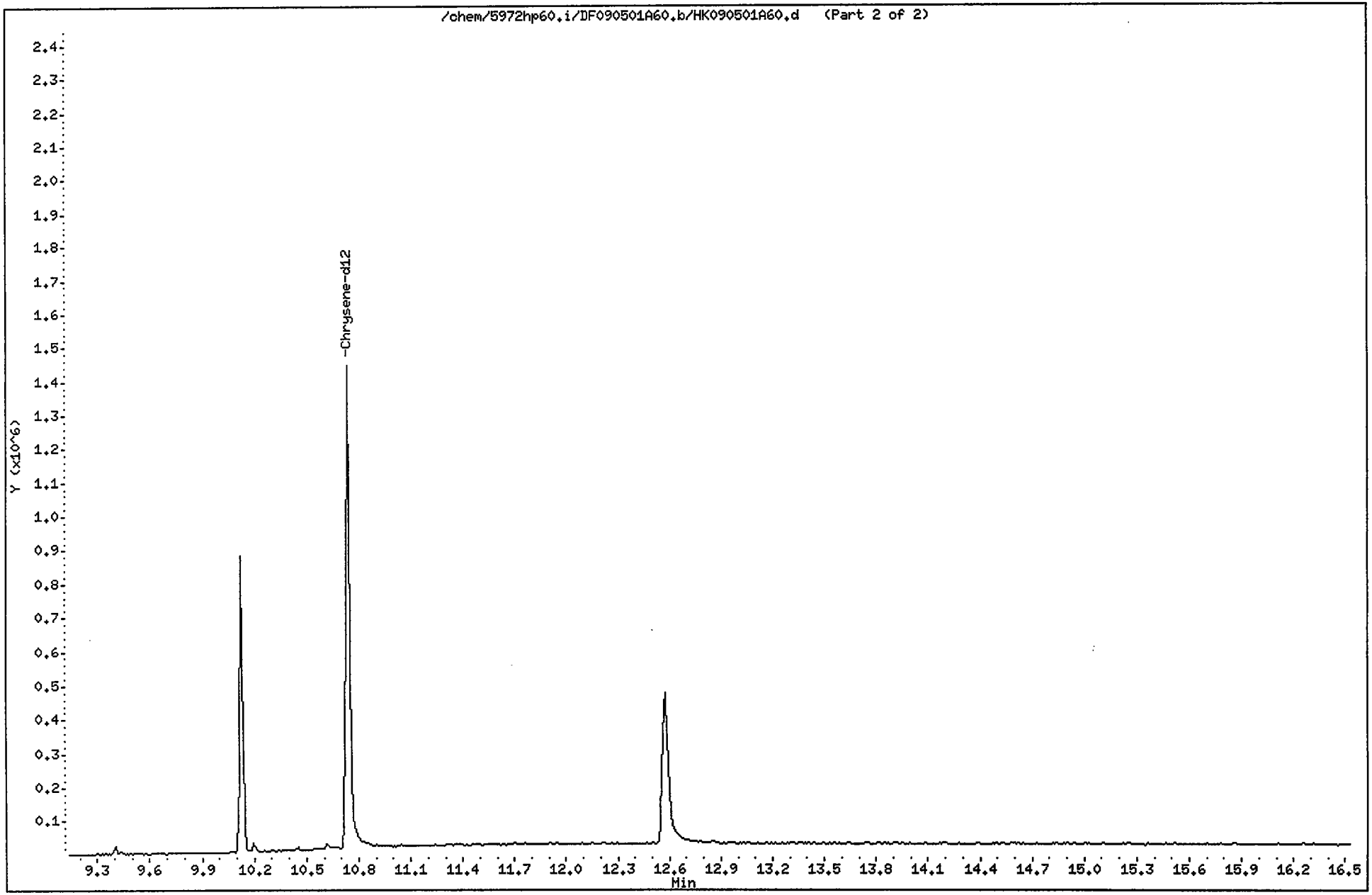
Data File: /chem/5972hp60.i/DF090501A60.b/HK090501A60.d
Date : 01-MAY-2009 14:39
Client ID: SSTD020
Sample Info: SSTD020:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HK090501A60.d
Date : 01-MAY-2009 14:39
Client ID: SSTD020
Sample Info: SSTD020:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HK090501A60.d
Report Date: 01-May-2009 15:33

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/HK090501A60.d
Lab Smp Id: SSTD020 Client Smp ID: SSTD020
Inj Date : 01-MAY-2009 14:39
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD020:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 01-May-2009 15:32 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 14:39 Cal File: HK090501A60.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

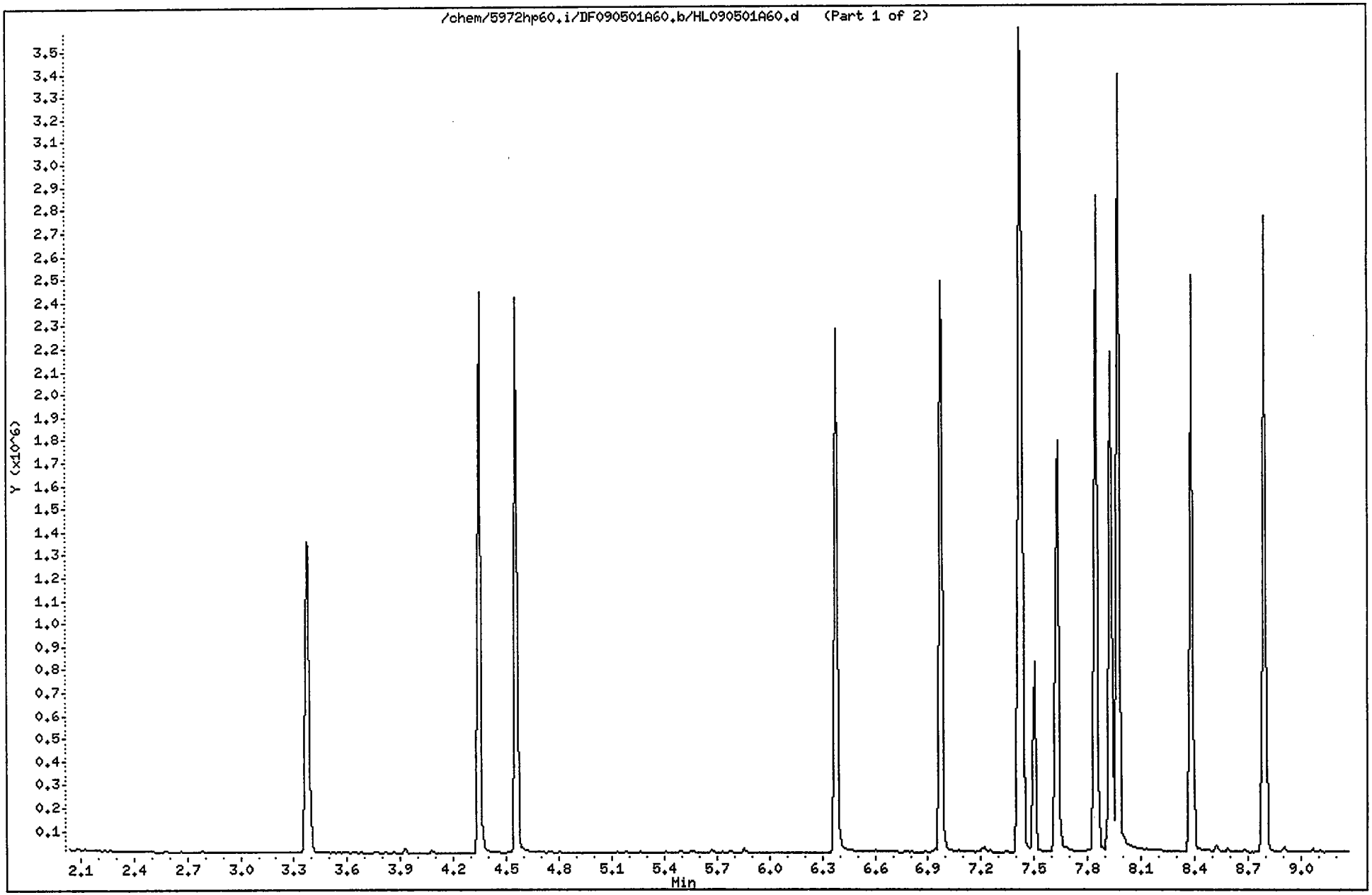
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.738	10.746	(1.000)	722758	40.0000		
127 Famfur	218	10.124	10.132	(0.943)	231095	20.0000	19	9091

5/1/09

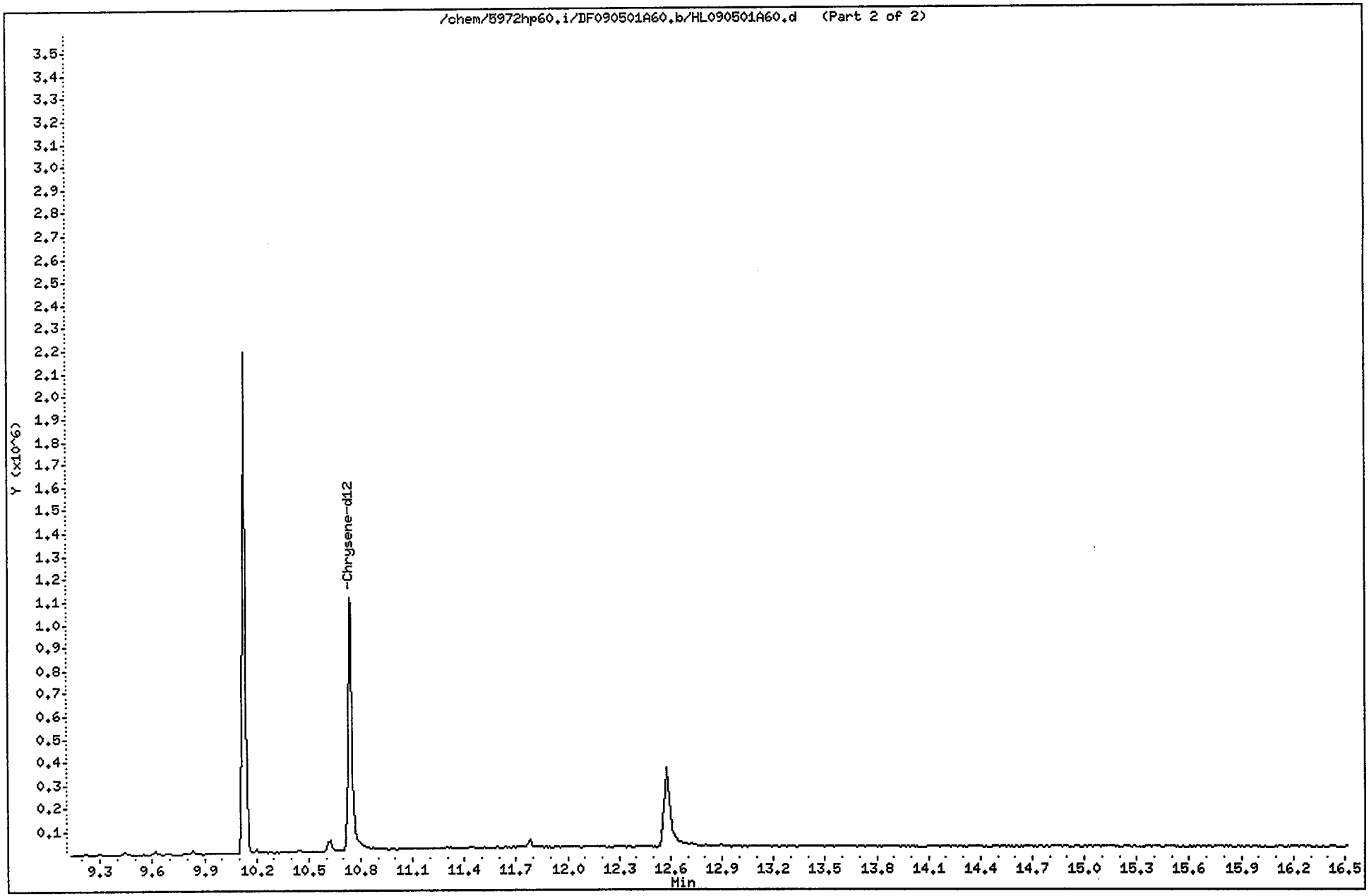
Data File: /chem/5972hp60.i/DF090501A60.b/HL090501A60.d
Date : 01-MAY-2009 15:05
Client ID: SSTD050
Sample Info: SSTD050;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HL090501A60.d
Date : 01-MAY-2009 15:05
Client ID: SSTD050
Sample Info: SSTD050:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HL090501A60.d
Report Date: 01-May-2009 15:33

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/HL090501A60.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 01-MAY-2009 15:05
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD050:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 01-May-2009 15:32 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

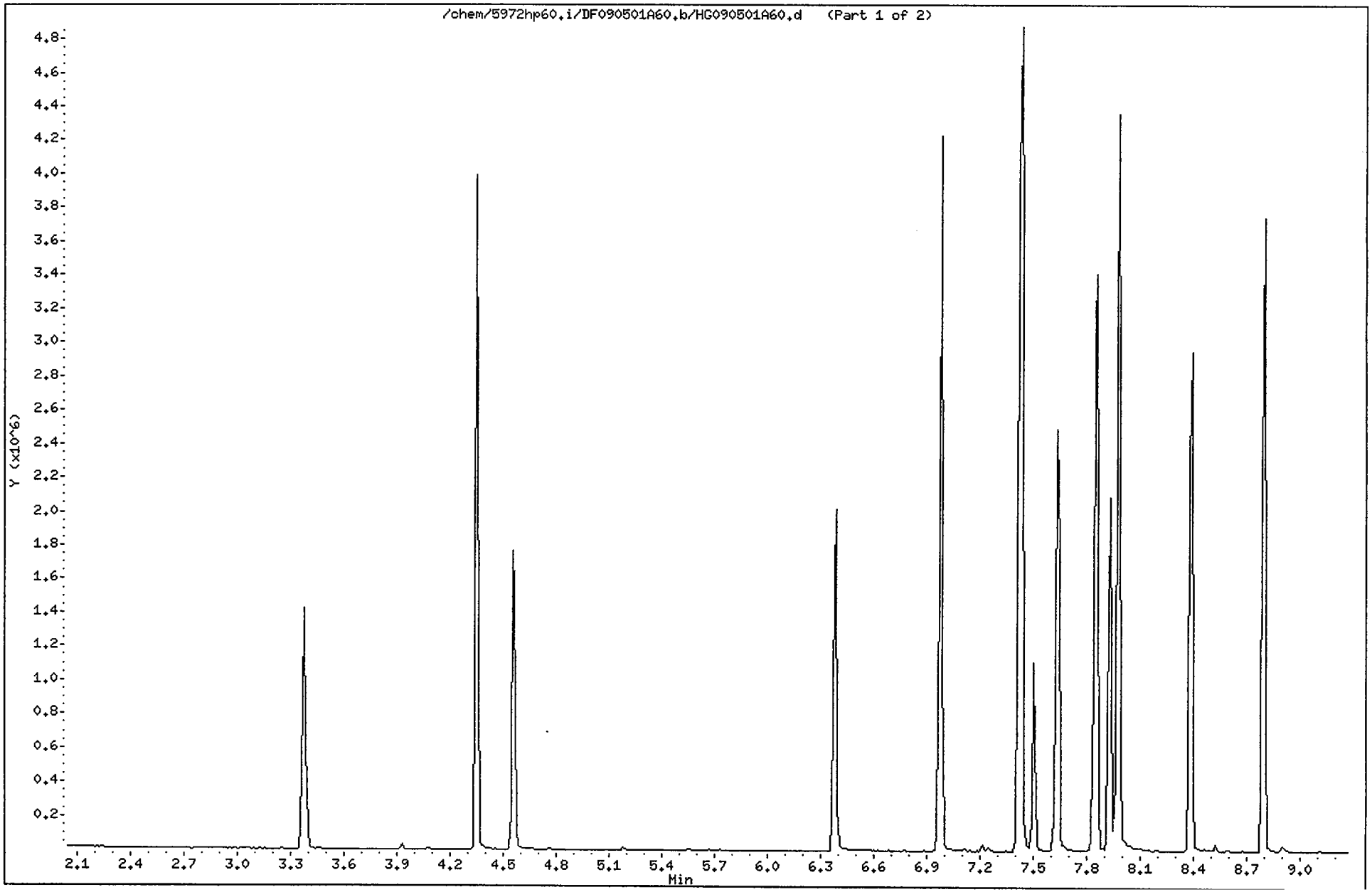
Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

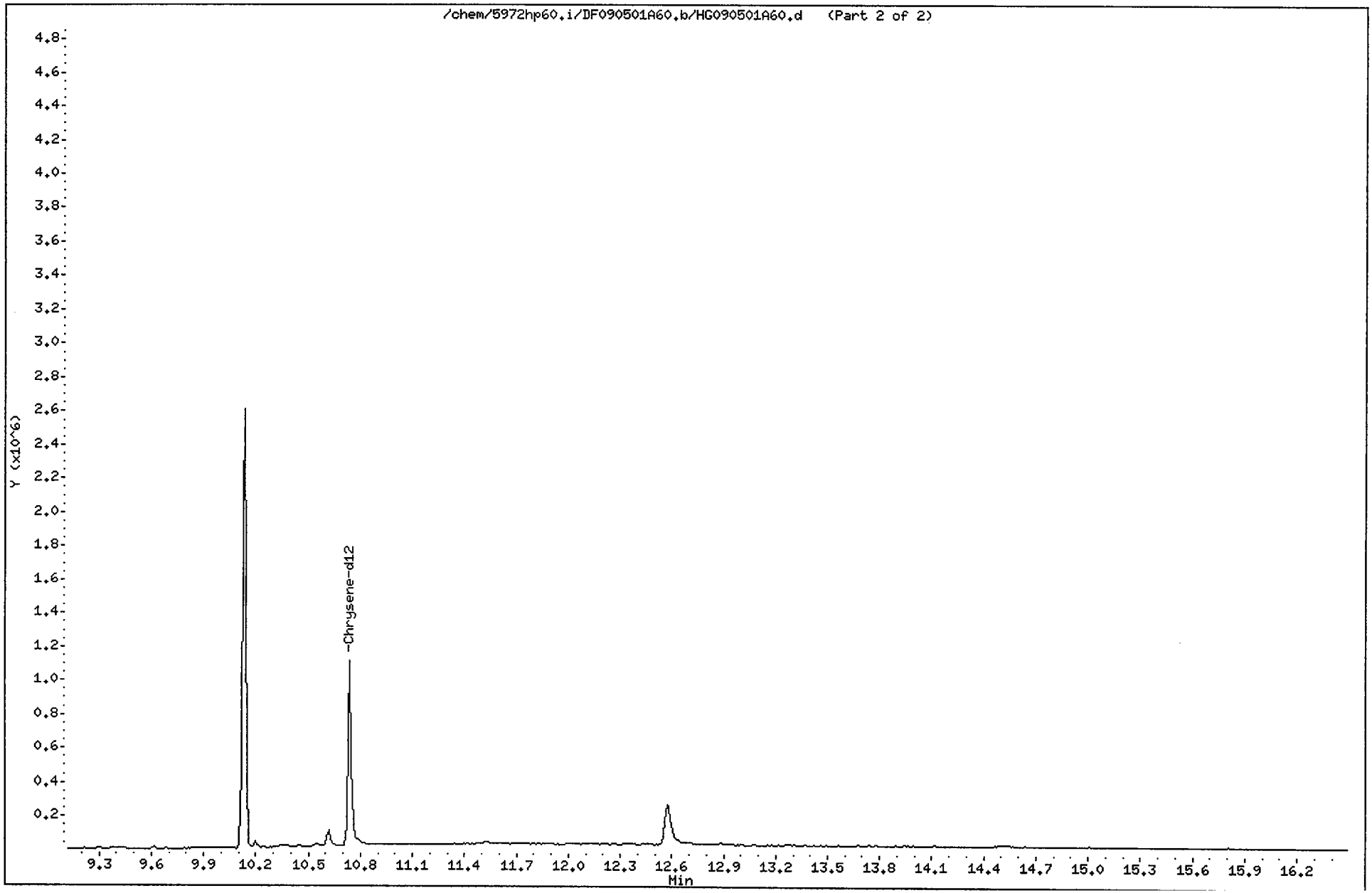
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.746	10.746	(1.000)	640230	40.0000		
127 Famfur	218	10.132	10.132	(0.943)	592132	50.0000	54	9120

TAP 5/1/09

Data File: /chem/5972hp60.i/DF090501A60.b/HG090501A60.d
Date : 01-MAY-2009 12:57
Client ID: SSTD080 Instrument: 5972hp60.i
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0 Operator: 2650
Column phase: RTX-5MS Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HG090501A60.d
Date : 01-MAY-2009 12:57
Client ID: SSTD080 Instrument: 5972hp60.i
Sample Info: SSTD080;2650
Volume Injected (uL): 2.0 Operator: 2650
Column phase: RTX-5MS Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HG090501A60.d
Report Date: 04-May-2009 10:39

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/HG090501A60.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 01-MAY-2009 12:57
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD080:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 10:39 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 12:57 Cal File: HG090501A60.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

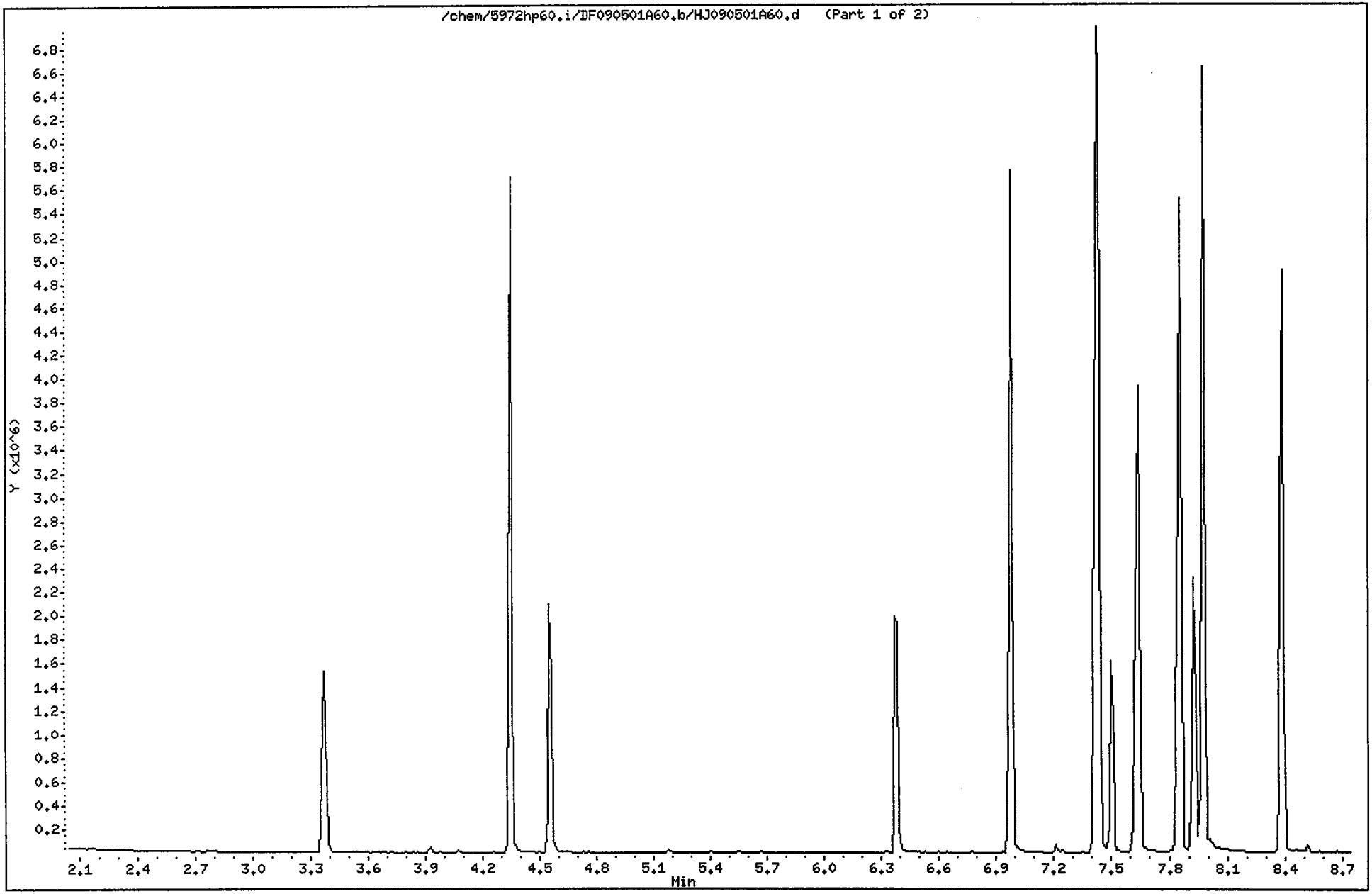
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.746	(1.000)	532953	40.0000		
127 Famfur	218	10.136	10.132	(0.944)	774730	80.0000	80	9017

8/4/9

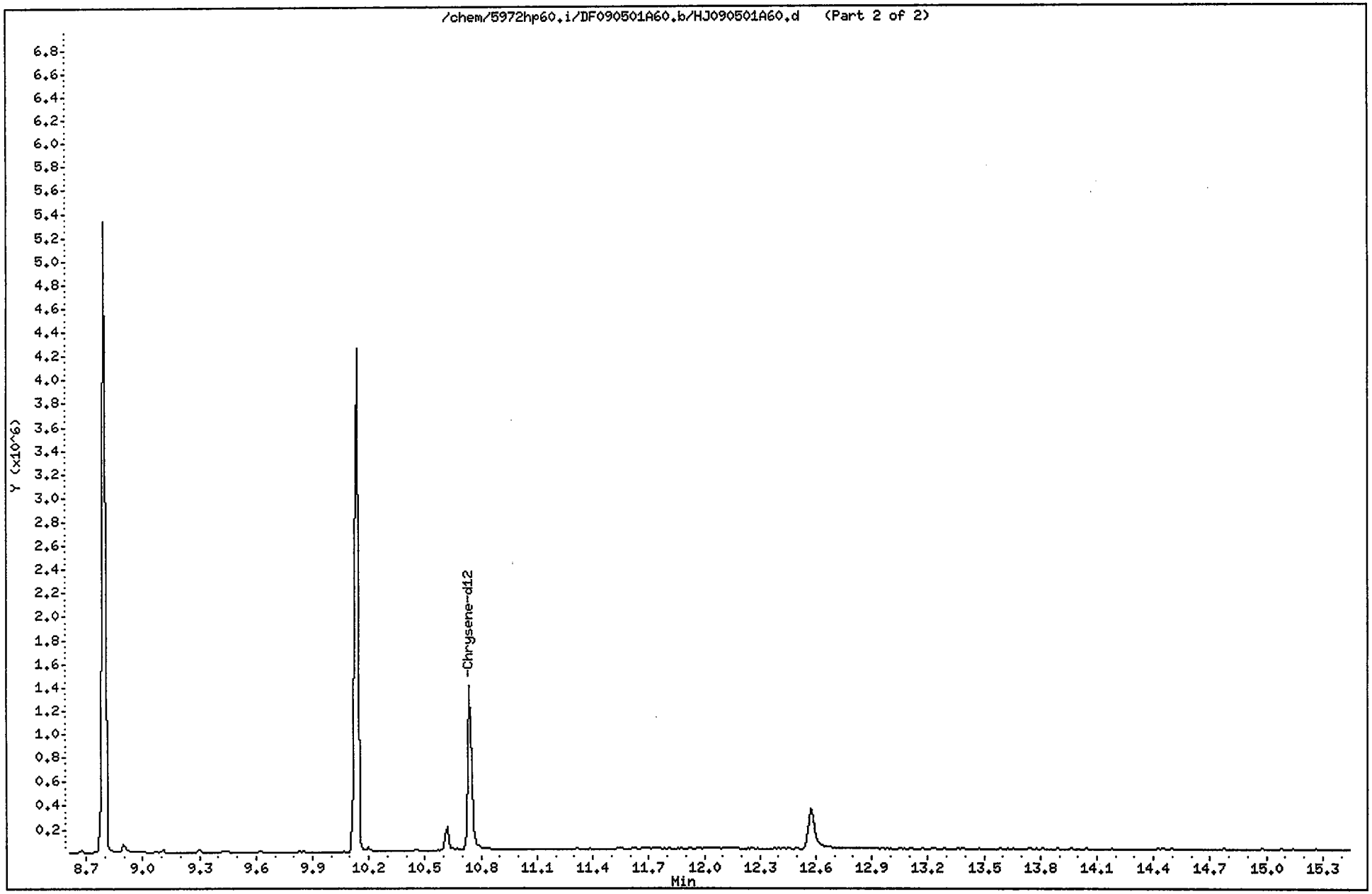
Data File: /chem/5972hp60.i/DF090501A60.b/HJ090501A60.d
Date : 01-MAY-2009 14:14
Client ID: SSTD120
Sample Info: SSTD120:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HJ090501A60.d
Date : 01-MAY-2009 14:14
Client ID: SSTD120
Sample Info: SSTD120:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HJ090501A60.d
Report Date: 01-May-2009 15:33

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/HJ090501A60.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 01-MAY-2009 14:14
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD120:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 01-May-2009 15:32 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 14:14 Cal File: HJ090501A60.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

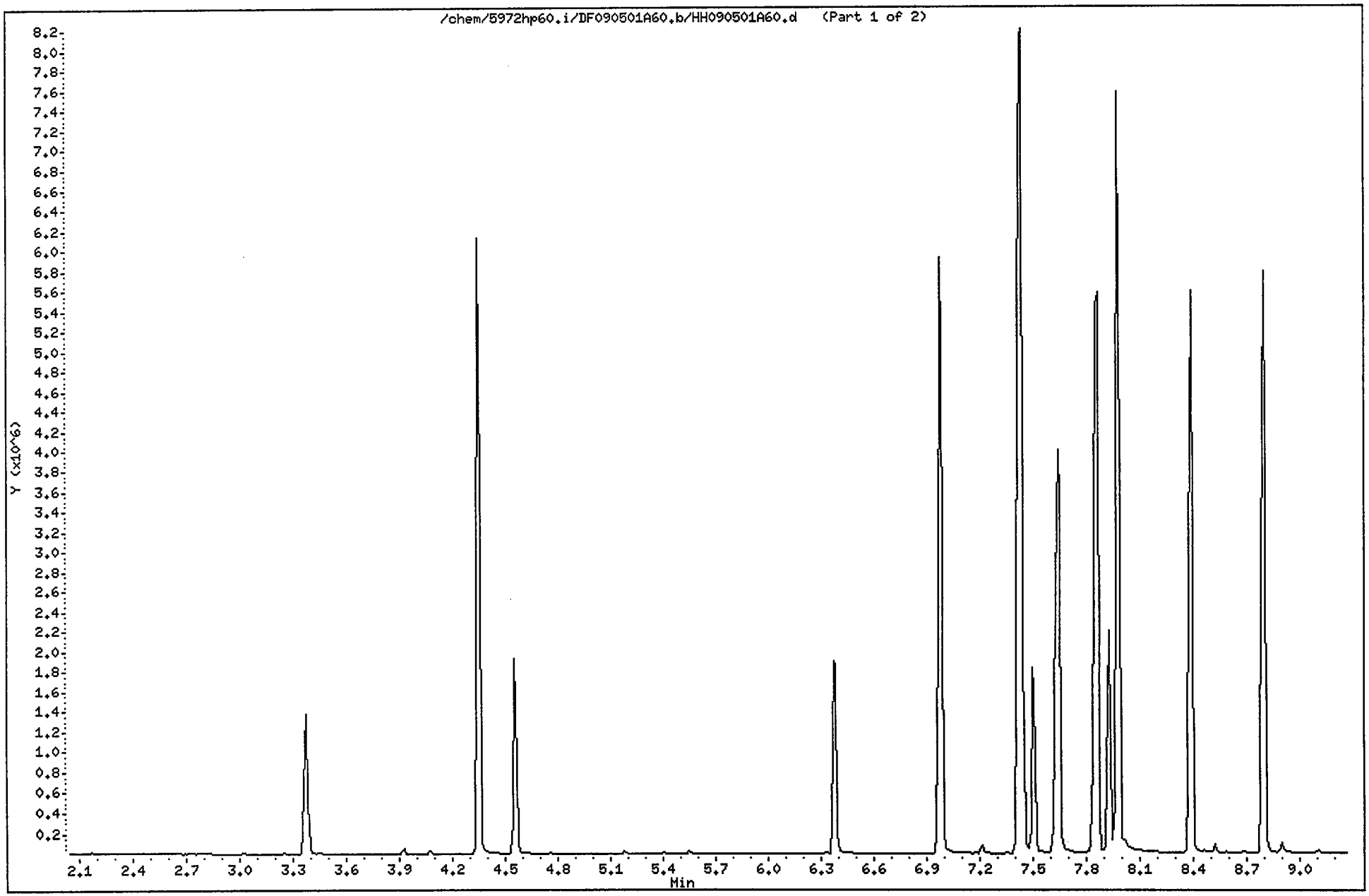
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.746	(1.000)	665992	40.0000		
127 Famfur	218	10.137	10.132	(0.944)	1307351	120.000	120	9209

TMP 5/1/09

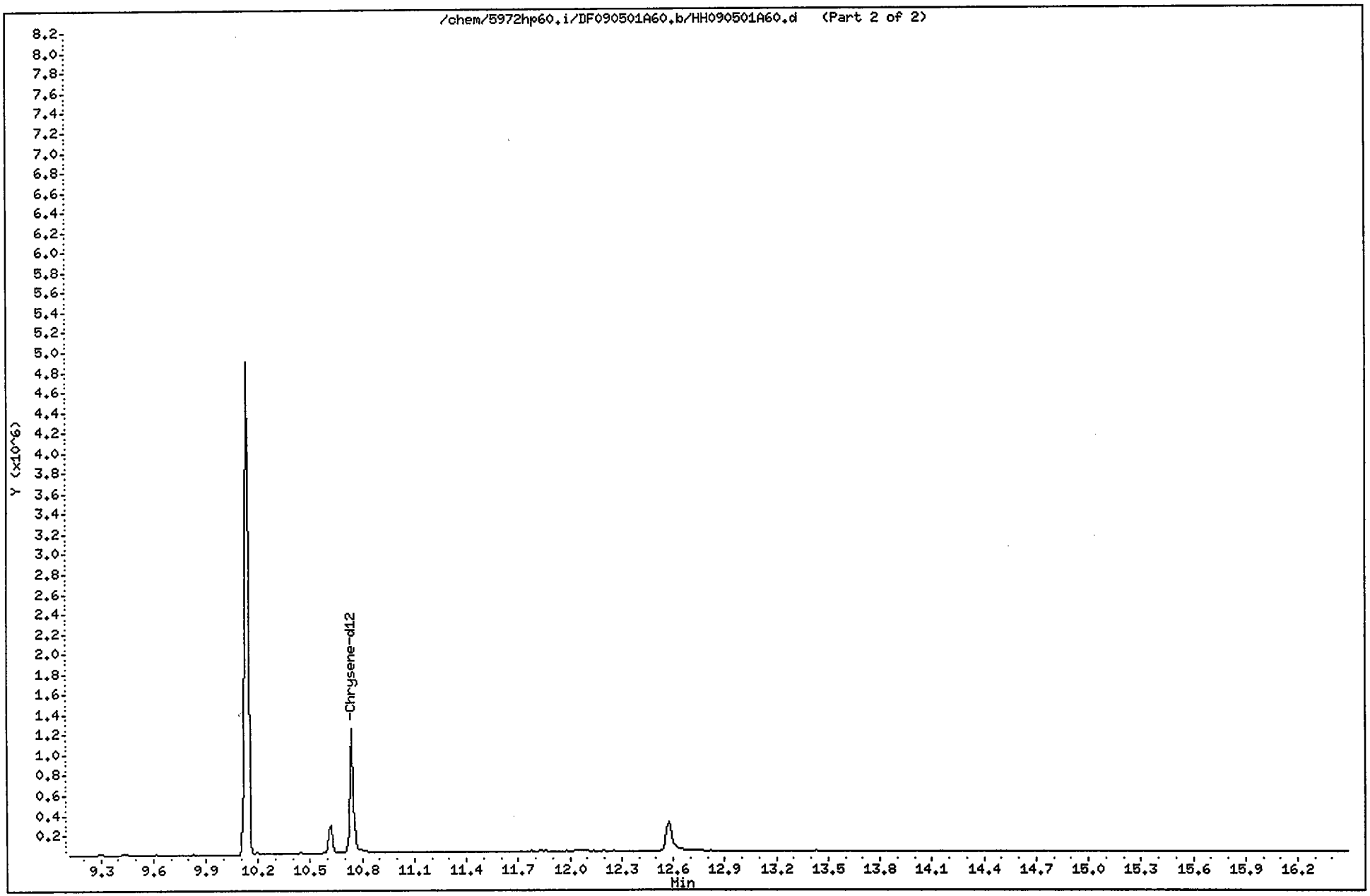
Data File: /chem/5972hp60.i/DF090501A60.b/HH090501A60.d
Date : 01-MAY-2009 13:22
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HH090501A60.d
Date : 01-MAY-2009 13:22
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/HH090501A60.d
Report Date: 01-May-2009 15:33

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/HH090501A60.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 01-MAY-2009 13:22
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD160:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 01-May-2009 15:32 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 13:22 Cal File: HH090501A60.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.741	10.746	(1.000)	603250	40.0000		
127 Famfur	218	10.137	10.132	(0.944)	1611193	160.000	160	9183

DMP 5/1/09

TIME OF TUNE 1231 SHIFT/S (A) ✓ (B) ____ (C) ____
TIME TUNE EXPIRES 0031 METHOD Fan-fm / Kepone

PREVENTIVE MAINTENANCE Front/Liver/Septum

	SEQUENCE#	FILENAME		DATE	TIME	CLIENT ID	SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS
1		DF090501A60		5/1/09	1231	DFTPP	—	2µL	2650	SCD=LCD
2		HG090501A60		/ /	1257	SSTD080	—			62082 10/14/09 Fan-fm
3		HH090501A60		/ /	1322	SSTD160	—			62084
4		HI090501A60		/ /	1348	SSTD010	—			62079
5		HJ090501A60		/ /	1414	SSTD120	—			62083
6		HK090501A60		/ /	1439	SSTD020	—			62080
7		HL090501A60		/ /	1505	SSTD050	—			62081
8		HM090501A60		/ /	1556	SSTD080	—			62066 10/14/09 Kepone
9		HN090501A60		/ /	1621	SSTD160	—			62068
10		HP090501A60		/ /	1646	SSTD010	—			62063
11		HQ090501A60		/ /	1711	SSTD120	—			62067
12		HR090501A60		/ /	1736	SSTD020	—			62064
13		HS090501A60		/ /	1802	SSTD050	—			62065
14		9041318-BLKA60		/ /	1828	SBLKJK	0904069			
15		9041318-BSA60		/ /	1854	SJKLCS				
16	✓	9041318-MSA60	SF	/ /	1920	16WC1AMS01				LCS OK
17	✓	9041318-MSDA60	SF	/ /	1945	16WC1AMSD01				
18		0904069-01A60		/ /	2010	16WC1A				
19		0904069-02A60		/ /	2036	16C1				
20		0904069-03A60		/ /	2102	16MW8				
21		0904069-04A60		/ /	2127	16MW9				
22		0904069-05A60		/ /	2152	16WDup				
23		0904069-06A60		/ /	2217	16WC1B				
24		9041633-MLKA60		/ /	2242	SMLKGV	VARIOUS			

DFTPP Lot #/Exp. Date: 7055 6057 6/10/09

Calibration STD Lot#/Exp. Date: See Comments

Internal STD Lot#/Exp. Date: 800 68085 10/24/09

Methylene Chloride Lot#/Exp. Date: 48028 7/1/11

Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 5/11/09

9/2/08: vr

cont'd on next page →

COMPUCHEM Environmental Laboratory Analytical Corp

CCAMSSEMIVOLATILE RUNLOG

COMPUCHEM LOGBOOK 4 V (4) 19 (5972hp60)

DATE 5/1/09 INITIAL TIME OF TUNE 1231 SHIFT/S (A) ✓ (B) ____ (C) ____

TIME TUNE EXPIRES 0031 METHOD Fanfar/Kepone

PREVENTIVE MAINTENANCE none

	SEQUENCE#	SCAN	FILENAME	SCAN	DATE	TIME	CLIENT ID	SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS
1			9041633-BSA60		5/1/09	2308	SEVLCS	VARIOUS	2µL	2650	
2			9041633-BSDA60		〃	2333	SEVLCSD	↓	↓	↓	
3			0904098-01A60	✓	〃	2359	13MW5	0904098			
4			9041633-MS2A60		5/2/09	0025	13MW5MS02	↓			
5		✓	9041633-MSD2A60	OT	〃	0050	13MW5MSD02	↓	↓	↓	
6					/ /						
7					/ /						
8					/ /						
9					/ /						
10					/ /						
11					/ /						
12					/ /						
13					/ /						
14					/ /						
15					/ /						
16					/ /						
17					/ /						
18					/ /						
19					/ /						
20					/ /						
21					/ /						
22					/ /						
23					/ /						
24					/ /						

TPP 5/2/09

5/2/09

DFTPP Lot #/Exp. Date: 7055 61757 6/10/09

Calibration STD Lot#/Exp. Date: See Comments

Internal STD Lot#/Exp. Date: ~~8410~~ 8210 62085 10/24/09 TPP 5/2/09

Methylene Chloride Lot#/Exp. Date: 48828 7/1/11

Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 5/2/09

9/2/08: vr

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP60 Calibration Date(s): 05/01/09 05/01/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1556 1802

LAB FILE ID: RF10: HP090501A60 RF20: HR090501A60 RF50: HS090501A60
RF80: HM090501A60 RF120: HQ090501A60RF160: HN090501A60

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
Kepone	0.142	0.156	0.188	0.178	0.182	0.174

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP60 Calibration Date(s): 05/01/09 05/01/09

Column: RTX-5MS ID: 0.32 (mm) Calibration Time(s): 1556 1802

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
Kepone	AVRG	0.17016906	10.159	90.000

Average %RSD test result.

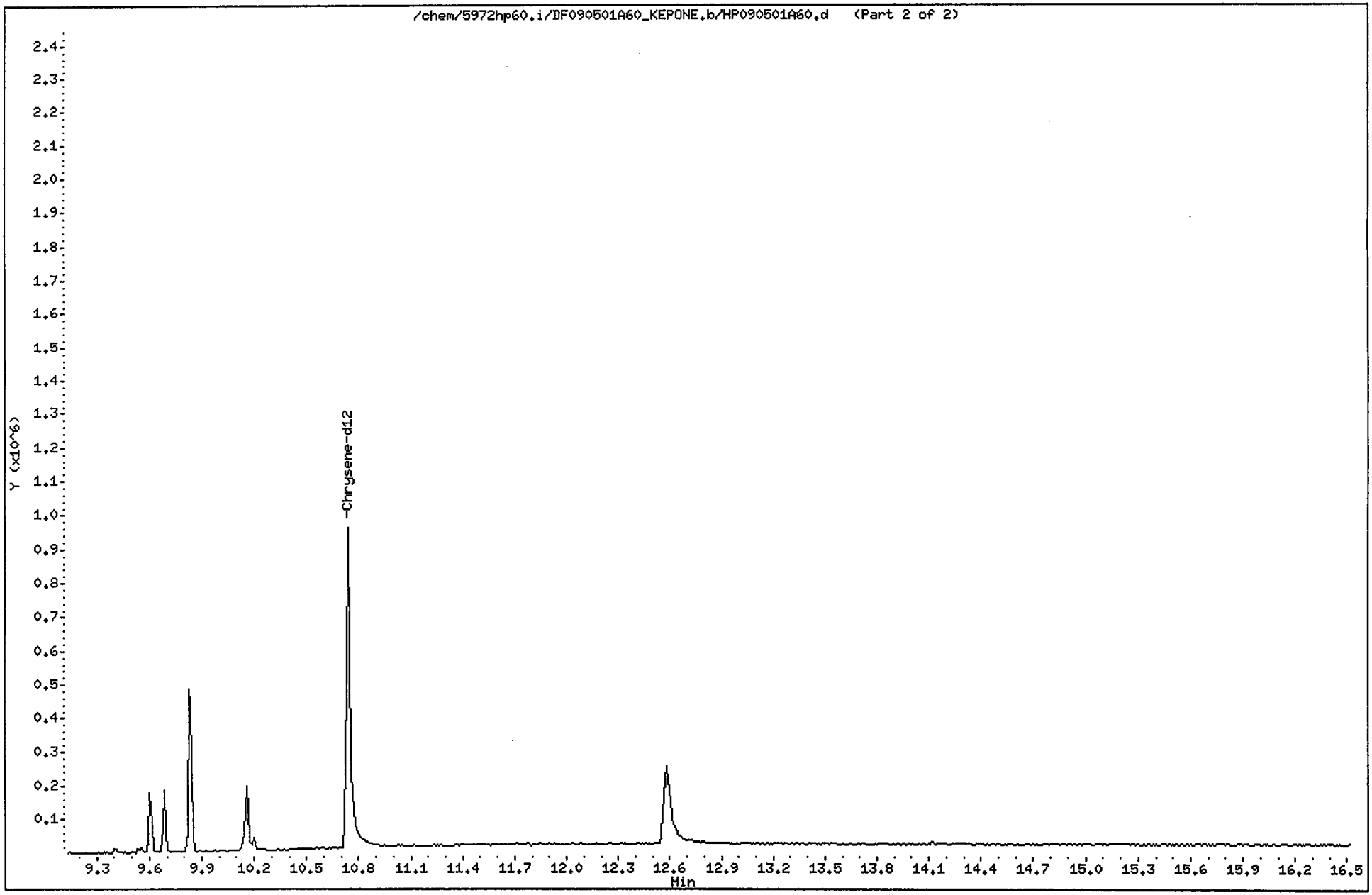
Calculate Average %RSD: 10.15909672
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

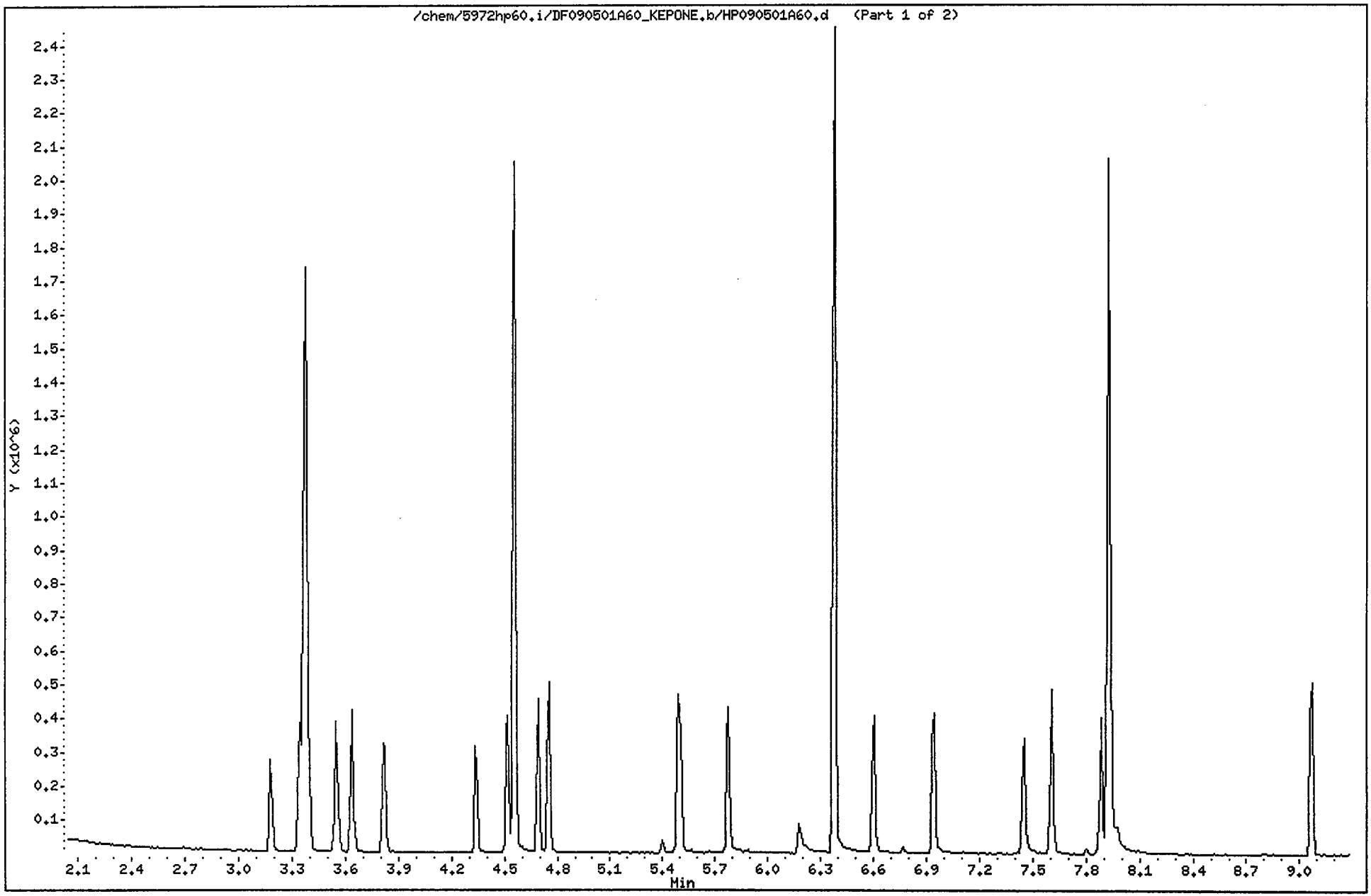
Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HP090501A60.d
Date : 01-MAY-2009 16:46
Client ID: SSTD010
Sample Info: SSTD010;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HP090501A60.d
Date : 01-MAY-2009 16:46
Client ID: SSTD010
Sample Info: SSTD010:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HP090501A60.d
Report Date: 04-May-2009 12:56

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/HP090501A60.d
Lab Smp Id: SSTD010 Client Smp ID: SSTD010
Inj Date : 01-MAY-2009 16:46
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD010:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 12:56 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 16:46 Cal File: HP090501A60.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

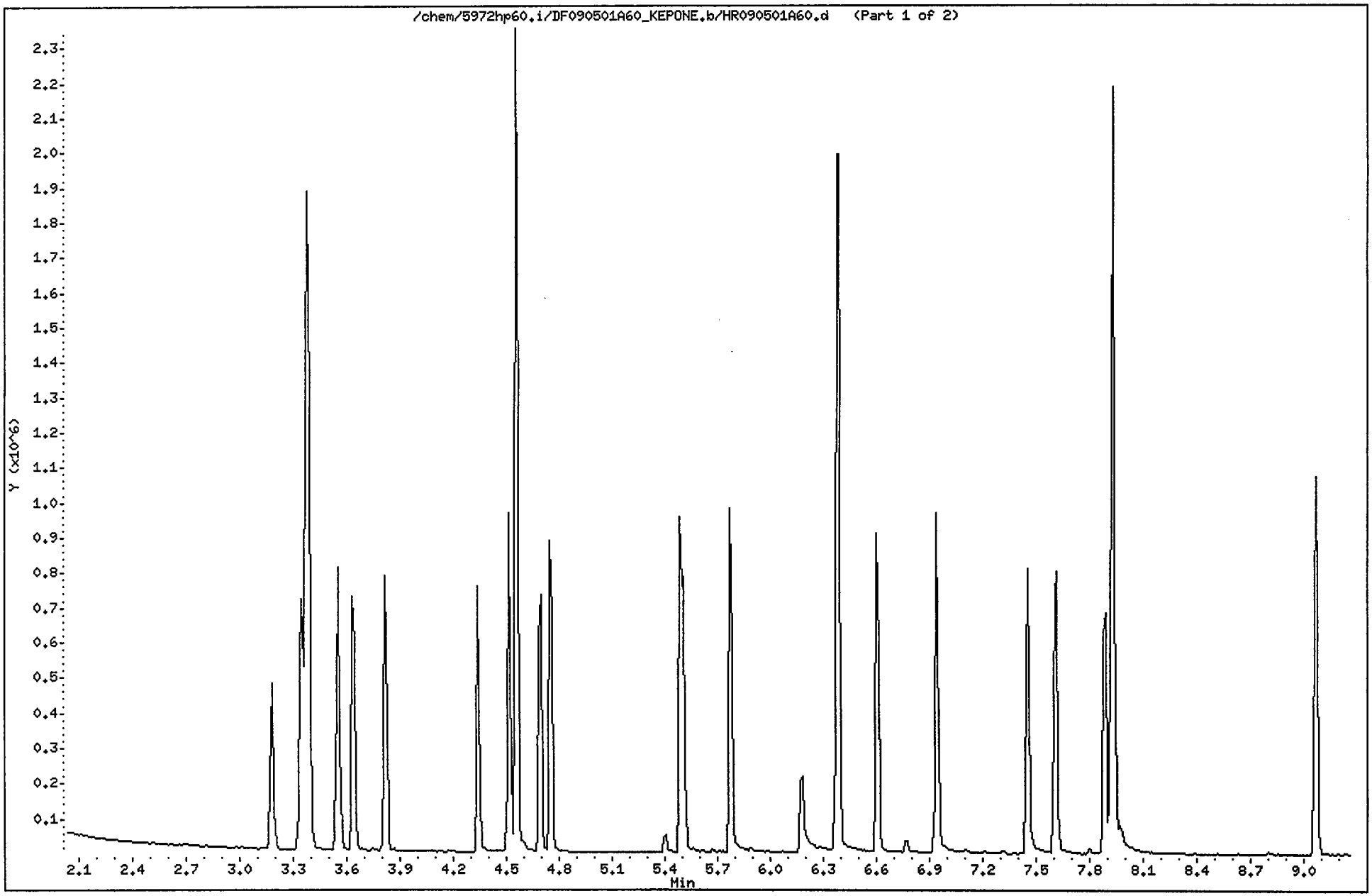
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.740	10.741	(1.000)	601517	40.0000		
126 Kepone	272	10.157	10.158	(0.946)	21430	10.0000	8.4	10000

5/4/09

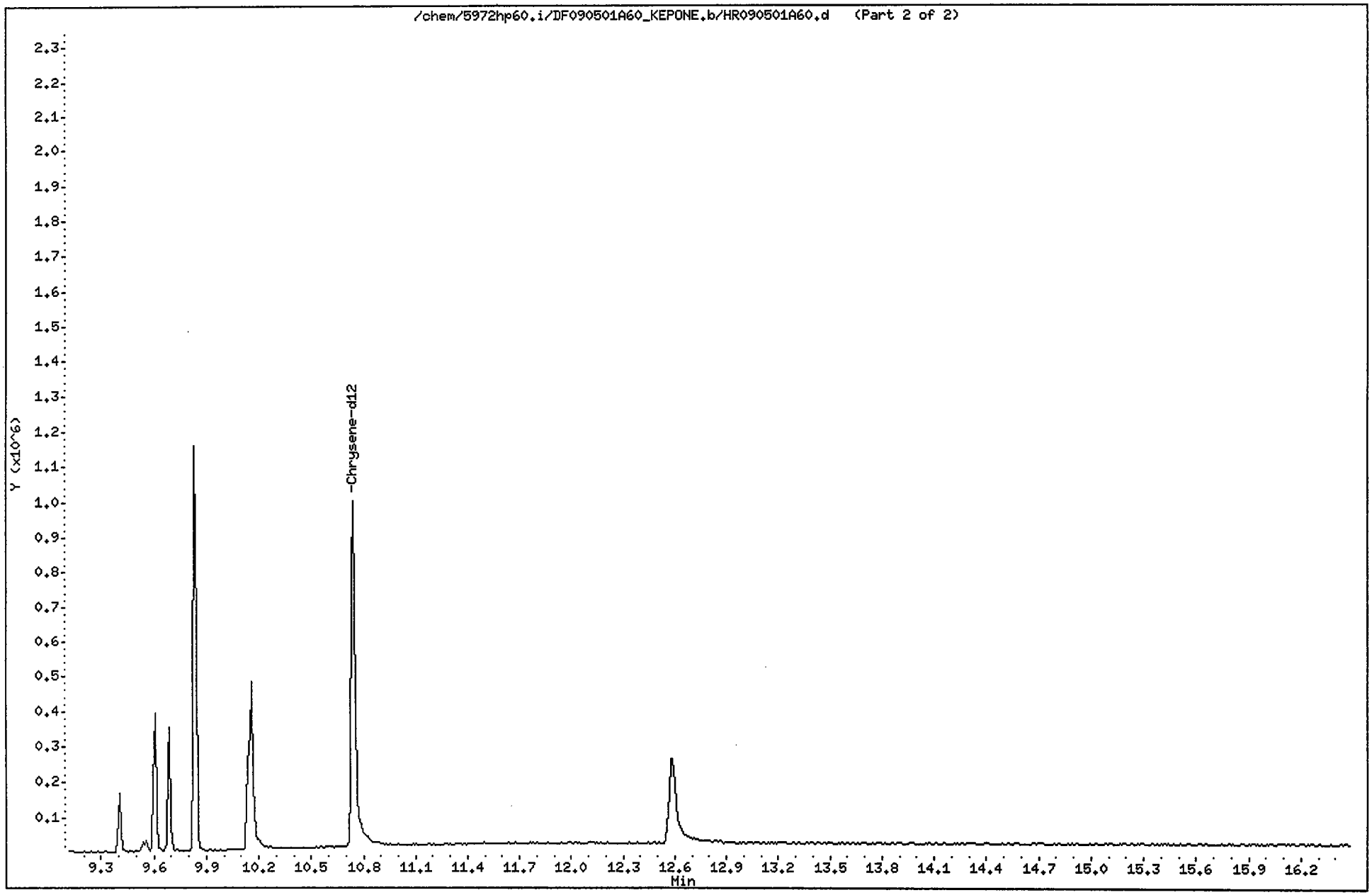
Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HR090501A60.d
Date : 01-MAY-2009 17:36
Client ID: SSTD020
Sample Info: SSTD020;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HR090501A60.d
Date : 01-MAY-2009 17:36
Client ID: SSTD020
Sample Info: SSTD020:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HR090501A60.d
Report Date: 01-May-2009 18:24

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/HR090501A60.d
Lab Smp Id: SSTD020 Client Smp ID: SSTD020
Inj Date : 01-MAY-2009 17:36
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD020:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 01-May-2009 18:23 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 17:36 Cal File: HR090501A60.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

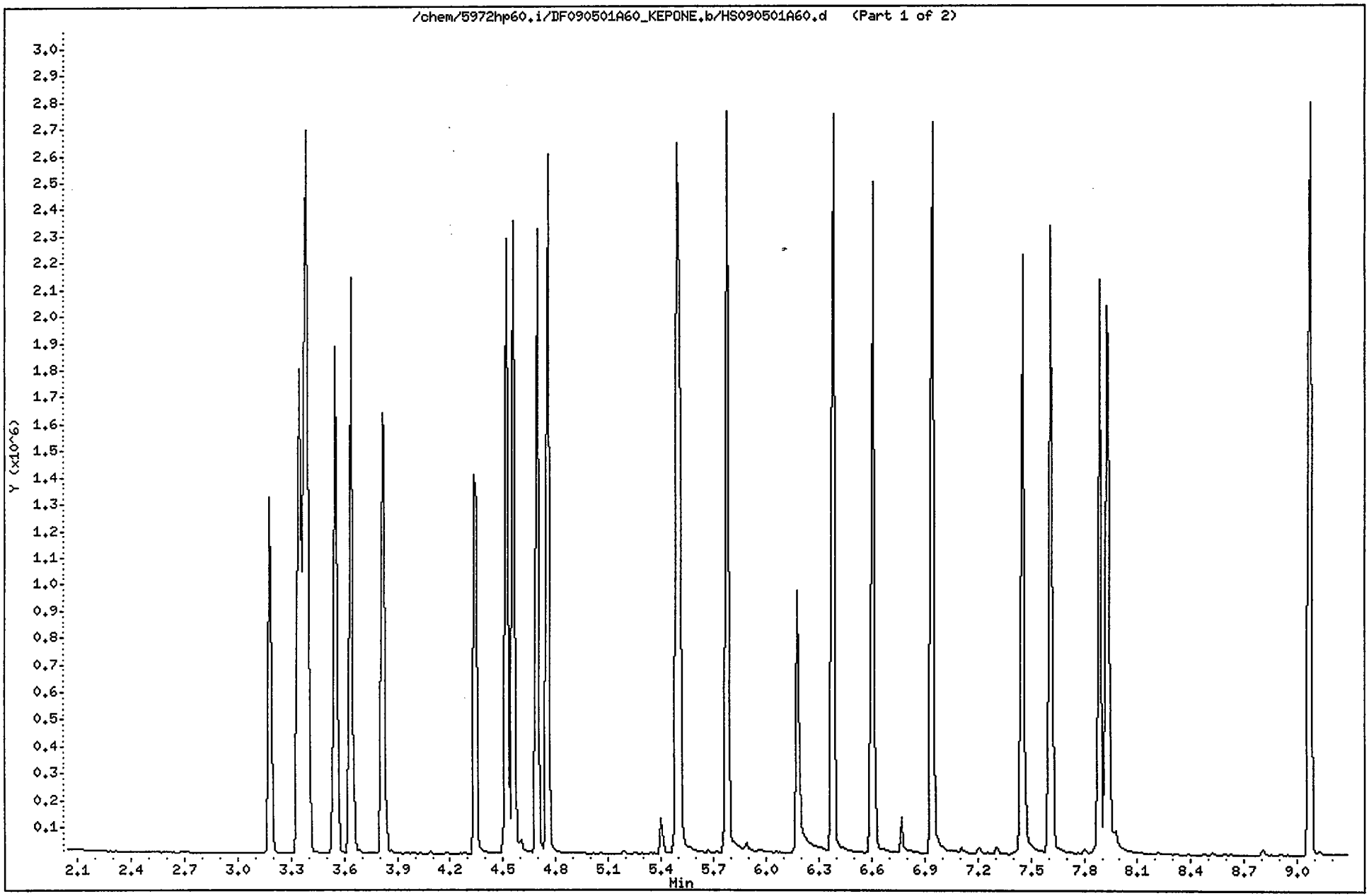
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.745	10.741	(1.000)	640926	40.0000		
126 Kepone	272	10.162	10.158	(0.946)	50114	20.0000	19	9852

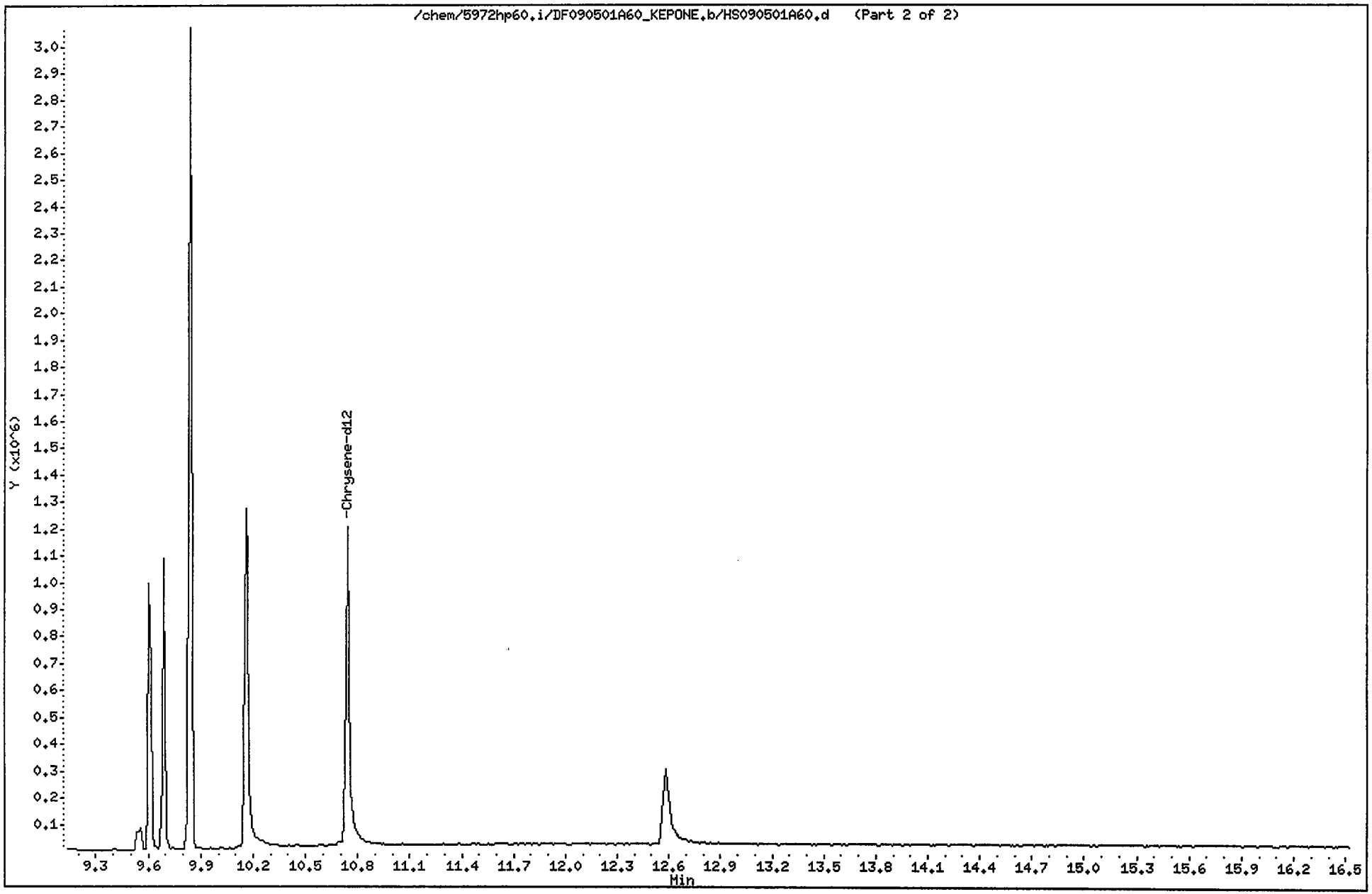
TMP 5/1/09

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HS090501A60.d
Date : 01-MAY-2009 18:02
Client ID: SSTD050
Sample Info: SSTD050:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HS090501A60.d
Date : 01-MAY-2009 18:02
Client ID: SSTD050
Instrument: 5972hp60.i
Sample Info: SSTD050;2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HS090501A60.d
Report Date: 01-May-2009 18:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/HS090501A60.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 01-MAY-2009 18:02
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD050:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 01-May-2009 18:23 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

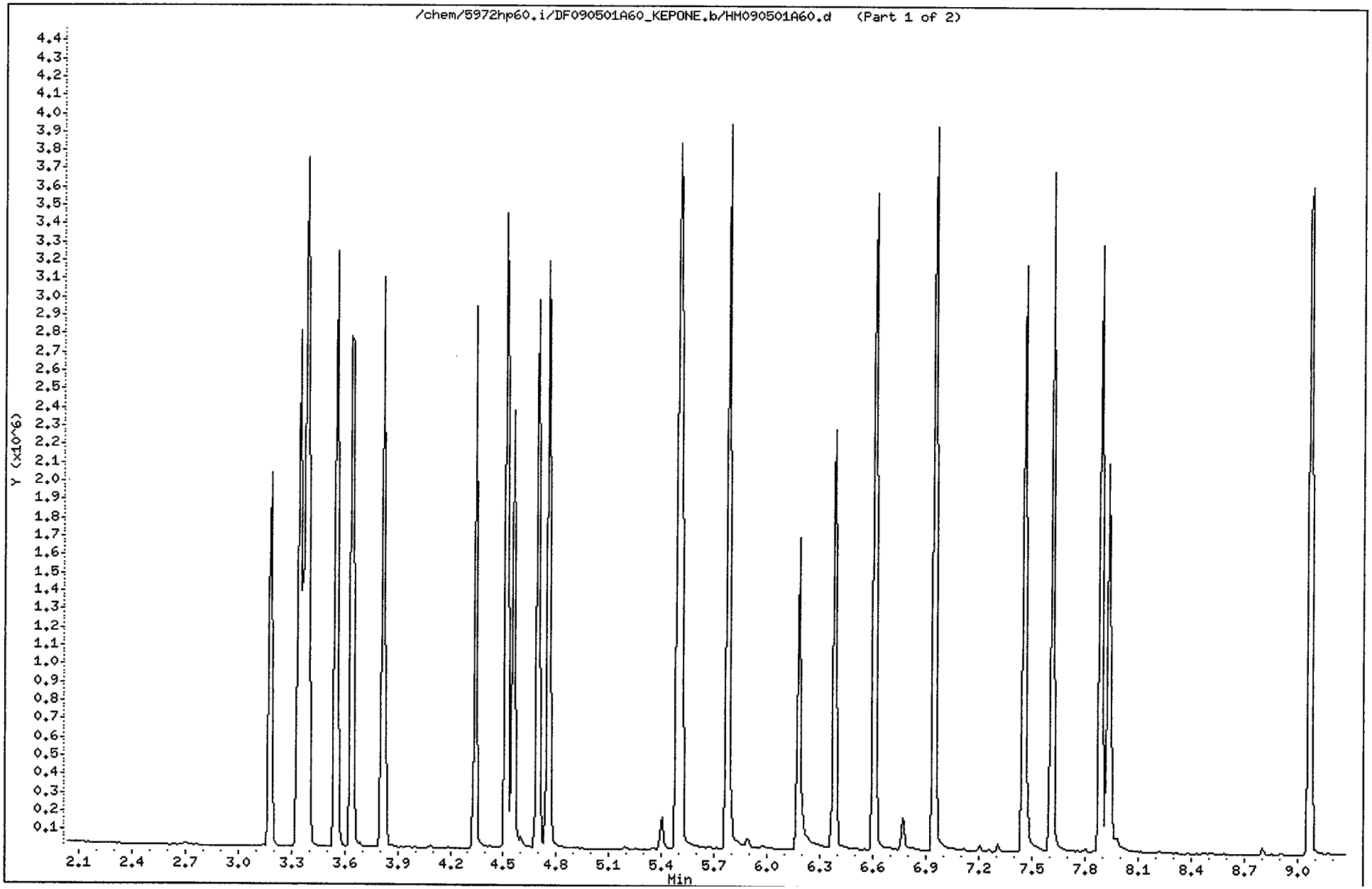
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.741	10.741	(1.000)	716081	40.0000		
126 Kepone	272	10.158	10.158	(0.946)	168643	50.0000	55	9823

TAP 5/1/09

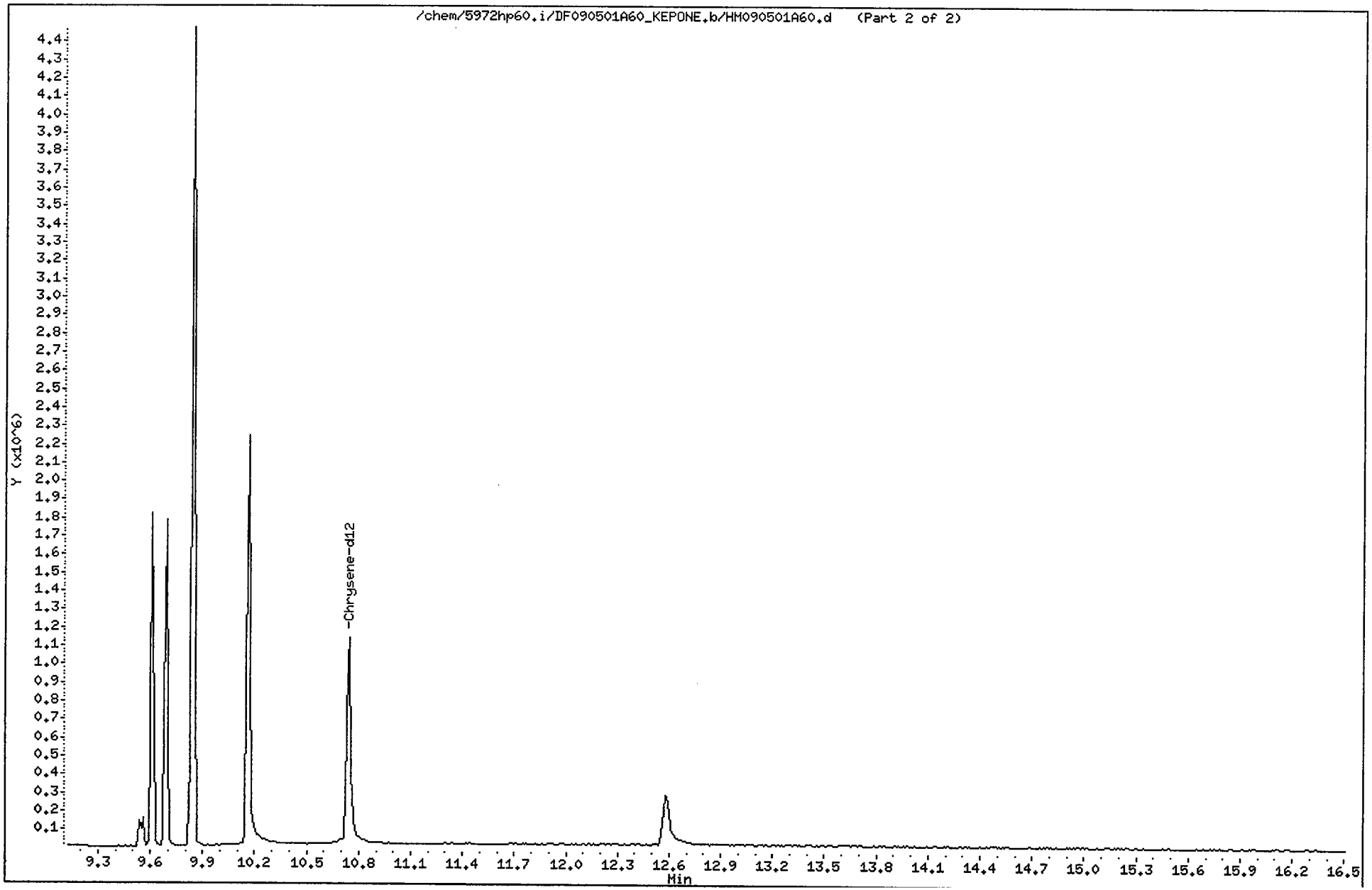
Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HM090501A60.d
Date : 01-MAY-2009 15:56
Client ID: SSTD080
Sample Info: SSTD080;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HM090501A60.d
Date : 01-MAY-2009 15:56
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HM090501A60.d
Report Date: 04-May-2009 12:12

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/HM090501A60.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 01-MAY-2009 15:56
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD080:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 12:12 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 15:56 Cal File: HM090501A60.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

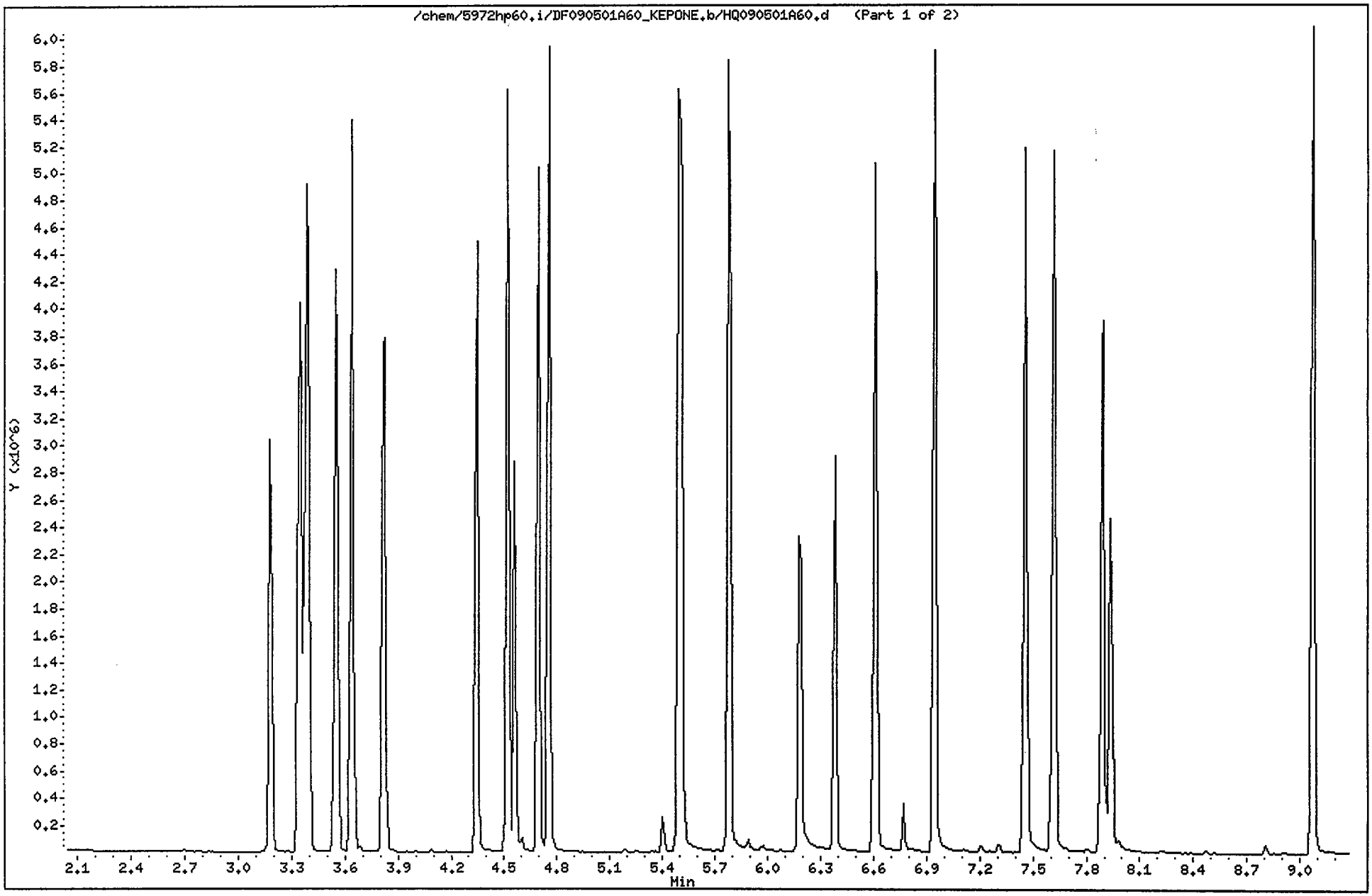
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.745	10.741	(1.000)	724885	40.0000		
126 Kepone	272	10.162	10.158	(0.946)	257999	80.0000	84	9979

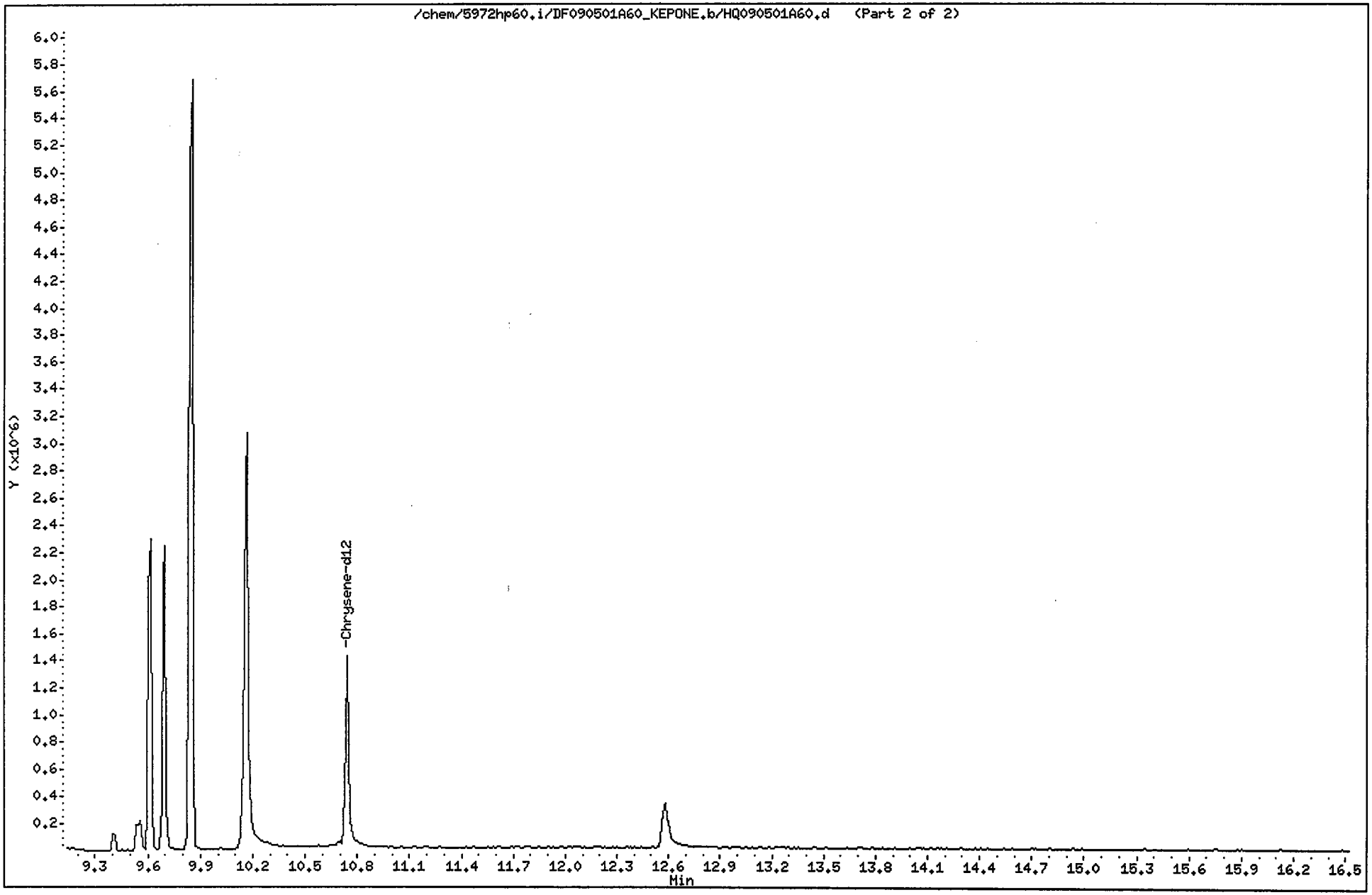
on 5/4/9

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HQ090501A60.d
Date : 01-MAY-2009 17:11
Client ID: SSTD120
Sample Info: SSTD120;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HQ090501A60.d
Date : 01-MAY-2009 17:11
Client ID: SSTD120
Instrument: 5972hp60.i
Sample Info: SSTD120:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HQ090501A60.d
Report Date: 01-May-2009 18:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/HQ090501A60.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 01-MAY-2009 17:11
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD120:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 01-May-2009 18:23 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 17:11 Cal File: HQ090501A60.d
Als bottle: 11 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

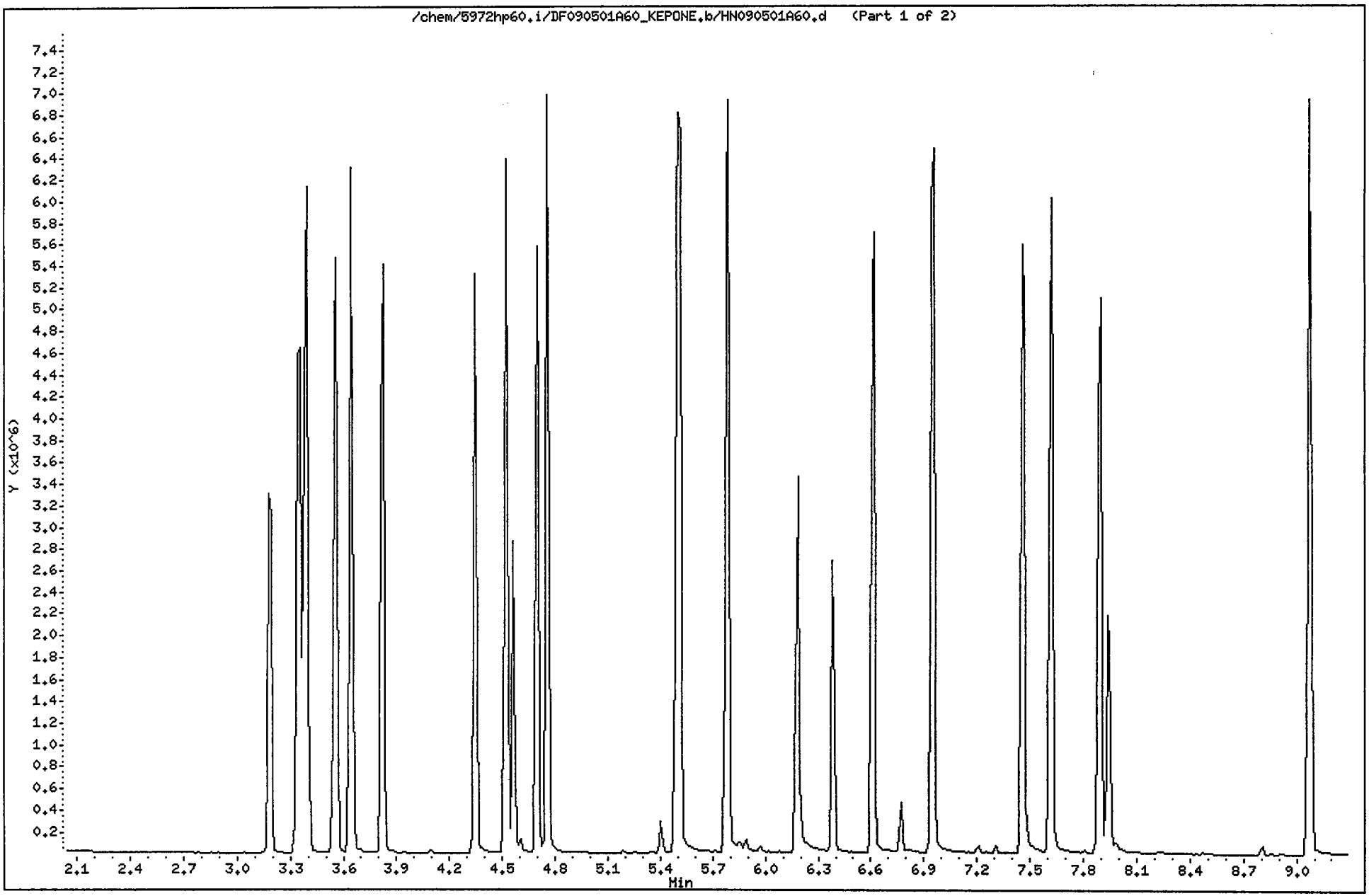
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.741	10.741	(1.000)	805650	40.0000		
126 Kepone	272	10.169	10.158	(0.947)	438762	120.000	130	9939

TMP 5/1/09

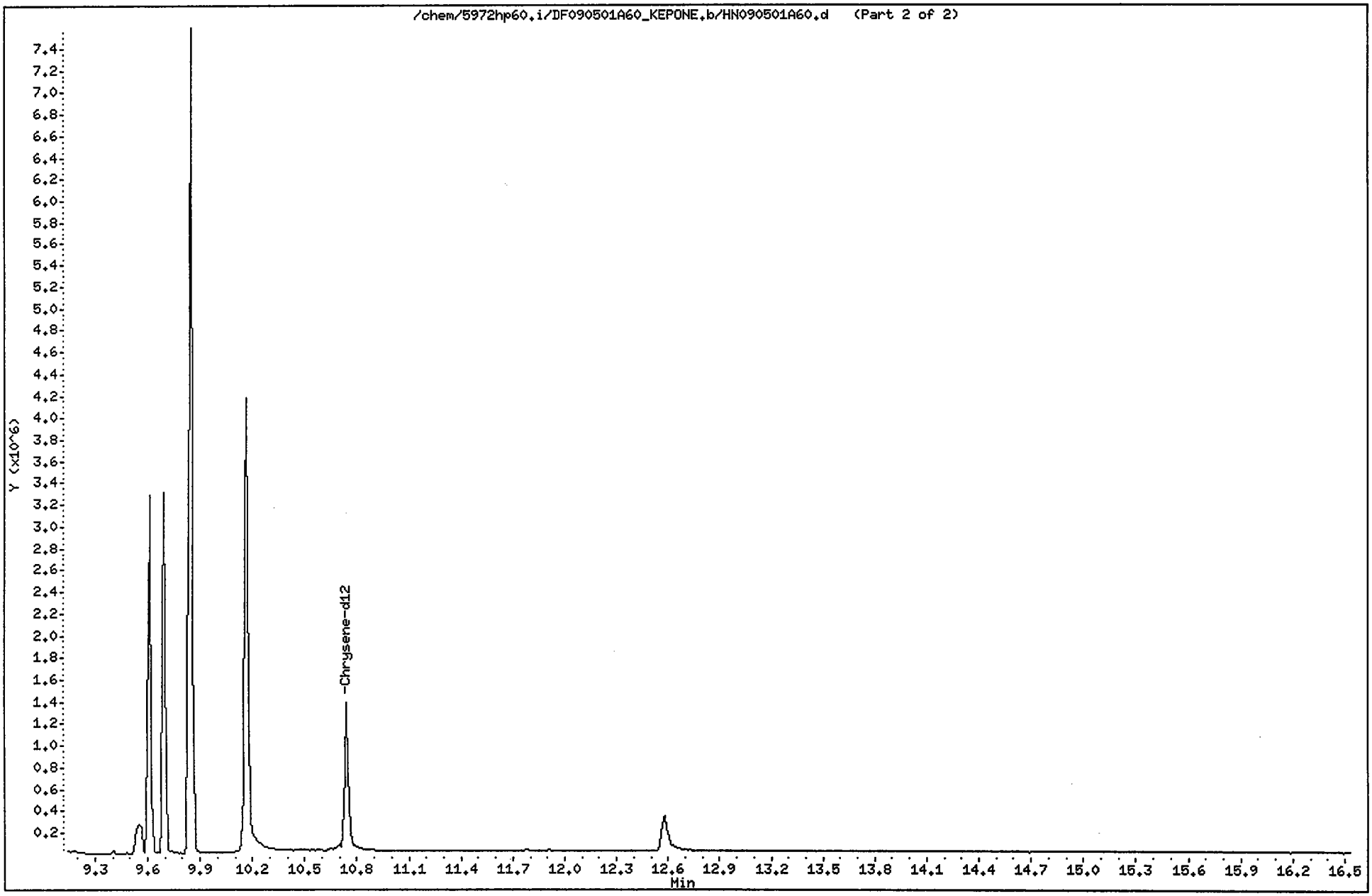
Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HN090501A60.d
Date : 01-MAY-2009 16:21
Client ID: SSTD160
Sample Info: SSTD160;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HN090501A60.d
Date : 01-MAY-2009 16:21
Client ID: SSTD160
Sample Info: SSTD160:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/HN090501A60.d
Report Date: 01-May-2009 18:24

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/HN090501A60.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 01-MAY-2009 16:21
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD160:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 01-May-2009 18:23 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 16:21 Cal File: HN090501A60.d
Als bottle: 9 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.742	10.741	(1.000)	781978	40.0000		
126 Kepone	272	10.169	10.158	(0.947)	544968	160.000	160	10000

5/1/09

INITIAL TIME OF TUNE 1231 SHIFT/S (A) ✓ (B) ____ (C) ____

TIME TUNE EXPIRES 0031 METHOD Fanfw / Kepone

PREVENTIVE MAINTENANCE Front/Liver/Septum

	SEQUENCE#		FILENAME		DATE	TIME	CLIENT ID	SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS
1			DF090501A60		5/1/09	1231	DFTPP	—	2uL	2650	SCD=LCD
2			HG090501A60		/ /	1257	SSTD080	—			62082 10/14/09 Fanfw
3			HH090501A60		/ /	1322	SSTD160	—			62084
4			HI090501A60		/ /	1348	SSTD010	—			62079
5			HJ090501A60		/ /	1414	SSTD120	—			62083
6			HK090501A60		/ /	1439	SSTD020	—			62080
7			HL090501A60		/ /	1505	SSTD050	—			62081
8			HM090501A60		/ /	1556	SSTD080	—			62066 10/14/09 Kepone
9			HN090501A60		/ /	1621	SSTD160	—			62068
10			HP090501A60		/ /	1646	SSTD010	—			62063
11			HQ090501A60		/ /	1711	SSTD120	—			62067
12			HR090501A60		/ /	1736	SSTD020	—			62064
13			HS090501A60		/ /	1802	SSTD050	—			62065
14			9041318-BLKA60		/ /	1828	SBLKJK	0904069			
15			9041318-BSA60		/ /	1854	SJKLCS				
16	✓		9041318-MSA60	SF	/ /	1920	16WC1AMS01				LCS OK
17	✓		9041318-MSDA60	SF	/ /	1945	16WC1AMSD01				↓
18			0904069-01A60		/ /	2010	16WC1A				
19			0904069-02A60		/ /	2036	16C1				
20			0904069-03A60		/ /	2102	16MW8				
21			0904069-04A60		/ /	2127	16MW9				
22			0904069-05A60		/ /	2152	16WDup				
23			0904069-06A60		/ /	2217	16WC1B				
24			9041633-MBLKA60		↓ /	2242	SBLKGV	VARIOUS	↓	↓	

DFTPP Lot #/Exp. Date: 7055 6757 6/10/09

Calibration STD Lot#/Exp. Date: See Comments

Internal STD Lot#/Exp. Date: 800 68085 10/24/09

Methylene Chloride Lot#/Exp. Date: 48028 7/1/11

Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 5/11/09

9/2/08: vr

cont'd on next page →

COMPUCHEM A Division of Liberty Analytical Corp.

GC/MS SEMIVOLATILE RUN LOG

COMPUCHEM LOGBOOK 4 V (4) 19 (5972hp60)

DATE 5/1/09 INITIAL TIME OF TUNE 1231 SHIFT/S (A) ✓ (B) ____ (C) ____

TIME TUNE EXPIRES 0031 METHOD Fanfar/Kepare

PREVENTIVE MAINTENANCE NONE

	SEQUENCE#	REPROCESS	FILENAME	MULTIPLIER	DATE	TIME	CLIENT ID	SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS
1			9041633-BSA60		5/1/09	2308	SEVLCS	VARIOUS	2 mL	2650	
2			9041633-BSD A60		/ /	2333	SEVLCSD	↓	↓	↓	
3			0904098-01A60	/	/ /	2359	13MW5	0904098			
4			9041633-MS2A60		5/2/09	0025	13MW5MS02	↓			
5		/	9041633-MSD2A60	DT	/ /	0050	13MW5MSD02	↓	↓	↓	
6					/ /						
7					/ /						
8					/ /						
9					/ /						
10					/ /						
11					/ /						
12					/ /						
13					/ /						
14					/ /						
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21					/ /						
22					/ /						
23					/ /						
24					/ /						

5/2/09

TDP

DFTPP Lot #/Exp. Date: 7055 61757 6/10/07

Calibration STD Lot#/Exp. Date: See Comments

Internal STD Lot#/Exp. Date: TDP 5/2/09 0410 (SLD) 62085 10/24/09

Methylene Chloride Lot#/Exp. Date: 48028 7/1/11

Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 5/2/09

9/2/08: vr

2789

b. Continuing Calibration Data (Form VII SV)

If more than one instrument is used, forms shall be arranged in order by instrument. If multiple continuing calibrations from the same instrument are used, they shall be in chronological order.

(1) Reconstructed Ion Chromatograms and quantitation reports for all continuing (12-hour) calibrations. Spectra not required.

(2) EICPs displaying each manual integration.

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date: 05/01/09 Time: 1003

Lab File ID: HG090501A62 Init. Calib. Date(s): 04/30/09 04/30/09

Init. Calib. Times: 1622 1951

GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
N-Nitrosodimethylamine	0.5210000	0.7062060	0.01	35.55	90.00	AVRG	
Pyridine	1.1710000	1.5731493	0.01	34.34	90.00	AVRG	
2-Picoline	1.1980000	1.4360254	0.01	19.87	90.00	AVRG	
Nitrosomethylethylamine	0.4280000	0.5588920	0.01	30.58	90.00	AVRG	
Methyl Methanesulfonate	0.7900000	0.9711781	0.01	22.93	90.00	AVRG	
N-Nitrosodiethylamine	0.3500000	0.4398120	0.01	25.66	90.00	AVRG	
Ethyl Methanesulfonate	0.9580000	1.2857740	0.01	34.21	90.00	AVRG	
Phenol	1.2490000	1.4421234	0.01	15.46	20.00	AVRG	
Aniline	1.6250000	1.9195560	0.01	18.13	90.00	AVRG	
Bis(2-chloroethyl)ether	1.0750000	1.2675964	0.01	17.92	90.00	AVRG	
2-Chlorophenol	1.1380000	1.1895248	0.01	4.53	90.00	AVRG	
Benzyl Alcohol	0.6400000	0.6782487	0.01	5.98	90.00	AVRG	
2-Methylphenol	0.8950000	0.9943448	0.01	11.10	90.00	AVRG	
2,2'-oxybis(1-Chloropropane)	1.3420000	2.0602185	0.01	53.52	90.00	AVRG	
N-Nitrosopyrrolidine	0.2180000	0.3356956	0.01	53.99	90.00	AVRG	
3-Methylphenol	0.9640000	1.0560415	0.01	9.55	90.00	AVRG	
4-Methylphenol	0.9640000	1.0560415	0.01	9.55	90.00	AVRG	
3-4-Methylphenol	0.9670000	1.0567057	0.01	9.28	90.00	AVRG	
N-Nitroso-di-N-propylamine	0.4200000	0.5465586	0.05	30.13	90.00	AVRG	
Acetophenone	0.4500000	0.4734424	0.01	5.21	90.00	AVRG	
N-Nitrosomorpholine	0.1060000	0.1366468	0.01	28.91	90.00	AVRG	
o-Toluidine	1.4080000	1.5448389	0.01	9.72	90.00	AVRG	
Hexachloroethane	0.6060000	0.6344767	0.01	4.70	90.00	AVRG	
Nitrobenzene	0.3560000	0.4102494	0.01	15.24	90.00	AVRG	
N-Nitrosopiperidine	0.1390000	0.1519323	0.01	9.30	90.00	AVRG	
Isophorone	0.6090000	0.6909804	0.01	13.46	90.00	AVRG	
2-Nitrophenol	0.1940000	0.1644851	0.01	-15.21	20.00	AVRG	
2,4-Dimethylphenol	0.2440000	0.2458473	0.01	0.76	90.00	AVRG	
o,o,o-Triethylphosphorothioa	0.1430000	0.1263978	0.01	-11.61	90.00	AVRG	
Bis(2-chloroethoxy)methane	0.4350000	0.4717711	0.01	8.45	90.00	AVRG	
2,4-Dichlorophenol	0.2830000	0.2789548	0.01	-1.43	20.00	AVRG	
4-Chloroaniline	0.3730000	0.3650571	0.01	-2.13	90.00	AVRG	
2,6-Dichlorophenol	0.2730000	0.2678533	0.01	-1.88	90.00	AVRG	
Hexachloropropene	0.2690000	0.2347538	0.01	-12.73	90.00	AVRG	
N-Nitroso-di-n-butylamine	0.1190000	0.1434485	0.01	20.54	90.00	AVRG	
p-Phenylenediamine	0.0100000	0.0025500	0.01	-74.50	90.00	AVRG	<-
4-Chloro-3-methylphenol	0.2570000	0.2602084	0.01	1.25	20.00	AVRG	
Safrole	0.2340000	0.2283626	0.01	-2.41	90.00	AVRG	
2-Methylnaphthalene	0.4720000	0.4720726	0.01	0.02	90.00	AVRG	
Hexachlorocyclopentadiene	0.5360000	0.4711058	0.05	-12.11	90.00	AVRG	
1,2,4,5-Tetrachlorobenzene	0.7230000	0.6801543	0.01	-5.93	90.00	AVRG	
2,4,6-Trichlorophenol	0.4100000	0.3745677	0.01	-8.64	20.00	AVRG	

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date: 05/01/09 Time: 1003

Lab File ID: HG090501A62 Init. Calib. Date(s): 04/30/09 04/30/09

Init. Calib. Times: 1622 1951

GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4,5-Trichlorophenol	0.4580000	0.4157489	0.01	-9.22	90.00	AVRG
Isosafrole	0.0800000	0.0870648	0.01	8.83	90.00	AVRG
2-Chloronaphthalene	1.5650000	1.5018030	0.01	-4.04	90.00	AVRG
2-Nitroaniline	0.3540000	0.4311741	0.01	21.80	90.00	AVRG
1,4-Napthoquinone	0.4900000	0.4869164	0.01	-0.63	90.00	AVRG
Dimethylphthalate	1.2110000	1.1036045	0.01	-8.87	90.00	AVRG
Acenaphthylene	1.7140000	1.6089697	0.01	-6.13	90.00	AVRG
3-Nitroaniline	0.2880000	0.2883487	0.01	0.12	90.00	AVRG
Acenaphthene	0.9670000	0.9538370	0.01	-1.36	20.00	AVRG
2,4-Dinitrophenol	0.1210000	0.0602788	0.05	-50.18	90.00	AVRG
4-Nitrophenol	0.2260000	0.2322477	0.05	2.76	90.00	AVRG
Pentachlorobenzene	0.7000000	0.6053593	0.01	-13.52	90.00	AVRG
Dibenzofuran	1.5740000	1.5245333	0.01	-3.14	90.00	AVRG
1-Naphthylamine	0.3210000	0.2587822	0.01	-19.38	90.00	AVRG
2,3,4,6-Tetrachlorophenol	0.3640000	0.3246006	0.01	-10.82	90.00	AVRG
2-Naphthylamine	0.3440000	0.1771992	0.01	-48.49	90.00	AVRG
Diethylphthalate	1.2860000	1.2156909	0.01	-5.47	90.00	AVRG
Zinophos	0.3420000	0.3612582	0.01	5.63	90.00	AVRG
4-Chlorophenyl-phenylether	0.6310000	0.5518911	0.01	-12.54	90.00	AVRG
5-Nitro-o-toluidine	0.3690000	0.3848911	0.01	4.31	90.00	AVRG
Fluorene	1.2170000	1.1052266	0.01	-9.18	90.00	AVRG
4-Nitroaniline	0.3120000	0.3148928	0.01	0.93	90.00	AVRG
4,6-Dinitro-2-methylphenol	0.1280000	0.0935120	0.01	-26.94	90.00	AVRG
N-Nitrosodiphenylamine	0.5790000	0.6139658	0.01	6.04	20.00	AVRG
Sulfotep	0.2440000	0.1905462	0.01	-21.91	90.00	AVRG
Diallate (trans isomer)	0.4980000	0.5821140	0.01	16.89	90.00	AVRG
Phorate	0.4990000	0.5689873	0.01	14.02	90.00	AVRG
Phenacetin	0.4010000	0.4270871	0.01	6.50	90.00	AVRG
Diallate (cis isomer)	0.1620000	0.2097938	0.01	29.50	90.00	AVRG
4-Bromophenyl-phenylether	0.2600000	0.2436128	0.01	-6.30	90.00	AVRG
Hexachlorobenzene	0.4070000	0.3887941	0.01	-4.47	90.00	AVRG
Dimethoate	0.2570000	0.3125128	0.01	21.60	90.00	AVRG
4-Aminobiphenyl	0.5340000	0.4071625	0.01	-23.75	90.00	AVRG
Pentachlorophenol	0.1930000	0.1718076	0.05	-10.98	20.00	AVRG
Pentachloronitrobenzene	0.1290000	0.1220718	0.01	-5.37	90.00	AVRG
Pronamide	0.3560000	0.3658850	0.01	2.78	90.00	AVRG
Disulfoton	0.3900000	0.4983653	0.01	27.78	90.00	AVRG
Phenanthrene	1.0600000	1.0994056	0.01	3.72	90.00	AVRG
Anthracene	1.1100000	1.1932244	0.01	7.50	90.00	AVRG
Methyl Parathion	0.2460000	0.2785762	0.01	13.24	90.00	AVRG
Di-n-butylphthalate	1.4050000	1.5042288	0.01	7.06	90.00	AVRG
Parathion	0.1720000	0.1886690	0.01	9.69	90.00	AVRG

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date: 05/01/09 Time: 1003

Lab File ID: HG090501A62 Init. Calib. Date(s): 04/30/09 04/30/09

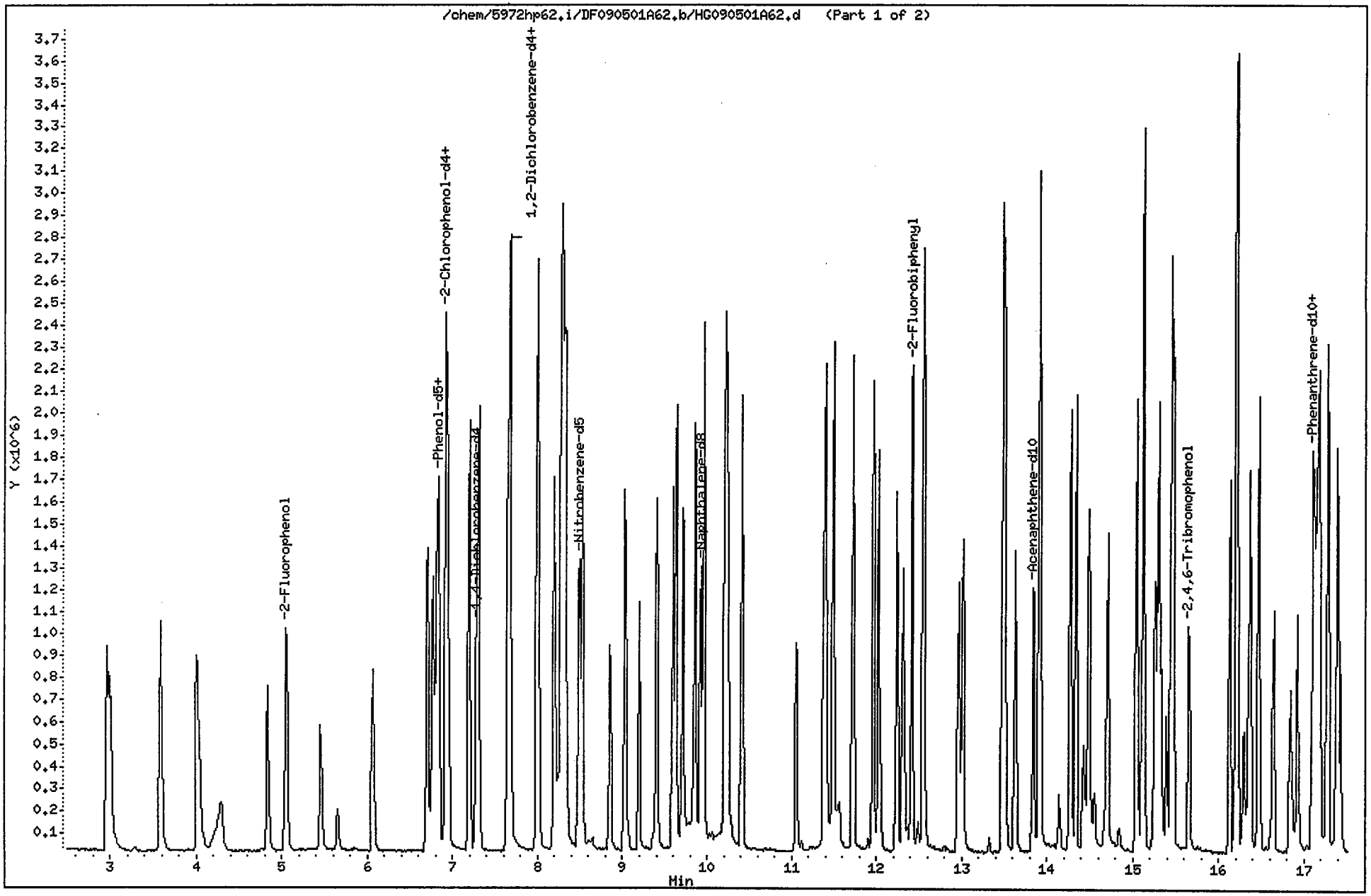
Init. Calib. Times: 1622 1951

GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
4-Nitroquinoline-1-oxide	0.1040000	0.0853518	0.005	-17.93	90.00	AVRG	
Methapyrilene	0.0080000	0.0057967	0.01	-27.54	90.00	AVRG	<-
Isodrin	0.1560000	0.1568230	0.01	0.53	90.00	AVRG	
Fluoranthene	1.0940000	1.0948678	0.01	0.08	20.00	AVRG	
Pyrene	1.0070000	1.1060916	0.01	9.84	90.00	AVRG	
p-Dimethylaminoazobenzene	0.1940000	0.2048626	0.01	5.60	90.00	AVRG	
Chlorobenzilate	0.3320000	0.2588815	0.01	-22.02	90.00	AVRG	
Famfur	0.0000000		0.01	0.00	90.00	AVRG	<-
Butylbenzylphthalate	0.5310000	0.5861022	0.01	10.38	90.00	AVRG	
3,3'-Dimethylbenzidine	0.3560000	0.2572367	0.01	-27.74	90.00	AVRG	
2-Acetylaminofluorene	0.3600000	0.3137955	0.01	-12.83	90.00	AVRG	
3,3'-Dichlorobenzidine	0.3610000	0.3505354	0.01	-2.90	90.00	AVRG	
bis(2-ethylhexyl)Phthalate	0.7200000	0.7975540	0.01	10.77	90.00	AVRG	
Benzo(a)anthracene	0.9470000	0.9925041	0.01	4.80	90.00	AVRG	
Chrysene	0.8490000	0.8547101	0.01	0.67	90.00	AVRG	
Di-n-octylphthalate	1.1200000	1.2347879	0.01	10.25	20.00	AVRG	
7,12-Dimethylbenz(a)anthrace	0.3950000	0.4107684	0.01	3.99	90.00	AVRG	
Benzo(b)fluoranthene	0.9950000	1.0860207	0.01	9.15	90.00	AVRG	
Benzo(k)fluoranthene	0.8720000	0.9323617	0.01	6.92	90.00	AVRG	
Benzo(a)pyrene	0.8660000	0.9249244	0.01	6.80	20.00	AVRG	
3-Methylcholanthrene	0.4760000	0.5052223	0.01	6.14	90.00	AVRG	
Indeno(1,2,3-c,d)pyrene	0.8060000	0.8190773	0.01	1.62	90.00	AVRG	
Dibenzo(a,h)anthracene	0.7970000	0.7835052	0.01	-1.69	90.00	AVRG	
Benzo(g,h,i)perylene	0.8620000	0.8764464	0.01	1.68	90.00	AVRG	
Kepone	0.0000000		0.01	0.00	90.00	AVRG	<-
Diallate Total	0.3310000	0.3968318	0.01	19.89	90.00	AVRG	
a,a-Dimethylphenethylamine	0.3480000	0.3077259	0.01	-11.57	90.00	AVRG	
Aramite	0.0600000	0.0614662	0.01	2.44	90.00	AVRG	
2-Fluorophenol	0.9840000	1.0938844	0.01	11.17	90.00	AVRG	
Phenol-d5	1.2080000	1.4072798	0.01	16.50	90.00	AVRG	
Nitrobenzene-d5	0.3740000	0.4168467	0.01	11.46	90.00	AVRG	
2-Fluorobiphenyl	1.2740000	1.2542607	0.01	-1.55	90.00	AVRG	
2,4,6-Tribromophenol	0.3710000	0.2915811	0.01	-21.41	90.00	AVRG	
Terphenyl-d14	0.7540000	0.7601697	0.01	0.82	90.00	AVRG	

Data File: /chem/5972hp62.i/DF090501A62.b/HC090501A62.d
Date : 01-MAY-2009 10:03
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



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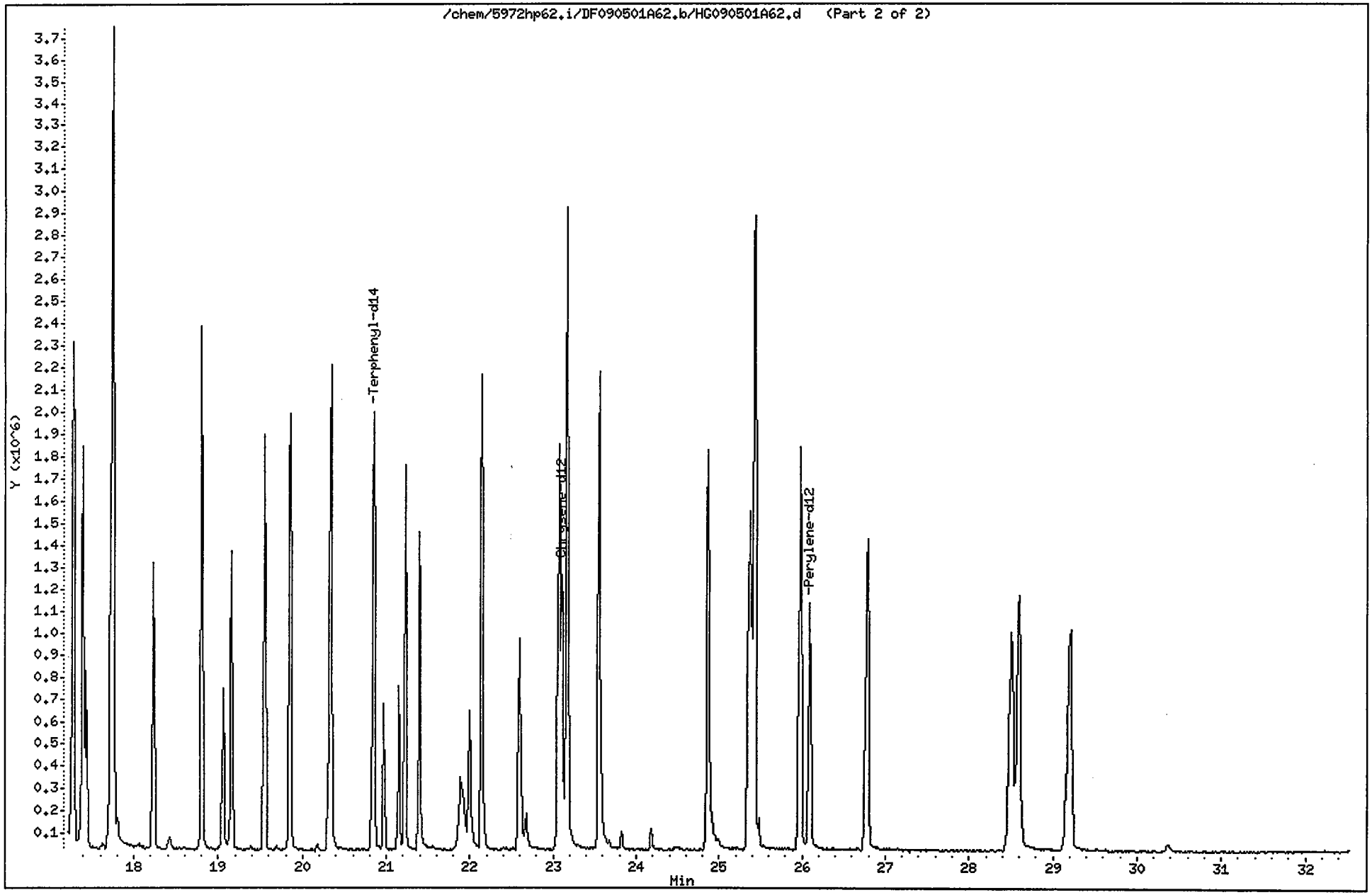
Date : 01-MAY-2009 10:03
Client ID: SSTD080
Instrument: 5972hp62.i
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Report Date: 01-May-2009 10:46

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 01-MAY-2009 10:03
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 01-May-2009 10:46 perry Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.279	7.279	(1.000)	261971	40.0000		
*	2 Naphthalene-d8	136	9.930	9.930	(1.000)	938790	40.0000		
*	3 Acenaphthene-d10	164	13.850	13.850	(1.000)	466997	40.0000		
*	4 Phenanthrene-d10	188	17.125	17.125	(1.000)	681169	40.0000		
*	5 Chrysene-d12	240	23.103	23.103	(1.000)	741741	40.0000		
*	6 Perylene-d12	264	26.092	26.092	(1.000)	773134	40.0000		
$	7 2-Fluorophenol	112	5.047	5.047	(0.693)	573132	80.0000	89	
$	8 Phenol-d5	99	6.818	6.818	(0.937)	737333	80.0000	93	
$	9 2-Chlorophenol-d4	132	6.910	6.910	(0.949)	546596	80.0000	82	9248
$	10 1,2-Dichlorobenzene-d4	152	7.647	7.647	(1.051)	425571	80.0000	79	9608
$	11 Nitrobenzene-d5	82	8.497	8.497	(0.856)	782663	80.0000	89	
$	12 2-Fluorobiphenyl	172	12.427	12.427	(0.897)	1171472	80.0000	79	
$	13 2,4,6-Tribromophenol	330	15.662	15.662	(1.131)	272335	80.0000	63	
$	14 Terphenyl-d14	244	20.851	20.851	(0.903)	1127698	80.0000	81	
	15 N-Nitrosodimethylamine	42	3.000	3.000	(0.412)	370011	80.0000	110	8388

5/1/09

Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Report Date: 01-May-2009 10:46

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.959	2.959	(0.407)	824239	80.0000	110	9346
17 Ethylmethacrylate	69	3.584	3.584	(0.492)	582497	80.0000	100	9167
18 2-Picoline	93	4.003	4.003	(0.550)	752394	80.0000	96	8973
19 Nitrosomethylethylamine	88	4.290	4.290	(0.589)	292827	80.0000	100	9116
20 Methyl Methanesulfonate	80	4.832	4.832	(0.664)	508841	80.0000	98	9056
21 N-Nitrosodiethylamine	102	5.446	5.446	(0.748)	230436	80.0000	100	9295
22 Ethyl Methanesulfonate	79	6.071	6.071	(0.834)	673671	80.0000	110	9176
23 Phenol	94	6.838	6.838	(0.940)	755589	80.0000	92	
24 Aniline	93	6.767	6.767	(0.930)	1005736	80.0000	94	8573
25 Bis(2-chloroethyl)ether	93	6.920	6.920	(0.951)	664147	80.0000	94	
26 Pentachloroethane	167	6.705	6.705	(0.921)	290798	80.0000	79	9373
27 2-Chlorophenol	128	6.951	6.951	(0.955)	623242	80.0000	84	9327
28 1,3-Dichlorobenzene	146	7.197	7.197	(0.989)	766431	80.0000	83	
29 1,4-Dichlorobenzene	146	7.309	7.309	(1.004)	764229	80.0000	82	
30 Benzyl Alcohol	108	7.678	7.678	(1.055)	355363	80.0000	85	
31 1,2-Dichlorobenzene	146	7.678	7.678	(1.055)	645185	80.0000	79	
32 2-Methylphenol	108	8.005	8.005	(1.100)	520979	80.0000	89	
33 2,2'-oxybis(1-Chloropropane)	45	7.995	7.995	(1.098)	1079435	80.0000	120	8998
34 N-Nitrosopyrrolidine	100	8.241	8.241	(1.132)	175885	80.0000	110	4031
35 3-Methylphenol	108	8.333	8.333	(1.145)	1106609	160.000	180	
36 4-Methylphenol	108	8.333	8.333	(1.145)	1106609	160.000	180	
37 3-4-Methylphenol	108	8.333	8.333	(1.145)	1107305	160.000	170	9182
38 N-Nitroso-di-N-propylamine	70	8.302	8.302	(1.141)	286365	80.0000	100	8674
39 Acetophenone	105	8.200	8.200	(0.826)	888926	80.0000	84	0(M)
40 N-Nitrosomorpholine	116	8.271	8.271	(1.136)	71595	80.0000	100	0(M)
41 o-Toluidine	106	8.292	8.292	(1.139)	809406	80.0000	88	8763
42 Hexachloroethane	117	8.271	8.271	(1.136)	332429	80.0000	84	9560
43 Nitrobenzene	77	8.527	8.527	(0.859)	770276	80.0000	92	9236
44 N-Nitrosopiperidine	114	8.855	8.855	(0.892)	285265	80.0000	87	9220
45 Isophorone	82	9.029	9.029	(0.909)	1297371	80.0000	91	9109
46 2-Nitrophenol	139	9.203	9.203	(0.927)	308834	80.0000	68	8832
47 2,4-Dimethylphenol	122	9.408	9.408	(0.947)	461598	80.0000	81	8984
48 Benzoic Acid	122	9.838	9.838	(0.991)	118592	400.000	160	6723(A)
49 o,o,o-Triethylphosphorothioat	198	9.643	9.643	(0.971)	237322	80.0000	70	9099
50 Bis(2-chloroethoxy)methane	93	9.602	9.602	(0.967)	885788	80.0000	87	9107
51 2,4-Dichlorophenol	162	9.725	9.725	(0.979)	523760	80.0000	79	
52 1,2,4-Trichlorobenzene	180	9.858	9.858	(0.993)	629516	80.0000	75	
53 Naphthalene	128	9.971	9.971	(1.004)	1661944	80.0000	78	9645
54 4-Chloroaniline	127	10.226	10.226	(1.030)	685424	80.0000	78	8863
55 2,6-Dichlorophenol	162	10.216	10.216	(1.029)	502916	80.0000	78	
56 Hexachloropropene	213	10.247	10.247	(1.032)	440769	80.0000	70	9396
57 Hexachlorobutadiene	225	10.421	10.421	(1.049)	373299	80.0000	70	9233
58 N-Nitroso-di-n-butylamine	84	11.056	11.056	(1.113)	269336	80.0000	96	9211
60 4-Chloro-3-methylphenol	107	11.383	11.383	(1.146)	488562	80.0000	81	9323
61 Safrole	162	11.414	11.414	(1.149)	428769	80.0000	78	9610
62 2-Methylnaphthalene	141	11.496	11.496	(1.158)	886354	80.0000	80	
63 1-Methylnaphthalene	142	11.731	11.731	(1.181)	1017451	80.0000	77	

TMP 5/15/09

KH 5/15/09

Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Report Date: 01-May-2009 10:46

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
64 Hexachlorocyclopentadiene	237	12.028	12.028	(0.868)	440010	80.0000	70	9442
65 1,2,4,5-Tetrachlorobenzene	216	11.966	11.966	(0.864)	635260	80.0000	75	9178
66 2,4,6-Trichlorophenol	196	12.243	12.243	(0.884)	349844	80.0000	73	
67 2,4,5-Trichlorophenol	196	12.325	12.325	(0.890)	388307	80.0000	72	
68 Isosafrole	162	12.059	12.059	(0.871)	81318	80.0000	87	
69 2-Chloronaphthalene	162	12.560	12.560	(0.907)	1402675	80.0000	77	
70 2-Nitroaniline	65	12.970	12.970	(0.936)	402714	80.0000	97	8799
71 1,4-Napthoquinone	158	13.021	13.021	(0.940)	454777	80.0000	79	9390
72 Dimethylphthalate	163	13.512	13.512	(0.976)	1030760	80.0000	73	9056
73 1,3-Dinitrobenzene	168	13.502	13.502	(0.975)	185079	80.0000	70	0 (M)
74 2,6-Dinitrotoluene	165	13.635	13.635	(0.984)	283994	80.0000	71	9445
75 Acenaphthylene	152	13.492	13.492	(0.974)	1502768	80.0000	75	8516
76 3-Nitroaniline	138	13.921	13.921	(1.005)	269316	80.0000	80	8725
77 Acenaphthene	154	13.921	13.921	(1.005)	890878	80.0000	79	9403
78 2,4-Dinitrophenol	184	14.147	14.147	(1.021)	56300	80.0000	40	
79 4-Nitrophenol	139	14.423	14.423	(1.041)	216918	80.0000	82	9006
80 Pentachlorobenzene	250	14.341	14.341	(1.035)	565402	80.0000	69	9718
81 2,4-Dinitrotoluene	165	14.495	14.495	(1.047)	361815	80.0000	77	7320
82 Dibenzofuran	168	14.280	14.280	(1.031)	1423905	80.0000	77	9437
83 1-Naphthylamine	143	14.505	14.505	(1.047)	241701	80.0000	64	
84 2,3,4,6-Tetrachlorophenol	232	14.710	14.710	(1.062)	303175	80.0000	71	9633
85 2-Naphthylamine	143	14.679	14.679	(1.060)	165503	80.0000	41	
86 Diethylphthalate	149	15.129	15.129	(1.092)	1135448	80.0000	76	7482
87 Zinophos	97	15.303	15.303	(1.105)	337413	80.0000	85	9204
88 4-Chlorophenyl-phenylether	204	15.129	15.129	(1.092)	515463	80.0000	70	8041
89 5-Nitro-o-toluidine	152	15.262	15.262	(1.102)	359486	80.0000	83	8213
90 Fluorene	166	15.047	15.047	(1.086)	1032275	80.0000	73	7981
91 4-Nitroaniline	138	15.334	15.334	(1.107)	294108	80.0000	81	9045
92 4,6-Dinitro-2-methylphenol	198	15.395	15.395	(0.899)	127395	80.0000	58	0 (M)
93 N-Nitrosodiphenylamine	169	15.457	15.457	(0.903)	836429	80.0000	85	8066
95 1,2-Diphenylhydrazine	77	15.477	15.477	(1.117)	1637628	80.0000	95	9336
96 Sulfotep	322	16.132	16.132	(1.165)	177969	80.0000	62	9385
97 1,3,5-Trinitrobenzene	75	16.296	16.296	(0.952)	294781	80.0000	46	8891
98 Diallate (trans isomer)	86	16.204	16.204	(0.946)	396518	40.0000	47	
99 Diallate (trans) part of total	86	16.204	16.204	(0.946)	396518	40.0000	47	9154
100 Phorate	75	16.225	16.225	(0.947)	775153	80.0000	88	7561
101 Phenacetin	108	16.368	16.368	(0.956)	581837	80.0000	85	8898
102 Diallate (cis isomer)	86	16.368	16.368	(0.956)	142905	40.0000	52	
103 Diallate (cis) part of total	86	16.368	16.368	(0.956)	144101	40.0000	40	6928 (H)
104 4-Bromophenyl-phenylether	248	16.204	16.204	(0.946)	331883	80.0000	75	8628
105 Hexachlorobenzene	284	16.470	16.470	(0.962)	529669	80.0000	76	9537
106 Dimethoate	87	16.644	16.644	(0.972)	425748	80.0000	97	9149
107 4-Aminobiphenyl	169	16.839	16.839	(0.983)	554693	80.0000	61	0 (M)
108 Pentachlorophenol	266	16.921	16.921	(0.988)	234060	80.0000	71	8448
109 Pentachloronitrobenzene	237	17.105	17.105	(0.999)	166303	80.0000	76	7407
110 Pronamide	173	17.156	17.156	(1.002)	498459	80.0000	82	9649
111 Disulfoton	88	17.391	17.391	(1.016)	678942	80.0000	100	9196

TAP 5/1/09

TAP 5/1/09

TAP 5/1/09

KEL 5/5/09

Data File: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Report Date: 01-May-2009 10:46

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
112 Phenanthrene	178	17.187	17.187	(1.004)	1497762	80.0000	83	
113 Anthracene	178	17.279	17.279	(1.009)	1625575	80.0000	86	
114 Carbazole	167	17.760	17.760	(1.037)	3826279	80.0000	86	9551
115 Methyl Parathion	109	18.231	18.231	(1.065)	379515	80.0000	90	9595
116 Di-n-butylphthalate	149	18.804	18.804	(1.098)	2049268	80.0000	86	9692
117 Parathion	109	19.152	19.152	(1.118)	257031	80.0000	87	8210
118 4-Nitroquinoline-1-oxide	190	19.060	19.060	(1.113)	116278	80.0000	65	9307
119 Methapyrilene	97	19.387	19.387	(1.132)	7897	80.0000	61	0(M)
120 Isodrin	193	19.551	19.551	(1.142)	213646	80.0000	81	9609
121 Fluoranthene	202	19.858	19.858	(1.160)	1491580	80.0000	80	9760
122 Benzidine	184	20.309	20.309	(0.879)	124333	80.0000	31	8766
123 Pyrene	202	20.339	20.339	(0.880)	1640867	80.0000	88	9688
124 p-Dimethylaminoazobenzene	225	21.230	21.230	(0.919)	303910	80.0000	84	9265
125 Chlorobenzilate	251	21.393	21.393	(0.926)	384046	80.0000	62	9769
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.141	22.141	(0.958)	869472	80.0000	88	9591
129 3,3'-Dimethylbenzidine	212	21.997	21.997	(0.952)	381606	80.0000	58	9472
130 2-Acetylaminofluorene	181	22.591	22.591	(0.978)	465510	80.0000	70	9286
131 3,3'-Dichlorobenzidine	252	23.174	23.174	(1.003)	520013	80.0000	78	8640
132 bis(2-ethylhexyl)Phthalate	149	23.553	23.553	(1.019)	1183157	80.0000	88	9395
133 Benzo(a)anthracene	228	23.072	23.072	(0.999)	1472362	80.0000	84	
134 Chrysene	228	23.164	23.164	(1.003)	1267947	80.0000	80	
135 Di-n-octylphthalate	149	24.863	24.863	(0.953)	1909313	80.0000	88	
136 7,12-Dimethylbenz(a)anthracene	256	25.437	25.437	(0.975)	635158	80.0000	83	8685
137 Benzo(b)fluoranthene	252	25.375	25.375	(0.973)	1679279	80.0000	87	
138 Benzo(k)fluoranthene	252	25.426	25.426	(0.975)	1441681	80.0000	86	
139 Benzo(a)pyrene	252	25.979	25.979	(0.996)	1430181	80.0000	85	
140 3-Methylcholanthrene	268	26.788	26.788	(1.027)	781209	80.0000	85	9552
141 Indeno(1,2,3-c,d)pyrene	276	28.507	28.507	(1.093)	1266513	80.0000	81	0(M)
142 Dibenzo(a,h)anthracene	278	28.599	28.599	(1.096)	1211509	80.0000	79	7444
143 Benzo(g,h,i)perylene	276	29.214	29.214	(1.120)	1355221	80.0000	81	9573
198 4-Chlorophenol	128	Compound Not Detected.						
199 2,5-Dichlorophenol	162	Compound Not Detected.						
M 144 Diallate Total	86				540619	80.0000	90	0
202 Aramite	185	21.148	21.148	(0.915)	91184	80.0000	86	8517(H)

TMP 5/1/09

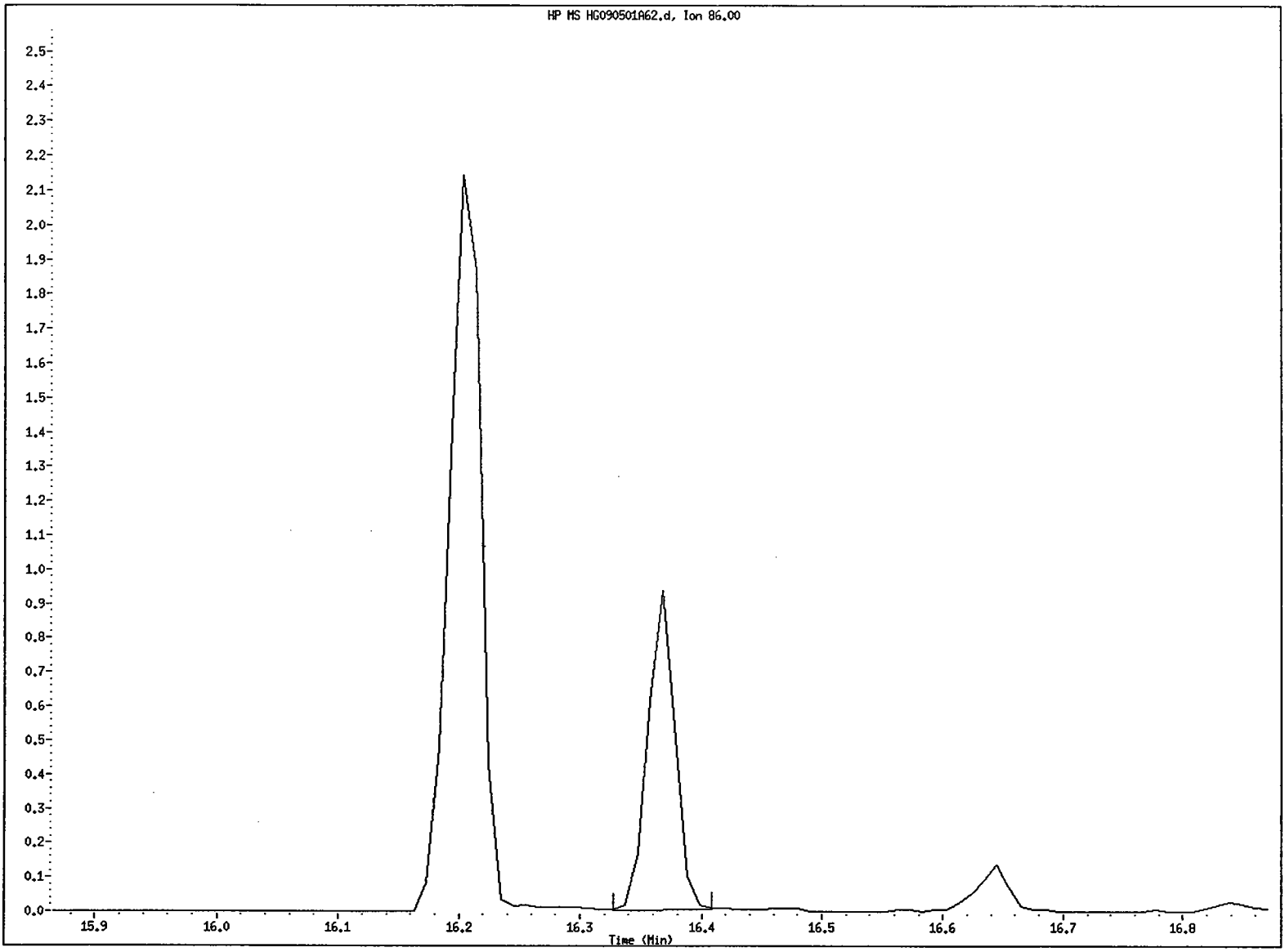
TMP 5/1/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

KCH 5/5/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 144101 User selected



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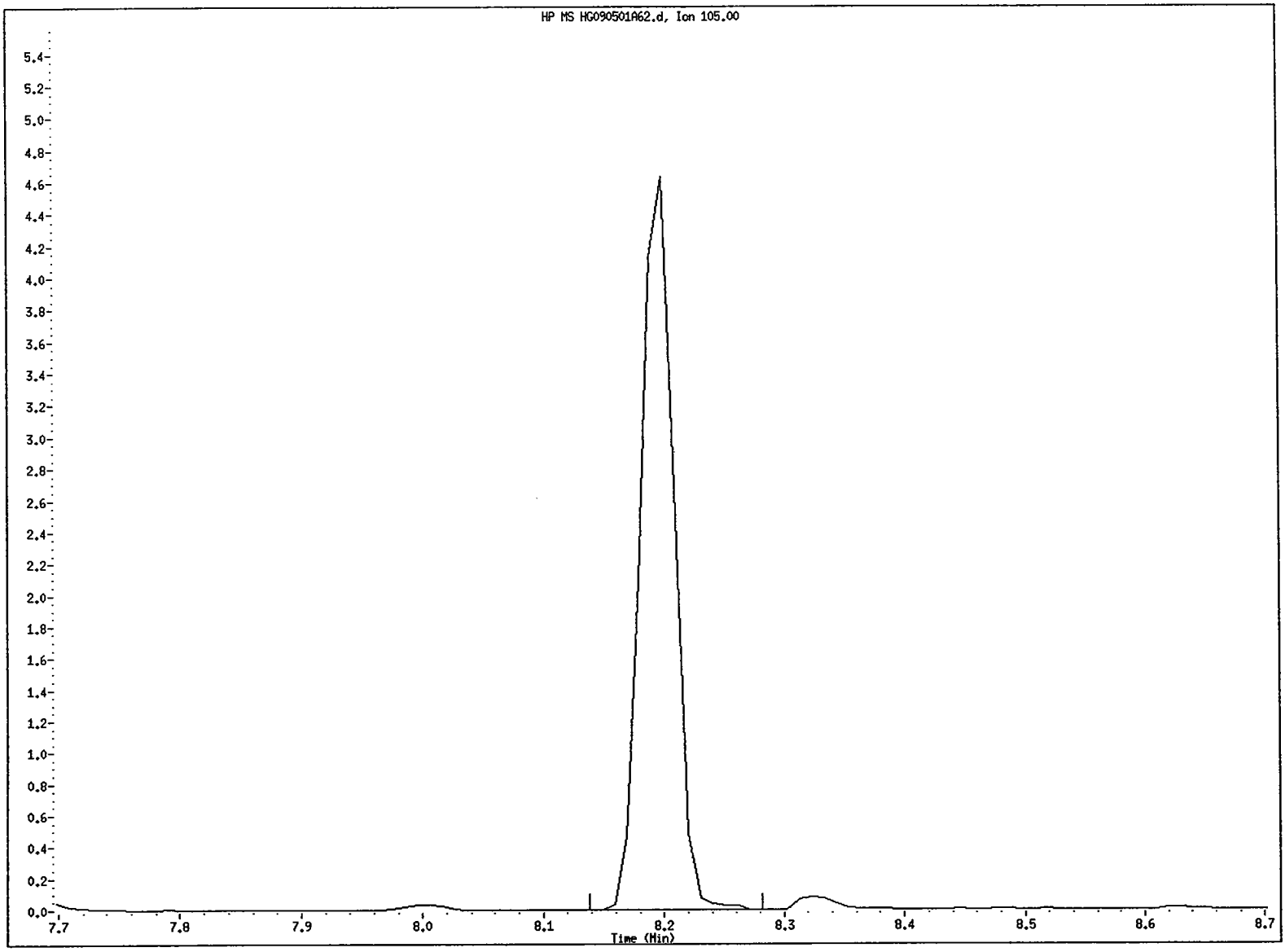
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 16.37
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 888926 Manually integrated



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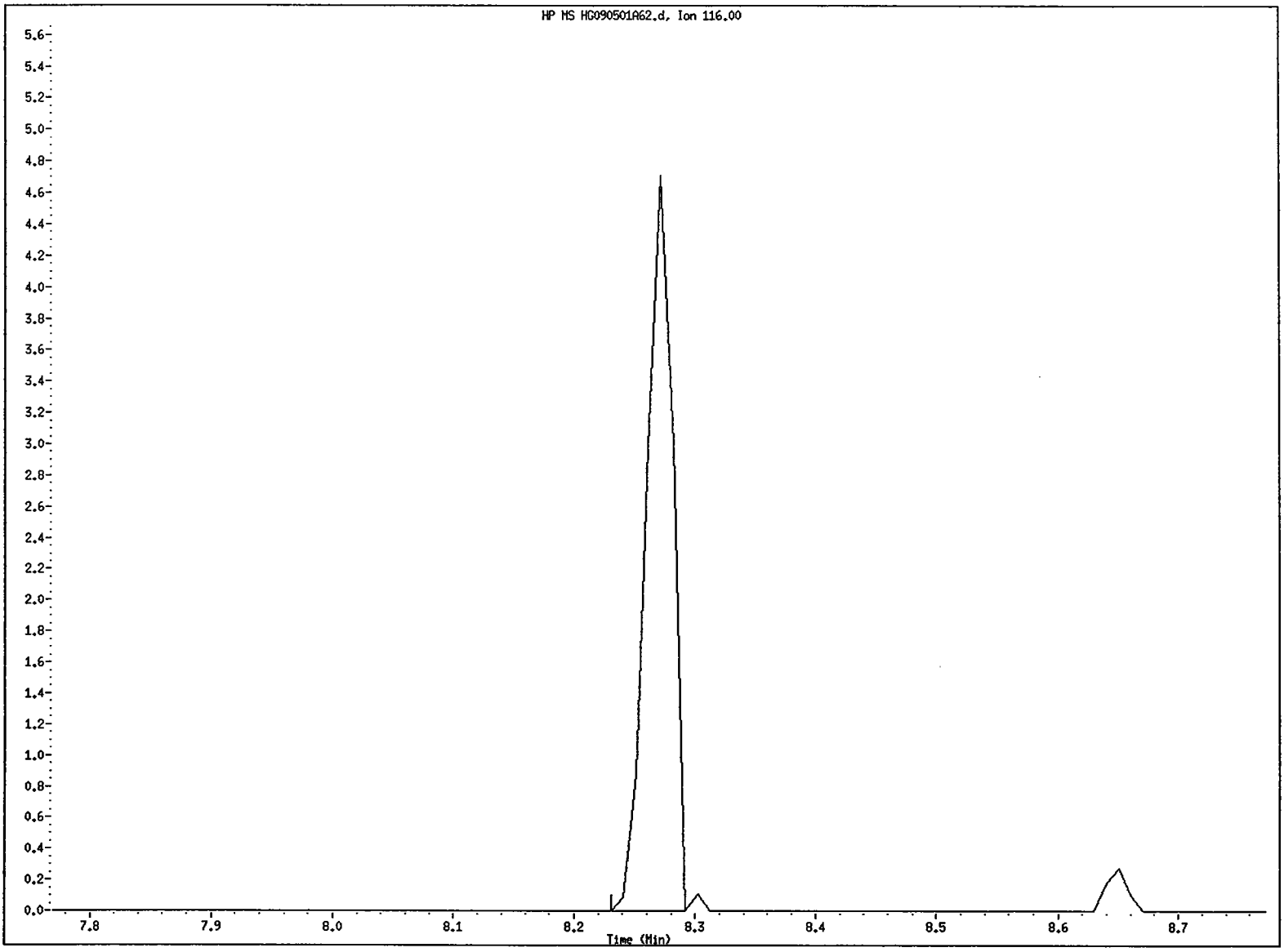
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 71595 Manually integrated



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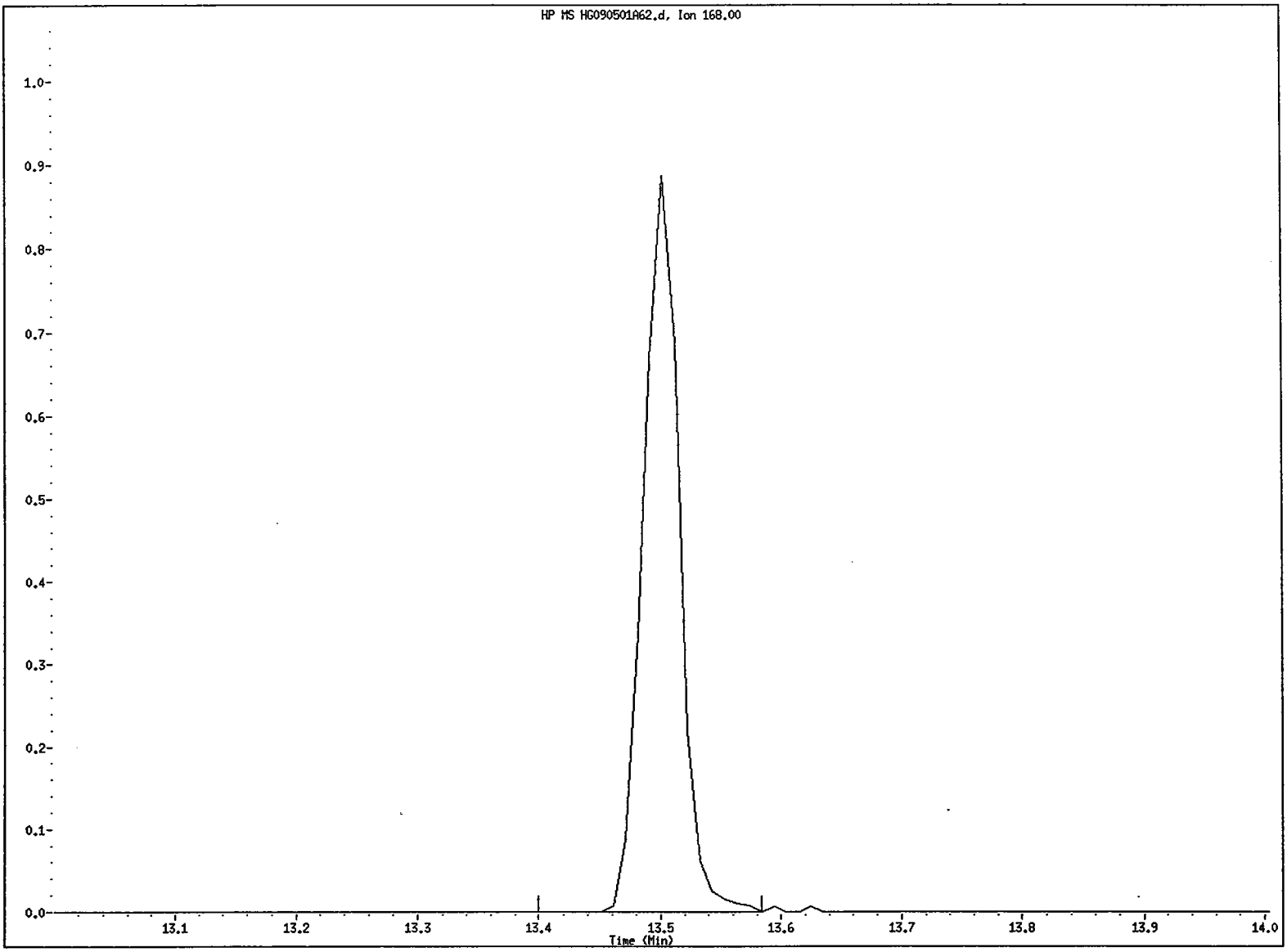
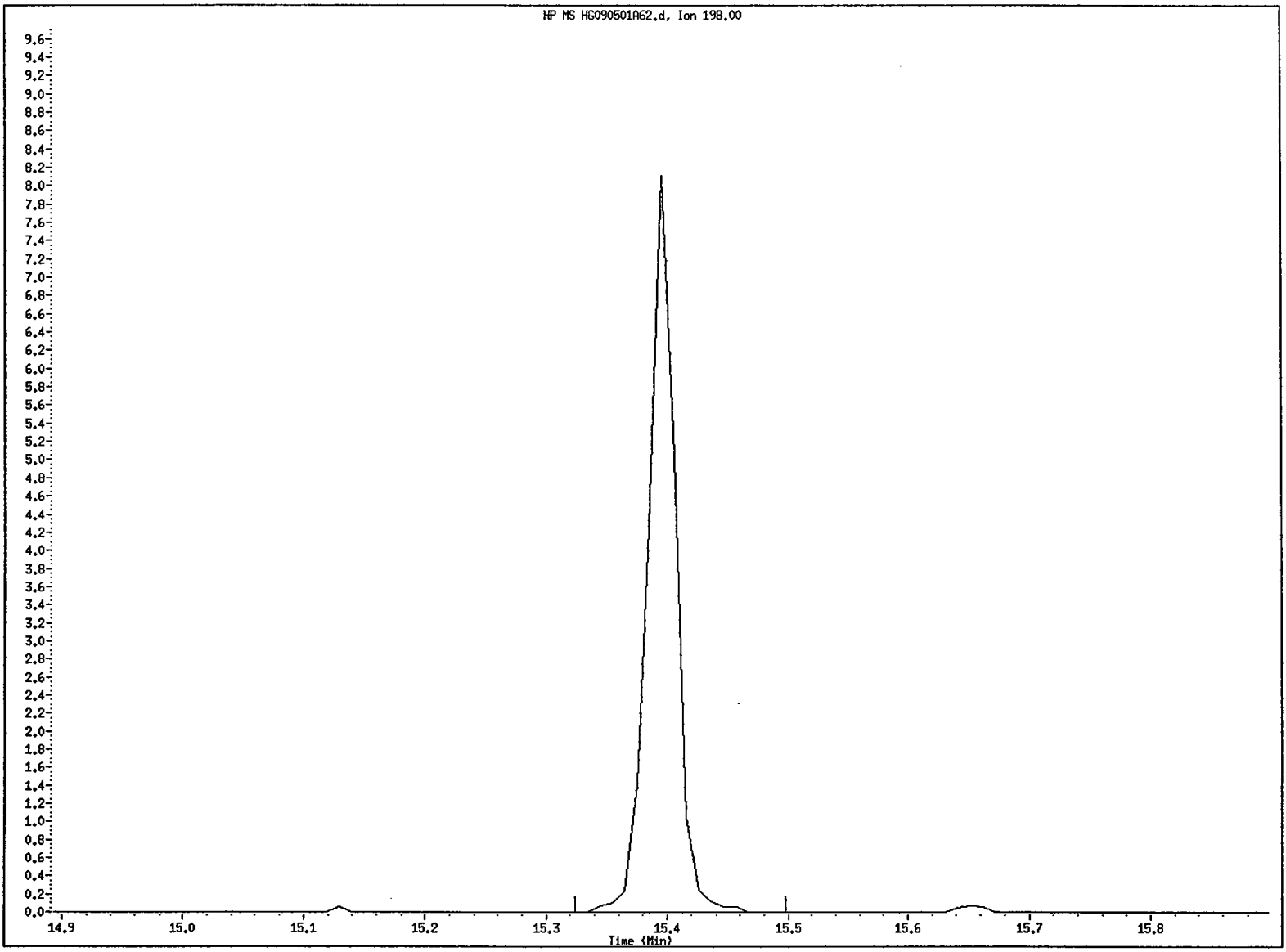
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 8.27
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 185079 Manually integrated



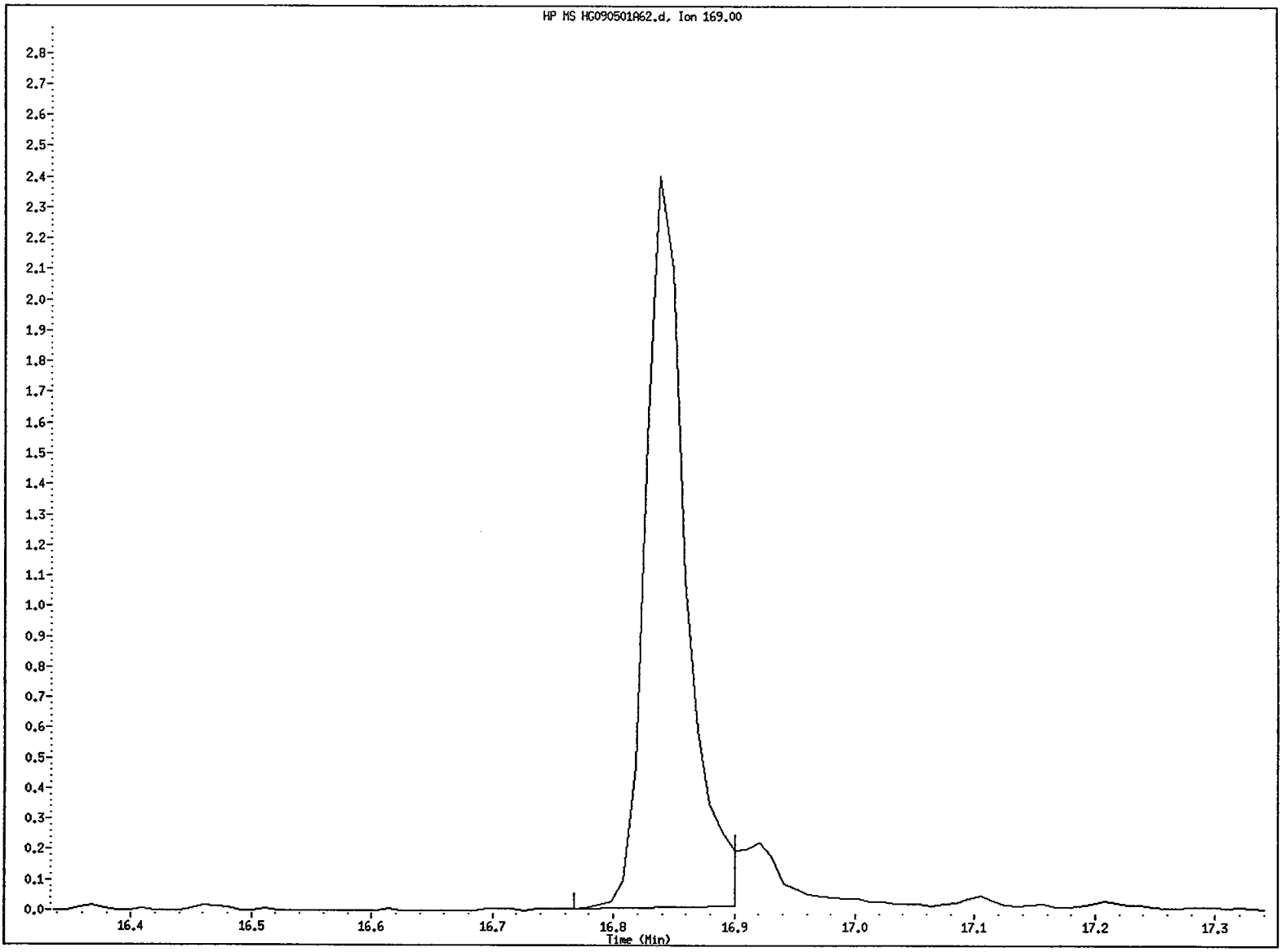
File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 13.50
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 127395 Manually integrat



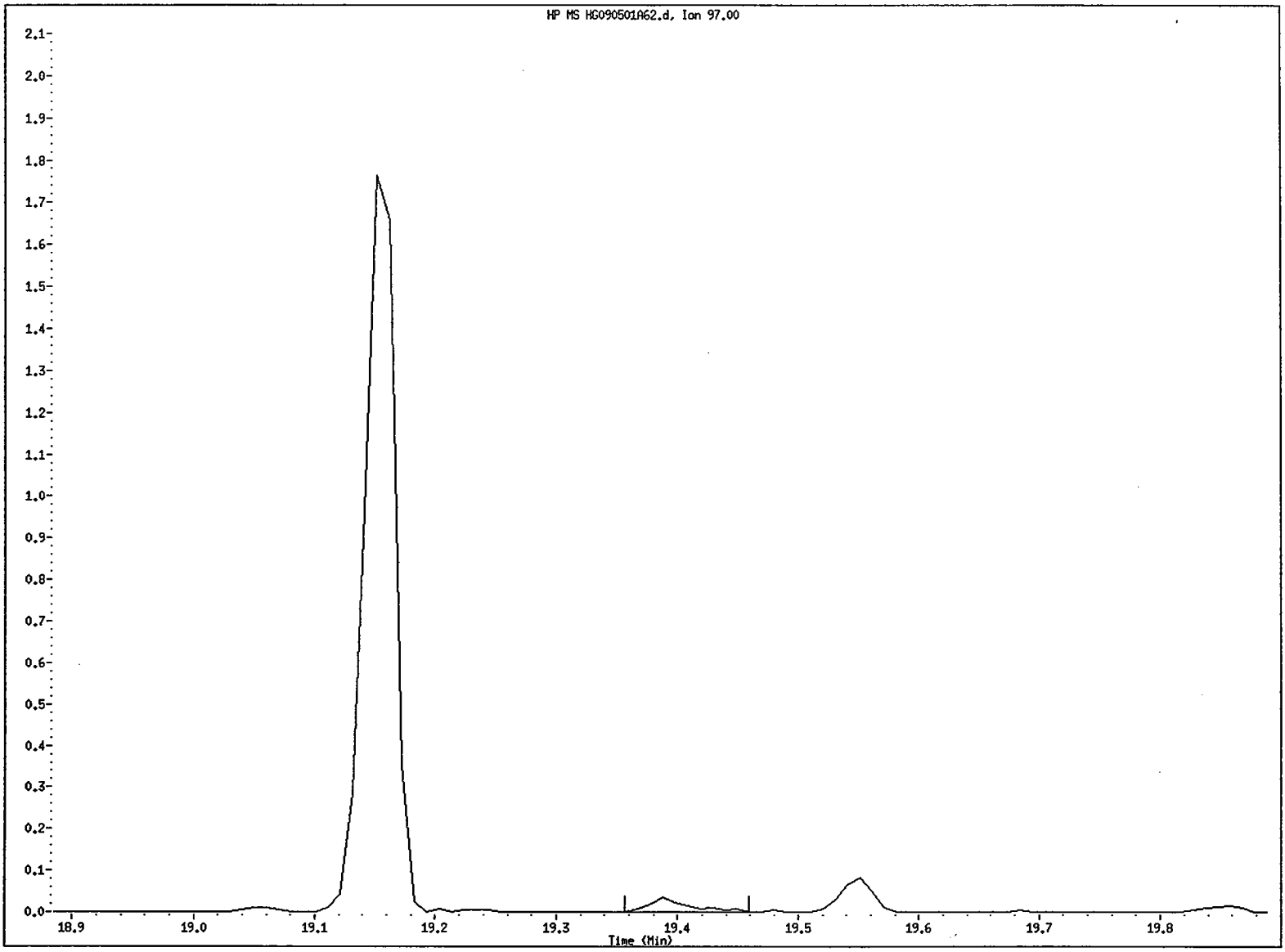
File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 15.40
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 554693 Manually integrated



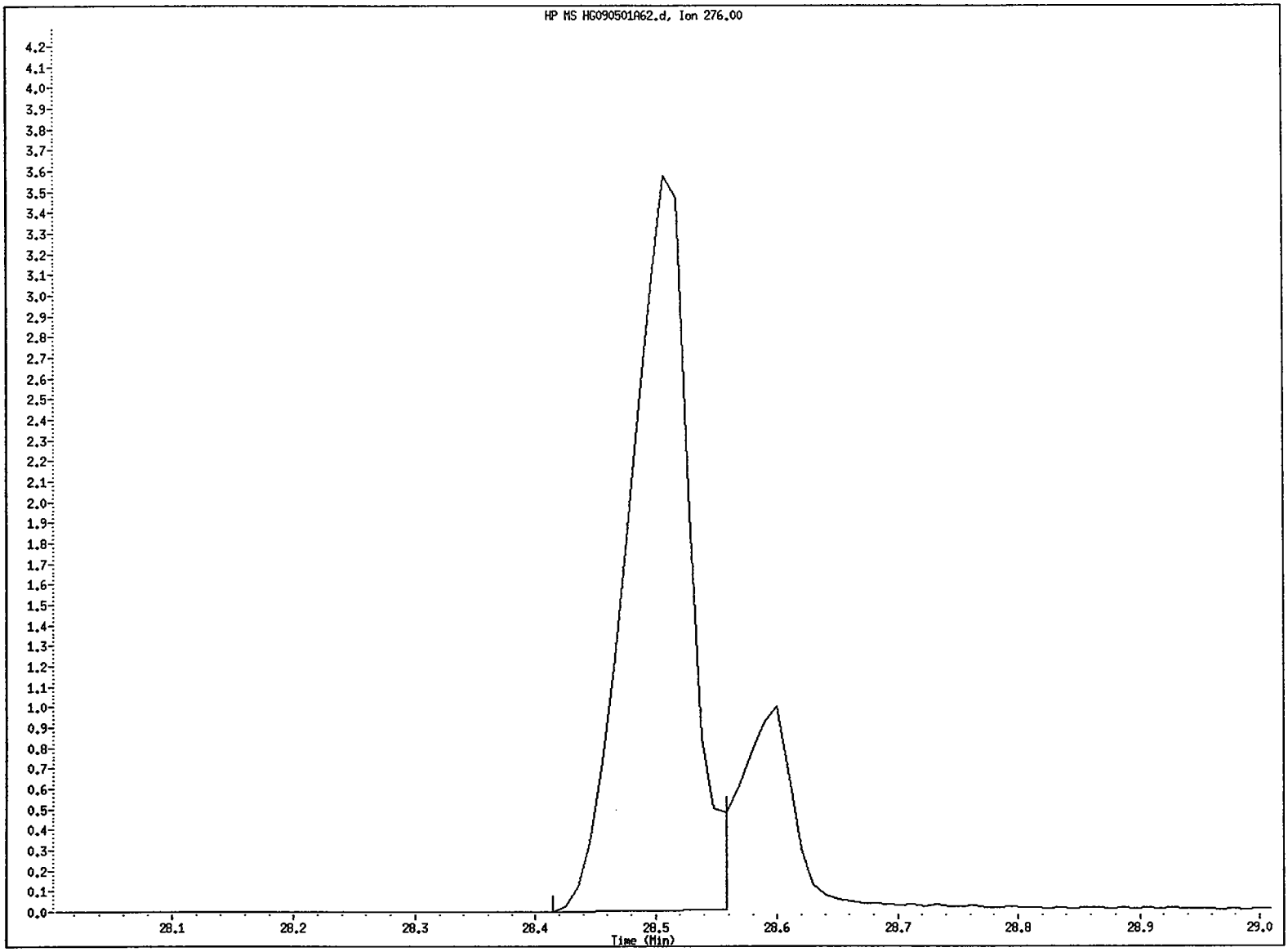
File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 16.84
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 7897 Manually integrated



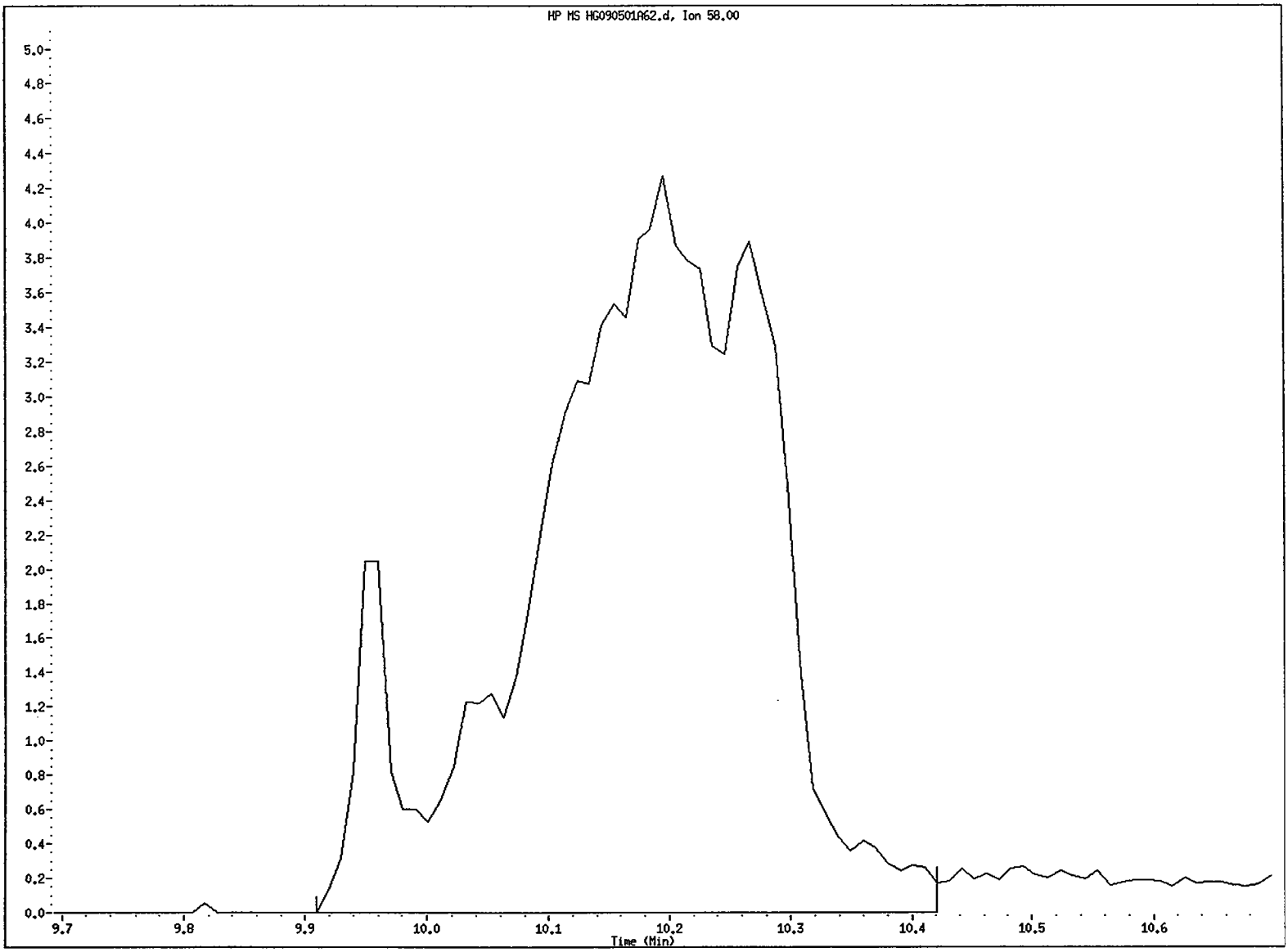
File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 19.39
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1266513 Manually integrated



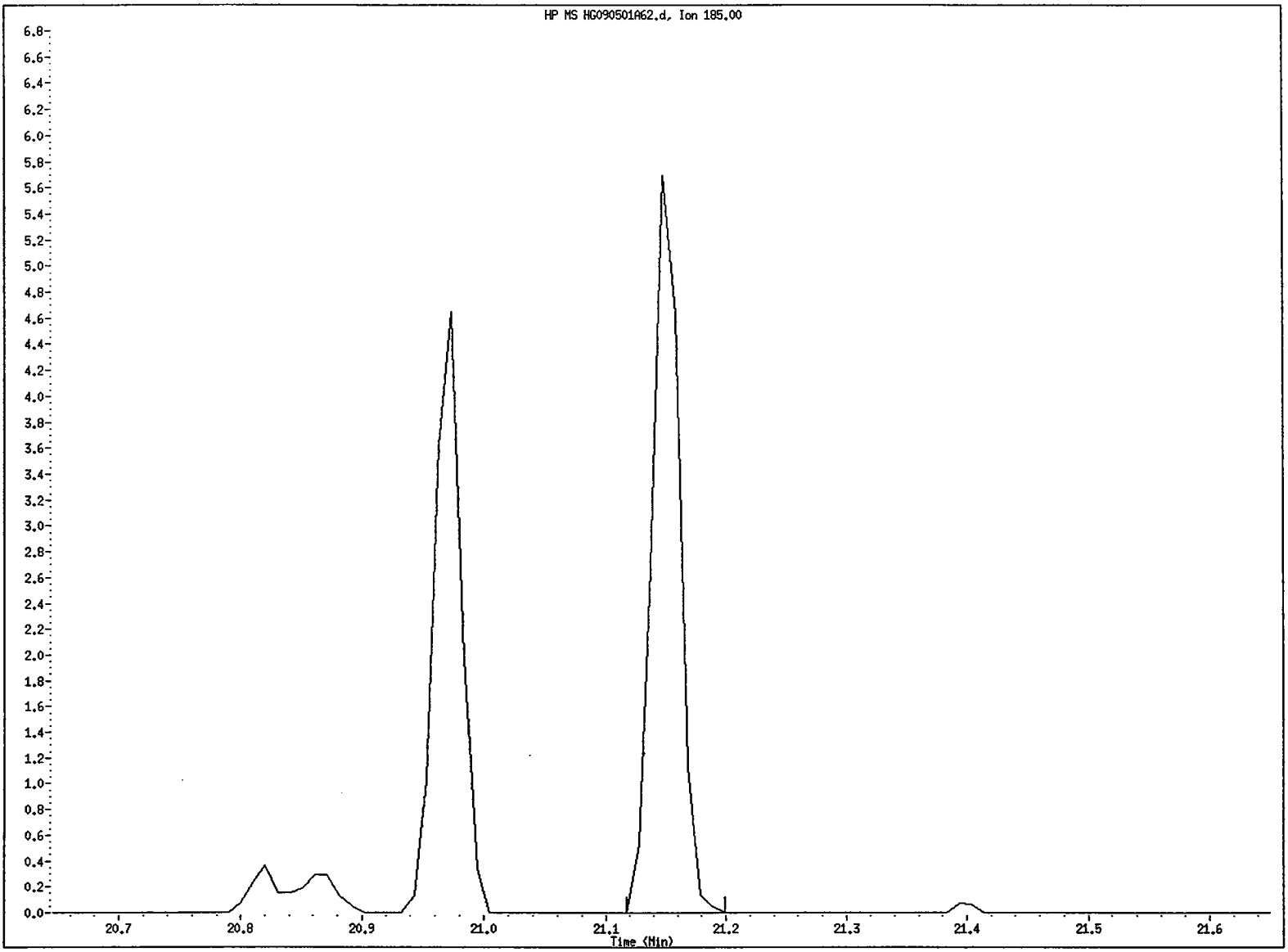
File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 28.51
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 577780 Manually integrat



File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 10.20
Operator ID: 2650

Aramite CAS Number 140-57-8 Area = 91184 User selected hit



File name: /chem/5972hp62.i/DF090501A62.b/HG090501A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 10:03
Retention Time: 21.15
Operator ID: 2650

COMPUCHEM a Division of Liberty Analytical Corp DATE 5/1/09 INITIAL TIME OF TUNE 0944 SHIFT/S(A) V (B)____ (C)____
GC/MS SEMIVOLATILE RUN LOG TIME TUNE EXPIRES 2144 METHOD APIX
LOGBOOK 4 Y (4) 8 (5972hp62)

PREVENTIVE MAINTENANCE NONE

	CCV	FILE NAME	R	DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS (ETC.)/DISPOSITION
1		DF090501A62		5/1/09	0944	DFTPP	—	2µL	2650	SCD=LCD
2		HG090501A62		/ /	1003	SSTD080	—			Carbazole 61860 11/30/09
3		9041318-BLKA62		/ /	1045	SBLKJK	0904069			
4	/	9041318-BSA62	SF	/ /	1127	SJKLCS				biased high
5	/	9041318-MSA62	SF	/ /	1209	16WC1AMS01				surrogates ok
6	/	9041318-MSDA62	SF	/ /	1251	16WC1AMSD01				
7		0904069-01A62		/ /	1332	16WC1A				
8		0904069-02A62		/ /	1414	16C1				
9		0904069-03A62		/ /	1456	16MW8				
10		0904069-04A62		/ /	1538	16MW9				
11		0904069-05A62		/ /	1620	16WDUP				
12		0904069-06A62		/ /	1702	16WC1B				
13		9041633-BLKA62		/ /	1744	SBLKGV	VARIOUS			
14	/	9041633-BSA62	SF	/ /	1825	SGVLCS				spikes ok for HWM413C.swb
15	/	9041633-BSDA62	SF	/ /	1907	SGVLCSD				
16		0904163-01A62		/ /	1949	13MW1	0904163			
17		0904163-02A62		/ /	2031	13MW2				
18				/ /						
19				/ /		TMP 5/2/09				
20				/ /						
21				/ /						
22				/ /						

DFTPP Lot #/Exp. Date: 7055 61757 6/10/09
Calibration STD Lot#/Exp. Date: APIX 62090 6/30/09
Internal STD Lot#/Exp. Date: 800 62085 10/24/09
Methylene Chloride Lot#/Exp. Date: 48028 7/1/11
Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 5/6/09

12/13/08 sw

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date: 05/02/09 Time: 1235

Lab File ID: HG090502A62 Init. Calib. Date(s): 04/30/09 04/30/09

Init. Calib. Times: 1622 1951

GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
N-Nitrosodimethylamine	0.5210000	0.7318451	0.01	40.47	90.00	AVRG	
Pyridine	1.1710000	1.5356578	0.01	31.14	90.00	AVRG	
2-Picoline	1.1980000	1.3720380	0.01	14.53	90.00	AVRG	
Nitrosomethylethylamine	0.4280000	0.5429565	0.01	26.86	90.00	AVRG	
Methyl Methanesulfonate	0.7900000	0.8624984	0.01	9.18	90.00	AVRG	
N-Nitrosodiethylamine	0.3500000	0.4068532	0.01	16.24	90.00	AVRG	
Ethyl Methanesulfonate	0.9580000	1.1684333	0.01	21.96	90.00	AVRG	
Phenol	1.2490000	1.4630089	0.01	17.13	20.00	AVRG	
Aniline	1.6250000	1.8255229	0.01	12.34	90.00	AVRG	
Bis(2-chloroethyl)ether	1.0750000	1.2353051	0.01	14.91	90.00	AVRG	
2-Chlorophenol	1.1380000	1.1506470	0.01	1.11	90.00	AVRG	
Benzyl Alcohol	0.6400000	0.6686596	0.01	4.48	90.00	AVRG	
2-Methylphenol	0.8950000	0.9502893	0.01	6.18	90.00	AVRG	
2,2'-oxybis(1-Chloropropane)	1.3420000	2.3434683	0.01	74.62	90.00	AVRG	
N-Nitrosopyrrolidine	0.2180000	0.3516679	0.01	61.32	90.00	AVRG	
3-Methylphenol	0.9640000	1.0717268	0.01	11.17	90.00	AVRG	
4-Methylphenol	0.9640000	1.0717268	0.01	11.17	90.00	AVRG	
3-4-Methylphenol	0.9670000	1.0674354	0.01	10.39	90.00	AVRG	
N-Nitroso-di-N-propylamine	0.4200000	0.5520682	0.05	31.44	90.00	AVRG	
Acetophenone	0.4500000	0.4521690	0.01	0.48	90.00	AVRG	
N-Nitrosomorpholine	0.1060000	0.1560790	0.01	47.24	90.00	AVRG	
o-Toluidine	1.4080000	1.4804635	0.01	5.15	90.00	AVRG	
Hexachloroethane	0.6060000	0.6347811	0.01	4.75	90.00	AVRG	
Nitrobenzene	0.3560000	0.4153454	0.01	16.67	90.00	AVRG	
N-Nitrosopiperidine	0.1390000	0.1477698	0.01	6.31	90.00	AVRG	
Isophorone	0.6090000	0.6965996	0.01	14.38	90.00	AVRG	
2-Nitrophenol	0.1940000	0.1898118	0.01	-2.16	20.00	AVRG	
2,4-Dimethylphenol	0.2440000	0.2477171	0.01	1.52	90.00	AVRG	
o,o,o-Triethylphosphorothioa	0.1430000	0.1296872	0.01	-9.31	90.00	AVRG	
Bis(2-chloroethoxy)methane	0.4350000	0.4904275	0.01	12.74	90.00	AVRG	
2,4-Dichlorophenol	0.2830000	0.2752613	0.01	-2.73	20.00	AVRG	
4-Chloroaniline	0.3730000	0.3691874	0.01	-1.02	90.00	AVRG	
2,6-Dichlorophenol	0.2730000	0.2555090	0.01	-6.41	90.00	AVRG	
Hexachloropropene	0.2690000	0.2347874	0.01	-12.72	90.00	AVRG	
N-Nitroso-di-n-butylamine	0.1190000	0.1456731	0.01	22.41	90.00	AVRG	
p-Phenylenediamine	0.0100000	0.0086470	0.01	-13.53	90.00	AVRG	<-
4-Chloro-3-methylphenol	0.2570000	0.2553647	0.01	-0.64	20.00	AVRG	
Safrole	0.2340000	0.2215081	0.01	-5.34	90.00	AVRG	
2-Methylnaphthalene	0.4720000	0.4405070	0.01	-6.67	90.00	AVRG	
Hexachlorocyclopentadiene	0.5360000	0.4335505	0.05	-19.11	90.00	AVRG	
1,2,4,5-Tetrachlorobenzene	0.7230000	0.6384997	0.01	-11.69	90.00	AVRG	
2,4,6-Trichlorophenol	0.4100000	0.3707223	0.01	-9.58	20.00	AVRG	

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date: 05/02/09 Time: 1235

Lab File ID: HG090502A62 Init. Calib. Date(s): 04/30/09 04/30/09

Init. Calib. Times: 1622 1951

GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
2,4,5-Trichlorophenol	0.4580000	0.4000463	0.01	-12.65	90.00	AVRG
Isosafrole	0.0800000	0.0721928	0.01	-9.76	90.00	AVRG
2-Chloronaphthalene	1.5650000	1.3942480	0.01	-10.91	90.00	AVRG
2-Nitroaniline	0.3540000	0.4289439	0.01	21.17	90.00	AVRG
1,4-Napthoquinone	0.4900000	0.4583629	0.01	-6.46	90.00	AVRG
Dimethylphthalate	1.2110000	1.1178600	0.01	-7.69	90.00	AVRG
Acenaphthylene	1.7140000	1.5890787	0.01	-7.29	90.00	AVRG
3-Nitroaniline	0.2880000	0.2962412	0.01	2.86	90.00	AVRG
Acenaphthene	0.9670000	0.8814035	0.01	-8.85	20.00	AVRG
2,4-Dinitrophenol	0.1210000	0.1228317	0.05	1.51	90.00	AVRG
4-Nitrophenol	0.2260000	0.2849860	0.05	26.10	90.00	AVRG
Pentachlorobenzene	0.7000000	0.6079540	0.01	-13.15	90.00	AVRG
Dibenzofuran	1.5740000	1.4418997	0.01	-8.39	90.00	AVRG
1-Naphthylamine	0.3210000	0.3567499	0.01	11.14	90.00	AVRG
2,3,4,6-Tetrachlorophenol	0.3640000	0.3258353	0.01	-10.48	90.00	AVRG
2-Naphthylamine	0.3440000	0.5105850	0.01	48.42	90.00	AVRG
Diethylphthalate	1.2860000	1.1844508	0.01	-7.90	90.00	AVRG
Zinophos	0.3420000	0.3266418	0.01	-4.49	90.00	AVRG
4-Chlorophenyl-phenylether	0.6310000	0.5822213	0.01	-7.73	90.00	AVRG
5-Nitro-o-toluidine	0.3690000	0.3984044	0.01	7.97	90.00	AVRG
Fluorene	1.2170000	1.1216326	0.01	-7.84	90.00	AVRG
4-Nitroaniline	0.3120000	0.3603799	0.01	15.51	90.00	AVRG
4,6-Dinitro-2-methylphenol	0.1280000	0.1365874	0.01	6.71	90.00	AVRG
N-Nitrosodiphenylamine	0.5790000	0.5430032	0.01	-6.22	20.00	AVRG
Sulfotep	0.2440000	0.2008203	0.01	-17.70	90.00	AVRG
Diallate (trans isomer)	0.4980000	0.5456746	0.01	9.57	90.00	AVRG
Phorate	0.4990000	0.5106941	0.01	2.34	90.00	AVRG
Phenacetin	0.4010000	0.3752104	0.01	-6.43	90.00	AVRG
Diallate (cis isomer)	0.1620000	0.1795312	0.01	10.82	90.00	AVRG
4-Bromophenyl-phenylether	0.2600000	0.2385408	0.01	-8.25	90.00	AVRG
Hexachlorobenzene	0.4070000	0.3571755	0.01	-12.24	90.00	AVRG
Dimethoate	0.2570000	0.2485477	0.01	-3.29	90.00	AVRG
4-Aminobiphenyl	0.5340000	0.5408604	0.01	1.28	90.00	AVRG
Pentachlorophenol	0.1930000	0.1790513	0.05	-7.23	20.00	AVRG
Pentachloronitrobenzene	0.1290000	0.1116404	0.01	-13.46	90.00	AVRG
Pronamide	0.3560000	0.3304636	0.01	-7.17	90.00	AVRG
Disulfoton	0.3900000	0.4075721	0.01	4.50	90.00	AVRG
Phenanthrene	1.0600000	1.0039649	0.01	-5.29	90.00	AVRG
Anthracene	1.1100000	1.0789481	0.01	-2.80	90.00	AVRG
Methyl Parathion	0.2460000	0.2379558	0.01	-3.27	90.00	AVRG
Di-n-butylphthalate	1.4050000	1.3364775	0.01	-4.88	90.00	AVRG
Parathion	0.1720000	0.1694755	0.01	-1.47	90.00	AVRG

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP62 Calibration Date: 05/02/09 Time: 1235

Lab File ID: HG090502A62 Init. Calib. Date(s): 04/30/09 04/30/09

Init. Calib. Times: 1622 1951

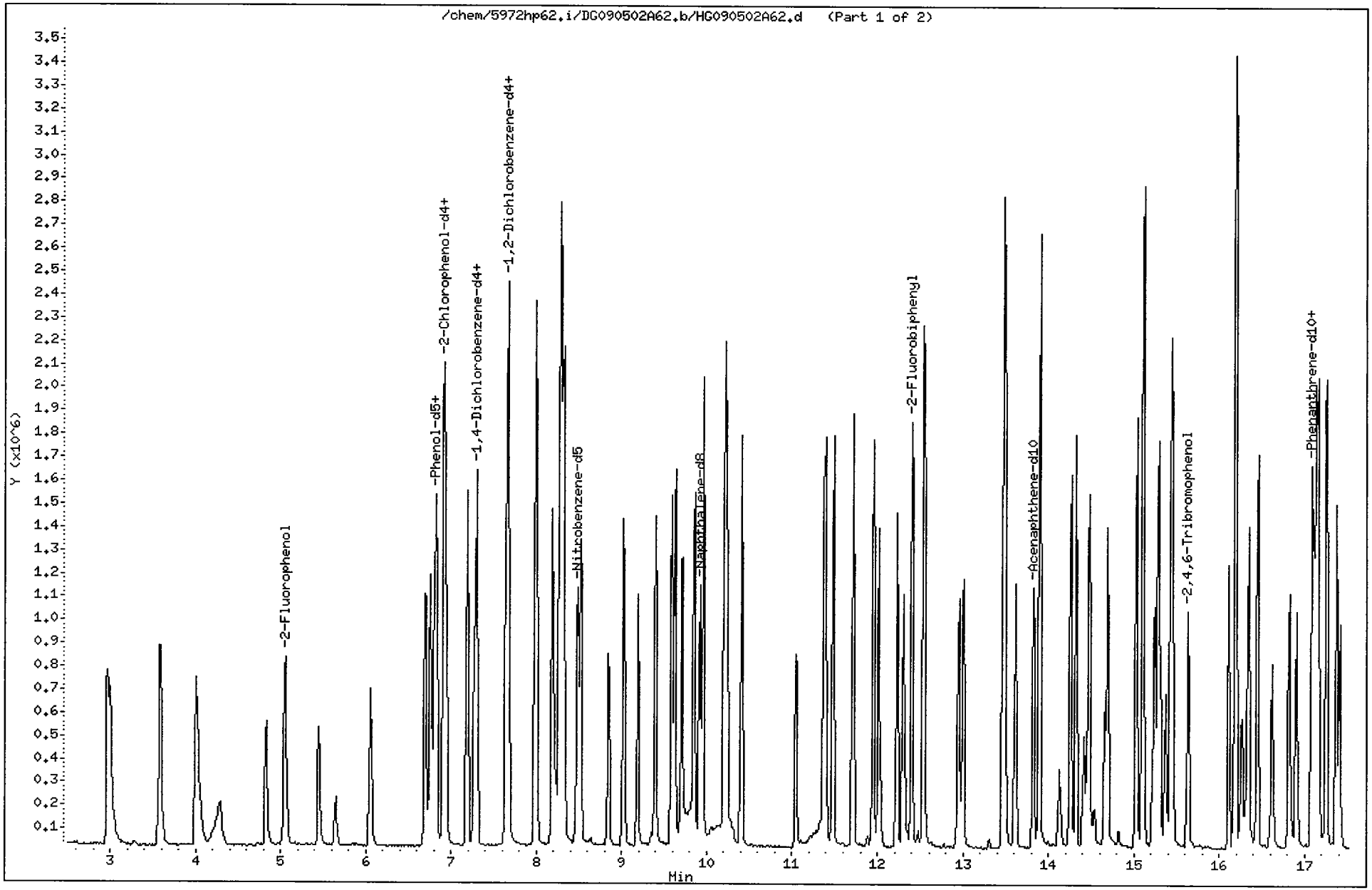
GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
4-Nitroquinoline-1-oxide	0.1040000	0.1085904	0.005	4.41	90.00	AVRG	
Methapyrilene	0.0080000	0.0009324	0.01	-88.34	90.00	AVRG	<-
Isodrin	0.1560000	0.1472548	0.01	-5.60	90.00	AVRG	
Fluoranthene	1.0940000	1.0352327	0.01	-5.37	20.00	AVRG	
Pyrene	1.0070000	0.8990108	0.01	-10.72	90.00	AVRG	
p-Dimethylaminoazobenzene	0.1940000	0.1706378	0.01	-12.04	90.00	AVRG	
Chlorobenzilate	0.3320000	0.2403320	0.01	-27.61	90.00	AVRG	
Famfur	0.0000000		0.01	0.00	90.00	AVRG	<-
Butylbenzylphthalate	0.5310000	0.4751181	0.01	-10.52	90.00	AVRG	
3,3'-Dimethylbenzidine	0.3560000	0.2924827	0.01	-17.84	90.00	AVRG	
2-Acetylaminofluorene	0.3600000	0.2999898	0.01	-16.67	90.00	AVRG	
3,3'-Dichlorobenzidine	0.3610000	0.3236403	0.01	-10.35	90.00	AVRG	
bis(2-ethylhexyl)Phthalate	0.7200000	0.6278305	0.01	-12.80	90.00	AVRG	
Benzo(a)anthracene	0.9470000	0.8780824	0.01	-7.28	90.00	AVRG	
Chrysene	0.8490000	0.7712463	0.01	-9.16	90.00	AVRG	
Di-n-octylphthalate	1.1200000	0.9367994	0.01	-16.36	20.00	AVRG	
7,12-Dimethylbenz(a)anthrace	0.3950000	0.3884726	0.01	-1.65	90.00	AVRG	
Benzo(b)fluoranthene	0.9950000	0.9490004	0.01	-4.62	90.00	AVRG	
Benzo(k)fluoranthene	0.8720000	0.8804778	0.01	0.97	90.00	AVRG	
Benzo(a)pyrene	0.8660000	0.8554987	0.01	-1.21	20.00	AVRG	
3-Methylcholanthrene	0.4760000	0.4473662	0.01	-6.02	90.00	AVRG	
Indeno(1,2,3-c,d)pyrene	0.8060000	0.6995698	0.01	-13.20	90.00	AVRG	
Dibenzo(a,h)anthracene	0.7970000	0.6833479	0.01	-14.26	90.00	AVRG	
Benzo(g,h,i)perylene	0.8620000	0.7620785	0.01	-11.59	90.00	AVRG	
Kepone	0.0000000		0.01	0.00	90.00	AVRG	<-
Diallate Total	0.3310000	0.3626029	0.01	9.55	90.00	AVRG	
a,a-Dimethylphenethylamine	0.3480000	0.4838069	0.01	39.02	90.00	AVRG	
Aramite	0.0600000	0.0471199	0.01	-21.47	90.00	AVRG	
2-Fluorophenol	0.9840000	1.0671385	0.01	8.45	90.00	AVRG	
Phenol-d5	1.2080000	1.3713456	0.01	13.52	90.00	AVRG	
Nitrobenzene-d5	0.3740000	0.4085110	0.01	9.23	90.00	AVRG	
2-Fluorobiphenyl	1.2740000	1.1375131	0.01	-10.71	90.00	AVRG	
2,4,6-Tribromophenol	0.3710000	0.3230868	0.01	-12.91	90.00	AVRG	
Terphenyl-d14	0.7540000	0.6531706	0.01	-13.37	90.00	AVRG	

FORM VII SV

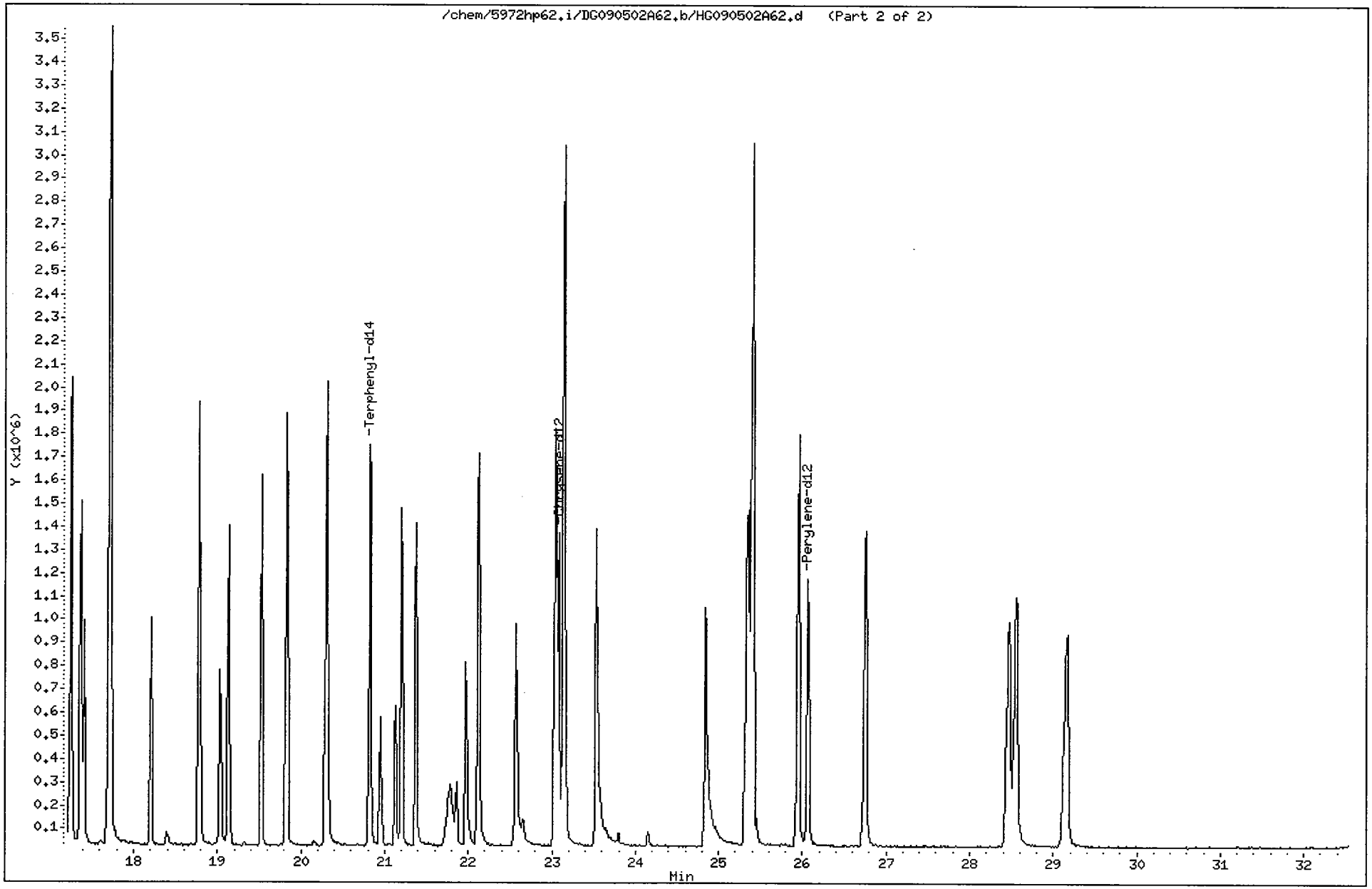
Data File: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Date : 02-MAY-2009 12:35
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Date : 02-MAY-2009 12:35
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Report Date: 06-May-2009 17:13

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 02-MAY-2009 12:35
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : SSTD080:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:13 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.263	7.263	(1.000)	223121	40.0000		
*	2 Naphthalene-d8	136	9.914	9.914	(1.000)	762392	40.0000		
*	3 Acenaphthene-d10	164	13.824	13.824	(1.000)	399860	40.0000		
*	4 Phenanthrene-d10	188	17.110	17.110	(1.000)	656393	40.0000		
*	5 Chrysene-d12	240	23.087	23.087	(1.000)	811696	40.0000		
*	6 Perylene-d12	264	26.066	26.066	(1.000)	852674	40.0000		
$	7 2-Fluorophenol	112	5.052	5.052	(0.696)	476202	80.0000	87	
$	8 Phenol-d5	99	6.802	6.802	(0.937)	611952	80.0000	91	
$	9 2-Chlorophenol-d4	132	6.905	6.905	(0.951)	454722	80.0000	80	9026
$	10 1,2-Dichlorobenzene-d4	152	7.642	7.642	(1.052)	356562	80.0000	77	9425
$	11 Nitrobenzene-d5	82	8.481	8.481	(0.855)	622891	80.0000	87	
$	12 2-Fluorobiphenyl	172	12.401	12.401	(0.897)	909692	80.0000	71	
$	13 2,4,6-Tribromophenol	330	15.636	15.636	(1.131)	258379	80.0000	70	
$	14 Terphenyl-d14	244	20.825	20.825	(0.902)	1060352	80.0000	69	
	15 N-Nitrosodimethylamine	42	2.995	2.995	(0.412)	326580	80.0000	110	8614

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Pyridine	79	2.964	2.964	(0.408)	685275	80.0000	100	9258
17 Ethylmethacrylate	69	3.588	3.588	(0.494)	518340	80.0000	110	9076
18 2-Picoline	93	3.998	3.998	(0.550)	612261	80.0000	92	9139
19 Nitrosomethylethylamine	88	4.285	4.285	(0.590)	242290	80.0000	100	8982
20 Methyl Methanesulfonate	80	4.827	4.827	(0.665)	384883	80.0000	87	9059
21 N-Nitrosodiethylamine	102	5.441	5.441	(0.749)	181555	80.0000	93	9512
22 Ethyl Methanesulfonate	79	6.055	6.055	(0.834)	521404	80.0000	98	9367
23 Phenol	94	6.823	6.823	(0.939)	652856	80.0000	94	
24 Aniline	93	6.751	6.751	(0.930)	814625	80.0000	90	8089
25 Bis(2-chloroethyl)ether	93	6.915	6.915	(0.952)	551245	80.0000	92	
26 Pentachloroethane	167	6.700	6.700	(0.922)	238753	80.0000	76	9350
27 2-Chlorophenol	128	6.936	6.936	(0.955)	513467	80.0000	81	9536
28 1,3-Dichlorobenzene	146	7.191	7.191	(0.990)	647904	80.0000	82	
29 1,4-Dichlorobenzene	146	7.294	7.294	(1.004)	629619	80.0000	79	
30 Benzyl Alcohol	108	7.672	7.672	(1.056)	298384	80.0000	84	
31 1,2-Dichlorobenzene	146	7.662	7.662	(1.055)	529694	80.0000	76	
32 2-Methylphenol	108	7.990	7.990	(1.100)	424059	80.0000	85	
33 2,2'-oxybis(1-Chloropropane)	45	7.980	7.980	(1.099)	1045754	80.0000	140	8709
34 N-Nitrosopyrrolidine	100	8.215	8.215	(1.131)	156929	80.0000	130	5078
35 3-Methylphenol	108	8.317	8.317	(1.145)	956499	160.000	180	
36 4-Methylphenol	108	8.317	8.317	(1.145)	956499	160.000	180	
37 3-4-Methylphenol	108	8.317	8.317	(1.145)	952669	160.000	180	9269
38 N-Nitroso-di-N-propylamine	70	8.287	8.287	(1.141)	246356	80.0000	100	8379
39 Acetophenone	105	8.184	8.184	(0.826)	689460	80.0000	80	0 (M)
40 N-Nitrosomorpholine	116	8.256	8.256	(1.137)	69649	80.0000	120	0 (M)
41 o-Toluidine	106	8.276	8.276	(1.139)	660645	80.0000	84	8408
42 Hexachloroethane	117	8.266	8.266	(1.138)	283266	80.0000	84	9663
43 Nitrobenzene	77	8.512	8.512	(0.859)	633312	80.0000	93	9231
44 N-Nitrosopiperidine	114	8.839	8.839	(0.892)	225317	80.0000	85	9396
45 Isophorone	82	9.013	9.013	(0.909)	1062164	80.0000	91	9135
46 2-Nitrophenol	139	9.187	9.187	(0.927)	289422	80.0000	78	8702
47 2,4-Dimethylphenol	122	9.392	9.392	(0.947)	377715	80.0000	81	8956
48 Benzoic Acid	122	9.801	9.801	(0.989)	182250	400.000	310	5762 (AM)
49 o,o,o-Triethylphosphorothioat	198	9.627	9.627	(0.971)	197745	80.0000	72	9049
50 Bis(2-chloroethoxy)methane	93	9.587	9.587	(0.967)	747796	80.0000	90	9154
51 2,4-Dichlorophenol	162	9.709	9.709	(0.979)	419714	80.0000	78	
52 1,2,4-Trichlorobenzene	180	9.853	9.853	(0.994)	494251	80.0000	73	
53 Naphthalene	128	9.955	9.955	(1.004)	1340086	80.0000	78	9715
54 4-Chloroaniline	127	10.211	10.211	(1.030)	562931	80.0000	79	8862
55 2,6-Dichlorophenol	162	10.201	10.201	(1.029)	389596	80.0000	75	
56 Hexachloropropene	213	10.231	10.231	(1.032)	358000	80.0000	70	9382
57 Hexachlorobutadiene	225	10.405	10.405	(1.050)	306051	80.0000	71	9143
58 N-Nitroso-di-n-butylamine	84	11.040	11.040	(1.114)	222120	80.0000	98	9382
59 p-Phenylenediamine	108	11.112	11.112	(0.804)	6915	80.0000	67	(M)
60 4-Chloro-3-methylphenol	107	11.368	11.368	(1.147)	389376	80.0000	79	0 (M)
61 Safrole	162	11.388	11.388	(1.149)	337752	80.0000	76	9560
62 2-Methylnaphthalene	141	11.480	11.480	(1.158)	671678	80.0000	74	

Data File: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
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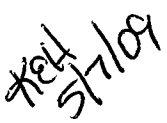
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 1-Methylnaphthalene	142	11.716	11.716	(1.182)	826385	80.0000	77	
64 Hexachlorocyclopentadiene	237	12.012	12.012	(0.869)	346719	80.0000	65	9610
65 1,2,4,5-Tetrachlorobenzene	216	11.951	11.951	(0.865)	510621	80.0000	71	9318
66 2,4,6-Trichlorophenol	196	12.227	12.227	(0.884)	296474	80.0000	72	
67 2,4,5-Trichlorophenol	196	12.299	12.299	(0.890)	319925	80.0000	70	
68 Isosafrole	162	12.043	12.043	(0.871)	57734	80.0000	72	
69 2-Chloronaphthalene	162	12.545	12.545	(0.907)	1115008	80.0000	71	
70 2-Nitroaniline	65	12.954	12.954	(0.937)	343035	80.0000	97	8824
71 1,4-Napthoquinone	158	13.005	13.005	(0.941)	366562	80.0000	75	9310
72 Dimethylphthalate	163	13.497	13.497	(0.976)	893975	80.0000	74	9612
73 1,3-Dinitrobenzene	168	13.486	13.486	(0.976)	195960	80.0000	86	0 (M)
74 2,6-Dinitrotoluene	165	13.619	13.619	(0.985)	248062	80.0000	73	9539
75 Acenaphthylene	152	13.476	13.476	(0.975)	1270818	80.0000	74	7918
76 3-Nitroaniline	138	13.896	13.896	(1.005)	236910	80.0000	82	8792
77 Acenaphthene	154	13.896	13.896	(1.005)	704876	80.0000	73	9033
78 2,4-Dinitrophenol	184	14.131	14.131	(1.022)	98231	80.0000	81	
79 4-Nitrophenol	139	14.418	14.418	(1.043)	227909	80.0000	100	9092
80 Pentachlorobenzene	250	14.326	14.326	(1.036)	486193	80.0000	69	9682
81 2,4-Dinitrotoluene	165	14.479	14.479	(1.047)	327724	80.0000	81	7445
82 Dibenzofuran	168	14.264	14.264	(1.032)	1153116	80.0000	73	9330
83 1-Naphthylamine	143	14.479	14.479	(1.047)	285300	80.0000	89	
84 2,3,4,6-Tetrachlorophenol	232	14.694	14.694	(1.063)	260577	80.0000	72	9623
85 2-Naphthylamine	143	14.663	14.663	(1.061)	408325	80.0000	120	
86 Diethylphthalate	149	15.104	15.104	(1.093)	947229	80.0000	74	7723
87 Zinophos	97	15.288	15.288	(1.106)	261222	80.0000	76	9103
88 4-Chlorophenyl-phenylether	204	15.114	15.114	(1.093)	465614	80.0000	74	7899
89 5-Nitro-o-toluidine	152	15.247	15.247	(1.103)	318612	80.0000	86	7301
90 Fluorene	166	15.032	15.032	(1.087)	896992	80.0000	74	8033
91 4-Nitroaniline	138	15.308	15.308	(1.107)	288203	80.0000	92	8712
92 4,6-Dinitro-2-methylphenol	198	15.380	15.380	(0.899)	179310	80.0000	85	0 (M)
93 N-Nitrosodiphenylamine	169	15.431	15.431	(0.902)	712847	80.0000	75	9339
95 1,2-Diphenylhydrazine	77	15.452	15.452	(1.118)	1364316	80.0000	92	9434
96 Sulfotep	322	16.117	16.117	(1.166)	160600	80.0000	66	8991
97 1,3,5-Trinitrobenzene	75	16.270	16.270	(0.951)	330676	80.0000	87	8895
98 Diallate (trans isomer)	86	16.189	16.189	(0.946)	358177	40.0000	44	
99 Diallate (trans) part of total	86	16.189	16.189	(0.946)	358177	40.0000	44	9135
100 Phorate	75	16.199	16.199	(0.947)	670432	80.0000	82	9202
101 Phenacetin	108	16.342	16.342	(0.955)	492571	80.0000	75	8816
102 Diallate (cis isomer)	86	16.352	16.352	(0.956)	117843	40.0000	44	
103 Diallate (cis) part of total	86	16.352	16.352	(0.956)	117843	40.0000	44	7364 (H)
104 4-Bromophenyl-phenylether	248	16.189	16.189	(0.946)	313153	80.0000	73	8413
105 Hexachlorobenzene	284	16.455	16.455	(0.962)	468895	80.0000	70	9097
106 Dimethoate	87	16.618	16.618	(0.971)	326290	80.0000	77	9201
107 4-Aminobiphenyl	169	16.823	16.823	(0.983)	710034	80.0000	81	0 (M)
108 Pentachlorophenol	266	16.905	16.905	(0.988)	235056	80.0000	74	8303
109 Pentachloronitrobenzene	237	17.089	17.089	(0.999)	146560	80.0000	69	7429
110 Pronamide	173	17.140	17.140	(1.002)	433828	80.0000	74	9504



Data File: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Report Date: 06-May-2009 17:13

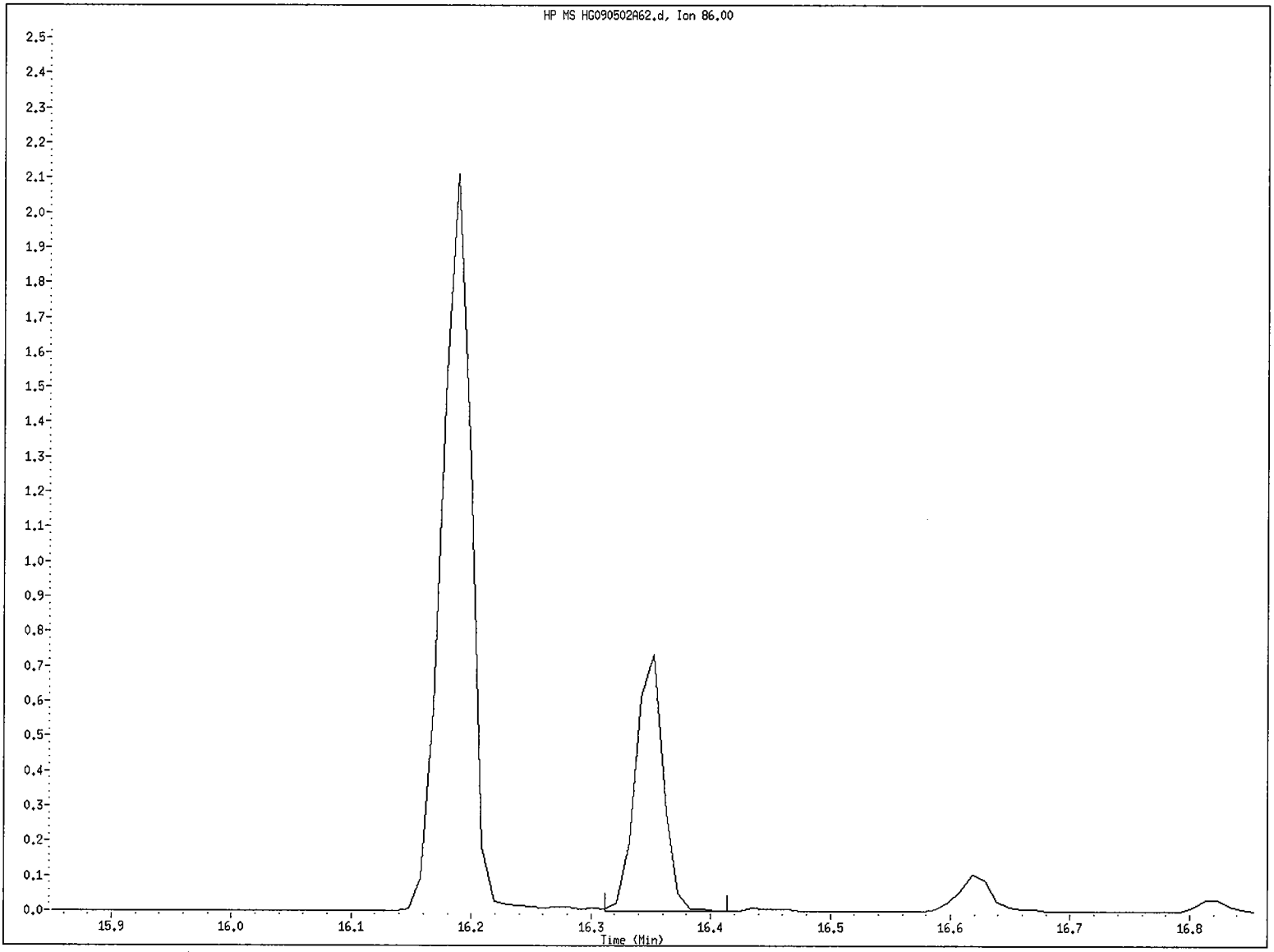
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
111	Disulfoton	88	17.376	17.376	(1.016)	535055	80.0000	84	9096
112	Phenanthrene	178	17.161	17.161	(1.003)	1317991	80.0000	76	
113	Anthracene	178	17.263	17.263	(1.009)	1416428	80.0000	78	
114	Carbazole	167	17.734	17.734	(1.036)	3348181	80.0000	78	9521
115	Methyl Parathion	109	18.205	18.205	(1.064)	312385	80.0000	77	9659
116	Di-n-butylphthalate	149	18.788	18.788	(1.098)	1754509	80.0000	76	9633
117	Parathion	109	19.136	19.136	(1.118)	222485	80.0000	78	8267
118	4-Nitroquinoline-1-oxide	190	19.034	19.034	(1.112)	142556	80.0000	83	9193
119	Methapyrilene	97	19.372	19.372	(1.132)	1224	80.0000	9.8	0 (M)
120	Isodrin	193	19.525	19.525	(1.141)	193314	80.0000	76	9642
121	Fluoranthene	202	19.832	19.832	(1.159)	1359039	80.0000	76	9633
122	Benzidine	184	20.293	20.293	(0.879)	316267	80.0000	73	8790
123	Pyrene	202	20.313	20.313	(0.880)	1459447	80.0000	71	9531
124	p-Dimethylaminoazobenzene	225	21.214	21.214	(0.919)	277012	80.0000	70	8884
125	Chlorobenzilate	251	21.378	21.378	(0.926)	390153	80.0000	58	9284
126	Kepone	272	Compound Not Detected.						
127	Famfur	218	Compound Not Detected.						
128	Butylbenzylphthalate	149	22.125	22.125	(0.958)	771303	80.0000	72	9597
129	3,3'-Dimethylbenzidine	212	21.972	21.972	(0.952)	474814	80.0000	66	9478
130	2-Acetylaminofluorene	181	22.576	22.576	(0.978)	487001	80.0000	67	9230
131	3,3'-Dichlorobenzidine	252	23.149	23.149	(1.003)	525395	80.0000	72	8701
132	bis(2-ethylhexyl)Phthalate	149	23.538	23.538	(1.020)	1019215	80.0000	70	9267
133	Benzo(a)anthracene	228	23.046	23.046	(0.998)	1425472	80.0000	74	
134	Chrysene	228	23.149	23.149	(1.003)	1252035	80.0000	73	
135	Di-n-octylphthalate	149	24.838	24.838	(0.953)	1597569	80.0000	67	(M)
136	7,12-Dimethylbenz(a)anthracene	256	25.411	25.411	(0.975)	662481	80.0000	78	8696
137	Benzo(b)fluoranthene	252	25.349	25.349	(0.973)	1618376	80.0000	76	
138	Benzo(k)fluoranthene	252	25.401	25.401	(0.974)	1501521	80.0000	81	
139	Benzo(a)pyrene	252	25.953	25.953	(0.996)	1458923	80.0000	79	
140	3-Methylcholanthrene	268	26.762	26.762	(1.027)	762915	80.0000	75	9561
141	Indeno(1,2,3-c,d)pyrene	276	28.471	28.471	(1.092)	1193010	80.0000	69	0 (M)
142	Dibenzo(a,h)anthracene	278	28.553	28.553	(1.095)	1165346	80.0000	68	7982
143	Benzo(g,h,i)perylene	276	29.167	29.167	(1.119)	1299609	80.0000	71	9395
198	4-Chlorophenol	128	Compound Not Detected.						
199	2,5-Dichlorophenol	162	Compound Not Detected.						
M 144	Diallate Total	86				476020	80.0000	88	0
201	a,a-Dimethylphenethylamine	58	10.272	10.272	(1.036)	737701	80.0000	110	3541 (M)
202	Aramite	185	21.132	21.132	(0.915)	76494	80.0000	62	8568

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

KEK 5/7/09

Diallate (cis) part of total CAS Number 17708-57-5 Area = 117843 User selected



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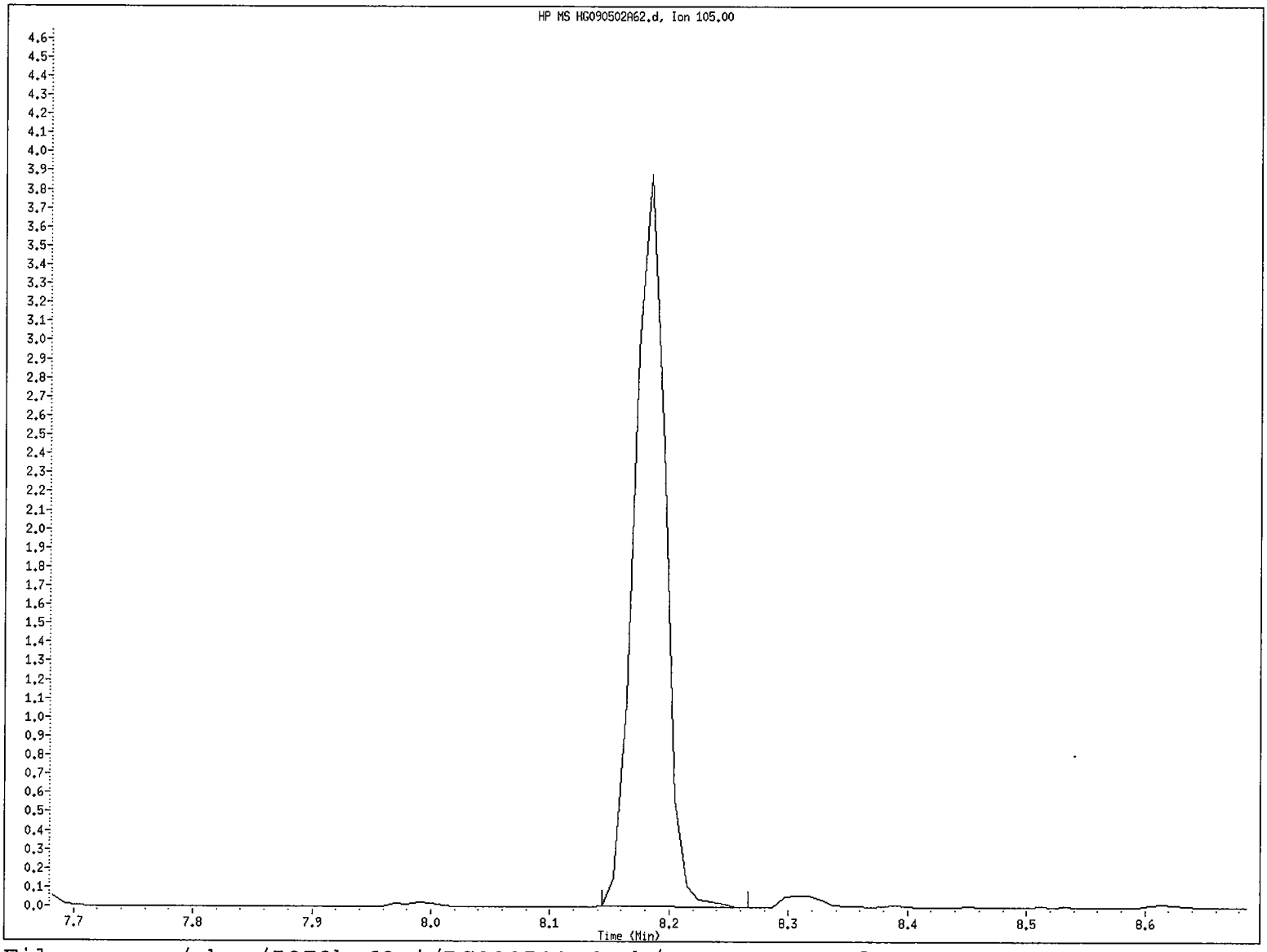
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 16.35
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 689460 Manually integrated



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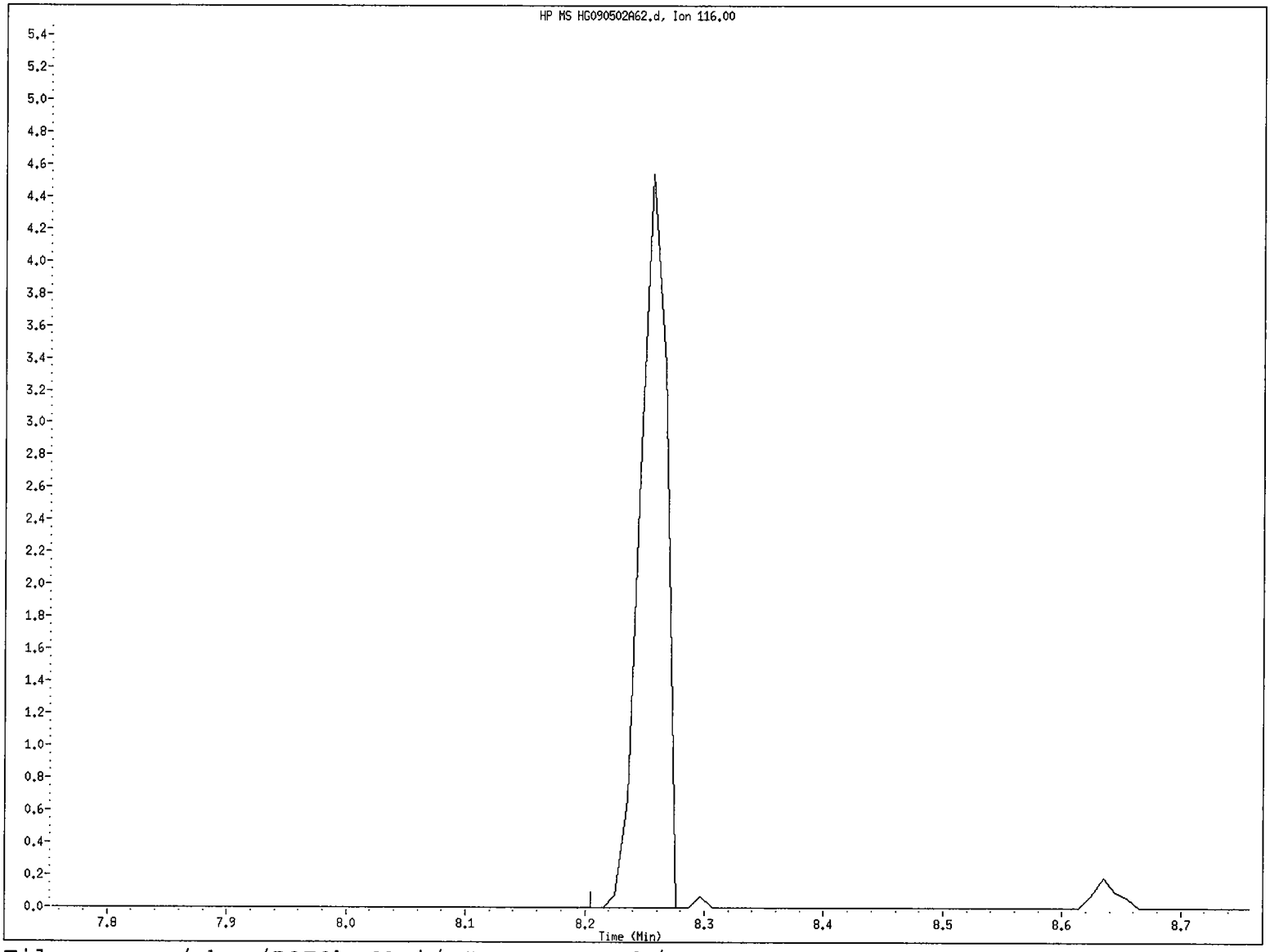
Retention Time: 8.18
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 69649 Manually integrated



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Instrument ID: 5972hp62.i
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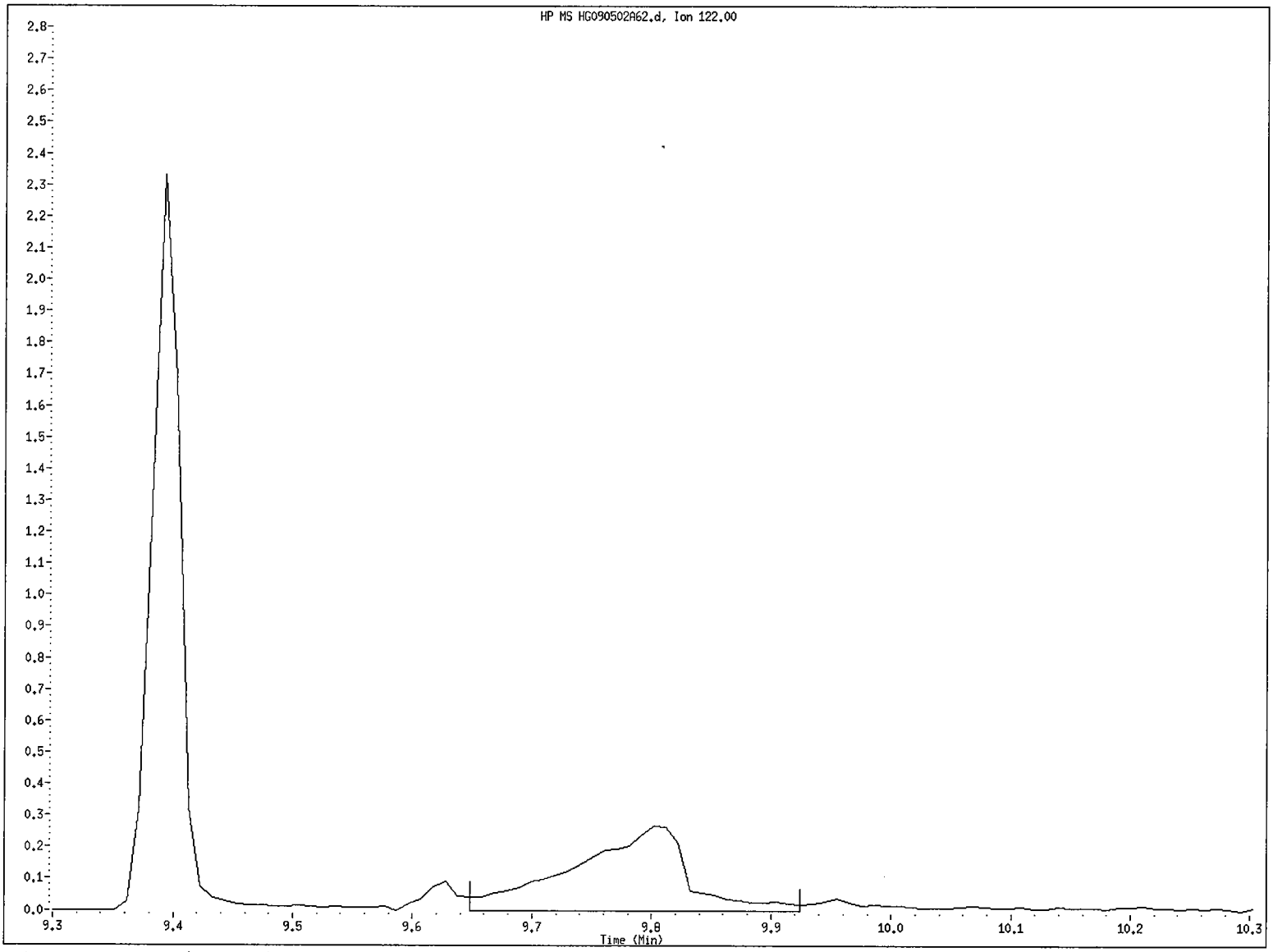
Retention Time: 8.26
Operator ID: 2650

Benzoic Acid CAS Number 65-85-0 Area = 182250 Manually integrated



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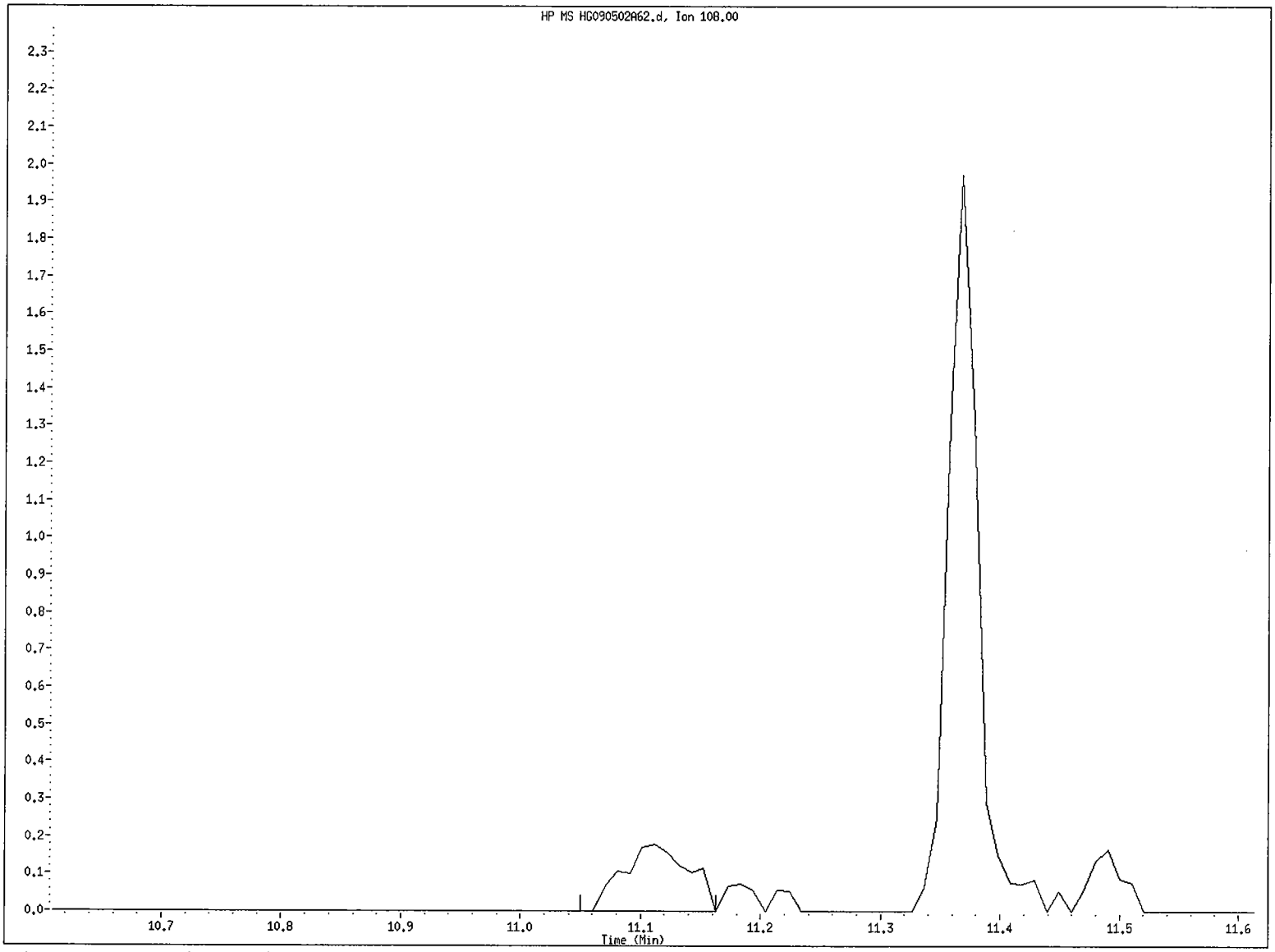
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 9.80
Operator ID: 2650

p-Phenylenediamine CAS Number 106-50-3 Area = 6915 Manually integrated



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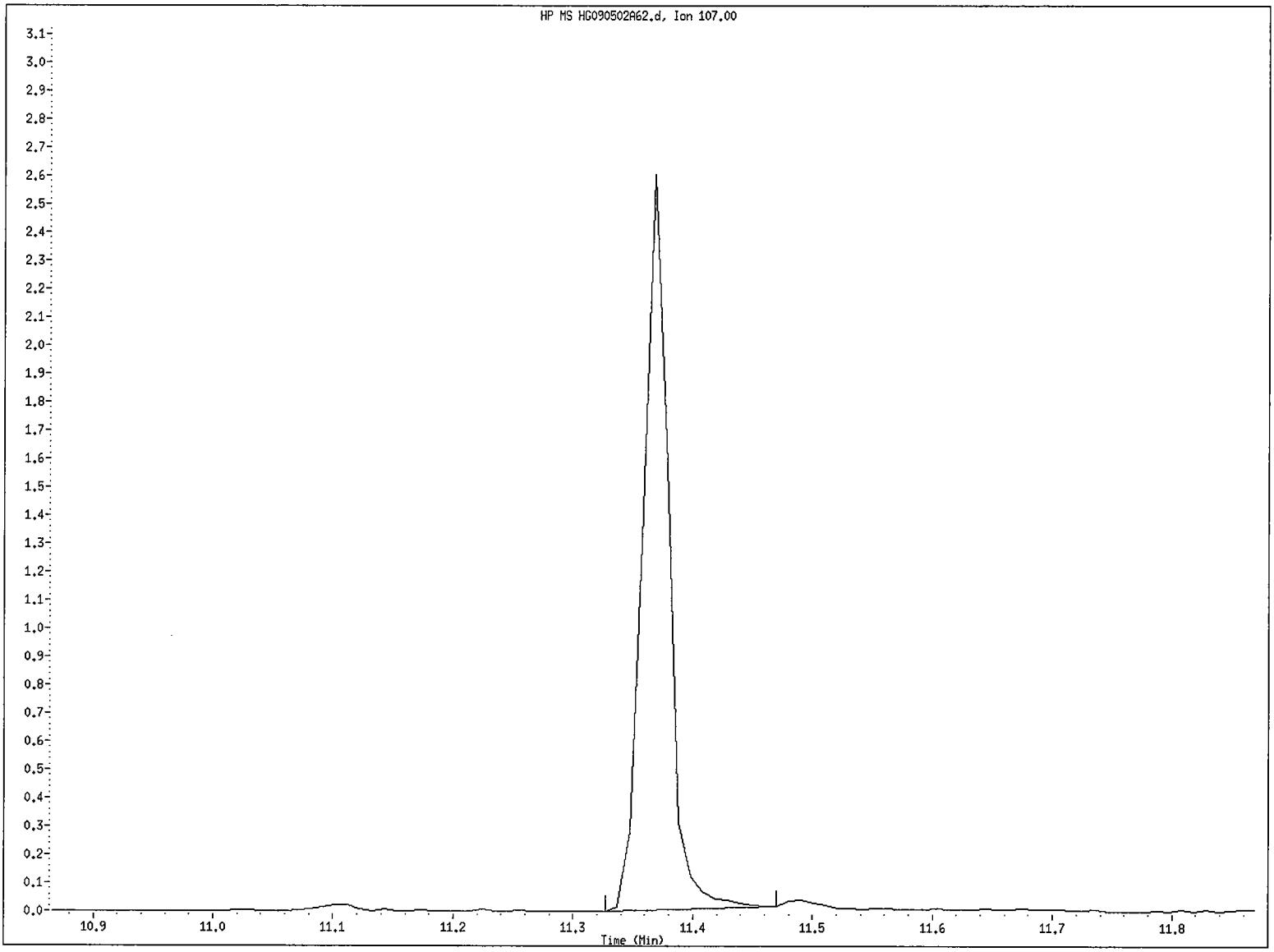
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 11.11
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 389376 Manually integrated



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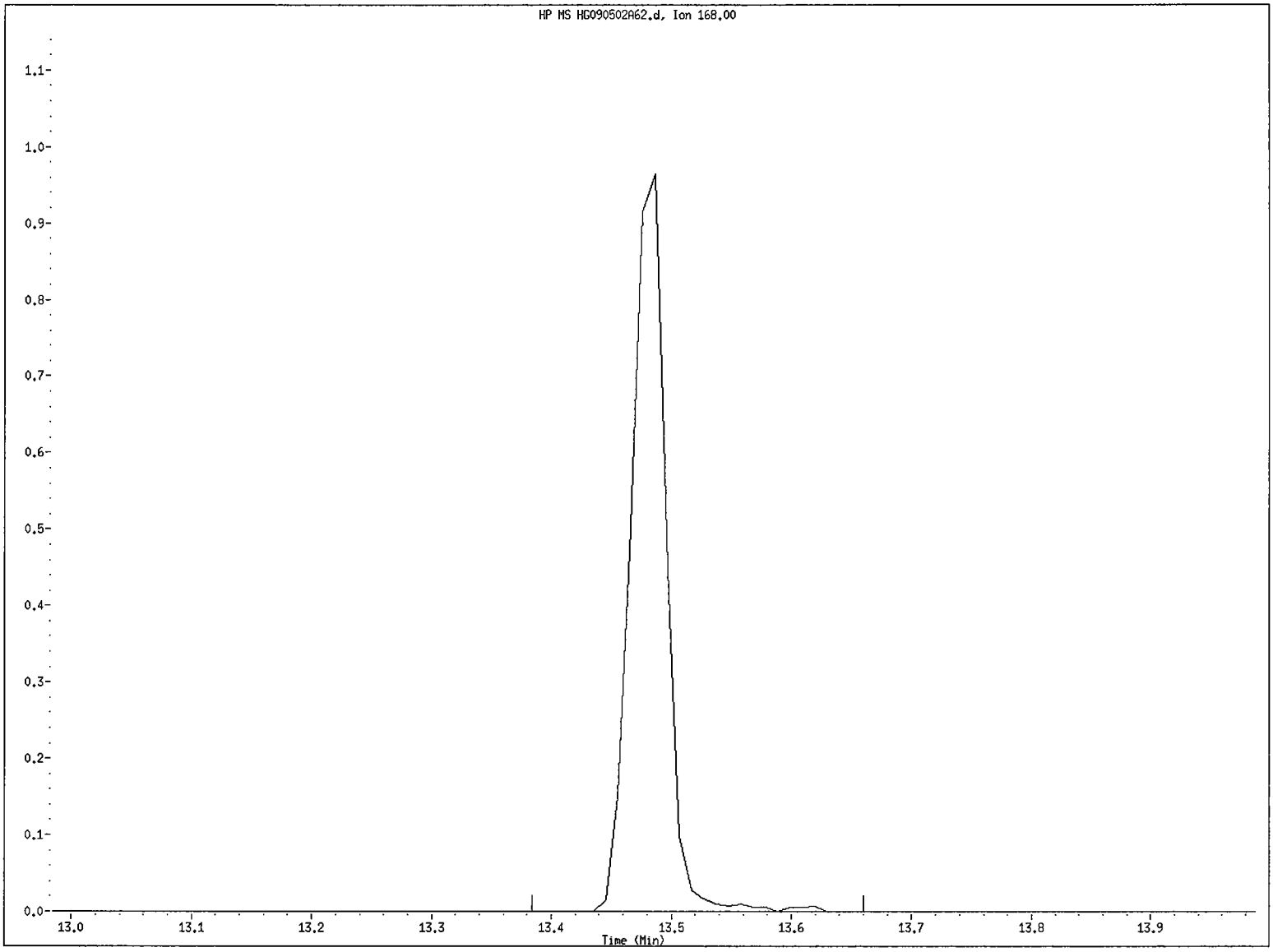
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 11.37
Operator ID: 2650

1,3-Dinitrobenzene CAS Number 99-65-0 Area = 195960 Manually integrated



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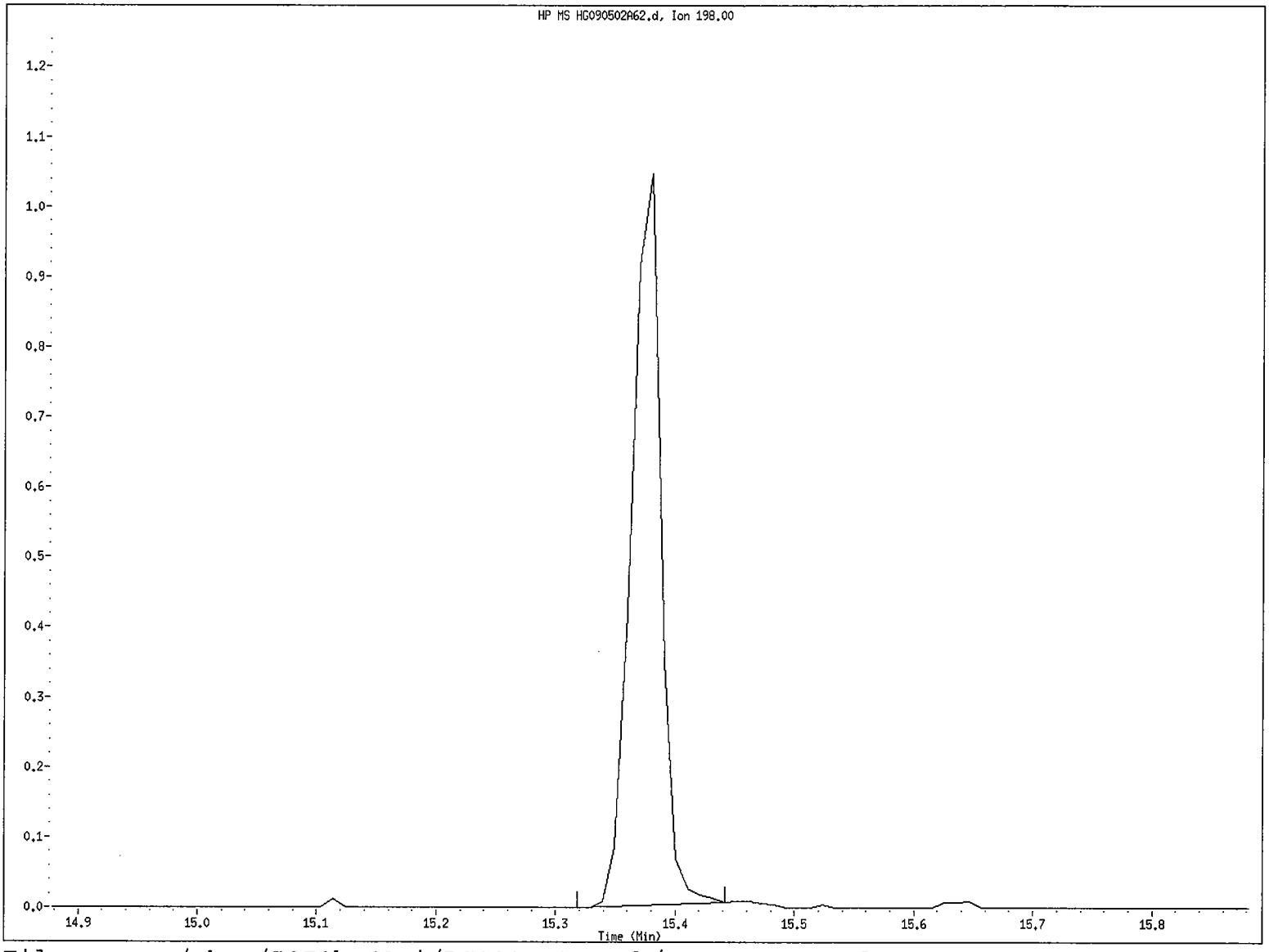
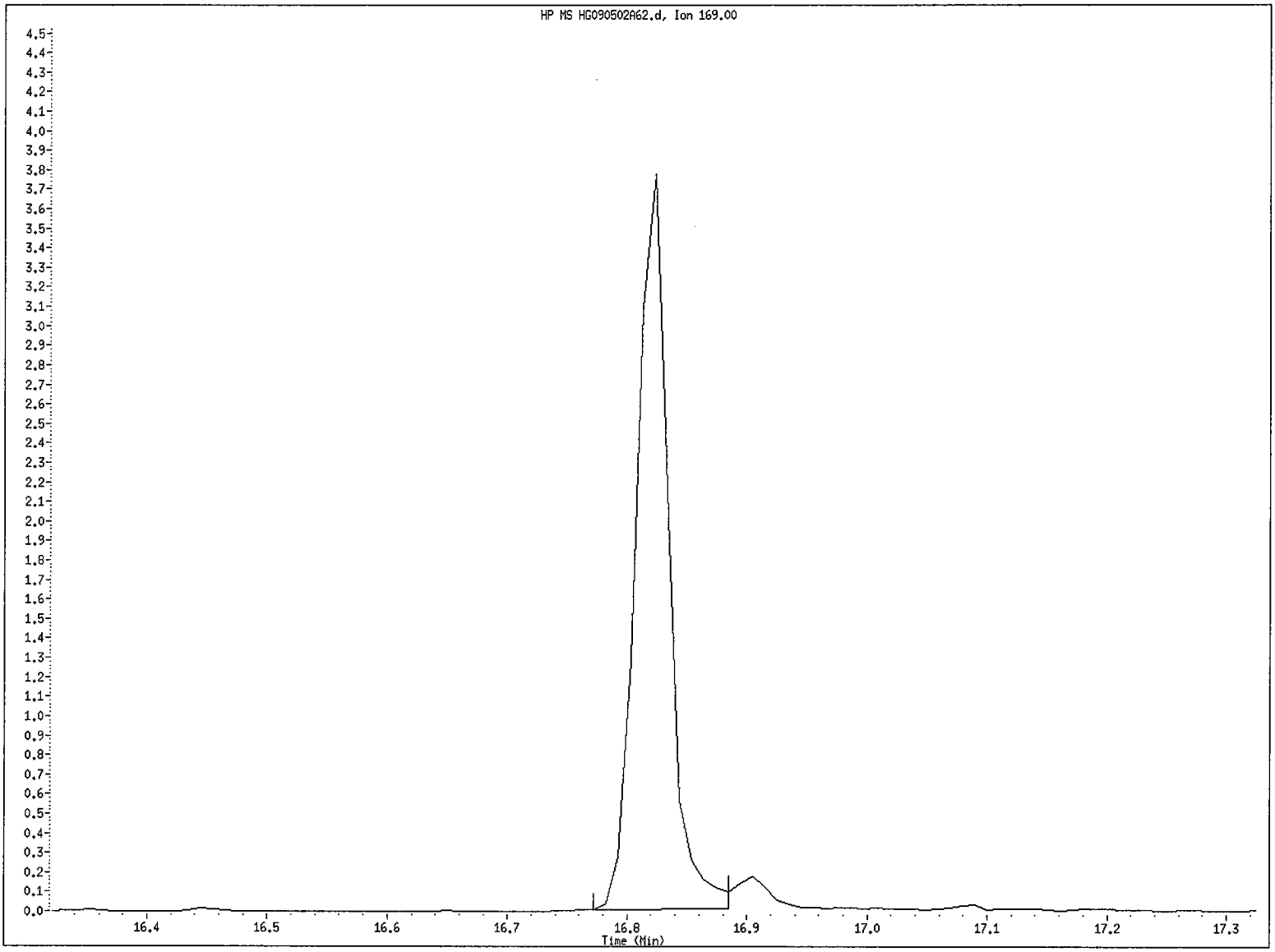
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 13.49
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 179310 Manually integrat



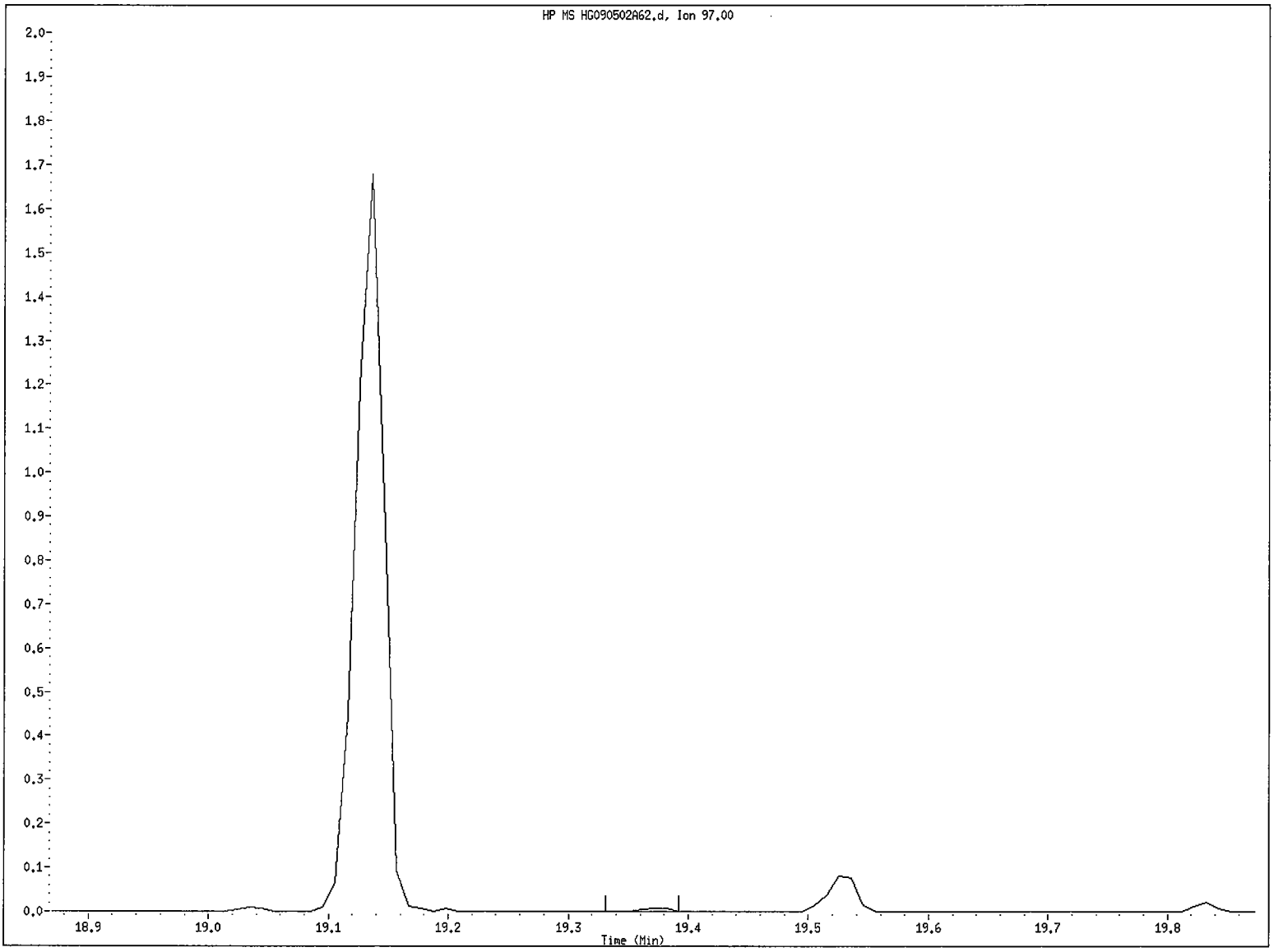
File name: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 15.38
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 710034 Manually integrated



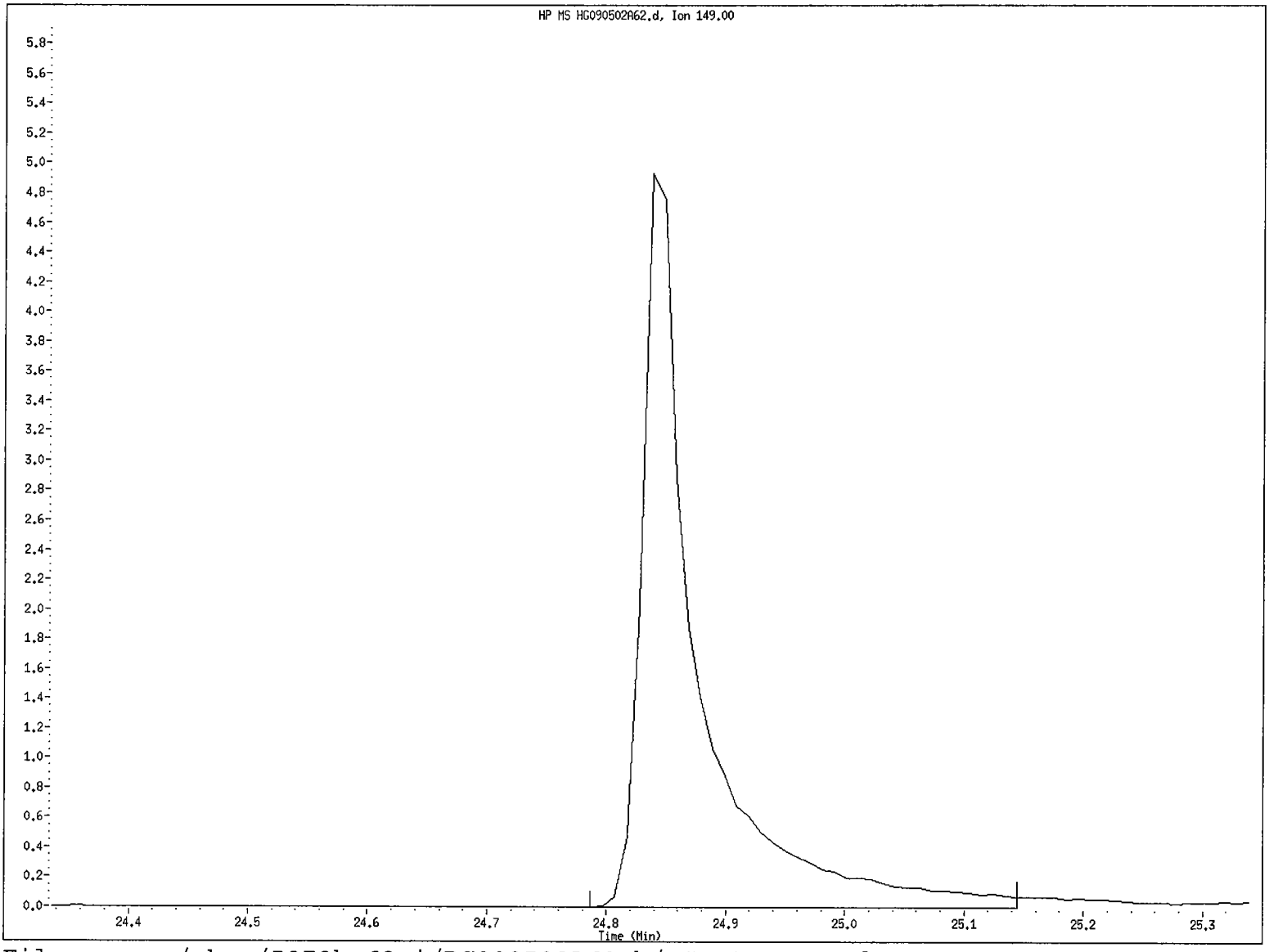
File name: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 16.82
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 1224 Manually integrated



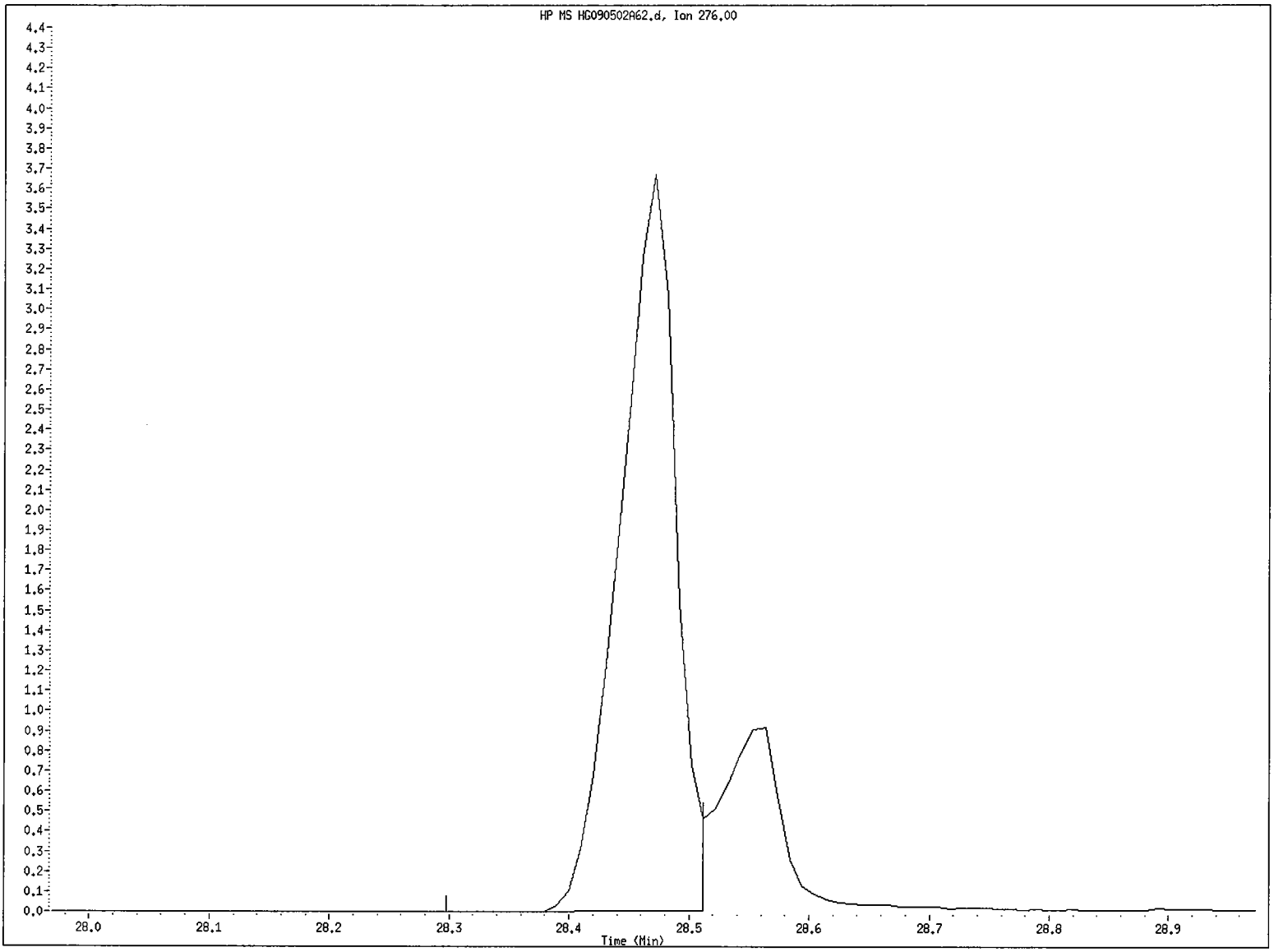
File name: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 19.37
Operator ID: 2650

Di-n-octylphthalate CAS Number 117-84-0 Area = 1597569 Manually integrated



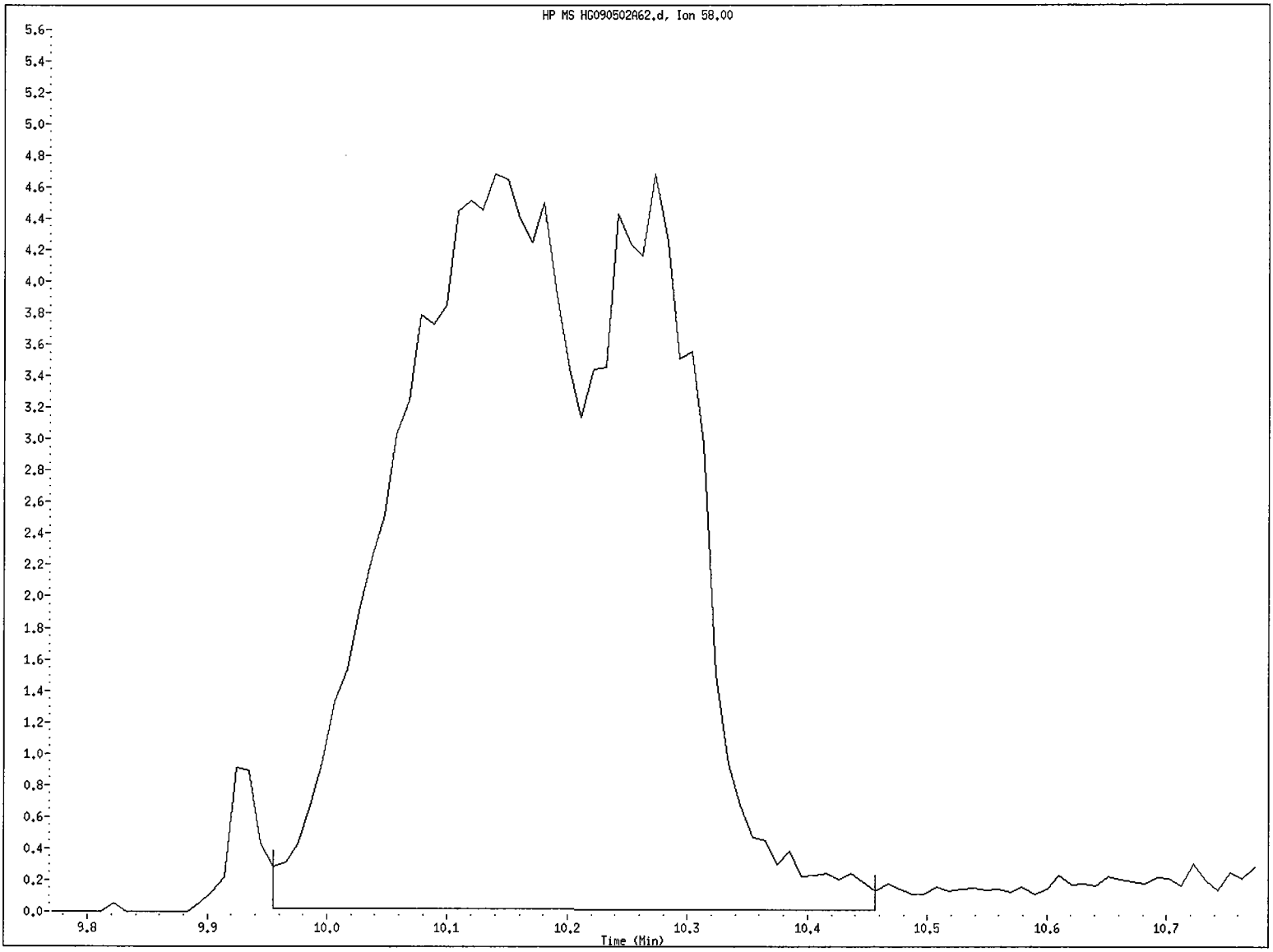
File name: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 24.84
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1193010 Manually integrated



File name: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 28.47
Operator ID: 2650

a,a-Dimethylphenethylamine CAS Number 122-09-8 Area = 737701 Manually integrat



File name: /chem/5972hp62.i/DG090502A62.b/HG090502A62.d
Client ID: SSTD080
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 12:35
Retention Time: 10.27
Operator ID: 2650

COMPUCHEM a Division of Liberty Analytical Corp DATE 5/2/09 INITIAL TIME OF TUNE 1216 SHIFT/S(A) ✓ (B)____ (C)____
TIME TUNE EXPIRES 0016 METHOD APIX
GC/MS SEMIVOLATILE RUN LOG
LOGBOOK 4 Y (4) 8 (5972hp62) PREVENTIVE MAINTENANCE Front/Liner/Septa

		FILENAME		DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS (ETC.)/DISPOSITION
1		DF090502A62	✓	5/2/09	1216	DFTPP	—	2µL	2650	SCD=LCD
2		HC090502A62	✓	/ /	1235	SSTD080	—			Carbazole 61860 4/30/09
3		0904098-01A62	✓	/ /	1318	13MW5	0904098			
4	✓	9041633-MS2A62	SPA	/ /	1359	13MW5MS02				
5	✓	9041633-MSD2A62	SPA	/ /	1441	13MW5MSD02				
6		0904098-02A62	✓	/ /	1523	13MW3				
7		0904098-03A62	✓	/ /	1605	13MW4				
8		0904098-04A62	✓	/ /	1647	13MWDup				
9		0904098-05A62	✓	/ /	1729	13MW6				
10		0904098-06A62	✓	/ /	1811	13MW7	↓			
11		0904096-01A62	✓	/ /	1853	7W11B	0904096			
12	✓	9041633-MS1A62	SPA	/ /	1935	7W11BMS01				
13	✓	9041633-MSD1A62	SPA	/ /	2059 17	7W11BMSD01				* 2059
14		0904096-02A62	✓	/ /	~~2141~~ *	7W12B				* 2141 } TMP 5/4/09
15		0904096-03A62	✓	/ /	~~2223~~ *	7WCA				* 2223
16		0904096-04A62	✓	/ /	~~2305~~ *	7W Dup				
17		0904096-05A62	✓	↓ /	2305	7MW6	↓	↓	↓	
18				/ /						
19				/ /						
20				/ /		TMP	5/4/09			
21				/ /						
22				/ /						

DFTPP Lot #/Exp. Date: 7055 61757 6/10/09
Calibration STD Lot#/Exp. Date: APIX 62090 6/30/09
Internal STD Lot#/Exp. Date: 800 62085 10/24/09
Methylene Chloride Lot#/Exp. Date: 48028 7/1/11
Column Type: RTX-5MS 0.32mm

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: JMS DATE 4-May-09

12/13/08 sw

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP60 Calibration Date: 05/02/09 Time: 0945

Lab File ID: HG090502A60 Init. Calib. Date(s): 05/01/09 05/01/09

Init. Calib. Times: 1257 1505

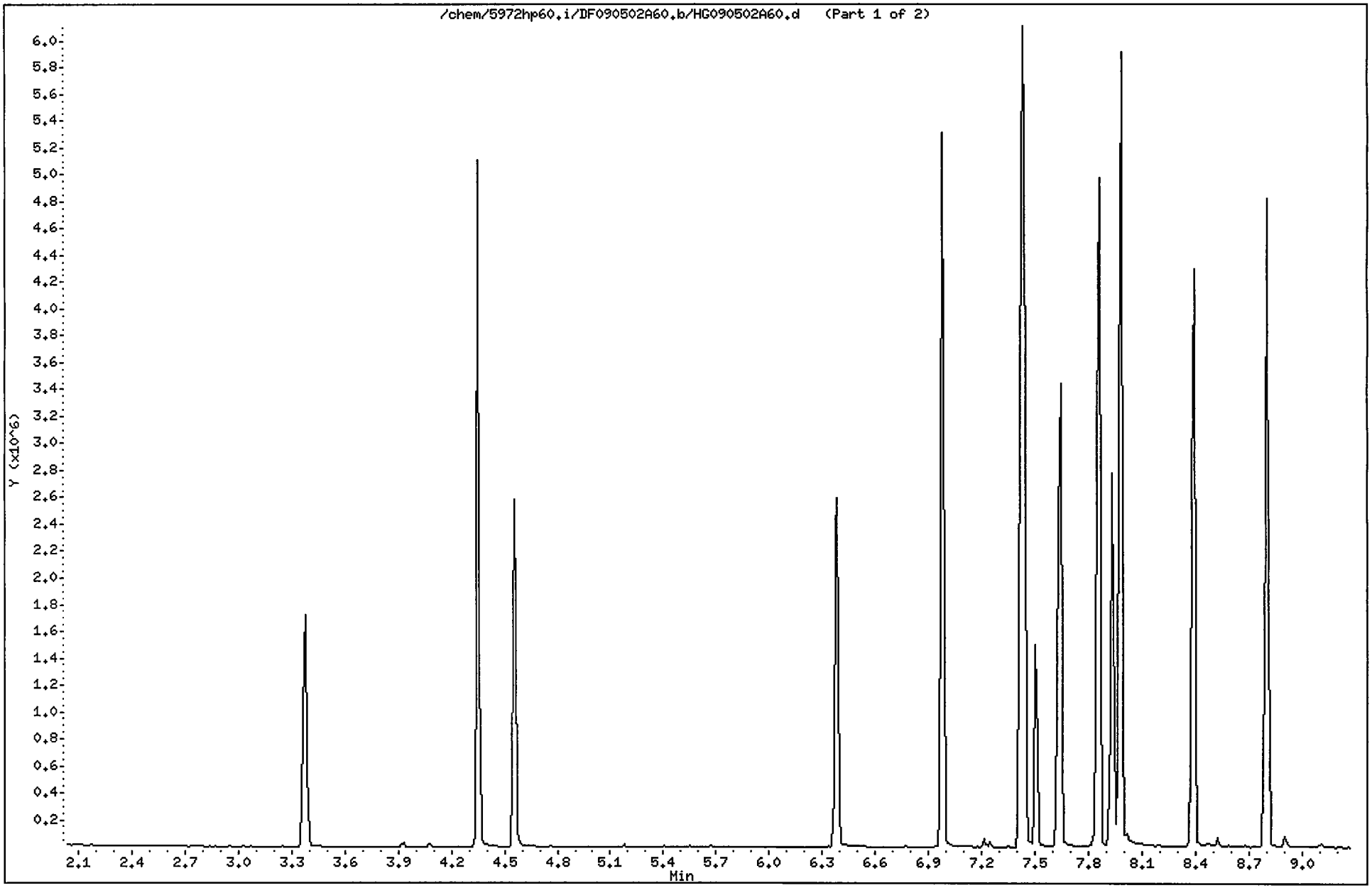
GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Famfur	0.6770000	0.6344987	0.01	-6.28	90.00	AVRG

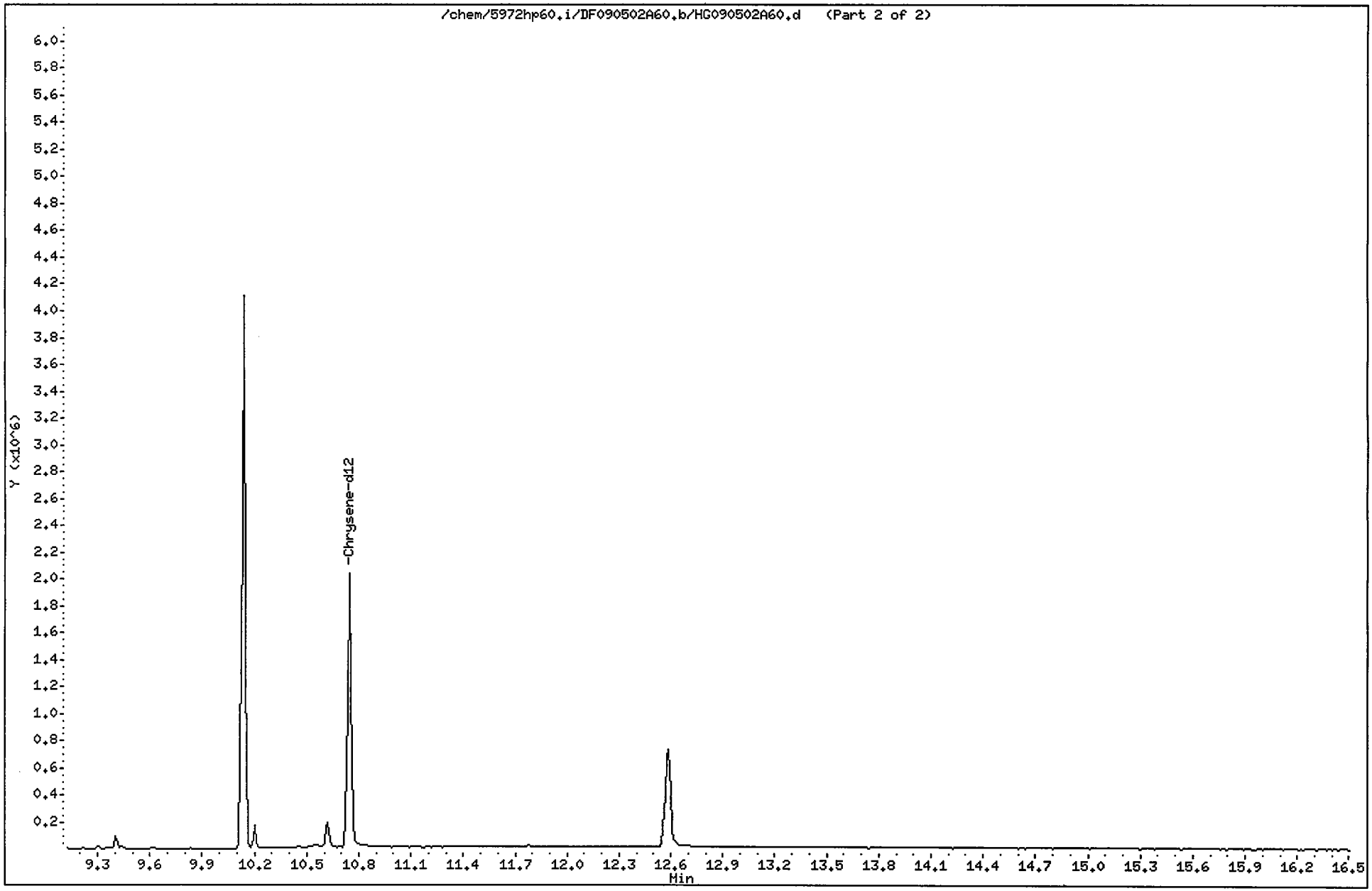
FORM VII SV

Data File: /chem/5972hp60.i/DF090502A60.b/HG090502A60.d
Date : 02-MAY-2009 09:45
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/HG090502A60.d
Date : 02-MAY-2009 09:45
Client ID: SSTD080
Instrument: 5972hp60.i
Sample Info: SSTD080;2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/HG090502A60.d
Report Date: 02-May-2009 10:21

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/HG090502A60.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 02-MAY-2009 09:45
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD080:2650
Misc Info : FAMFUR
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 02-May-2009 10:21 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 12:57 Cal File: HG090501A60.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.745	10.745	(1.000)	939708	40.0000		
127 Famfur	218	10.141	10.141	(0.944)	1192487	80.0000	75	9189

T.P 5/12/09

GC/MS SEMIVOLATILE RUN LOG — Test America Inc. formerly Severn Trent Laboratories, Inc. (STL)
COMPUCHEM LOGBOOK 4-V (4) 19 (5972hp60)

DATE 5/2/09 INITIAL TIME OF TUNE 0926 SHIFT/S (A) ✓ (B)_____ (C)_____
TIME TUNE EXPIRES 2126 METHOD Famfav Kepone

PREVENTIVE MAINTENANCE NONE

	SEQUENCE#	INJECTED	FILENAME	REPORTED	DATE	TIME	CLIENT ID	SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS
1			DF090502A60	✓	5/2/09	0926	DFTPP	—	2µL	2650	SCD-LCD
2			HF090502A60	✓	/ /	0945	SSTD080	=			62082 10/14/09 Famfav
3			HH090502A60	✓	/ /	1011	↓	=			62066 ↓ Kepone
4		✓	0904098-02A60	1L	/ /	1040	13MW3	0904098			
5			0904098-03A60	✓	/ /	1106	13MW4				
6			0904098-04A60	✓	/ /	1131	13MWDup				
7			0904098-02SA60	✓	/ /	1157	13MW3				
8			0904098-05A60	✓	/ /	1223	13MW6				
9			0904098-06A60	✓	/ /	1248	13MW7	↓			
10			0904096-01A60	✓	/ /	1313	7W11B	0904096			
11			9041633-MS1A60	✓	/ /	1339	7W11BMS01				
12			9041633-MSD1A60	✓	/ /	1405	7W11BMSD01				
13			0904096-02A60	✓	/ /	1430	7W12B				
14			0904096-03A60	✓	/ /	1455	7WCA				
15			0904096-04A60	✓	/ /	1520	7WDup				
16			0904096-05A60	✓	/ /	1546	7MW6	↓			
17			9041633-MSD2SA60	✓	/ /	1612	13MW5MSD02	0904098	↓	↓	
18					/ /						
19					/ /						
20					/ /		TMP 5/4/09				
21					/ /				1		
22					/ /						
23					/ /						
24					/ /						

DFTPP Lot #/Exp. Date: 7055 6757 6/10/09

Calibration STD Lot#/Exp. Date: See Comments

Internal STD Lot#/Exp. Date: 800 62085 10/24/09

Methylene Chloride Lot#/Exp. Date: 48028 7/1/11

Column Type: RTX-5MS 0.32m

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: JMS DATE 4 May 09

9/2/08: vr

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: 5972HP60 Calibration Date: 05/02/09 Time: 1011

Lab File ID: HH090502A60 Init. Calib. Date(s): 05/01/09 05/01/09

Init. Calib. Times: 1556 1802

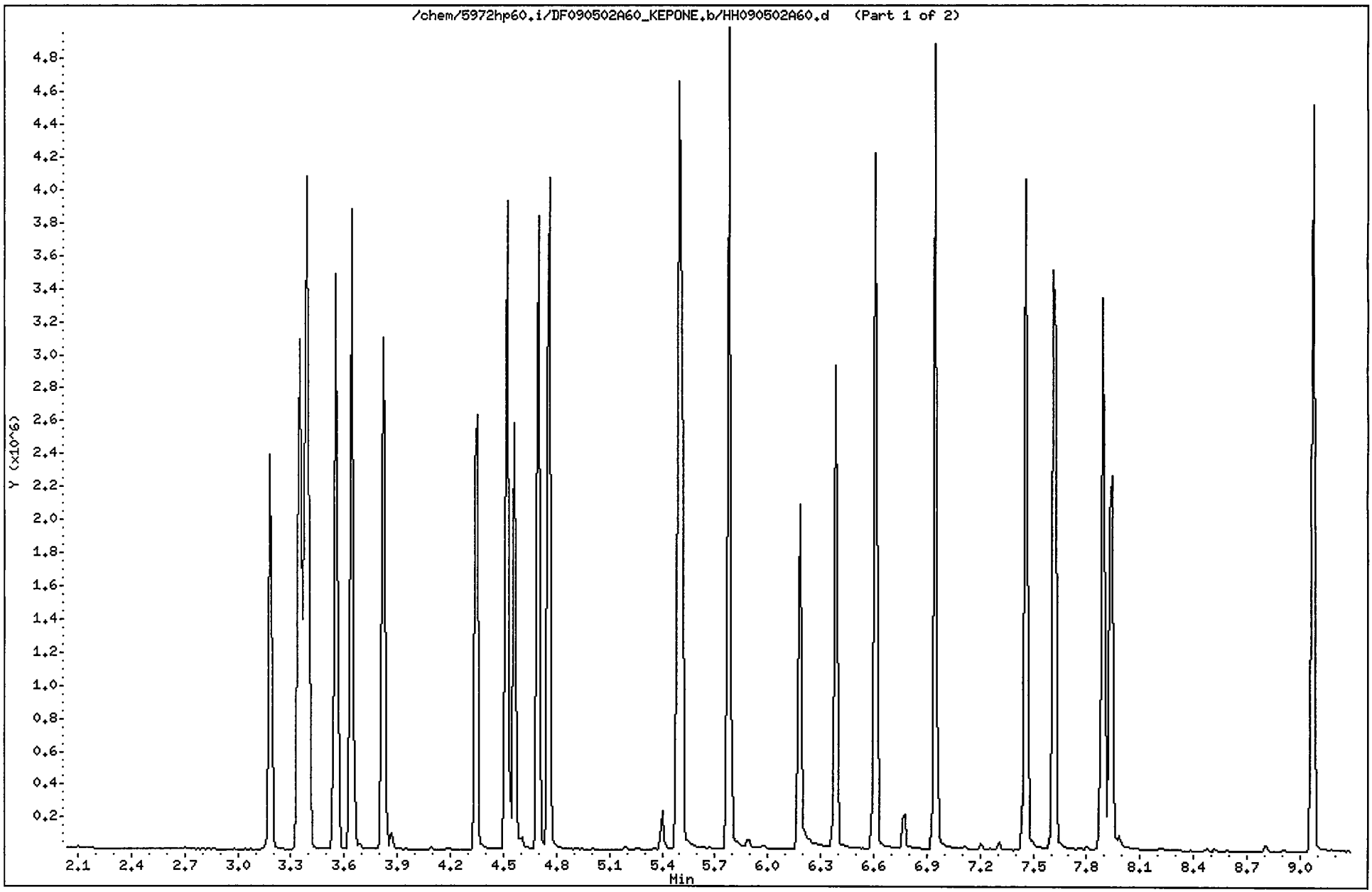
GC Column: RTX-5MS ID: 0.32 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Kepone	0.1700000	0.1673972	0.01	-1.53	90.00	AVRG

FORM VII SV

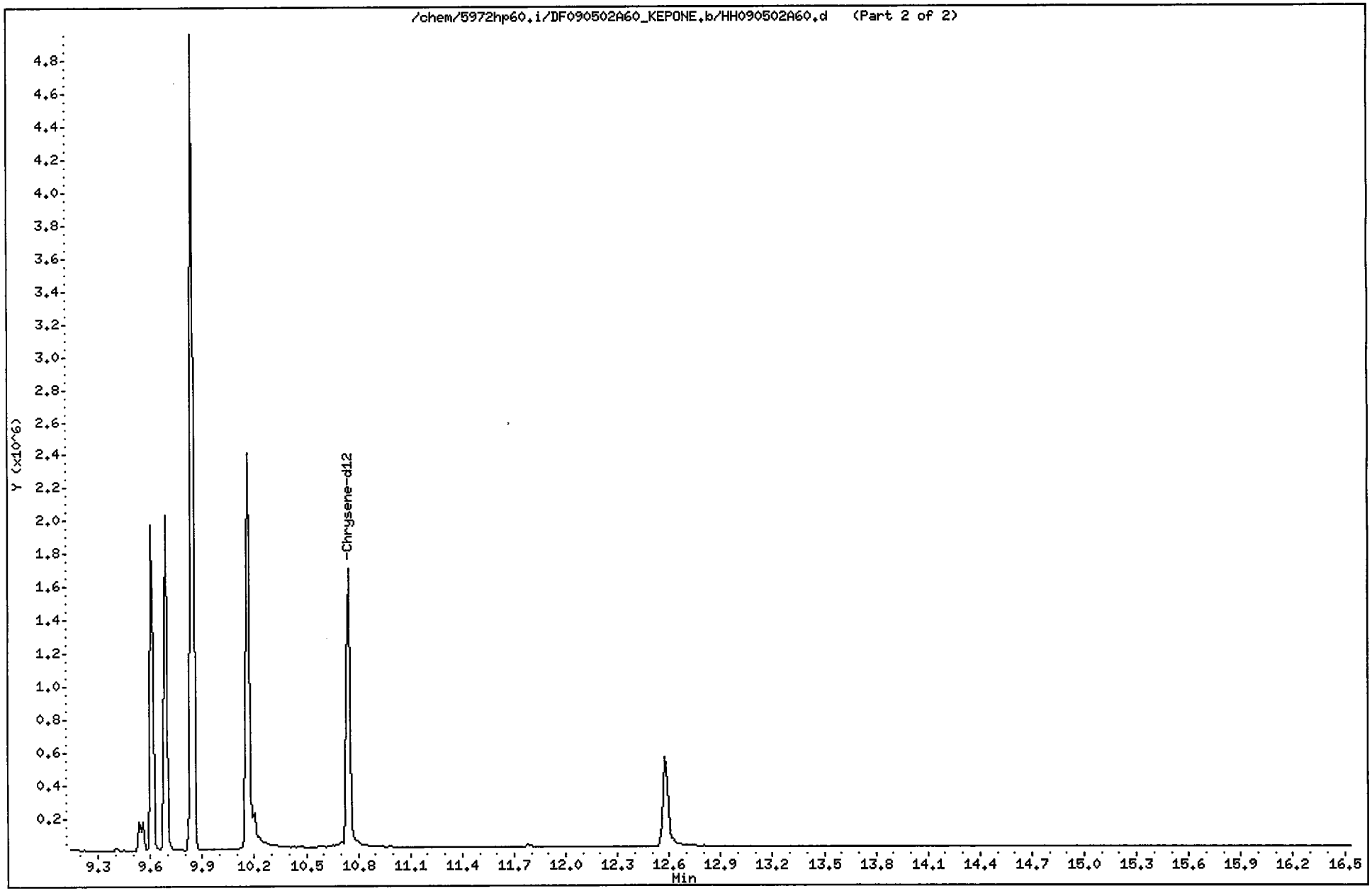
Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/HH090502A60.d
Date : 02-MAY-2009 10:11
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/HH090502A60.d
Date : 02-MAY-2009 10:11
Client ID: SSTD080
Sample Info: SSTD080:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/HH090502A60.d
Report Date: 02-May-2009 10:34

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/HH090502A60.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 02-MAY-2009 10:11
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : SSTD080:2650
Misc Info : KEPONE
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 02-May-2009 10:34 perry Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
* 5 Chrysene-d12	240	10.744	10.744	(1.000)	902479	40.0000		
126 Kepone	272	10.161	10.161	(0.946)	302145	80.0000	78	9825

TMP 5/2/09

GC/MS SEMIVOLATILE RUN LOG
COMPUCHEM LOGBOOK 4 V (4) 19 (5972hp60)

DATE 5/2/09 INITIAL TIME OF TUNE 0926 SHIFT/S (A) ✓ (B)_____ (C)_____
TIME TUNE EXPIRES 2126 METHOD Fanfar (Kepone)

PREVENTIVE MAINTENANCE NONE

	SEQUENCE#	REJECTED	FILENAME	ACCEPTED	DATE	TIME	CLIENT ID	SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS
1			DF090502A60	✓	5/2/09	0926	DFTPP	—	2µL	2650	SCD=LCD
2			HF090502A60	✓	/ /	0945	SSTD050	—			62082 10/14/09 Fanfar
3			HH090502A60	✓	/ /	1011	↓	—			620666 ↓ Kepone
4		✓	0904098-02A60	1L	/ /	1040	13MW3	0904098			
5			0904098-03A60	✓	/ /	1106	13MW4				
6			0904098-04A60	✓	/ /	1131	13MWDup				
7			0904098-02SA60	✓	/ /	1157	13MW3				
8			0904098-05A60	✓	/ /	1223	13MW6				
9			0904098-06A60	✓	/ /	1248	13MW7	↓			
10			0904096-01A60	✓	/ /	1313	7W11B	0904096			
11			9041633-MS1A60	✓	/ /	1339	7W11BMS01				
12			9041633-MSD1A60	✓	/ /	1405	7W11BMSD01				
13			0904096-02A60	✓	/ /	1430	7W12B				
14			0904096-03A60	✓	/ /	1455	7WCA				
15			0904096-04A60	✓	/ /	1520	7WDup				
16			0904096-05A60	✓	/ /	1546	7MW6	↓			
17			9041633-MSD2SA60	✓	/ /	1612	13MW5MSD02	0904098	↓	↓	
18					/ /						
19					/ /						
20					/ /		TMP 5/4/09				
21					/ /						
22					/ /						
23					/ /						
24					/ /						

DFTPP Lot #/Exp. Date: 7055 6757 6/10/09

Calibration STD Lot#/Exp. Date: See Comments

Internal STD Lot#/Exp. Date: 850 62085 10/24/09

Methylene Chloride Lot#/Exp. Date: 48028 7/1/11

Column Type: RTX-5MS 0.32m

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 4 May 09

9/2/08: vr

4. Raw QC Data

   a. DFTPP/PFTBA Data

   b. Blank Data

   c. Laboratory Control Sample Data

   d. Matrix Spike Data

   e. Matrix Spike Duplicate Data

a. DFTPP/PFTBA Data

For each 12 hour period, per instrument utilized, include:

- Bar Graph spectrum and Tabulated Relative Abundances

- Mass listing

- Reconstructed ion chromatogram

- Tailing Factors for Benzidine and Pentachlorophenol

- Determination of DDT Breakdown

-PFTBA (FC-43) Scan

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d

Date : 30-APR-2009 16:03

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

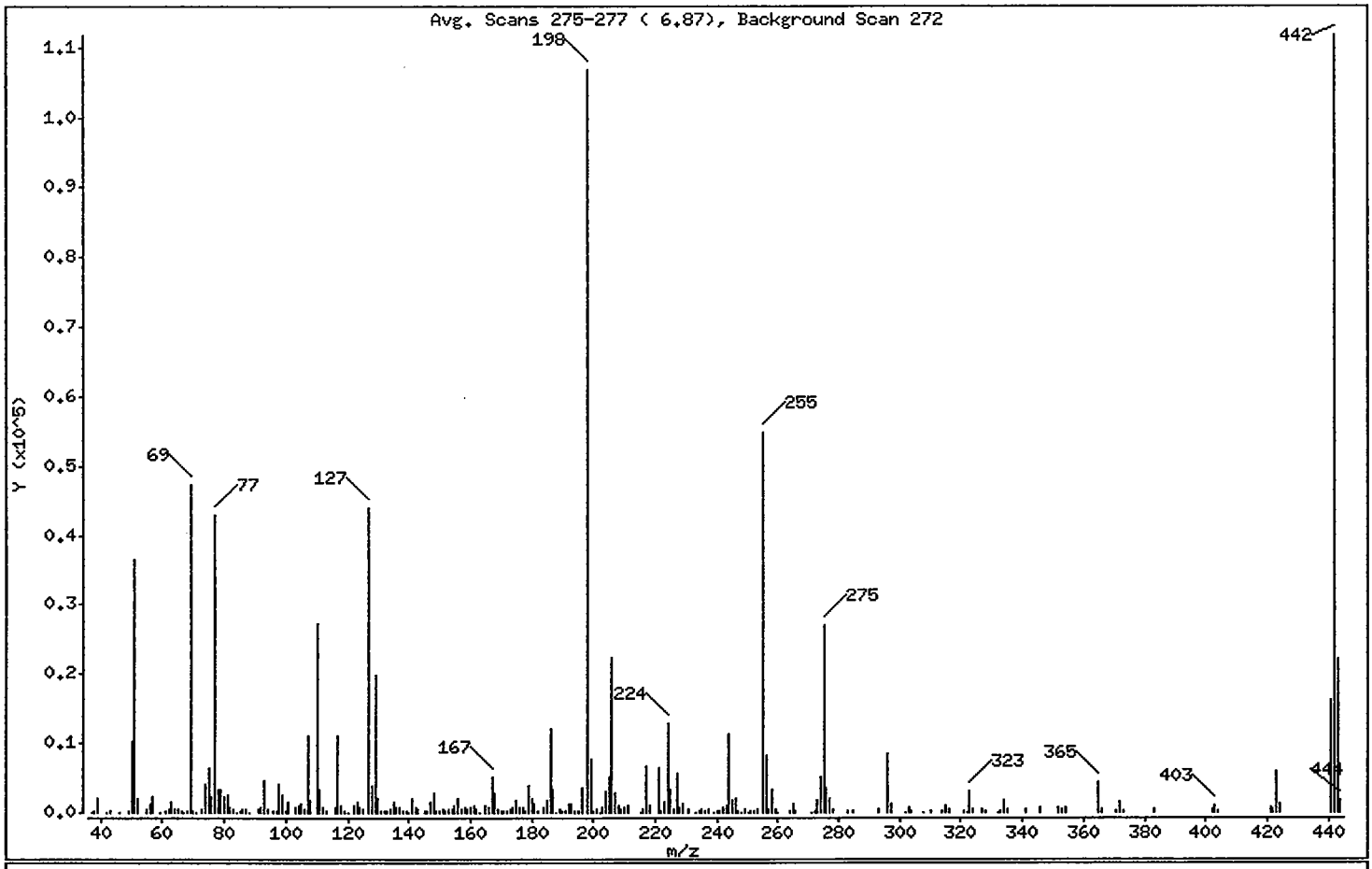
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	34.29
68	Less than 2.00% of mass 69	0.17 (0.39)
69	Mass 69 relative abundance	44.40
70	Less than 2.00% of mass 69	0.32 (0.73)
127	25.00 - 75.00% of mass 198	41.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.12
275	10.00 - 30.00% of mass 198	25.27
365	Greater than 0.75% of mass 198	4.17
441	Present, but less than mass 443	15.26
442	40.00 - 110.00% of mass 198	104.60
443	15.00 - 24.00% of mass 442	20.75 (19.84)

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d

Date : 30-APR-2009 16:03

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090430A62.d

Spectrum: Avg. Scans 275-277 (6.87), Background Scan 272

Location of Maximum: 442.00

Number of points: 247

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	48	117.00	11050	184.00	648	256.00	8330
38.00	247	118.00	1077	185.00	1747	257.00	567
39.00	2008	119.00	267	186.00	12080	258.00	3331
42.00	36	120.00	115	187.00	3312	259.00	512
43.00	319	122.00	1064	188.00	91	260.00	116
46.00	117	123.00	1472	189.00	558	264.00	133
49.00	145	124.00	766	190.00	168	265.00	1331
50.00	10399	125.00	526	191.00	375	266.00	314
51.00	36632	127.00	44056	192.00	1162	271.00	125
52.00	1984	128.00	3821	193.00	1212	272.00	281
55.00	509	129.00	19752	194.00	282	273.00	1777
56.00	1176	130.00	1990	195.00	144	274.00	5102
57.00	2387	131.00	247	196.00	3477	275.00	26992
59.00	100	132.00	314	198.00	106832	276.00	3558
61.00	321	133.00	163	199.00	7610	277.00	2072
62.00	451	134.00	562	200.00	285	278.00	420
63.00	1462	135.00	1440	201.00	573	283.00	322
64.00	420	136.00	726	202.00	107	285.00	367
65.00	478	137.00	776	203.00	800	293.00	419
66.00	308	138.00	140	204.00	3189	296.00	8412
67.00	24	139.00	147	205.00	5131	297.00	1229
68.00	186	140.00	123	206.00	22456	302.00	122
69.00	47432	141.00	2153	207.00	2797	303.00	889
70.00	347	142.00	882	208.00	994	304.00	150
71.00	52	143.00	518	209.00	430	308.00	121
73.00	510	145.00	270	210.00	681	310.00	150
74.00	4208	146.00	276	211.00	936	314.00	177
75.00	6412	147.00	1452	215.00	123	315.00	1049
76.00	2357	148.00	2787	216.00	630	316.00	538
77.00	42896	149.00	369	217.00	6692	321.00	135
78.00	3301	150.00	146	218.00	929	322.00	114
79.00	3230	151.00	503	221.00	6375	323.00	2978
80.00	2350	152.00	133	222.00	215	324.00	582
81.00	2687	153.00	607	223.00	1648	327.00	485
82.00	704	154.00	446	224.00	12991	328.00	275

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d

Date : 30-APR-2009 16:03

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090430A62.d

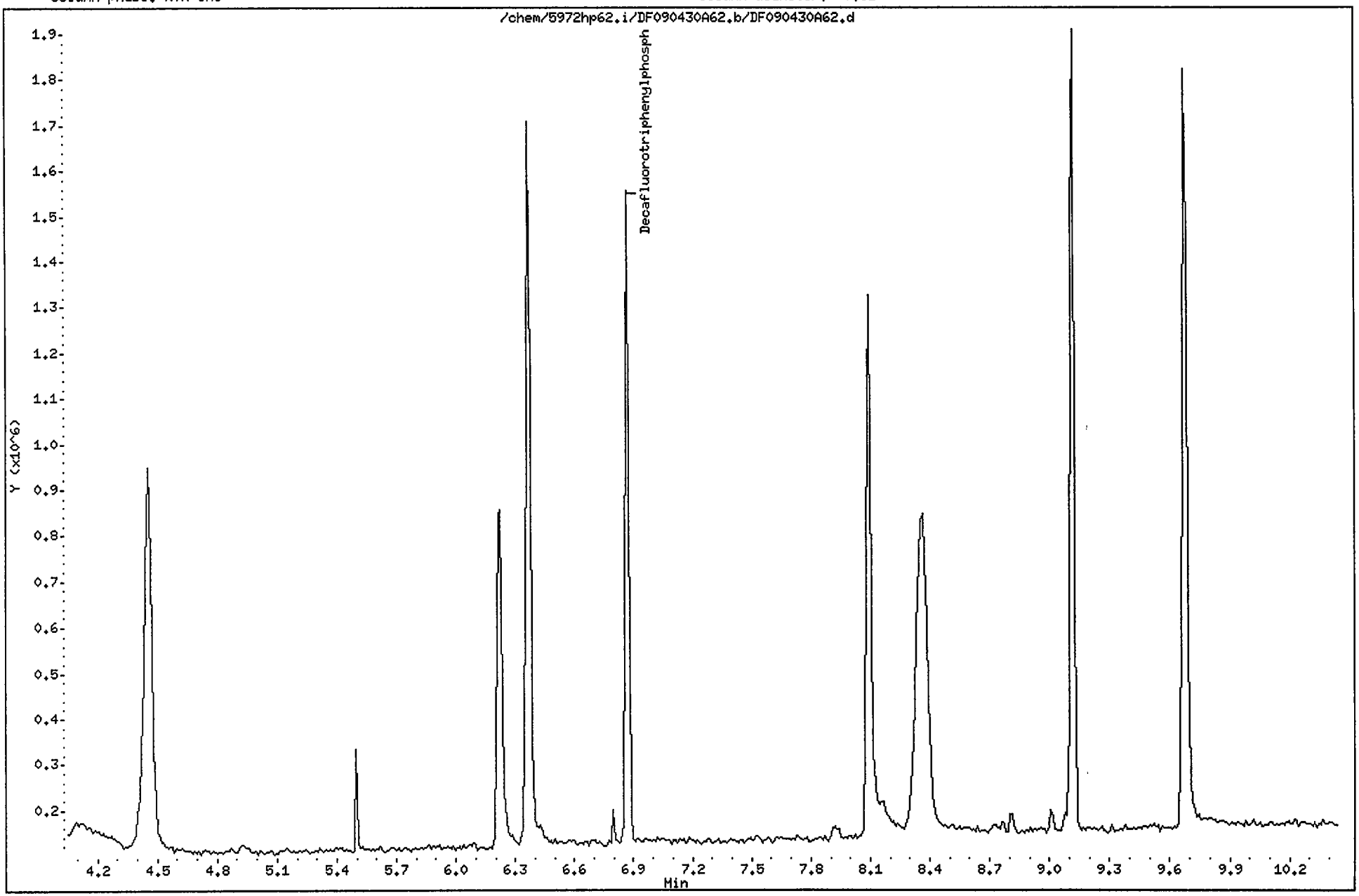
Spectrum: Avg. Scans 275-277 (6.87), Background Scan 272

Location of Maximum: 442.00

Number of points: 247

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	503	155.00	1090	225.00	3220	332.00	127
84.00	80	156.00	2060	226.00	427	333.00	255
85.00	335	157.00	545	227.00	5682	334.00	1767
86.00	451	158.00	705	228.00	879	335.00	422
87.00	526	159.00	543	229.00	1276	341.00	444
88.00	118	160.00	806	231.00	472	346.00	678
91.00	625	161.00	1022	233.00	101	352.00	898
92.00	862	162.00	526	234.00	379	353.00	543
93.00	4762	163.00	117	235.00	466	354.00	791
94.00	590	165.00	1066	236.00	270	365.00	4452
96.00	176	166.00	674	237.00	530	366.00	603
97.00	203	167.00	5070	239.00	117	371.00	261
98.00	4061	168.00	2788	240.00	263	372.00	1661
99.00	2561	169.00	544	241.00	302	373.00	259
100.00	380	170.00	243	242.00	799	383.00	395
101.00	1650	171.00	240	243.00	963	402.00	589
103.00	759	172.00	380	244.00	11415	403.00	915
104.00	996	173.00	449	245.00	1855	404.00	251
105.00	1331	174.00	886	246.00	2044	421.00	757
106.00	519	175.00	1773	247.00	301	422.00	528
107.00	11118	176.00	789	248.00	100	423.00	5878
108.00	1887	177.00	777	249.00	498	424.00	1305
110.00	27336	178.00	145	250.00	104	441.00	16305
111.00	3449	179.00	3778	251.00	161	442.00	111736
112.00	665	180.00	2004	252.00	232	443.00	22160
113.00	134	181.00	1322	253.00	588	444.00	1819
116.00	789	182.00	284	255.00	54928		

Data File: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d
Date : 30-APR-2009 16:03
Client ID: DFTPP
Instrument: 5972hp62.i
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	95.61		PASS
51	30 - 80% of mass 198	34.29		PASS
68	Less than 2% of mass 69	0.17	(0.39)	PASS
69	Mass 69 relative abundance	44.40		PASS
70	Less than 2% of mass 69	0.32	(0.73)	PASS
127	25 - 75% of mass 198	41.24		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.12		PASS
275	10 - 30% of mass 198	25.27		PASS
365	Greater than 0.75% of mass 198	4.17		PASS
441	Present, but less than mass 443	15.26	(73.56)	PASS
442	40 - 110 % of mass 198	104.60		PASS
443	15 - 24% of mass 442	20.75	(19.84)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.0	5.0	PASS
Benzidine	1.2	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	502427			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	9048	1.8	20.0	PASS
4,4-DDD + DDE	9048	1.8	20.0	PASS

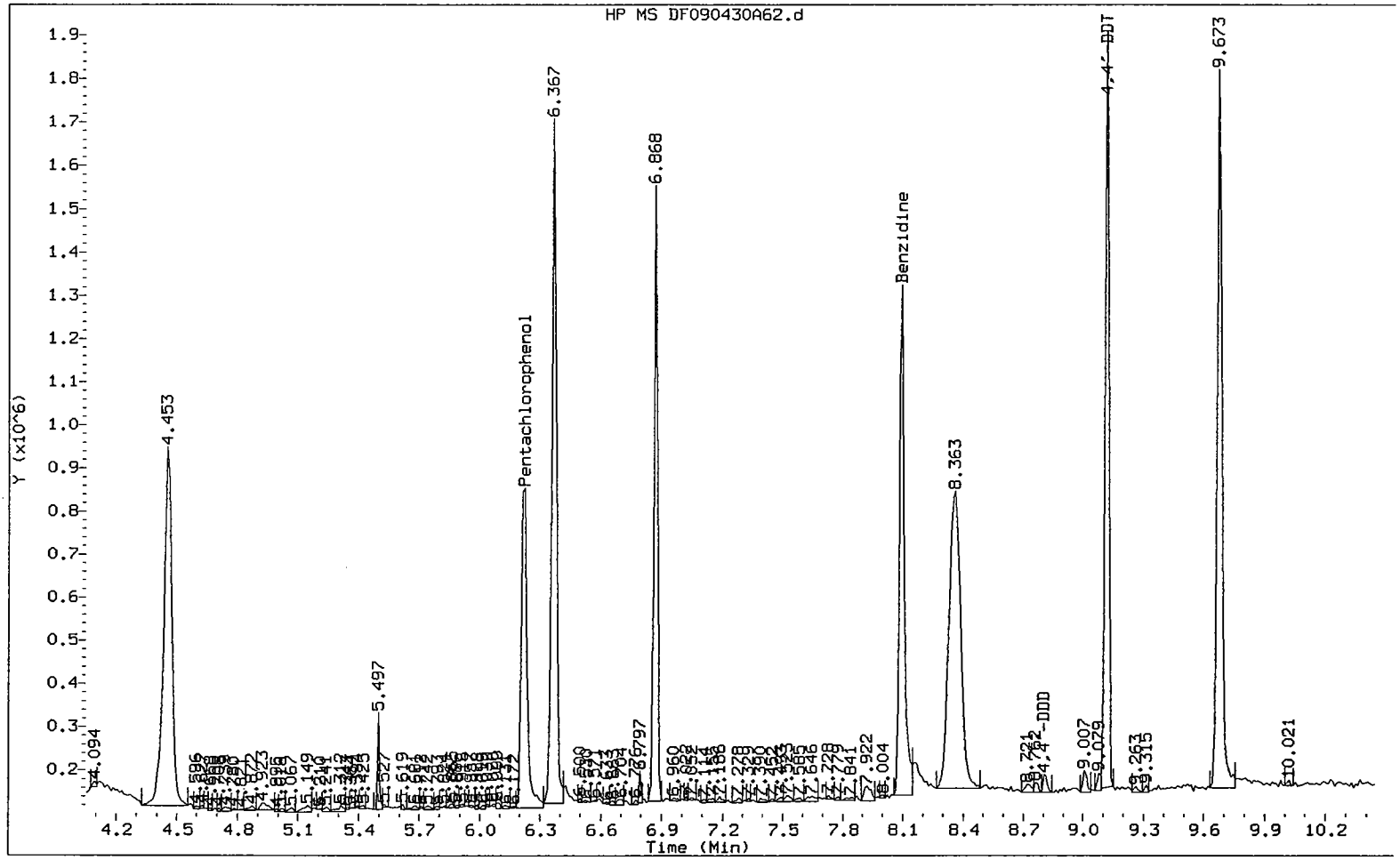
Tuning Sample, /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

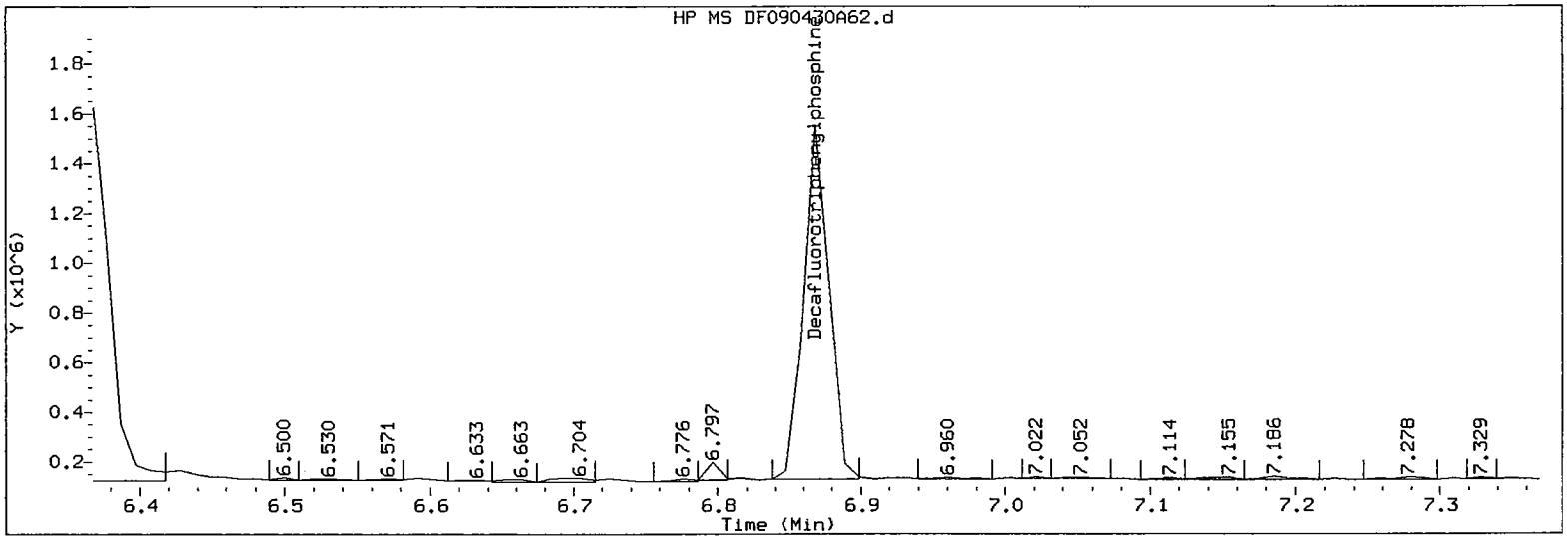
Report Date: 05/01/2009 08:50

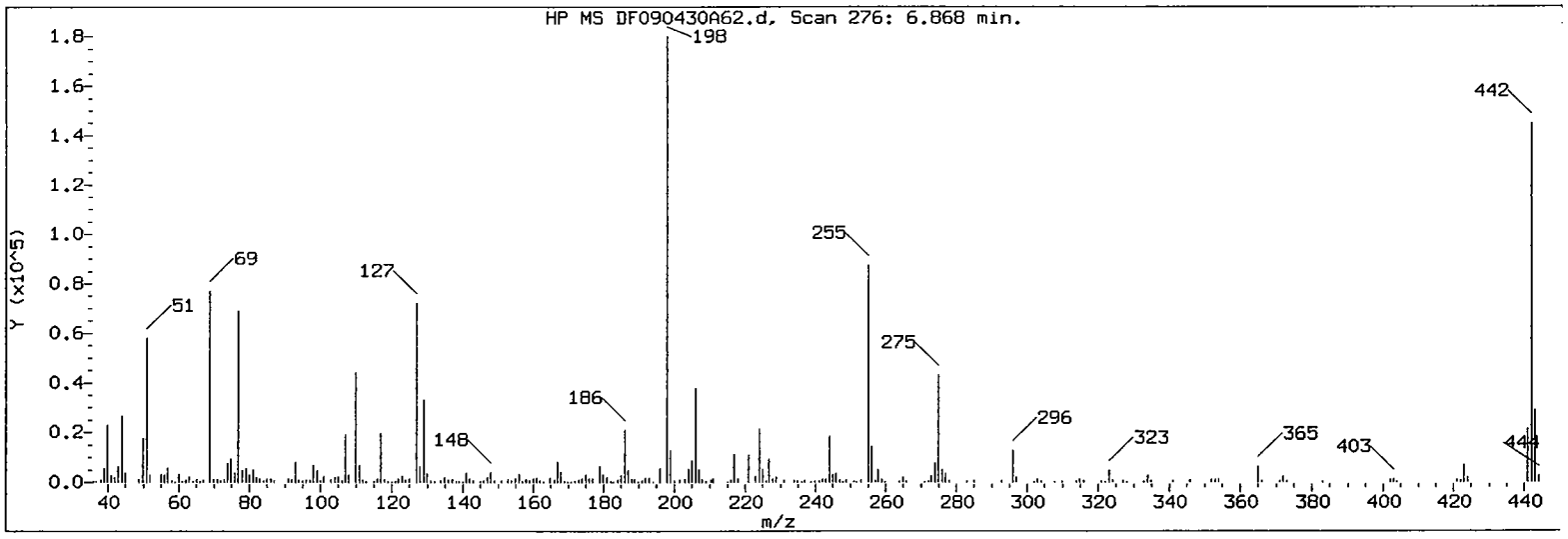
Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 30-APR-2009 16:03 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 30-APR-2009 16:03 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



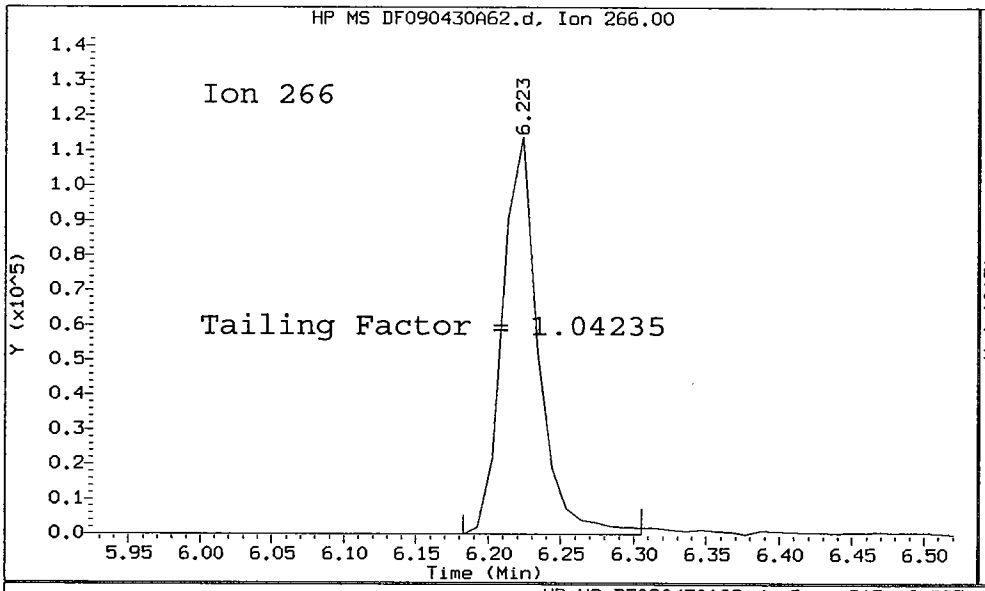


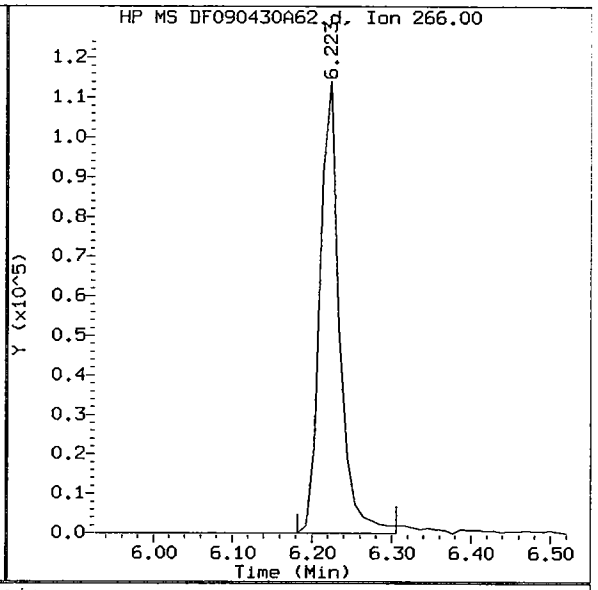
DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

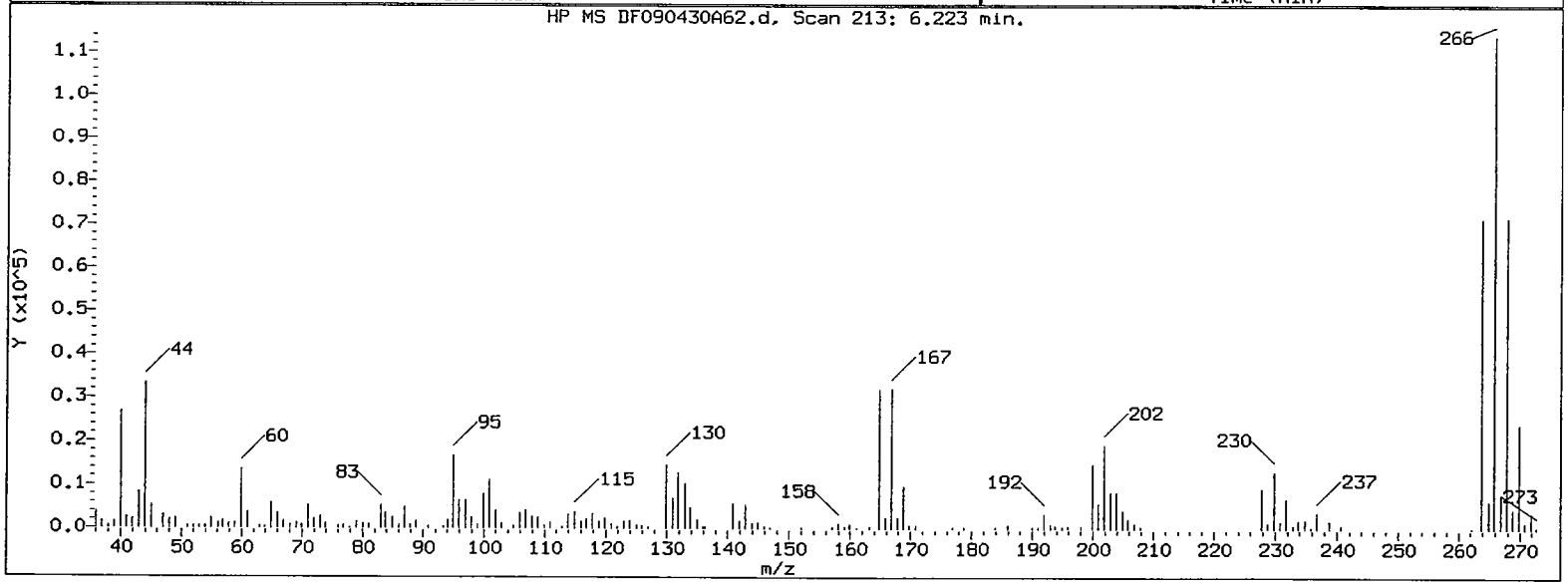
Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	95.61		PASS
51	30 - 80% of mass 198	34.29		PASS
68	Less than 2% of mass 69	0.17	(0.39)	PASS
69	Mass 69 relative abundance	44.40		PASS
70	Less than 2% of mass 69	0.32	(0.73)	PASS
127	25 - 75% of mass 198	41.24		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.12		PASS
275	10 - 30% of mass 198	25.27		PASS
365	Greater than 0.75% of mass 198	4.17		PASS
441	Present, but less than mass 443	15.26	(73.56)	PASS
442	40 - 110% of mass 198	104.60		PASS
443	15 - 24% of mass 442	20.75	(19.84)	PASS

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:







Pentachlorophenol
==========
Exp. RT = 6.226
Found RT = 6.223

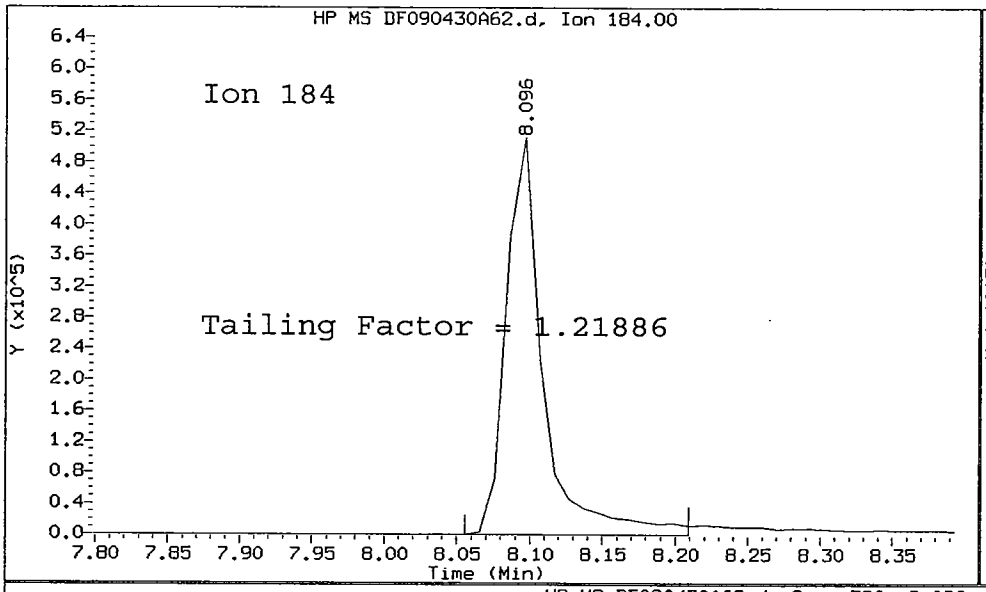
Mass	Area	Ratio
266	197118	100.00

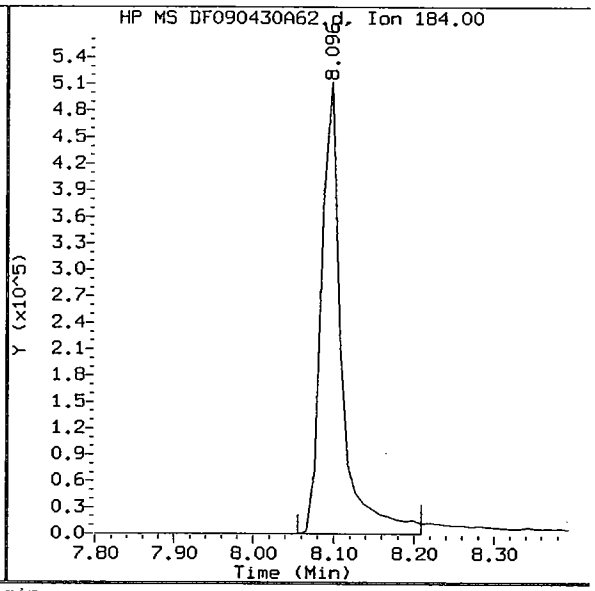
Tailing factor for Pentachlorophenol OK

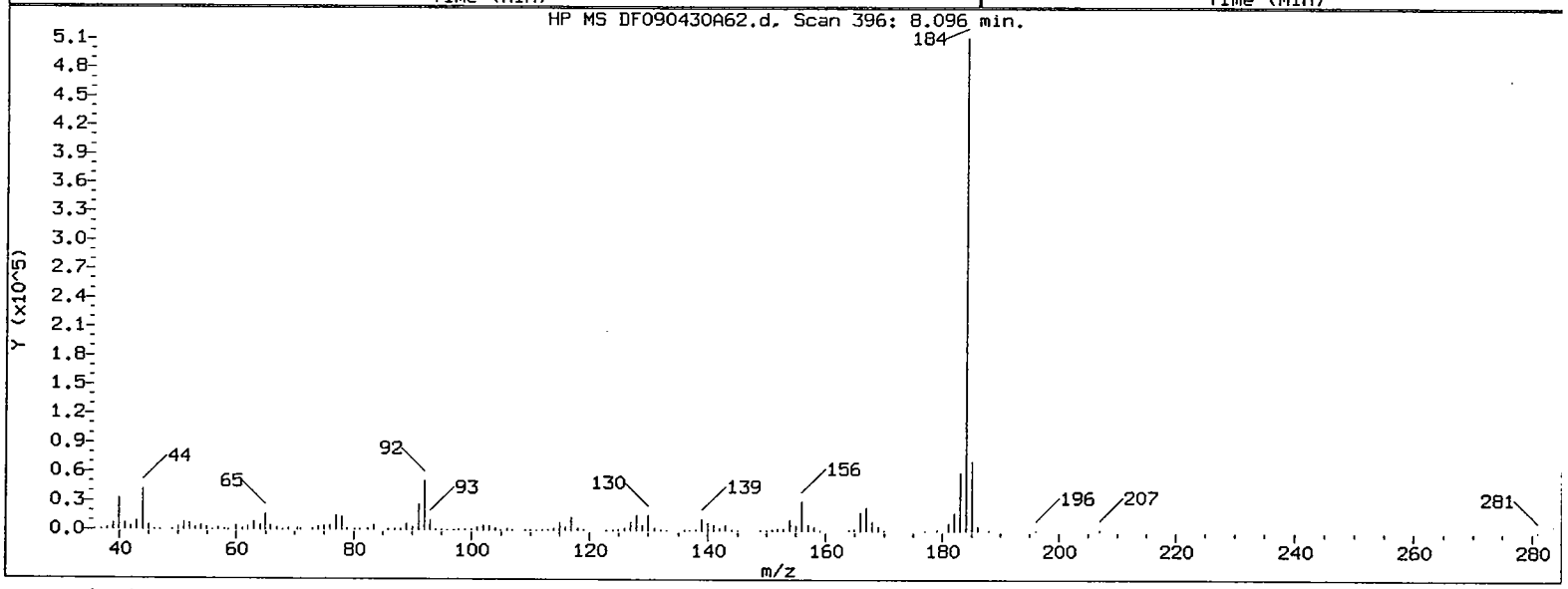
Tailing Factor = 1.0 Maximum Allowed = 5.0

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:







Benzidine
=========
Exp. RT = 8.099
Found RT = 8.096

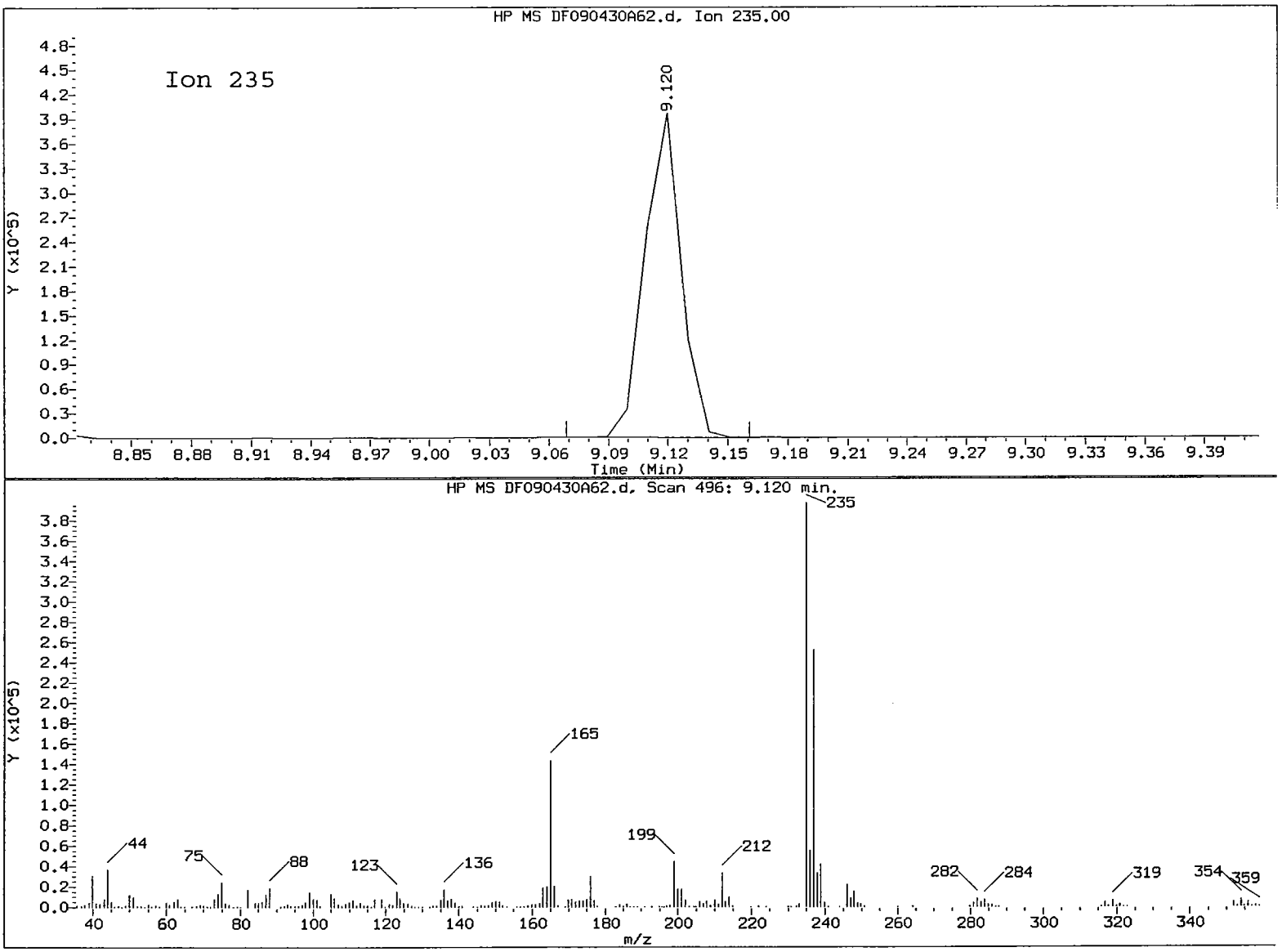
Mass	Area	Ratio
184	911934	100.00

Tailing factor for Benzidine OK

Tailing Factor = 1.2 Maximum Allowed = 3.0

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

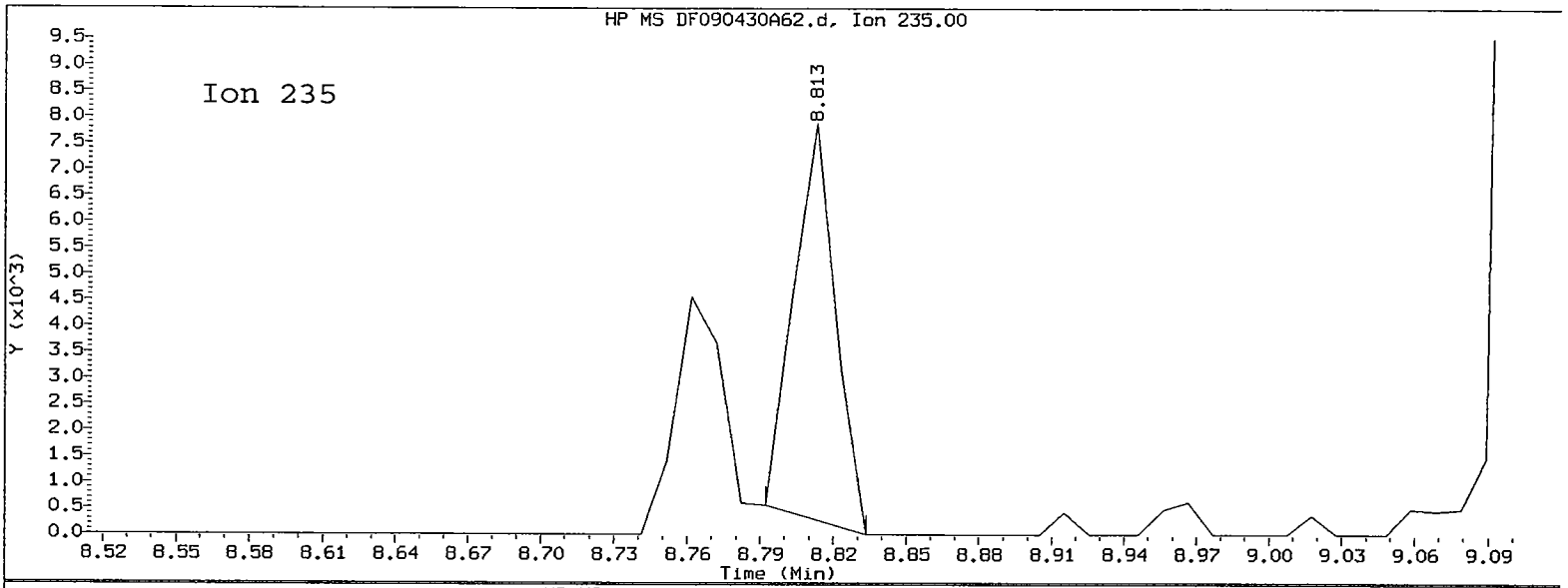


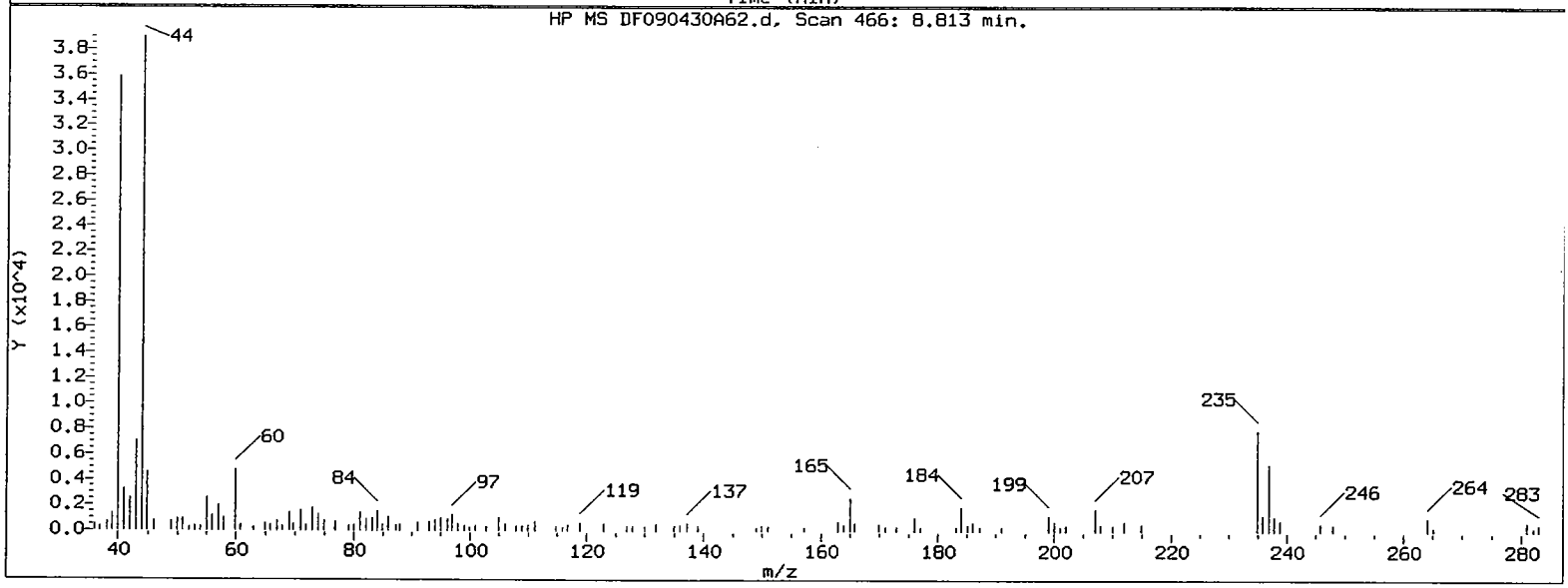
4,4'-DDT
========
Exp. RT = 8.505
Found RT = 9.120

Mass	Area	Ratio
235	502427	100.00

Report Date: 05/01/2009 08:50

Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



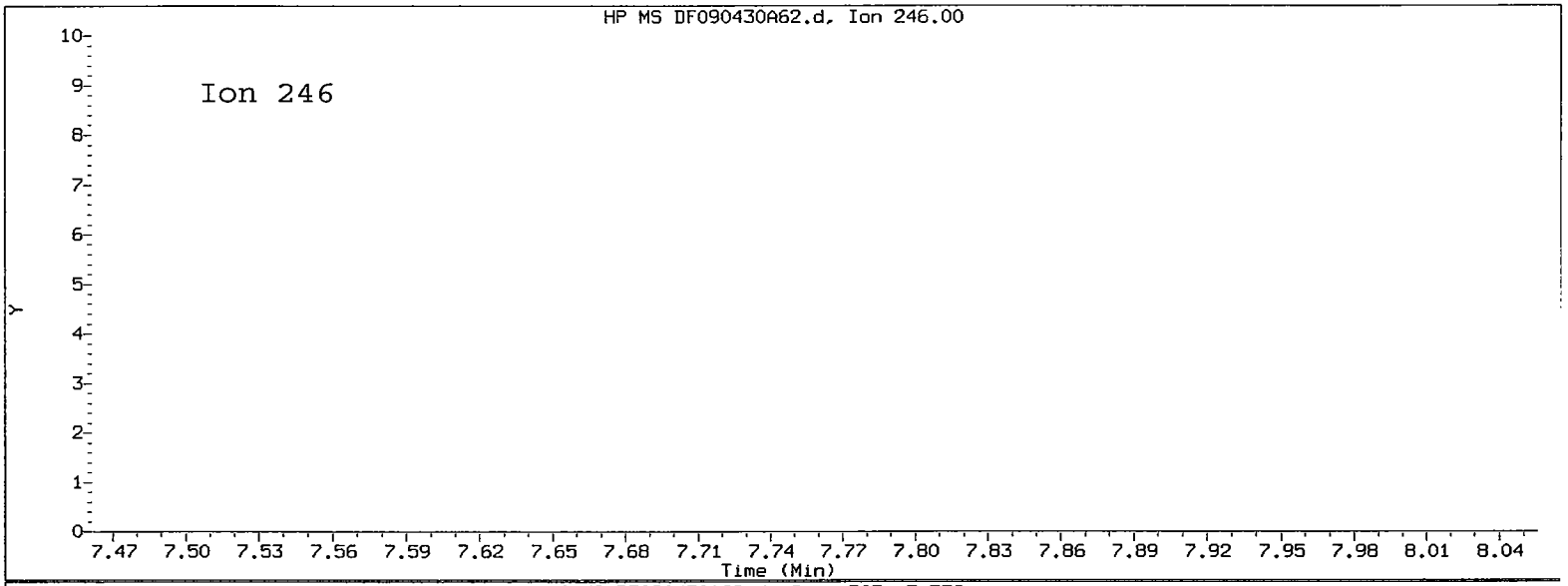


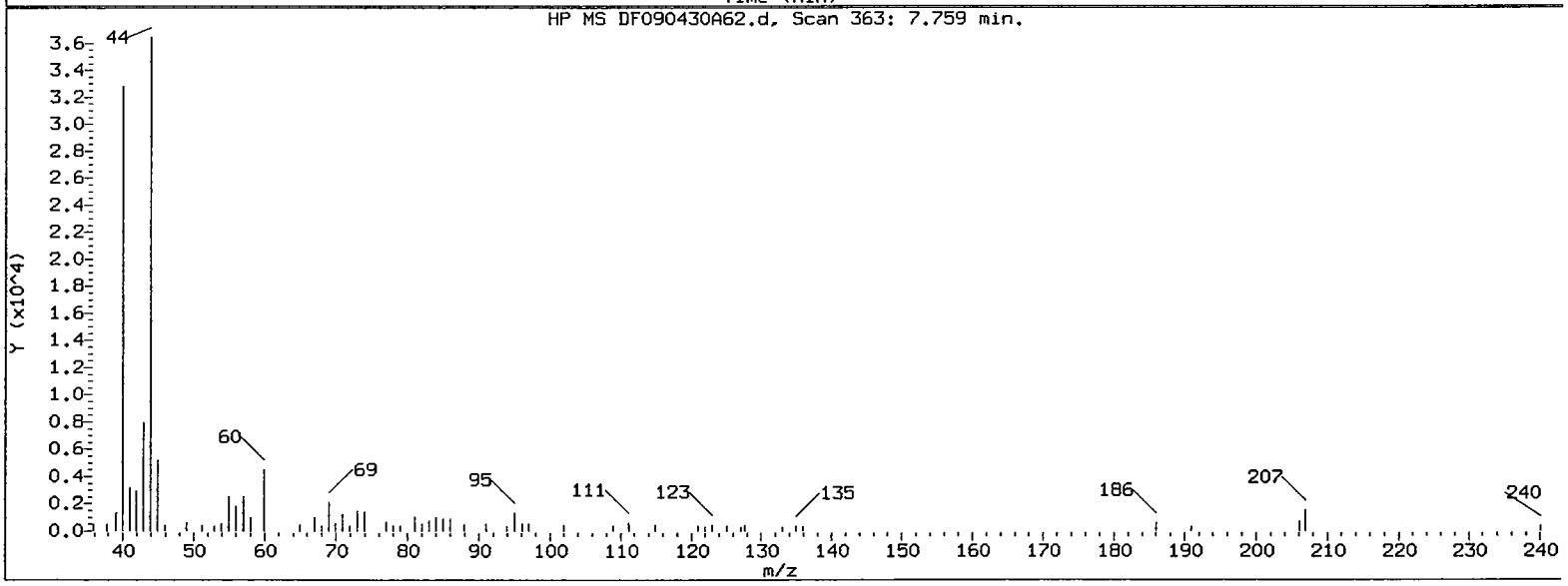
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.813

Mass	Area	Ratio
235	9048	100.00

Report Date: 05/01/2009 08:50

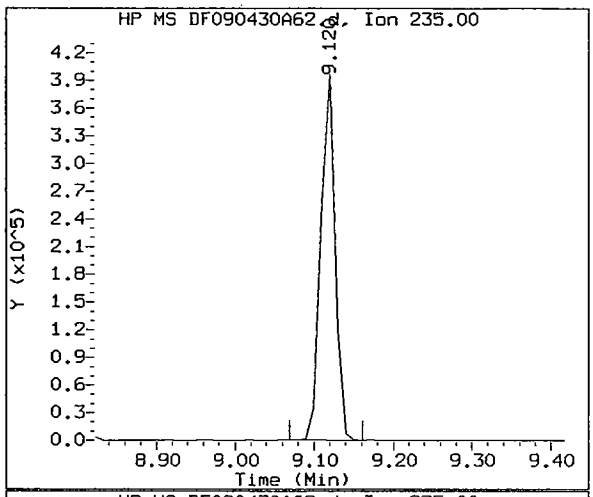
Datafile Analyzed: /chem/5972hp62.i/DF090430A62.b/DF090430A62.d/DF090430A62.d
Method Used: /chem/5972hp62.i/DF090430A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 30-APR-2009 16:03 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



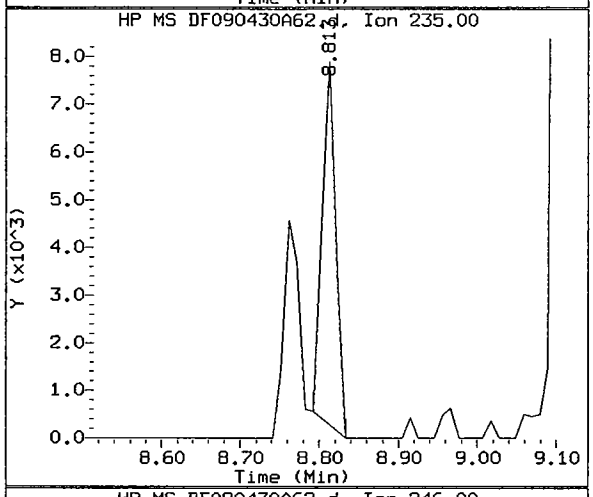


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 0.000

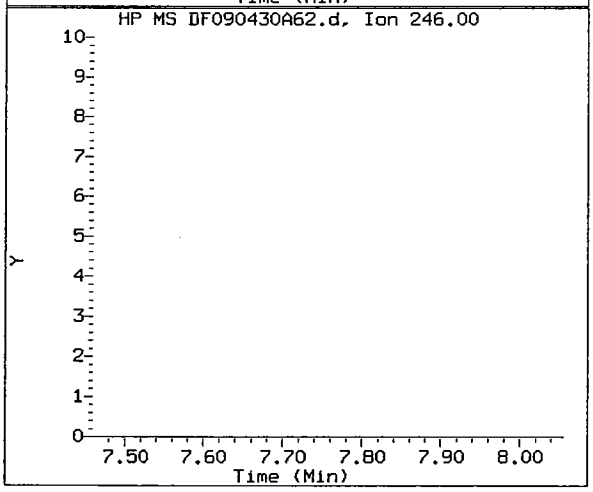
Mass	Area	Ratio
246	0	0.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.120
Area: 502427



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.813
Area: 9048



Compound: 4,4'-DDE
Quant Mass: 246
RT: 0.000
Area: 0

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	502427			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	9048	1.8	20.0	PASS
4,4-DDD + DDE	9048	1.8	20.0	PASS

****

TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

****

Exception Report

SDG#: 8270-DF090430A62-APPENDIX IX 8270 Date: 5/5/09

Client Service Representative:_____

Sample ID#	Comments	Initials/Date

See attached documents for details:

Second source verification standard fails for the following analytes:

2,6-dichlorophenol – 171.52

n-nitrosodi-n-butylamine – 167.51

p-phenylenediamine – 768.93

1-naphthylamine – 215.88

2,3,4,6-tetrachlorophenol – 167.91

2-naphthylamine – 204.21

carbazole – 36.22/25.77

methapyrilene – 4249.76

chlorobenzilate – 164.12

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d

Date : 01-MAY-2009 12:31

Client ID: DFTPP

Instrument: 5972hp60.i

Sample Info: DFTPP:2650

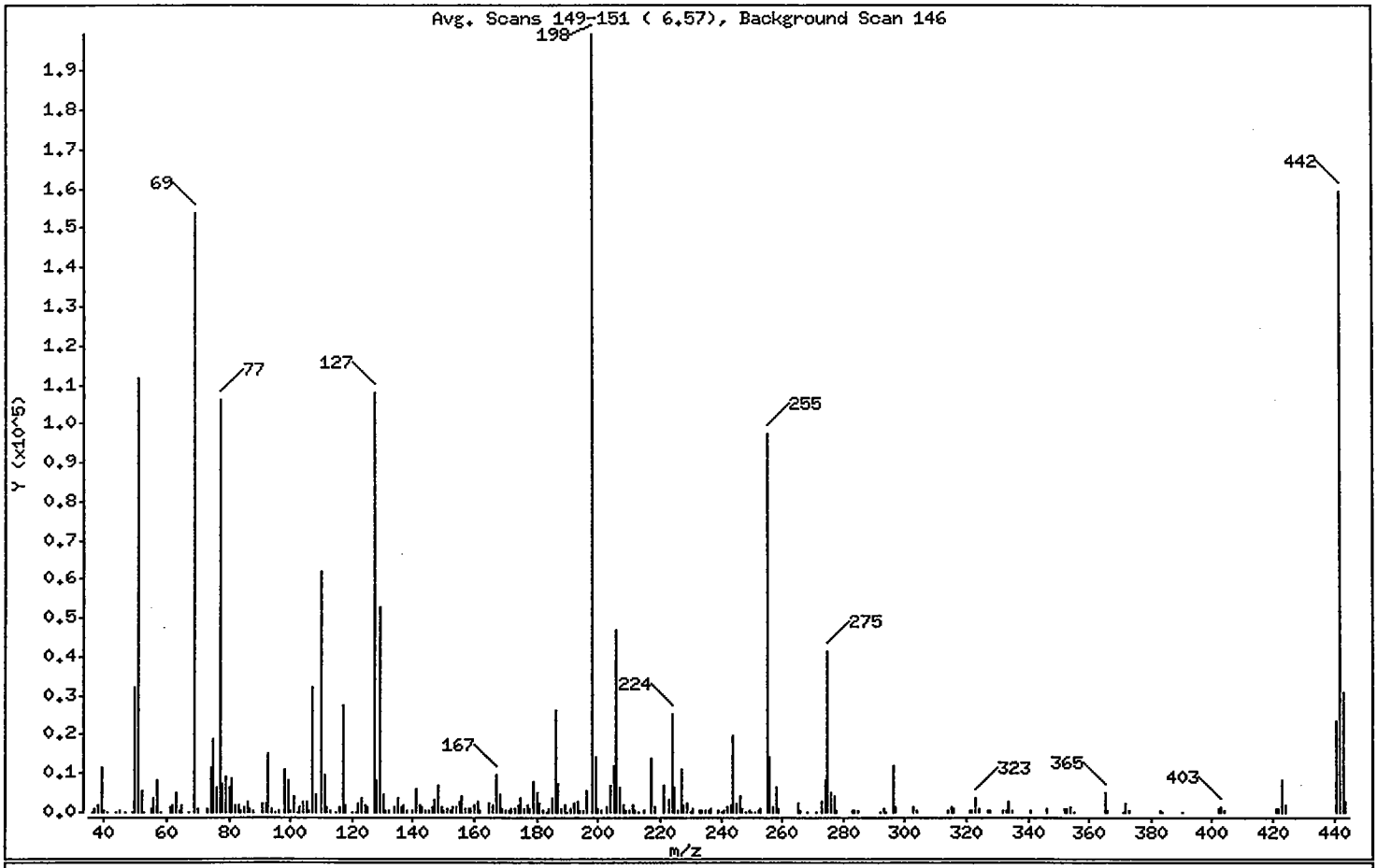
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	56.03
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	77.11
70	Less than 2.00% of mass 69	0.35 (0.46)
127	25.00 - 75.00% of mass 198	54.18
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.17
275	10.00 - 30.00% of mass 198	20.79
365	Greater than 0.75% of mass 198	2.57
441	Present, but less than mass 443	11.66
442	40.00 - 110.00% of mass 198	79.82
443	15.00 - 24.00% of mass 442	15.54 (19.47)

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d

Date : 01-MAY-2009 12:31

Client ID: DFTPP

Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090501A60.d
Spectrum: Avg. Scans 149-151 (6.57), Background Scan 146
Location of Maximum: 198.00
Number of points: 250

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	176	115.00	168	184.00	865	257.00	1216
37.00	774	116.00	1252	185.00	3550	258.00	6610
38.00	2064	117.00	27624	186.00	26008	259.00	833
39.00	11646	118.00	1858	187.00	7522	265.00	2283
40.00	551	120.00	220	188.00	775	266.00	501
41.00	199	121.00	157	189.00	1883	268.00	141
44.00	33	122.00	2197	190.00	192	271.00	139
45.00	396	123.00	3544	191.00	805	273.00	2894
47.00	159	124.00	1646	192.00	2076	274.00	8356
49.00	32	125.00	1349	193.00	2850	275.00	41456
50.00	32360	127.00	108040	194.00	620	276.00	5237
51.00	111720	128.00	8318	195.00	512	277.00	3913
52.00	5669	129.00	52680	196.00	5588	278.00	403
53.00	166	130.00	4620	198.00	199360	283.00	255
55.00	829	131.00	658	199.00	14288	284.00	244
56.00	3635	132.00	263	200.00	878	285.00	482
57.00	8142	134.00	1488	201.00	410	292.00	170
58.00	162	135.00	3811	203.00	1536	293.00	706
61.00	1389	136.00	1511	204.00	6902	294.00	142
62.00	1788	137.00	1744	205.00	11761	296.00	12158
63.00	4863	138.00	234	206.00	46840	297.00	1547
64.00	678	140.00	687	207.00	6463	303.00	1367
65.00	1877	141.00	6114	208.00	1776	304.00	294
67.00	185	142.00	1897	209.00	647	314.00	541
69.00	153728	143.00	1246	210.00	676	315.00	1369
70.00	705	144.00	285	211.00	1973	316.00	701
73.00	1004	145.00	239	212.00	301	321.00	255
74.00	11636	146.00	1279	213.00	188	322.00	243
75.00	19024	147.00	3053	215.00	404	323.00	3607
76.00	6417	148.00	6784	217.00	13658	324.00	731
77.00	106248	149.00	1297	218.00	1455	327.00	605
78.00	7263	150.00	275	221.00	6954	328.00	258
79.00	9180	151.00	791	223.00	3209	332.00	252
80.00	6623	152.00	453	224.00	25488	333.00	263
81.00	8625	153.00	1448	225.00	6536	334.00	2697

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d

Date : 01-MAY-2009 12:31

Client ID: DFTPP

Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090501A60.d

Spectrum: Avg. Scans 149-151 (6.57), Background Scan 146

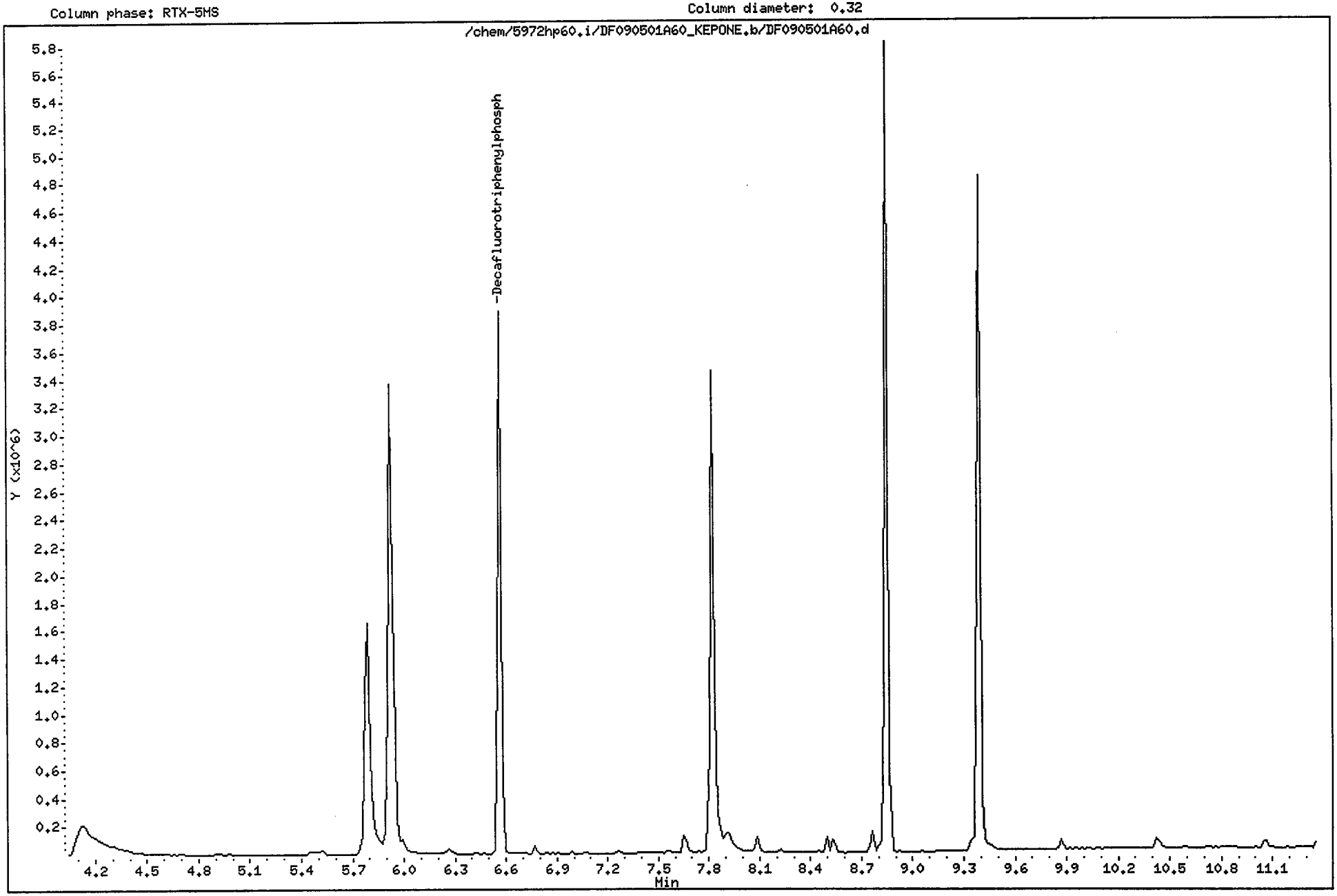
Location of Maximum: 198.00

Number of points: 250

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	2015	154.00	1338	226.00	256	335.00	547
83.00	1836	155.00	2854	227.00	10851	341.00	387
84.00	344	156.00	4052	228.00	1683	346.00	802
85.00	1316	157.00	947	229.00	2442	352.00	979
86.00	2669	158.00	883	230.00	207	353.00	846
87.00	1144	159.00	779	231.00	978	354.00	1215
88.00	541	160.00	1846	233.00	240	355.00	173
91.00	2258	161.00	2531	234.00	420	365.00	5124
92.00	2358	162.00	616	235.00	524	366.00	662
93.00	15253	165.00	2179	236.00	441	371.00	144
94.00	1128	166.00	1927	237.00	710	372.00	2522
95.00	178	167.00	9605	239.00	352	373.00	285
96.00	561	168.00	4423	240.00	202	383.00	487
98.00	10963	169.00	888	241.00	514	384.00	177
99.00	8084	170.00	337	242.00	1248	390.00	226
100.00	620	171.00	311	243.00	1740	402.00	795
101.00	4031	172.00	860	244.00	19712	403.00	1284
102.00	173	173.00	1015	245.00	2288	404.00	254
103.00	1578	174.00	1961	246.00	4141	421.00	1031
104.00	2749	175.00	3597	247.00	824	422.00	879
105.00	2611	176.00	1031	248.00	135	423.00	8169
106.00	426	177.00	1698	249.00	555	424.00	1618
107.00	31968	178.00	705	250.00	187	441.00	23256
108.00	4720	179.00	7902	251.00	139	442.00	159168
110.00	61800	180.00	4861	252.00	328	443.00	30992
111.00	9717	181.00	2452	253.00	698	444.00	2622
112.00	1318	182.00	398	255.00	97600		
113.00	456	183.00	141	256.00	14305		

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d
Date : 01-MAY-2009 12:31
Client ID: DFTPP
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	56.03		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	77.11		PASS
70	Less than 2% of mass 69	0.35	(0.46)	PASS
127	25 - 75% of mass 198	54.18		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.17		PASS
275	10 - 30% of mass 198	20.79		PASS
365	Greater than 0.75% of mass 198	2.57		PASS
441	Present, but less than mass 443	11.66	(75.03)	PASS
442	40 - 110 % of mass 198	79.82		PASS
443	15 - 24% of mass 442	15.54	(19.47)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6	5.0	PASS
Benzidine	1.4	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1177976			N/A
4,4-DDE	15452	1.3	20.0	PASS
4,4-DDD	30815	2.5	20.0	PASS
4,4-DDD + DDE	46267	3.8	20.0	PASS

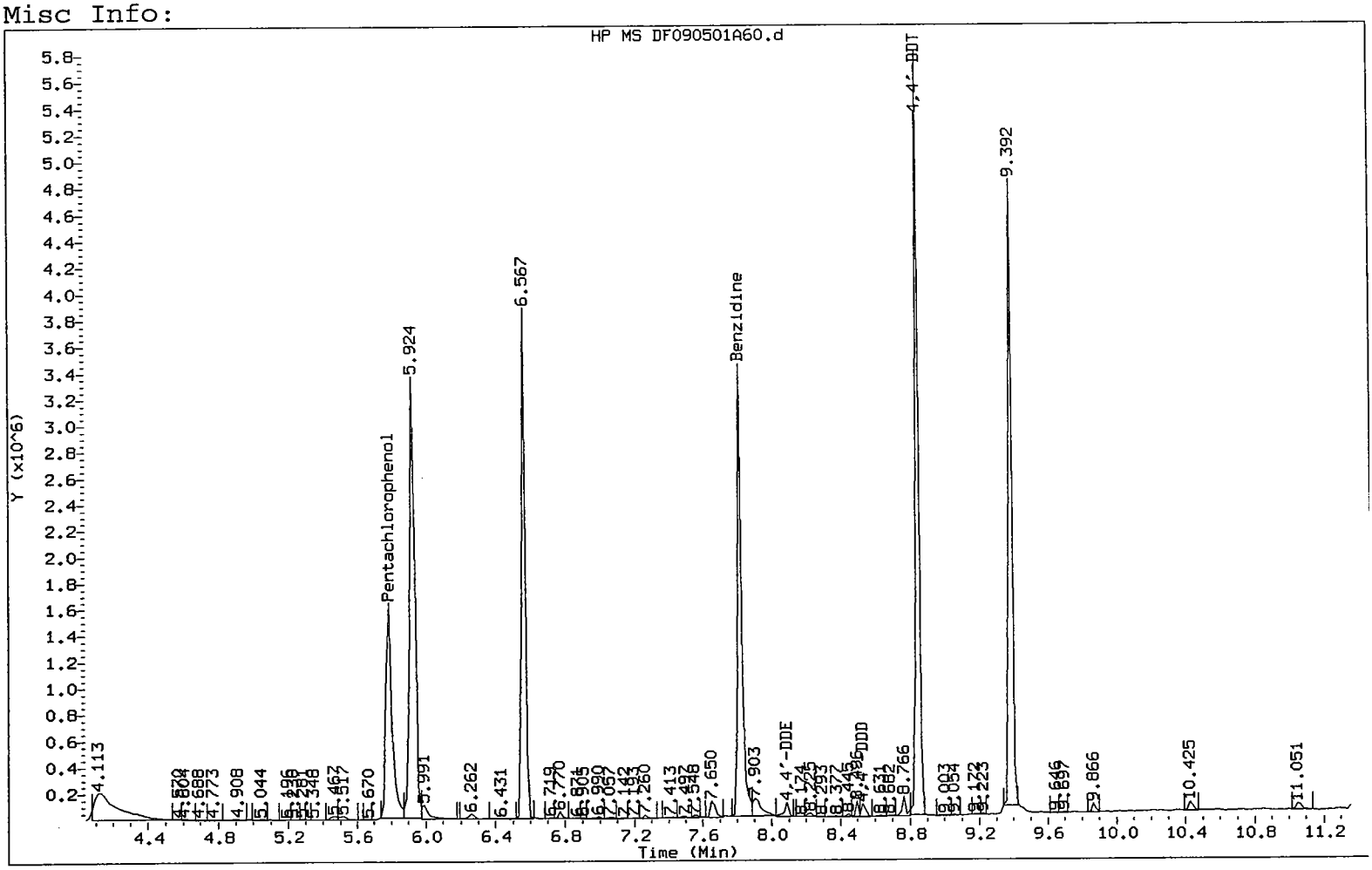
Tuning Sample, /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A60.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

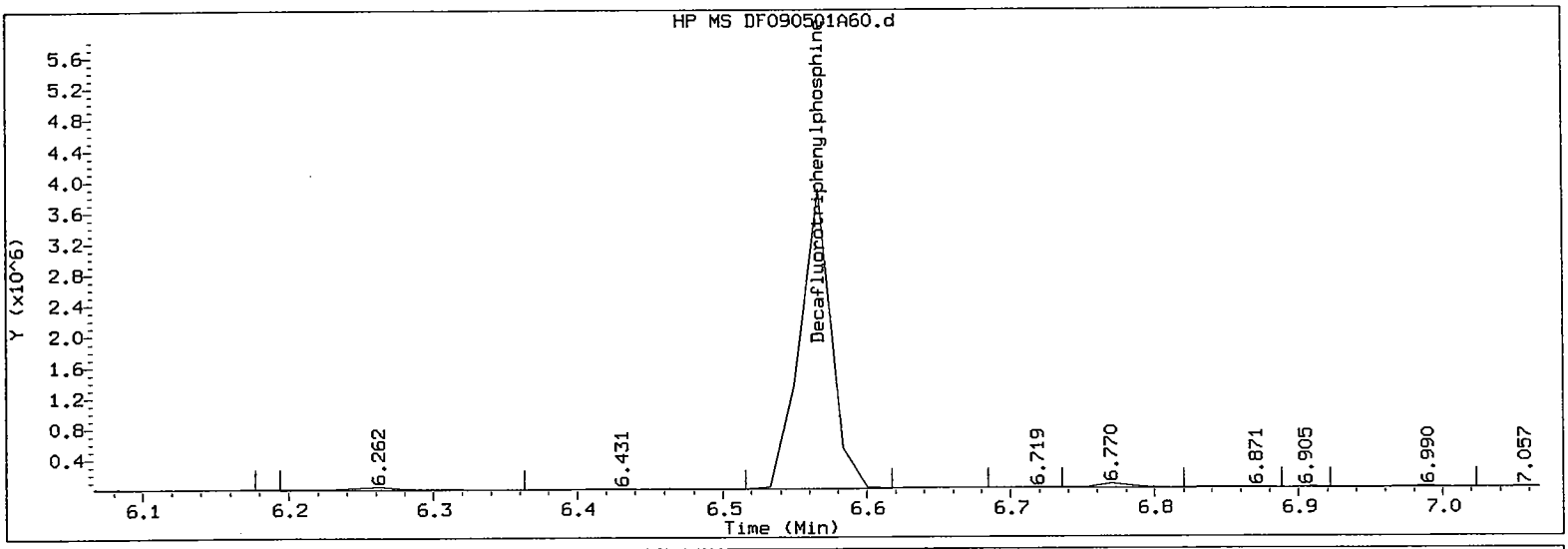
Report Date: 05/01/2009 14:11

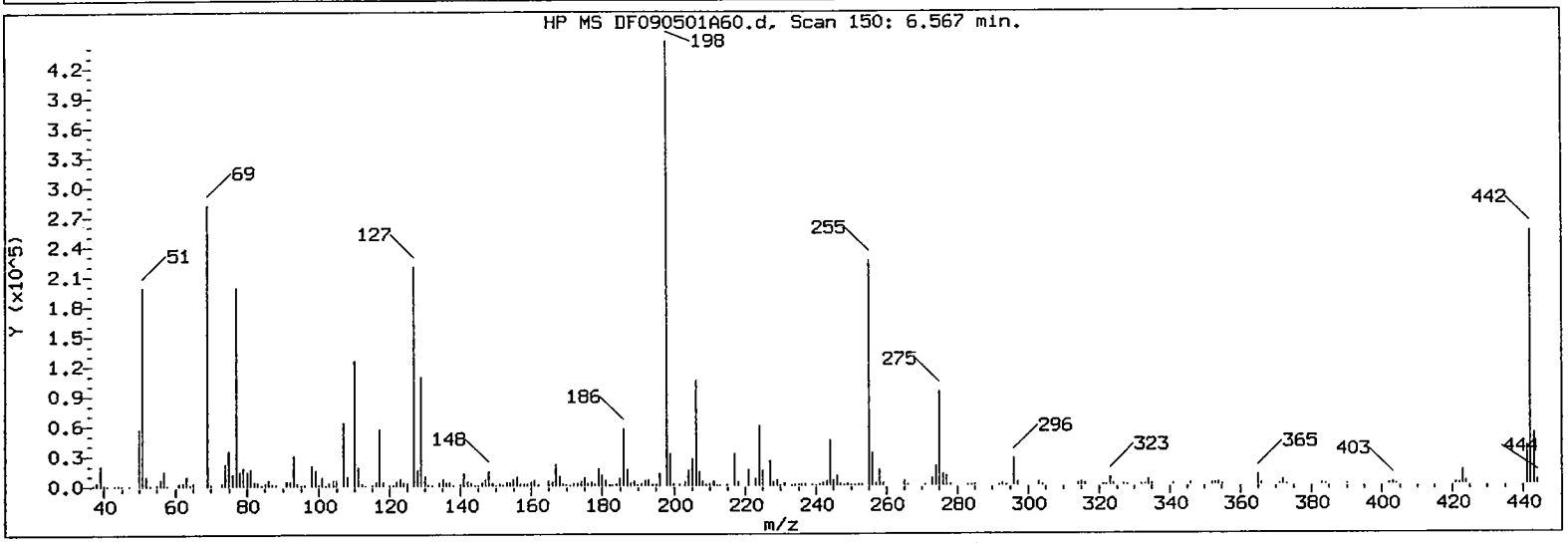
Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60_KEPONE.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 01-MAY-2009 12:31 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/01/2009 14:11

Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60_KEPONE.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 01-MAY-2009 12:31 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



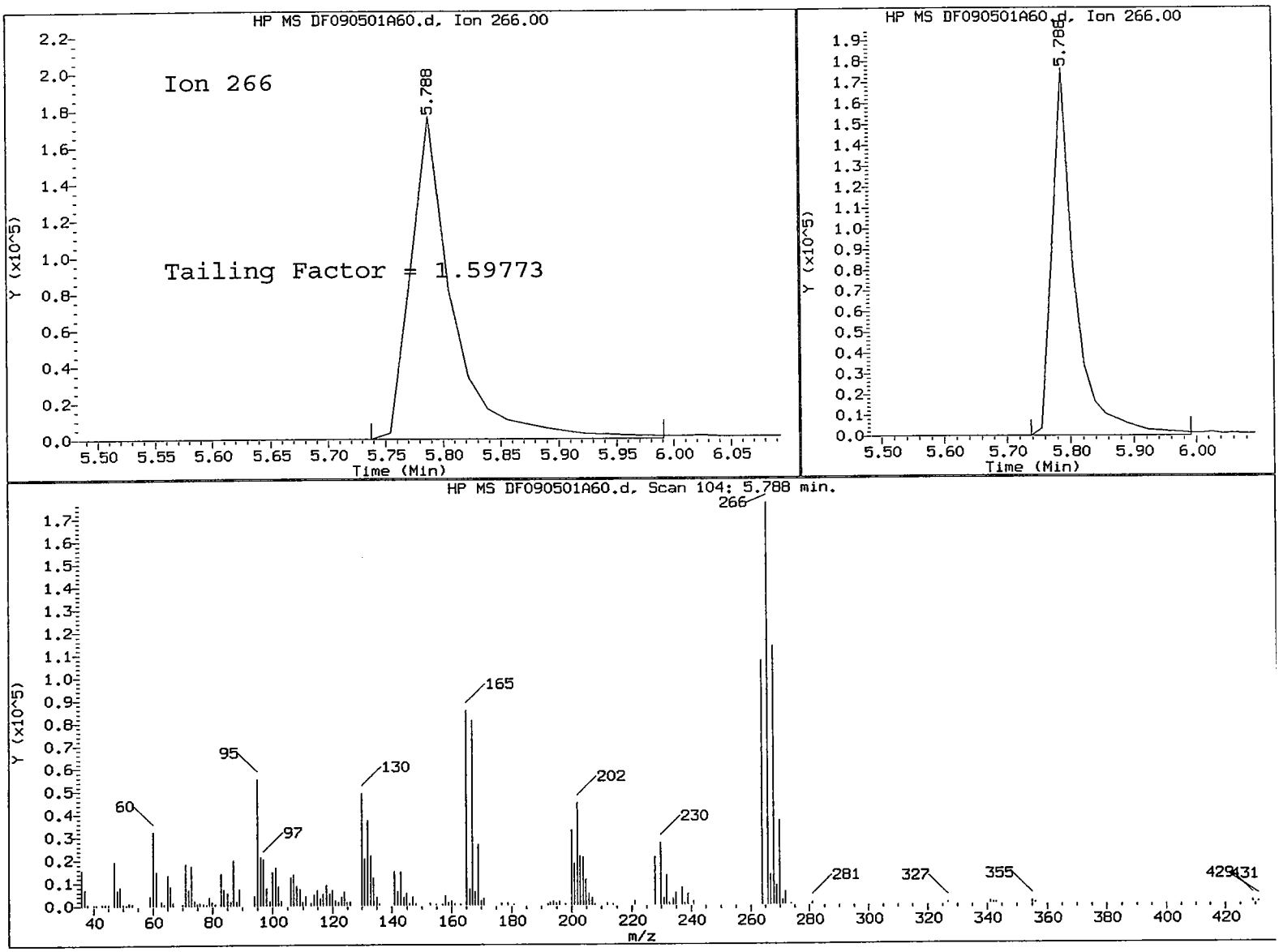


DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	56.03		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	77.11		PASS
70	Less than 2% of mass 69	0.35	(0.46)	PASS
127	25 - 75% of mass 198	54.18		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.17		PASS
275	10 - 30% of mass 198	20.79		PASS
365	Greater than 0.75% of mass 198	2.57		PASS
441	Present, but less than mass 443	11.66	(75.03)	PASS
442	40 - 110% of mass 198	79.82		PASS
443	15 - 24% of mass 442	15.54	(19.47)	PASS

Report Date: 05/01/2009 14:11

Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Pentachlorophenol
==========

Exp. RT =	6.043
Found RT =	5.788

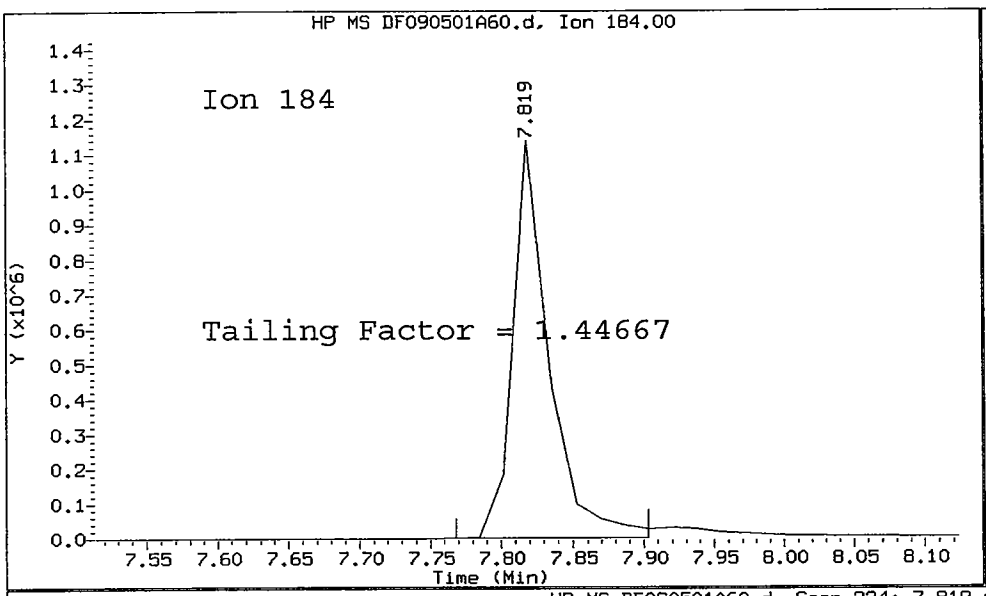
Mass	Area	Ratio
266	443839	100.00

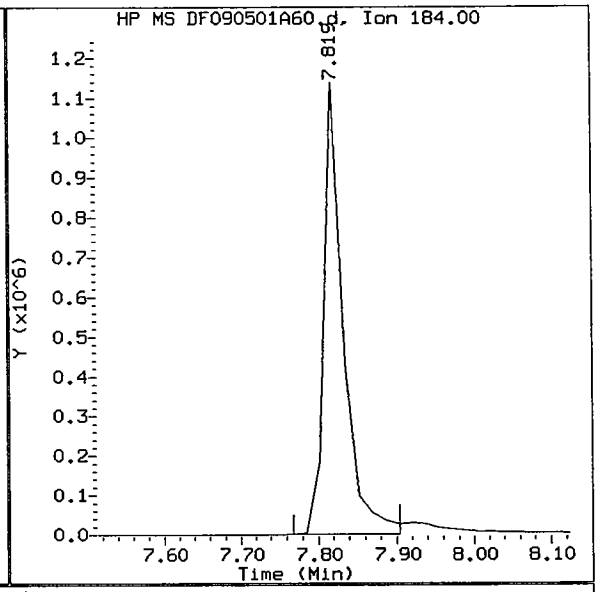
Tailing factor for Pentachlorophenol OK

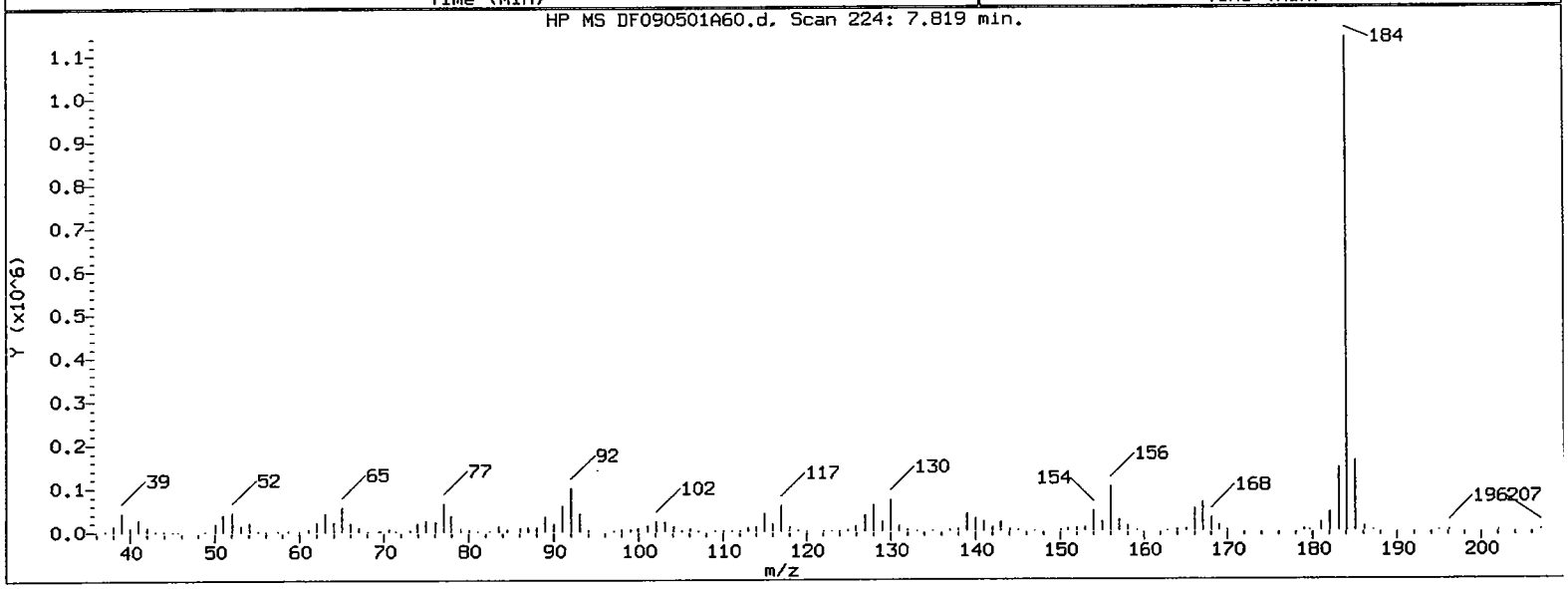
Tailing Factor = 1.6 Maximum Allowed = 5.0

Report Date: 05/01/2009 14:11

Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:







Benzidine
=========
Exp. RT = 8.074
Found RT = 7.819

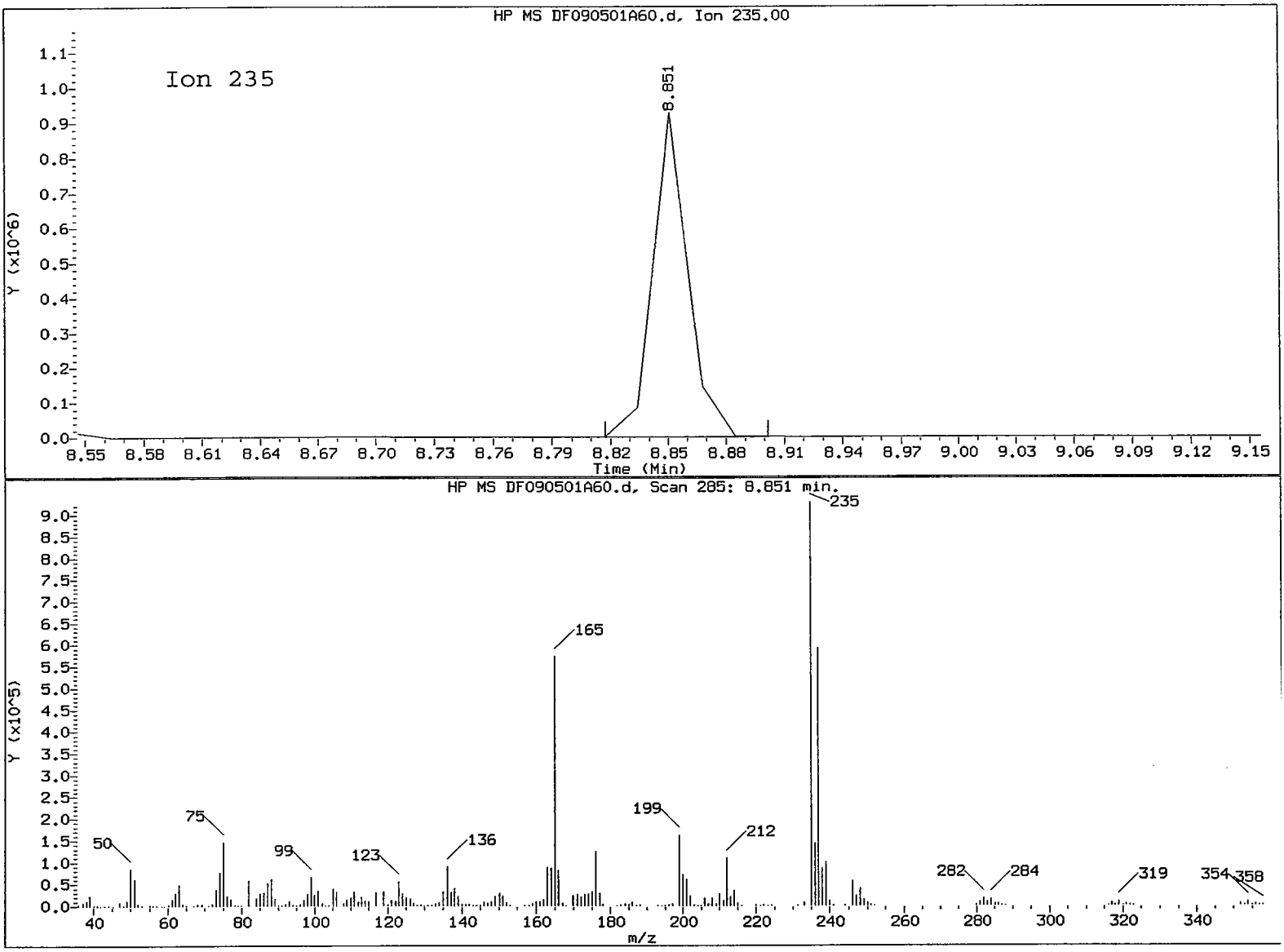
Mass	Area	Ratio
184	2004979	100.00

Tailing factor for Benzidine OK

Tailing Factor = 1.4 Maximum Allowed = 3.0

Report Date: 05/01/2009 14:11

Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

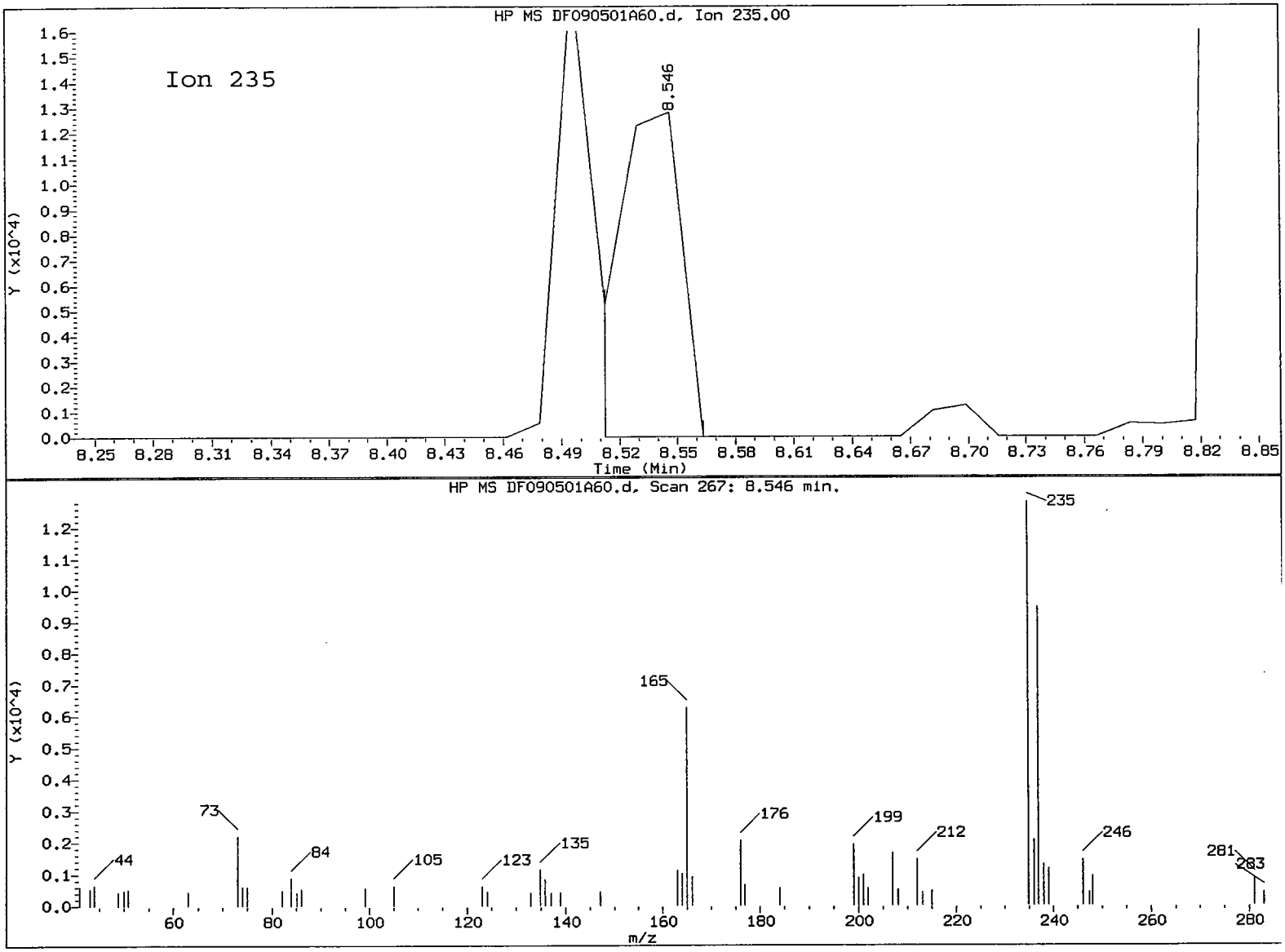


4,4'-DDT
========
Exp. RT = 8.505
Found RT = 8.851

Mass	Area	Ratio
235	1177976	100.00

Report Date: 05/01/2009 14:11

Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

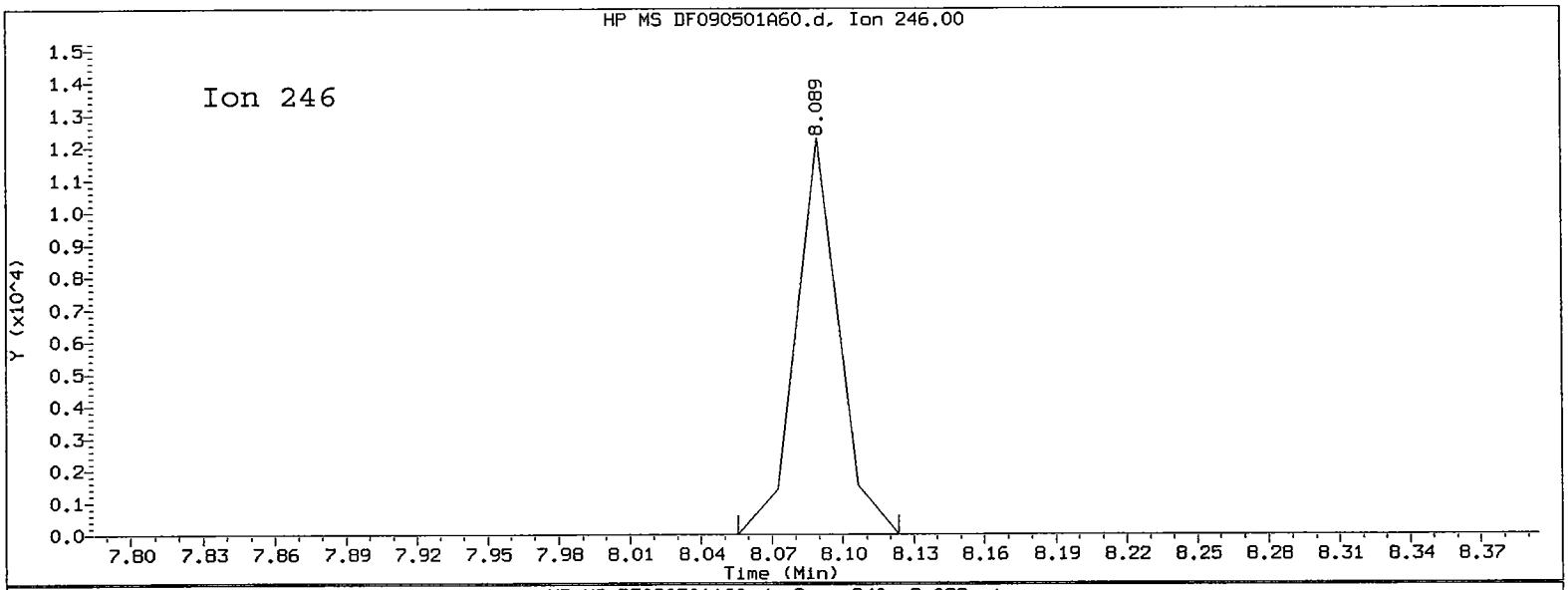


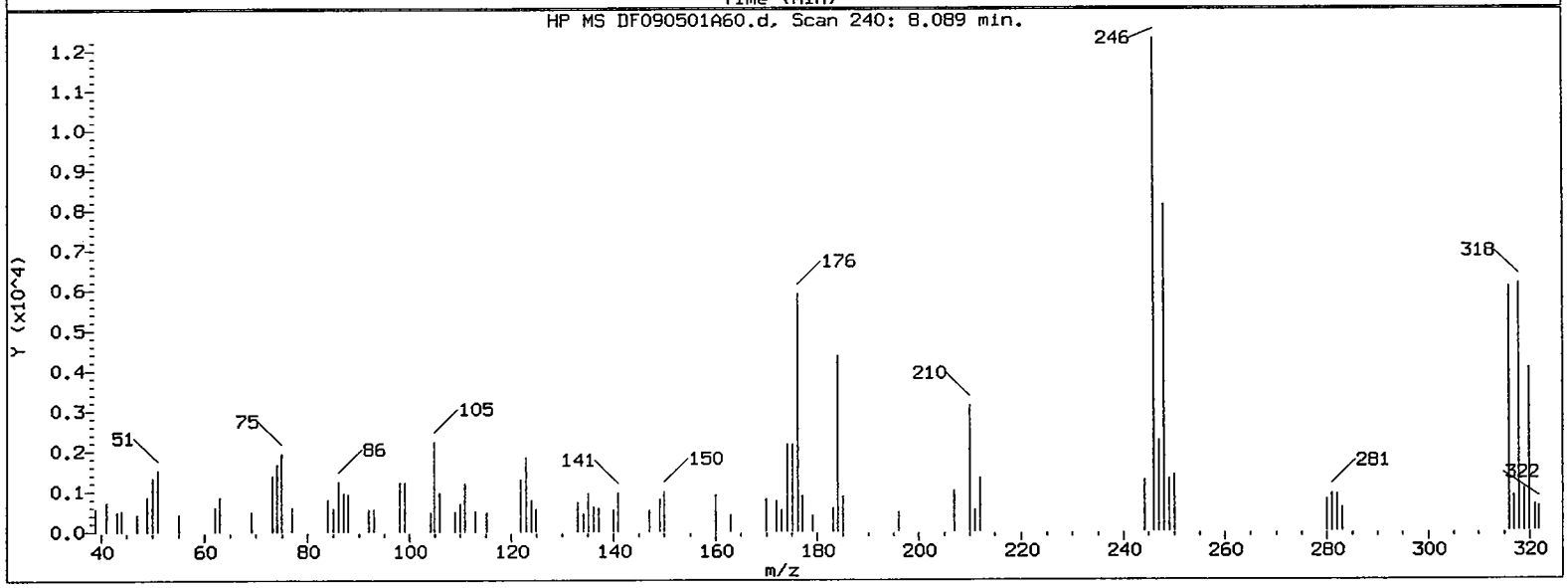
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.546

Mass	Area	Ratio
235	30815	100.00

Report Date: 05/01/2009 14:11

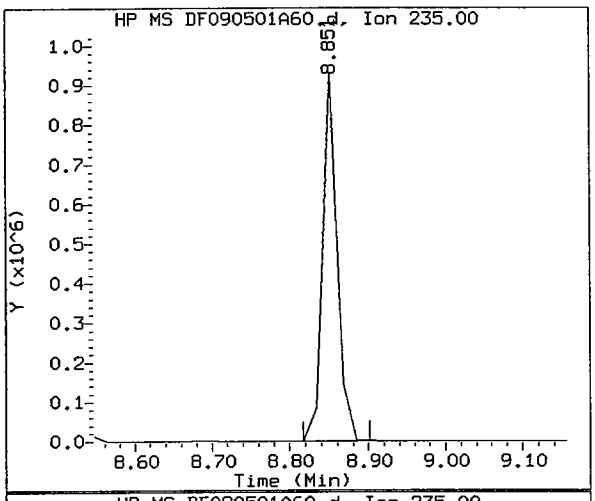
Datafile Analyzed: /chem/5972hp60.i/DF090501A60_KEPONE.b/DF090501A60.d/DF090501A
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



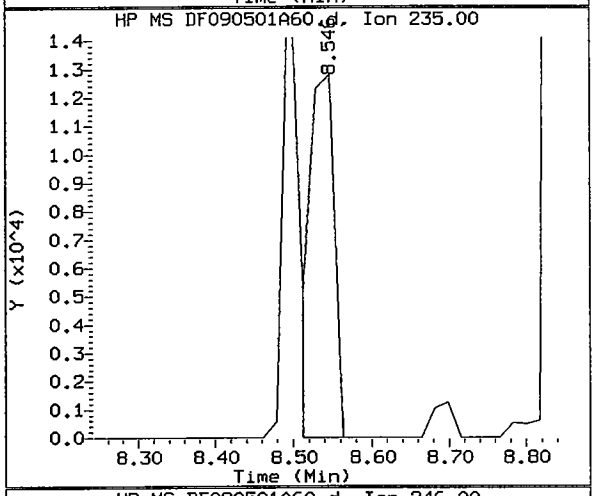


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 8.089

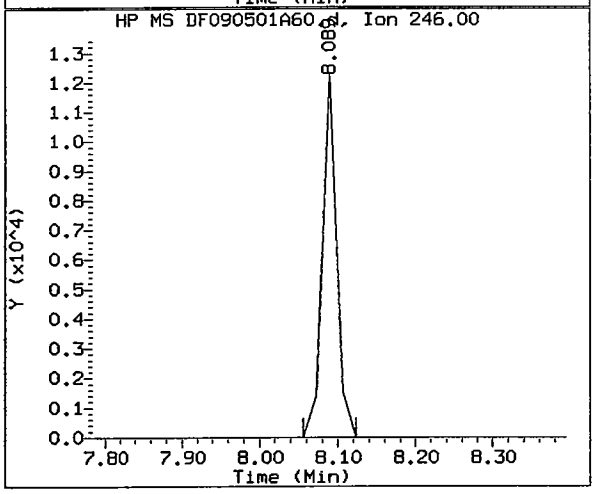
Mass	Area	Ratio
246	15452	100.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 8.851
Area: 1177976



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.546
Area: 30815



Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.089
Area: 15452

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1177976			N/A
4,4-DDE	15452	1.3	20.0	PASS
4,4-DDD	30815	2.5	20.0	PASS
4,4-DDD + DDE	46267	3.8	20.0	PASS

****

TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

****

Data File: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d

Date : 01-MAY-2009 12:31

Client ID: DFTPP

Instrument: 5972hp60.i

Sample Info: DFTPP:2650

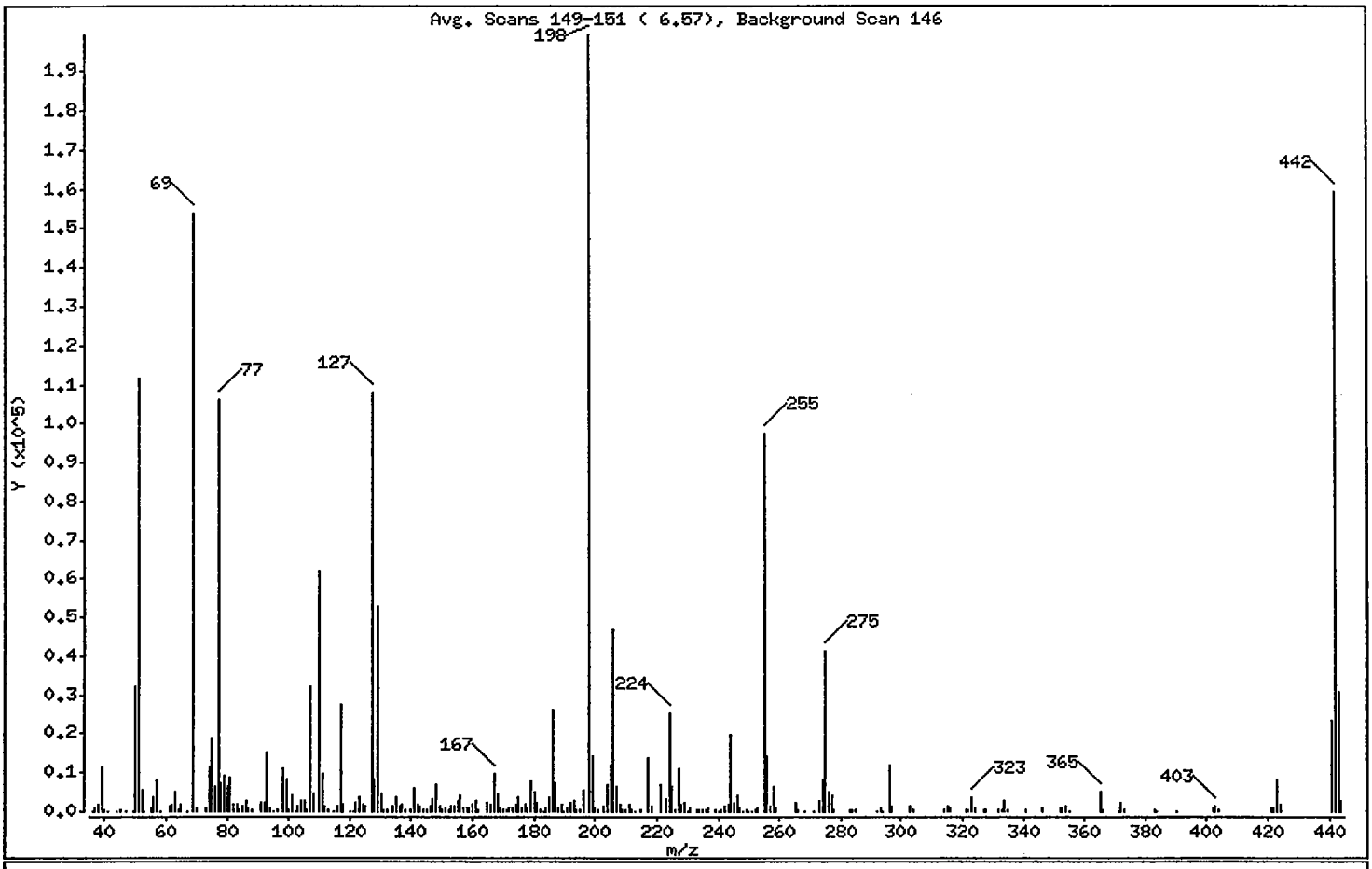
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	56.03
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	77.11
70	Less than 2.00% of mass 69	0.35 (0.46)
127	25.00 - 75.00% of mass 198	54.18
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.17
275	10.00 - 30.00% of mass 198	20.79
365	Greater than 0.75% of mass 198	2.57
441	Present, but less than mass 443	11.66
442	40.00 - 110.00% of mass 198	79.82
443	15.00 - 24.00% of mass 442	15.54 (19.47)

Data File: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d

Date : 01-MAY-2009 12:31

Client ID: DFTPP Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090501A60.d
Spectrum: Avg. Scans 149-151 (6.57), Background Scan 146
Location of Maximum: 198.00
Number of points: 250

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	176	115.00	168	184.00	865	257.00	1216
37.00	774	116.00	1252	185.00	3550	258.00	6610
38.00	2064	117.00	27624	186.00	26008	259.00	833
39.00	11646	118.00	1858	187.00	7522	265.00	2283
40.00	551	120.00	220	188.00	775	266.00	501
41.00	199	121.00	157	189.00	1883	268.00	141
44.00	33	122.00	2197	190.00	192	271.00	139
45.00	396	123.00	3544	191.00	805	273.00	2894
47.00	159	124.00	1646	192.00	2076	274.00	8356
49.00	32	125.00	1349	193.00	2850	275.00	41456
50.00	32360	127.00	108040	194.00	620	276.00	5237
51.00	111720	128.00	8318	195.00	512	277.00	3913
52.00	5669	129.00	52680	196.00	5588	278.00	403
53.00	166	130.00	4620	198.00	199360	283.00	255
55.00	829	131.00	658	199.00	14288	284.00	244
56.00	3635	132.00	263	200.00	878	285.00	482
57.00	8142	134.00	1488	201.00	410	292.00	170
58.00	162	135.00	3811	203.00	1536	293.00	706
61.00	1389	136.00	1511	204.00	6902	294.00	142
62.00	1788	137.00	1744	205.00	11761	296.00	12158
63.00	4863	138.00	234	206.00	46840	297.00	1547
64.00	678	140.00	687	207.00	6463	303.00	1367
65.00	1877	141.00	6114	208.00	1776	304.00	294
67.00	185	142.00	1897	209.00	647	314.00	541
69.00	153728	143.00	1246	210.00	676	315.00	1369
70.00	705	144.00	285	211.00	1973	316.00	701
73.00	1004	145.00	239	212.00	301	321.00	255
74.00	11636	146.00	1279	213.00	188	322.00	243
75.00	19024	147.00	3053	215.00	404	323.00	3607
76.00	6417	148.00	6784	217.00	13658	324.00	731
77.00	106248	149.00	1297	218.00	1455	327.00	605
78.00	7263	150.00	275	221.00	6954	328.00	258
79.00	9180	151.00	791	223.00	3209	332.00	252
80.00	6623	152.00	453	224.00	25488	333.00	263
81.00	8625	153.00	1448	225.00	6536	334.00	2697

Data File: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d

Date : 01-MAY-2009 12:31

Client ID: DFTPP Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090501A60.d
Spectrum: Avg. Scans 149-151 (6.57), Background Scan 146
Location of Maximum: 198.00
Number of points: 250

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	2015	154.00	1338	226.00	256	335.00	547
83.00	1836	155.00	2854	227.00	10851	341.00	387
84.00	344	156.00	4052	228.00	1683	346.00	802
85.00	1316	157.00	947	229.00	2442	352.00	979
86.00	2669	158.00	883	230.00	207	353.00	846
87.00	1144	159.00	779	231.00	978	354.00	1215
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92.00	2358	162.00	616	235.00	524	366.00	662
93.00	15253	165.00	2179	236.00	441	371.00	144
94.00	1128	166.00	1927	237.00	710	372.00	2522
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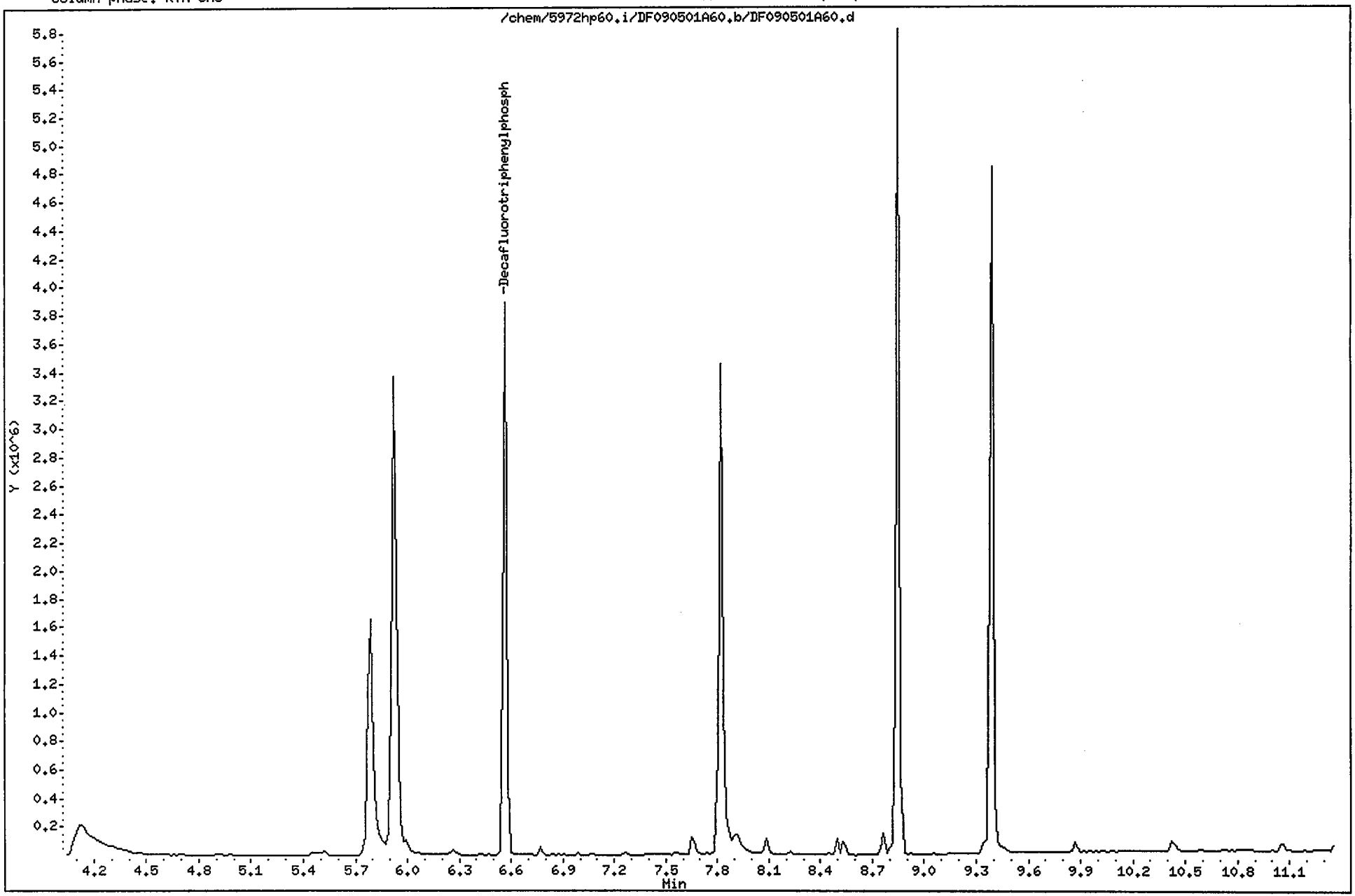
96.00	561	168.00	4423	240.00	202	383.00	487
98.00	10963	169.00	888	241.00	514	384.00	177
99.00	8084	170.00	337	242.00	1248	390.00	226
100.00	620	171.00	311	243.00	1740	402.00	795
101.00	4031	172.00	860	244.00	19712	403.00	1284
102.00	173	173.00	1015	245.00	2288	404.00	254
103.00	1578	174.00	1961	246.00	4141	421.00	1031
104.00	2749	175.00	3597	247.00	824	422.00	879
105.00	2611	176.00	1031	248.00	135	423.00	8169
106.00	426	177.00	1698	249.00	555	424.00	1618
107.00	31968	178.00	705	250.00	187	441.00	23256
108.00	4720	179.00	7902	251.00	139	442.00	159168
110.00	61800	180.00	4861	252.00	328	443.00	30992
111.00	9717	181.00	2452	253.00	698	444.00	2622
112.00	1318	182.00	398	255.00	97600		
113.00	456	183.00	141	256.00	14305		

Data File: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d
Date : 01-MAY-2009 12:31
Client ID: DFTPP
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	56.03		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	77.11		PASS
70	Less than 2% of mass 69	0.35	(0.46)	PASS
127	25 - 75% of mass 198	54.18		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.17		PASS
275	10 - 30% of mass 198	20.79		PASS
365	Greater than 0.75% of mass 198	2.57		PASS
441	Present, but less than mass 443	11.66	(75.03)	PASS
442	40 - 110 % of mass 198	79.82		PASS
443	15 - 24% of mass 442	15.54	(19.47)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6	5.0	PASS
Benzidine	1.4	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1177976			N/A
4,4-DDE	15452	1.3	20.0	PASS
4,4-DDD	30815	2.5	20.0	PASS
4,4-DDD + DDE	46267	3.8	20.0	PASS

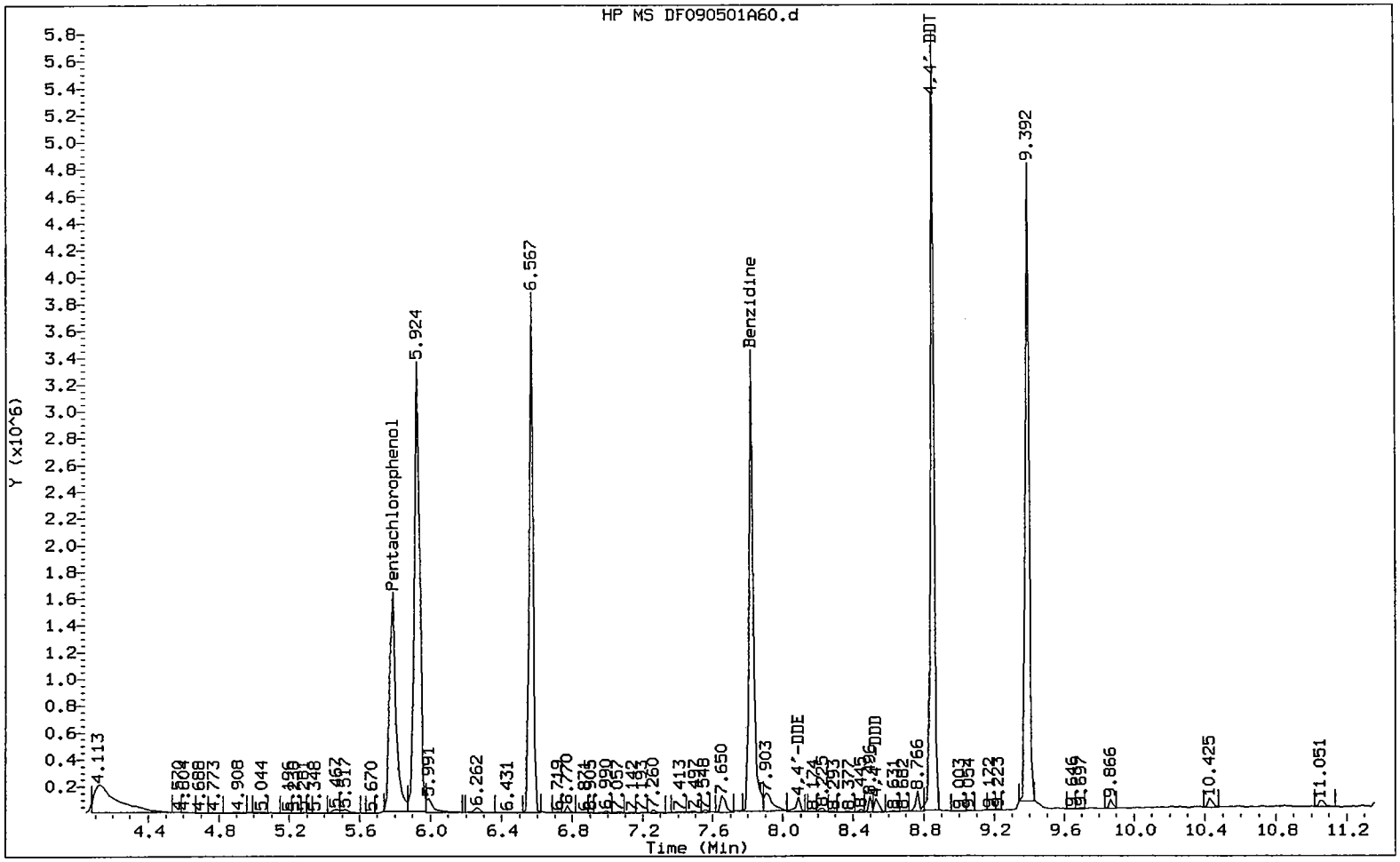
Tuning Sample, /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

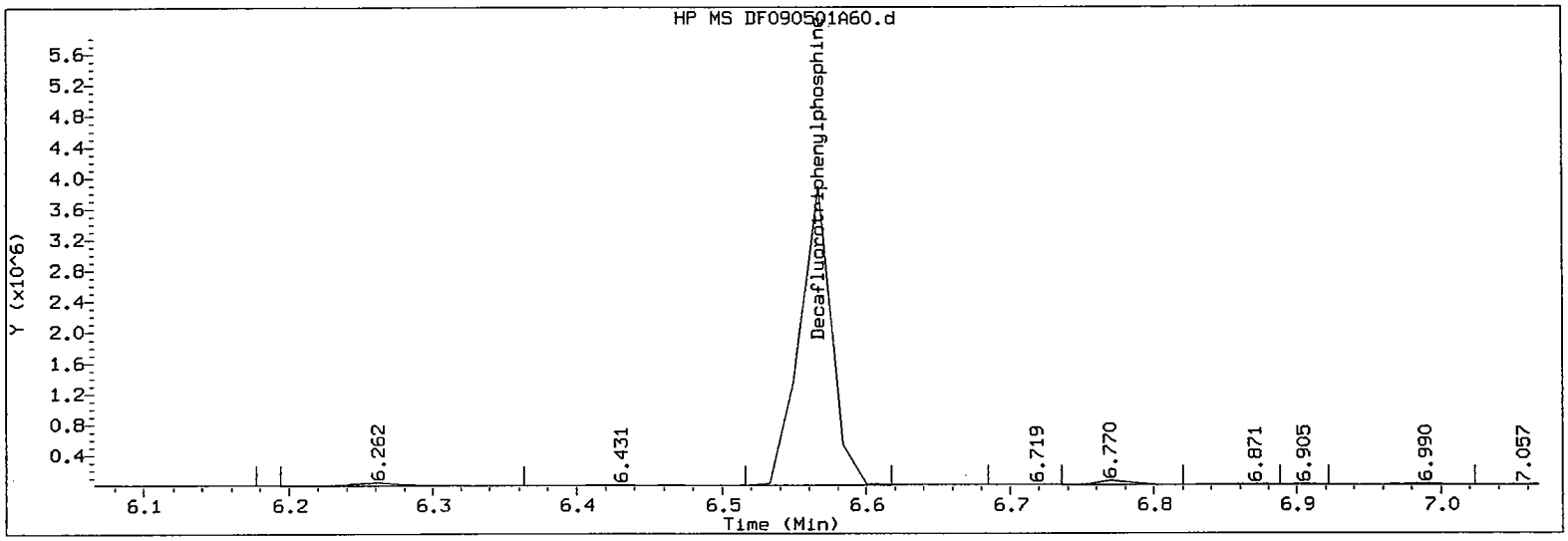
Report Date: 05/01/2009 12:56

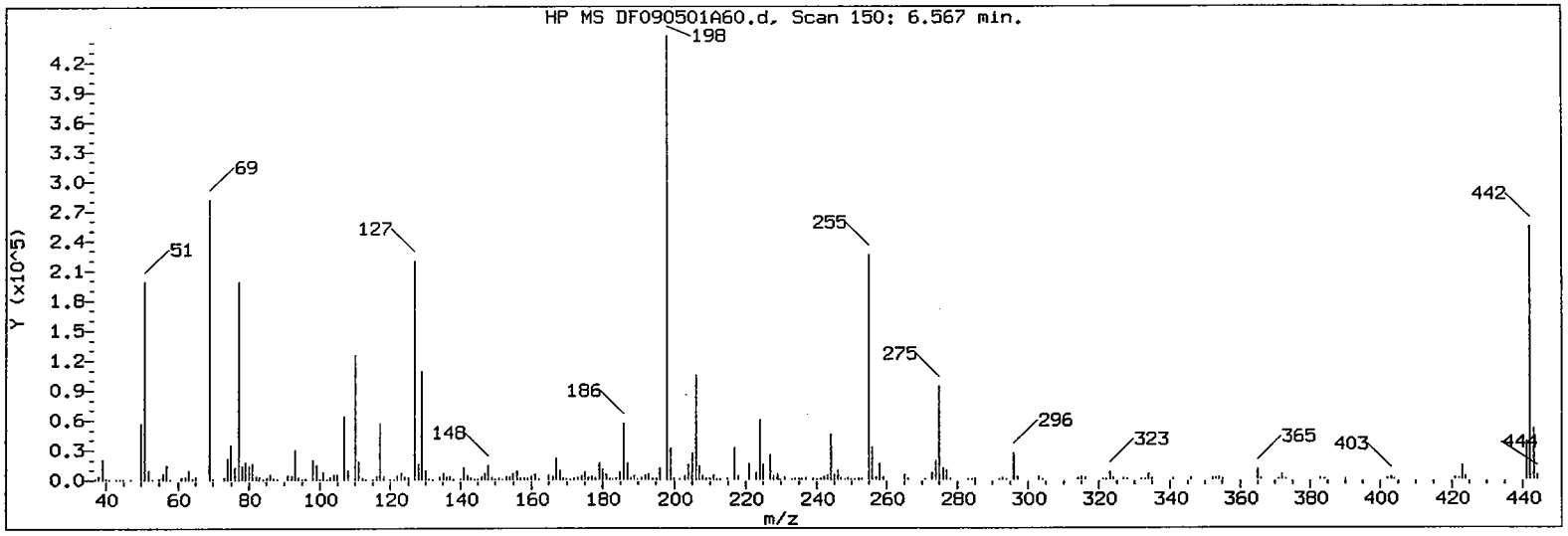
Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 01-MAY-2009 12:31 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/01/2009 12:56

Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 01-MAY-2009 12:31 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



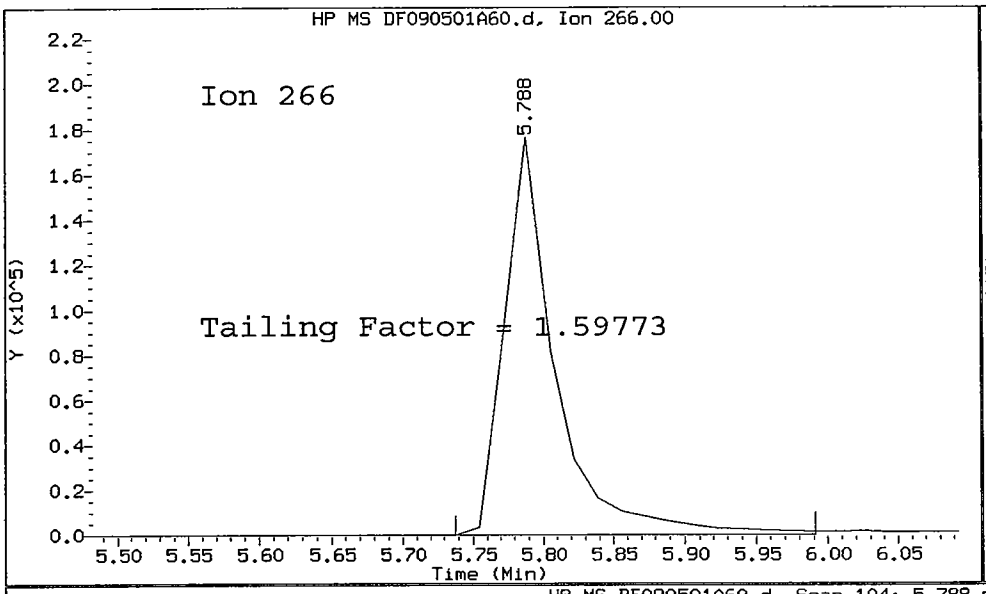


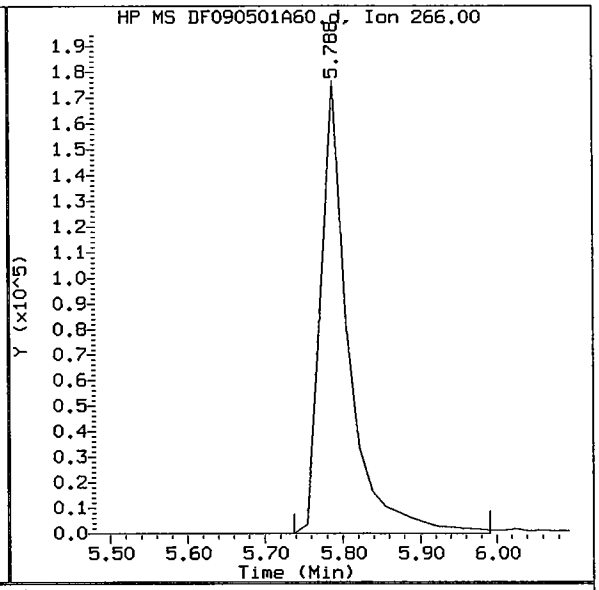
DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

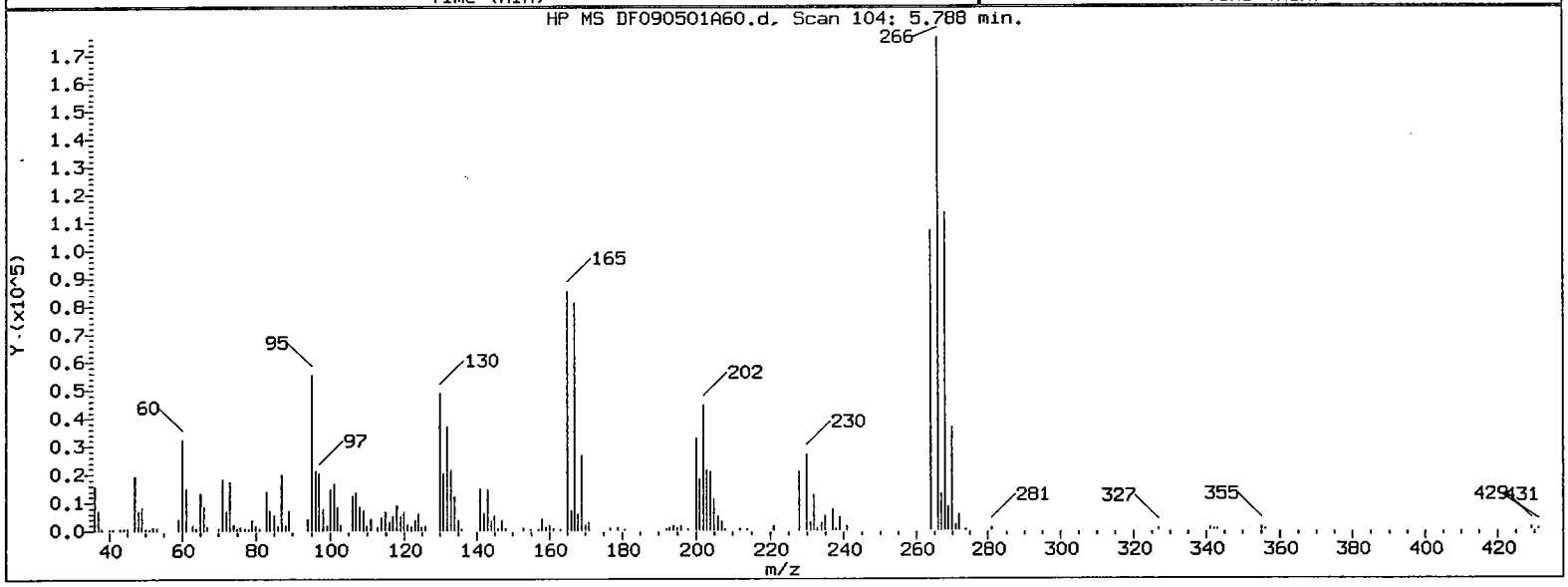
Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	56.03		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	77.11		PASS
70	Less than 2% of mass 69	0.35	(0.46)	PASS
127	25 - 75% of mass 198	54.18		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	7.17		PASS
275	10 - 30% of mass 198	20.79		PASS
365	Greater than 0.75% of mass 198	2.57		PASS
441	Present, but less than mass 443	11.66	(75.03)	PASS
442	40 - 110% of mass 198	79.82		PASS
443	15 - 24% of mass 442	15.54	(19.47)	PASS

Report Date: 05/01/2009 12:56

Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:







Pentachlorophenol
==========
Exp. RT = 6.043
Found RT = 5.788

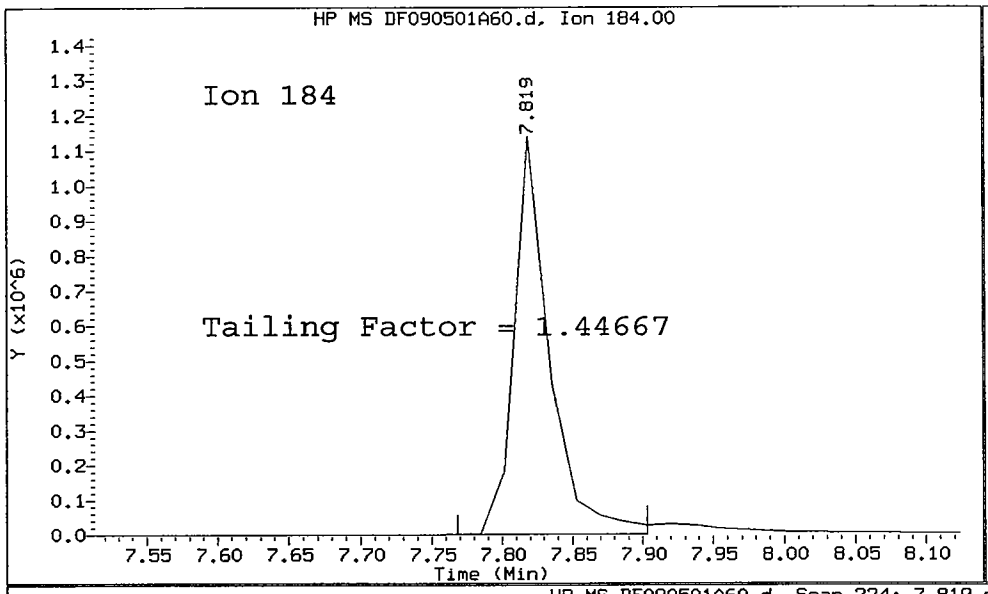
Mass	Area	Ratio
266	443839	100.00

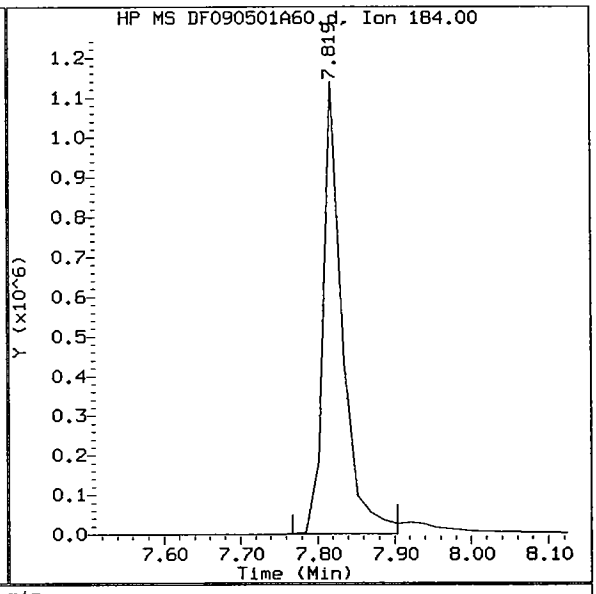
Tailing factor for Pentachlorophenol OK

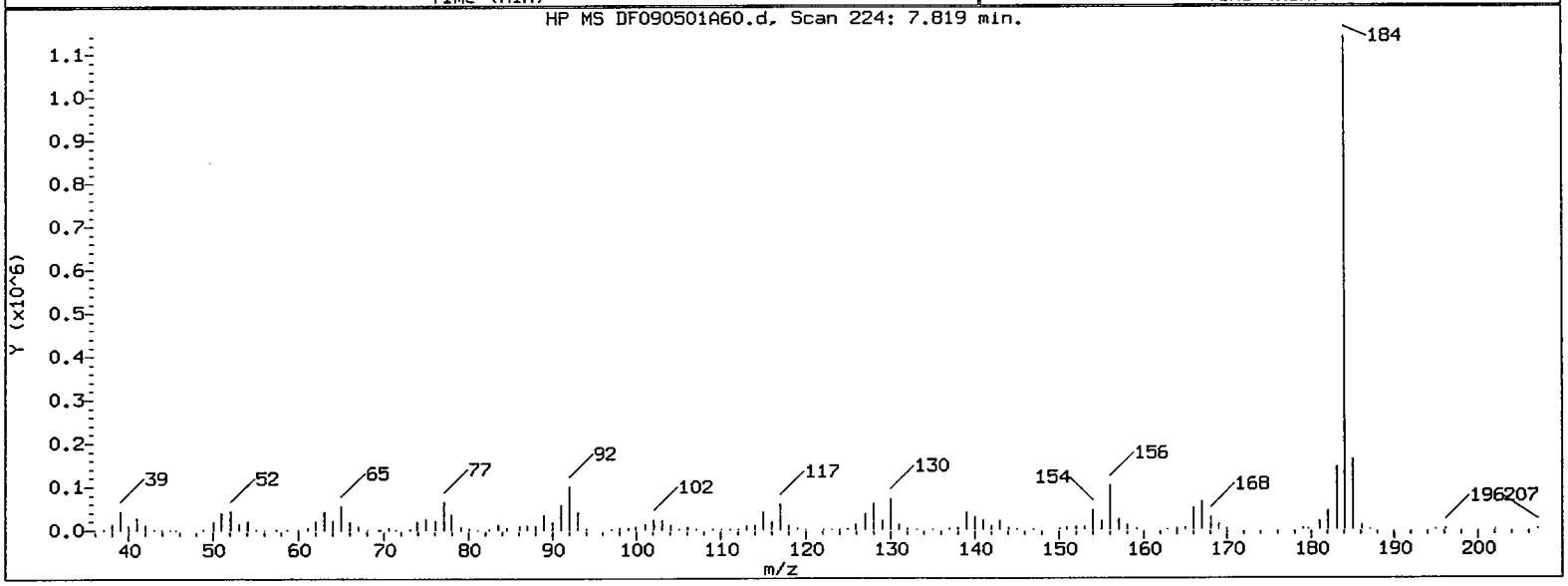
Tailing Factor = 1.6 Maximum Allowed = 5.0

Report Date: 05/01/2009 12:56

Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:







Benzidine
=========
Exp. RT = 8.074
Found RT = 7.819

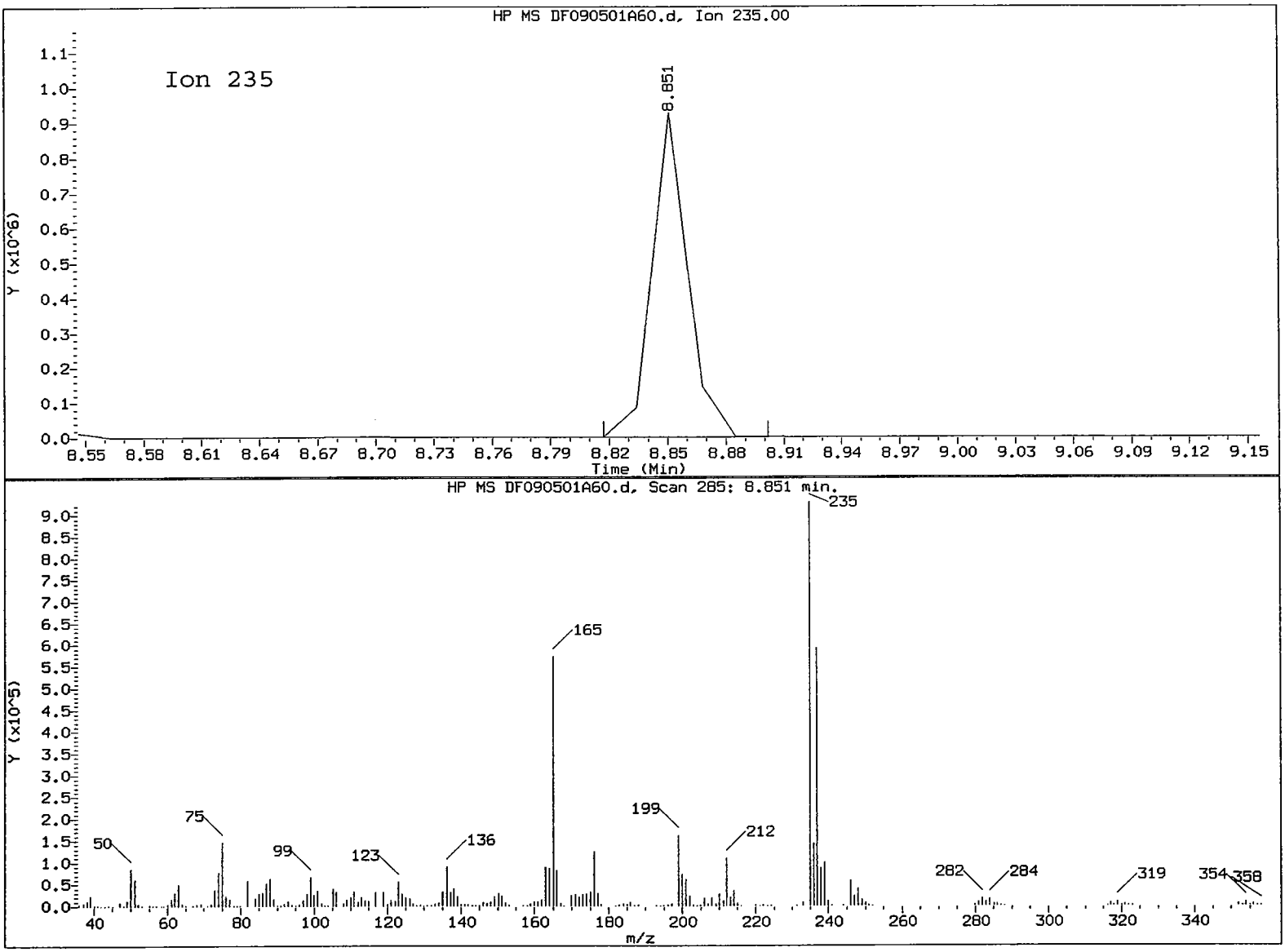
Mass	Area	Ratio
184	2004979	100.00

Tailing factor for Benzidine OK

Tailing Factor = 1.4 Maximum Allowed = 3.0

Report Date: 05/01/2009 12:56

Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

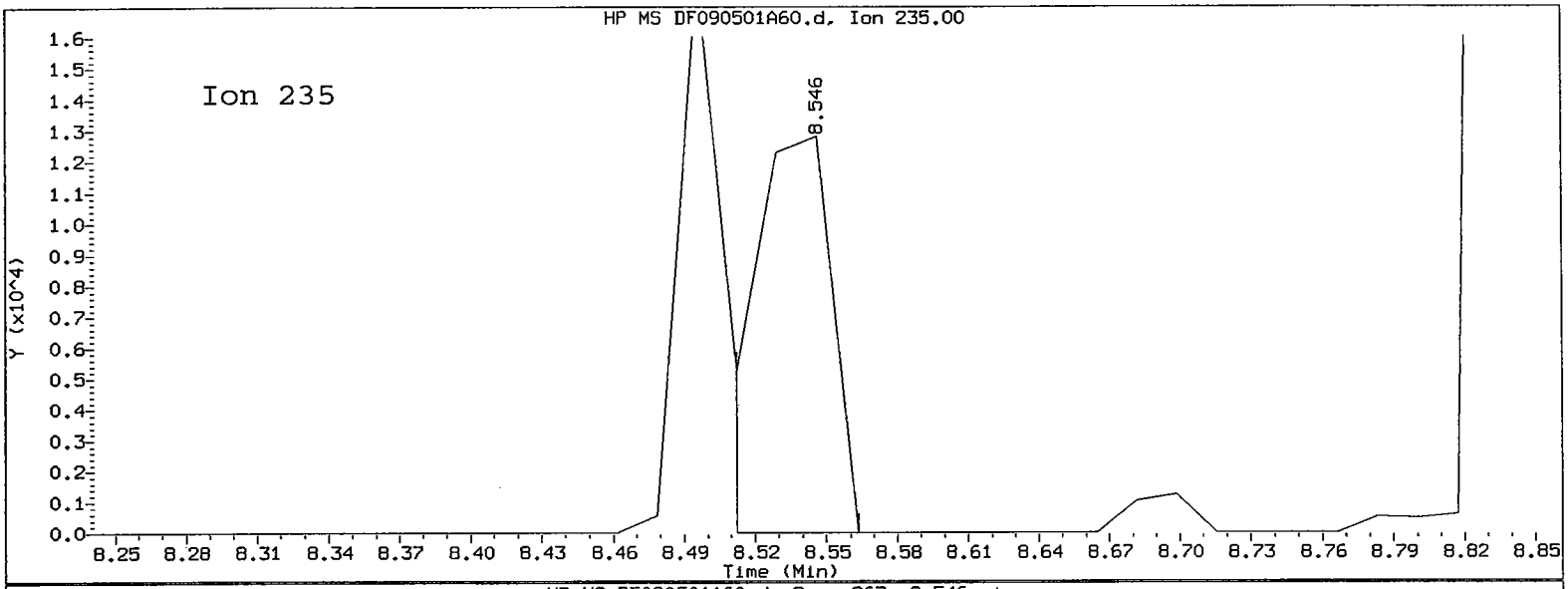


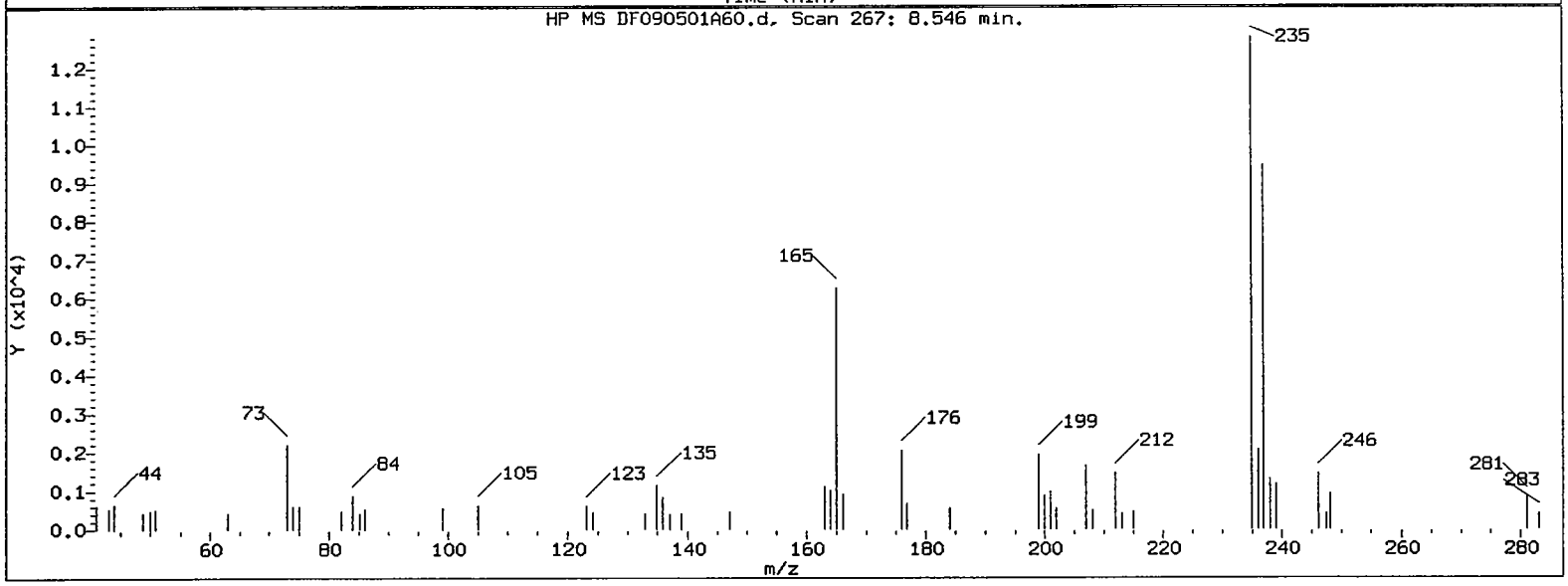
4,4'-DDT
========
Exp. RT = 8.505
Found RT = 8.851

Mass	Area	Ratio
235	1177976	100.00

Report Date: 05/01/2009 12:56

Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



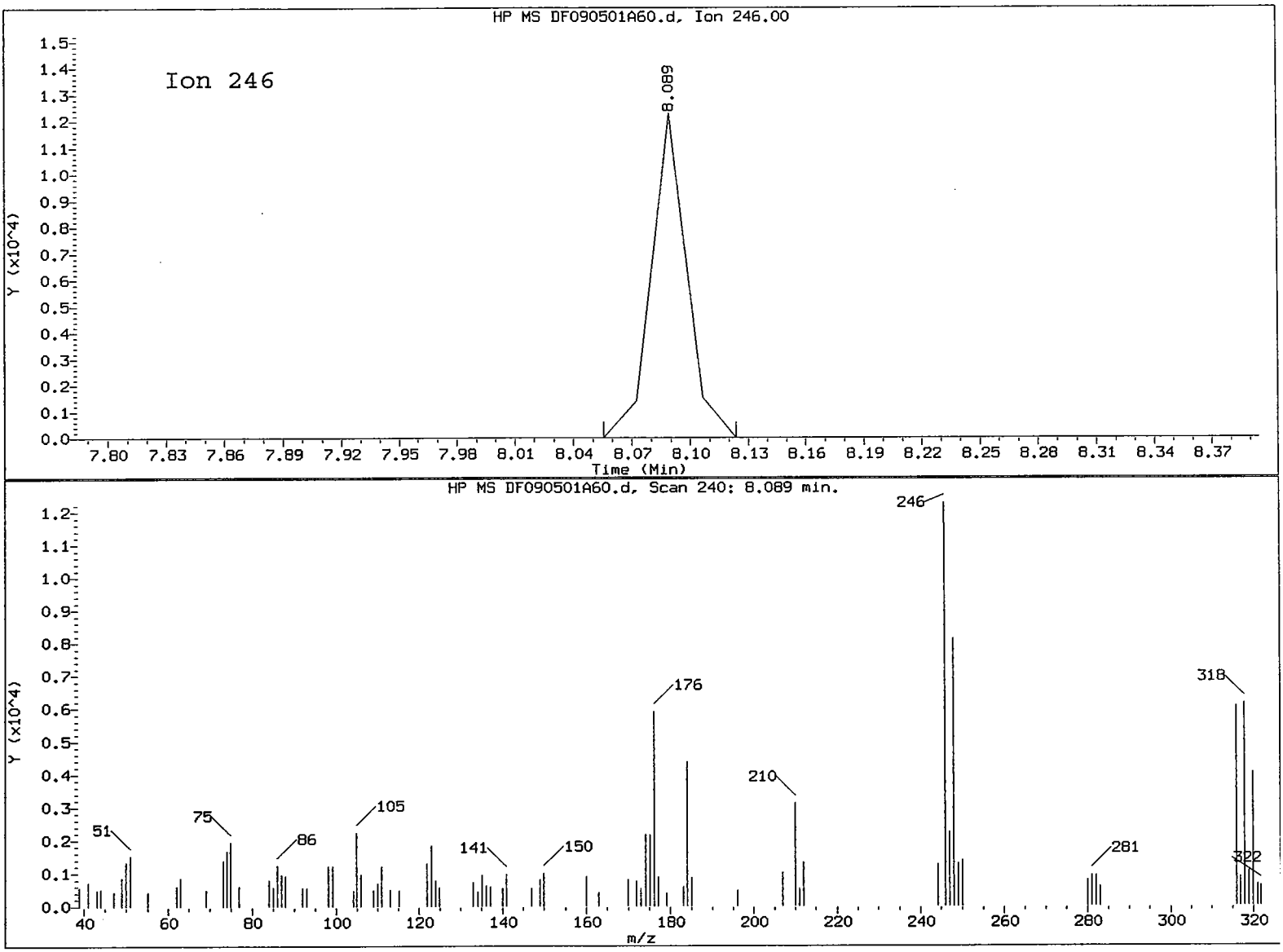


4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.546

Mass	Area	Ratio
235	30815	100.00

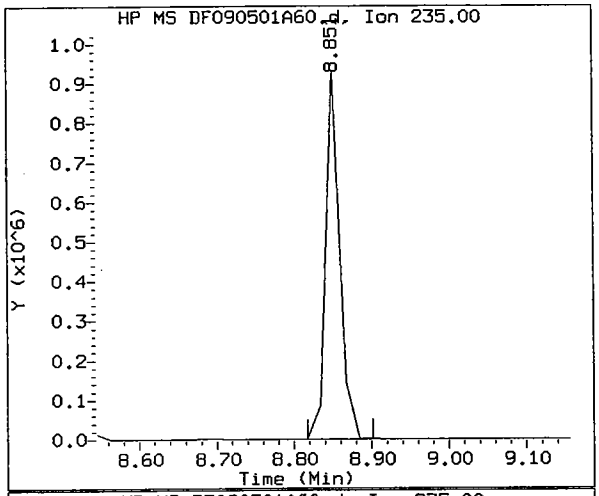
Report Date: 05/01/2009 12:56

Datafile Analyzed: /chem/5972hp60.i/DF090501A60.b/DF090501A60.d/DF090501A60.d
Method Used: /chem/5972hp60.i/DF090501A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 12:31 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

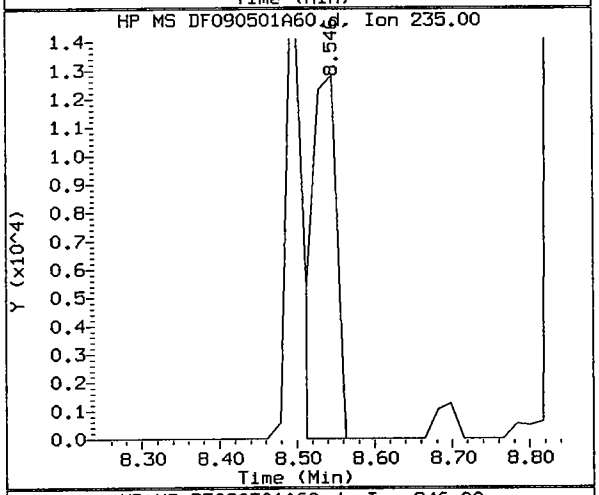


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 8.089

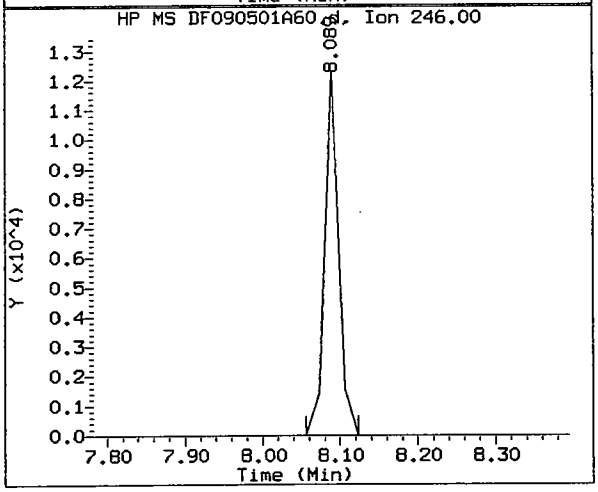
Mass	Area	Ratio
246	15452	100.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 8.851
Area: 1177976



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.546
Area: 30815



Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.089
Area: 15452

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1177976			N/A
4,4-DDE	15452	1.3	20.0	PASS
4,4-DDD	30815	2.5	20.0	PASS
4,4-DDD + DDE	46267	3.8	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d

Date : 01-MAY-2009 09:44

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

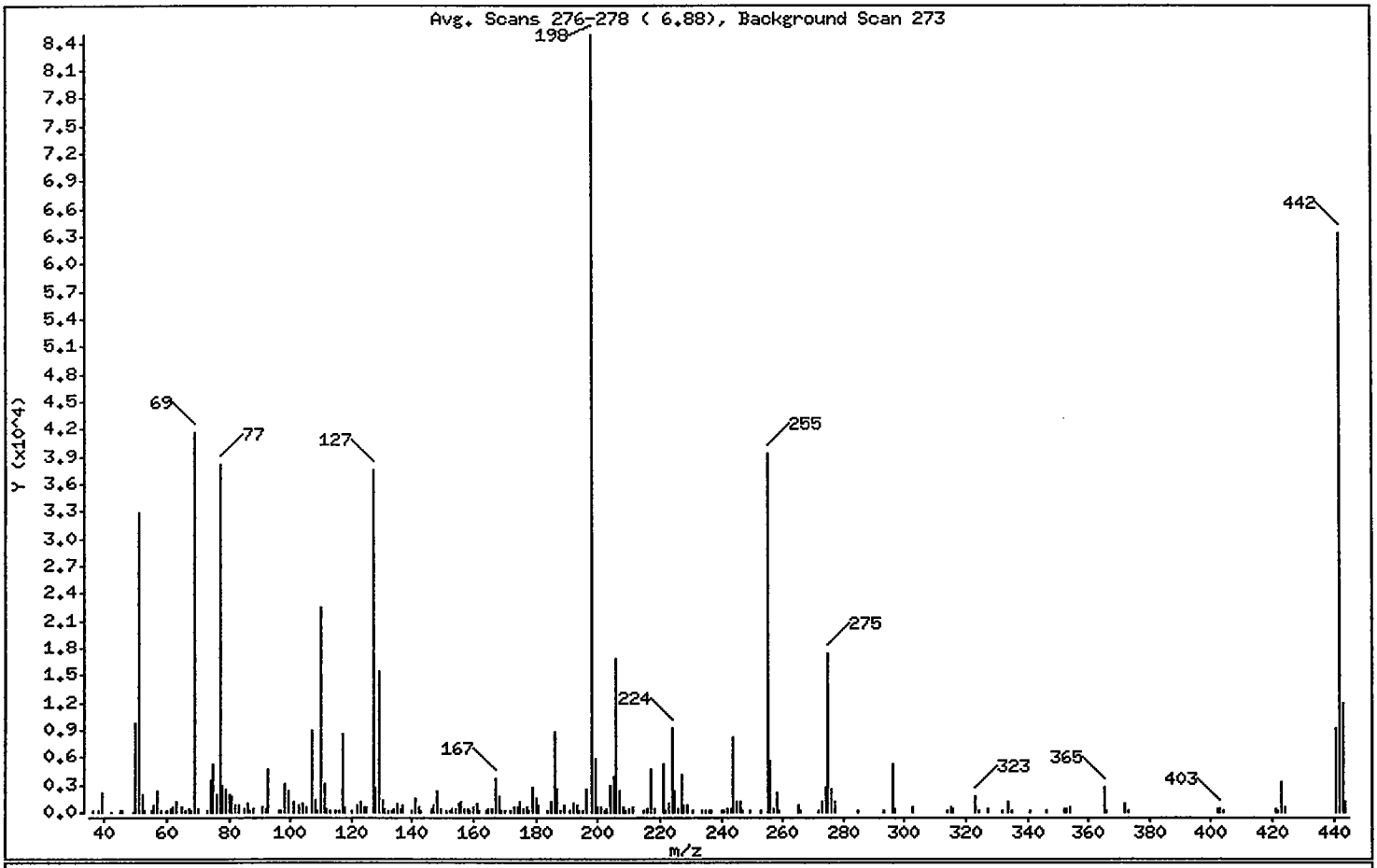
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	38.77
68	Less than 2.00% of mass 69	0.27 (0.56)
69	Mass 69 relative abundance	49.05
70	Less than 2.00% of mass 69	0.40 (0.81)
127	25.00 - 75.00% of mass 198	44.26
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	20.54
365	Greater than 0.75% of mass 198	3.25
441	Present, but less than mass 443	10.88
442	40.00 - 110.00% of mass 198	74.62
443	15.00 - 24.00% of mass 442	13.97 (18.72)

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d

Date : 01-MAY-2009 09:44

Client ID: DFTPP Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090501A62.d

Spectrum: Avg. Scans 276-278 (6.88), Background Scan 273

Location of Maximum: 198.00

Number of points: 216

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	202	111.00	3140	177.00	654	246.00	1261
38.00	134	112.00	416	178.00	128	247.00	188
39.00	2138	113.00	110	179.00	2767	249.00	208
42.00	74	115.00	121	180.00	1526	253.00	166
45.00	184	116.00	251	181.00	823	255.00	39320
46.00	104	117.00	8655	184.00	220	256.00	5698
49.00	87	118.00	546	185.00	1132	257.00	382
50.00	9763	120.00	146	186.00	8832	258.00	2103
51.00	32904	122.00	823	187.00	2536	259.00	160
52.00	1910	123.00	1194	188.00	272	265.00	770
53.00	107	124.00	585	189.00	707	266.00	218
55.00	134	125.00	579	191.00	155	272.00	107
56.00	840	127.00	37568	192.00	1013	273.00	1263
57.00	2337	128.00	2798	193.00	687	274.00	2814
58.00	255	129.00	15395	194.00	274	275.00	17432
60.00	161	130.00	1378	195.00	182	276.00	2485
61.00	446	131.00	430	196.00	2538	277.00	1197
62.00	568	132.00	124	198.00	84888	285.00	136
63.00	1208	133.00	110	199.00	5879	293.00	190
65.00	499	134.00	297	200.00	526	296.00	5321
66.00	159	135.00	1045	201.00	500	297.00	484
67.00	295	136.00	357	202.00	137	303.00	617
68.00	233	137.00	699	203.00	416	314.00	143
69.00	41632	140.00	103	204.00	2889	315.00	638
70.00	339	141.00	1583	205.00	4001	316.00	359
73.00	105	142.00	575	206.00	16840	323.00	1695
74.00	3501	143.00	184	207.00	2271	324.00	224
75.00	5367	146.00	340	208.00	648	327.00	332
76.00	2018	147.00	753	209.00	116	332.00	201
77.00	38232	148.00	2347	210.00	451	334.00	1090
78.00	2872	149.00	435	211.00	622	335.00	178
79.00	2594	151.00	154	215.00	129	341.00	272
80.00	1883	152.00	126	216.00	294	346.00	211
81.00	1759	153.00	459	217.00	4710	352.00	344
82.00	733	154.00	421	218.00	398	353.00	346

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d

Date : 01-MAY-2009 09:44

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090501A62.d

Spectrum: Avg. Scans 276-278 (6.88), Background Scan 273

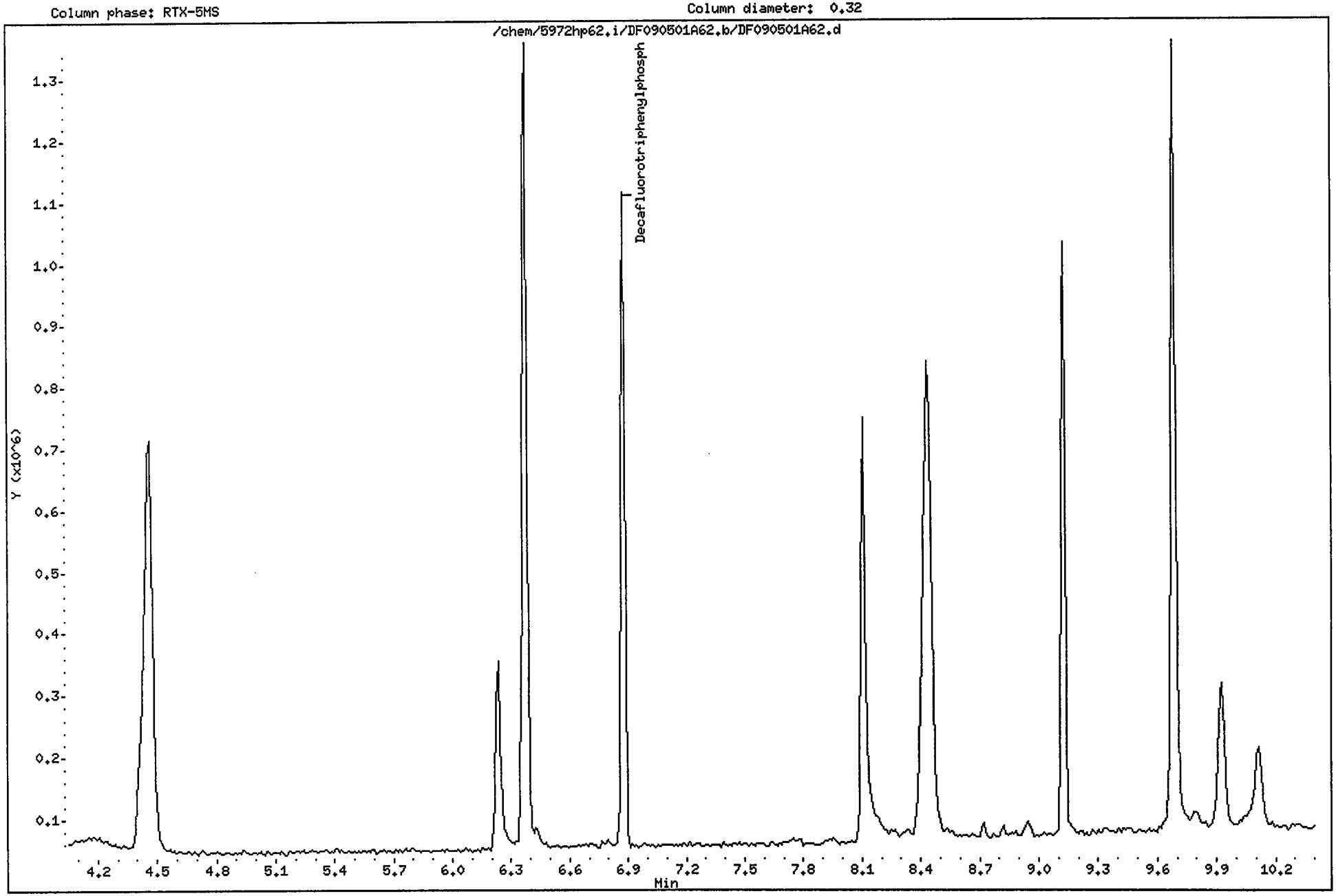
Location of Maximum: 198.00

Number of points: 216

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	691	155.00	964	221.00	5225	354.00	625
85.00	323	156.00	1197	222.00	190	365.00	2755
86.00	951	157.00	321	223.00	1072	366.00	168
87.00	212	158.00	338	224.00	9237	372.00	893
88.00	300	159.00	291	225.00	2412	373.00	115
91.00	559	160.00	557	226.00	302	402.00	359
92.00	321	161.00	904	227.00	4044	403.00	410
93.00	4601	162.00	130	228.00	691	404.00	119
96.00	127	164.00	119	229.00	690	421.00	398
97.00	246	165.00	463	231.00	187	422.00	278
98.00	3108	166.00	468	234.00	116	423.00	3234
99.00	2384	167.00	3776	235.00	213	424.00	643
101.00	1134	168.00	1771	236.00	218	441.00	9240
103.00	720	169.00	205	237.00	168	442.00	63336
104.00	947	170.00	126	240.00	141	443.00	11856
105.00	645	172.00	264	241.00	213	444.00	1212
107.00	9062	173.00	570	242.00	352		
108.00	1465	174.00	615	243.00	463		
109.00	147	175.00	1162	244.00	8179		
110.00	22464	176.00	418	245.00	1165		

Data File: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d
Date : 01-MAY-2009 09:44
Client ID: DFTPP
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	38.77		PASS
68	Less than 2% of mass 69	0.27	(0.56)	PASS
69	Mass 69 relative abundance	49.05		PASS
70	Less than 2% of mass 69	0.40	(0.81)	PASS
127	25 - 75% of mass 198	44.26		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.93		PASS
275	10 - 30% of mass 198	20.54		PASS
365	Greater than 0.75% of mass 198	3.25		PASS
441	Present, but less than mass 443	10.88	(77.94)	PASS
442	40 - 110 % of mass 198	74.62		PASS
443	15 - 24% of mass 442	13.97	(18.72)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4	5.0	PASS
Benzidine	2.1	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	251503			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3630	1.4	20.0	PASS
4,4-DDD + DDE	3630	1.4	20.0	PASS

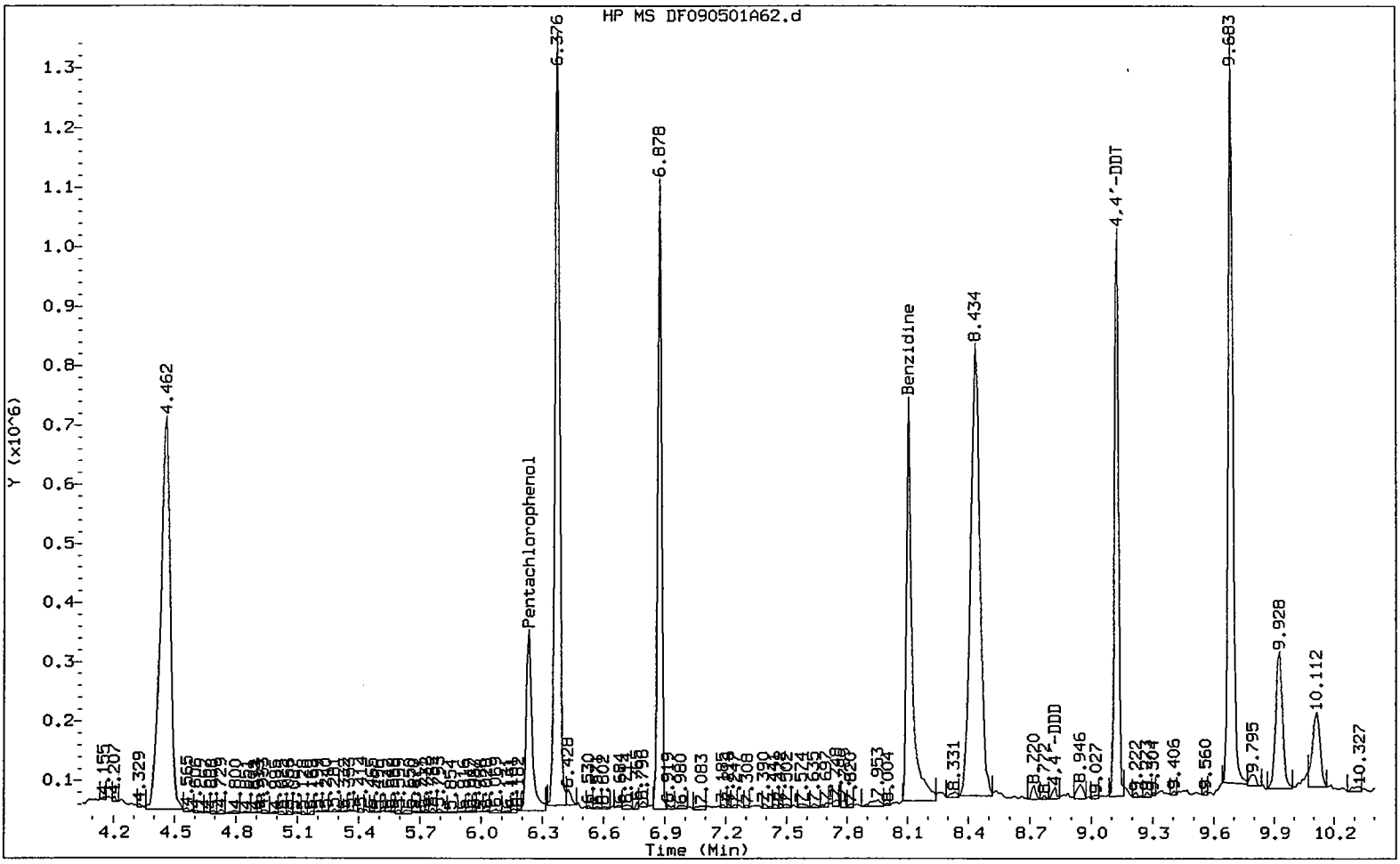
Tuning Sample, /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

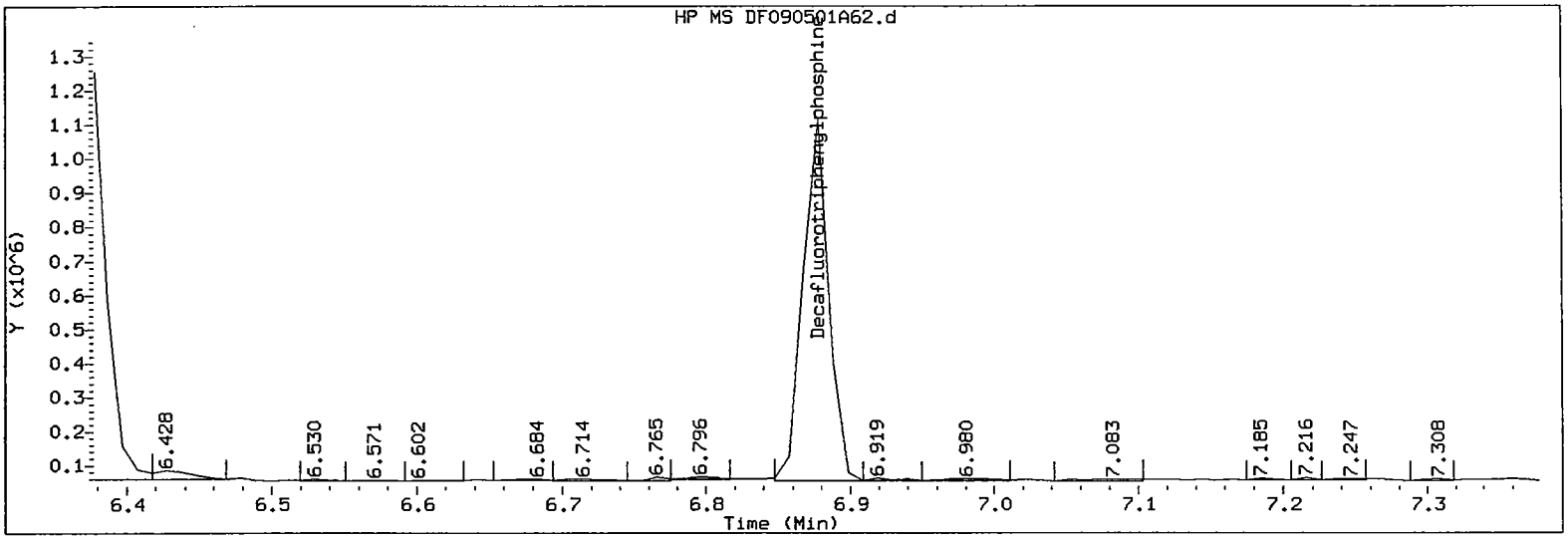
Report Date: 05/01/2009 10:46

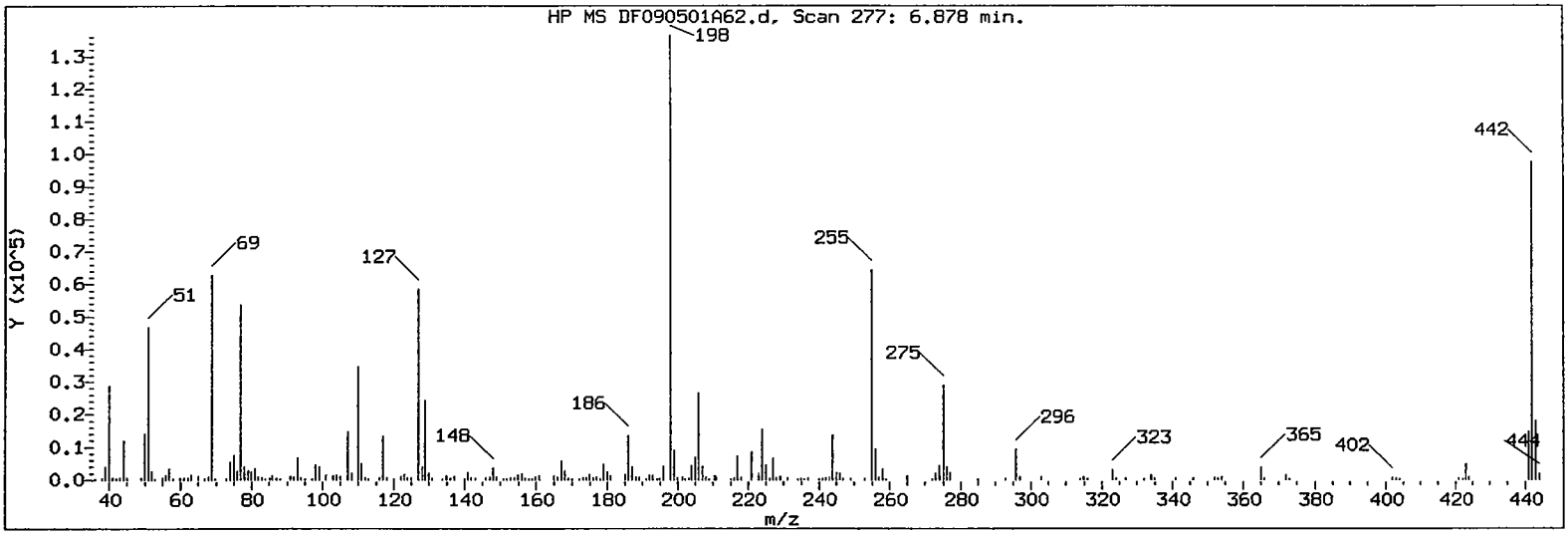
Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 01-MAY-2009 09:44 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 01-MAY-2009 09:44 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



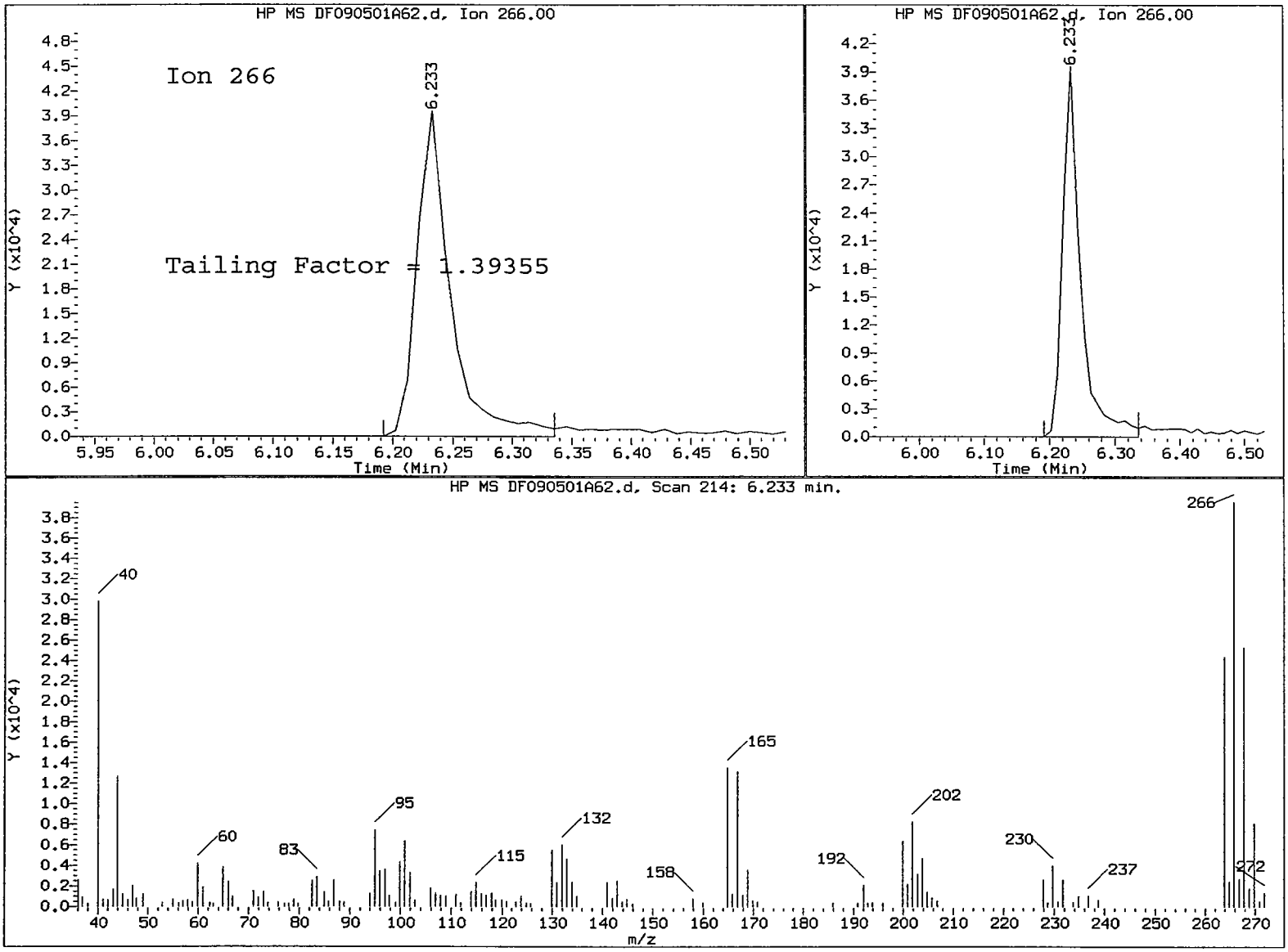


DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	38.77		PASS
68	Less than 2% of mass 69	0.27	(0.56)	PASS
69	Mass 69 relative abundance	49.05		PASS
70	Less than 2% of mass 69	0.40	(0.81)	PASS
127	25 - 75% of mass 198	44.26		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.93		PASS
275	10 - 30% of mass 198	20.54		PASS
365	Greater than 0.75% of mass 198	3.25		PASS
441	Present, but less than mass 443	10.88	(77.94)	PASS
442	40 - 110% of mass 198	74.62		PASS
443	15 - 24% of mass 442	13.97	(18.72)	PASS

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Pentachlorophenol
==========
Exp. RT = 6.226
Found RT = 6.233

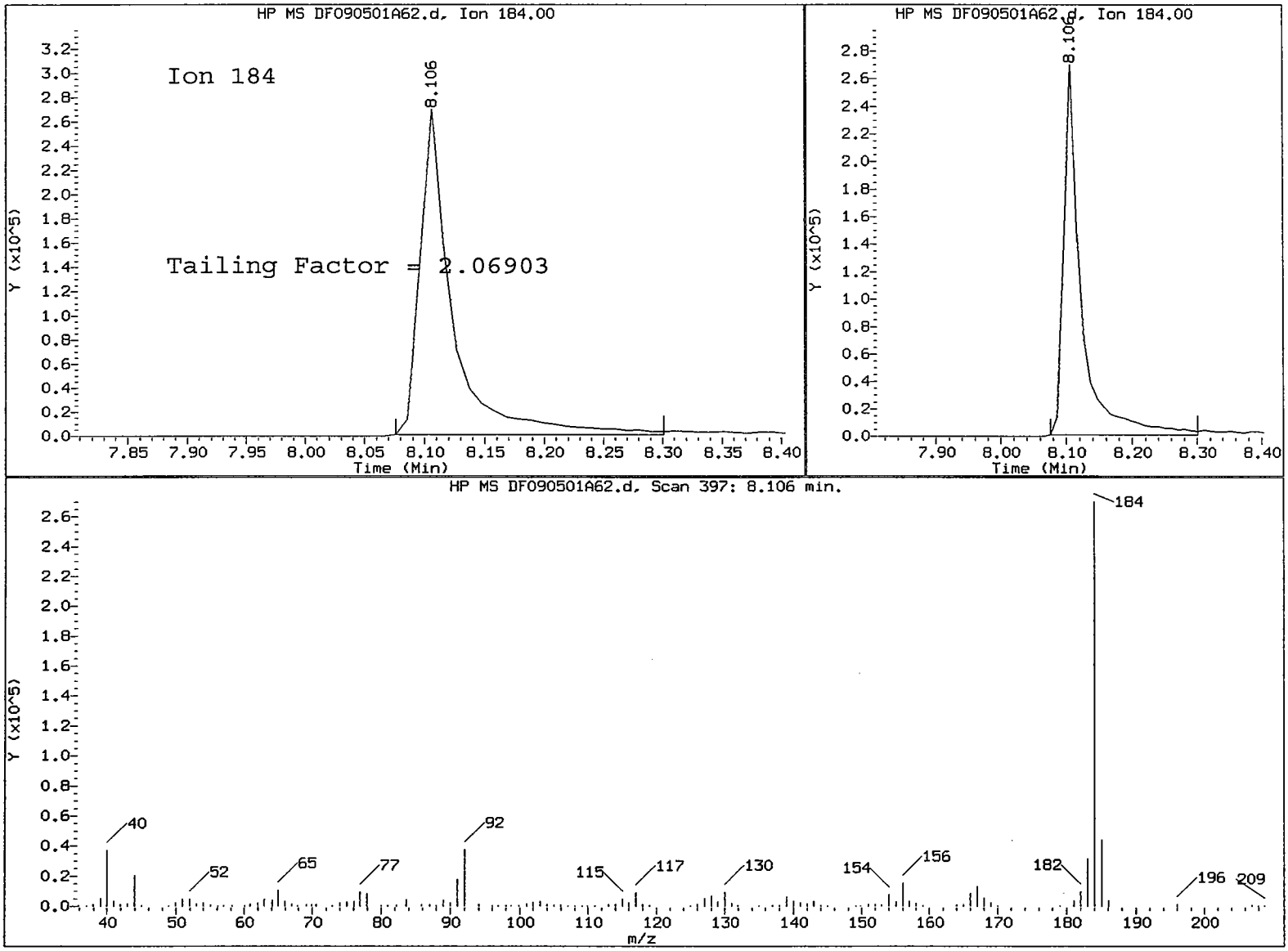
Mass	Area	Ratio
266	77003	100.00

Tailing factor for Pentachlorophenol OK

Tailing Factor = 1.4 Maximum Allowed = 5.0

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Benzidine
=========
Exp. RT = 8.099
Found RT = 8.106

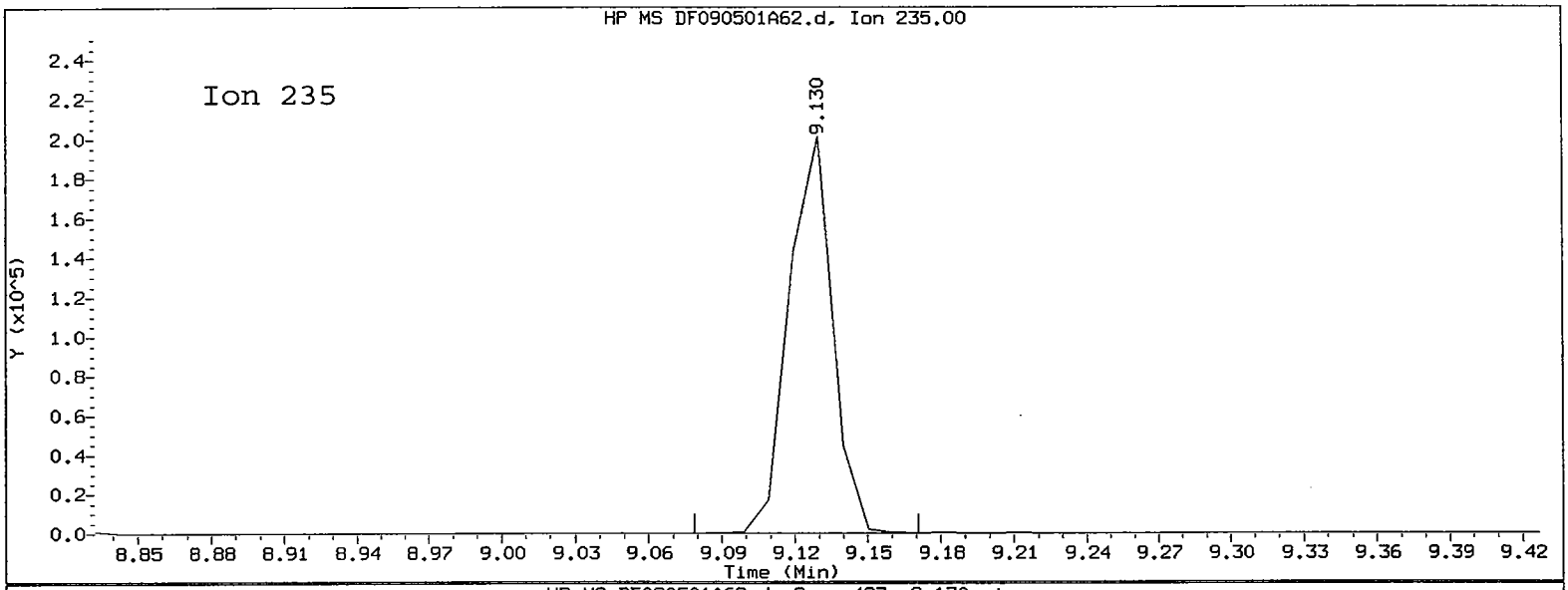
Mass	Area	Ratio
184	508766	100.00

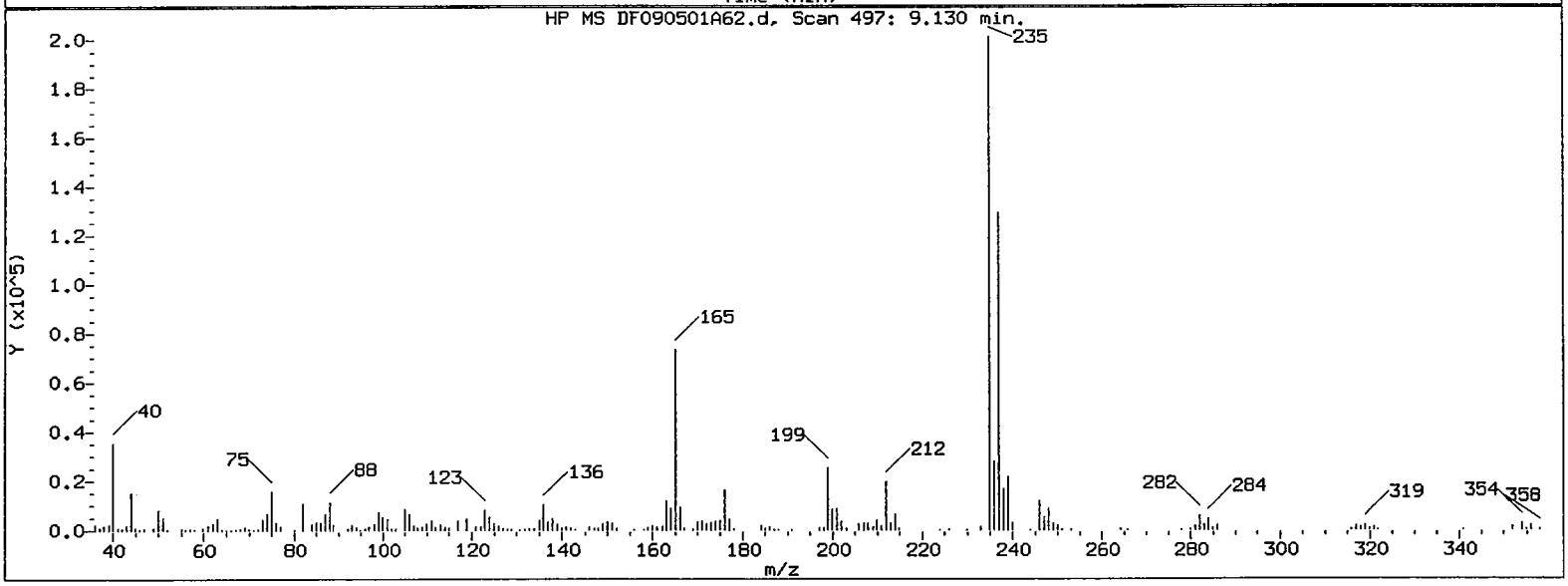
Tailing factor for Benzidine OK

Tailing Factor = 2.1 Maximum Allowed = 3.0

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



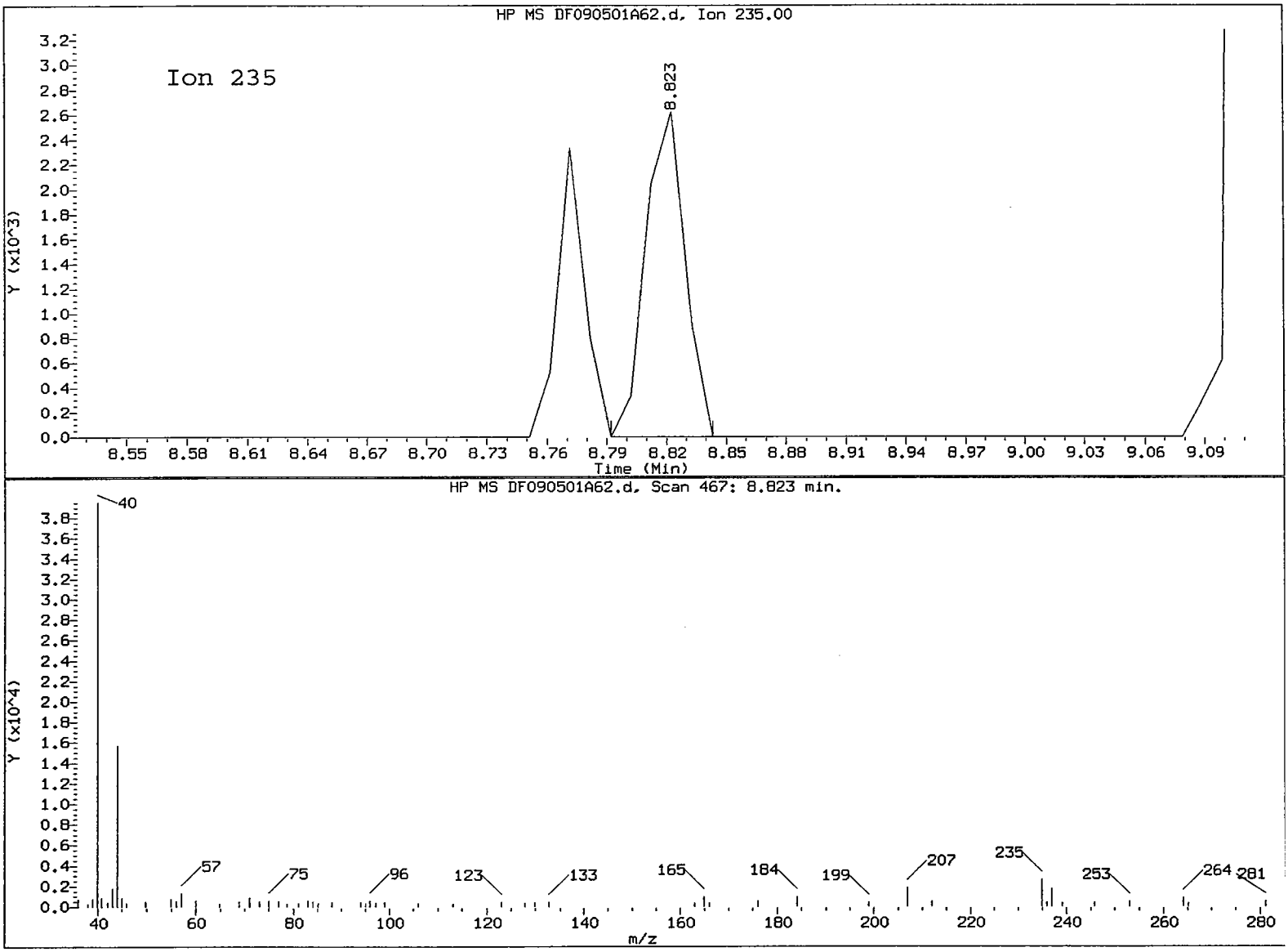


4,4'-DDT
========
Exp. RT = 8.505
Found RT = 9.130

Mass	Area	Ratio
235	251503	100.00

Report Date: 05/01/2009 10:46

Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

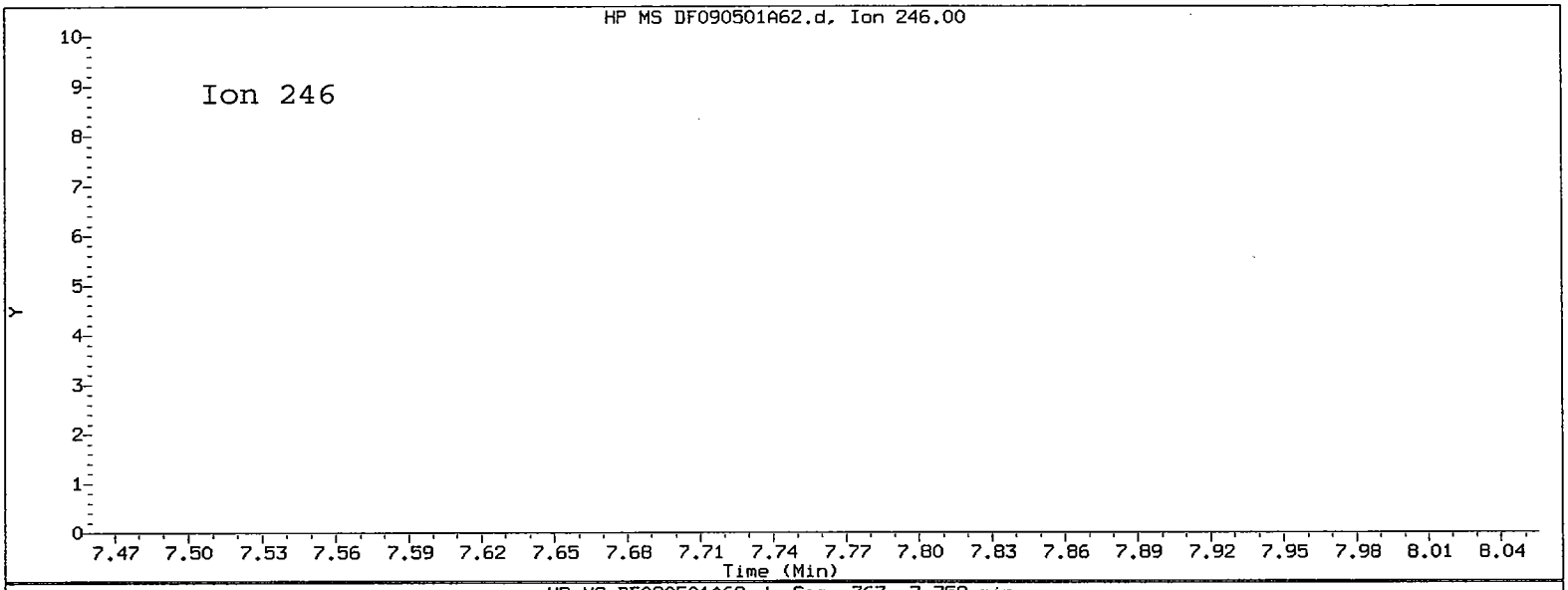


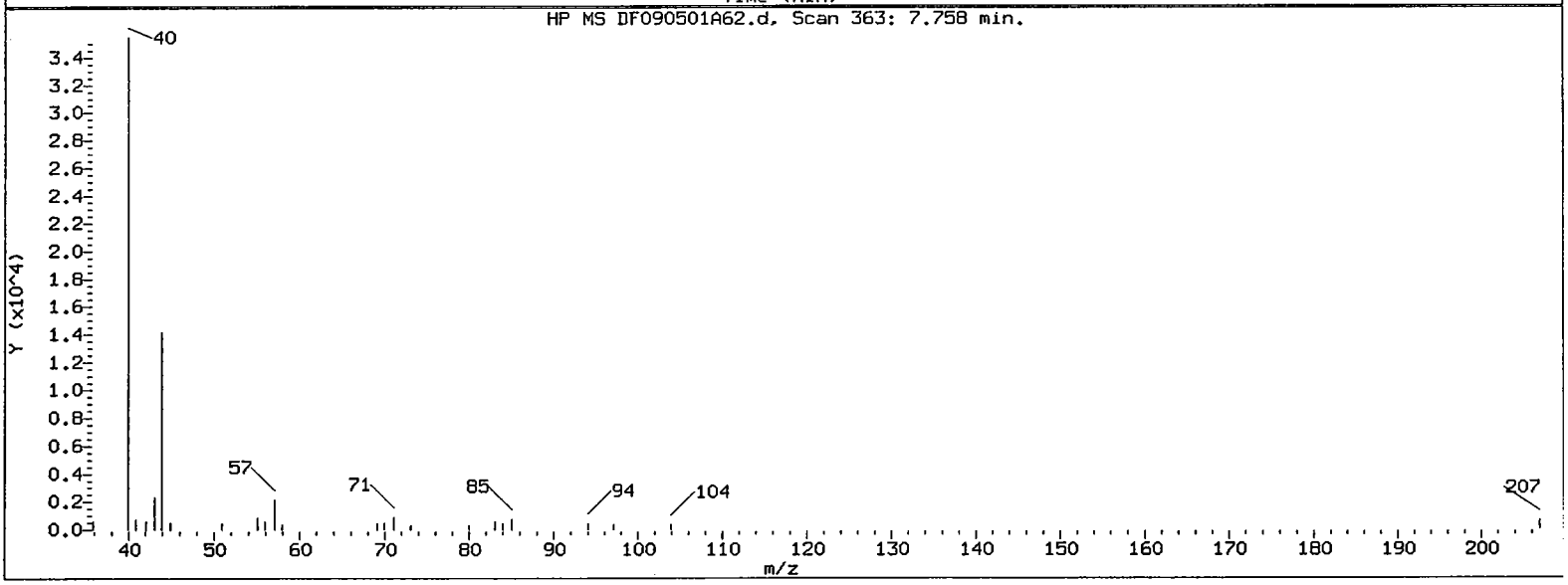
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.823

Mass	Area	Ratio
235	3630	100.00

Report Date: 05/01/2009 10:46

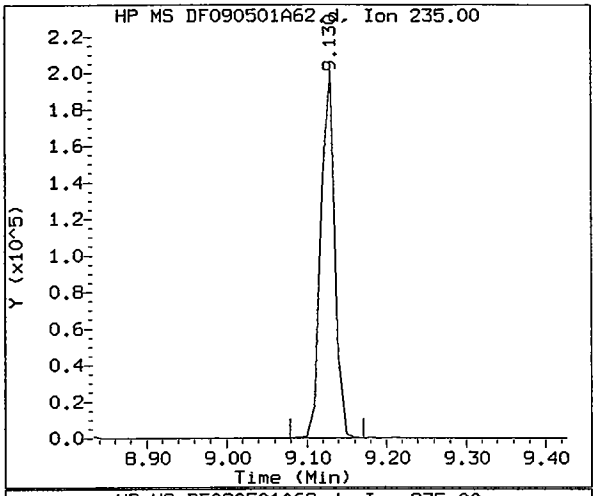
Datafile Analyzed: /chem/5972hp62.i/DF090501A62.b/DF090501A62.d/DF090501A62.d
Method Used: /chem/5972hp62.i/DF090501A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 01-MAY-2009 09:44 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



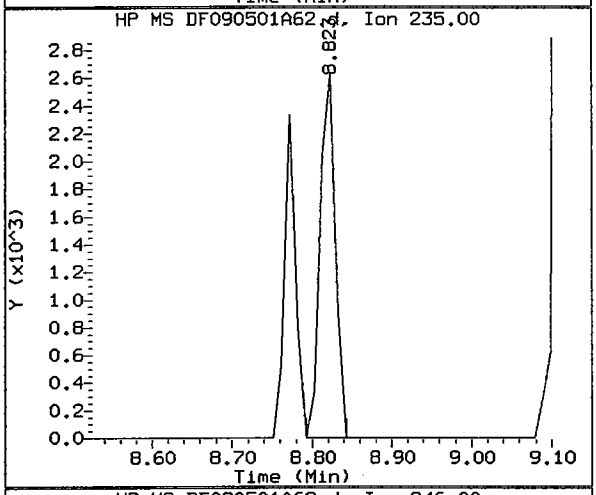


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 0.000

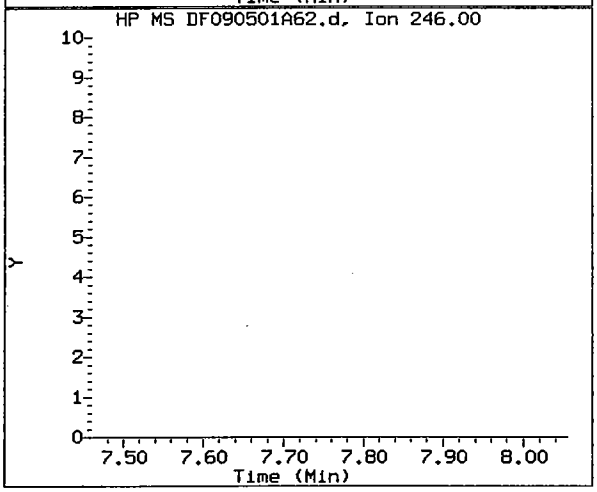
Mass	Area	Ratio
246	0	0.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.130
Area: 251503



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.823
Area: 3630



Compound: 4,4'-DDE
Quant Mass: 246
RT: 0.000
Area: 0

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	251503			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3630	1.4	20.0	PASS
4,4-DDD + DDE	3630	1.4	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Data File: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d

Date : 02-MAY-2009 12:16

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

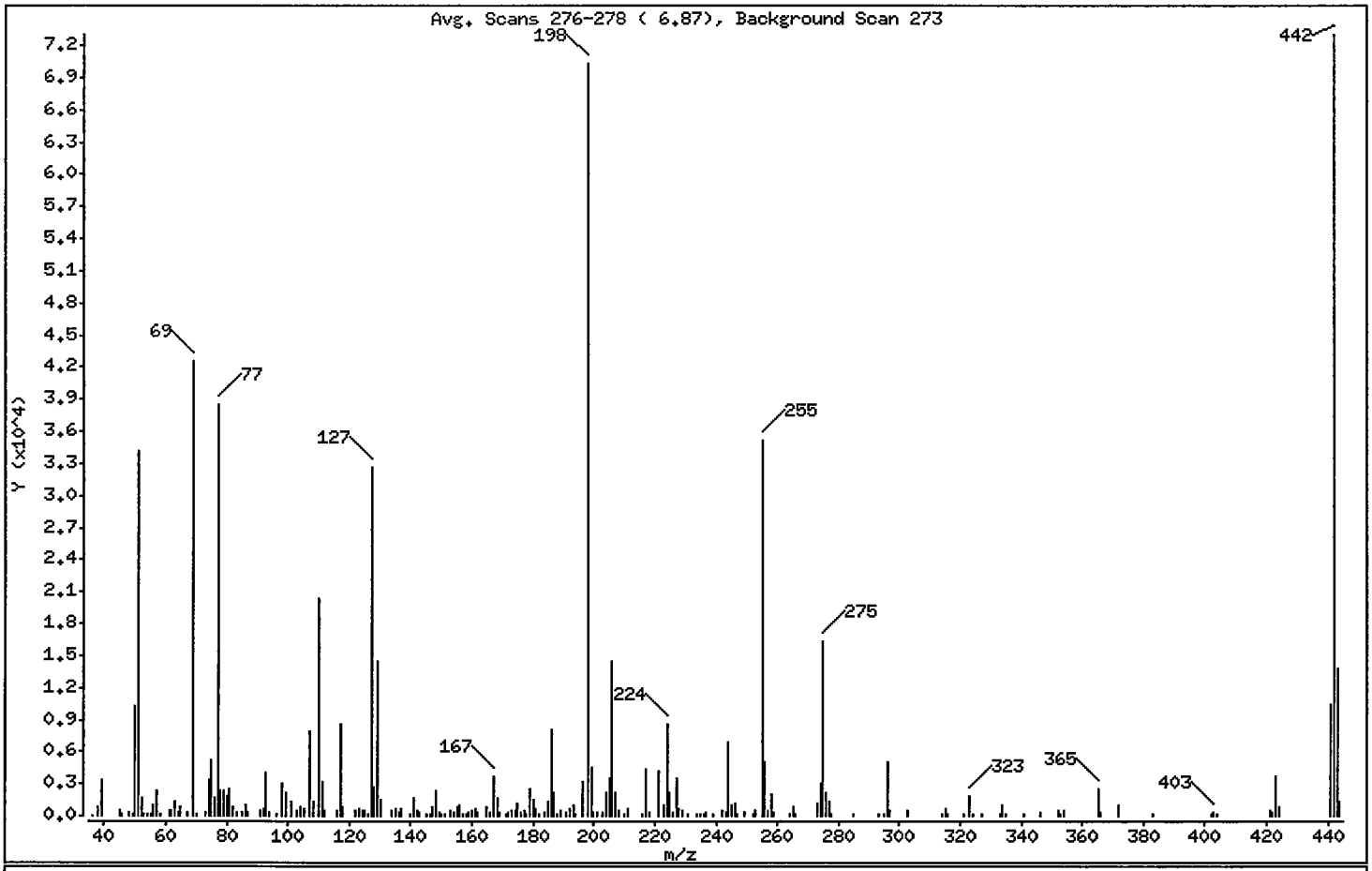
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	48.52
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.50
70	Less than 2.00% of mass 69	0.19 (0.31)
127	25.00 - 75.00% of mass 198	46.29
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.35
275	10.00 - 30.00% of mass 198	23.10
365	Greater than 0.75% of mass 198	3.49
441	Present, but less than mass 443	14.94
442	40.00 - 110.00% of mass 198	103.82
443	15.00 - 24.00% of mass 442	19.57 (18.85)

Data File: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d

Date : 02-MAY-2009 12:16

Client ID: DFTPP

Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

Data File: DF090502A62.d

Spectrum: Avg. Scans 276-278 (6.87), Background Scan 273

Location of Maximum: 442.00

Number of points: 207

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	57	111.00	3275	179.00	2488	253.00	492
38.00	773	112.00	424	180.00	1582	255.00	35144
39.00	3350	116.00	565	181.00	621	256.00	5072
45.00	482	117.00	8584	182.00	100	257.00	422
46.00	238	118.00	760	184.00	346	258.00	2035
48.00	270	122.00	575	185.00	1345	259.00	267
49.00	223	123.00	730	186.00	8079	264.00	112
50.00	10311	124.00	521	187.00	2268	265.00	888
51.00	34128	125.00	453	188.00	173	266.00	150
52.00	1707	126.00	156	189.00	424	273.00	1113
53.00	196	127.00	32560	191.00	271	274.00	3063
54.00	131	128.00	2747	192.00	729	275.00	16250
55.00	180	129.00	14387	193.00	926	276.00	2134
56.00	1059	130.00	1492	194.00	115	277.00	1300
57.00	2427	134.00	465	196.00	3253	278.00	126
58.00	127	135.00	729	198.00	70336	285.00	140
61.00	489	136.00	357	199.00	4464	293.00	100
62.00	495	137.00	722	200.00	369	295.00	116
63.00	1302	140.00	115	201.00	388	296.00	4983
64.00	339	141.00	1752	203.00	346	297.00	552
65.00	811	142.00	544	204.00	2125	303.00	573
67.00	301	143.00	418	205.00	3577	314.00	206
69.00	42552	145.00	122	206.00	14543	315.00	623
70.00	133	146.00	170	207.00	2187	316.00	238
73.00	344	147.00	792	208.00	451	321.00	105
74.00	3368	148.00	2327	210.00	252	323.00	1879
75.00	5295	149.00	327	211.00	646	324.00	161
76.00	1731	150.00	115	216.00	237	327.00	138
77.00	38456	151.00	135	217.00	4430	333.00	105
78.00	2419	153.00	486	218.00	416	334.00	1022
79.00	2287	154.00	412	221.00	4257	335.00	116
80.00	1814	155.00	819	223.00	1092	341.00	134
81.00	2566	156.00	998	224.00	8557	346.00	305
82.00	849	157.00	119	225.00	2227	352.00	495
83.00	413	158.00	128	226.00	272	353.00	152

Data File: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d

Date : 02-MAY-2009 12:16

Client ID: DFTPP Instrument: 5972hp62.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090502A62.d

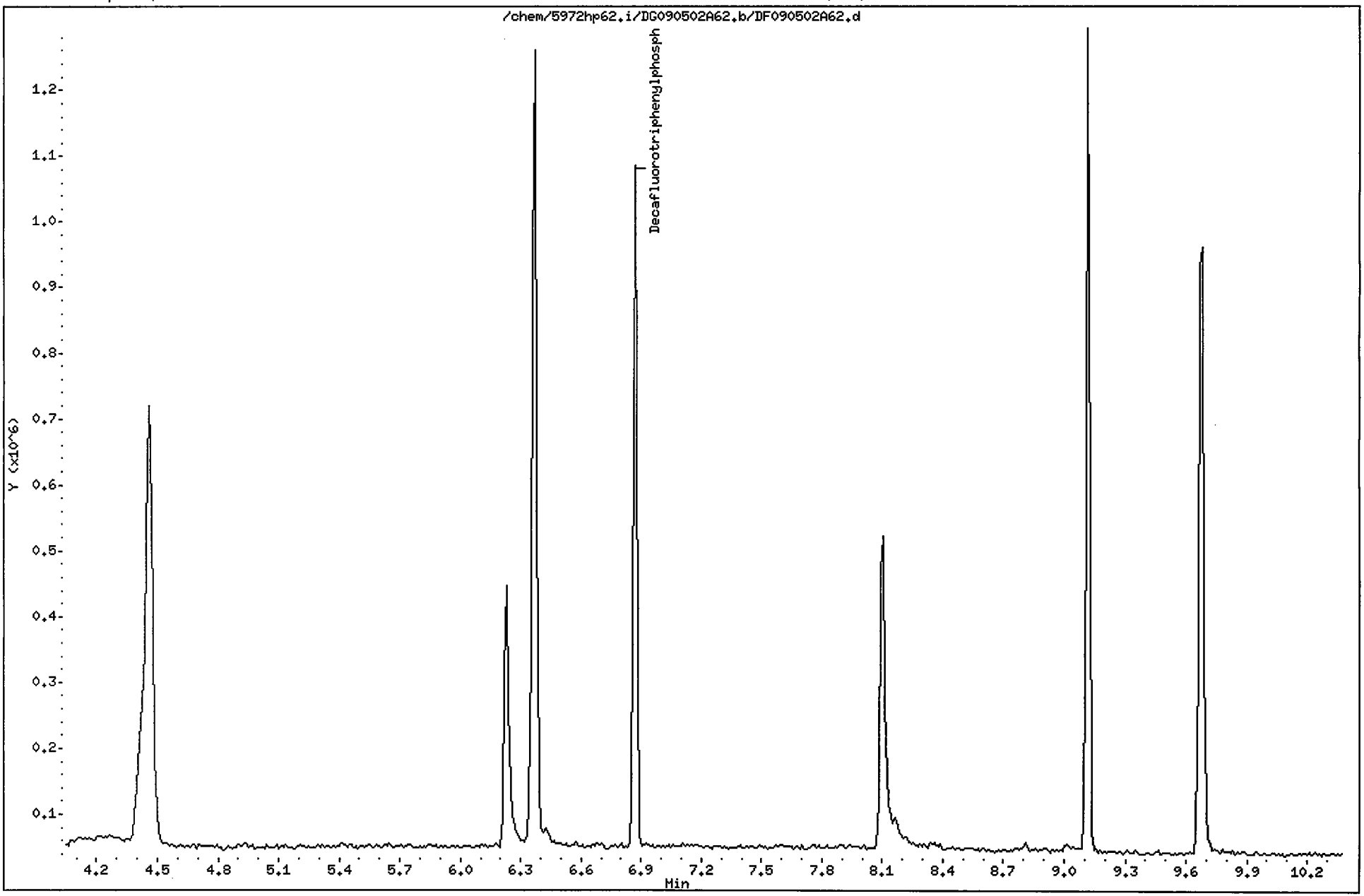
Spectrum: Avg. Scans 276-278 (6.87), Background Scan 273

Location of Maximum: 442.00

Number of points: 207

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	420	159.00	254	227.00	3535	354.00	532
86.00	972	160.00	542	228.00	595	365.00	2457
87.00	398	161.00	597	229.00	571	366.00	266
91.00	530	162.00	254	231.00	167	372.00	1054
92.00	597	165.00	773	234.00	249	383.00	130
93.00	4117	166.00	346	235.00	190	402.00	188
94.00	412	167.00	3785	236.00	105	403.00	419
96.00	128	168.00	1734	237.00	262	404.00	135
98.00	2953	169.00	365	239.00	137	421.00	472
99.00	2206	171.00	124	242.00	434	422.00	360
101.00	1348	172.00	276	243.00	337	423.00	3703
103.00	519	173.00	517	244.00	6966	424.00	762
104.00	839	174.00	564	245.00	1018	441.00	10508
105.00	748	175.00	1244	246.00	1131	442.00	73024
107.00	7841	176.00	358	247.00	241	443.00	13766
108.00	1424	177.00	512	249.00	291	444.00	1359
110.00	20336	178.00	105	252.00	107		

Data File: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d
Date : 02-MAY-2009 12:16
Client ID: DFTPP
Instrument: 5972hp62.i
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	96.32		PASS
51	30 - 80% of mass 198	48.52		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	60.50		PASS
70	Less than 2% of mass 69	0.19	(0.31)	PASS
127	25 - 75% of mass 198	46.29		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.35		PASS
275	10 - 30% of mass 198	23.10		PASS
365	Greater than 0.75% of mass 198	3.49		PASS
441	Present, but less than mass 443	14.94	(76.33)	PASS
442	40 - 110 % of mass 198	103.82		PASS
443	15 - 24% of mass 442	19.57	(18.85)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.9	5.0	PASS
Benzidine	1.9	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	261735			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	0	0.0	20.0	PASS
4,4-DDD + DDE	0	0.0	20.0	PASS

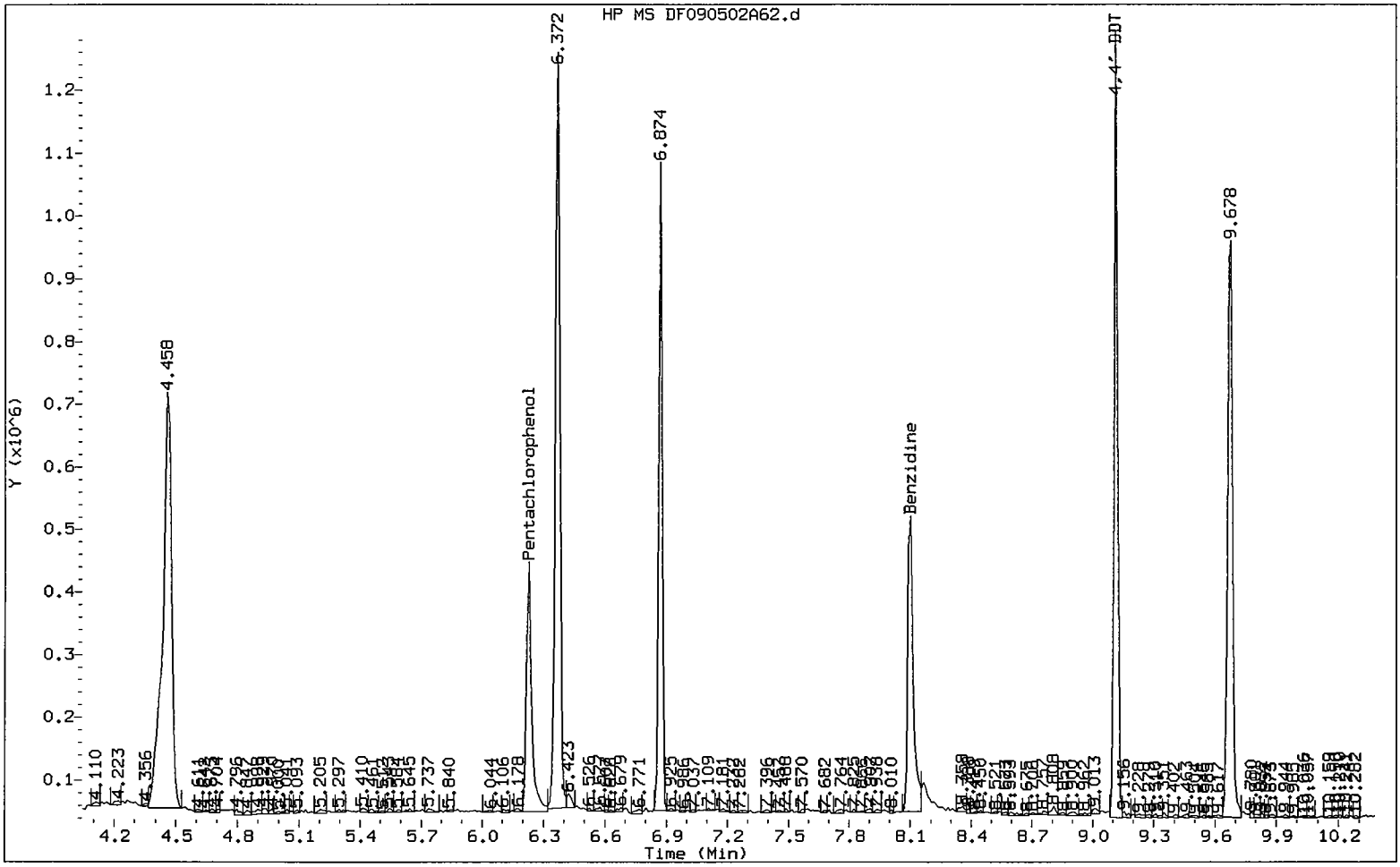
Tuning Sample, /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

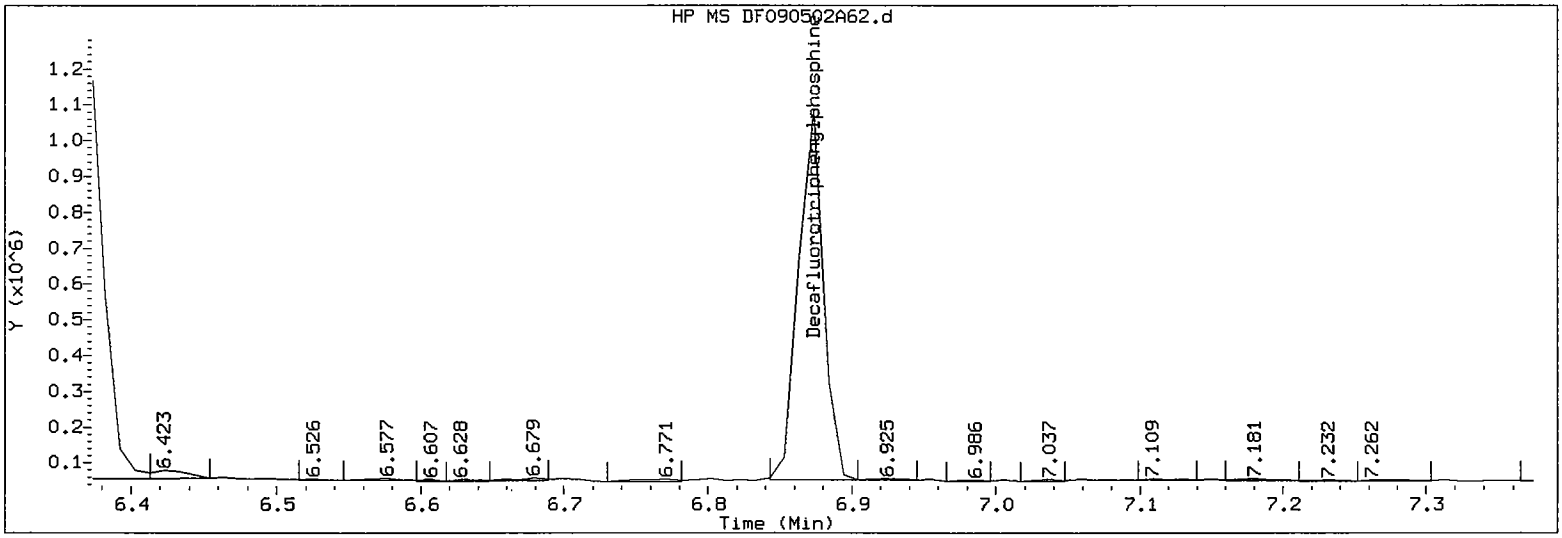
Report Date: 05/02/2009 13:18

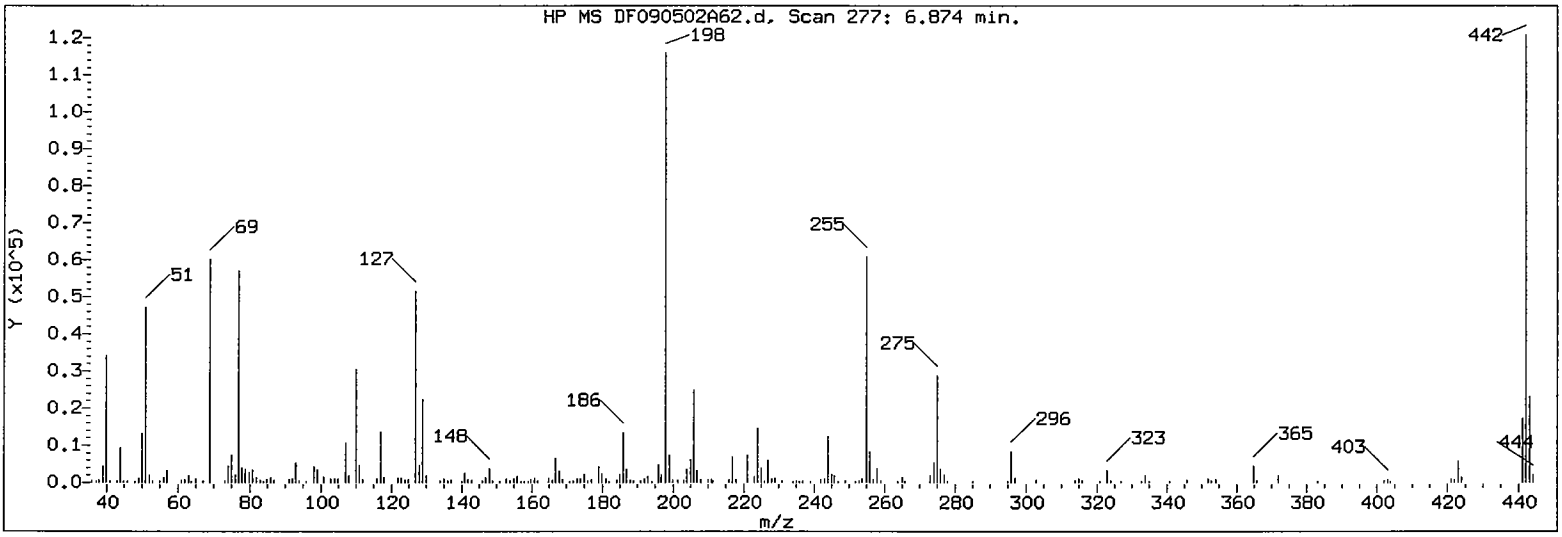
Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 02-MAY-2009 12:16 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/02/2009 13:18

Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m Inst: 5972hp62
Injection Date: 02-MAY-2009 12:16 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:





DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	96.32		PASS
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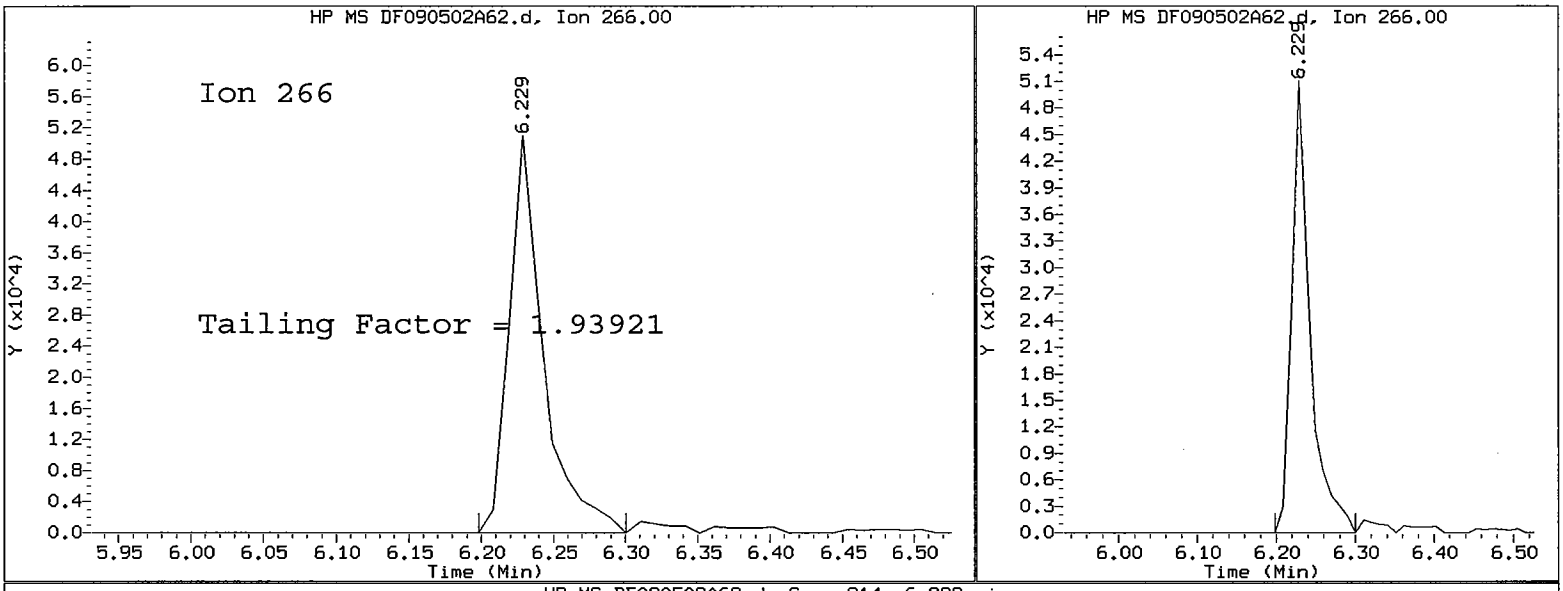
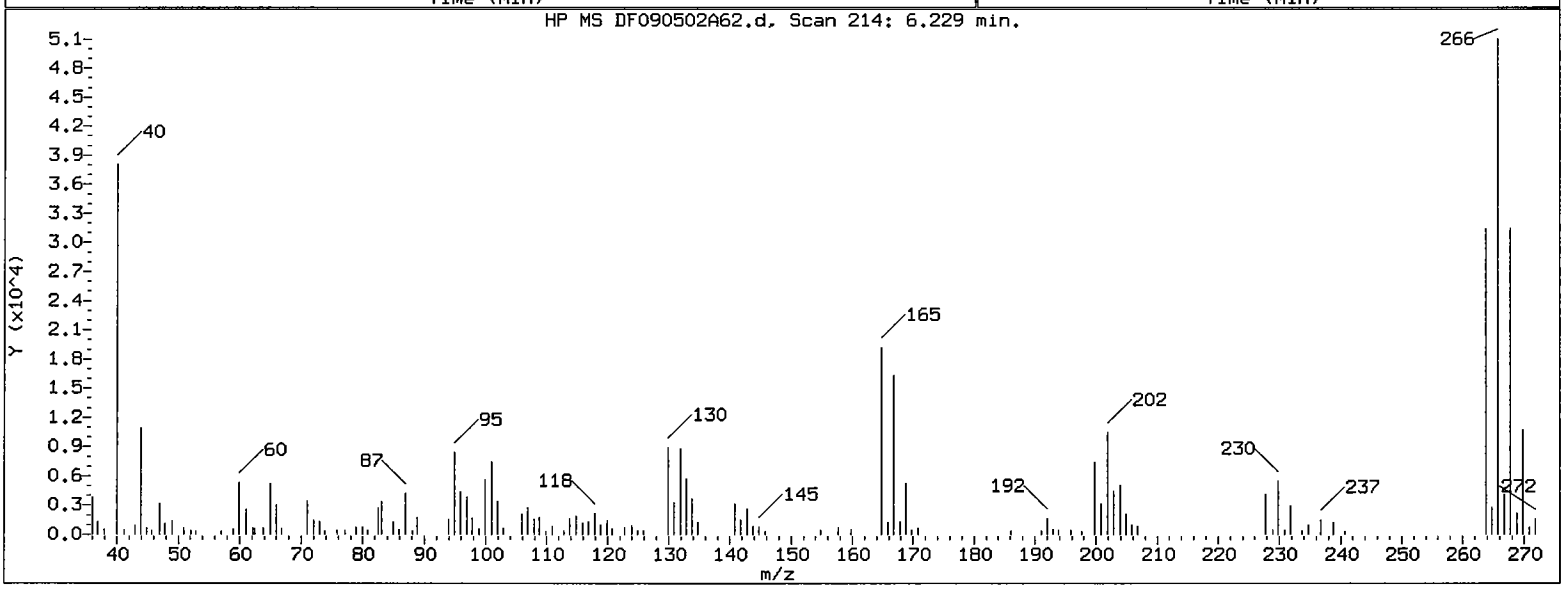
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	60.50		PASS
70	Less than 2% of mass 69	0.19	(0.31)	PASS
127	25 - 75% of mass 198	46.29		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.35		PASS
275	10 - 30% of mass 198	23.10		PASS
365	Greater than 0.75% of mass 198	3.49		PASS
441	Present, but less than mass 443	14.94	(76.33)	PASS
442	40 - 110% of mass 198	103.82		PASS
443	15 - 24% of mass 442	19.57	(18.85)	PASS

Report Date: 05/02/2009 13:18

Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 12:16 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:





Pentachlorophenol
==========
Exp. RT = 6.226
Found RT = 6.229

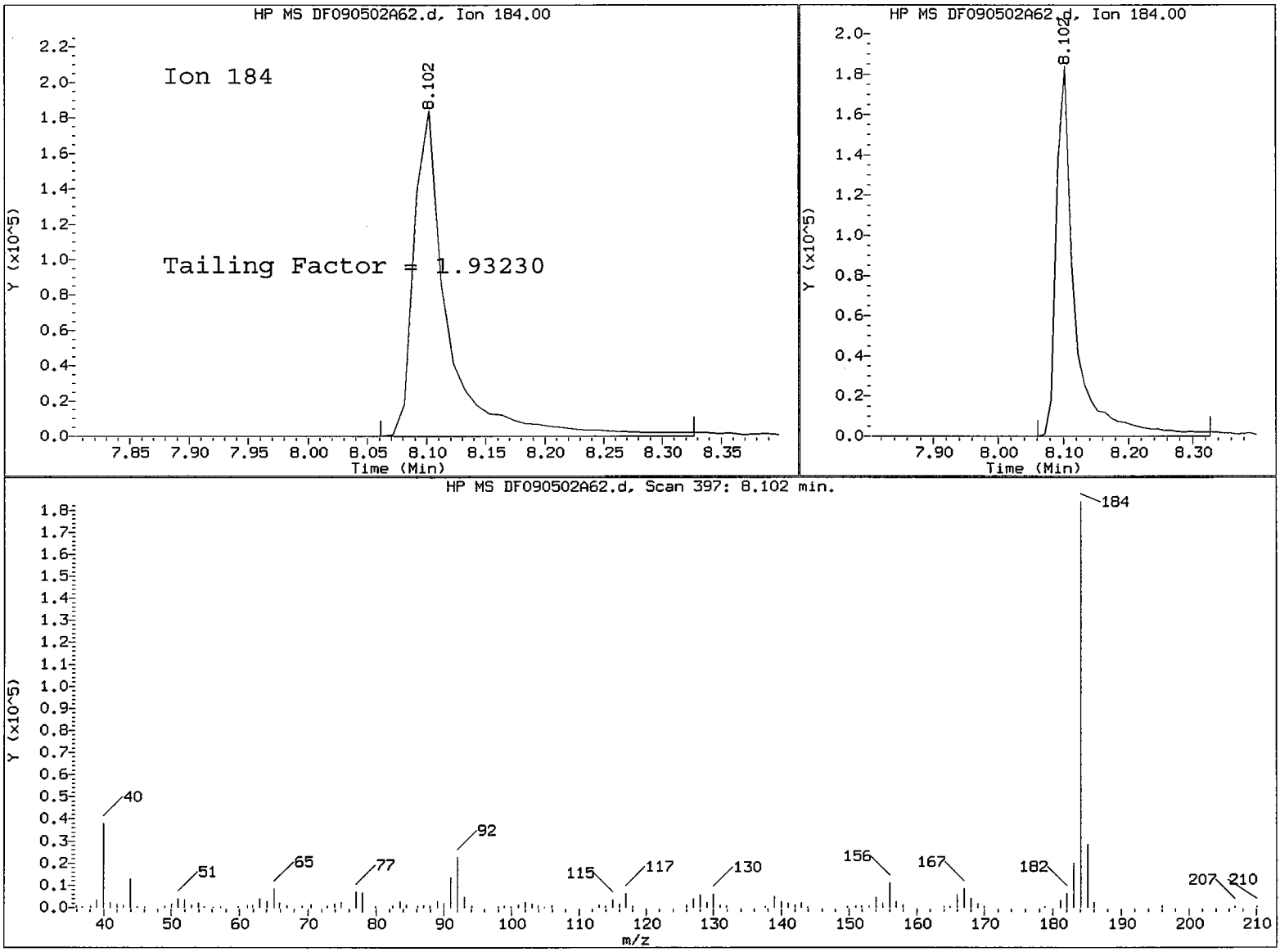
Mass	Area	Ratio
266	84164	100.00

Tailing factor for Pentachlorophenol OK

Tailing Factor = 1.9 Maximum Allowed = 5.0

Report Date: 05/02/2009 13:18

Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 12:16 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Benzidine
=========
Exp. RT = 8.099
Found RT = 8.102

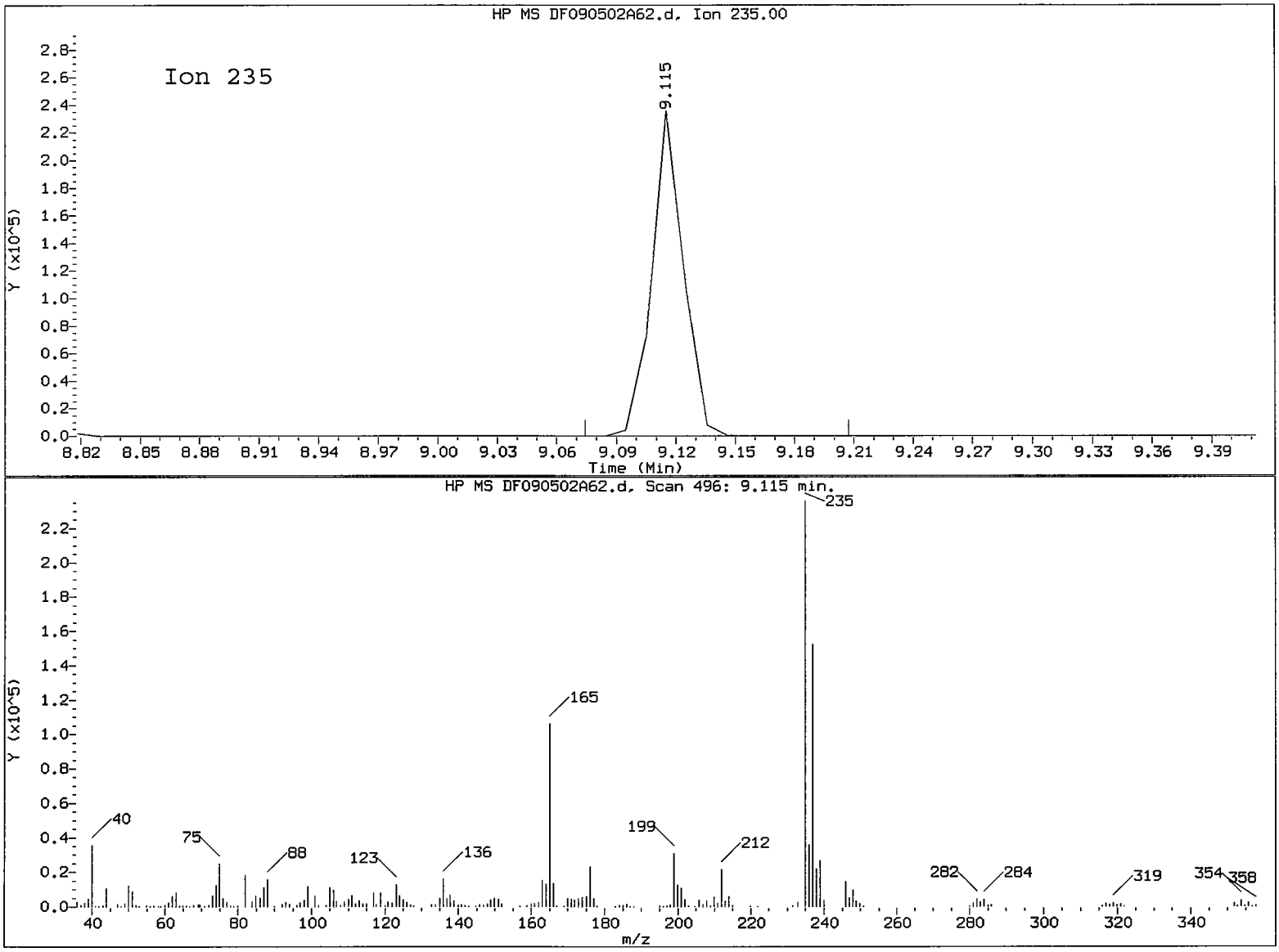
Mass	Area	Ratio
184	368705	100.00

Tailing factor for Benzidine OK

Tailing Factor = 1.9 Maximum Allowed = 3.0

Report Date: 05/02/2009 13:18

Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 12:16 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

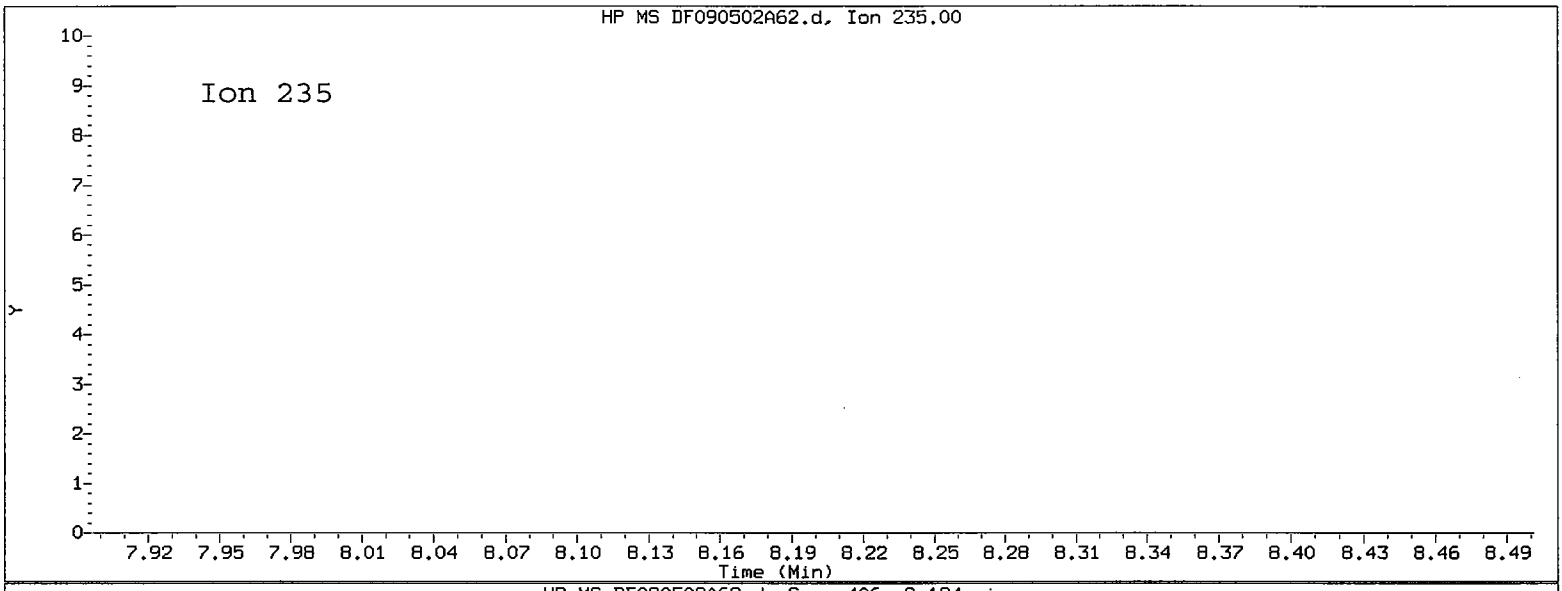


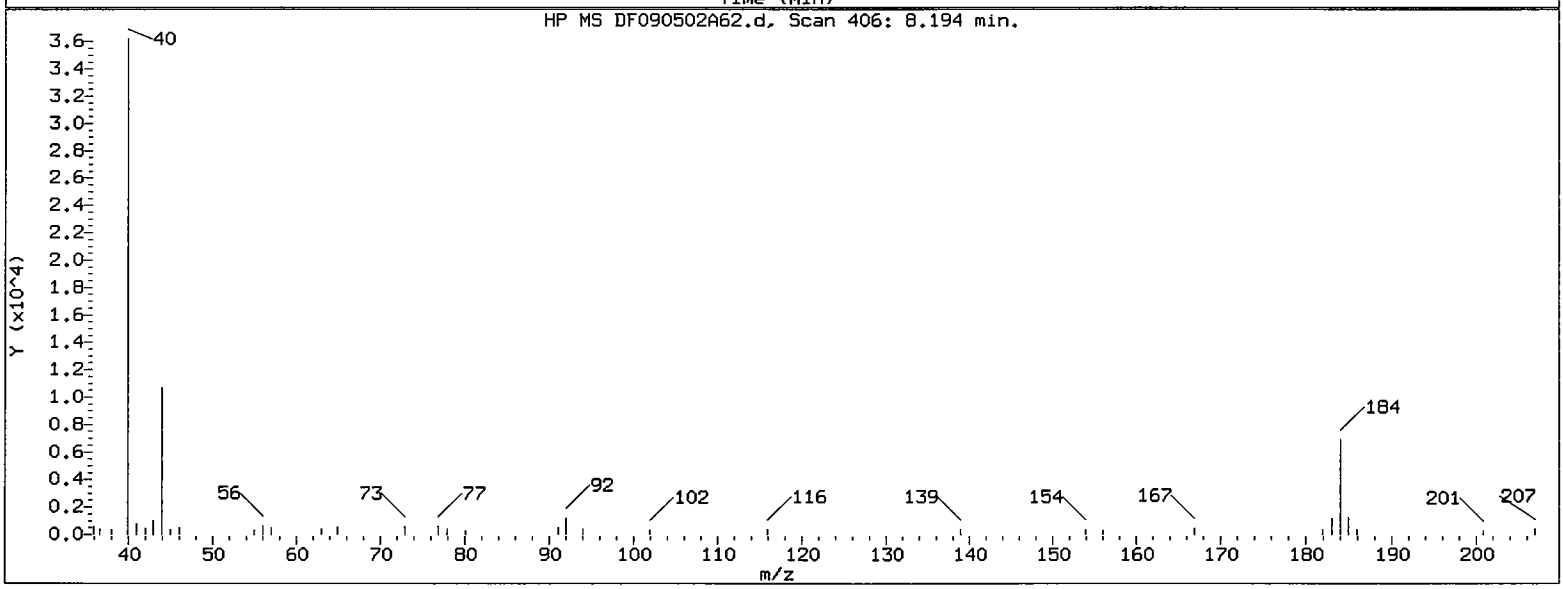
4,4'-DDT
========
Exp. RT = 8.505
Found RT = 9.115

Mass	Area	Ratio
235	261735	100.00

Report Date: 05/02/2009 13:18

Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 12:16 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



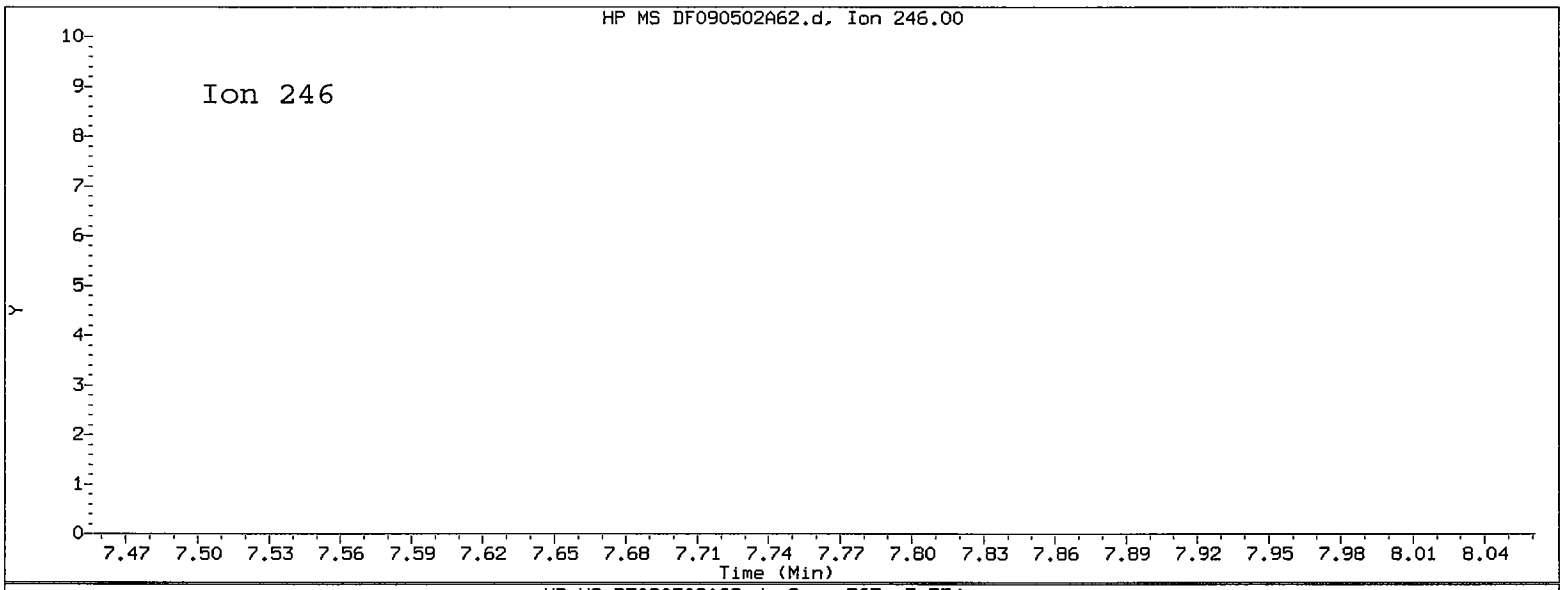


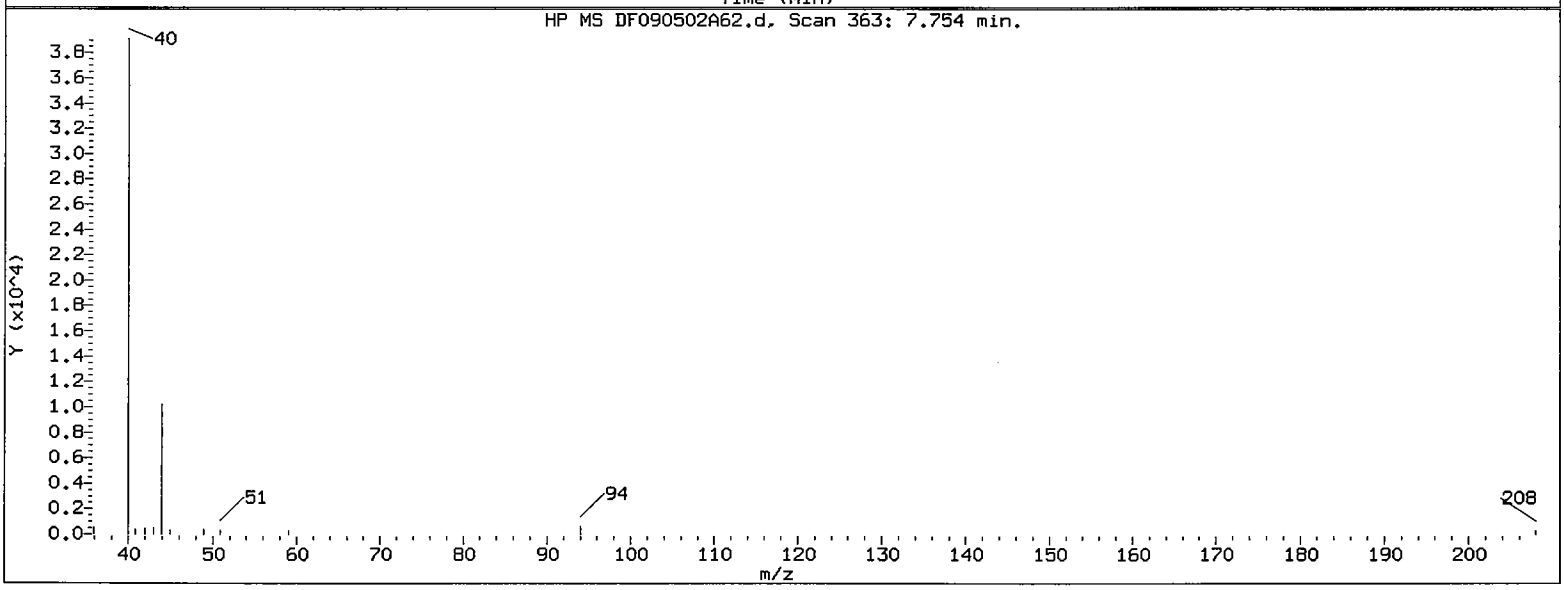
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 0.000

Mass	Area	Ratio
235	0	0.00

Report Date: 05/02/2009 13:18

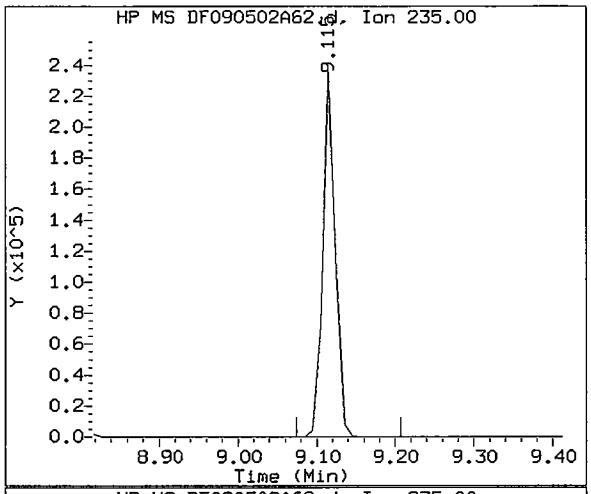
Datafile Analyzed: /chem/5972hp62.i/DG090502A62.b/DF090502A62.d/DF090502A62.d
Method Used: /chem/5972hp62.i/DG090502A62.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 12:16 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



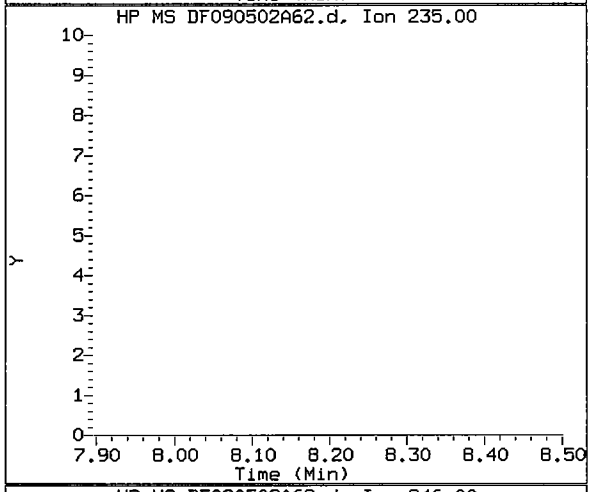


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 0.000

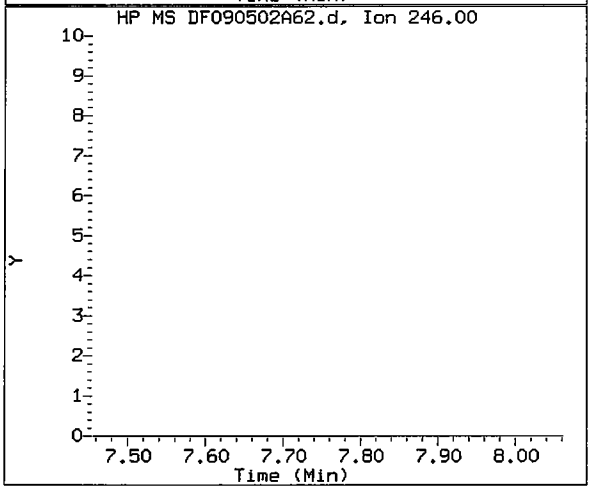
Mass	Area	Ratio
246	0	0.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.115
Area: 261735



Compound: 4,4'-DDD
Quant Mass: 235
RT: 0.000
Area: 0



Compound: 4,4'-DDE
Quant Mass: 246
RT: 0.000
Area: 0

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	261735			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	0	0.0	20.0	PASS
4,4-DDD + DDE	0	0.0	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Data File: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d

Date : 02-MAY-2009 09:26

Client ID: DFTPP

Instrument: 5972hp60.i

Sample Info: DFTPP:2650

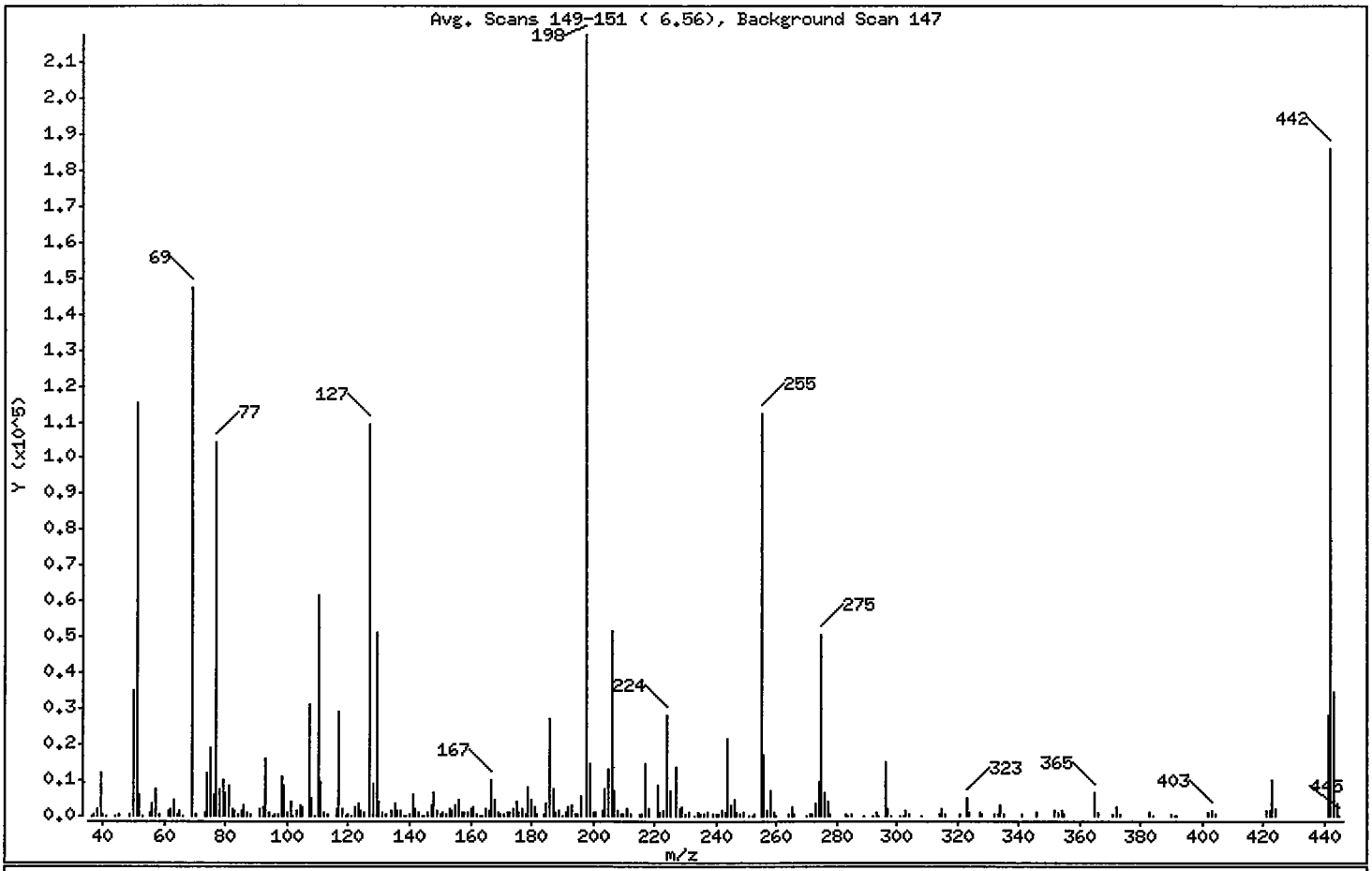
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	52.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	67.70
70	Less than 2.00% of mass 69	0.22 (0.32)
127	25.00 - 75.00% of mass 198	50.31
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.58
275	10.00 - 30.00% of mass 198	23.17
365	Greater than 0.75% of mass 198	3.10
441	Present, but less than mass 443	12.88
442	40.00 - 110.00% of mass 198	85.45
443	15.00 - 24.00% of mass 442	15.92 (18.63)

Data File: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d

Date : 02-MAY-2009 09:26

Client ID: DFTPP Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090502A60.d
Spectrum: Avg. Scans 149-151 (6.56), Background Scan 147
Location of Maximum: 198.00
Number of points: 261

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	140	119.00	184	188.00	984	271.00	344
37.00	707	120.00	424	189.00	1694	272.00	447
38.00	2126	121.00	143	190.00	165	273.00	3519
39.00	11858	122.00	2556	191.00	862	274.00	9731
40.00	574	123.00	3435	192.00	2534	275.00	50408
41.00	160	124.00	1691	193.00	2970	276.00	6661
44.00	61	125.00	1099	194.00	549	277.00	4033
45.00	306	127.00	109456	195.00	261	278.00	712
49.00	690	128.00	8773	196.00	5621	283.00	313
50.00	35240	129.00	50888	198.00	217536	284.00	223
51.00	115256	130.00	4034	199.00	14318	285.00	655
52.00	5866	131.00	825	200.00	908	289.00	165
53.00	213	132.00	487	201.00	779	292.00	163
55.00	919	134.00	1510	203.00	1639	293.00	910
56.00	3707	135.00	3511	204.00	7737	294.00	187
57.00	7519	136.00	1348	205.00	13145	296.00	15170
58.00	256	137.00	1670	206.00	51760	297.00	2124
61.00	1409	138.00	209	207.00	6872	298.00	150
62.00	2177	139.00	146	208.00	1406	301.00	140
63.00	4625	140.00	436	209.00	456	302.00	189
64.00	568	141.00	6018	210.00	404	303.00	1601
65.00	1744	142.00	1880	211.00	1848	304.00	362
66.00	175	143.00	1228	212.00	337	308.00	207
69.00	147264	144.00	152	215.00	709	314.00	713
70.00	476	145.00	162	216.00	643	315.00	1769
73.00	1197	146.00	1104	217.00	14584	316.00	688
74.00	12075	147.00	2908	218.00	1849	321.00	450
75.00	19072	148.00	6582	221.00	8515	323.00	4820
76.00	6073	149.00	1455	222.00	1014	324.00	865
77.00	104312	150.00	280	223.00	1468	327.00	810
78.00	7542	151.00	839	224.00	27880	328.00	438
79.00	9825	152.00	281	225.00	7014	332.00	321
80.00	6557	153.00	2251	227.00	13485	333.00	571
81.00	8483	154.00	1444	228.00	1855	334.00	3143
82.00	2225	155.00	3128	229.00	2710	335.00	751

Data File: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d

Date : 02-MAY-2009 09:26

Client ID: DFTPP Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090502A60.d

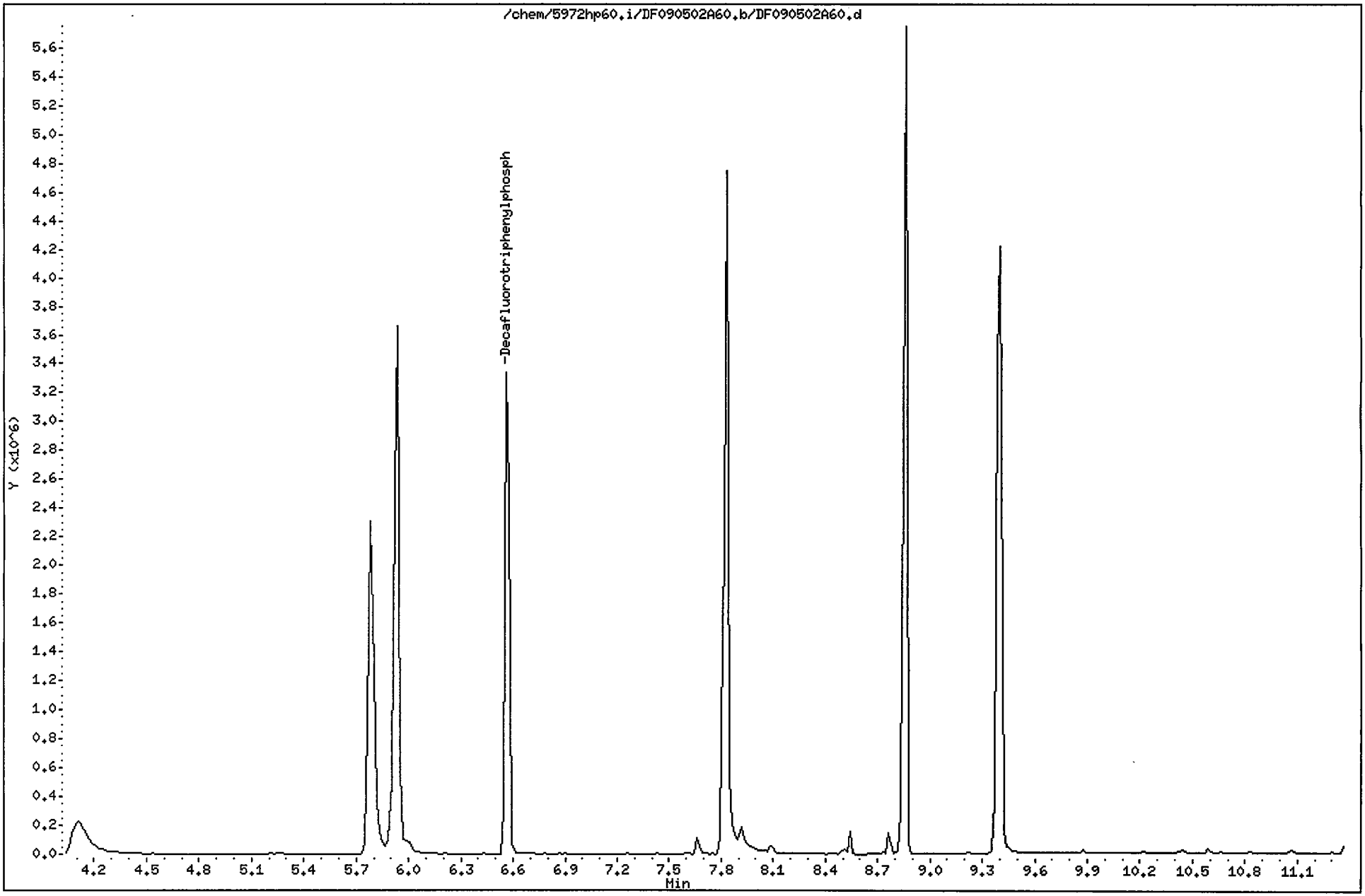
Spectrum: Avg. Scans 149-151 (6.56), Background Scan 147

Location of Maximum: 198.00

Number of points: 261

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1702	156.00	4292	230.00	372	341.00	462
84.00	574	157.00	859	231.00	966	346.00	860
85.00	1401	158.00	1166	233.00	151	352.00	1488
86.00	2794	159.00	849	234.00	870	353.00	982
87.00	886	160.00	1873	235.00	616	354.00	1509
88.00	381	161.00	2559	236.00	554	355.00	307
91.00	2087	162.00	654	237.00	845	365.00	6751
92.00	2275	163.00	138	239.00	547	366.00	1038
93.00	15803	164.00	151	240.00	392	371.00	286
94.00	891	165.00	1919	241.00	737	372.00	2567
95.00	145	166.00	1709	242.00	1621	373.00	573
96.00	315	167.00	10235	243.00	1042	383.00	886
97.00	346	168.00	4535	244.00	21728	384.00	227
98.00	10872	169.00	800	245.00	2808	390.00	304
99.00	8730	170.00	448	246.00	4460	391.00	218
100.00	758	171.00	497	247.00	794	392.00	198
101.00	4244	172.00	1063	248.00	303	402.00	995
102.00	183	173.00	1074	249.00	928	403.00	1509
103.00	1380	174.00	2182	251.00	138	404.00	533
104.00	2828	175.00	4192	252.00	211	421.00	1256
105.00	2520	176.00	1122	253.00	677	422.00	1340
107.00	30928	177.00	1889	255.00	112336	423.00	10124
108.00	5066	178.00	653	256.00	16800	424.00	1922
109.00	208	179.00	7992	257.00	1415	441.00	28008
110.00	61528	180.00	4544	258.00	7123	442.00	185856
111.00	9504	181.00	2424	259.00	1084	443.00	34640
112.00	1166	182.00	351	260.00	196	444.00	3527
113.00	310	184.00	671	264.00	341	445.00	139
116.00	1987	185.00	3729	265.00	2591		
117.00	29016	186.00	26832	266.00	689		
118.00	2044	187.00	7688	270.00	147		

Data File: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d
Date : 02-MAY-2009 09:26
Client ID: DFTPP
Instrument: 5972hp60.i
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	52.98		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	67.70		PASS
70	Less than 2% of mass 69	0.22	(0.32)	PASS
127	25 - 75% of mass 198	50.31		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.58		PASS
275	10 - 30% of mass 198	23.17		PASS
365	Greater than 0.75% of mass 198	3.10		PASS
441	Present, but less than mass 443	12.88	(80.87)	PASS
442	40 - 110 % of mass 198	85.45		PASS
443	15 - 24% of mass 442	15.92	(18.63)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7	5.0	PASS
Benzidine	0.0	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1535804			N/A
4,4-DDE	9334	0.6	20.0	PASS
4,4-DDD	32709	2.1	20.0	PASS
4,4-DDD + DDE	42043	2.7	20.0	PASS

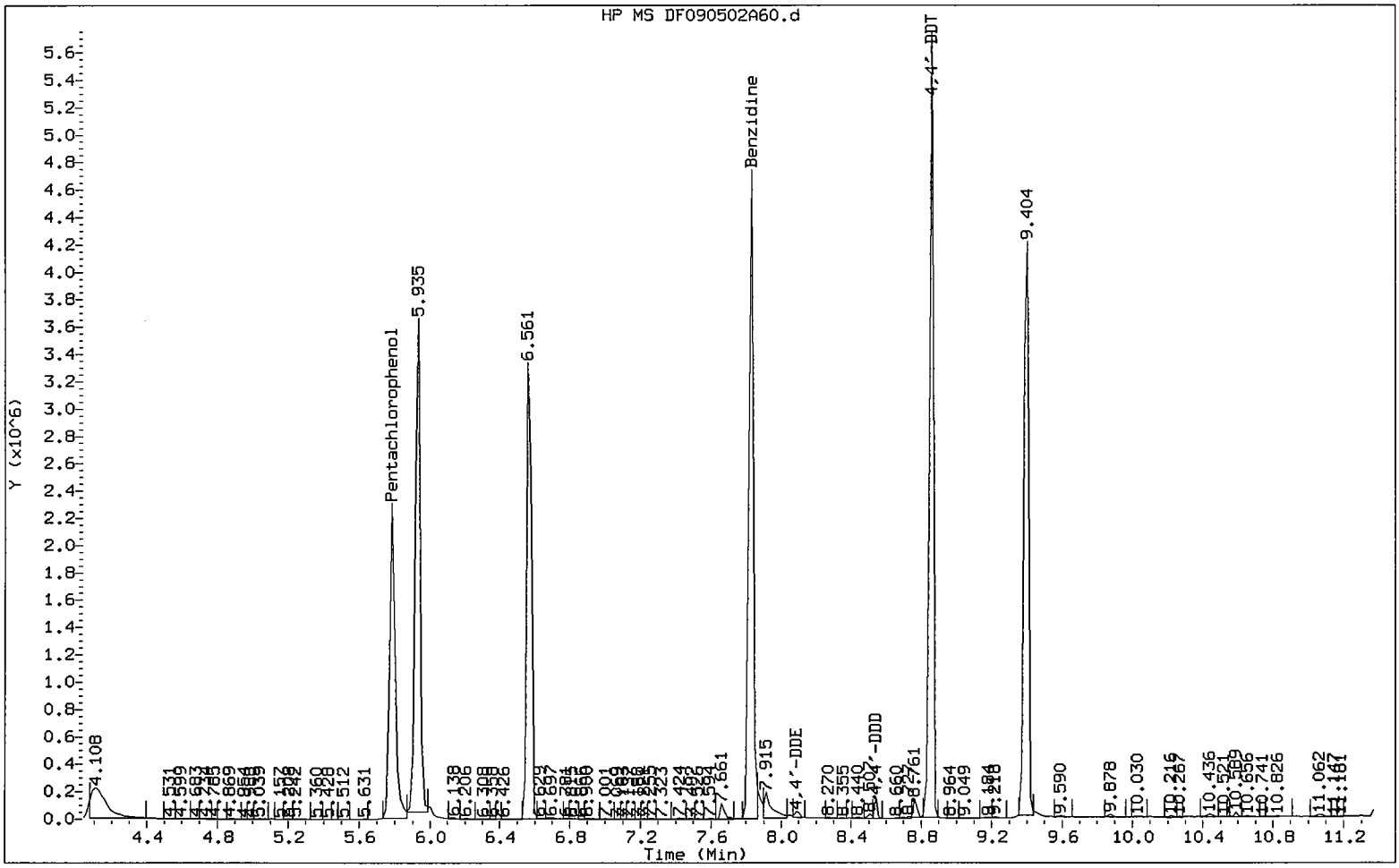
Tuning Sample, /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

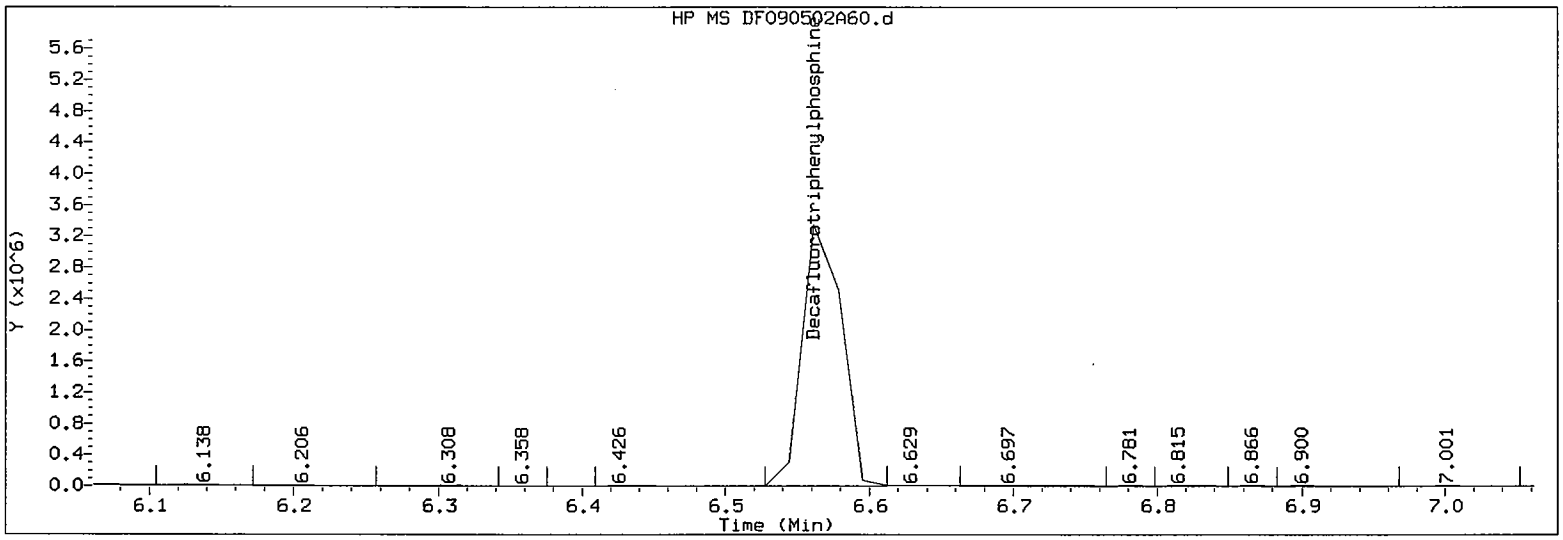
Report Date: 05/02/2009 10:22

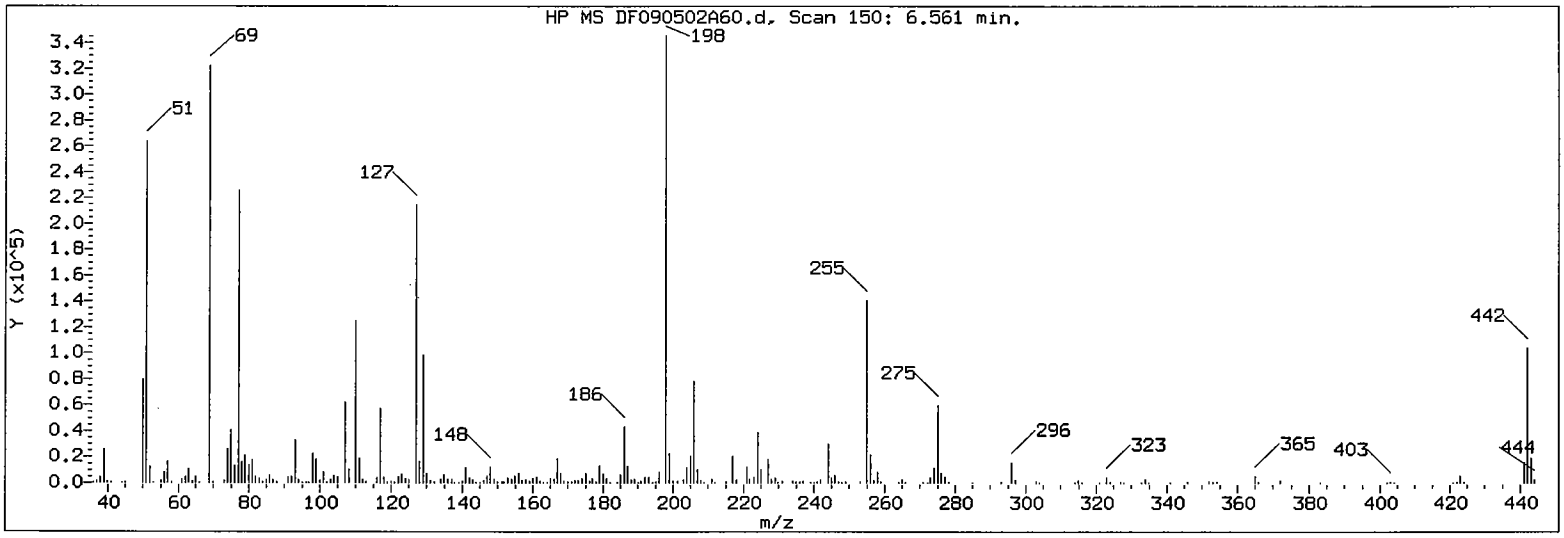
Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 02-MAY-2009 09:26 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/02/2009 10:22

Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 02-MAY-2009 09:26 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



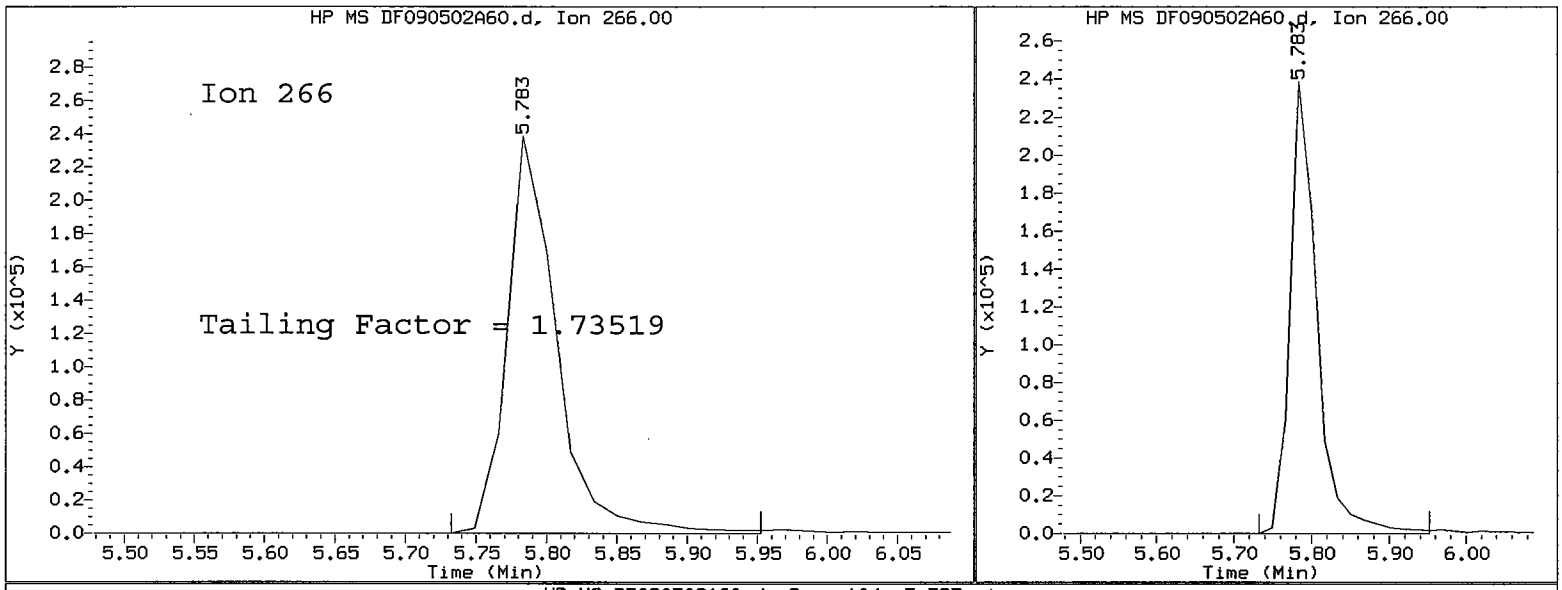


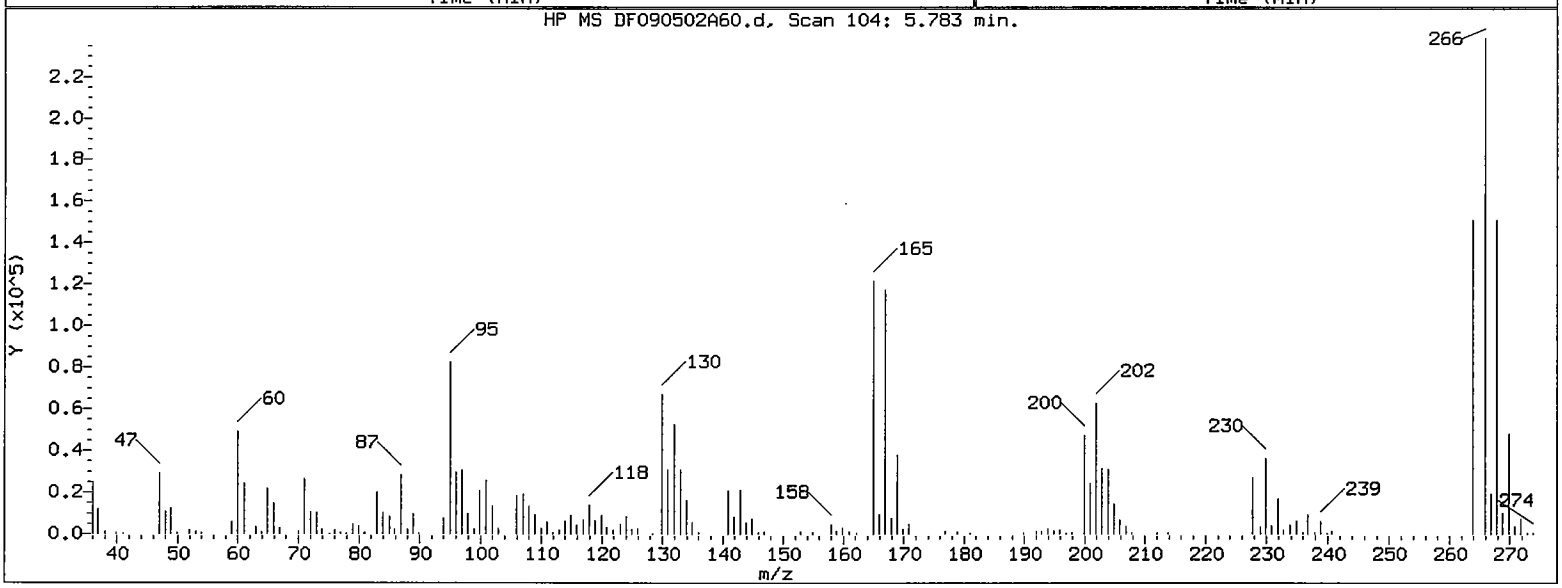
DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	52.98		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	67.70		PASS
70	Less than 2% of mass 69	0.22	(0.32)	PASS
127	25 - 75% of mass 198	50.31		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.58		PASS
275	10 - 30% of mass 198	23.17		PASS
365	Greater than 0.75% of mass 198	3.10		PASS
441	Present, but less than mass 443	12.88	(80.87)	PASS
442	40 - 110% of mass 198	85.45		PASS
443	15 - 24% of mass 442	15.92	(18.63)	PASS

Report Date: 05/02/2009 10:22

Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:





Pentachlorophenol
==========
Exp. RT = 6.043
Found RT = 5.783

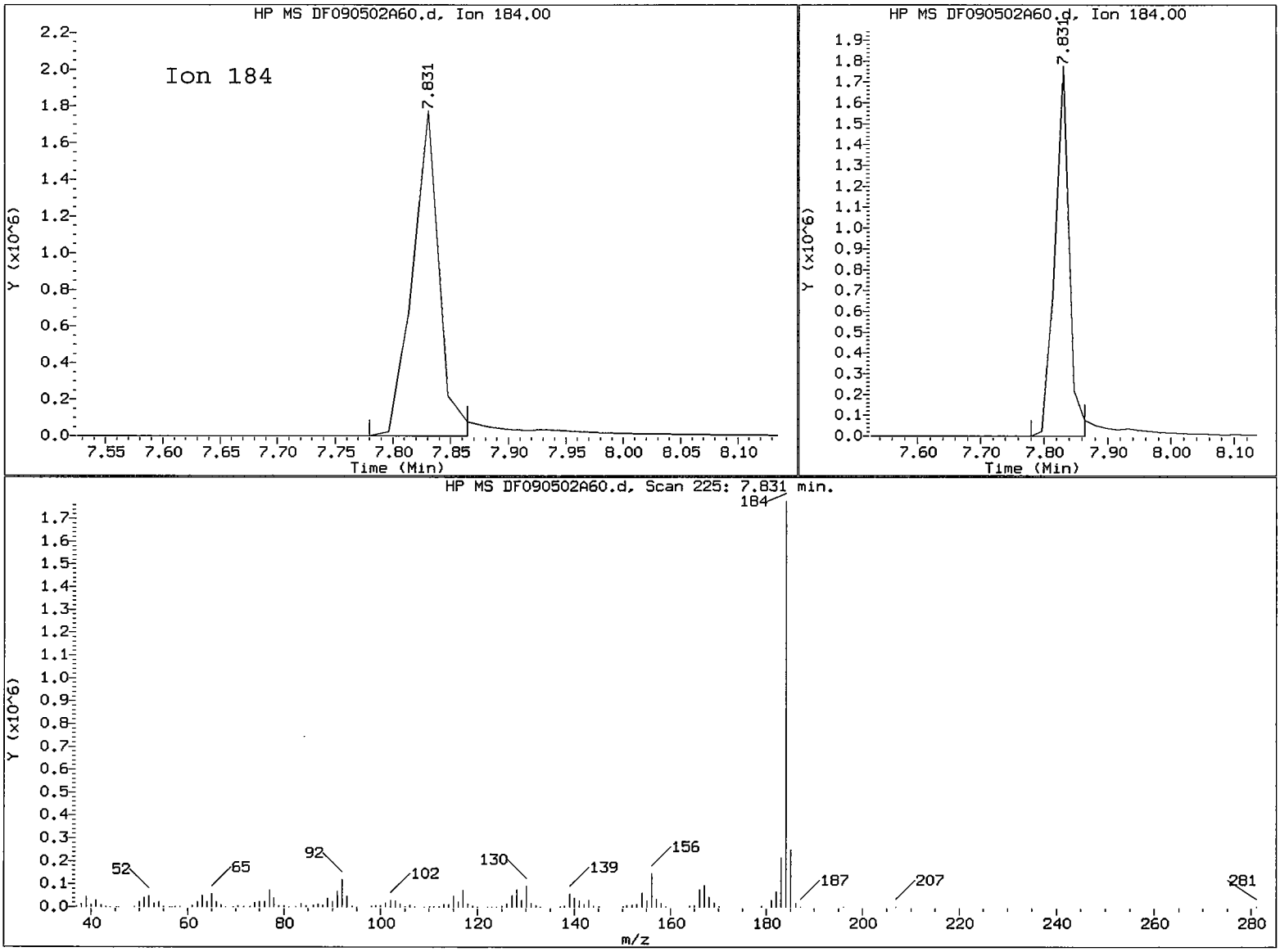
Mass	Area	Ratio
266	580447	100.00

Tailing factor for Pentachlorophenol OK

Tailing Factor = 1.7 Maximum Allowed = 5.0

Report Date: 05/02/2009 10:22

Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Benzidine
=========
Exp. RT = 8.074
Found RT = 7.831

Mass	Area	Ratio
184	2806063	100.00

Tailing factor for Benzidine OK

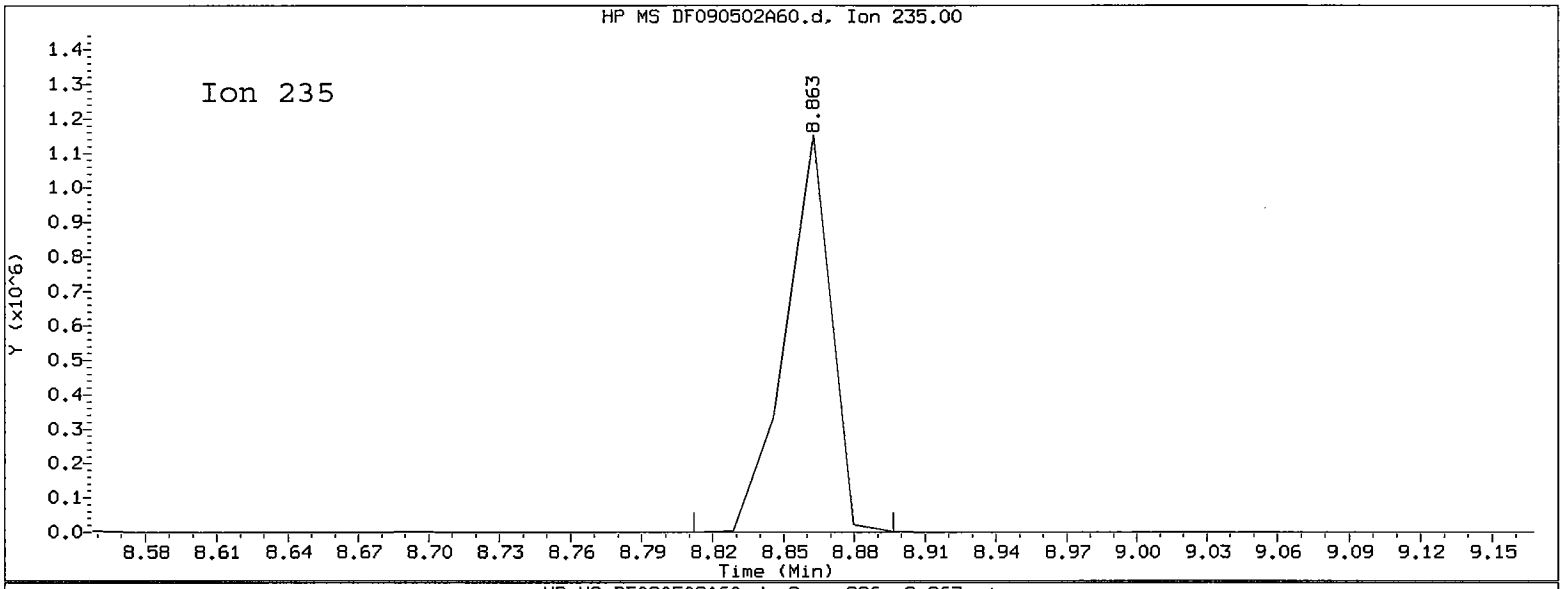
Tailing Factor = 0.0 Maximum Allowed = 3.0

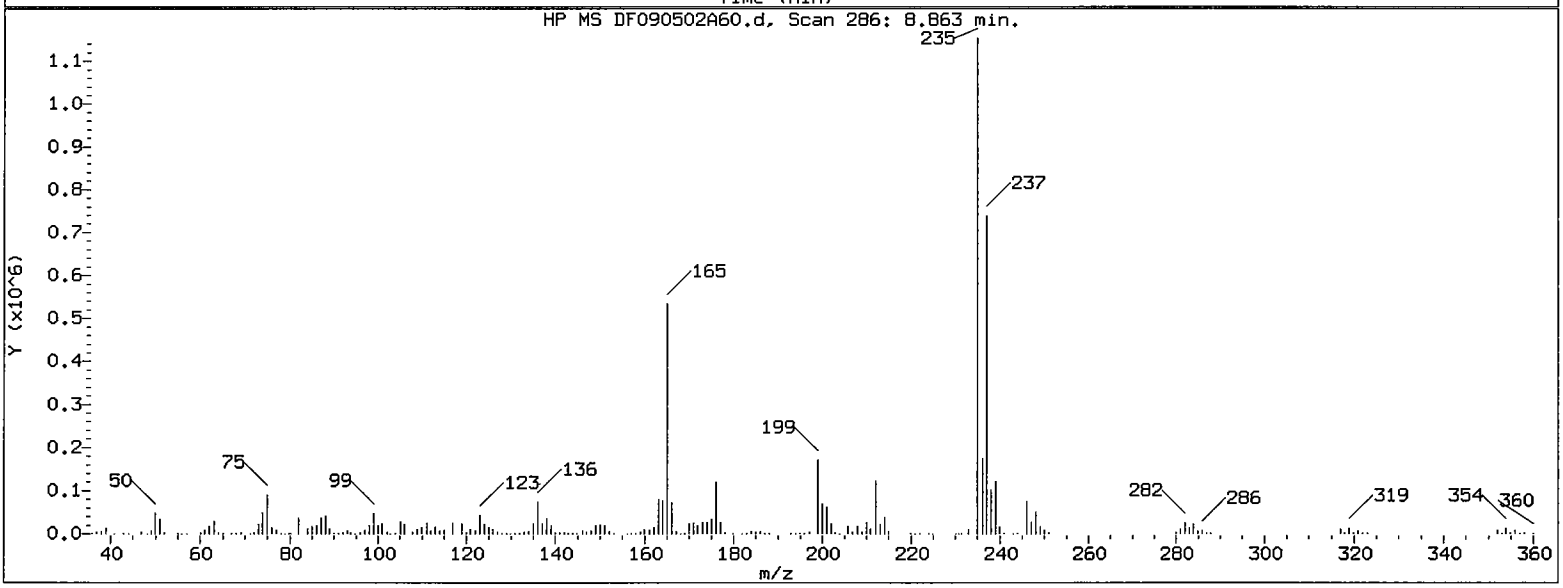
If Tailing Factor < 1.0, then it is assumed that the peak is not tailing and a Tailing Factor of zero is reported.

Tailing Factor = 0.00000

Report Date: 05/02/2009 10:22

Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



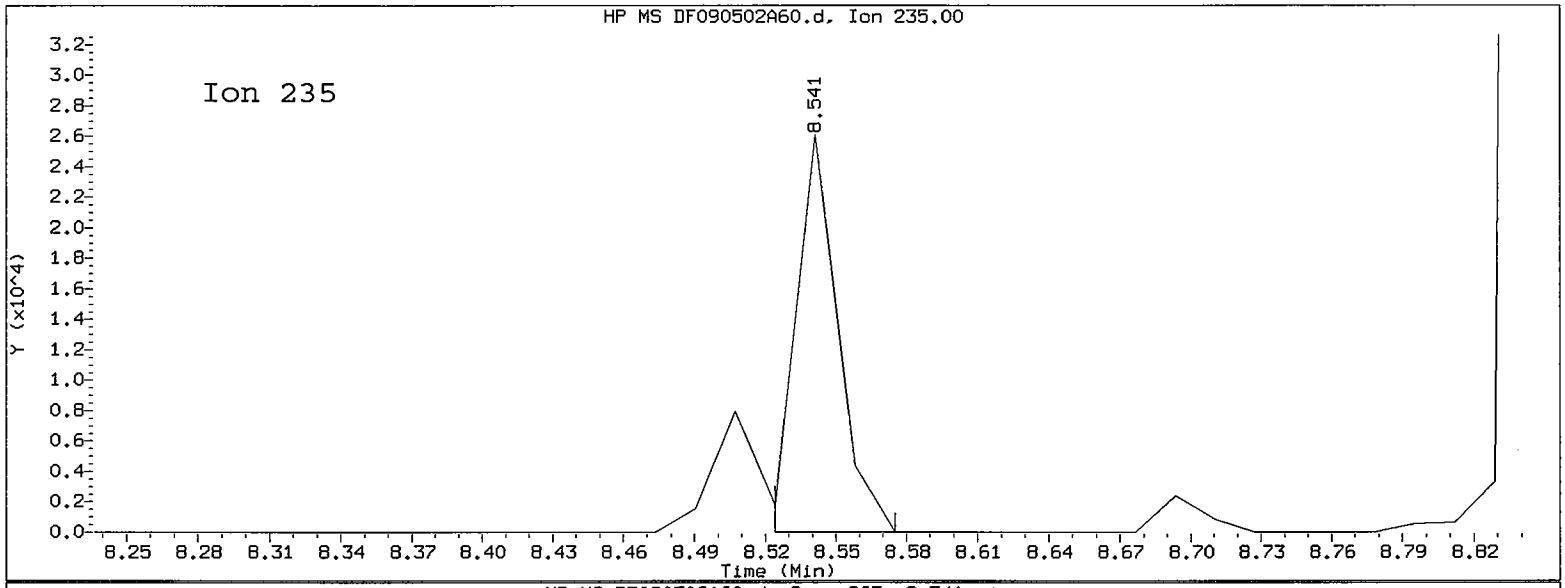


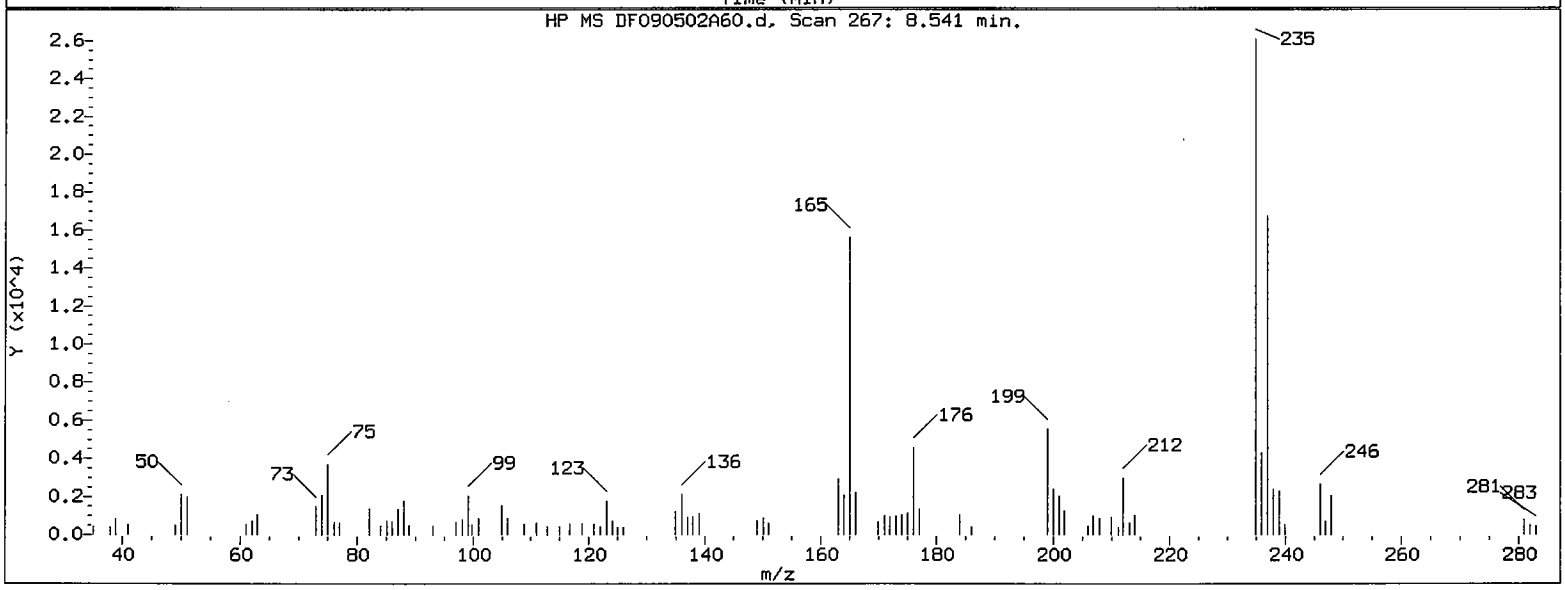
4,4'-DDT
========
 Exp. RT = 8.505
Found RT = 8.863

Mass	Area	Ratio
235	1535804	100.00

Report Date: 05/02/2009 10:22

Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



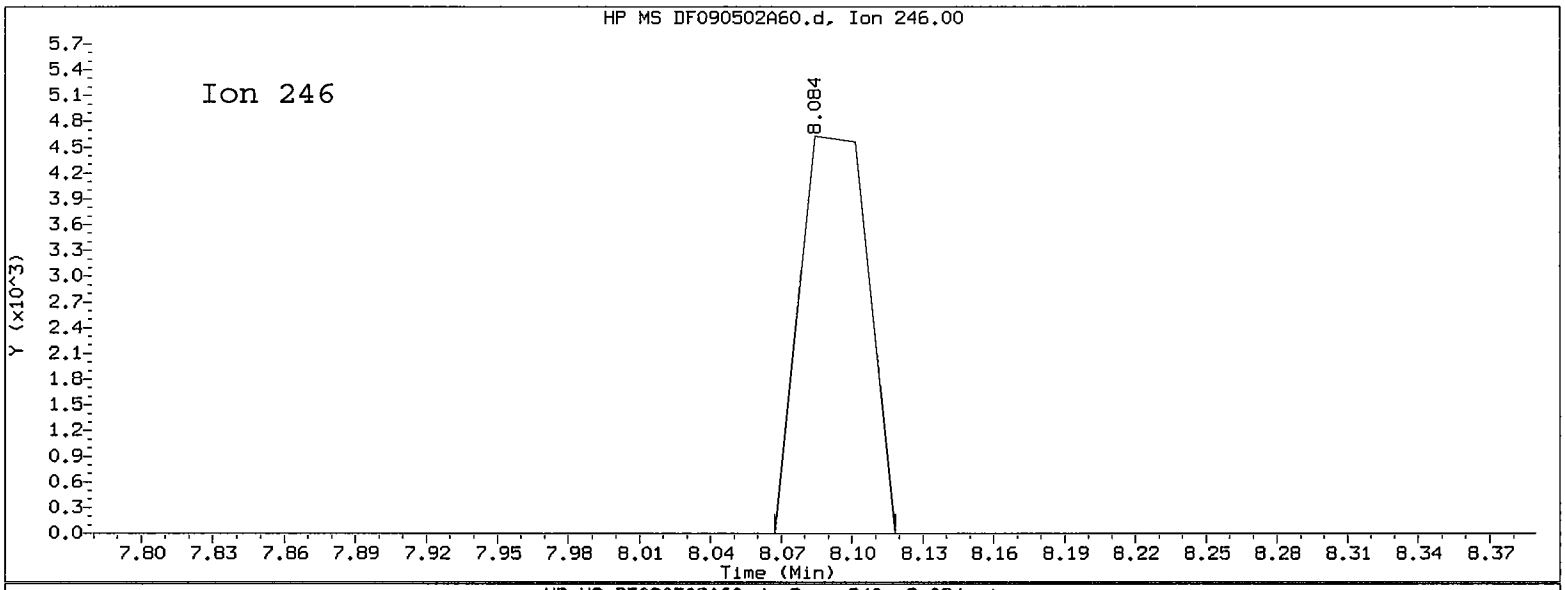


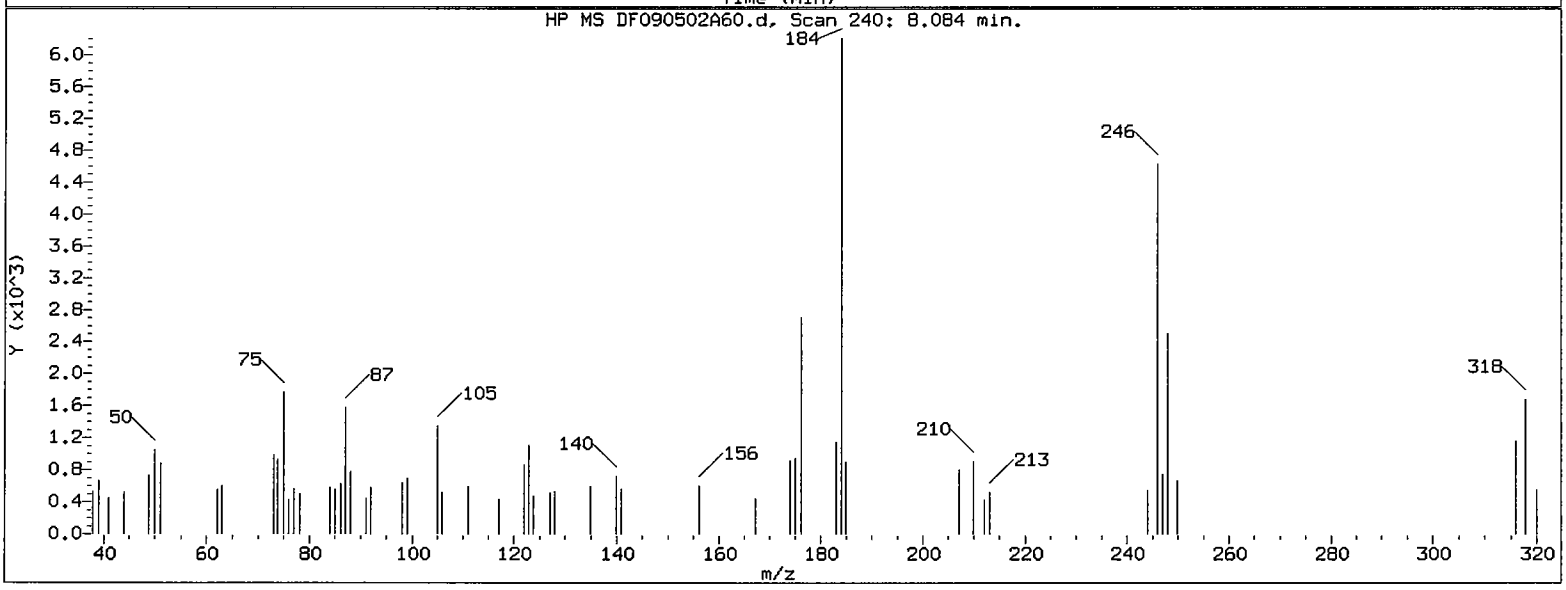
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.541

Mass	Area	Ratio
235	32709	100.00

Report Date: 05/02/2009 10:22

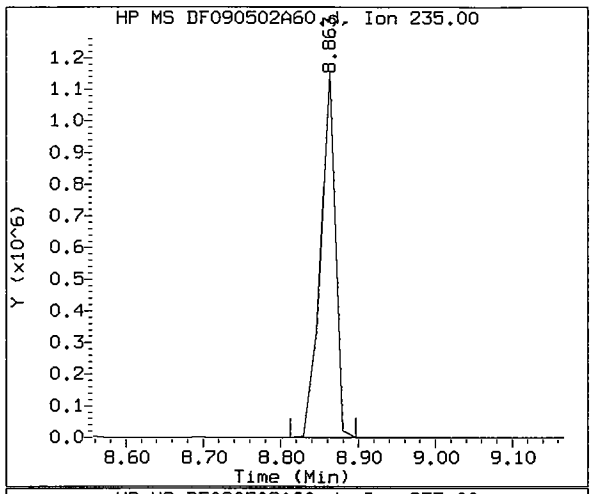
Datafile Analyzed: /chem/5972hp60.i/DF090502A60.b/DF090502A60.d/DF090502A60.d
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



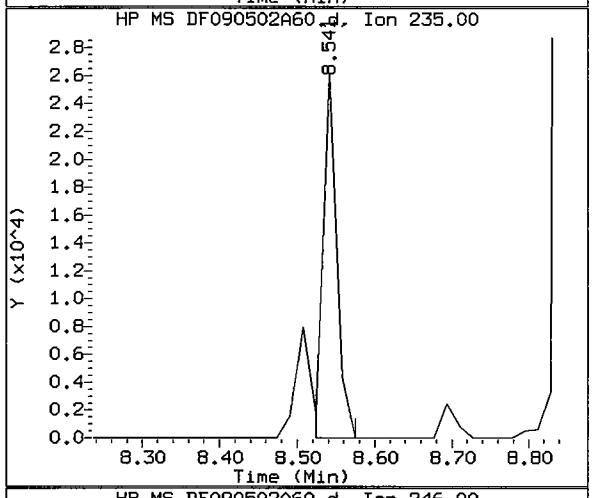


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 8.084

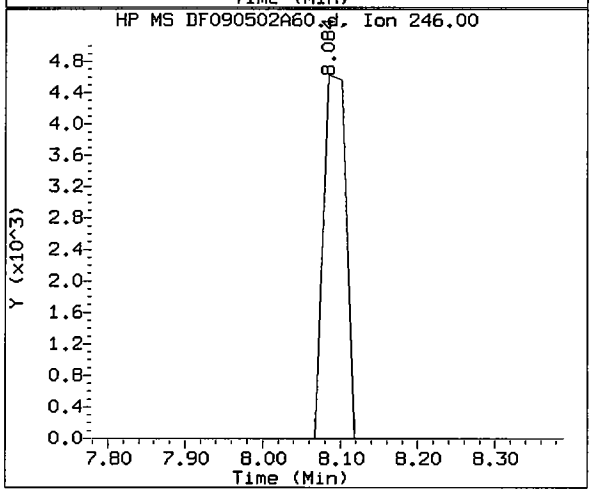
Mass	Area	Ratio
246	9334	100.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 8.863
Area: 1535804



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.541
Area: 32709



Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.084
Area: 9334

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1535804			N/A
4,4-DDE	9334	0.6	20.0	PASS
4,4-DDD	32709	2.1	20.0	PASS
4,4-DDD + DDE	42043	2.7	20.0	PASS

****

TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

****

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d

Date : 02-MAY-2009 09:26

Client ID: DFTPP

Instrument: 5972hp60.i

Sample Info: DFTPP:2650

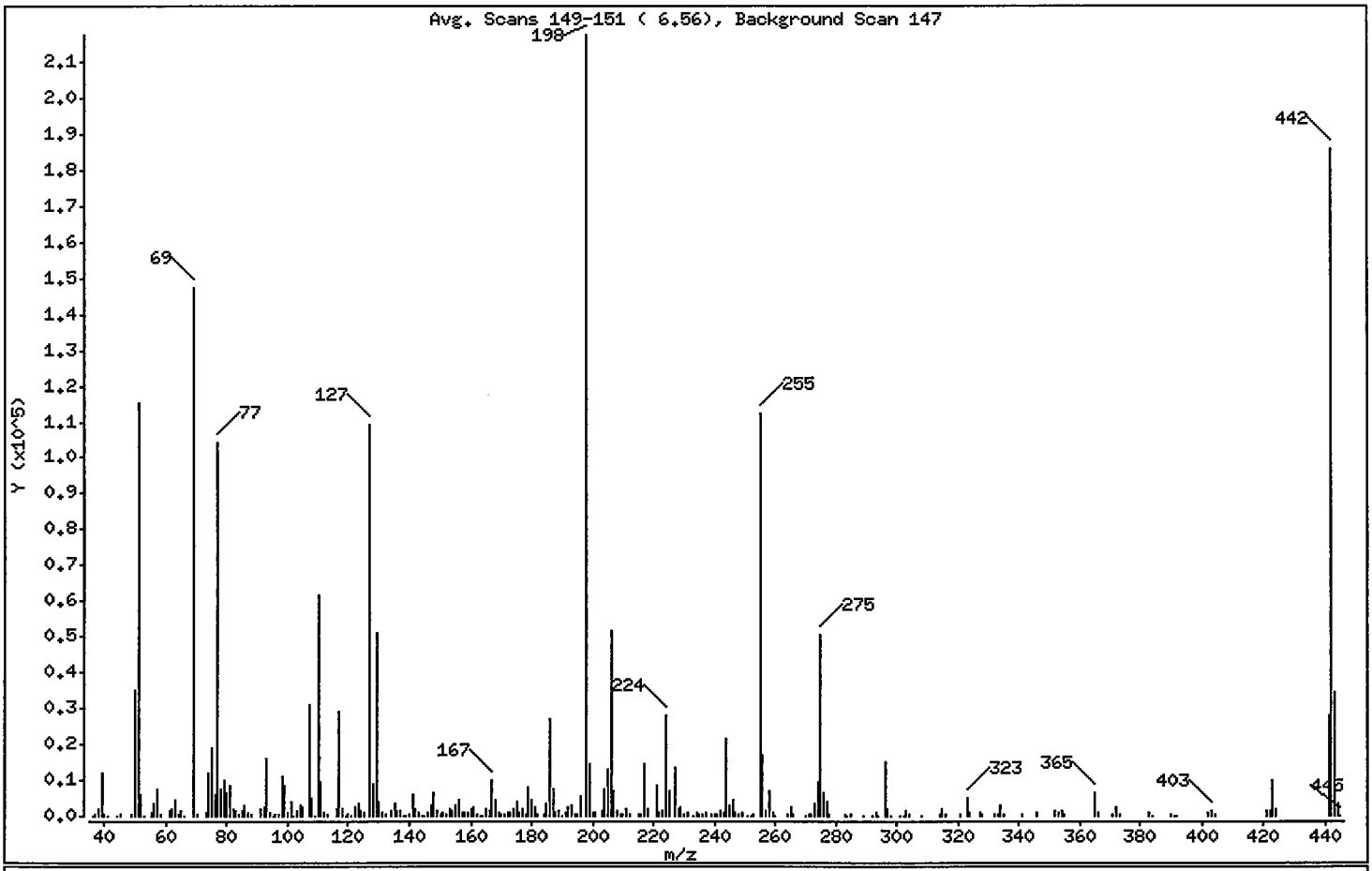
Volume Injected (uL): 2.0

Operator: 2650

Column phase: RTX-5MS

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	52.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	67.70
70	Less than 2.00% of mass 69	0.22 (0.32)
127	25.00 - 75.00% of mass 198	50.31
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.58
275	10.00 - 30.00% of mass 198	23.17
365	Greater than 0.75% of mass 198	3.10
441	Present, but less than mass 443	12.88
442	40.00 - 110.00% of mass 198	85.45
443	15.00 - 24.00% of mass 442	15.92 (18.63)

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d

Date : 02-MAY-2009 09:26

Client ID: DFTPP Instrument: 5972hp60.i

Sample Info: DFTPP:2650

Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090502A60.d
Spectrum: Avg. Scans 149-151 (6.56), Background Scan 147
Location of Maximum: 198.00
Number of points: 261

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	140	119.00	184	188.00	984	271.00	344
37.00	707	120.00	424	189.00	1694	272.00	447
38.00	2126	121.00	143	190.00	165	273.00	3519
39.00	11858	122.00	2556	191.00	862	274.00	9731
40.00	574	123.00	3435	192.00	2534	275.00	50408
41.00	160	124.00	1691	193.00	2970	276.00	6661
44.00	61	125.00	1099	194.00	549	277.00	4033
45.00	306	127.00	109456	195.00	261	278.00	712
49.00	690	128.00	8773	196.00	5621	283.00	313
50.00	35240	129.00	50888	198.00	217536	284.00	223
51.00	115256	130.00	4034	199.00	14318	285.00	655
52.00	5866	131.00	825	200.00	908	289.00	165
53.00	213	132.00	487	201.00	779	292.00	163
55.00	919	134.00	1510	203.00	1639	293.00	910
56.00	3707	135.00	3511	204.00	7737	294.00	187
57.00	7519	136.00	1348	205.00	13145	296.00	15170
58.00	256	137.00	1670	206.00	51760	297.00	2124
61.00	1409	138.00	209	207.00	6872	298.00	150
62.00	2177	139.00	146	208.00	1406	301.00	140
63.00	4625	140.00	436	209.00	456	302.00	189
64.00	568	141.00	6018	210.00	404	303.00	1601
65.00	1744	142.00	1880	211.00	1848	304.00	362
66.00	175	143.00	1228	212.00	337	308.00	207
69.00	147264	144.00	152	215.00	709	314.00	713
70.00	476	145.00	162	216.00	643	315.00	1769
73.00	1197	146.00	1104	217.00	14584	316.00	688
74.00	12075	147.00	2908	218.00	1849	321.00	450
75.00	19072	148.00	6582	221.00	8515	323.00	4820
76.00	6073	149.00	1455	222.00	1014	324.00	865
77.00	104312	150.00	280	223.00	1468	327.00	810
78.00	7542	151.00	839	224.00	27880	328.00	438
79.00	9825	152.00	281	225.00	7014	332.00	321
80.00	6557	153.00	2251	227.00	13485	333.00	571
81.00	8483	154.00	1444	228.00	1855	334.00	3143
82.00	2225	155.00	3128	229.00	2710	335.00	751

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d

Date : 02-MAY-2009 09:26

Client ID: DFTPP Instrument: 5972hp60.i

Sample Info: DFTPP:2650

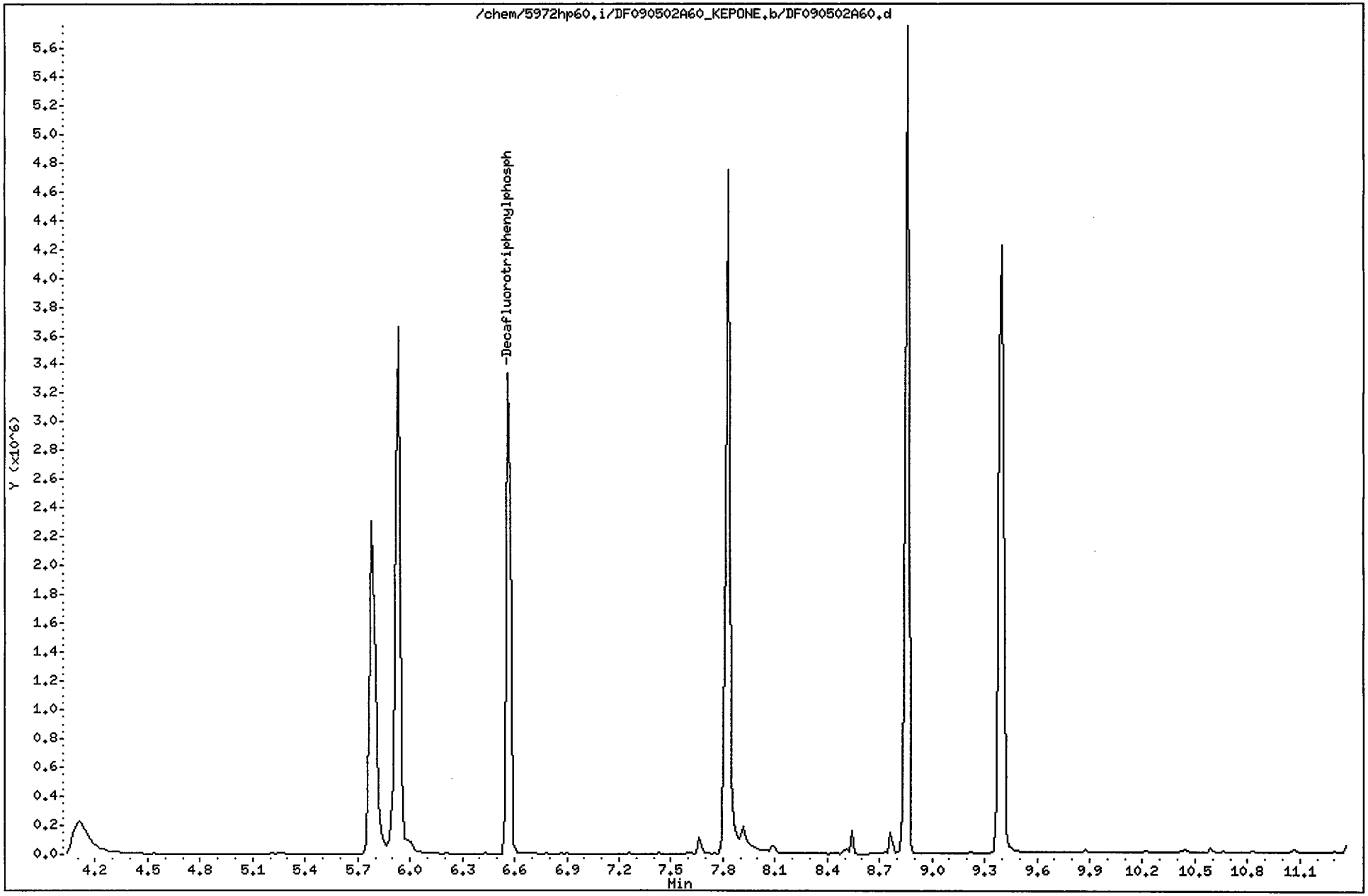
Volume Injected (uL): 2.0 Operator: 2650

Column phase: RTX-5MS Column diameter: 0.32

Data File: DF090502A60.d
Spectrum: Avg. Scans 149-151 (6.56), Background Scan 147
Location of Maximum: 198.00
Number of points: 261

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1702	156.00	4292	230.00	372	341.00	462
84.00	574	157.00	859	231.00	966	346.00	860
85.00	1401	158.00	1166	233.00	151	352.00	1488
86.00	2794	159.00	849	234.00	870	353.00	982
87.00	886	160.00	1873	235.00	616	354.00	1509
88.00	381	161.00	2559	236.00	554	355.00	307
91.00	2087	162.00	654	237.00	845	365.00	6751
92.00	2275	163.00	138	239.00	547	366.00	1038
93.00	15803	164.00	151	240.00	392	371.00	286
94.00	891	165.00	1919	241.00	737	372.00	2567
95.00	145	166.00	1709	242.00	1621	373.00	573
96.00	315	167.00	10235	243.00	1042	383.00	886
97.00	346	168.00	4535	244.00	21728	384.00	227
98.00	10872	169.00	800	245.00	2808	390.00	304
99.00	8730	170.00	448	246.00	4460	391.00	218
100.00	758	171.00	497	247.00	794	392.00	198
101.00	4244	172.00	1063	248.00	303	402.00	995
102.00	183	173.00	1074	249.00	928	403.00	1509
103.00	1380	174.00	2182	251.00	138	404.00	533
104.00	2828	175.00	4192	252.00	211	421.00	1256
105.00	2520	176.00	1122	253.00	677	422.00	1340
107.00	30928	177.00	1889	255.00	112336	423.00	10124
108.00	5066	178.00	653	256.00	16800	424.00	1922
109.00	208	179.00	7992	257.00	1415	441.00	28008
110.00	61528	180.00	4544	258.00	7123	442.00	185856
111.00	9504	181.00	2424	259.00	1084	443.00	34640
112.00	1166	182.00	351	260.00	196	444.00	3527
113.00	310	184.00	671	264.00	341	445.00	139
116.00	1987	185.00	3729	265.00	2591		
117.00	29016	186.00	26832	266.00	689		
118.00	2044	187.00	7688	270.00	147		

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d
Date : 02-MAY-2009 09:26
Client ID: DFTPP
Instrument: 5972hp60.i
Sample Info: DFTPP:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	52.98		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	67.70		PASS
70	Less than 2% of mass 69	0.22	(0.32)	PASS
127	25 - 75% of mass 198	50.31		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.58		PASS
275	10 - 30% of mass 198	23.17		PASS
365	Greater than 0.75% of mass 198	3.10		PASS
441	Present, but less than mass 443	12.88	(80.87)	PASS
442	40 - 110 % of mass 198	85.45		PASS
443	15 - 24% of mass 442	15.92	(18.63)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7	5.0	PASS
Benzidine	0.0	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1535804			N/A
4,4-DDE	9334	0.6	20.0	PASS
4,4-DDD	32709	2.1	20.0	PASS
4,4-DDD + DDE	42043	2.7	20.0	PASS

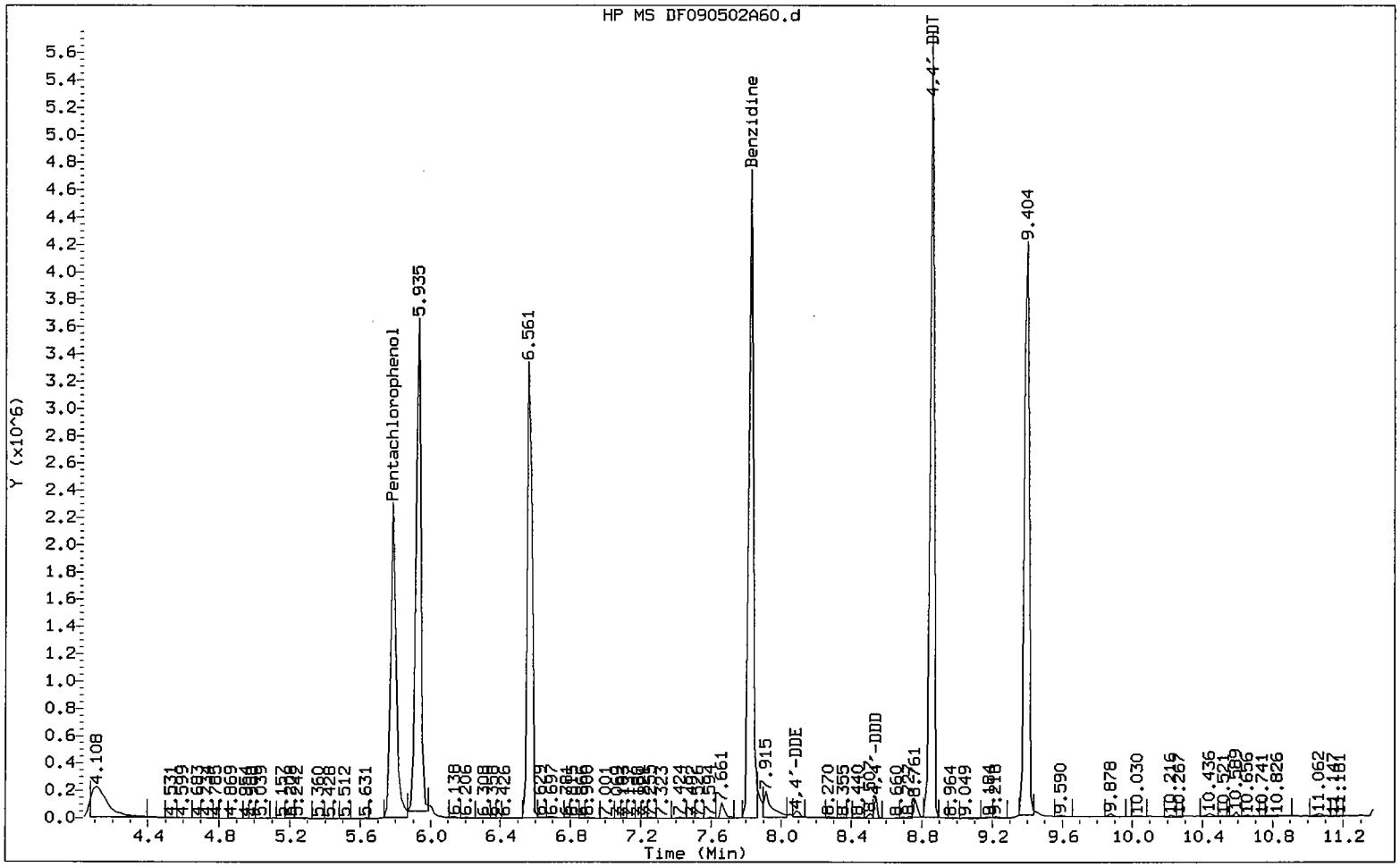
Tuning Sample, /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A60.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

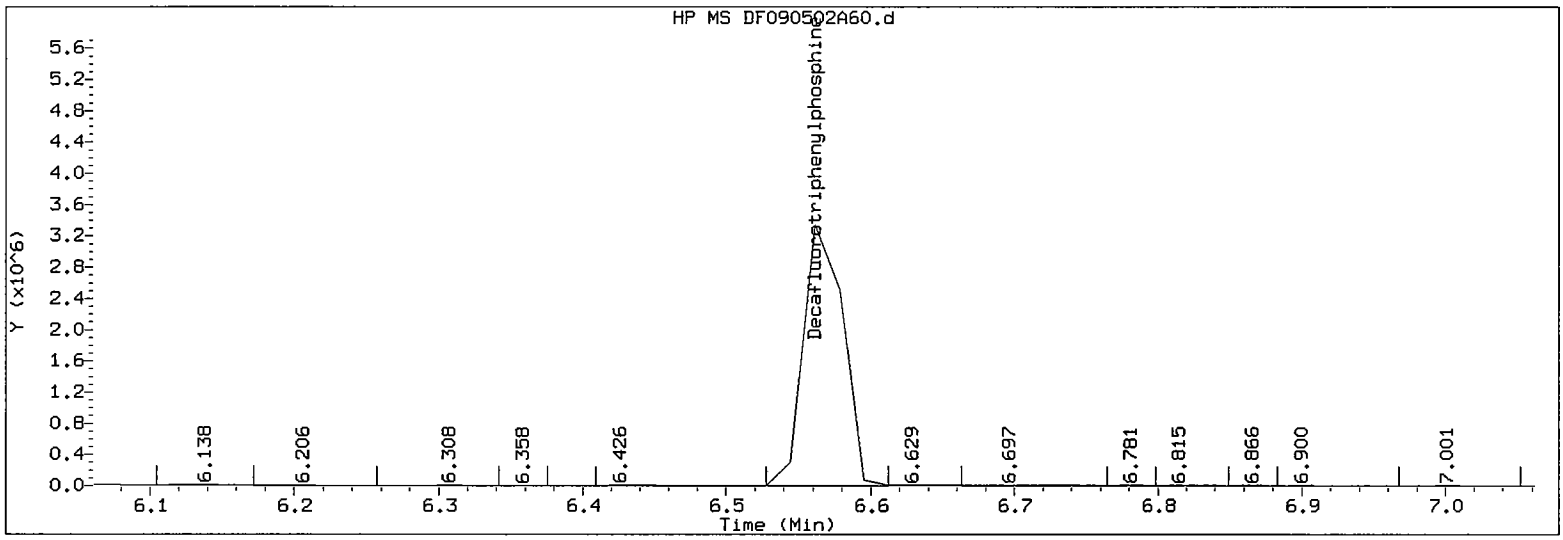
Report Date: 05/02/2009 10:35

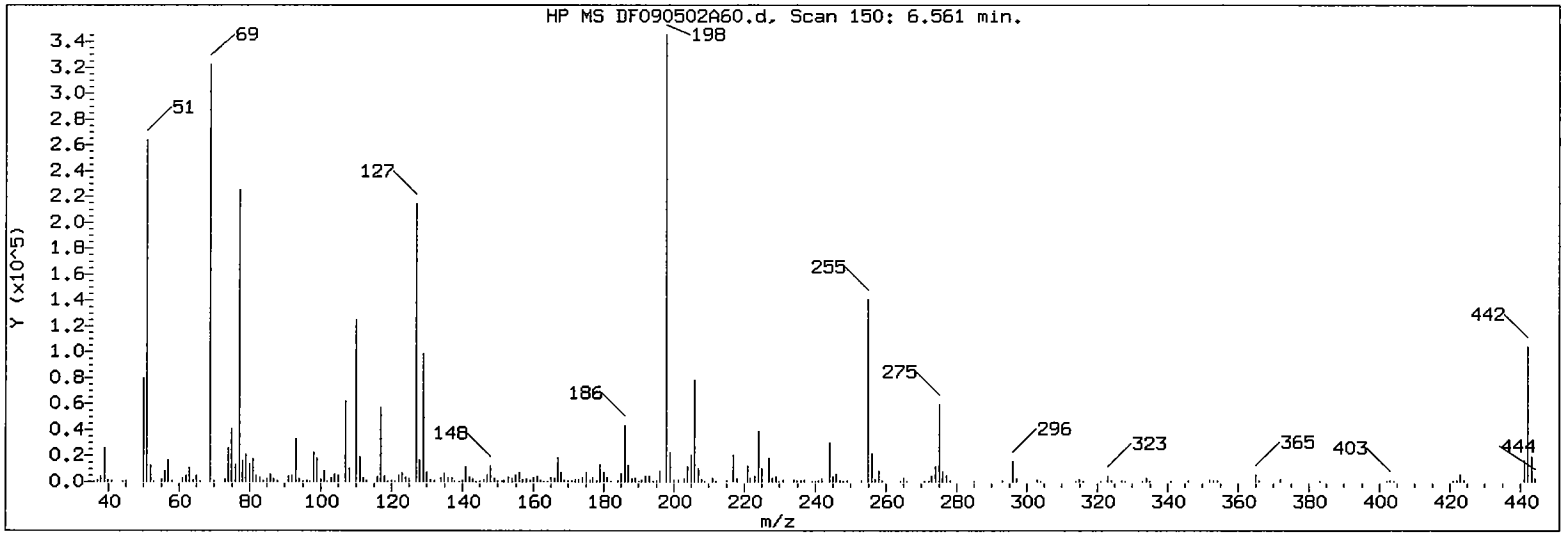
Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60_KEPONE.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 02-MAY-2009 09:26 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



Report Date: 05/02/2009 10:35

Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60_KEPONE.b/dftpp8270C.m Inst: 5972hp60
Injection Date: 02-MAY-2009 09:26 Operator: 2650
Sample Info: DFTPP DFTPP:2650
Misc Info:



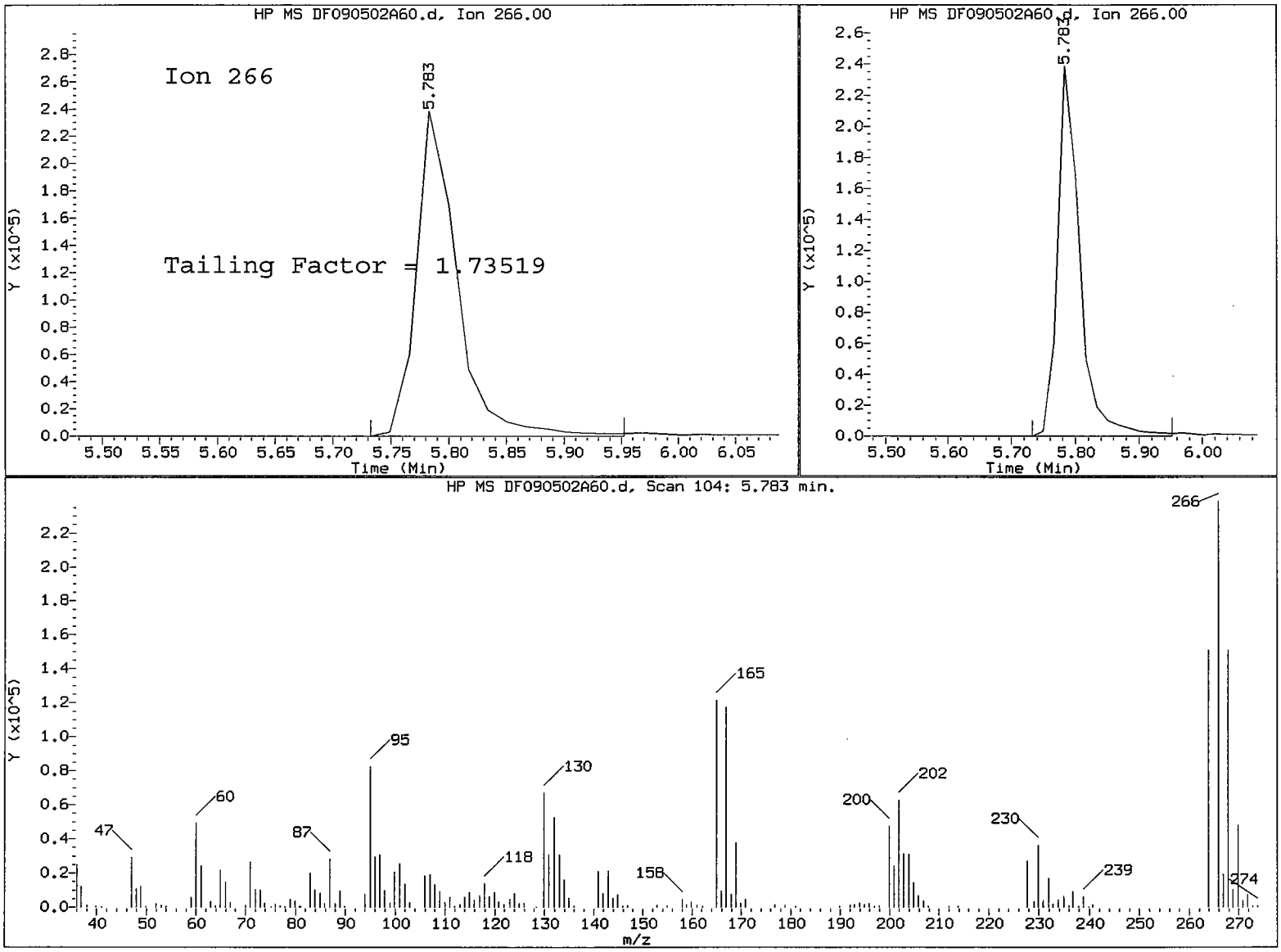


DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	52.98		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	67.70		PASS
70	Less than 2% of mass 69	0.22	(0.32)	PASS
127	25 - 75% of mass 198	50.31		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.58		PASS
275	10 - 30% of mass 198	23.17		PASS
365	Greater than 0.75% of mass 198	3.10		PASS
441	Present, but less than mass 443	12.88	(80.87)	PASS
442	40 - 110% of mass 198	85.45		PASS
443	15 - 24% of mass 442	15.92	(18.63)	PASS

Report Date: 05/02/2009 10:35

Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Pentachlorophenol
==========
Exp. RT = 6.043
Found RT = 5.783

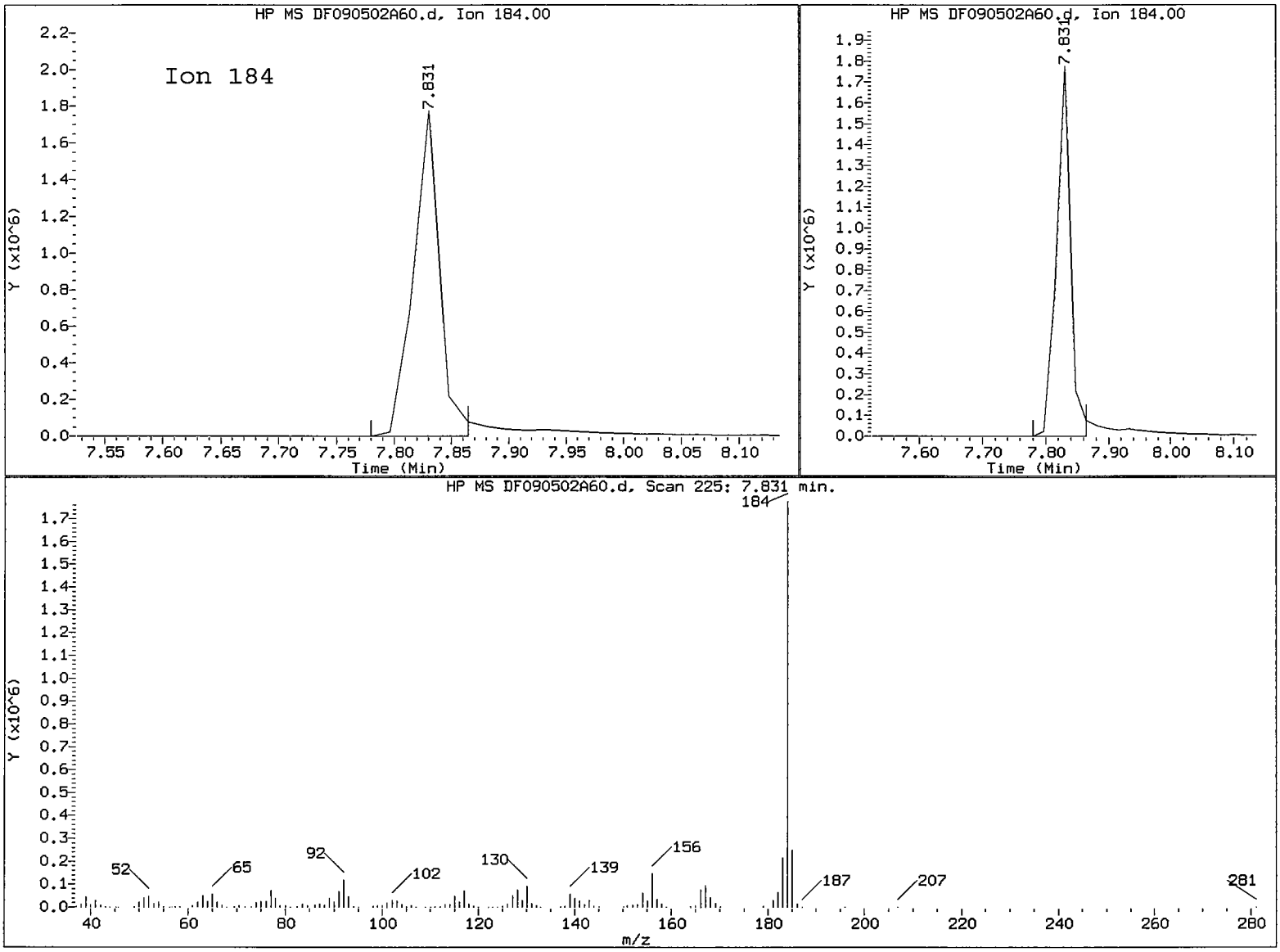
Mass	Area	Ratio
266	580447	100.00

Tailing factor for Pentachlorophenol OK

Tailing Factor = 1.7 Maximum Allowed = 5.0

Report Date: 05/02/2009 10:35

Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



Benzidine
=========
Exp. RT = 8.074
Found RT = 7.831

Mass	Area	Ratio
184	2806063	100.00

Tailing factor for Benzidine OK

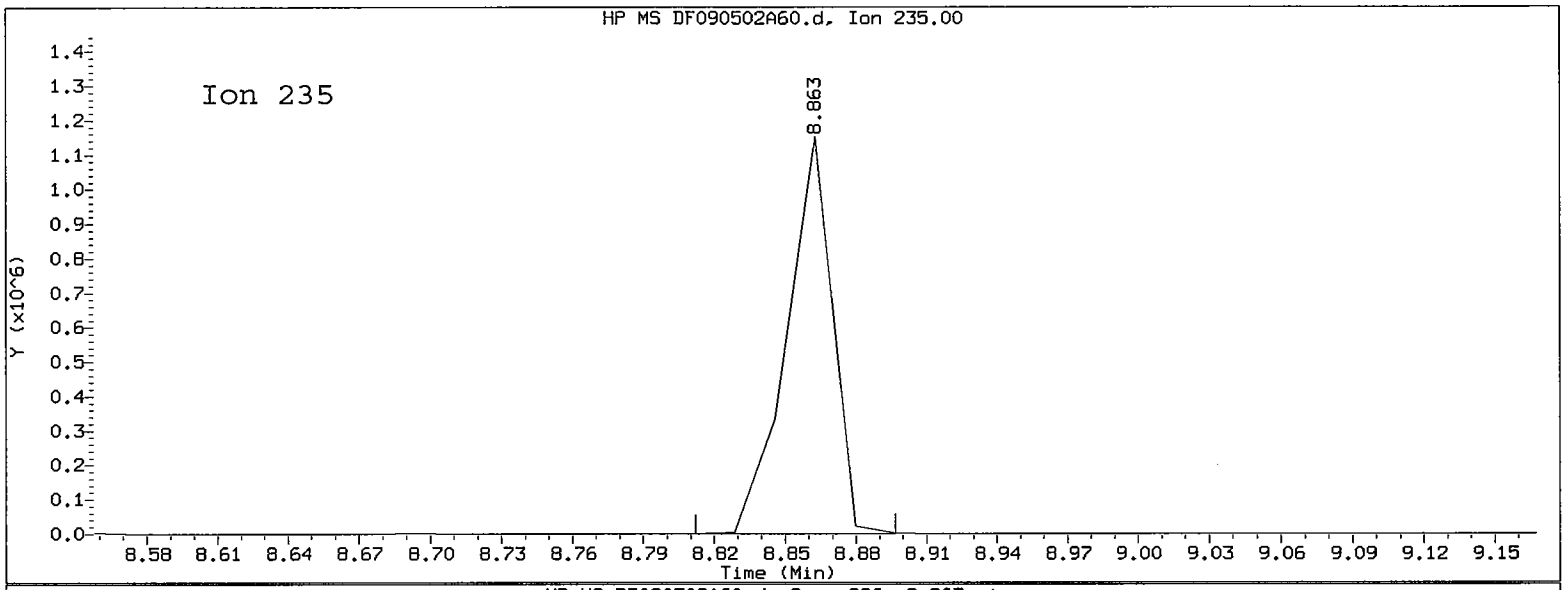
Tailing Factor = 0.0 Maximum Allowed = 3.0

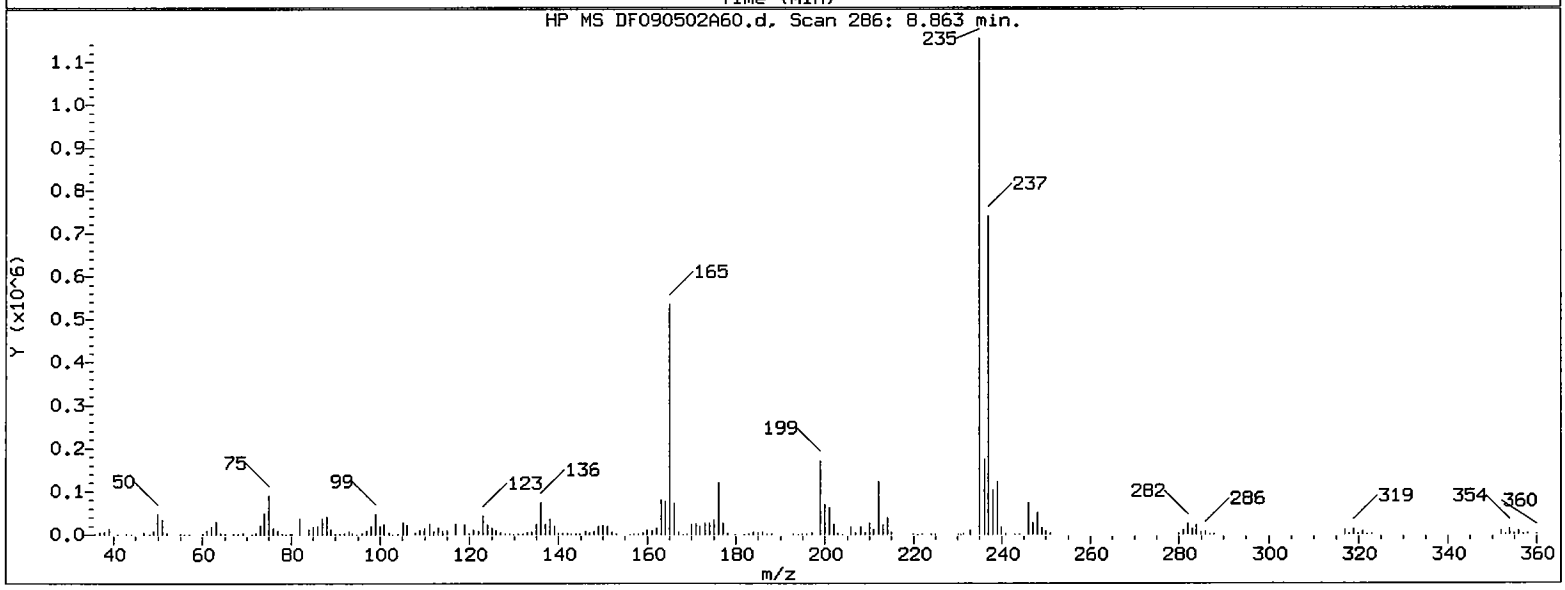
If Tailing Factor < 1.0, then it is assumed that the peak is not tailing and a Tailing Factor of zero is reported.

Tailing Factor = 0.00000

Report Date: 05/02/2009 10:35

Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



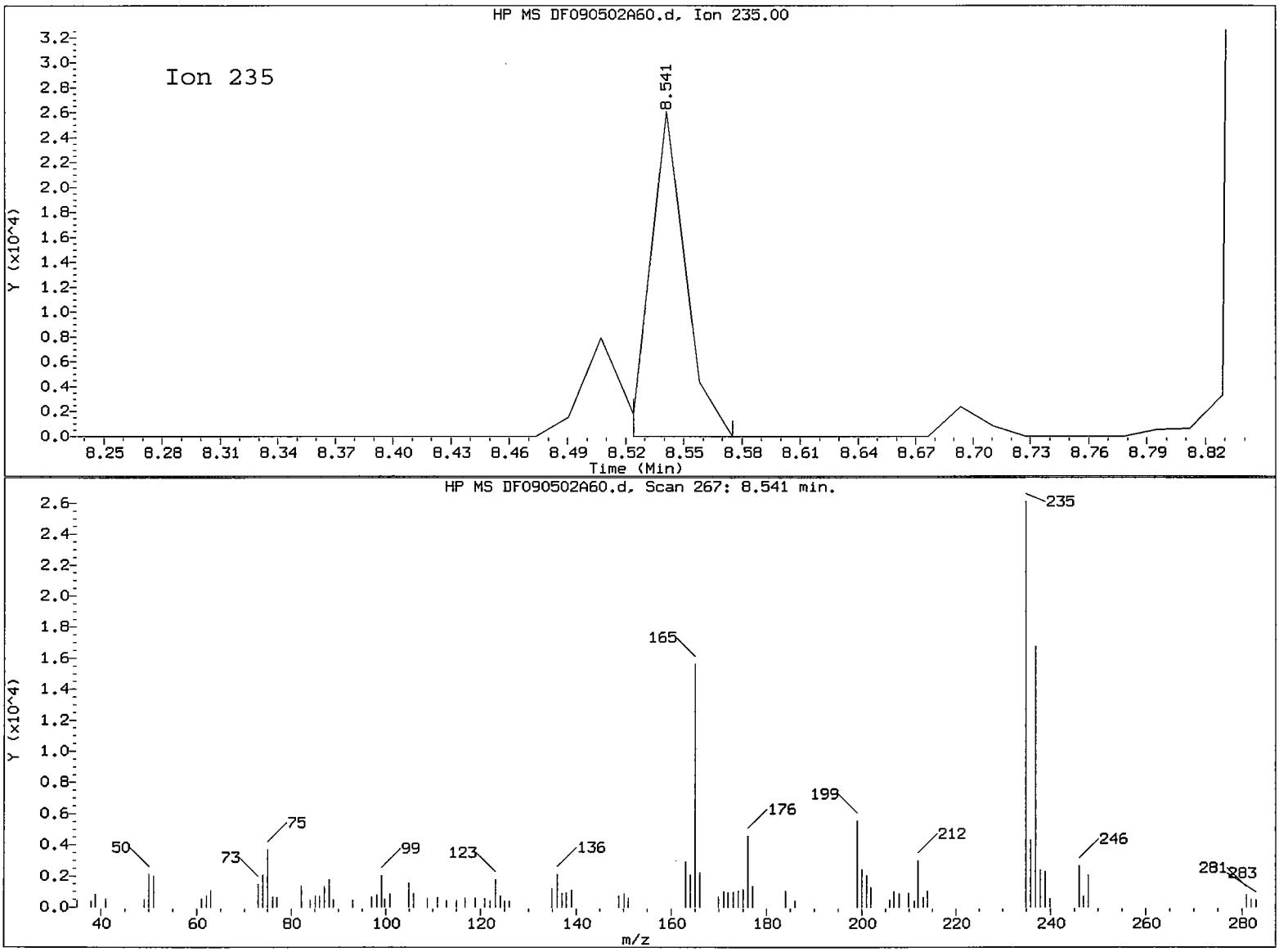


4,4'-DDT
========
 Exp. RT = 8.505
Found RT = 8.863

Mass	Area	Ratio
235	1535804	100.00

Report Date: 05/02/2009 10:35

Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:

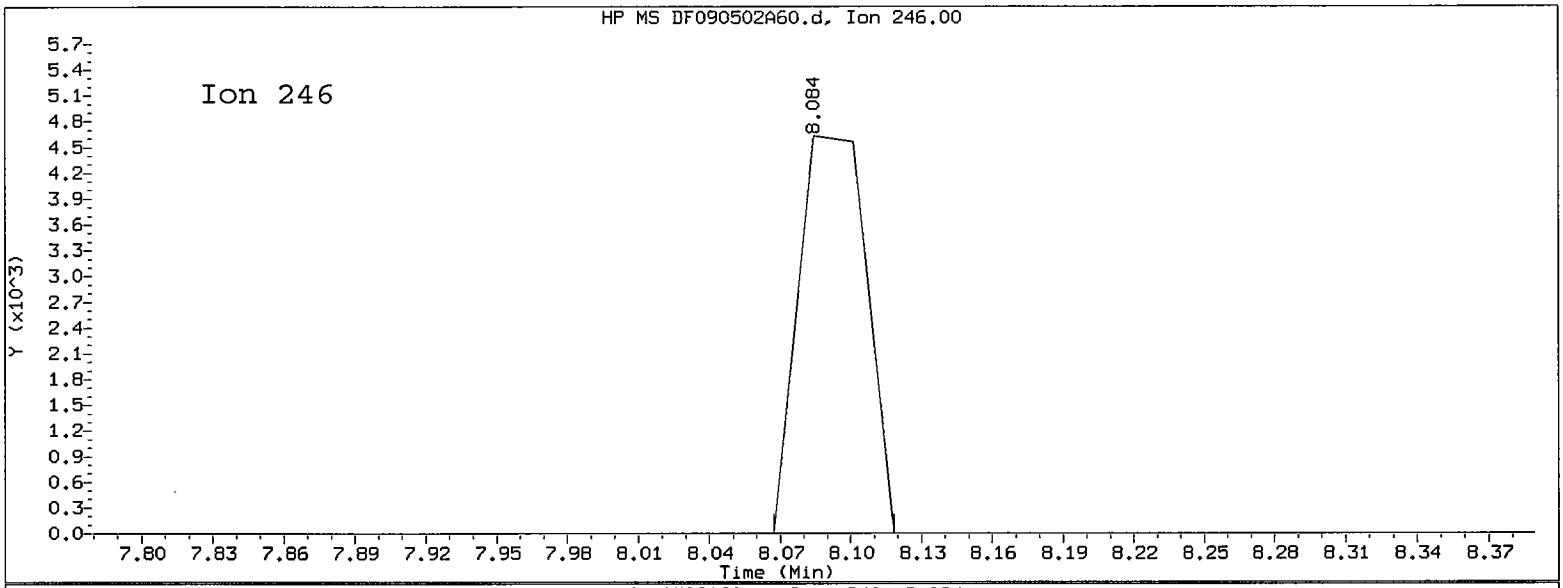


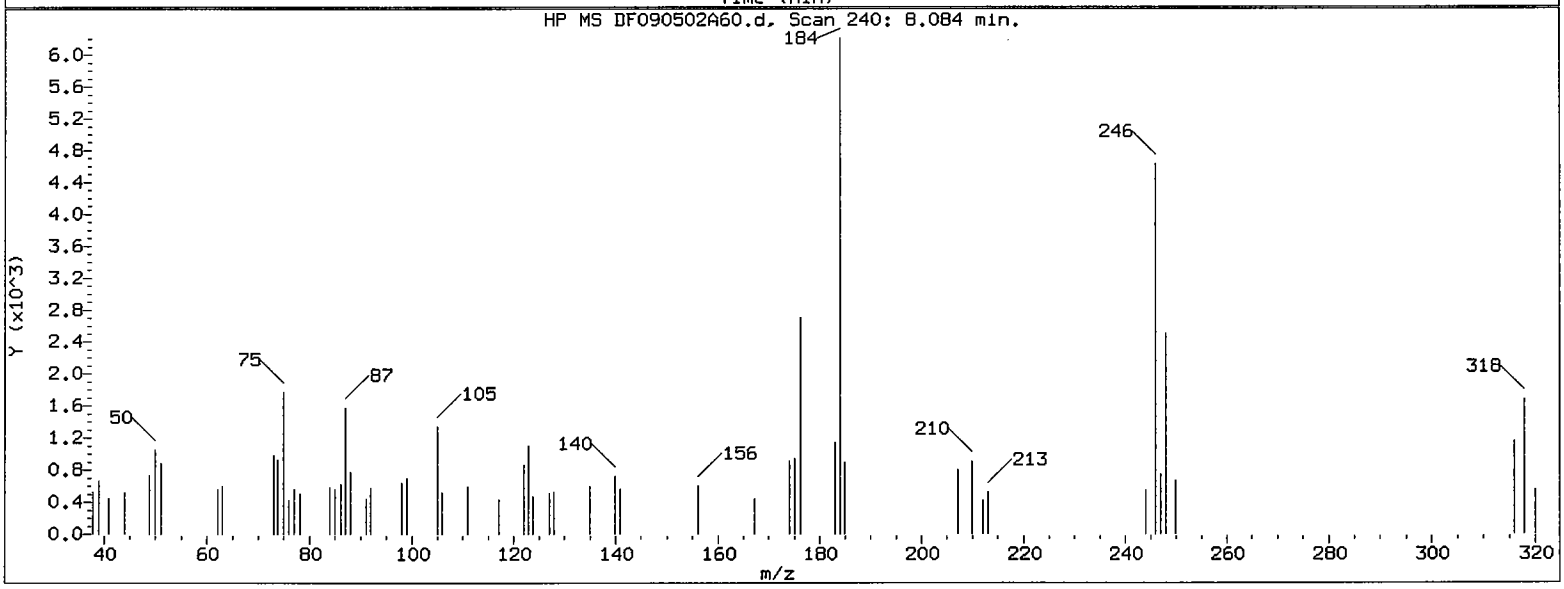
4,4'-DDD
========
Exp. RT = 8.198
Found RT = 8.541

Mass	Area	Ratio
235	32709	100.00

Report Date: 05/02/2009 10:35

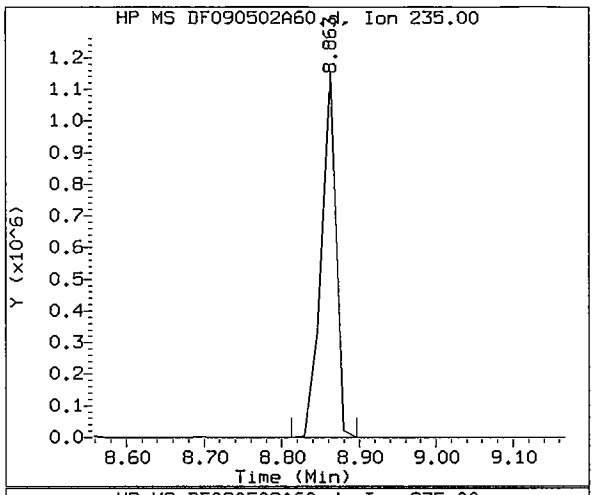
Datafile Analyzed: /chem/5972hp60.i/DF090502A60_KEPONE.b/DF090502A60.d/DF090502A
Method Used: /chem/5972hp60.i/DF090502A60.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 02-MAY-2009 09:26 Operator:
Sample Info: DFTPP DFTPP:2650
Misc Info:



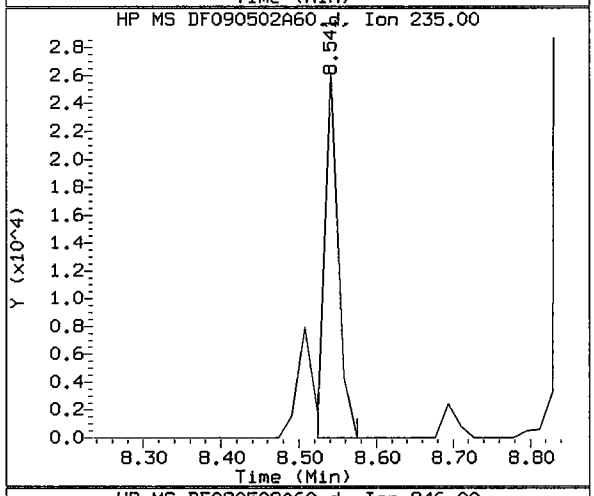


4,4'-DDE
========
Exp. RT = 7.758
Found RT = 8.084

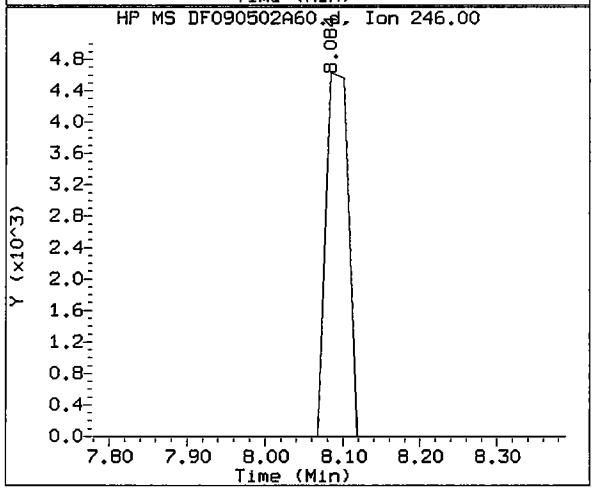
Mass	Area	Ratio
246	9334	100.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 8.863
Area: 1535804



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.541
Area: 32709



Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.084
Area: 9334

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1535804			N/A
4,4-DDE	9334	0.6	20.0	PASS
4,4-DDD	32709	2.1	20.0	PASS
4,4-DDD + DDE	42043	2.7	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

b. Blank Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I SV)
- Tentatively Identified Compounds (Form I SV-TIC)
- Reconstructed Ion Chromatogram and quantitation report.
- Target compound spectra with lab-generated standard spectra.
- Quantitation/Calculation of TIC concentrations.
- GC/MS library search spectra for TICs.

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	5.0	U
110-86-1	Pyridine	5.0	U
109-06-8	2-Picoline	5.0	U
10595-95-6	Nitrosomethylethylamine	5.0	U
66-27-3	Methyl Methanesulfonate	5.0	U
55-18-5	N-Nitrosodiethylamine	5.0	U
62-50-0	Ethyl Methanesulfonate	5.0	U
108-95-2	Phenol	5.0	U
62-53-3	Aniline	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
100-51-6	Benzyl Alcohol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
930-55-2	N-Nitrosopyrrolidine	5.0	U
108-39-4	3-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
1319-77-3	3-4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	5.0	U
98-86-2	Acetophenone	5.0	U
59-89-2	N-Nitrosomorpholine	5.0	U
95-53-4	o-Toluidine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
100-75-4	N-Nitrosopiperidine	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
126-68-1	o,o,o-Triethylphosphorothioa	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-65-0	2,6-Dichlorophenol	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	5.0	U
924-16-3	N-Nitroso-di-n-butylamine	5.0	U
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
94-59-7	Safrole	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
120-58-1	Isosafrole	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
130-15-4	1,4-Napthoquinone	5.0	U
131-11-3	Dimethylphthalate	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
608-93-5	Pentachlorobenzene	5.0	U
132-64-9	Dibenzofuran	5.0	U
134-32-7	1-Naphthylamine	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U
91-59-8	2-Naphthylamine	5.0	U
84-66-2	Diethylphthalate	5.0	U
297-97-2	Zinophos	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
99-55-8	5-Nitro-o-toluidine	5.0	U
86-73-7	Fluorene	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	5.0	U
17708-58-6	Diallate (trans isomer)	5.0	U
298-02-2	Phorate	5.0	U
62-44-2	Phenacetin	5.0	U
17708-57-5	Diallate (cis isomer)	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
60-51-5	Dimethoate	5.0	U
92-67-1	4-Aminobiphenyl	5.0	U
87-86-5	Pentachlorophenol	10	U
82-68-8	Pentachloronitrobenzene	5.0	U
23950-58-5	Pronamide	5.0	U
298-04-4	Disulfoton	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
298-00-0	Methyl Parathion	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
56-38-2	Parathion	5.0	U
56-57-5	4-Nitroquinoline-1-oxide	5.0	U
91-80-5	Methapyrilene	5.0	U
465-73-6	Isodrin	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
60-11-7	p-Dimethylaminoazobenzene	5.0	U
510-15-6	Chlorobenzilate	5.0	U
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
119-93-7	3,3'-Dimethylbenzidine	5.0	U
53-96-3	2-Acetylaminofluorene	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
117-81-7	bis(2-ethylhexyl)Phthalate	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	5.0	U
57-97-6	7,12-Dimethylbenz(a)anthrace	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
56-49-5	3-Methylcholanthrene	5.0	U
193-39-5	Indeno(1,2,3-c,d)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	5.0	U
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	5.0	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA62

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
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19.					
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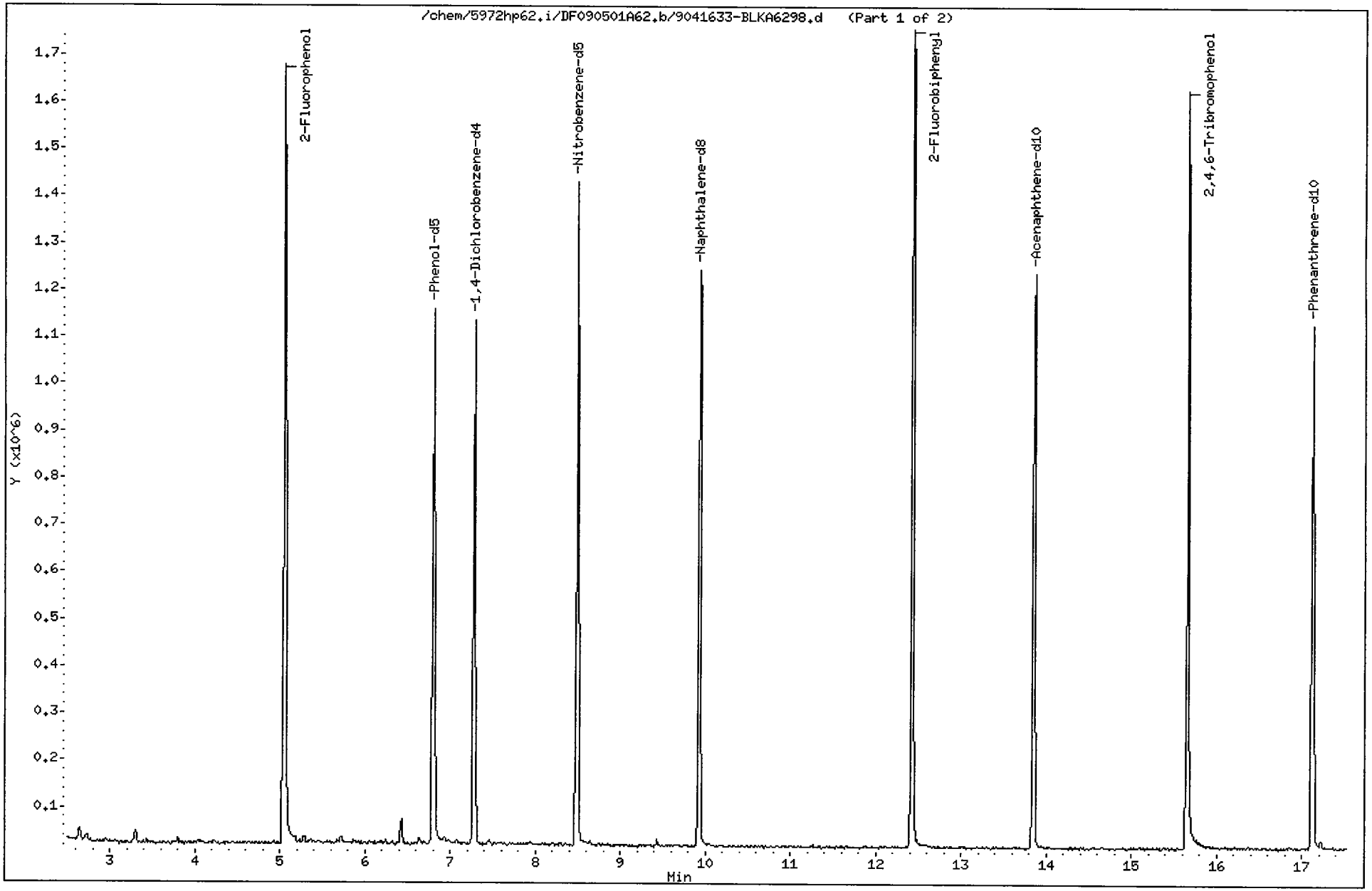
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

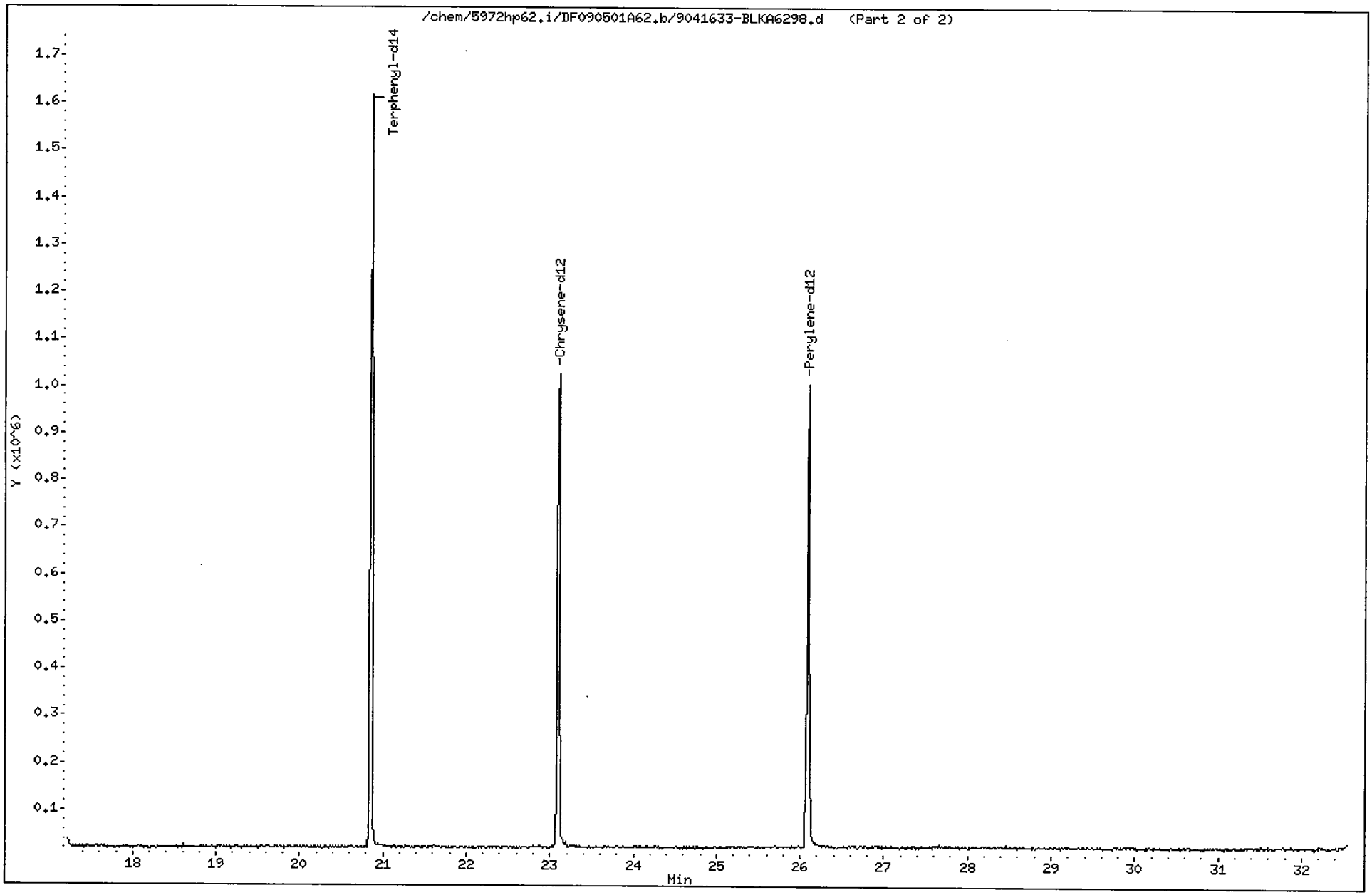
Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Date : 01-MAY-2009 17:44
Client ID: SBLKGV
Sample Info: 9041633-BLK;2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Date : 01-MAY-2009 17:44
Client ID: SBLKGV
Sample Info: 9041633-BLK:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Report Date: 05-May-2009 17:06

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Lab Smp Id: 9041633-BLK Client Smp ID: SBLKGV
Inj Date : 01-MAY-2009 17:44
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-BLK:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 16:54 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 13 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1	1,4-Dichlorobenzene-d4	152	7.279	7.279	(1.000)	266680	40.0000		
* 2	Naphthalene-d8	136	9.920	9.930	(1.000)	928958	40.0000		
* 3	Acenaphthene-d10	164	13.851	13.850	(1.000)	452497	40.0000		
* 4	Phenanthrene-d10	188	17.116	17.125	(1.000)	743307	40.0000		
* 5	Chrysene-d12	240	23.103	23.103	(1.000)	697980	40.0000		
* 6	Perylene-d12	264	26.092	26.092	(1.000)	720788	40.0000		
$ 7	2-Fluorophenol	112	5.048	5.047	(0.693)	791115	120.631	60	
$ 8	Phenol-d5	99	6.808	6.818	(0.935)	667111	82.8102	41	
$ 11	Nitrobenzene-d5	82	8.487	8.497	(0.856)	694393	79.8445	40	
$ 12	2-Fluorobiphenyl	172	12.428	12.427	(0.897)	921471	63.9270	32	
$ 13	2,4,6-Tribromophenol	330	15.662	15.662	(1.131)	398164	94.8566	47	
$ 14	Terphenyl-d14	244	20.862	20.851	(0.903)	942374	71.6133	36	
15	N-Nitrosodimethylamine	42	Compound Not Detected.						
16	Pyridine	79	Compound Not Detected.						
18	2-Picoline	93	Compound Not Detected.						

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Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Report Date: 05-May-2009 17:06

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	Compound Not Detected.						
20 Methyl Methanesulfonate	80	Compound Not Detected.						
21 N-Nitrosodiethylamine	102	Compound Not Detected.						
22 Ethyl Methanesulfonate	79	Compound Not Detected.						
23 Phenol	94	Compound Not Detected.						
24 Aniline	93	Compound Not Detected.						
25 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
27 2-Chlorophenol	128	Compound Not Detected.						
30 Benzyl Alcohol	108	Compound Not Detected.						
32 2-Methylphenol	108	Compound Not Detected.						
33 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
34 N-Nitrosopyrrolidine	100	Compound Not Detected.						
35 3-Methylphenol	108	Compound Not Detected.						
36 4-Methylphenol	108	Compound Not Detected.						
37 3-4-Methylphenol	108	Compound Not Detected.						
38 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
39 Acetophenone	105	Compound Not Detected.						
40 N-Nitrosomorpholine	116	Compound Not Detected.						
41 o-Toluidine	106	Compound Not Detected.						
42 Hexachloroethane	117	Compound Not Detected.						
43 Nitrobenzene	77	Compound Not Detected.						
44 N-Nitrosopiperidine	114	Compound Not Detected.						
45 Isophorone	82	Compound Not Detected.						
46 2-Nitrophenol	139	Compound Not Detected.						
47 2,4-Dimethylphenol	122	Compound Not Detected.						
49 o,o,o-Triethylphosphorothioat	198	Compound Not Detected.						
50 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
51 2,4-Dichlorophenol	162	Compound Not Detected.						
54 4-Chloroaniline	127	Compound Not Detected.						
55 2,6-Dichlorophenol	162	Compound Not Detected.						
56 Hexachloropropene	213	Compound Not Detected.						
58 N-Nitroso-di-n-butylamine	84	Compound Not Detected.						
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	Compound Not Detected.						
61 Safrole	162	Compound Not Detected.						
62 2-Methylnaphthalene	141	Compound Not Detected.						
64 Hexachlorocyclopentadiene	237	Compound Not Detected.						
65 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
66 2,4,6-Trichlorophenol	196	Compound Not Detected.						
67 2,4,5-Trichlorophenol	196	Compound Not Detected.						
68 Isosafrole	162	Compound Not Detected.						
69 2-Chloronaphthalene	162	Compound Not Detected.						
70 2-Nitroaniline	65	Compound Not Detected.						
71 1,4-Napthoquinone	158	Compound Not Detected.						
72 Dimethylphthalate	163	Compound Not Detected.						
75 Acenaphthylene	152	Compound Not Detected.						
76 3-Nitroaniline	138	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Report Date: 05-May-2009 17:06

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	Compound Not Detected.						
78 2,4-Dinitrophenol	184	Compound Not Detected.						
79 4-Nitrophenol	139	Compound Not Detected.						
80 Pentachlorobenzene	250	Compound Not Detected.						
82 Dibenzofuran	168	Compound Not Detected.						
83 1-Naphthylamine	143	Compound Not Detected.						
84 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
85 2-Naphthylamine	143	Compound Not Detected.						
86 Diethylphthalate	149	Compound Not Detected.						
87 Zinophos	97	Compound Not Detected.						
88 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
89 5-Nitro-o-toluidine	152	Compound Not Detected.						
90 Fluorene	166	Compound Not Detected.						
91 4-Nitroaniline	138	Compound Not Detected.						
92 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
93 N-Nitrosodiphenylamine	169	Compound Not Detected.						
96 Sulfotep	322	Compound Not Detected.						
98 Diallate (trans isomer)	86	Compound Not Detected.						
99 Diallate (trans) part of total	86	Compound Not Detected.						
100 Phorate	75	Compound Not Detected.						
101 Phenacetin	108	Compound Not Detected.						
102 Diallate (cis isomer)	86	Compound Not Detected.						
103 Diallate (cis) part of total	86	Compound Not Detected.						
104 4-Bromophenyl-phenylether	248	Compound Not Detected.						
105 Hexachlorobenzene	284	Compound Not Detected.						
106 Dimethoate	87	Compound Not Detected.						
107 4-Aminobiphenyl	169	Compound Not Detected.						
108 Pentachlorophenol	266	Compound Not Detected.						
109 Pentachloronitrobenzene	237	Compound Not Detected.						
110 Pronamide	173	Compound Not Detected.						
111 Disulfoton	88	Compound Not Detected.						
112 Phenanthrene	178	Compound Not Detected.						
113 Anthracene	178	Compound Not Detected.						
115 Methyl Parathion	109	Compound Not Detected.						
116 Di-n-butylphthalate	149	Compound Not Detected.						
117 Parathion	109	Compound Not Detected.						
118 4-Nitroquinoline-1-oxide	190	Compound Not Detected.						
119 Methapyrilene	97	Compound Not Detected.						
120 Isodrin	193	Compound Not Detected.						
121 Fluoranthene	202	Compound Not Detected.						
123 Pyrene	202	Compound Not Detected.						
124 p-Dimethylaminoazobenzene	225	Compound Not Detected.						
125 Chlorobenzilate	251	Compound Not Detected.						
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	Compound Not Detected.						
129 3,3'-Dimethylbenzidine	212	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Report Date: 05-May-2009 17:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	Compound Not Detected.						
131	3,3'-Dichlorobenzidine	252	Compound Not Detected.						
132	bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
133	Benzo(a)anthracene	228	Compound Not Detected.						
134	Chrysene	228	Compound Not Detected.						
135	Di-n-octylphthalate	149	Compound Not Detected.						
136	7,12-Dimethylbenz(a)anthracene	256	Compound Not Detected.						
137	Benzo(b)fluoranthene	252	Compound Not Detected.						
138	Benzo(k)fluoranthene	252	Compound Not Detected.						
139	Benzo(a)pyrene	252	Compound Not Detected.						
140	3-Methylcholanthrene	268	Compound Not Detected.						
141	Indeno(1,2,3-c,d)pyrene	276	Compound Not Detected.						
142	Dibenzo(a,h)anthracene	278	Compound Not Detected.						
143	Benzo(g,h,i)perylene	276	Compound Not Detected.						
M 144	Diallate Total	86	Compound Not Detected.						
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	Compound Not Detected.						

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d
Report Date: 05-May-2009 17:06

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Semivolatile Report SW-846 Method 8270C Appendix IX

Data file	: /chem/5972hp62.i/DF090501A62.b/9041633-BLKA6298.d		
Lab Smp Id	: 9041633-BLK	Client Smp ID	: SBLKGV
Inj Date	: 01-MAY-2009 17:44		
Operator	: 2650	Inst ID	: 5972hp62.i
Smp Info	: 9041633-BLK:2650		
Misc Info	:		
Comment	: 2008 MDLS SOIL/ 2007 WATER		
Method	: /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m		
Meth Date	: 05-May-2009 16:54 byrd	Quant Type	: ISTD
Cal Date	: 30-APR-2009 19:51	Cal File	: HL090430A62.d
Als bottle	: 13	QC Sample	: BLANK
Dil Factor	: 1.00000		
Integrator	: HP RTE	Compound Sublist	: HWMU13C.sub
Target Version	: 3.50		

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

ASSIGNED TO: Billy / Martha* | CompuChem EXTRACTION WORKSHEET SEMI-VOLATILE WATER Method 3510C for 8270C | APPIX | DATE EXTRACTED/POSTED: 4/17/09 | 678

EMP ID NUMBER: 2713 2502 | 4-17-3 | BATCH NO.: 9041633

-079A

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	0904096-01	7W11B	SAMPLE	950	1.0	1.6	12.0	QC1
2	0904096-02	7W12B	SAMPLE	1000		1.6	12.0	
3	0904096-03	7WCA	SAMPLE	950		1.6	12.0	ML 4-17-09
4	0904096-04	7WDUP	SAMPLE	1000		1.6	12.0	
5	0904096-05	7MW6	SAMPLE	1000		1.6	12.0	
6	0904098-01	13MW5	SAMPLE	1000		1.6	12.0	QC2
7	0904098-02	13MW3	SAMPLE	1000		1.6	12.0	
8	0904098-03	13MW4	SAMPLE	950		1.6	12.0	
9	0904098-04	13MWDUP	SAMPLE	975		1.6	12.0	
10	0904098-05	13MW6	SAMPLE	BFP ~~1000~~ 975		1.6	12.0	
11	0904098-06	13MW7	SAMPLE	1000		1.6	12.0	
12	0904103-01	13MW1	SAMPLE	1000		1.6	12.0	
13	0904103-02	13MW2	SAMPLE	1000		1.6	12.0	ML 4-17-09
14	9041633-BLK1	SBLKGV	MB	1000		1.6	12.0	
15	9041633-BS1	SGVLCS	LCS	1000		1.6	12.0	
16	9041633-BSD1	SGVLCSD	LCSD	1000		1.6	12.0	
17	9041633-MS1	7W11BMS01	MS1	950		1.6	12.0	
18	9041633-MS2	13MW5MS02	MS2	975		1.6	12.0	
19	9041633-MSD1	7W11BMSD01	MSD1	950		1.6	12.0	
20	9041633-MSD2	13MW5MSD02	MSD2	975	1.0	1.6	12.0	
21								
22								
23			ML 4-17-09					
24								
25								
26								

		S-VOL	8270
SURROGATE	NO.	393	
	AMT.	0.5 mL	
	LOT	032709-36	
SPIKE	NO.		APPIX SPIKE
	AMT.		0.5 mL
	LOT		61823/61824

MS2-MSD2

62060-62061

FINAL VOLUME VERIFIED: M Lott

SUPERVISOR REVIEWED: B. Patton

SURROGATE & SPIKE ADDED BY: RM / 4-17-09 (Initials / Date)

Analyst initials. Extracted BFP, ML, SB KD RM N2 BFP Bottle up ML

Witness ML / 4-17-09 (Initials / Date)

Manufacturer and lot number of reagents/solvents used CH2Cl2-G45400, H2SO4-670418, 10N NaOH-ZXX6-547-1, Na2SO4-ZKW-[illegible]

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

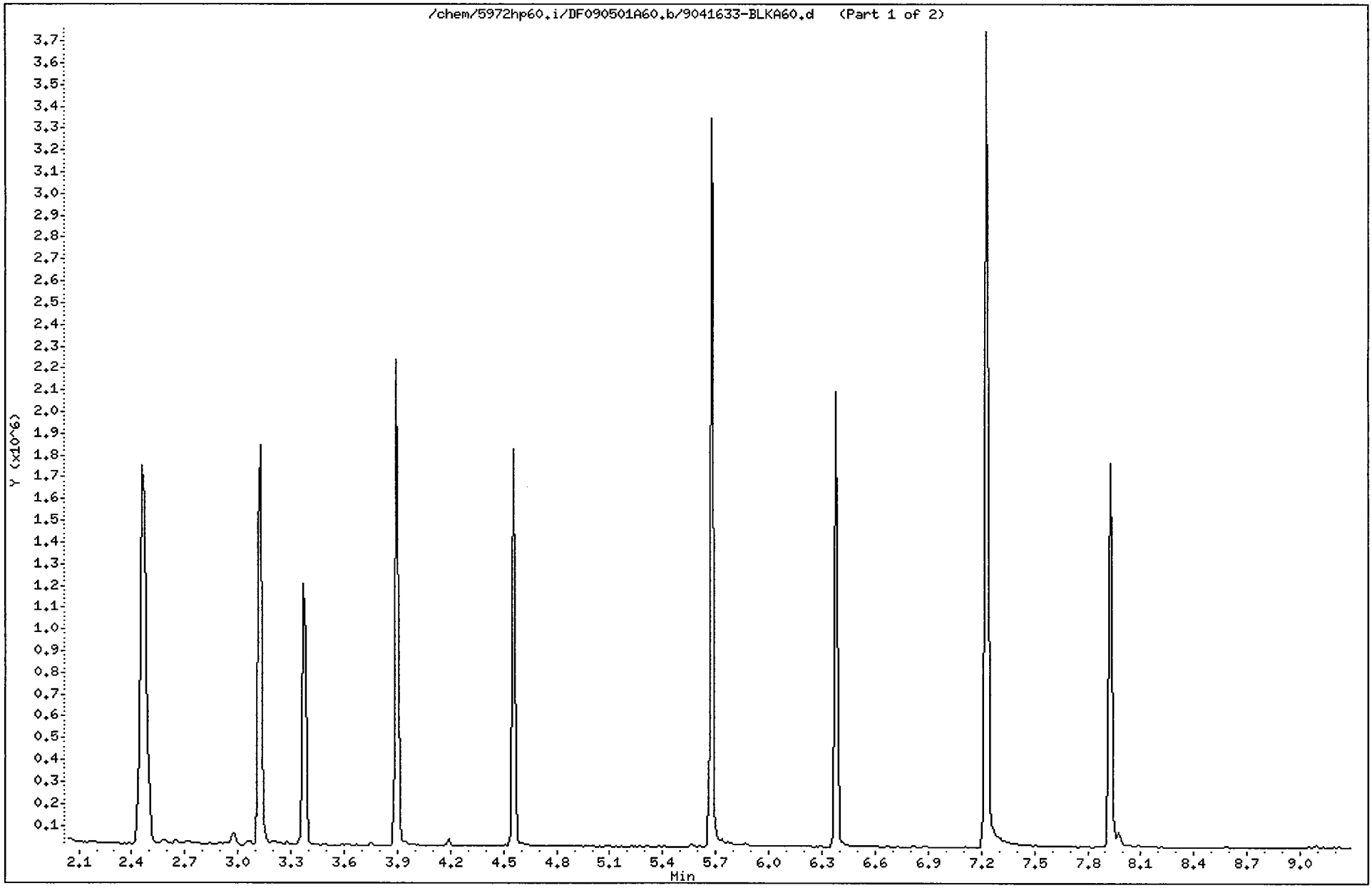
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

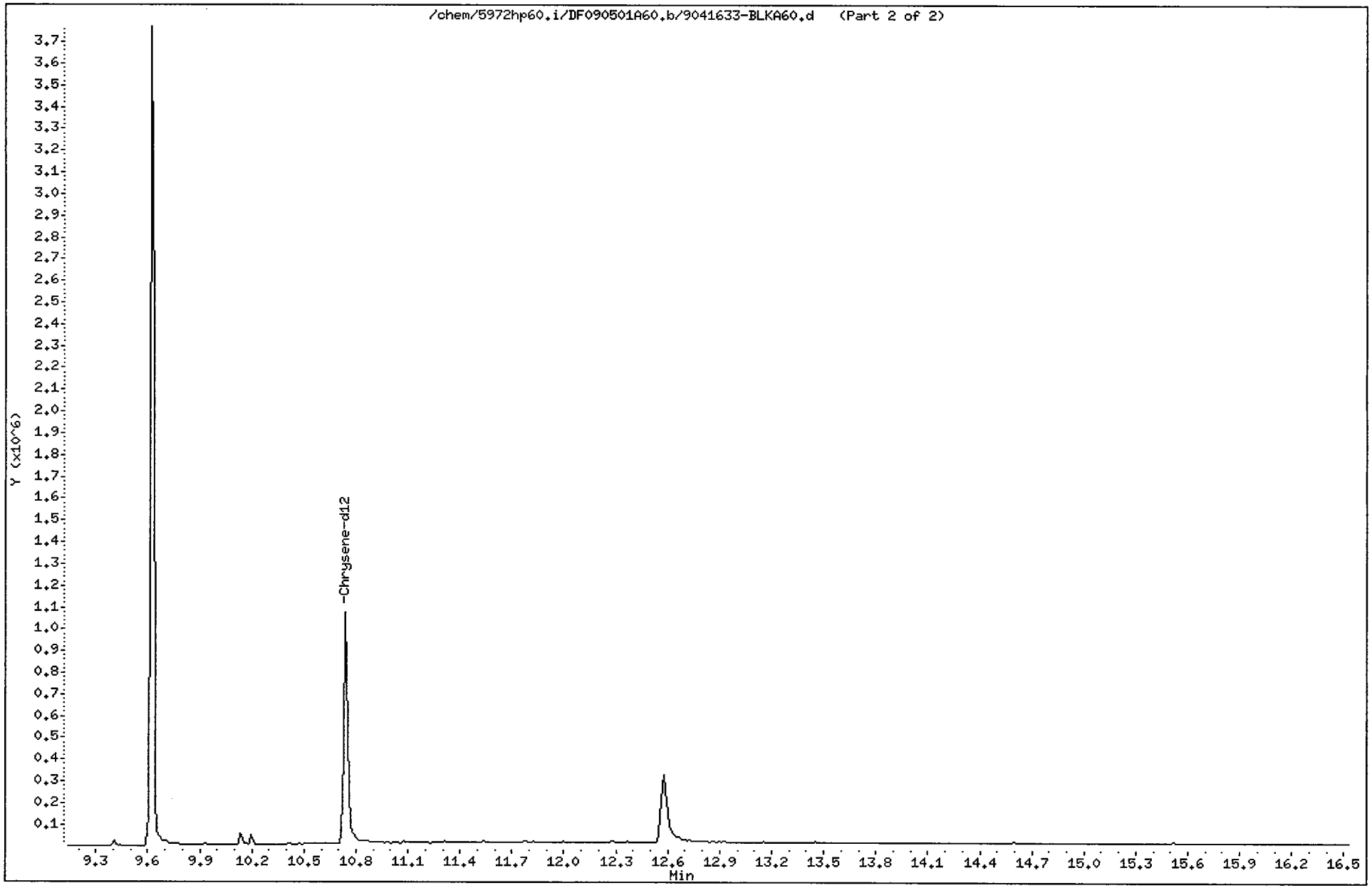
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	5.0	U

Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BLKA60.d
Date : 01-MAY-2009 22:42
Client ID: SBLKGV
Instrument: 5972hp60.i
Sample Info: 9041633-BLK:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BLKA60.d
Date : 01-MAY-2009 22:42
Client ID: SBLKGV
Instrument: 5972hp60.i
Sample Info: 9041633-BLK:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BLKA60.d
Report Date: 04-May-2009 11:02

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/9041633-BLKA60.d
Lab Smp Id: 9041633-BLK Client Smp ID: SBLKGV
Inj Date : 01-MAY-2009 22:42
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-BLK:2650
Misc Info :
Comment   : 2008 MDLS SOIL/ 2007 WATER
Method   : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 11:01 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 24 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.738	10.746	(1.000)	634801	40.0000		
127 Famfur	218	Compound Not Detected.						

5/14/09

ASSIGNED TO: Billy / Martha * | CompuChem EXTRACTION WORKSHEET SEMI-VOLATILE WATER Method 3510C for 8270C | APPIX | DATE EXTRACTED/POSTED: 4/17/09 *

EMP ID NUMBER: 2713 2502 | 4-17-3 | BATCH NO.: 9041633

-070A

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	0904096-01	7W11B	SAMPLE	950	1.0	1.6	12.0	QC1
2	0904096-02	7W12B	SAMPLE	1000		1.6	12.0	
3	0904096-03	7WCA	SAMPLE	950		1.6	12.0	ML 4-17-09
4	0904096-04	7WDUP	SAMPLE	1000		1.6	12.0	
5	0904096-05	7MW6	SAMPLE	1000		1.6	12.0	
6	0904098-01	13MW5	SAMPLE	1000		1.6	12.0	QC2
7	0904098-02	13MW3	SAMPLE	1000		1.6	12.0	
8	0904098-03	13MW4	SAMPLE	950		1.6	12.0	
9	0904098-04	13MWDUP	SAMPLE	975		1.6	12.0	
10	0904098-05	13MW6	SAMPLE	BFP 1000 975		1.6	12.0	
11	0904098-06	13MW7	SAMPLE	1000		1.6	12.0	
12	0904103-01	13MW1	SAMPLE	1000		1.6	12.0	
13	0904103-02	13MW2	SAMPLE	1000		1.6	12.0	ML 4-17-09
14	9041633-BLK1	SBLKGV	MB	1000		1.6	12.0	
15	9041633-BS1	SGVLCS	LCS	1000		1.6	12.0	
16	9041633-BSD1	SGVLCSD	LCSD	1000		1.6	12.0	
17	9041633-MS1	7W11BMS01	MS1	950		1.6	12.0	
18	9041633-MS2	13MW5MS02	MS2	975		1.6	12.0	
19	9041633-MSD1	7W11BMSD01	MSD1	950	✓	1.6	12.0	
20	9041633-MSD2	13MW5MSD02	MSD2	975	1.0	1.6	12.0	
21								
22								
23			ML	4-17-09				
24								
25								
26								

		S VOL	S FV
SURROGATE	NO.	393	
	AMT.	0.5 mL	
	LOT	032709-36	
SPIKE	NO.		APPIX SPIKE
	AMT.		0.5 mL
	LOT		61823/61824

MS2-MSD2

62060-62061

FINAL VOLUME VERIFIED: M Lott

SUPERVISOR REVIEWED: B. Patten

SURROGATE & SPIKE ADDED BY: RM / 4-17-09 (Initials / Date)

Analyst initials. Extracted BFP, ML, SB KD RM N2 BFP Bottle up ML

Witness ML / 4-17-09 (Initials / Date)

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKGV

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BLK

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BLKA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

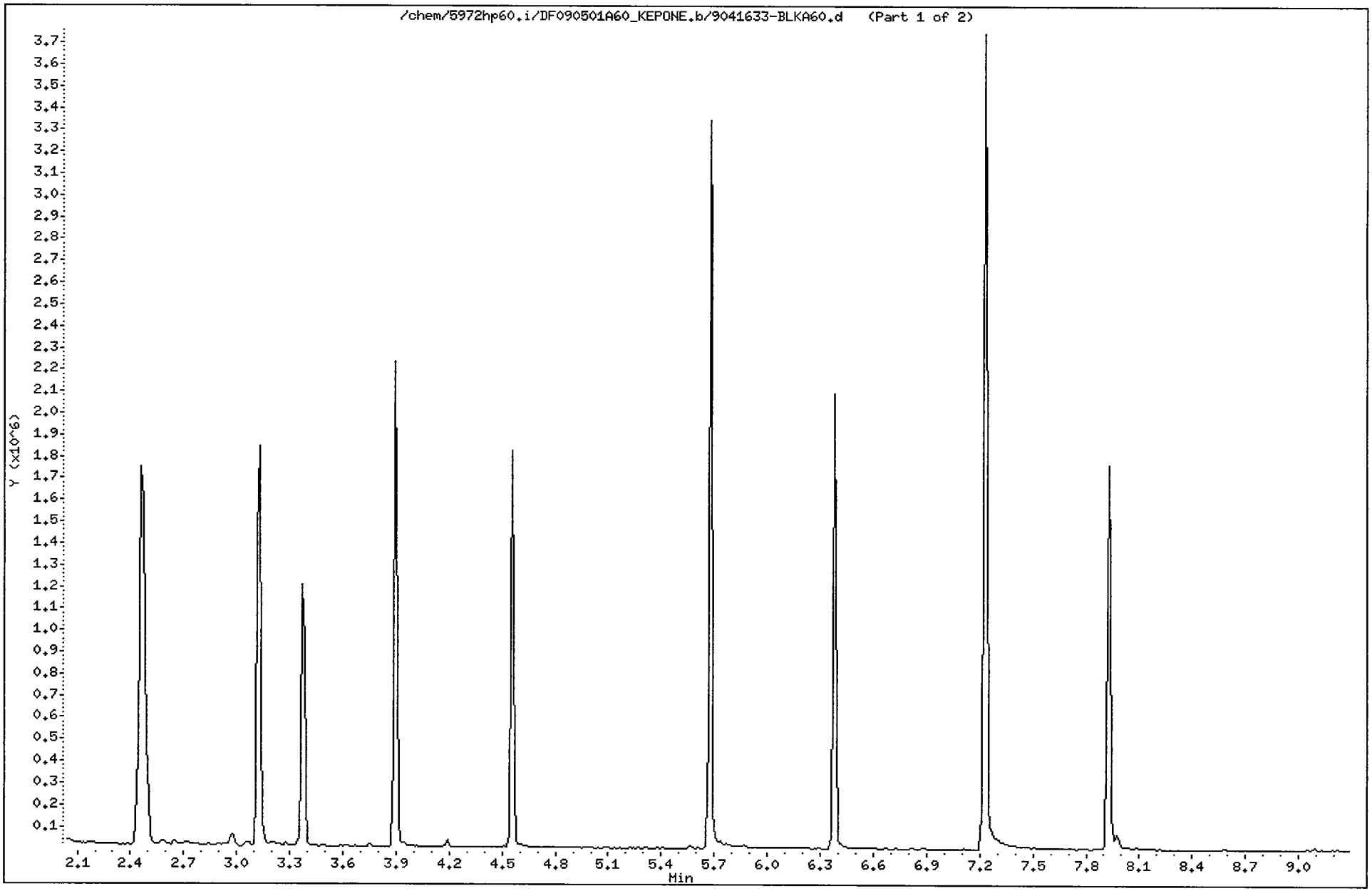
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

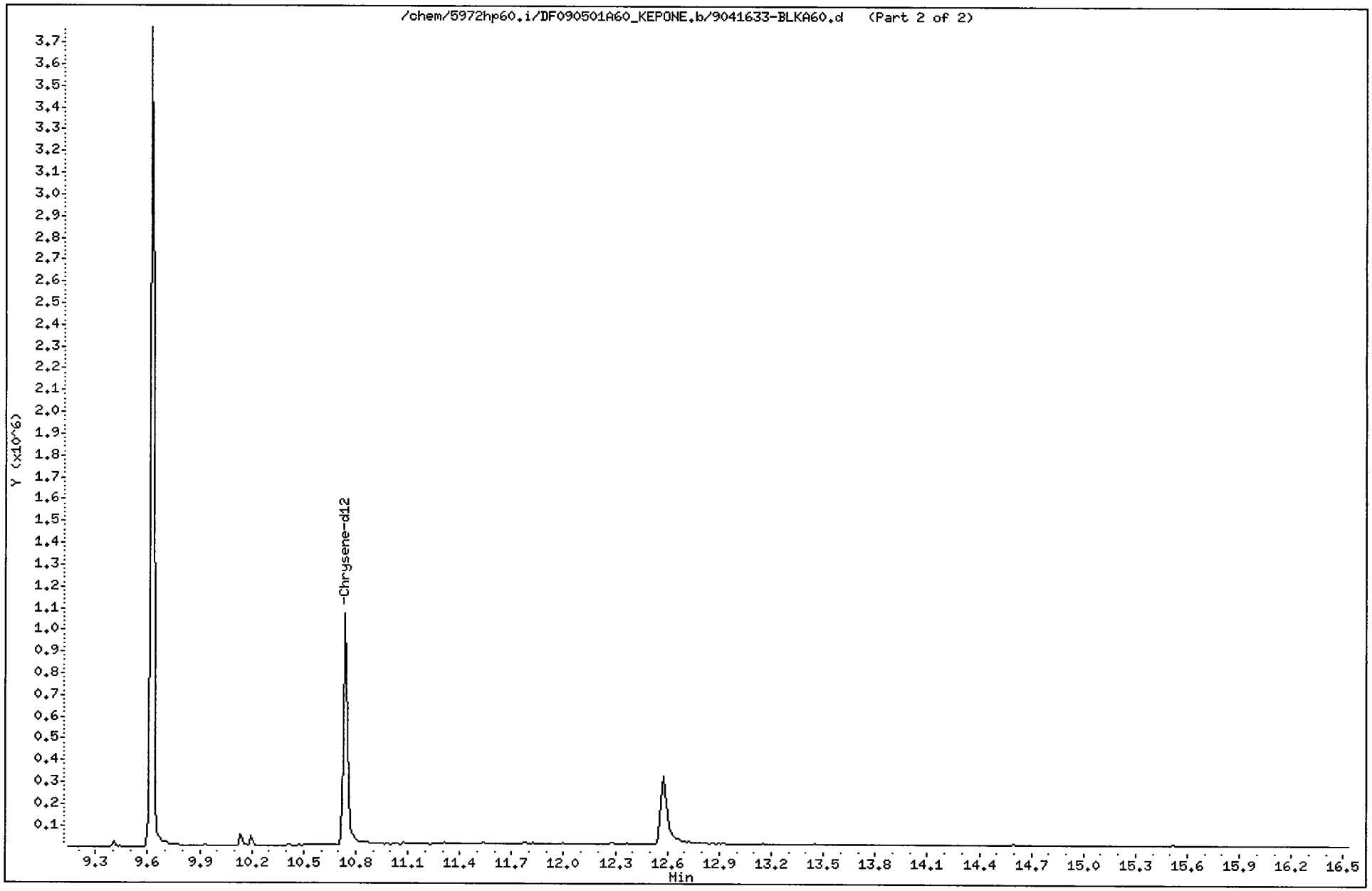
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	5.0	U

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BLKA60.d
Date : 01-MAY-2009 22:42
Client ID: SBLKGV
Instrument: 5972hp60.i
Sample Info: 9041633-BLK;2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BLKA60.d
Date : 01-MAY-2009 22:42
Client ID: SBLKGV
Instrument: 5972hp60.i
Sample Info: 9041633-BLK:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BLKA60.d
Report Date: 04-May-2009 14:08

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BLKA60.d
Lab Smp Id: 9041633-BLK Client Smp ID: SBLKGV
Inj Date : 01-MAY-2009 22:42
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-BLK:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 13:26 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 24 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.738	10.741	(1.000)	634801	40.0000		
126 Kepone	271	Compound Not Detected.						

5/4/9

ASSIGNED TO: Billy / Martha * | CompuChem EXTRACTION WORKSHEET SEMI-VOLATILE WATER Method 3510C for 8270C | APPIX | 4-17-3 | DATE EXTRACTED/POSTED: 4/17/09 *

EMP ID NUMBER: 2713 2502 | BATCH NO.: 9041633

079A

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (mL)	FINAL VOLUME (mL)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	0904096-01	7W11B	SAMPLE	950	1.0	1.6	12.0	QC1
2	0904096-02	7W12B	SAMPLE	1000		1.6	12.0	
3	0904096-03	7WCA	SAMPLE	950		1.6	12.0	ML 4-17-09
4	0904096-04	7WDUP	SAMPLE	1000		1.6	12.0	
5	0904096-05	7MW6	SAMPLE	1000		1.6	12.0	
6	0904098-01	13MW5	SAMPLE	1000		1.6	12.0	QC2
7	0904098-02	13MW3	SAMPLE	1000		1.6	12.0	
8	0904098-03	13MW4	SAMPLE	950		1.6	12.0	
9	0904098-04	13MWDUP	SAMPLE	975		1.6	12.0	
10	0904098-05	13MW6	SAMPLE	~~1000~~ 975		1.6	12.0	
11	0904098-06	13MW7	SAMPLE	1000		1.6	12.0	
12	0904103-01	13MW1	SAMPLE	1000		1.6	12.0	
13	0904103-02	13MW2	SAMPLE	1000		1.6	12.0	ML 4-17-09
14	9041633-BLK1	SBLKGV	MB	1000		1.6	12.0	
15	9041633-BS1	SGVLCS	LCS	1000		1.6	12.0	
16	9041633-BSD1	SGVLCSD	LCSD	1000		1.6	12.0	
17	9041633-MS1	7W11BMS01	MS1	950		1.6	12.0	
18	9041633-MS2	13MW5MS02	MS2	975		1.6	12.0	
19	9041633-MSD1	7W11BMSD01	MSD1	950		1.6	12.0	
20	9041633-MSD2	13MW5MSD02	MSD2	975	1.0	1.6	12.0	
21								
22								
23			ML	4-17-09				
24								
25								
26								

		S VOA	S 8270
SURROGATE	NO.	393	
	AMT.	0.5 mL	
	LOT	032709-36	
SPIKE	NO.		APPIX SPIKE
	AMT.		0.5 mL
	LOT		61823/61824

MS2-MSD2

62060-62061

FINAL VOLUME VERIFIED: ML 4-17-09

SUPERVISOR REVIEWED: B. Patten

SURROGATE & SPIKE ADDED BY: RM / 4-17-09 (Initials / Date)

Analyst initials. Extracted BFP, ML, SB KD RM N2 BFP Bottle up ML

Witness ML / 4-17-09 (Initials / Date)

Manufacturer and lot number of reagents/solvents used [illegible]

c. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I SV)
- Reconstructed Ion Chromatogram and quantitation report

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	29	
110-86-1	Pyridine	28	
109-06-8	2-Picoline	32	
10595-95-6	Nitrosomethylethylamine	39	
66-27-3	Methyl Methanesulfonate	16	
55-18-5	N-Nitrosodiethylamine	37	
62-50-0	Ethyl Methanesulfonate	36	
108-95-2	Phenol	20	
62-53-3	Aniline	33	
111-44-4	Bis(2-chloroethyl)ether	40	
95-57-8	2-Chlorophenol	33	
100-51-6	Benzyl Alcohol	34	
95-48-7	2-Methylphenol	33	
108-60-1	2,2'-oxybis(1-Chloropropane)	49	
930-55-2	N-Nitrosopyrrolidine	43	
108-39-4	3-Methylphenol	33	
106-44-5	4-Methylphenol	34	
1319-77-3	3-4-Methylphenol	34	
621-64-7	N-Nitroso-di-N-propylamine	46	
98-86-2	Acetophenone	33	
59-89-2	N-Nitrosomorpholine	35	
95-53-4	o-Toluidine	30	
67-72-1	Hexachloroethane	30	
98-95-3	Nitrobenzene	39	
100-75-4	N-Nitrosopiperidine	33	
78-59-1	Isophorone	36	
88-75-5	2-Nitrophenol	23	
105-67-9	2,4-Dimethylphenol	32	
126-68-1	o,o,o-Triethylphosphorothioa	29	
111-91-1	Bis(2-chloroethoxy)methane	36	
120-83-2	2,4-Dichlorophenol	29	
106-47-8	4-Chloroaniline	30	
87-65-0	2,6-Dichlorophenol	29	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	7.1	
924-16-3	N-Nitroso-di-n-butylamine	38	
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	30	
94-59-7	Safrole	30	
91-57-6	2-Methylnaphthalene	34	
77-47-4	Hexachlorocyclopentadiene	25	
95-94-3	1,2,4,5-Tetrachlorobenzene	27	
88-06-2	2,4,6-Trichlorophenol	30	
95-95-4	2,4,5-Trichlorophenol	32	
120-58-1	Isosafrole	34	
91-58-7	2-Chloronaphthalene	34	
88-74-4	2-Nitroaniline	46	
130-15-4	1,4-Napthoquinone	12	
131-11-3	Dimethylphthalate	34	
208-96-8	Acenaphthylene	35	
99-09-2	3-Nitroaniline	38	
83-32-9	Acenaphthene	35	
51-28-5	2,4-Dinitrophenol	18	
100-02-7	4-Nitrophenol	15	
608-93-5	Pentachlorobenzene	28	
132-64-9	Dibenzofuran	36	
134-32-7	1-Naphthylamine	8.6	
58-90-2	2,3,4,6-Tetrachlorophenol	29	
91-59-8	2-Naphthylamine	8.0	
84-66-2	Diethylphthalate	33	
297-97-2	Zinophos	35	
7005-72-3	4-Chlorophenyl-phenylether	29	
99-55-8	5-Nitro-o-toluidine	36	
86-73-7	Fluorene	35	
100-01-6	4-Nitroaniline	39	
534-52-1	4,6-Dinitro-2-methylphenol	25	
86-30-6	N-Nitrosodiphenylamine (1)	33	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	26	
17708-58-6	Diallate (trans isomer)	21	
298-02-2	Phorate	35	
62-44-2	Phenacetin	31	
17708-57-5	Diallate (cis isomer)	11	
101-55-3	4-Bromophenyl-phenylether	27	
118-74-1	Hexachlorobenzene	29	
60-51-5	Dimethoate	37	
92-67-1	4-Aminobiphenyl	11	
87-86-5	Pentachlorophenol	33	
82-68-8	Pentachloronitrobenzene	27	
23950-58-5	Pronamide	32	
298-04-4	Disulfoton	29	
85-01-8	Phenanthrene	35	
120-12-7	Anthracene	34	
298-00-0	Methyl Parathion	39	
84-74-2	Di-n-butylphthalate	32	
56-38-2	Parathion	33	
56-57-5	4-Nitroquinoline-1-oxide	24	
91-80-5	Methapyrilene	83	E
465-73-6	Isodrin	30	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
60-11-7	p-Dimethylaminoazobenzene	33	
510-15-6	Chlorobenzilate	17	
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	36	
119-93-7	3,3'-Dimethylbenzidine	26	
53-96-3	2-Acetylaminofluorene	27	
91-94-1	3,3'-Dichlorobenzidine	29	
117-81-7	bis(2-ethylhexyl)Phthalate	38	
56-55-3	Benzo(a)anthracene	37	
218-01-9	Chrysene	37	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	33	
57-97-6	7,12-Dimethylbenz(a)anthrace	33	
205-99-2	Benzo(b)fluoranthene	36	
207-08-9	Benzo(k)fluoranthene	42	
50-32-8	Benzo(a)pyrene	37	
56-49-5	3-Methylcholanthrene	34	
193-39-5	Indeno(1,2,3-c,d)pyrene	38	
53-70-3	Dibenzo(a,h)anthracene	36	
191-24-2	Benzo(g,h,i)perylene	37	
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	37	
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	34	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA629

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
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27.					
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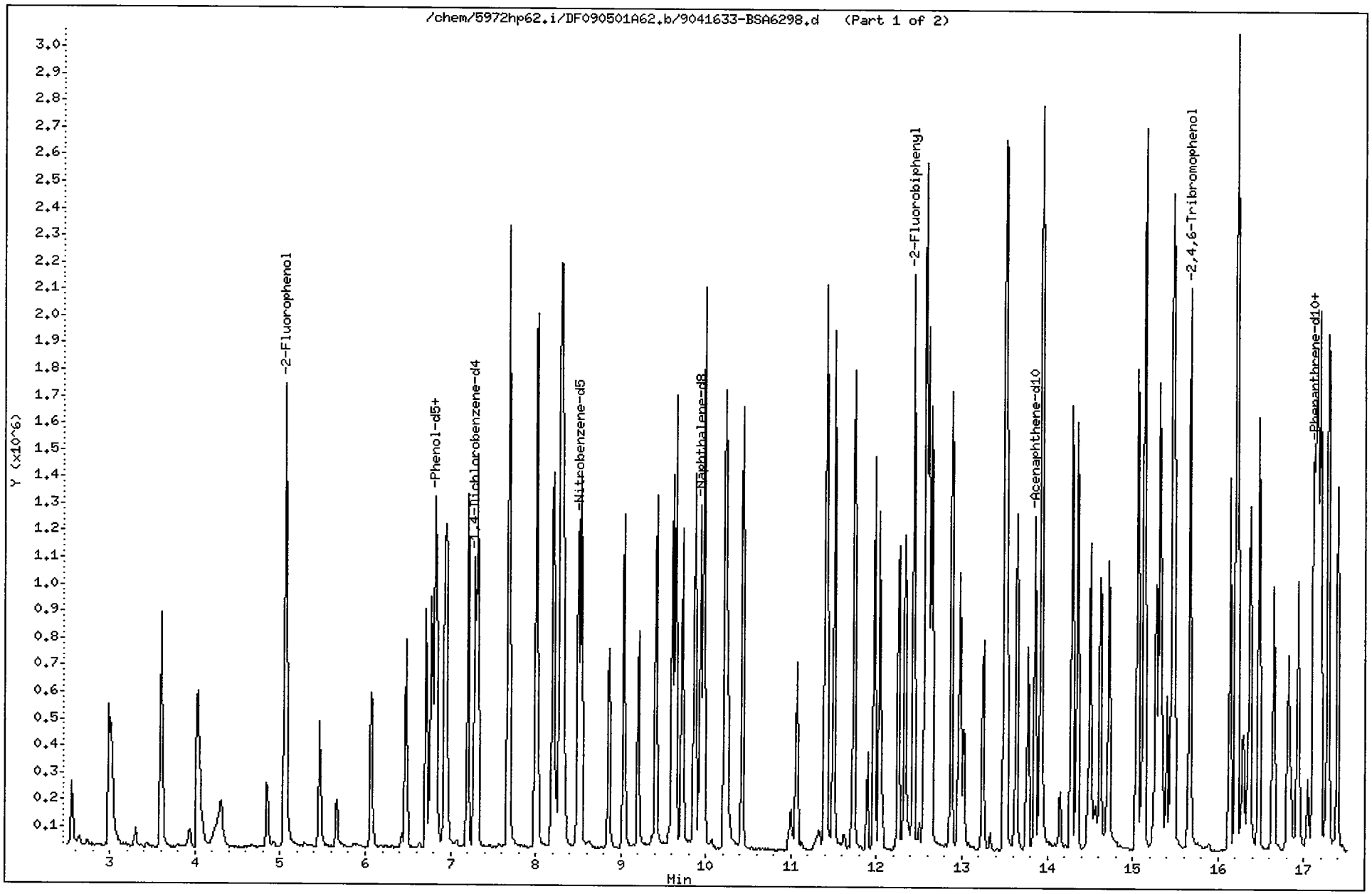
29.					
30.					

FORM I SV-TIC

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Date : 01-MAY-2009 18:25
Client ID: SGVLCS
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



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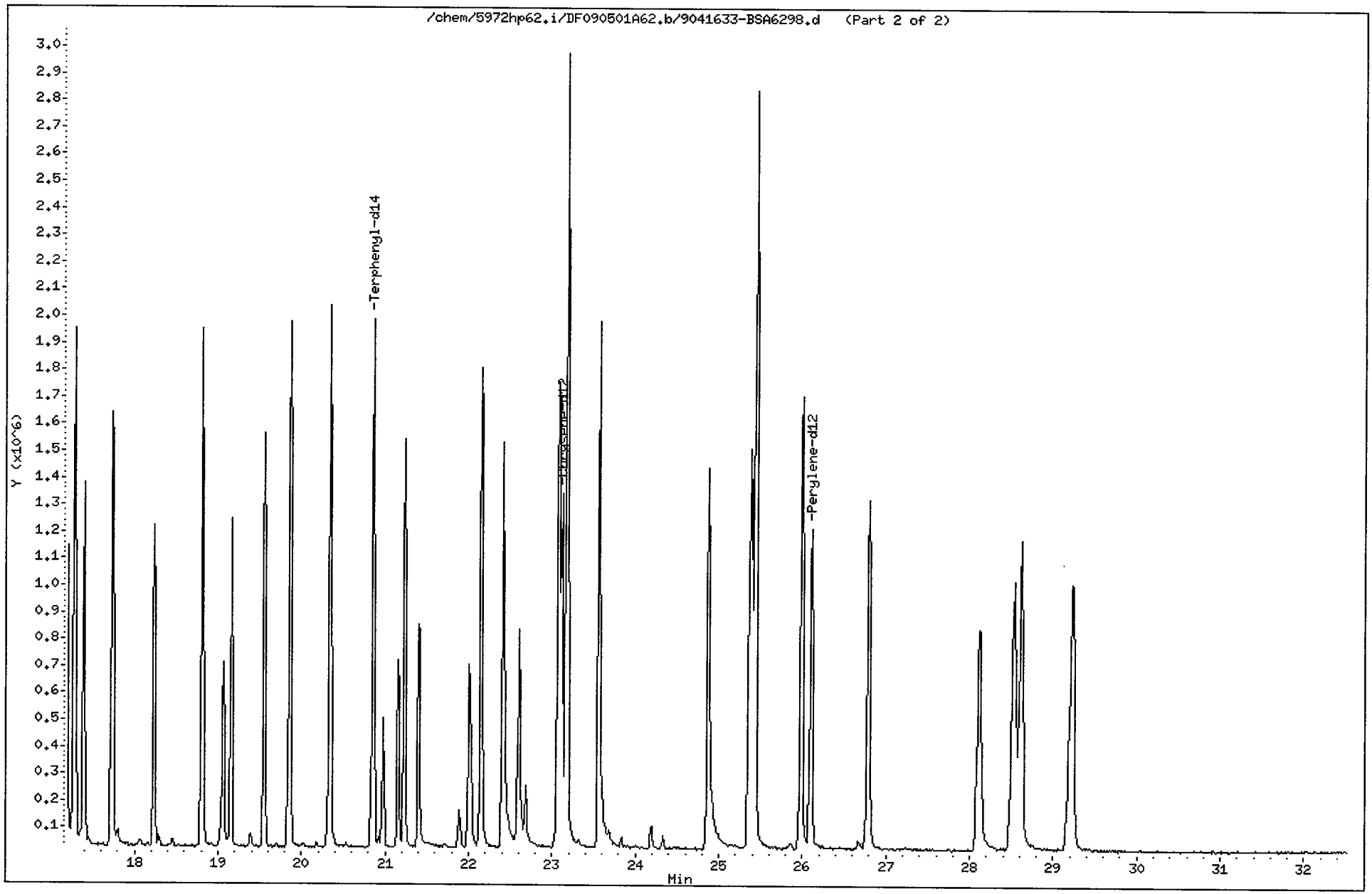
Date : 01-MAY-2009 18:25
Client ID: SGVLCS
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Report Date: 05-May-2009 16:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Lab Smp Id: 9041633-BS Client Smp ID: SGVLCS
Inj Date : 01-MAY-2009 18:25
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-BS:2650
Misc Info :
Comment   : 2008 MDLS SOIL/ 2007 WATER
Method   : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 16:54 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 14 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.284	7.279	(1.000)	252207	40.0000		
*	2 Naphthalene-d8	136	9.935	9.930	(1.000)	919937	40.0000		
*	3 Acenaphthene-d10	164	13.855	13.850	(1.000)	439329	40.0000		
*	4 Phenanthrene-d10	188	17.130	17.125	(1.000)	733227	40.0000		
*	5 Chrysene-d12	240	23.118	23.103	(1.000)	812545	40.0000		
*	6 Perylene-d12	264	26.107	26.092	(1.000)	871639	40.0000		
$	7 2-Fluorophenol	112	5.063	5.047	(0.695)	855213	137.888	69	
$	8 Phenol-d5	99	6.823	6.818	(0.937)	710348	93.2374	47	
$	11 Nitrobenzene-d5	82	8.502	8.497	(0.856)	723669	84.0267	42	
$	12 2-Fluorobiphenyl	172	12.432	12.427	(0.897)	1057762	75.5816	38	
$	13 2,4,6-Tribromophenol	330	15.667	15.662	(1.131)	542701	133.166	66	
$	14 Terphenyl-d14	244	20.856	20.851	(0.902)	1139698	74.3971	37	
	15 N-Nitrosodimethylamine	42	3.015	3.000	(0.414)	190040	57.7847	29	8296
	16 Pyridine	79	2.985	2.959	(0.410)	410478	55.6138	28	9304
	18 2-Picoline	93	4.029	4.003	(0.553)	480228	63.5669	32	9082

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Report Date: 05-May-2009 16:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	4.305	4.290	(0.591)	210478	78.1390	39	9100
20 Methyl Methanesulfonate	80	4.837	4.832	(0.664)	157925	31.6911	16	9119
21 N-Nitrosodiethylamine	102	5.462	5.446	(0.750)	163535	74.1206	37	9363
22 Ethyl Methanesulfonate	79	6.066	6.071	(0.833)	429344	71.0516	36	9390
23 Phenol	94	6.844	6.838	(0.940)	308541	39.1761	20	
24 Aniline	93	6.772	6.767	(0.930)	674323	65.8292	33	9154
25 Bis(2-chloroethyl)ether	93	6.925	6.920	(0.951)	539977	79.6740	40	
27 2-Chlorophenol	128	6.956	6.951	(0.955)	470996	65.6428	33	9292
30 Benzyl Alcohol	108	7.683	7.678	(1.055)	276115	68.4317	34	
32 2-Methylphenol	108	8.010	8.005	(1.100)	373636	66.2295	33	
33 2,2'-oxybis(1-Chloropropane)	45	8.010	7.995	(1.100)	828253	97.8920	49	8849(R)
34 N-Nitrosopyrrolidine	100	8.225	8.241	(1.129)	119469	86.7814	43	3033
35 3-Methylphenol	108	8.328	8.333	(1.143)	400151	65.8584	33	(M)
36 4-Methylphenol	108	8.328	8.333	(1.143)	411378	67.7061	34	(M)
37 3-4-Methylphenol	108	8.328	8.333	(1.143)	418487	68.6383	34	9051
38 N-Nitroso-di-N-propylamine	70	8.307	8.302	(1.141)	244569	92.2676	46	8560(R)
39 Acetophenone	105	8.205	8.200	(0.826)	681579	65.9181	33	0(M)
40 N-Nitrosomorpholine	116	8.277	8.271	(1.136)	46805	69.8640	35	0(M)
41 o-Toluidine	106	8.297	8.292	(1.139)	532794	59.9992	30	8851
42 Hexachloroethane	117	8.287	8.271	(1.138)	232875	60.9391	30	9776
43 Nitrobenzene	77	8.532	8.527	(0.859)	644648	78.6770	39	9216
44 N-Nitrosopiperidine	114	8.860	8.855	(0.892)	211045	65.8699	33	9273
45 Isophorone	82	9.034	9.029	(0.909)	1007189	71.8877	36	9005
46 2-Nitrophenol	139	9.208	9.203	(0.927)	209863	46.9467	23	8782
47 2,4-Dimethylphenol	122	9.413	9.408	(0.947)	354905	63.2420	32	8968
49 o,o,o-Triethylphosphorothioat	198	9.648	9.643	(0.971)	193465	58.6981	29	9082
50 Bis(2-chloroethoxy)methane	93	9.607	9.602	(0.967)	723934	72.3992	36	8950
51 2,4-Dichlorophenol	162	9.720	9.725	(0.978)	373436	57.3001	29	
54 4-Chloroaniline	127	10.232	10.226	(1.030)	518435	60.4343	30	8770
55 2,6-Dichlorophenol	162	10.221	10.216	(1.029)	361394	57.5789	29	
56 Hexachloropropene	213	10.252	10.247	(1.032)	88093	14.2364	7.1	9281(R)
58 N-Nitroso-di-n-butylamine	84	11.061	11.056	(1.113)	207236	75.8149	38	9224
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.398	11.383	(1.147)	359837	60.8823	30	0(M)
61 Safrole	162	11.419	11.414	(1.149)	318661	59.1030	30	9676
62 2-Methylnaphthalene	141	11.501	11.496	(1.158)	739324	67.9961	34	
64 Hexachlorocyclopentadiene	237	12.033	12.028	(0.868)	298511	50.6749	25	9515
65 1,2,4,5-Tetrachlorobenzene	216	11.972	11.966	(0.864)	429869	54.1585	27	9191
66 2,4,6-Trichlorophenol	196	12.258	12.243	(0.885)	266244	59.1258	30	
67 2,4,5-Trichlorophenol	196	12.330	12.325	(0.890)	317855	63.1612	32	
68 Isosafrole	162	12.064	12.059	(0.871)	59770	67.9780	34	
69 2-Chloronaphthalene	162	12.565	12.560	(0.907)	1185154	68.9411	34	
70 2-Nitroaniline	65	12.975	12.970	(0.936)	357793	91.8568	46	9252(R)
71 1,4-Napthoquinone	158	13.026	13.021	(0.940)	135505	25.1504	12	8742
72 Dimethylphthalate	163	13.517	13.512	(0.976)	918850	69.0723	34	8821
75 Acenaphthylene	152	13.497	13.492	(0.974)	1310157	69.6113	35	8406
76 3-Nitroaniline	138	13.937	13.921	(1.006)	239872	75.7934	38	8798

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Report Date: 05-May-2009 16:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	13.927	13.921	(1.005)	738593	69.5647	35	9214
78 2,4-Dinitrophenol	184	14.152	14.147	(1.021)	47957	36.1443	18	
79 4-Nitrophenol	139	14.541	14.423	(1.049)	76968	30.9525	15	0 (M)
80 Pentachlorobenzene	250	14.346	14.341	(1.035)	433077	56.3441	28	9808
82 Dibenzofuran	168	14.285	14.280	(1.031)	1228073	71.0205	36	9473
83 1-Naphthylamine	143	14.520	14.505	(1.048)	60375	17.1183	8.6	(M)
84 2,3,4,6-Tetrachlorophenol	232	14.715	14.710	(1.062)	233990	58.5454	29	9653
85 2-Naphthylamine	143	14.684	14.679	(1.060)	60306	15.9412	8.0	(R)
86 Diethylphthalate	149	15.134	15.129	(1.092)	936970	66.3161	33	7538
87 Zinophos	97	15.308	15.303	(1.105)	263480	70.2558	35	9138
88 4-Chlorophenyl-phenylether	204	15.134	15.129	(1.092)	407520	58.7343	29	8160
89 5-Nitro-o-toluidine	152	15.278	15.262	(1.103)	288878	71.2023	36	7150
90 Fluorene	166	15.053	15.047	(1.086)	927394	69.3651	35	8158
91 4-Nitroaniline	138	15.339	15.334	(1.107)	265936	77.4746	39	8485
92 4,6-Dinitro-2-methylphenol	198	15.401	15.395	(0.899)	118582	50.4656	25	0 (M)
93 N-Nitrosodiphenylamine	169	15.462	15.457	(0.903)	702208	66.1135	33	8295
96 Sulfotep	322	16.138	16.132	(1.165)	139269	51.9360	26	9378
98 Diallate (trans isomer)	86	16.209	16.204	(0.946)	377785	41.3613	21	
99 Diallate (trans) part of total	86	16.209	16.204	(0.946)	377785	41.3613	21	8678
100 Phorate	75	16.230	16.225	(0.947)	635102	69.3903	35	7404
101 Phenacetin	108	16.373	16.368	(0.956)	452046	61.5271	31	9133
102 Diallate (cis isomer)	86	16.373	16.368	(0.956)	63969	21.5913	11	(M)
103 Diallate (cis) part of total	86	16.373	16.368	(0.956)	66777	22.3804	11	5925 (H)
104 4-Bromophenyl-phenylether	248	16.209	16.204	(0.946)	254749	53.4825	27	8452
105 Hexachlorobenzene	284	16.475	16.470	(0.962)	438463	58.7626	29	9531
106 Dimethoate	87	16.649	16.644	(0.972)	350229	74.3655	37	9246
107 4-Aminobiphenyl	169	16.844	16.839	(0.983)	220824	22.5700	11	0 (M)
108 Pentachlorophenol	266	16.936	16.921	(0.989)	231748	65.5102	33	7962
109 Pentachloronitrobenzene	237	17.110	17.105	(0.999)	129046	54.7711	27	7385
110 Pronamide	173	17.161	17.156	(1.002)	423320	64.7686	32	9430
111 Disulfoton	88	17.397	17.391	(1.016)	420486	58.8664	29	9031
112 Phenanthrene	178	17.192	17.187	(1.004)	1350576	69.5211	35	
113 Anthracene	178	17.294	17.279	(1.010)	1407337	69.1604	34	
115 Methyl Parathion	109	18.236	18.231	(1.065)	356579	78.9398	39	9676
116 Di-n-butylphthalate	149	18.809	18.804	(1.098)	1678223	65.1734	32	9658
117 Parathion	109	19.167	19.152	(1.119)	210681	66.5250	33	8150
118 4-Nitroquinoline-1-oxide	190	19.065	19.060	(1.113)	91695	47.8951	24	8876
119 Methapyrilene	97	19.392	19.387	(1.132)	23198	166.313	83	9161 (ARH)
120 Isodrin	193	19.556	19.551	(1.142)	174108	61.1188	30	9589
121 Fluoranthene	202	19.863	19.858	(1.160)	1444941	72.0399	36	9676
123 Pyrene	202	20.344	20.339	(0.880)	1531041	74.8202	37	9628
124 p-Dimethylaminoazobenzene	225	21.235	21.230	(0.919)	261285	66.3757	33	9304
125 Chlorobenzilate	251	21.409	21.393	(0.926)	224898	33.3940	17	9153
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.146	22.141	(0.958)	772990	71.7189	36	9616
129 3,3'-Dimethylbenzidine	212	22.003	21.997	(0.952)	375343	51.8306	26	9440

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Report Date: 05-May-2009 16:55

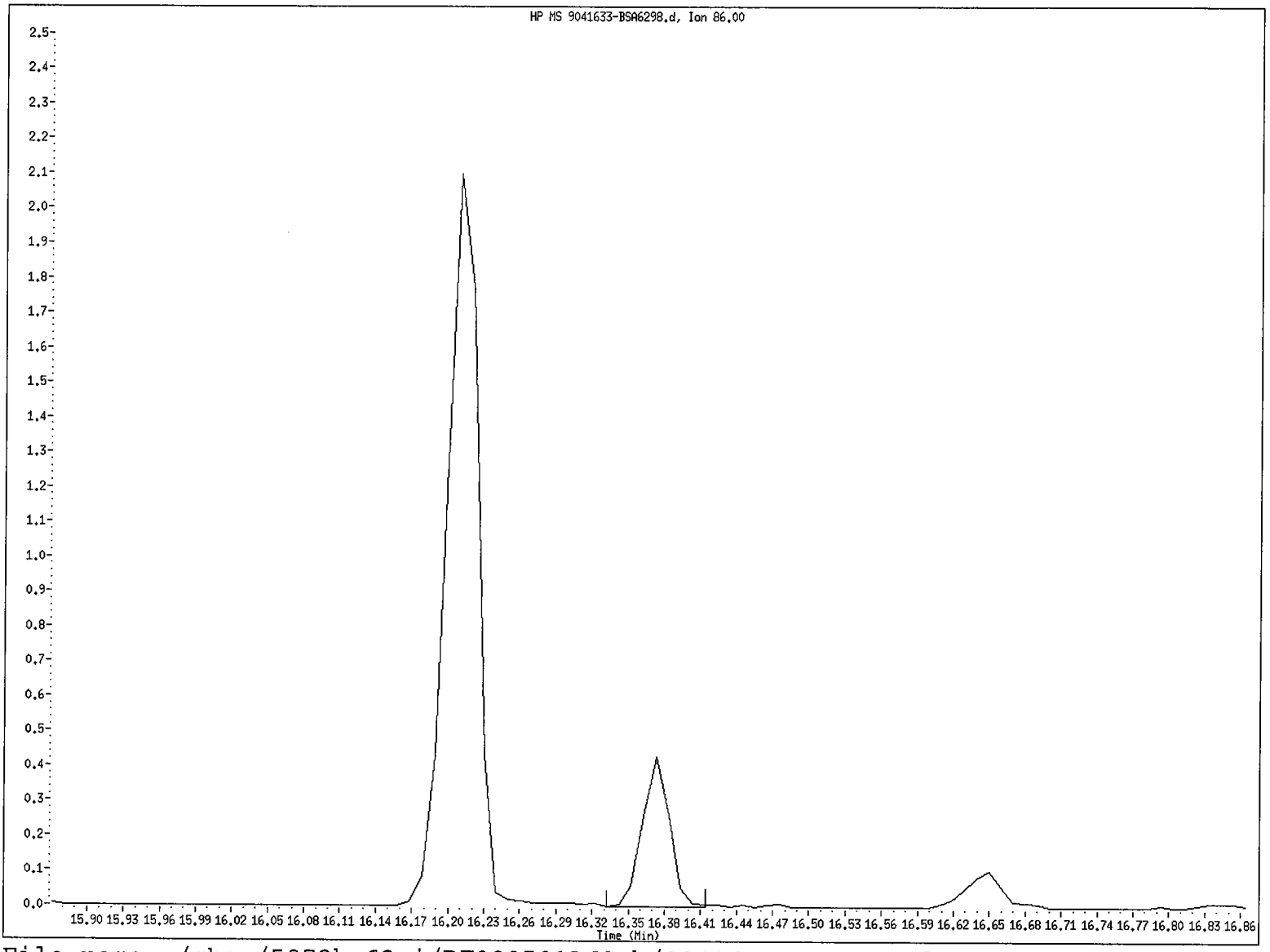
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	22.606	22.591	(0.978)	389410	53.3339	27	9338
131	3,3'-Dichlorobenzidine	252	23.180	23.174	(1.003)	429664	58.6254	29	8757
132	bis(2-ethylhexyl)Phthalate	149	23.558	23.553	(1.019)	1099161	75.0902	38	9358
133	Benzo(a)anthracene	228	23.077	23.072	(0.998)	1426159	74.1045	37	
134	Chrysene	228	23.180	23.164	(1.003)	1278225	74.1099	37	
135	Di-n-octylphthalate	149	24.869	24.863	(0.953)	1631011	66.8065	33	
136	7,12-Dimethylbenz(a)anthracene	256	25.442	25.437	(0.975)	563120	65.3532	33	8903
137	Benzo(b)fluoranthene	252	25.380	25.375	(0.972)	1555905	71.7808	36	
138	Benzo(k)fluoranthene	252	25.431	25.426	(0.974)	1599078	84.1797	42	
139	Benzo(a)pyrene	252	25.994	25.979	(0.996)	1388380	73.5475	37	
140	3-Methylcholanthrene	268	26.793	26.788	(1.026)	701583	67.6229	34	9534
141	Indeno(1,2,3-c,d)pyrene	276	28.533	28.507	(1.093)	1317893	75.0576	38	0(M)
142	Dibenzo(a,h)anthracene	278	28.615	28.599	(1.096)	1249130	71.8950	36	8022
143	Benzo(g,h,i)perylene	276	29.239	29.214	(1.120)	1397603	74.4393	37	9428
M 144	Diallate Total	86				444562	73.3752	37	0
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	21.153	21.148	(0.915)	83406	68.0936	34	8215(H)

06/15/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 66777 User selected



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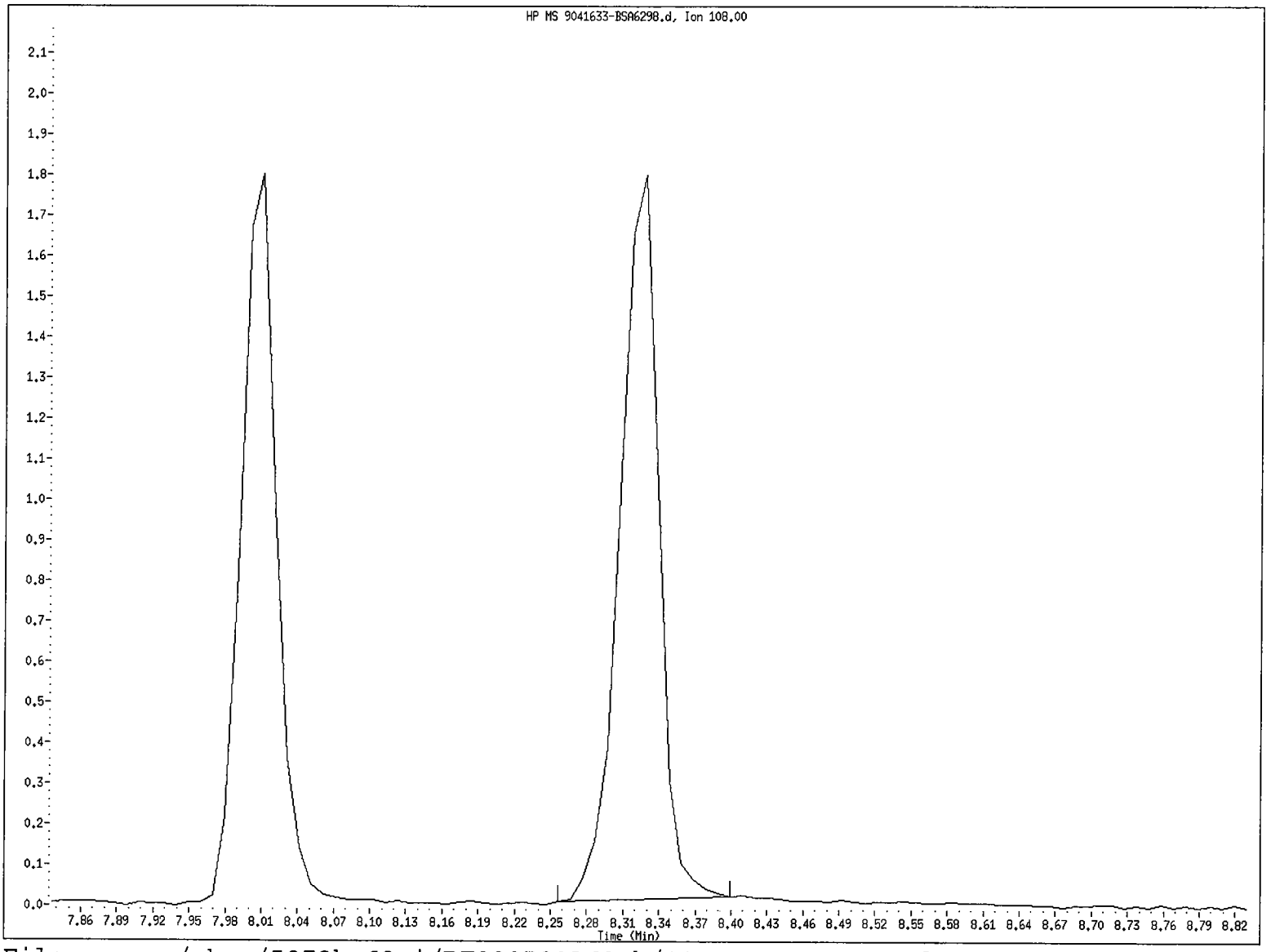
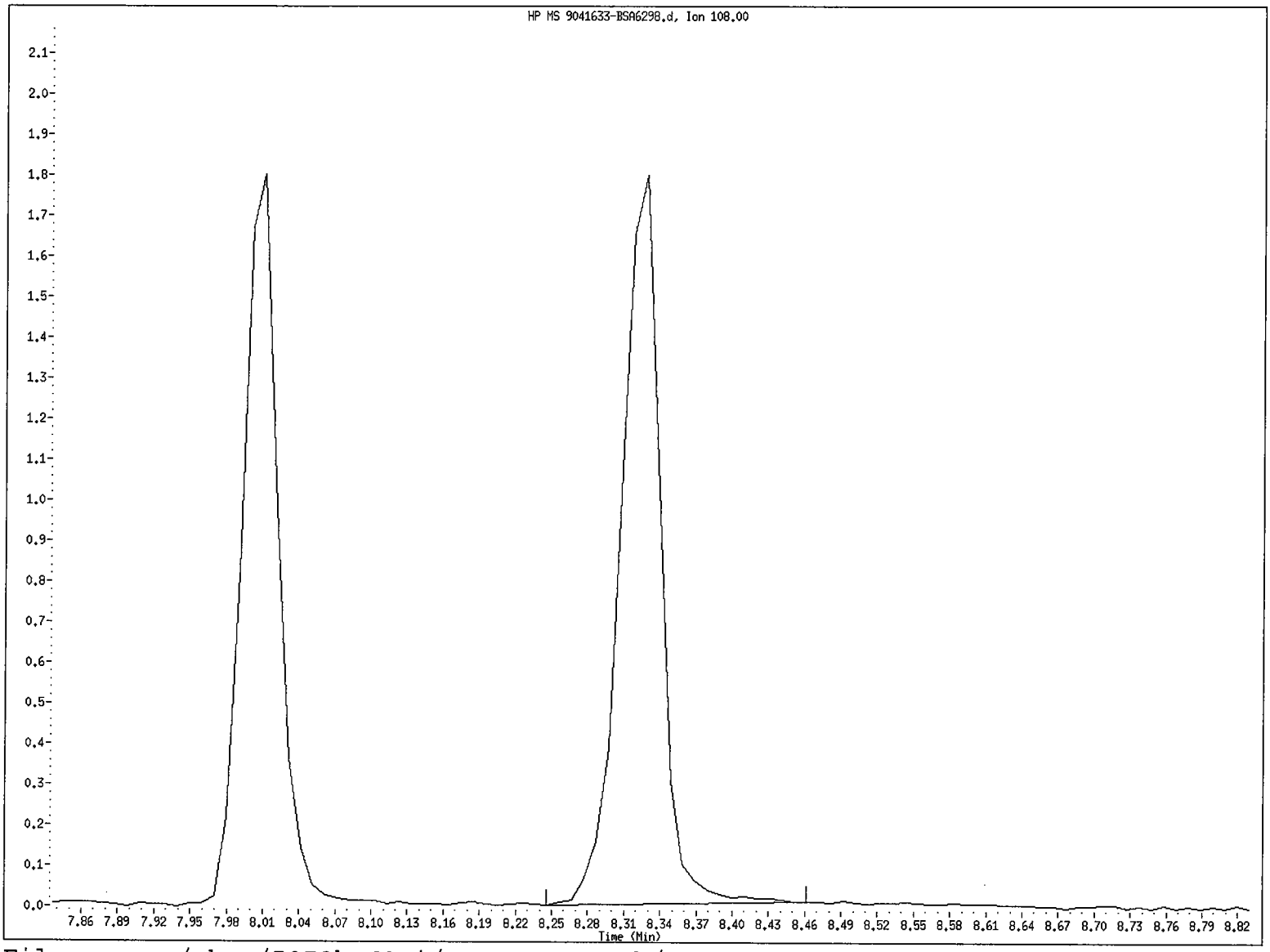
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 16.37
Operator ID: 2650

3-Methylphenol CAS Number 108-39-4 Area = 400151 Manually integrated



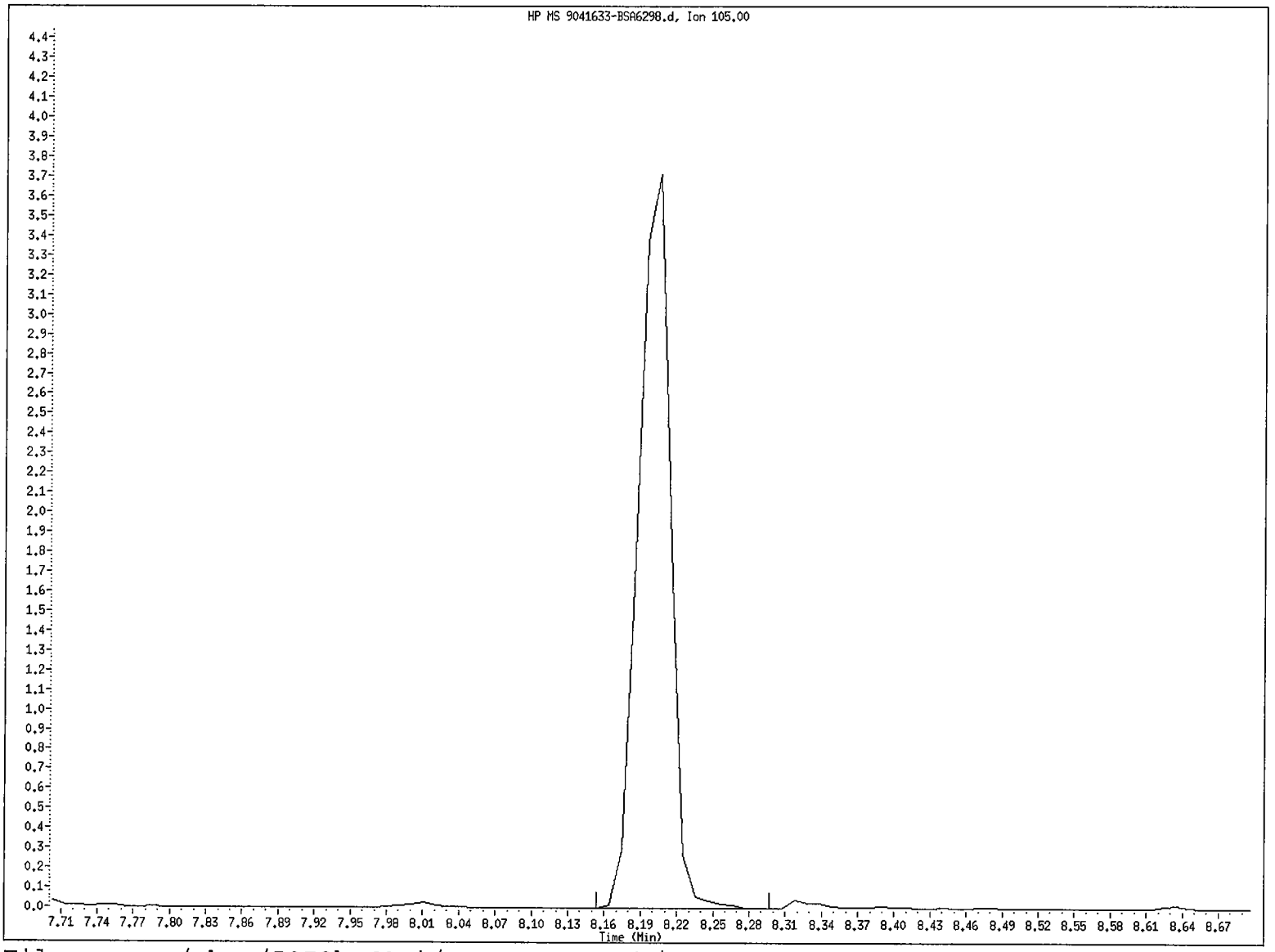
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.33
Operator ID: 2650

4-Methylphenol CAS Number 106-44-5 Area = 411378 Manually integrated



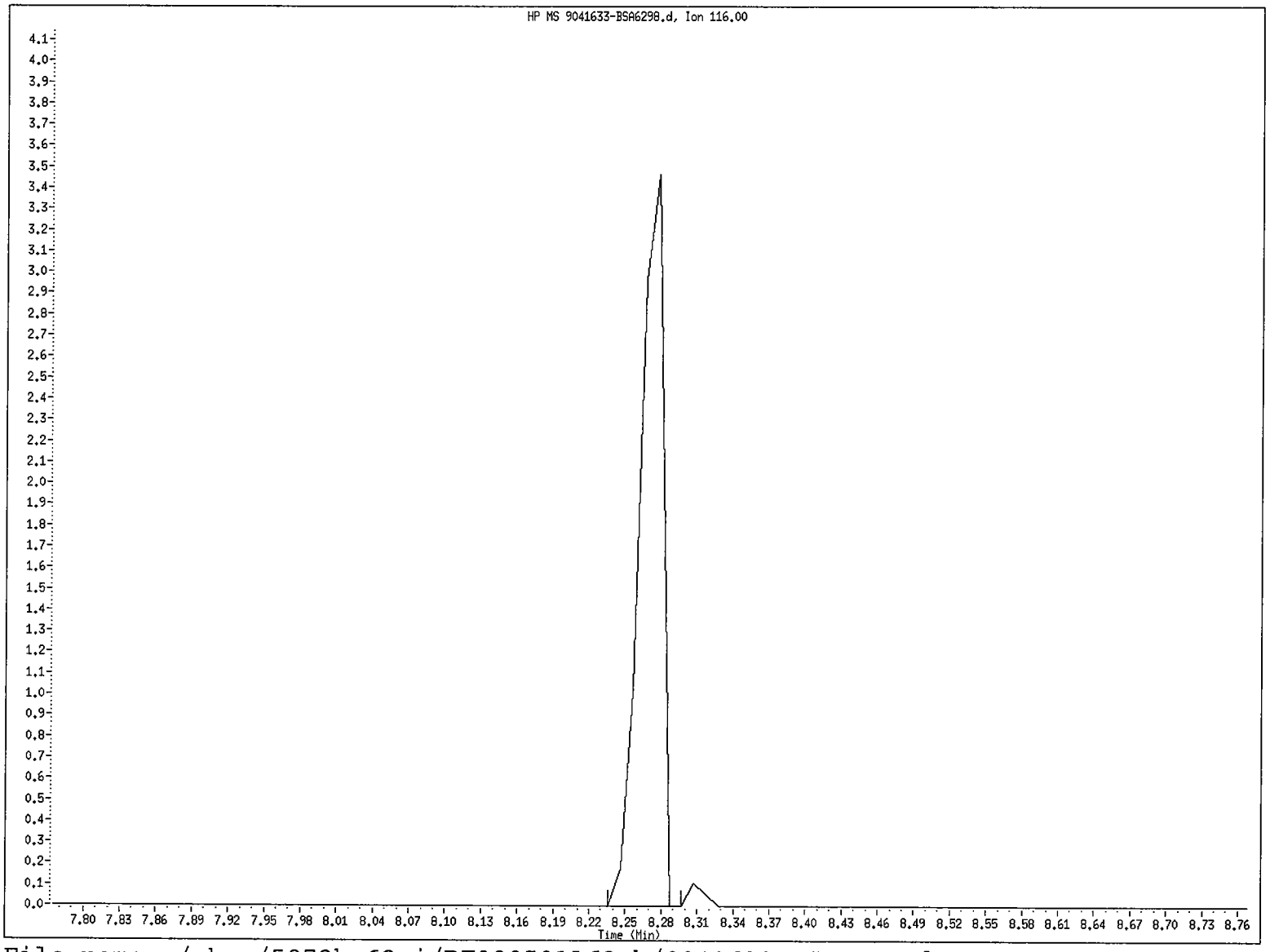
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.33
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 681579 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 46805 Manually integrated



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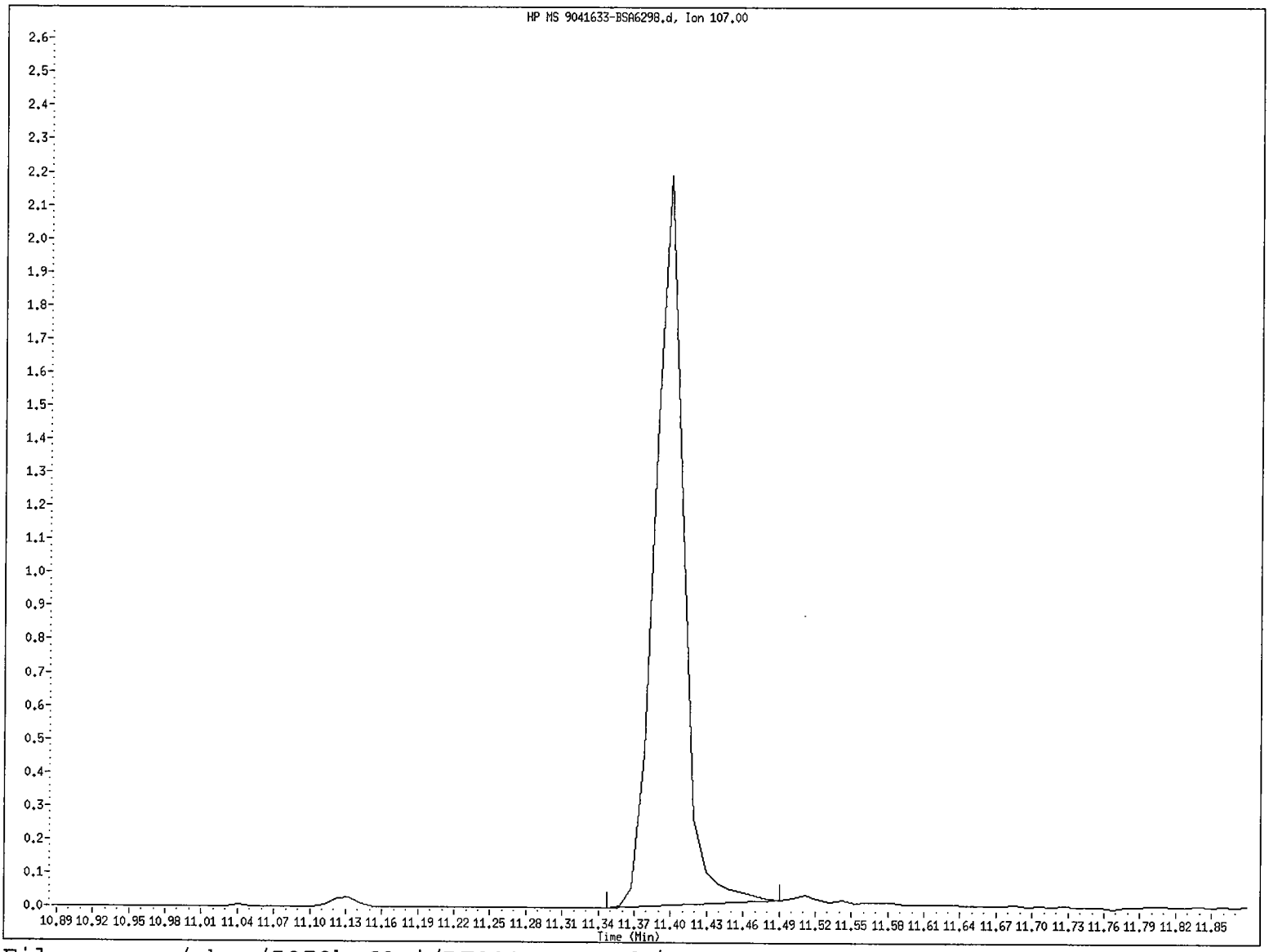
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 8.28
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 359837 Manually integrated



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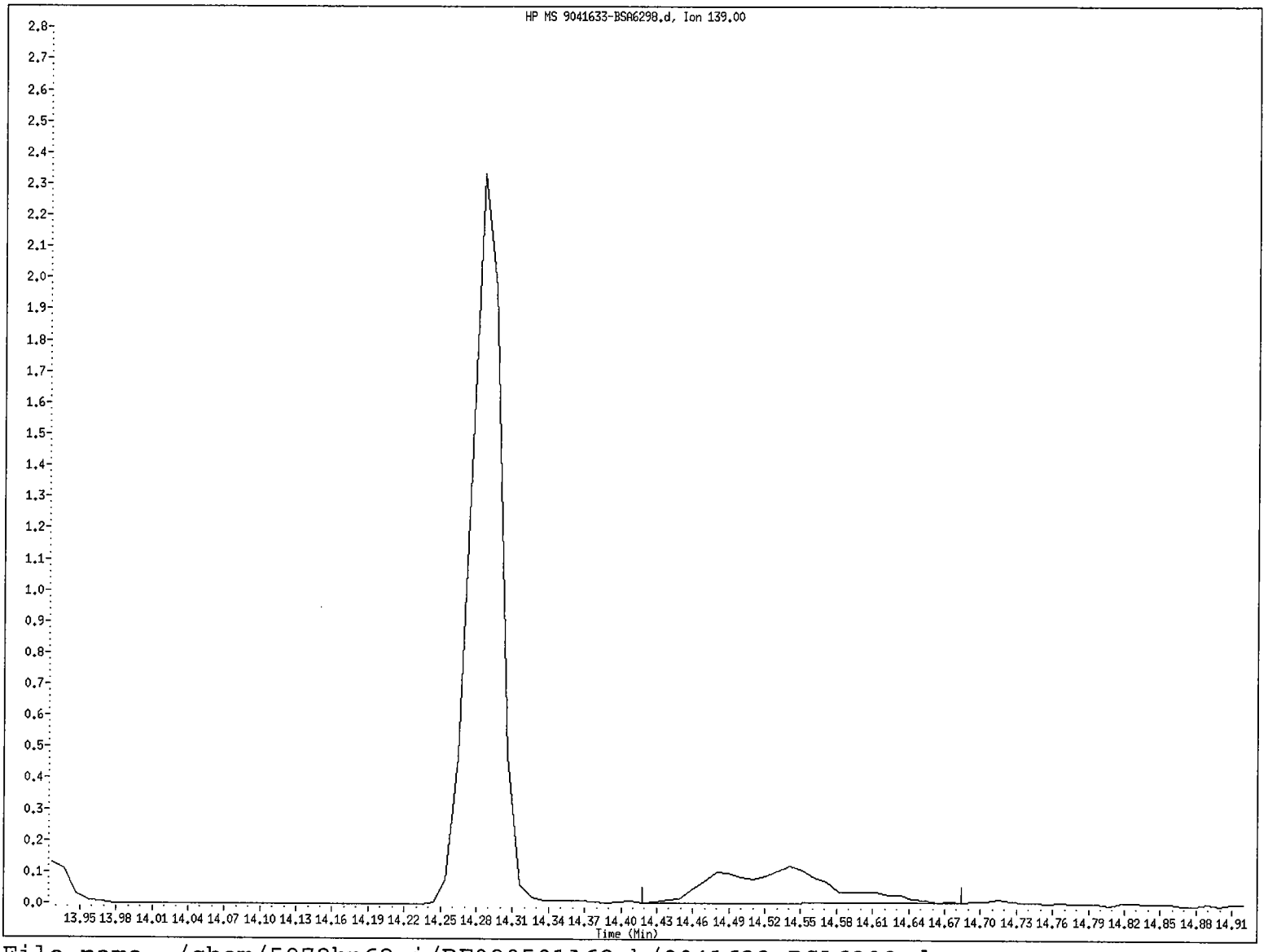
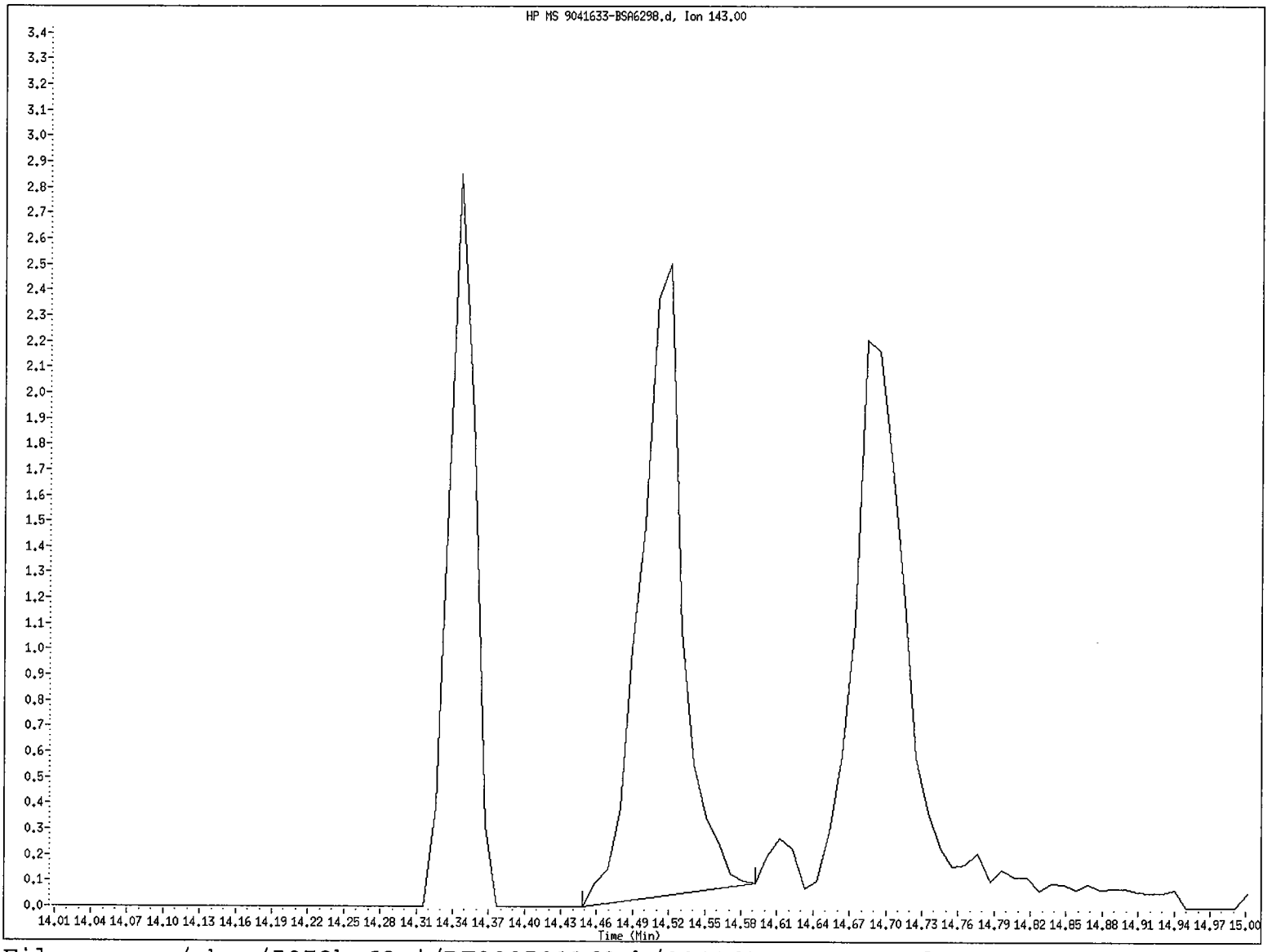
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 11.40
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 76968 Manually integrated



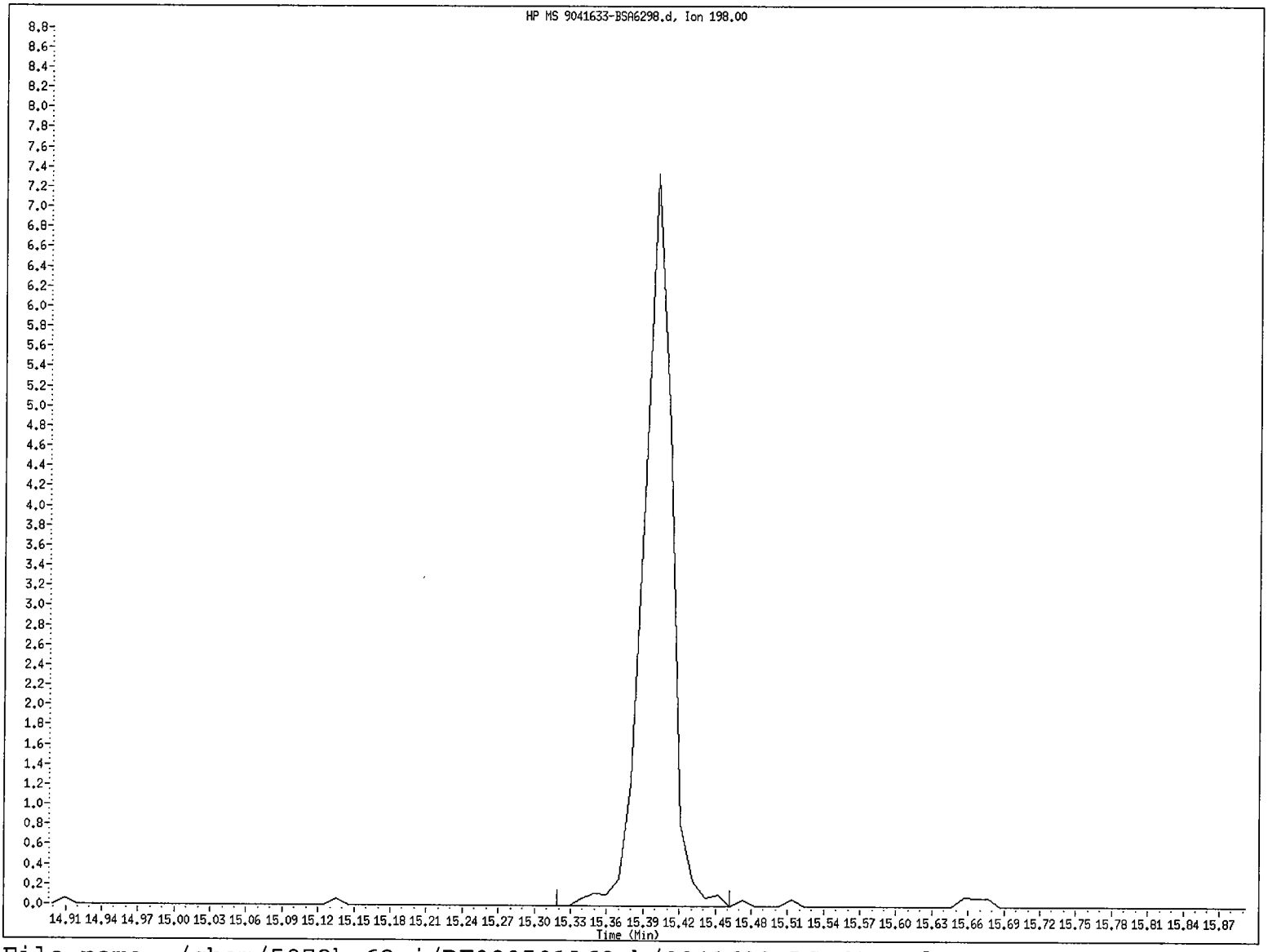
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 14.54
Operator ID: 2650

1-Naphthylamine CAS Number 134-32-7 Area = 60375 Manually integrated



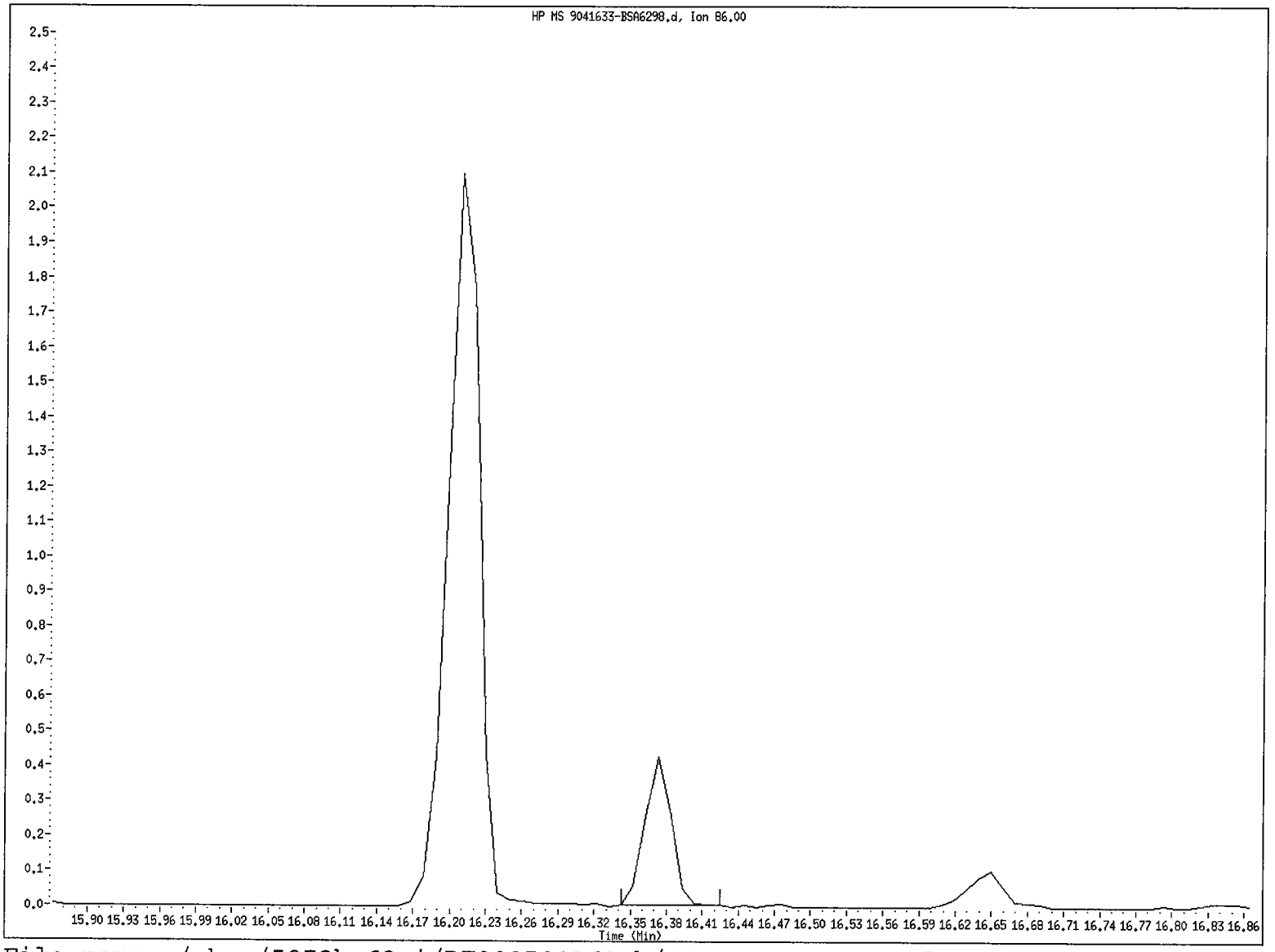
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 14.52
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 118582 Manually integrat



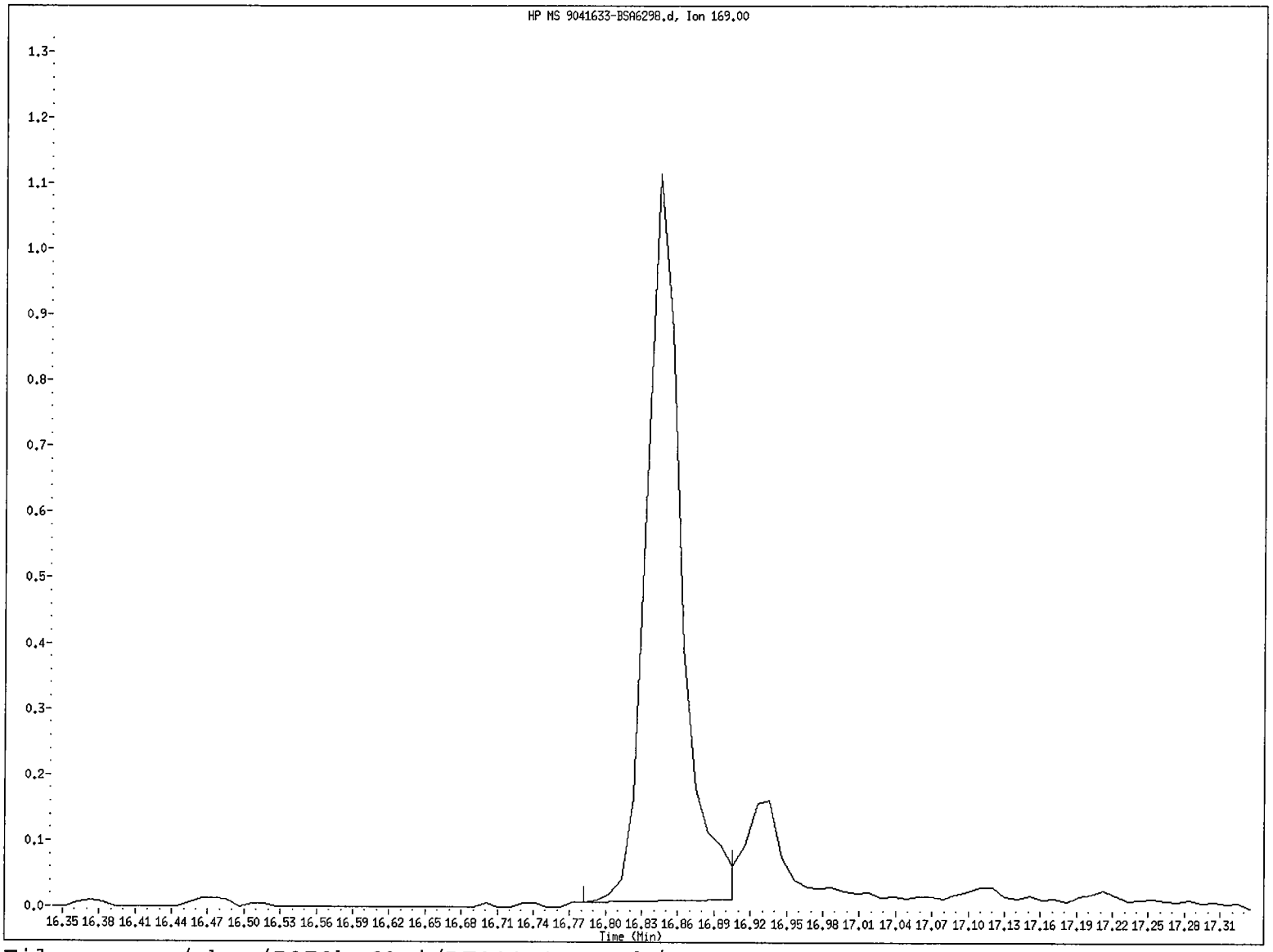
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 15.40
Operator ID: 2650

Diallate (cis isomer) CAS Number 17708-57-5 Area = 63969 Manually integrated



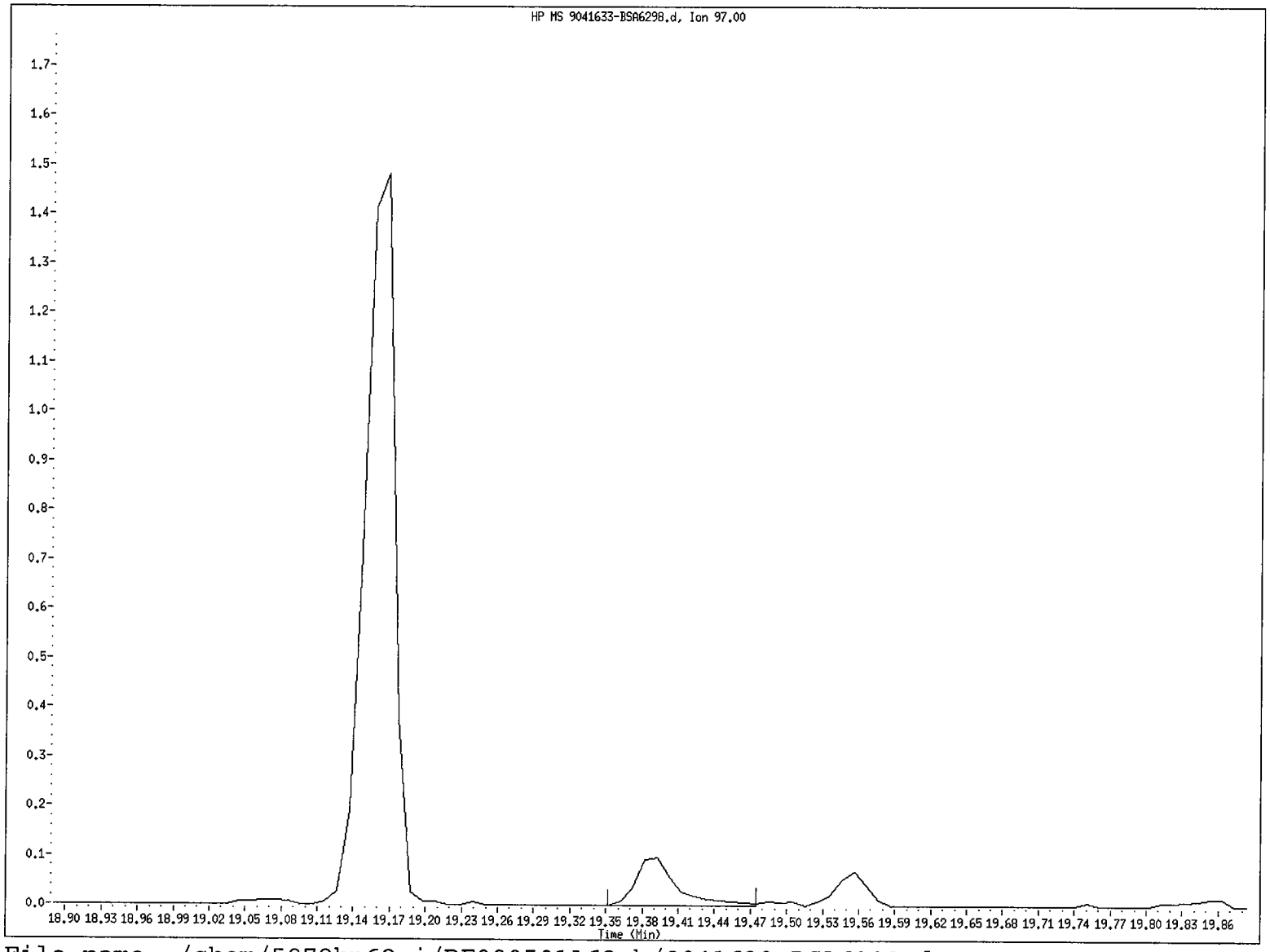
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 16.37
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 220824 Manually integrated



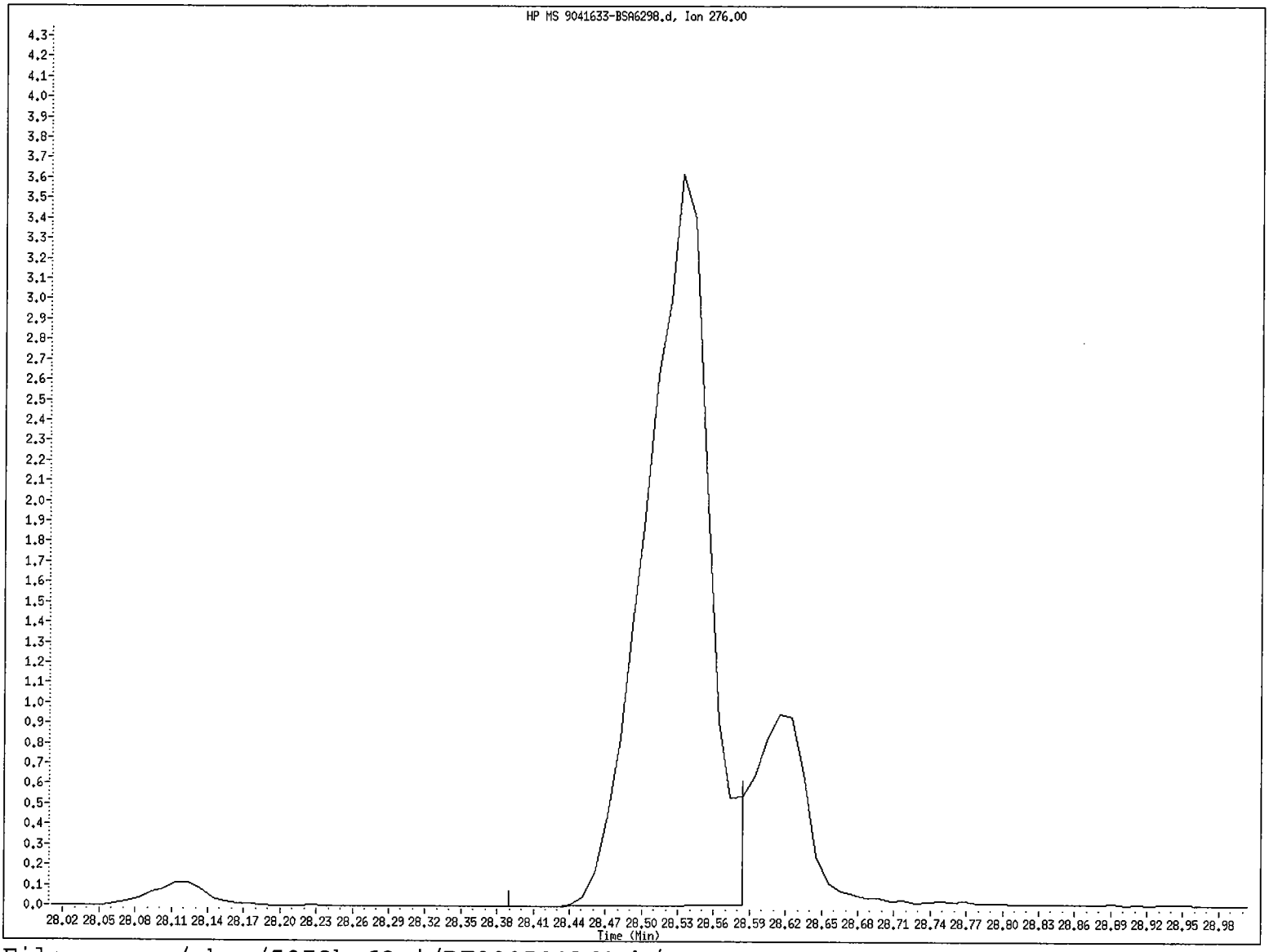
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 16.84
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 23198 User selected hit



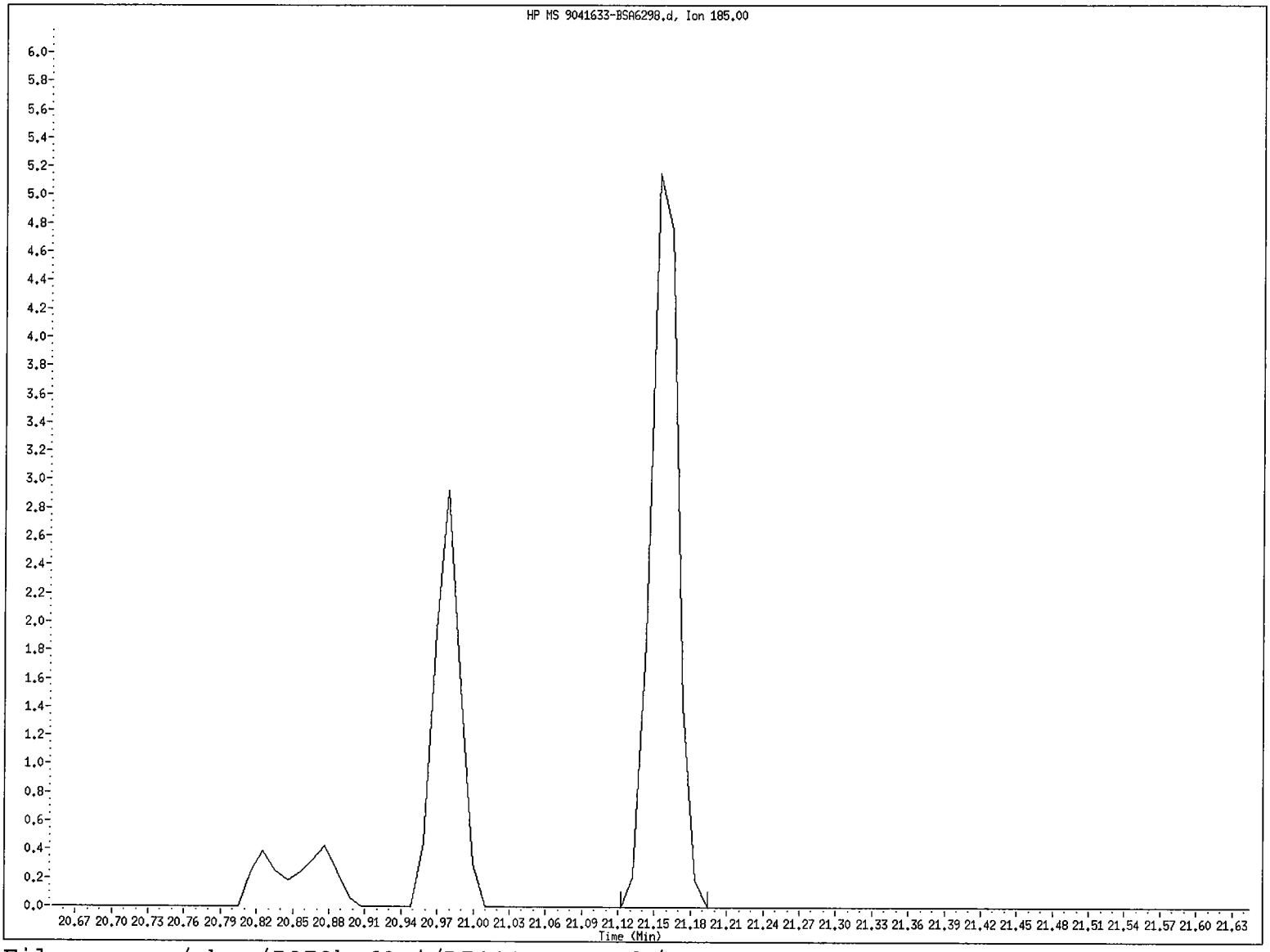
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 19.39
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1317893 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 28.53
Operator ID: 2650

Aramite CAS Number 140-57-8 Area = 83406 User selected hit



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSA6298.d
Client ID: SGVLCS
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 18:25
Retention Time: 21.15
Operator ID: 2650

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

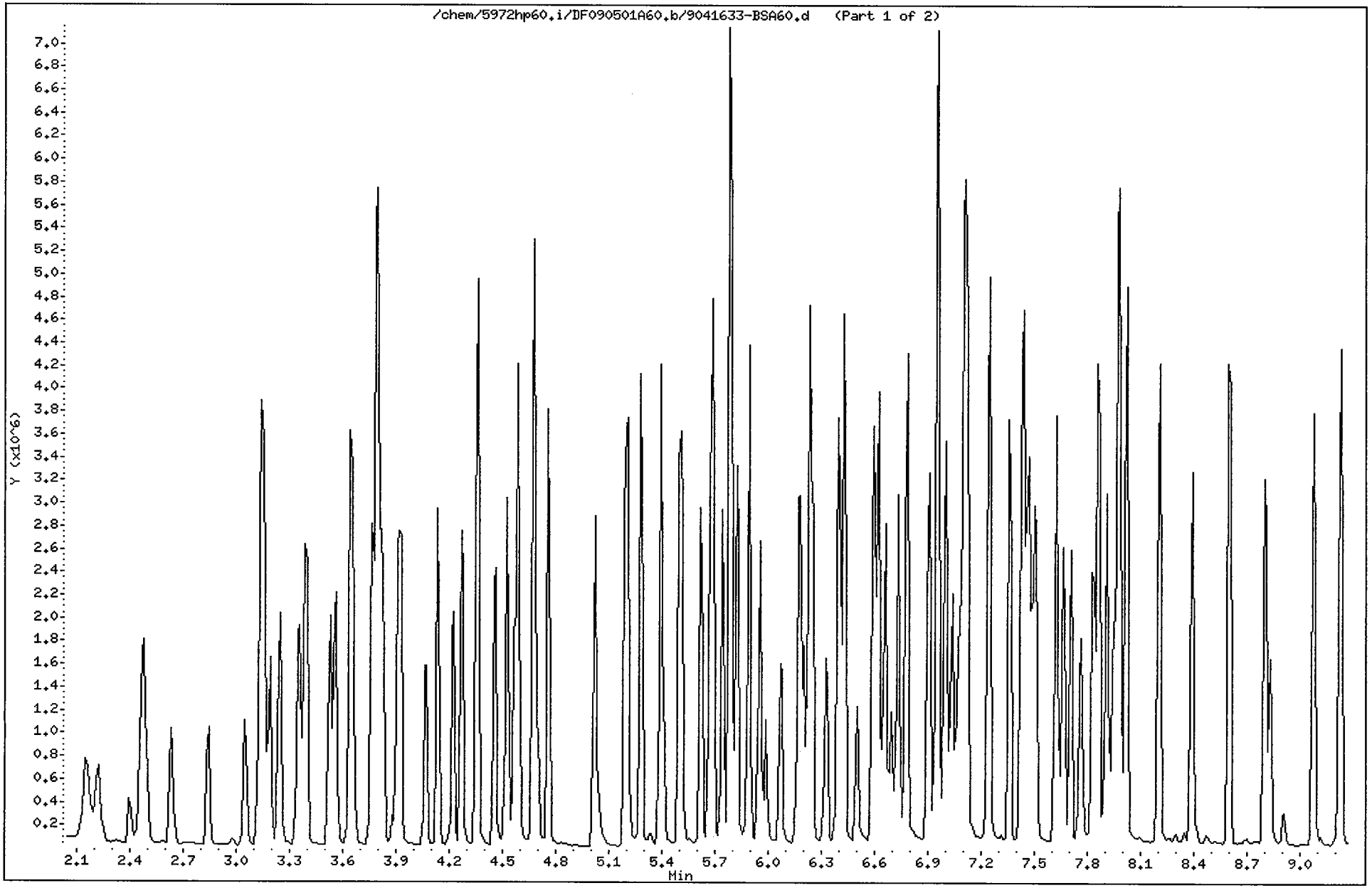
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

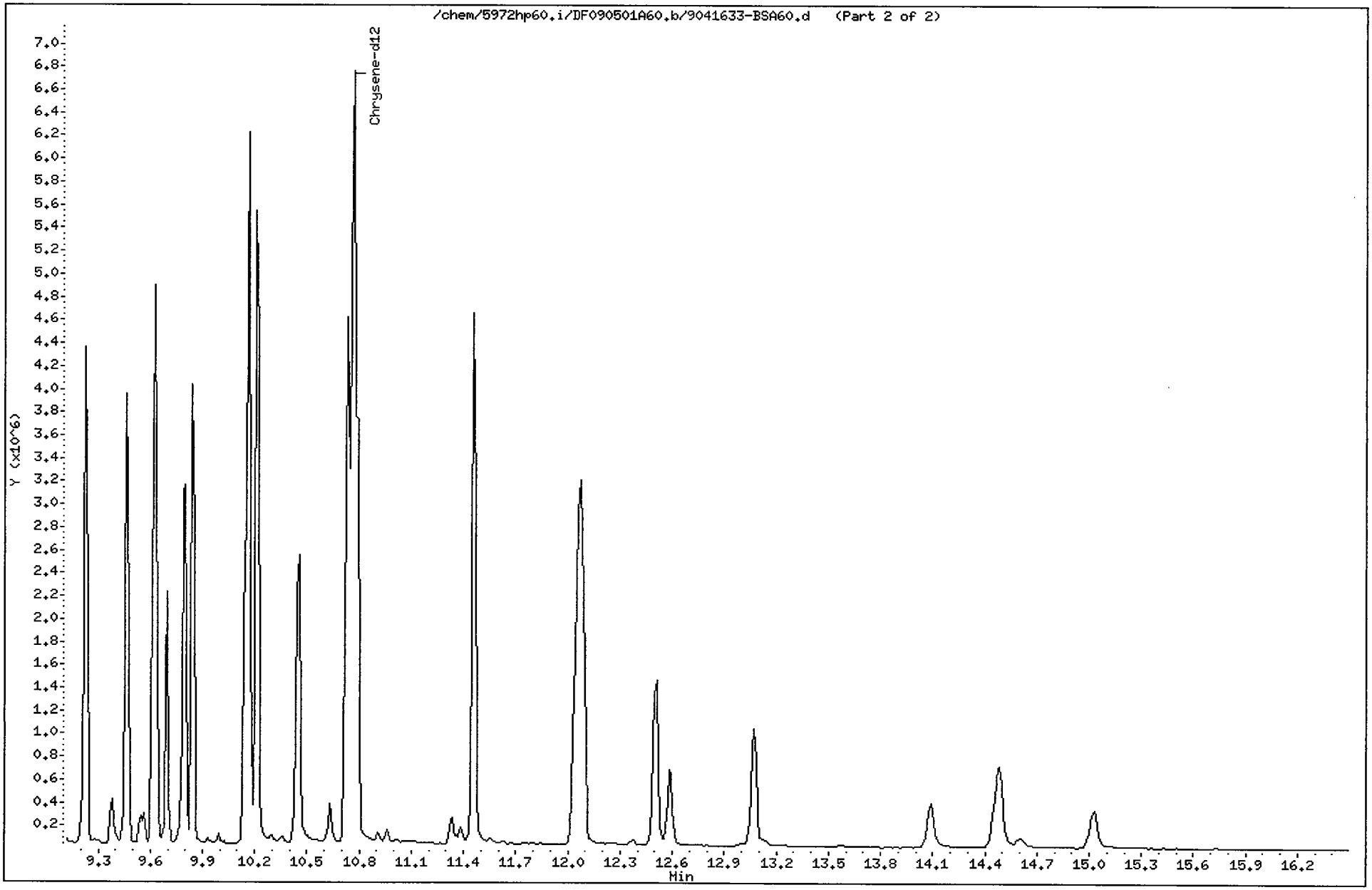
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	16	

Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BSA60.d
Date : 01-MAY-2009 23:08
Client ID: SGVLCS
Instrument: 5972hp60.i
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BSA60.d
Date : 01-MAY-2009 23:08
Client ID: SGVLCS
Instrument: 5972hp60.i
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BSA60.d
Report Date: 04-May-2009 11:02

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/9041633-BSA60.d
Lab Smp Id: 9041633-BS Client Smp ID: SGVLCS
Inj Date : 01-MAY-2009 23:08
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-BS:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 11:01 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.761	10.746	(1.000)	843369	40.0000		
127 Famfur	218	10.137	10.132	(0.942)	453948	31.8170	16	9032

05/04/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

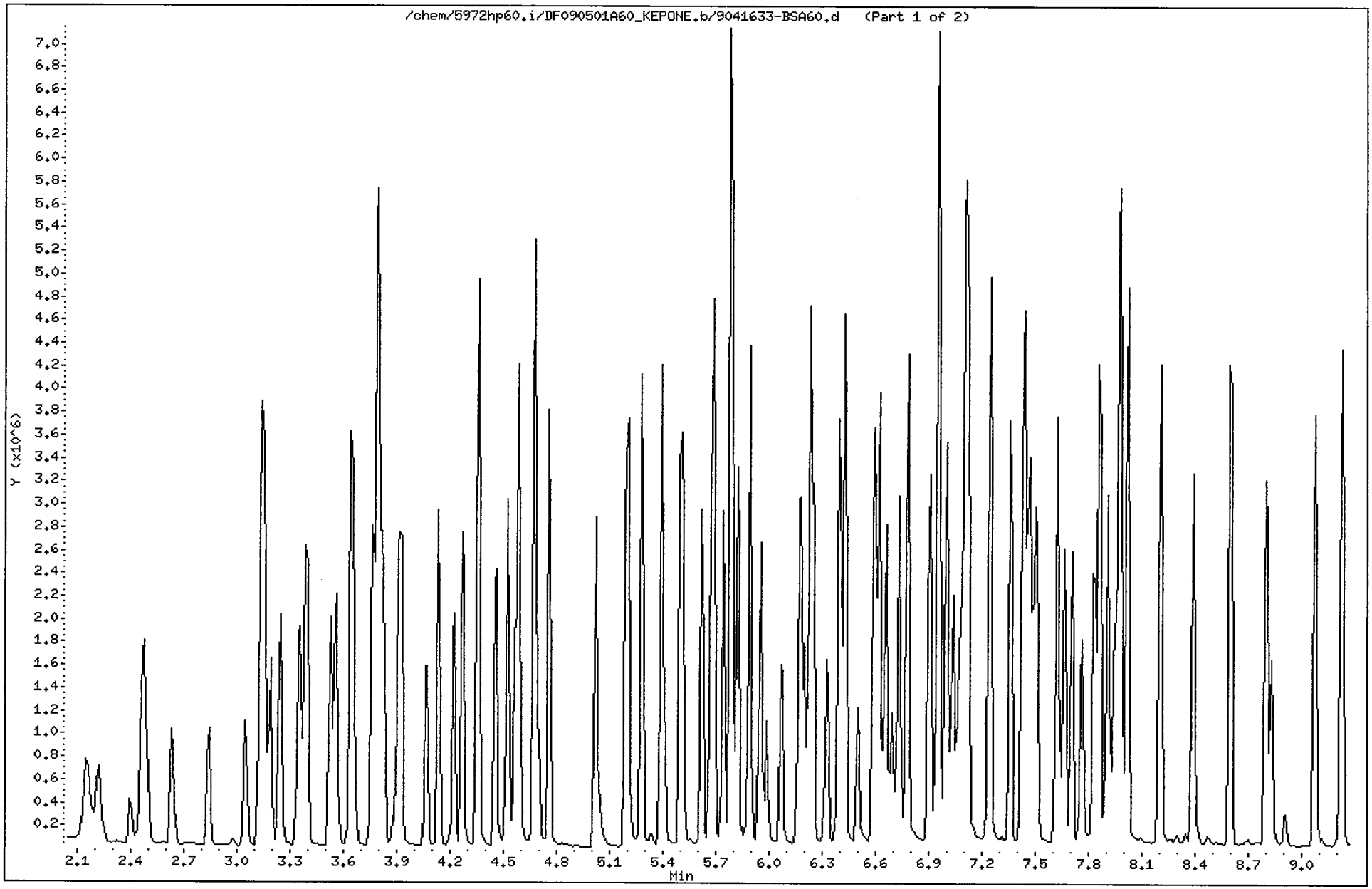
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

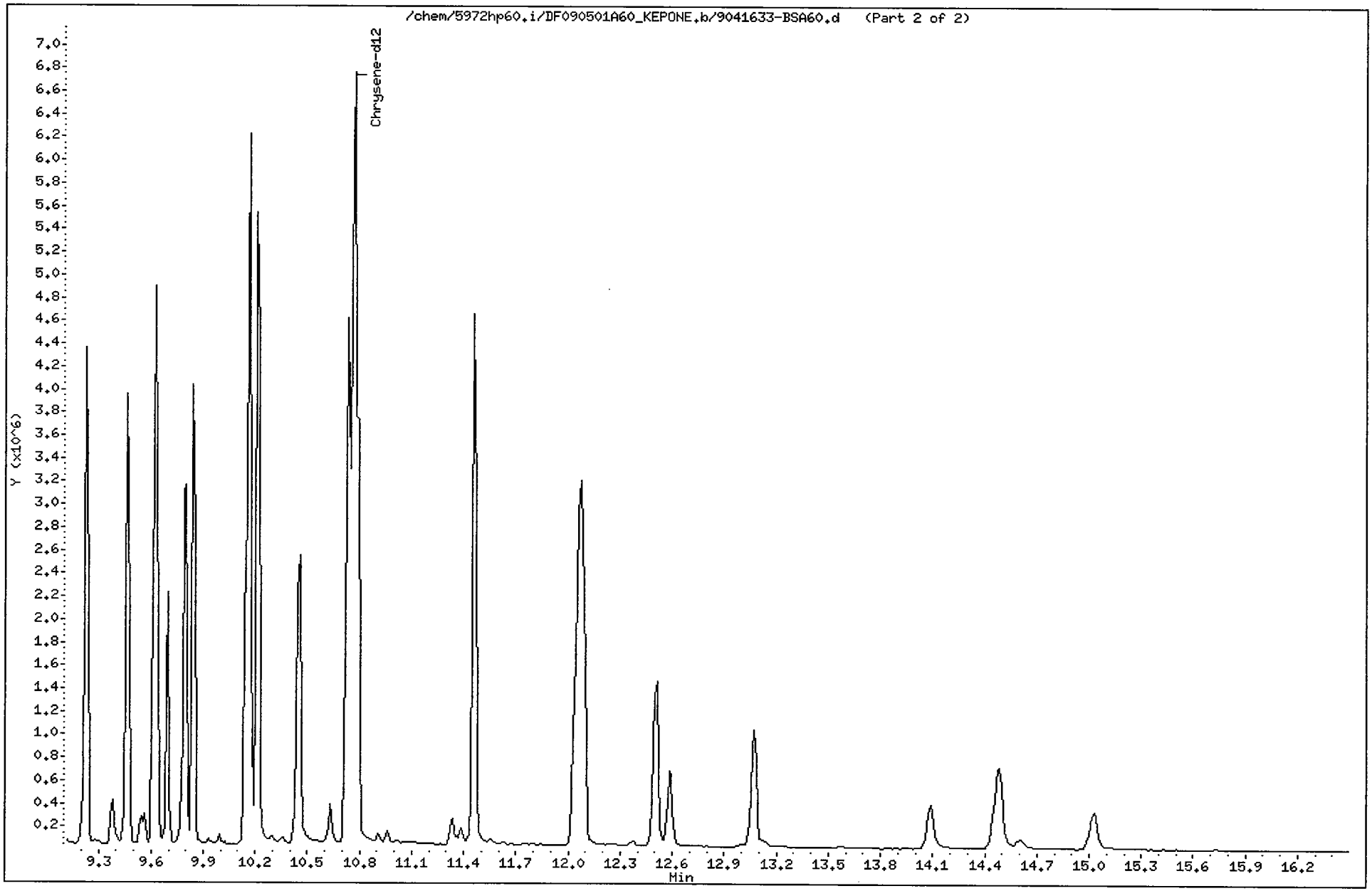
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	14	

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSA60.d
Date : 01-MAY-2009 23:08
Client ID: SGVLCS
Instrument: 5972hp60.i
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSA60.d
Date : 01-MAY-2009 23:08
Client ID: SGVLCS
Instrument: 5972hp60.i
Sample Info: 9041633-BS:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSA60.d
Report Date: 04-May-2009 14:08

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSA60.d
Lab Smp Id: 9041633-BS Client Smp ID: SGVLCS
Inj Date : 01-MAY-2009 23:08
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-BS:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 13:26 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

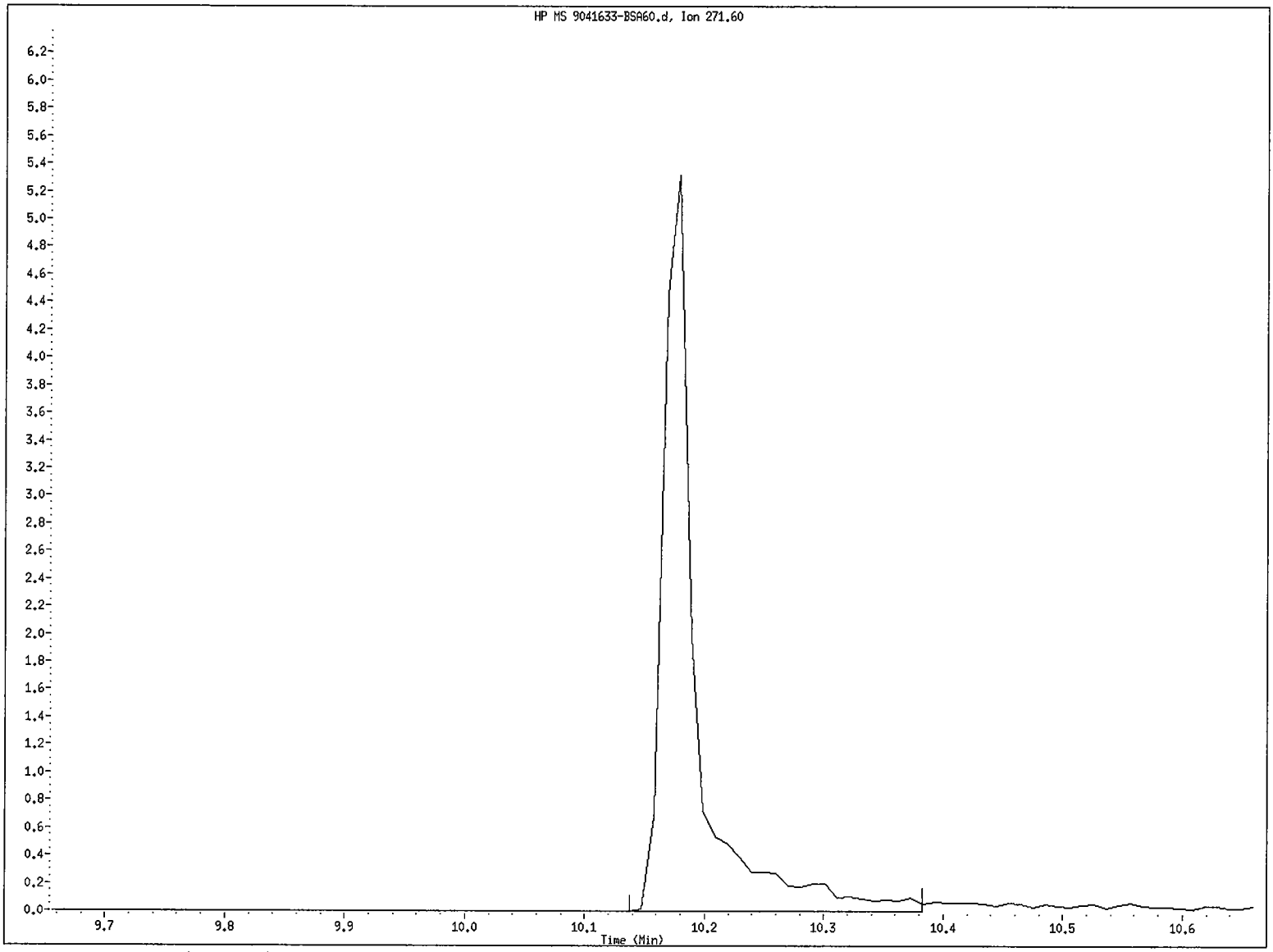
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.761	10.741	(1.000)	843369	40.0000		
126 Kepone	272	10.178	10.158	(0.946)	103427	28.8268	14	0(M)

QC Flag Legend

M - Compound response manually integrated.

Kepone CAS Number 143-50-0 Area = 103427 Manually integrated



File name: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSA60.d
Client ID: SGVLCS
Instrument ID: 5972hp60.i
Injection Date and Time: 01-MAY-2009 23:08
Retention Time: 10.18
Operator ID: 2650

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	27	
110-86-1	Pyridine	25	
109-06-8	2-Picoline	29	
10595-95-6	Nitrosomethylethylamine	36	
66-27-3	Methyl Methanesulfonate	15	
55-18-5	N-Nitrosodiethylamine	34	
62-50-0	Ethyl Methanesulfonate	35	
108-95-2	Phenol	20	
62-53-3	Aniline	32	
111-44-4	Bis(2-chloroethyl)ether	37	
95-57-8	2-Chlorophenol	32	
100-51-6	Benzyl Alcohol	34	
95-48-7	2-Methylphenol	33	
108-60-1	2,2'-oxybis(1-Chloropropane)	47	
930-55-2	N-Nitrosopyrrolidine	42	
108-39-4	3-Methylphenol	31	
106-44-5	4-Methylphenol	32	
1319-77-3	3-4-Methylphenol	33	
621-64-7	N-Nitroso-di-N-propylamine	41	
98-86-2	Acetophenone	33	
59-89-2	N-Nitrosomorpholine	32	
95-53-4	o-Toluidine	29	
67-72-1	Hexachloroethane	26	
98-95-3	Nitrobenzene	38	
100-75-4	N-Nitrosopiperidine	33	
78-59-1	Isophorone	36	
88-75-5	2-Nitrophenol	29	
105-67-9	2,4-Dimethylphenol	31	
126-68-1	o,o,o-Triethylphosphorothioa	29	
111-91-1	Bis(2-chloroethoxy)methane	37	
120-83-2	2,4-Dichlorophenol	31	
106-47-8	4-Chloroaniline	32	
87-65-0	2,6-Dichlorophenol	30	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	7.6	
924-16-3	N-Nitroso-di-n-butylamine	39	
106-50-3	p-Phenylenediamine	50	U
59-50-7	4-Chloro-3-methylphenol	32	
94-59-7	Safrole	29	
91-57-6	2-Methylnaphthalene	33	
77-47-4	Hexachlorocyclopentadiene	24	
95-94-3	1,2,4,5-Tetrachlorobenzene	28	
88-06-2	2,4,6-Trichlorophenol	31	
95-95-4	2,4,5-Trichlorophenol	33	
120-58-1	Isosafrole	34	
91-58-7	2-Chloronaphthalene	35	
88-74-4	2-Nitroaniline	47	
130-15-4	1,4-Napthoquinone	12	
131-11-3	Dimethylphthalate	35	
208-96-8	Acenaphthylene	33	
99-09-2	3-Nitroaniline	39	
83-32-9	Acenaphthene	36	
51-28-5	2,4-Dinitrophenol	22	
100-02-7	4-Nitrophenol	16	
608-93-5	Pentachlorobenzene	29	
132-64-9	Dibenzofuran	35	
134-32-7	1-Naphthylamine	12	
58-90-2	2,3,4,6-Tetrachlorophenol	30	
91-59-8	2-Naphthylamine	9.4	
84-66-2	Diethylphthalate	34	
297-97-2	Zinophos	36	
7005-72-3	4-Chlorophenyl-phenylether	29	
99-55-8	5-Nitro-o-toluidine	34	
86-73-7	Fluorene	36	
100-01-6	4-Nitroaniline	38	
534-52-1	4,6-Dinitro-2-methylphenol	30	
86-30-6	N-Nitrosodiphenylamine (1)	34	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	30	
17708-58-6	Diallate (trans isomer)	20	
298-02-2	Phorate	35	
62-44-2	Phenacetin	34	
17708-57-5	Diallate (cis isomer)	11	
101-55-3	4-Bromophenyl-phenylether	26	
118-74-1	Hexachlorobenzene	30	
60-51-5	Dimethoate	40	
92-67-1	4-Aminobiphenyl	13	
87-86-5	Pentachlorophenol	37	
82-68-8	Pentachloronitrobenzene	29	
23950-58-5	Pronamide	34	
298-04-4	Disulfoton	28	
85-01-8	Phenanthrene	36	
120-12-7	Anthracene	33	
298-00-0	Methyl Parathion	41	
84-74-2	Di-n-butylphthalate	33	
56-38-2	Parathion	36	
56-57-5	4-Nitroquinoline-1-oxide	27	
91-80-5	Methapyrilene	130	E
465-73-6	Isodrin	30	
206-44-0	Fluoranthene	36	
129-00-0	Pyrene	37	
60-11-7	p-Dimethylaminoazobenzene	33	
510-15-6	Chlorobenzilate	21	
52-85-7	Famfur	5.0	U
85-68-7	Butylbenzylphthalate	37	
119-93-7	3,3'-Dimethylbenzidine	28	
53-96-3	2-Acetylaminofluorene	28	
91-94-1	3,3'-Dichlorobenzidine	30	
117-81-7	bis(2-ethylhexyl)Phthalate	37	
56-55-3	Benzo(a)anthracene	37	
218-01-9	Chrysene	37	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA6298

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	38	
57-97-6	7,12-Dimethylbenz(a)anthrace	32	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	38	
50-32-8	Benzo(a)pyrene	37	
56-49-5	3-Methylcholanthrene	33	
193-39-5	Indeno(1,2,3-c,d)pyrene	36	
53-70-3	Dibenzo(a,h)anthracene	37	
191-24-2	Benzo(g,h,i)perylene	38	
143-50-0	Kepone	5.0	U
2303-16-4	Diallate Total	36	
122-09-8	a,a-Dimethylphenethylamine	50	U
140-57-8	Aramite	36	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA62

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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6.					
7.					
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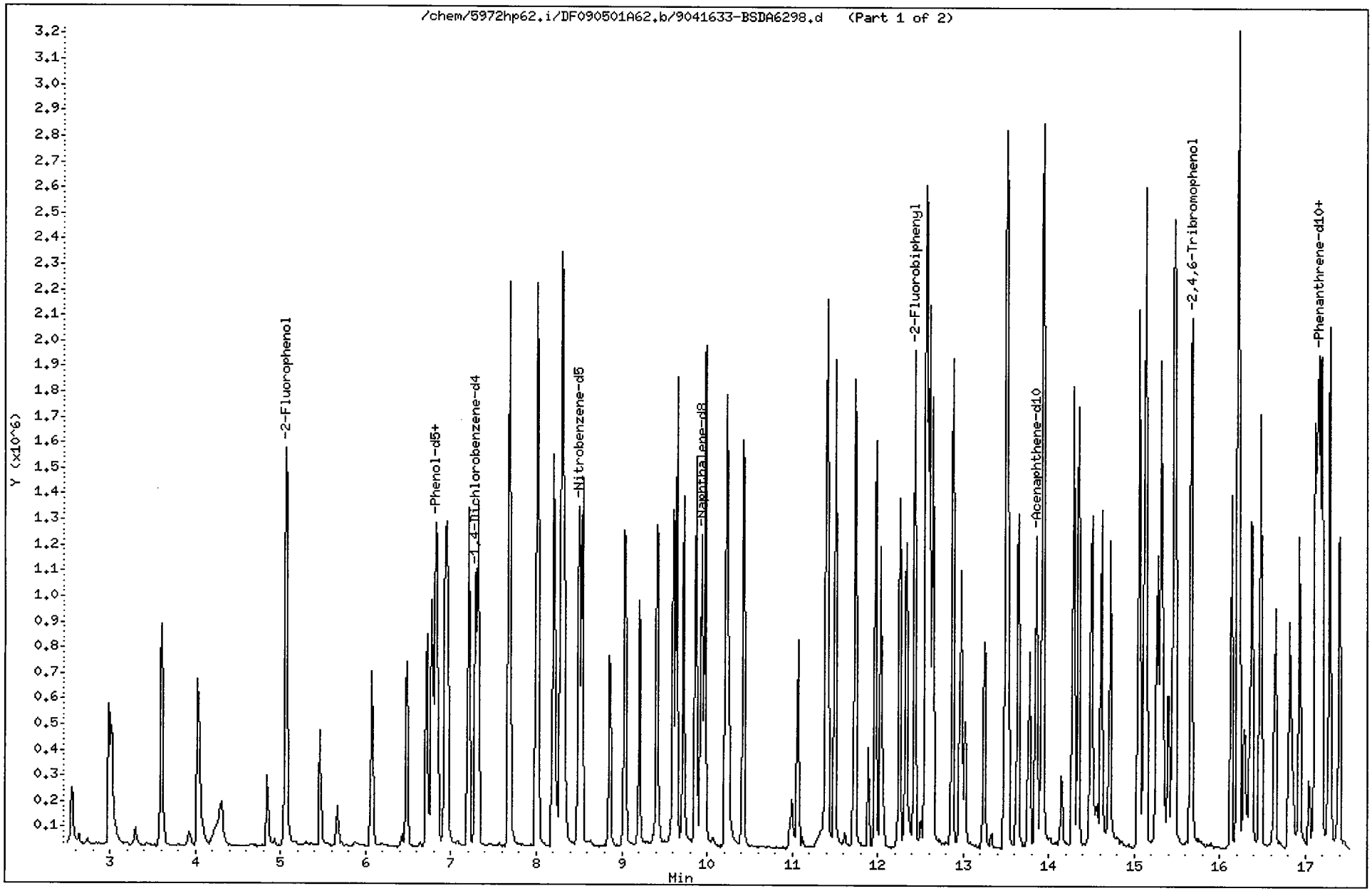
29.					
30.					

FORM I SV-TIC

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Date : 01-MAY-2009 19:07
Client ID: SGVLCSD
Instrument: 5972hp62.i
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



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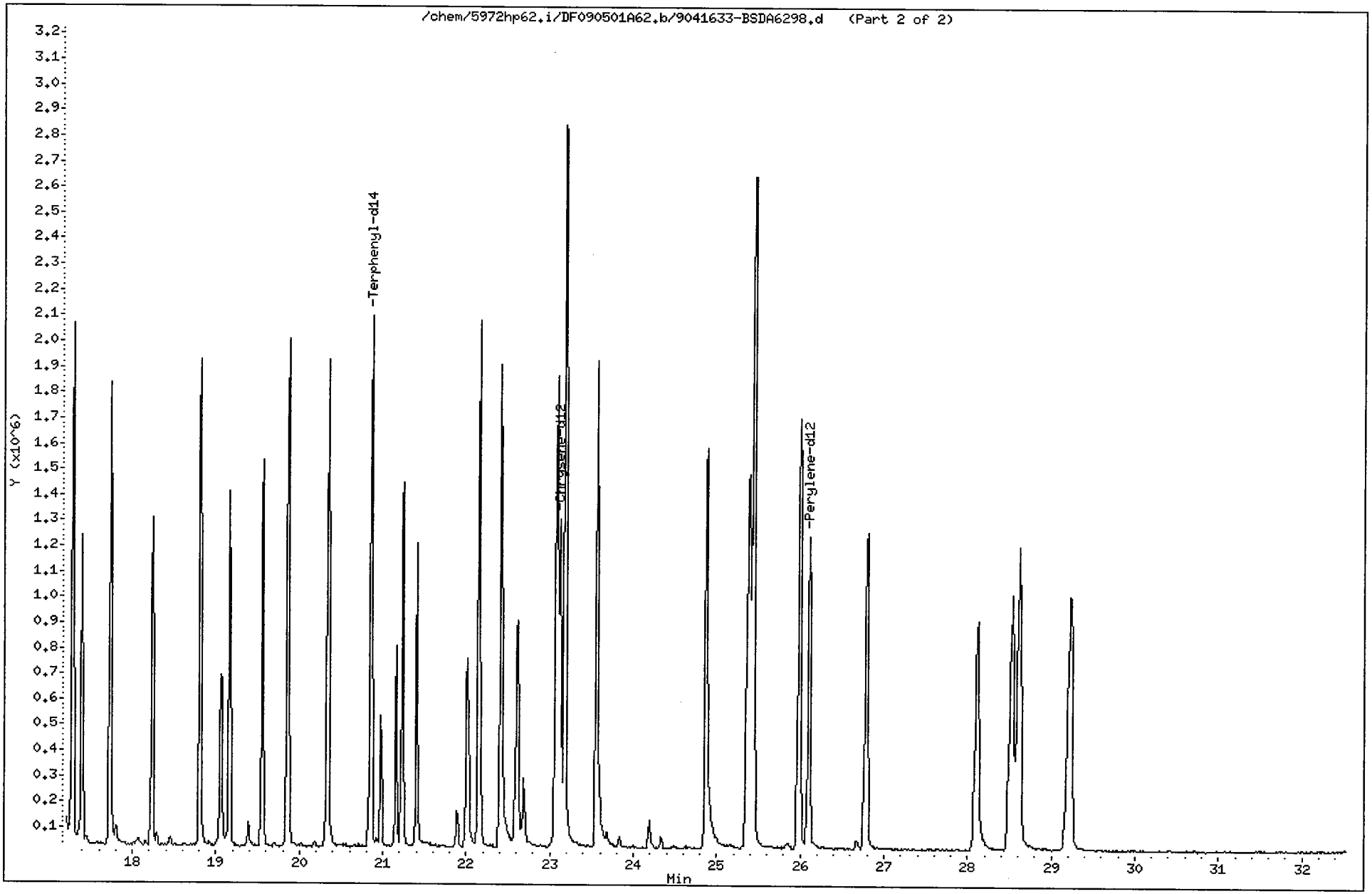
Date : 01-MAY-2009 19:07
Client ID: SGVLCSD
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Report Date: 05-May-2009 16:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Lab Smp Id: 9041633-BSD Client Smp ID: SGVLCSD
Inj Date : 01-MAY-2009 19:07
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-BSD:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp62.i/DF090501A62.b/8270CIXv16.m
Meth Date : 05-May-2009 16:54 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 15 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.288	7.279	(1.000)	279423	40.0000		
*	2 Naphthalene-d8	136	9.929	9.930	(1.000)	963426	40.0000		
*	3 Acenaphthene-d10	164	13.859	13.850	(1.000)	458776	40.0000		
*	4 Phenanthrene-d10	188	17.135	17.125	(1.000)	753738	40.0000		
*	5 Chrysene-d12	240	23.123	23.103	(1.000)	837720	40.0000		
*	6 Perylene-d12	264	26.101	26.092	(1.000)	867138	40.0000		
$	7 2-Fluorophenol	112	5.057	5.047	(0.694)	838993	122.097	61	
$	8 Phenol-d5	99	6.817	6.818	(0.935)	679286	80.4761	40	
$	11 Nitrobenzene-d5	82	8.496	8.497	(0.856)	744361	82.5279	41	
$	12 2-Fluorobiphenyl	172	12.437	12.427	(0.897)	1057870	72.3852	36	
$	13 2,4,6-Tribromophenol	330	15.671	15.662	(1.131)	565976	132.990	66	
$	14 Terphenyl-d14	244	20.860	20.851	(0.902)	1124626	71.2070	36	
	15 N-Nitrosodimethylamine	42	3.020	3.000	(0.414)	198206	54.3976	27	8179
	16 Pyridine	79	2.979	2.959	(0.409)	416913	50.9839	25	9247
	18 2-Picoline	93	4.023	4.003	(0.552)	492605	58.8542	29	9055

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Report Date: 05-May-2009 16:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	4.299	4.290	(0.590)	213607	71.5767	36	9236
20 Methyl Methanesulfonate	80	4.842	4.832	(0.664)	164111	29.7249	15	8932
21 N-Nitrosodiethylamine	102	5.456	5.446	(0.749)	165047	67.5197	34	9355
22 Ethyl Methanesulfonate	79	6.070	6.071	(0.833)	466157	69.6298	35	9348
23 Phenol	94	6.838	6.838	(0.938)	343996	39.4237	20	
24 Aniline	93	6.776	6.767	(0.930)	735470	64.8053	32	9089
25 Bis(2-chloroethyl)ether	93	6.930	6.920	(0.951)	555308	73.9555	37	
27 2-Chlorophenol	128	6.950	6.951	(0.954)	511983	64.4051	32	9473
30 Benzyl Alcohol	108	7.687	7.678	(1.055)	301153	67.3674	34	
32 2-Methylphenol	108	8.005	8.005	(1.098)	408208	65.3099	33	
33 2,2'-oxybis(1-Chloropropane)	45	8.005	7.995	(1.098)	886265	94.5460	47	8801(R)
34 N-Nitrosopyrrolidine	100	8.230	8.241	(1.129)	127787	83.7825	42	5330
35 3-Methylphenol	108	8.322	8.333	(1.142)	420656	62.4898	31	(M)
36 4-Methylphenol	108	8.322	8.333	(1.142)	431442	64.0921	32	(M)
37 3-4-Methylphenol	108	8.322	8.333	(1.142)	440699	65.2412	33	9097
38 N-Nitroso-di-N-propylamine	70	8.301	8.302	(1.139)	242693	82.6419	41	8498(R)
39 Acetophenone	105	8.199	8.200	(0.826)	719581	66.4520	33	0(M)
40 N-Nitrosomorpholine	116	8.271	8.271	(1.135)	48391	65.1960	32	0(M)
41 o-Toluidine	106	8.291	8.292	(1.138)	576099	58.5570	29	9129
42 Hexachloroethane	117	8.281	8.271	(1.136)	225012	53.1464	26	9666
43 Nitrobenzene	77	8.537	8.527	(0.860)	661432	77.0815	38	9096
44 N-Nitrosopiperidine	114	8.864	8.855	(0.893)	222933	66.4394	33	9117
45 Isophorone	82	9.028	9.029	(0.909)	1057389	72.0640	36	9090
46 2-Nitrophenol	139	9.212	9.203	(0.928)	270825	57.8493	29	8664
47 2,4-Dimethylphenol	122	9.407	9.408	(0.947)	369787	62.9194	31	8960
49 o,o,o-Triethylphosphorothioat	198	9.642	9.643	(0.971)	198012	57.3658	29	9022
50 Bis(2-chloroethoxy)methane	93	9.601	9.602	(0.967)	778951	74.3849	37	8988
51 2,4-Dichlorophenol	162	9.724	9.725	(0.979)	419550	61.4699	31	
54 4-Chloroaniline	127	10.236	10.226	(1.031)	581583	64.7352	32	8646
55 2,6-Dichlorophenol	162	10.215	10.216	(1.029)	389384	59.2380	30	
56 Hexachloropropene	213	10.256	10.247	(1.033)	98812	15.2479	7.6	9484(R)
58 N-Nitroso-di-n-butylamine	84	11.065	11.056	(1.114)	222171	77.6097	39	9007
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.393	11.383	(1.147)	393809	63.6225	32	0(M)
61 Safrole	162	11.413	11.414	(1.149)	328385	58.1572	29	9397
62 2-Methylnaphthalene	141	11.505	11.496	(1.159)	752291	66.0655	33	
64 Hexachlorocyclopentadiene	237	12.037	12.028	(0.869)	300896	48.9145	24	9582
65 1,2,4,5-Tetrachlorobenzene	216	11.976	11.966	(0.864)	471591	56.8964	28	9492
66 2,4,6-Trichlorophenol	196	12.252	12.243	(0.884)	295937	62.9341	31	
67 2,4,5-Trichlorophenol	196	12.334	12.325	(0.890)	346452	65.9255	33	
68 Isosafrole	162	12.068	12.059	(0.871)	62194	67.7366	34	
69 2-Chloronaphthalene	162	12.570	12.560	(0.907)	1248717	69.5595	35	
70 2-Nitroaniline	65	12.979	12.970	(0.936)	379150	93.2137	47	9018(R)
71 1,4-Napthoquinone	158	13.020	13.021	(0.939)	141649	25.1763	12	8863
72 Dimethylphthalate	163	13.521	13.512	(0.976)	965312	69.4890	35	9357
75 Acenaphthylene	152	13.501	13.492	(0.974)	1309483	66.6262	33	8167
76 3-Nitroaniline	138	13.931	13.921	(1.005)	259393	78.4873	39	8741

Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Report Date: 05-May-2009 16:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	13.931	13.921	(1.005)	791028	71.3452	36	9304
78 2,4-Dinitrophenol	184	14.156	14.147	(1.021)	61059	44.0684	22	
79 4-Nitrophenol	139	14.535	14.423	(1.049)	84063	32.3728	16	0 (M)
80 Pentachlorobenzene	250	14.351	14.341	(1.035)	462851	57.6651	29	9689
82 Dibenzofuran	168	14.289	14.280	(1.031)	1271510	70.4156	35	9379
83 1-Naphthylamine	143	14.514	14.505	(1.047)	86911	23.5976	12	(M)
84 2,3,4,6-Tetrachlorophenol	232	14.719	14.710	(1.062)	252852	60.5831	30	9680
85 2-Naphthylamine	143	14.688	14.679	(1.060)	74125	18.7635	9.4	(M)
86 Diethylphthalate	149	15.129	15.129	(1.092)	989358	67.0558	34	7630
87 Zinophos	97	15.313	15.303	(1.105)	281562	71.8948	36	9119
88 4-Chlorophenyl-phenylether	204	15.139	15.129	(1.092)	427419	58.9911	29	7902
89 5-Nitro-o-toluidine	152	15.272	15.262	(1.102)	293117	69.1846	34	7334
90 Fluorene	166	15.057	15.047	(1.086)	1000340	71.6495	36	8128
91 4-Nitroaniline	138	15.333	15.334	(1.106)	274405	76.5532	38	8860
92 4,6-Dinitro-2-methylphenol	198	15.405	15.395	(0.899)	144765	59.9319	30	0 (M)
93 N-Nitrosodiphenylamine	169	15.456	15.457	(0.902)	739362	67.7173	34	8906
96 Sulfotep	322	16.142	16.132	(1.165)	170584	60.9174	30	9159
98 Diallate (trans isomer)	86	16.213	16.204	(0.946)	373714	39.8022	20	
99 Diallate (trans) part of total	86	16.213	16.204	(0.946)	373714	39.8022	20	9235
100 Phorate	75	16.224	16.225	(0.947)	655966	69.7195	35	8882
101 Phenacetin	108	16.367	16.368	(0.955)	515790	68.2928	34	9132
102 Diallate (cis isomer)	86	16.377	16.368	(0.956)	69938	22.9636	11	(M)
103 Diallate (cis) part of total	86	16.377	16.368	(0.956)	71814	23.4136	12	5968 (H)
104 4-Bromophenyl-phenylether	248	16.213	16.204	(0.946)	253345	51.7404	26	8179
105 Hexachlorobenzene	284	16.480	16.470	(0.962)	455979	59.4471	30	9332
106 Dimethoate	87	16.654	16.644	(0.972)	390282	80.6150	40	9153
107 4-Aminobiphenyl	169	16.848	16.839	(0.983)	257529	25.6053	13	0 (M)
108 Pentachlorophenol	266	16.930	16.921	(0.988)	268627	73.8688	37	8357
109 Pentachloronitrobenzene	237	17.114	17.105	(0.999)	139876	57.7522	29	7040
110 Pronamide	173	17.155	17.156	(1.001)	457383	68.0760	34	9644
111 Disulfoton	88	17.401	17.391	(1.016)	410903	55.9594	28	9064
112 Phenanthrene	178	17.196	17.187	(1.004)	1436749	71.9444	36	
113 Anthracene	178	17.288	17.279	(1.009)	1401049	66.9778	33	
115 Methyl Parathion	109	18.240	18.231	(1.065)	377353	81.2655	41	9617
116 Di-n-butylphthalate	149	18.813	18.804	(1.098)	1747929	66.0333	33	9704
117 Parathion	109	19.161	19.152	(1.118)	232617	71.4528	36	8203
118 4-Nitroquinoline-1-oxide	190	19.069	19.060	(1.113)	107789	54.7694	27	9228
119 Methapyrilene	97	19.387	19.387	(1.131)	38120	265.856	130	9158 (ARH)
120 Isodrin	193	19.561	19.551	(1.142)	177898	60.7499	30	9538
121 Fluoranthene	202	19.868	19.858	(1.159)	1505724	73.0275	36	9785
123 Pyrene	202	20.349	20.339	(0.880)	1545474	73.2559	37	9688
124 p-Dimethylaminoazobenzene	225	21.239	21.230	(0.919)	268009	66.0378	33	9190
125 Chlorobenzilate	251	21.403	21.393	(0.926)	288502	41.5509	21	9660
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.150	22.141	(0.958)	825898	74.3250	37	9642
129 3,3'-Dimethylbenzidine	212	22.007	21.997	(0.952)	419869	56.2367	28	9501

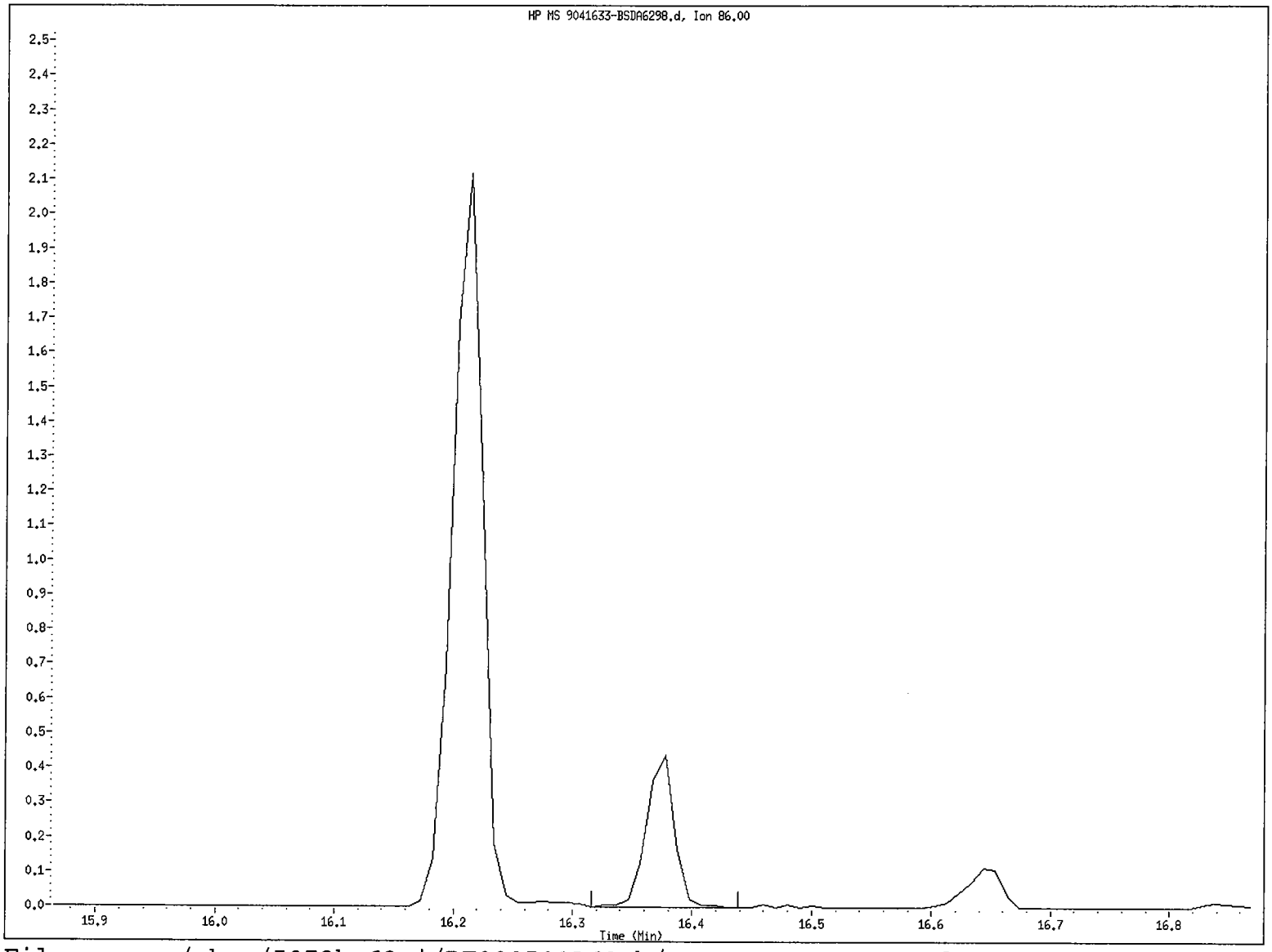
Data File: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Report Date: 05-May-2009 16:55

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	22.611	22.591	(0.978)	422562	56.1352	28	9200
131	3,3'-Dichlorobenzidine	252	23.184	23.174	(1.003)	459978	60.8755	30	8576
132	bis(2-ethylhexyl)Phthalate	149	23.563	23.553	(1.019)	1125104	74.5527	37	9428
133	Benzo(a)anthracene	228	23.082	23.072	(0.998)	1465068	73.8385	37	
134	Chrysene	228	23.184	23.164	(1.003)	1309604	73.6474	37	
135	Di-n-octylphthalate	149	24.873	24.863	(0.953)	1864409	76.7630	38	
136	7,12-Dimethylbenz(a)anthracene	256	25.446	25.437	(0.975)	548871	64.0302	32	8642
137	Benzo(b)fluoranthene	252	25.385	25.375	(0.973)	1688795	78.3160	39	
138	Benzo(k)fluoranthene	252	25.436	25.426	(0.975)	1447087	76.5739	38	
139	Benzo(a)pyrene	252	25.988	25.979	(0.996)	1406083	74.8719	37	
140	3-Methylcholanthrene	268	26.797	26.788	(1.027)	685405	66.4065	33	9680
141	Indeno(1,2,3-c,d)pyrene	276	28.537	28.507	(1.093)	1278248	73.1776	36	9490
142	Dibenzo(a,h)anthracene	278	28.619	28.599	(1.096)	1276555	73.8549	37	8297
143	Benzo(g,h,i)perylene	276	29.233	29.214	(1.120)	1411718	75.5814	38	9554
M 144	Diallate Total	86				445528	71.5336	36	0
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	21.157	21.148	(0.915)	91850	72.7338	36	8505

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 71814 User selected



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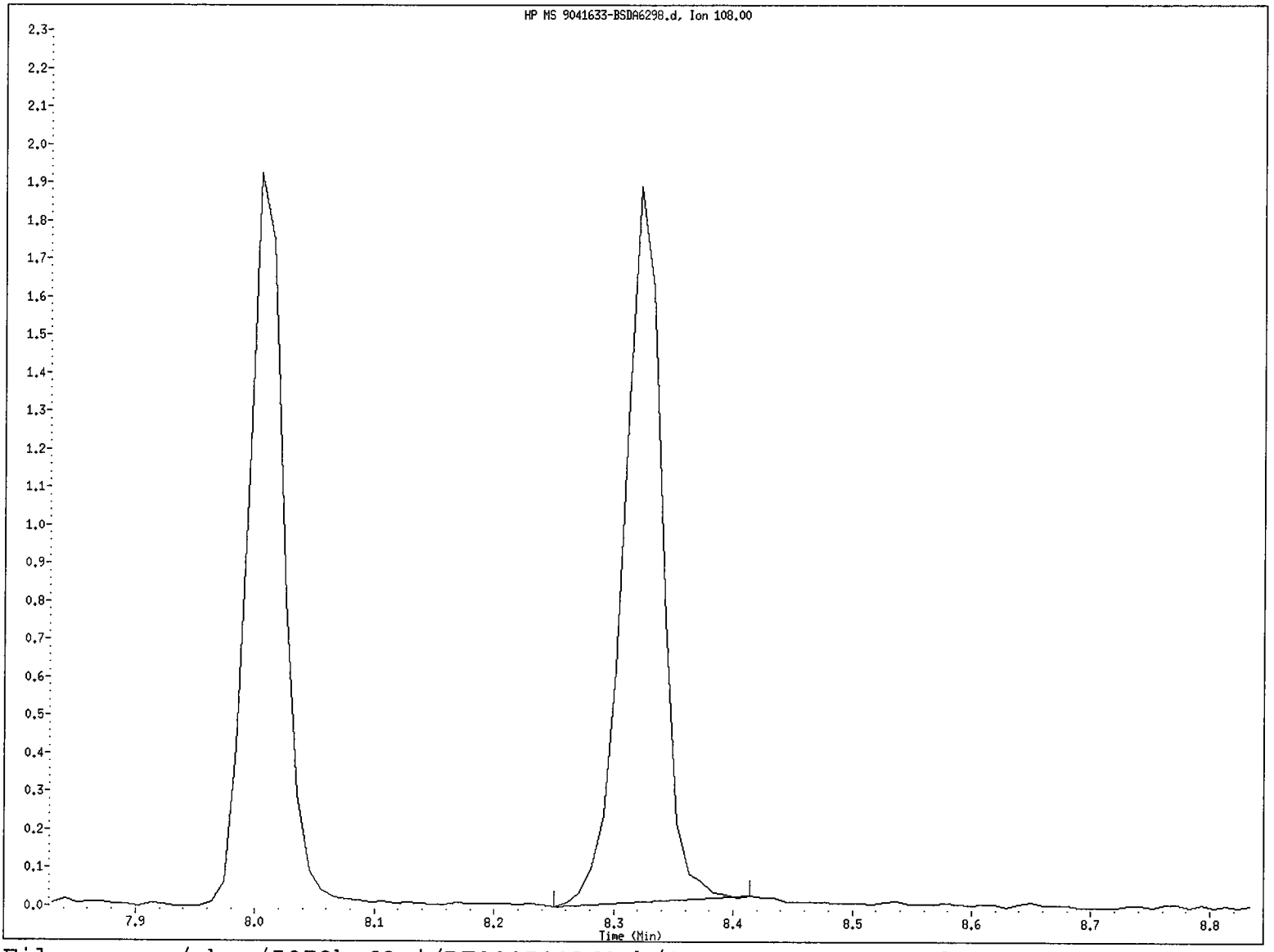
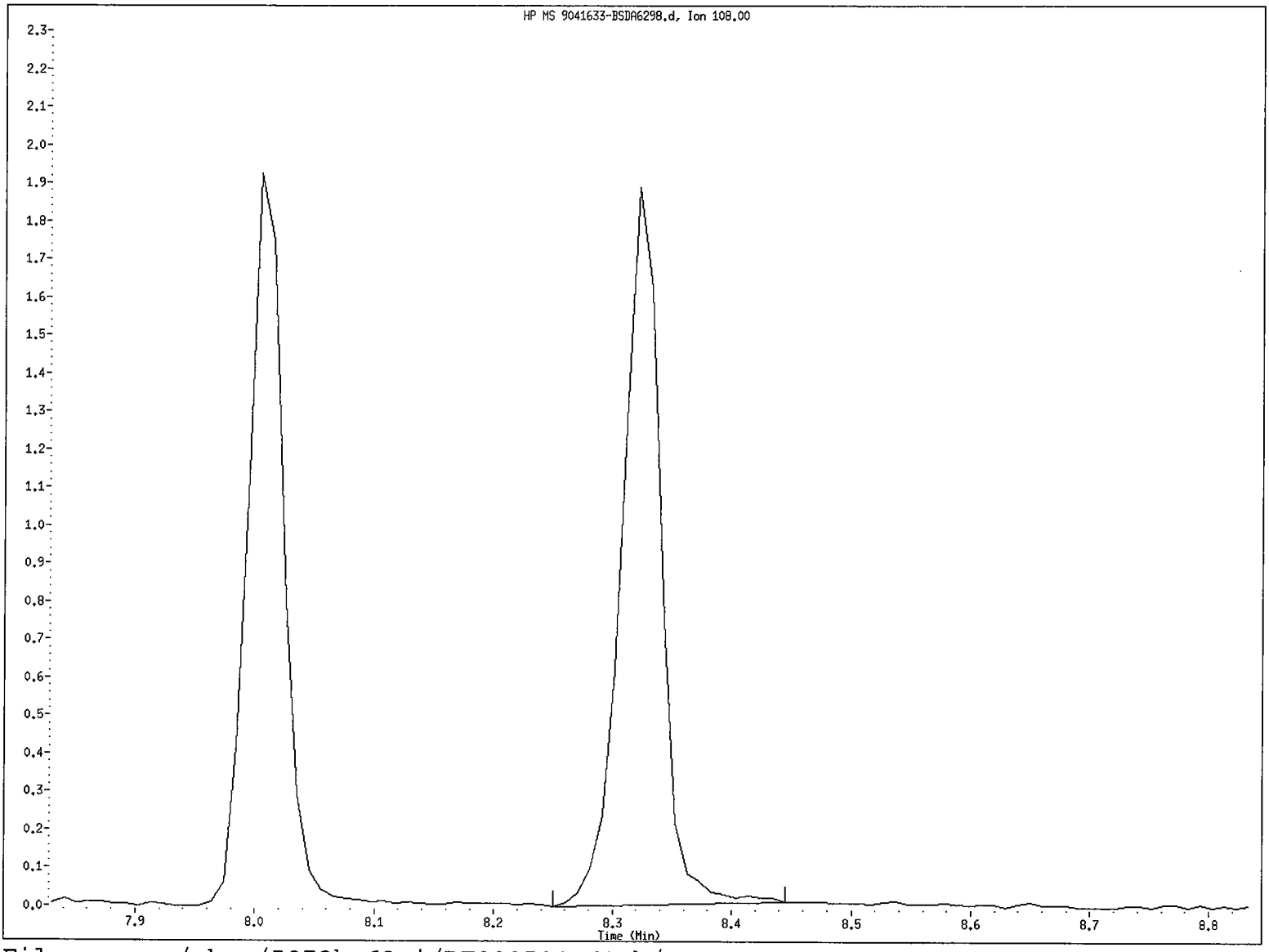
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 16.38
Operator ID: 2650

3-Methylphenol CAS Number 108-39-4 Area = 420656 Manually integrated



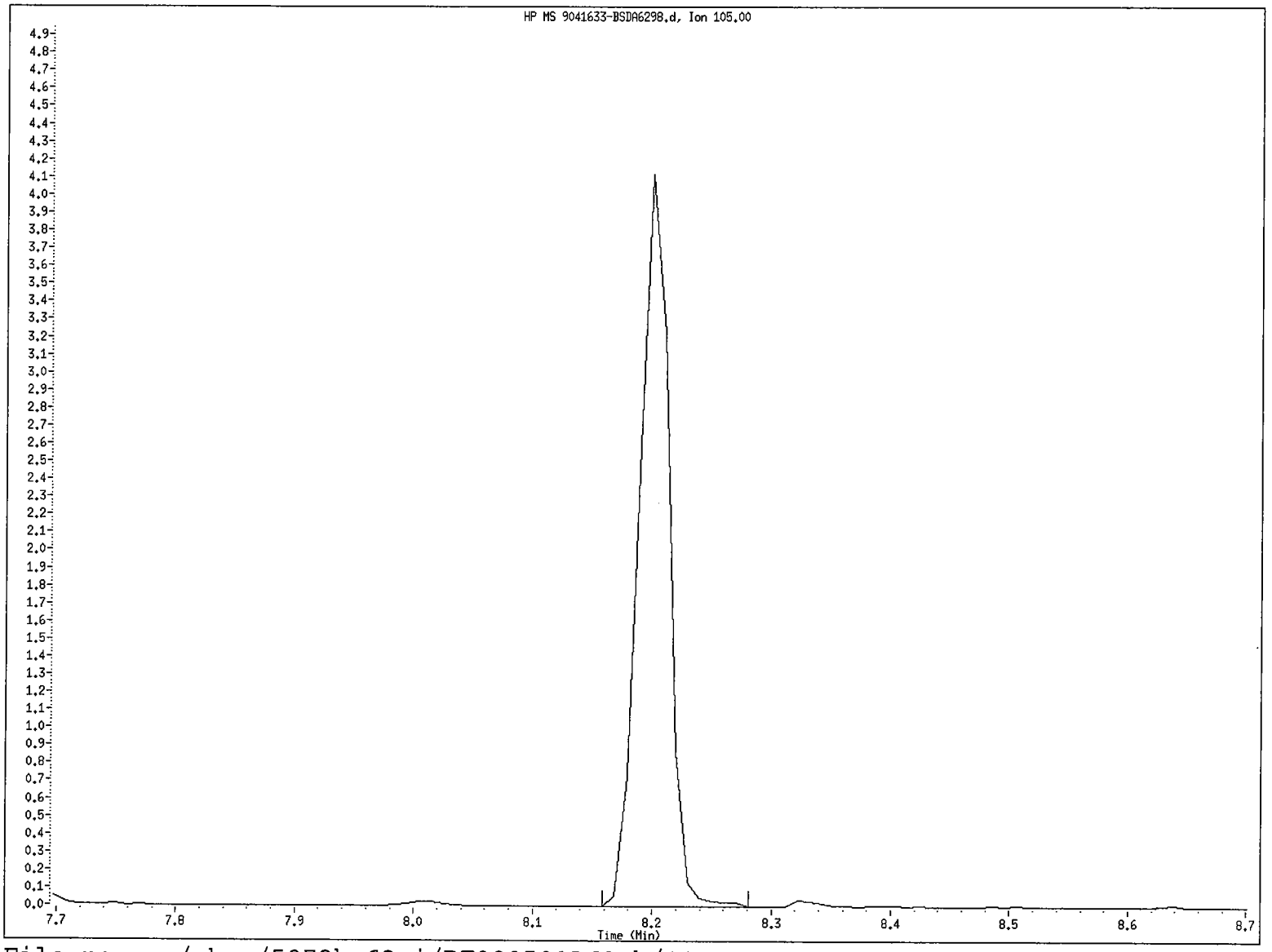
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.32
Operator ID: 2650

4-Methylphenol CAS Number 106-44-5 Area = 431442 Manually integrated



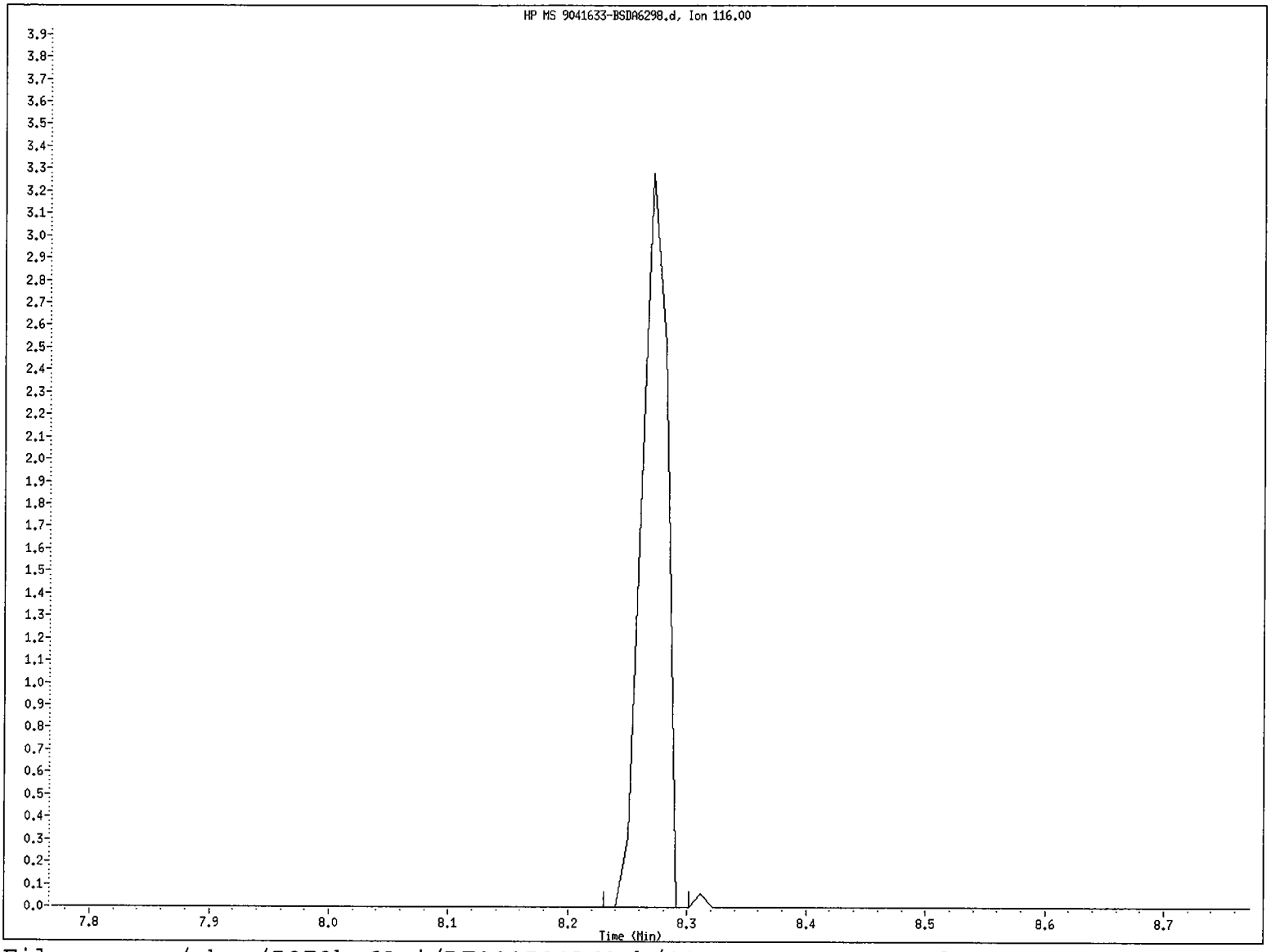
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.32
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 719581 Manually integrated



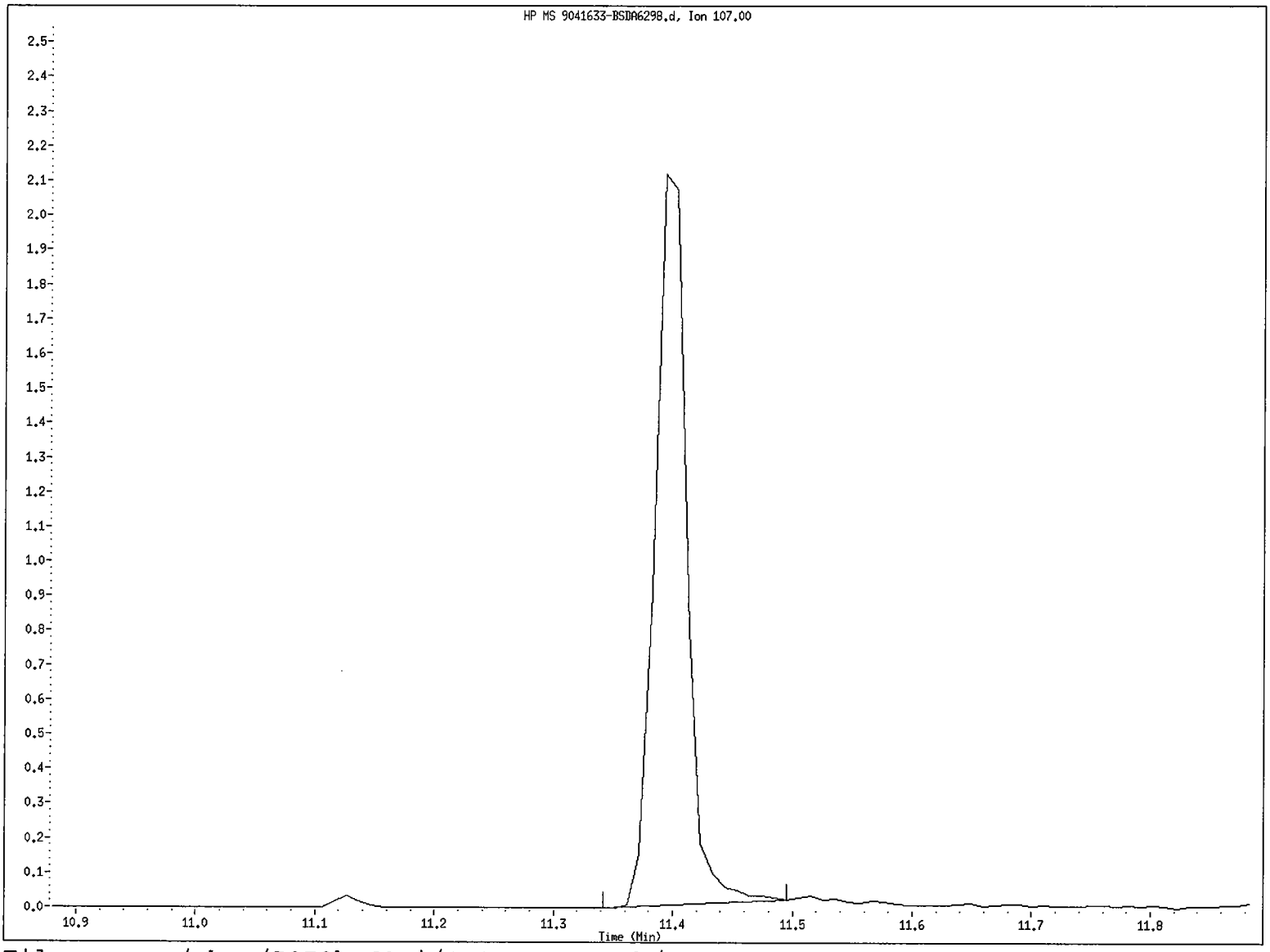
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.20
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 48391 Manually integrated



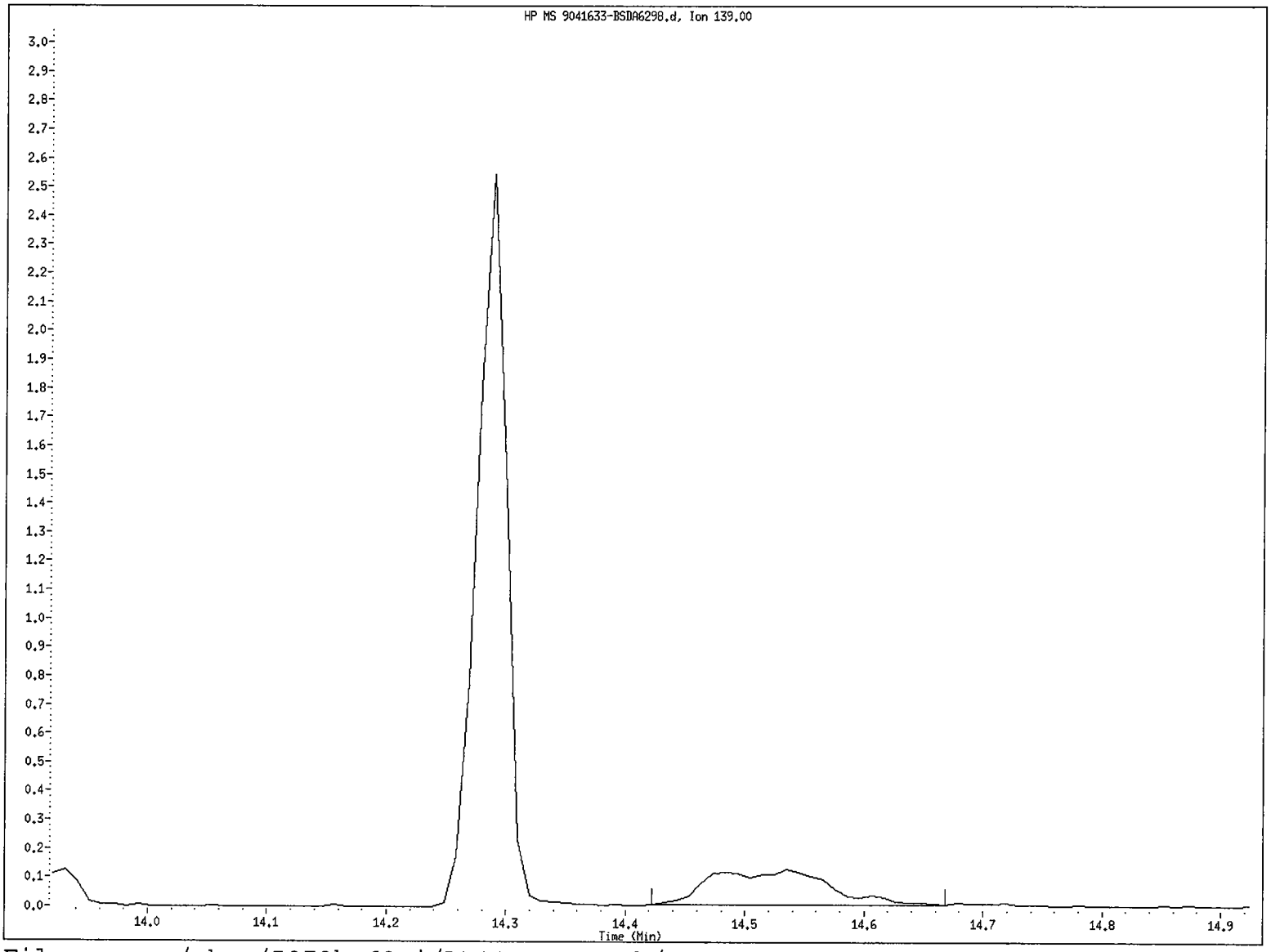
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 8.27
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 393809 Manually integrated



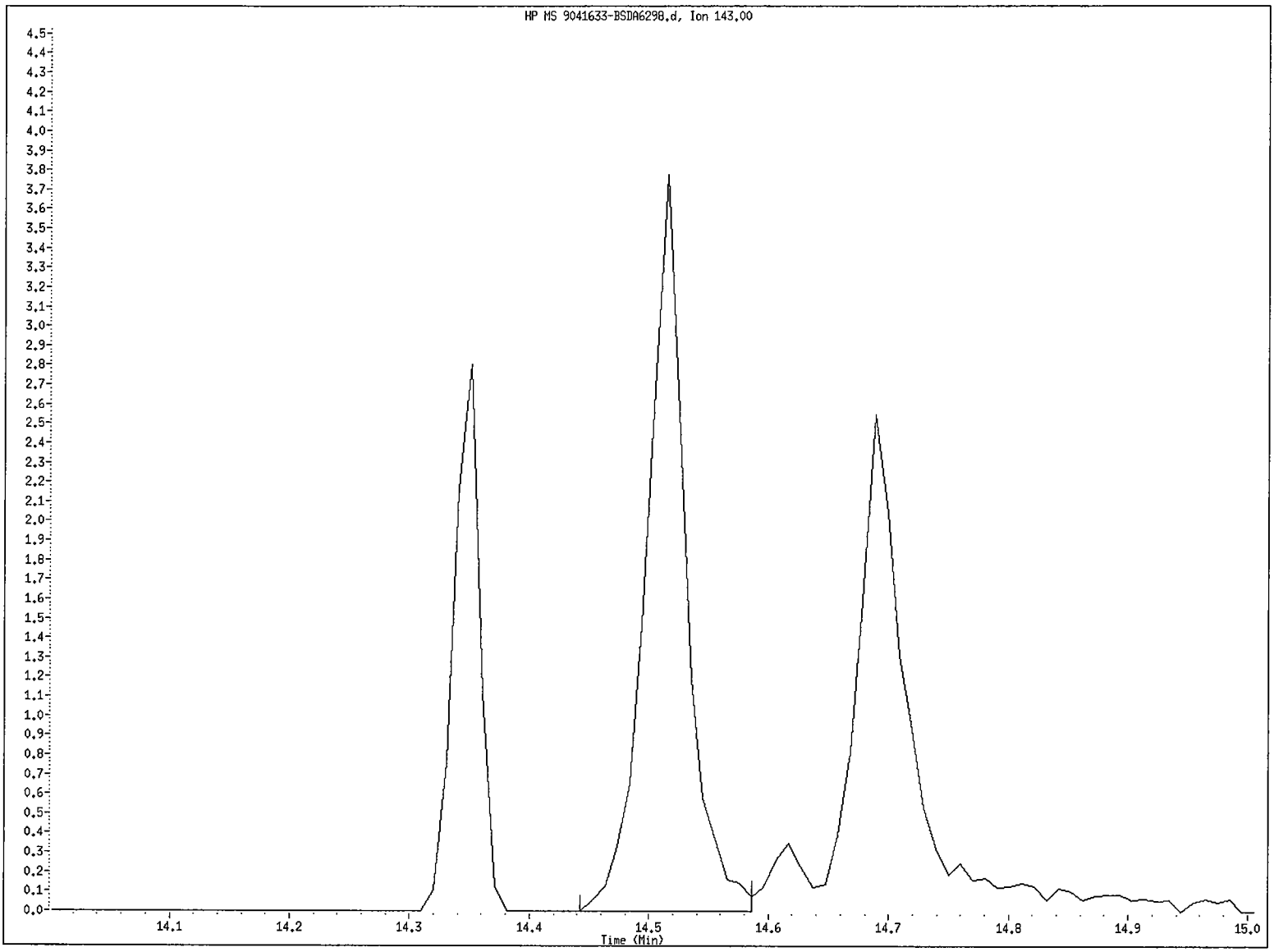
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 11.39
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 84063 Manually integrated



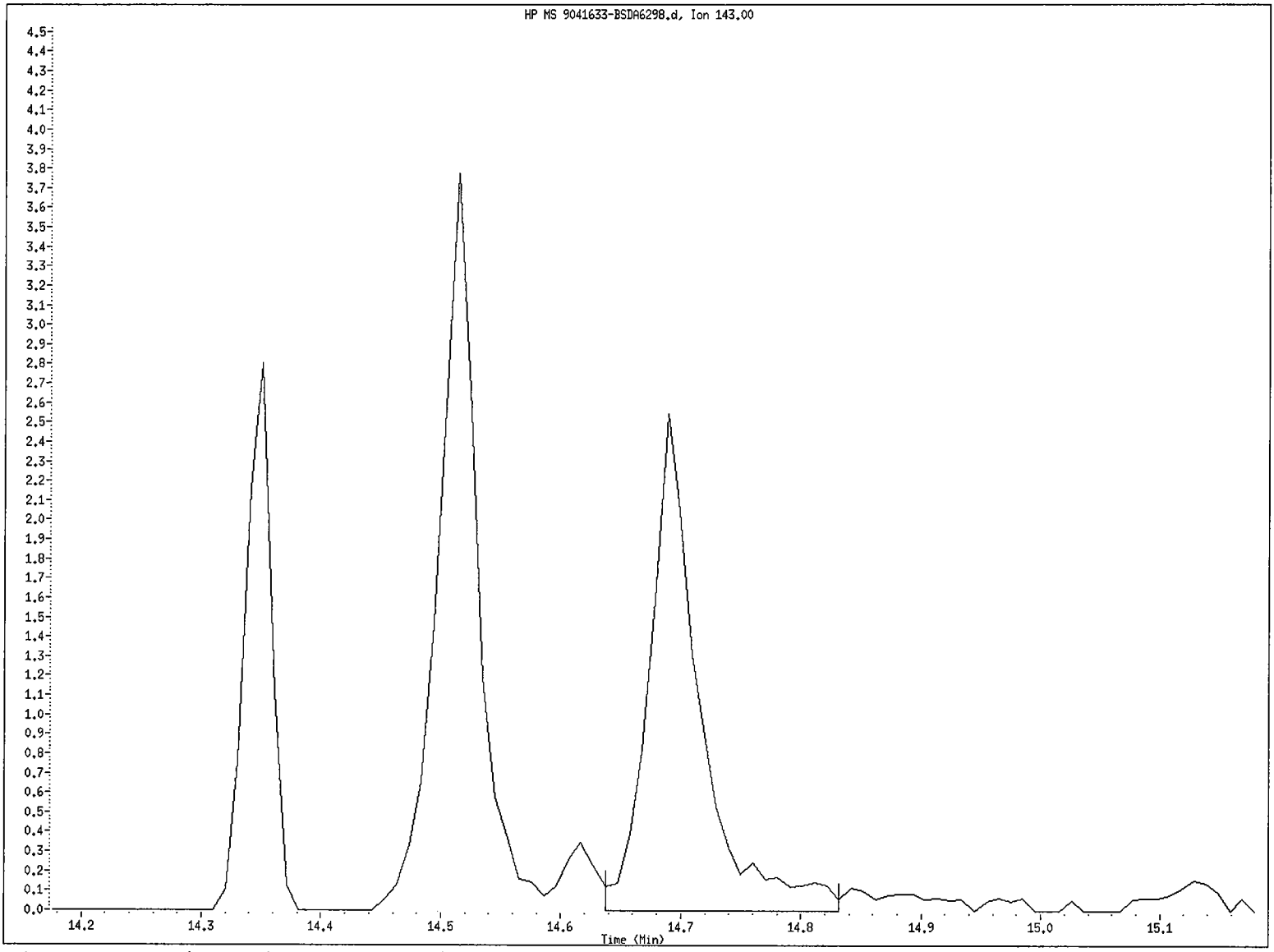
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 14.53
Operator ID: 2650

1-Naphthylamine CAS Number 134-32-7 Area = 86911 Manually integrated



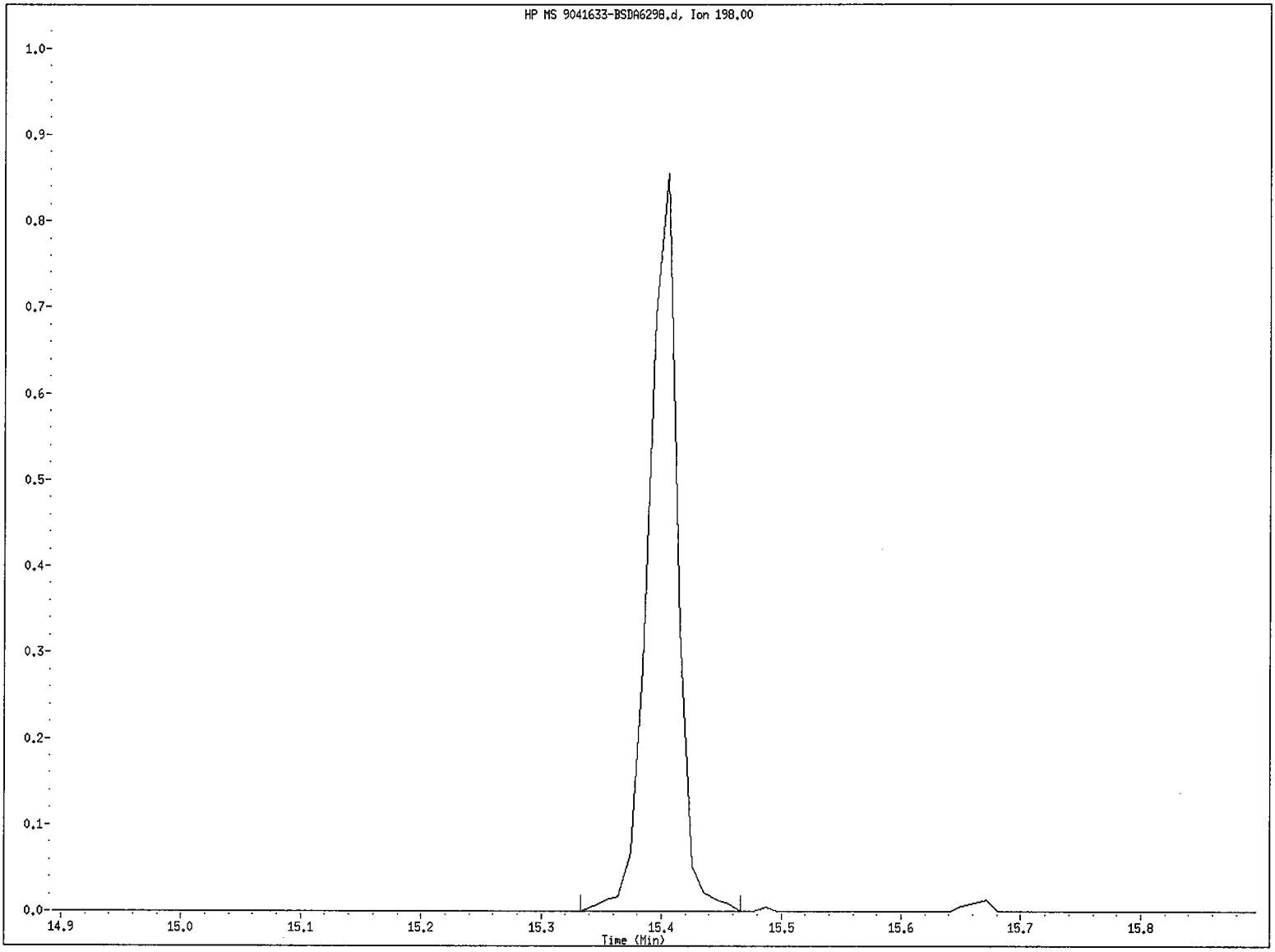
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 14.51
Operator ID: 2650

2-Naphthylamine CAS Number 91-59-8 Area = 74125 Manually integrated



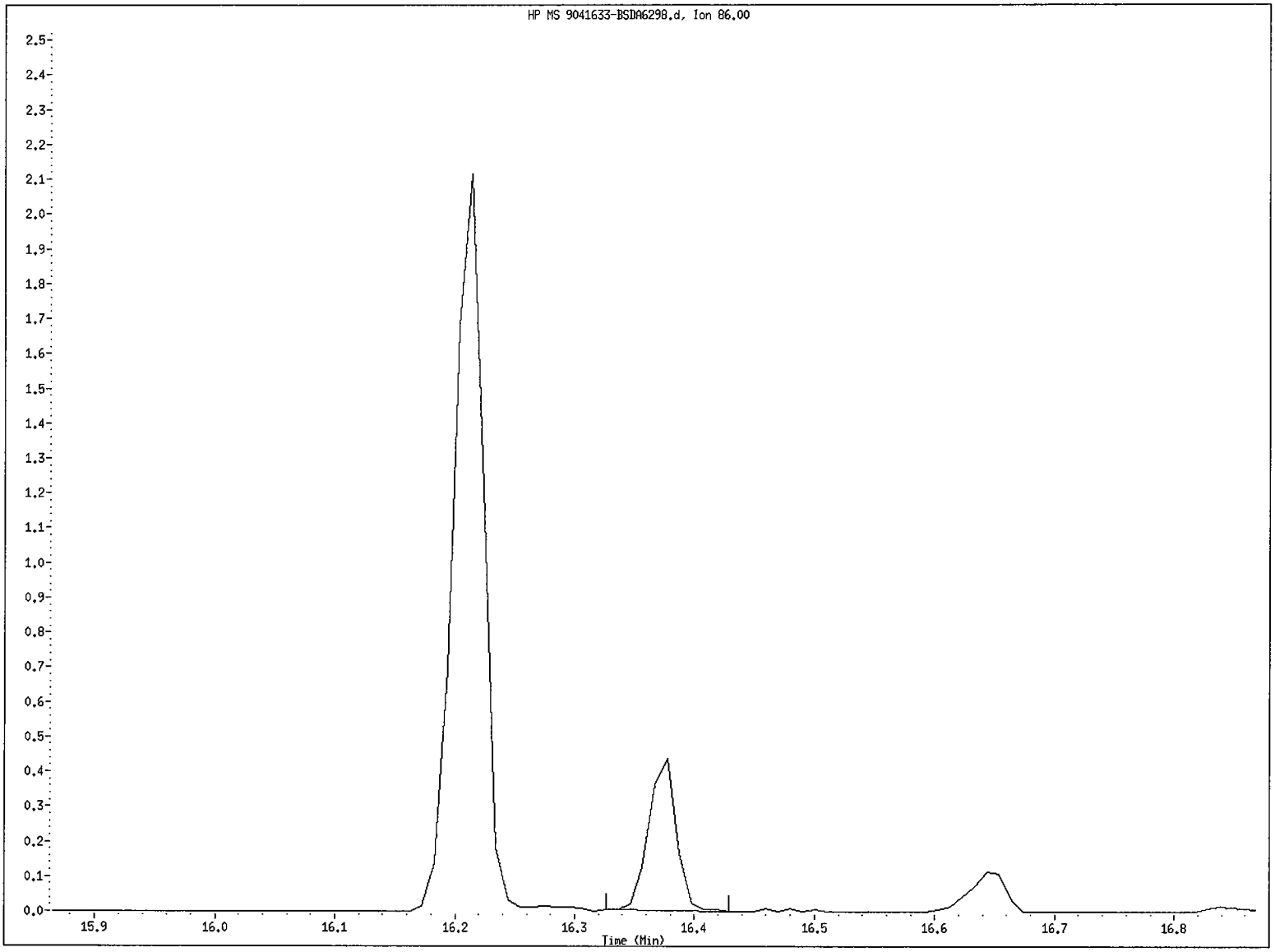
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 14.69
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 144765 Manually integrat



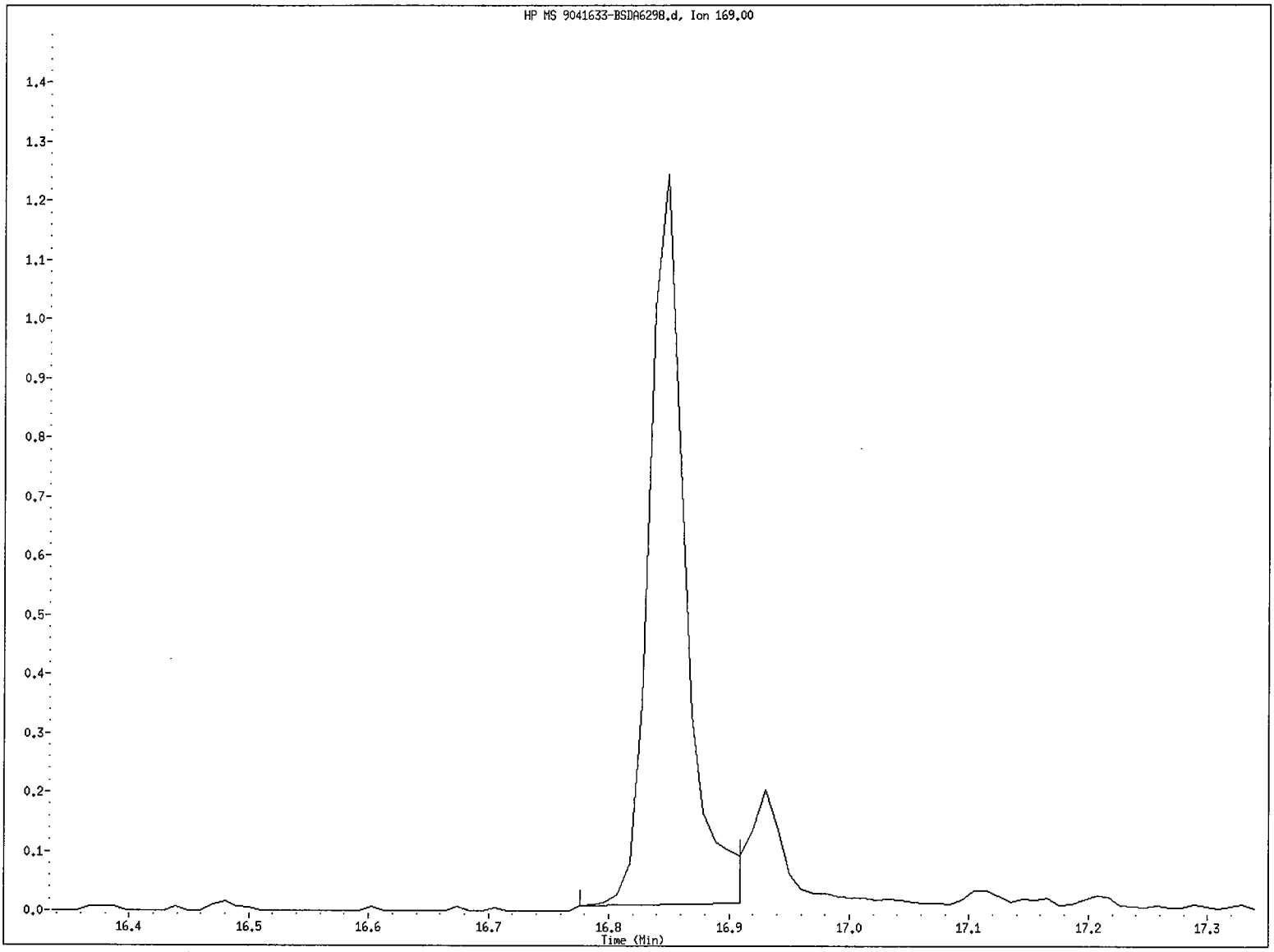
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 15.40
Operator ID: 2650

Diallate (cis isomer) CAS Number 17708-57-5 Area = 69938 Manually integrated



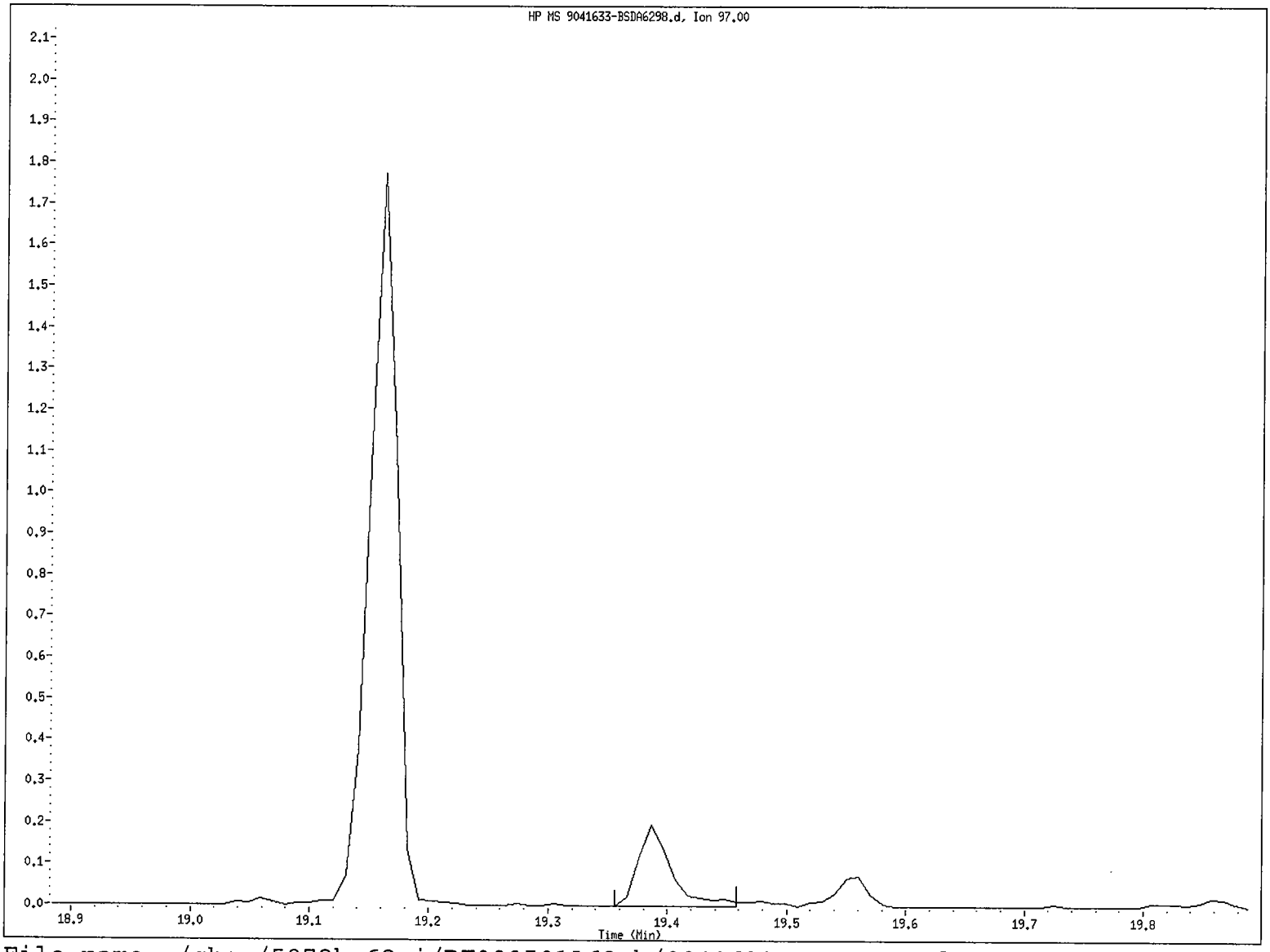
File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 16.38
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 257529 Manually integrated



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 16.85
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 38120 User selected hit



File name: /chem/5972hp62.i/DF090501A62.b/9041633-BSDA6298.d
Client ID: SGVLCSD
Instrument ID: 5972hp62.i
Injection Date and Time: 01-MAY-2009 19:07
Retention Time: 19.39
Operator ID: 2650

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

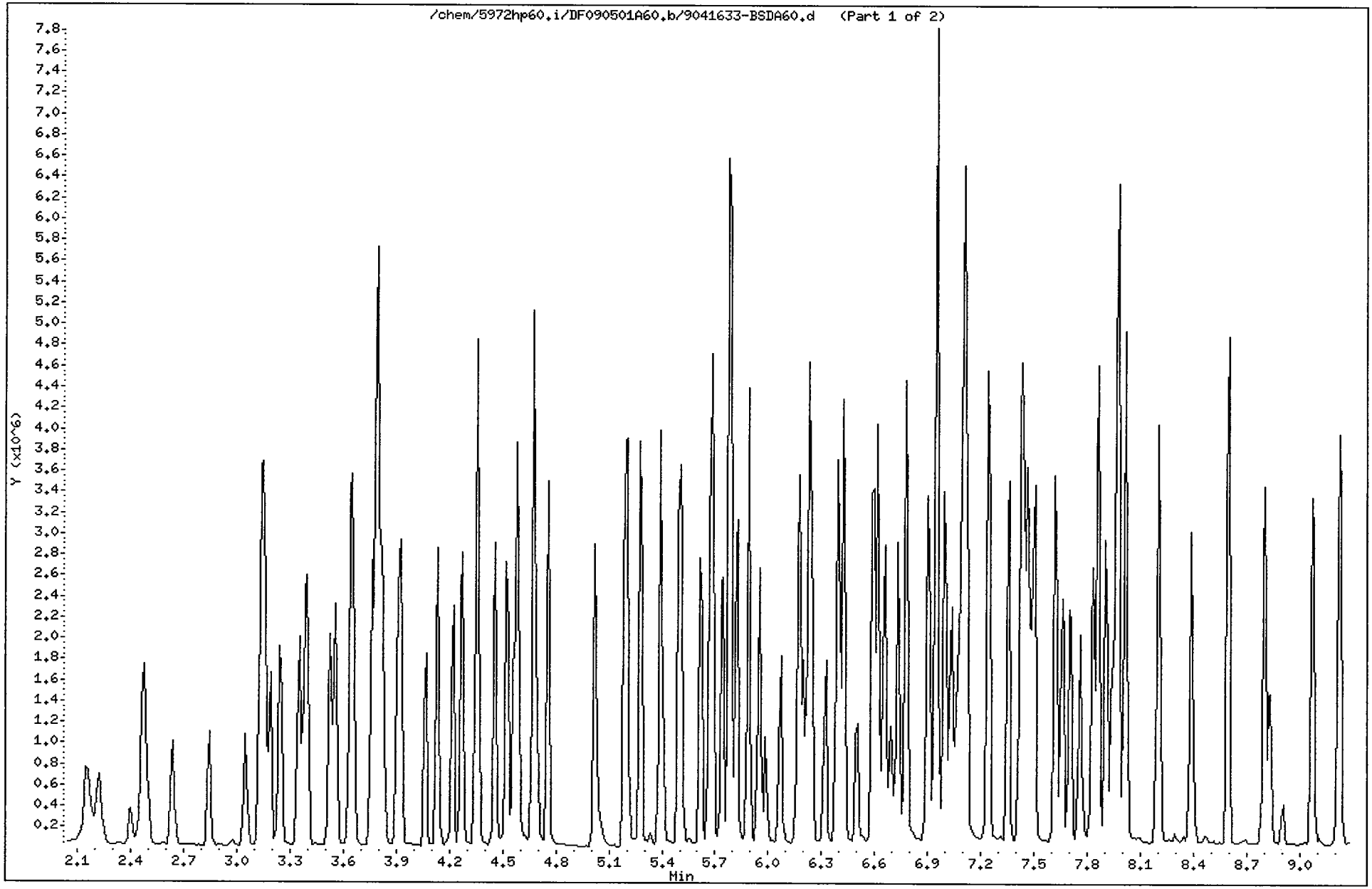
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

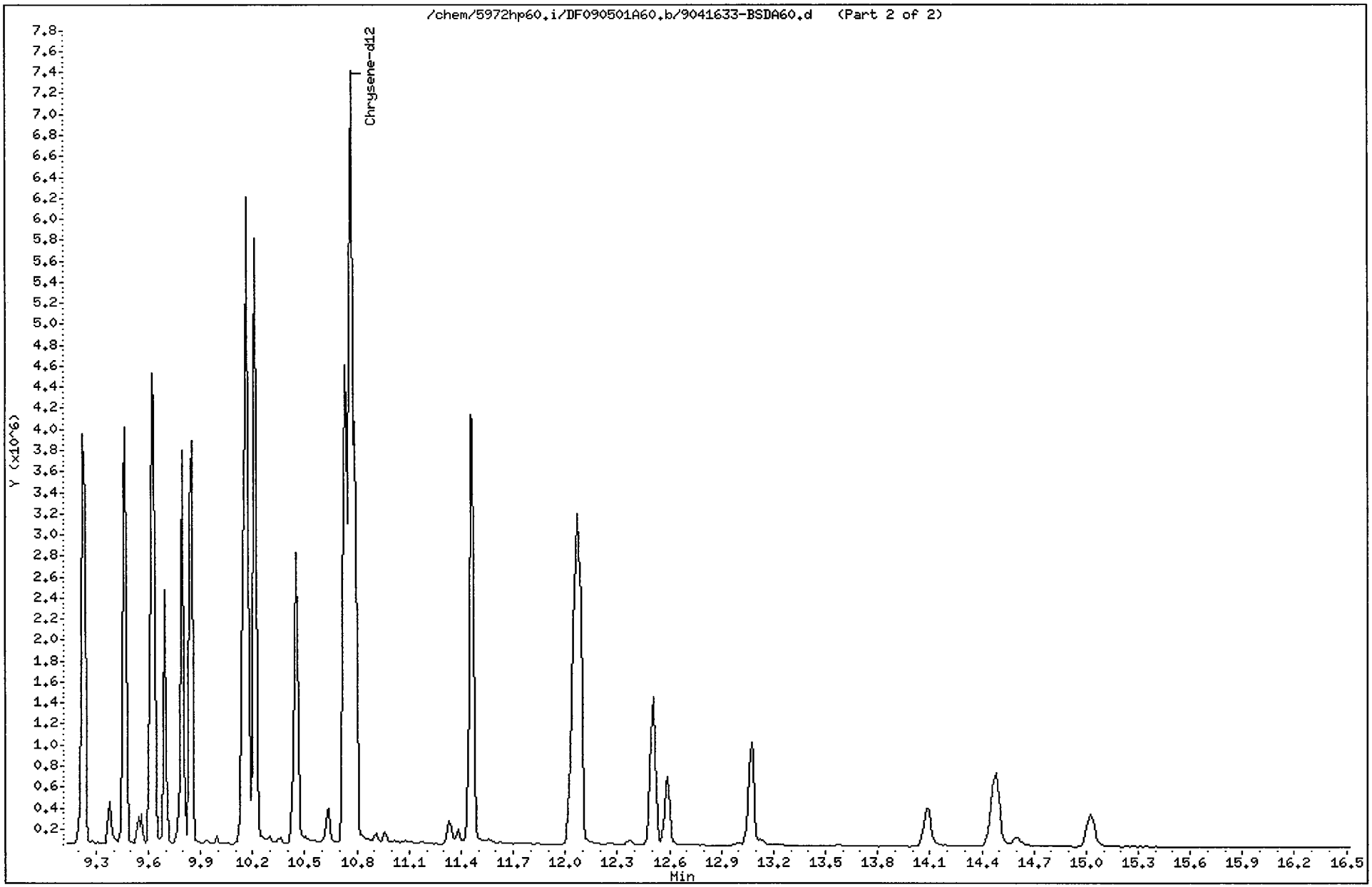
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	15	

Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BSDA60.d
Date : 01-MAY-2009 23:33
Client ID: SGVLCSD
Instrument: 5972hp60.i
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BSDA60.d
Date : 01-MAY-2009 23:33
Client ID: SGVLCSD
Instrument: 5972hp60.i
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-BSDA60.d
Report Date: 04-May-2009 11:02

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/9041633-BSDA60.d
Lab Smp Id: 9041633-BSD Client Smp ID: SGVLCSD
Inj Date : 01-MAY-2009 23:33
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-BSD:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 11:01 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 26 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.759	10.746	(1.000)	828494	40.0000		
127 Famfur	218	10.145	10.132	(0.943)	432675	30.8705	15	8647

05/14/09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SGVLCSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-BSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9041633-BSDA60

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

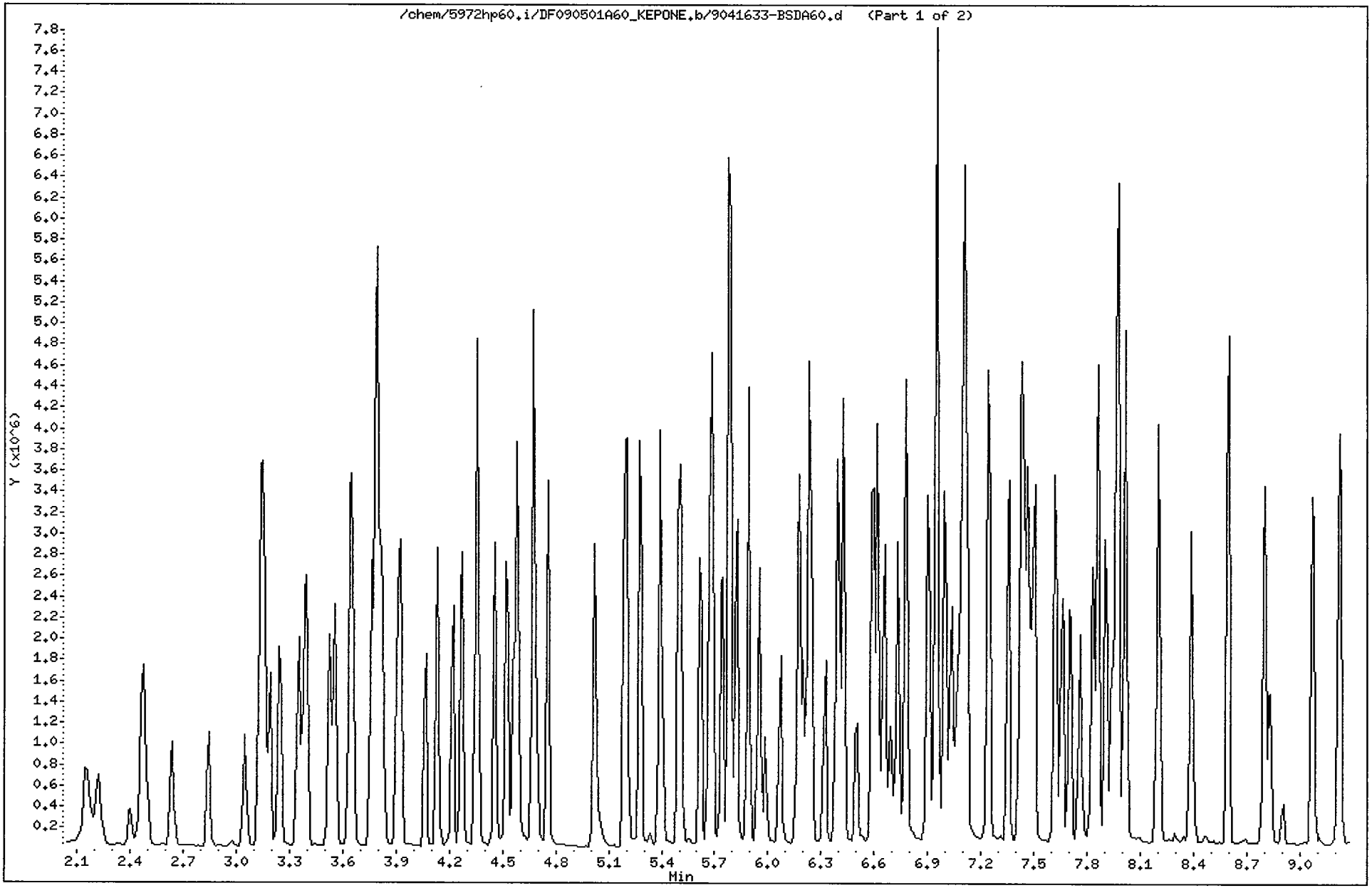
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/01/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

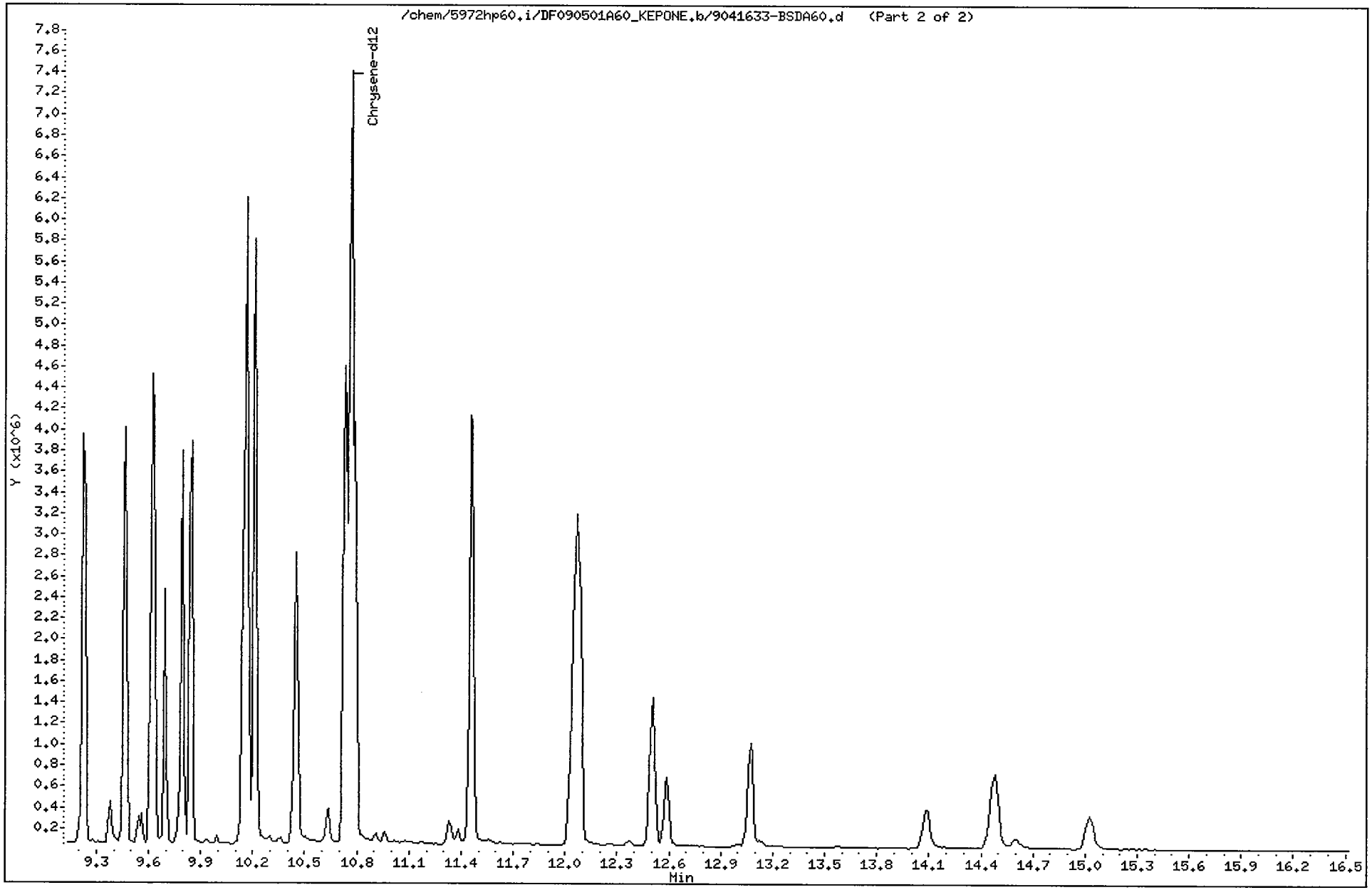
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	14	

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSDA60.d
Date : 01-MAY-2009 23:33
Client ID: SGVLCSD
Instrument: 5972hp60.i
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSDA60.d
Date : 01-MAY-2009 23:33
Client ID: SGVLCSD
Instrument: 5972hp60.i
Sample Info: 9041633-BSD:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSDA60.d
Report Date: 04-May-2009 14:08

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSDA60.d
Lab Smp Id: 9041633-BSD Client Smp ID: SGVLCSD
Inj Date : 01-MAY-2009 23:33
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-BSD:2650
Misc Info :
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 13:26 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 26 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

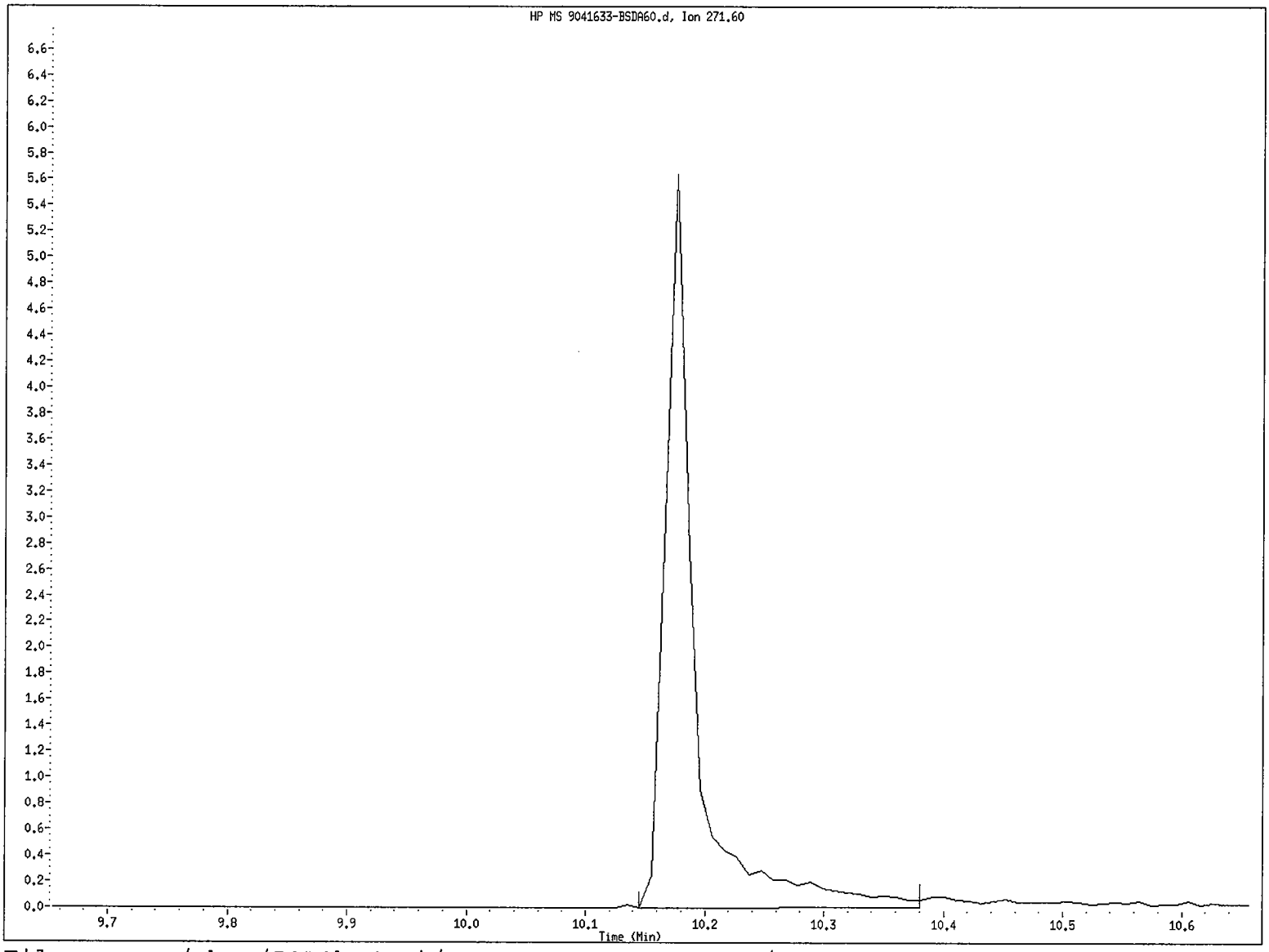
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.759	10.741	(1.000)	828494	40.0000		
126 Kepone	272	10.176	10.158	(0.946)	99085	28.1124	14	9695(M)

QC Flag Legend

M - Compound response manually integrated.

Kepone CAS Number 143-50-0 Area = 99085 Manually integrated



File name: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-BSDA60.d
Client ID: SGVLCSD
Instrument ID: 5972hp60.i
Injection Date and Time: 01-MAY-2009 23:33
Retention Time: 10.18
Operator ID: 2650

d. Matrix Spike Data

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	31	
110-86-1	Pyridine	31	
109-06-8	2-Picoline	34	
10595-95-6	Nitrosomethylethylamine	42	
66-27-3	Methyl Methanesulfonate	35	
55-18-5	N-Nitrosodiethylamine	41	
62-50-0	Ethyl Methanesulfonate	43	
108-95-2	Phenol	18	
62-53-3	Aniline	40	
111-44-4	Bis(2-chloroethyl)ether	44	
95-57-8	2-Chlorophenol	35	
100-51-6	Benzyl Alcohol	35	
95-48-7	2-Methylphenol	35	
108-60-1	2,2'-oxybis(1-Chloropropane)	62	
930-55-2	N-Nitrosopyrrolidine	54	
108-39-4	3-Methylphenol	35	
106-44-5	4-Methylphenol	35	
1319-77-3	3-4-Methylphenol	35	
621-64-7	N-Nitroso-di-N-propylamine	48	
98-86-2	Acetophenone	35	
59-89-2	N-Nitrosomorpholine	41	
95-53-4	o-Toluidine	40	
67-72-1	Hexachloroethane	34	
98-95-3	Nitrobenzene	43	
100-75-4	N-Nitrosopiperidine	37	
78-59-1	Isophorone	46	
88-75-5	2-Nitrophenol	34	
105-67-9	2,4-Dimethylphenol	32	
126-68-1	o,o,o-Triethylphosphorothioa	33	
111-91-1	Bis(2-chloroethoxy)methane	38	
120-83-2	2,4-Dichlorophenol	34	
106-47-8	4-Chloroaniline	38	
87-65-0	2,6-Dichlorophenol	34	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	25	
924-16-3	N-Nitroso-di-n-butylamine	44	
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	34	
94-59-7	Safrole	33	
91-57-6	2-Methylnaphthalene	37	
77-47-4	Hexachlorocyclopentadiene	30	
95-94-3	1,2,4,5-Tetrachlorobenzene	29	
88-06-2	2,4,6-Trichlorophenol	33	
95-95-4	2,4,5-Trichlorophenol	34	
120-58-1	Isosafrole	33	
91-58-7	2-Chloronaphthalene	36	
88-74-4	2-Nitroaniline	53	
130-15-4	1,4-Napthoquinone	38	
131-11-3	Dimethylphthalate	36	
208-96-8	Acenaphthylene	37	
99-09-2	3-Nitroaniline	45	
83-32-9	Acenaphthene	36	
51-28-5	2,4-Dinitrophenol	43	
100-02-7	4-Nitrophenol	18	
608-93-5	Pentachlorobenzene	31	
132-64-9	Dibenzofuran	36	
134-32-7	1-Naphthylamine	81	
58-90-2	2,3,4,6-Tetrachlorophenol	33	
91-59-8	2-Naphthylamine	74	
84-66-2	Diethylphthalate	36	
297-97-2	Zinophos	35	
7005-72-3	4-Chlorophenyl-phenylether	32	
99-55-8	5-Nitro-o-toluidine	42	
86-73-7	Fluorene	38	
100-01-6	4-Nitroaniline	47	
534-52-1	4,6-Dinitro-2-methylphenol	42	
86-30-6	N-Nitrosodiphenylamine (1)	38	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	33	
17708-58-6	Diallate (trans isomer)	22	
298-02-2	Phorate	39	
62-44-2	Phenacetin	37	
17708-57-5	Diallate (cis isomer)	11	
101-55-3	4-Bromophenyl-phenylether	28	
118-74-1	Hexachlorobenzene	33	
60-51-5	Dimethoate	42	
92-67-1	4-Aminobiphenyl	40	
87-86-5	Pentachlorophenol	42	
82-68-8	Pentachloronitrobenzene	31	
23950-58-5	Pronamide	38	
298-04-4	Disulfoton	42	
85-01-8	Phenanthrene	39	
120-12-7	Anthracene	38	
298-00-0	Methyl Parathion	47	
84-74-2	Di-n-butylphthalate	36	
56-38-2	Parathion	40	
56-57-5	4-Nitroquinoline-1-oxide	40	
91-80-5	Methapyrilene	89	E
465-73-6	Isodrin	35	
206-44-0	Fluoranthene	41	
129-00-0	Pyrene	37	
60-11-7	p-Dimethylaminoazobenzene	36	
510-15-6	Chlorobenzilate	25	
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	38	
119-93-7	3,3'-Dimethylbenzidine	58	
53-96-3	2-Acetylaminofluorene	31	
91-94-1	3,3'-Dichlorobenzidine	34	
117-81-7	bis(2-ethylhexyl)Phthalate	37	
56-55-3	Benzo(a)anthracene	38	
218-01-9	Chrysene	38	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	35	
57-97-6	7,12-Dimethylbenz(a)anthrace	38	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	44	
50-32-8	Benzo(a)pyrene	41	
56-49-5	3-Methylcholanthrene	36	
193-39-5	Indeno(1,2,3-c,d)pyrene	36	
53-70-3	Dibenzo(a,h)anthracene	34	
191-24-2	Benzo(g,h,i)perylene	36	
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	38	
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	36	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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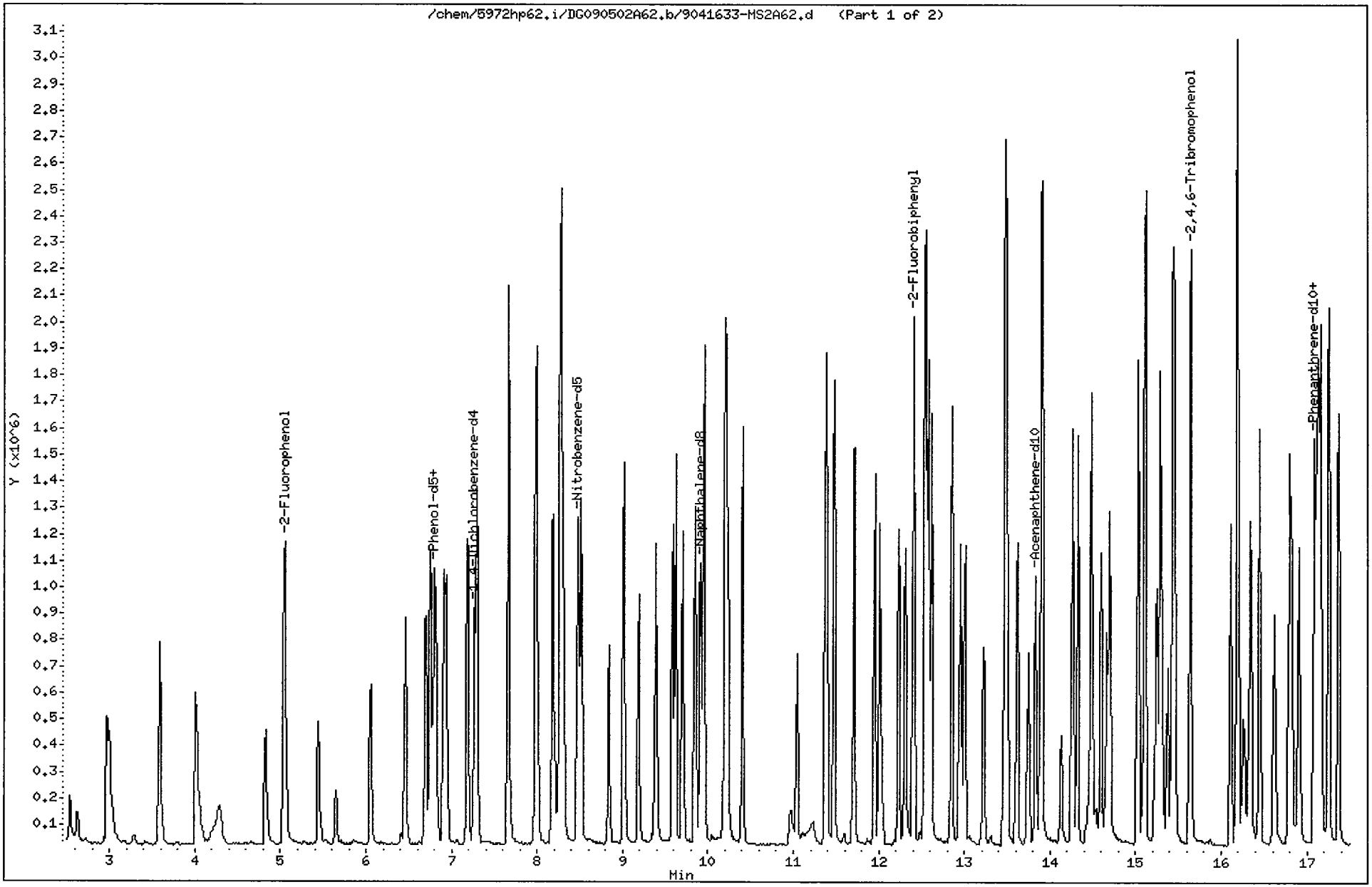
30.					

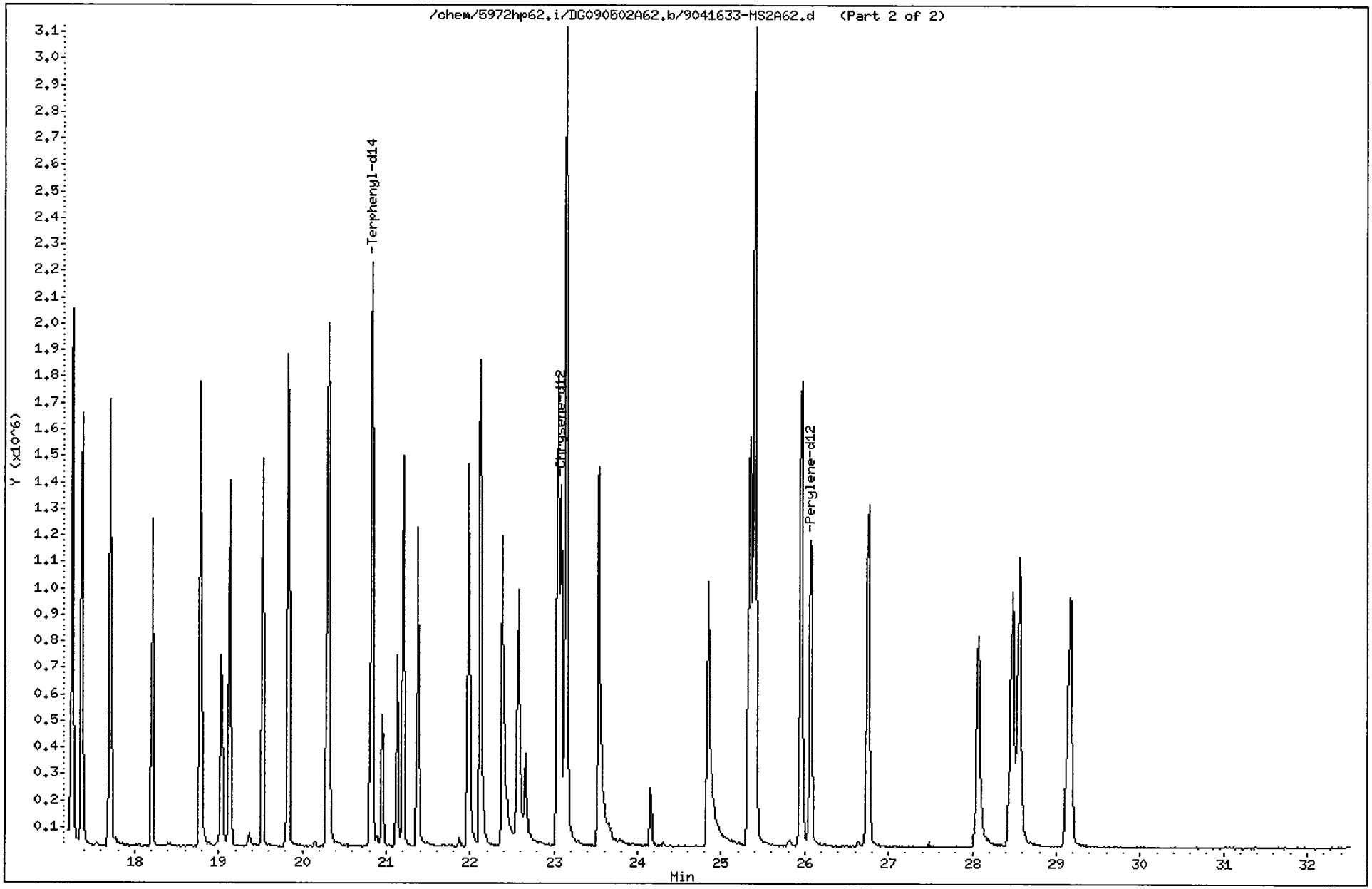
FORM I SV-TIC

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Date : 02-MAY-2009 13:59
Client ID: 13MW5MS
Instrument: 5972hp62.i
Sample Info: 9041633-MS2:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Date : 02-MAY-2009 13:59
Client ID: 13MW5MS
Sample Info: 9041633-MS2:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Report Date: 06-May-2009 17:45

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Lab Smp Id: 9041633-MS Client Smp ID: 13MW5MS
Inj Date : 02-MAY-2009 13:59
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-MS2:2650
Misc Info : 13MW5MS02
Comment   : 2008 MDLS SOIL/ 2007 WATER
Method   : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:45 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.264	7.263	(1.000)	218330	40.0000		
*	2 Naphthalene-d8	136	9.915	9.914	(1.000)	779293	40.0000		
*	3 Acenaphthene-d10	164	13.825	13.824	(1.000)	396123	40.0000		
*	4 Phenanthrene-d10	188	17.110	17.110	(1.000)	660431	40.0000		
*	5 Chrysene-d12	240	23.088	23.087	(1.000)	827078	40.0000		
*	6 Perylene-d12	264	26.077	26.066	(1.000)	881868	40.0000		
$	7 2-Fluorophenol	112	5.053	5.052	(0.696)	698642	130.122	67	
$	8 Phenol-d5	99	6.803	6.802	(0.937)	557137	84.4744	43	
$	11 Nitrobenzene-d5	82	8.482	8.481	(0.855)	705962	96.7645	50	
$	12 2-Fluorobiphenyl	172	12.412	12.401	(0.898)	1009525	80.0028	41	
$	13 2,4,6-Tribromophenol	330	15.647	15.636	(1.132)	647155	176.116	90	(A)
$	14 Terphenyl-d14	244	20.836	20.825	(0.902)	1235205	79.2147	41	
	15 N-Nitrosodimethylamine	42	3.006	2.995	(0.414)	171381	60.1969	31	8187
	16 Pyridine	79	2.965	2.964	(0.408)	385289	60.3008	31	9246
	18 2-Picoline	93	4.009	3.998	(0.552)	430643	65.8483	34	9200

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Report Date: 06-May-2009 17:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	4.285	4.285	(0.590)	191219	82.0041	42	9250
20 Methyl Methanesulfonate	80	4.828	4.827	(0.665)	291765	67.6338	35	9155
21 N-Nitrosodiethylamine	102	5.442	5.441	(0.749)	151879	79.5187	41	9358
22 Ethyl Methanesulfonate	79	6.056	6.055	(0.834)	440822	84.2704	43	9345
23 Phenol	94	6.823	6.823	(0.939)	243814	35.7611	18	
24 Aniline	93	6.752	6.751	(0.930)	696540	78.5490	40	8796
25 Bis(2-chloroethyl)ether	93	6.905	6.915	(0.951)	505127	86.0965	44	(R)
27 2-Chlorophenol	128	6.936	6.936	(0.955)	424506	68.3435	35	9506
30 Benzyl Alcohol	108	7.663	7.672	(1.055)	236406	67.6814	35	
32 2-Methylphenol	108	7.990	7.990	(1.100)	333615	68.3112	35	
33 2,2'-oxybis(1-Chloropropane)	45	7.980	7.980	(1.099)	889281	121.414	62	8766(R)
34 N-Nitrosopyrrolidine	100	8.205	8.215	(1.130)	124391	104.377	54	4090
35 3-Methylphenol	108	8.308	8.317	(1.144)	356690	67.8144	35	(M)
36 4-Methylphenol	108	8.308	8.317	(1.144)	356690	67.8144	35	(M)
37 3-4-Methylphenol	108	8.308	8.317	(1.144)	363692	68.9068	35	9156
38 N-Nitroso-di-N-propylamine	70	8.287	8.287	(1.141)	215837	94.0627	48	8520(R)
39 Acetophenone	105	8.185	8.184	(0.826)	594338	67.8547	35	0(M)
40 N-Nitrosomorpholine	116	8.256	8.256	(1.137)	46166	79.6026	41	0(M)
41 o-Toluidine	106	8.277	8.276	(1.139)	603771	78.5421	40	9034
42 Hexachloroethane	117	8.267	8.266	(1.138)	216243	65.3671	34	9713
43 Nitrobenzene	77	8.512	8.512	(0.859)	587502	84.6431	43	9263
44 N-Nitrosopiperidine	114	8.840	8.839	(0.892)	198468	73.1239	37	9373
45 Isophorone	82	9.014	9.013	(0.909)	1066145	89.8292	46	9080(R)
46 2-Nitrophenol	139	9.188	9.187	(0.927)	254366	67.1716	34	8711
47 2,4-Dimethylphenol	122	9.393	9.392	(0.947)	298875	62.8696	32	8922
49 o,o,o-Triethylphosphorothioat	198	9.628	9.627	(0.971)	177815	63.6865	33	8942
50 Bis(2-chloroethoxy)methane	93	9.587	9.587	(0.967)	625279	73.8187	38	8928
51 2,4-Dichlorophenol	162	9.700	9.709	(0.978)	363512	65.8438	34	
54 4-Chloroaniline	127	10.211	10.211	(1.030)	532514	73.2786	38	8868
55 2,6-Dichlorophenol	162	10.201	10.201	(1.029)	354960	66.7604	34	
56 Hexachloropropene	213	10.232	10.231	(1.032)	259114	49.4320	25	9411
58 N-Nitroso-di-n-butylamine	84	11.041	11.040	(1.114)	198326	85.6497	44	9117
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.378	11.368	(1.148)	337083	67.3255	34	8964
61 Safrole	162	11.389	11.388	(1.149)	290576	63.6206	33	9186
62 2-Methylnaphthalene	141	11.481	11.480	(1.158)	665147	72.2144	37	
64 Hexachlorocyclopentadiene	237	12.013	12.012	(0.869)	307892	57.9683	30	9565
65 1,2,4,5-Tetrachlorobenzene	216	11.952	11.951	(0.865)	406158	56.7525	29	9463
66 2,4,6-Trichlorophenol	196	12.228	12.227	(0.884)	262357	64.6175	33	
67 2,4,5-Trichlorophenol	196	12.310	12.299	(0.890)	303721	66.9354	34	
68 Isosafrole	162	12.044	12.043	(0.871)	51675	65.1817	33	
69 2-Chloronaphthalene	162	12.545	12.545	(0.907)	1105735	71.3369	36	
70 2-Nitroaniline	65	12.955	12.954	(0.937)	362137	103.113	53	8904(R)
71 1,4-Napthoquinone	158	13.006	13.005	(0.941)	355548	73.1893	38	9285
72 Dimethylphthalate	163	13.497	13.497	(0.976)	852854	71.1040	36	9519
75 Acenaphthylene	152	13.477	13.476	(0.975)	1214021	71.5389	37	8084
76 3-Nitroaniline	138	13.907	13.896	(1.006)	249751	87.5223	45	8983

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Report Date: 06-May-2009 17:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	13.907	13.896	(1.006)	680436	71.0773	36	9243
78 2,4-Dinitrophenol	184	14.132	14.131	(1.022)	99619	83.2703	43	(R)
79 4-Nitrophenol	139	14.459	14.418	(1.046)	78575	35.0453	18	0 (M)
80 Pentachlorobenzene	250	14.326	14.326	(1.036)	420961	60.7414	31	9603
82 Dibenzofuran	168	14.265	14.264	(1.032)	1105976	70.9358	36	9338
83 1-Naphthylamine	143	14.490	14.479	(1.048)	501104	157.576	81	(R)
84 2,3,4,6-Tetrachlorophenol	232	14.695	14.694	(1.063)	230728	64.0259	33	9604
85 2-Naphthylamine	143	14.664	14.663	(1.061)	492423	144.364	74	(R)
86 Diethylphthalate	149	15.114	15.104	(1.093)	883586	69.3589	36	7806
87 Zinophos	97	15.288	15.288	(1.106)	233664	69.1013	35	9210
88 4-Chlorophenyl-phenylether	204	15.114	15.114	(1.093)	388294	62.0674	32	7901
89 5-Nitro-o-toluidine	152	15.247	15.247	(1.103)	298364	81.5616	42	7183
90 Fluorene	166	15.032	15.032	(1.087)	882736	73.2263	38	7991
91 4-Nitroaniline	138	15.309	15.308	(1.107)	282470	91.2671	47	8746 (R)
92 4,6-Dinitro-2-methylphenol	198	15.380	15.380	(0.899)	175408	82.8775	42	9351
93 N-Nitrosodiphenylamine	169	15.432	15.431	(0.902)	708465	74.0549	38	8958
96 Sulfotep	322	16.117	16.117	(1.166)	156156	64.5851	33	9014
98 Diallate (trans isomer)	86	16.189	16.189	(0.946)	347979	42.2974	22	
99 Diallate (trans) part of total	86	16.189	16.189	(0.946)	347979	42.2974	22	9211
100 Phorate	75	16.199	16.199	(0.947)	625018	75.8156	39	9176
101 Phenacetin	108	16.343	16.342	(0.955)	474494	71.7011	37	9047
102 Diallate (cis isomer)	86	16.353	16.352	(0.956)	59608	22.3370	11	(M)
103 Diallate (cis) part of total	86	16.353	16.352	(0.956)	61393	22.8440	12	6248 (H)
104 4-Bromophenyl-phenylether	248	16.189	16.189	(0.946)	238537	55.5989	28	8112
105 Hexachlorobenzene	284	16.455	16.455	(0.962)	438252	65.2083	33	9052
106 Dimethoate	87	16.629	16.618	(0.972)	351431	82.8458	42	9231
107 4-Aminobiphenyl	169	16.824	16.823	(0.983)	684828	77.7103	40	0 (M)
108 Pentachlorophenol	266	16.916	16.905	(0.989)	261297	82.0047	42	7729 (R)
109 Pentachloronitrobenzene	237	17.090	17.089	(0.999)	128444	60.5246	31	7427
110 Pronamide	173	17.131	17.140	(1.001)	435012	73.8938	38	9649
111 Disulfoton	88	17.376	17.376	(1.016)	524570	81.5324	42	9165
112 Phenanthrene	178	17.161	17.161	(1.003)	1330727	76.0498	39	
113 Anthracene	178	17.264	17.263	(1.009)	1374082	74.9692	38	
115 Methyl Parathion	109	18.216	18.205	(1.065)	372037	91.4403	47	9480
116 Di-n-butylphthalate	149	18.789	18.788	(1.098)	1633282	70.4195	36	9697
117 Parathion	109	19.137	19.136	(1.118)	224423	78.6752	40	8233
118 4-Nitroquinoline-1-oxide	190	19.045	19.034	(1.113)	133311	77.3076	40	8838
119 Methapyrilene	97	19.362	19.372	(1.132)	21898	174.297	89	9155 (ARH)
120 Isodrin	193	19.536	19.525	(1.142)	176182	68.6639	35	9277
121 Fluoranthene	202	19.833	19.832	(1.159)	1448808	80.1945	41	9677
123 Pyrene	202	20.314	20.313	(0.880)	1492112	71.6365	37	9568
124 p-Dimethylaminoazobenzene	225	21.205	21.214	(0.918)	283935	70.8622	36	9252
125 Chlorobenzilate	251	21.379	21.378	(0.926)	330183	48.1658	25	9259
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.126	22.125	(0.958)	808755	73.7187	38	9642
129 3,3'-Dimethylbenzidine	212	21.982	21.972	(0.952)	834434	113.201	58	9512

05/8/09

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Report Date: 06-May-2009 17:45

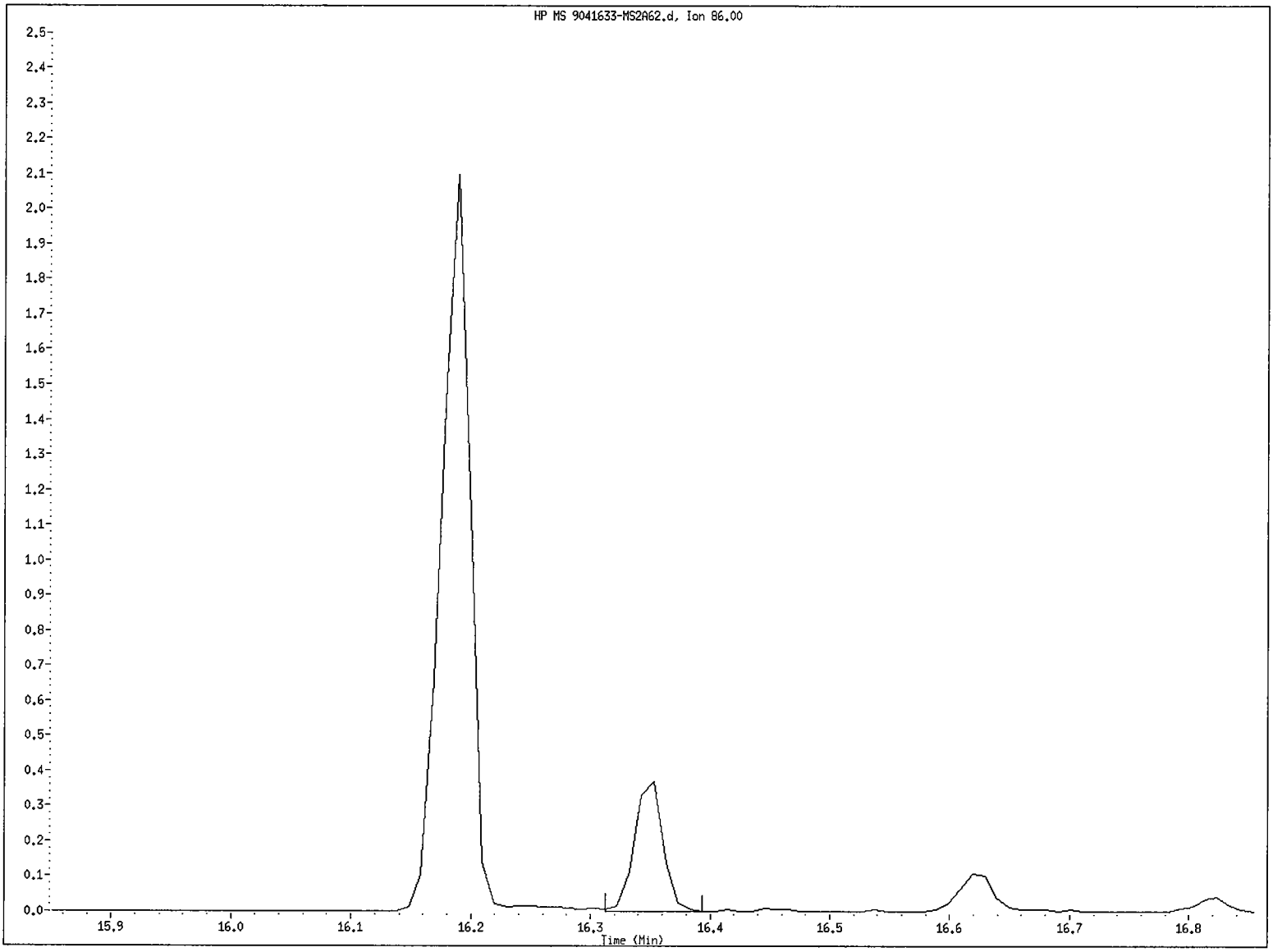
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	22.576	22.576	(0.978)	449661	60.5038	31	9316
131	3,3'-Dichlorobenzidine	252	23.149	23.149	(1.003)	494354	66.2668	34	8717
132	bis(2-ethylhexyl)Phthalate	149	23.538	23.538	(1.020)	1068708	71.7269	37	9359
133	Benzo(a)anthracene	228	23.047	23.046	(0.998)	1471017	75.0923	38	
134	Chrysene	228	23.149	23.149	(1.003)	1315646	74.9392	38	
135	Di-n-octylphthalate	149	24.848	24.838	(0.953)	1676615	67.8779	35	
136	7,12-Dimethylbenz(a)anthracene	256	25.411	25.411	(0.974)	638061	73.1916	38	9005
137	Benzo(b)fluoranthene	252	25.350	25.349	(0.972)	1688885	77.0120	39	
138	Benzo(k)fluoranthene	252	25.401	25.401	(0.974)	1655708	86.1499	44	
139	Benzo(a)pyrene	252	25.964	25.953	(0.996)	1521388	79.6586	41	
140	3-Methylcholanthrene	268	26.762	26.762	(1.026)	730975	69.6386	36	9565
141	Indeno(1,2,3-c,d)pyrene	276	28.482	28.471	(1.092)	1257353	70.7791	36	0(M)
142	Dibenzo(a,h)anthracene	278	28.564	28.553	(1.095)	1171140	66.6244	34	8026
143	Benzo(g,h,i)perylene	276	29.178	29.167	(1.119)	1335396	70.3010	36	9439
M 144	Diallate Total	86				409372	75.0147	38	0
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	21.133	21.132	(0.915)	87425	70.1205	36	8352

1 05/9/09

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 61393 User selected



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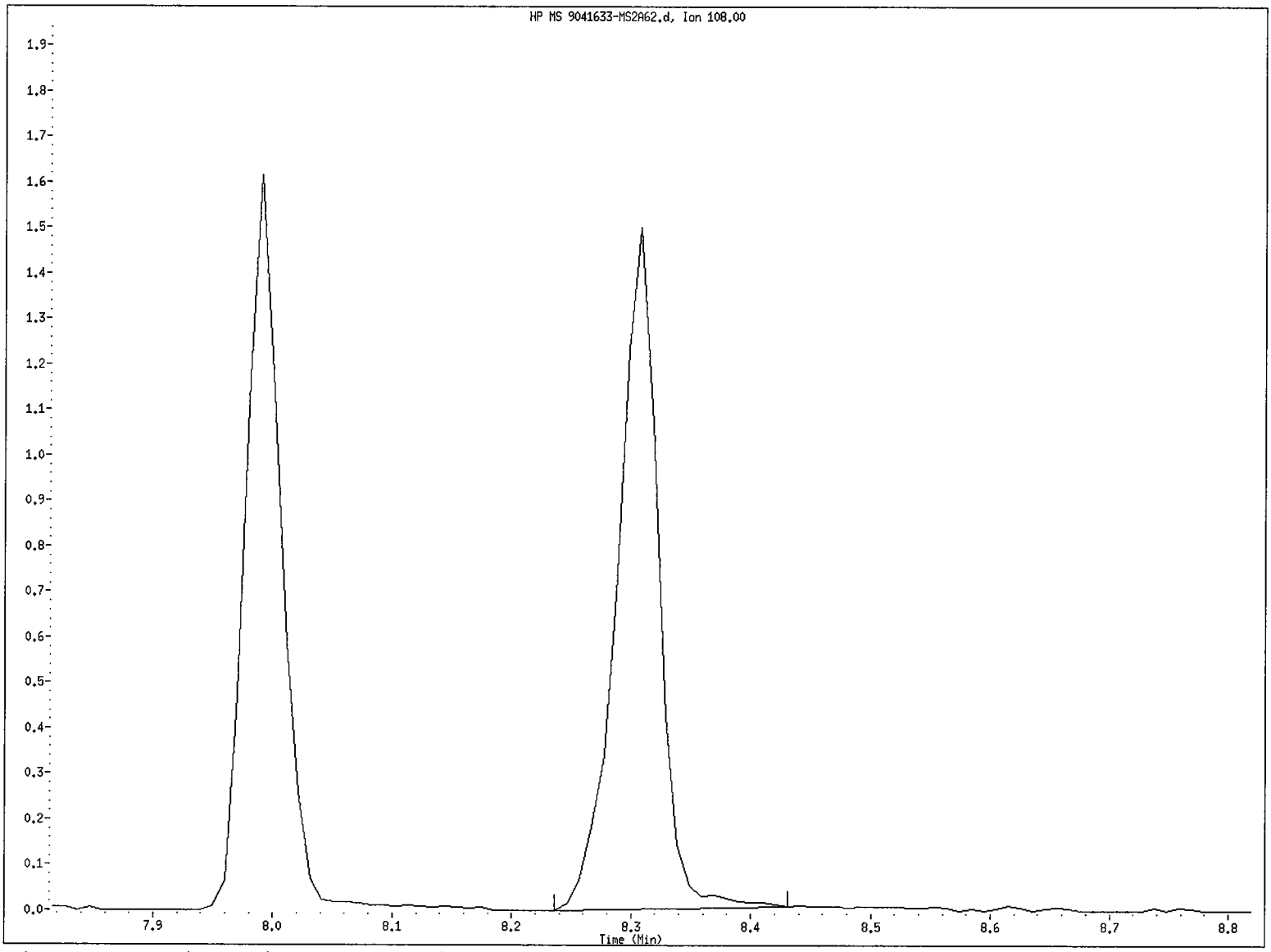
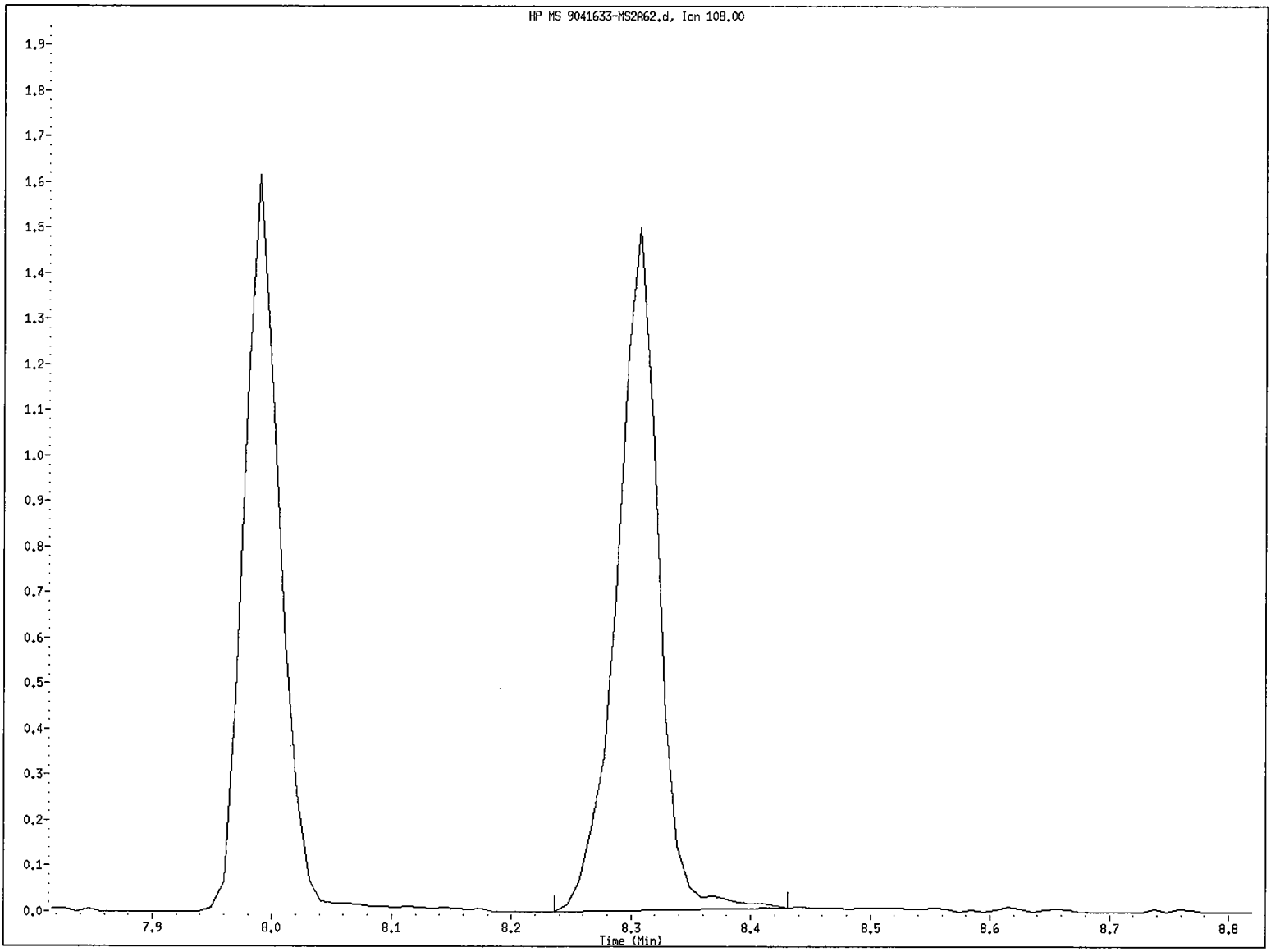
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 16.35
Operator ID: 2650

3-Methylphenol CAS Number 108-39-4 Area = 356690 Manually integrated



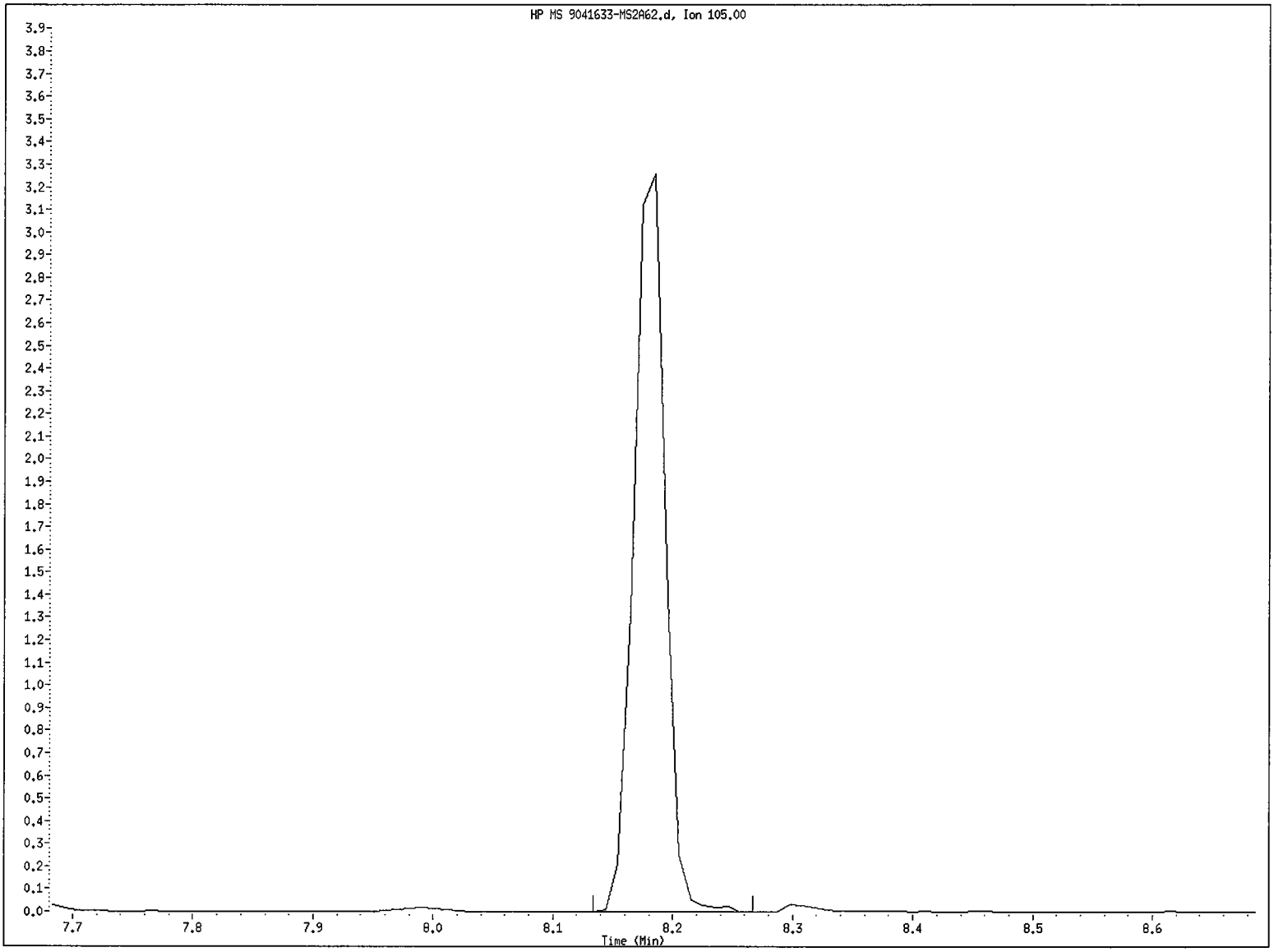
File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 8.31
Operator ID: 2650

4-Methylphenol CAS Number 106-44-5 Area = 356690 Manually integrated



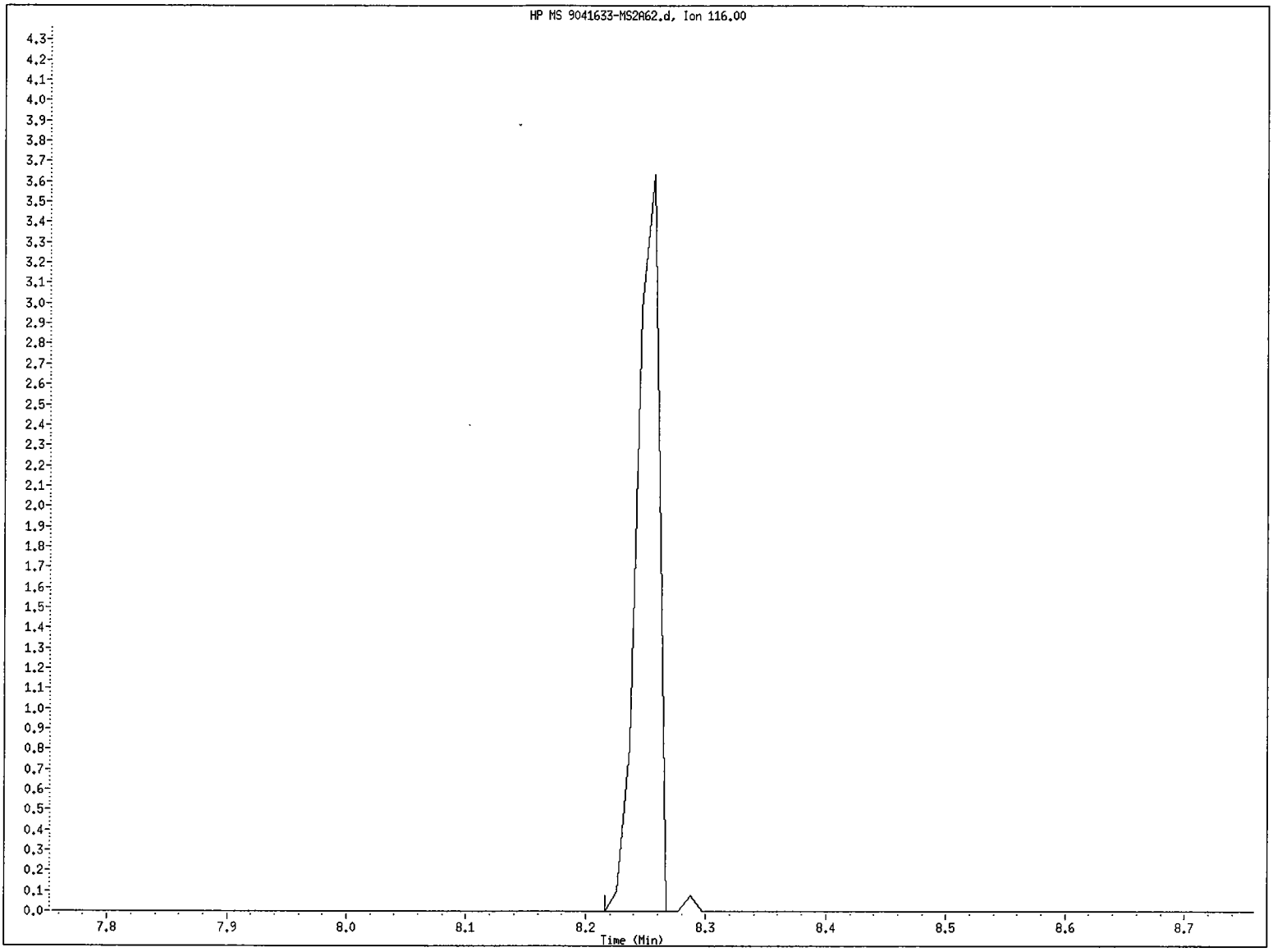
File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 8.31
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 594338 Manually integrated



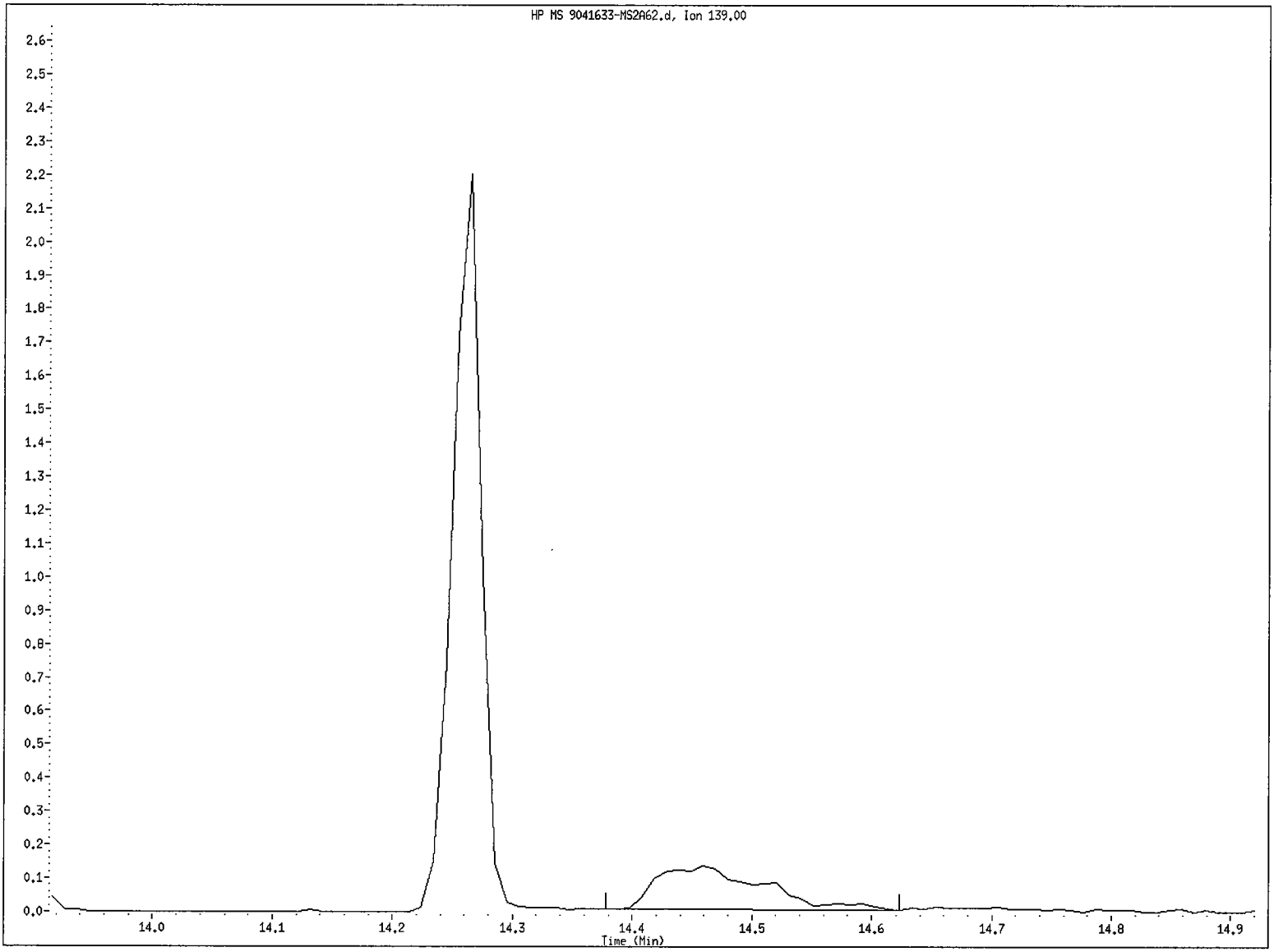
File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 8.18
Operator ID: 2650

N-Nitrosomorpholine CAS Number 59-89-2 Area = 46166 Manually integrated



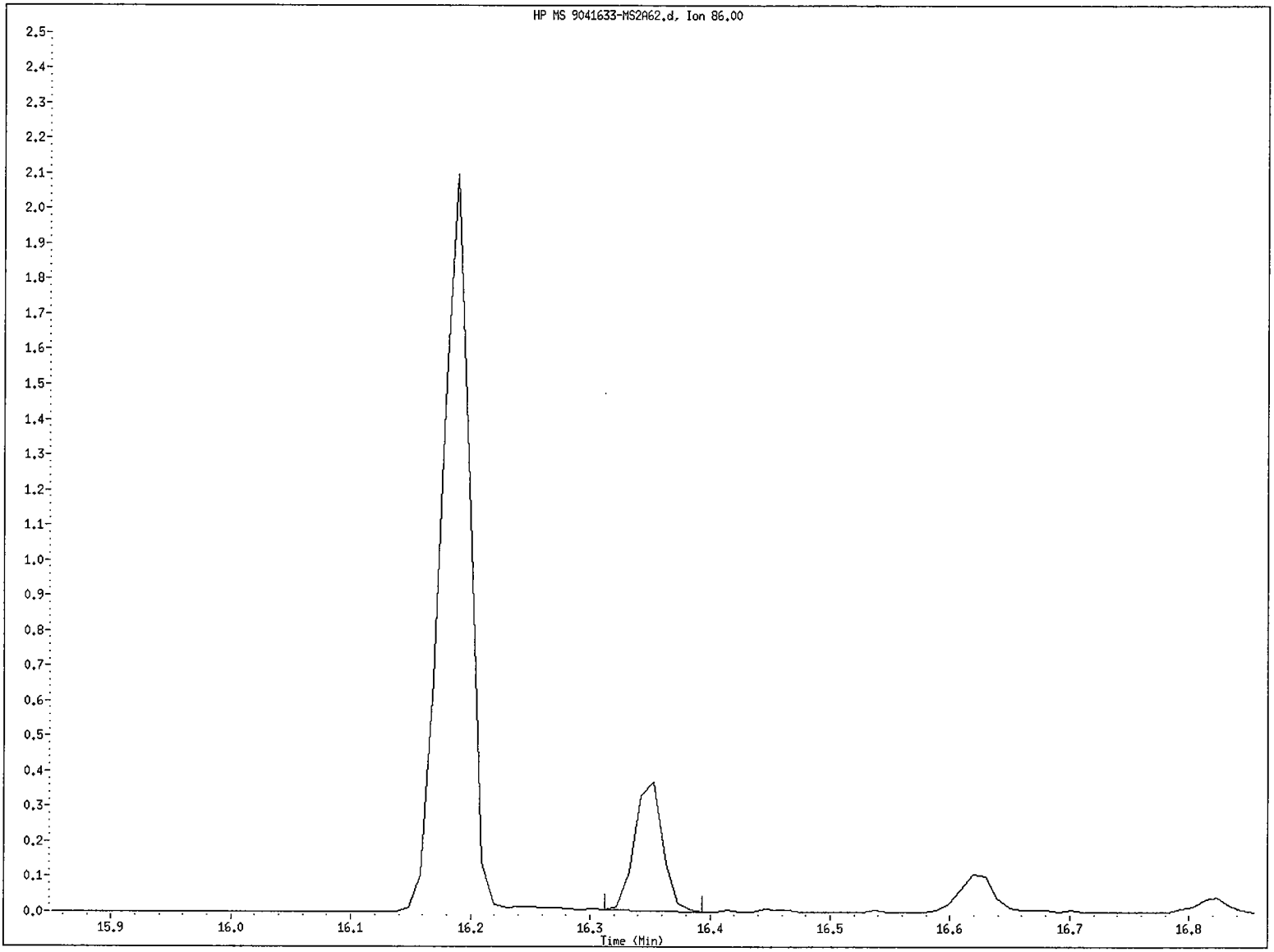
File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 8.26
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 78575 Manually integrated



File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 14.46
Operator ID: 2650

Diallate (cis isomer) CAS Number 17708-57-5 Area = 59608 Manually integrated



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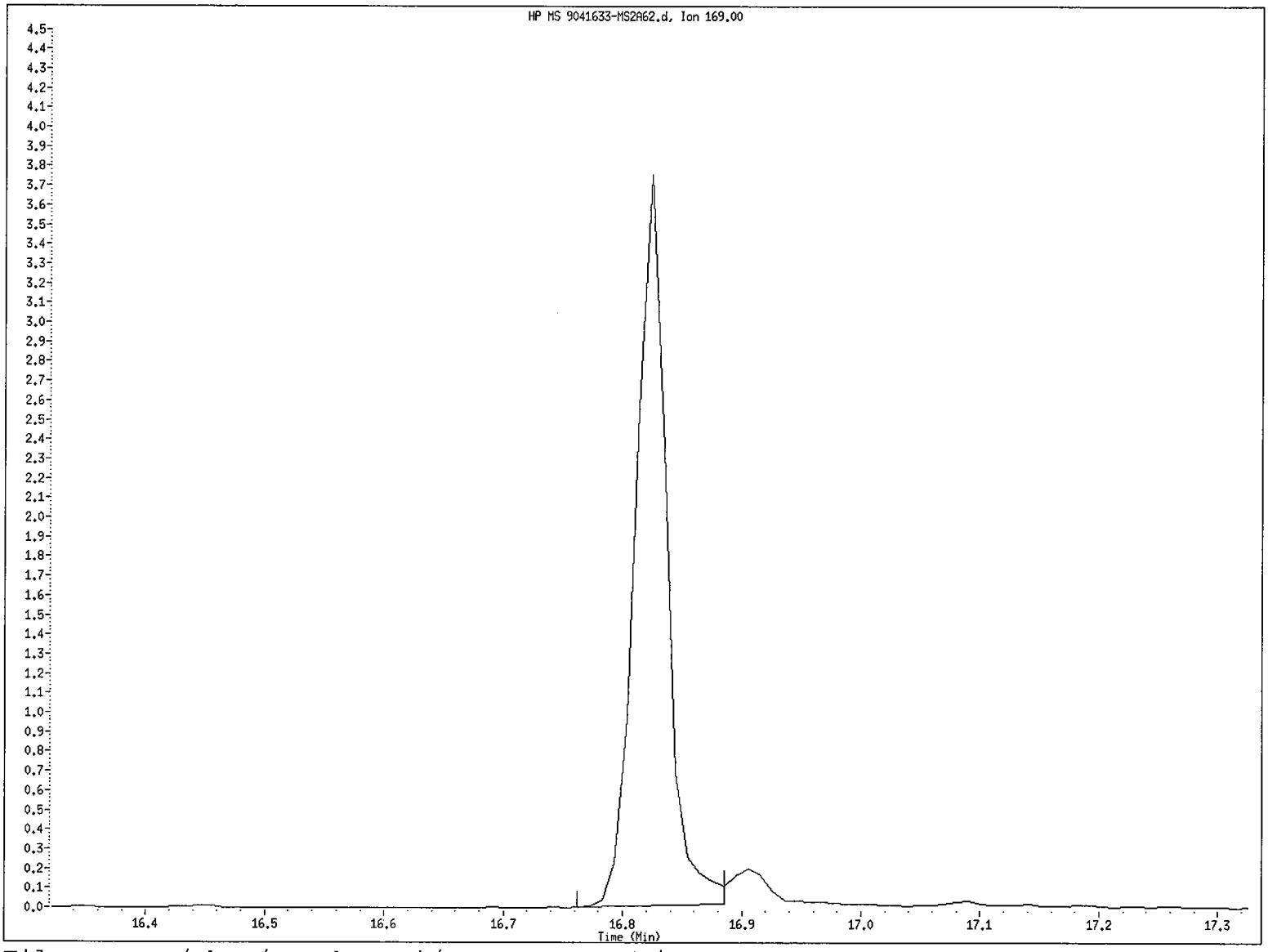
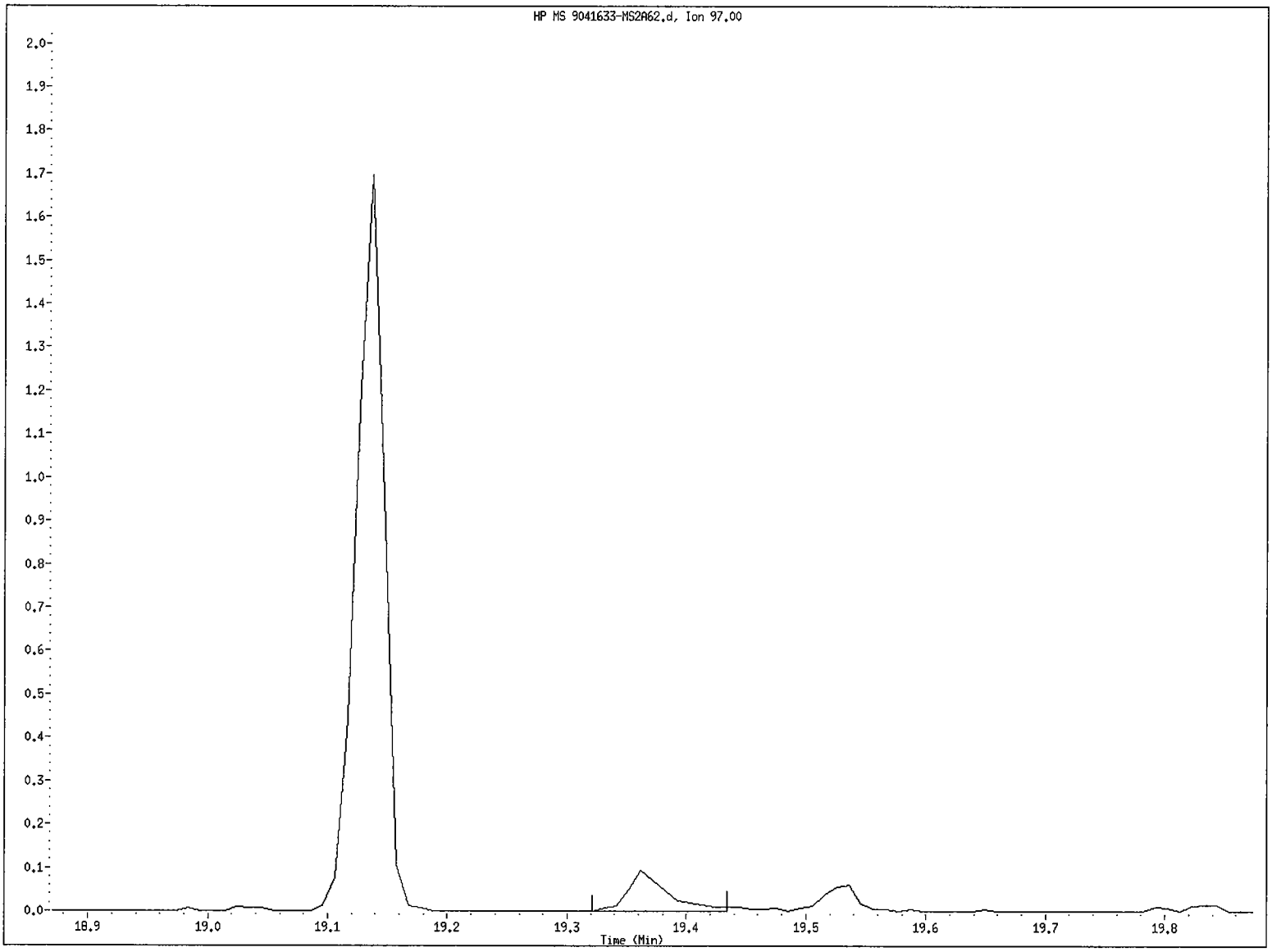
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 16.35
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 684828 Manually integrated



File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 16.82
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 21898 User selected hit



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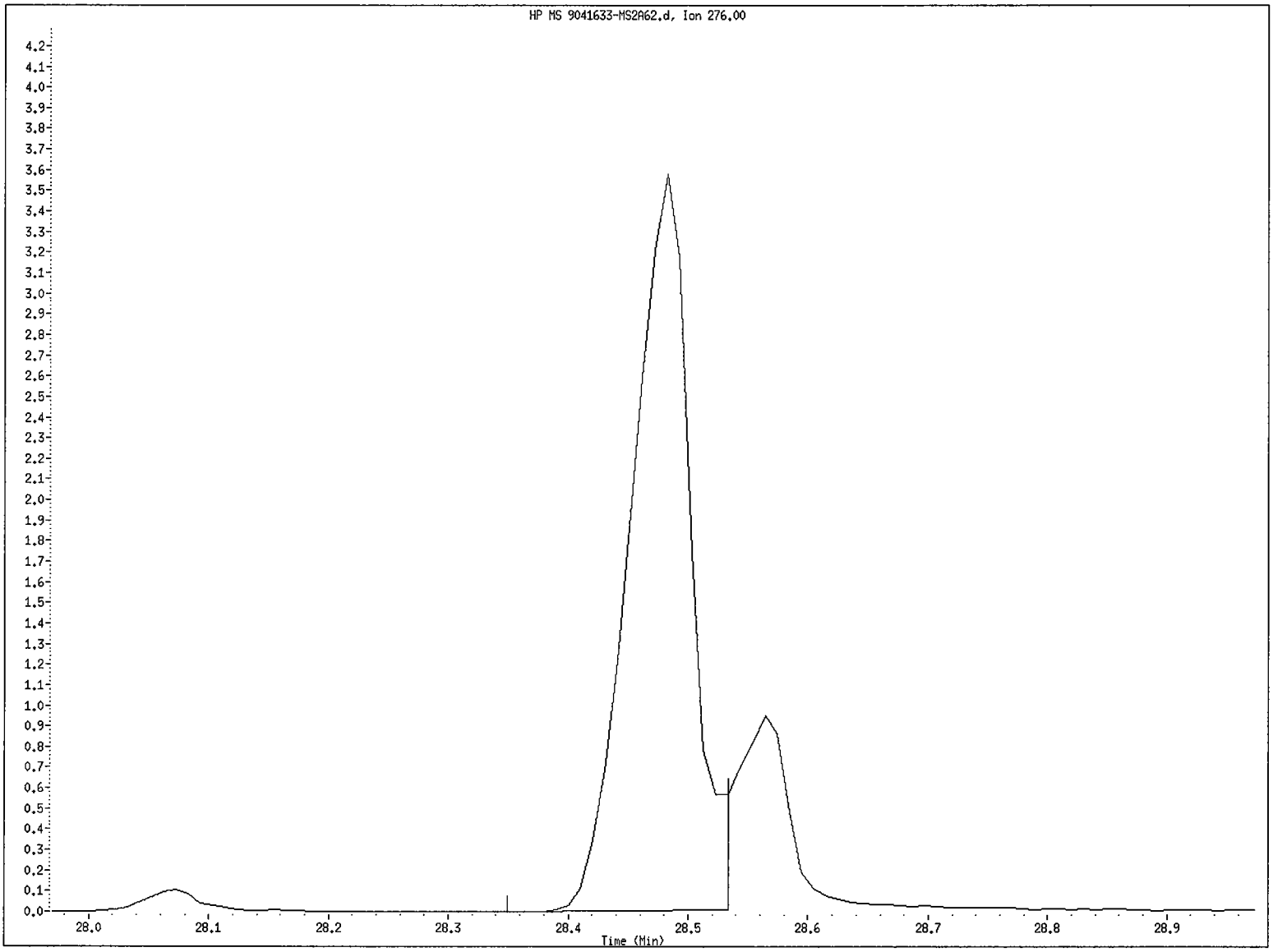
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 19.36
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1257353 Manually integrated



File name: /chem/5972hp62.i/DG090502A62.b/9041633-MS2A62.d
Client ID: 13MW5MS
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 13:59
Retention Time: 28.48
Operator ID: 2650

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

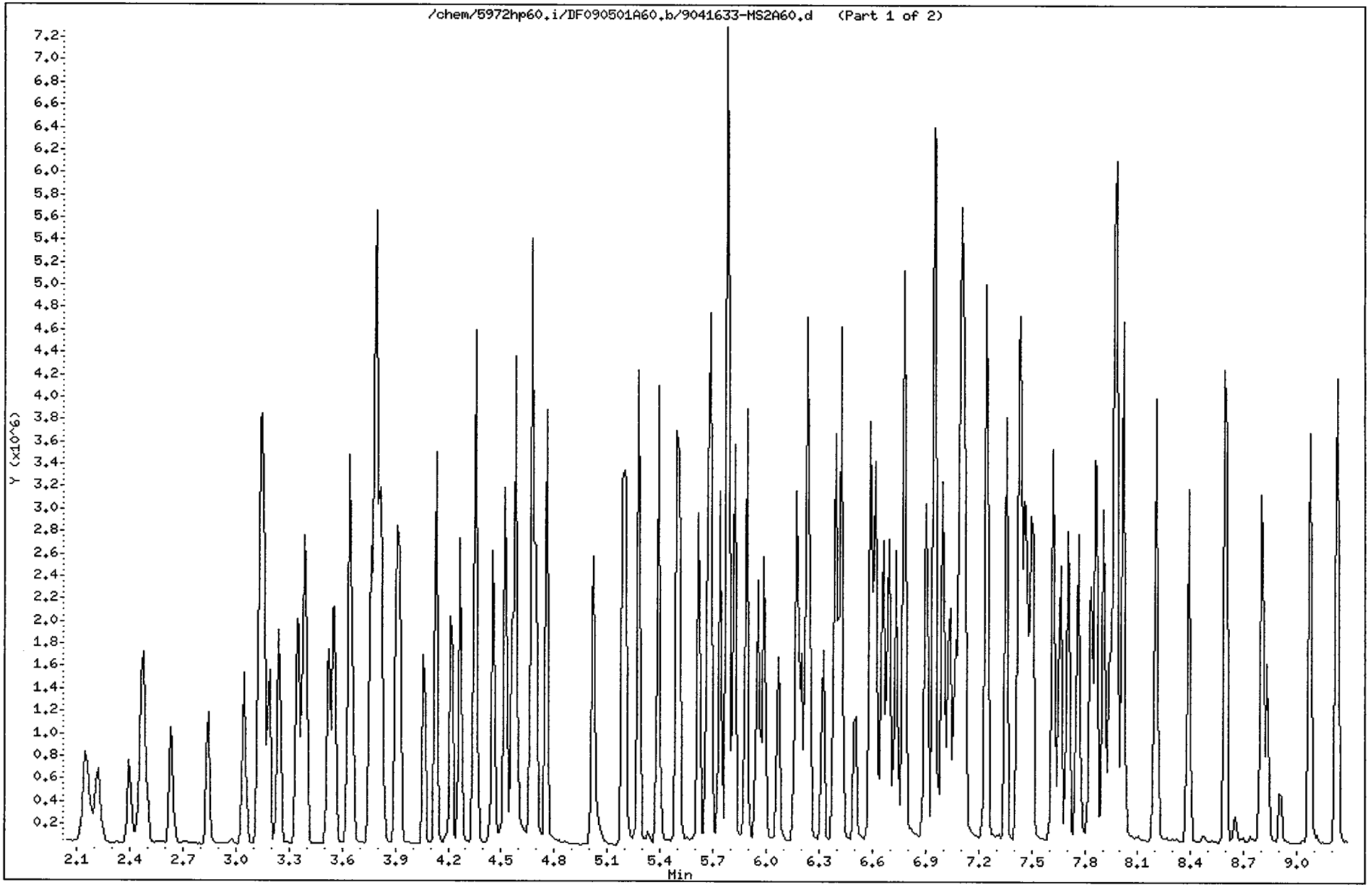
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

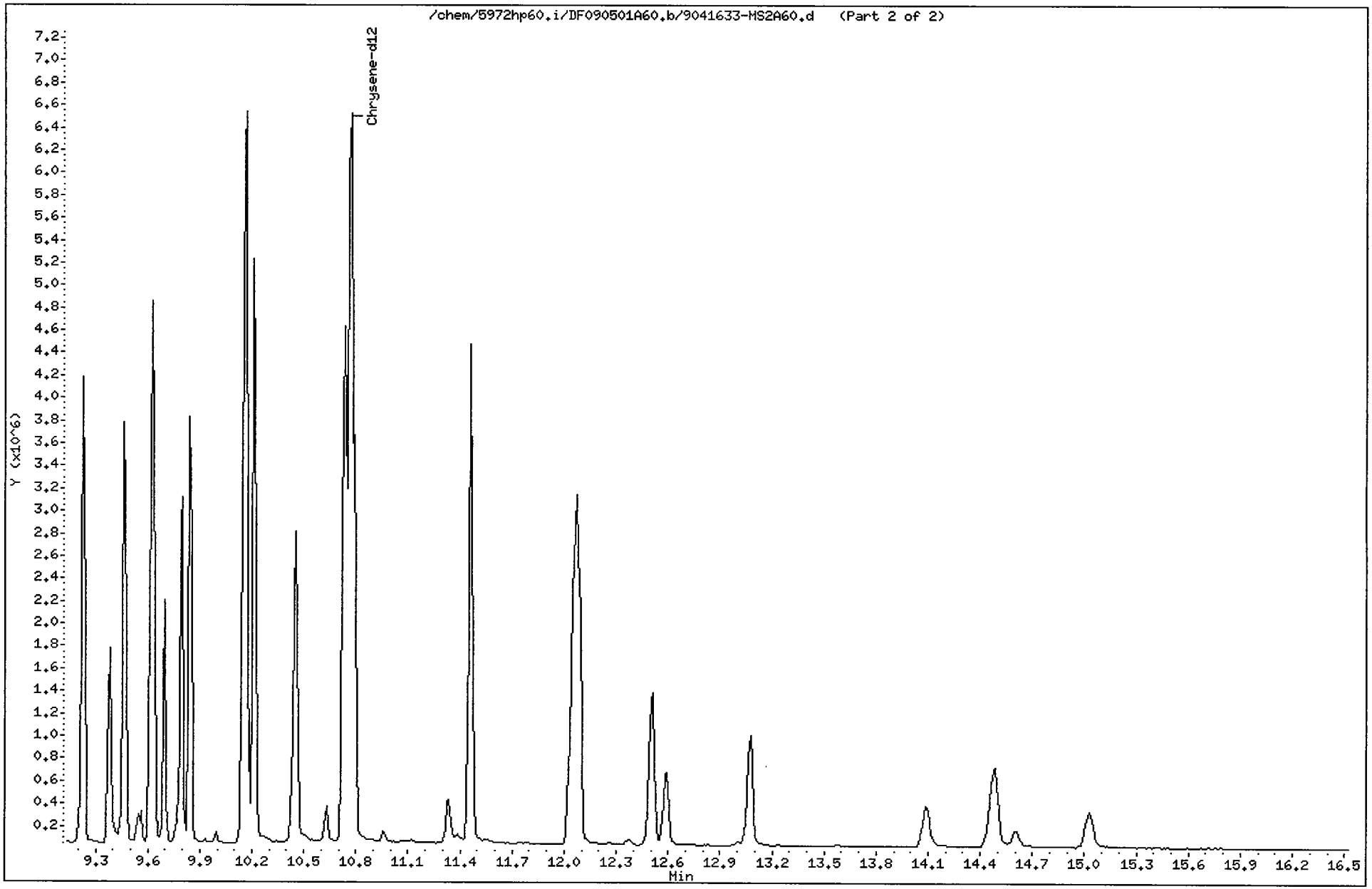
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	7.7	

Data File: /chem/5972hp60.i/DF090501A60.b/9041633-MS2A60.d
Date : 02-MAY-2009 00:25
Client ID: 13MW5MS
Sample Info: 9041633-MS2:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-MS2A60.d
Date : 02-MAY-2009 00:25
Client ID: 13MW5MS
Instrument: 5972hp60.i
Sample Info: 9041633-MS2:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60.b/9041633-MS2A60.d
Report Date: 04-May-2009 11:02

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60.b/9041633-MS2A60.d
Lab Smp Id: 9041633-MS Client Smp ID: 13MW5MS
Inj Date : 02-MAY-2009 00:25
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-MS2:2650
Misc Info : 13MW5MS02
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60.b/8270CIXv16.m
Meth Date : 04-May-2009 11:01 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.762	10.746	(1.000)	850933	40.0000		
127 Famfur	218	10.148	10.132	(0.943)	215086	14.9413	7.7	8565(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

5/4/9

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MS2

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MS2A60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

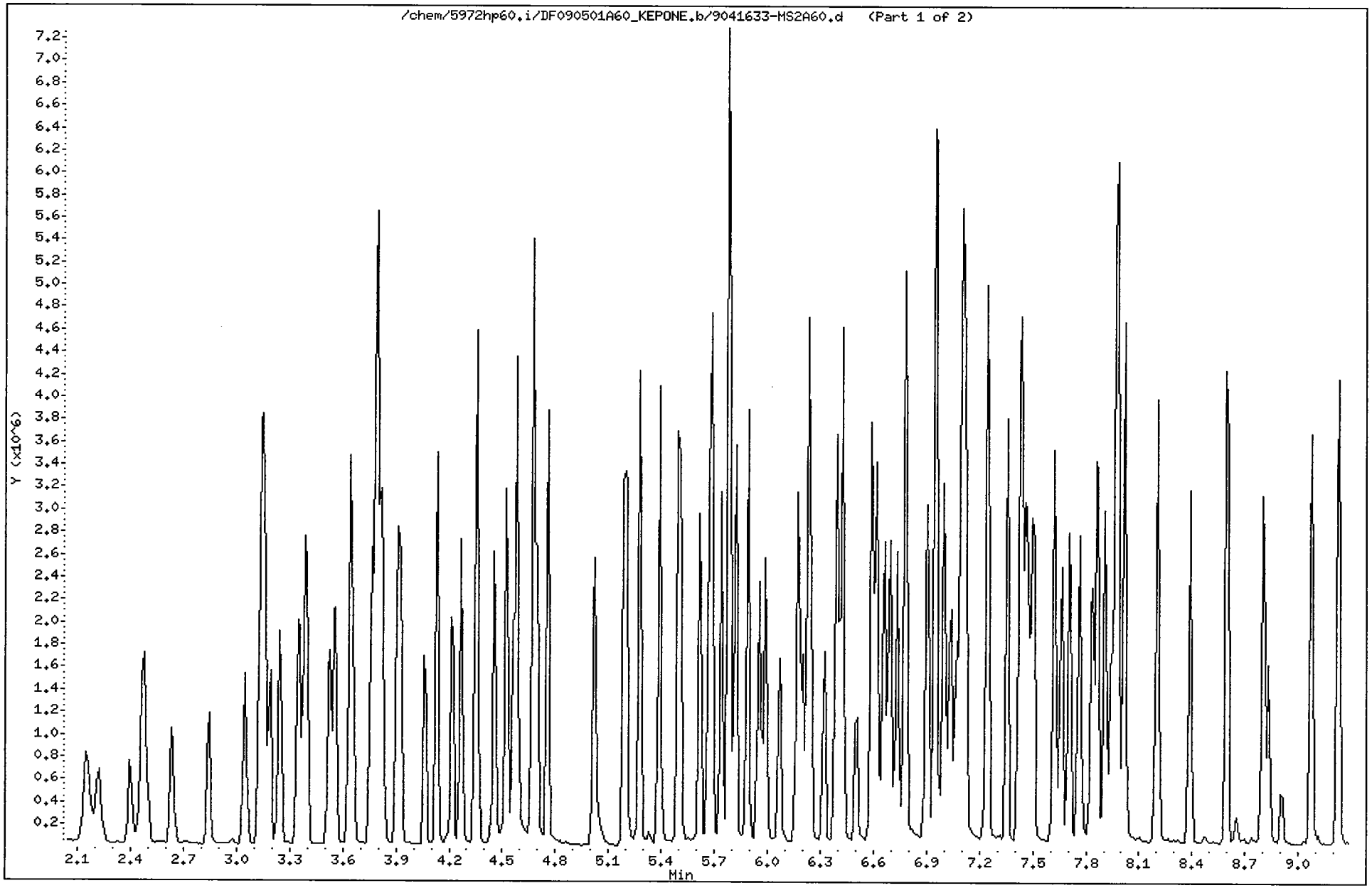
Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

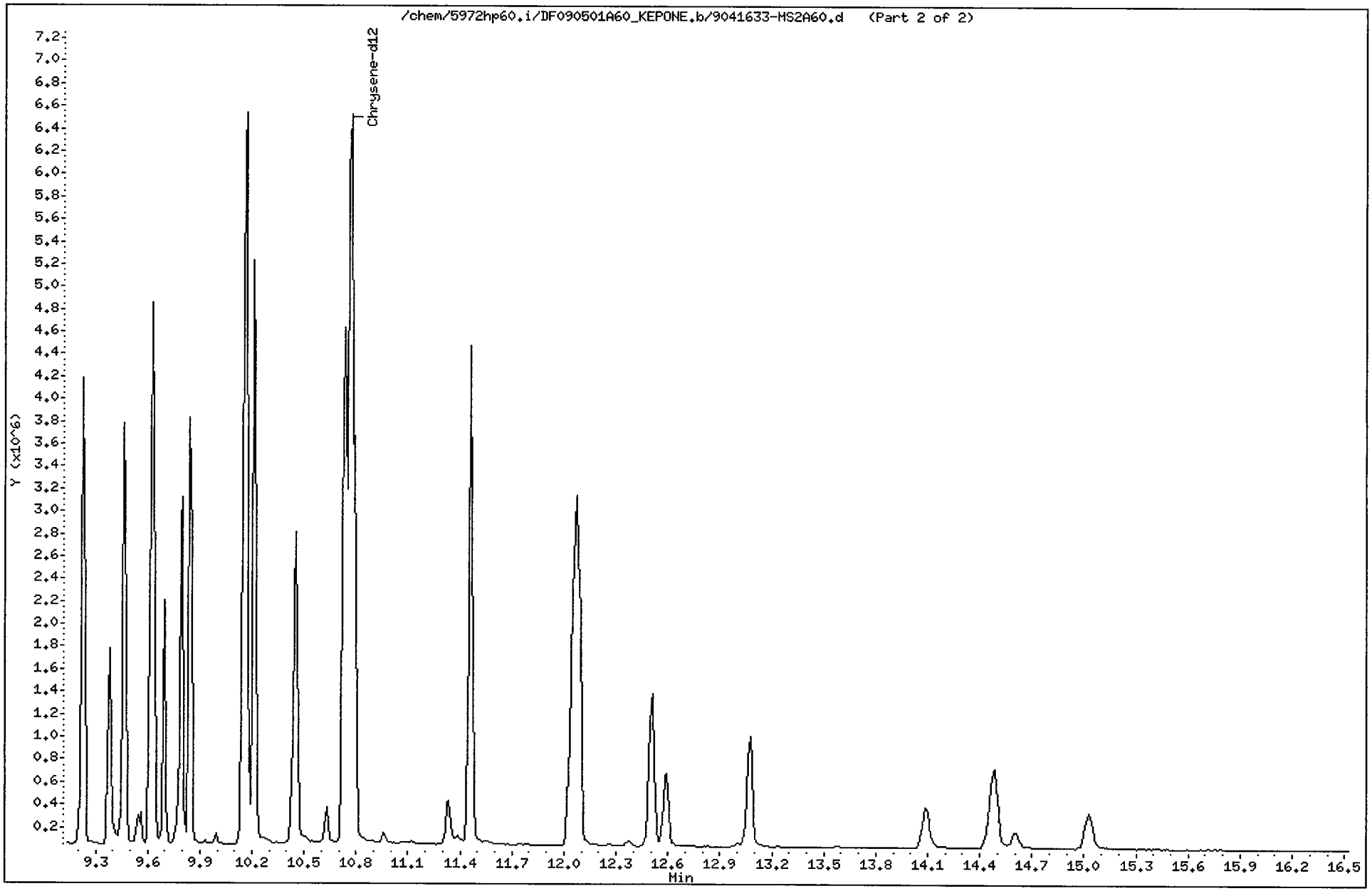
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	6.7	

Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-MS2A60.d
Date : 02-MAY-2009 00:25
Client ID: 13MW5MS
Instrument: 5972hp60.i
Sample Info: 9041633-MS2:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-MS2A60.d
Date : 02-MAY-2009 00:25
Client ID: 13MW5MS
Instrument: 5972hp60.i
Sample Info: 9041633-MS2:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-MS2A60.d
Report Date: 04-May-2009 14:08

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-MS2A60.d
Lab Smp Id: 9041633-MS2 Client Smp ID: 13MW5MS
Inj Date : 02-MAY-2009 00:25
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-MS2:2650
Misc Info : 13MW5MS02
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090501A60_KEPONE.b/8270CIXv16.m
Meth Date : 04-May-2009 13:26 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

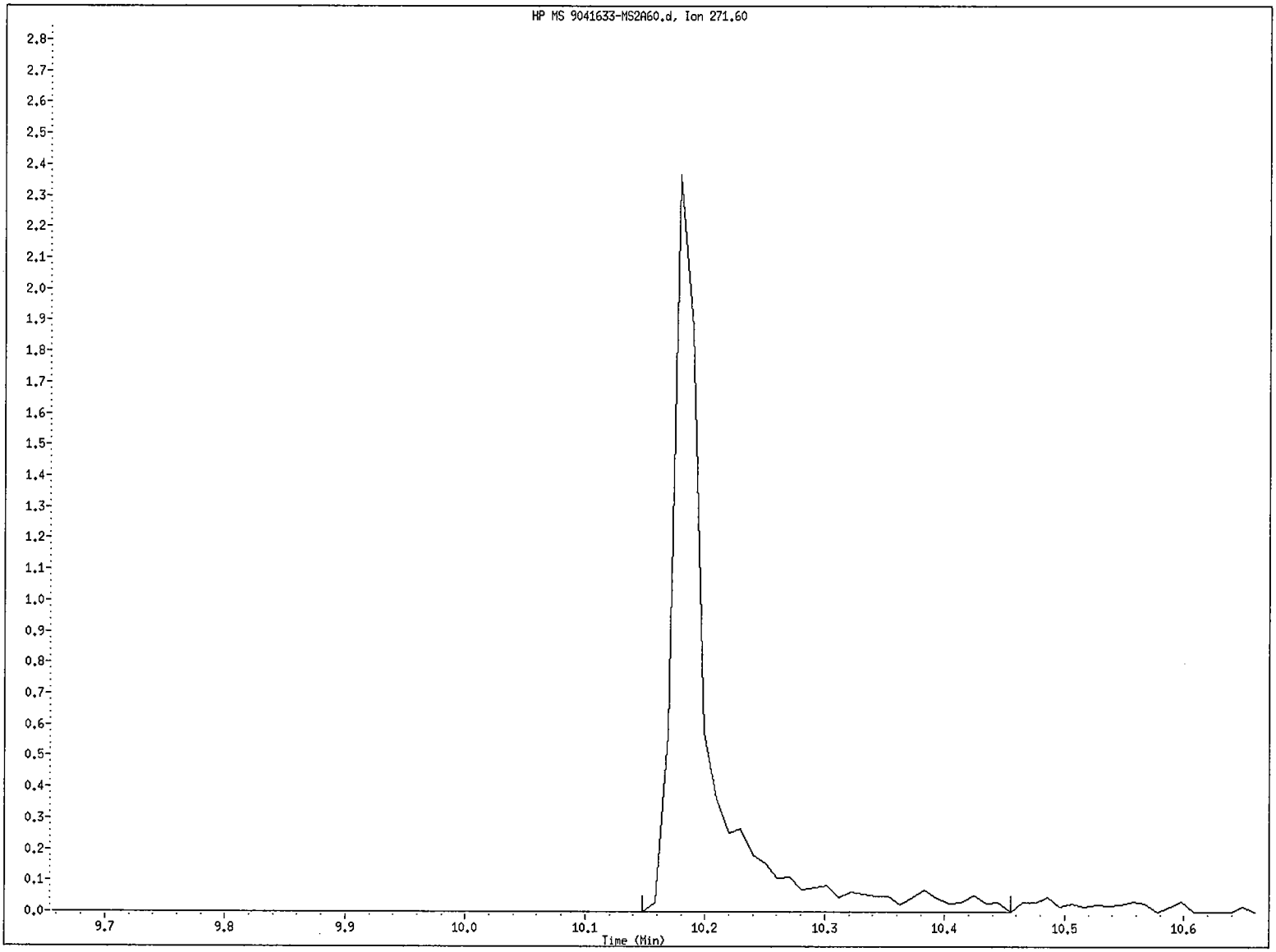
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.762	10.741	(1.000)	850933	40.0000		
126 Kepone	272	10.179	10.158	(0.946)	47295	13.0647	6.7	0(RM)[2]

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Kepone CAS Number 143-50-0 Area = 47295 Manually integrated



File name: /chem/5972hp60.i/DF090501A60_KEPONE.b/9041633-MS2A60.d
Client ID: 13MW5MS
Instrument ID: 5972hp60.i
Injection Date and Time: 02-MAY-2009 00:25
Retention Time: 10.18
Operator ID: 2650

e. Matrix Spike Duplicate Data

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	33	
110-86-1	Pyridine	32	
109-06-8	2-Picoline	38	
10595-95-6	Nitrosomethylethylamine	44	
66-27-3	Methyl Methanesulfonate	37	
55-18-5	N-Nitrosodiethylamine	42	
62-50-0	Ethyl Methanesulfonate	46	
108-95-2	Phenol	20	
62-53-3	Aniline	42	
111-44-4	Bis(2-chloroethyl)ether	44	
95-57-8	2-Chlorophenol	37	
100-51-6	Benzyl Alcohol	38	
95-48-7	2-Methylphenol	36	
108-60-1	2,2'-oxybis(1-Chloropropane)	63	
930-55-2	N-Nitrosopyrrolidine	52	
108-39-4	3-Methylphenol	36	
106-44-5	4-Methylphenol	36	
1319-77-3	3-4-Methylphenol	36	
621-64-7	N-Nitroso-di-N-propylamine	49	
98-86-2	Acetophenone	39	
59-89-2	N-Nitrosomorpholine	47	
95-53-4	o-Toluidine	42	
67-72-1	Hexachloroethane	36	
98-95-3	Nitrobenzene	50	
100-75-4	N-Nitrosopiperidine	42	
78-59-1	Isophorone	50	
88-75-5	2-Nitrophenol	39	
105-67-9	2,4-Dimethylphenol	35	
126-68-1	o,o,o-Triethylphosphorothioa	37	
111-91-1	Bis(2-chloroethoxy)methane	42	
120-83-2	2,4-Dichlorophenol	37	
106-47-8	4-Chloroaniline	44	
87-65-0	2,6-Dichlorophenol	38	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1888-71-7	Hexachloropropene	28	
924-16-3	N-Nitroso-di-n-butylamine	46	
106-50-3	p-Phenylenediamine	51	U
59-50-7	4-Chloro-3-methylphenol	39	
94-59-7	Safrole	36	
91-57-6	2-Methylnaphthalene	43	
77-47-4	Hexachlorocyclopentadiene	30	
95-94-3	1,2,4,5-Tetrachlorobenzene	31	
88-06-2	2,4,6-Trichlorophenol	36	
95-95-4	2,4,5-Trichlorophenol	36	
120-58-1	Isosafrole	36	
91-58-7	2-Chloronaphthalene	40	
88-74-4	2-Nitroaniline	55	
130-15-4	1,4-Napthoquinone	41	
131-11-3	Dimethylphthalate	38	
208-96-8	Acenaphthylene	39	
99-09-2	3-Nitroaniline	48	
83-32-9	Acenaphthene	39	
51-28-5	2,4-Dinitrophenol	46	
100-02-7	4-Nitrophenol	20	
608-93-5	Pentachlorobenzene	32	
132-64-9	Dibenzofuran	38	
134-32-7	1-Naphthylamine	83	E
58-90-2	2,3,4,6-Tetrachlorophenol	36	
91-59-8	2-Naphthylamine	69	
84-66-2	Diethylphthalate	37	
297-97-2	Zinophos	36	
7005-72-3	4-Chlorophenyl-phenylether	34	
99-55-8	5-Nitro-o-toluidine	44	
86-73-7	Fluorene	39	
100-01-6	4-Nitroaniline	50	
534-52-1	4,6-Dinitro-2-methylphenol	45	
86-30-6	N-Nitrosodiphenylamine (1)	38	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
3689-24-5	Sulfotep	34	
17708-58-6	Diallate (trans isomer)	22	
298-02-2	Phorate	40	
62-44-2	Phenacetin	40	
17708-57-5	Diallate (cis isomer)	13	
101-55-3	4-Bromophenyl-phenylether	31	
118-74-1	Hexachlorobenzene	34	
60-51-5	Dimethoate	48	
92-67-1	4-Aminobiphenyl	40	
87-86-5	Pentachlorophenol	44	
82-68-8	Pentachloronitrobenzene	33	
23950-58-5	Pronamide	37	
298-04-4	Disulfoton	44	
85-01-8	Phenanthrene	39	
120-12-7	Anthracene	40	
298-00-0	Methyl Parathion	49	
84-74-2	Di-n-butylphthalate	37	
56-38-2	Parathion	41	
56-57-5	4-Nitroquinoline-1-oxide	43	
91-80-5	Methapyrilene	140	E
465-73-6	Isodrin	34	
206-44-0	Fluoranthene	42	
129-00-0	Pyrene	40	
60-11-7	p-Dimethylaminoazobenzene	33	
510-15-6	Chlorobenzilate	26	
52-85-7	Famfur	5.1	U
85-68-7	Butylbenzylphthalate	39	
119-93-7	3,3'-Dimethylbenzidine	63	
53-96-3	2-Acetylaminofluorene	33	
91-94-1	3,3'-Dichlorobenzidine	34	
117-81-7	bis(2-ethylhexyl)Phthalate	38	
56-55-3	Benzo(a)anthracene	38	
218-01-9	Chrysene	40	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A62

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
117-84-0	Di-n-octylphthalate	39	
57-97-6	7,12-Dimethylbenz(a)anthrace	45	
205-99-2	Benzo(b)fluoranthene	45	
207-08-9	Benzo(k)fluoranthene	49	
50-32-8	Benzo(a)pyrene	48	
56-49-5	3-Methylcholanthrene	41	
193-39-5	Indeno(1,2,3-c,d)pyrene	43	
53-70-3	Dibenzo(a,h)anthracene	40	
191-24-2	Benzo(g,h,i)perylene	42	
143-50-0	Kepone	5.1	U
2303-16-4	Diallate Total	40	
122-09-8	a,a-Dimethylphenethylamine	51	U
140-57-8	Aramite	40	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2A6

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

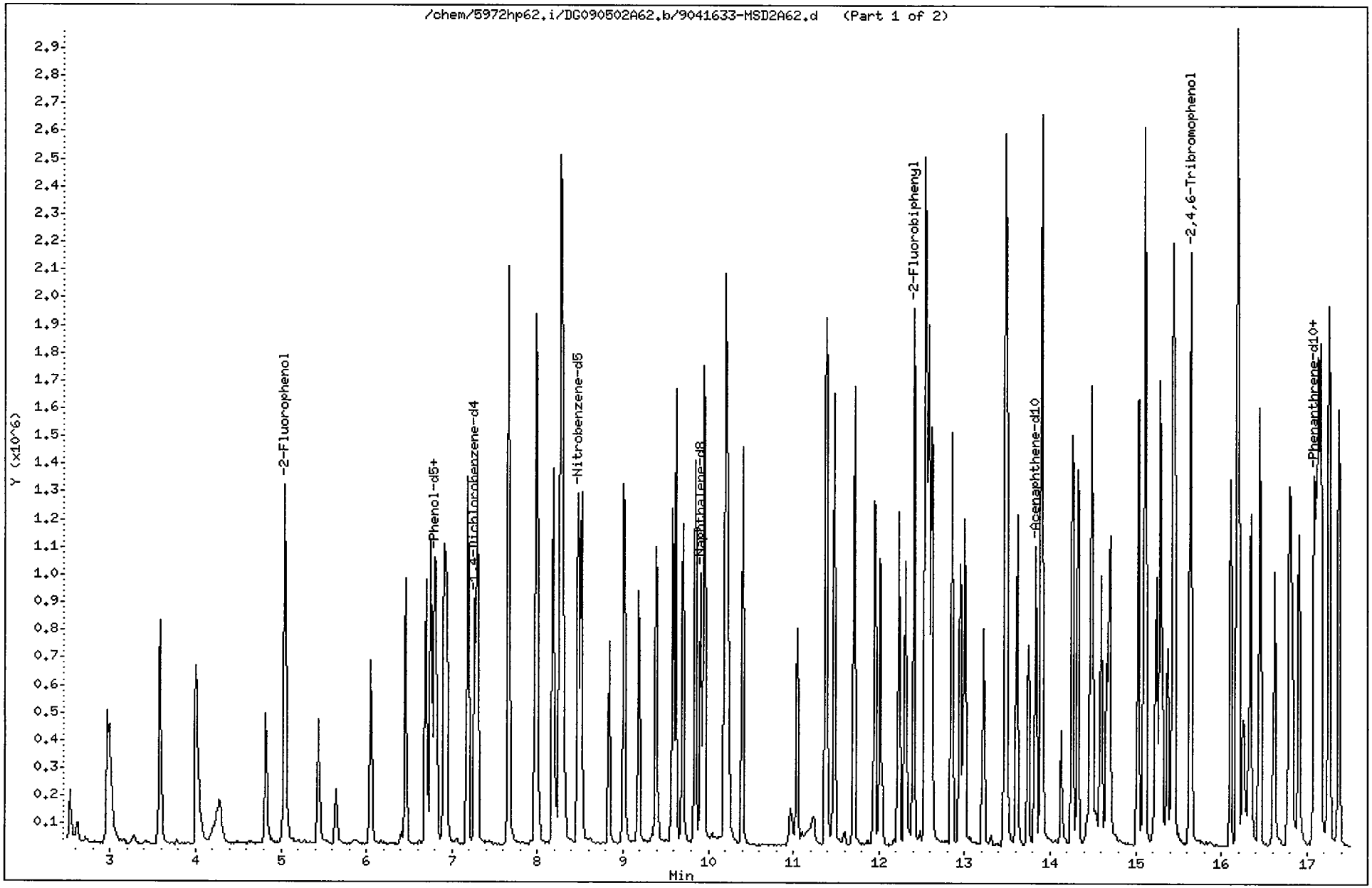
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

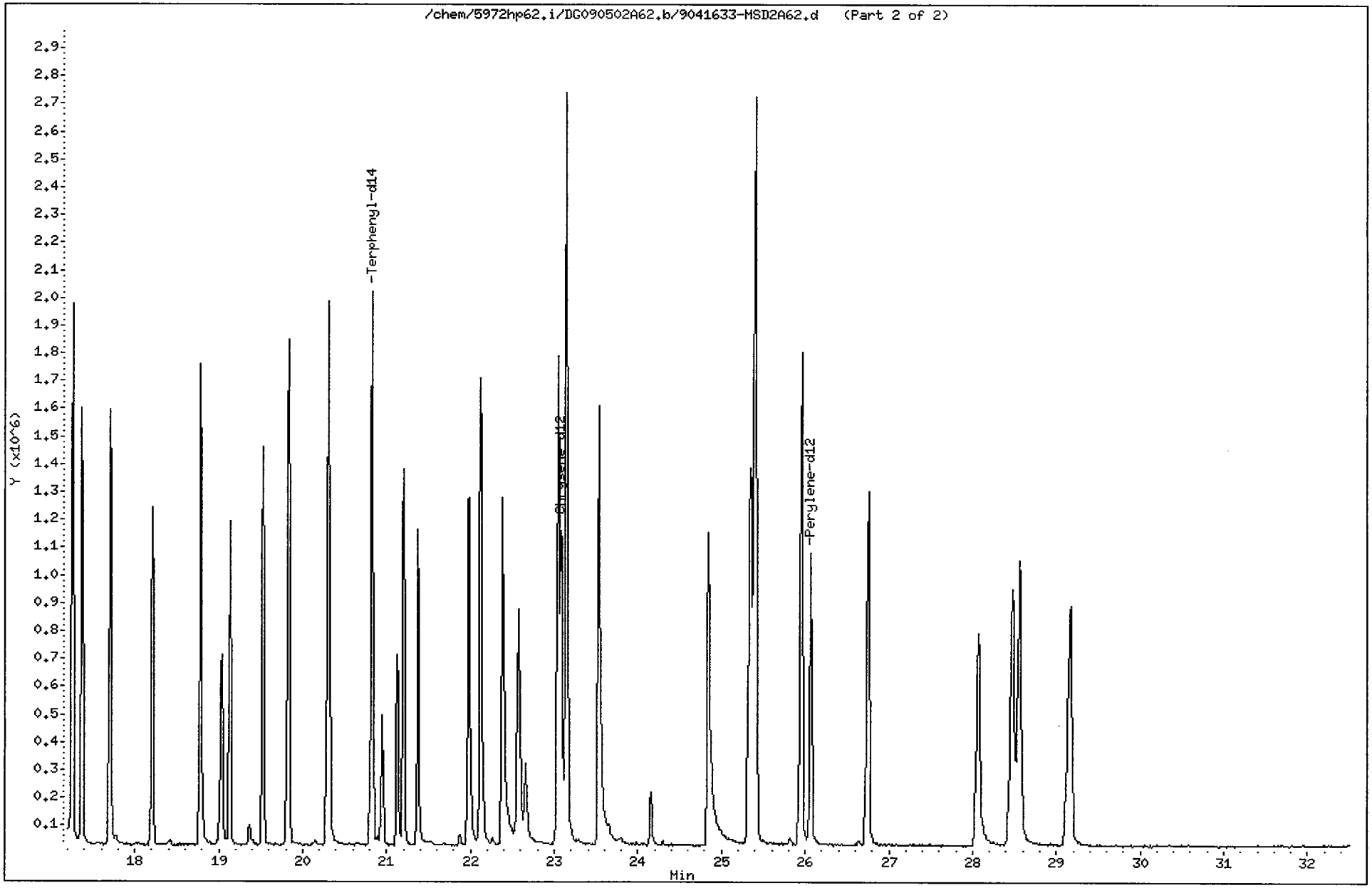
FORM I SV-TIC

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Date : 02-MAY-2009 14:41
Client ID: 13MW5MSD
Sample Info: 9041633-MSD2:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp62.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Date : 02-MAY-2009 14:41
Client ID: 13MW5MSD
Instrument: 5972hp62.i
Sample Info: 9041633-MSD2:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Report Date: 06-May-2009 17:45

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Lab Smp Id: 9041633-MSD Client Smp ID: 13MW5MSD
Inj Date : 02-MAY-2009 14:41
Operator : 2650 Inst ID: 5972hp62.i
Smp Info : 9041633-MSD2:2650
Misc Info : 13MW5MSD02
Comment   : 2008 MDLS SOIL/ 2007 WATER
Method   : /chem/5972hp62.i/DG090502A62.b/8270CIXv16.m
Meth Date : 06-May-2009 17:45 byrd Quant Type: ISTD
Cal Date : 30-APR-2009 19:51 Cal File: HL090430A62.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HWMU13C.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	7.268	7.263	(1.000)	212183	40.0000		
*	2 Naphthalene-d8	136	9.909	9.914	(1.000)	692194	40.0000		
*	3 Acenaphthene-d10	164	13.829	13.824	(1.000)	367505	40.0000		
*	4 Phenanthrene-d10	188	17.104	17.110	(1.000)	605814	40.0000		
*	5 Chrysene-d12	240	23.092	23.087	(1.000)	754154	40.0000		
*	6 Perylene-d12	264	26.071	26.066	(1.000)	697100	40.0000		
$	7 2-Fluorophenol	112	5.047	5.052	(0.694)	728566	139.626	72	
$	8 Phenol-d5	99	6.797	6.802	(0.935)	576395	89.9261	46	
$	11 Nitrobenzene-d5	82	8.476	8.481	(0.855)	692325	106.836	55	
$	12 2-Fluorobiphenyl	172	12.406	12.401	(0.897)	984422	84.0884	43	
$	13 2,4,6-Tribromophenol	330	15.641	15.636	(1.131)	573040	168.090	86	(A)
$	14 Terphenyl-d14	244	20.830	20.825	(0.902)	1143071	80.3945	41	
	15 N-Nitrosodimethylamine	42	3.000	2.995	(0.413)	179523	64.8835	33	8165
	16 Pyridine	79	2.969	2.964	(0.408)	391302	63.0160	32	9214
	18 2-Picoline	93	4.003	3.998	(0.551)	467107	73.4931	38	9115

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Report Date: 06-May-2009 17:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 Nitrosomethylethylamine	88	4.279	4.285	(0.589)	192714	85.0395	44	9286
20 Methyl Methanesulfonate	80	4.821	4.827	(0.663)	306346	73.0711	37	9162
21 N-Nitrosodiethylamine	102	5.436	5.441	(0.748)	150452	81.0536	42	9358
22 Ethyl Methanesulfonate	79	6.050	6.055	(0.832)	456351	89.7664	46	9343
23 Phenol	94	6.817	6.823	(0.938)	252358	38.0866	20	
24 Aniline	93	6.756	6.751	(0.930)	702125	81.4727	42	8414
25 Bis(2-chloroethyl)ether	93	6.910	6.915	(0.951)	494424	86.7137	44	(R)
27 2-Chlorophenol	128	6.930	6.936	(0.954)	436155	72.2532	37	9495
30 Benzyl Alcohol	108	7.667	7.672	(1.055)	252428	74.3621	38	
32 2-Methylphenol	108	7.995	7.990	(1.100)	338288	71.2748	36	
33 2,2'-oxybis(1-Chloropropane)	45	7.984	7.980	(1.099)	876344	123.113	63	8724(R)
34 N-Nitrosopyrrolidine	100	8.209	8.215	(1.130)	117406	101.370	52	4383
35 3-Methylphenol	108	8.302	8.317	(1.142)	361692	70.7575	36	(M)
36 4-Methylphenol	108	8.302	8.317	(1.142)	361692	70.7575	36	(M)
37 3-4-Methylphenol	108	8.302	8.317	(1.142)	364956	71.1495	36	9132
38 N-Nitroso-di-N-propylamine	70	8.281	8.287	(1.139)	213962	95.9470	49	8317(R)
39 Acetophenone	105	8.179	8.184	(0.825)	593370	76.2684	39	0(M)
40 N-Nitrosomorpholine	116	8.250	8.256	(1.135)	51594	91.5391	47	7362
41 o-Toluidine	106	8.271	8.276	(1.138)	607881	81.3676	42	9148
42 Hexachloroethane	117	8.261	8.266	(1.137)	229220	71.2972	36	9531
43 Nitrobenzene	77	8.517	8.512	(0.859)	597566	96.9262	50	9179
44 N-Nitrosopiperidine	114	8.834	8.839	(0.892)	197966	82.1169	42	9313
45 Isophorone	82	9.008	9.013	(0.909)	1028549	97.5661	50	9149(R)
46 2-Nitrophenol	139	9.182	9.187	(0.927)	254620	75.6994	39	8715
47 2,4-Dimethylphenol	122	9.387	9.392	(0.947)	286630	67.8806	35	8965
49 o,o,o-Triethylphosphorothioat	198	9.622	9.627	(0.971)	179531	72.3922	37	9119
50 Bis(2-chloroethoxy)methane	93	9.581	9.587	(0.967)	609463	81.0052	42	9252
51 2,4-Dichlorophenol	162	9.704	9.709	(0.979)	355446	72.4841	37	
54 4-Chloroaniline	127	10.205	10.211	(1.030)	554215	85.8613	44	8522
55 2,6-Dichlorophenol	162	10.195	10.201	(1.029)	349681	74.0431	38	
56 Hexachloropropene	213	10.236	10.231	(1.033)	254439	54.6480	28	9613
58 N-Nitroso-di-n-butylamine	84	11.045	11.040	(1.115)	185272	90.0802	46	9151
59 p-Phenylenediamine	108	Compound Not Detected.						
60 4-Chloro-3-methylphenol	107	11.372	11.368	(1.148)	341013	76.6808	39	0(M)
61 Safrole	162	11.393	11.388	(1.150)	289126	71.2685	36	9657
62 2-Methylnaphthalene	141	11.485	11.480	(1.159)	685058	83.7349	43	(R)
64 Hexachlorocyclopentadiene	237	12.017	12.012	(0.869)	290621	58.9774	30	9567
65 1,2,4,5-Tetrachlorobenzene	216	11.956	11.951	(0.865)	407789	61.4175	31	9591
66 2,4,6-Trichlorophenol	196	12.232	12.227	(0.885)	261360	69.3846	36	
67 2,4,5-Trichlorophenol	196	12.314	12.299	(0.890)	296955	70.5405	36	
68 Isosafrole	162	12.048	12.043	(0.871)	52272	71.0692	36	
69 2-Chloronaphthalene	162	12.549	12.545	(0.907)	1128279	78.4597	40	
70 2-Nitroaniline	65	12.949	12.954	(0.936)	349977	107.410	55	8853(R)
71 1,4-Napthoquinone	158	13.000	13.005	(0.940)	364441	80.8618	41	9378
72 Dimethylphthalate	163	13.491	13.497	(0.976)	828960	74.4937	38	8681
75 Acenaphthylene	152	13.471	13.476	(0.974)	1210551	76.8893	39	8414
76 3-Nitroaniline	138	13.900	13.896	(1.005)	250392	94.5799	48	8869(R)

Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Report Date: 06-May-2009 17:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
77 Acenaphthene	154	13.900	13.896	(1.005)	672876	75.7609	39	9173
78 2,4-Dinitrophenol	184	14.126	14.131	(1.021)	99876	89.9862	46	(R)
79 4-Nitrophenol	139	14.443	14.418	(1.044)	81025	38.9522	20	8547 (M)
80 Pentachlorobenzene	250	14.330	14.326	(1.036)	402810	62.6484	32	9381
82 Dibenzofuran	168	14.259	14.264	(1.031)	1081211	74.7475	38	9478
83 1-Naphthylamine	143	14.484	14.479	(1.047)	476763	161.597	83	(AR)
84 2,3,4,6-Tetrachlorophenol	232	14.699	14.694	(1.063)	233284	69.7762	36	9388
85 2-Naphthylamine	143	14.658	14.663	(1.060)	427998	135.247	69	(R)
86 Diethylphthalate	149	15.108	15.104	(1.093)	861975	72.9315	37	7821
87 Zinophos	97	15.282	15.288	(1.105)	222373	70.8832	36	9143
88 4-Chlorophenyl-phenylether	204	15.108	15.114	(1.093)	379260	65.3442	34	8049
89 5-Nitro-o-toluidine	152	15.241	15.247	(1.102)	293764	86.5575	44	7386
90 Fluorene	166	15.037	15.032	(1.087)	856483	76.5811	39	7952
91 4-Nitroaniline	138	15.303	15.308	(1.107)	277226	96.5479	50	8670 (R)
92 4,6-Dinitro-2-methylphenol	198	15.374	15.380	(0.899)	171770	88.4755	45	0 (M)
93 N-Nitrosodiphenylamine	169	15.436	15.431	(0.902)	660237	75.2356	38	8564
96 Sulfotep	322	16.111	16.117	(1.165)	149459	66.6289	34	9337
98 Diallate (trans isomer)	86	16.183	16.189	(0.946)	332111	44.0081	22	
99 Diallate (trans) part of total	86	16.183	16.189	(0.946)	332111	44.0081	22	8792
100 Phorate	75	16.203	16.199	(0.947)	591540	78.2237	40	7859
101 Phenacetin	108	16.337	16.342	(0.955)	474568	78.1775	40	9201
102 Diallate (cis isomer)	86	16.347	16.352	(0.956)	63107	25.7802	13	(M)
103 Diallate (cis) part of total	86	16.347	16.352	(0.956)	63107	25.5987	13	5817 (H)
104 4-Bromophenyl-phenylether	248	16.183	16.189	(0.946)	236992	60.2188	31	8683
105 Hexachlorobenzene	284	16.449	16.455	(0.962)	415229	67.3526	34	9473
106 Dimethoate	87	16.623	16.618	(0.972)	366948	94.3024	48	9125
107 4-Aminobiphenyl	169	16.818	16.823	(0.983)	636667	78.7585	40	0 (M)
108 Pentachlorophenol	266	16.910	16.905	(0.989)	248634	85.0654	44	8162 (R)
109 Pentachloronitrobenzene	237	17.084	17.089	(0.999)	125244	64.3374	33	7419
110 Pronamide	173	17.135	17.140	(1.002)	391832	72.5596	37	9469
111 Disulfoton	88	17.370	17.376	(1.016)	503479	85.3093	44	9112
112 Phenanthrene	178	17.166	17.161	(1.004)	1233923	76.8750	39	
113 Anthracene	178	17.258	17.263	(1.009)	1326089	78.8735	40	
115 Methyl Parathion	109	18.210	18.205	(1.065)	358392	96.0280	49	9598
116 Di-n-butylphthalate	149	18.783	18.788	(1.098)	1540047	72.3859	37	9485
117 Parathion	109	19.131	19.136	(1.118)	208649	79.7398	41	8304
118 4-Nitroquinoline-1-oxide	190	19.039	19.034	(1.113)	132046	83.4775	43	9374
119 Methapyrilene	97	19.366	19.372	(1.132)	32679	283.559	140	9227 (ARH)
120 Isodrin	193	19.530	19.525	(1.142)	156127	66.3336	34	9540
121 Fluoranthene	202	19.837	19.832	(1.160)	1344677	81.1409	42	9686
123 Pyrene	202	20.318	20.313	(0.880)	1467111	77.2472	40	9559
124 p-Dimethylaminoazobenzene	225	21.209	21.214	(0.918)	237687	65.0561	33	9194
125 Chlorobenzilate	251	21.372	21.378	(0.926)	315566	50.4848	26	9575
126 Kepone	272	Compound Not Detected.						
127 Famfur	218	Compound Not Detected.						
128 Butylbenzylphthalate	149	22.120	22.125	(0.958)	758856	75.8589	39	9633
129 3,3'-Dimethylbenzidine	212	21.976	21.972	(0.952)	822732	122.406	63	9467 (R)

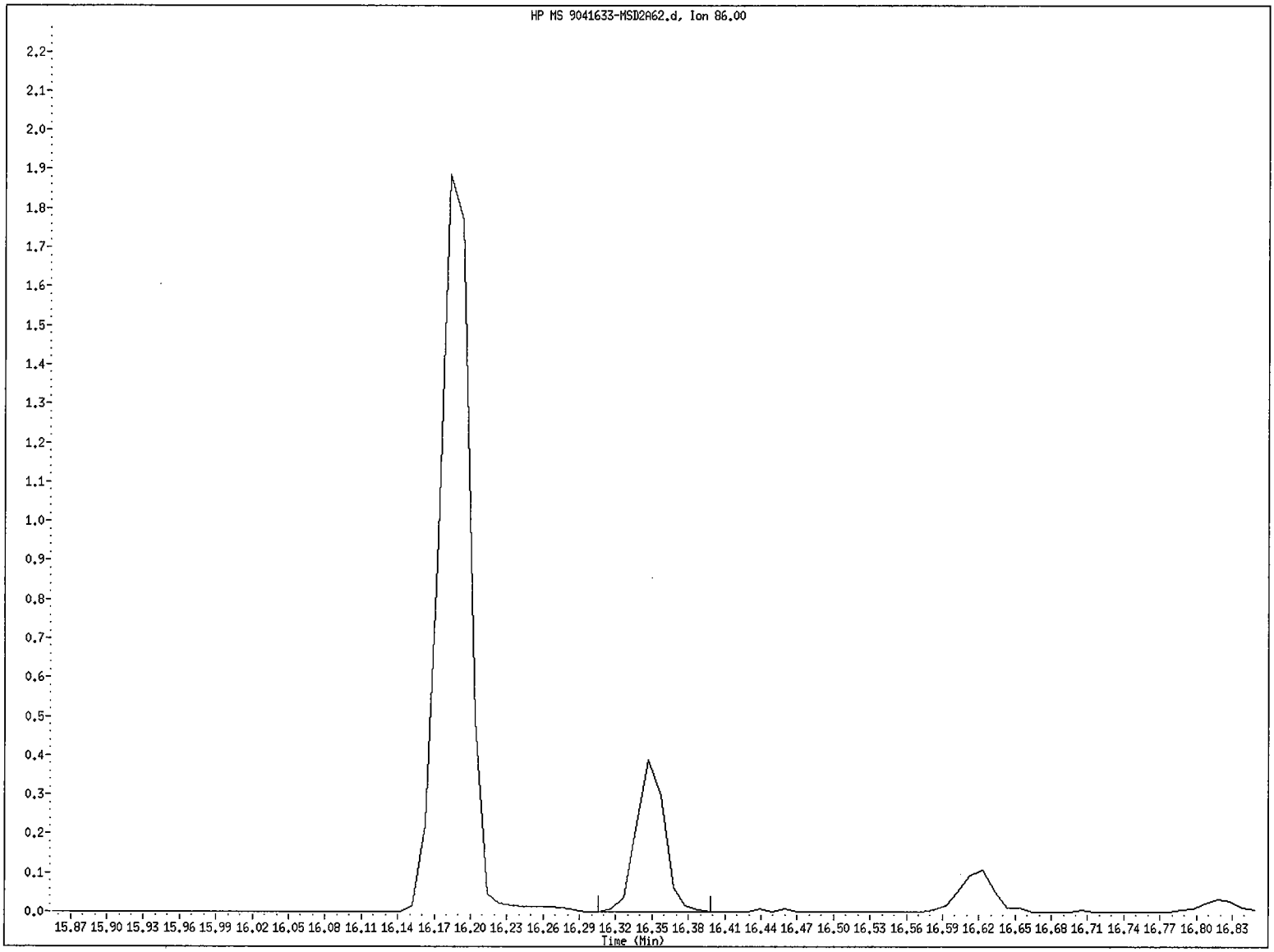
Data File: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Report Date: 06-May-2009 17:45

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
130	2-Acetylaminofluorene	181	22.580	22.576	(0.978)	436189	64.3663	33	9218
131	3,3'-Dichlorobenzidine	252	23.153	23.149	(1.003)	450481	66.2248	34	8570
132	bis(2-ethylhexyl)Phthalate	149	23.532	23.538	(1.019)	993498	73.1268	38	9380
133	Benzo(a)anthracene	228	23.051	23.046	(0.998)	1343701	75.2258	38	
134	Chrysene	228	23.143	23.149	(1.002)	1235875	77.2024	40	
135	Di-n-octylphthalate	149	24.842	24.838	(0.953)	1487507	76.1838	39	
136	7,12-Dimethylbenz(a)anthracene	256	25.416	25.411	(0.975)	604064	87.6578	45	8512
137	Benzo(b)fluoranthene	252	25.344	25.349	(0.972)	1519801	87.6705	45	
138	Benzo(k)fluoranthene	252	25.395	25.401	(0.974)	1439911	94.7797	49	
139	Benzo(a)pyrene	252	25.958	25.953	(0.996)	1421848	94.1791	48	
140	3-Methylcholanthrene	268	26.756	26.762	(1.026)	670890	80.8551	41	9490
141	Indeno(1,2,3-c,d)pyrene	276	28.476	28.471	(1.092)	1170592	83.3608	43	0(M)
142	Dibenzo(a,h)anthracene	278	28.558	28.553	(1.095)	1096026	78.8776	40	8170
143	Benzo(g,h,i)perylene	276	29.172	29.167	(1.119)	1223658	81.4929	42	9590
M 144	Diallate Total	86				395218	78.9502	40	0
201	a,a-Dimethylphenethylamine	58	Compound Not Detected.						
202	Aramite	185	21.137	21.132	(0.915)	89031	78.3136	40	8507

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Diallate (cis) part of total CAS Number 17708-57-5 Area = 63107 User selected



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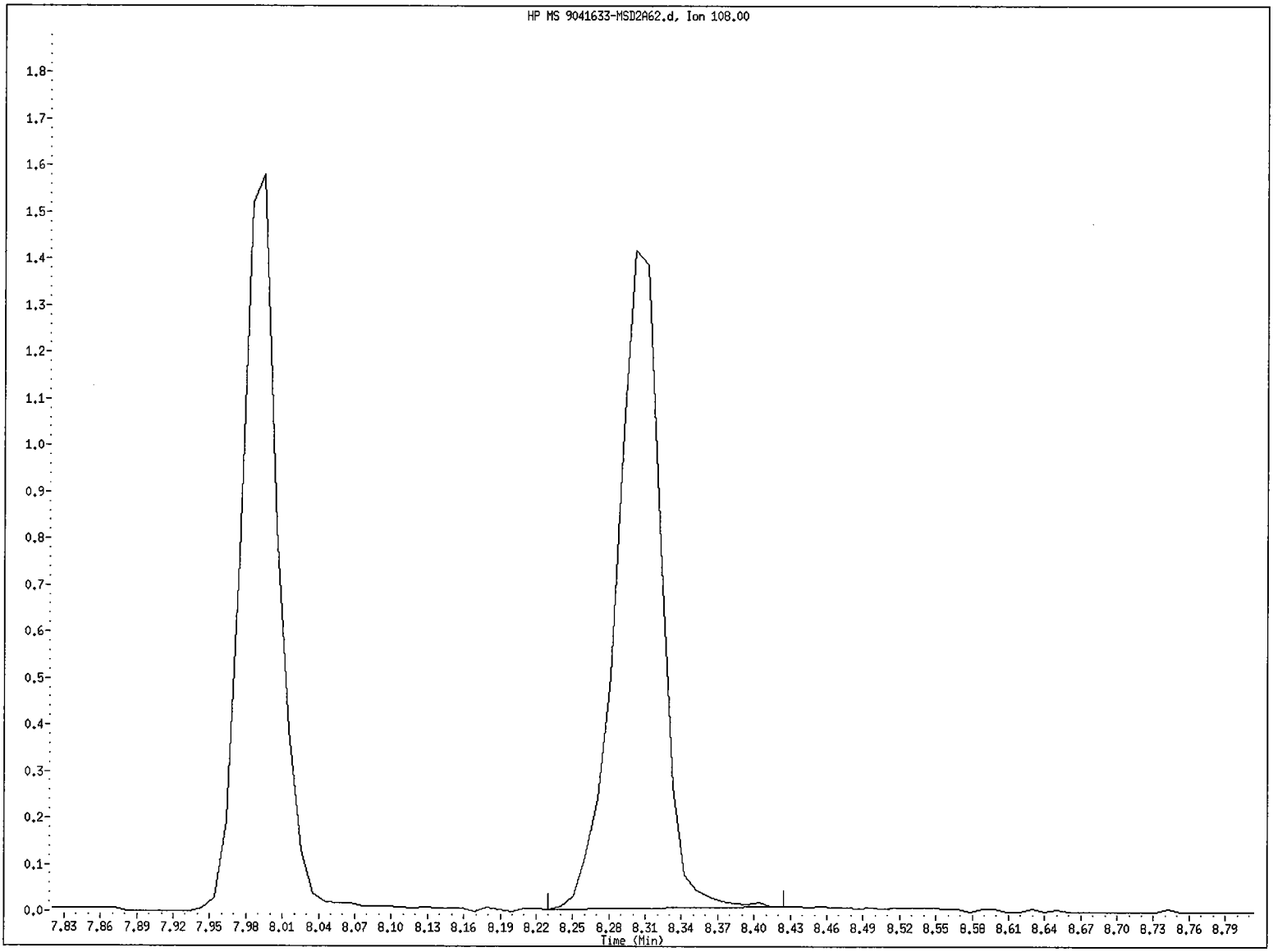
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 16.35
Operator ID: 2650

3-Methylphenol CAS Number 108-39-4 Area = 361692 Manually integrated



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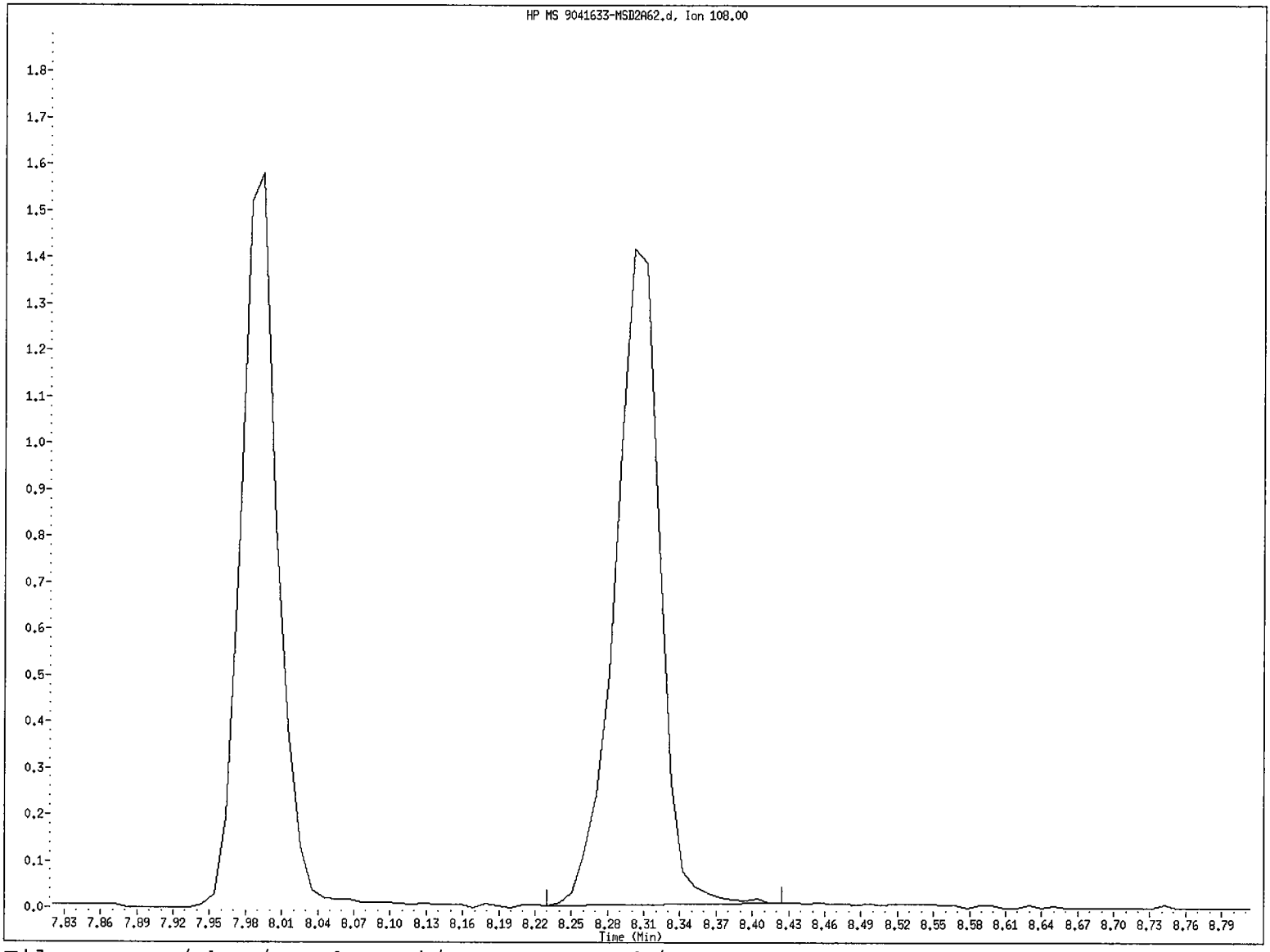
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 8.30
Operator ID: 2650

4-Methylphenol CAS Number 106-44-5 Area = 361692 Manually integrated



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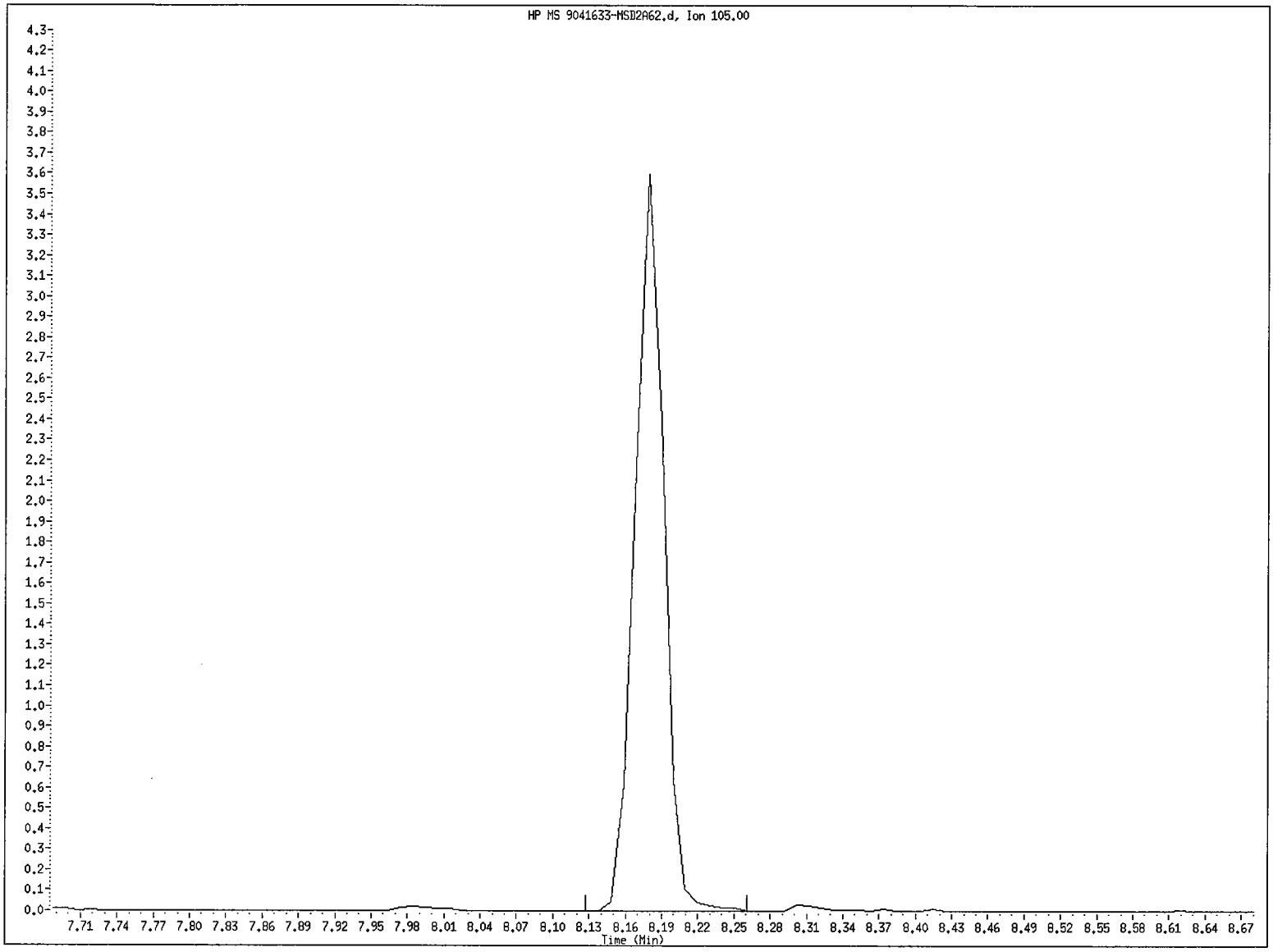
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 8.30
Operator ID: 2650

Acetophenone CAS Number 98-86-2 Area = 593370 Manually integrated



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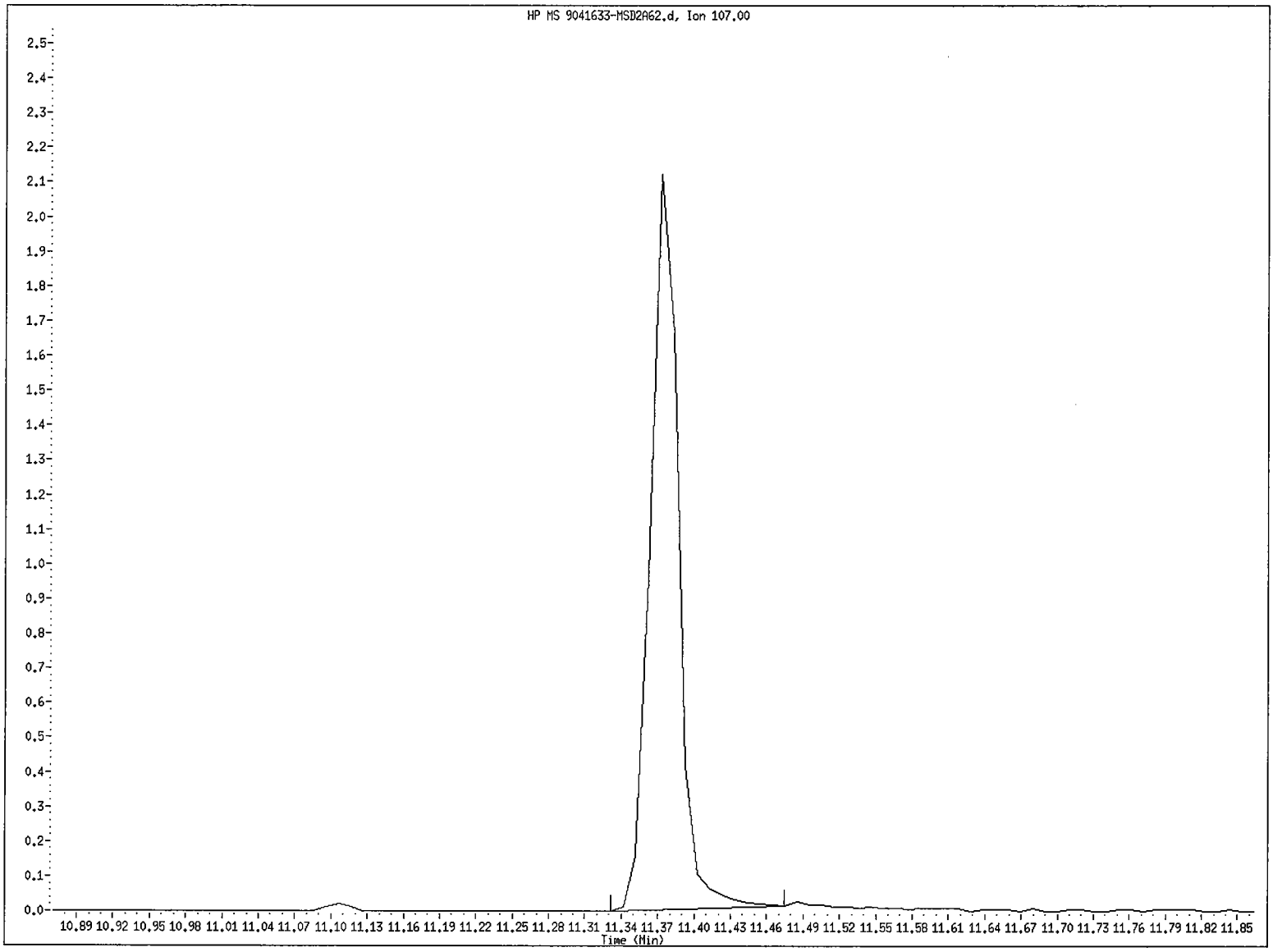
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 8.18
Operator ID: 2650

4-Chloro-3-methylphenol CAS Number 59-50-7 Area = 341013 Manually integrated



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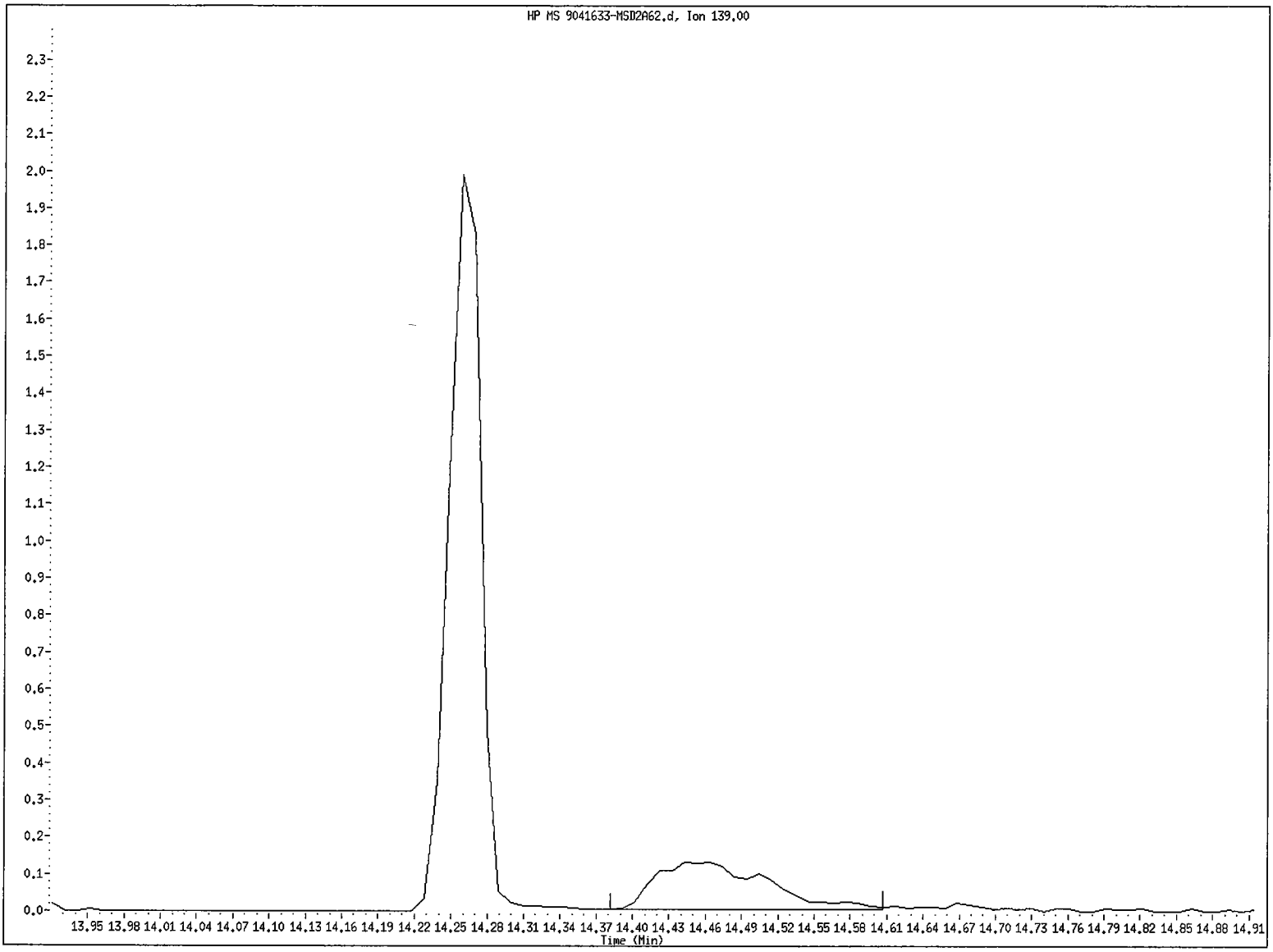
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 11.37
Operator ID: 2650

4-Nitrophenol CAS Number 100-02-7 Area = 81025 Manually integrated



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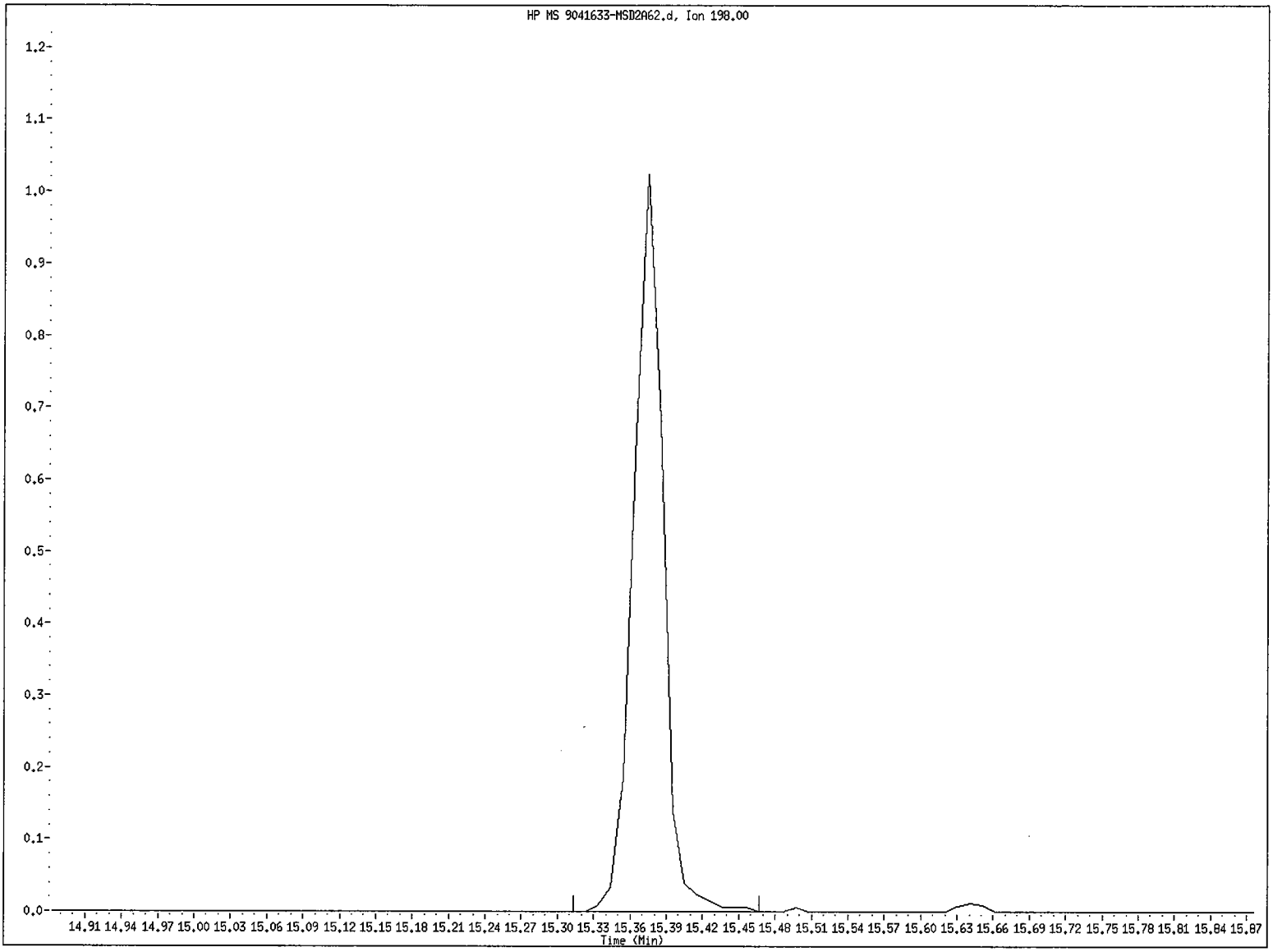
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 14.44
Operator ID: 2650

4,6-Dinitro-2-methylphenol CAS Number 534-52-1 Area = 171770 Manually integrat



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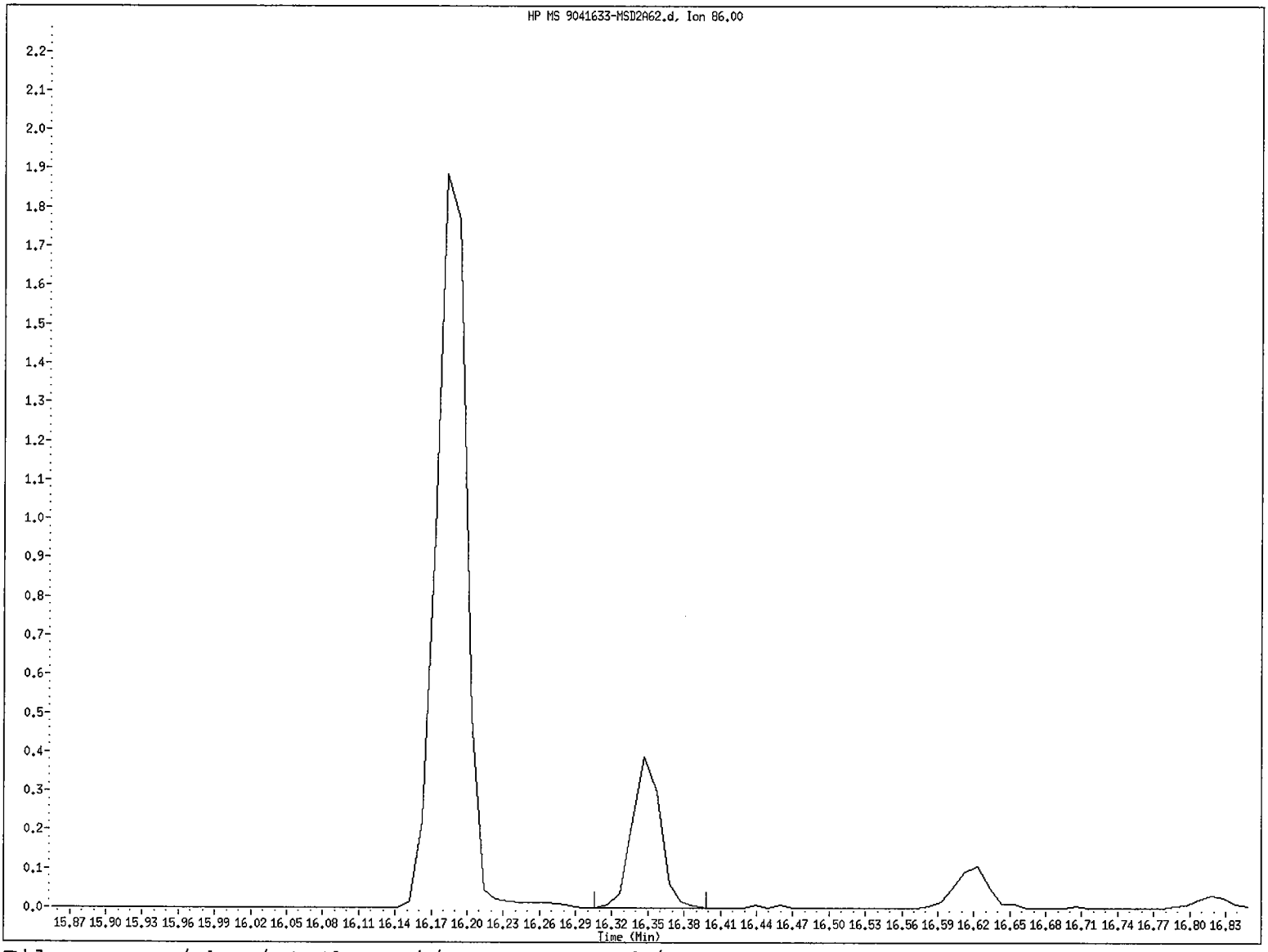
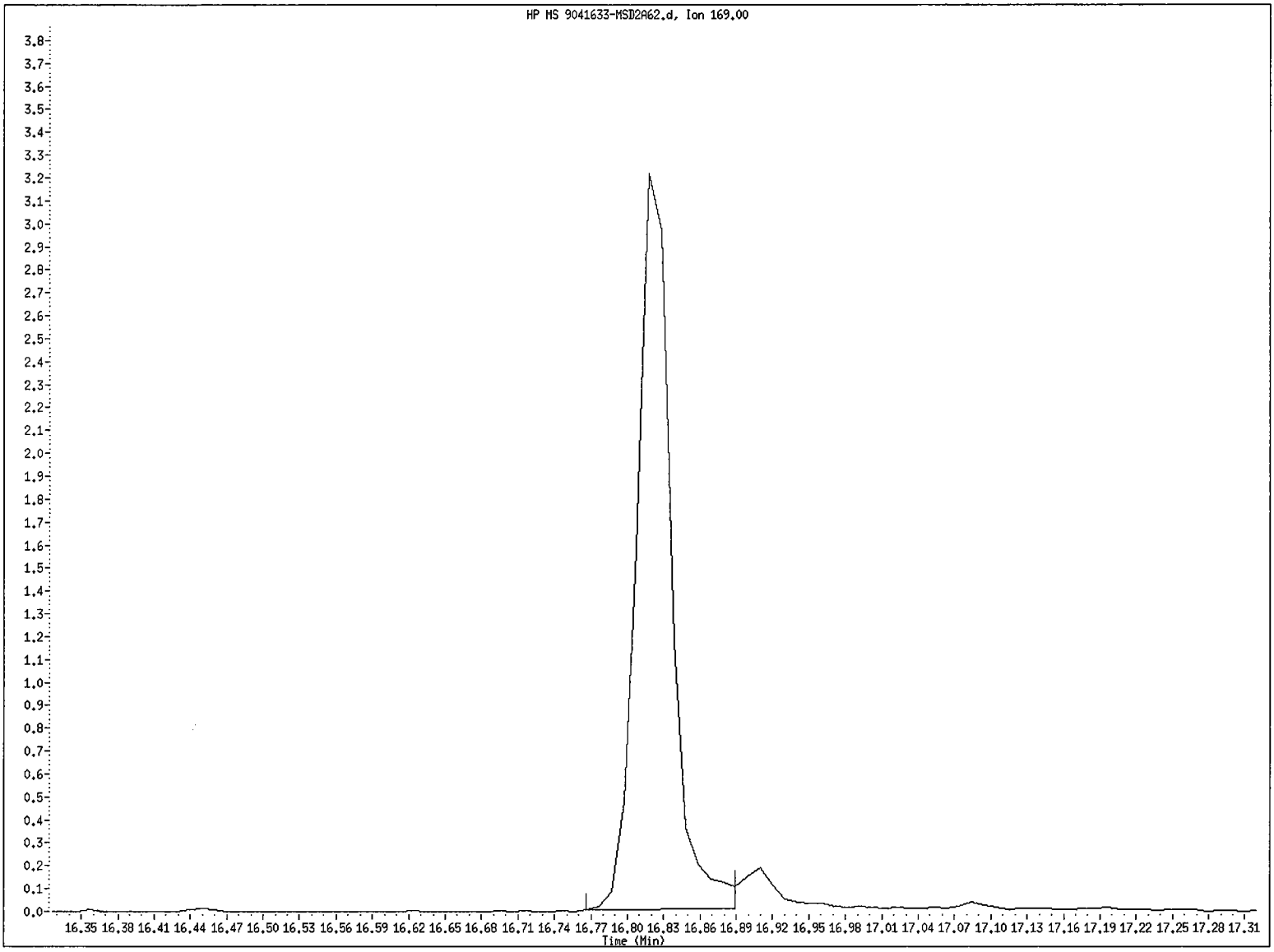
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 15.37
Operator ID: 2650

Diallate (cis isomer) CAS Number 17708-57-5 Area = 63107 Manually integrated



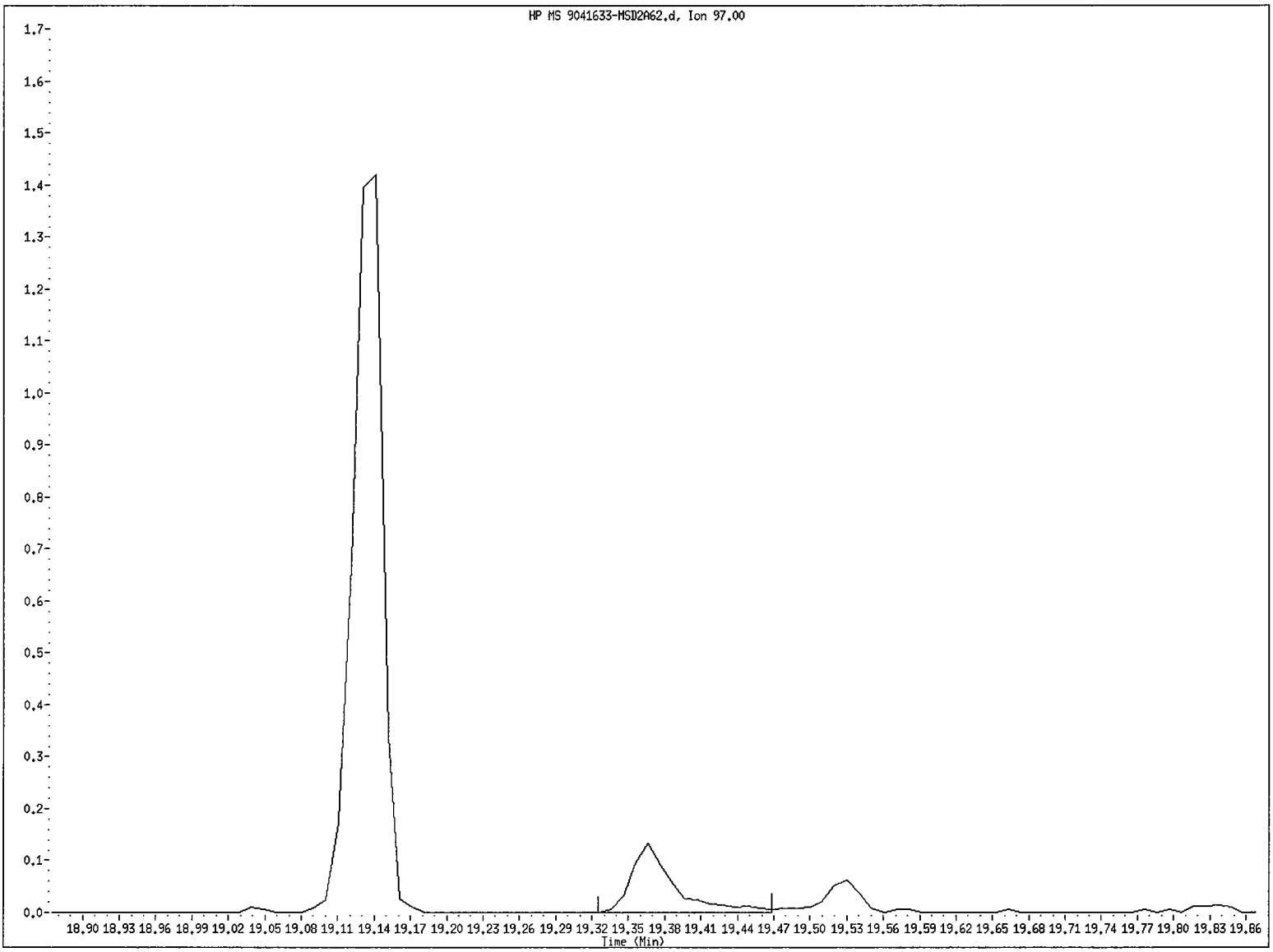
File name: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 16.35
Operator ID: 2650

4-Aminobiphenyl CAS Number 92-67-1 Area = 636667 Manually integrated



File name: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 16.82
Operator ID: 2650

Methapyrilene CAS Number 91-80-5 Area = 32679 User selected hit



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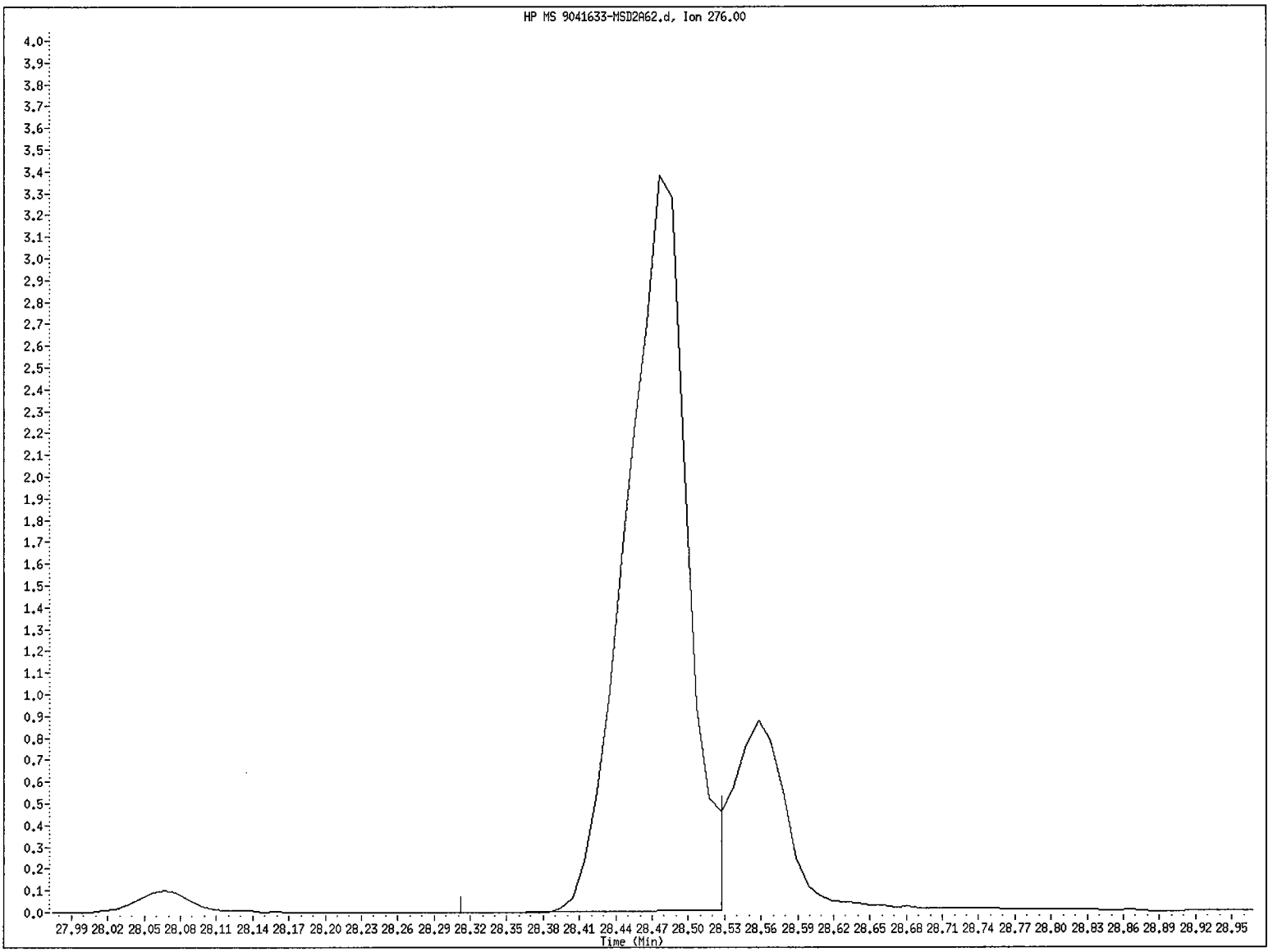
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 19.37
Operator ID: 2650

Indeno(1,2,3-c,d)pyrene CAS Number 193-39-5 Area = 1170592 Manually integrated



File name: /chem/5972hp62.i/DG090502A62.b/9041633-MSD2A62.d
Client ID: 13MW5MSD
Instrument ID: 5972hp62.i
Injection Date and Time: 02-MAY-2009 14:41
Retention Time: 28.48
Operator ID: 2650

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

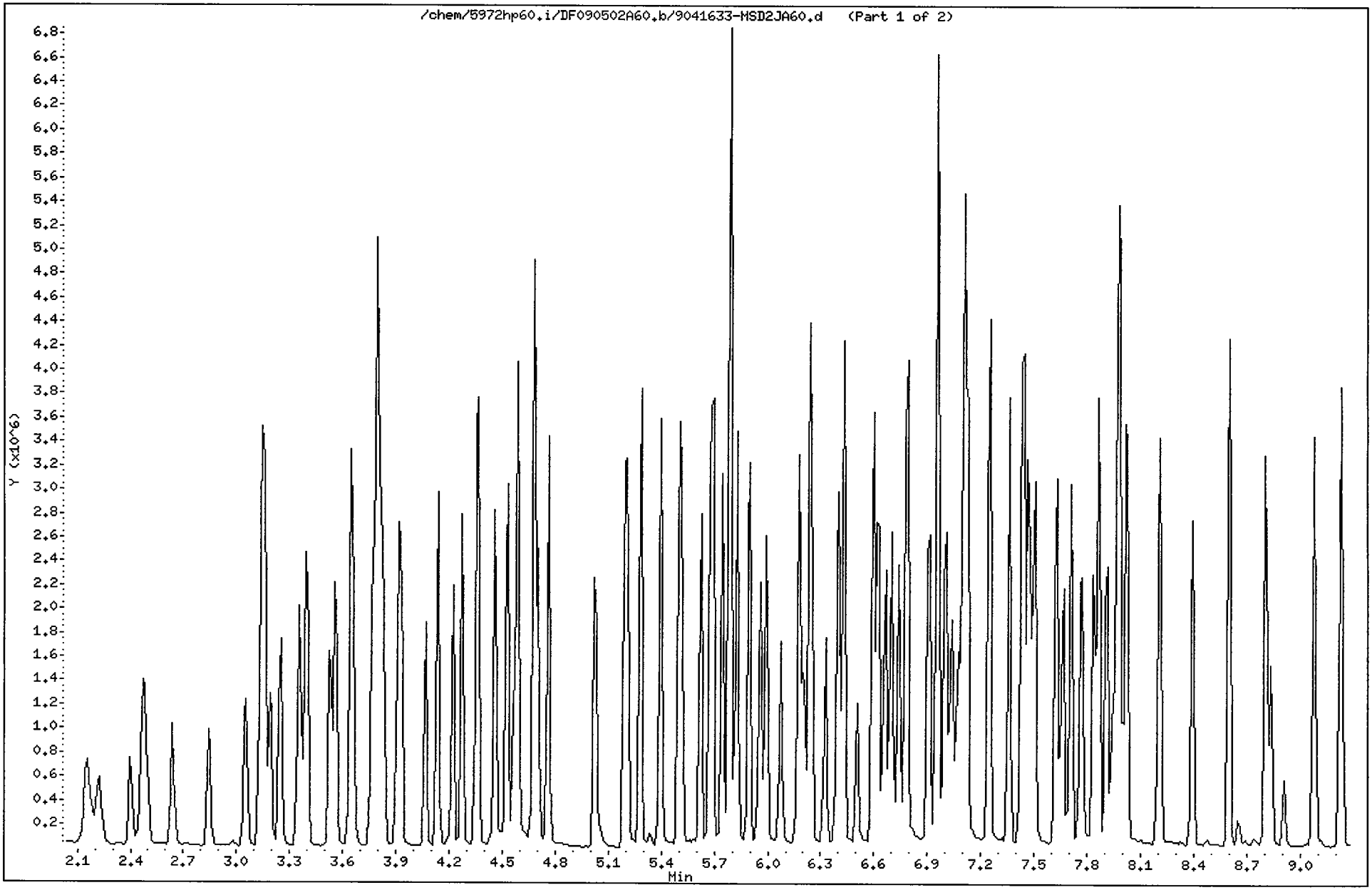
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
52-85-7	Famfur	11	

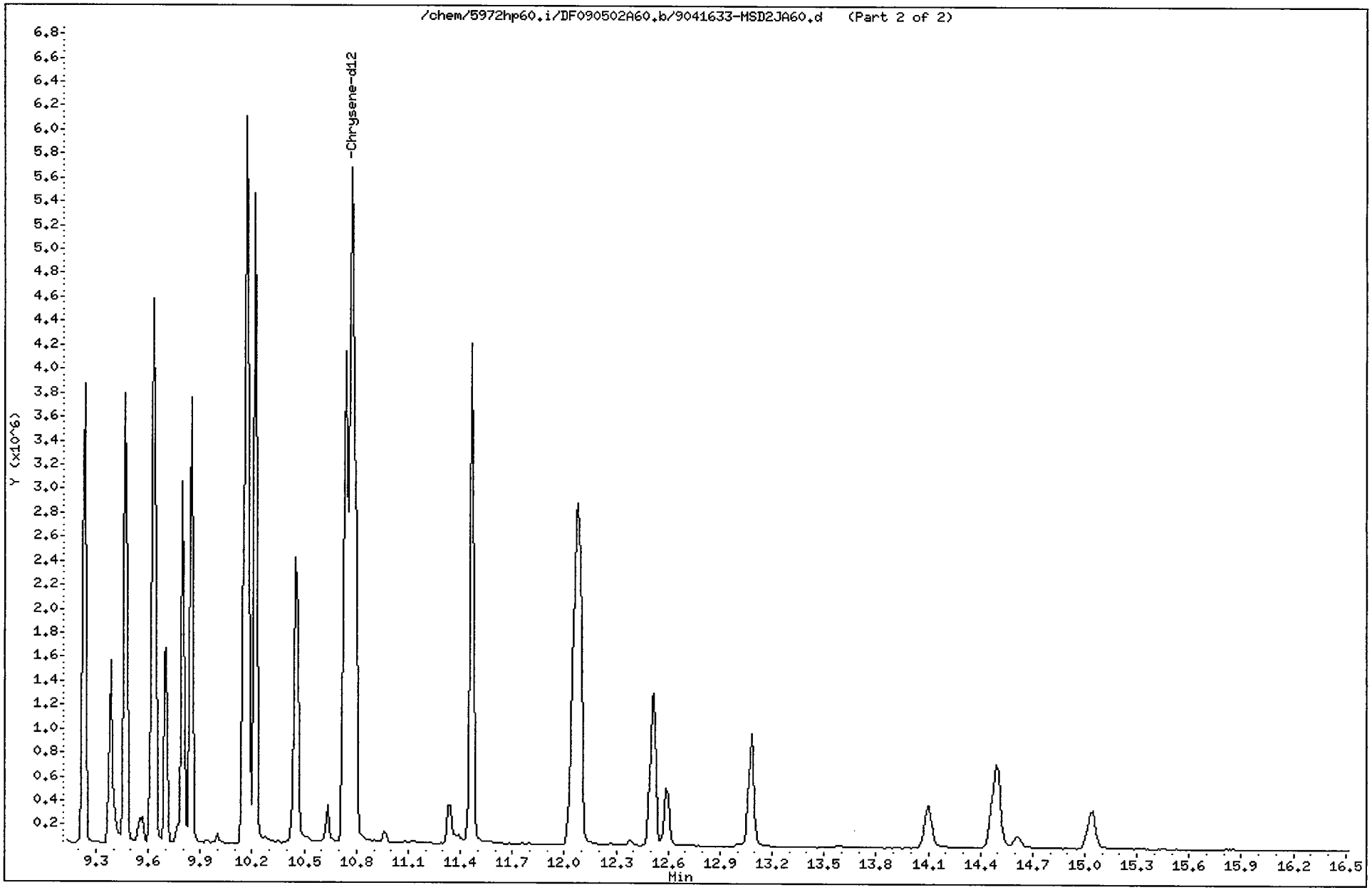
Data File: /chem/5972hp60.i/DF090502A60.b/9041633-MSD2JA60.d
Date : 02-MAY-2009 16:12
Client ID: 13MW5MSD
Sample Info: 9041633-MSD2:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/9041633-MSD2JA60.d
Date : 02-MAY-2009 16:12
Client ID: 13MW5MSD
Sample Info: 9041633-MSD2:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60.b/9041633-MSD2JA60.d
Report Date: 04-May-2009 17:55

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60.b/9041633-MSD2JA60.d
Lab Smp Id: 9041633-MSD Client Smp ID: 13MW5MSD
Inj Date : 02-MAY-2009 16:12
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-MSD2:2650
Misc Info : 13MW5MSD02
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60.b/8270CIXv16.m
Meth Date : 04-May-2009 17:14 pkhare Quant Type: ISTD
Cal Date : 01-MAY-2009 15:05 Cal File: HL090501A60.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Famfur.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.758	10.745	(1.000)	588662	40.0000		
127 Famfur	218	10.144	10.141	(0.943)	206481	20.7341	11	8891

PLS-5-09

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9041633-MSD2

Sample wt/vol: 975 (g/mL) ML Lab File ID: 9041633-MSD2JA60

Level: (low/med) LOW Date Received: 04/15/09

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/17/09

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/09

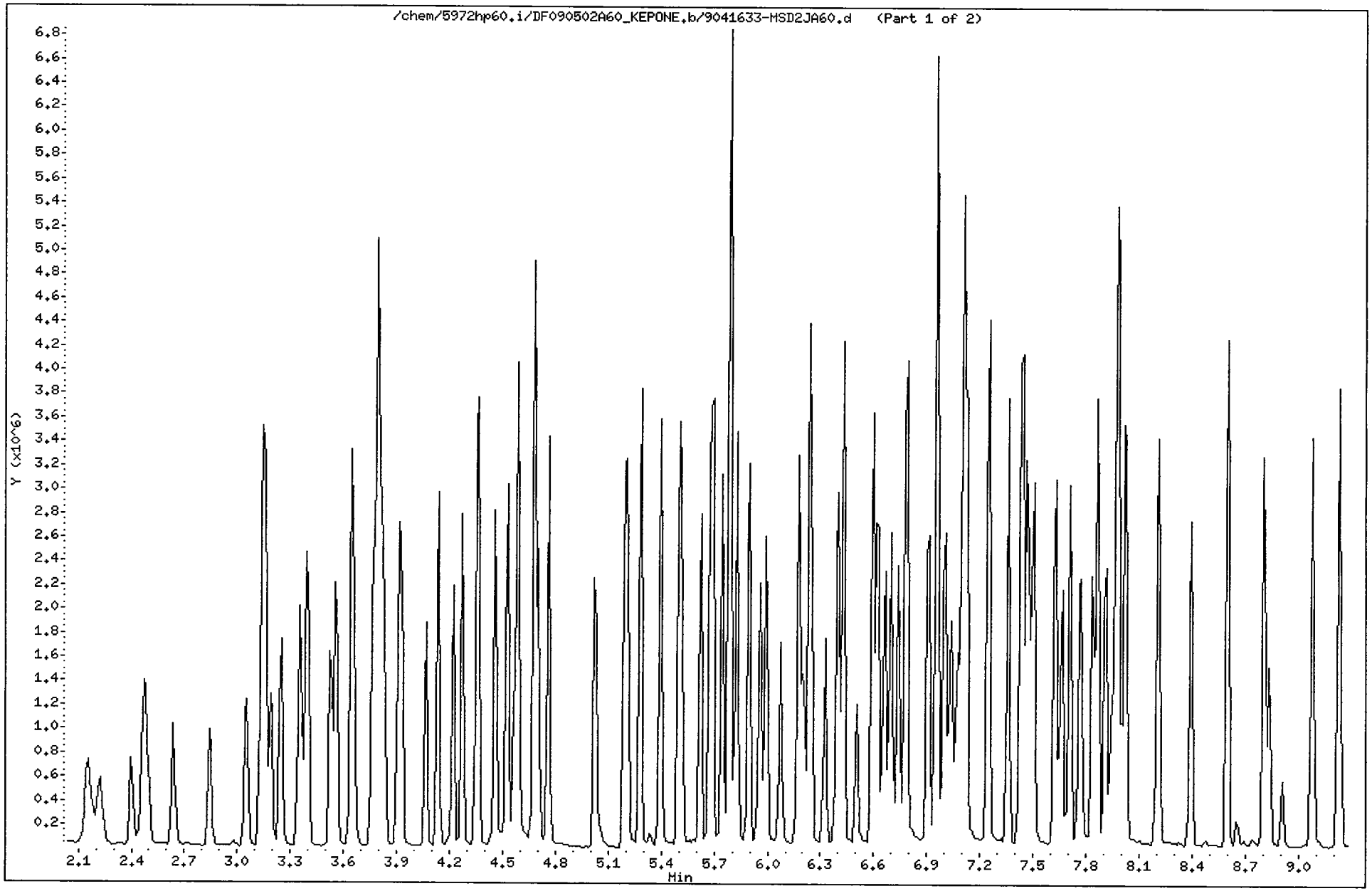
Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

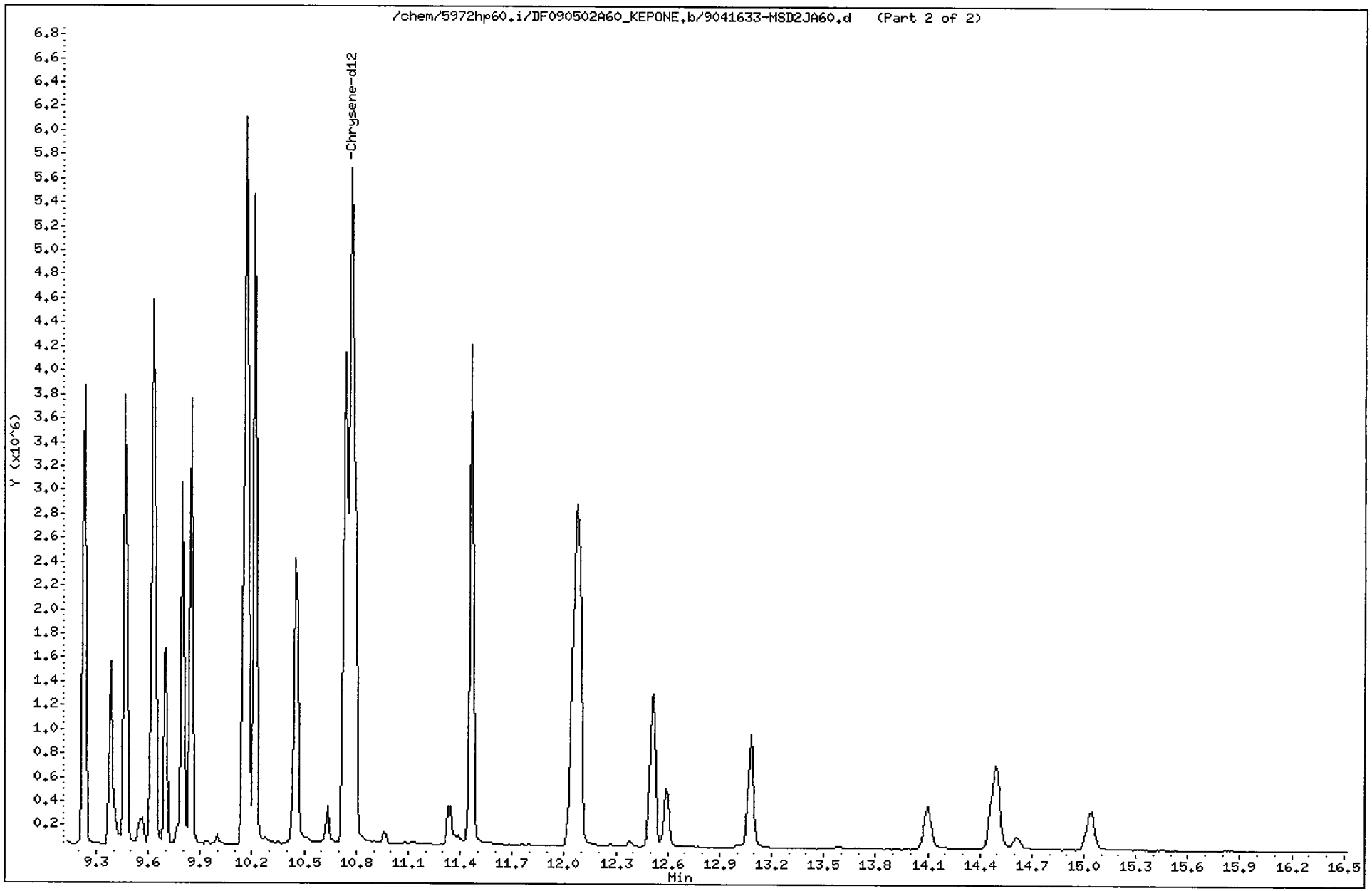
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
143-50-0	Kepone	8.4	

Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/9041633-MSD2JA60.d
Date : 02-MAY-2009 16:12
Client ID: 13MW5MSD
Sample Info: 9041633-MSD2:2650
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp60.i
Operator: 2650
Column diameter: 0.32



Data File: /chem/5972hp60.i/DF090502A60_KEPONE.b/9041633-MSD2JA60.d
Date : 02-MAY-2009 16:12
Client ID: 13MW5MSD
Instrument: 5972hp60.i
Sample Info: 9041633-MSD2:2650
Volume Injected (uL): 2.0
Operator: 2650
Column phase: RTX-5MS
Column diameter: 0.32



Data File: 9041633-MSD2JA60.d
Report Date: 05-May-2009 17:13

CompuChem

Semivolatile Report SW-846 Method 8270C Appendix IX

Data file : /chem/5972hp60.i/DF090502A60_KEPONE.b/9041633-MSD2JA60.d
Lab Smp Id: 9041633-MSD2 Client Smp ID: 13MW5MSD
Inj Date : 02-MAY-2009 16:12
Operator : 2650 Inst ID: 5972hp60.i
Smp Info : 9041633-MSD2:2650
Misc Info : 13MW5MSD02
Comment : 2008 MDLS SOIL/ 2007 WATER
Method : /chem/5972hp60.i/DF090502A60_KEPONE.b/8270CIXv16.m
Meth Date : 05-May-2009 17:12 byrd Quant Type: ISTD
Cal Date : 01-MAY-2009 18:02 Cal File: HS090501A60.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Kepone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	975.00000	Volume of sample extracted (mL)
Vi	2.00000	Volume injected (uL)

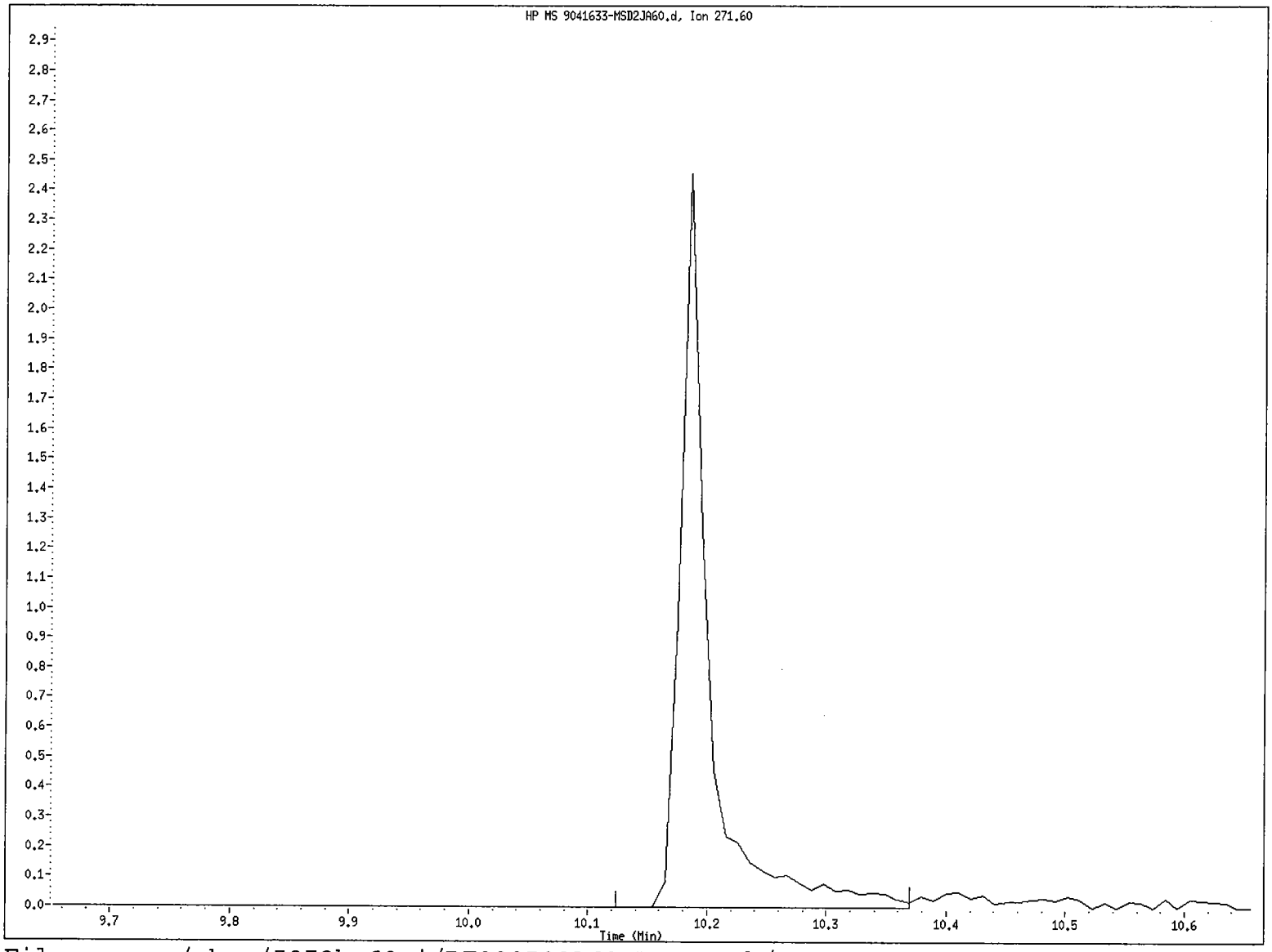
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 5 Chrysene-d12	240	10.758	10.741	(1.000)	588662	40.0000		
126 Kepone	272	10.185	10.158	(0.947)	41075	16.4018	8.4	0(M)

QC Flag Legend

M - Compound response manually integrated.

Kepone CAS Number 143-50-0 Area = 41075 Manually integrated



File name: /chem/5972hp60.i/DF090502A60_KEPONE.b/9041633-MSD2JA60.d
Client ID: 13MW5MSD
Instrument ID: 5972hp60.i
Injection Date and Time: 02-MAY-2009 16:12
Retention Time: 10.18
Operator ID: 2650

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Total # of Pages in this Document 471

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

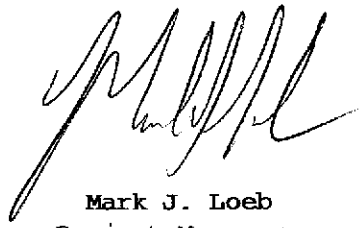
RAAP, RADFORD, VA-OPEN BURNING

Lot #: A9D160180

Janet Frazier

Draper Aden Associates Inc
2206 South Main Street
Blackburg, VA 24060

TESTAMERICA LABORATORIES, INC.



Mark J. Loeb
Project Manager

May 5, 2009

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CASE NARRATIVE

A9D160180

The following report contains the analytical results for six water samples submitted to TestAmerica North Canton by Draper Aden & Associates, Inc. from the RAAP, Radford, VA-Open Burning Site. The samples were received April 16, 2009, according to documented sample acceptance procedures.

The Dioxins/Furans analysis was performed at the TestAmerica West Sacramento Laboratory.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Janet Frazier on May 01, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 2.1, 2.9, and 3.7°C.

CASE NARRATIVE (continued)

DIOXINS/FURANS – West Sacramento

The LCS for batch(es) 9114133 has recoveries for 2,3,7,8-TCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 2,3,4,6,7,8-HxCDF, and 1,2,3,7,8,9-HxCDF above the established control limits indicating a high bias. As these samples are non-detect for these compounds, or these compounds are not an analyte of interest, there is no adverse impact upon the data.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A9D160180

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

METHOD SUMMARY

METHODS SUMMARY

A9D160180

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Dioxins/Furans, HRGC/LRMS (8280A)	SW846 8280A	SW846 8280A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SAMPLE SUMMARY

SAMPLE SUMMARY

A9D160180

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K97AK	001	13MW3	04/13/09	12:00
K97DA	002	13MW4	04/13/09	10:35
K97DE	003	13MWDUP	04/13/09	10:50
K97DG	004	13MW5	04/13/09	08:50
K97DK	005	13MW6	04/13/09	07:40
K97DM	006	13MW7	04/13/09	10:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SHIPPING
AND
RECEIVING DOCUMENTS

CHAIN OF CUSTODY RECORD

Laboratory: Test America Laboratories NORTH CANTON, 4101 Shuffel Drive NW, North Canton, OH 44720. Mark Loeb, Project Manager. 330-497-9396

14

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO UPS: **Carrier:** 12-237-301-01-5432-9980 **Tracking Number:** 1Z 12 11 11 5428 7392		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results. PRICE QUOTE 69684

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	Appdx 9 DIOXINS/Furans 8280A
Box 4 - Sample Type					G
Box 3 - Filtered/Unfiltered					U
Required pH of Sample					
Box 2 - Preservative					H
Box 5 - Sample Container Type					2-1L A
~~13MW1~~			GW		
~~13MW2~~			GW		
13MW3	4/13	1200	GW	2	X
13MW4		1035	GW	2	X
13MWDUP		1050	GW	2	X
~~13MW5~~		0850	GW	6	X
13MW6	4/13	0740	GW	2	X
13MW7	4/14	1050	GW	2	X

> analysis not required.

USE FOR QC

Clients Special Instructions: level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Slaughter	Date: 4/15/09	Sample Storage	
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1700	Time Requested:	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Slaughter	Date: 4/15/09	#2 Received by (Signature): Deanna Mangum	Date: 4/16/09	30 DYS ORG/6 MTHS INORG	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: TAL NC	Time: 950		

OK JLF 3-31-09

OK JLF 3-31-09

North Canton

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 490160180
North Canton Facility

Client Draper Adam Project _____ By: Diana Mangan
Cooler Received on 4/16/09 Opened on 4/16/09 (Signature)
FedEx ☐ UPS ☒ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☒ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 2.1 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☒ Were VOAs on the COC? Yes ☐ No ☒

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100108-HNO_3; *Sulfuric Acid Lot#* 100108-H_2SO_4; *Sodium Hydroxide Lot#* 073007 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 050205-($CH_3COO)_2ZN$/*NaOH.* What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant
A184	2.9	IR	wet ice
A189	3.7	"	"

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

WEST SACRAMENTO DATA

Case Narrative

TestAmerica West Sacramento Project Number A9D160180

WATER, 8280A, Dioxins/Furans
Sample(s): 1, 2, 3, 4, 4MS, 4MSD, 5, 6
The associated laboratory control sample has high recoveries for several analytes. Since the associated results are all 'ND' for the target analytes, no corrective action was performed. There should be no impact on the data.

There were no other anomalies associated with this project.

Draper Aden Associates Inc

Client Sample ID: 13MW3

Trace Level Organic Compounds

Lot-Sample #...: A9D160180-001 **Work Order #...:** K97AK1AA **Matrix.....:** WG
Date Sampled...: 04/13/09 12:00 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total HxCDD	ND	0.26	ng/L	SW846 8280A
Total HxCDF	ND	0.23	ng/L	SW846 8280A
Total PeCDD	ND	0.39	ng/L	SW846 8280A
Total PeCDF	ND	0.16	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.074	ng/L	SW846 8280A
Total TCDD	ND	2.8	ng/L	SW846 8280A
Total TCDF	ND	0.16	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(25 - 150)
13C-2,3,7,8-TCDF	82	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	73	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	74	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(25 - 150)

Draper Aden Associates Inc

Client Sample ID: 13MW4

Trace Level Organic Compounds

Lot-Sample #...: A9D160180-002 **Work Order #...:** K97DA1AA **Matrix.....:** WG
Date Sampled...: 04/13/09 10:35 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total HxCDD	ND	0.38	ng/L	SW846 8280A
Total HxCDF	ND	0.23	ng/L	SW846 8280A
Total PeCDD	ND	0.36	ng/L	SW846 8280A
Total PeCDF	ND	0.19	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.14	ng/L	SW846 8280A
Total TCDD	ND	2.6	ng/L	SW846 8280A
Total TCDF	ND	0.12	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	72	(25 - 150)
13C-2,3,7,8-TCDF	70	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	71	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	72	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(25 - 150)

Draper Aden Associates Inc

Client Sample ID: 13MWDUP

Trace Level Organic Compounds

Lot-Sample #...: A9D160180-003 **Work Order #...:** K97DE1AA **Matrix.....:** WG
Date Sampled...: 04/13/09 10:50 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total HxCDD	ND	0.40	ng/L	SW846 8280A
Total HxCDF	ND	0.40	ng/L	SW846 8280A
Total PeCDD	ND	0.28	ng/L	SW846 8280A
Total PeCDF	ND	0.18	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.084	ng/L	SW846 8280A
Total TCDD	ND	2.6	ng/L	SW846 8280A
Total TCDF	ND	0.10	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	(25 - 150)
13C-2,3,7,8-TCDF	78	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	61	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	61	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	74	(25 - 150)

Draper Aden Associates Inc

Client Sample ID: 13MW5

Trace Level Organic Compounds

Lot-Sample #...: A9D160180-004 **Work Order #...:** K97DG1AA **Matrix.....:** WG
Date Sampled...: 04/13/09 08:50 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total HxCDD	ND	0.29	ng/L	SW846 8280A
Total HxCDF	ND	0.21	ng/L	SW846 8280A
Total PeCDD	ND	0.28	ng/L	SW846 8280A
Total PeCDF	ND	0.20	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.11	ng/L	SW846 8280A
Total TCDD	ND	2.5	ng/L	SW846 8280A
Total TCDF	ND	0.11	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 150)
13C-2,3,7,8-TCDF	70	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	71	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	71	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	77	(25 - 150)

Draper Aden Associates Inc

Client Sample ID: 13MW6

Trace Level Organic Compounds

Lot-Sample #...: A9D160180-005 **Work Order #...:** K97DK1AA **Matrix.....:** WG
Date Sampled...: 04/13/09 07:40 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total HxCDD	ND	0.18	ng/L	SW846 8280A
Total HxCDF	ND	0.20	ng/L	SW846 8280A
Total PeCDD	ND	0.35	ng/L	SW846 8280A
Total PeCDF	ND	0.16	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.097	ng/L	SW846 8280A
Total TCDD	ND	2.5	ng/L	SW846 8280A
Total TCDF	ND	0.093	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(25 - 150)
13C-2,3,7,8-TCDF	79	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	87	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	88	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	(25 - 150)

Draper Aden Associates Inc

Client Sample ID: 13MW7

Trace Level Organic Compounds

Lot-Sample #...: A9D160180-006 **Work Order #...:** K97DM1AA **Matrix.....:** WG
Date Sampled...: 04/13/09 10:50 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total HxCDD	ND	0.22	ng/L	SW846 8280A
Total HxCDF	ND	0.21	ng/L	SW846 8280A
Total PeCDD	ND	0.31	ng/L	SW846 8280A
Total PeCDF	ND	0.13	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.13	ng/L	SW846 8280A
Total TCDD	ND	2.7	ng/L	SW846 8280A
Total TCDF	ND	0.10	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(25 - 150)
13C-2,3,7,8-TCDF	75	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	64	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	61	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	82	(25 - 150)

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** LANTP1AA **Matrix.....:** WATER
MB Lot-Sample #: G9D240000-133
Prep Date.....: 04/24/09
Analysis Date..: 04/27/09 **Prep Batch #...:** 9114133
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.12	ng/L	SW846 8280A
Total PeCDF	ND	0.18	ng/L	SW846 8280A
Total HxCDF	ND	0.24	ng/L	SW846 8280A
Total TCDD	ND	2.4	ng/L	SW846 8280A
2,3,7,8-TCDD	ND	0.10	ng/L	SW846 8280A
Total PeCDD	ND	0.30	ng/L	SW846 8280A
Total HxCDD	ND	0.23	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(25 - 150)
13C-2,3,7,8-TCDF	68	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	56	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	54	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** LANTP1AC **Matrix.....:** WATER
LCS Lot-Sample#: G9D240000-133
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2,3,7,8-TCDD	**135 a**	**(71 - 131)**	**SW846 8280A**
1,2,3,7,8-PeCDD	**134**	**(68 - 140)**	**SW846 8280A**
1,2,3,7,8,9-HxCDD	**193 a**	**(70 - 130)**	**SW846 8280A**
1,2,3,4,7,8-HxCDD	**111**	**(48 - 158)**	**SW846 8280A**
1,2,3,6,7,8-HxCDD	**133 a**	**(71 - 132)**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDD	**172 a**	**(71 - 134)**	**SW846 8280A**
OCDD	**130**	**(72 - 132)**	**SW846 8280A**
2,3,7,8-TCDF	**121**	**(71 - 131)**	**SW846 8280A**
1,2,3,7,8-PeCDF	**114**	**(67 - 140)**	**SW846 8280A**
2,3,4,7,8-PeCDF	**72**	**(59 - 142)**	**SW846 8280A**
1,2,3,4,7,8-HxCDF	**118**	**(50 - 160)**	**SW846 8280A**
1,2,3,6,7,8-HxCDF	**137**	**(56 - 152)**	**SW846 8280A**
2,3,4,6,7,8-HxCDF	**165 a**	**(62 - 153)**	**SW846 8280A**
1,2,3,7,8,9-HxCDF	**199 a**	**(67 - 145)**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDF	**132**	**(71 - 135)**	**SW846 8280A**
1,2,3,4,7,8,9-HpCDF	**202 a**	**(72 - 141)**	**SW846 8280A**
OCDF	**129**	**(72 - 135)**	**SW846 8280A**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	53	(25 - 150)
13C-2,3,7,8-TCDF	58	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	38	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	37	(25 - 150)
13C-OCDD	56	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** LANTP1AC **Matrix.....:** WATER
LCS Lot-Sample#: G9D240000-133
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2,3,7,8-TCDD	**25**	**34 a**	**ng/L**	**135**	**SW846 8280A**
1,2,3,7,8-PeCDD	**62**	**84**	**ng/L**	**134**	**SW846 8280A**
1,2,3,7,8,9-HxCDD	**62**	**120 a**	**ng/L**	**193**	**SW846 8280A**
1,2,3,4,7,8-HxCDD	**62**	**69**	**ng/L**	**111**	**SW846 8280A**
1,2,3,6,7,8-HxCDD	**62**	**83 a**	**ng/L**	**133**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDD	**62**	**110 a**	**ng/L**	**172**	**SW846 8280A**
OCDD	**120**	**160**	**ng/L**	**130**	**SW846 8280A**
2,3,7,8-TCDF	**25**	**30**	**ng/L**	**121**	**SW846 8280A**
1,2,3,7,8-PeCDF	**62**	**71**	**ng/L**	**114**	**SW846 8280A**
2,3,4,7,8-PeCDF	**62**	**45**	**ng/L**	**72**	**SW846 8280A**
1,2,3,4,7,8-HxCDF	**62**	**74**	**ng/L**	**118**	**SW846 8280A**
1,2,3,6,7,8-HxCDF	**62**	**86**	**ng/L**	**137**	**SW846 8280A**
2,3,4,6,7,8-HxCDF	**62**	**100 a**	**ng/L**	**165**	**SW846 8280A**
1,2,3,7,8,9-HxCDF	**62**	**120 a**	**ng/L**	**199**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDF	**62**	**82**	**ng/L**	**132**	**SW846 8280A**
1,2,3,4,7,8,9-HpCDF	**62**	**130 a**	**ng/L**	**202**	**SW846 8280A**
OCDF	**120**	**160**	**ng/L**	**129**	**SW846 8280A**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	53	(25 - 150)
13C-2,3,7,8-TCDF	58	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	38	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	37	(25 - 150)
13C-OCDD	56	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	96	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** K97DG1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A9D160180-004 K97DG1AD-MSD
Date Sampled...: 04/13/09 08:50 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,3,7,8-TCDD	**97**	**(71 - 131)**			**SW846 8280A**
	107	**(71 - 131)**	**12**	**(0-57)**	**SW846 8280A**
1,2,3,7,8-PeCDD	**100**	**(68 - 140)**			**SW846 8280A**
	110	**(68 - 140)**	**12**	**(0-72)**	**SW846 8280A**
1,2,3,7,8,9-HxCDD	**129**	**(70 - 130)**			**SW846 8280A**
	120	**(70 - 130)**	**4.9**	**(0-24)**	**SW846 8280A**
1,2,3,4,7,8-HxCDD	**85**	**(48 - 158)**			**SW846 8280A**
	91	**(48 - 158)**	**10**	**(0-27)**	**SW846 8280A**
1,2,3,6,7,8-HxCDD	**95**	**(71 - 132)**			**SW846 8280A**
	104	**(71 - 132)**	**12**	**(0-24)**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDD	**120**	**(71 - 134)**			**SW846 8280A**
	118	**(71 - 134)**	**0.74**	**(0-20)**	**SW846 8280A**
OCDD	**96**	**(72 - 132)**			**SW846 8280A**
	104	**(72 - 132)**	**11**	**(0-21)**	**SW846 8280A**
2,3,7,8-TCDF	**96**	**(71 - 131)**			**SW846 8280A**
	104	**(71 - 131)**	**10**	**(0-57)**	**SW846 8280A**
1,2,3,7,8-PeCDF	**95**	**(67 - 140)**			**SW846 8280A**
	106	**(67 - 140)**	**14**	**(0-64)**	**SW846 8280A**
2,3,4,7,8-PeCDF	**66**	**(59 - 142)**			**SW846 8280A**
	82	**(59 - 142)**	**23**	**(0-53)**	**SW846 8280A**
1,2,3,4,7,8-HxCDF	**88**	**(50 - 160)**			**SW846 8280A**
	98	**(50 - 160)**	**13**	**(0-19)**	**SW846 8280A**
1,2,3,6,7,8-HxCDF	**100**	**(56 - 152)**			**SW846 8280A**
	108	**(56 - 152)**	**11**	**(0-32)**	**SW846 8280A**
2,3,4,6,7,8-HxCDF	**115**	**(62 - 153)**			**SW846 8280A**
	117	**(62 - 153)**	**4.2**	**(0-32)**	**SW846 8280A**
1,2,3,7,8,9-HxCDF	**131**	**(67 - 145)**			**SW846 8280A**
	125	**(67 - 145)**	**2.3**	**(0-27)**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDF	**96**	**(71 - 135)**			**SW846 8280A**
	103	**(71 - 135)**	**9.5**	**(0-23)**	**SW846 8280A**
1,2,3,4,7,8,9-HpCDF	**133**	**(72 - 141)**			**SW846 8280A**
	125	**(72 - 141)**	**3.5**	**(0-20)**	**SW846 8280A**
OCDF	**96**	**(72 - 135)**			**SW846 8280A**
	105	**(72 - 135)**	**11**	**(0-24)**	**SW846 8280A**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(25 - 150)
	83	(25 - 150)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** K97DG1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A9D160180-004 K97DG1AD-MSD

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	92	(25 - 150)
	82	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	73	(25 - 150)
	76	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	70	(25 - 150)
	75	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(25 - 150)
	93	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** K97DG1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A9D160180-004 K97DG1AD-MSD
Date Sampled...: 04/13/09 08:50 **Date Received..:** 04/16/09
Prep Date.....: 04/24/09 **Analysis Date..:** 04/27/09
Prep Batch #...: 9114133
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2,3,7,8-TCDD	**ND**	**24**	**24**	**ng/L**	**97**		**SW846 8280A**
	ND	**25**	**27**	**ng/L**	**107**	**12**	**SW846 8280A**
1,2,3,7,8-PeCDD	**ND**	**61**	**61**	**ng/L**	**100**		**SW846 8280A**
	ND	**62**	**69**	**ng/L**	**110**	**12**	**SW846 8280A**
1,2,3,7,8,9-HxCDD	**ND**	**61**	**79**	**ng/L**	**129**		**SW846 8280A**
	ND	**62**	**75**	**ng/L**	**120**	**4.9**	**SW846 8280A**
1,2,3,4,7,8-HxCDD	**ND**	**61**	**52**	**ng/L**	**85**		**SW846 8280A**
	ND	**62**	**57**	**ng/L**	**91**	**10**	**SW846 8280A**
1,2,3,6,7,8-HxCDD	**ND**	**61**	**58**	**ng/L**	**95**		**SW846 8280A**
	ND	**62**	**65**	**ng/L**	**104**	**12**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDD	**ND**	**61**	**73**	**ng/L**	**120**		**SW846 8280A**
	ND	**62**	**74**	**ng/L**	**118**	**0.74**	**SW846 8280A**
OCDD	**ND**	**120**	**120**	**ng/L**	**96**		**SW846 8280A**
	ND	**120**	**130**	**ng/L**	**104**	**11**	**SW846 8280A**
2,3,7,8-TCDF	**ND**	**24**	**23**	**ng/L**	**96**		**SW846 8280A**
	ND	**25**	**26**	**ng/L**	**104**	**10**	**SW846 8280A**
1,2,3,7,8-PeCDF	**ND**	**61**	**58**	**ng/L**	**95**		**SW846 8280A**
	ND	**62**	**67**	**ng/L**	**106**	**14**	**SW846 8280A**
2,3,4,7,8-PeCDF	**ND**	**61**	**40**	**ng/L**	**66**		**SW846 8280A**
	ND	**62**	**51**	**ng/L**	**82**	**23**	**SW846 8280A**
1,2,3,4,7,8-HxCDF	**ND**	**61**	**54**	**ng/L**	**88**		**SW846 8280A**
	ND	**62**	**61**	**ng/L**	**98**	**13**	**SW846 8280A**
1,2,3,6,7,8-HxCDF	**ND**	**61**	**61**	**ng/L**	**100**		**SW846 8280A**
	ND	**62**	**68**	**ng/L**	**108**	**11**	**SW846 8280A**
2,3,4,6,7,8-HxCDF	**ND**	**61**	**70**	**ng/L**	**115**		**SW846 8280A**
	ND	**62**	**73**	**ng/L**	**117**	**4.2**	**SW846 8280A**
1,2,3,7,8,9-HxCDF	**ND**	**61**	**80**	**ng/L**	**131**		**SW846 8280A**
	ND	**62**	**78**	**ng/L**	**125**	**2.3**	**SW846 8280A**
1,2,3,4,6,7,8-HpCDF	**ND**	**61**	**58**	**ng/L**	**96**		**SW846 8280A**
	ND	**62**	**64**	**ng/L**	**103**	**9.5**	**SW846 8280A**
1,2,3,4,7,8,9-HpCDF	**ND**	**61**	**81**	**ng/L**	**133**		**SW846 8280A**
	ND	**62**	**78**	**ng/L**	**125**	**3.5**	**SW846 8280A**
OCDF	**ND**	**120**	**120**	**ng/L**	**96**		**SW846 8280A**
	ND	**120**	**130**	**ng/L**	**105**	**11**	**SW846 8280A**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(25 - 150)
	83	(25 - 150)

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A9D160180 **Work Order #...:** K97DG1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A9D160180-004 K97DG1AD-MSD

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	92	(25 - 150)
	82	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	73	(25 - 150)
	76	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	70	(25 - 150)
	75	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(25 - 150)
	93	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

WATER, 8280A, Dioxins/Furans

Raw Data Package

Run/Batch Data

Includes (as applicable):

runlogs

continuing calibration standards

interference/performance check standards

continuing calibration blanks

method blanks

lcs

ms/sd

sample raw data

ms tune data

8280\8280A QUANTITATION REPORT STL Sacramento

Sample ID: A9D160180-MB 1.0L 8280A
LANTP-1-AA WATER LR909

Size: 1.000
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042701.D
Acq On :27 Apr 2009 12:36 pm

Vial: 1
Operator: MEO
Sample Amount: 1.00

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:29 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.81	163744	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.28	144155	25.00	NG	0.00
9) 13C-2378-TCDF	20.24	316+318	0.79	200553	25.00	NG	0.00 ✓
15) 13C-2378-TCDD	21.13	332+334	0.79	142797	25.00	NG	-0.02
20) 13C-123678-HxCDD	34.69	402+404	1.23	72661	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.02	83029	25.00	NG	0.00
36) 13C-OCDD	40.29	470+472	0.91	204501	50.00	NG	0.00

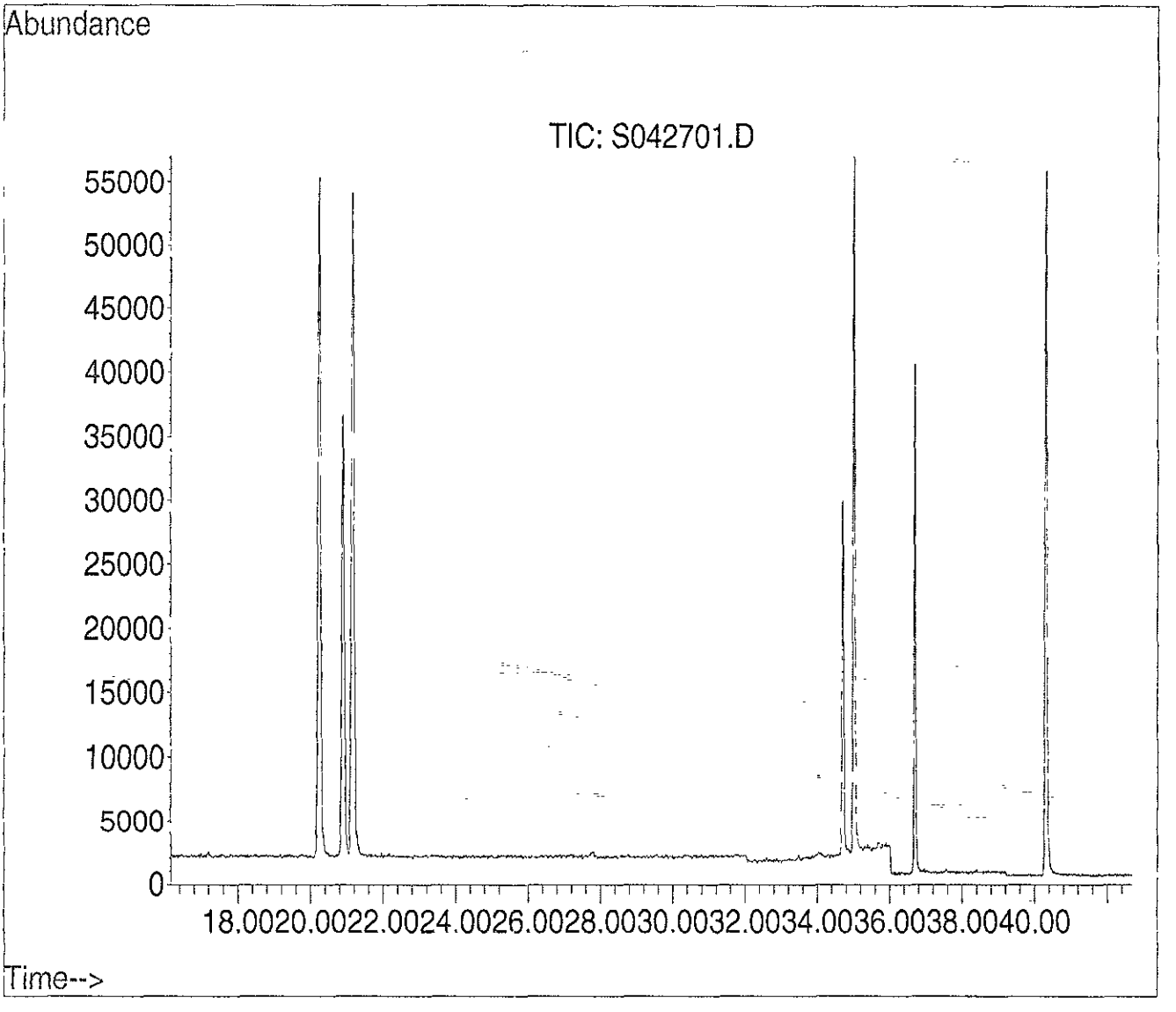
Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		122908	10.531	NG	0.00
Spiked Amount = 12.500	RRF = 1.782			Recovery =	84.24% ✓		

Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.24	0.79	200553	1.796	17.045	0.0146	68.2
3) 13C-2378-TCDD-IS	21.13	0.79	142797	1.137	19.167	4.0273	76.7 ✓
6) 13C-123678-HxCDD-	34.69	1.23	72760	0.899	14.029	0.1073	56.1
7) 13C-1234678-HpCDF	36.68	1.02	83029	1.062	13.560	0.0621	54.2
8) 13C-OCDD-IS	40.29	0.91	204501	0.887	39.966	0.1594	79.9
10) 2378-TCDF	0.00		0	1.219	N.D.	0.0981	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.1180	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.1356	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.1592	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.1753	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.1047	
1	20.24	5.07 #	18088		2.424 BL		
17) TCDD TOTAL	19.30	5.07	18088	1.306	2.424		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.1230	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.3019	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.1650	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.1896	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.1553	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.2275	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.2572	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	1.1463	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.0924	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.0797	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.1049	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.1216	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.2413	AK 4/30/09
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.1155	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.1737	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.2120	
37) OCDD	0.00		0	1.224	N.D.	0.1910	

38) OCDF	0.00	0	1.589	N.D.	0.2320

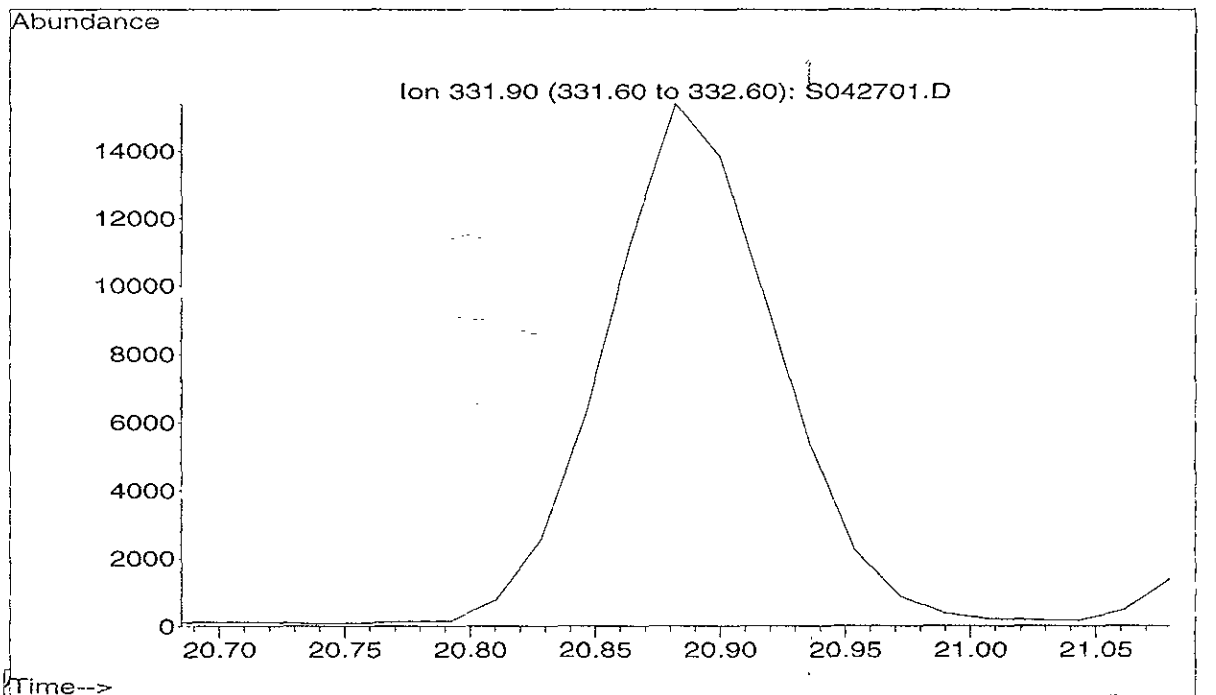
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042701.D 09AP27A2.M Tue Apr 28 16:29:18 2009

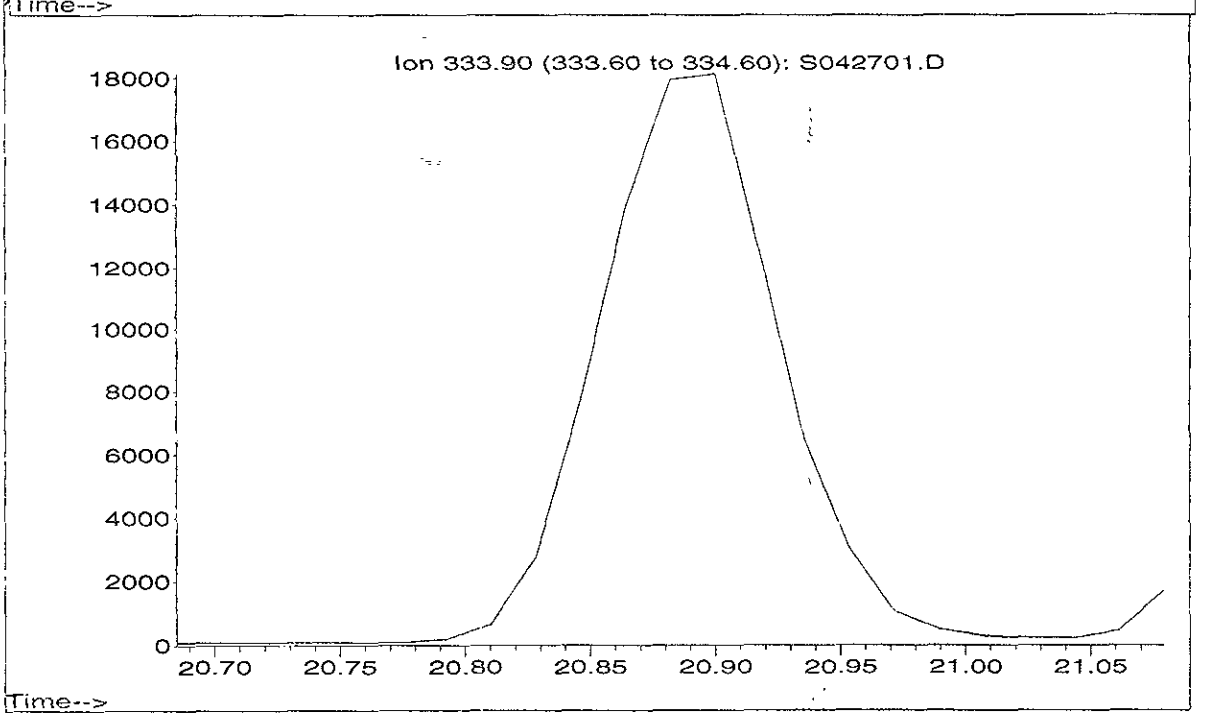
Data File Name	S042701.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 12:36
Acq. Method File	TOKAS
Sample Name	_ANTP-1-AA WATER LR909
Misc Info	A9D160180-MB 1.0L 8280A
Vial Number	1
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1



13C-1234-TCDD

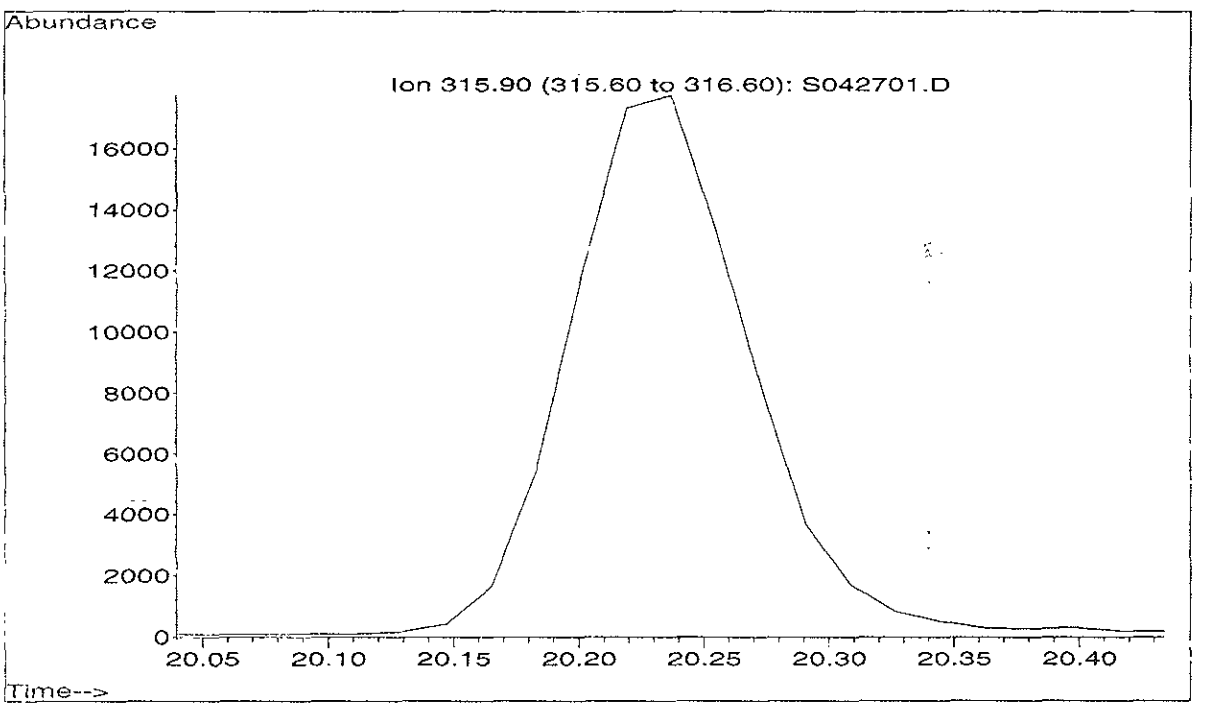
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	73252	Q1 Response	90492
Total Response	163744	Ion Ratio	0.81

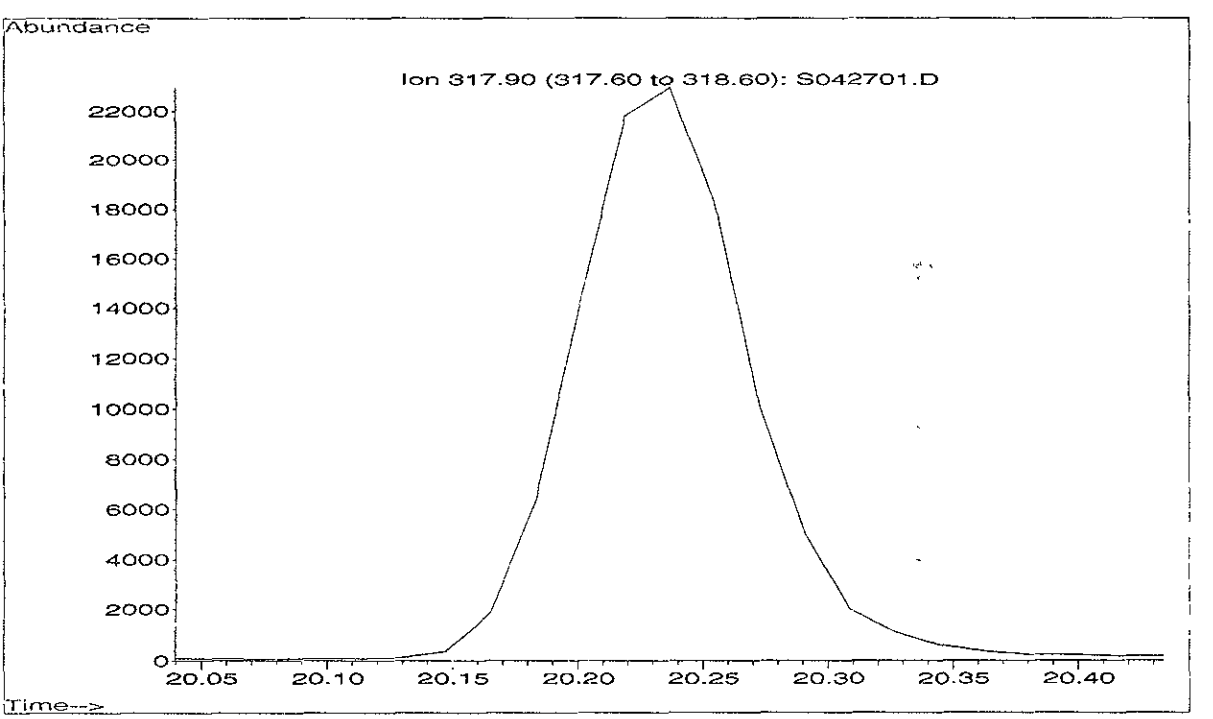




13C-2378-TCDF-IS

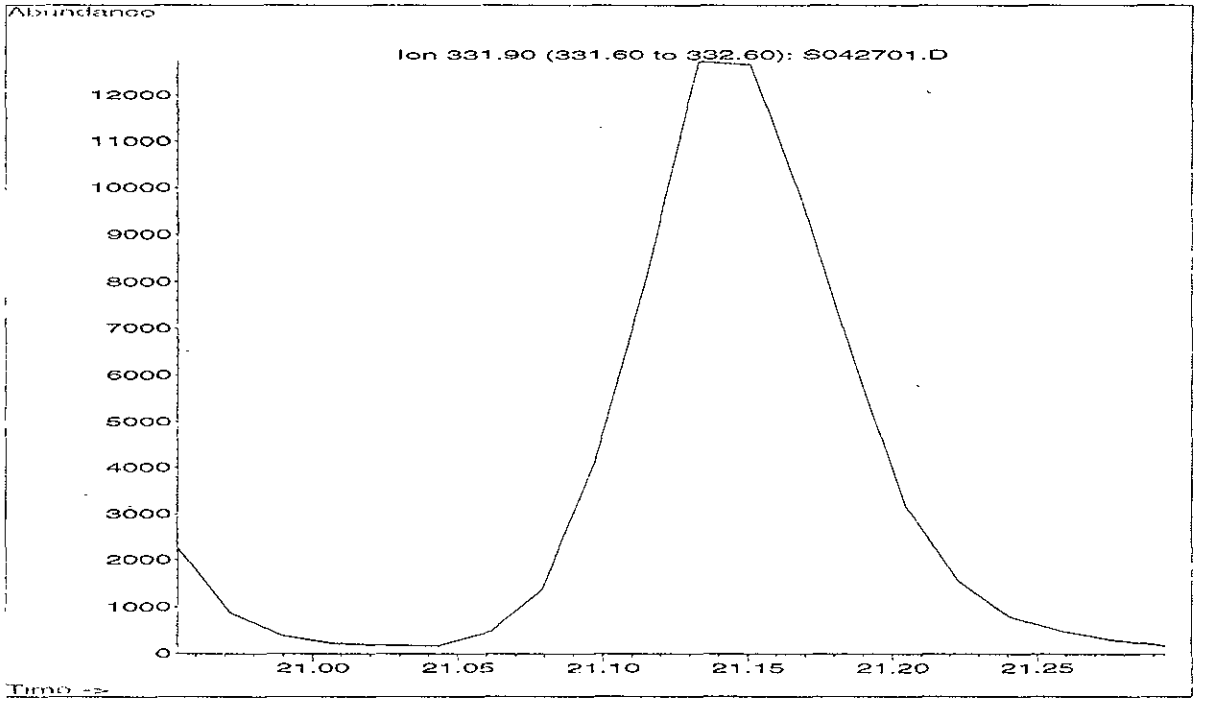
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.24		
Target Ion	315.9	Q1 Ion	317.9
Target Response	88329	Q1 Response	112224
Target Response	200553	Ion Ratio	0.79

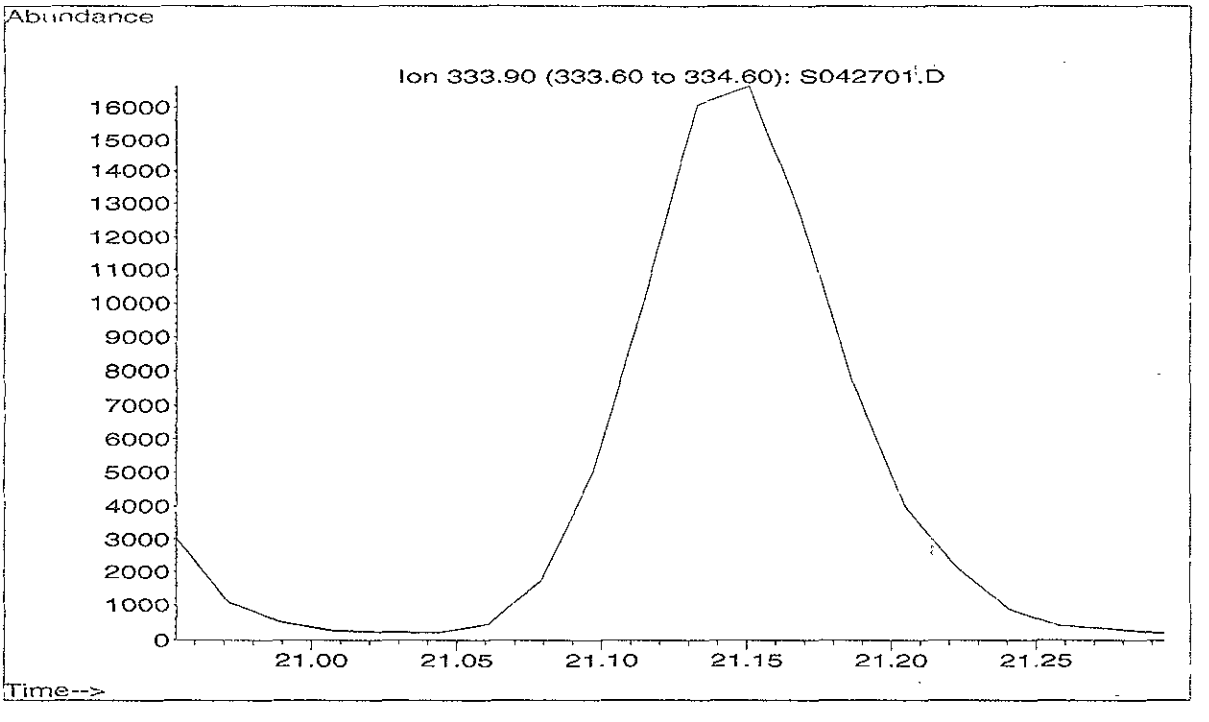




13C-2378-TCDD-IS

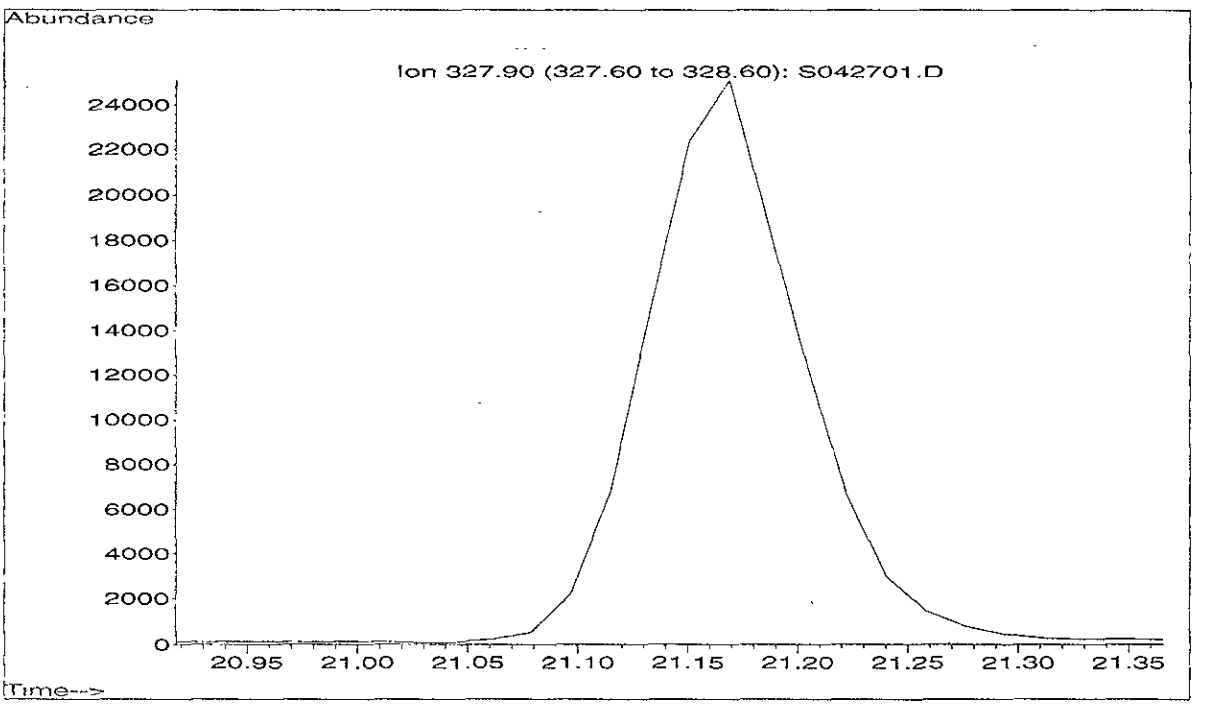
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.13		
Target Ion	331.9	Q1 Ion	333.9
Target Response	62973	Q1 Response	79824
Total Response	142797	Ion Ratio	0.79

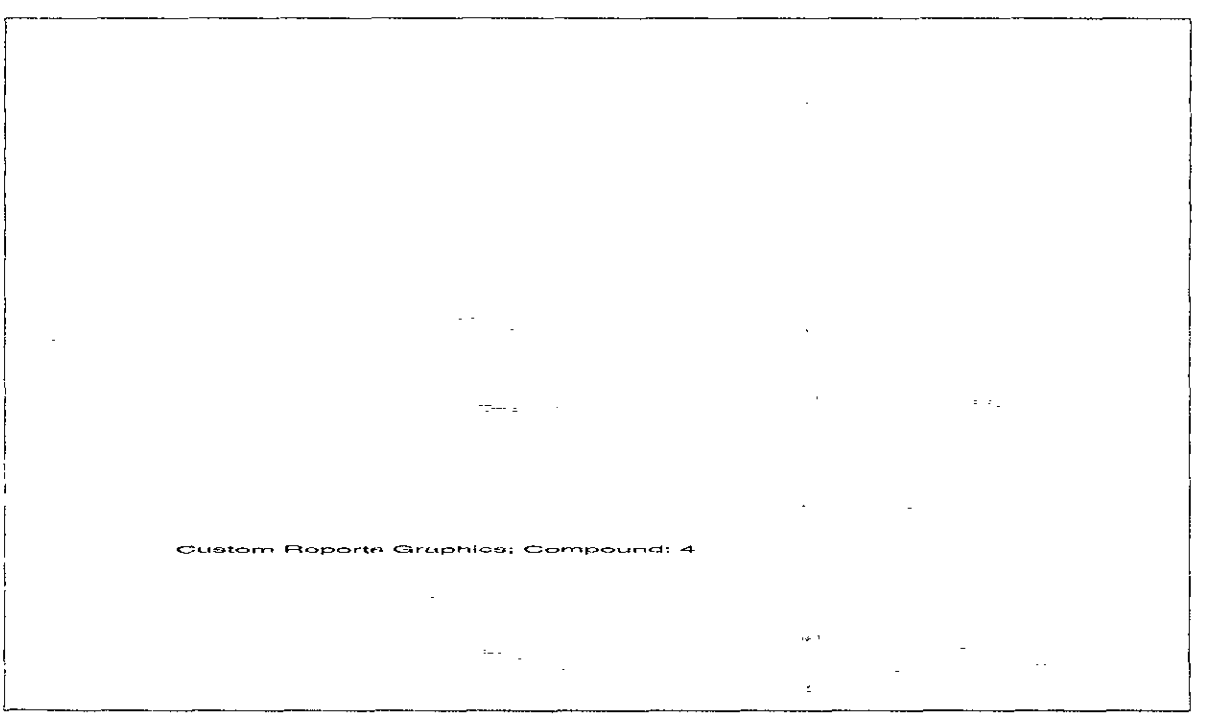




37Cl-2378-TCDD

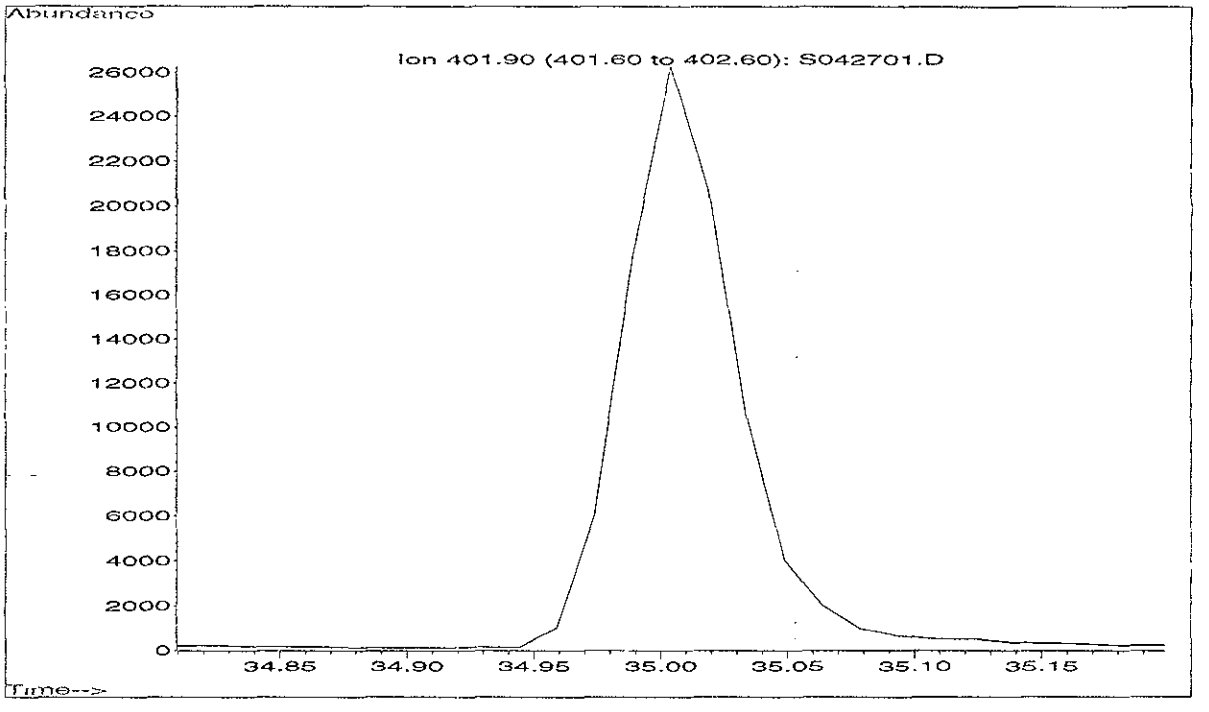
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	122908	Q1 Response	0
Total Response	122908	Ion Ratio	#DIV/0!

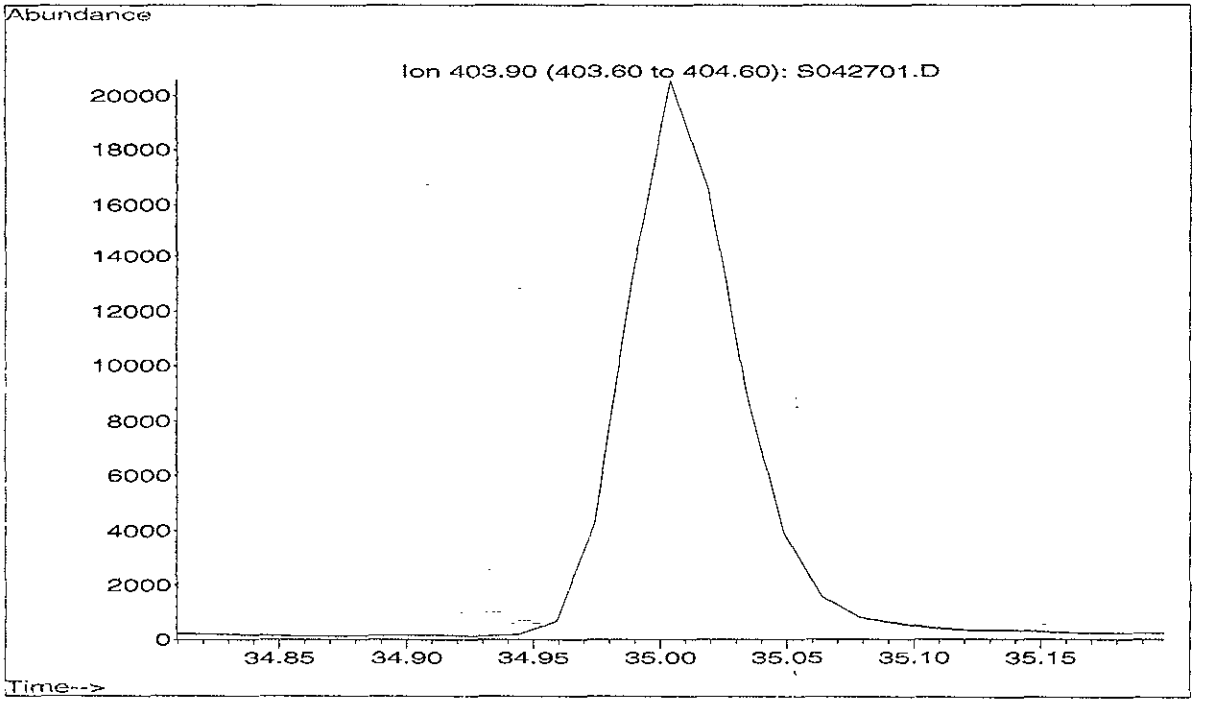




13C-123789-HxCDD

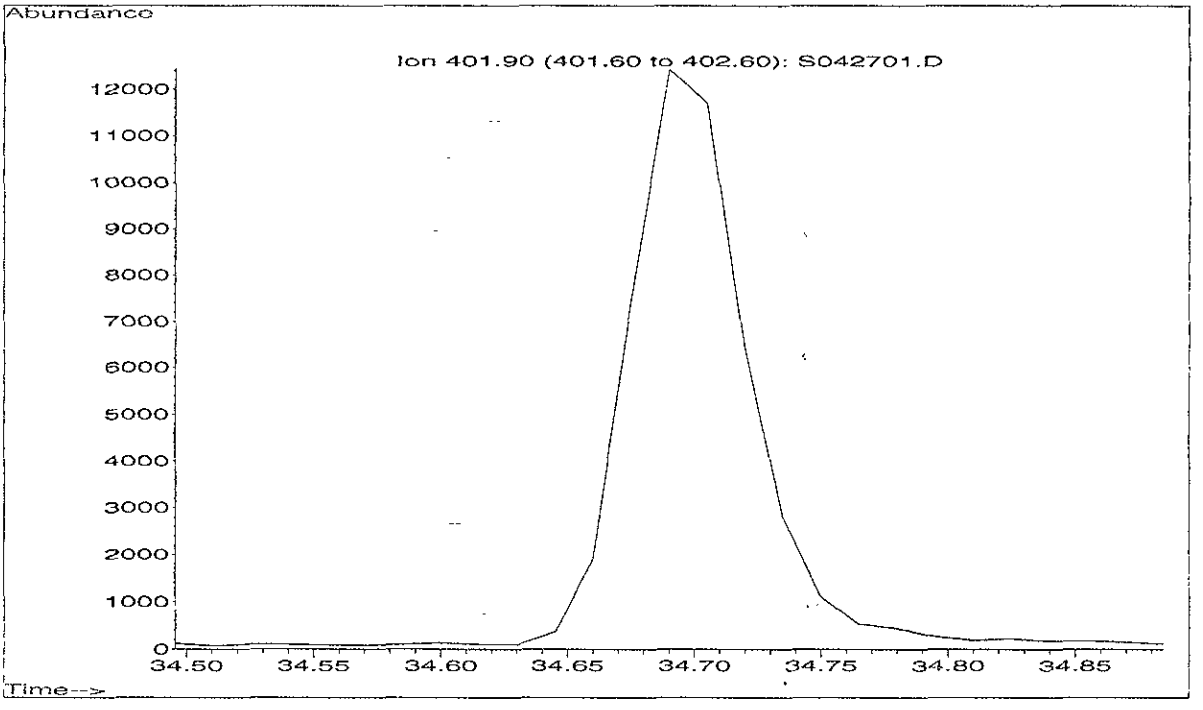
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	80794	Q1 Response	63361
Target Response	144155	Ion Ratio	1.28

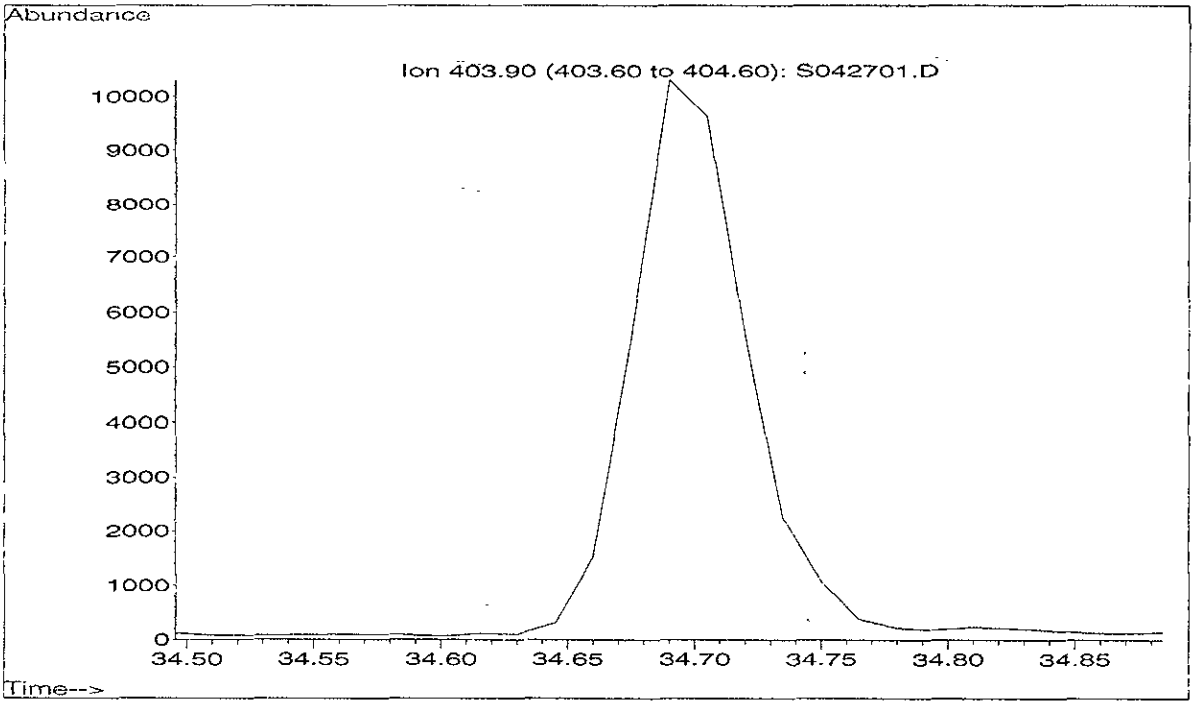




13C-123678-HxCDD-IS

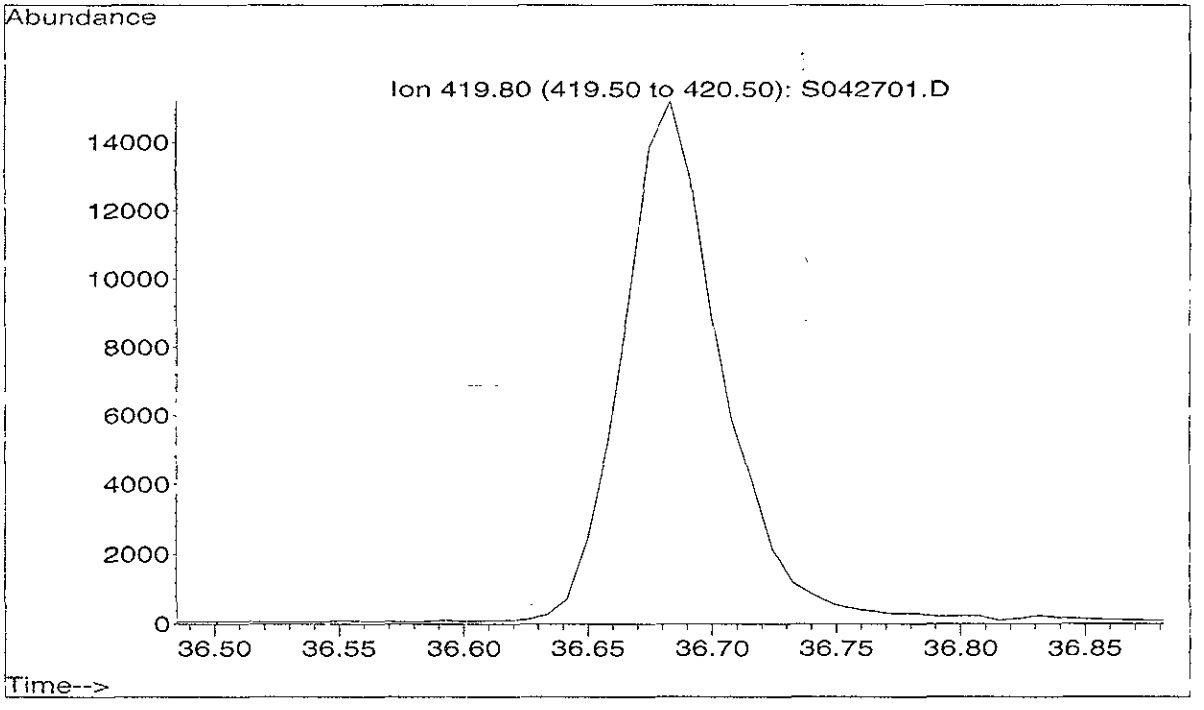
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	40118	Q1 Response	32642
Total Response	72760	Ion Ratio	1.23

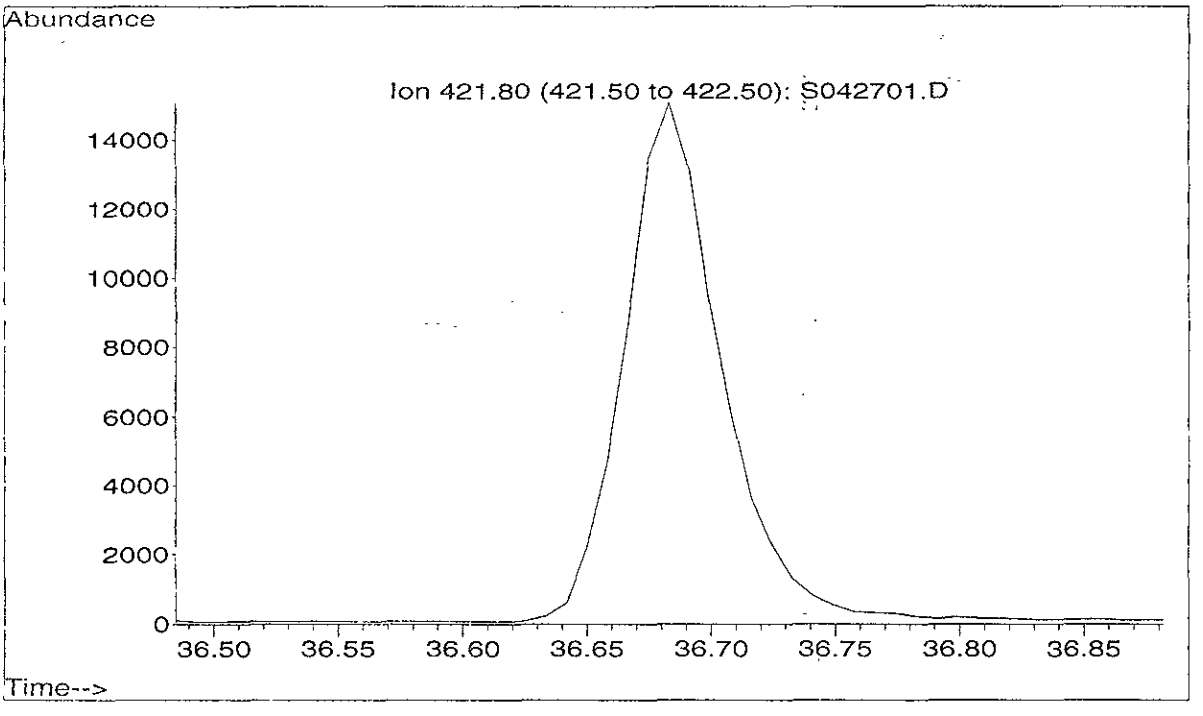




13C-1234678-HpCDF-IS

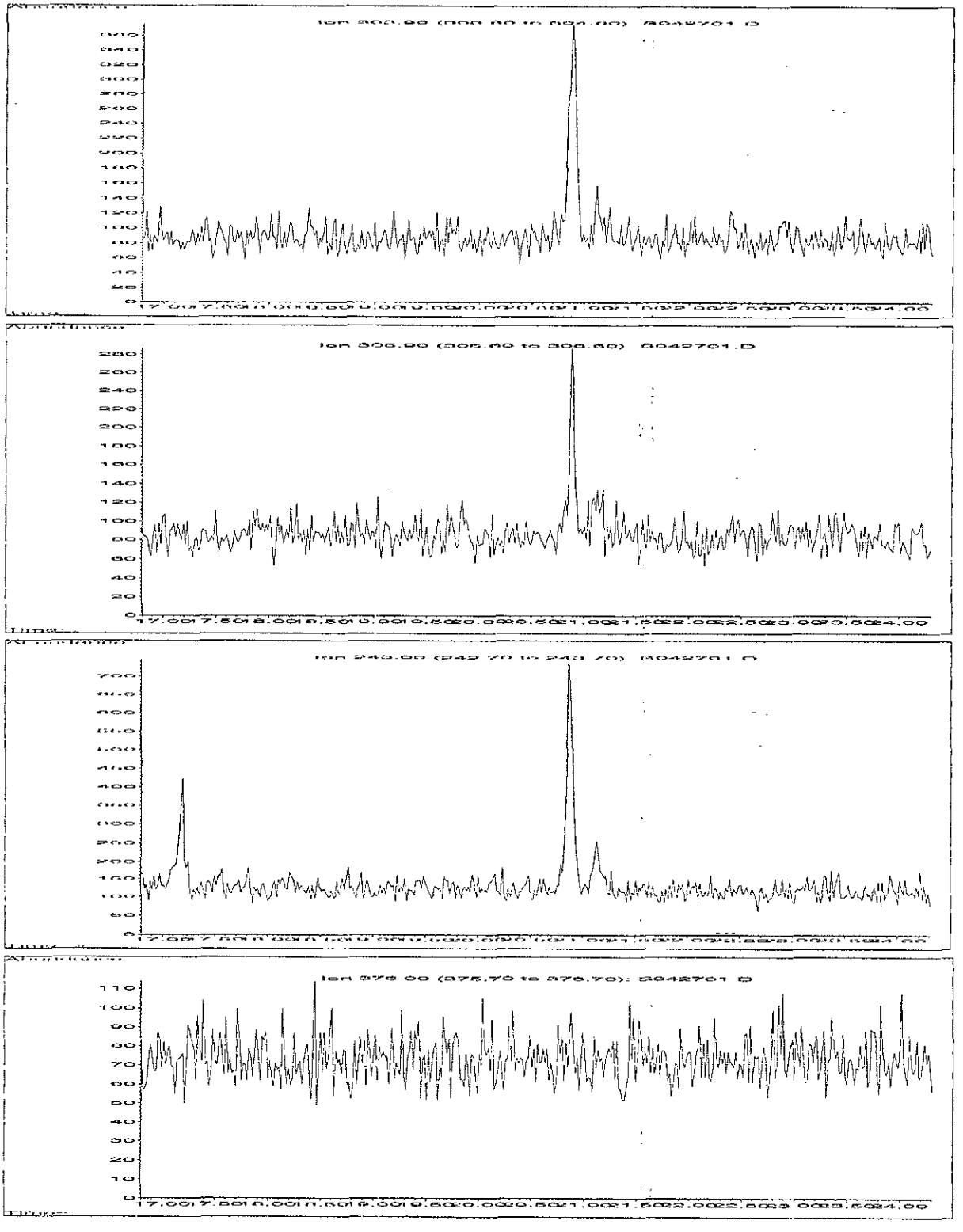
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	42010	Q1 Response	41019
Target Response	83029	Ion Ratio	1.02





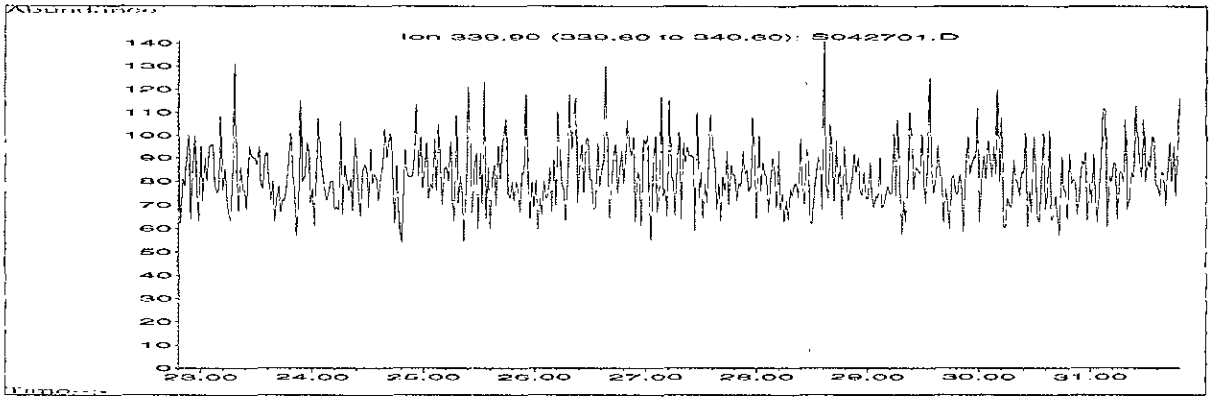
TCDF TOTAL

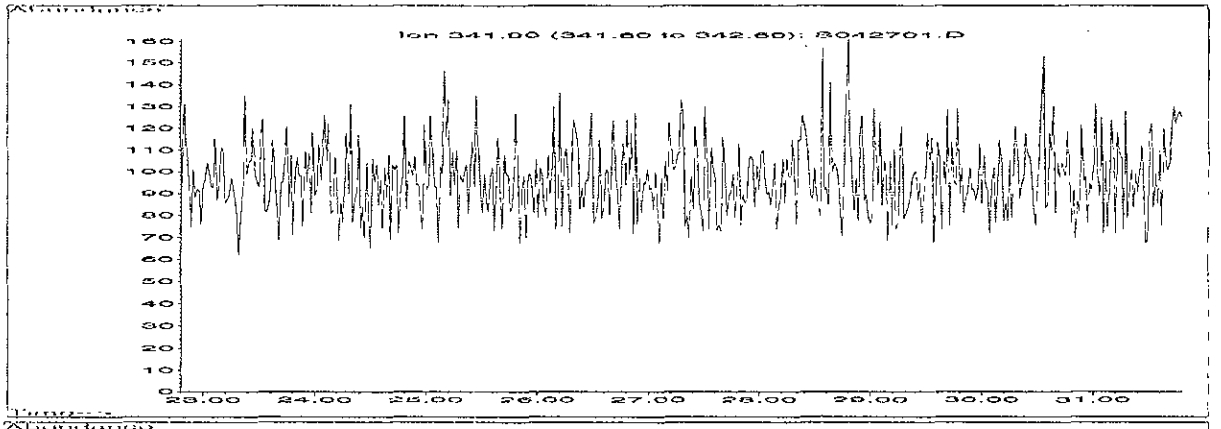
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

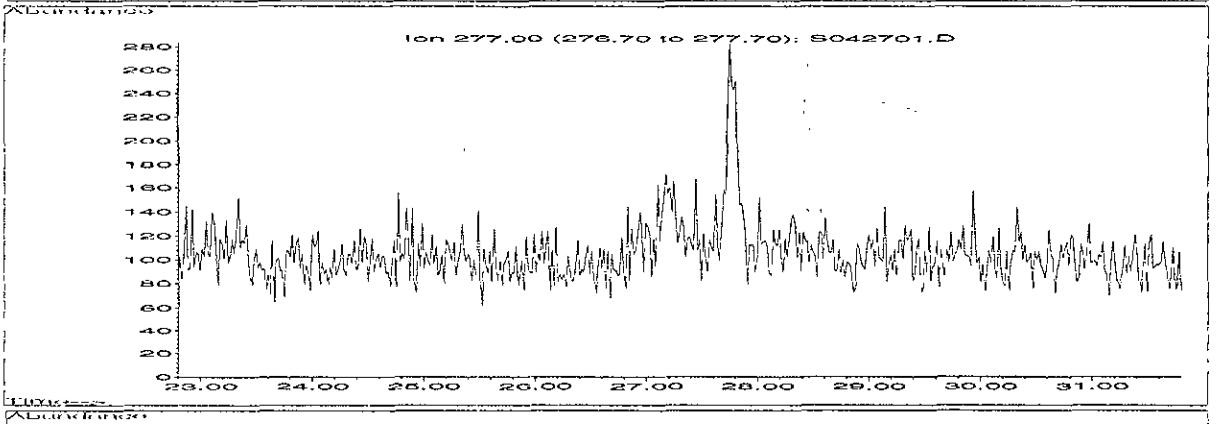


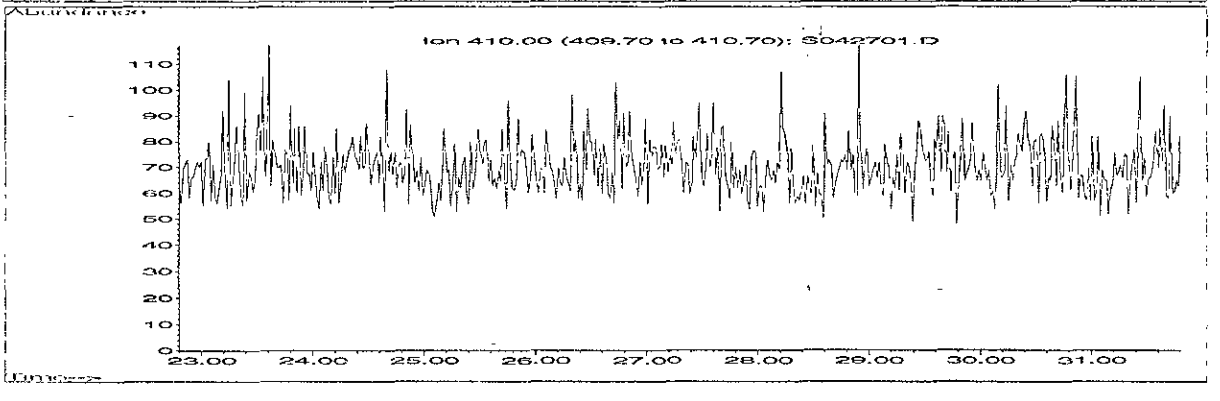
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



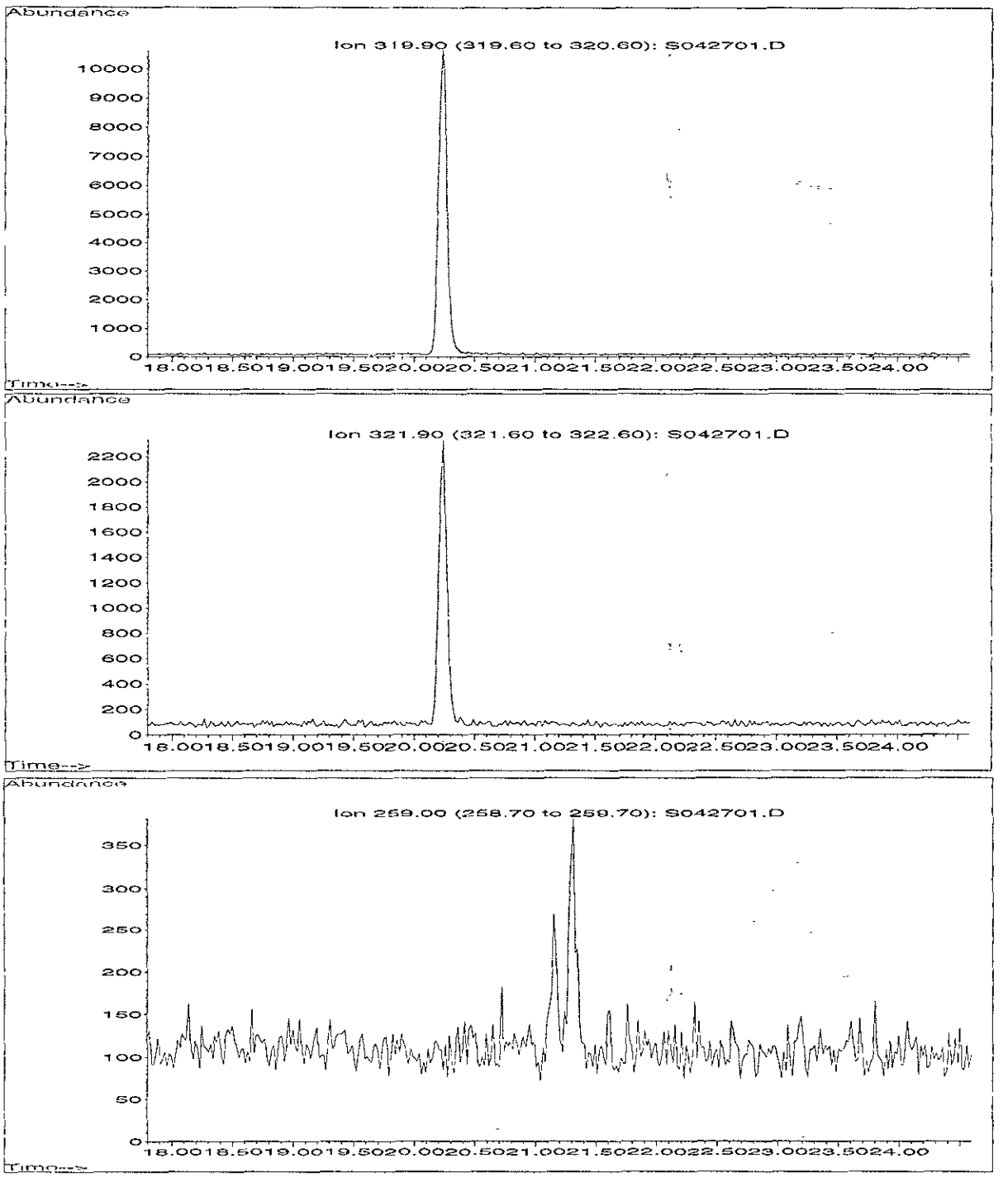






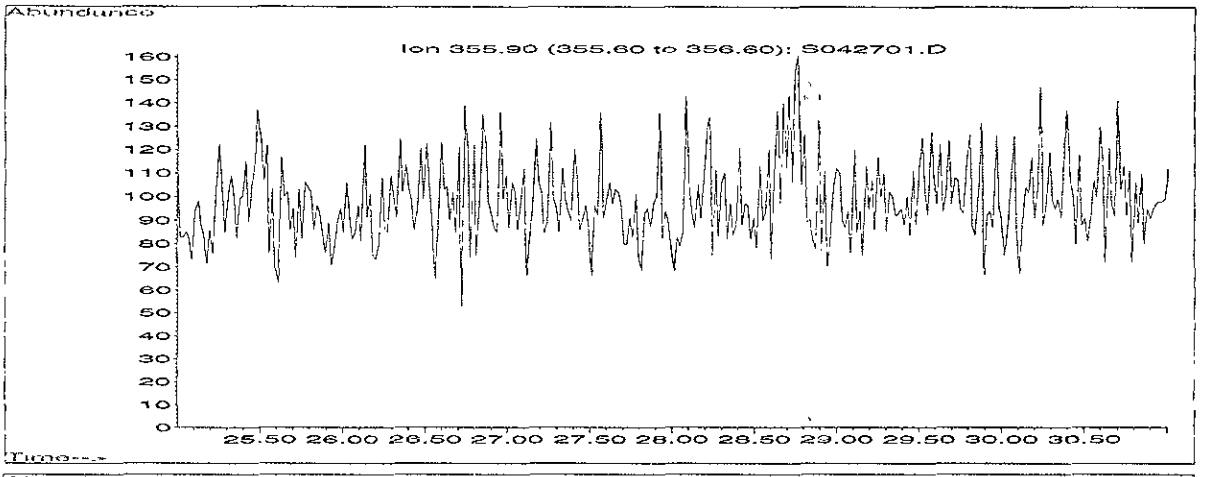
TCDD TOTAL

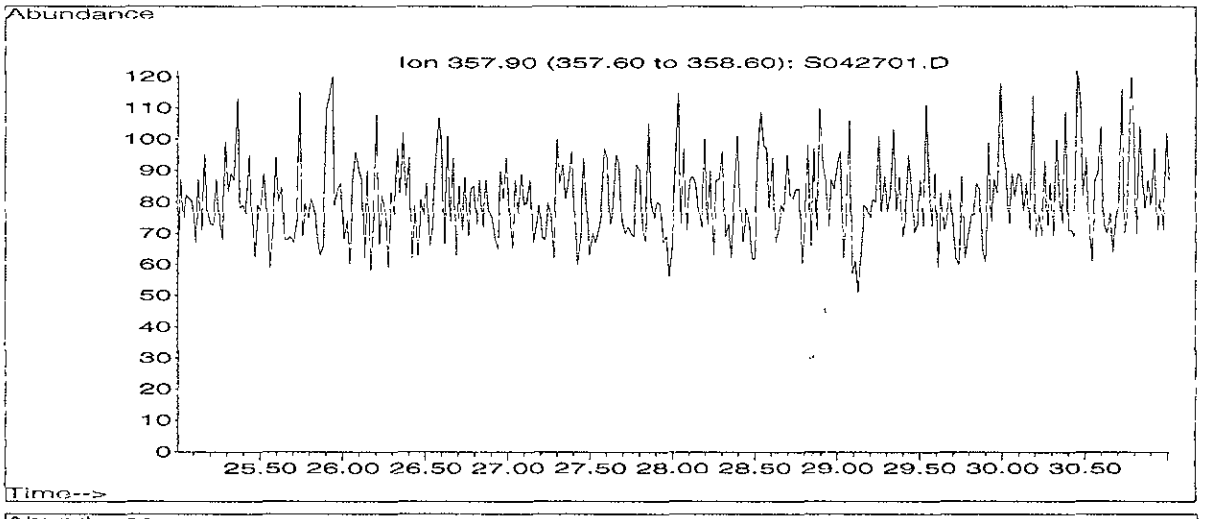
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

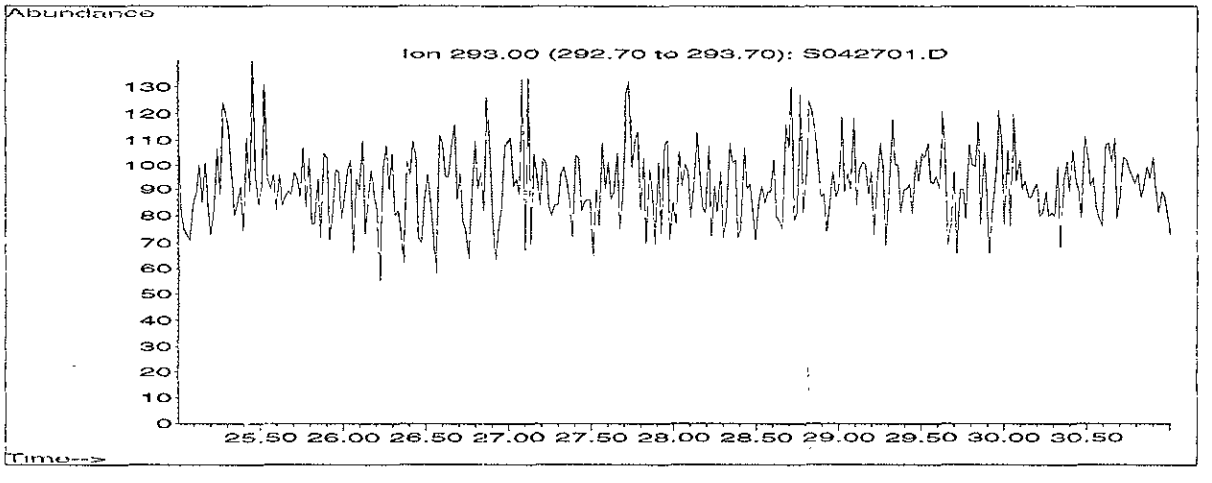


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

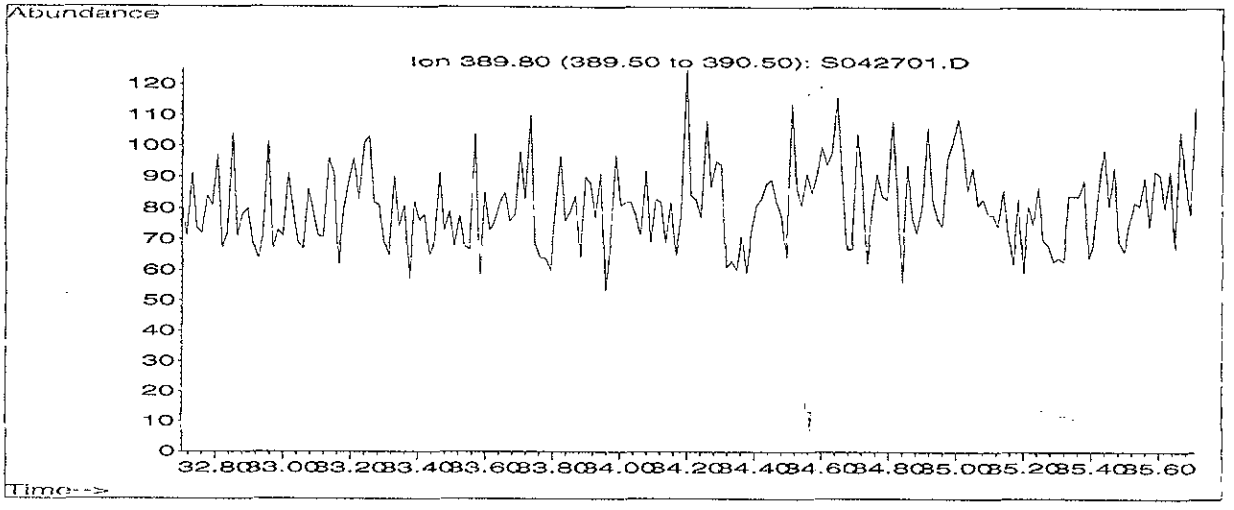


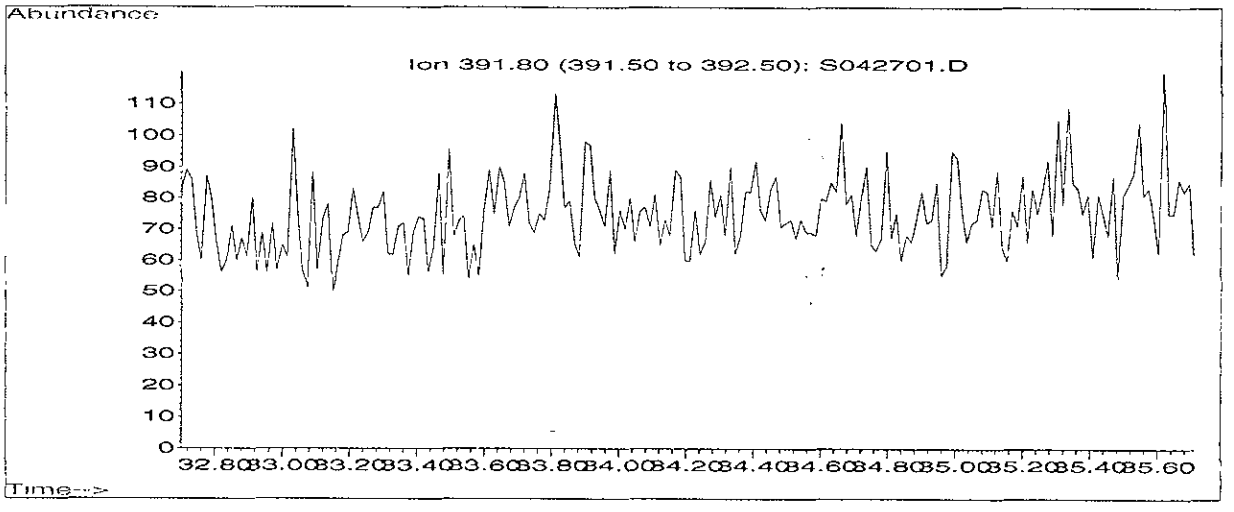


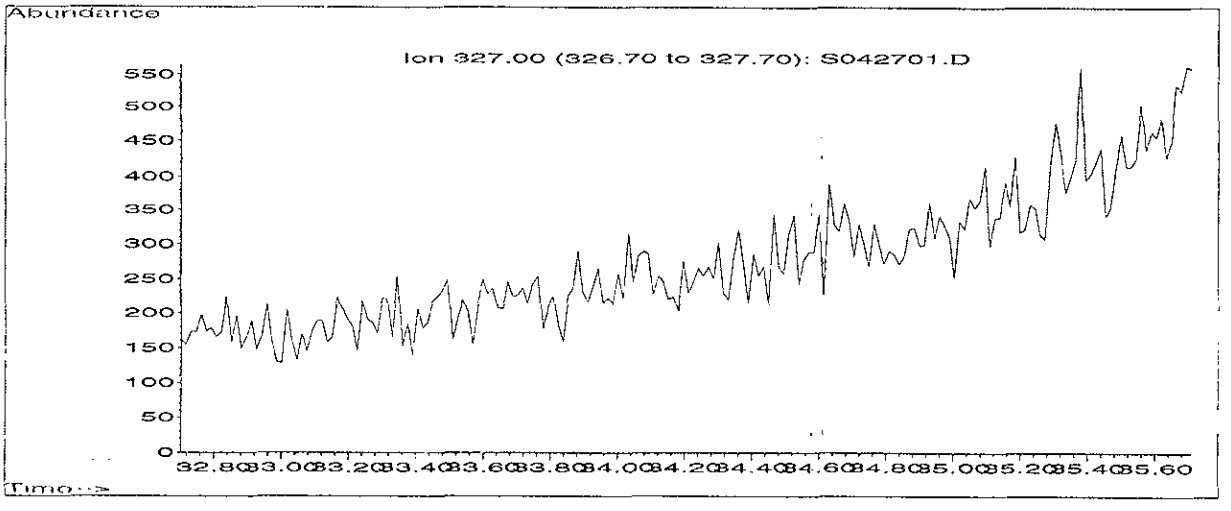


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

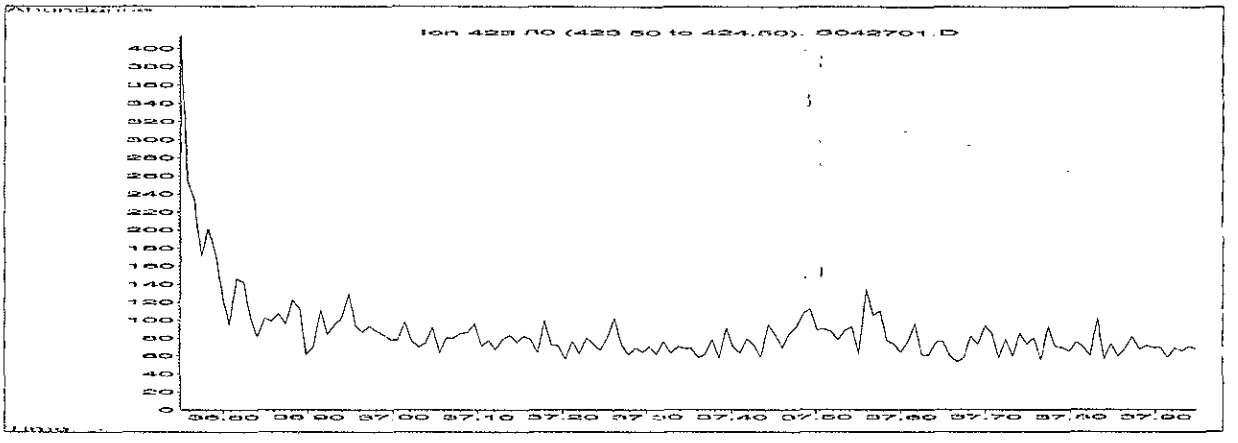


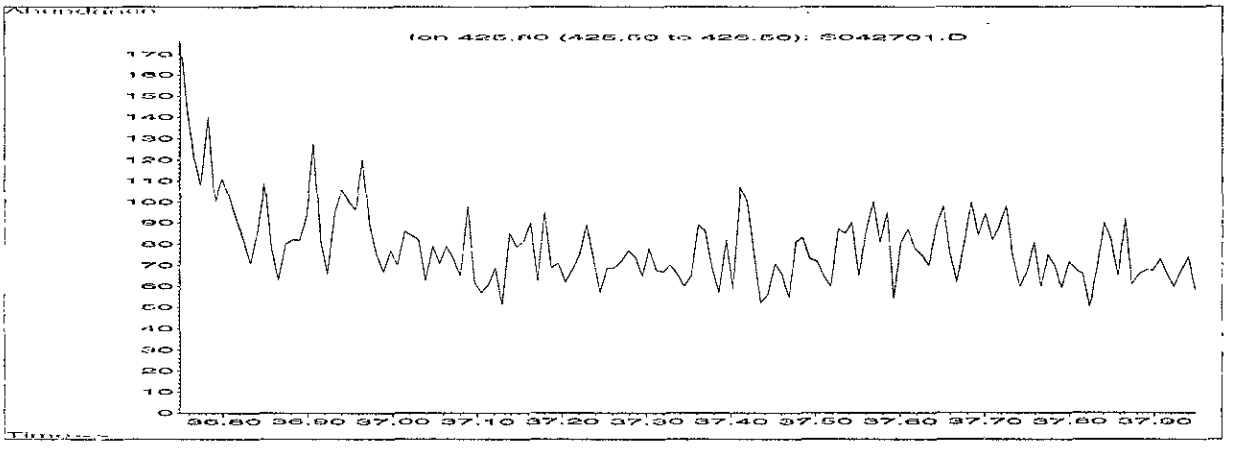


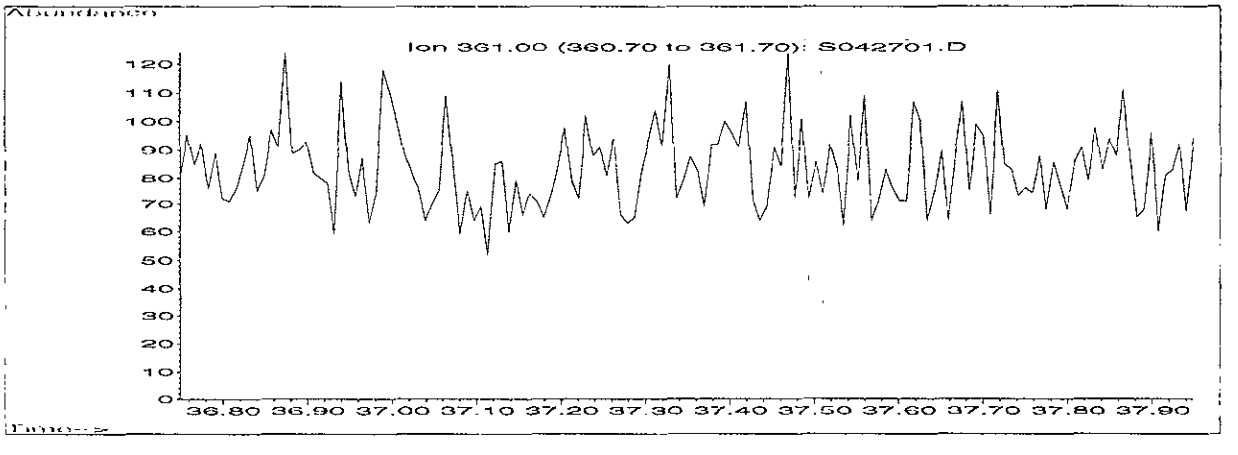


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

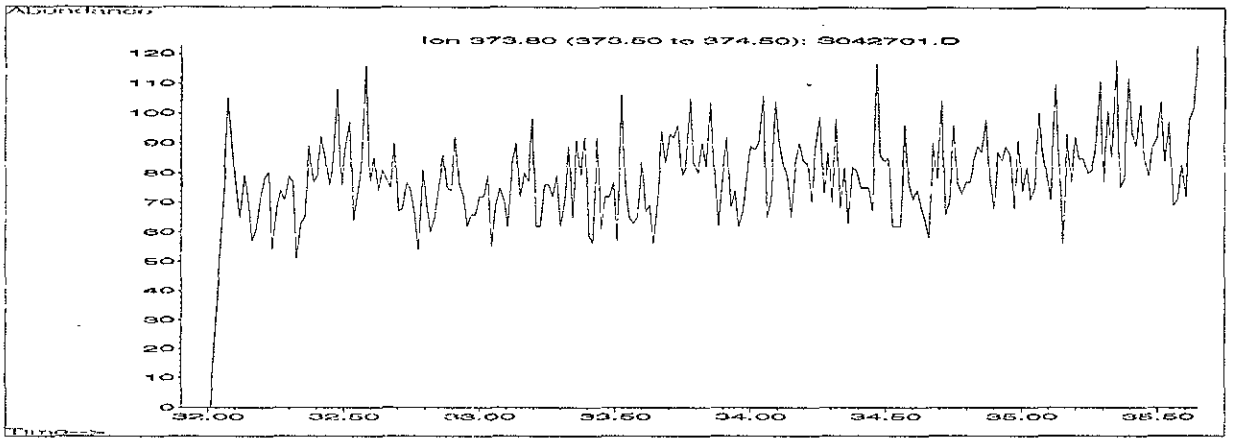


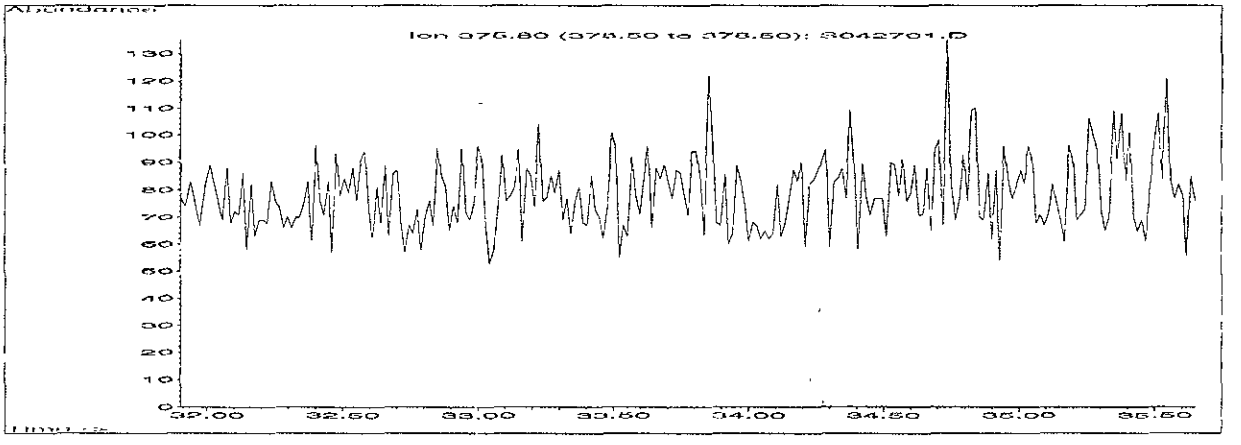


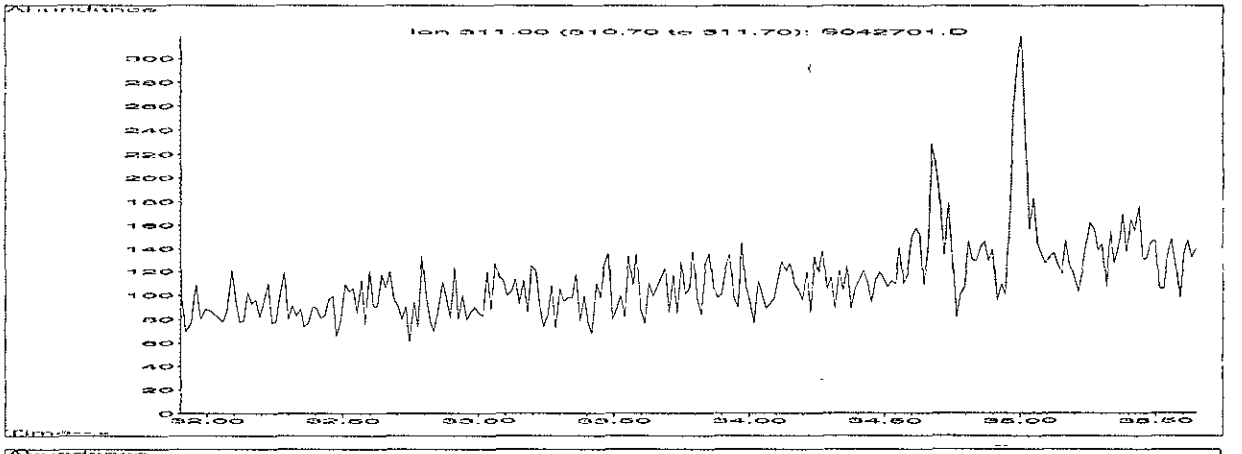


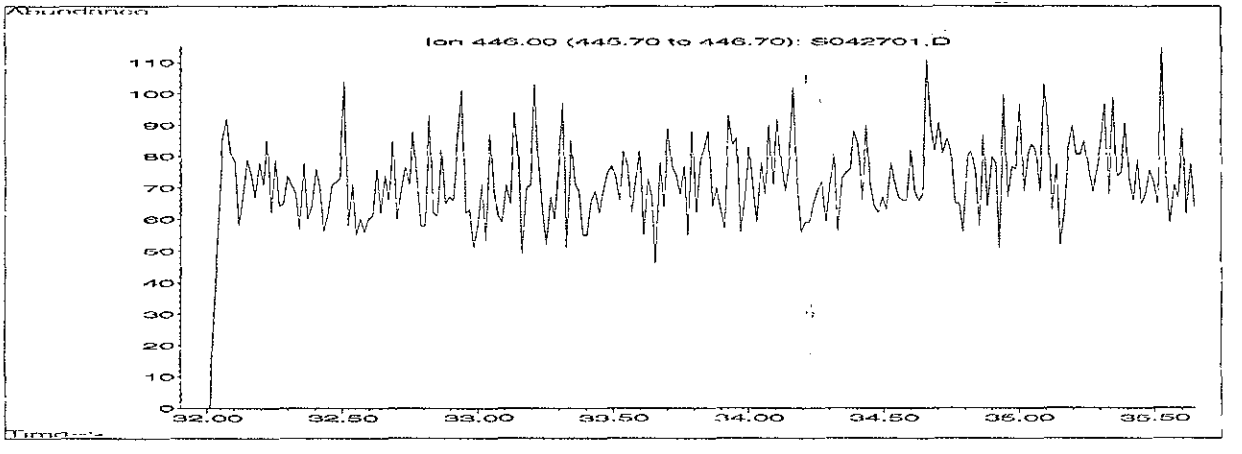
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



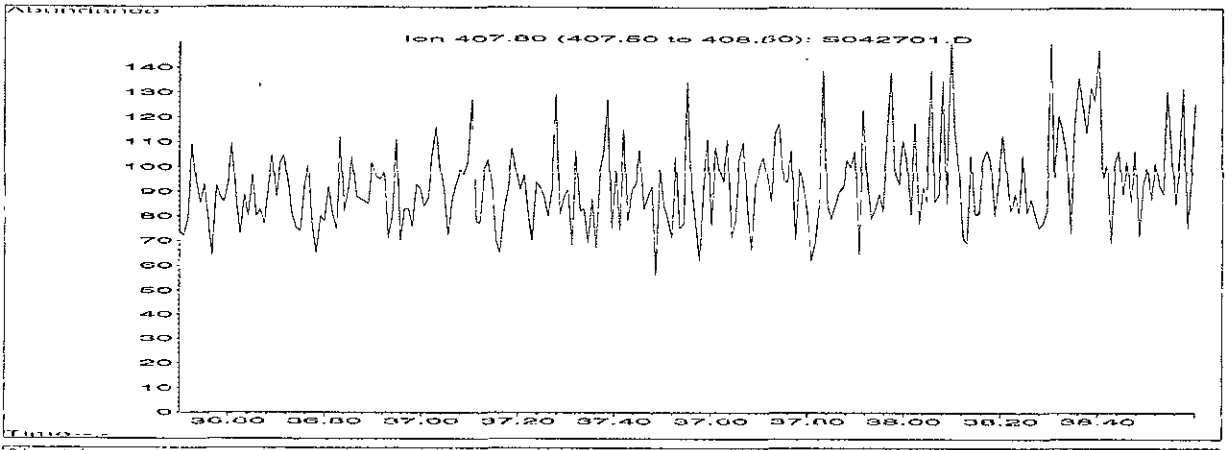


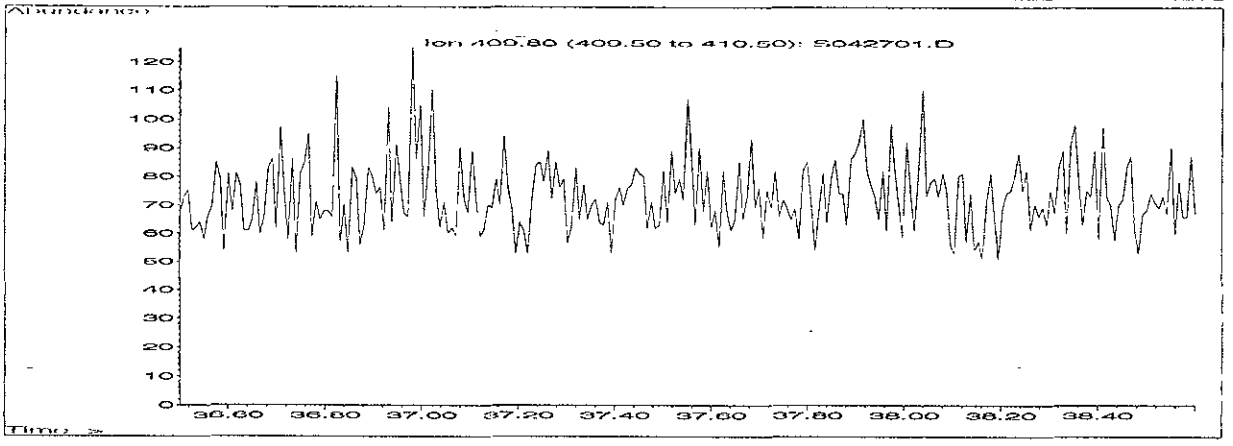


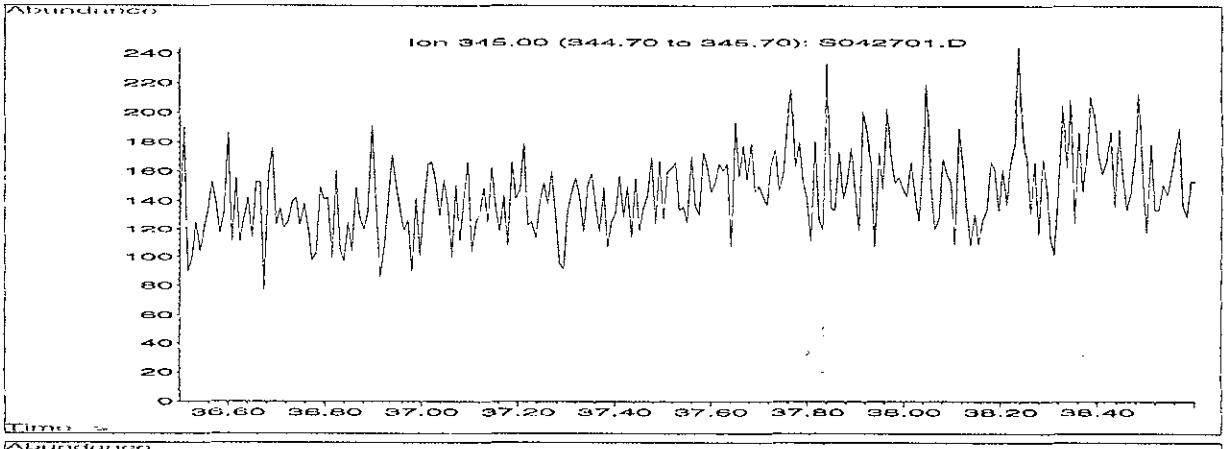


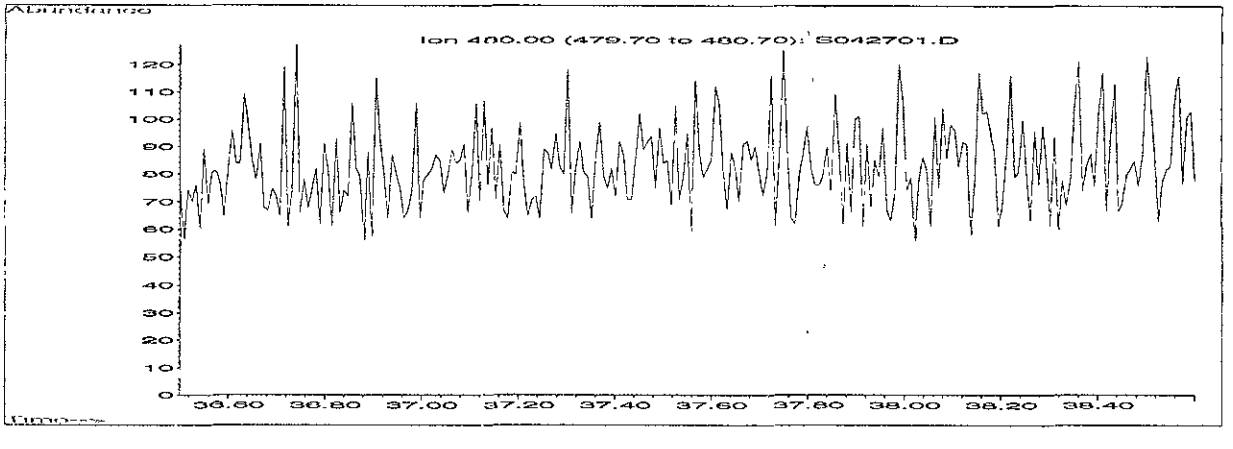
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



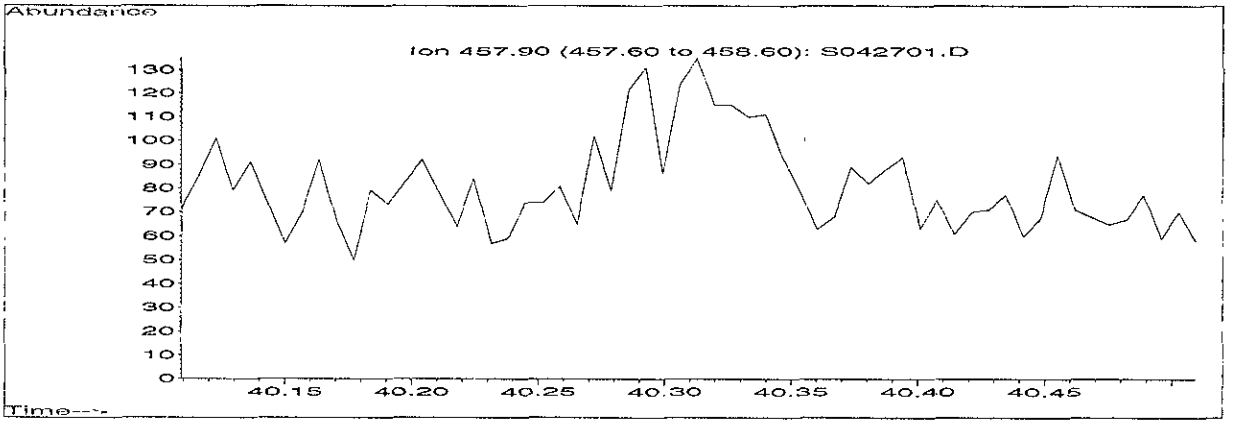


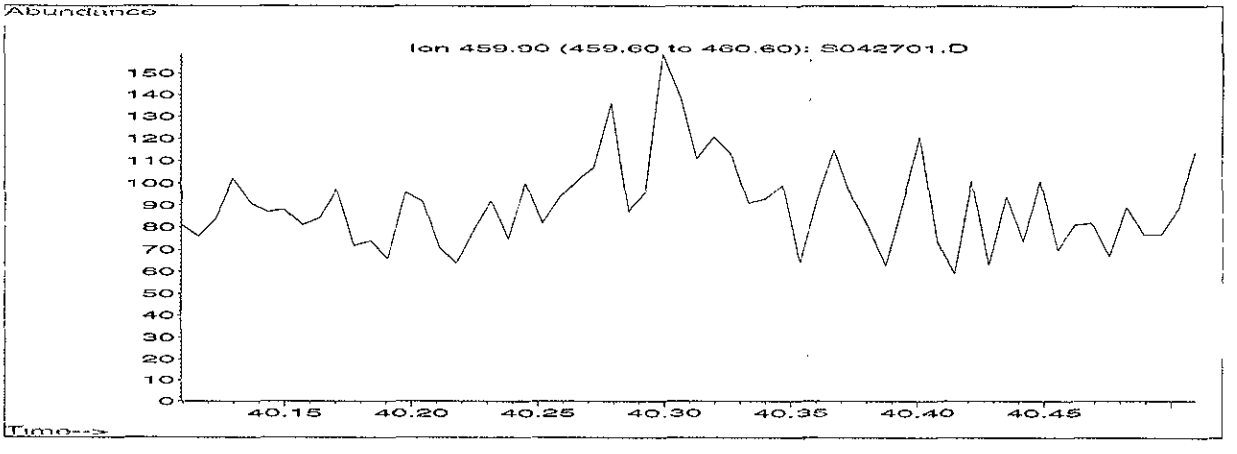


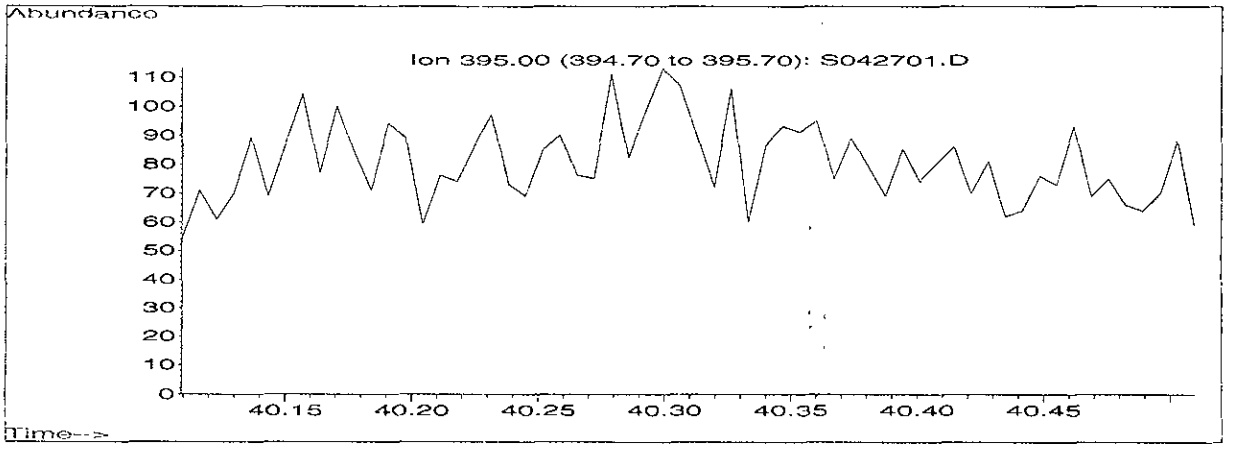


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

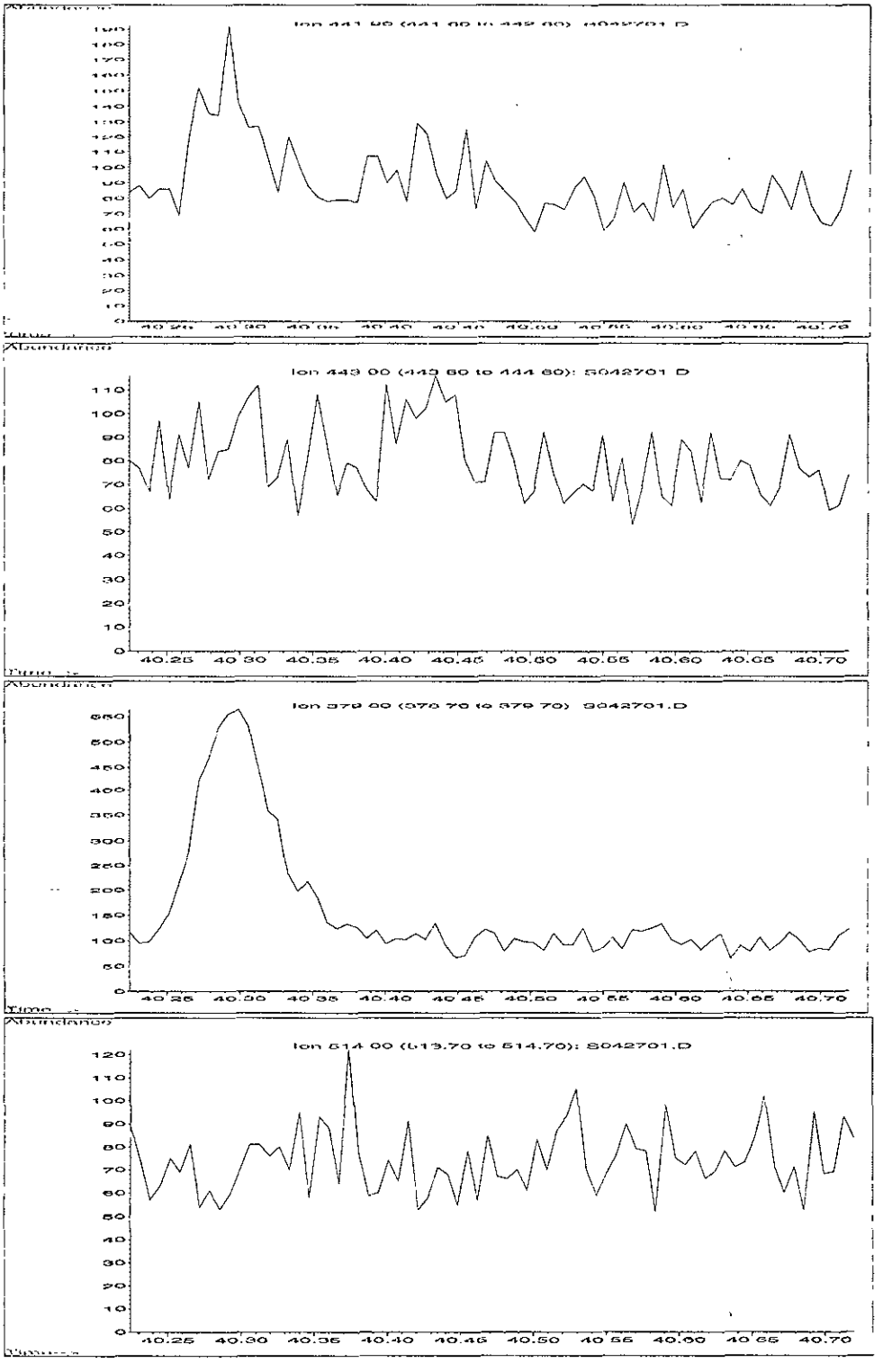






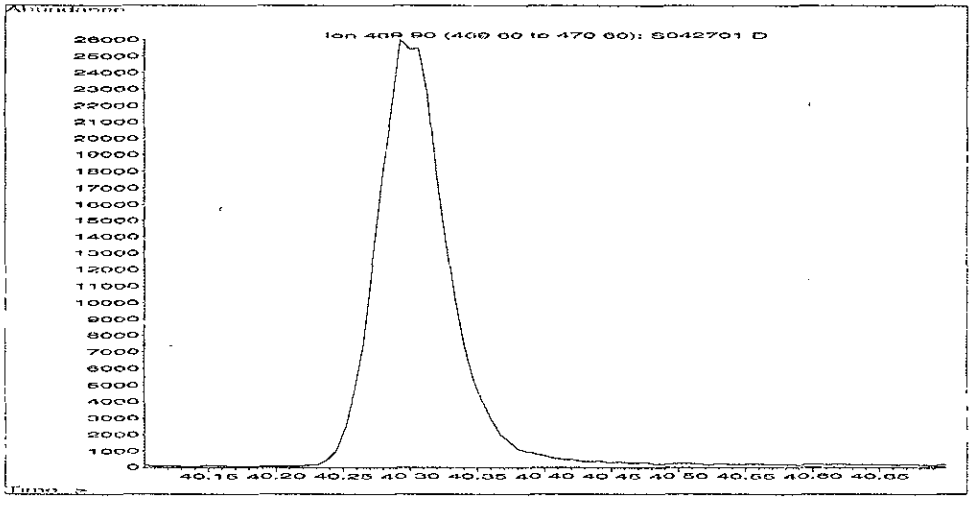
OCDF

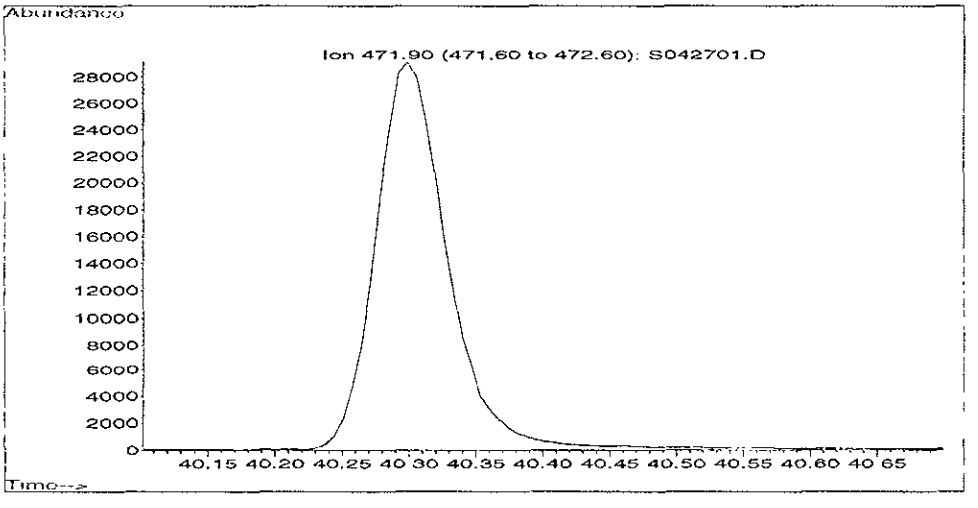
TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.29		
Target Ion	469.9	Q1 Ion	471.9
Target Response	97350	Q1 Response	107151
Total response	204501	Ratio	0.91





Sample ID: A9D160180-LCS 1.0L 8280A
LANTP-1-AC WATER LR909

Size: 1.000
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042702.D
Acq On :27 Apr 2009 1:22 pm

Vial: 2
Operator: MEO
Sample Amount: 1.00

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:31 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.80	128648	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.24	114945	25.00	NG	0.00
9) 13C-2378-TCDF	20.22	316+318	0.79	134451	25.00	NG	-0.02
15) 13C-2378-TCDD	21.15	332+334	0.80	76391	25.00	NG	0.00
20) 13C-123678-HxCDD	34.69	402+404	1.29	39372	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.04	45332	25.00	NG	0.00
36) 13C-OCDD	40.30	470+472	0.91	114436	50.00	NG	0.00

Surrogate Compound

4) 37Cl-2378-TCDD	21.17	328		110537	12.055	NG	0.00
Spiked Amount = 12.500	RRF = 1.782			Recovery =	96.40%		

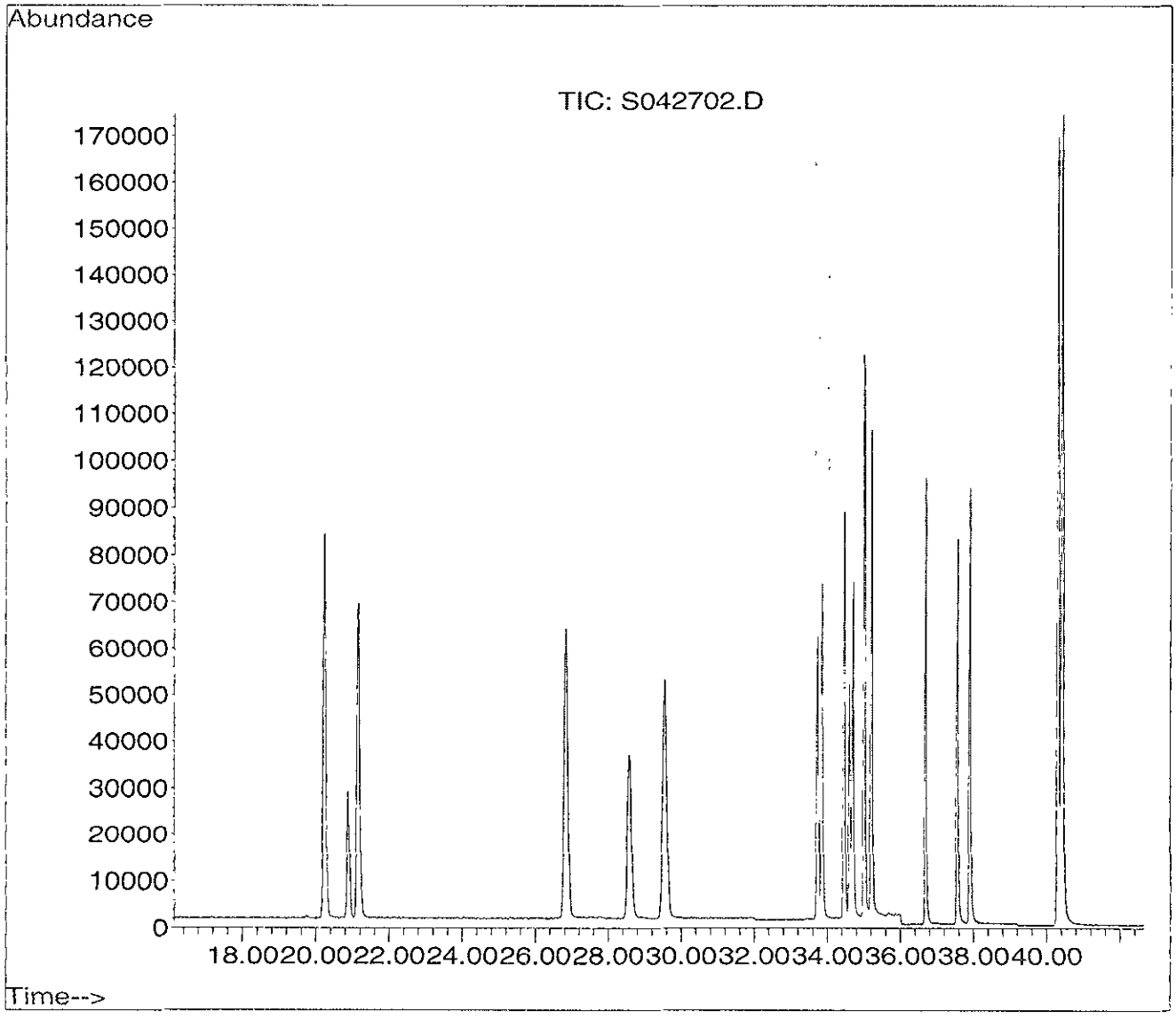
Target Compounds	RT	Ratio		Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.22	0.79		134451	1.796	14.544	0.0823	58.2
3) 13C-2378-TCDD-IS	21.15	0.80		78223	1.137	13.364	4.0233	53.4
6) 13C-123678-HxCDD-	34.69	1.29		39372	0.899	9.521	0.0672	38.1
7) 13C-1234678-HpCDF	36.68	1.04		45332	1.062	9.285	0.0790	37.1
8) 13C-OCDD-IS	40.30	0.91		114436	0.887	28.048	0.1011	56.1
10) 2378-TCDF	20.24	0.79		198766	1.219	30.327	0.5190	
1	20.24	0.79		201645		30.767		
11) TCDF TOTAL	19.30	0.79		201645	1.219	30.767		
12) 12378-PeCDF	26.85	1.56		370556	0.964	71.457	0.1903	
13) 23478-PeCDF	28.59	1.56		223760	0.927	44.903	0.1832	
1	26.85	1.56		381756		76.608		
2	28.59	1.55		223760		44.903		
14) PeCDF TOTAL	26.80	1.55		605516	0.927	121.511		
16) 2378-TCDD	21.15	0.79		134443	1.306	33.683	0.0534	
1	20.24	4.64	#	12927		3.239		
2	21.15	0.79		138298		34.649		
17) TCDD TOTAL	19.30	0.79		151225	1.306	37.887		
18) 12378-PeCDD	29.56	1.58		241130	0.941	83.877	0.0742	
1	29.56	1.56		249575		86.815		
19) PeCDD TOTAL	27.00	1.56		249575	0.941	86.815		
21) 123478-HxCDD	34.61	1.26		119907	1.097	69.425	0.3107	
22) 123678-HxCDD	34.70	1.23		138747	1.061	83.051	1.3257	
23) 123789-HxCDD	35.02	1.24		216952	1.144	120.417	1.0072	
1	34.61	1.26		119907		69.425		
2	34.70	1.22		545960		326.799		
3	35.02	1.23		220365		131.905		
24) HxCDD TOTAL	34.70	1.23		886232	1.061	528.130		
25) 1234678-HpCDD	37.56	1.04		179122	1.055	107.767	0.3052	
1	37.56	1.04		179122		107.767		

AV- 4/30/09

28)	123478-HxCDF	33.73	1.24	178426	1.329	74.034	0.1671
29)	123678-HxCDF	33.85	1.26	215101	1.384	85.714	0.9490
30)	234678-HxCDF	34.47	1.25	245430	1.315	102.932	0.2731
31)	123789-HxCDF	35.21	1.24	288118	1.278	124.328	0.2218
	1	33.73	1.24	178426		74.034	
	2	33.85	1.26	215101		85.714	
	3	34.47	1.24	245430		102.932	
	4	35.21	1.24	292343		126.152	
32)	HxCDF TOTAL	34.40	1.24	931300	1.278	388.833	
33)	1234678-HpCDF	36.69	1.06	184956	1.237	82.430	0.1527
34)	1234789-HpCDF	37.90	1.04	254081	1.111	126.092	0.4081
	1	36.69	1.06	184956		82.430	
	2	37.90	1.04	254081		126.092	
35)	HpCDF TOTAL	38.00	1.04	439037	1.111	208.522	
37)	OCDD	40.31	0.89	456938	1.224	163.095	0.1183
38)	OCDF	40.42	0.90	587832	1.589	161.647	0.1911

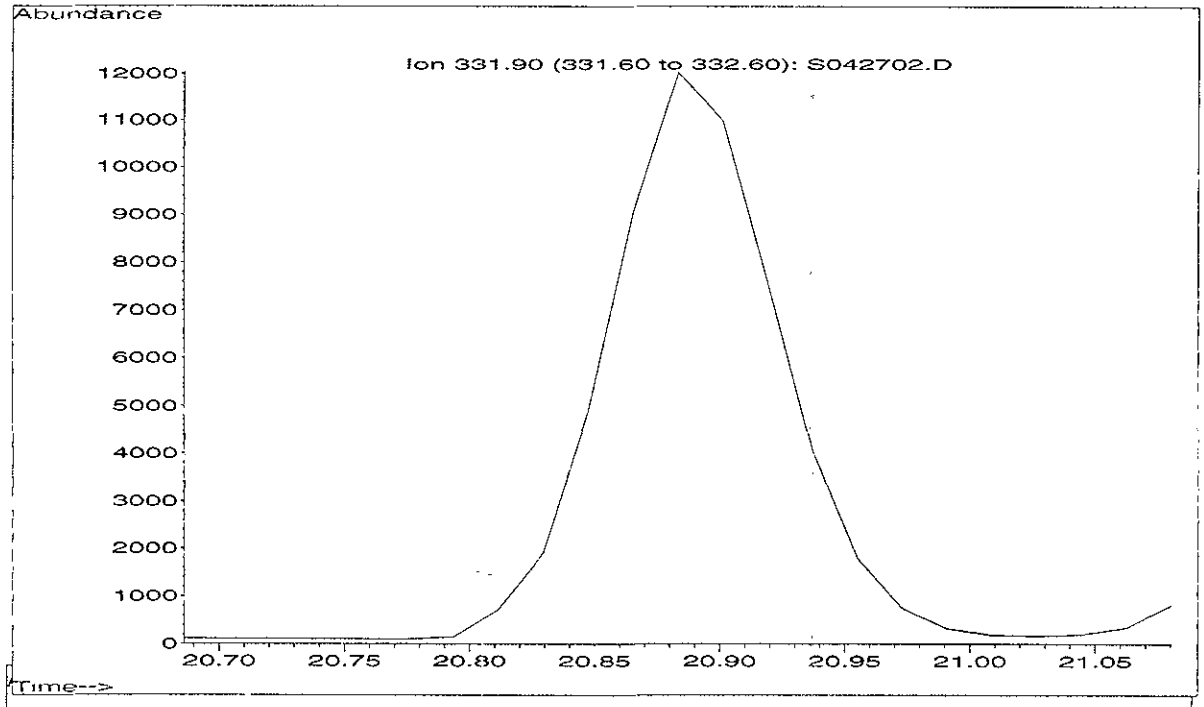
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042702.D 09AP27A2.M Tue Apr 28 16:31:14 2009

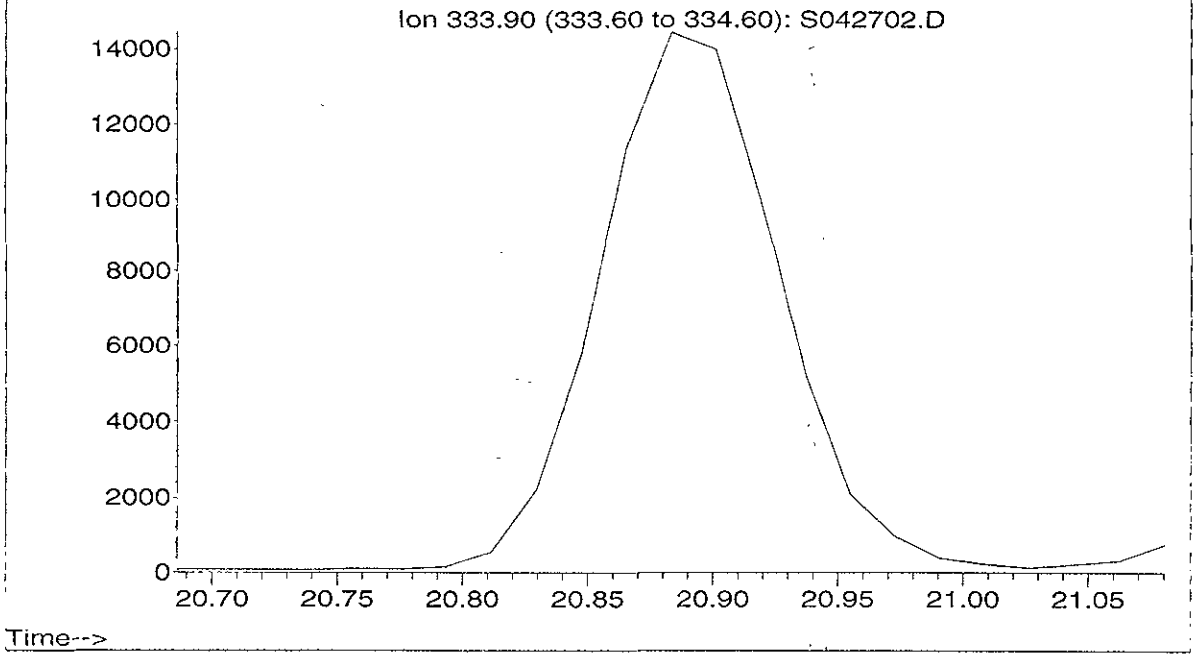
Data File Name	S042702.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 1:22
Acq. Method File	TOKAS
Sample Name	ANTP-1-AC WATER LR909
Misc Info	\9D160180-LCS 1.0L 8280A
Vial Number	2
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1



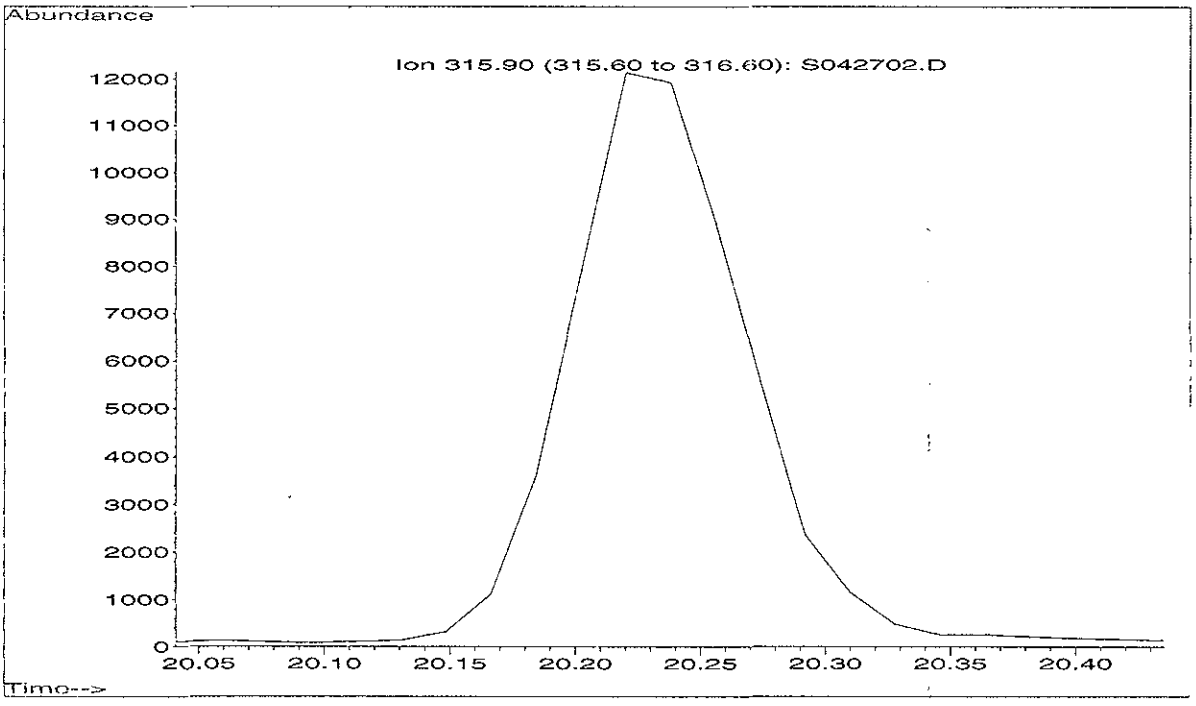
13C-1234-TCDD

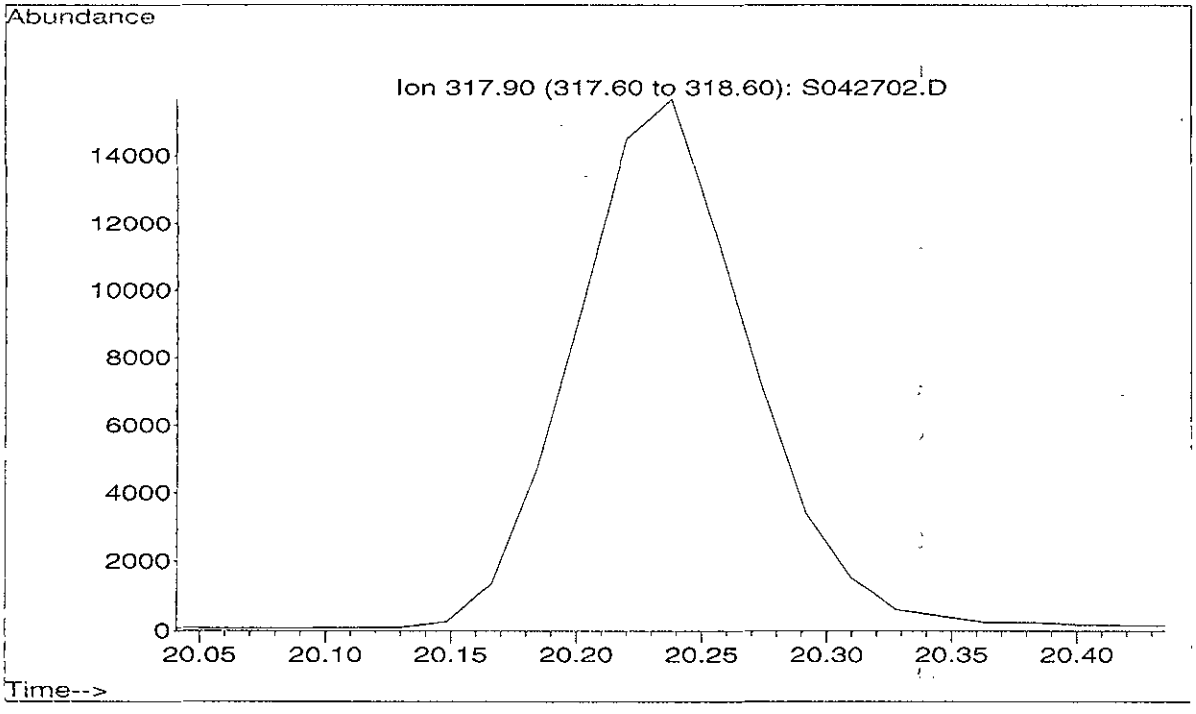
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	57097	Q1 Response	71551
Total Response	128648	Ion Ratio	0.80



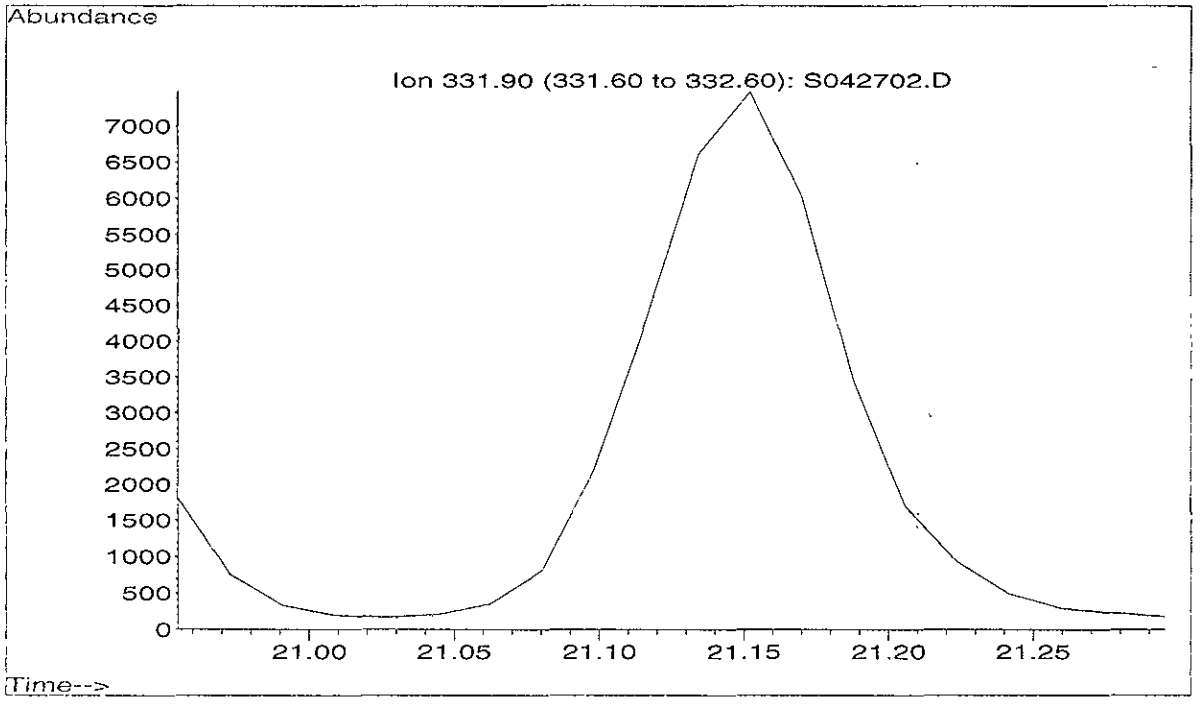


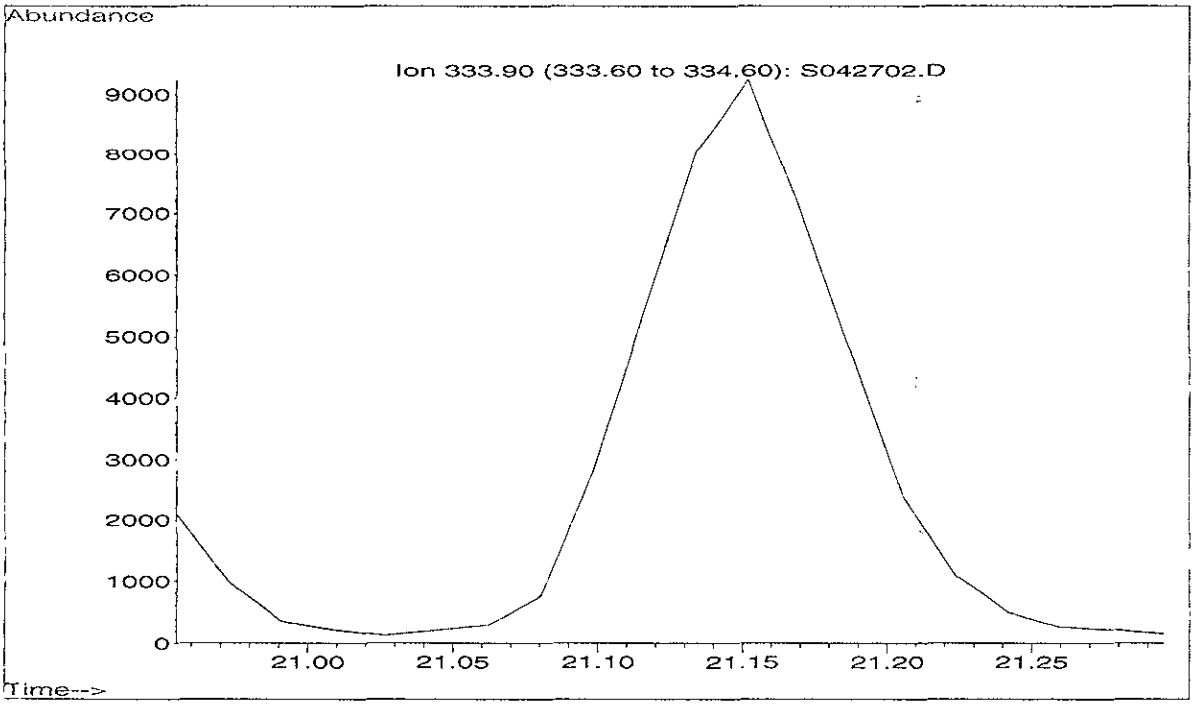
13C-2378-TCDF-IS			
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.22		
Target Ion	315.9	Q1 Ion	317.9
Target Response	59163	Q1 Response	75288
Target Response	134451	Ion Ratio	0.79





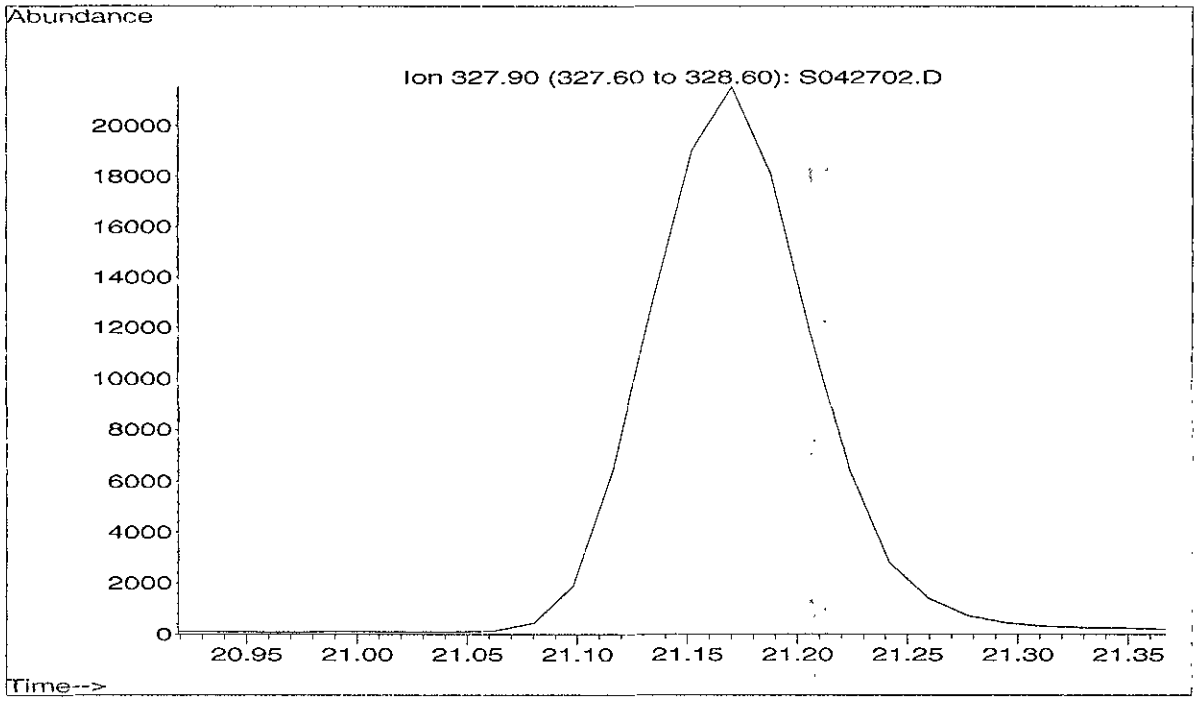
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.15		
Target Ion	331.9	Q1 Ion	333.9
Target Response	34687	Q1 Response	43536
Total Response	78223	Ion Ratio	0.80

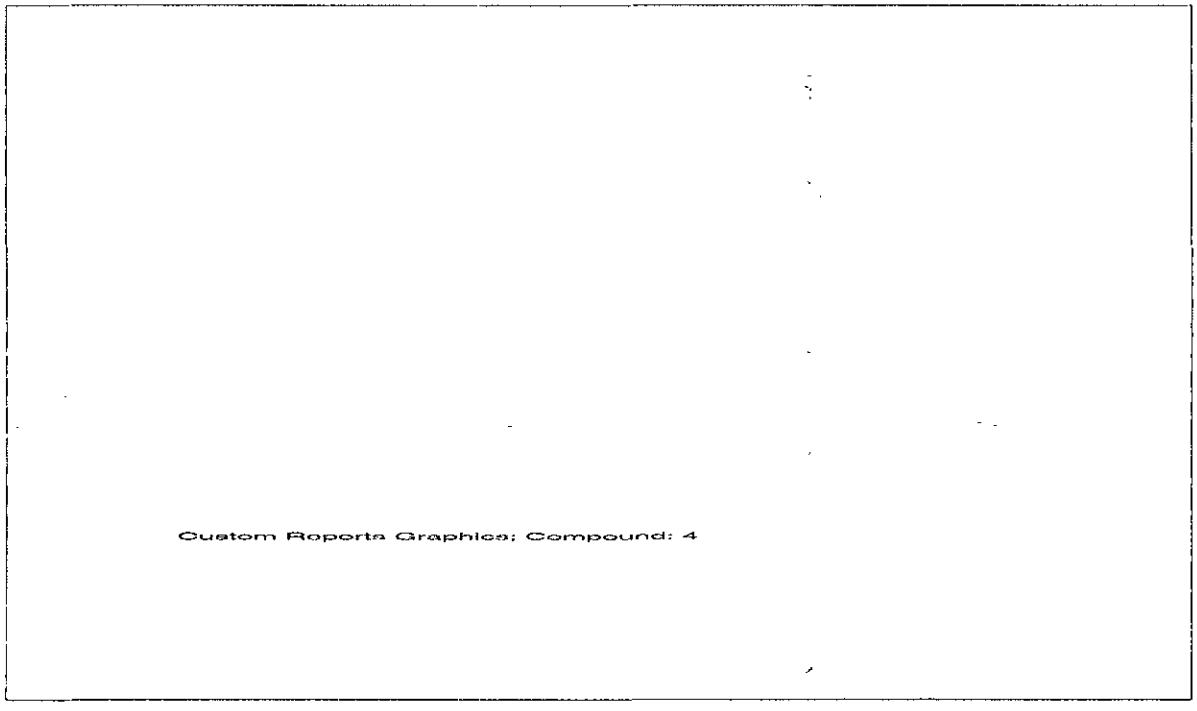




37Cl-2378-TCDD

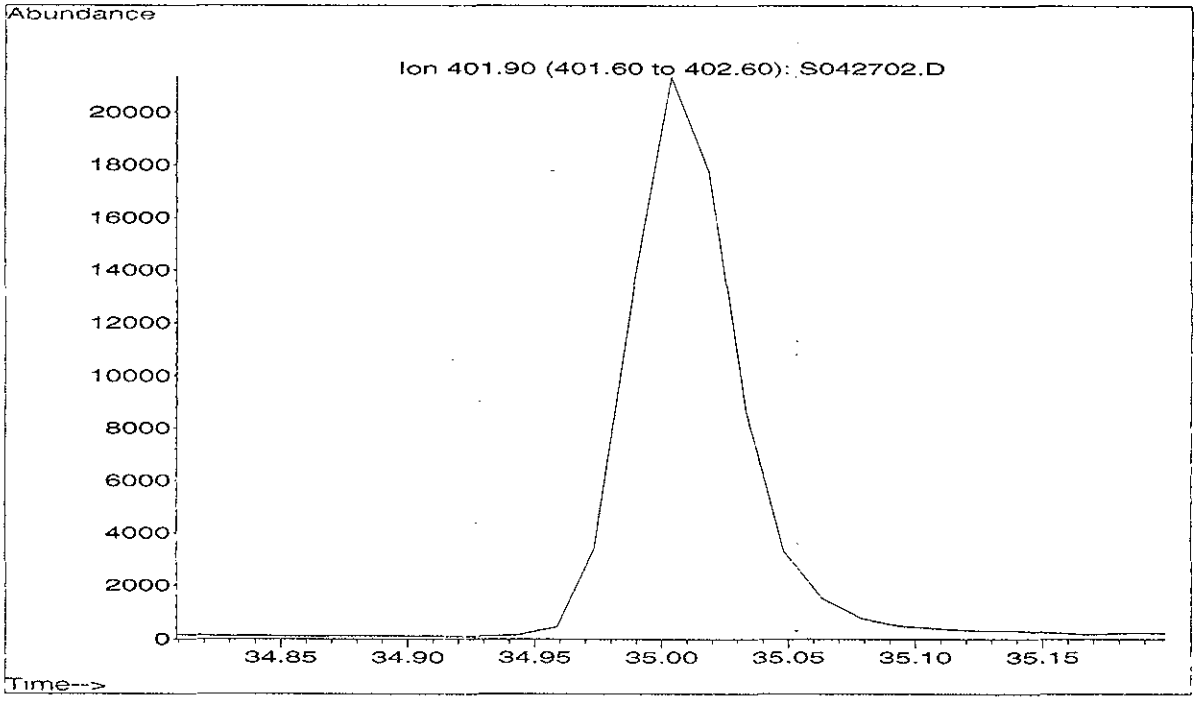
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	110537	Q1 Response	0
Total Response	110537	Ion Ratio	#DIV/0!

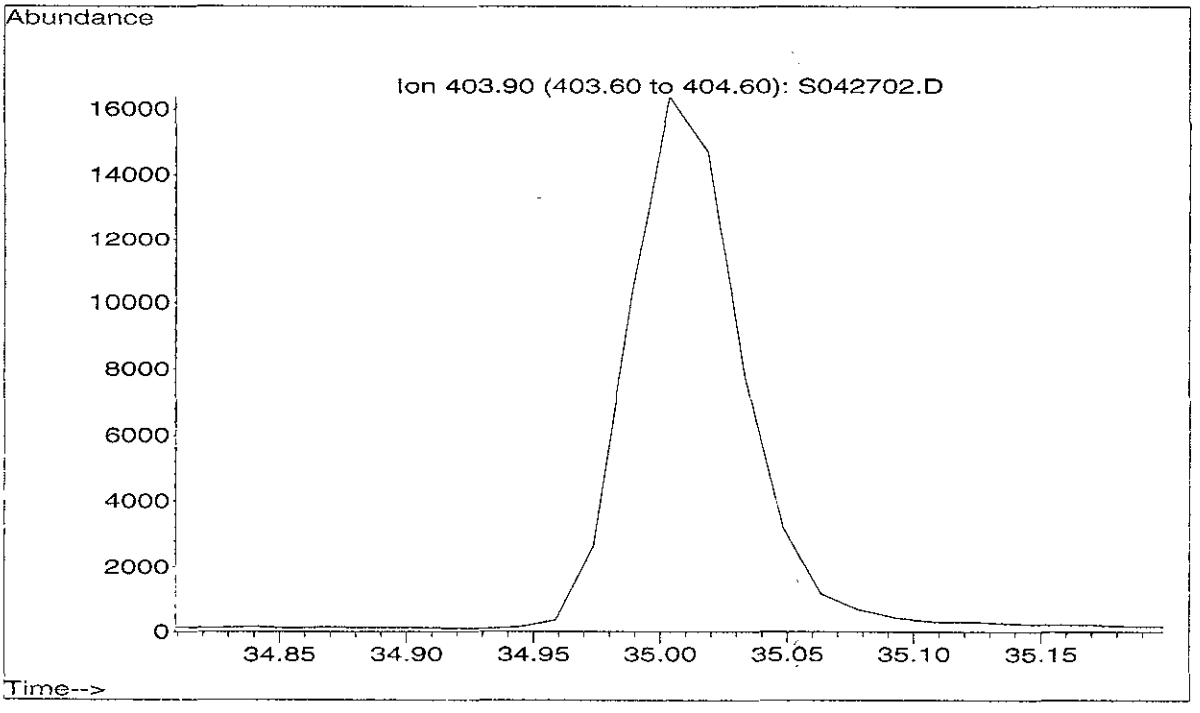




13C-123789-HxCDD

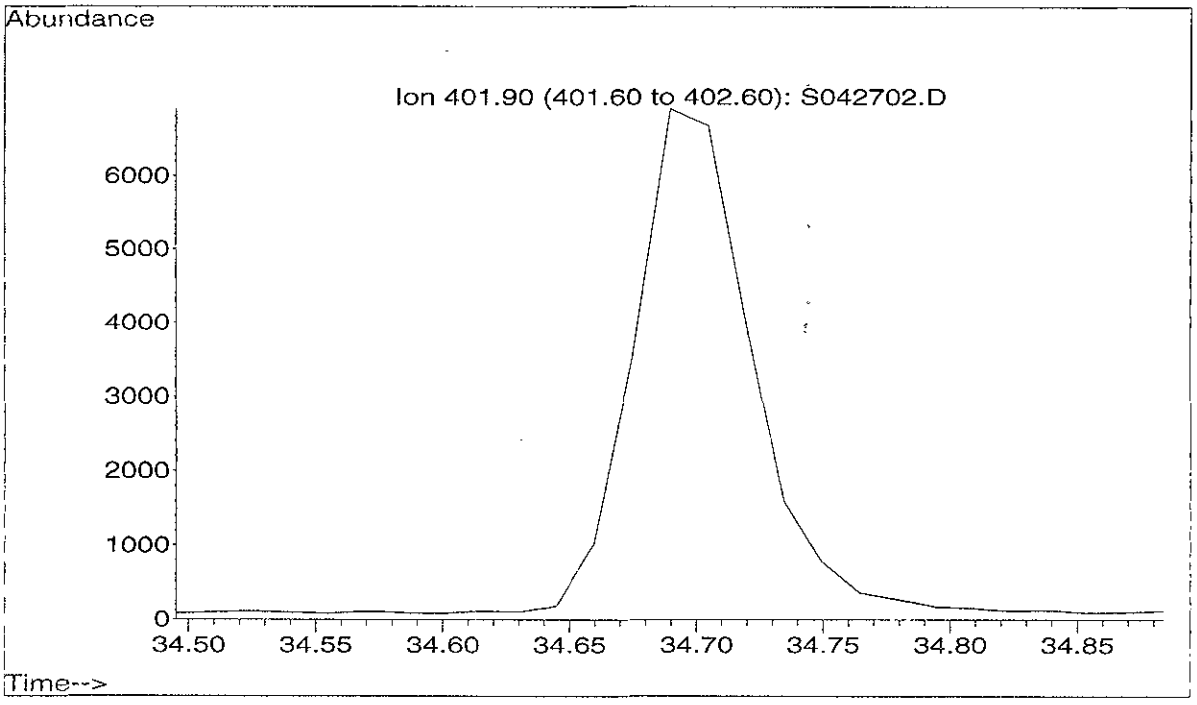
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	63552	Q1 Response	51393
Target Response	114945	Ion Ratio	1.24

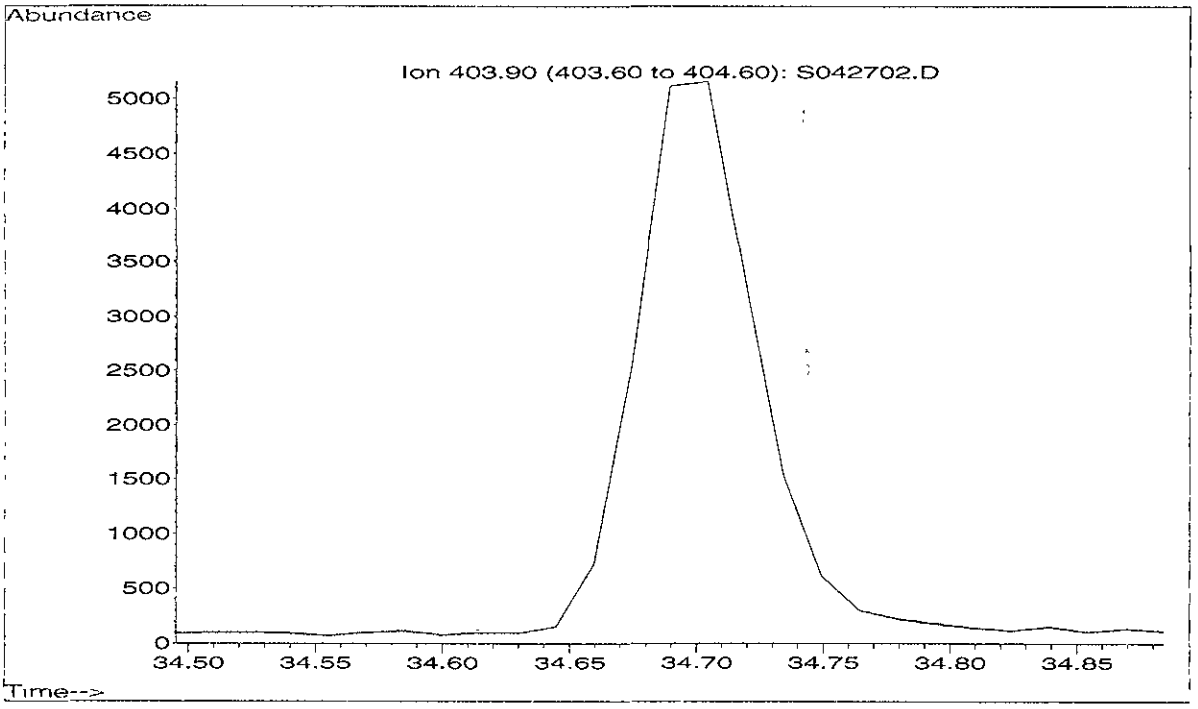




13C-123678-HxCDD-IS

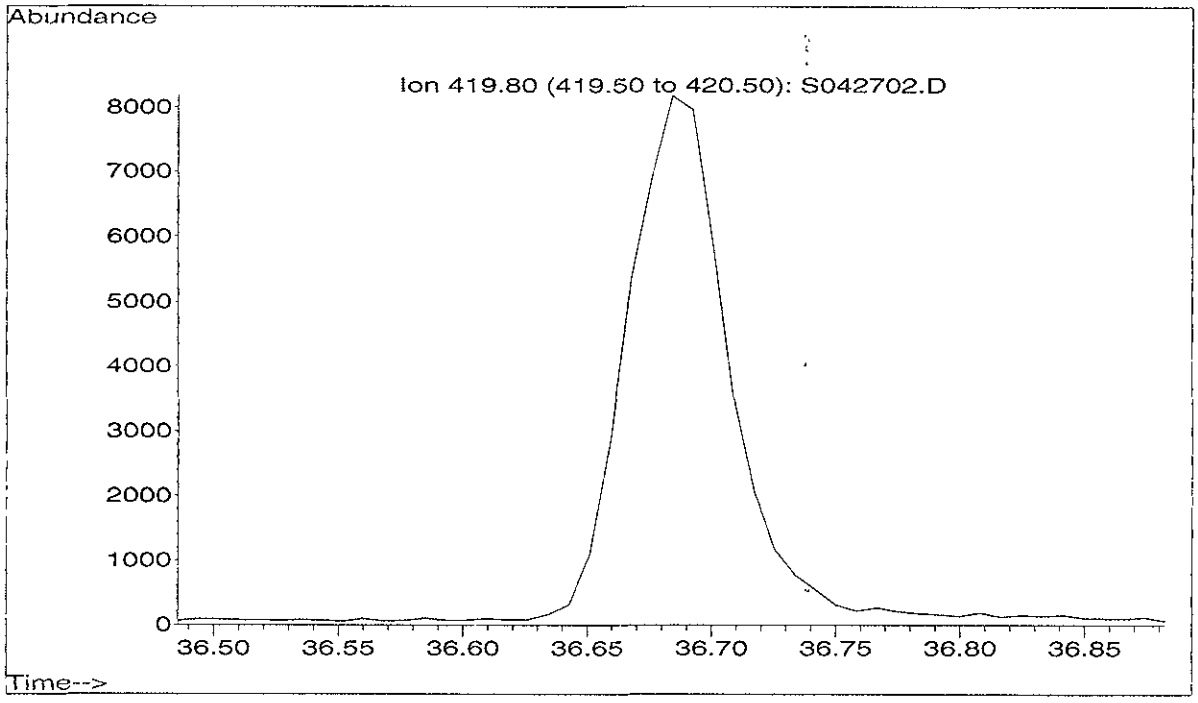
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	22189	Q1 Response	17183
Total Response	39372	Ion Ratio	1.29

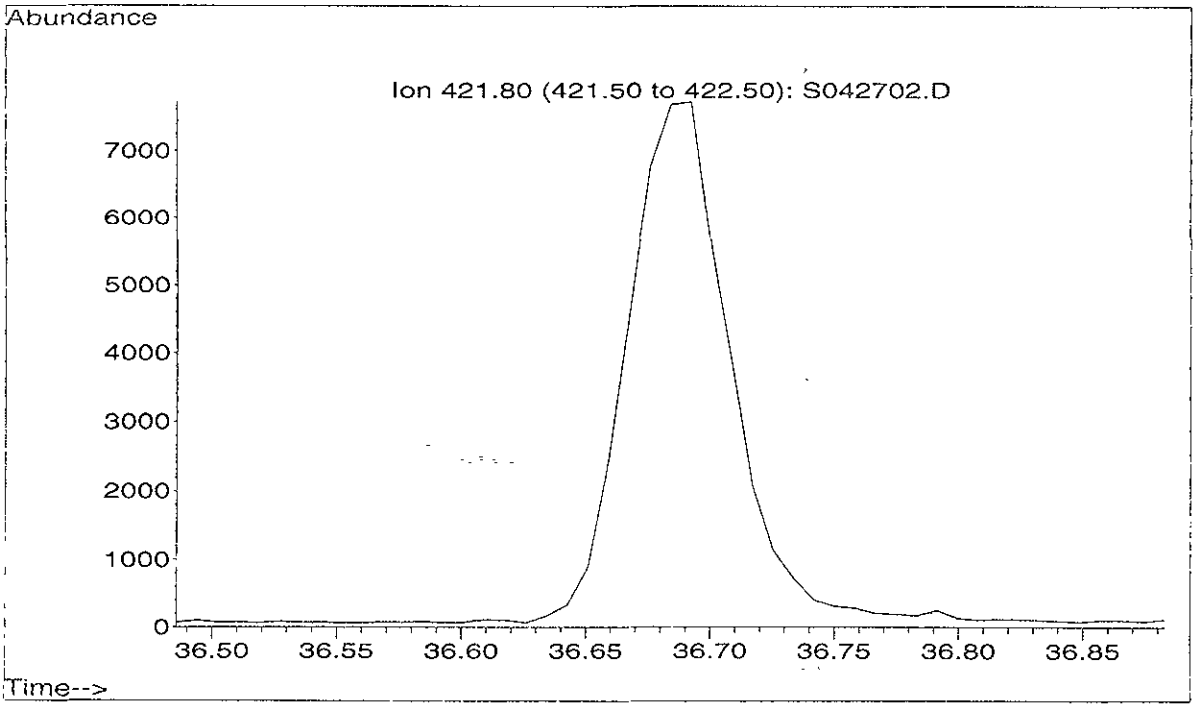




13C-1234678-HpCDF-IS

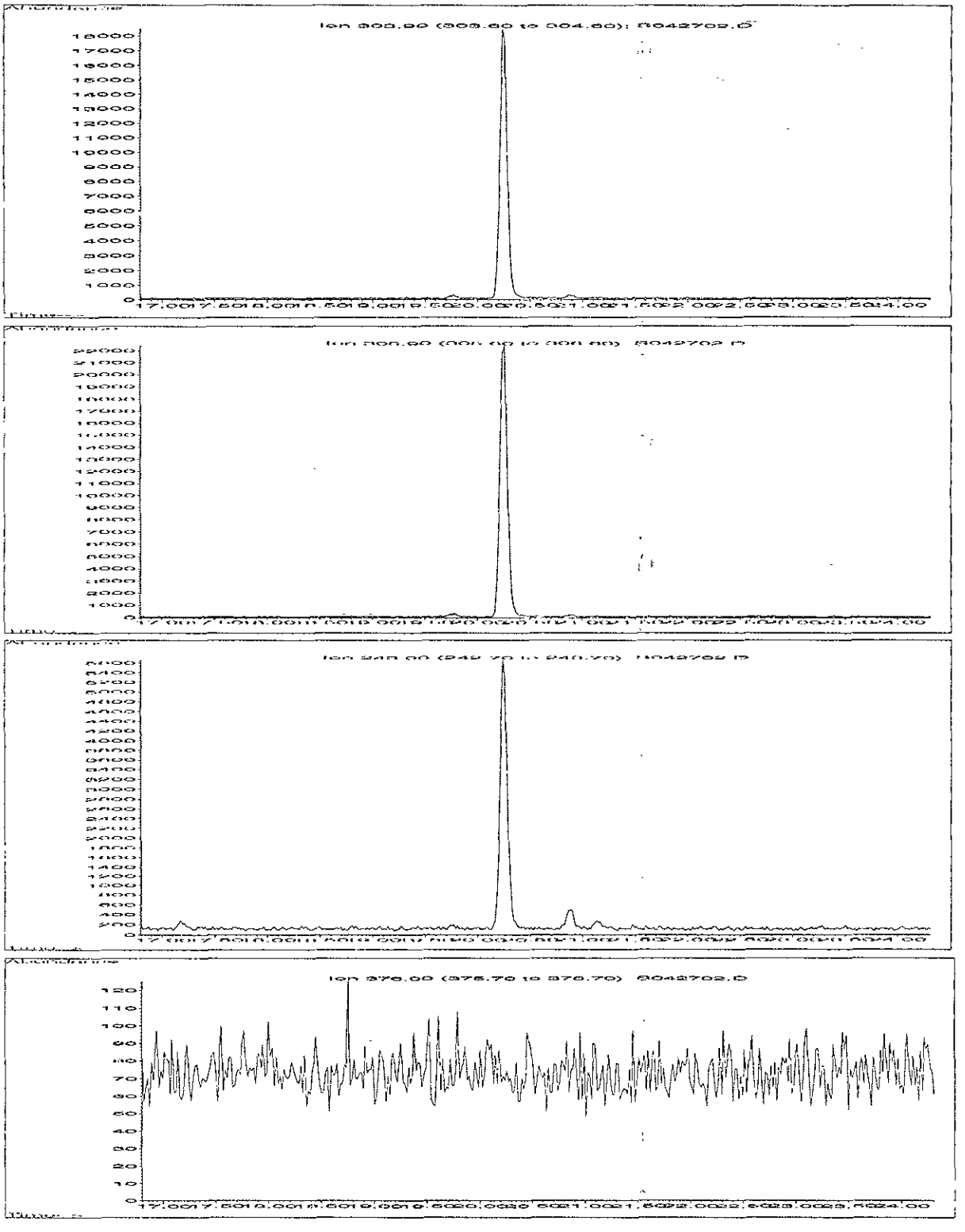
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	23125	Q1 Response	22207
Target Response	45332	Ion Ratio	1.04





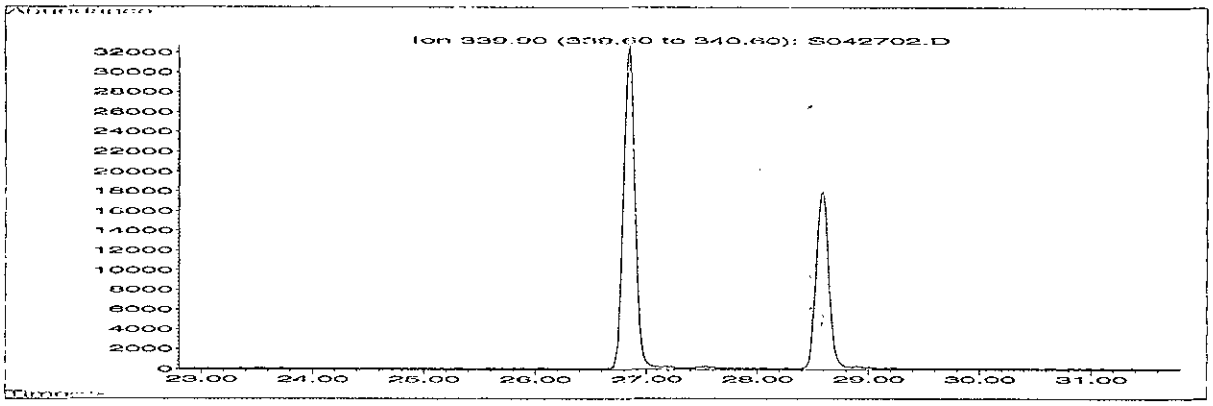
TCDF TOTAL

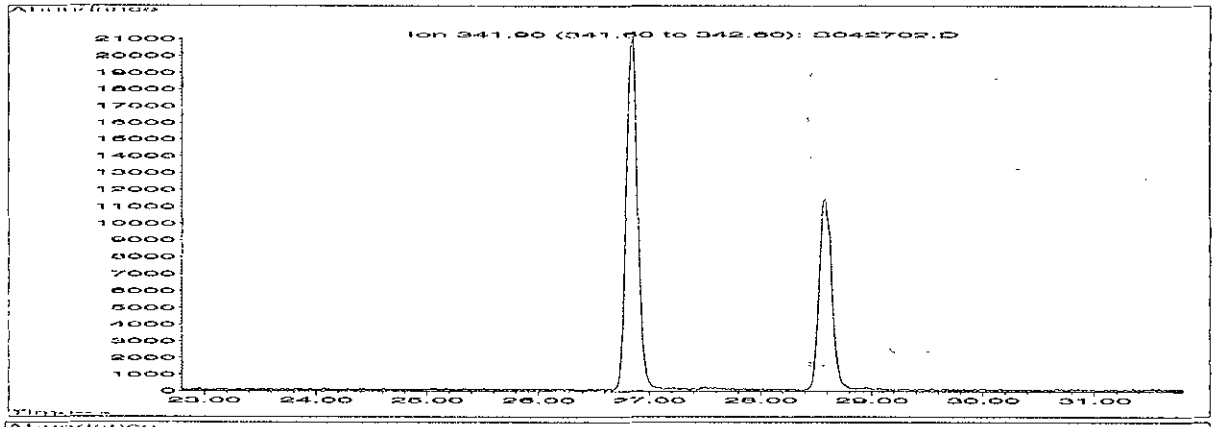
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

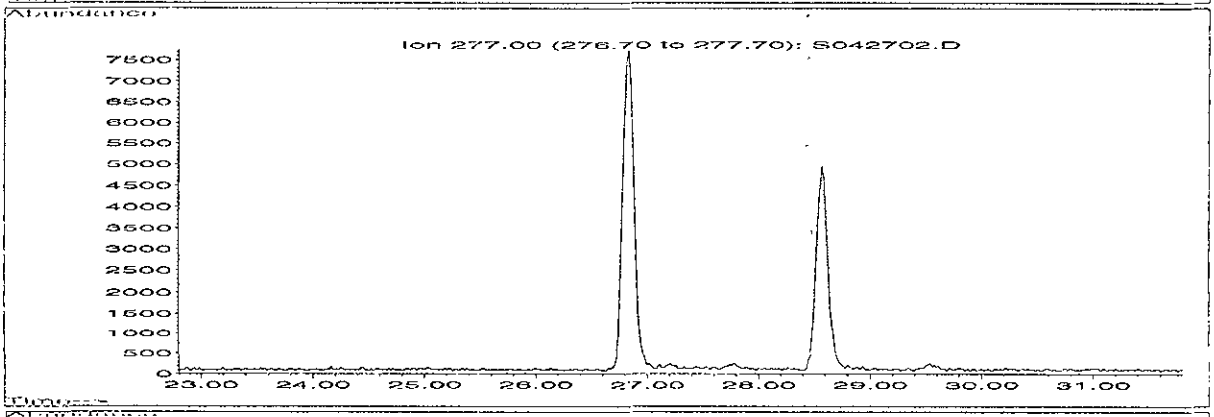


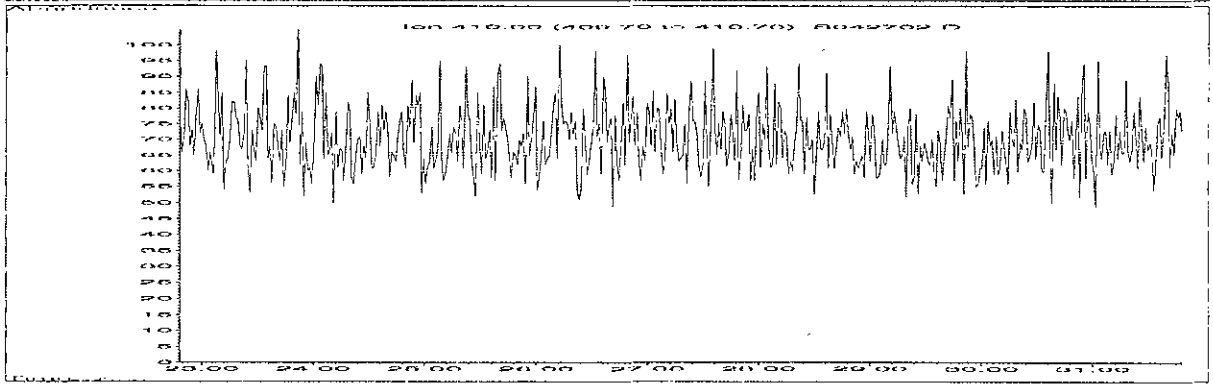
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



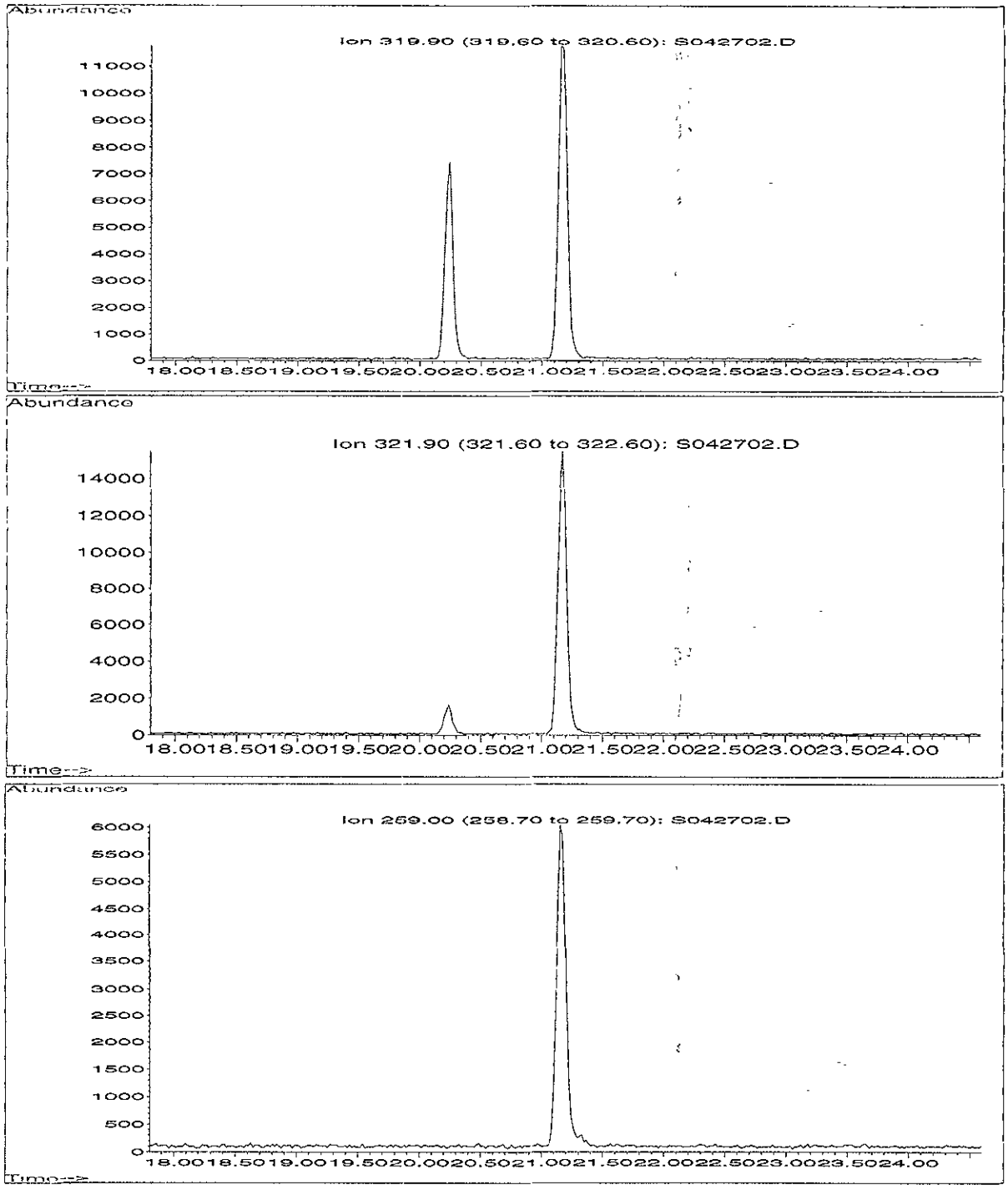






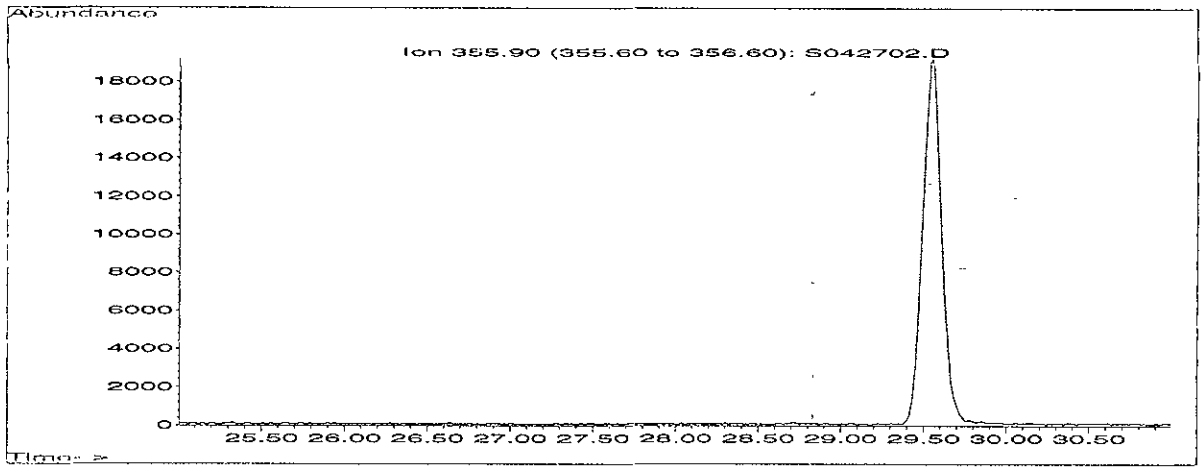
TCDD TOTAL

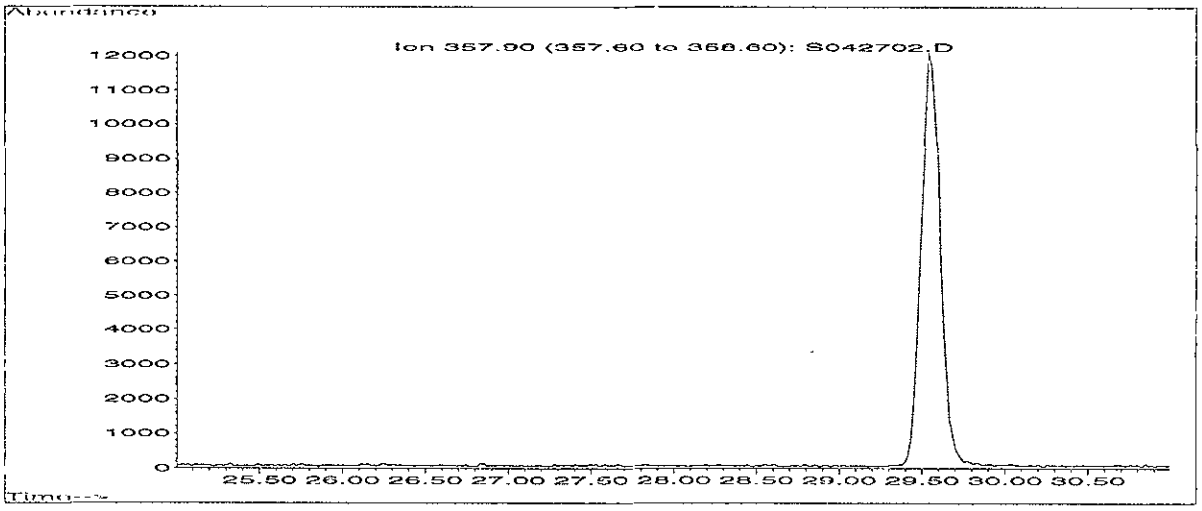
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

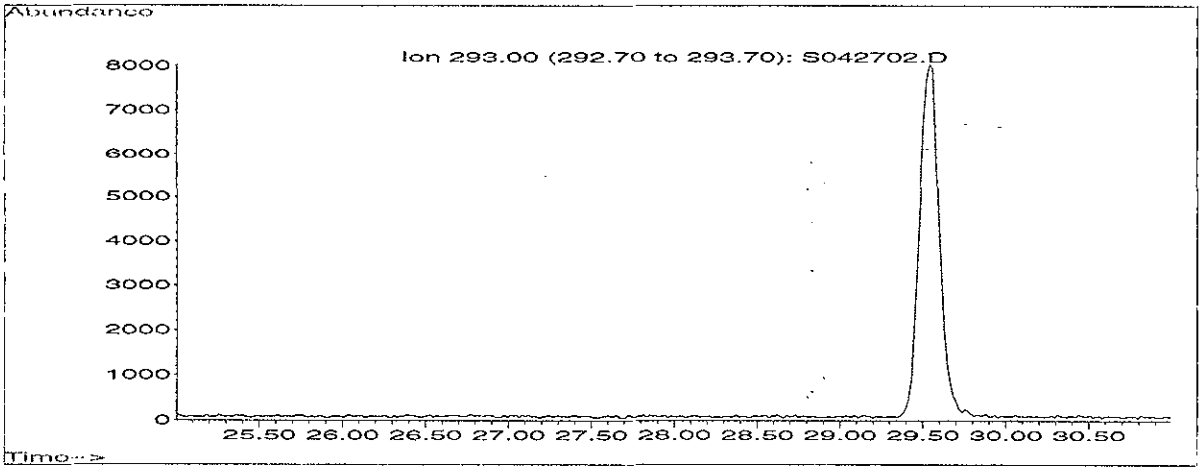


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

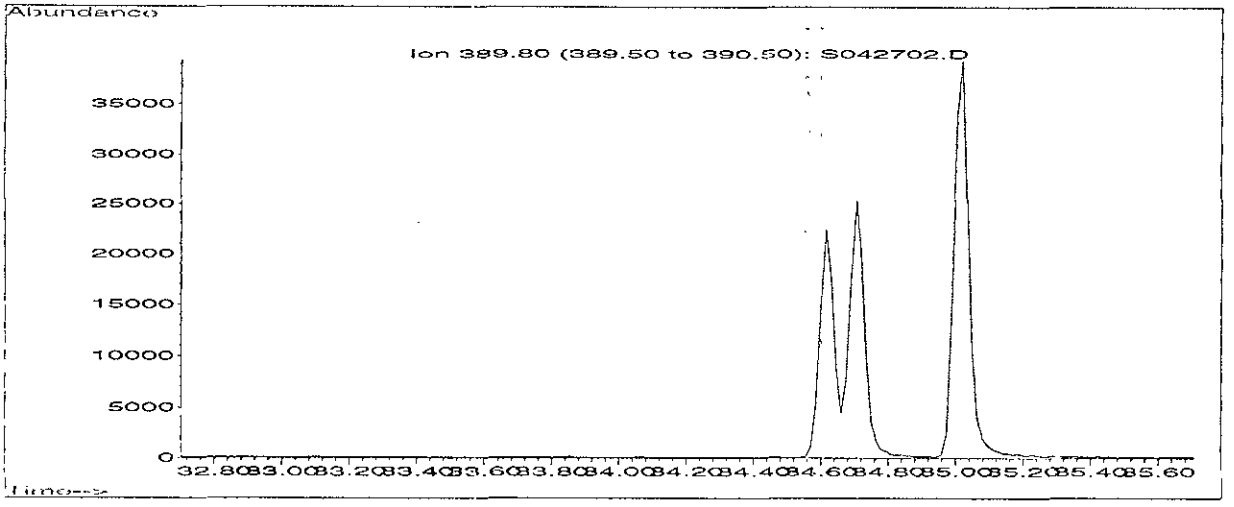


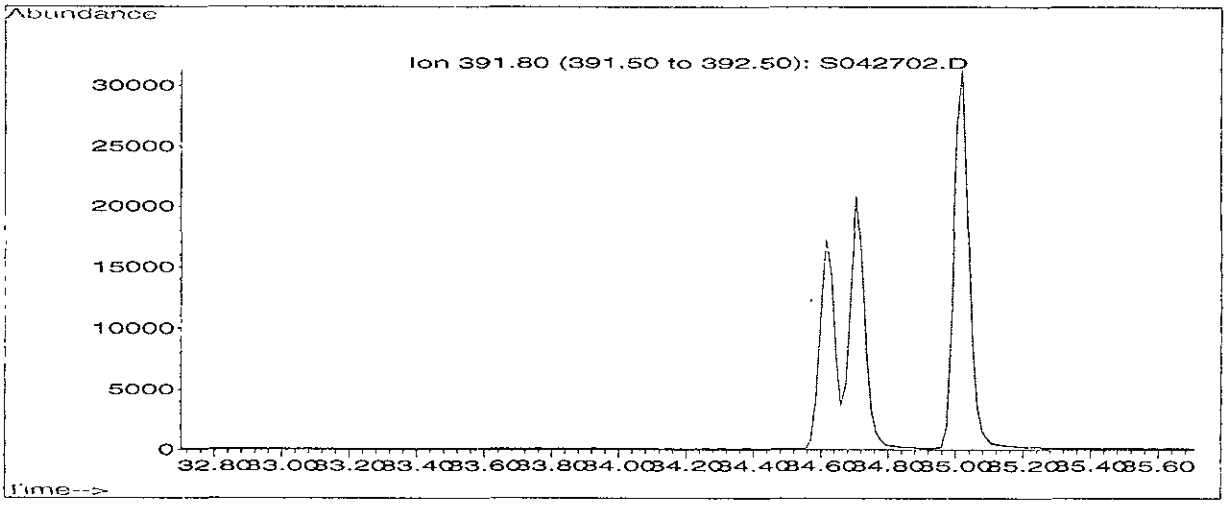


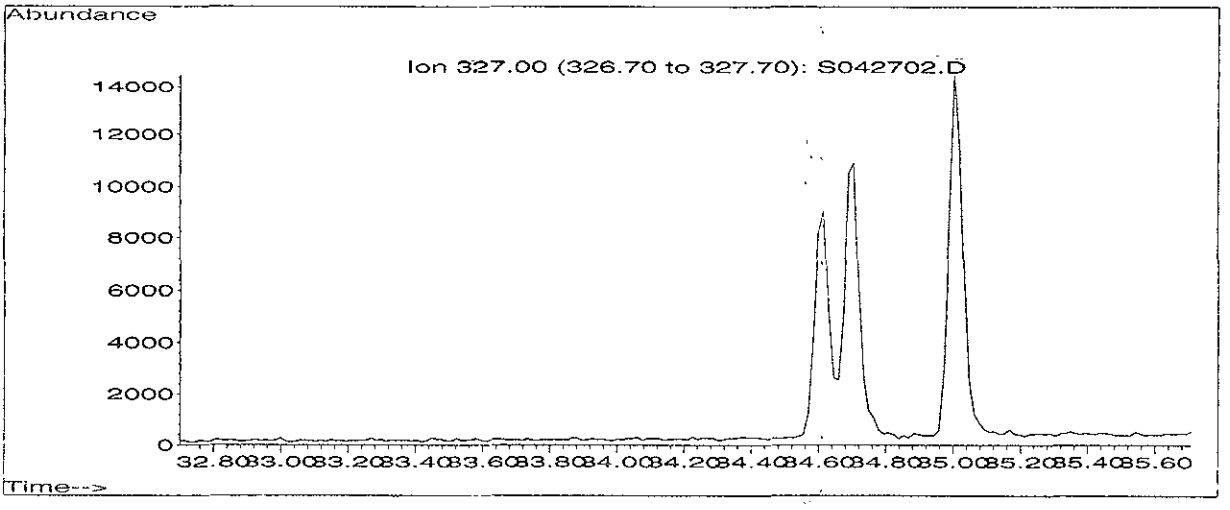


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

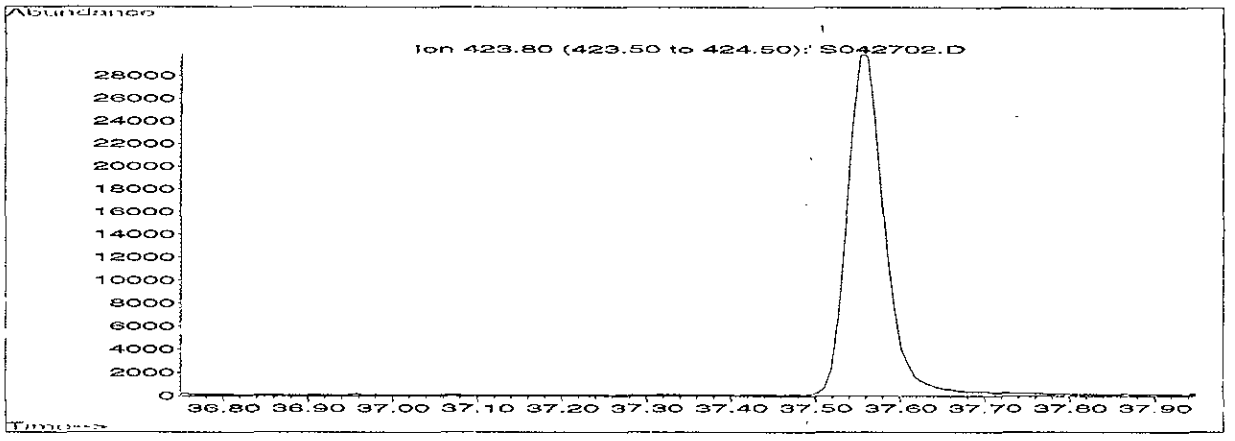


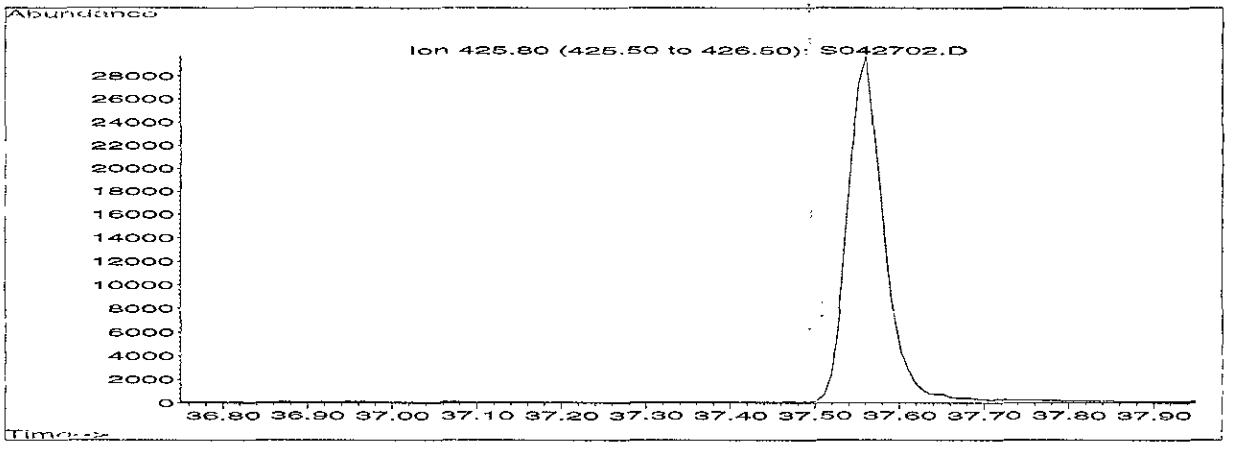


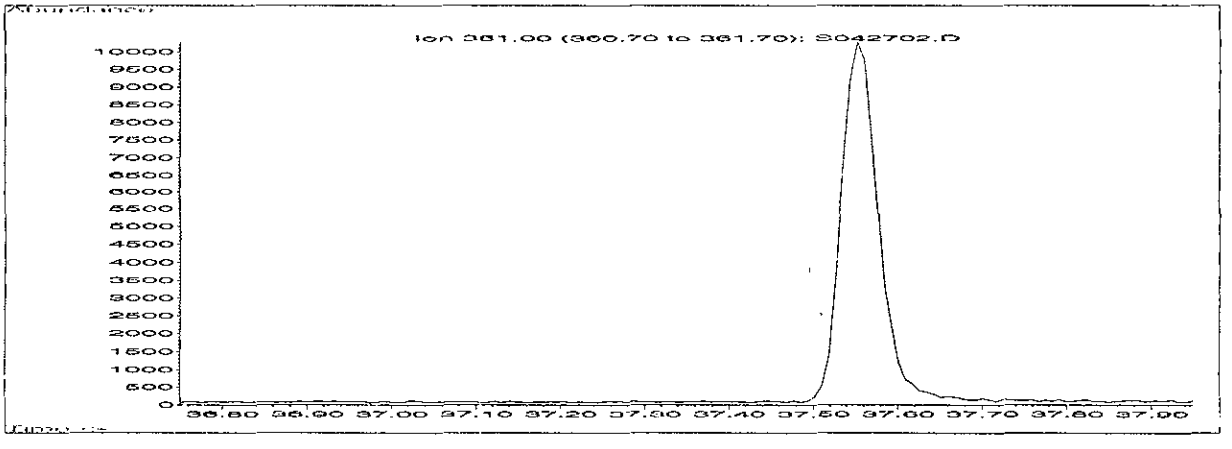


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

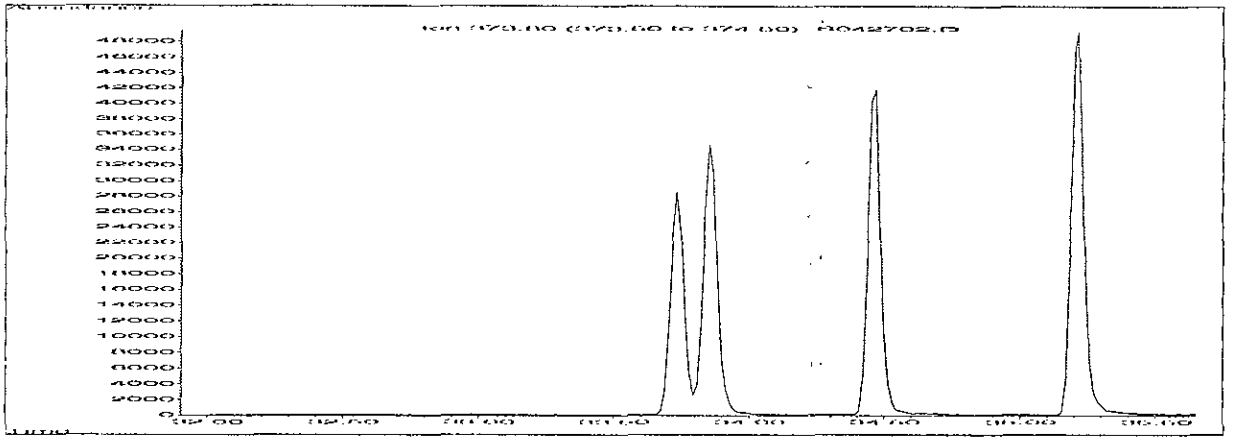


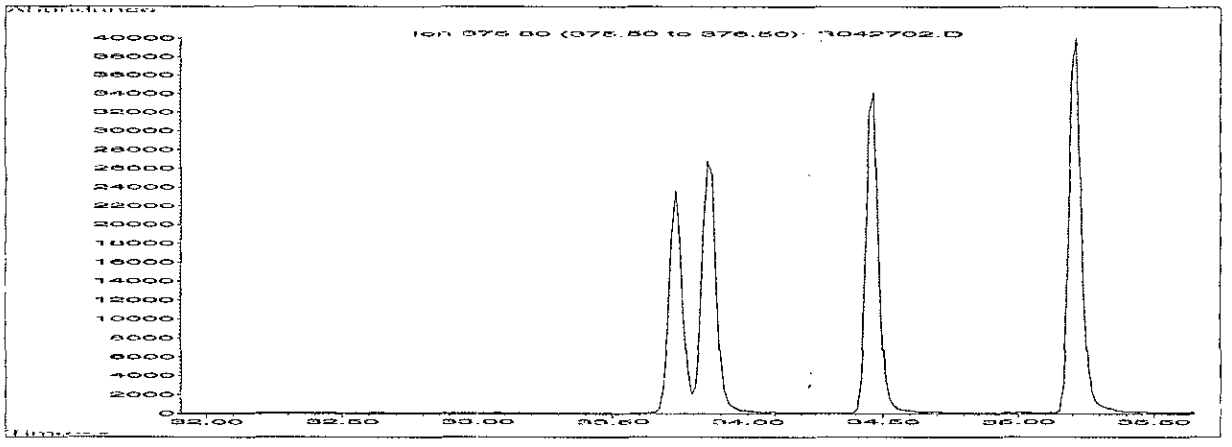


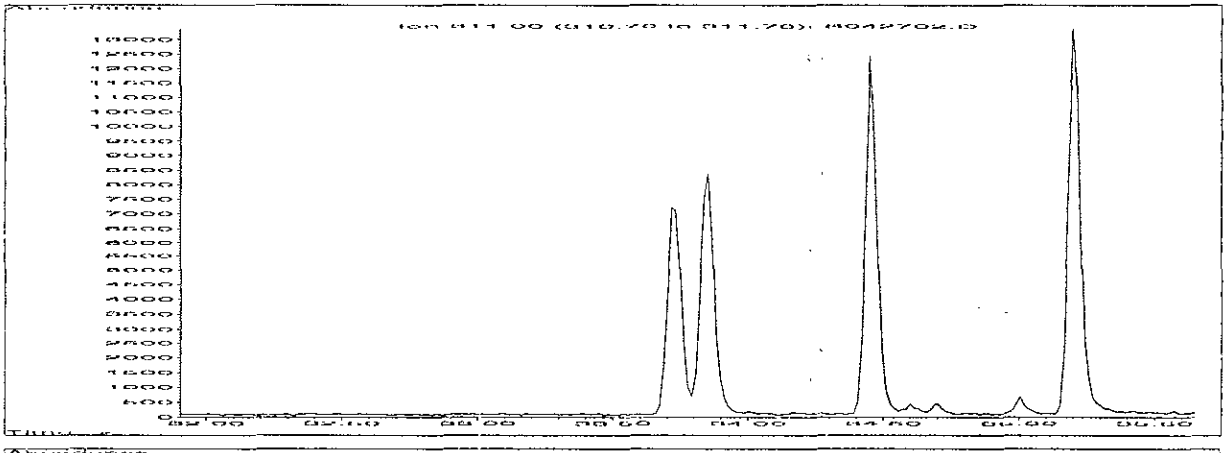


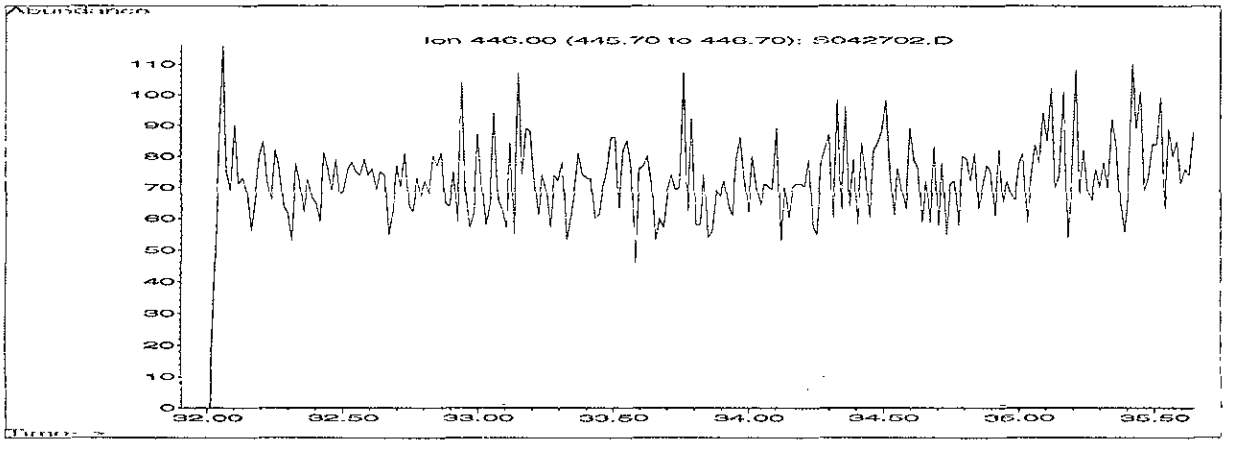
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



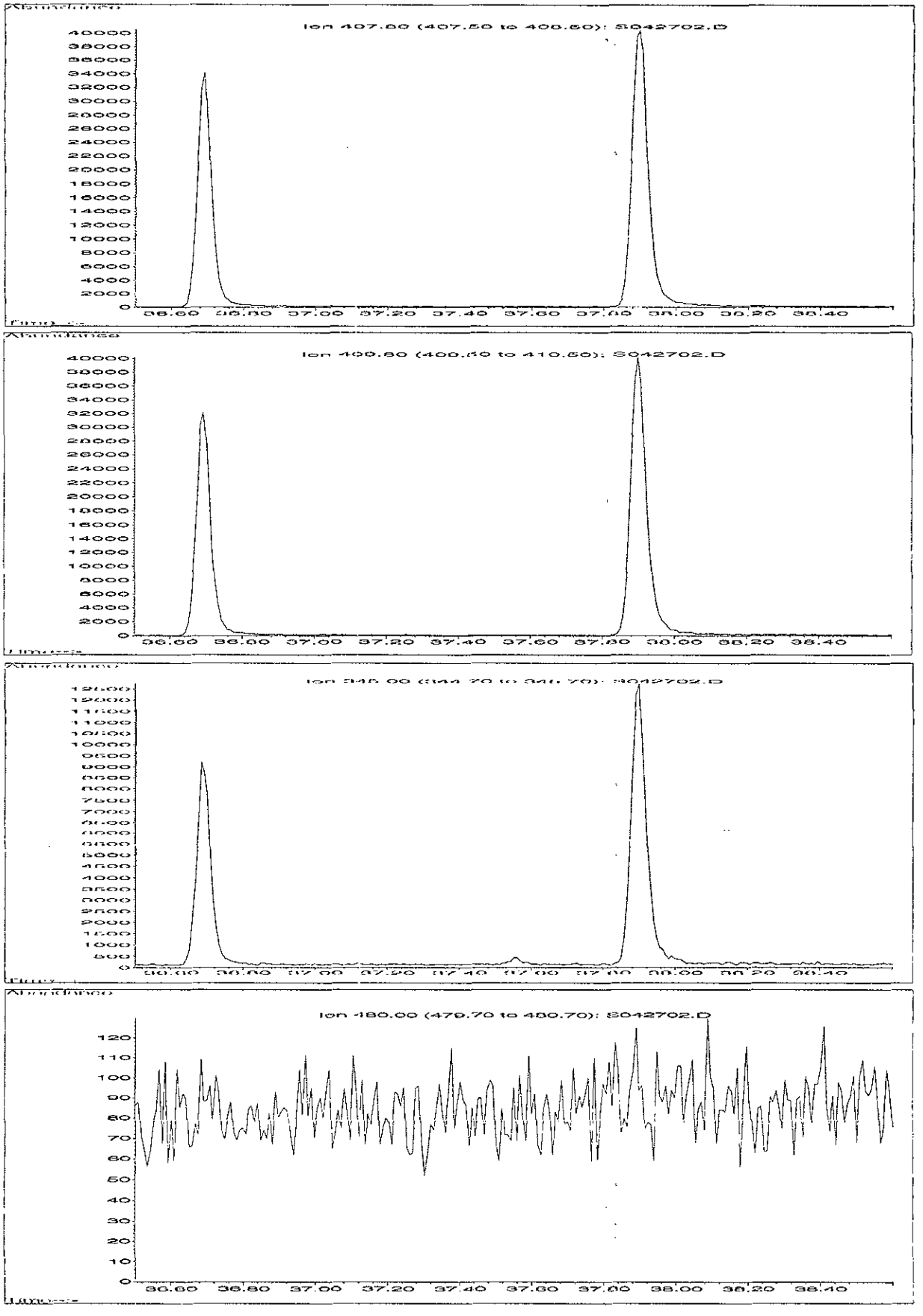






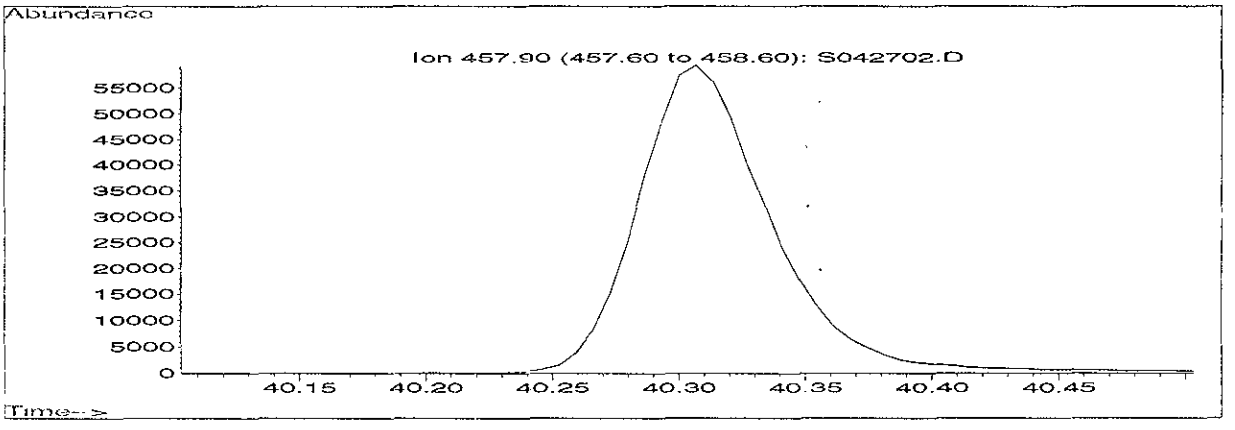
HpCDF TOTAL

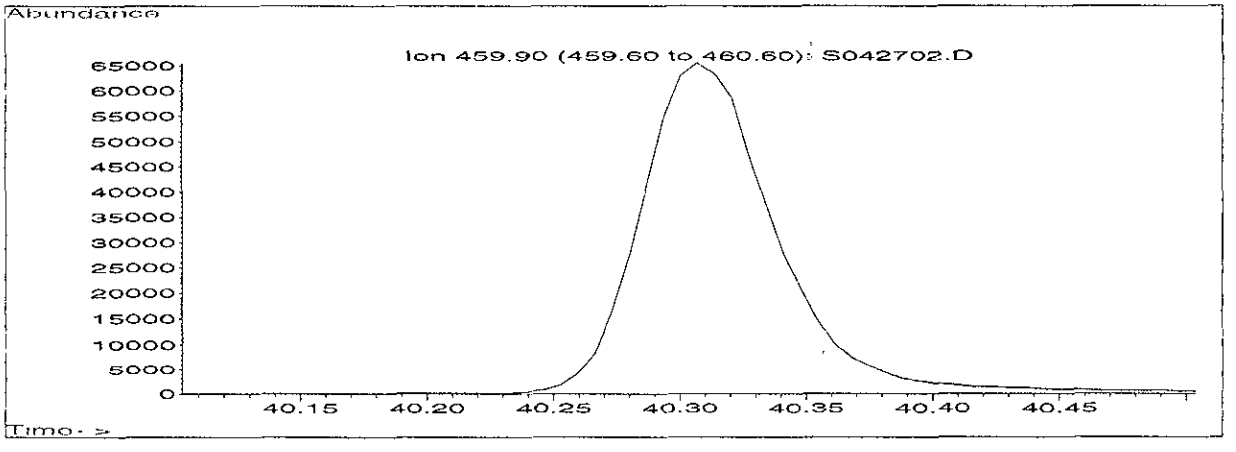
TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

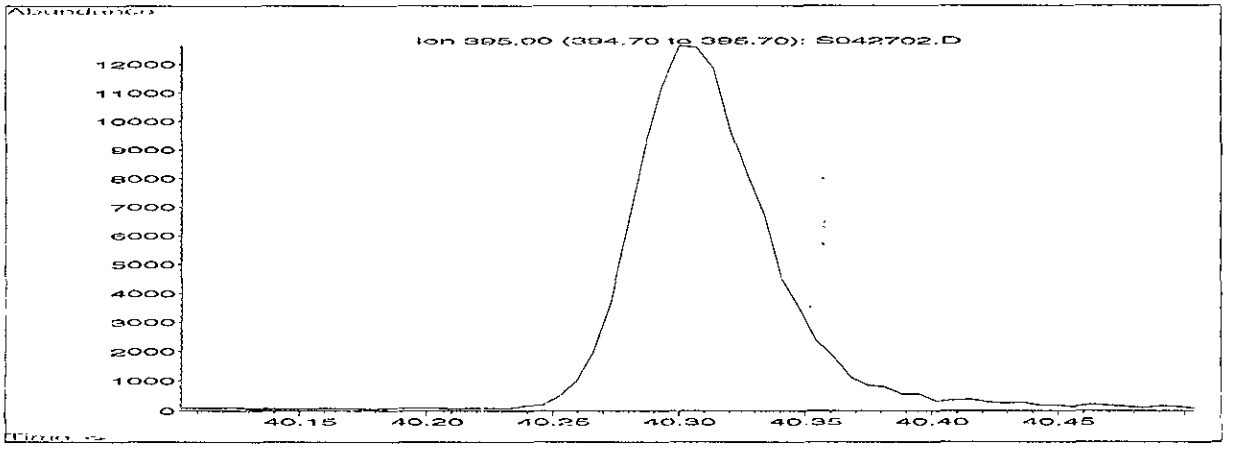


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	40.31		
Target Ion	457.9	Q1 Ion	459.9
Target Response	215053	Q1 Response	241885
Total Response	456938	Ion ratio	0.89
Q2 Ion	395		
Q2 Response	45589		

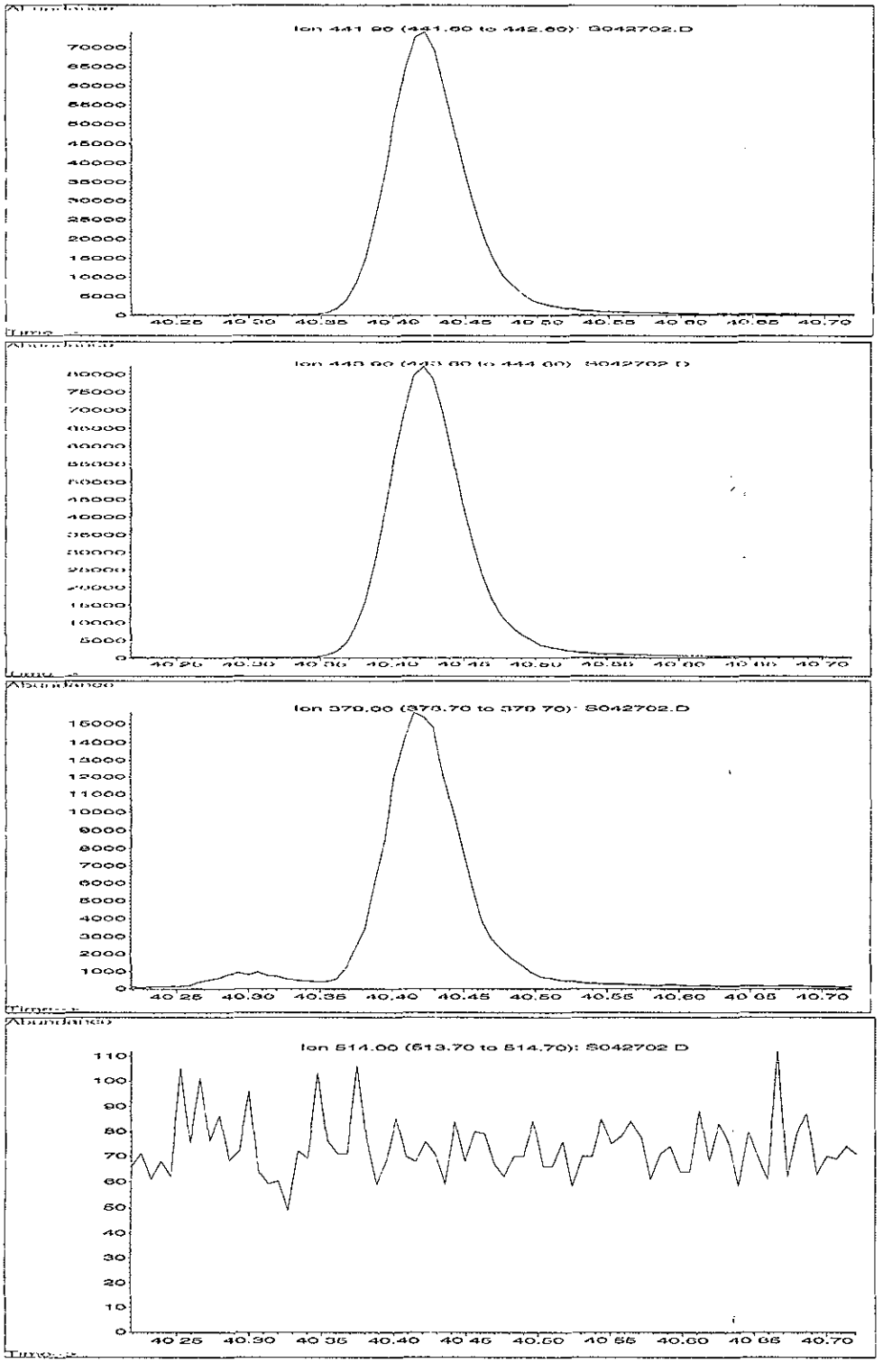






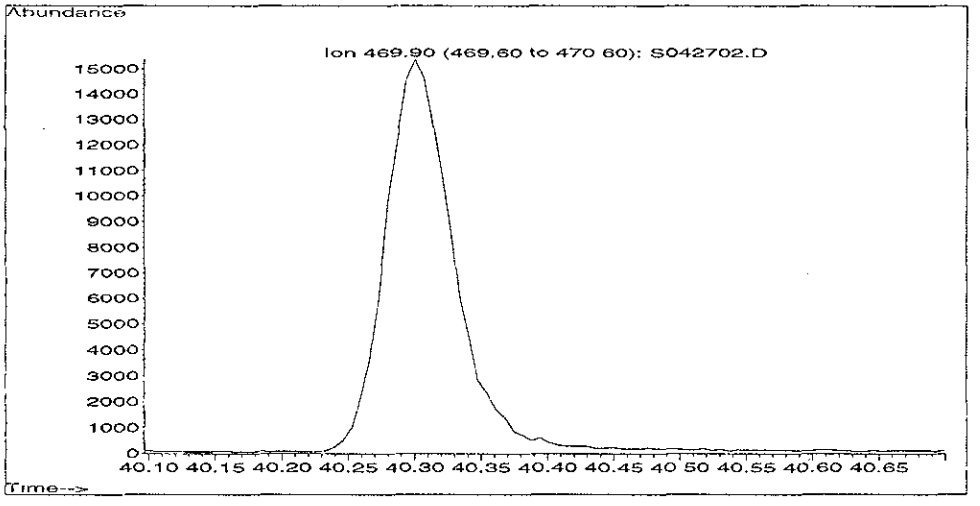
OCDF

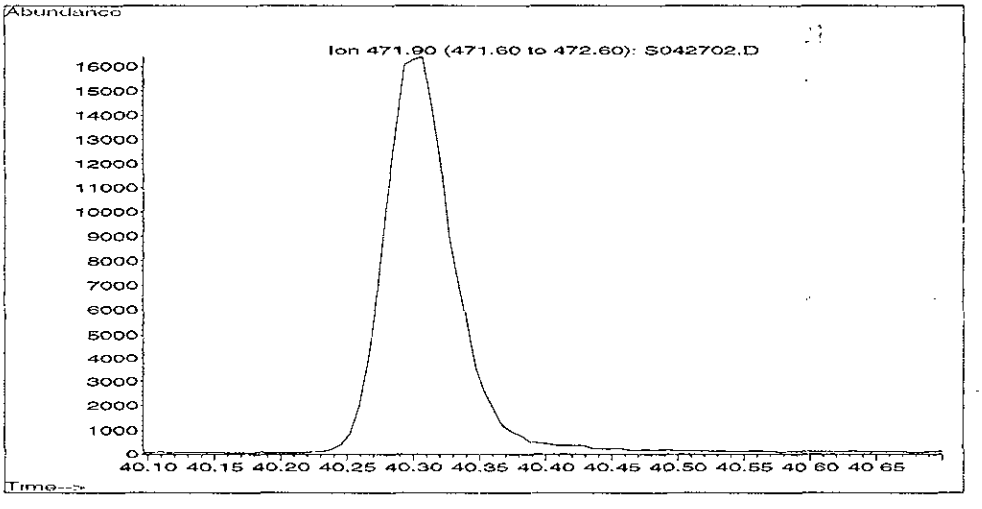
TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	40.42		
Target Ion	441.9	Q1 Ion	443.9
Target Response	278046	Q1 Response	309786
Target Response	587832	Ion Ratio	0.90
Q2 Ion	379	DPE Ion	514
Q2 Response	58133	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	54477	Q1 Response	59959
Total response	114436	Ratio	0.91





Sample ID: A9D160180-1 1.04512L 8280A
K97AK-1-AA WATER LR909

Size: 1.045
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042703.D
Acq On :27 Apr 2009 2:09 pm

Vial: 3
Operator: MEO
Sample Amount: 1.05

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:31 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.81	110633	25.00 NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.26	96213	25.00 NG	0.00
9) 13C-2378-TCDF	20.24	316+318	0.81	162431	25.00 NG	0.00 ✓
15) 13C-2378-TCDD	21.15	332+334	0.78	105169	25.00 NG	0.00 ✓
20) 13C-123678-HxCDD	34.69	402+404	1.27	63286	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.05	75479	25.00 NG	0.00
36) 13C-OCDD	40.30	470+472	0.89	147959	50.00 NG	0.00

Surrogate Compound						
4) 37Cl-2378-TCDD	21.17	328		83627	10.147 NG	0.00
Spiked Amount = 11.960	RRF = 1.782			Recovery =	84.88% ✓	

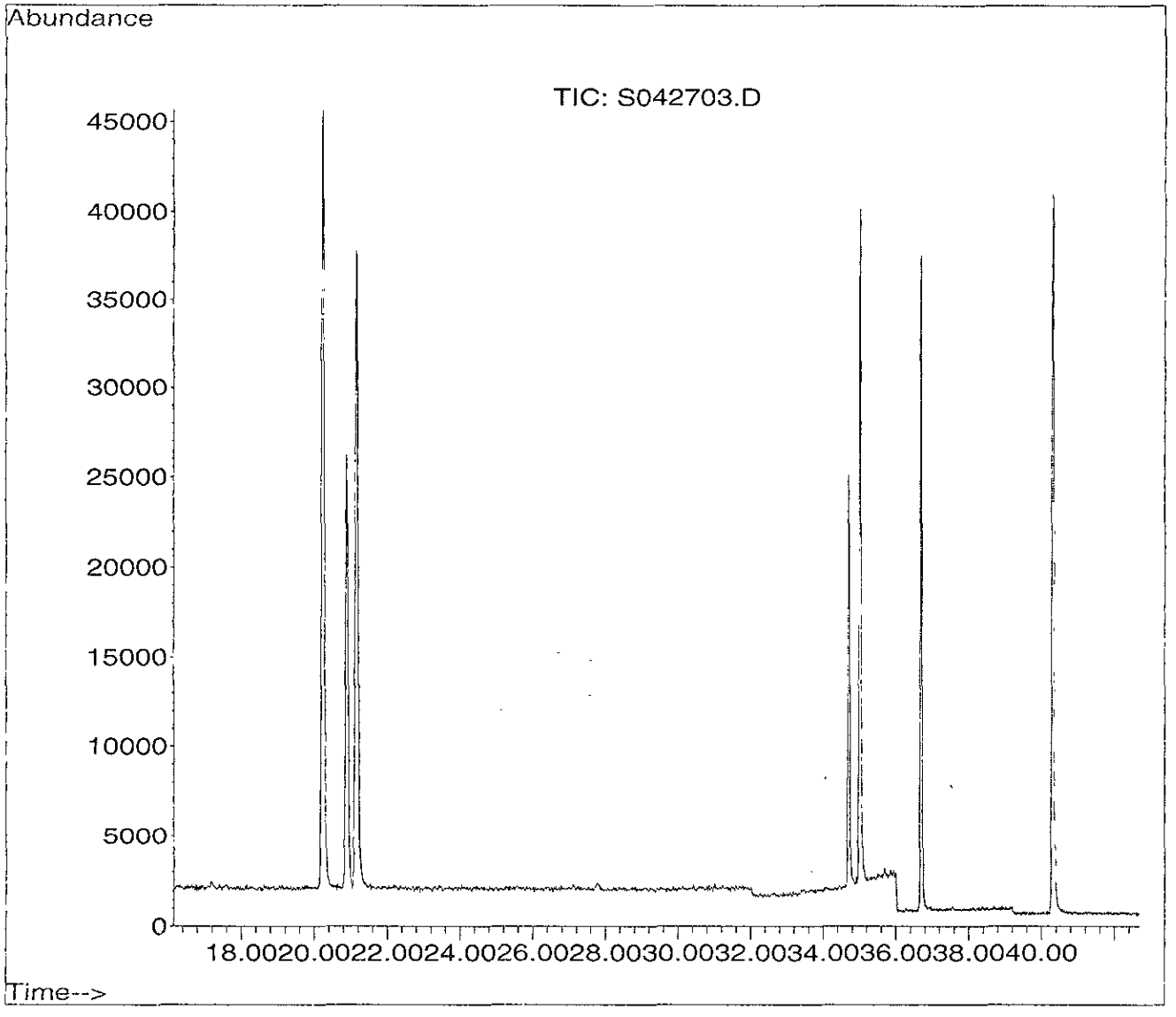
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.24	0.81	162431	1.796	19.550	0.0654	81.7
3) 13C-2378-TCDD-IS	21.15	0.78	105169	1.137	19.991	3.9494	83.6 ✓
6) 13C-123678-HxCDD-	34.69	1.27	63286	0.899	17.494	0.0747	73.1 ✓
7) 13C-1234678-HpCDF	36.68	1.05	75479	1.062	17.672	0.1075	73.9
8) 13C-OCDD-IS	40.30	0.89	147959	0.887	41.454	0.1186	86.6
10) 2378-TCDF	0.00		0	1.219	N.D.	0.1163	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.1550	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.0980	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.1251	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.1622	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.0742	
1	20.24	4.61 #	15991		2.784 DL		
17) TCDD TOTAL	19.30	4.61	15991	1.306	2.784		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.3089	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.3934	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.2458	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.2005	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.1294	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.2613	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.2770	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	0.9678	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.1129	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.1085	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.0728	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.0931	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.2349	
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.1318	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.1933	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.3749	
37) OCDD	0.00		0	1.224	N.D.	0.2377	

AK 4/30/09

38) OCDF	0.00	0	1.589	N.D.	0.2125

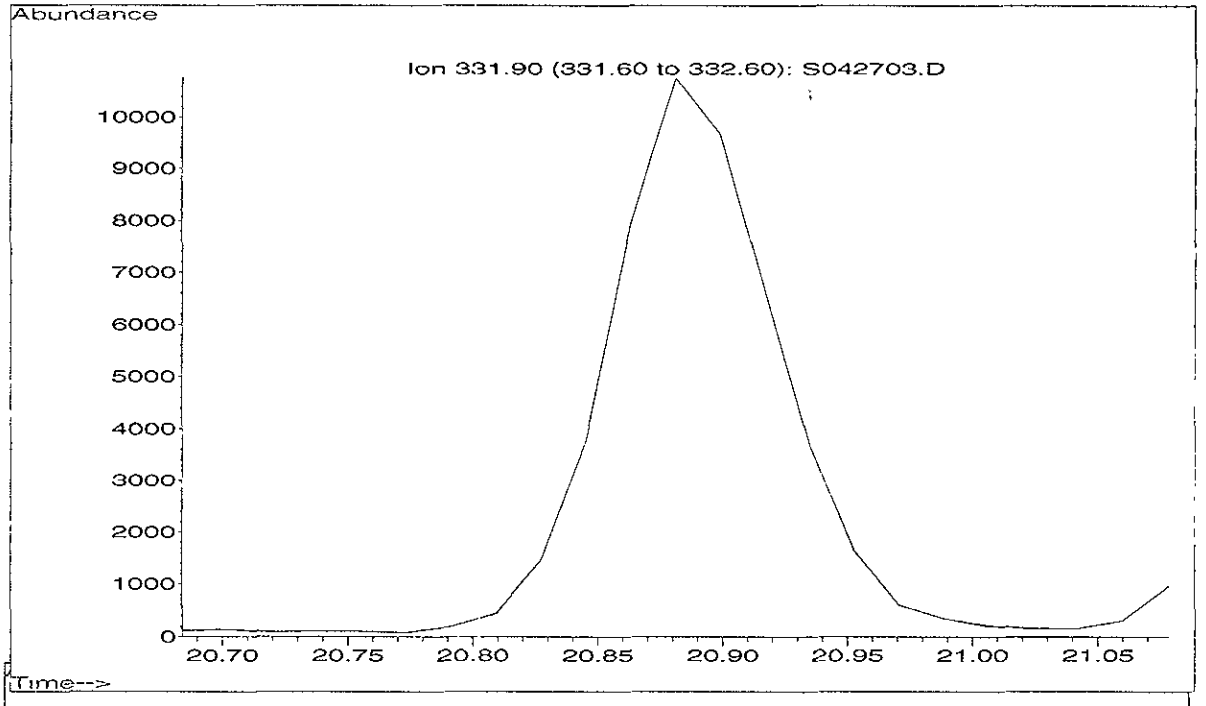
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042703.D 09AP27A2.M Tue Apr 28 16:31:45 2009

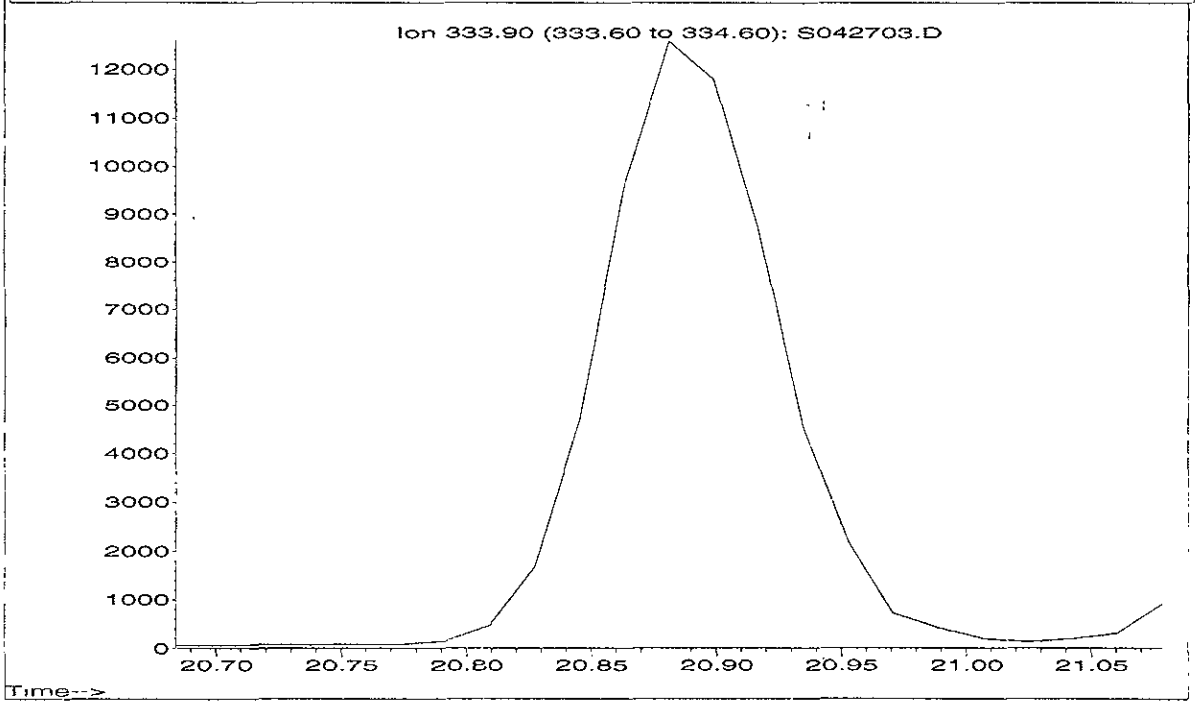
Data File Name	S042703.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 2:09
Acq. Method File	TOKAS
Sample Name	K97AK-1-AA WATER LR909
Misc Info	D160180-1 1.04512L 8280A
Vial Number	3
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.04512



13C-1234-TCDD

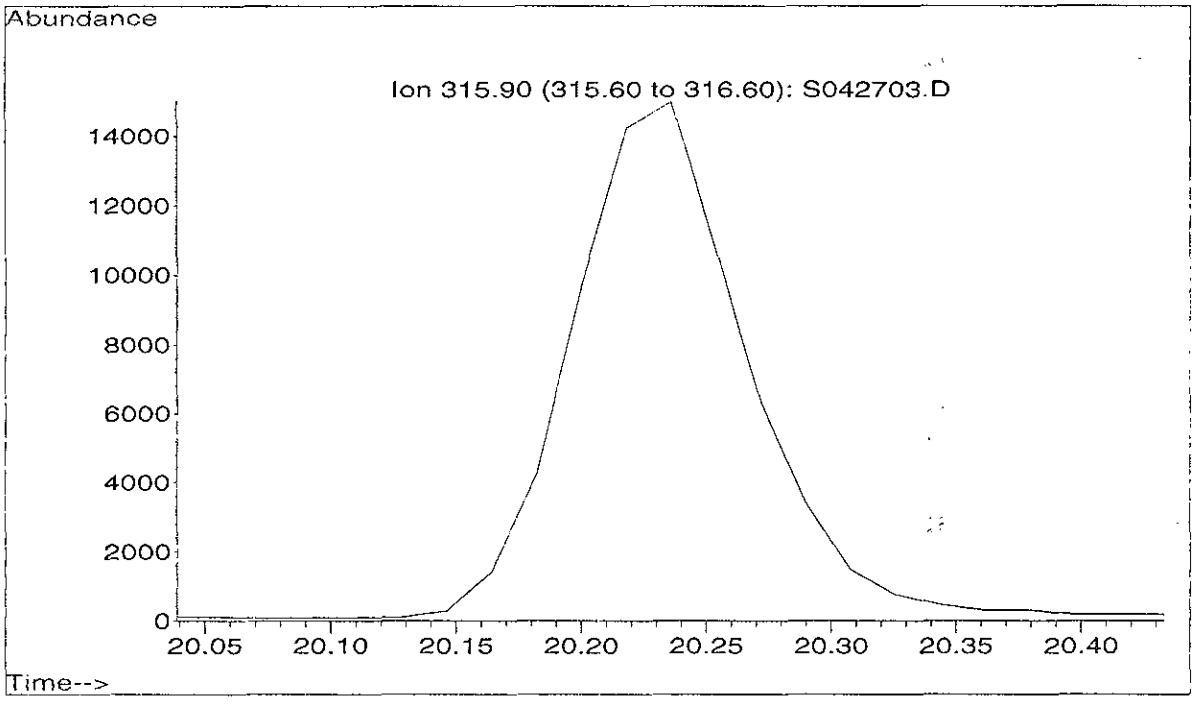
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	49547	Q1 Response	61086
Total Response	110633	Ion Ratio	0.81

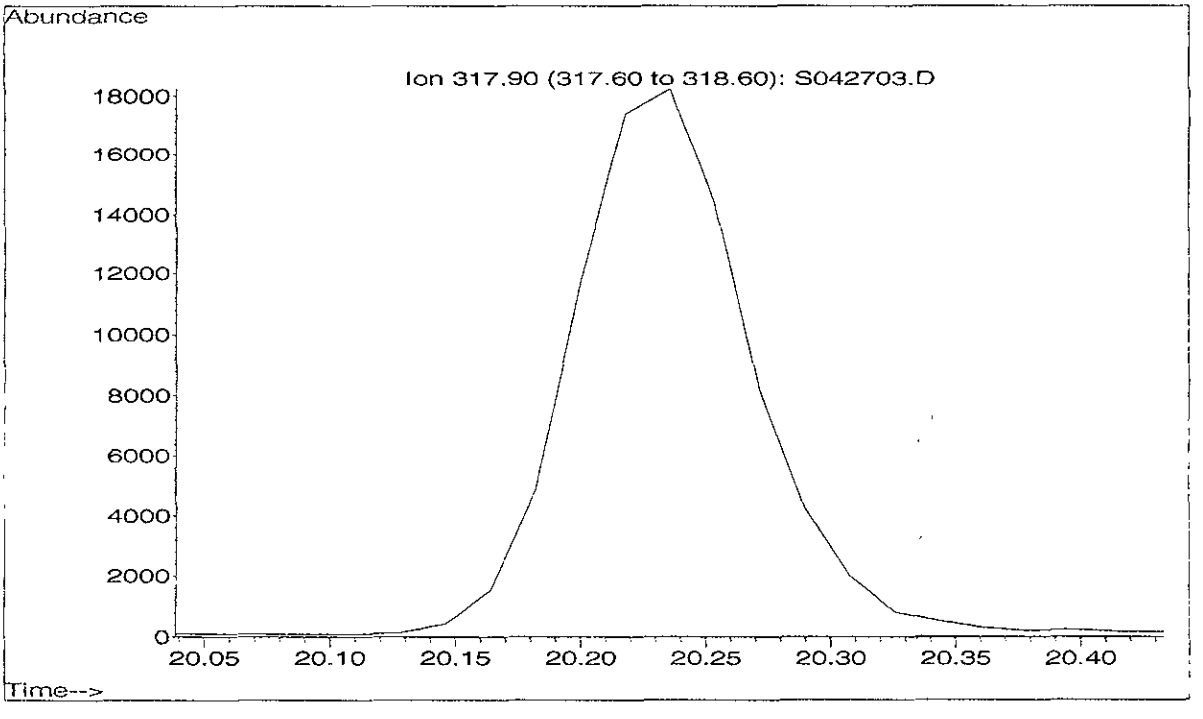




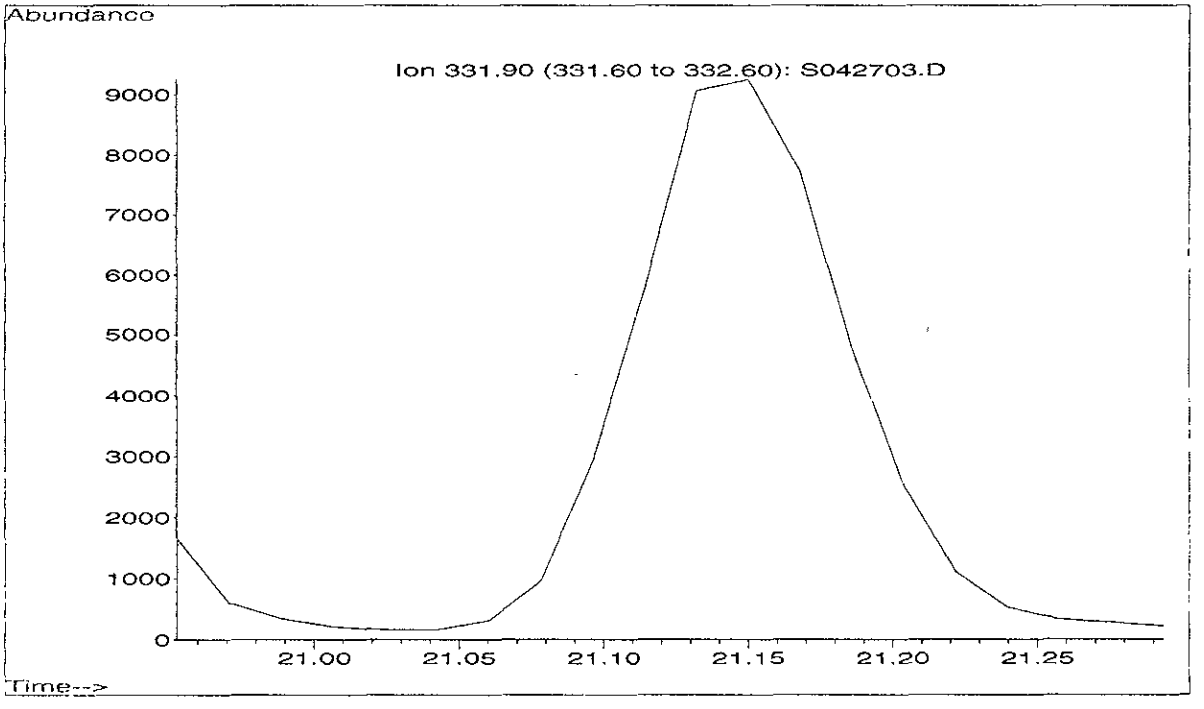
13C-2378-TCDF-IS

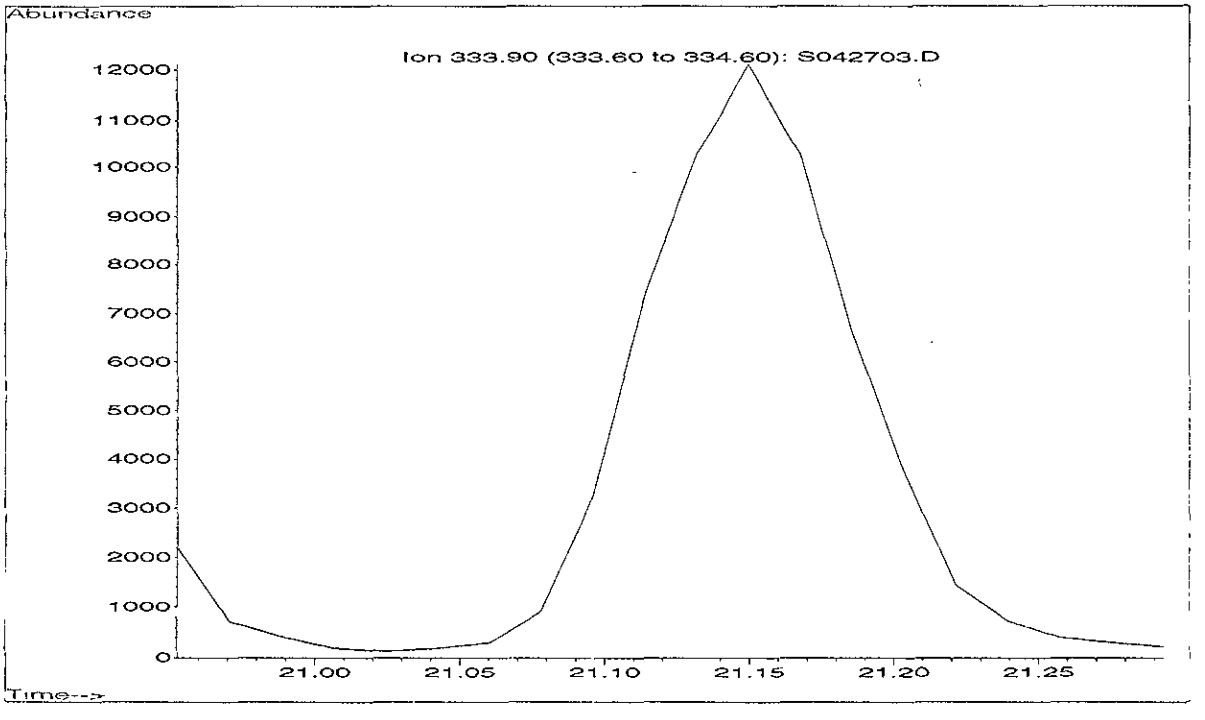
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.24		
Target Ion	315.9	Q1 Ion	317.9
Target Response	72673	Q1 Response	89758
Target Response	162431	Ion Ratio	0.81





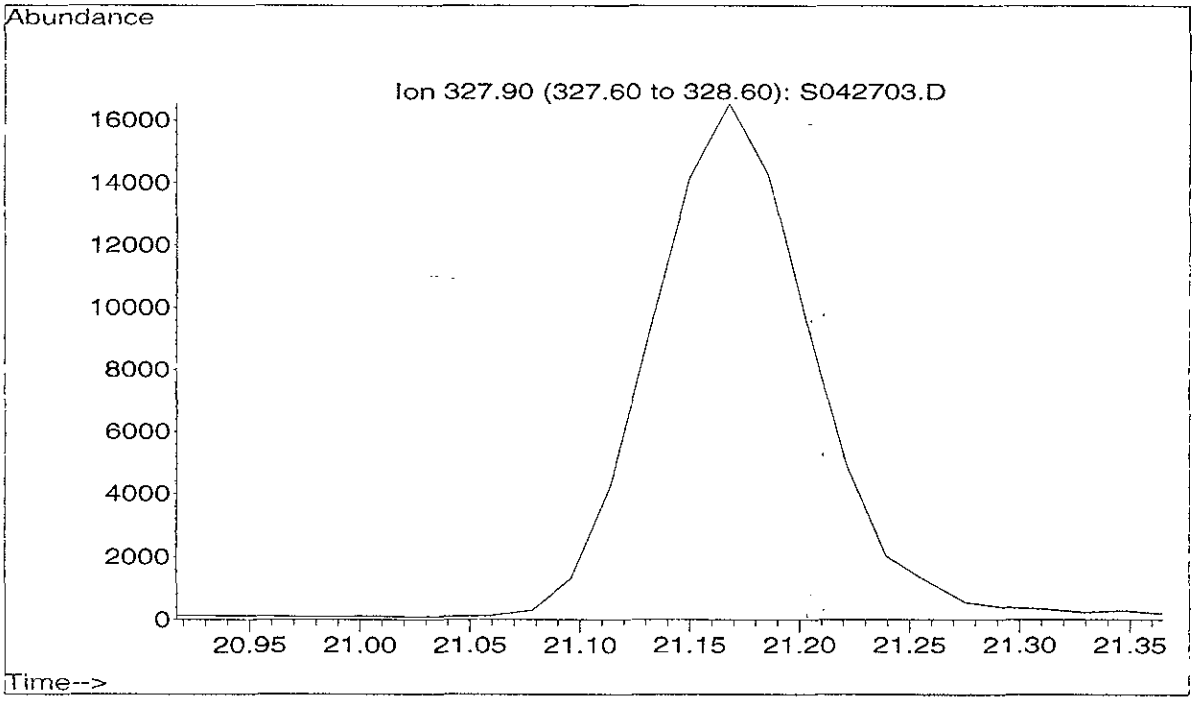
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.15		
Target Ion	331.9	Q1 Ion	333.9
Target Response	46114	Q1 Response	59055
Total Response	105169	Ion Ratio	0.78

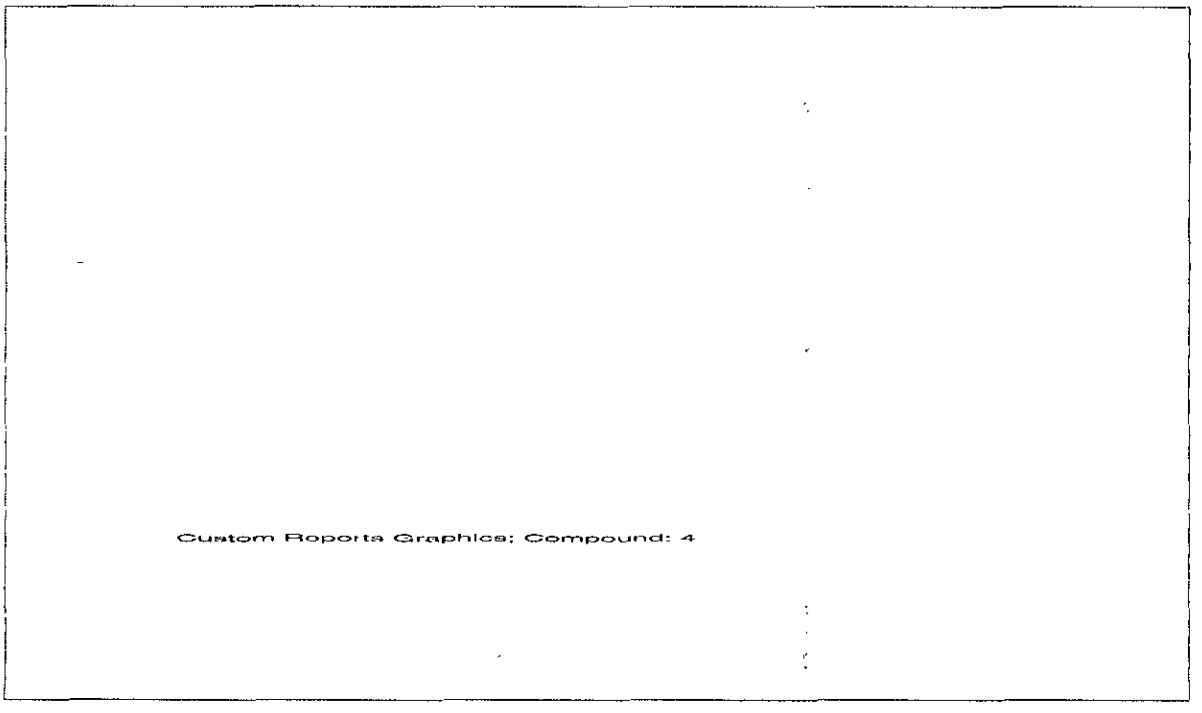




37Cl-2378-TCDD

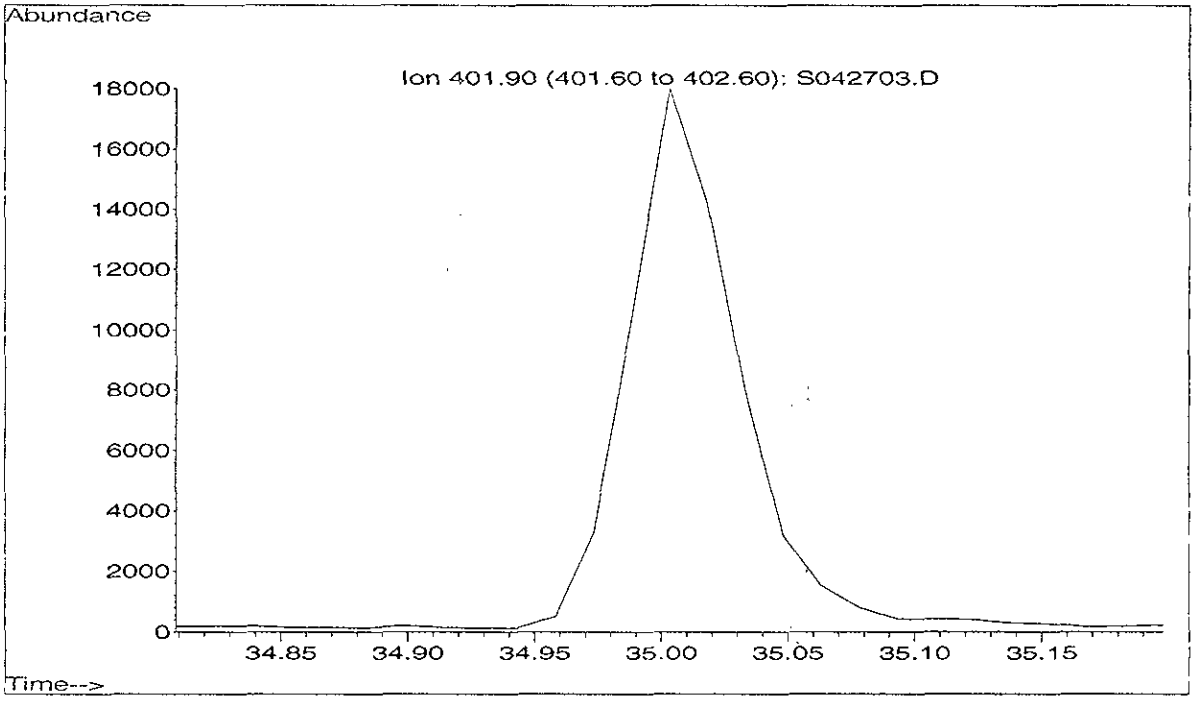
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	83627	Q1 Response	0
Total Response	83627	Ion Ratio	#DIV/0!

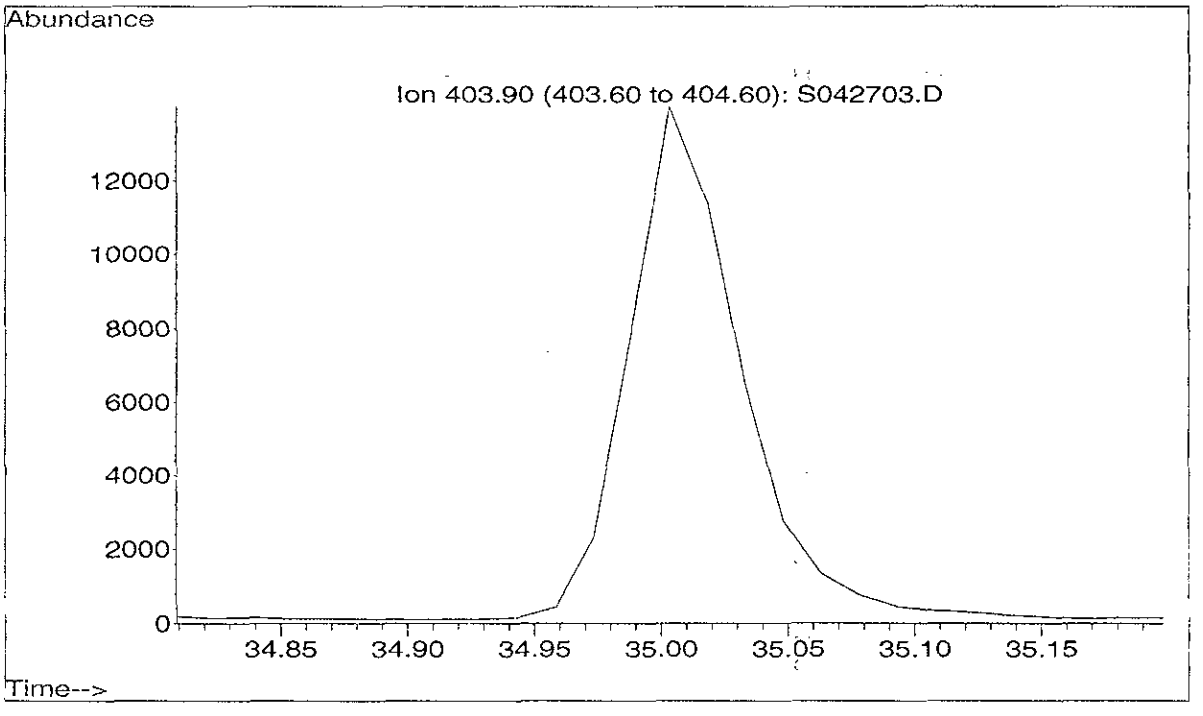




13C-123789-HxCDD

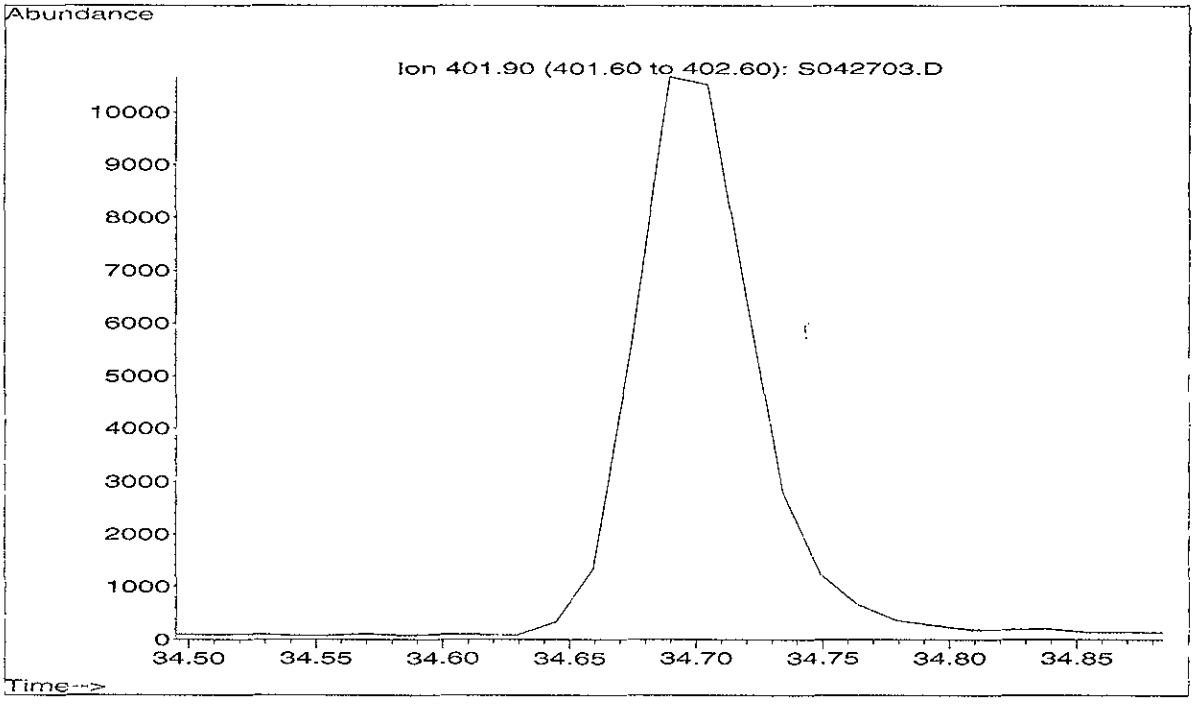
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	53707	Q1 Response	42506
Target Response	96213	Ion Ratio	1.26

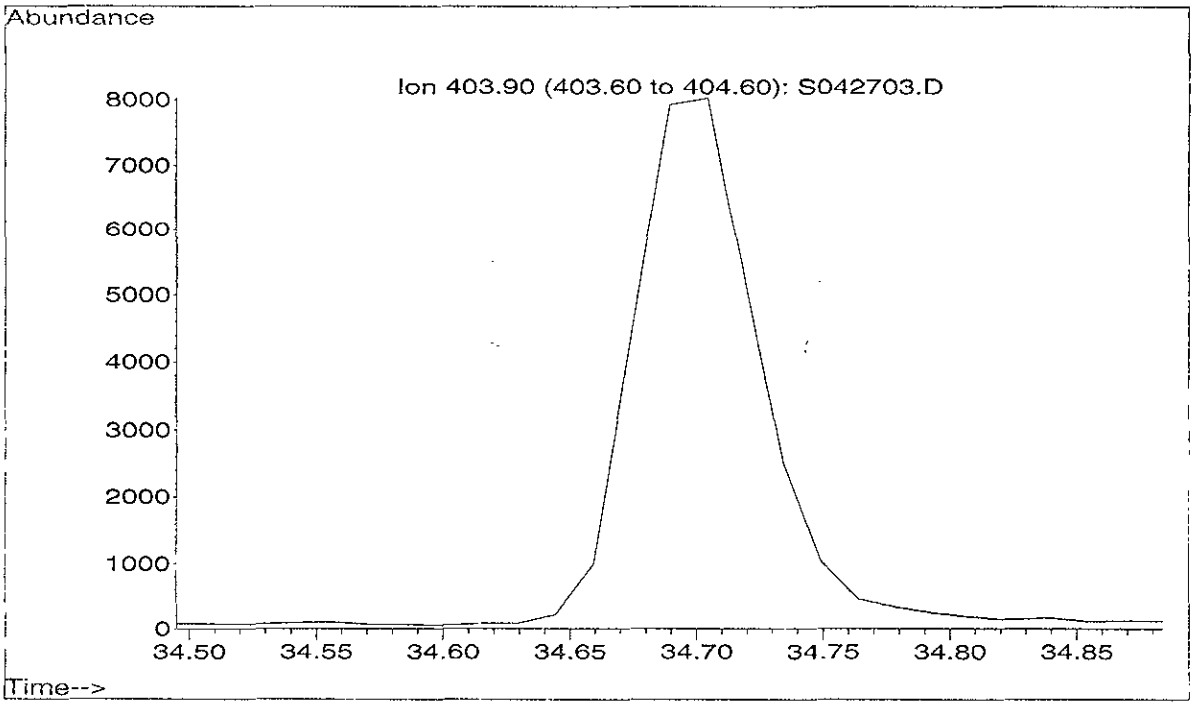




13C-123678-HxCDD-IS

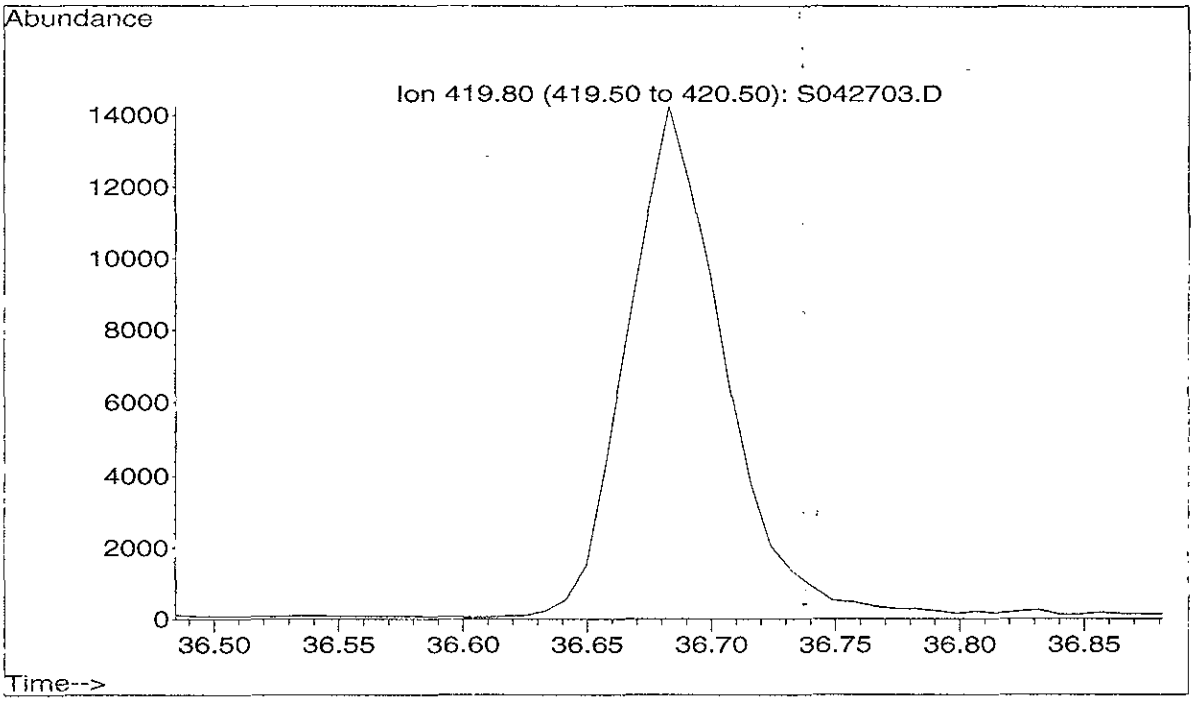
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	35456	Q1 Response	27830
Total Response	63286	Ion Ratio	1.27

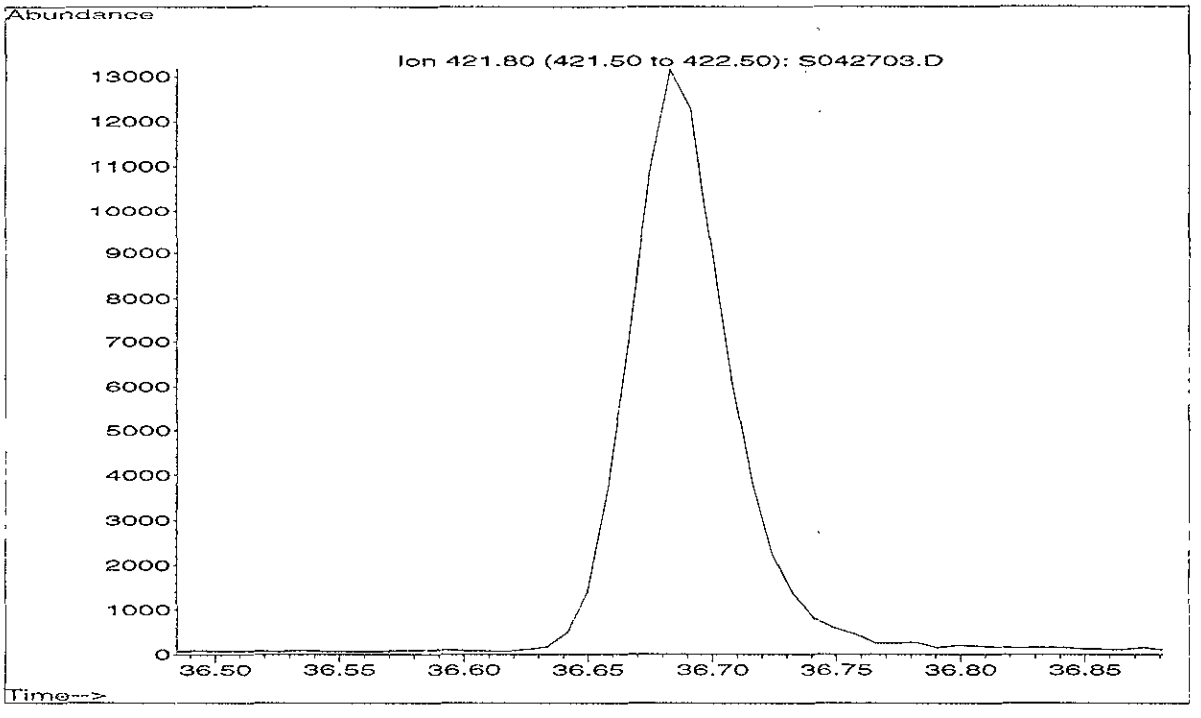




13C-1234678-HpCDF-IS

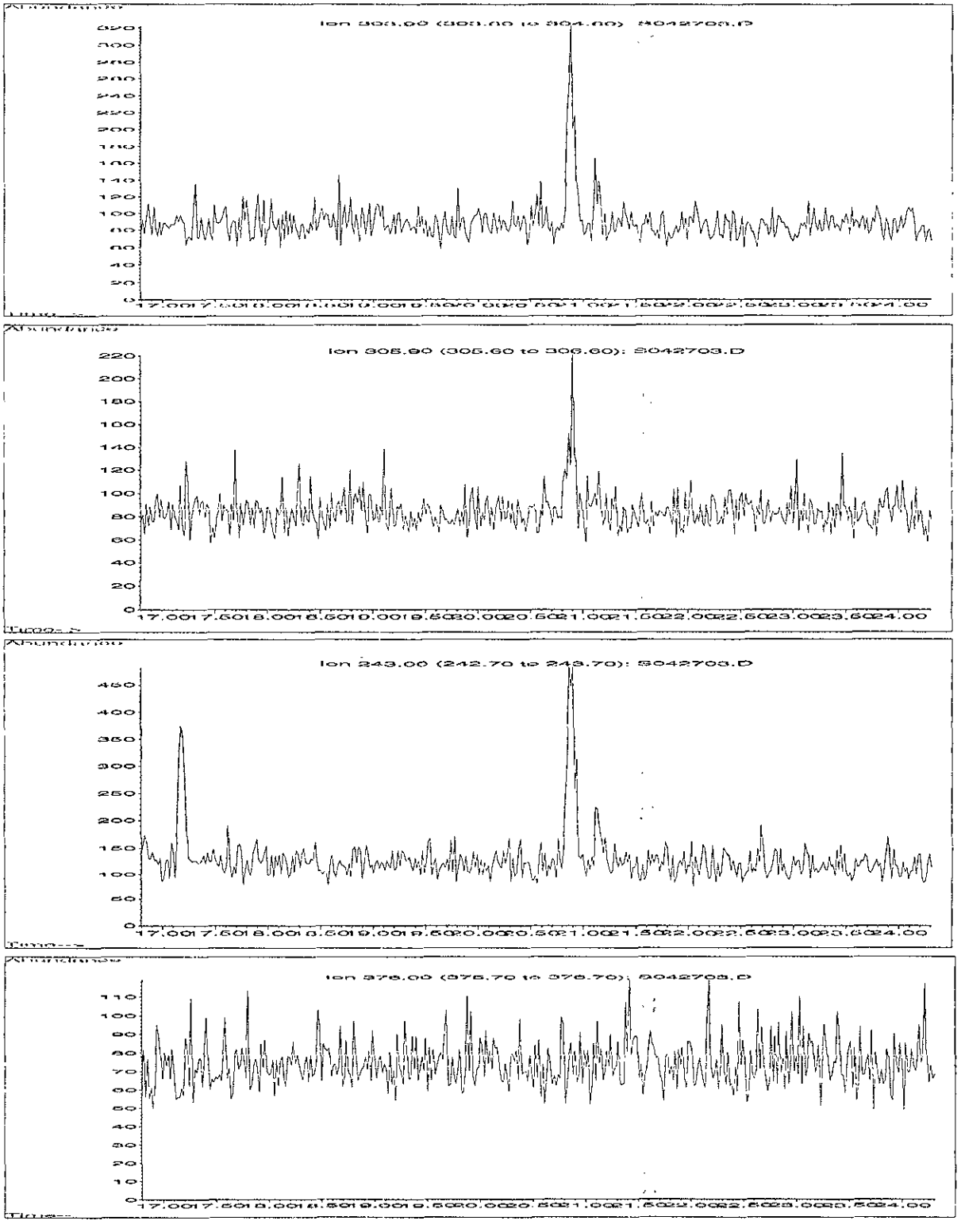
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	38628	Q1 Response	36851
Target Response	75479	Ion Ratio	1.05





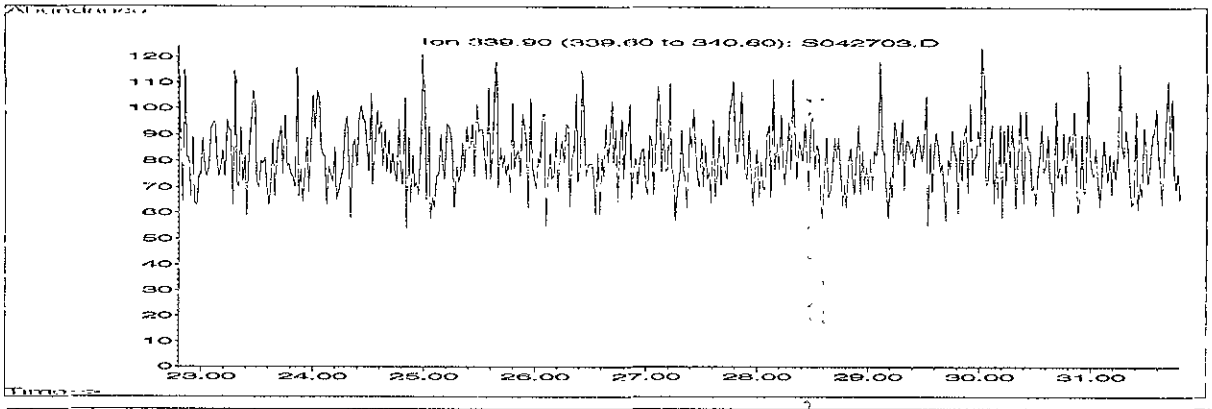
TCDF TOTAL

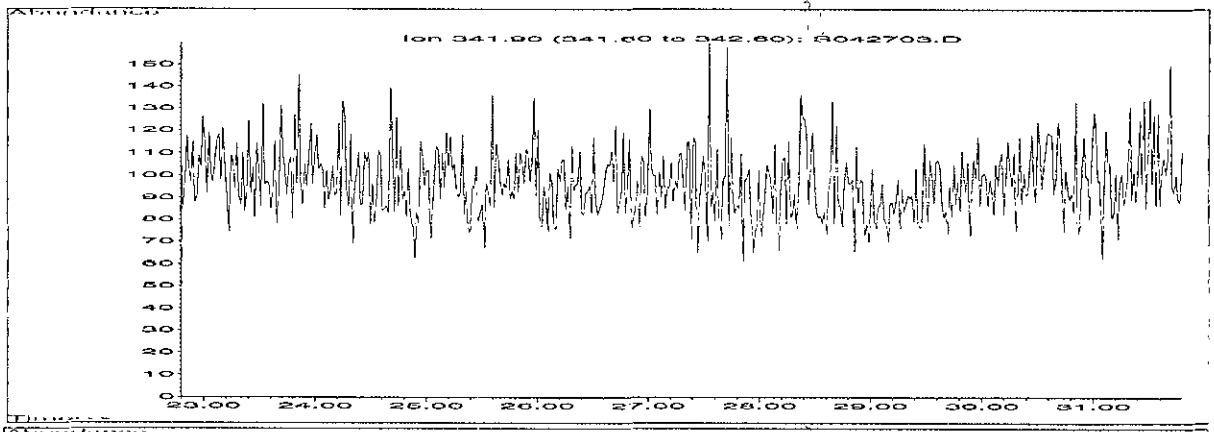
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

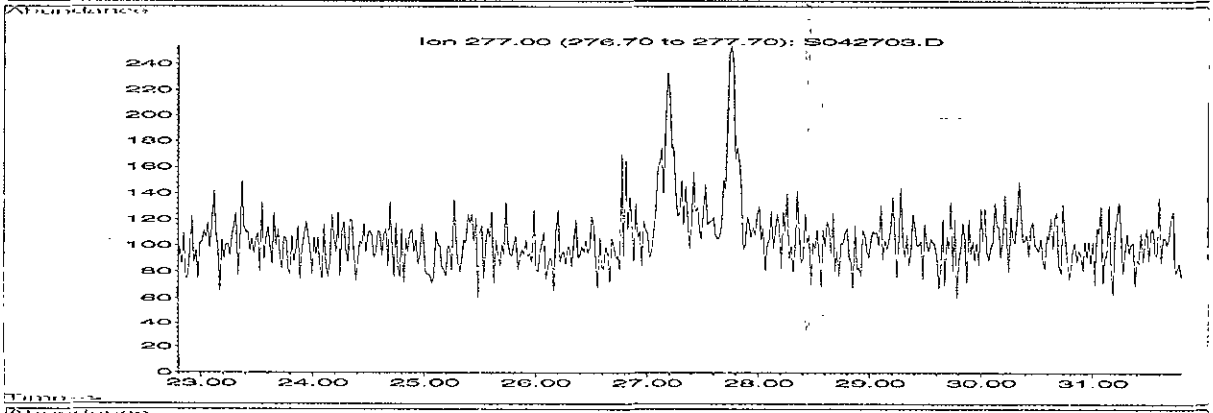


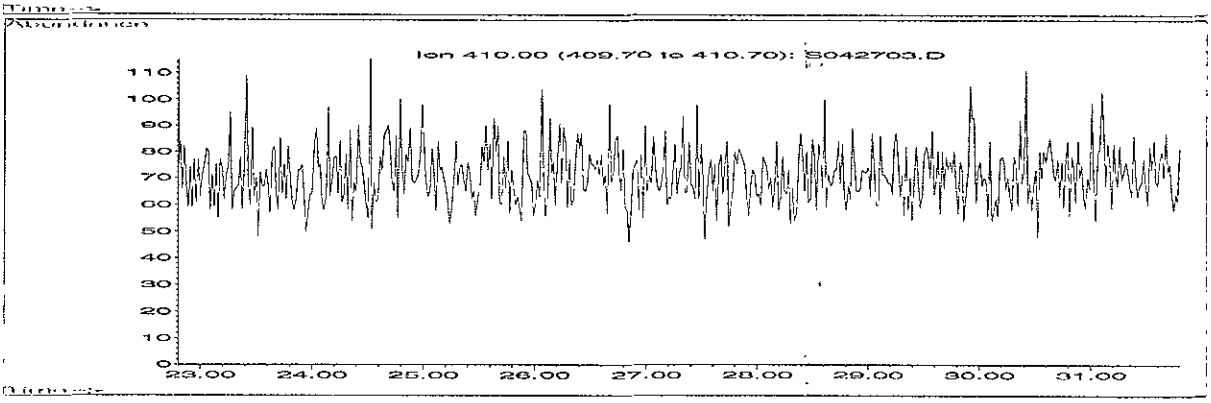
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



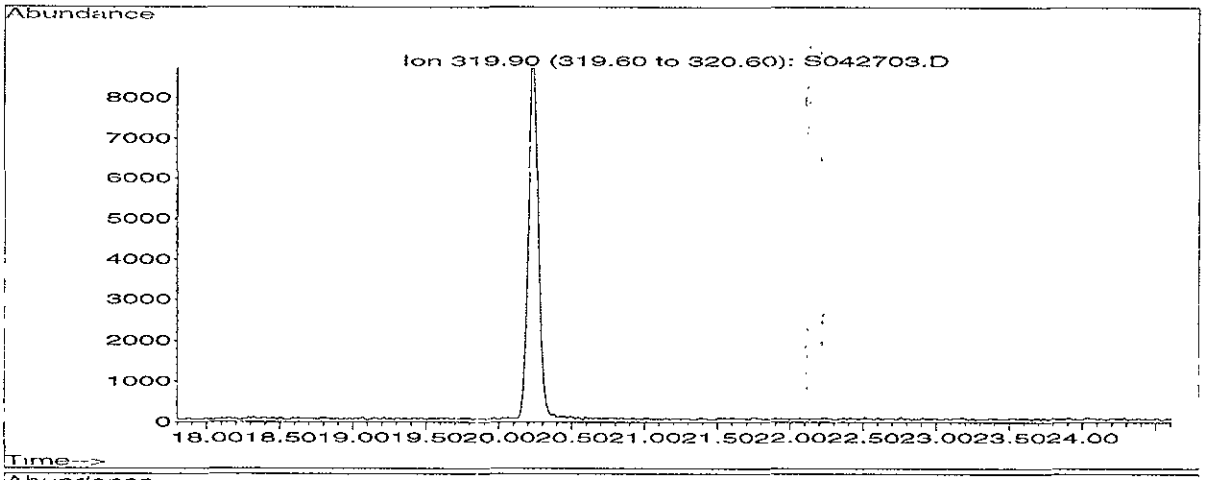


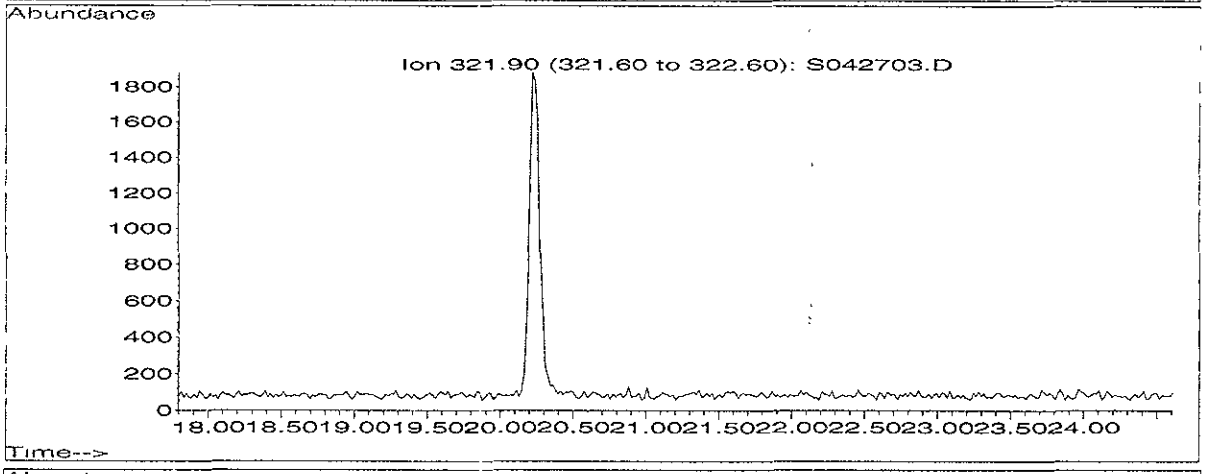


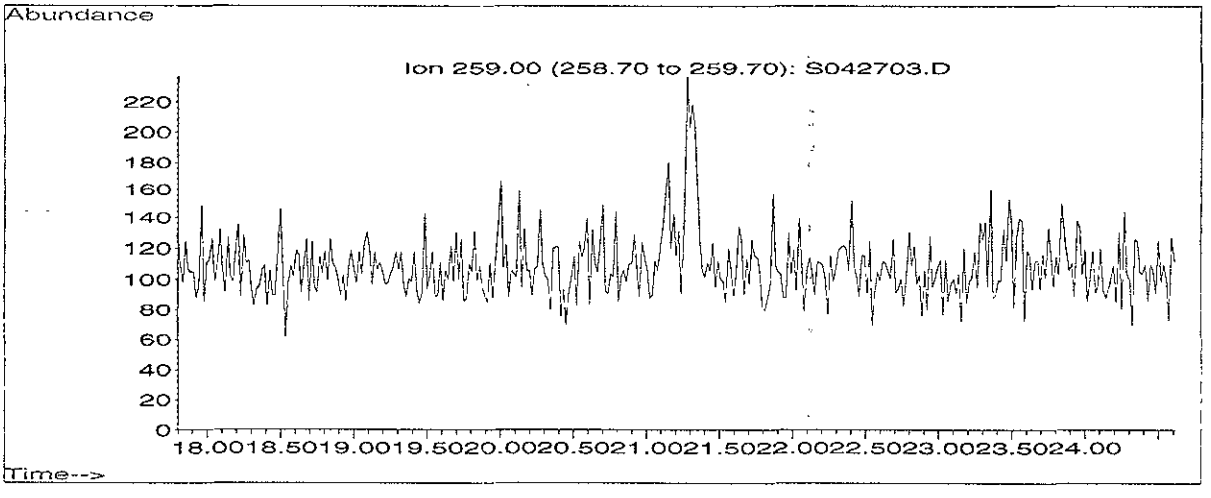


TCDD TOTAL

TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

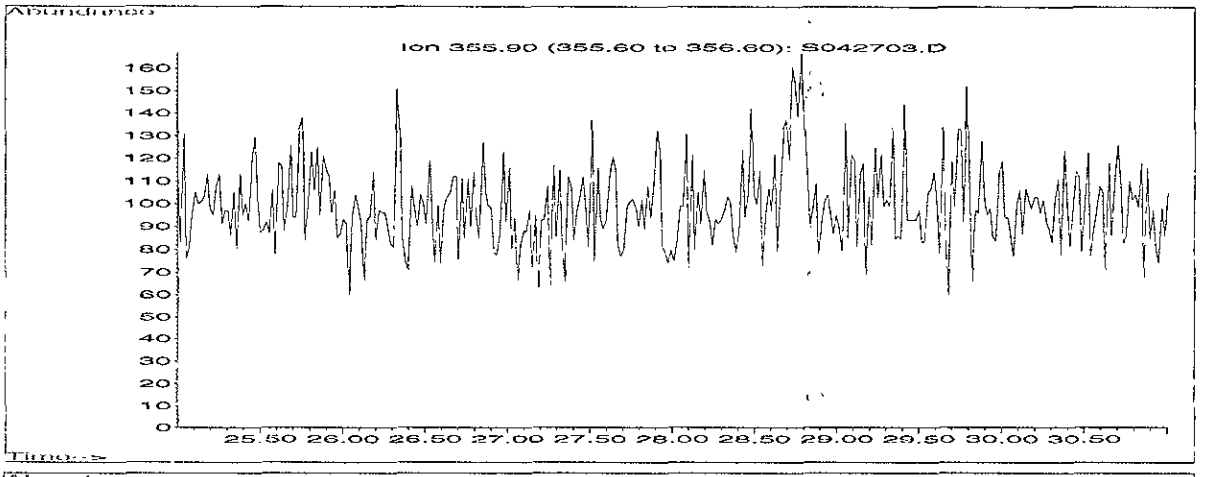


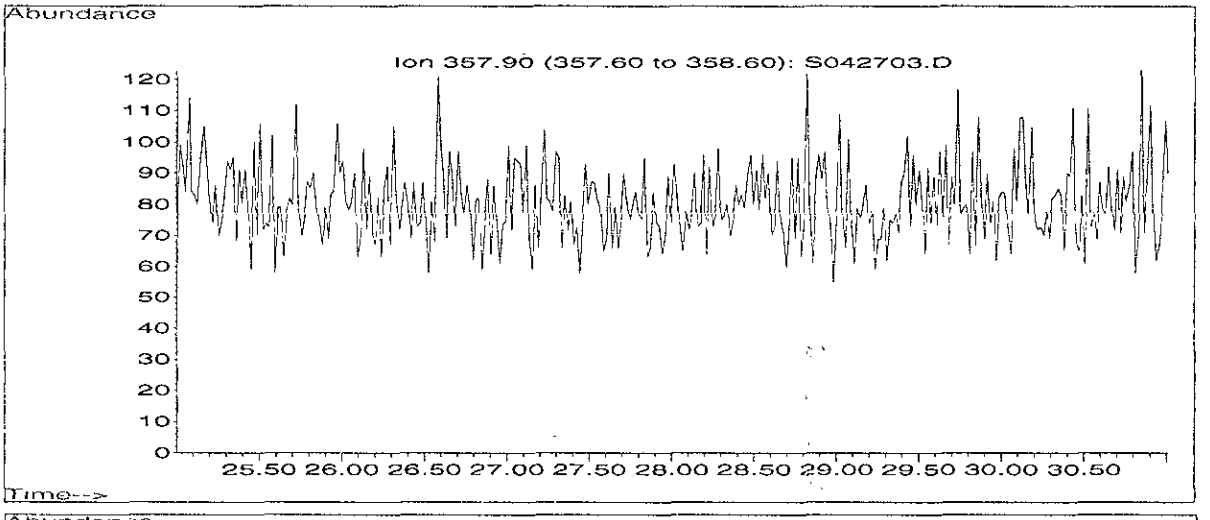


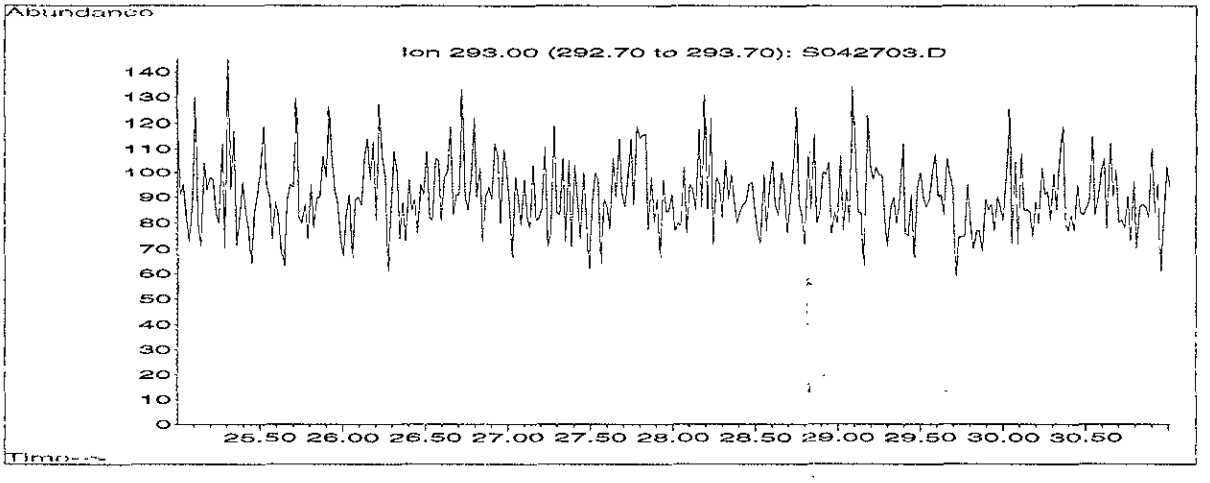


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

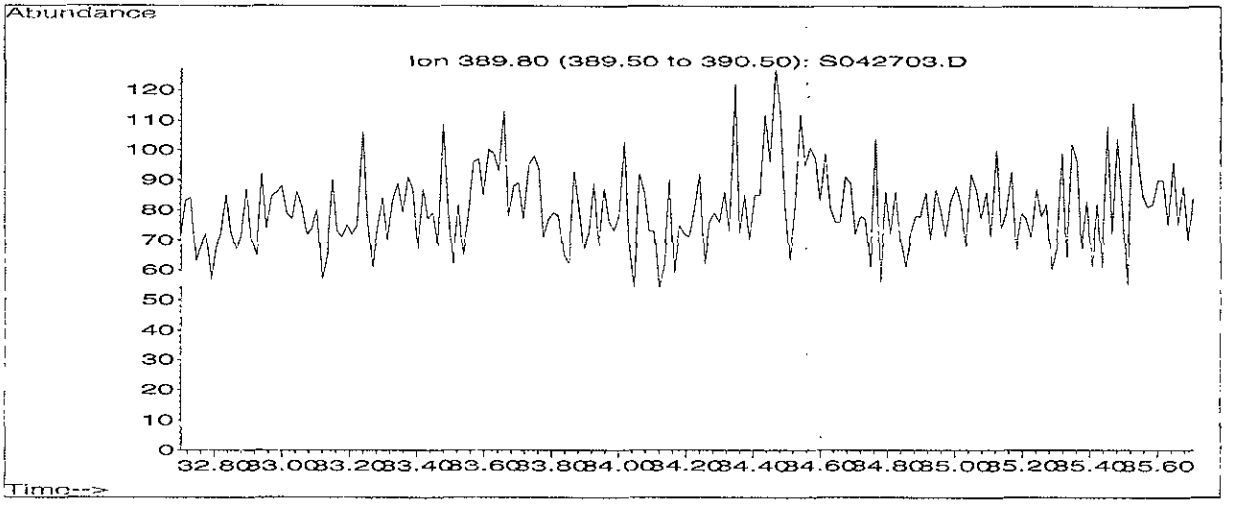


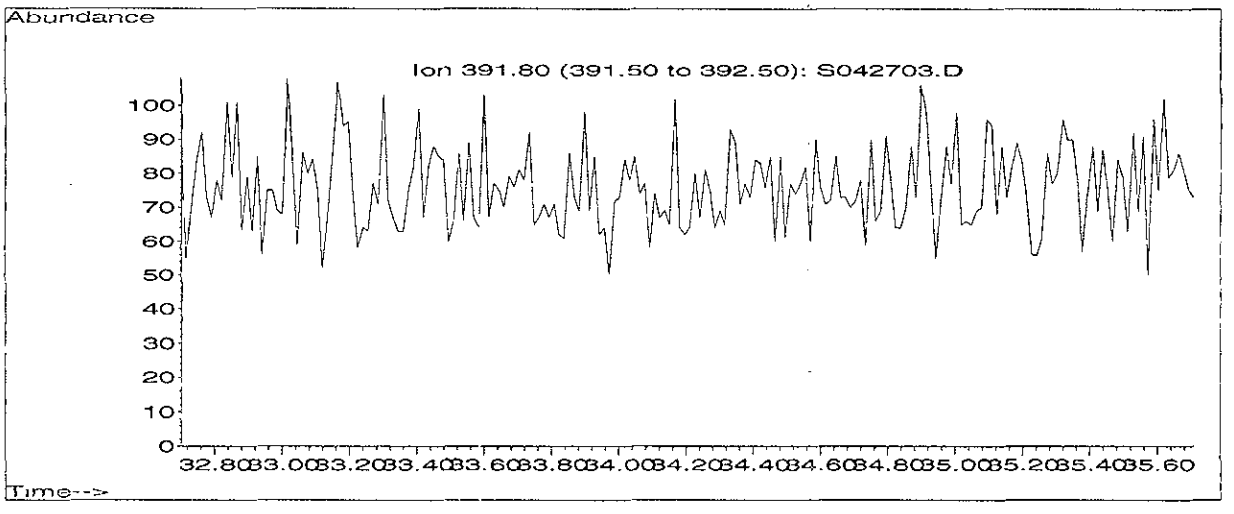


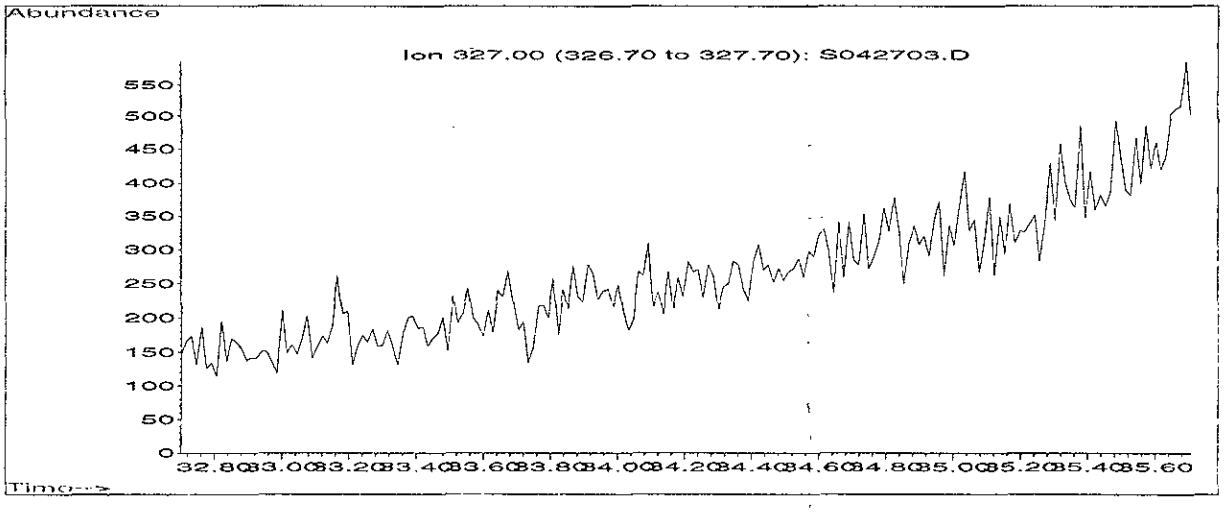


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

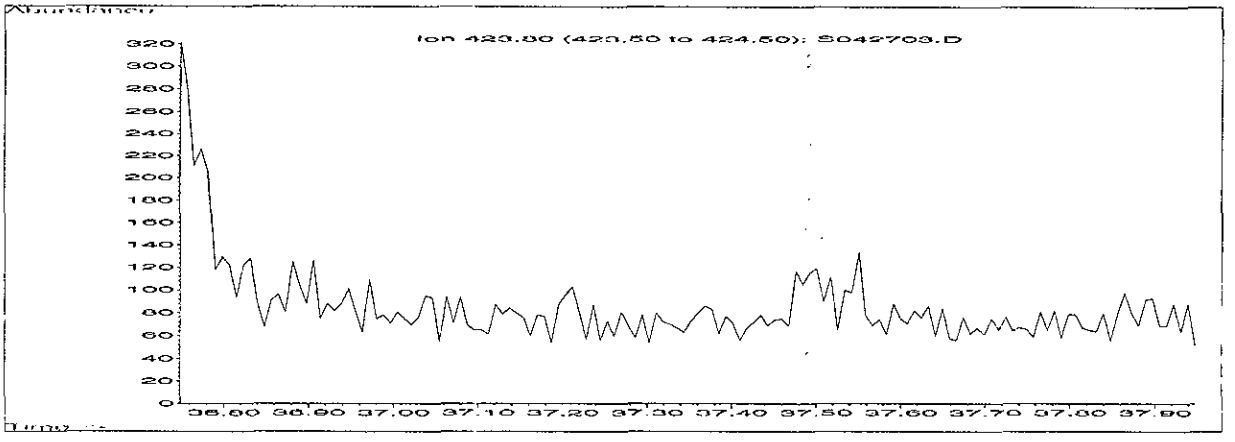


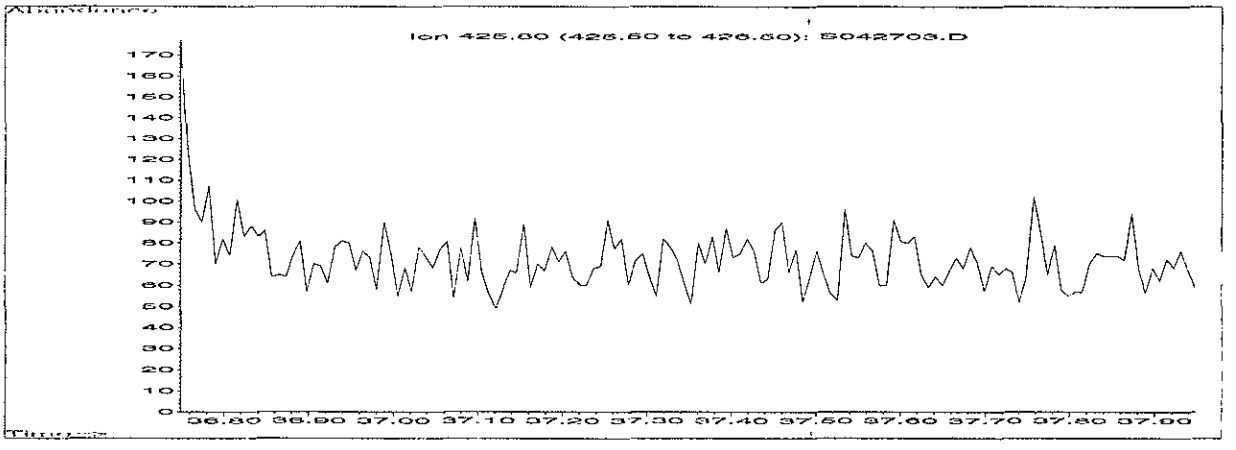


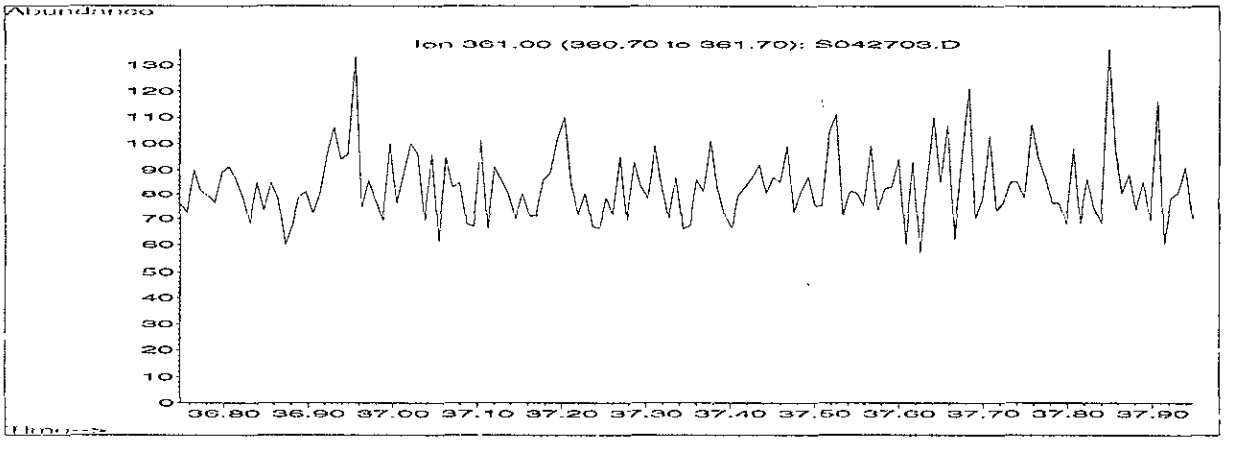


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

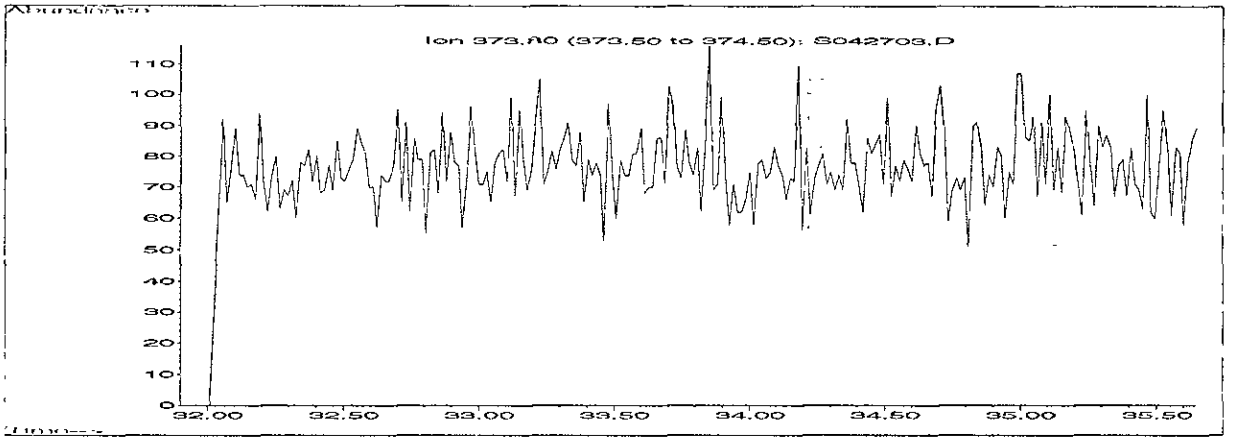


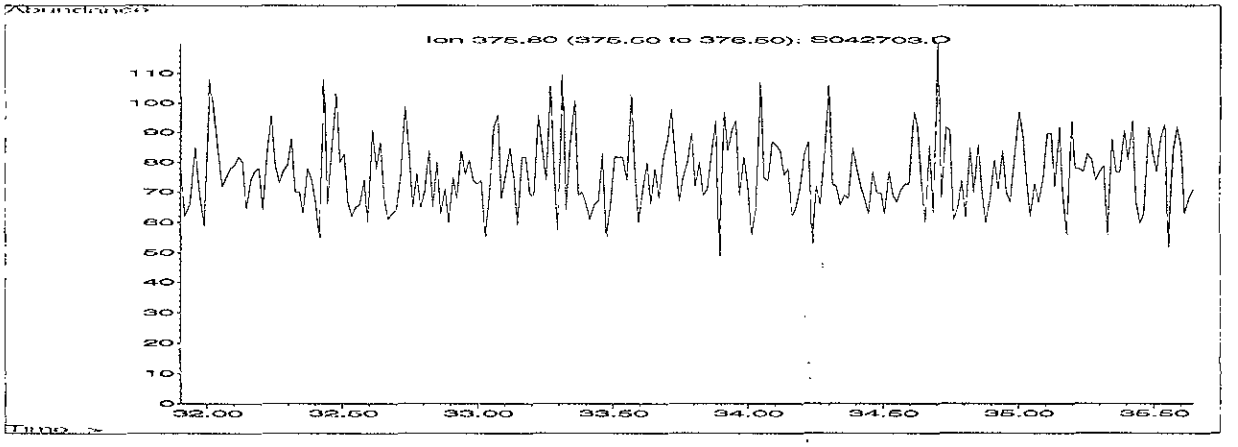


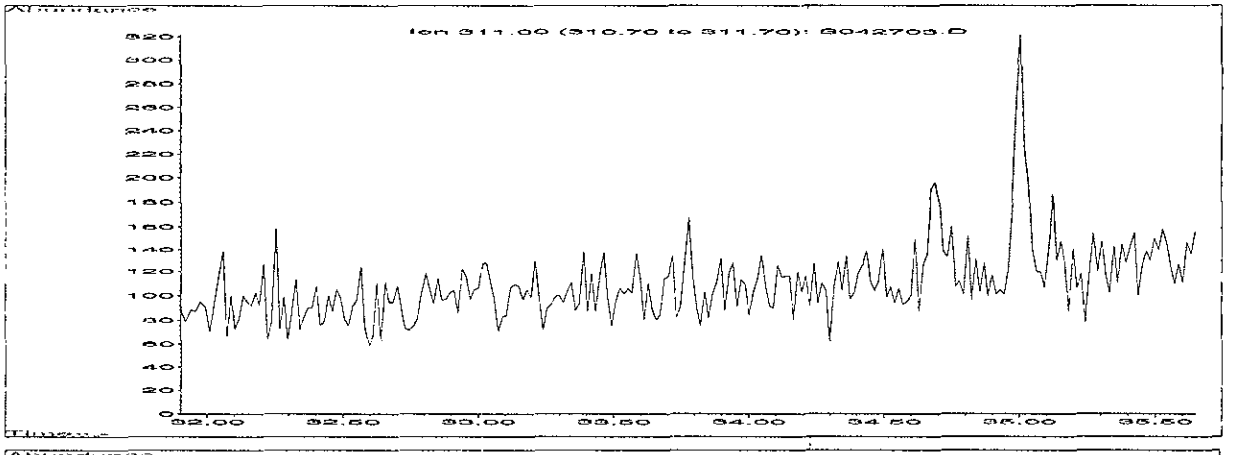


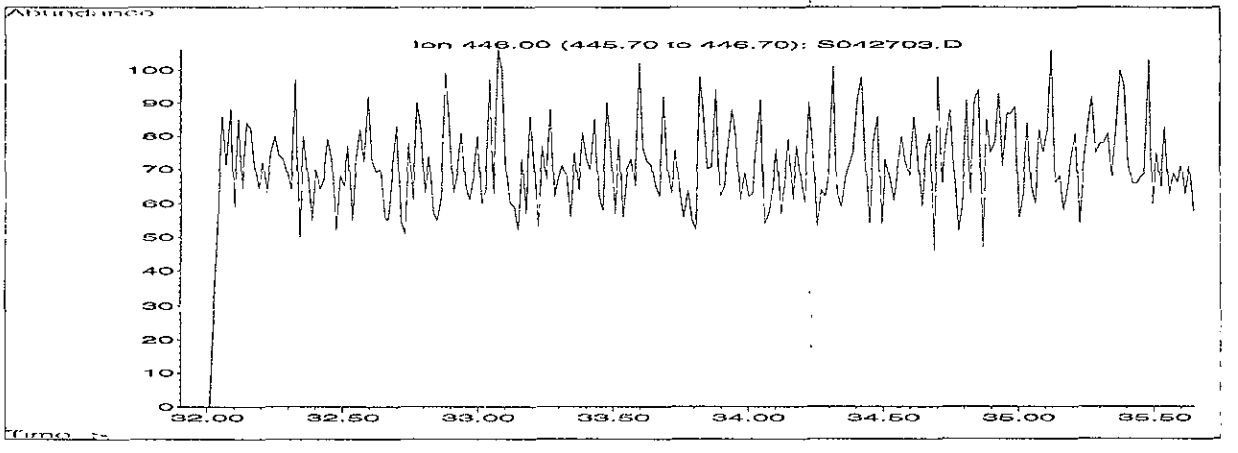
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



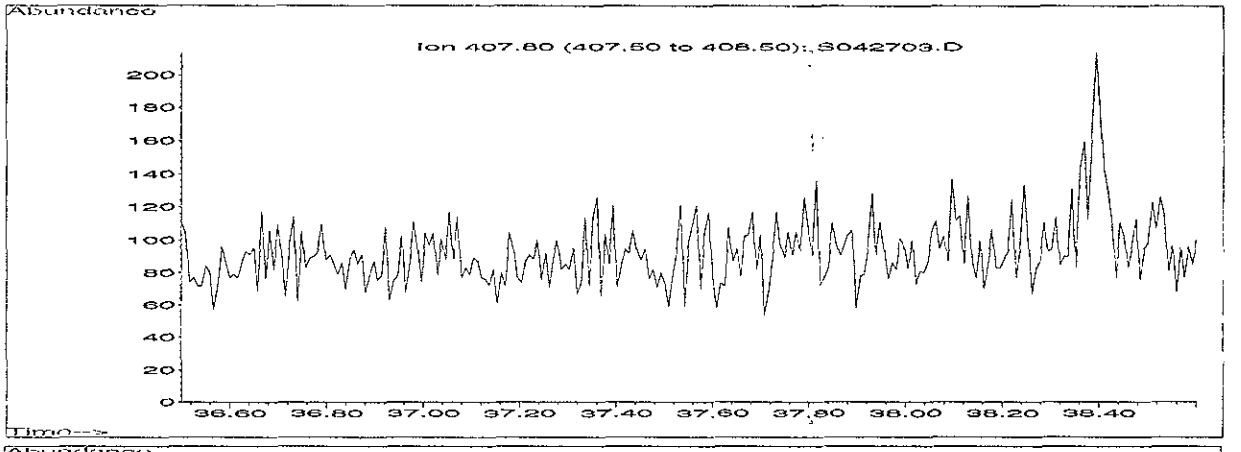


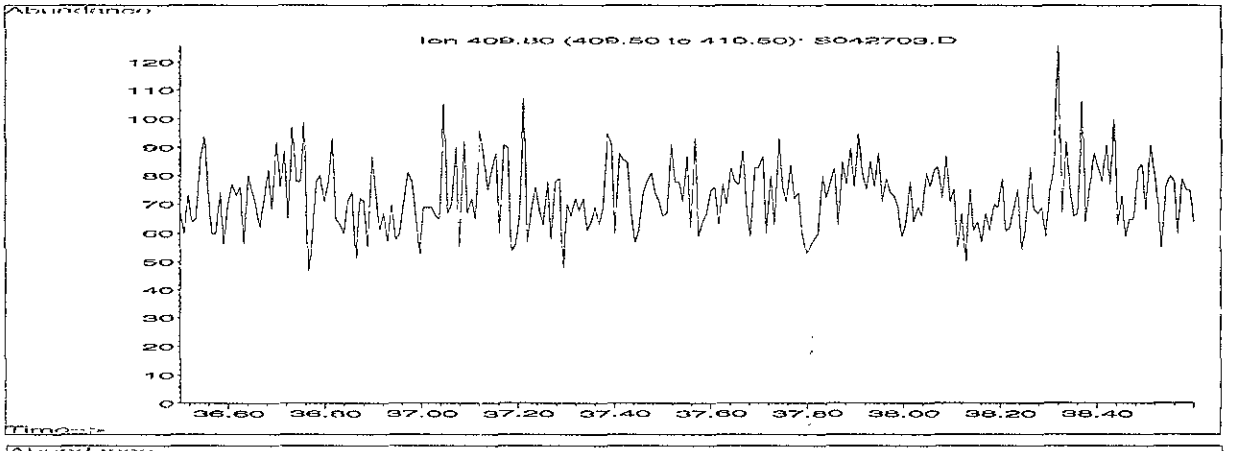


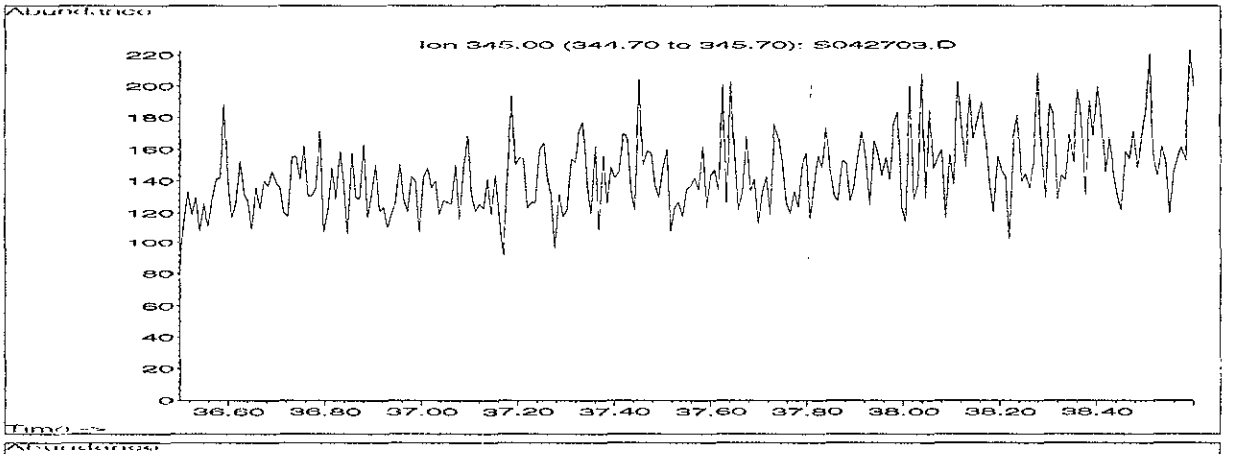


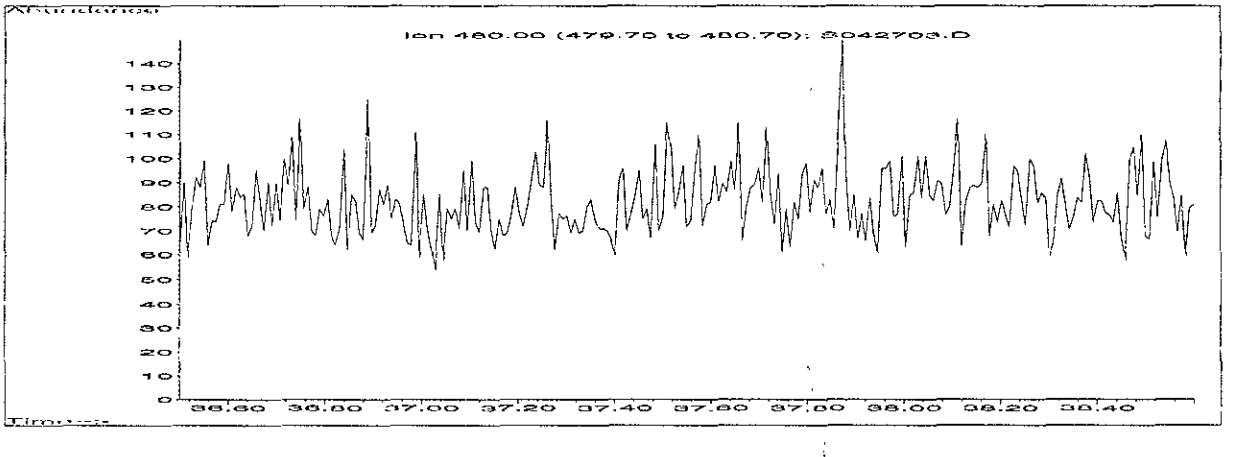
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

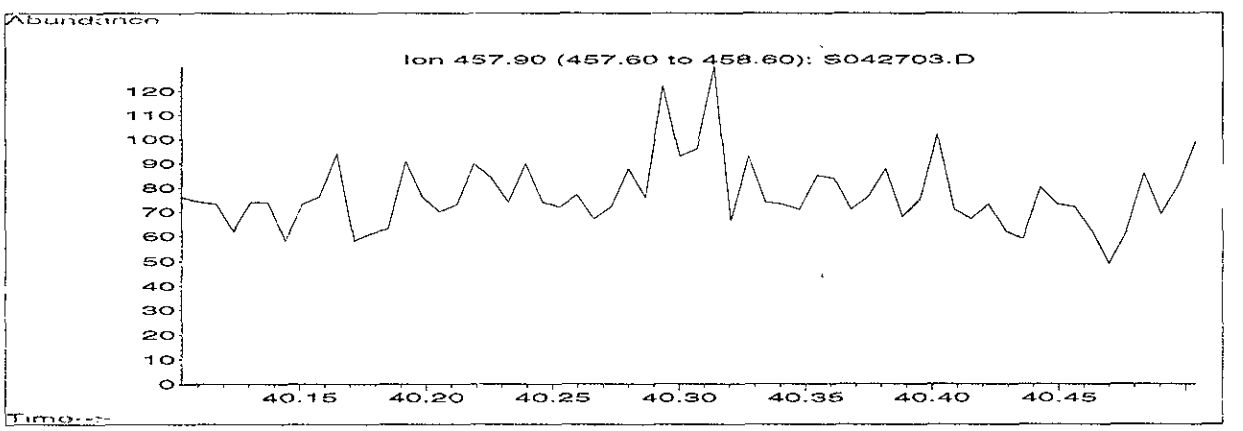


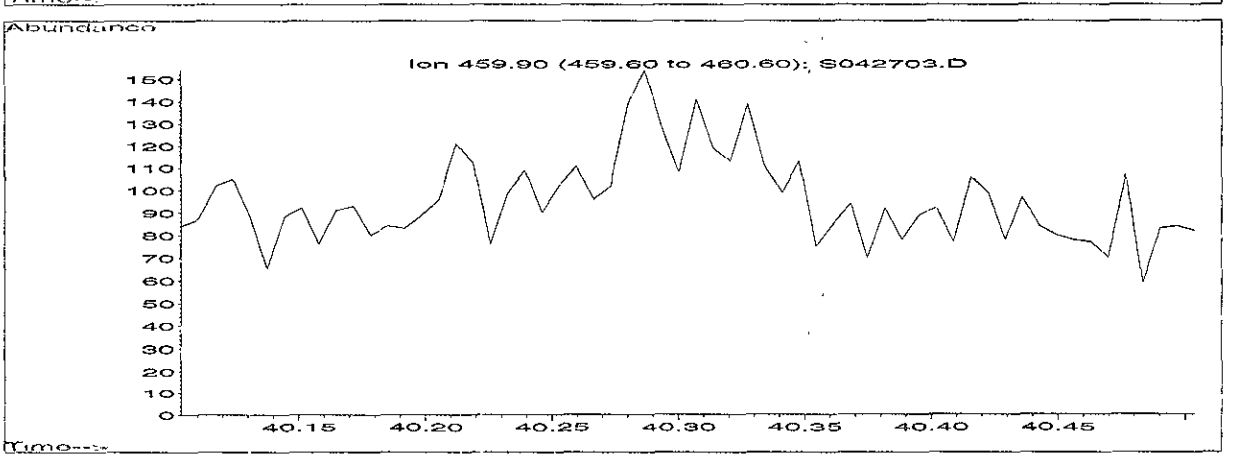


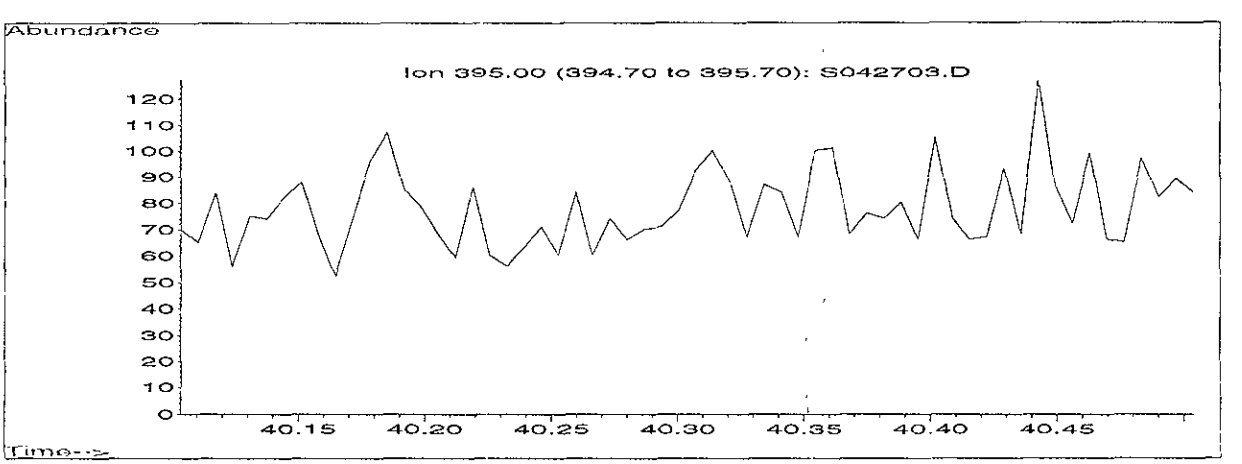




OCDD			
TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

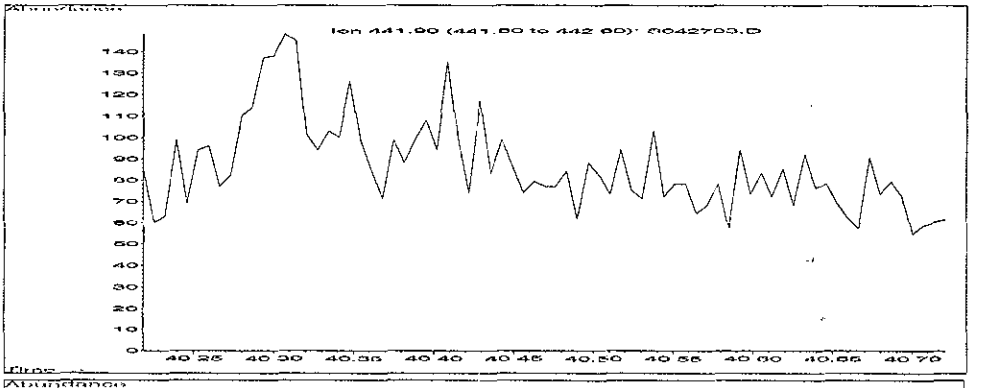


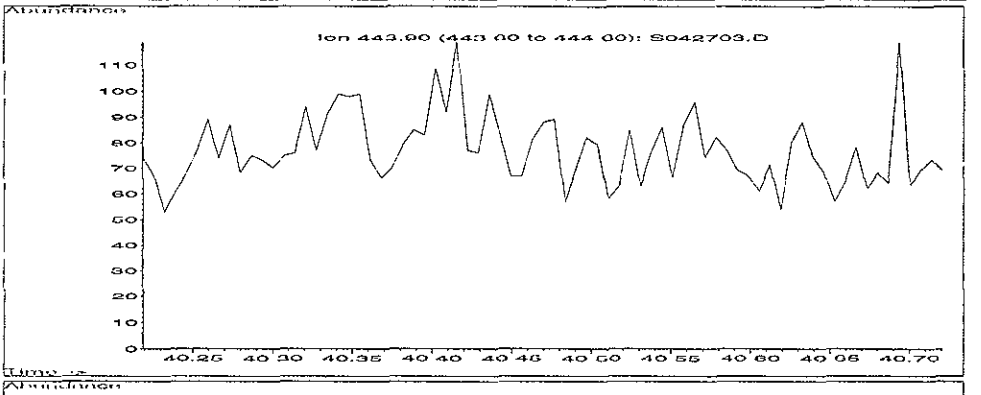


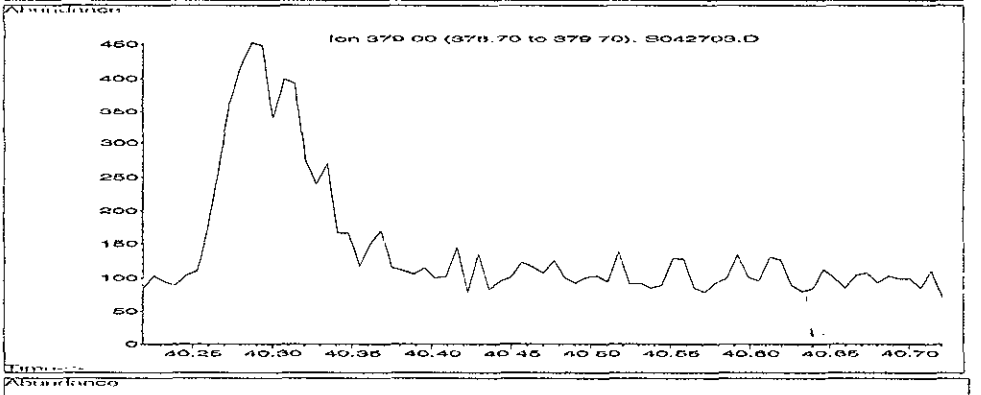


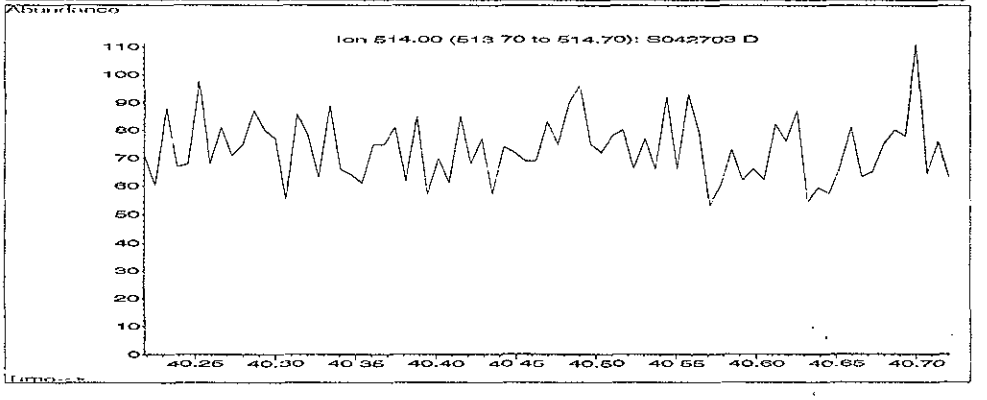
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



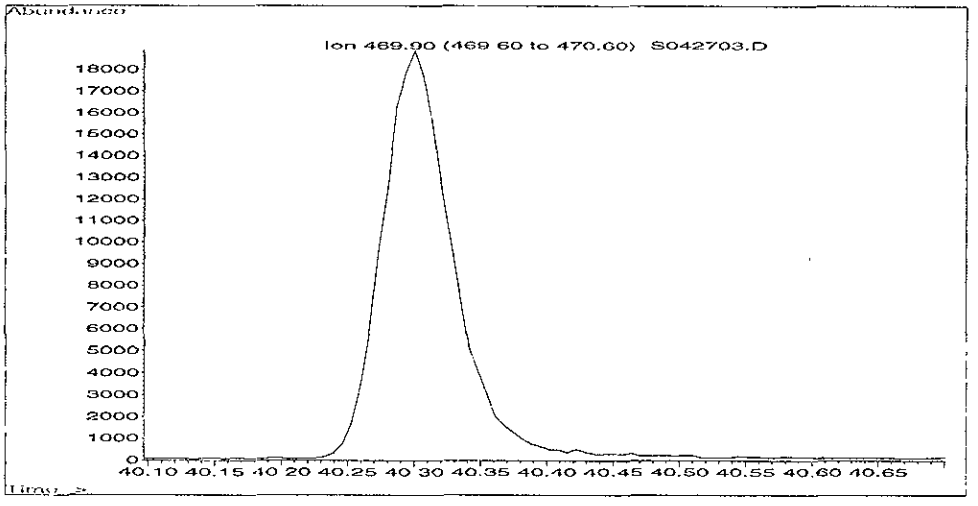


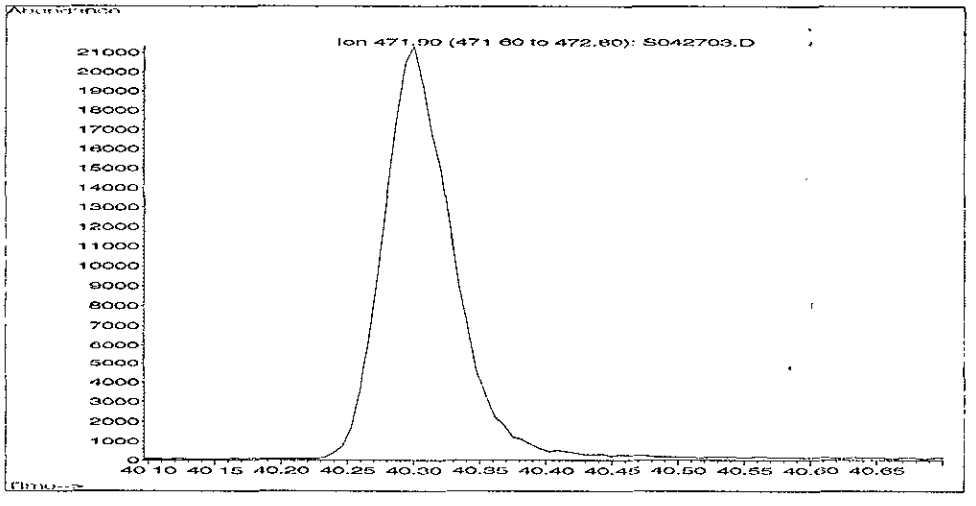




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	69516	Q1 Response	78443
Total response	147959	Ratio	0.89





Sample ID: A9D160180-2 1.02558L 8280A
K97DA-1-AA WATER LR909

Size: 1.026
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042704.D
Acq On :27 Apr 2009 2:55 pm

Vial: 4
Operator: MEO
Sample Amount: 1.03

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:32 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.80	144814	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.26	121267	25.00	NG	0.00
9) 13C-2378-TCDF	20.24	316+318	0.79	182619	25.00	NG	0.00
15) 13C-2378-TCDD	21.13	332+334	0.79	118833	25.00	NG	-0.02
20) 13C-123678-HxCDD	34.69	402+404	1.28	76812	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.04	92154	25.00	NG	0.00
36) 13C-OCDD	40.29	470+472	0.92	163506	50.00	NG	0.00

Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		105920	10.006	NG	0.00
Spiked Amount = 12.188		RRF = 1.782		Recovery =	82.08%		

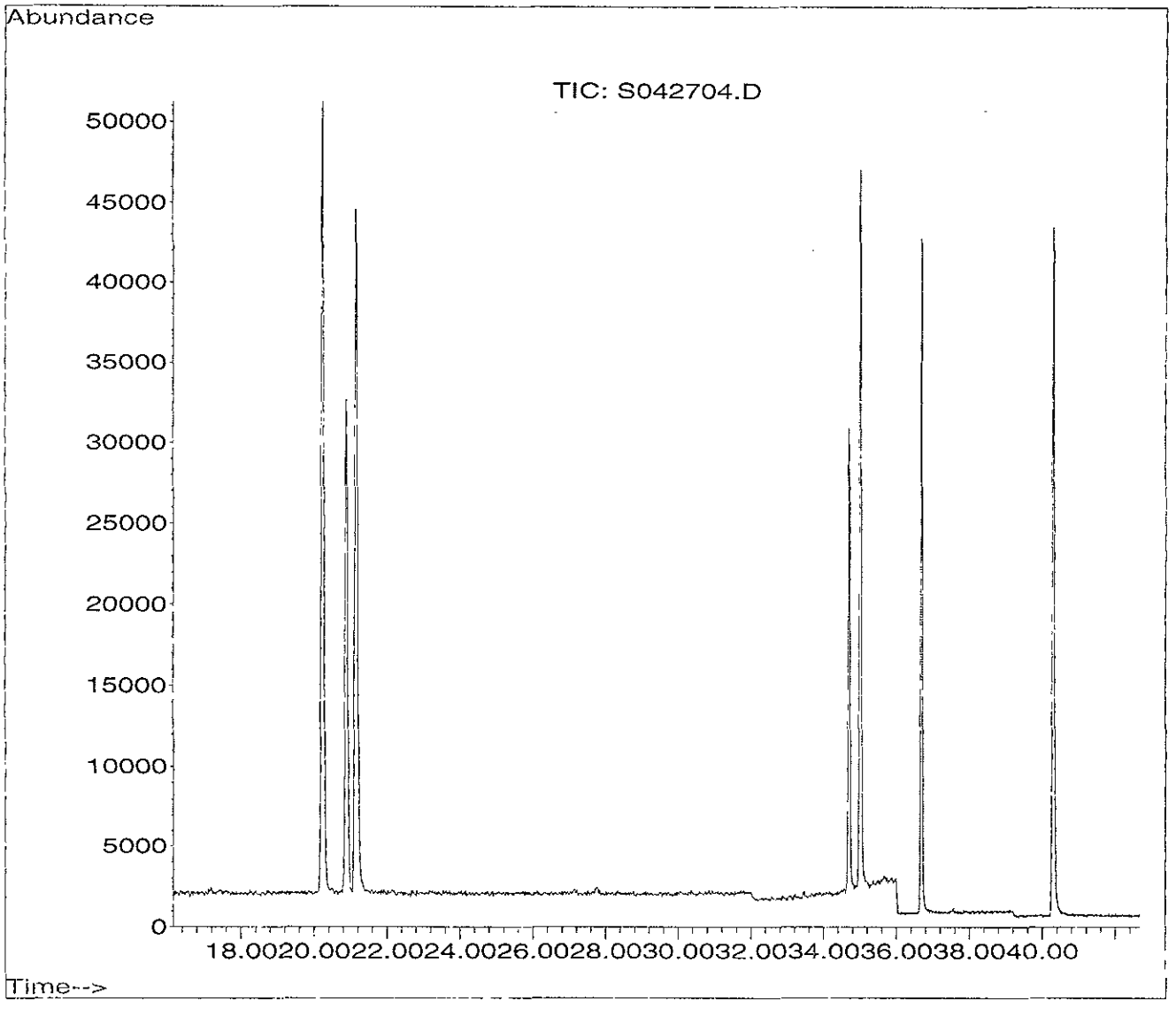
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.24	0.79	182619	1.796	17.112	0.0211	70.2
3) 13C-2378-TCDD-IS	21.13	0.79	118833	1.137	17.586	3.3080	72.2
6) 13C-123678-HxCDD-	34.69	1.28	77220	0.899	17.258	0.1013	70.8
7) 13C-1234678-HpCDF	36.68	1.04	92154	1.062	17.444	0.0733	71.5
8) 13C-OCDD-IS	40.29	0.92	163506	0.887	37.038	0.1133	76.0
10) 2378-TCDF	0.00		0	1.219	N.D.	0.1238	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.1238	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.1118	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.1057	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.1861	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.1356	
1	20.24	4.88 #	16825		2.642		
17) TCDD TOTAL	19.30	4.88	16825	1.306	2.642		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.2152	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.3598	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.1722	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.1781	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.1949	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.3824	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.2435	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	0.8157	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.1120	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.0811	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.1132	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.1165	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.2276	
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.1351	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.1773	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.1793	
37) OCDD	0.00		0	1.224	N.D.	0.1914	

AK 4/30/09

38) OCDF	0.00	0	1.589	N.D.	0.1517

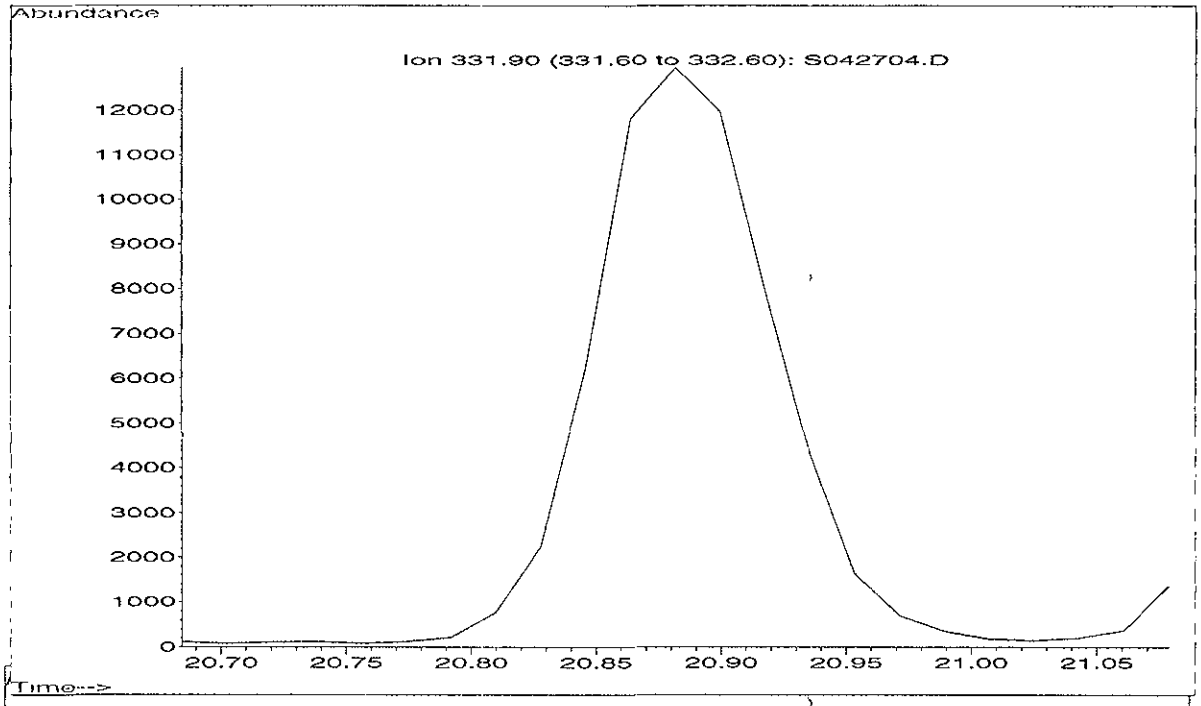
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042704.D 09AP27A2.M Tue Apr 28 16:32:40 2009

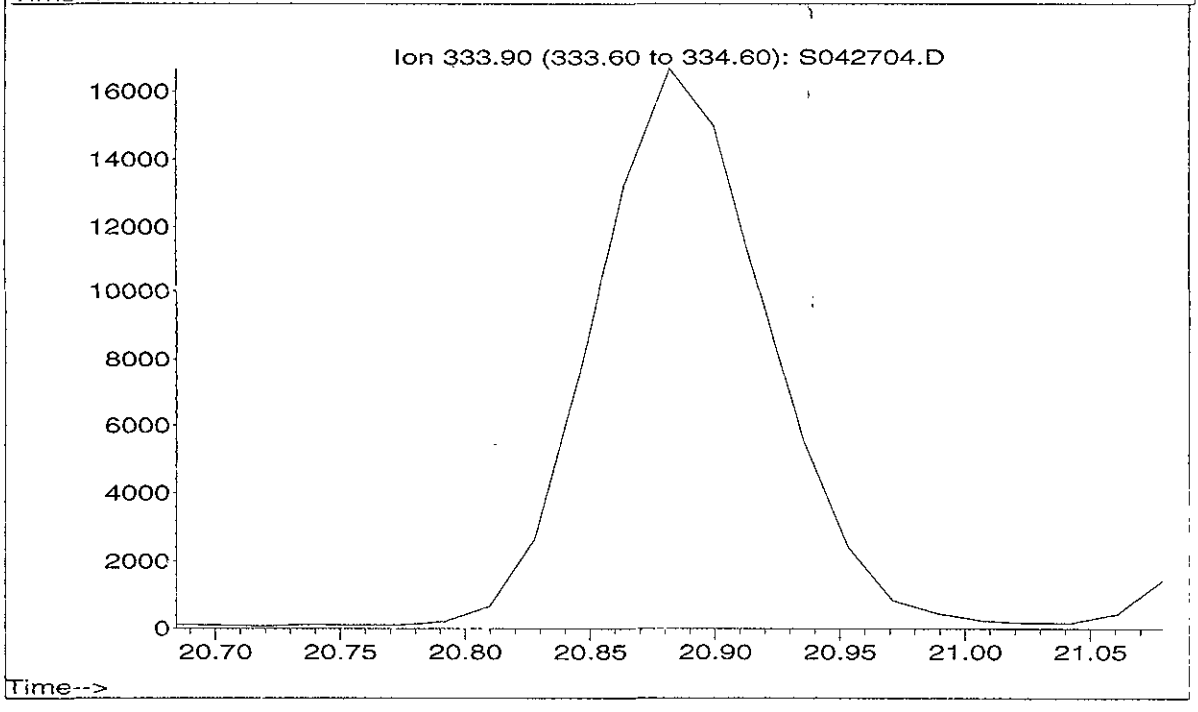
Data File Name	S042704.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 2:55
Acq. Method File	TOKAS
Sample Name	<97DA-1-AA WATER LR909
Misc Info	D160180-2 1.02558L 8280A
Vial Number	4
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.02558



13C-1234-TCDD

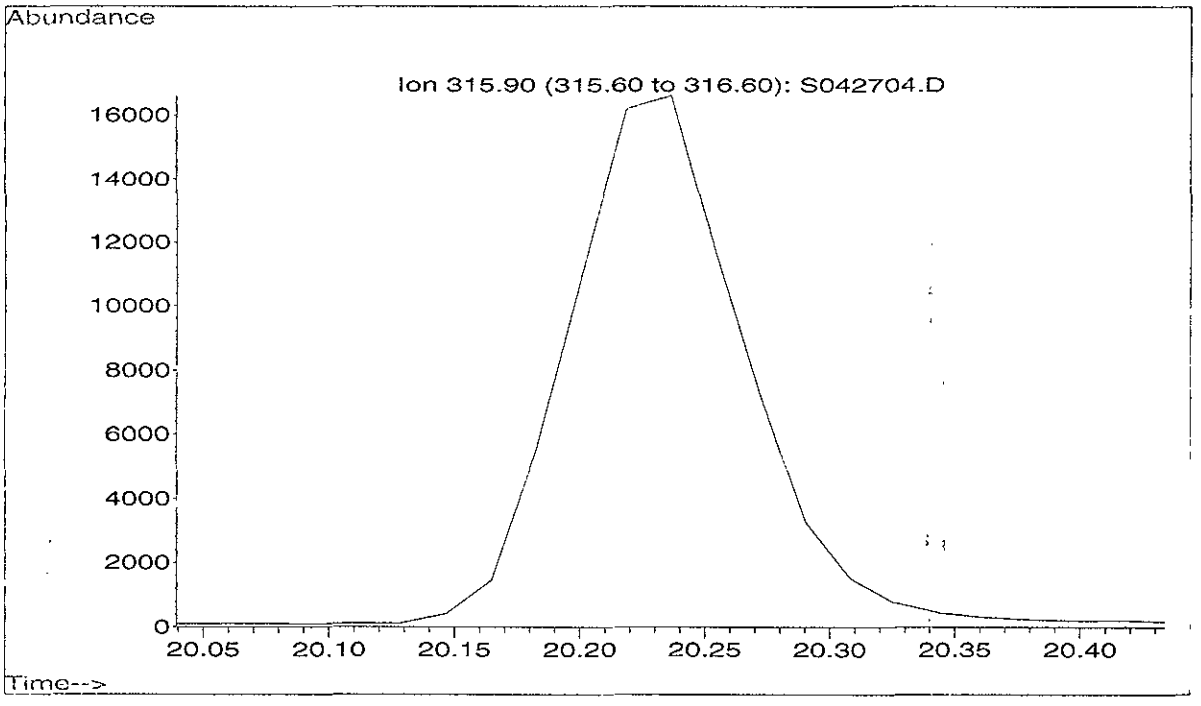
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	64449	Q1 Response	80365
Total Response	144814	Ion Ratio	0.80

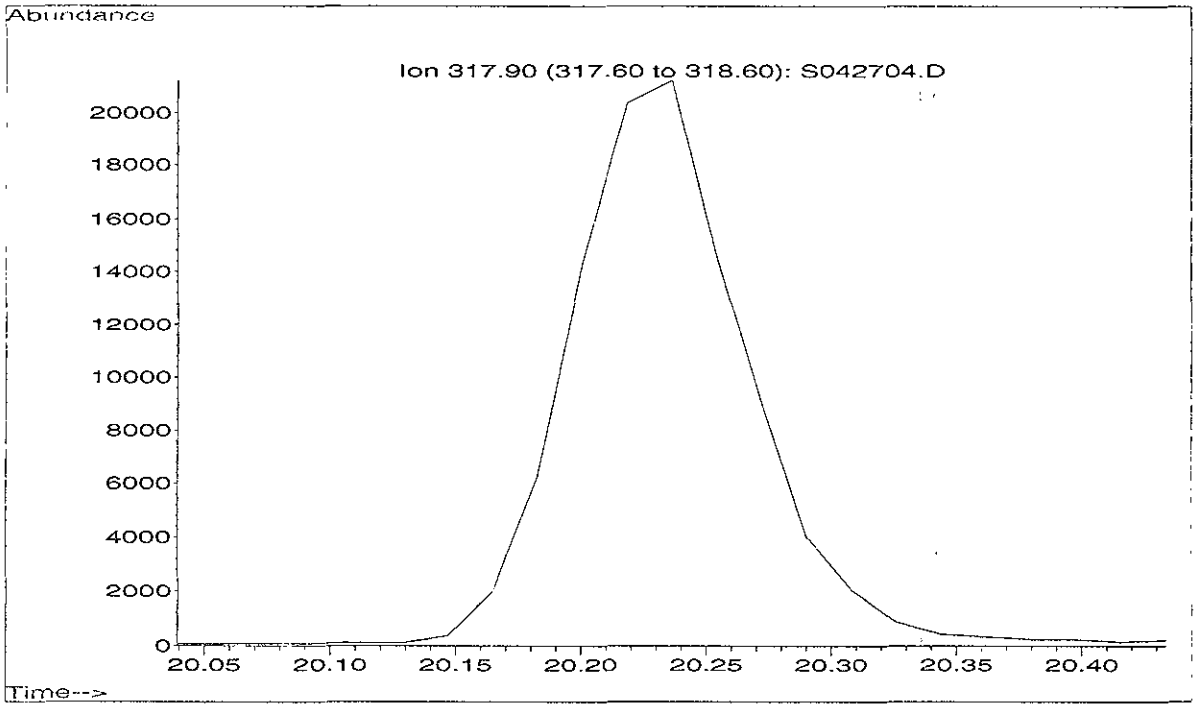




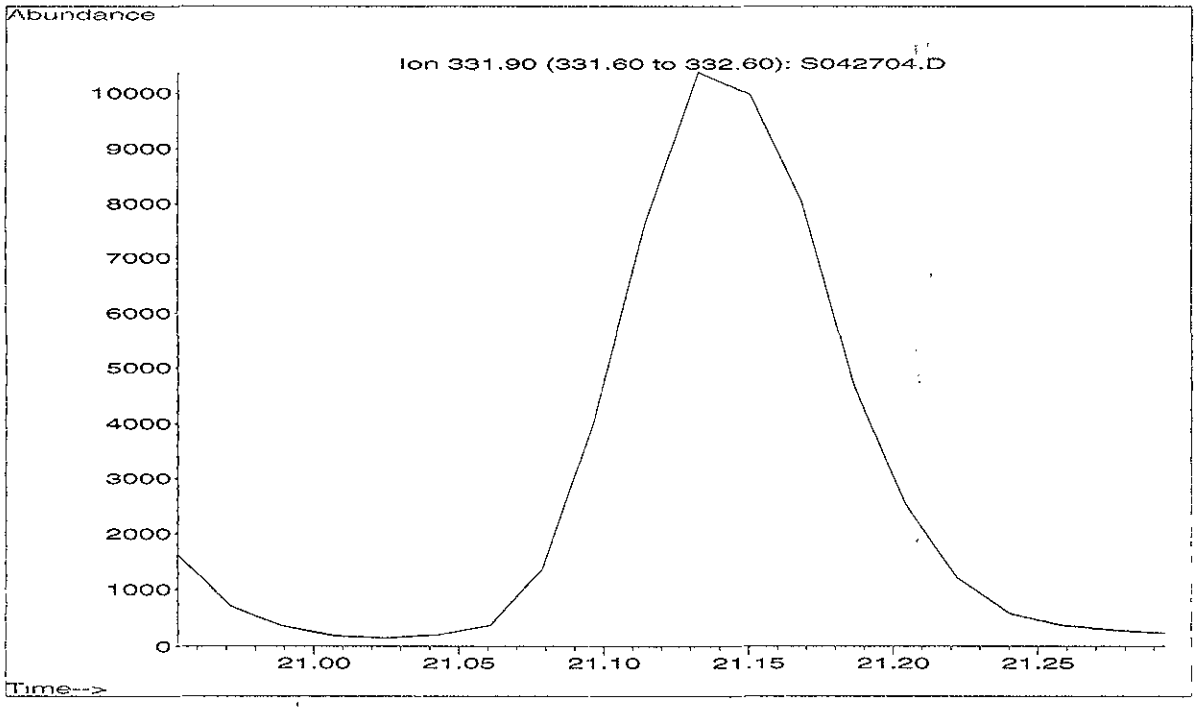
13C-2378-TCDF-IS

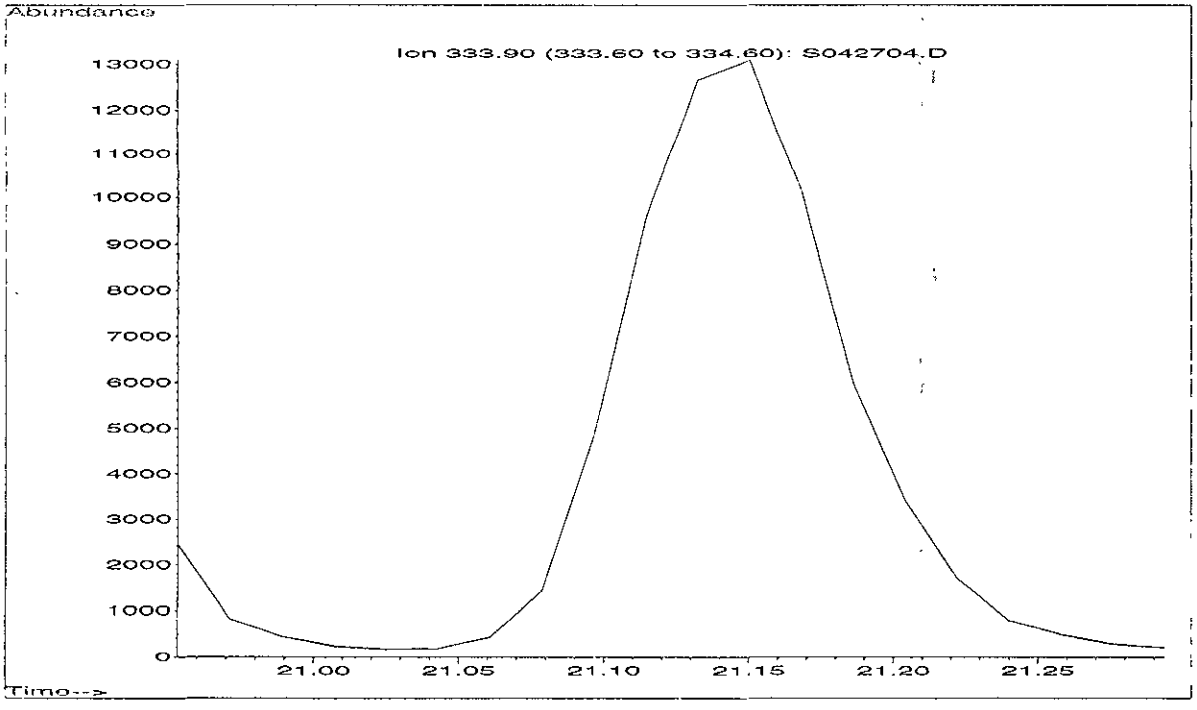
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.24		
Target Ion	315.9	Q1 Ion	317.9
Target Response	80835	Q1 Response	101784
Target Response	182619	Ion Ratio	0.79





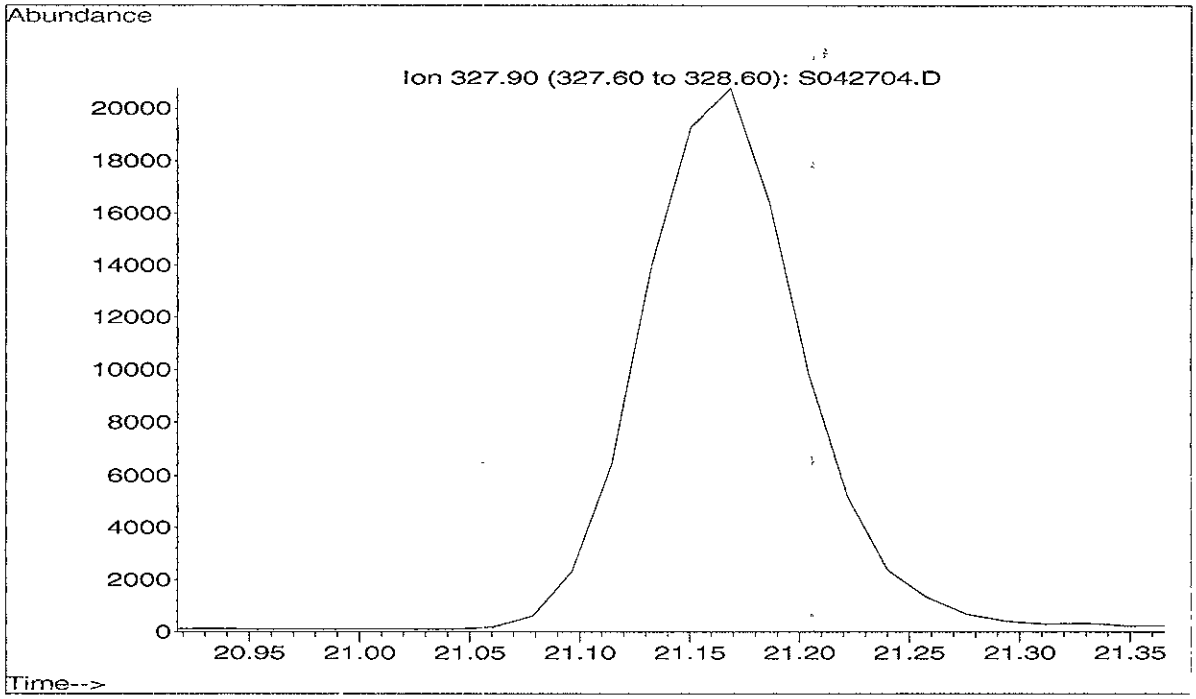
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.13		
Target Ion	331.9	Q1 Ion	333.9
Target Response	52554	Q1 Response	66279
Total Response	118833	Ion Ratio	0.79

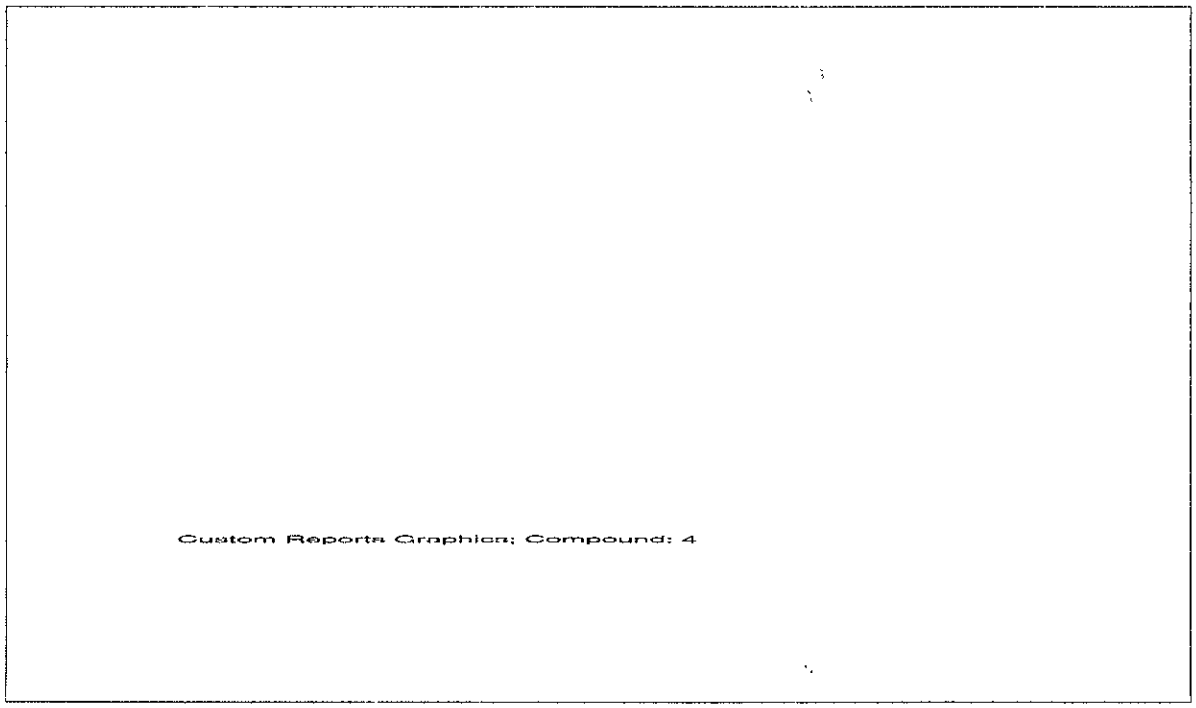




37Cl-2378-TCDD

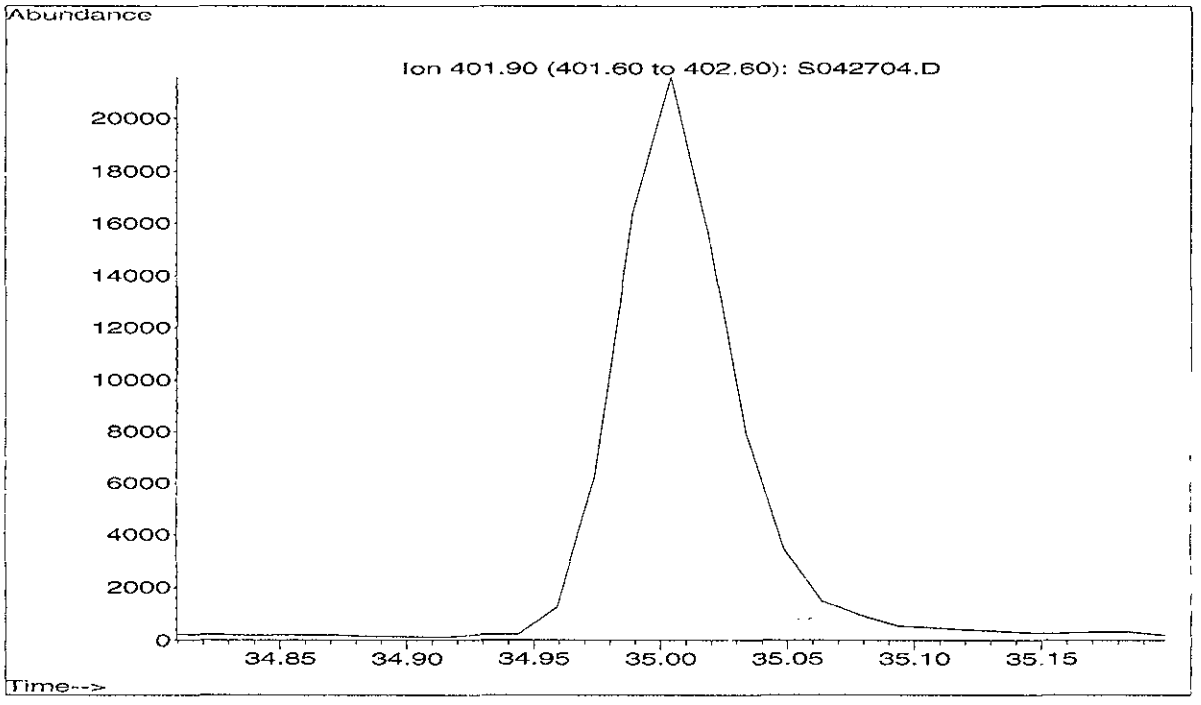
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	105920	Q1 Response	0
Total Response	105920	Ion Ratio	#DIV/0!

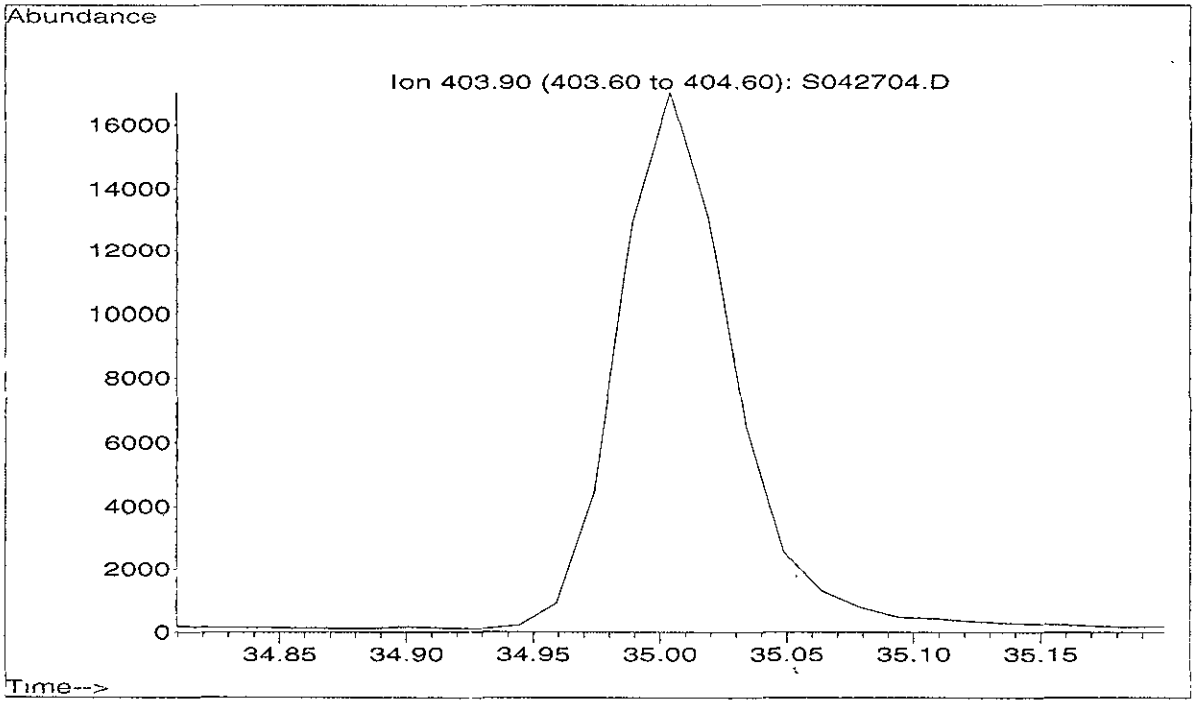




13C-123789-HxCDD

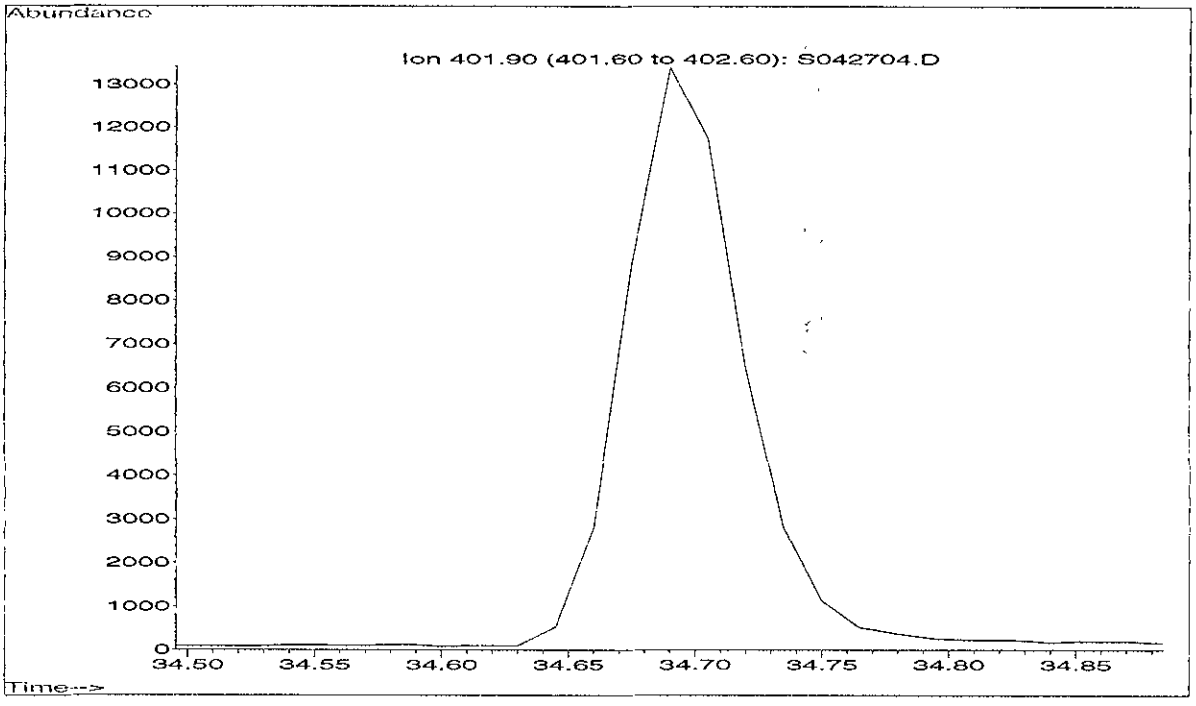
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	67580	Q1 Response	53687
Target Response	121267	Ion Ratio	1.26

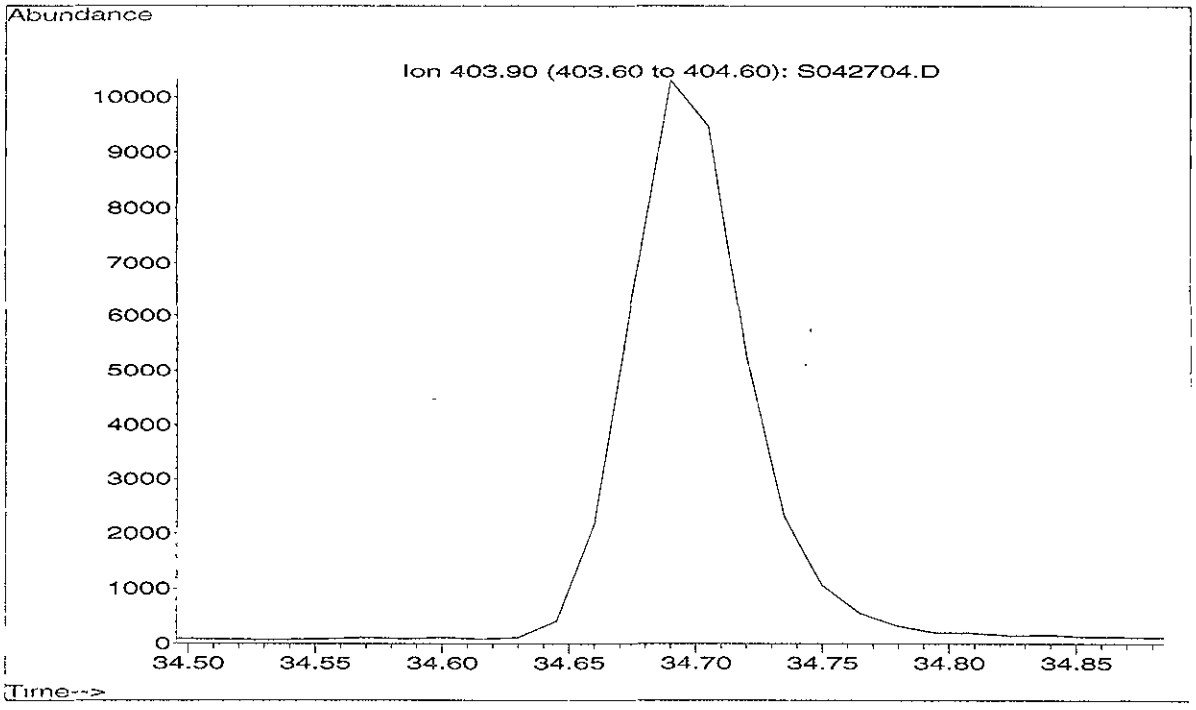




13C-123678-HxCDD-IS

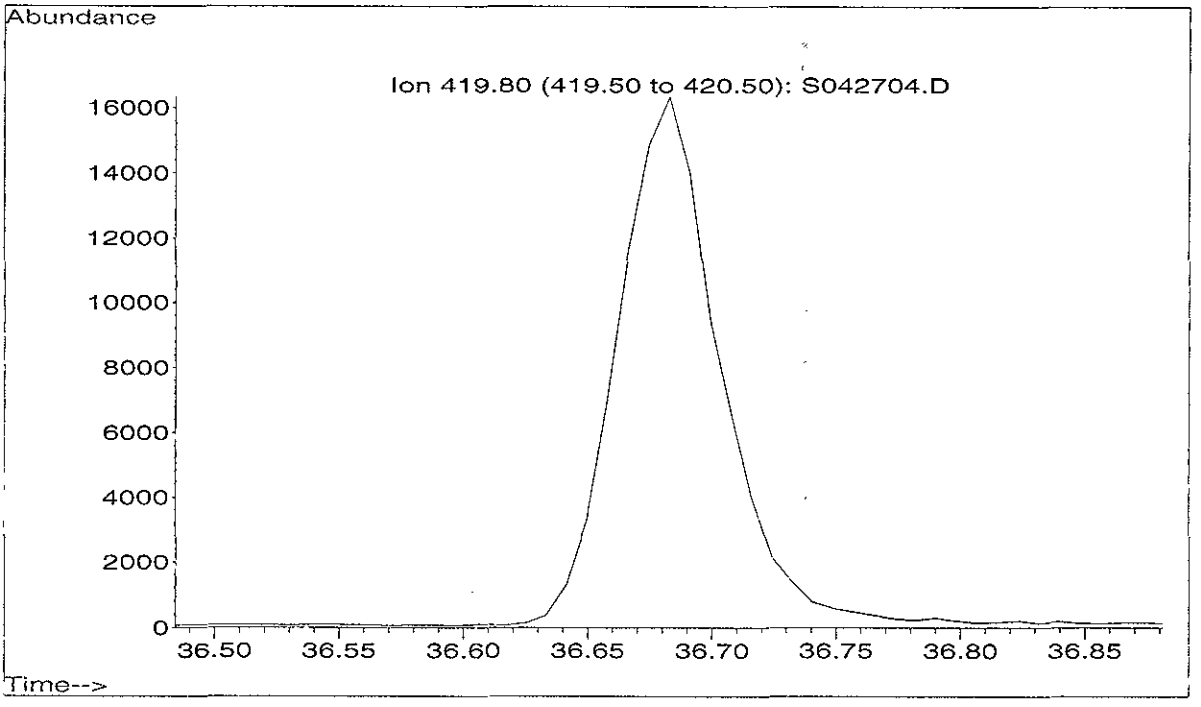
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	43312	Q1 Response	33908
Total Response	77220	Ion Ratio	1.28

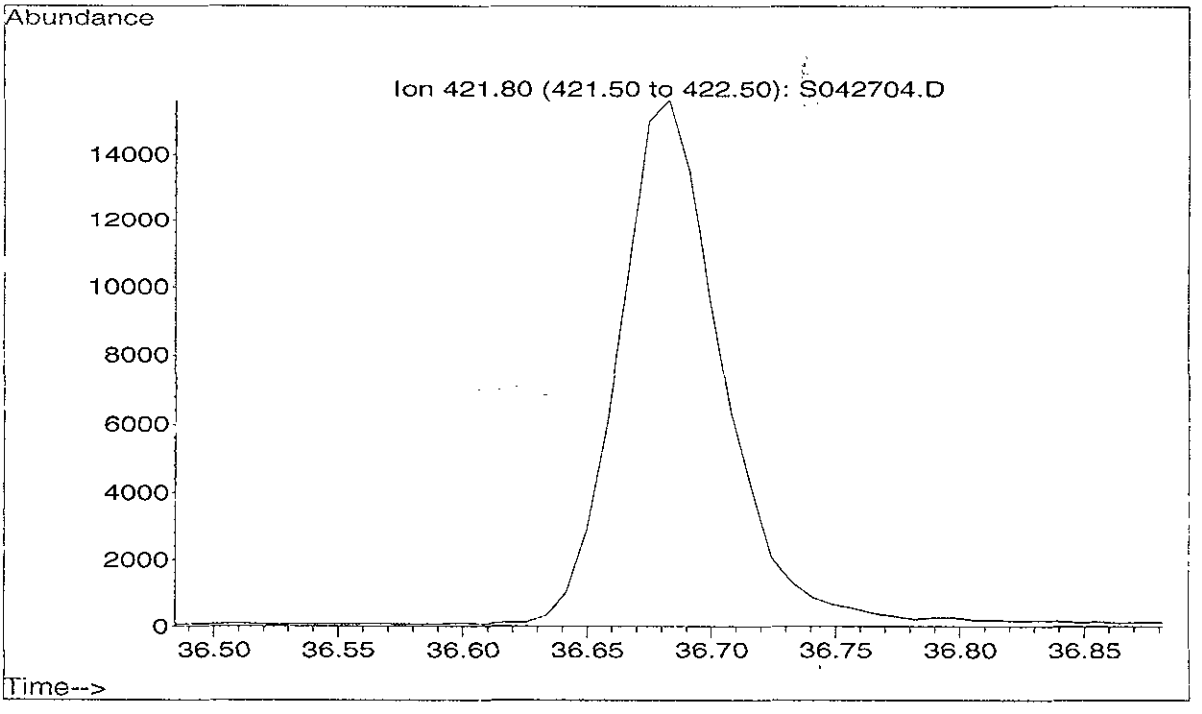




13C-1234678-HpCDF-IS

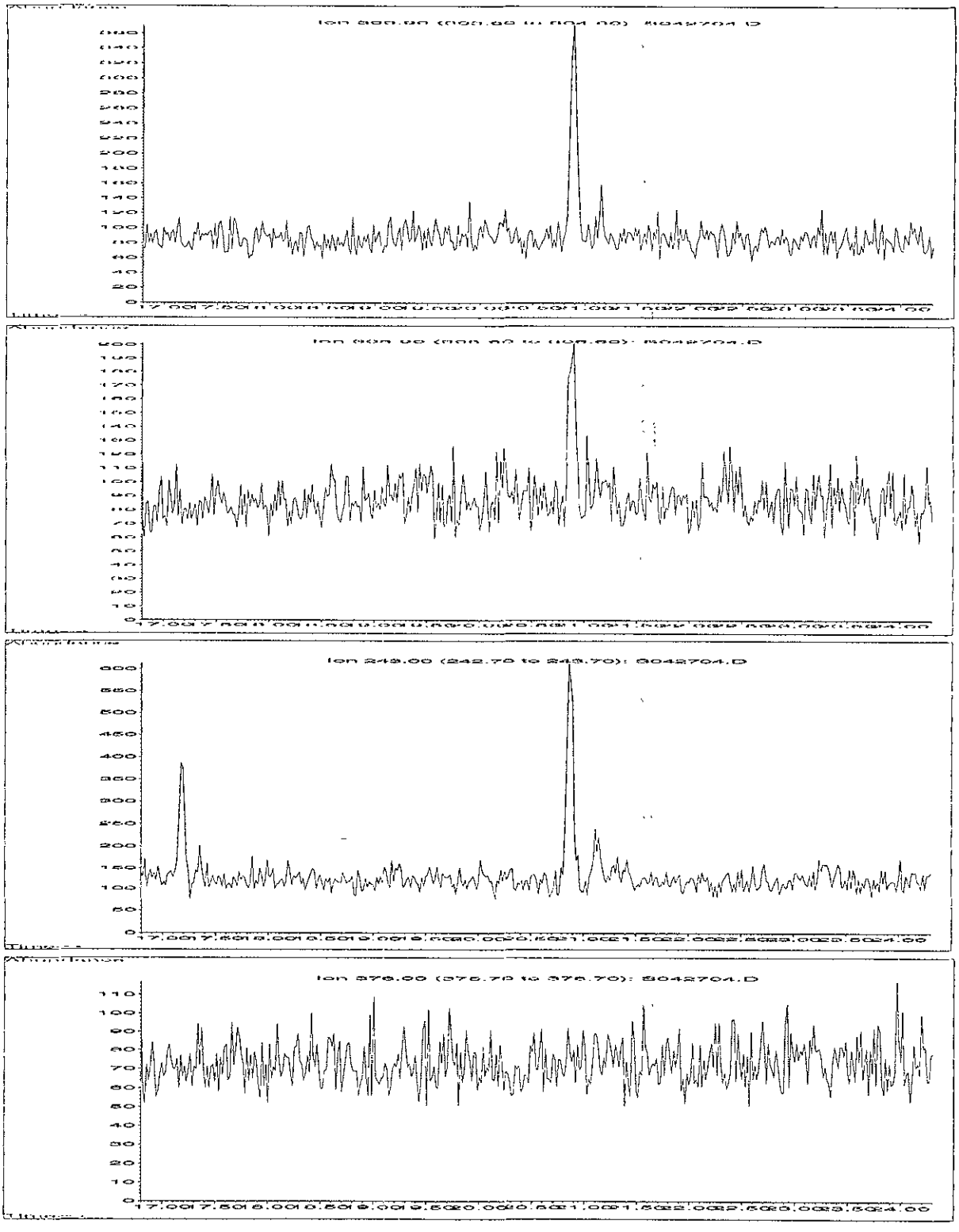
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	46953	Q1 Response	45201
Target Response	92154	Ion Ratio	1.04





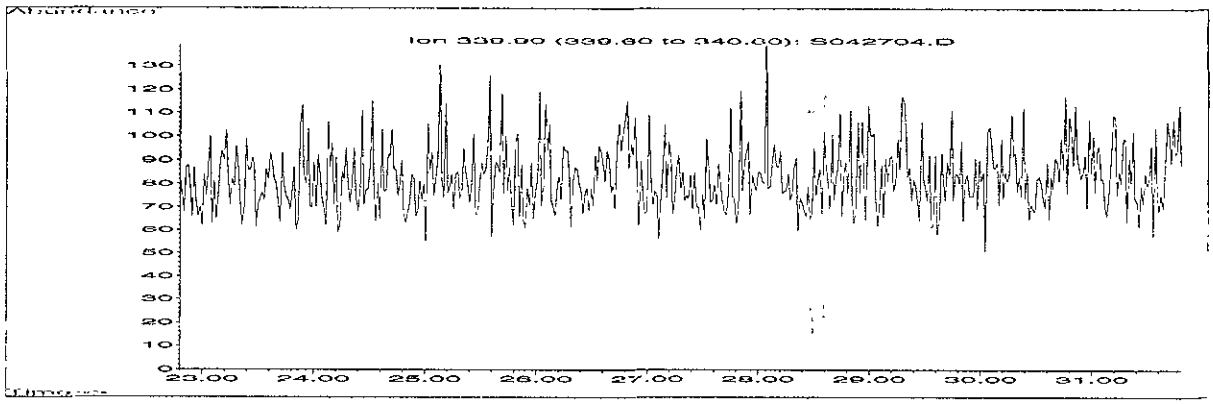
TCDF TOTAL

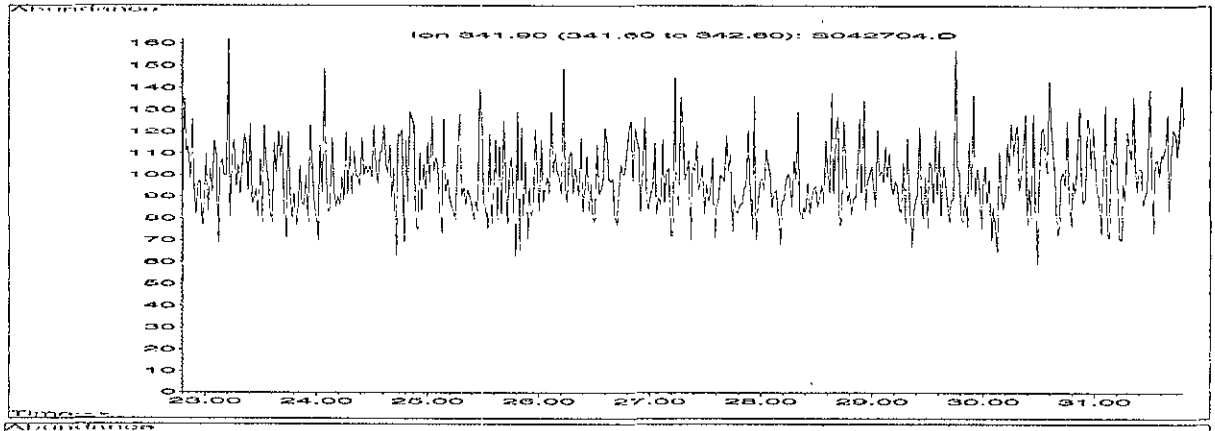
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

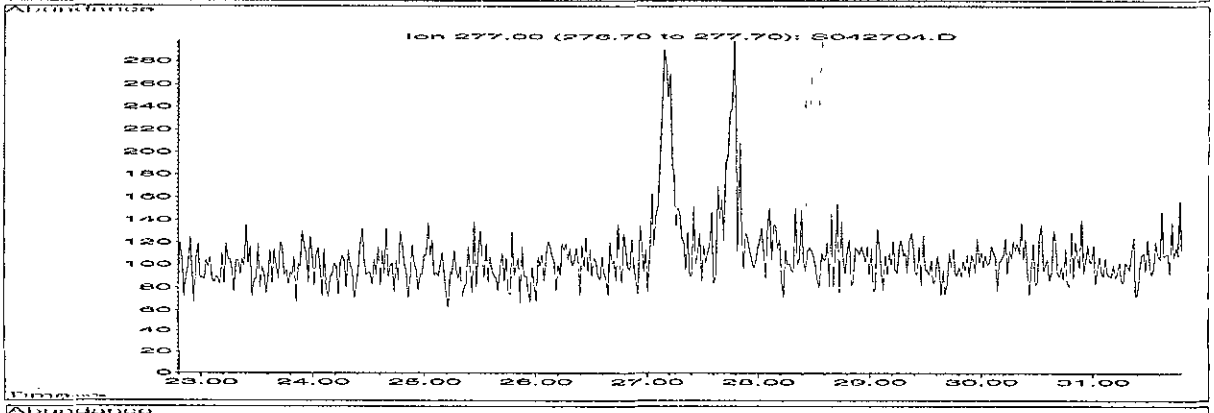


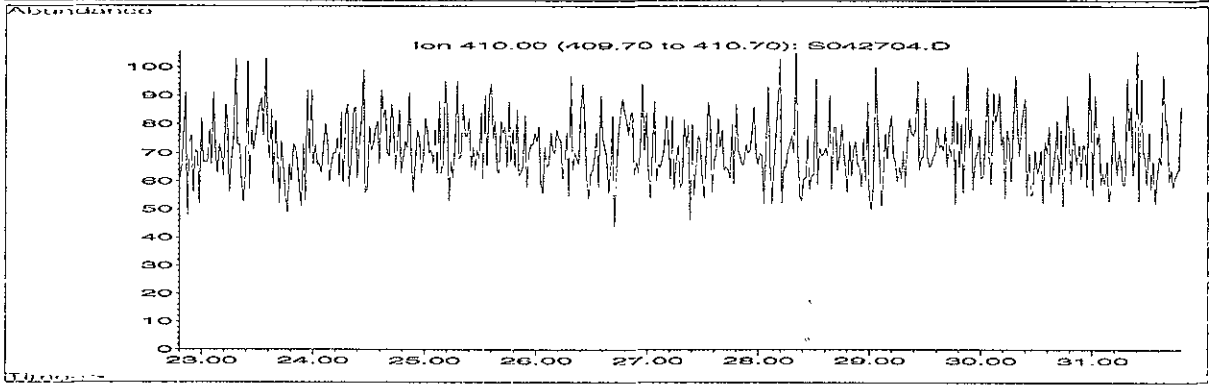
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



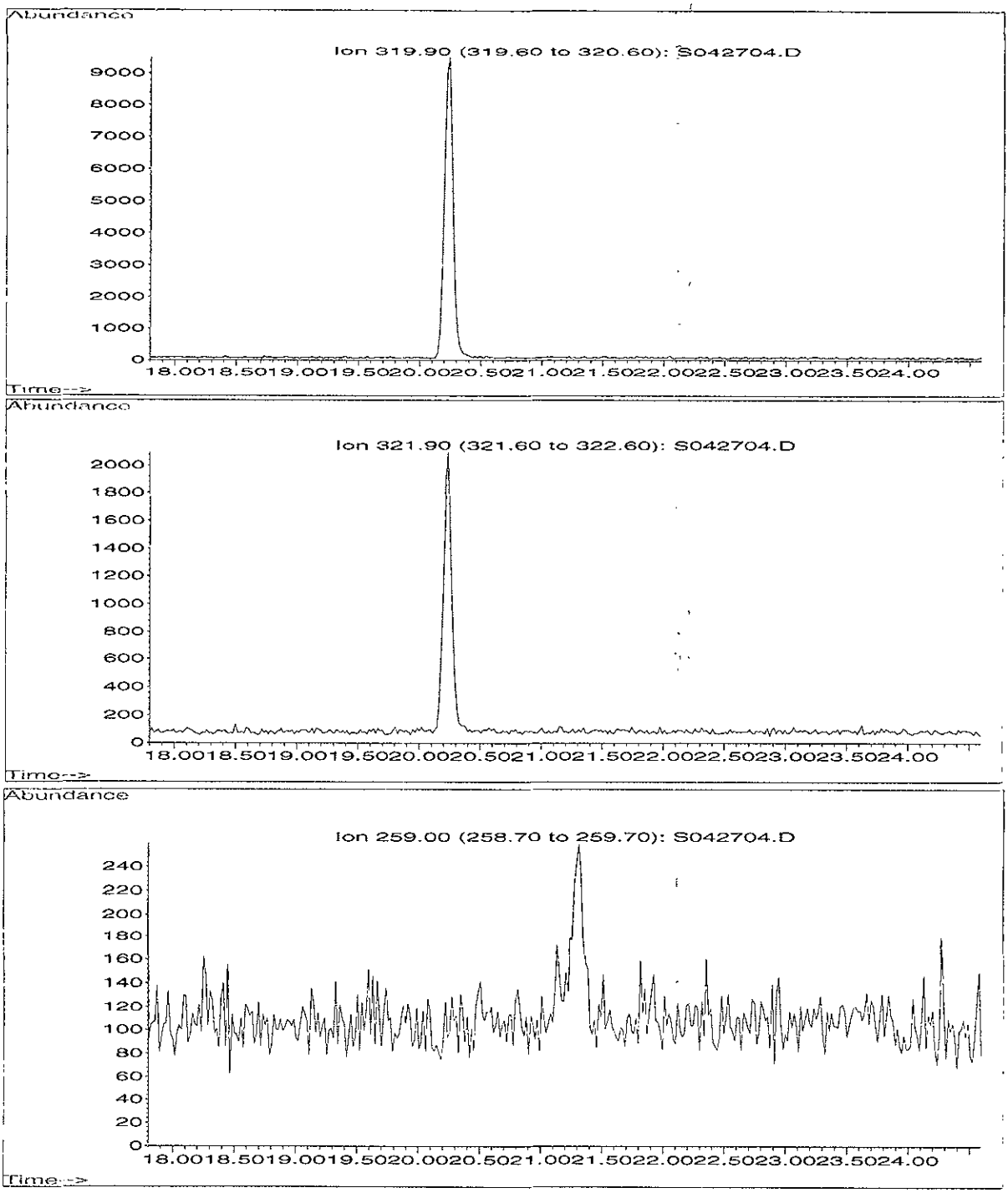






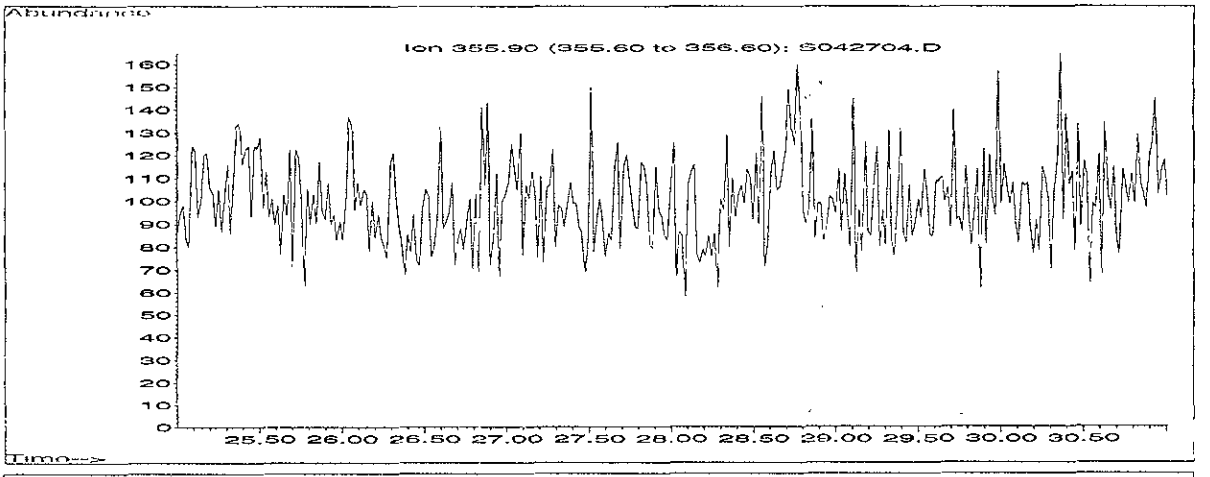
TCDD TOTAL

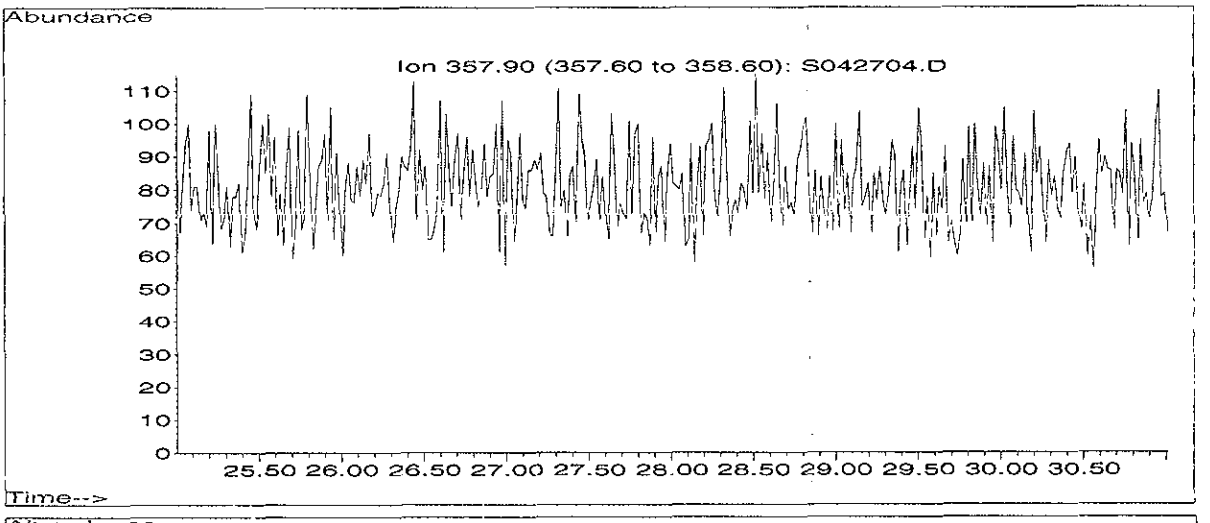
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

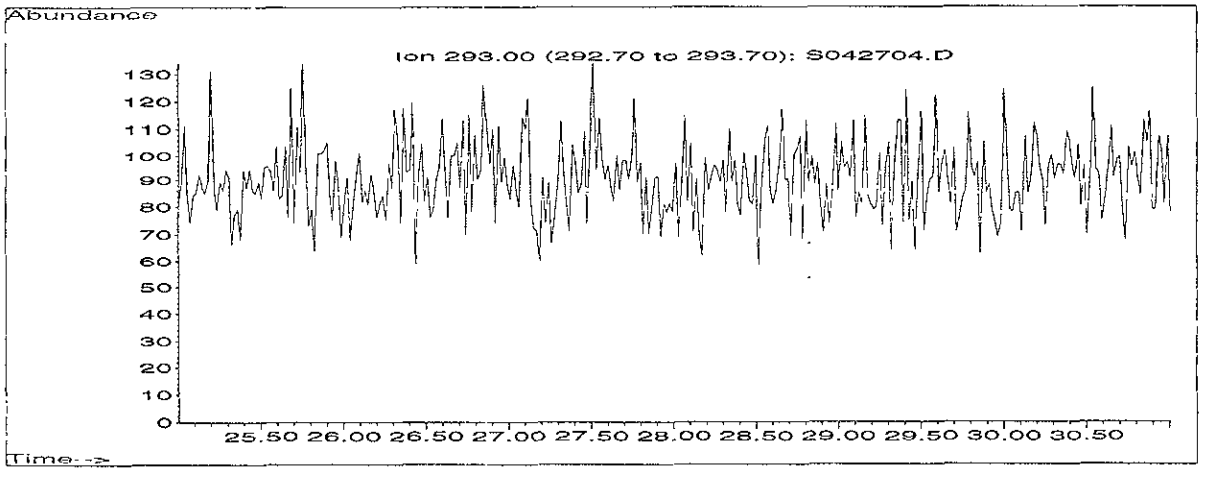


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

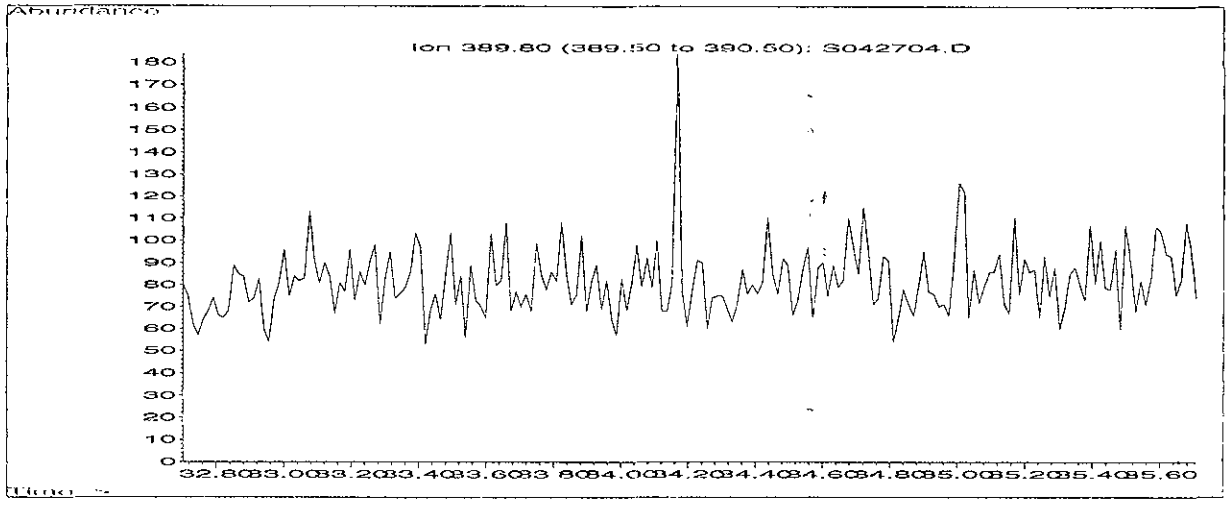


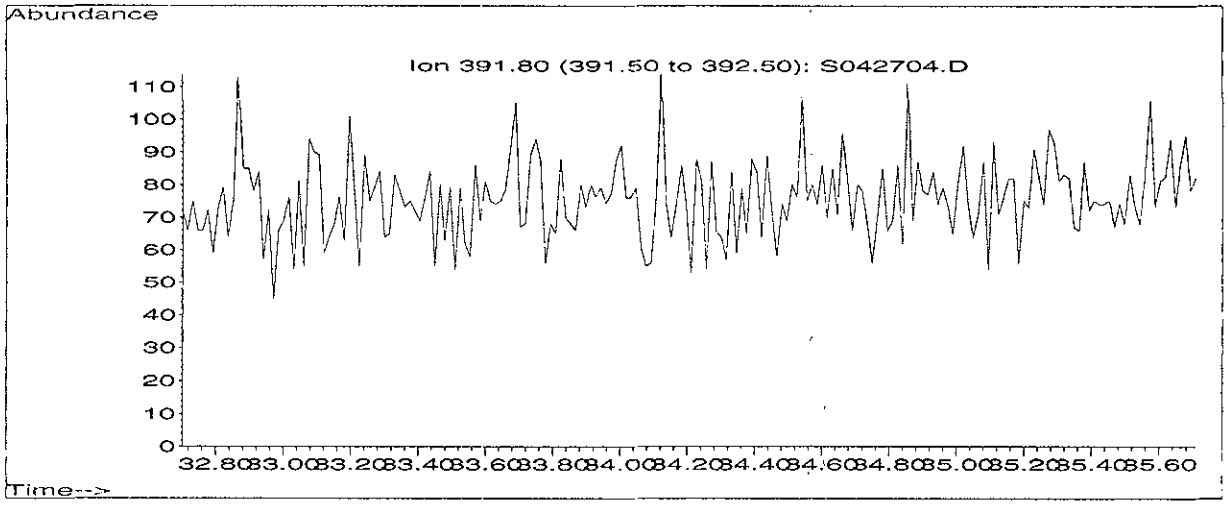


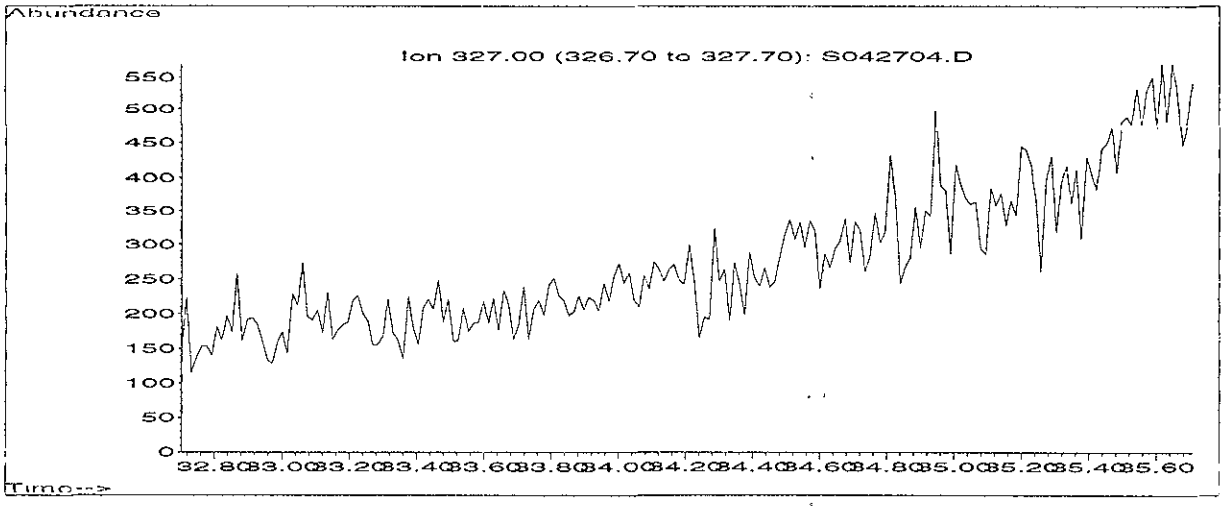


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

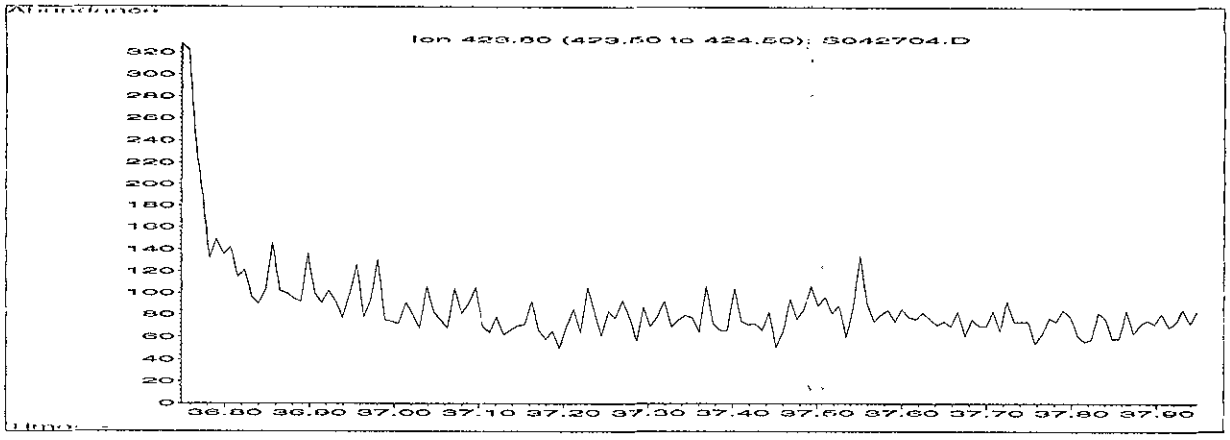


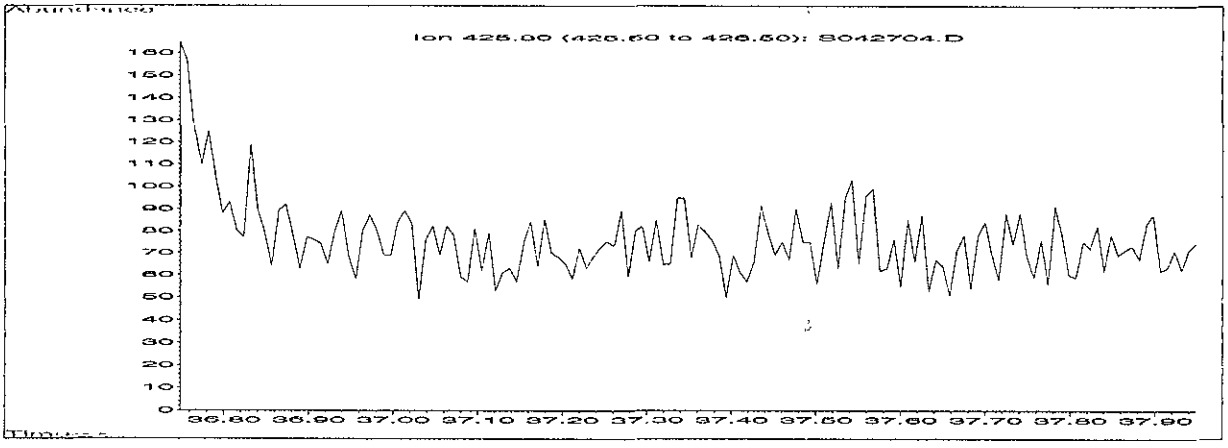


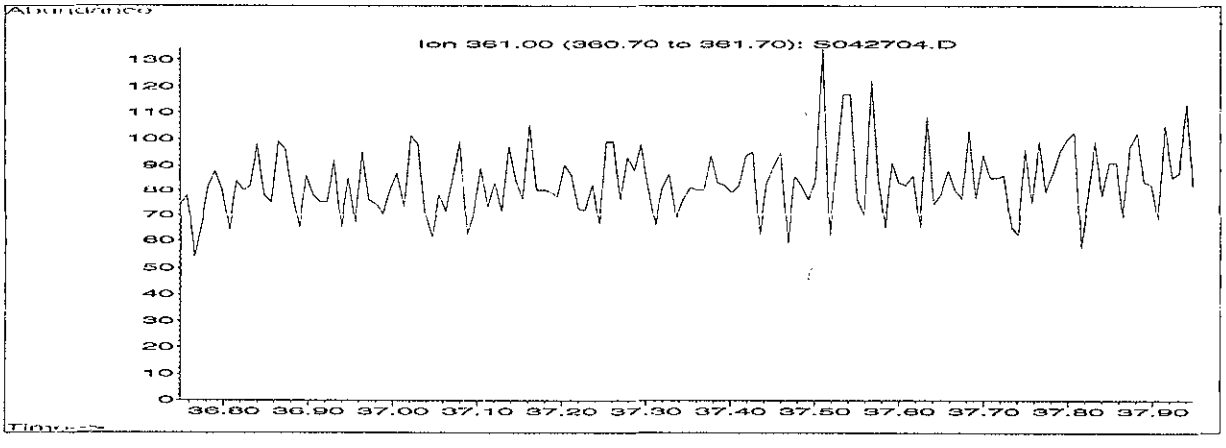


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

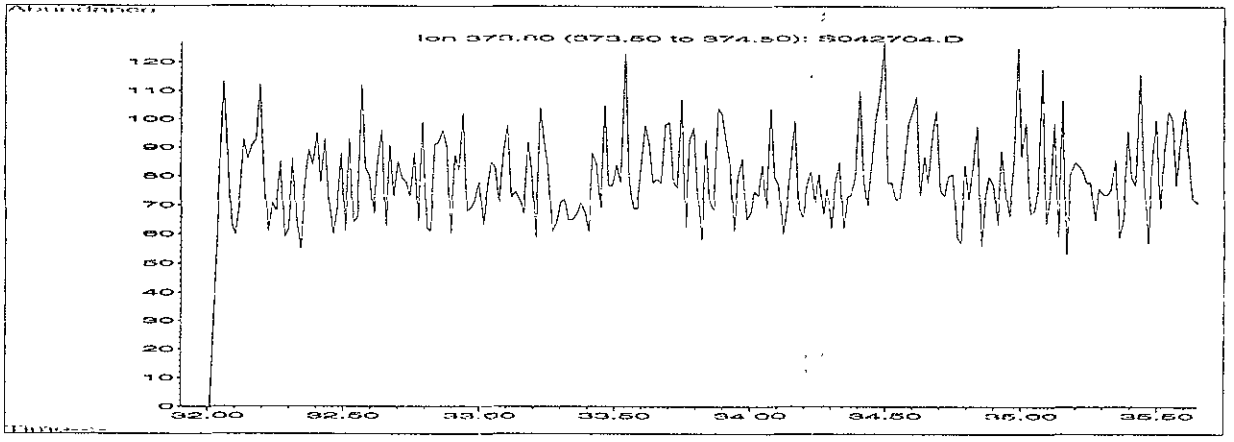


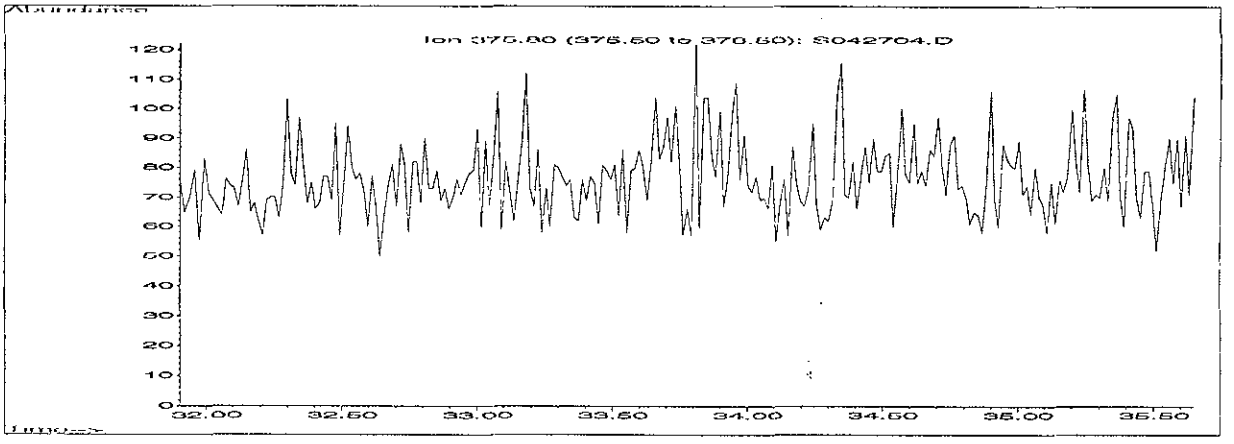


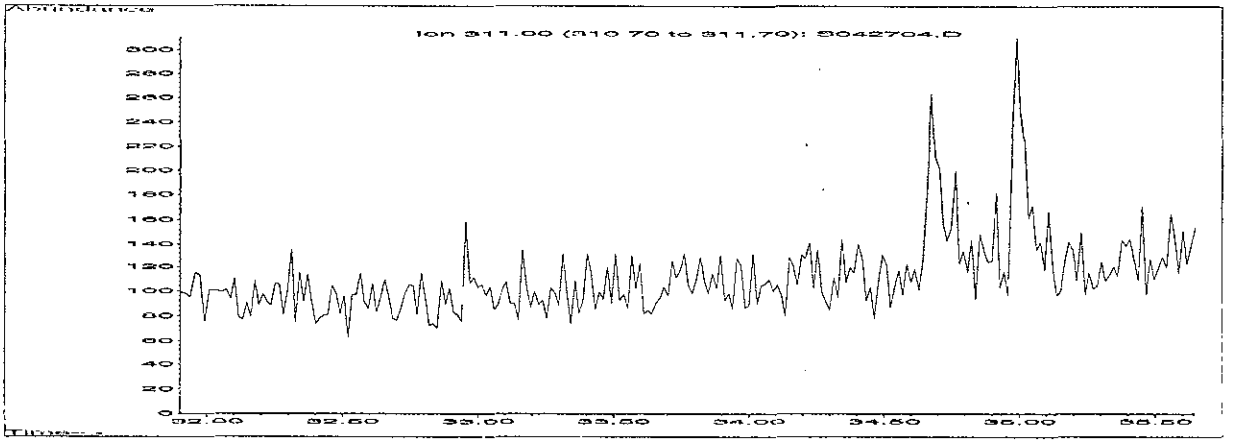


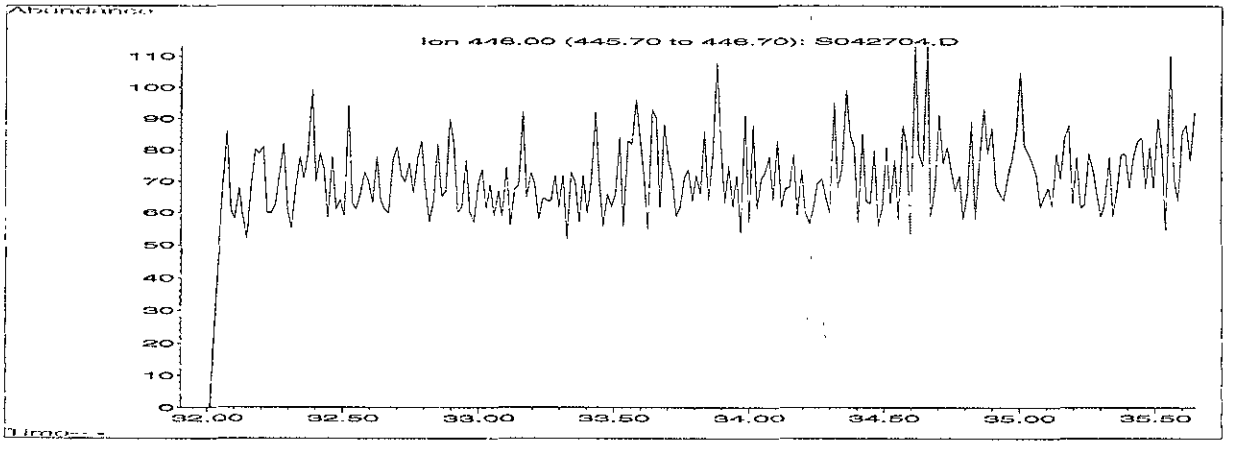
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



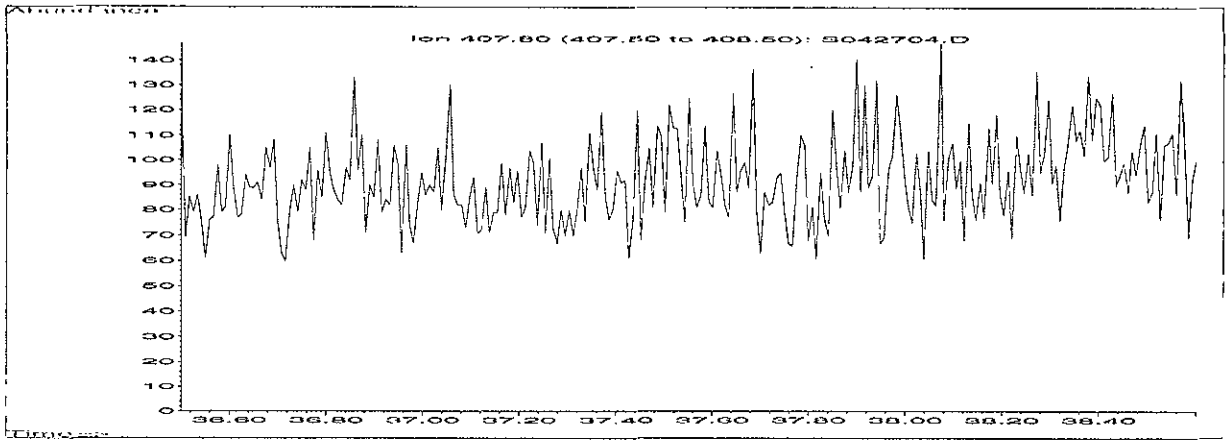


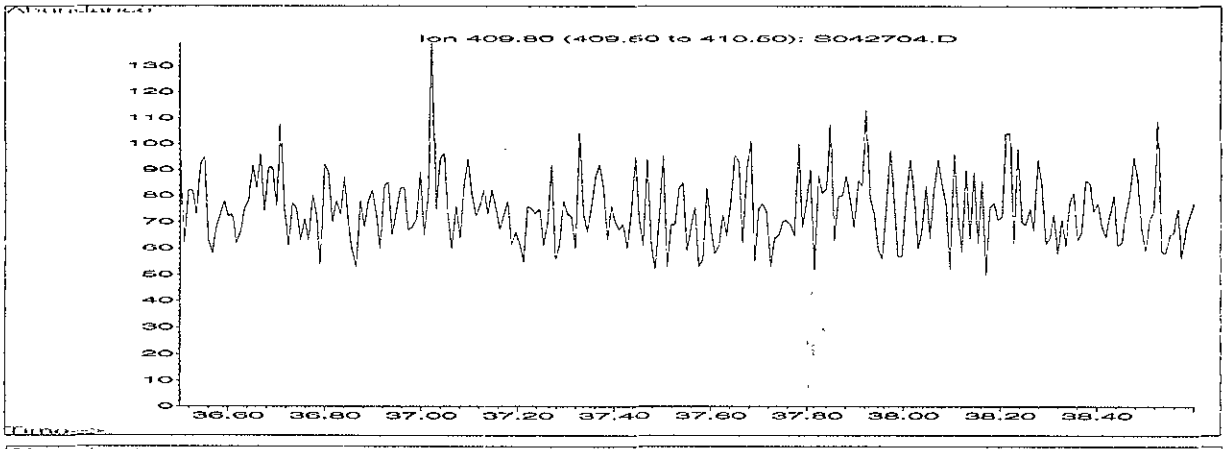


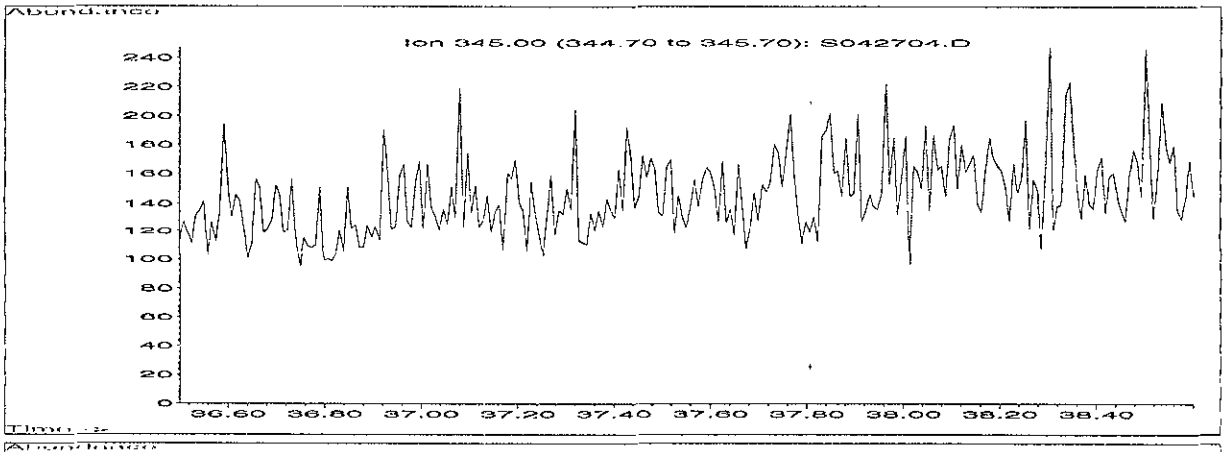


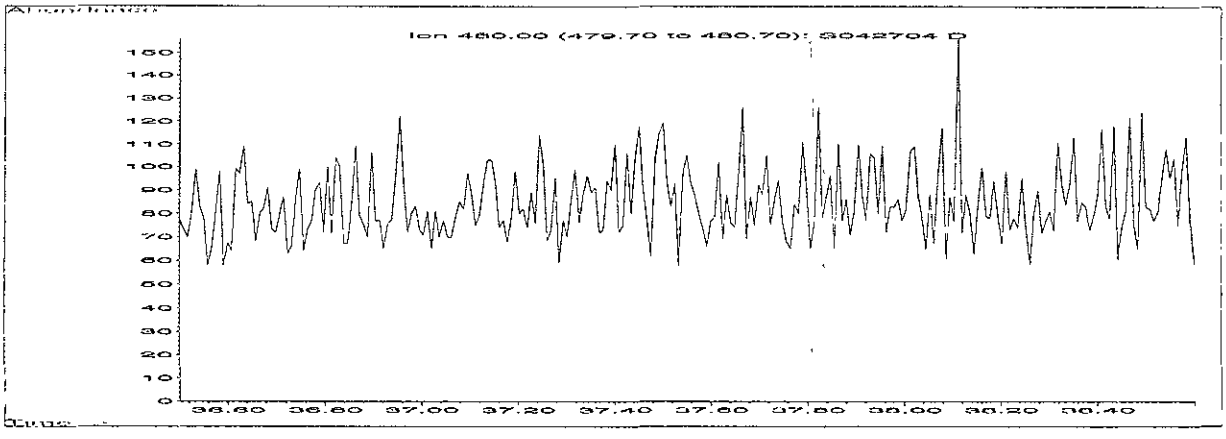
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

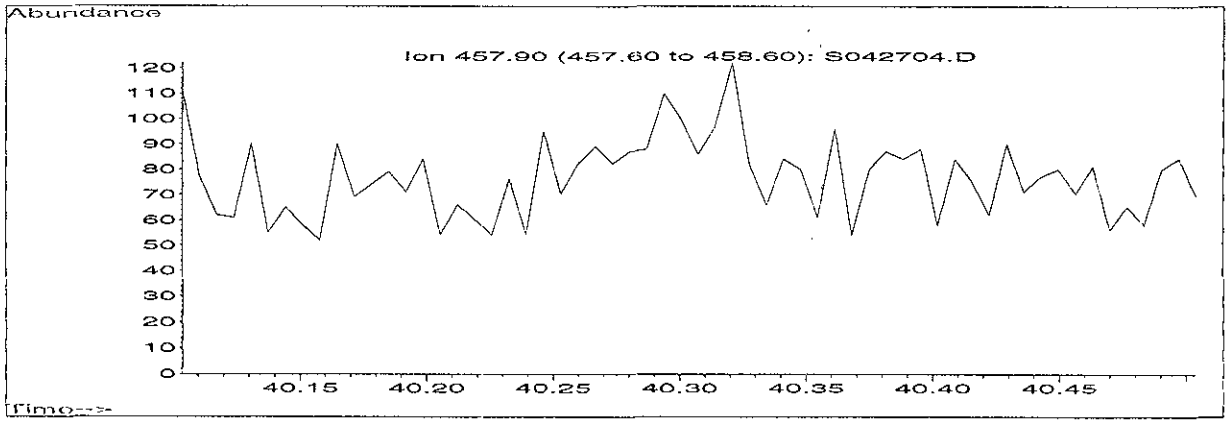


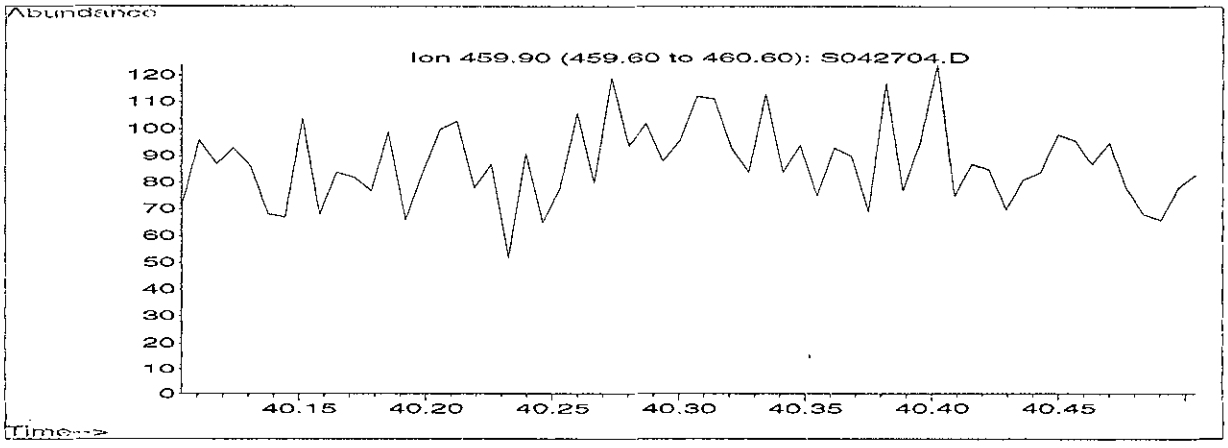


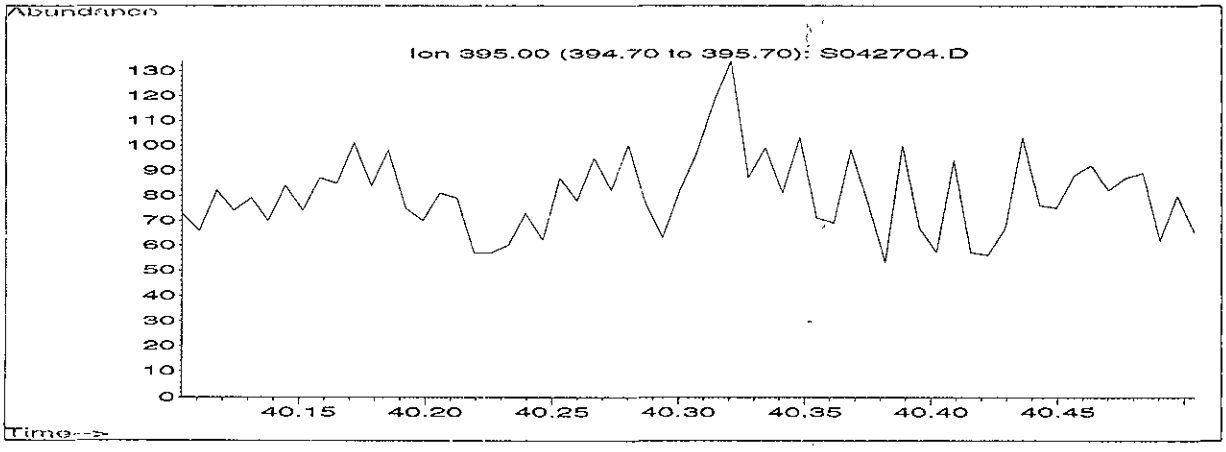




OCDD			
TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

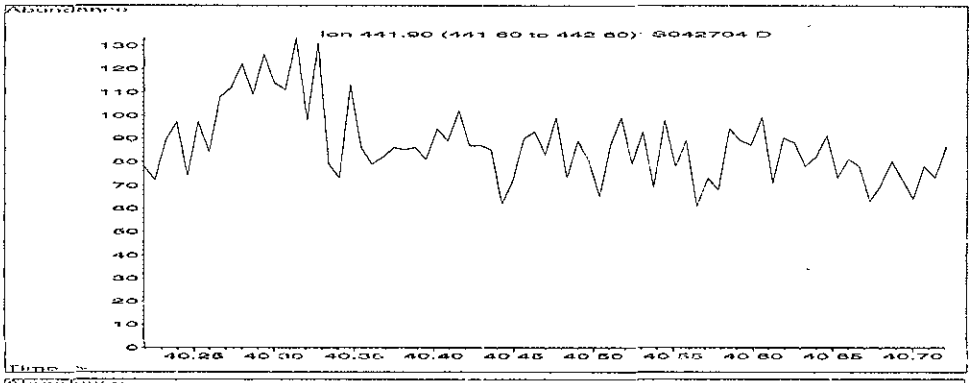


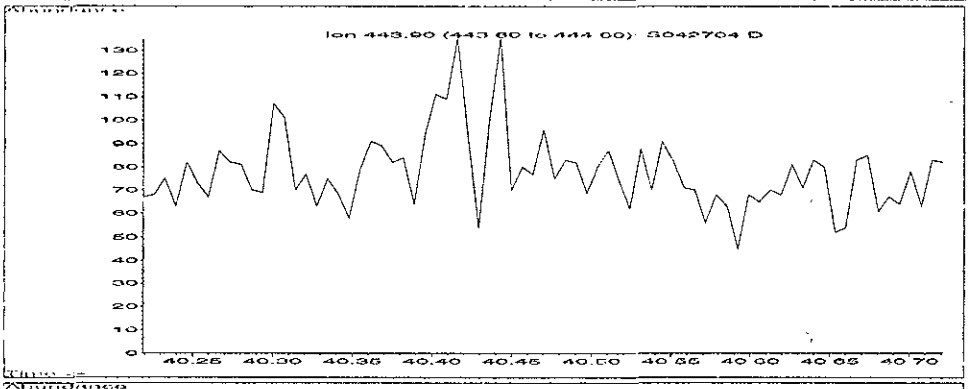


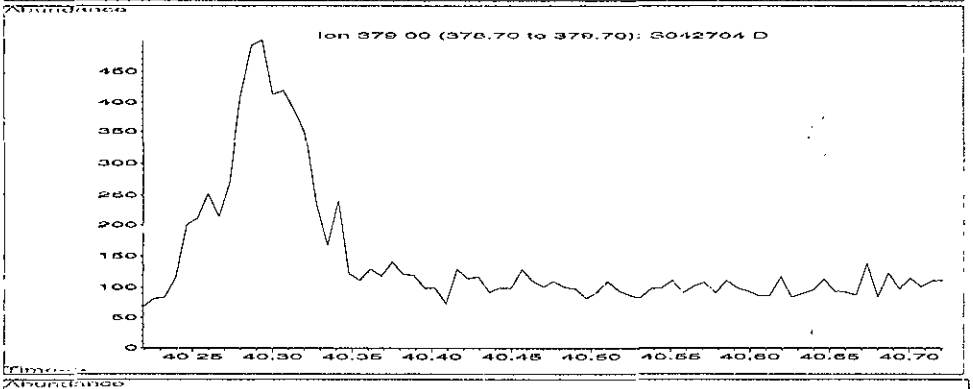


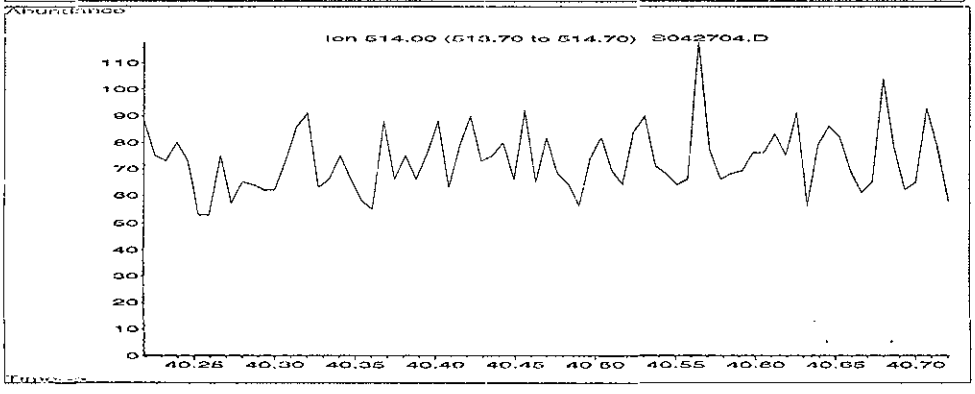
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



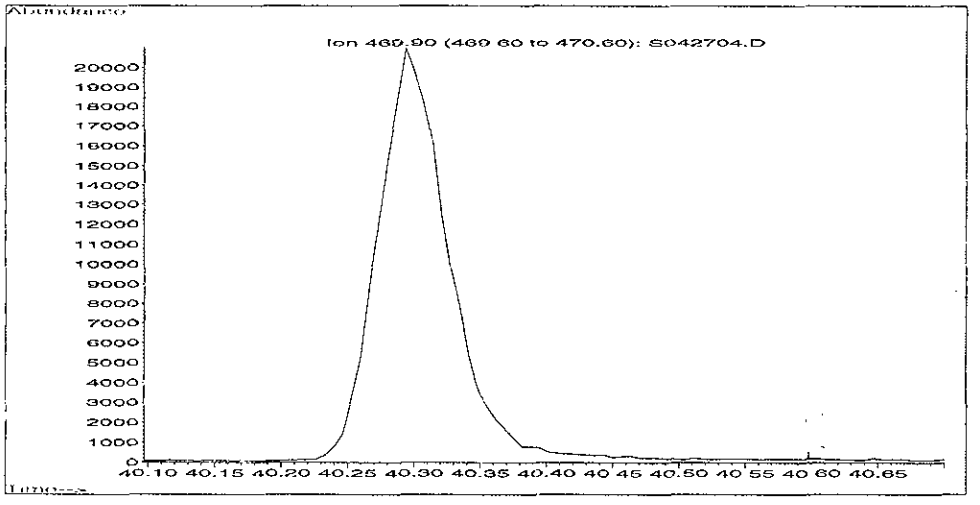


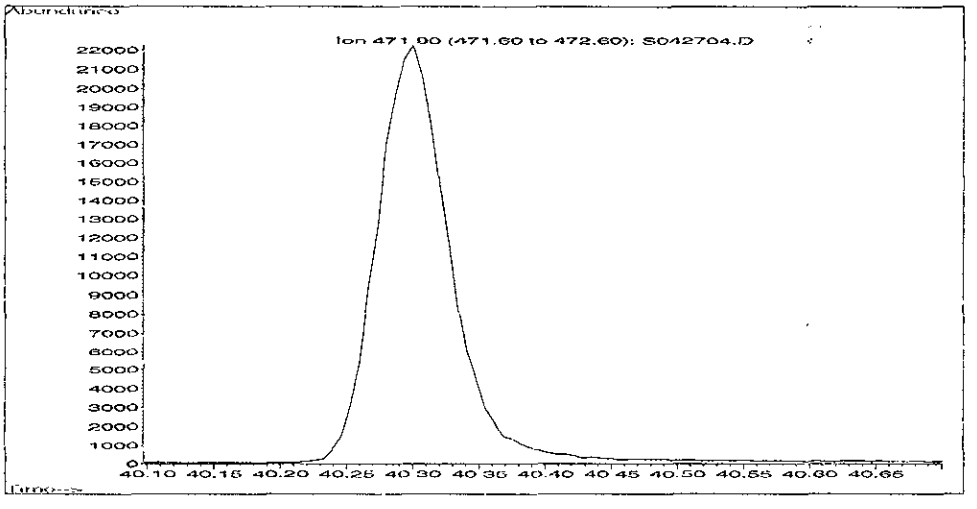




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.29		
Target Ion	469.9	Q1 Ion	471.9
Target Response	78248	Q1 Response	85258
Total response	163506	Ratio	0.92





Sample ID: A9D160180-3 1.02776L 8280A
K97DE-1-AA WATER LR909

Size: 1.028
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042705.D
Acq On :27 Apr 2009 3:41 pm

Vial: 5
Operator: MEO
Sample Amount: 1.03

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:33 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.79	161388	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.29	140890	25.00	NG	0.00
9) 13C-2378-TCDF	20.24	316+318	0.79	224986	25.00	NG	0.00
15) 13C-2378-TCDD	21.15	332+334	0.80	148242	25.00	NG	0.00
20) 13C-123678-HxCDD	34.69	402+404	1.25	77756	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.06	90789	25.00	NG	0.00
36) 13C-OCDD	40.29	470+472	0.88	213326	50.00	NG	0.00

Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		106185	8.982	NG	0.00
Spiked Amount = 12.162		RRF = 1.782		Recovery =	73.84%		

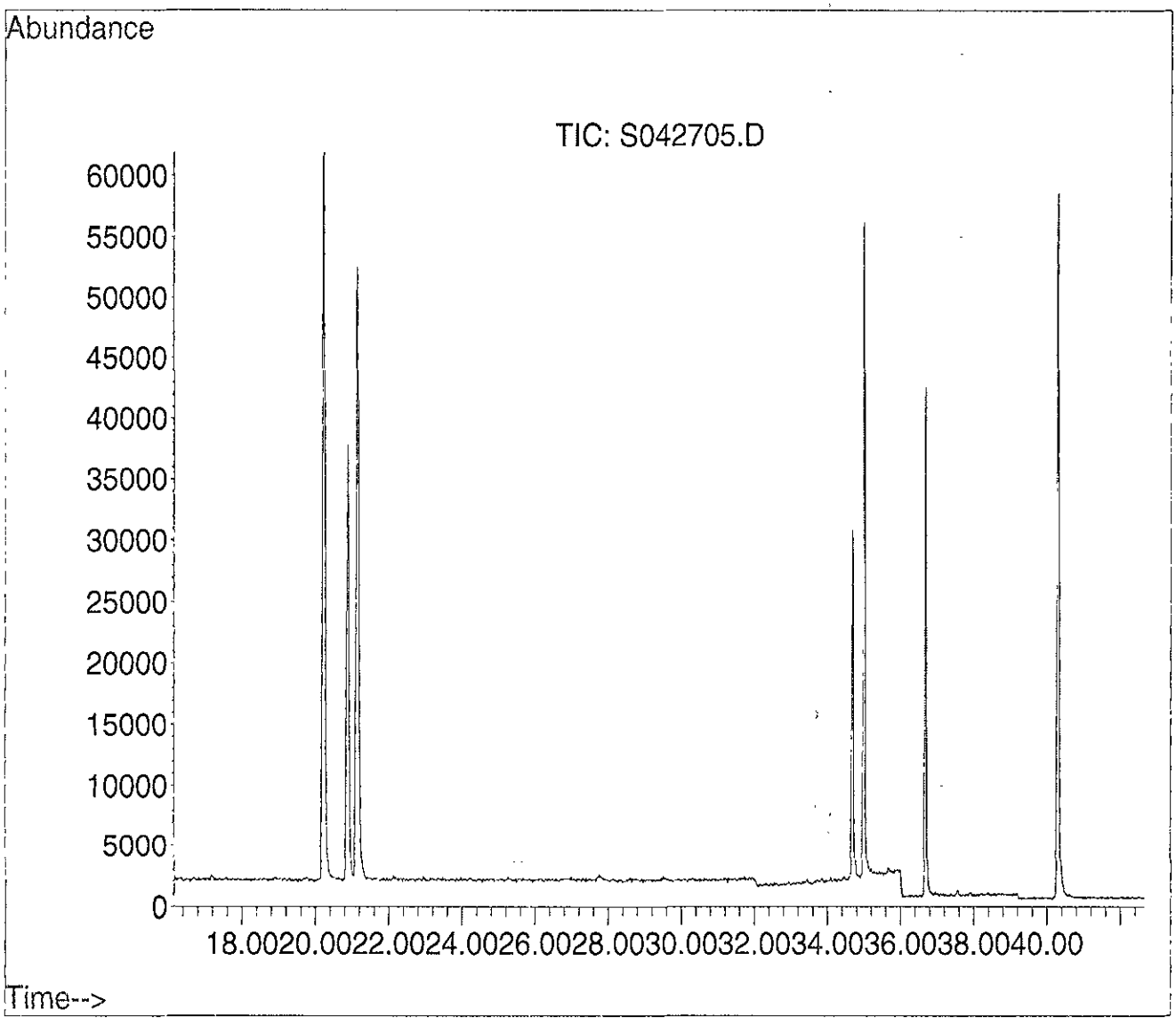
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.24	0.79	224986	1.796	18.877	0.0383	77.6
3) 13C-2378-TCDD-IS	21.15	0.80	148242	1.137	19.643	3.3351	80.7
6) 13C-123678-HxCDD-	34.69	1.25	77343	0.899	14.847	0.0818	61.0
7) 13C-1234678-HpCDF	36.68	1.06	90789	1.062	14.761	0.0677	60.7
8) 13C-OCDD-IS	40.29	0.88	213326	0.887	41.505	0.1063	85.3
10) 2378-TCDF	0.00		0	1.219	N.D.	0.0766	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.1026	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.1363	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.1538	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.1811	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.0840	
1	20.24	4.86 #	20665		2.596		
17) TCDD TOTAL	19.30	4.86	20665	1.306	2.596		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.2152	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.2774	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.3353	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.3727	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.3483	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.3958	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.3891	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	0.9408	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.1955	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.1895	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.2912	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.2487	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.3994	
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.2306	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.3111	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.3383	
37) OCDD	0.00		0	1.224	N.D.	0.5160	

AK 4/30/09

38) OCDF	0.00	0	1.589	N.D.	0.3782

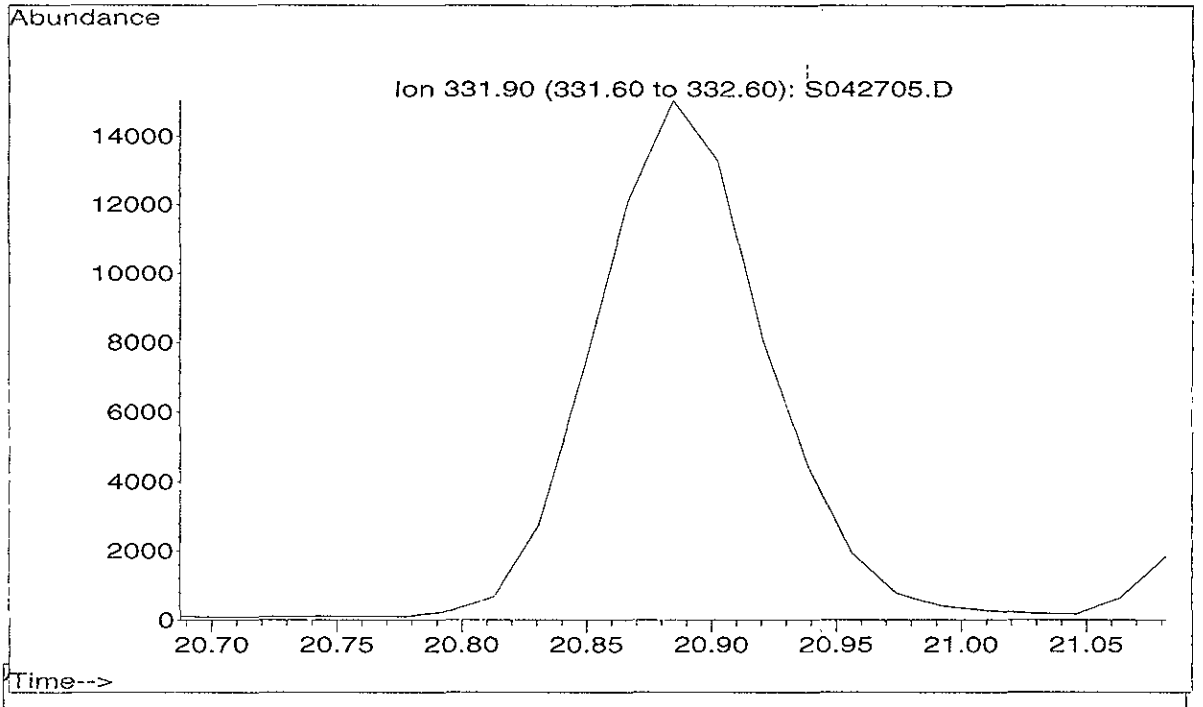
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042705.D 09AP27A2.M Tue Apr 28 16:33:09 2009

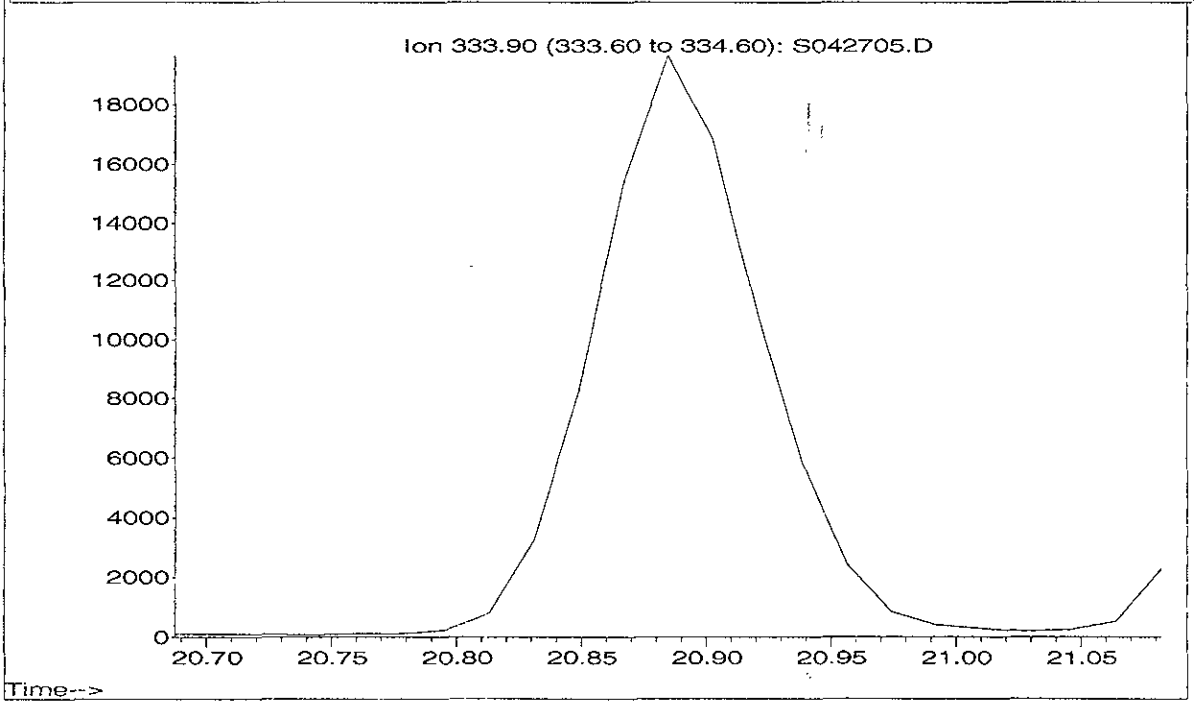
Data File Name	S042705.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 3:41
Acq. Method File	TOKAS
Sample Name	<97DE-1-AA WATER LR909
Misc Info	D160180-3 1.02776L 8280A
Vial Number	5
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.02776



13C-1234-TCDD

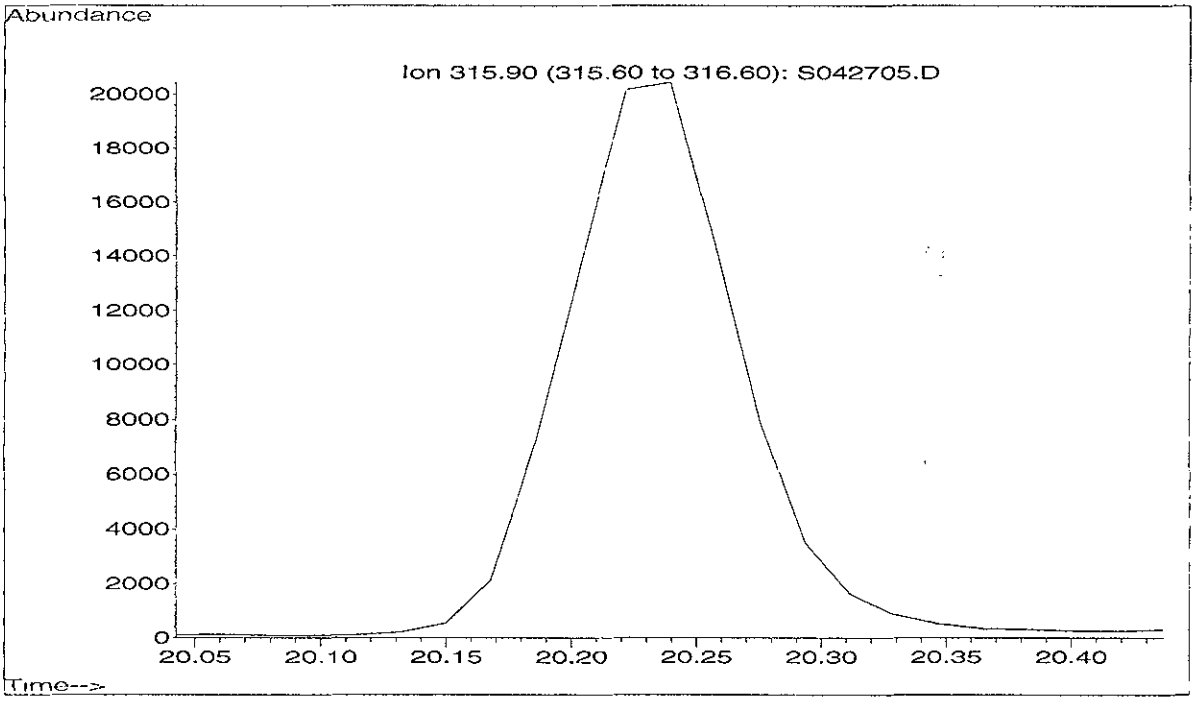
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	70975	Q1 Response	90413
Total Response	161388	Ion Ratio	0.79

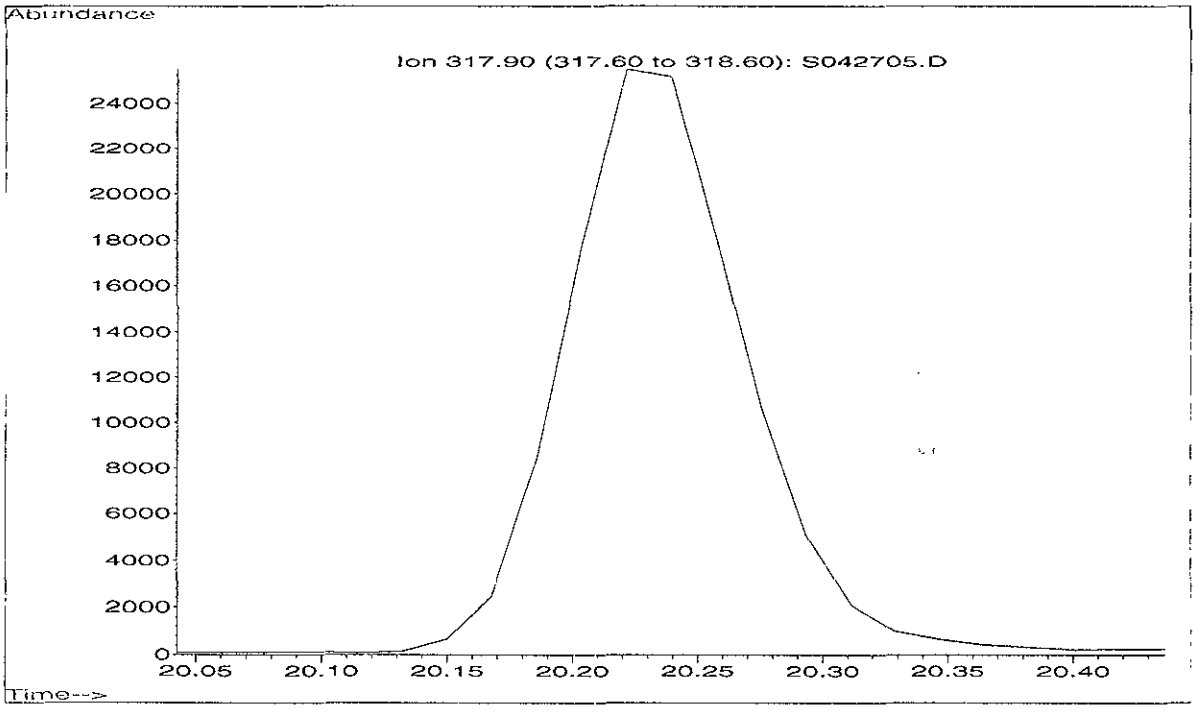




13C-2378-TCDF-IS

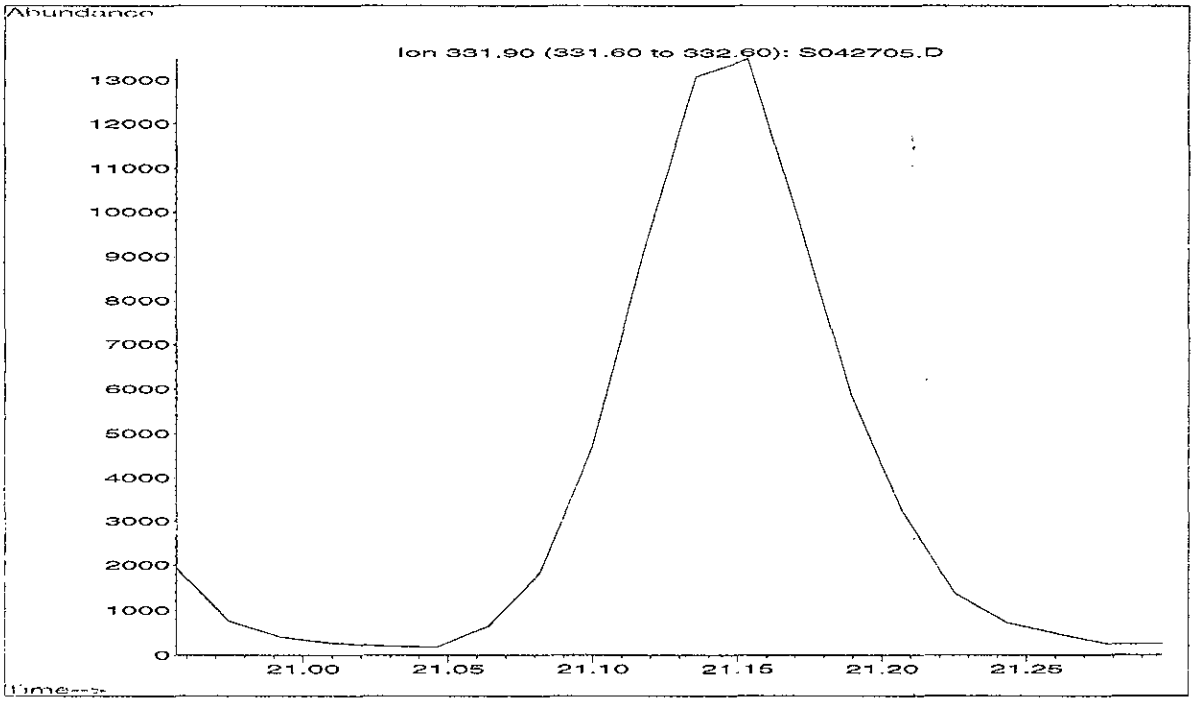
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.24		
Target Ion	315.9	Q1 Ion	317.9
Target Response	99272	Q1 Response	125714
Target Response	224986	Ion Ratio	0.79

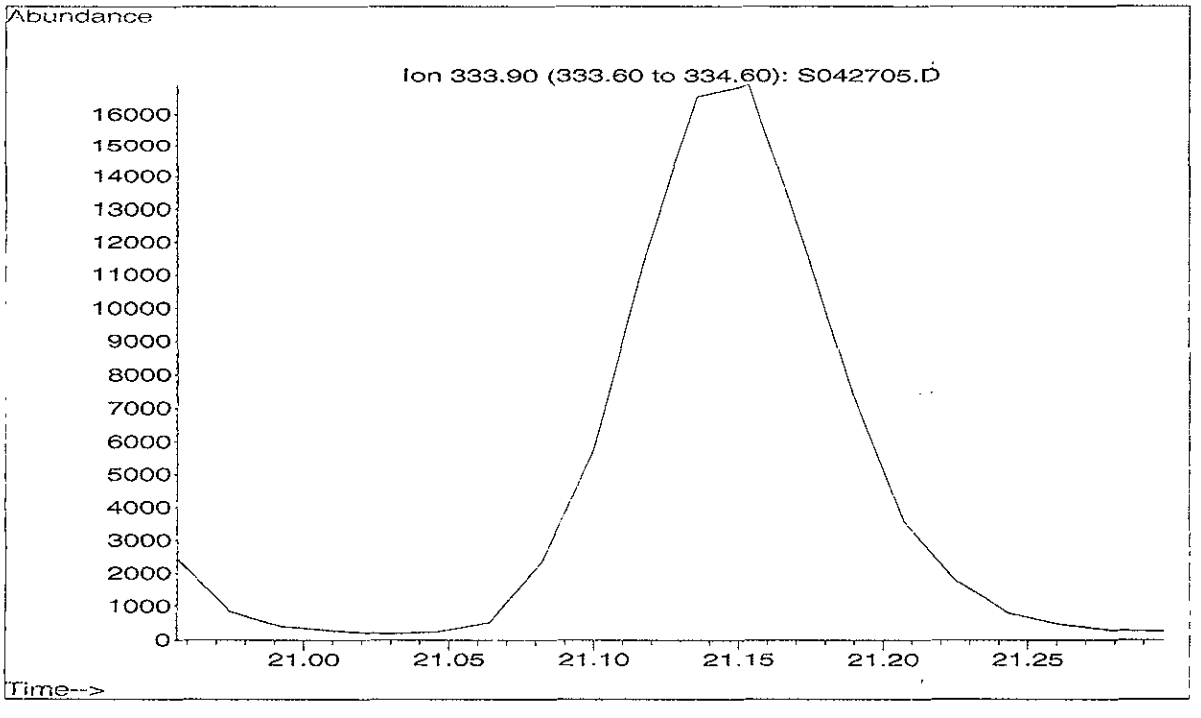




13C-2378-TCDD-IS

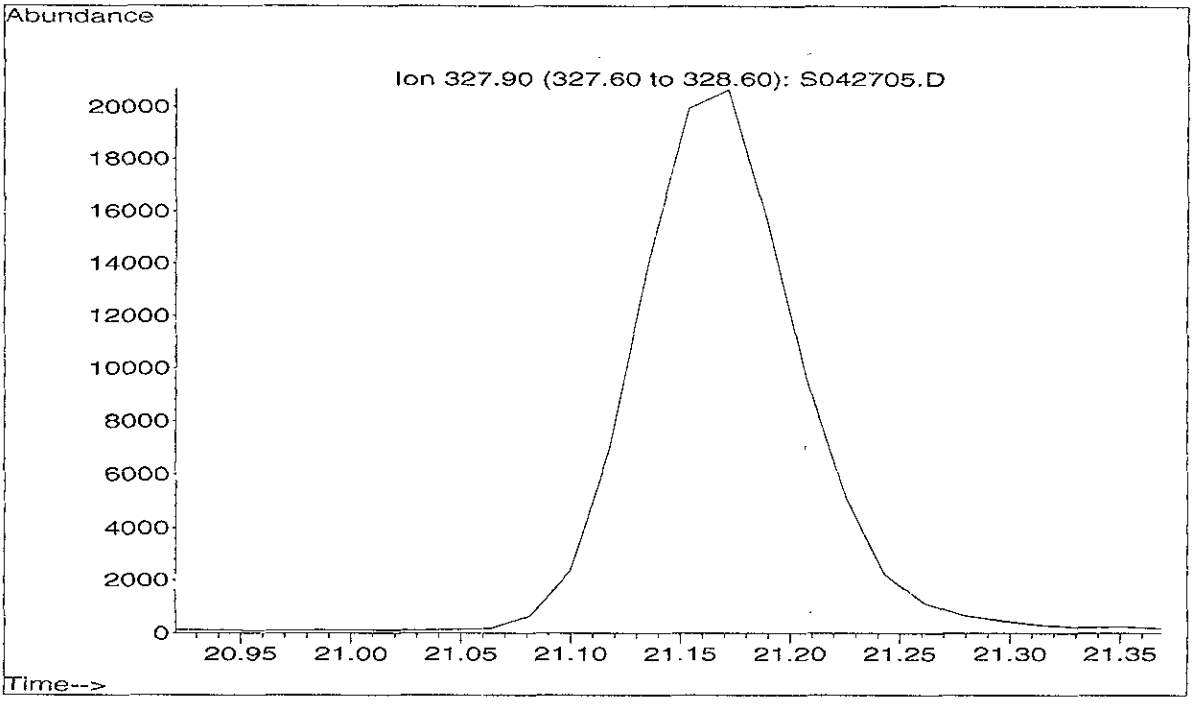
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.15		
Target Ion	331.9	Q1 Ion	333.9
Target Response	65892	Q1 Response	82350
Total Response	148242	Ion Ratio	0.80

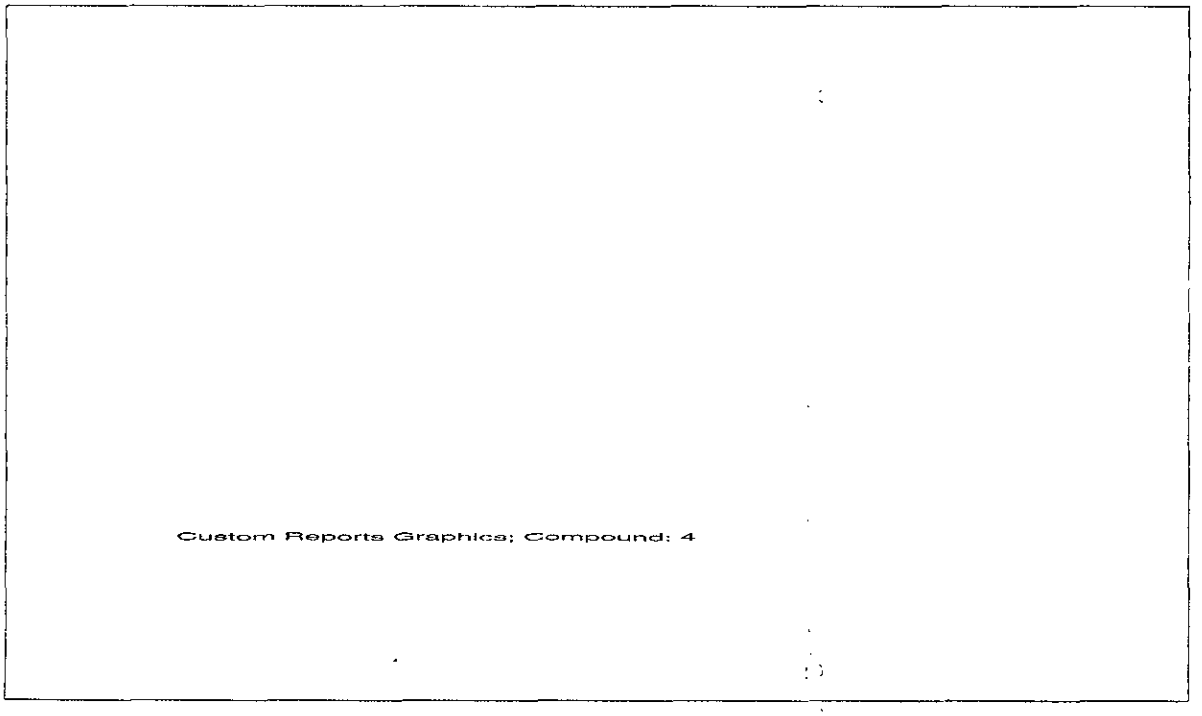




37Cl-2378-TCDD

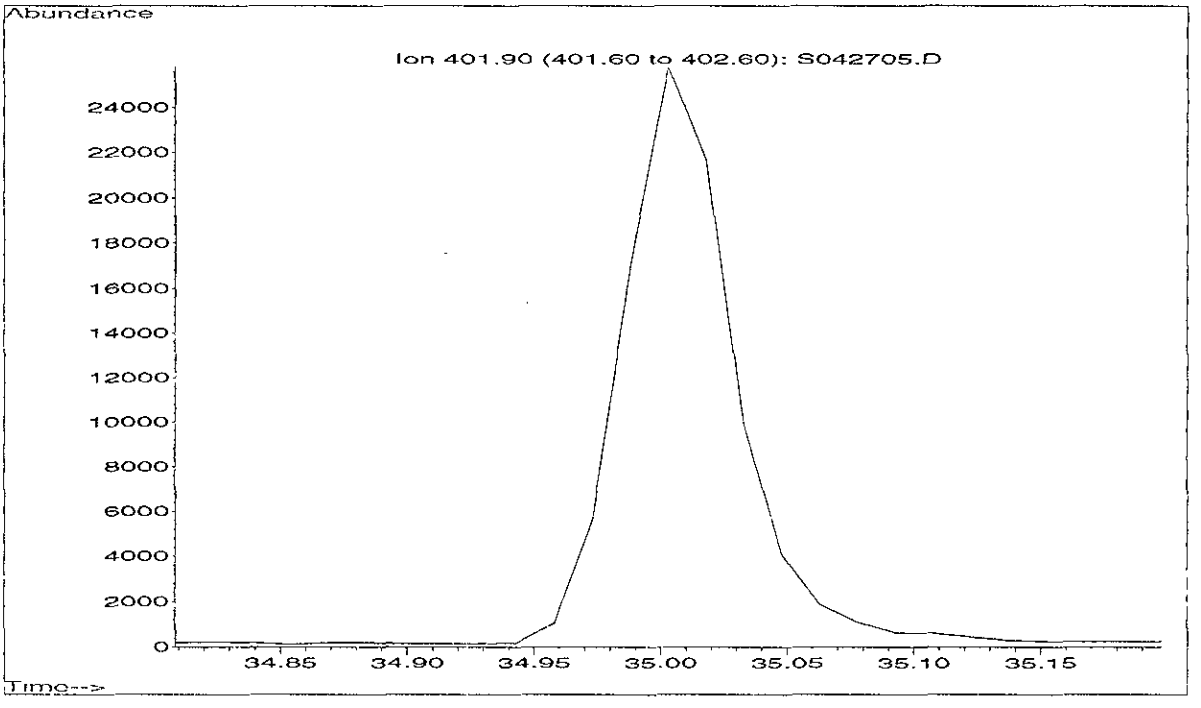
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	106185	Q1 Response	0
Total Response	106185	Ion Ratio	#DIV/0!

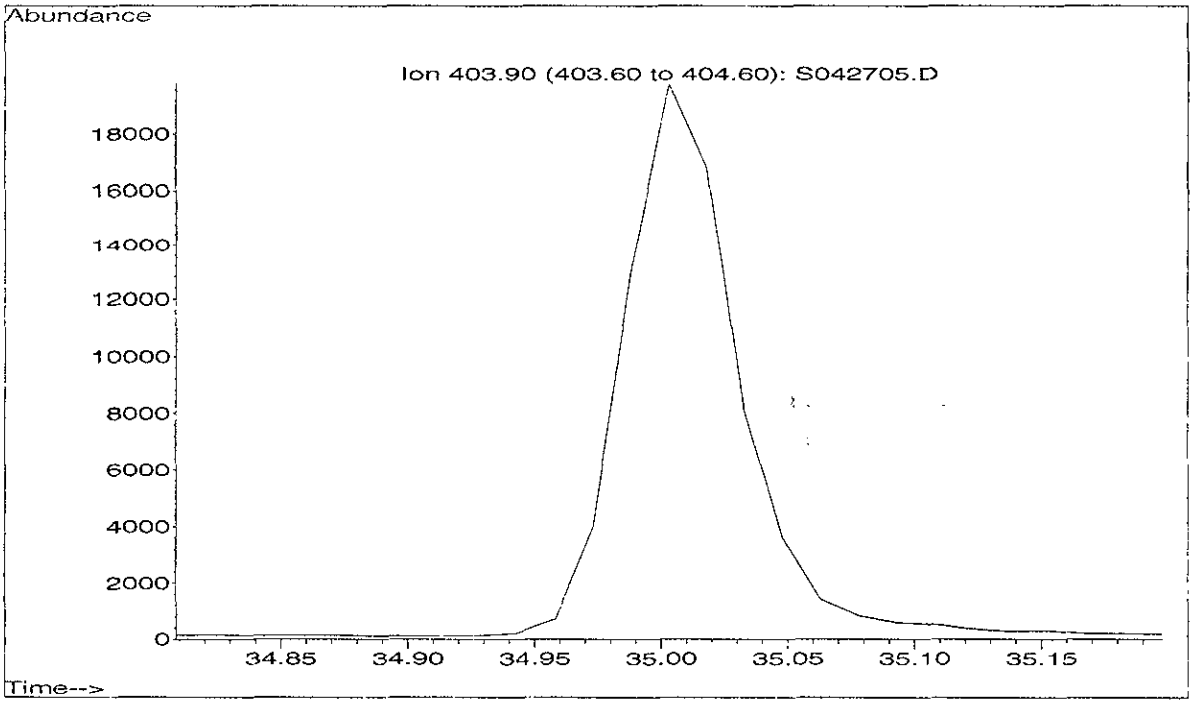




13C-123789-HxCDD

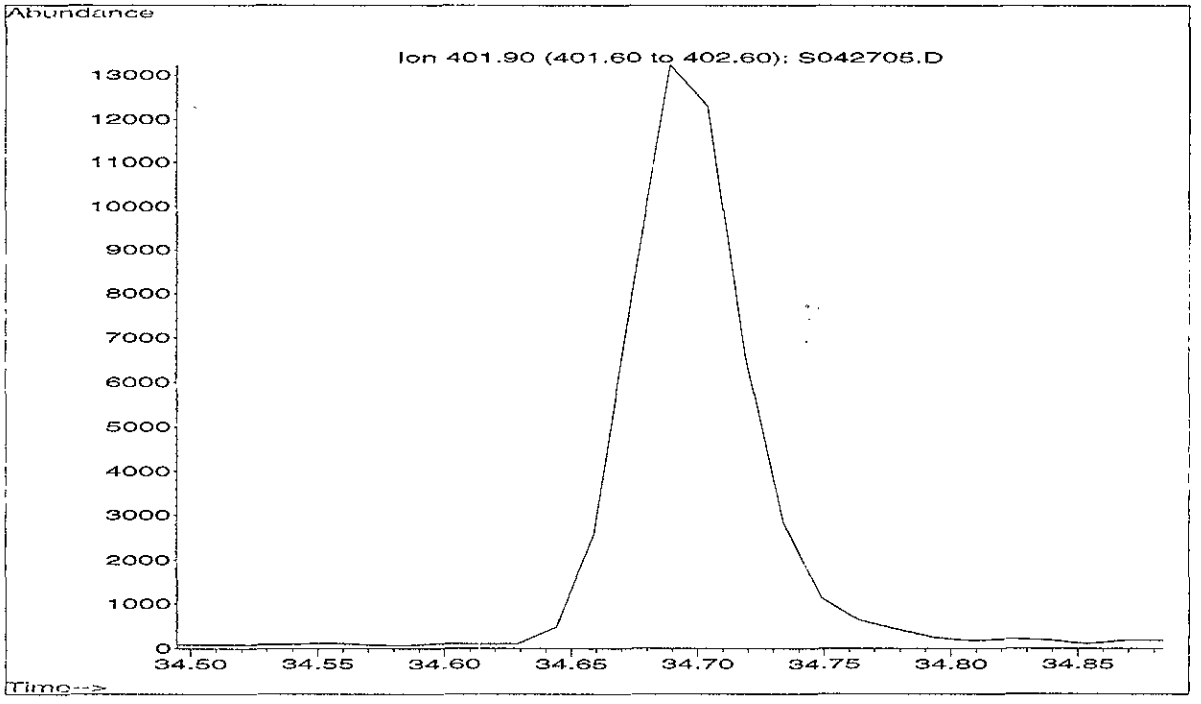
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	79325	Q1 Response	61565
Target Response	140890	Ion Ratio	1.29

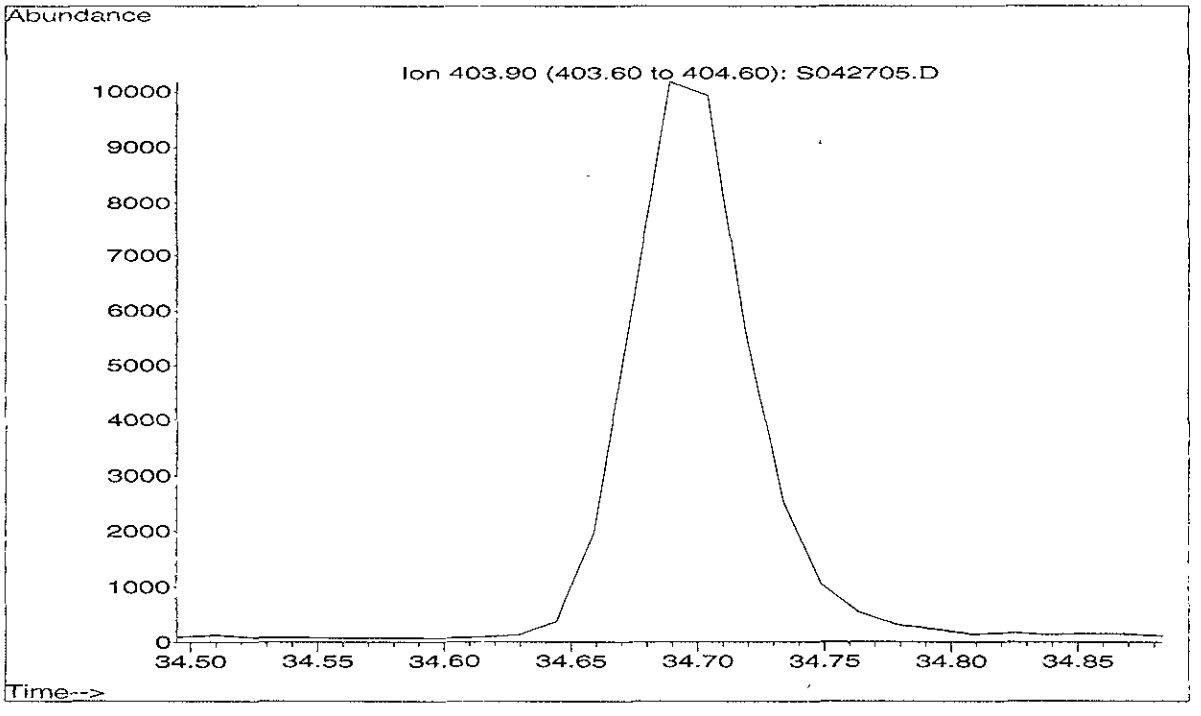




13C-123678-HxCDD-IS

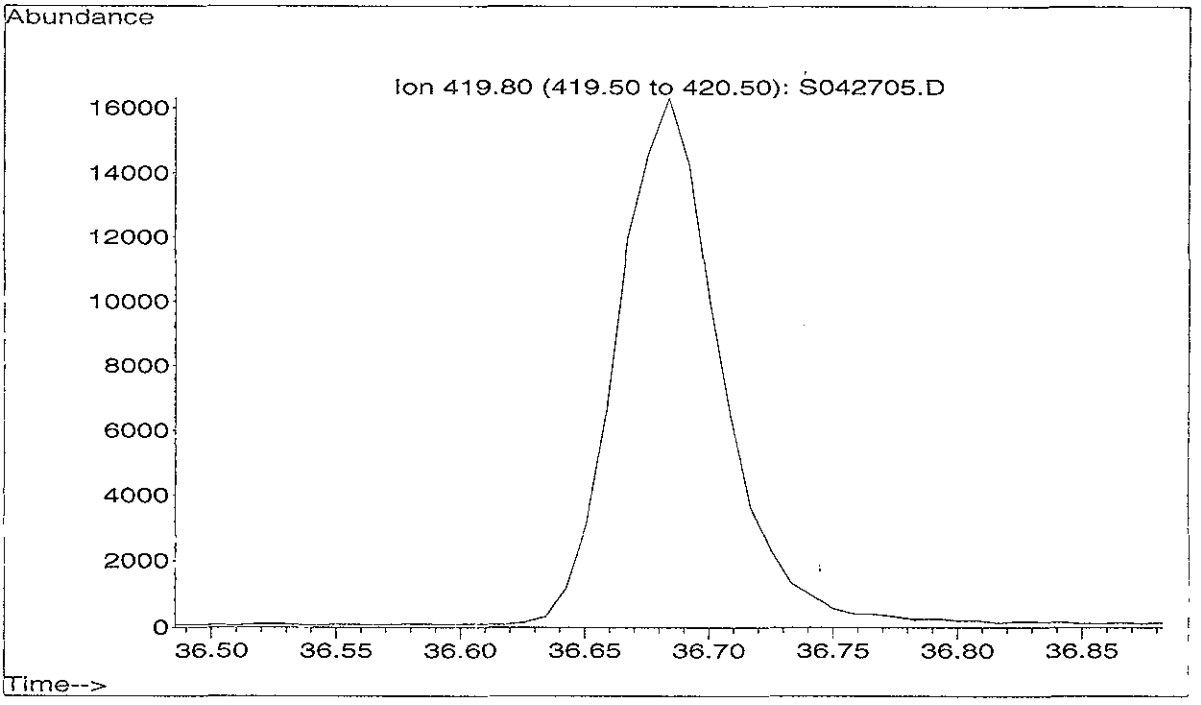
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	42964	Q1 Response	34379
Total Response	77343	Ion Ratio	1.25

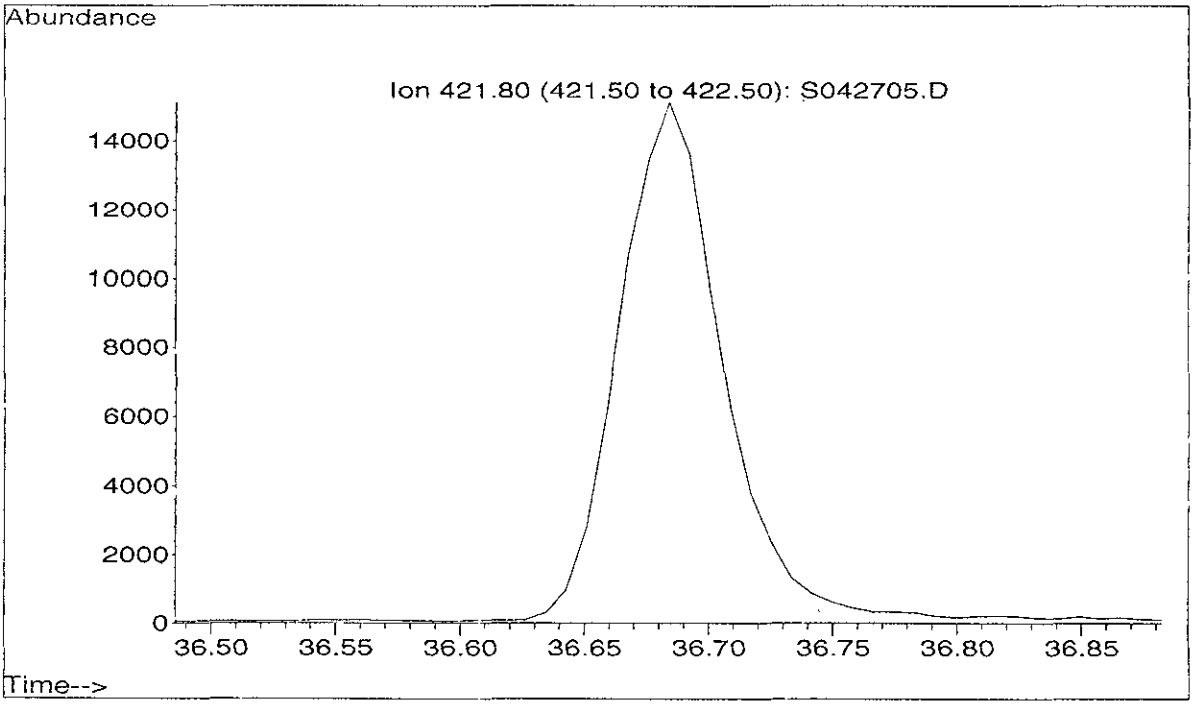




13C-1234678-HpCDF-IS

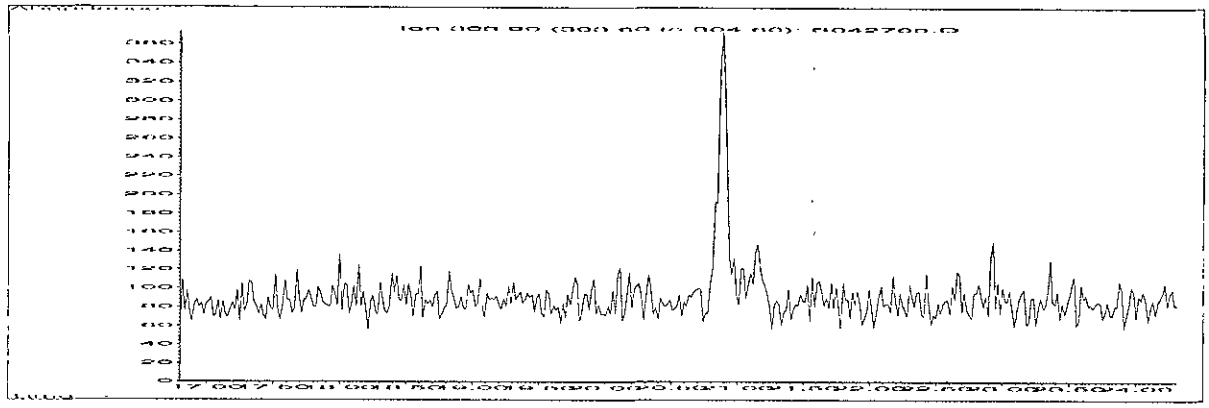
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	46797	Q1 Response	43992
Target Response	90789	Ion Ratio	1.06

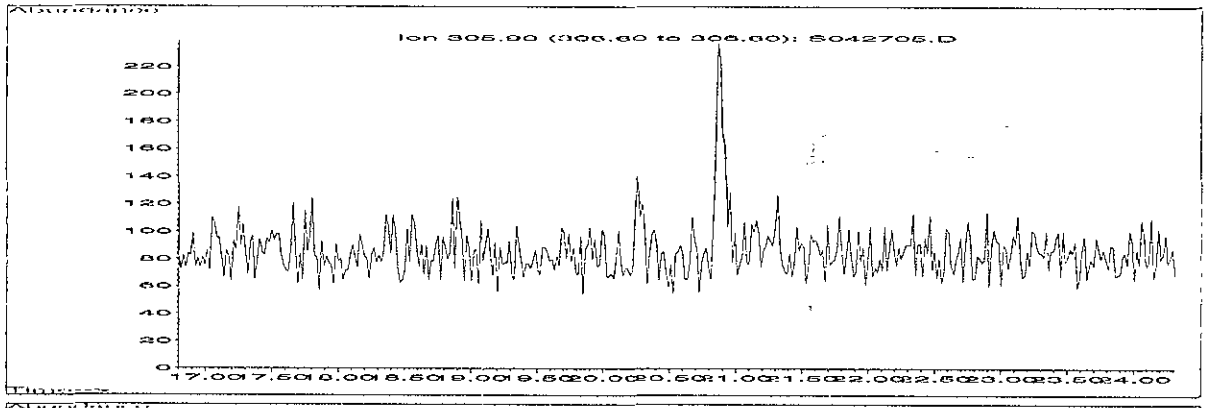


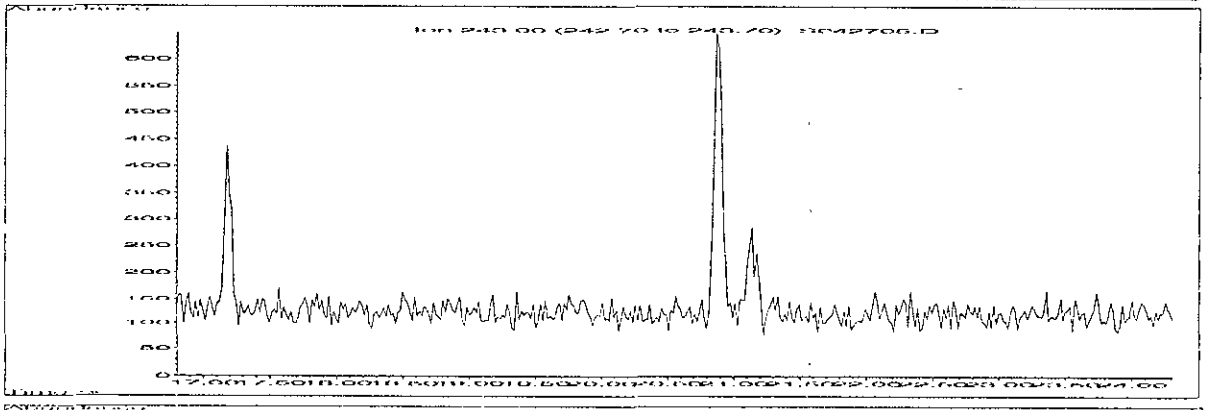


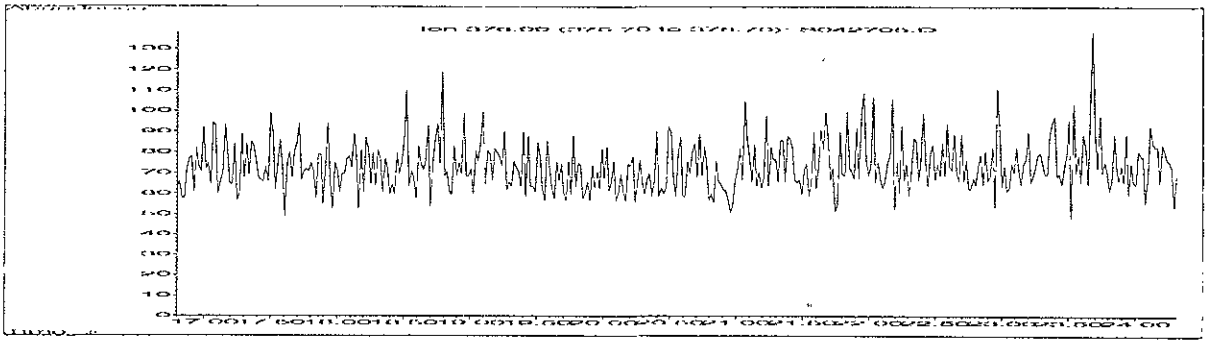
TCDF TOTAL

TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30



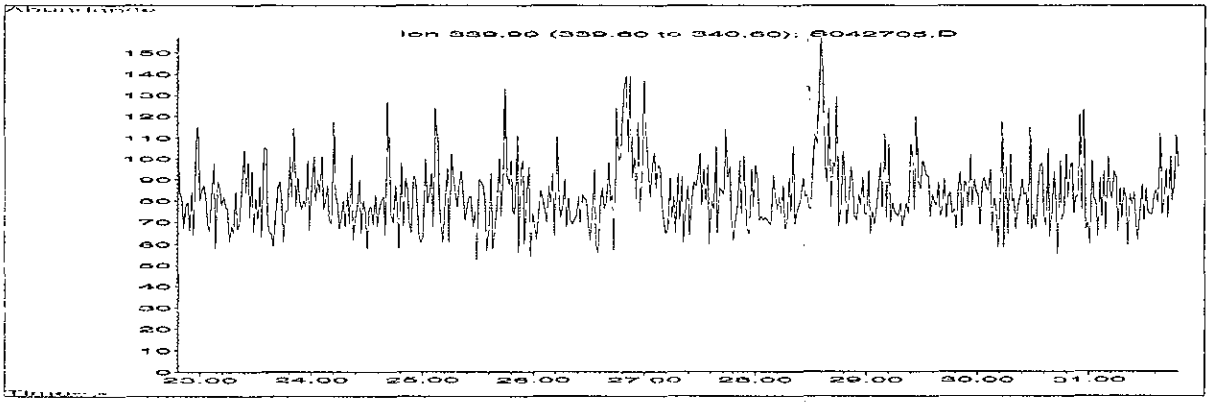


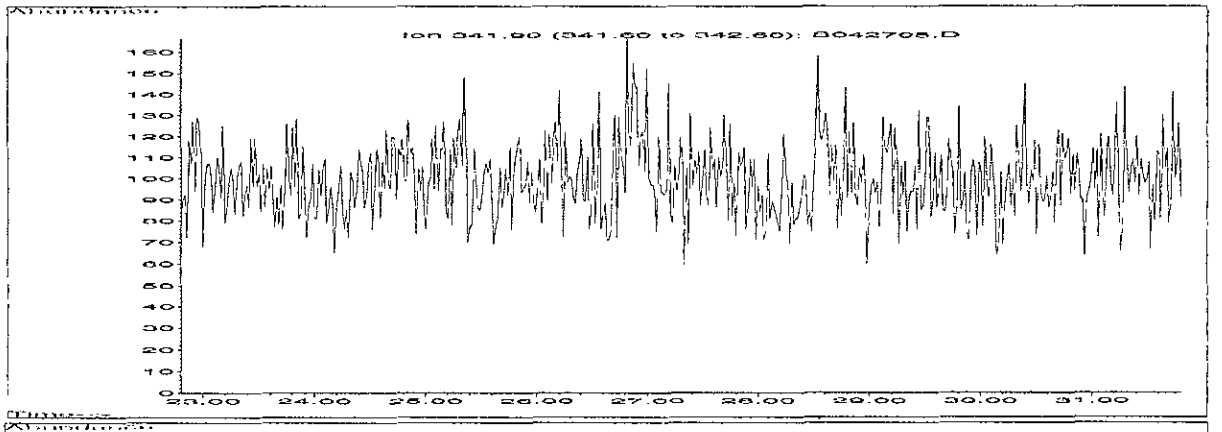


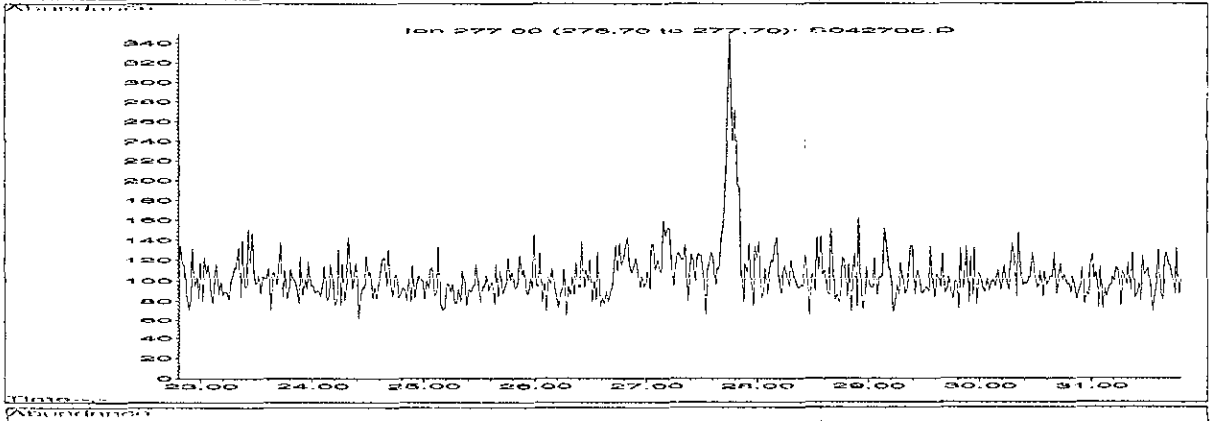


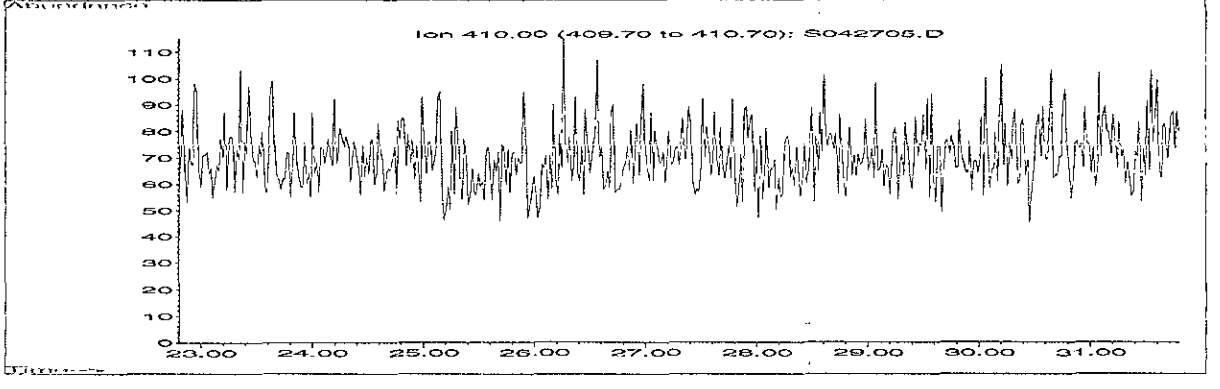
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



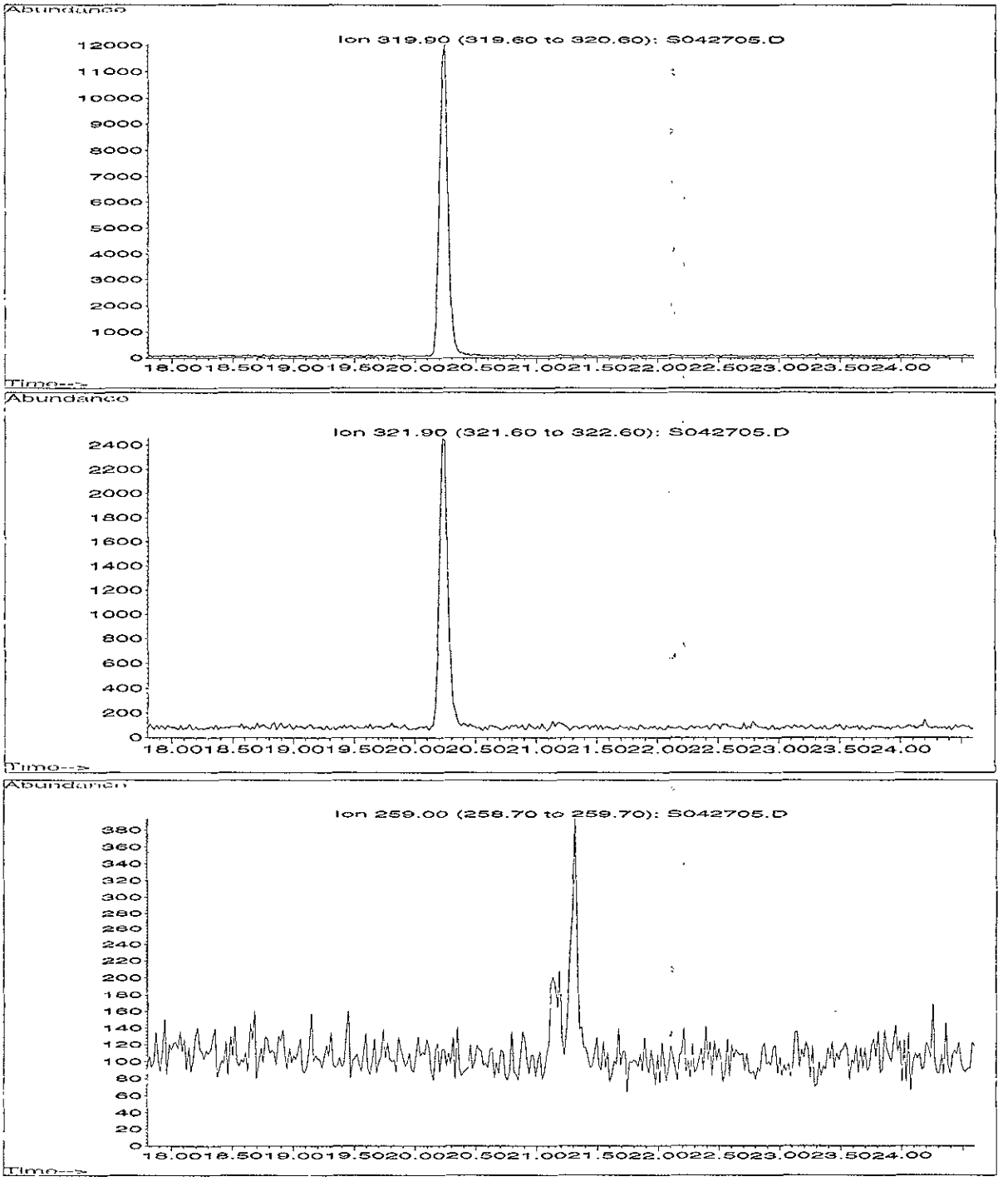






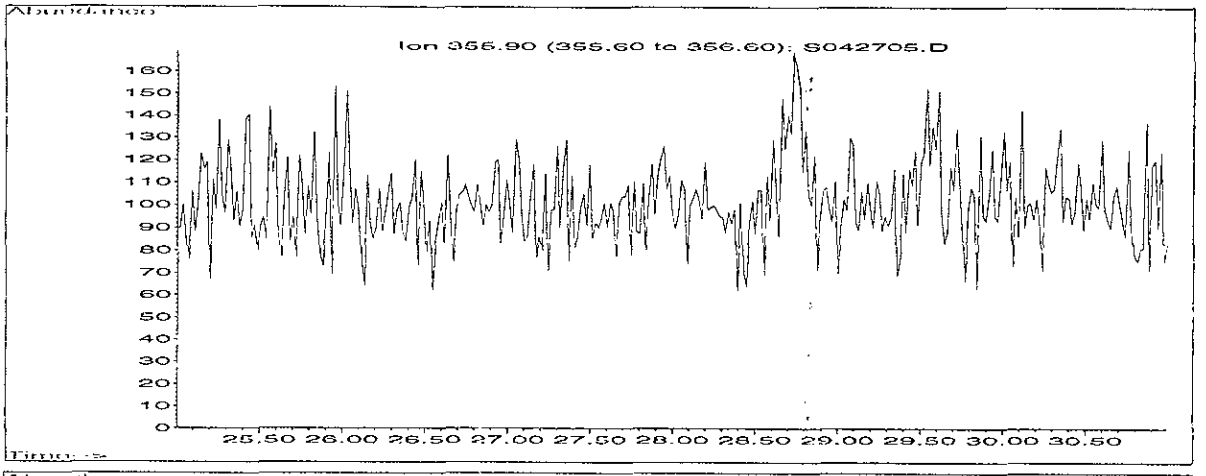
TCDD TOTAL

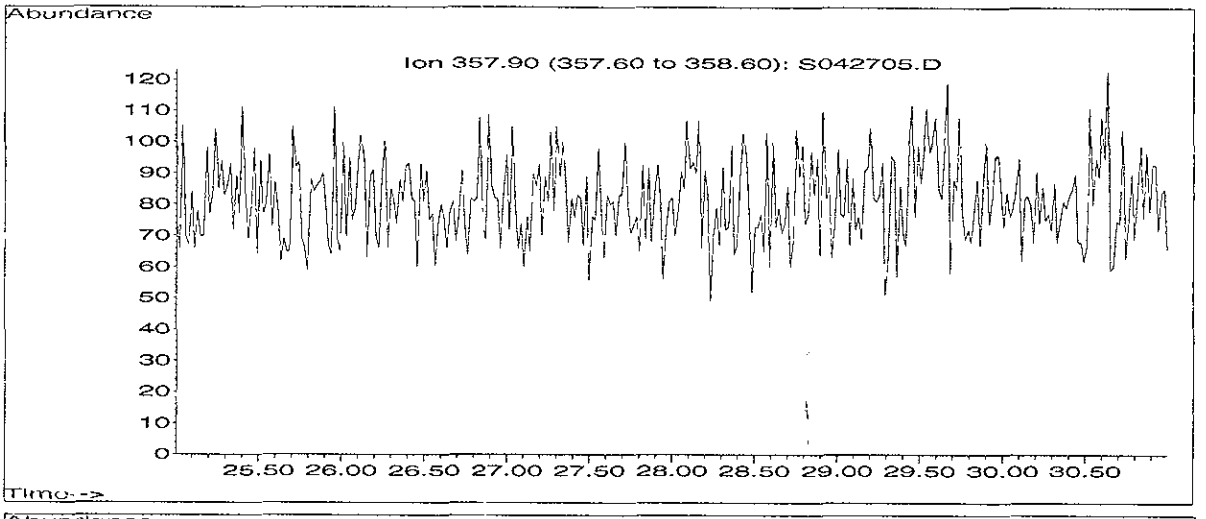
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

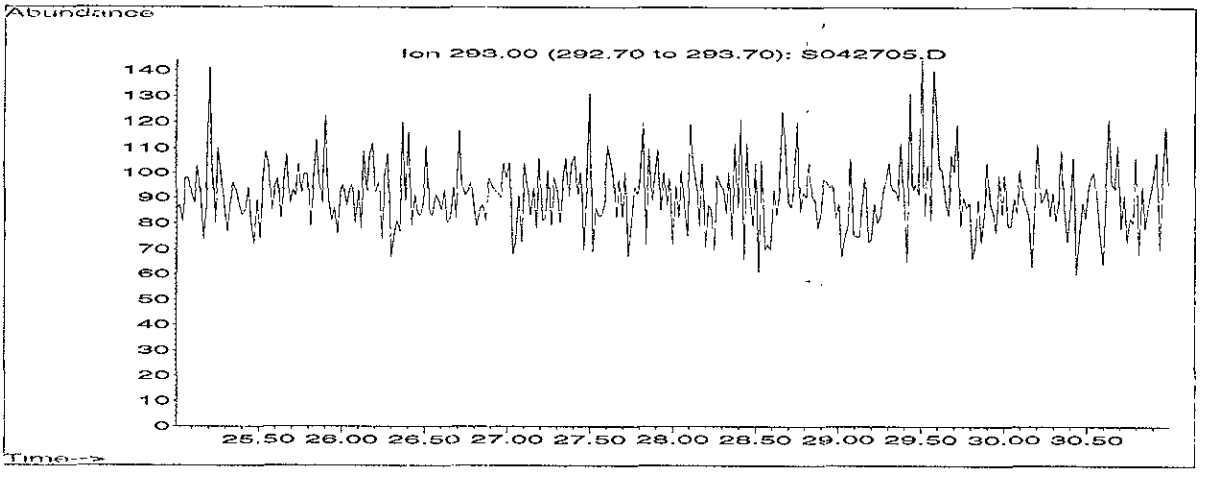


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

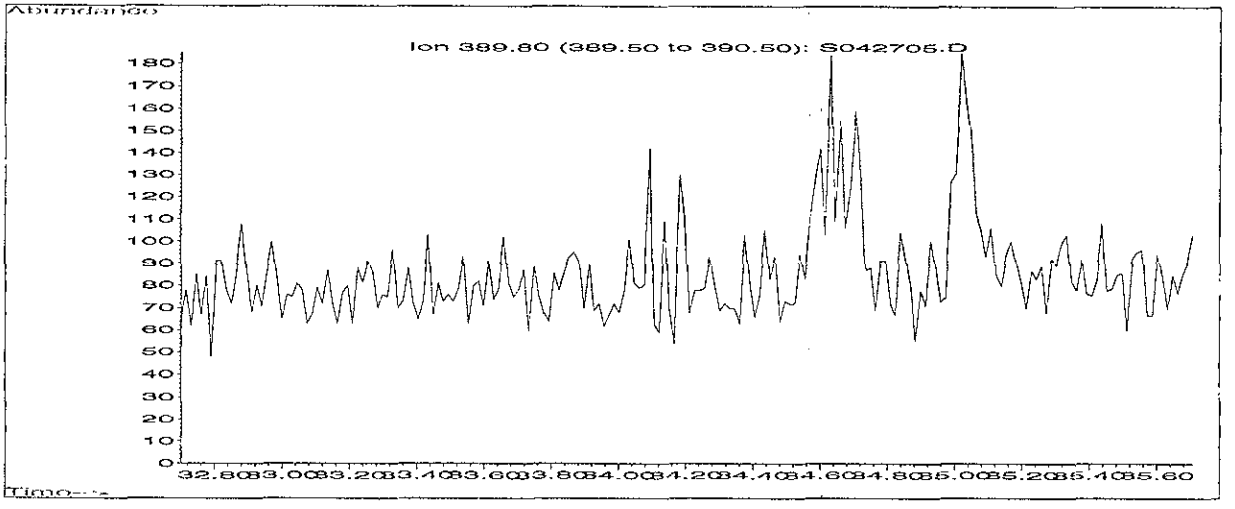


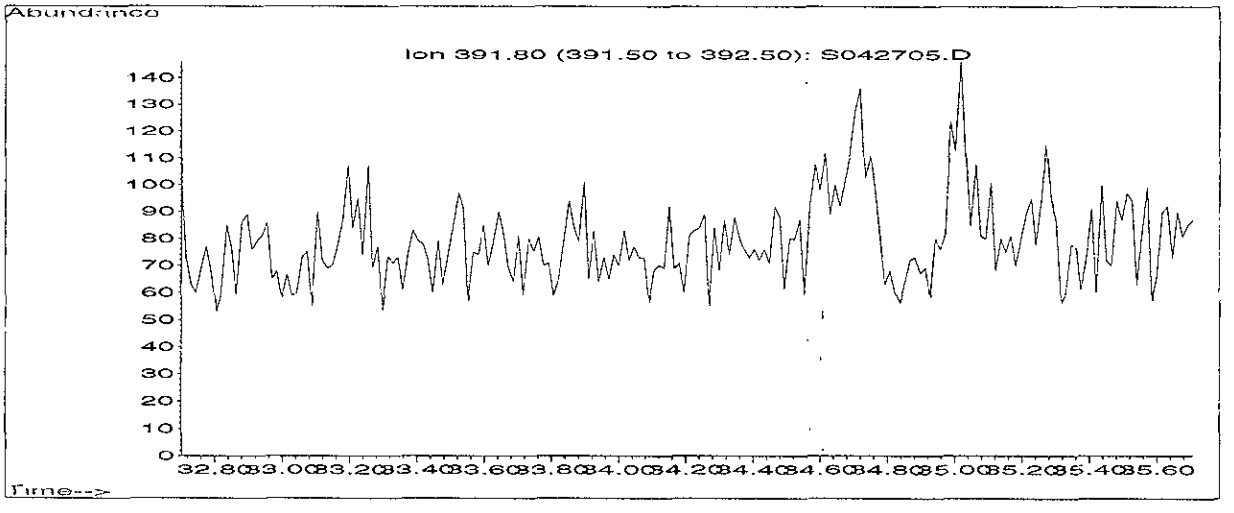


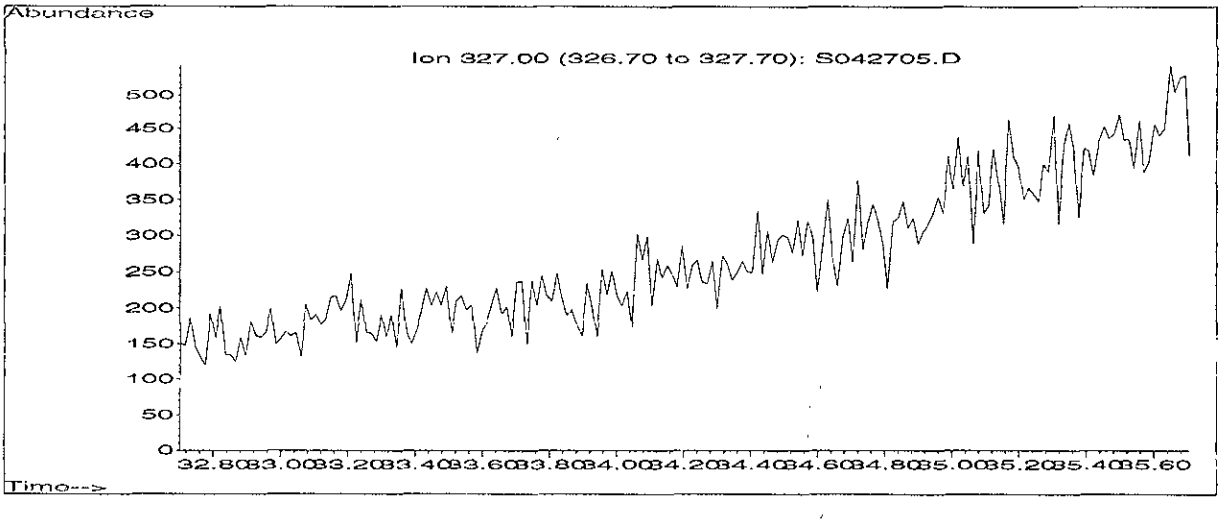


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

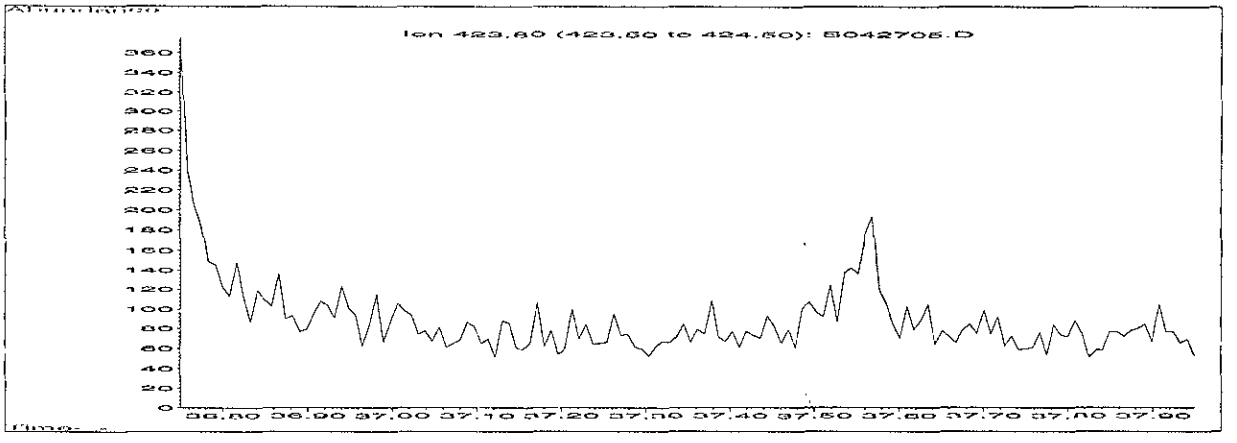


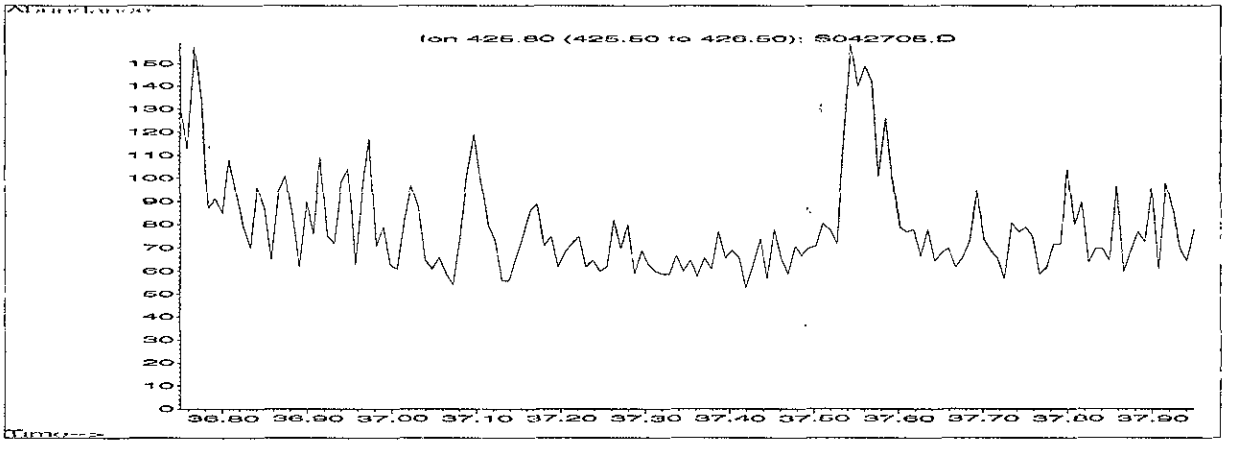


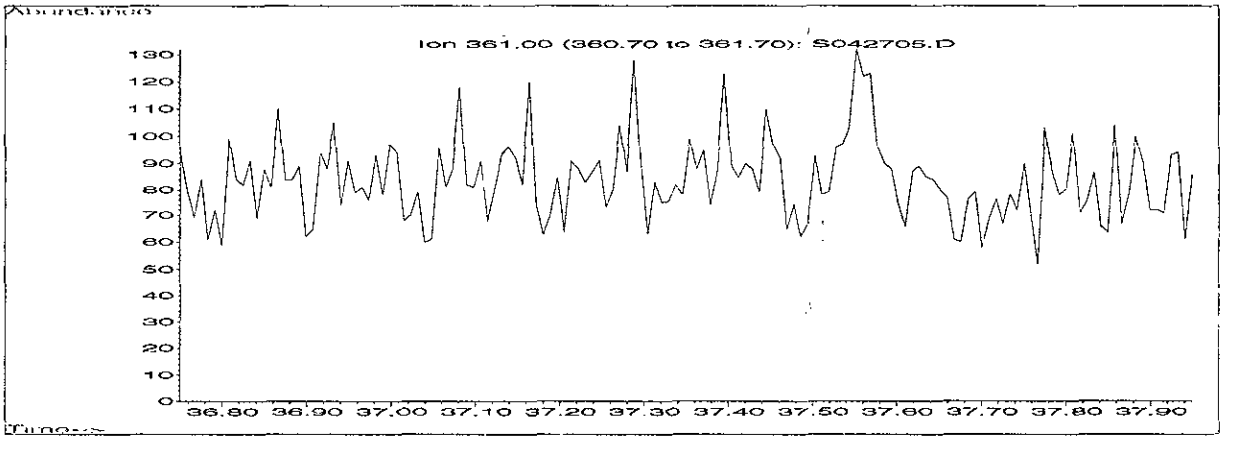


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

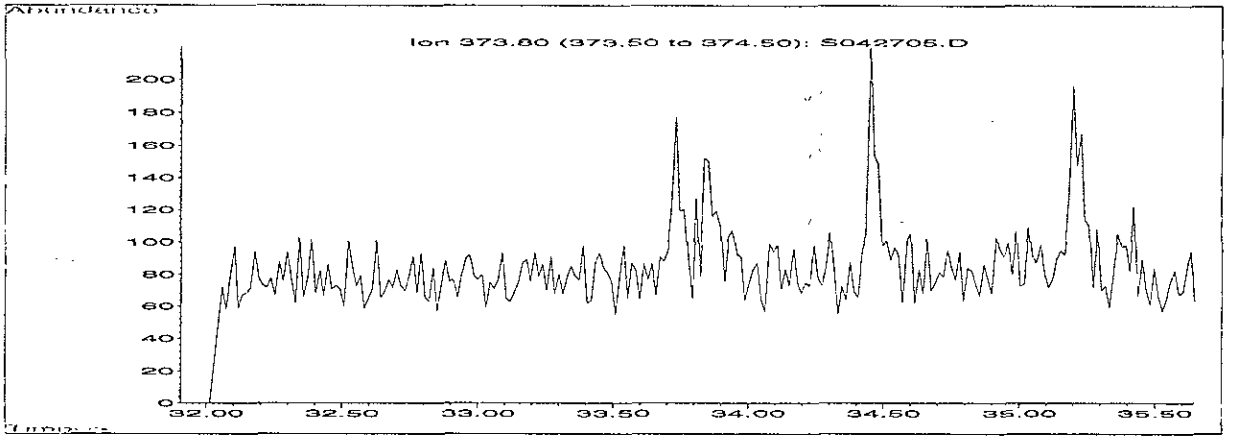


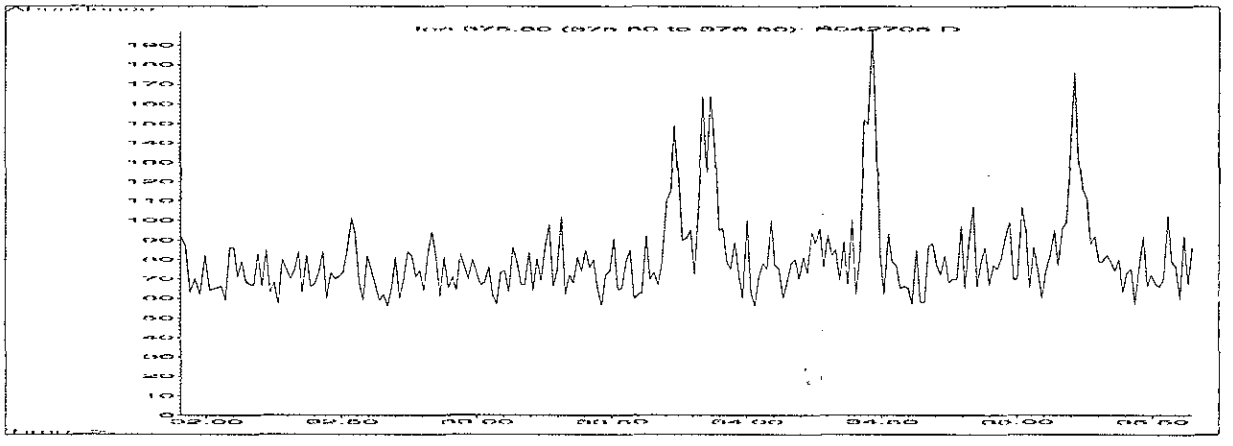


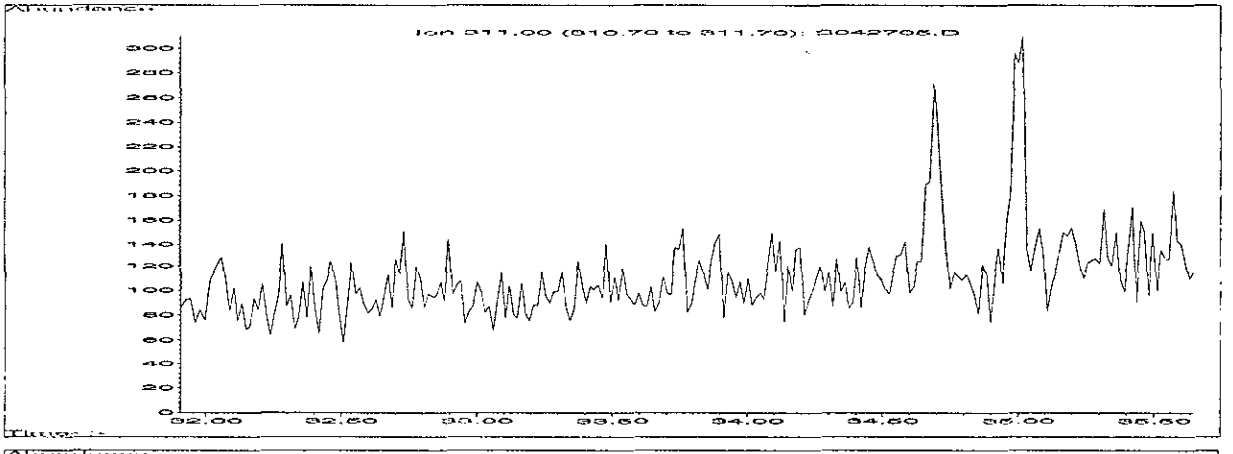


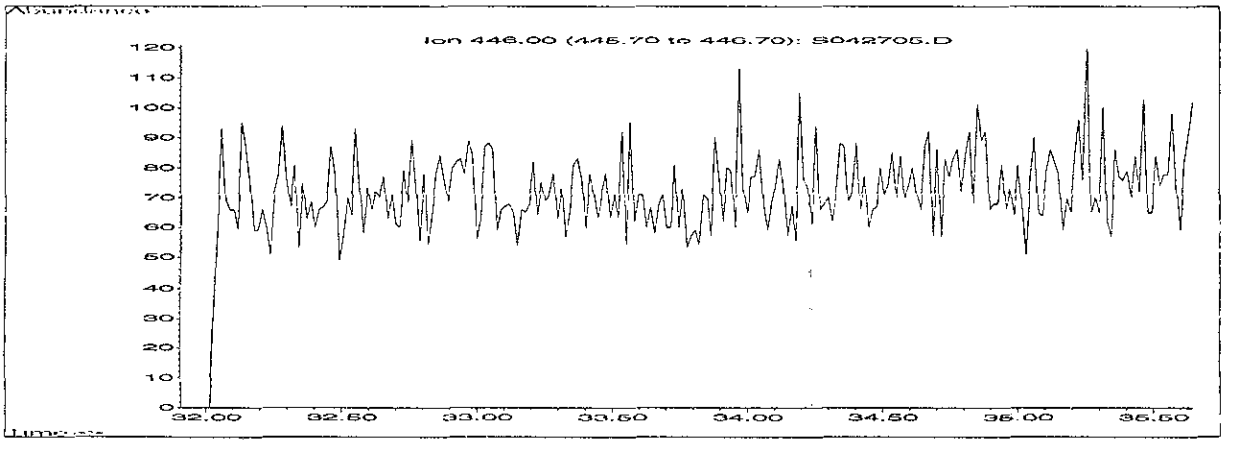
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



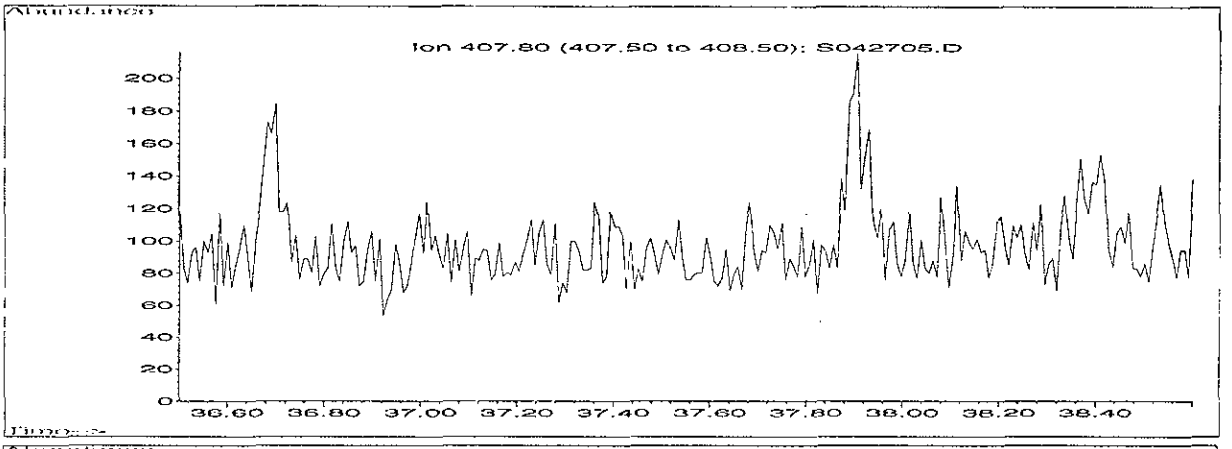


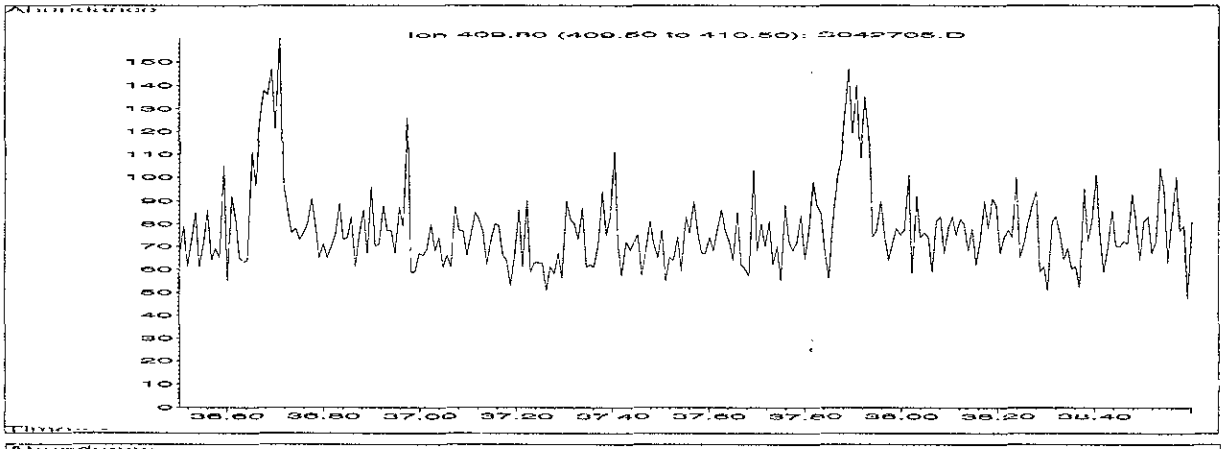


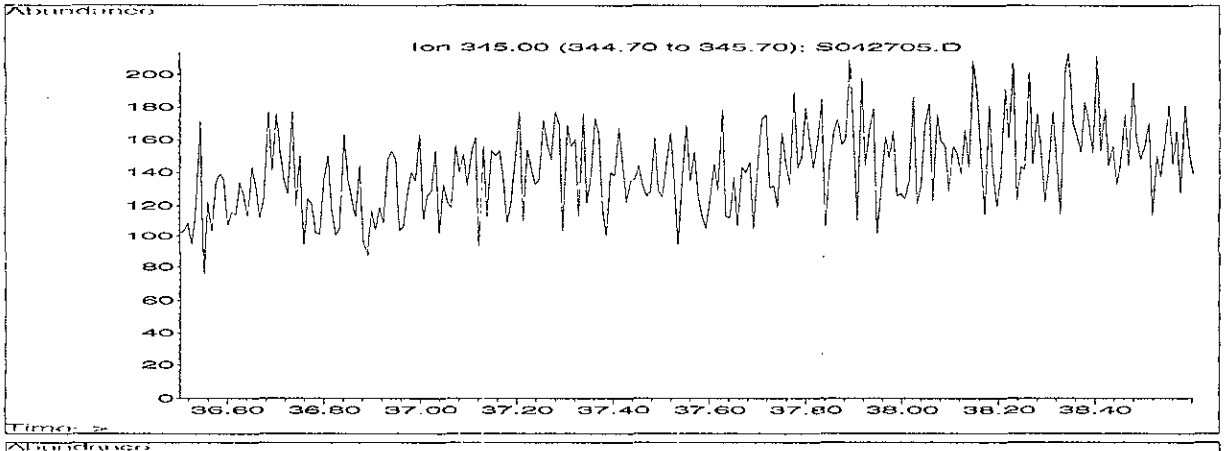


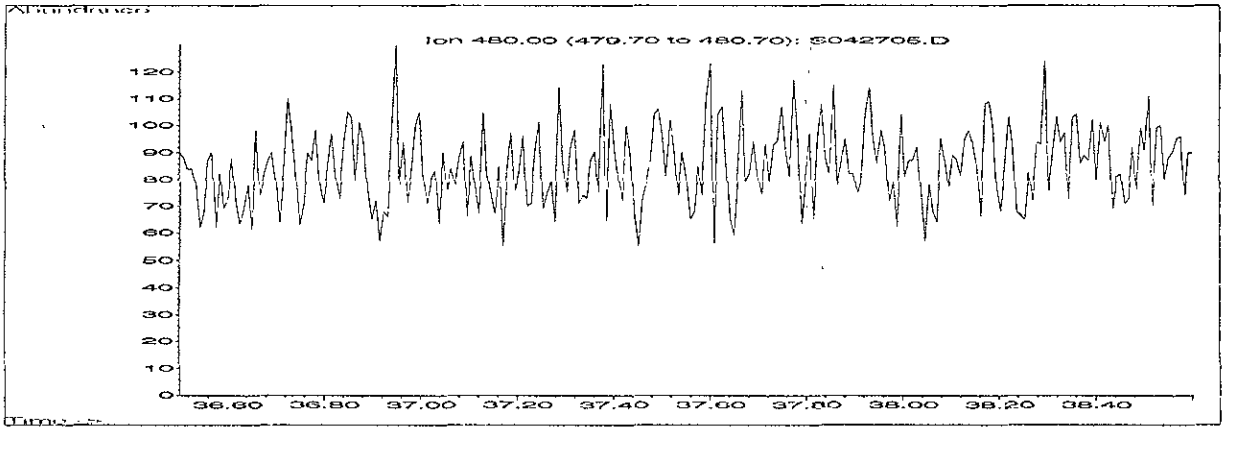
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

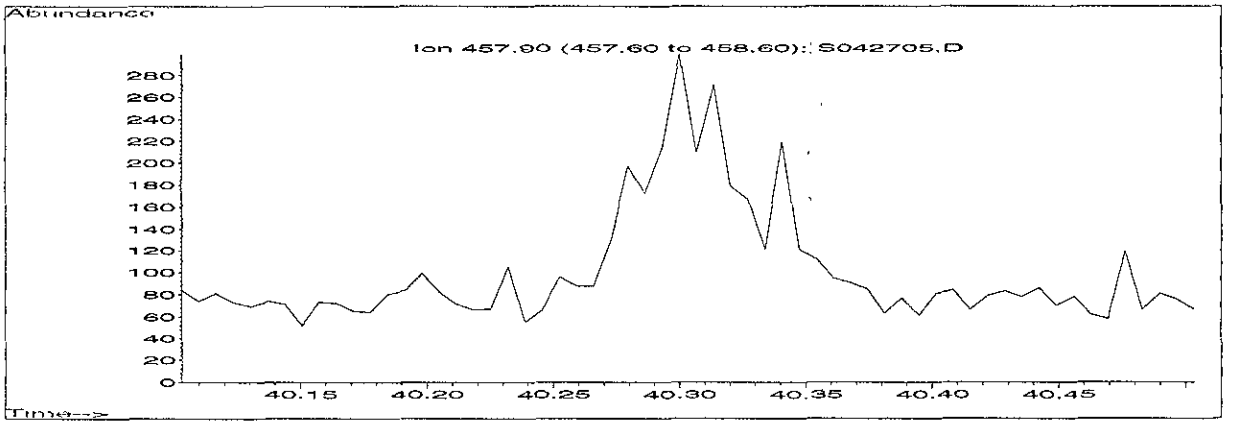


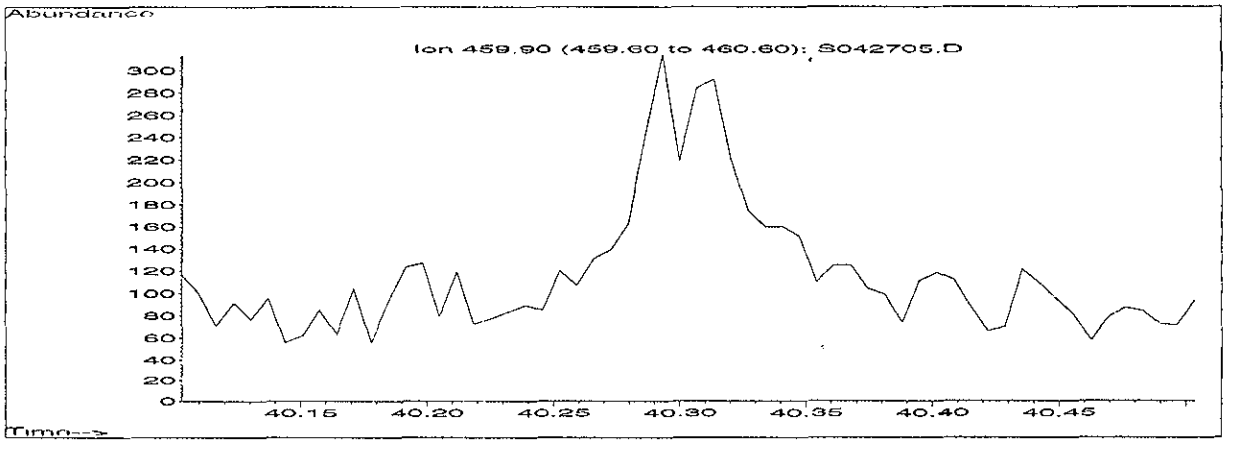


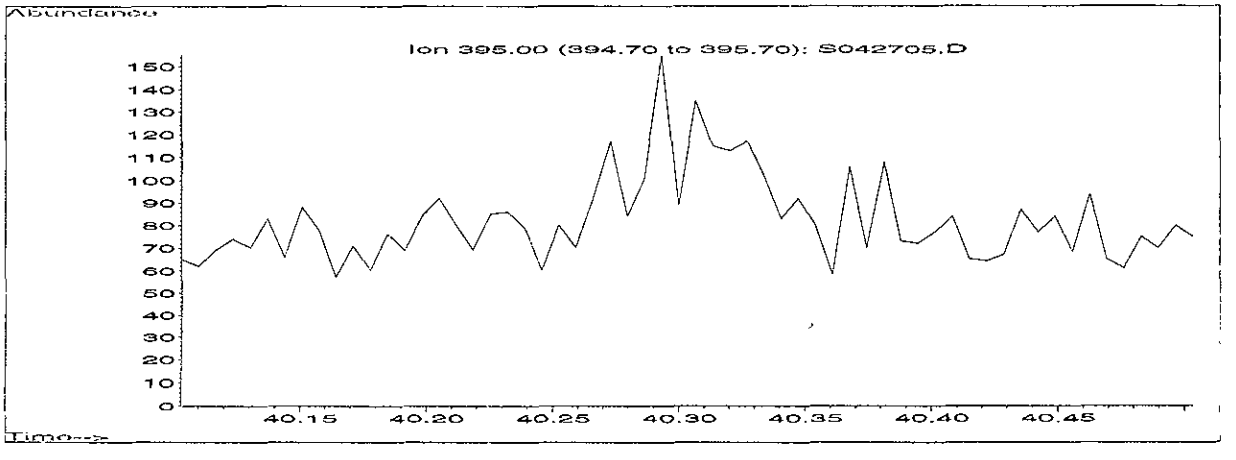




OCDD			
TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

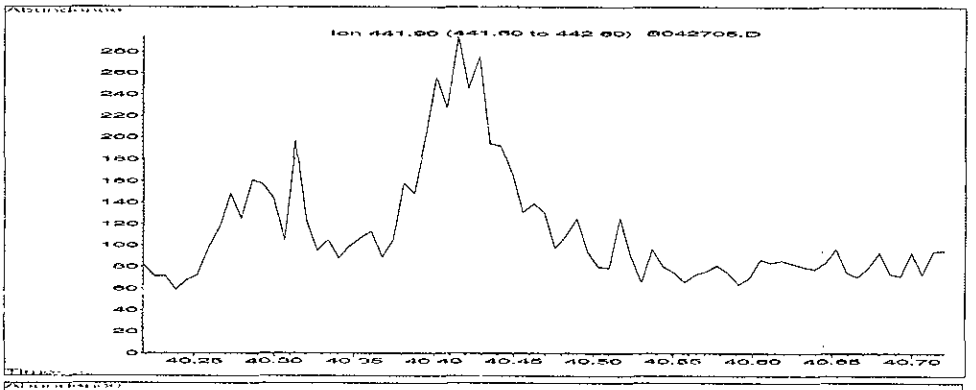


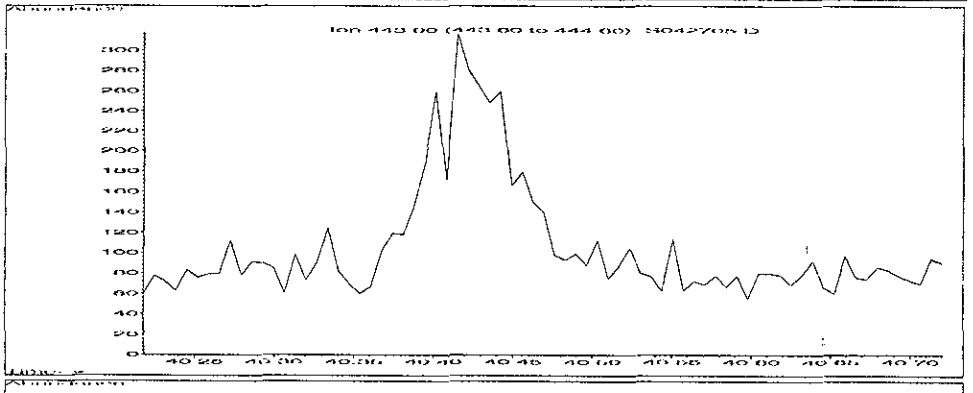


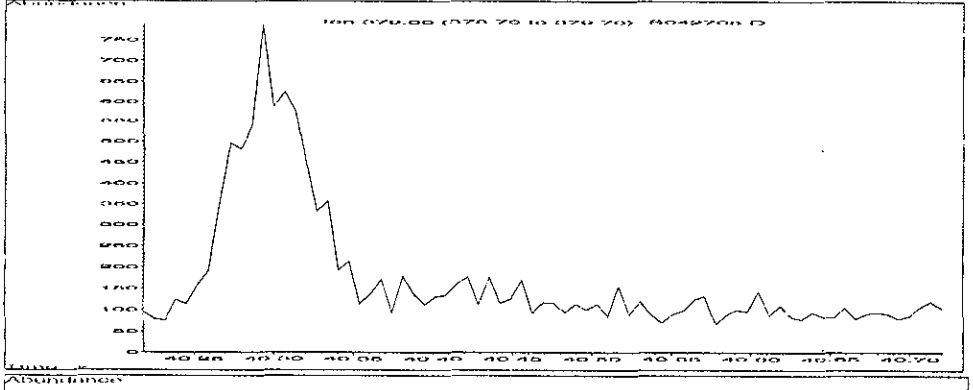


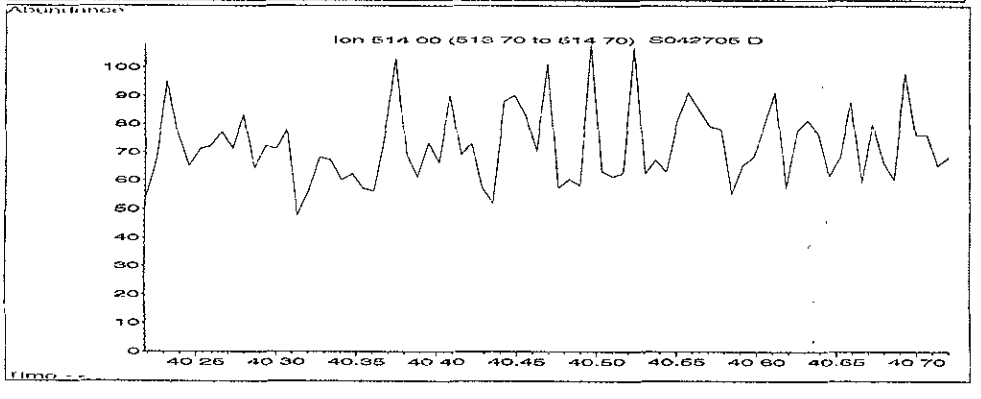
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



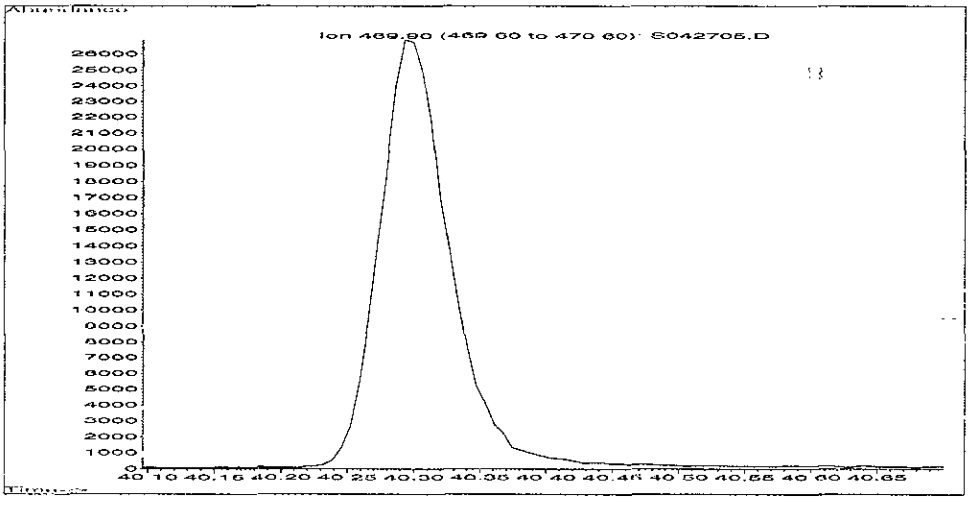


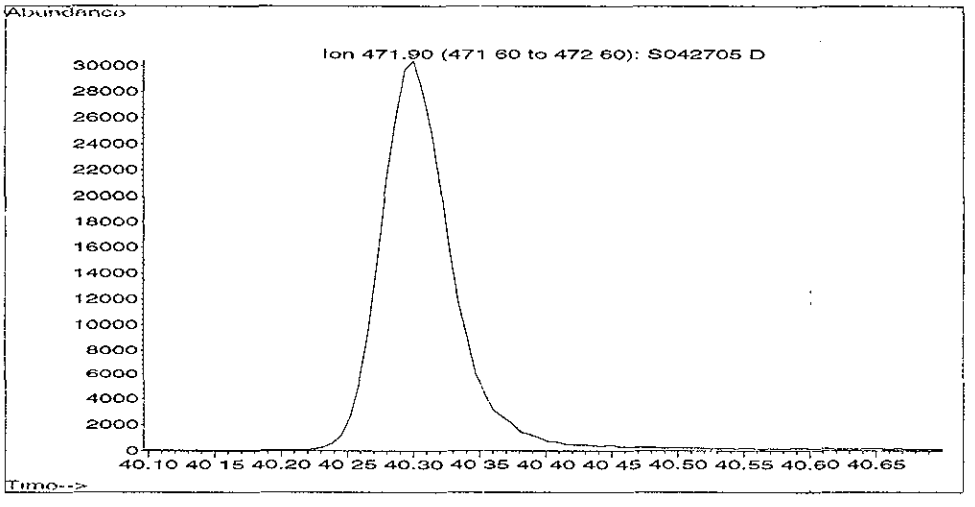




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.29		
Target Ion	469.9	Q1 Ion	471.9
Target Response	100131	Q1 Response	113195
Total response	213326	Ratio	0.88





Sample ID: A9D160180-4 1.04133L 8280A
K97DG-1-AA WATER LR909

Size: 1.041
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042706.D
Acq On :27 Apr 2009 4:28 pm

Vial: 6
Operator: MEO
Sample Amount: 1.04

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:33 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.79	152087	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.23	125799	25.00	NG	0.00
9) 13C-2378-TCDF	20.22	316+318	0.80	192433	25.00	NG	-0.02
15) 13C-2378-TCDD	21.13	332+334	0.80	133026	25.00	NG	-0.02
20) 13C-123678-HxCDD	34.69	402+404	1.23	80602	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.05	94734	25.00	NG	0.00
36) 13C-OCDD	40.30	470+472	0.89	187326	50.00	NG	0.00

Surrogate Compound							
4) 37Cl-2378-TCDD	21.15	328		104825	9.286	NG	-0.02 ✓
Spiked Amount = 12.004	RRF = 1.782			Recovery =	77.36%		

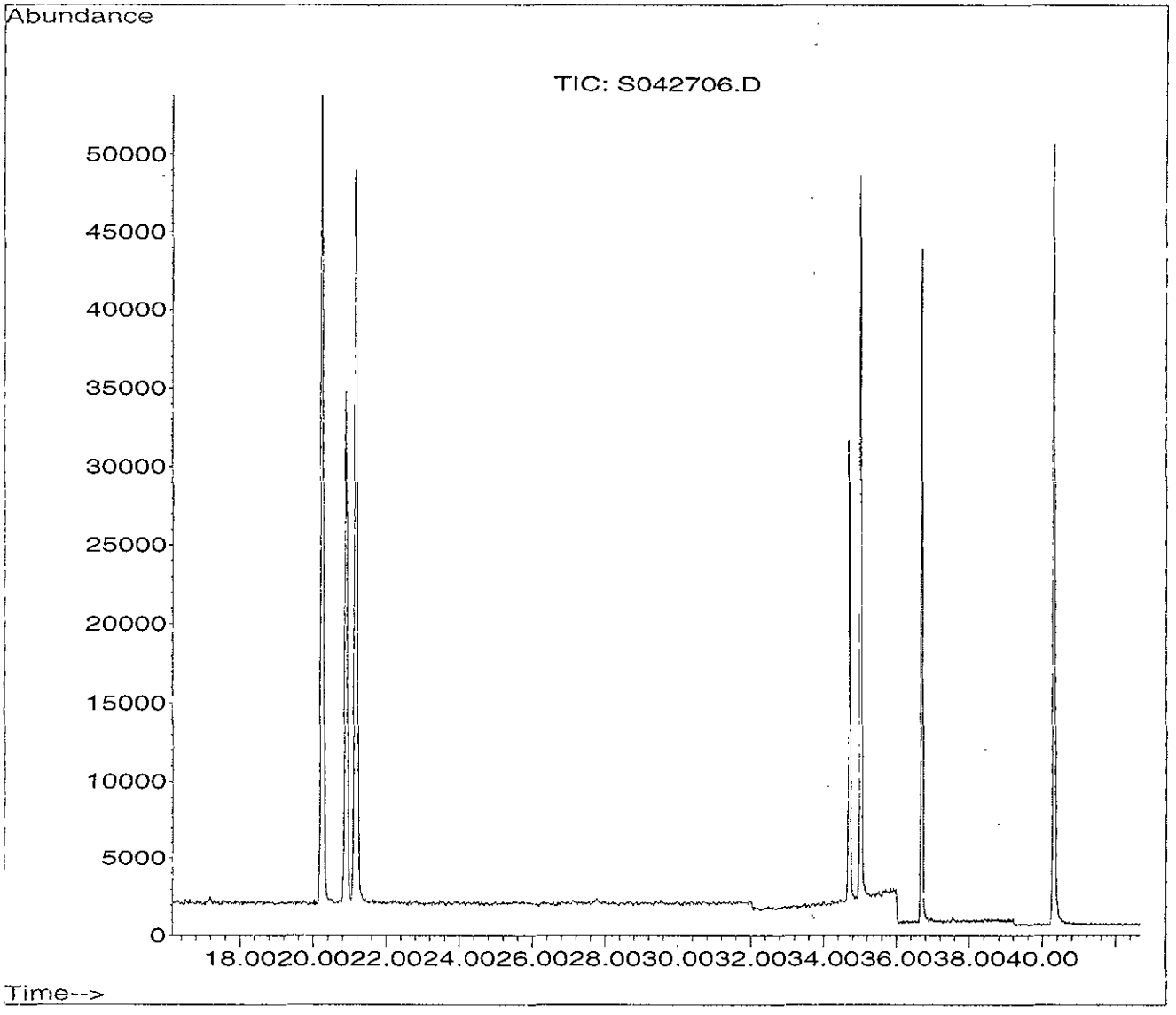
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.22	0.80	192433	1.796	16.909	0.0658	70.4
3) 13C-2378-TCDD-IS	21.13	0.80	135304	1.137	18.777	2.7866	78.2
6) 13C-123678-HxCDD-	34.69	1.23	80602	0.899	17.102	0.0881	71.2 ✓
7) 13C-1234678-HpCDF	36.68	1.05	94734	1.062	17.025	0.0573	70.9
8) 13C-OCDD-IS	40.30	0.89	187326	0.887	40.286	0.1018	83.9
10) 2378-TCDF	0.00		0	1.219	N.D.	0.1040	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.1116	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.1658	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.1646	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.2002	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.1138	
1	20.22	4.84 #	18131		2.505 DL		
17) TCDD TOTAL	19.30	4.84	18131	1.306	2.505		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.2238	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.2818	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.1336	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.1381	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.2382	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.2928	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.1666	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	0.9051	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.1125	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.1081	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.0948	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.0993	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.2128	
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.1263	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.1427	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.1978	
37) OCDD	0.00		0	1.224	N.D.	0.1865	

AK 4/30/09

38) OCDF	0.00	0	1.589	N.D.	0.2008

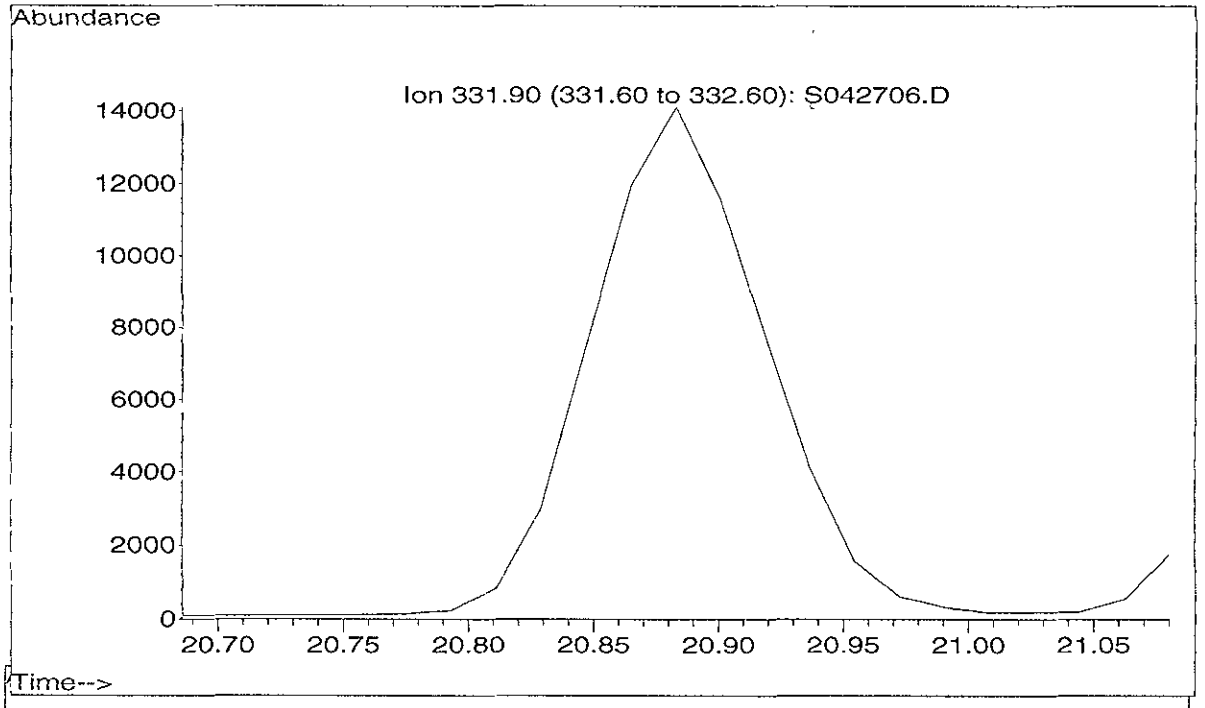
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042706.D 09AP27A2.M Tue Apr 28 16:33:42 2009

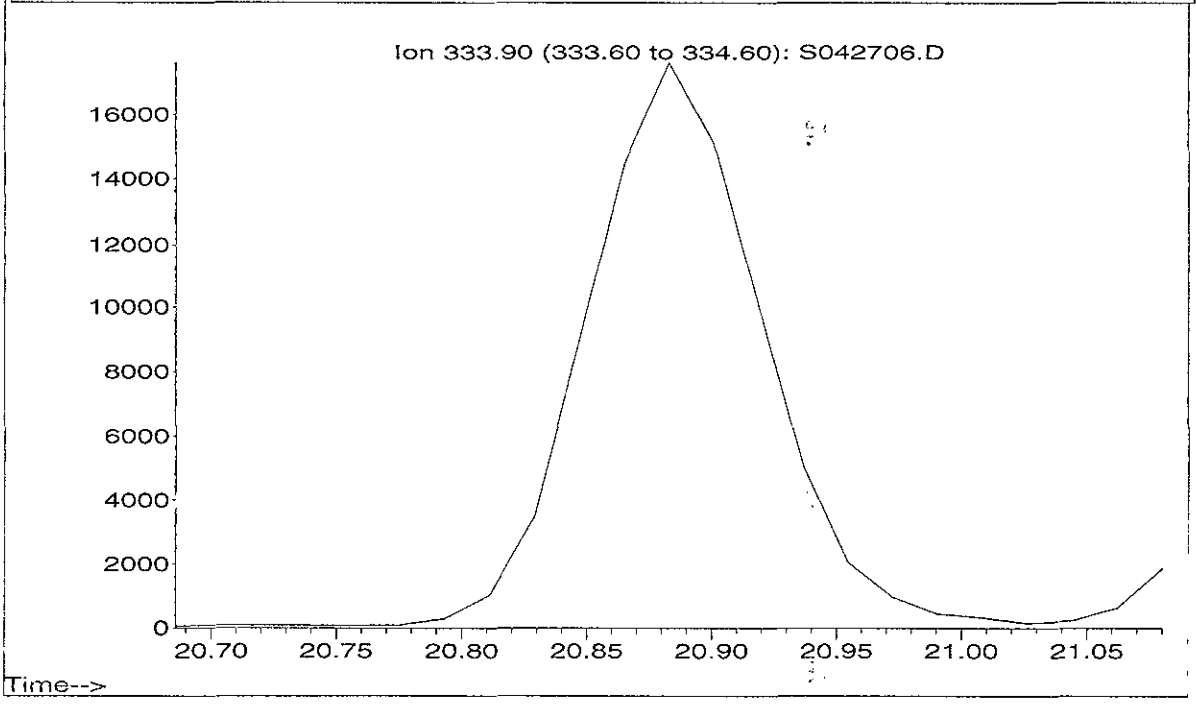
Data File Name	S042706.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 4:28
Acq. Method File	TOKAS
Sample Name	97DG-1-AA WATER LR909
Misc Info	D160180-4 1.04133L 8280A
Vial Number	6
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.04133



13C-1234-TCDD

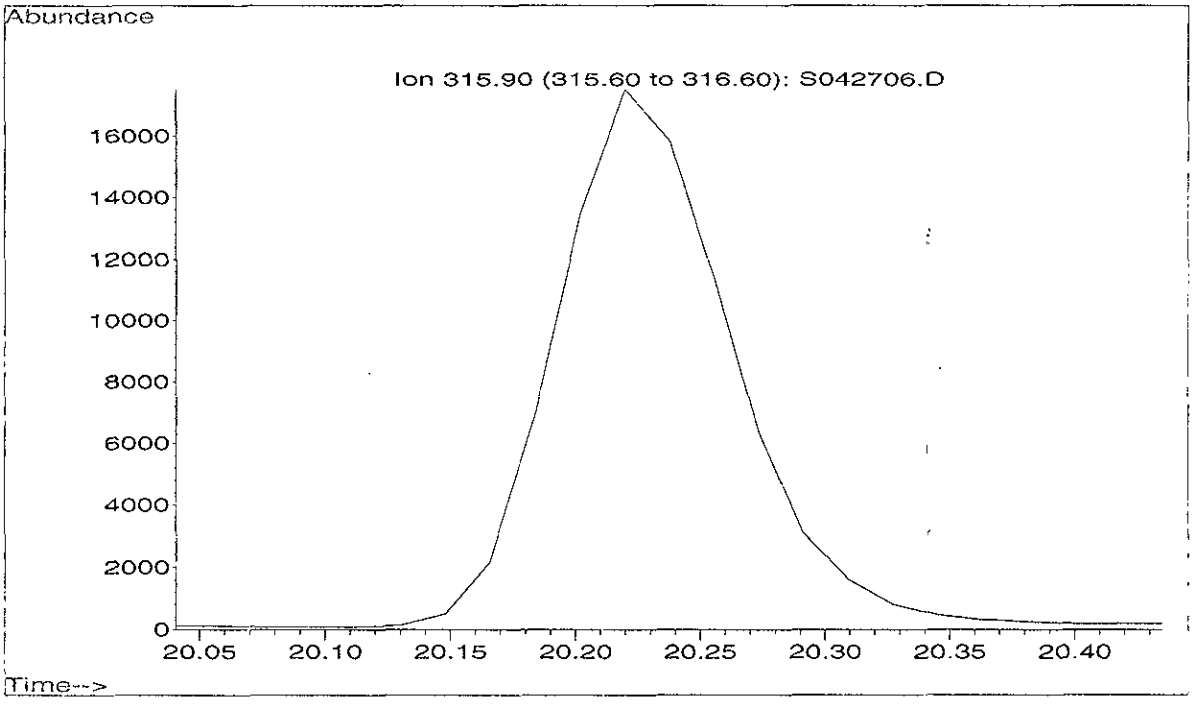
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	67094	Q1 Response	84993
Total Response	152087	Ion Ratio	0.79

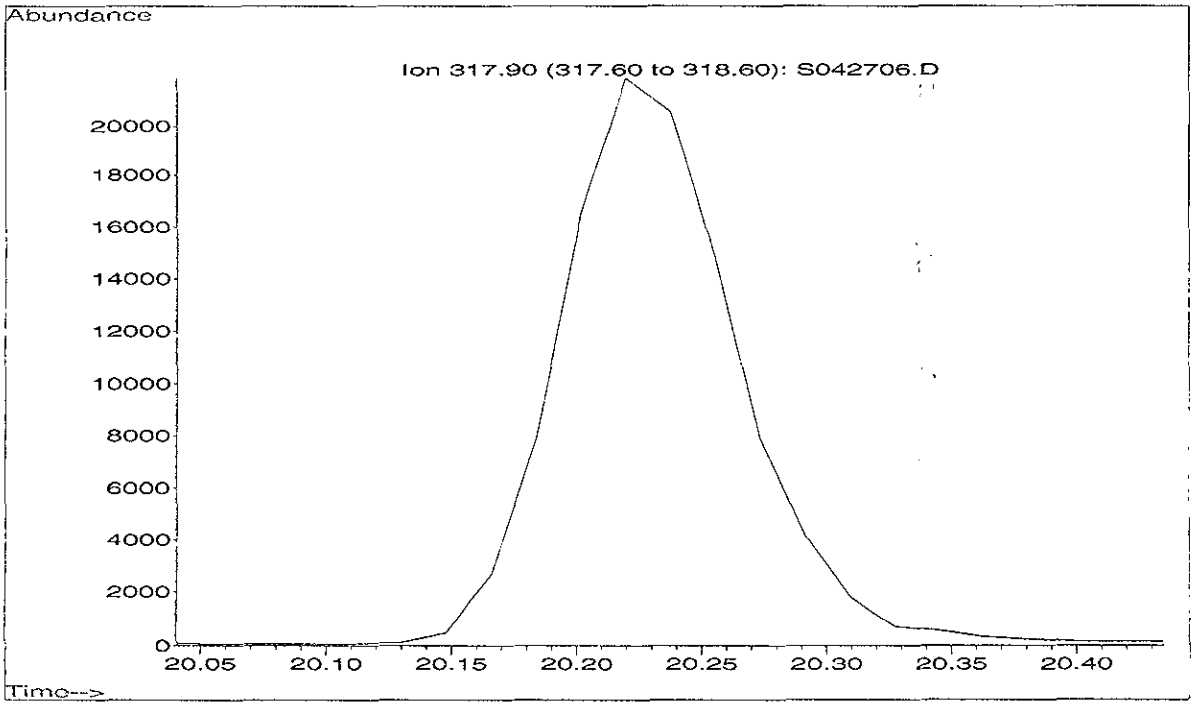




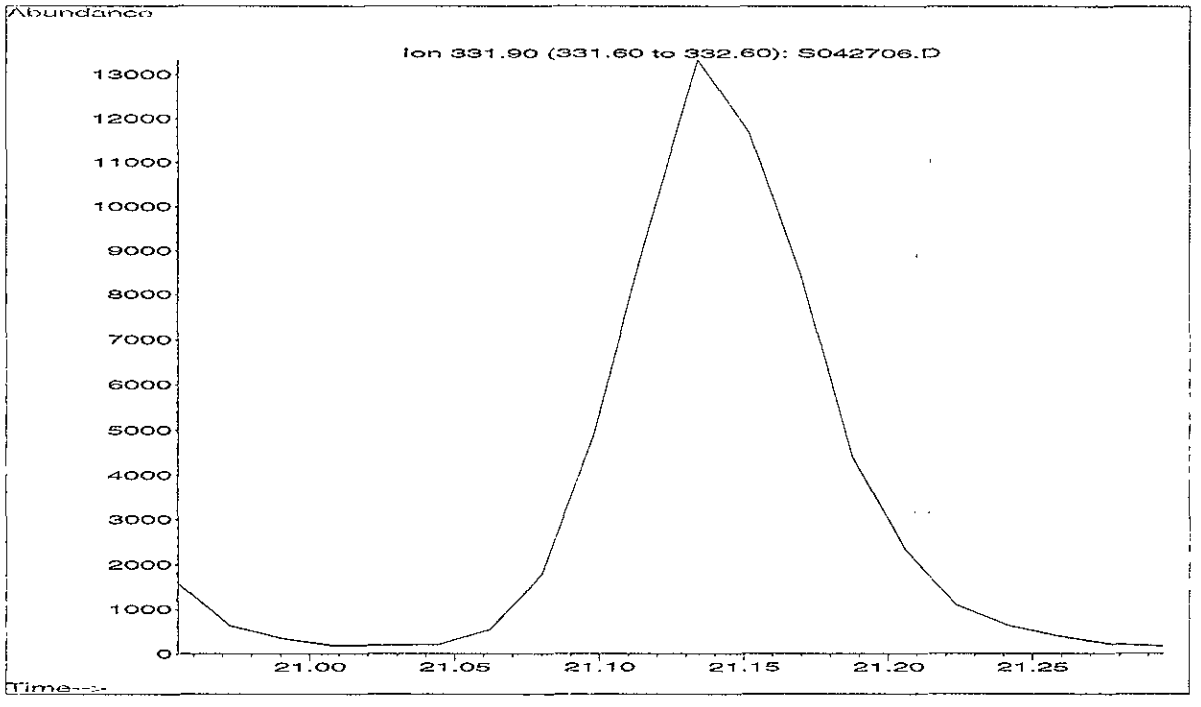
13C-2378-TCDF-IS

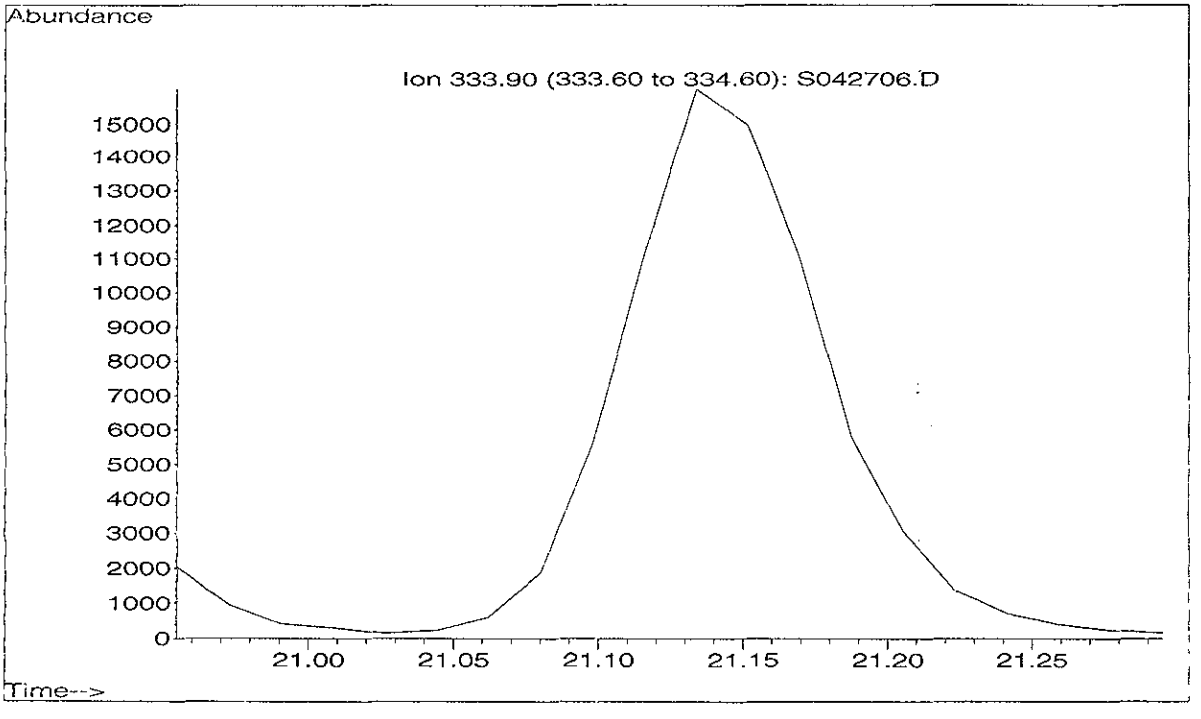
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.22		
Target Ion	315.9	Q1 Ion	317.9
Target Response	85542	Q1 Response	106891
Target Response	192433	Ion Ratio	0.80





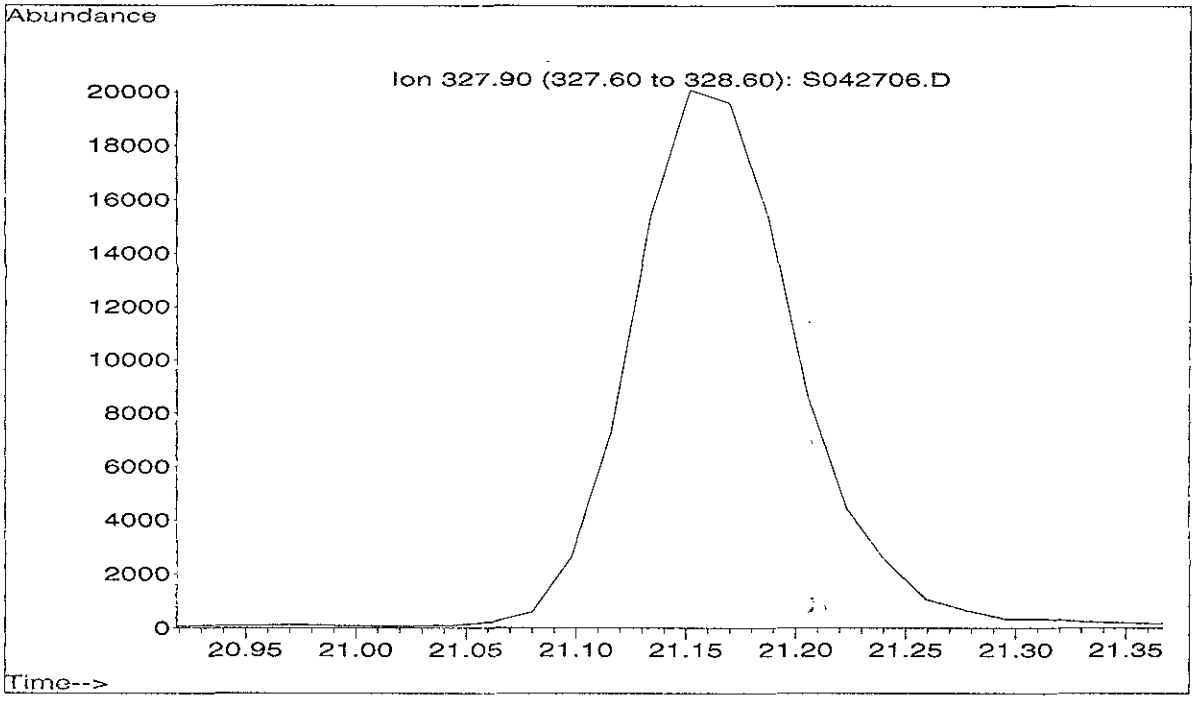
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.13		
Target Ion	331.9	Q1 Ion	333.9
Target Response	60161	Q1 Response	75143
Total Response	135304	Ion Ratio	0.80

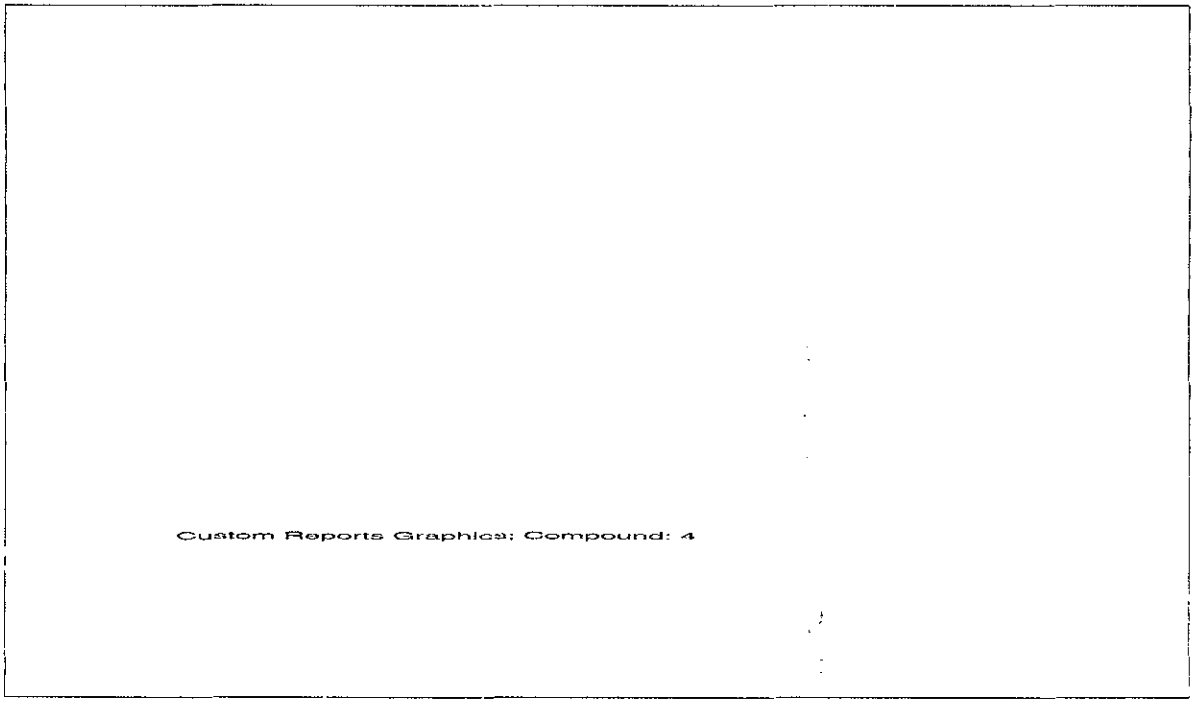




37Cl-2378-TCDD

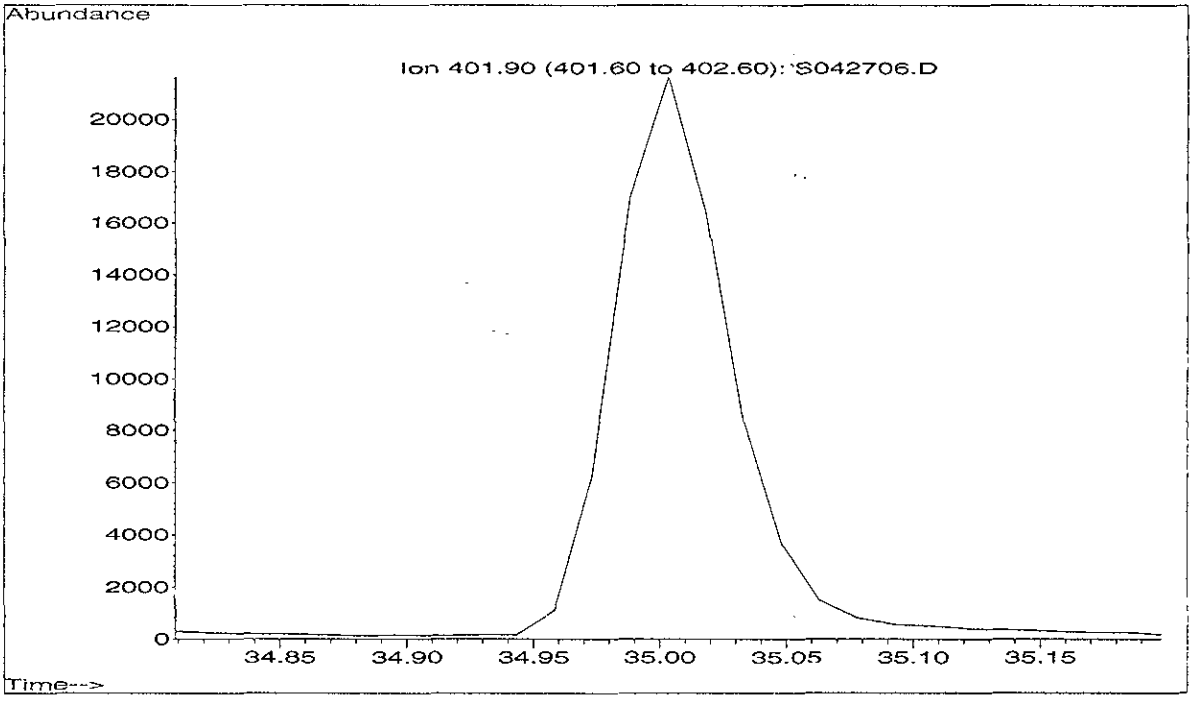
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.15		
Target Ion	327.9	Q1 Ion	0
Target Response	104825	Q1 Response	0
Total Response	104825	Ion Ratio	#DIV/0!

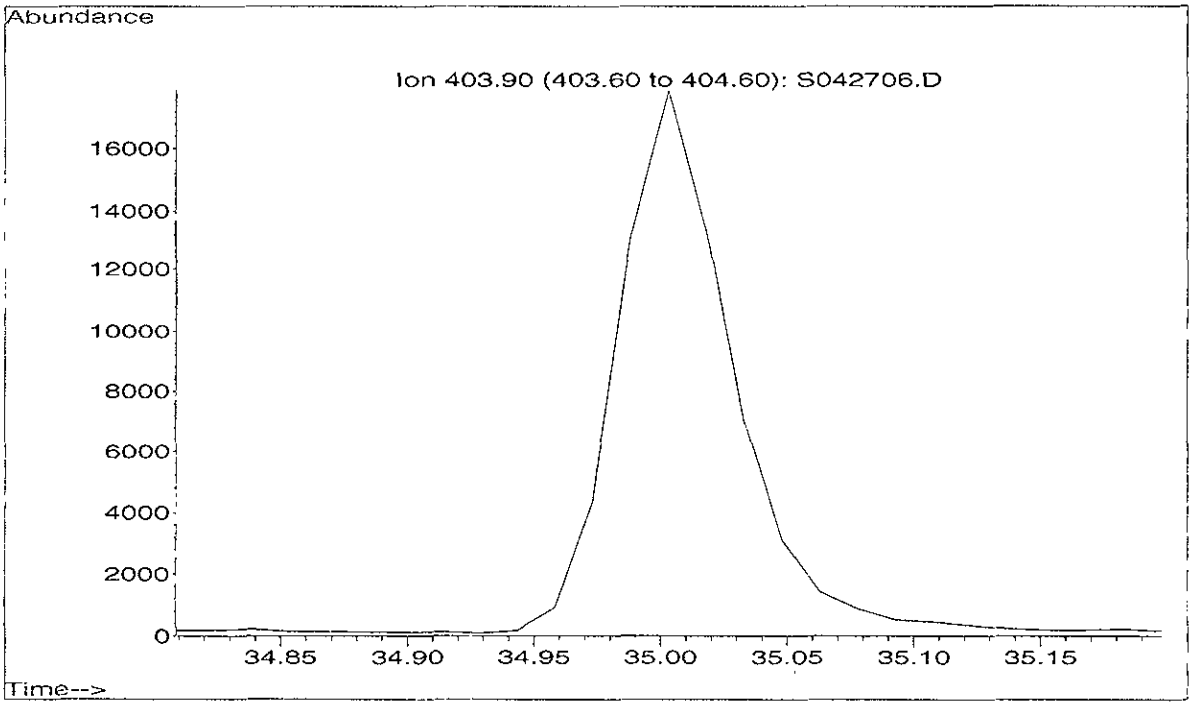




13C-123789-HxCDD

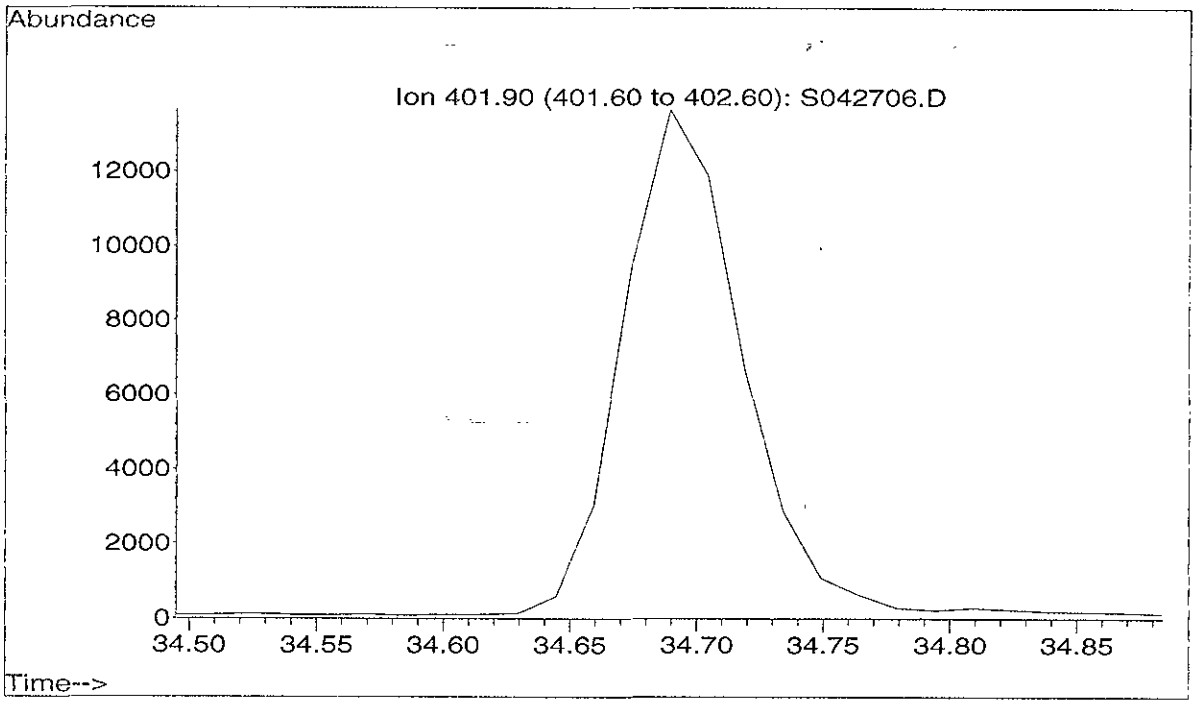
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	69483	Q1 Response	56316
Target Response	125799	Ion Ratio	1.23

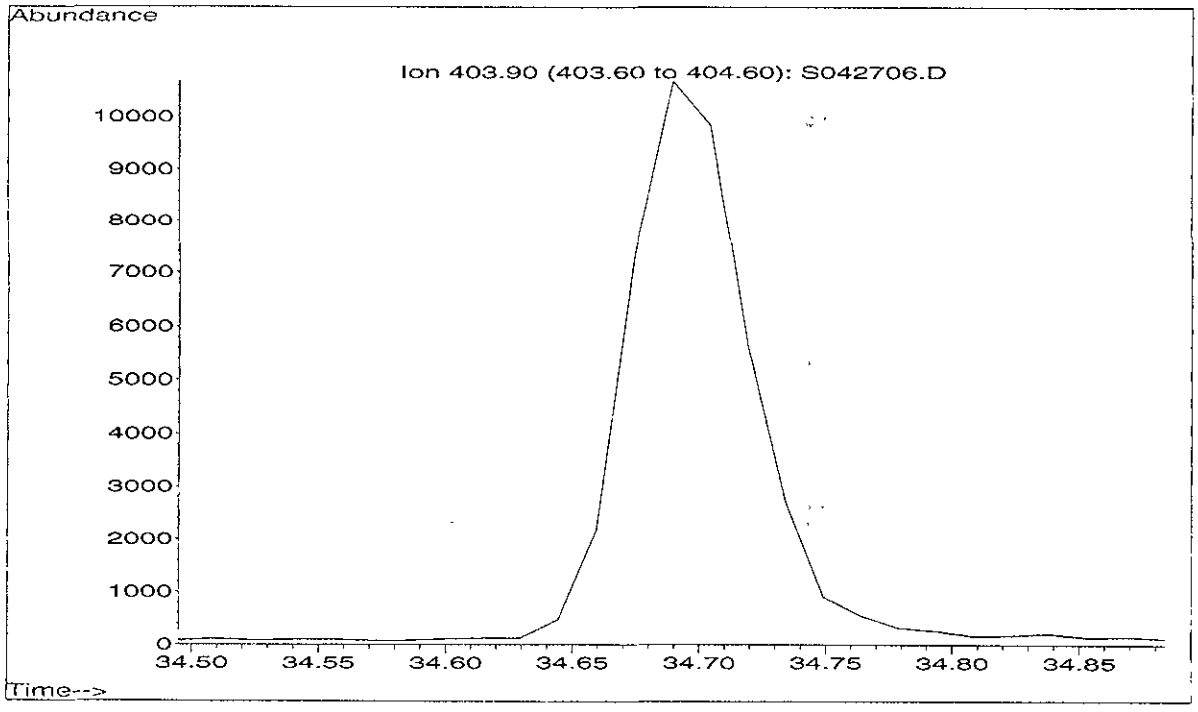




13C-123678-HxCDD-IS

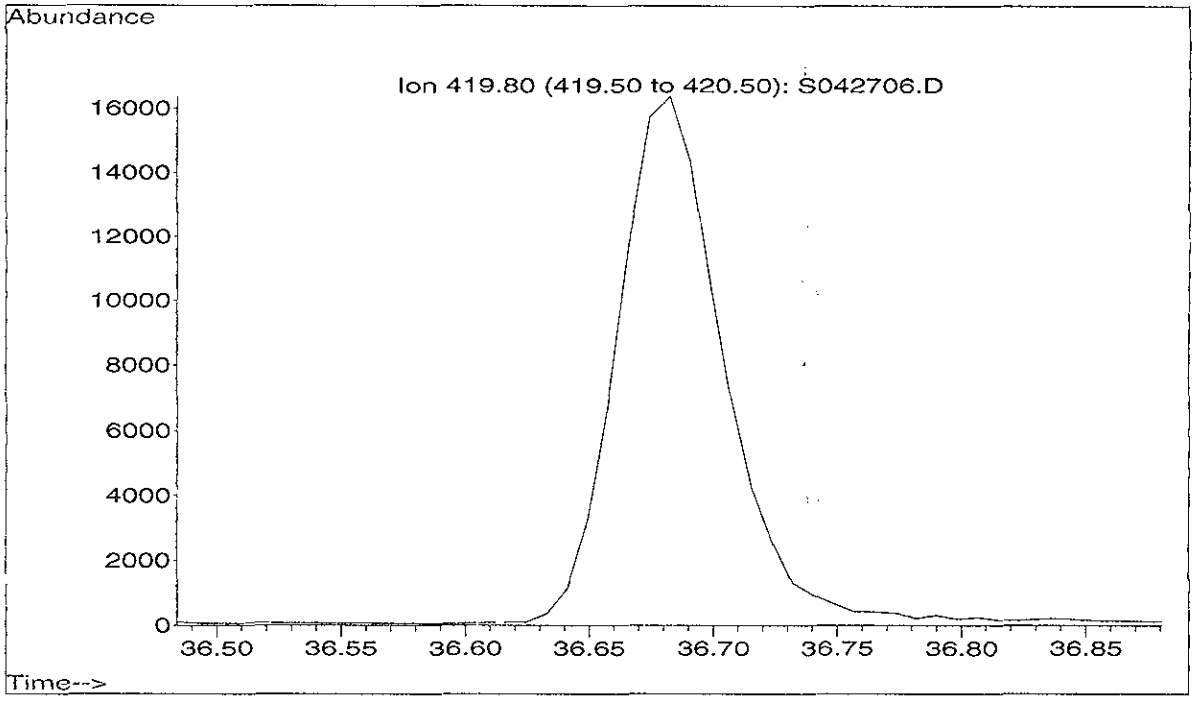
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	44475	Q1 Response	36127
Total Response	80602	Ion Ratio	1.23

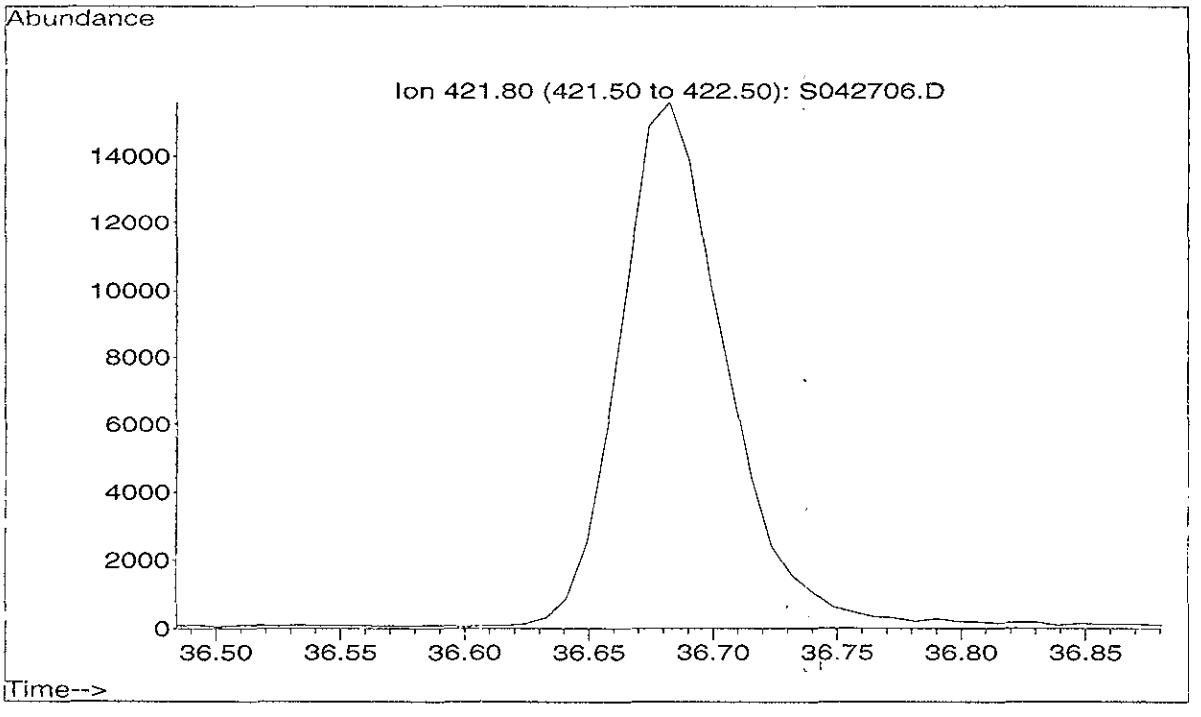




13C-1234678-HpCDF-IS

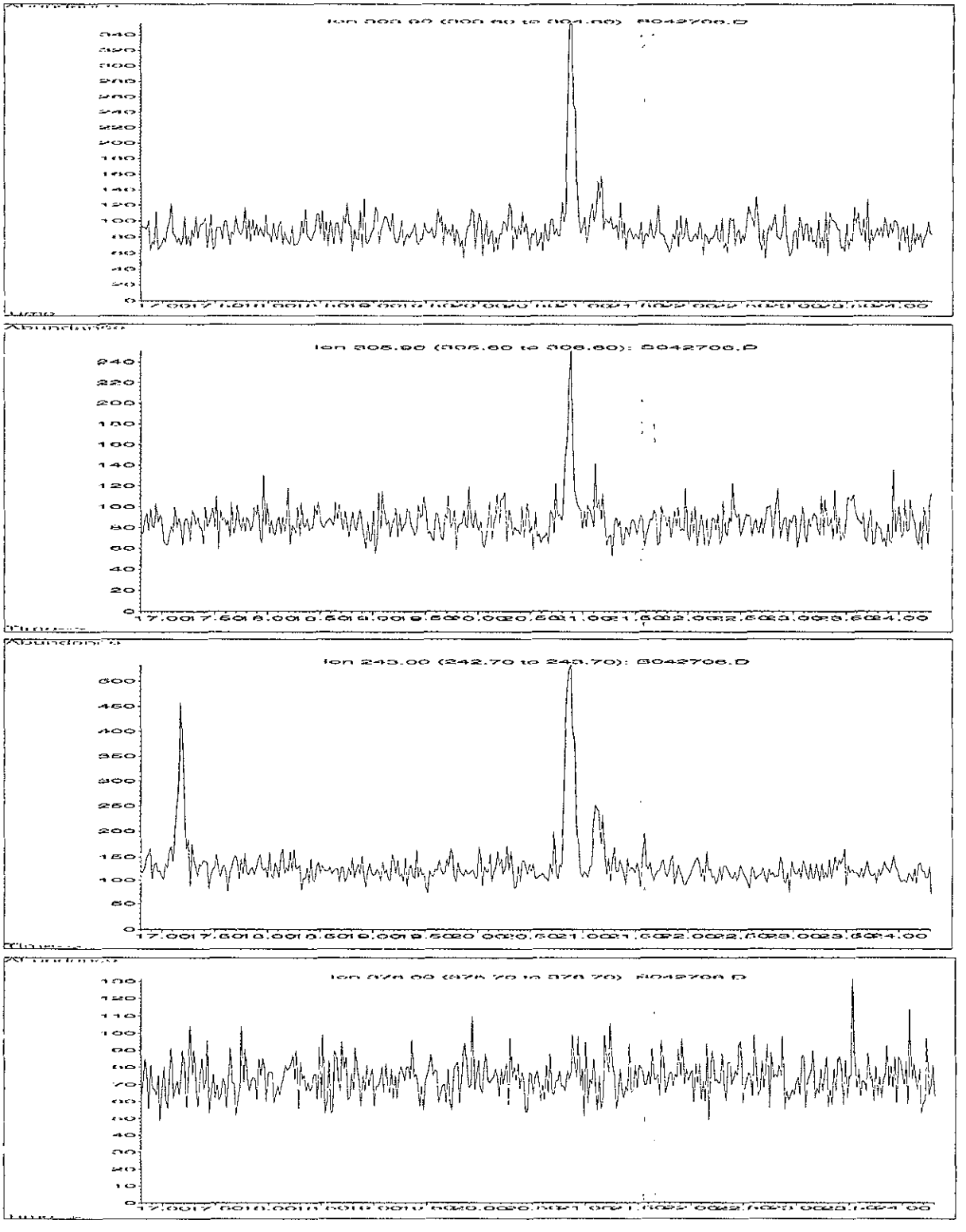
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	48551	Q1 Response	46183
Target Response	94734	Ion Ratio	1.05





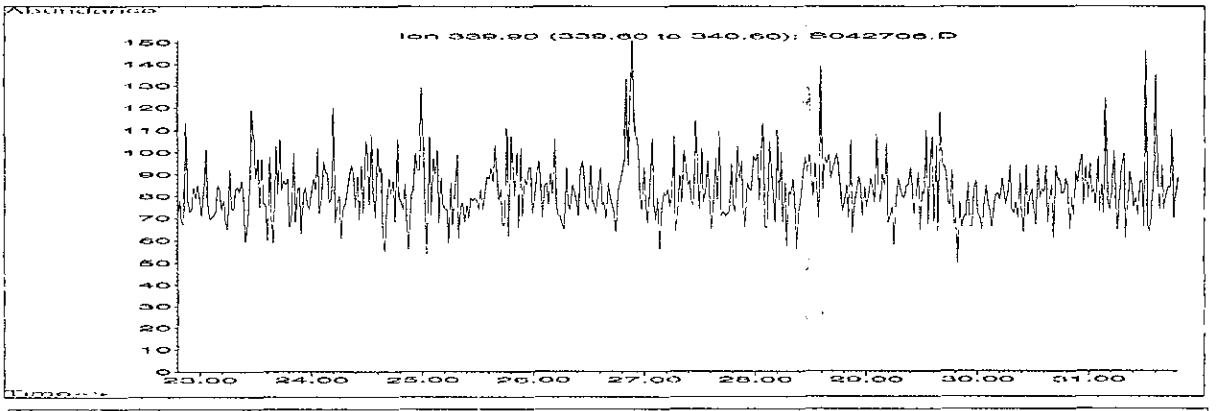
TCDF TOTAL

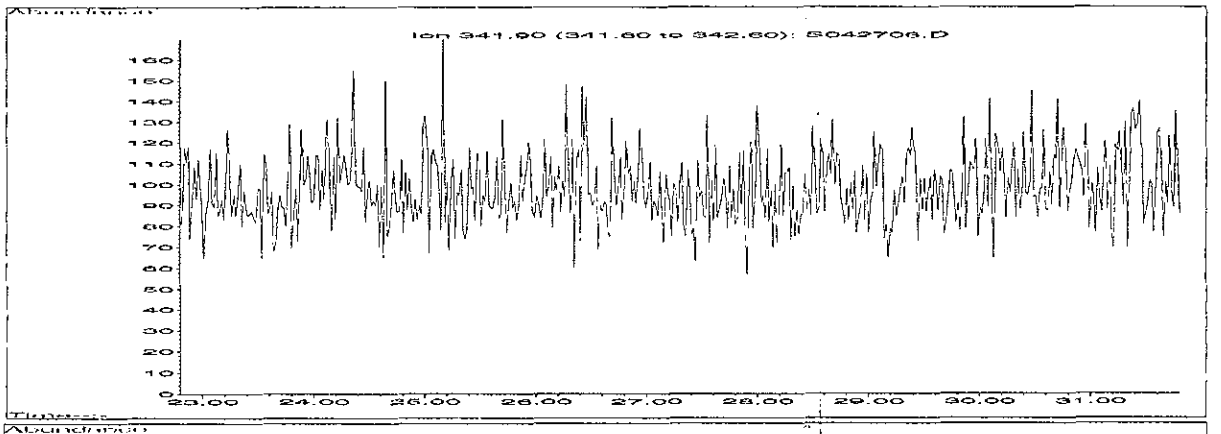
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

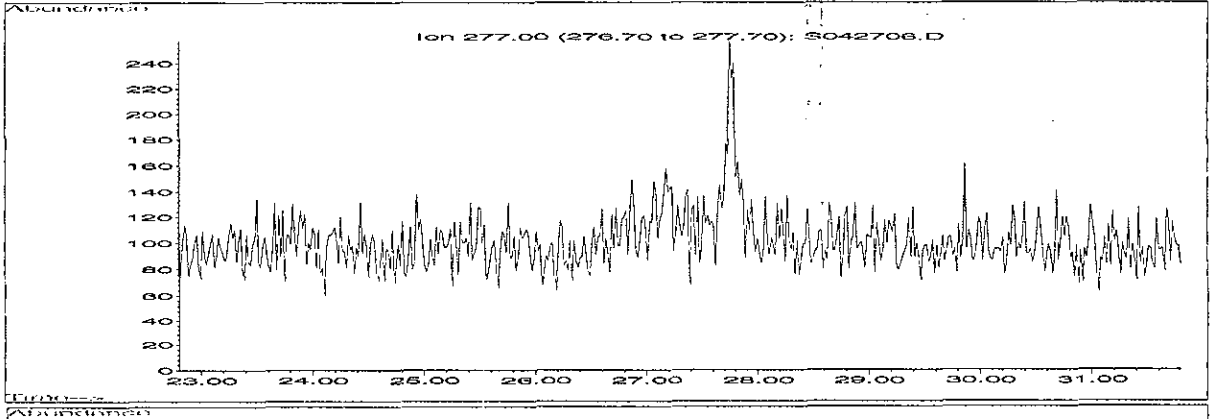


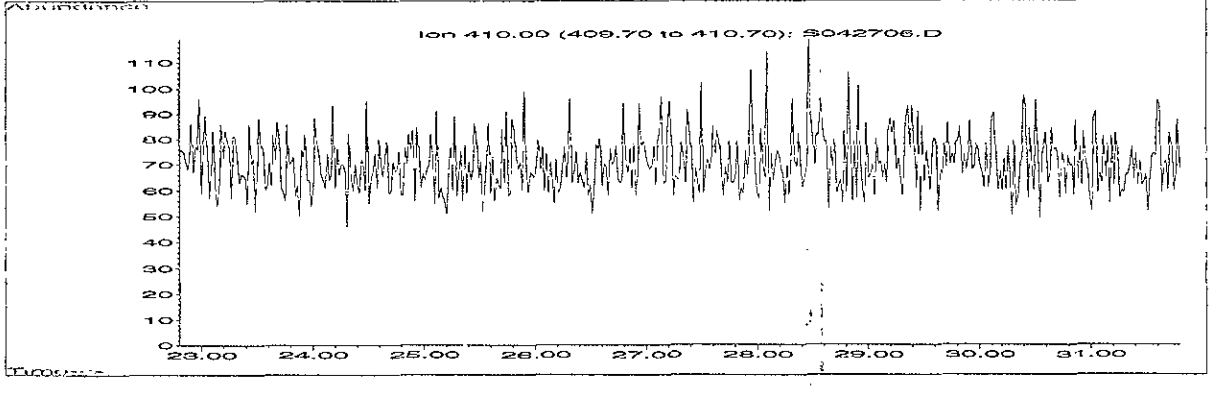
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



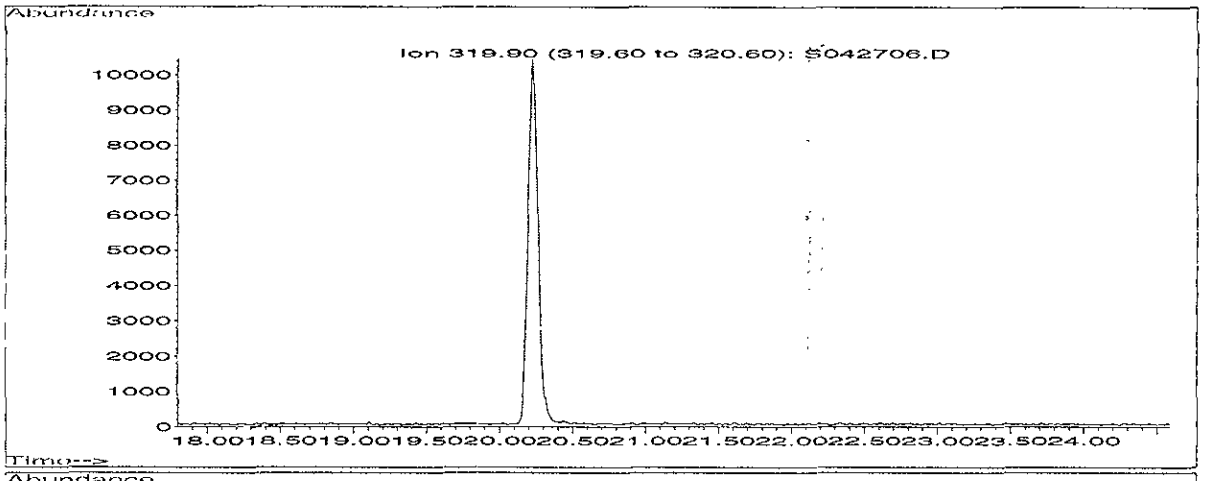


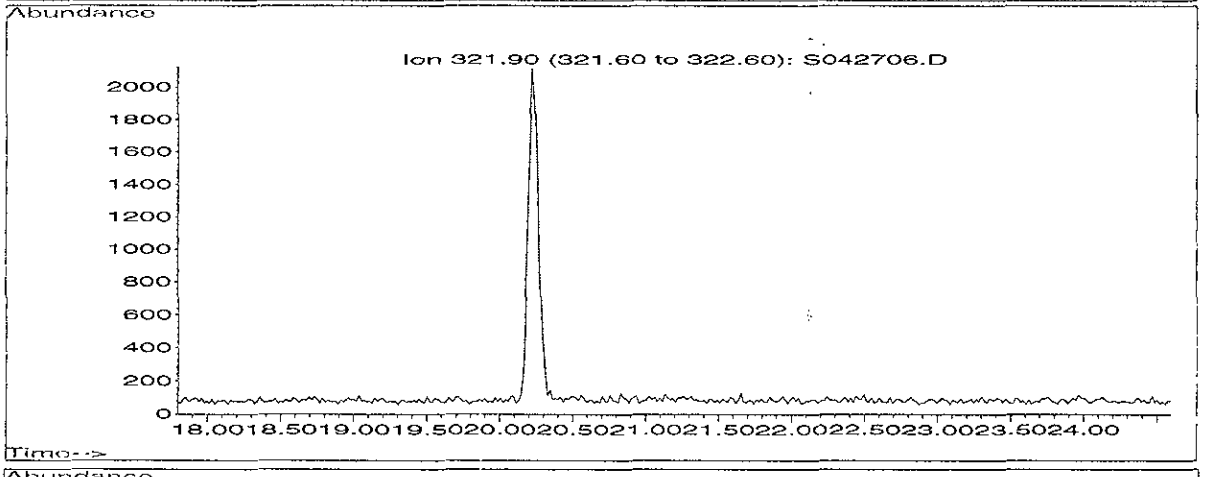


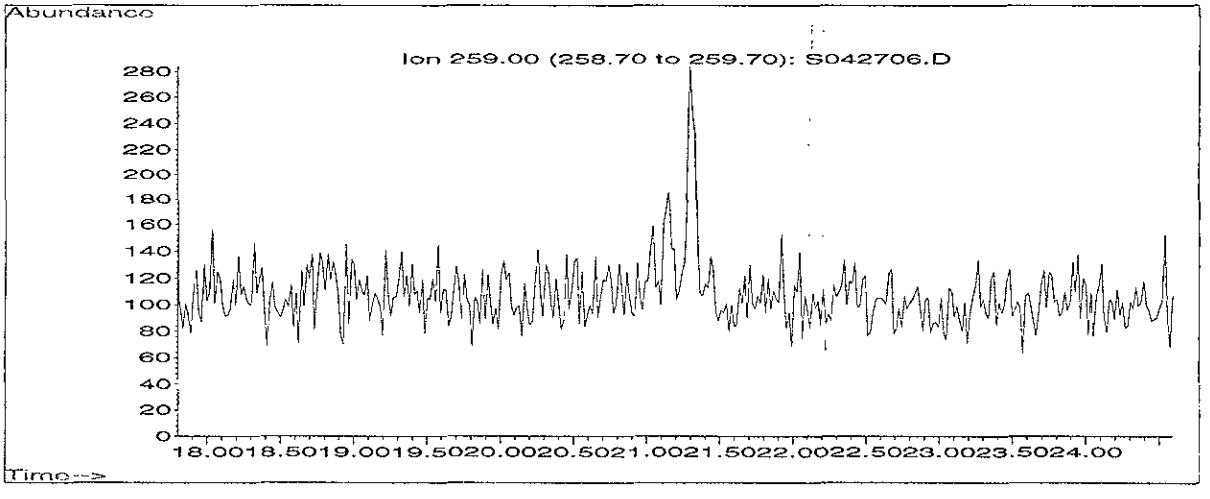


TCDD TOTAL

TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

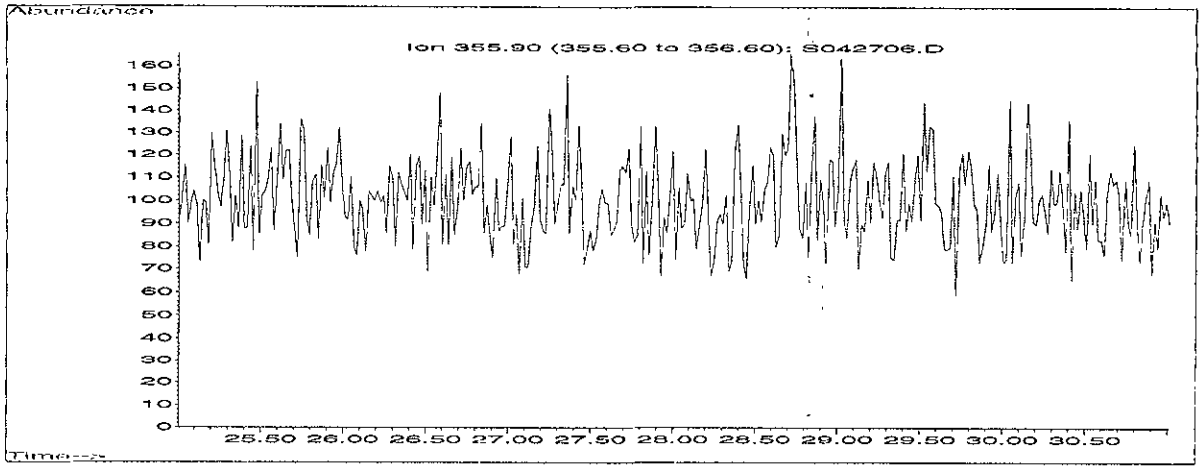


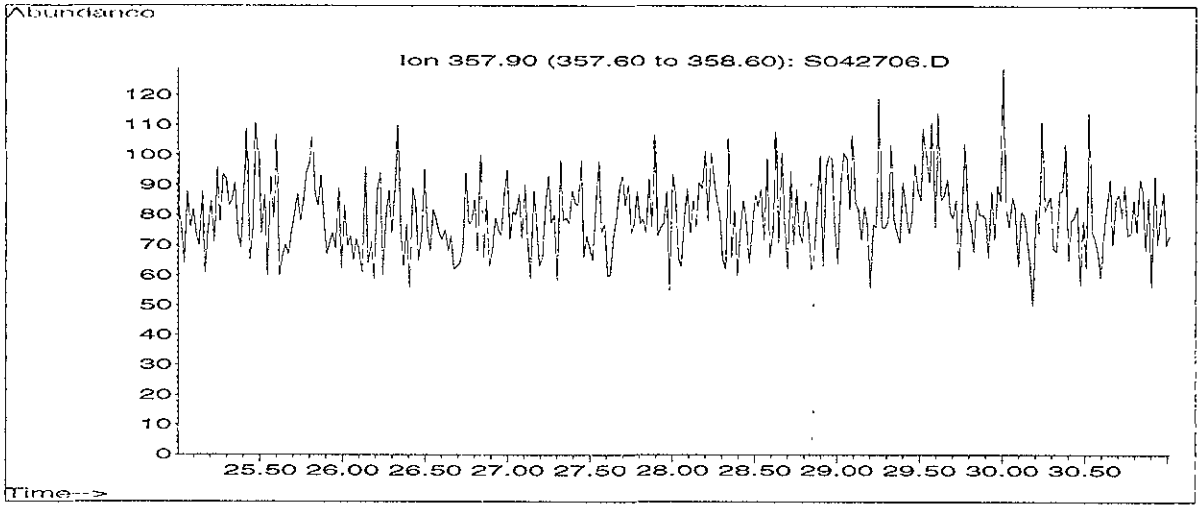


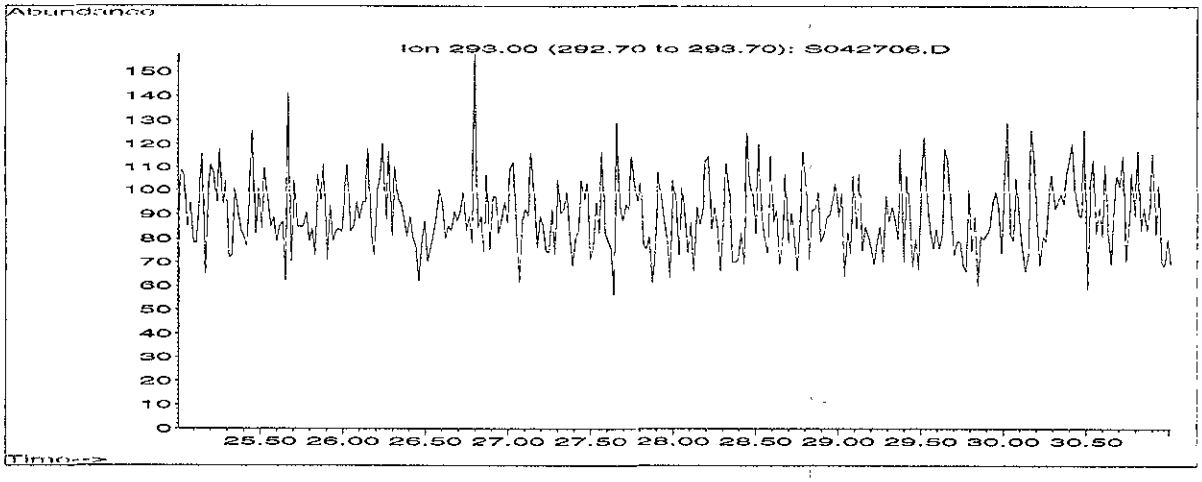


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

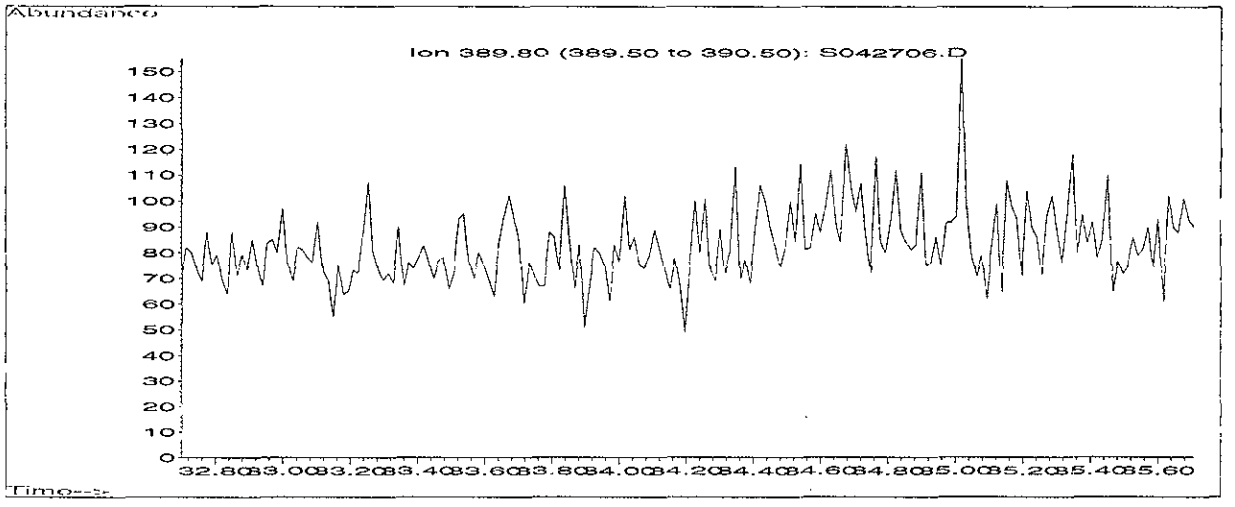


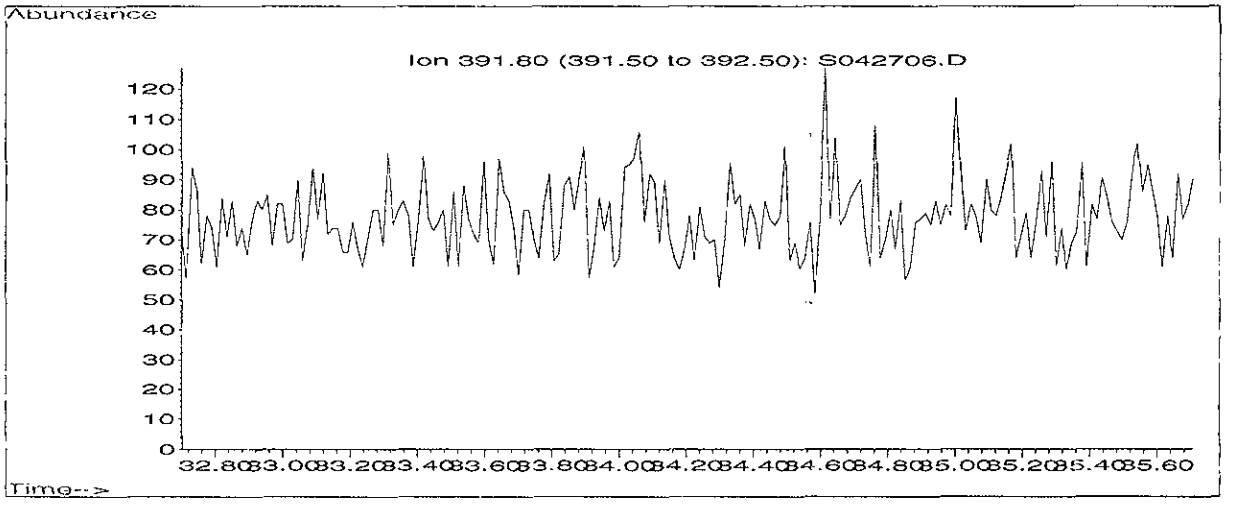


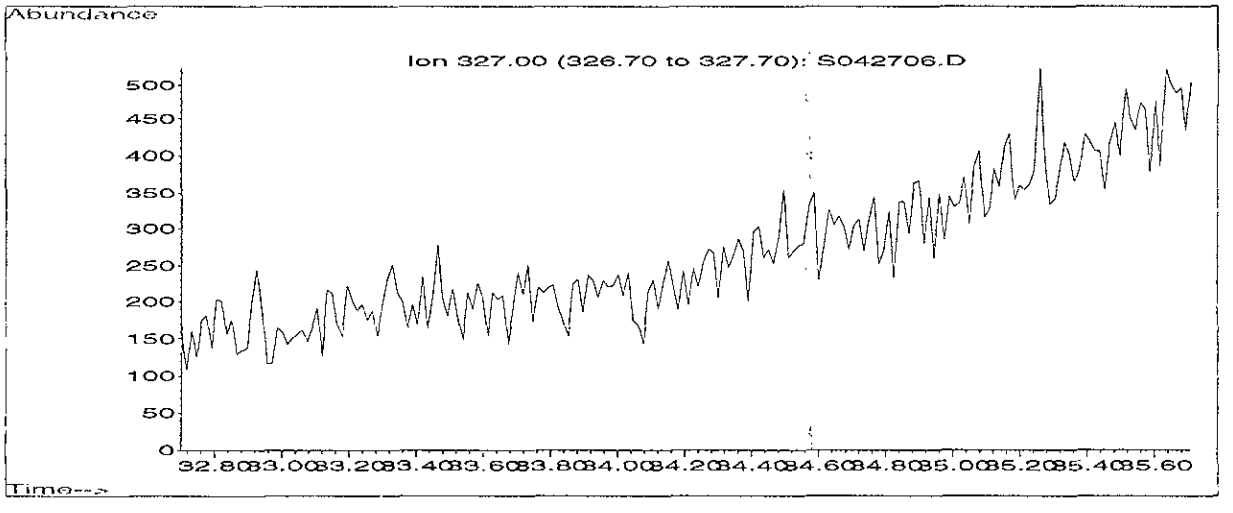


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

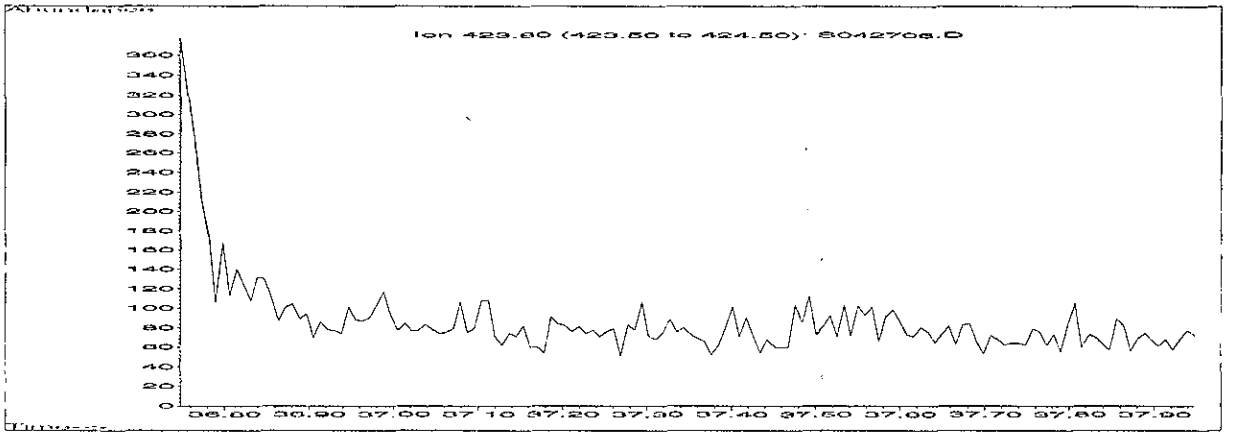


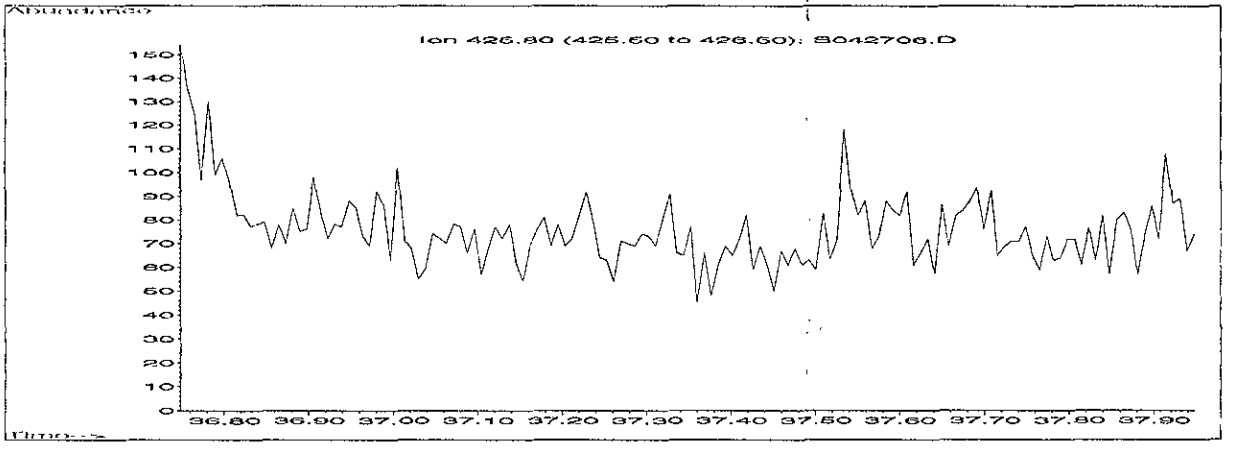


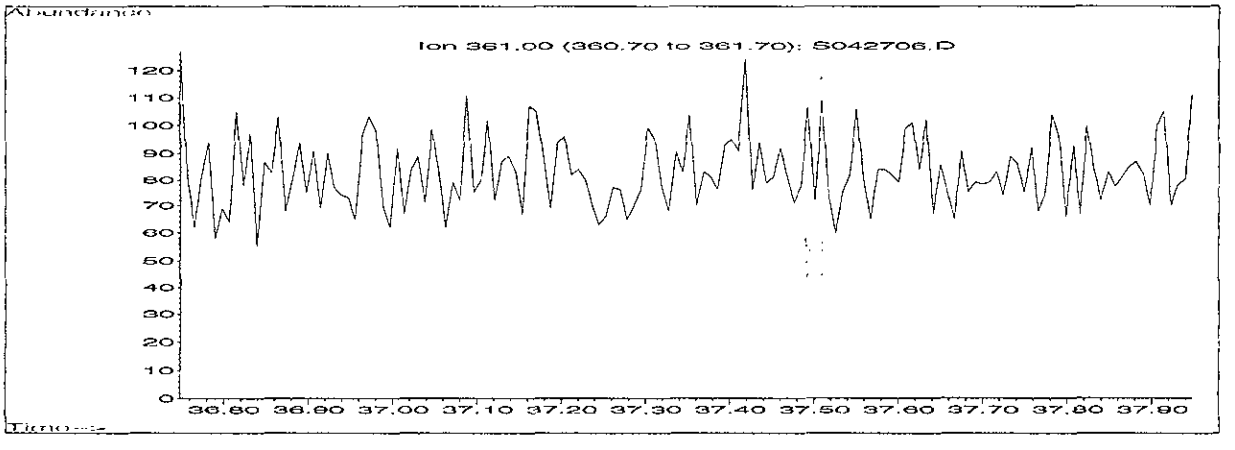


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

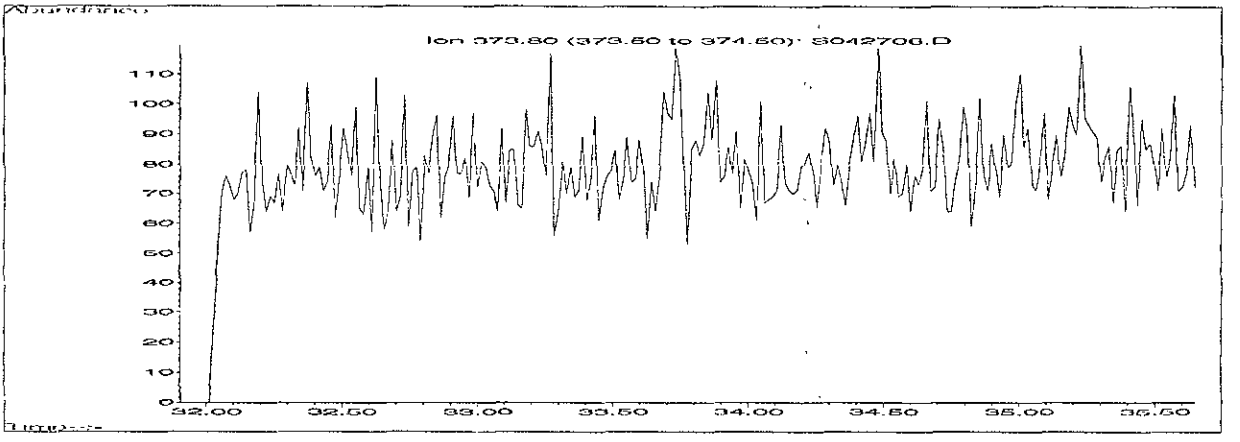


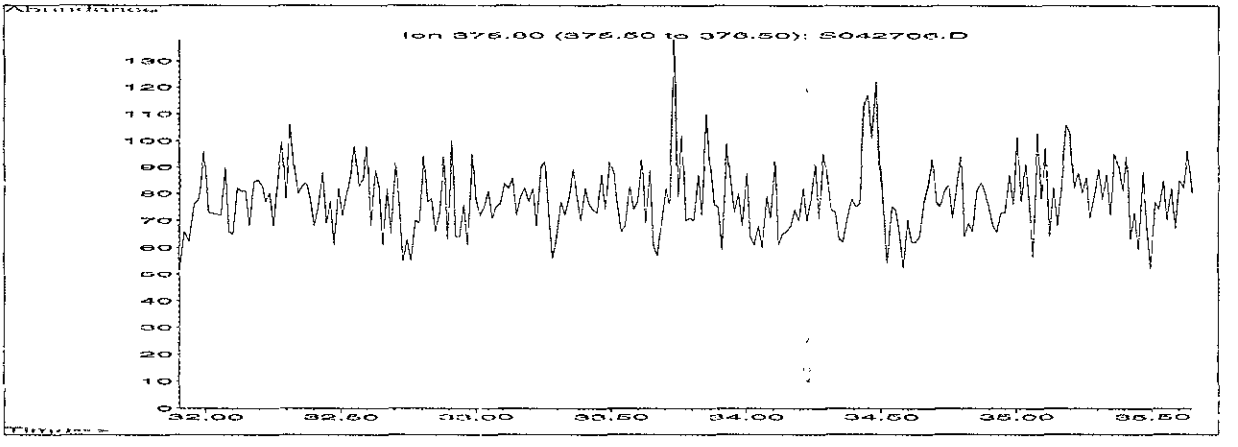


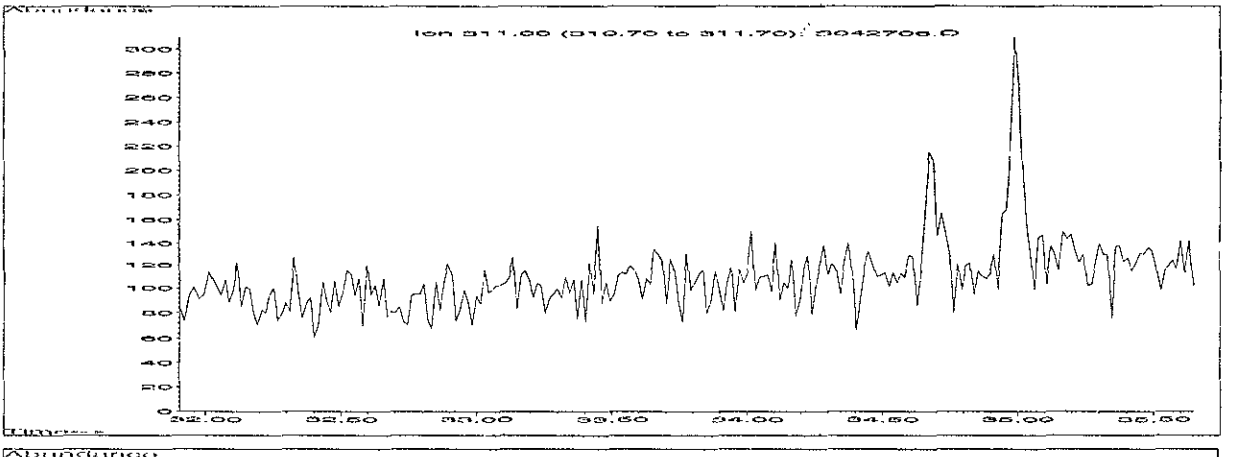


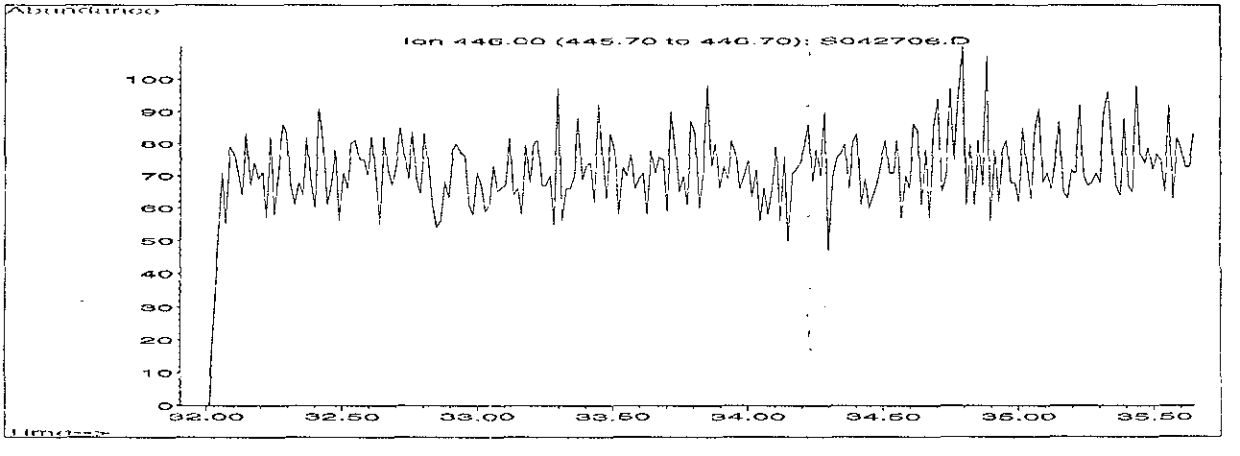
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



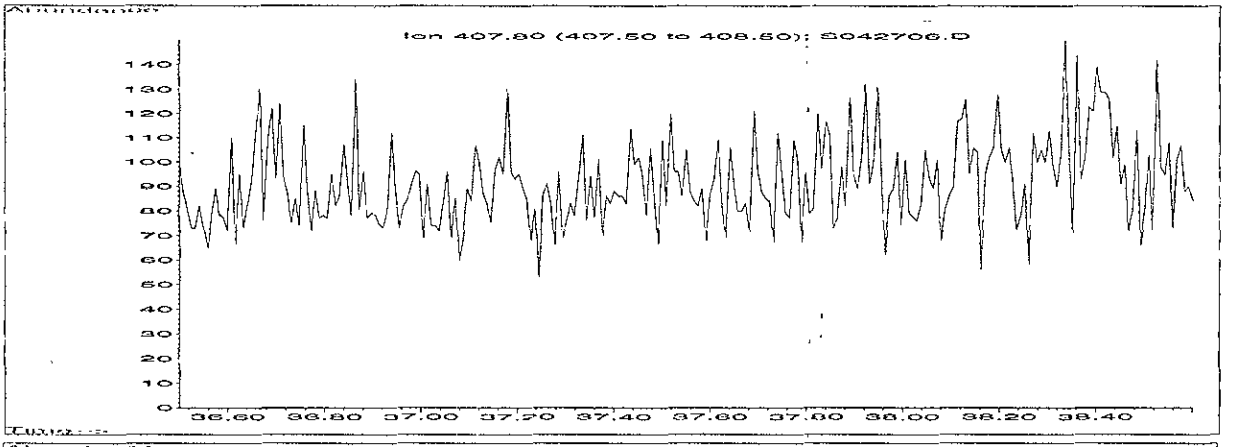


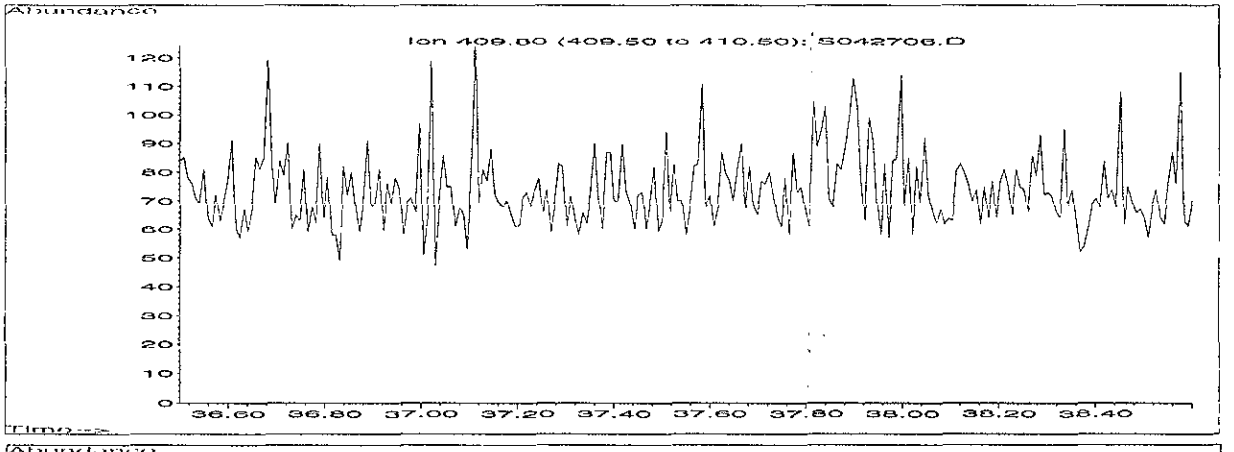


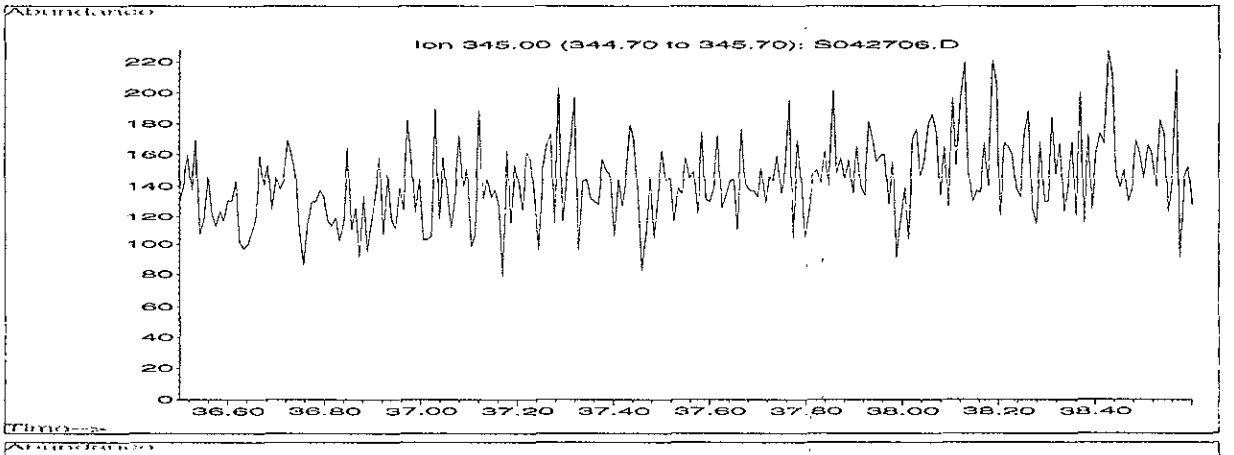


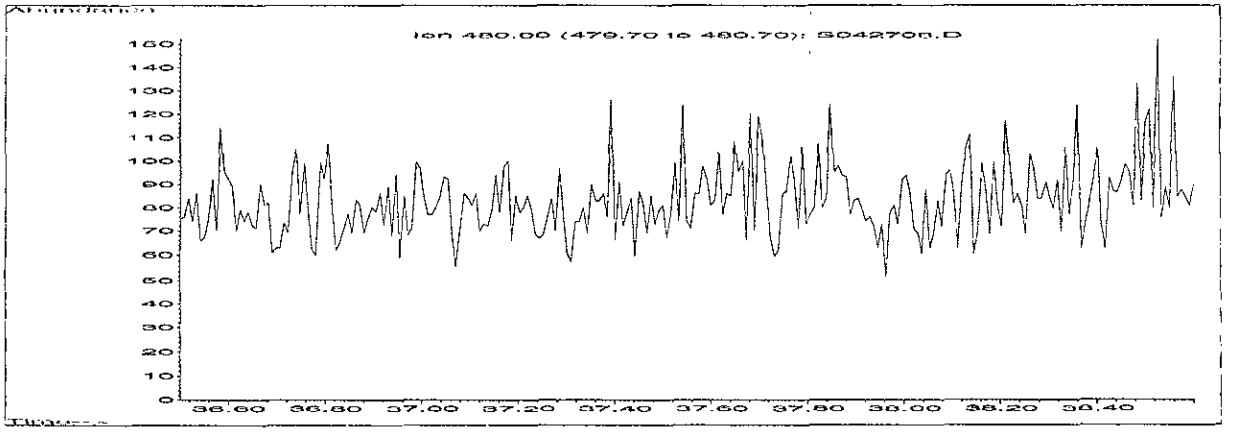
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



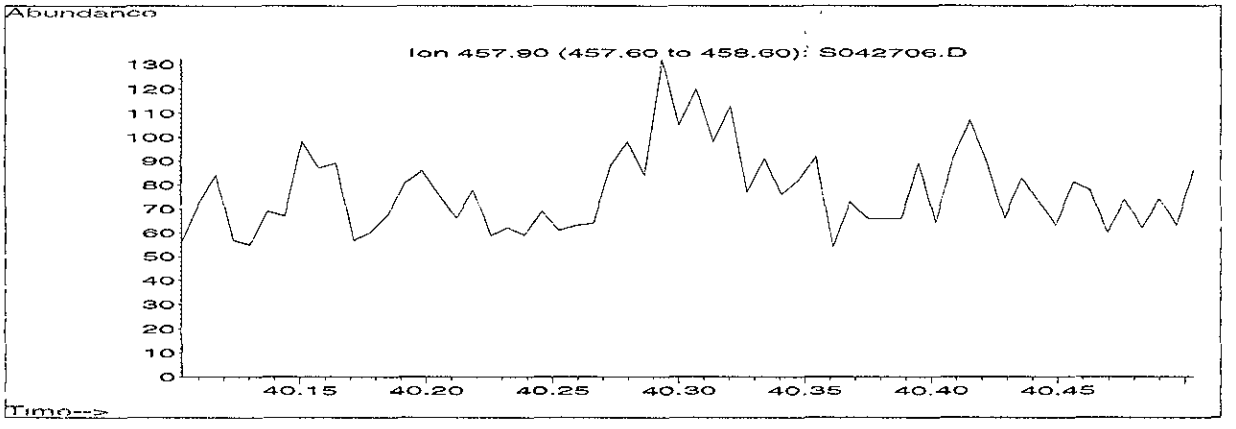


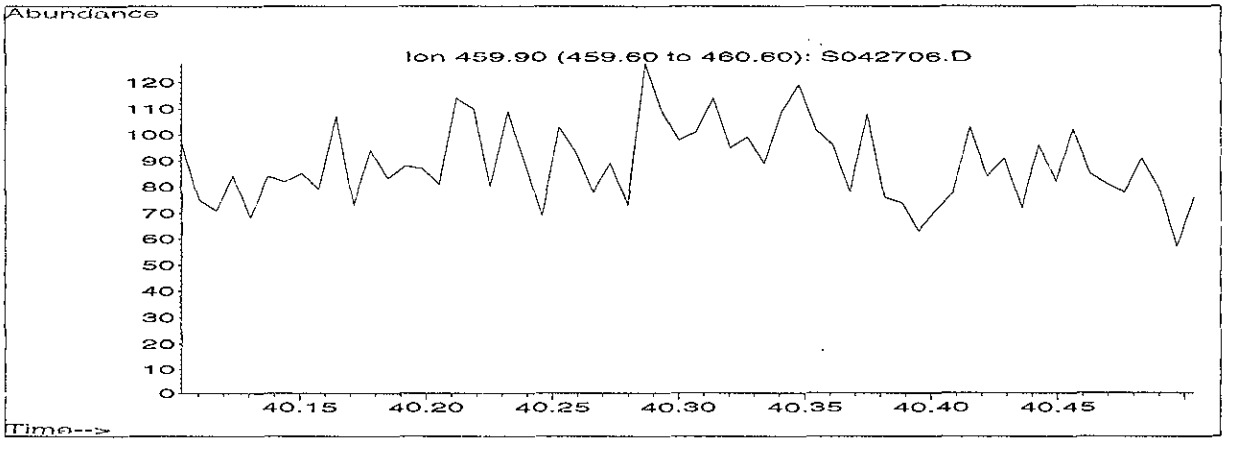


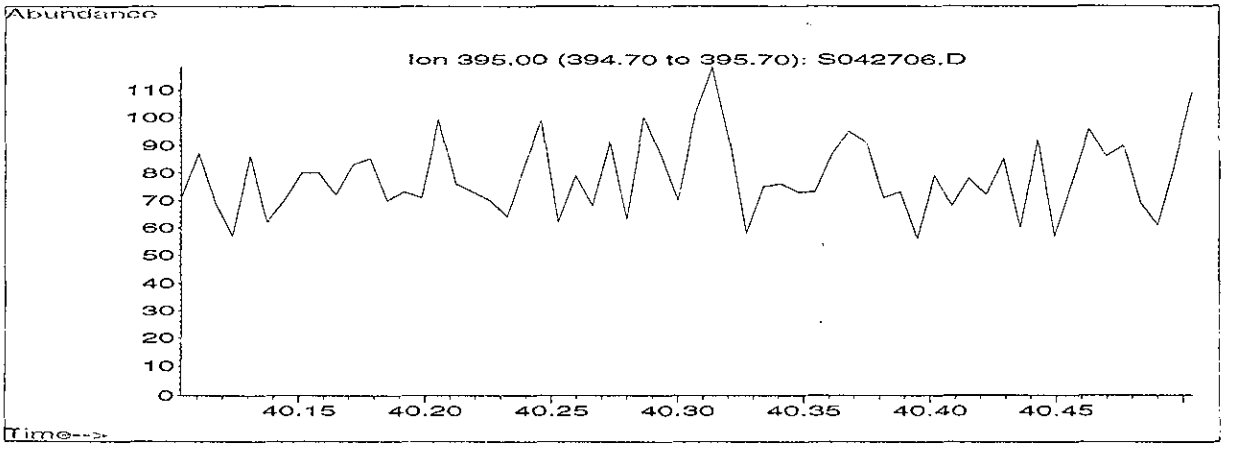


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

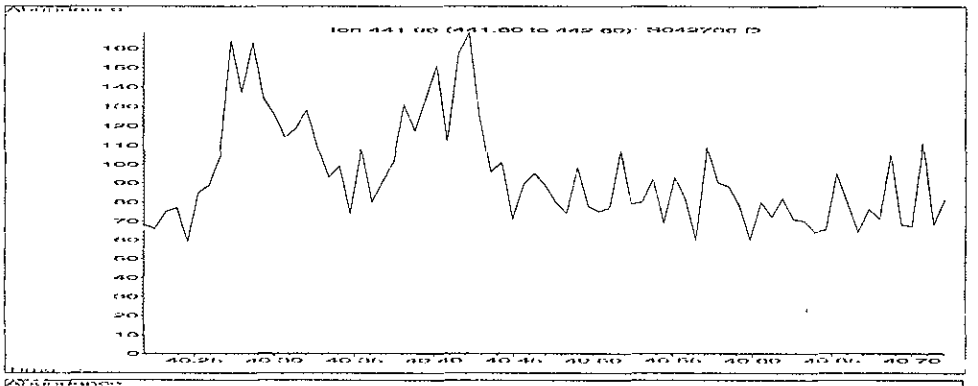


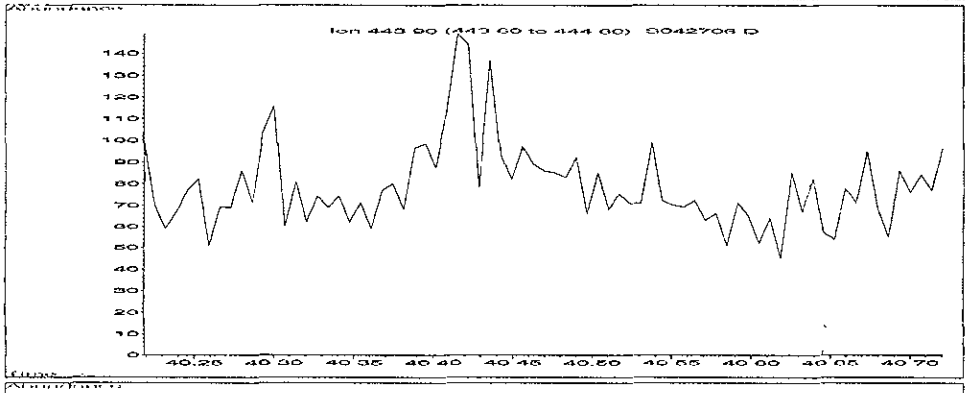


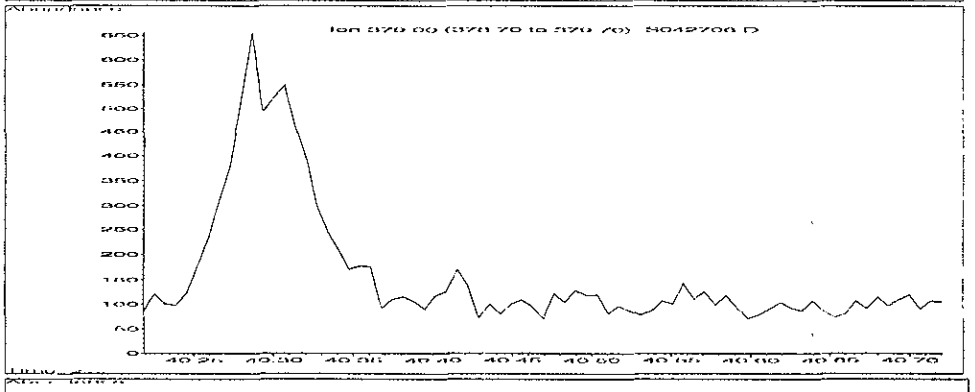


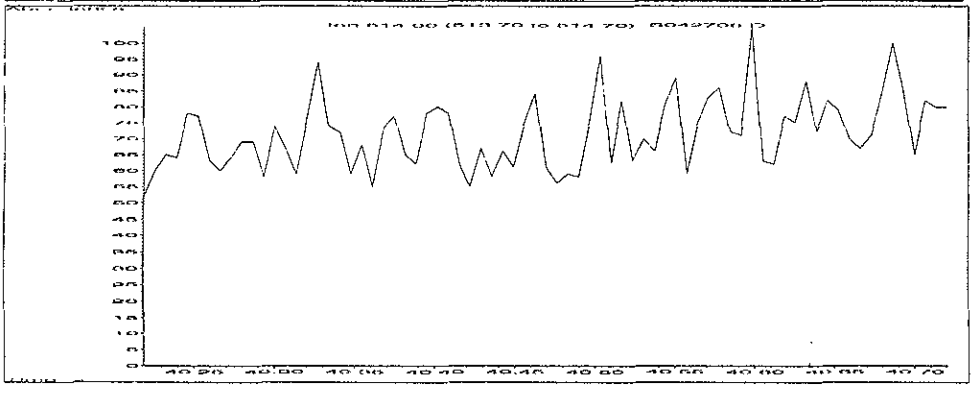
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



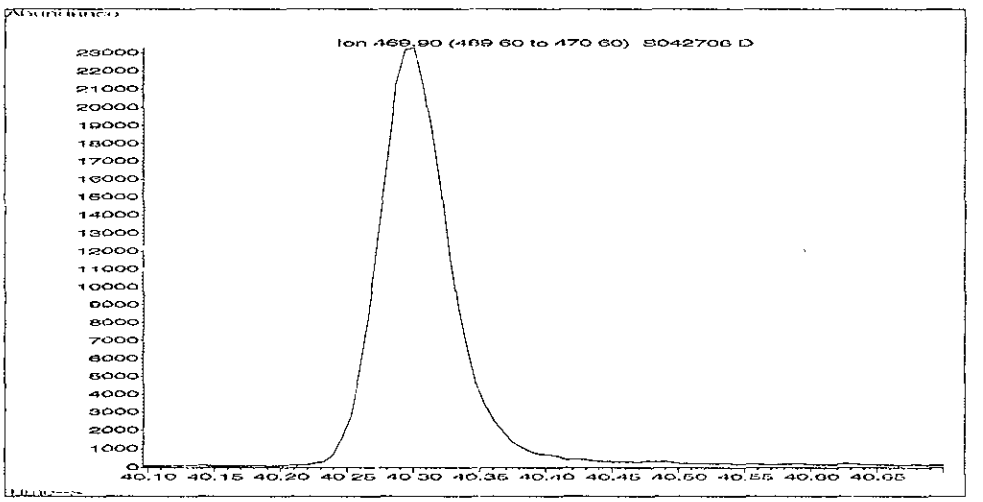


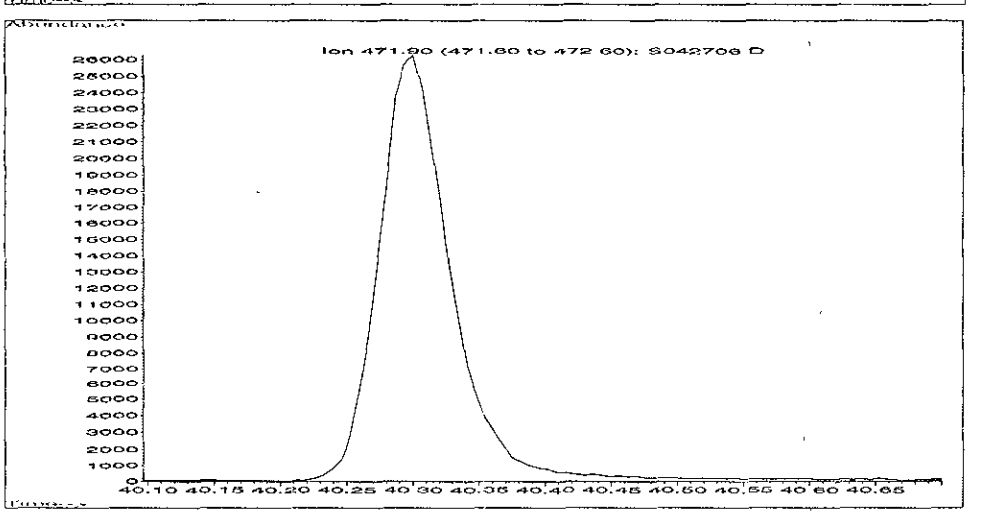




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	88345	Q1 Response	98981
Total response	187326	Ratio	0.89





Sample ID: A9D160180-4S 1.02638L 8280A
K97DG-1-AC WATER LR909

Size: 1.026
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042707.D
Acq On :27 Apr 2009 5:14 pm

Vial: 7
Operator: MEO
Sample Amount: 1.03

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:35 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.79	163707	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.27	149262	25.00	NG	0.00
9) 13C-2378-TCDF	20.22	316+318	0.80	270593	25.00	NG	-0.02
15) 13C-2378-TCDD	21.13	332+334	0.81	169354	25.00	NG	-0.02
20) 13C-123678-HxCDD	34.69	402+404	1.28	97363	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.05	111394	25.00	NG	0.00
36) 13C-OCDD	40.30	470+472	0.91	255210	50.00	NG	0.00

Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		125778	10.502	NG	0.00
Spiked Amount = 12.179	RRF = 1.782			Recovery =	86.24%		

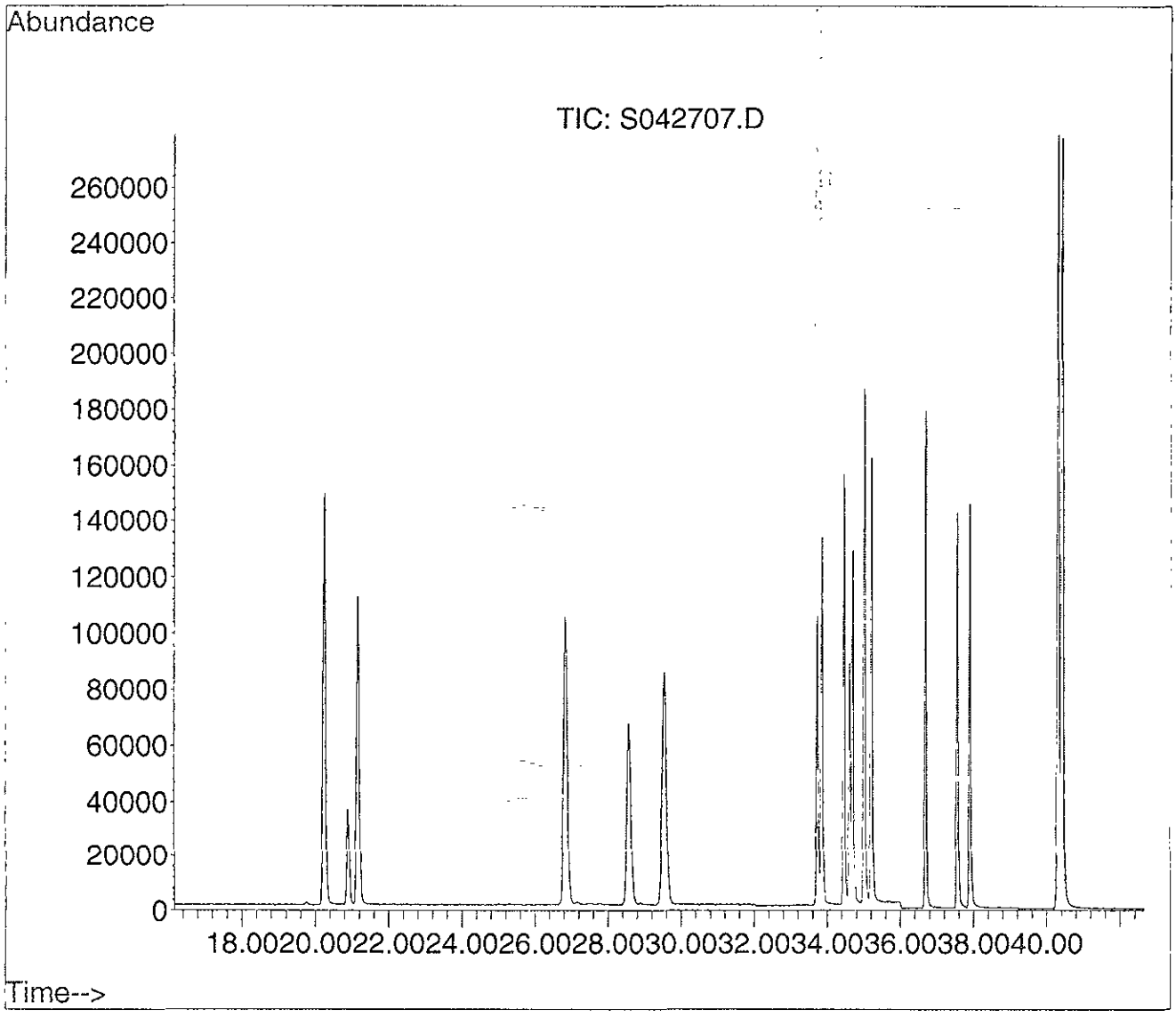
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.22	0.80	270593	1.796	22.412	0.0330	92.0
3) 13C-2378-TCDD-IS	21.13	0.81	173141	1.137	22.648	3.6178	93.0
6) 13C-123678-HxCDD-	34.69	1.28	97626	0.899	17.713	0.0646	72.7
7) 13C-1234678-HpCDF	36.68	1.05	111394	1.062	17.118	0.0605	70.3
8) 13C-OCDD-IS	40.30	0.91	255210	0.887	46.932	0.0965	96.3
10) 2378-TCDF	20.24	0.78	318036	1.219	23.491	0.3906	
1	19.75	0.83	4257		0.314		
2	20.24	0.78	321993		23.784		
11) TCDF TOTAL	19.30	0.78	326250	1.219	24.098		
12) 12378-PeCDF	26.81	1.55	620245	0.964	57.902	0.0195	
13) 23478-PeCDF	28.55	1.56	416672	0.927	40.478	0.1088	
1	26.81	1.55	1316229		127.868		
2	27.50	1.41	4570		0.444		
3	28.55	1.56	416672		40.478		
14) PeCDF TOTAL	26.80	1.56	1737471	0.927	168.790		
16) 2378-TCDD	21.15	0.78	215521	1.306	23.730	0.0817	
1	20.24	5.21 #	23725		2.612		
2	21.15	0.78	225269		24.803		
17) TCDD TOTAL	19.30	0.78	248994	1.306	27.416		
18) 12378-PeCDD	29.54	1.58	399474	0.941	61.069	0.5379	
1	29.54	1.57	414611		63.383		
19) PeCDD TOTAL	27.00	1.57	414611	0.941	63.383		
21) 123478-HxCDD	34.61	1.25	226196	1.097	51.599	0.1512	
22) 123678-HxCDD	34.70	1.26	245067	1.061	57.795	0.5546	
23) 123789-HxCDD	35.02	1.26	360194	1.144	78.767	0.7653	
1	34.61	1.25	226196		51.599		
2	34.70	1.24	952131		224.544		
3	35.02	1.23	364539		85.970		
24) HxCDD TOTAL	34.70	1.23	1542866	1.061	362.114		

AK 4/30/09

25)	1234678-HpCDD	37.55	1.04	309756	1.055	73.424	0.0907
	1	37.55	1.04	309756		73.424	
26)	HpCDD TOTAL	37.35	1.04	309756	1.055	73.424	
28)	123478-HxCDF	33.73	1.23	327632	1.329	53.901	0.0621
29)	123678-HxCDF	33.85	1.25	383978	1.384	60.667	0.4730
30)	234678-HxCDF	34.45	1.23	421098	1.315	70.023	0.0876
31)	123789-HxCDF	35.21	1.23	466024	1.278	79.734	0.1787
	1	33.73	1.23	327632		53.901	
	2	33.85	1.24	383978		60.667	
	3	34.45	1.23	421098		70.023	
	4	35.21	1.24	472820		80.897	
32)	HxCDF TOTAL	34.40	1.24	1605528	1.278	265.488	
33)	1234678-HpCDF	36.68	1.05	330789	1.237	58.452	0.0512
34)	1234789-HpCDF	37.90	1.04	412549	1.111	81.176	0.1296
	1	36.68	1.05	330789		58.452	
	2	37.90	1.04	412549		81.176	
35)	HpCDF TOTAL	38.00	1.04	743338	1.111	139.628	
37)	OCDD	40.31	0.89	750761	1.224	117.069	0.0636
38)	OCDF	40.42	0.91	973251	1.589	116.922	0.1605

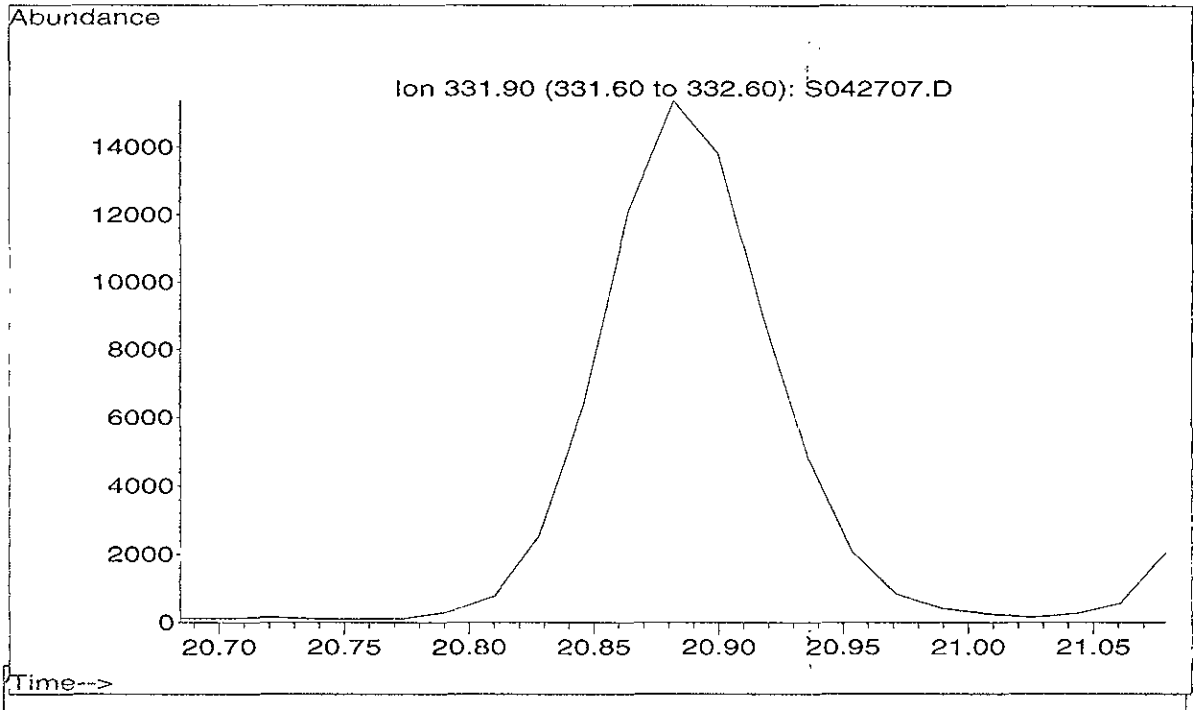
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042707.D 09AP27A2.M Tue Apr 28 16:35:17 2009

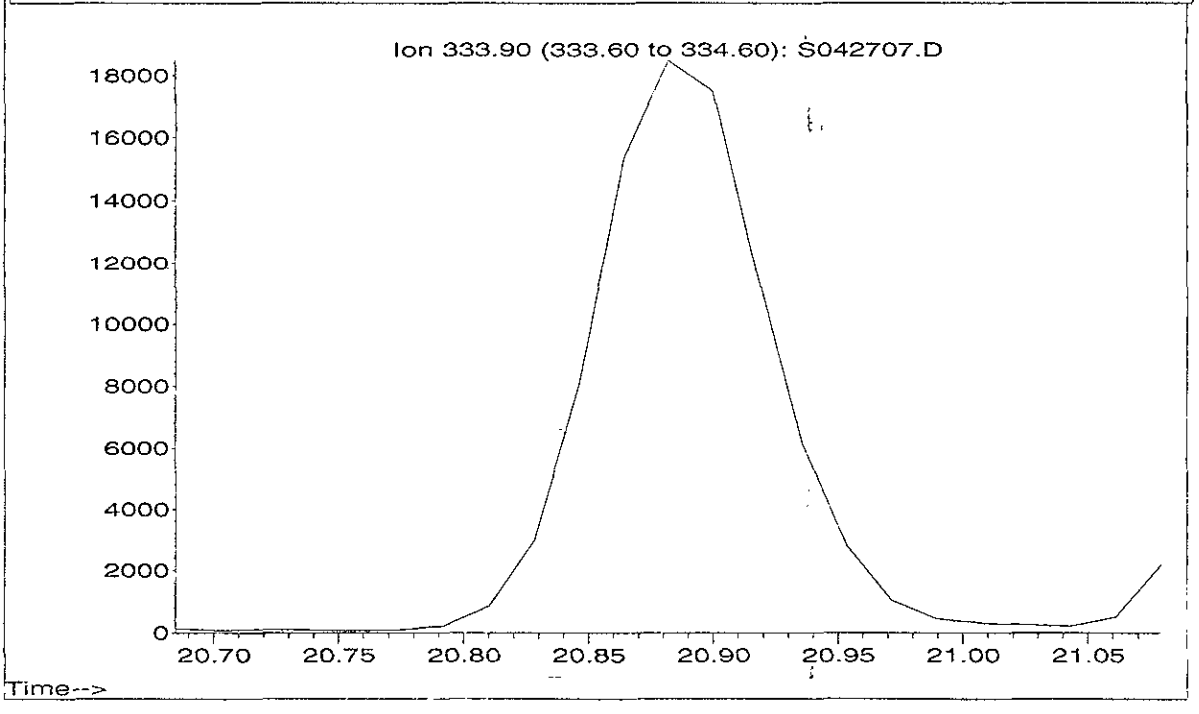
Data File Name	S042707.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 5:14
Acq. Method File	TOKAS
Sample Name	97DG-1-AC WATER LR909
Misc Info	160180-4S 1.02638L 8280A
Vial Number	7
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.02638



13C-1234-TCDD

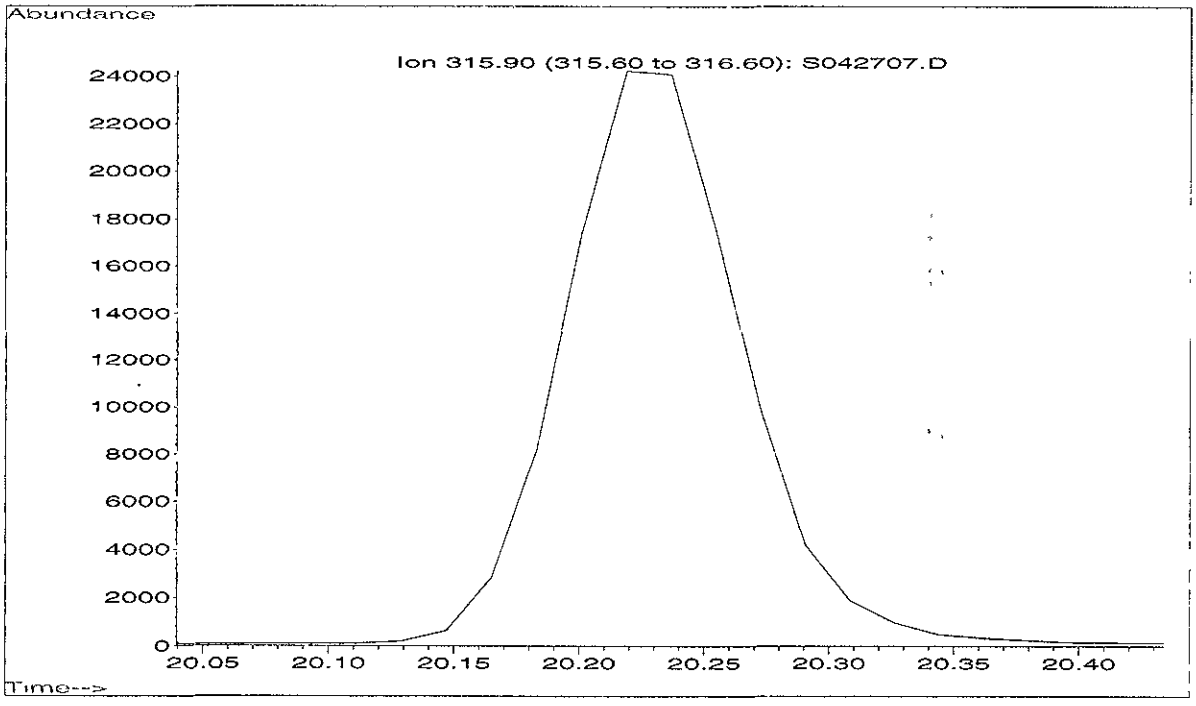
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	72349	Q1 Response	91358
Total Response	163707	Ion Ratio	0.79

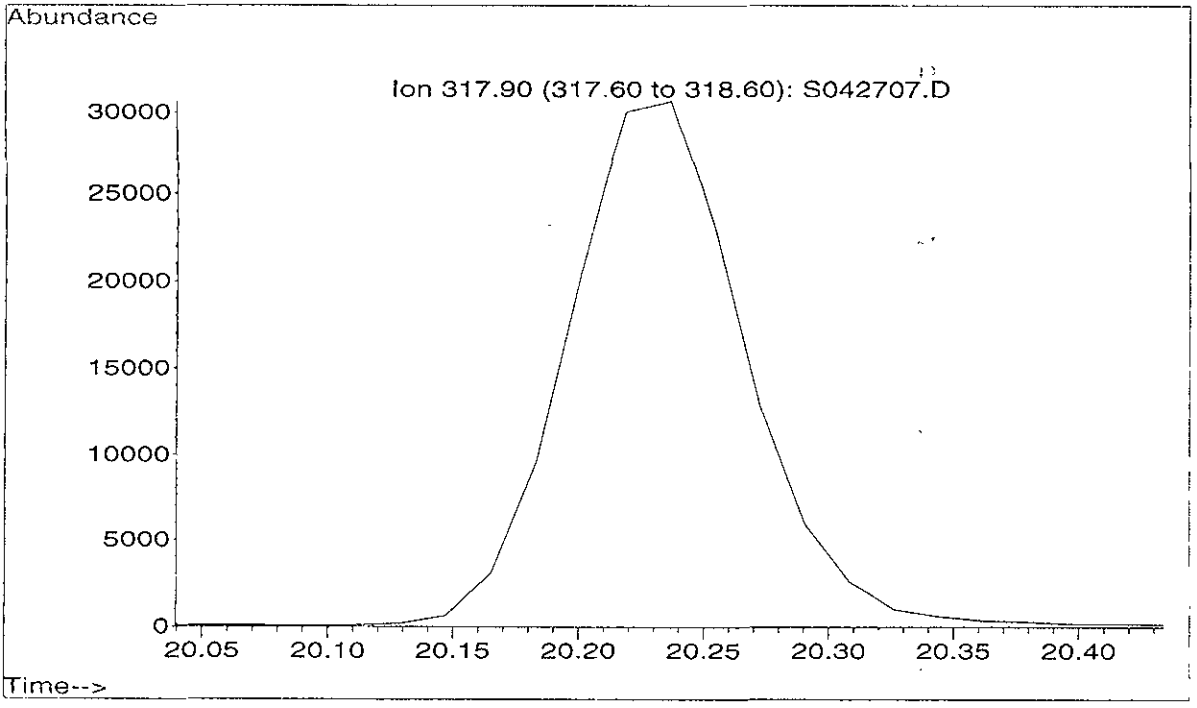




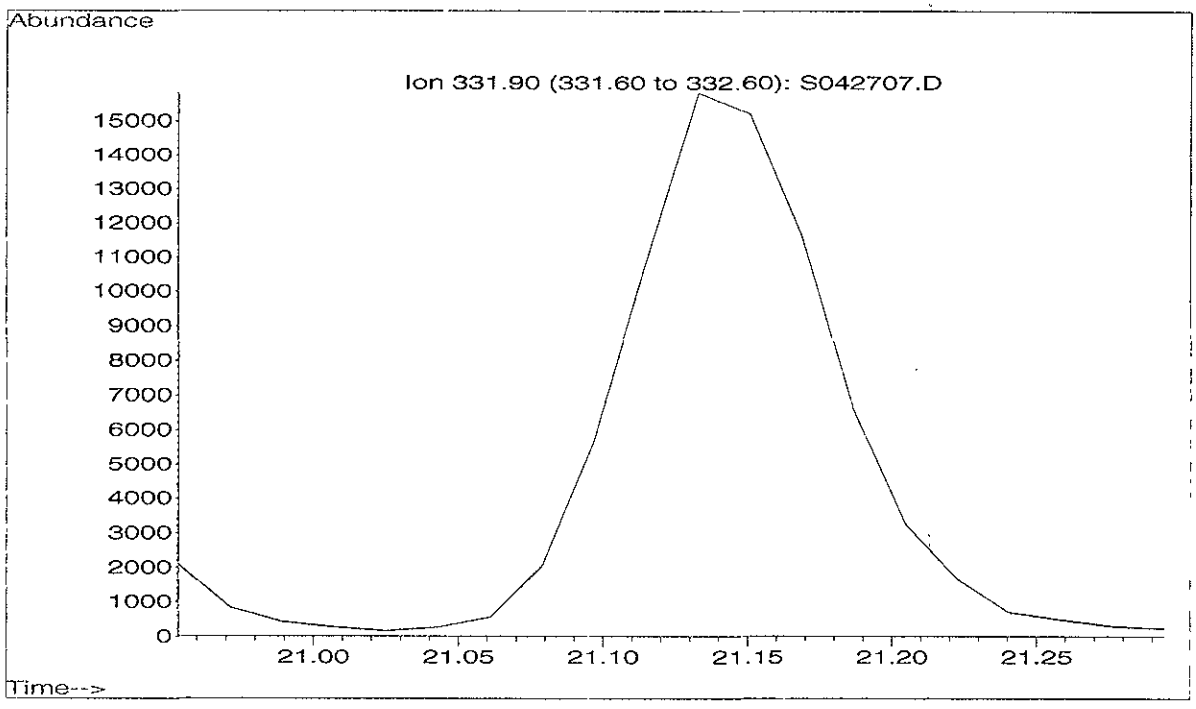
13C-2378-TCDF-IS

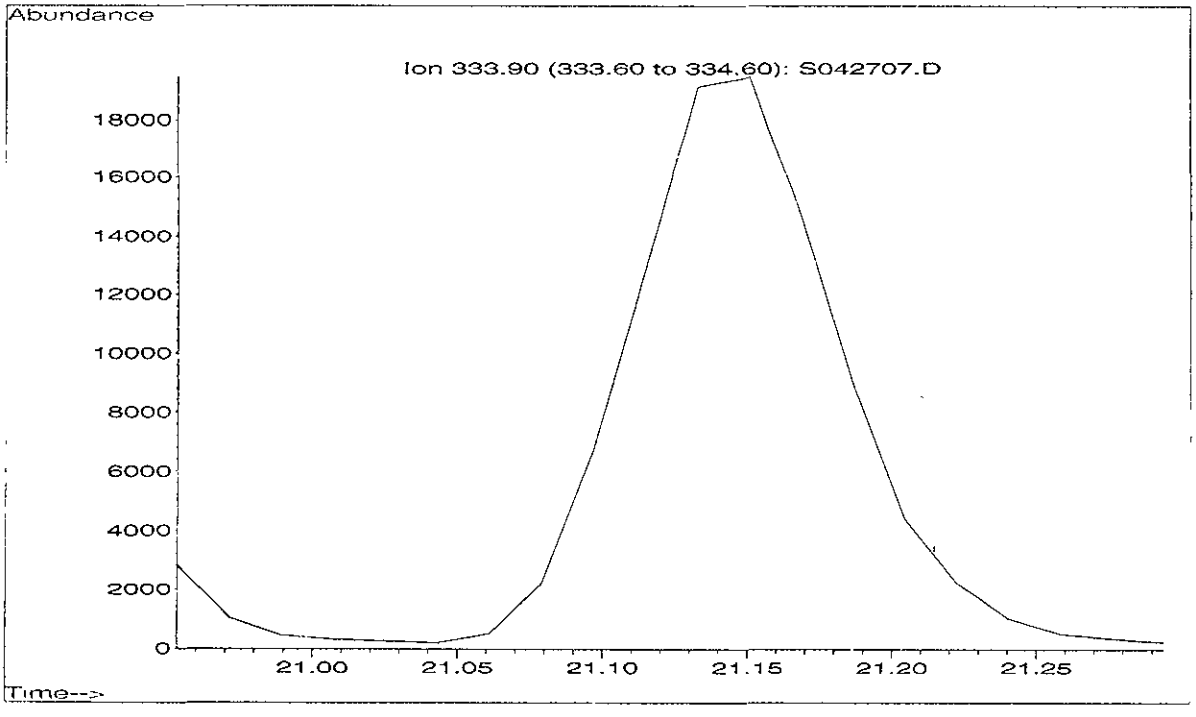
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.22		
Target Ion	315.9	Q1 Ion	317.9
Target Response	120264	Q1 Response	150329
Target Response	270593	Ion Ratio	0.80





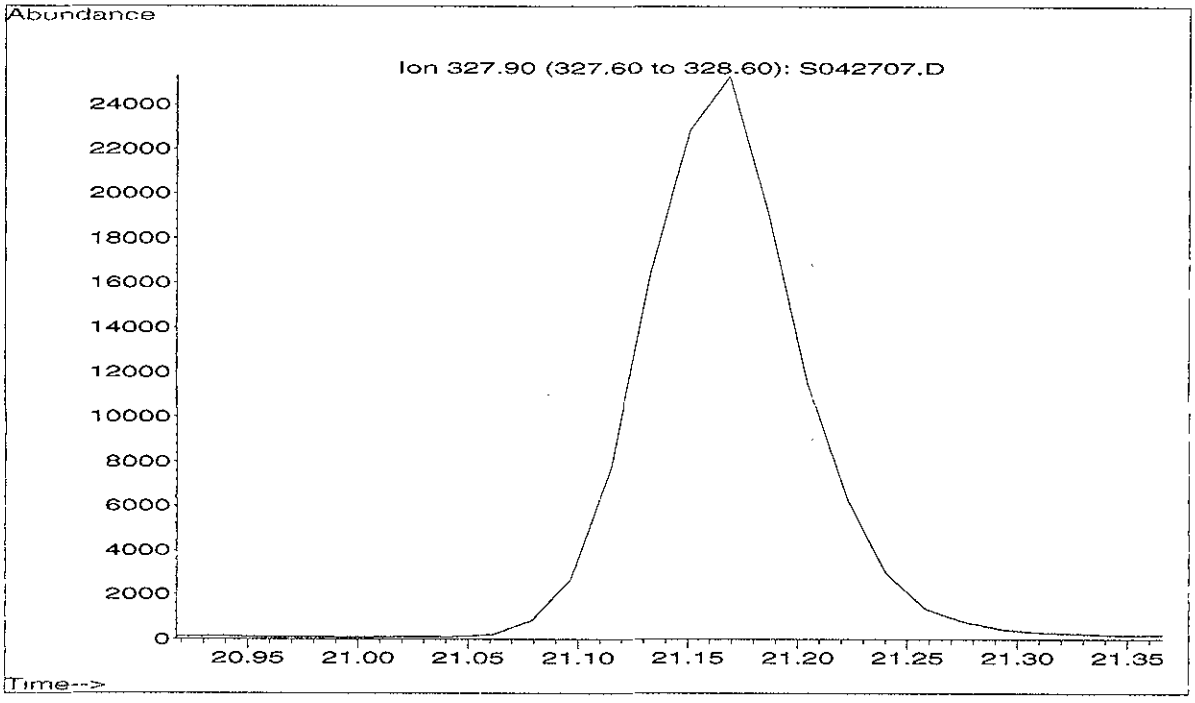
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.13		
Target Ion	331.9	Q1 Ion	333.9
Target Response	77507	Q1 Response	95634
Total Response	173141	Ion Ratio	0.81

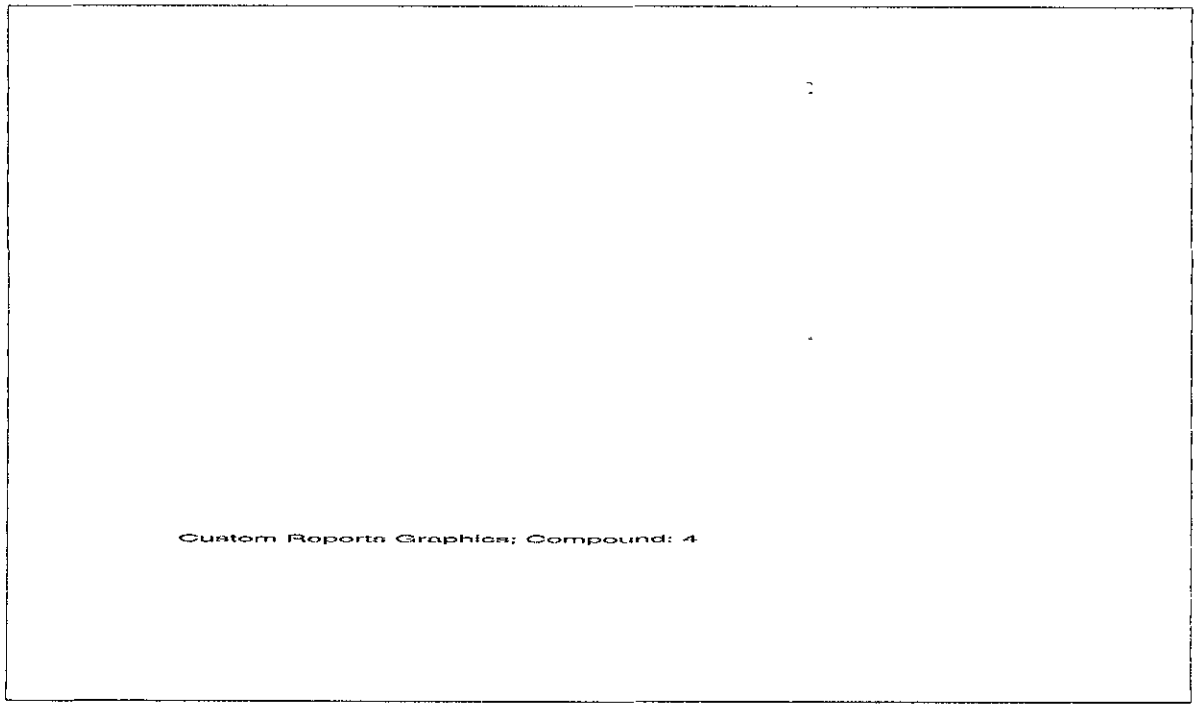




37Cl-2378-TCDD

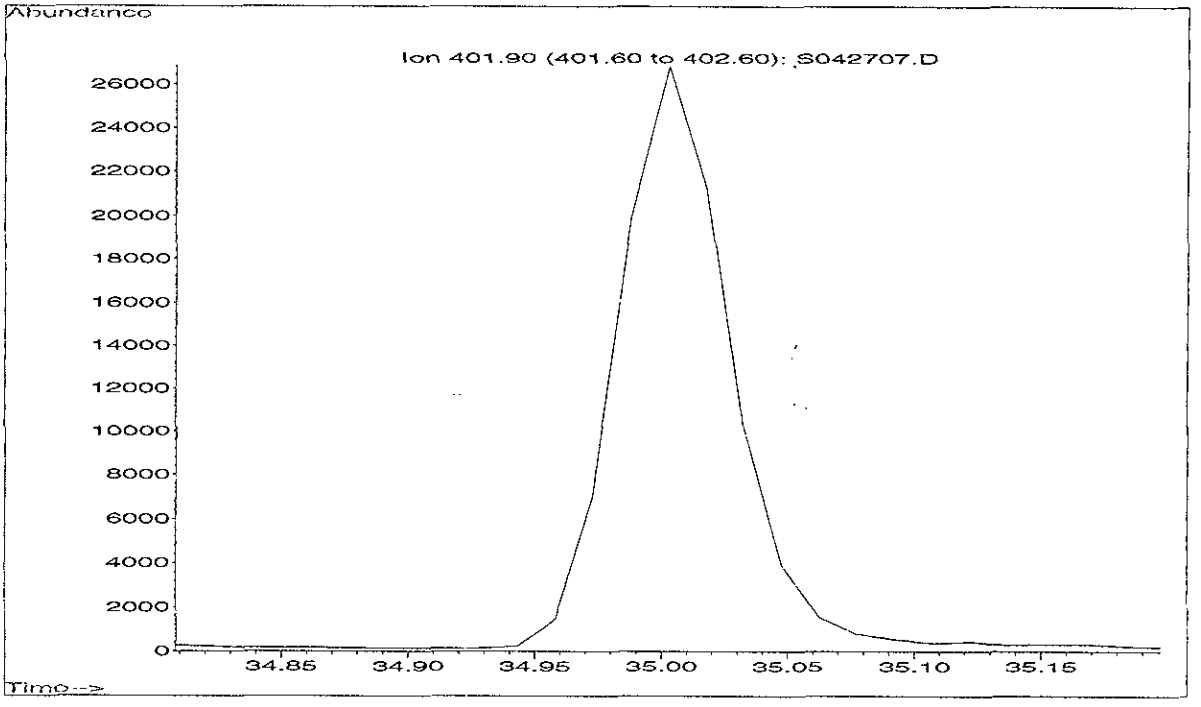
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	125778	Q1 Response	0
Total Response	125778	Ion Ratio	#DIV/0!

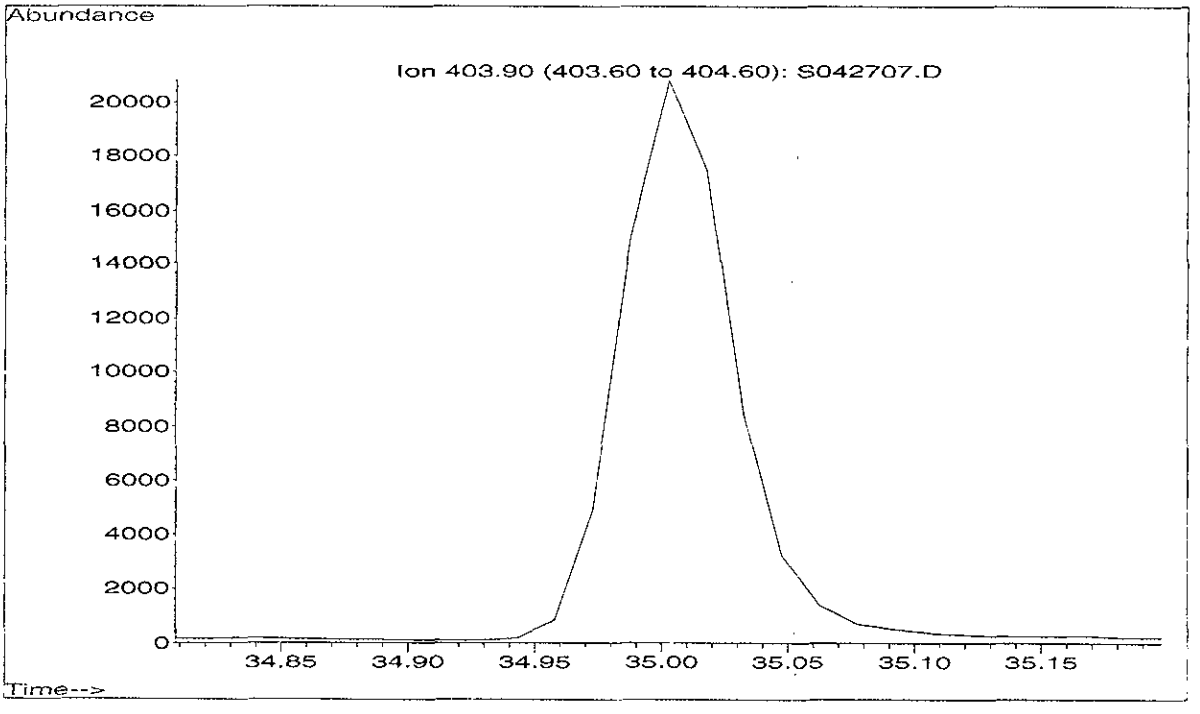




13C-123789-HxCDD

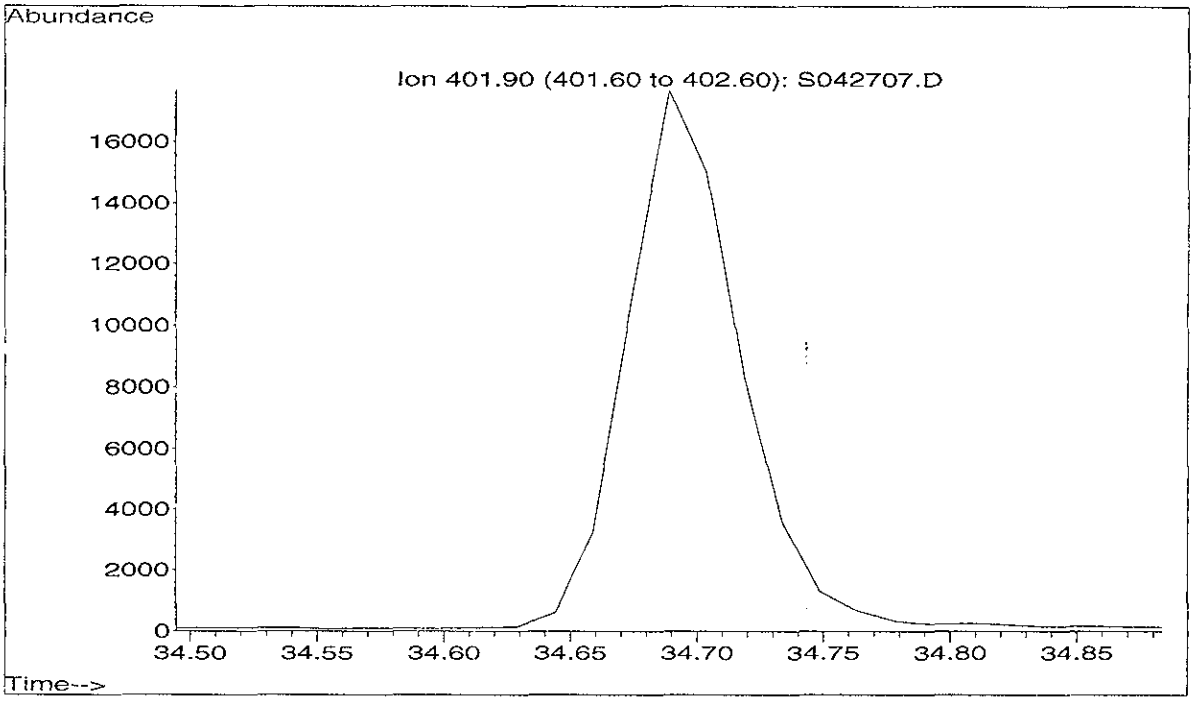
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	83479	Q1 Response	65783
Target Response	149262	Ion Ratio	1.27

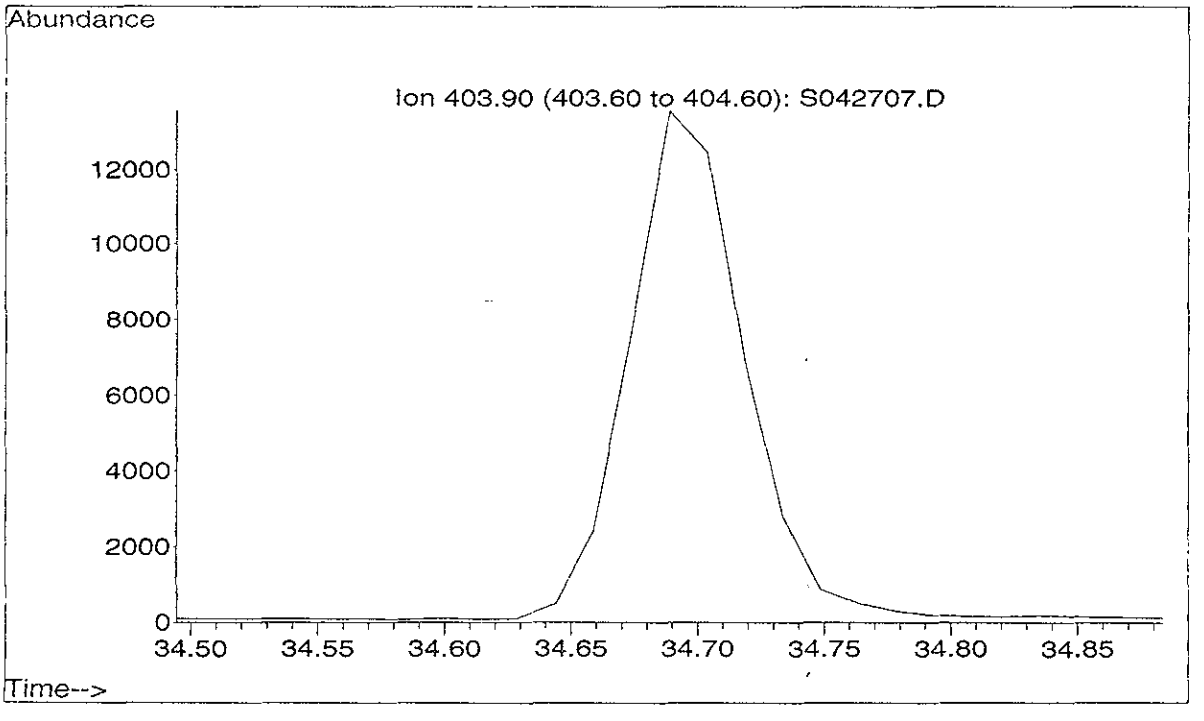




13C-123678-HxCDD-IS

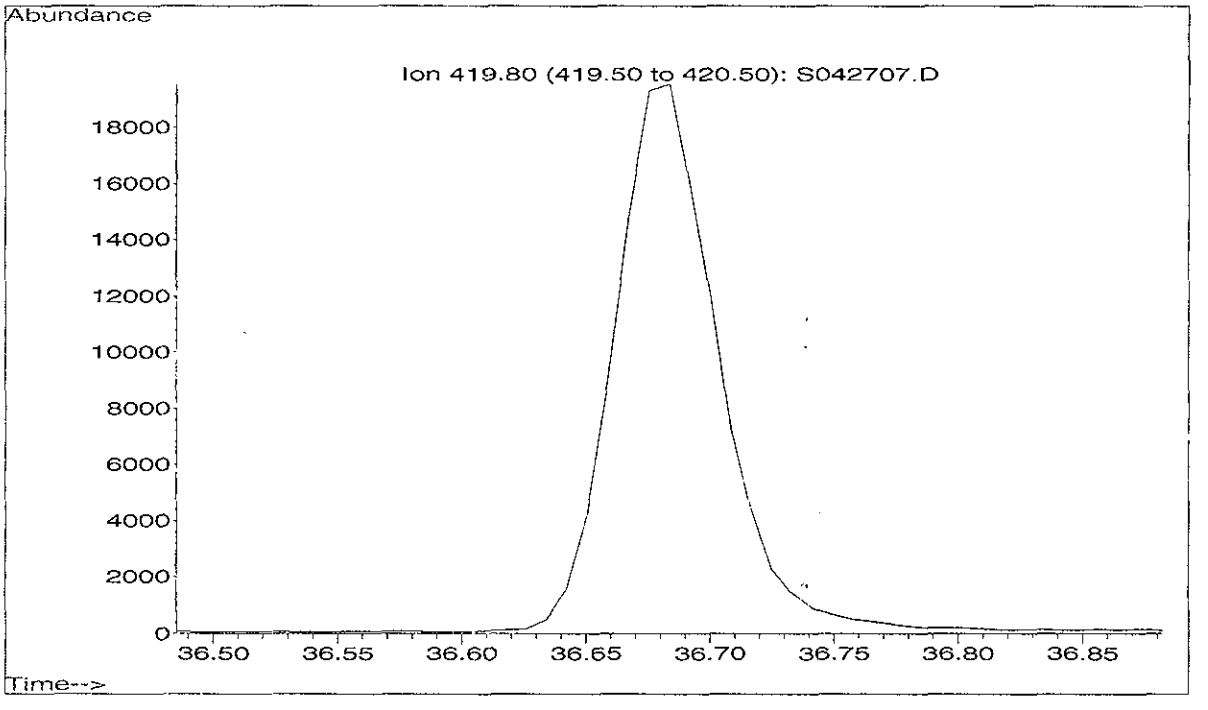
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	54854	Q1 Response	42772
Total Response	97626	Ion Ratio	1.28

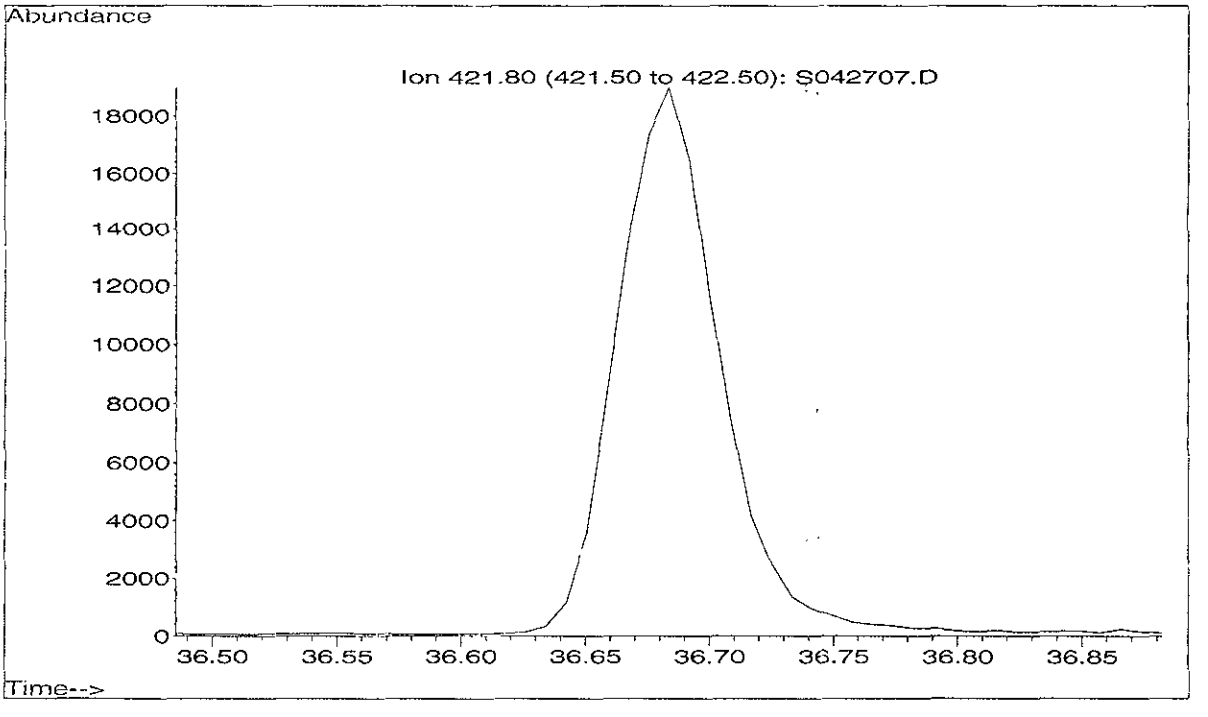




13C-1234678-HpCDF-IS

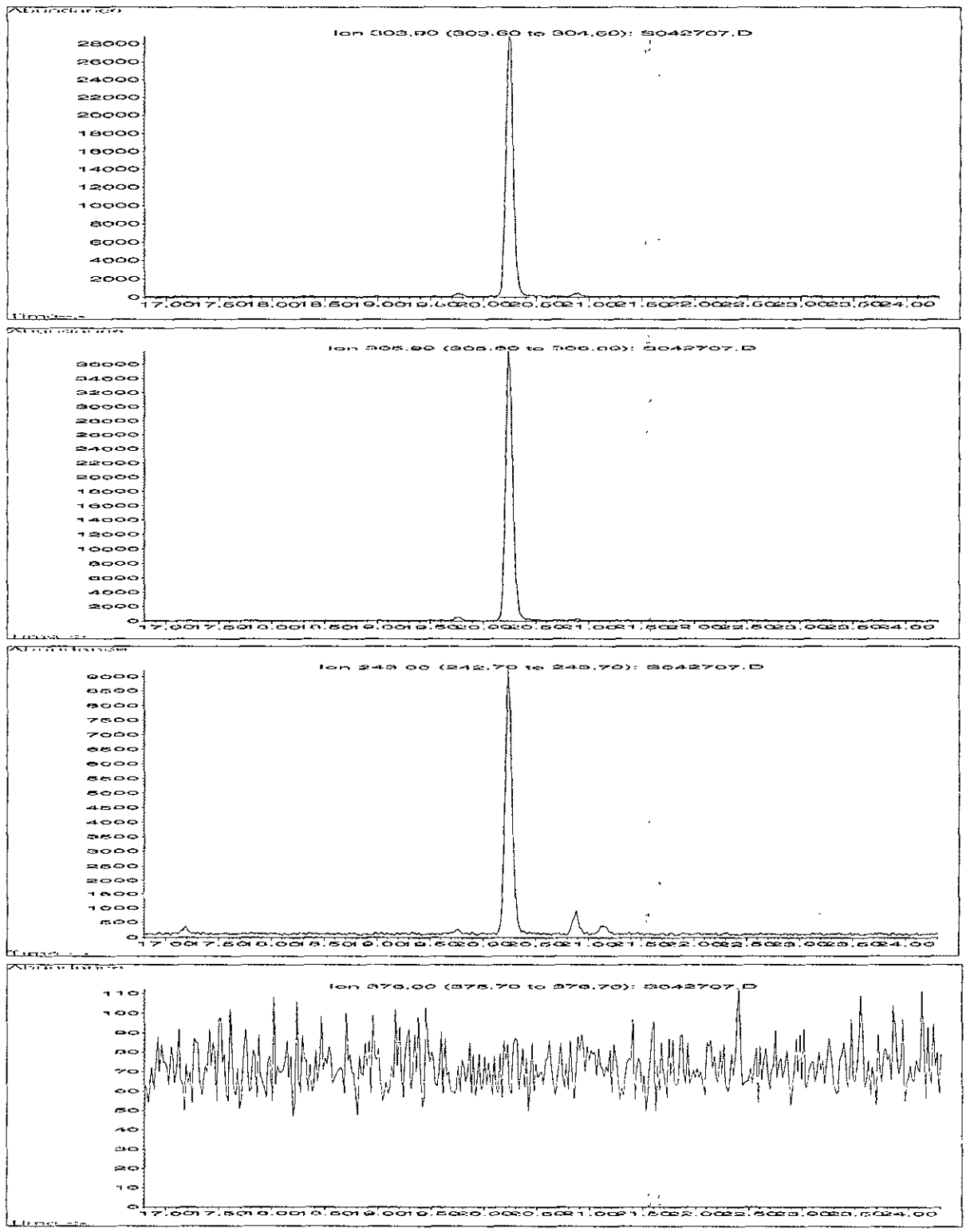
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	57082	Q1 Response	54312
Target Response	111394	Ion Ratio	1.05





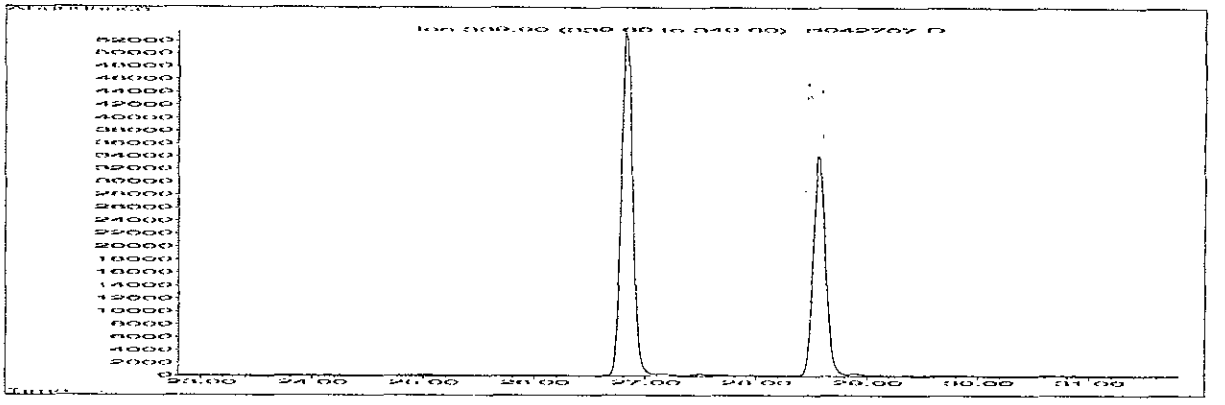
TCDF TOTAL

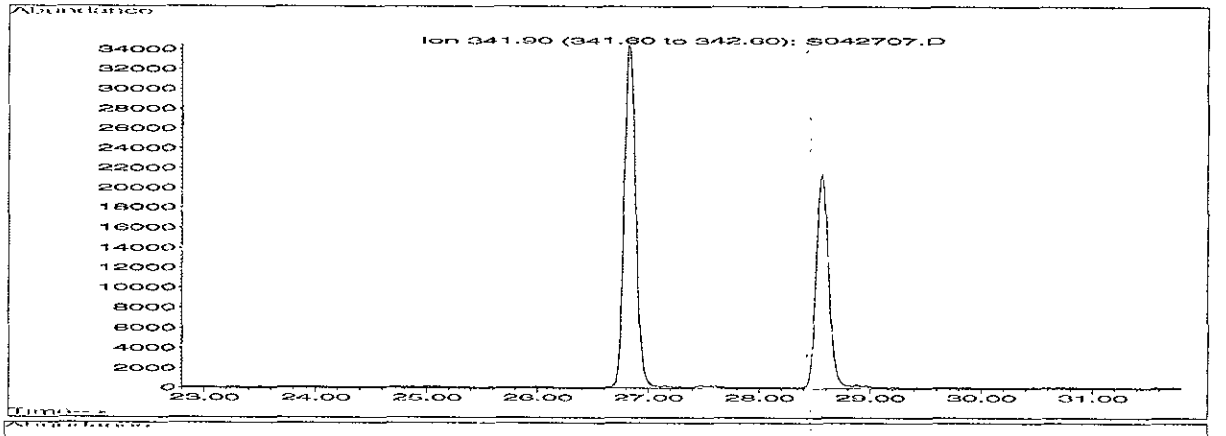
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

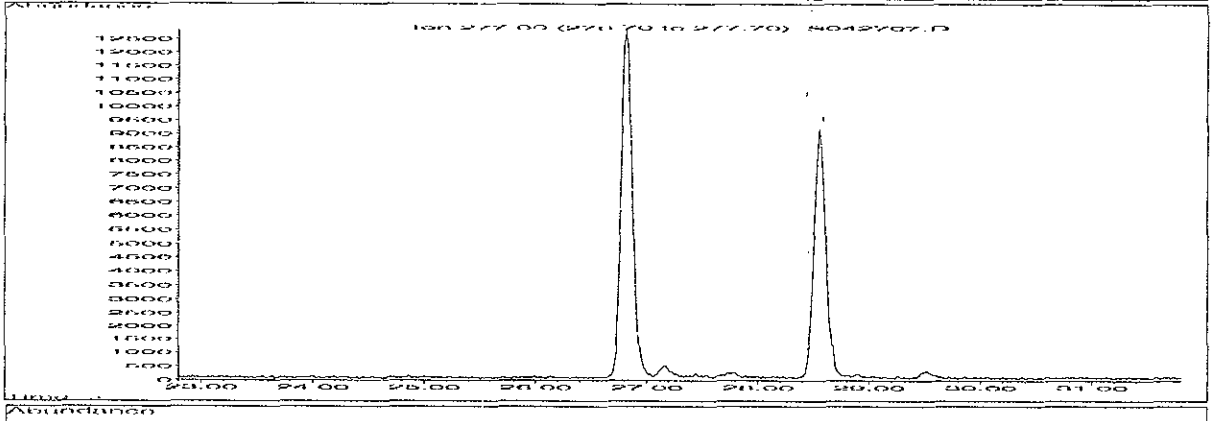


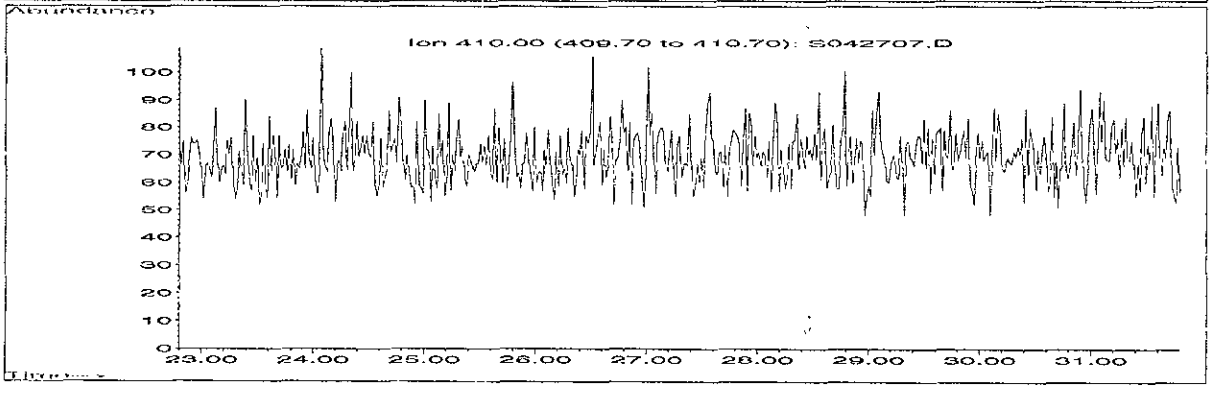
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



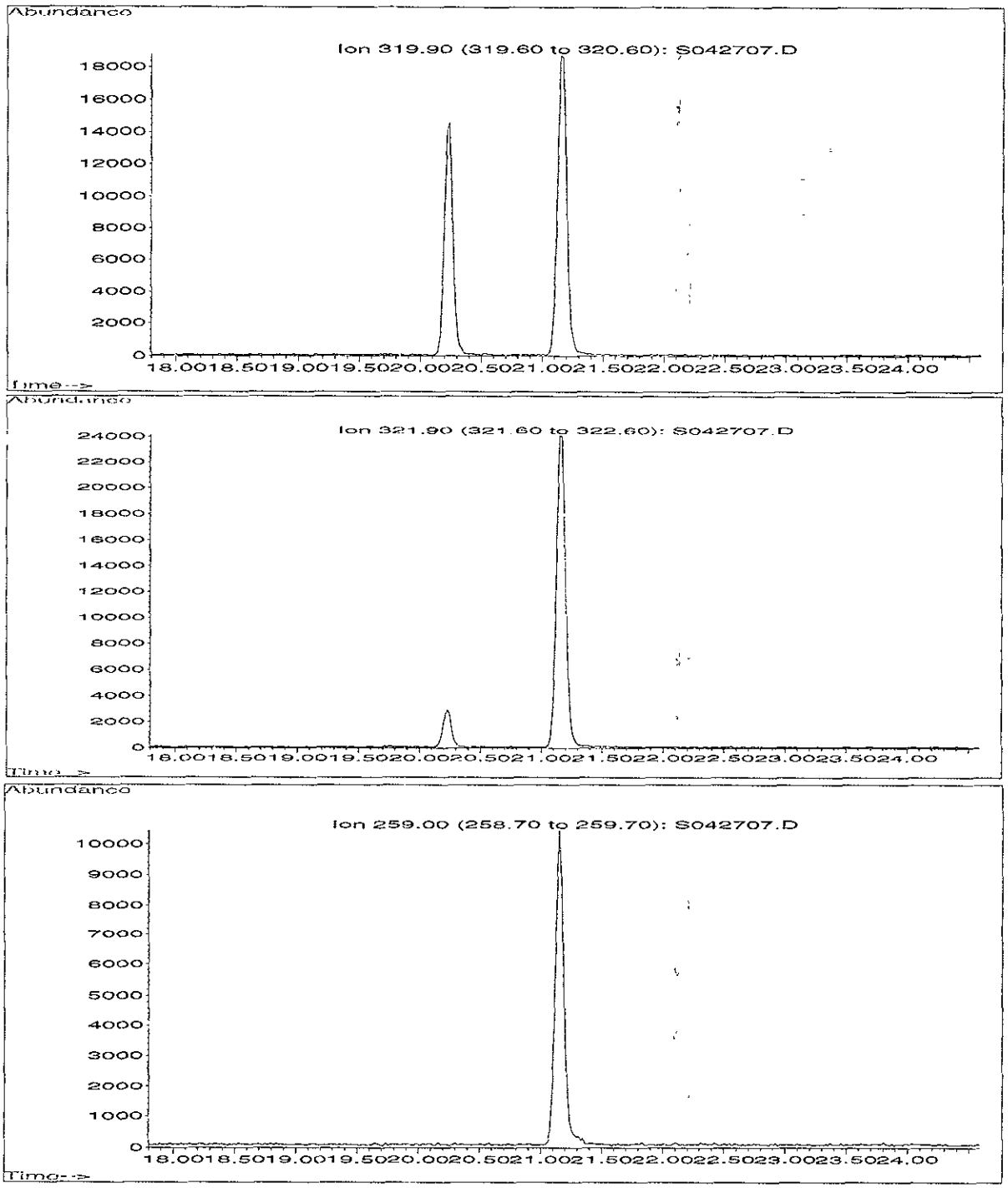






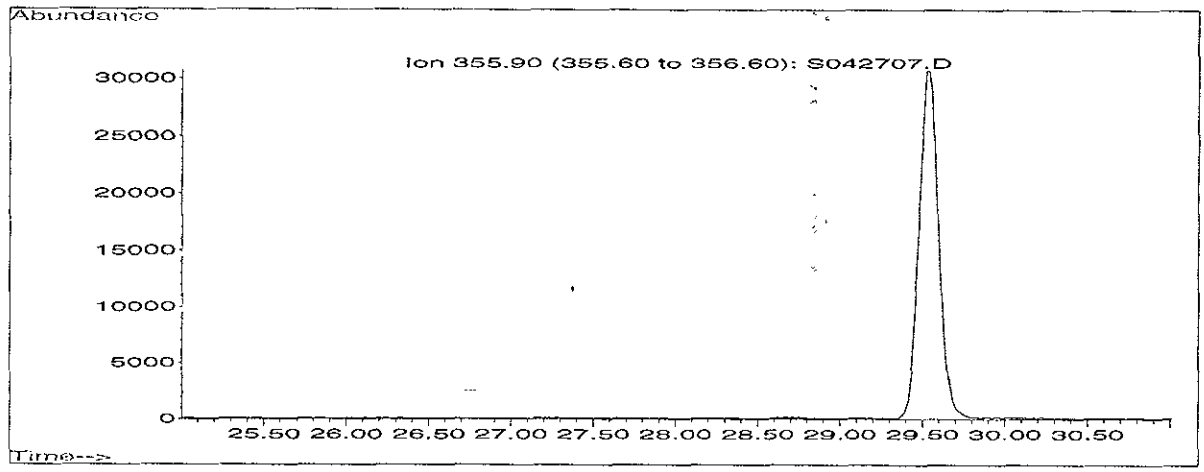
TCDD TOTAL

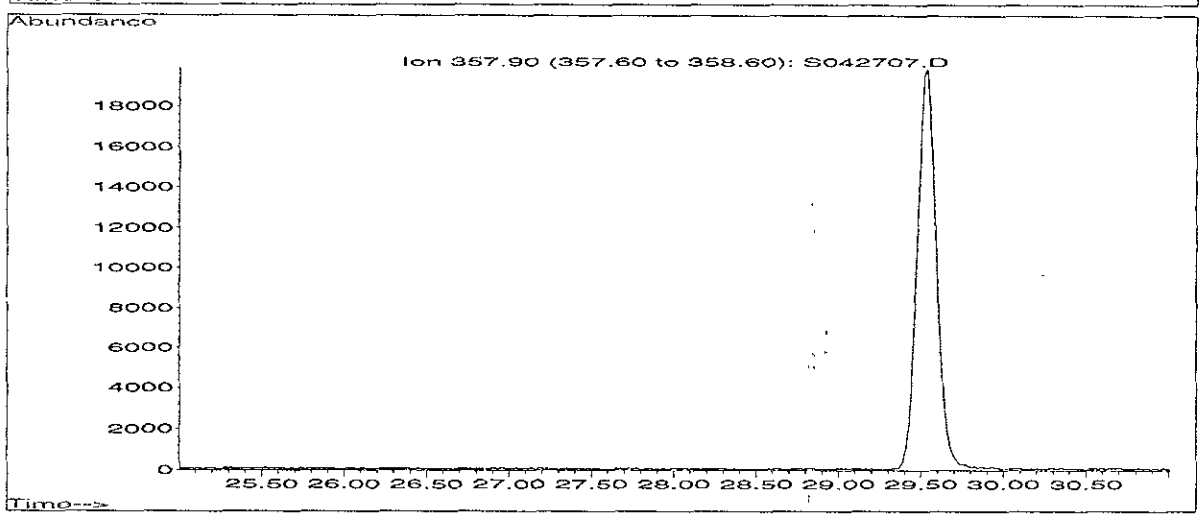
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

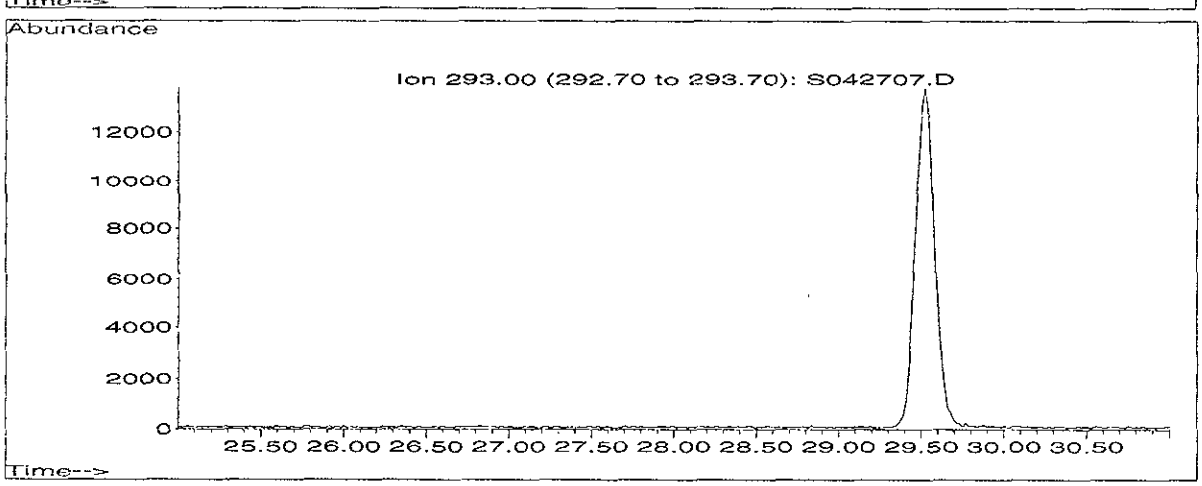


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

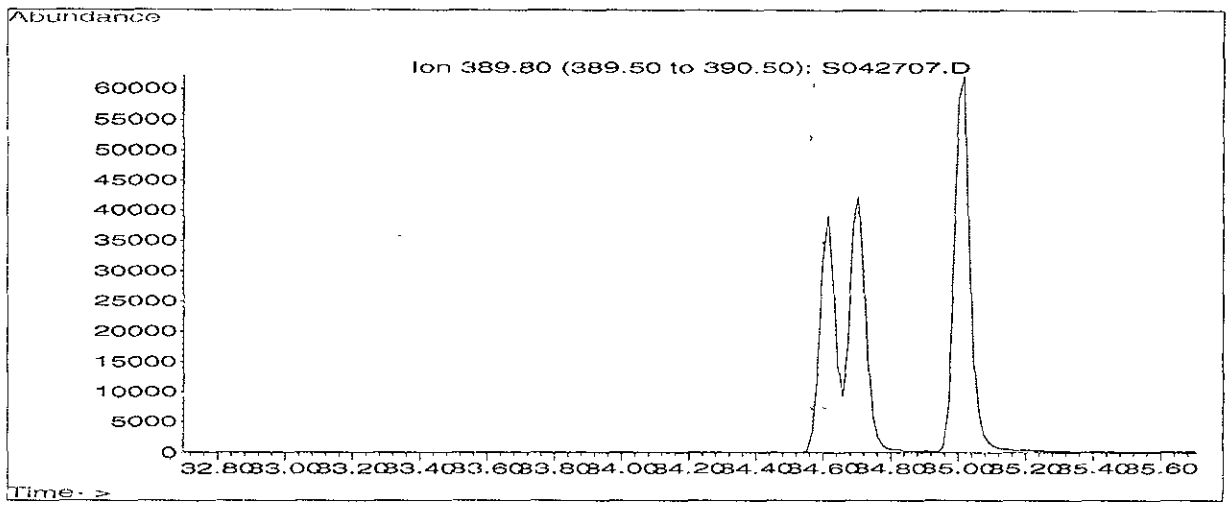


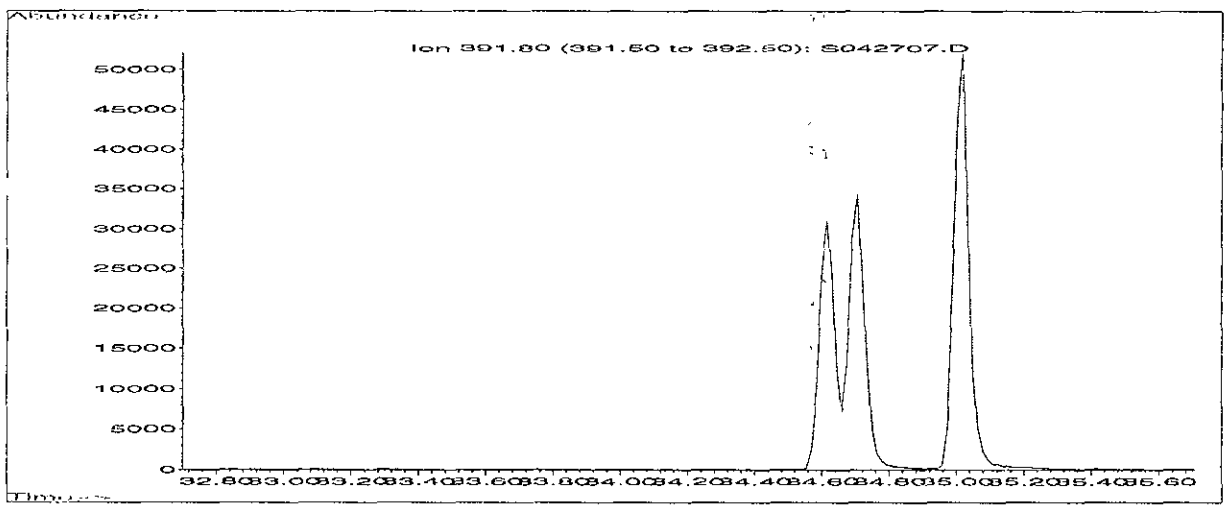


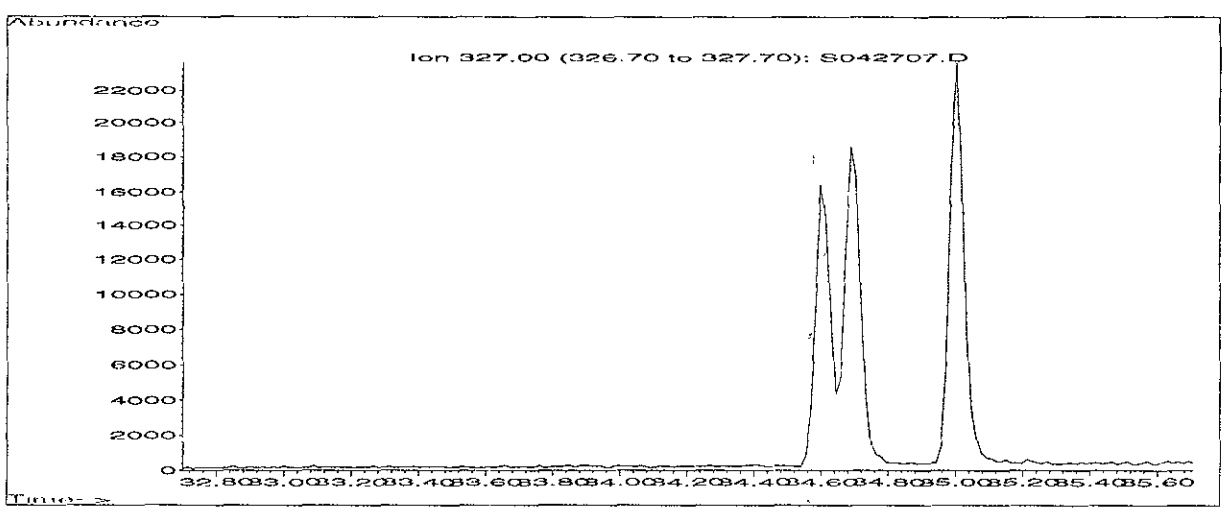


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

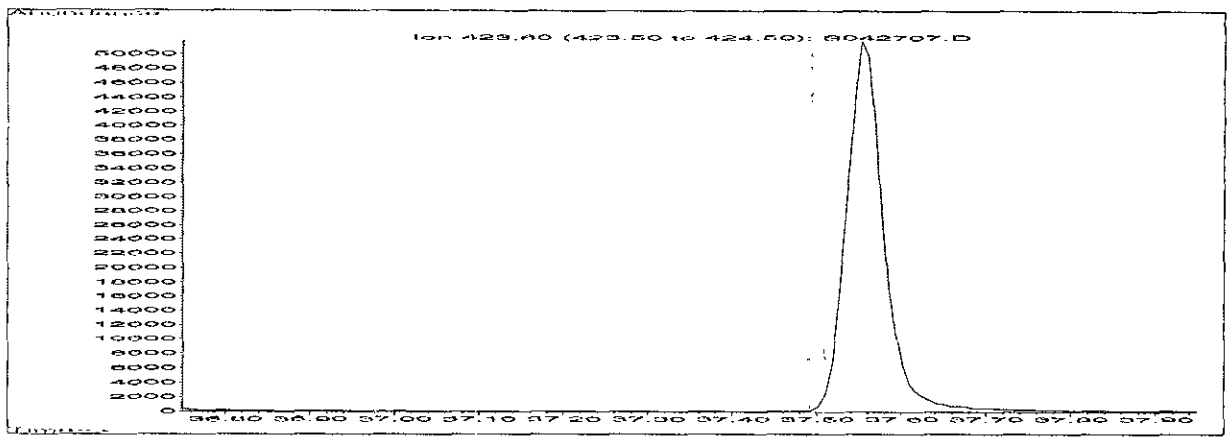


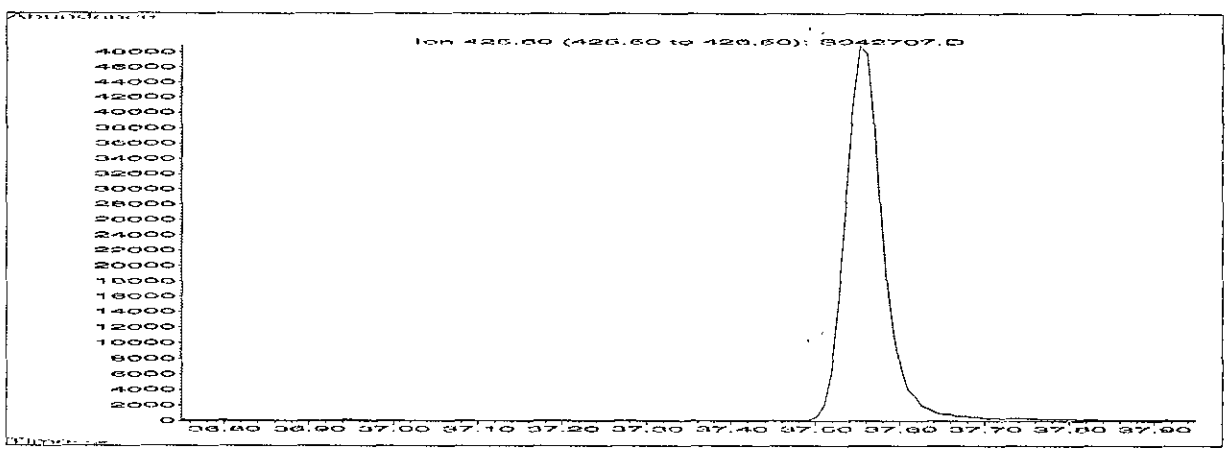


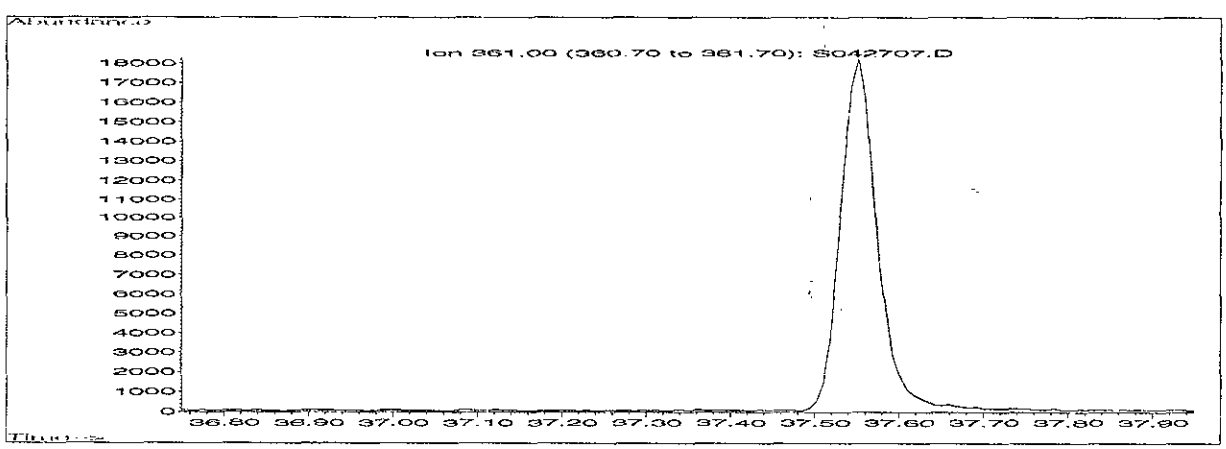


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

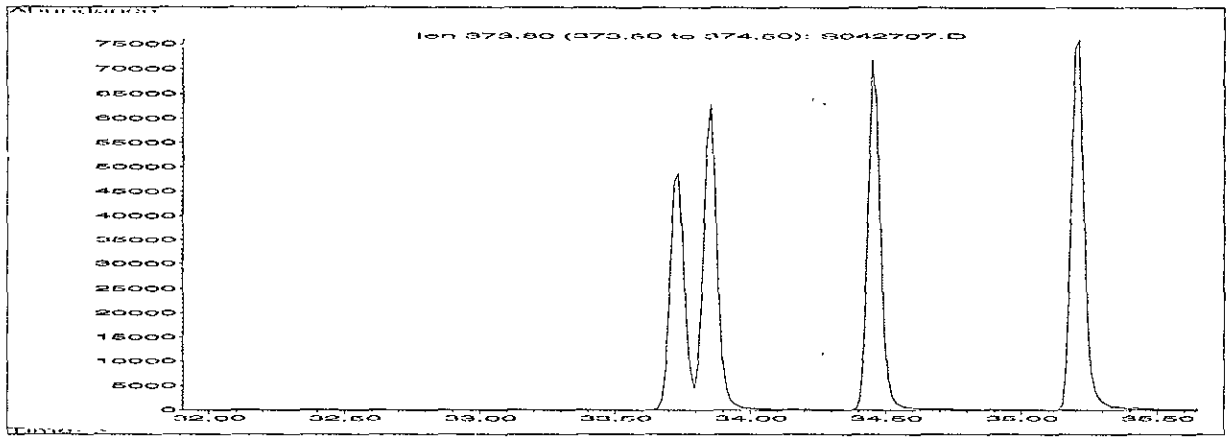


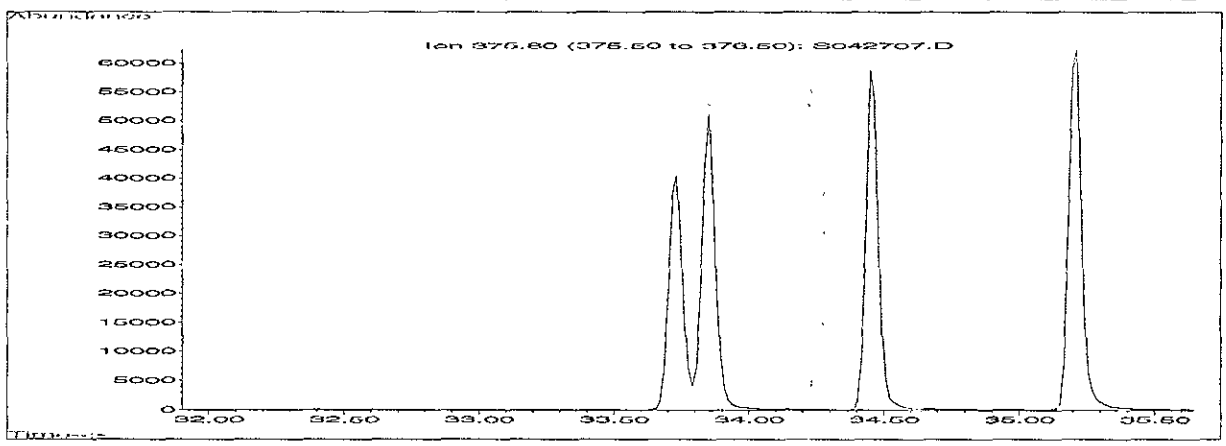


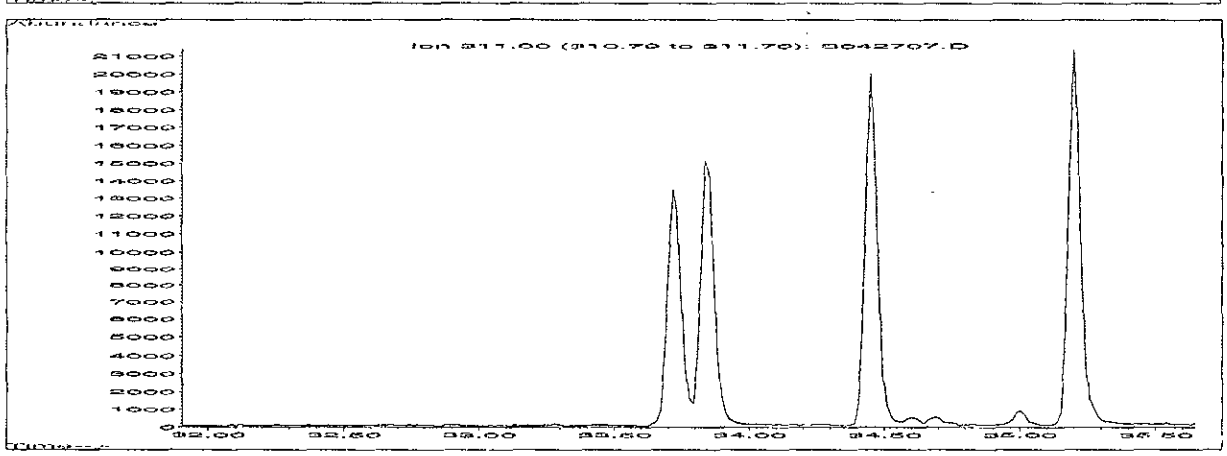


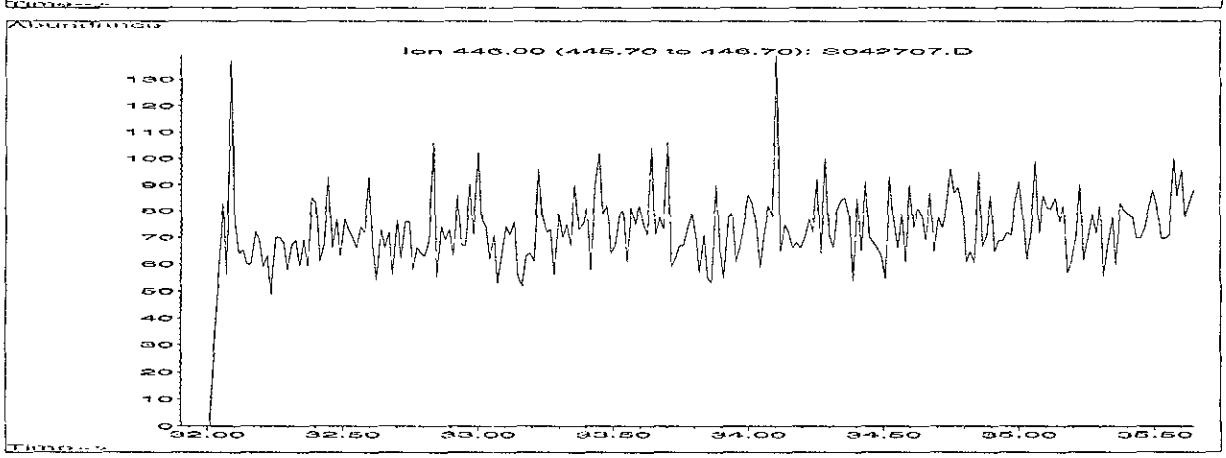
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



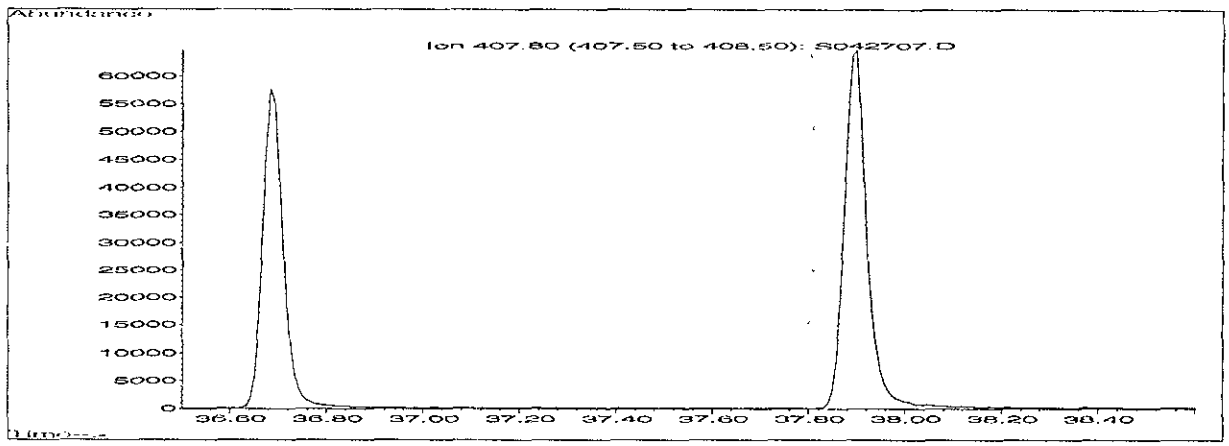


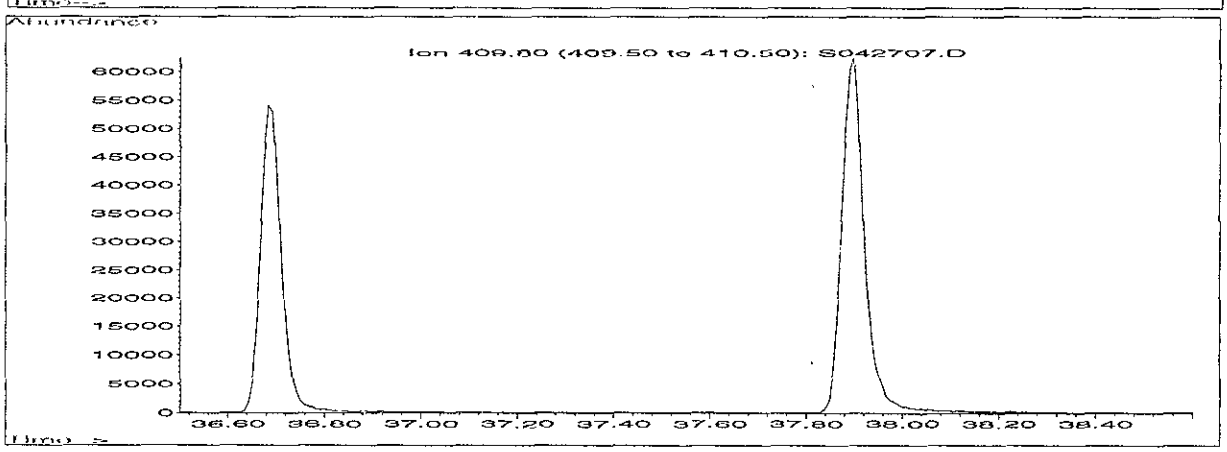


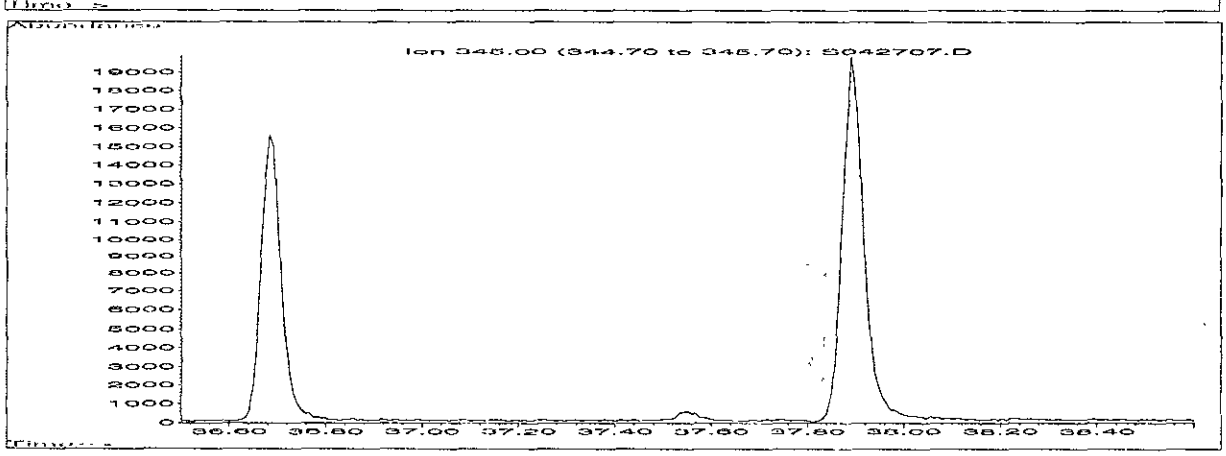


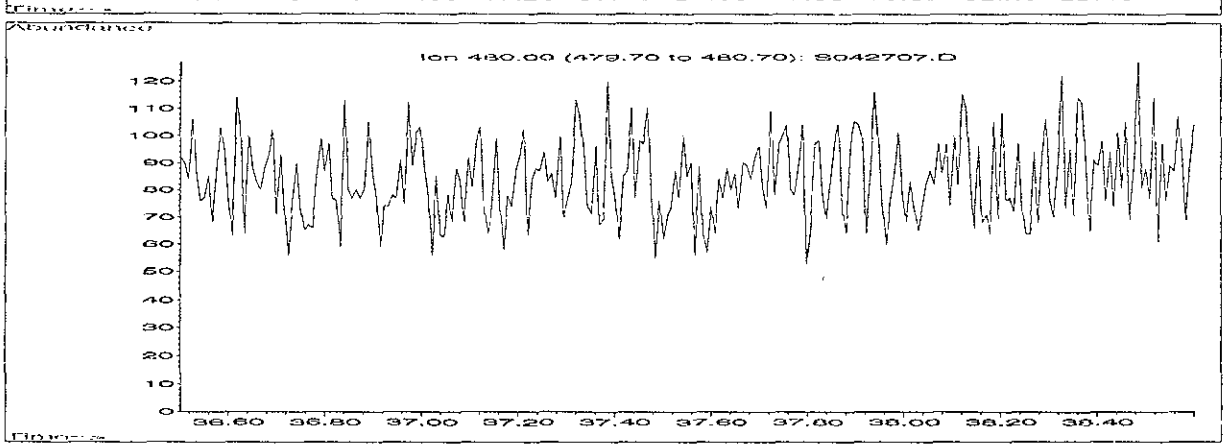
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



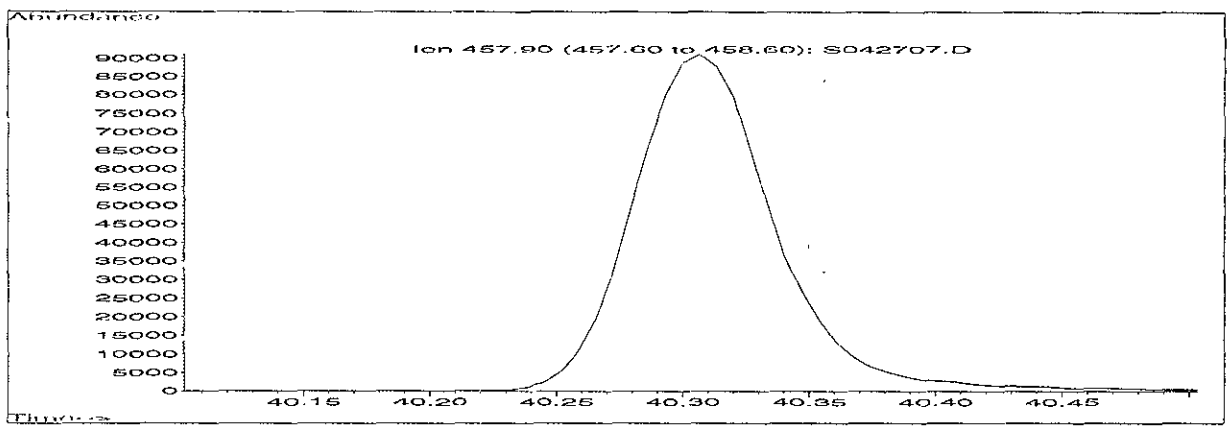


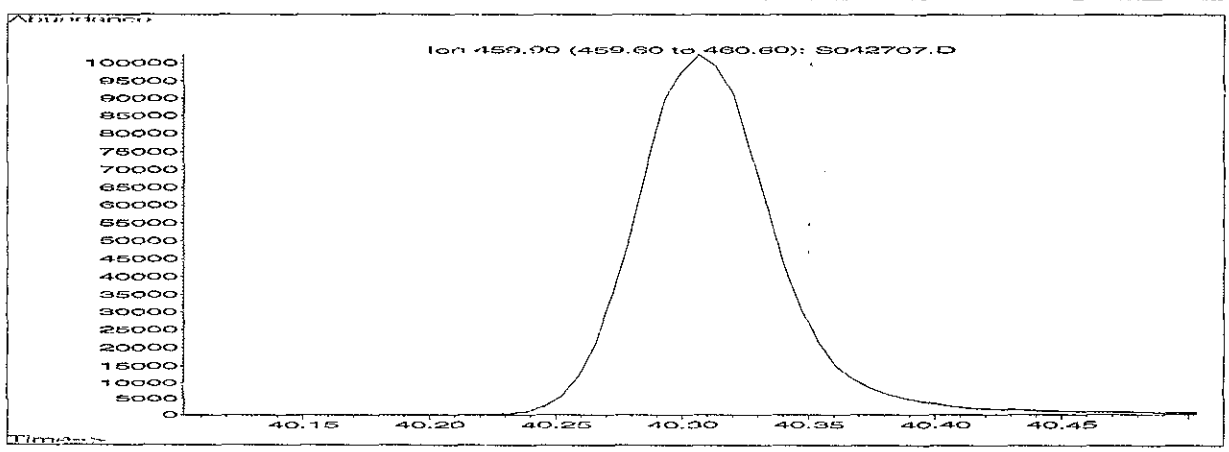


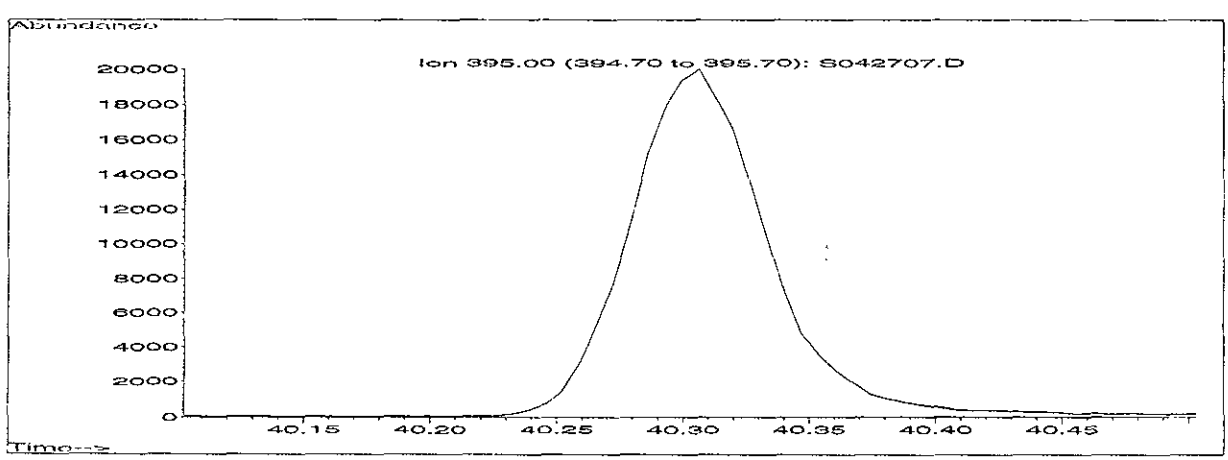


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	40.31		
Target Ion	457.9	Q1 Ion	459.9
Target Response	353223	Q1 Response	397538
Total Response	750761	Ion ratio	0.89
Q2 Ion	395		
Q2 Response	75642		

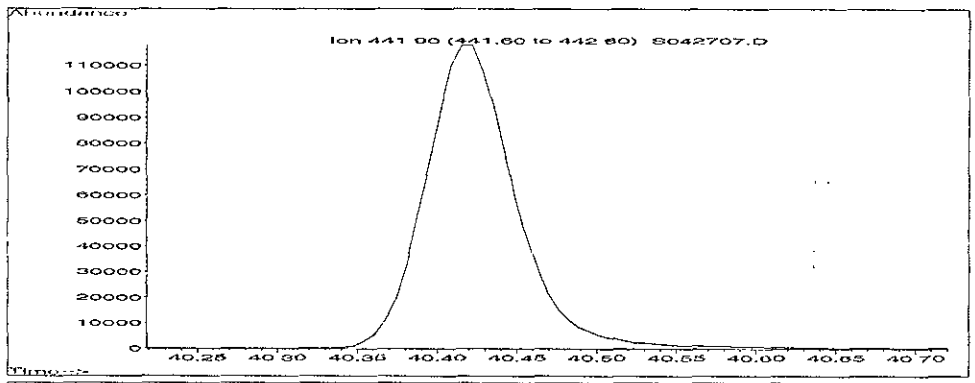


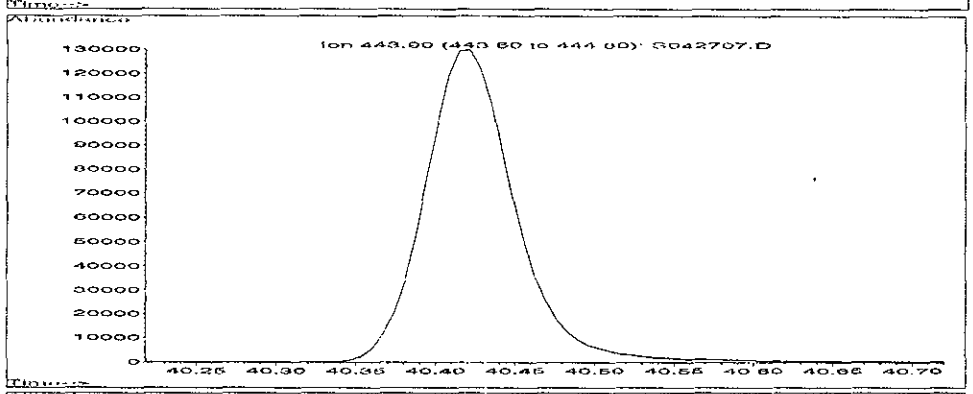


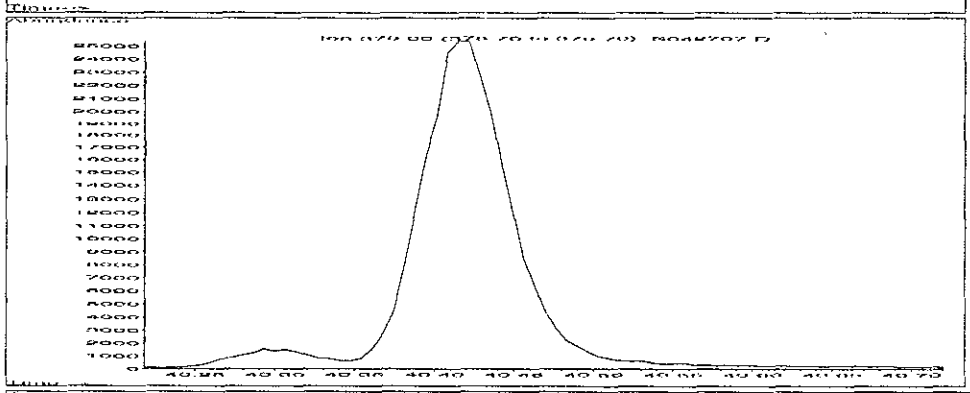


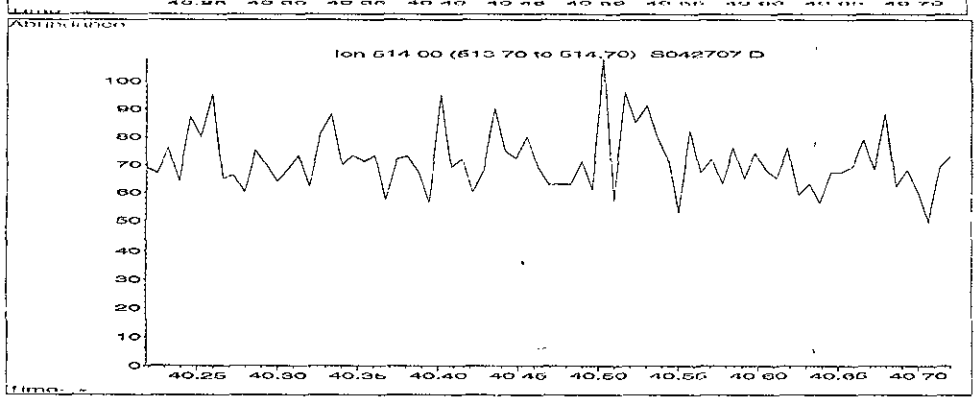
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	40.42		
Target Ion	441.9	Q1 Ion	443.9
Target Response	463317	Q1 Response	509934
Target Response	973251	Ion Ratio	0.91
Q2 Ion	379	DPE Ion	514
Q2 Response	97004	DPE Response	0



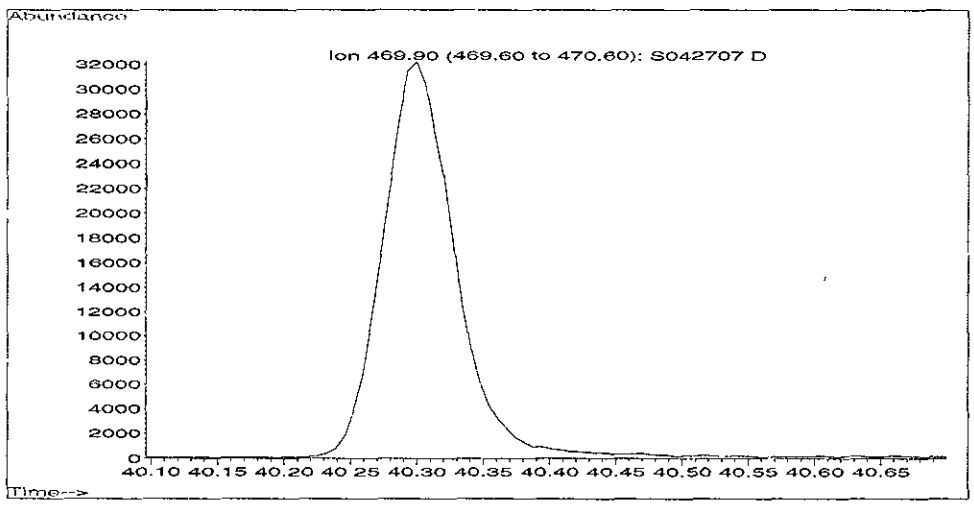


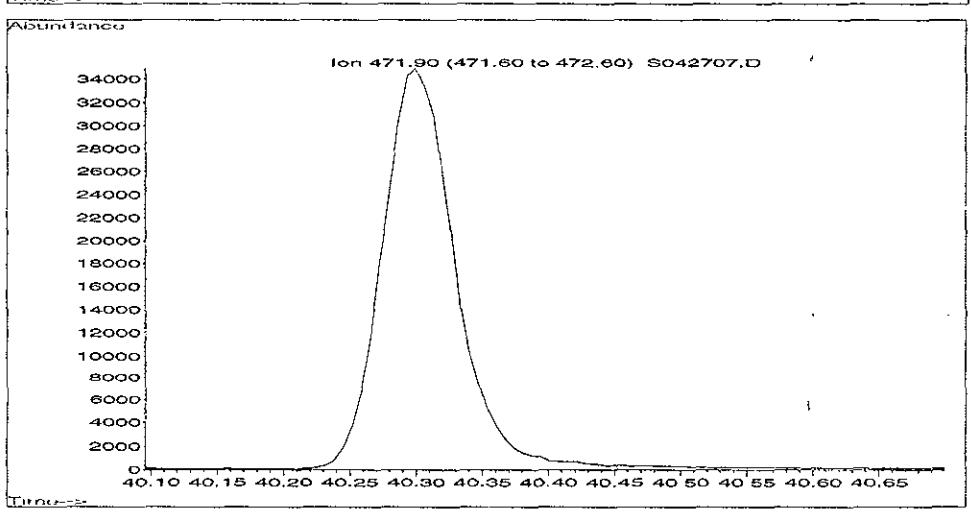




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	121268	Q1 Response	133942
Total response	255210	Ratio	0.91





Sample ID: A9D160180-4D 0.99273L 8280A
K97DG-1-AD WATER LR909

Size: 0.993
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042708.D
Acq On :27 Apr 2009 6:01 pm

Vial: 8
Operator: MEO
Sample Amount: 0.99

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:41 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.79	139744	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.25	124576	25.00	NG	0.00
9) 13C-2378-TCDF	20.22	316+318	0.81	205292	25.00	NG	-0.02
15) 13C-2378-TCDD	21.15	332+334	0.79	129124	25.00	NG	0.00
20) 13C-123678-HxCDD	34.70	402+404	1.27	85577	25.00	NG	0.01
27) 13C-1234678-HpCDF	36.68	420+422	1.06	98761	25.00	NG	0.00
36) 13C-OCDD	40.30	470+472	0.91	198866	50.00	NG	0.00

Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		115591	11.690	NG	0.00
Spiked Amount = 12.592		RRF = 1.782		Recovery =	92.80%		

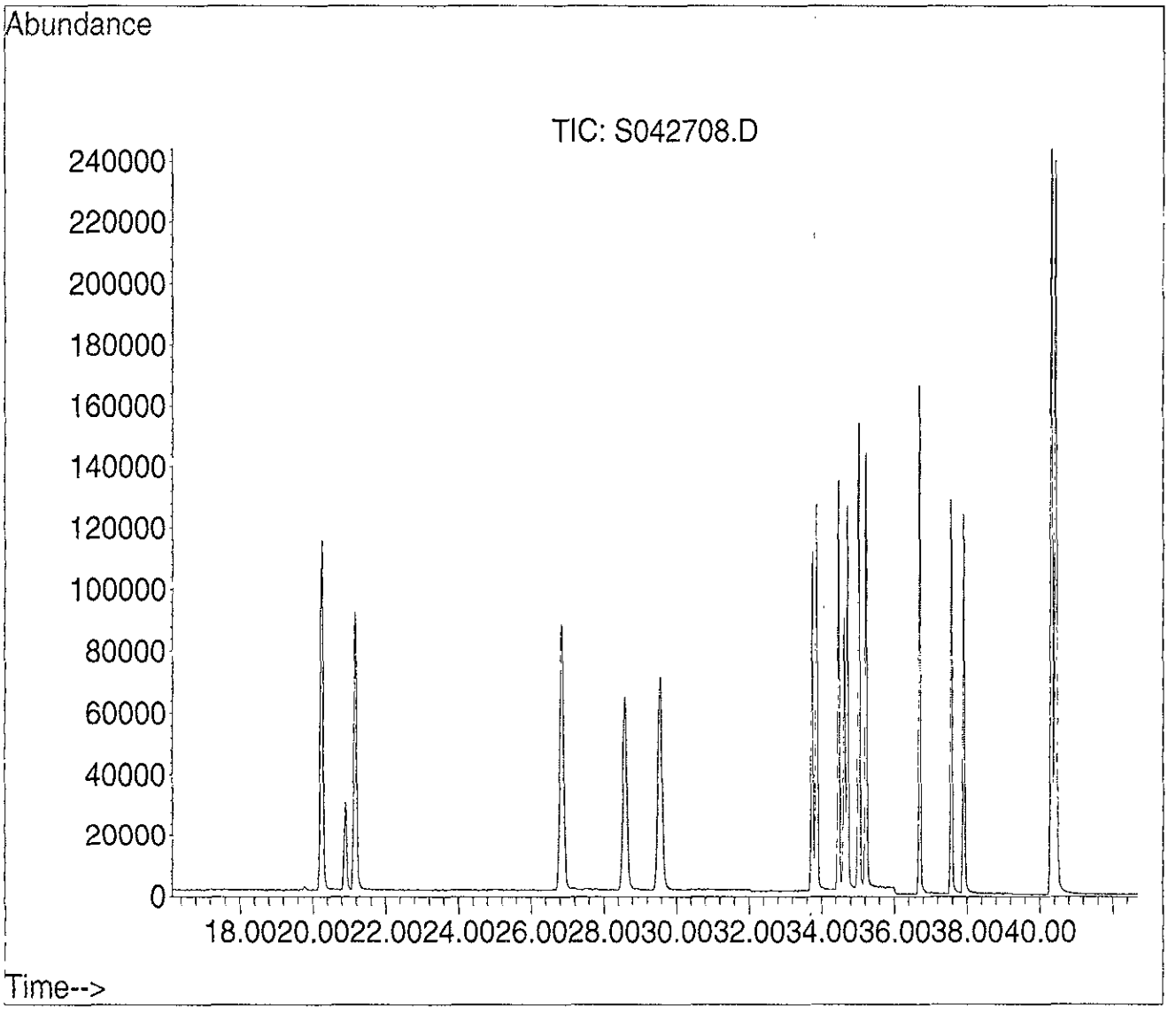
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.22	0.81	205292	1.796	20.594	0.0360	81.8
3) 13C-2378-TCDD-IS	21.15	0.79	131931	1.137	20.902	3.4891	83.0
6) 13C-123678-HxCDD-	34.70	1.27	85522	0.899	19.222	0.0522	76.3
7) 13C-1234678-HpCDF	36.68	1.06	98761	1.062	18.800	0.0663	74.7
8) 13C-OCDD-IS	40.30	0.91	198866	0.887	45.302	0.1405	89.9
10) 2378-TCDF	20.24	0.79	259261	1.219	26.097	0.5477	
1	19.77	0.73	3613		0.364		
2	20.24	0.78	263328		26.506		
11) TCDF TOTAL	19.30	0.78	266941	1.219	26.870		
12) 12378-PeCDF	26.83	1.57	523183	0.964	66.559	0.0295	
13) 23478-PeCDF	28.57	1.57	385739	0.927	51.067	0.0730	
1	26.83	1.57	537014		71.095		
2	28.57	1.56	385739		51.067		
14) PeCDF TOTAL	26.80	1.56	922753	0.927	122.162		
16) 2378-TCDD	21.17	0.78	178543	1.306	26.657	0.0864	
1	20.24	4.72 #	19774		2.952		
2	21.17	0.77	183979		27.469		
17) TCDD TOTAL	19.30	0.77	203753	1.306	30.421		
18) 12378-PeCDD	29.56	1.58	331636	0.941	68.748	0.2000	
1	29.56	1.58	344014		71.314		
19) PeCDD TOTAL	27.00	1.58	344014	0.941	71.314		
21) 123478-HxCDD	34.61	1.25	212789	1.097	57.098	0.1471	
22) 123678-HxCDD	34.70	1.24	234845	1.061	65.148	0.8647	
23) 123789-HxCDD	35.02	1.25	291627	1.144	75.016	0.8828	
1	34.61	1.25	212789		57.098		
2	34.70	1.23	854417		237.022		
3	35.02	1.24	294834		81.789		
24) HxCDD TOTAL	34.70	1.24	1362040	1.061	375.910		
25) 1234678-HpCDD	37.55	1.03	265298	1.055	73.972	0.1274	

AK 4/30/09

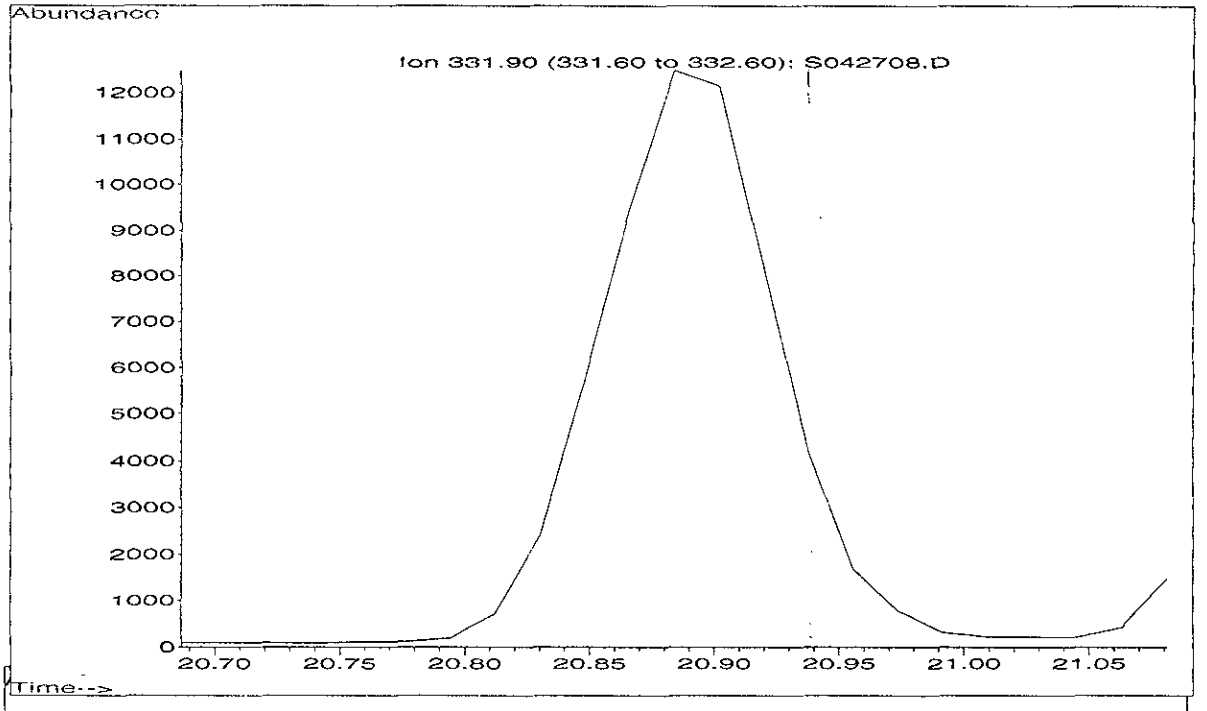
	1	37.55	1.03	265298		73.972	
26)	HpCDD TOTAL	37.35	1.03	265298	1.055	73.972	
28)	123478-HxCDF	33.73	1.25	318823	1.329	61.166	0.1147
29)	123678-HxCDF	33.85	1.24	366599	1.384	67.545	0.6100
30)	234678-HxCDF	34.47	1.23	376624	1.315	73.033	0.1367
31)	123789-HxCDF	35.21	1.26	390471	1.278	77.907	0.1674
	1	33.73	1.25	318823		61.166	
	2	33.85	1.23	366599		67.545	
	3	34.47	1.23	376624		73.033	
	4	35.21	1.25	394831		78.777	
32)	HxCDF TOTAL	34.40	1.25	1456877	1.278	280.521	
33)	1234678-HpCDF	36.69	1.04	311831	1.237	64.258	0.1030
34)	1234789-HpCDF	37.90	1.04	341661	1.111	78.397	0.1331
	1	36.69	1.04	311831		64.258	
	2	37.90	1.04	341661		78.397	
35)	HpCDF TOTAL	38.00	1.04	653492	1.111	142.655	
37)	OCDD	40.31	0.89	629382	1.224	130.217	0.0876
38)	OCDF	40.42	0.90	822942	1.589	131.176	0.2469

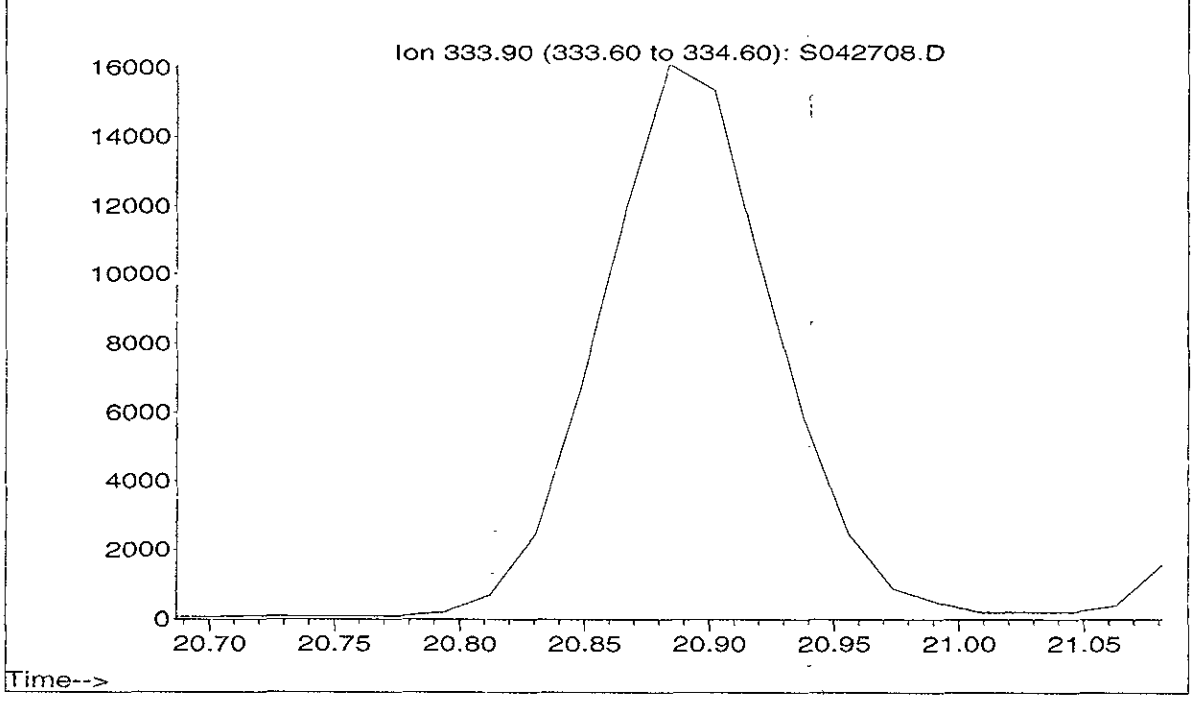
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042708.D 09AP27A2.M Tue Apr 28 16:41:34 2009

Data File Name	S042708.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 6:01
Acq. Method File	TOKAS
Sample Name	97DG-1-AD WATER LR909
Misc Info	160180-4D 0.99273L 8280A
Vial Number	8
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0.99273



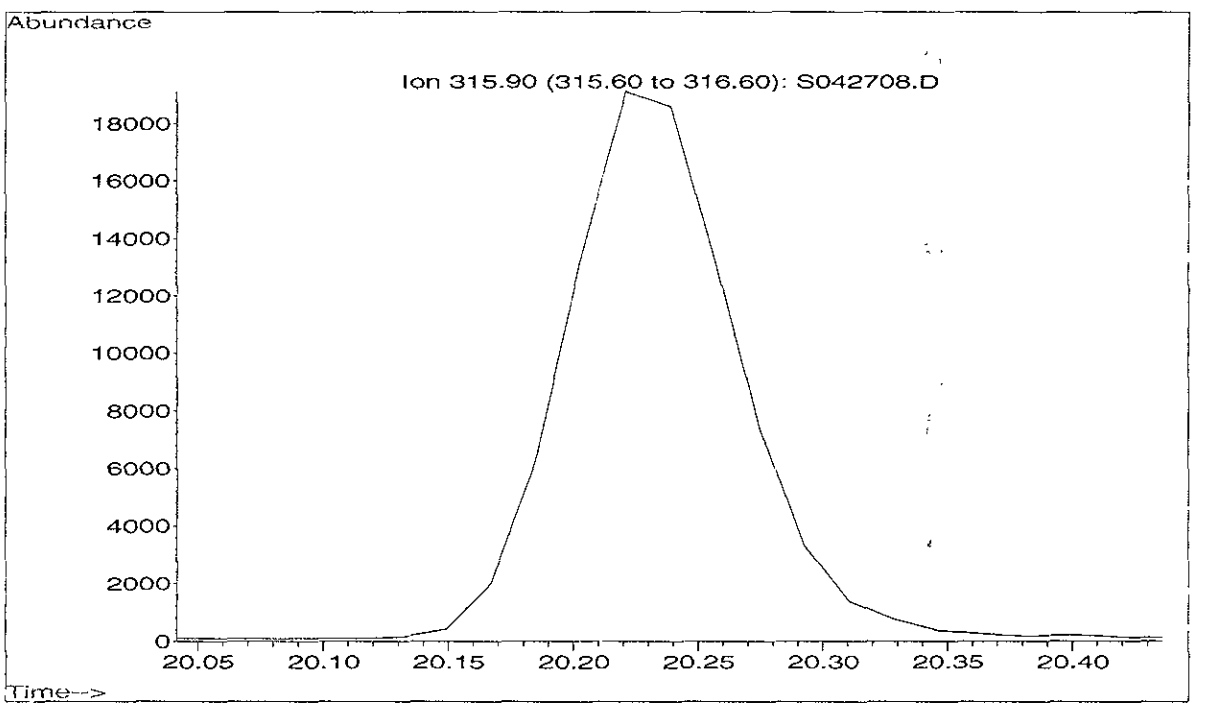
13C-1234-TCDD			
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	61847	Q1 Response	77897
Total Response	139744	Ion Ratio	0.79

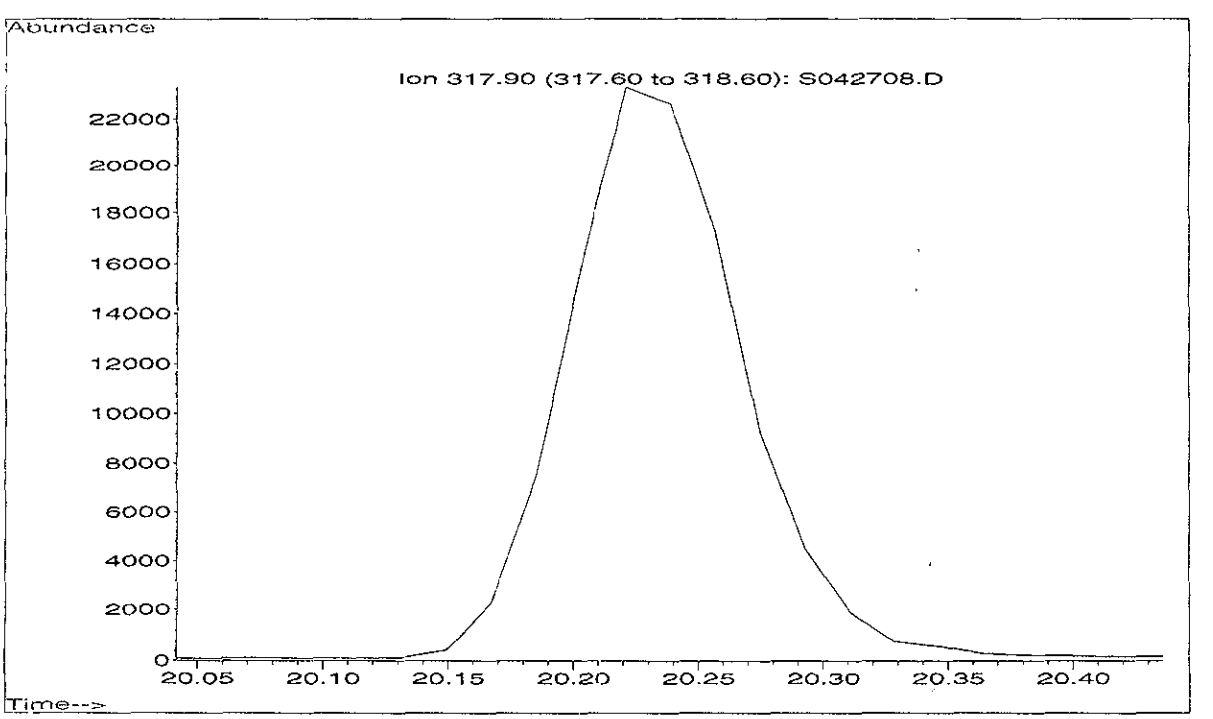




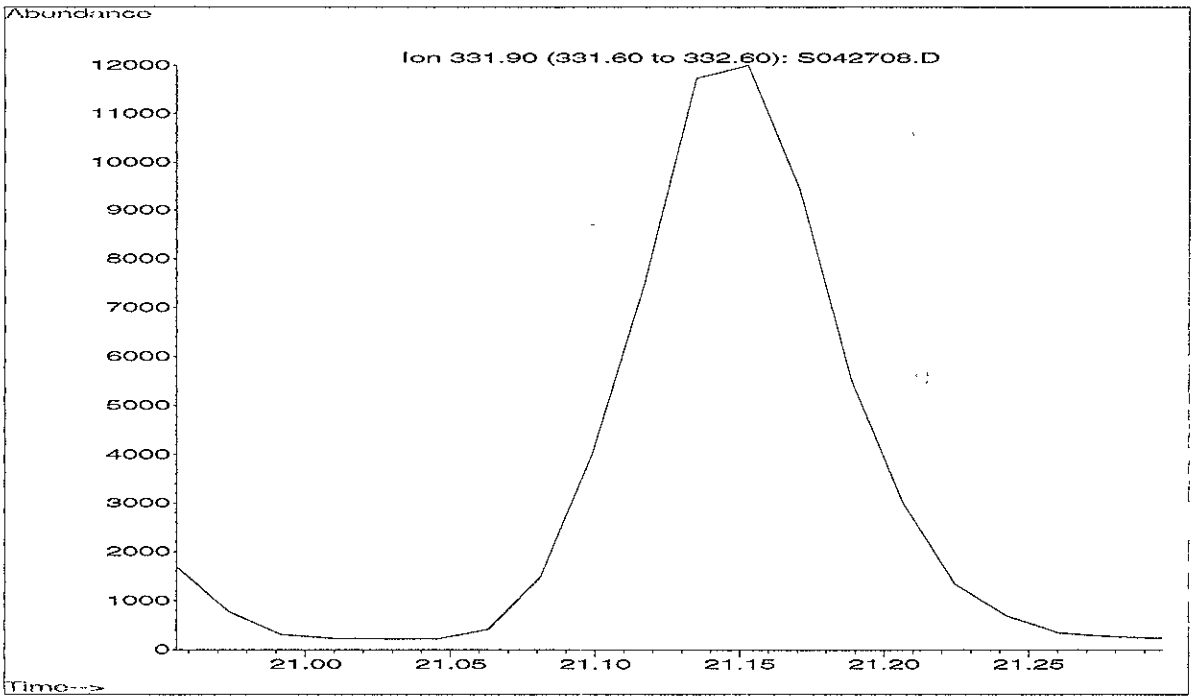
13C-2378-TCDF-IS

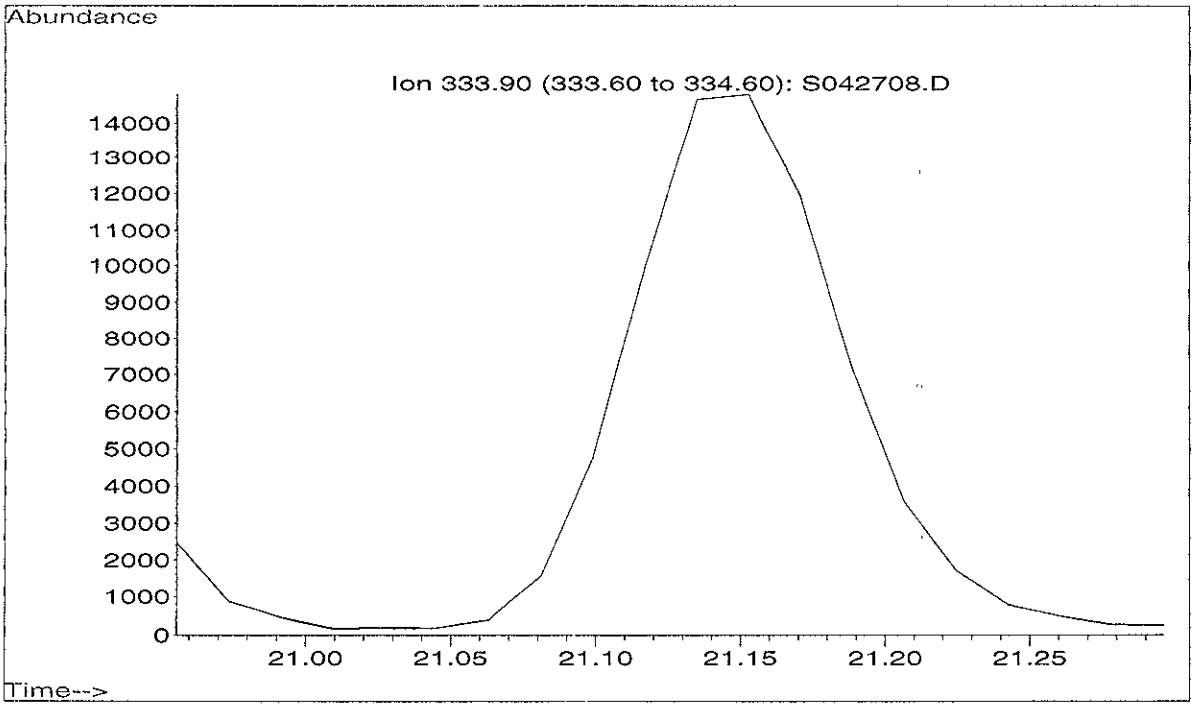
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.22		
Target Ion	315.9	Q1 Ion	317.9
Target Response	91981	Q1 Response	113311
Target Response	205292	Ion Ratio	0.81





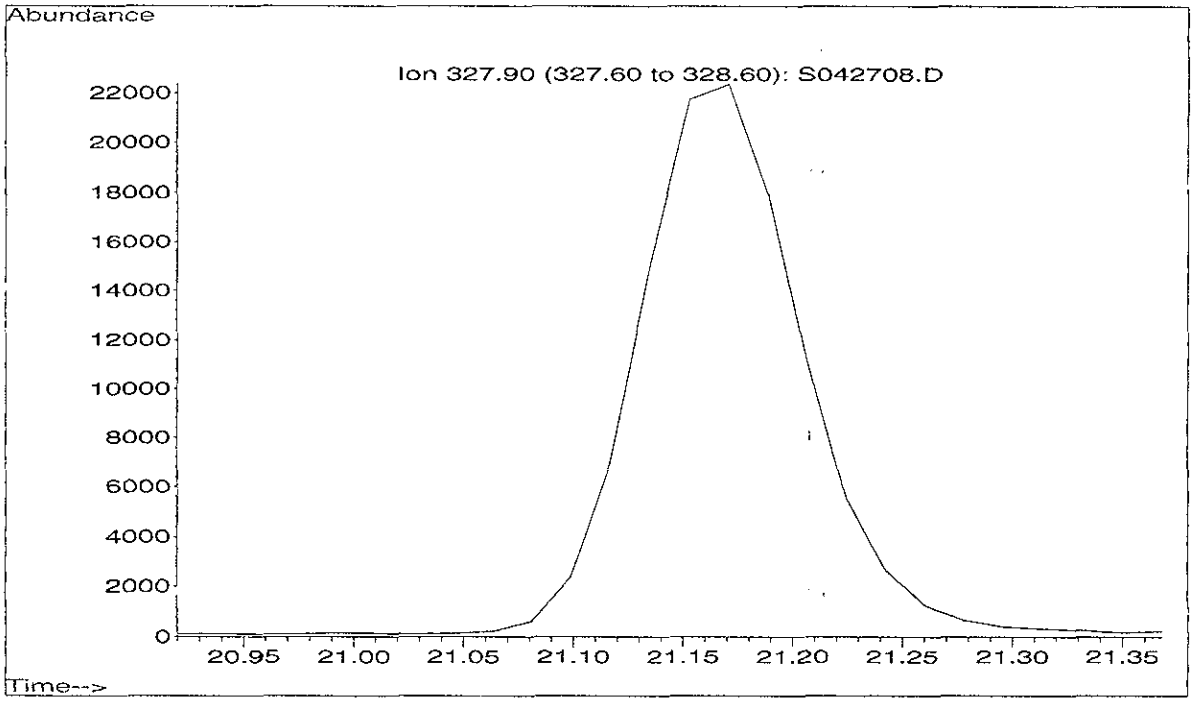
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.15		
Target Ion	331.9	Q1 Ion	333.9
Target Response	58289	Q1 Response	73642
Total Response	131931	Ion Ratio	0.79

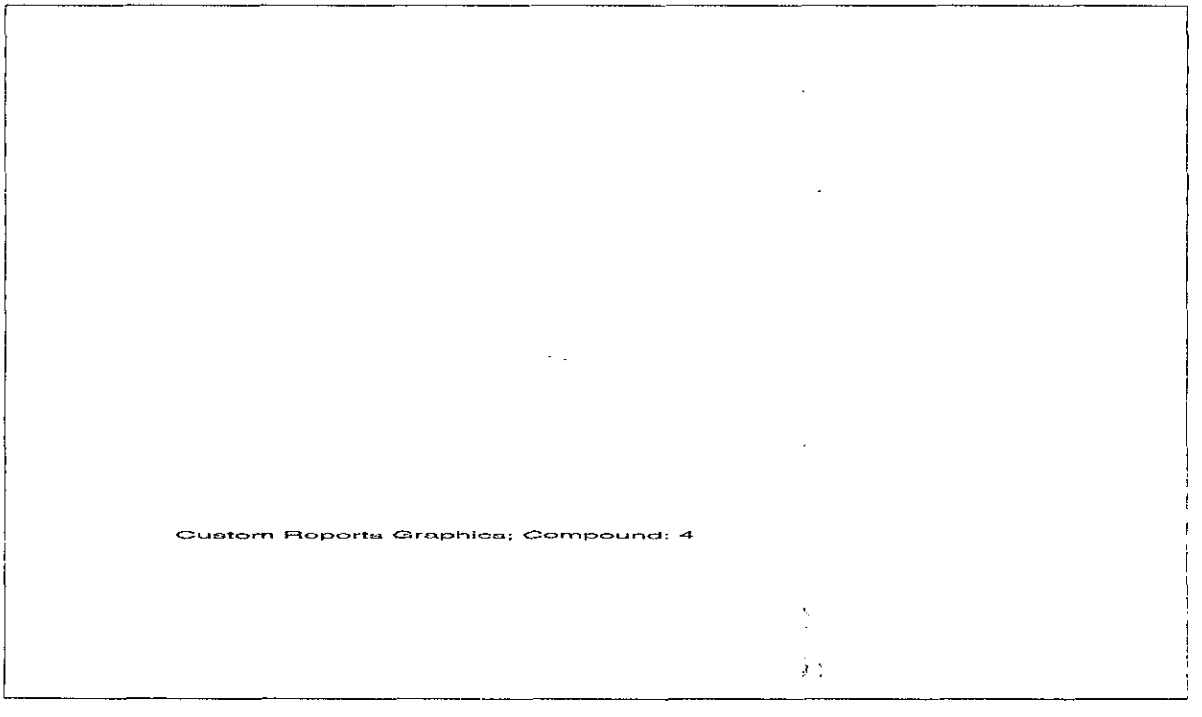




37Cl-2378-TCDD

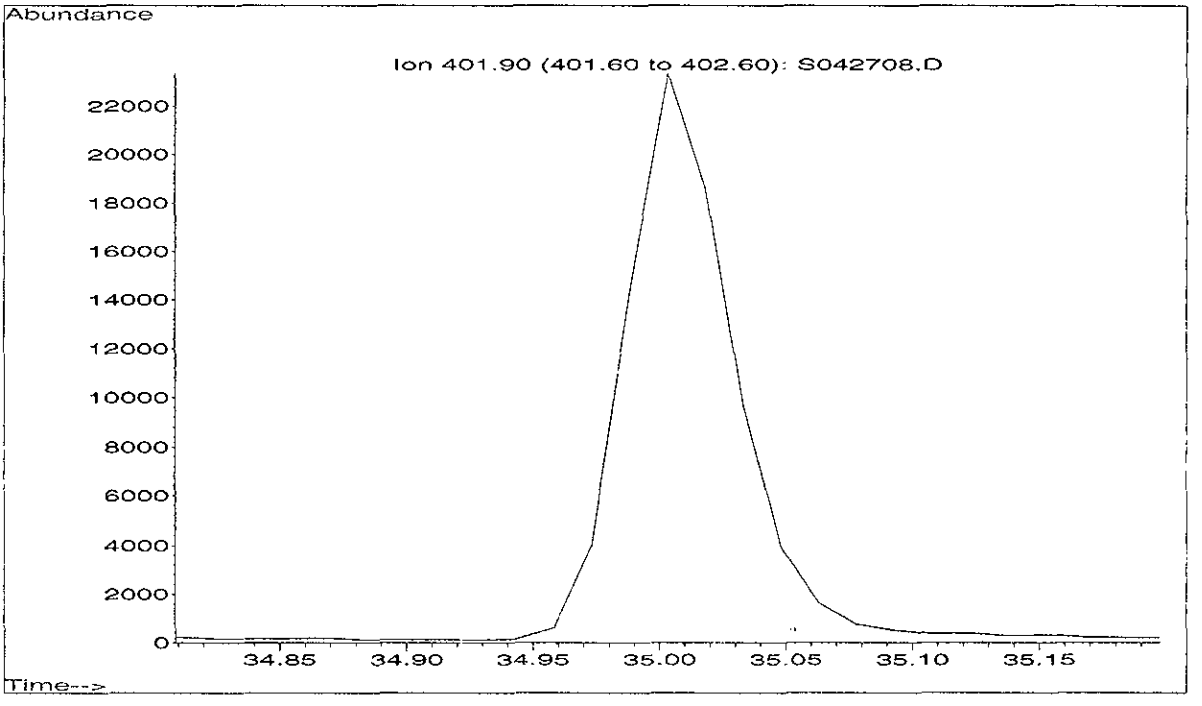
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	115591	Q1 Response	0
Total Response	115591	Ion Ratio	#DIV/0!

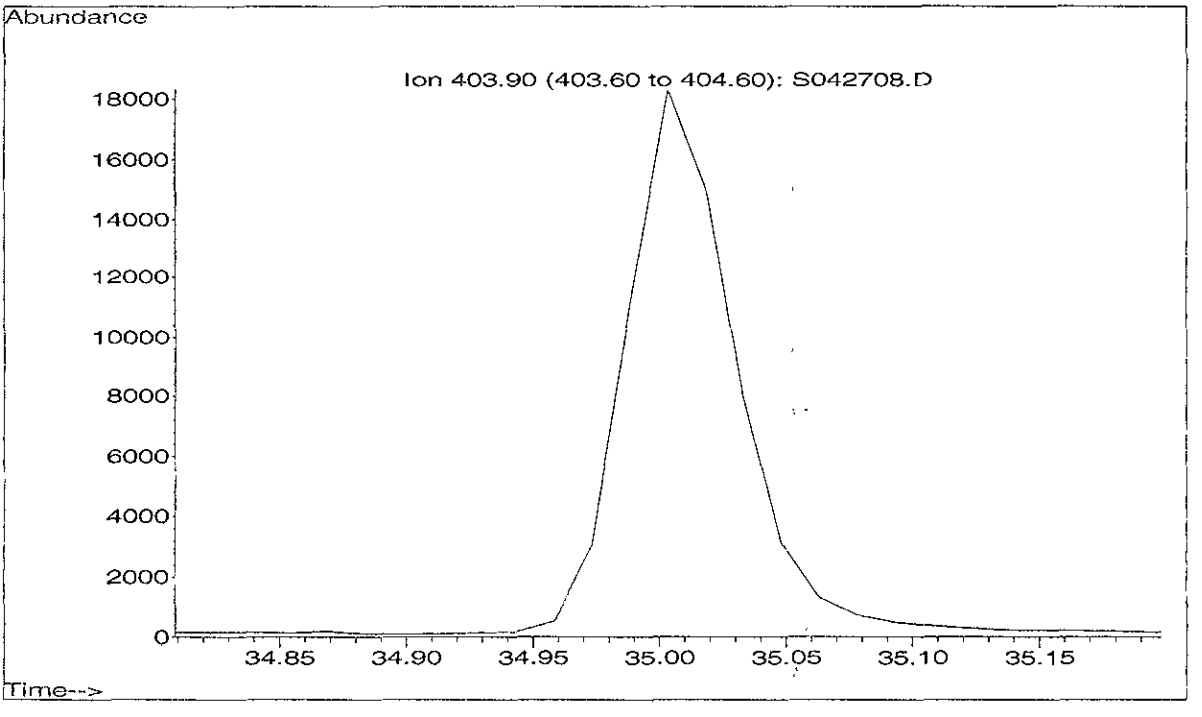




13C-123789-HxCDD

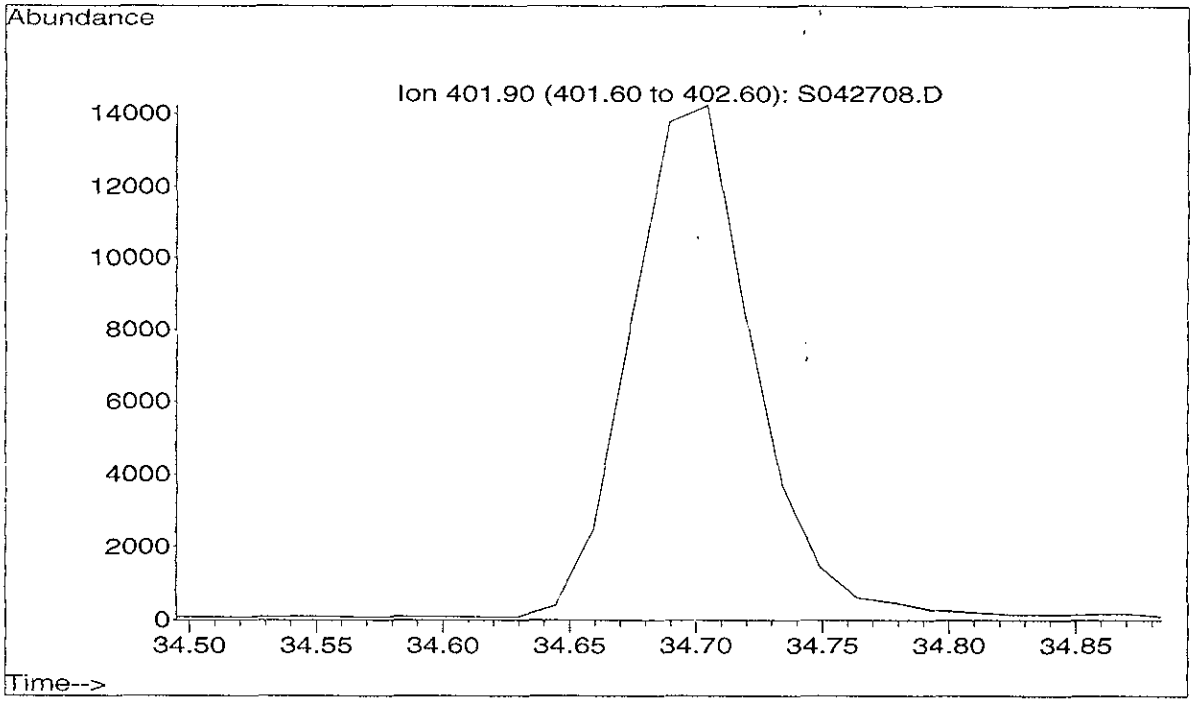
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	69311	Q1 Response	55265
Target Response	124576	Ion Ratio	1.25

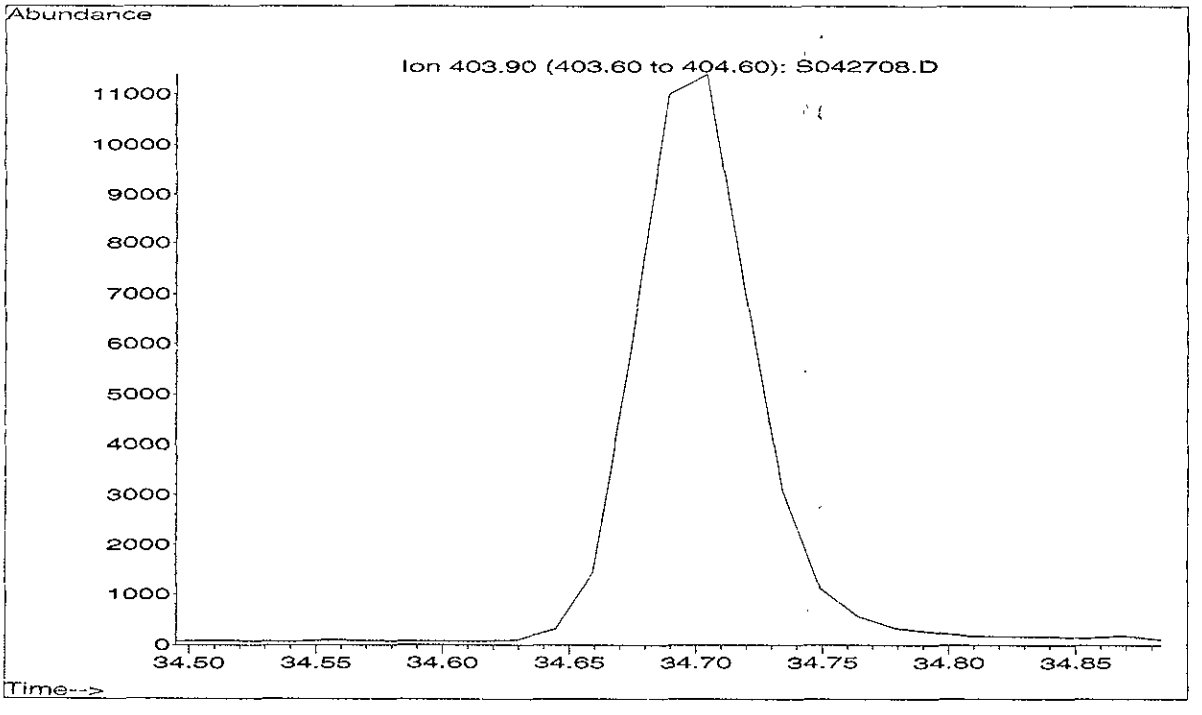




13C-123678-HxCDD-IS

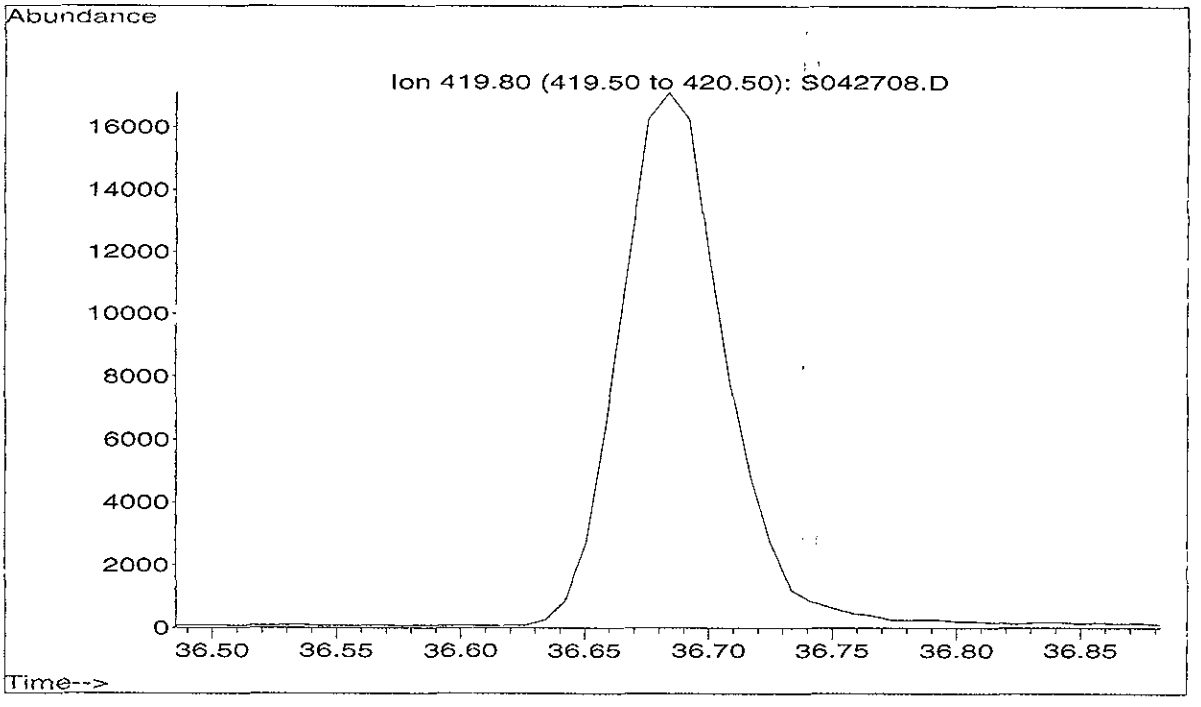
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.70		
Target Ion	401.9	Q1 Ion	403.9
Target Response	47808	Q1 Response	37714
Total Response	85522	Ion Ratio	1.27

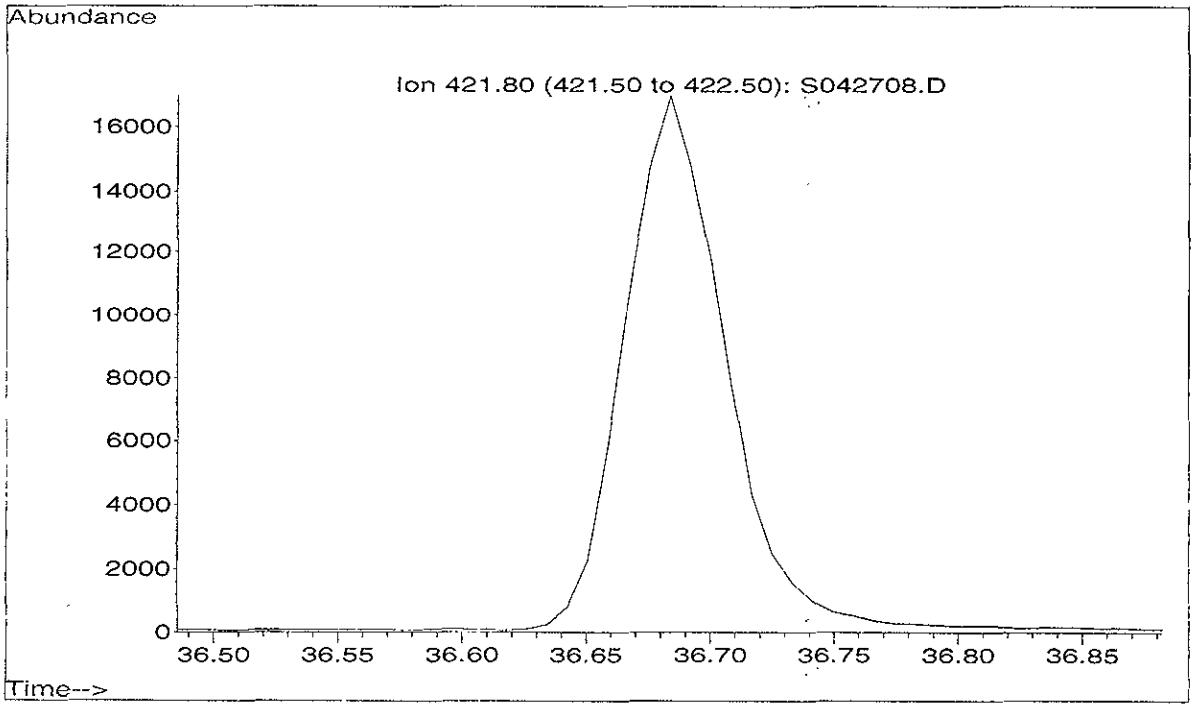




13C-1234678-HpCDF-IS

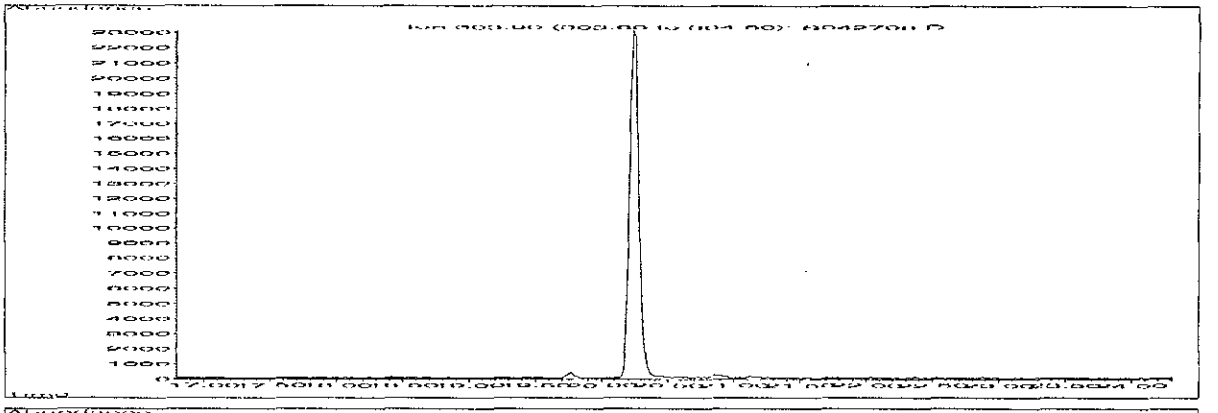
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	50781	Q1 Response	47980
Target Response	98761	Ion Ratio	1.06

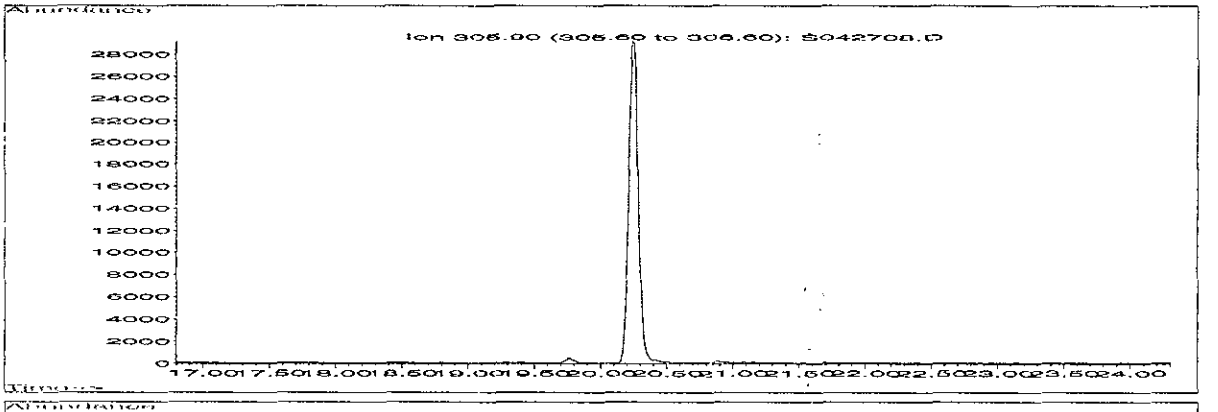


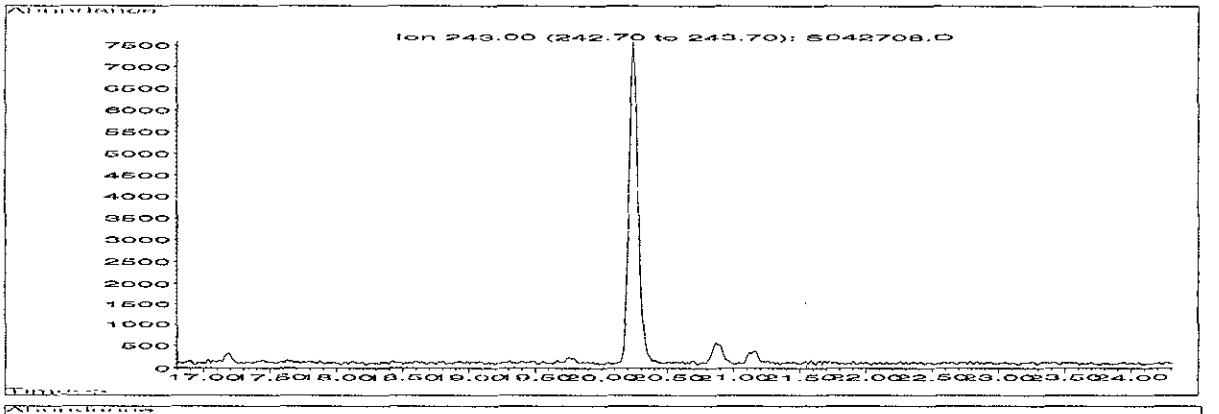


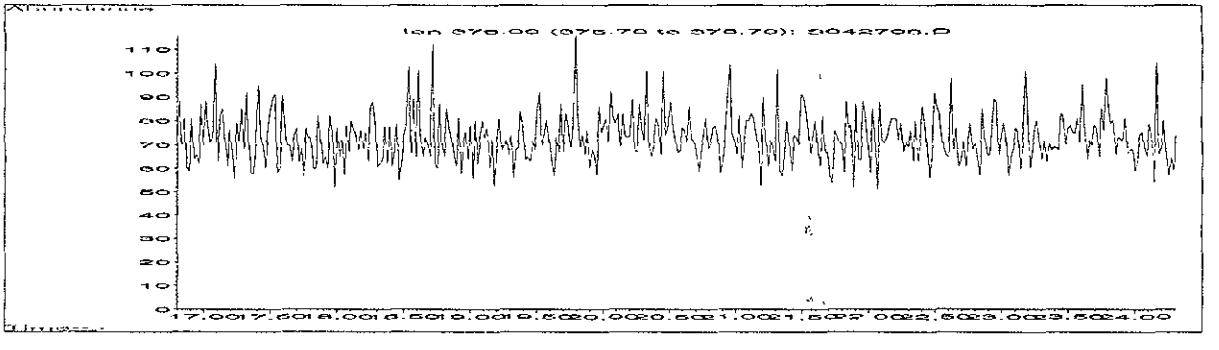
TCDF TOTAL

TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30



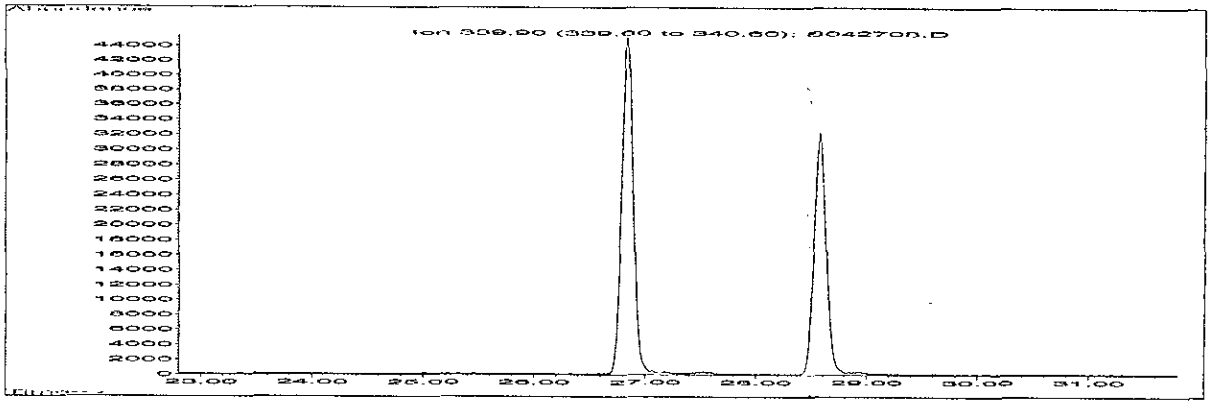


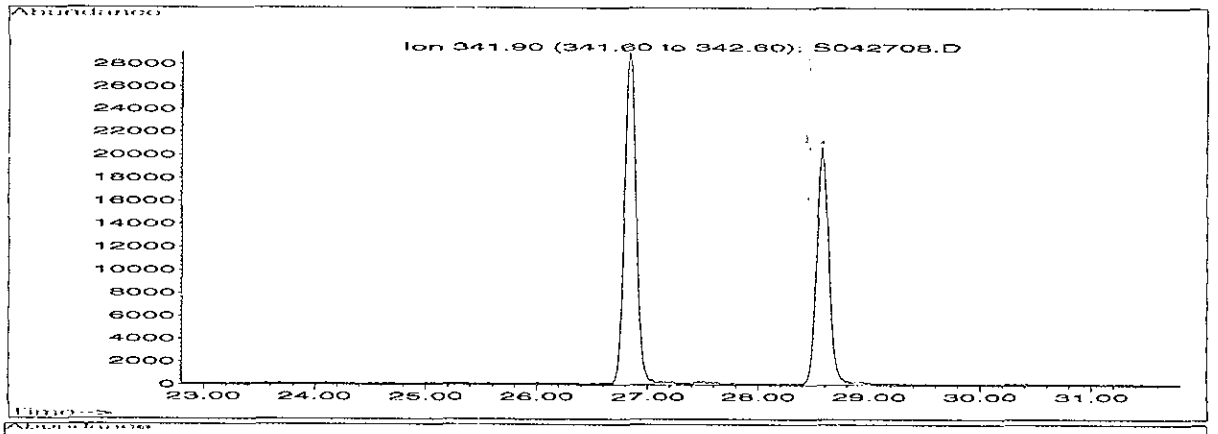


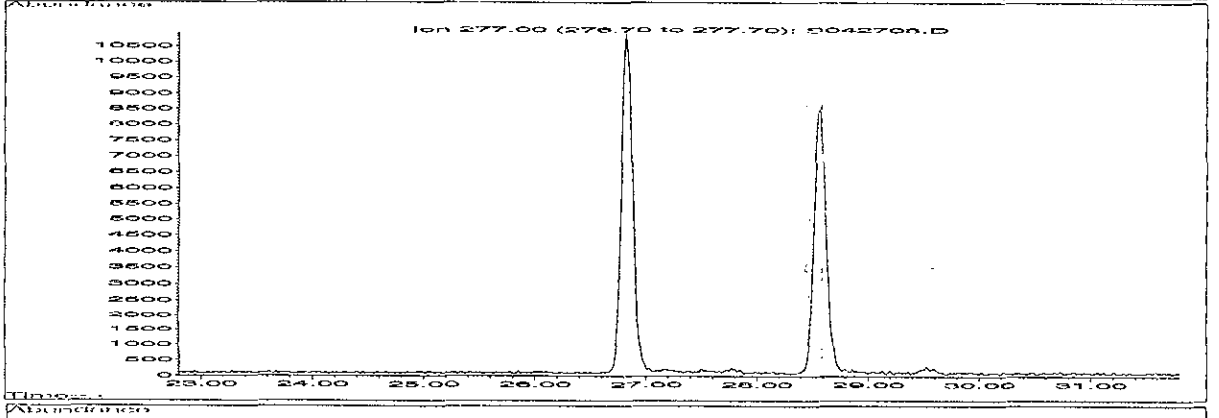


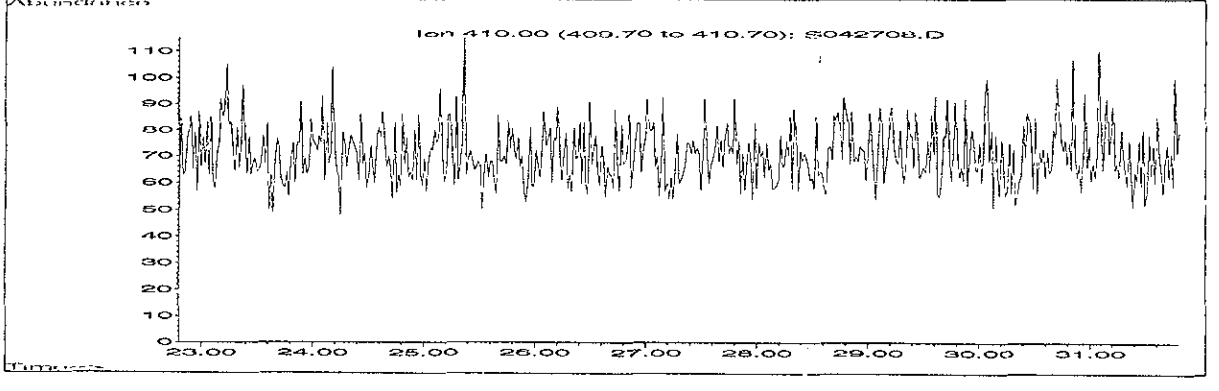
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



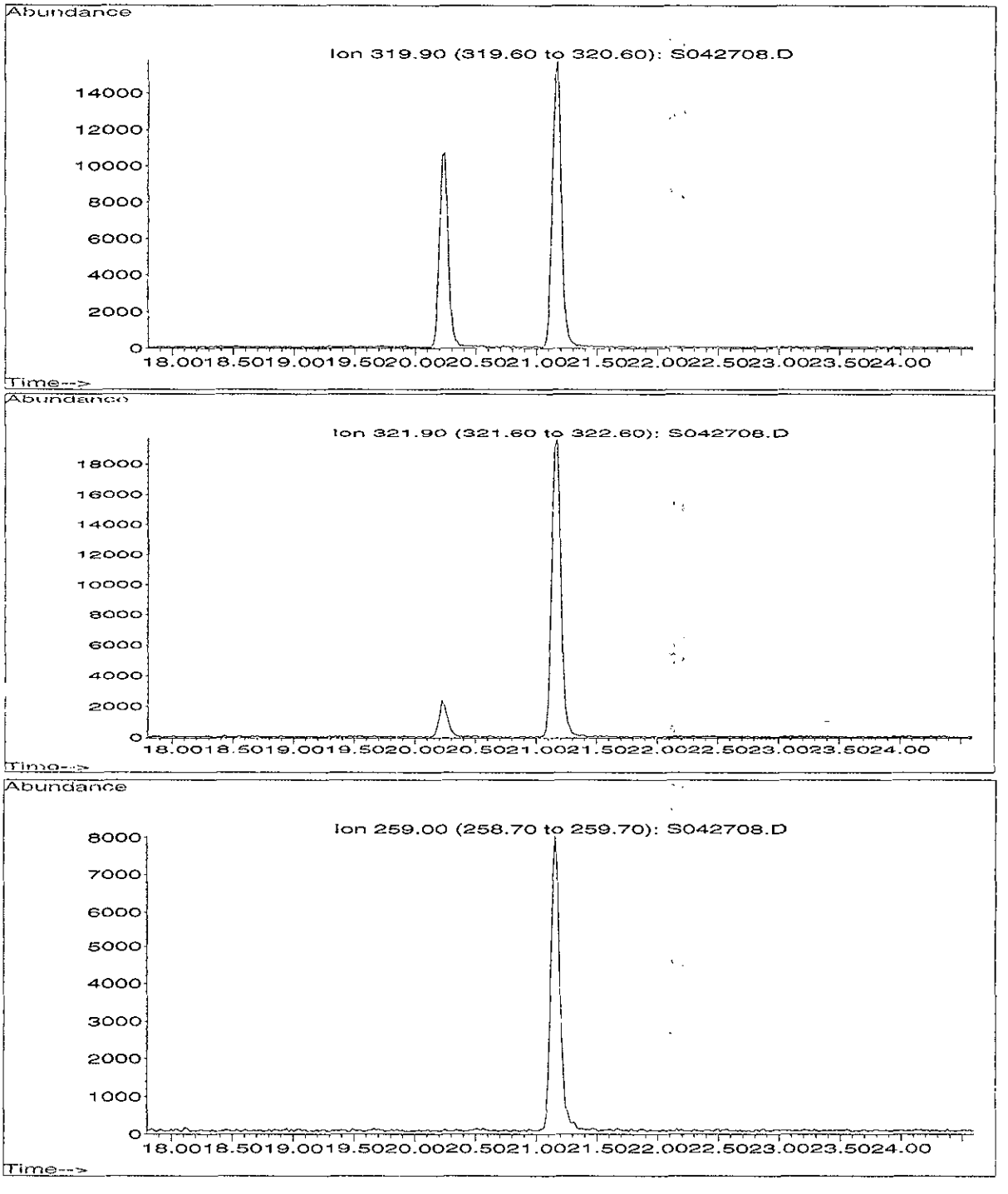






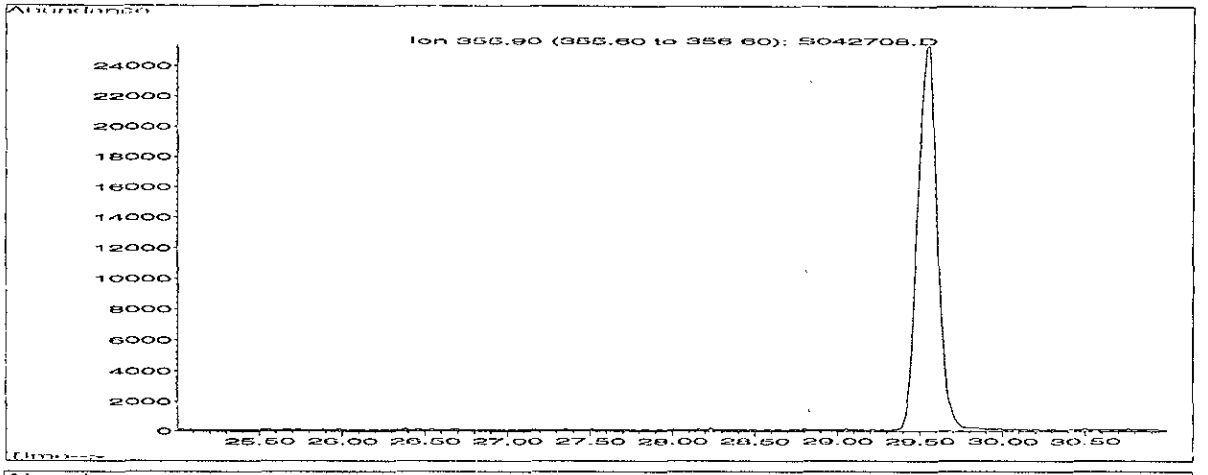
TCDD TOTAL

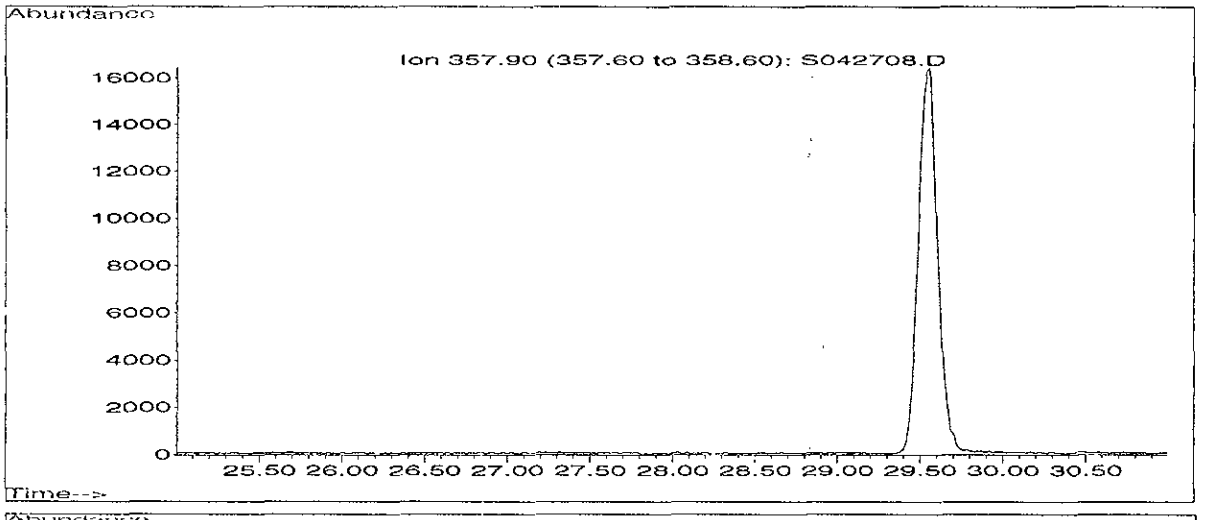
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

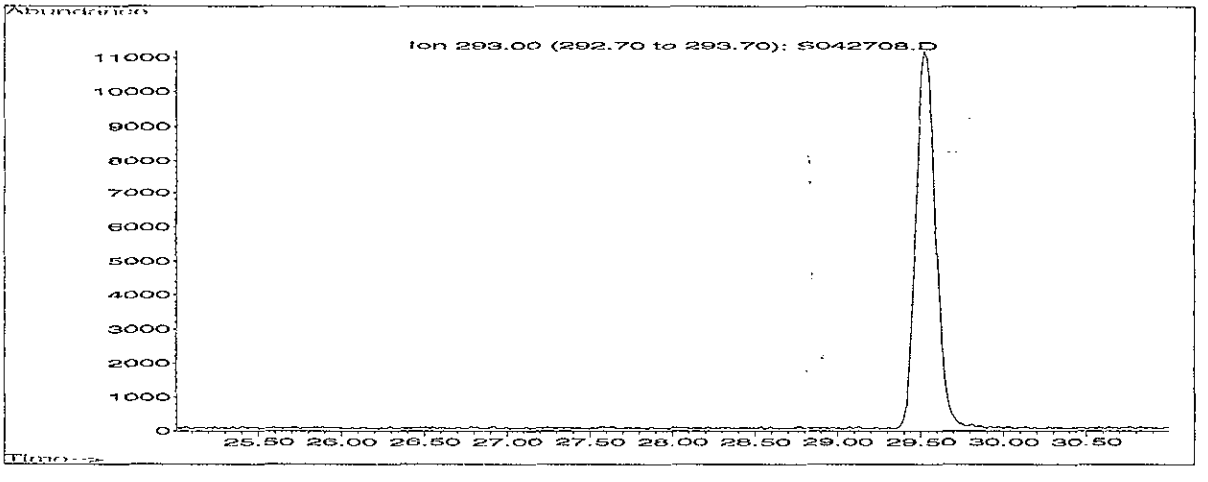


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

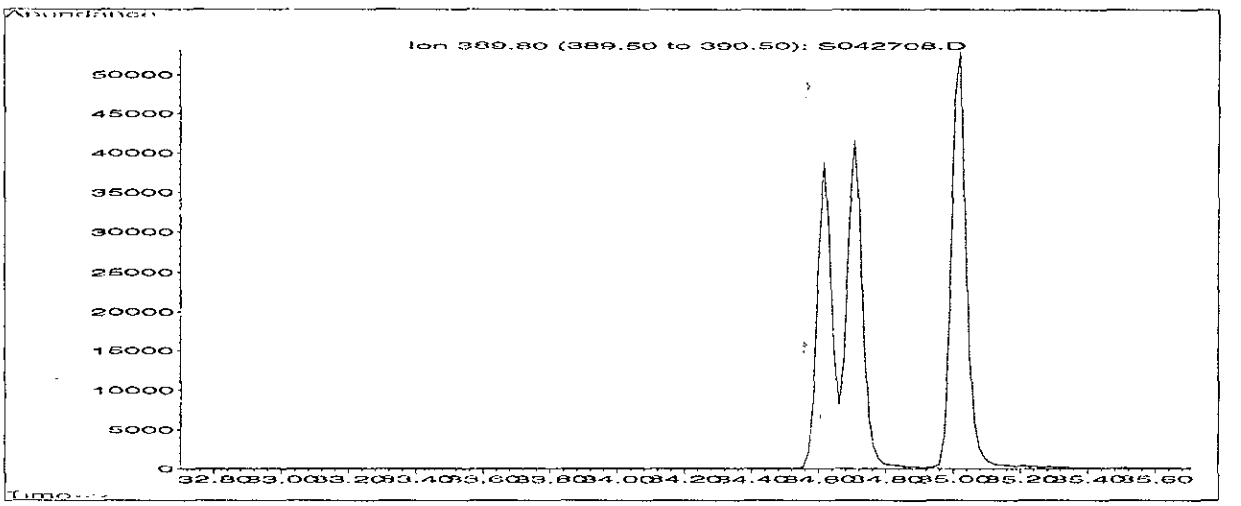


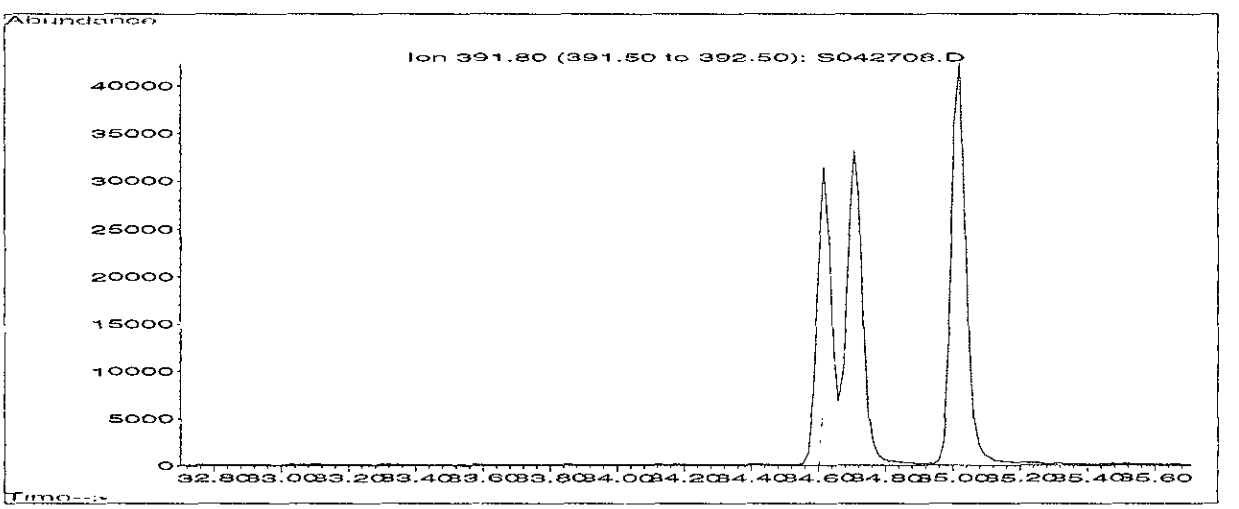


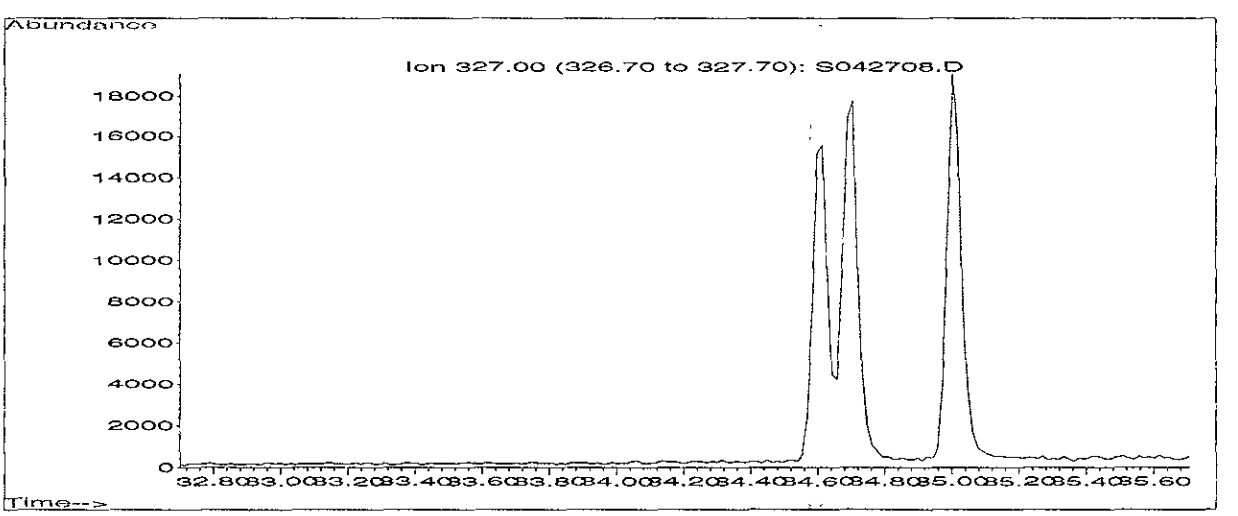


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

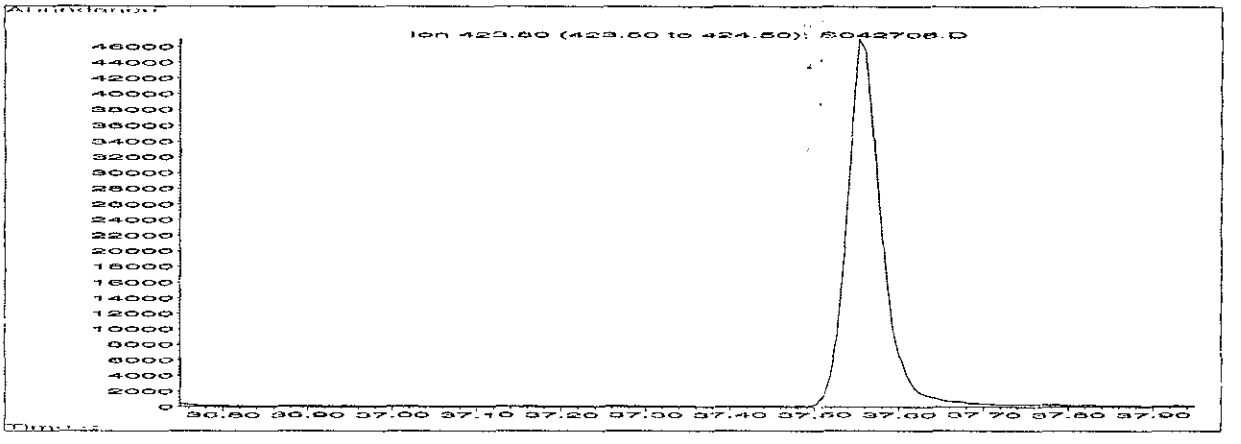


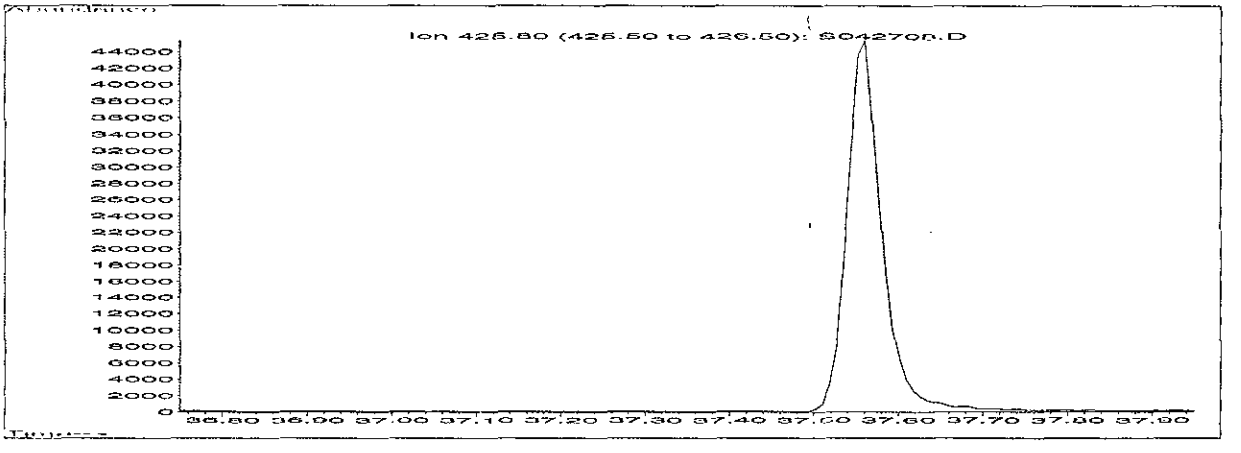


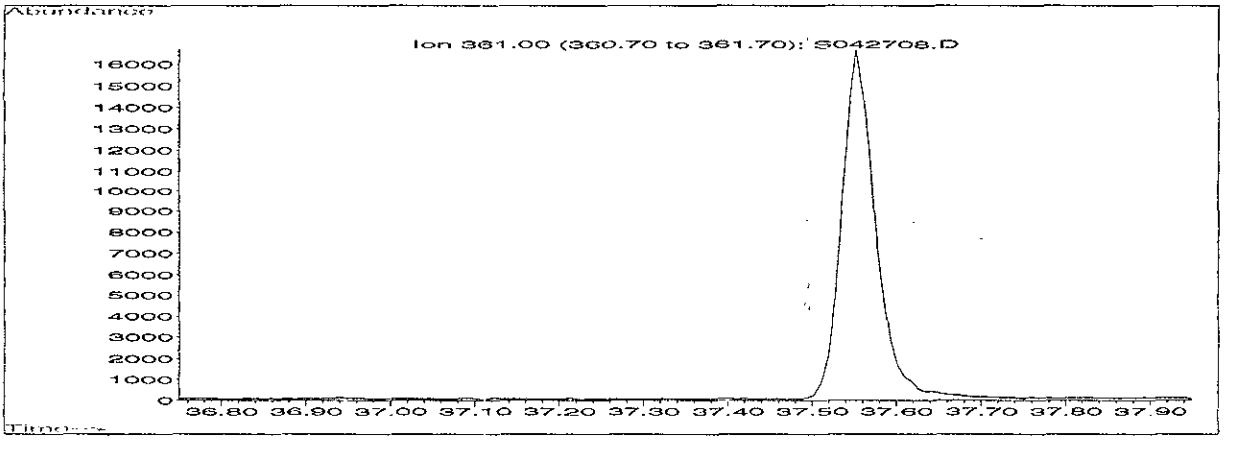


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

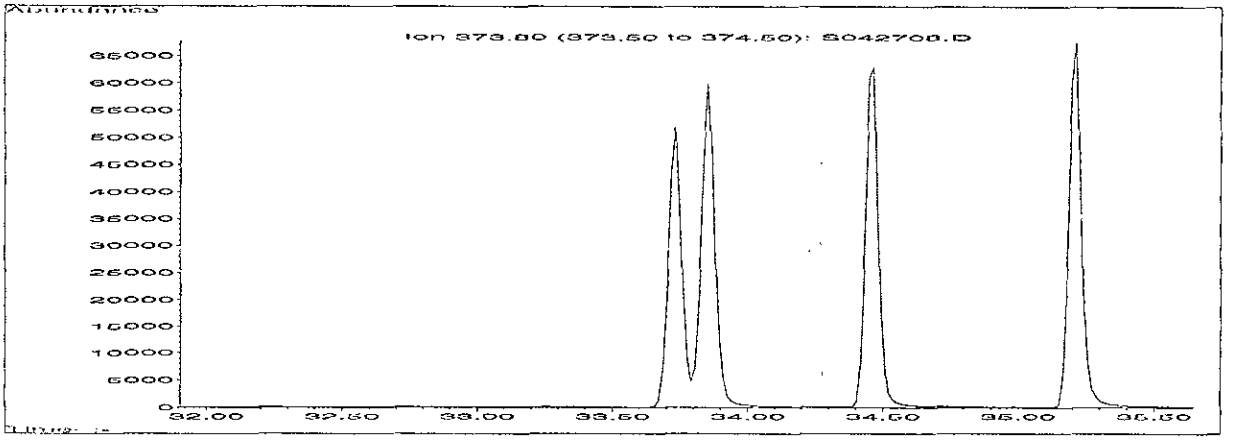


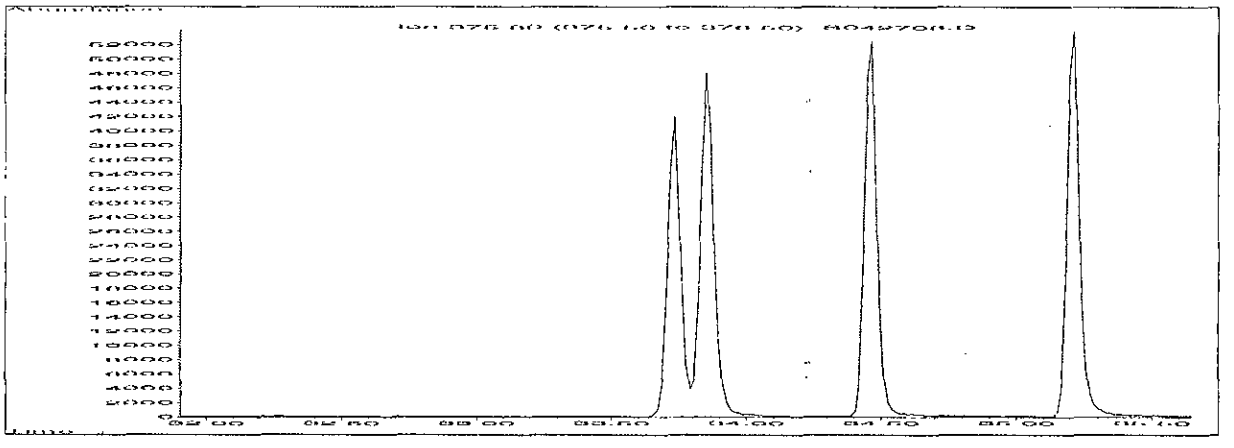


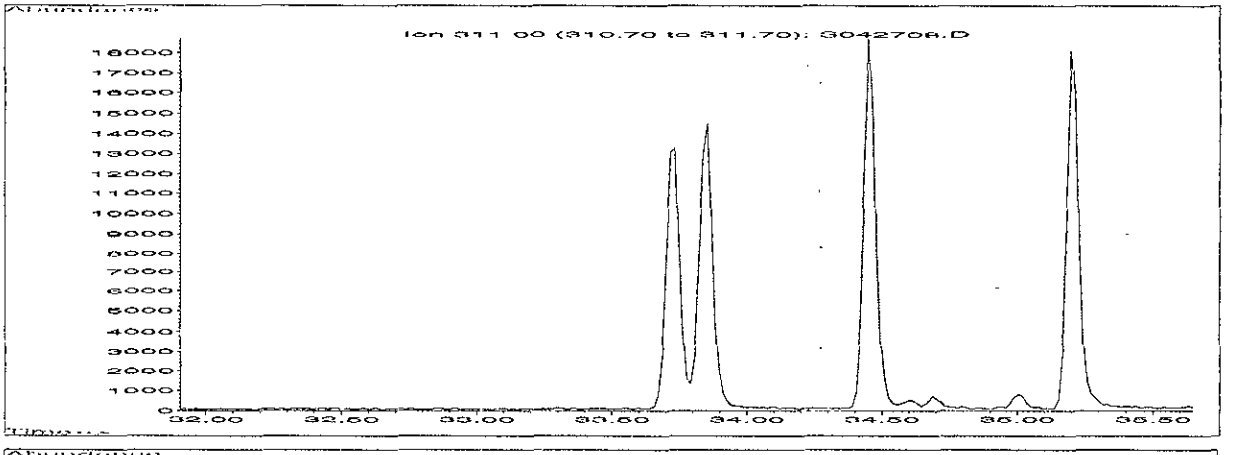


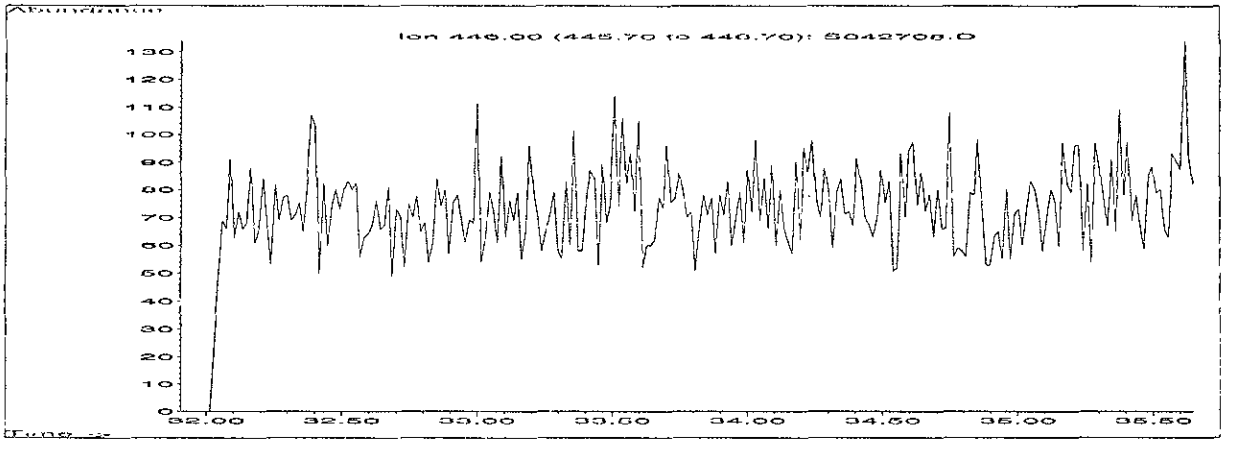
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



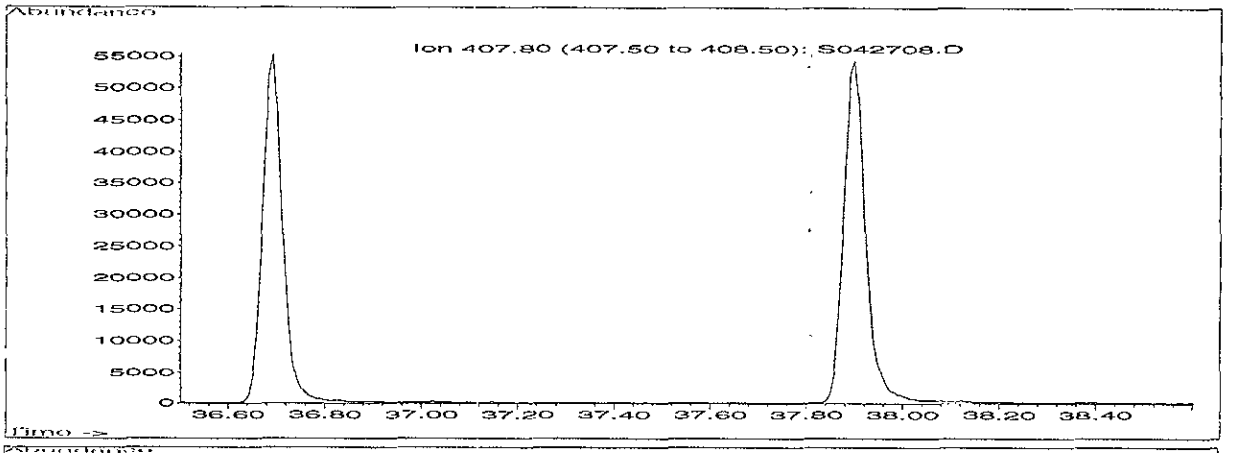


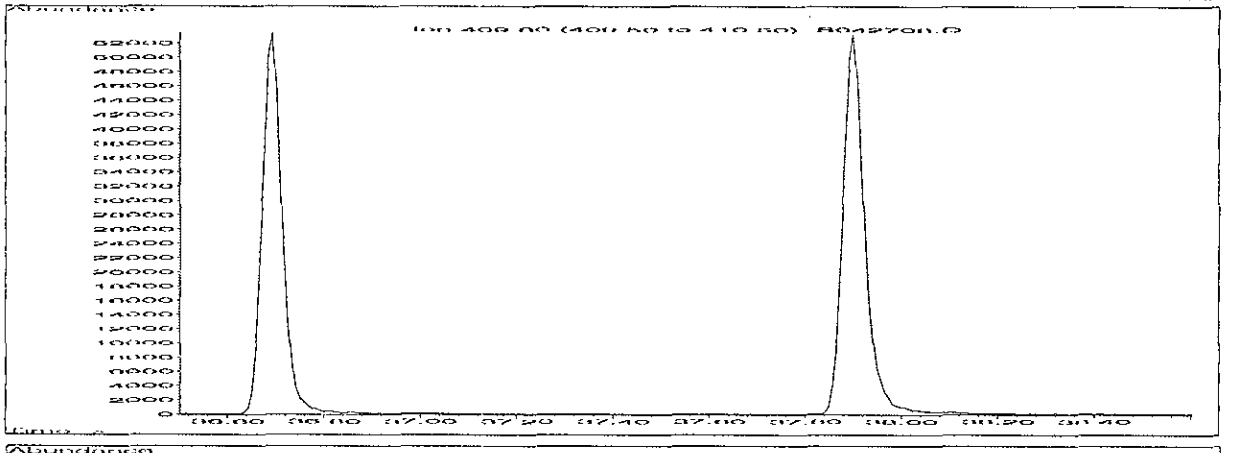


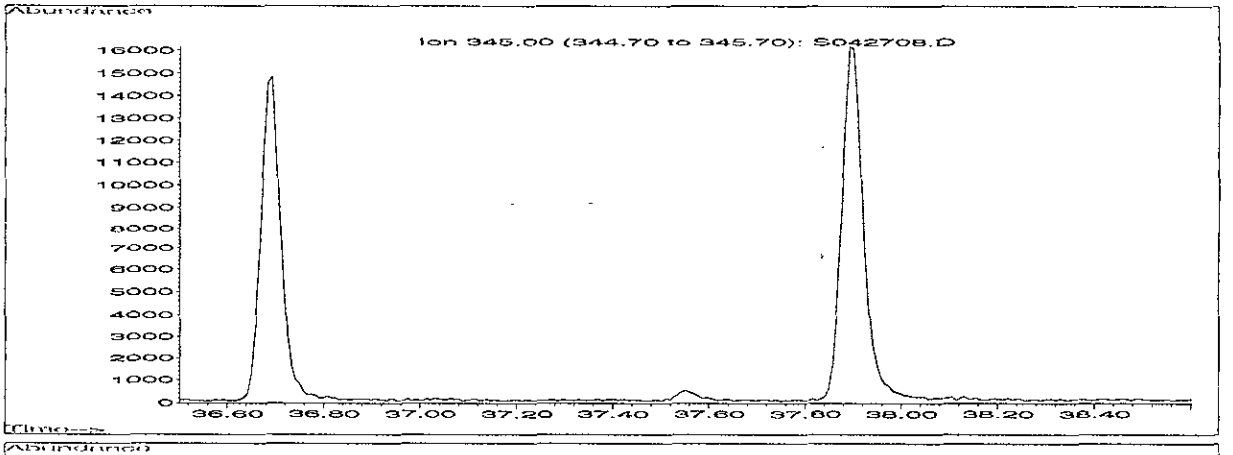


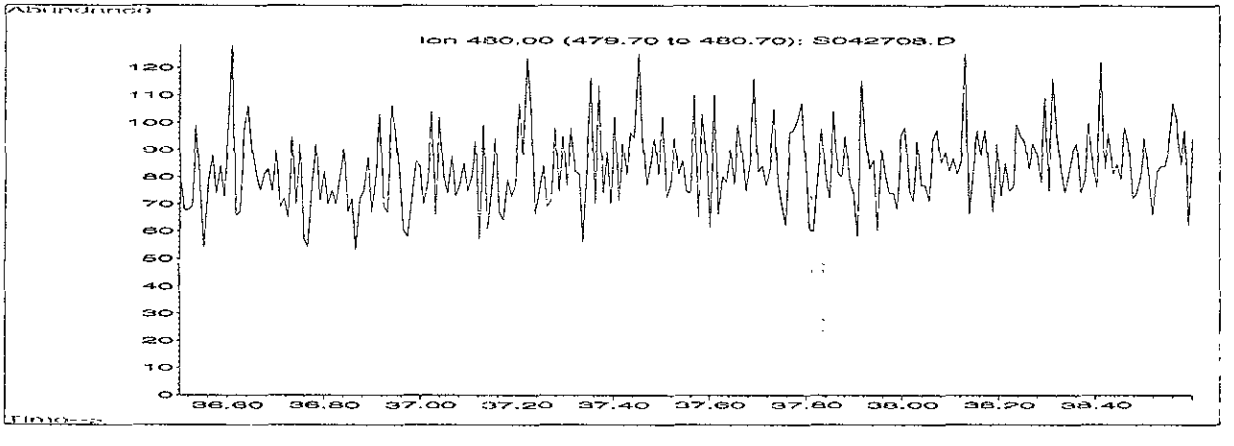
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



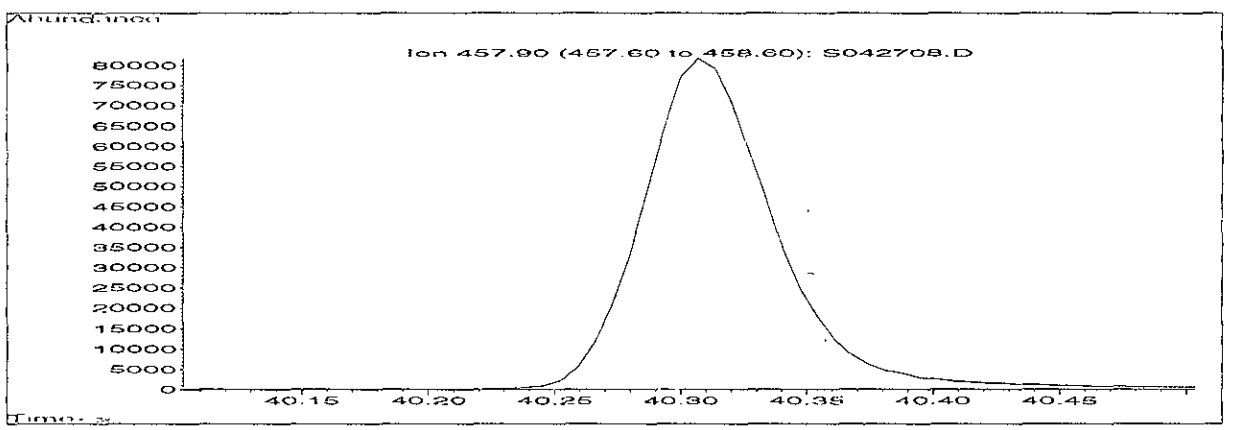


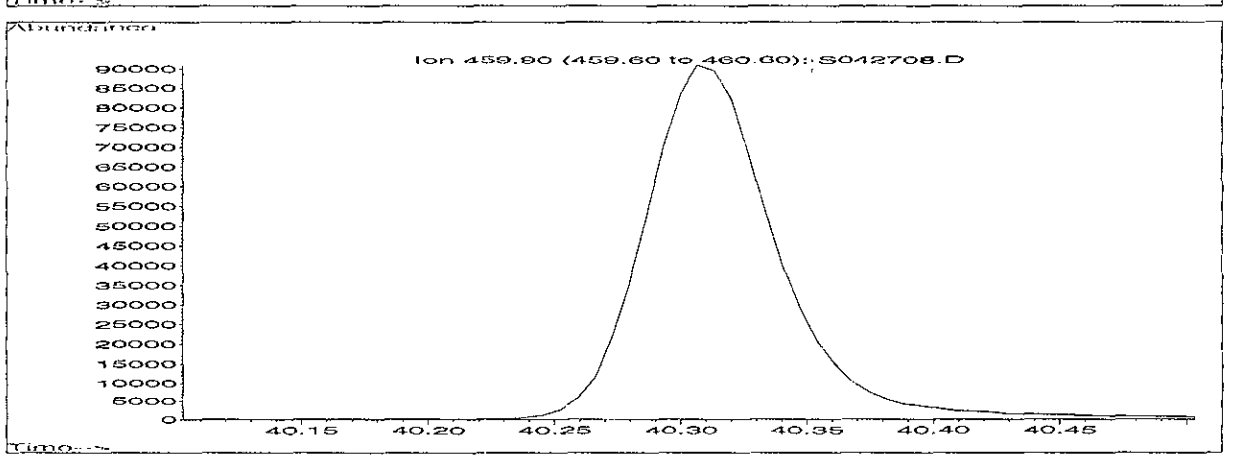


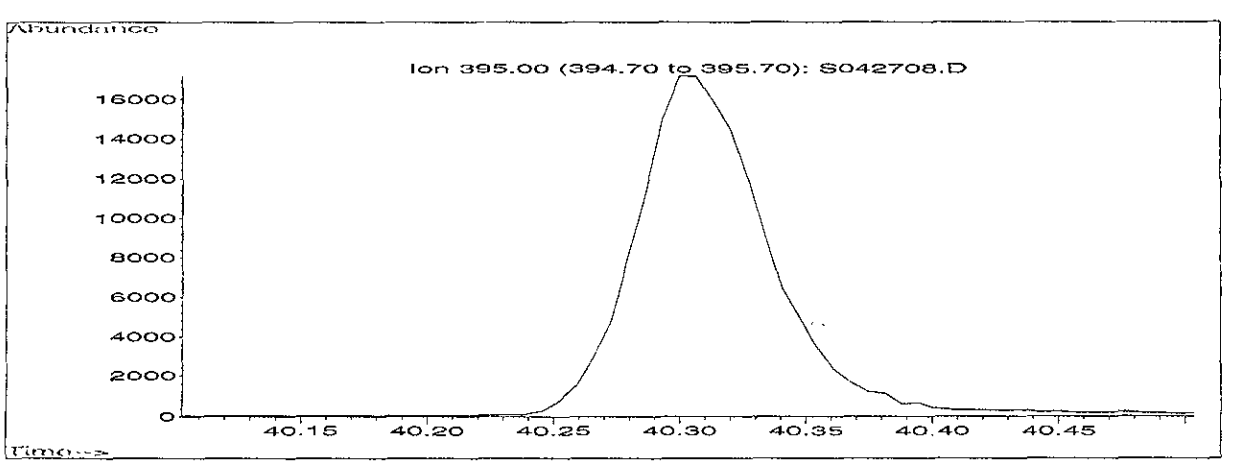


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	40.31		
Target Ion	457.9	Q1 Ion	459.9
Target Response	296962	Q1 Response	332420
Total Response	629382	Ion ratio	0.89
Q2 Ion	395		
Q2 Response	62798		

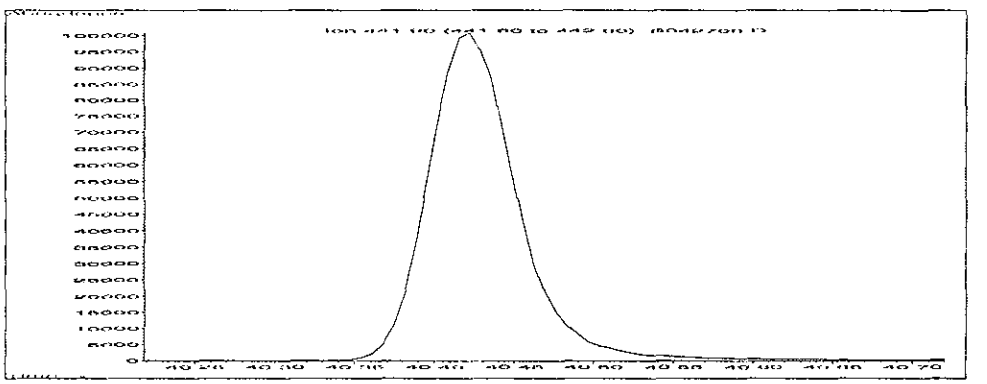


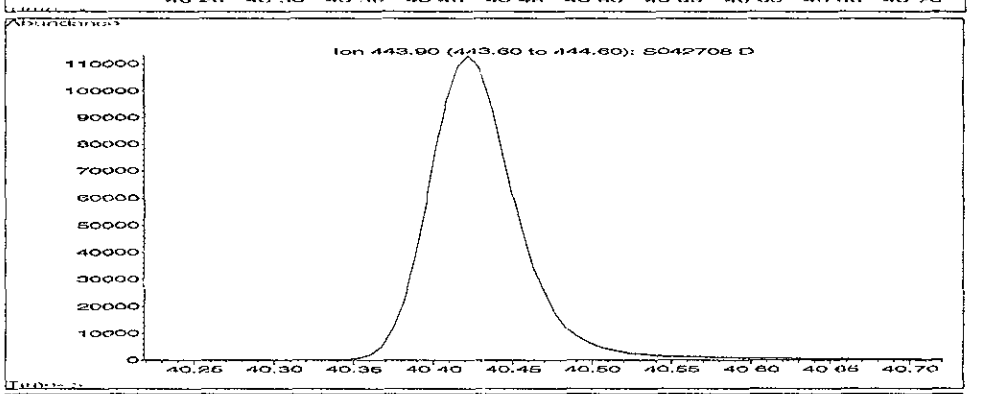


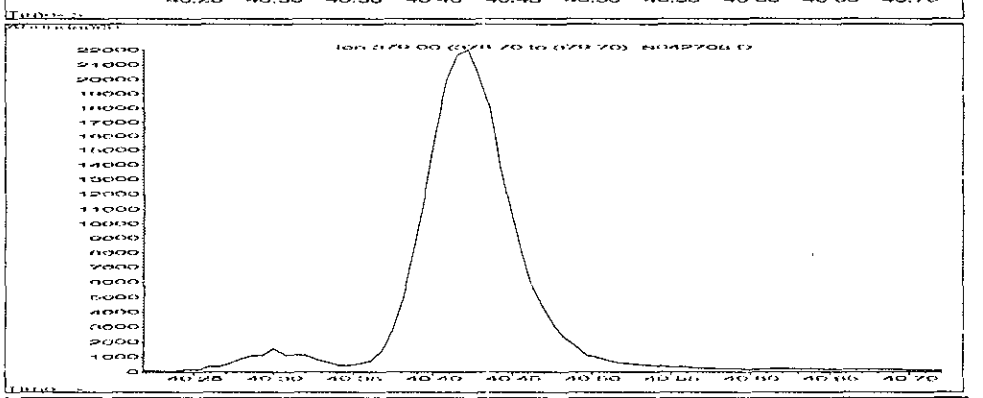


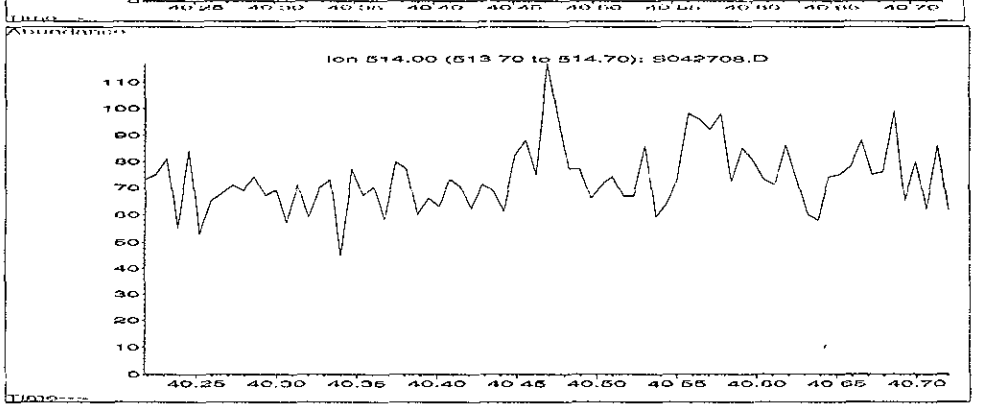
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	40.42		
Target Ion	441.9	Q1 Ion	443.9
Target Response	389309	Q1 Response	433633
Target Response	822942	Ion Ratio	0.90
Q2 Ion	379	DPE Ion	514
Q2 Response	81858	DPE Response	0



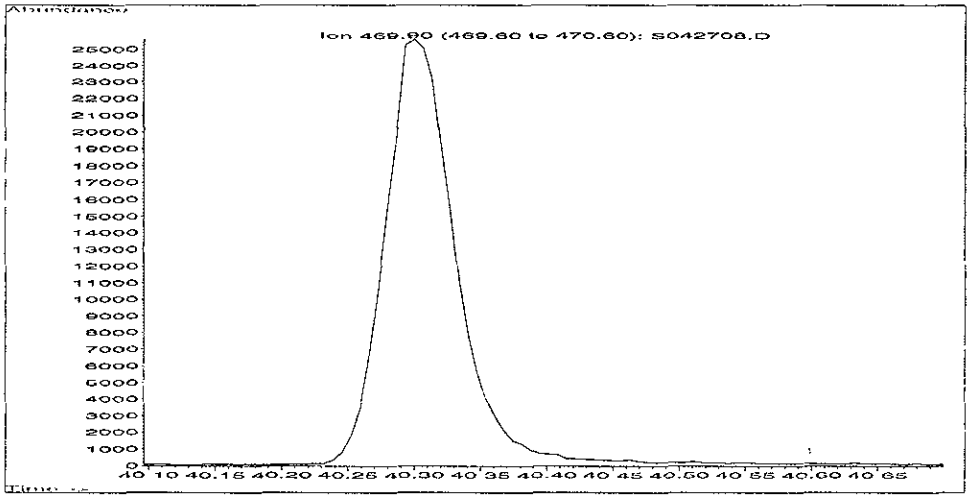


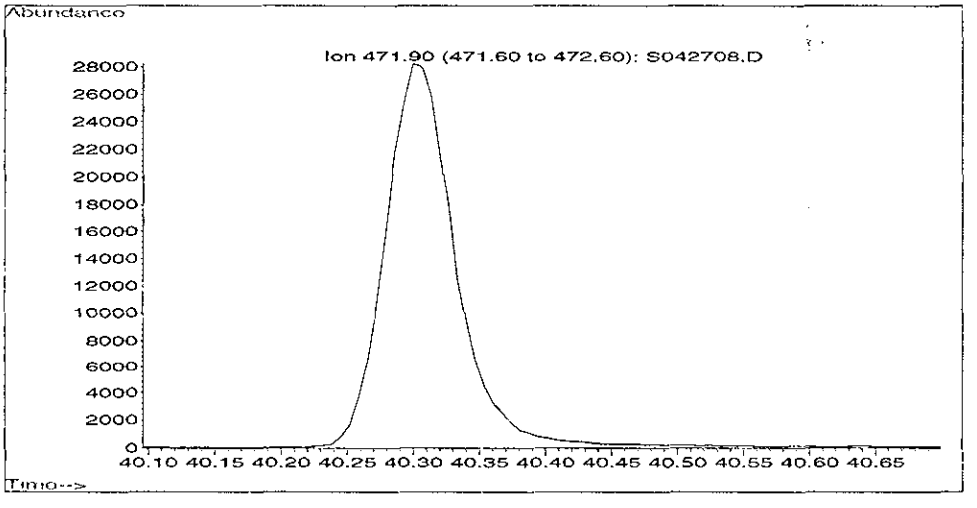




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	94667	Q1 Response	104199
Total response	198866	Ratio	0.91





8280\8280A QUANTITATION REPORT STL Sacramento

Sample ID: A9D160180-5 1.03269L 8280A
K97DK-1-AA WATER LR909

Size: 1.033
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042709.D
Acq On :27 Apr 2009 6:47 pm

Vial: 9
Operator: MEO
Sample Amount: 1.03

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:42 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.78	148418	25.00 NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.26	127161	25.00 NG	0.00
9) 13C-2378-TCDF	20.24	316+318	0.78	211421	25.00 NG	0.00
15) 13C-2378-TCDD	21.13	332+334	0.81	138929	25.00 NG	-0.02
20) 13C-123678-HxCDD	34.69	402+404	1.26	99044	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.05	119046	25.00 NG	0.00
36) 13C-OCDD	40.29	470+472	0.90	206257	50.00 NG	0.00

Surrogate Compound

4) 37Cl-2378-TCDD	21.17	328		110376	10.103 NG	0.00

Spiked Amount = 12.104 RRF = 1.782 Recovery = 83.44%

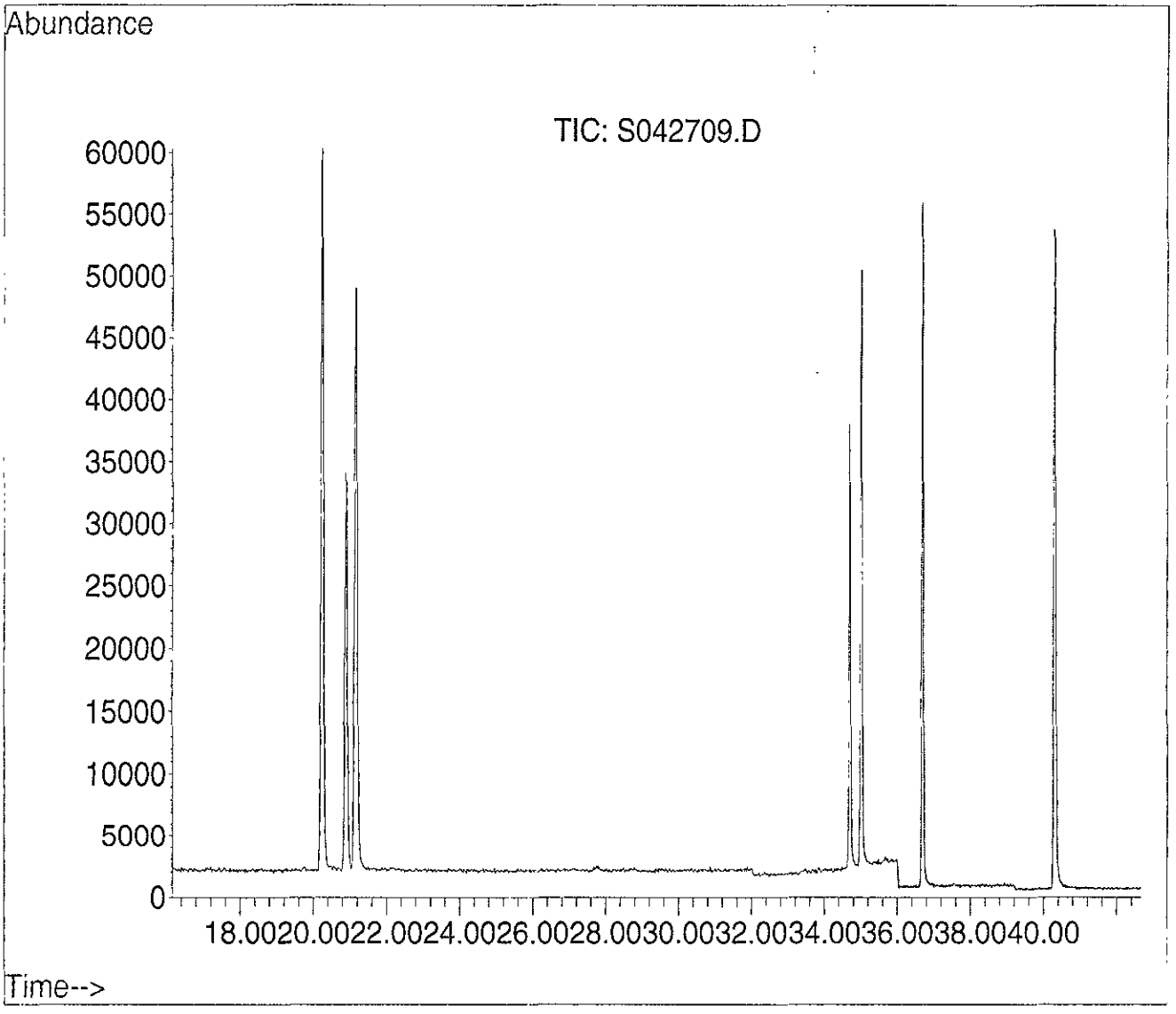
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.24	0.78	211421	1.796	19.197	0.0312	79.3
3) 13C-2378-TCDD-IS	21.13	0.81	138929	1.137	19.922	3.5771	82.3
6) 13C-123678-HxCDD-	34.69	1.26	99188	0.899	20.995	0.0803	86.7
7) 13C-1234678-HpCDF	36.68	1.05	119046	1.062	21.342	0.0647	88.2
8) 13C-OCDD-IS	40.29	0.90	206257	0.887	44.250	0.1210	91.4
10) 2378-TCDF	0.00		0	1.219	N.D.	0.0878	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.0934	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.1250	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.1246	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.1594	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.0972	
1	20.24	5.19 #	19101		2.548		
17) TCDD TOTAL	19.30	5.19	19101	1.306	2.548		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.2583	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.3530	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.0862	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.1220	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.1414	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.1760	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.1297	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	0.8984	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.0741	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.0686	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.0967	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.1289	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.1976	
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.1216	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.1499	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.1869	
37) OCDD	0.00		0	1.224	N.D.	0.1377	

AK 4/30/09

38) OCDF	0.00	0	1.589	N.D.	0.2000

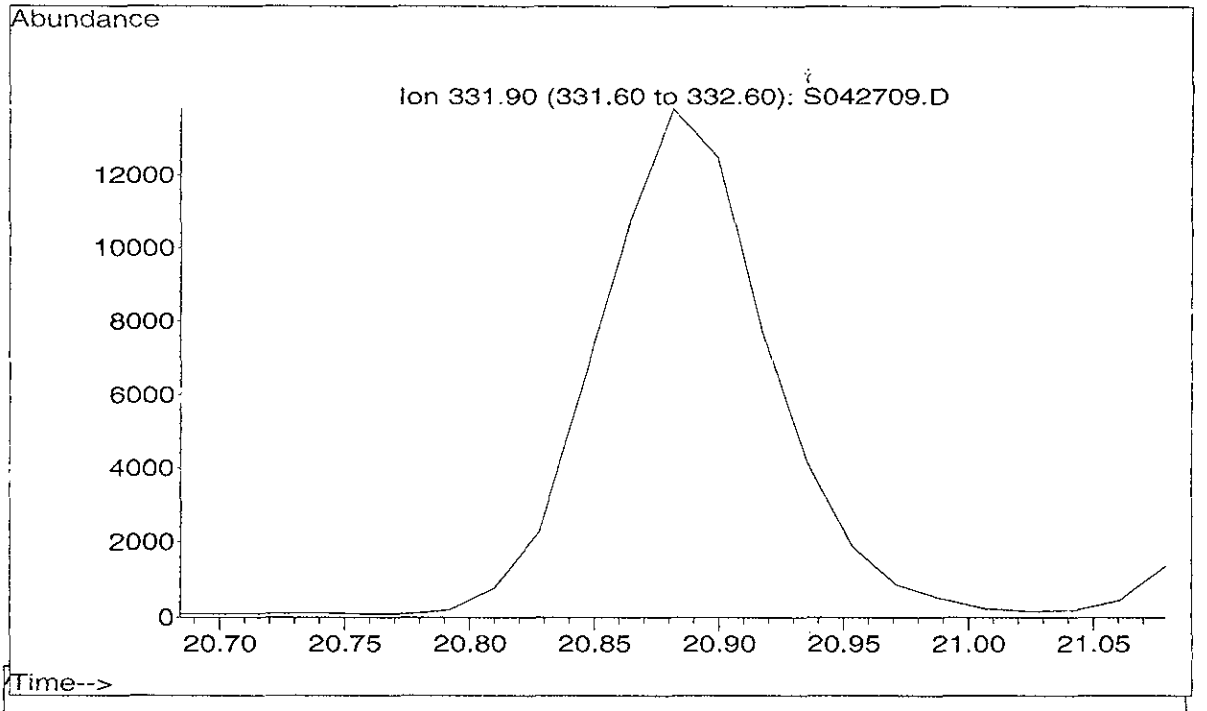
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042709.D 09AP27A2.M Tue Apr 28 16:42:04 2009

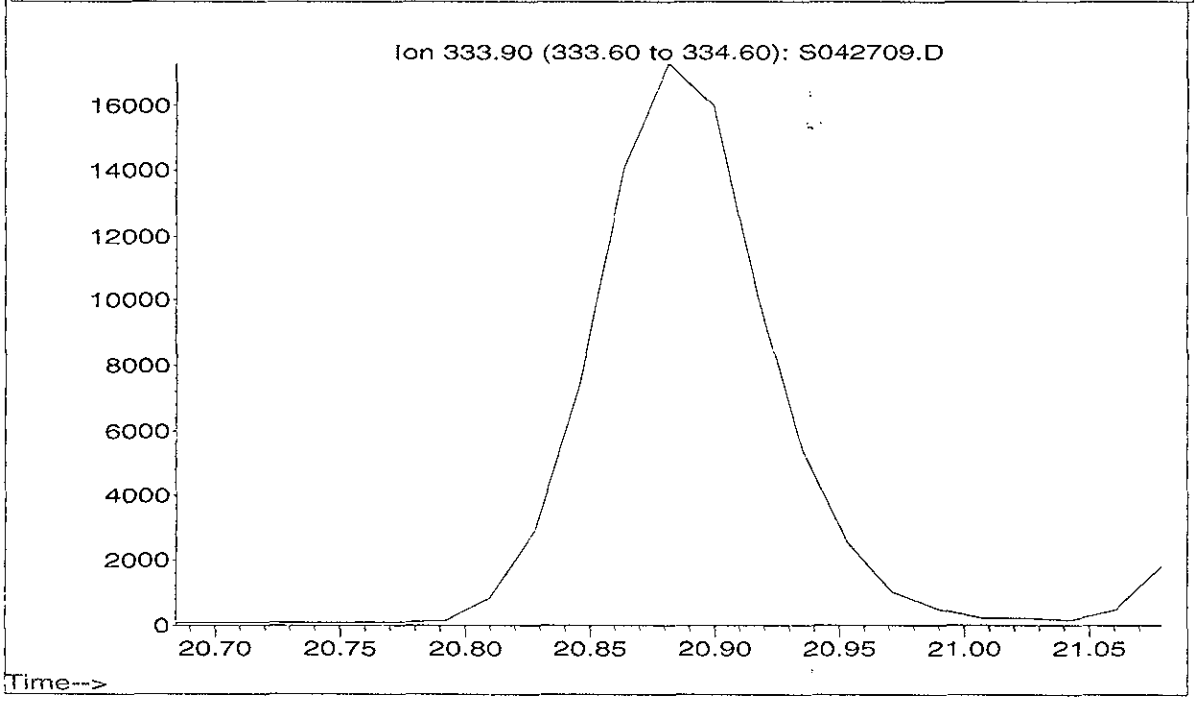
Data File Name	S042709.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 6:47
Acq. Method File	TOKAS
Sample Name	<97DK-1-AA WATER LR909
Misc Info	D160180-5 1.03269L 8280A
Vial Number	9
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.03269



13C-1234-TCDD

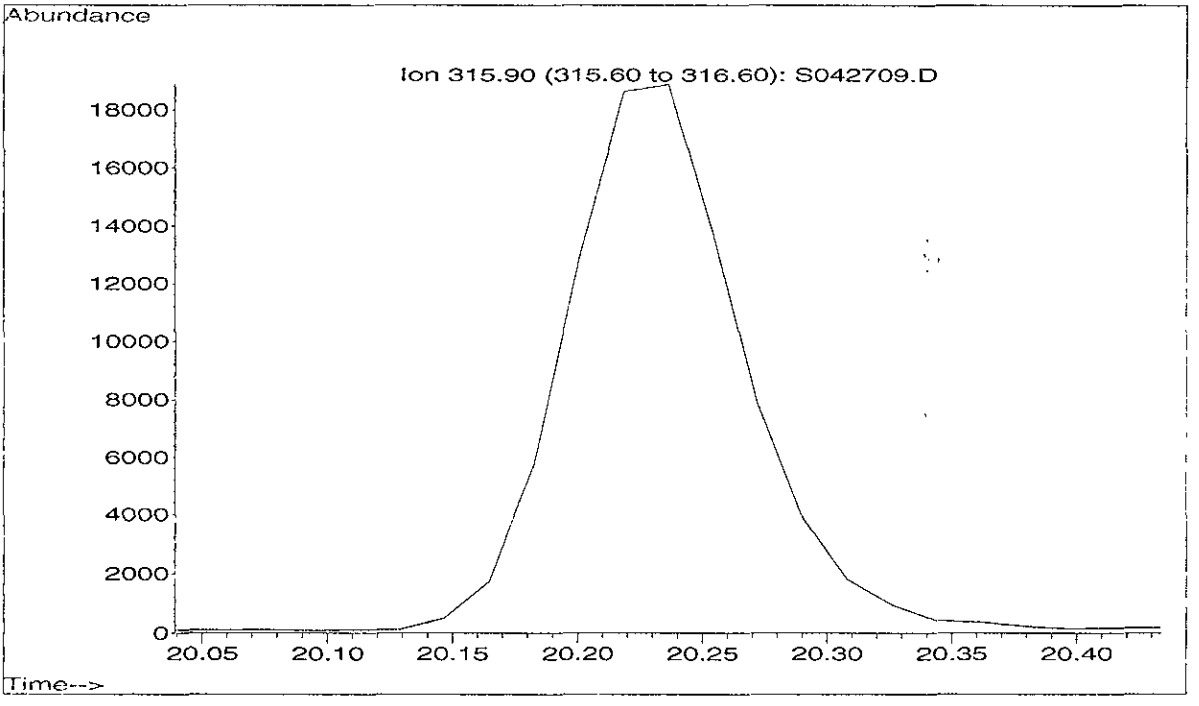
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	65261	Q1 Response	83157
Total Response	148418	Ion Ratio	0.78

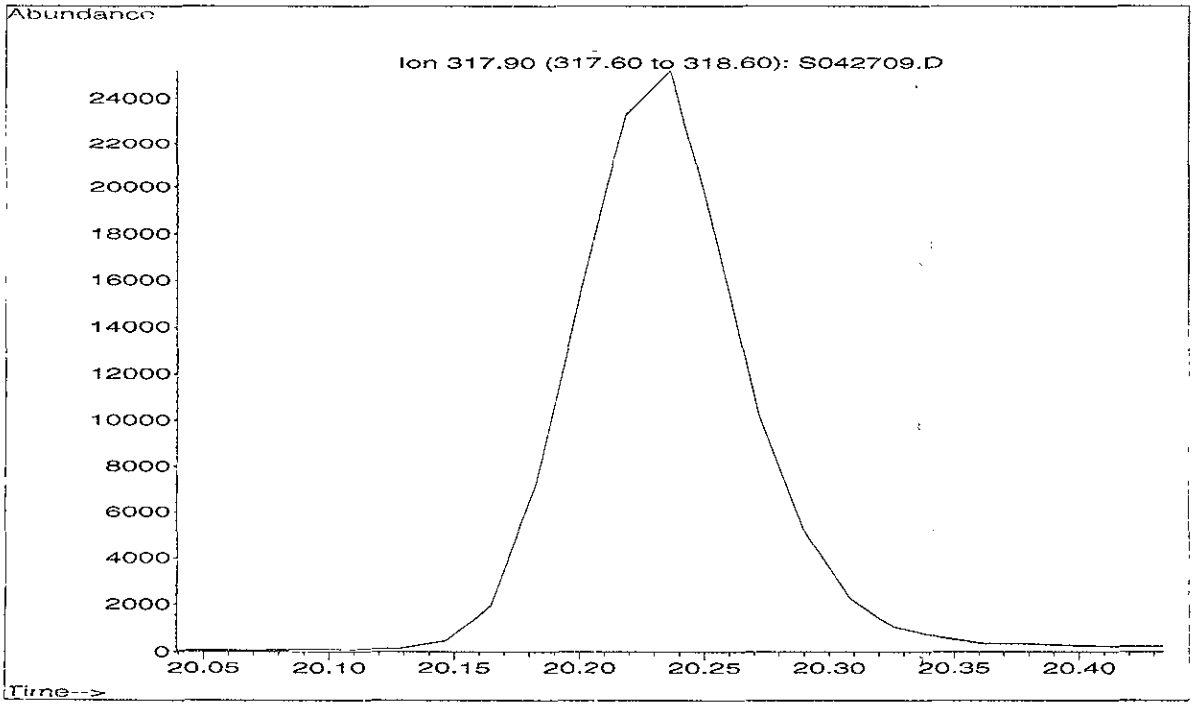




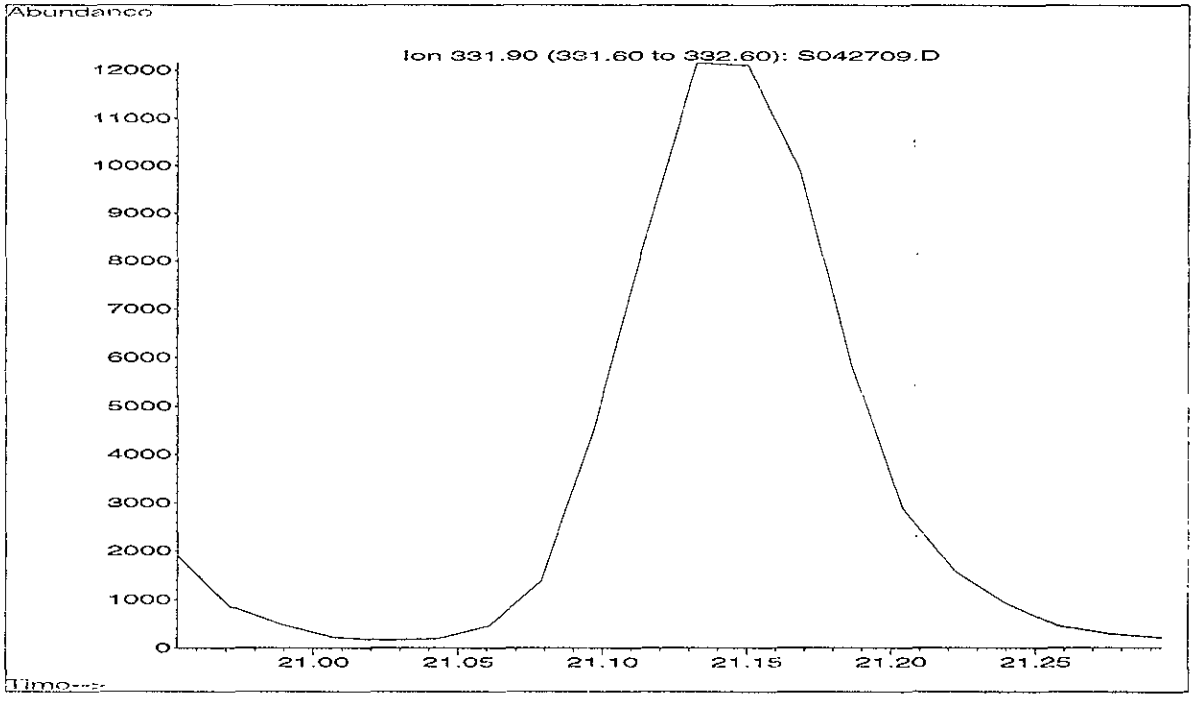
13C-2378-TCDF-IS

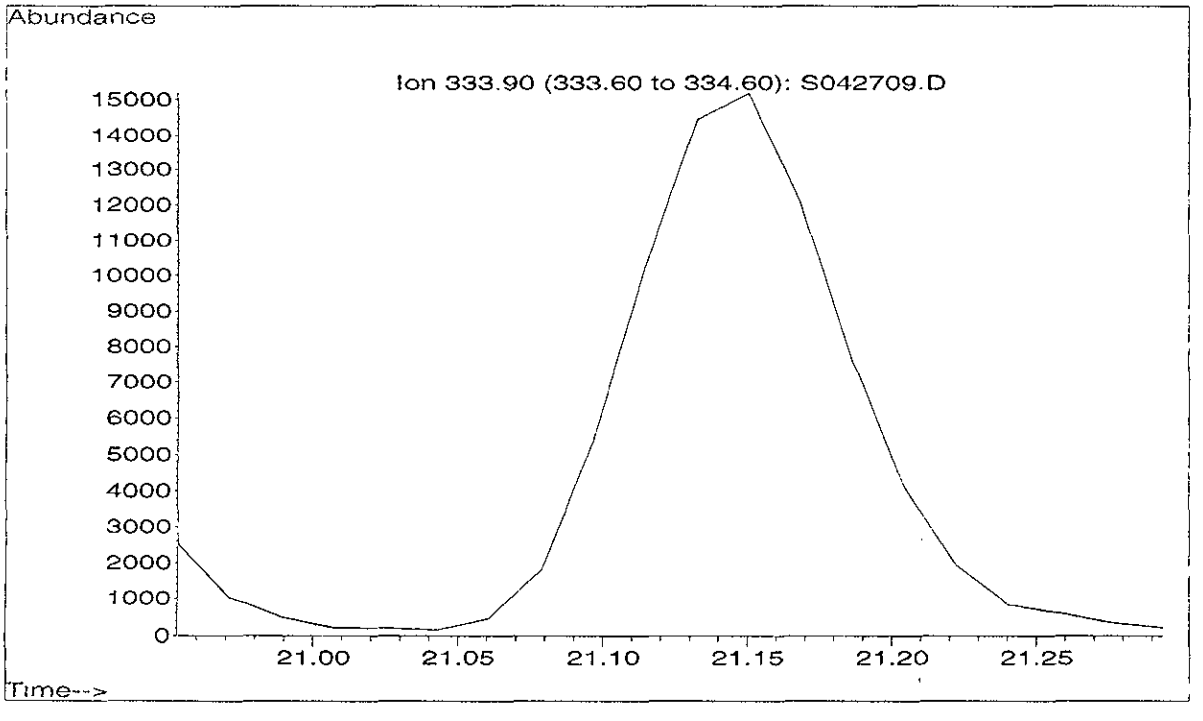
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.24		
Target Ion	315.9	Q1 Ion	317.9
Target Response	92800	Q1 Response	118621
Target Response	211421	Ion Ratio	0.78





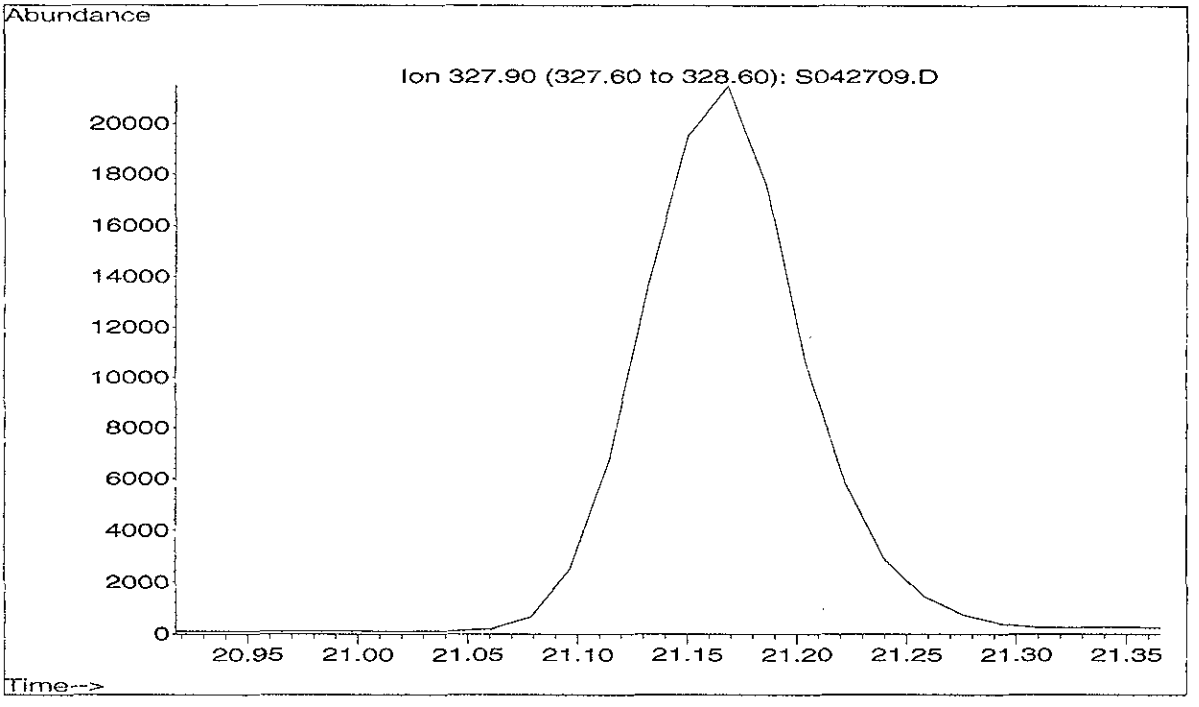
13C-2378-TCDD-IS			
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.13		
Target Ion	331.9	Q1 Ion	333.9
Target Response	61963	Q1 Response	76966
Total Response	138929	Ion Ratio	0.81

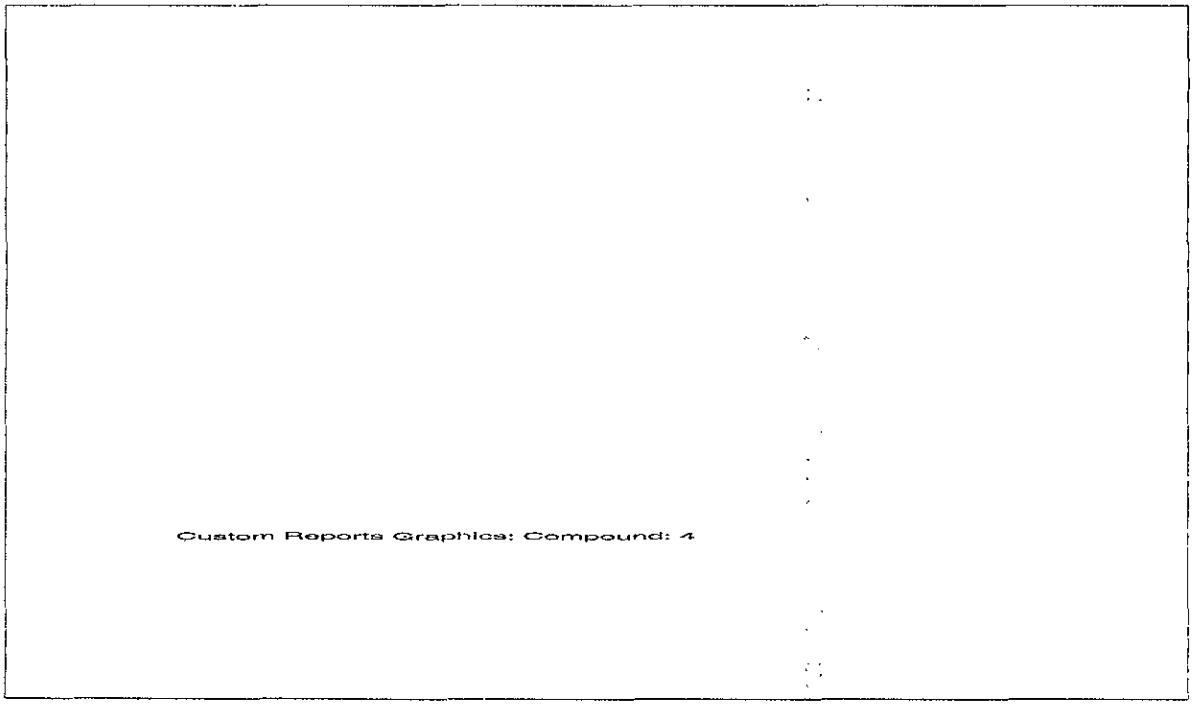




37Cl-2378-TCDD

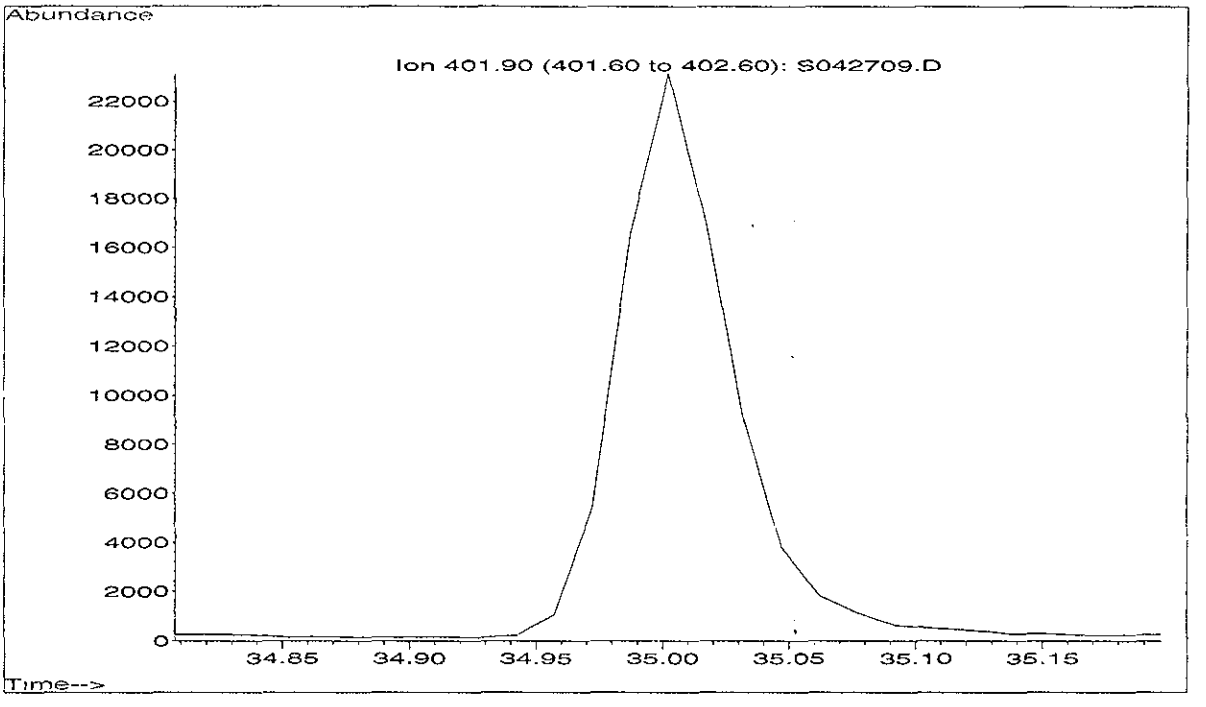
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	110376	Q1 Response	0
Total Response	110376	Ion Ratio	#DIV/0!

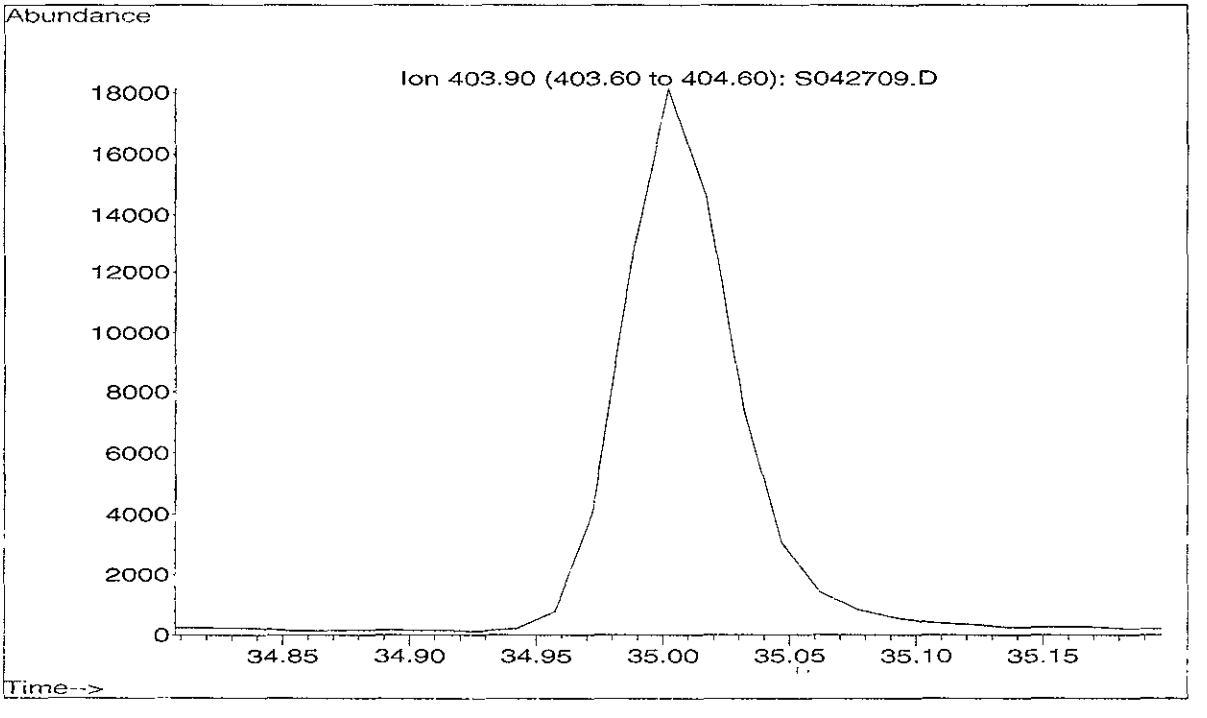




13C-123789-HxCDD

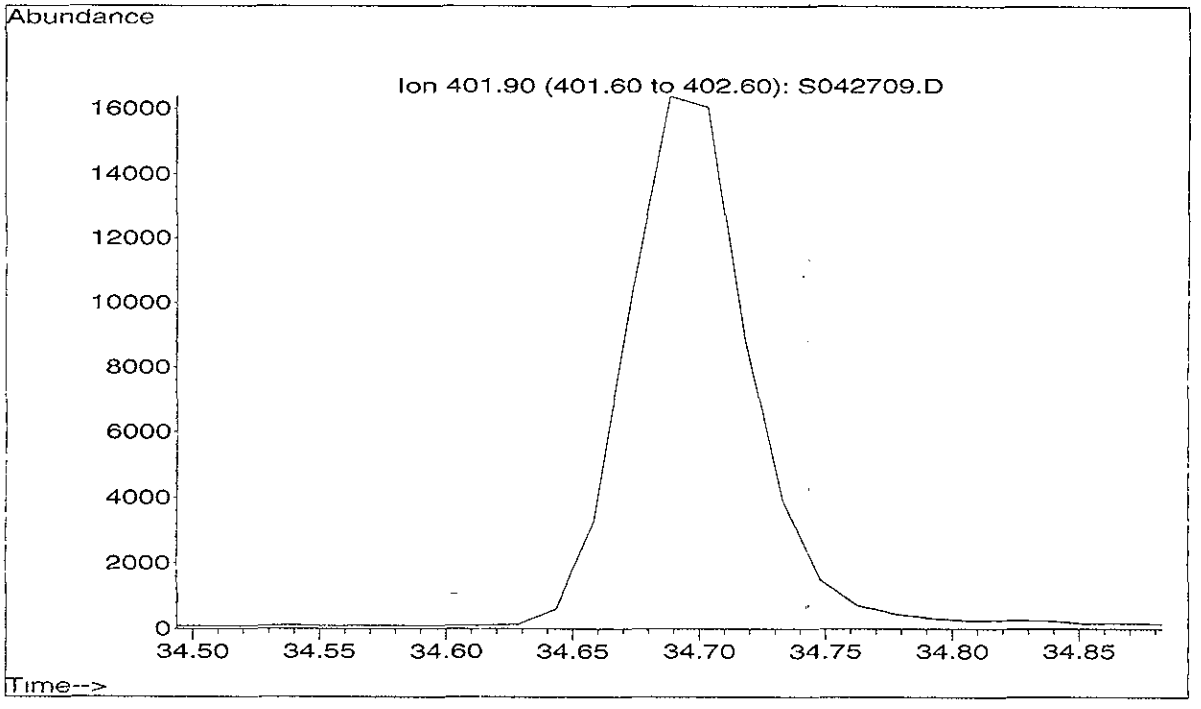
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	70971	Q1 Response	56190
Target Response	127161	Ion Ratio	1.26

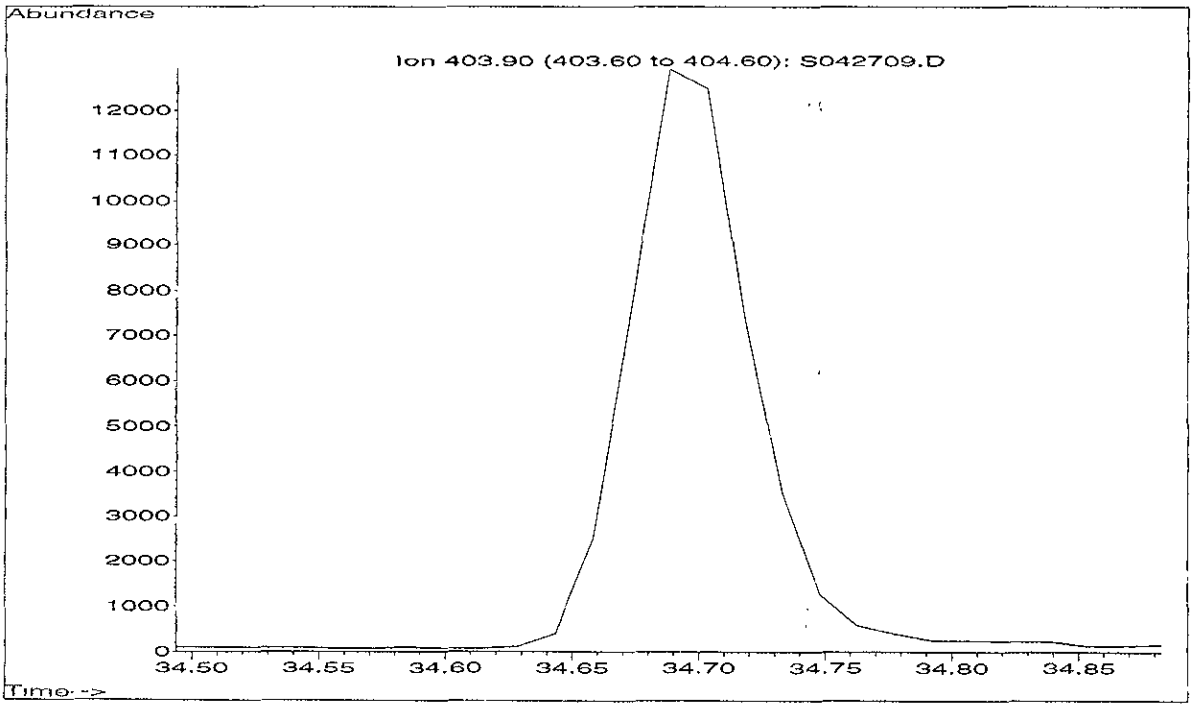




13C-123678-HxCDD-IS

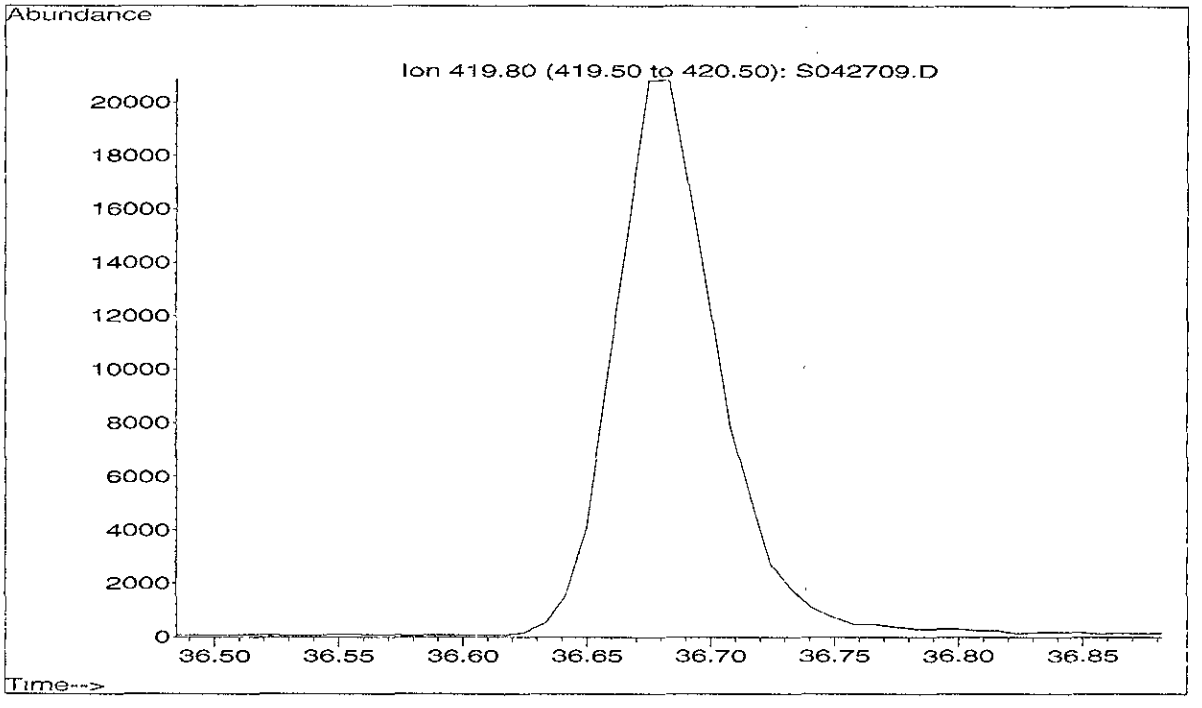
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	55285	Q1 Response	43903
Total Response	99188	Ion Ratio	1.26

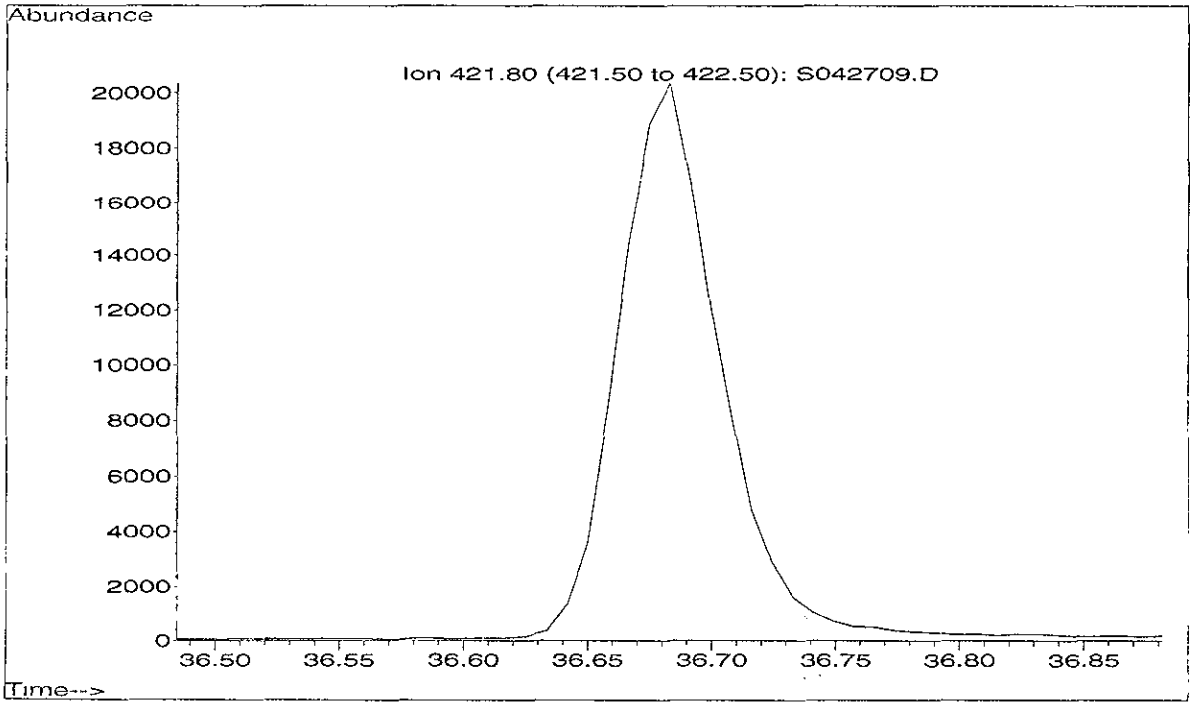




13C-1234678-HpCDF-IS

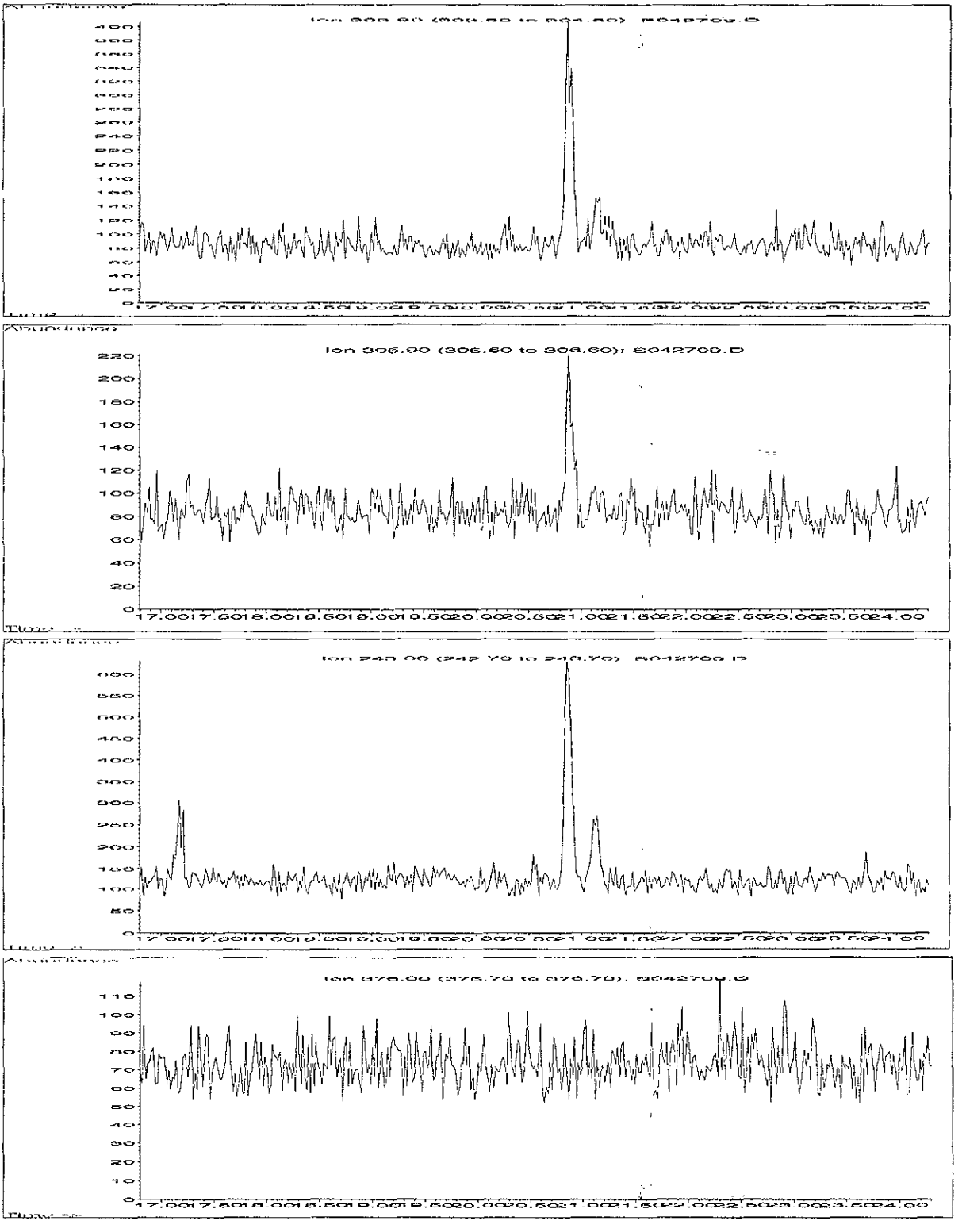
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	60986	Q1 Response	58060
Target Response	119046	Ion Ratio	1.05





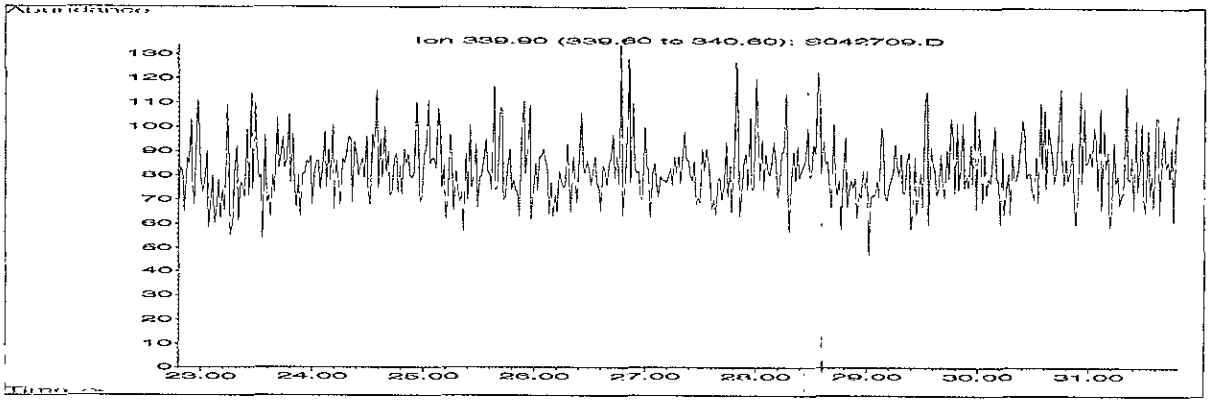
TCDF TOTAL

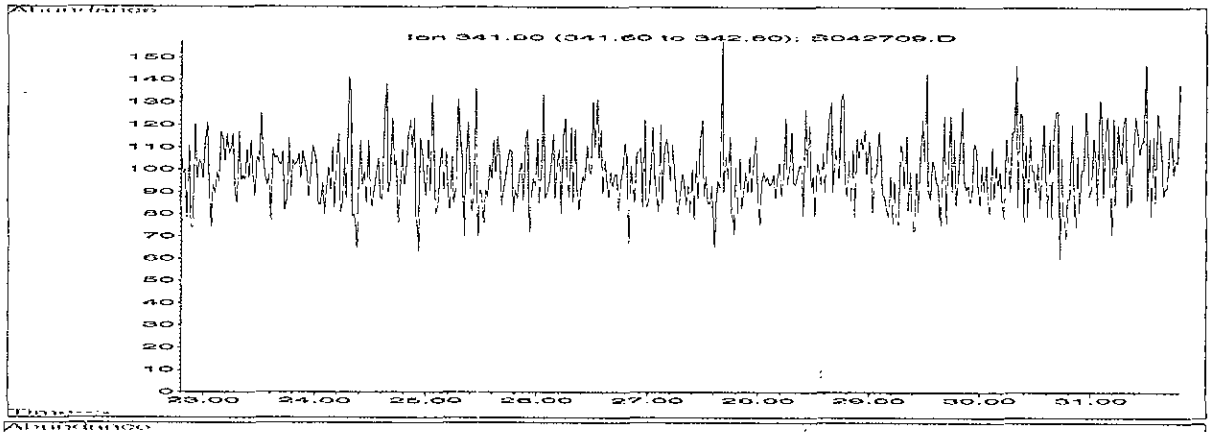
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

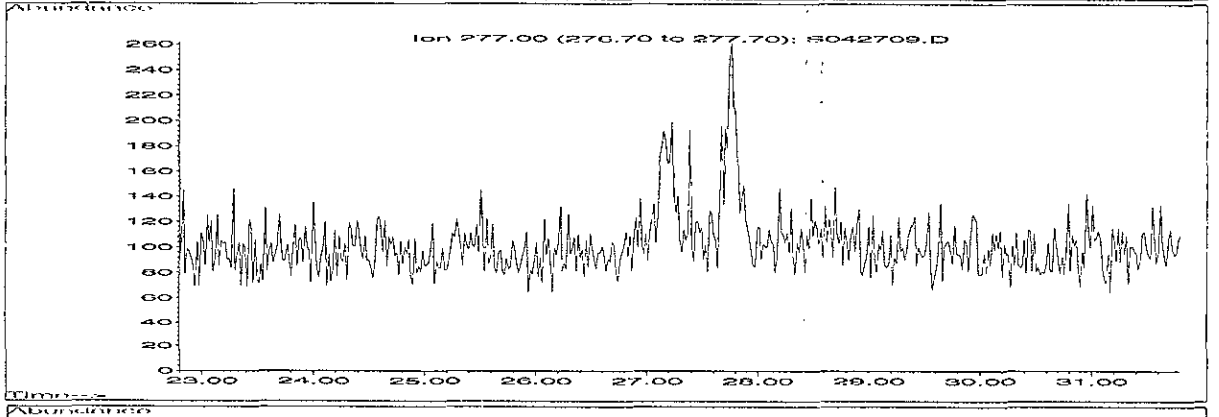


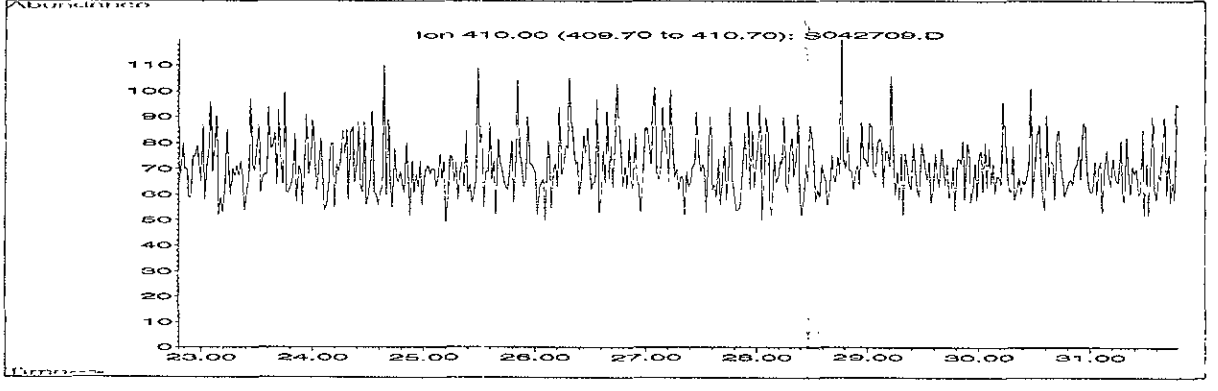
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



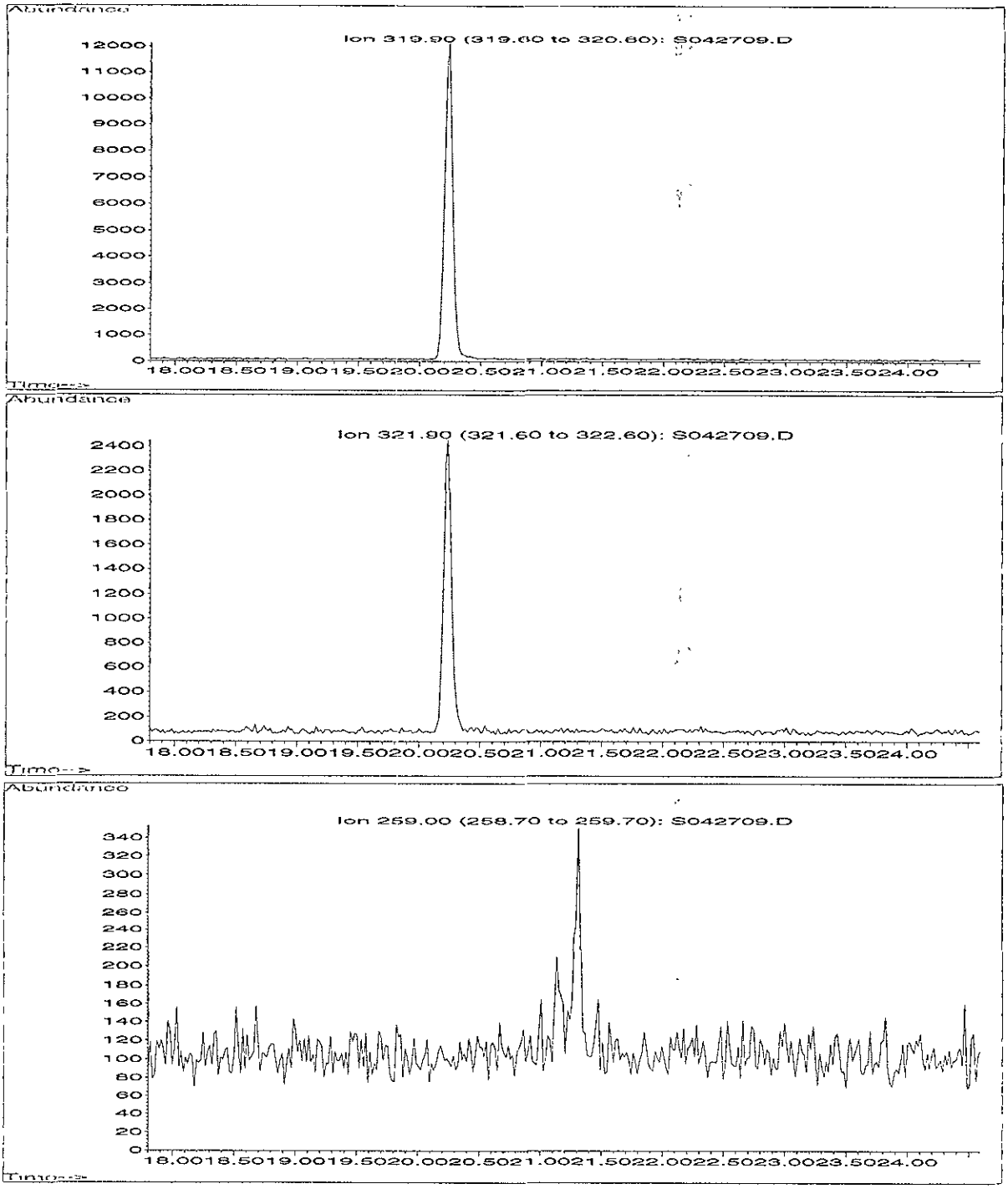






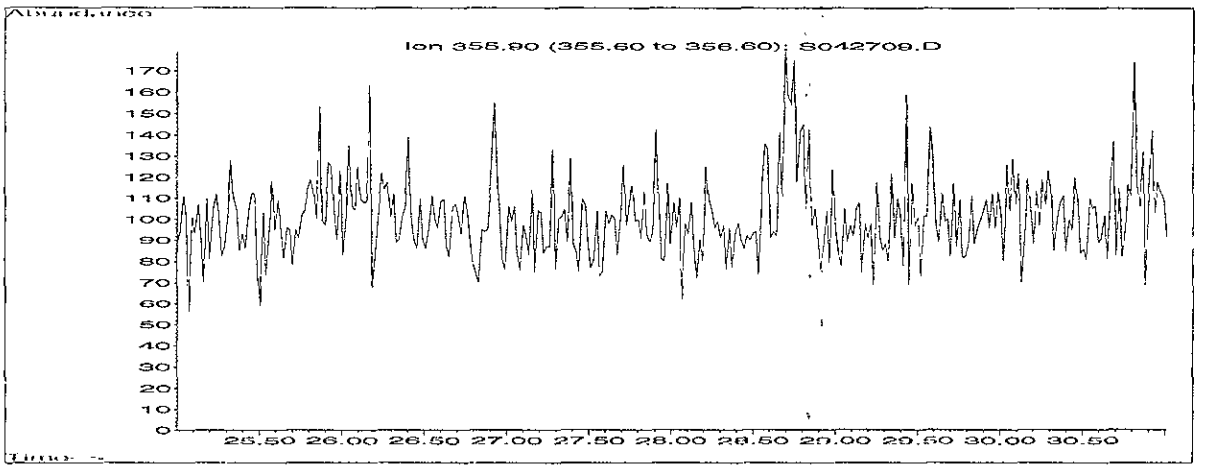
TCDD TOTAL

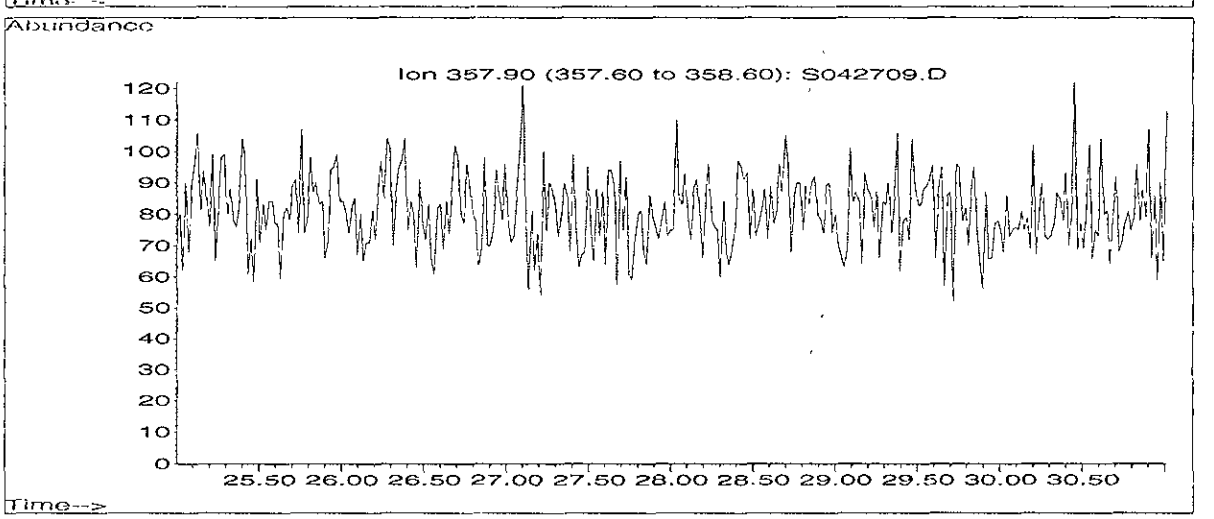
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

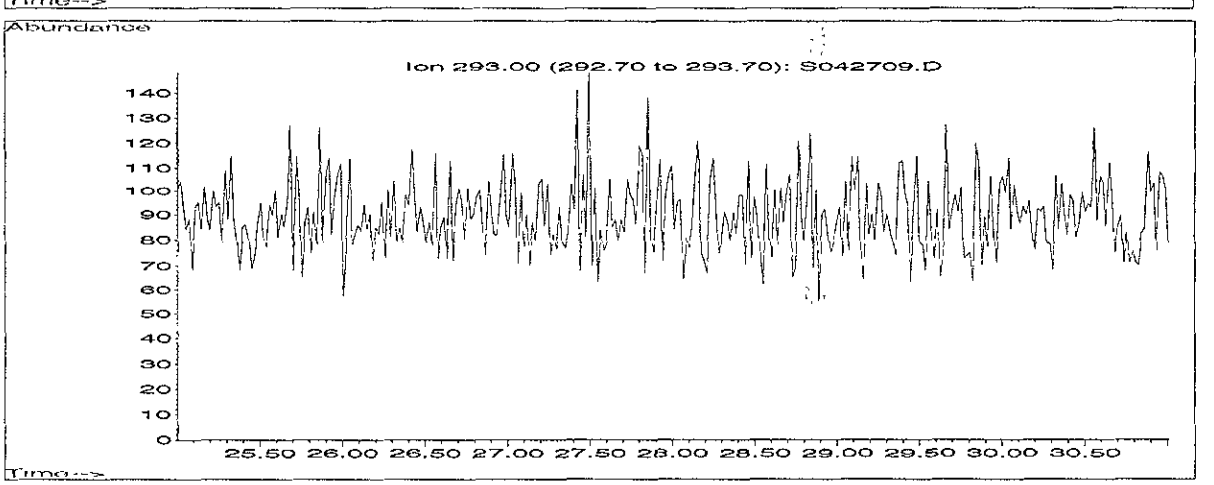


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

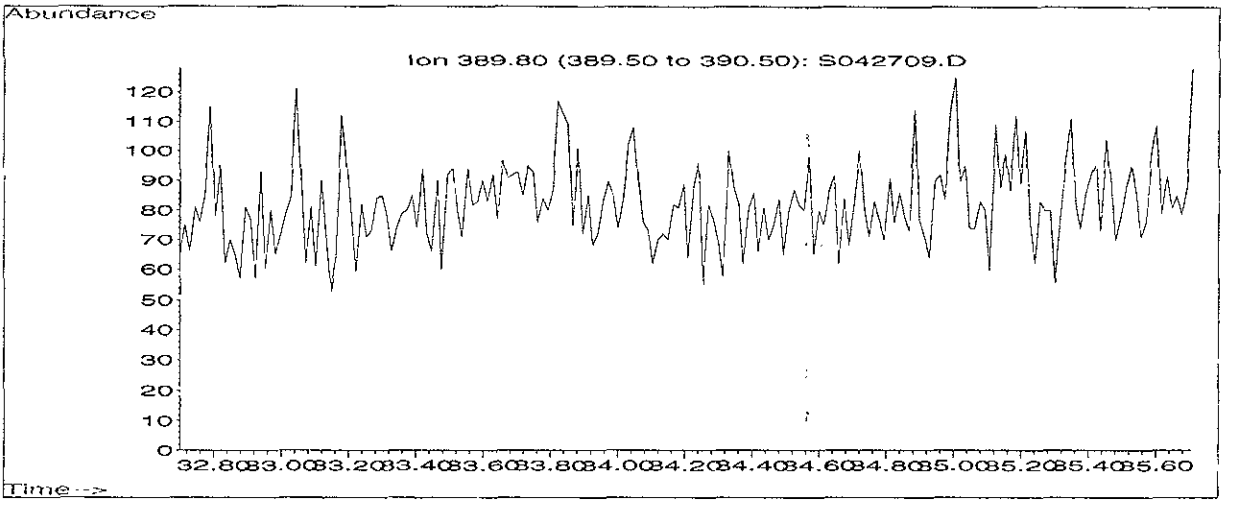


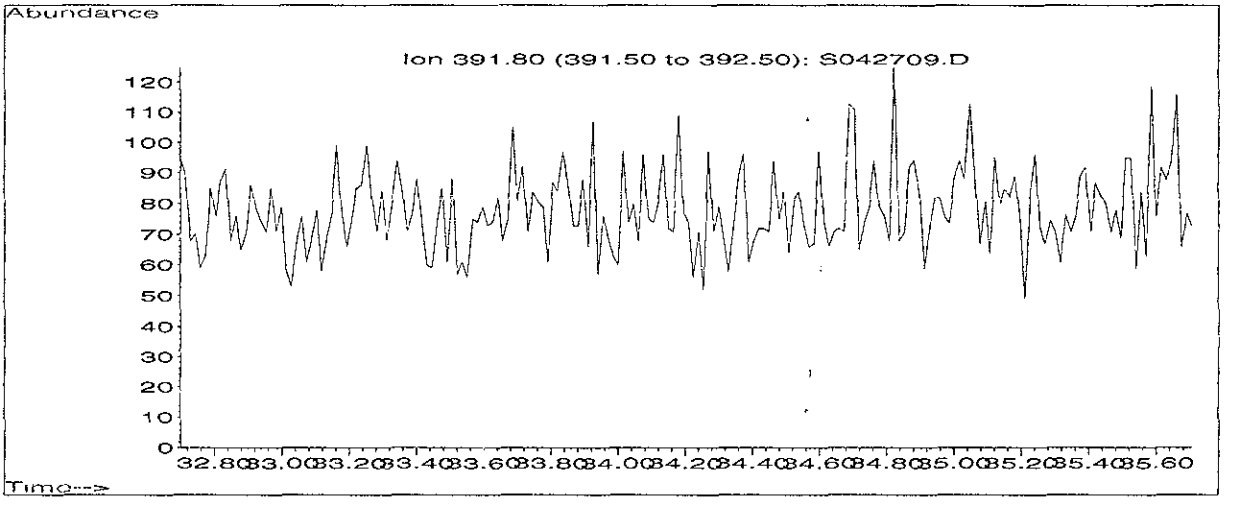


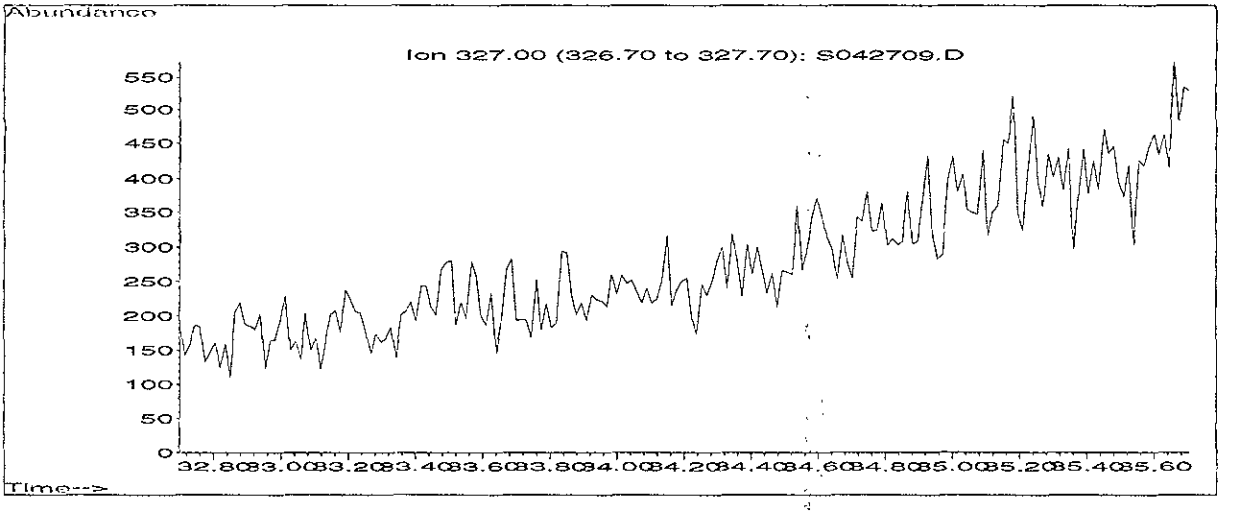


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

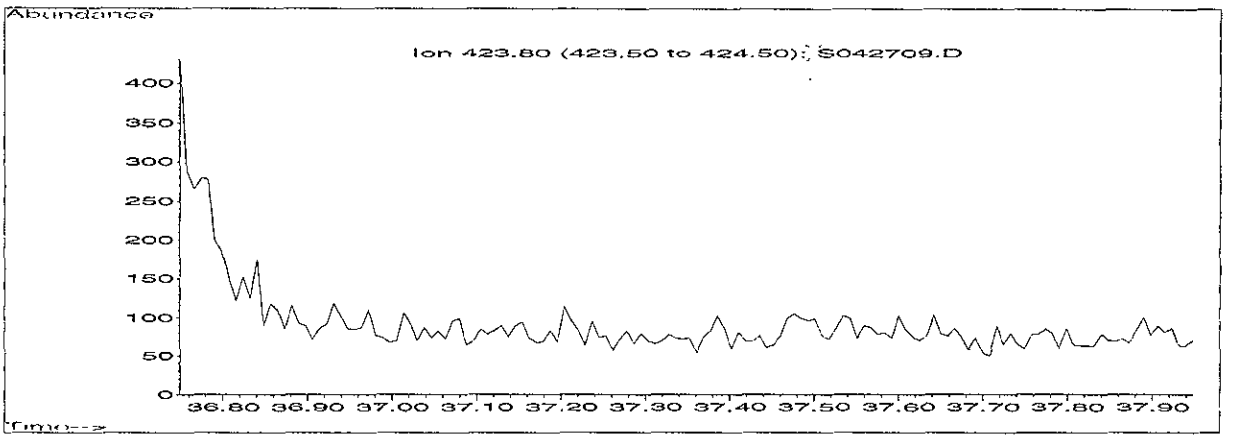


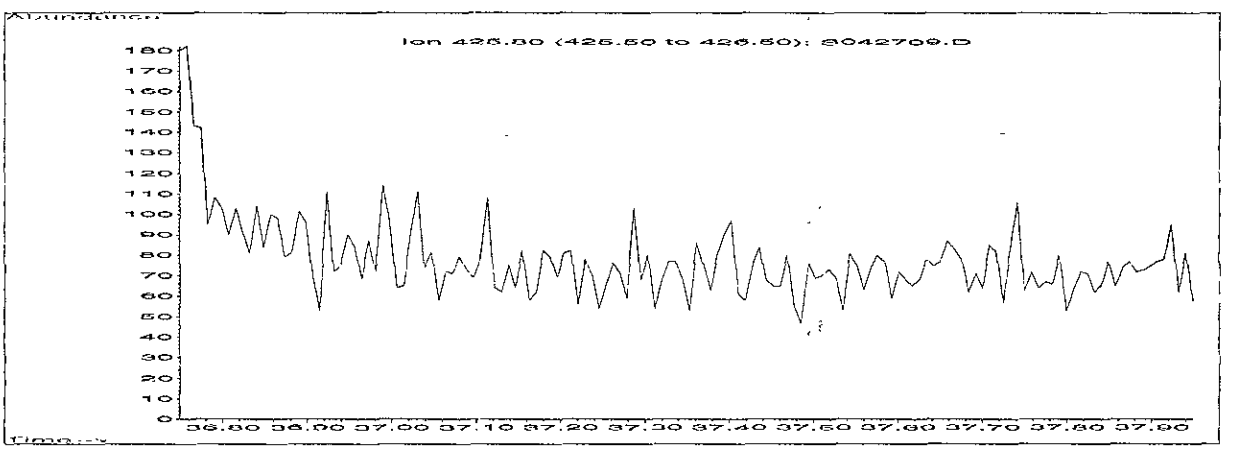


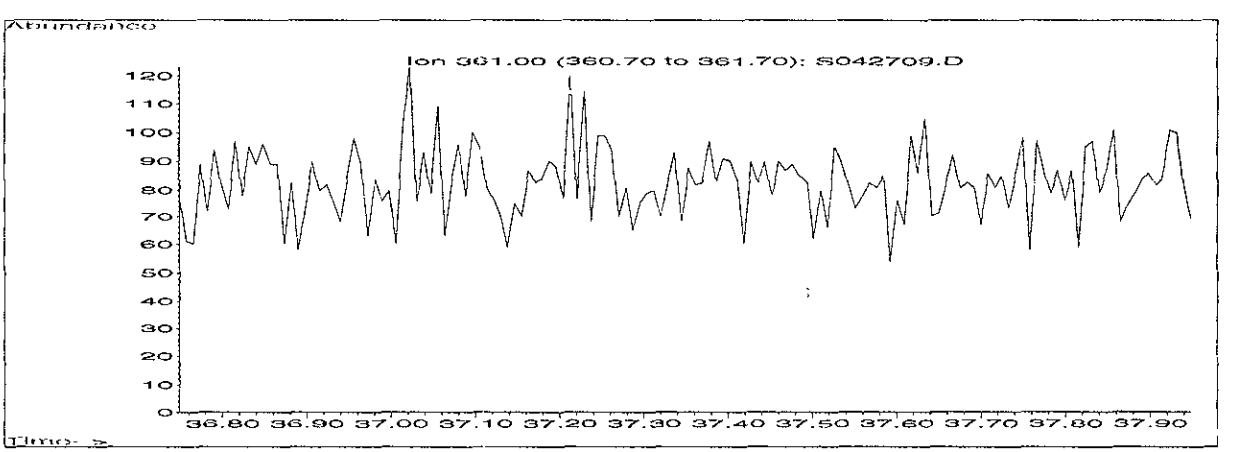


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

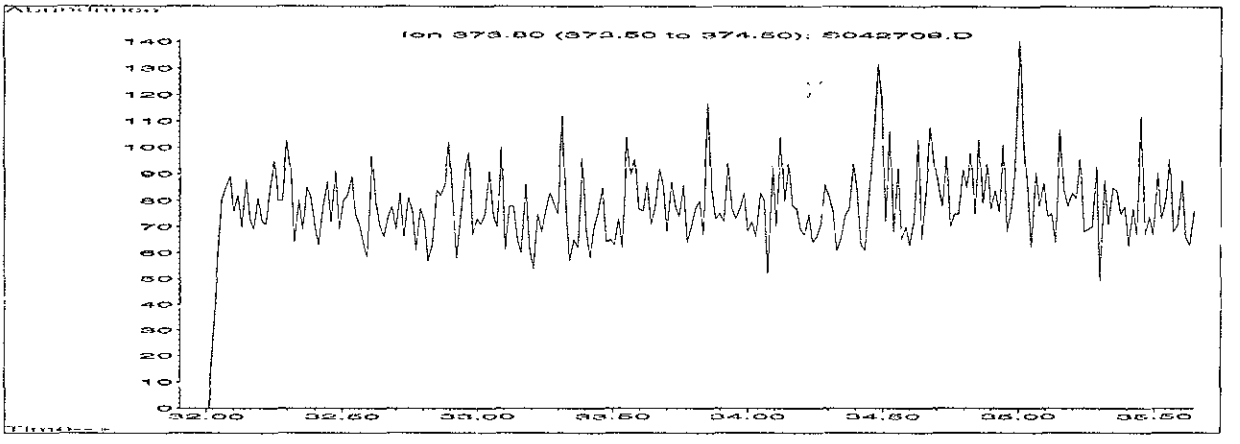


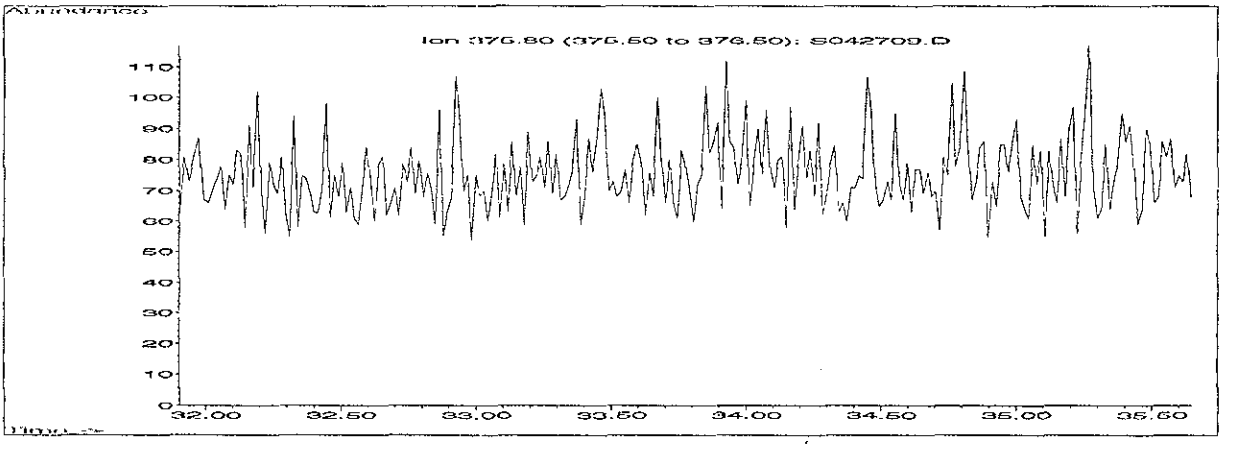


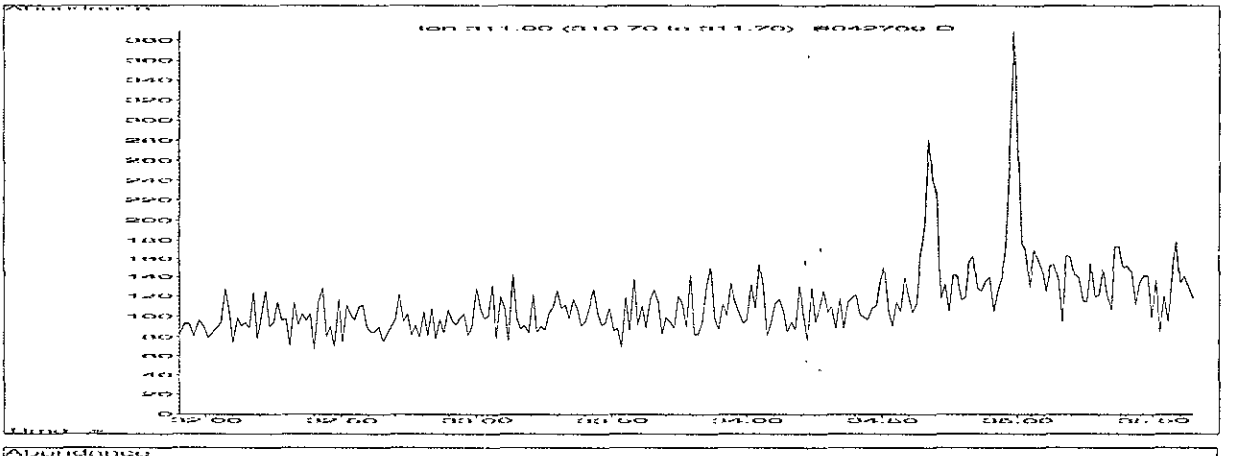


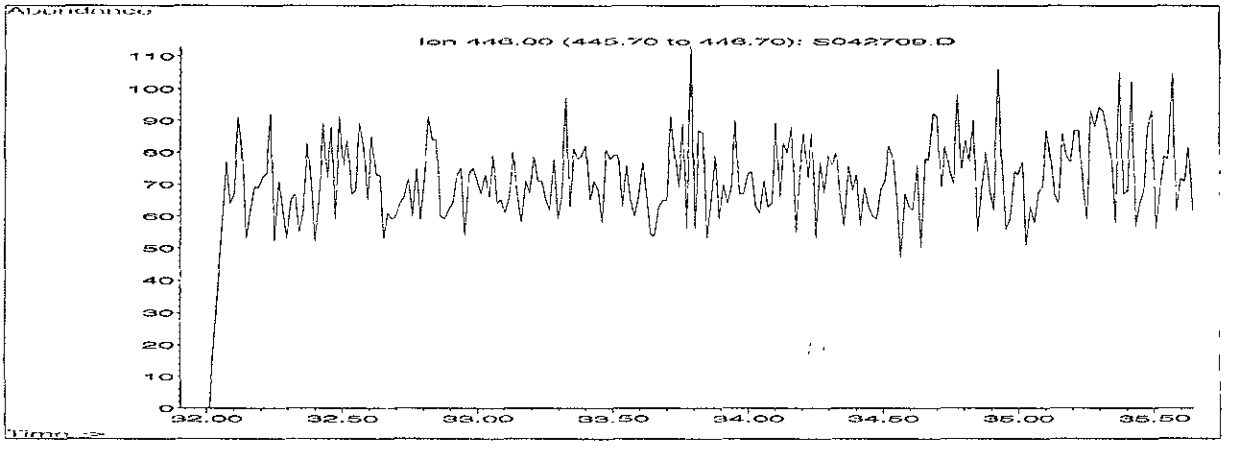
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



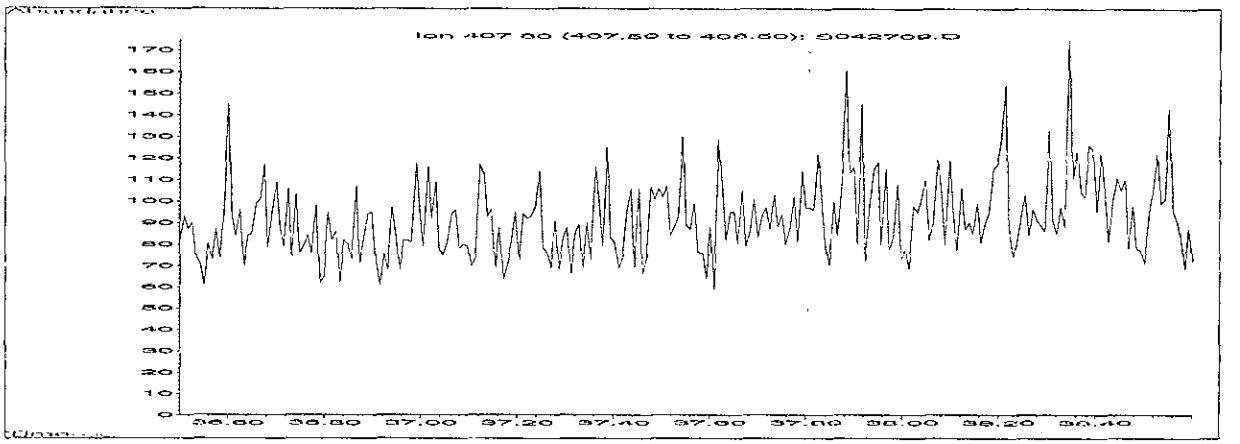


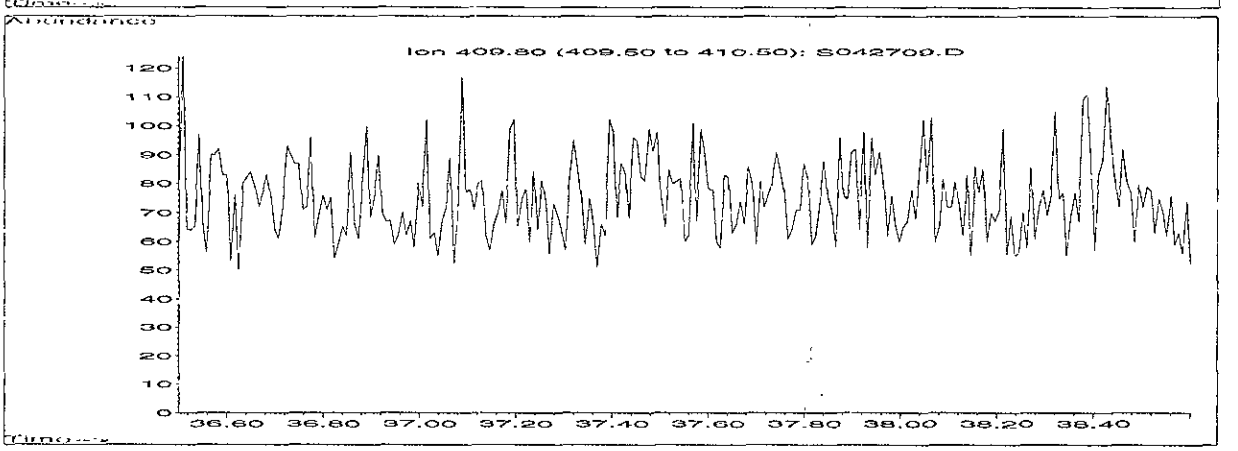


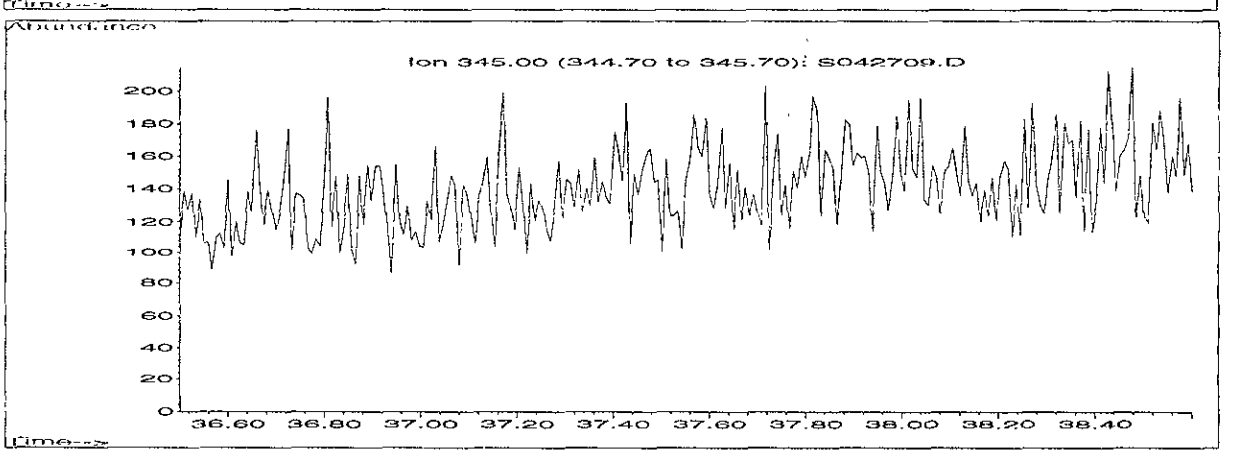


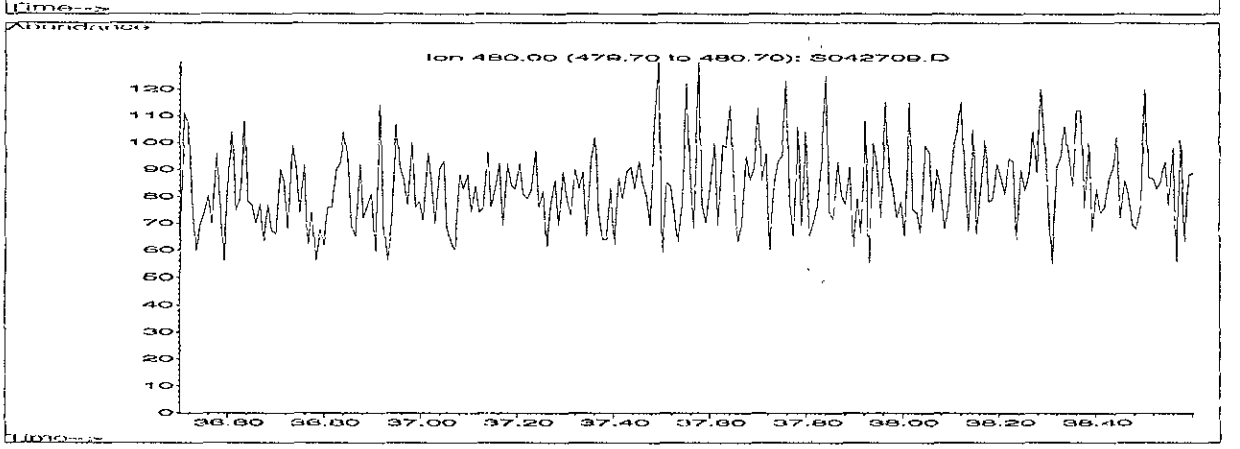
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

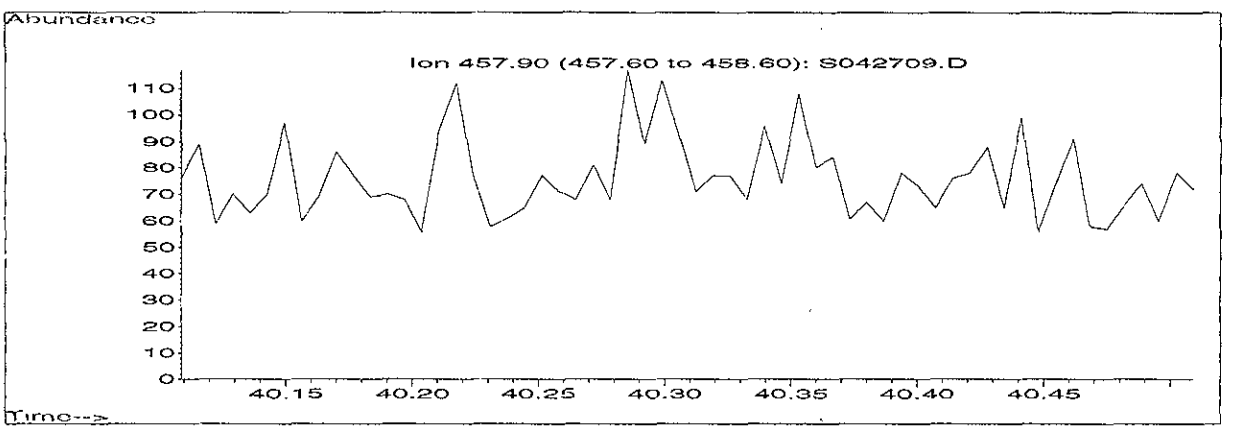


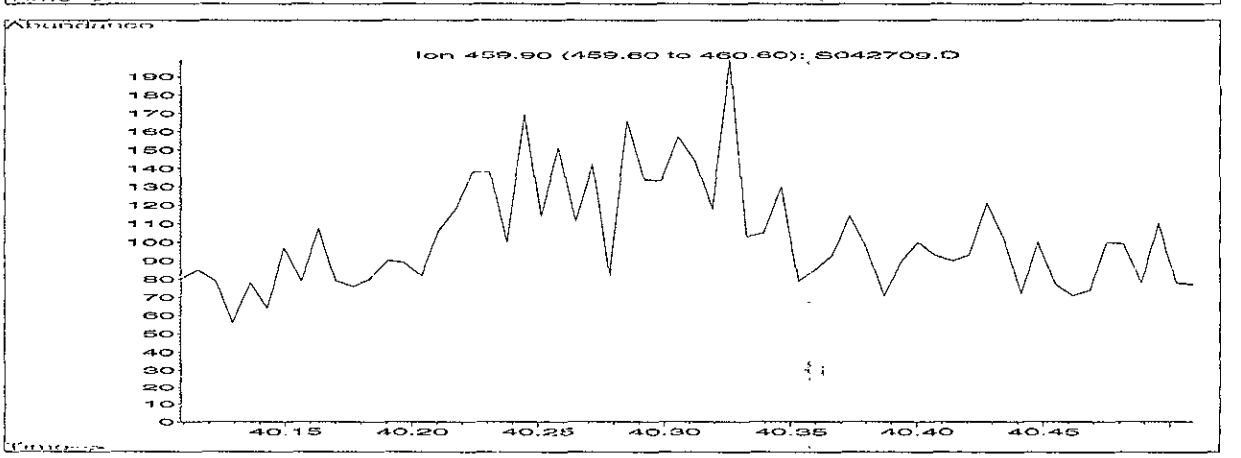


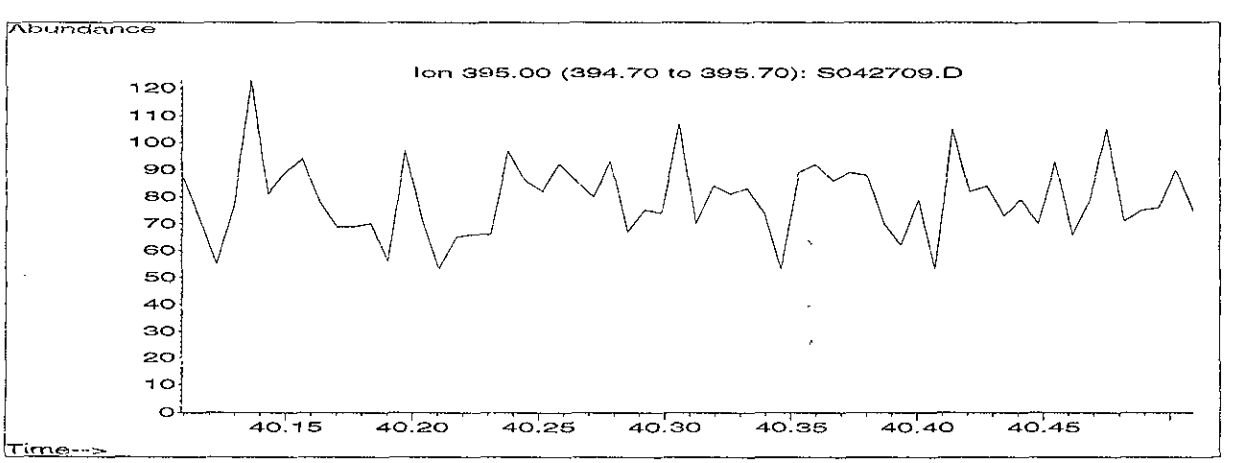




OCDD			
TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

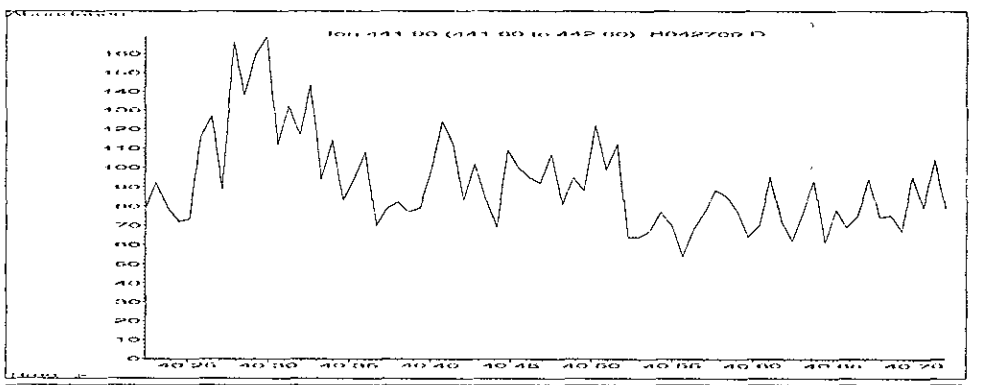


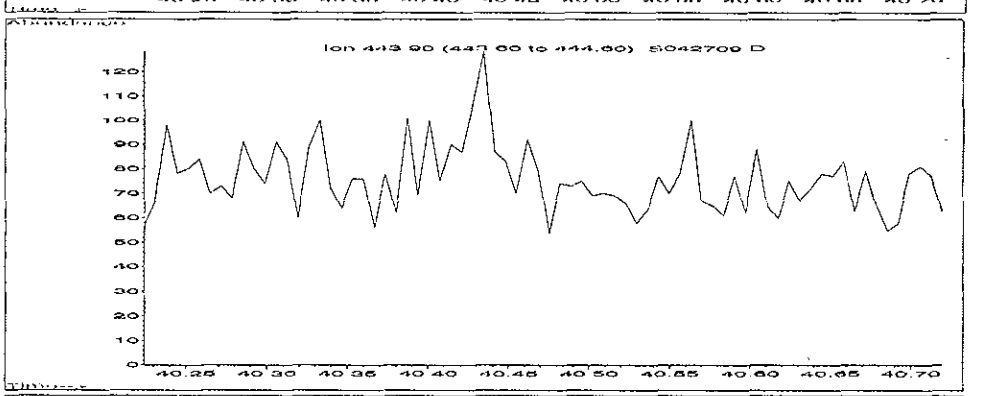


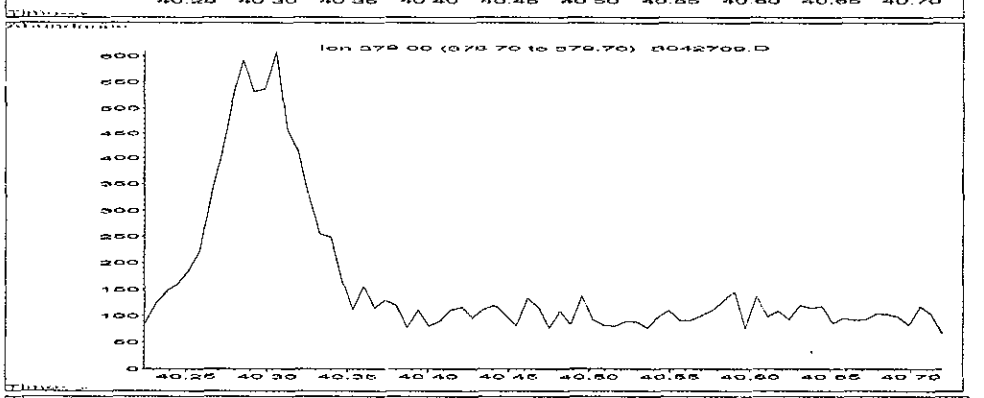


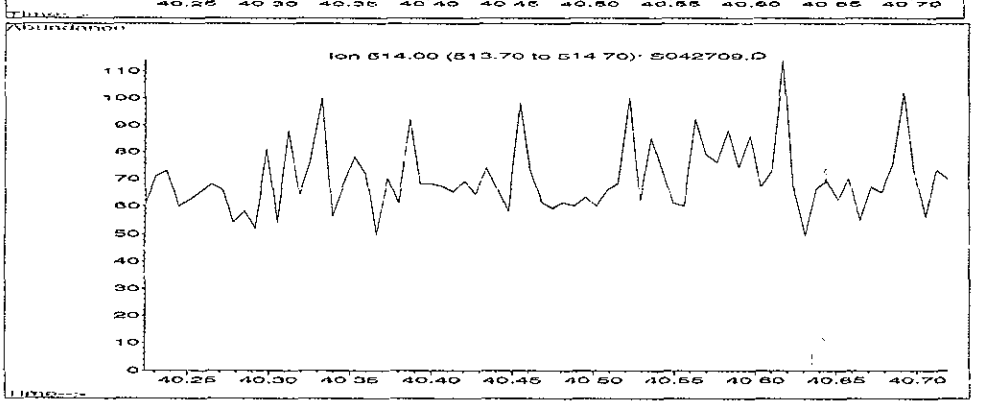
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



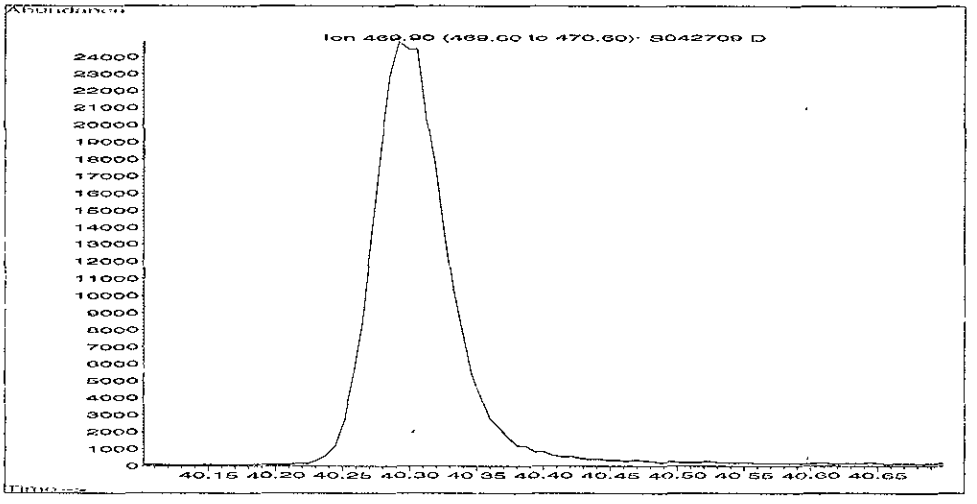


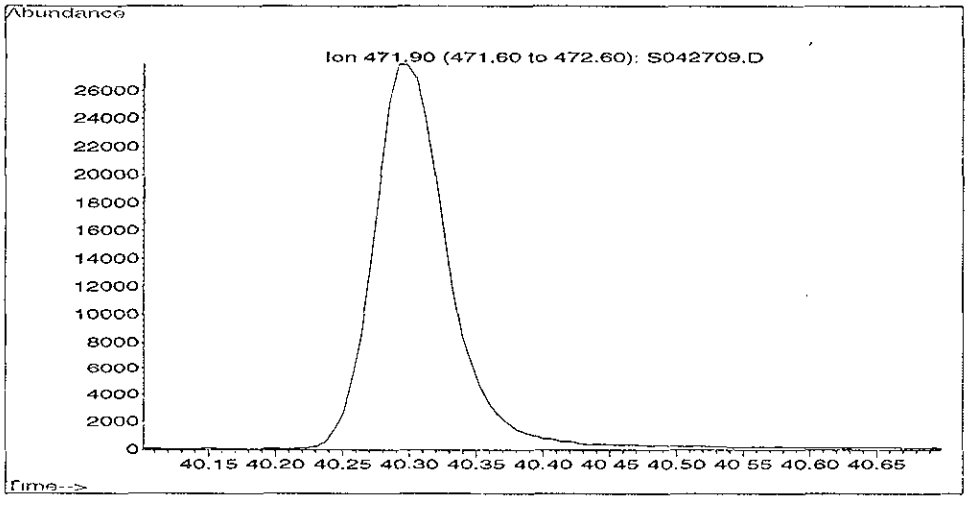




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.29		
Target Ion	469.9	Q1 Ion	471.9
Target Response	97434	Q1 Response	108823
Total response	206257	Ratio	0.90





Sample ID: A9D160180-6 1.03946L 8280A
K97DM-1-AA WATER LR909

Size: 1.039
Inst : DB1

Data File:C:\8280\2DB\042709.B\S042710.D
Acq On :27 Apr 2009 7:33 pm

Vial: 10
Operator: MEO
Sample Amount: 1.04

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:42 2009

Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.78	172819	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.25	146221	25.00	NG	0.00
9) 13C-2378-TCDF	20.22	316+318	0.79	232584	25.00	NG	-0.01
15) 13C-2378-TCDD	21.14	332+334	0.76	150744	25.00	NG	-0.02 ✓
20) 13C-123678-HxCDD	34.69	402+404	1.28	83819	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.04	95316	25.00	NG	0.00
36) 13C-OCDD	40.30	470+472	0.90	211998	50.00	NG	0.00

Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		126093	9.848	NG	0.00
Spiked Amount = 12.025	RRF = 1.782			Recovery =	81.92% ✓		

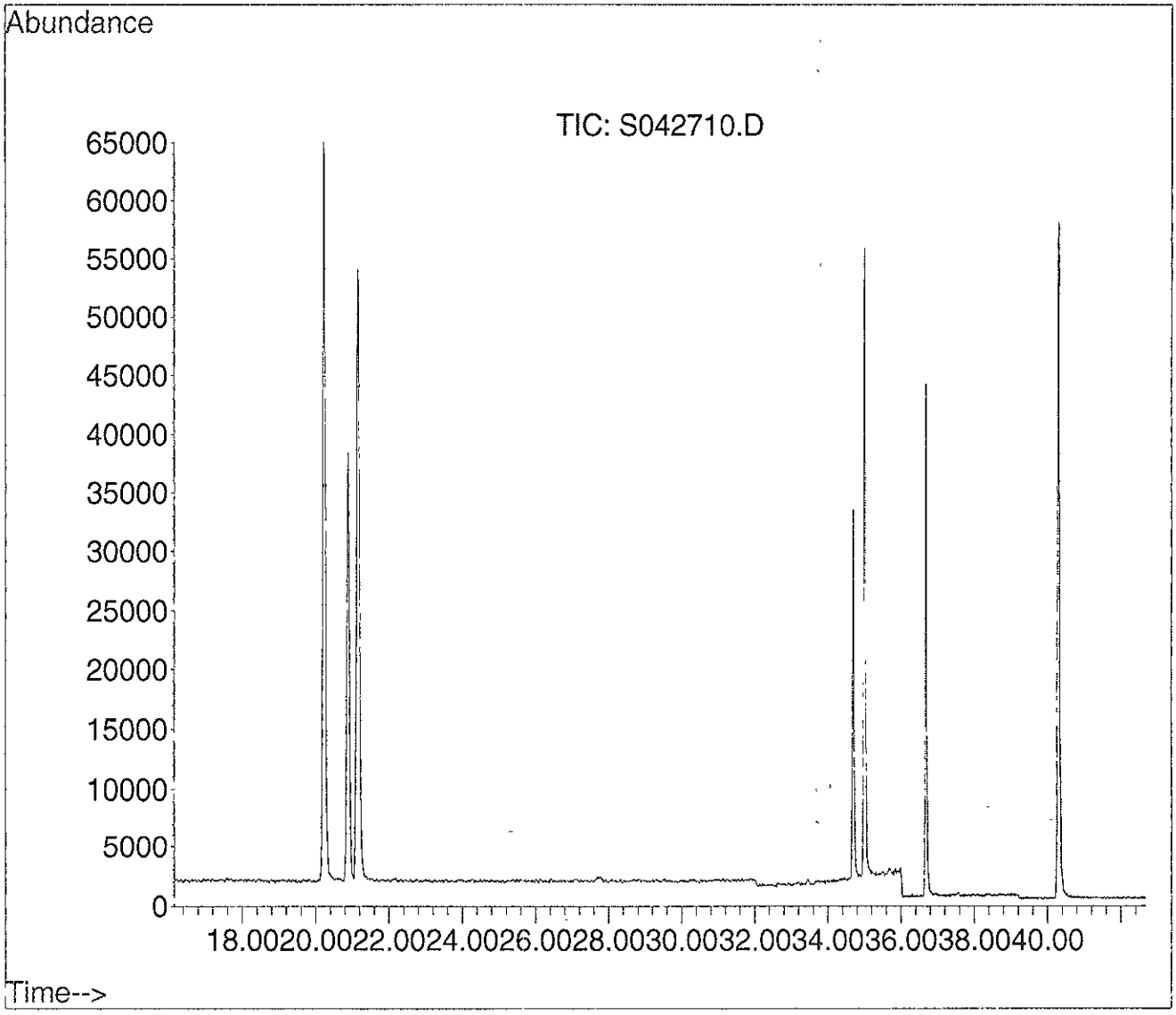
Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.22	0.79	232584	1.796	18.018	0.0432	74.9
3) 13C-2378-TCDD-IS	21.14	0.76	153172	1.137	18.741	2.9548	77.9 ✓
6) 13C-123678-HxCDD-	34.69	1.28	84255	0.899	15.408	0.1034	64.1
7) 13C-1234678-HpCDF	36.68	1.04	95316	1.062	14.764	0.1009	61.4
8) 13C-OCDD-IS	40.30	0.90	211998	0.887	39.295	0.1491	81.7
10) 2378-TCDF	0.00		0	1.219	N.D.	0.0802	
11) TCDF TOTAL	19.30		0	1.219	N.D.	0.1046	
12) 12378-PeCDF	0.00		0	0.964	N.D.	0.0784	
13) 23478-PeCDF	0.00		0	0.927	N.D.	0.0736	
14) PeCDF TOTAL	26.80		0	0.927	N.D.	0.1279	
16) 2378-TCDD	0.00		0	1.306	N.D.	0.1330	
1	20.22	4.73 #	22107		2.700 SL		
17) TCDD TOTAL	19.30	4.73	22107	1.306	2.700		
18) 12378-PeCDD	0.00		0	0.941	N.D.	0.1872	
19) PeCDD TOTAL	27.00		0	0.941	N.D.	0.3129	
21) 123478-HxCDD	0.00		0	1.097	N.D.	0.1329	
22) 123678-HxCDD	0.00		0	1.061	N.D.	0.1374	
23) 123789-HxCDD	0.00		0	1.144	N.D.	0.1324	
24) HxCDD TOTAL	34.70		0	1.061	N.D.	0.2155	
25) 1234678-HpCDD	0.00		0	1.055	N.D.	0.2789	
26) HpCDD TOTAL	37.35		0	1.055	N.D.	0.9397	
28) 123478-HxCDF	0.00		0	1.329	N.D.	0.0866	
29) 123678-HxCDF	0.00		0	1.384	N.D.	0.0750	
30) 234678-HxCDF	0.00		0	1.315	N.D.	0.0669	
31) 123789-HxCDF	0.00		0	1.278	N.D.	0.0918	
32) HxCDF TOTAL	34.40		0	1.278	N.D.	0.2083	
33) 1234678-HpCDF	0.00		0	1.237	N.D.	0.0912	
34) 1234789-HpCDF	0.00		0	1.111	N.D.	0.1340	
35) HpCDF TOTAL	38.00		0	1.111	N.D.	0.2395	
37) OCDD	0.00		0	1.224	N.D.	0.1020	

AK 4/30/09

38) OCDF	0.00	0	1.589	N.D.	0.1893

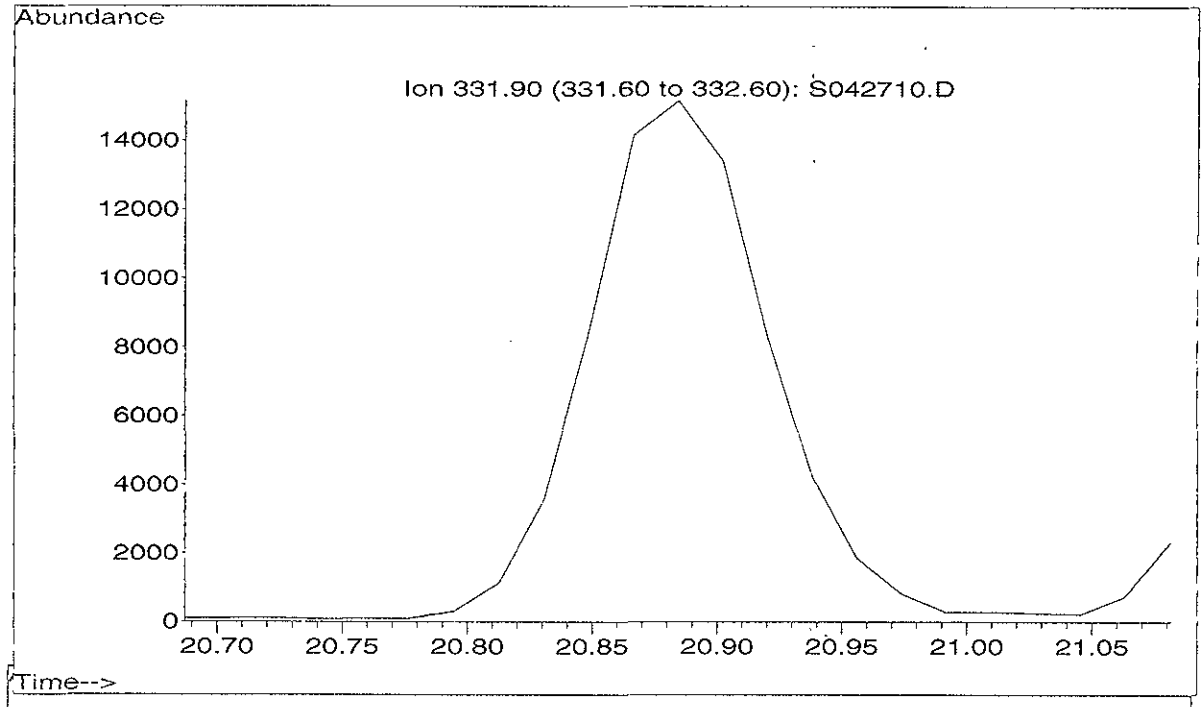
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
S042710.D 09AP27A2.M Tue Apr 28 16:42:33 2009

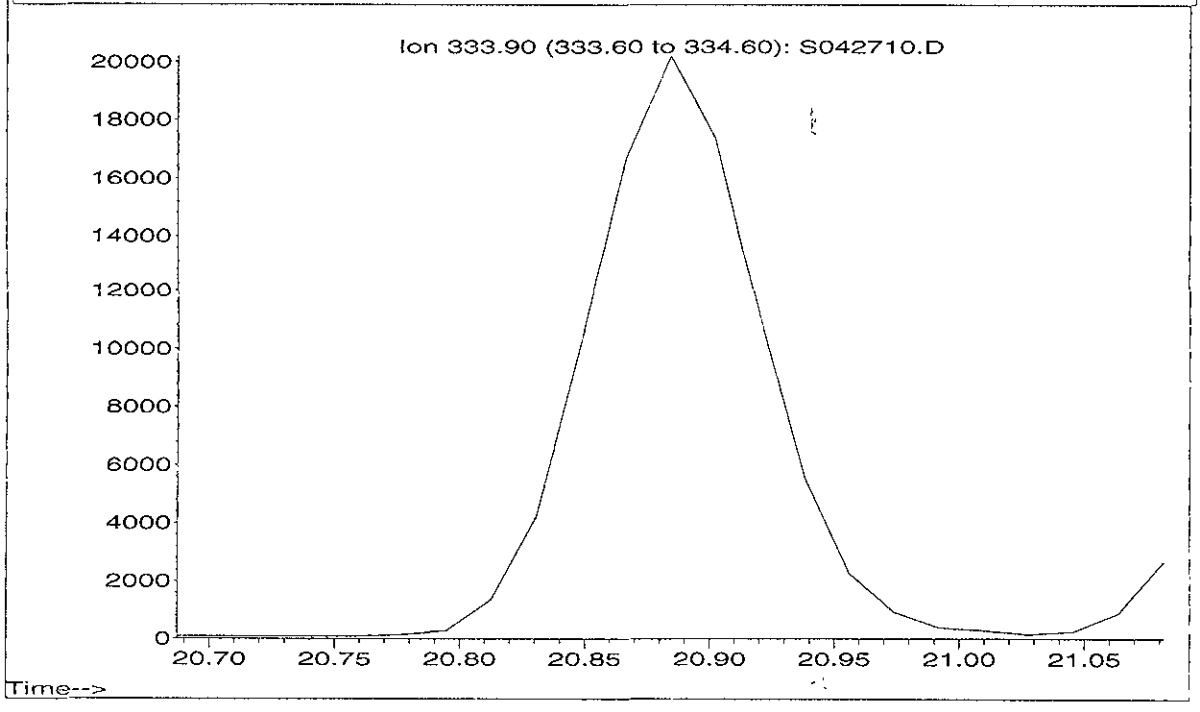
Data File Name	S042710.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 7:33
Acq. Method File	TOKAS
Sample Name	97DM-1-AA WATER LR909
Misc Info	D160180-6 1.03946L 8280A
Vial Number	10
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	1.03946



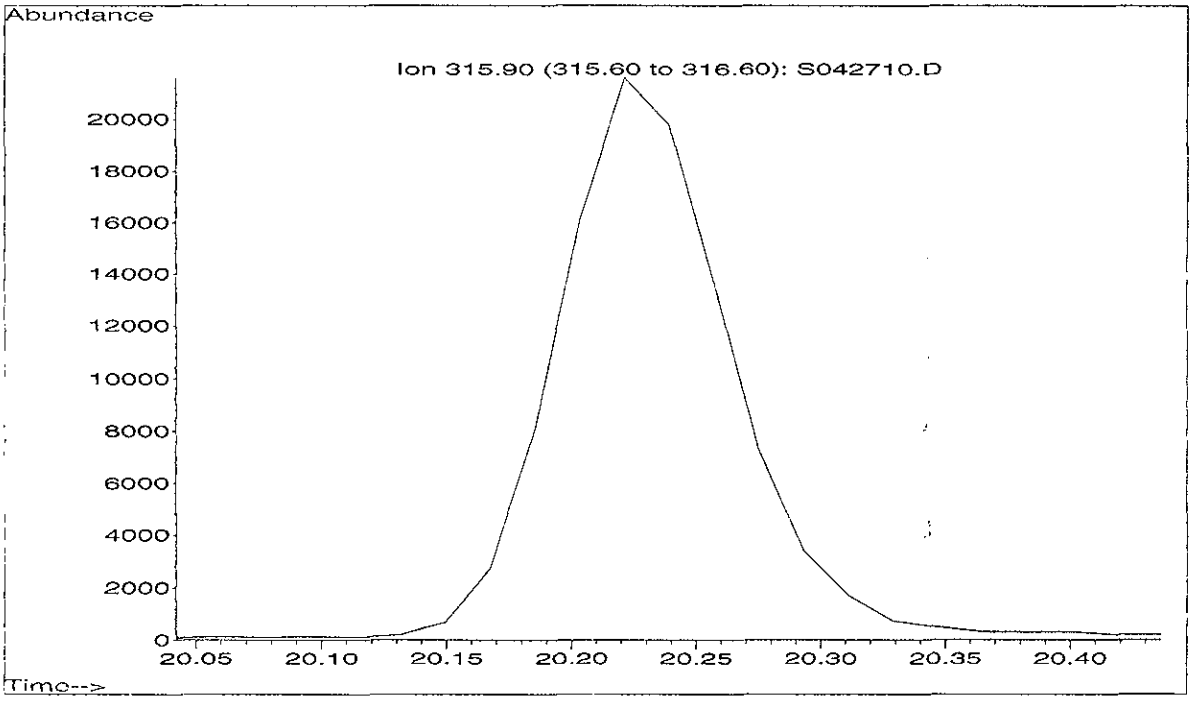
13C-1234-TCDD

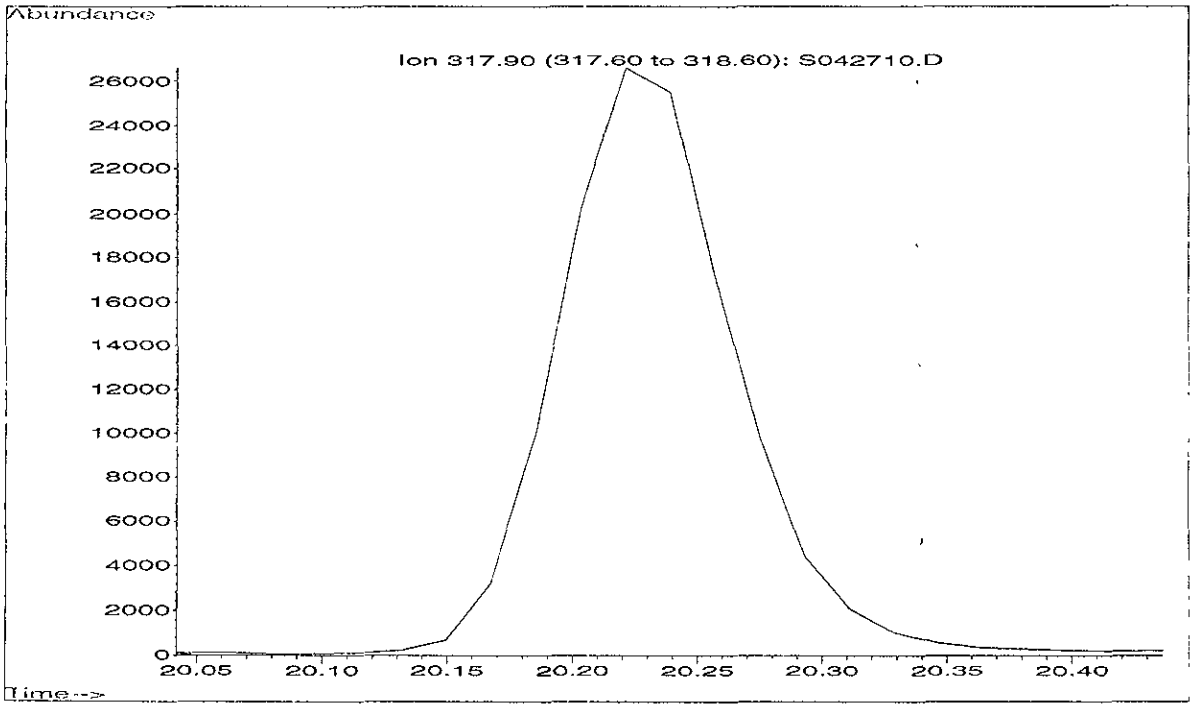
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	75949	Q1 Response	96870
Total Response	172819	Ion Ratio	0.78





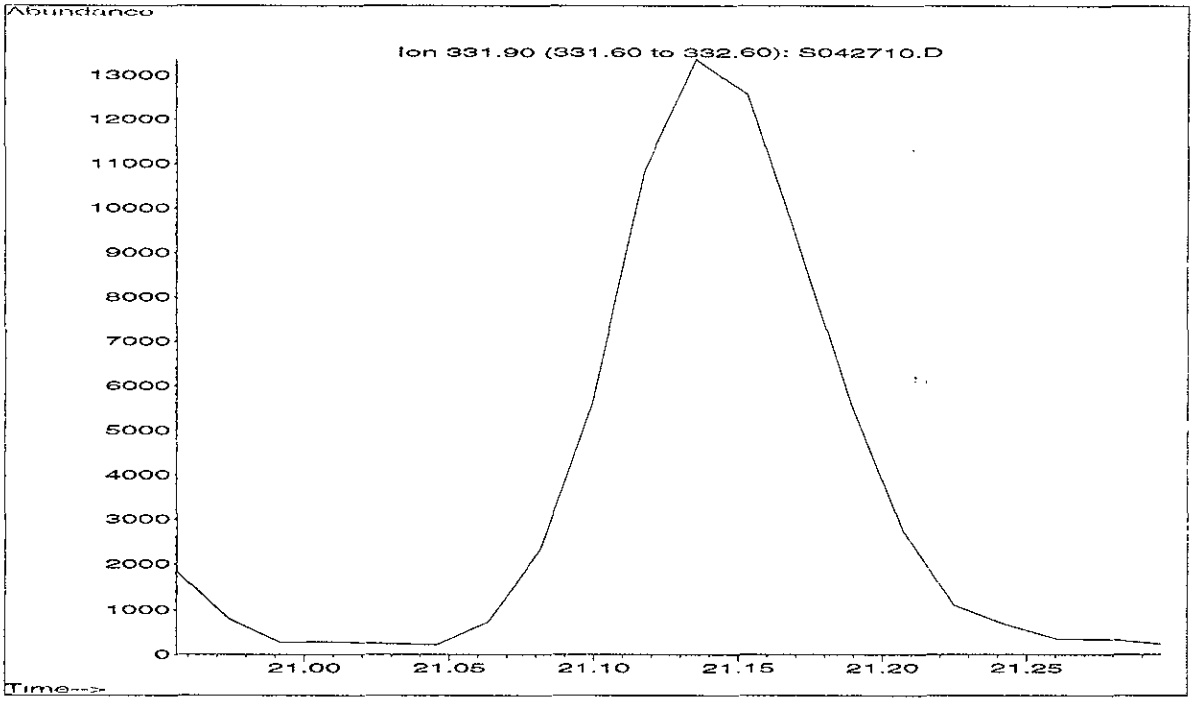
13C-2378-TCDF-IS			
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.22		
Target Ion	315.9	Q1 Ion	317.9
Target Response	102614	Q1 Response	129970
Target Response	232584	Ion Ratio	0.79

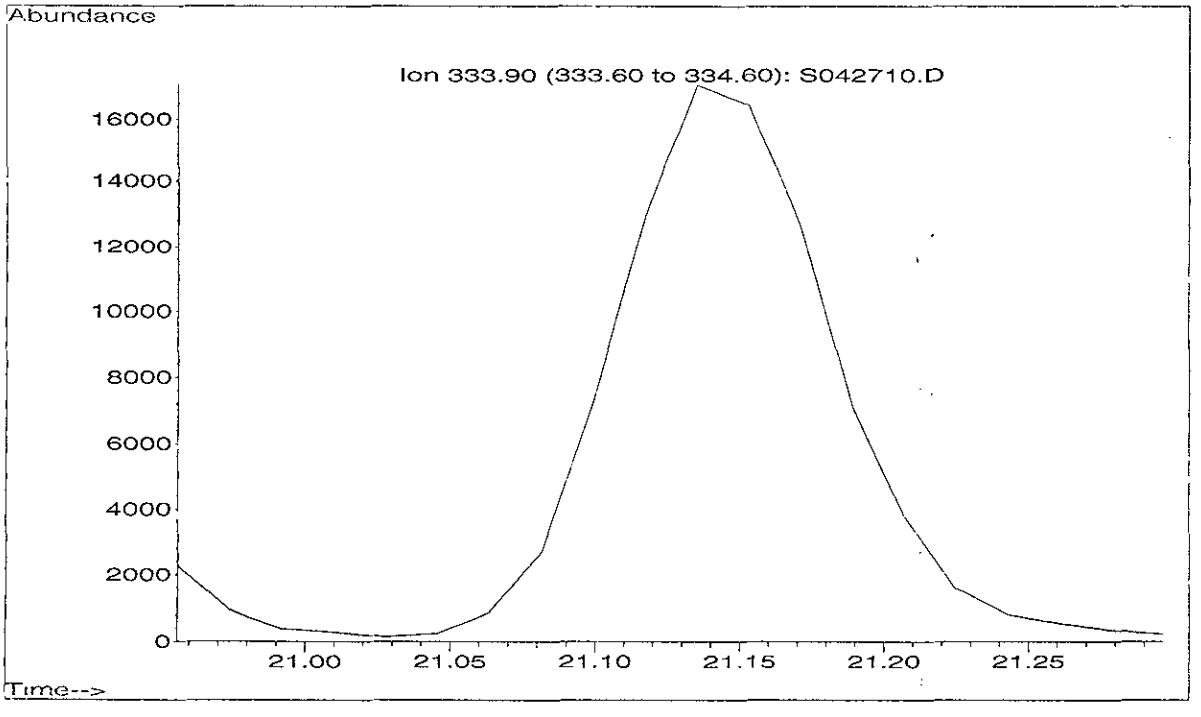




13C-2378-TCDD-IS

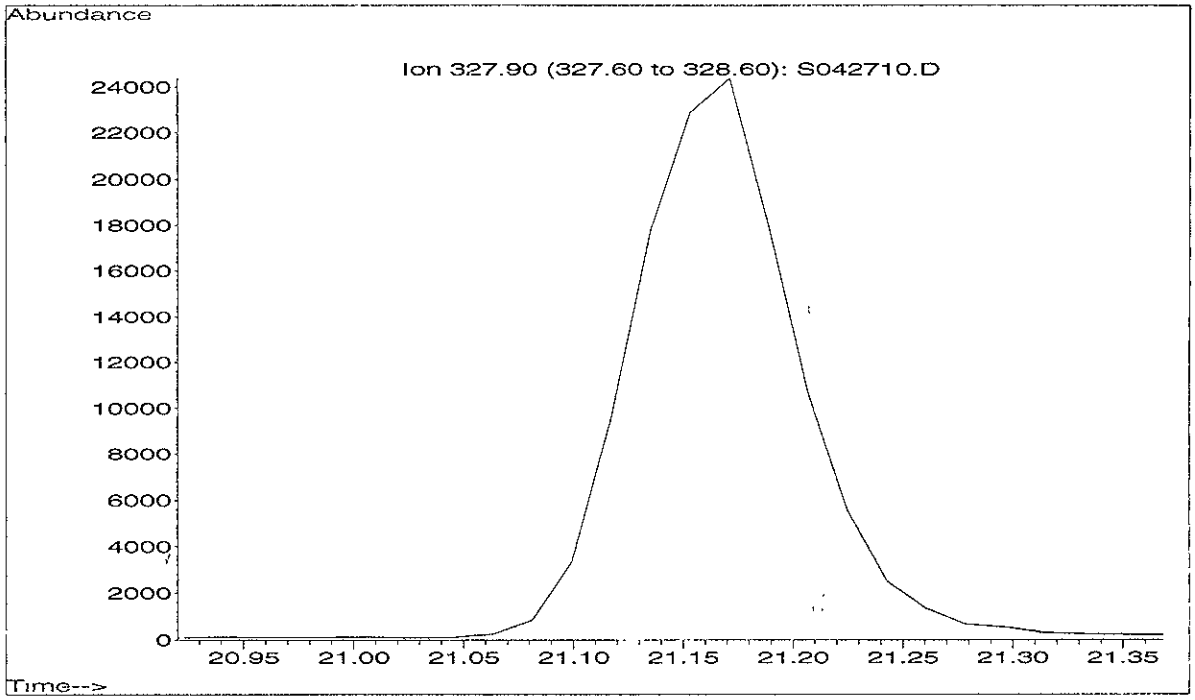
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.14		
Target Ion	331.9	Q1 Ion	333.9
Target Response	66097	Q1 Response	87075
Total Response	153172	Ion Ratio	0.76

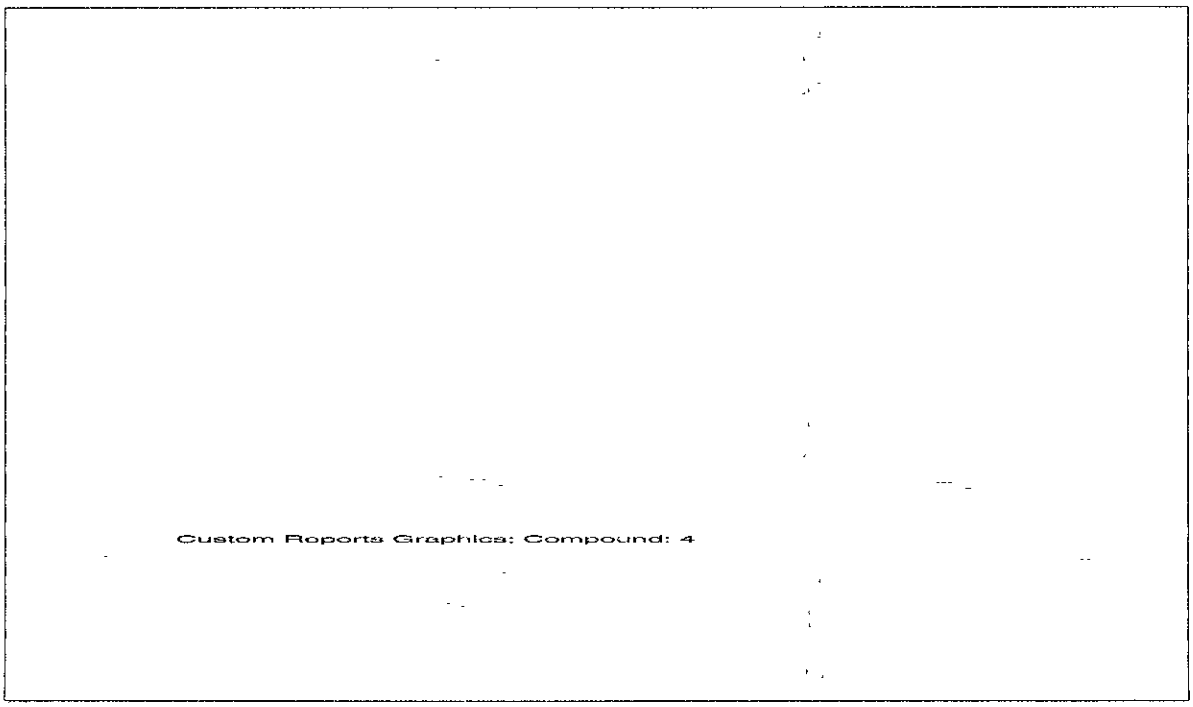




37Cl-2378-TCDD

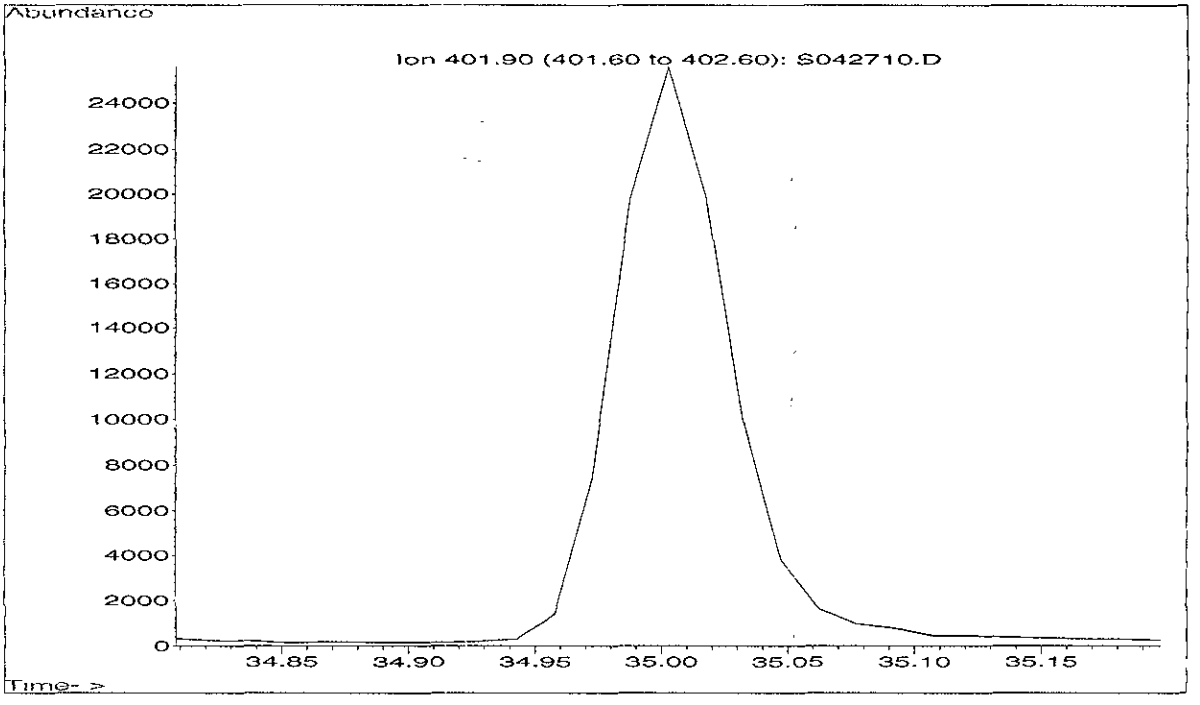
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	126093	Q1 Response	0
Total Response	126093	Ion Ratio	#DIV/0!

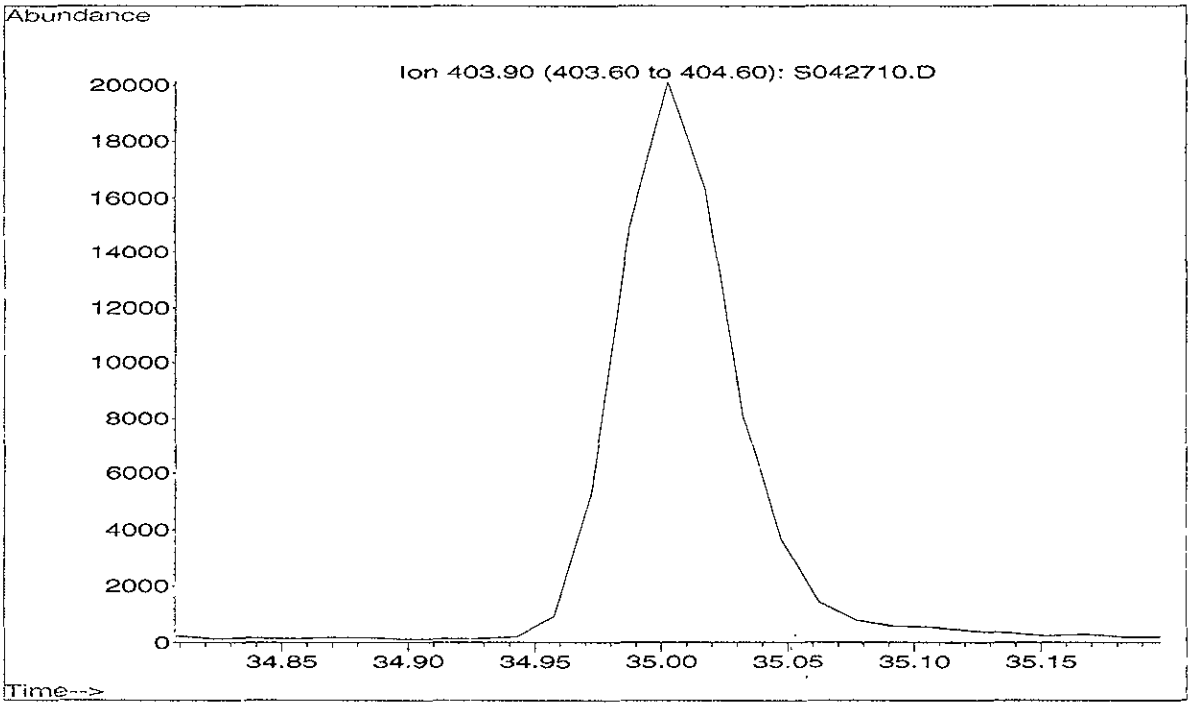




13C-123789-HxCDD

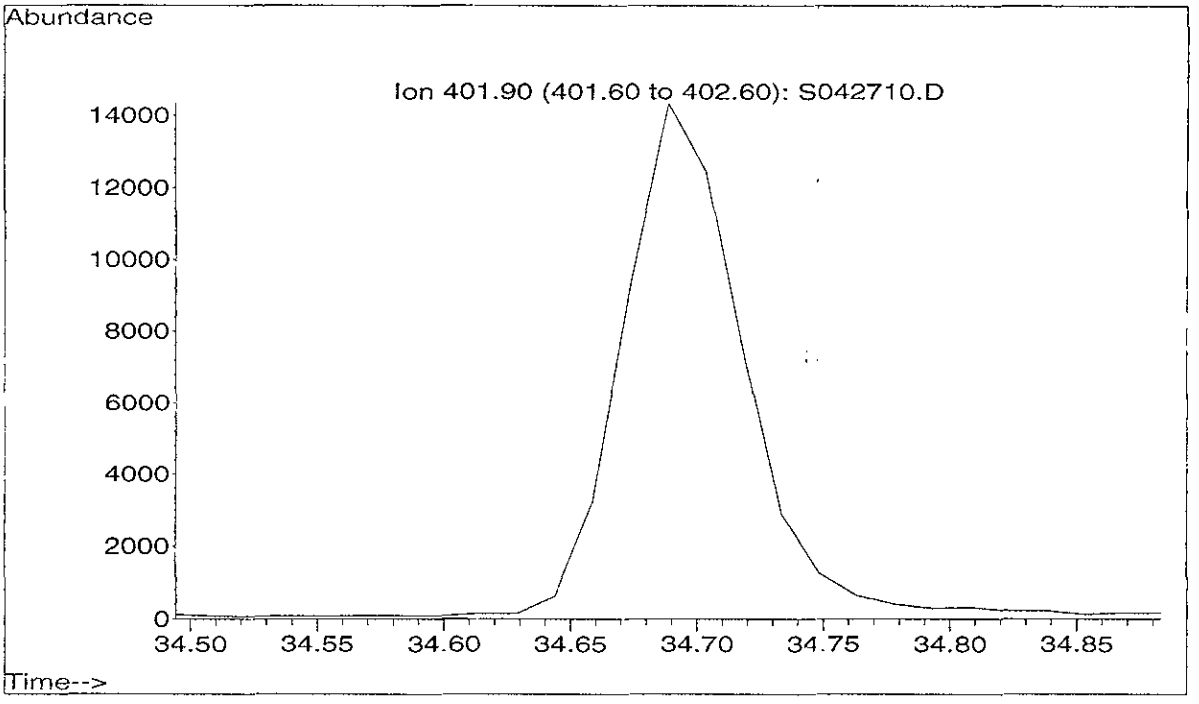
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	81332	Q1 Response	64889
Target Response	146221	Ion Ratio	1.25

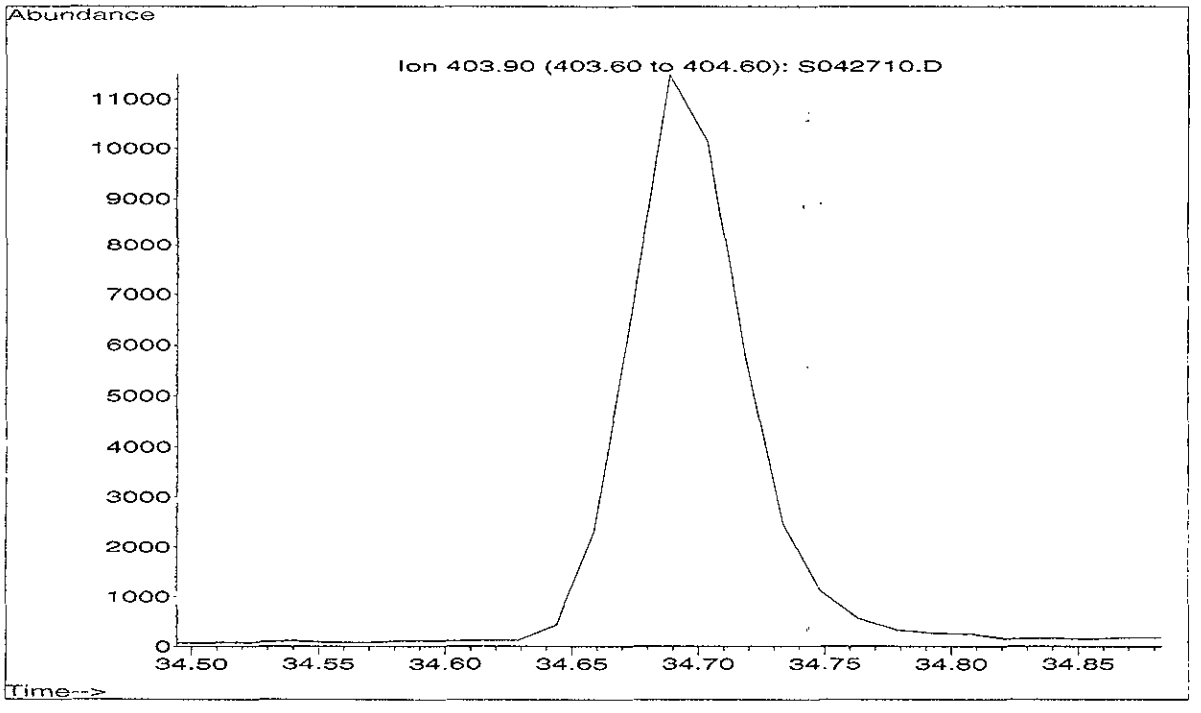




13C-123678-HxCDD-IS

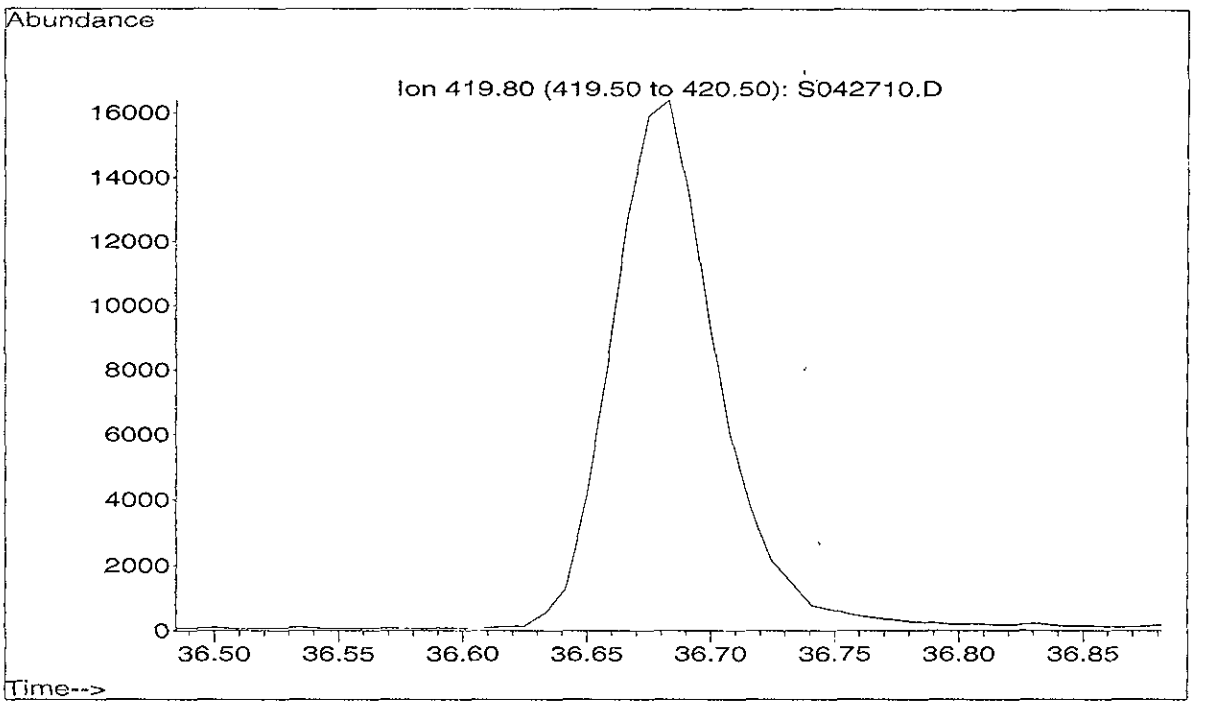
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	47369	Q1 Response	36886
Total Response	84255	Ion Ratio	1.28

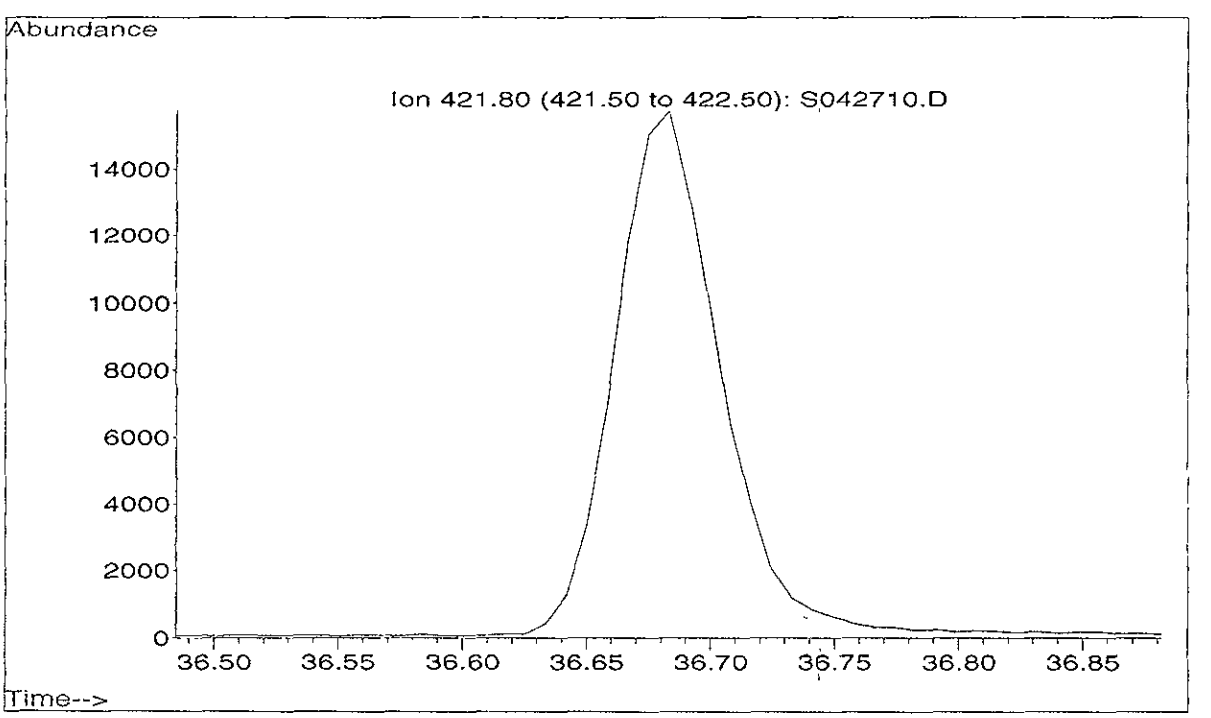




13C-1234678-HpCDF-IS

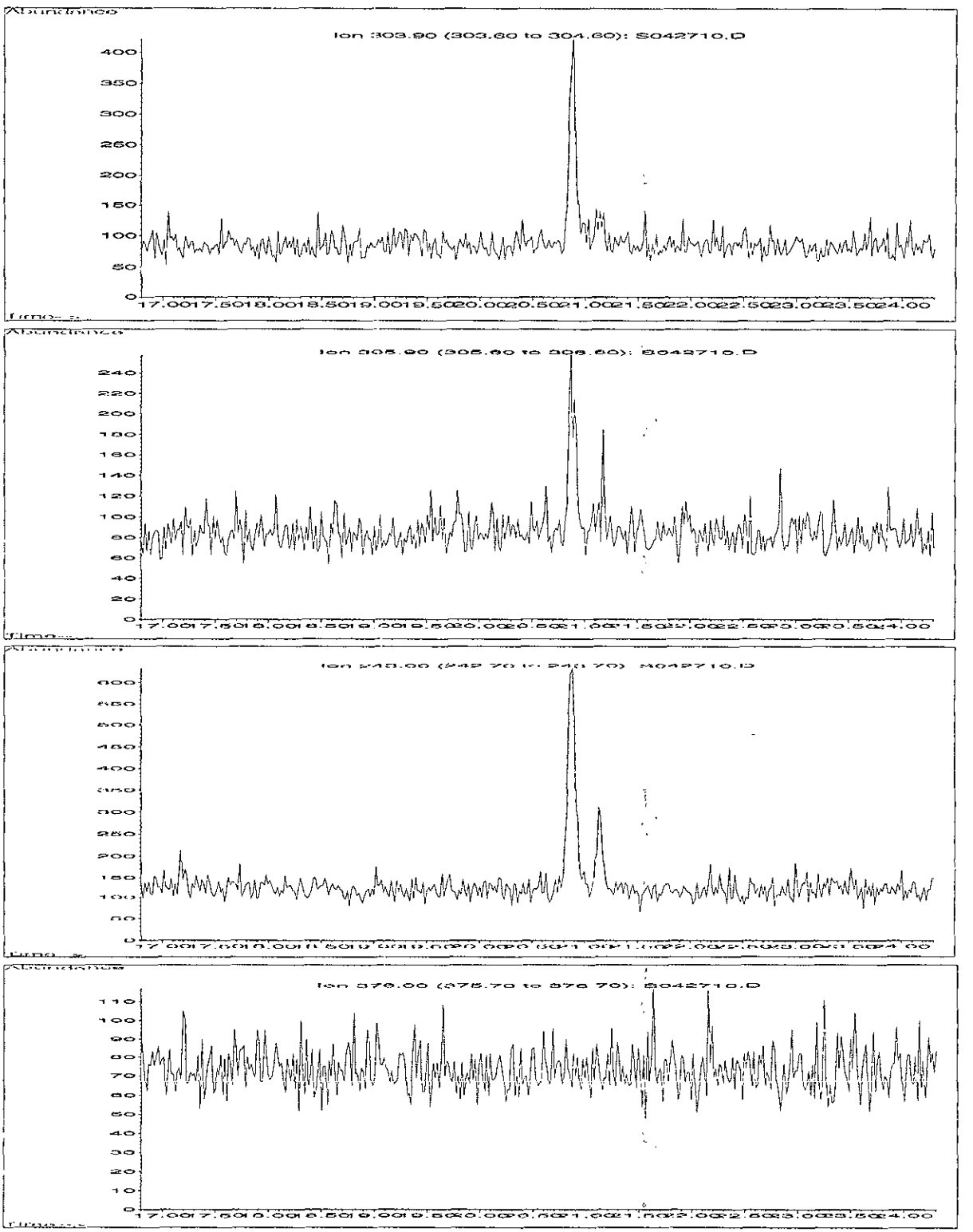
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	48680	Q1 Response	46636
Target Response	95316	Ion Ratio	1.04





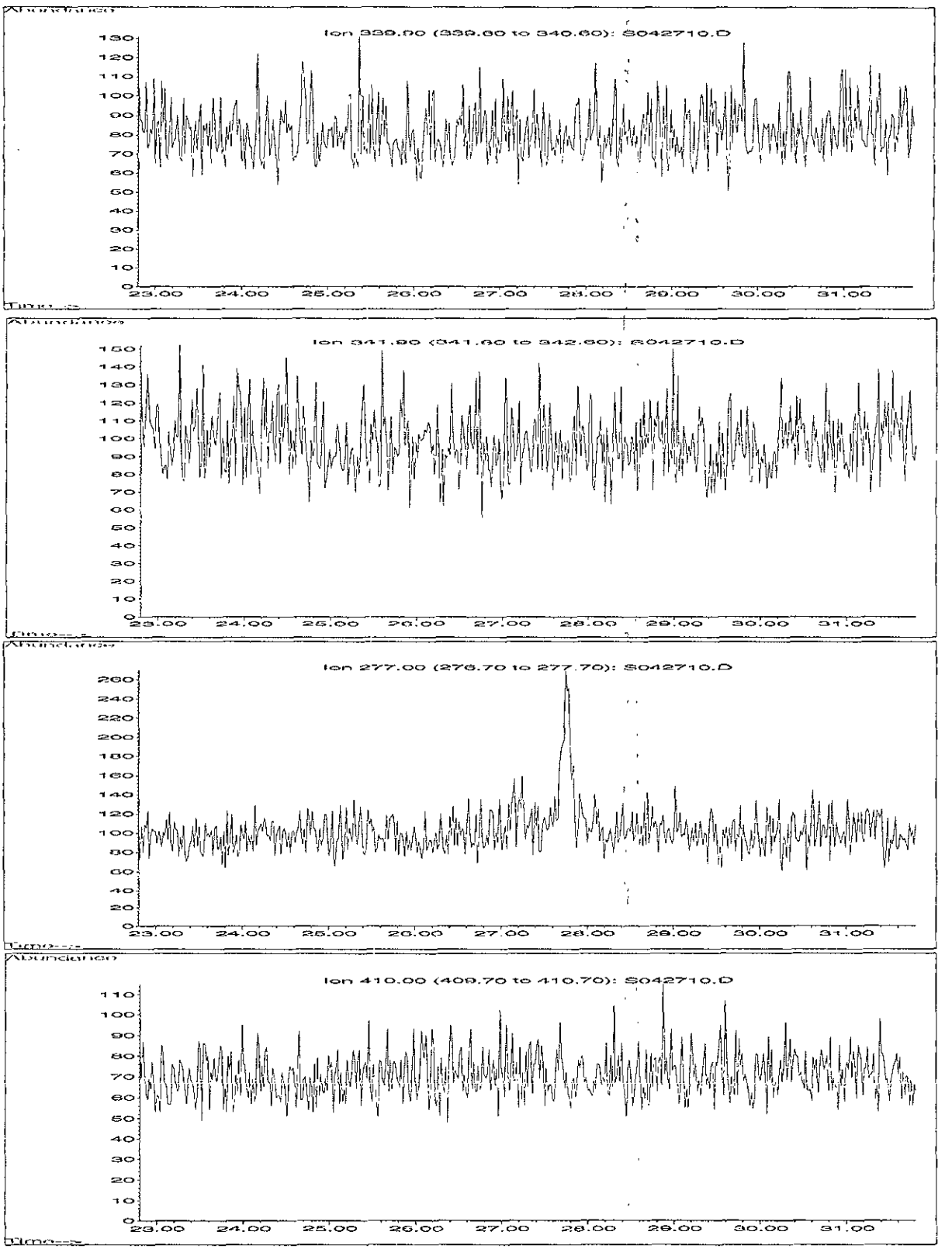
TCDF TOTAL

TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30



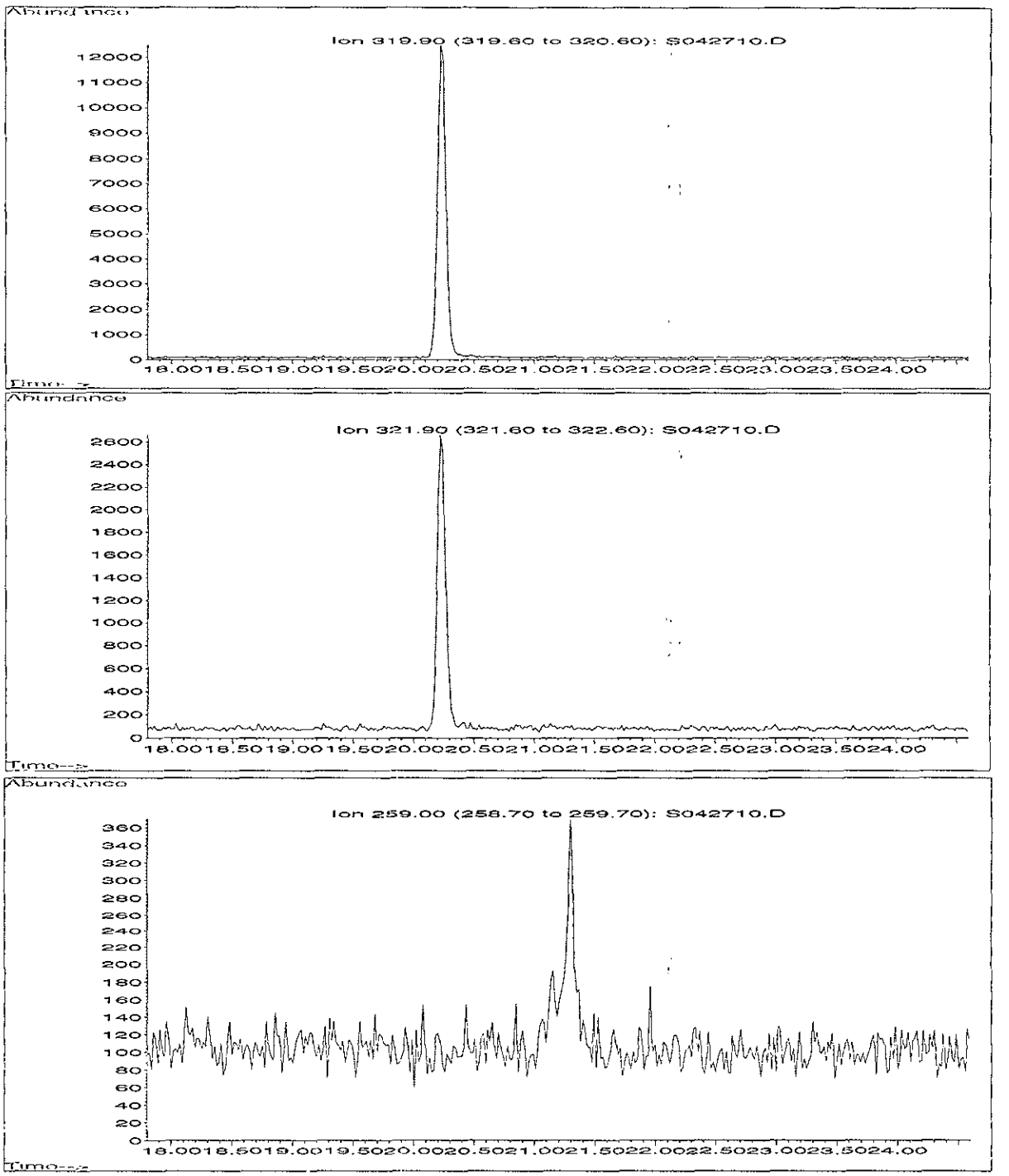
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



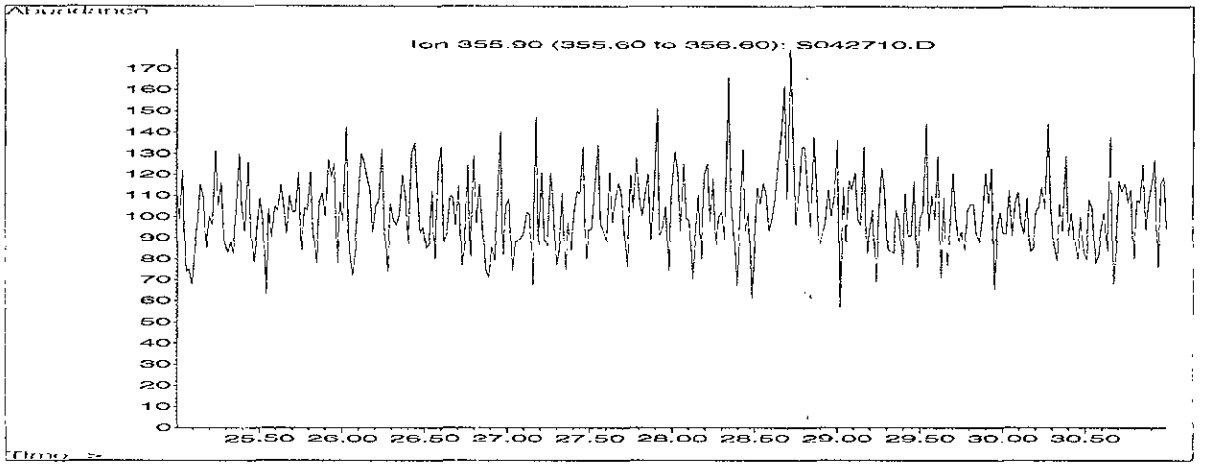
TCDD TOTAL

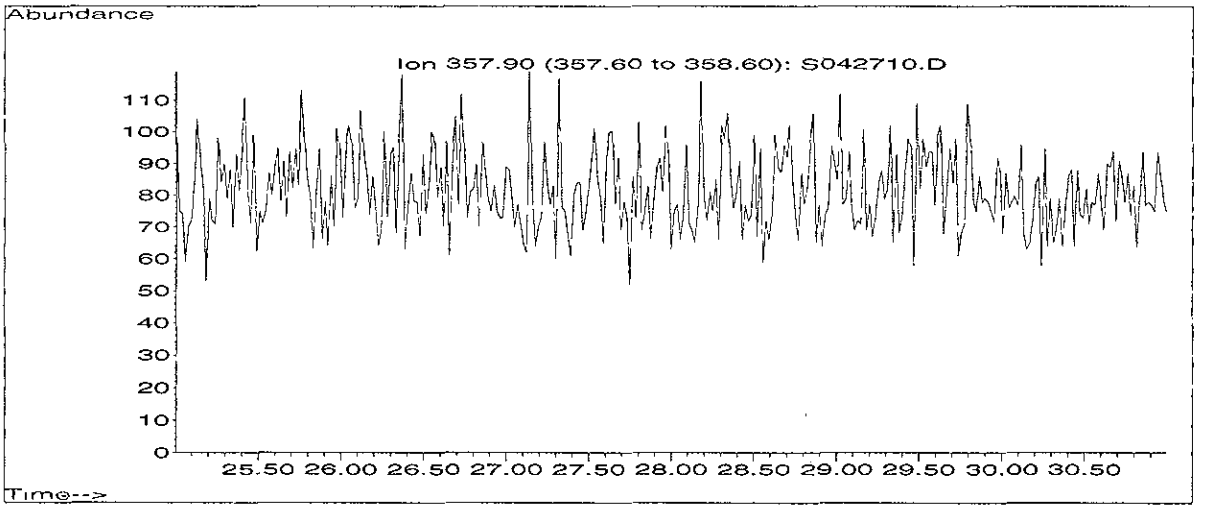
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

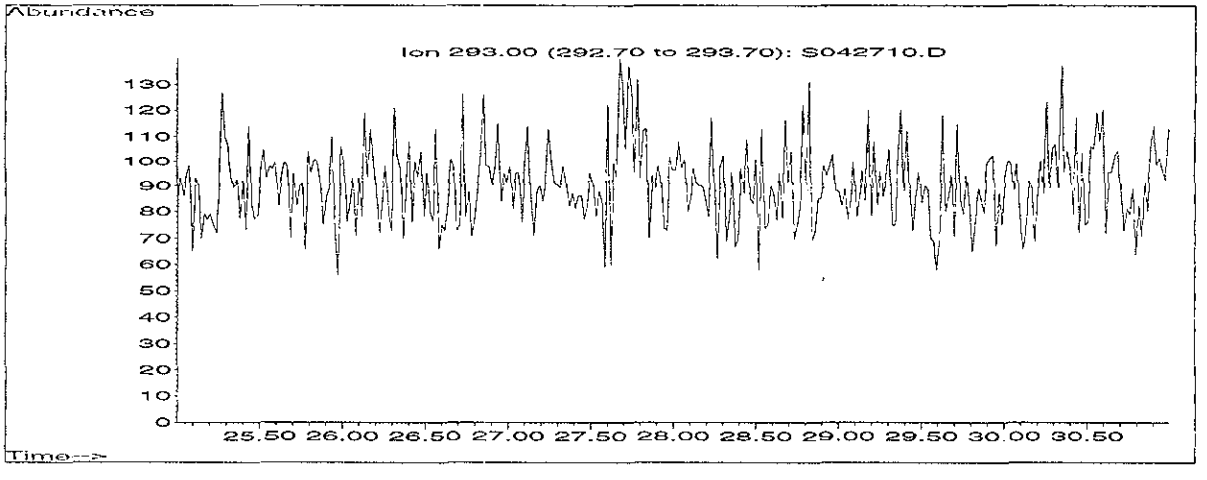


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

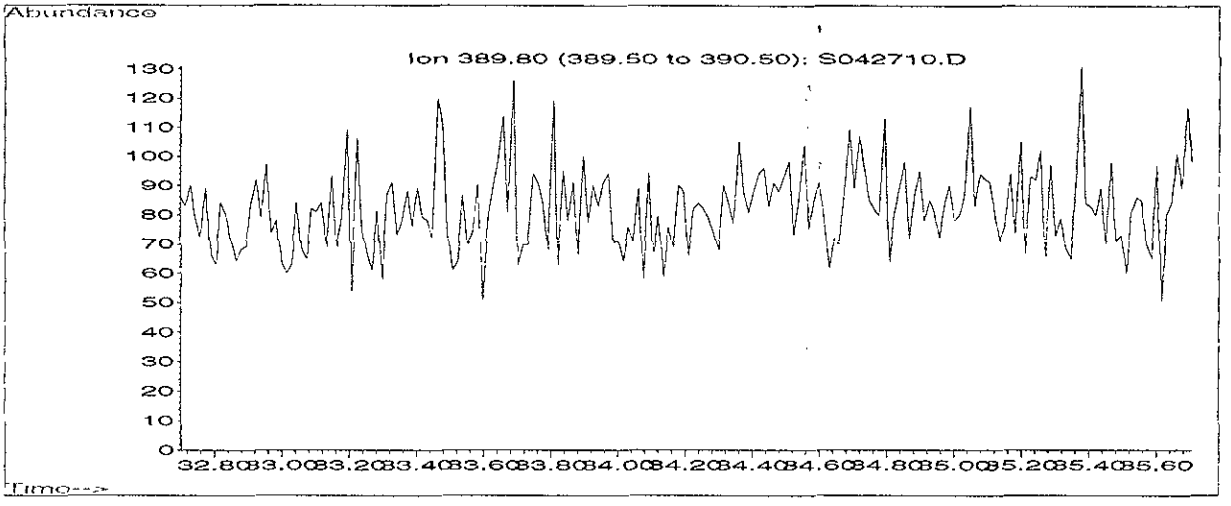


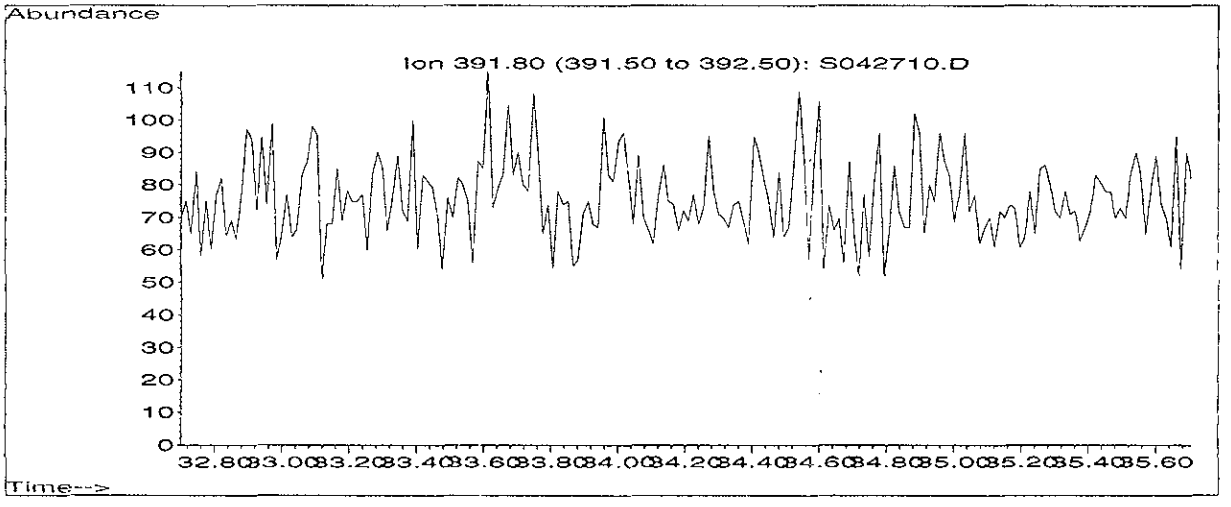


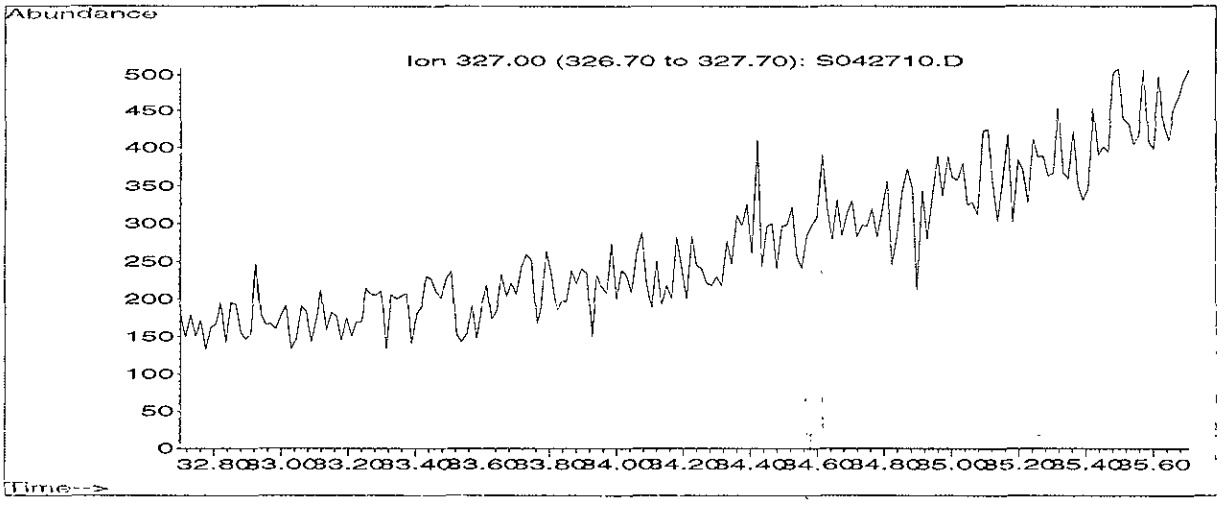


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

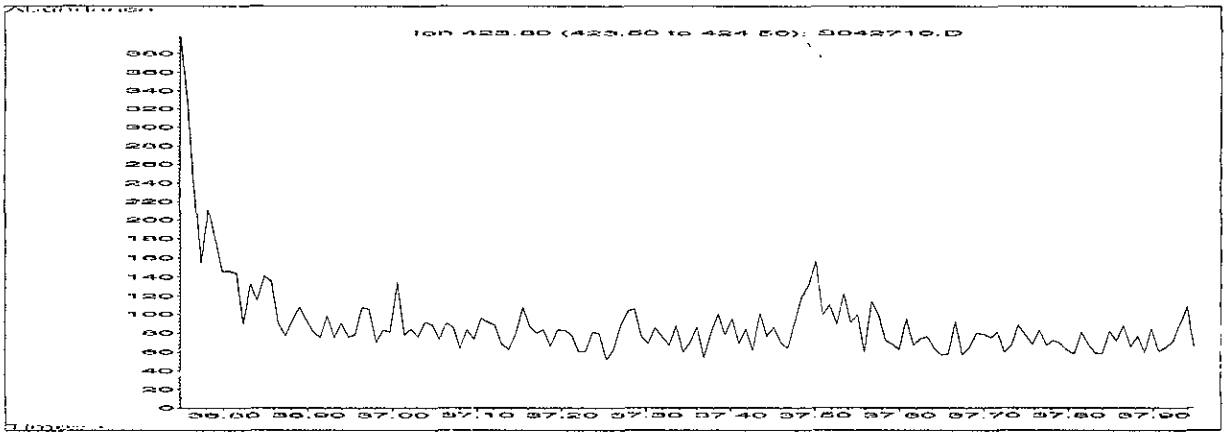


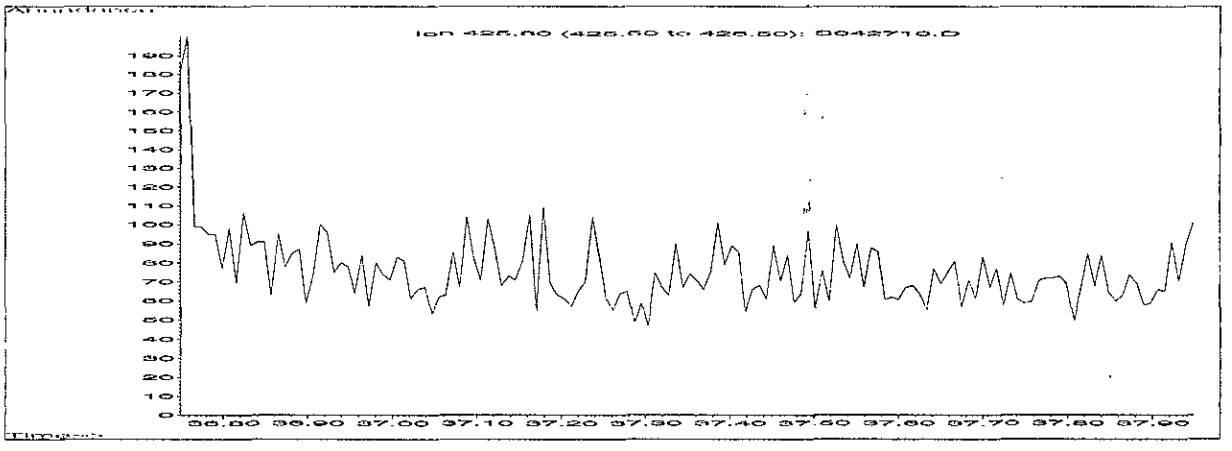


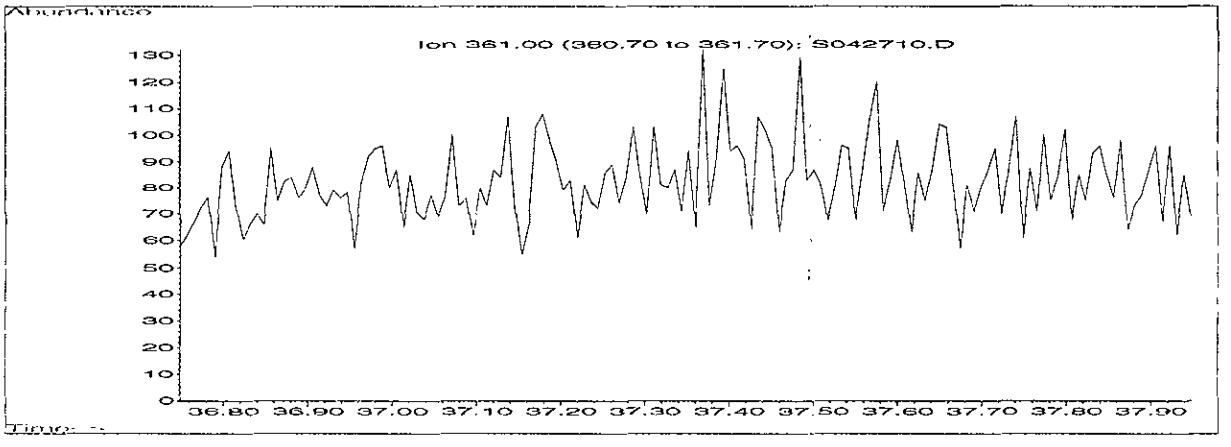


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

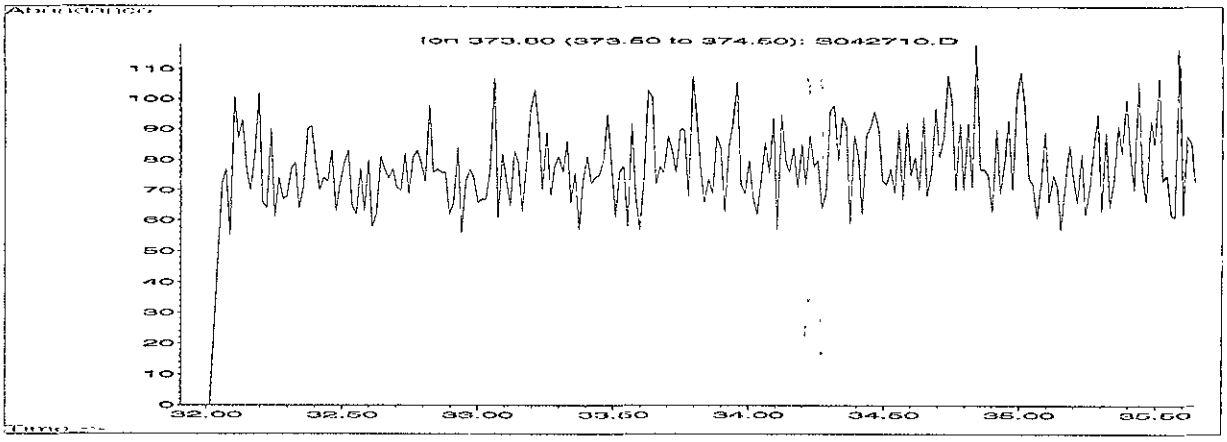


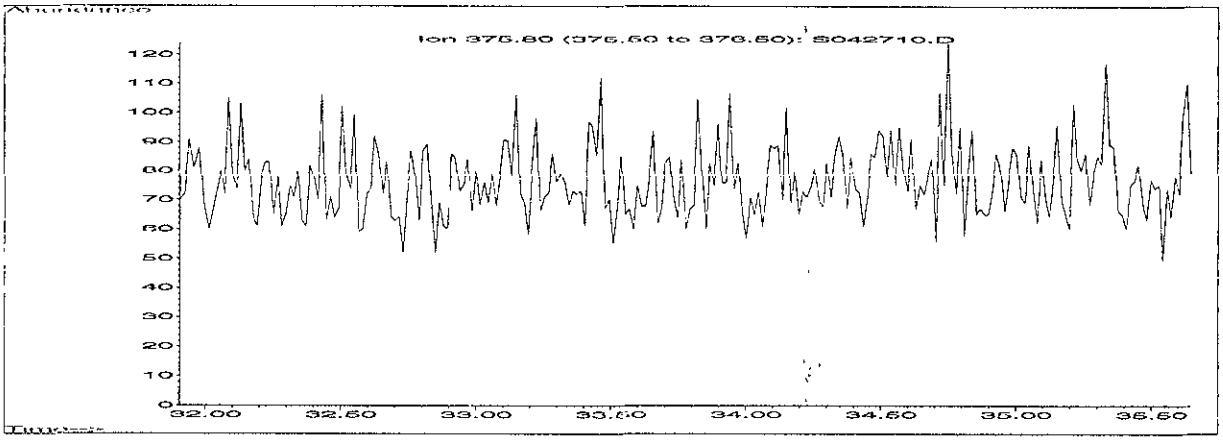


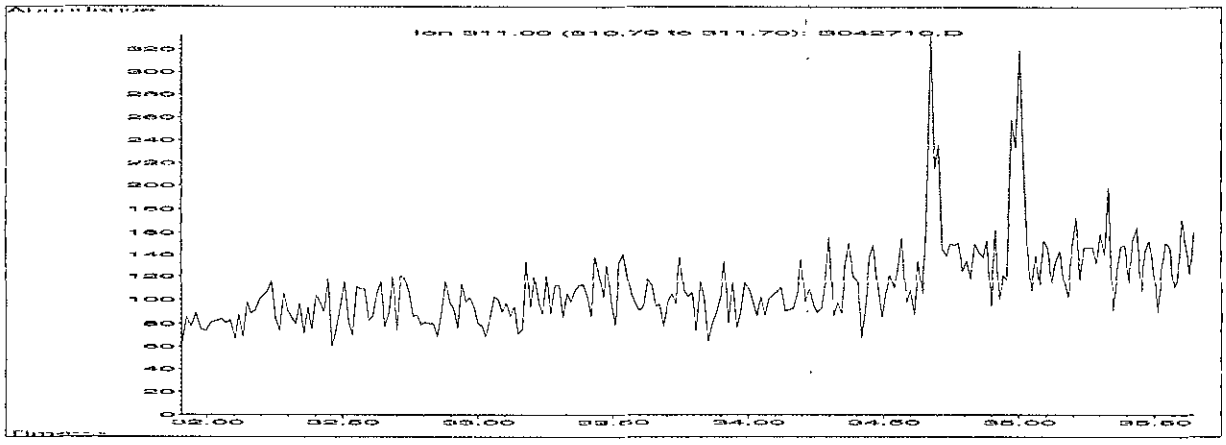


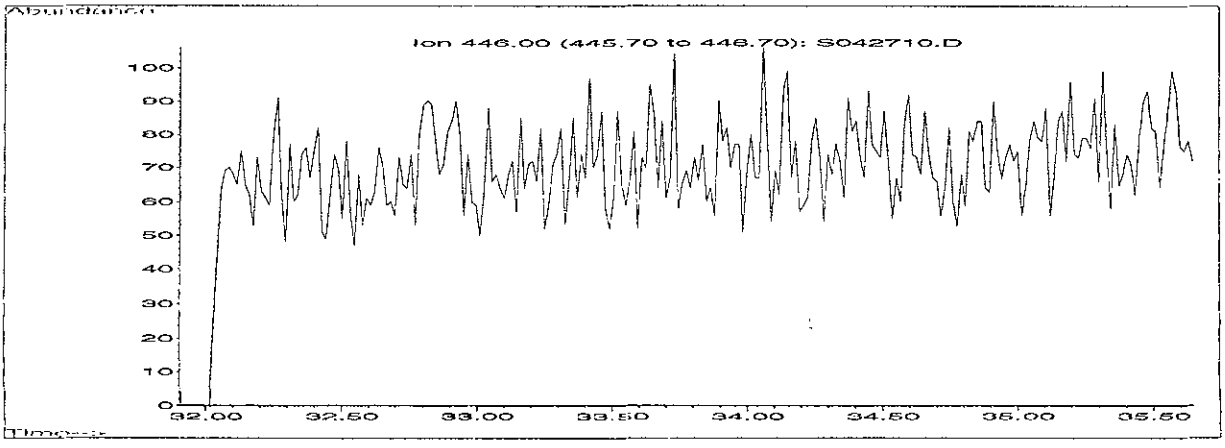
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



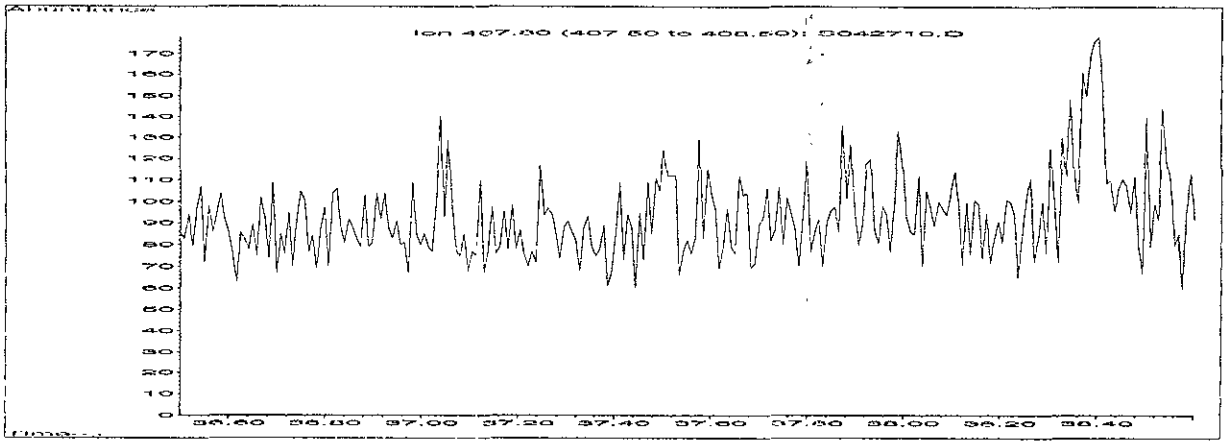


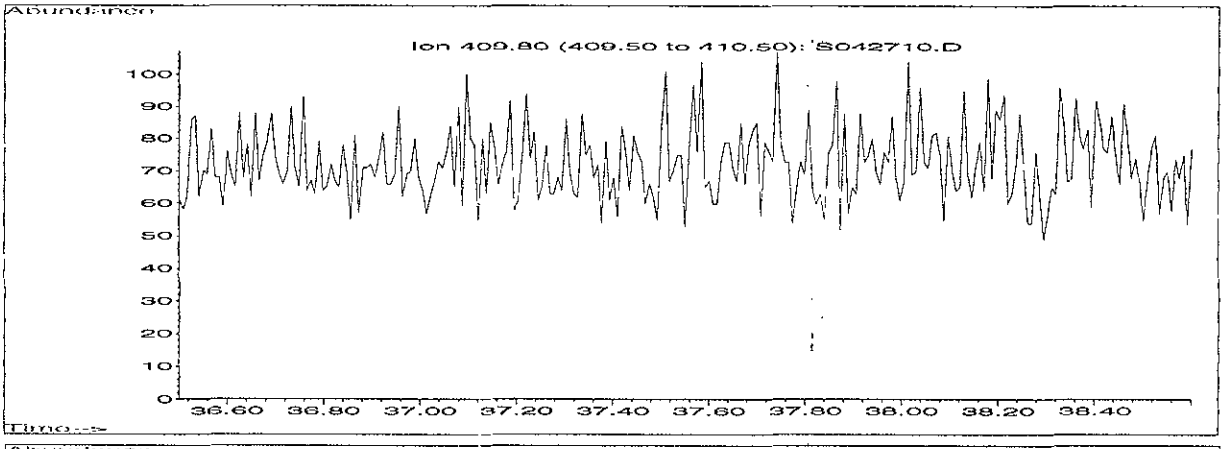


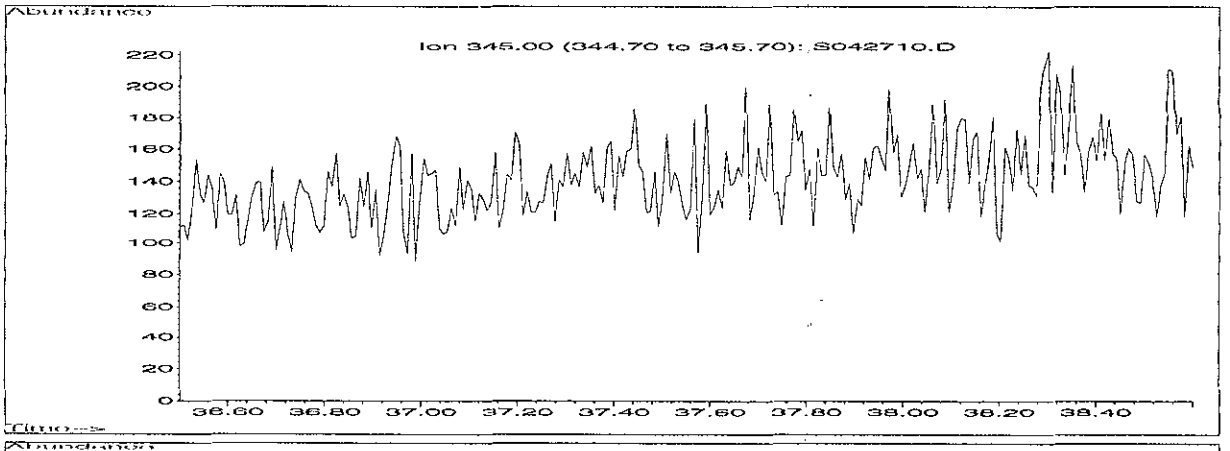


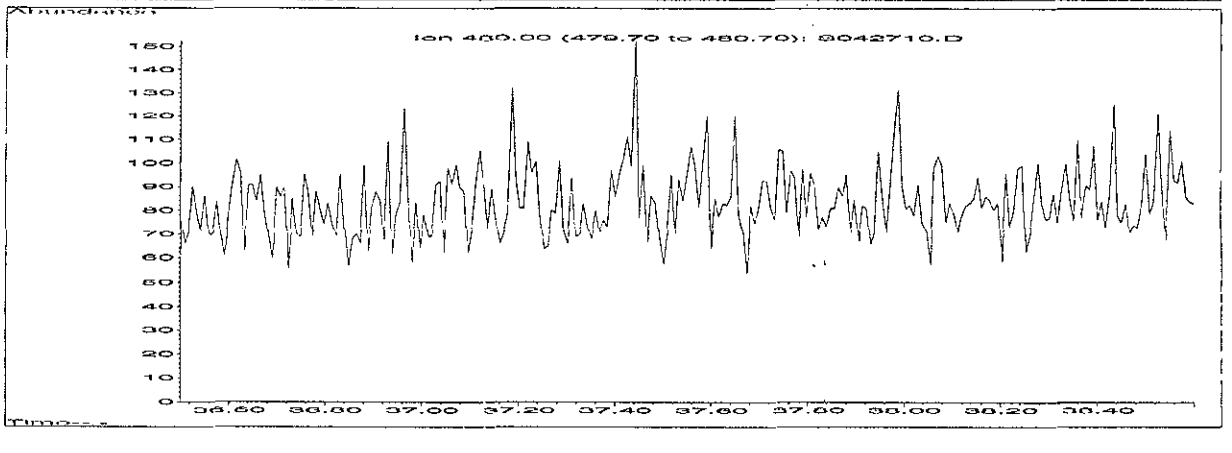
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

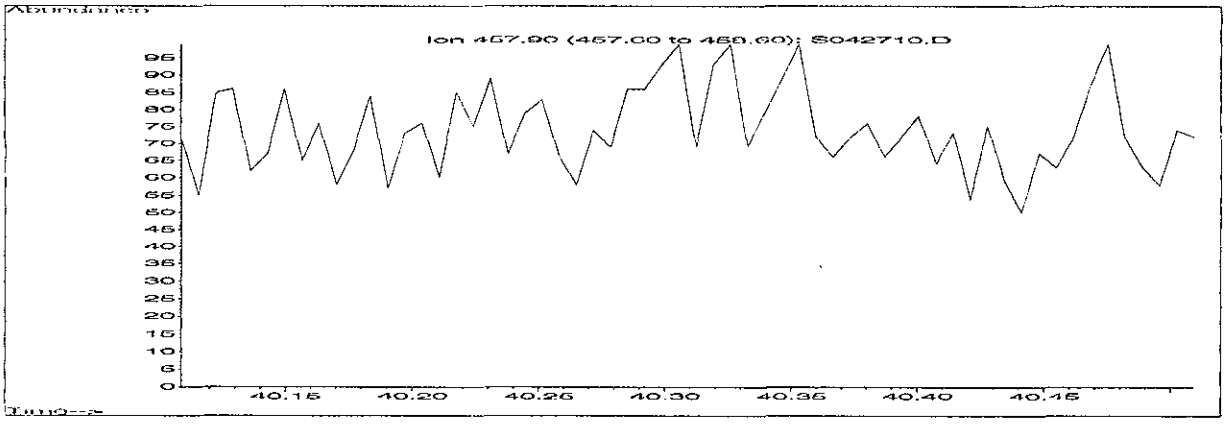


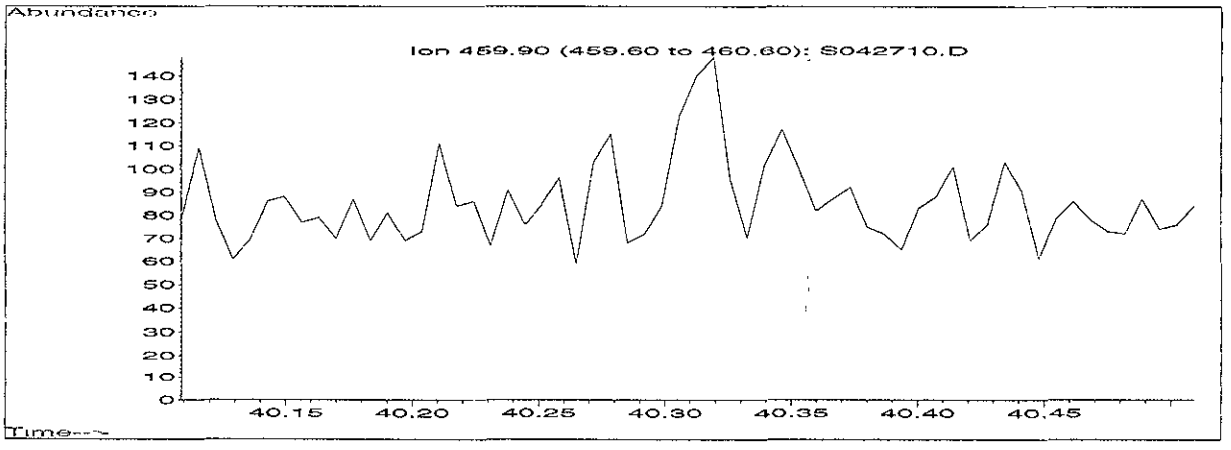


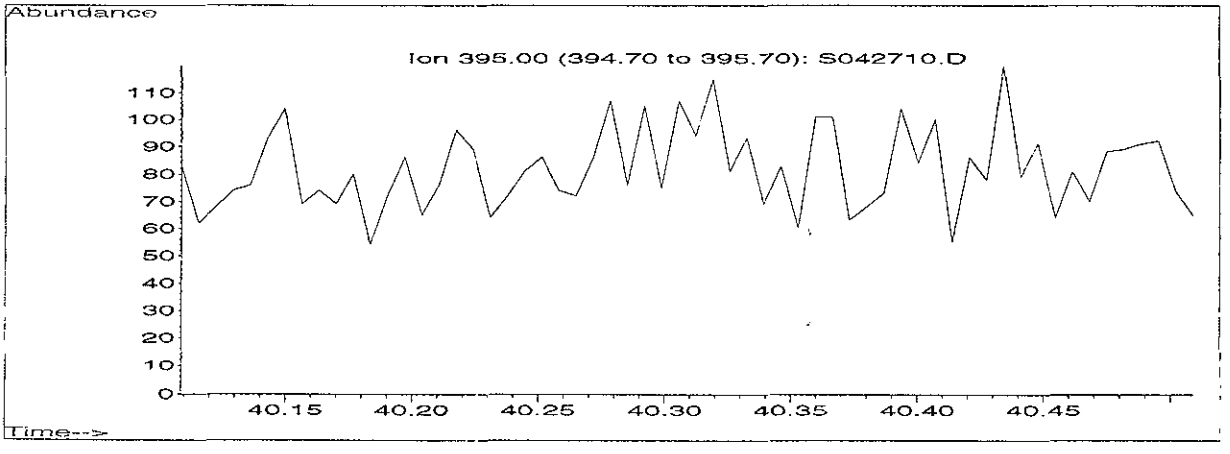




OCDD			
TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	0.00		
Target Ion	457.9	Q1 Ion	459.9
Target Response	0	Q1 Response	0
Total Response	0	Ion ratio	#DIV/0!
Q2 Ion	395		
Q2 Response	0		

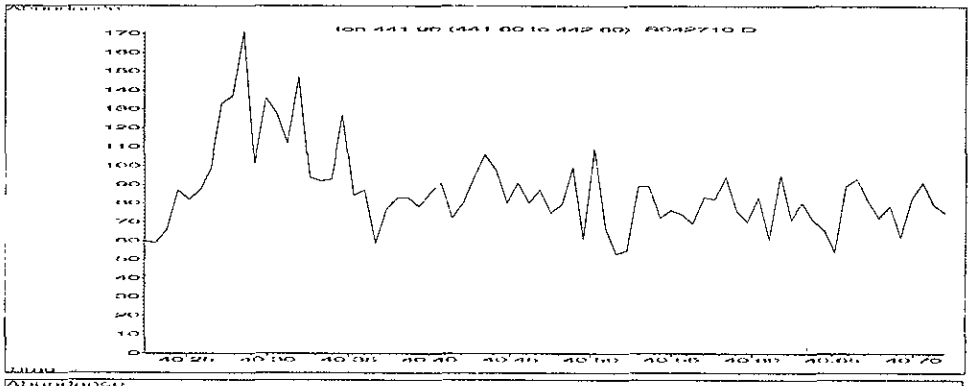


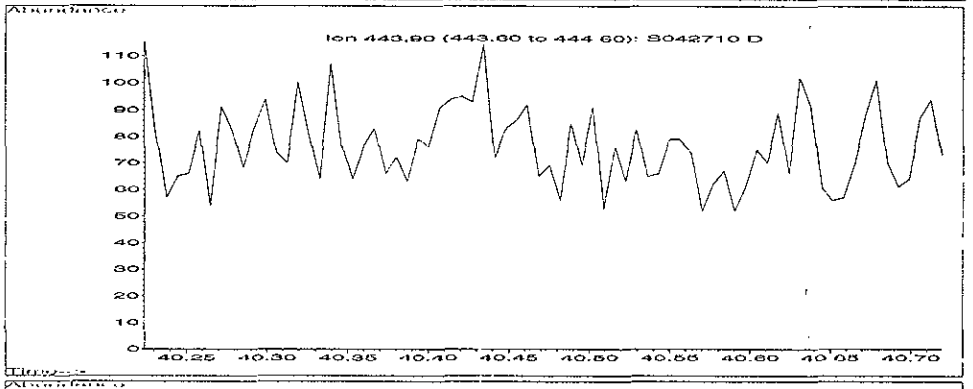


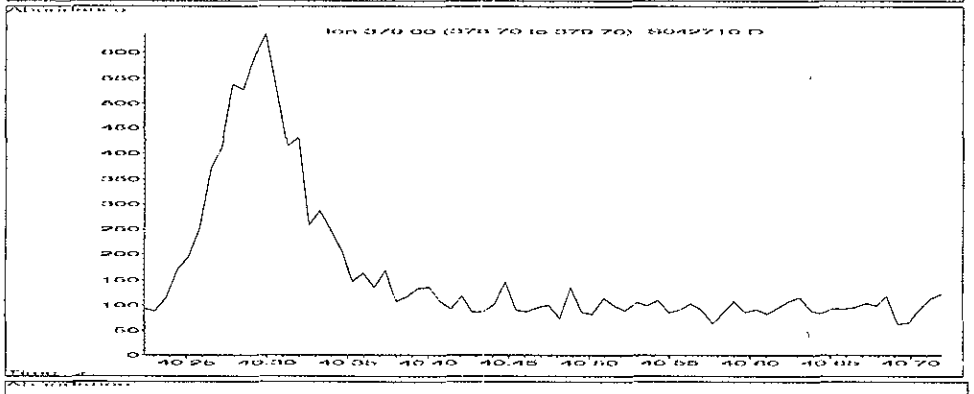


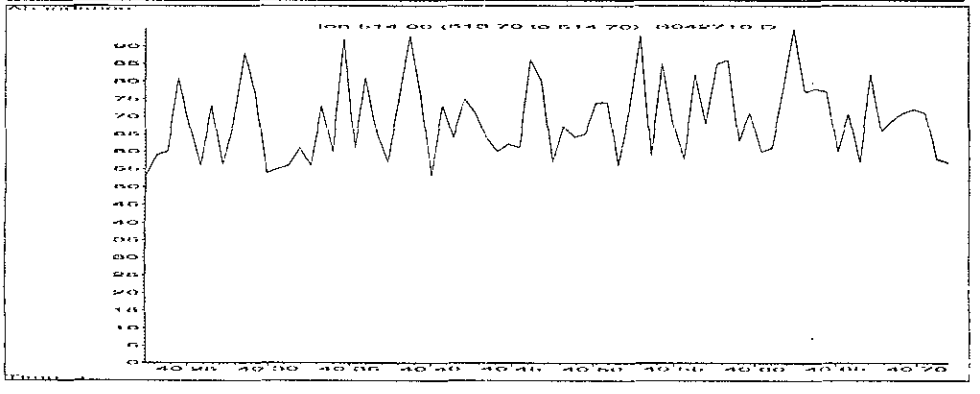
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	0.00		
Target Ion	441.9	Q1 Ion	443.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!
Q2 Ion	379	DPE Ion	514
Q2 Response	0	DPE Response	0



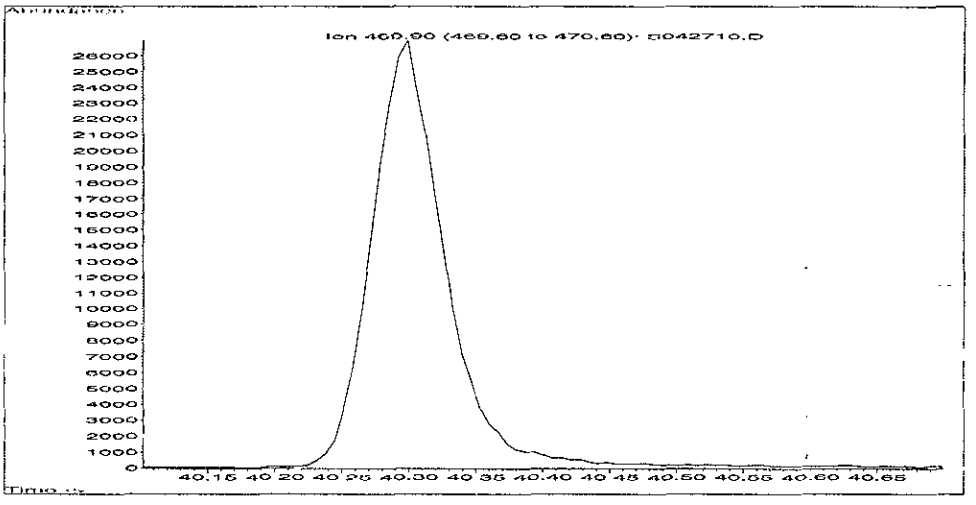


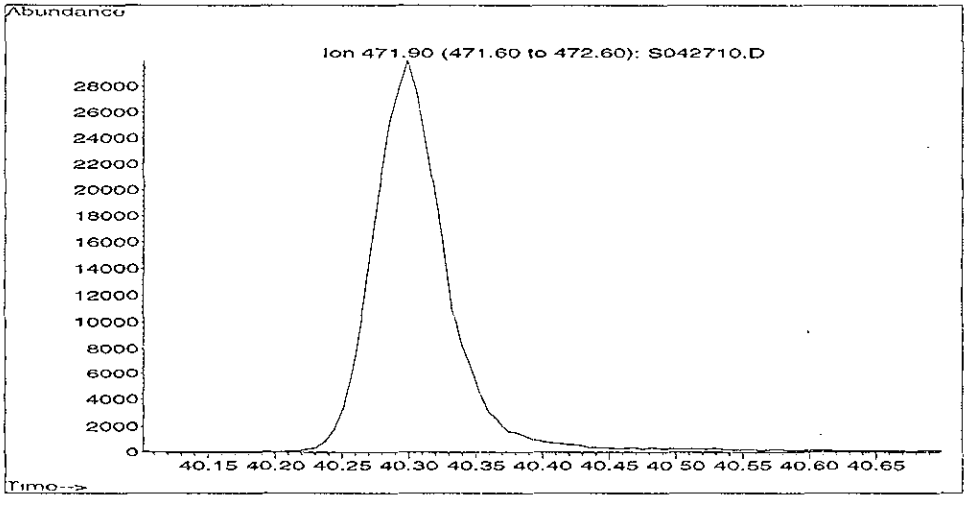




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	100655	Q1 Response	111343
Total response	211998	Ratio	0.90





TestAmerica – West Sacramento
Daily Standard Checklist
Method 8280A

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Method ID 8280A **Associated ICAL** 8280A031009 2DB

Column ID DB-5 **Instrument ID** 2DB

STD ID 5104 27A, 5104 27B **STD Solution** 3136-45C, 3136-45A

Analyzed By MCA **Date Analyzed** 4/29/09

Std. Pkg. By MAJ **Date Std. Pkg. Assembled** 4/28/09

Std. Pkg. Reviewed By AK **Date Std. Pkg. Reviewed** 4/29/09

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard and WDM present?	✓	✓
Copy of Instrument log present?	✓	✓
Standard compared to correct ICAL curve?	✓	✓
Curve summary present?	✓	✓
Daily standard within method specified limits? *	✓	✓
Daily ion abundance ratios within method limits?	✓	✓
Analyte retention times correct?	✓	✓
Peak reintegration documented, initialed and dated?	NA	NA
WDM windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓

ANALYSIS of DAILY STANDARDS	INITIATED	REVIEWED
CC3 Valley between 13C-1234-TCDD & 13C-2378-TCDD ≤ 25%?	✓	✓
CC3 Valley between 123478-HxCDD & 123678-HxCDD ≤ 50%?	✓	✓
CC1 All native S/N ≥ 2.5:1 ; IS and RS S/N ≥ 10:1 ?	✓	✓
CC1 All analyte ion abundance ratios within method limits?	✓ ✓	✓
CC1 RS RT ≤ 0.167 decimal minutes from CC3 RS times? (10 sec.)		✓

COMMENTS:

* For Method 8280A, %D ± 30% from initial calibration curve, S/N ≥2.5:1 for natives, ≥10:1 for IS and RS.

Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Initial Calibration

Continuing Calibration File: ST0427A.D

Maximum allowable RRF Deviation (8280A) : 30%

		Compound	AvgRF	CCRF	%Dev
1	IR	13C-1234-TCDD	1.000	1.000	0.0
2	T	13C-2378-TCDF-IS	1.674	1.796	-7.3
3	T	13C-2378-TCDD-IS	1.122	1.137	-1.4
4	S	37Cl-2378-TCDD	1.582	1.782	-12.6
5	IR	13C-123789-HxCDD	1.000	1.000	0.0
6	T	13C-123678-HxCDD-IS	0.925	0.899	2.8
7	T	13C-1234678-HpCDF-IS	1.193	1.062	11.0
8	T	13C-OCDD-IS	0.750	0.887	-18.3
9	IR	13C-2378-TCDF	1.000	1.000	0.0
10	MT	2378-TCDF	1.064	1.219	-14.5
11	H	TCDF TOTAL	1.064	1.219	-14.5
12	MT	12378-PeCDF	0.887	0.964	-8.7
13	T	23478-PeCDF	0.861	0.927	-7.6
14	H	PeCDF TOTAL	0.861	0.927	-7.6
15	IR	13C-2378-TCDD	1.000	1.000	0.0
16	MT	2378-TCDD	1.123	1.306	-16.4
17	H	TCDD TOTAL	1.123	1.306	-16.4
18	MT	12378-PeCDD	0.846	0.941	-11.2
19	H	PeCDD TOTAL	0.846	0.941	-11.2
20	IR	13C-123678-HxCDD	1.000	1.000	0.0
21	T	123478-HxCDD	1.134	1.097	3.3
22	MT	123678-HxCDD	1.062	1.061	0.1
23	T	123789-HxCDD	1.167	1.144	1.9
24	H	HxCDD TOTAL	1.062	1.061	0.1
25	MT	1234678-HpCDD	0.970	1.055	-8.8
26	H	HpCDD TOTAL	0.970	1.055	-8.8
27	IR	13C-1234678-HpCDF	1.000	1.000	0.0
28	T	123478-HxCDF	1.196	1.329	-11.1
29	MT	123678-HxCDF	1.237	1.384	-11.9
30	T	234678-HxCDF	1.178	1.315	-11.7
31	T	123789-HxCDF	1.137	1.278	-12.4
32	H	HxCDF TOTAL	1.137	1.278	-12.4
33	MT	1234678-HpCDF	1.096	1.237	-12.9
34	T	1234789-HpCDF	0.990	1.111	-12.3
35	H	HpCDF TOTAL	0.990	1.111	-12.3
36	IR	13C-OCDD	1.000	1.000	0.0
37	MT	OCDD	1.066	1.224	-14.8
38	MT	OCDF	1.360	1.589	-16.8

(#) = Out of Range

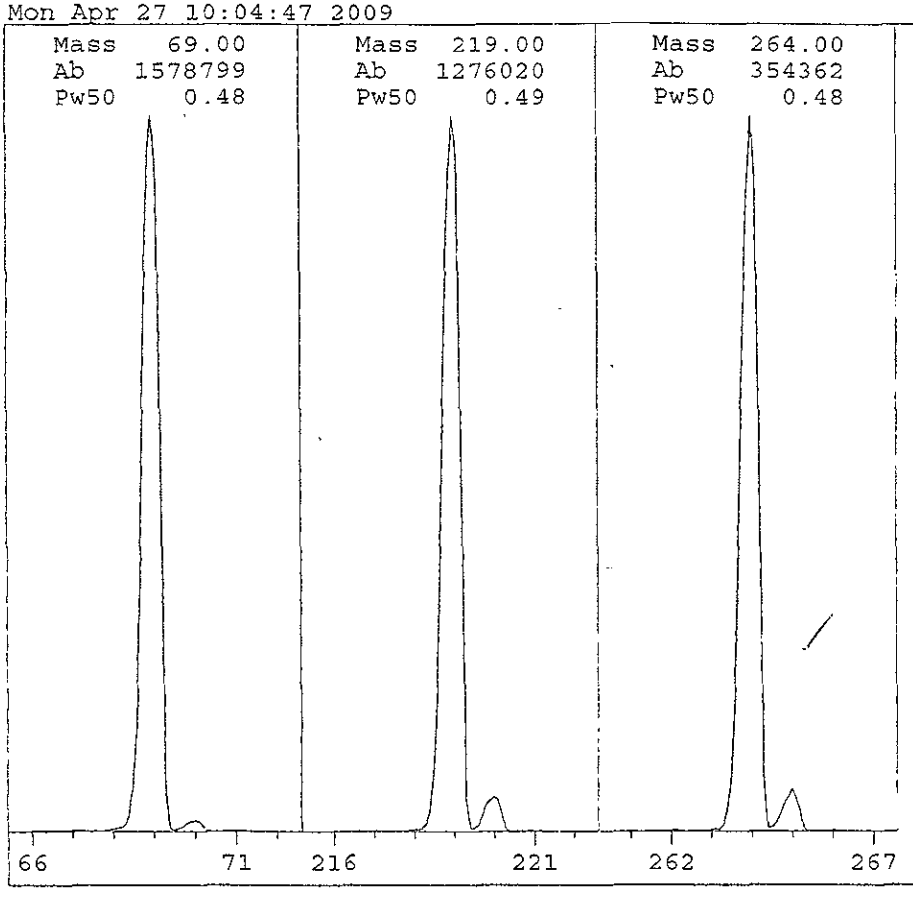
pl_ilog
Injection Log Summary Report

Method : C:\8280_DATA_METHODS\09AP27A2.M
Title : Dioxin Furan Total
Start (Tune) File ID : C:\8280\2DB\042709.B\WDM0427.D
Injection Date : 27 Apr 2009 Log Time Period (hrs) : ALL
Injection Time : 10:17 Total files within period : 23
Sample Directory : C:\8280\2DB\042709.B\

Injection Log Summary Table

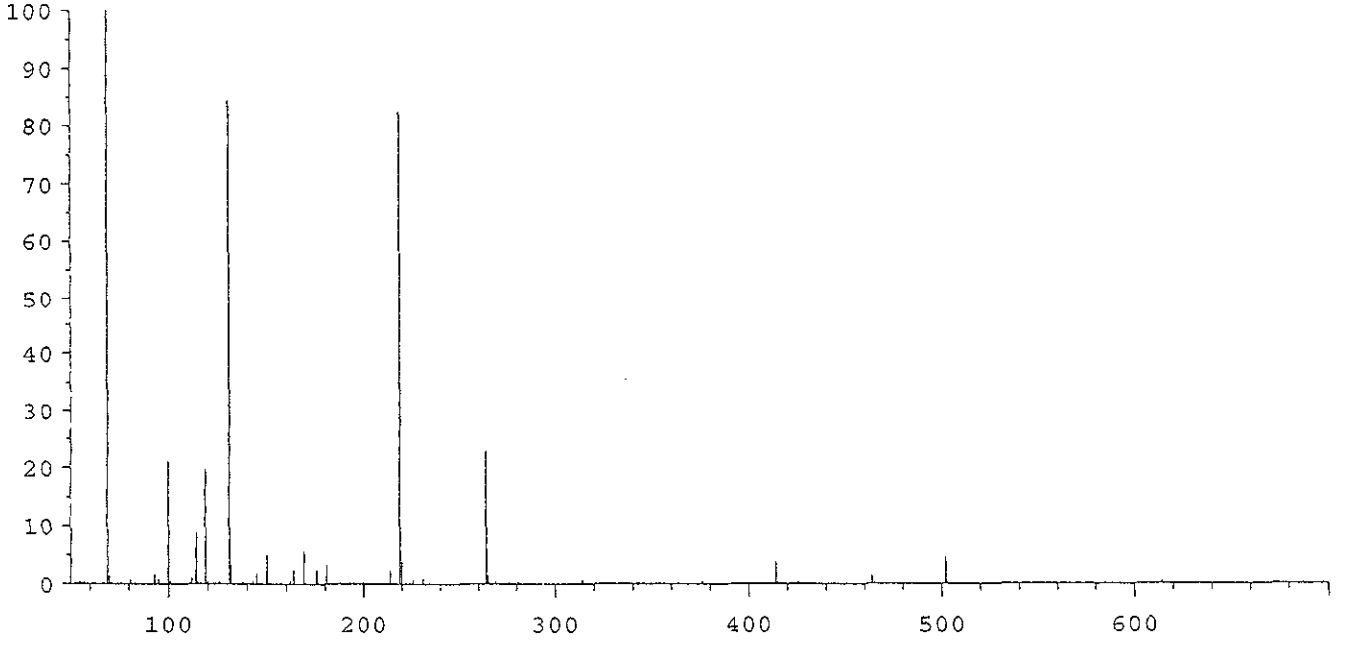
File ID	Sample Name Misc Info	Date	Time
ST0427A	3136-45C CS-3 CS-3	27 Apr 2009	11:03
SB0427A	Solvent Blank C-14	27 Apr 2009	11:50
S042701	LANTP-1-AA WATER LR909 A9D160180-MB 1.0L 8280A	27 Apr 2009	12:36
S042702	LANTP-1-AC WATER LR909 A9D160180-LCS 1.0L 8280A	27 Apr 2009	13:22
S042703	K97AK-1-AA WATER LR909 A9D160180-1 1.04512L 8280A	27 Apr 2009	14:09
S042704	K97DA-1-AA WATER LR909 A9D160180-2 1.02558L 8280A	27 Apr 2009	14:55
S042705	K97DE-1-AA WATER LR909 A9D160180-3 1.02776L 8280A	27 Apr 2009	15:41
S042706	K97DG-1-AA WATER LR909 A9D160180-4 1.04133L 8280A	27 Apr 2009	16:28
S042707	K97DG-1-AC WATER LR909 A9D160180-4S 1.02638L 8280A	27 Apr 2009	17:14
S042708	K97DG-1-AD WATER LR909 A9D160180-4D 0.99273L 8280A	27 Apr 2009	18:01
S042709	K97DK-1-AA WATER LR909 A9D160180-5 1.03269L 8280A	27 Apr 2009	18:47
S042710	K97DM-1-AA WATER LR909 A9D160180-6 1.03946L 8280A	27 Apr 2009	19:33
S042711	K983J-1-CP WATER LR909 D9D170141-1 1.00298L 8280A	27 Apr 2009	20:20
SB0427Z	Solvent Blank C-14	27 Apr 2009	21:06
SB0427B	Solvent Blank C-14	27 Apr 2009	21:52
ST0427B	3136-45A CS-1 CS-1	27 Apr 2009	22:39
ST0427C	3136-45C CS-3 CS-3	27 Apr 2009	23:25
SB0427C	Solvent Blank C-14	28 Apr 2009	00:11
S042712	LAKR8-1-AA WATER LR909 D9D210149-MB 1.0L 8280A	28 Apr 2009	00:58
S042713	LAKR8-1-AC WATER LR909 D9D210149-LCS 1.0L 8280A	28 Apr 2009	01:44
S042714	LAE86-1-AL WATER LR909 D9D210149-1 1.04805L 8280A	28 Apr 2009	02:30
SB0427D	Solvent Blank C-14	28 Apr 2009	03:17
ST0427D	3136-45A CS-1 CS-1	28 Apr 2009	04:03

Instrument: 2DB
Mon Apr 27 10:04:47 2009 C:\HPCHEM\1\5973\2DBATUNE.U



Ion Pol	POS	MassGain	-261
		MassOffs	-14
Emission	34.6	AmuGain	1874
EleEnergy	69.9	AmuOffs	133
Filament	1	Wid219	-0.023
		DC Pol	POS
Repeller	20.07		
IonFocus	81.6	HED	ON
EntLens	0.0	EMVolts	1471
EntOffs	VAR		
		Samples	8
PFTBA	OPEN	Averages	3
		StepSize	0.10
Zones:			
MS Source	250	TurboSpd	100
MS Quad	150		

Scan: 50.00 - 700.00 Samples: 8 Thresh: 100
307 peaks Base: 69.00 Abundance: 1154560



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	1154560	100.00	70.00	16008	1.39
219.00	951168	82.38	220.00	44032	4.63
264.00	263552	22.83	265.00	17752	6.74

TARGET MASS:	50	69	131	219	414	502
DYNAMIC ENT OFFSET:	10.5	10.0	13.6	14.6	15.3	22.8
TARGET ABUND(%):	1.0	100.0	80.0	80.0	3.0	3.0
ACTUAL TUNE ABUND(%):	0.0	100.0	84.4	82.4	3.9	4.6

Response Factor Report 2DB

Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Initial Calibration

Calibration Files
CS1=ST0310A.D CS2=ST0310B.D CS3=ST0310C.D
CS4=ST0310D.D CS5=ST0310E.D

		Compound	CS1	CS2	CS3	CS4	CS5	Avg	%RSD
1)	IR	13C-1234-TCDD	----------ISTD----------						
2)	T	13C-2378-TCDF-IS	1.666	1.677	1.682	1.677	1.667	1.674	0.44
3)	T	13C-2378-TCDD-IS	1.126	1.134	1.120	1.109	1.122	1.122	0.81
4)	S	37Cl-2378-TCDD			1.582			1.582	0.00
5)	IR	13C-123789-HxCDD	----------ISTD----------						
6)	T	13C-123678-HxCDD-IS	0.935	0.948	0.934	0.901	0.908	0.925	2.13
7)	T	13C-1234678-HpCDF-IS	1.223	1.220	1.192	1.174	1.154	1.193	2.47
8)	T	13C-OCDD-IS	0.769	0.761	0.748	0.741	0.732	0.750	2.00
9)	IR	13C-2378-TCDF	----------ISTD----------						
10)	MT	2378-TCDF	1.073	1.036	1.073	1.085	1.055	1.064	1.78
11)	H	TCDF TOTAL	1.073	1.036	1.073	1.085	1.055	1.064	1.78
12)	MT	12378-PeCDF	0.862	0.859	0.893	0.913	0.906	0.887	2.83
13)	T	23478-PeCDF	0.831	0.841	0.865	0.892	0.878	0.861	2.92
14)	H	PeCDF TOTAL	0.831	0.841	0.865	0.892	0.878	0.861	2.92
15)	IR	13C-2378-TCDD	----------ISTD----------						
16)	MT	2378-TCDD	1.120	1.101	1.132	1.150	1.109	1.123	1.73
17)	H	TCDD TOTAL	1.120	1.101	1.132	1.150	1.109	1.123	1.73
18)	MT	12378-PeCDD	0.807	0.808	0.859	0.890	0.866	0.846	4.38
19)	H	PeCDD TOTAL	0.807	0.808	0.859	0.890	0.866	0.846	4.38
20)	IR	13C-123678-HxCDD	----------ISTD----------						
21)	T	123478-HxCDD	1.105	1.130	1.144	1.167	1.124	1.134	2.05
22)	MT	123678-HxCDD	1.076	1.029	1.068	1.096	1.042	1.062	2.53
23)	T	123789-HxCDD	1.169	1.141	1.184	1.202	1.138	1.167	2.36
24)	H	HxCDD TOTAL	1.076	1.029	1.068	1.096	1.042	1.062	2.53
25)	MT	1234678-HpCDD	0.982	0.951	0.970	1.000	0.945	0.970	2.32
26)	H	HpCDD TOTAL	0.982	0.951	0.970	1.000	0.945	0.970	2.32
27)	IR	13C-1234678-HpCDF	----------ISTD----------						
28)	T	123478-HxCDF	1.183	1.165	1.209	1.222	1.203	1.196	1.88
29)	MT	123678-HxCDF	1.181	1.209	1.284	1.272	1.237	1.237	3.44
30)	T	234678-HxCDF	1.153	1.150	1.204	1.202	1.180	1.178	2.17
31)	T	123789-HxCDF	1.110	1.109	1.161	1.175	1.128	1.137	2.63
32)	H	HxCDF TOTAL	1.110	1.109	1.161	1.175	1.128	1.137	2.63
33)	MT	1234678-HpCDF	1.125	1.079	1.108	1.103	1.065	1.096	2.16
34)	T	1234789-HpCDF	0.985	0.963	1.007	1.019	0.975	0.990	2.31
35)	H	HpCDF TOTAL	0.985	0.963	1.007	1.019	0.975	0.990	2.31
36)	IR	13C-OCDD	----------ISTD----------						
37)	MT	OCDD	1.078	1.055	1.078	1.085	1.034	1.066	1.98
38)	MT	OCDF	1.343	1.344	1.383	1.403	1.328	1.360	2.32

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

Sample ID: CS-3 Size: 0.000
3136-45C CS-3 Inst : DB1

Data File:C:\8280\2DB\042709.B\ST0427A.D Vial: 97
Acq On :27 Apr 2009 11:03 am Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:25 2009 Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:24:40 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.81	103715	25.00	NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.26	93928	25.00	NG	0.00
9) 13C-2378-TCDF	20.24	316+318	0.79	186316	25.00	NG	0.00
15) 13C-2378-TCDD	21.15	332+334	0.78	117971	25.00	NG	0.00
20) 13C-123678-HxCDD	34.69	402+404	1.28	84481	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.05	99744	25.00	NG	0.00
36) 13C-OCDD	40.30	470+472	0.92	166702	50.00	NG	0.00

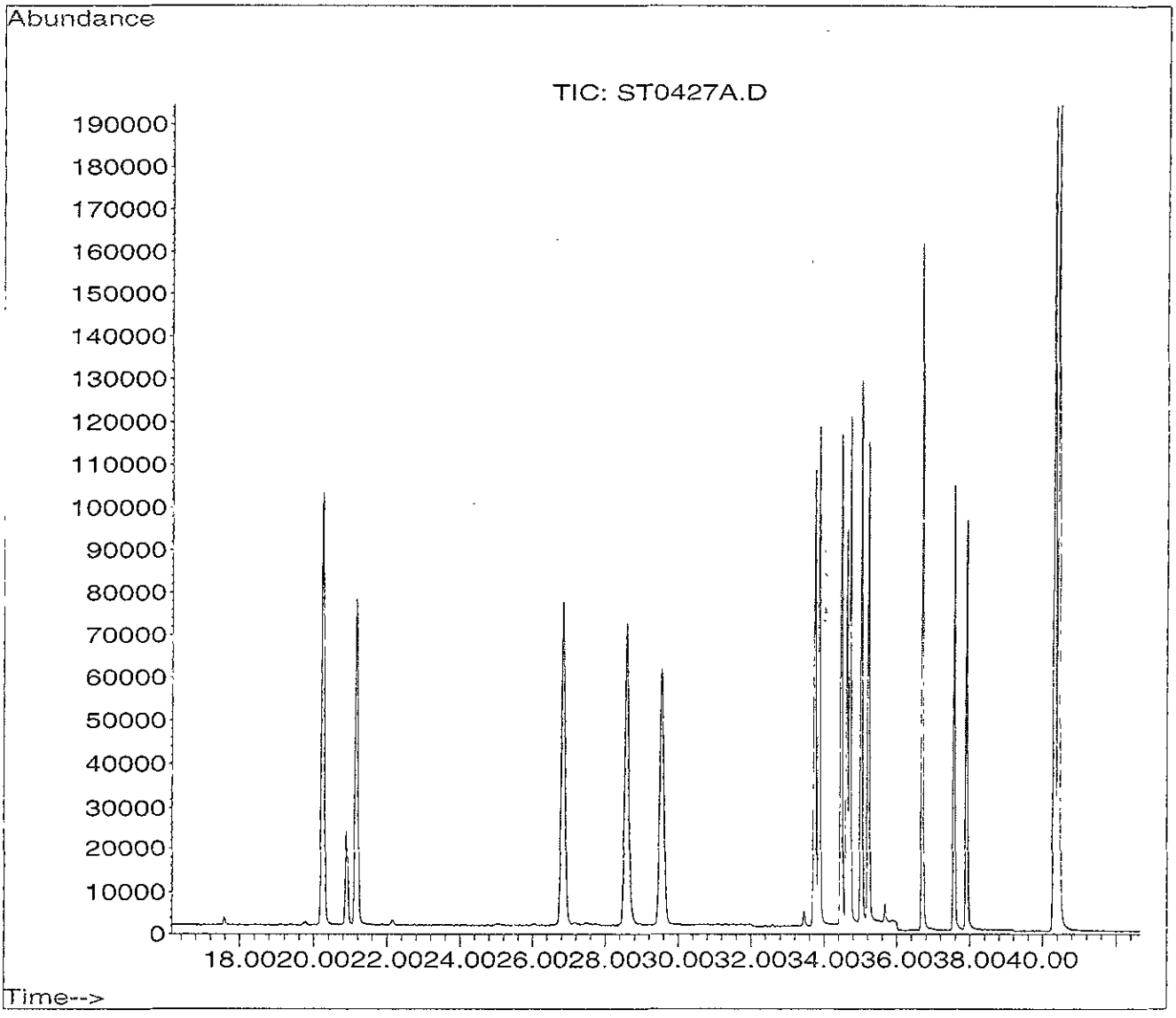
Surrogate Compound							
4) 37Cl-2378-TCDD	21.17	328		92406	14.076	NG	0.00
Spiked Amount = 12.500	RRF = 1.582			Recovery = 112.64%			

Target Compounds	RT	Ratio		Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.24	0.79		186316	1.674	26.833	0.0982	107.3
3) 13C-2378-TCDD-IS	21.15	0.78		117971	1.122	25.339	4.7179	101.4
6) 13C-123678-HxCDD-	34.69	1.28		84481	0.925	24.304	0.1092	97.2
7) 13C-1234678-HpCDF	36.68	1.05		99744	1.193	22.260	0.0768	89.0
8) 13C-OCDD-IS	40.30	0.92		166702	0.750	59.131	0.1127	118.3
10) 2378-TCDF	20.24	0.78		227056	1.064	28.623	0.6173	
1	19.77	0.94	#	4067		0.513		
2	20.24	0.78		228842		28.848		
11) TCDF TOTAL	19.30	0.78		232909	1.064	29.361		
12) 12378-PeCDF	26.83	1.57		449131	0.887	67.952	0.2425	
13) 23478-PeCDF	28.57	1.58		431595	0.861	67.245	0.1008	
1	25.02	1.01	#	3157		0.492		
2	26.83	1.57		456336		71.100		
3	27.21	1.41		2975		0.464		
4	27.51	1.98	#	4082		0.636		
5	28.57	1.57		431595		67.245		
14) PeCDF TOTAL	26.80	1.57		898145	0.861	139.937		
16) 2378-TCDD	21.17	0.78		154100	1.123	29.090	0.1432	
1	20.24	4.83	#	17811		3.362		
2	21.17	0.79		158158		29.857		
17) TCDD TOTAL	19.30	0.79		175969	1.123	33.219		
18) 12378-PeCDD	29.54	1.56		277472	0.846	69.504	0.1047	
1	29.54	1.55		287703		72.067		
19) PeCDD TOTAL	27.00	1.55		287703	0.846	72.067		
21) 123478-HxCDD	34.62	1.25		231621	1.134	60.446	14.2989	
22) 123678-HxCDD	34.70	1.26		224043	1.062	62.430	0.7353	
23) 123789-HxCDD	35.00	1.26		241617	1.167	61.287	0.6231	
1	34.62	1.25		231621		60.446		
2	34.70	1.26		803566		223.917		
3	35.00	1.26		243397		67.823		
24) HxCDD TOTAL	34.70	1.26		1278584	1.062	352.186		

25)	1234678-HpCDD	37.55	1.06	222903	0.970	68.020	0.0908
	1	37.55	1.06	222903		68.020	
26)	HpCDD TOTAL	37.35	1.06	222903	0.970	68.020	
28)	123478-HxCDF	33.73	1.23	331427	1.196	69.441	79.0734
29)	123678-HxCDF	33.85	1.26	345105	1.237	69.947	14.5101
30)	234678-HxCDF	34.45	1.26	327897	1.178	69.788	0.1156
31)	123789-HxCDF	35.20	1.24	318685	1.137	70.280	0.0773
	1	33.73	1.23	331427		69.441	
	2	33.85	1.24	345105		69.947	
	3	34.45	1.26	327897		69.788	
	4	35.20	1.24	322307		71.079	
32)	HxCDF TOTAL	34.40	1.24	1326736	1.137	280.255	
33)	1234678-HpCDF	36.69	1.05	308564	1.096	70.570	0.0781
34)	1234789-HpCDF	37.89	1.06	277106	0.990	70.174	0.2019
	1	36.69	1.05	308564		70.570	
	2	37.89	1.06	277106		70.174	
35)	HpCDF TOTAL	38.00	1.06	585670	0.990	140.744	
37)	OCDD	40.31	0.90	510159	1.066	143.523	0.1203
38)	OCDF	40.42	0.91	662178	1.360	146.012	0.1861

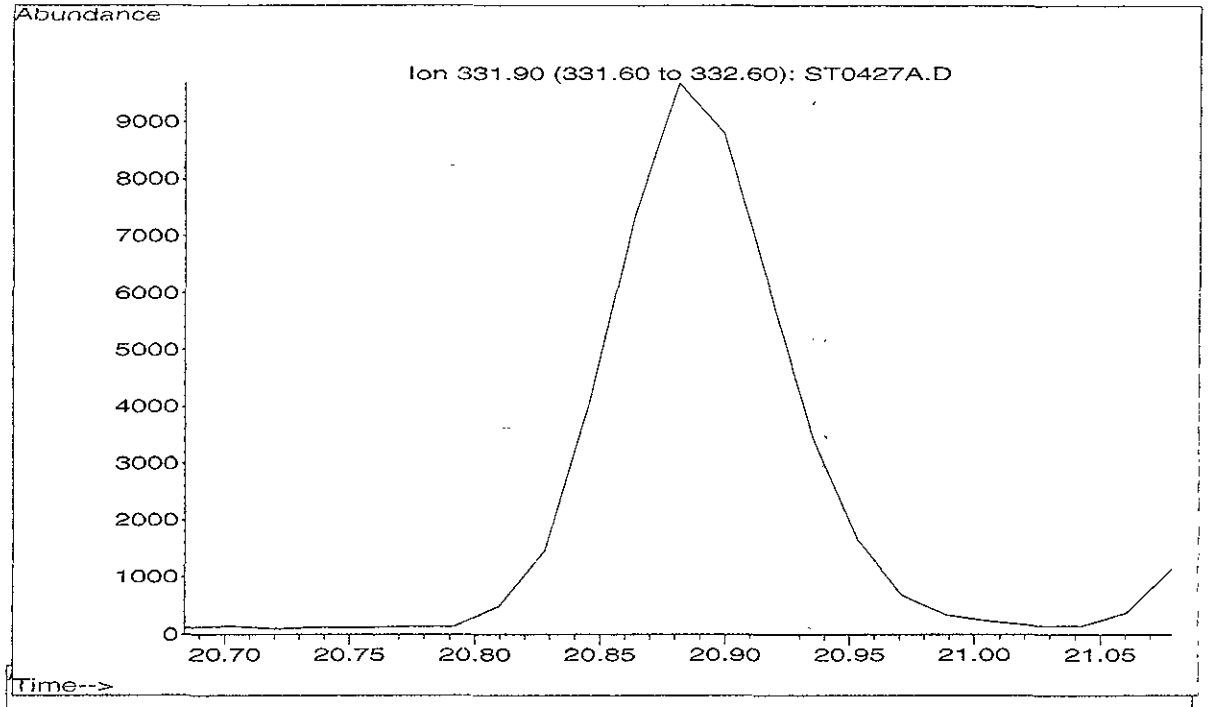
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0427A.D 09AP27A2.M Tue Apr 28 16:25:22 2009

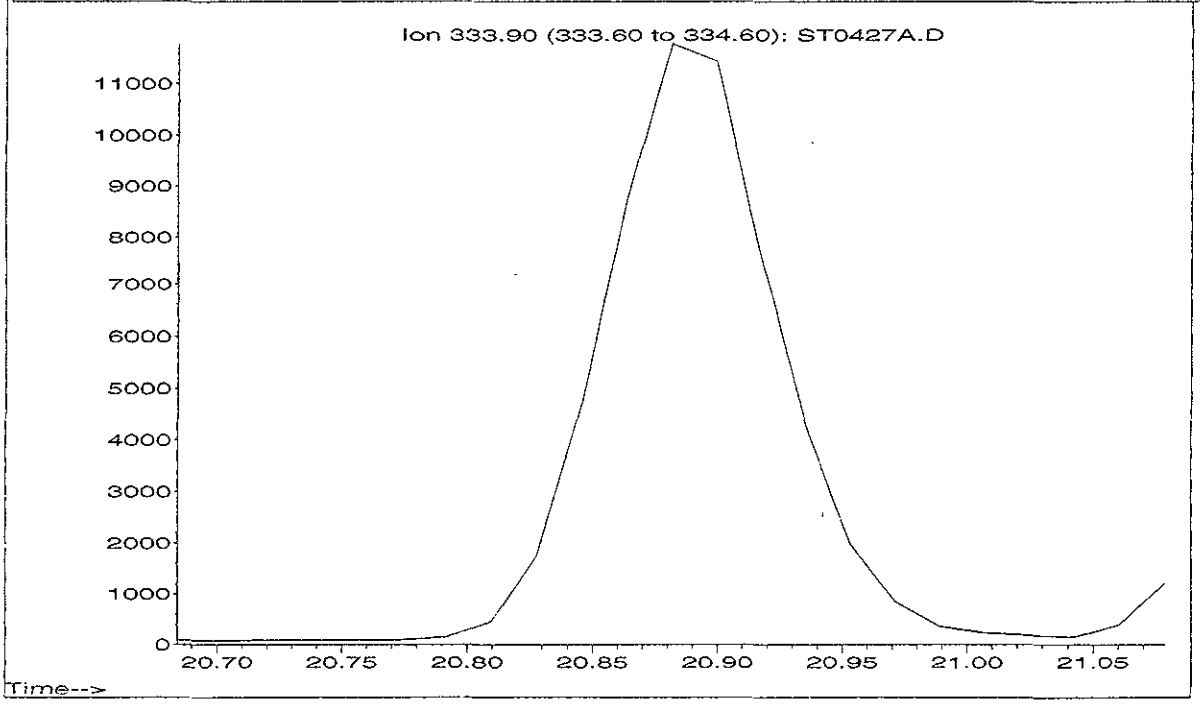
Data File Name	ST0427A.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 11:03
Acq. Method File	TOKAS
Sample Name	3136-45C CS-3
Misc Info	CS-3
Vial Number	97
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



13C-1234-TCDD

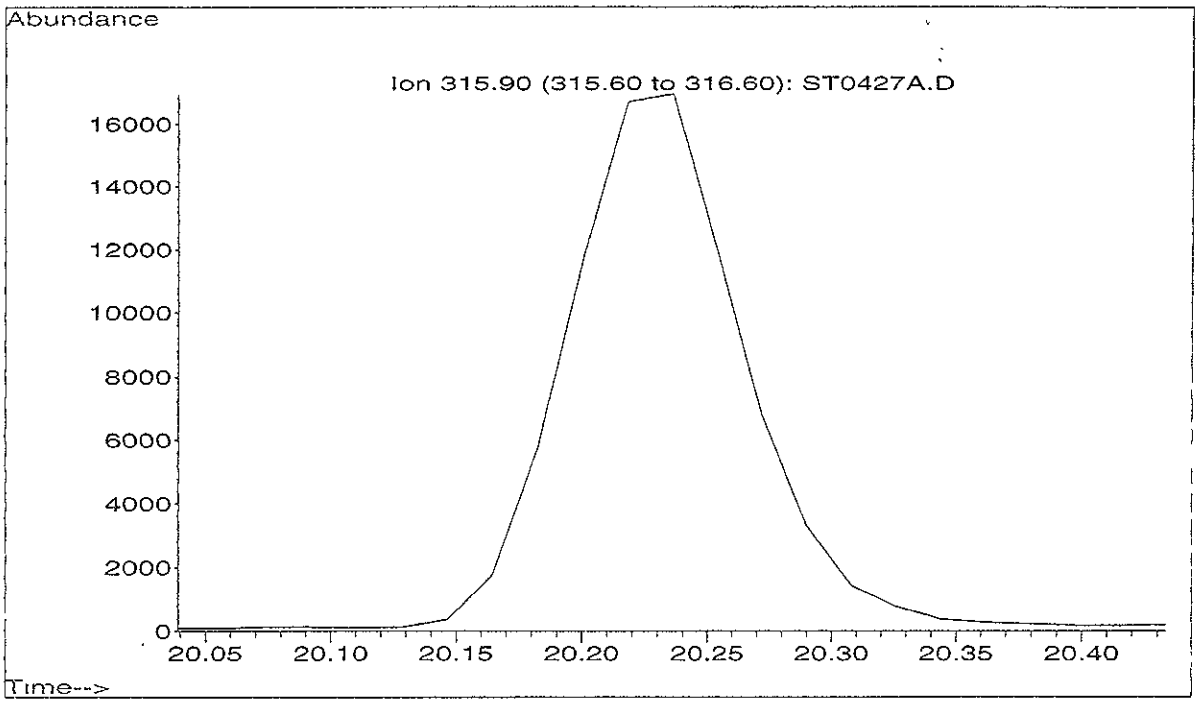
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	46496	Q1 Response	57219
Total Response	103715	Ion Ratio	0.81

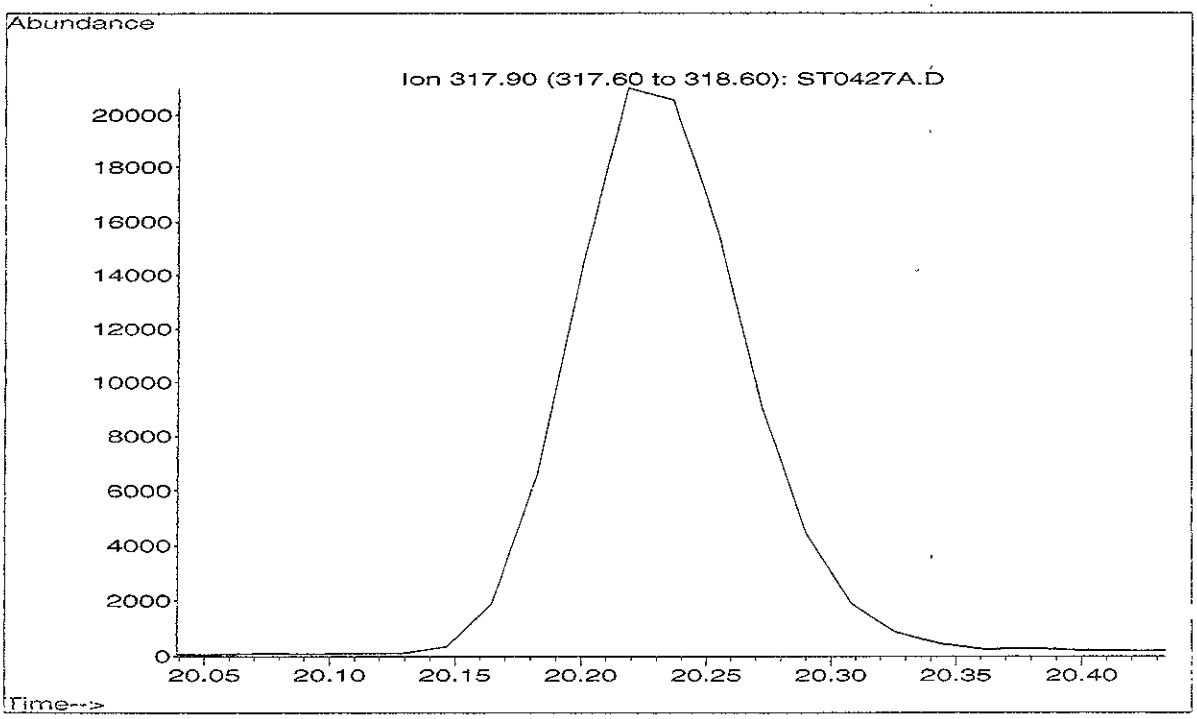




13C-2378-TCDF-IS

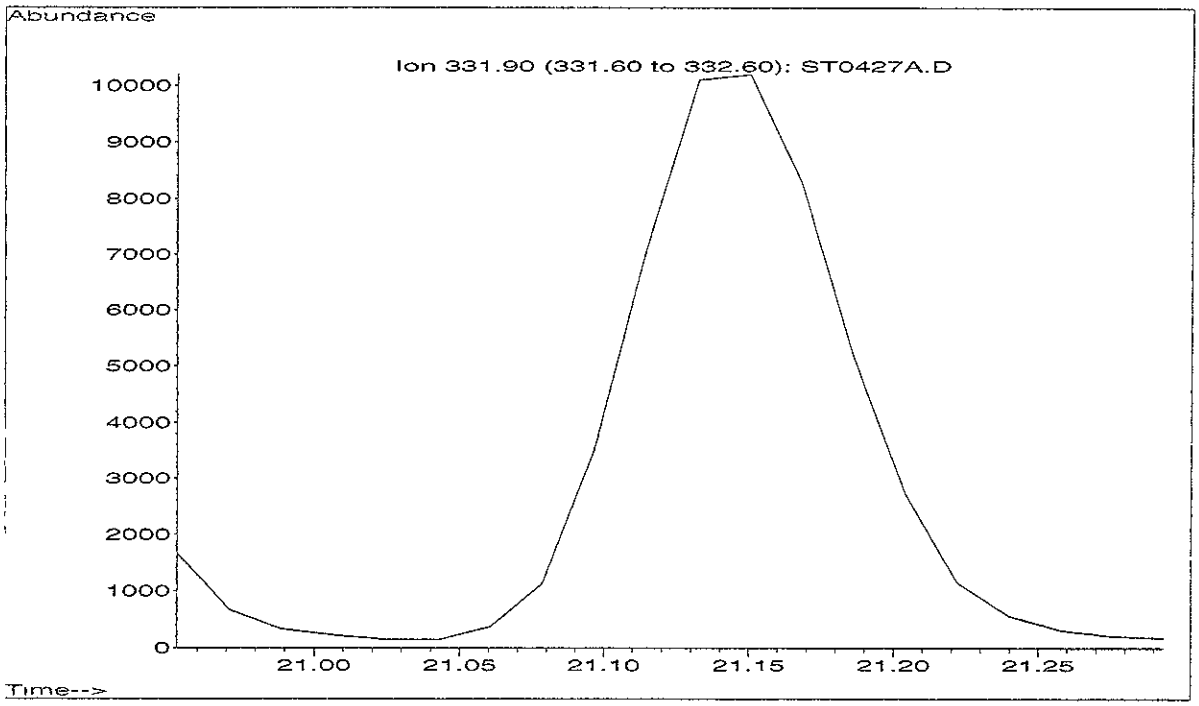
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.24		
Target Ion	315.9	Q1 Ion	317.9
Target Response	82480	Q1 Response	103836
Target Response	186316	Ion Ratio	0.79

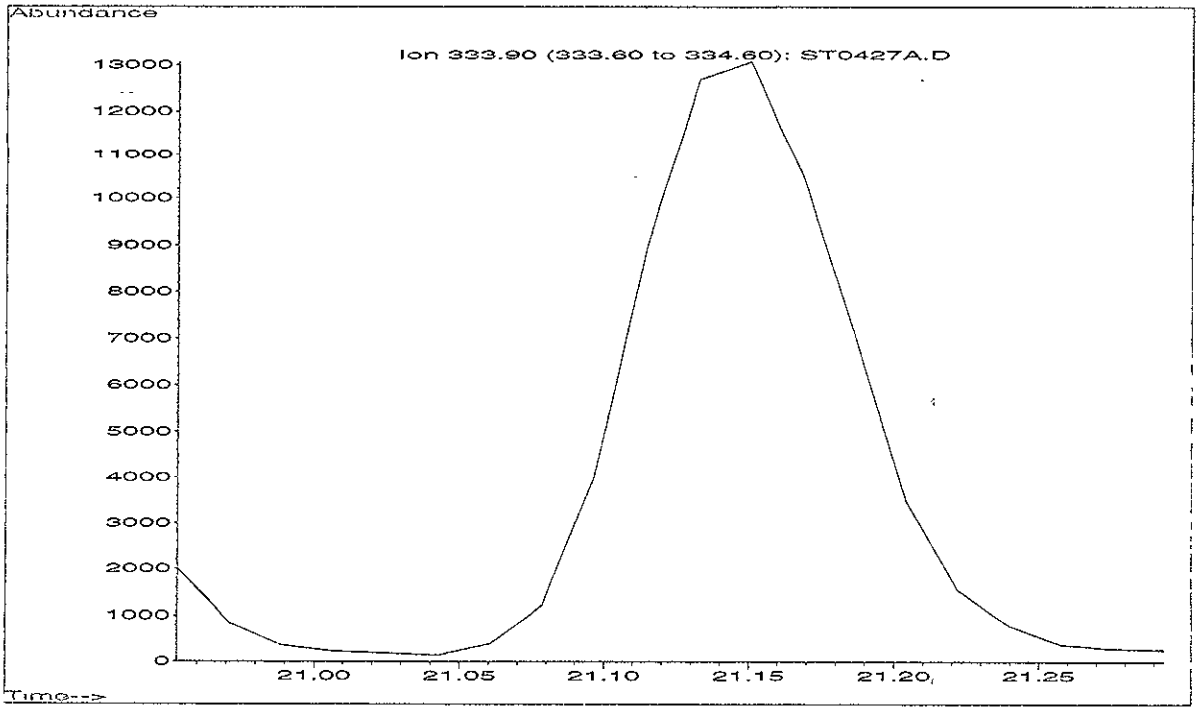




13C-2378-TCDD-IS

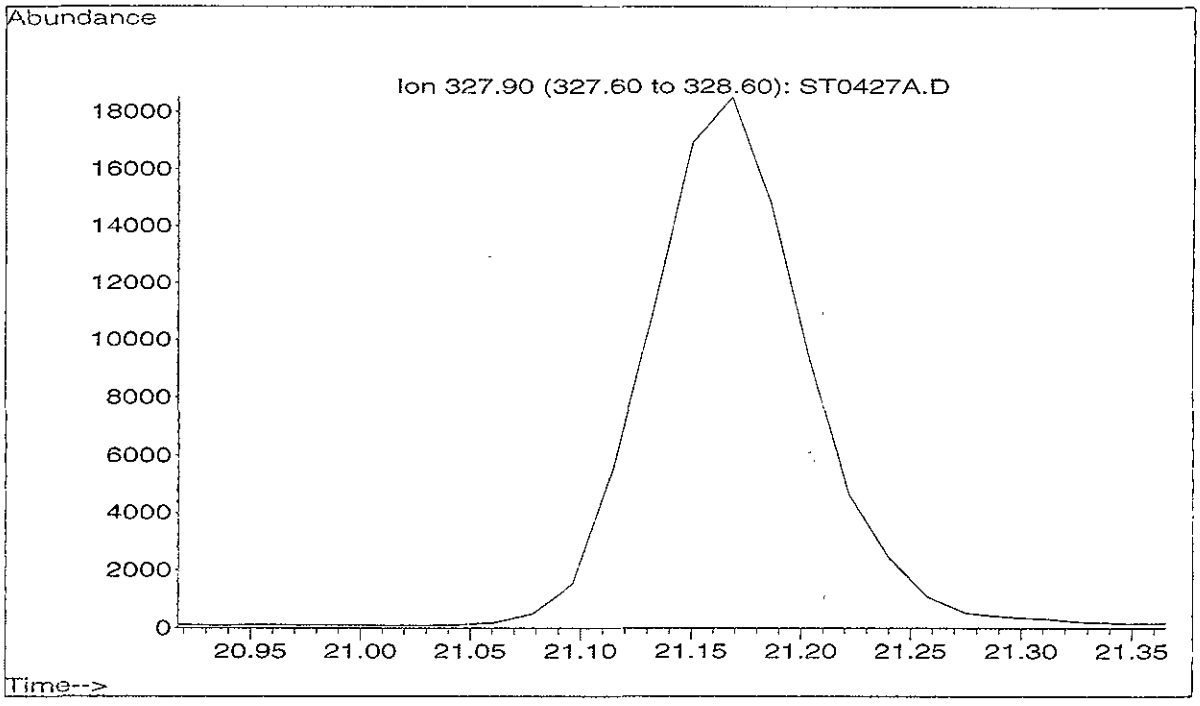
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.15		
Target Ion	331.9	Q1 Ion	333.9
Target Response	51845	Q1 Response	66126
Total Response	117971	Ion Ratio	0.78

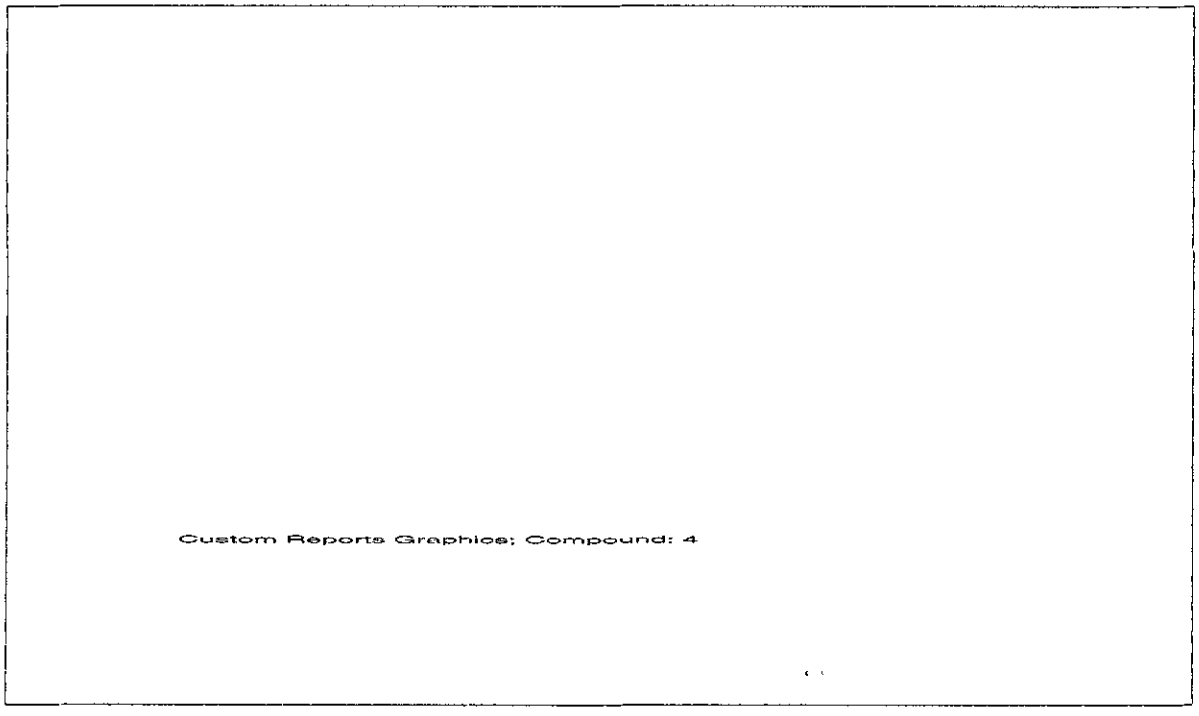




37Cl-2378-TCDD

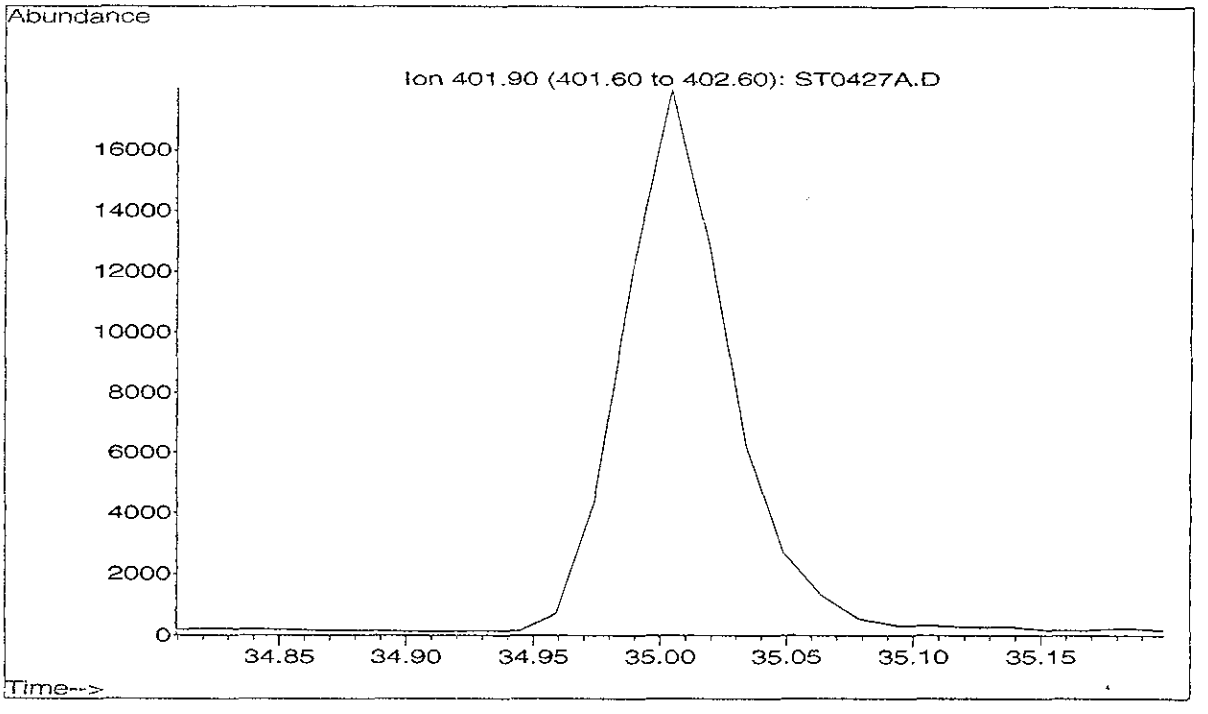
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	92406	Q1 Response	0
Total Response	92406	Ion Ratio	#DIV/0!

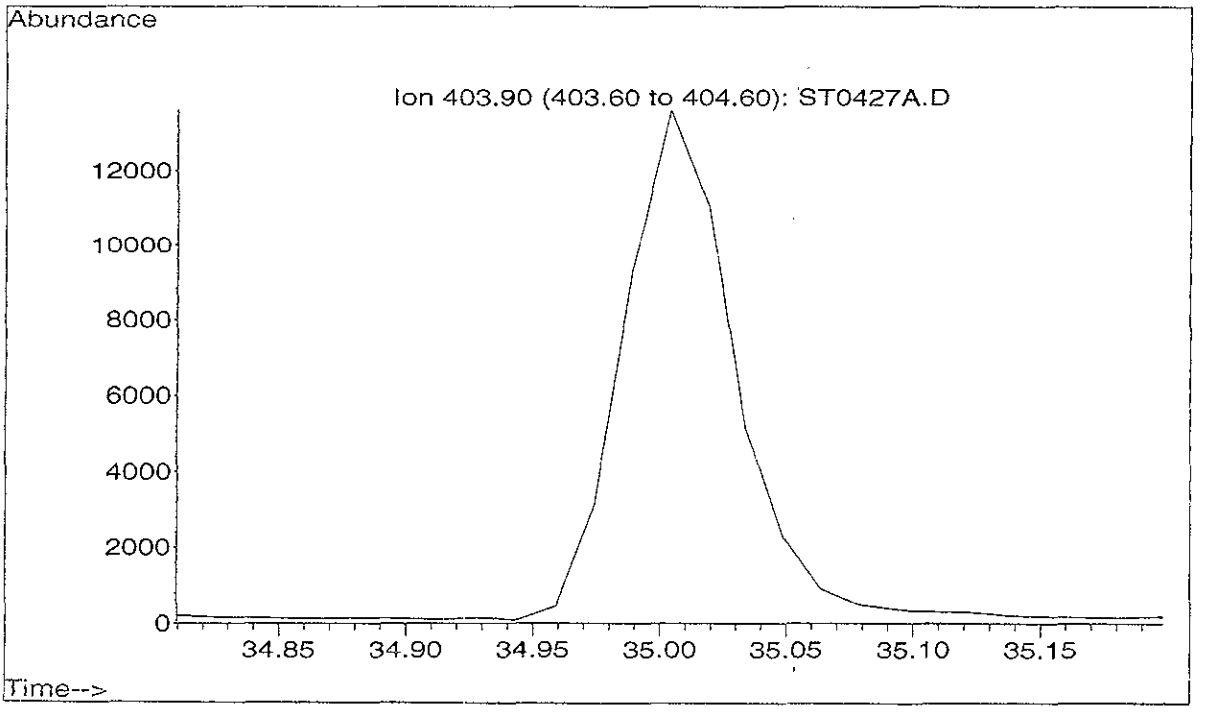




13C-123789-HxCDD

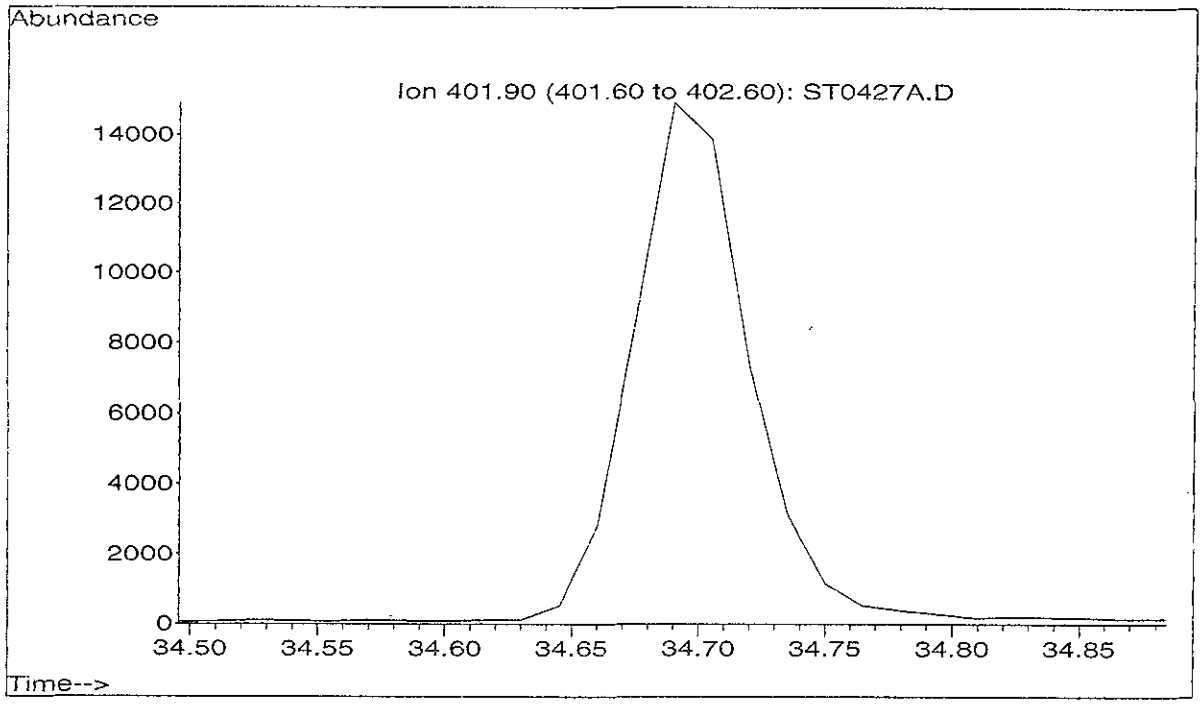
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	52402	Q1 Response	41526
Target Response	93928	Ion Ratio	1.26

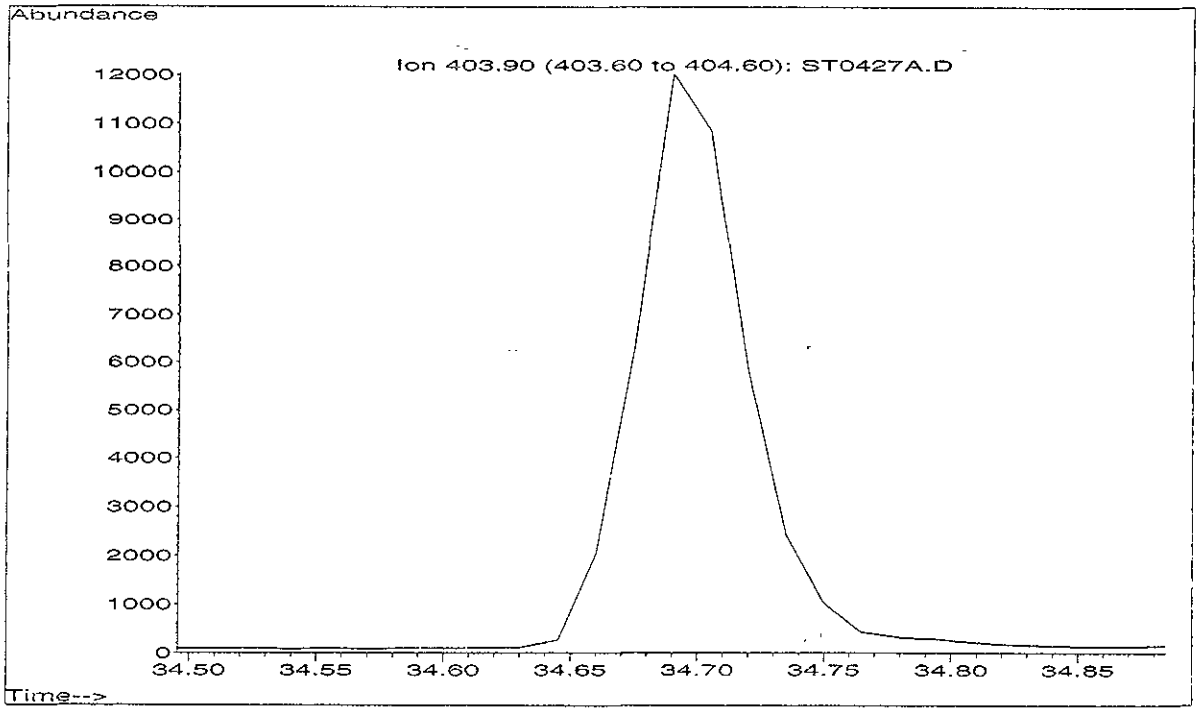




13C-123678-HxCDD-IS

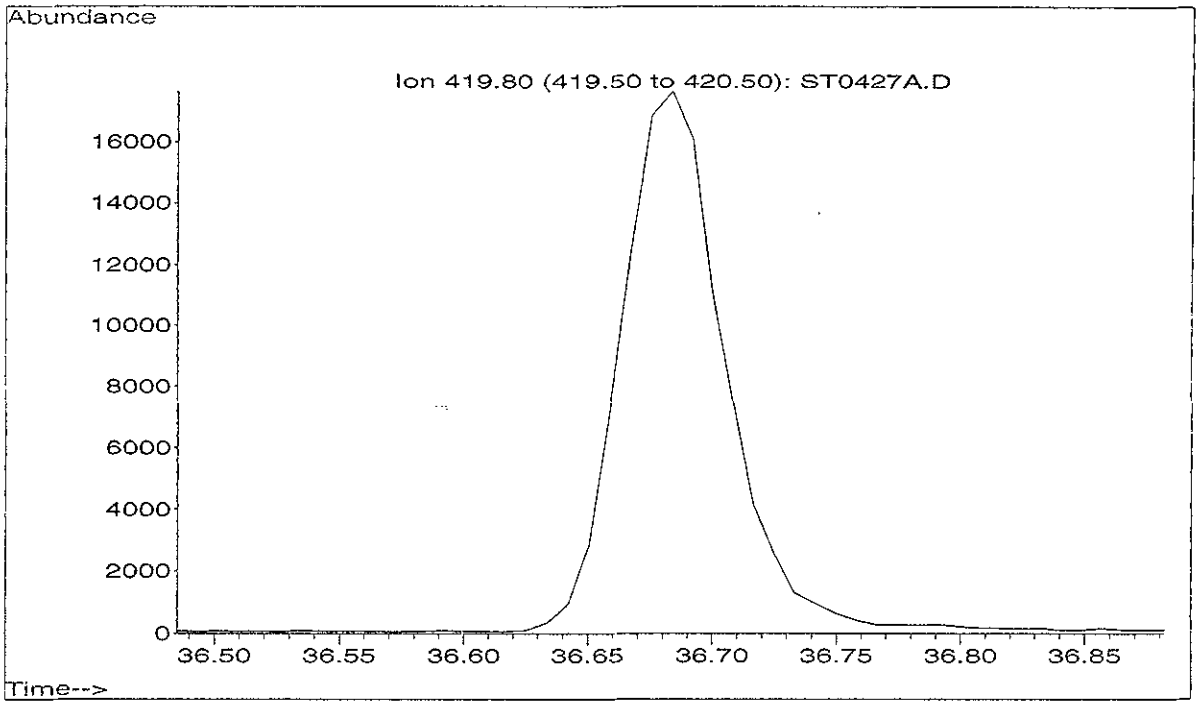
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	47413	Q1 Response	37068
Total Response	84481	Ion Ratio	1.28

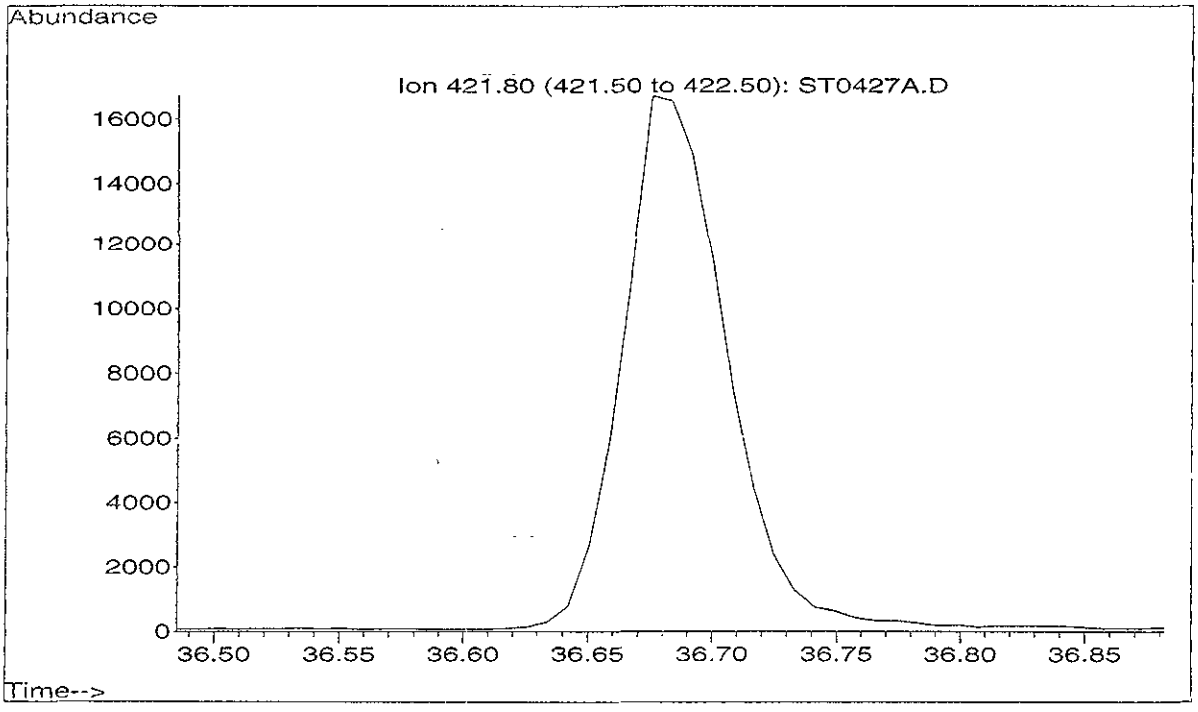




13C-1234678-HpCDF-IS

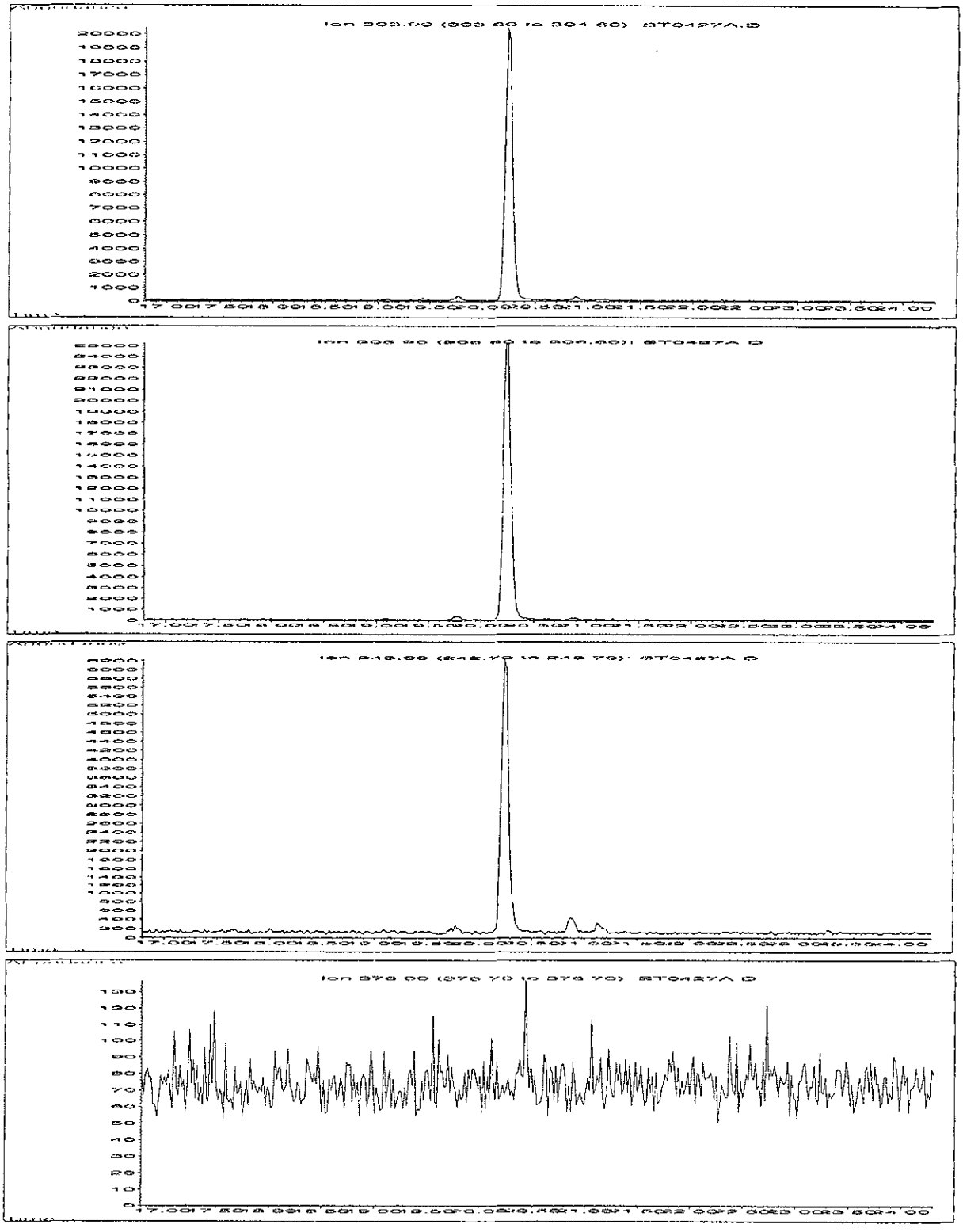
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	51201	Q1 Response	48543
Target Response	99744	Ion Ratio	1.05





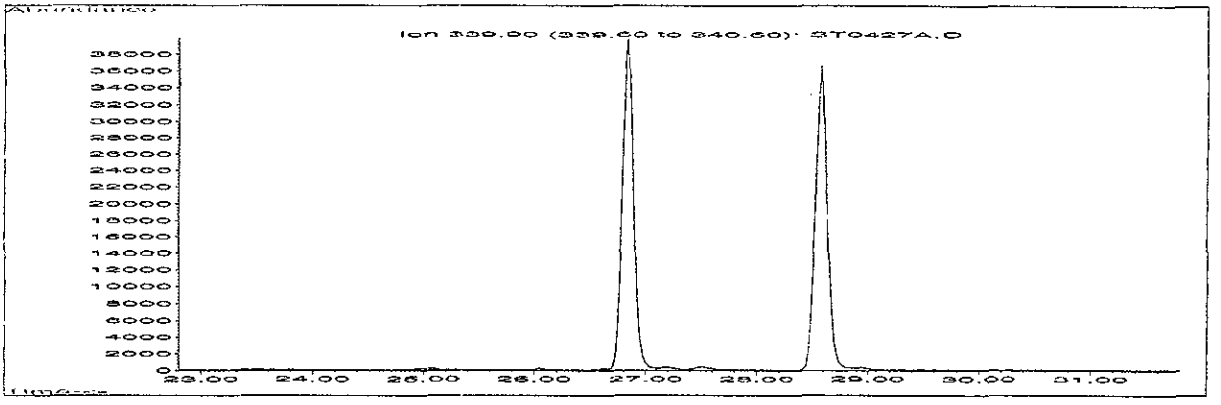
TCDF TOTAL

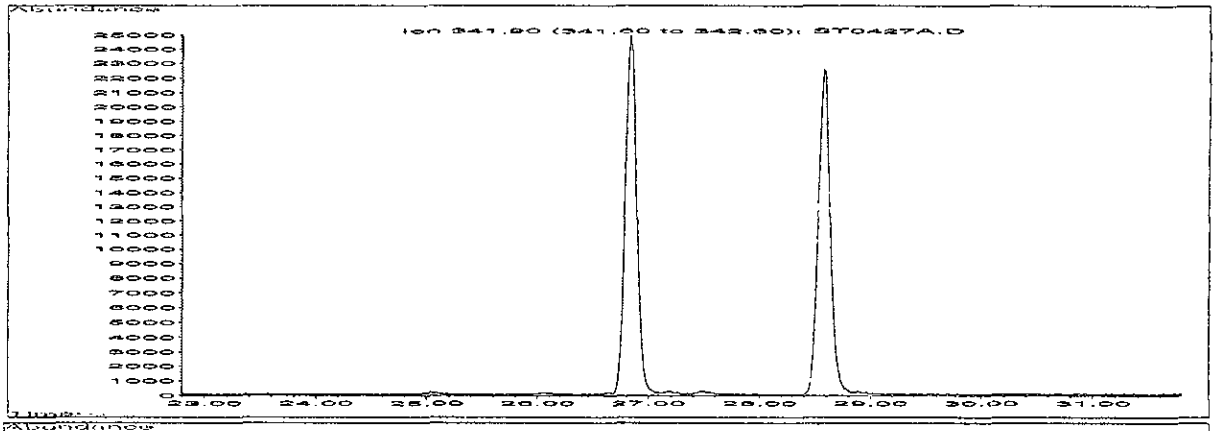
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

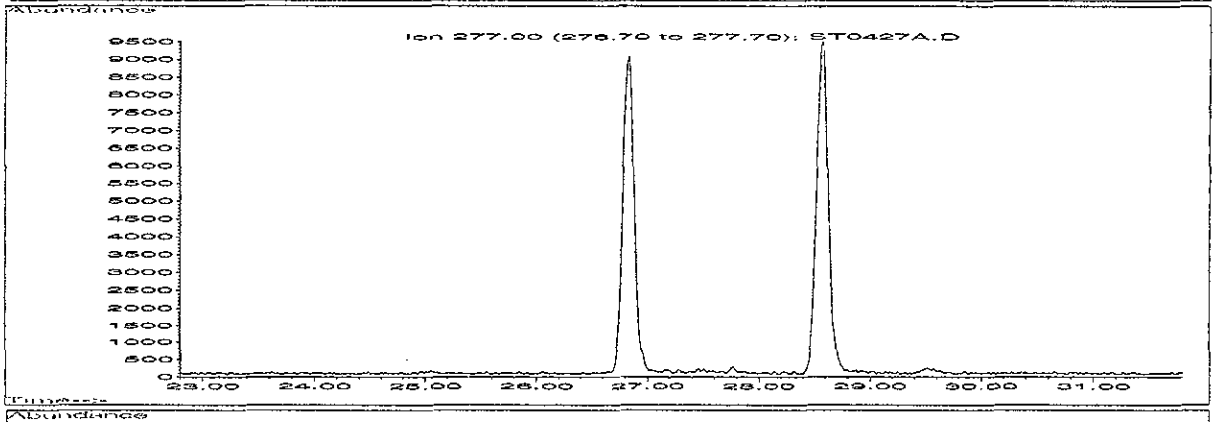


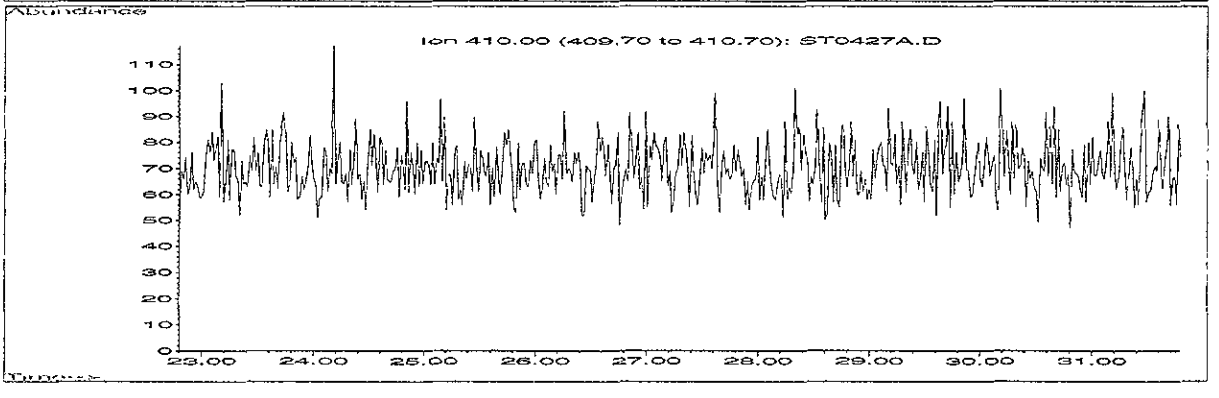
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



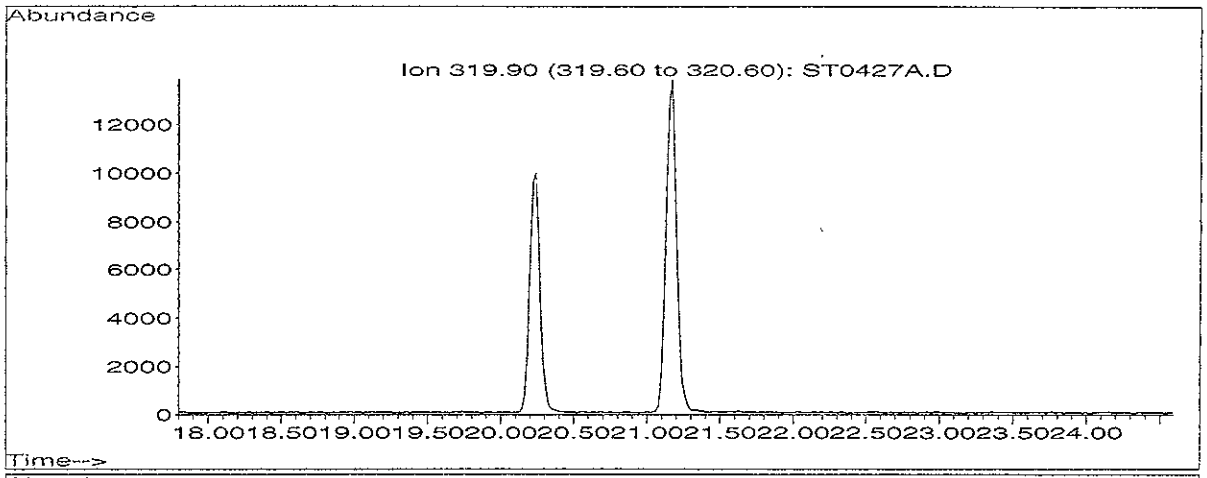


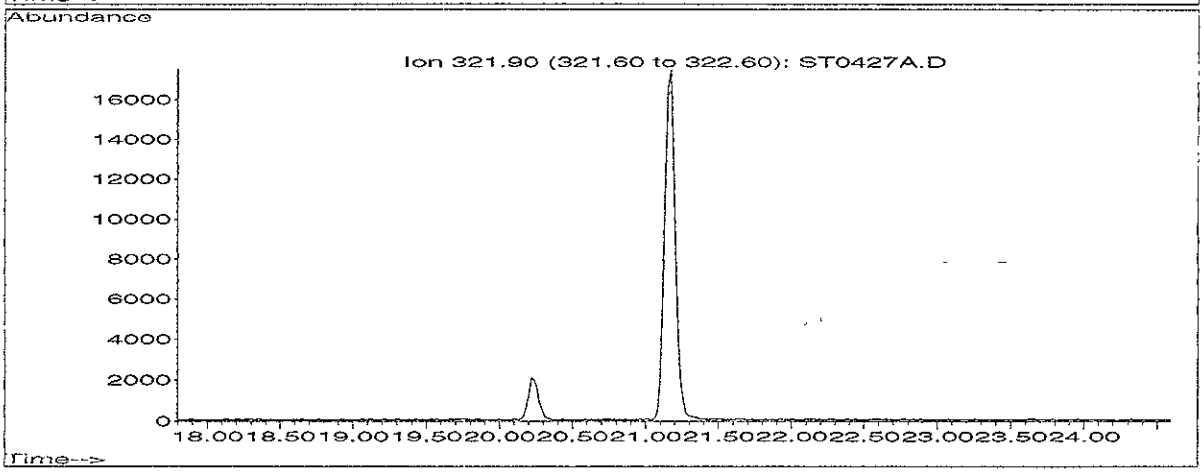


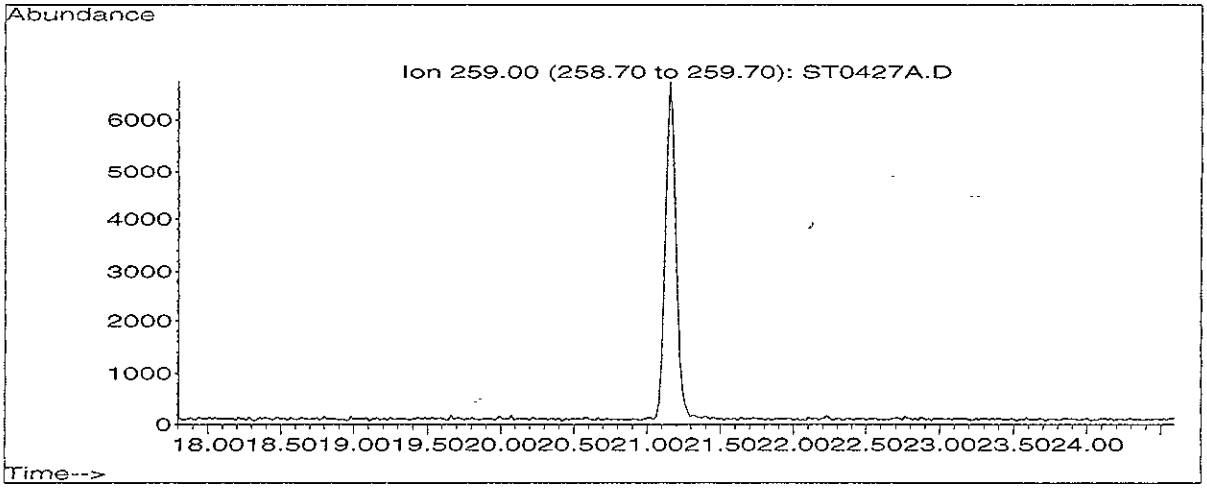


TCDD TOTAL

TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

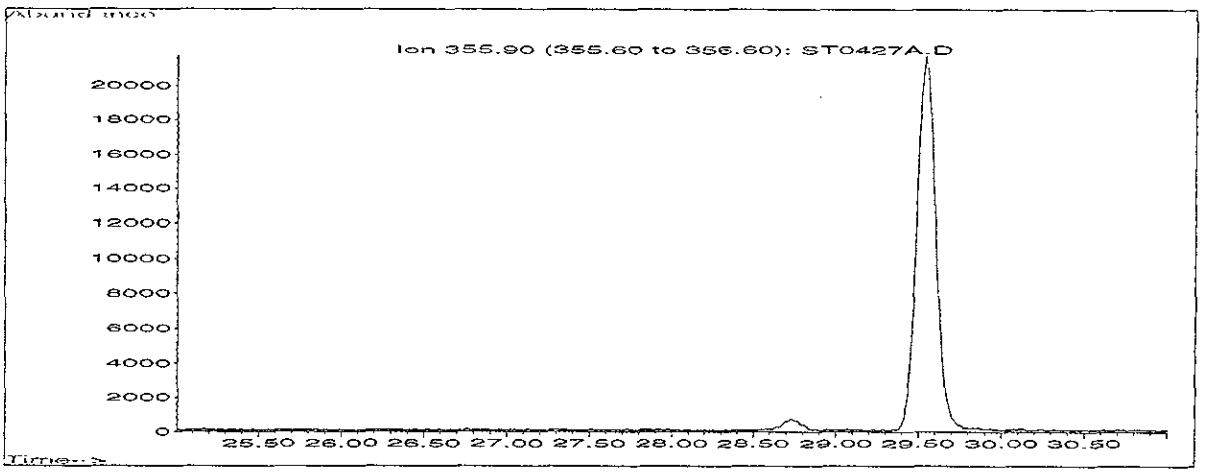


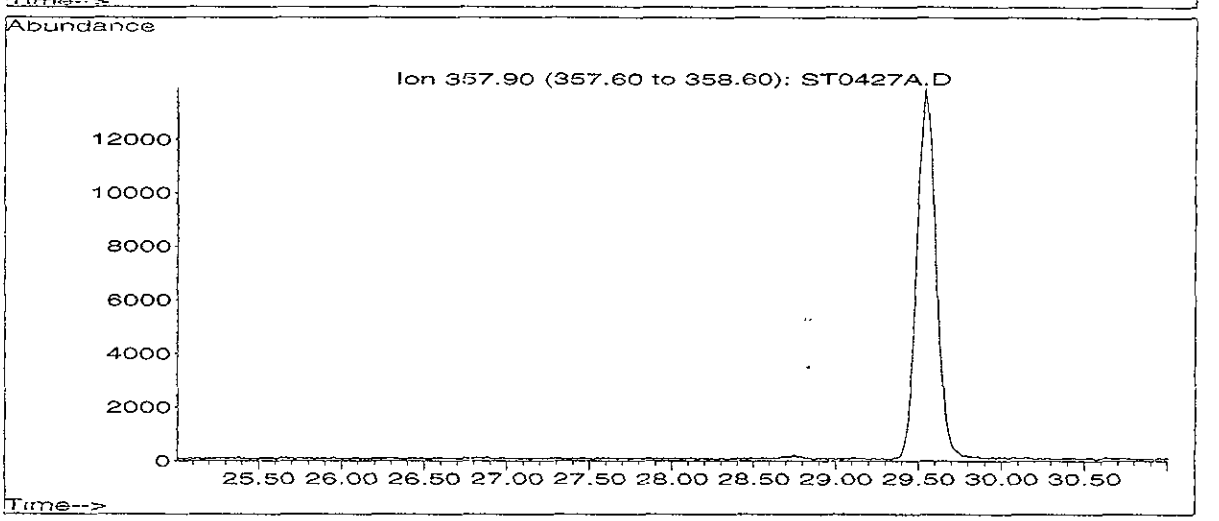


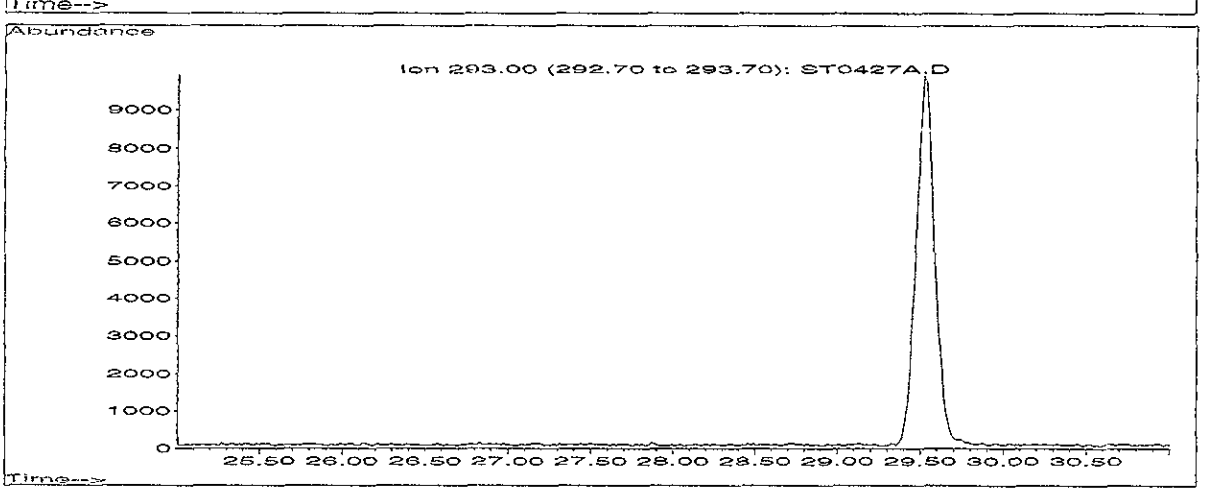


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

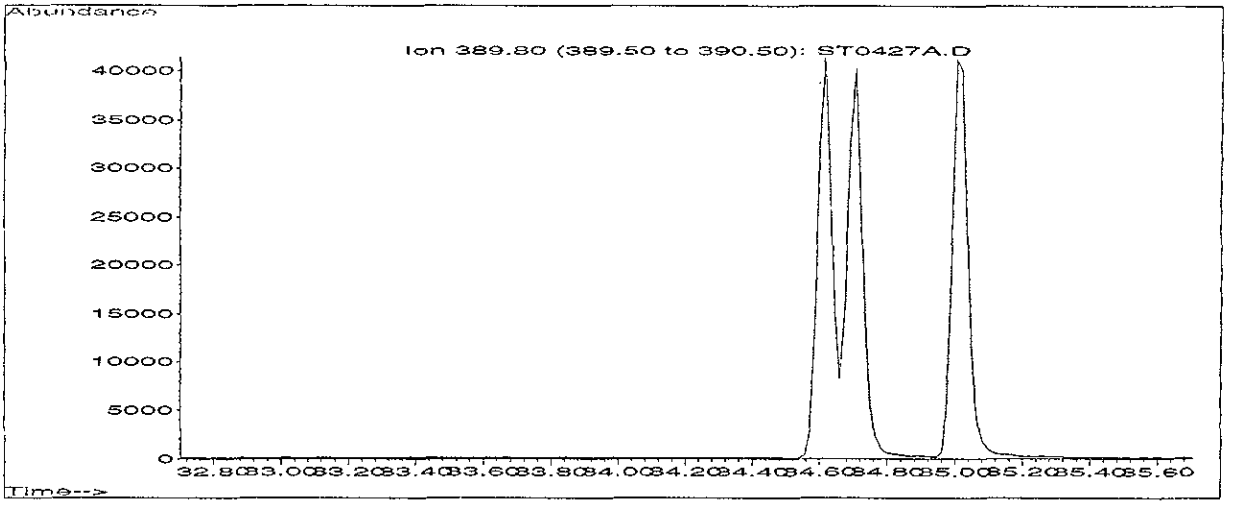


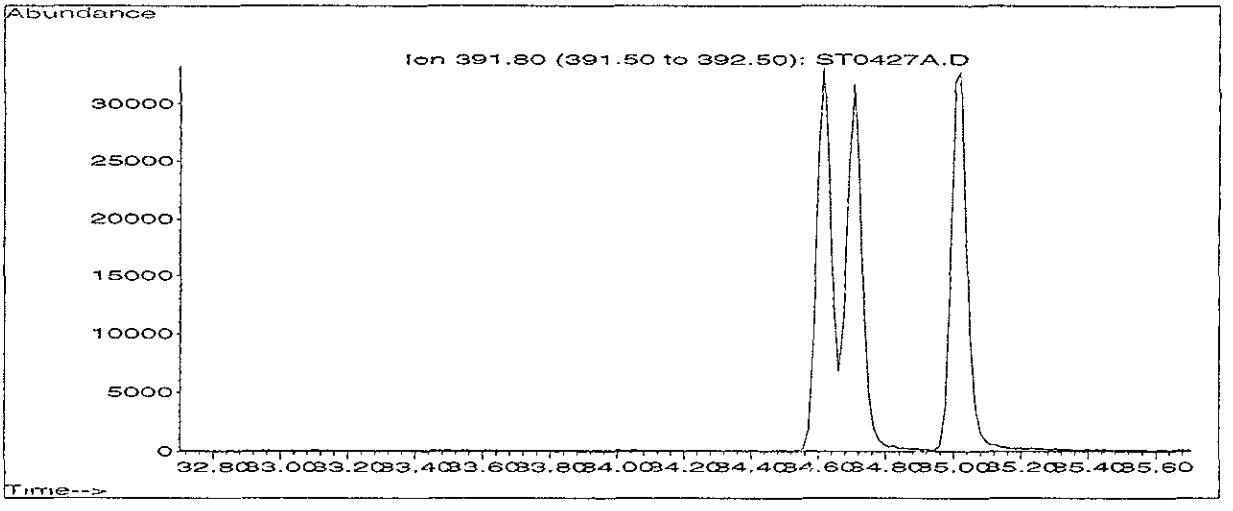


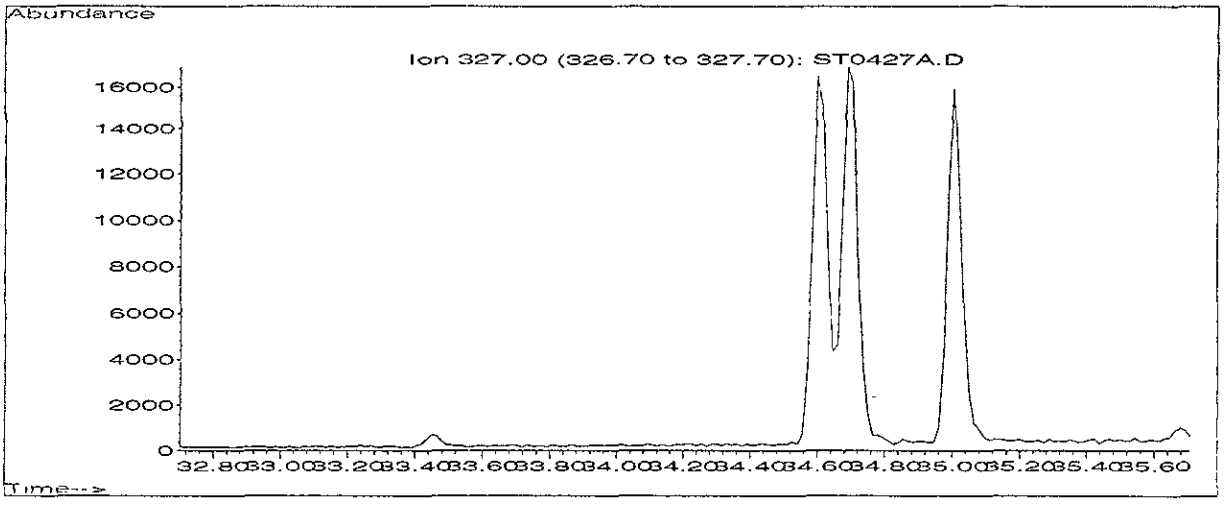


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

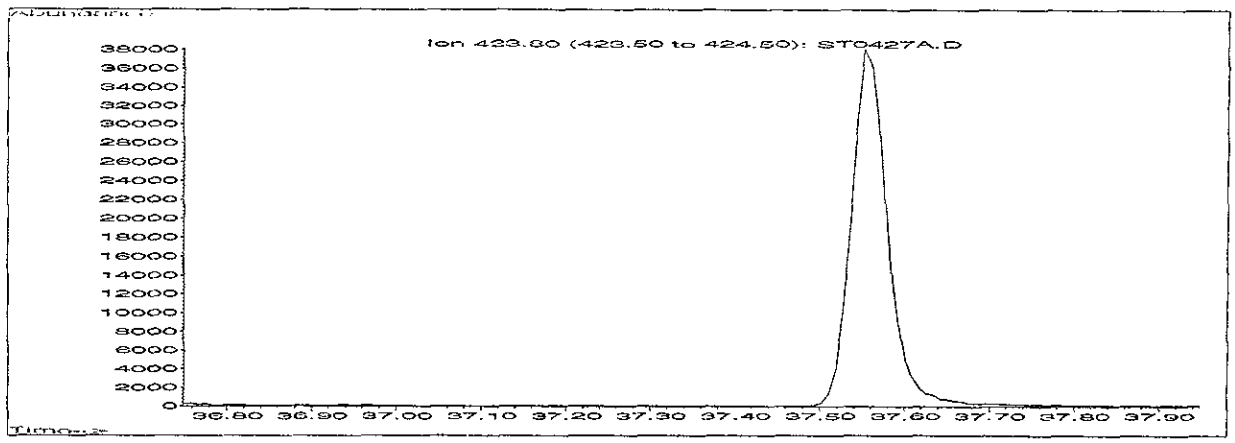


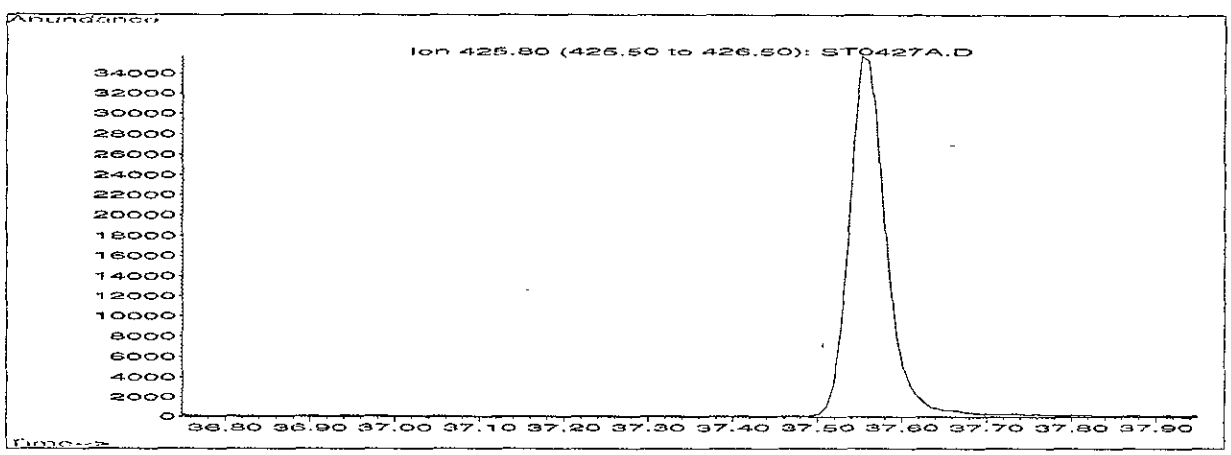


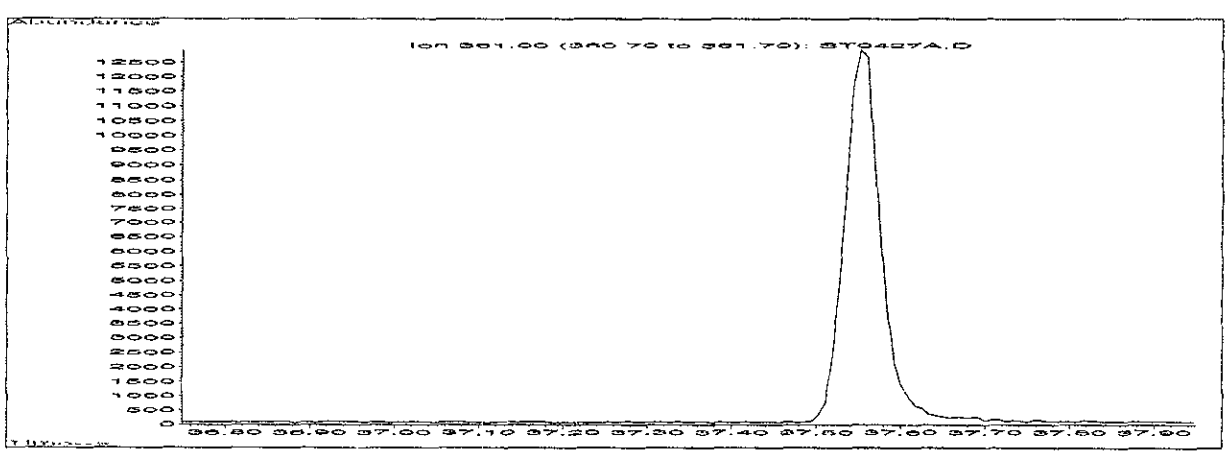


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

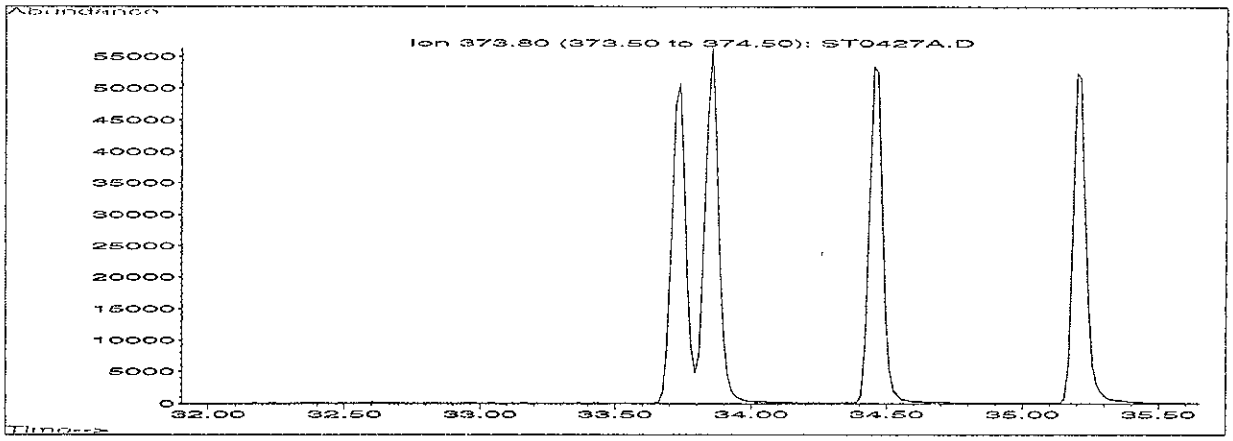


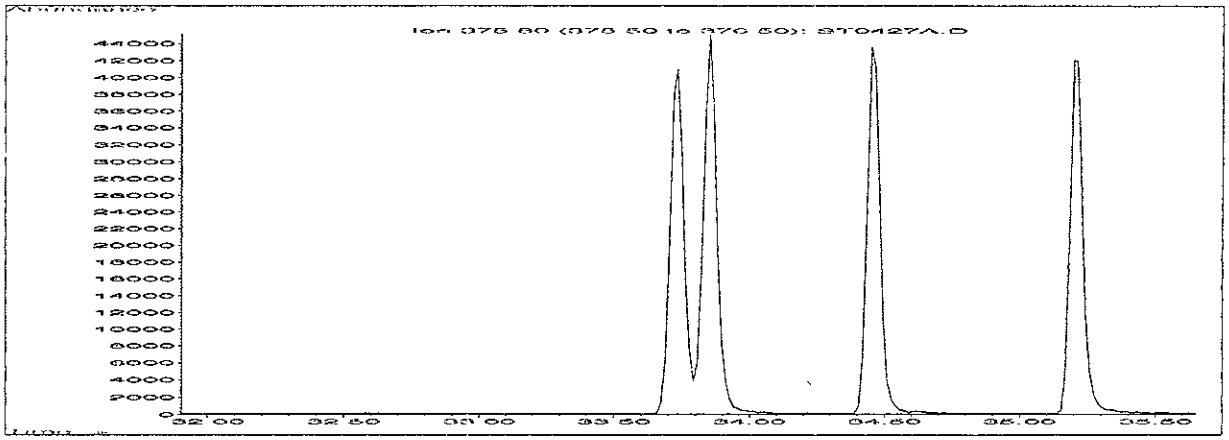


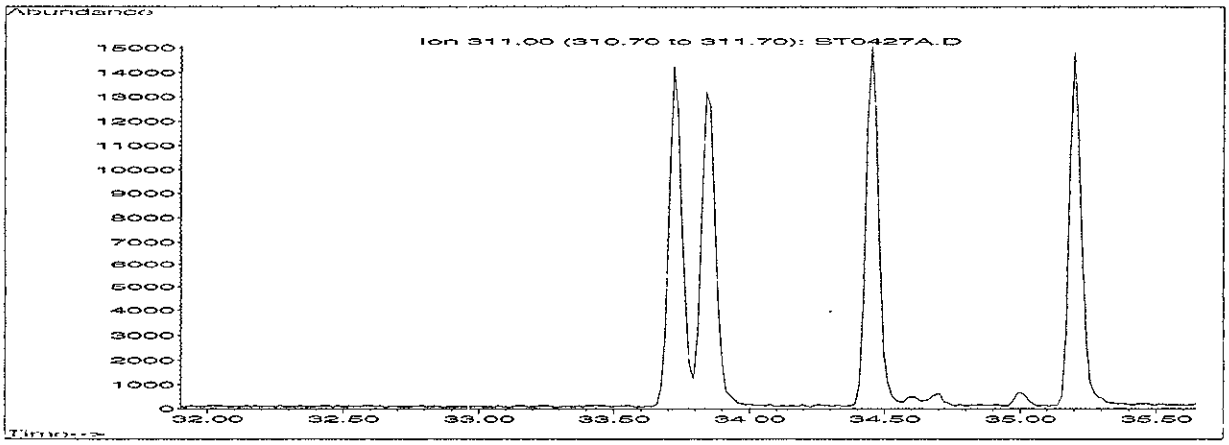


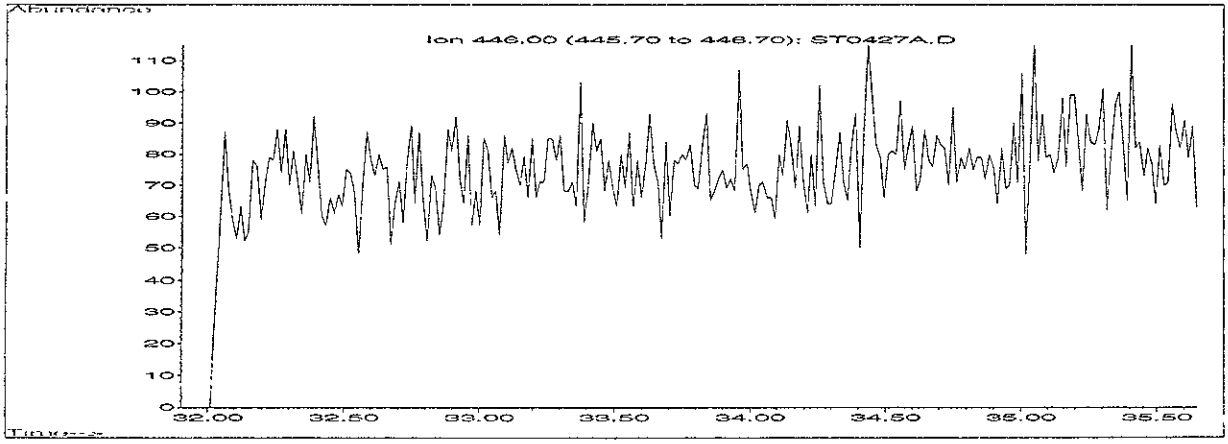
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



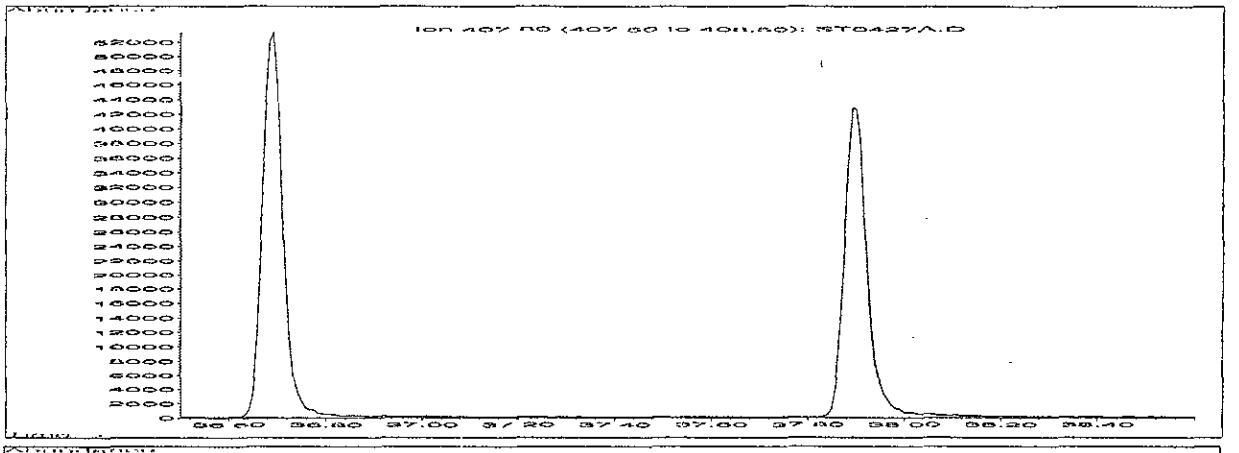


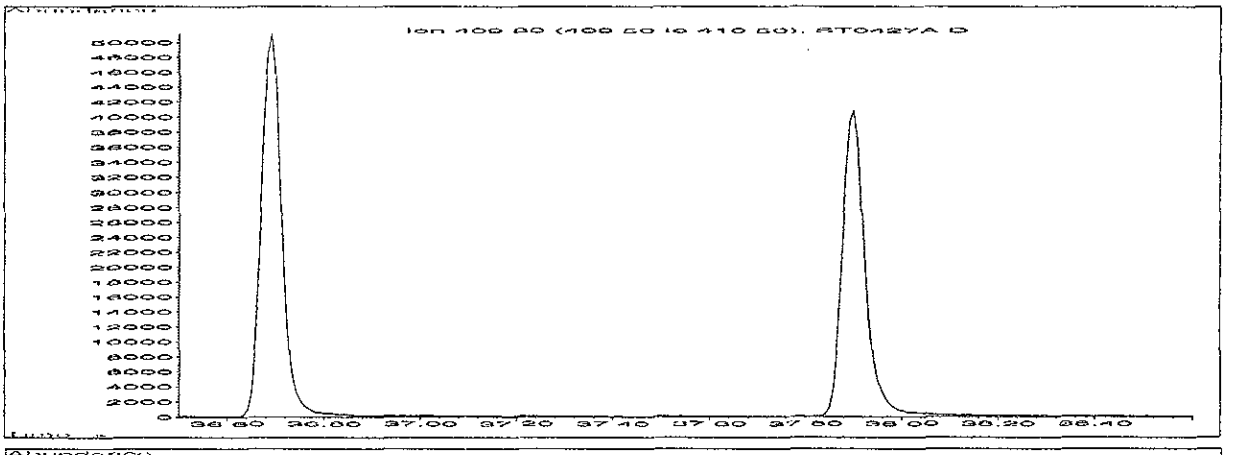


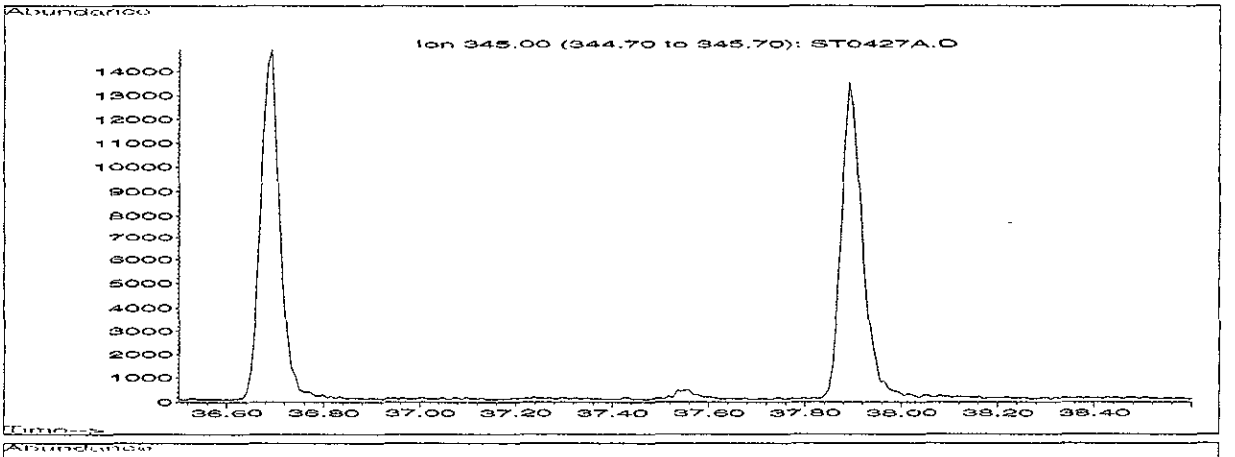


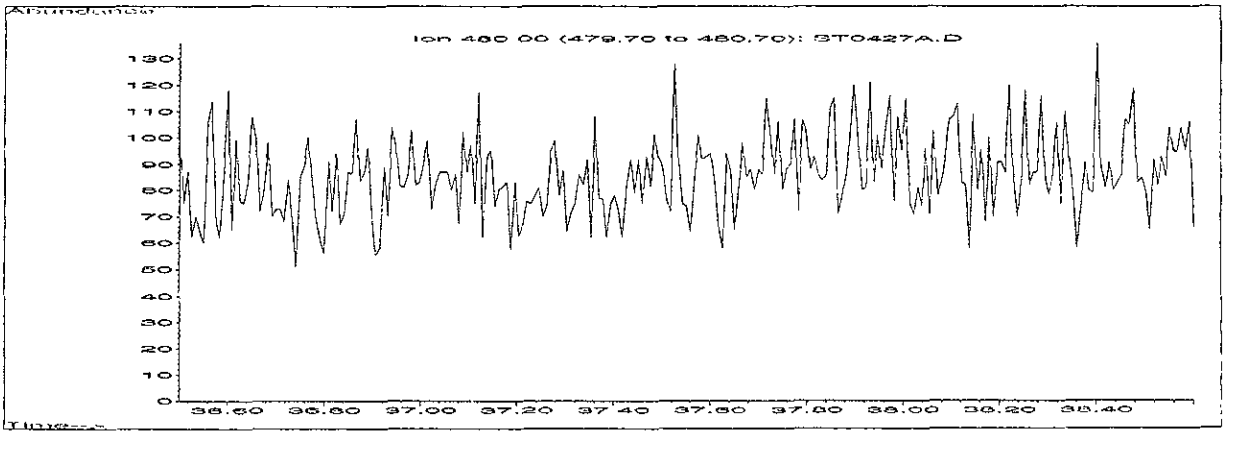
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



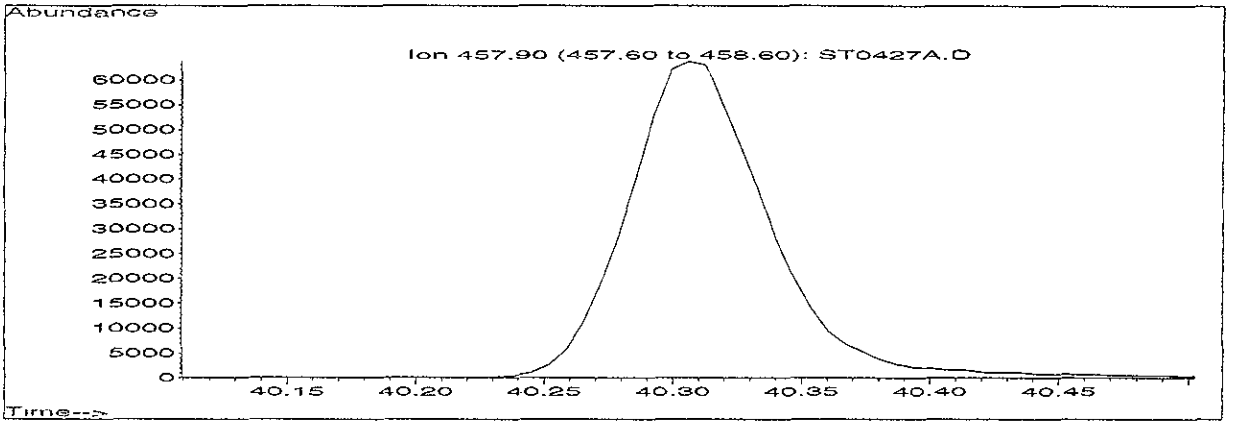


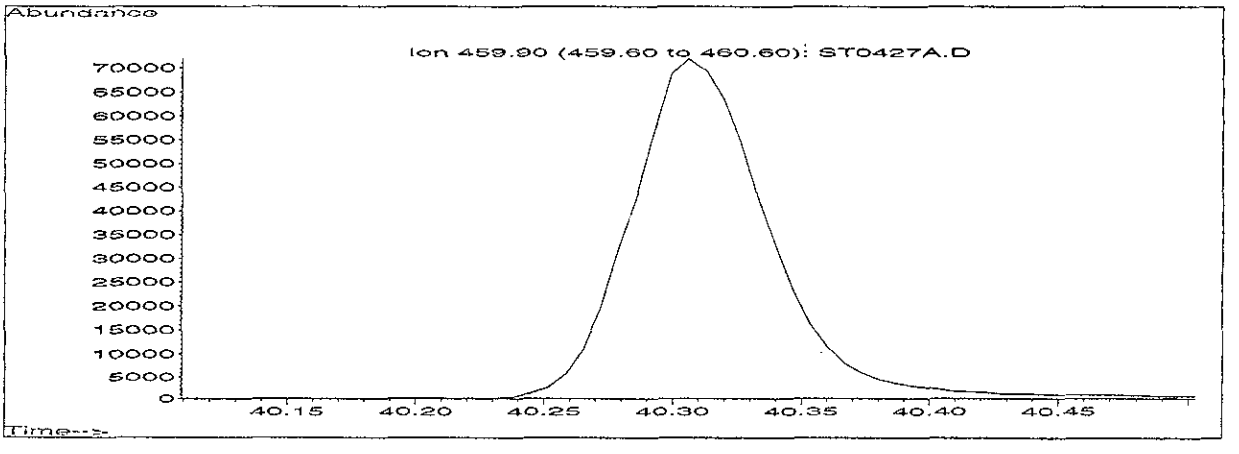


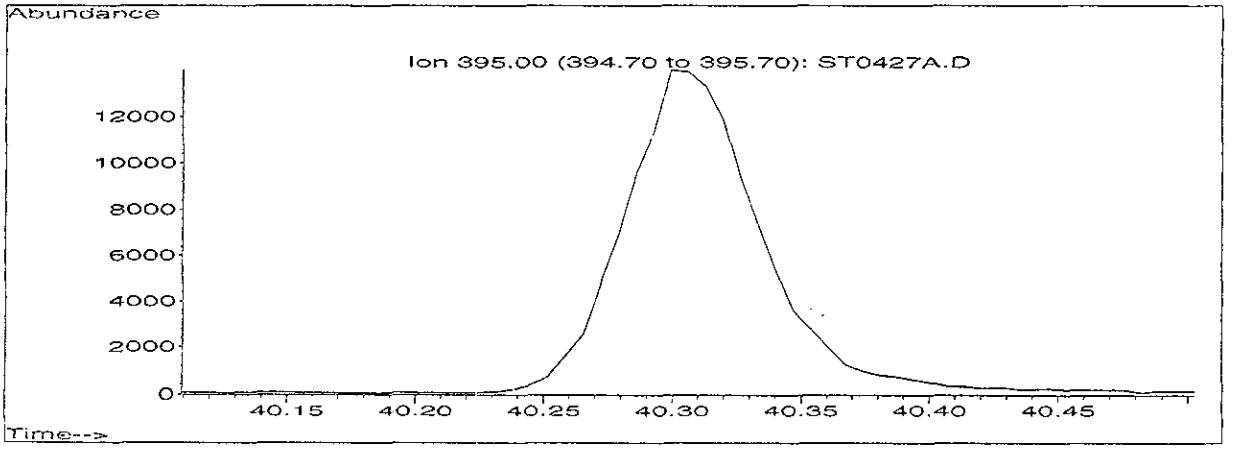


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	40.31		
Target Ion	457.9	Q1 Ion	459.9
Target Response	241122	Q1 Response	269037
Total Response	510159	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	51472		

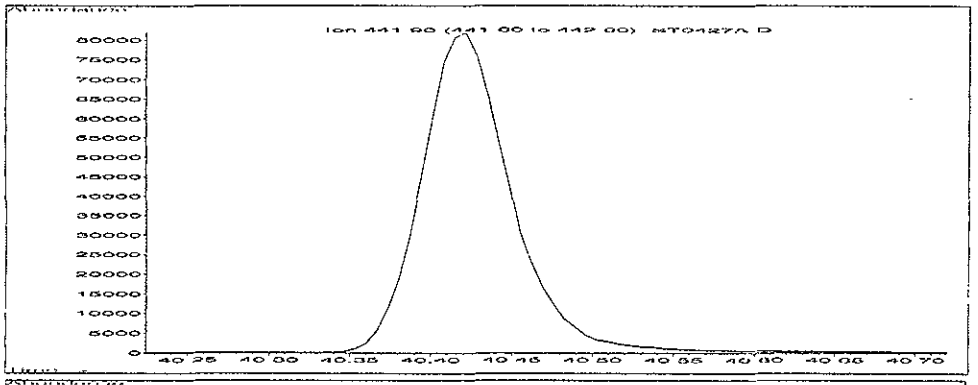


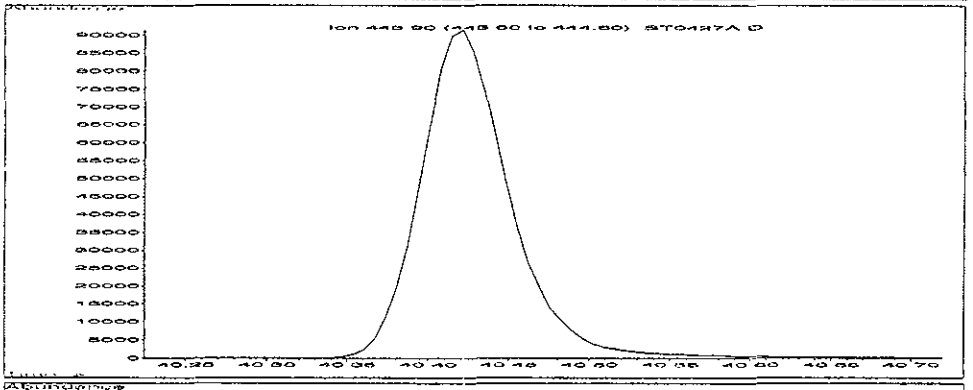


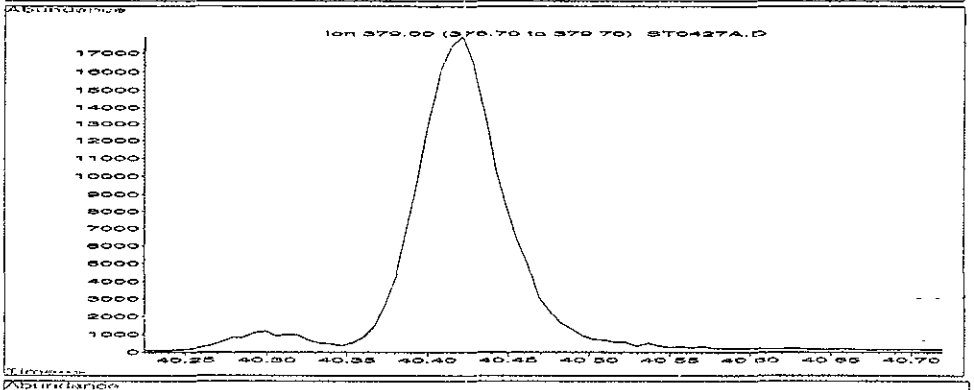


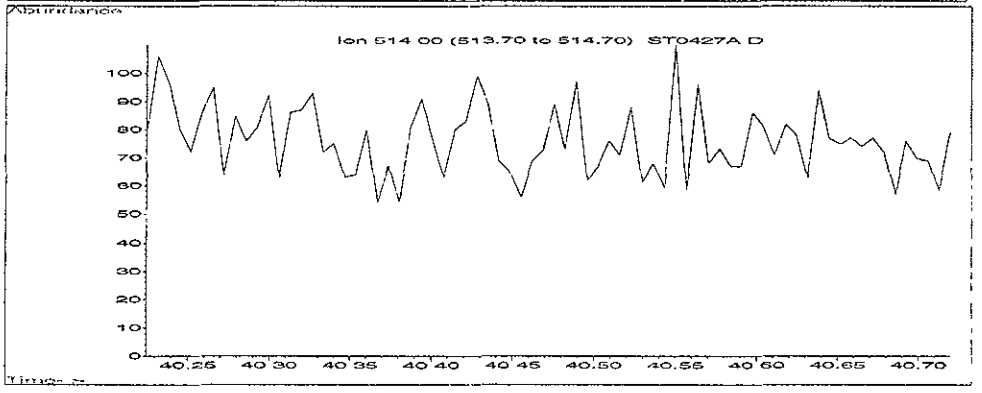
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	40.42		
Target Ion	441.9	Q1 Ion	443.9
Target Response	314702	Q1 Response	347476
Target Response	662178	Ion Ratio	0.91
Q2 Ion	379	DPE Ion	514
Q2 Response	65976	DPE Response	0



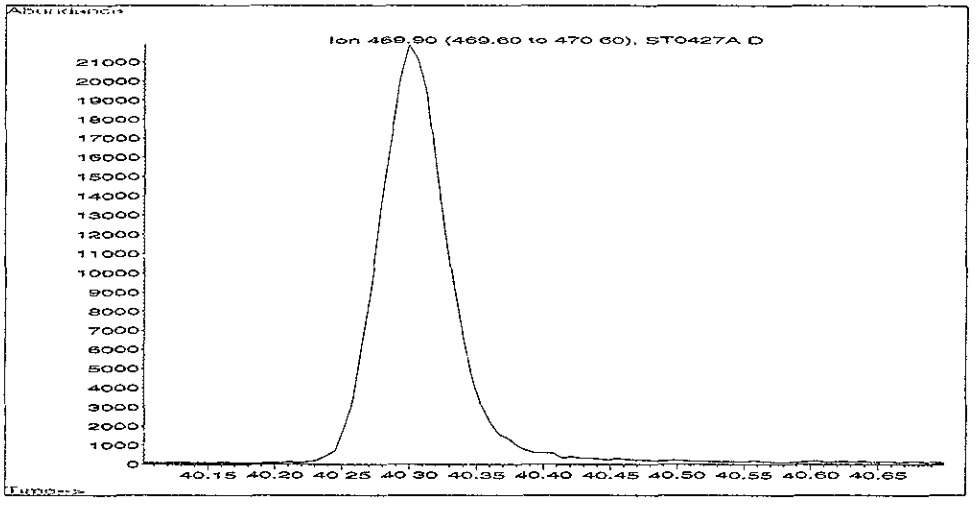


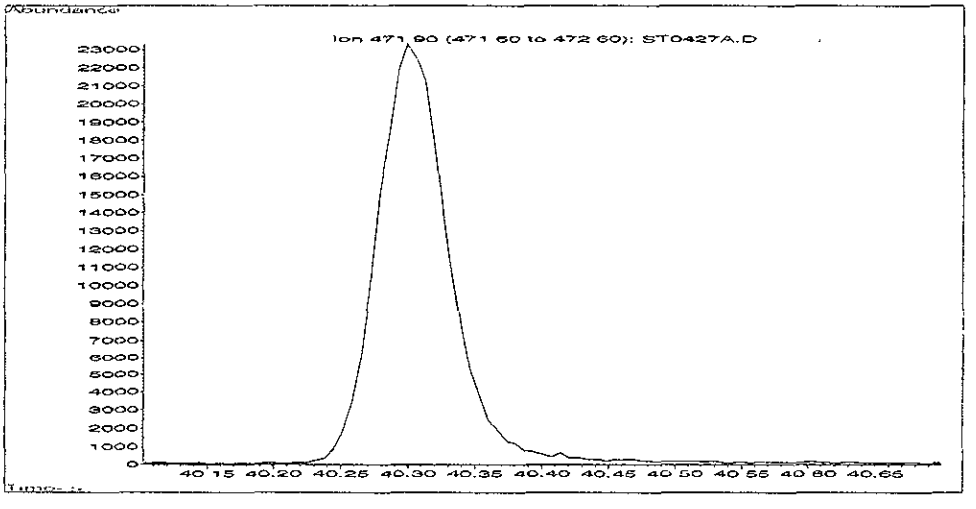




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.30		
Target Ion	469.9	Q1 Ion	471.9
Target Response	79687	Q1 Response	87015
Total response	166702	Ratio	0.92





8280\8280A QUANTITATION REPORT STL Sacramento

Sample ID: CS-1 Size: 0.000
3136-45A CS-1 Inst : DB1

Data File:C:\8280\2DB\042709.B\ST0427B.D Vial: 99
Acq On :27 Apr 2009 10:39 pm Operator: MEO
Sample Amount: 0.00
MS Integration Params: RTEINT.P
Quant Time: Apr 28 16:28 2009 Quant Results File: 09AP27A2.RES

Quant Method : C:\8280\ DATA METHODS\09AP27A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Apr 28 16:26:50 2009
Response via : Single (C:\8280\2DB\042709.B\ST0427A.D 27 Apr 2009 11:03 am)
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	20.88	332+334	0.82	51342	25.00 NG	0.00
5) 13C-123789-HxCDD	35.00	402+404	1.21	42032	25.00 NG	0.00
9) 13C-2378-TCDF	20.22	316+318	0.80	90727	25.00 NG	-0.02
15) 13C-2378-TCDD	21.13	332+334	0.81	55682	25.00 NG	-0.02
20) 13C-123678-HxCDD	34.69	402+404	1.31	38579	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.68	420+422	1.06	44964	25.00 NG	0.00
36) 13C-OCDD	40.29	470+472	0.89	75112	50.00 NG	0.00

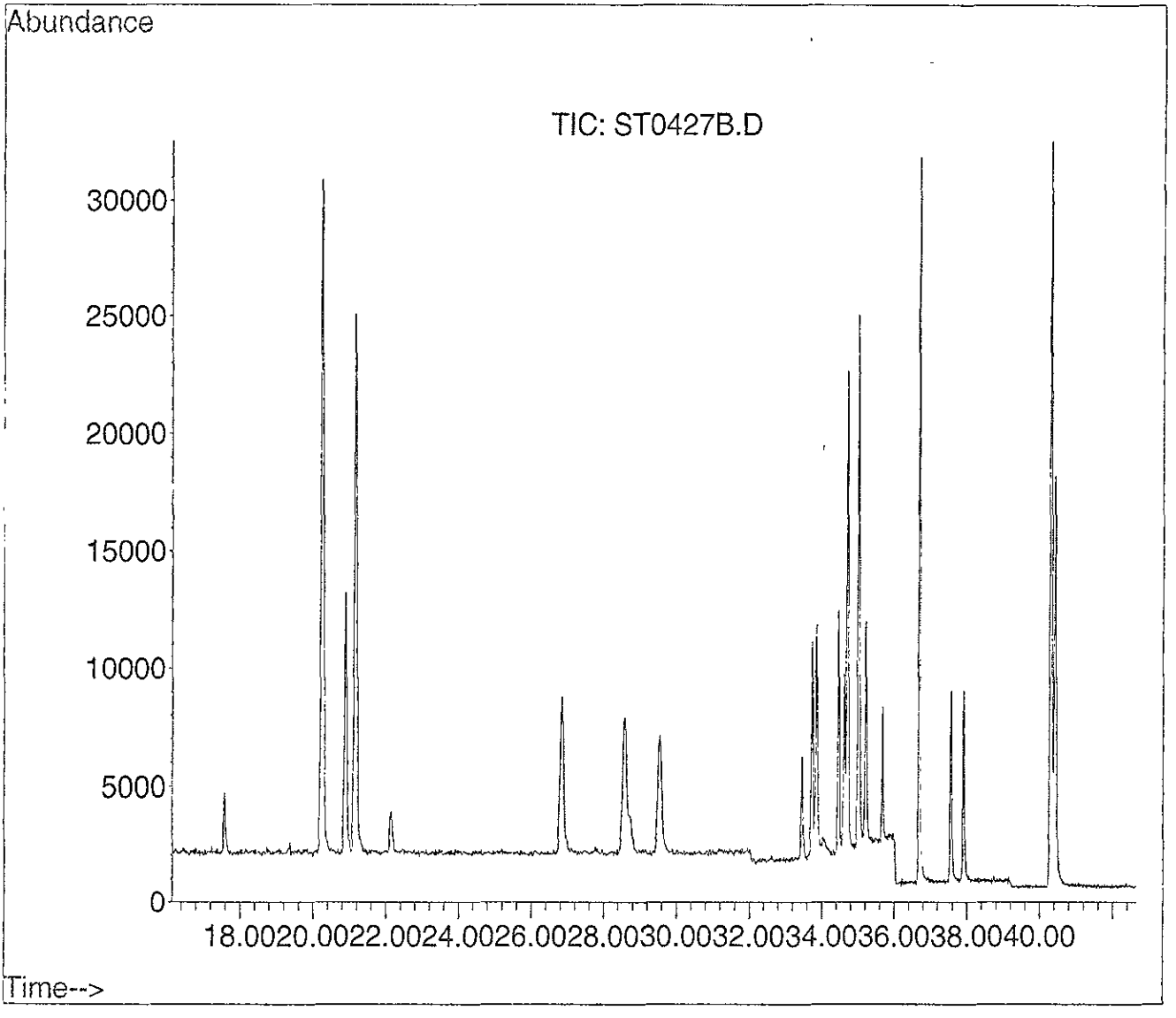
Surrogate Compound						
4) 37Cl-2378-TCDD	21.17	328		44133	12.060 NG	0.00
Spiked Amount = 12.500		RRF = 1.782		Recovery =	96.48%	

Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.22	0.80	90727	1.796	24.592	0.1433	98.4
3) 13C-2378-TCDD-IS	21.13	0.81	57211	1.137	24.491	3.6033	98.0
6) 13C-123678-HxCDD-	34.69	1.31	38579	0.899	25.512	0.2732	102.0
7) 13C-1234678-HpCDF	36.68	1.06	44964	1.062	25.184	0.2260	100.7
8) 13C-OCDD-IS	40.29	0.89	75112	0.887	50.345	0.1996	100.7
10) 2378-TCDF	20.24	0.81	22596	1.219	5.109	0.3150	
1	20.24	0.81	23222		5.251		
11) TCDF TOTAL	19.30	0.81	23222	1.219	5.251		
12) 12378-PeCDF	26.83	1.53	40455	0.964	11.561	0.1298	
13) 23478-PeCDF	28.55	1.48	38844	0.927	11.552	0.2657	
1	26.83	1.56	41957		12.477		
2	28.55	1.37	38844		11.552		
14) PeCDF TOTAL	26.80	1.37	80801	0.927	24.029		
16) 2378-TCDD	21.17	0.77	13544	1.306	4.655	0.1267	
1	20.24	5.22 #	8116		2.790		
2	21.17	0.74	14687		5.048		
17) TCDD TOTAL	19.30	0.74	22803	1.306	7.838		
18) 12378-PeCDD	29.54	1.56	24419	0.941	11.653	0.3811	
1	28.73	5.49 #	3194		1.524		
2	29.54	1.54	25894		12.357		
19) PeCDD TOTAL	27.00	1.54	29088	0.941	13.882		
21) 123478-HxCDD	34.61	1.26	19622	1.097	11.595	2.4553	
22) 123678-HxCDD	34.70	1.27	19236	1.061	11.751	0.4167	
23) 123789-HxCDD	35.00	1.21	21568	1.144	12.217	0.4216	
1	34.61	1.26	19622		11.595		
2	34.70	1.24	69555		42.490		
3	35.00	1.25	21559		13.170		
24) HxCDD TOTAL	34.70	1.25	110736	1.061	67.254		
25) 1234678-HpCDD	37.56	1.05	19605	1.055	12.038	0.1840	

	1	37.56	1.06	19605		12.038	
26)	HpCDD TOTAL	37.35	1.06	19605	1.055	12.038	
28)	123478-HxCDF	33.73	1.27	29111	1.329	12.178	13.7980
29)	123678-HxCDF	33.84	1.27	31134	1.384	12.508	3.1880
30)	234678-HxCDF	34.45	1.26	28402	1.315	12.009	0.0115
31)	123789-HxCDF	35.21	1.29	28112	1.278	12.230	0.2407
	1	33.73	1.28	29111		12.178	
	2	33.84	1.22	31134		12.508	
	3	34.45	1.22	28402		12.009	
	4	35.21	1.28	28360		12.338	
32)	HxCDF TOTAL	34.40	1.28	117007	1.278	49.033	
33)	1234678-HpCDF	36.68	1.01	28014	1.237	12.587	0.1630
34)	1234789-HpCDF	37.90	1.03	24492	1.111	12.254	0.2496
	1	36.68	1.01	28014		12.587	
	2	37.90	1.02	24492		12.254	
35)	HpCDF TOTAL	38.00	1.02	52506	1.111	24.841	
37)	OCDD	40.31	0.90	45147	1.224	24.551	0.1362
38)	OCDF	40.41	0.88	58031	1.589	24.312	0.3468

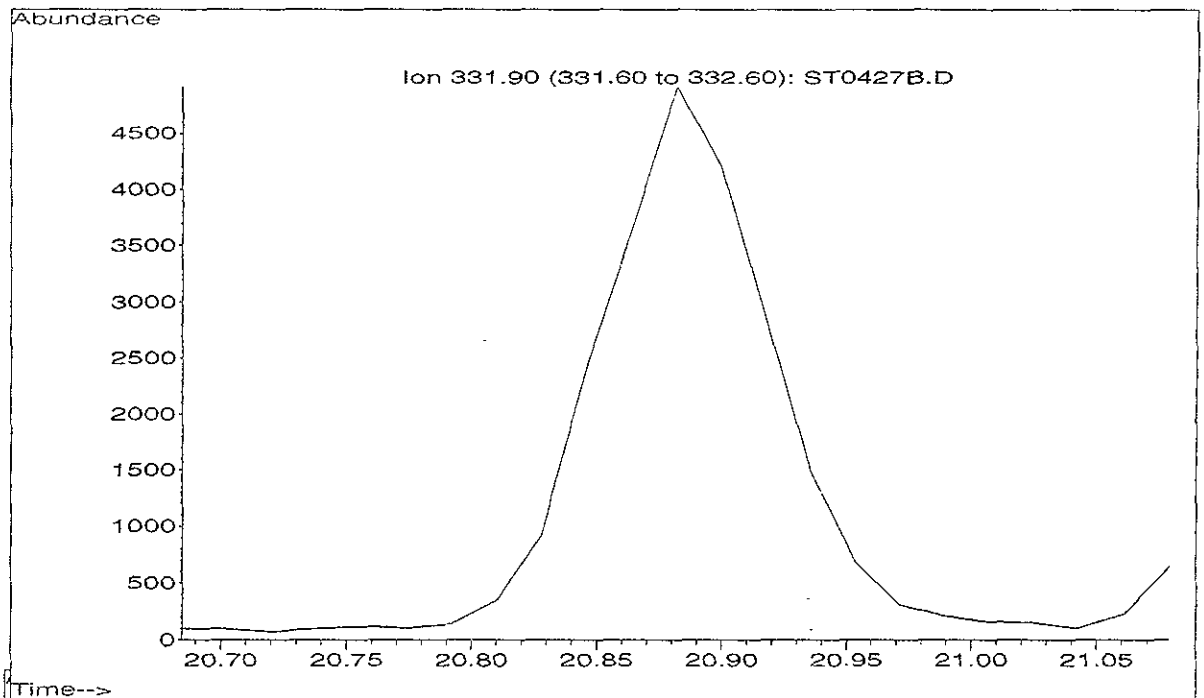
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0427B.D 09AP27A2.M Tue Apr 28 16:28:04 2009

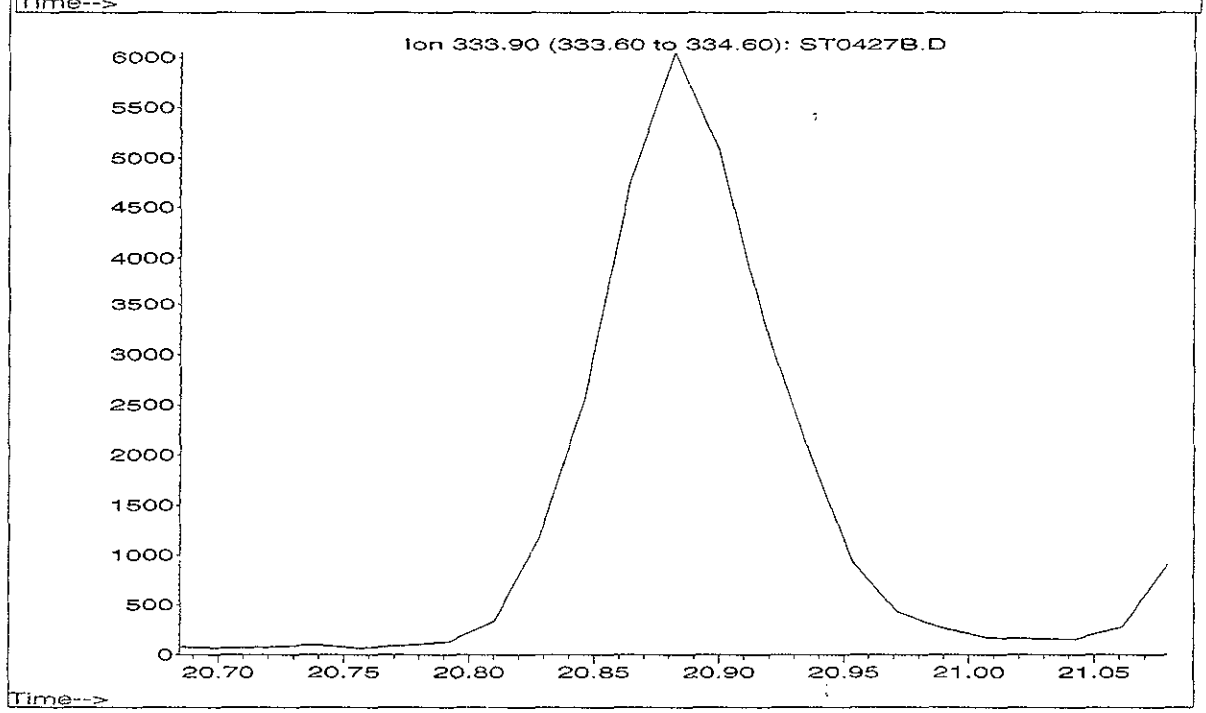
Data File Name	ST0427B.D
Data File Path	C:\8280\2DB\042709.B\
Operator	MEO
Date Acquired	4/27/2009 10:39
Acq. Method File	TOKAS
Sample Name	3136-45A CS-1
Misc Info	CS-1
Vial Number	99
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



13C-1234-TCDD

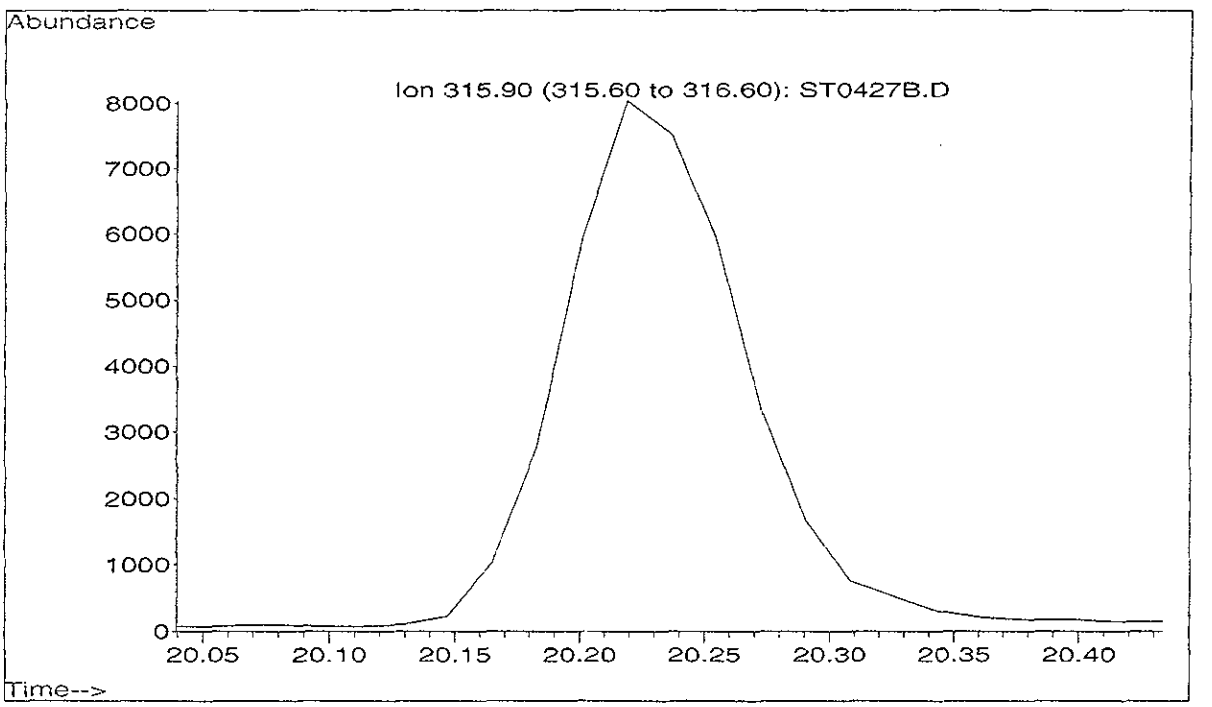
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	20.88		
Target Ion	331.9	Q1 Ion	333.9
Target Response	23065	Q1 Response	28277
Total Response	51342	Ion Ratio	0.82

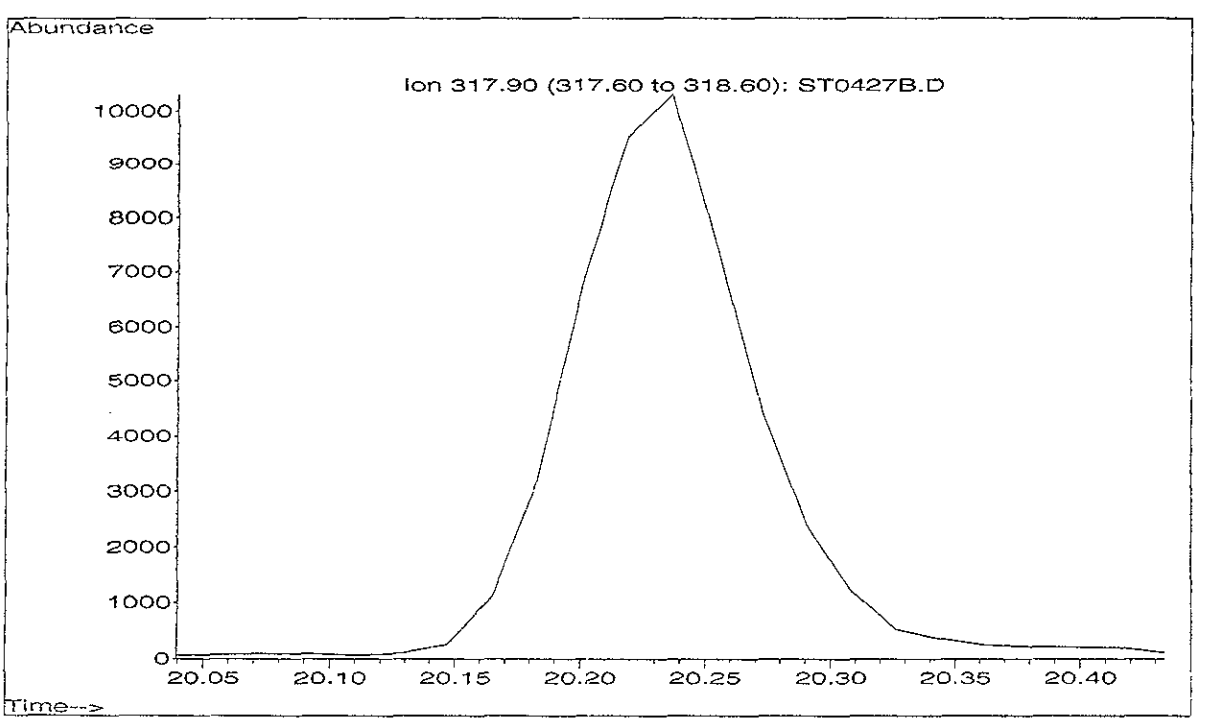




13C-2378-TCDF-IS

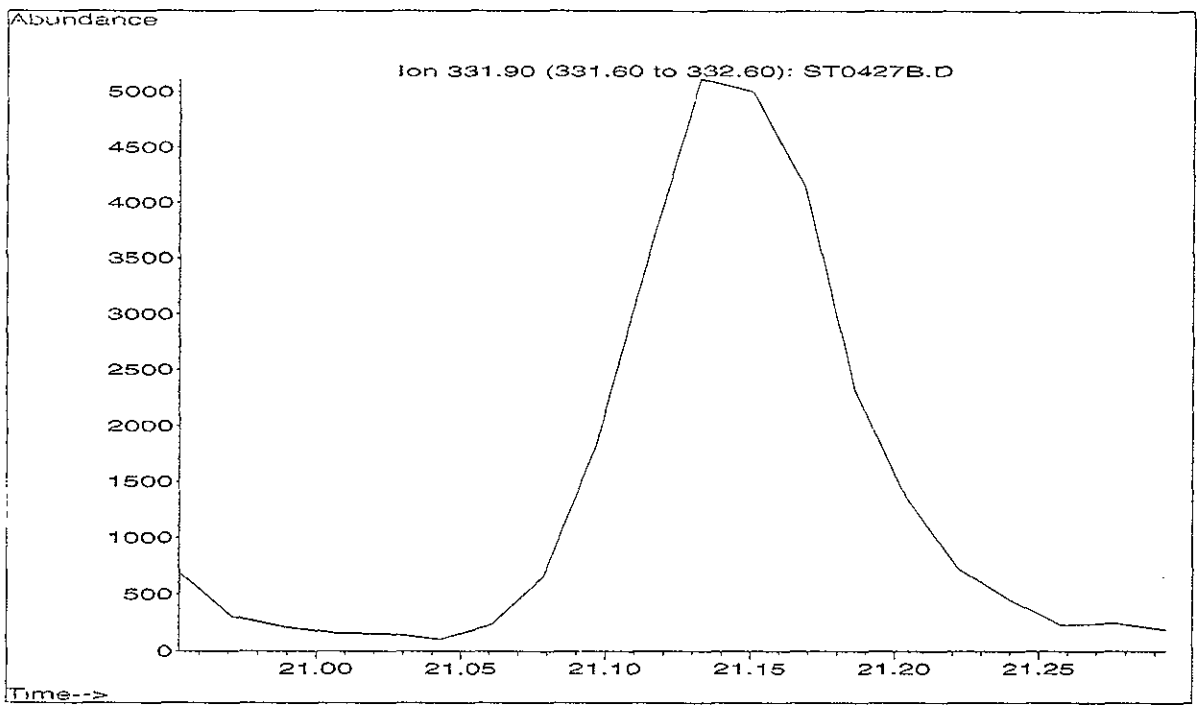
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	20.22		
Target Ion	315.9	Q1 Ion	317.9
Target Response	40189	Q1 Response	50538
Target Response	90727	Ion Ratio	0.80

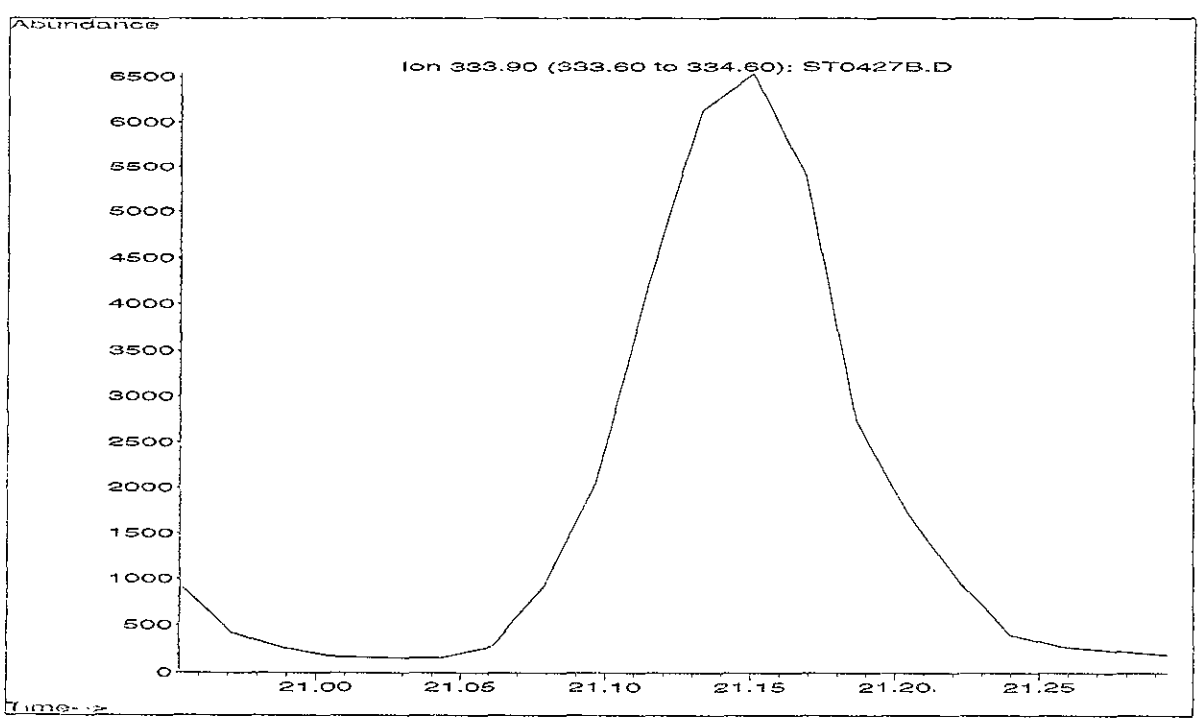




13C-2378-TCDD-IS

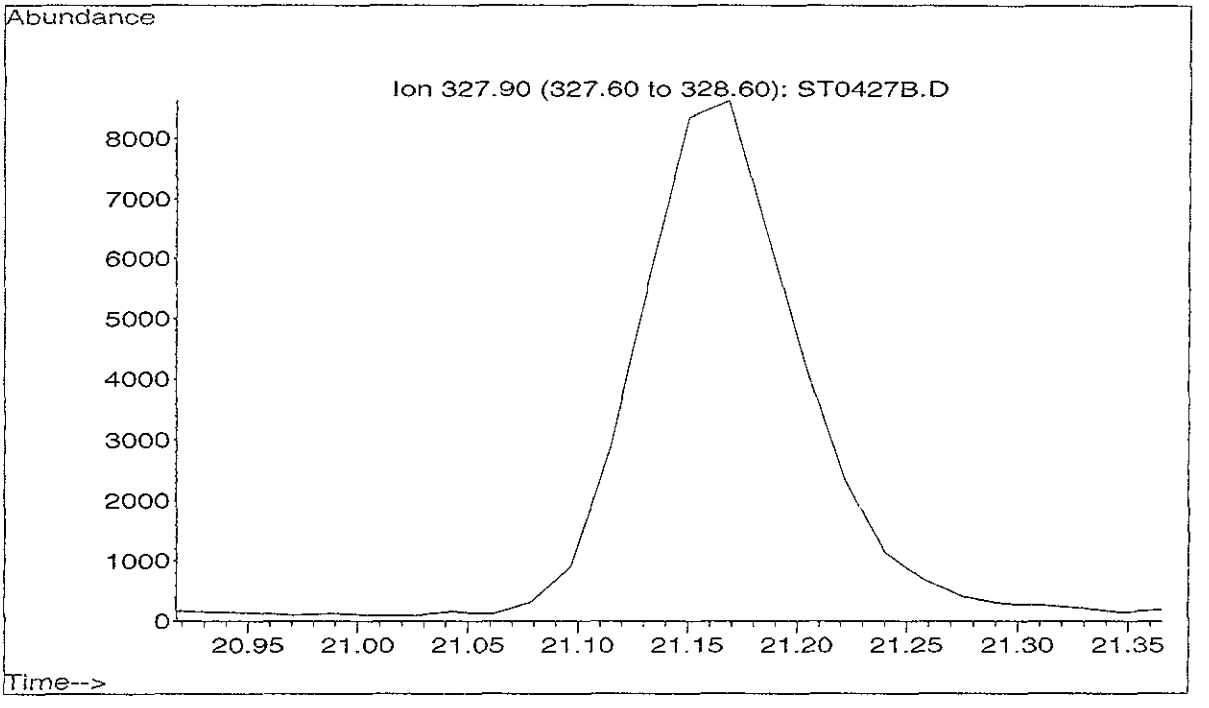
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	21.13		
Target Ion	331.9	Q1 Ion	333.9
Target Response	25632	Q1 Response	31579
Total Response	57211	Ion Ratio	0.81

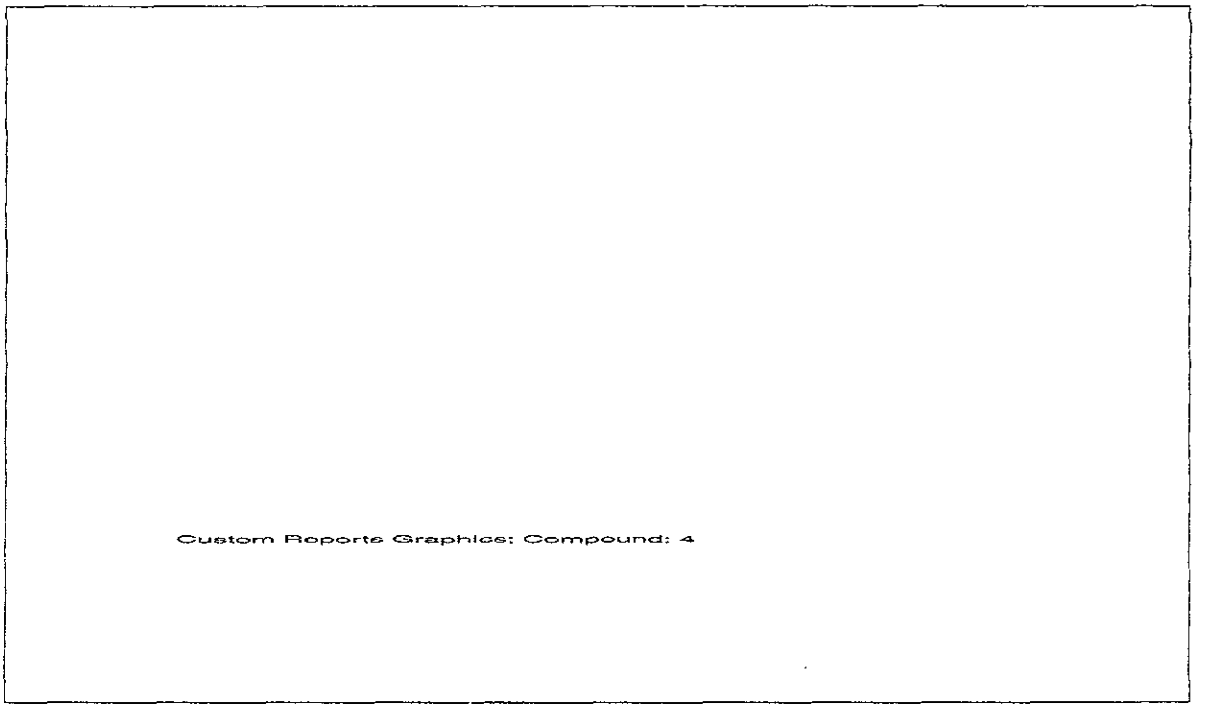




37Cl-2378-TCDD

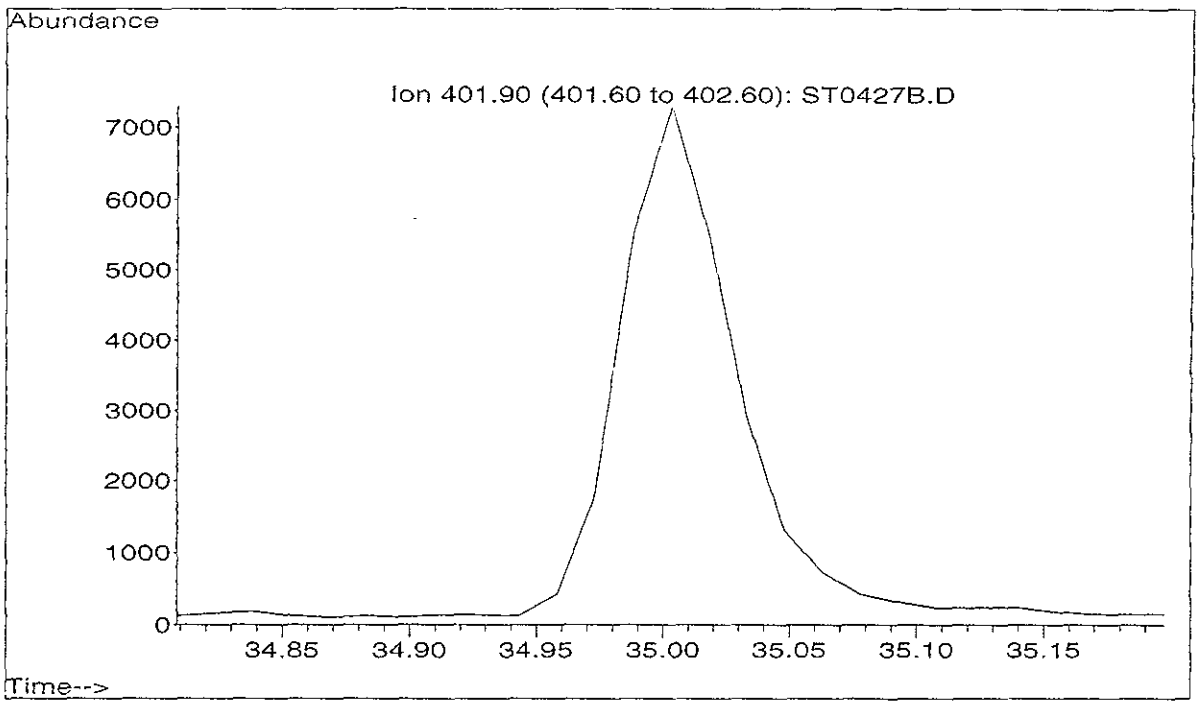
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	21.17		
Target Ion	327.9	Q1 Ion	0
Target Response	44133	Q1 Response	0
Total Response	44133	Ion Ratio	#DIV/0!

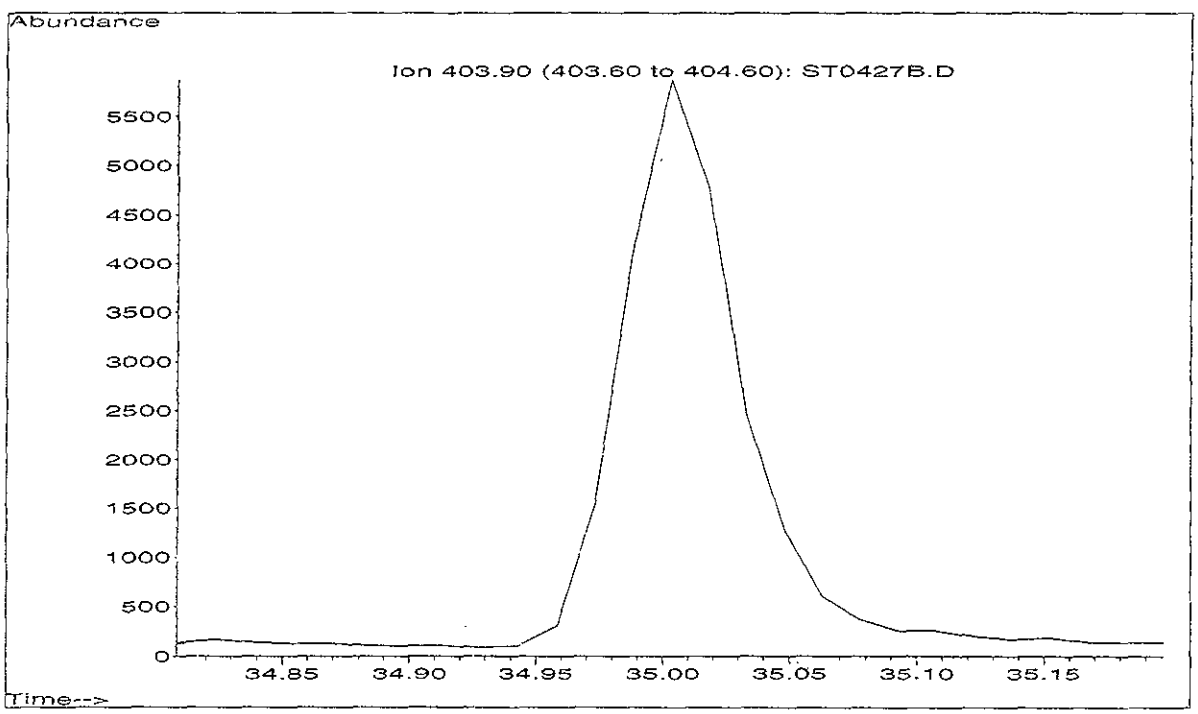




13C-123789-HxCDD

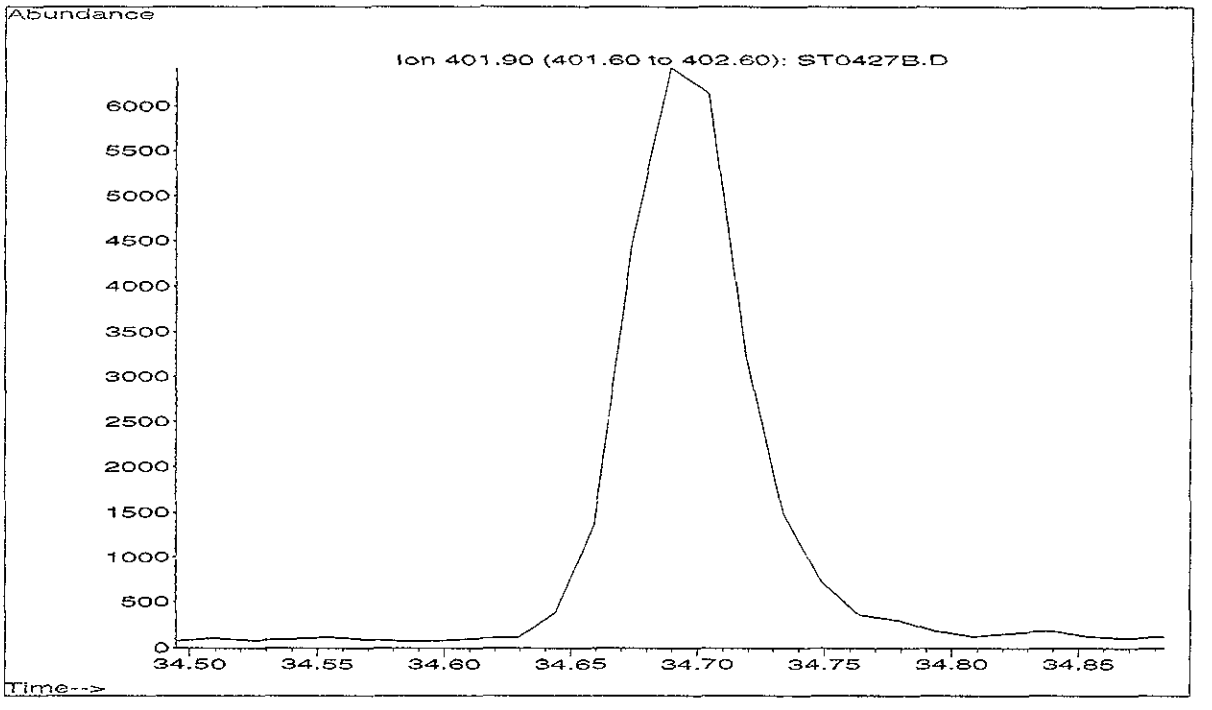
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	35.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	23015	Q1 Response	19017
Target Response	42032	Ion Ratio	1.21

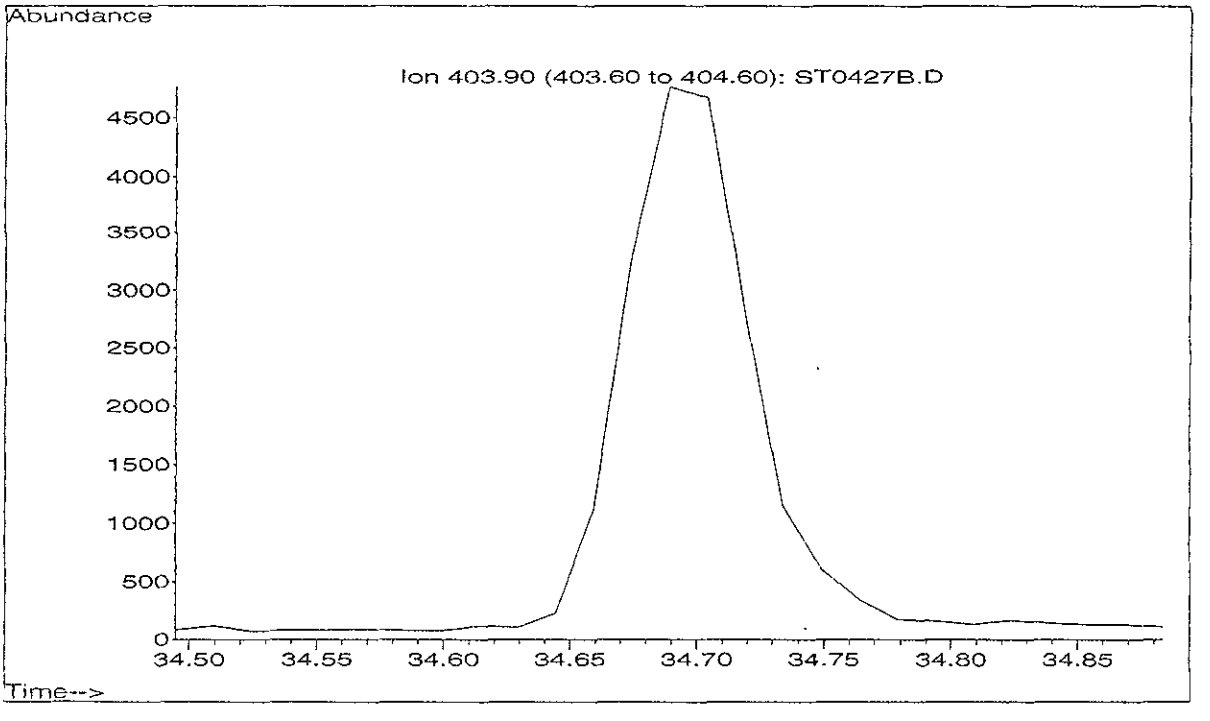




13C-123678-HxCDD-IS

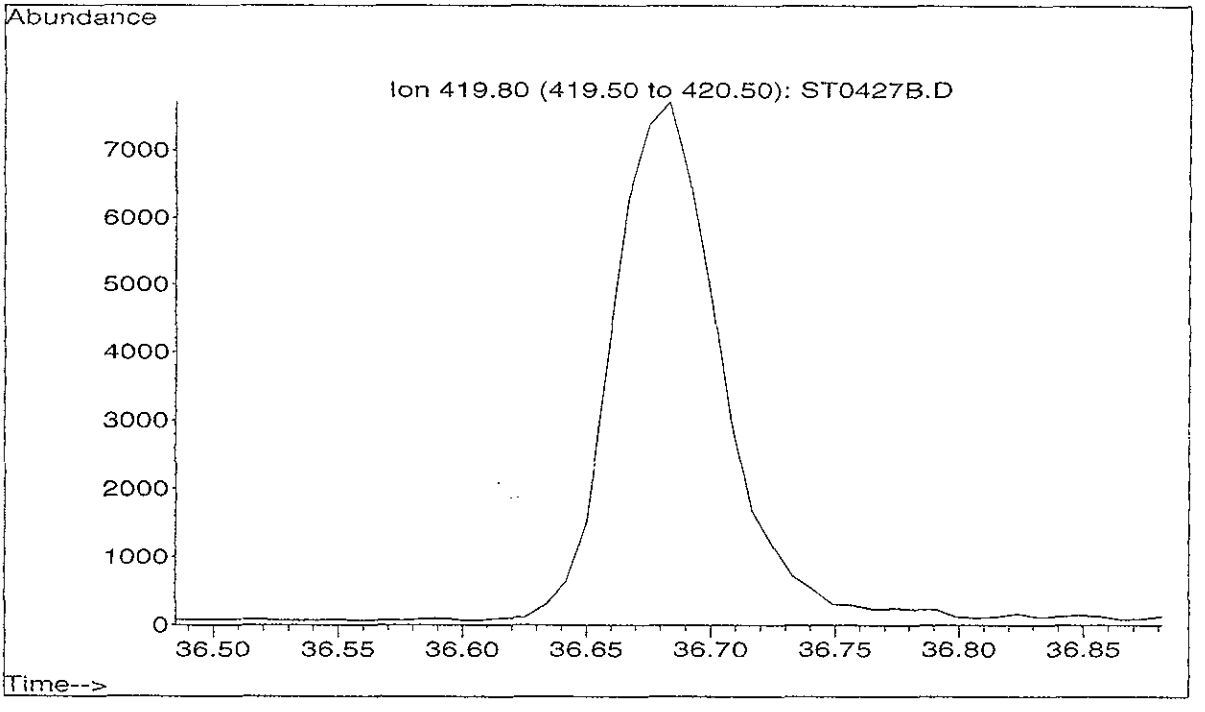
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	34.69		
Target Ion	401.9	Q1 Ion	403.9
Target Response	21868	Q1 Response	16711
Total Response	38579	Ion Ratio	1.31

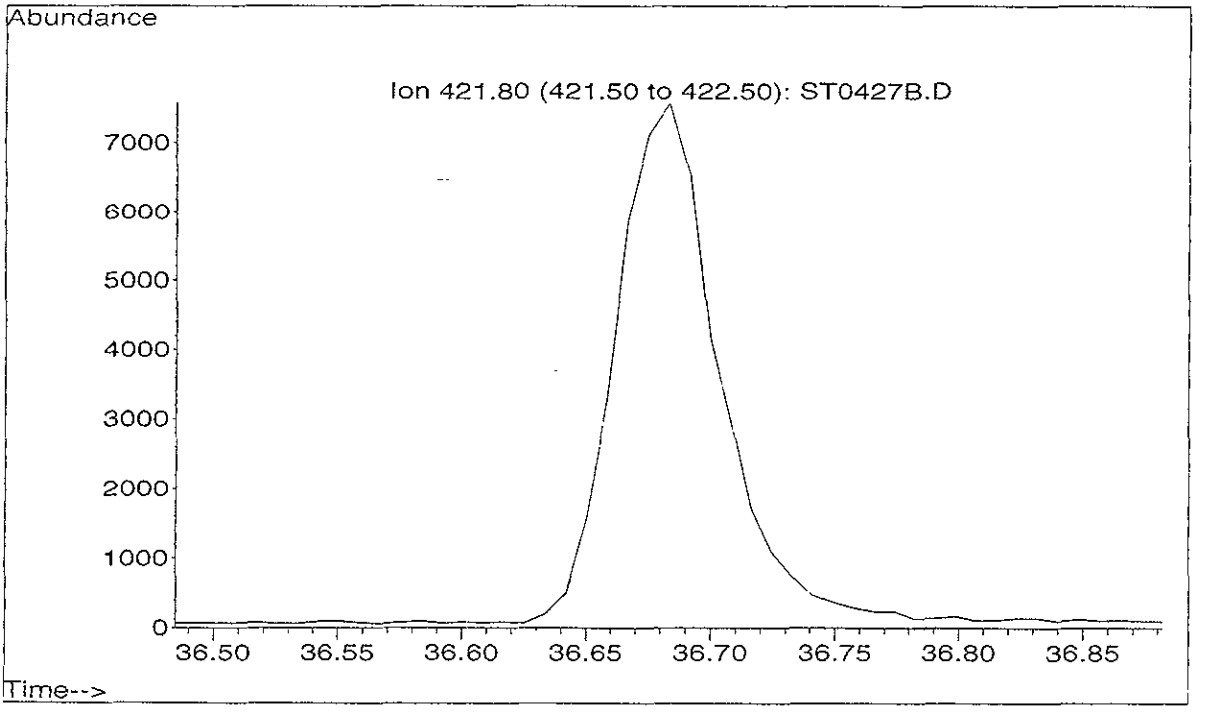




13C-1234678-HpCDF-IS

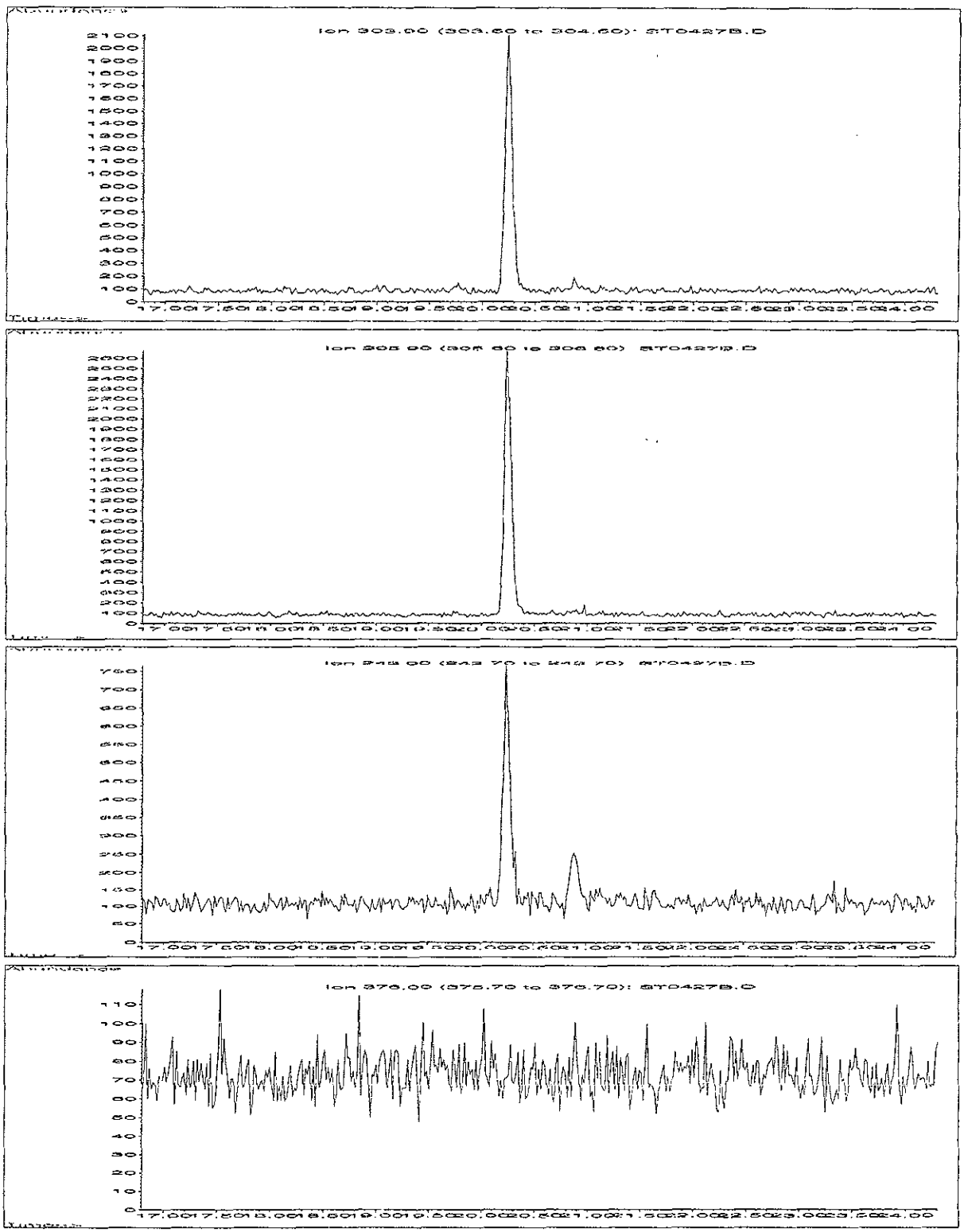
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	36.68		
Target Ion	419.8	Q1 Ion	421.8
Target Response	23141	Q1 Response	21823
Target Response	44964	Ion Ratio	1.06





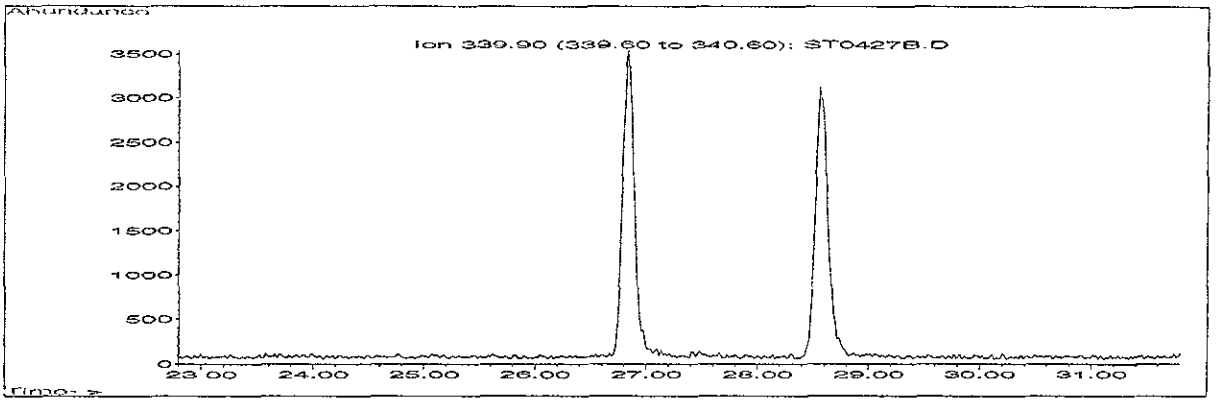
TCDF TOTAL

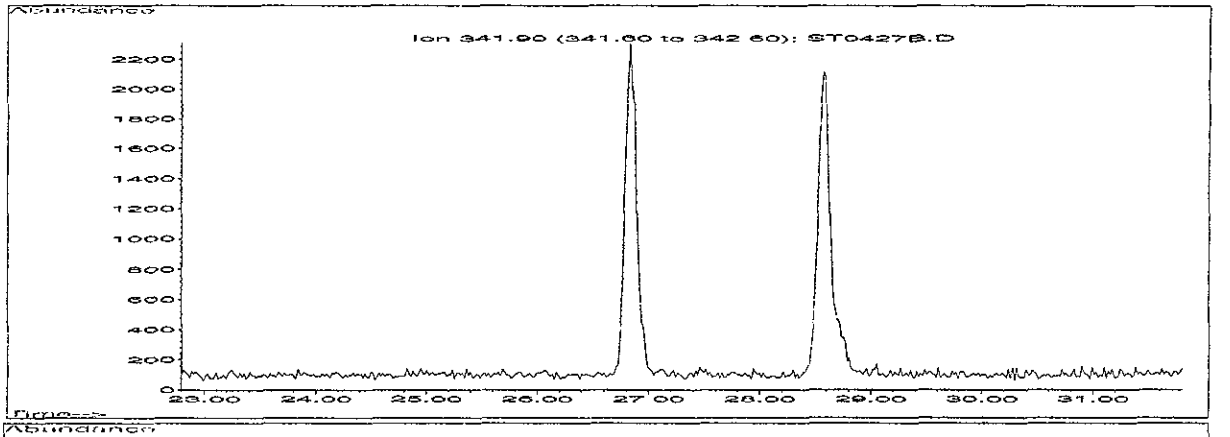
TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30

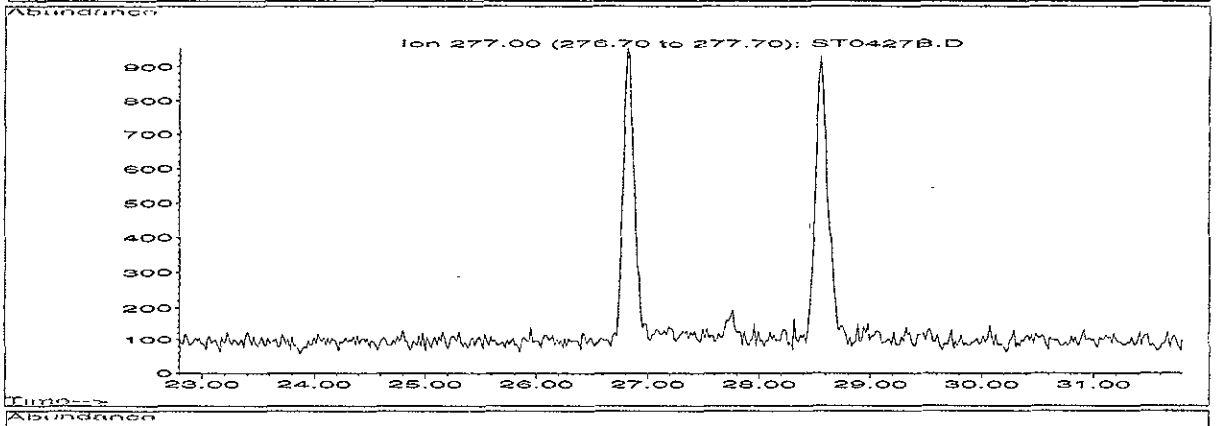


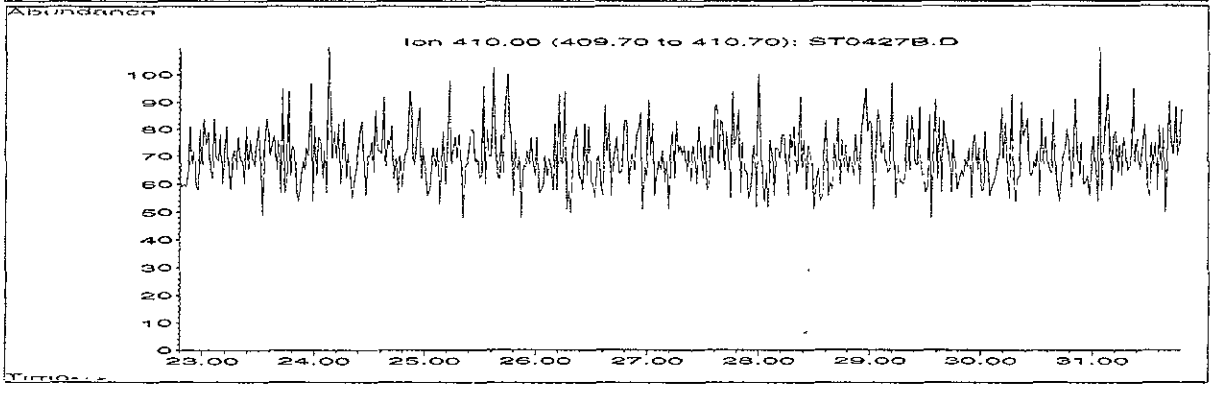
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



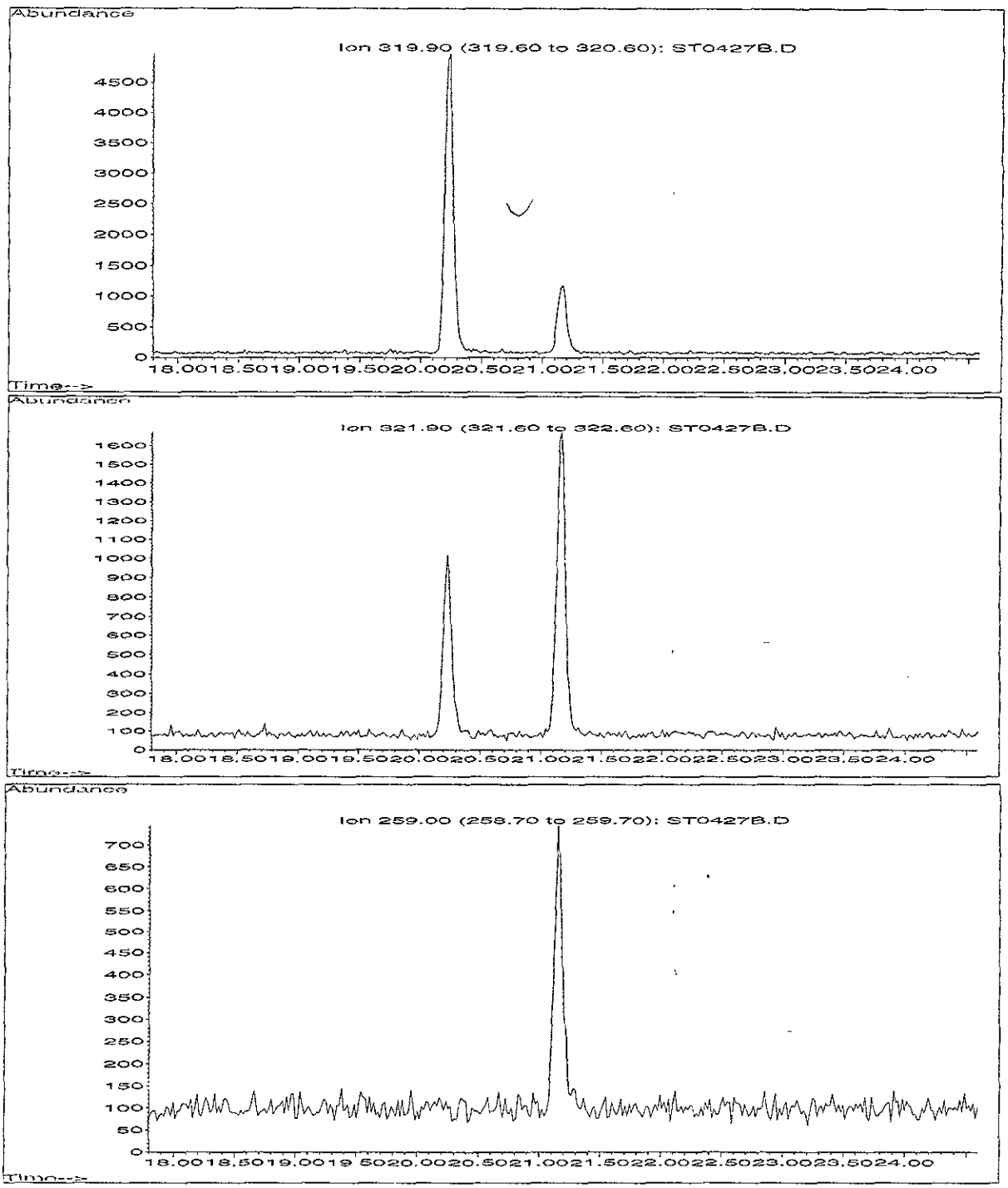






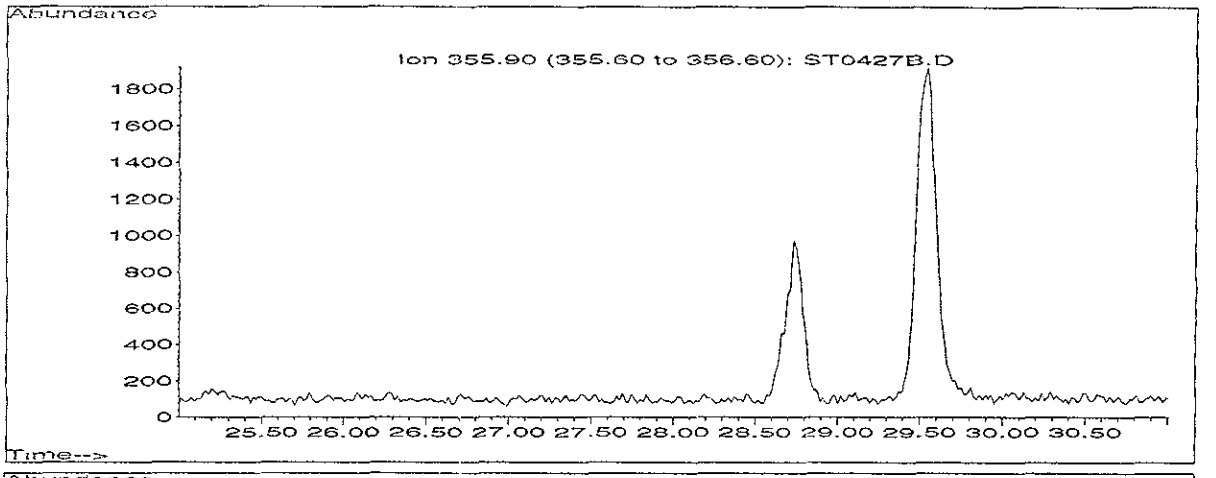
TCDD TOTAL

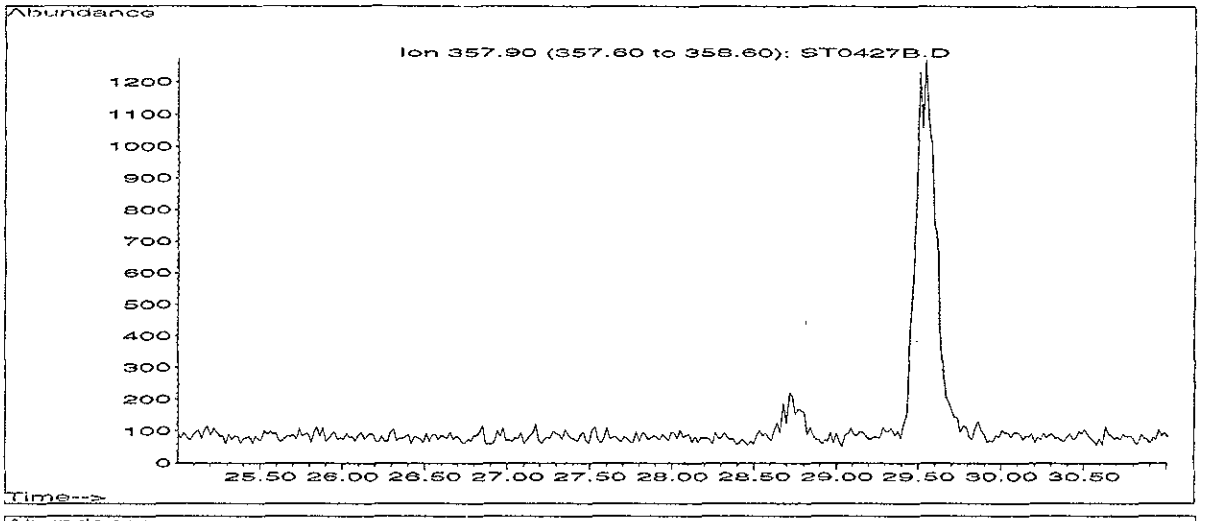
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

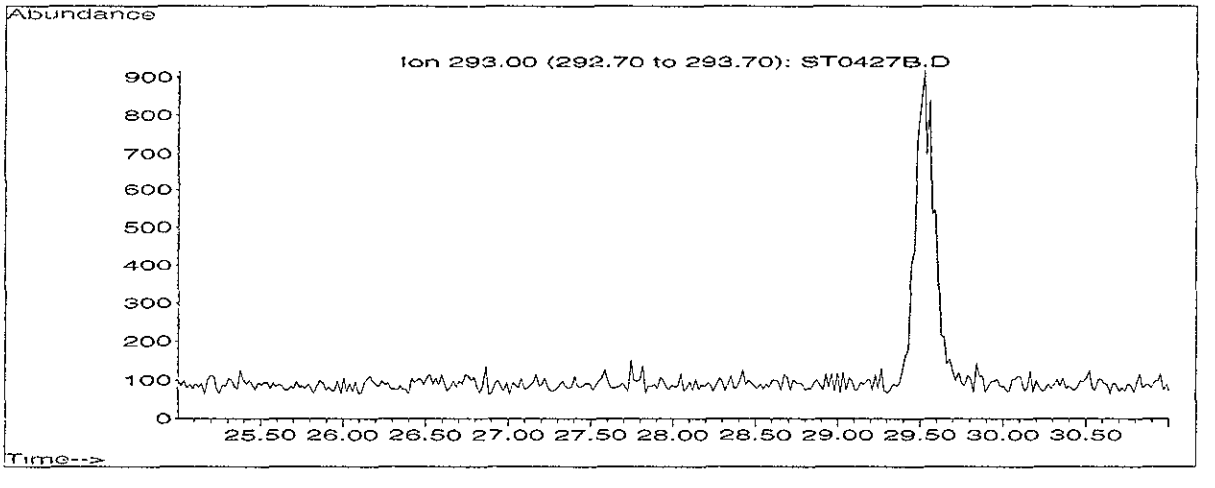


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

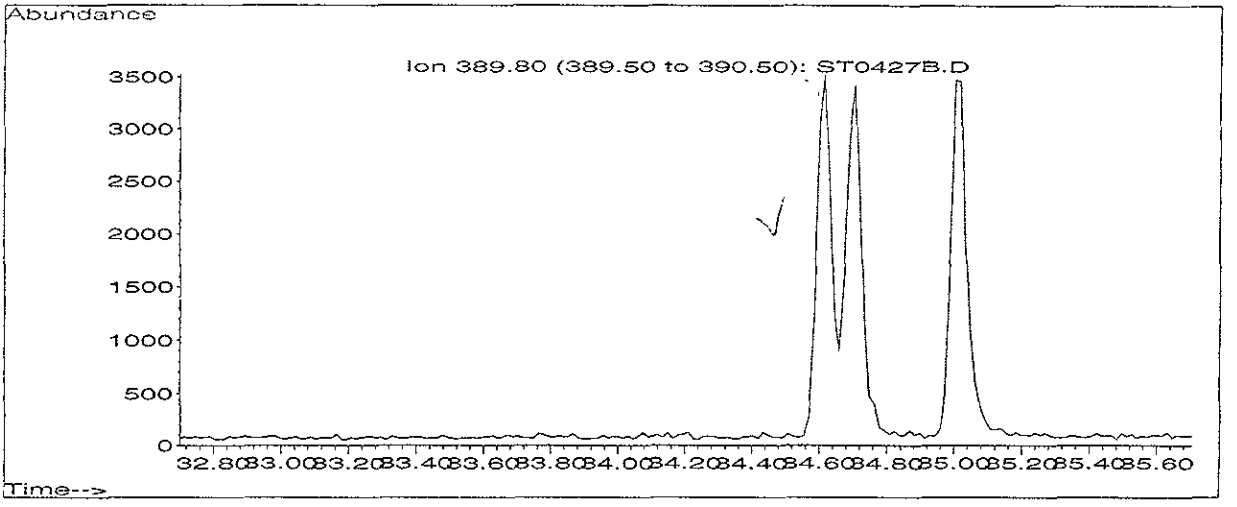


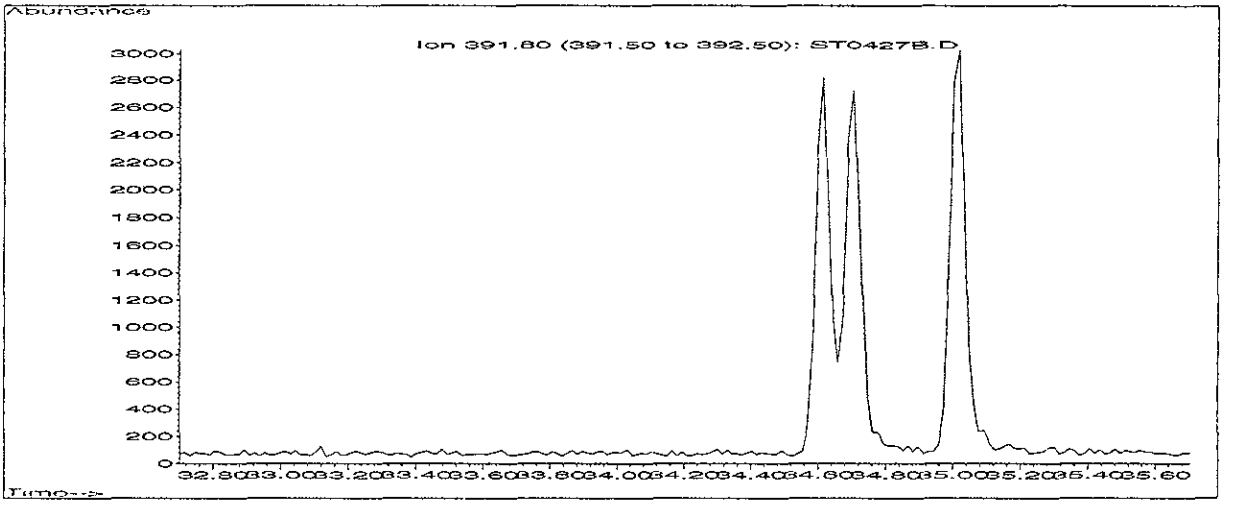


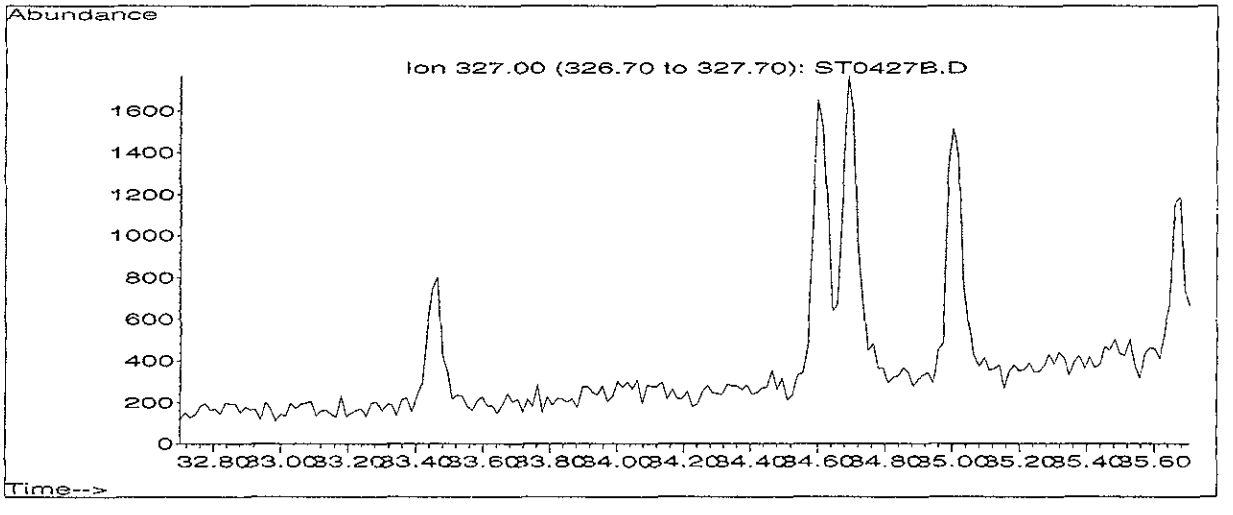


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

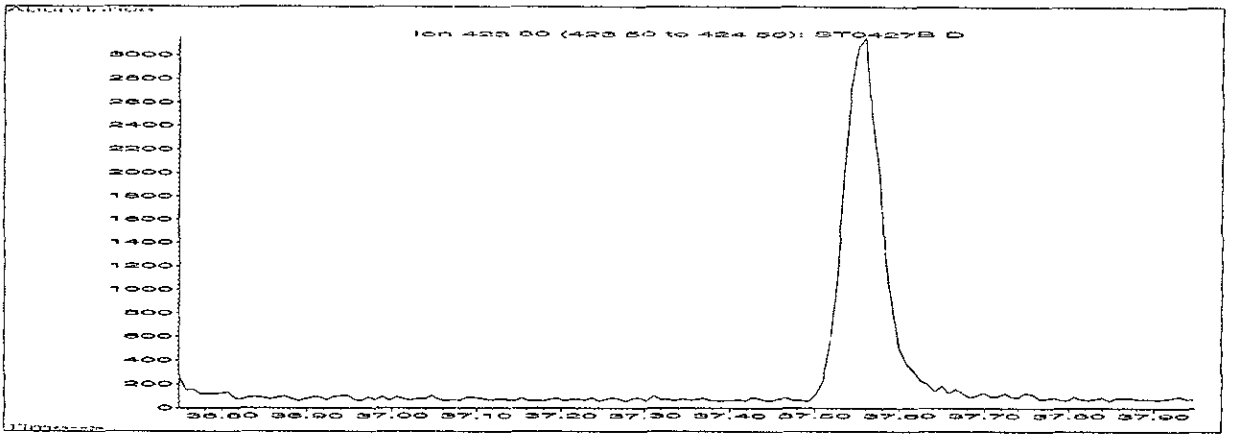


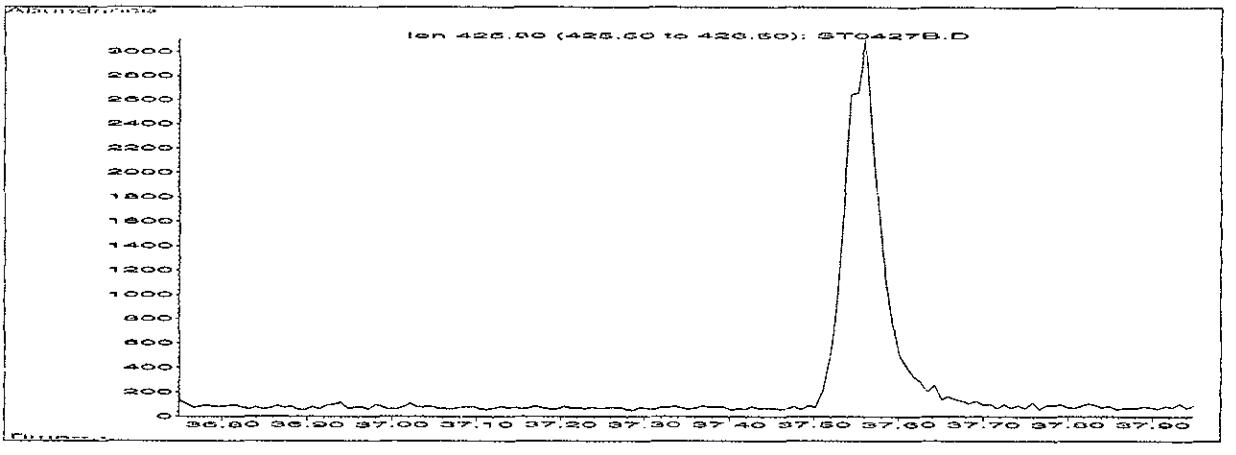


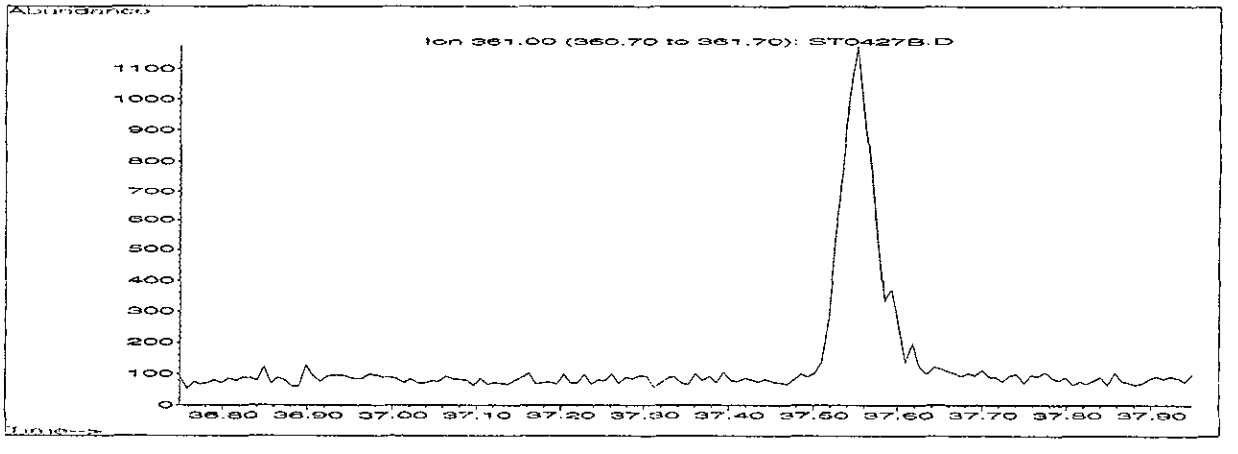


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

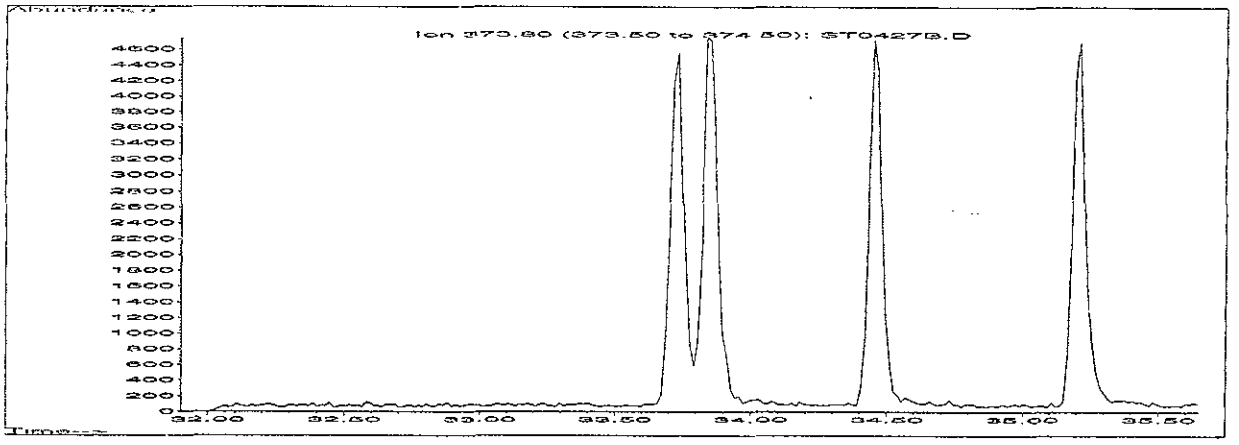


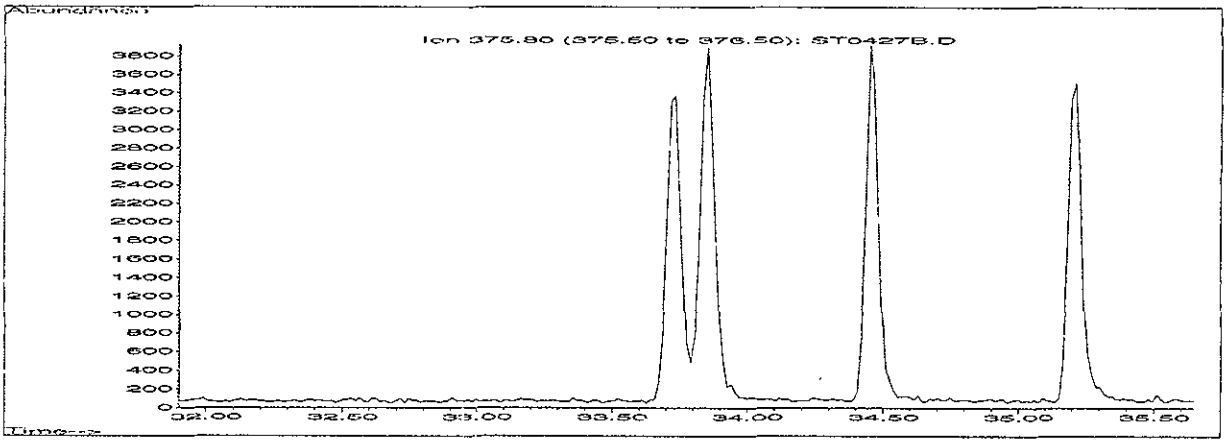


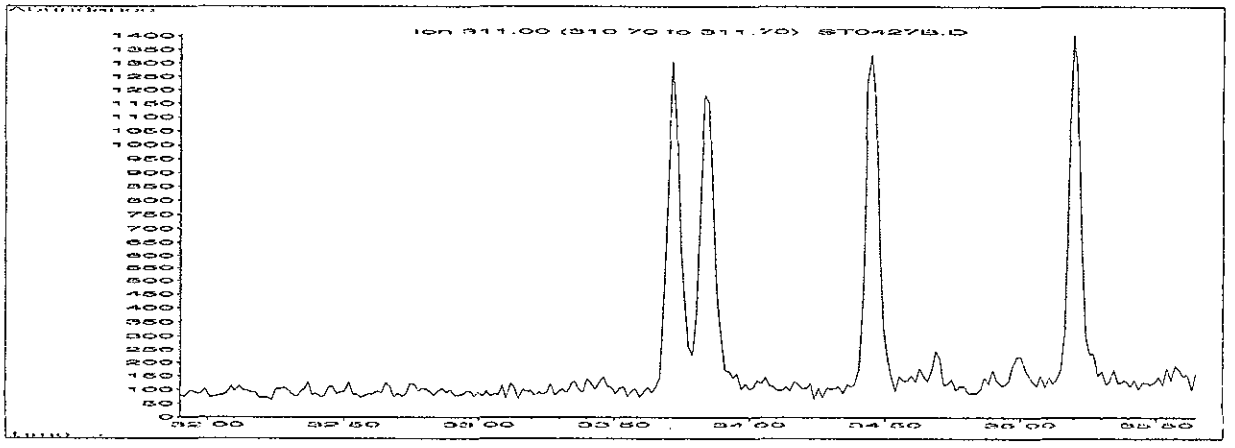


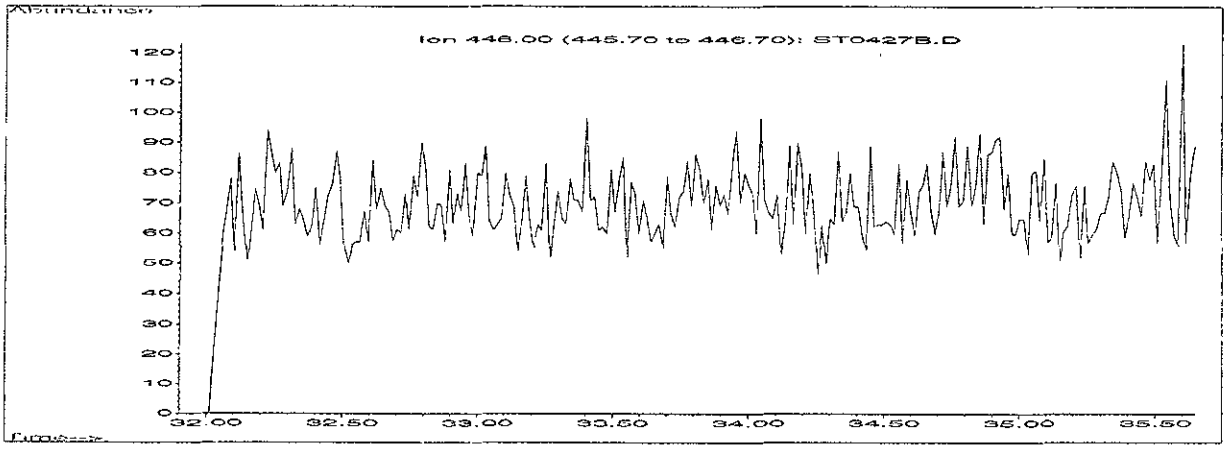
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R.T. Upper Limit	35.65



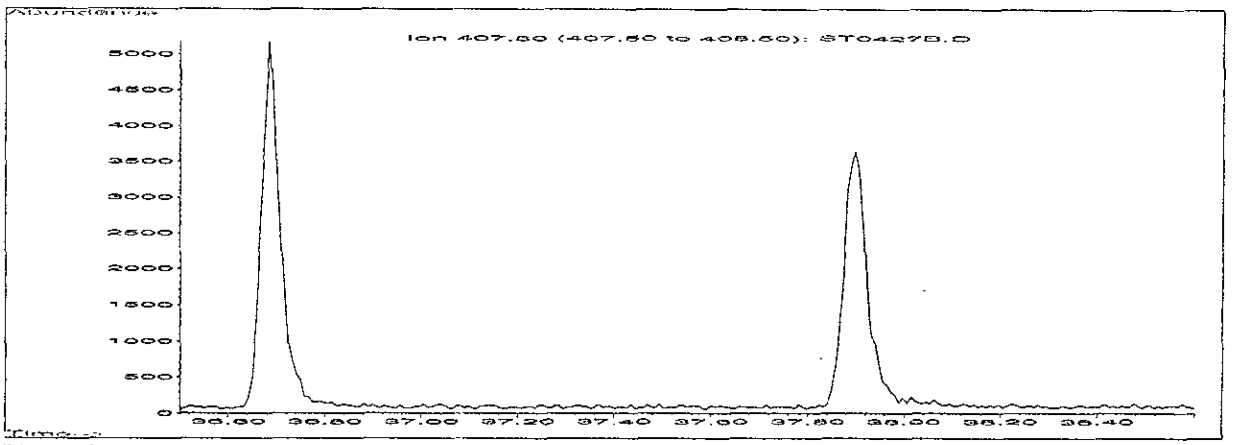


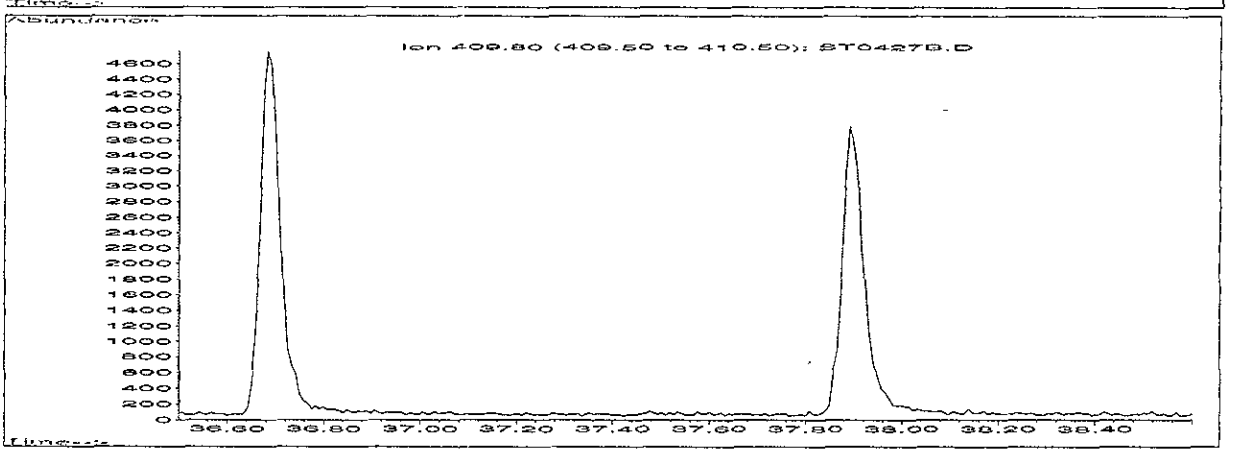


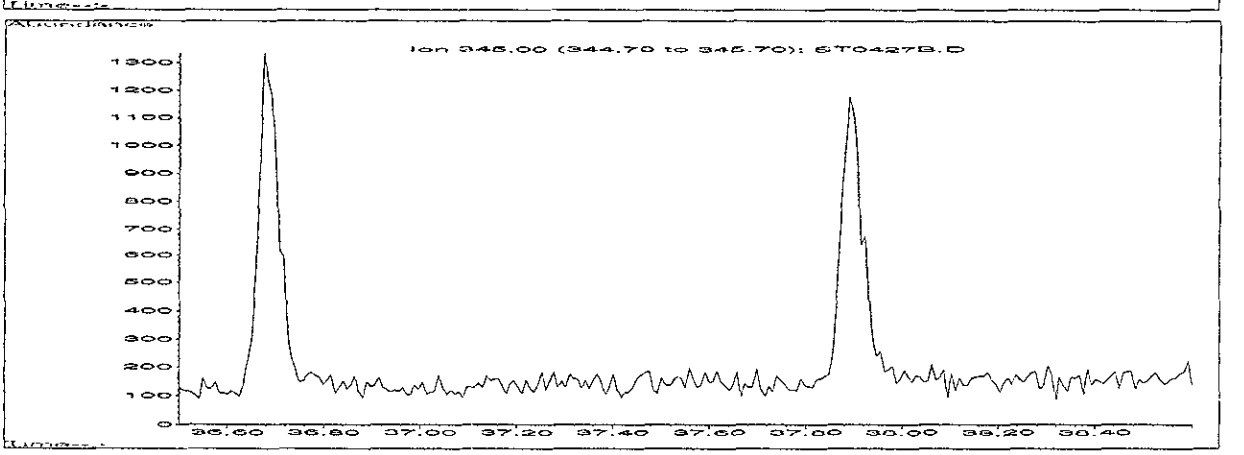


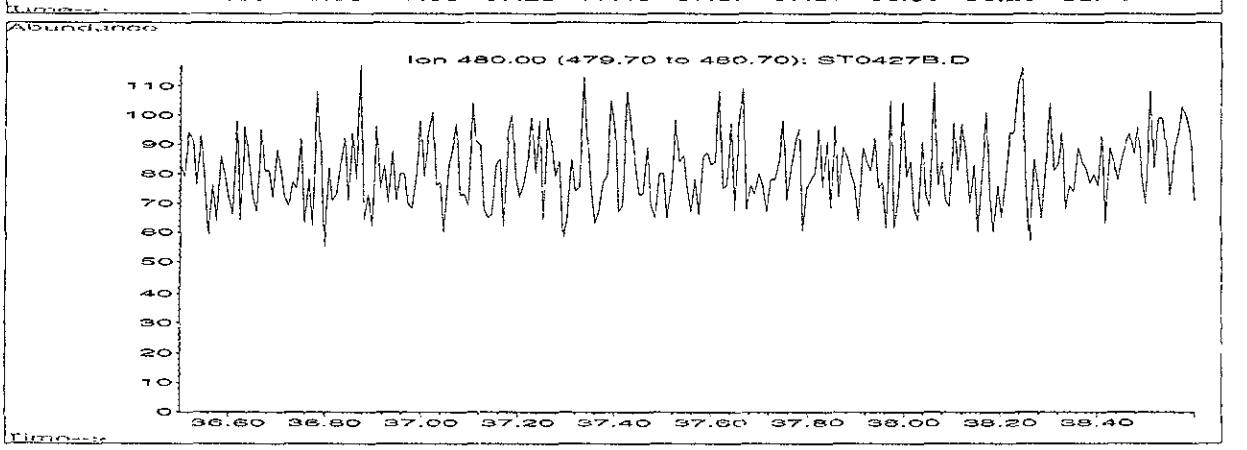
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



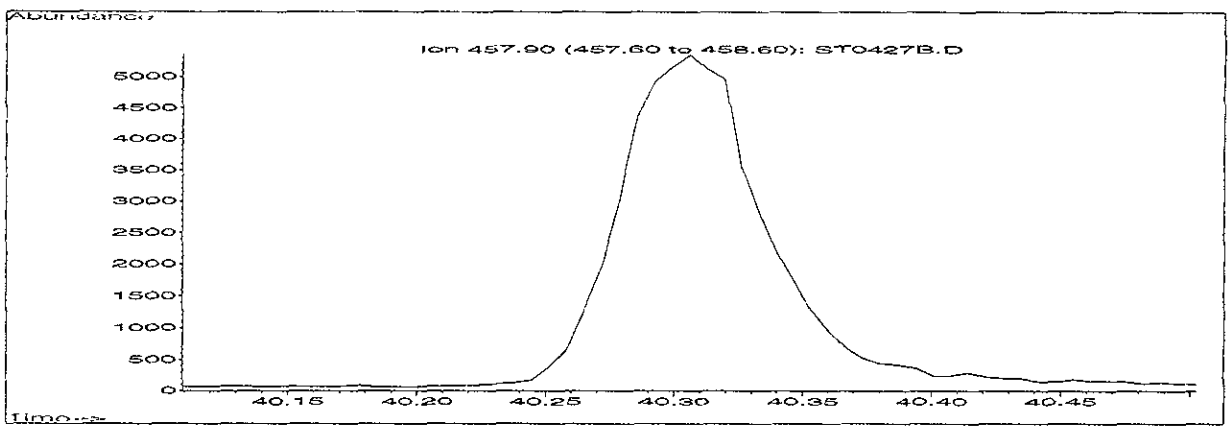


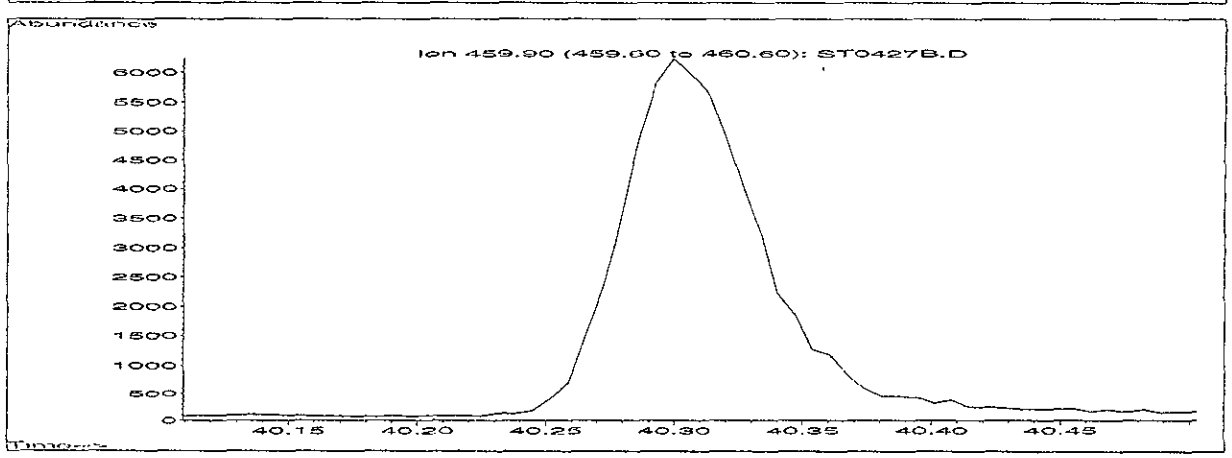


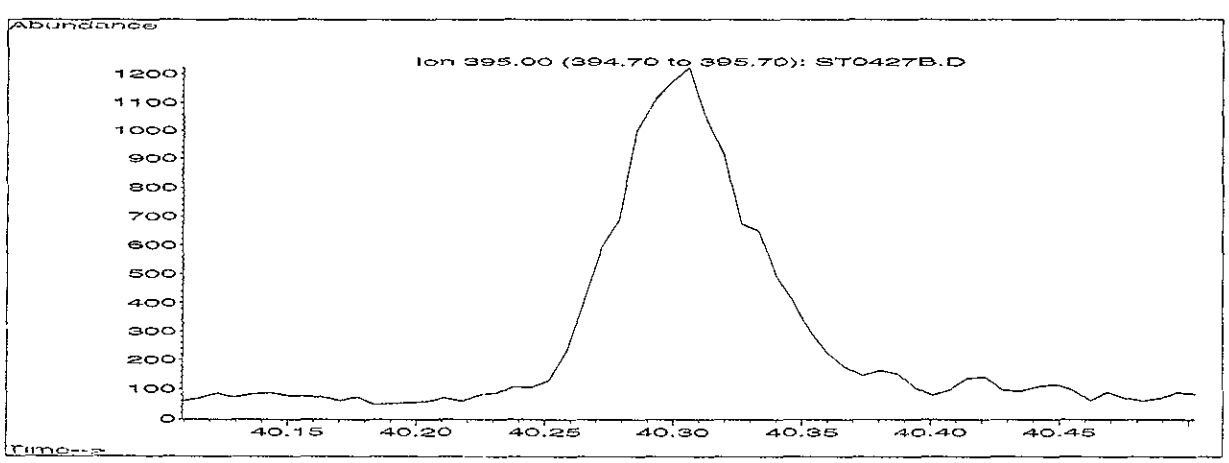


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	40.31		
Target Ion	457.9	Q1 Ion	459.9
Target Response	21335	Q1 Response	23812
Total Response	45147	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	4498		

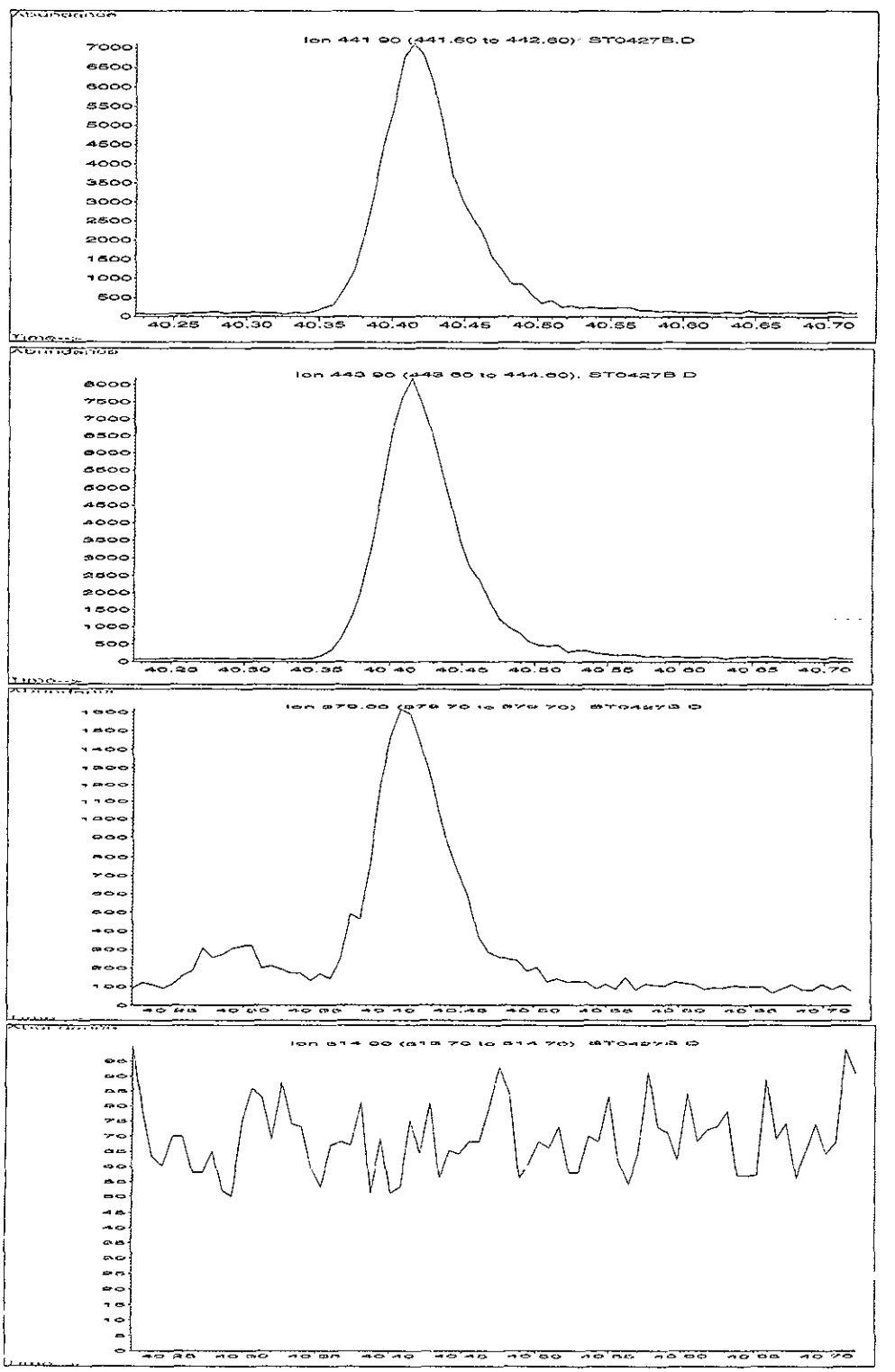






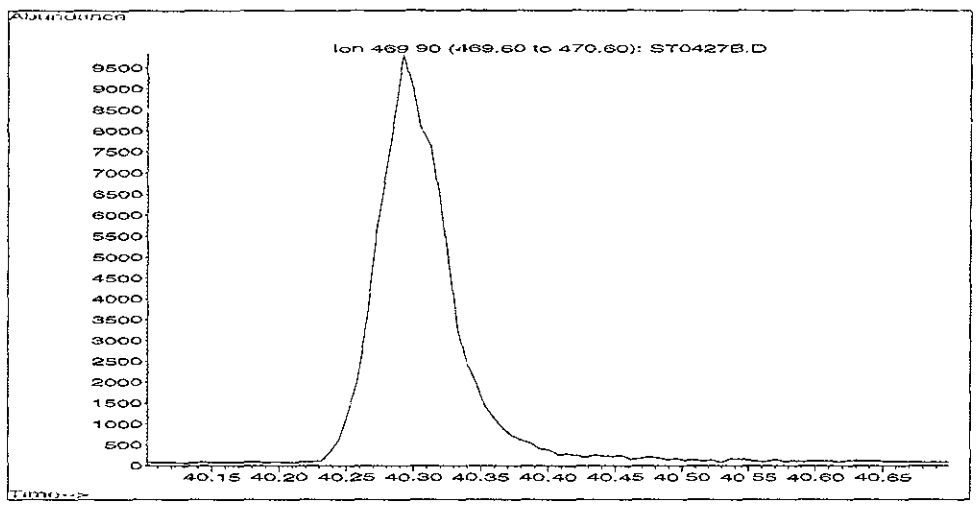
OCDF

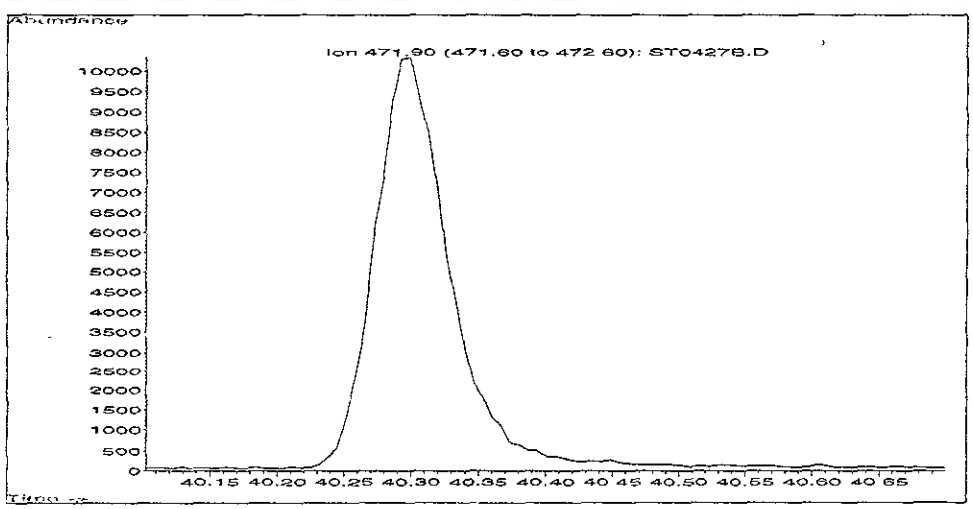
TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	40.41		
Target Ion	441.9	Q1 Ion	443.9
Target Response	27210	Q1 Response	30821
Target Response	58031	Ion Ratio	0.88
Q2 Ion	379	DPE Ion	514
Q2 Response	5718	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	40.29		
Target Ion	469.9	Q1 Ion	471.9
Target Response	35390	Q1 Response	39722
Total response	75112	Ratio	0.89





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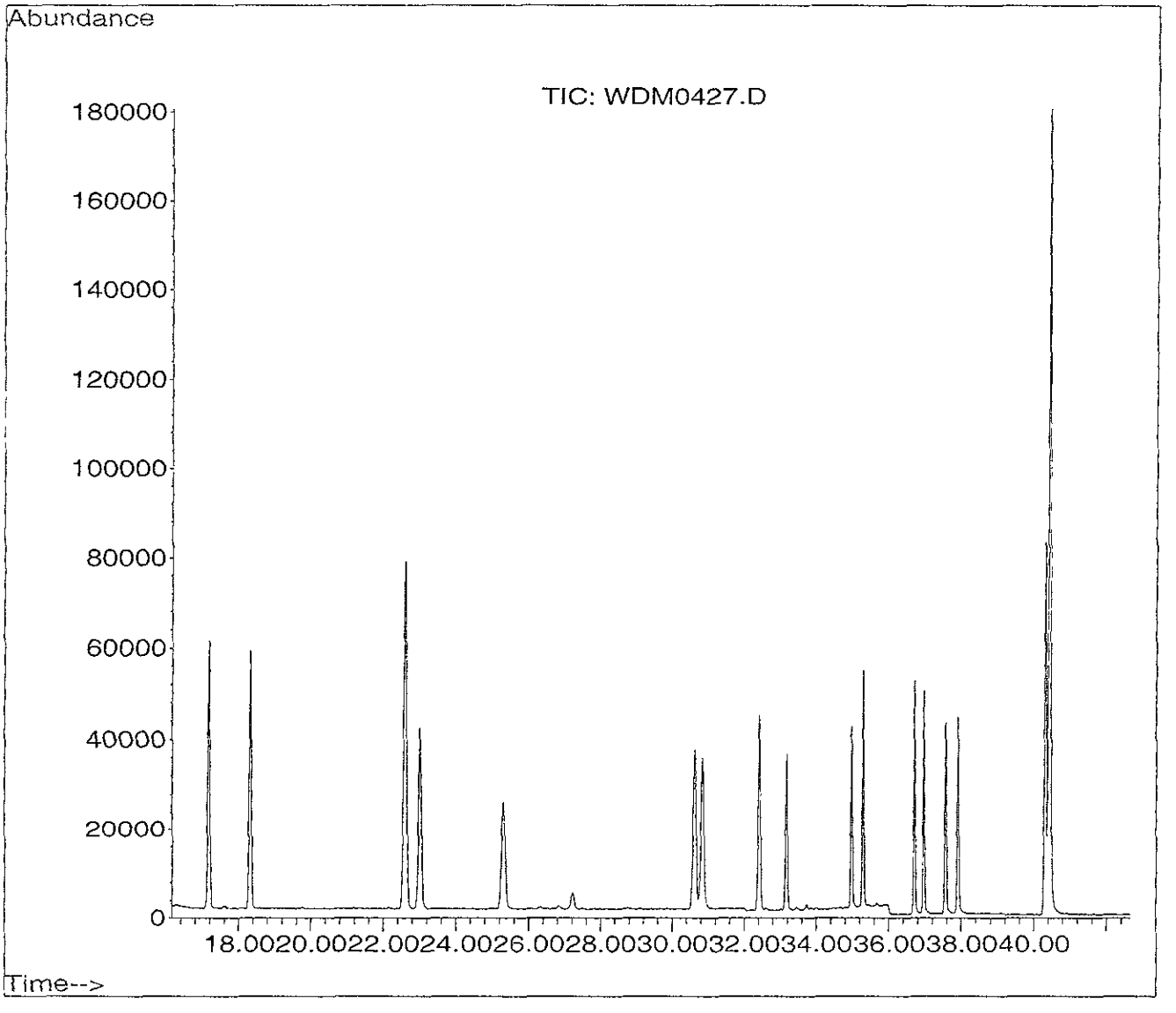
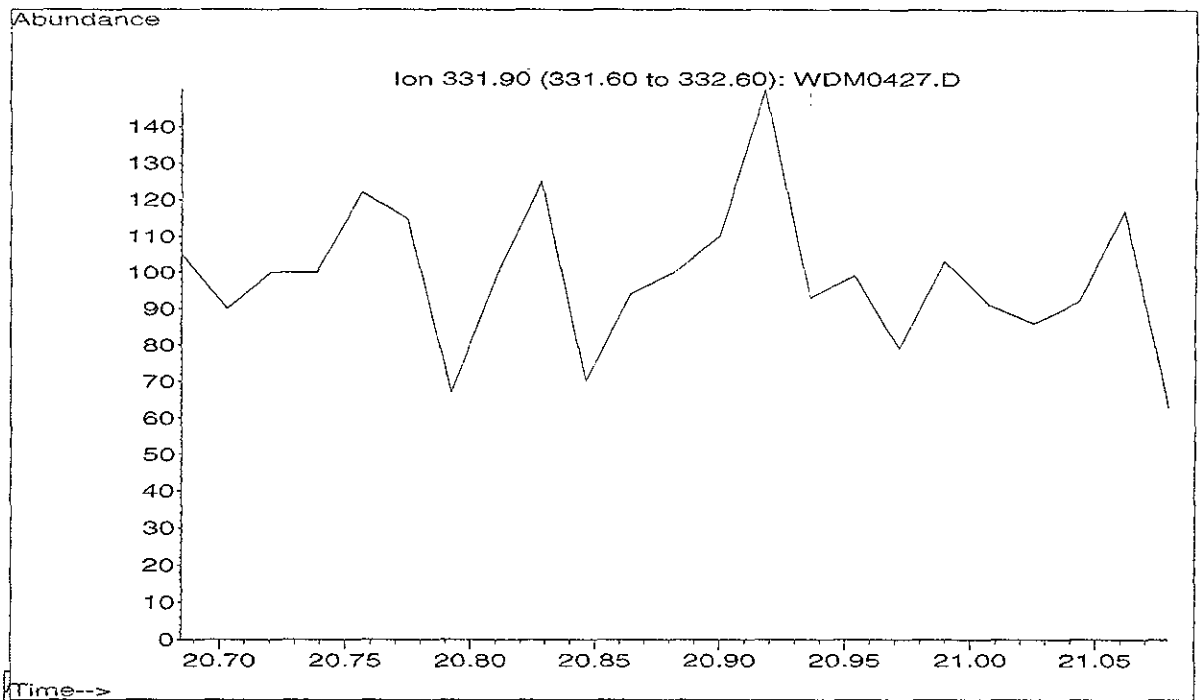
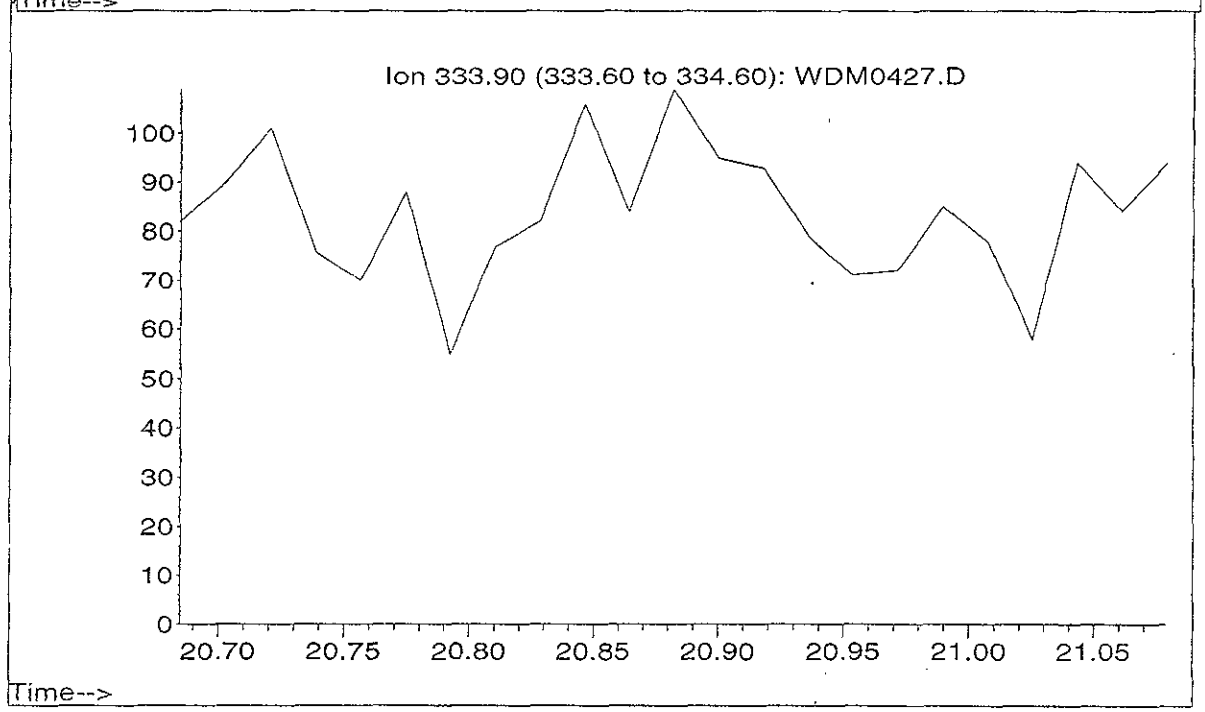
Operator	MEO
Date Acquired	4/27/2009 10:17
Acq. Method File	TOKAS
Sample Name	WDM 3136-37
Misc Info	WINDOW DEFINING MIX
Vial Number	96
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



13C-1234-TCDD

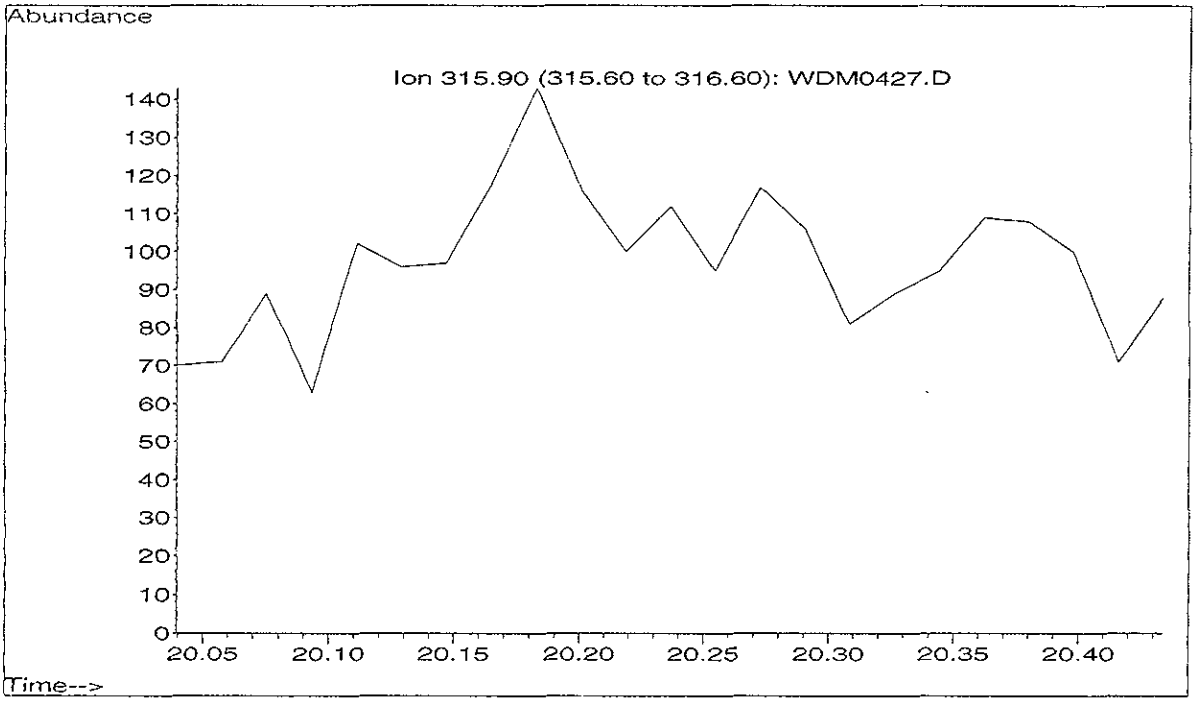
TS R.T. Lower Limit	20.68		
TS R.T. Upper Limit	21.08		
Ret Time	0.00		
Target Ion	331.9	Q1 Ion	333.9
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!

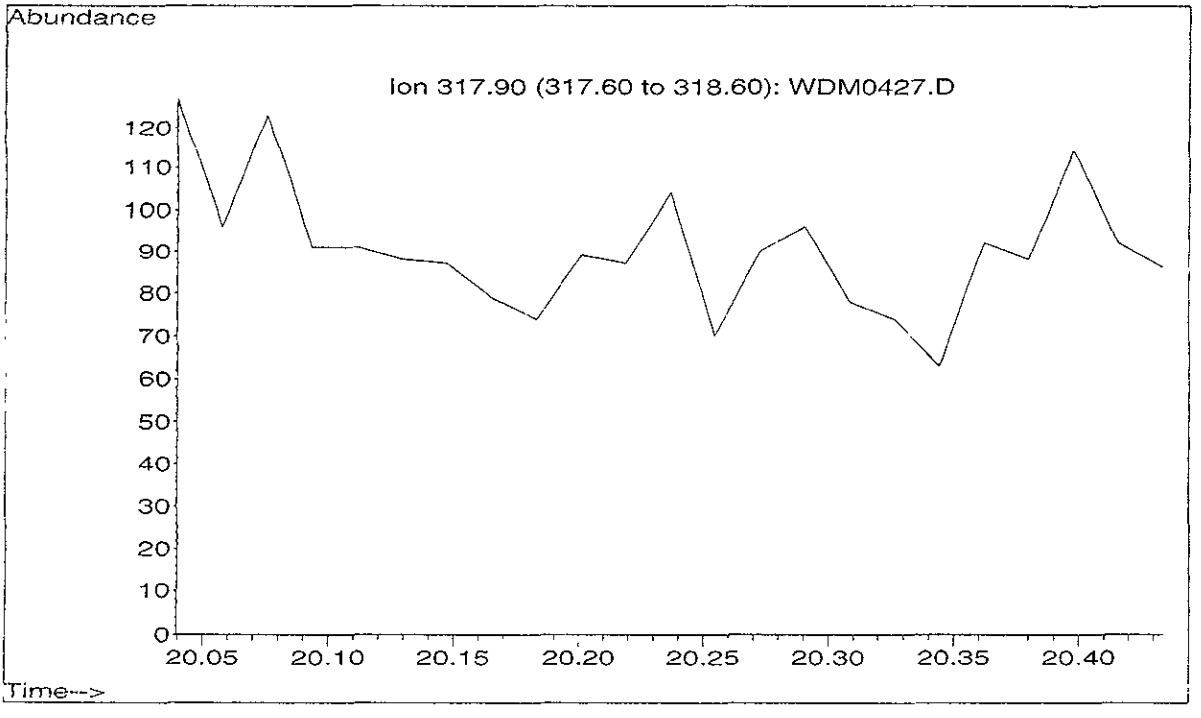




13C-2378-TCDF-IS

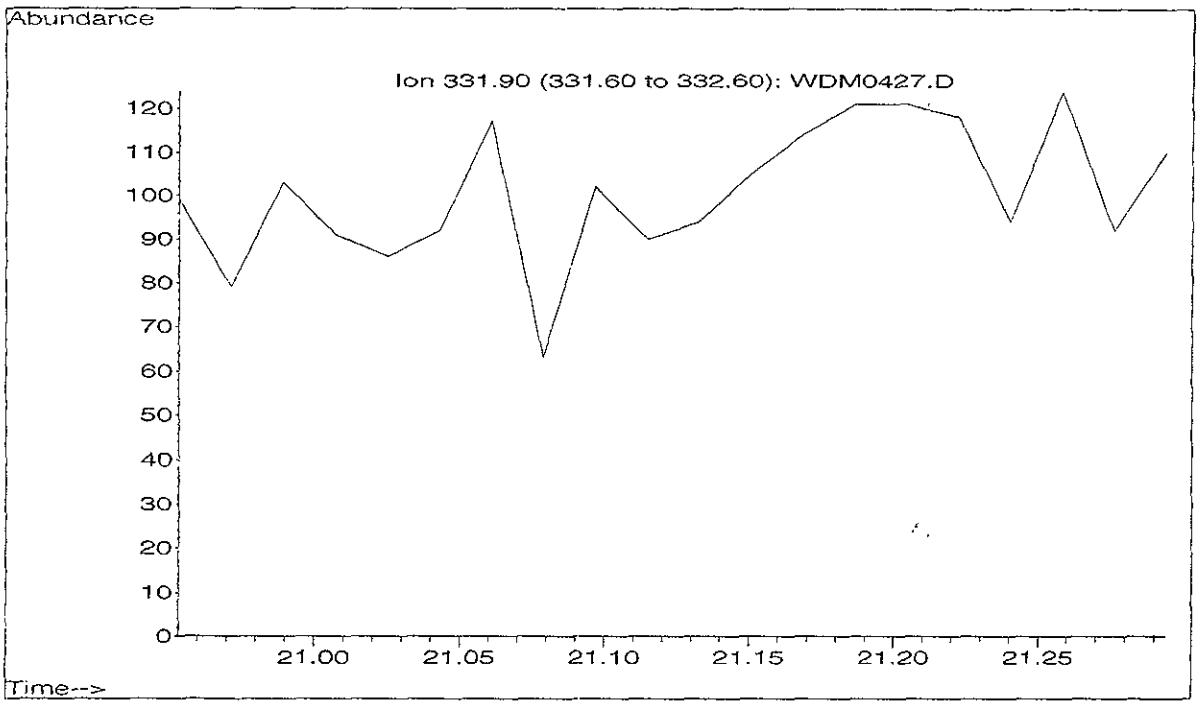
TS R.T. Lower Limit	20.04		
TS R.T. Upper Limit	20.44		
Ret Time	0.00		
Target Ion	315.9	Q1 Ion	317.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!

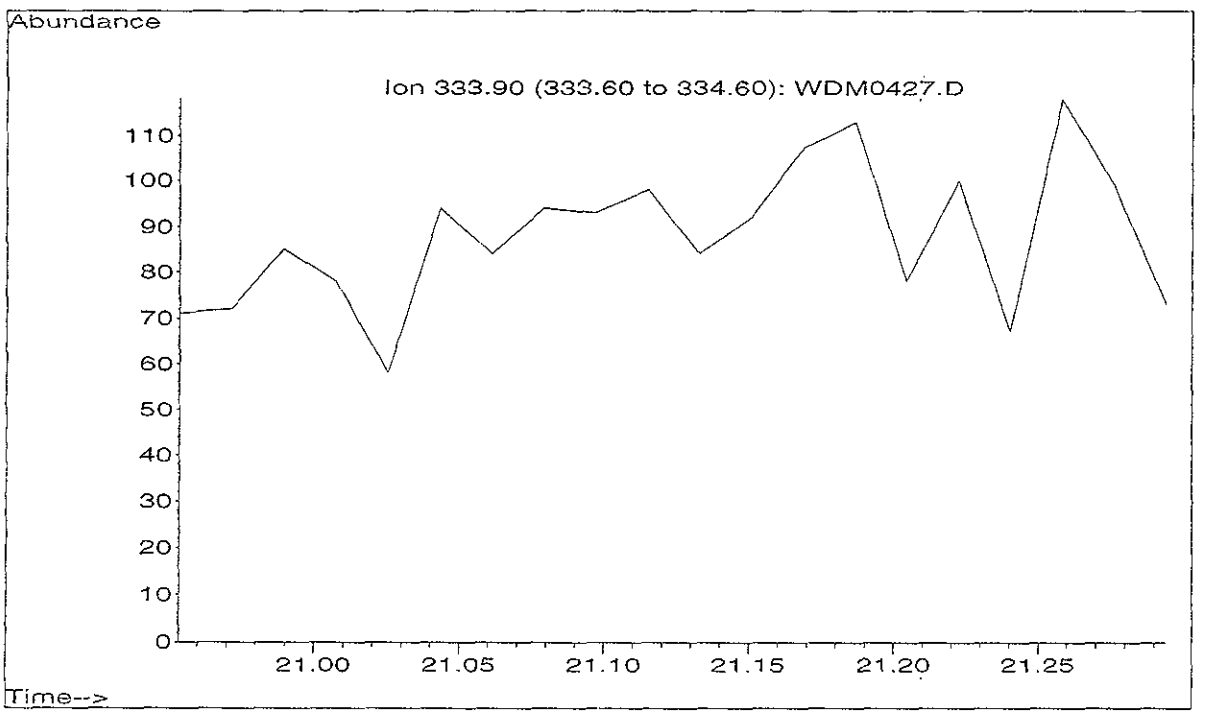




13C-2378-TCDD-IS

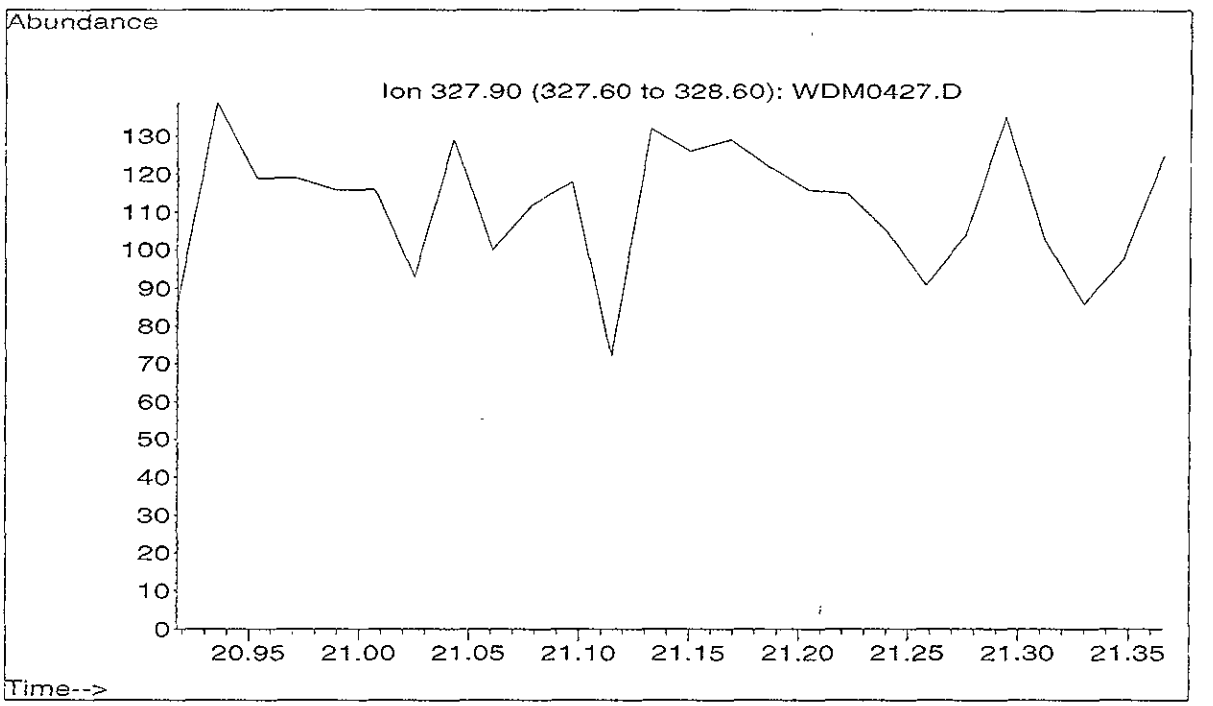
TS R.T. Lower Limit	20.95		
TS R.T. Upper Limit	21.30		
Ret Time	0.00		
Target Ion	331.9	Q1 Ion	333.9
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!

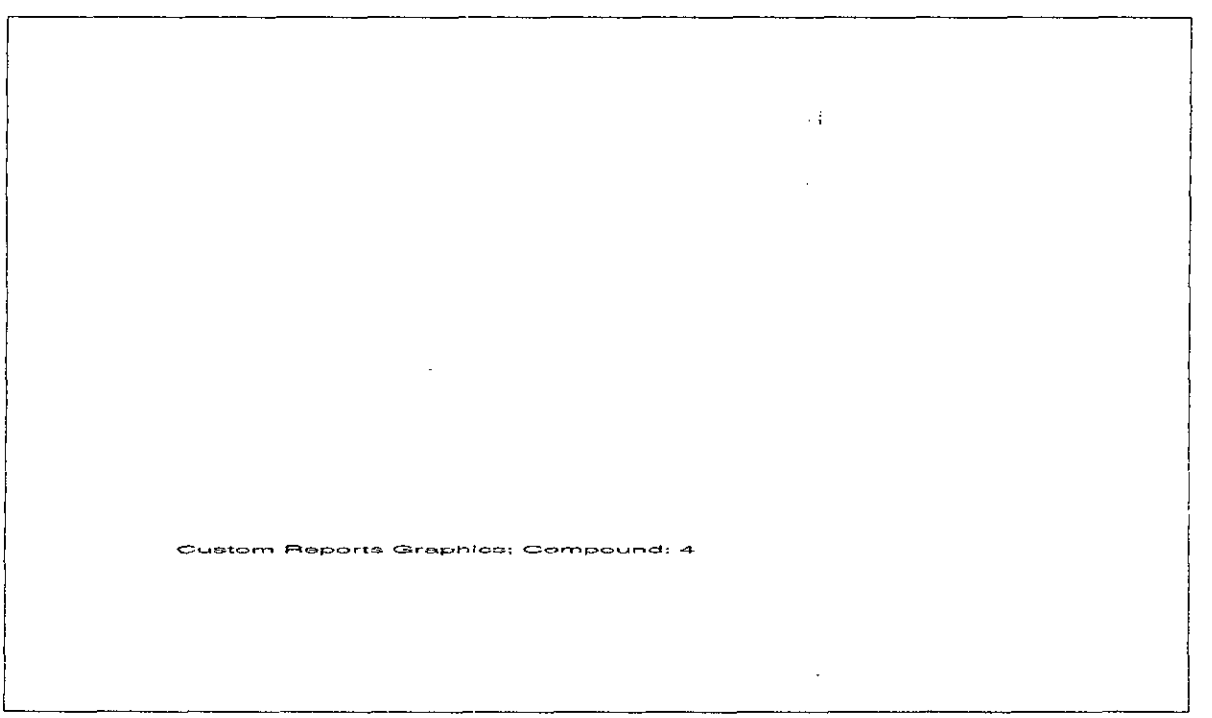




37Cl-2378-TCDD

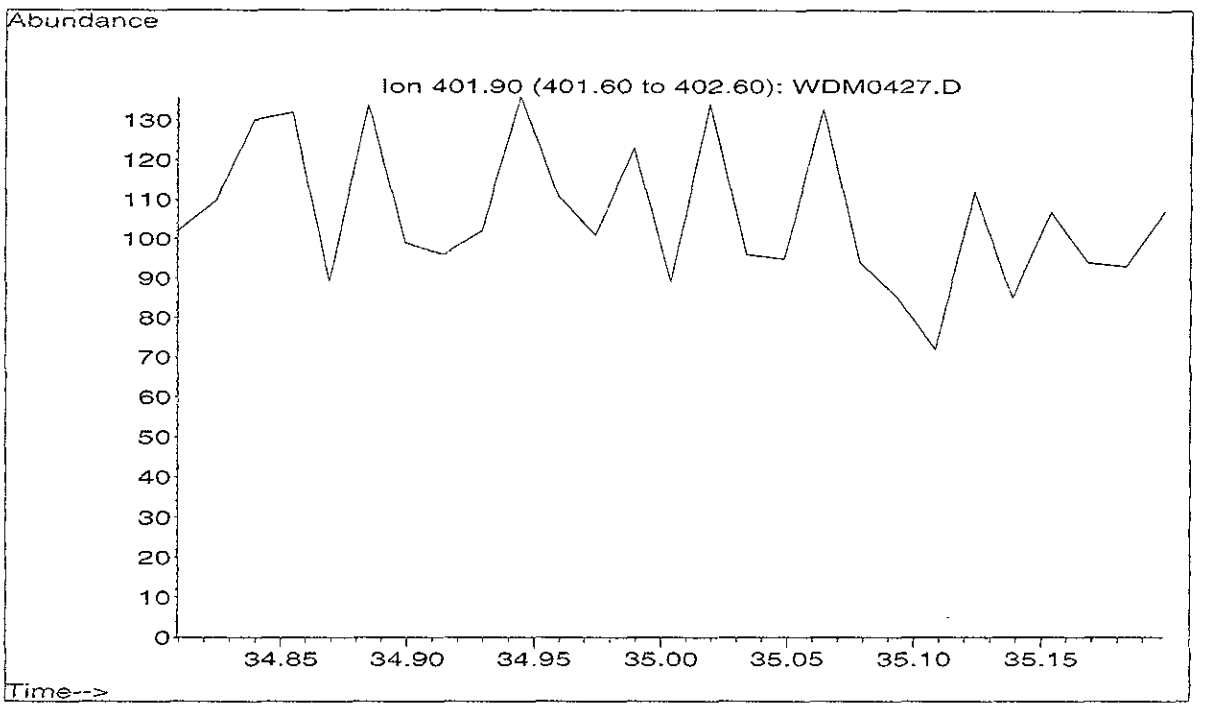
TS R.T. Lower Limit	20.92		
TS R.T. Upper Limit	21.37		
Ret Time	0.00		
Target Ion	327.9	Q1 Ion	0
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!

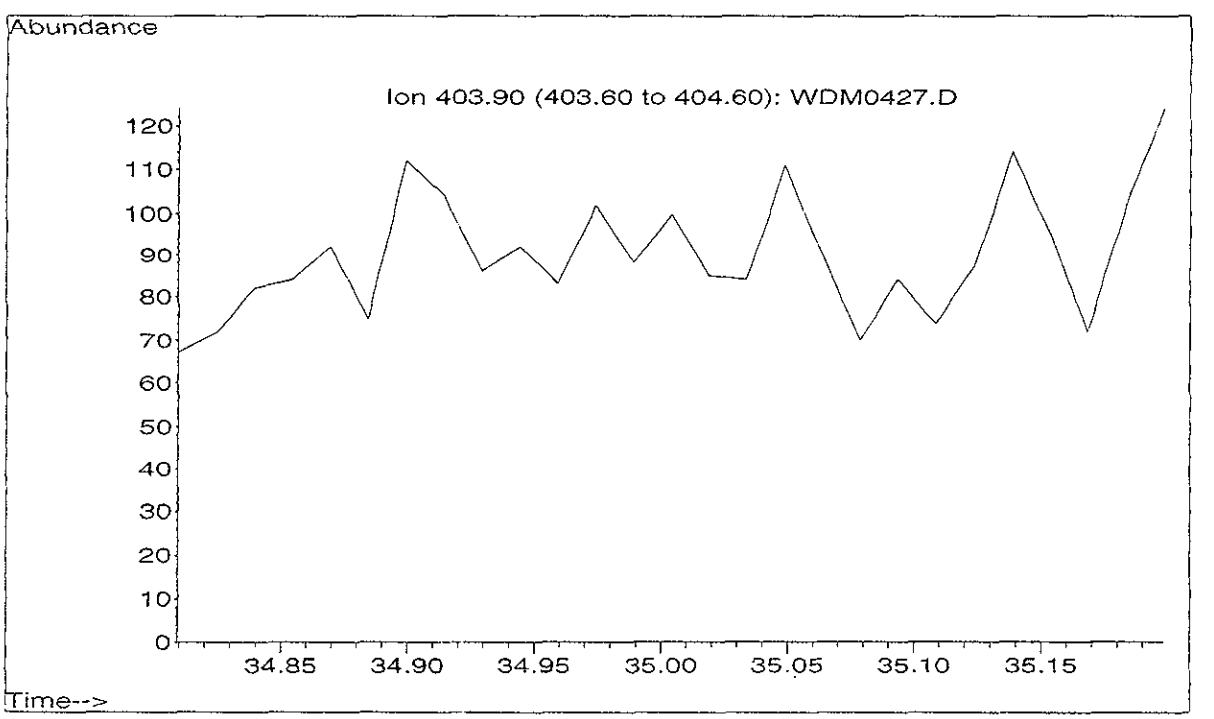




13C-123789-HxCDD

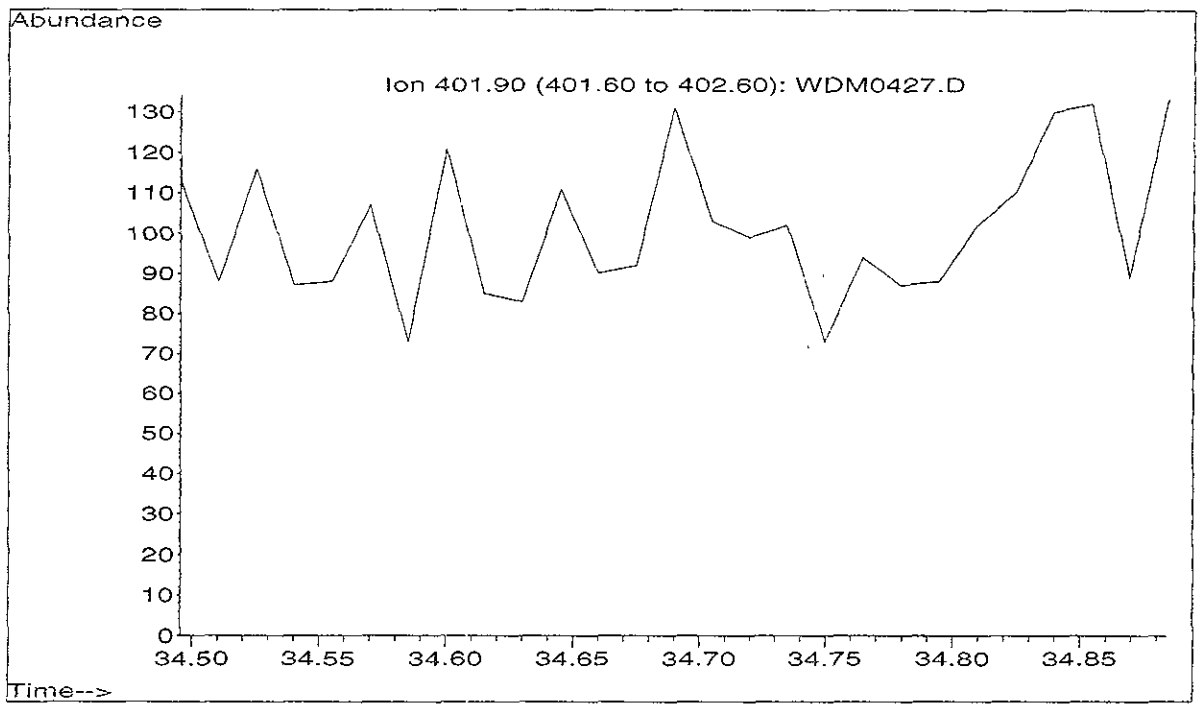
TS R.T. Lower Limit	34.80		
TS R.T. Upper Limit	35.20		
Ret Time	0.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!

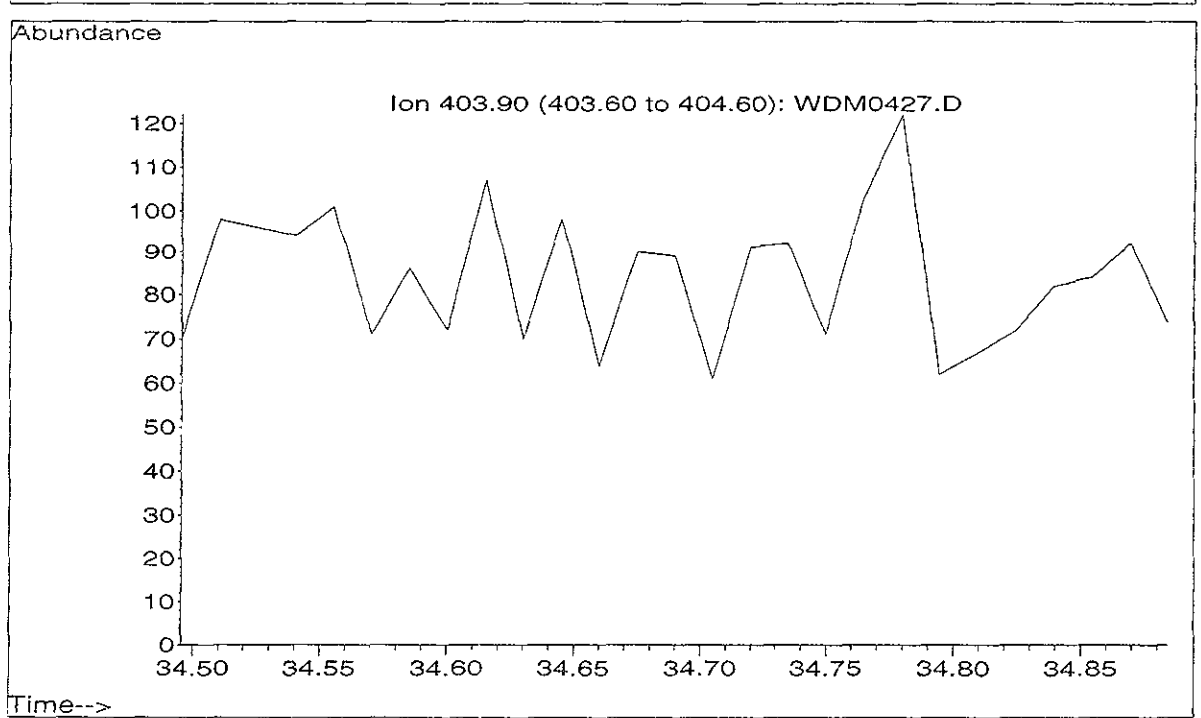




13C-123678-HxCDD-IS

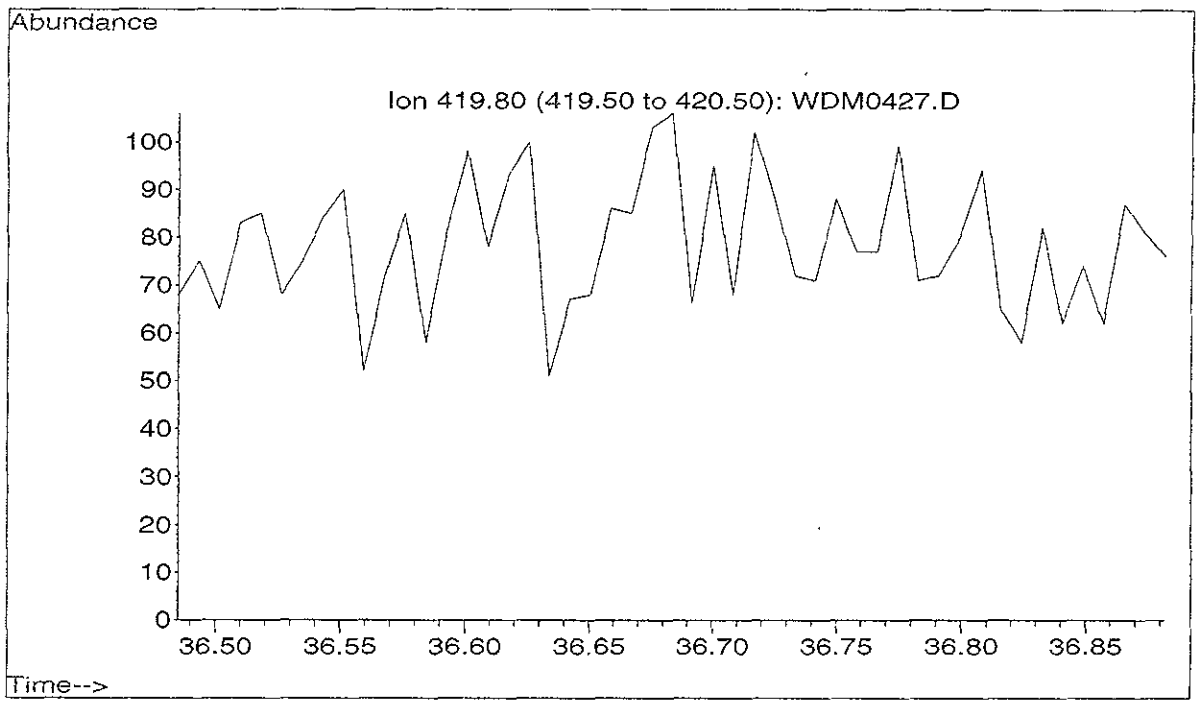
TS R.T. Lower Limit	34.49		
TS R.T. Upper Limit	34.89		
Ret Time	0.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!

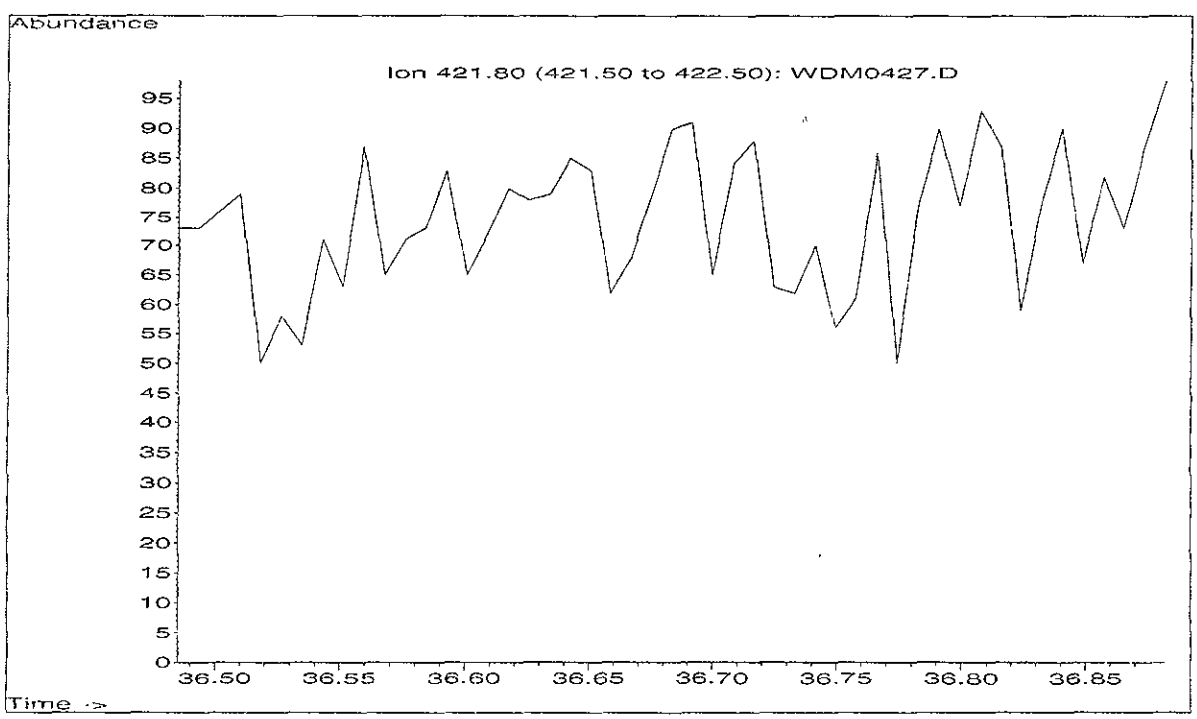




13C-1234678-HpCDF-IS

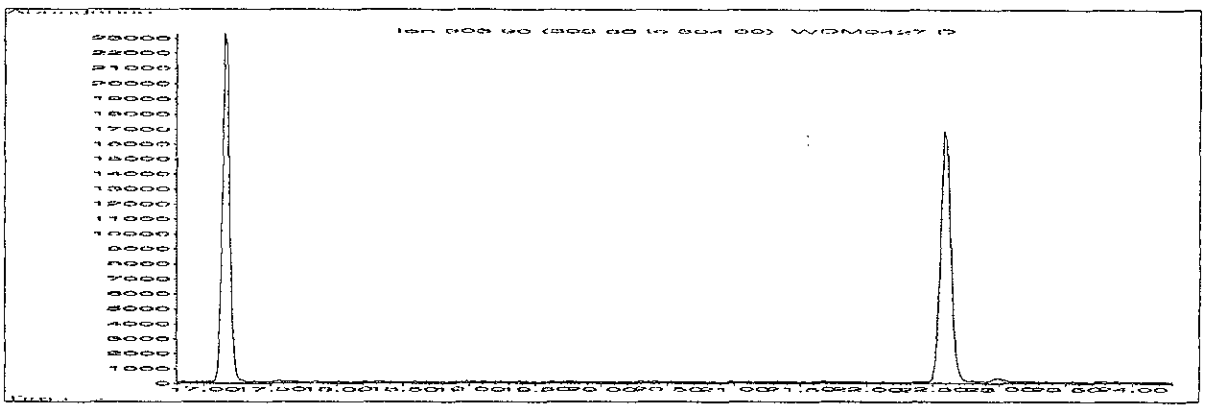
TS R.T. Lower Limit	36.48		
TS R.T. Upper Limit	36.88		
Ret Time	0.00		
Target Ion	419.8	Q1 Ion	421.8
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!

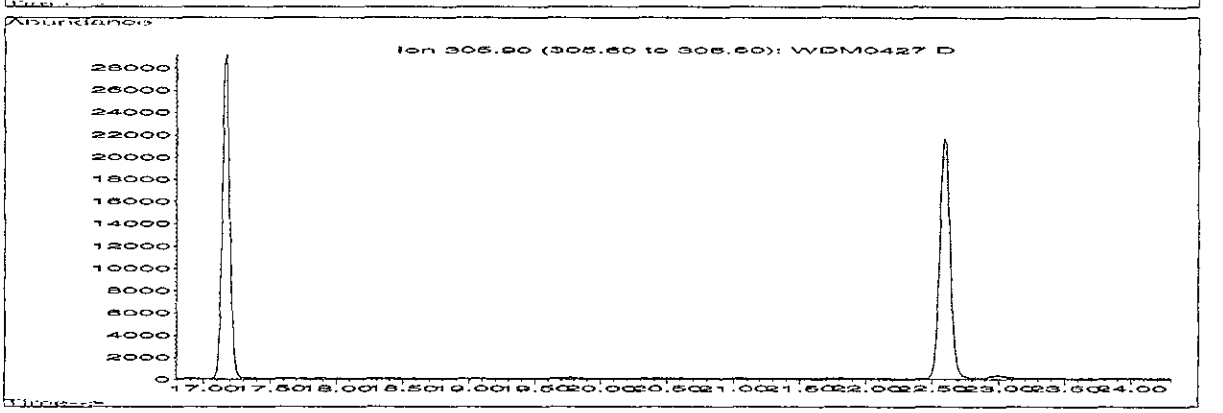


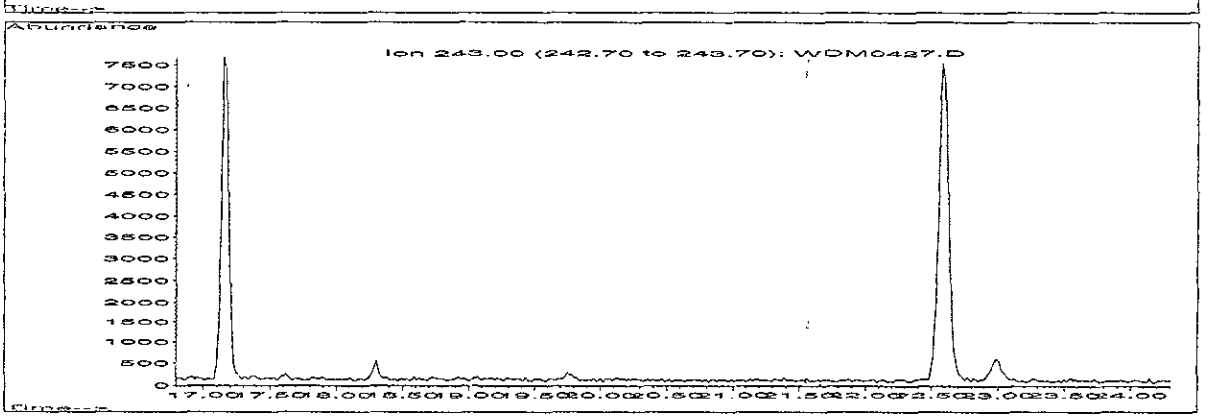


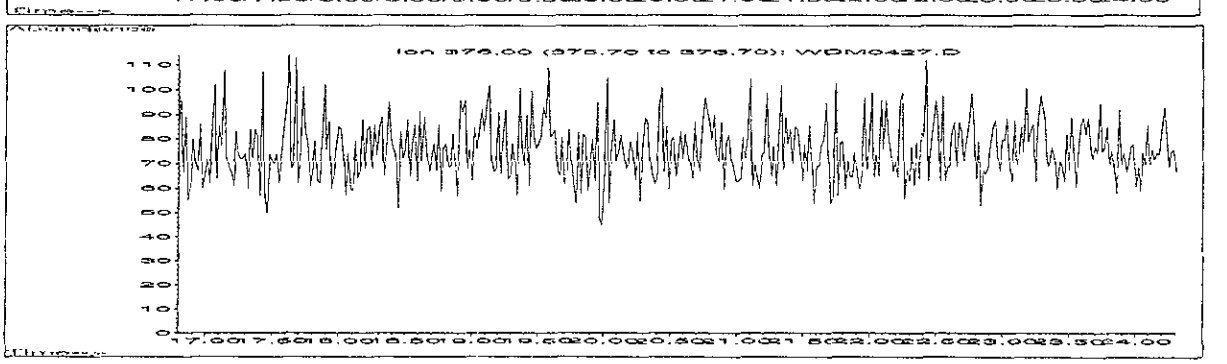
TCDF TOTAL

TS R.T. Lower Limit	16.80
TS R.T. Upper Limit	24.30



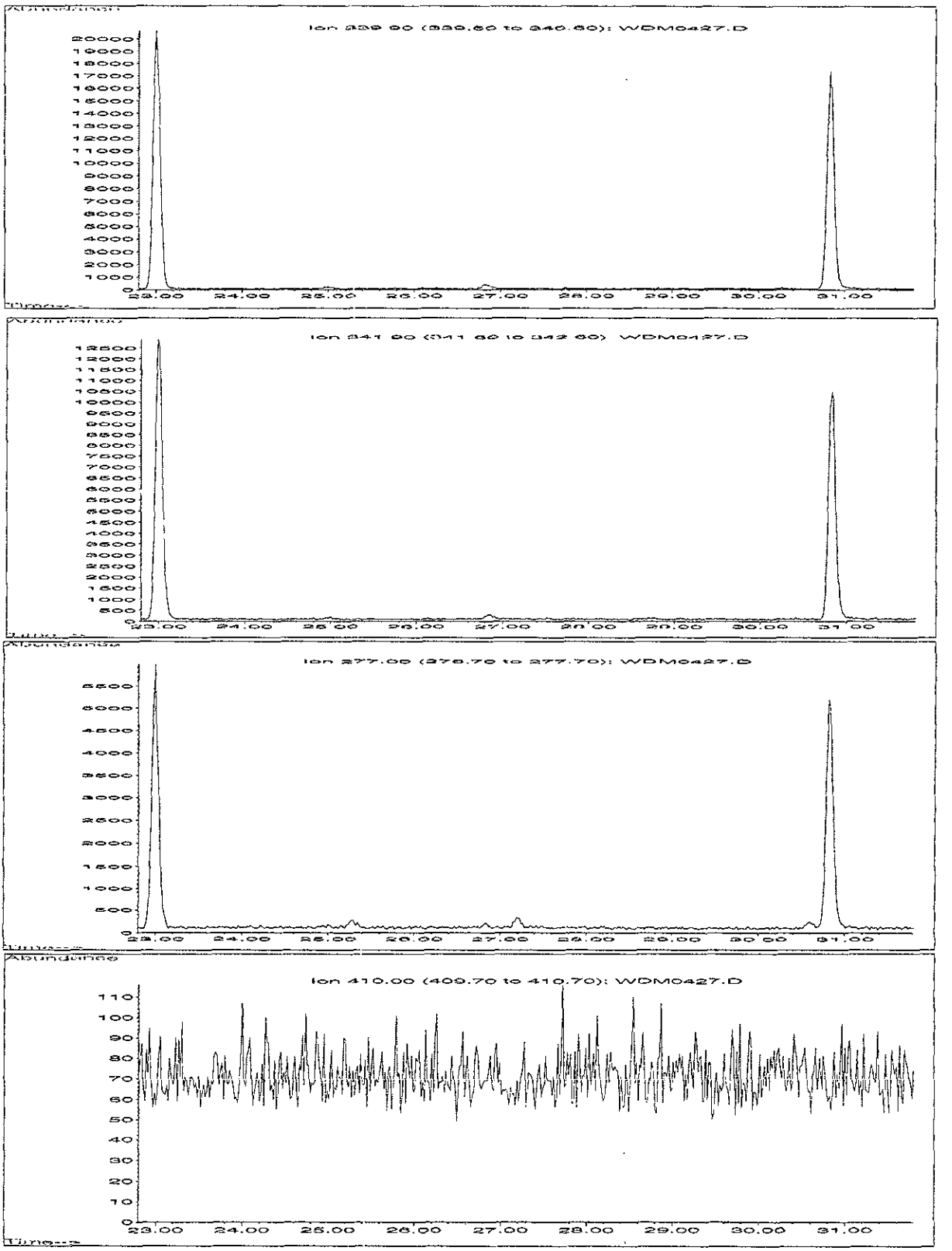






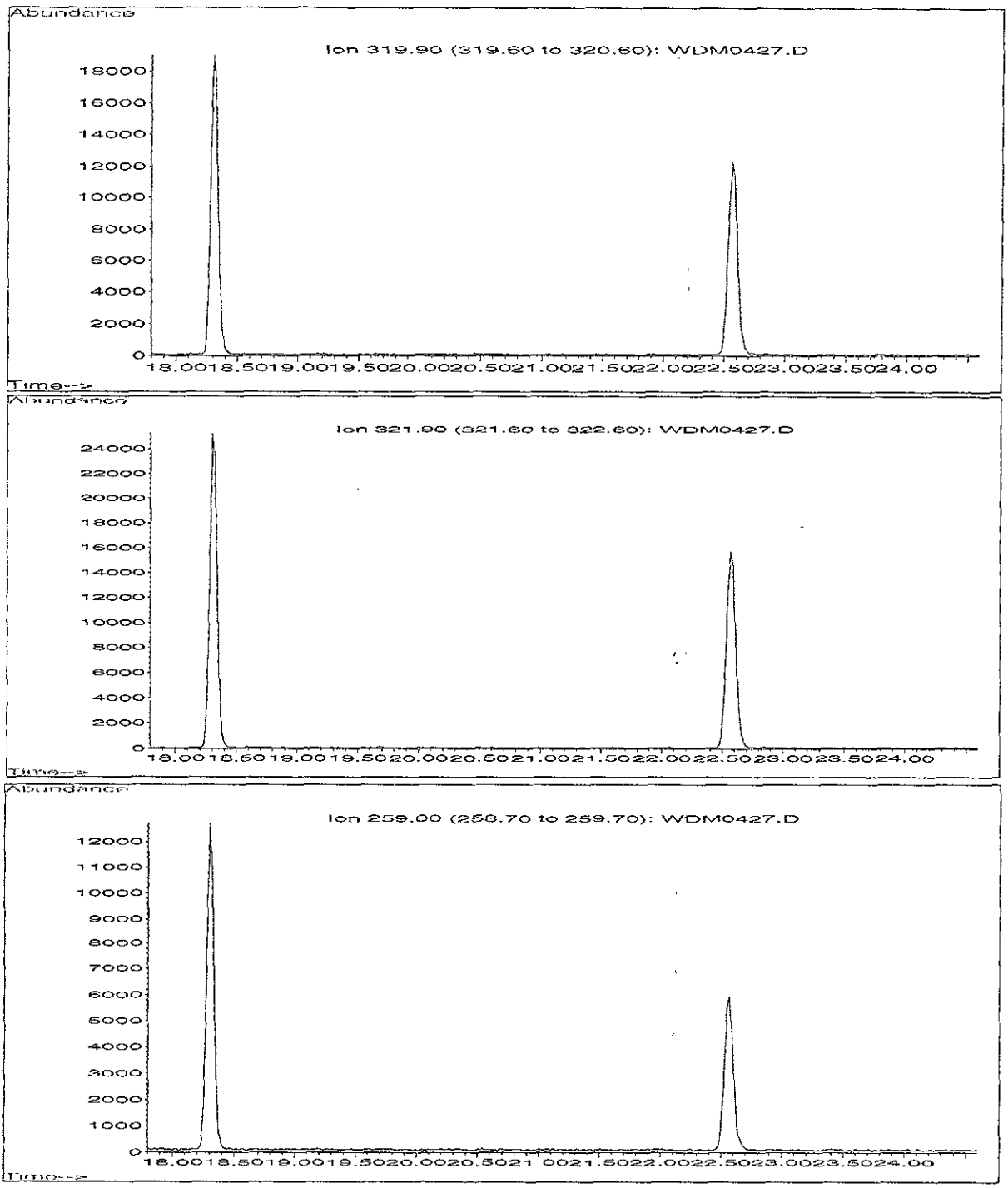
PeCDF TOTAL

TS R.T. Lower Limit	22.80
TS R.T. Upper Limit	31.80



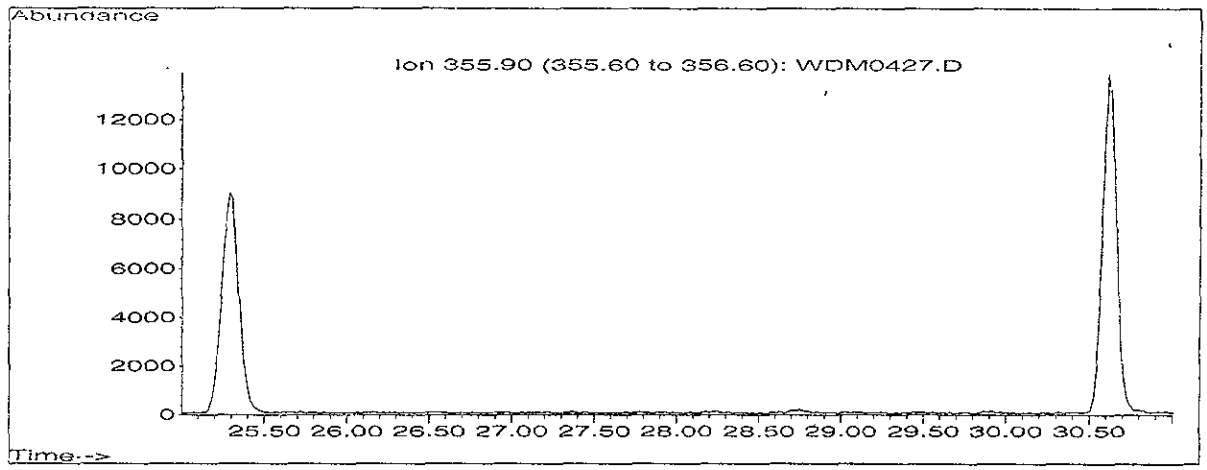
TCDD TOTAL

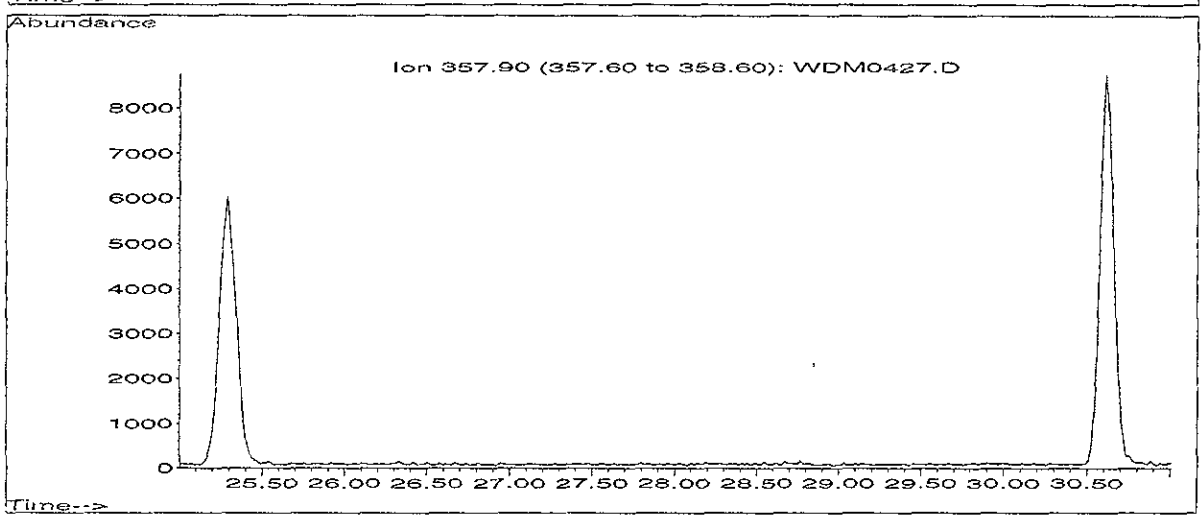
TS R.T. Lower Limit	17.80
TS R.T. Upper Limit	24.60

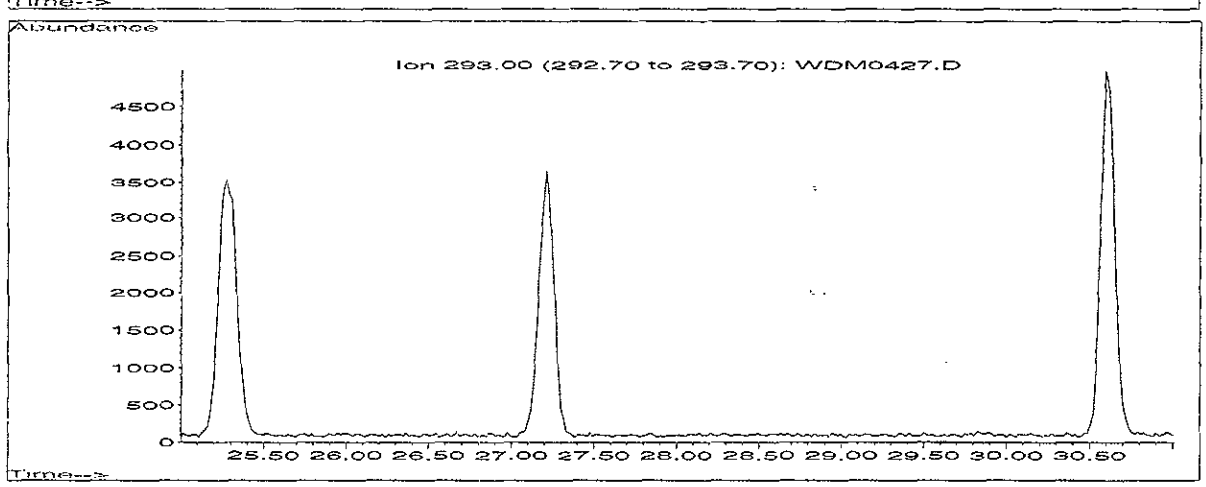


PeCDD TOTAL

TS R.T. Lower Limit	25.00
TS R.T. Upper Limit	31.00

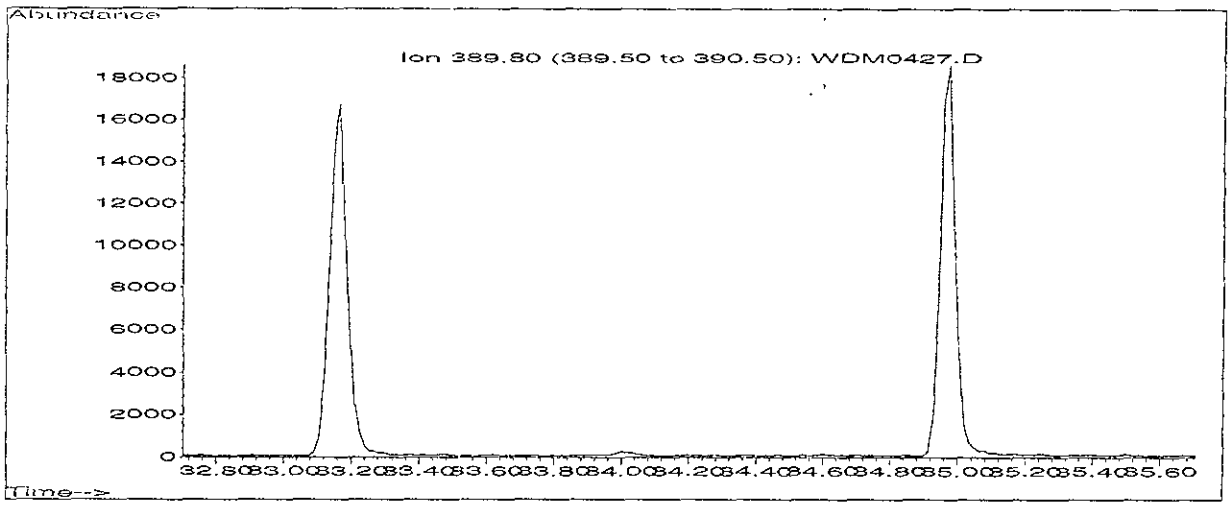


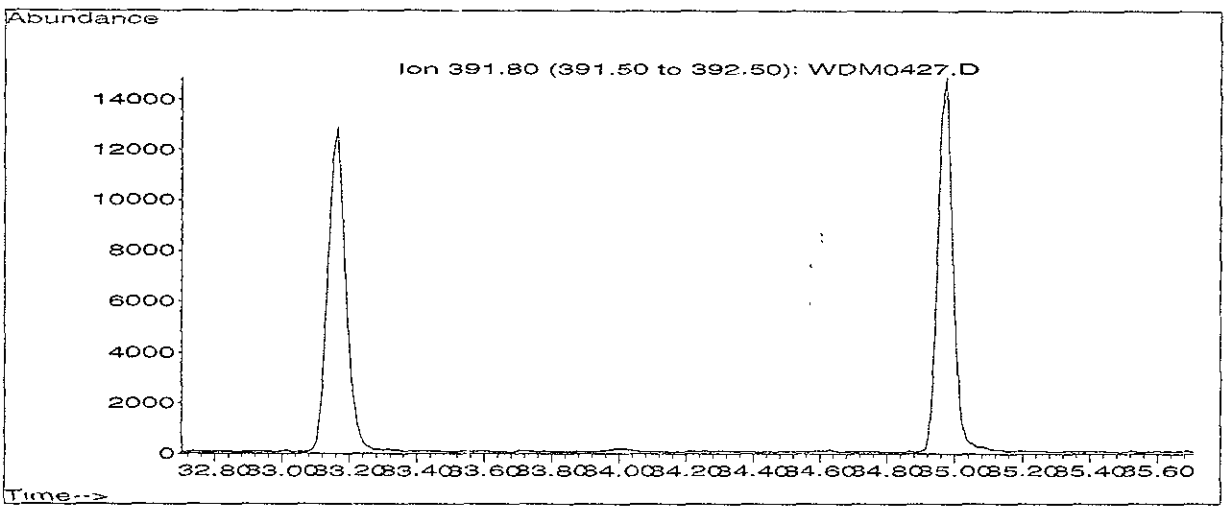


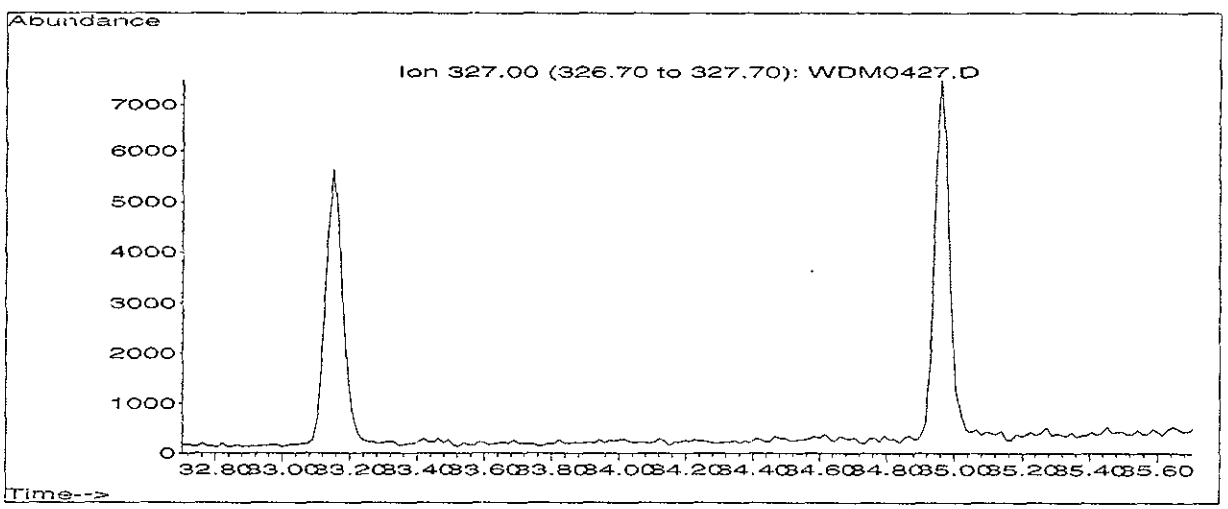


HxCDD TOTAL

TS R.T. Lower Limit	32.70
TS R.T. Upper Limit	35.70

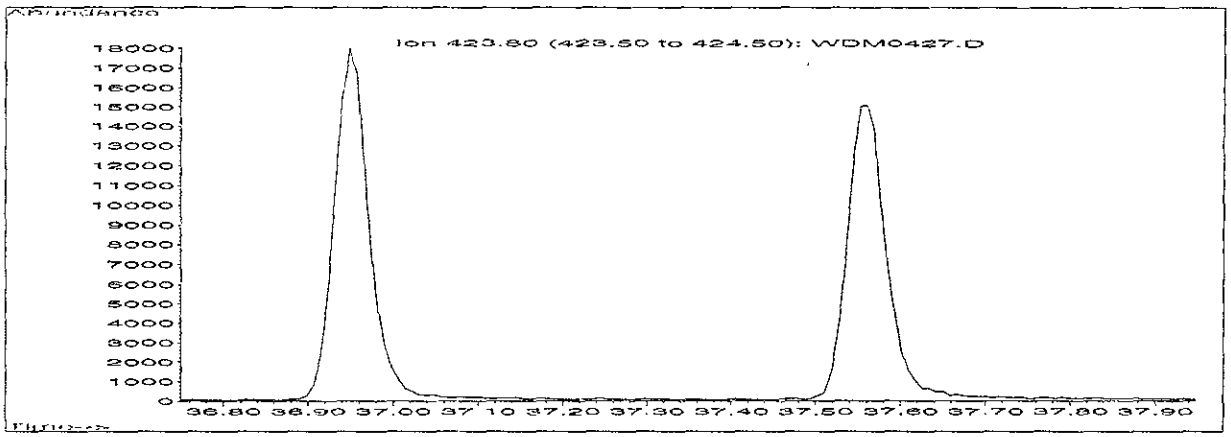


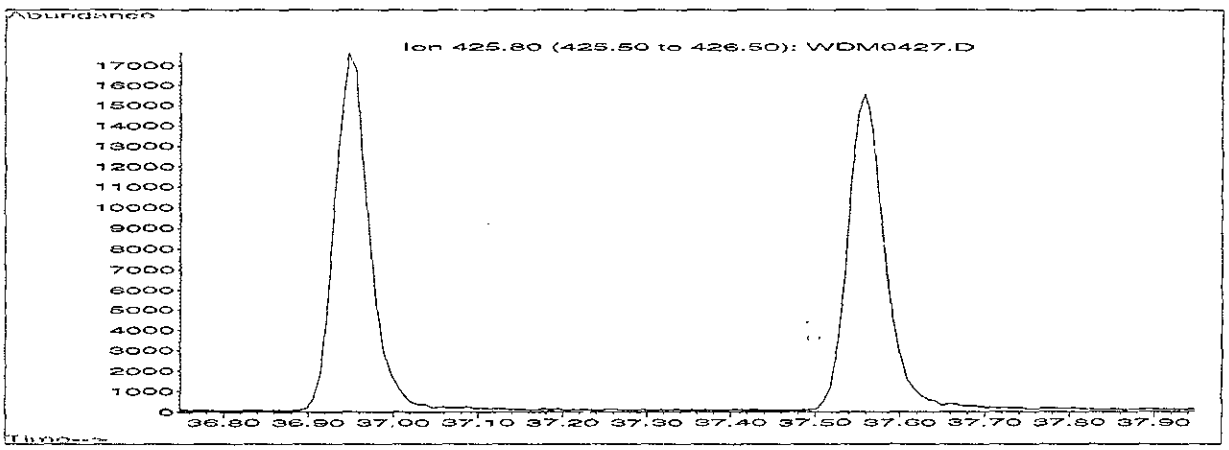


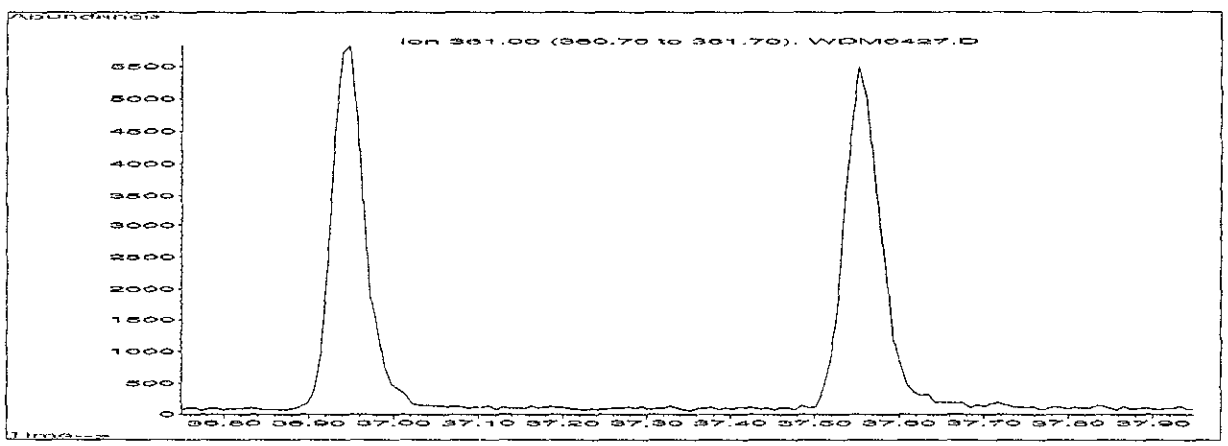


HpCDD TOTAL

TS R.T. Lower Limit	36.75
TS R.T. Upper Limit	37.95

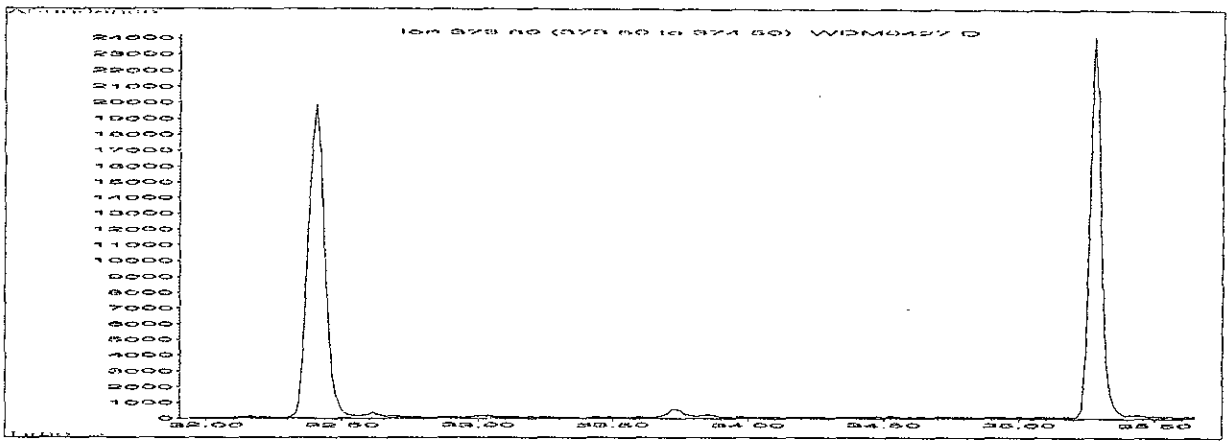


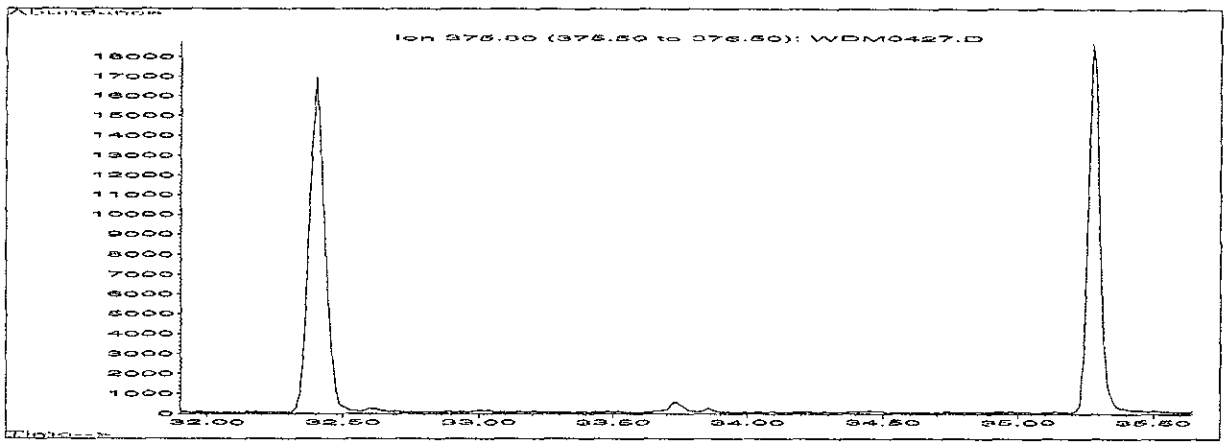


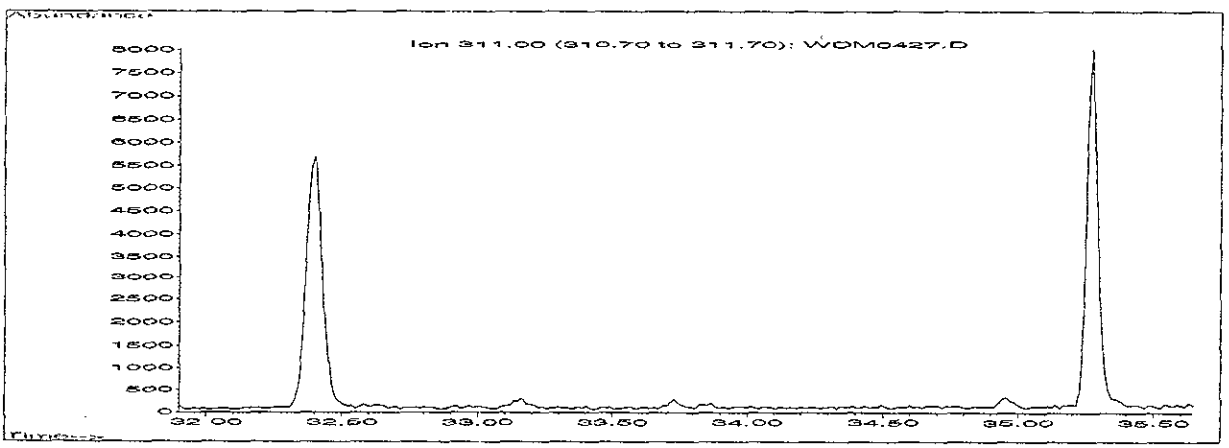


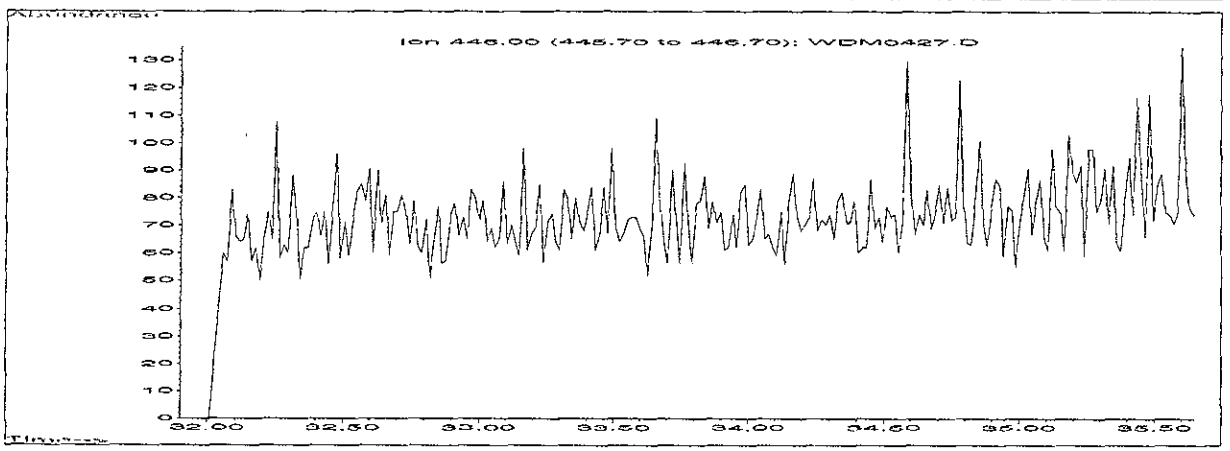
HxCDF TOTAL

TS R.T. Lower Limit	31.90
TS R T. Upper Limit	35.65



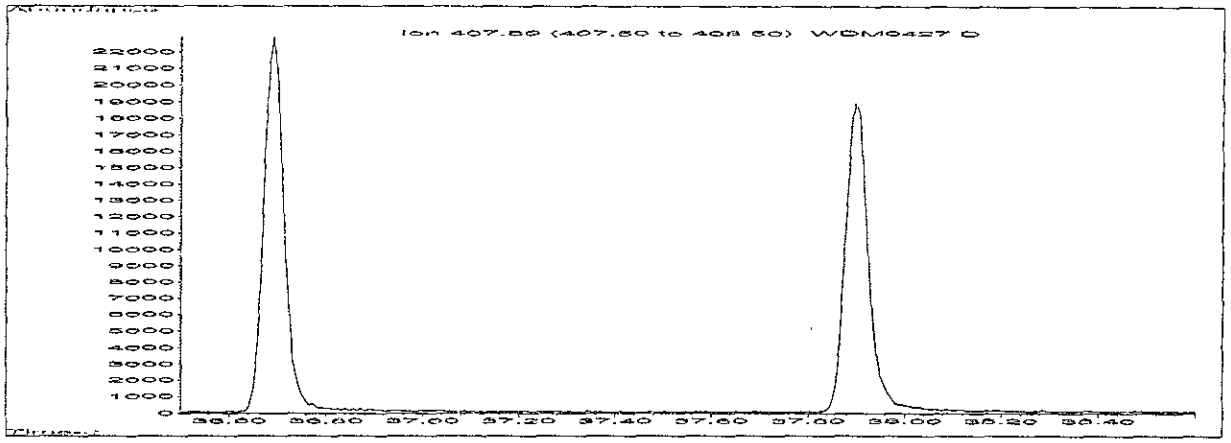


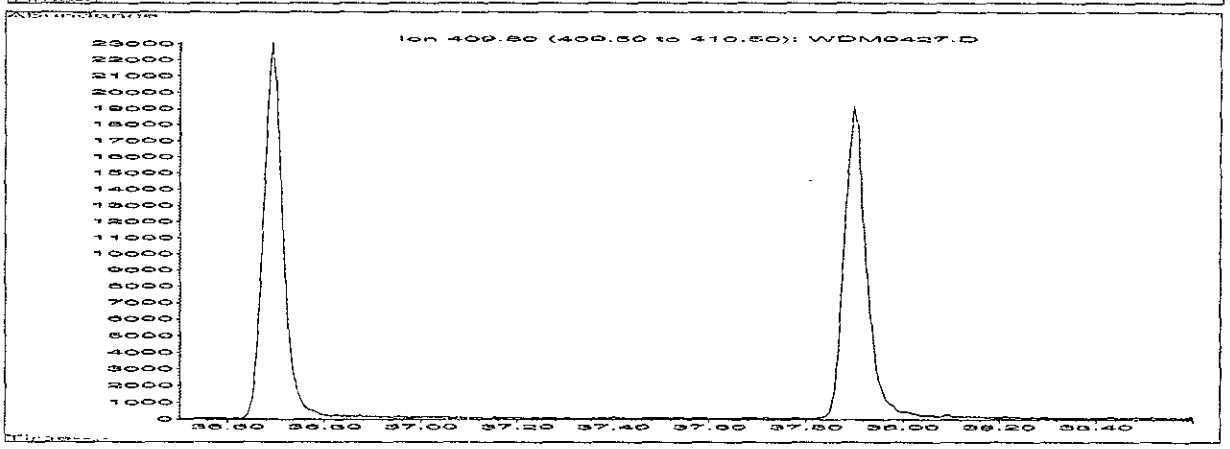


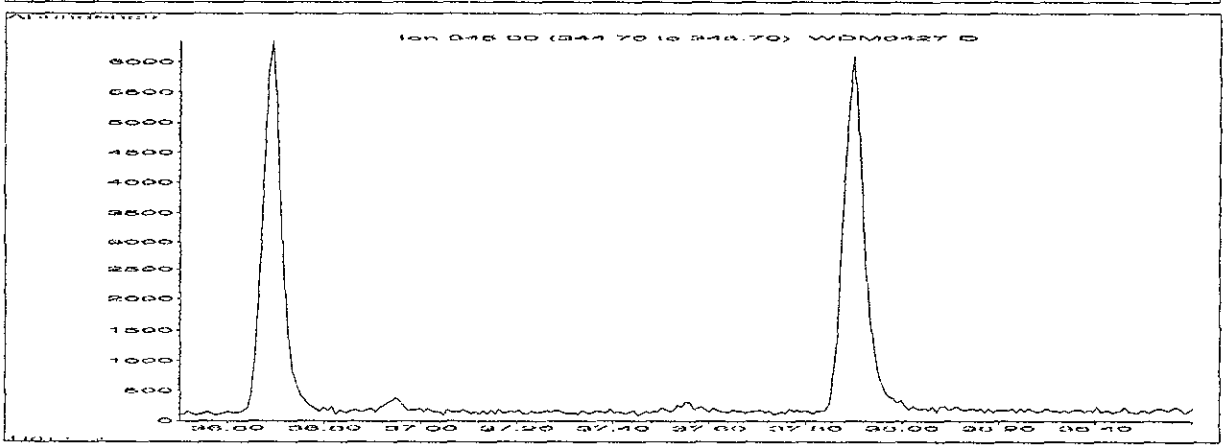


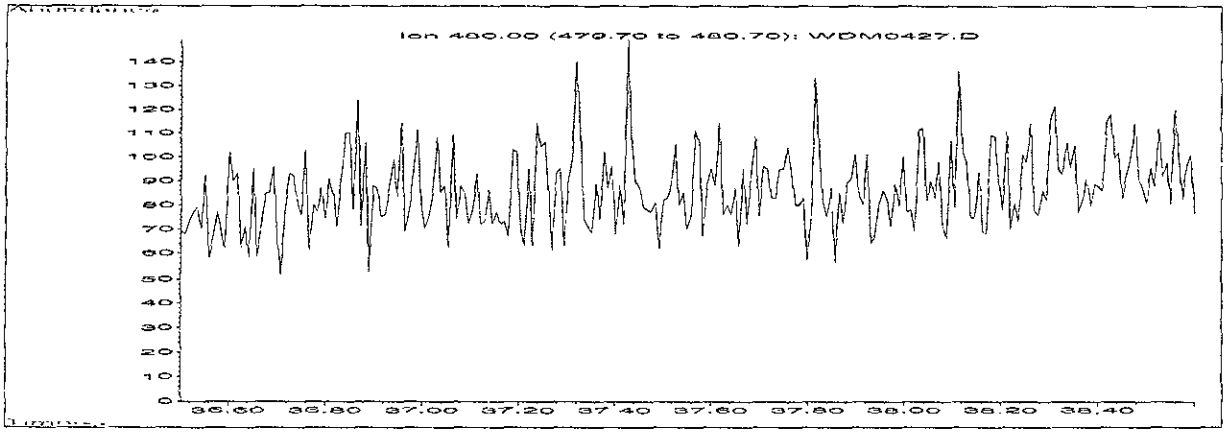
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



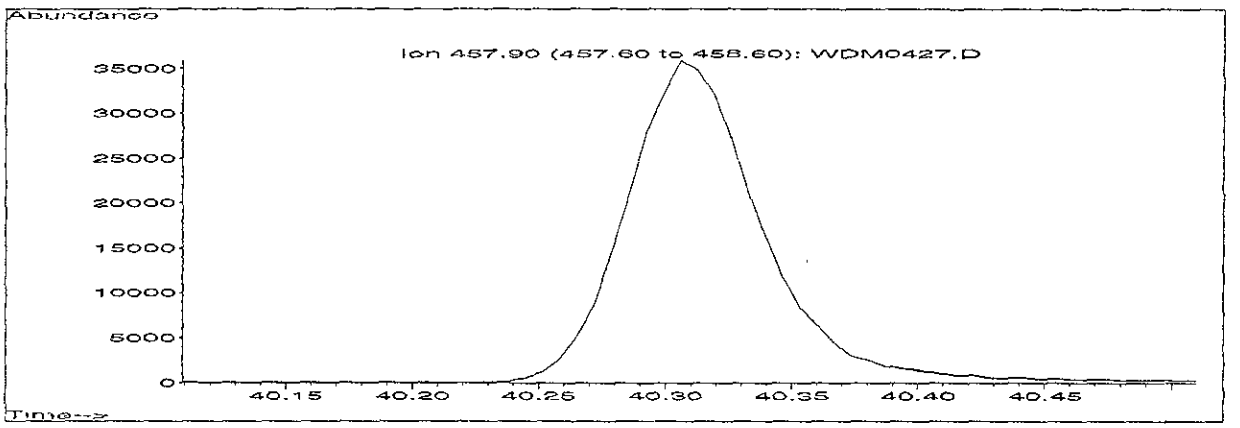


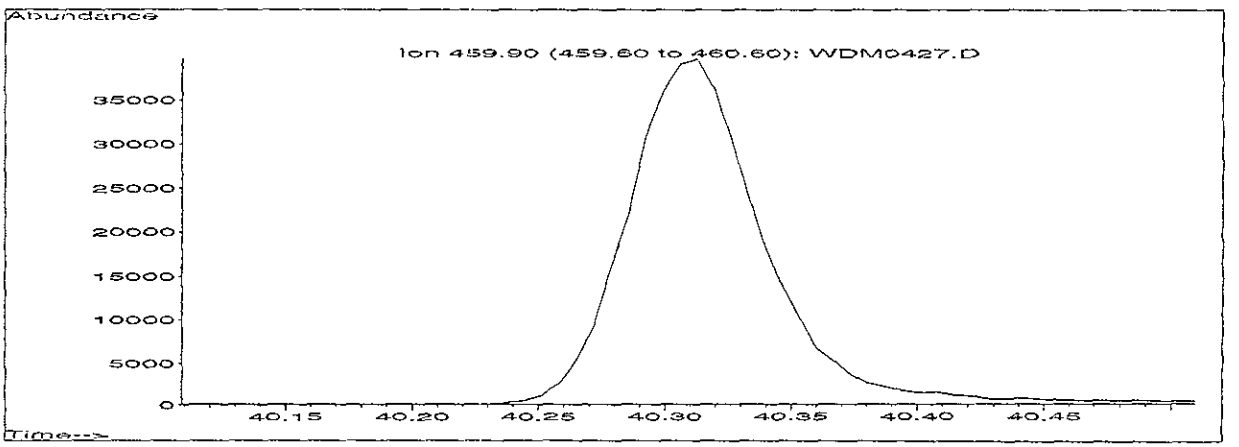


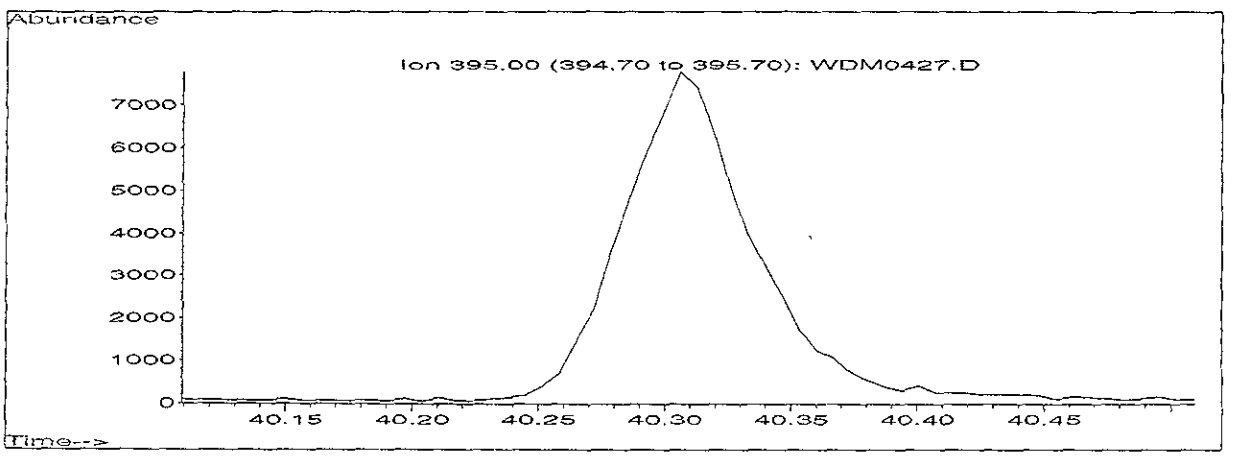


OCDD

TS R.T. Lower Limit	40.11		
TS R.T. Upper Limit	40.51		
Ret. Time	40.31		
Target Ion	457.9	Q1 Ion	459.9
Target Response	133074	Q1 Response	149004
Total Response	282078	Ion ratio	0.89
Q2 Ion	395		
Q2 Response	27706		

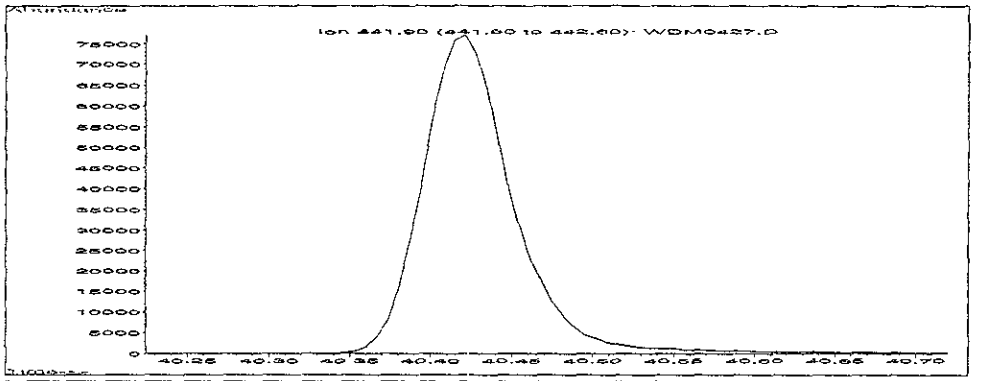


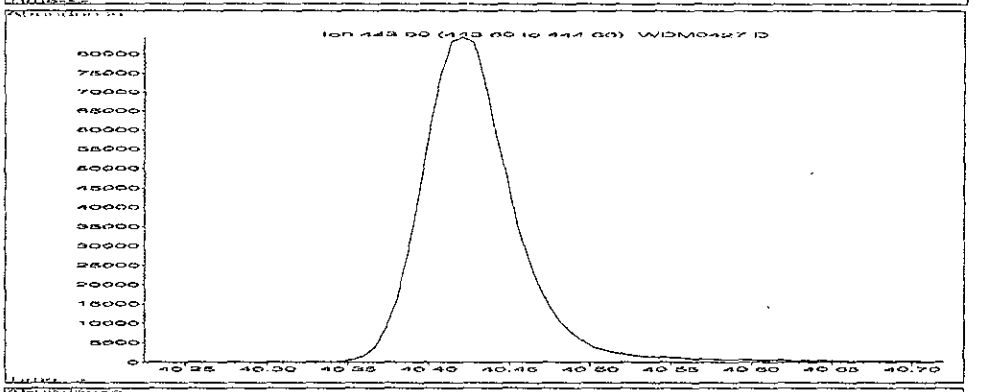


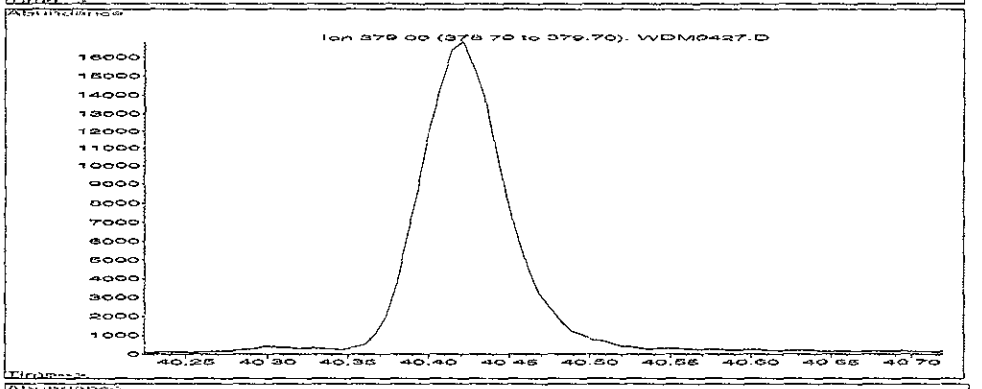


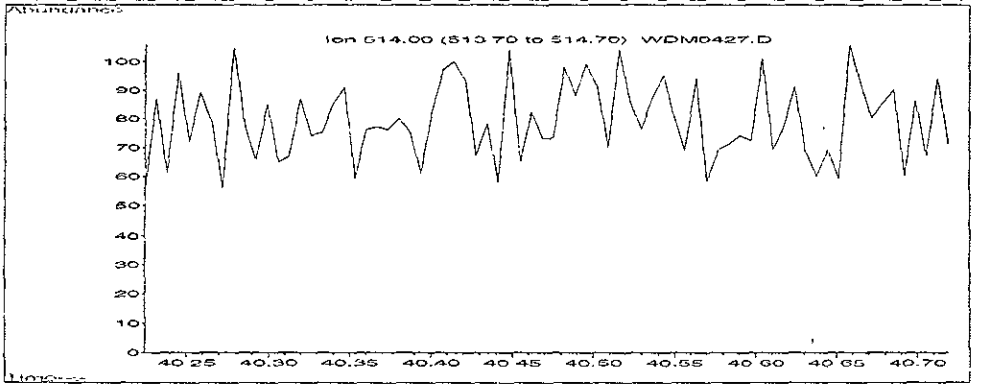
OCDF

TS R.T. Lower Limit	40.22		
TS R.T. Upper Limit	40.72		
Ret Time	40.42		
Target Ion	441.9	Q1 Ion	443.9
Target Response	295237	Q1 Response	328293
Target Response	623530	Ion Ratio	0.90
Q2 Ion	379	DPE Ion	514
Q2 Response	60186	DPE Response	0



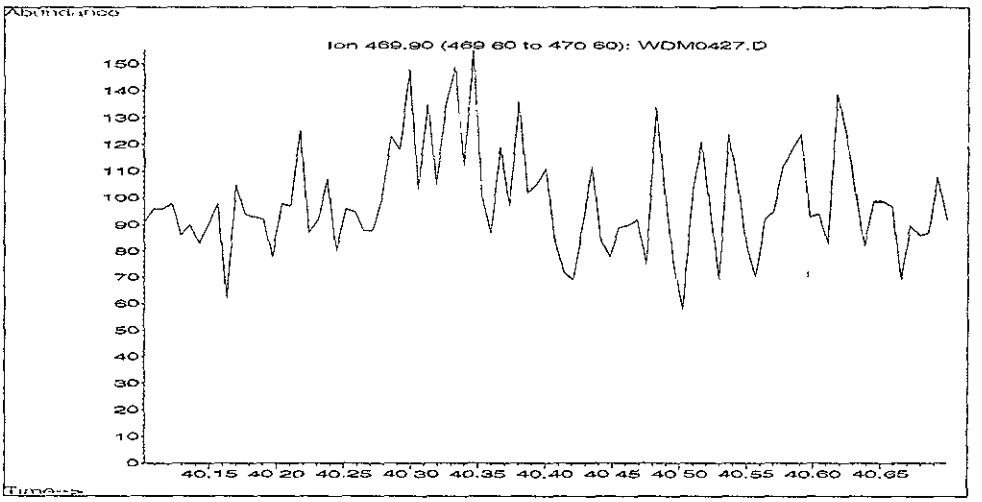


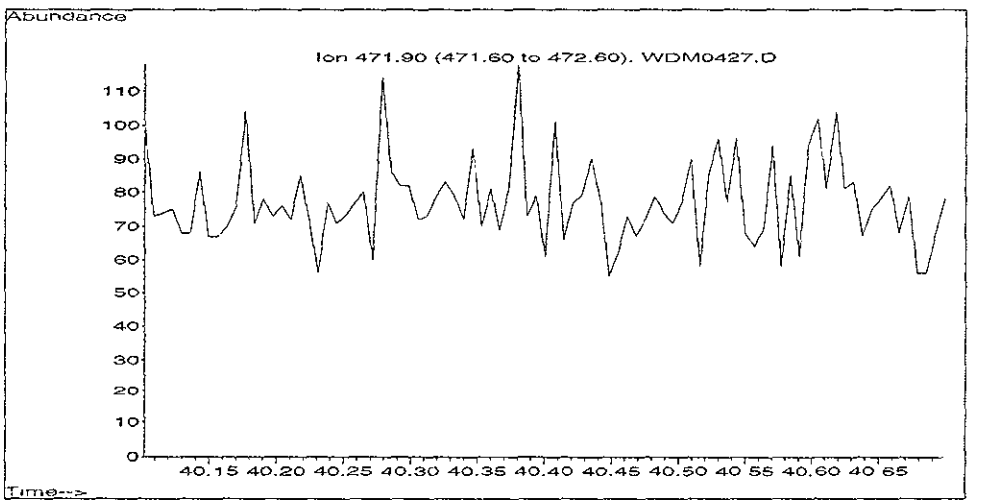




13C-OCDD-IS

RT Lower Limit	40.10		
RT Upper Limit	40.70		
Ret Time	0.00		
Target Ion	469.9	Q1 Ion	471.9
Target Response	0	Q1 Response	0
Total response	0	Ratio	#DIV/0!





Initial Calibration

Includes (as applicable):

runlog

standard raw data

statistical summary

ms tune data

TestAmerica – West Sacramento
Initial Calibration Checklist
Method 8280A

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICAL ID 8280A031009 2DB

Standard ID's ST0310A-E (3136-45A-E), ST0310y (09LE5041) ICV Date Scanned 3/11/09

Method ID 8280A Instrument ID 2DB Column ID DB-5

GC Program TOKA5 Multiplier Setting 1553

Prepared By MEO Date Prepared 3/11/09

Reviewed By [signature] Date Reviewed 3-11-09

ANALYSIS OF ICAL	INITIATED	REVIEWED
Curve summary present ?	✓	✓
Hardcopies of CC1–CC5 present ?	✓	✓
Copy of instrument log-file present ?	✓	✓
% RSD ≤ 15% for all analytes, labeled or unlabeled ?	✓	✓
All S/N ≥2.5:1 for natives & ≥ 10:1 for labeled analytes ?	✓	✓
Isotopic abundance ratios within method specified limits ?	✓	✓
CC5 not saturated for any analytes ?	✓	✓
WDM present and windows correct ?	✓	✓
Manual reintegrations checked and hardcopies included ?	NA	NA
Data checked for transcription errors ?	✓	✓
Second source standard injected and deviation criteria met ?	✓	✓

COMMENTS:
ICV STANDARD 09LRE5038 was analyzed twice and found to be bad. A fresh ICV STANDARD 09LRE5041 was prepared and analyzed and passes ICV criteria.

Response Factor Report 2DB

Method : C:\8280\ DATA METHODS\09MR10I2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Mar 10 15:02:13 2009
Response via : Initial Calibration

Calibration Files
CS1=ST0310A.D CS2=ST0310B.D CS3=ST0310C.D
CS4=ST0310D.D CS5=ST0310E.D

		Compound	CS1	CS2	CS3	CS4	CS5	Avg	%RSD
1)	IR	13C-1234-TCDD	----------ISTD----------						
2)	T	13C-2378-TCDF-IS	1.666	1.677	1.682	1.677	1.667	1.674	0.44
3)	T	13C-2378-TCDD-IS	1.126	1.134	1.120	1.109	1.122	1.122	0.81
4)	S	37Cl-2378-TCDD			1.582			1.582	0.00
5)	IR	13C-123789-HxCDD	----------ISTD----------						
6)	T	13C-123678-HxCDD-IS	0.935	0.948	0.934	0.901	0.908	0.925	2.13
7)	T	13C-1234678-HpCDF-IS	1.223	1.220	1.192	1.174	1.154	1.193	2.47
8)	T	13C-OCDD-IS	0.769	0.761	0.748	0.741	0.732	0.750	2.00
9)	IR	13C-2378-TCDF	----------ISTD----------						
10)	MT	2378-TCDF	1.073	1.036	1.073	1.085	1.055	1.064	1.78
11)	H	TCDF TOTAL	1.073	1.036	1.073	1.085	1.055	1.064	1.78
12)	MT	12378-PeCDF	0.862	0.859	0.893	0.913	0.906	0.887	2.83
13)	T	23478-PeCDF	0.831	0.841	0.865	0.892	0.878	0.861	2.92
14)	H	PeCDF TOTAL	0.831	0.841	0.865	0.892	0.878	0.861	2.92
15)	IR	13C-2378-TCDD	----------ISTD----------						
16)	MT	2378-TCDD	1.120	1.101	1.132	1.150	1.109	1.123	1.73
17)	H	TCDD TOTAL	1.120	1.101	1.132	1.150	1.109	1.123	1.73
18)	MT	12378-PeCDD	0.807	0.808	0.859	0.890	0.866	0.846	4.38
19)	H	PeCDD TOTAL	0.807	0.808	0.859	0.890	0.866	0.846	4.38
20)	IR	13C-123678-HxCDD	----------ISTD----------						
21)	T	123478-HxCDD	1.105	1.130	1.144	1.167	1.124	1.134	2.05
22)	MT	123678-HxCDD	1.076	1.029	1.068	1.096	1.042	1.062	2.53
23)	T	123789-HxCDD	1.169	1.141	1.184	1.202	1.138	1.167	2.36
24)	H	HxCDD TOTAL	1.076	1.029	1.068	1.096	1.042	1.062	2.53
25)	MT	1234678-HpCDD	0.982	0.951	0.970	1.000	0.945	0.970	2.32
26)	H	HpCDD TOTAL	0.982	0.951	0.970	1.000	0.945	0.970	2.32
27)	IR	13C-1234678-HpCDF	----------ISTD----------						
28)	T	123478-HxCDF	1.183	1.165	1.209	1.222	1.203	1.196	1.88
29)	MT	123678-HxCDF	1.181	1.209	1.284	1.272	1.237	1.237	3.44
30)	T	234678-HxCDF	1.153	1.150	1.204	1.202	1.180	1.178	2.17
31)	T	123789-HxCDF	1.110	1.109	1.161	1.175	1.128	1.137	2.63
32)	H	HxCDF TOTAL	1.110	1.109	1.161	1.175	1.128	1.137	2.63
33)	MT	1234678-HpCDF	1.125	1.079	1.108	1.103	1.065	1.096	2.16
34)	T	1234789-HpCDF	0.985	0.963	1.007	1.019	0.975	0.990	2.31
35)	H	HpCDF TOTAL	0.985	0.963	1.007	1.019	0.975	0.990	2.31
36)	IR	13C-OCDD	----------ISTD----------						
37)	MT	OCDD	1.078	1.055	1.078	1.085	1.034	1.066	1.98
38)	MT	OCDF	1.343	1.344	1.383	1.403	1.328	1.360	2.32

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

pl_ilog
Injection Log Summary Report

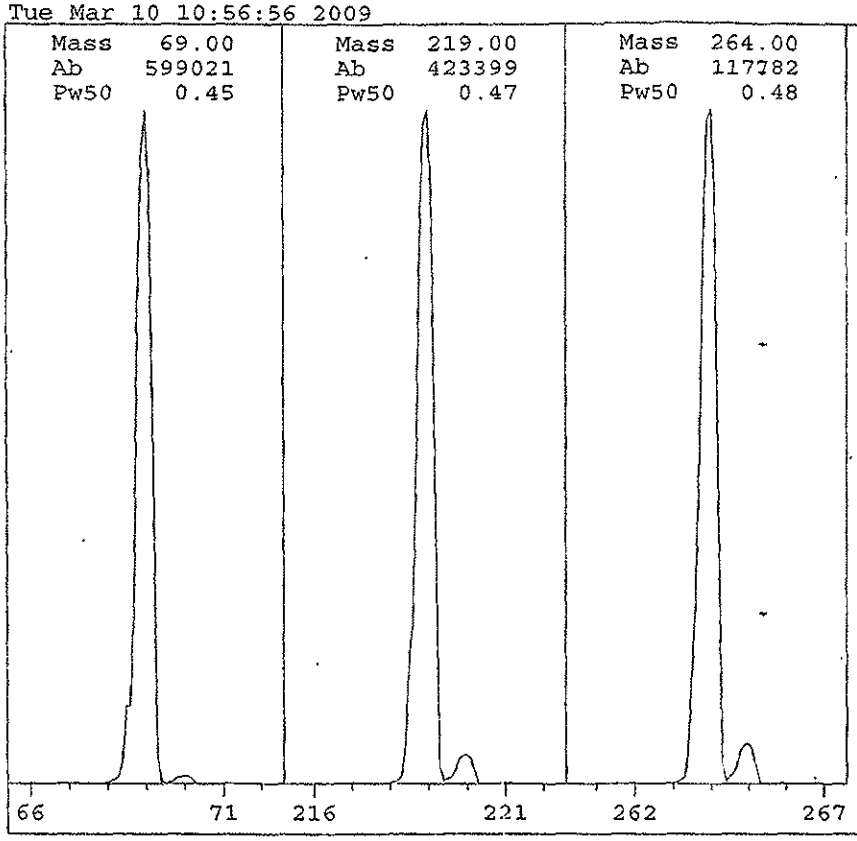
Method : C:\8280_DATA_METHODS\09MR10A2.M
Title : Dioxin Furan Total
Start (Tune) File ID : C:\8280\2DB\031009.B\WDM0310.D
Injection Date : 10 Mar 2009 Log Time Period (hrs) : ALL
Injection Time : 10:59 Total files within period : 26
Sample Directory : C:\8280\2DB\031009.B\

Injection Log Summary Table

File ID	Sample Name Misc Info	Date	Time
ST0310A	3136-45A CS-1 CS-1	10 Mar 2009	11:53
ST0310B	3136-45B CS-2 CS-2	10 Mar 2009	12:39
ST0310C	3136-45C CS-3 CS-3	10 Mar 2009	13:26
ST0310D	3136-45D CS-4 CS-4	10 Mar 2009	14:12
ST0310E	3136-45E CS-5 CS-5	10 Mar 2009	14:59
ST0310F	09LRES0038 ICV ICV	10 Mar 2009	15:45
ST0310Z	09LRES0038 ICV RI ICV	10 Mar 2009	17:18
ST0310Y	09LRES0041 ICV ICV	10 Mar 2009	19:37
ST0310G	3136-45C CS-3 CS-3	10 Mar 2009	20:23
SB0310G	Solvent Blank C-14	10 Mar 2009	21:10
S031001	K75C0-1-AA WATER LR906 G9B250214-MB 1.0L 8280A	10 Mar 2009	21:56
S031002	K75C0-1-AC WATER LR906 G9B250214-LCS 1.0L 8280A	10 Mar 2009	22:43
S031003	K7N9E-1-AA WATER LR906 G9B250214-1 1.02798L 8280A	10 Mar 2009	23:29
S031004	K7N9G-1-AA WATER LR906 G9B250214-2 1.01569L 8280A	11 Mar 2009	00:15
S031005	K7N9H-1-AA WATER LR906 G9B250214-3 0.94497L 8280A	11 Mar 2009	01:02
S031006	K7N9J-1-AA WATER LR906 G9B250214-4 0.96992L 8280A	11 Mar 2009	01:48
S031007	K7N9K-1-AA WATER LR906 G9B250214-5 1.04983L 8280A	11 Mar 2009	02:35
S031008	K7N9L-1-AA WATER LR906 G9B250214-6 1.02557L 8280A	11 Mar 2009	03:21
S031009	K7N9M-1-AA WATER LR906 G9B250214-7 0.99154L 8280A	11 Mar 2009	04:07
S031010	K7VJ5-1-AA WATER LR906 G9B270288-1 1.01815L 8280A	11 Mar 2009	04:54
S031011	K7VKW-1-AA WATER LR906 G9B270290-1 1.01858L 8280A	11 Mar 2009	05:40
S031025	K7DRC-1-AR WATER LR905 D9B180260-2RI 5X 1.02683L 8280	11 Mar 2009	06:27
S031026	JD IDOC-4RI WATER LR905 JD WATER IDOC 1.0L 8280A	11 Mar 2009	07:13
SB0310H	Solvent Blank C-14	11 Mar 2009	07:59
ST0310H	3136-45A CS-1 CS-1	11 Mar 2009	08:46

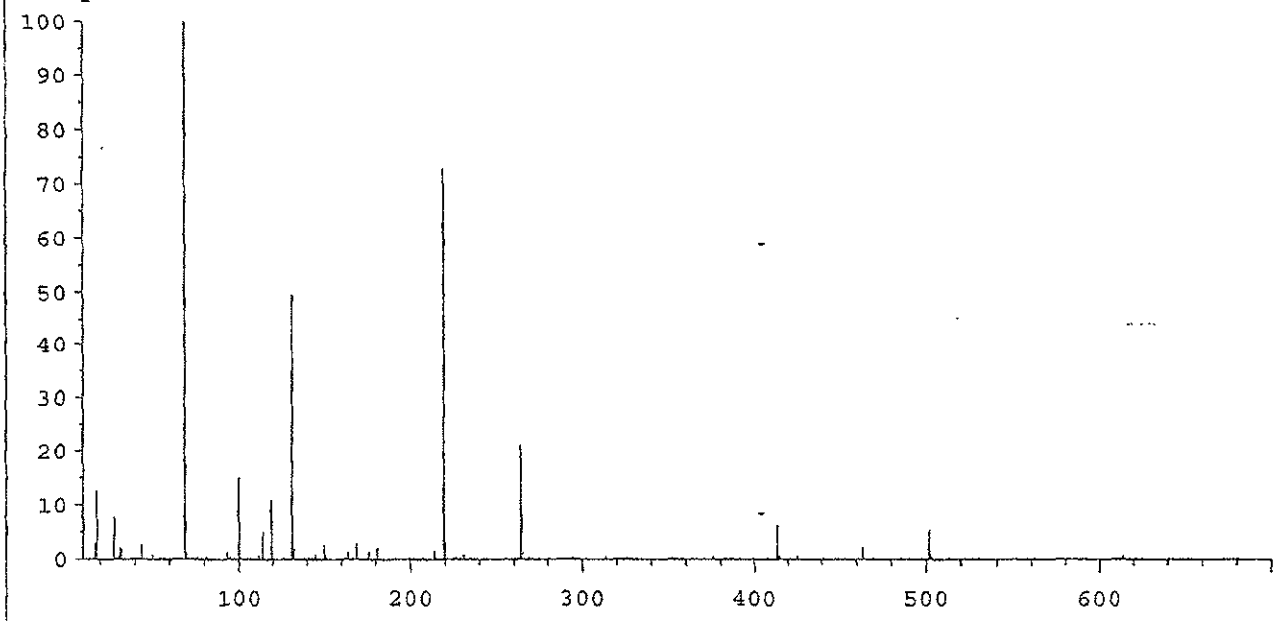
HP5973

Instrument: 2DB
Tue Mar 10 10:56:56 2009 C:\HPCHEM\1\5973\2DBATUNE.U



Ion Pol	POS	MassGain	-272
		MassOffs	-14
Emission	34.6	AmuGain	1874
EleEnergy	69.9	AmuOffs	131
Filament	1	Wid219	0.001
		DC Pol	NEG
Repeller	22.75		
IonFocus	80.7	HED	ON
EntLens	16.0	EMVolts	1376
EntOffs	18.07		
		Samples	8
PFTBA	OPEN	Averages	3
		StepSize	0.10
Zones:			
MS Source	250	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100
216 peaks Base: 69.00 Abundance: 466816



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	466816	100.00	70.00	5695	1.22
219.00	340352	72.91	219.90	15571	4.57
263.90	98272	21.05	265.00	5809	5.91

TARGET MASS:	50	69	131	219	414	502
TARGET ABUND(%):	1.0	100.0	80.0	80.0	2.4	2.0
ACTUAL TUNE ABUND(%):	0.8	100.0	49.7	72.9	6.2	5.3

Quantitation Report (Not Reviewed)

Sample ID: CS-1
3136-45A CS-1

Size: 0.000
Inst : DB1

Data File:C:\8280\2DB\031009.B\ST0310A.D
Acq On :10 Mar 2009 11:53

Vial: 99
Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Mar 10 13:42 2009

Quant Results File: 09MR10A2.RES

Quant Method : C:\8280\ DATA METHODS\09MR10A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Mar 10 12:42:02 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc		Dev(Min)
1) 13C-1234-TCDD	21.45	332+334	0.80	175567	25.00	NG	0.00
5) 13C-123789-HxCDD	35.28	402+404	1.26	146982	25.00	NG	0.00
9) 13C-2378-TCDF	20.75	316+318	0.80	292413	25.00	NG	0.00
15) 13C-2378-TCDD	21.70	332+334	0.80	197673	25.00	NG	0.00
20) 13C-123678-HxCDD	34.98	402+404	1.26	137443	25.00	NG	0.00
27) 13C-1234678-HpCDF	36.94	420+422	1.06	179712	25.00	NG	0.00
36) 13C-OCDD	40.64	470+472	0.90	226182	50.00	NG	0.00

Surrogate Compound

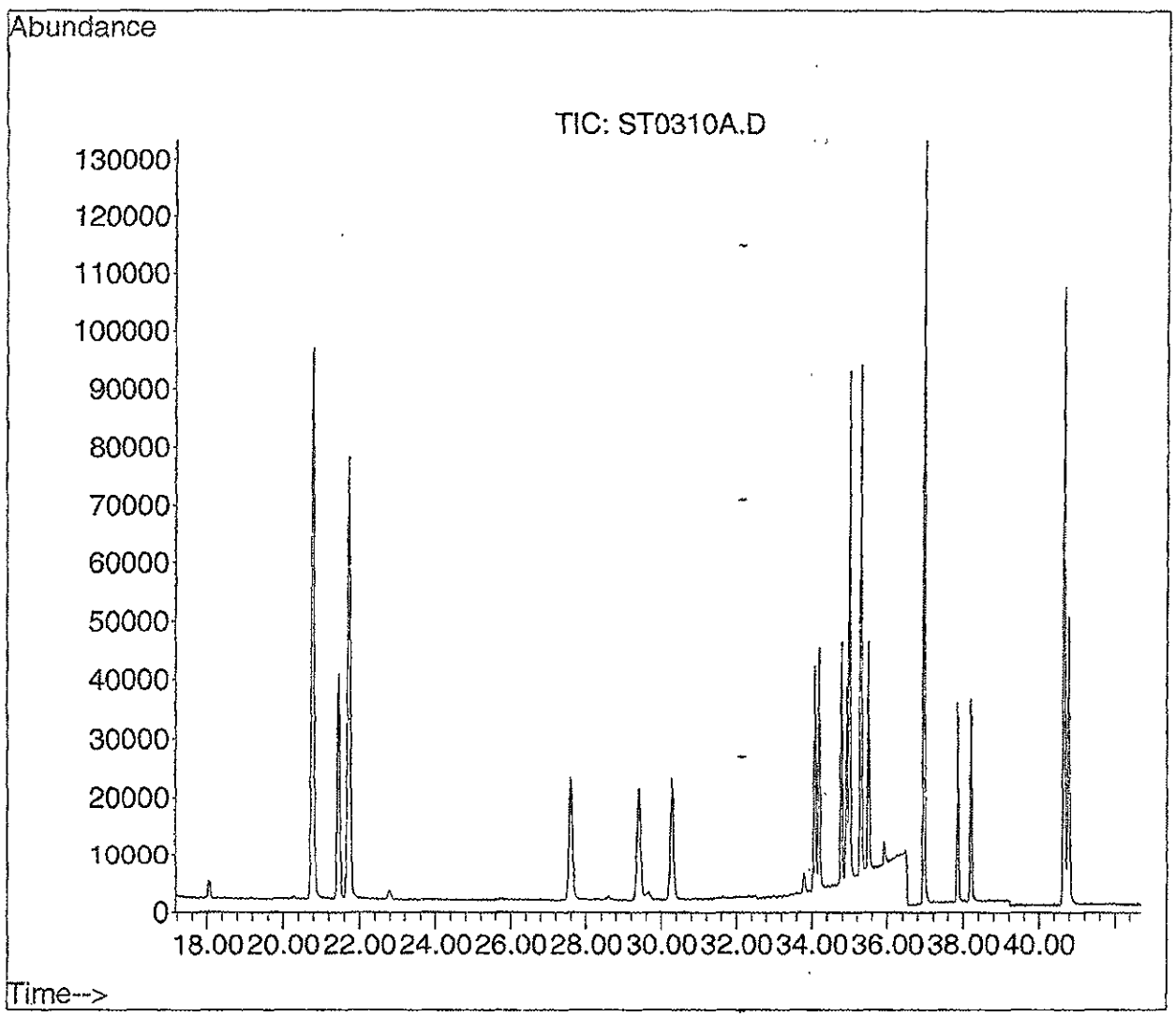
4) 37Cl-2378-TCDD	21.72	328		136282	12.458	NG	0.00
Spiked Amount = 12.500		RRF = 1.558			Recovery =		99.68%

Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.75	0.80	292413	1.703	24.456	0.0381	97.8
3) 13C-2378-TCDD-IS	21.70	0.80	197673	1.117	25.206	1.2099	100.8
6) 13C-123678-HxCDD-	34.98	1.26	137443	0.900	25.969	0.0568	103.9
7) 13C-1234678-HpCDF	36.94	1.06	179712	1.118	27.330	0.0403	109.3
8) 13C-OCDD-IS	40.64	0.90	226182	0.651	59.134	0.1710	118.3
10) 2378-TCDF	20.77	0.77	62741	1.089	4.926	0.0430	
1	20.77	0.78	63157		4.959		
11) TCDF TOTAL	19.50	0.78	63157	1.089	4.959		
12) 12378-PeCDF	27.58	1.57	126010	0.844	12.765	0.0365	
13) 23478-PeCDF	29.37	1.54	121524	0.825	12.600	0.0149	
1	27.58	1.57	127864		13.258		
2	29.37	1.55	121524		12.600		
14) PeCDF TOTAL	27.20	1.55	249388	0.825	25.858		
16) 2378-TCDD	21.72	0.78	44278	1.153	4.857	0.0621	
1	20.77	4.81 #	28613		3.139		
2	21.72	0.77	45689		5.012		
17) TCDD TOTAL	19.50	0.77	74302	1.153	8.151		
18) 12378-PeCDD	30.27	1.60	79759	0.813	12.412	1.9967	
1	30.27	1.61	81473		12.679		
19) PeCDD TOTAL	27.60	1.61	81473	0.813	12.679		
21) 123478-HxCDD	34.91	1.29	75937	1.194	11.565	0.2961	
22) 123678-HxCDD	35.00	1.28	73941	1.096	12.275	5.4572	
23) 123789-HxCDD	35.29	1.26	80328	1.215	12.024	0.1196	
1	34.91	1.29	75937		11.565		
2	34.99	1.30	264190		43.857		
3	35.29	1.26	81203		13.480		
24) HxCDD TOTAL	35.00	1.26	421330	1.096	68.902		
25) 1234678-HpCDD	37.84	1.07	67464	0.978	12.549	0.0611	
1	37.84	1.07	67464		12.549		

26)	HpCDD TOTAL	37.60	1.07	67464	0.978	12.549	
28)	123478-HxCDF	34.05	1.26	106334	1.340	11.039	0.4656
29)	123678-HxCDF	34.17	1.26	106160	1.358	10.875	14.1102
30)	234678-HxCDF	34.76	1.23	103636	1.306	11.038	0.0460
31)	123789-HxCDF	35.49	1.27	99702	1.238	11.204	0.0442
	1	34.05	1.26	106334		11.039	
	2	34.17	1.26	106160		10.875	
	3	34.76	1.23	103636		11.038	
	4	35.49	1.26	100838		11.332	
32)	HxCDF TOTAL	34.80	1.26	416968	1.238	44.284	
33)	1234678-HpCDF	36.95	1.06	101045	1.162	12.099	0.0507
34)	1234789-HpCDF	38.19	1.05	88538	1.034	11.911	0.0446
	1	36.95	1.06	101045		12.099	
	2	38.19	1.05	88538		11.911	
35)	HpCDF TOTAL	38.00	1.05	189583	1.034	24.010	
37)	OCDD	40.65	0.92	121963	1.022	26.393	0.0687
38)	OCDF	40.77	0.91	151896	1.331	25.234	0.1566

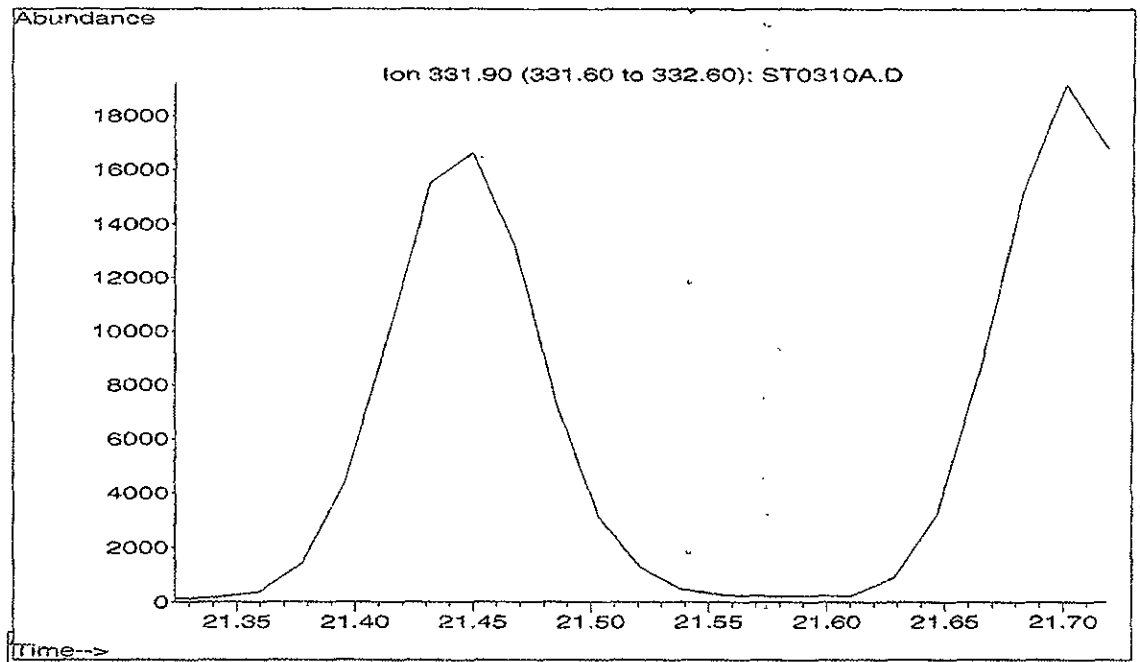
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0310A.D 09MR10A2.M Tue Mar 10 12:42:10 2009

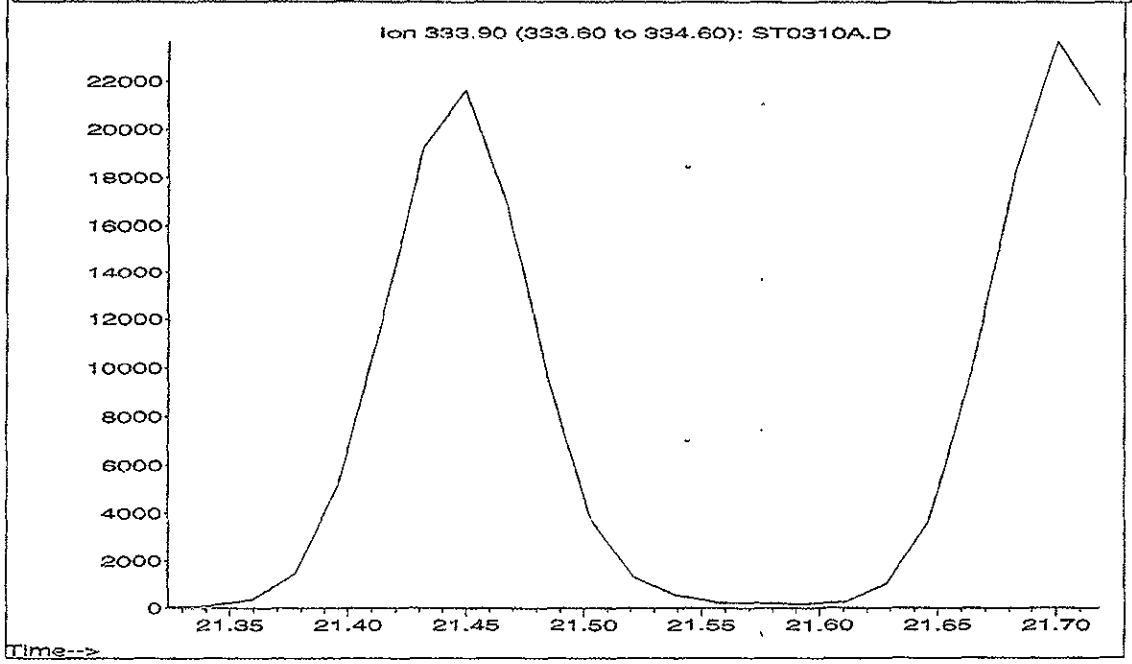
Data File Name	ST0310A.D
Data File Path	C:\8280\2DB\031009.B\
Operator	MEO
Date Acquired	3/10/2009 11:53
Acq. Method File	TOKAS
Sample Name	3136-45A CS-1
Misc Info	CS-1
Vial Number	99
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



13C-1234-TCDD

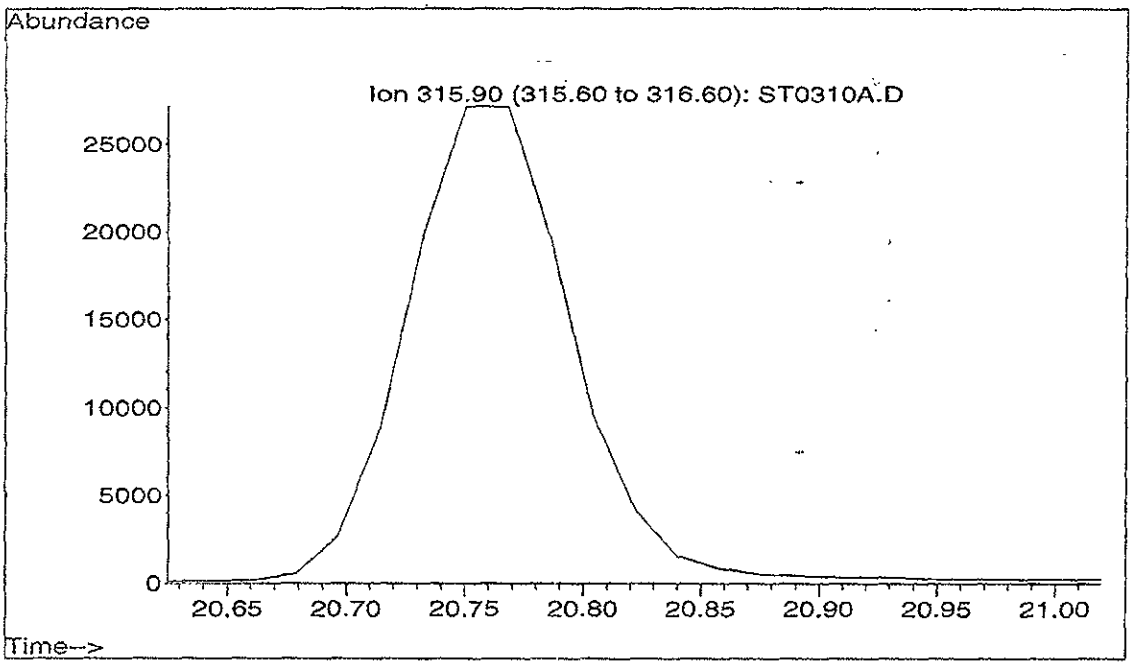
TS R.T. Lower Limit	21.25		
TS R.T. Upper Limit	21.65		
Ret Time	21.45		
Target Ion	331.9	Q1 Ion	333.9
Target Response	77806	Q1 Response	97761
Total Response	175567	Ion Ratio	0.80

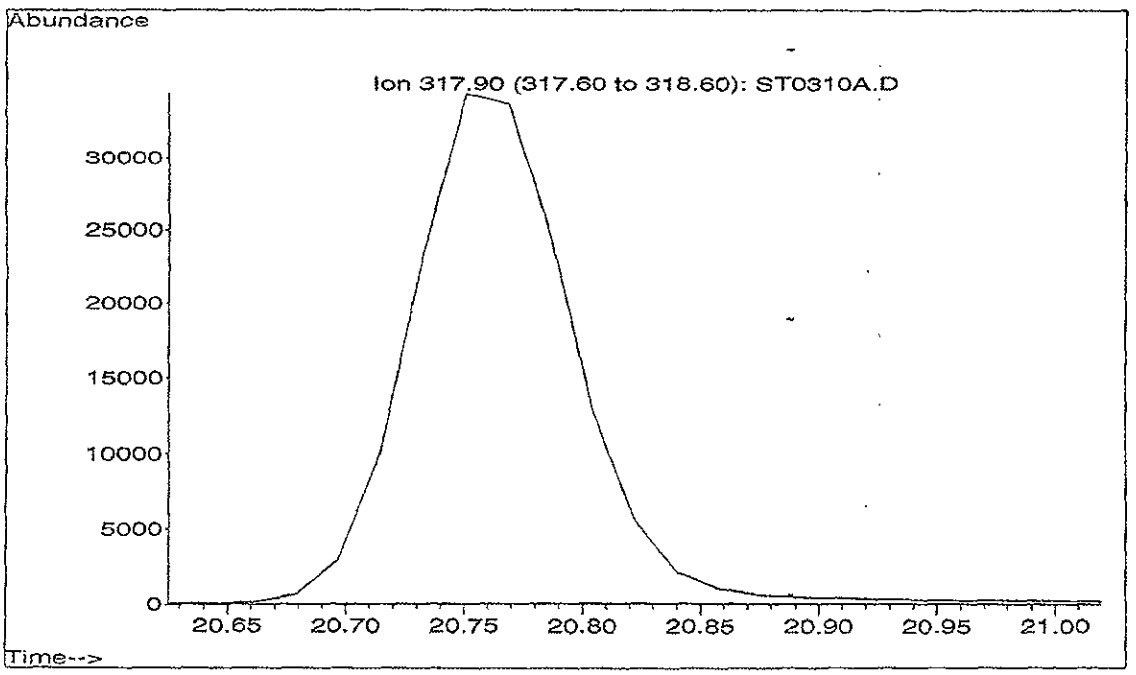




13C-2378-TCDF-IS

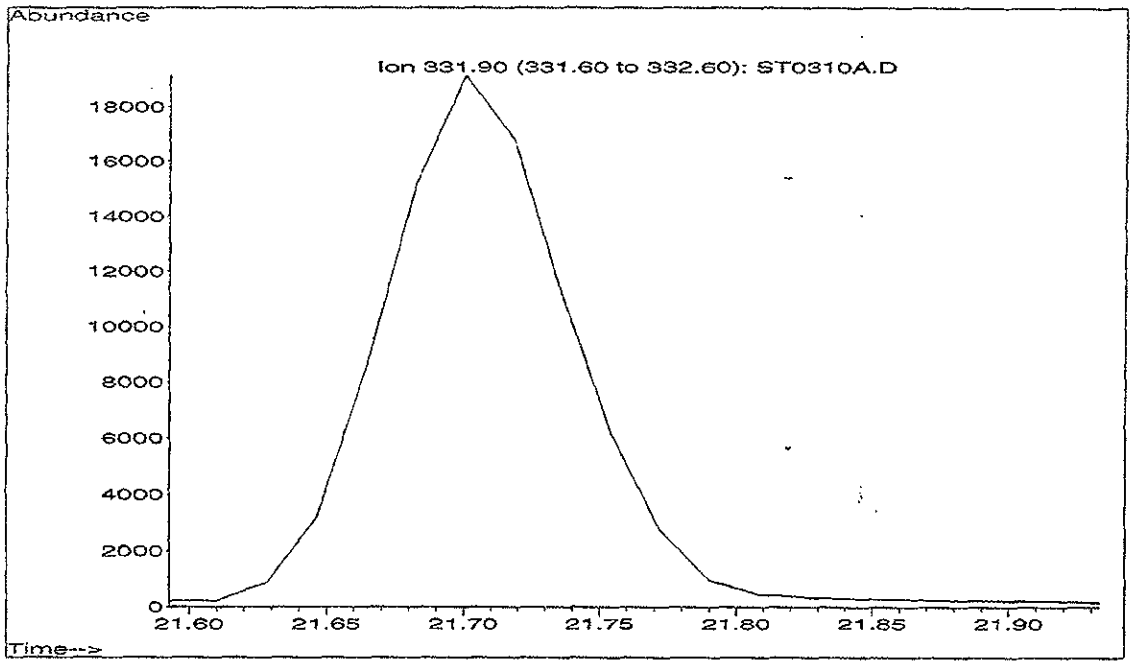
TS R.T. Lower Limit	20.55		
TS R.T. Upper Limit	20.95		
Ret Time	20.75		
Target Ion	315.9	Q1 Ion	317.9
Target Response	130200	Q1 Response	162213
Target Response	292413	Ion Ratio	0.80

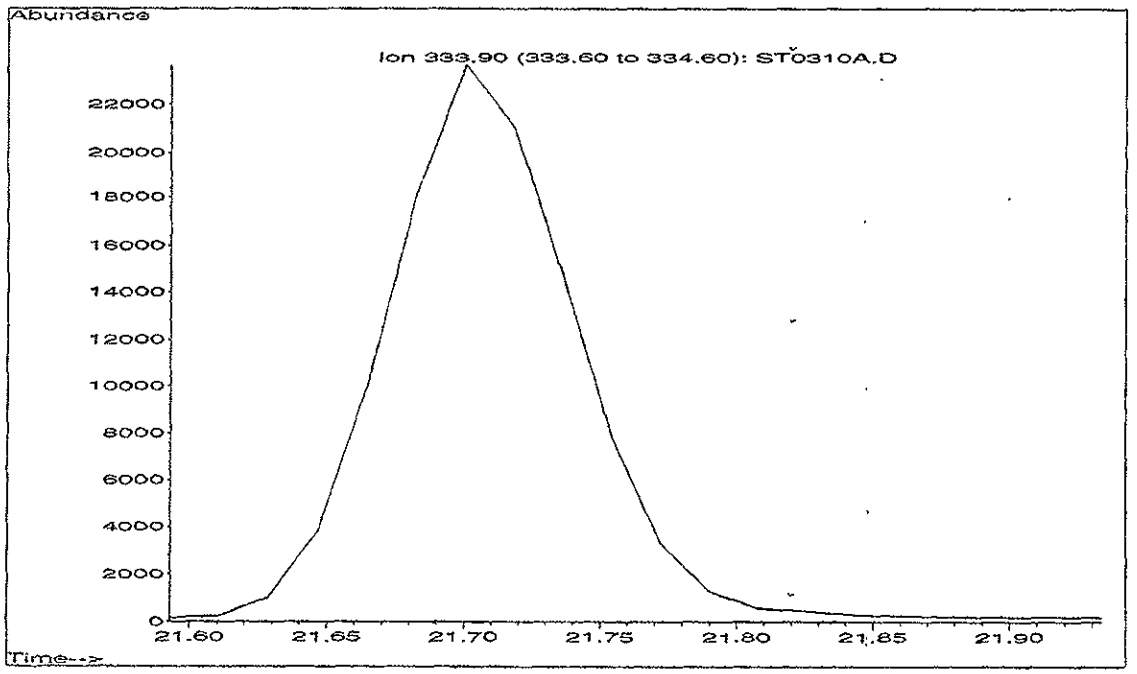




13C-2378-TCDD-IS

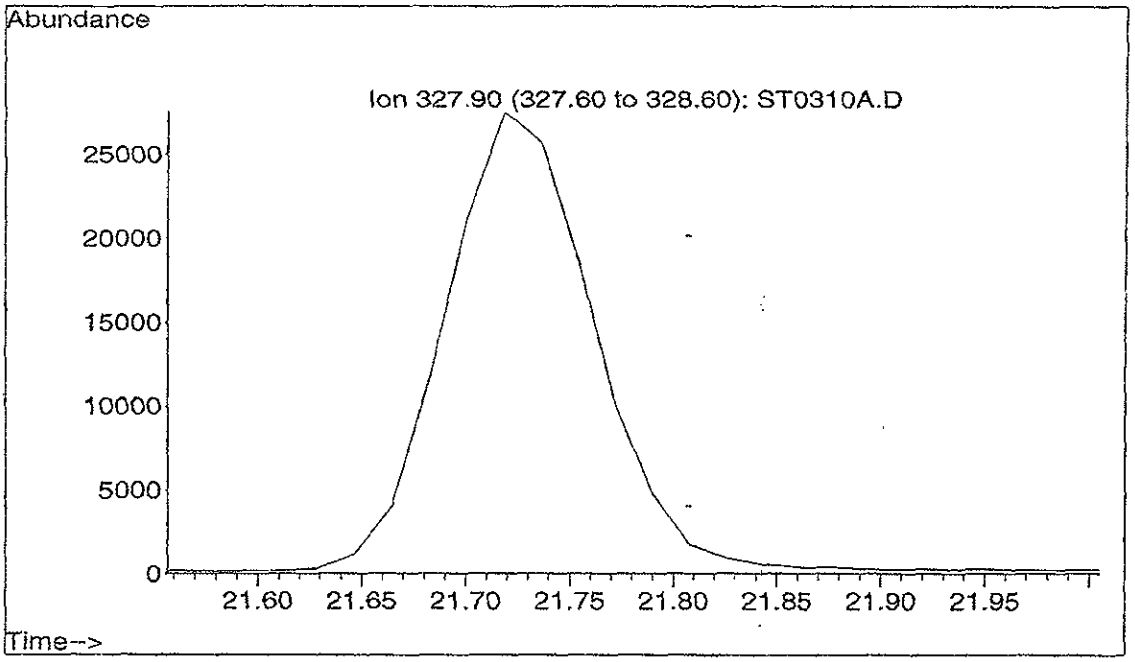
TS R.T. Lower Limit	21.50		
TS R.T. Upper Limit	21.85		
Ret Time	21.70		
Target Ion	331.9	Q1 Ion	333.9
Target Response	88023	Q1 Response.	109650
Total Response	197673	Ion Ratio	0.80

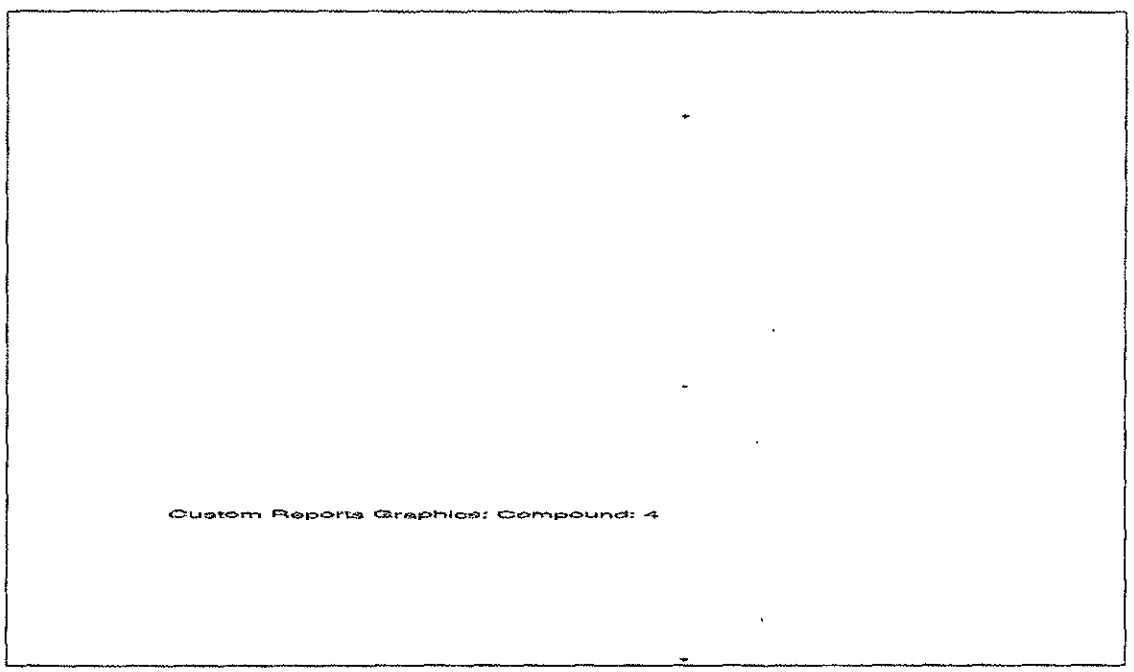




37Cl-2378-TCDD

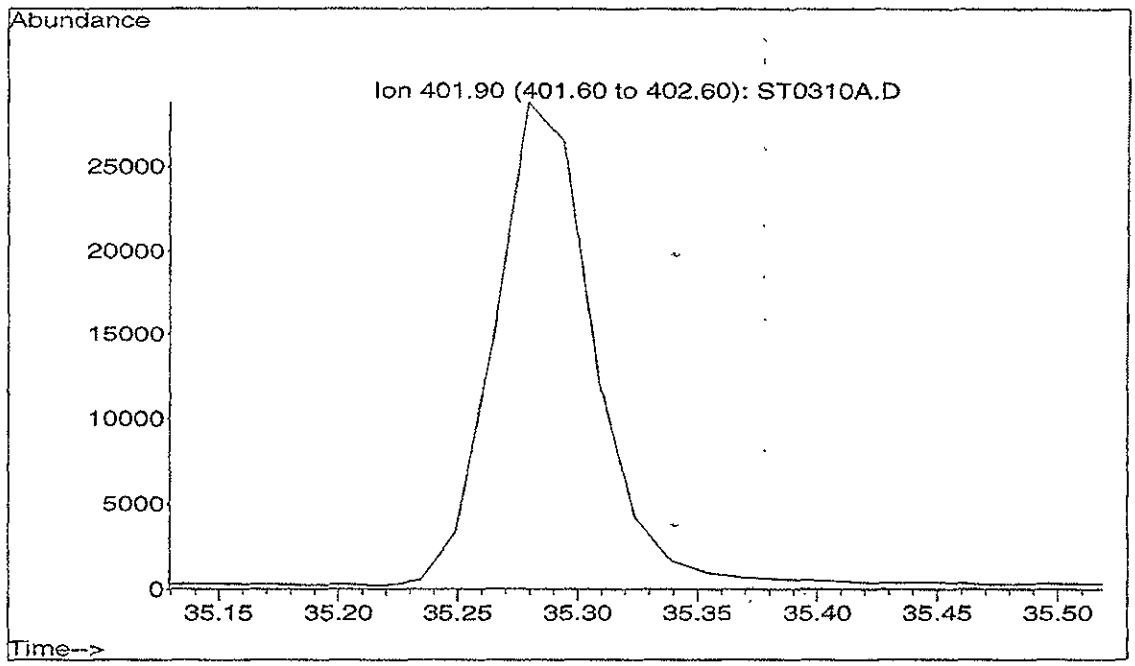
TS R.T. Lower Limit	21.47		
TS R.T. Upper Limit	21.92		
Ret Time	21.72		
Target Ion	327.9	Q1 Ion	0
Target Response	136282	Q1 Response	0
Total Response	136282	Ion Ratio	#DIV/0!

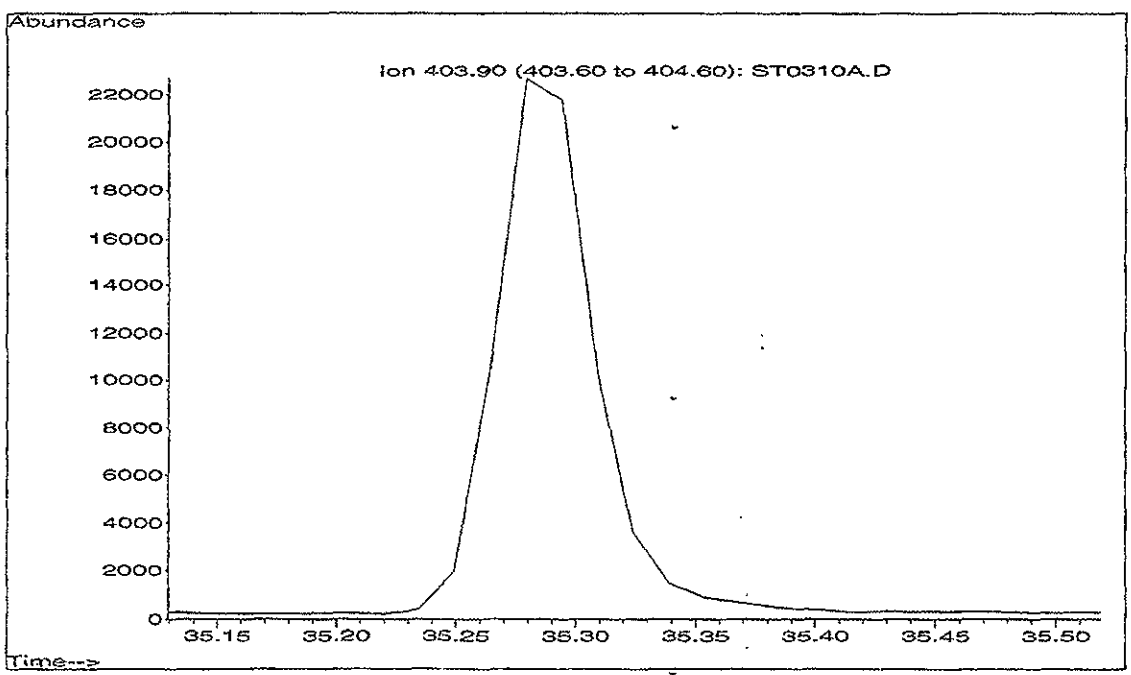




13C-123789-HxCDD

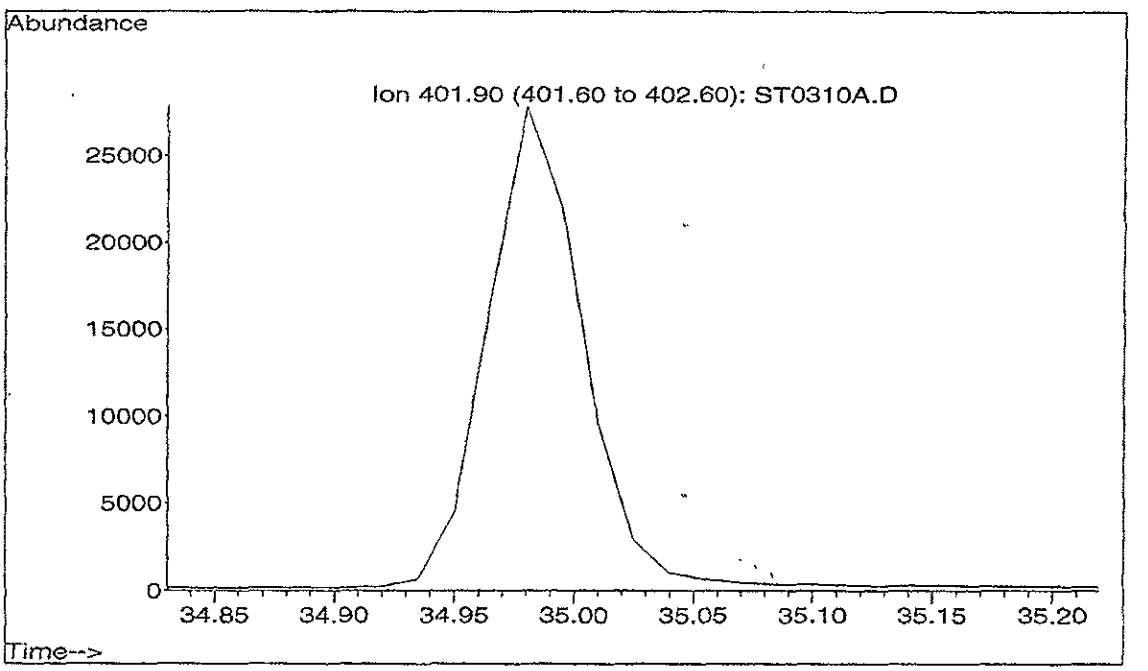
TS R.T. Lower Limit	35.08		
TS R.T. Upper Limit	35.48		
Ret Time	35.28		
Target Ion	401.9	Q1 Ion	403.9
Target Response	82006	Q1 Response	64976
Target Response	146982	Ion Ratio	1.26

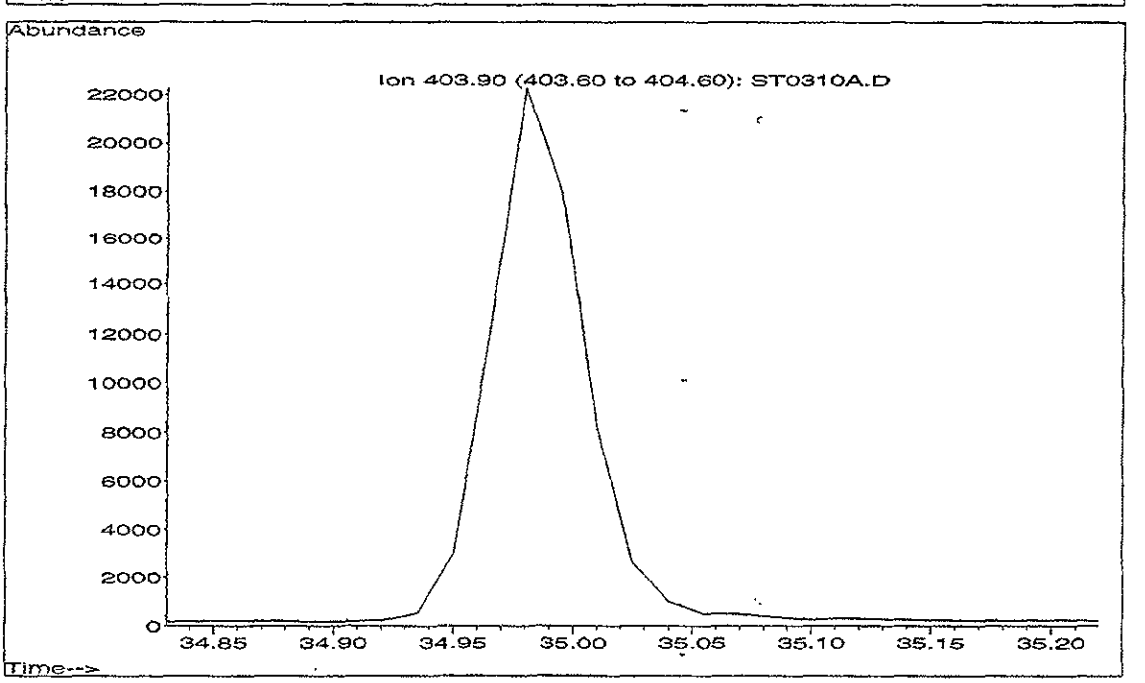




13C-123678-HxCDD-IS

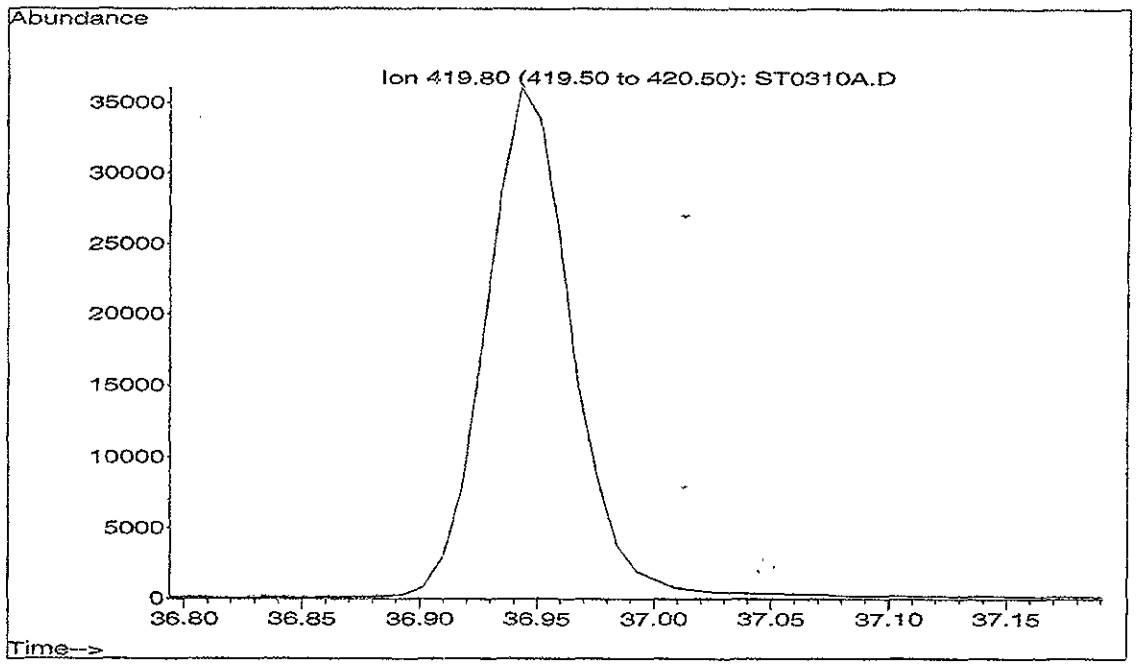
TS R.T. Lower Limit	34.78		
TS R.T. Upper Limit	35.18		
Ret Time	34.98		
Target Ion	401.9	Q1 Ion	403.9
Target Response	76734	Q1 Response	60709
Total Response	137443	Ion Ratio	1.26

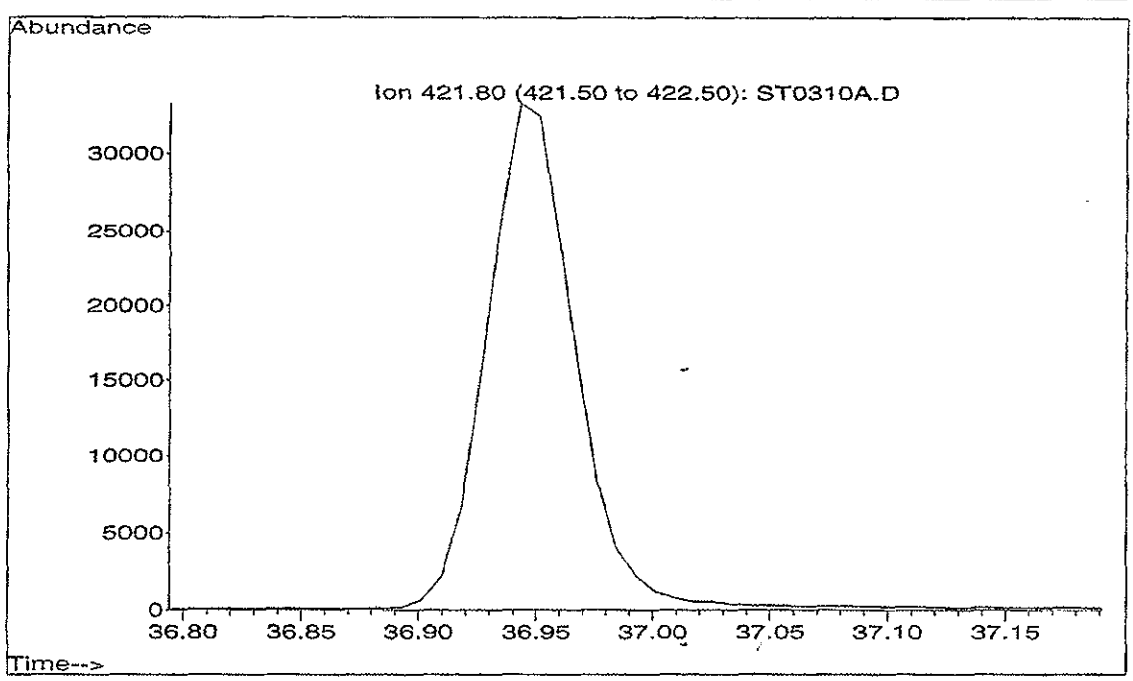




13C-1234678-HpCDF-IS

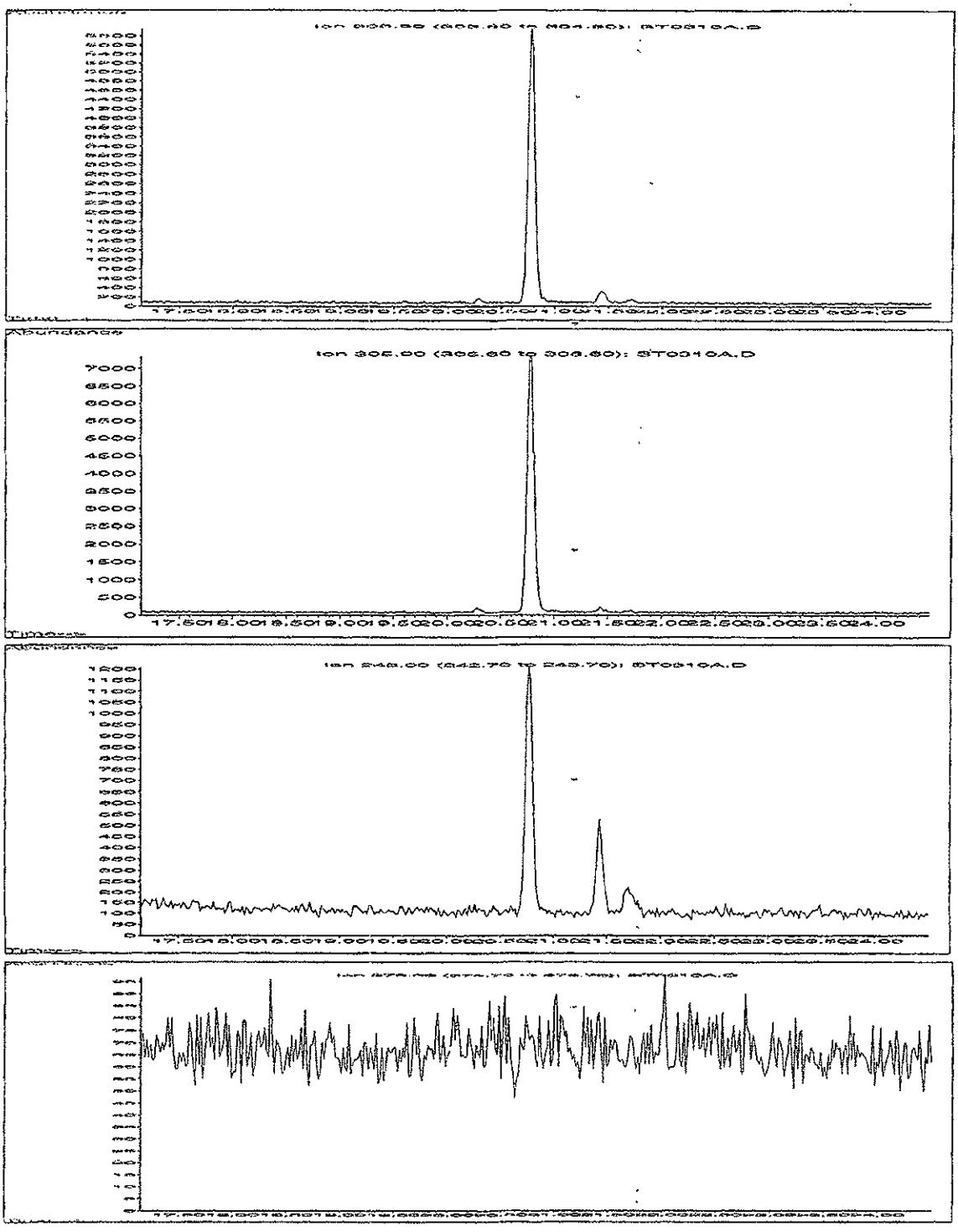
TS R.T. Lower Limit	36.74		
TS R.T. Upper Limit	37.14		
Ret Time	36.94		
Target Ion	419.8	Q1 Ion	421.8
Target Response	92448	Q1 Response	87264
Target Response	179712	Ion Ratio	1.06





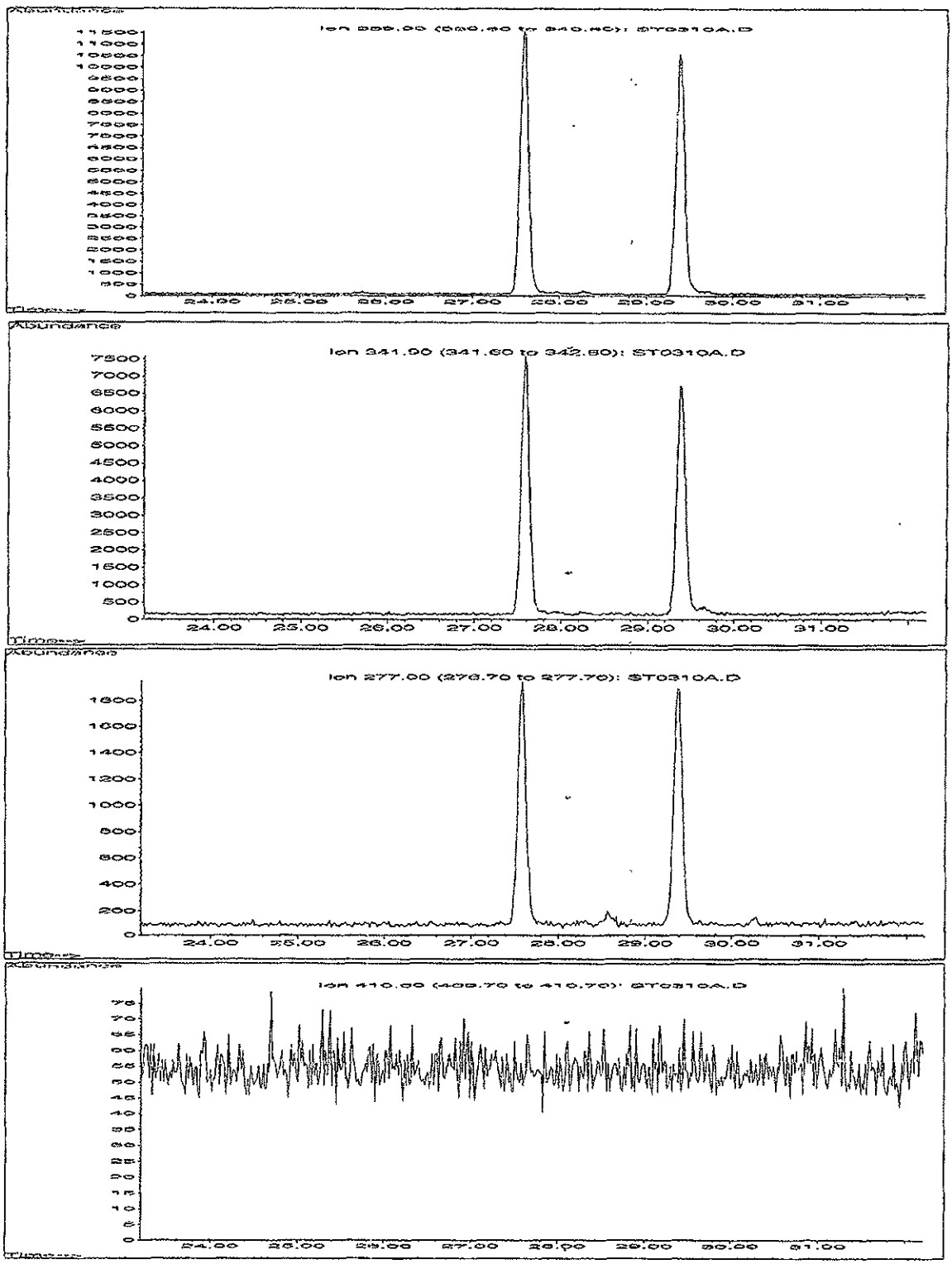
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



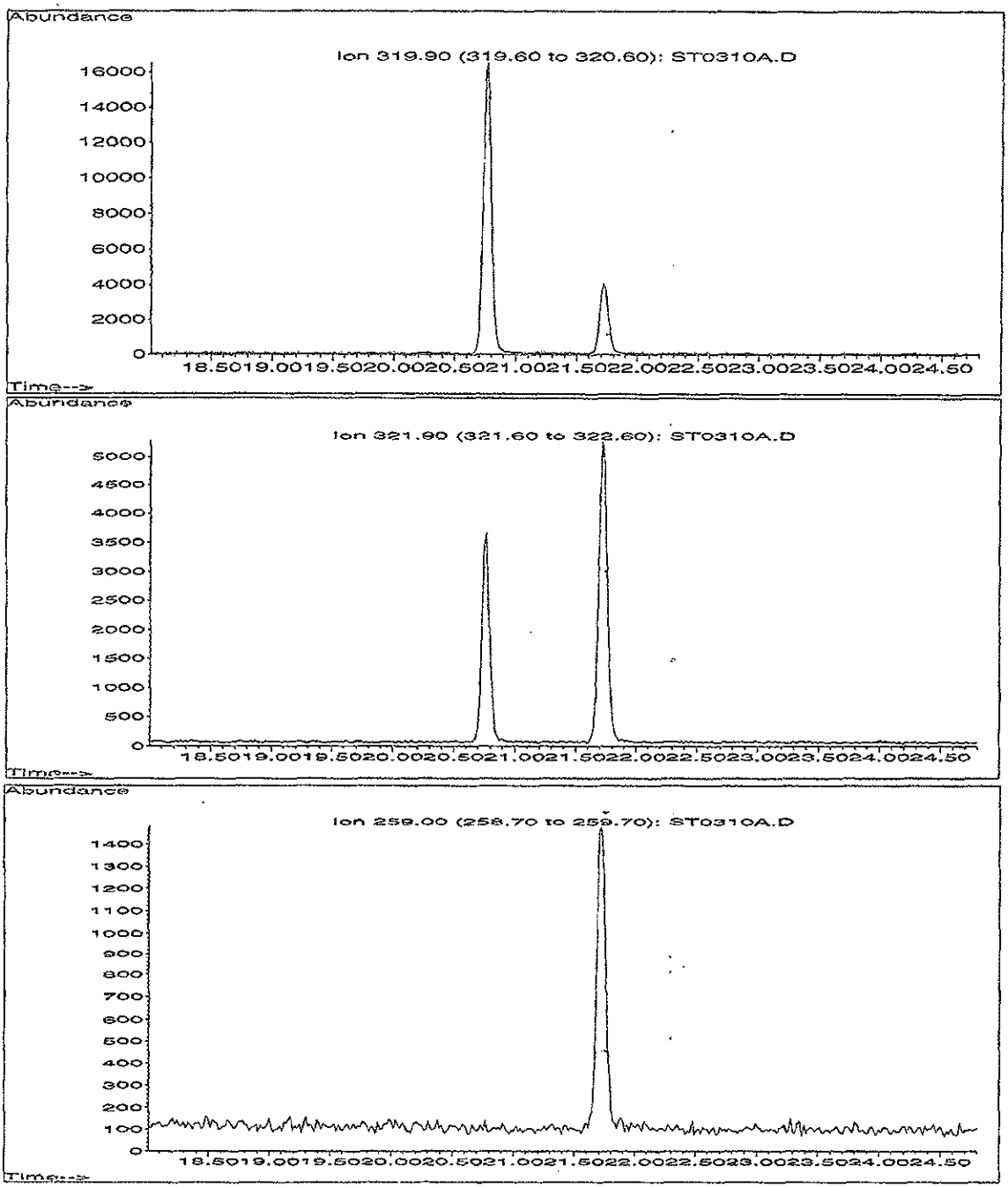
PeCDF TOTAL

TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



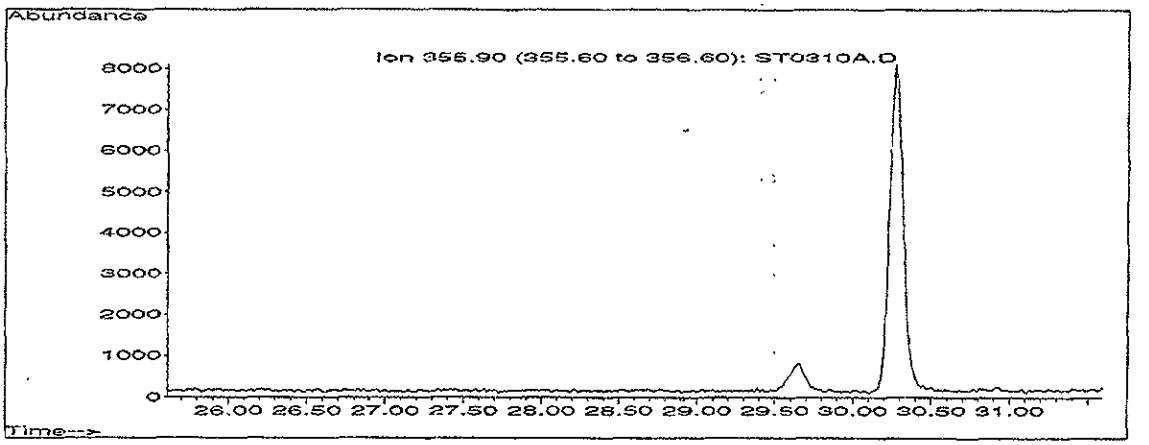
TCDD TOTAL

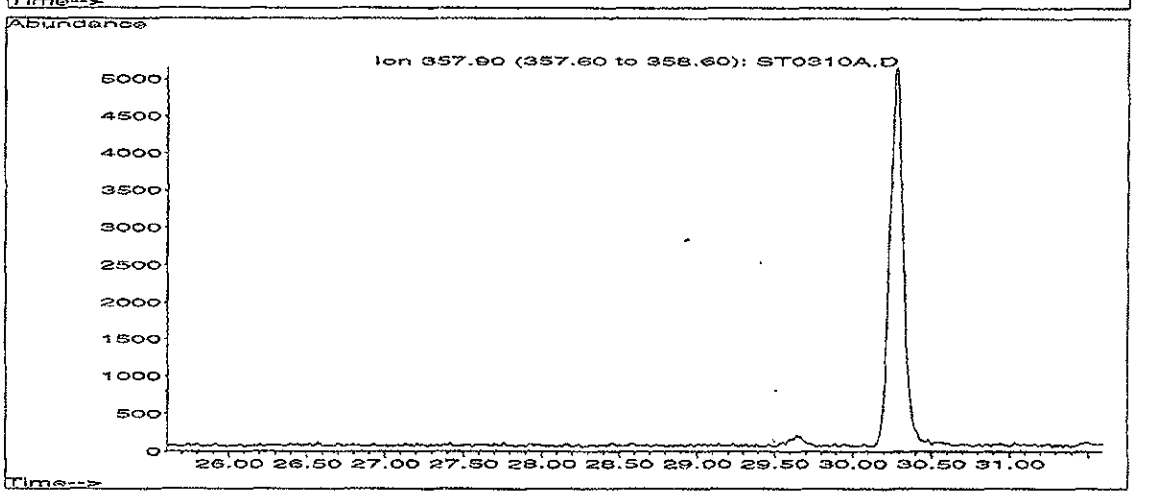
TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80

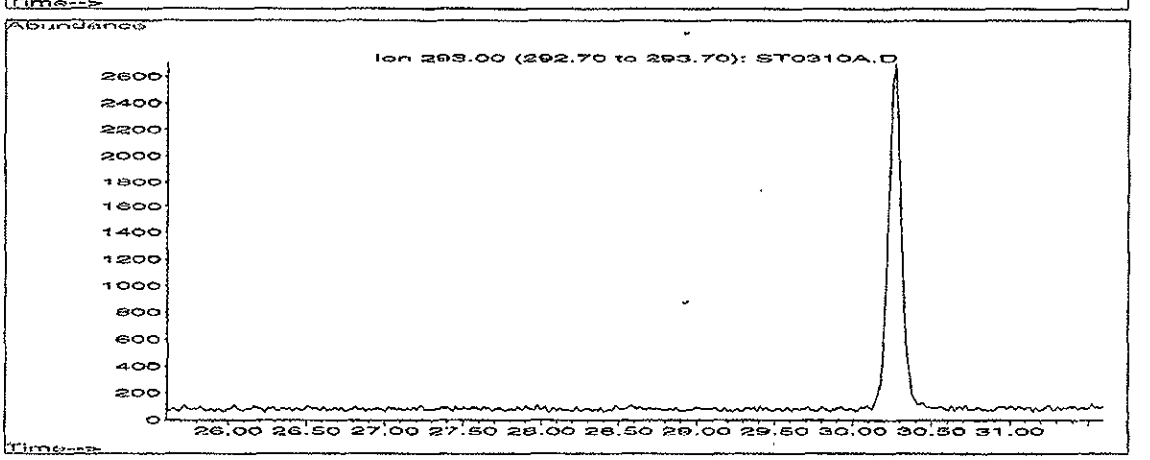


PeCDD TOTAL

TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

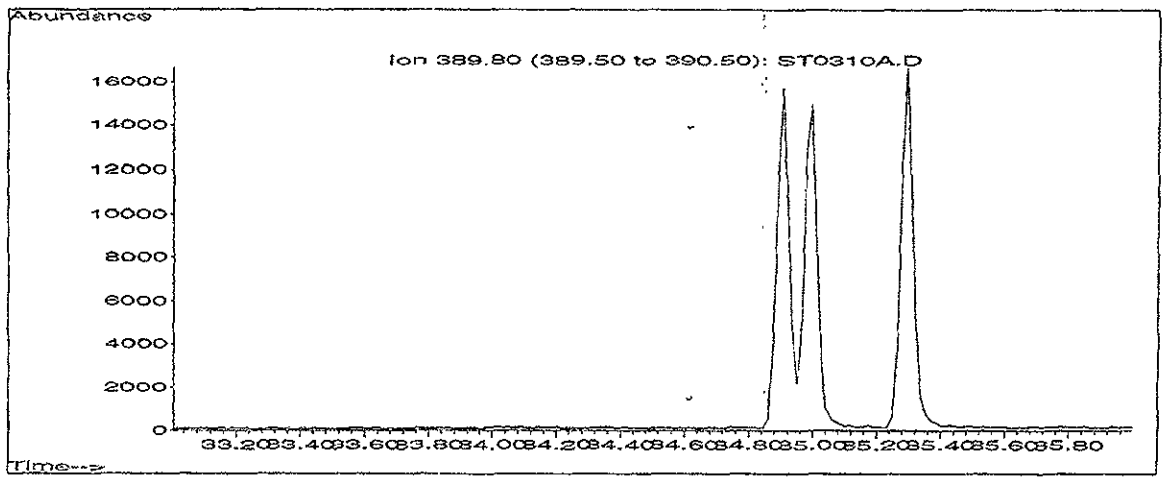


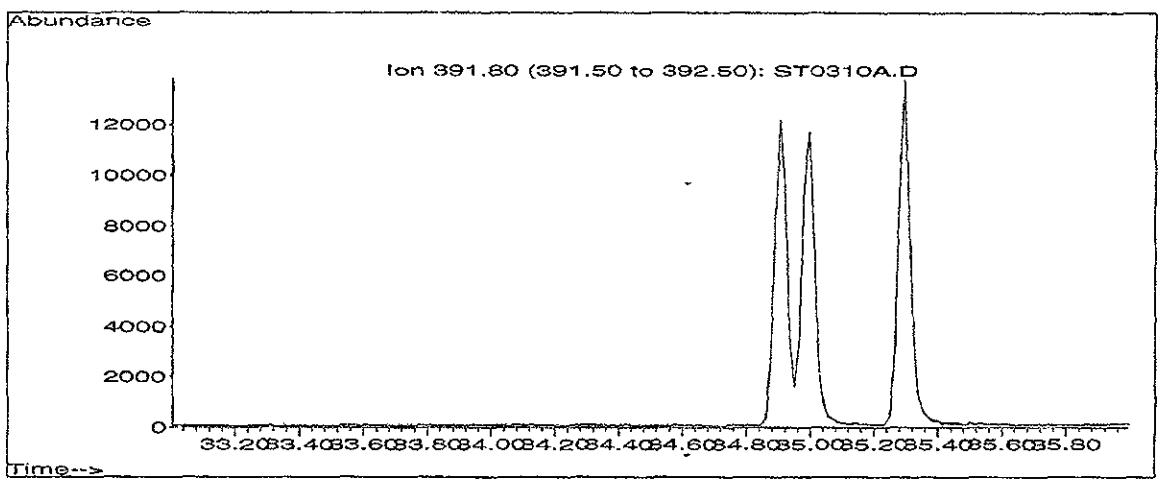


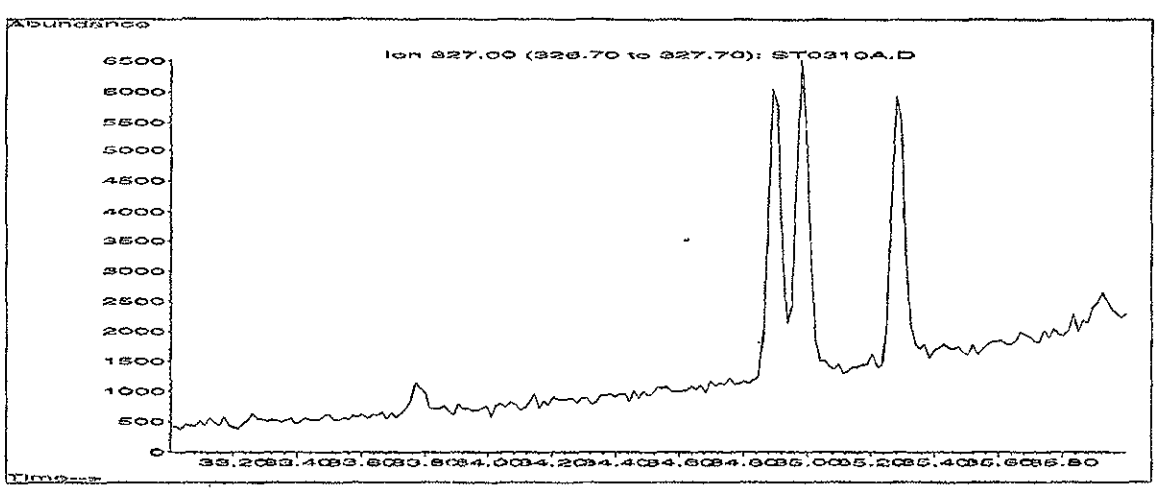


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

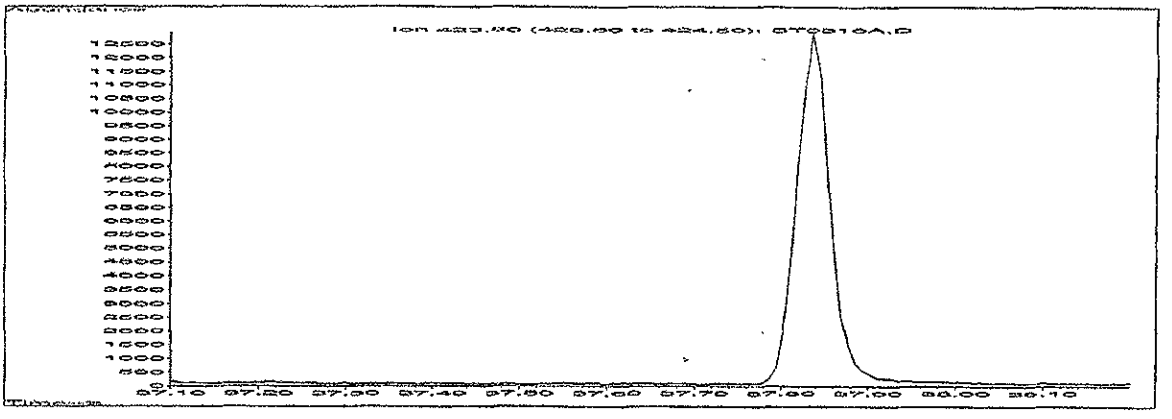


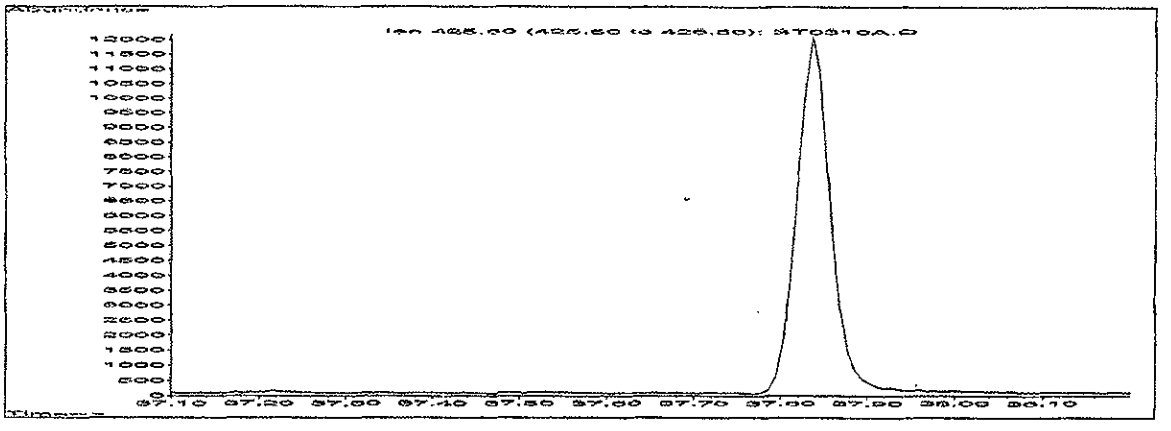


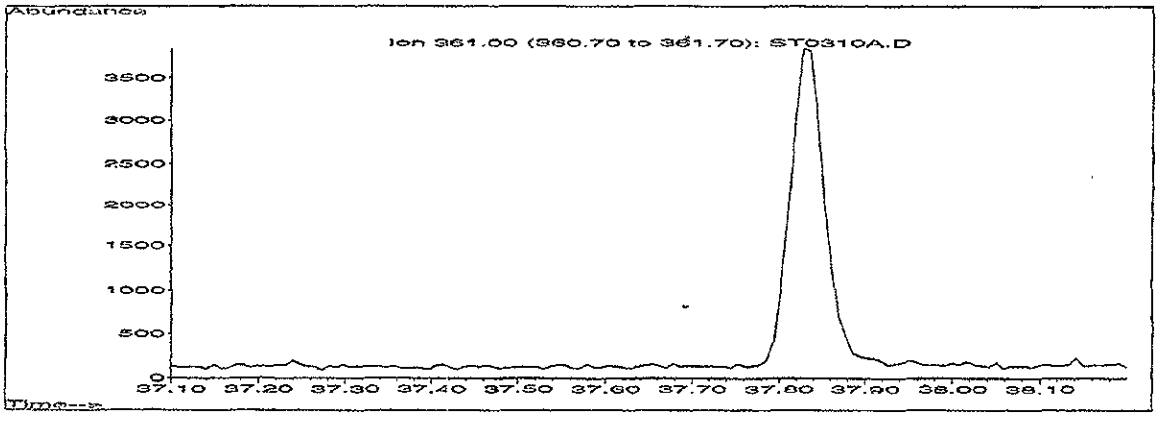


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

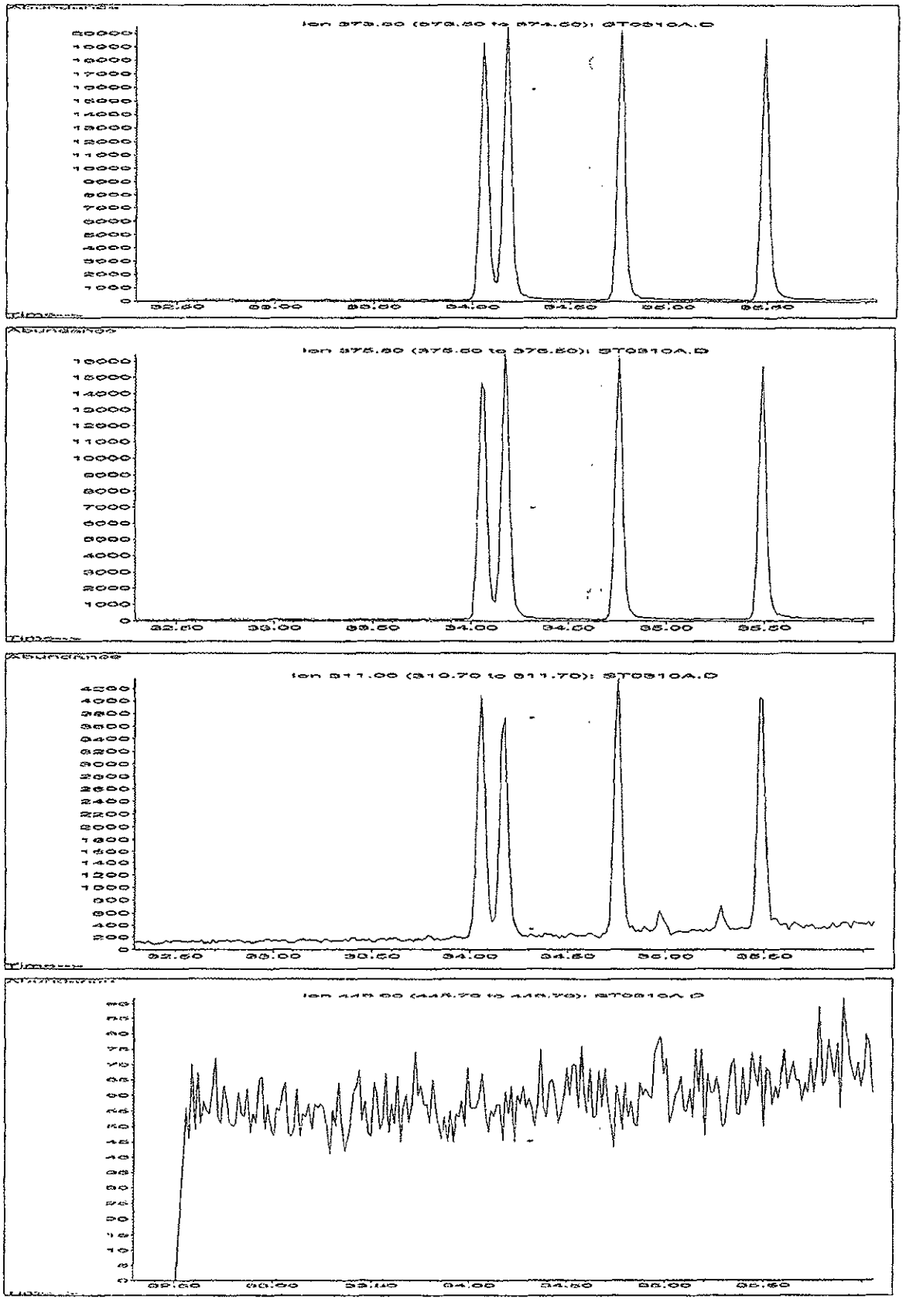






HxCDF TOTAL

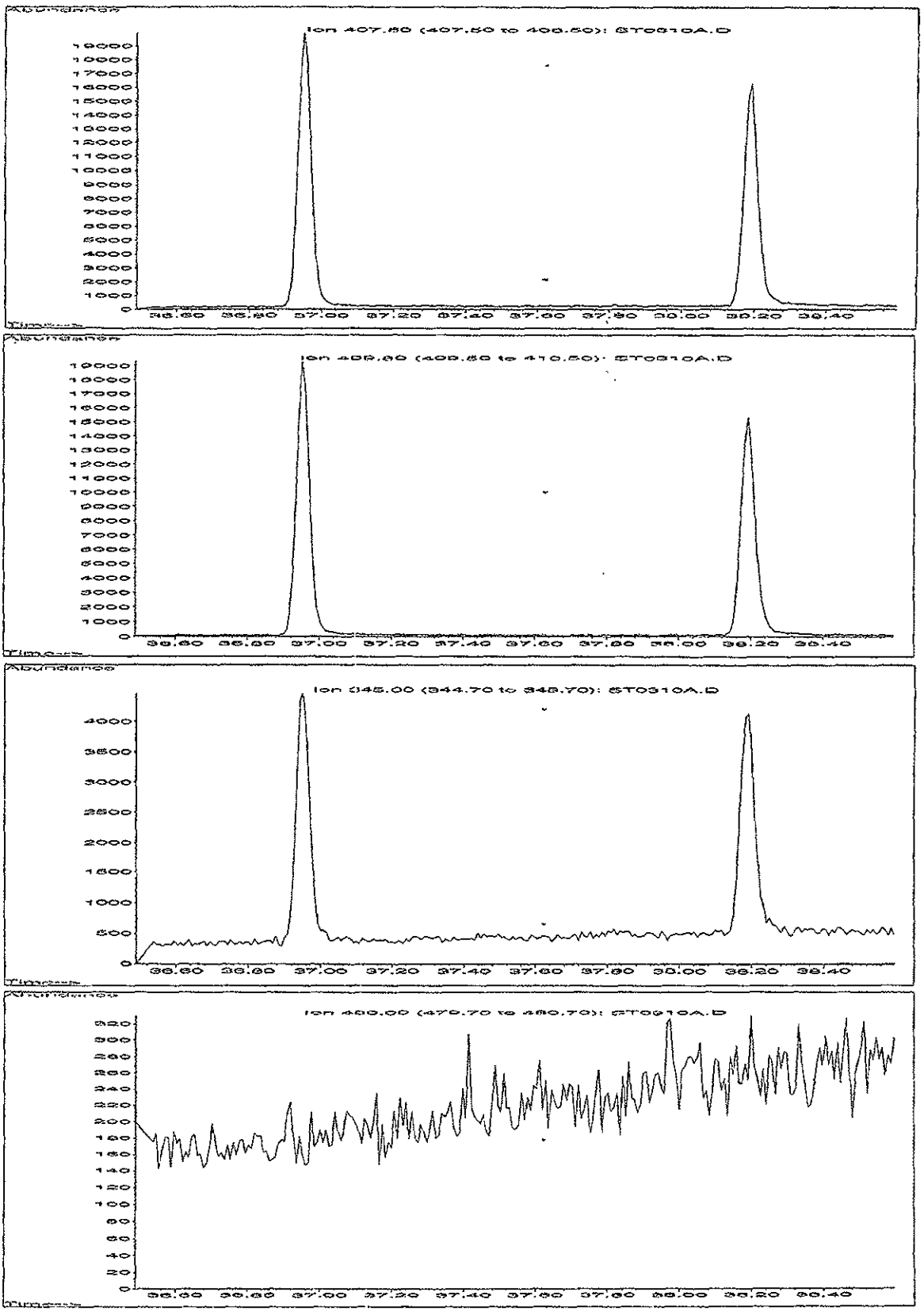
TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

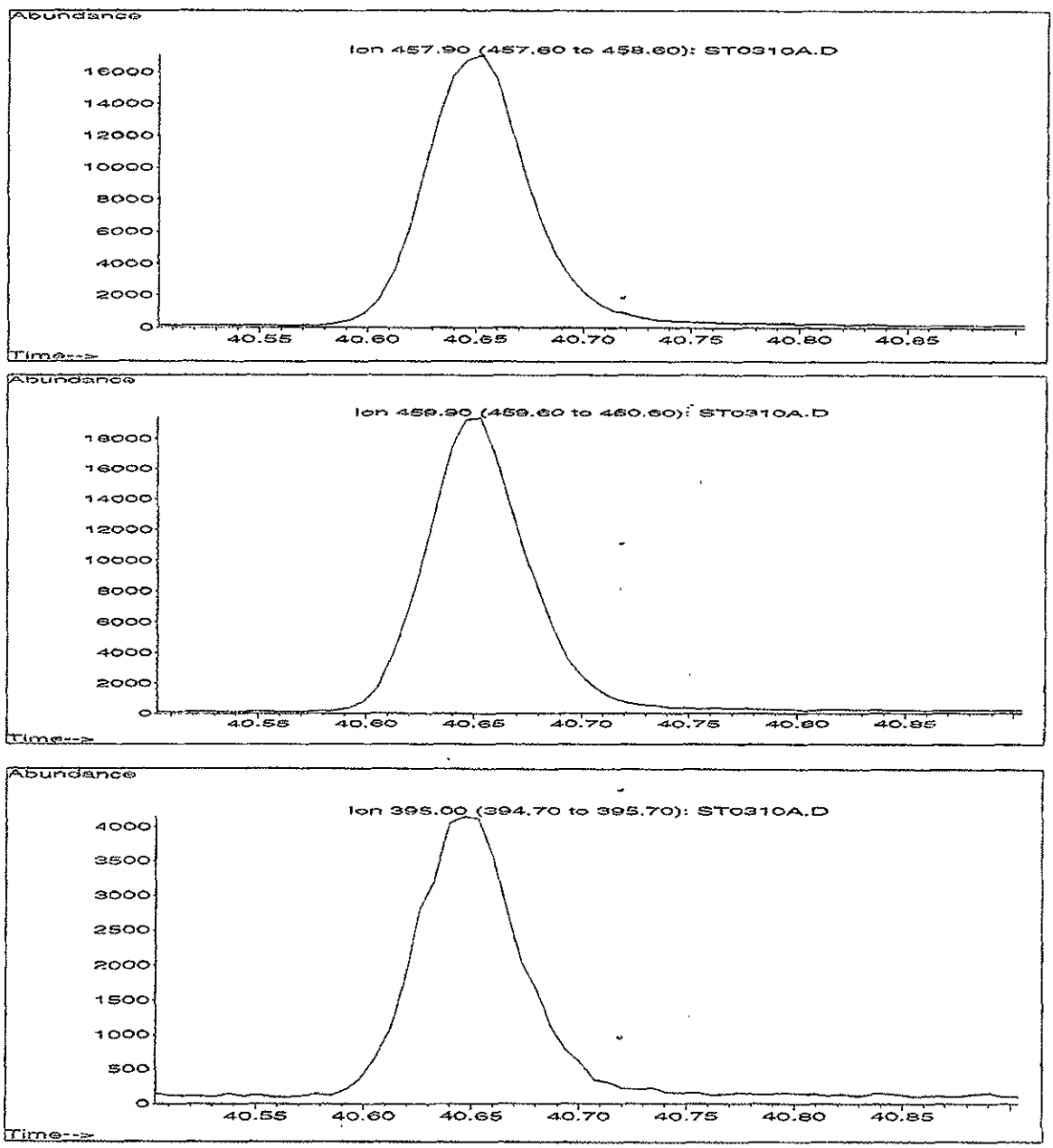
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



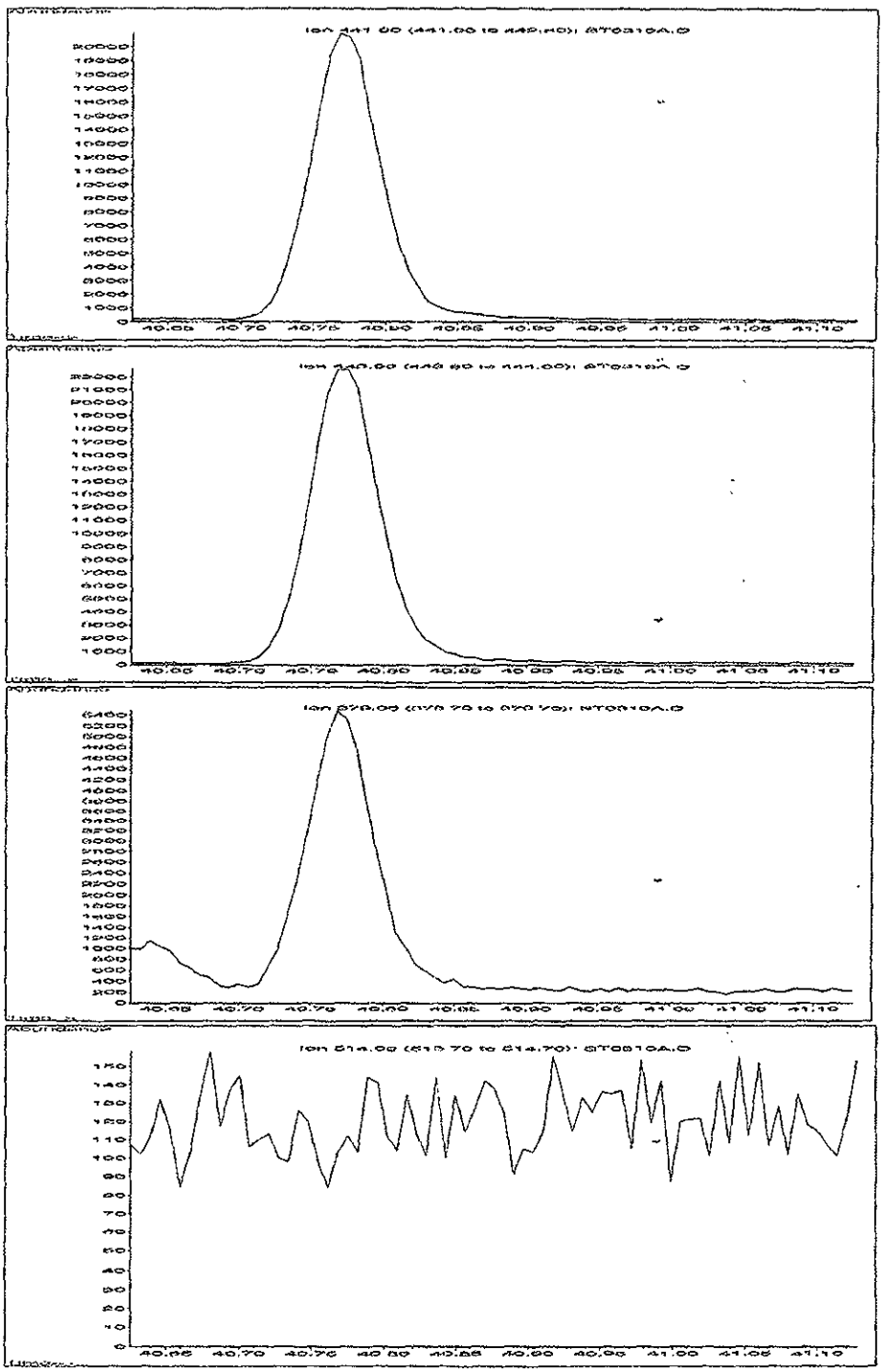
C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

OCDD			
TS R.T. Lower Limit	40.45		
TS R.T. Upper Limit	40.85		
Ret. Time	40.65		
Target Ion	457.9	Q1 Ion	459.9
Target Response	58322	Q1 Response	63641
Total Response	121963	Ion ratio	0.92
Q2 Ion	395		
Q2 Response	14025		



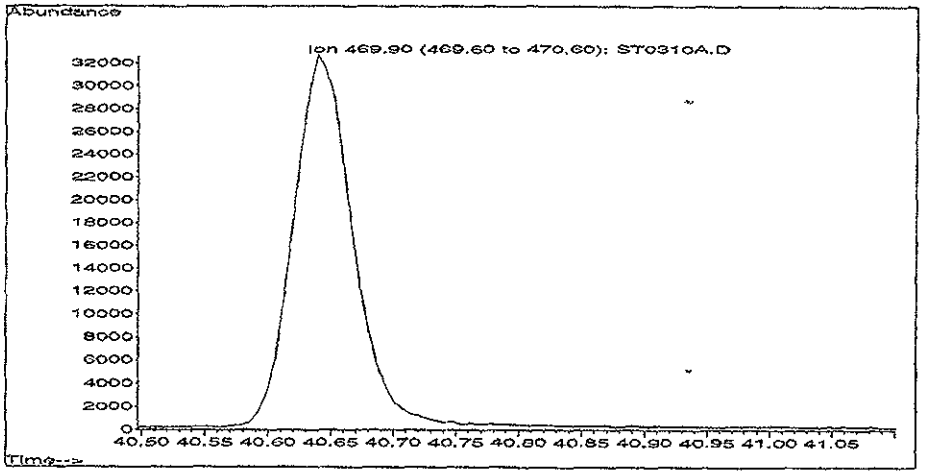
OCDF

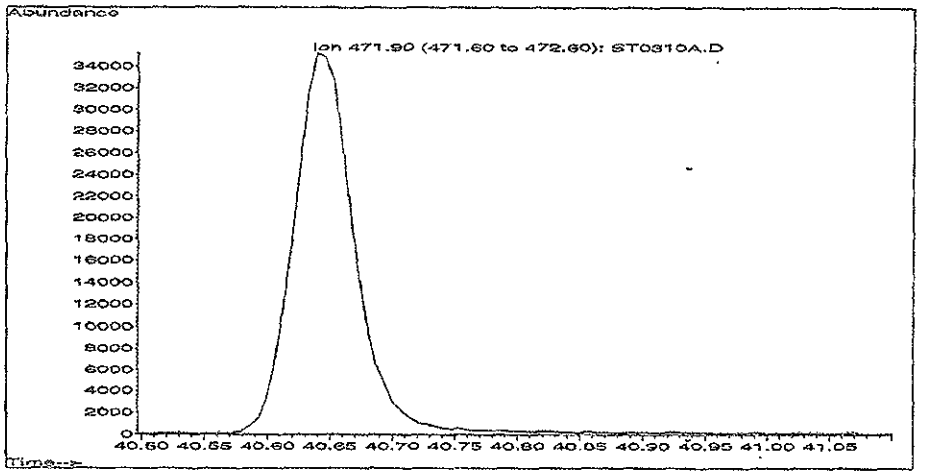
TS R.T. Lower Limit	40.57		
TS R.T. Upper Limit	41.07		
Ret Time	40.77		
Target Ion	441.9	Q1 Ion	443.9
Target Response	72287	Q1 Response	79609
Target Response	151896	Ion Ratio	0.91
Q2 Ion	379	DPE Ion	514
Q2 Response	17251	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.44		
RT Upper Limit	41.04		
Ret Time	40.64		
Target Ion	469.9	Q1 Ion	471.9
Target Response	107364	Q1 Response	118818
Total response	226182	Ratio	0.90





Quantitation Report (Not Reviewed)

Sample ID: CS-2 Size: 0.000
3136-45B CS-2 Inst : DB1

Data File:C:\8280\2DB\031009.B\ST0310B.D Vial: 91
Acq On :10 Mar 2009 12:39 Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Mar 10 13:45 2009 Quant Results File: 09MR10A2.RES

Quant Method : C:\8280\ DATA METHODS\09MR10A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Mar 10 12:45:26 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	21.44	332+334	0.79	259552	25.00 NG	0.00
5) 13C-123789-HxCDD	35.28	402+404	1.25	214695	25.00 NG	0.00
9) 13C-2378-TCDF	20.75	316+318	0.80	435209	25.00 NG	0.00
15) 13C-2378-TCDD	21.69	332+334	0.79	294409	25.00 NG	0.00
20) 13C-123678-HxCDD	34.98	402+404	1.27	203497	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.93	420+422	1.06	261886	25.00 NG	0.00
36) 13C-OCDD	40.64	470+472	0.91	326667	50.00 NG	0.00

Surrogate Compound

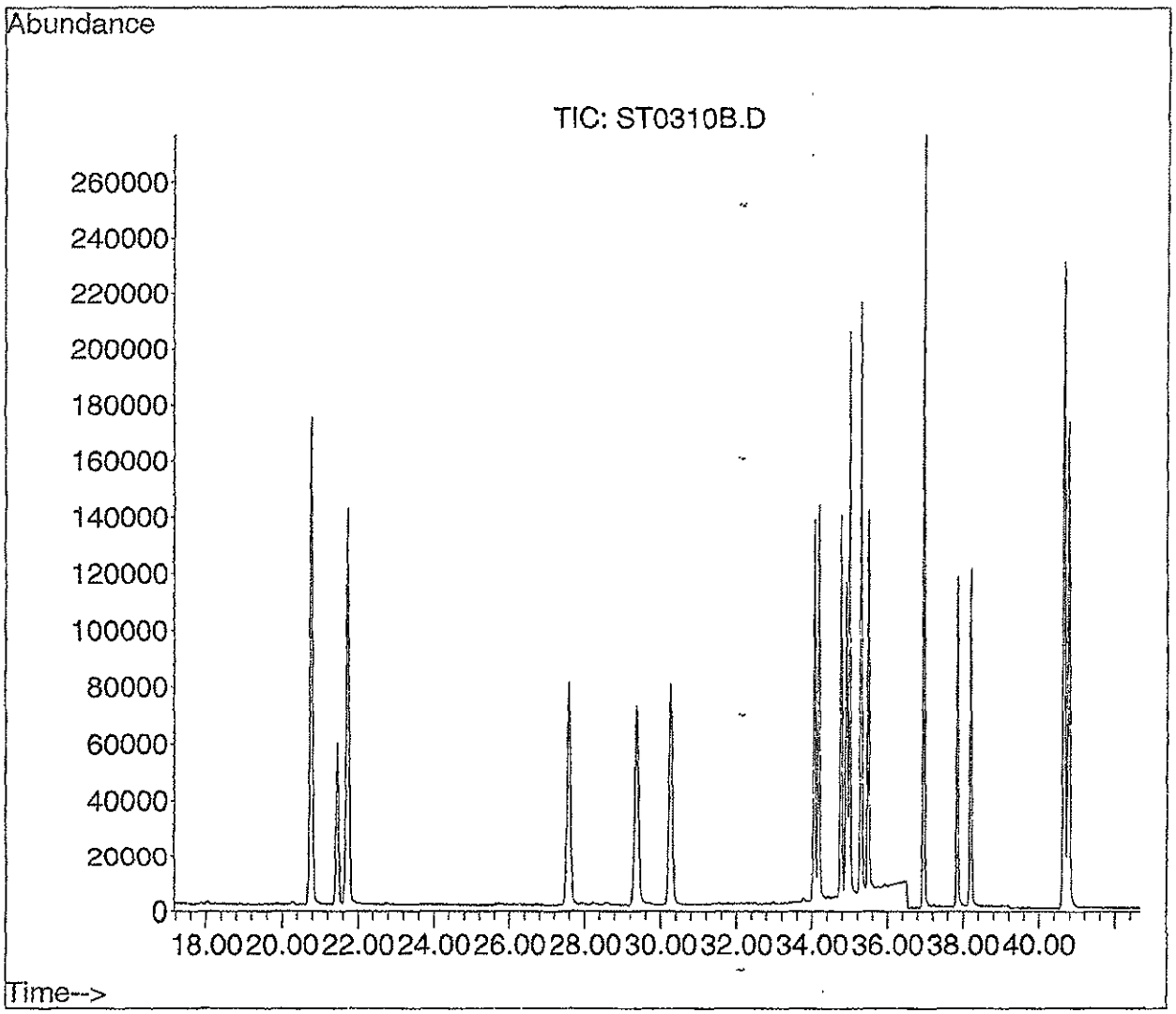
4) 37Cl-2378-TCDD	21.70	328		201476	12.458 NG	0.00
Spiked Amount = 12.500		RRF = 1.558		Recovery =	99.68%	

Target Compounds	RT	Ratio	Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.75	0.80	435209	1.698	24.689	0.0093	98.8
3) 13C-2378-TCDD-IS	21.69	0.79	294409	1.119	25.352	1.7850	101.4
6) 13C-123678-HxCDD-	34.98	1.27	203497	0.906	26.151	0.0394	104.6
7) 13C-1234678-HpCDF	36.93	1.06	261886	1.138	26.805	0.0471	107.2
8) 13C-OCDD-IS	40.64	0.91	326667	0.675	56.379	0.1436	112.8
10) 2378-TCDF	20.75	0.78	225539	1.085	11.945	0.2537	
1	20.27	0.85	3091		0.164		
2	20.75	0.78	226939		12.019		
11) TCDF TOTAL	19.50	0.78	230030	1.085	12.183		
12) 12378-PeCDF	27.56	1.54	467437	0.848	31.662	0.1348	
13) 23478-PeCDF	29.36	1.52	457286	0.824	31.886	0.0059	
1	27.56	1.54	472610		27.055		
2	28.25	1.47	5016		0.287		
3	29.36	1.51	457286		31.886		
14) PeCDF TOTAL	27.20	1.51	934912	1.003	59.228		
16) 2378-TCDD	21.70	0.78	162075	1.150	11.967	0.0354	
1	20.75	4.81 #	42146		3.112		
2	21.70	0.78	167047		12.334		
17) TCDD TOTAL	19.50	0.78	209193	1.150	15.446		
18) 12378-PeCDD	30.25	1.58	297307	0.815	30.977	0.0279	
1	30.25	1.57	302465		31.514		
19) PeCDD TOTAL	27.60	1.57	302465	0.815	31.514		
21) 123478-HxCDD	34.89	1.26	287430	1.173	30.091	2.1894	
22) 123678-HxCDD	34.98	1.25	261720	1.090	29.499	0.2719	
23) 123789-HxCDD	35.28	1.25	290139	1.202	29.644	0.2879	
1	34.89	1.26	287430		30.091		
2	34.98	1.16	261720		29.499		
3	35.28	1.24	293629		21.947		
24) HxCDD TOTAL	35.00	1.24	842779	1.644	81.538		

25)	1234678-HpCDD	37.83	1.05	242019	0.980	30.351	0.0508
	1	37.83	1.04	242019		30.351	
26)	HpCDD TOTAL	37.60	1.04	242019	0.980	30.351	
28)	123478-HxCDF	34.05	1.24	381229	1.310	27.780	26.6298
29)	123678-HxCDF	34.17	1.24	395901	1.321	28.611	3.8541
30)	234678-HxCDF	34.76	1.24	376455	1.279	28.105	0.0208
31)	123789-HxCDF	35.47	1.24	363182	1.215	28.538	0.0354
	1	34.05	1.24	381229		27.780	
	2	34.17	1.24	395901		28.611	
	3	34.76	1.24	376455		28.105	
	4	35.47	1.25	366099		17.177	
32)	HxCDF TOTAL	34.80	1.25	1519684	2.035	101.673	
33)	1234678-HpCDF	36.94	1.05	353240	1.151	29.287	0.0537
34)	1234789-HpCDF	38.18	1.05	315254	1.029	29.253	0.0654
	1	36.94	1.04	353240		29.287	
	2	38.18	1.05	315254		29.253	
35)	HpCDF TOTAL	38.00	1.05	668494	1.029	58.540	
37)	OCDD	40.65	0.90	430621	1.030	63.976	0.0943
38)	OCDF	40.76	0.91	548664	1.336	62.858	0.1590

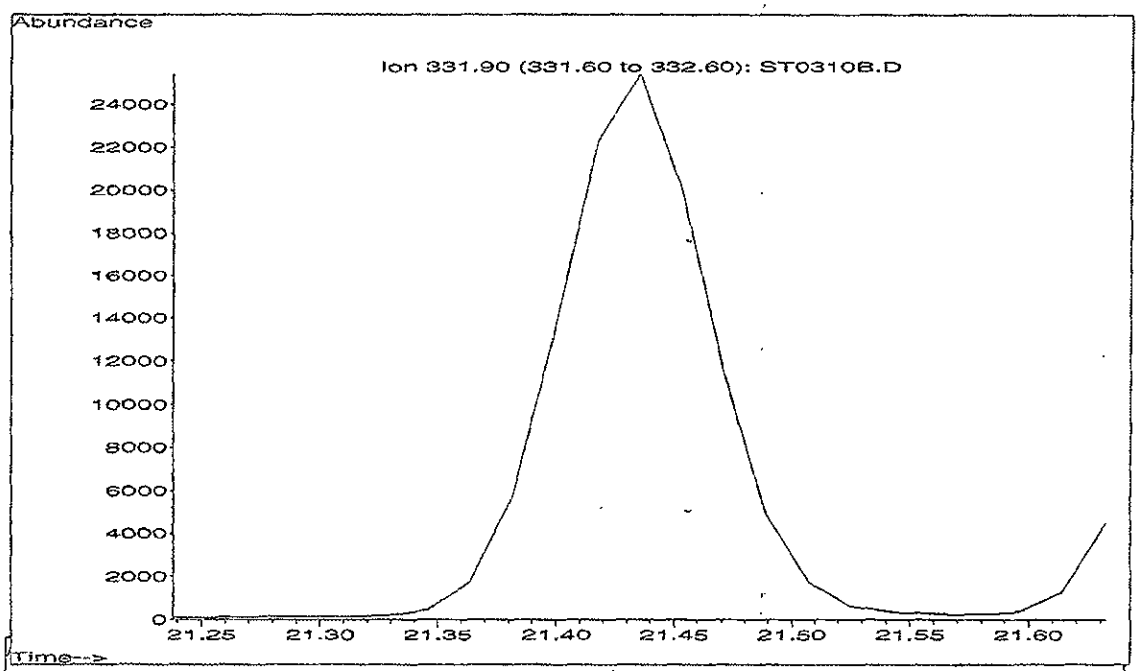
(#) = qualifier out of range*: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0310B.D 09MR10A2.M Tue Mar 10 12:45:35 2009

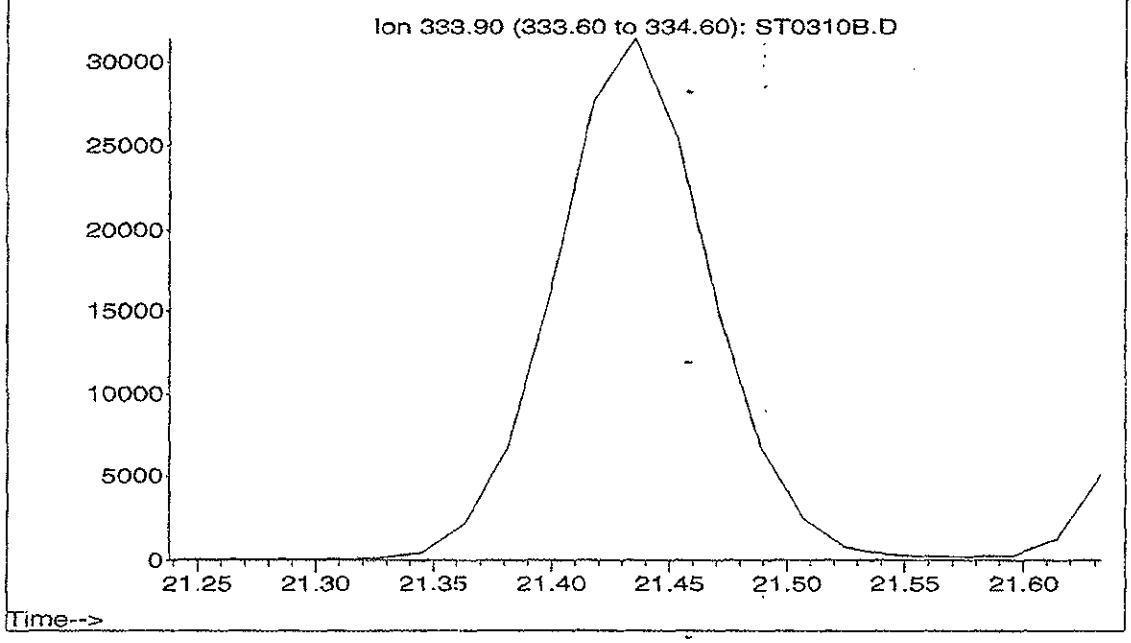
Data File Name	ST0310B.D
Data File Path	C:\8280\2DB\031009.B\
Operator	MEO
Date Acquired	3/10/2009 12:39
Acq. Method File	TOKAS
Sample Name	3136-45B CS-2
Misc Info	CS-2
Vial Number	91
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



13C-1234-TCDD

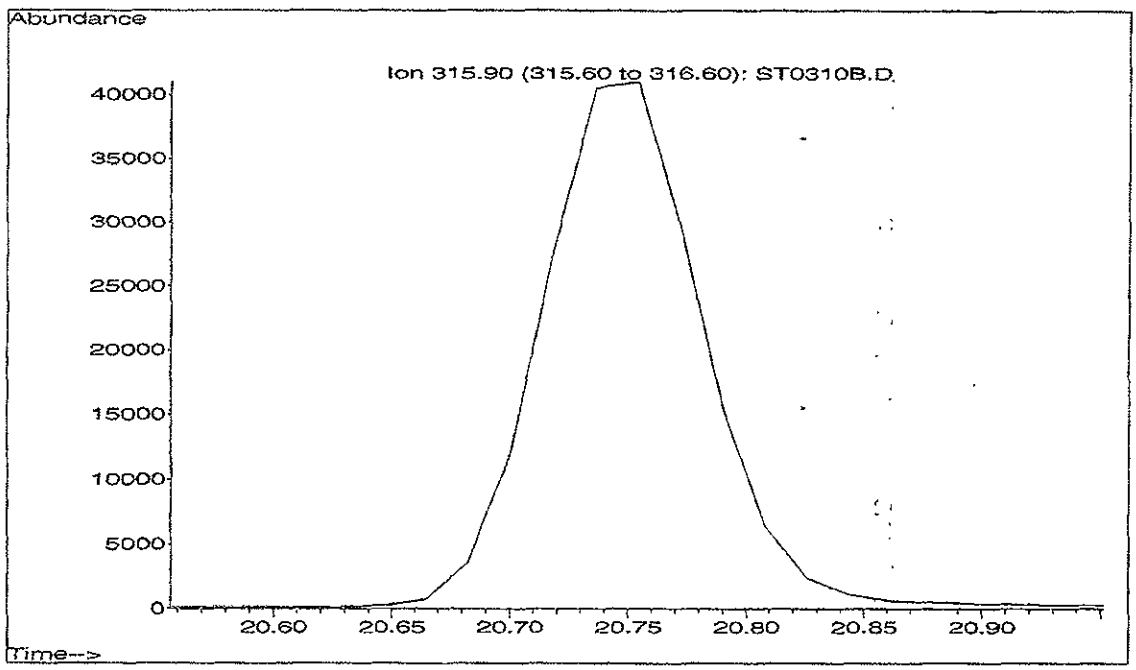
TS R.T. Lower Limit	21.24		
TS R.T. Upper Limit	21.64		
Ret Time	21.44		
Target Ion	331.9	Q1 Ion	333.9
Target Response	114773	Q1 Response	144779
Total Response	259552	Ion Ratio	0.79

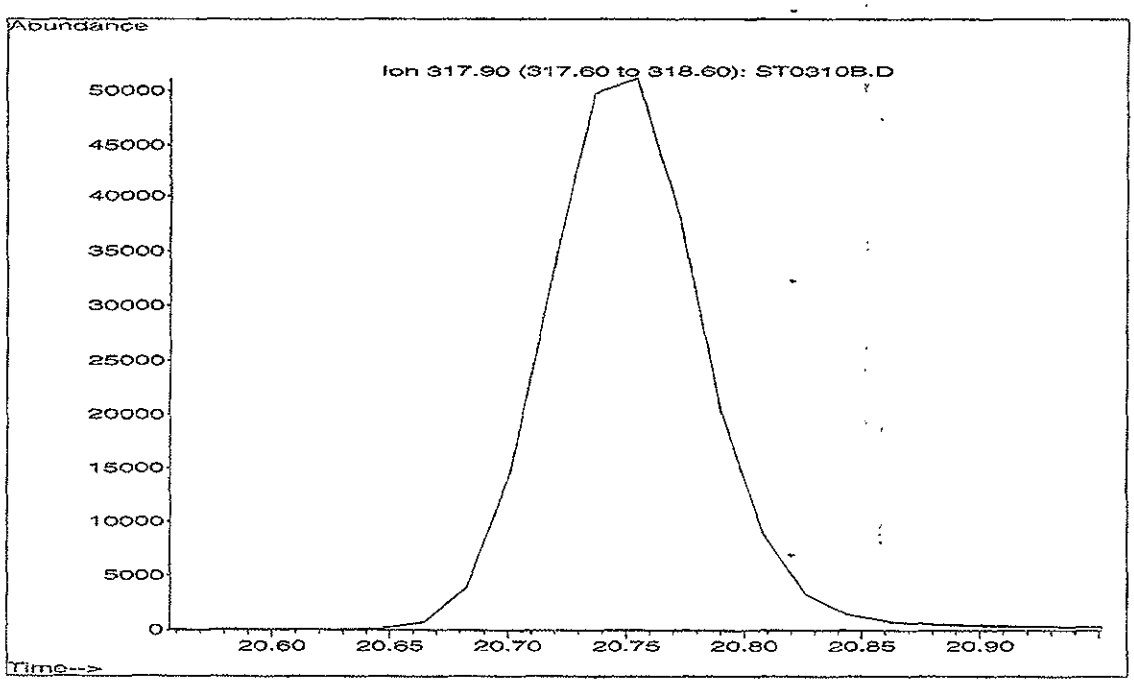




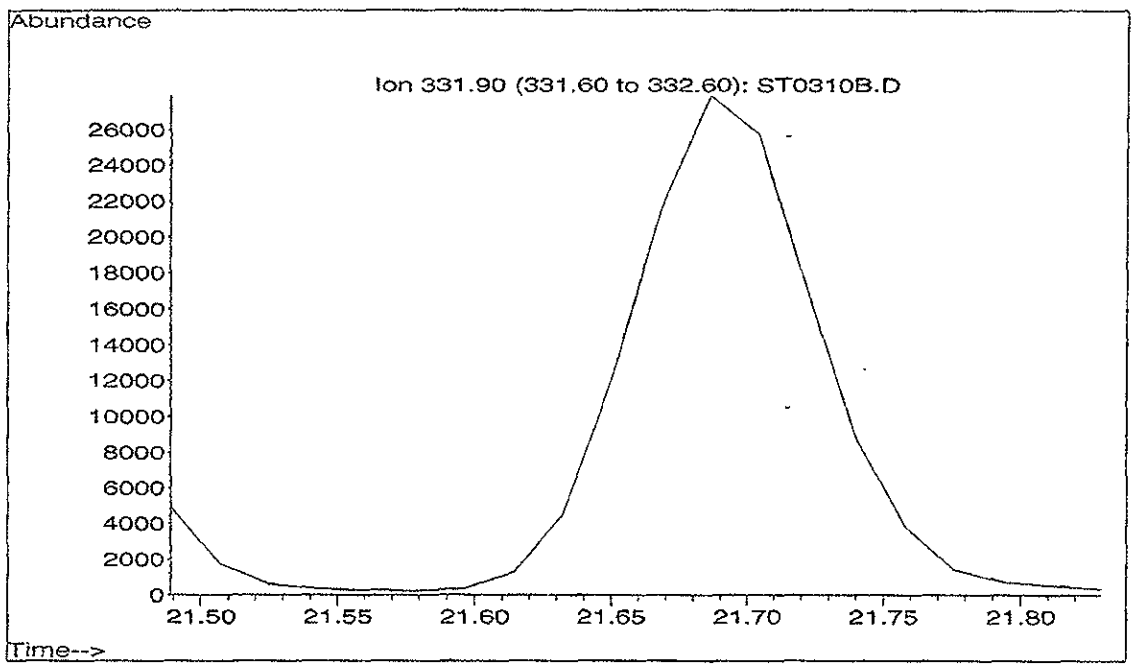
13C-2378-TCDF-IS

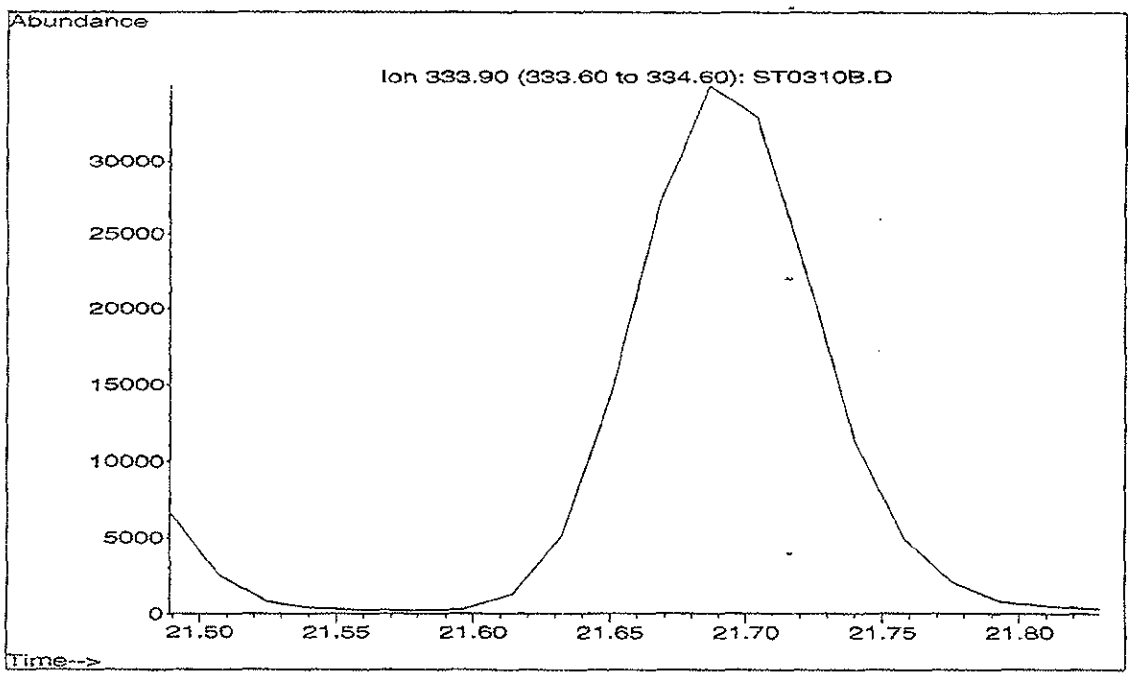
TS R.T. Lower Limit	20.55		
TS R.T. Upper Limit	20.95		
Ret Time	20.75		
Target Ion	315.9	Q1 Ion	317.9
Target Response	193556	Q1 Response	241653
Target Response	435209	Ion Ratio	0.80





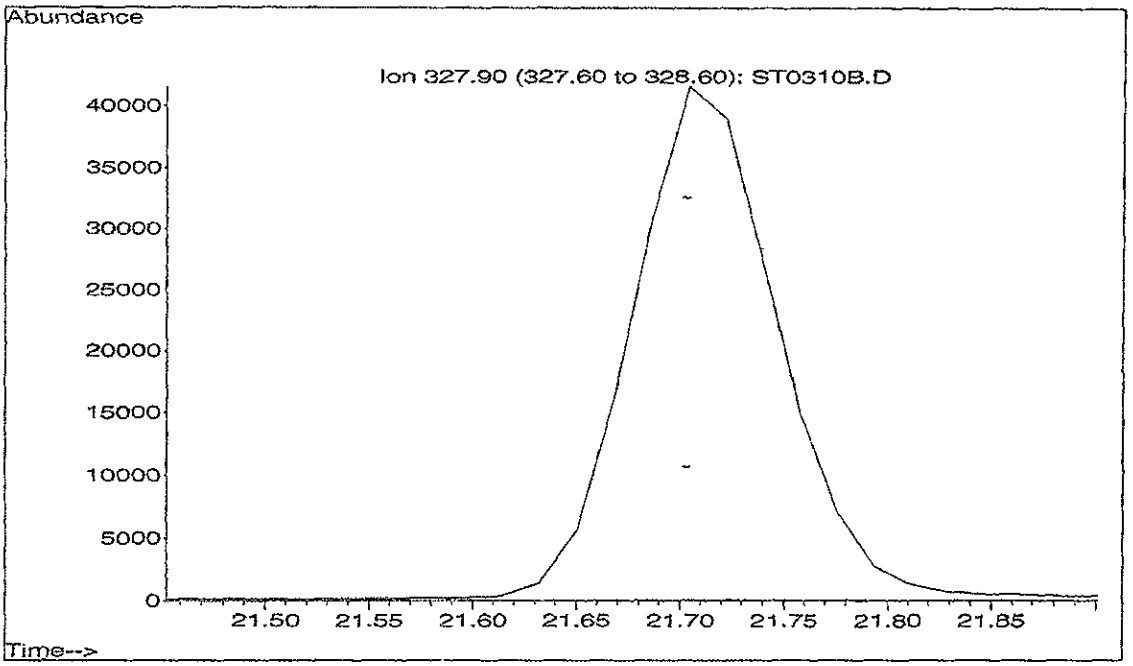
13C-2378-TCDD-IS			
TS R.T. Lower Limit	21.49		
TS R.T. Upper Limit	21.84		
Ret Time	21.69		
Target Ion	331.9	Q1 Ion	333.9
Target Response	130236	Q1 Response	164173
Total Response	294409	Ion Ratio	0.79

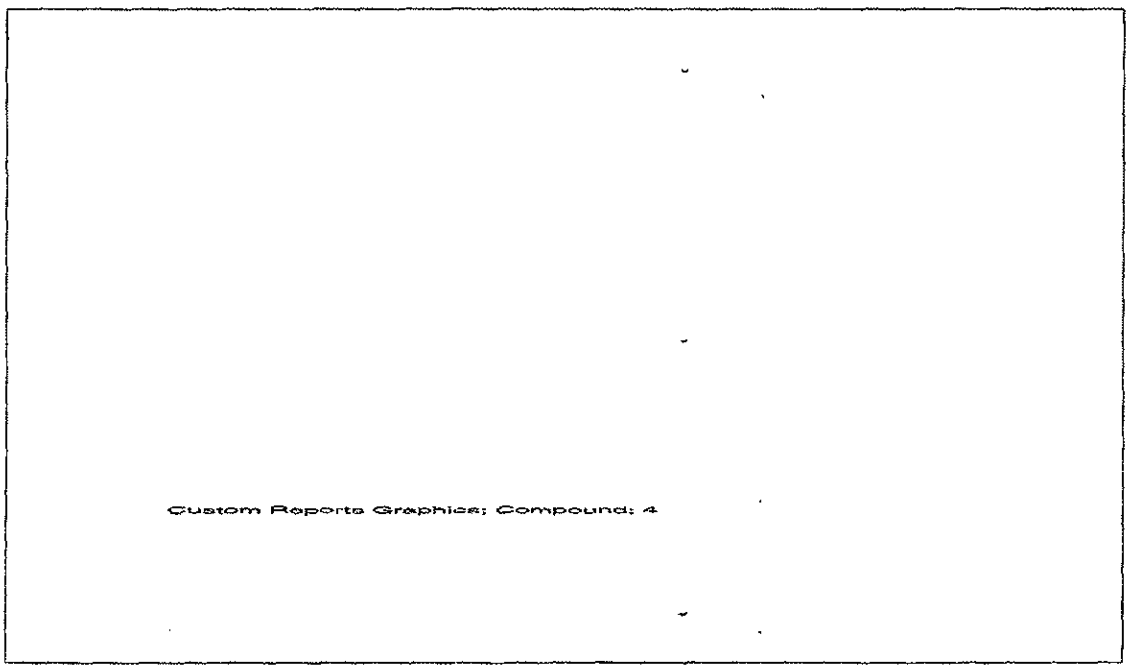




37Cl-2378-TCDD

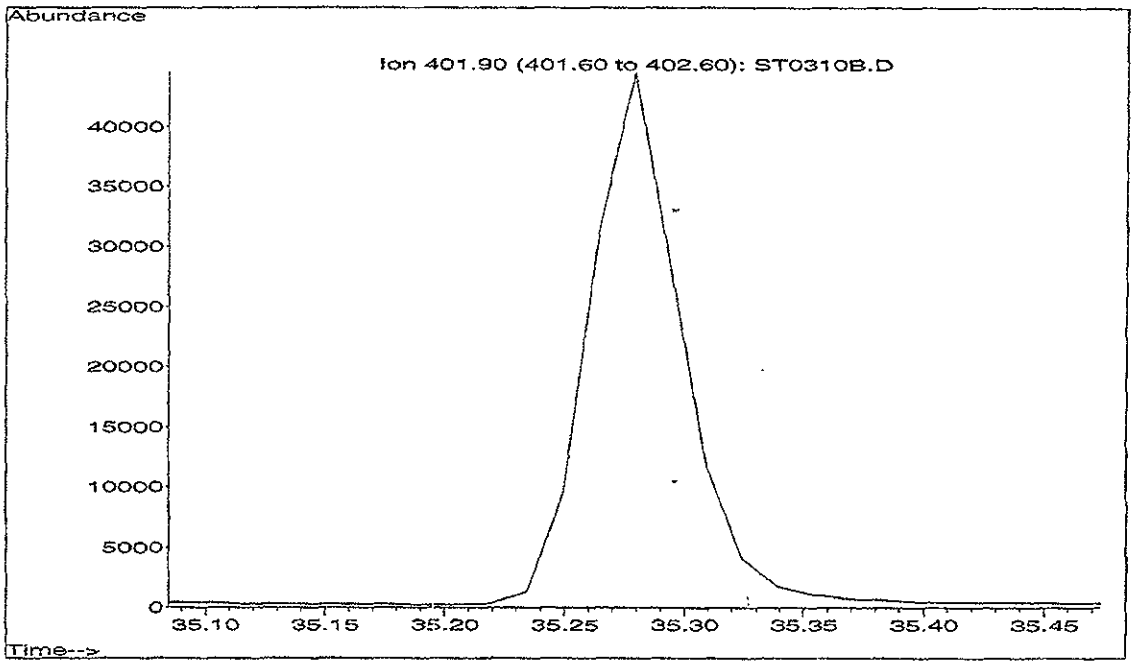
TS R.T. Lower Limit	21.45		
TS R.T. Upper Limit	21.90		
Ret Time	21.70		
Target Ion	327.9	Q1 Ion	0
Target Response	201476	Q1 Response	0
Total Response	201476	Ion Ratio	#DIV/0!

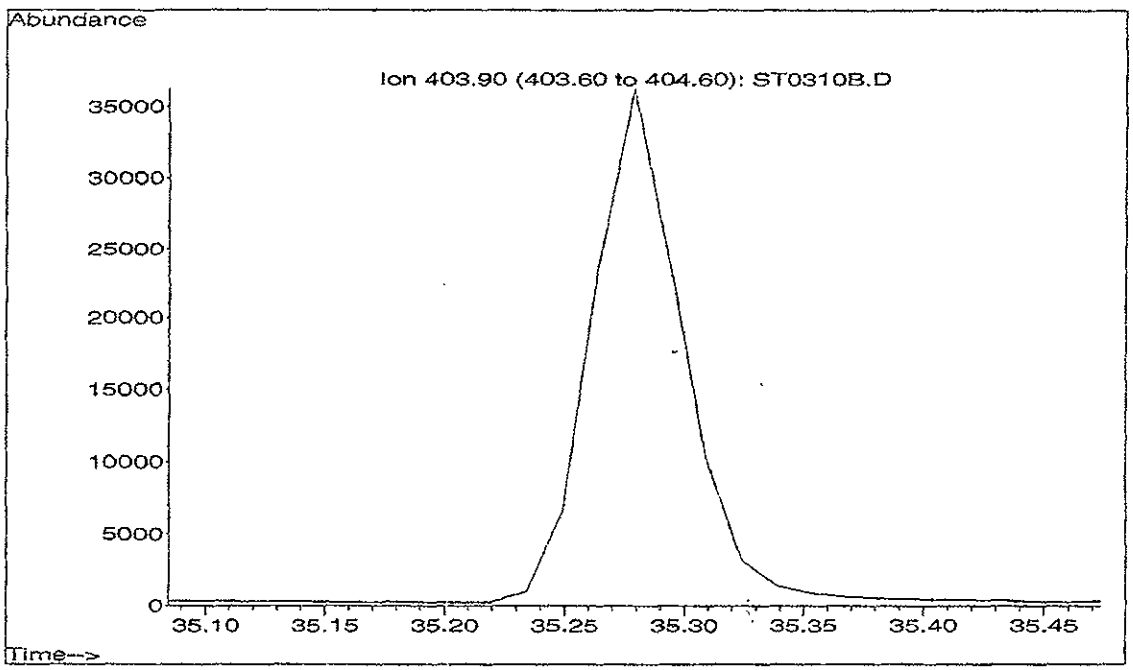




13C-123789-HxCDD

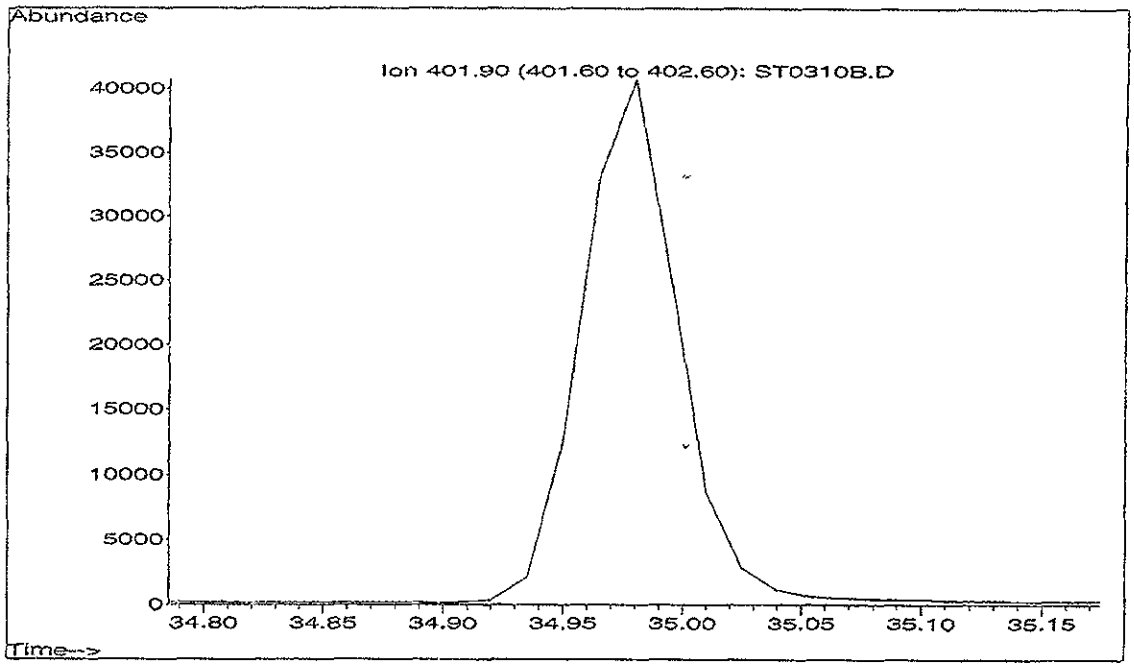
TS R.T. Lower Limit	35.08		
TS R.T. Upper Limit	35.48		
Ret Time	35.28		
Target Ion	401.9	Q1 Ion	403.9
Target Response	119251	Q1 Response	95444
Target Response	214695	Ion Ratio	1.25

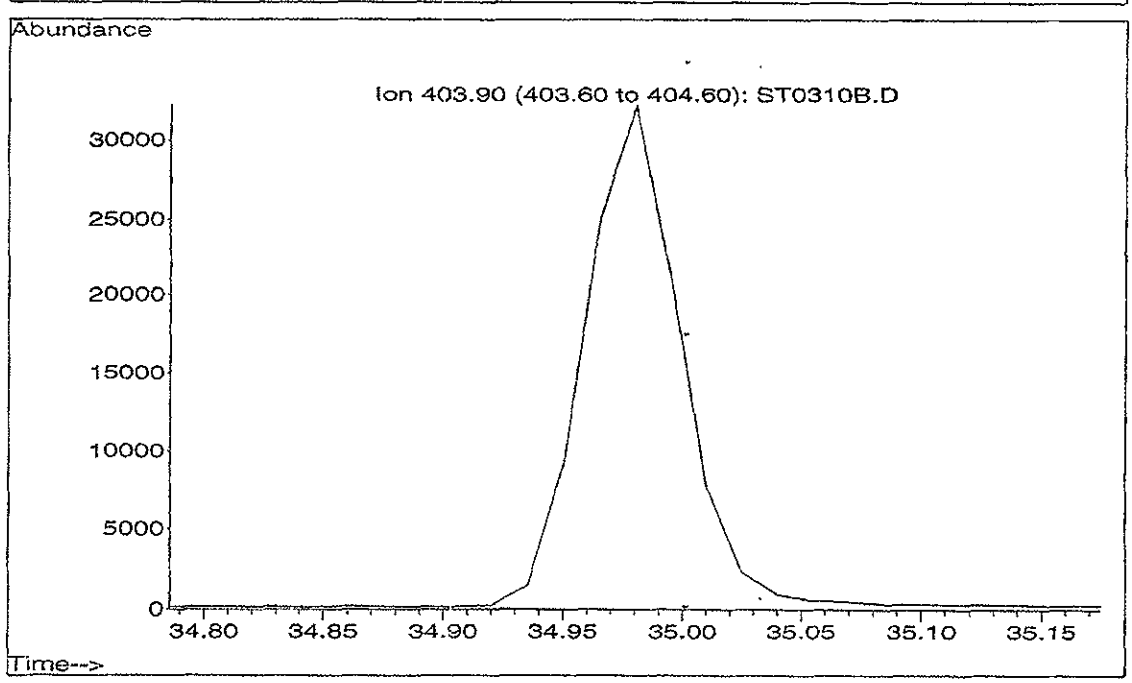




13C-123678-HxCDD-IS

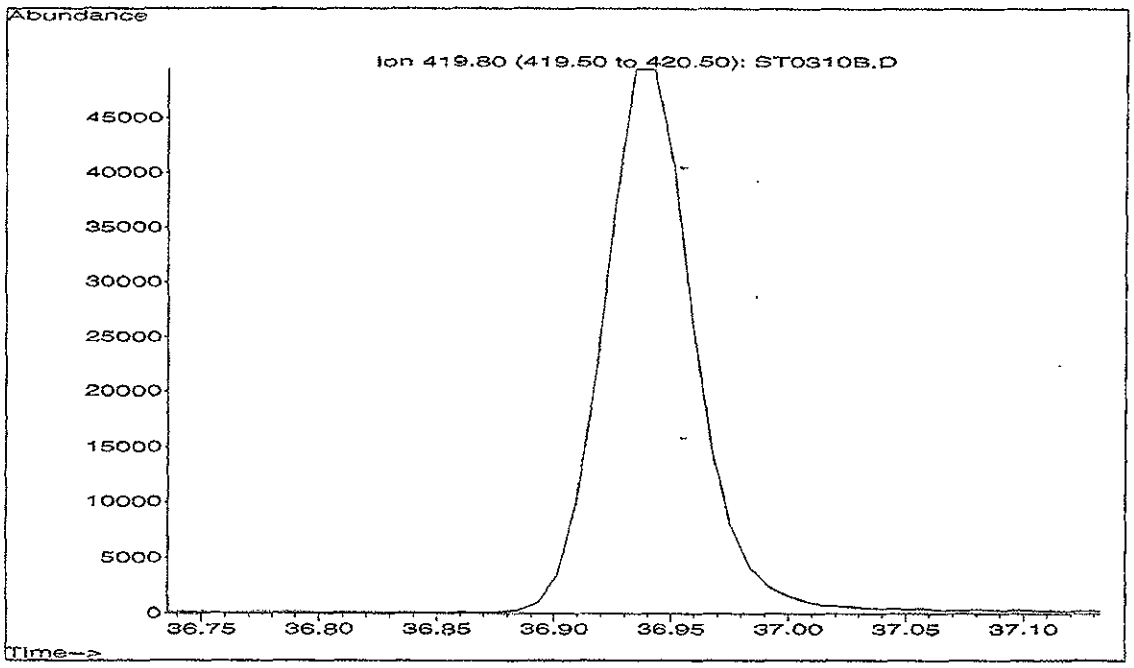
TS R.T. Lower Limit	34.78		
TS R.T. Upper Limit	35.18		
Ret Time	34.98		
Target Ion	401.9	Q1 Ion	403.9
Target Response	113882	Q1 Response	89615
Total Response	203497	Ion Ratio	1.27

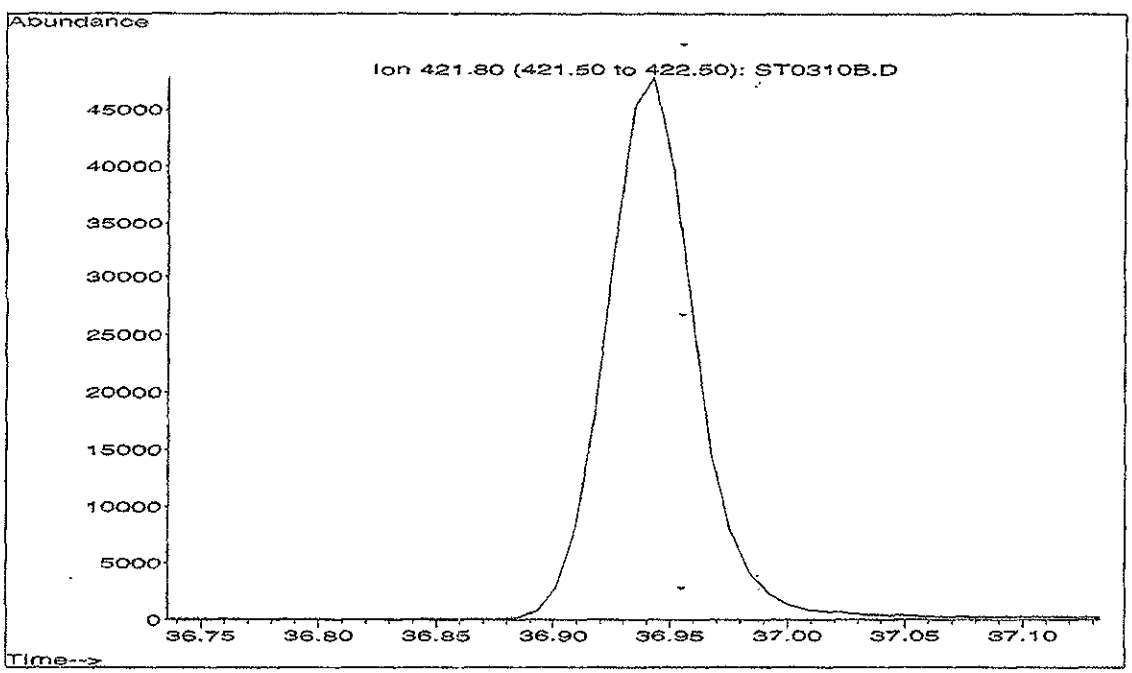




13C-1234678-HpCDF-IS

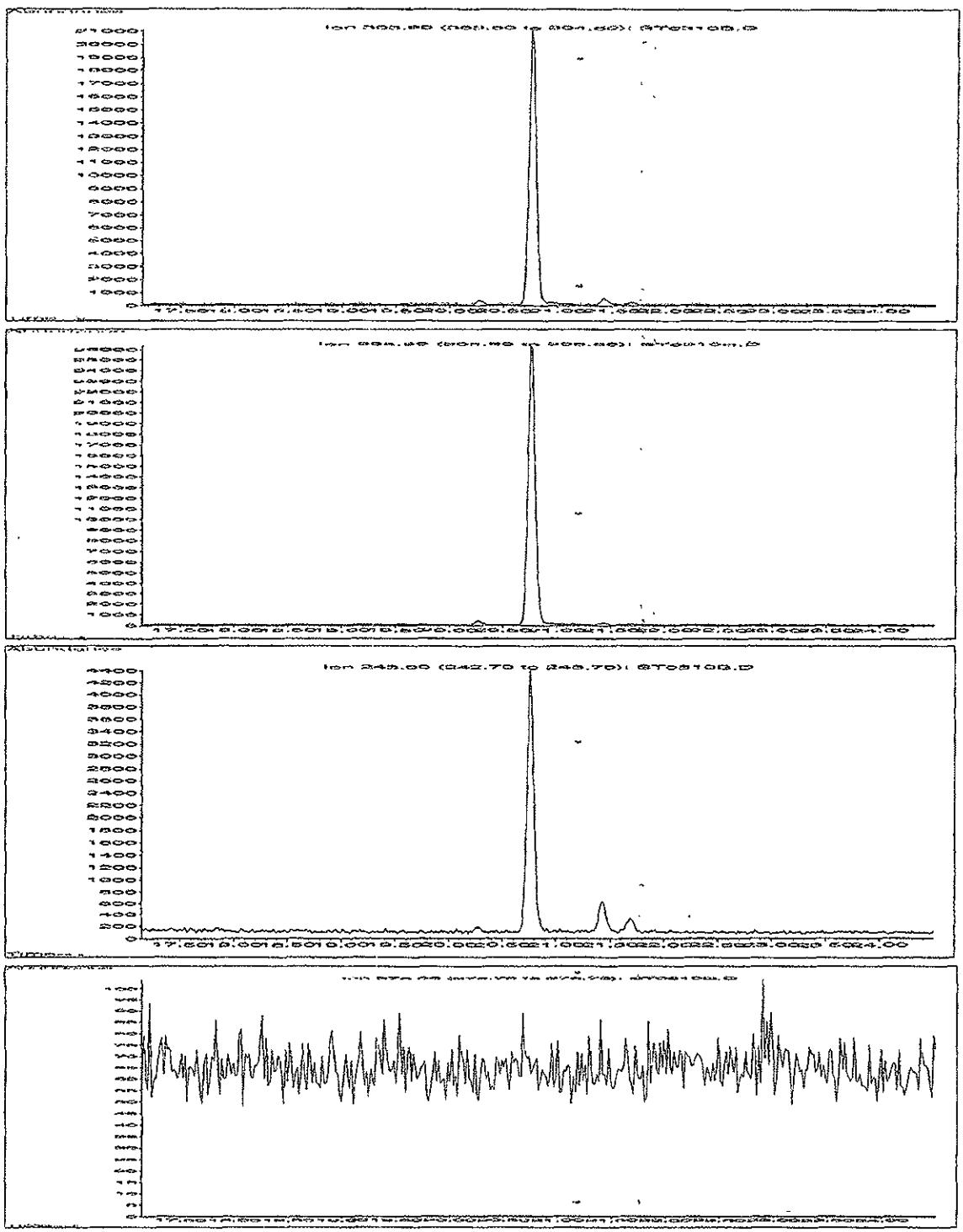
TS R.T. Lower Limit	36.73		
TS R.T. Upper Limit	37.13		
Ret Time	36.93		
Target Ion	419.8	Q1 Ion	421.8
Target Response	134722	Q1 Response	127164
Target Response	261886	Ion Ratio	1.06





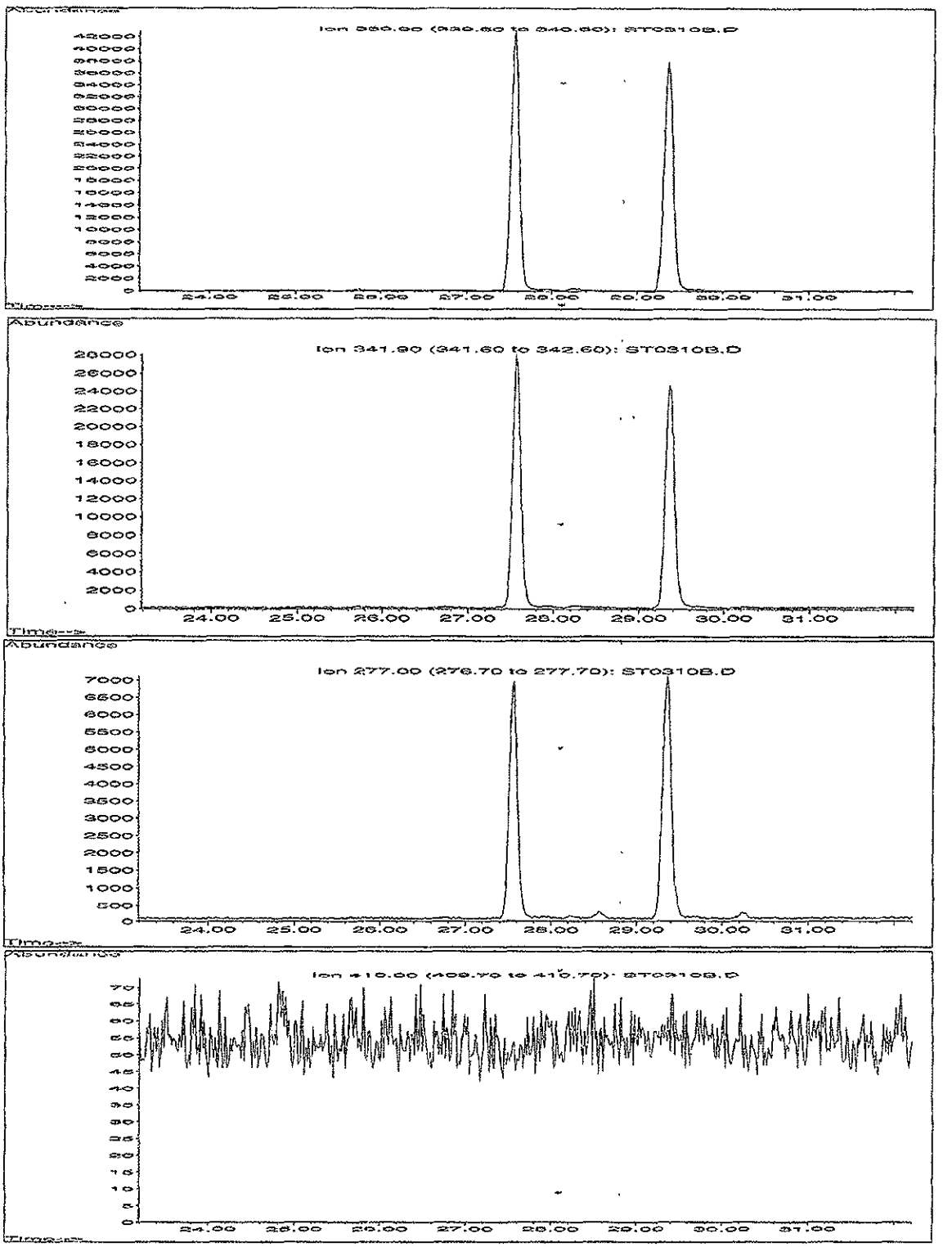
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



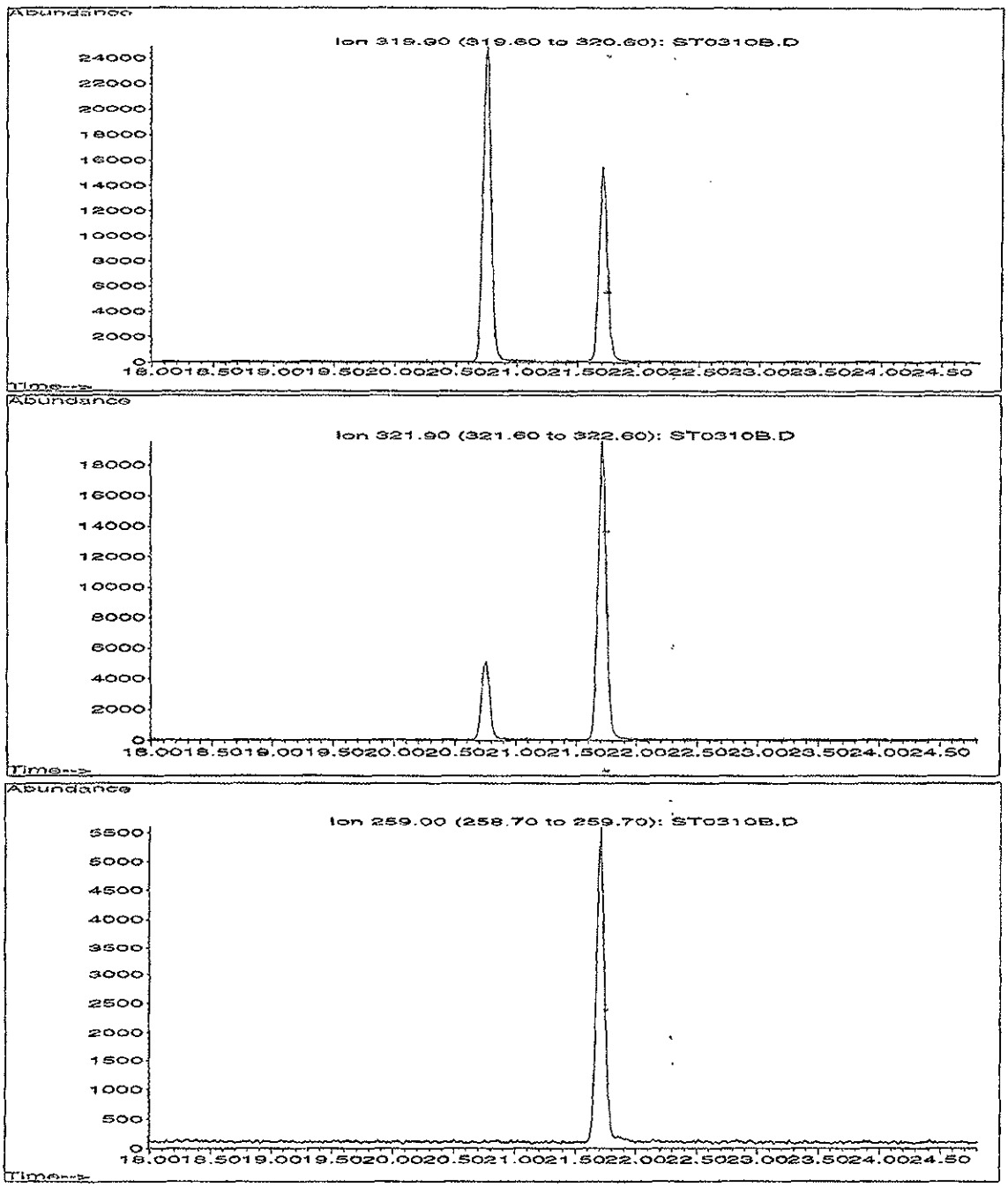
PeCDF TOTAL

TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



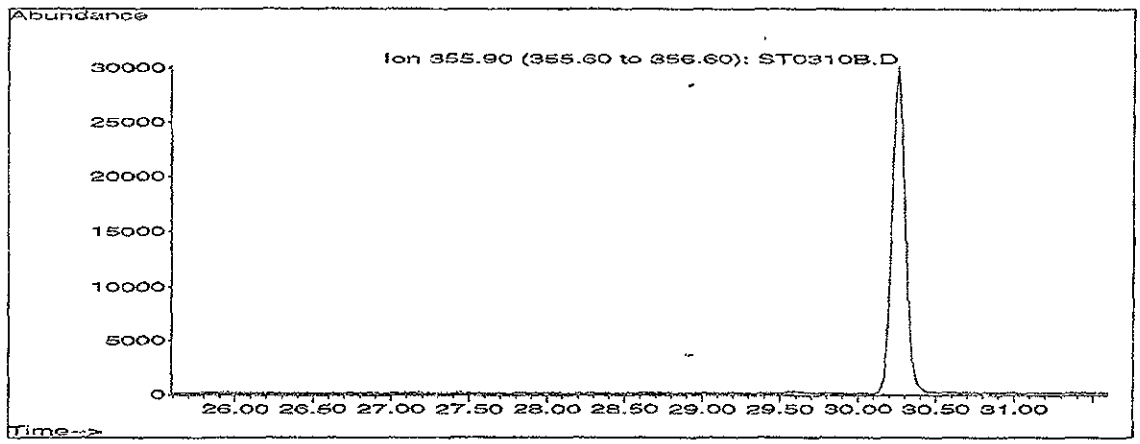
TCDD TOTAL

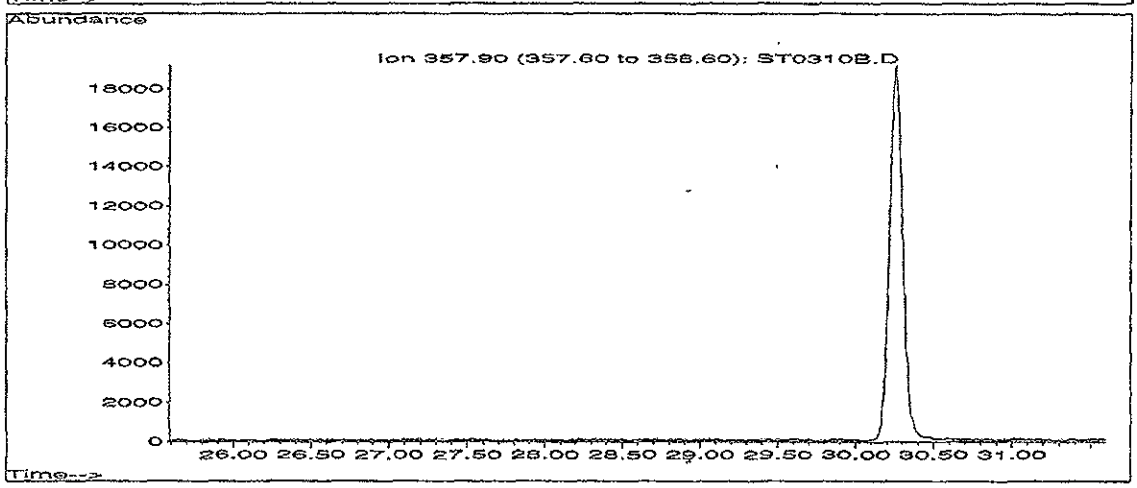
TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80

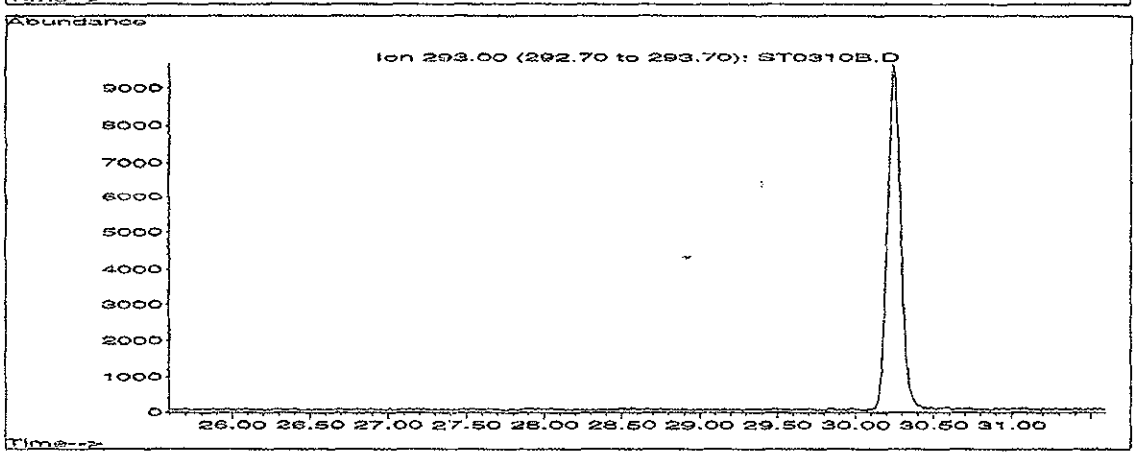


PeCDD TOTAL

TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

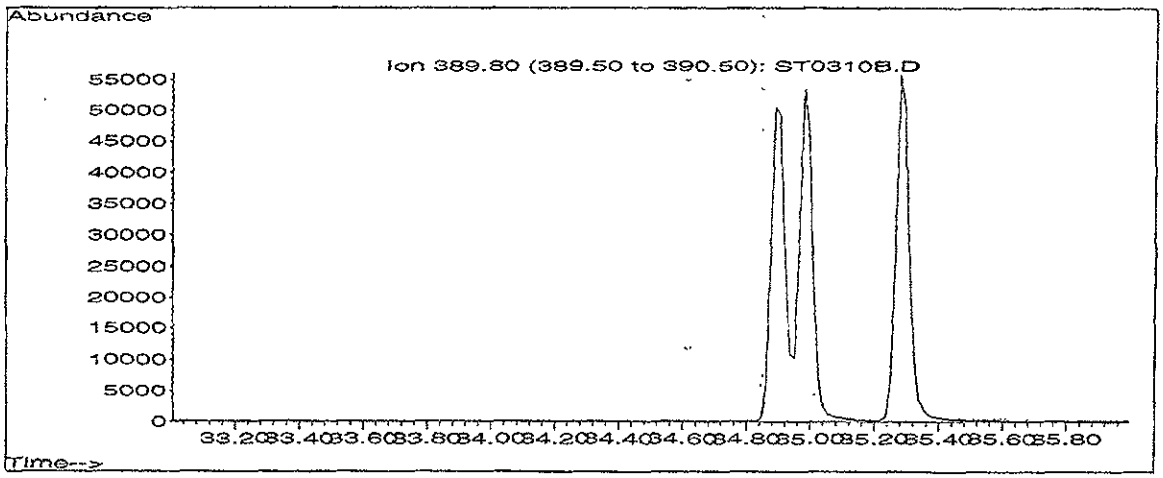


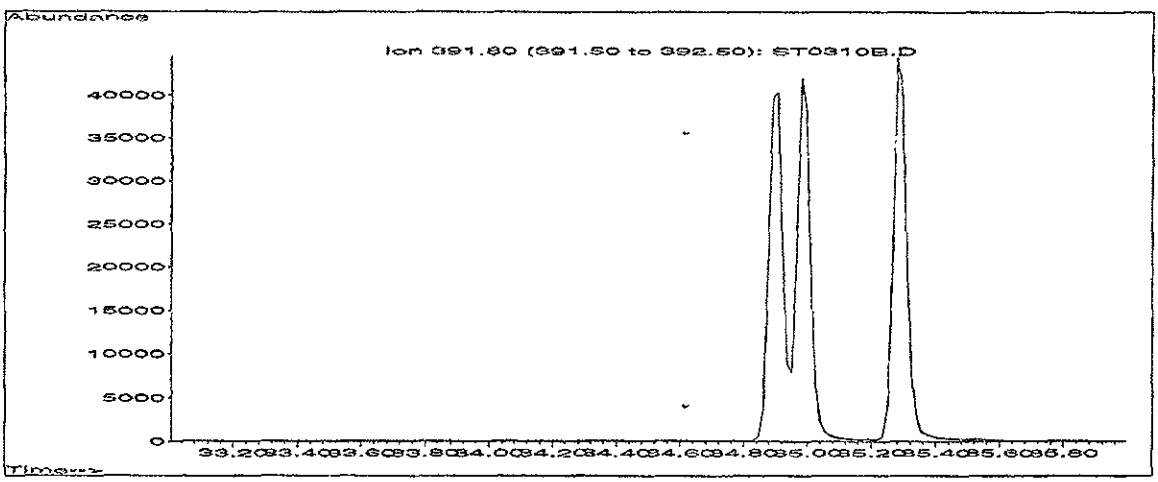


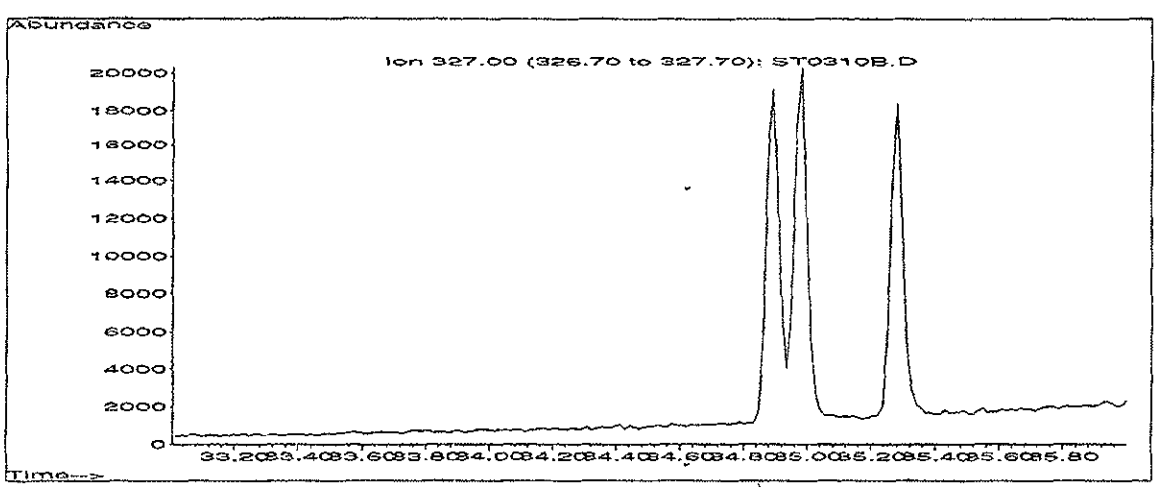


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

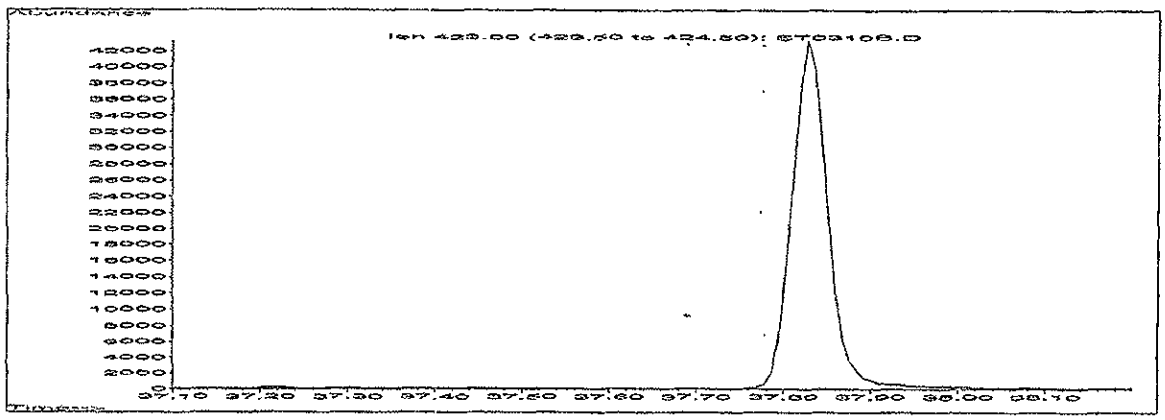


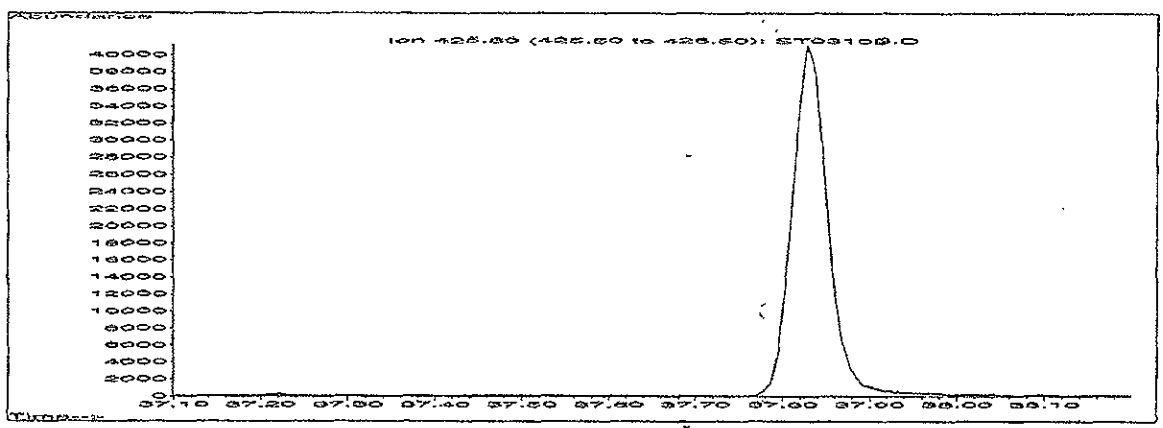


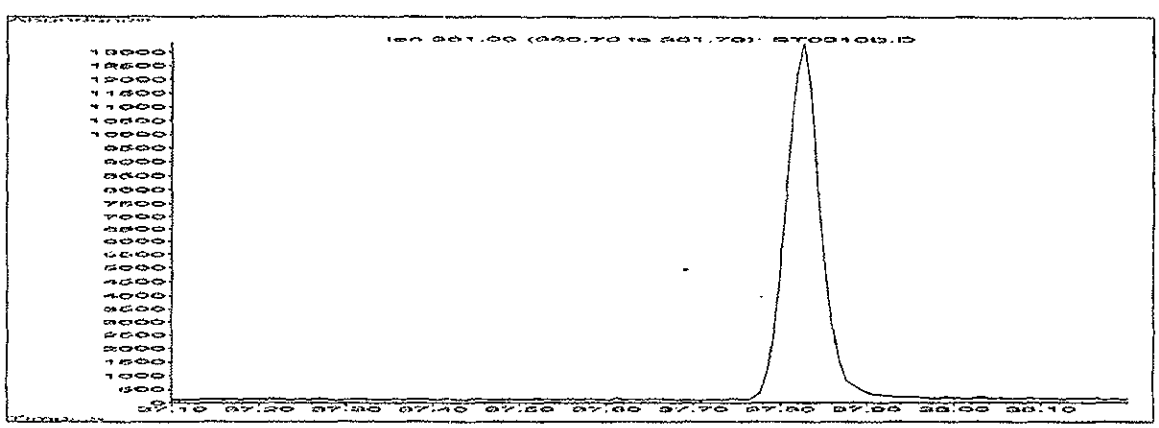


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

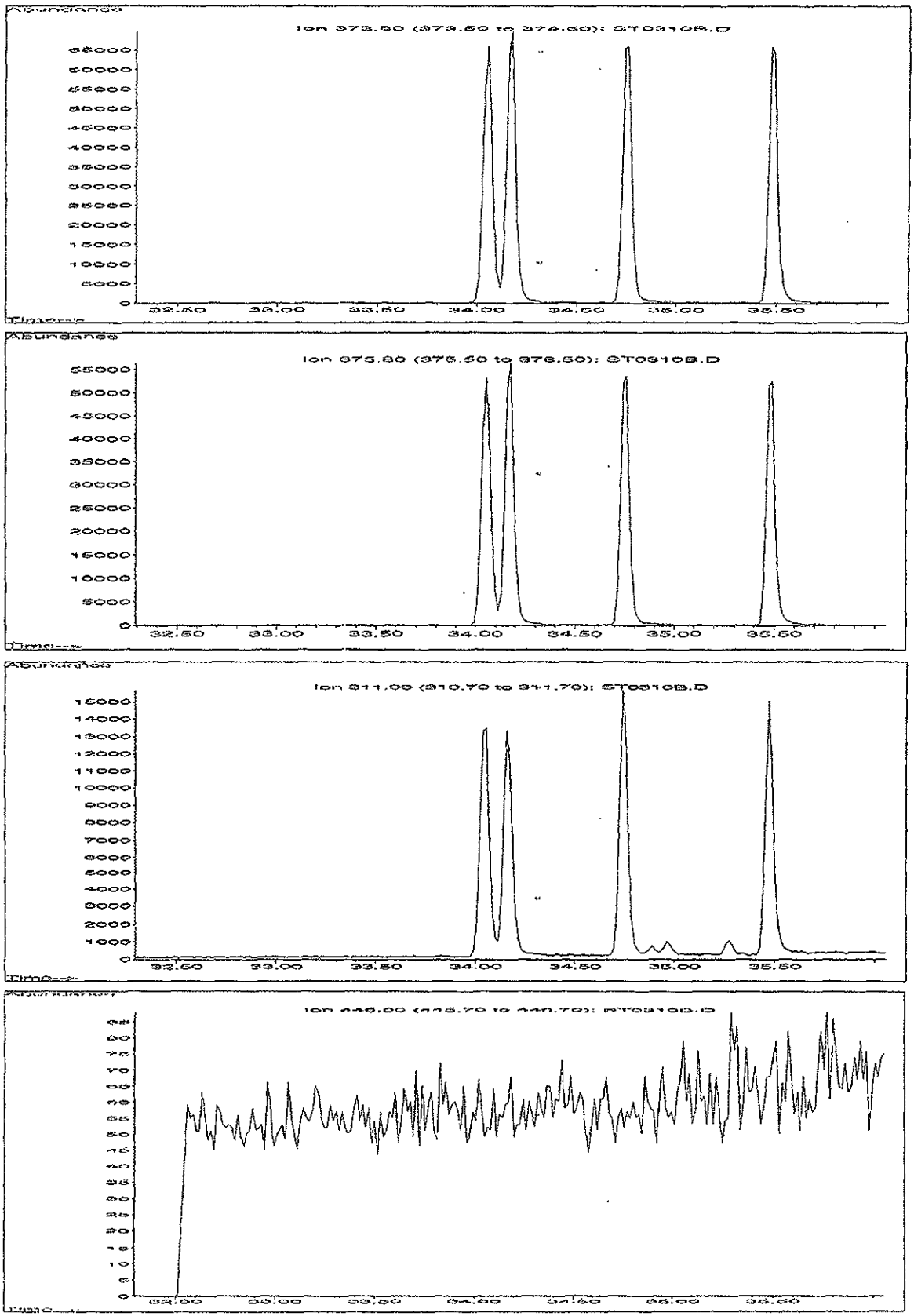






HxCDF TOTAL

TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



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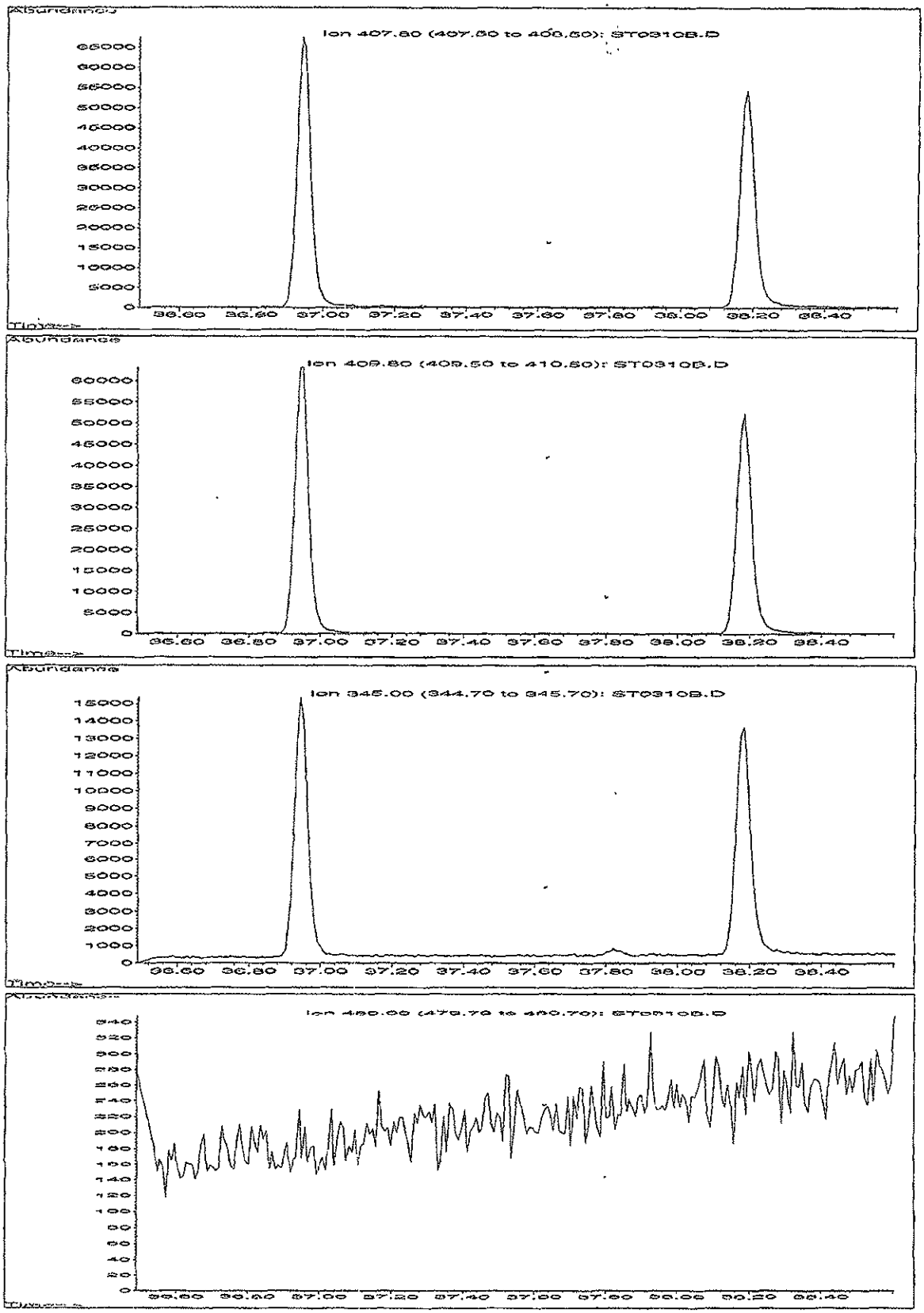
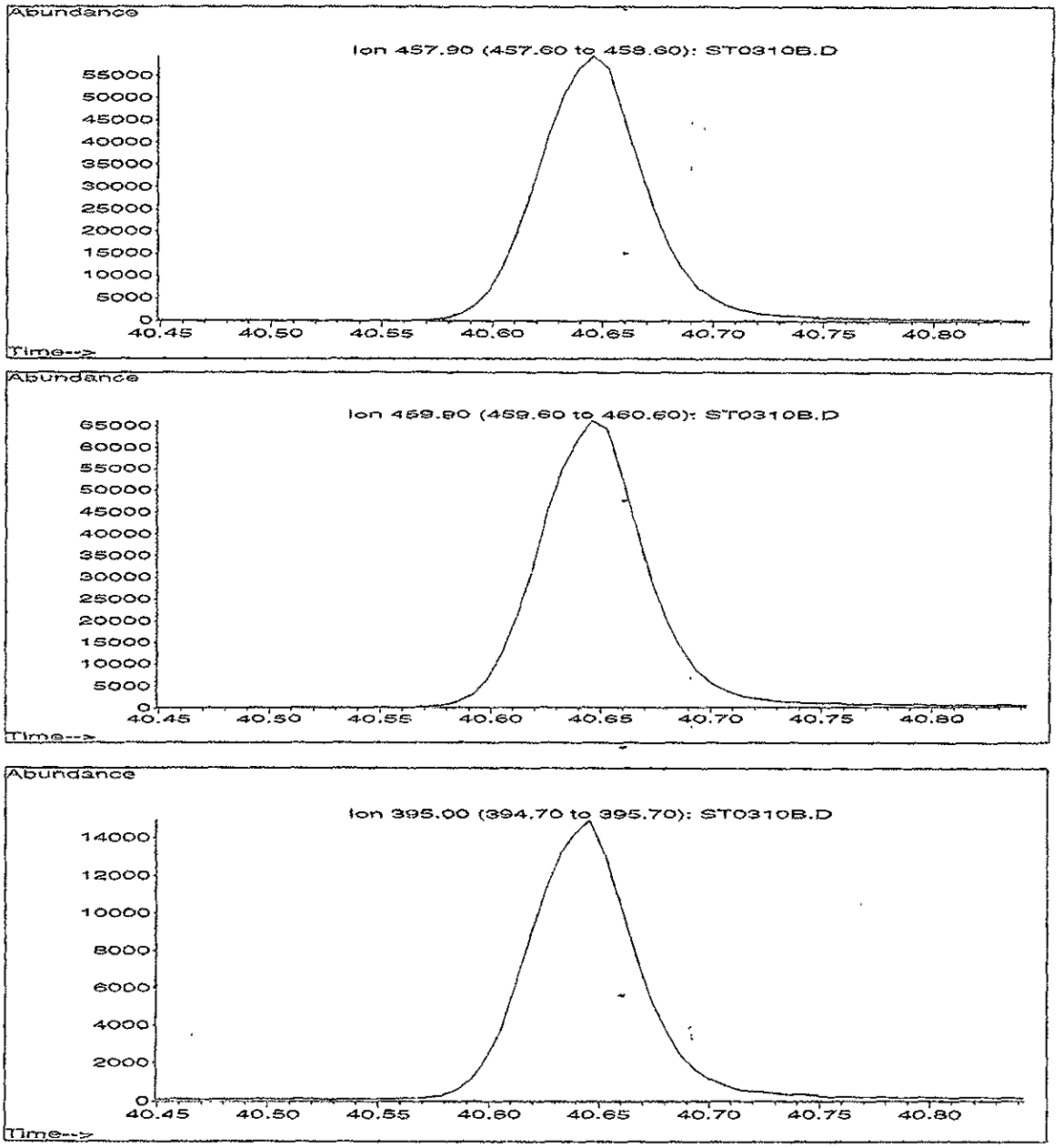
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

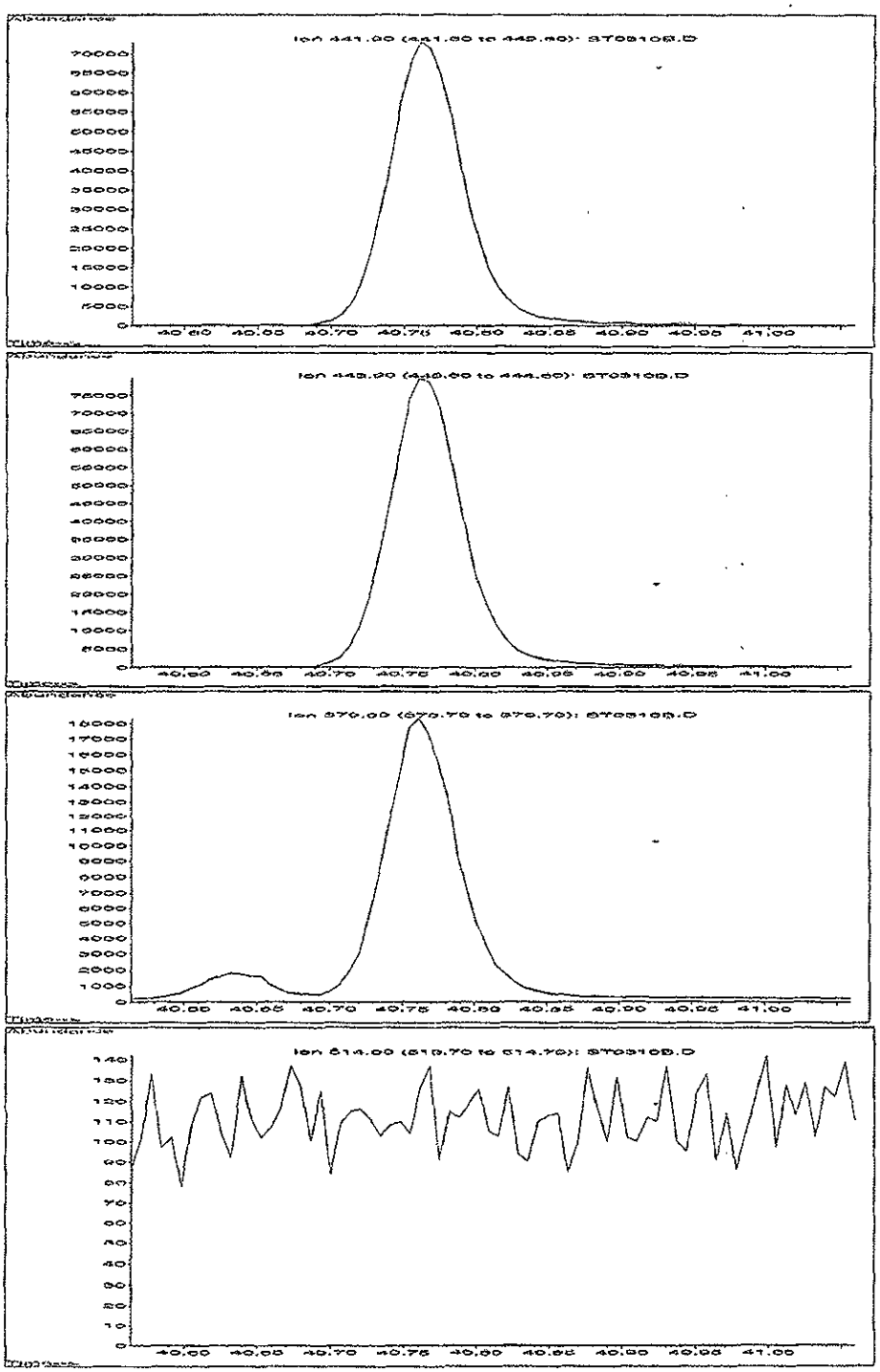


OCDD

TS R.T. Lower Limit	40.45		
TS R.T. Upper Limit	40.85		
Ret. Time	40.65		
Target Ion	457.9	Q1 Ion	459.9
Target Response	203388	Q1 Response	227233
Total Response	430621	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	50777		

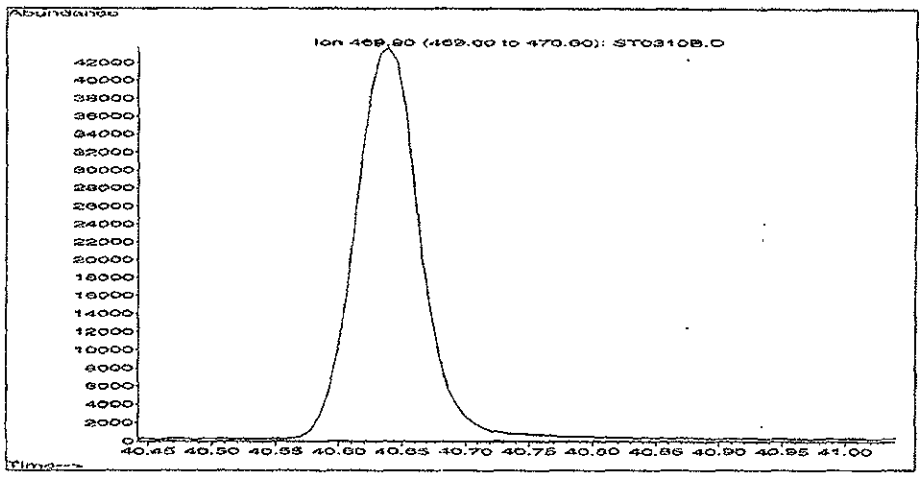


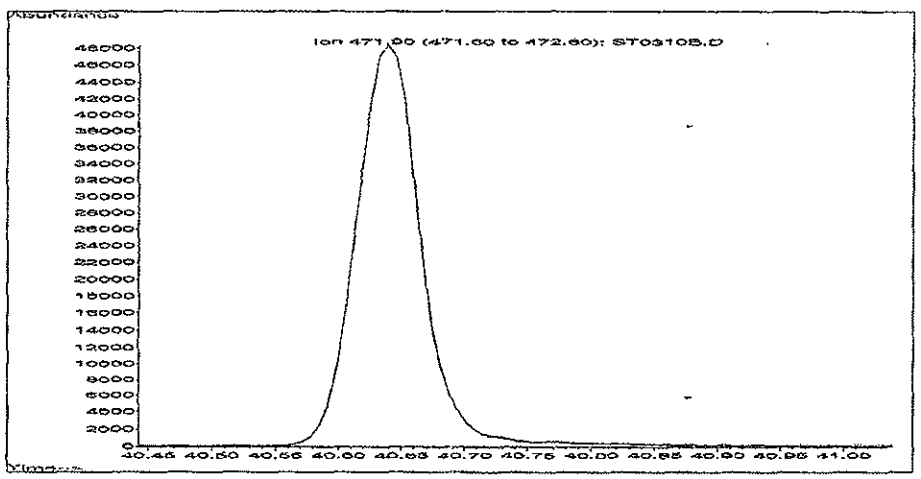
OCDF			
TS R.T. Lower Limit	40.56		
TS R.T. Upper Limit	41.06		
Ret Time	40.76		
Target Ion	441.9	Q1 Ion	443.9
Target Response	261829	Q1 Response	286835
Target Response	548664	Ion Ratio	0.91
Q2 Ion	379	DPE Ion	514
Q2 Response	63470	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.44		
RT Upper Limit	41.04		
Ret Time	40.64		
Target Ion	469.9	Q1 Ion	471.9
Target Response	155841	Q1 Response	170826
Total response	326667	Ratio	0.91





Quantitation Report (Not Reviewed)

Sample ID: CS-3 Size: 0.000
3136-45C CS-3 Inst : DB1

Data File:C:\8280\2DB\031009.B\ST0310C.D Vial: 97
Acq On :10 Mar 2009 13:26 Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Mar 10 14:56 2009 Quant Results File: 09MR10A2.RES

Quant Method : C:\8280\ DATA METHODS\09MR10A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Mar 10 12:47:32 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	21.43	332+334	0.79	176044	25.00 NG	0.00
5) 13C-123789-HxCDD	35.28	402+404	1.23	148702	25.00 NG	0.00
9) 13C-2378-TCDF	20.75	316+318	0.79	296162	25.00 NG	0.00
15) 13C-2378-TCDD	21.68	332+334	0.80	197183	25.00 NG	0.00
20) 13C-123678-HxCDD	34.98	402+404	1.25	138857	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.94	420+422	1.05	177311	25.00 NG	0.00
36) 13C-OCDD	40.64	470+472	0.92	222560	50.00 NG	0.00

Surrogate Compound

4) 37Cl-2378-TCDD	21.70	328		139289	12.699 NG	0.00
Spiked Amount = 12.500	RRF = 1.558			Recovery = 101.60%		

Target Compounds	RT	Ratio		Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.75	0.79		296162	1.684	24.977	0.0373	99.9
3) 13C-2378-TCDD-IS	21.68	0.80		197183	1.119	25.029	6.3982	100.1
6) 13C-123678-HxCDD-	34.98	1.25		138857	0.915	25.526	0.0526	102.1
7) 13C-1234678-HpCDF	36.94	1.05		177311	1.152	25.877	0.0528	103.5
8) 13C-OCDD-IS	40.64	0.92		222560	0.696	53.795	0.1464	107.6
10) 2378-TCDF	20.75	0.78		317687	1.084	24.734	0.3987	
1	20.27	0.80		4614		0.359		
2	20.75	0.78		320355		24.941		
11) TCDF TOTAL	19.50	0.78		324969	1.084	25.301		
12) 12378-PeCDF	27.56	1.56		661540	0.857	65.198	0.2489	
13) 23478-PeCDF	29.35	1.55		640423	0.834	64.827	0.0256	
1	25.72	1.38		3401		0.344		
2	27.56	1.56		670240		67.846		
3	27.96	1.06	#	5340		0.541		
4	28.24	1.69		6643		0.672		
5	29.35	1.55		640423		64.827		
14) PeCDF TOTAL	27.20	1.55		1326047	0.834	134.230		
16) 2378-TCDD	21.70	0.77		223251	1.147	24.684	0.0538	
1	20.75	4.97	#	27435		3.033		
2	21.70	0.77		230523		25.488		
17) TCDD TOTAL	19.50	0.77		257958	1.147	28.521		
18) 12378-PeCDD	30.27	1.54		423272	0.820	65.481	0.0199	
1	30.27	1.55		430781		66.642		
19) PeCDD TOTAL	27.60	1.55		430781	0.820	66.642		
21) 123478-HxCDD	34.90	1.24		396980	1.165	61.341	17.2356	
22) 123678-HxCDD	34.99	1.26		370581	1.078	61.898	0.6483	
23) 123789-HxCDD	35.29	1.24		410926	1.186	62.361	0.8461	
1	34.90	1.24		396980		61.341		
2	34.99	1.25		1358149		226.850		
3	35.29	1.23		415409		69.385		
24) HxCDD TOTAL	35.00	1.23		2170538	1.078	357.577		

25)	1234678-HpCDD	37.83	1.04	336827	0.975	62.170	0.0493
	1	37.83	1.04	336827		62.170	
26)	HpCDD TOTAL	37.60	1.04	336827	0.975	62.170	
28)	123478-HxCDF	34.05	1.25	535890	1.280	59.039	63.9792
29)	123678-HxCDF	34.17	1.24	569060	1.298	61.812	5.4516
30)	234678-HxCDF	34.75	1.24	533528	1.253	60.026	0.0417
31)	123789-HxCDF	35.47	1.25	514733	1.199	60.522	0.1117
	1	34.05	1.25	535890		59.039	
	2	34.17	1.24	569060		61.812	
	3	34.75	1.24	533528		60.026	
	4	35.47	1.25	517760		60.878	
32)	HxCDF TOTAL	34.80	1.25	2156238	1.199	241.755	
33)	1234678-HpCDF	36.95	1.04	490984	1.140	60.731	0.0618
34)	1234789-HpCDF	38.18	1.05	446160	1.024	61.447	0.1398
	1	36.95	1.04	490984		60.731	
	2	38.18	1.05	446160		61.447	
35)	HpCDF TOTAL	38.00	1.05	937144	1.024	122.178	
37)	OCDD	40.64	0.91	600034	1.040	129.556	0.0898
38)	OCDF	40.77	0.92	769703	1.346	128.508	0.1812

(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0310C.D 09MR10A2.M Tue Mar 10 13:56:43 2009

Data File Name	ST0310C.D
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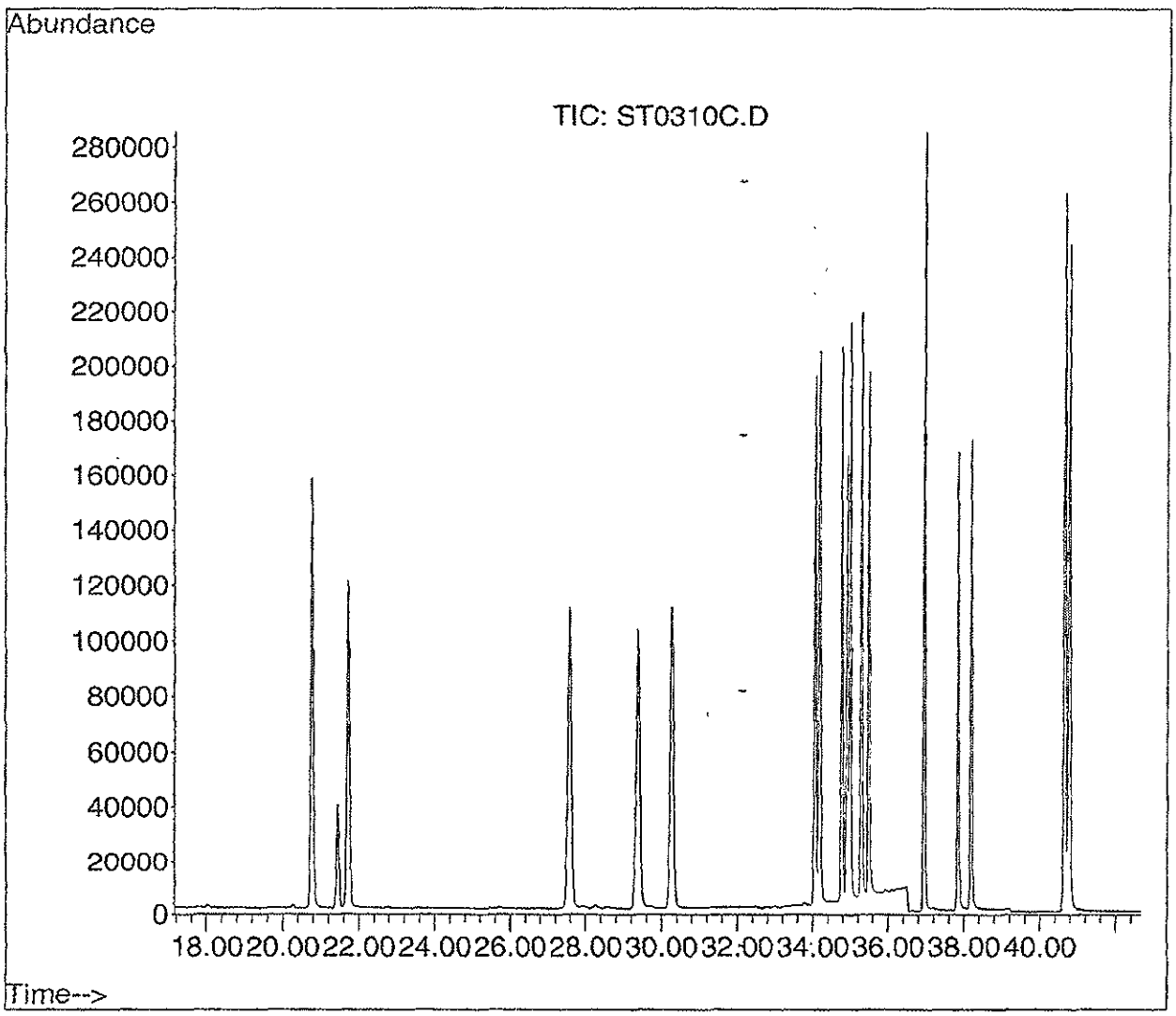
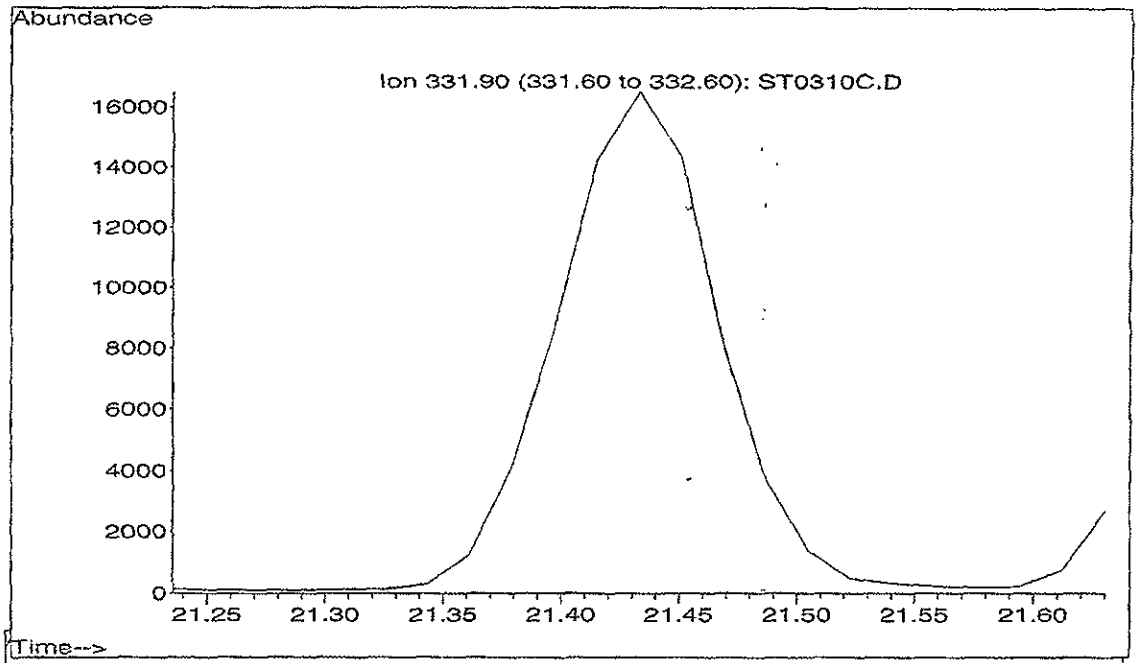
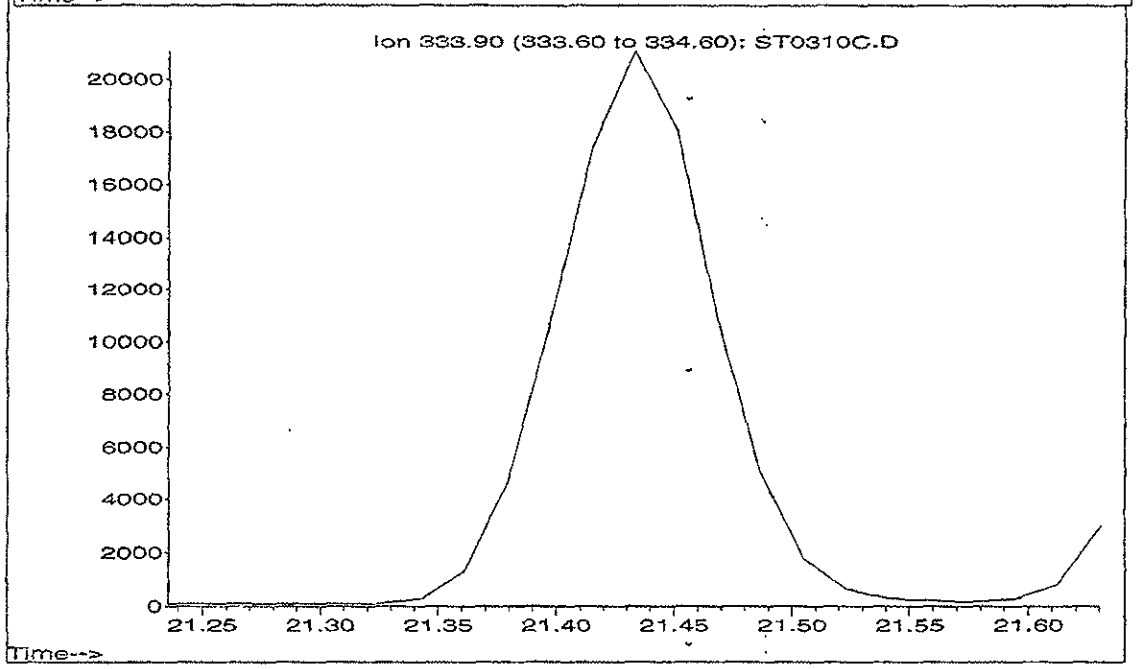
Operator	MEO
Date Acquired	3/10/2009 13:26
Acq. Method File	TOKAS
Sample Name	3136-45C CS-3
Misc Info	CS-3
Vial Number	97
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



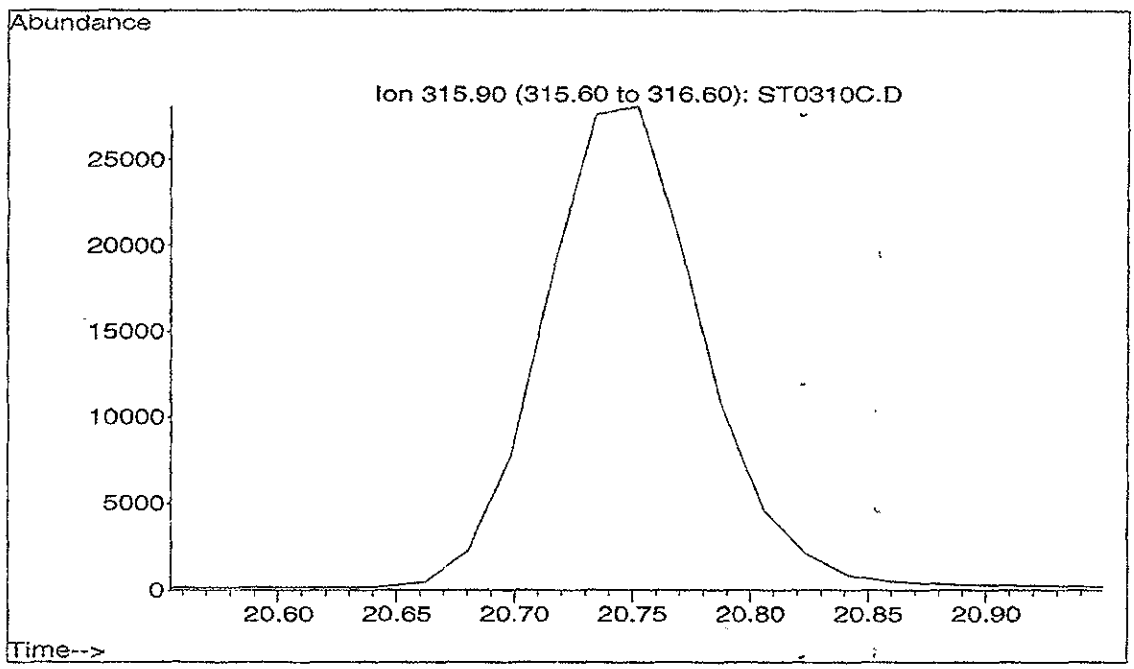
13C-1234-TCDD

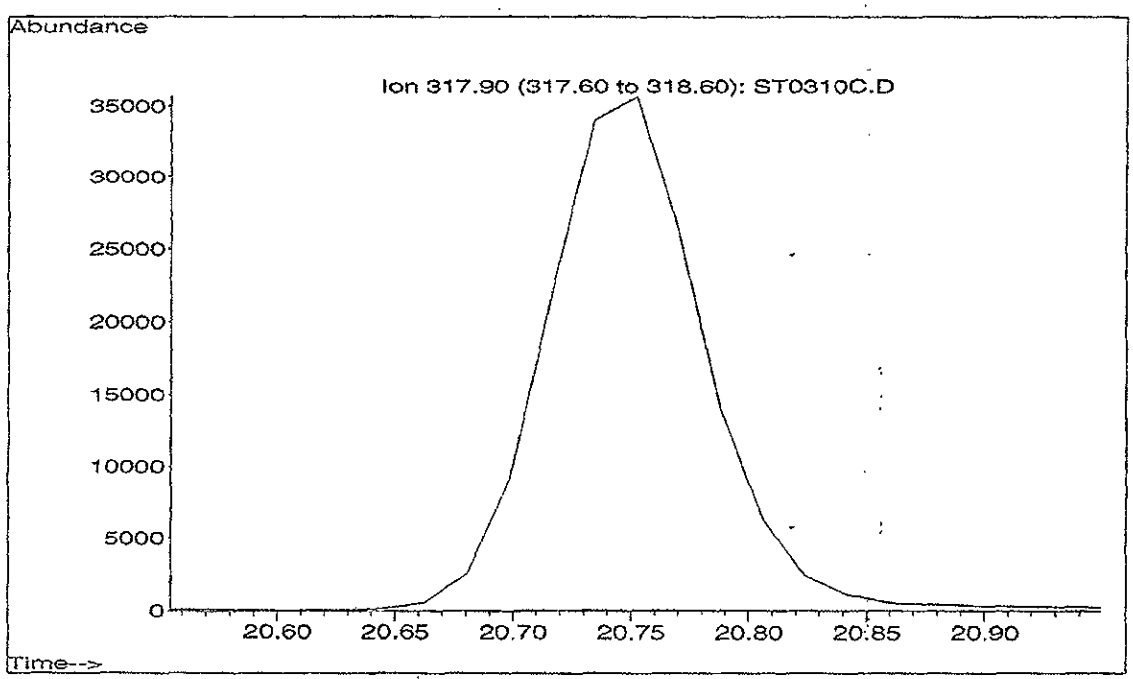
TS R.T. Lower Limit	21.24		
TS R.T. Upper Limit	21.64		
Ret Time	21.43		
Target Ion	331.9	Q1 Ion	333.9
Target Response	77887	Q1 Response	98157
Total Response	176044	Ion Ratio	0.79



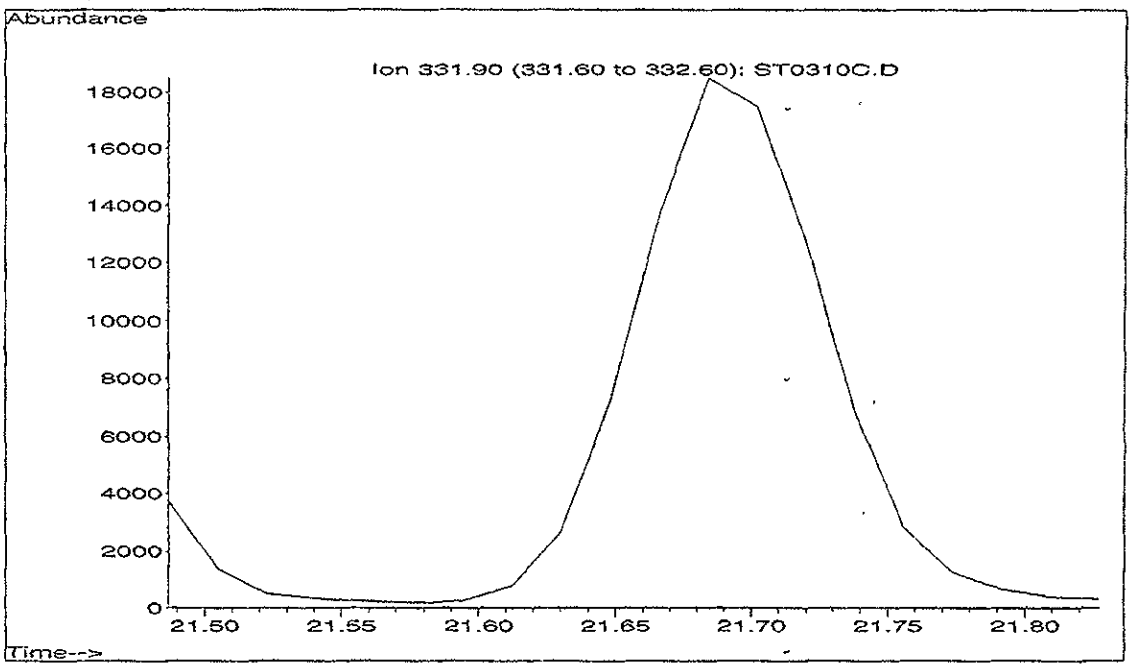


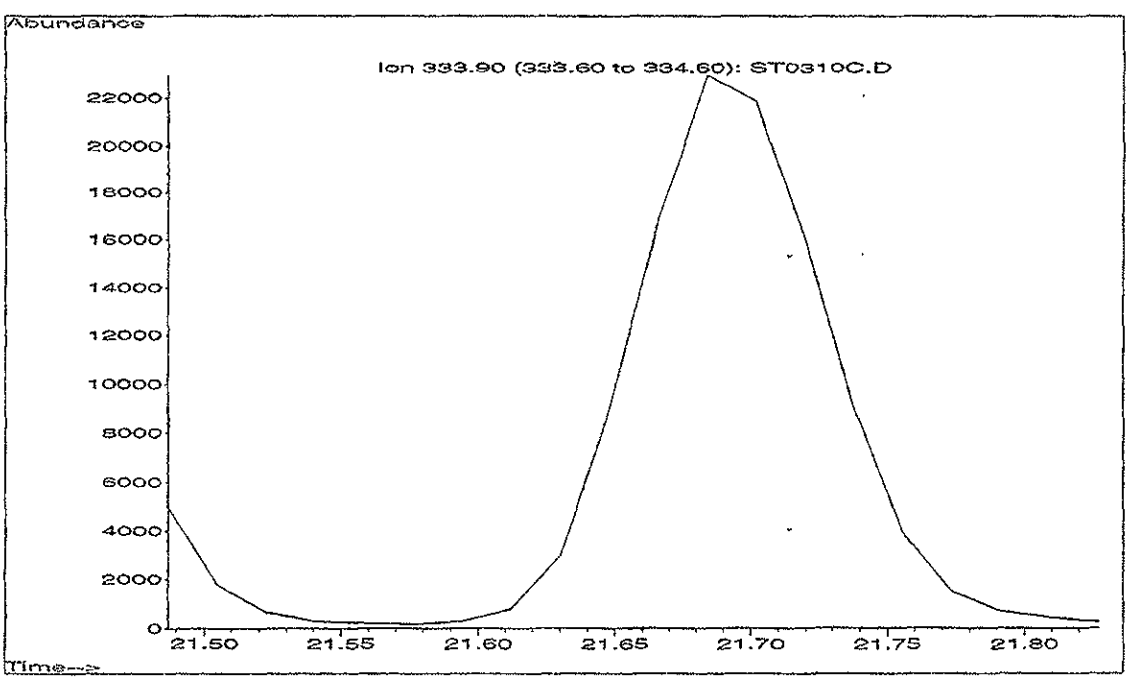
13C-2378-TCDF-IS			
TS R.T. Lower Limit	20.55		
TS R.T. Upper Limit	20.95		
Ret Time	20.75		
Target Ion	315.9	Q1 Ion	317.9
Target Response	130719	Q1 Response	165443
Target Response	296162	Ion Ratio	0.79





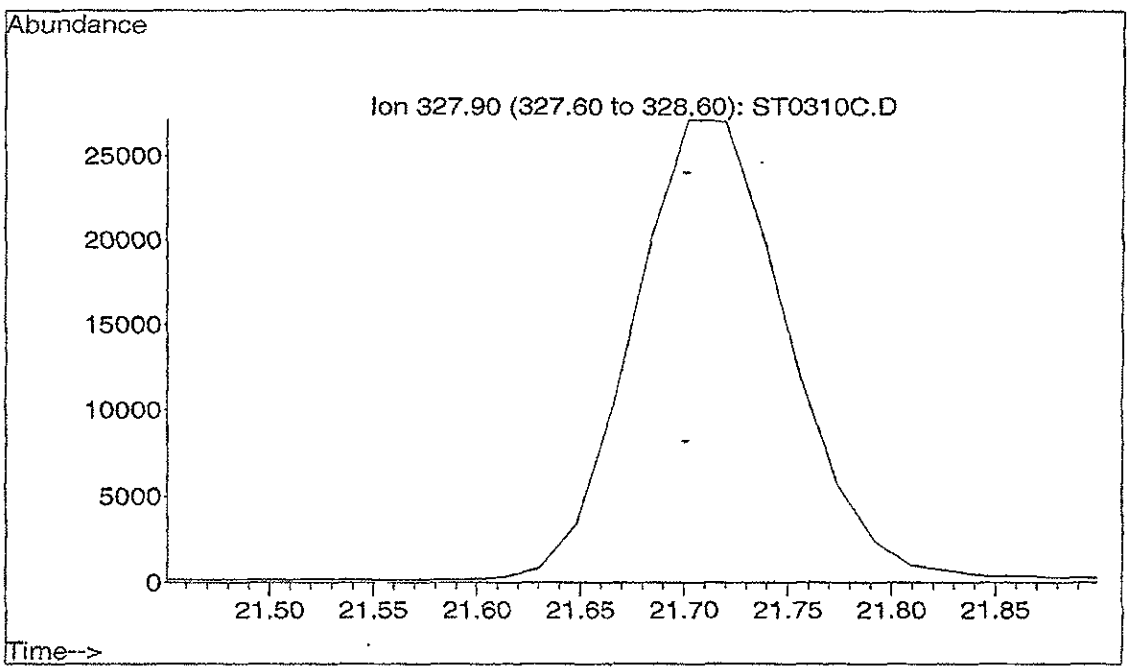
13C-2378-TCDD-IS			
TS R.T. Lower Limit	21.49		
TS R.T. Upper Limit	21.84		
Ret Time	21.68		
Target Ion	331.9	Q1 Ion	333.9
Target Response	87368	Q1 Response	109815
Total Response	197183	Ion Ratio	0.80

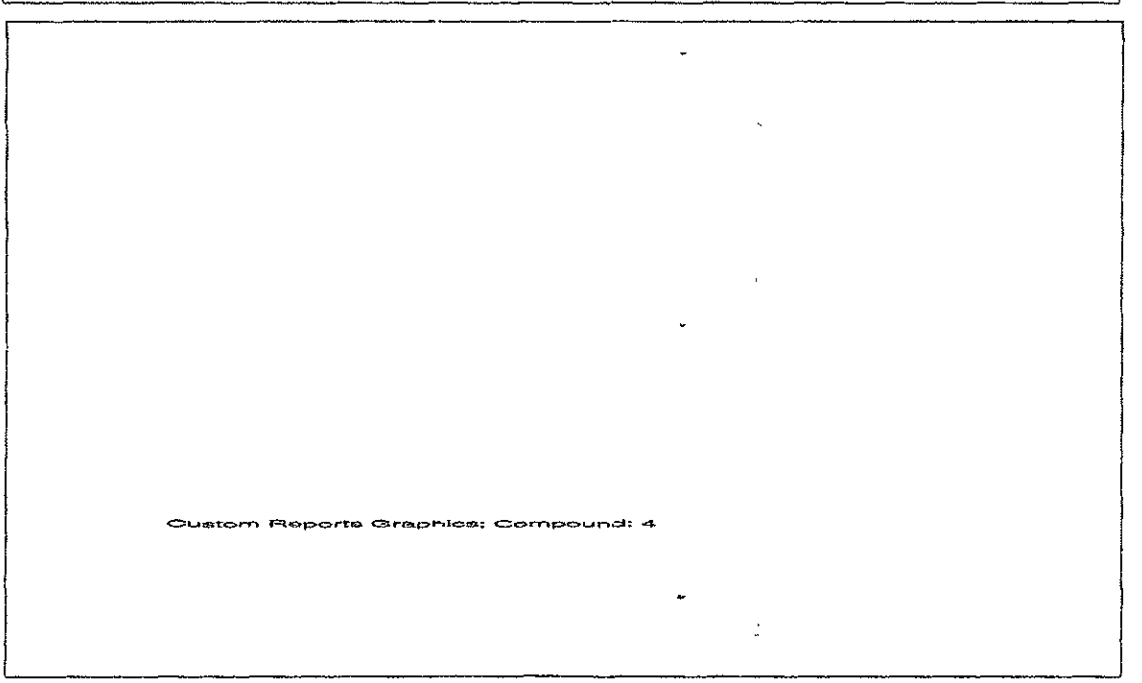




37Cl-2378-TCDD

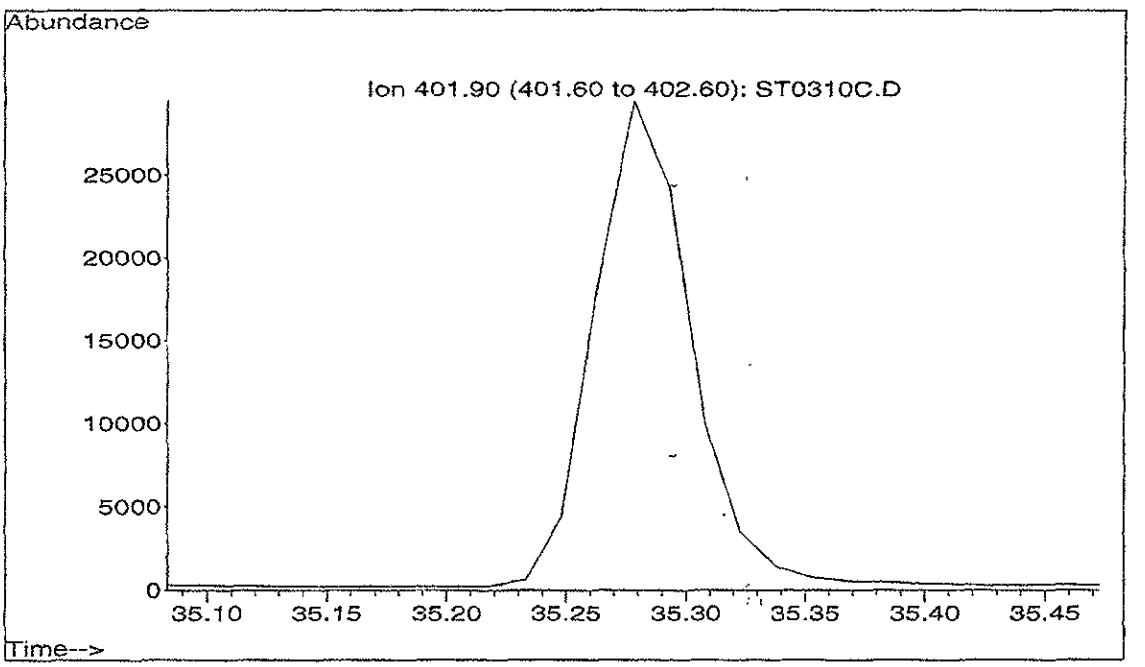
TS R.T. Lower Limit	21.45		
TS R.T. Upper Limit	21.90		
Ret Time	21.70		
Target Ion	327.9	Q1 Ion	0
Target Response	139289	Q1 Response	0
Total Response	139289	Ion Ratio	#DIV/0!

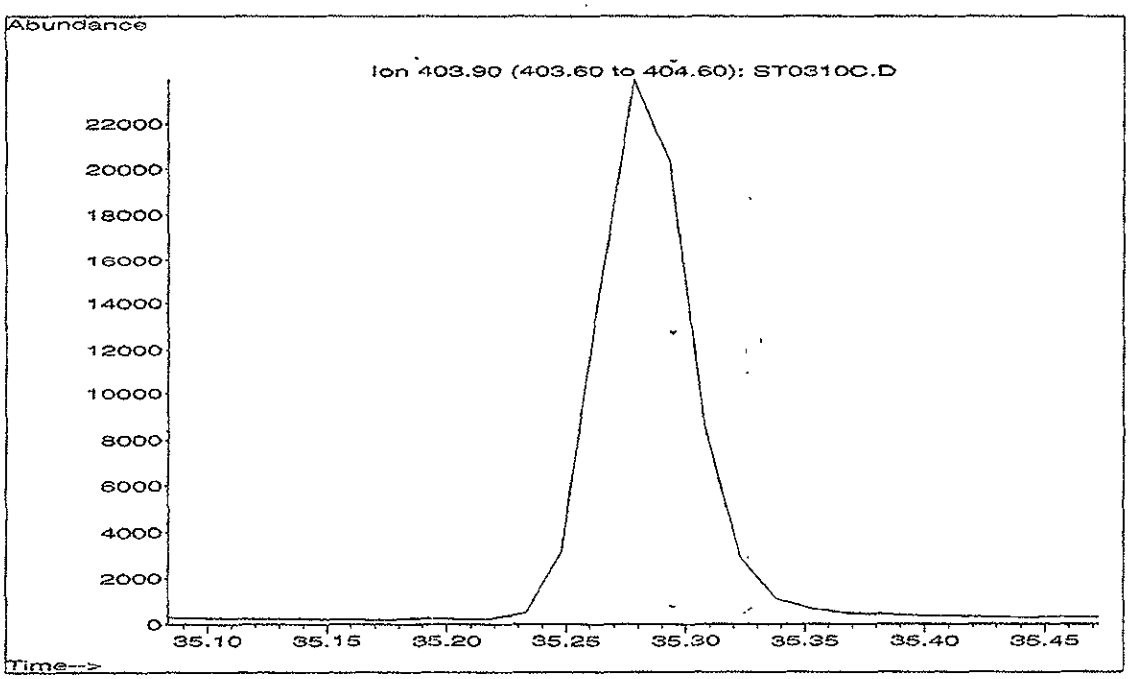




13C-123789-HxCDD

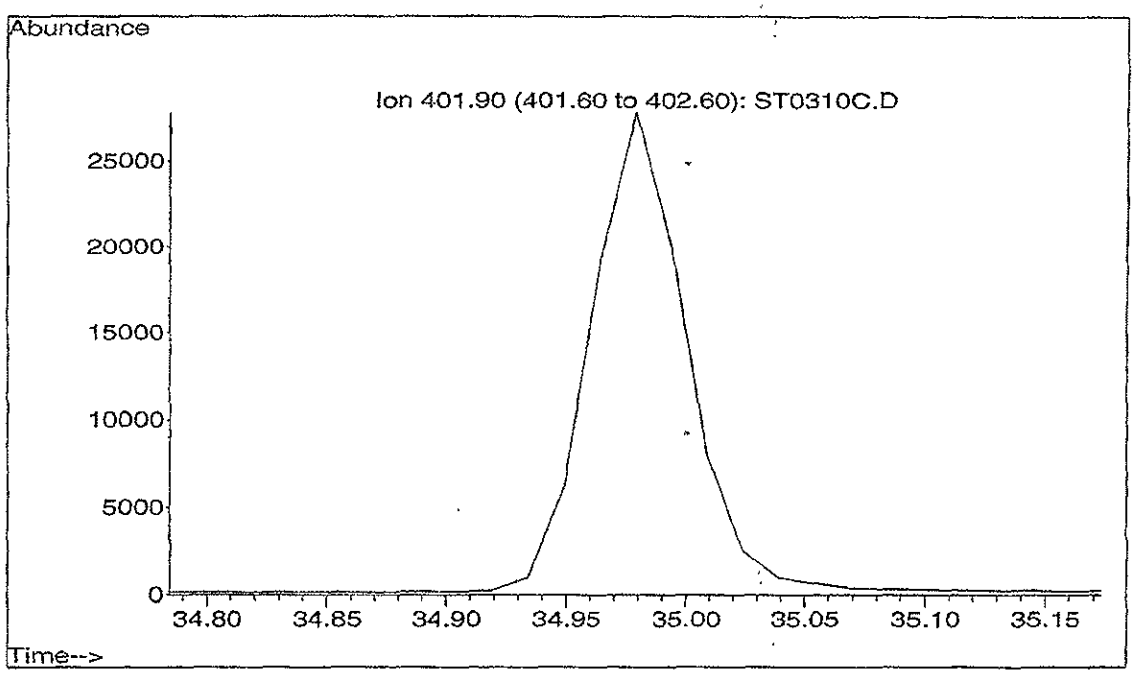
TS R.T. Lower Limit	35.08		
TS R.T. Upper Limit	35.48		
Ret Time	35.28		
Target Ion	401.9	Q1 Ion	403.9
Target Response	82124	Q1 Response	66578
Target Response	148702	Ion Ratio	1.23

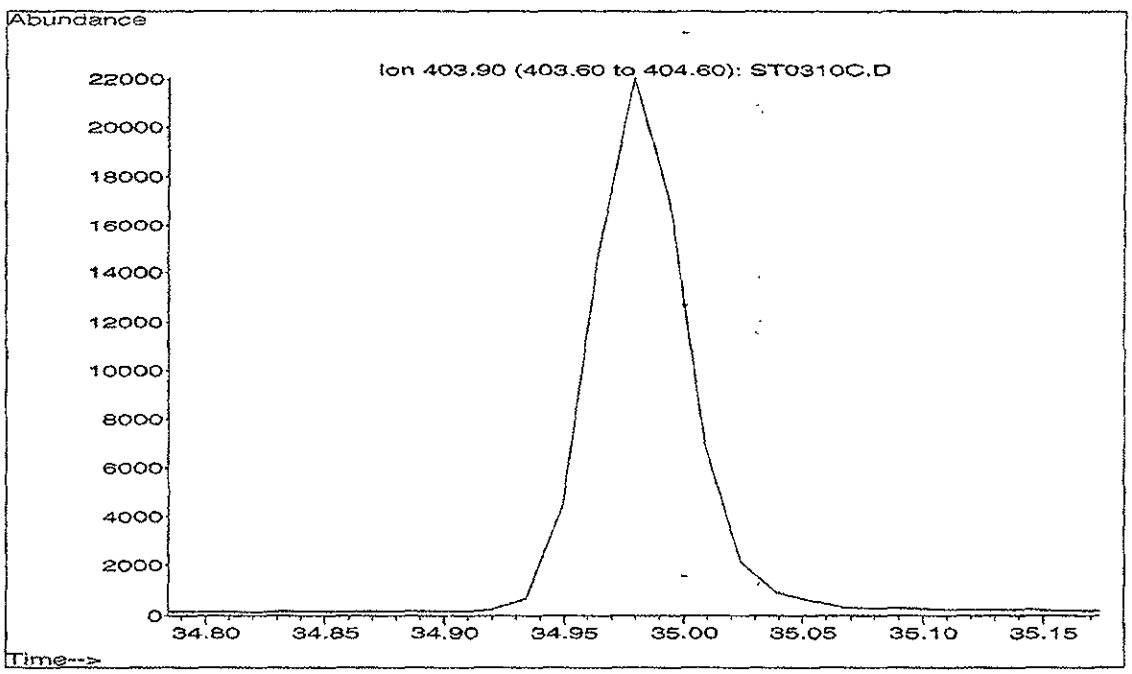




13C-123678-HxCDD-IS

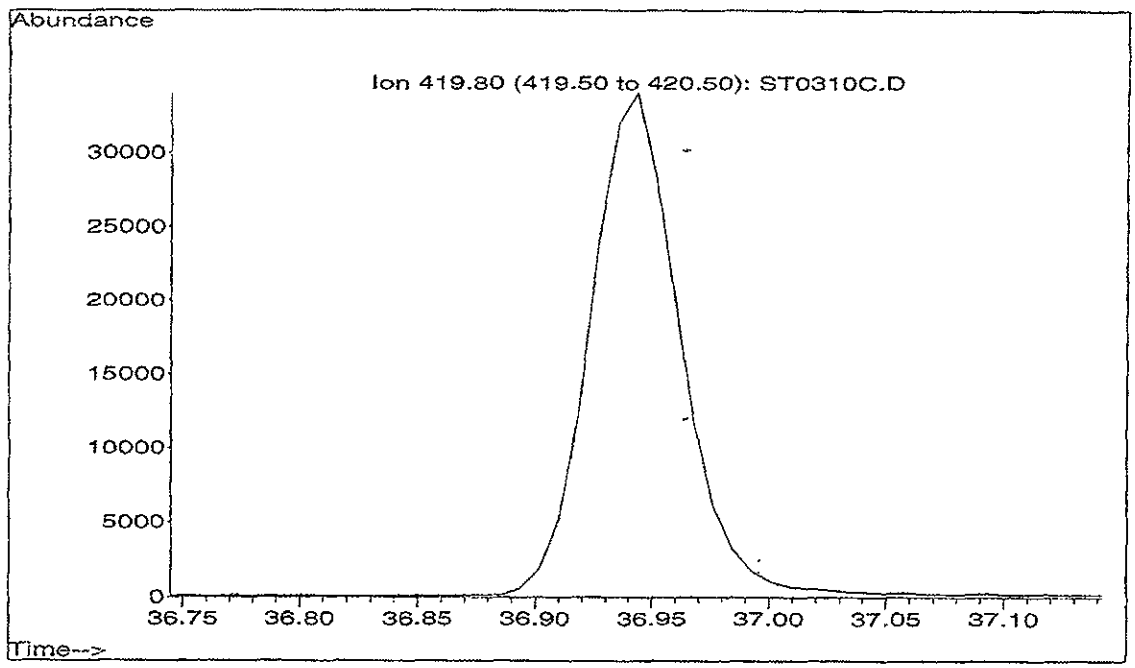
TS R.T. Lower Limit	34.78		
TS R.T. Upper Limit	35.18		
Ret Time	34.98		
Target Ion	401.9	Q1 Ion	403.9
Target Response	77111	Q1 Response	61746
Total Response	138857	Ion Ratio	1.25

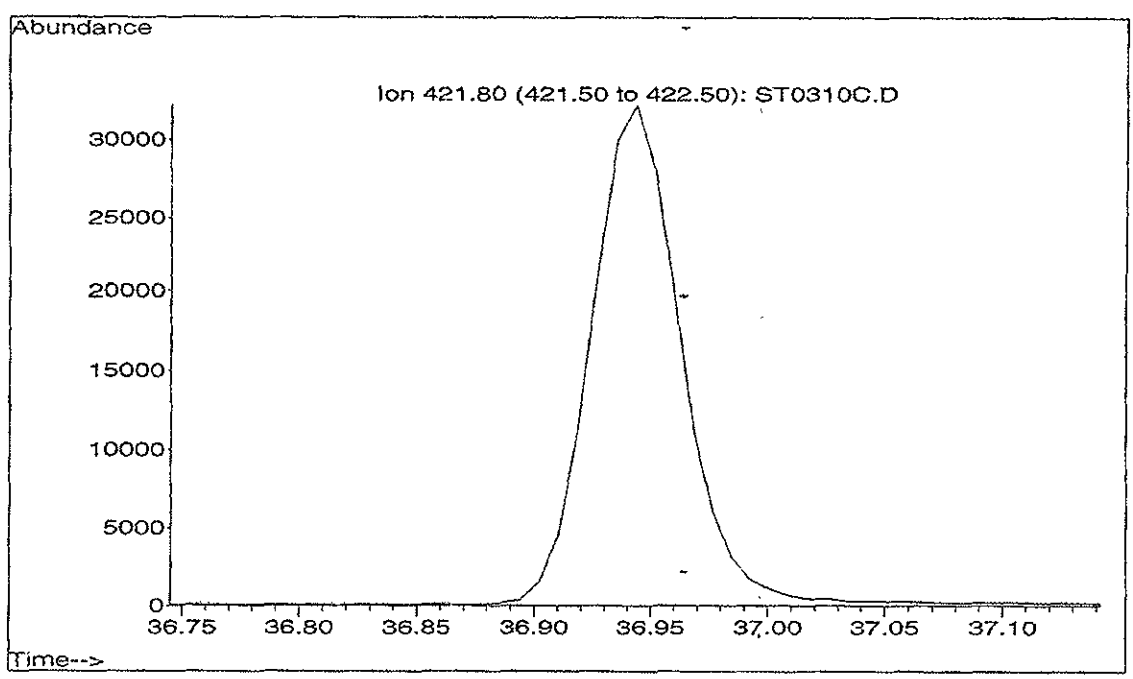




13C-1234678-HpCDF-IS

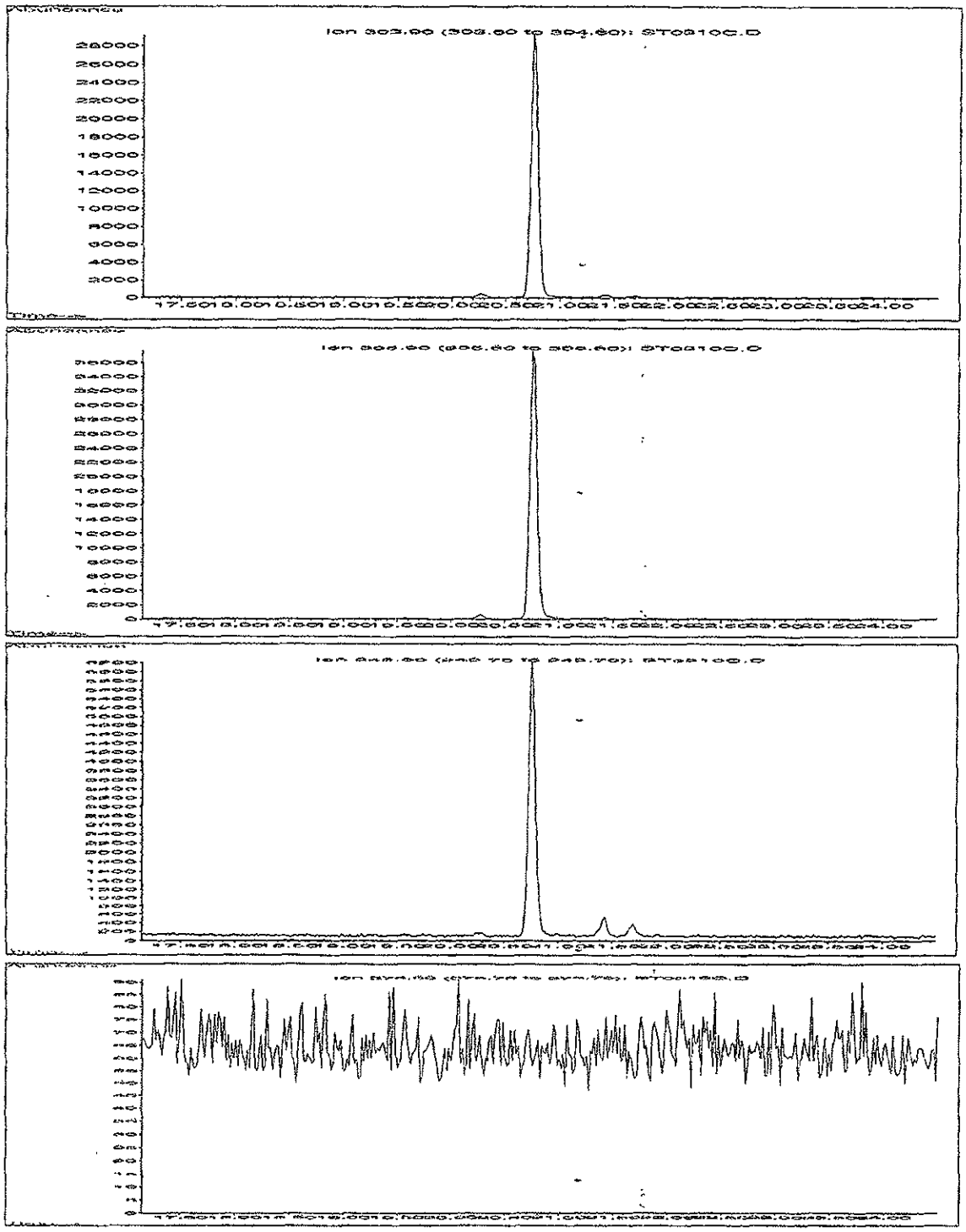
TS R.T. Lower Limit	36.73		
TS R.T. Upper Limit	37.13		
Ret Time	36.94		
Target Ion	419.8	Q1 Ion	421.8
Target Response	90996	Q1 Response	86315
Target Response	177311	Ion Ratio	1.05





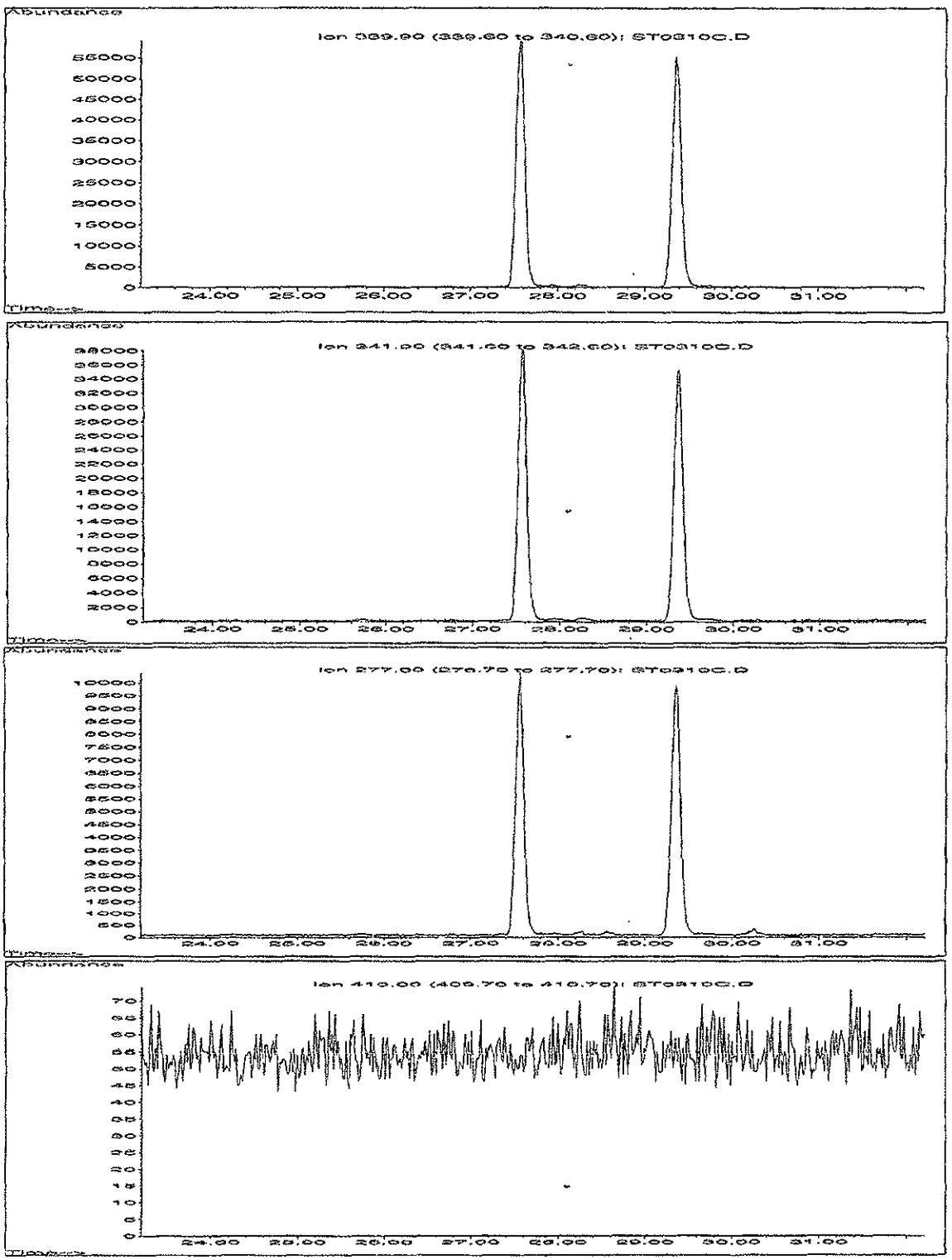
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



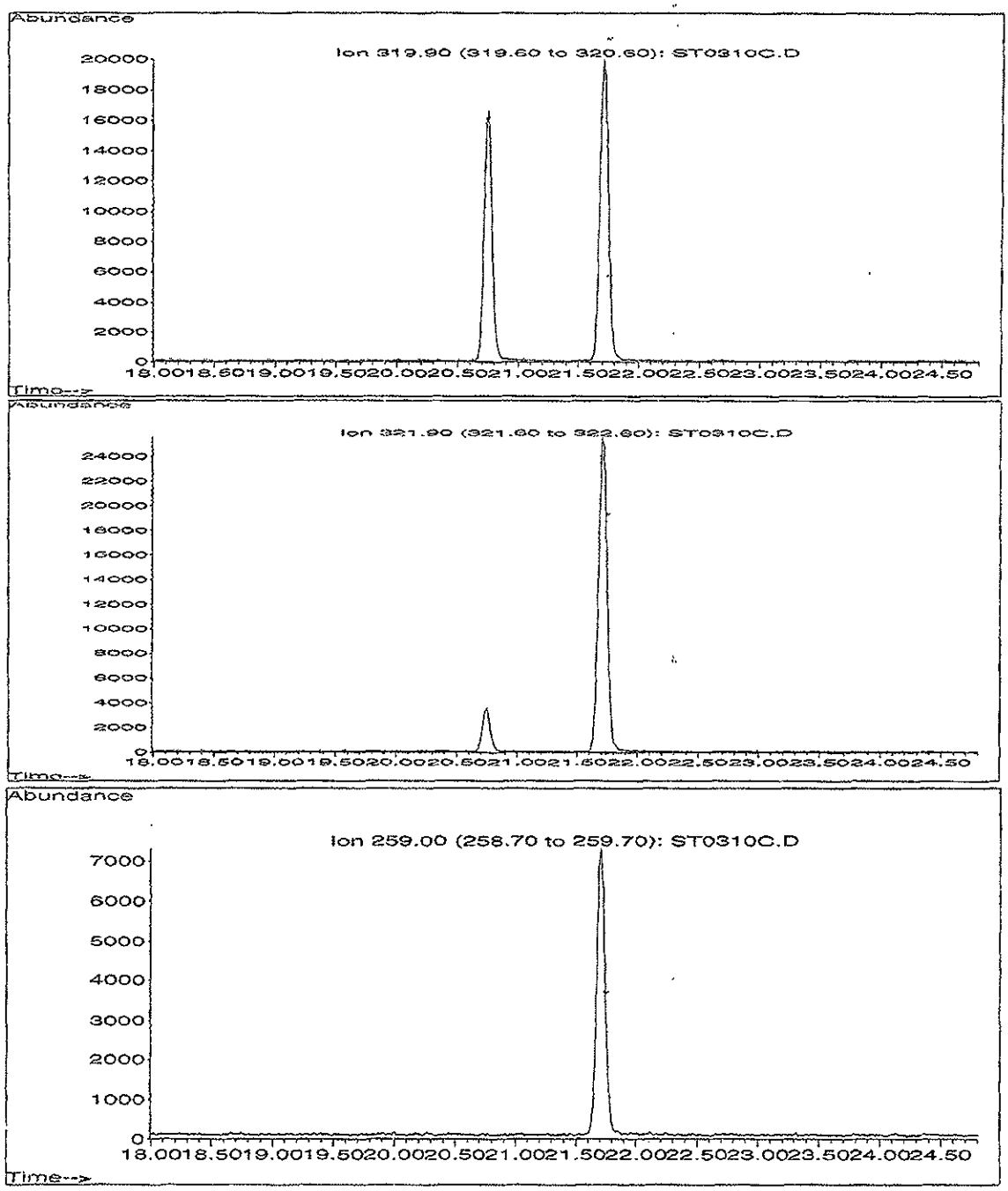
PeCDF TOTAL

TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



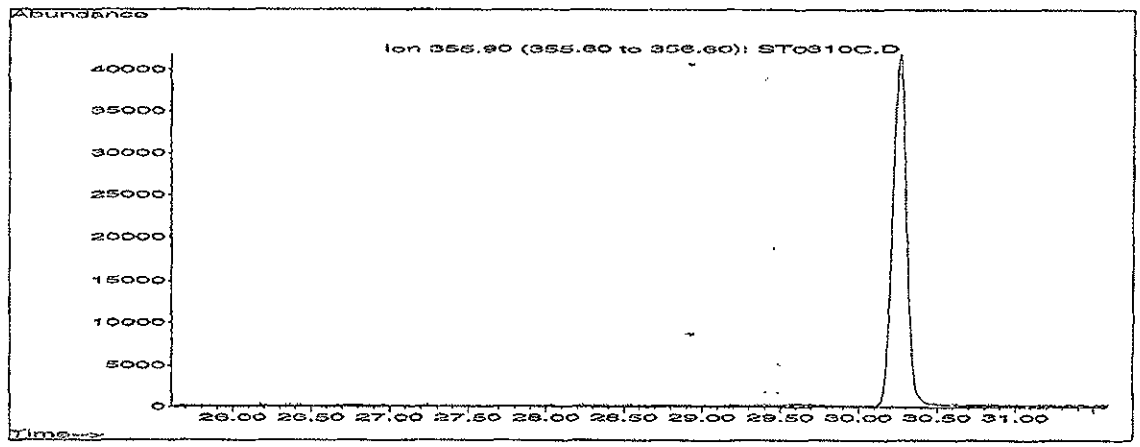
TCDD TOTAL

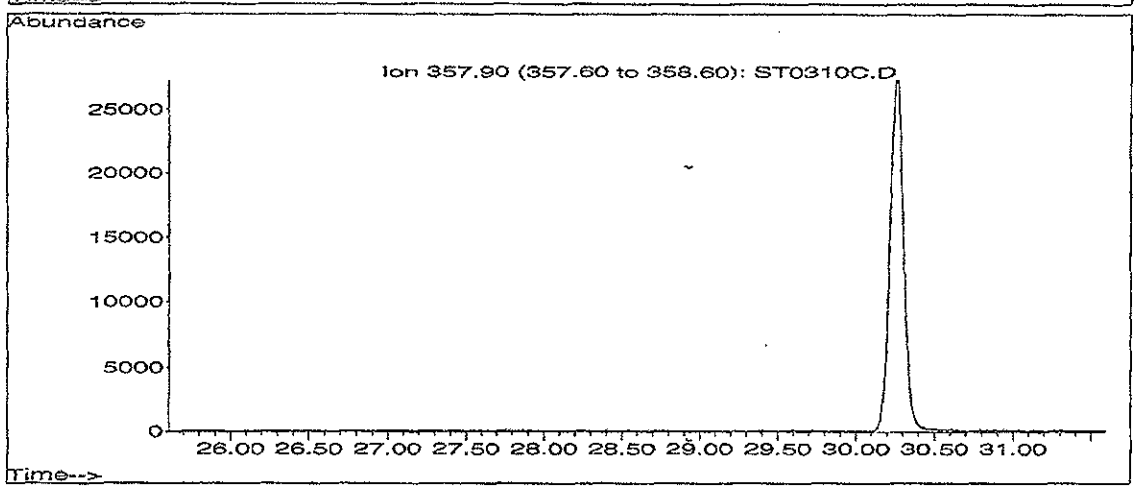
TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80

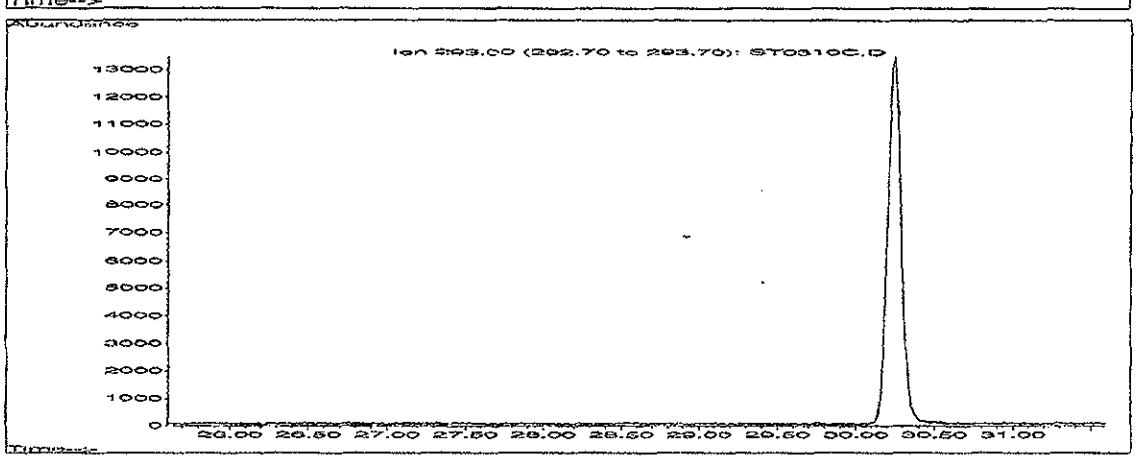


PeCDD TOTAL

TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

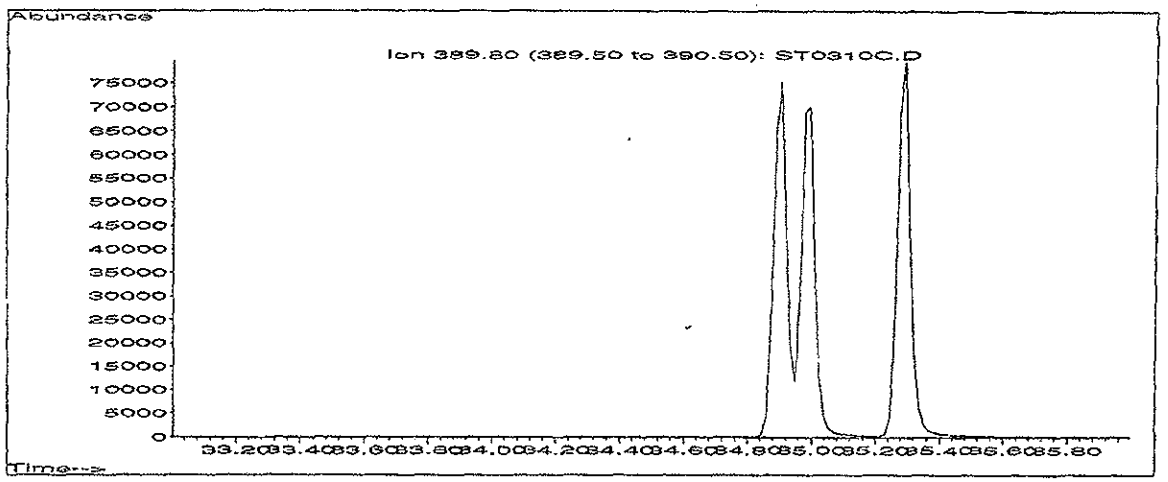


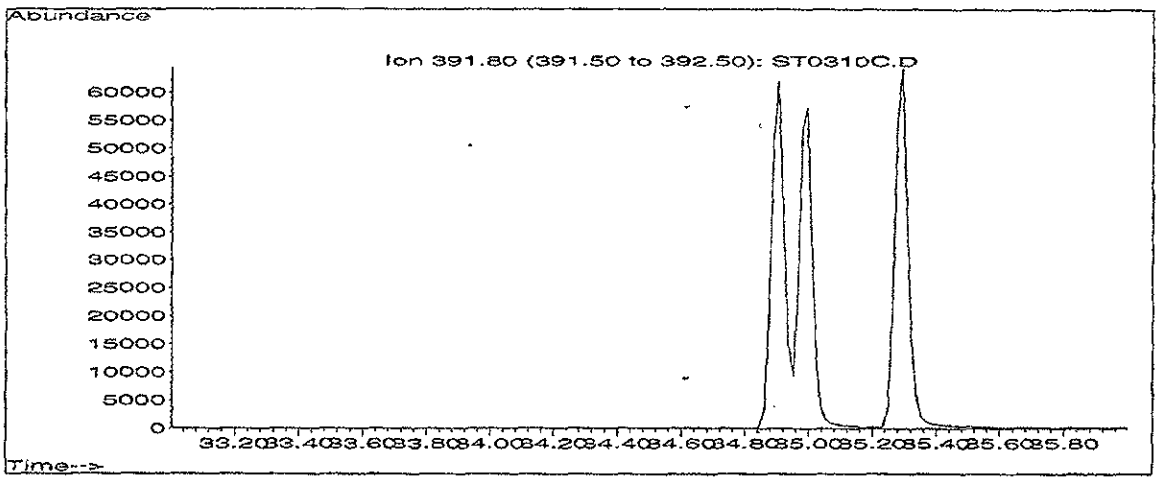


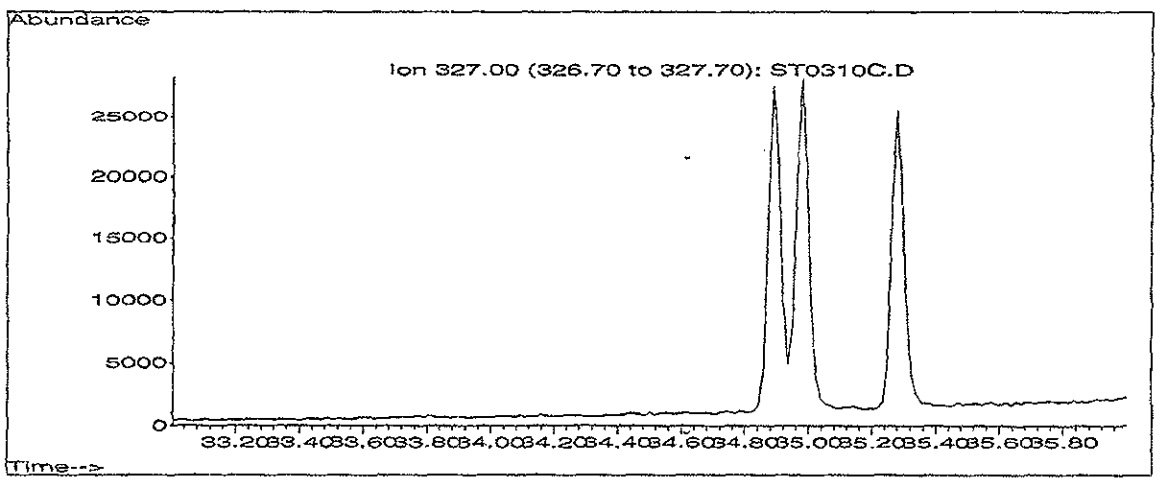


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

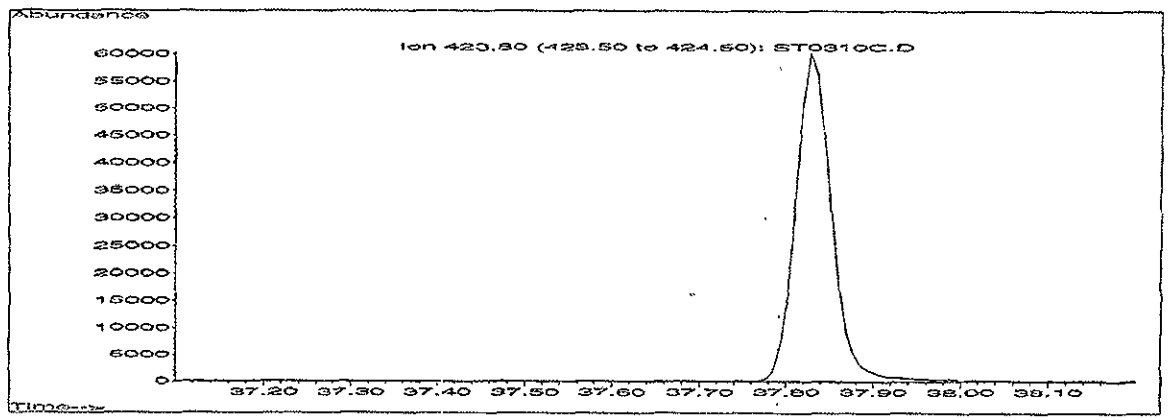


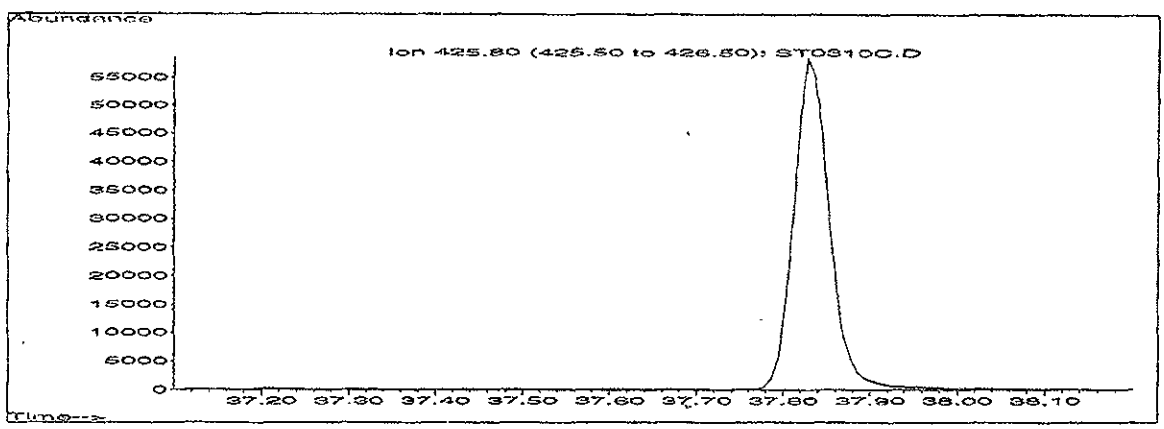


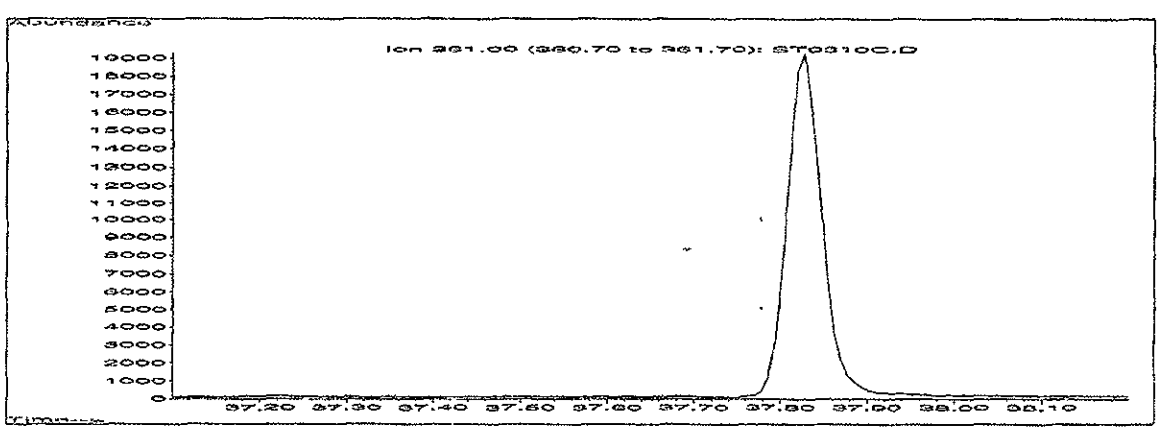


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

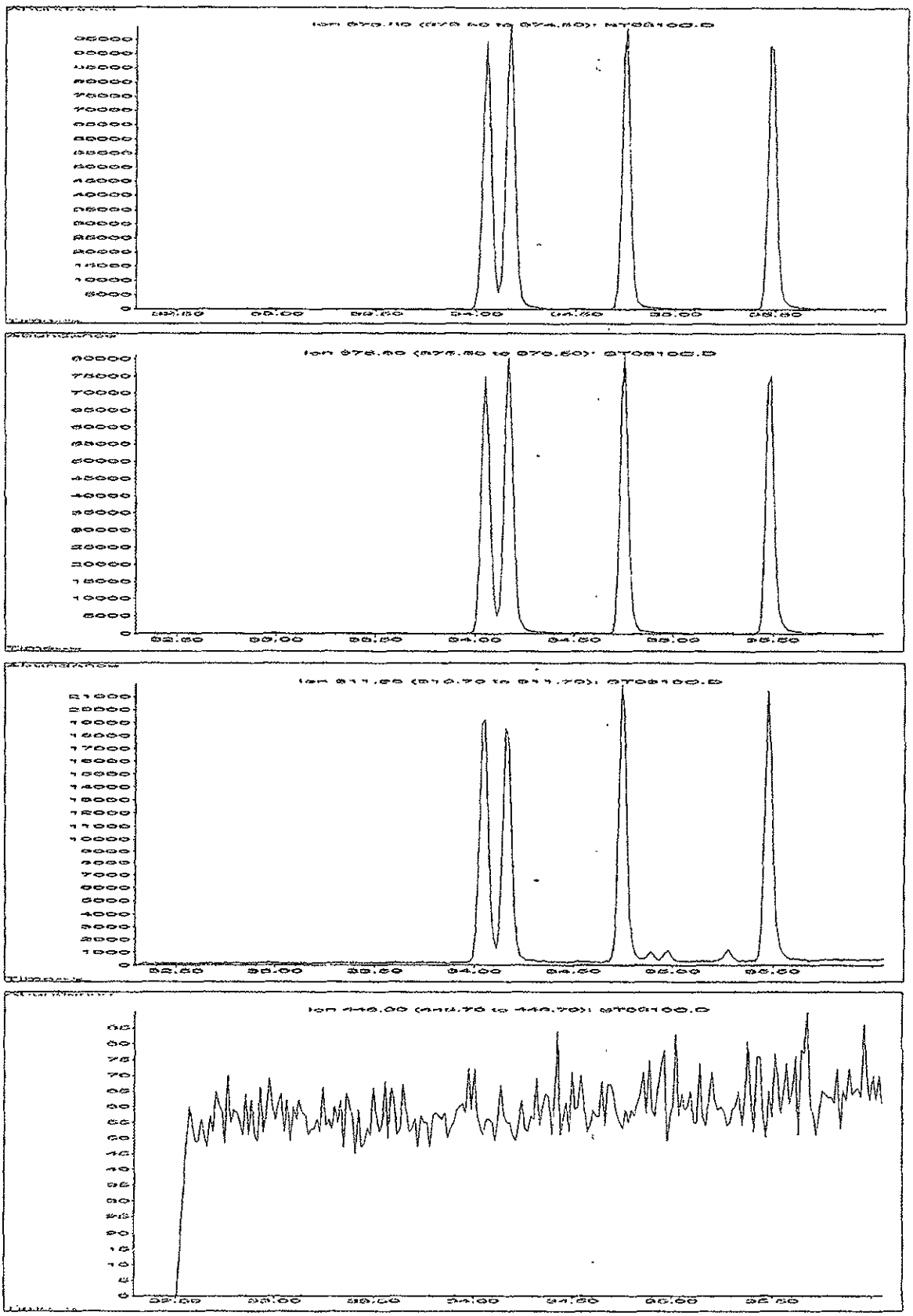






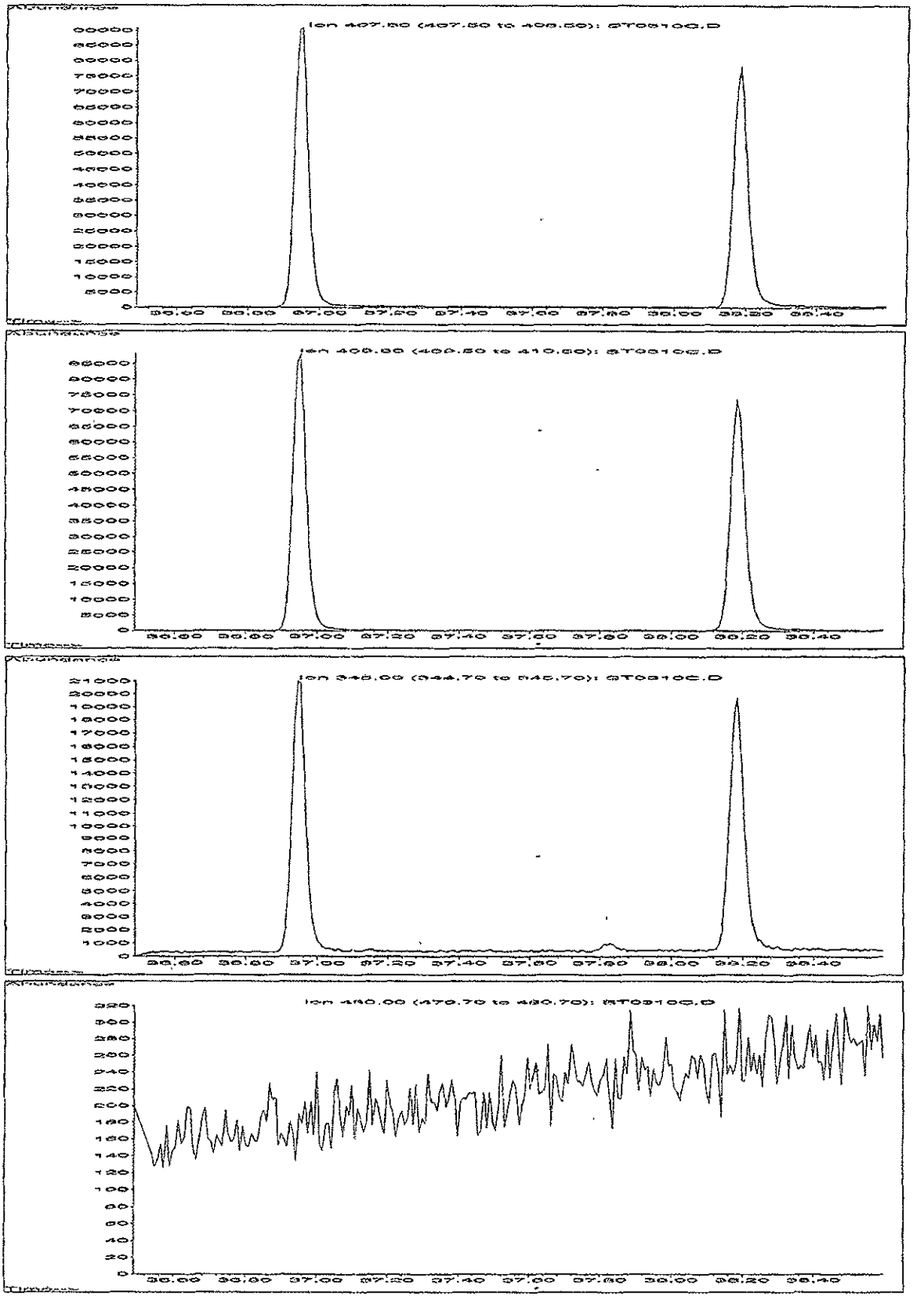
HxCDF TOTAL

TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



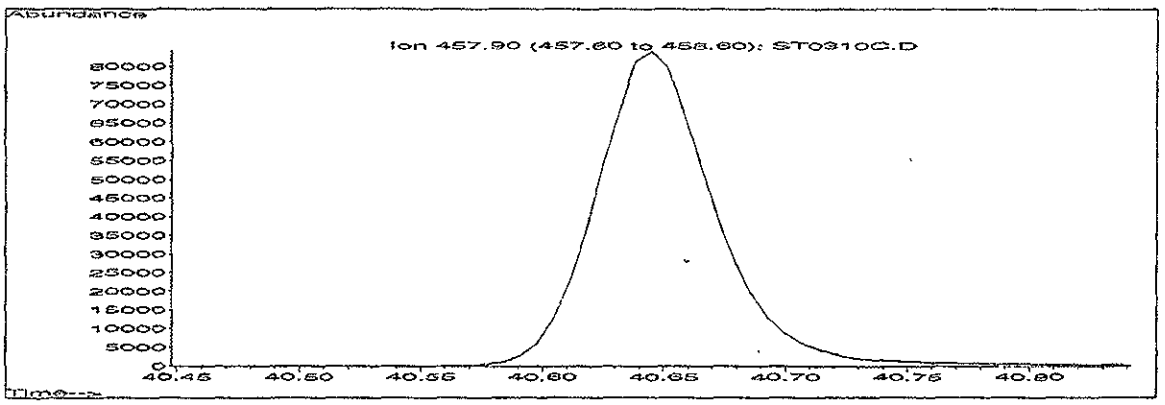
HpCDF TOTAL

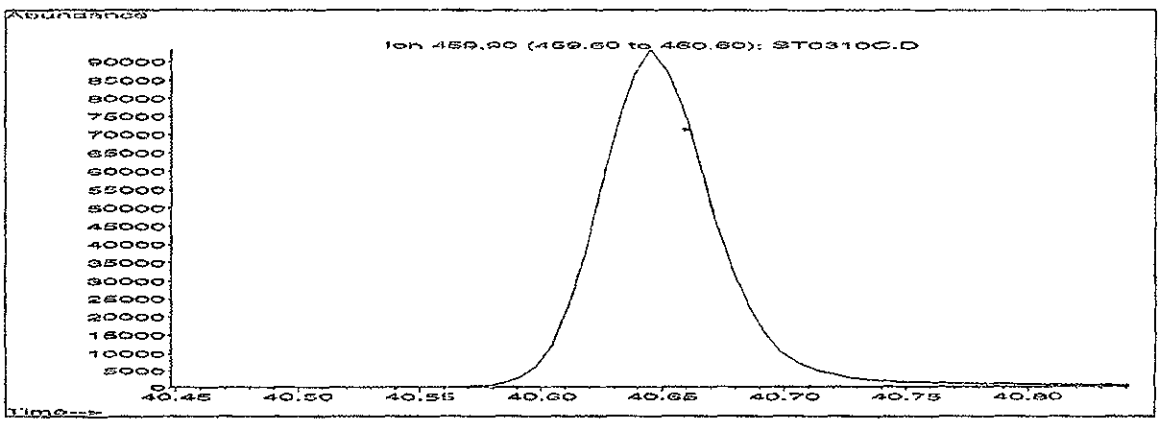
TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

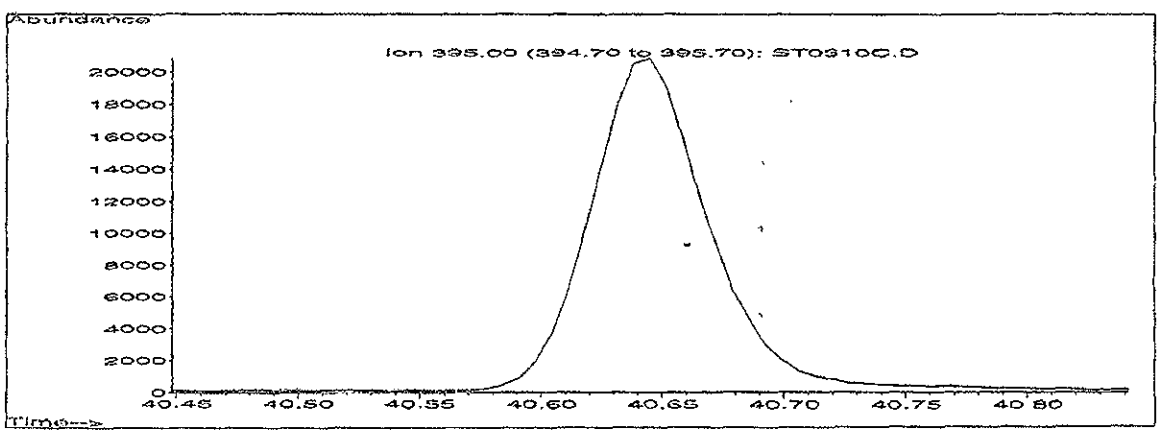


OCDD

TS R.T. Lower Limit	40.45		
TS R.T. Upper Limit	40.85		
Ret. Time	40.64		
Target Ion	457.9	Q1 Ion	459.9
Target Response	285339	Q1 Response	314695
Total Response	600034	Ion ratio	0.91
Q2 Ion	395		
Q2 Response	70670		

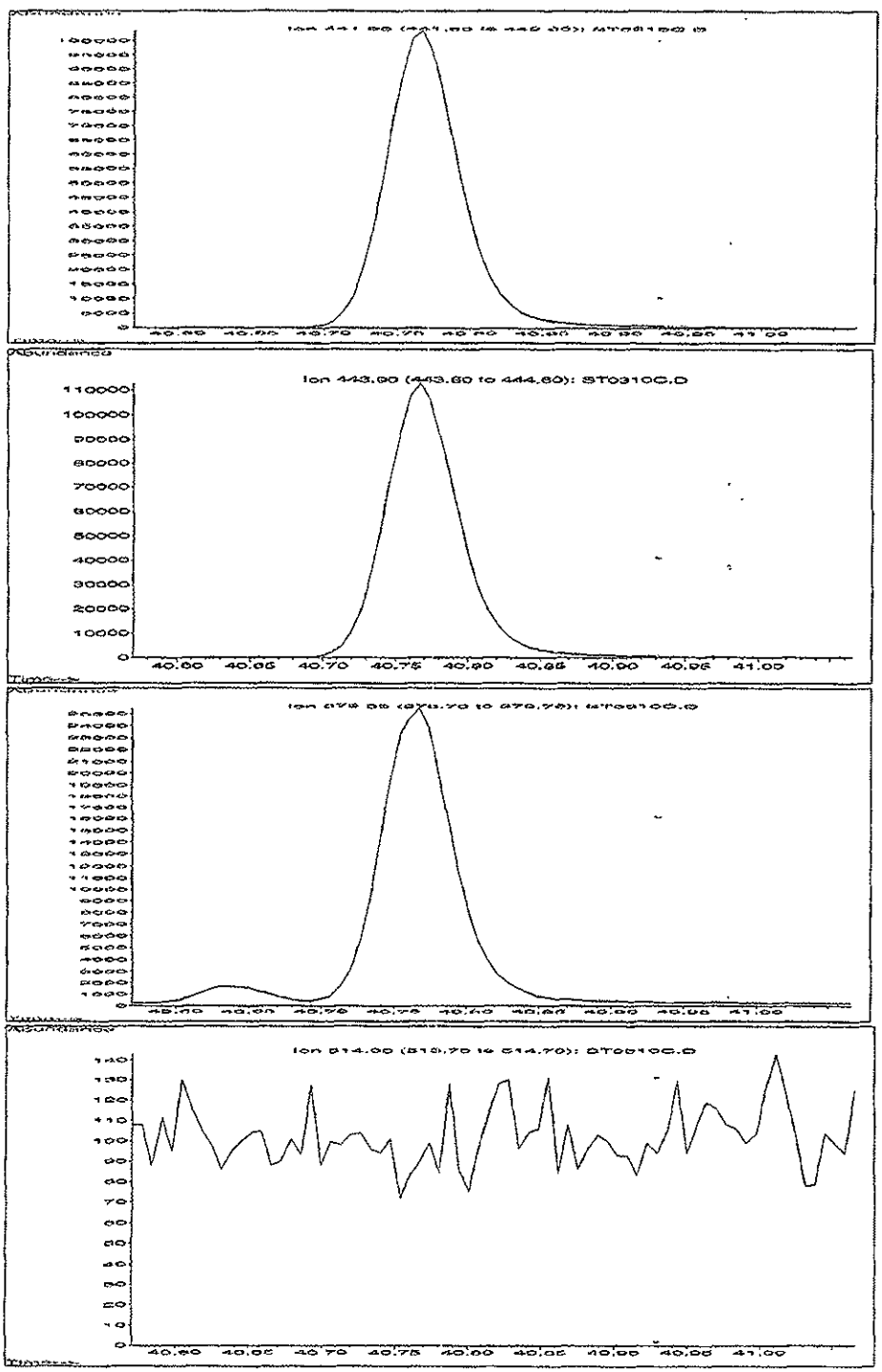






OCDF

TS R.T. Lower Limit	40.56		
TS R.T. Upper Limit	41.06		
Ret Time	40.77		
Target Ion	441.9	Q1 Ion	443.9
Target Response	368750	Q1 Response	400953
Target Response	769703	Ion Ratio	0.92
Q2 Ion	379	DPE Ion	514
Q2 Response	90139	DPE Response	0



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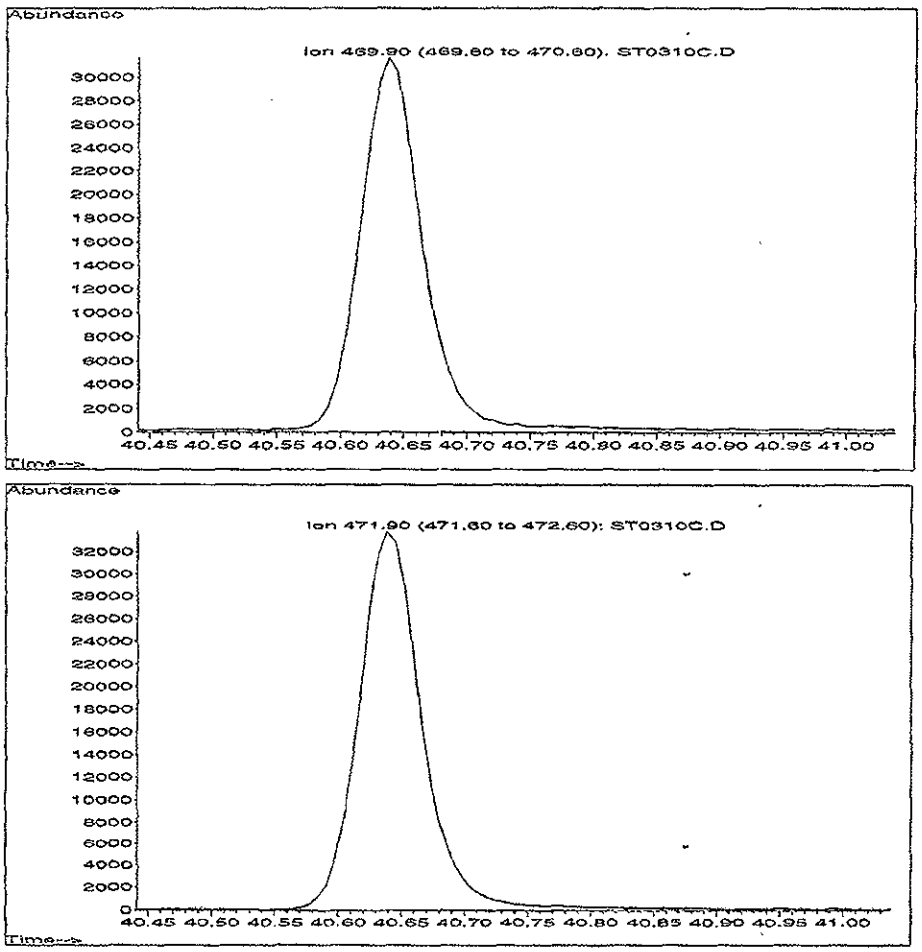
3/10/2009 3:00 PM

13C-OCDD-IS

RT Lower Limit	40.44		
RT Upper Limit	41.04		
Ret Time	40.64		
Target Ion	469.9	Q1 Ion	471.9
Target Response	106516	Q1 Response	116044
Total response	222560	Ratio	0.92



Quantitation Report (Not Reviewed)

Sample ID: CS-4
3136-45D CS-4

Size: 0.000
Inst : DB1

Data File:C:\8280\2DB\031009.B\ST0310D.D
Acq On :10 Mar 2009 14:12

Vial: 92
Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Mar 10 15:01 2009

Quant Results File: 09MR10A2.RES

Quant Method : C:\8280\ DATA METHODS\09MR10A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Mar 10 14:00:55 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	21.44	332+334	0.80	144198	25.00 NG	0.00
5) 13C-123789-HxCDD	35.28	402+404	1.26	125964	25.00 NG	0.00
9) 13C-2378-TCDF	20.74	316+318	0.80	241843	25.00 NG	0.00
15) 13C-2378-TCDD	21.69	332+334	0.81	159941	25.00 NG	0.00
20) 13C-123678-HxCDD	34.98	402+404	1.26	113484	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.94	420+422	1.06	147900	25.00 NG	0.00
36) 13C-OCDD	40.64	470+472	0.91	186765	50.00 NG	0.00

Surrogate Compound

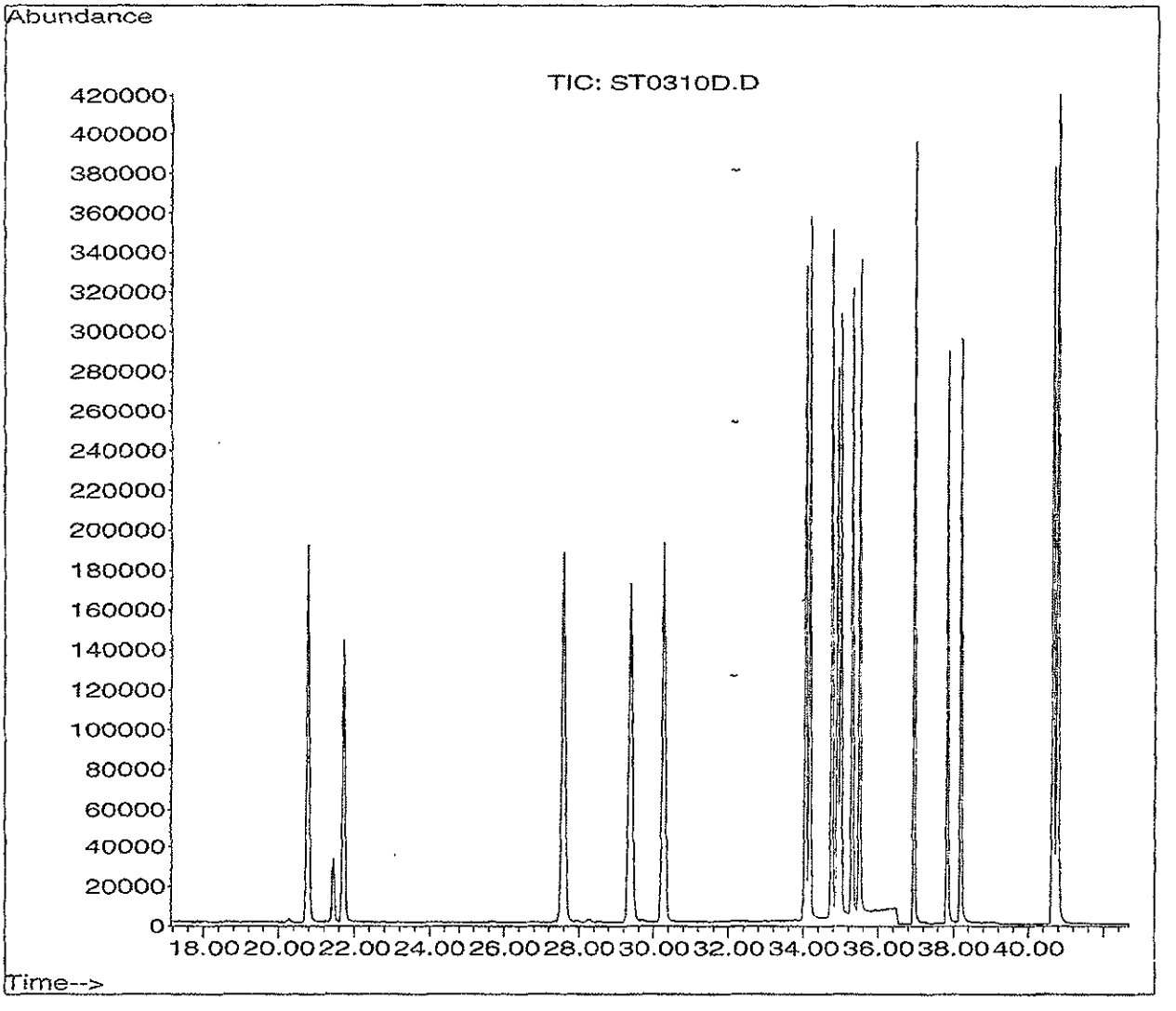
4) 37Cl-2378-TCDD	21.72	328		114909	12.590 NG	0.00
Spiked Amount = 12.500	RRF = 1.582			Recovery = 100.72%		

Target Compounds	RT	Ratio		Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.74	0.80		241843	1.685	24.888	0.0204	99.6
3) 13C-2378-TCDD-IS	21.69	0.81		159941	1.121	24.730	6.4061	98.9
6) 13C-123678-HxCDD-	34.98	1.26		113484	0.922	24.418	0.0876	97.7
7) 13C-1234678-HpCDF	36.94	1.06		147900	1.169	25.116	0.0719	100.5
8) 13C-OCDD-IS	40.64	0.91		186765	0.717	51.718	0.2706	103.4
10) 2378-TCDF	20.76	0.78		524876	1.076	50.433	0.7842	
1	20.29	0.70		6965		0.669		
2	20.76	0.78		529757		50.902		
11) TCDF TOTAL	19.50	0.78		536722	1.076	51.571		
12) 12378-PeCDF	27.57	1.54		1104505	0.863	132.240	0.5395	
13) 23478-PeCDF	29.36	1.54		1078070	0.840	132.705	0.0618	
1	27.57	1.56		1122620		138.189		
2	27.94	2.40	#	5111		0.629		
3	28.28	1.78		11717		1.442		
4	29.36	1.54		1078070		132.705		
5	29.70	2.29	#	4256		0.524		
14) PeCDF TOTAL	27.20	2.29		2221773	0.840	273.489		
16) 2378-TCDD	21.71	0.78		367986	1.139	50.504	0.0519	
1	20.76	4.84	#	22922		3.146		
2	21.71	0.78		380408		52.208		
17) TCDD TOTAL	19.50	0.78		403330	1.139	55.354		
18) 12378-PeCDD	30.25	1.55		711774	0.826	134.644	0.1431	
1	30.25	1.56		721004		136.390		
19) PeCDD TOTAL	27.60	1.56		721004	0.826	136.390		
21) 123478-HxCDD	34.90	1.26		662384	1.152	126.685	11.3812	
22) 123678-HxCDD	34.99	1.25		621838	1.070	128.011	1.0228	
23) 123789-HxCDD	35.29	1.25		682035	1.178	127.553	0.9037	
1	34.90	1.26		662384		126.685		
2	34.99	1.25		2268473		466.985		
3	35.29	1.25		692125		142.480		
24) HxCDD TOTAL	35.00	1.25		3622982	1.070	736.150		

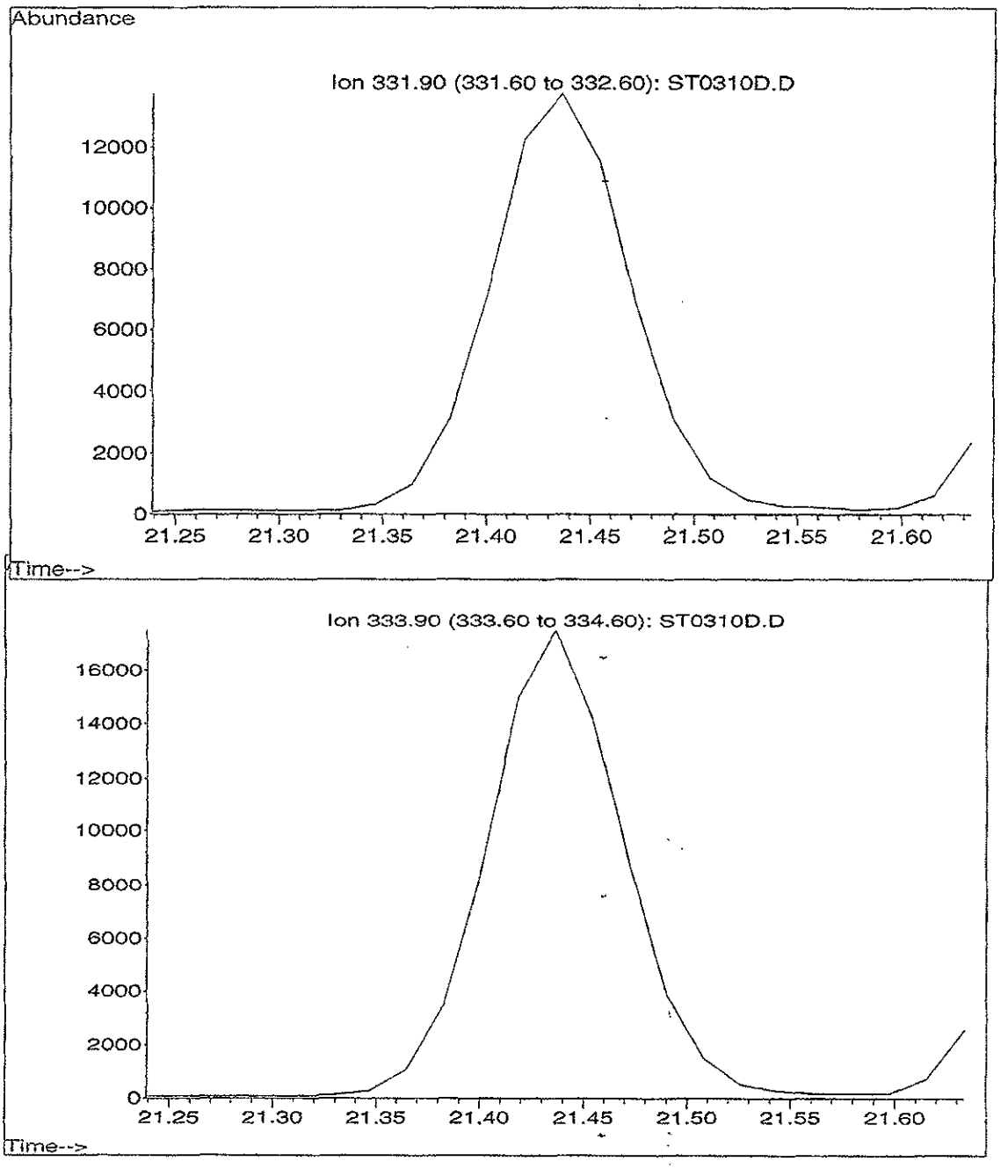
25)	1234678-HpCDD	37.83	1.04	567588	0.974	128.319	0.0616
	1	37.83	1.04	567588		128.319	
26)	HpCDD TOTAL	37.60	1.04	567588	0.974	128.319	
28)	123478-HxCDF	34.05	1.25	903447	1.248	122.388	133.7960
29)	123678-HxCDF	34.17	1.23	940317	1.280	124.157	9.8186
30)	234678-HxCDF	34.75	1.24	888556	1.227	122.448	0.0862
31)	123789-HxCDF	35.49	1.24	868570	1.178	124.588	0.0756
	1	34.05	1.25	903447		122.388	
	2	34.17	1.23	940317		124.157	
	3	34.75	1.23	888556		122.448	
	4	35.49	1.24	874090		125.380	
32)	HxCDF TOTAL	34.80	1.24	3606410	1.178	494.373	
33)	1234678-HpCDF	36.94	1.04	815945	1.127	122.398	0.1025
34)	1234789-HpCDF	38.18	1.05	753605	1.016	125.382	0.1096
	1	36.94	1.04	815945		122.398	
	2	38.18	1.04	753605		125.382	
35)	HpCDF TOTAL	38.00	1.04	1569550	1.016	247.780	
37)	OCDD	40.65	0.90	1012966	1.051	258.088	0.1356
38)	OCDF	40.77	0.92	1310255	1.354	259.075	0.2205

(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0310D.D 09MR10A2.M Tue Mar 10 14:01:07 2009

Data File Name	ST0310D.D
Data File Path	C:\8280\2DB\031009.B\
Operator	MEO
Date Acquired	3/10/2009 14:12
Acq. Method File	TOKAS
Sample Name	3136-45D CS-4
Misc Info	CS-4
Vial Number	92
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0

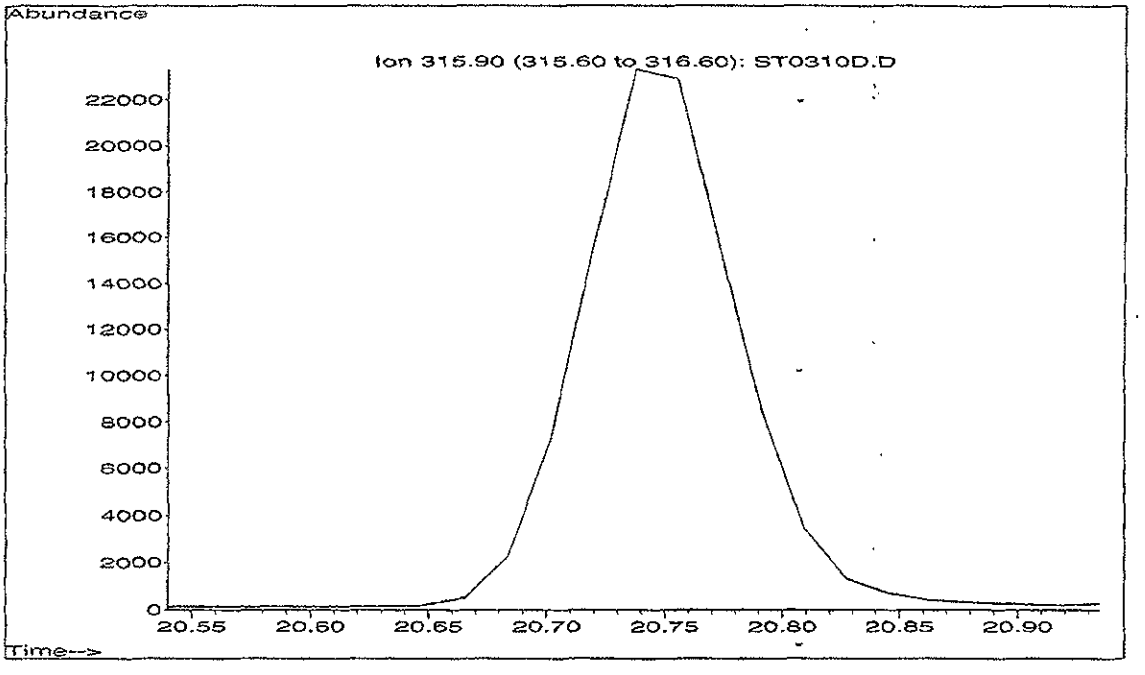


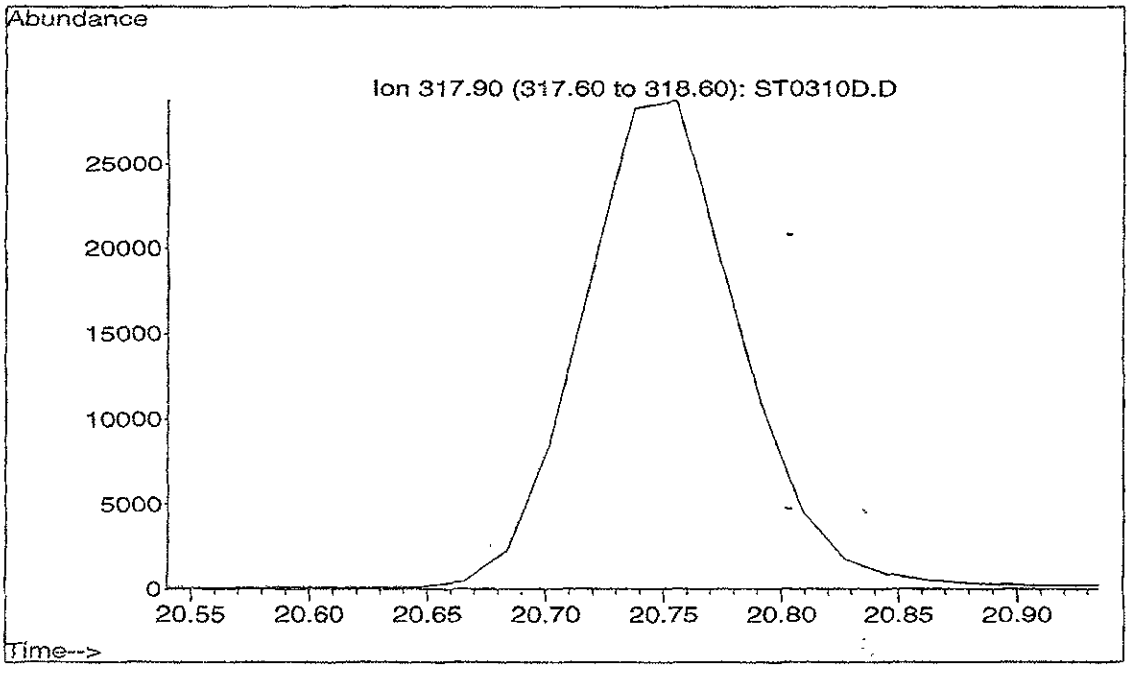
13C-1234-TCDD			
TS R.T. Lower Limit	21.24		
TS R.T. Upper Limit	21.64		
Ret Time	21.44		
Target Ion	331.9	Q1 Ion	333.9
Target Response	64247	Q1 Response	79951
Total Response	144198	Ion Ratio	0.80



13C-2378-TCDF-IS

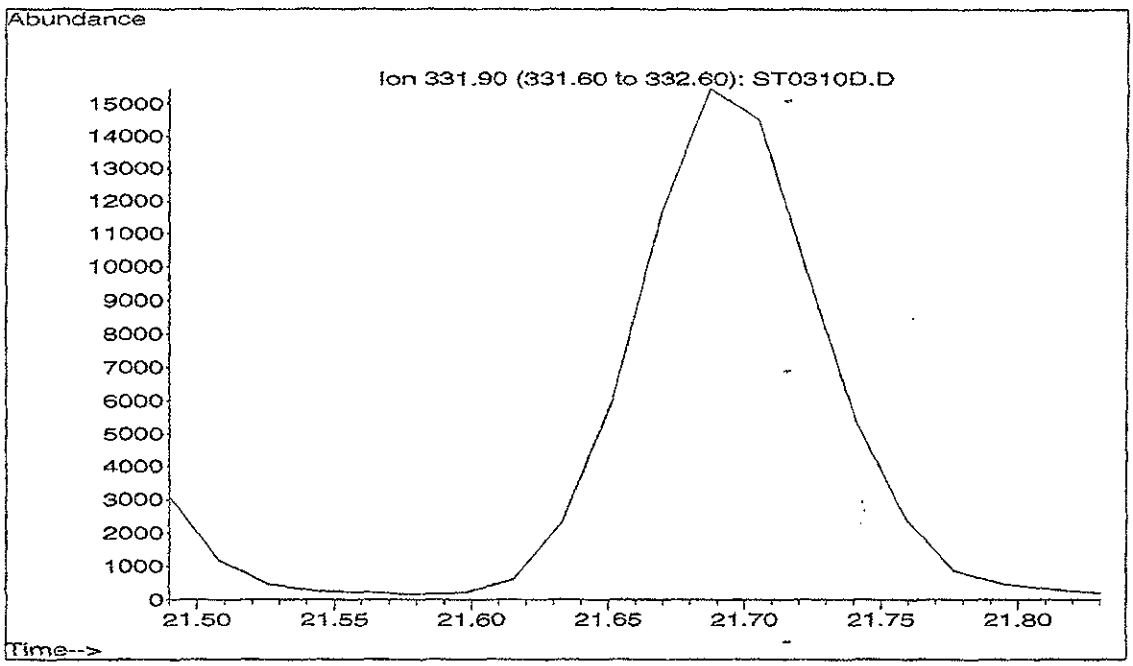
TS R.T. Lower Limit	20.54		
TS R.T. Upper Limit	20.94		
Ret Time	20.74		
Target Ion	315.9	Q1 Ion	317.9
Target Response	107818	Q1 Response	134025
Target Response	241843	Ion Ratio	0.80

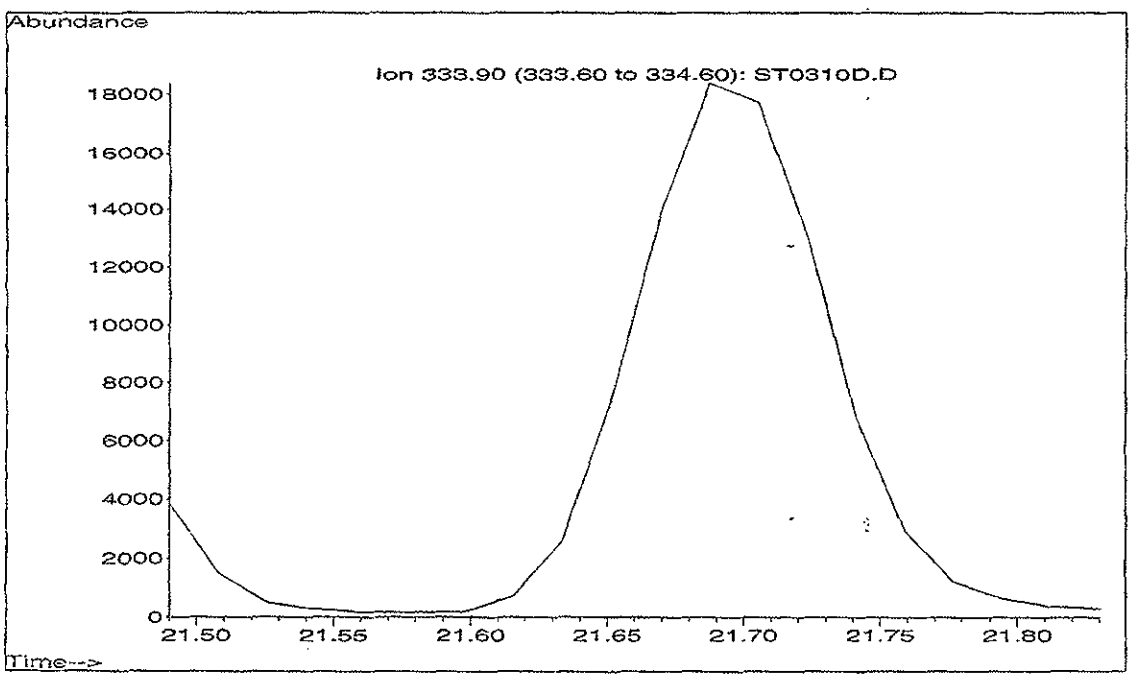




13C-2378-TCDD-IS

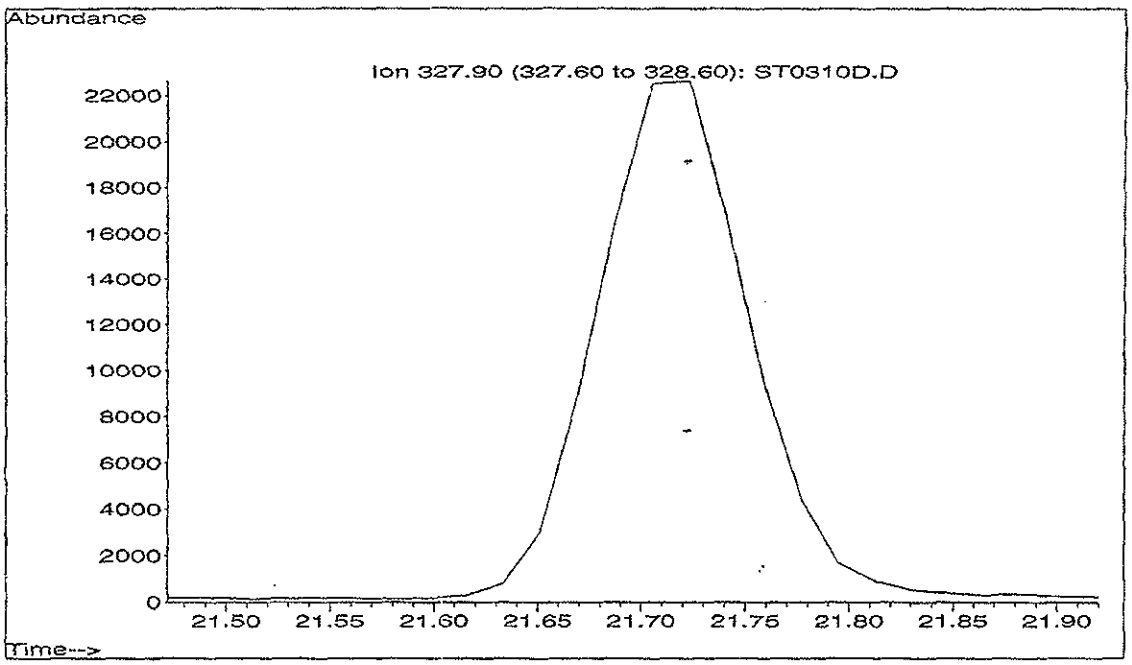
TS R.T. Lower Limit	21.49		
TS R.T. Upper Limit	21.84		
Ret Time	21.69		
Target Ion	331.9	Q1 Ion	333.9
Target Response	71750	Q1 Response	88191
Total Response	159941	Ion Ratio	0.81

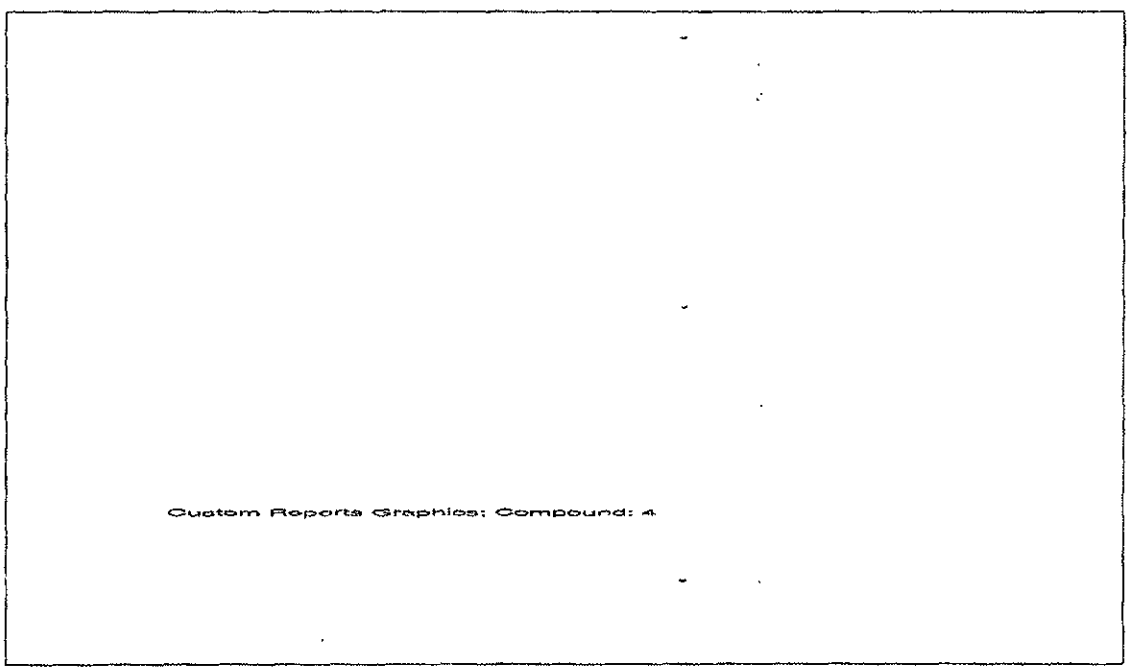




37Cl-2378-TCDD

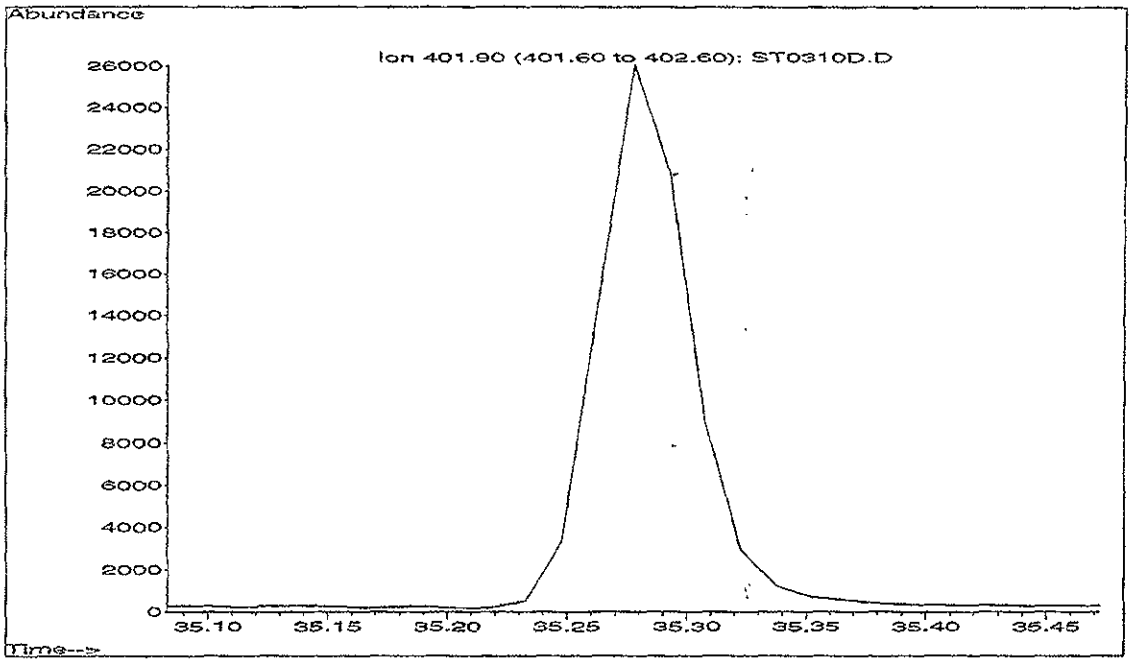
TS R.T. Lower Limit	21.47		
TS R.T. Upper Limit	21.92		
Ret Time	21.72		
Target Ion	327.9	Q1 Ion	0
Target Response	114909	Q1 Response	0
Total Response	114909	Ion Ratio	#DIV/0!

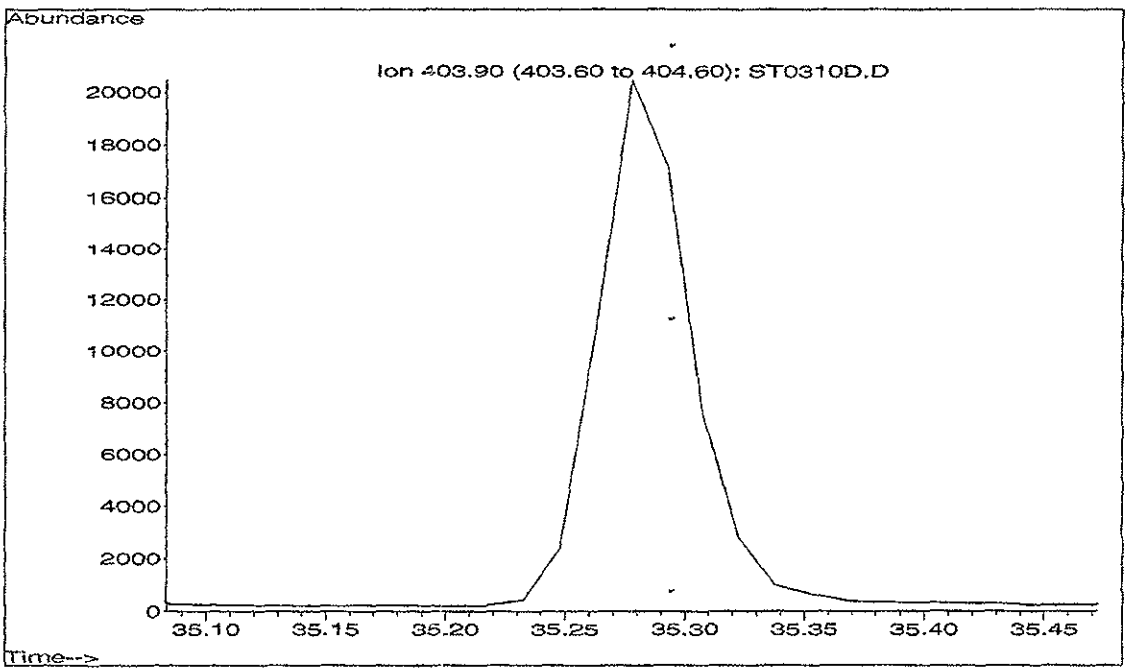




13C-123789-HxCDD

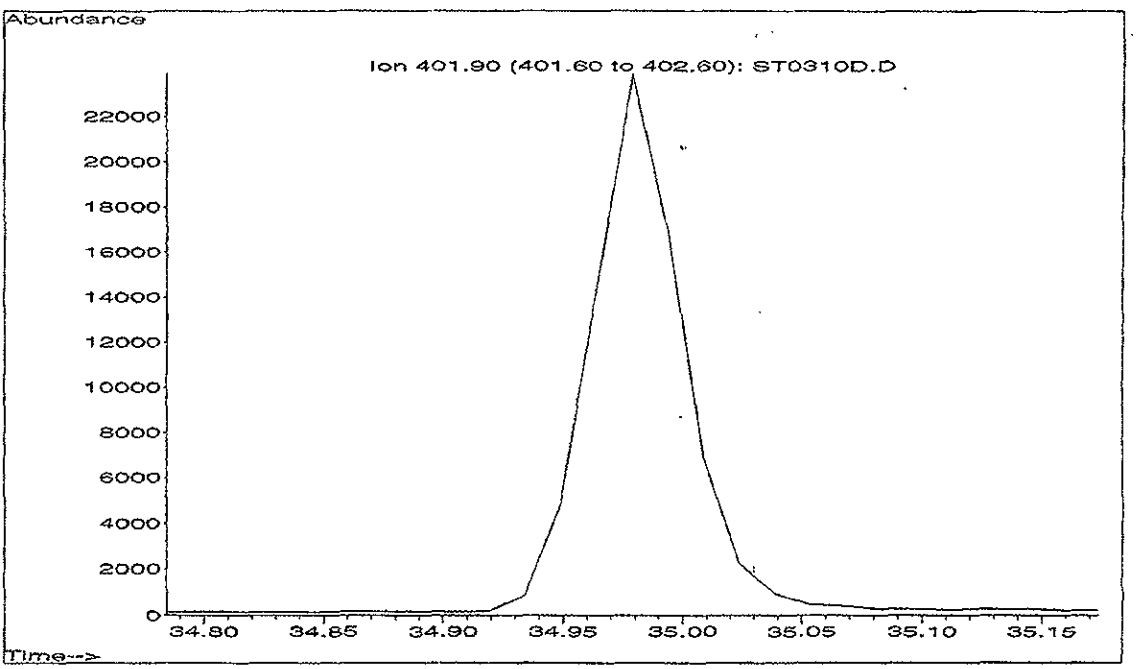
TS R.T. Lower Limit	35.08		
TS R.T. Upper Limit	35.48		
Ret Time	35.28		
Target Ion	401.9	Q1 Ion	403.9
Target Response	70233	Q1 Response	55731
Target Response	125964	Ion Ratio	1.26

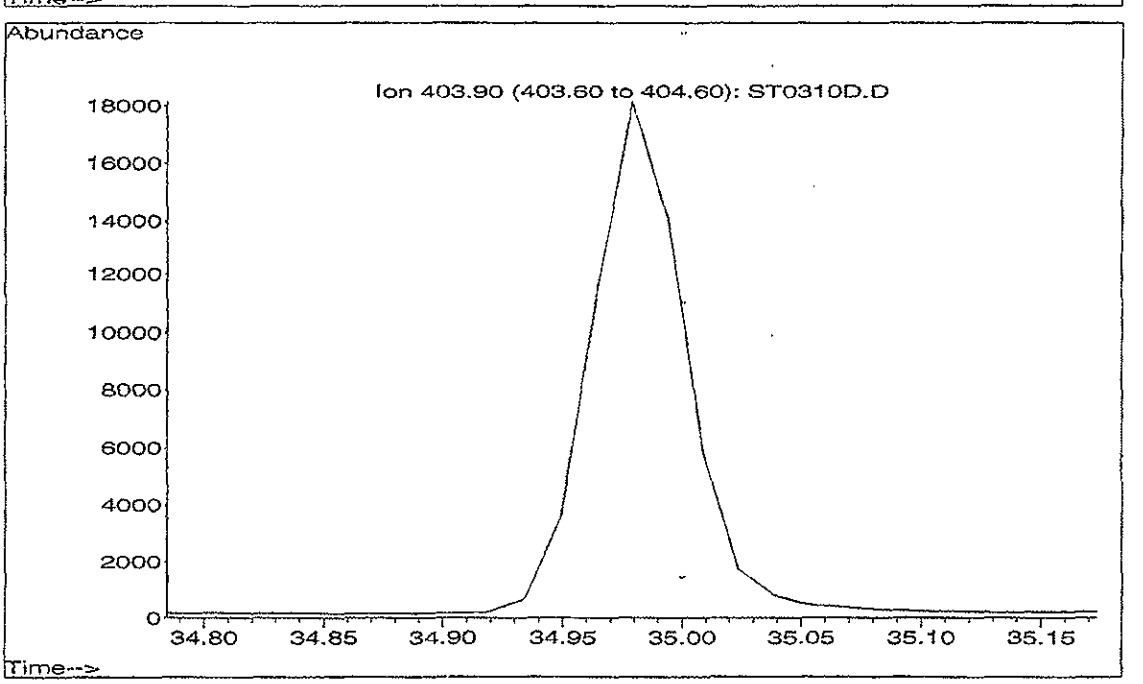




13C-123678-HxCDD-IS

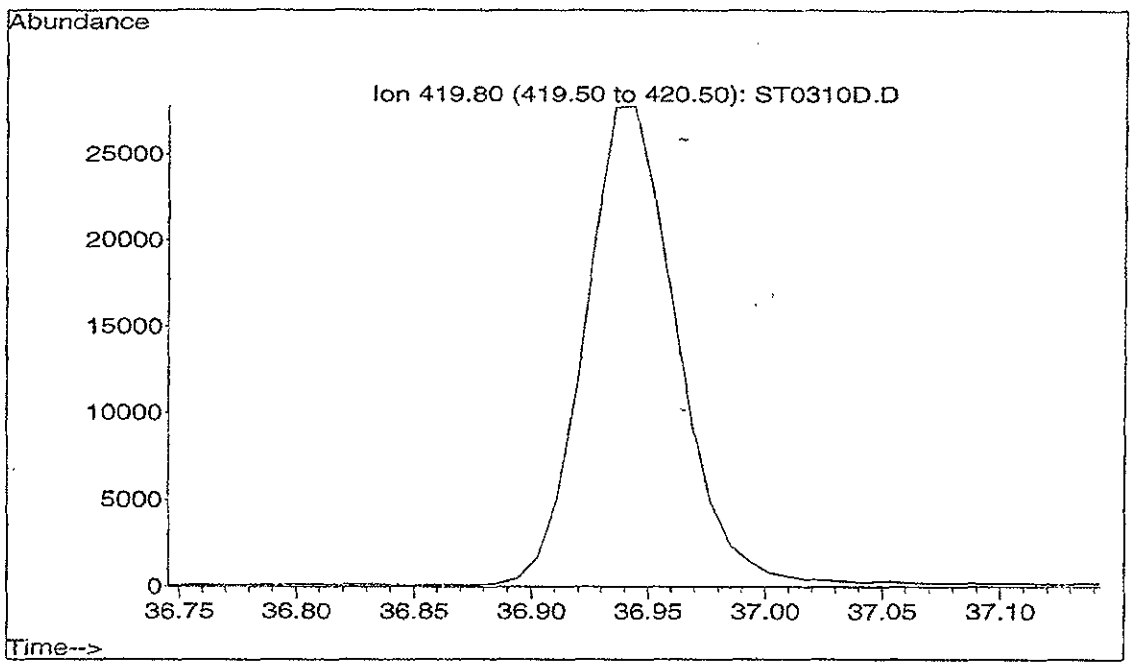
TS R.T. Lower Limit	34.78		
TS R.T. Upper Limit	35.18		
Ret Time	34.98		
Target Ion	401.9	Q1 Ion	403.9
Target Response	63354	Q1 Response	50130
Total Response	113484	Ion Ratio	1.26

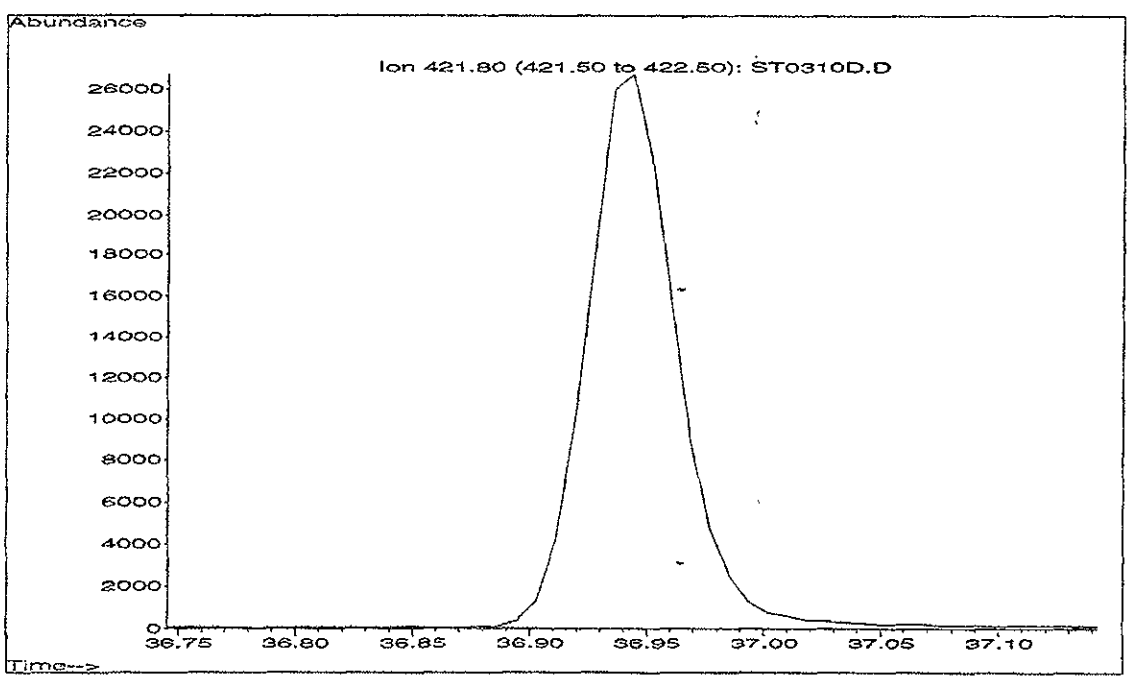




13C-1234678-HpCDF-IS

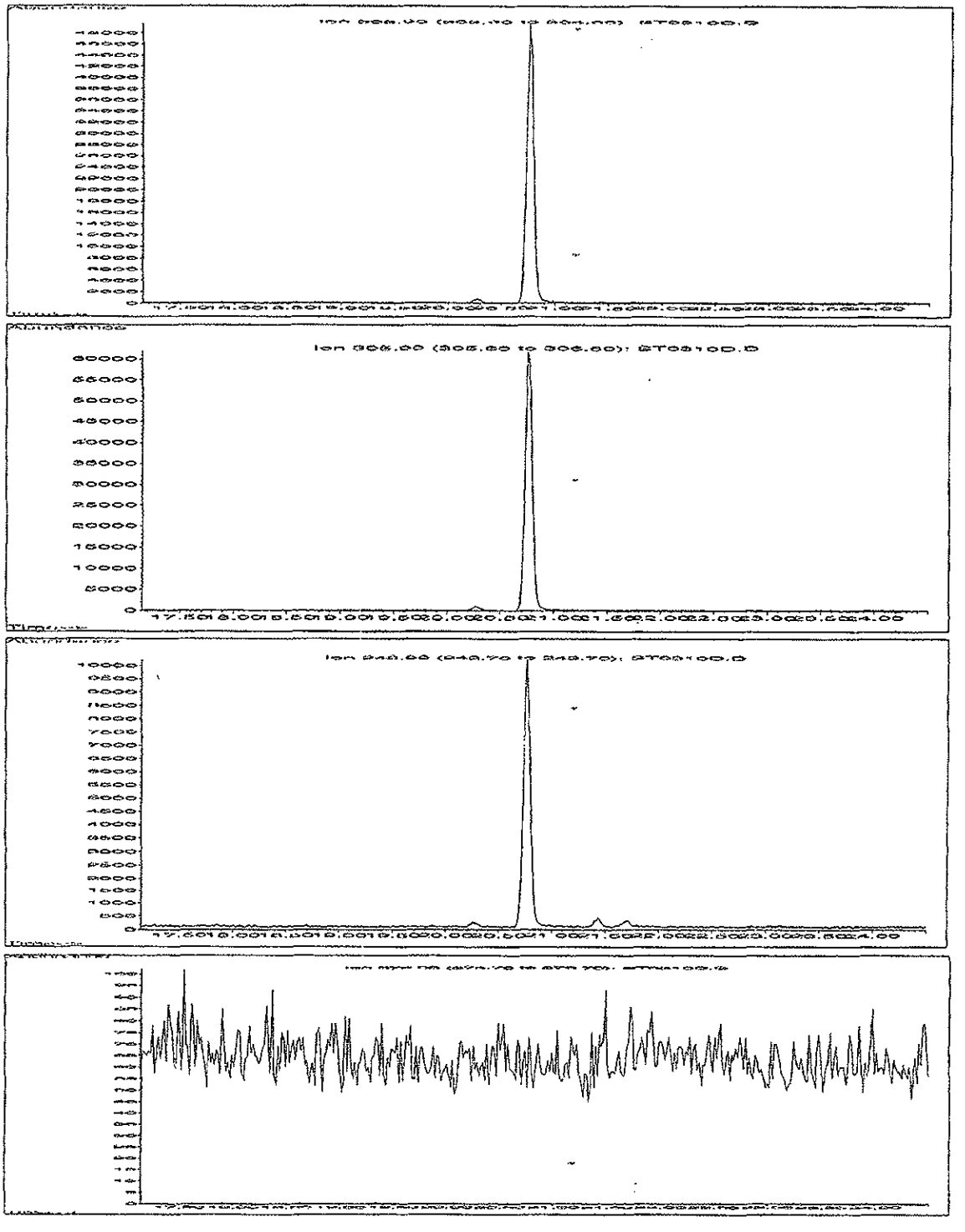
TS R.T. Lower Limit	36.74		
TS R.T. Upper Limit	37.14		
Ret Time	36.94		
Target Ion	419.8	Q1 Ion	421.8
Target Response	75949	Q1 Response	71951
Target Response	147900	Ion Ratio	1.06





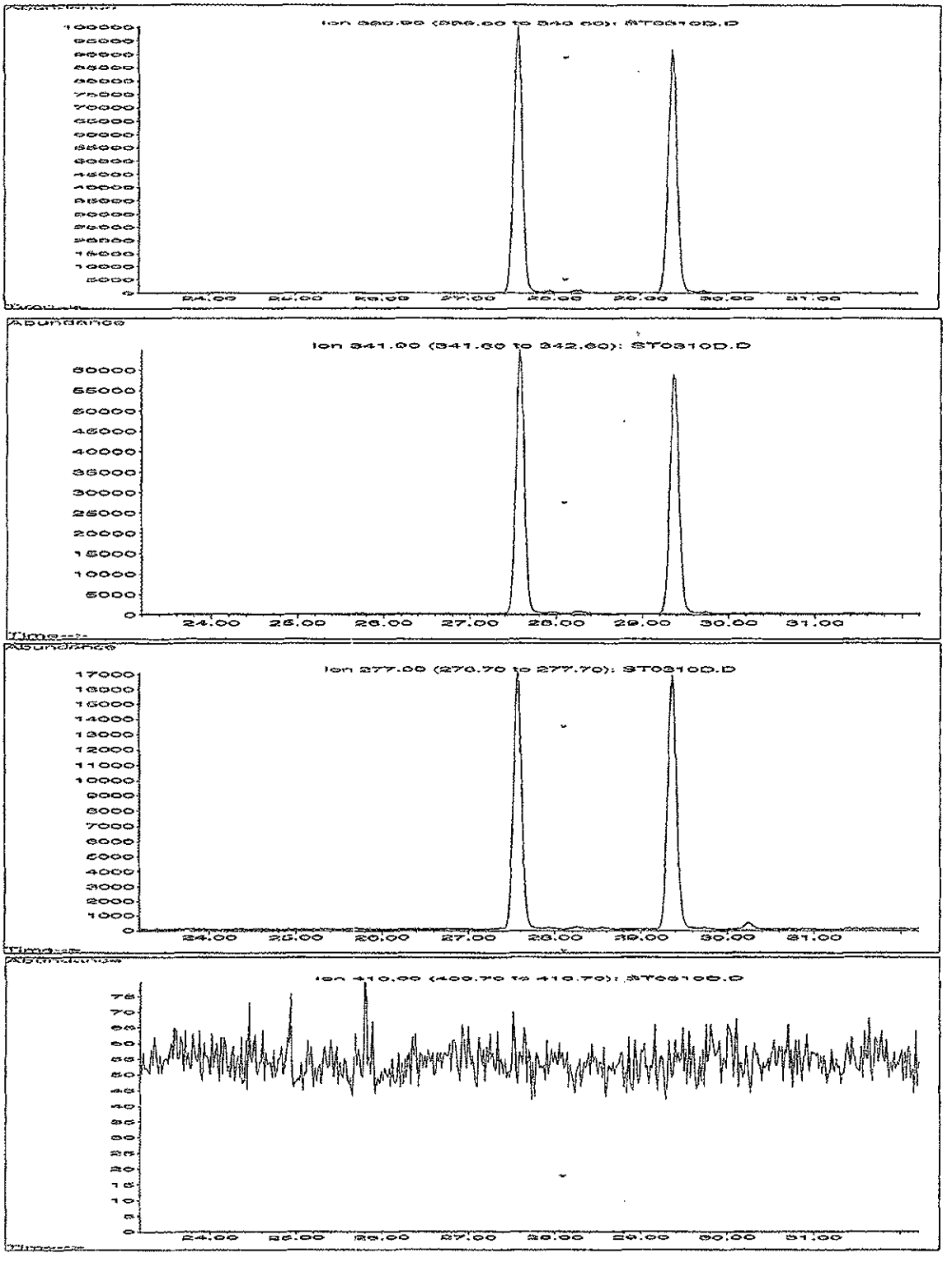
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



PeCDF TOTAL

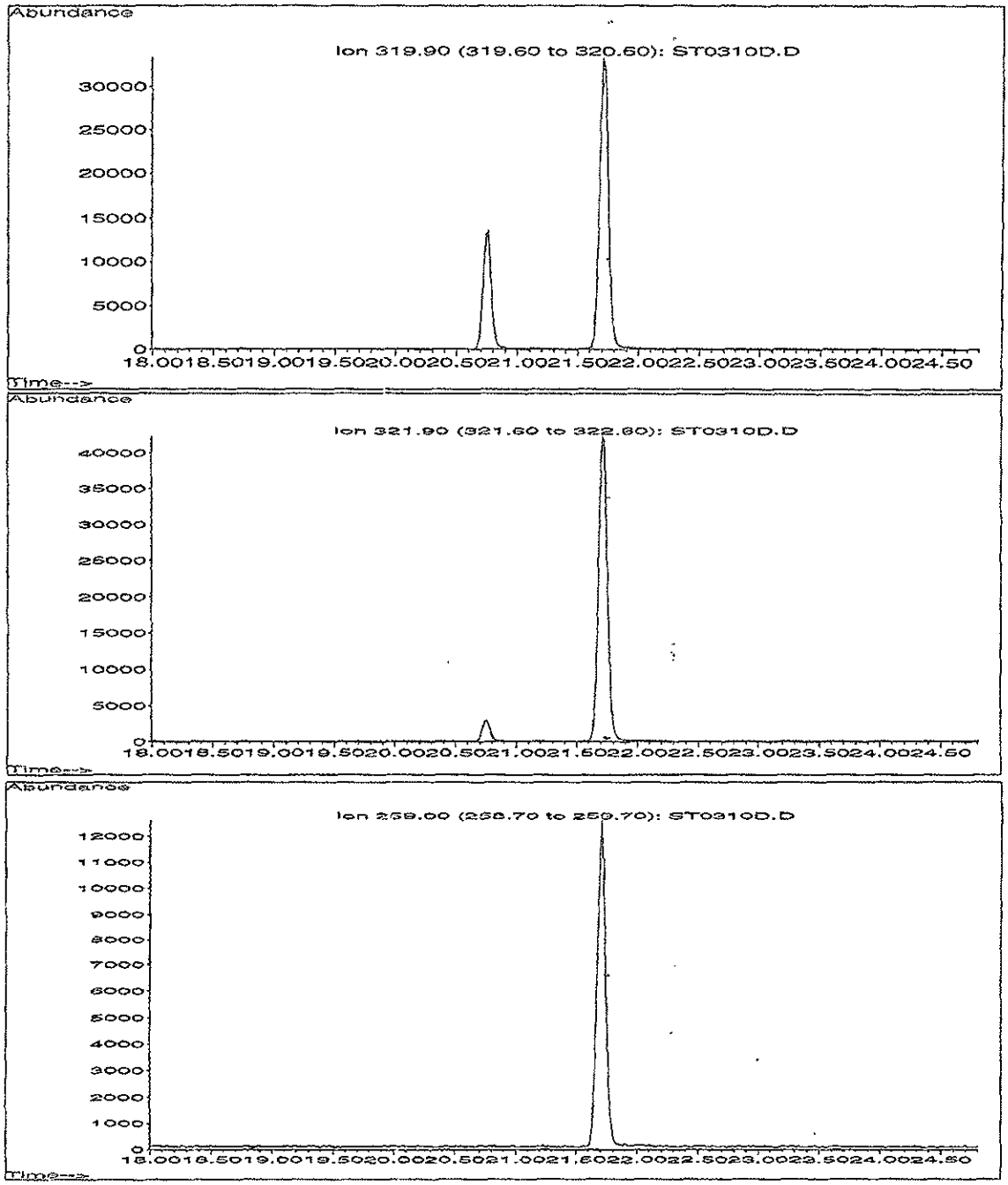
TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

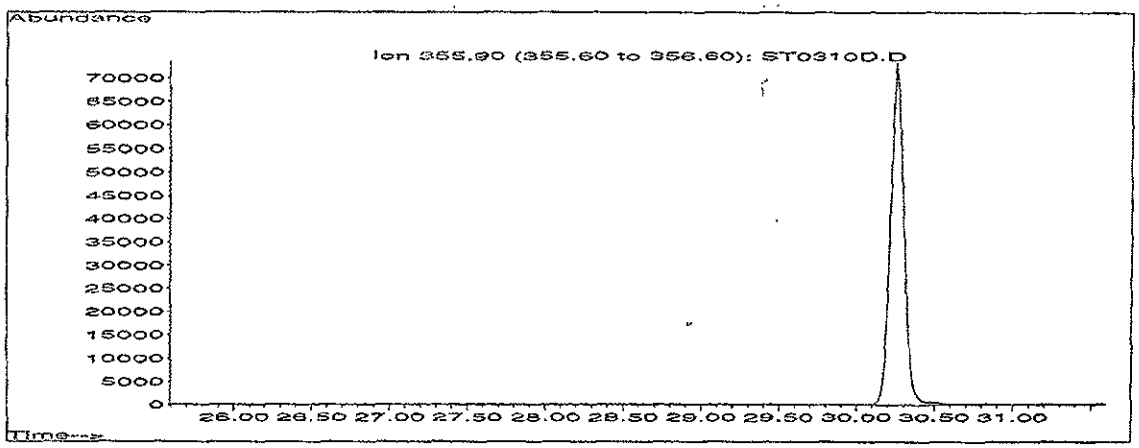
TCDD TOTAL

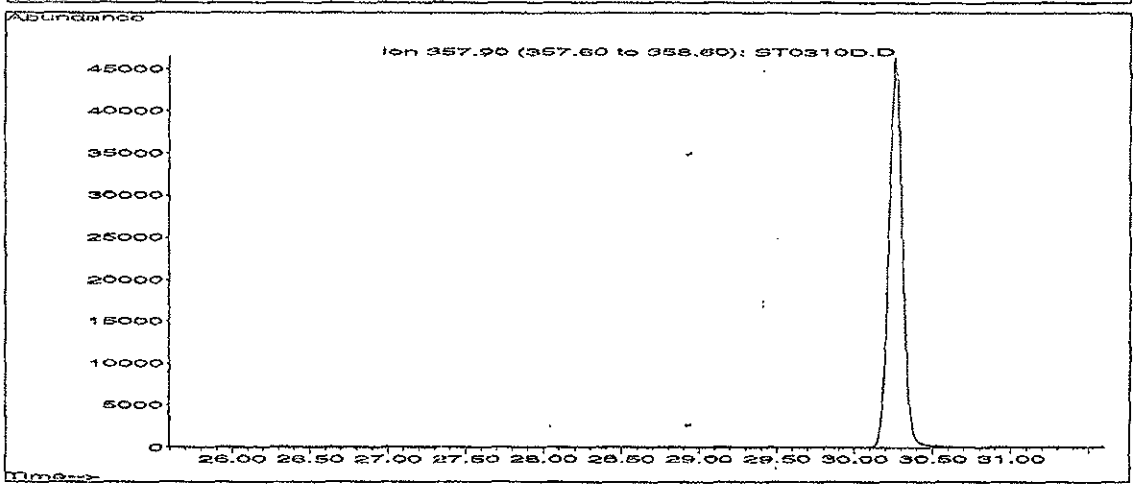
TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80

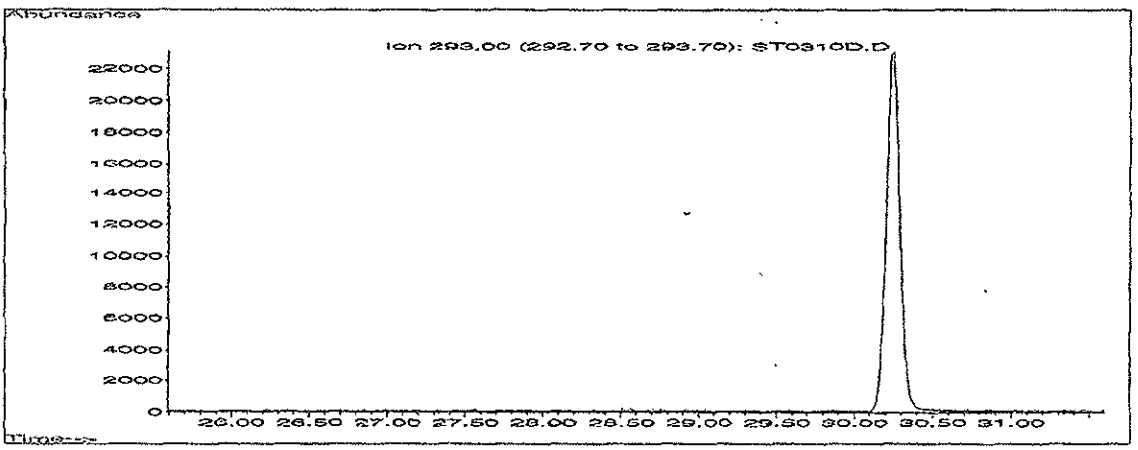


PeCDD TOTAL

TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

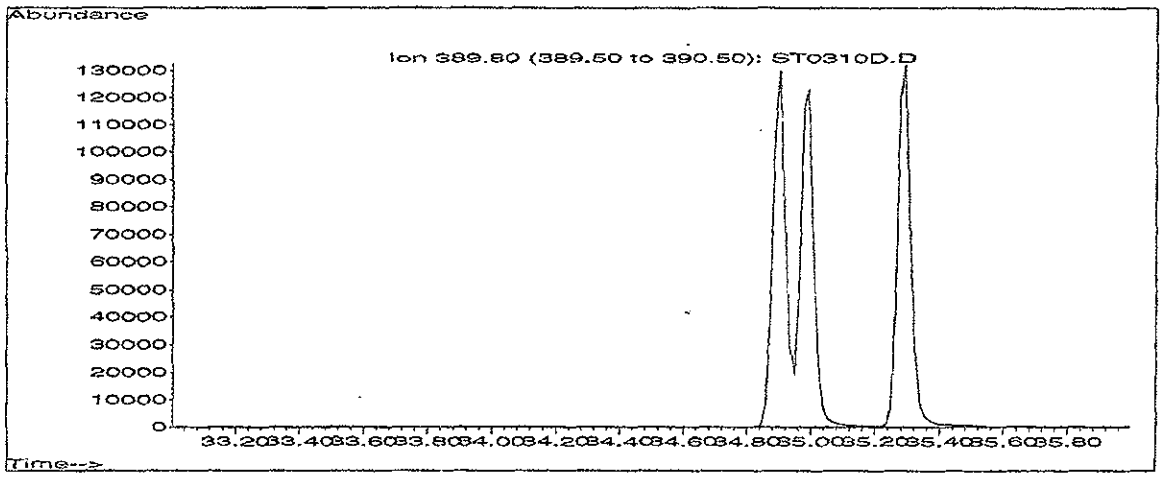


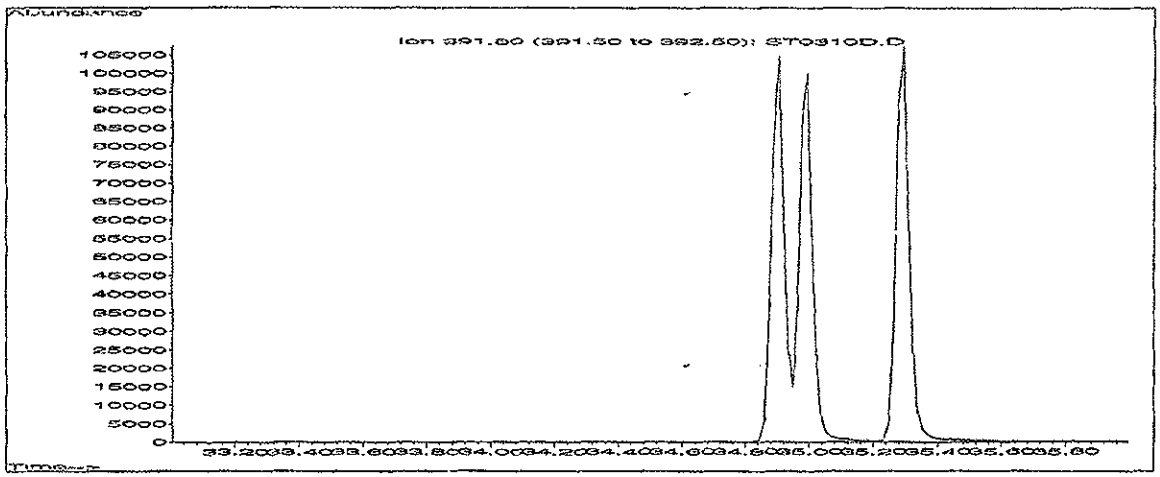


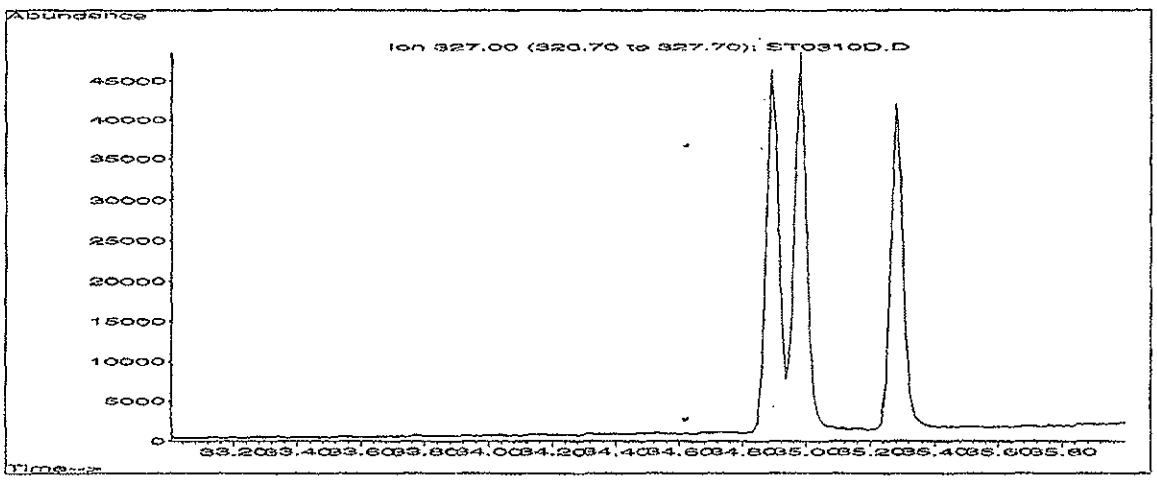


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

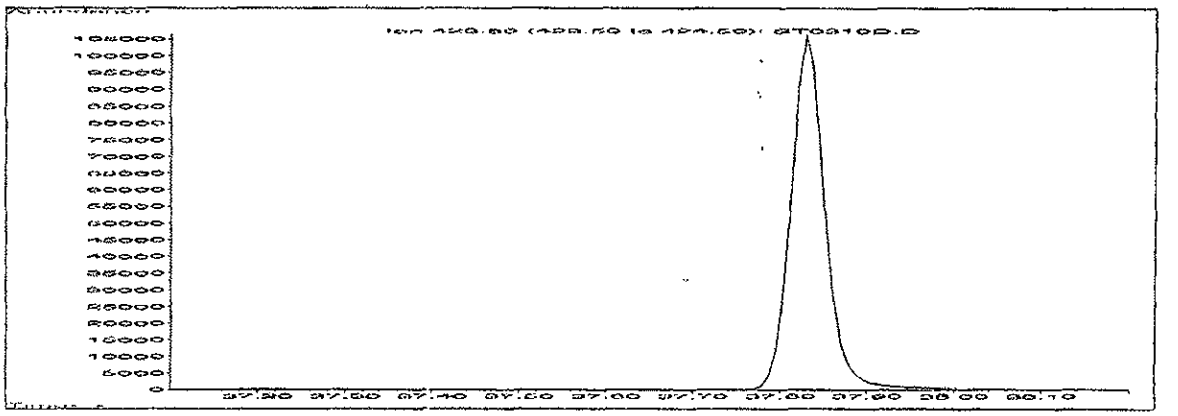


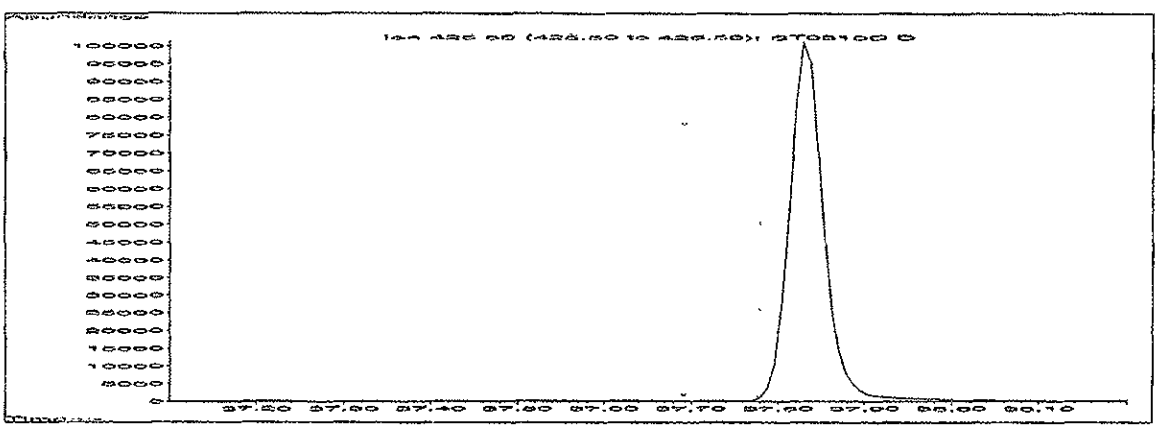


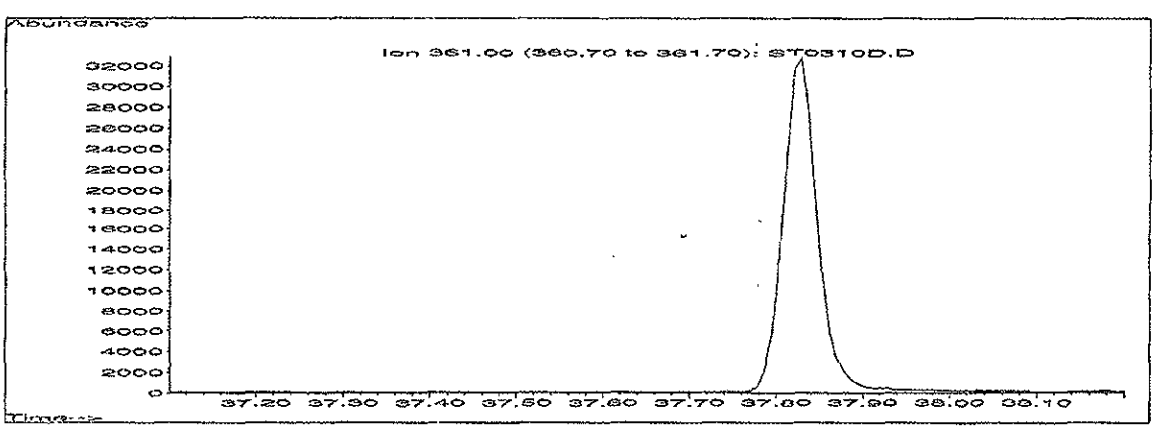


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

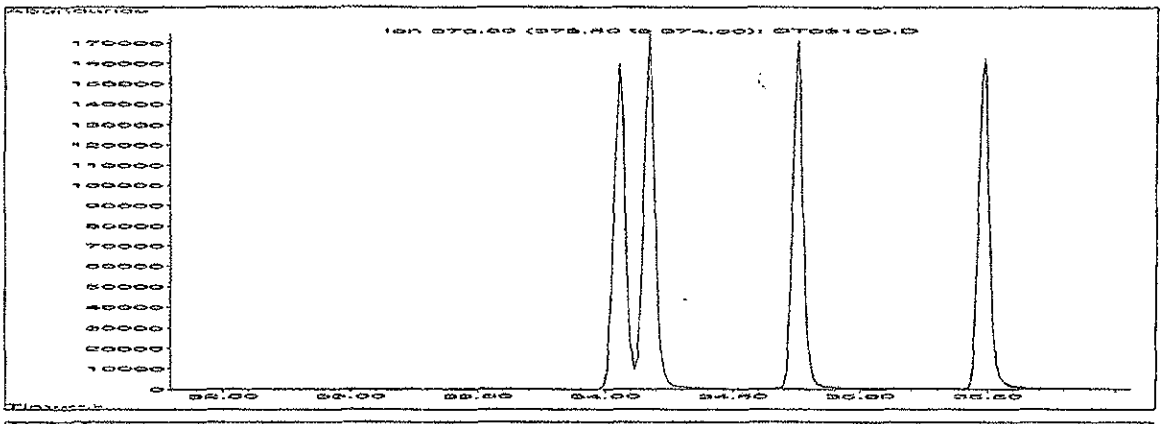


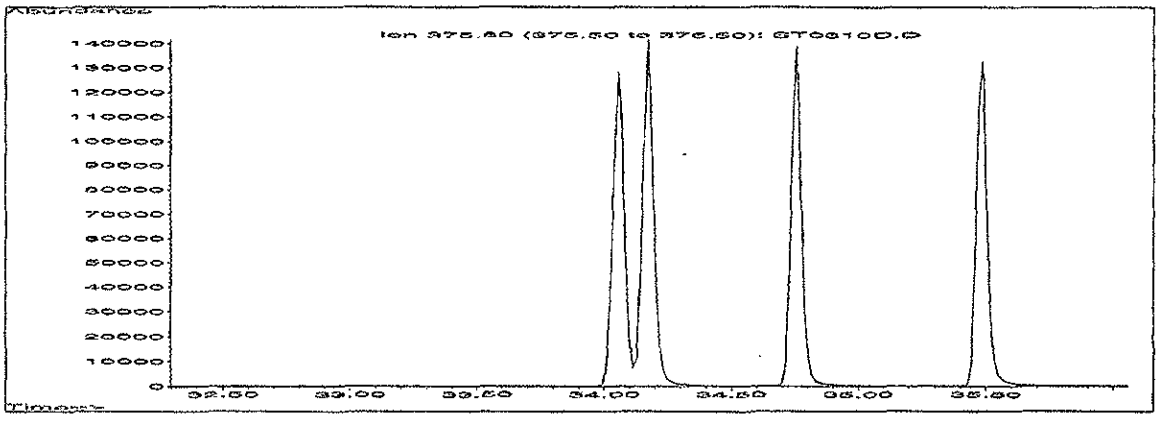


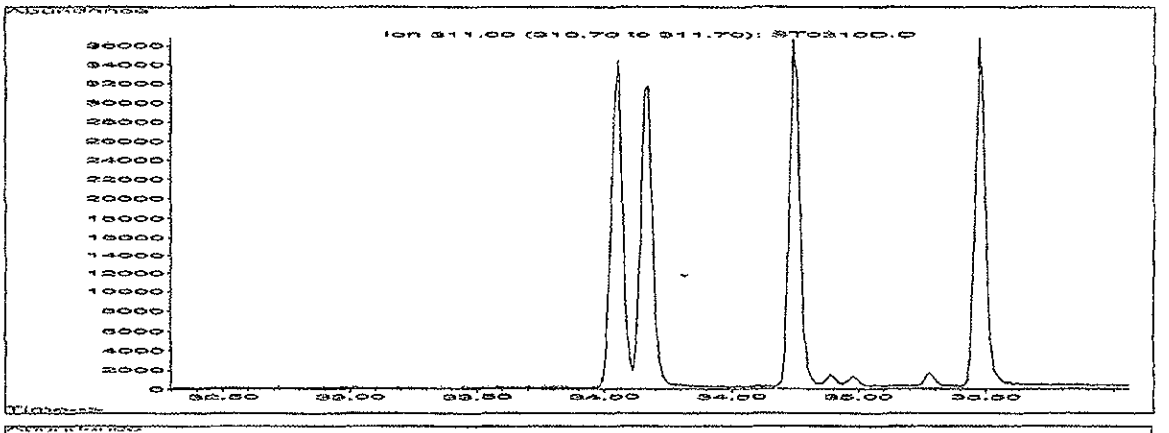


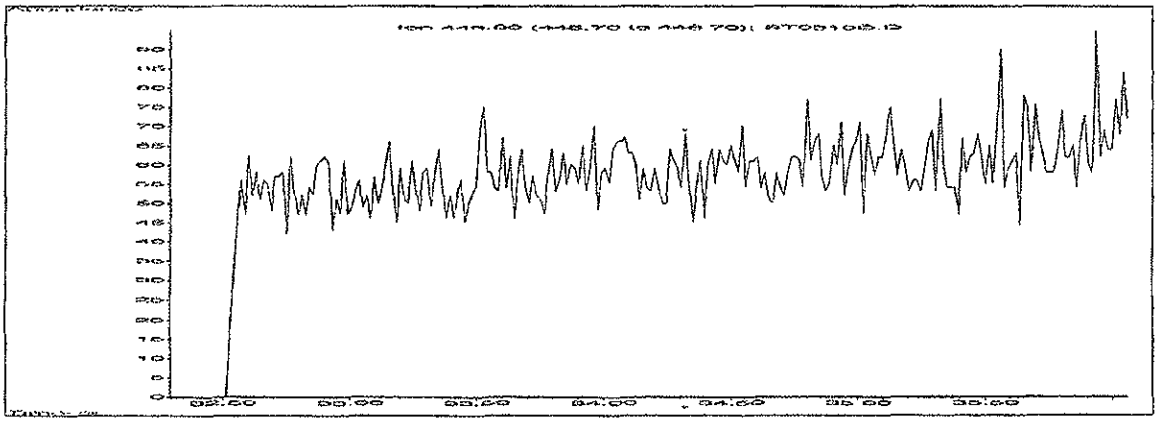
HxCDF TOTAL

TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



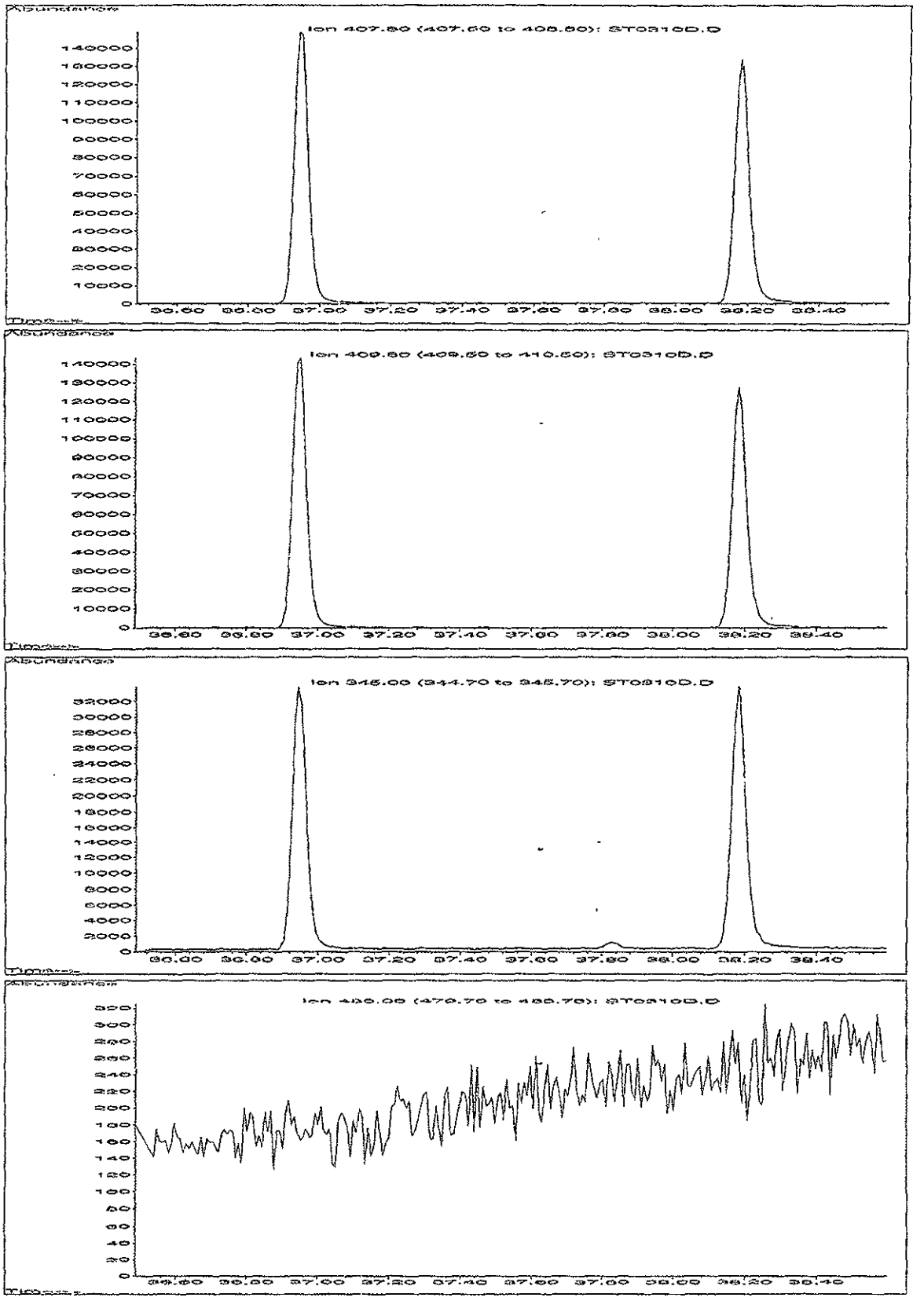






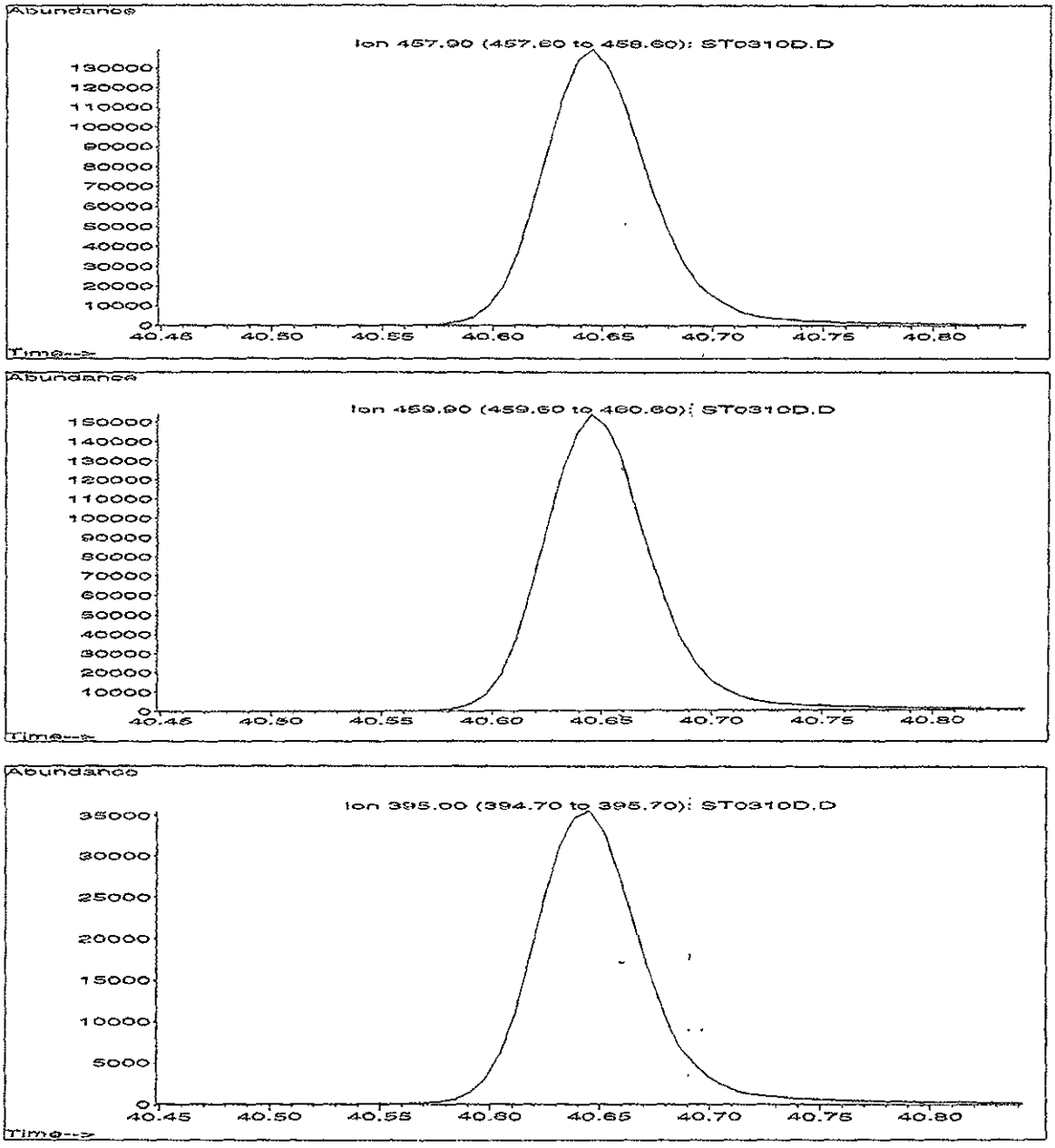
HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



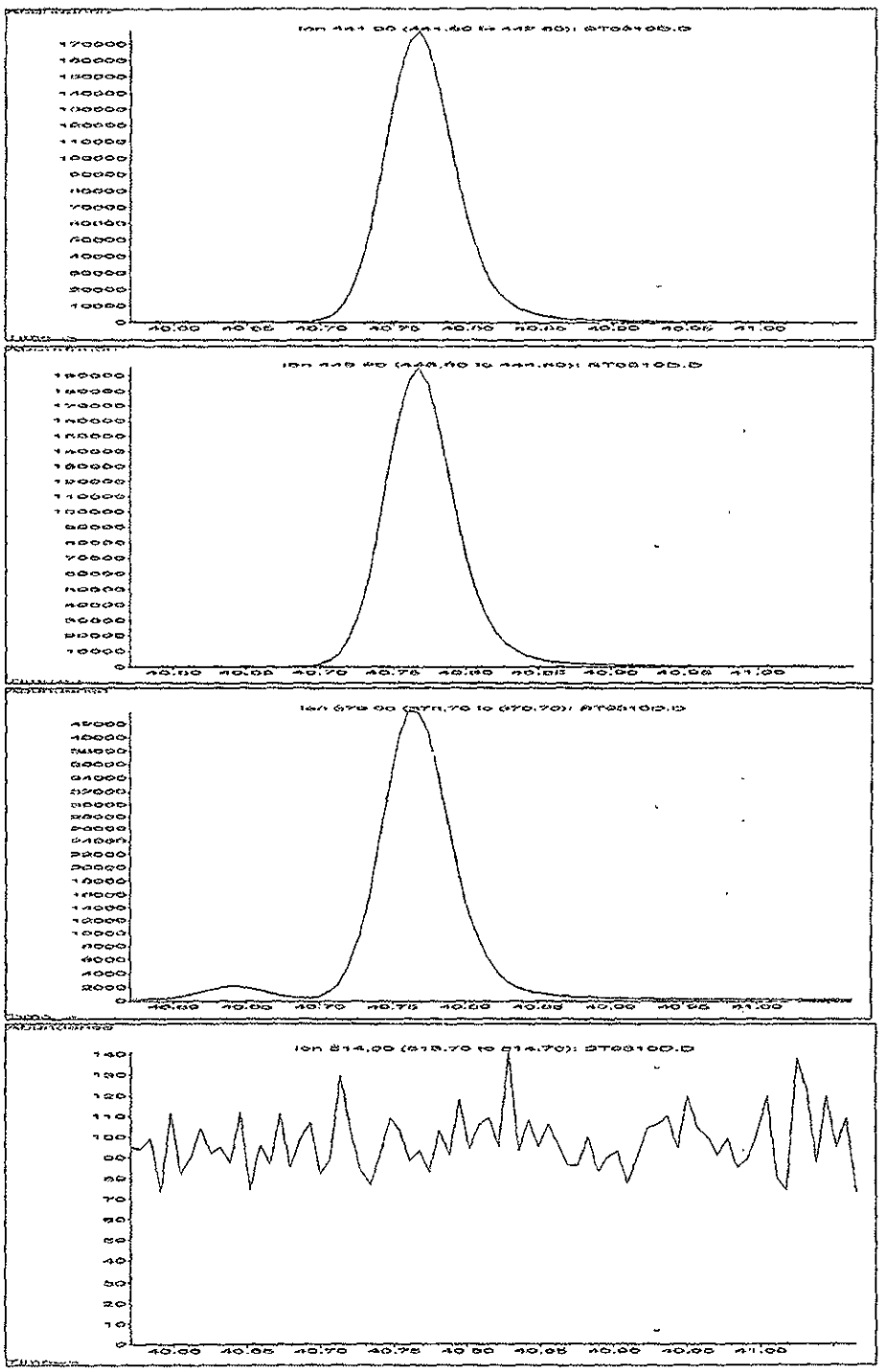
OCDD

TS R.T. Lower Limit	40.45		
TS R.T. Upper Limit	40.85		
Ret. Time	40.65		
Target Ion	457.9	Q1 Ion	459.9
Target Response	480870	Q1 Response	532096
Total Response	1012966	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	122145		



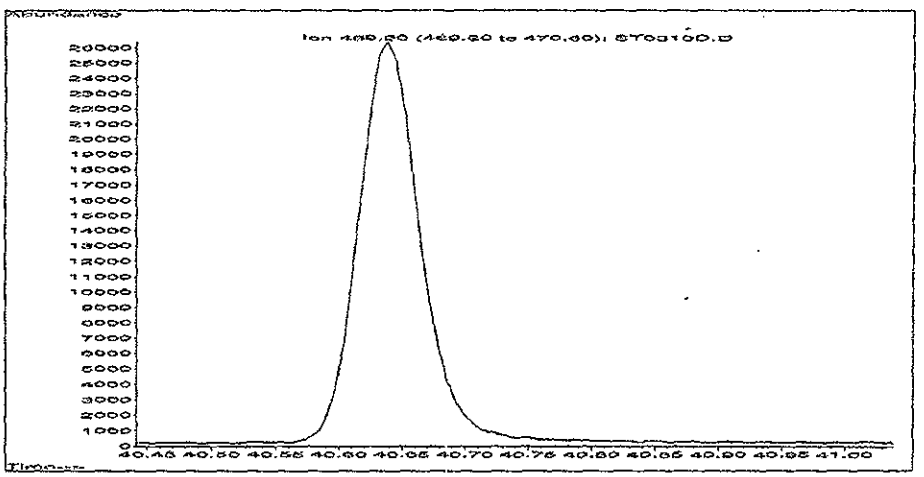
OCDF

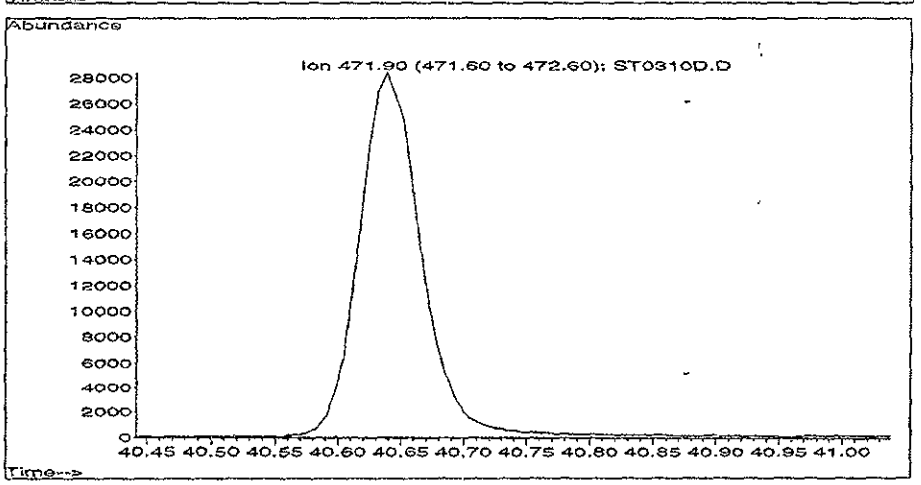
TS R.T. Lower Limit	40.57		
TS R.T. Upper Limit	41.07		
Ret Time	40.77		
Target Ion	441.9	Q1 Ion	443.9
Target Response	627168	Q1 Response	683087
Target Response	1310255	Ion Ratio	0.92
Q2 Ion	379	DPE Ion	514
Q2 Response	155082	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.44		
RT Upper Limit	41.04		
Ret Time	40.64		
Target Ion	469.9	Q1 Ion	471.9
Target Response	89183	Q1 Response	97582
Total response	186765	Ratio	0.91





Quantitation Report (Not Reviewed)

Sample ID: CS-5 Size: 0.000
3136-45E CS-5 Inst : DB1

Data File:C:\8280\2DB\031009.B\ST0310E.D Vial: 93
Acq On :10 Mar 2009 14:59 Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Mar 10 15:47 2009 Quant Results File: 09MR10A2.RES

Quant Method : C:\8280\ DATA METHODS\09MR10A2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Tue Mar 10 14:47:45 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	21.43	332+334	0.81	233996	25.00 NG	0.00
5) 13C-123789-HxCDD	35.28	402+404	1.25	202596	25.00 NG	0.00
9) 13C-2378-TCDF	20.75	316+318	0.81	389979	25.00 NG	0.00
15) 13C-2378-TCDD	21.70	332+334	0.79	262500	25.00 NG	0.00
20) 13C-123678-HxCDD	34.98	402+404	1.24	184022	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.94	420+422	1.07	233819	25.00 NG	0.00
36) 13C-OCDD	40.65	470+472	0.92	296573	50.00 NG	0.00

Surrogate Compound

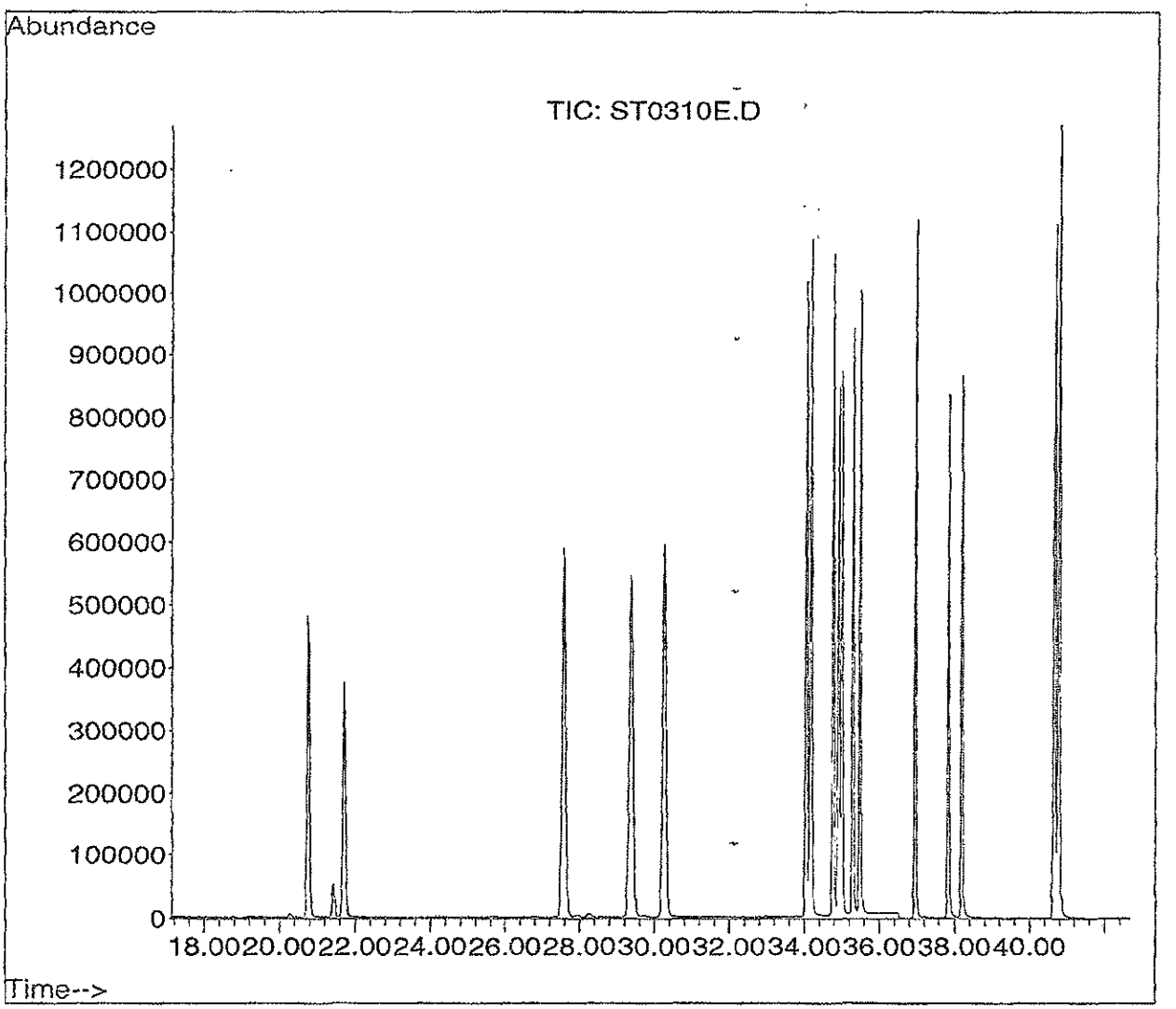
4) 37Cl-2378-TCDD	21.72	328		191577	12.934 NG	0.00
Spiked Amount = 12.500		RRF = 1.582		Recovery = 103.44%		

Target Compounds	RT	Ratio		Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.75	0.81		389979	1.680	24.807	0.0355	99.2
3) 13C-2378-TCDD-IS	21.70	0.79		262500	1.120	25.037	7.8482	100.2
6) 13C-123678-HxCDD-	34.98	1.24		184022	0.920	24.670	0.0293	98.7
7) 13C-1234678-HpCDF	36.94	1.07		233819	1.180	24.456	0.0387	97.8
8) 13C-OCDD-IS	40.65	0.92		296573	0.733	49.915	0.1160	99.8
10) 2378-TCDF	20.77	0.78		1645539	1.071	98.464	1.7349	
1	20.27	0.83		22341		1.337		
2	20.77	0.78		1655380		99.053		
11) TCDF TOTAL	19.50	0.78		1677721	1.071	100.390		
12) 12378-PeCDF	27.56	1.55		3534600	0.874	259.294	0.1773	
13) 23478-PeCDF	29.35	1.54		3422988	0.849	258.557	0.0464	
1	25.73	1.66		13691		1.034		
2	26.77	1.45		6485		0.490		
3	27.56	1.54		3583620		270.691		
4	27.94	1.56		24350		1.839		
5	28.26	1.50		37043		2.798		
6	29.35	1.54		3422988		258.557		
7	29.73	1.69		19708		1.489		
8	31.40	1.31	#	3285		0.248		
14) PeCDF TOTAL	27.20	1.31		7111170	0.849	537.147		
16) 2378-TCDD	21.70	0.78		1164785	1.132	97.972	0.0195	
1	20.75	4.83	#	37378		3.144		
2	21.70	0.78		1199970		100.932		
17) TCDD TOTAL	19.50	0.78		1237348	1.132	104.076		
18) 12378-PeCDD	30.25	1.54		2274557	0.836	259.212	0.0725	
1	30.25	1.54		2300890		262.212		
19) PeCDD TOTAL	27.60	1.54		2300890	0.836	262.212		
21) 123478-HxCDD	34.90	1.25		2068105	1.147	244.854	20.1620	
22) 123678-HxCDD	34.99	1.24		1916838	1.070	243.403	1.6231	
23) 123789-HxCDD	35.29	1.24		2094222	1.177	241.652	1.4436	
1	34.90	1.25		2068105		244.854		

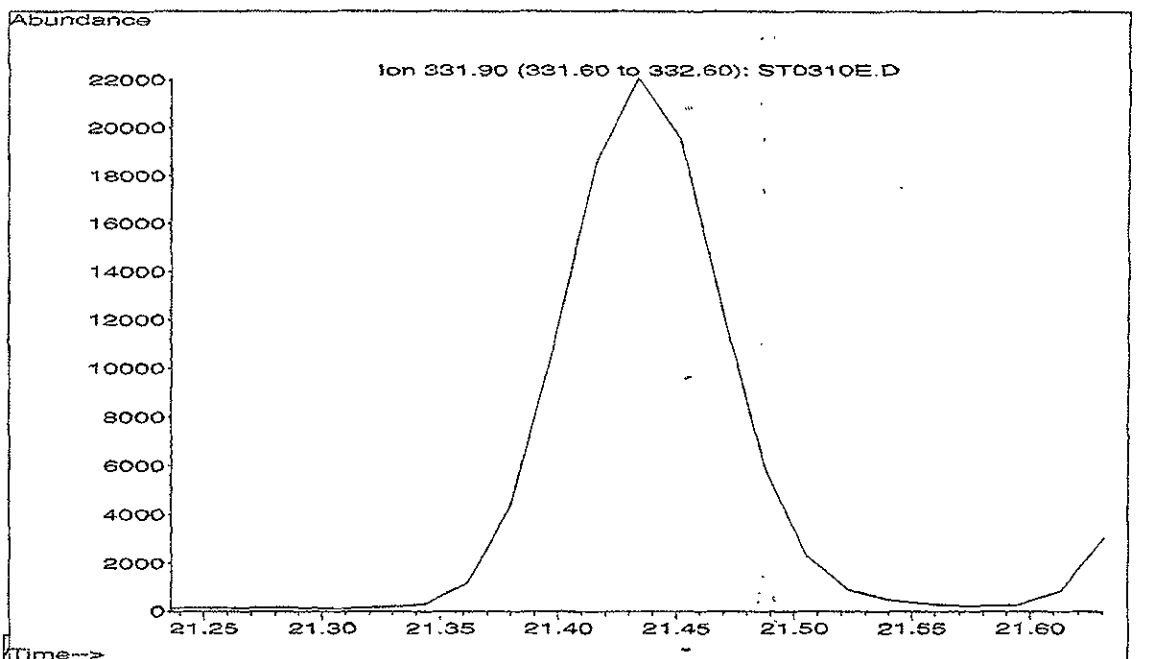
	2	34.99	1.24		7005269		889.538	
	3	35.29	1.24		2125880		269.947	
24)	HxCDD TOTAL	35.00	1.24		11199254	1.070	1404.339	
25)	1234678-HpCDD	37.83	1.04		1739017	0.976	242.012	0.0275
	1	37.21	1.01		3599		0.501	
	2	37.83	1.04		1739017		242.012	
26)	HpCDD TOTAL	37.60	1.04		1742616	0.976	242.512	
28)	123478-HxCDF	34.05	1.24		2812173	1.224	245.681	267.8130
29)	123678-HxCDF	34.17	1.23		2892239	1.259	245.616	23.6190
30)	234678-HxCDF	34.76	1.24		2758261	1.206	244.590	0.1249
31)	123789-HxCDF	35.49	1.25		2637343	1.161	242.929	0.1540
	1	32.81	1.02	#	2874		0.265	
	2	32.99	1.13		5534		0.510	
	3	34.05	1.24		2812173		245.681	
	4	34.17	1.23		2892239		245.616	
	5	34.76	1.24		2758261		244.590	
	6	35.49	1.25		2658060		244.837	
32)	HxCDF TOTAL	34.80	1.25		11129141	1.161	981.498	
33)	1234678-HpCDF	36.95	1.04		2490238	1.114	239.076	0.0515
34)	1234789-HpCDF	38.18	1.04		2279178	1.006	242.300	0.0749
	1	36.95	1.04		2490238		239.076	
	2	37.28	0.93		4161		0.442	
	3	38.18	1.04		2279178		242.300	
35)	HpCDF TOTAL	38.00	1.04		4773577	1.006	481.819	
37)	OCDD	40.65	0.90		3067993	1.061	487.597	0.0967
38)	OCDF	40.77	0.92		3938354	1.361	487.800	0.3269

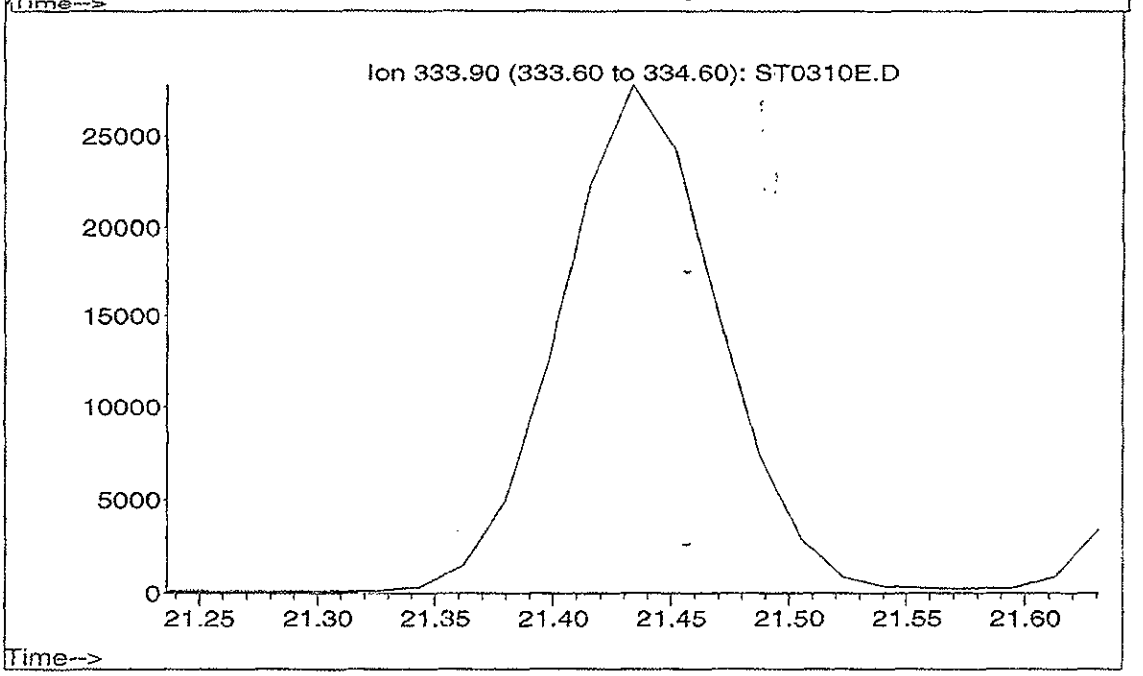
(#) = qualifier out of range*: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0310E.D 09MR10A2.M Tue Mar 10 14:47:54 2009

Data File Name	ST0310E.D
Data File Path	C:\8280\2DB\031009.B\
Operator	MEO
Date Acquired	3/10/2009 14:59
Acq. Method File	TOKAS
Sample Name	3136-45E CS-5
Misc Info	CS-5
Vial Number	93
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0

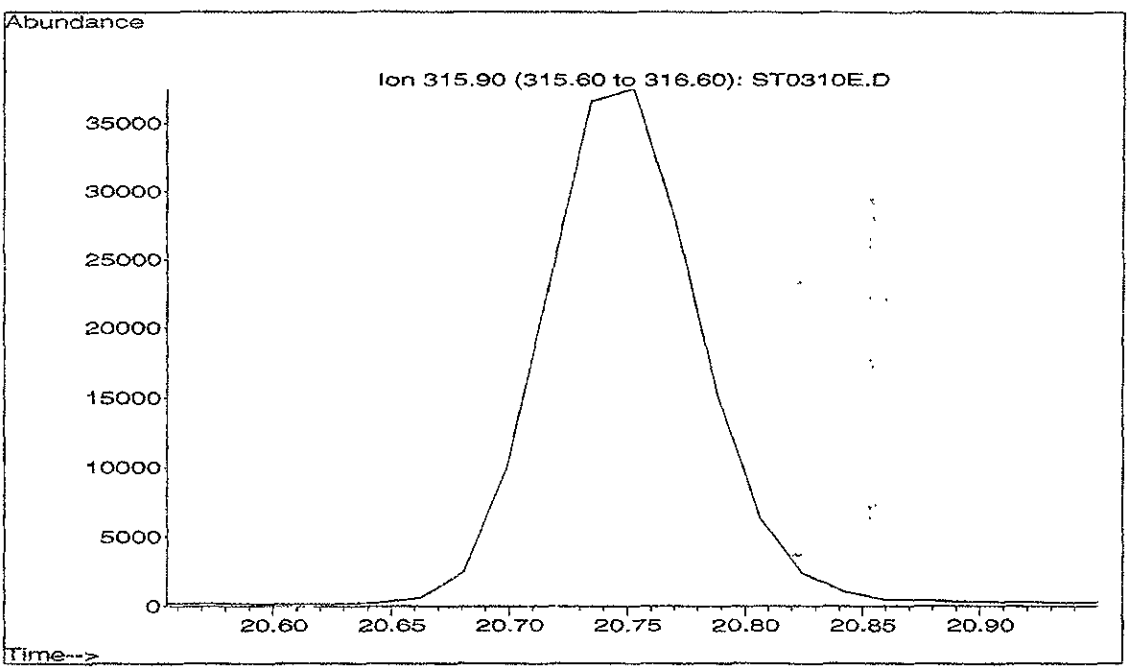


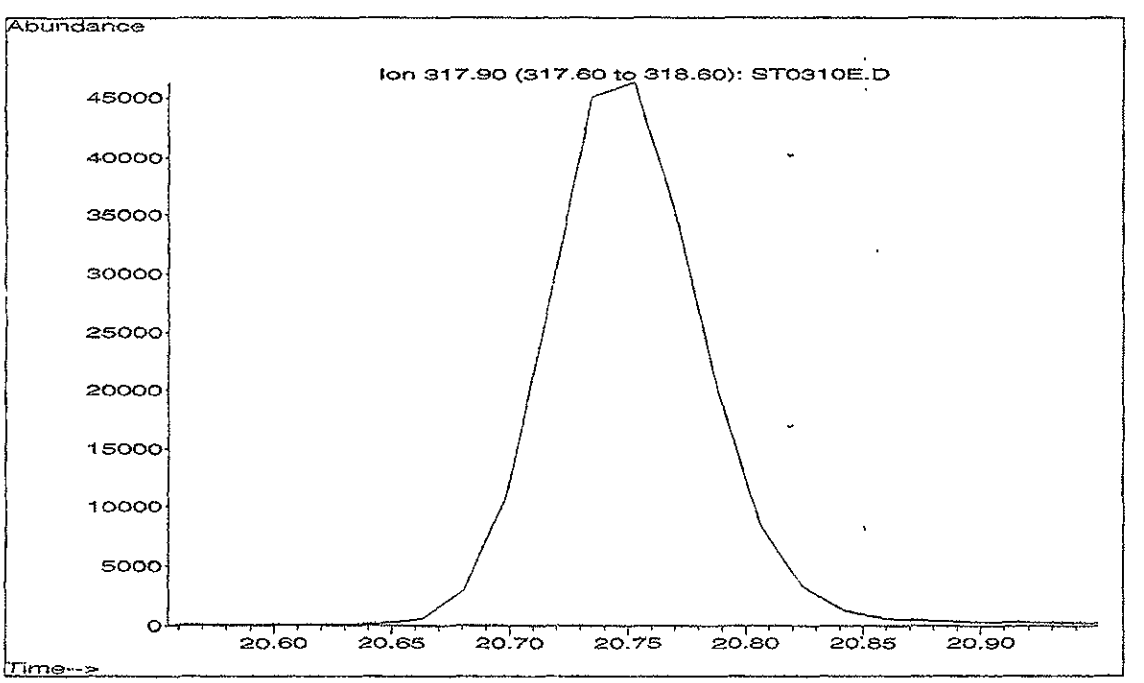
13C-1234-TCDD			
TS R.T. Lower Limit	21.23		
TS R.T. Upper Limit	21.63		
Ret Time	21.43		
Target Ion	331.9	Q1 Ion	333.9
Target Response	104798	Q1 Response	129198
Total Response	233996	Ion Ratio	0.81





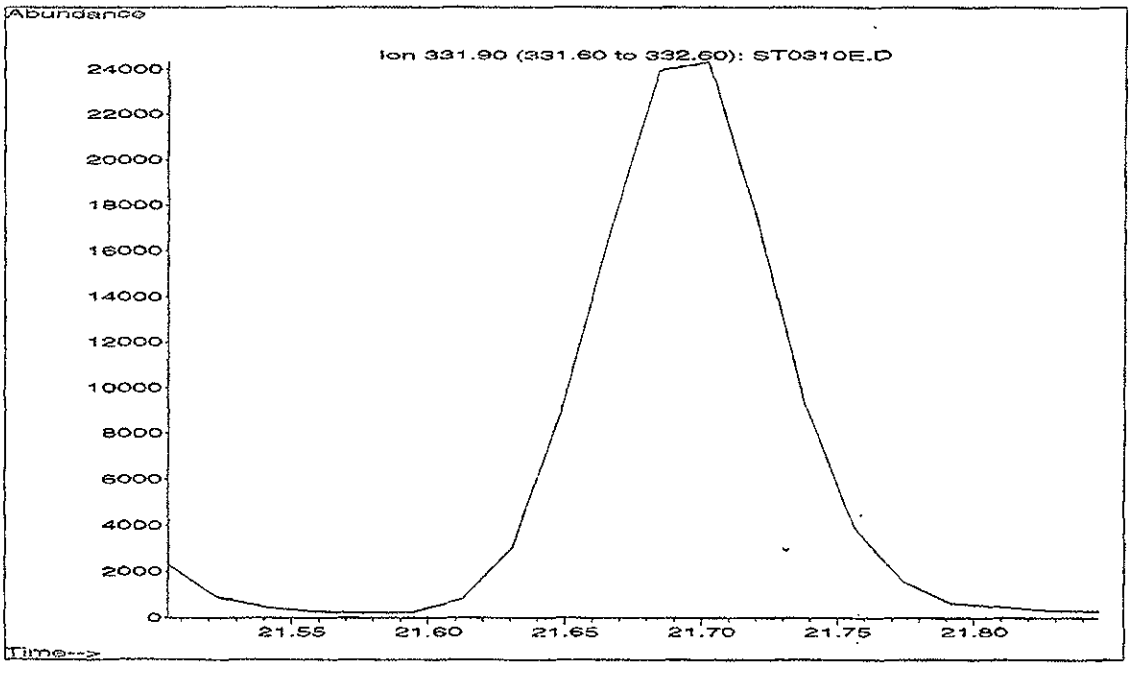
13C-2378-TCDF-IS			
TS R.T. Lower Limit	20.55		
TS R.T. Upper Limit	20.95		
Ret Time	20.75		
Target Ion	315.9	Q1 Ion	317.9
Target Response	173947	Q1 Response	216032
Target Response	389979	Ion Ratio	0.81

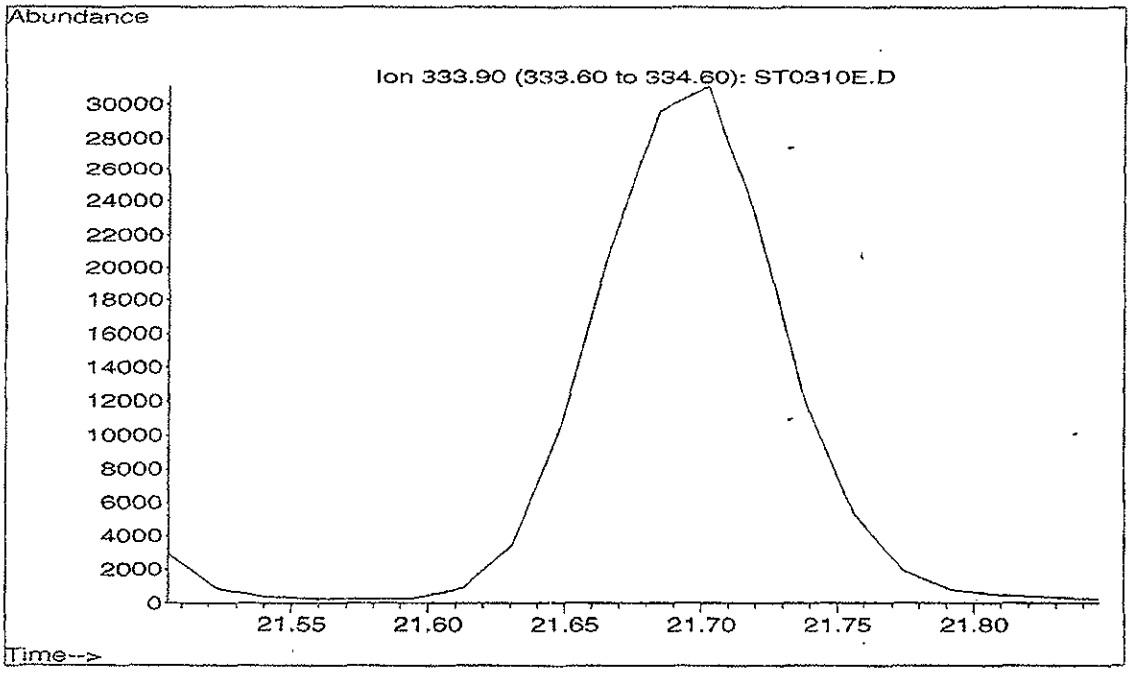




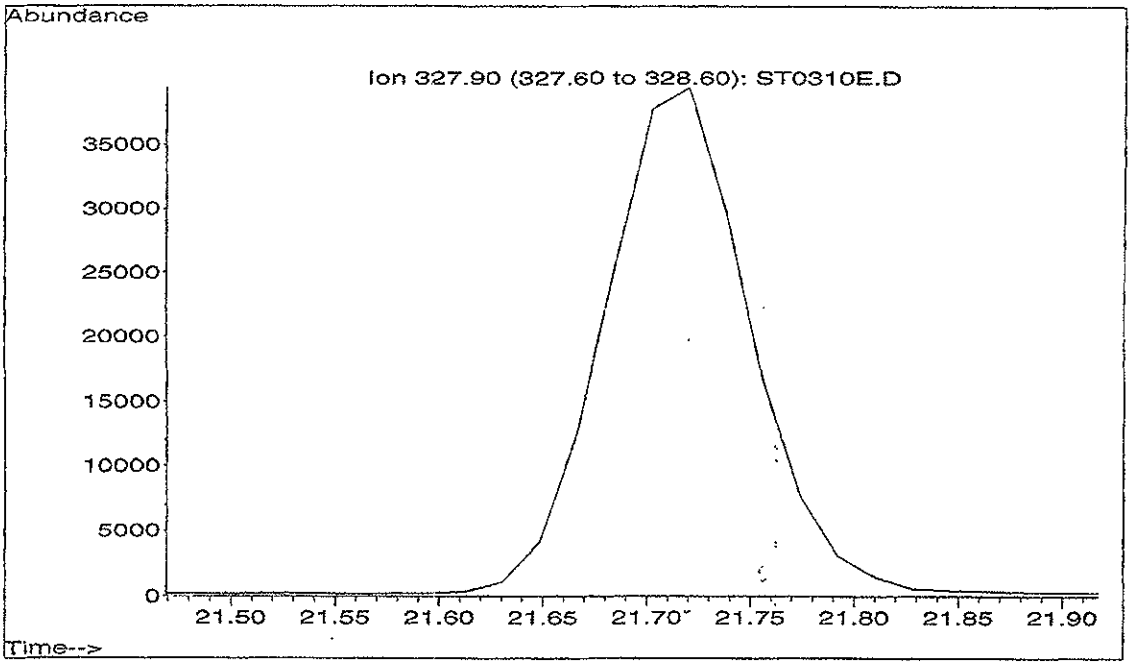
13C-2378-TCDD-IS

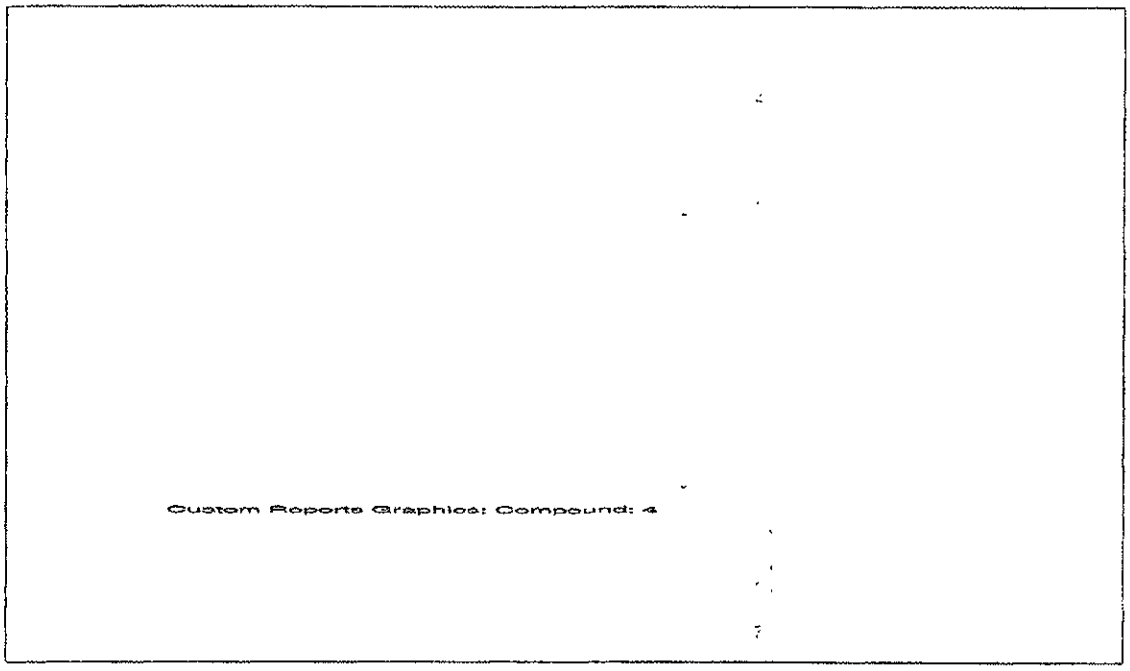
TS R.T. Lower Limit	21.50		
TS R.T. Upper Limit	21.85		
Ret Time	21.70		
Target Ion	331.9	Q1 Ion	333.9
Target Response	116167	Q1 Response	146333
Total Response	262500	Ion Ratio	0.79





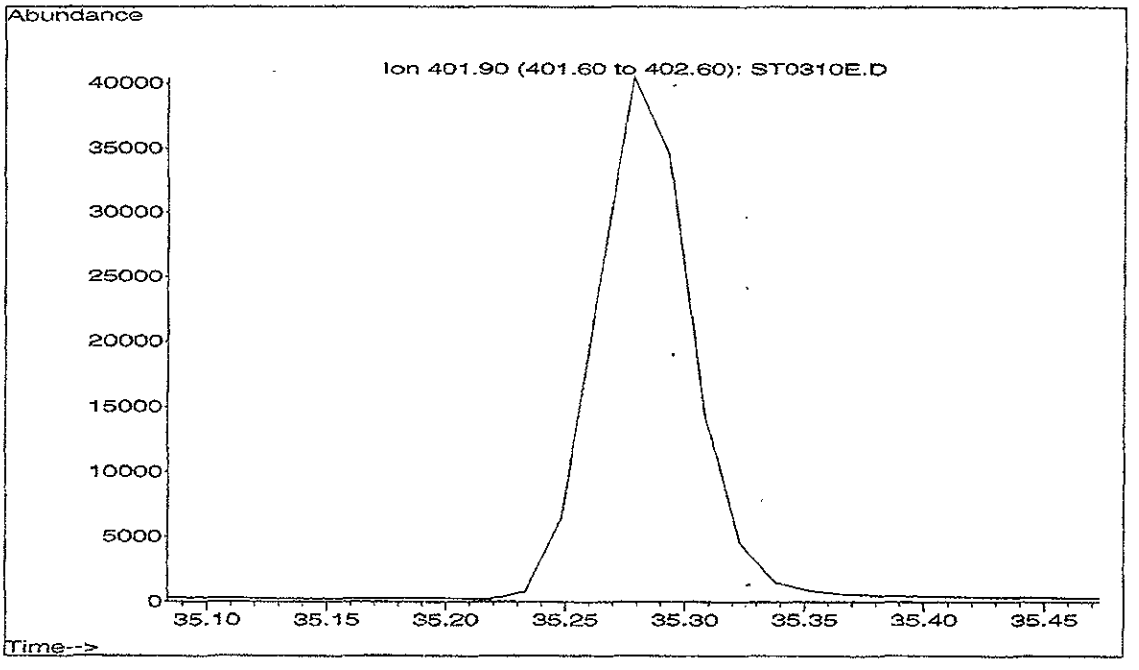
37Cl-2378-TCDD			
TS R.T. Lower Limit	21.47		
TS R.T. Upper Limit	21.92		
Ret Time	21.72		
Target Ion	327.9	Q1 Ion:	0
Target Response	191577	Q1 Response	0
Total Response	191577	Ion Ratio	#DIV/0!

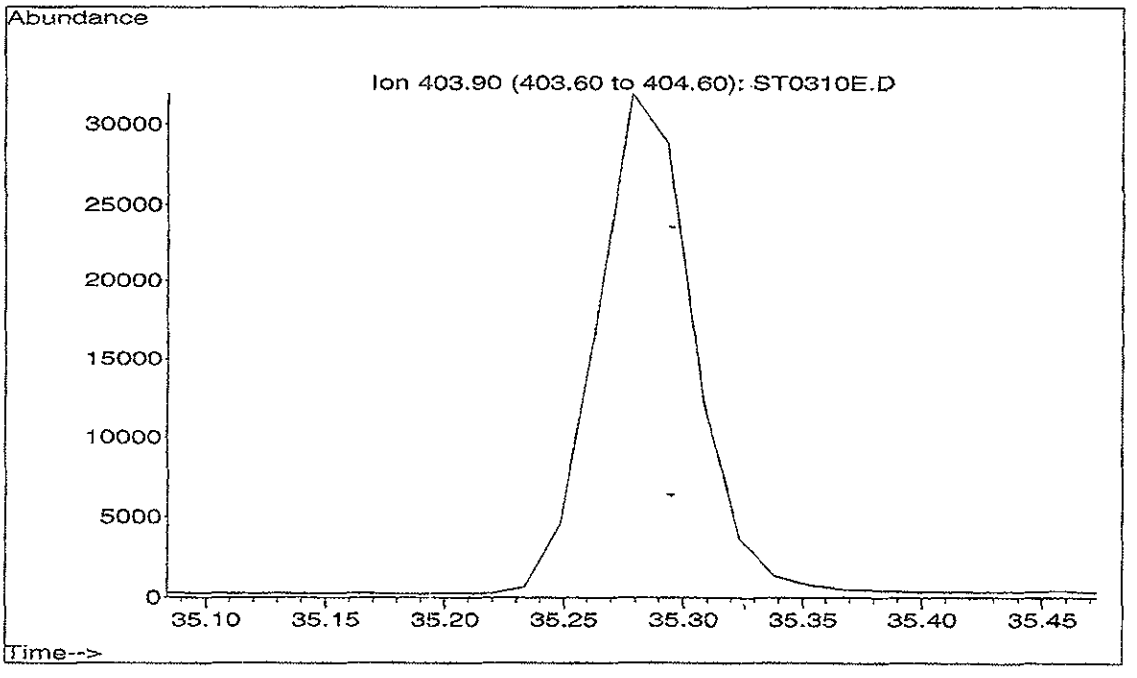




13C-123789-HxCDD

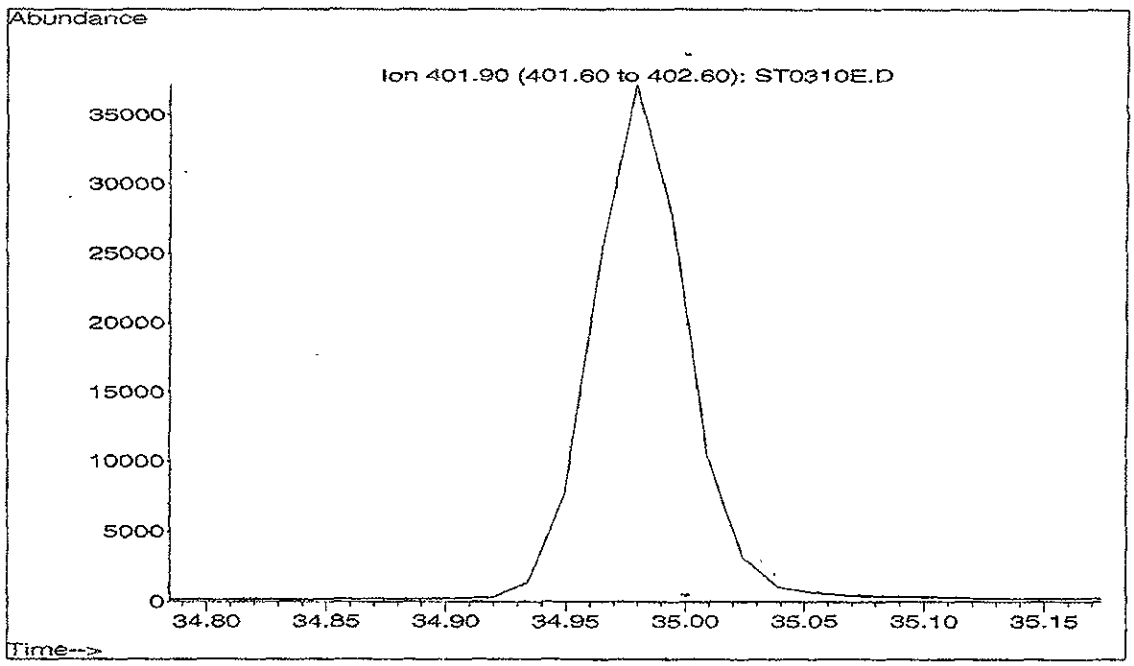
TS R.T. Lower Limit	35.08		
TS R.T. Upper Limit	35.48		
Ret Time	35.28		
Target Ion	401.9	Q1 Ion	403.9
Target Response	112639	Q1 Response	89957
Target Response	202596	Ion Ratio	1.25

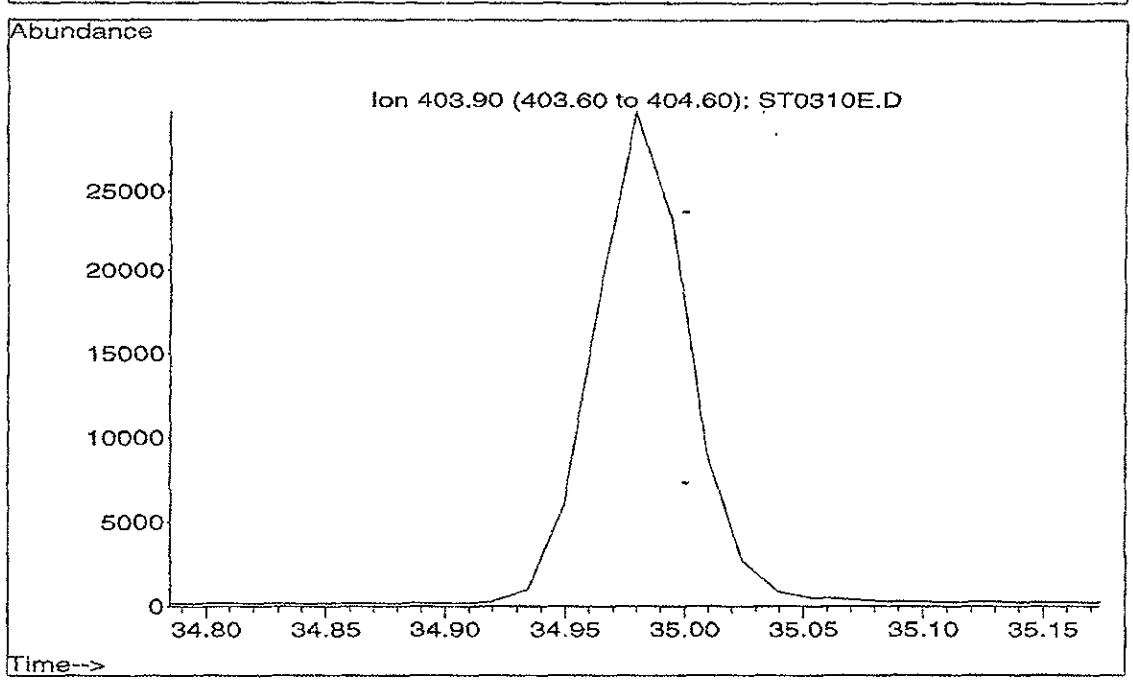




13C-123678-HxCDD-IS

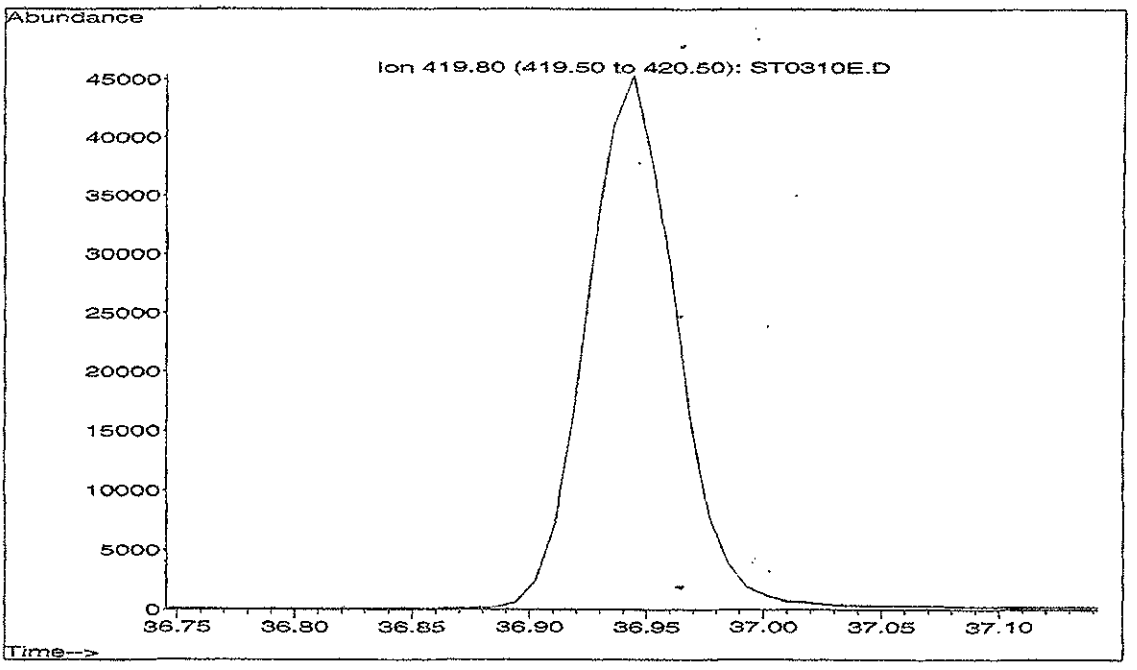
TS R.T. Lower Limit	34.78		
TS R.T. Upper Limit	35.18		
Ret Time	34.98		
Target Ion	401.9	Q1 Ion	403.9
Target Response	101889	Q1 Response	82133
Total Response	184022	Ion Ratio	1.24

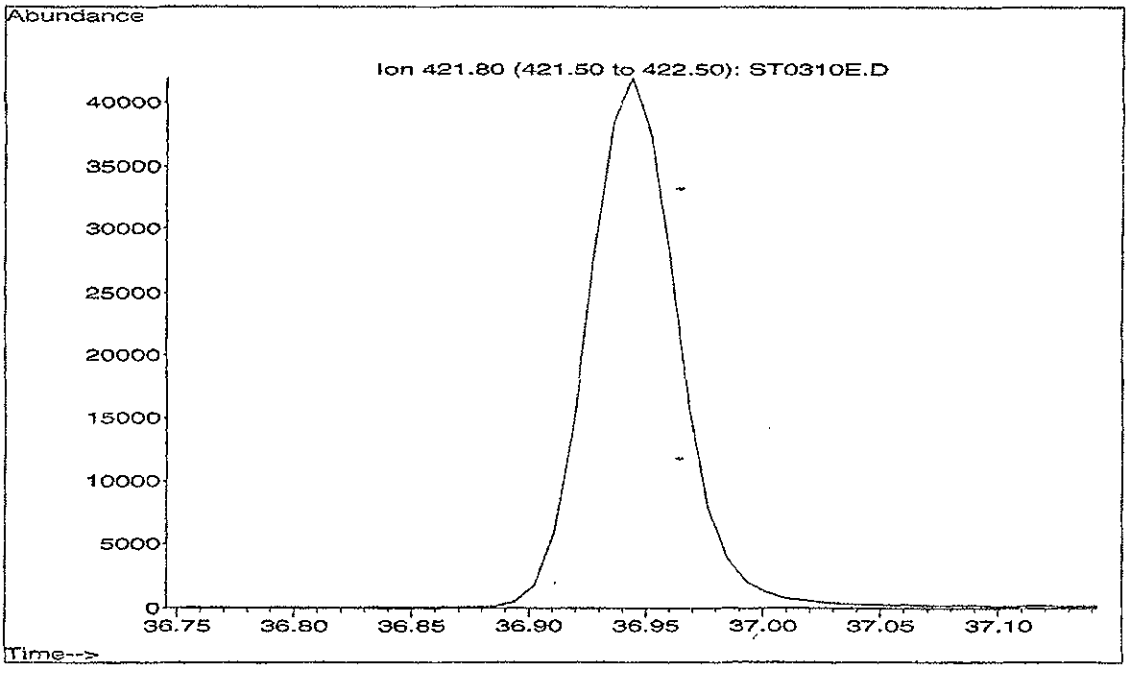




13C-1234678-HpCDF-IS

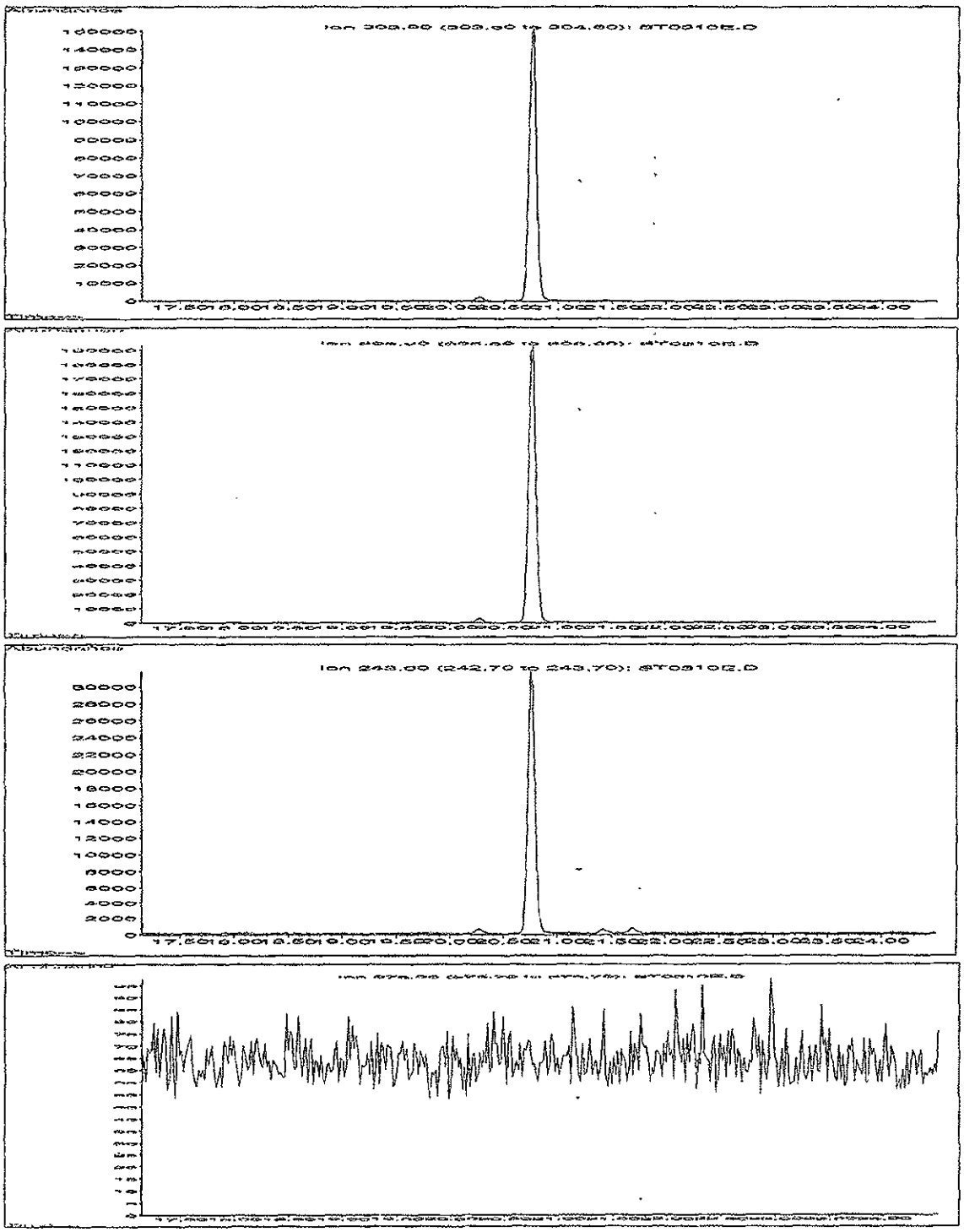
TS R.T. Lower Limit	36.74		
TS R.T. Upper Limit	37.14		
Ret Time	36.94		
Target Ion	419.8	Q1 Ion	421.8
Target Response	120595	Q1 Response	113224
Target Response	233819	Ion Ratio	1.07





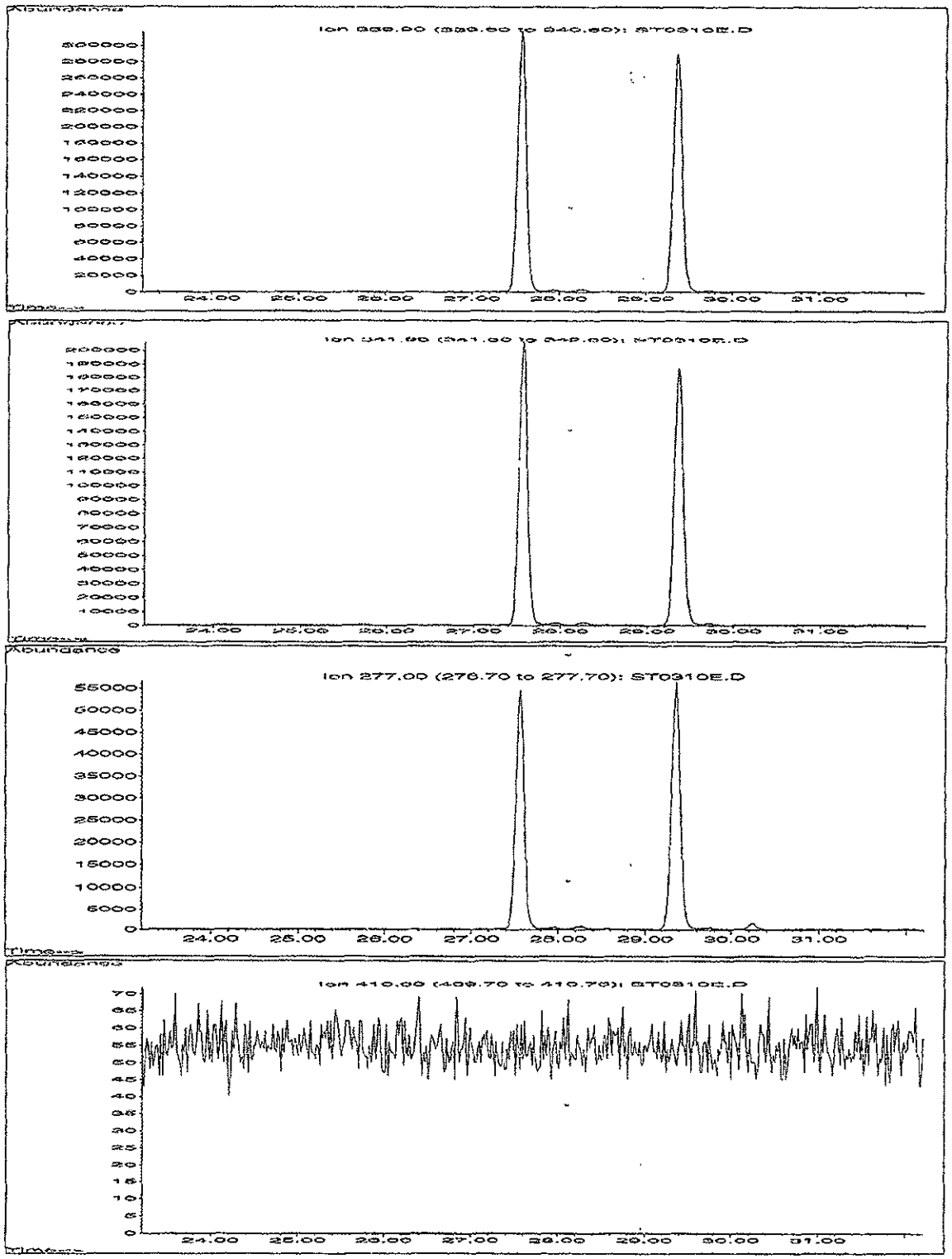
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



PeCDF TOTAL

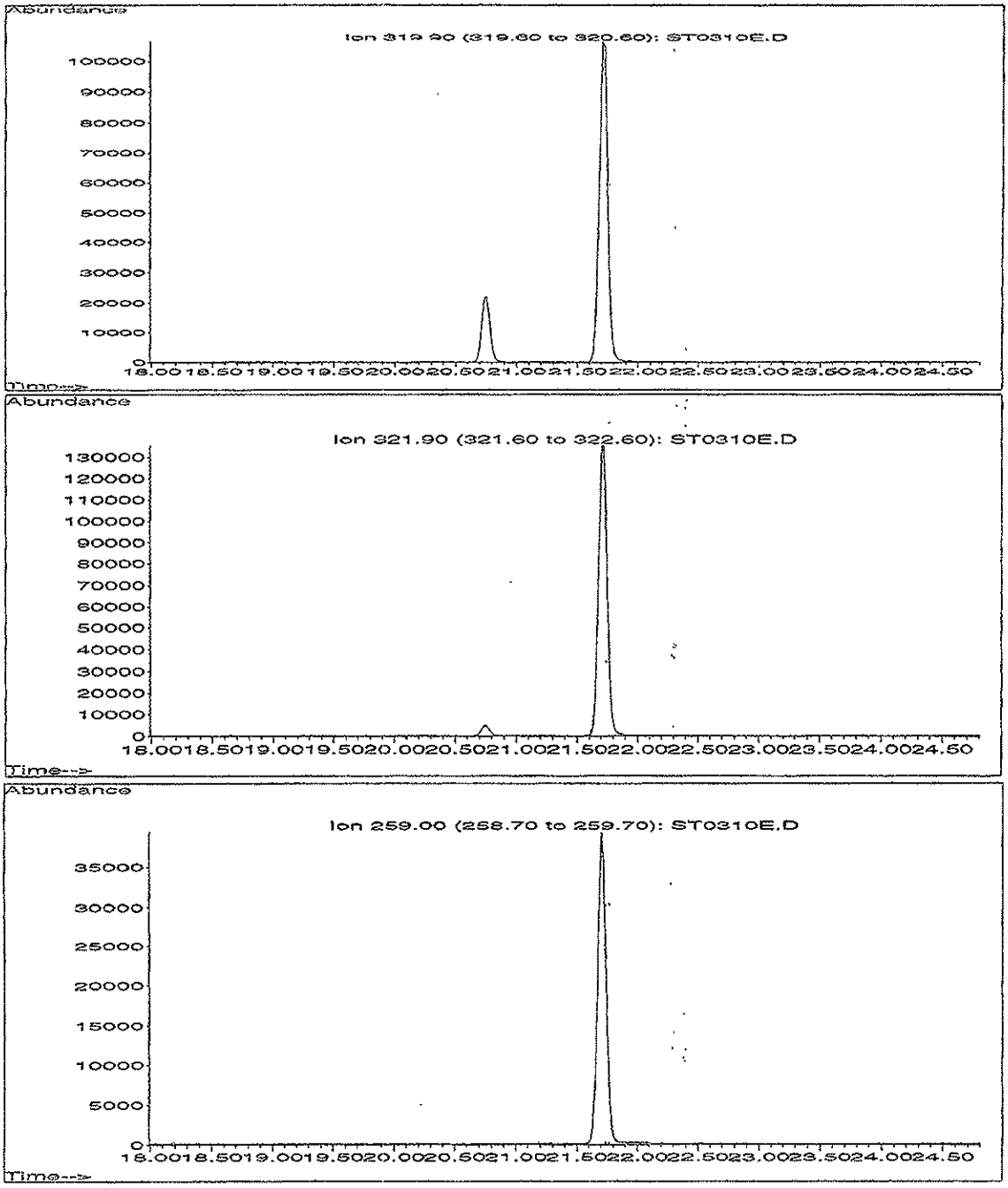
TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

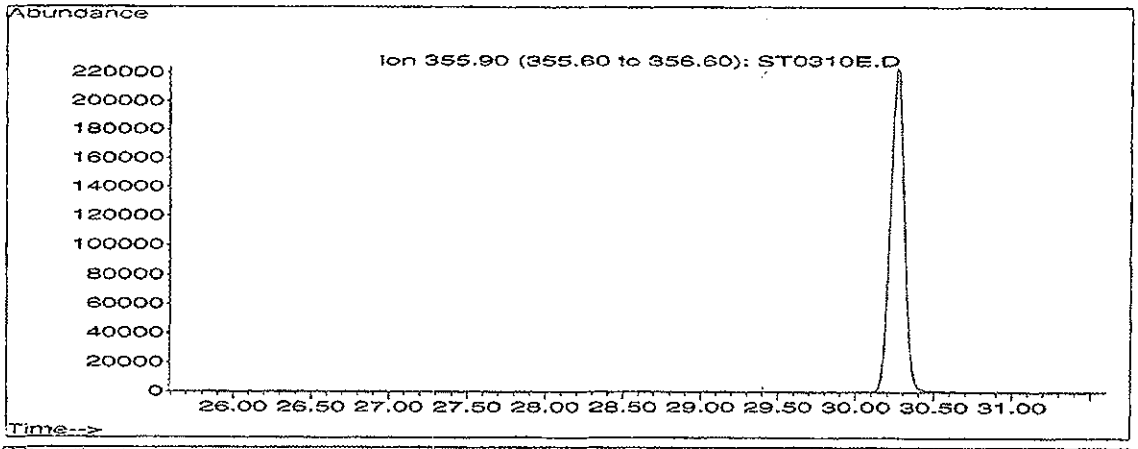
TCDD TOTAL

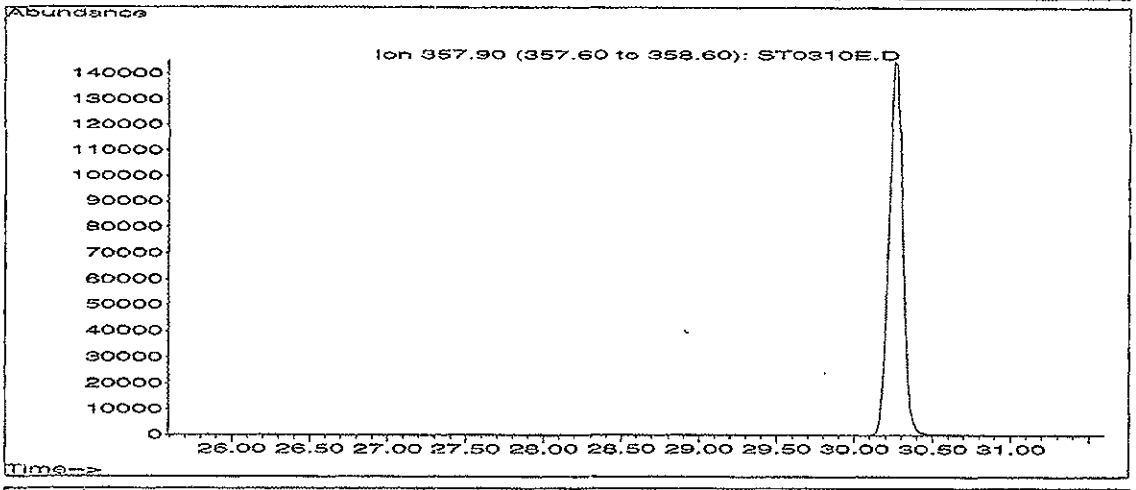
TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80

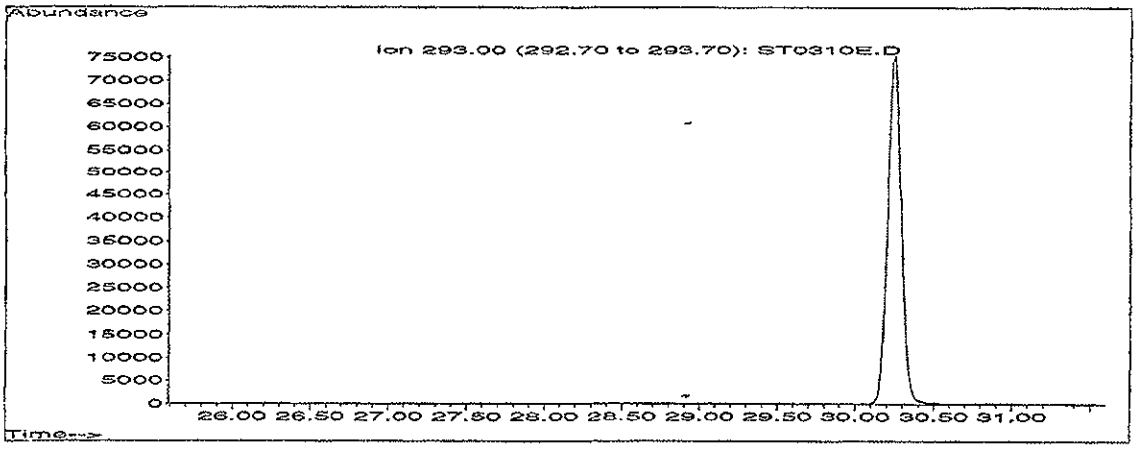


PeCDD TOTAL

TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

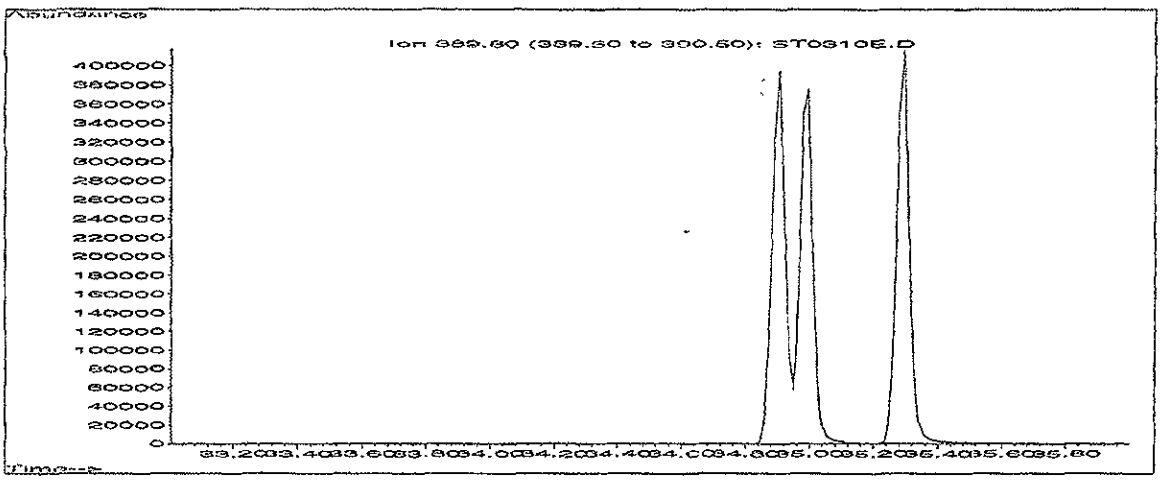


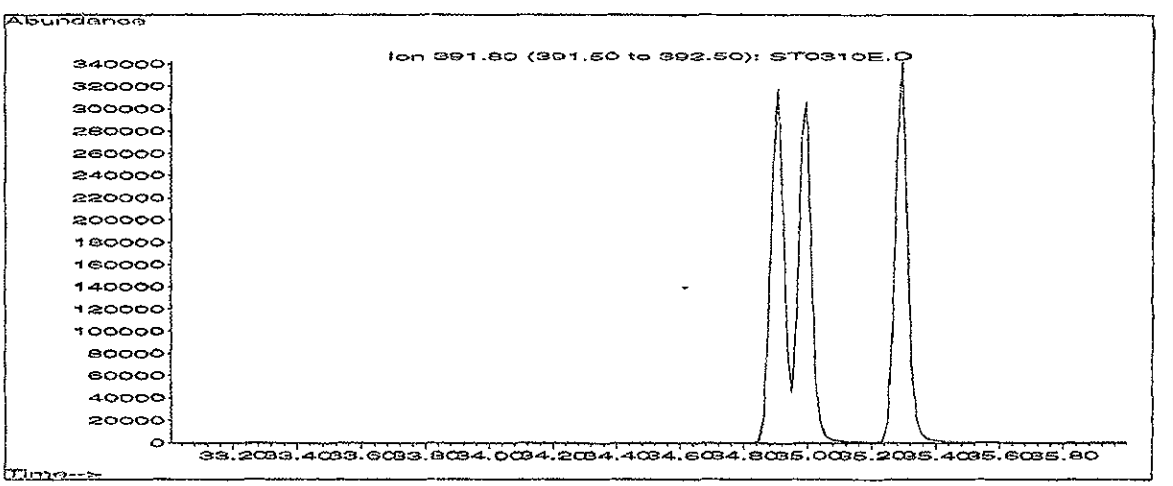


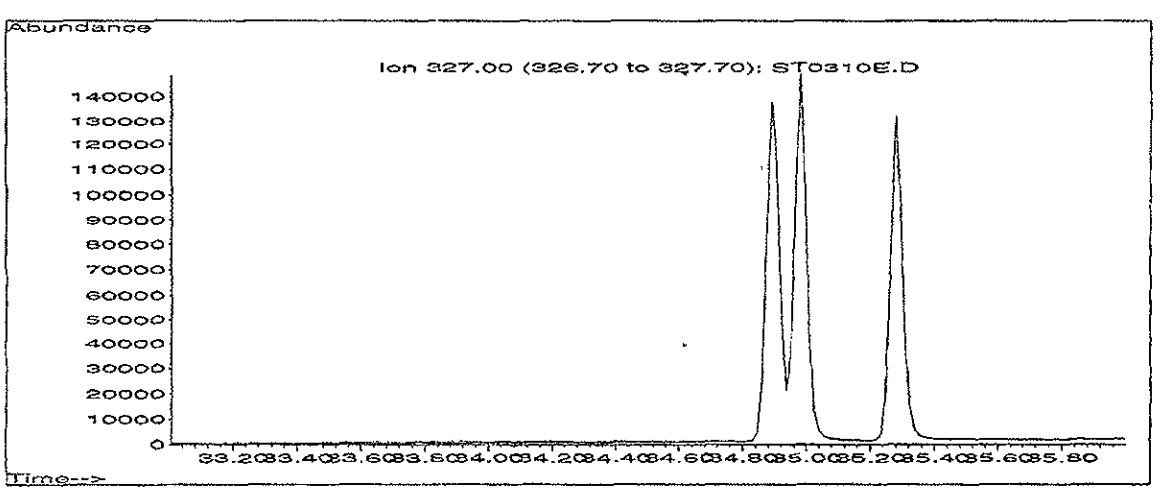


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

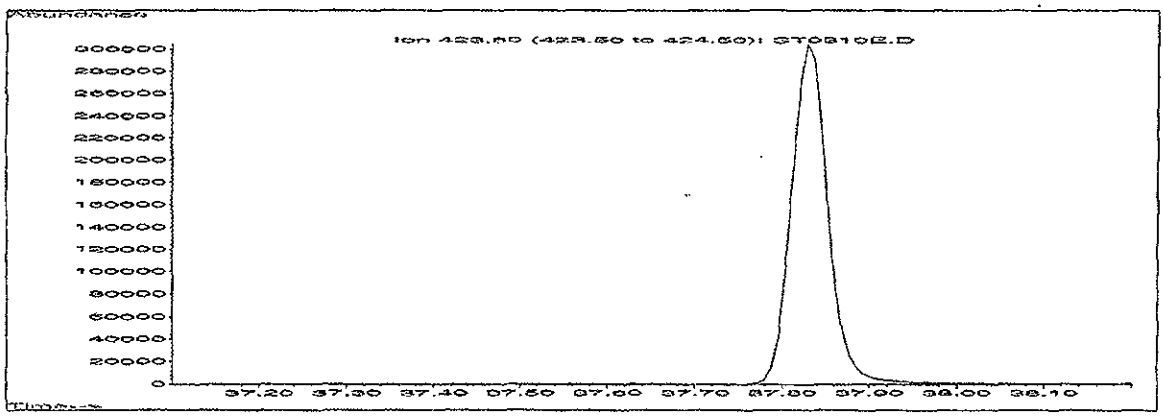


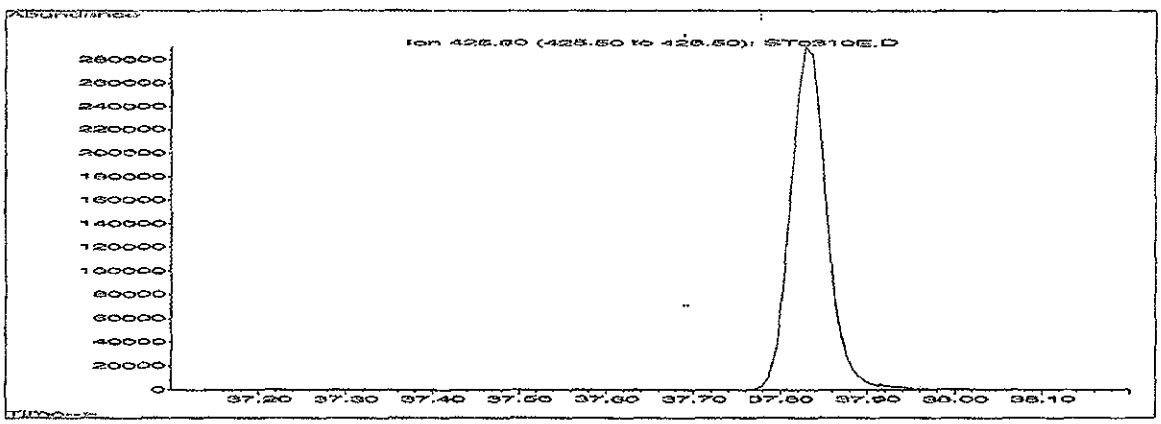


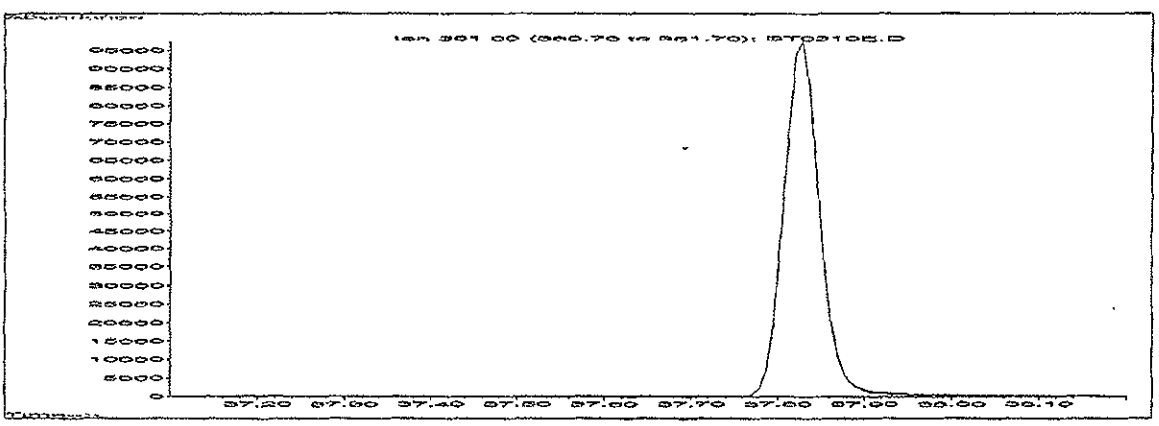


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

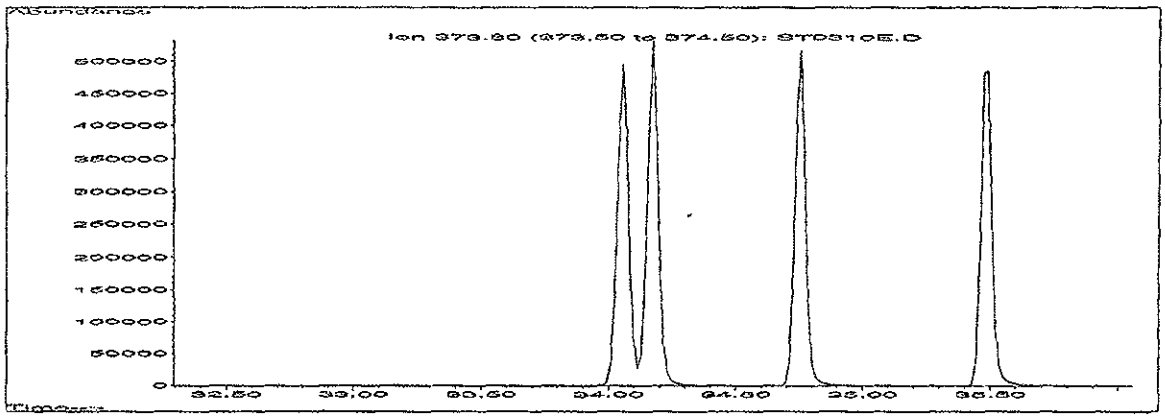


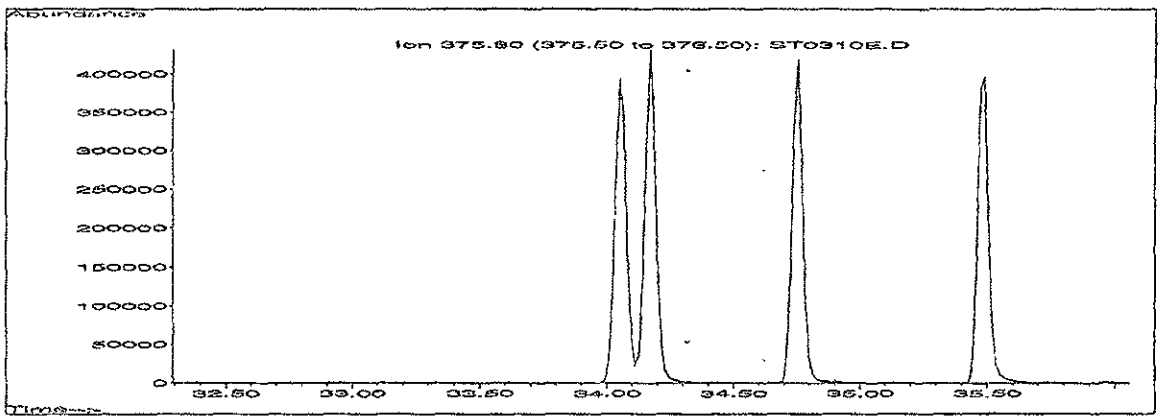


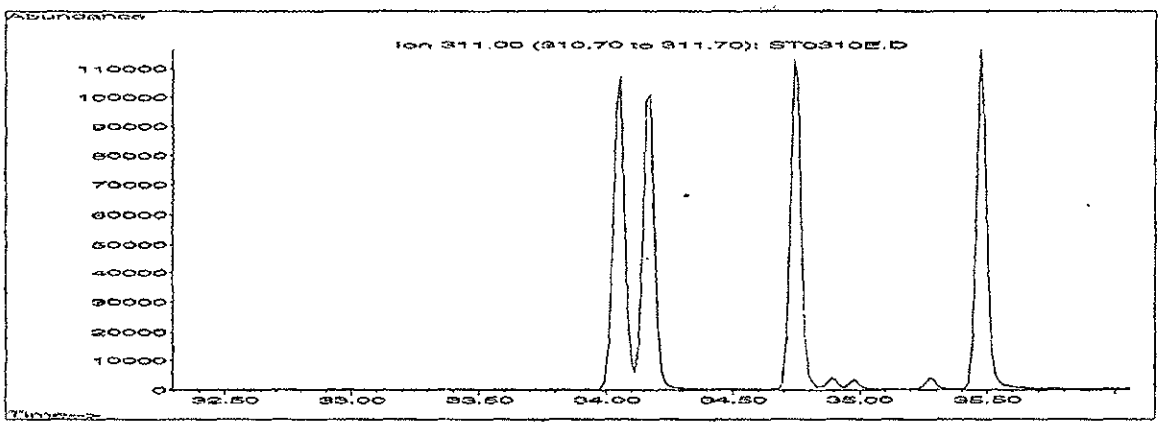


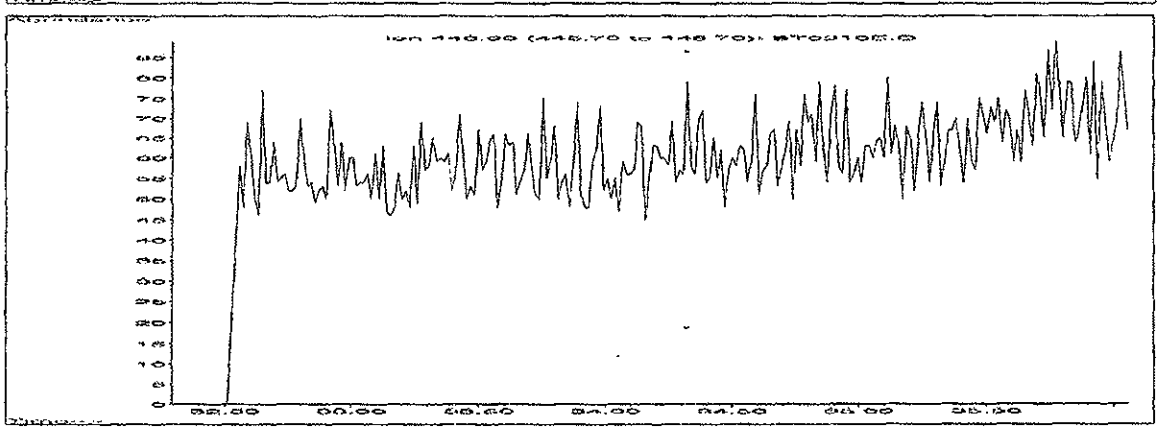
HxCDF TOTAL

TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



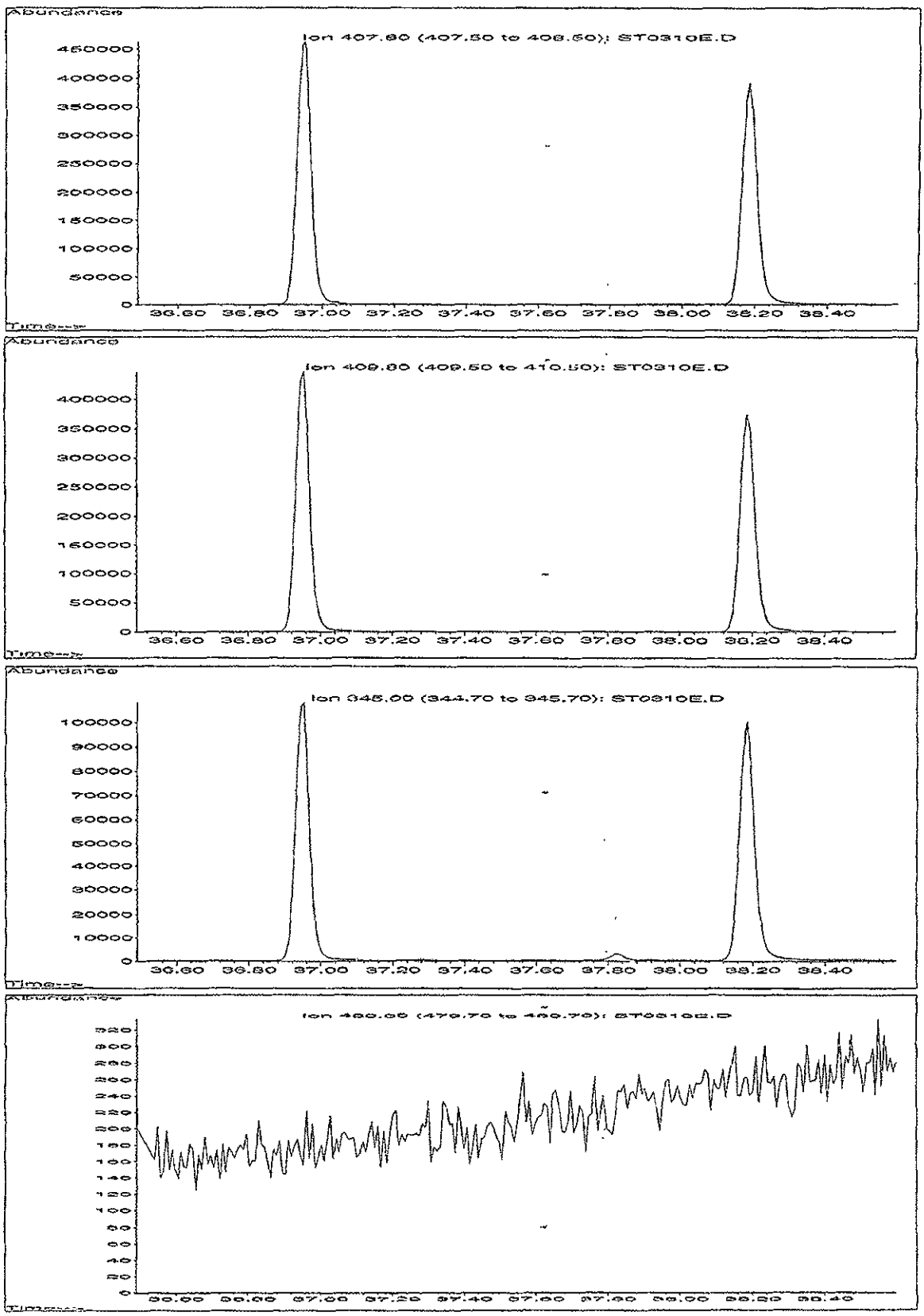




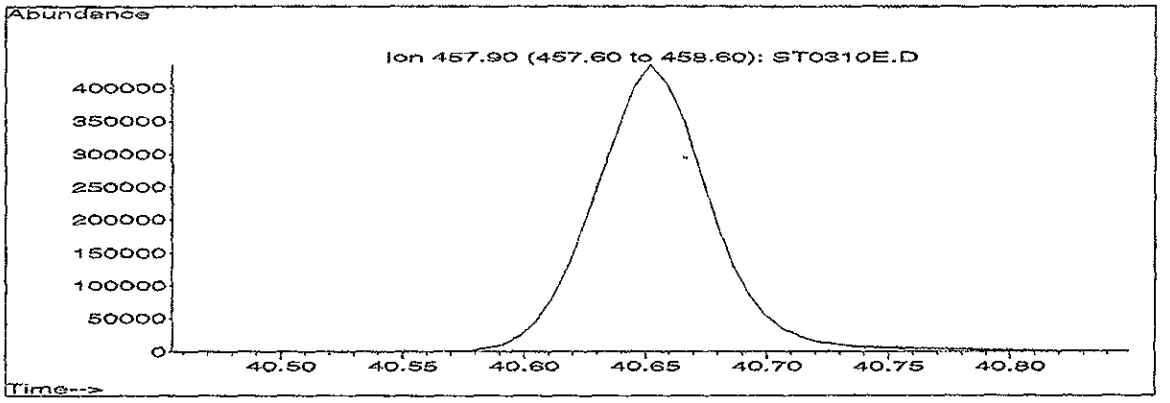


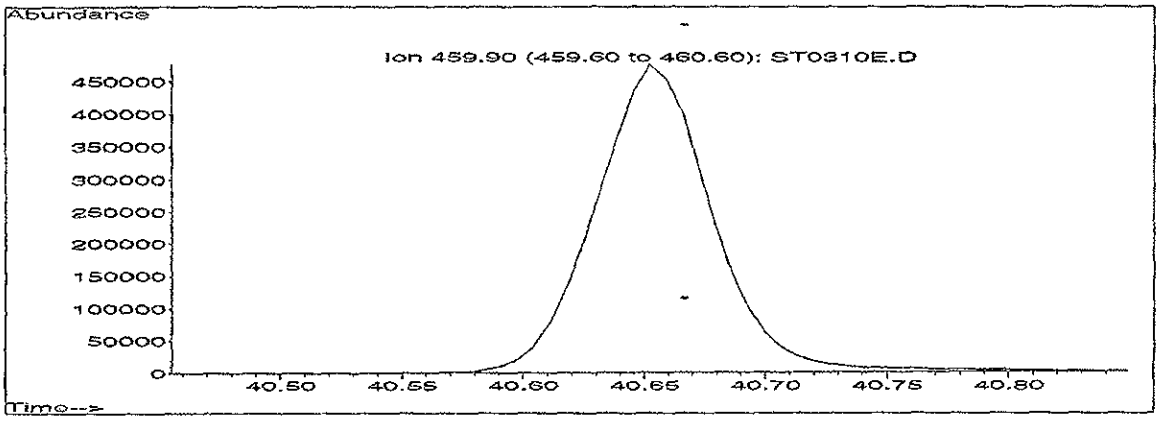
HpCDF TOTAL

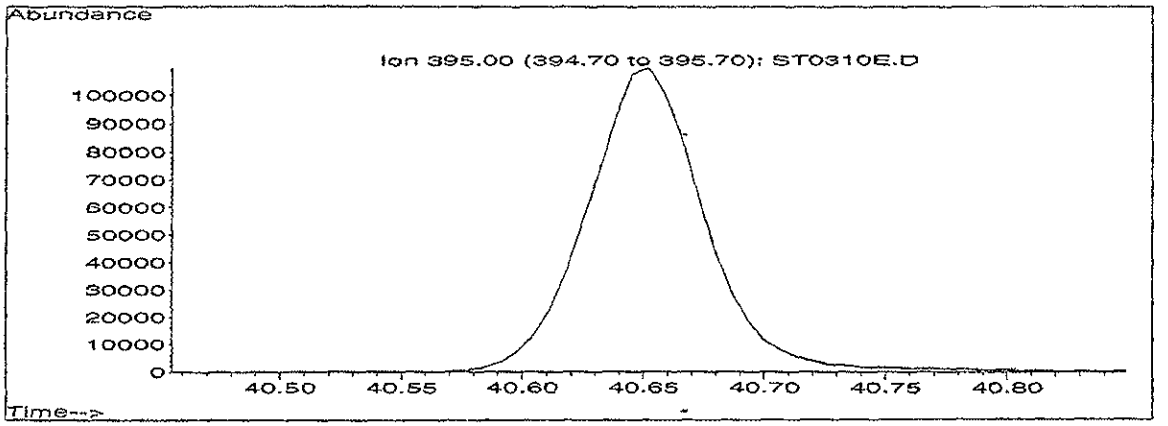
TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60



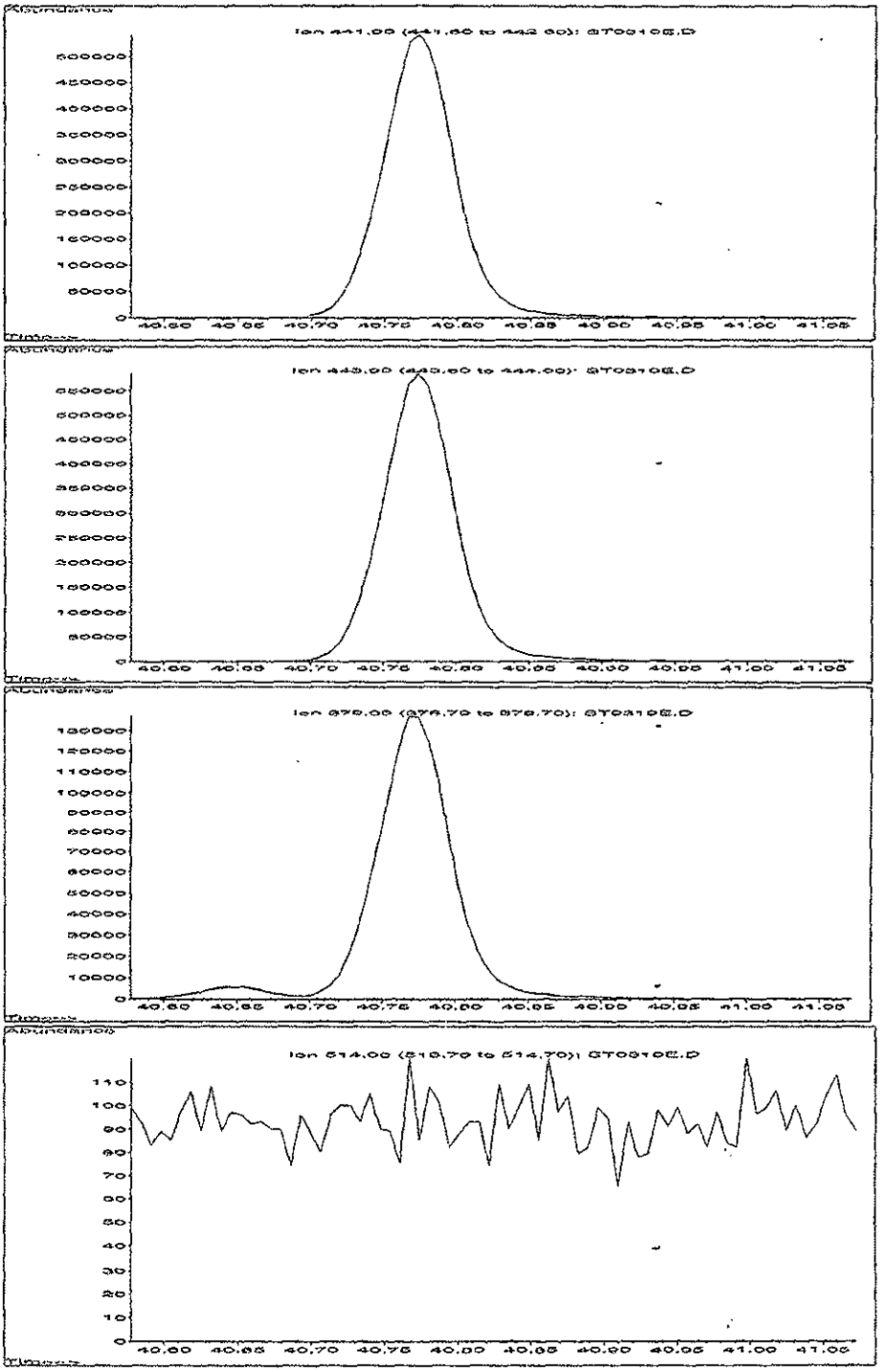
OCDD			
TS R.T. Lower Limit	40.45		
TS R.T. Upper Limit	40.85		
Ret. Time	40.65		
Target Ion	457.9	Q1 Ion	459.9
Target Response	1456080	Q1 Response	1611913
Total Response	3067993	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	371629		





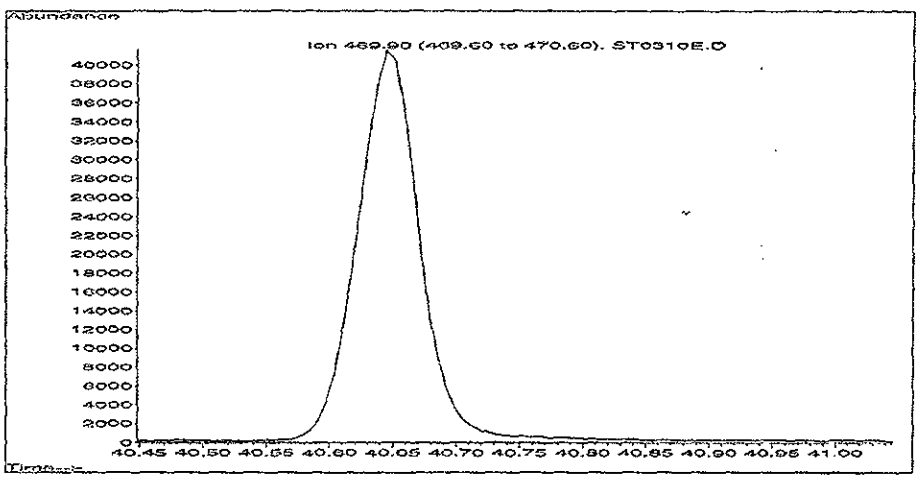


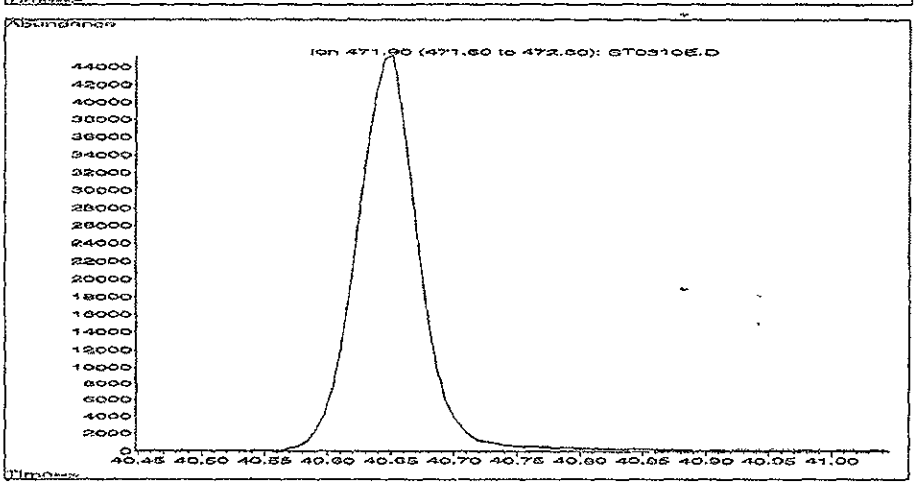
OCDF			
TS R.T. Lower Limit	40.57		
TS R.T. Upper Limit	41.07		
Ret Time	40.77		
Target Ion	441.9	Q1 Ion	443.9
Target Response	1891702	Q1 Response	2046652
Target Response	3938354	Ion Ratio	0.92
Q2 Ion	379	DPE Ion	514
Q2 Response	472843	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.45		
RT Upper Limit	41.05		
Ret Time	40.65		
Target Ion	469.9	Q1 Ion	471.9
Target Response	142275	Q1 Response	154298
Total response	296573	Ratio	0.92





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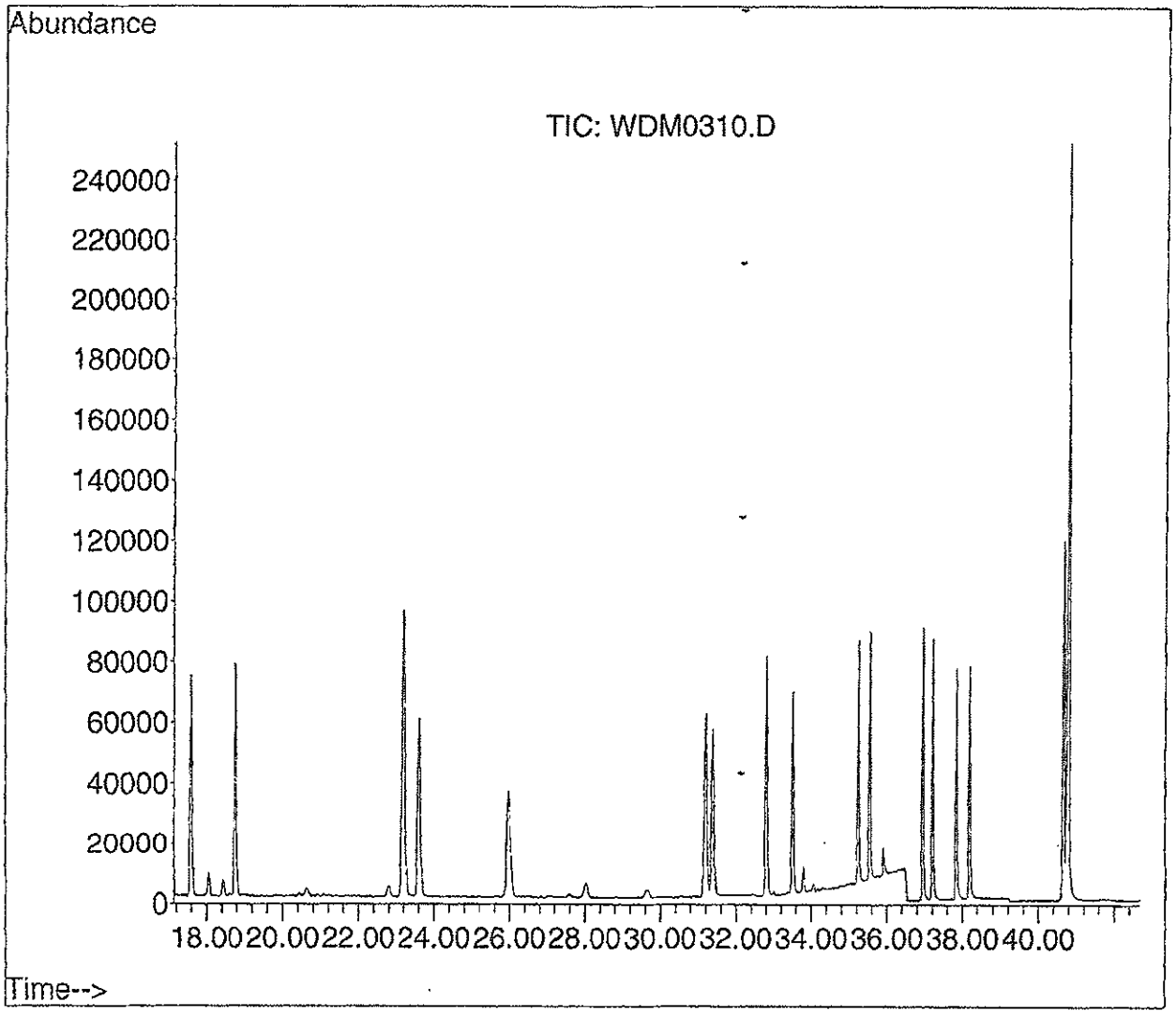
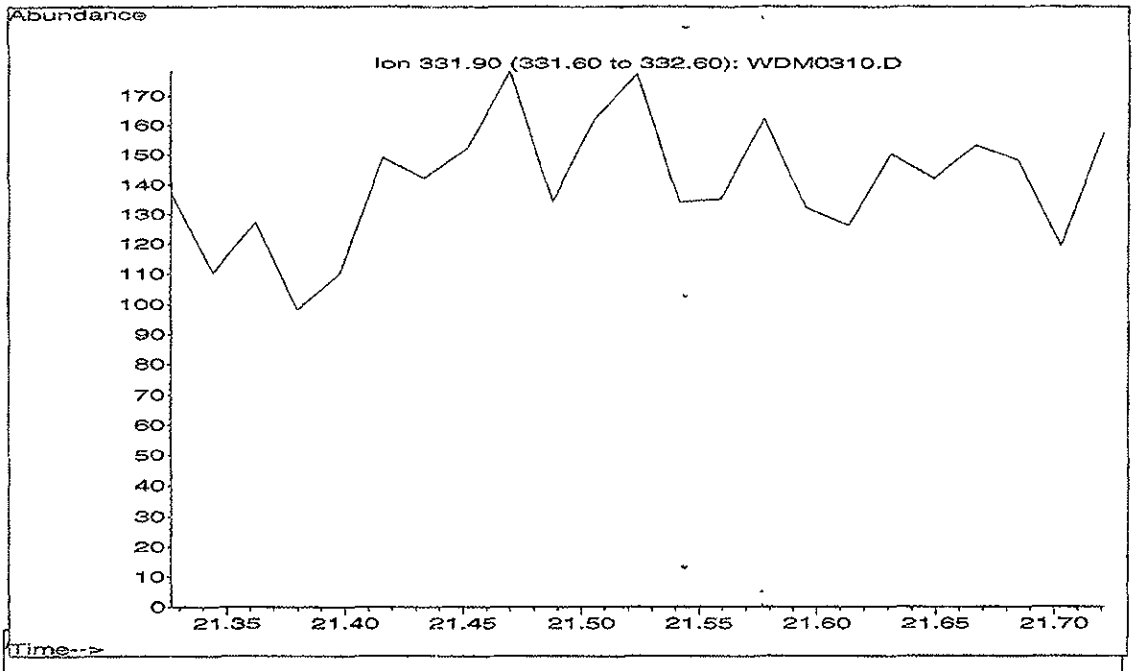
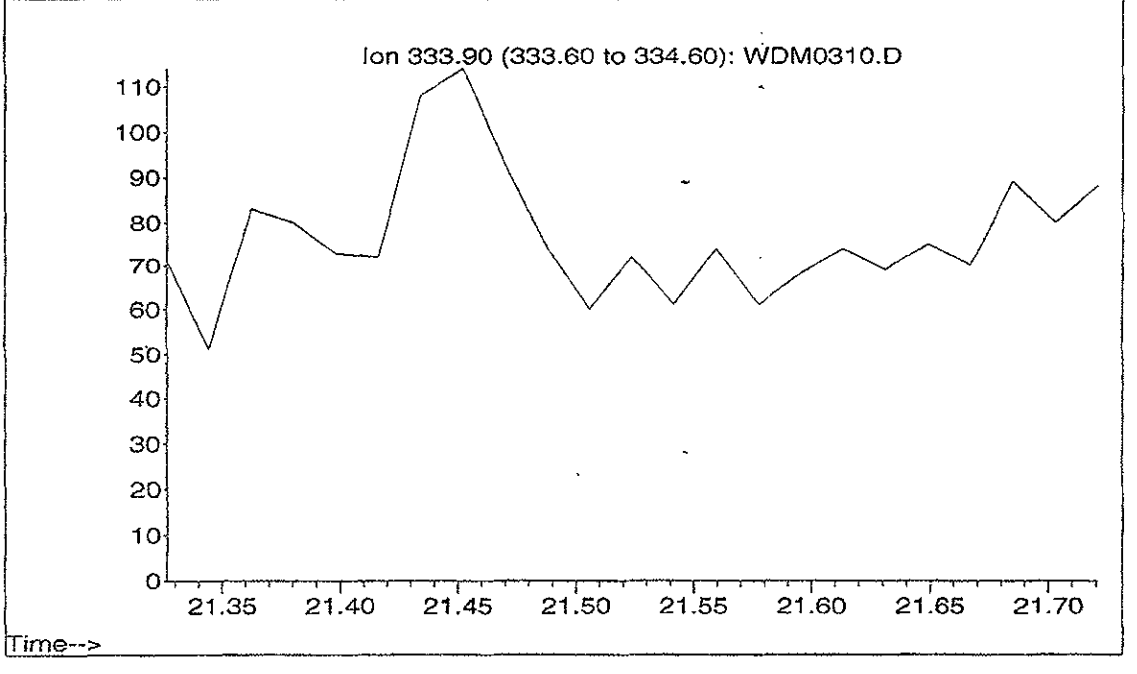
Data File Path	C:\8280\2DB\031009.B\
Operator	MEO
Date Acquired	3/10/2009 10:59
Acq. Method File	TOKAS
Sample Name	WDM 3136-37
Misc Info	WINDOW DEFINING MIX
Vial Number	96
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



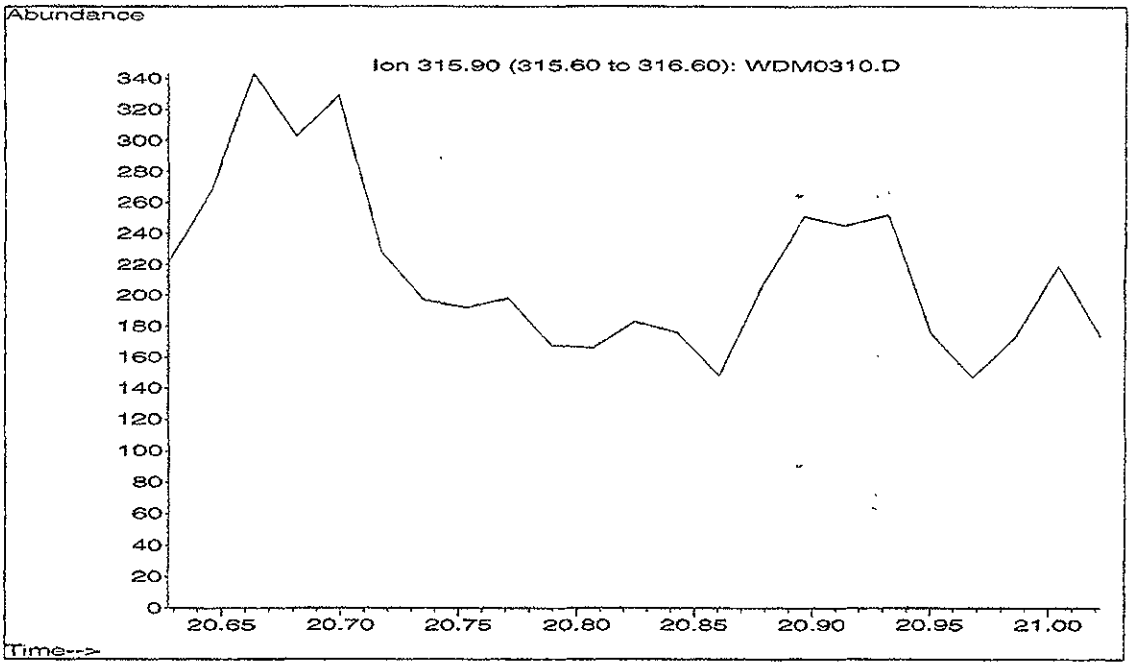
13C-1234-TCDD

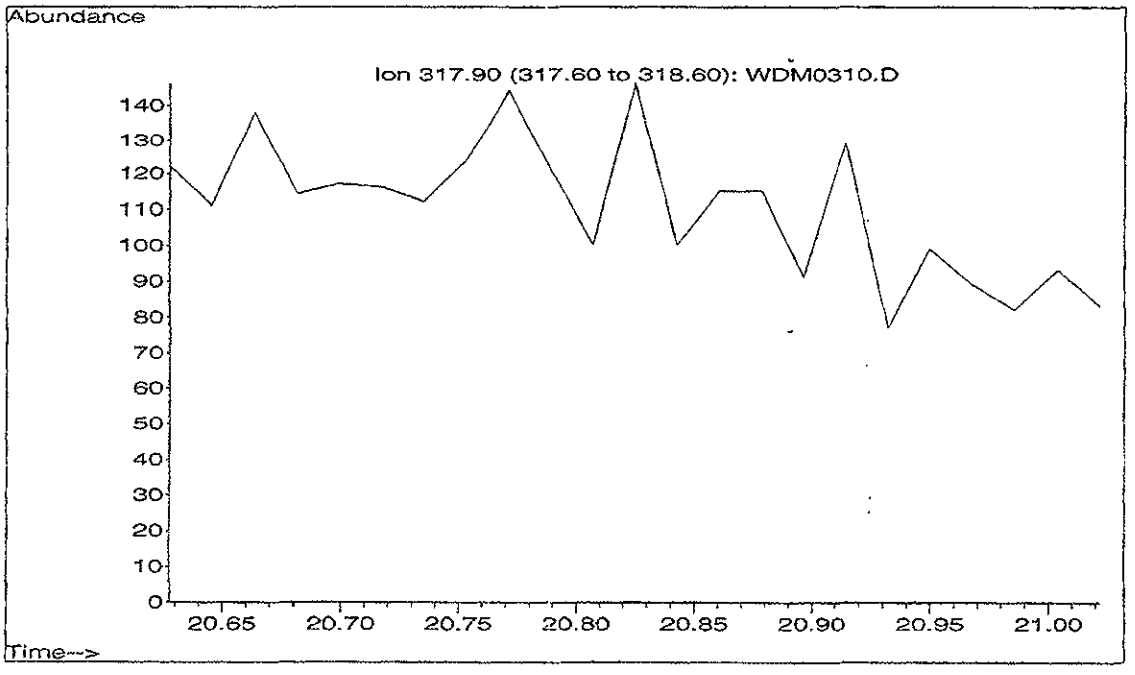
TS R.T. Lower Limit	21.32		
TS R.T. Upper Limit	21.72		
Ret Time	0.00		
Target Ion	331.9	Q1 Ion	333.9
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!





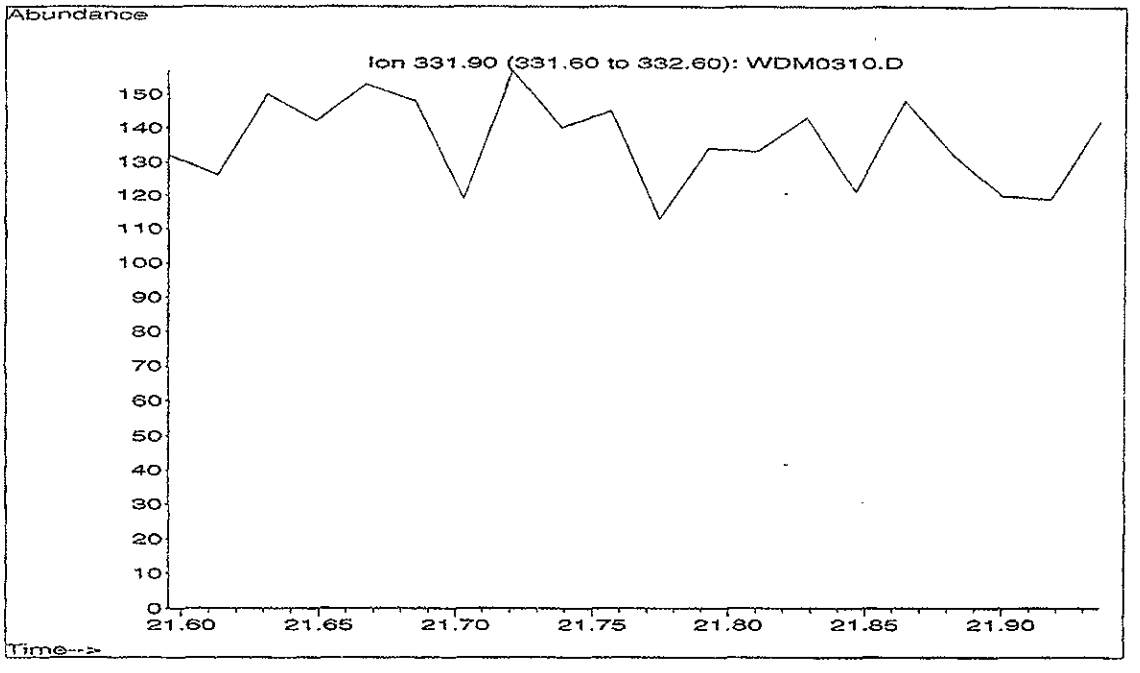
13C-2378-TCDF-IS			
TS R.T. Lower Limit	20.62		
TS R.T. Upper Limit	21.02		
Ret Time	0.00		
Target Ion	315.9	Q1 Ion	317.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!

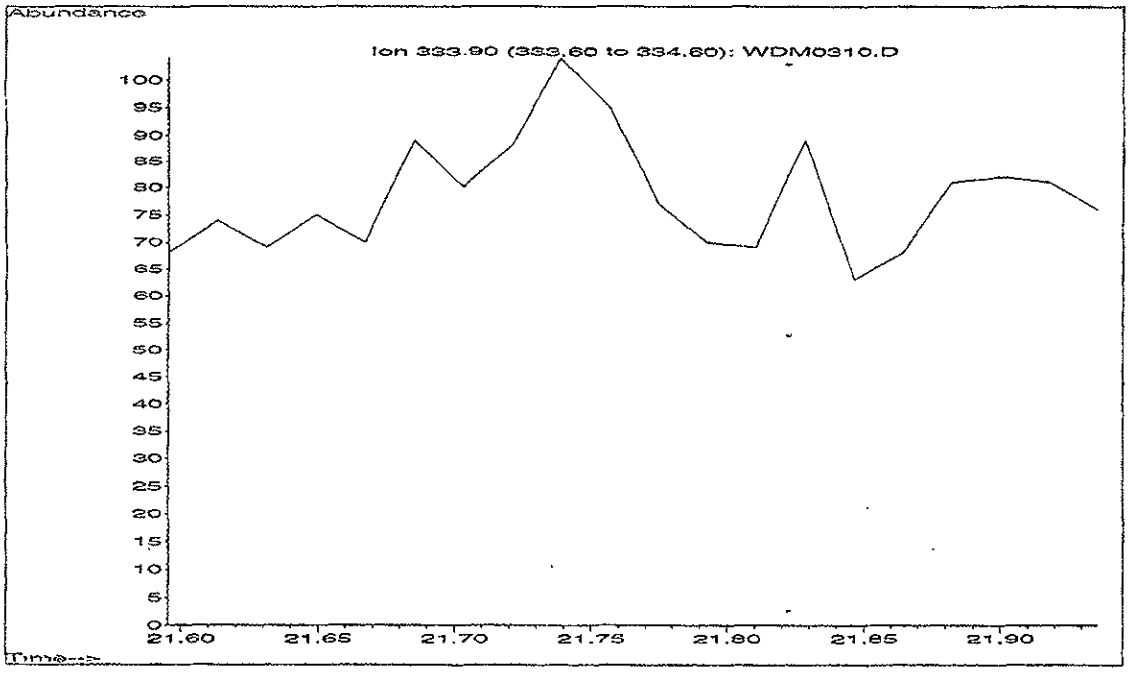




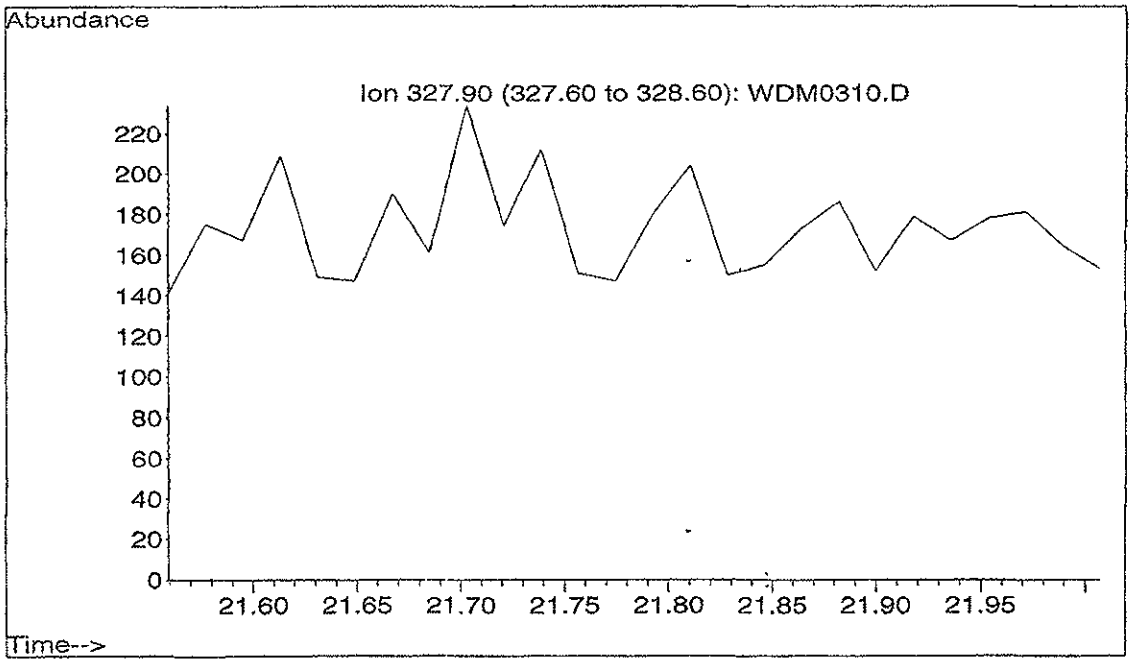
13C-2378-TCDD-IS

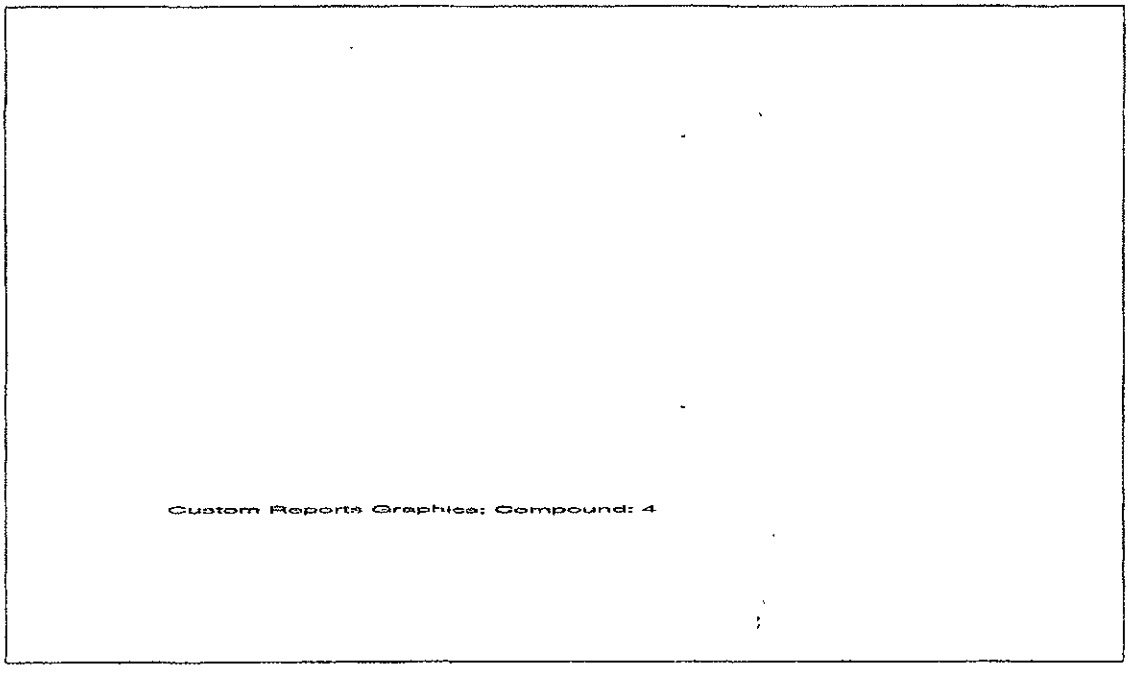
TS R.T. Lower Limit	21.59		
TS R.T. Upper Limit	21.94		
Ret Time	0.00		
Target Ion	331.9	Q1 Ion	333.9
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!





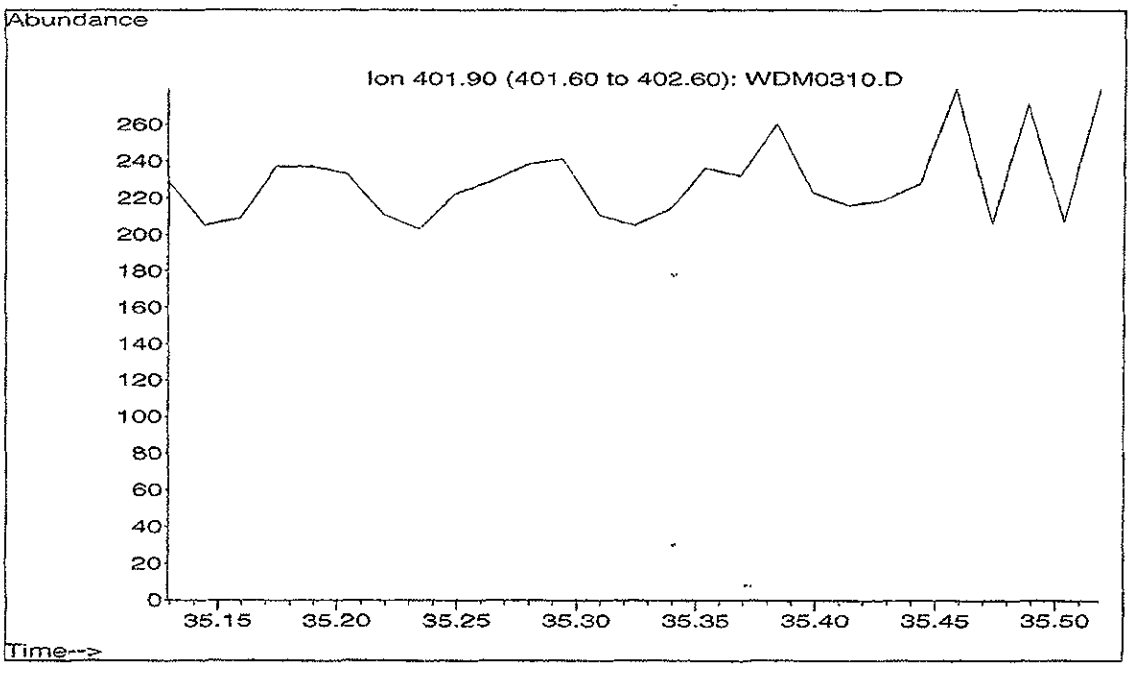
37Cl-2378-TCDD			
TS R.T. Lower Limit	21.56		
TS R.T. Upper Limit	22.01		
Ret Time	0.00		
Target Ion	327.9	Q1 Ion	0
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!

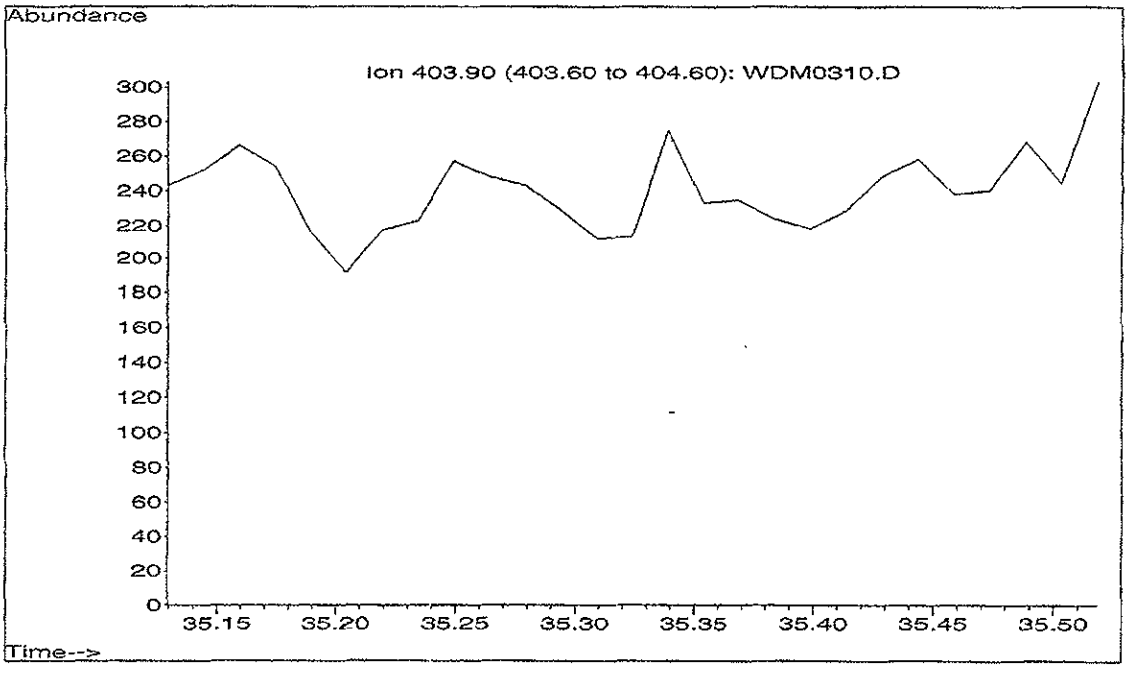




13C-123789-HxCDD

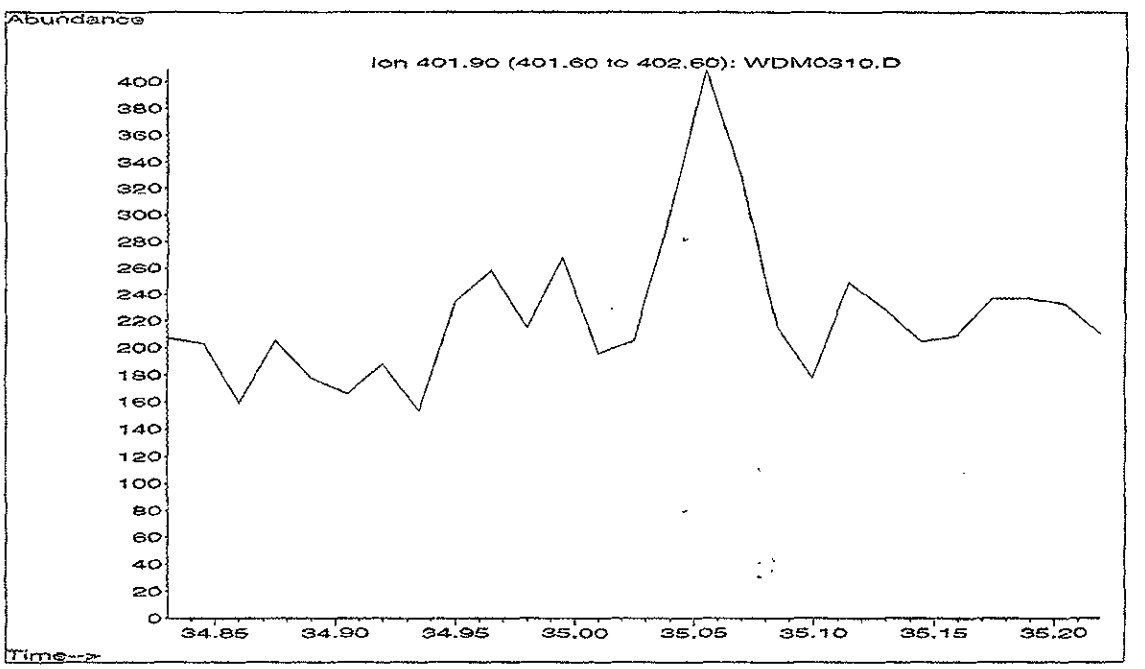
TS R.T. Lower Limit	35.12		
TS R.T. Upper Limit	35.52		
Ret Time	0.00		
Target Ion	401.9	Q1 Ion	403.9
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!

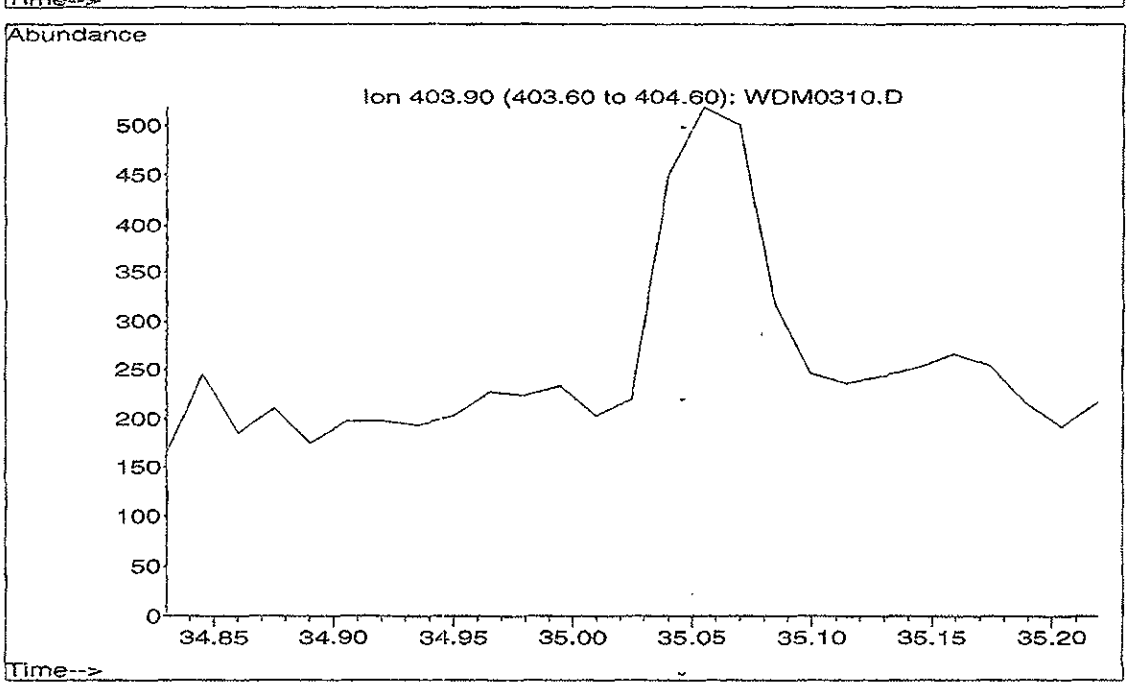




13C-123678-HxCDD-IS

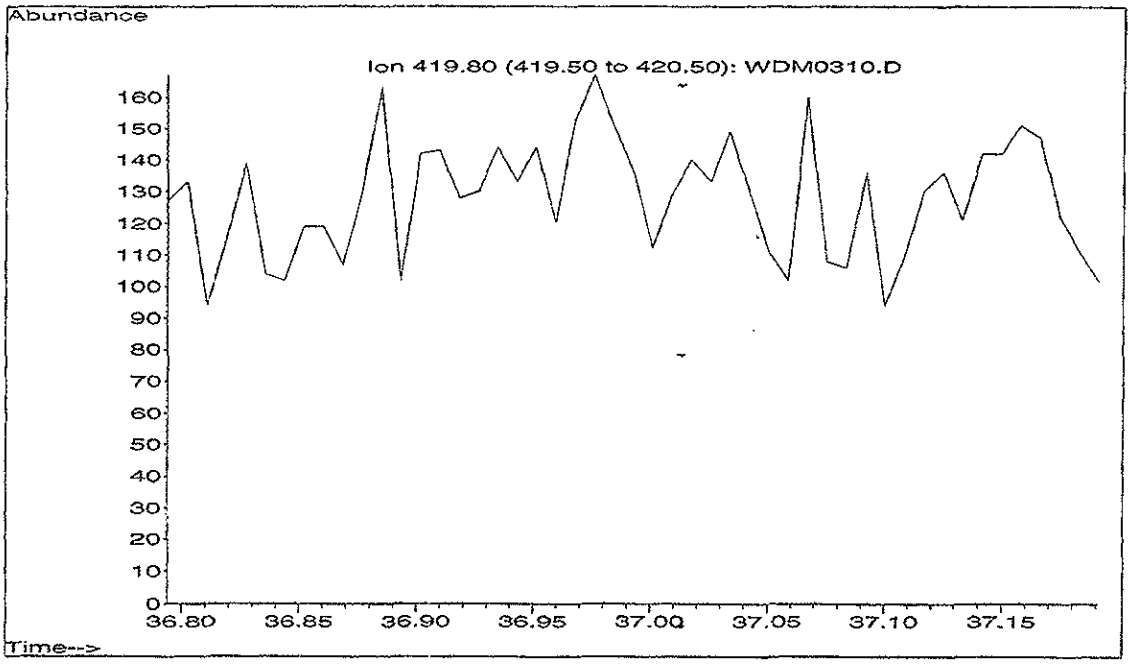
TS R.T. Lower Limit	34.82		
TS R.T. Upper Limit	35.22		
Ret Time	0.00		
Target Ion	401.9	Q1 Ion:	403.9
Target Response	0	Q1 Response	0
Total Response	0	Ion Ratio	#DIV/0!

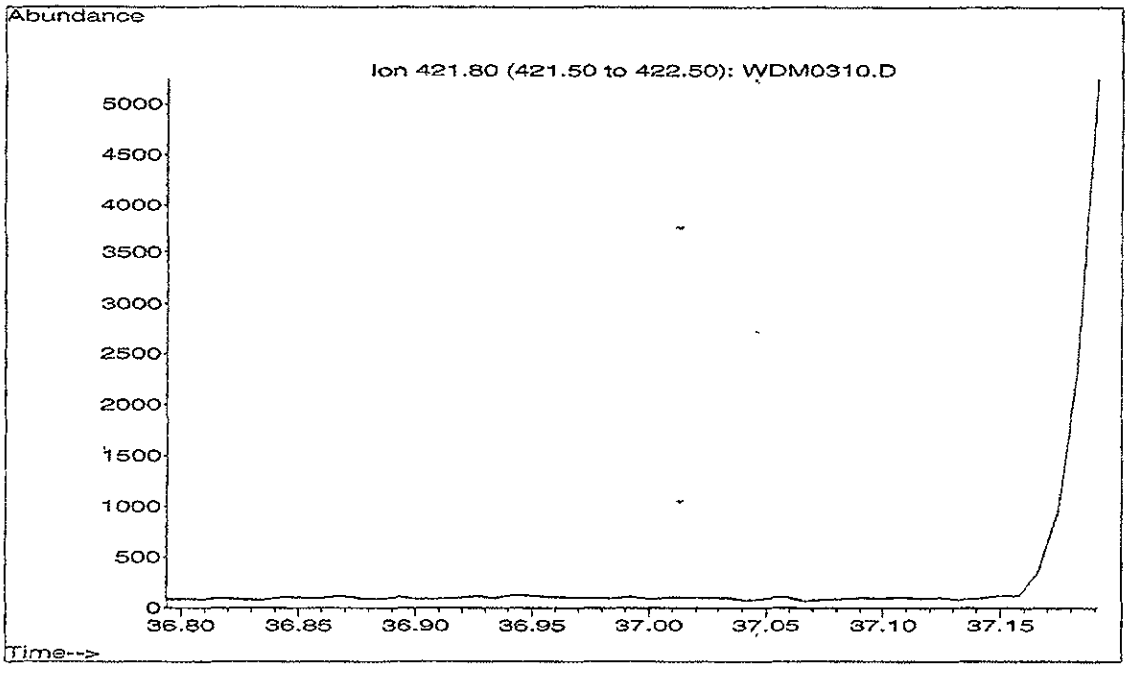




13C-1234678-HpCDF-IS

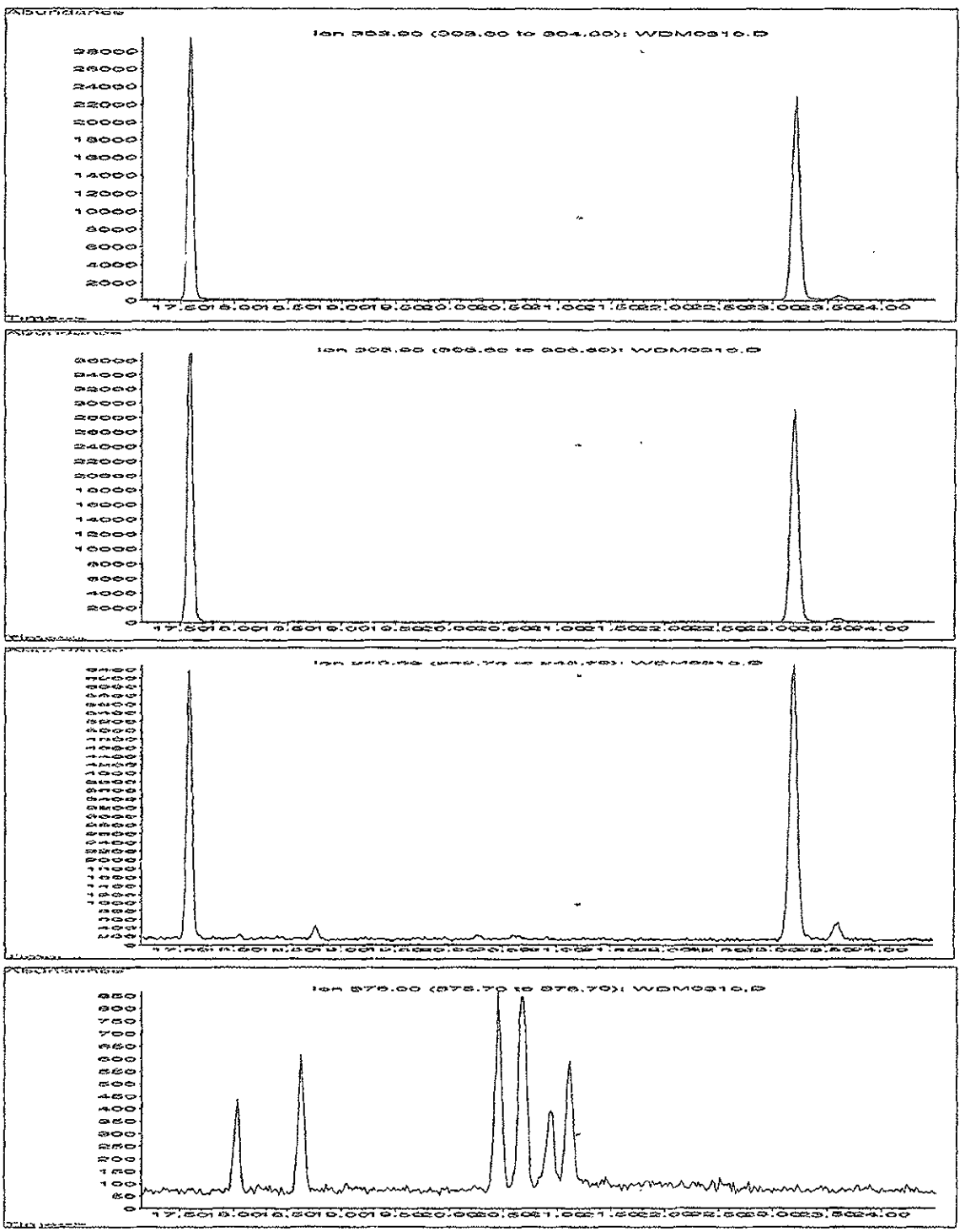
TS R.T. Lower Limit	36.79		
TS R.T. Upper Limit	37.19		
Ret Time	0.00		
Target Ion	419.8	Q1 Ion	421.8
Target Response	0	Q1 Response	0
Target Response	0	Ion Ratio	#DIV/0!





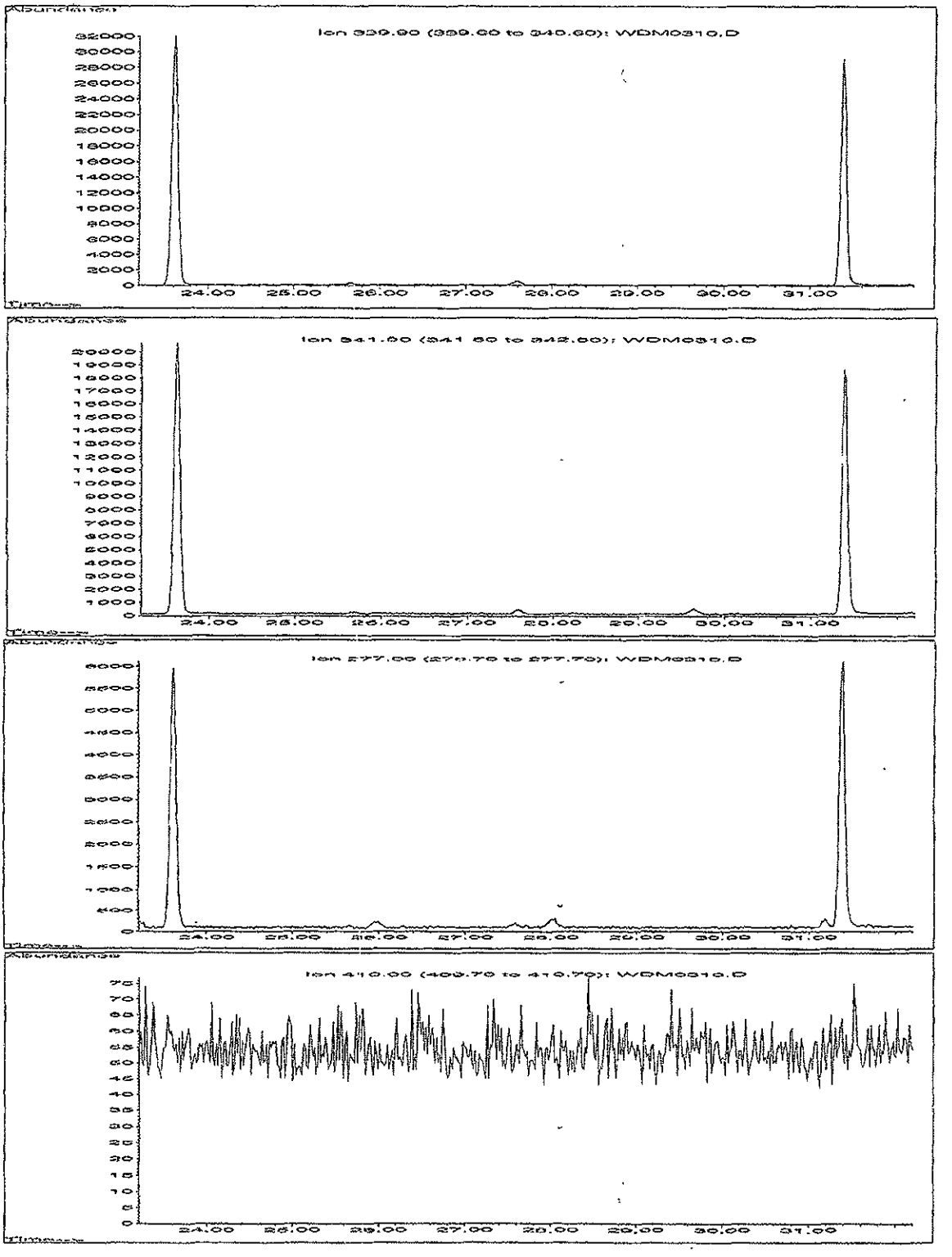
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



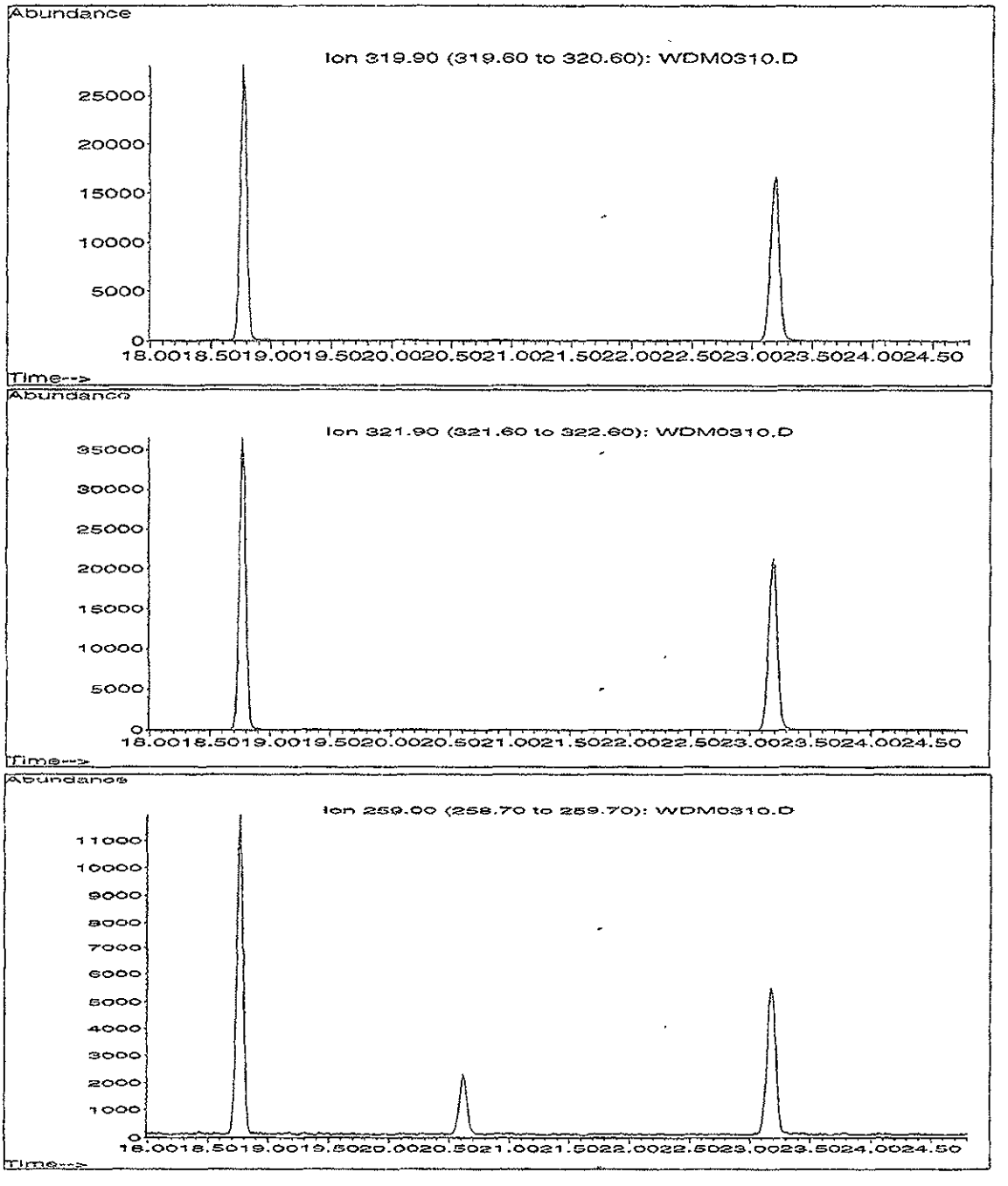
PeCDF TOTAL

TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



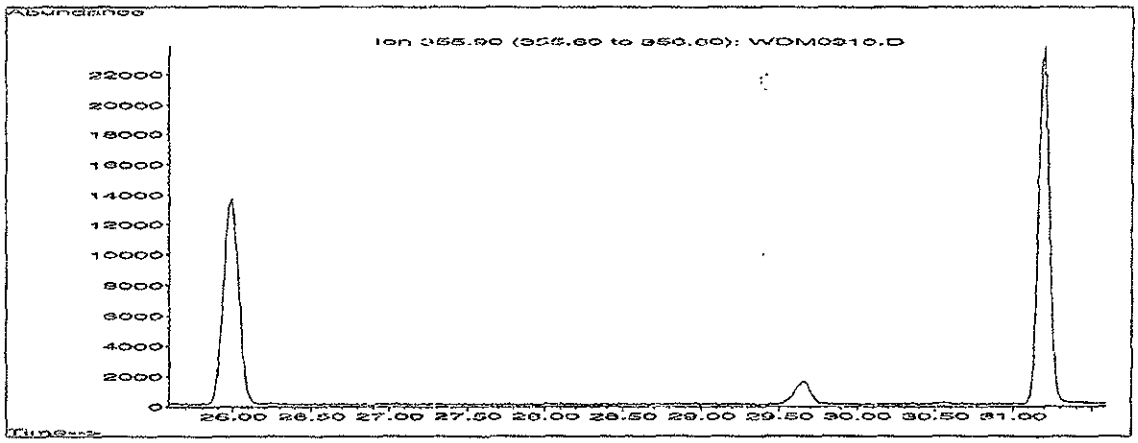
TCDD TOTAL

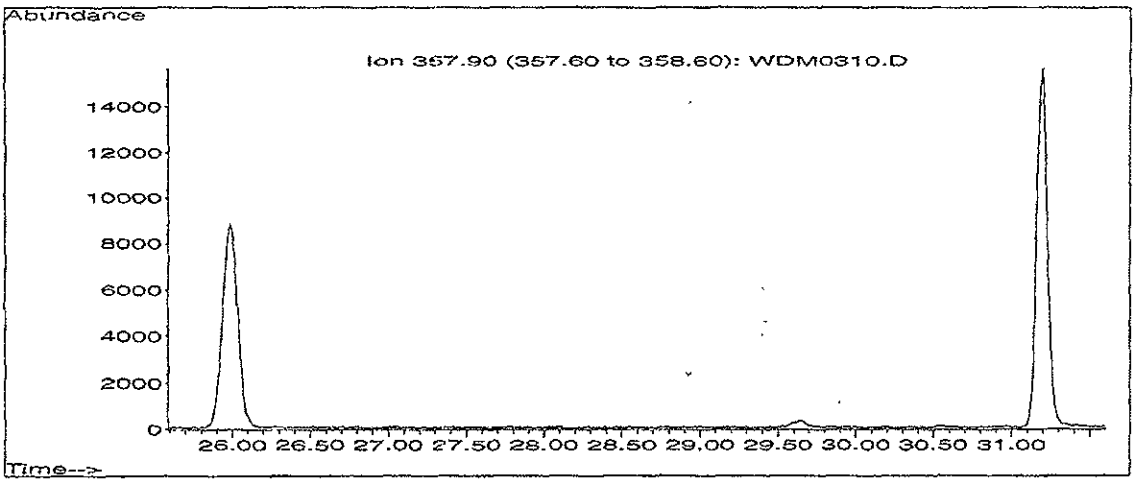
TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80

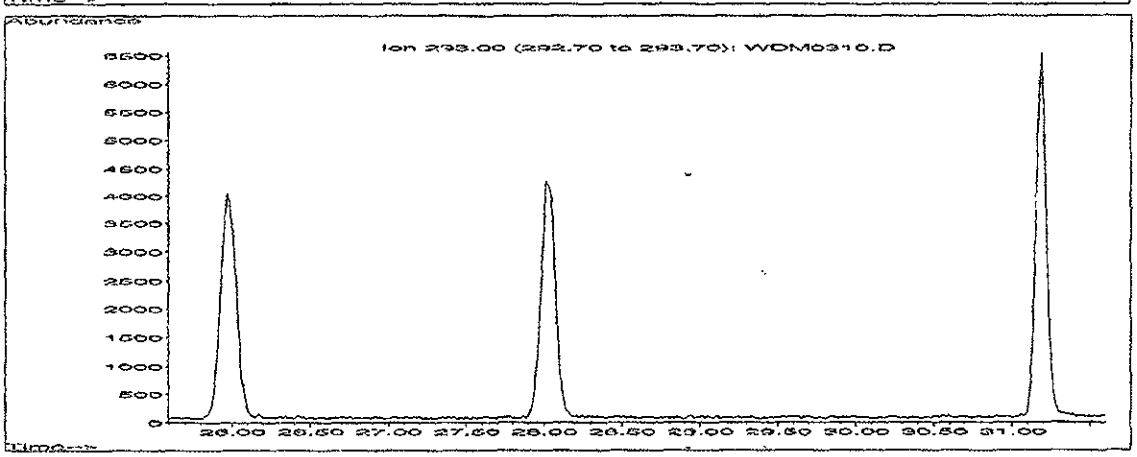


PeCDD TOTAL

TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

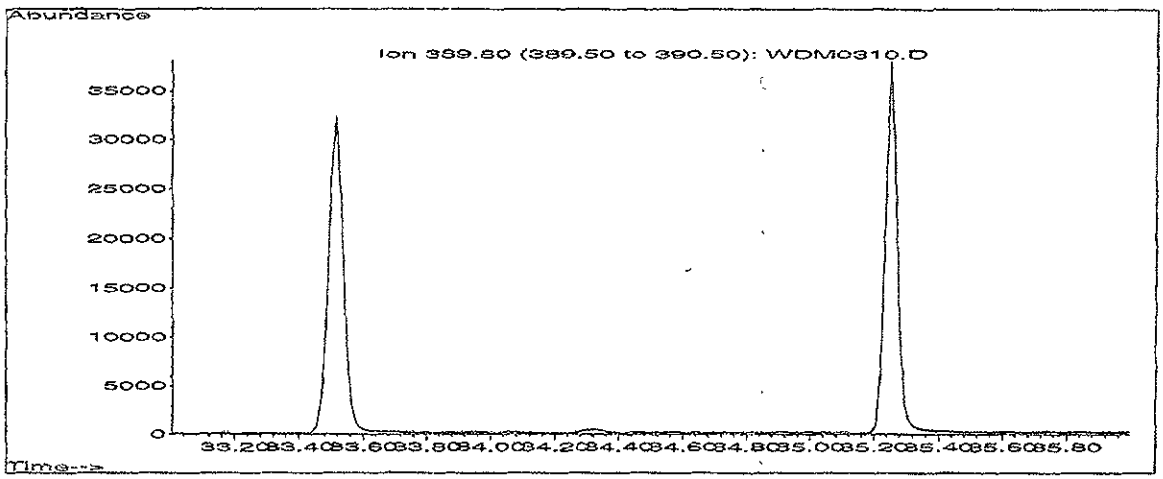


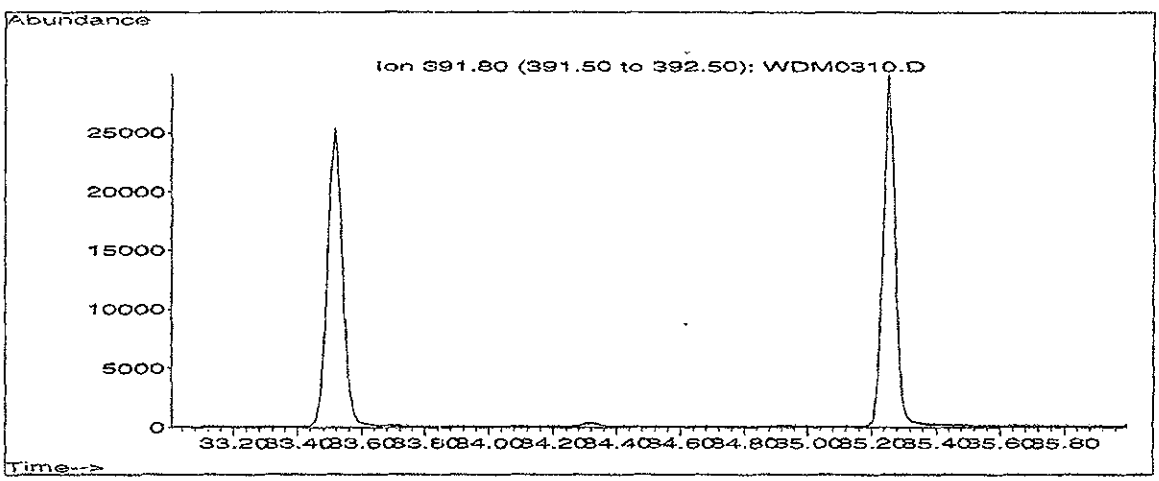


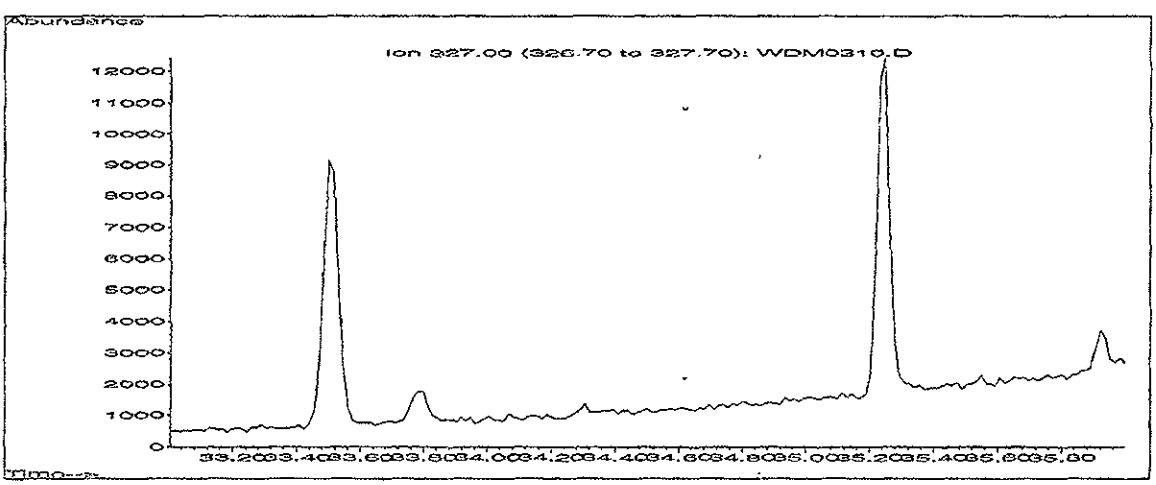


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

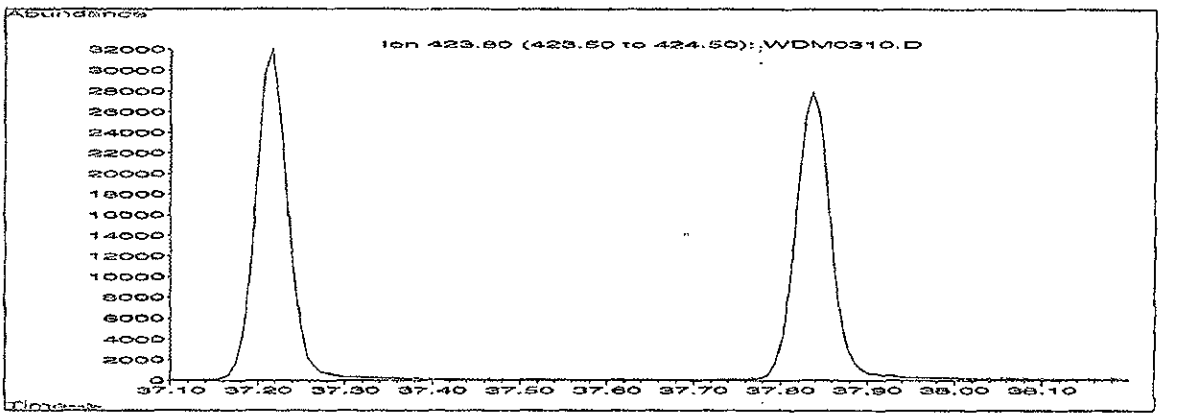


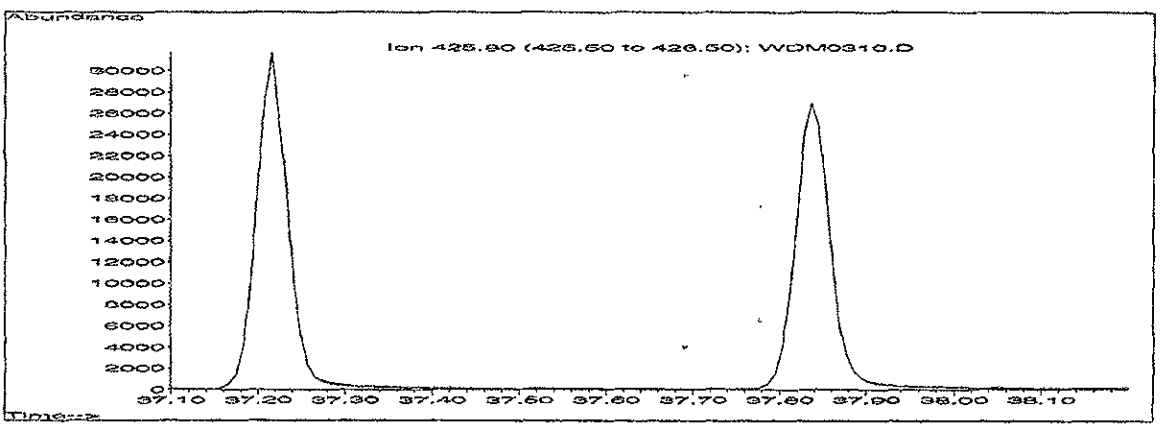


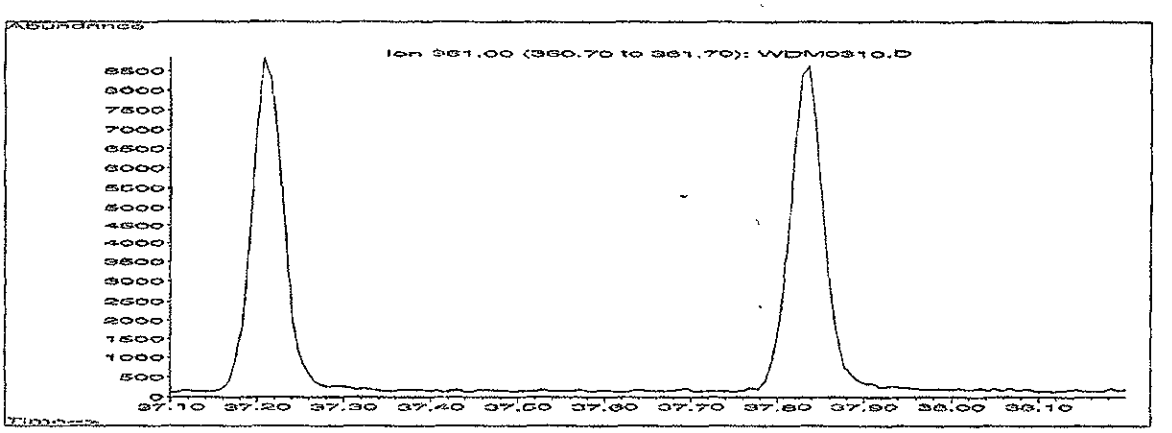


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

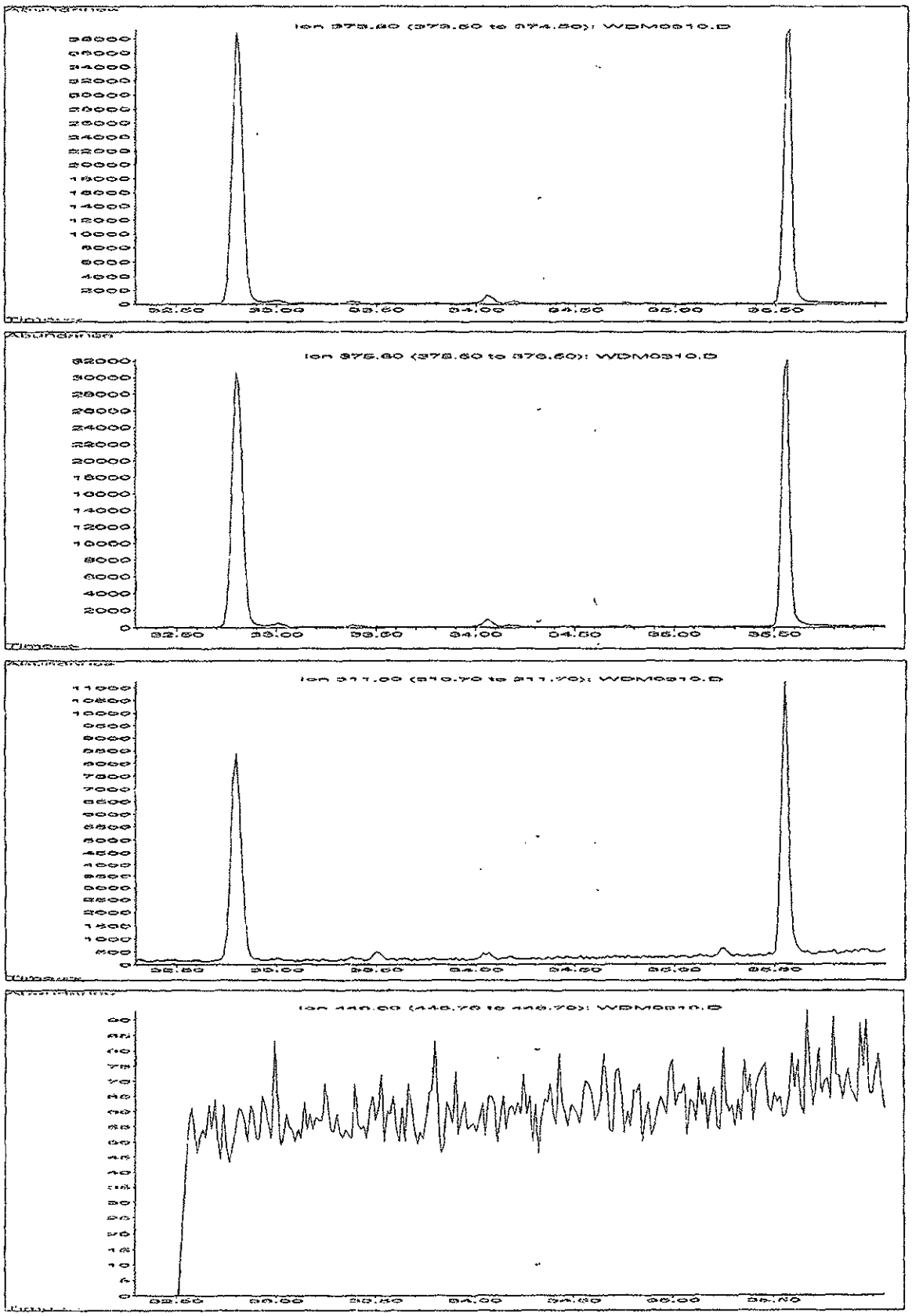






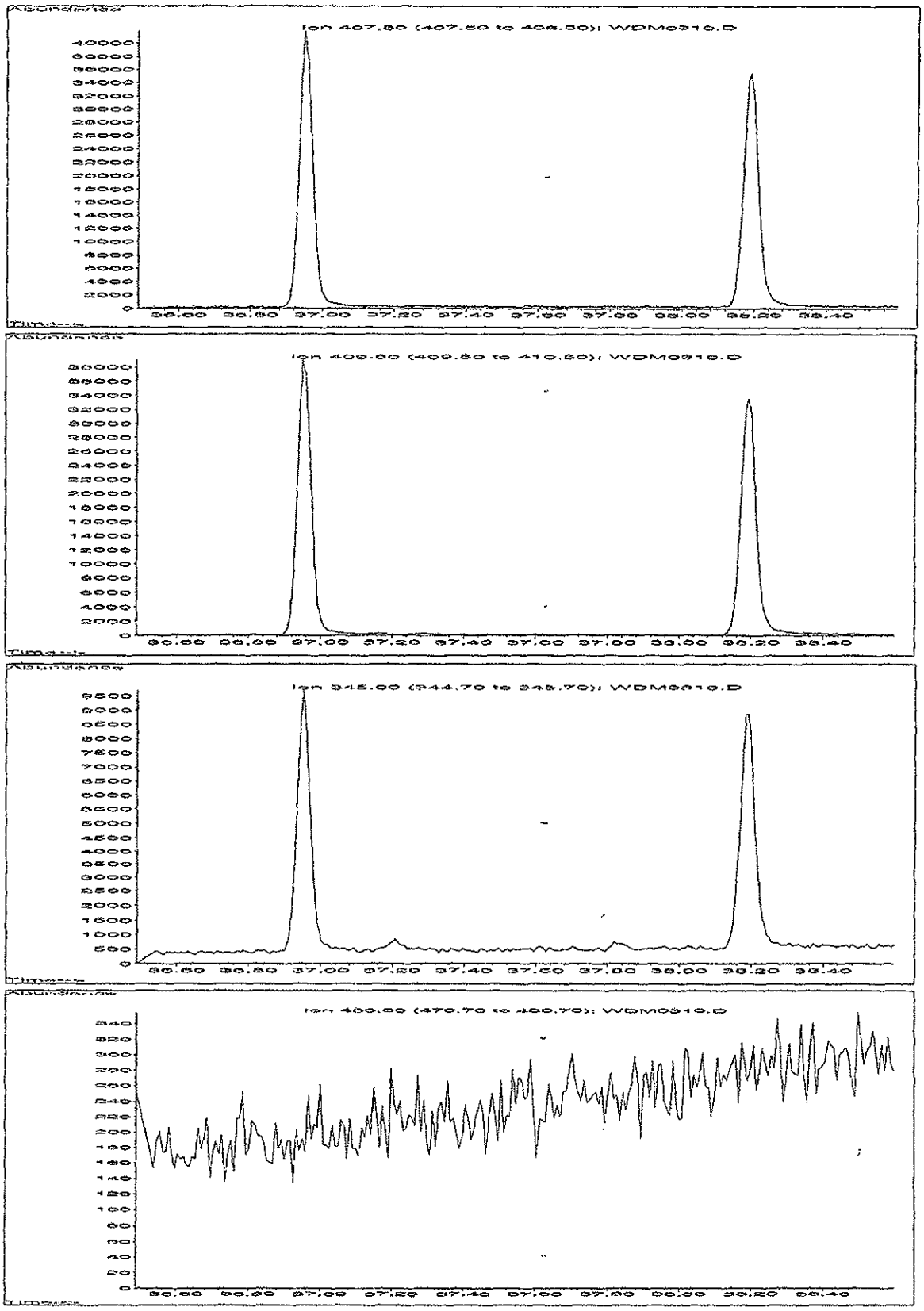
HxCDF TOTAL

TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



HpCDF TOTAL

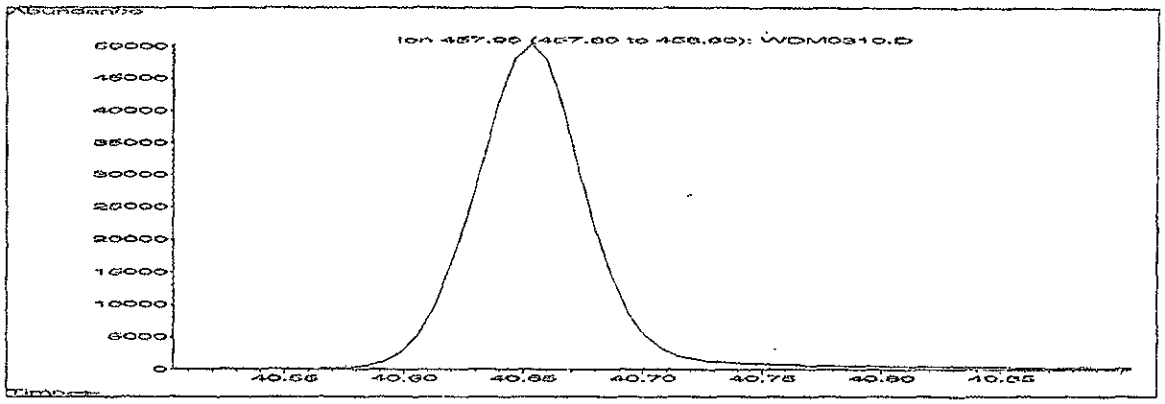
TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

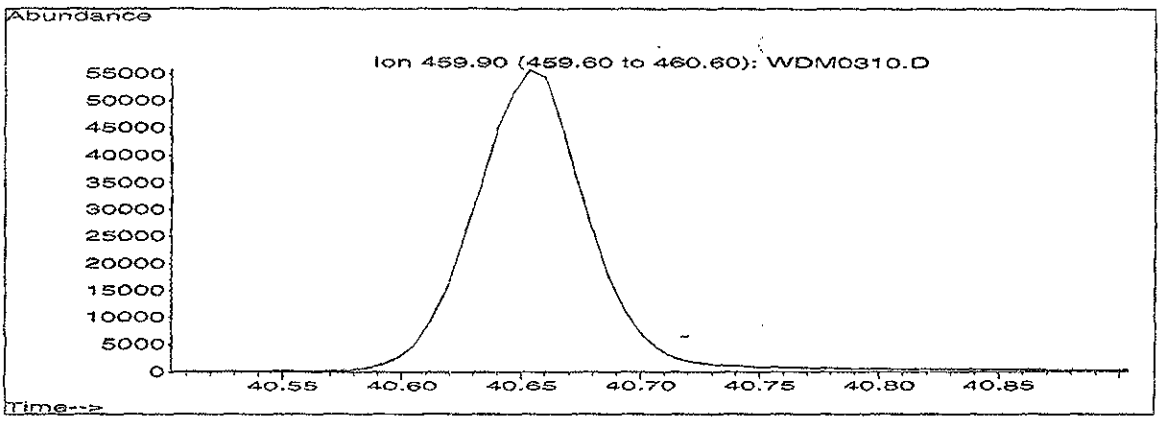


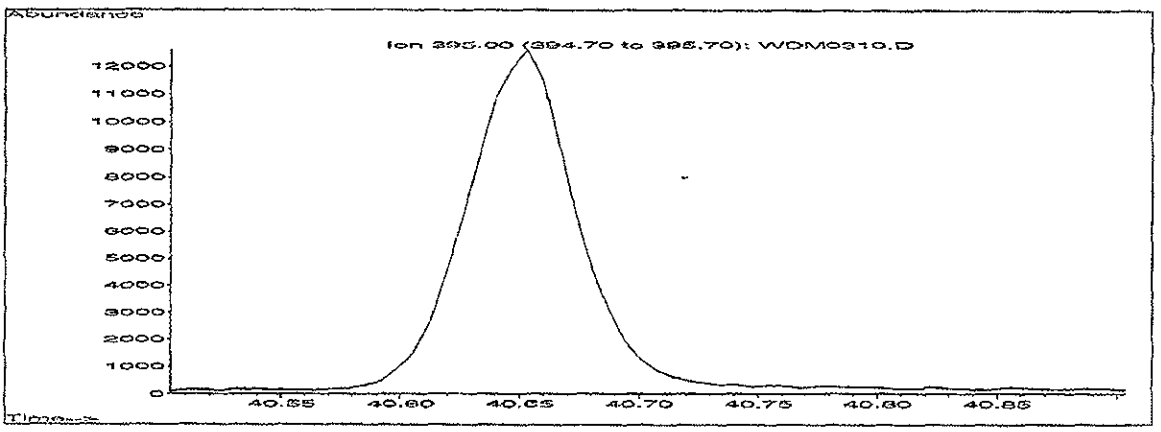
C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

OCDD

TS R.T. Lower Limit	40.51		
TS R.T. Upper Limit	40.91		
Ret. Time	40.65		
Target Ion	457.9	Q1 Ion	459.9
Target Response	167399	Q1 Response	186658
Total Response	354057	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	40399		

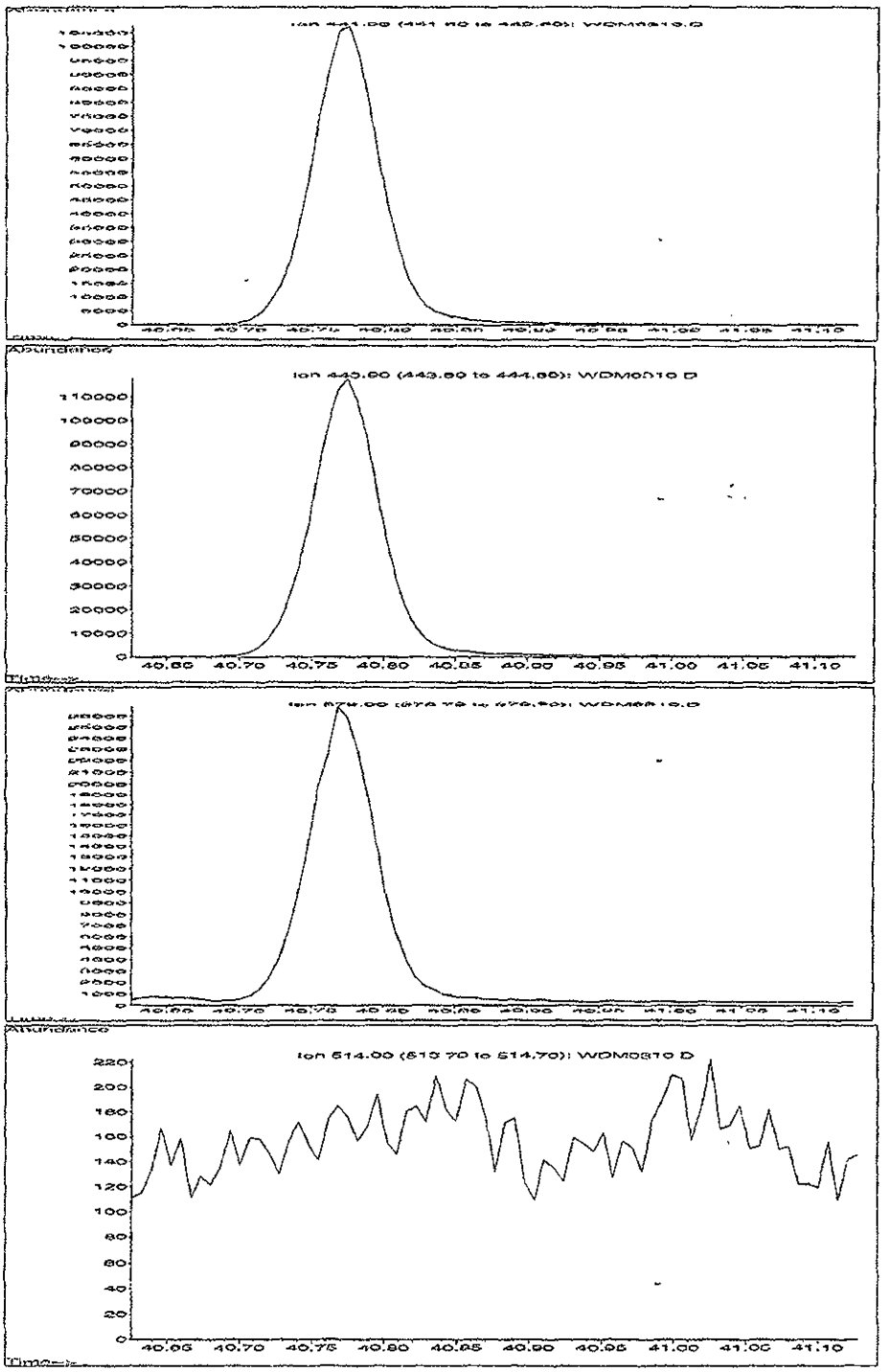






OCDF

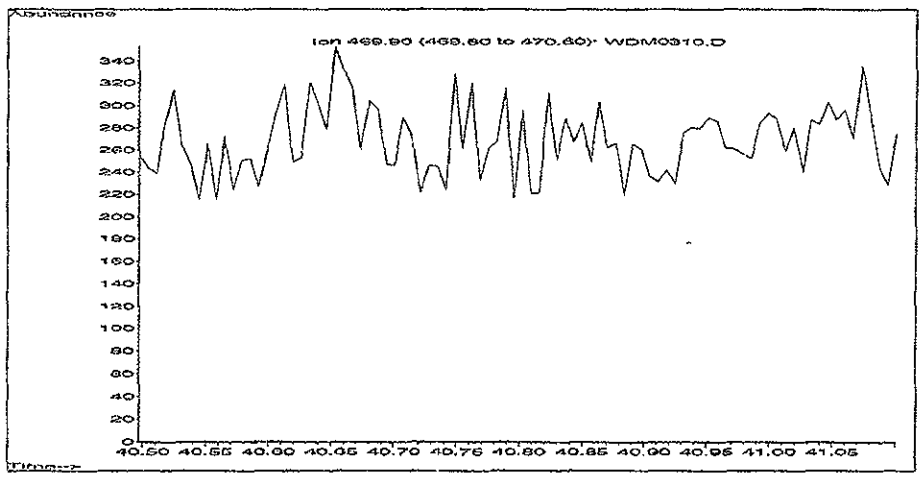
TS R.T. Lower Limit	40.63		
TS R.T. Upper Limit	41.13		
Ret Time	40.78		
Target Ion	441.9	Q1 Ion	443.9
Target Response	361959	Q1 Response	397281
Target Response	759240	Ion Ratio	0.91
Q2 Ion	379	DPE Ion	514
Q2 Response	86288	DPE Response	0

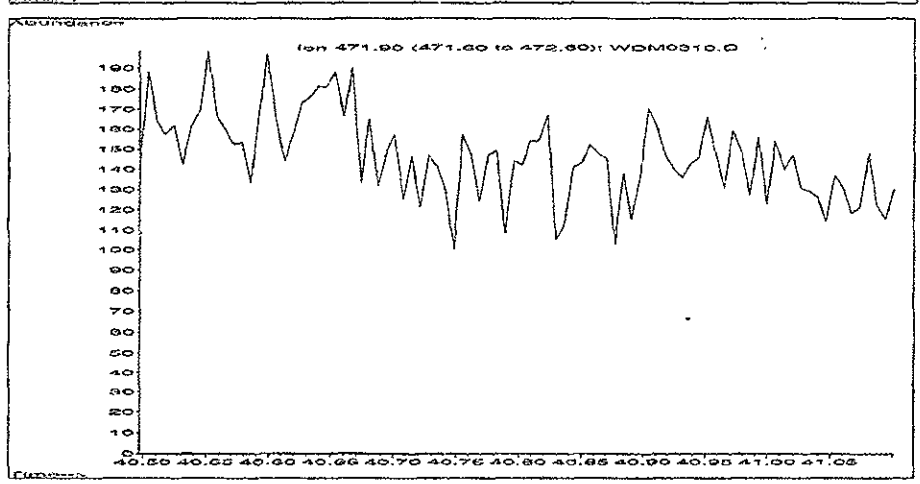


C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

13C-OCDD-IS

RT Lower Limit	40.50		
RT Upper Limit	41.10		
Ret Time	0.00		
Target Ion	469.9	Q1 Ion	471.9
Target Response	0	Q1 Response	0
Total response	0	Ratio	#DIV/0!





Continuing Calibration Report 2DB

Initial Calibration Date : 10 Mar 2009

Method File : C:\8280\ DATA METHODS\09MR10I2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Wed Mar 11 05:48:47 2009
Response via : Initial Calibration

Continuing Calibration File: ST0310Y.D

Maximum allowable RRF Deviation (8280A) : 30%

		Compound	AvgRF	CCRF	%Dev
1	IR	13C-1234-TCDD	1.000	1.000	0.0
2	T	13C-2378-TCDF-IS	1.674	1.758	-5.0
3	T	13C-2378-TCDD-IS	1.122	1.171	-4.4
4	S	37Cl-2378-TCDD	1.582	1.622	-2.5
5	IR	13C-123789-HxCDD	1.000	1.000	0.0
6	T	13C-123678-HxCDD-IS	0.925	0.967	-4.5
7	T	13C-1234678-HpCDF-IS	1.193	1.257	-5.4
8	T	13C-OCDD-IS	0.750	0.784	-4.5
9	IR	13C-2378-TCDF	1.000	1.000	0.0
10	MT	2378-TCDF	1.064	1.115	-4.8
11	H	TCDF TOTAL	1.064	1.115	-4.8
12	MT	12378-PeCDF	0.887	0.964	-8.7
13	T	23478-PeCDF	0.861	0.946	-9.9
14	H	PeCDF TOTAL	0.861	0.946	-9.9
15	IR	13C-2378-TCDD	1.000	1.000	0.0
16	MT	2378-TCDD	1.123	1.184	-5.5
17	H	TCDD TOTAL	1.123	1.184	-5.5
18	MT	12378-PeCDD	0.846	0.926	-9.4
19	H	PeCDD TOTAL	0.846	0.926	-9.4
20	IR	13C-123678-HxCDD	1.000	1.000	0.0
21	T	123478-HxCDD	1.134	1.135	-0.1
22	MT	123678-HxCDD	1.062	1.090	-2.6
23	T	123789-HxCDD	1.167	1.208	-3.5
24	H	HxCDD TOTAL	1.062	1.090	-2.6
25	MT	1234678-HpCDD	0.970	1.017	-4.9
26	H	HpCDD TOTAL	0.970	1.017	-4.9
27	IR	13C-1234678-HpCDF	1.000	1.000	0.0
28	T	123478-HxCDF	1.196	1.238	-3.5
29	MT	123678-HxCDF	1.237	1.287	-4.1
30	T	234678-HxCDF	1.178	1.257	-6.7
31	T	123789-HxCDF	1.137	1.190	-4.7
32	H	HxCDF TOTAL	1.137	1.190	-4.7
33	MT	1234678-HpCDF	1.096	1.124	-2.6
34	T	1234789-HpCDF	0.990	1.033	-4.4
35	H	HpCDF TOTAL	0.990	1.033	-4.4
36	IR	13C-OCDD	1.000	1.000	0.0
37	MT	OCDD	1.066	1.113	-4.4
38	MT	OCDF	1.360	1.450	-6.6

(#) = Out of Range

ST0310Y.D 09MR10I2.M Wed Mar 11 05:49:00 2009

Quantitation Report (Not Reviewed)

Sample ID: ICV
09LRES0041 ICV

Size: 0.000
Inst : DB1

Data File:C:\8280\2DB\031009.B\ST0310Y.D
Acq On :10 Mar 2009 19:37

Vial: 95
Operator: MEO
Sample Amount: 0.00

MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:47 2009

Quant Results File: 09MR10I2.RES

Quant Method : C:\8280\ DATA METHODS\09MR10I2.M (RTE Integrator)
Title : Dioxin Furan Total
Last Update : Wed Mar 11 05:47:17 2009
Response via : Initial Calibration
DataAcq Meth : TOKAS
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Recovery\Internal Stds	R.T.	QIon	Ratio	Response	Conc	Dev(Min)
1) 13C-1234-TCDD	21.43	332+334	0.80	129195	25.00 NG	0.00
5) 13C-123789-HxCDD	35.28	402+404	1.26	116643	25.00 NG	0.00
9) 13C-2378-TCDF	20.73	316+318	0.80	227070	25.00 NG	0.00
15) 13C-2378-TCDD	21.68	332+334	0.79	151340	25.00 NG	0.00
20) 13C-123678-HxCDD	34.98	402+404	1.25	112750	25.00 NG	0.00
27) 13C-1234678-HpCDF	36.94	420+422	1.07	146582	25.00 NG	0.00
36) 13C-OCDD	40.63	470+472	0.93	182927	50.00 NG	0.00

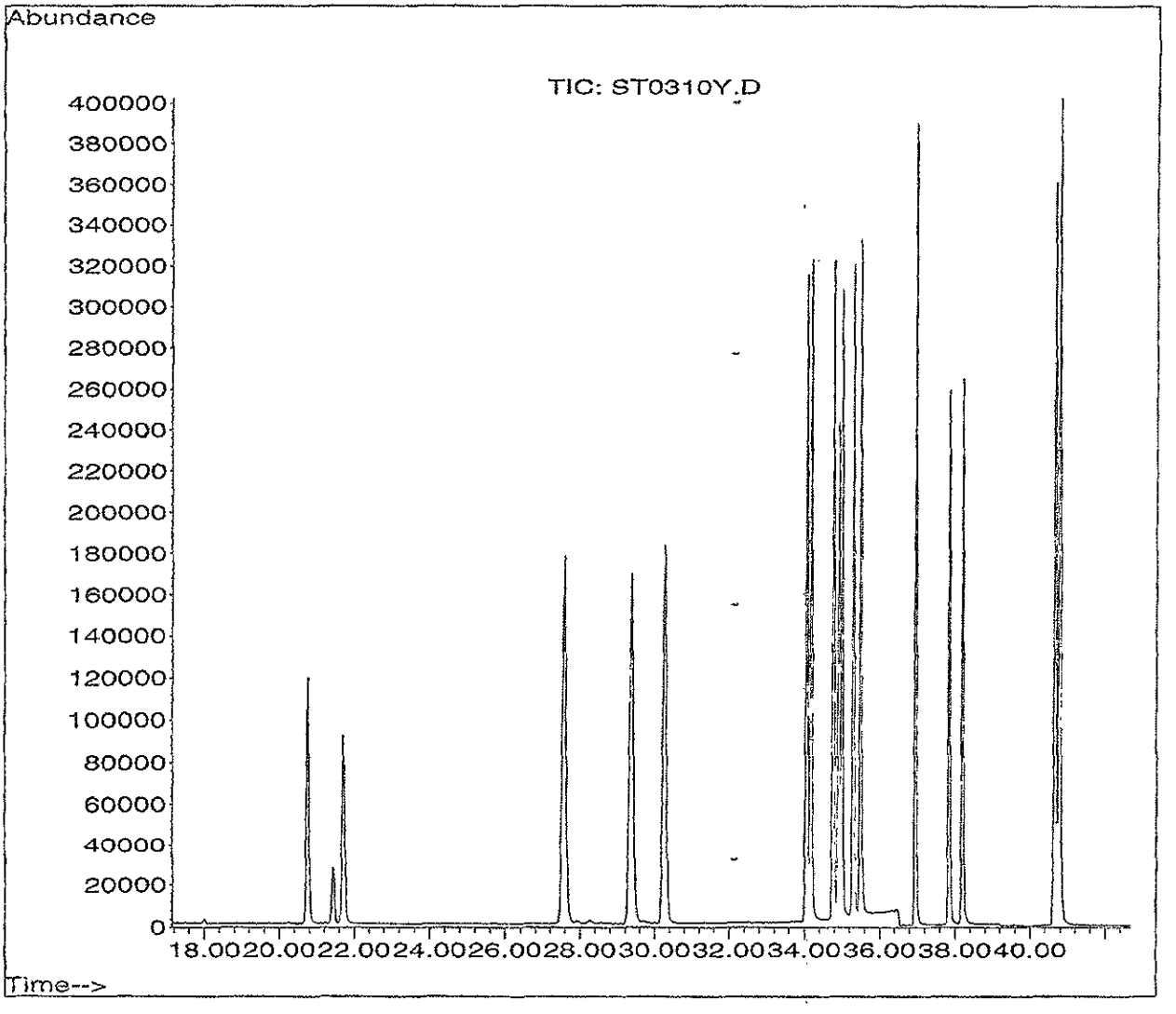
Surrogate Compound						
4) 37Cl-2378-TCDD	21.70	328		104790	12.814 NG	0.00
Spiked Amount = 12.500		RRF = 1.582			Recovery = 102.48%	

Target Compounds	RT	Ratio		Area	RRF	Conc	EDL	%Rec
2) 13C-2378-TCDF-IS	20.73	0.80		227070	1.674	26.253	0.0404	105.0
3) 13C-2378-TCDD-IS	21.68	0.79		151340	1.122	26.095	5.8128	104.4
6) 13C-123678-HxCDD-	34.98	1.25		112750	0.925	26.119	0.1027	104.5
7) 13C-1234678-HpCDF	36.94	1.07		146582	1.193	26.343	0.0601	105.4
8) 13C-OCDD-IS	40.63	0.93		182927	0.750	52.250	0.2078	104.5
10) 2378-TCDF	20.75	0.78		253266	1.064	26.197	0.2842	
1	20.75	0.78		256111		26.491		
11) TCDF TOTAL	19.50	0.78		256111	1.064	26.491		
12) 12378-PeCDF	27.56	1.53		1094259	0.887	135.844	0.0310	
13) 23478-PeCDF	29.36	1.54		1074299	0.861	137.341	0.0451	
1	27.56	1.53		1111320		142.073		
2	27.94	1.79	#	6542		0.836		
3	28.26	1.48		10005		1.279		
4	29.36	1.54		1074299		137.341		
5	29.73	1.42		6581		0.841		
14) PeCDF TOTAL	27.20	1.42		2208747	0.861	282.371		
16) 2378-TCDD	21.70	0.79		179162	1.123	26.364	0.0126	
1	20.75	4.85	#	21855		3.216		
2	21.70	0.79		185915		27.358		
17) TCDD TOTAL	19.50	0.79		207770	1.123	30.574		
18) 12378-PeCDD	30.25	1.54		700646	0.846	136.808	0.0222	
1	30.25	1.54		712247		139.073		
19) PeCDD TOTAL	27.60	1.54		712247	0.846	139.073		
21) 123478-HxCDD	34.90	1.26		639754	1.134	125.096	39.1376	
22) 123678-HxCDD	34.98	1.24		614456	1.062	128.292	1.5015	
23) 123789-HxCDD	35.28	1.25		681036	1.167	129.435	1.7993	
1	34.90	1.26		639754		125.096		
2	34.98	1.23		614456		128.292		
3	35.28	1.26		693501		144.795		
24) HxCDD TOTAL	35.00	1.26		1947711	1.062	398.183		

25)	1234678-HpCDD	37.83	1.04	573223	0.970	131.066	0.0530
	1	37.83	1.04	573223		131.066	
26)	HpCDD TOTAL	37.60	1.04	573223	0.970	131.066	
28)	123478-HxCDF	34.05	1.25	907353	1.196	129.363	131.2690
29)	123678-HxCDF	34.17	1.24	943237	1.237	130.090	18.8318
30)	234678-HxCDF	34.75	1.23	921158	1.178	133.409	0.0548
31)	123789-HxCDF	35.47	1.24	872058	1.137	130.864	0.1161
	1	34.05	1.25	907353		129.363	
	2	34.17	1.25	943237		130.090	
	3	34.75	1.23	921158		133.409	
	4	35.47	1.24	881958		132.350	
32)	HxCDF TOTAL	34.80	1.24	3653706	1.137	525.212	
33)	1234678-HpCDF	36.94	1.04	824060	1.096	128.244	0.0776
34)	1234789-HpCDF	38.18	1.04	757271	0.990	130.494	0.1037
	1	36.94	1.04	824060		128.244	
	2	38.18	1.04	757271		130.494	
35)	HpCDF TOTAL	38.00	1.04	1581331	0.990	258.738	
37)	OCDD	40.64	0.90	1018046	1.066	261.004	0.0974
38)	OCDF	40.76	0.92	1326505	1.360	266.553	0.2200

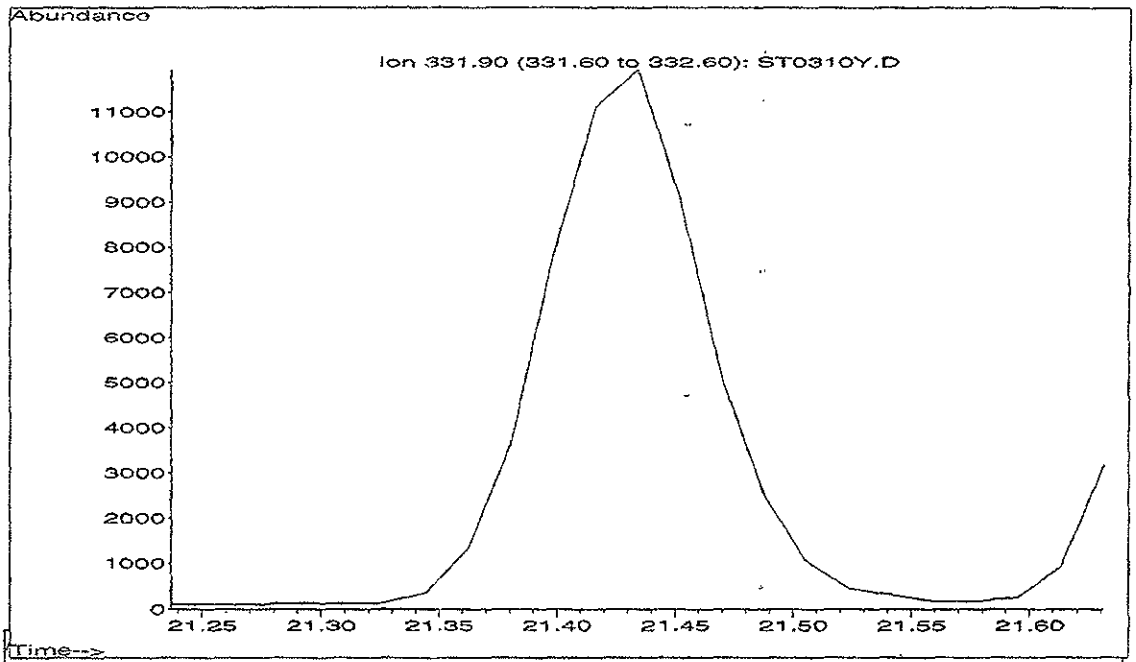
(#) = qualifier out of range•: areas and concentration based on theoretical ion ratio
(m) = manual integration
ST0310Y.D 09MR10I2.M Wed Mar 11 05:47:24 2009

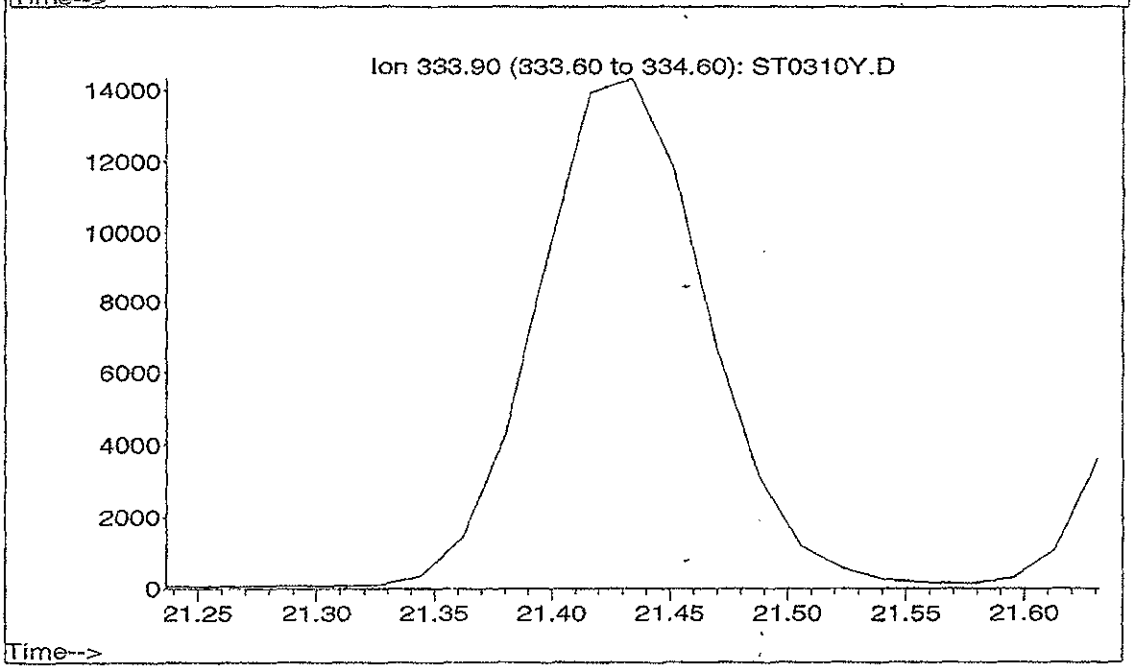
Data File Name	ST0310Y.D
Data File Path	C:\8280\2DB\031009.B\
Operator	MEO
Date Acquired	3/10/2009 19:37
Acq. Method File	TOKAS
Sample Name	09LRES0041 ICV
Misc Info	ICV
Vial Number	95
Instrument Name	2DB
Sample Multiplier	1
Sample Amount	0



13C-1234-TCDD

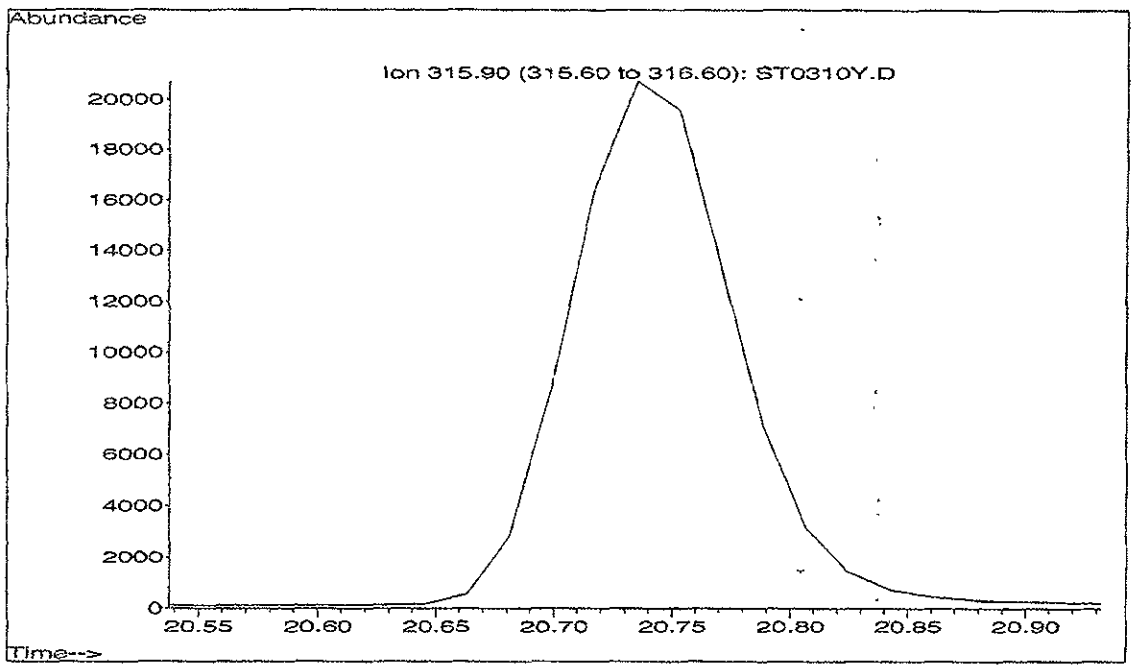
TS R.T. Lower Limit	21.23		
TS R.T. Upper Limit	21.63		
Ret Time	21.43		
Target Ion	331.9	Q1 Ion	333.9
Target Response	57464	Q1 Response	71731
Total Response	129195	Ion Ratio	0.80

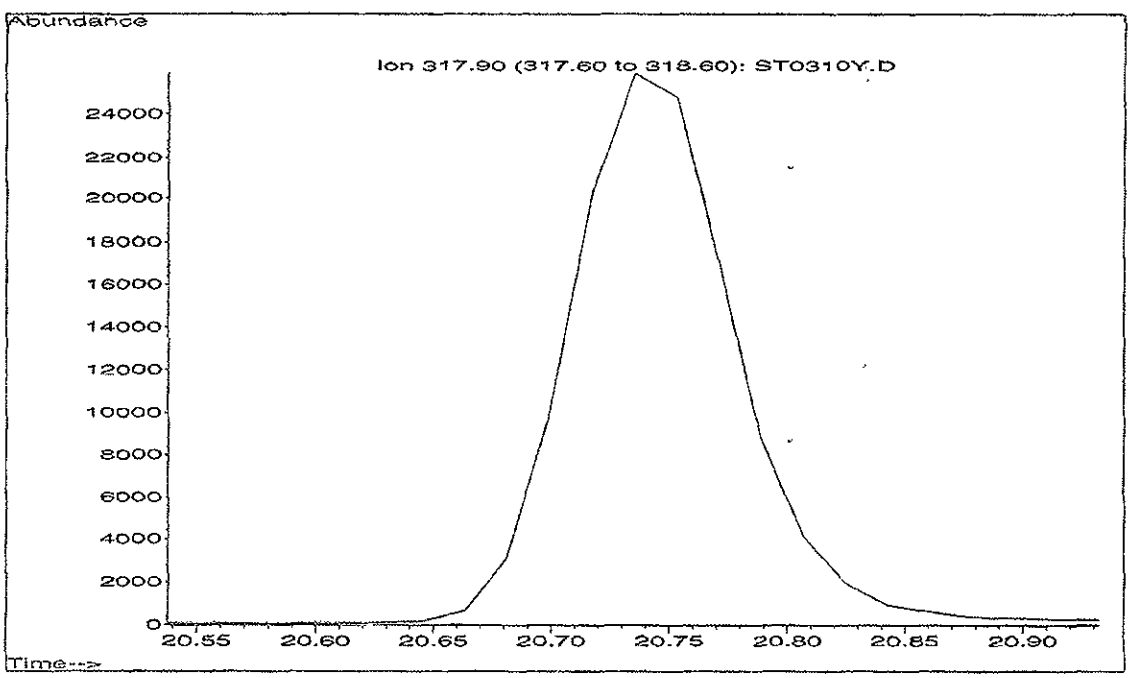




13C-2378-TCDF-IS

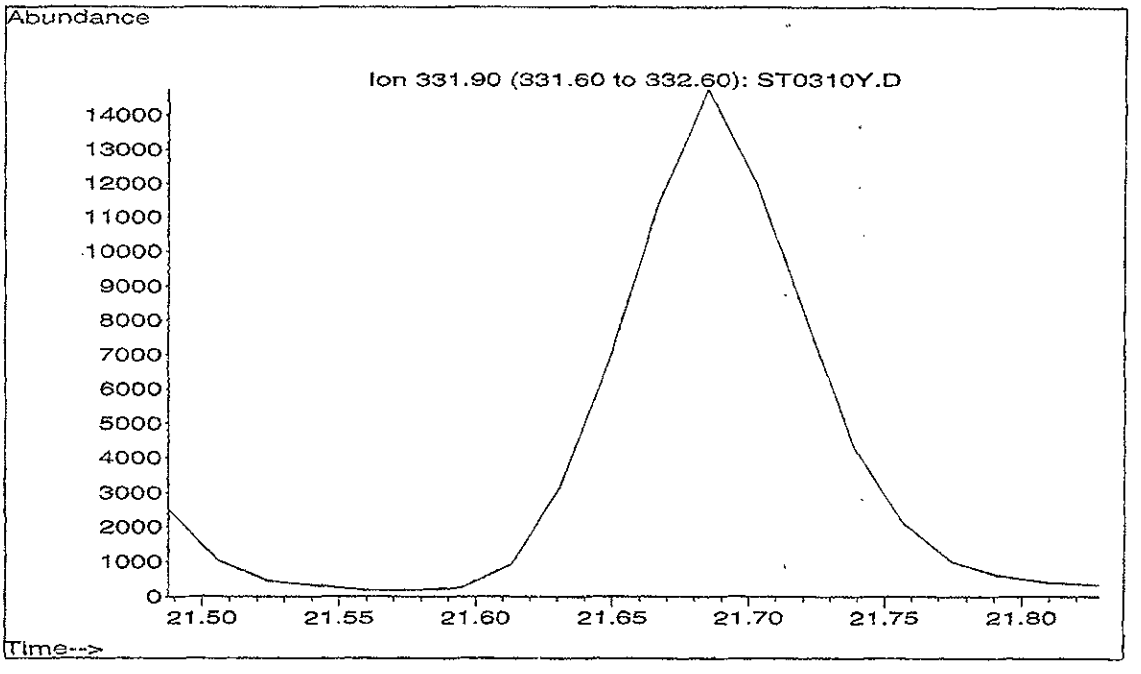
TS R.T. Lower Limit	20.53		
TS R.T. Upper Limit	20.93		
Ret Time	20.73		
Target Ion	315.9	Q1 Ion	317.9
Target Response	100894	Q1 Response	126176
Target Response	227070	Ion Ratio	0.80

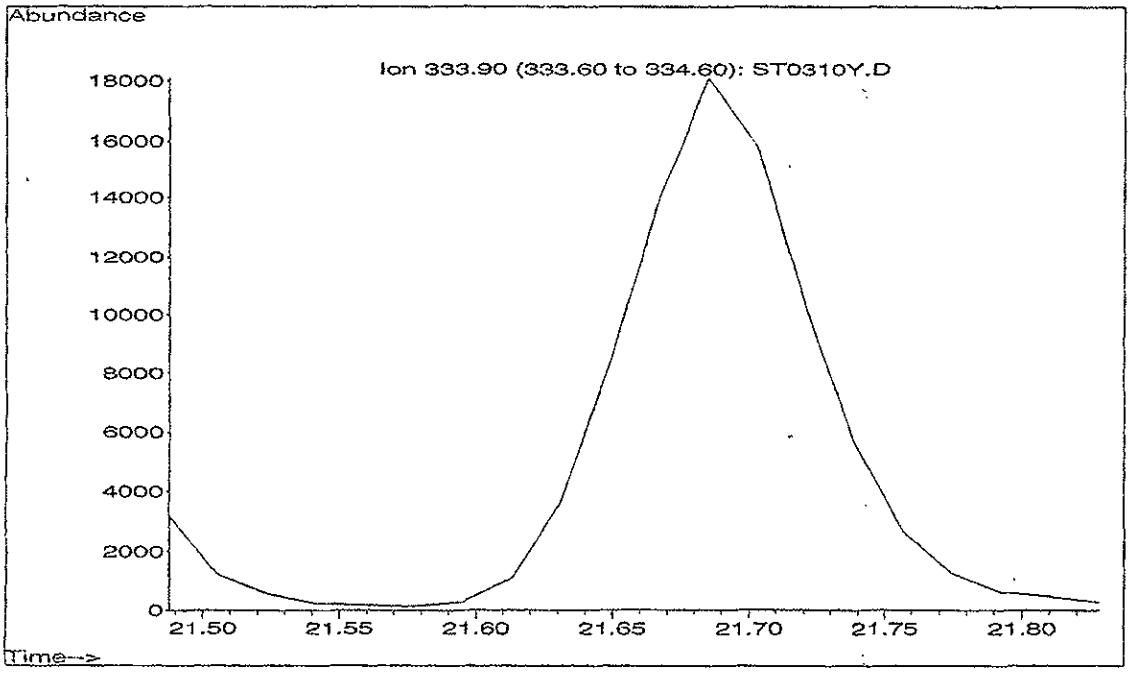




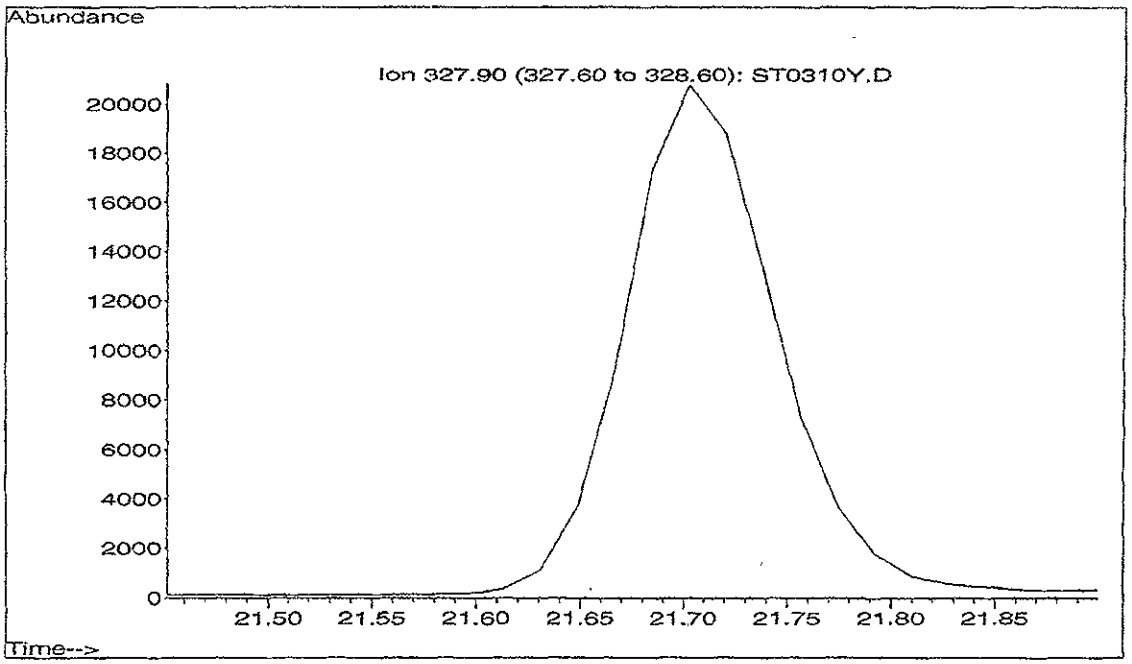
13C-2378-TCDD-IS

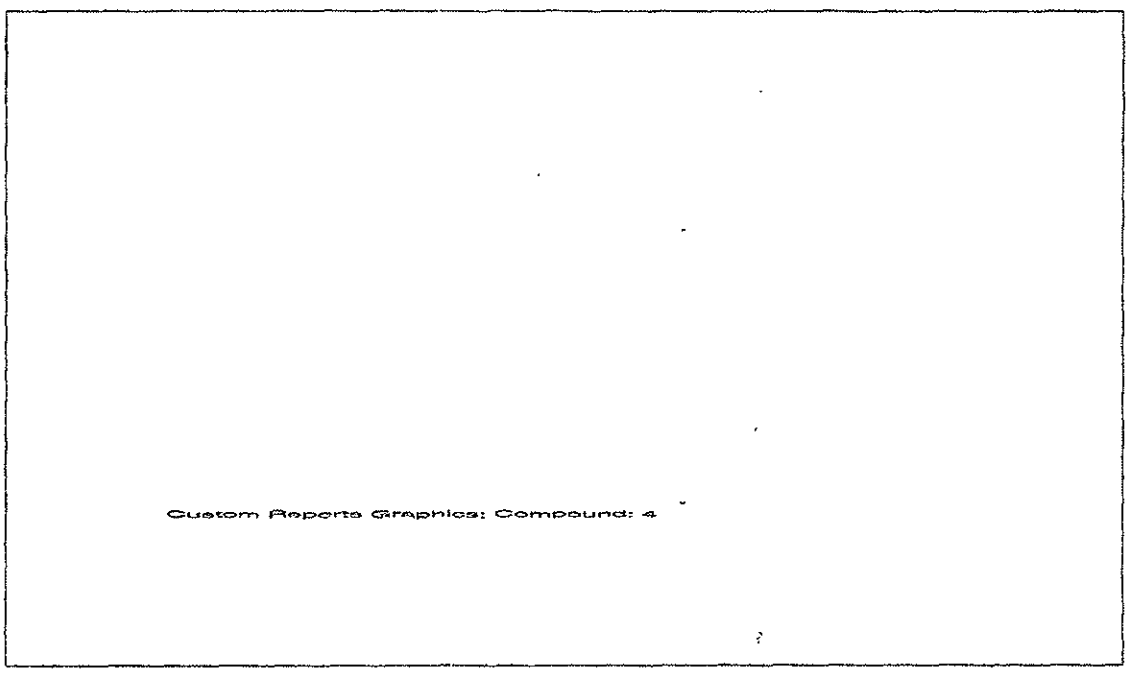
TS R.T. Lower Limit	21.48		
TS R.T. Upper Limit	21.83		
Ret Time	21.68		
Target Ion	331.9	Q1 Ion	333.9
Target Response	66790	Q1 Response	84550
Total Response	151340	Ion Ratio	0.79





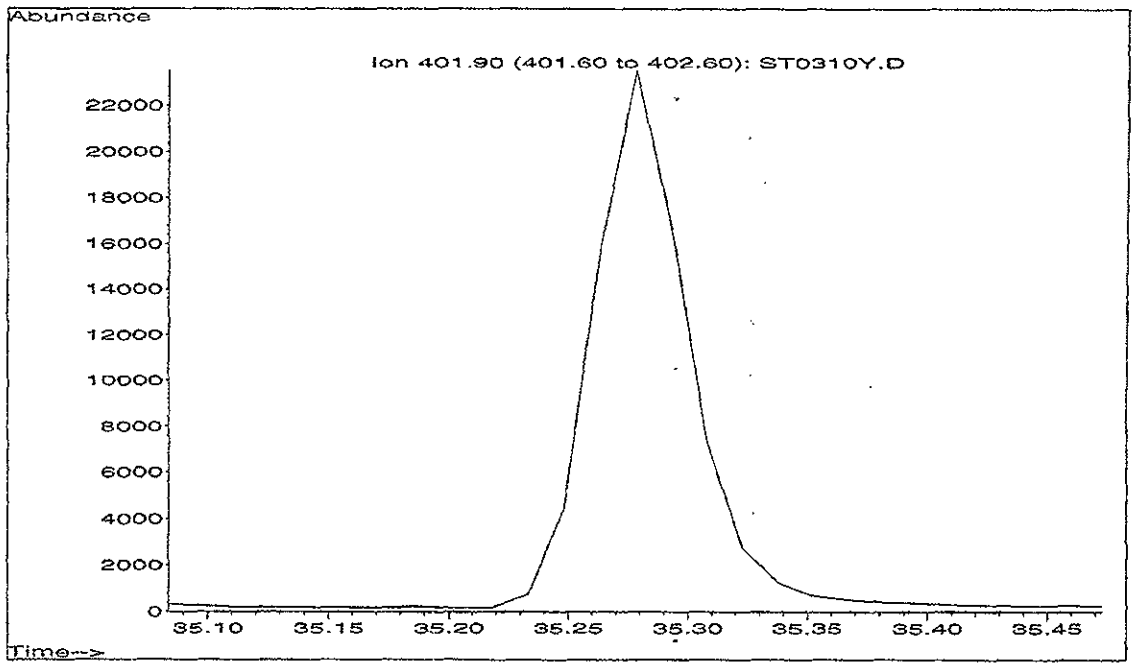
37Cl-2378-TCDD			
TS R.T. Lower Limit	21.45		
TS R.T. Upper Limit	21.90		
Ret Time	21.70		
Target Ion	327.9	Q1 Ion	0
Target Response	104790	Q1 Response	0
Total Response	104790	Ion Ratio	#DIV/0!

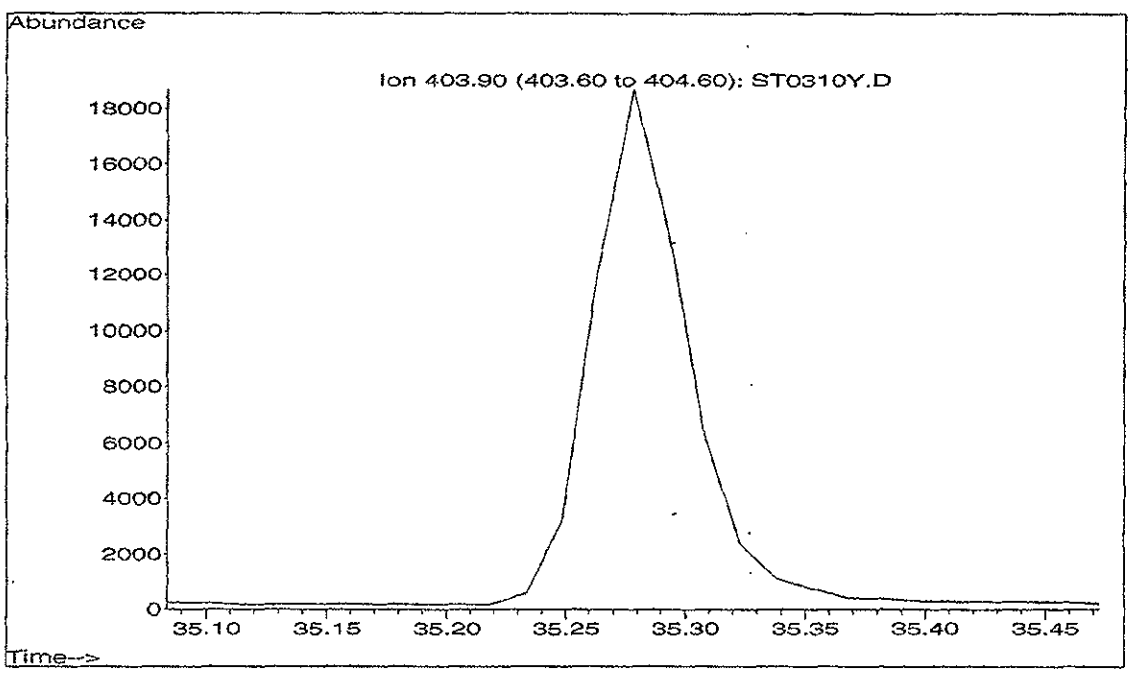




13C-123789-HxCDD

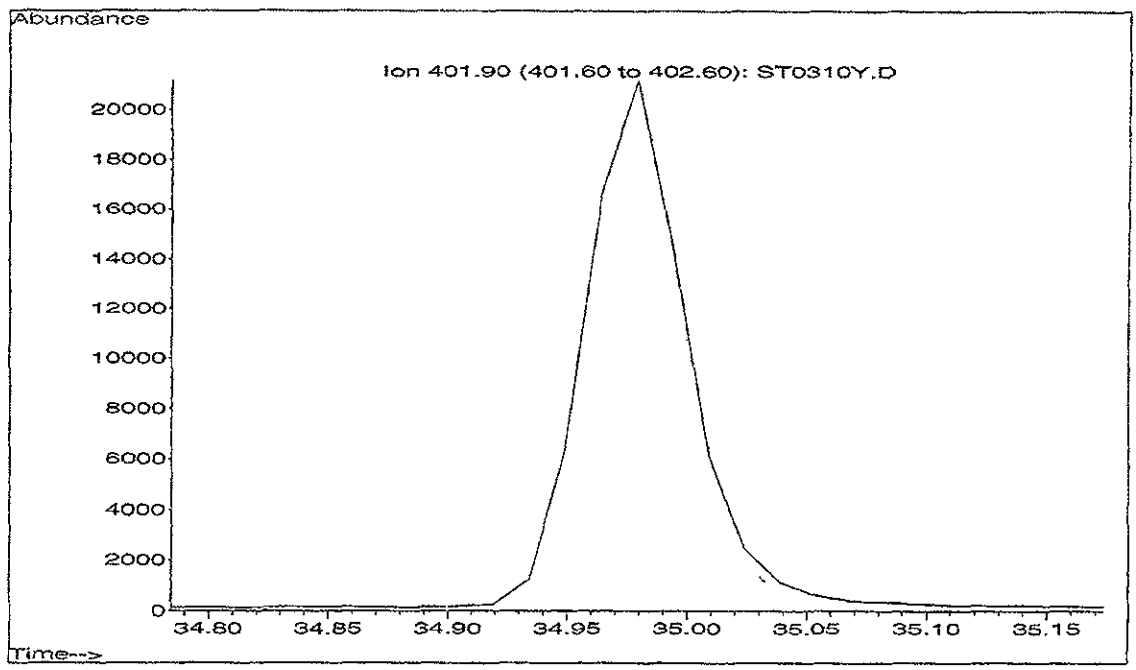
TS R.T. Lower Limit	35.08		
TS R.T. Upper Limit	35.48		
Ret Time	35.28		
Target Ion	401.9	Q1 Ion	403.9
Target Response	65030	Q1 Response	51613
Target Response	116643	Ion Ratio	1.26

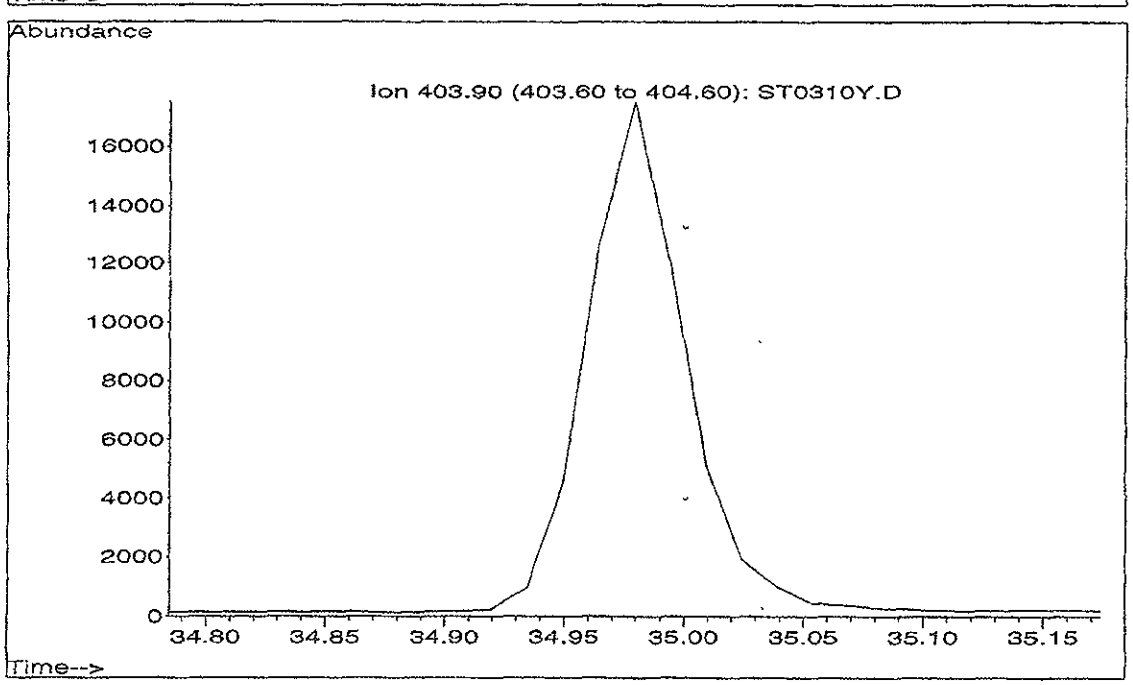




13C-123678-HxCDD-IS

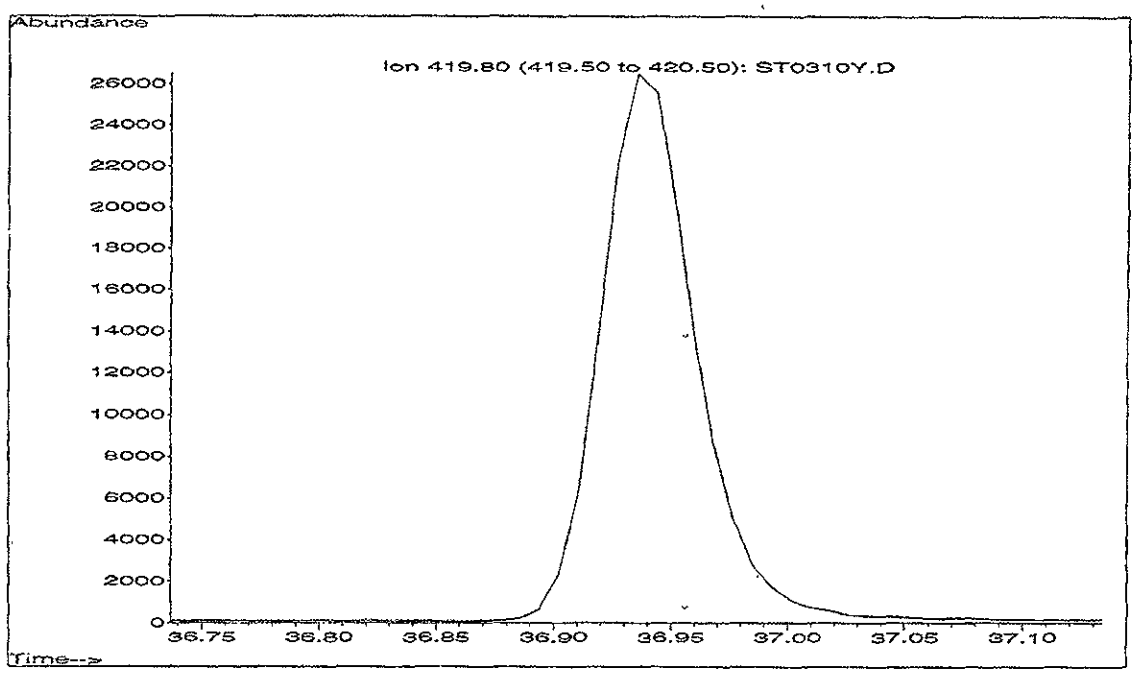
TS R.T. Lower Limit	34.78		
TS R.T. Upper Limit	35.18		
Ret Time	34.98		
Target Ion	401.9	Q1 Ion	403.9
Target Response	62637	Q1 Response	50113
Total Response	112750	Ion Ratio	1.25

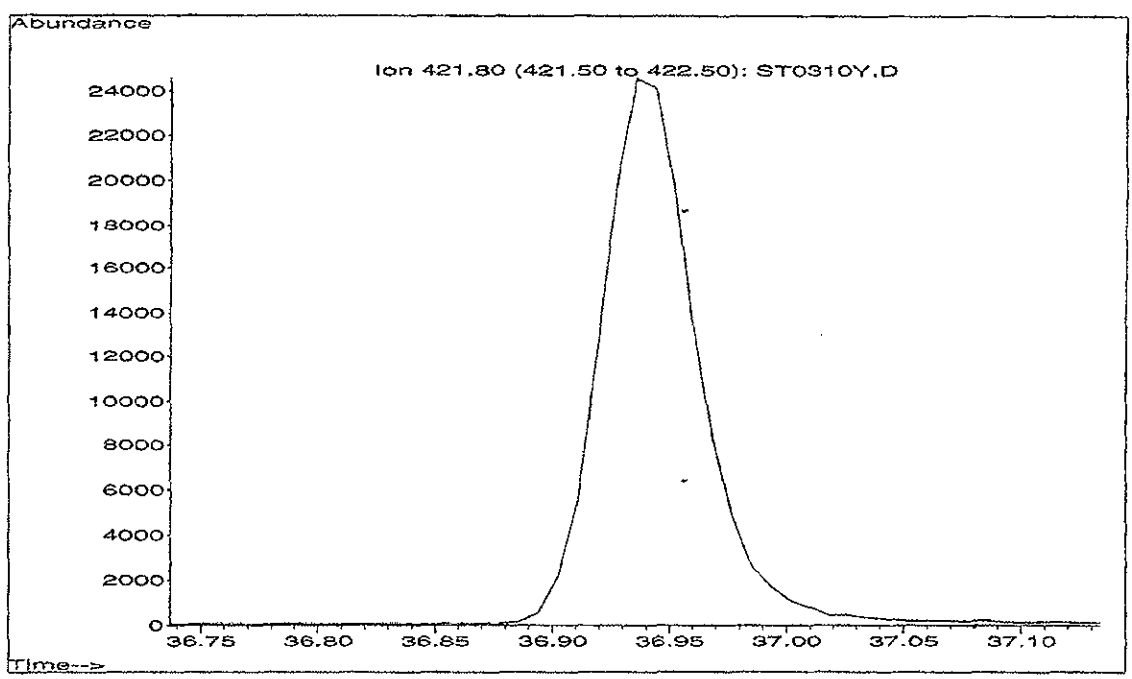




13C-1234678-HpCDF-IS

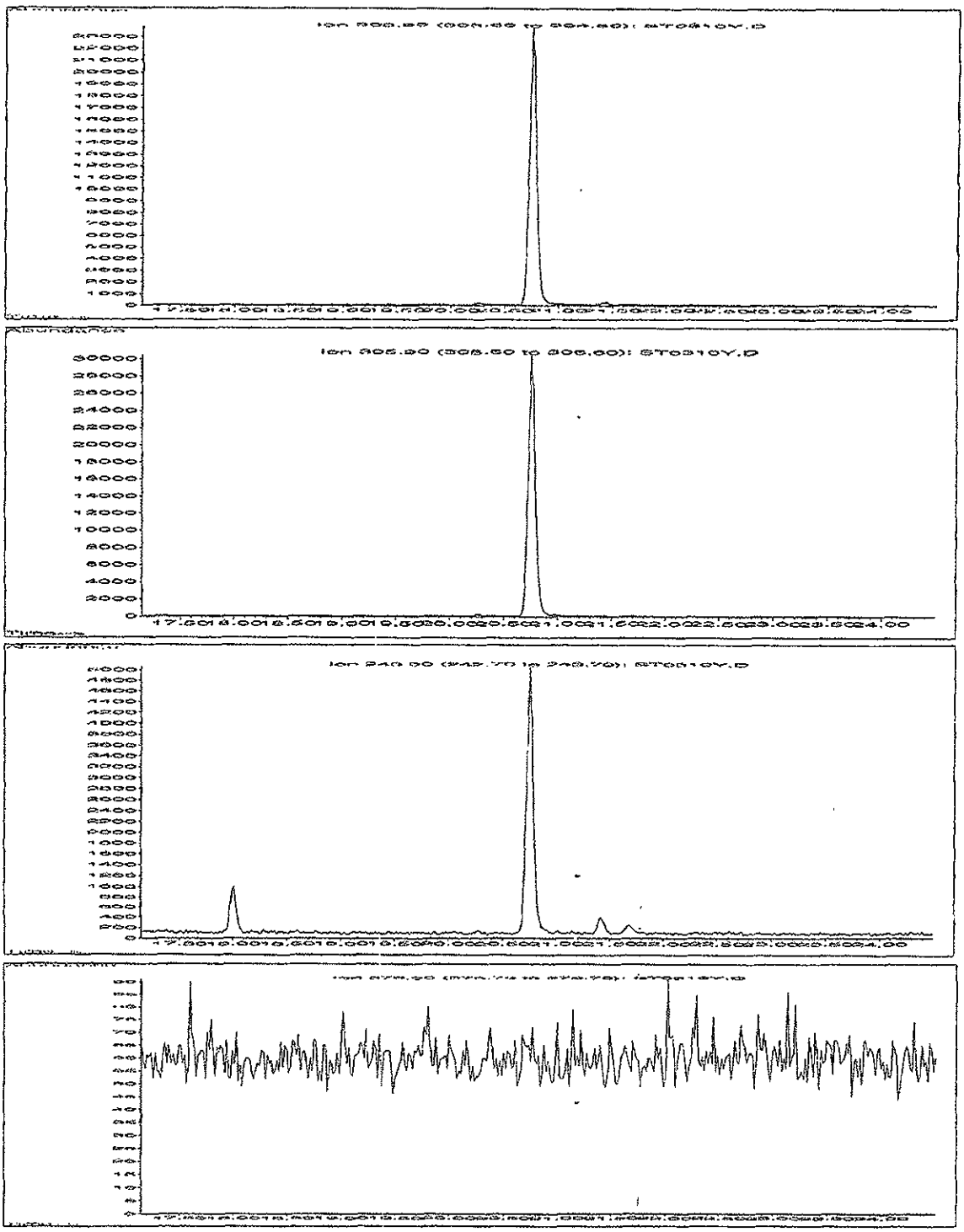
TS R.T. Lower Limit	36.74		
TS R.T. Upper Limit	37.14		
Ret Time	36.94		
Target Ion	419.8	Q1 Ion	421.8
Target Response	75628	Q1 Response	70954
Target Response	146582	Ion Ratio	1.07





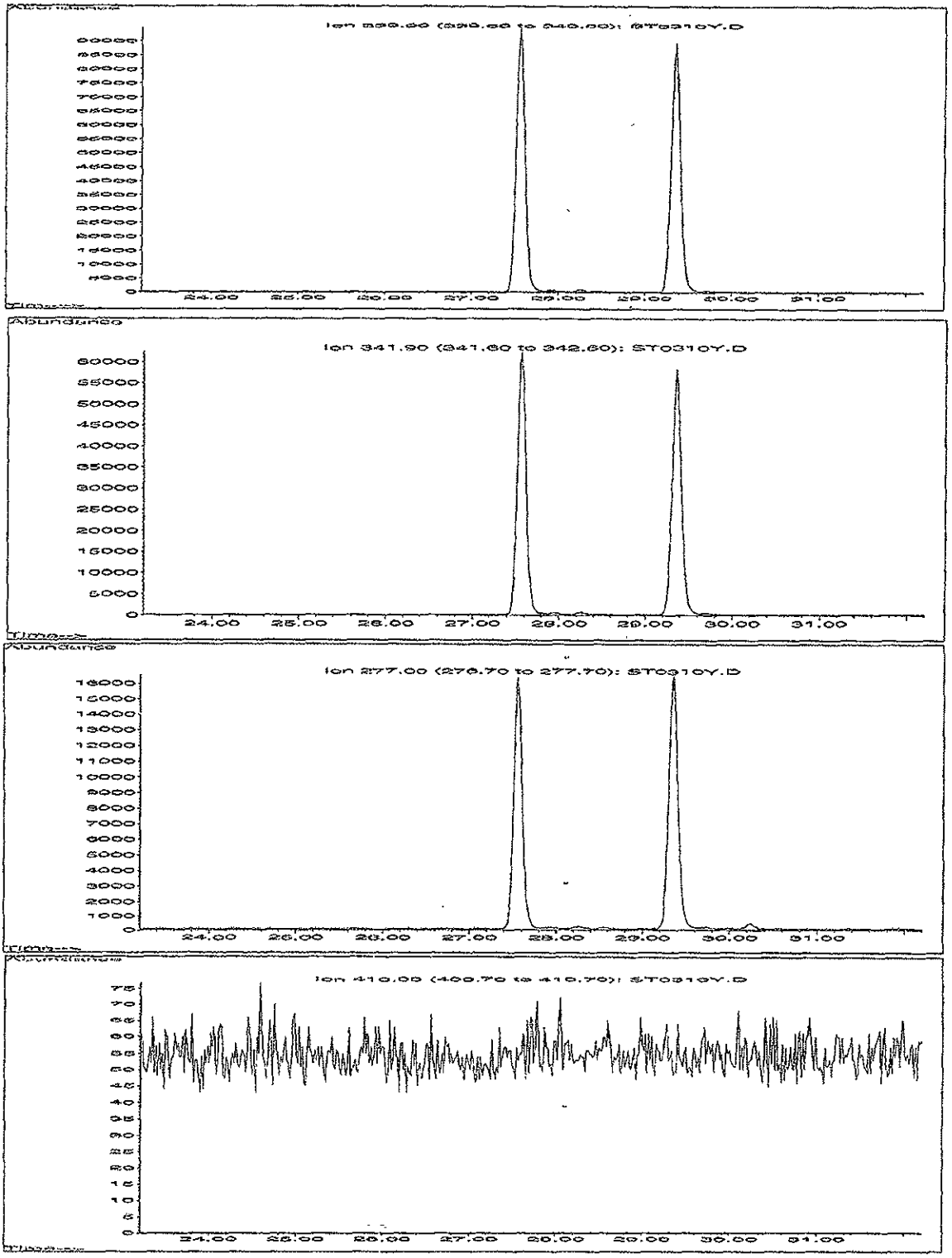
TCDF TOTAL

TS R.T. Lower Limit	17.00
TS R.T. Upper Limit	24.50



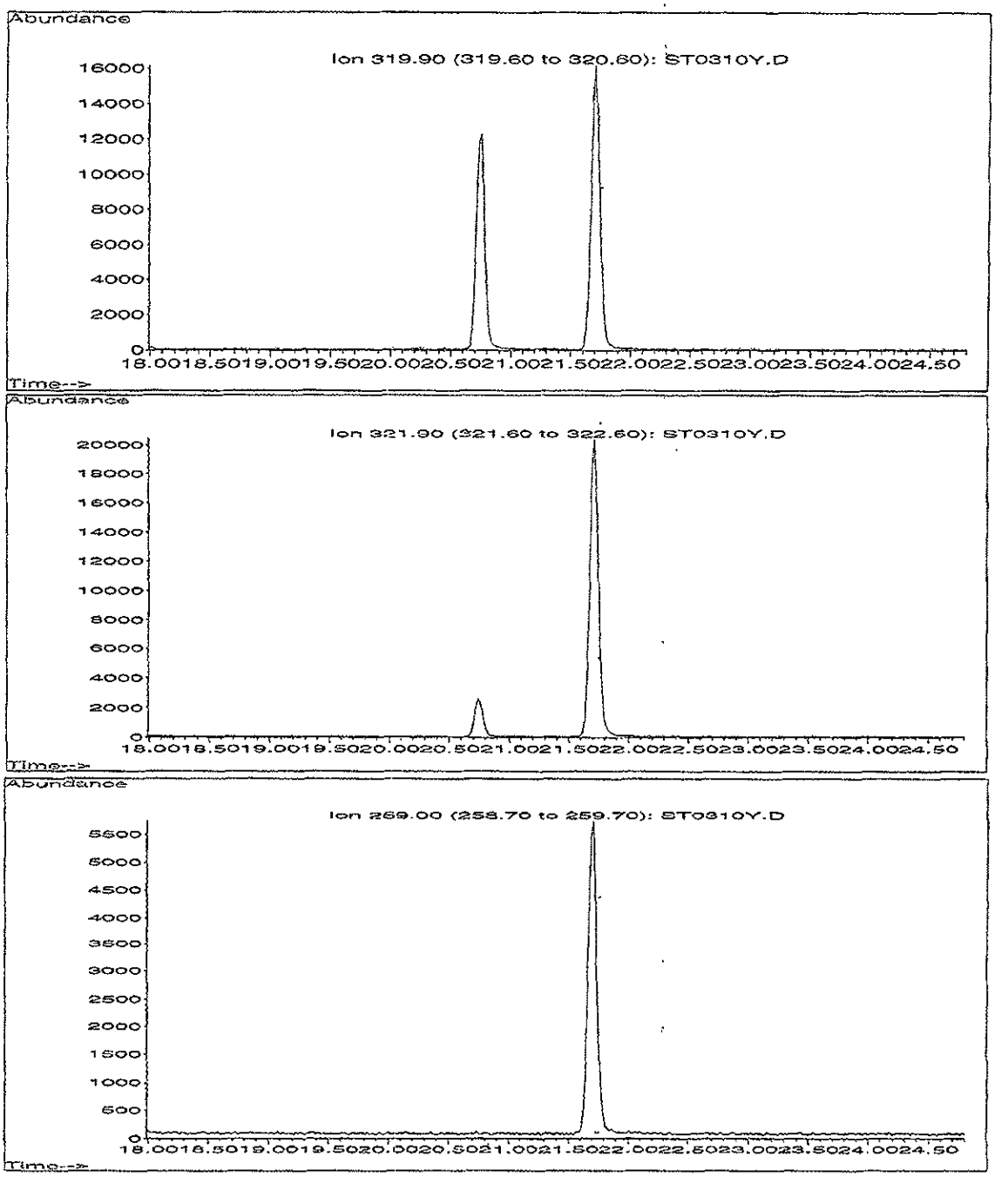
PeCDF TOTAL

TS R.T. Lower Limit	23.20
TS R.T. Upper Limit	32.20



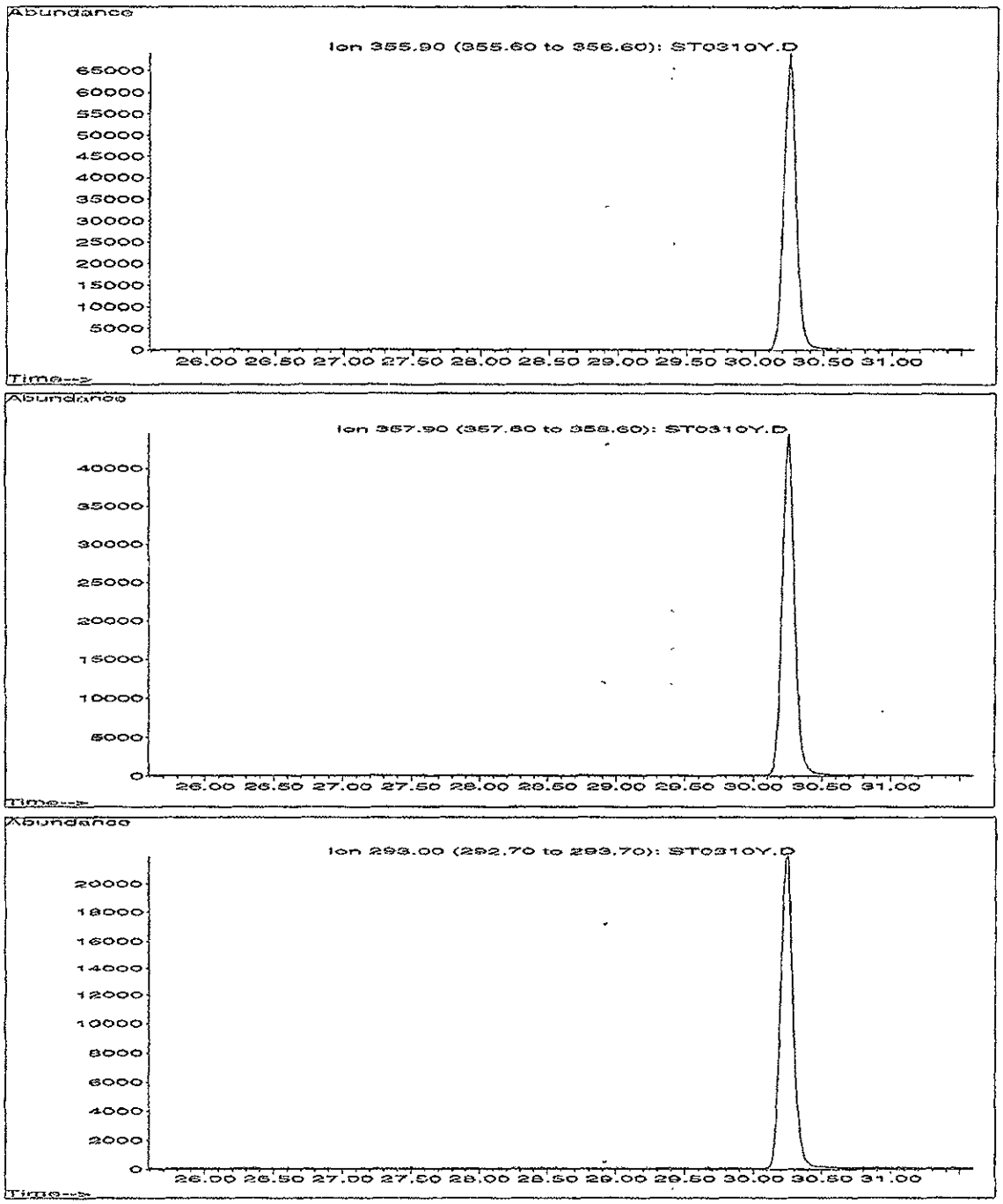
TCDD TOTAL

TS R.T. Lower Limit	18.00
TS R.T. Upper Limit	24.80



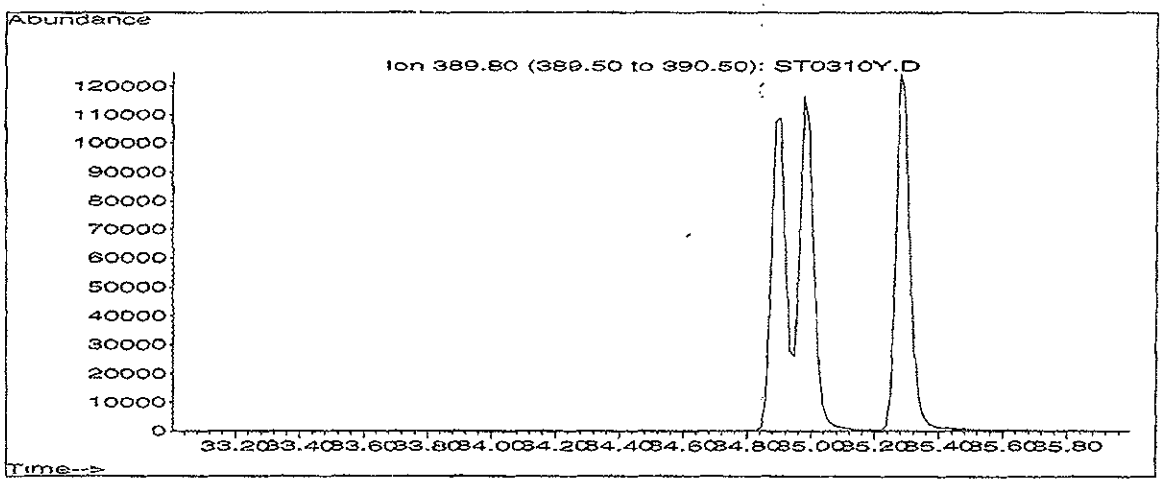
PeCDD TOTAL

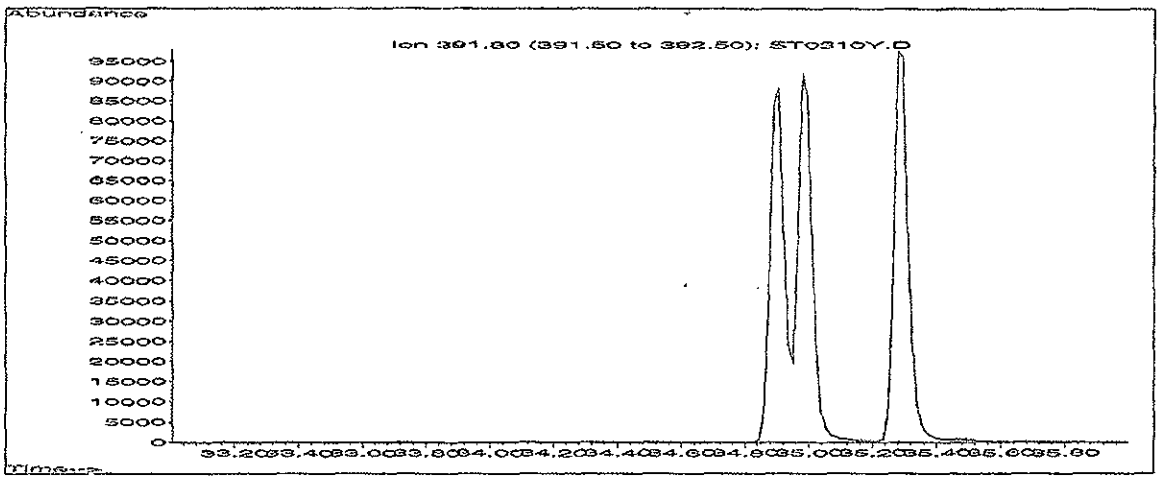
TS R.T. Lower Limit	25.60
TS R.T. Upper Limit	31.60

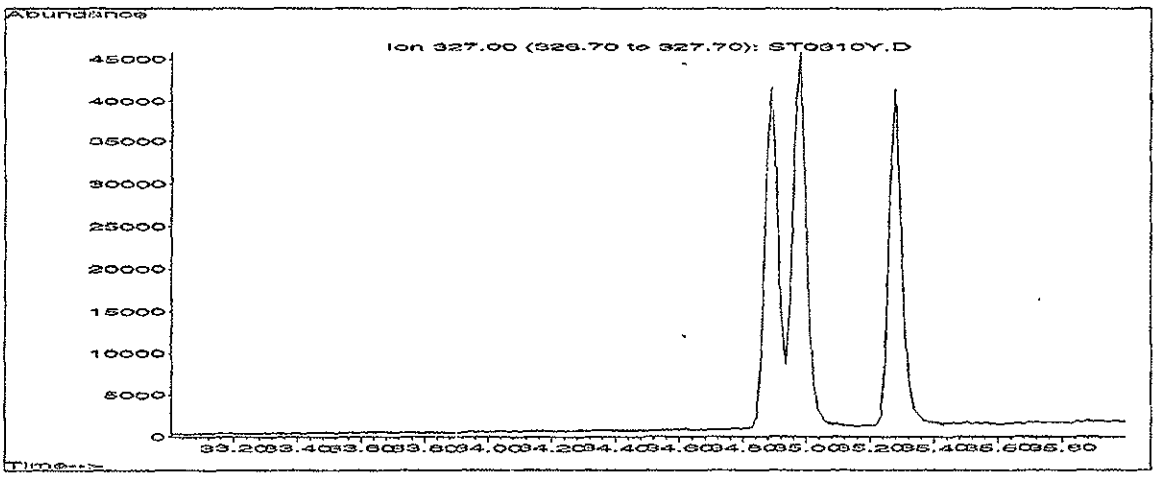


HxCDD TOTAL

TS R.T. Lower Limit	33.00
TS R.T. Upper Limit	36.00

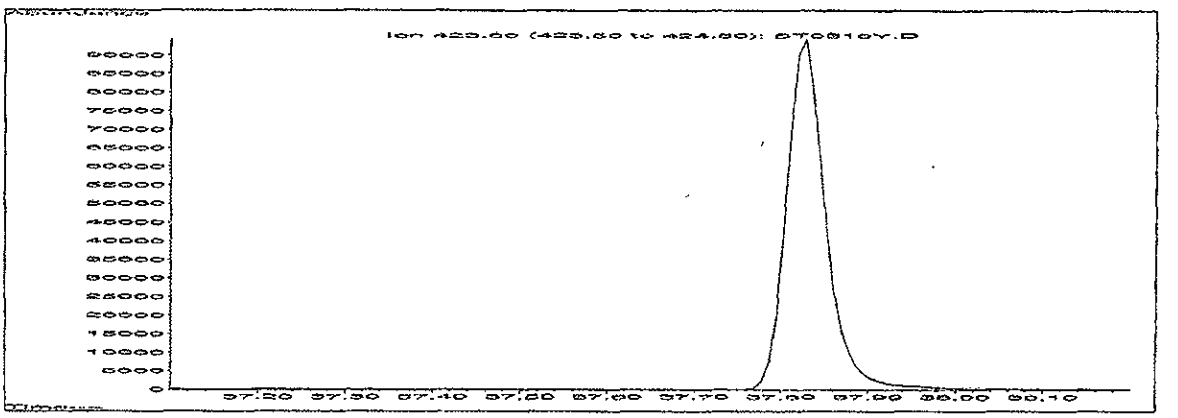


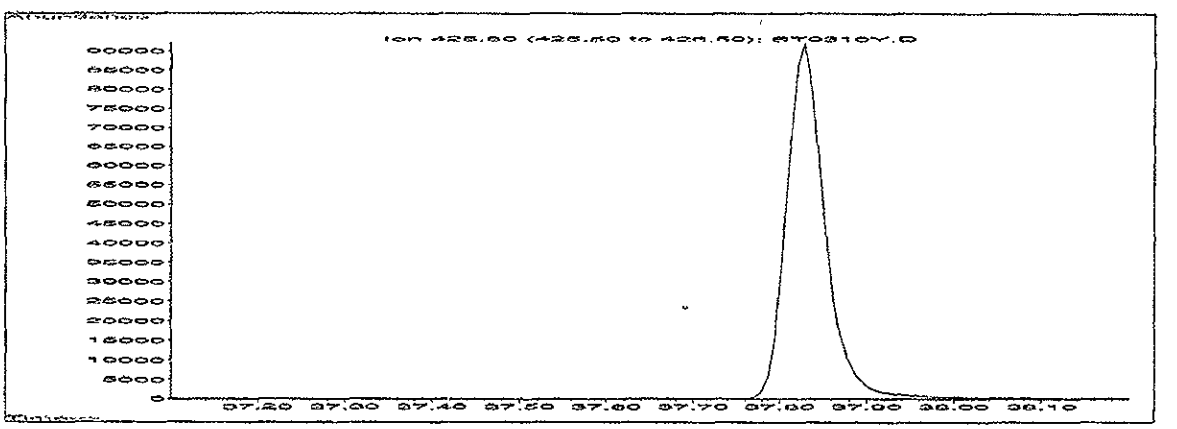


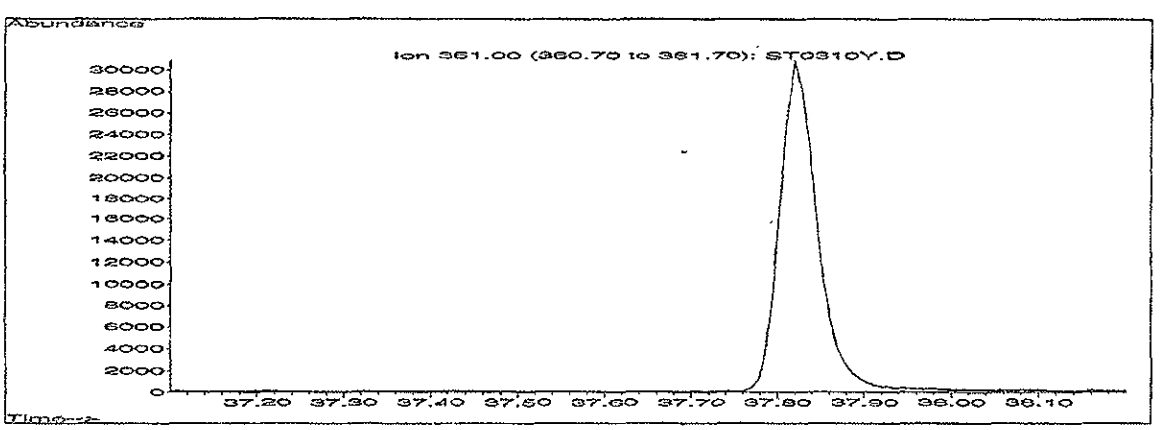


HpCDD TOTAL

TS R.T. Lower Limit	37.10
TS R.T. Upper Limit	38.20

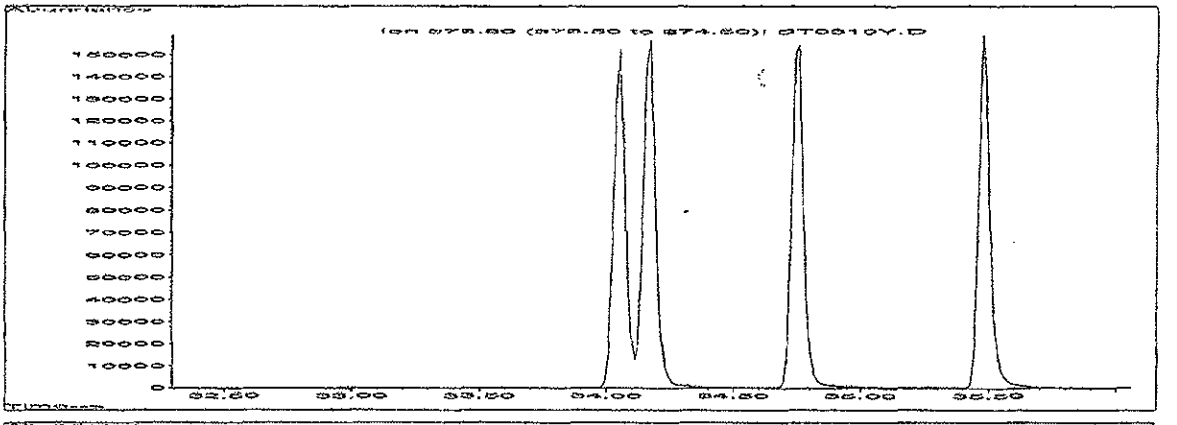


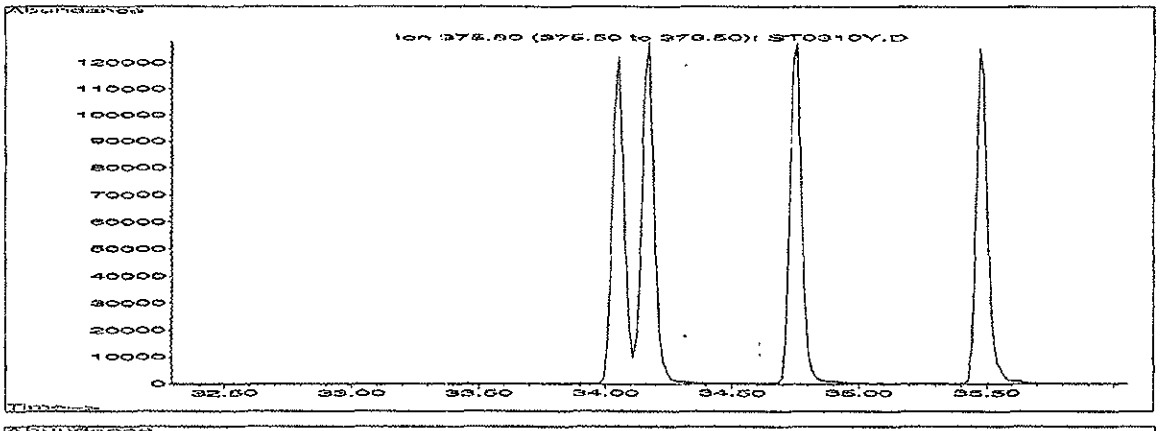


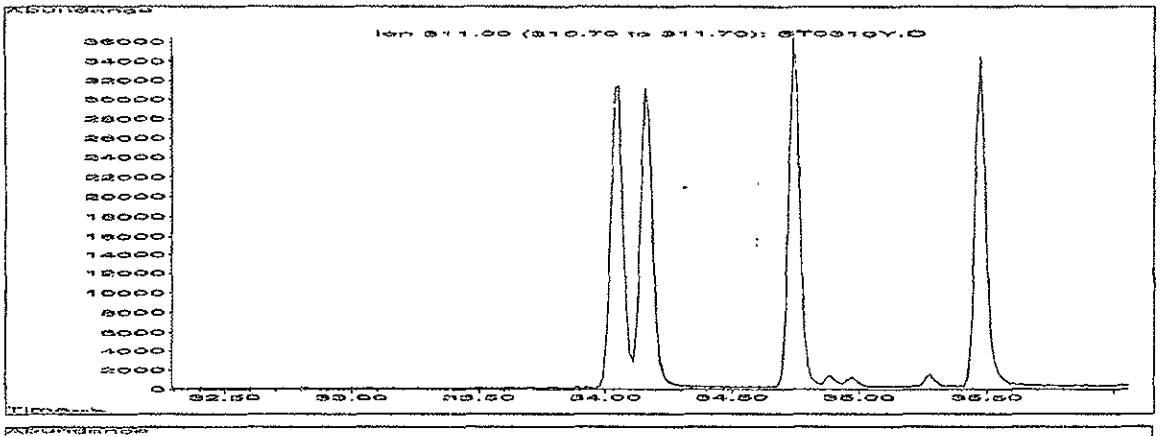


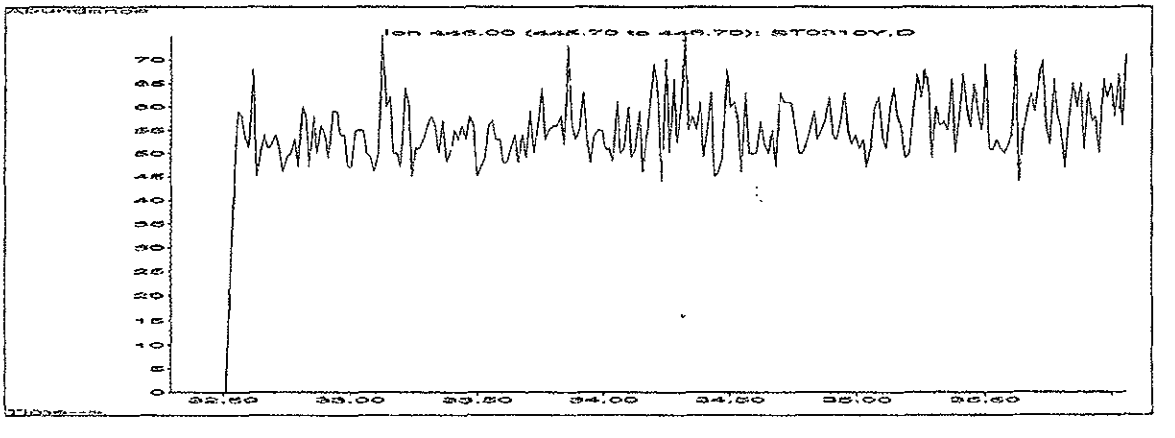
HxCDF TOTAL

TS R.T. Lower Limit	32.30
TS R.T. Upper Limit	36.05



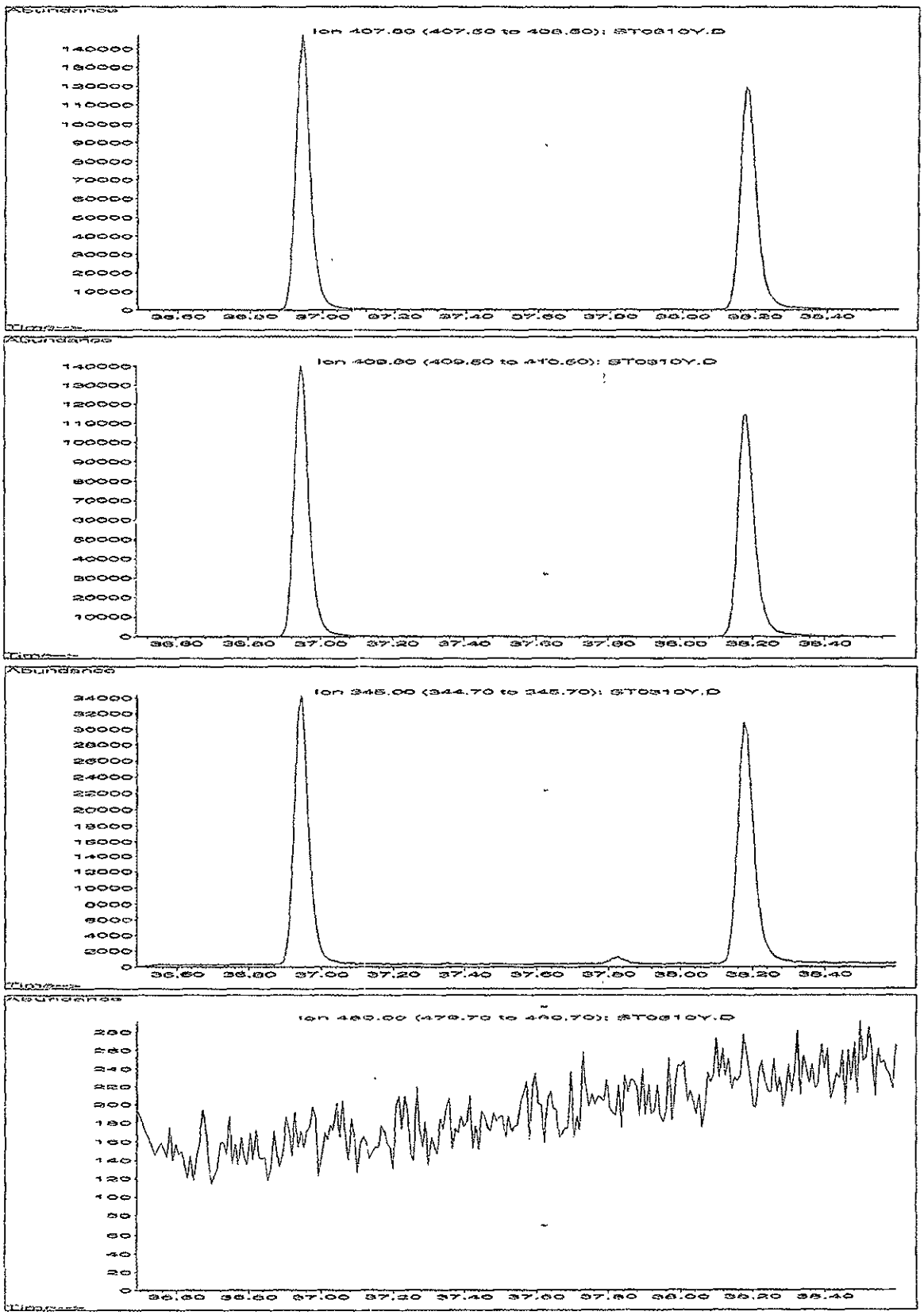






HpCDF TOTAL

TS R.T. Lower Limit	36.50
TS R.T. Upper Limit	38.60

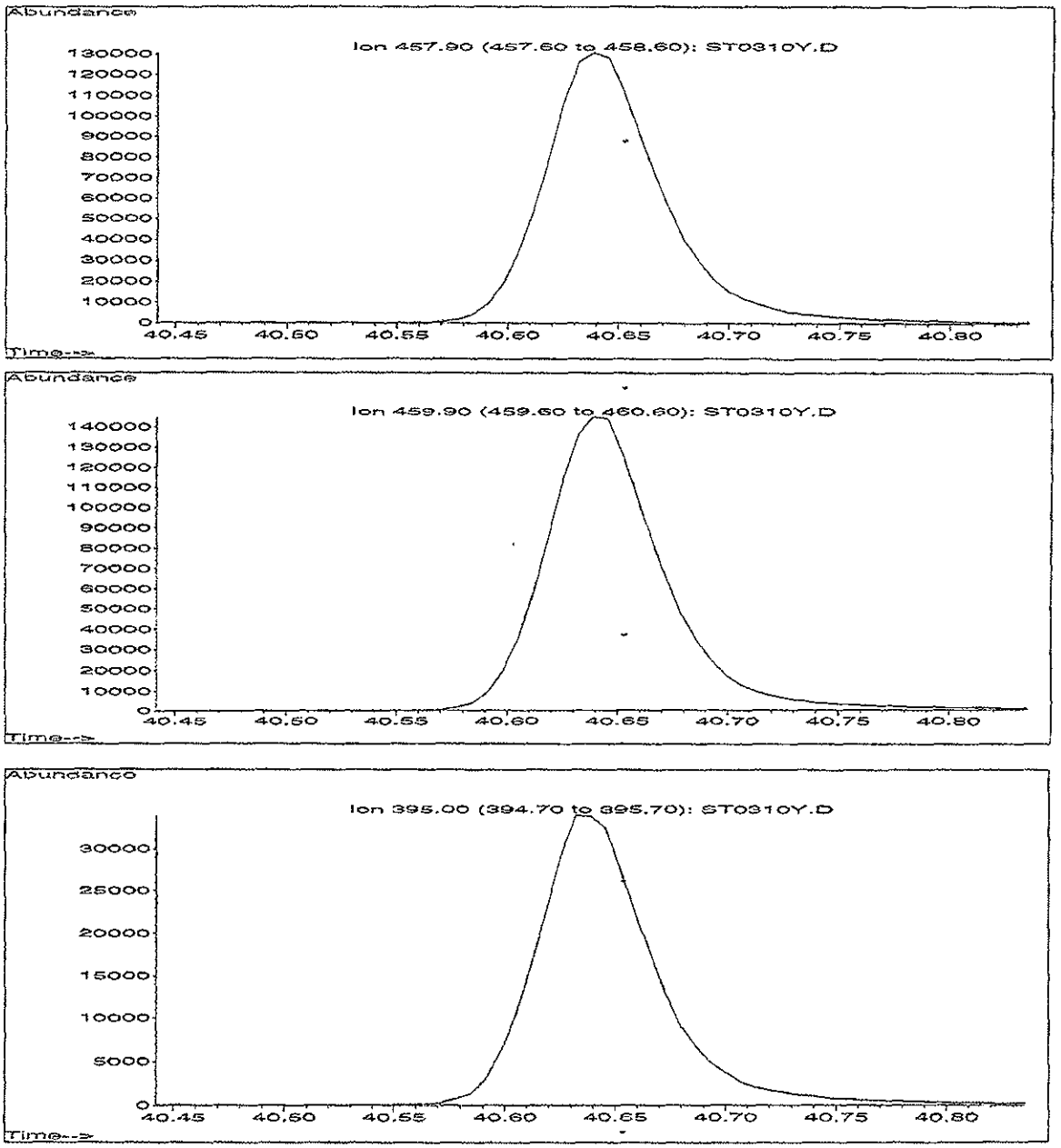


C:\HPCHEM\CUSTRPT\TOTALS_1.CRT

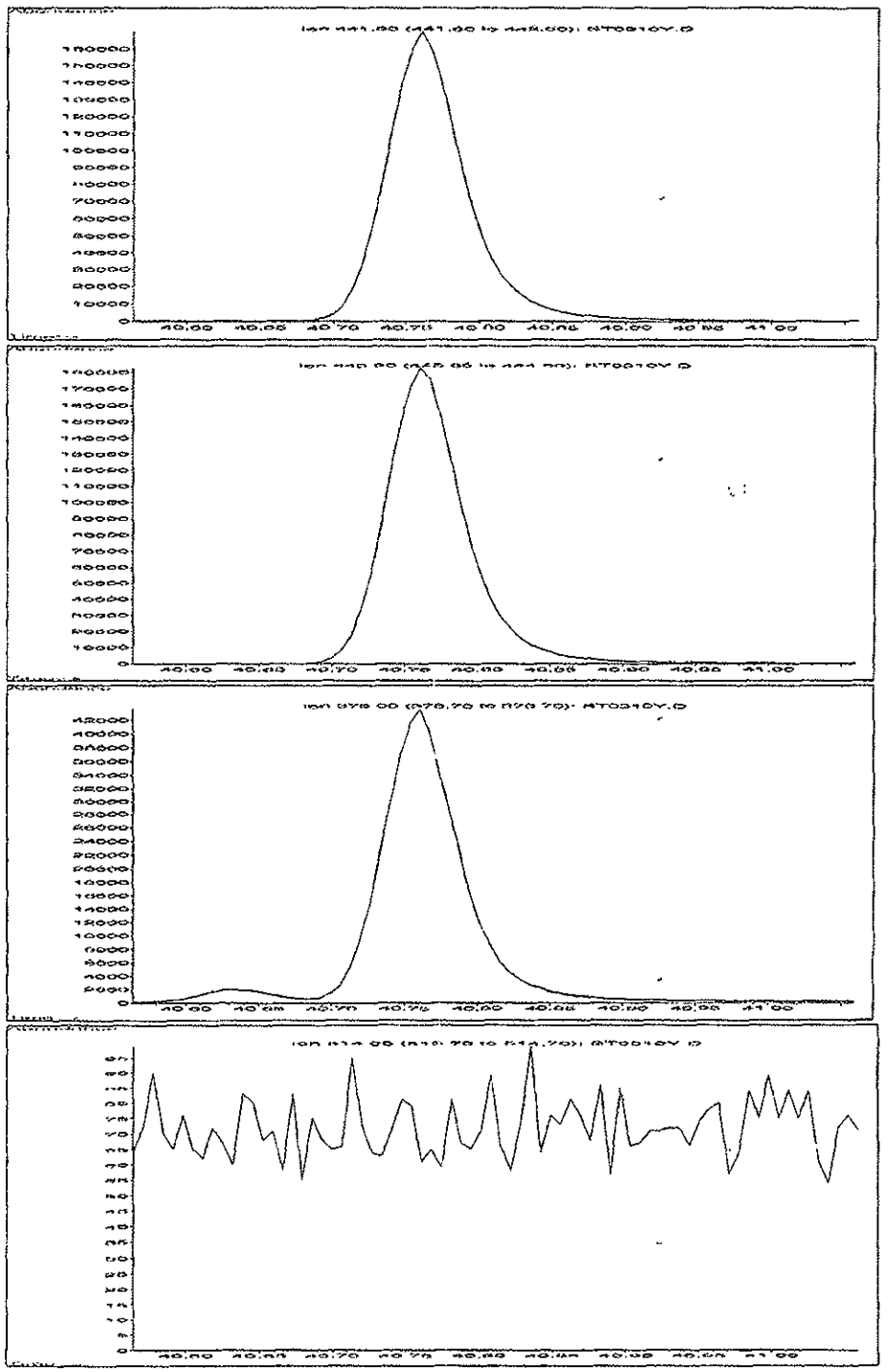
3/11/2009 6:49 AM

OCDD

TS R.T. Lower Limit	40.44		
TS R.T. Upper Limit	40.84		
Ret. Time	40.64		
Target Ion	457.9	Q1 Ion	459.9
Target Response	483556	Q1 Response	534490
Total Response	1018046	Ion ratio	0.90
Q2 Ion	395		
Q2 Response	125213		

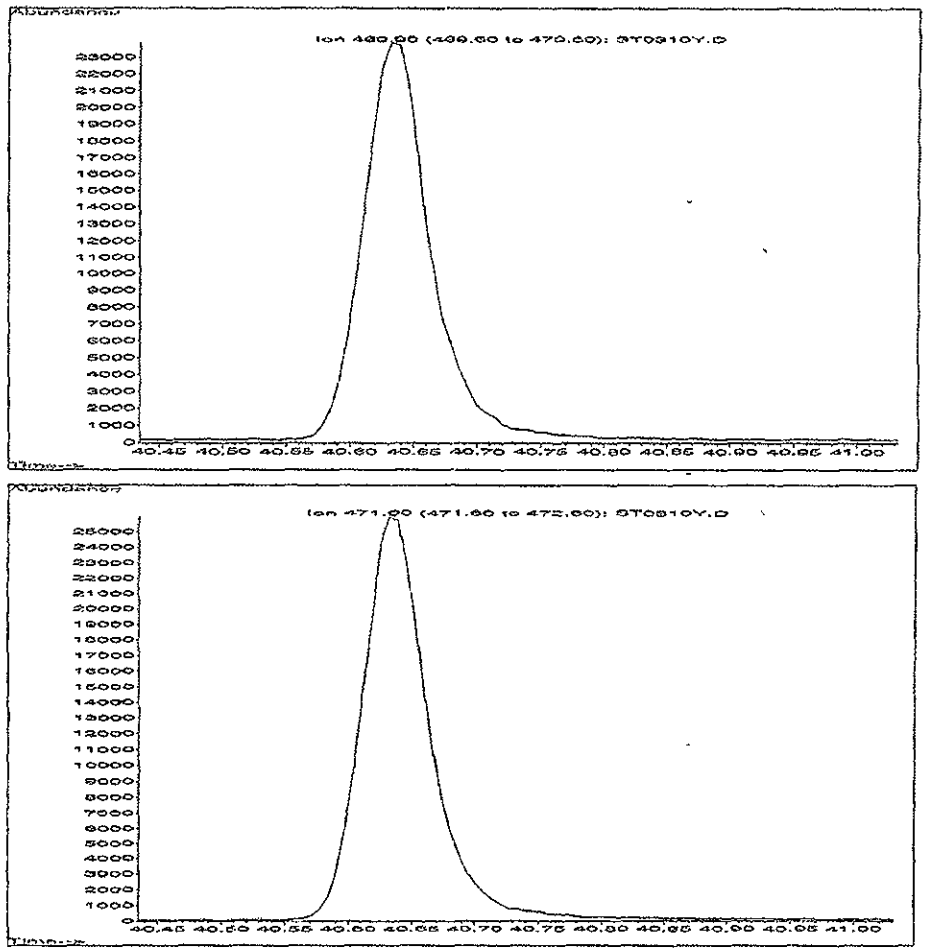


OCDF			
TS R.T. Lower Limit	40.56		
TS R.T. Upper Limit	41.06		
Ret Time	40.76		
Target Ion	441.9	Q1 Ion	443.9
Target Response	635057	Q1 Response	691448
Target Response	1326505	Ion Ratio	0.92
Q2 Ion	379	DPE Ion	514
Q2 Response	159702	DPE Response	0



13C-OCDD-IS

RT Lower Limit	40.43		
RT Upper Limit	41.03		
Ret Time	40.63		
Target Ion	469.9	Q1 Ion	471.9
Target Response	88251	Q1 Response	94676
Total response	182927	Ratio	0.93



Sample Extraction/Preparation Log Copies and Checklists

TestAmerica West Sacramento

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Checklist
HRGCMS/LRGCMS Analyses

Batch #: 9114133 Method ID: 8280

	DB-5	DB-225
Data Analyst:	AK	
Date initiated:	4/30/09	
Reviewer:		
Date reviewed:	5/1/09	

QA/QC verification:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Daily standard package(s) present?	✓	✓		
-Method Blank present?	✓	✓		
-LCS/DCS copy present and meets native recovery criteria?	①	①		
-Internal standard recoveries within limits?*	✓	✓		
-Ion ratios within + 15% of theoretical values?	✓	✓		
-Other QC (Dup,MS,SD) within specs?**	✓	✓		

Sample Analysis:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Correct sample aliquot used?	✓	✓		
-All raw data present?	✓	✓		
-Standard target DL's used? If RL's are used specify:_____	✓	✓		
-DL's below (DL) / LCL (please circle)?	✓	✓		
-All positives reported at levels greater than method blank DL's?	✓	✓		
-Correct RRF's used for method?	✓	✓		
-Internal standard amounts correct for method?	✓	✓		
-Target analytes are not saturated?	✓	✓		
-Dilution/splitting of extract taken into account?	NA	NA		
-Have dilution calculations been verified?	NA	NA		
-Has a manual calculation for the sequence(s) been verified?	✓	✓		
-Are retention times (RT) correct?	✓	✓		
-Manual integrations checked?	NA	NA		

5/1/09

Comments: (Use other side if necessary)
① second

* Recovery limits:		**RPD limits:
NCASI 551:	40-120%***	50%
Method 8290:	40-135%***	20%
Method 1613:	25-150%***	50%
Method 23:	40-130%***(Cl4-Cl6), 25-130%(Cl7-8), 70-130%(surr)	50%
PCBs:	25-150%***	50%
Method 8280:	40-120%***	
DFLM01.0:	25-150%***	
Method 1614	25-150%***	

*** Lower recoveries are acceptable if I.S. S/N ≥10:1 and DL's are <LCL for target analytes.

TestAmerica West Sacramento
Low Resolution Prep Log
Dioxin/Furan Waste Water

Box # N/A

Shared QC Batch: N/A

Shares QC With: N/A

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Internal COC:	
Delivered to Inst.:	4270
Inst Receipt:	GS

Batch: 9114133

MS Run #:

Prep Date: 4/24/2005

Method: R7 8280A

Matrix: I WATER

Extraction: DB EXTRACTION· Soxhlet and Sep Funnel

QC: 01 STANDARD TEST SET

SAC: R7 - I - DB - 01

Soxhlet time on: 13:00 Soxhlet time off: 5:00

Prep Reagents		
Reagent	Supplier	Lot #
DCM		648406
Toluene	Baker	643N60
Hexane	Baker	642E34
H2SO4	Baker	N/A
20% DCM:Hexane	NA	3592-25
65% DCM:Hexane	NA	3592-26
1:1 DCM.Cyclohexane	NA	N/A
75:20:5 DCM:Hexane.Benzene	NA	N/A
Silica Gel	N/A	35392-345
Acid Alumina	N/A	957
5% Carbon:Silica Gel	N/A	N/A

Extraction Table

Sample ID	Suff	Work Order	Extraction Hold Time Expires	Sample size * 1000mL nom	Final Volume 50uL	Final Volume Other	Analysis Hold Time Expires
A9D160180 - 1		K97AK1AA	5/13/2009	1045.12	✓		6/8/2005
A9D160180 - 2		K97DA1AA	5/13/2009	1025.58	✓		6/8/2005
A9D160180 - 3		K97DE1AA	5/13/2009	1027.74	✓		6/8/2005
A9D160180 - 4		K97DG1AA	5/13/2009	1041.33	✓		6/8/2005
A9D160180 - 4	S	K97DG1AC	5/13/2009	1026.38	✓		6/8/2005
A9D160180 - 4	D	K97DG1AD	5/13/2009	992.73	✓		6/8/2005
A9D160180 - 5		K97DK1AA	5/13/2009	1033.09	✓		6/8/2005
A9D160180 - 6		K97DM1AA	5/13/2009	1039.46	✓		6/8/2005
D9D170141 - 1		K983J1CP	5/16/2009	1022.98	✓		6/8/2005
G9D240000 - 133	B	LANTP1AA	5/13/2009	1000.00	✓		6/8/2005
G9D240000 - 133	C	LANTP1AC	5/13/2009	1020.00	✓		6/8/2005

* See attached sheet for sample volumes recorded from scale

Comments/NCMs:

	ID	Spike Exp Date:	Spiked By:	Witnessed By:	Date:
Internal Standard All Samples	50ml 09LRES-09	1/14/2010	GS	JD	4/26/09
Spike Mix LCS/LCSD/MS/MS	50ml 336-28	12/10/2008	GS	JD	4/26/09
Cleanup Standard All Samples	50ml 09LRES-09	3/1/2010	GS	JD	4-27-09
Recovery Standard All Samples	50ml 336-02	12/19/2009	GS	JD	4-27-09

Liq Liq Extraction Analyst/Date: 4/26/09 JD/GS 4/27/09

Soxhlet Extraction Analyst/Date: 4/24/09 GS

Split/Archive Analyst/Date	Option C Analyst/Date	IFB Analyst/Date	D2 Analyst/Date
—	—	4/27/09 GS	—

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 4/27/09
Time: 8:10:11

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
_	_	MS/MSD	Y	_	Vial contains correct volume
			Y	_	Labels, greenbars, worksheets computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: 013637 George Burkett

Concentrationist: 013637 George Burkett

Reviewer/Date: BURKETTG / 4/27/09

QC BATCH: 9114133

PREP DATE: 4/24/05
COMP DATE: 4/24/05

Dioxins/Furans, HRGC/LRMS (8280A)
EXTRACTION: Soxhlet and Sep Funnel

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
5/13/09	4/30/09	A9D160180-001 **K97AK-1-AA**	D	DB	R7	WATER	**1045.12mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/13/09	4/30/09	A9D160180-002 **K97DA-1-AA**	D	DB	R7	WATER	**1025.58mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/13/09	4/30/09	A9D160180-003 **K97DE-1-AA**	D	DB	R7	WATER	**1027.76mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/13/09	4/30/09	A9D160180-004 **K97DG-1-AA**	D	DB	R7	WATER	**1041.33mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/13/09	4/30/09	A9D160180-004 **K97DG-1-ACS**	D	DB	R7	WATER	**1026.38mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 3136-38 NS 50UL 09LRES019 IS
COMMENTS:															
5/13/09	4/30/09	A9D160180-004 **K97DG-1-ADD**	D	DB	R7	WATER	**992.73mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 3136-38 NS 50UL 09LRES019 IS
COMMENTS:															
5/13/09	4/30/09	A9D160180-005 **K97DK-1-AA**	D	DB	R7	WATER	**1032.69mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 4/27/09
Time: 8:10:11

QC BATCH: 9114133

PREP DATE: 4/24/05
COMP DATE: 4/24/05

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
5/13/09	4/30/09	A9D160180-006 **K97DM-1-AA**	D	DB	R7	WATER	**1039.46mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/16/09	4/30/09	D9D170141-001 **K983J-1-CP**	R	DB	R7	WATER	**1022.98mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/13/09	0/00/00	G9D240000-133 **LANTP-1-AAB**		DB	R7	WATER	**1000.00mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 09LRES019 IS
COMMENTS:															
5/13/09	0/00/00	G9D240000-133 **LANTP-1-ACC**		DB	R7	WATER	**1000.00mL** 50.00uL	NA	NA	NA	TOL/DCM	300.0	C-14	50.0	50UL 3136-38 NS 50UL 09LRES019 IS
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Preparation Data Review Checklist

Prep Batch(es) 9114133 **Test:** 8260M Water

Prep Date: 4/20/09 **Holding Times:** 5/3/09 5/4/09 **NCM:** Y N

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. **Holding times checked?** NCMs filed as appropriate	✓	✓
2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc)	✓	✓
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	✓
5. Spiking volumes are correctly documented	✓	✓
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	✓
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	
B. Weights and Volumes		✓
1. Recorded weights are in anticipated range	NA	✓
2. Balance upload or raw data for weights is included	NA	✓
3. Weights and volumes have been transcribed correctly to LIMS.	NA	✓
4. Weights are not targeted to meet exact weights.	NA	✓
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	✓
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	✓
2. Are dates and analysts for cleanups recorded?	NA	✓
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	✓
D. Documentation		✓
1. Are all nonconformances documented appropriately?	NA	✓
2. QuantIMs entry correct, including dates and times.	NA	✓
3. Are all fields completed?	NA	✓

Spike witness: [signature] Date: 4-23-09

2nd Level Reviewer: [signature] Date: 4/23/09

Comments:

North Canton

TestAmerica Laboratories, Inc.

SAMPLE ANALYSIS REQUISTION

Laboratory: TestAmerica West Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

Lab Request: SR111110

Report Package: Expanded Deliverables

Need Analytical Report: 2009-04-30

Client Code: 385158

Project Manager: MARK LOEB

Sample I.D.	Work Order Number	Client Sample ID	Sampling Date	Analysis Required
A9D160180-1	K97AK	13MW3 (2xL)	2009-04-13 12:00	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-2	K97DA	13MW4	2009-04-13 10:35	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-3	K97DE	13MWDUP	2009-04-13 10:50	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-4	K97DG	13MW5 (6xL)	2009-04-13 8.50	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-4 S	K97DG	13MW5	2009-04-13 8:50	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-4 D	K97DG	13MW5	2009-04-13 8:50	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-5	K97DK	13MW6 (2xL)	2009-04-13 7:40	WATER, 8280A, Dioxins/Furans, HRGC/LRMS
A9D160180-6	K97DM	13MW7	2009-04-13 10:50	WATER, 8280A, Dioxins/Furans, HRGC/LRMS

Please use **Client Sample ID** for report

Call MARK LOEB with questions at 330-497-9396

at the TAL North Canton Laboratory

Shipping Method: FEDEX

Need detection limit and analysis date included in report

Please send a signed copy of this form with the report at completion of analysis

Relinquished by: Alaina Mangan Date/Time: 4/16/09 1330

Relinquished by: _____ Date/Time: _____

Received for lab by: [signature] Date/Time: 4-17-09 1300

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

469

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL-N Canton PM KD LOG # 57999

LOT# (QUANTIMS ID) A9D160180 QUOTE# NA LOCATION W20B

	Initials	Date
DATE RECEIVED 4-17-09 TIME RECEIVED 910	AA	4-17-09

DELIVERED BY
- ☒ FEDEX ☐ CA OVERNIGHT ☐ CLIENT
- ☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL
- ☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS
- ☐ TAL COURIER ☐ VALLEY LOGISTICS ☐ MORGAN HILL COURIER
- ☐ OTHER

CUSTODY SEAL STATUS ☒ INTACT ☒ BROKEN ☐ N/A

CUSTODY SEAL #(S) Seal

SHIPPPING CONTAINER(S) ☒ TAL ☐ CLIENT ☐ N/A

TEMPERTURE RECORD (IN °C) IR 4 ☐ 5 ☒ ☐ OTHER

COC #(S) NA

TEMPERATURE BLANK Observed: 0.0 Corrected: 2

SAMPLE TEMPERATURE
Observed: 2 2 2 Average: 2 Corrected Average: 2

COLLECTOR'S NAME: ☐ Verified from COC ☒ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A

LABELED BY.....

LABELS CHECKED BY.....

PEER REVIEW _____ ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING
WETCHEM ☒ N/A
VOA-ENCORES ☐ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☒ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes:

*1 Acceptable temperature range for State of Wisconsin samples is≤4°C.

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

CompuChem

A Division Of

Liberty Analytical Corp.

5/20/2009

JANET FRAZIER

DRAPER

2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904103

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem

a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER

OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER **Work:** 0904103

Project RAAP APPIX 2009/B03204-07 **Sdg:** DRAFT 0904103

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904103-01	13MW1	Water	4/14/09 9:35 am	4/15/09 4:15 pm
0904103-02	13MW2	Water	4/14/09 8:15 am	4/15/09 4:15 pm

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

HPLC by SW846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)

C. Surrogate spike analysis results (Form II)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)

LAB CODE: LIBRTY

METHOD: 8330/8332

SDG #: 0904103

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904103-REV
PROTOCOL: SW-846 8330 & 8332

SAMPLE IDENTIFICATIONS: 13MW1 and 13MW2

The two water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the explosives fraction. Methods 8330 and 8332 were used to prepare and analyze the samples for 1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, and Nitroglycerin only. This SDG also meets the requirement set forth in SW-846 8330B. This portion of the SDG narrative deals with the explosives analysis only. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904103 are included in the sample data sections.

Explosives

Extraction and analysis holding time requirements were met for the samples. This SDG also meets the requirement set forth in SW-846 8330B.

No target analytes confirmed above the Quantitation Limit (QL) in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery and retention time criteria.

The associated method blank met all quality control criteria.

Per client's request, duplicate matrix spikes (MS/MSD) were not performed with this SDG. The associated Laboratory Control Samples (LCS/LCSD) prepared and analyzed along with the samples met recovery and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings
GC/HPLC Data Reviewer
June 12, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904103

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
	Restek	clpest	0.32	0.5	30
	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
✓	Restek	Pinnacle Cyano	4.6	5.0	25 cm
✓	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

CompuChem

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I

Organic Analysis Data Sheet (OADS)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCS

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.8	
99-65-0	1,3-Dinitrobenzene	7.5	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.9	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCSD

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.6	
99-65-0	1,3-Dinitrobenzene	7.0	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.8	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCS

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	17	

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCSD

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	18	

FORM I PEST

C. Form II

Surrogate spike analysis

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 1 %REC	#	S1 2 %REC	#	S2 1 %REC	#	S2 2 %REC	#	S3 1 %REC	#	S3 2 %REC	#	TOT OUT
01	PBLKGZ	91												0
02	PGZLCS	89												0
03	PGZLCSD	87												0
04	13MW1	93												0
05	13MW2	93												0
06														
07														
08														
09														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														

ADVISORY
QC LIMITS

S1 = 1,4-Dinitrobenzene (39-132)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 %REC #	S2 %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	PBLKGZ	87						0
02	PHALCS	85						0
03	PHALCSD	89						0
04	13MW1	91						0
05	13MW2	91						0
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 = 1,4-Dinitrobenzene (50-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate/ Laboratory Control Sample(s) results

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

LCS ID: PGZLCS Matrix Spike - EPA Sample No.: PGZLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,3,5-Trinitrobenzene	8.0		5.8	72	50-150
1,3-Dinitrobenzene	8.0		7.5	94	50-150
2,6-Dinitrotoluene	12		11	92	50-150
2,4-Dinitrotoluene	8.0		7.9	99	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3,5-Trinitrobenzene	8.0	5.6	70	4	30	50-150
1,3-Dinitrobenzene	8.0	7.0	88	7	30	50-150
2,6-Dinitrotoluene	12	11	92	0	30	50-150
2,4-Dinitrotoluene	8.0	7.8	98	1	30	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

LCS ID: PHALCS Matrix Spike - EPA Sample No.: PHALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Nitroglycerin	20		17	85	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Nitroglycerin	20	18	90	6	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM III PEST-1

E. Form IV

Method Blank Results
Form IV, Form I

Method blank summary, OADS,
- In chronological order of analysis

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab Sample ID: 9042013-BLK1 Lab File ID: 032C9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/20/09 Date Analyzed (2):

Time Analyzed (1): 2043 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGZLCS	9042013-BS1	04/20/09	
02	PGZLCSD	9042013-BSD1	04/20/09	
03	13MW1	0904103-01	04/21/09	
04	13MW2	0904103-02	04/21/09	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab Sample ID: 9042013-BLK1 Lab File ID: 034B9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/22/09 Date Analyzed (2):

Time Analyzed (1): 1916 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PHALCS	9042013-BS2	04/22/09	
02	PHALCSD	9042013-BSD2	04/22/09	
03	13MW1	0904103-01	04/22/09	
04	13MW2	0904103-02	04/22/09	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

HPLC by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalysis, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE: LIBRTY

METHOD: 8330|8332

SDG #: 0904103

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904103-REV
PROTOCOL: SW-846 8330 & 8332

SAMPLE IDENTIFICATIONS: 13MW1 and 13MW2

The two water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the explosives fraction. Methods 8330 and 8332 were used to prepare and analyze the samples for 1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, and Nitroglycerin only. This SDG also meets the requirement set forth in SW-846 8330B. This portion of the SDG narrative deals with the explosives analysis only. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904103 are included in the sample data sections.

Explosives

Extraction and analysis holding time requirements were met for the samples. This SDG also meets the requirement set forth in SW-846 8330B.

No target analytes confirmed above the Quantitation Limit (QL) in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery and retention time criteria.

The associated method blank met all quality control criteria.

Per client's request, duplicate matrix spikes (MS/MSD) were not performed with this SDG. The associated Laboratory Control Samples (LCS/LCSD) prepared and analyzed along with the samples met recovery and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings
GC/HPLC Data Reviewer
June 12, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904103

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
	Restek	clpest	0.32	0.5	30
	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
✓	Restek	Pinnacle Cyano	4.6	5.0	25 cm
✓	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates **Attn:** 0 **Address:** 0 0 **Phone:** 0 **Fax:** 0 **Fax:** 0	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RAAP, Radford, Virginia **Location:** Open Burning Ground (OBG)/HWMU13 **Event:** Appendix IX Monitoring Event 2nd Q 2009 **DAA JN:** B03204-07 **Lab JN:**	**Project Specific (PS) QC:** ☑ YES ☐ NO **Sample Collection for Project Complete?** ☑ YES ☐ NO **Carrier:** NC COURIER **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; AG Amber Glass; V VOA; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	2-1L A	1-500 ml P		P	P	2-1L A	2-1L A	

Sample ID	✓	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0 6020	ICP 6010B/3005A/dissolved 7000 (Metals-Total) pH	7470A (Mercury-Total) pH	Cyanide 9014 pH	Sulfide 9030B pH	Appdx 9 SV 8270C	Appdx 9 PEST 8081A	Appdx 8 PCBs 8082	
13MW1	✓	4/14	0935	GW	#3	X	X		X	X<2	X			X			0904103-01
13MW2	✓	4/14	0815	GW	#3	X	X		X	X<2	X			X			0904103-02
13MW3	✓	4/13	1200	GW	#14	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-02
13MW4	✓		1035	GW	#14	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-03
13MWDUP	✓		1050	GW	#14	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-04
13MW5	✓		0850	GW	#12	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-01 USE FOR QC
13MW6	✓	4/13	0740	GW	#14	X	X	X	X	X<2	X	X>12	X>9	X	X	X	0904098-05
13MW7	✓	4/14	1050	GW	#14	X	X	X	X	X<2	X	X>12	X>9	X	X	X	-06

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW1 + 13MW-2. JF 3.31.09

Residual Chlorine Present? Yes _____ No ✓

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No

Describe problems, if any: 0.6°C, 1.0°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Teresa Goldwyn	Date: 4/15/09	Sample Storage Time Requested: 30 DYS ORG/6 MTHS INORG
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Teresa Goldwyn	Date: 4/15/09	#2 Received by (Signature): Lee F Swanson	Date: 4/15/09	
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM	

9 - Rdp 4-15-09
Compuchem 1615

Y/O JF 3.31.09

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

2/10

ANALYTICAL METHOD: SEE BELOW
TYPE METHOD: GC/ HPLC

For: 13MW1 and 13MW2 AND ALL OTHER sample locations.

Method 8330:

No.	PARAMETER	CAS RN
1.	1,3,5-trinitrobenzene (1,3,5-TNB)	99-35-4
2.	1,3-dinitrobenzene (1,3-DNB)	99-65-0
3.	2,4-dinitrotoluene (2,4-DNT)	121-14-2
4.	2,6-dinitrotoluene (2,6-DNT)	606-20-2

Method 8332:

No.	PARAMETER	CAS RN
1.	Nitroglycerin	55-63-0

.P:\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 - JCF
Revised November, 2005 - new permit - JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

WORK ORDER

0904103

Printed: 4/24/2009 10:23:50AM

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904103** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover — Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover — Date Logged In: 04/16/2009 15:57

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

LCS/LCSD*APPIXSV=HWMU13SPC.SUB* 6020MTL=Sb,As,Ba,Cd,Cr,Pb,Ni,Se,Ag & Zn + Hg 7470*PERCHLORATE NEEDS 4 ug/L STD.*8330=HWMU13SP.SUB*8332= NITROGLYCERIN ONLY

Analysis	Due	TAT	Expires	Received	Comments
0904103-01 13MW1 [Water] Sampled 04/14/2009 09:35 Eastern					
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 09:35	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 09:35	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 09:35	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 09:35	04/15/2009 16:15	
0904103-02 13MW2 [Water] Sampled 04/14/2009 08:15 Eastern					
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 08:15	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 08:15	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 08:15	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 08:15	04/15/2009 16:15	

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR **DATE:** _____

4-20-3 **BATCH:** _____

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904098-01	13MW5		
2	0904098-01	13MW5		
3	0904098-02	13MW3		
4	0904098-02	13MW3		
5	0904098-03	13MW4		
6	0904098-03	13MW4		
7	0904098-04	13MWDUP		
8	0904098-04	13MWDUP		
9	0904098-05	13MW6		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	0904098-06	13MW7		
13	0904103-01	13MW1		
14	0904103-01	13MW1		
15	0904103-02	13MW2		
16	0904103-02	13MW2		
17	9042013-BLK1	PBLKGZ		
18	9042013-BS1	PGZLCS		
19	9042013-BS2	PHALCS		
20	9042013-BSD1	PGZLCSD		
21	9042013-BSD2	PHALCSD		
22	9042013-MS1	Matrix Spike		
23	9042013-MS2	Matrix Spike		
24	9042013-MSD1	Matrix Spike Dup		
25	9042013-MSD2	Matrix Spike Dup		
26				
27				
28				
*	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	GC#3	4-20-09/ 1810	GC #3	temp storage
	a	4/20/09 1900	GC#4	
				TAJ 4/22/09

Rev. 7/28/03:dce

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR **DATE:** 4/20/09

4-20-3 **BATCH:** 9042013

	COMPUCHEM # NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904098-01	13MW5		
2	0904098-01	13MW5		
3	0904098-02	13MW3		
4	0904098-02	13MW3		
5	0904098-03	13MW4		
6	0904098-03	13MW4		
7	0904098-04	13MWDUP		
8	0904098-04	13MWDUP		
9	0904098-05	13MW6		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	0904098-06	13MW7		
13	0904103-01	13MW1		
14	0904103-01	13MW1		
15	0904103-02	13MW2		
16	0904103-02	13MW2		
17	9042013-BLK1	PBLKGZ		
18	9042013-BS1	PGZLCS		
19	9042013-BS2	PHALCS		
20	9042013-BSD1	PGZLCSD		
21	9042013-BSD2	PHALCSD		
22	9042013-MS1	Matrix Spike		
23	9042013-MS2	Matrix Spike		
24	9042013-MSD1	Matrix Spike Dup		
25	9042013-MSD2	Matrix Spike Dup		
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	[illegible] GC#3	4-20-09/ 1810	GC#3	top storage
	GC#3	4/21/09 1900	GC#4	GC
	GC	4/21/09 0750	GC#4	GC
				TAJ 4/24/09

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE: LIBRTY METHOD: 8330|8332

SDG #: 0904103

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II)

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample(s) Summary
(Form III)

c. Method Blank Summary (Form IV)

a. Surrogate Percent Recovery Summary

(Form II)

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	S2 1 %REC #	S2 2 %REC #	S3 1 %REC #	S3 2 %REC #	TOT OUT
01	PBLKGZ	91						0
02	PGZLCS	89						0
03	PGZLCSD	87						0
04	13MW1	93						0
05	13MW2	93						0
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 = 1,4-Dinitrobenzene (39-132)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 %REC #	S2 %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	PBLKGZ	87						0
02	PHALCS	85						0
03	PHALCSD	89						0
04	13MW1	91						0
05	13MW2	91						0
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 = 1,4-Dinitrobenzene (50-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample(s) Summary

(Form III)

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

LCS ID: PGZLCS Matrix Spike - EPA Sample No.: PGZLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,3,5-Trinitrobenzene	8.0		5.8	72	50-150
1,3-Dinitrobenzene	8.0		7.5	94	50-150
2,6-Dinitrotoluene	12		11	92	50-150
2,4-Dinitrotoluene	8.0		7.9	99	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3,5-Trinitrobenzene	8.0	5.6	70	4	30	50-150
1,3-Dinitrobenzene	8.0	7.0	88	7	30	50-150
2,6-Dinitrotoluene	12	11	92	0	30	50-150
2,4-Dinitrotoluene	8.0	7.8	98	1	30	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

LCS ID: PHALCS Matrix Spike - EPA Sample No.: PHALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Nitroglycerin	20		17	85	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Nitroglycerin	20	18	90	6	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

_____

FORM III PEST-1

c. Method Blank Summary (Form IV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab Sample ID: 9042013-BLK1 Lab File ID: 032C9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/20/09 Date Analyzed (2):

Time Analyzed (1): 2043 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGZLCS	9042013-BS1	04/20/09	
02	PGZLCSD	9042013-BSD1	04/20/09	
03	13MW1	0904103-01	04/21/09	
04	13MW2	0904103-02	04/21/09	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Lab Sample ID: 9042013-BLK1 Lab File ID: 034B9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/22/09 Date Analyzed (2):

Time Analyzed (1): 1916 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PHALCS	9042013-BS2	04/22/09	
02	PHALCSD	9042013-BSD2	04/22/09	
03	13MW1	0904103-01	04/22/09	
04	13MW2	0904103-02	04/22/09	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I), followed by the raw data for HPLC samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results

Tabulated results (identification and quantitation) shall be included.

b. Copies of HPLC Chromatograms

Positively identified compounds shall be labeled with the names of compounds, either directly out from the peak on the chromatogram, or on a printout of retention times on the data system printout if retention times are printed over the peak on the chromatogram. Included for each sample, dilutions, and reanalysis. The chromatogram shall contain the following header information: Client Sample ID number, volume injected (uL), date and time of injection, HPLC column ID, and HPLC instrument ID.

d. Data System Printout

A printout of retention time and corresponding peak height or peak area shall accompany each chromatogram. Where edits have been made, initialing, dating, and integration time range are required.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/045c0904103-01.d

Date : 21-APR-2009 04:29

Client ID: 13MW1

Instrument: a11001.i

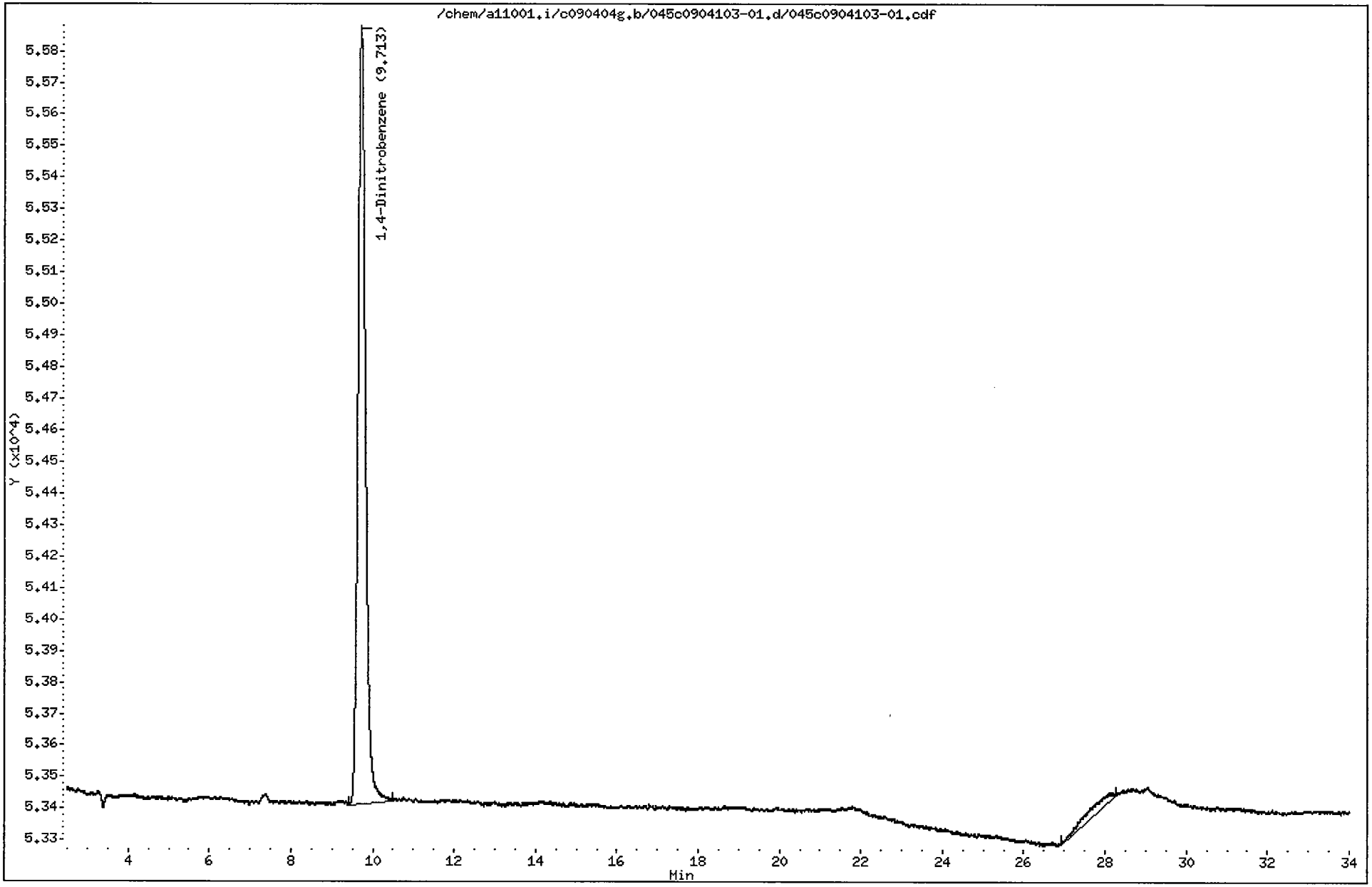
Sample Info: 0904103-01

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904103-01 Client Smp Id : 13MW1
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 04:29 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW1

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.09			1382								
9.71	9.48	9.88	31451	3385	1,4-Dinitrobenzene	9.291189	18.58238		92.9	39 - 132	
28.09			1515								

4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW1

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/039b0904103-01.d

Date : 22-APR-2009 22:40

Client ID: 13MW1

Instrument: a11001.i

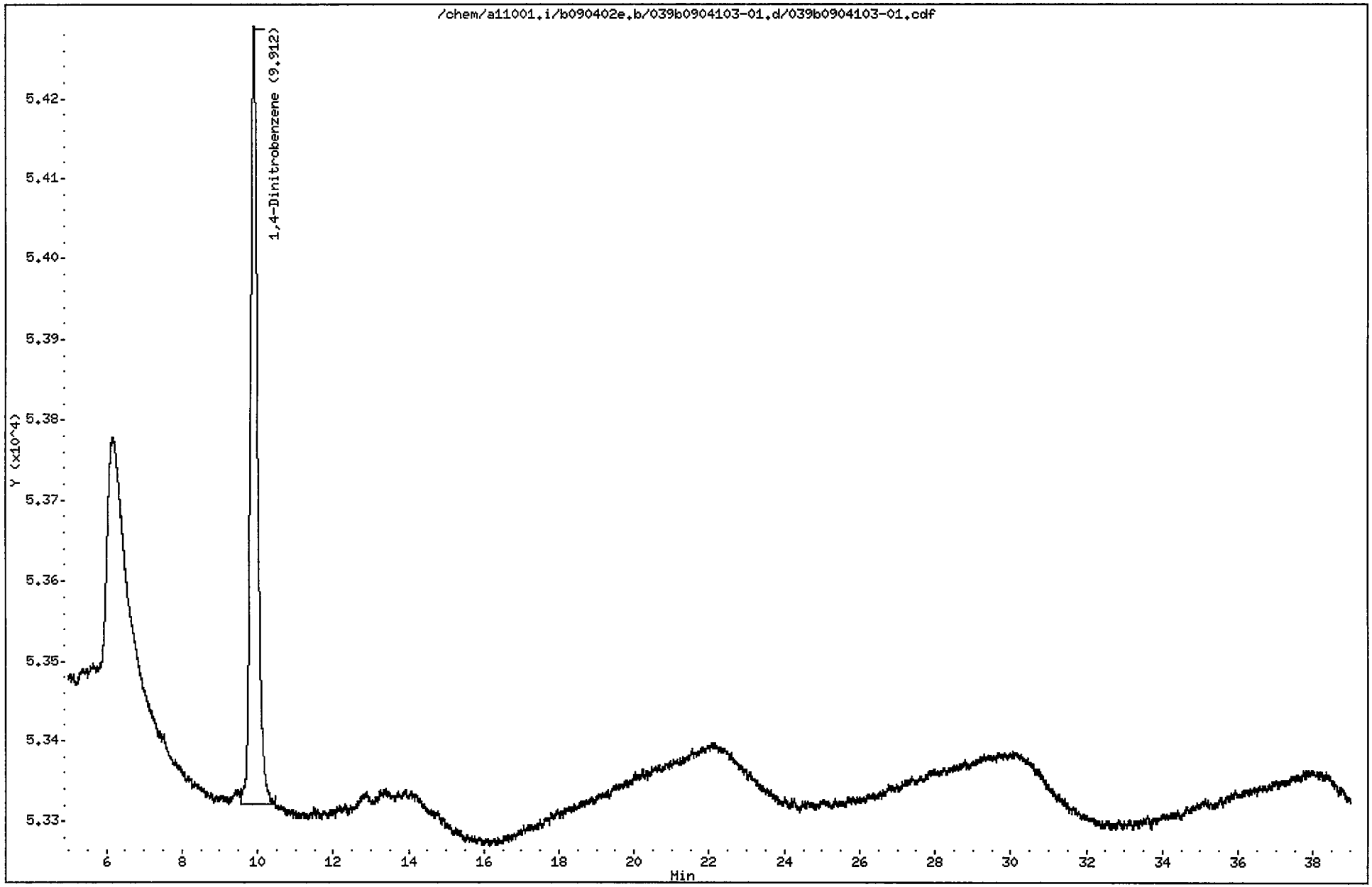
Sample Info: 0904103-01

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904103-01
Client Smp Id : 13MW1
Sample Type : SAMPLE
Sublist : nitro
Inj Date : 22-APR-2009 22:40
Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : 13MW1

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0
Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul)
Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.91	9.78	9.98	12706	1398	1,4-Dinitrobenzene	9.090291	18.18058		90.9	50 - 150	

AG 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/046c0904103-02.d

Date : 21-APR-2009 05:05

Client ID: 13MW2

Instrument: a11001.i

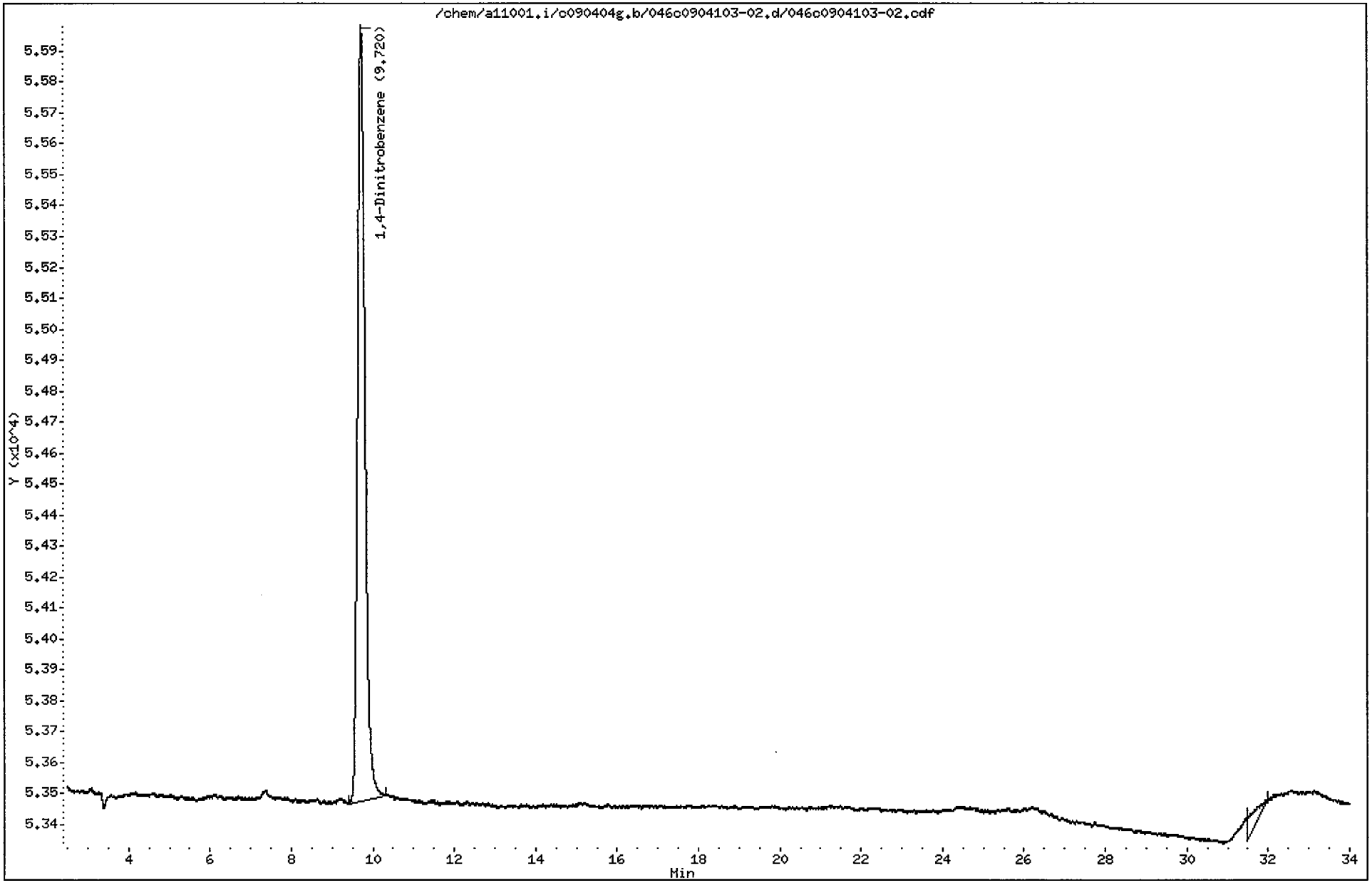
Sample Info: 0904103-02

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904103-02 Client Smp Id : 13MW2
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 05:05 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW2

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.10			1432								
9.72	9.48	9.88	31511	3385	1,4-Dinitrobenzene	9.308752	18.61750		93.1	39 - 132	
31.99			1249								

4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW2

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 0904103-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/040b0904103-02.d

Page 1

Date : 22-APR-2009 23:21

Client ID: 13MW2

Instrument: a11001.i

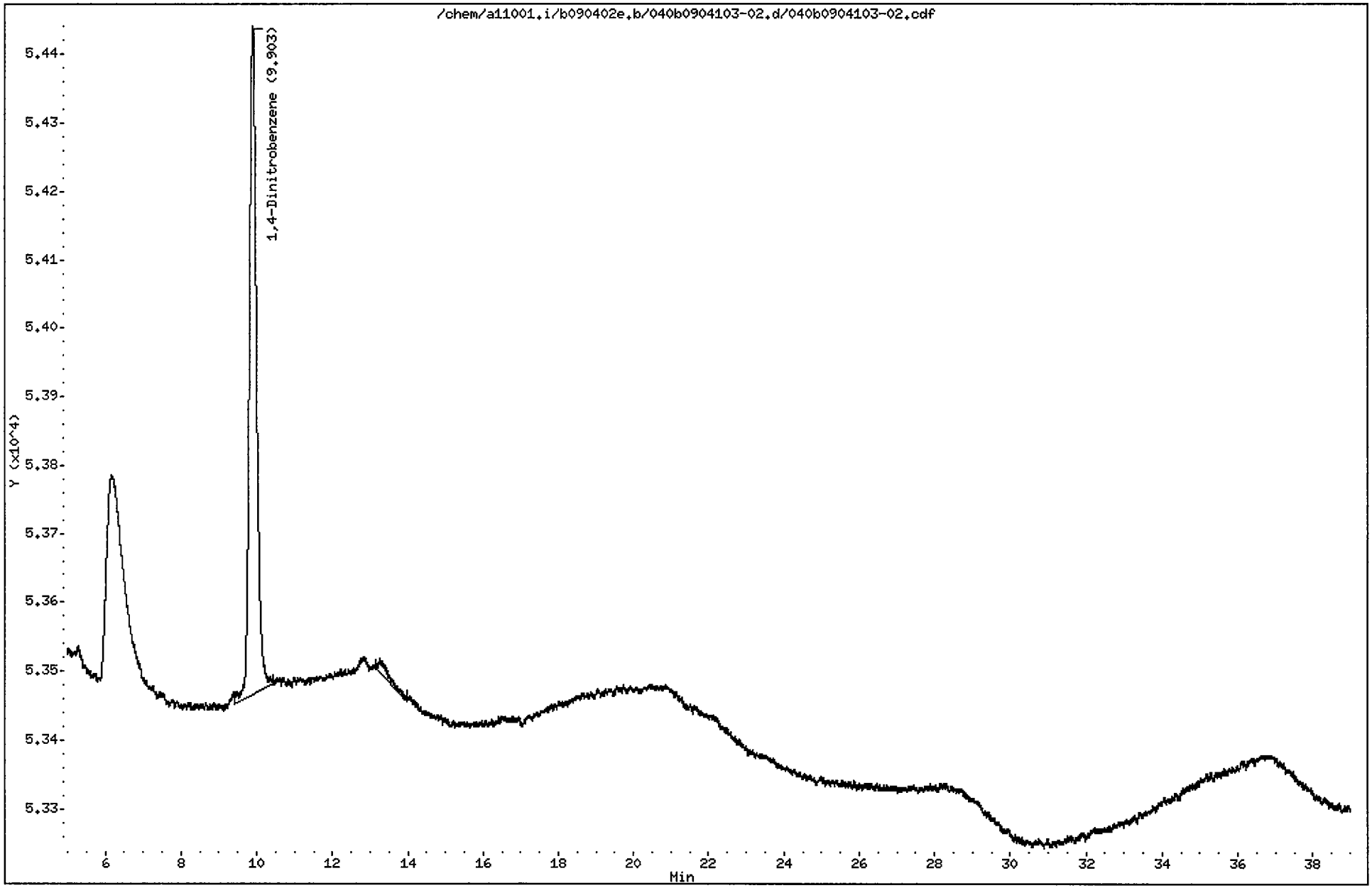
Sample Info: 0904103-02

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904103-02 Client Smp Id : 13MW2
Sample Type : SAMPLE Sublist : nitro
Inj Date : 22-APR-2009 23:21 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : 13MW2

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12710	1398	1,4-Dinitrobenzene	9.093046	18.18609		90.9	50 - 150	
13.26			399								

4/23/09

3. Standards Data

a. Initial Calibration Data of HPLC (Form VI)

b. Continuing Verification Summary (Form VII)

c. Analytical Sequence (Form VIII)

d. Chromatograms and Data System Printouts

a. Initial Calibration Data
(Form VI)

If more than one instrument is used, forms shall be arranged in order by instrument. Multiple initial calibrations from the same instrument shall be in chronological order. Within each initial calibration, the standards are in order by level.

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

LAB FILE ID: RF1.25: 007C83301CRF6.25: 006C83302CRF12.5: 005C83303C
RF31.25: 004C83304RF62.5: 003C83305C

COMPOUND	RF1.25	RF6.25	RF12.5	RF31.25	RF62.5
1,3,5-Trinitrobenzene	2928.000	2909.200	2619.400	2630.800	2700.000
1,3-Dinitrobenzene	3720.800	4018.400	3748.800	3920.320	3896.200
2,6-Dinitrotoluene	1735.600	1728.400	1651.900	1716.680	1725.940
2,4-Dinitrotoluene	3507.200	3681.600	3476.600	3561.040	3542.120
1,4-Dinitrobenzene	3302.600	3482.900	3346.250	3405.160	3388.480

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
1,3,5-Trinitrobenzene	AVRG	2757.48000	5.4
1,3-Dinitrobenzene	AVRG	3860.90400	3.2
2,6-Dinitrotoluene	AVRG	1711.70400	2.0
2,4-Dinitrotoluene	AVRG	3553.71200	2.2
1,4-Dinitrobenzene	AVRG	3385.07800	2.0

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

LAB FILE ID: RT1: 007C83301CA RT2: 006C83302CA RT3: 005C83303CA
RT4: 004C83304CA RT5: 003C83305CA

COMPOUND	RT1	RT2	RT3	RT4	RT5
1,3,5-Trinitrobenzene	8.622	8.628	8.625	8.618	8.615
1,3-Dinitrobenzene	10.795	10.807	10.802	10.790	10.783
2,6-Dinitrotoluene	18.628	18.620	18.602	18.593	18.583
2,4-Dinitrotoluene	19.073	19.067	19.048	19.038	19.028
1,4-Dinitrobenzene	9.937	9.938	9.935	9.930	9.923

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
1,3,5-Trinitrobenzene	8.622	8.422	8.822
1,3-Dinitrobenzene	10.795	10.595	10.995
2,6-Dinitrotoluene	18.605	18.305	18.905
2,4-Dinitrotoluene	19.051	18.751	19.351
1,4-Dinitrobenzene	9.933	9.733	10.133

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

LAB FILE ID: RF5: 007B83321BA RF10: 006B83322BA RF20: 005B83323BA
RF50: 004B83324BA RF100: 003B83325BA

COMPOUND	RF5	RF10	RF20	RF50	RF100
Nitroglycerin	890.250	908.900	872.050	881.590	853.868
1,4-Dinitrobenzene	1507.500	1383.200	1354.750	1407.600	1335.190

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Nitroglycerin	AVRG	881.339000	2.3
1,4-Dinitrobenzene	AVRG	1397.73300	4.8

FORM VI 8330

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

LAB FILE ID: RT1: 007B83321BA RT2: 006B83322BA RT3: 005B83323BA
RT4: 004B83324BA RT5: 003B83325BA

COMPOUND	RT1	RT2	RT3	RT4	RT5
Nitroglycerin	15.455	15.462	15.463	15.445	15.442
1,4-Dinitrobenzene	10.097	10.097	10.095	10.087	10.087

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Nitroglycerin	15.453	15.363	15.563
1,4-Dinitrobenzene	10.093	9.995	10.195

b. Continuing Calibration Verification Summary (Form VII)

For all continuing calibration verification standards, on all instruments, in chronological order by instrument.

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date: 04/20/09 Time: 1931

Lab File ID: 030C83304CG Init. Calib. Date(s): 04/04/09 04/04/09

Init. Calib. Times: 1617 1840

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF31.250 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,3,5-Trinitrobenzene	2757.4800	2710.1600	0.01	-1.72	15.00	AVRG
1,3-Dinitrobenzene	3860.9040	3560.8000	0.01	-7.77	15.00	AVRG
2,6-Dinitrotoluene	1711.7040	1710.0920	0.01	-0.09	15.00	AVRG
2,4-Dinitrotoluene	3553.7120	3618.1840	0.01	1.81	15.00	AVRG
1,4-Dinitrobenzene	3385.0780	3336.4800	0.01	-1.44	15.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date: 04/20/09 Time: 2342

Lab File ID: 037C83304CH Init. Calib. Date(s): 04/04/09 04/04/09

Init. Calib. Times: 1617 1840

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF31.250 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,3,5-Trinitrobenzene	2757.4800	2923.6800	0.01	6.03	15.00	AVRG
1,3-Dinitrobenzene	3860.9040	3871.3600	0.01	0.27	15.00	AVRG
2,6-Dinitrotoluene	1711.7040	1682.1600	0.01	-1.72	15.00	AVRG
2,4-Dinitrotoluene	3553.7120	3545.9200	0.01	-0.22	15.00	AVRG
1,4-Dinitrobenzene	3385.0780	3430.0400	0.01	1.33	15.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date: 04/21/09 Time: 0541

Lab File ID: 047C83304CI Init. Calib. Date(s): 04/04/09 04/04/09

Init. Calib. Times: 1617 1840

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF31.250 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,3,5-Trinitrobenzene	2757.4800	2875.5200	0.01	4.28	15.00	AVRG
1,3-Dinitrobenzene	3860.9040	3890.2400	0.01	0.76	15.00	AVRG
2,6-Dinitrotoluene	1711.7040	1734.2240	0.01	1.32	15.00	AVRG
2,4-Dinitrotoluene	3553.7120	3538.6360	0.01	-0.42	15.00	AVRG
1,4-Dinitrobenzene	3385.0780	3441.2800	0.01	1.66	15.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date: 04/22/09 Time: 1754

Lab File ID: 032B83324BF Init. Calib. Date(s): 04/02/09 04/03/09

Init. Calib. Times: 2332 0216

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Nitroglycerin	881.33200	917.79000	0.01	4.14	15.00	AVRG
1,4-Dinitrobenzene	1397.6480	1459.1020	0.01	4.40	40.00	AVRG

FORM VII 8330

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Instrument ID: A11001 Calibration Date: 04/23/09 Time: 0002

Lab File ID: 041B83324BG Init. Calib. Date(s): 04/02/09 04/03/09

Init. Calib. Times: 2332 0216

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Nitroglycerin	881.33200	919.37450	0.01	4.32	15.00	AVRG
1,4-Dinitrobenzene	1397.6480	1481.4280	0.01	5.99	40.00	AVRG

FORM VII 8330

c. Analytical Sequence (Form VIII)

For all instruments, in chronological order by instrument

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

GC Column: C18 ID: 4.60 (mm) Init. Calib. Date(s): 04/04/09 04/04/09

Instrument ID: A11001

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 9.93
SURROGATE RT FROM CONTINUING CALIBRATION S1 : 9.67

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	83305CA	83305CA	04/04/09	1617	9.92	
02	83304CA	83304CA	04/04/09	1653	9.93	
03	83303CA	83303CA	04/04/09	1729	9.94	
04	83302CA	83302CA	04/04/09	1805	9.94	
05	83301CA	83301CA	04/04/09	1840	9.94	
06	83304CG	83304CG	04/20/09	1931	9.67	
07	LIBLKCG	LIBLKCG	04/20/09	2007	9.68	
08	PBLKGZ	9042013-BLK1	04/20/09	2043	9.72	
09	PGZLCS	9042013-BS1	04/20/09	2119	9.72	
10	PGZLCSD	9042013-BSD1	04/20/09	2155	9.72	
11	83304CH	83304CH	04/20/09	2342	9.69	
12	LIBLKCH	LIBLKCH	04/21/09	0018	9.69	
13	13MW1	0904103-01	04/21/09	0429	9.71	
14	13MW2	0904103-02	04/21/09	0505	9.72	
15	83304CI	83304CI	04/21/09	0541	9.68	
16	LIBLKCI	LIBLKCI	04/21/09	0617	9.69	
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 1,4-Dinitrobenzene (+/- 0.20 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

GC Column: C18 ID: 4.60 (mm) Init. Calib. Date(s): 04/02/09 04/03/09

Instrument ID: A11001

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 10.10
SURROGATE RT FROM CONTINUING CALIBRATION S1 : 9.87

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	83325BA	83325BA	04/02/09	2332	10.09	
02	83324BA	83324BA	04/03/09	0013	10.09	
03	83323BA	83323BA	04/03/09	0054	10.10	
04	83322BA	83322BA	04/03/09	0135	10.10	
05	83321BA	83321BA	04/03/09	0216	10.10	
06	83324BF	83324BF	04/22/09	1754	9.87	
07	LIBLKBF	LIBLKBF	04/22/09	1835	9.88	
08	PBLKGZ	9042013-BLK1	04/22/09	1916	9.90	
09	PHALCS	9042013-BS2	04/22/09	1957	9.90	
10	PHALCSD	9042013-BSD2	04/22/09	2038	9.90	
11	13MW1	0904103-01	04/22/09	2240	9.91	
12	13MW2	0904103-02	04/22/09	2321	9.90	
13	83324BG	83324BG	04/23/09	0002	9.86	
14	LIBLKBG	LIBLKBG	04/23/09	0043	9.87	
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 1,4-Dinitrobenzene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

d. Chromatograms and Data System Printouts

For all methods, standards packages shall include
The following:

- Initial Calibration Standards
- Second Source Initial Calibration Verifications (if required by client)
- Continuing Calibration Verification Standards
- The quantitation report must include the Client Sample ID number.
- The chromatograms shall include the following: Client Sample ID number for the standard, labeled standard peaks, volume injected, for each standard, date and time of injection, HPLC column identifier, and HPLC instrument identifier

Data File: /chem/a11001.i/c090404.b/003c83305CA.d

Date : 04-APR-2009 16:17

Client ID: 83305CA

Sample Info: 83305CA

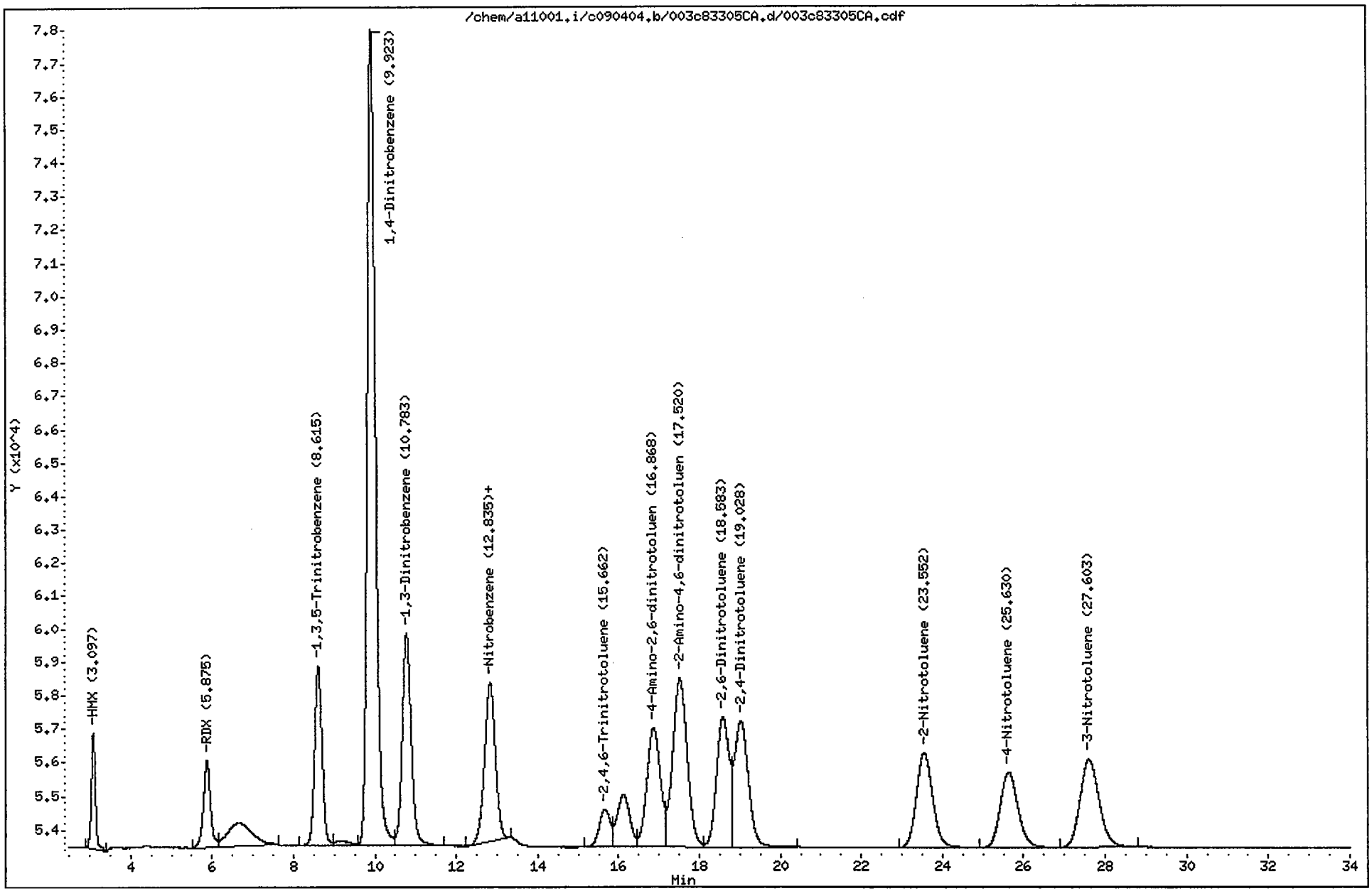
Volume Injected (uL): 10.0

Column phase: C18

Instrument: a11001.i

Operator: 2646

Column diameter: 4.60



CompuChem

Lab Smp Id : 83305CA Client Smp Id : 83305CA
Sample Type : INITIAL CAL: Level 5 Sublist : all
Inj Date : 04-APR-2009 16:17 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.06			1265					
2.23			3997					
3.10	2.99	3.19	23640	840	HMX	25.00000	945.5600	
5.88	5.78	5.98	30898	1190	RDX	25.00000	1235.920	
6.66			29213					
8.62	8.42	8.82	67501	2757	1,3,5-Trinitrobenzene	25.00000	2700.000	
9.20			3212					
9.92	9.73	10.13	338848	3385	1,4-Dinitrobenzene	100.0000	3388.480	
10.78	10.60	11.00	97406	3861	1,3-Dinitrobenzene	25.00000	3896.200	
12.84	12.65	13.05*	86599	1180	Nitrobenzene	* 75.00000	1154.640	
12.84	12.65	13.05*	86599	1180	Tetryl	* 75.00000	1154.640	
15.66	15.48	15.88	21563	859	2,4,6-Trinitrotoluene	25.00000	862.4800	
16.12			34216					
16.87	16.69	17.09	83946	1699	4-Amino-2,6-dinitrotoluene	50.00000	1678.920	
17.52	17.34	17.74	124819	2486	2-Amino-4,6-dinitrotoluene	50.00000	2496.360	
18.58	18.30	18.90	86297	1712	2,6-Dinitrotoluene	50.00000	1725.940	
19.03	18.75	19.35	88554	3554	2,4-Dinitrotoluene	25.00000	3542.120	
23.55	23.27	23.87	79353	1590	2-Nitrotoluene	50.00000	1587.060	
25.63	25.36	25.96	68683	1359	4-Nitrotoluene	50.00000	1373.640	
27.60	27.34	27.94	84822	1686	3-Nitrotoluene	50.00000	1696.420	

Data File: /chem/a11001.i/c090404.b/004c83304CA.d

Date : 04-APR-2009 16:53

Client ID: 83304CA

Instrument: a11001.i

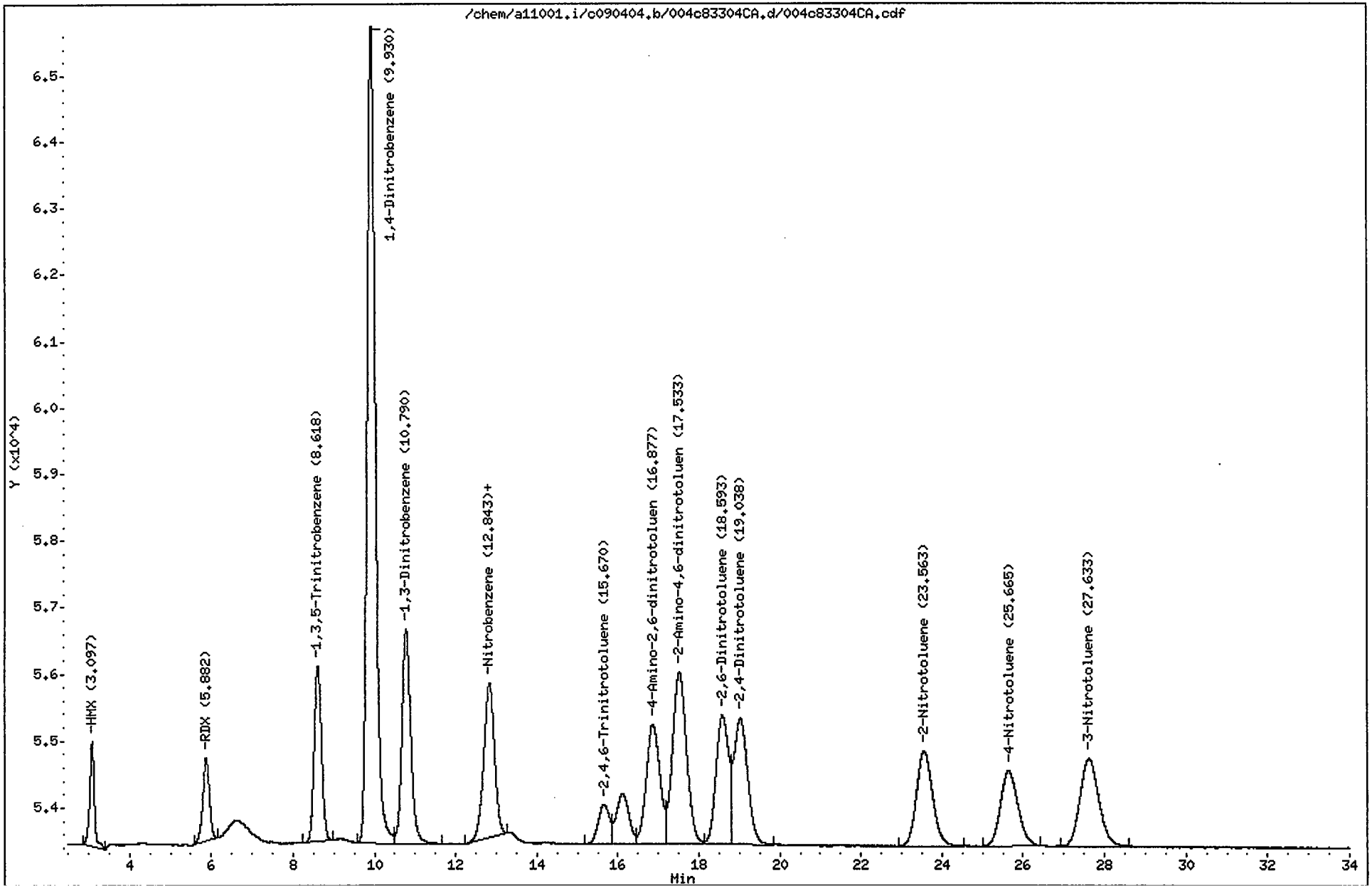
Sample Info: 83304CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CA Client Smp Id : 83304CA
Sample Type : INITIAL CAL: Level 4 Sublist : all
Inj Date : 04-APR-2009 16:53 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.07			1223					
2.24			1495					
3.10	2.99	3.19	12157	840	HMX	12.50000	972.5600	
5.88	5.78	5.98	14018	1190	RDX	12.50000	1121.440	
8.62	8.42	8.82	32885	2757	1,3,5-Trinitrobenzene	12.50000	2630.800	
9.93	9.73	10.13	170259	3385	1,4-Dinitrobenzene	50.00000	3405.160	
10.79	10.60	11.00	49004	3861	1,3-Dinitrobenzene	12.50000	3920.320	
12.84	12.65	13.05*	42617	1180	Nitrobenzene	* 37.00000	1151.784	
12.84	12.65	13.05*	42617	1180	Tetryl	* 37.00000	1151.784	
15.67	15.48	15.88	11669	859	2,4,6-Trinitrotoluene	12.50000	933.5200	
16.12			16640					
16.88	16.69	17.09	42163	1699	4-Amino-2,6-dinitrotoluene	25.00000	1686.520	
17.53	17.34	17.74	62892	2486	2-Amino-4,6-dinitrotoluene	25.00000	2515.680	
18.59	18.30	18.90	42918	1712	2,6-Dinitrotoluene	25.00000	1716.680	
19.04	18.75	19.35	44514	3554	2,4-Dinitrotoluene	12.50000	3561.040	
23.56	23.27	23.87	39625	1590	2-Nitrotoluene	25.00000	1584.960	
25.66	25.36	25.96	33539	1359	4-Nitrotoluene	25.00000	1341.560	
27.63	27.34	27.94	42604	1686	3-Nitrotoluene	25.00000	1704.120	

Data File: /chem/a11001.i/c090404.b/005c83303CA.d

Page 1

Date : 04-APR-2009 17:29

Client ID: 83303CA

Instrument: a11001.i

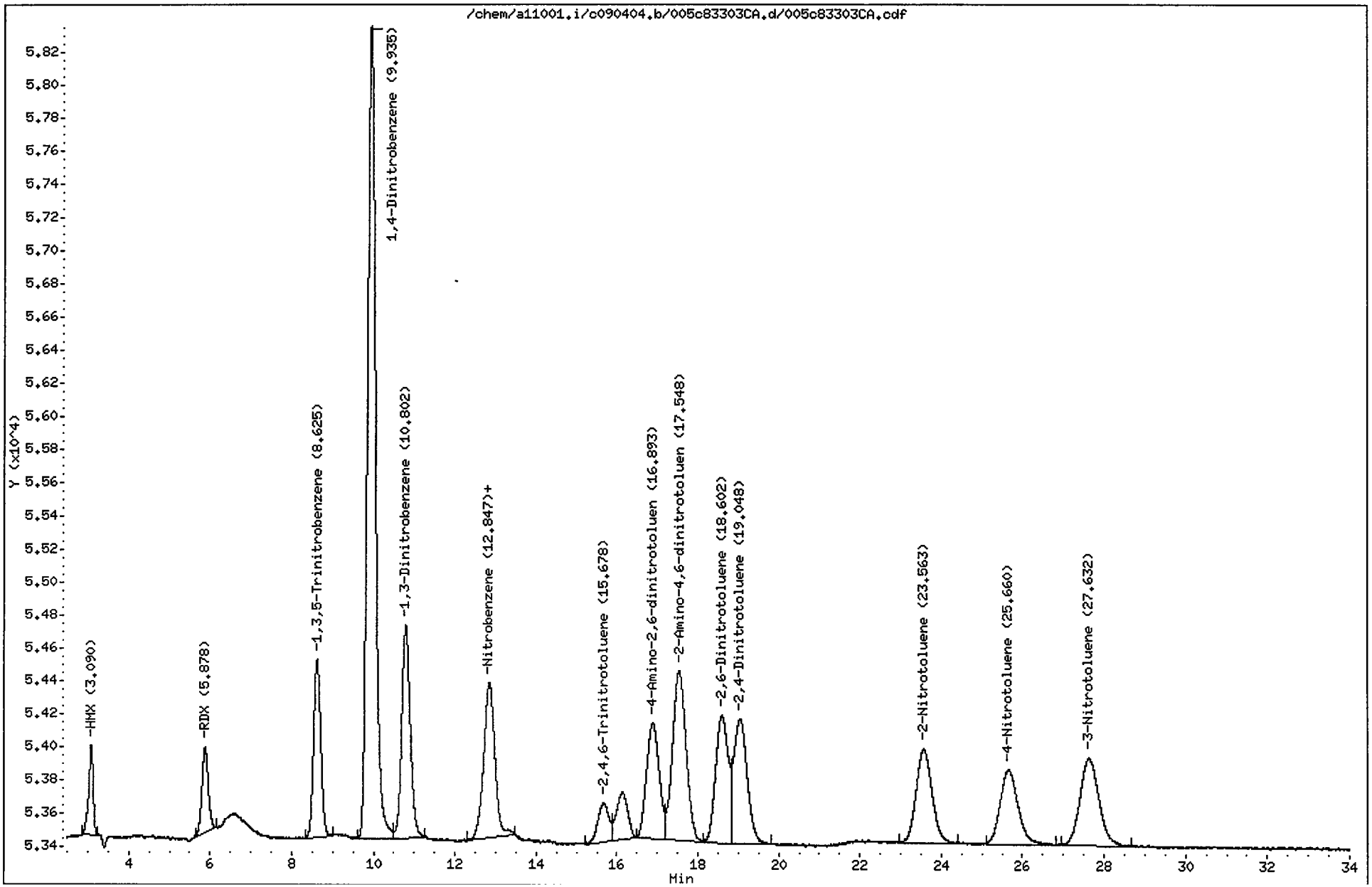
Sample Info: 83303CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83303CA Client Smp Id : 83303CA
Sample Type : INITIAL CAL: Level 3 Sublist : all
Inj Date : 04-APR-2009 17:29 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.13			691					
2.25			664					
3.09	2.99	3.19	4089	840	HMX	5.000000	817.8000	
5.88	5.78	5.98	5493	1190	RDX	5.000000	1098.400	
8.62	8.42	8.82	13097	2757	1,3,5-Trinitrobenzene	5.000000	2619.400	
9.94	9.73	10.13	66926	3385	1,4-Dinitrobenzene	20.00000	3346.250	
10.80	10.60	11.00	18744	3861	1,3-Dinitrobenzene	5.000000	3748.800	
12.85	12.65	13.05*	17954	1180	Nitrobenzene	* 15.00000	1196.933	
12.85	12.65	13.05*	17954	1180	Tetryl	* 15.00000	1196.933	
15.68	15.48	15.88	4443	859	2,4,6-Trinitrotoluene	5.000000	888.4000	
16.15			5542					
16.89	16.69	17.09	15283	1699	4-Amino-2,6-dinitrotoluene	10.00000	1528.200	
17.55	17.34	17.74	23756	2486	2-Amino-4,6-dinitrotoluene	10.00000	2375.500	
18.60	18.30	18.90	16520	1712	2,6-Dinitrotoluene	10.00000	1651.900	
19.05	18.75	19.35	17384	3554	2,4-Dinitrotoluene	5.000000	3476.600	
23.56	23.27	23.87	15442	1590	2-Nitrotoluene	10.00000	1544.100	
25.66	25.36	25.96	13650	1359	4-Nitrotoluene	10.00000	1364.900	
27.63	27.34	27.94	17016	1686	3-Nitrotoluene	10.00000	1701.500	

4/20/09

Data File: /chem/a11001.i/c090404.b/006c83302CA.d

Date : 04-APR-2009 18:05

Client ID: 83302CA

Sample Info: 83302CA

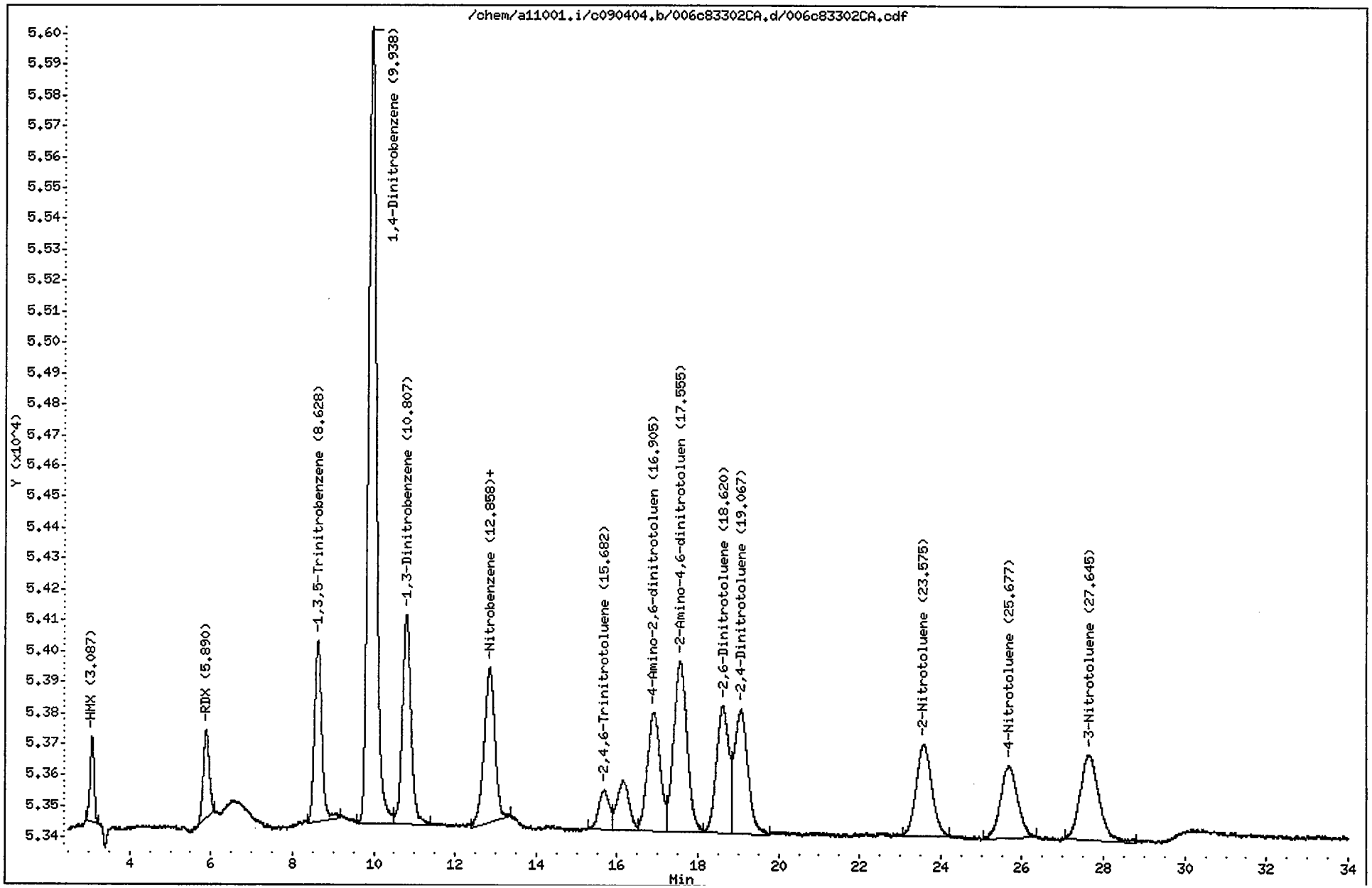
Volume Injected (uL): 10.0

Column phase: C18

Instrument: a11001.i

Operator: 2646

Column diameter: 4.60



CompuChem

Lab Smp Id : 83302CA Client Smp Id : 83302CA
Sample Type : INITIAL CAL: Level 2 Sublist : all
Inj Date : 04-APR-2009 18:05 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
3.09	2.99	3.19	1906	840	HMX	2.500000	762.4000	
5.89	5.78	5.98	2819	1190	RDX	2.500000	1127.600	
8.63	8.42	8.82	7274	2757	1,3,5-Trinitrobenzene	2.500000	2909.200	
9.94	9.73	10.13	34830	3385	1,4-Dinitrobenzene	10.00000	3482.900	
10.81	10.60	11.00	10046	3861	1,3-Dinitrobenzene	2.500000	4018.400	
12.86	12.65	13.05*	9123	1180	Nitrobenzene	* 7.500000	1216.267	
12.86	12.65	13.05*	9123	1180	Tetryl	* 7.500000	1216.267	
15.68	15.48	15.88	2313	859	2,4,6-Trinitrotoluene	2.500000	924.8000	
16.15			3365					
16.90	16.69	17.09	8482	1699	4-Amino-2,6-dinitrotoluene	5.000000	1696.200	
17.56	17.34	17.74	12622	2486	2-Amino-4,6-dinitrotoluene	5.000000	2524.400	
18.62	18.30	18.90	8643	1712	2,6-Dinitrotoluene	5.000000	1728.400	
19.07	18.75	19.35	9205	3554	2,4-Dinitrotoluene	2.500000	3681.600	
23.58	23.27	23.87	7897	1590	2-Nitrotoluene	5.000000	1579.400	
25.68	25.36	25.96	6786	1359	4-Nitrotoluene	5.000000	1357.200	
27.64	27.34	27.94	8745	1686	3-Nitrotoluene	5.000000	1748.800	

c4/22

Data File: /chem/a11001.i/c090404.b/007c83301CA.d

Date : 04-APR-2009 18:40

Client ID: 83301CA

Sample Info: 83301CA

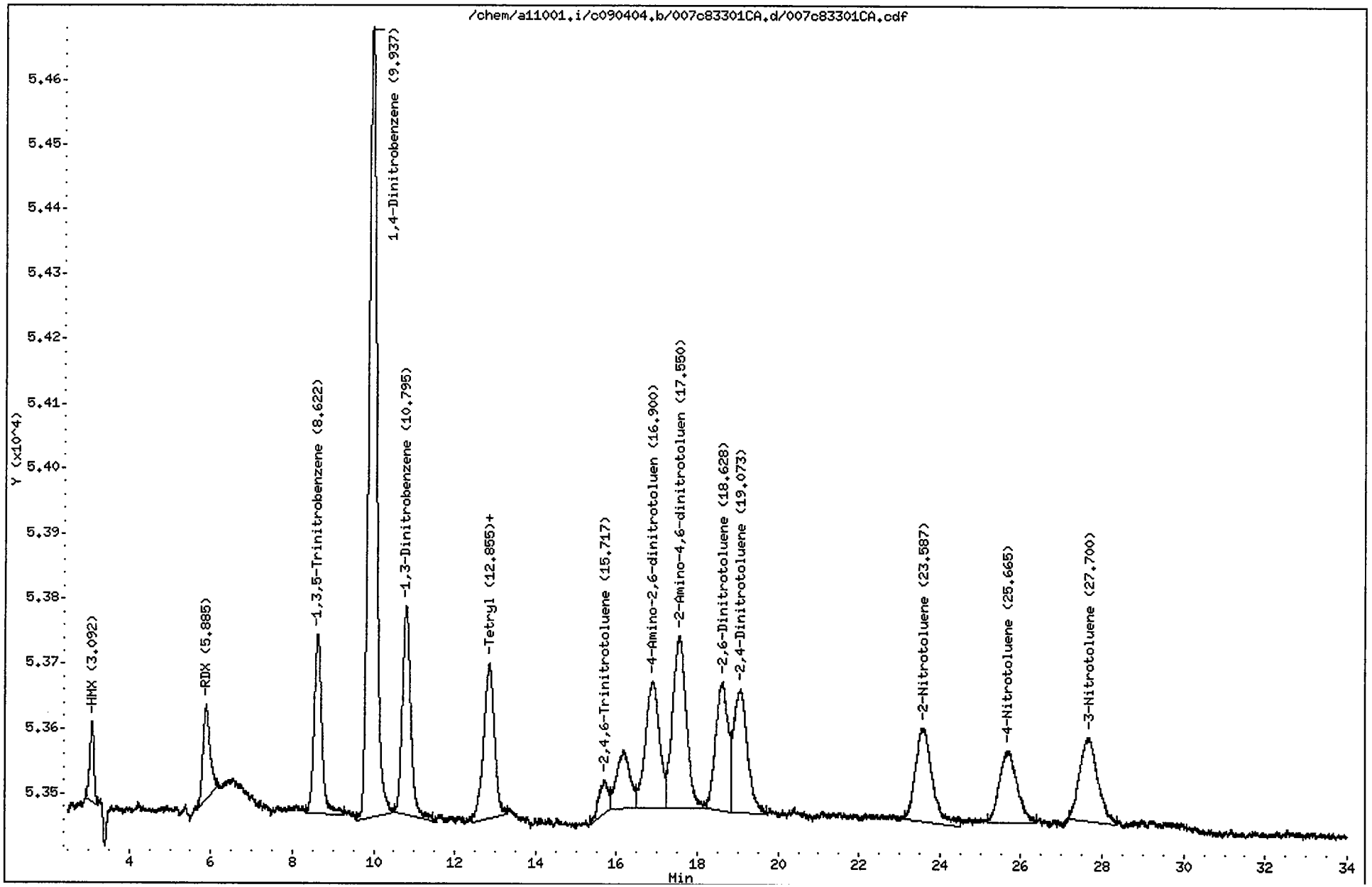
Volume Injected (uL): 10.0

Column phase: C18

Instrument: a11001.i

Operator: 2646

Column diameter: 4.60



CompuChem

Lab Smp Id : 83301CA Client Smp Id : 83301CA
Sample Type : INITIAL CAL: Level 1 Sublist : all
Inj Date : 04-APR-2009 18:40 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND		STD AMT ON-COLUMN (Ng)	RF	FLAGS
3.09	2.99	3.19	878	840	HMX		1.250000	702.4000	
5.88	5.78	5.98	1711	1190	RDX		1.250000	1368.000	
8.62	8.42	8.82	3661	2757	1,3,5-Trinitrobenzene		1.250000	2928.000	
9.94	9.73	10.13	16514	3385	1,4-Dinitrobenzene		5.000000	3302.600	
10.80	10.60	11.00	4651	3861	1,3-Dinitrobenzene		1.250000	3720.800	
12.86	12.65	13.05*	4426	1180	Tetryl	*	3.750000	1180.267	
12.86	12.65	13.05*	4426	1180	Nitrobenzene	*	3.750000	1180.267	
15.72	15.48	15.88	858	859	2,4,6-Trinitrotoluene		1.250000	686.4000	
16.18			2062						
16.90	16.69	17.09	4759	1699	4-Amino-2,6-dinitrotoluene		2.500000	1903.200	
17.55	17.34	17.74	6291	2486	2-Amino-4,6-dinitrotoluene		2.500000	2516.400	
18.63	18.30	18.90	4340	1712	2,6-Dinitrotoluene		2.500000	1735.600	
19.07	18.75	19.35	4385	3554	2,4-Dinitrotoluene		1.250000	3507.200	
23.59	23.27	23.87	4130	1590	2-Nitrotoluene		2.500000	1652.000	
25.66	25.36	25.96	3390	1359	4-Nitrotoluene		2.500000	1356.000	
27.70	27.34	27.94	3954	1686	3-Nitrotoluene		2.500000	1581.600	

Data File: /chem/a11001.i/c090404.b/008cCHKSTDCA.d

Page 1

Date : 04-APR-2009 19:16

Client ID: CHKSTDCA

Instrument: a11001.i

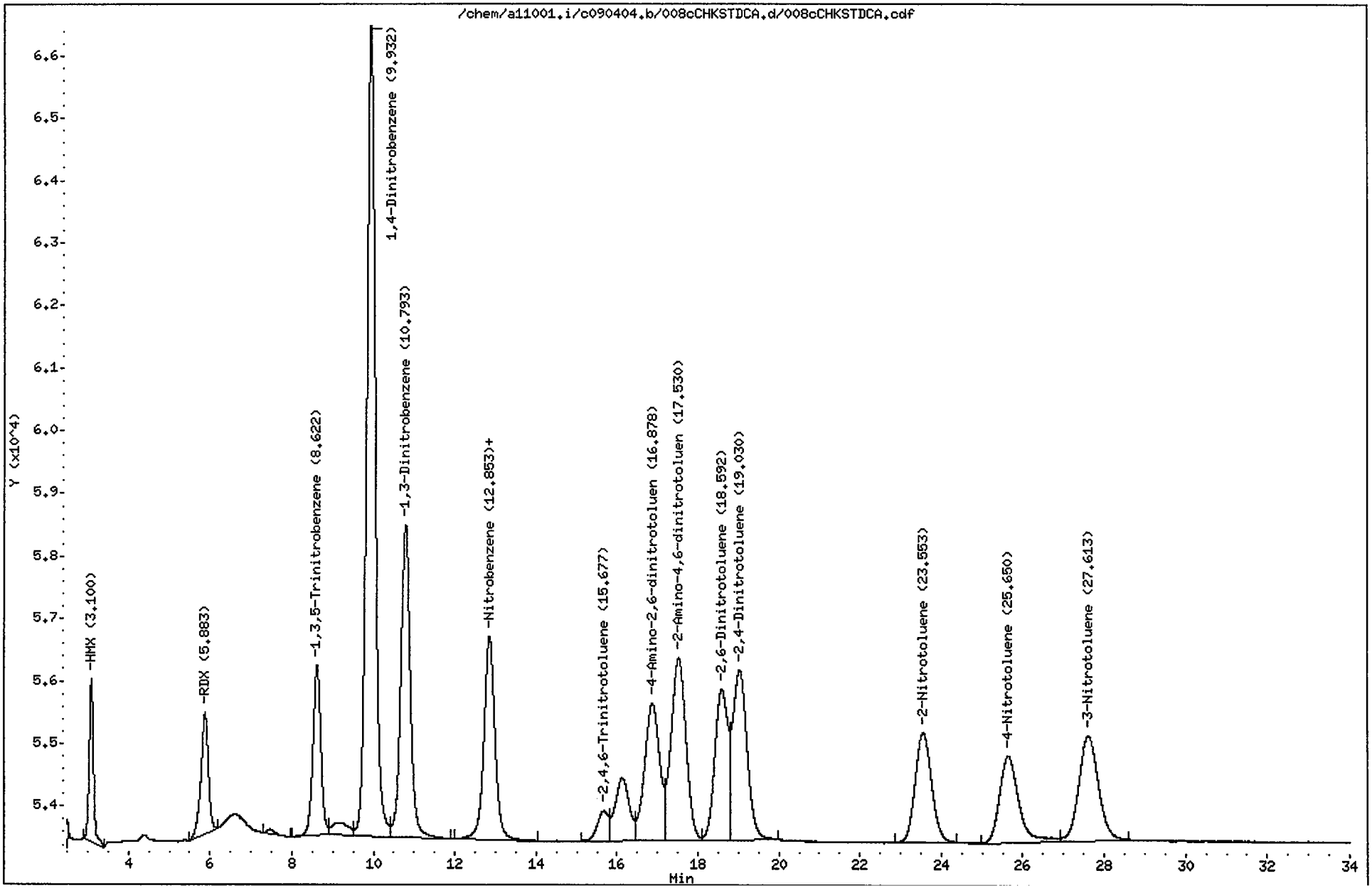
Sample Info: CHKSTDCA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : CHKSTDCA
Client Smp Id : CHKSTDCA
Sample Type : QCCHECK
Sublist : all
Inj Date : 04-APR-2009 19:16
Inst ID : A11001
Operator : 2646
Spike Sublist : qccheck
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	AREA
2.05	974
2.24	5377
2.49	2557
3.10	18952
5.88	24195
7.45	989
8.62	37022
9.18	5509
9.93	189673
10.79	80861
12.85	61312
12.85	61312
15.68	9245
16.13	23742
16.88	56770
17.53	74826
18.59	54124
19.03	66399
23.55	48743
25.65	45000
27.61	55555

Data File: /chem/a11001.i/c090404f.b/030c83304CG.d

Date : 20-APR-2009 19:31

Client ID: 83304CG

Sample Info: 83304CG

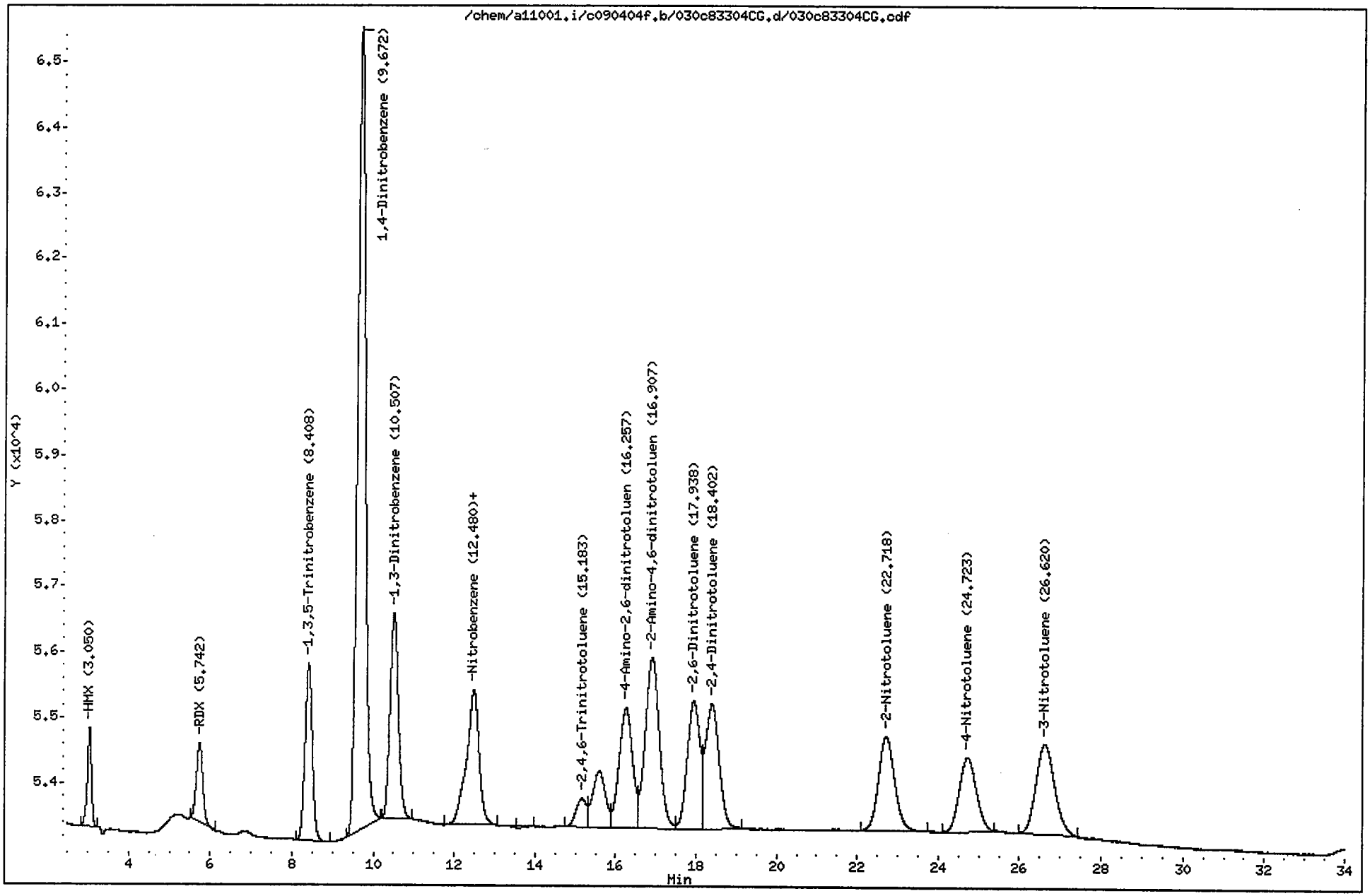
Volume Injected (uL): 10.0

Column phase: C18

Instrument: a11001.i

Operator: 2646

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CG Client Smp Id : 83304CG
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 20-APR-2009 19:31 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : None

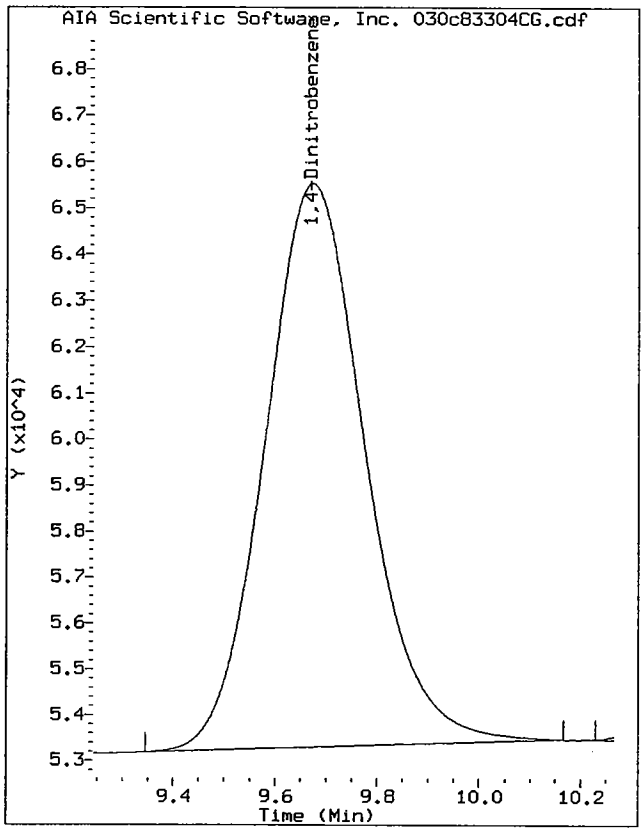
RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.06			1200								
2.23			1158								
3.05	2.98	3.18	10616	840	HMX	12.50000	849.2800	-1.1	15.0		
5.74	5.64	5.84	13278	1190	RDX	12.50000	1062.240	10.7	15.0		
8.41	8.21	8.61	33877	2757	1,3,5-Trinitrobenzene	12.50000	2710.160	1.7	15.0		
9.67	9.47	9.87	166825	3385	1,4-Dinitrobenzene	50.00000	3336.480	1.4	15.0	M2	
10.51	10.31	10.71	44510	3861	1,3-Dinitrobenzene	12.50000	3560.800	7.8	15.0	M2	
12.48	12.28	12.68*	44414	1180	Nitrobenzene	* 37.00000	1200.351	-1.7	15.0	M2	
12.48	12.28	12.68*	44414	1180	Tetryl	* 37.00000	1200.351	-1.7	15.0	M2	
13.73			530								
15.17	14.98	15.38	7728	859	2,4,6-Trinitrotoluene	12.50000	618.2160	28.0*	15.0	R	
15.60			19726								
16.25	16.06	16.46	43077	1699	4-Amino-2,6-dinitrotoluene	25.00000	1723.076	-1.4	15.0		
16.90	16.71	17.11	63283	2486	2-Amino-4,6-dinitrotoluene	25.00000	2531.336	-1.8	15.0		
17.94	17.64	18.24	42752	1712	2,6-Dinitrotoluene	25.00000	1710.092	0.1	15.0		
18.40	18.10	18.70	45227	3554	2,4-Dinitrotoluene	12.50000	3618.184	-1.8	15.0		
22.72	22.42	23.02	40002	1590	2-Nitrotoluene	25.00000	1600.080	-0.6	15.0		
24.72	24.43	25.03	32995	1359	4-Nitrotoluene	25.00000	1319.800	2.9	15.0	M2	
26.62	26.32	26.92	43785	1686	3-Nitrotoluene	25.00000	1751.360	-3.9	15.0	M2	

AS 4/21/09

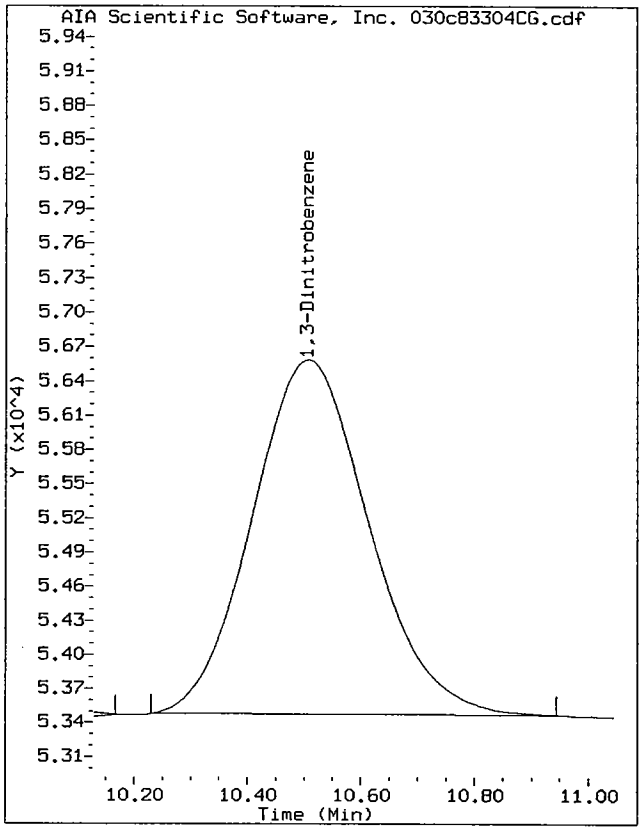
AS 4/21/09

$\bar{X} = 4.4\%$

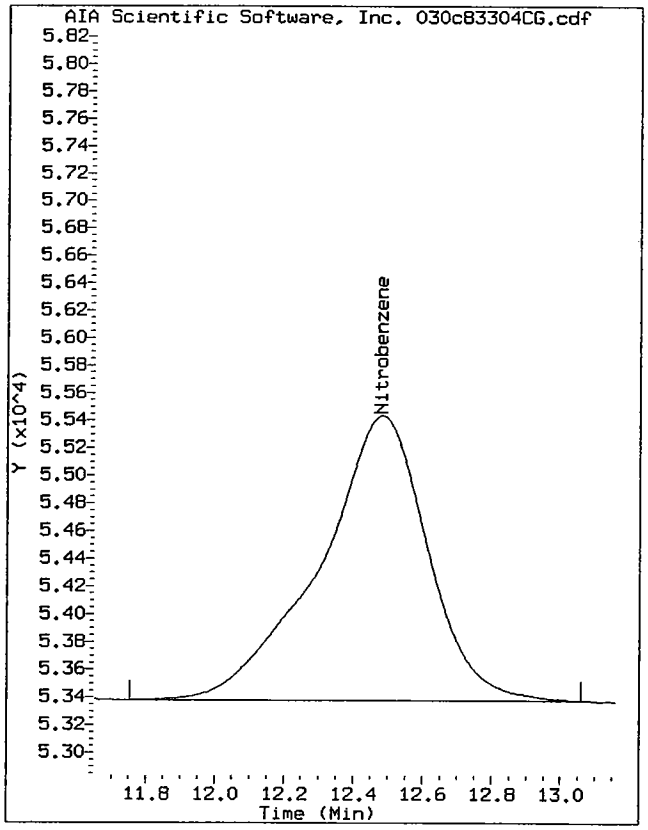
Manually Integrated Peaks



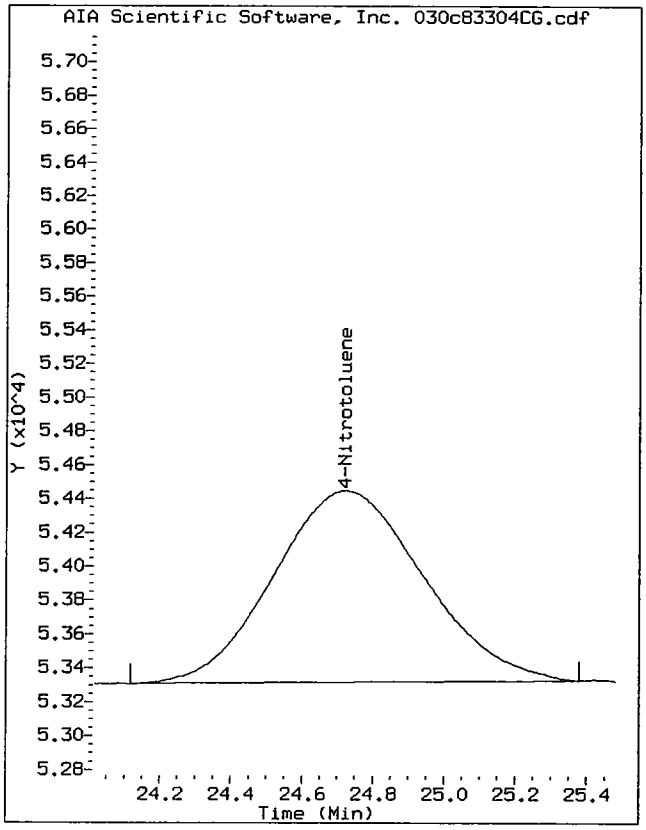
Start: 9.35 Stop: 10.17



Start: 10.23 Stop: 10.94

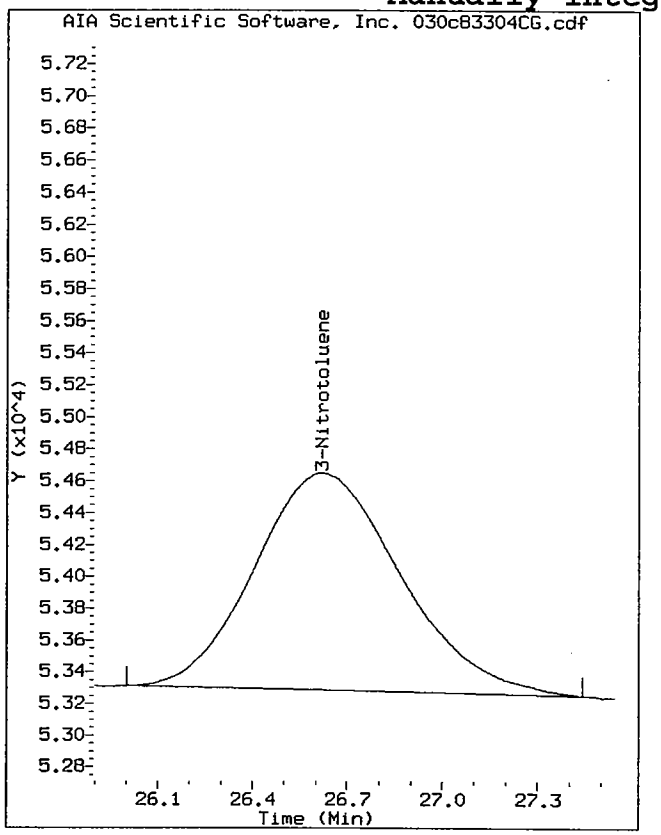


Start: 11.75 Stop: 13.06



Start: 24.12 Stop: 25.38

Manually Integrated Peaks



Start: 26.00 Stop: 27.44

Data File: /chem/a11001.i/c090404g.b/037c83304CH.d

Date : 20-APR-2009 23:42

Client ID: 83304CH

Instrument: a11001.i

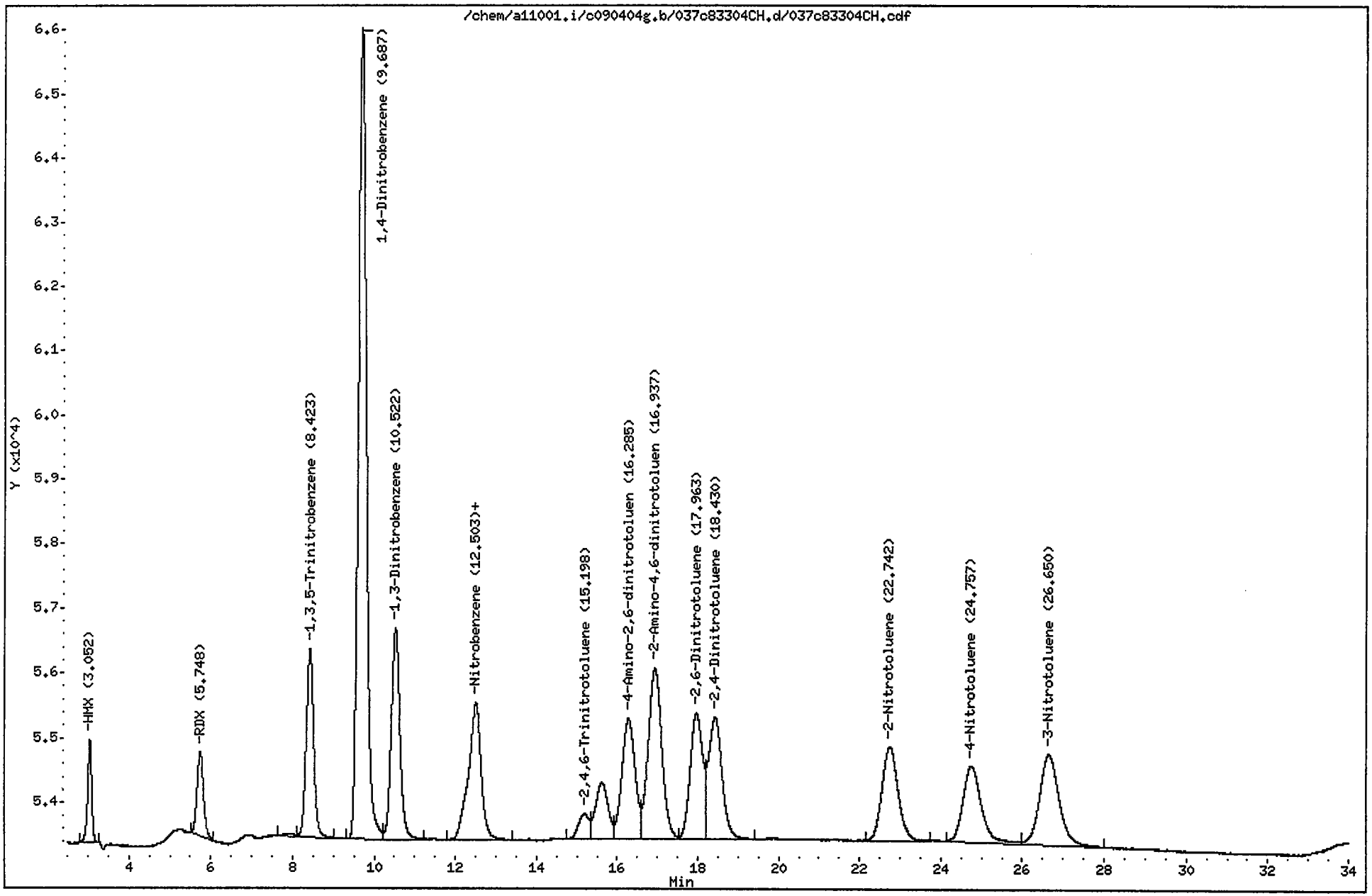
Sample Info: 83304CH

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CH Client Smp Id : 83304CH
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 20-APR-2009 23:42 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.10			1456								
2.23			1364								
3.05	2.98	3.18	10964	840	HMX	12.50000	877.0400	-4.4	15.0		
5.75	5.64	5.84	14189	1190	RDX	12.50000	1135.040	4.6	15.0		
7.86			588								
8.42	8.21	8.61	36546	2757	1,3,5-Trinitrobenzene	12.50000	2923.680	-6.0	15.0		
9.69	9.48	9.88	171502	3385	1,4-Dinitrobenzene	50.00000	3430.040	-1.3	15.0		
10.52	10.31	10.71	48392	3861	1,3-Dinitrobenzene	12.50000	3871.360	-0.3	15.0		
12.50	12.29	12.69*	46468	1180	Nitrobenzene	* 37.00000	1255.865	-6.4	15.0		
12.50	12.29	12.69*	46468	1180	Tetryl	* 37.00000	1255.889	-6.4	15.0		
15.20	14.99	15.39	6968	859	2,4,6-Trinitrotoluene	12.50000	557.4400	35.1*	15.0	R	
15.63			18860								
16.28	16.06	16.46	42793	1699	4-Amino-2,6-dinitrotoluene	25.00000	1711.680	-0.7	15.0		
16.94	16.71	17.11	62675	2486	2-Amino-4,6-dinitrotoluene	25.00000	2506.960	-0.8	15.0		
17.96	17.64	18.24	42054	1712	2,6-Dinitrotoluene	25.00000	1682.160	1.7	15.0		
18.43	18.11	18.71	44325	3554	2,4-Dinitrotoluene	12.50000	3545.920	0.2	15.0		
22.74	22.42	23.02	39851	1590	2-Nitrotoluene	25.00000	1594.040	-0.3	15.0		
24.76	24.43	25.03	37334	1359	4-Nitrotoluene	25.00000	1493.360	-9.9	15.0		
26.65	26.33	26.93	46843	1686	3-Nitrotoluene	25.00000	1873.720	-11.1	15.0		

AS 4/21/09

$\bar{x} = 6.0\%$

Data File: /chem/a11001.i/c090404h.b/047c83304CI.d

Date : 21-APR-2009 05:41

Client ID: 83304CI

Instrument: a11001.i

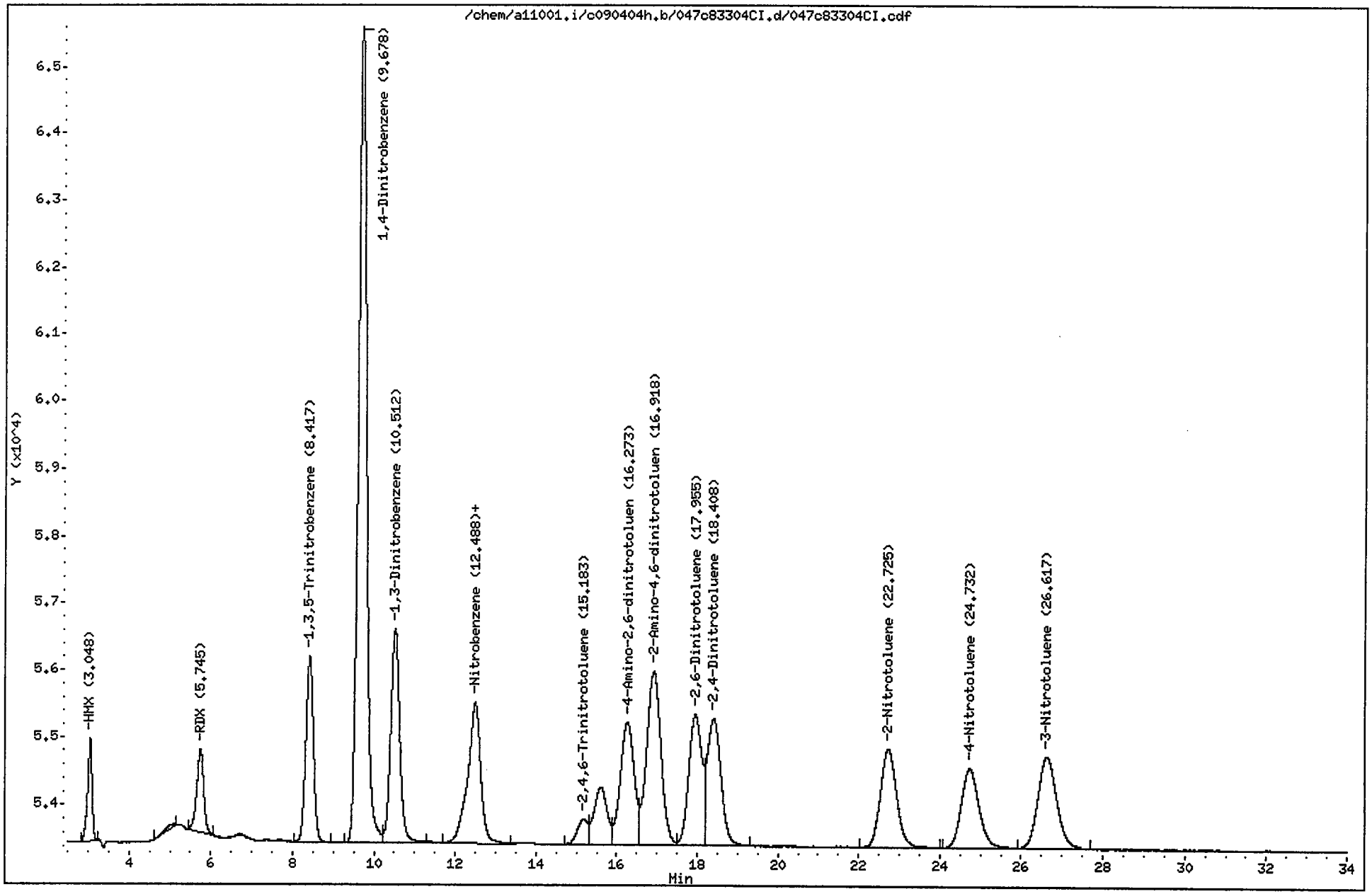
Sample Info: 83304CI

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CI Client Smp Id : 83304CI
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 21-APR-2009 05:41 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404h.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.08			1310								
2.23			1539								
3.05	2.98	3.18	11019	840	HMX	12.50000	881.4400	-4.9	15.0		
5.09			905								
5.74	5.64	5.84	14074	1190	RDX	12.50000	1125.840	5.4	15.0		
8.42	8.21	8.61	35945	2757	1,3,5-Trinitrobenzene	12.50000	2875.520	-4.3	15.0		
9.68	9.47	9.87	172064	3385	1,4-Dinitrobenzene	50.00000	3441.280	-1.7	15.0		
10.51	10.31	10.71	48628	3861	1,3-Dinitrobenzene	12.50000	3890.240	-0.8	15.0		
12.49	12.28	12.68*	46321	1180	Nitrobenzene	* 37.00000	1251.892	-6.1	15.0		
12.49	12.28	12.68*	46321	1180	Tetryl	* 37.00000	1251.911	-6.1	15.0		
15.16	14.98	15.38	7035	859	2,4,6-Trinitrotoluene	12.50000	562.8320	34.5*	15.0	R	
15.60			19089								
16.26	16.06	16.46	43633	1699	4-Amino-2,6-dinitrotoluene	25.00000	1745.316	-2.7	15.0		
16.92	16.71	17.11	63415	2486	2-Amino-4,6-dinitrotoluene	25.00000	2536.604	-2.0	15.0		
17.94	17.64	18.24	43356	1712	2,6-Dinitrotoluene	25.00000	1734.224	-1.3	15.0		
18.41	18.10	18.70	44233	3554	2,4-Dinitrotoluene	12.50000	3538.636	0.4	15.0		
22.72	22.42	23.02	40583	1590	2-Nitrotoluene	25.00000	1623.320	-2.1	15.0		
24.73	24.43	25.03	35635	1359	4-Nitrotoluene	25.00000	1425.400	-4.9	15.0		
26.62	26.32	26.92	43560	1686	3-Nitrotoluene	25.00000	1742.360	-3.3	15.0		

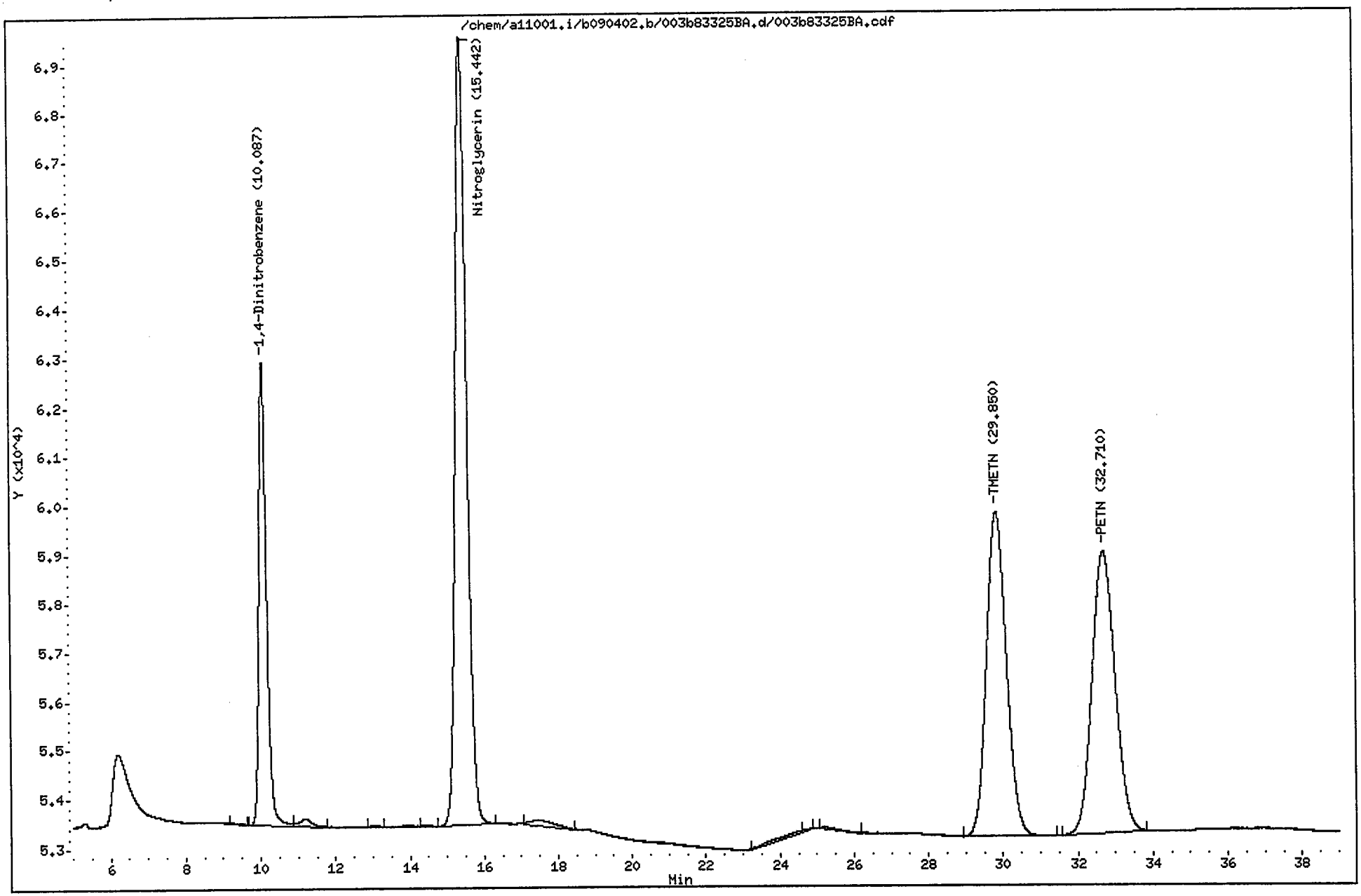
KS 4/21/09

$\bar{x} = 5.4\%$

Data File: /chem/a11001.i/b090402.b/003b83325BA.d
Date : 02-APR-2009 23:32
Client ID: 83325BA
Sample Info: 83325BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i

Operator: 2512
Column diameter: 4.60



Data File: /chem/a11001.i/b090402.b/003b83325BA.d
Report Date 04/03/2009 07:36

CompuChem

Lab Smp Id : 83325BA
Client Smp Id : 83325BA
Sample Type : INITIAL CAL: Level 5
Sublist : all
Inj Date : 02-APR-2009 23:32
Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

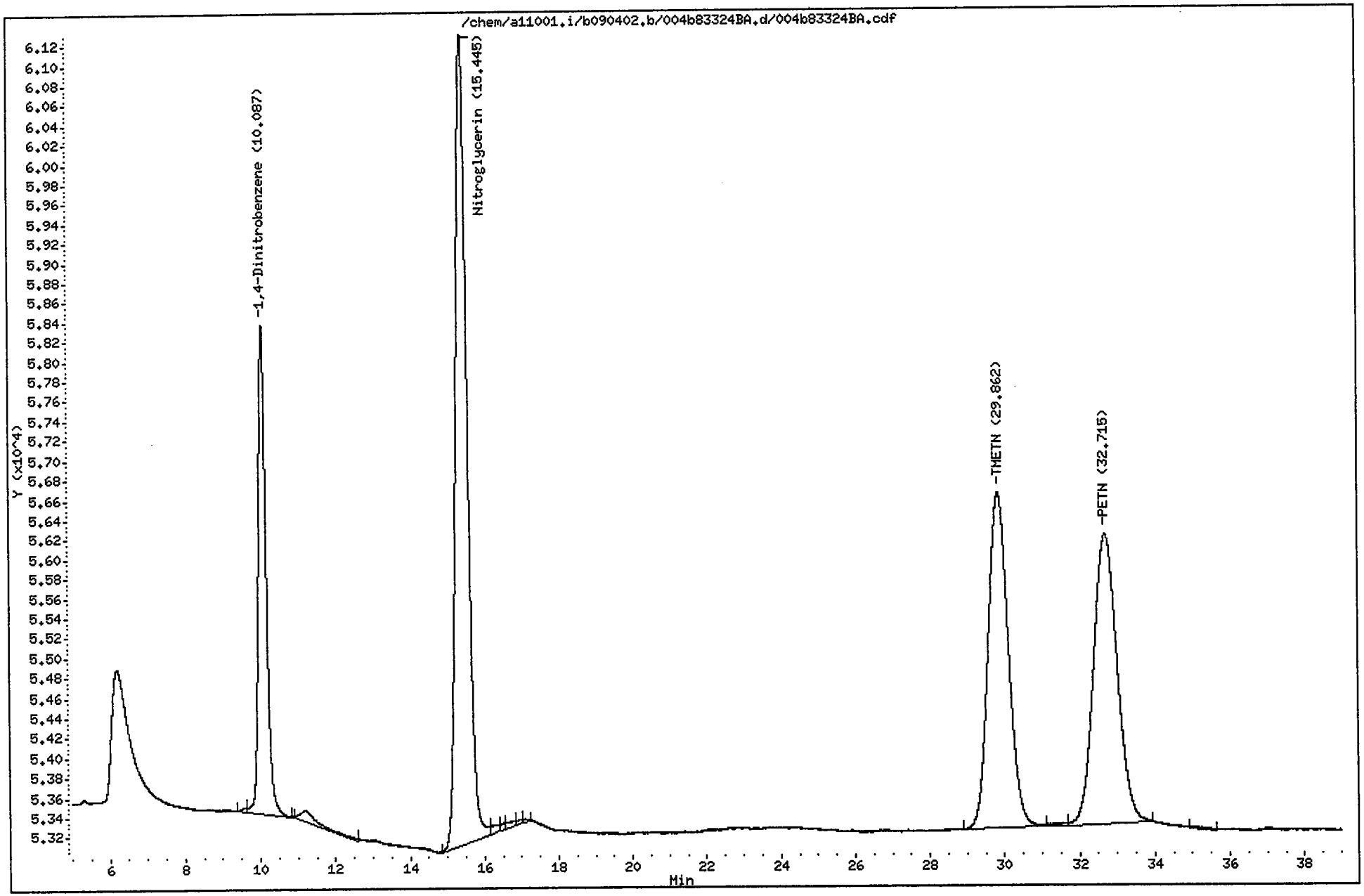
RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
9.22		313					
10.09	10.00 10.20	133520	1398	1,4-Dinitrobenzene	100.0000	1335.190	
11.19		3032					
13.05		483					
14.45		281					
15.44	15.35 15.55	341548	881	Nitroglycerin	400.0000	853.8675	
17.48		5792					
24.60		2563					
24.87		261					
25.18		1264					
29.85	29.67 30.07	244634	1056	TMETN	250.0000	978.5320	
32.71	32.51 32.91	244489	1033	PETN	250.0000	977.9560	

4/3/09

Data File: /chem/a11001.i/b090402.b/004b83324BA.d
Date : 03-APR-2009 00:13
Client ID: 83324BA
Sample Info: 83324BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i

Operator: 2512
Column diameter: 4.60



CompuChem

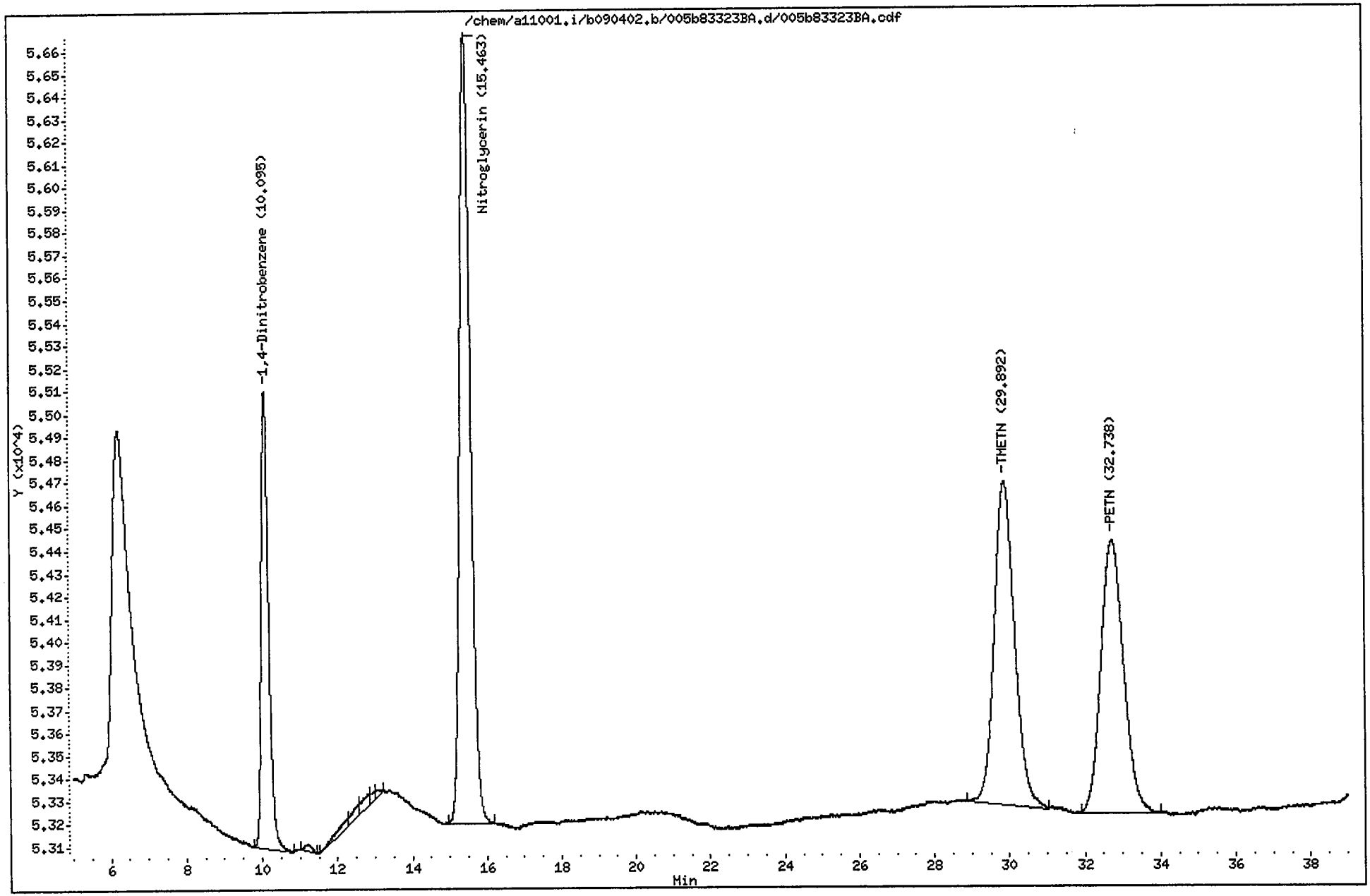
Lab Smp Id : 83324BA
Client Smp Id : 83324BA
Sample Type : INITIAL CAL: Level 4
Sublist : all
Inj Date : 03-APR-2009 00:13
Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
9.60		435					
10.09	10.00 10.20	70380	1398	1,4-Dinitrobenzene	50.00000	1407.600	
11.20		3231					
15.44	15.35 15.55	176318	881	Nitroglycerin	200.0000	881.5900	
16.38		1293					
16.54		568					
16.84		979					
16.98		450					
17.08		266					
29.86	29.67 30.07	126749	1056	TMETN	125.0000	1013.984	
31.53		669					
32.72	32.51 32.91	127450	1033	PETN	125.0000	1019.600	
35.01		362					

MS
4/3/09

Data File: /chem/a11001.i/b090402.b/005b83323BA.d
Date : 03-APR-2009 00:54
Client ID: 83323BA
Sample Info: 83323BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2512
Column diameter: 4.60



CompuChem

Lab Smp Id : 83323BA
Client Smp Id : 83323BA
Sample Type : INITIAL CAL: Level 3
Sublist : all
Inj Date : 03-APR-2009 00:54
Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

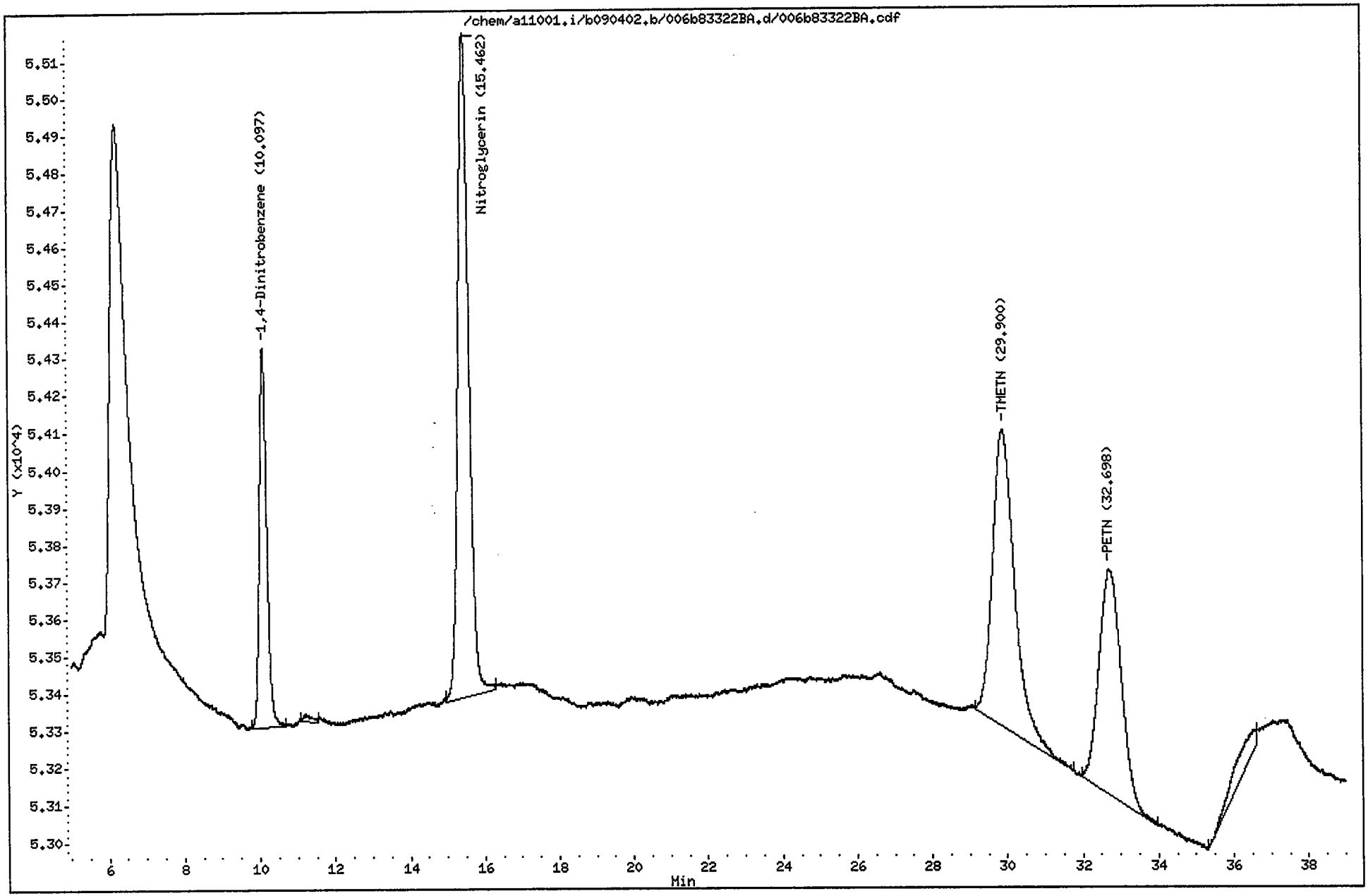
RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
10.10	10.00 10.20	27095	1398	1,4-Dinitrobenzene	20.00000	1354.750	
11.20		447					
12.25		871					
12.53		731					
12.81		786					
12.99		389					
13.06		279					
15.46	15.35 15.55	69764	881	Nitroglycerin	80.00000	872.0500	
29.89	29.67 30.07	53375	1056	TMETN	50.00000	1067.480	
32.74	32.51 32.91	50086	1033	PETN	50.00000	1001.700	

AS
4/3/09

Data File: /chem/a11001.i/b090402.b/006b83322BA.d
Date : 03-APR-2009 01:35
Client ID: 83322BA
Sample Info: 83322BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i

Operator: 2512
Column diameter: 4.60



CompuChem

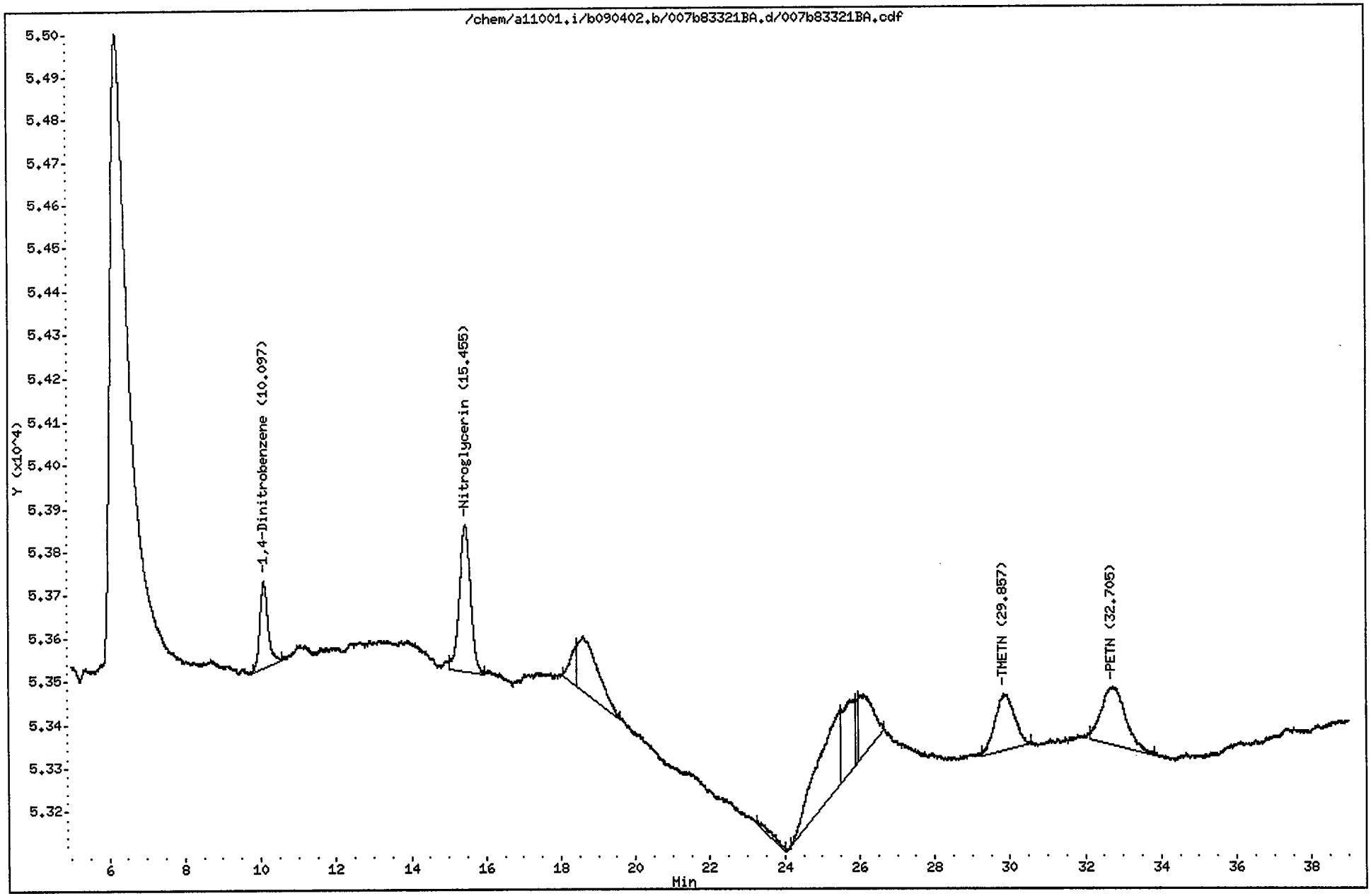
Lab Smp Id : 83322BA
Client Smp Id : 83322BA
Sample Type : INITIAL CAL: Level 2
Sublist : all
Inj Date : 03-APR-2009 01:35
Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
10.10	10.00 10.20	13833	1398	1,4-Dinitrobenzene	10.00000	1383.200	
11.23		264					
15.46	15.35 15.55	36357	881	Nitroglycerin	40.00000	908.9000	
29.90	29.67 30.07	32427	1056	TMETN	25.00000	1297.080	
32.70	32.51 32.91	24487	1033	PETN	25.00000	979.4400	
36.55		3311					

AS 4/3/09

Data File: /chem/a11001.i/b090402.b/007b83321BA.d
Date : 03-APR-2009 02:16
Client ID: 83321BA
Sample Info: 83321BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2512
Column diameter: 4.60



CompuChem

Lab Smp Id : 83321BA
Client Smp Id : 83321BA
Sample Type : INITIAL CAL: Level 1
Sublist : all
Inj Date : 03-APR-2009 02:16
Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
10.10	10.00 10.20	3016	1398	1,4-Dinitrobenzene	2.000000	1507.500	
15.46	15.35 15.55	7122	881	Nitroglycerin	8.000000	890.2500	
18.43		1034					
18.61		4867					
23.28		411					
25.47		7795					
25.75		4058					
25.96		650					
26.11		3516					
29.86	29.67 30.07	4608	1056	TMETN	5.000000	921.6000	
32.70	32.51 32.91	5935	1033	PETN	5.000000	1186.800	

AS 4/3/09

Data File: /chem/a11001.i/b090402.b/008bCHKSTDBA.d

Date : 03-APR-2009 02:57

Client ID: CHKSTDBA

Instrument: a11001.i

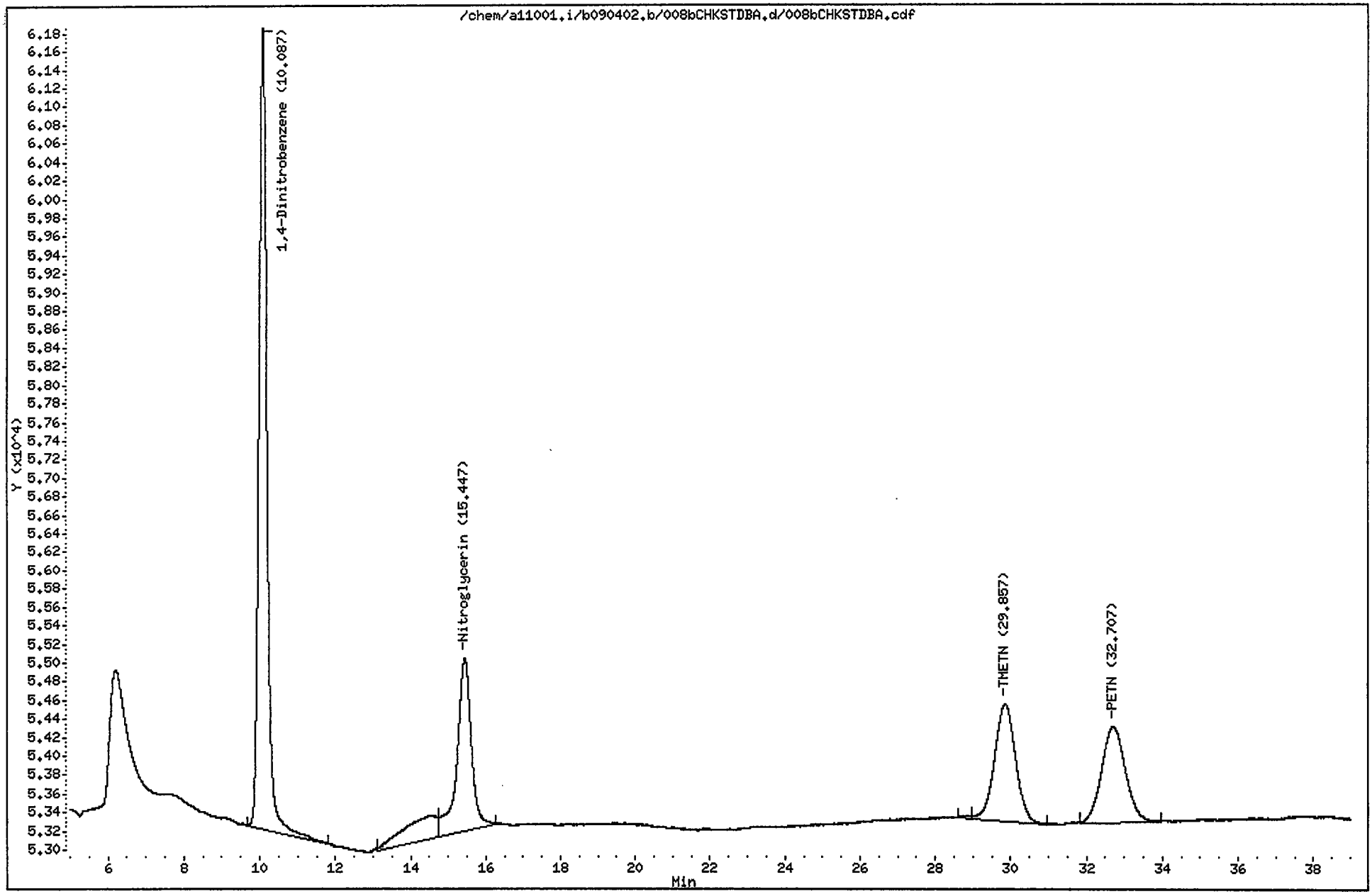
Sample Info: CHKSTDBA

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : CHKSTDBA
Client Smp Id : CHKSTDBA
Sample Type : QCCHECK
Sublist : all
Inj Date : 03-APR-2009 02:57
Inst ID : A11001
Operator : 2512
Spike Sublist : qccheck
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	AREA
10.09	127251
14.52	15418
15.45	48897
28.74	418
29.86	47822
32.71	44881

AS 4/3/09

CompuChem

RECOVERY REPORT

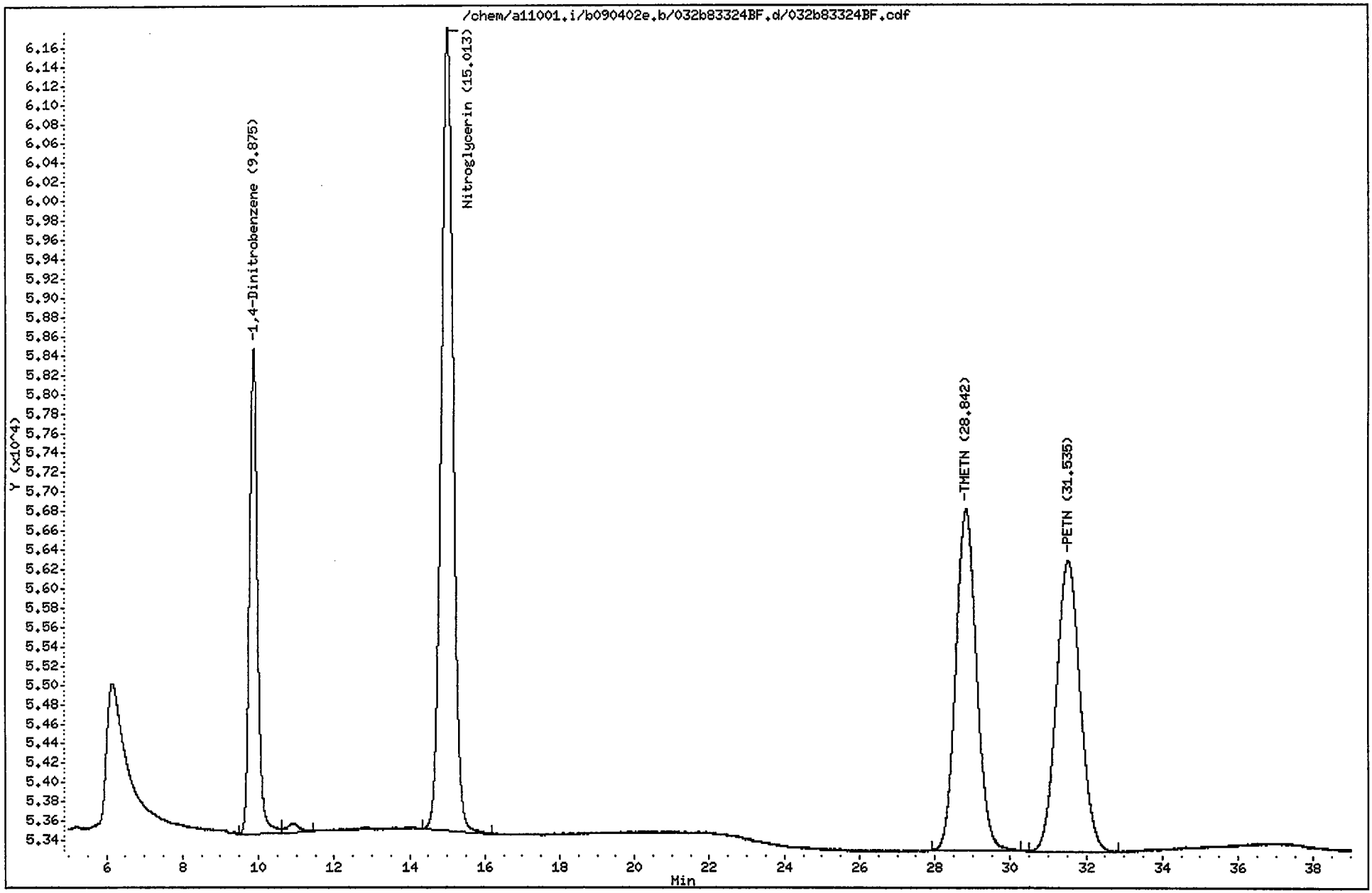
Client Name:
Client SDG: b090402
Sample Matrix: LIQUID
Fraction: 8330
Lab Smp Id: CHKSTDBA
Client Smp ID: CHKSTDBA
Level: LOW
Operator: 2512
Data Type: LC DATA
SampleType: QCCHECK
SpikeList File: qccheck.spk
Quant Type: ESTD
Sublist File: all.sub
Method File: /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc Info: None

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
10 Nitroglycerin	5.0	5.5	110.96	80-120
24 TMETN	5.0	4.5	90.59	80-120
25 PETN	5.0	4.3	86.88	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 7 1,4-Dinitrobenzene	10	9.1	91.04	50-150

Data File: /chem/a11001.i/b090402e.b/032b83324BF.d
Date : 22-APR-2009 17:54
Client ID: 83324BF
Sample Info: 83324BF
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2646
Column diameter: 4.60



CompuChem

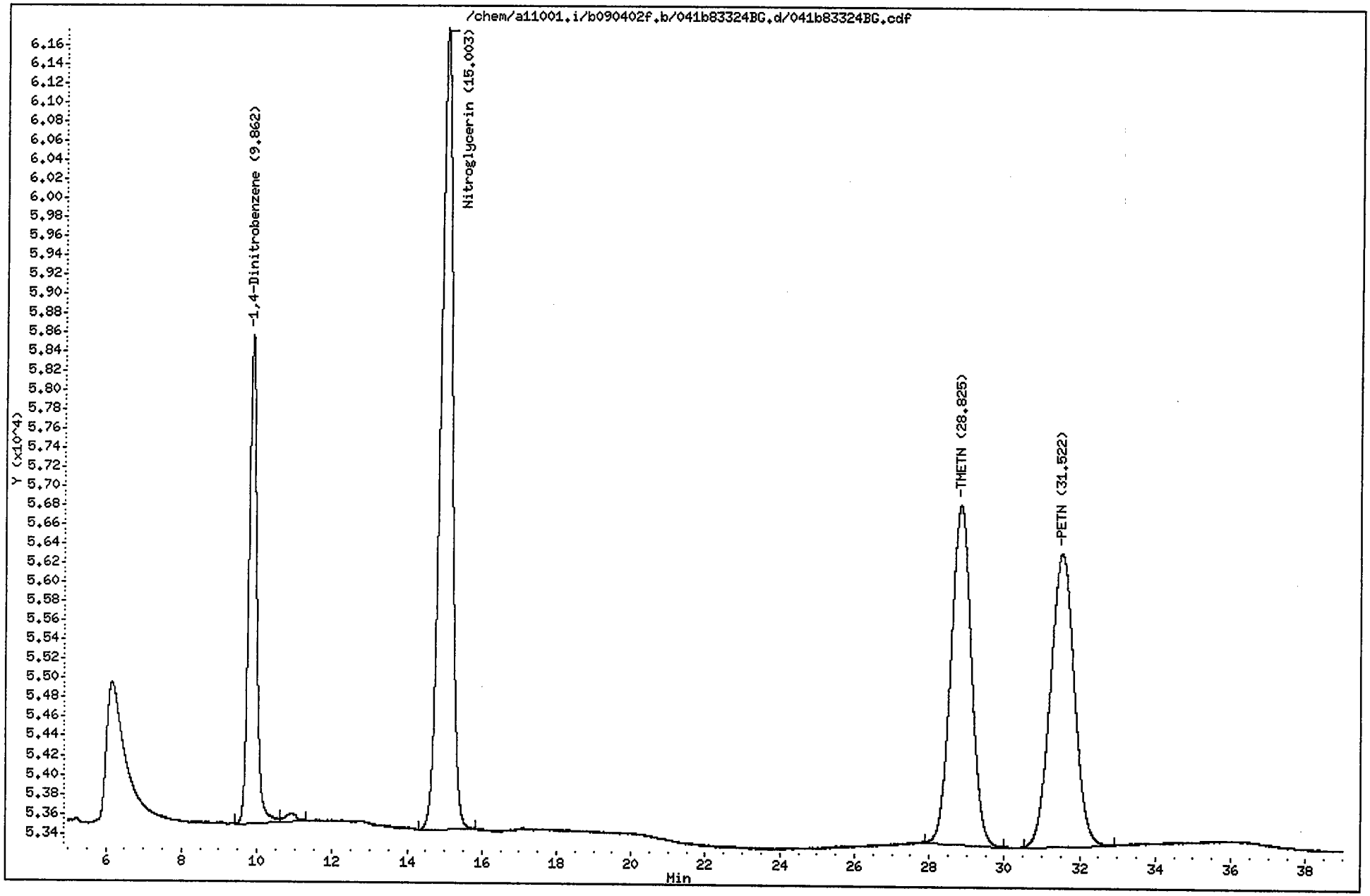
Lab Smp Id : 83324BF Client Smp Id : 83324BF
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 22-APR-2009 17:54 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
9.88	9.78	9.98	72955	1398	1,4-Dinitrobenzene	50.00000	1459.102	-4.4	40.0		
10.91			2137								
15.01	14.91	15.11	183558	881	Nitroglycerin	200.0000	917.7900	-4.2	15.0		
28.84	28.64	29.04	133798	1056	TMETN	125.0000	1070.382	-1.4	40.0		
31.54	31.34	31.74	130544	1033	PETN	125.0000	1044.356	-1.1	40.0		

AG 4/23/09

Data File: /chem/a11001.i/b090402f.b/041b83324BG.d
Date : 23-APR-2009 00:02
Client ID: 83324BG
Sample Info: 83324BG
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2646
Column diameter: 4.60



CompuChem

Lab Smp Id : 83324BG
Client Smp Id : 83324BG
Sample Type : CONT CAL: Level 4
Sublist : all
Inj Date : 23-APR-2009 00:02
Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
9.86	9.78	9.98	74071	1398	1,4-Dinitrobenzene	50.00000	1481.428	-6.0	40.0		
10.93			1904								
15.00	14.91	15.11	183875	881	Nitroglycerin	200.0000	919.3745	-4.4	15.0		
28.82	28.64	29.04	132957	1056	TMETN	125.0000	1063.656	-0.7	40.0		
31.52	31.34	31.74	133073	1033	PETN	125.0000	1064.581	-3.1	40.0		

4/23/09

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4 / 4 / 09

Sequence ID: C090404 Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO (8330) 8332 Other

		FILE NAME		DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1	✓	1		4/4/09	C16UC	61928	ZTT	
2	✓	2		/ /	C16UC	↓		
3		3	✓	/ /	8330SCA	61929		
4		4	✓	/ /	4			2X (500µl MeOH / 500µl STD)
5		5	✓	/ /	3			5X (500µl MeOH / 200µl STD)
6		6	✓	/ /	2			10X (900µl MeOH / 100µl STD)
7		7	✓	/ /	1			20X (950µl MeOH / 50µl STD)
8		8		/ /	8330CHKSTD	61709		
9				/ /				
10				/ /				
11				/ /				
12				/ /				
13				/ /		6/4/14		
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 4/14/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001

DATE 4/20/09

Sequence ID: C090404f

Amt. Inj. 10 µL

Column: (Primary) Confirmation

Method: 610 8310 MIDCO (8330) 8332 Other_____

125

	FILE NAME	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1	30	4/20/09	93304CG	61929	2512	2X: 500µl standard in 500µl MeOH
2	31	/ /	LIBLKCG	61928		
3	32	/ /	904203-BLK1	various		
4	33	/ /	BS1	↓		
5	34	/ /	BSD1			
6	35	/ /	MS1	0904098		
7	36	/ /	MSD1	↓	↓	
8		/ /				
9		/ /				
10		/ /				
11		/ /				
12		/ /				
13		/ /				
14		/ /				
15		/ /				
16		/ /				
17		/ /				
18		/ /				
19		/ /				
20		/ /				AS 4/21/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 4/21/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/20/09

Sequence ID: C090404g & h Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO (8330) 8332 Other_____

	QC	FILE NAME	RUN	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		37		4/20/09	83304CH	61929	2512	2x: 500µl standard in 500µl MeOH
2		38		4/21/09	LIBLKCH	61928		
3		39		/ /	0904098-01	0904098		
4		40		/ /	02			
5		41		/ /	03			
6		42		/ /	04			
7		43		/ /	05			
8		44		/ /	06			
9		45		/ /	0904103-01	0904103		
10		46		/ /	02			
11		47		/ /	83304CI	61929		2x: 500µl standard in 500µl MeOH
12		48		/ /	LIBLKCI	61928		
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				JG 4/21/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: KH DATE 4/21/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp

HPLC RUN LOG

LOGBOOK 5 E 8

Instrument ID A11001

Sequence ID: b Korver AS 4/3/09

DATE 4/2/09

Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO 8330 (8332) Other

	FILE NAME	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS (ETC.)/DISPOSITION
1	1	4/2/09	4B4C	61928	ae	
2	2	/ /	1	↓		
3	3	/ /	8332SBA	61848		
4	4	4/3/09	4			2x (50µl STD / 50µl Matrix)
5	5	/ /	3			5x (20µl STD / 80µl Matrix)
6	6	/ /	2			10x (10µl STD / 90µl Matrix)
7	7	/ /	1			20x (5µl STD / 95µl Matrix)
8	8	/ /	8332CHKSTD1A	61844		
9		/ /				
10		/ /				
11		/ /				
12		/ /				
13		/ /				
14		/ /				
15		/ /				
16		/ /				
17		/ /				
18		/ /				
19		/ /				
20		/ /				AS 4/3/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 04/02/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/22/09
Sequence ID: b090402e Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO 8330 (8332) Other

	CALIB	FILE NAME	REINJ	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		31		4 22 09	LIBLK	61928	2646	
2		32		/ /	8332LBD	61898		2X: 500µl standard in 500µl MeOH
3		33		/ /	LIBLKBD	61928		
4		34		/ /	9040615-BLK1	various		
5		35		/ /	BS2	↓		
6		36		/ /	BSD2			
7		37		/ /	MS2	0904098		
8		38		/ /	MSD2	↓		
9		39		/ /	0904103-01	0904103		
10		40		↓ /	↓ 02	↓	↓	
11				/ /				
12				/ /				
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				JS 4/22/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 4.23.09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/23/09

Sequence ID: b090402f & g Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO 8330 (8332) Other

		FILE NAME		DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		41		4/23/09	83324BG	61898	2646	2x: 500µl standard in 500µl MeOH
2		42		/ /	LIBLKBG	~~618~~ 61928 AS 4/22/09		
3		43		/ /	0904098-01	0904098		
4		44		/ /	02			
5		45		/ /	03			
6		46		/ /	04			
7		47		/ /	05			
8		48		/ /	06			
9		49		/ /	83324BH	61898		2x · 500µl standard in 500µl MeOH
10		50		/ /	LIBLKBH	61928		
11				/ /				
12				/ /				
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				AS 4/23/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 4·23·09

10/30/08: jr

4. Raw QC Data

    a. Blank Data

    b. Laboratory Control Sample Data

    c. Matrix Spike Data

    d. Matrix Spike Duplicate Data

a. Blank Data

Arranged by type of blank (method, then instrument), and shall be in chronological order, by instrument.

- Tabulated Results (Form I)
- Chromatograms and date system printout(s) by instrument used for analysis

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404f.b/032c9042013-BLK1.d

Page 1

Date : 20-APR-2009 20:43

Client ID: PBLKGZ

Instrument: a11001.i

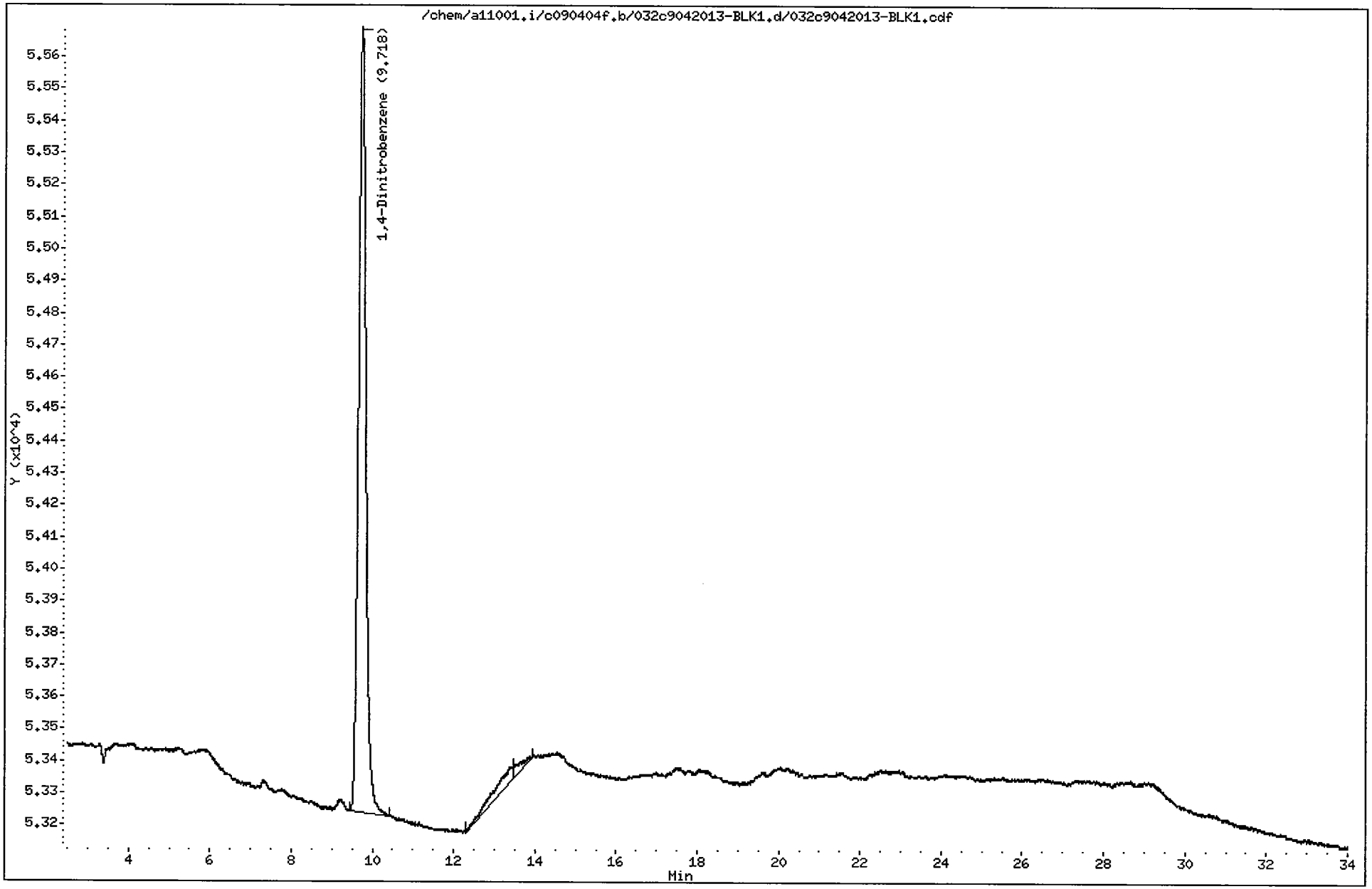
Sample Info: 9042013-BLK1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BLK1 Client Smp Id : PBLKGZ
Sample Type : BLANK Sublist : HWMU13
Inj Date : 20-APR-2009 20:43 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : PBLKGZ

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.10			1316								
9.72	9.47	9.87	30827	3385	1,4-Dinitrobenzene	9.106437	18.21287		91.1	39 - 132	
13.48			1738								
13.89			519								

KAH 4/21/09

ASSIGNED TO: L McKay

EMP ID NUMBER: 2171

COMPUCHEM
EXTRACTION WORKSHEET *
EXPLOSIVE IN WATER BY SOLID PHASE EXTRACTION
Method 3535 FOR METHOD 8330

DATE EXTRACTED/POSTED: 4-20-09

BATCH NO.:

135

~1082~ 4-20-3

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	COMMENTS
1	0904098-01	13MW5	SAMPLE	500	10.0	
2	0904098-02	13MW3	SAMPLE	500		
3	0904098-03	13MW4	SAMPLE	500		
4	0904098-04	13MWDUP	SAMPLE	500		
5	0904098-05	13MW6	SAMPLE	500		
6	0904098-06	13MW7	SAMPLE	500		
7	0904103-01	13MW1	SAMPLE	500		
8	0904103-02	13MW2	SAMPLE	500		
9	9042013-BLK1	PBLKGZ	MB	500		
10	9042013-BS1	PGZLCS	LCS	500		
11	9042013-BS2	PHALCS	LCS-8332	500		8332 SPK 1.0mL Lot: 012609-03
12	9042013-BSD1	PGZLCSD	LCSD	500		
13	9042013-BSD2	PHALCSD	LCSD-8332	500		
14	9042013-MS1	Matrix Spike	MS	500		
15	9042013-MS2	Matrix Spike	MS-8332	500		
16	9042013-MSD1	Matrix Spike Dup	MSD	500		
17	9042013-MSD2	Matrix Spike Dup	MSD-8332	500	10.0	
18						
19						
20						
21						
22						
23						
24						
25						
26						

4-20-09

4-20-09

4-20-09

		Explosives	SURROGATE & SPIKE ADDED BY
SURROGATE	No.	1,4-DNB	
	Amt.	1.0 ml	INITIALS: [illegible] DATE: 4-20-09
	Lot #	62072	
SPIKE	No.	8330Full	
	Amt.	1.0 ml	Witness: ML/BFP Initials, 4-20-09 Date
	Lot #	62059	

FINAL VOLUME VERIFIED [signature]

SUPERVISOR REVIEWED [signature]

Manufacturer and lot number of reagents/solvents used ACN - 62229

Rev. 7/24/03:dce

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/034b9042013-BLK1.d

Page 1

Date : 22-APR-2009 19:16

Client ID: PBLKGZ

Instrument: a11001.i

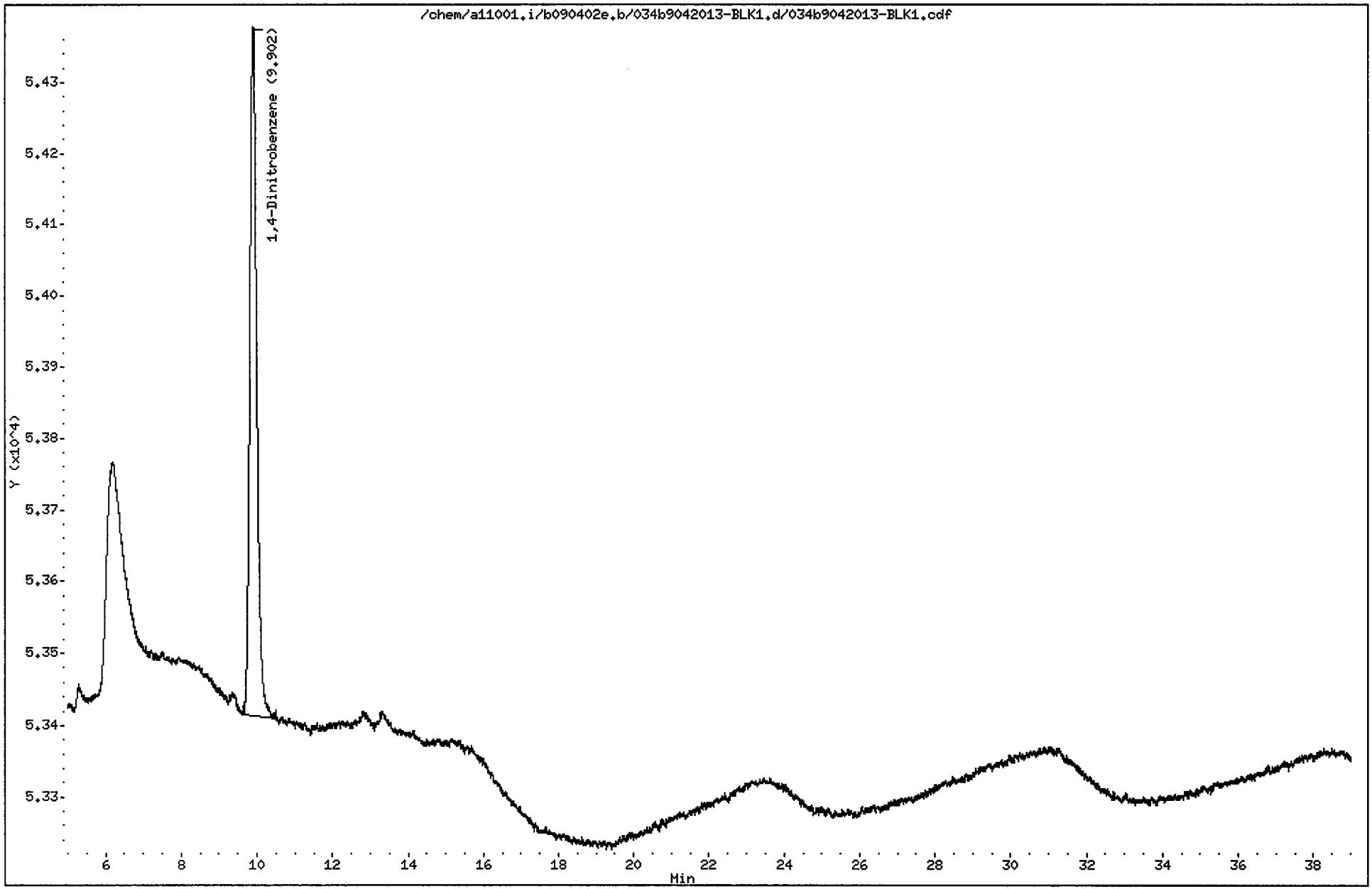
Sample Info: 9042013-BLK1

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BLK1 Client Smp Id : PBLKGZ
Sample Type : BLANK Sublist : nitro
Inj Date : 22-APR-2009 19:16 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : PBLKGZ

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12186	1398	1,4-Dinitrobenzene	8.718189	17.43638		87.2	50 - 150	

4/23/09

ASSIGNED TO: L McKay

EMP ID NUMBER: 2171

COMPUCHEM
EXTRACTION WORKSHEET *
EXPLOSIVE IN WATER BY SOLID PHASE EXTRACTION
Method 3535 FOR METHOD 8330

DATE EXTRACTED/POSTED: 4-20-09

BATCH NO.: 9042013

10821

4-20-3

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	COMMENTS
1	0904098-01	13MW5	SAMPLE	500	10.0	
2	0904098-02	13MW3	SAMPLE	500		
3	0904098-03	13MW4	SAMPLE	500		
4	0904098-04	13MWDUP	SAMPLE	500		
5	0904098-05	13MW6	SAMPLE	506		
6	0904098-06	13MW7	SAMPLE	506		
7	~~0904103-01~~	13MW1	SAMPLE	500		
8	0904103-02	13MW2	SAMPLE	506		
9	9042013-BLK1	PBLKGZ	MB	500		
10	9042013-BS1	PGZLCS	LCS	500		
11	9042013-BS2	PHALCS	LCS-8332	500		8332SK 1.0mL Lot: 012609-03
12	9042013-BSD1	PGZLCSD	LCSD	500		
13	9042013-BSD2	PHALCSD	LCSD-8332	500		
14	9042013-MS1	Matrix Spike	MS	500		
15	9042013-MS2	Matrix Spike	MS-8332	500		
16	9042013-MSD1	Matrix Spike Dup	MSD	500		
17	9042013-MSD2	Matrix Spike Dup	MSD-8332	500	10.0	
18						
19						
20						
21						
22						
23						
24						
25						
26						

4-20-09

4-20-09

4-20-09

		Explosives	SURROGATE & SPIKE ADDED BY	
SURROGATE	No.	1,4-DNB		FINAL VOLUME VERIFIED
	Amt.	1.0 ml	INITIALS / DATE	
	Lot #	62072		SUPERVISOR REVIEWED
SPIKE	No.	8330Full	Witness ML/BFP / 4-20-09	
	Amt.	1.0 ml	Initials / Date	
	Lot #	62059		

Manufacturer and lot number of reagents/solvents used ACN - 62229

Rev. 7/24/03:dce

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKBF

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: LIBLKBF

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/033bLIBLKBF.d

Page 1

Date : 22-APR-2009 18:35

Client ID: LIBLKBF

Instrument: a11001.i

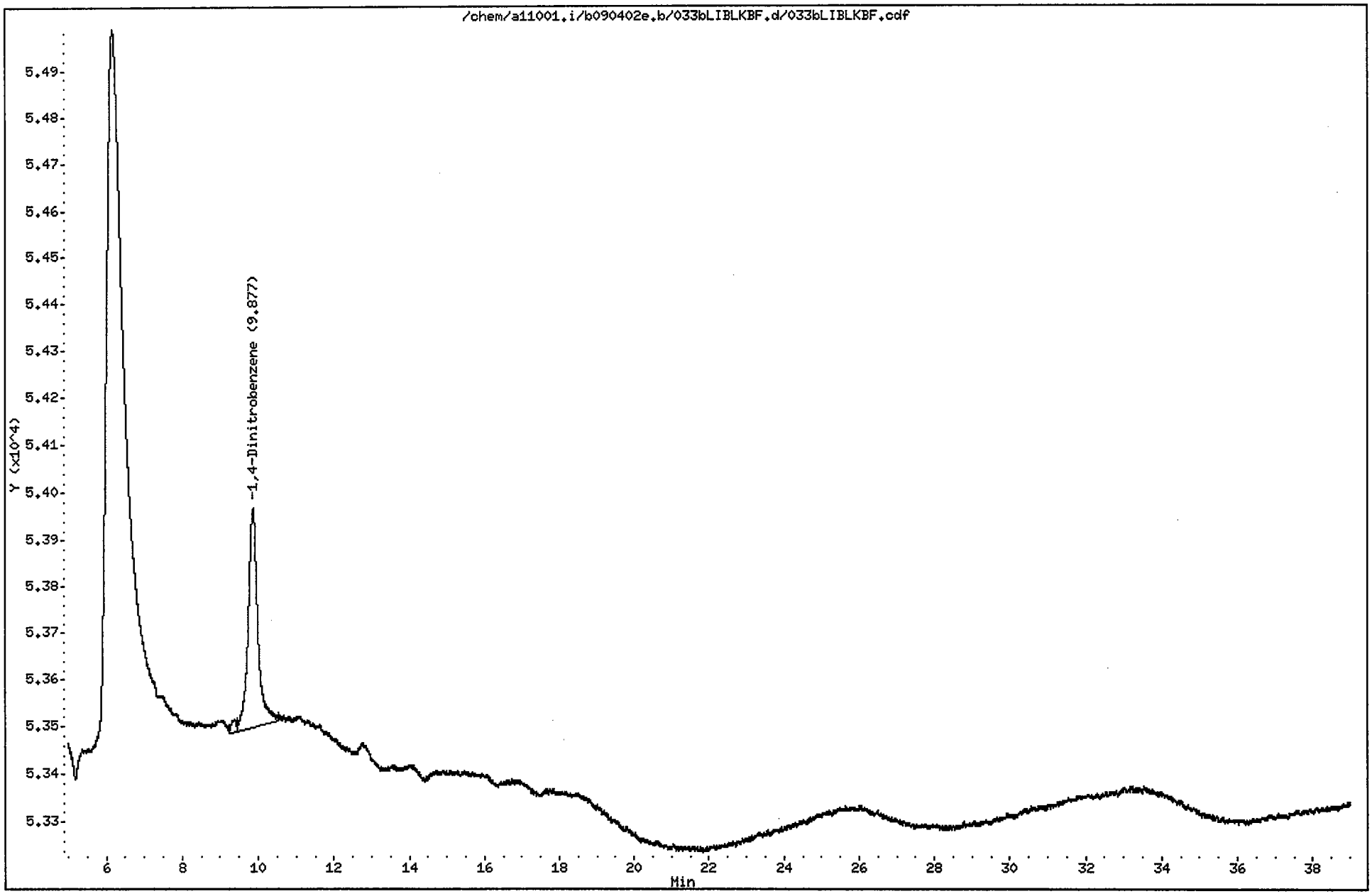
Sample Info: LIBLKBF

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKBF Client Smp Id : LIBLKBF
Sample Type : INSTBLANK Sublist : all
Inj Date : 22-APR-2009 18:35 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
9.36			262						
9.88	9.78	9.98	8271	1398	1,4-Dinitrobenzene	5.917511	11.83502		

NS 23 4/22/09
NS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKBG

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: LIBLKBG

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

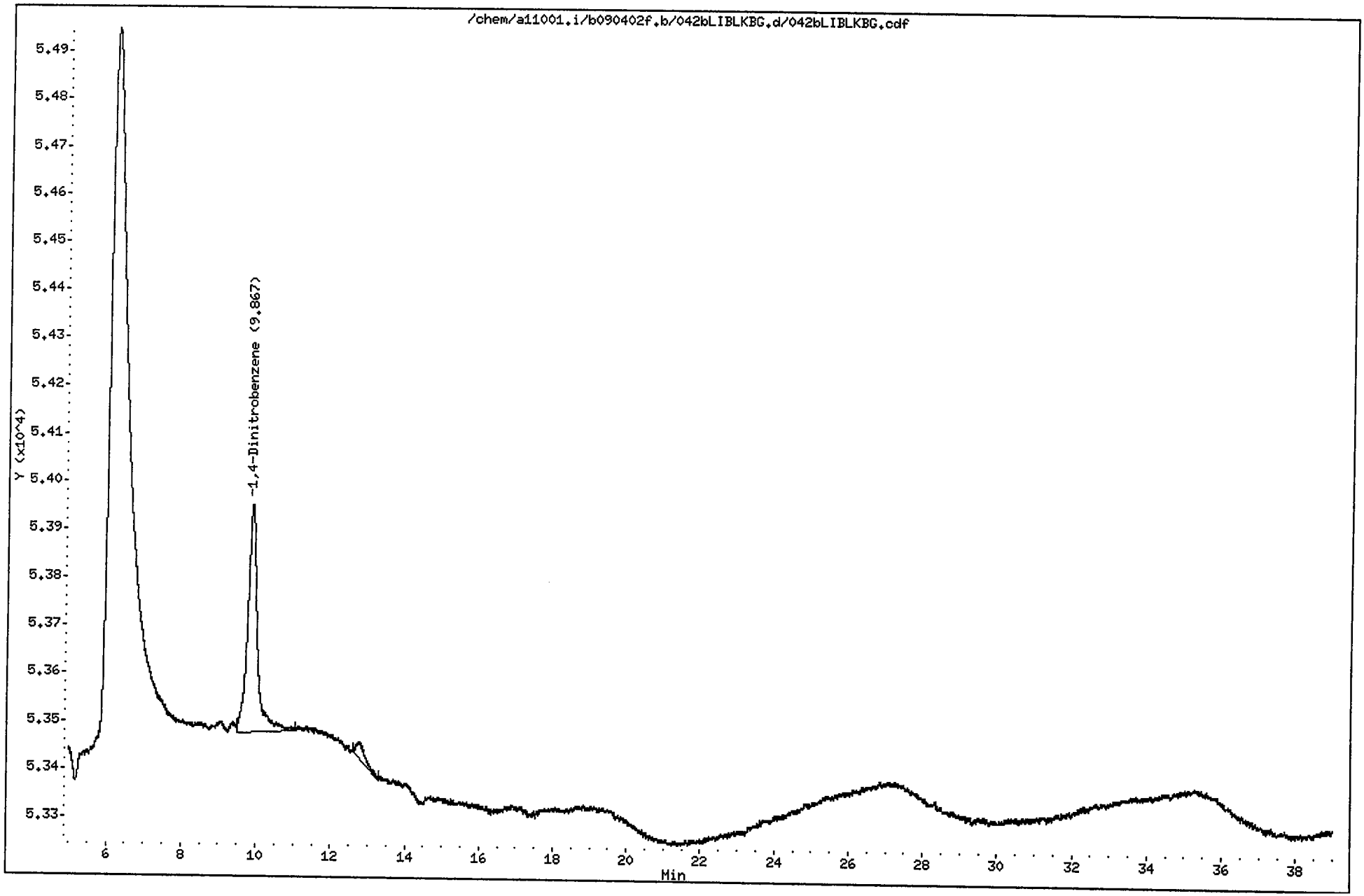
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/042bLIBLKBG.d
Date : 23-APR-2009 00:43
Client ID: LIBLKBG
Sample Info: LIBLKBG
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i

Operator: 2646
Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKBG Client Smp Id : LIBLKBG
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 00:43 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
9.87	9.78	9.98	8715	1398	1,4-Dinitrobenzene	6.234846	12.46969		
12.75			588						

AS 4/22/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKCG

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: LIBLKCG

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404f.b/031cLIBLKCG.d

Date : 20-APR-2009 20:07

Client ID: LIBLKCG

Instrument: a11001.i

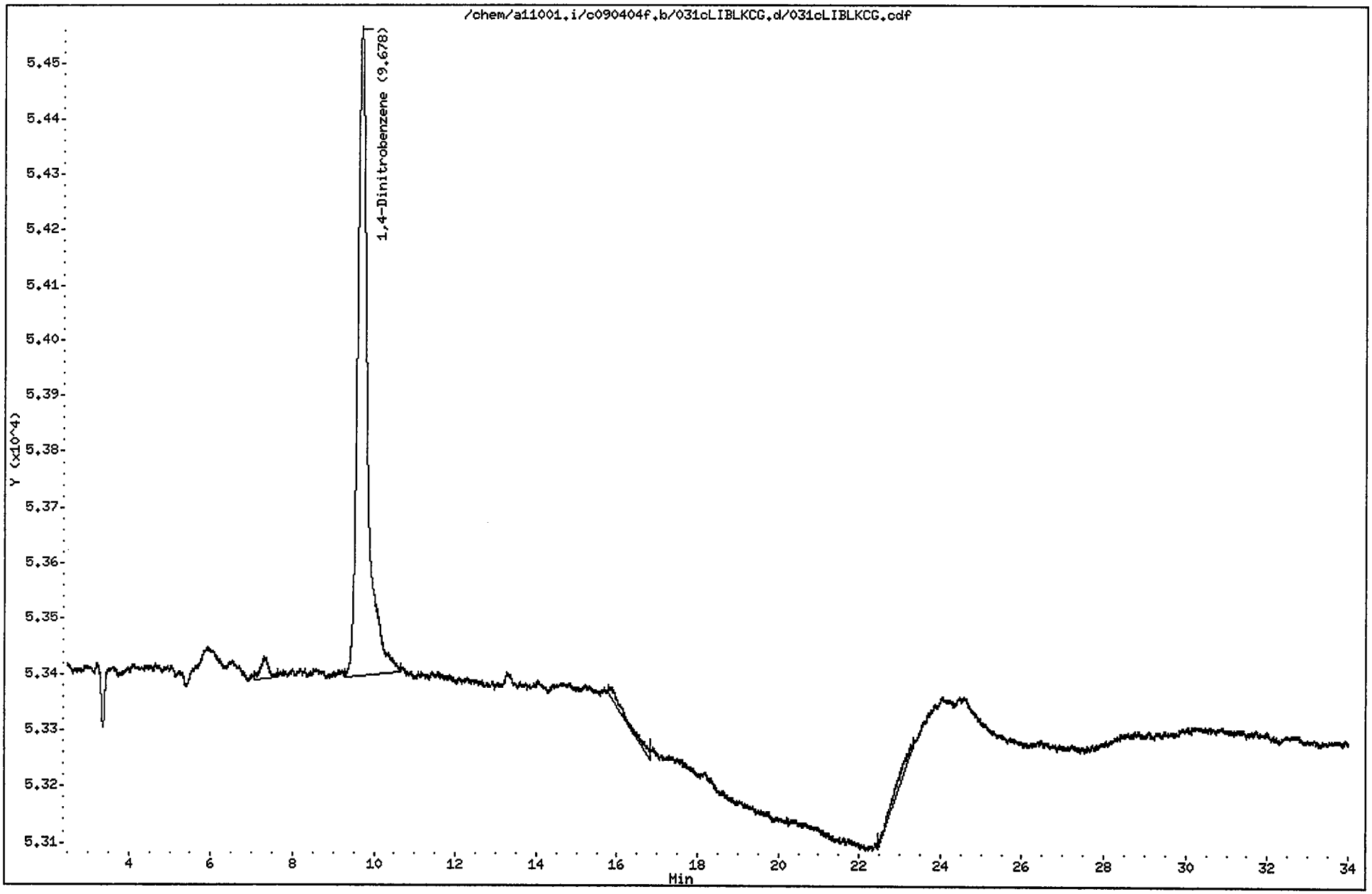
Sample Info: LIBLKCG

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKCG Client Smp Id : LIBLKCG
Sample Type : INSTBLANK Sublist : all
Inj Date : 20-APR-2009 20:07 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
2.05			2046						
2.23			3001						
7.31			510						
9.68	9.47	9.87	20075	3385	1,4-Dinitrobenzene	5.930351	11.86070		
15.85			594						
23.33			724						

AG 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKCH

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: LIBLKCH

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/038cLIBLKCH.d

Date : 21-APR-2009 00:18

Client ID: LIBLKCH

Instrument: a11001.i

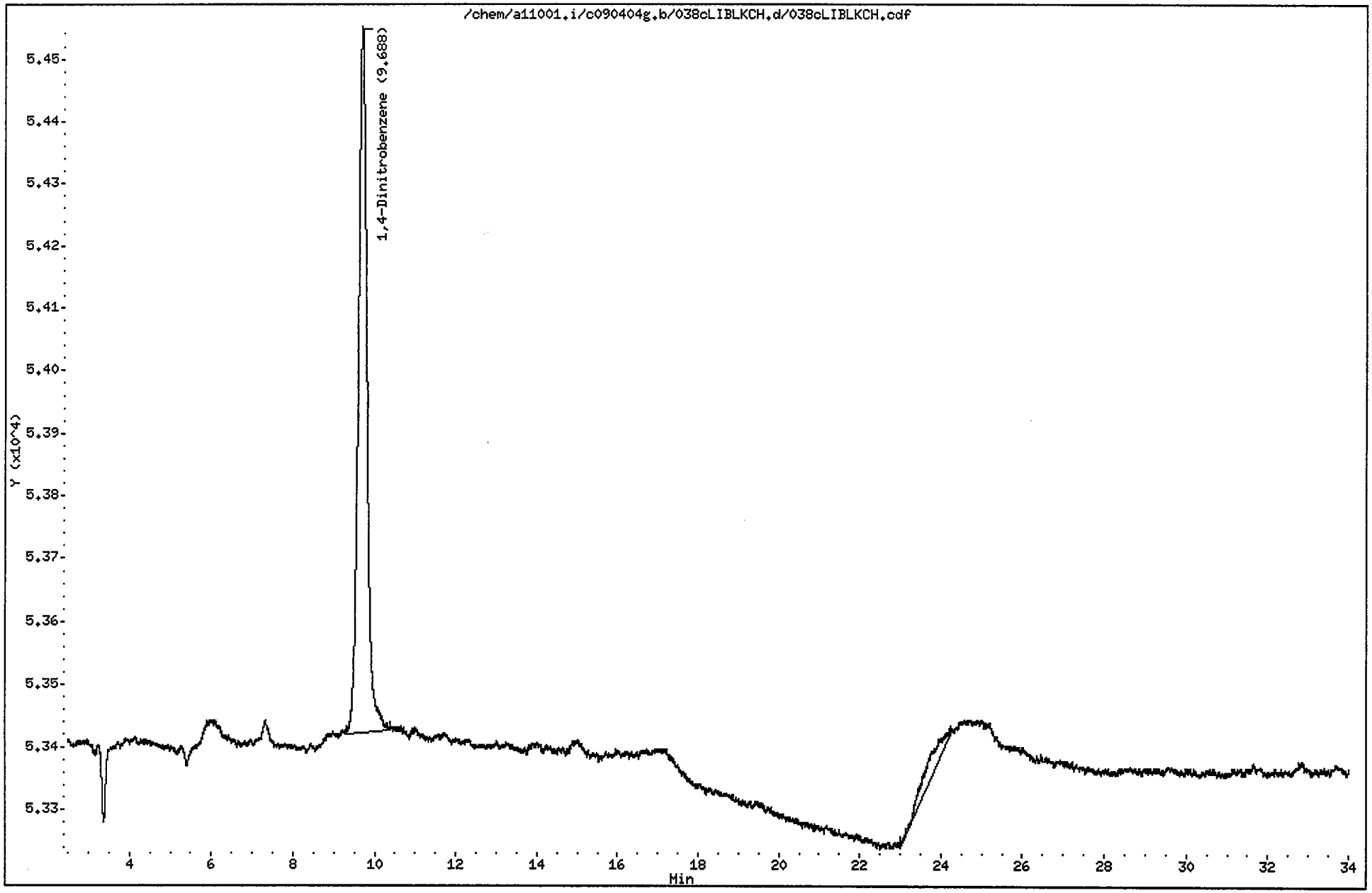
Sample Info: LIBLKCH

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKCH Client Smp Id : LIBLKCH
Sample Type : INSTBLANK Sublist : all
Inj Date : 21-APR-2009 00:18 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
2.02			1185						
2.23			4101						
9.69	9.48	9.88	16836	3385	1,4-Dinitrobenzene	4.973652	9.947304		
24.23			1461						

AS 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKCI

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: LIBLKCI

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

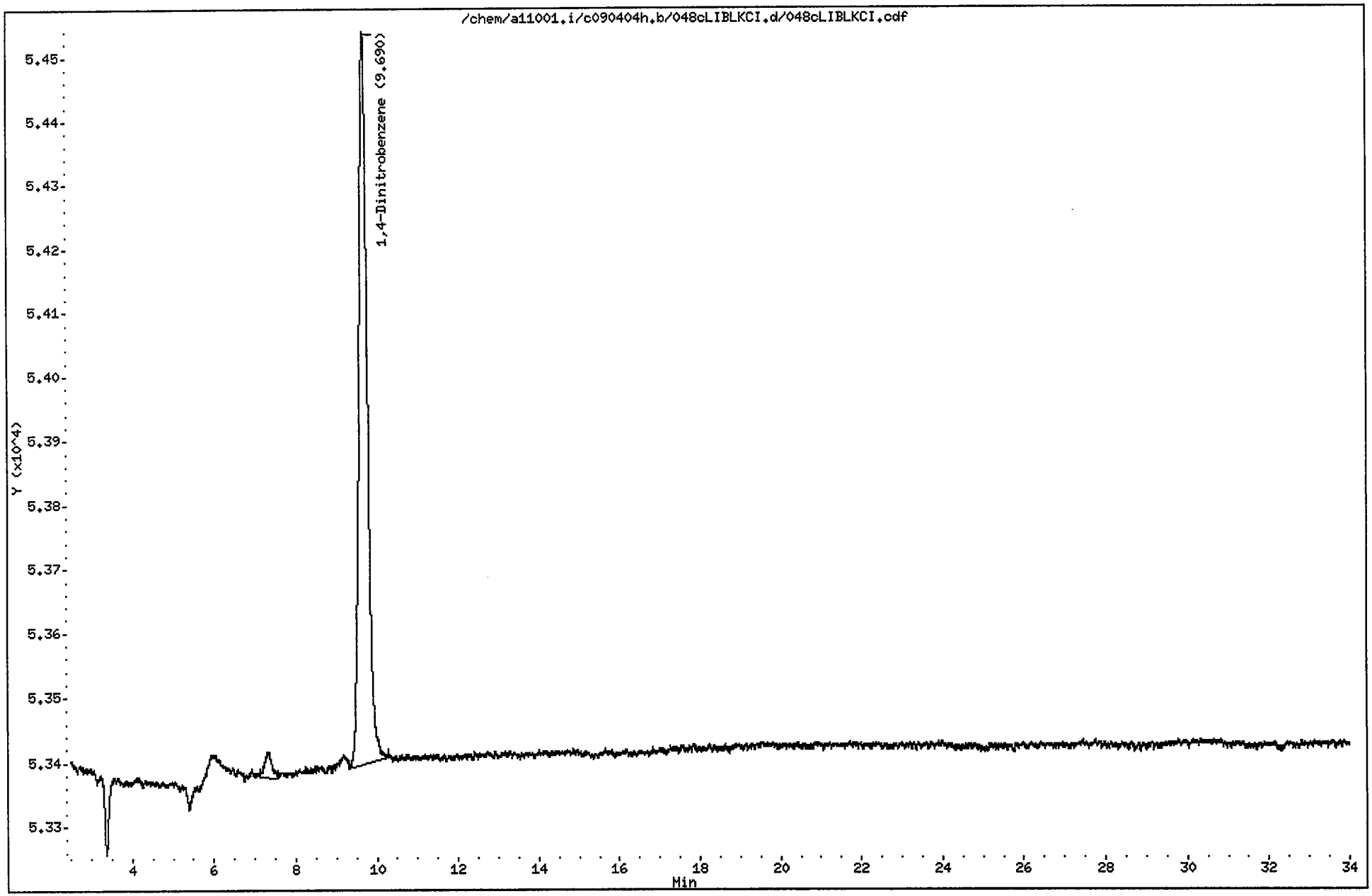
Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404h.b/048cLIBLKCI.d
Date : 21-APR-2009 06:17
Client ID: LIBLKCI
Sample Info: LIBLKCI
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2512
Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKCI Client Smp Id : LIBLKCI
Sample Type : INSTBLANK Sublist : all
Inj Date : 21-APR-2009 06:17 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404h.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
2.16			2189						
2.24			3471						
7.36			501						
9.69	9.47	9.87	16393	3385	1,4-Dinitrobenzene	4.842724	9.685449		

AS 4/21/09

b. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCS

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.8	
99-65-0	1,3-Dinitrobenzene	7.5	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.9	

Data File: /chem/a11001.i/c090404f.b/033c9042013-BS1.d

Page 1

Date : 20-APR-2009 21:19

Client ID: PGZLCS

Instrument: a11001.i

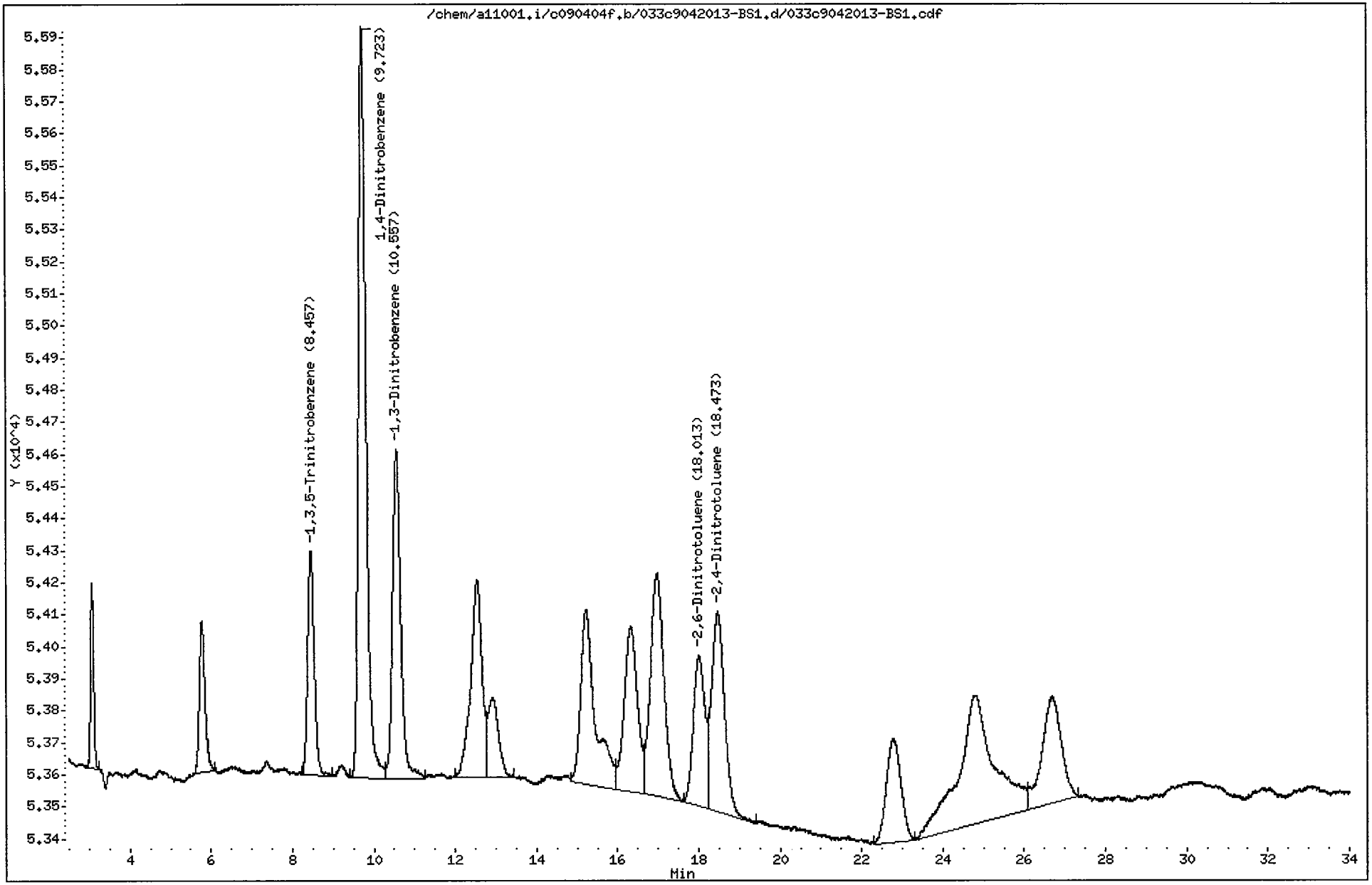
Sample Info: 9042013-BS1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BS1 Client Smp Id : PGZLCS
Sample Type : LCS Sublist : HWMU13
Inj Date : 20-APR-2009 21:19 Inst ID : A11001
Operator : 2512 Spike Sublist : HWMU13
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : PGZLCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.09			1550								
3.08			3013								
5.78			4501								
8.46	8.21	8.61	7968	2757	1,3,5-Trinitrobenzene	2.889232	5.778464	2.500000	72.2	50 - 150	
9.72	9.47	9.87	30161	3385	1,4-Dinitrobenzene	8.909987	17.81997		89.1	39 - 132	
10.56	10.31	10.71	14423	3861	1,3-Dinitrobenzene	3.735654	7.471307	2.500000	93.4	50 - 150	
12.54			12063								
12.93			4353								
15.23			13625								
16.32			11743								
16.98			16101								
18.01	17.64	18.24	9270	1712	2,6-Dinitrotoluene	5.415072	10.83014	5.000000	90.3	50 - 150	
18.47	18.10	18.70	13969	3554	2,4-Dinitrotoluene	3.930819	7.861639	5.000000	98.3	50 - 150	
22.78			8075								
24.80			24681								
26.68			11221								

4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCS

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

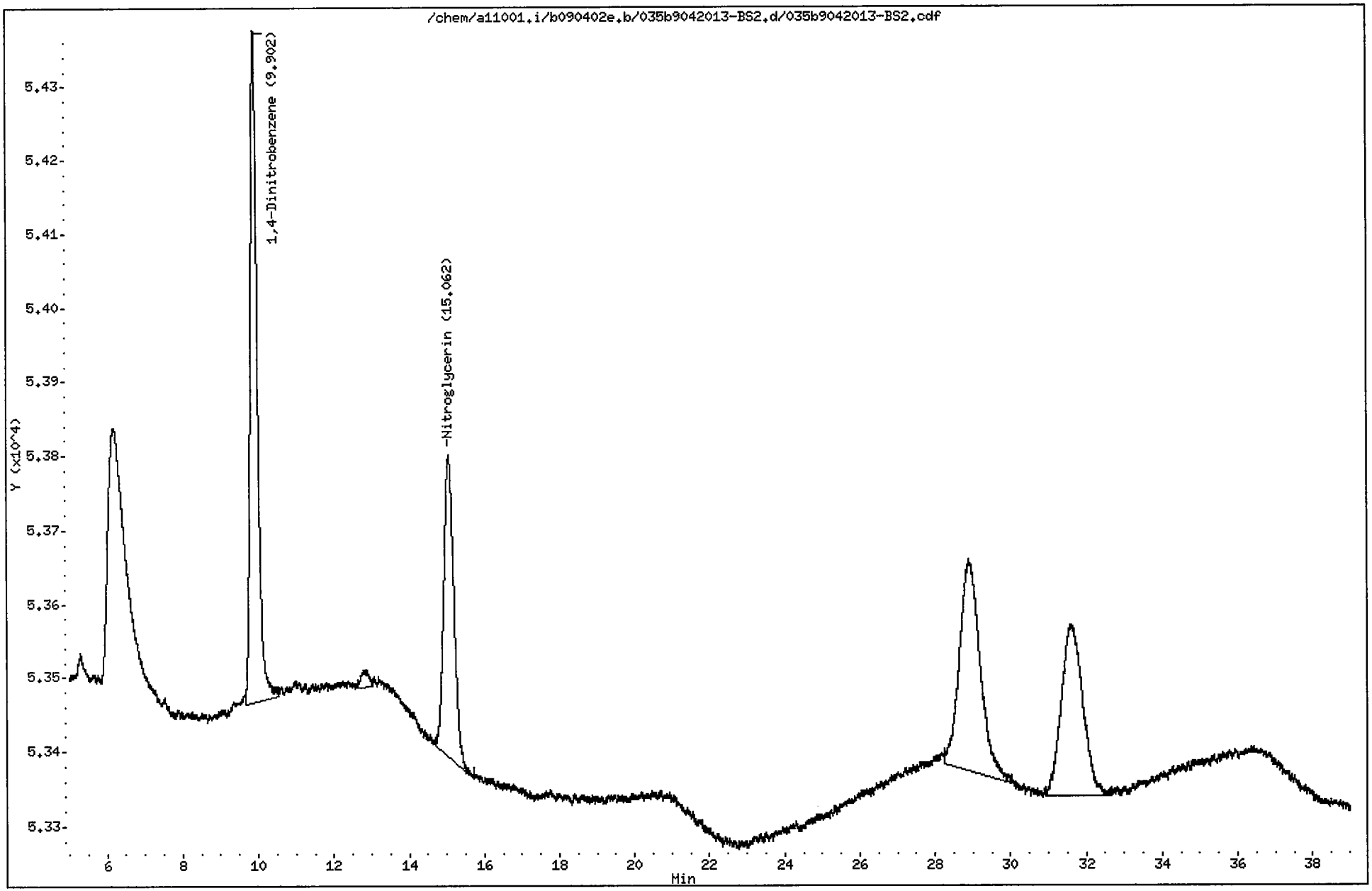
GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	17	

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/035b9042013-BS2.d
Date : 22-APR-2009 19:57
Client ID: PHALCS
Sample Info: 9042013-BS2
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2646
Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BS2 Client Smp Id : PHALCS
Sample Type : LCS Sublist : nitro
Inj Date : 22-APR-2009 19:57 Inst ID : A11001
Operator : 2646 Spike Sublist : NITRO
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : PHALCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	11822	1398	1,4-Dinitrobenzene	8.458232	16.91646		84.6	50 - 150	
12.77			319								
15.06	14.91	15.11	7630	881	Nitroglycerin	8.657452	17.31490	16.00000	86.6	50 - 150	
28.91			10886								
31.62			9082								

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCSD

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.6	
99-65-0	1,3-Dinitrobenzene	7.0	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.8	

Data File: /chem/a11001.i/c090404f.b/034c9042013-BSD1.d

Page 1

Date : 20-APR-2009 21:55

Client ID: PGZLCSD

Instrument: a11001.i

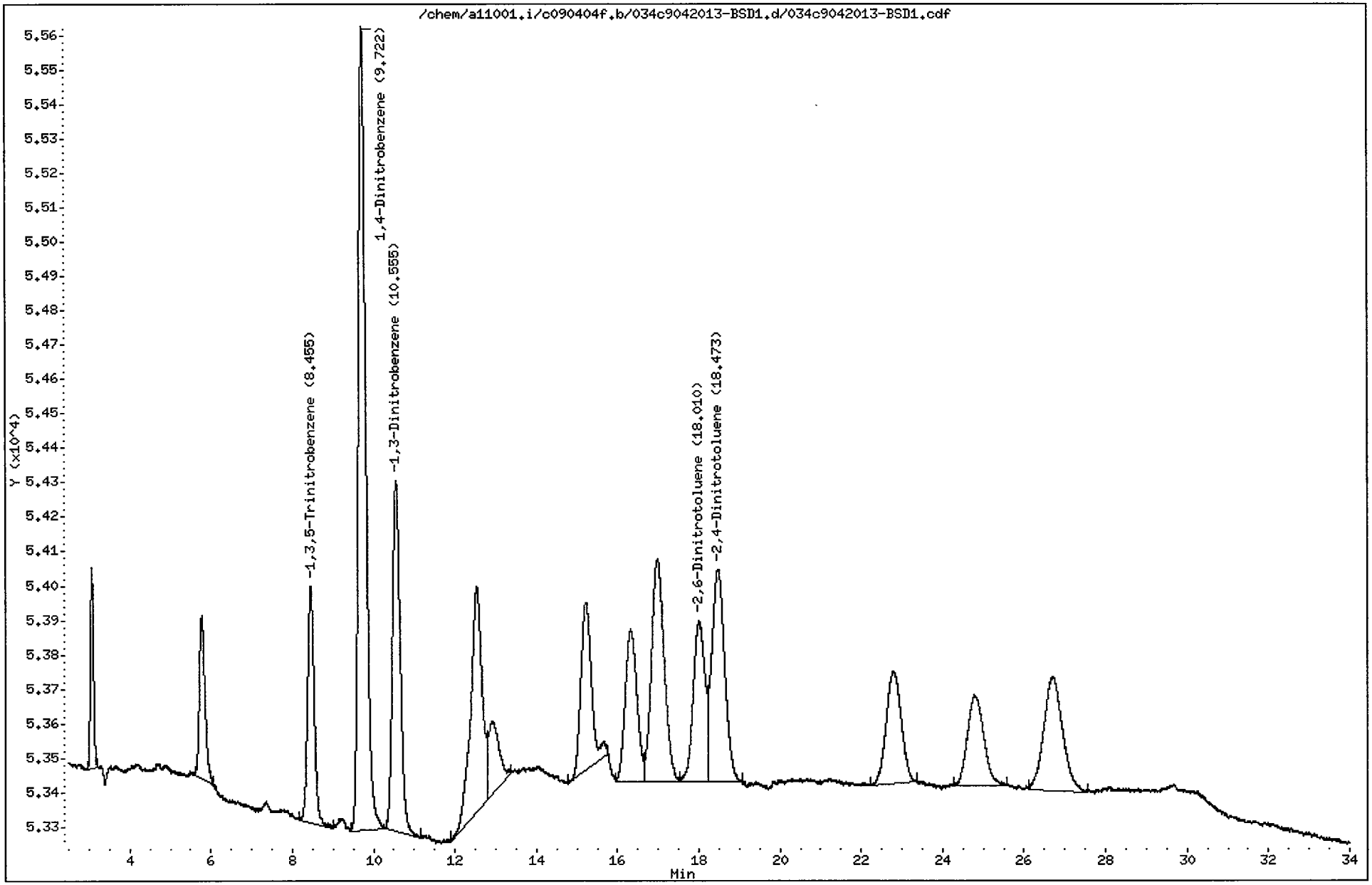
Sample Info: 9042013-BSD1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BSD1 Client Smp Id : PGZLCSD
Sample Type : LCSD Sublist : HWMU13
Inj Date : 20-APR-2009 21:55 Inst ID : A11001
Operator : 2512 Spike Sublist : HWMU13
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : PGZLCSD

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.19			1649								
2.25			1468								
3.08			3059								
5.78			4450								
8.46	8.21	8.61	7774	2757	1,3,5-Trinitrobenzene	2.818878	5.637756	2.500000	70.5	50 - 150	
9.72	9.47	9.87	29373	3385	1,4-Dinitrobenzene	8.676905	17.35381		86.8	39 - 132	
10.56	10.31	10.71	13497	3861	1,3-Dinitrobenzene	3.495813	6.991627	2.500000	87.4	50 - 150	
12.54			12917								
12.92			3827								
15.23			8921								
16.33			8833								
16.99			14290								
18.01	17.64	18.24	9499	1712	2,6-Dinitrotoluene	5.548857	11.09771	5.000000	92.5	50 - 150	
18.47	18.10	18.70	13860	3554	2,4-Dinitrotoluene	3.899866	7.799732	5.000000	97.5	50 - 150	
22.80			8416								
24.77			7383								
26.73			10732								

Kelli 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCSD

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904103

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

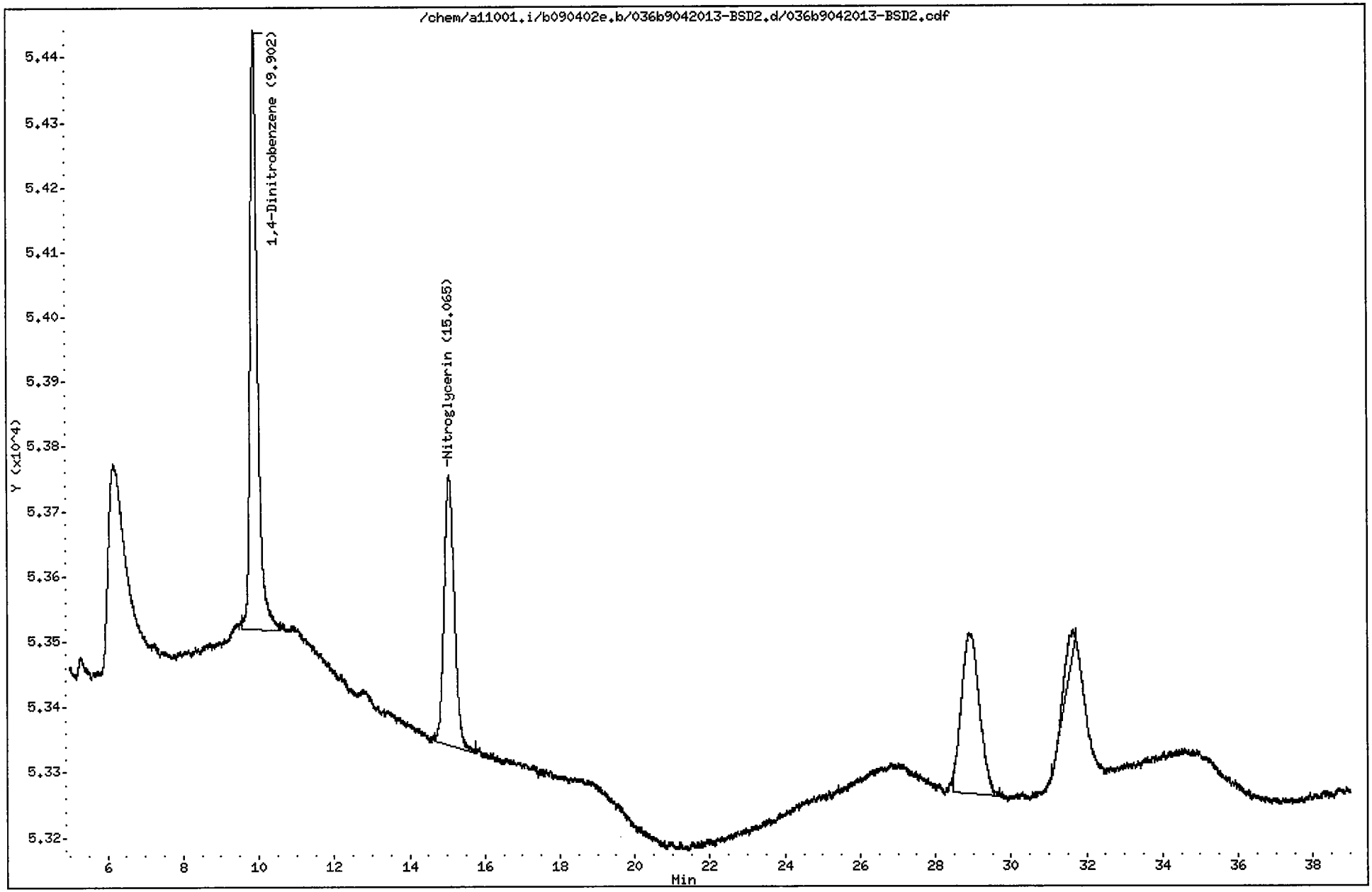
GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	18	

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/036b9042013-BSD2.d
Date : 22-APR-2009 20:38
Client ID: PHALCSD
Sample Info: 9042013-BSD2
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2646
Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BSD2 Client Smp Id : PHALCSD
Sample Type : LCSD Sublist : nitro
Inj Date : 22-APR-2009 20:38 Inst ID : A11001
Operator : 2646 Spike Sublist : NITRO
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : PHALCSD

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78 9.98	12454	1398	1,4-Dinitrobenzene	8.909928	17.81986		89.1	50 - 150	
15.06	14.91 15.11	7792	881	Nitroglycerin	8.841490	17.68298	16.00000	88.4	50 - 150	
28.90		8226								
31.62		995								

AS 4/23/09

c. Matrix Spike Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

d. Matrix Spike Duplicate Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

CompuChem
A Division Of
Liberty Analytical Corp.
5/27/2009

JANET FRAZIER
DRAPER
2206 SOUTH MAIN STREET

BLACKSBURG, VA 24060

Subject:

Report of Data - Project: RAAP APPIX 2009/B03204-07 WorkOrder: 0904098

Attn.: JANET FRAZIER

Enclosed are the results of analytical work performed in accordance with the referenced account number. This report covers sample(s) appearing on the listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097

Sincerely,

Compuchem
a division of Liberty Analytical Corporation

Attachment

TOTAL NUMBER
OF PAGES _____

501 Madison Avenue, Cary, NC 27513 Tel: 919-379-4100 Fax: 919-379-4050

CompuChem, a division of Liberty Analytical

Client: DRAPER
Project RAAP APPIX 2009/B03204-07

Work: 0904098
Sdg: 0904098

Lab ID	Client ID	Matrix	Date Sampled	Date Received
0904098-01	13MW5	Water	04/13/2009 08:50	04/15/2009 16:15
0904098-02	13MW3	Water	04/13/2009 12:00	04/15/2009 16:15
0904098-03	13MW4	Water	04/13/2009 10:35	04/15/2009 16:15
0904098-04	13MWDUP	Water	04/13/2009 10:50	04/15/2009 16:15
0904098-05	13MW6	Water	04/13/2009 07:40	04/15/2009 16:15
0904098-06	13MW7	Water	04/14/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

HPLC by SW846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)

C. Surrogate spike analysis results (Form II)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)

LAB CODE: LIBRTY

METHOD: 8330-8332

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098-REV
PROTOCOL: SW-846 8330 & 8332

SAMPLE IDENTIFICATIONS: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MWDUP

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the explosives fraction. Methods 8330 and 8332 were used to prepare and analyze the samples for 1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, and Nitroglycerin only. The SDG also meets the requirements set forth in SW-846 8330B. This portion of the SDG narrative deals with the explosives analysis only. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904098 are included in the sample data sections.

Explosives

Extraction and analysis holding time requirements were met for the samples. The SDG also meets the requirement set forth in SW-846 8330B.

No target analytes confirmed above the Quantitation Limit (QL) in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery and retention time criteria.

The associated method blank met all quality control criteria.

Duplicate matrix spikes (MS/MSD) were performed with sample 13MW5, and met recovery and precision criteria. The associated Laboratory Control Samples (LCS/LCSD) prepared and analyzed along with the samples met recovery and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings

Teresa Amentt Jennings
GC/HPLC Data Reviewer
June 12, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
	Restek	clpest	0.32	0.5	30
	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
✓	Restek	Pinnacle Cyano	4.6	5.0	25 cm
✓	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem

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CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Revision 6 (12/6/2005)

CompuChem

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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

Revision 7 (12/6/2005)

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Form I

Organic Analysis Data Sheet (OADS)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MS1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	6.8	
99-65-0	1,3-Dinitrobenzene	7.1	
606-20-2	2,6-Dinitrotoluene	12	
121-14-2	2,4-Dinitrotoluene	9.3	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MSD1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	6.8	
99-65-0	1,3-Dinitrobenzene	7.8	
606-20-2	2,6-Dinitrotoluene	16	
121-14-2	2,4-Dinitrotoluene	9.4	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

13MW7

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCS

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.8	
99-65-0	1,3-Dinitrobenzene	7.5	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.9	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCSD

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.6	
99-65-0	1,3-Dinitrobenzene	7.0	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.8	

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MS2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	18	

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MSD2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	19	

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCS

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	17	

FORM I PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCSD

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	18	

FORM I PEST

C. Form II

Surrogate spike analysis

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 %REC #	S2 %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	PBLKGZ	91						0
02	PGZLCS	89						0
03	PGZLCSD	87						0
04	13MW5MS	90						0
05	13MW5MSD	91						0
06	13MW5	94						0
07	13MW3	94						0
08	13MW4	93						0
09	13MWDUP	94						0
10	13MW6	83						0
11	13MW7	95						0
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 = 1,4-Dinitrobenzene (39-132)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 %REC #	S2 %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	PBLKGZ	87						0
02	PHALCS	85						0
03	PHALCSD	89						0
04	13MW5MS	100						0
05	13MW5MSD	92						0
06	13MW5	87						0
07	13MW3	91						0
08	13MW4	95						0
09	13MWDUP	94						0
10	13MW6	81						0
11	13MW7	91						0
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 = 1,4-Dinitrobenzene (50-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate/ Laboratory Control Sample(s) results

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,3,5-Trinitrobenzene	8.0	0.0	6.8	85	50-150
1,3-Dinitrobenzene	8.0	0.0	7.1	89	50-150
2,6-Dinitrotoluene	12	0.0	12	100	50-150
2,4-Dinitrotoluene	8.0	0.0	9.3	116	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3,5-Trinitrobenzene	8.0	6.8	85	0	30	50-150
1,3-Dinitrobenzene	8.0	7.8	98	9	30	50-150
2,6-Dinitrotoluene	12	16	133	28	30	50-150
2,4-Dinitrotoluene	8.0	9.4	118	1	30	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGZLCS Matrix Spike - EPA Sample No.: PGZLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,3,5-Trinitrobenzene	8.0		5.8	72	50-150
1,3-Dinitrobenzene	8.0		7.5	94	50-150
2,6-Dinitrotoluene	12		11	92	50-150
2,4-Dinitrotoluene	8.0		7.9	99	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3,5-Trinitrobenzene	8.0	5.6	70	4	30	50-150
1,3-Dinitrobenzene	8.0	7.0	88	7	30	50-150
2,6-Dinitrotoluene	12	11	92	0	30	50-150
2,4-Dinitrotoluene	8.0	7.8	98	1	30	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Nitroglycerin	20	0.0	18	90	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Nitroglycerin	20	19	95	5	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PHALCS Matrix Spike - EPA Sample No.: PHALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Nitroglycerin	20		17	85	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Nitroglycerin	20	18	90	6	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

_____

FORM III PEST-1

E. Form IV

Method Blank Results
Form IV, Form I

Method blank summary, OADS,
- In chronological order of analysis

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9042013-BLK1 Lab File ID: 032C9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/20/09 Date Analyzed (2):

Time Analyzed (1): 2043 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGZLCS	9042013-BS1	04/20/09	
02	PGZLCSD	9042013-BSD1	04/20/09	
03	13MW5MS	9042013-MS1	04/20/09	
04	13MW5MSD	9042013-MSD1	04/20/09	
05	13MW5	0904098-01	04/21/09	
06	13MW3	0904098-02	04/21/09	
07	13MW4	0904098-03	04/21/09	
08	13MWDUP	0904098-04	04/21/09	
09	13MW6	0904098-05	04/21/09	
10	13MW7	0904098-06	04/21/09	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

FORM IV PEST

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9042013-BLK1 Lab File ID: 034B9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/22/09 Date Analyzed (2):

Time Analyzed (1): 1916 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PHALCS	9042013-BS2	04/22/09	
02	PHALCSD	9042013-BSD2	04/22/09	
03	13MW5MS	9042013-MS2	04/22/09	
04	13MW5MSD	9042013-MSD2	04/22/09	
05	13MW5	0904098-01	04/23/09	
06	13MW3	0904098-02	04/23/09	
07	13MW4	0904098-03	04/23/09	
08	13MWDUP	0904098-04	04/23/09	
09	13MW6	0904098-05	04/23/09	
10	13MW7	0904098-06	04/23/09	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

HPLC by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalysis, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE: LIBRTY

METHOD: 8330-8332

SDG #: 0904098

A. SDG Narrative

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG # 0904098-REV
PROTOCOL: SW-846 8330 & 8332

SAMPLE IDENTIFICATIONS: 13MW3, 13MW4, 13MW5, 13MW6, 13MW7, 13MWDUP

The six water samples listed above were received intact, refrigerated between 0.1 and 2.6°C, with proper documentation, in sealed shipping containers, on April 15, 2009. The samples were scheduled for the requested analyses of the explosives fraction. Methods 8330 and 8332 were used to prepare and analyze the samples for 1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, and Nitroglycerin only. The SDG also meets the requirements set forth in SW-846 8330B. This portion of the SDG narrative deals with the explosives analysis only. All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for SDG # 0904098 are included in the sample data sections.

Explosives

Extraction and analysis holding time requirements were met for the samples. The SDG also meets the requirement set forth in SW-846 8330B.

No target analytes confirmed above the Quantitation Limit (QL) in the samples.

All QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the surrogates met recovery and retention time criteria.

The associated method blank met all quality control criteria.

Duplicate matrix spikes (MS/MSD) were performed with sample 13MW5, and met recovery and precision criteria. The associated Laboratory Control Samples (LCS/LCSD) prepared and analyzed along with the samples met recovery and precision criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Teresa Amentt Jennings

Teresa Amentt Jennings
GC/HPLC Data Reviewer
June 12, 2009

GC and GC/MS Column and Trap Specifications Table

SDG #: 0904098

COLUMNS

Columns Utilized	Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
	GC Laboratory				
	Restek	RTX-5	0.53	1.0	30
	Restek	RTX-SMS	0.53	1.0	30
	Restek	clpest	0.32	0.5	30
	Restek	clpest2	0.32	0.42	30
	J&W	DB-210	0.53	1.0	30
	J&W	GS-GASPRO	0.32	N/A	30
	GC Volatiles Laboratory				
	Restek	RTX-Volatiles	0.53	2.0	30
	GC/MS Volatiles Laboratory				
	Restek	RTX-VMS	0.18	1.0	20
	Supelco	SPB-624	0.32	1.8	60
	Supelco	SPB-624	0.53	3.0	75
	Phenomonex	ZB-624	0.32	1.8	60
	GC/MS Semivolatiles Laboratory				
	Restek	RTX-5MS	0.32	0.25	30
	HPLC Laboratory				
	Supelco	Supelcosil LC-PAH	4.6	5.0	15 cm
	Supelco	Discovery RP Amide C16	4.6	5.0	25 cm
✓	Restek	Pinnacle Cyano	4.6	5.0	25 cm
✓	Restek	Allure C18	4.6	5.0	25 cm

TRAPS

GC and GC/MS Volatiles Laboratory	
Supelco J (BETXTRAP™)	* 7.7 cm Carbopack C
	* 1.2 cm Carbopack B
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons)
	* 6 cm of Carboxen 1000 (Carbon molecular sieves)
	* 1 cm of Carboxen 1001 (Carbon molecular sieves)

Rev. 22

CompuChem's Pagination Convention

As required by the EPA CLP Statement of Work (SOW) documents, data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC raw data.

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1:1 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide and/or Aroclor or other GC or HPLC identification criteria, and the result is less than the adjusted CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used with the J flag. For generic characterization of a TIC such as "chlorinated hydrocarbon" (or for an "unknown," with no matches ≥ 85% in the SOM01.2 SOW document), the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue. For certain HPLC analyses, if one of the HPLC columns displays co-elution of target analytes, all results are reported from a primary column displaying no co-elution. Results are still flagged with a P if the RPD between columns is greater than 40%.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a concentration greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a concentration greater than the upper level of the calibration range will have the result flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A: This flag indicates that a TIC is a suspected aldol-condensation product.

S: In the SOM01.2 SOW document, this flag is used to indicate an estimated value for Aroclor target compounds where a valid 5-point initial calibration was not performed prior to the analytes detection in a sample. If an "S" flag is used for a specific Aroclor, then a reanalysis of the sample is required after a valid 5-point calibration is performed for the detected Aroclor.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y, and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

CHAIN OF CUSTODY RECORD

52

Laboratory: CompuChem Environmental, 501 Madison Avenue, Cary, NC 27513/Cathy Dover, Manager/1-800-833-5097

Client: Draper Aden Associates	**Consultant:** Draper Aden Associates	**Sample Site:** RAAP, Radford, Virginia	**Project Specific (PS) QC:** ☑ YES ☐ NO
Attn: 0	**Attn:** Janet C. Frazier		**Sample Collection for Project Complete?** ☑ YES ☐ NO
Address: 0	**Address:** 2206 South Main Street	**Location:** Open Burning Ground (OBG)/HWMU13	
0	Blacksburg, Virginia 24060		**Carrier:** NC COURIER
Phone: 0	**Phone:** (540) 552-0444	**Event:** Appendix IX Monitoring Event 2nd Q 2009	**Tracking Number:**
Fax: 0	**Fax:** (540) 552-0291	**DAA JN:** B03204-07	
Fax: 0		**Lab JN:**	

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type	G	G	G	G	G	G	G	G	G	G	G
Box 3 - Filtered/Unfiltered	U	U	U	U	U	U	U	U	U	U	U
Required pH of Sample					<2	<2	>12	>9			
Box 2 - Preservative	H	H	H	H	B	B	E/F	E	H	H	H
Box 5 - Sample Container Type	2-1L A	2-1L A	2-1L A	~~2-1L A~~	1-500 ml P		P	P	2-1L A	2-1L A	

Sample ID	Date: 2009	Time	Box 1: Matrix	Number of Bottles	8332/3535 - Nitroglycerine AL	8330 - Explosives AL	Appdx 9 Herbs 8151A AL	Perchlorate 314.0 (Make 4-21-09) ~~1-250ml~~ 4-21-09 6020	ICP 6010B/3005A/-thallium 7841 (Metals-Total) PH OK 500 mL	7470A (Mercury-Total) PH	cyanide 9014 PH 250 9012 ok/cyc 3/31/09	Sulfide 9030B PH 500	Appdx 9 SV 8270C AL	Appdx 9 PEST 8081A AL	Appdx 9 PCBs 8082	
13MW1 ✓	4/14	0935	GW	~~8~~ 8	X	X		X	X <2	X			X			0904103-01
13MW2 ✓	4/14	0815	GW	~~8~~ 8	X	X		X	X <2	X			X			0904103-02
13MW3 ✓	4/13	1200	GW	~~14~~ 14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-02
13MW4 ✓		1035	GW	~~14~~ 14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-03
13MWDUP ✓		1050	GW	~~14~~ 14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-04
13MW5 ✓		0850	GW	~~12~~ 12	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-01 USE FOR QC
13MW6 ✓	4/13	0740	GW	~~14~~ 14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	0904098-05
13MW7 ✓	4/14	1050	GW	~~14~~ 14	X	X	X	X	X <2	X	X >12	X >9	X	X	X	-06

GENERAL NOTES: Level 4 deliverable with EDD and pdf. REPORT DL/QL and estimated results.

* see attached analyte lists. Lists differ for 13MW-1 + 13MW-2. JF 3.31.09

Residual Chlorine Present? Yes ____ No ✓

Clients Special Instructions: level 4 with edd and PDF.

Received by lab in Good Condition ✓ Yes ____ No Custody Seal Intact ✓ Yes ____ No Temperature upon arrival 2.1°C Received on Ice ✓ Yes ____ No
Describe problems, if any: 0.6°C, 1.1°C, 1.2°C, 1.4°C, 0.6°C, 2.6°C, 0.3°C, 0.1°C

Sampler Name (Print): Dale Slaughter	Date: 4/13/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 4/15/09	#2 Relinquished by (Signature): Ken Eddington	Date: 4/15/09	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 0800	Company Name: DAA	Time: 1224	
Sampler Name (Print): Tyler Emery	Date: 4/13/09	#1 Received by (Signature): Ken Eddington	Date: 4/15/09	#2 Received by (Signature): Lee F Swanson	Date: 4/15/09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name: DAA	Time: 0800	Company Name: NC Courier	Time: 12 24 PM	

9-Rdp 4-15-09
Compuchem 1615
Y/O JF.

HWMU13
Radford Army Ammunition Plant
Appendix IX Event Semiannual 2009 Monitoring Event
Analyte list for 13MW1 and 13MW2 Only
DAA JN: B03204-07

2/12

ANALYTICAL METHOD: SEE BELOW
TYPE METHOD: GC/ HPLC

For: 13MW1 and 13MW2 AND ALL OTHER sample locations.

Method 8330:

No.	PARAMETER	CAS RN
1.	1,3,5-trinitrobenzene (1,3,5-TNB)	99-35-4
2.	1,3-dinitrobenzene (1,3-DNB)	99-65-0
3.	2,4-dinitrotoluene (2,4-DNT)	121-14-2
4.	2,6-dinitrotoluene (2,6-DNT)	606-20-2

Method 8332:

No.	PARAMETER	CAS RN
1.	Nitroglycerin	55-63-0

.P:\ADMIN\DIVISIONS\ENVR\Templates\BBURG ETEAM TEMP\Field Events\RAAP\Sample Event Set Up\Semi-Annual Events\HWMU-13\HWMU13-Target Analyte list (NEW)- Appendix IX Event- upgradient wells.DOC
Revised July 18, 2005 - JCF
Revised November, 2005 - new permit - JCF
Created on 03/12/07. This list for Appendix IX Monitoring Event for 13MW1 and 13MW2 only. Since they are the upgradient wells, Appendix IX list is not required, only the routine Semiannual monitoring list. JCF

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Report To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone: (540)552-0044
Fax: -

Invoice To:
DRAPER
JANET FRAZIER
2206 SOUTH MAIN STREET
BLACKSBURG, VA 24060
Phone :(540)552-0044
Fax: -

Date Due: 05/05/2009 00:00 (20 day TAT)

Received By: Cathy Dover Date Received: 04/15/2009 16:15

Logged In By: Cathy Dover Date Logged In: 04/16/2009 07:58

J & B Flags?: YES	TICS?:10 VC	Spike Level: FULL Spike	Deliverable: **Style 9**	EDD Format: DRAPER ACCESS + ERIS

-01 QC*PEST-FLORISIL-RPT. DAACOMP1.SUB*HERB RPT.DAACOMP *APPIX.SVOC-HWMU13C.SUB+ (kepone&famphur) +20TICs*6TICs*6020MTL=Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,Sn,V & Zn+Hg 7470 (use reg.CRDL,use client LODforIDL*SUL9034*PERC 4ug/L STD.

Analysis	Due	TAT	Expires	Received	Comments
0904098-01 13MW5 [Water] Sampled 04/13/2009 08:50 Eastern					**USE FOR QC**
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 08:50	04/15/2009 16:15	
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 08:50	04/15/2009 16:15	
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 08:50	04/15/2009 16:15	
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 08:50	04/15/2009 16:15	

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-02 13MW3 [Water] Sampled 04/13/2009 12:00 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 12:00	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 12:00	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 12:00	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 12:00	04/15/2009 16:15
0904098-03 13MW4 [Water] Sampled 04/13/2009 10:35 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:35	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:35	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:35	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/20/2009 10:35	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Batched**

Analysis	Due	TAT	Expires	Comments
0904098-04 13MWDUP [Water] Sampled 04/13/2009 10:50 Eastern				
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 10:50	04/15/2009 16:15
0904098-05 13MW6 [Water] Sampled 04/13/2009 07:40 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/10/2009 07:40	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/25/2009 07:40	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/11/2009 07:40	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVE	05/05/2009 16:00	20	04/20/2009 07:40	04/15/2009 16:15

0904098

COMPUCHEM

Client:	**DRAPER**	**Project Manager:**	**Cathy Dover**
Project:	**RAAP APPIX 2009/B03204-07**	**Project Number:**	**RAAP APPIX 2009/B03204-07**
SDG:	**0904098** **CASE:**	**Status:**	**Received**

Analysis	Due	TAT	Expires	Comments
0904098-06 13MW7 [Water] Sampled 04/14/2009 10:50 Eastern				
6020 ICP MS	05/05/2009 16:00	20	10/11/2009 10:50	04/15/2009 16:15
GC-8330- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8332- SOLID PHASE EXPLOSIVI	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
IC 314.0 Perchlorate Water	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
SVOC 8270 APPIX FULL	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
7470A/7471A Mercury	05/05/2009 16:00	20	05/12/2009 10:50	04/15/2009 16:15
GC-8151A-HERBICIDE	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8082/PCB	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
GC-8081A/PEST	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15
9010B/9012A CYANIDE	05/05/2009 16:00	20	04/26/2009 10:50	04/15/2009 16:15
SULFIDE 9034 WATER	05/05/2009 16:00	20	04/21/2009 10:50	04/15/2009 16:15

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR **DATE:** _____

4-20-3 **BATCH:** _____

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904098-01	13MW5		
2	0904098-01	13MW5		
3	0904098-02	13MW3		
4	0904098-02	13MW3		
5	0904098-03	13MW4		
6	0904098-03	13MW4		
7	0904098-04	13MWDUP		
8	0904098-04	13MWDUP		
9	0904098-05	13MW6		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	0904098-06	13MW7		
13	0904103-01	13MW1		
14	0904103-01	13MW1		
15	0904103-02	13MW2		
16	0904103-02	13MW2		
17	9042013-BLK1	PBLKGZ		
18	9042013-BS1	PGZLCS		
19	9042013-BS2	PHALCS		
20	9042013-BSD1	PGZLCSD		
21	9042013-BSD2	PHALCSD		
22	9042013-MS1	Matrix Spike		
23	9042013-MS2	Matrix Spike		
24	9042013-MSD1	Matrix Spike Dup		
25	9042013-MSD2	Matrix Spike Dup		
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
1	GC#3	4-20-09/ 1810	GC#4 # 3	Lys storage
2	GC#3	4/21/09 1900	GC#4	G
3	a	4/21/09 */900	GC#4	
4				
5				TAJ 4/22/09
6				

Rev. 7/28/03:dce

CompuChem, a Division of Liberty Analytical Corp.

EXTRACT COC

DEPT: EXTR **DATE:** 4/20/09

4/20-3 **BATCH:** 9042013

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	PARAMETER	
1	0904098-01	13MW5		
2	0904098-01	13MW5		
3	0904098-02	13MW3		
4	0904098-02	13MW3		
5	0904098-03	13MW4		
6	0904098-03	13MW4		
7	0904098-04	13MWDUP		
8	0904098-04	13MWDUP		
9	0904098-05	13MW6		
10	0904098-05	13MW6		
11	0904098-06	13MW7		
12	0904098-06	13MW7		
13	0904103-01	13MW1		
14	0904103-01	13MW1		
15	0904103-02	13MW2		
16	0904103-02	13MW2		
17	9042013-BLK1	PBLKGZ		
18	9042013-BS1	PGZLCS		
19	9042013-BS2	PHALCS		
20	9042013-BSD1	PGZLCSD		
21	9042013-BSD2	PHALCSD		
22	9042013-MS1	Matrix Spike		
23	9042013-MS2	Matrix Spike		
24	9042013-MSD1	Matrix Spike Dup		
25	9042013-MSD2	Matrix Spike Dup		
26				
27				
28				
	RELINQUISHED BY	DATE/TIME	REC. BY	REASON
	GC#3	4-20-09 / 1810	GC#3	temp storage
	a	4/20/09 / 1910	GC#4	GJ
		4/20/09		
				TAL 4/24/09

Rev. 7/28/03:dce

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE: LIBRTY

METHOD: 8330-8332

SDG #: 0904098

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II)

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample(s) Summary
(Form III)

c. Method Blank Summary (Form IV)

a. Surrogate Percent Recovery Summary

(Form II)

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 %REC #	S2 %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	PBLKGZ	91						0
02	PGZLCS	89						0
03	PGZLCSD	87						0
04	13MW5MS	90						0
05	13MW5MSD	91						0
06	13MW5	94						0
07	13MW3	94						0
08	13MW4	93						0
09	13MWDUP	94						0
10	13MW6	83						0
11	13MW7	95						0
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 = 1,4-Dinitrobenzene (39-132)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column(1): C18 ID: 4.60 (mm)

	EPA SAMPLE NO.	S1 %REC #	S2 %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	PBLKGZ	87						0
02	PHALCS	85						0
03	PHALCSD	89						0
04	13MW5MS	100						0
05	13MW5MSD	92						0
06	13MW5	87						0
07	13MW3	91						0
08	13MW4	95						0
09	13MWDUP	94						0
10	13MW6	81						0
11	13MW7	91						0
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY QC LIMITS

S1 = 1,4-Dinitrobenzene (50-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

b. Matrix Spike/Matrix Spike Duplicate/
Laboratory Control Sample(s) Summary

(Form III)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,3,5-Trinitrobenzene	8.0	0.0	6.8	85	50-150
1,3-Dinitrobenzene	8.0	0.0	7.1	89	50-150
2,6-Dinitrotoluene	12	0.0	12	100	50-150
2,4-Dinitrotoluene	8.0	0.0	9.3	116	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3,5-Trinitrobenzene	8.0	6.8	85	0	30	50-150
1,3-Dinitrobenzene	8.0	7.8	98	9	30	50-150
2,6-Dinitrotoluene	12	16	133	28	30	50-150
2,4-Dinitrotoluene	8.0	9.4	118	1	30	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PGZLCS Matrix Spike - EPA Sample No.: PGZLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,3,5-Trinitrobenzene	8.0		5.8	72	50-150
1,3-Dinitrobenzene	8.0		7.5	94	50-150
2,6-Dinitrotoluene	12		11	92	50-150
2,4-Dinitrotoluene	8.0		7.9	99	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3,5-Trinitrobenzene	8.0	5.6	70	4	30	50-150
1,3-Dinitrobenzene	8.0	7.0	88	7	30	50-150
2,6-Dinitrotoluene	12	11	92	0	30	50-150
2,4-Dinitrotoluene	8.0	7.8	98	1	30	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits
Spike Recovery: 0 out of 8 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix Spike - EPA Sample No.: 13MW5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Nitroglycerin	20	0.0	18	90	50-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Nitroglycerin	20	19	95	5	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

_____

FORM III PEST-1

3E
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

LCS ID: PHALCS Matrix Spike - EPA Sample No.: PHALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Nitroglycerin	20		17	85	50-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Nitroglycerin	20	18	90	6	40	50-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM III PEST-1

c. Method Blank Summary (Form IV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9042013-BLK1 Lab File ID: 032C9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/20/09 Date Analyzed (2):

Time Analyzed (1): 2043 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PGZLCS	9042013-BS1	04/20/09	
02	PGZLCSD	9042013-BSD1	04/20/09	
03	13MW5MS	9042013-MS1	04/20/09	
04	13MW5MSD	9042013-MSD1	04/20/09	
05	13MW5	0904098-01	04/21/09	
06	13MW3	0904098-02	04/21/09	
07	13MW4	0904098-03	04/21/09	
08	13MWDUP	0904098-04	04/21/09	
09	13MW6	0904098-05	04/21/09	
10	13MW7	0904098-06	04/21/09	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Lab Sample ID: 9042013-BLK1 Lab File ID: 034B9042013-BLK1

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SOLIDPHASE

Sulfur Cleanup (Y/N) N Date Extracted: 04/20/09

Date Analyzed (1): 04/22/09 Date Analyzed (2):

Time Analyzed (1): 1916 Time Analyzed (2):

Instrument ID (1): A11001 Instrument ID (2):

GC Column (1): C18 ID: 4.60(mm) GC Column (2): ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PHALCS	9042013-BS2	04/22/09	
02	PHALCSD	9042013-BSD2	04/22/09	
03	13MW5MS	9042013-MS2	04/22/09	
04	13MW5MSD	9042013-MSD2	04/22/09	
05	13MW5	0904098-01	04/23/09	
06	13MW3	0904098-02	04/23/09	
07	13MW4	0904098-03	04/23/09	
08	13MWDUP	0904098-04	04/23/09	
09	13MW6	0904098-05	04/23/09	
10	13MW7	0904098-06	04/23/09	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I), followed by the raw data for HPLC samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results

Tabulated results (identification and quantitation) shall be included.

b. Copies of HPLC Chromatograms

Positively identified compounds shall be labeled with the names of compounds, either directly out from the peak on the chromatogram, or on a printout of retention times on the data system printout if retention times are printed over the peak on the chromatogram. Included for each sample, dilutions, and reanalysis. The chromatogram shall contain the following header information: Client Sample ID number, volume injected (uL), date and time of injection, HPLC column ID, and HPLC instrument ID.

d. Data System Printout

A printout of retention time and corresponding peak height or peak area shall accompany each chromatogram. Where edits have been made, initialing, dating, and integration time range are required.

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/040c0904098-02.d

Date : 21-APR-2009 01:30

Client ID: 13MW3

Instrument: a11001.i

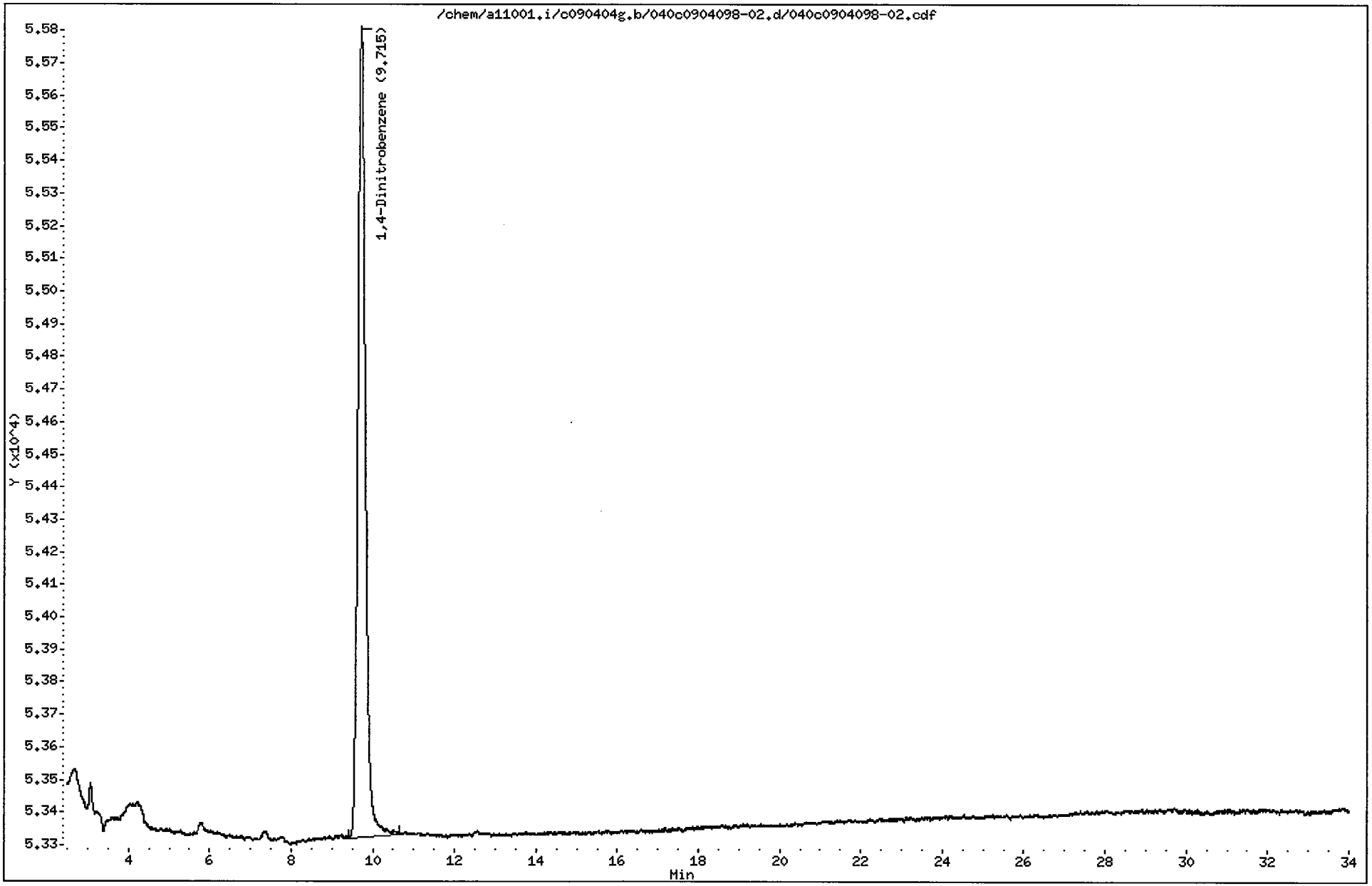
Sample Info: 0904098-02

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 01:30 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.09			2775								
9.72	9.48	9.88	31781	3385	1,4-Dinitrobenzene	9.388587	18.77717		93.9	39 - 132	

4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW3

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-02

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/044b0904098-02.d

Page 1

Date : 23-APR-2009 02:05

Client ID: 13MW3

Instrument: a11001.i

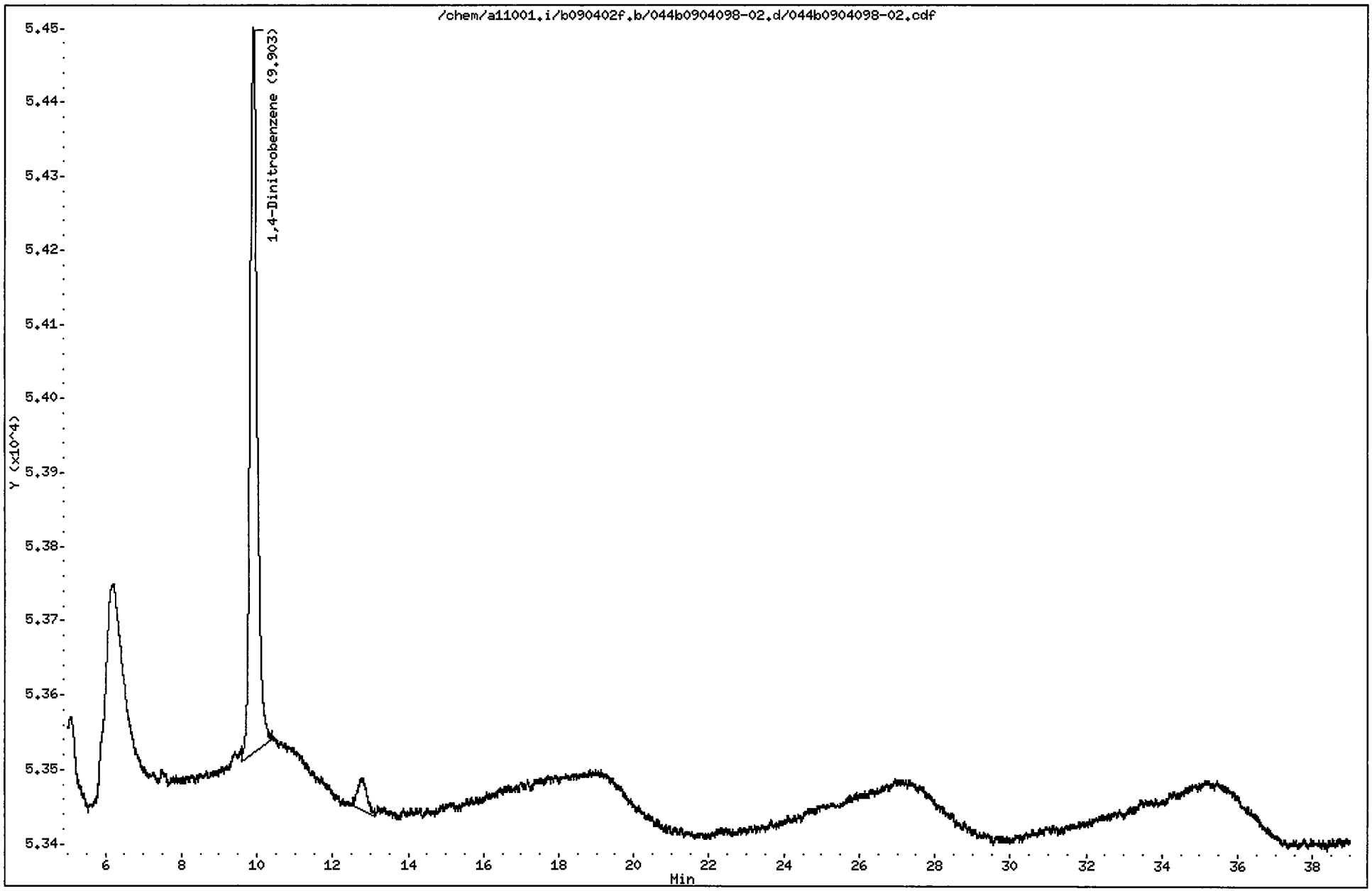
Sample Info: 0904098-02

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-02 Client Smp Id : 13MW3
Sample Type : SAMPLE Sublist : nitro
Inj Date : 23-APR-2009 02:05 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : 13MW3

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12676	1398	1,4-Dinitrobenzene	9.069150	18.13830		90.7	50 - 150	
12.81			781								

4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/041c0904098-03.d

Page 1

Date : 21-APR-2009 02:06

Client ID: 13MW4

Instrument: a11001.i

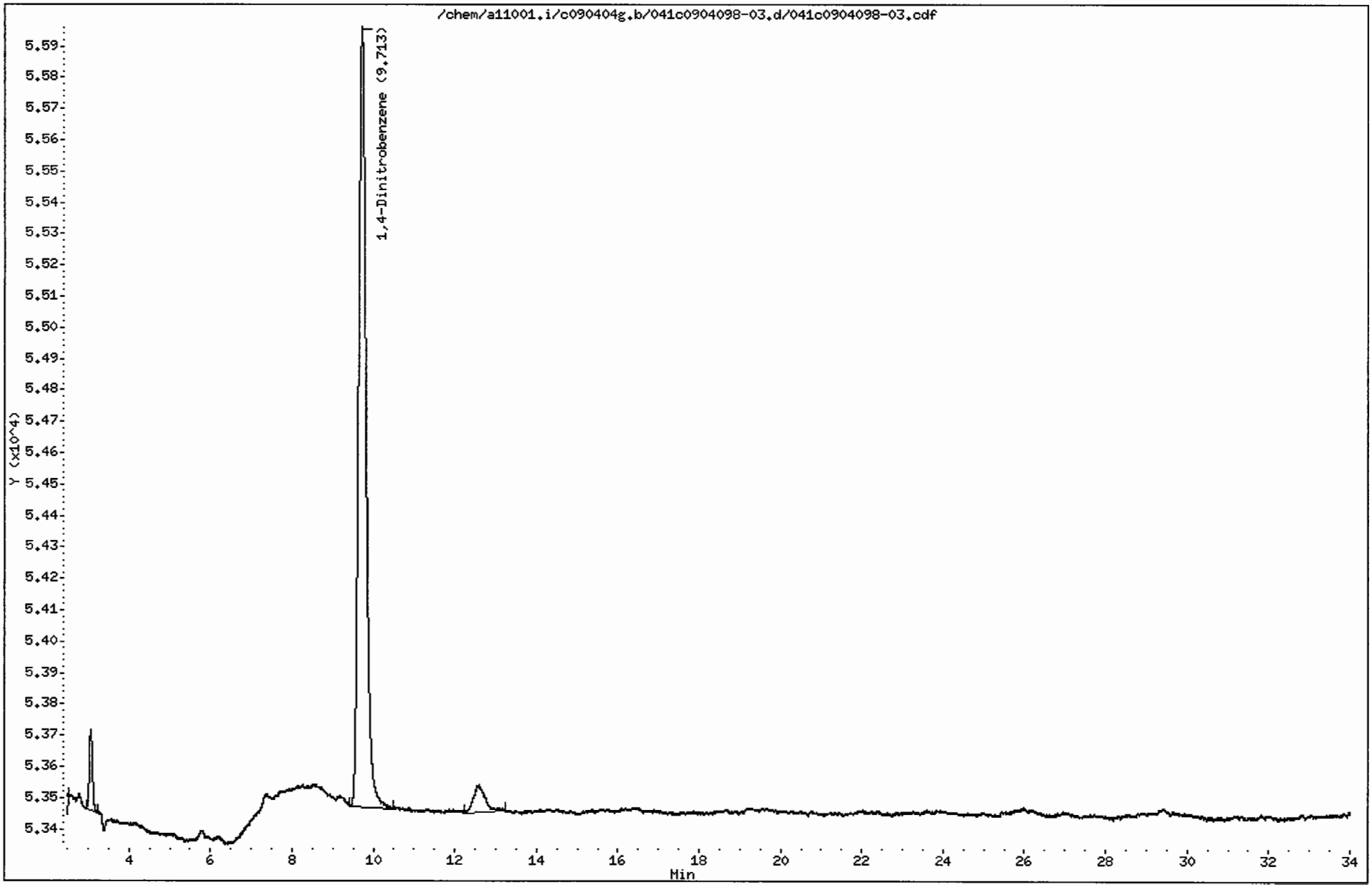
Sample Info: 0904098-03

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 02:06 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.19			2934								
3.07			1362								
9.71	9.48	9.88	31633	3385	1,4-Dinitrobenzene	9.344836	18.68967		93.4	39 - 132	
12.58			1811								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW4

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-03

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/045b0904098-03.d

Page 1

Date : 23-APR-2009 02:46

Client ID: 13MW4

Instrument: a11001.i

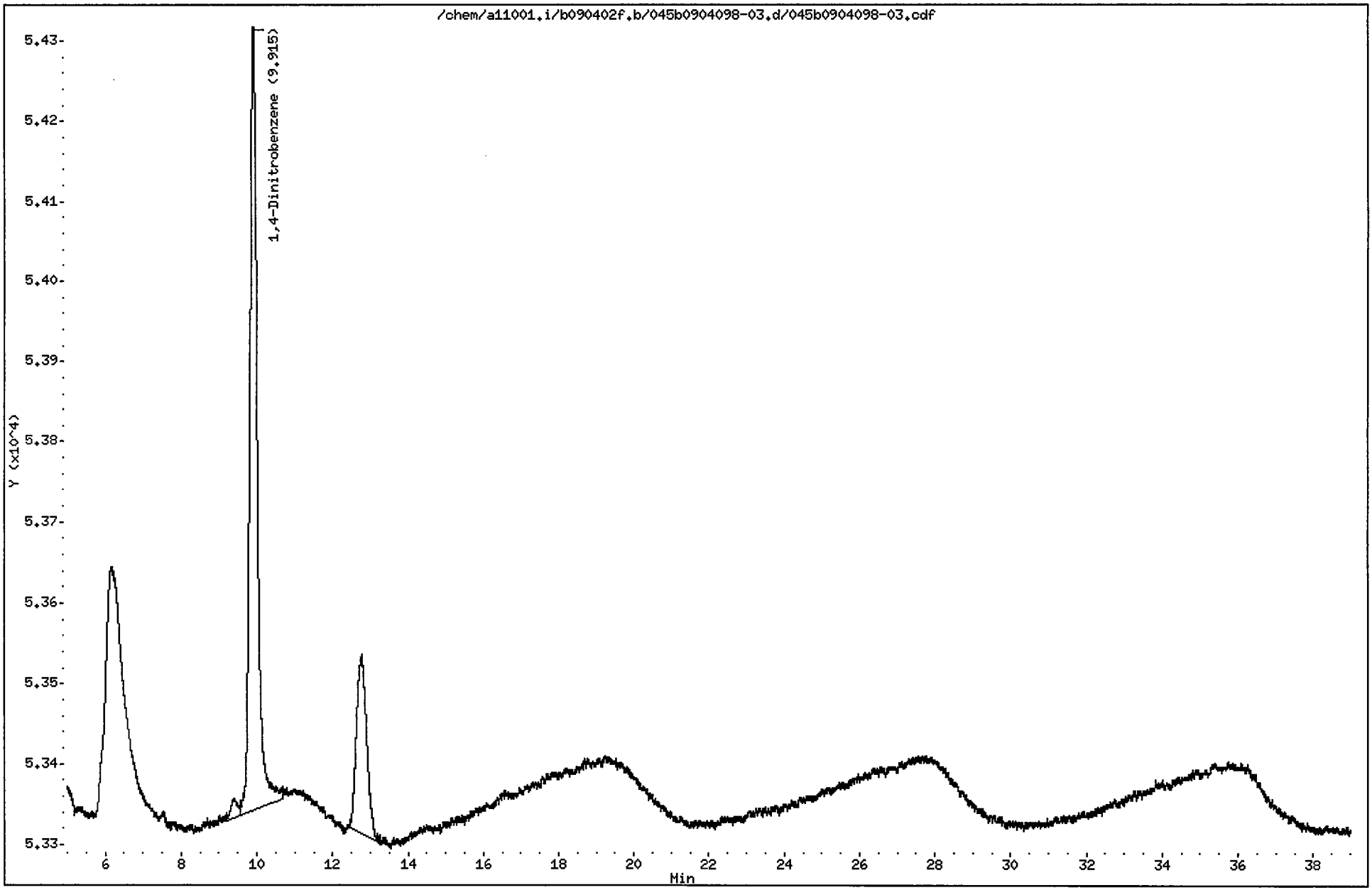
Sample Info: 0904098-03

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-03 Client Smp Id : 13MW4
Sample Type : SAMPLE Sublist : nitro
Inj Date : 23-APR-2009 02:46 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : 13MW4

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.38			282								
9.92	9.78	9.98	13348	1398	1,4-Dinitrobenzene	9.549499	19.09900		95.5	50 - 150	
12.78			4169								

NS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/039c0904098-01.d

Page 1

Date : 21-APR-2009 00:54

Client ID: 13MW5

Instrument: a11001.i

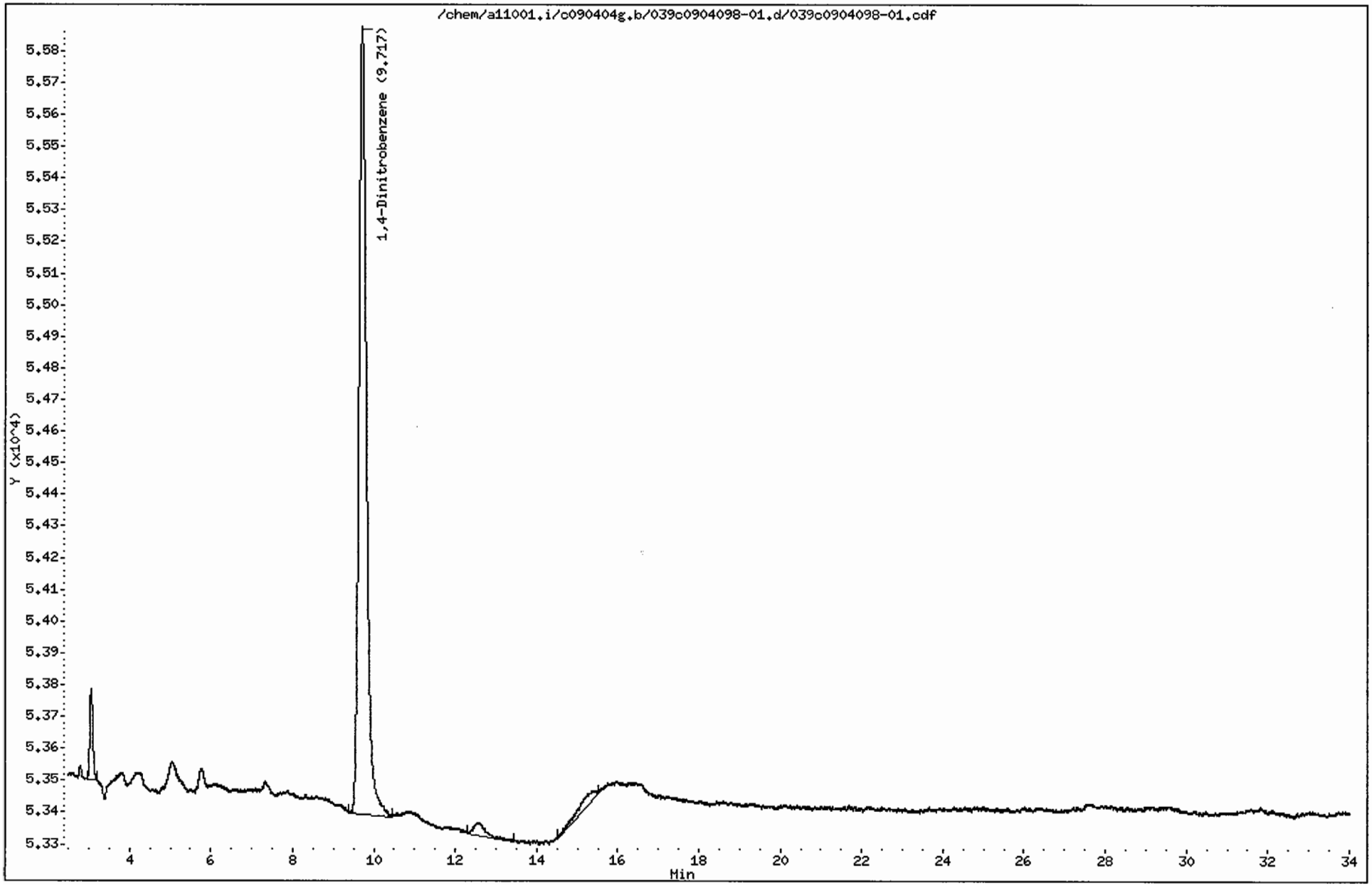
Sample Info: 0904098-01

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 00:54 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.16			1935								
3.06			1458								
9.72	9.48	9.88	31956	3385	1,4-Dinitrobenzene	9.440344	18.88069		94.4	39 - 132	
12.53			968								
15.49			1100								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-01

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/043b0904098-01.d

Date : 23-APR-2009 01:24

Client ID: 13MW5

Instrument: a11001.i

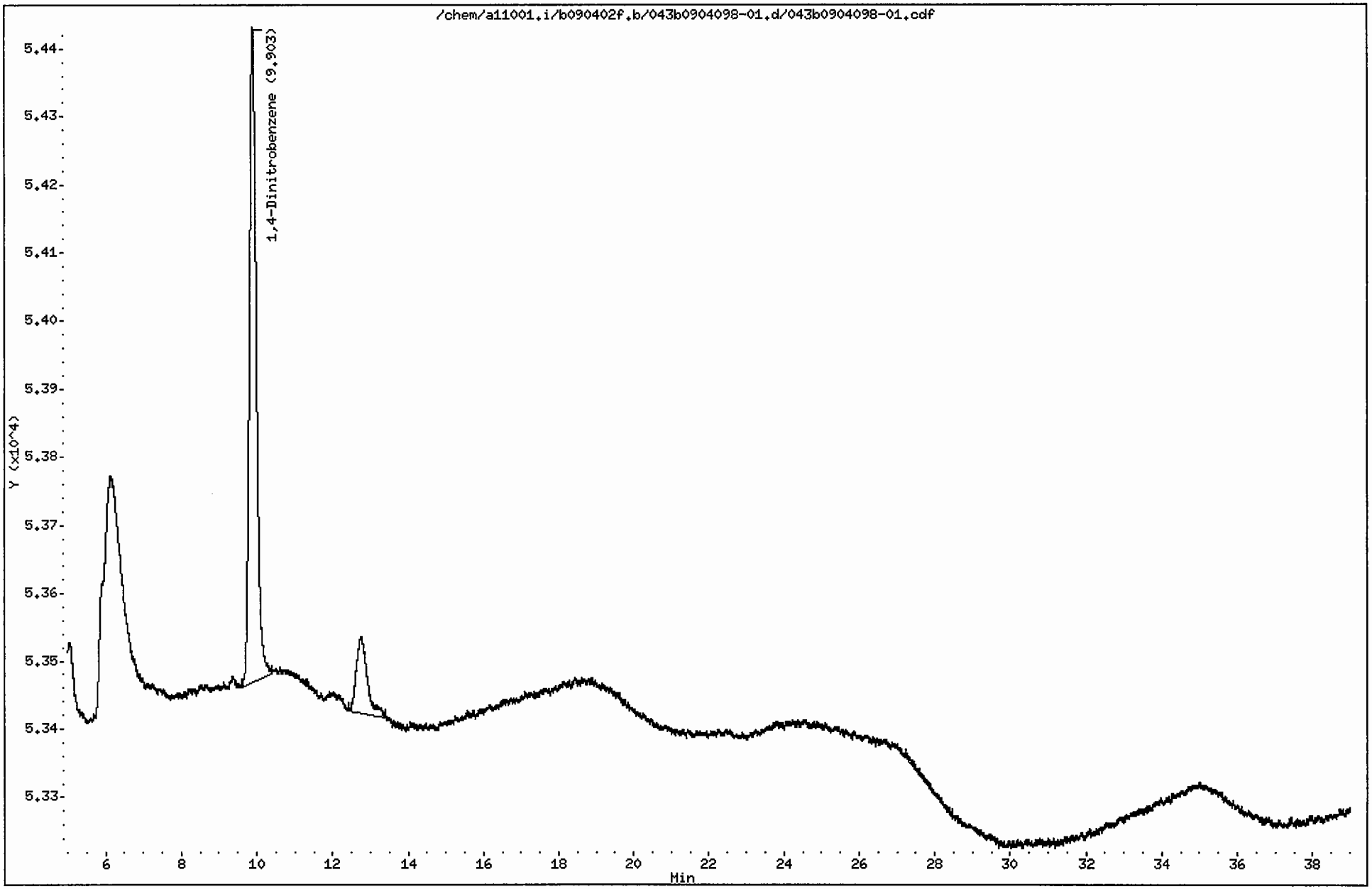
Sample Info: 0904098-01

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-01 Client Smp Id : 13MW5
Sample Type : SAMPLE Sublist : nitro
Inj Date : 23-APR-2009 01:24 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : 13MW5

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12225	1398	1,4-Dinitrobenzene	8.746019	17.49204		87.5	50 - 150	
12.78			2287								
27.27			315								

4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/043c0904098-05.d

Date : 21-APR-2009 03:18

Client ID: 13MW6

Instrument: a11001.i

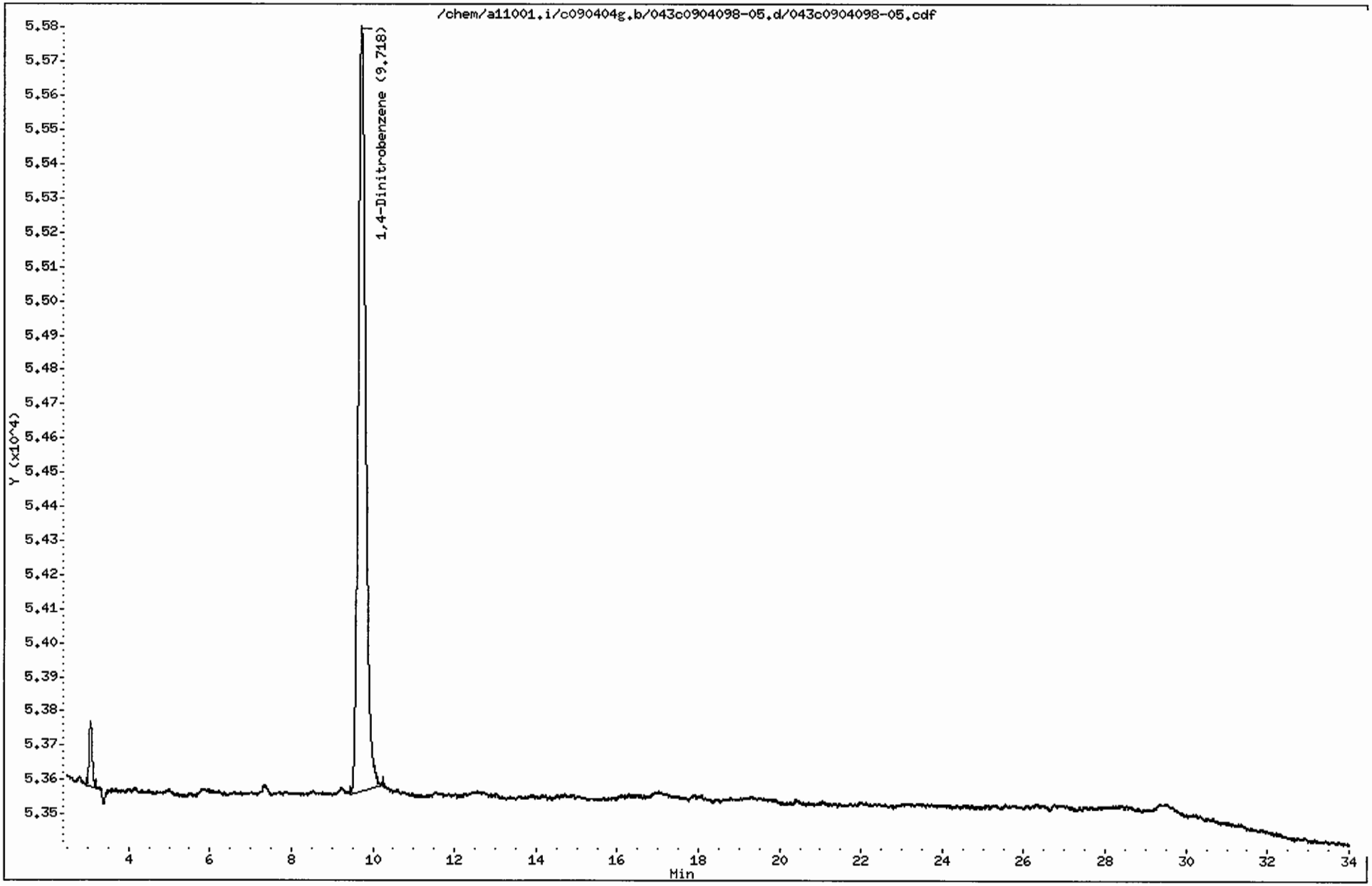
Sample Info: 0904098-05

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 03:18 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.08			1264								
3.08			981								
9.72	9.48	9.88	28240	3385	1,4-Dinitrobenzene	8.342348	16.68470		83.4	39 - 132	

Kelly 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW6

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-05

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/047b0904098-05.d

Page 1

Date : 23-APR-2009 04:07

Client ID: 13MW6

Instrument: a11001.i

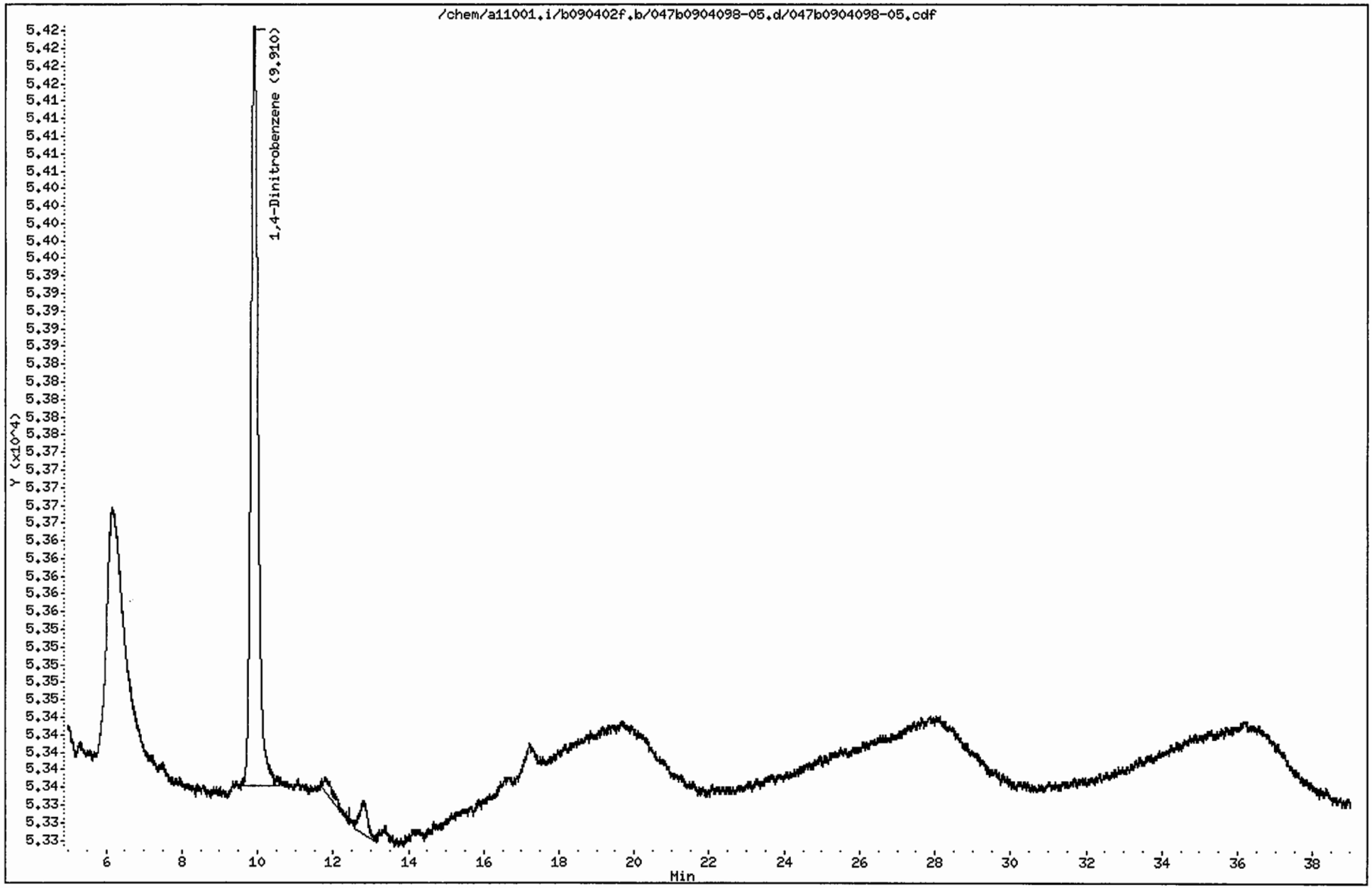
Sample Info: 0904098-05

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-05 Client Smp Id : 13MW6
Sample Type : SAMPLE Sublist : nitro
Inj Date : 23-APR-2009 04:07 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : 13MW6

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.91	9.78	9.98	11305	1398	1,4-Dinitrobenzene	8.087882	16.17576		80.9	50 - 150	
11.79			361								
12.83			573								

KS 4/23/09

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GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/044c0904098-06.d

Page 1

Date : 21-APR-2009 03:54

Client ID: 13MW7

Instrument: a11001.i

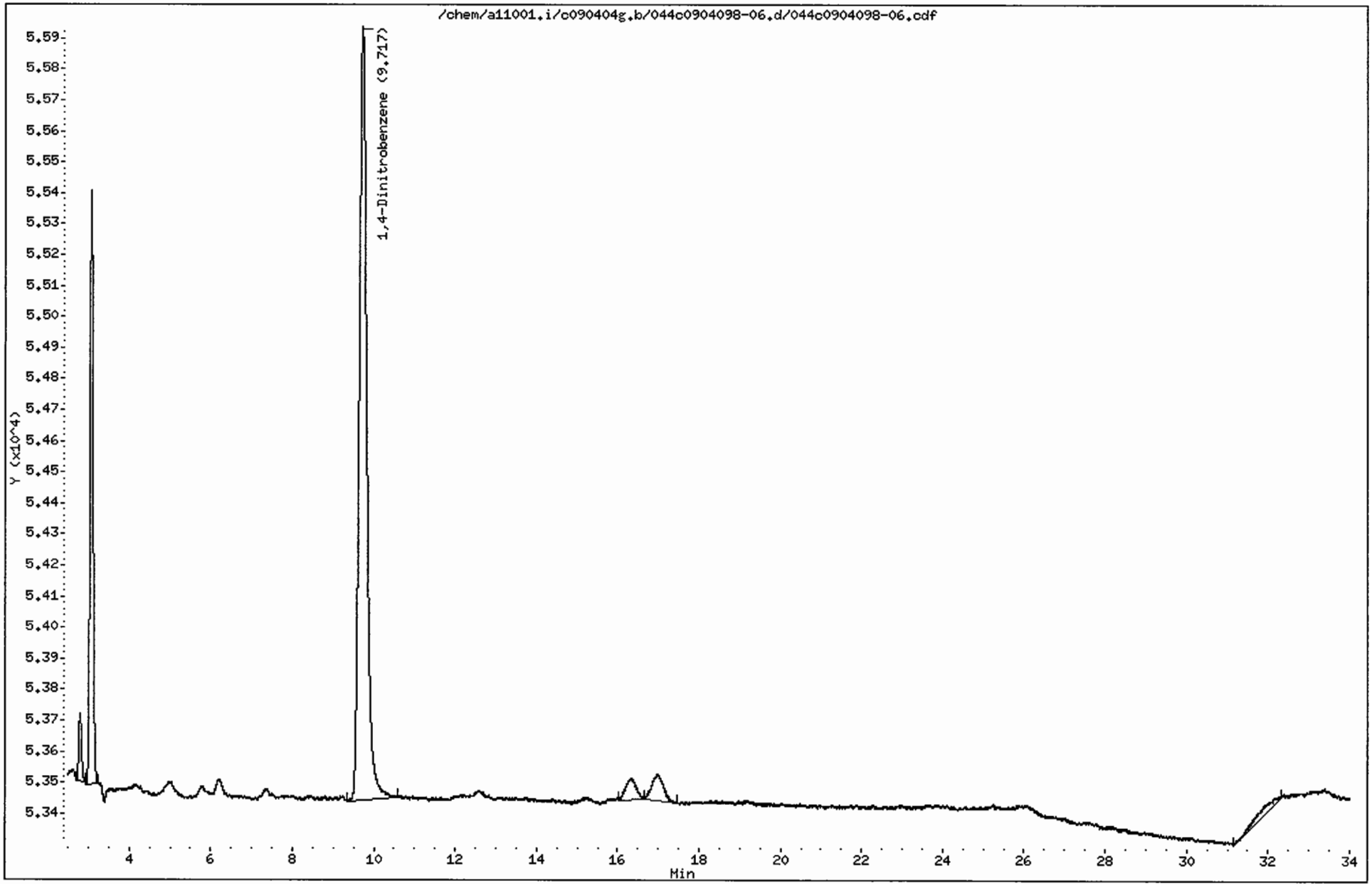
Sample Info: 0904098-06

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 03:54 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.18			733								
2.80			1027								
3.07			10012								
9.72	9.48	9.88	32092	3385	1,4-Dinitrobenzene	9.480564	18.96113		94.8	39 - 132	
16.34			1235								
17.00			1768								
32.29			1027								

Kell 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW7

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-06

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/048b0904098-06.d

Date : 23-APR-2009 04:48

Client ID: 13MW7

Instrument: a11001.i

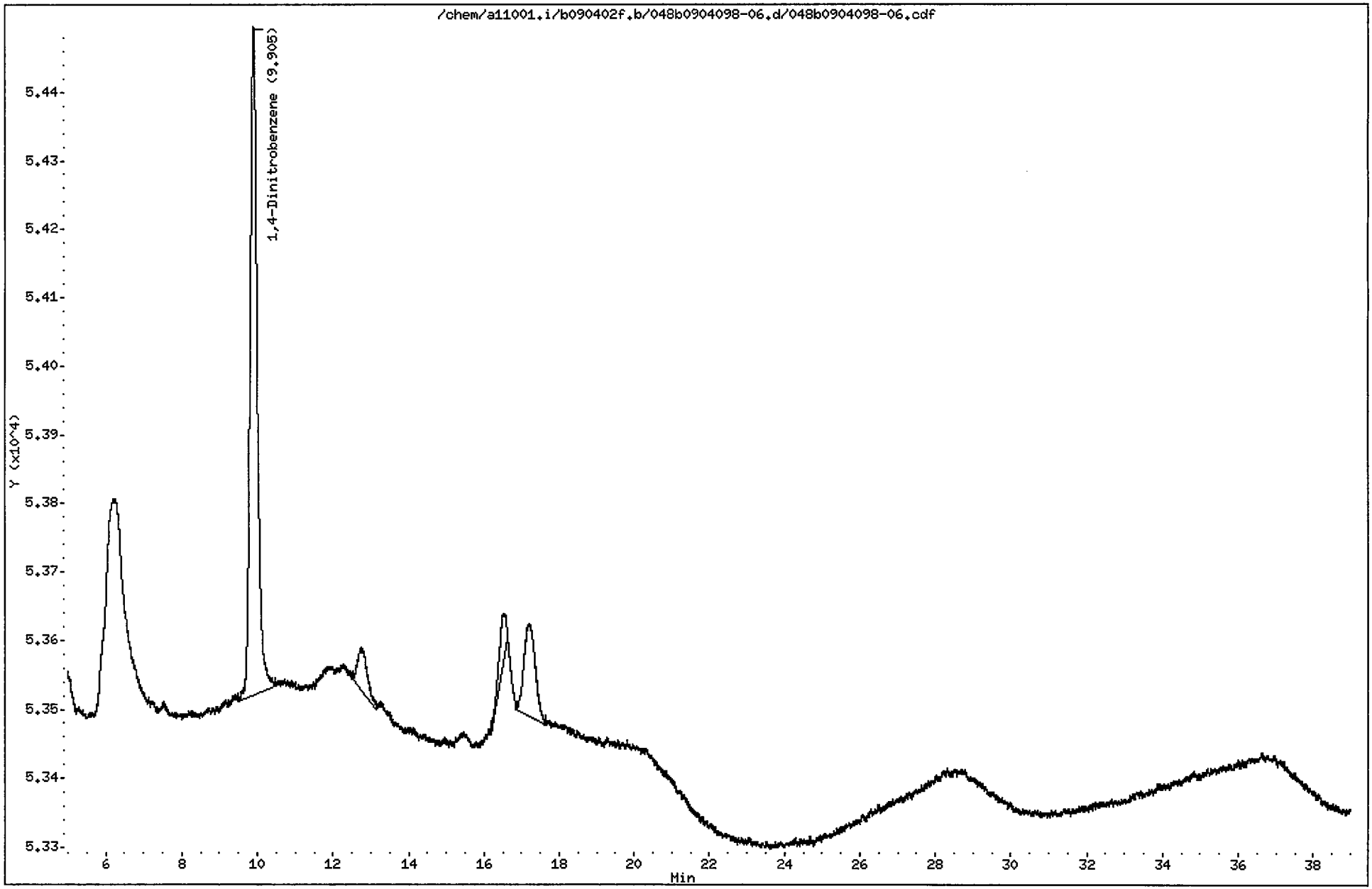
Sample Info: 0904098-06

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-06 Client Smp Id : 13MW7
Sample Type : SAMPLE Sublist : nitro
Inj Date : 23-APR-2009 04:48 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : 13MW7

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12682	1398	1,4-Dinitrobenzene	9.073049	18.14610		90.7	50 - 150	
12.77			1097								
16.53			983								
17.18			2784								

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

FORM I PEST

Data File: /chem/a11001.i/c090404g.b/042c0904098-04.d

Date : 21-APR-2009 02:42

Client ID: 13MWDUP

Instrument: a11001.i

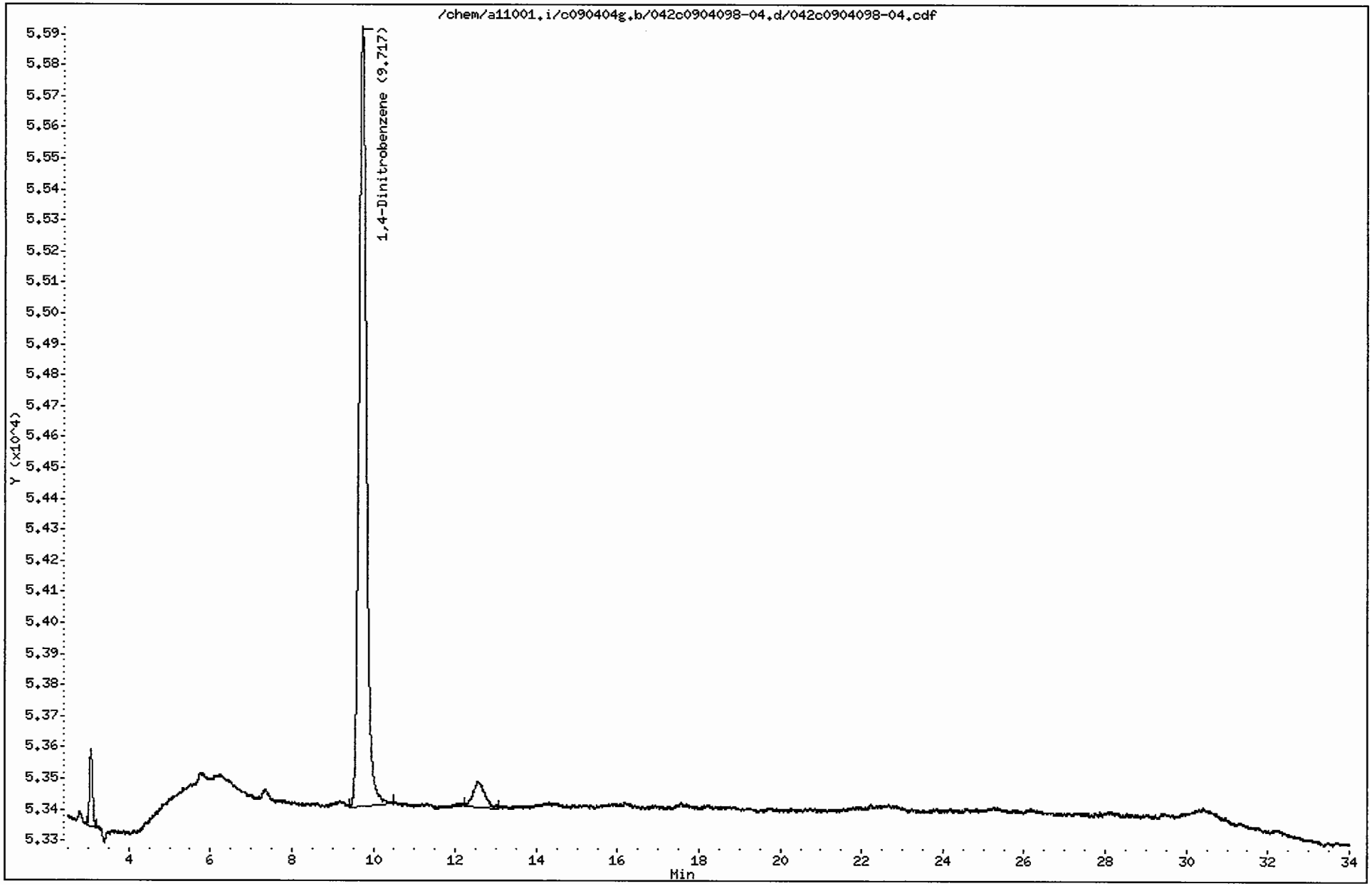
Sample Info: 0904098-04

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : HWMU13
Inj Date : 21-APR-2009 02:42 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.10			1804								
2.18			815								
3.07			1314								
9.72	9.48	9.88	31898	3385	1,4-Dinitrobenzene	9.423195	18.84639		94.2	39 - 132	
12.55			1656								

Kelly 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MWDUP

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 0904098-04

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/046b0904098-04.d

Page 1

Date : 23-APR-2009 03:26

Client ID: 13MWDUP

Instrument: a11001.i

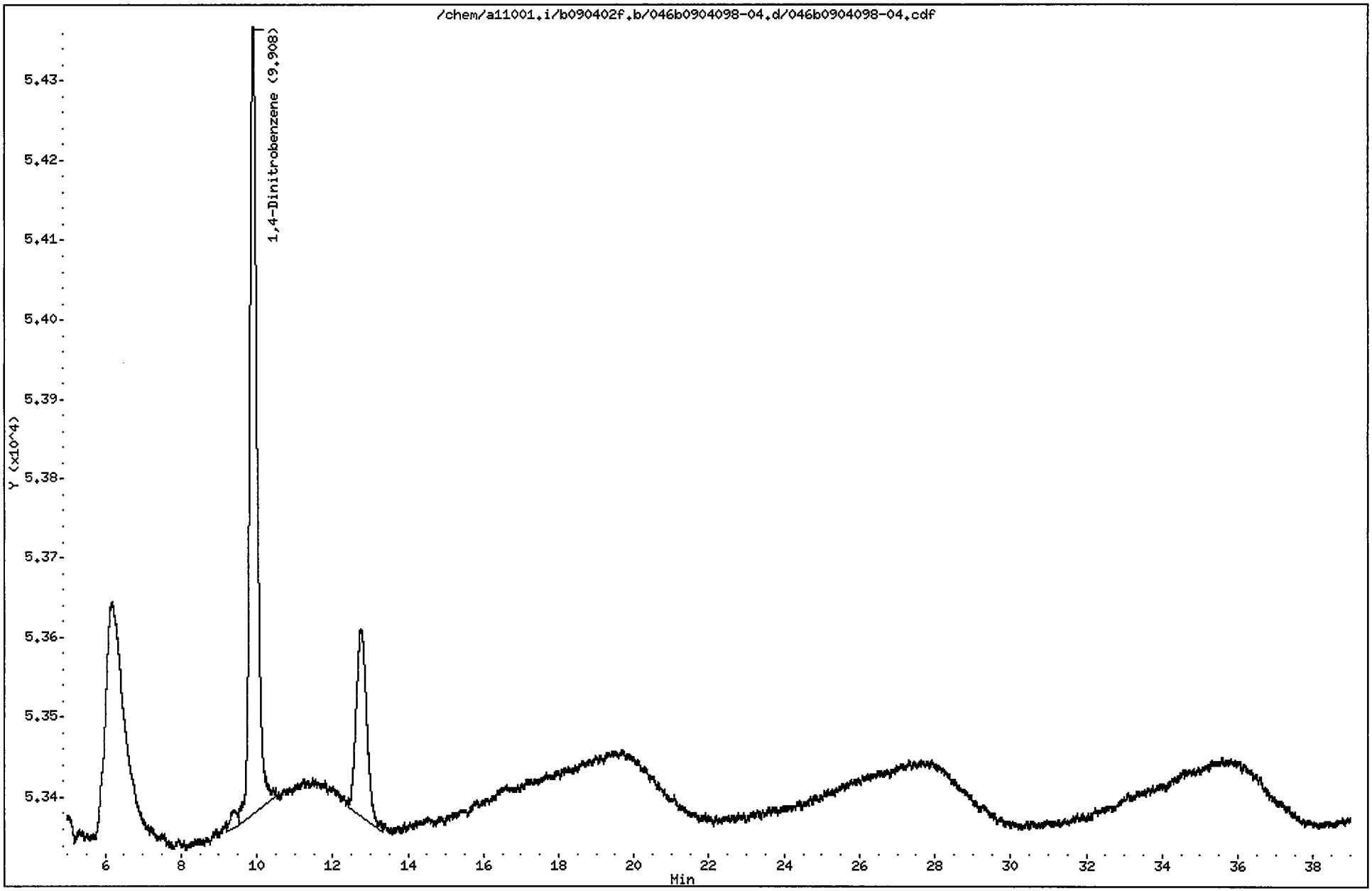
Sample Info: 0904098-04

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 0904098-04 Client Smp Id : 13MWDUP
Sample Type : SAMPLE Sublist : nitro
Inj Date : 23-APR-2009 03:26 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : 13MWDUP

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.39			294								
9.91	9.78	9.98	13146	1398	1,4-Dinitrobenzene	9.404944	18.80989		94.0	50 - 150	
12.77			4570								

NS 4/23/09

3. Standards Data

a. Initial Calibration Data of HPLC (Form VI)

b. Continuing Verification Summary (Form VII)

c. Analytical Sequence (Form VIII)

d. Chromatograms and Data System Printouts

a. Initial Calibration Data
(Form VI)

If more than one instrument is used, forms shall be arranged in order by instrument. Multiple initial calibrations from the same instrument shall be in chronological order. Within each initial calibration, the standards are in order by level.

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

LAB FILE ID: RF1.25: 007C83301CRF6.25: 006C83302CRF12.5: 005C83303C
RF31.25: 004C83304RF62.5: 003C83305C

COMPOUND	RF1.25	RF6.25	RF12.5	RF31.25	RF62.5
1,3,5-Trinitrobenzene	2928.000	2909.200	2619.400	2630.800	2700.000
1,3-Dinitrobenzene	3720.800	4018.400	3748.800	3920.320	3896.200
2,6-Dinitrotoluene	1735.600	1728.400	1651.900	1716.680	1725.940
2,4-Dinitrotoluene	3507.200	3681.600	3476.600	3561.040	3542.120
1,4-Dinitrobenzene	3302.600	3482.900	3346.250	3405.160	3388.480

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
1,3,5-Trinitrobenzene	AVRG	2757.48000	5.4
1,3-Dinitrobenzene	AVRG	3860.90400	3.2
2,6-Dinitrotoluene	AVRG	1711.70400	2.0
2,4-Dinitrotoluene	AVRG	3553.71200	2.2
1,4-Dinitrobenzene	AVRG	3385.07800	2.0

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

LAB FILE ID: RT1: 007C83301CA RT2: 006C83302CA RT3: 005C83303CA
RT4: 004C83304CA RT5: 003C83305CA

COMPOUND	RT1	RT2	RT3	RT4	RT5
1,3,5-Trinitrobenzene	8.622	8.628	8.625	8.618	8.615
1,3-Dinitrobenzene	10.795	10.807	10.802	10.790	10.783
2,6-Dinitrotoluene	18.628	18.620	18.602	18.593	18.583
2,4-Dinitrotoluene	19.073	19.067	19.048	19.038	19.028
1,4-Dinitrobenzene	9.937	9.938	9.935	9.930	9.923

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/04/09 04/04/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 1617 1840

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
1,3,5-Trinitrobenzene	8.622	8.422	8.822
1,3-Dinitrobenzene	10.795	10.595	10.995
2,6-Dinitrotoluene	18.605	18.305	18.905
2,4-Dinitrotoluene	19.051	18.751	19.351
1,4-Dinitrobenzene	9.933	9.733	10.133

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

LAB FILE ID: RF5: 007B83321BA RF10: 006B83322BA RF20: 005B83323BA
RF50: 004B83324BA RF100: 003B83325BA

COMPOUND	RF5	RF10	RF20	RF50	RF100
Nitroglycerin	890.250	908.900	872.050	881.590	853.868
1,4-Dinitrobenzene	1507.500	1383.200	1354.750	1407.600	1335.190

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Nitroglycerin	AVRG	881.339000	2.3
1,4-Dinitrobenzene	AVRG	1397.73300	4.8

FORM VI 8330

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

LAB FILE ID: RT1: 007B83321BA RT2: 006B83322BA RT3: 005B83323BA
RT4: 004B83324BA RT5: 003B83325BA

COMPOUND	RT1	RT2	RT3	RT4	RT5
Nitroglycerin	15.455	15.462	15.463	15.445	15.442
1,4-Dinitrobenzene	10.097	10.097	10.095	10.087	10.087

FORM 6
8330 INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date(s): 04/02/09 04/03/09

Column: C18 ID: 4.60 (mm) Calibration Time(s): 2332 0216

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Nitroglycerin	15.453	15.363	15.563
1,4-Dinitrobenzene	10.093	9.995	10.195

b. Continuing Calibration Verification Summary (Form VII)

For all continuing calibration verification standards, on all instruments, in chronological order by instrument.

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date: 04/20/09 Time: 1931

Lab File ID: 030C83304CG Init. Calib. Date(s): 04/04/09 04/04/09

Init. Calib. Times: 1617 1840

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF31.250 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,3,5-Trinitrobenzene	2757.4800	2710.1600	0.01	-1.72	15.00	AVRG
1,3-Dinitrobenzene	3860.9040	3560.8000	0.01	-7.77	15.00	AVRG
2,6-Dinitrotoluene	1711.7040	1710.0920	0.01	-0.09	15.00	AVRG
2,4-Dinitrotoluene	3553.7120	3618.1840	0.01	1.81	15.00	AVRG
1,4-Dinitrobenzene	3385.0780	3336.4800	0.01	-1.44	15.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date: 04/20/09 Time: 2342

Lab File ID: 037C83304CH Init. Calib. Date(s): 04/04/09 04/04/09

Init. Calib. Times: 1617 1840

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF31.250 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,3,5-Trinitrobenzene	2757.4800	2923.6800	0.01	6.03	15.00	AVRG
1,3-Dinitrobenzene	3860.9040	3871.3600	0.01	0.27	15.00	AVRG
2,6-Dinitrotoluene	1711.7040	1682.1600	0.01	-1.72	15.00	AVRG
2,4-Dinitrotoluene	3553.7120	3545.9200	0.01	-0.22	15.00	AVRG
1,4-Dinitrobenzene	3385.0780	3430.0400	0.01	1.33	15.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date: 04/21/09 Time: 0541

Lab File ID: 047C83304CI Init. Calib. Date(s): 04/04/09 04/04/09

Init. Calib. Times: 1617 1840

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF31.250 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,3,5-Trinitrobenzene	2757.4800	2875.5200	0.01	4.28	15.00	AVRG
1,3-Dinitrobenzene	3860.9040	3890.2400	0.01	0.76	15.00	AVRG
2,6-Dinitrotoluene	1711.7040	1734.2240	0.01	1.32	15.00	AVRG
2,4-Dinitrotoluene	3553.7120	3538.6360	0.01	-0.42	15.00	AVRG
1,4-Dinitrobenzene	3385.0780	3441.2800	0.01	1.66	15.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date: 04/22/09 Time: 1754

Lab File ID: 032B83324BF Init. Calib. Date(s): 04/02/09 04/03/09

Init. Calib. Times: 2332 0216

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Nitroglycerin	881.33200	917.79000	0.01	4.14	15.00	AVRG
1,4-Dinitrobenzene	1397.6480	1459.1020	0.01	4.40	40.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date: 04/23/09 Time: 0002

Lab File ID: 041B83324BG Init. Calib. Date(s): 04/02/09 04/03/09

Init. Calib. Times: 2332 0216

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Nitroglycerin	881.33200	919.37450	0.01	4.32	15.00	AVRG
1,4-Dinitrobenzene	1397.6480	1481.4280	0.01	5.99	40.00	AVRG

FORM 7B
8330 CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Instrument ID: A11001 Calibration Date: 04/23/09 Time: 0529

Lab File ID: 049B83324BH Init. Calib. Date(s): 04/02/09 04/03/09

Init. Calib. Times: 2332 0216

GC Column: C18 ID: 4.60 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Nitroglycerin	881.33200	915.94750	0.01	3.93	15.00	AVRG
1,4-Dinitrobenzene	1397.6480	1473.6070	0.01	5.43	40.00	AVRG

c. Analytical Sequence (Form VIII)

For all instruments, in chronological order by instrument

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: C18 ID: 4.60 (mm) Init. Calib. Date(s): 04/04/09 04/04/09

Instrument ID: A11001

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 9.93
SURROGATE RT FROM CONTINUING CALIBRATION S1 : 9.67

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	83305CA	83305CA	04/04/09	1617	9.92	
02	83304CA	83304CA	04/04/09	1653	9.93	
03	83303CA	83303CA	04/04/09	1729	9.94	
04	83302CA	83302CA	04/04/09	1805	9.94	
05	83301CA	83301CA	04/04/09	1840	9.94	
06	83304CG	83304CG	04/20/09	1931	9.67	
07	LIBLKCG	LIBLKCG	04/20/09	2007	9.68	
08	PBLKGZ	9042013-BLK1	04/20/09	2043	9.72	
09	PGZLCS	9042013-BS1	04/20/09	2119	9.72	
10	PGZLCSD	9042013-BSD1	04/20/09	2155	9.72	
11	13MW5MS	9042013-MS1	04/20/09	2231	9.72	
12	13MW5MSD	9042013-MSD1	04/20/09	2307	9.72	
13	83304CH	83304CH	04/20/09	2342	9.69	
14	LIBLKCH	LIBLKCH	04/21/09	0018	9.69	
15	13MW5	0904098-01	04/21/09	0054	9.72	
16	13MW3	0904098-02	04/21/09	0130	9.71	
17	13MW4	0904098-03	04/21/09	0206	9.71	
18	13MWDUP	0904098-04	04/21/09	0242	9.72	
19	13MW6	0904098-05	04/21/09	0318	9.72	
20	13MW7	0904098-06	04/21/09	0354	9.72	
21	83304CI	83304CI	04/21/09	0541	9.68	
22	LIBLKCI	LIBLKCI	04/21/09	0617	9.69	
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 1,4-Dinitrobenzene (+/- 0.20 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

GC Column: C18 ID: 4.60 (mm) Init. Calib. Date(s): 04/02/09 04/03/09

Instrument ID: A11001

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 10.10
SURROGATE RT FROM CONTINUING CALIBRATION S1 : 9.87

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	RT	#
01	83325BA	83325BA	04/02/09	2332	10.09			
02	83324BA	83324BA	04/03/09	0013	10.09			
03	83323BA	83323BA	04/03/09	0054	10.10			
04	83322BA	83322BA	04/03/09	0135	10.10			
05	83321BA	83321BA	04/03/09	0216	10.10			
06	83324BF	83324BF	04/22/09	1754	9.87			
07	LIBLKBF	LIBLKBF	04/22/09	1835	9.88			
08	PBLKGZ	9042013-BLK1	04/22/09	1916	9.90			
09	PHALCS	9042013-BS2	04/22/09	1957	9.90			
10	PHALCSD	9042013-BSD2	04/22/09	2038	9.90			
11	13MW5MS	9042013-MS2	04/22/09	2118	9.90			
12	13MW5MSD	9042013-MSD2	04/22/09	2159	9.90			
13	83324BG	83324BG	04/23/09	0002	9.86			
14	LIBLKBG	LIBLKBG	04/23/09	0043	9.87			
15	13MW5	0904098-01	04/23/09	0124	9.90			
16	13MW3	0904098-02	04/23/09	0205	9.90			
17	13MW4	0904098-03	04/23/09	0246	9.91			
18	13MWDUP	0904098-04	04/23/09	0326	9.91			
19	13MW6	0904098-05	04/23/09	0407	9.91			
20	13MW7	0904098-06	04/23/09	0448	9.90			
21	83324BH	83324BH	04/23/09	0529	9.87			
22	LIBLKBH	LIBLKBH	04/23/09	0610	9.88			
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS
S1 = 1,4-Dinitrobenzene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

d. Chromatograms and Data System Printouts

For all methods, standards packages shall include
The following:

- Initial Calibration Standards
- Second Source Initial Calibration Verifications (if required by client)
- Continuing Calibration Verification Standards
- The quantitation report must include the Client Sample ID number.
- The chromatograms shall include the following: Client Sample ID number for the standard, labeled standard peaks, volume injected, for each standard, date and time of injection, HPLC column identifier, and HPLC instrument identifier

Data File: /chem/a11001.i/c090404.b/003c83305CA.d

Page 1

Date : 04-APR-2009 16:17

Client ID: 83305CA

Instrument: a11001.i

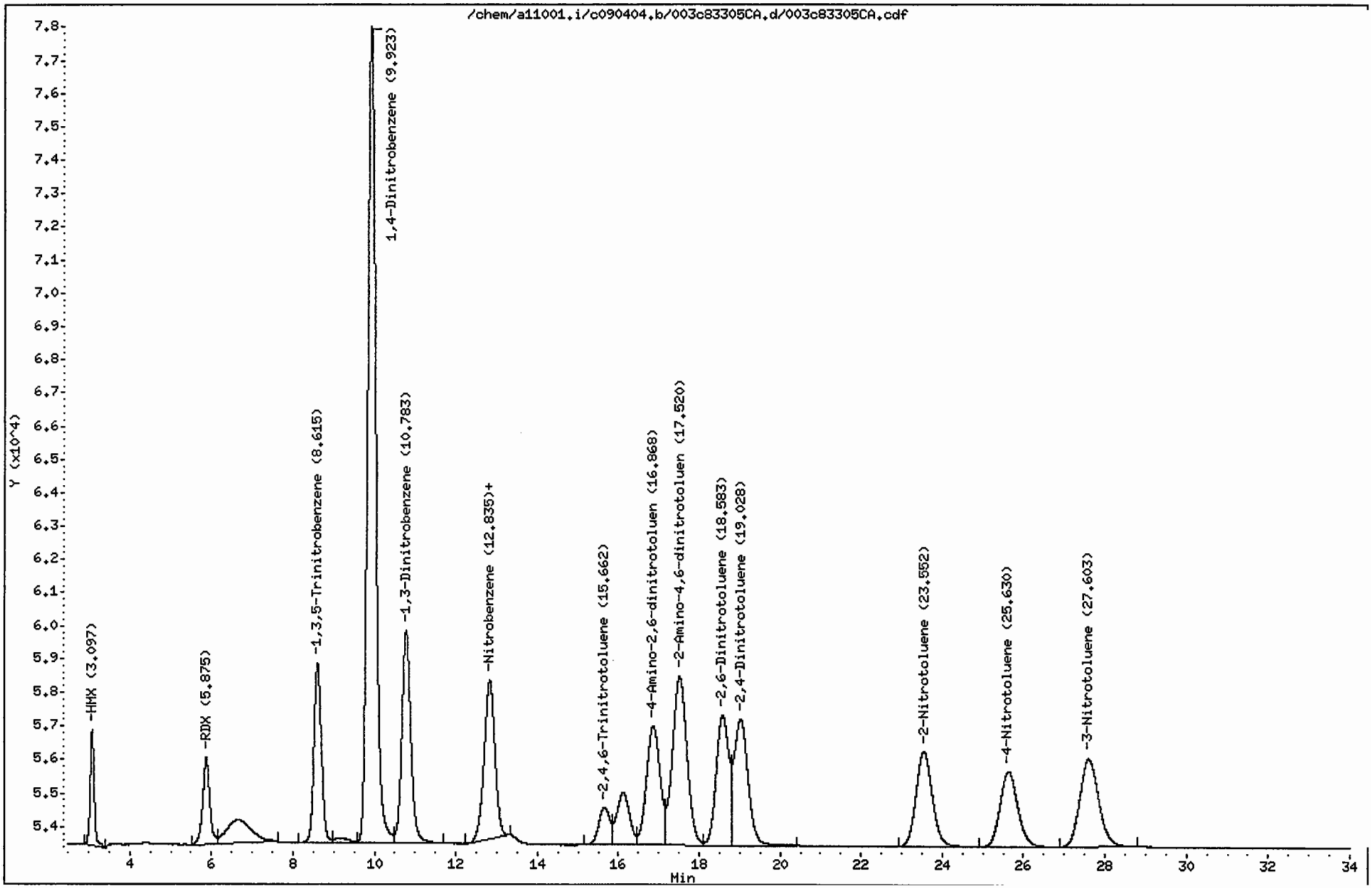
Sample Info: 83305CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83305CA Client Smp Id : 83305CA
Sample Type : INITIAL CAL: Level 5 Sublist : all
Inj Date : 04-APR-2009 16:17 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND		STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.06			1265						
2.23			3997						
3.10	2.99	3.19	23640	840	HMX		25.00000	945.5600	
5.88	5.78	5.98	30898	1190	RDX		25.00000	1235.920	
6.66			29213						
8.62	8.42	8.82	67501	2757	1,3,5-Trinitrobenzene		25.00000	2700.000	
9.20			3212						
9.92	9.73	10.13	338848	3385	1,4-Dinitrobenzene		100.0000	3388.480	
10.78	10.60	11.00	97406	3861	1,3-Dinitrobenzene		25.00000	3896.200	
12.84	12.65	13.05*	86599	1180	Nitrobenzene	*	75.00000	1154.640	
12.84	12.65	13.05*	86599	1180	Tetryl	*	75.00000	1154.640	
15.66	15.48	15.88	21563	859	2,4,6-Trinitrotoluene		25.00000	862.4800	
16.12			34216						
16.87	16.69	17.09	83946	1699	4-Amino-2,6-dinitrotoluene		50.00000	1678.920	
17.52	17.34	17.74	124819	2486	2-Amino-4,6-dinitrotoluene		50.00000	2496.360	
18.58	18.30	18.90	86297	1712	2,6-Dinitrotoluene		50.00000	1725.940	
19.03	18.75	19.35	88554	3554	2,4-Dinitrotoluene		25.00000	3542.120	
23.55	23.27	23.87	79353	1590	2-Nitrotoluene		50.00000	1587.060	
25.63	25.36	25.96	68683	1359	4-Nitrotoluene		50.00000	1373.640	
27.60	27.34	27.94	84822	1686	3-Nitrotoluene		50.00000	1696.420	

Data File: /chem/a11001.i/c090404.b/004c83304CA.d

Page 1

Date : 04-APR-2009 16:53

Client ID: 83304CA

Instrument: a11001.i

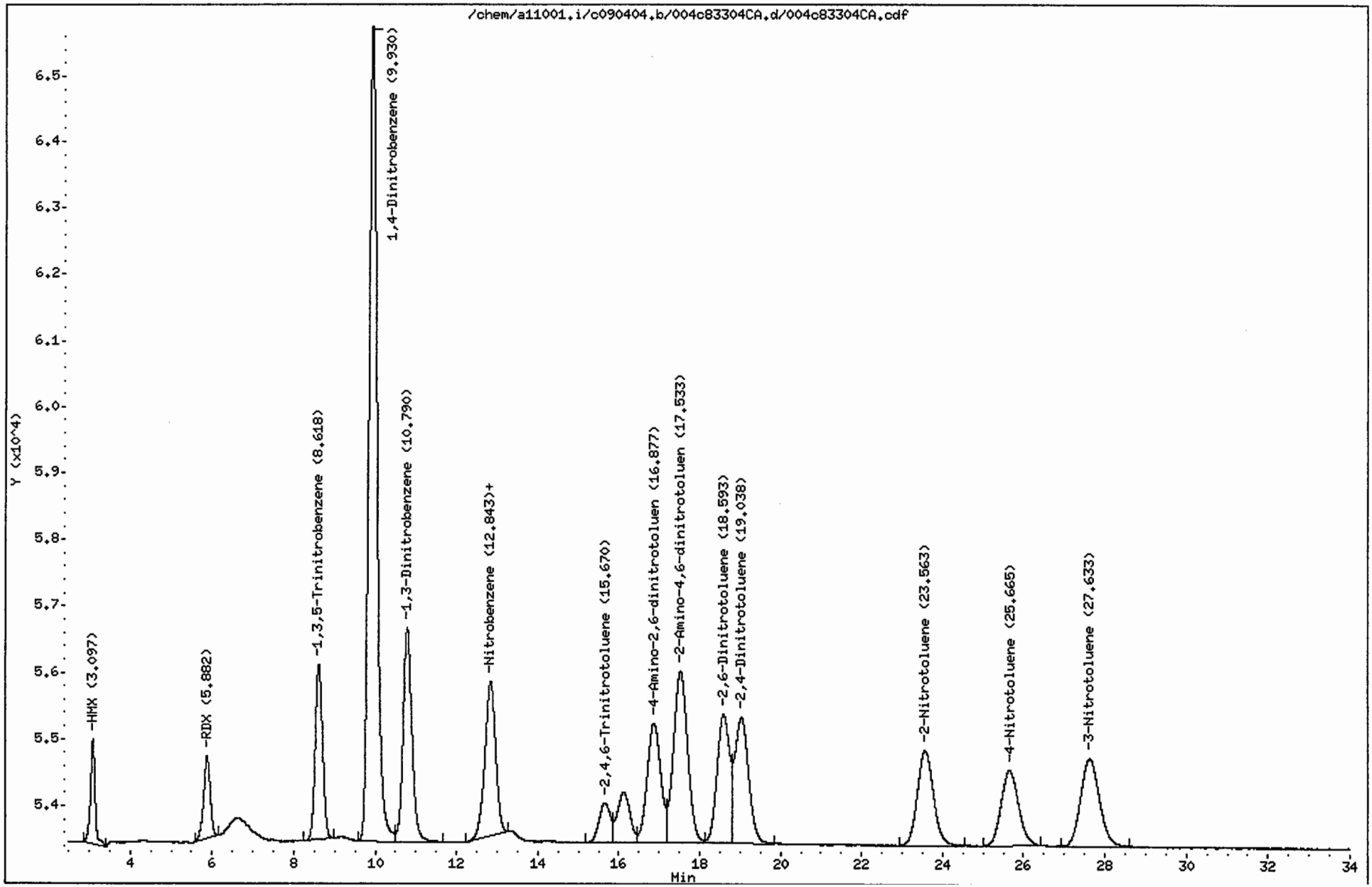
Sample Info: 83304CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CA Client Smp Id : 83304CA
Sample Type : INITIAL CAL: Level 4 Sublist : all
Inj Date : 04-APR-2009 16:53 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.07			1223					
2.24			1495					
3.10	2.99	3.19	12157	840	HMX	12.50000	972.5600	
5.88	5.78	5.98	14018	1190	RDX	12.50000	1121.440	
8.62	8.42	8.82	32885	2757	1,3,5-Trinitrobenzene	12.50000	2630.800	
9.93	9.73	10.13	170259	3385	1,4-Dinitrobenzene	50.00000	3405.160	
10.79	10.60	11.00	49004	3861	1,3-Dinitrobenzene	12.50000	3920.320	
12.84	12.65	13.05*	42617	1180	Nitrobenzene	* 37.00000	1151.784	
12.84	12.65	13.05*	42617	1180	Tetryl	* 37.00000	1151.784	
15.67	15.48	15.88	11669	859	2,4,6-Trinitrotoluene	12.50000	933.5200	
16.12			16640					
16.88	16.69	17.09	42163	1699	4-Amino-2,6-dinitrotoluene	25.00000	1686.520	
17.53	17.34	17.74	62892	2486	2-Amino-4,6-dinitrotoluene	25.00000	2515.680	
18.59	18.30	18.90	42918	1712	2,6-Dinitrotoluene	25.00000	1716.680	
19.04	18.75	19.35	44514	3554	2,4-Dinitrotoluene	12.50000	3561.040	
23.56	23.27	23.87	39625	1590	2-Nitrotoluene	25.00000	1584.960	
25.66	25.36	25.96	33539	1359	4-Nitrotoluene	25.00000	1341.560	
27.63	27.34	27.94	42604	1686	3-Nitrotoluene	25.00000	1704.120	

Data File: /chem/a11001.i/c090404.b/005c83303CA.d

Date : 04-APR-2009 17:29

Client ID: 83303CA

Instrument: a11001.i

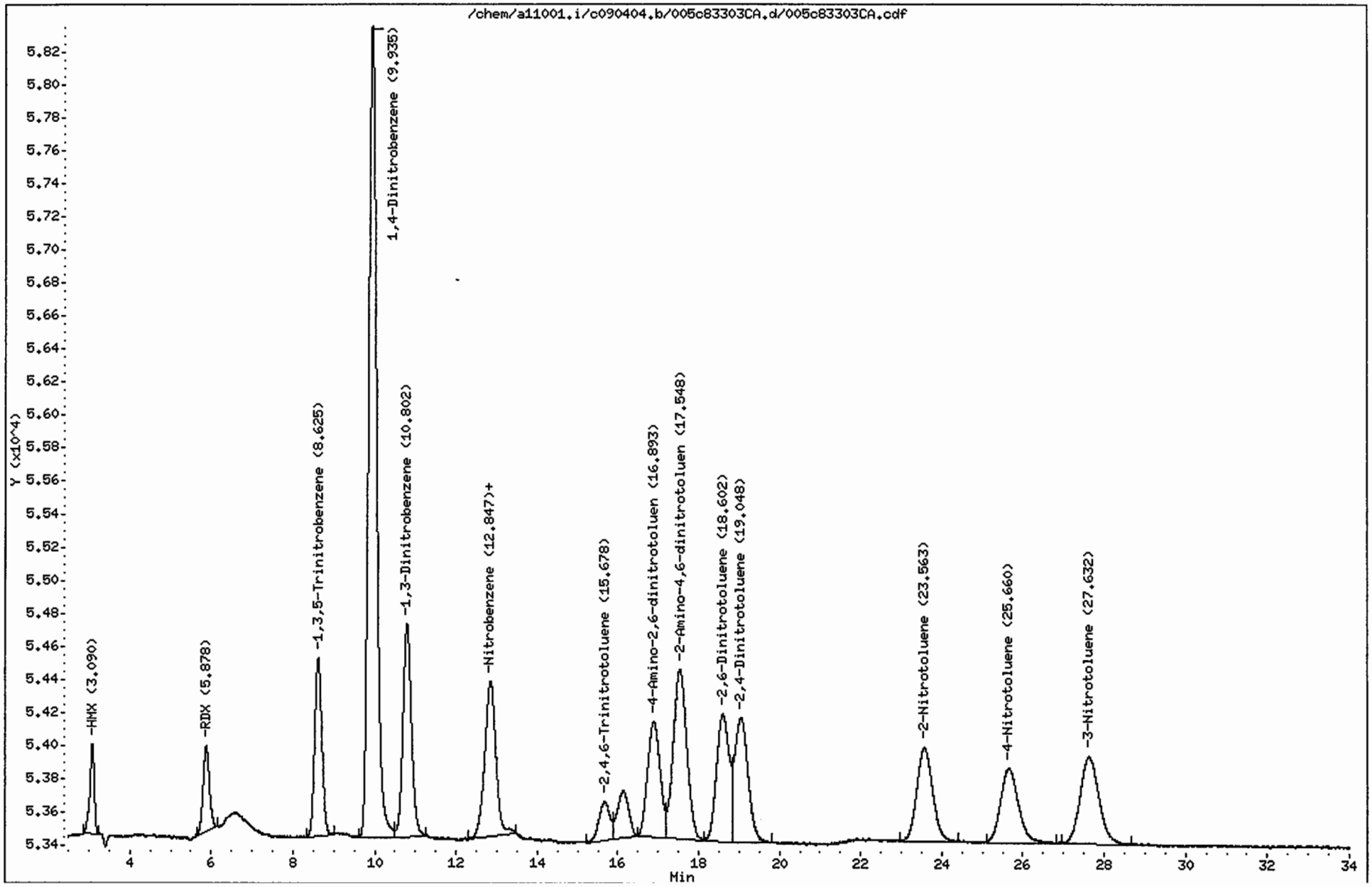
Sample Info: 83303CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83303CA Client Smp Id : 83303CA
Sample Type : INITIAL CAL: Level 3 Sublist : all
Inj Date : 04-APR-2009 17:29 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
2.13			691					
2.25			664					
3.09	2.99	3.19	4089	840	HMX	5.000000	817.8000	
5.88	5.78	5.98	5493	1190	RDX	5.000000	1098.400	
8.62	8.42	8.82	13097	2757	1,3,5-Trinitrobenzene	5.000000	2619.400	
9.94	9.73	10.13	66926	3385	1,4-Dinitrobenzene	20.00000	3346.250	
10.80	10.60	11.00	18744	3861	1,3-Dinitrobenzene	5.000000	3748.800	
12.85	12.65	13.05*	17954	1180	Nitrobenzene	* 15.00000	1196.933	
12.85	12.65	13.05*	17954	1180	Tetryl	* 15.00000	1196.933	
15.68	15.48	15.88	4443	859	2,4,6-Trinitrotoluene	5.000000	888.4000	
16.15			5542					
16.89	16.69	17.09	15283	1699	4-Amino-2,6-dinitrotoluene	10.00000	1528.200	
17.55	17.34	17.74	23756	2486	2-Amino-4,6-dinitrotoluene	10.00000	2375.500	
18.60	18.30	18.90	16520	1712	2,6-Dinitrotoluene	10.00000	1651.900	
19.05	18.75	19.35	17384	3554	2,4-Dinitrotoluene	5.000000	3476.600	
23.56	23.27	23.87	15442	1590	2-Nitrotoluene	10.00000	1544.100	
25.66	25.36	25.96	13650	1359	4-Nitrotoluene	10.00000	1364.900	
27.63	27.34	27.94	17016	1686	3-Nitrotoluene	10.00000	1701.500	

Data File: /chem/a11001.i/c090404.b/006c83302CA.d

Page 1

Date : 04-APR-2009 18:05

Client ID: 83302CA

Instrument: a11001.i

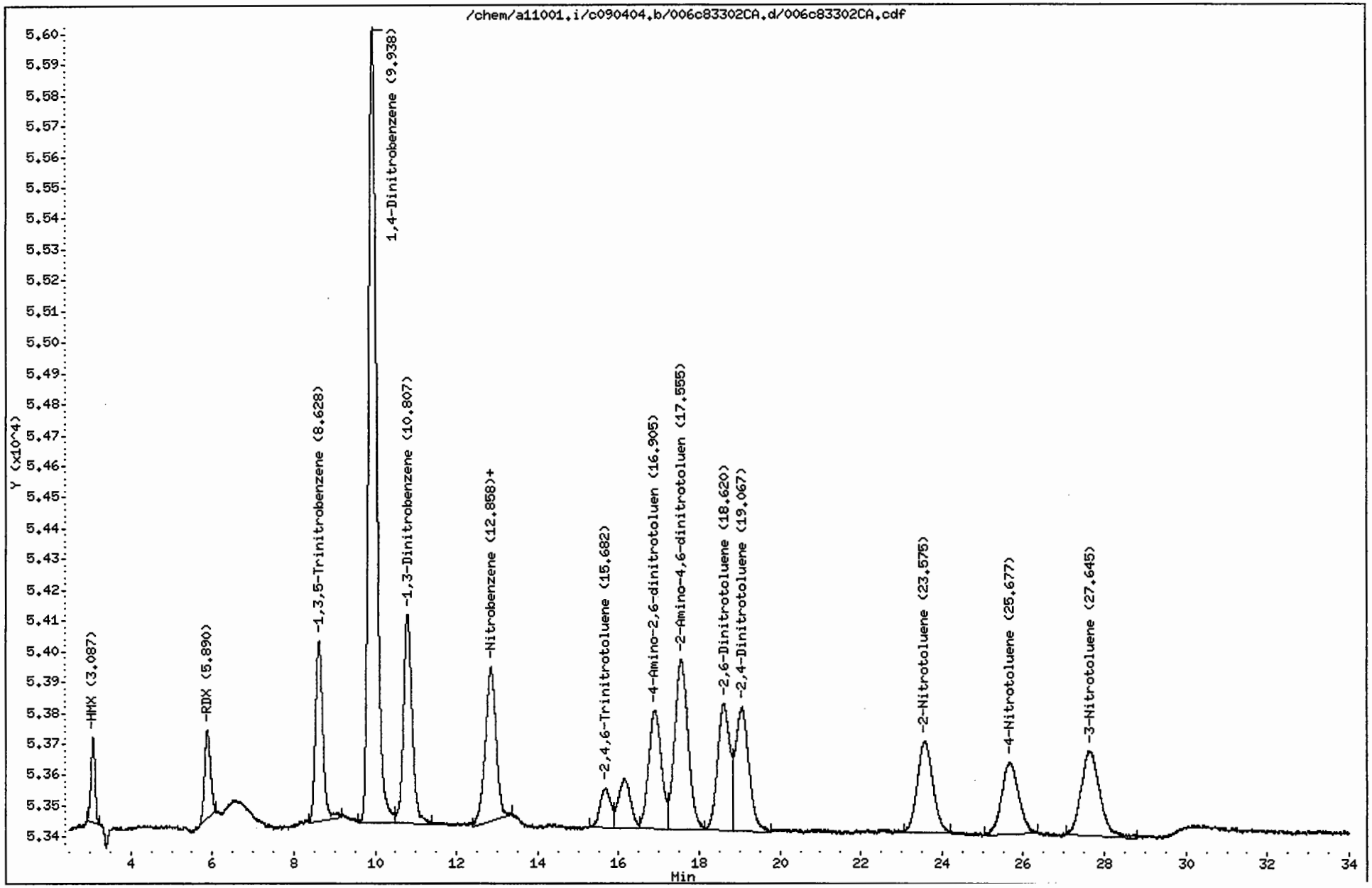
Sample Info: 83302CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83302CA Client Smp Id : 83302CA
Sample Type : INITIAL CAL: Level 2 Sublist : all
Inj Date : 04-APR-2009 18:05 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
3.09	2.99	3.19	1906	840	HMX	2.500000	762.4000	
5.89	5.78	5.98	2819	1190	RDX	2.500000	1127.600	
8.63	8.42	8.82	7274	2757	1,3,5-Trinitrobenzene	2.500000	2909.200	
9.94	9.73	10.13	34830	3385	1,4-Dinitrobenzene	10.00000	3482.900	
10.81	10.60	11.00	10046	3861	1,3-Dinitrobenzene	2.500000	4018.400	
12.86	12.65	13.05*	9123	1180	Nitrobenzene	* 7.500000	1216.267	
12.86	12.65	13.05*	9123	1180	Tetryl	* 7.500000	1216.267	
15.68	15.48	15.88	2313	859	2,4,6-Trinitrotoluene	2.500000	924.8000	
16.15			3365					
16.90	16.69	17.09	8482	1699	4-Amino-2,6-dinitrotoluene	5.000000	1696.200	
17.56	17.34	17.74	12622	2486	2-Amino-4,6-dinitrotoluene	5.000000	2524.400	
18.62	18.30	18.90	8643	1712	2,6-Dinitrotoluene	5.000000	1728.400	
19.07	18.75	19.35	9205	3554	2,4-Dinitrotoluene	2.500000	3681.600	
23.58	23.27	23.87	7897	1590	2-Nitrotoluene	5.000000	1579.400	
25.68	25.36	25.96	6786	1359	4-Nitrotoluene	5.000000	1357.200	
27.64	27.34	27.94	8745	1686	3-Nitrotoluene	5.000000	1748.800	

Data File: /chem/a11001.i/c090404.b/007c83301CA.d

Page 1

Date : 04-APR-2009 18:40

Client ID: 83301CA

Instrument: a11001.i

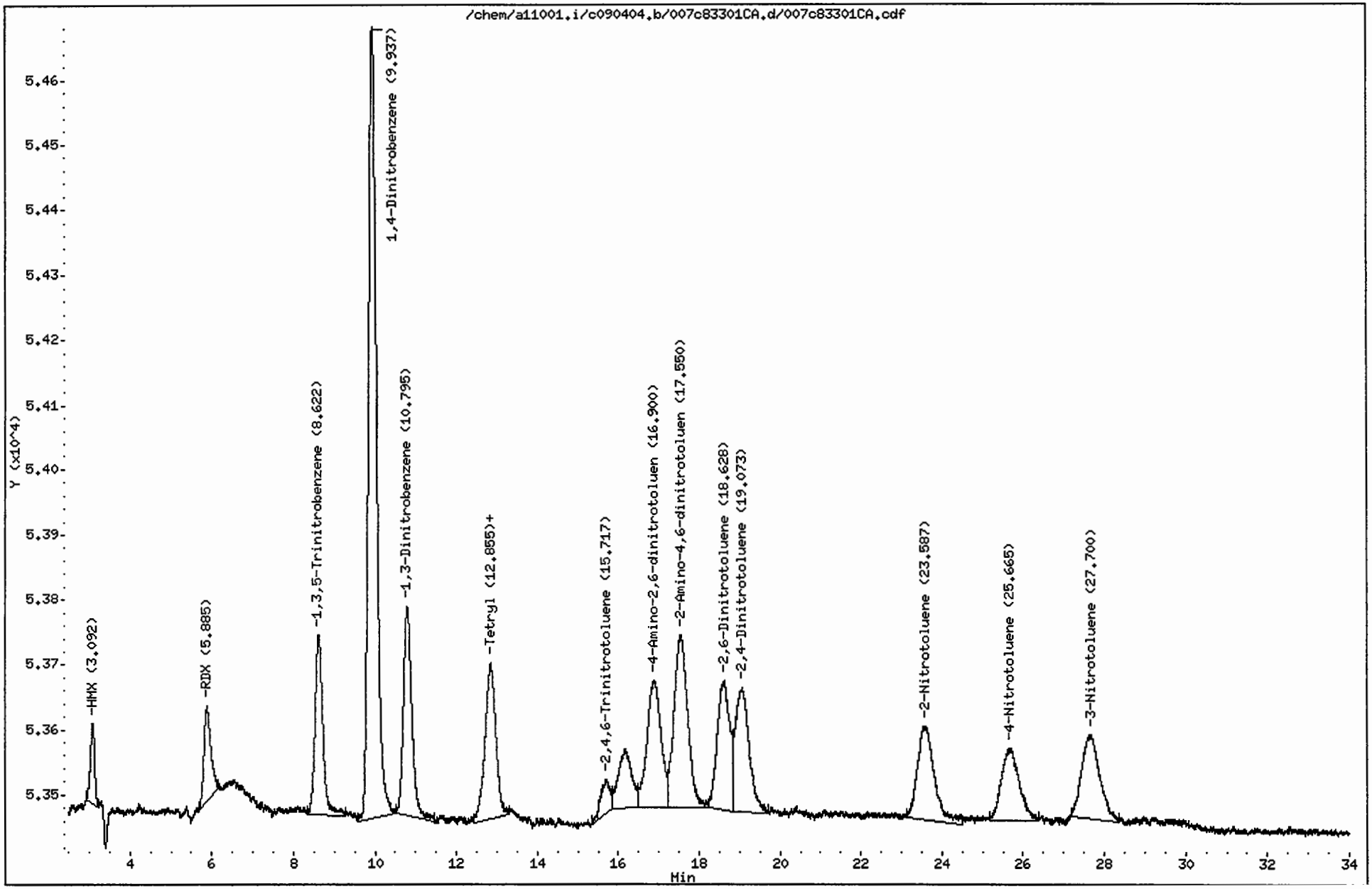
Sample Info: 83301CA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83301CA Client Smp Id : 83301CA
Sample Type : INITIAL CAL: Level 1 Sublist : all
Inj Date : 04-APR-2009 18:40 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
3.09	2.99	3.19	878	840	HMX	1.250000	702.4000	
5.88	5.78	5.98	1711	1190	RDX	1.250000	1368.000	
8.62	8.42	8.82	3661	2757	1,3,5-Trinitrobenzene	1.250000	2928.000	
9.94	9.73	10.13	16514	3385	1,4-Dinitrobenzene	5.000000	3302.600	
10.80	10.60	11.00	4651	3861	1,3-Dinitrobenzene	1.250000	3720.800	
12.86	12.65	13.05*	4426	1180	Tetryl	* 3.750000	1180.267	
12.86	12.65	13.05*	4426	1180	Nitrobenzene	* 3.750000	1180.267	
15.72	15.48	15.88	858	859	2,4,6-Trinitrotoluene	1.250000	686.4000	
16.18			2062					
16.90	16.69	17.09	4759	1699	4-Amino-2,6-dinitrotoluene	2.500000	1903.200	
17.55	17.34	17.74	6291	2486	2-Amino-4,6-dinitrotoluene	2.500000	2516.400	
18.63	18.30	18.90	4340	1712	2,6-Dinitrotoluene	2.500000	1735.600	
19.07	18.75	19.35	4385	3554	2,4-Dinitrotoluene	1.250000	3507.200	
23.59	23.27	23.87	4130	1590	2-Nitrotoluene	2.500000	1652.000	
25.66	25.36	25.96	3390	1359	4-Nitrotoluene	2.500000	1356.000	
27.70	27.34	27.94	3954	1686	3-Nitrotoluene	2.500000	1581.600	

Data File: /chem/a11001.i/c090404.b/008cCHKSTDCA.d

Date : 04-APR-2009 19:16

Client ID: CHKSTDCA

Instrument: a11001.i

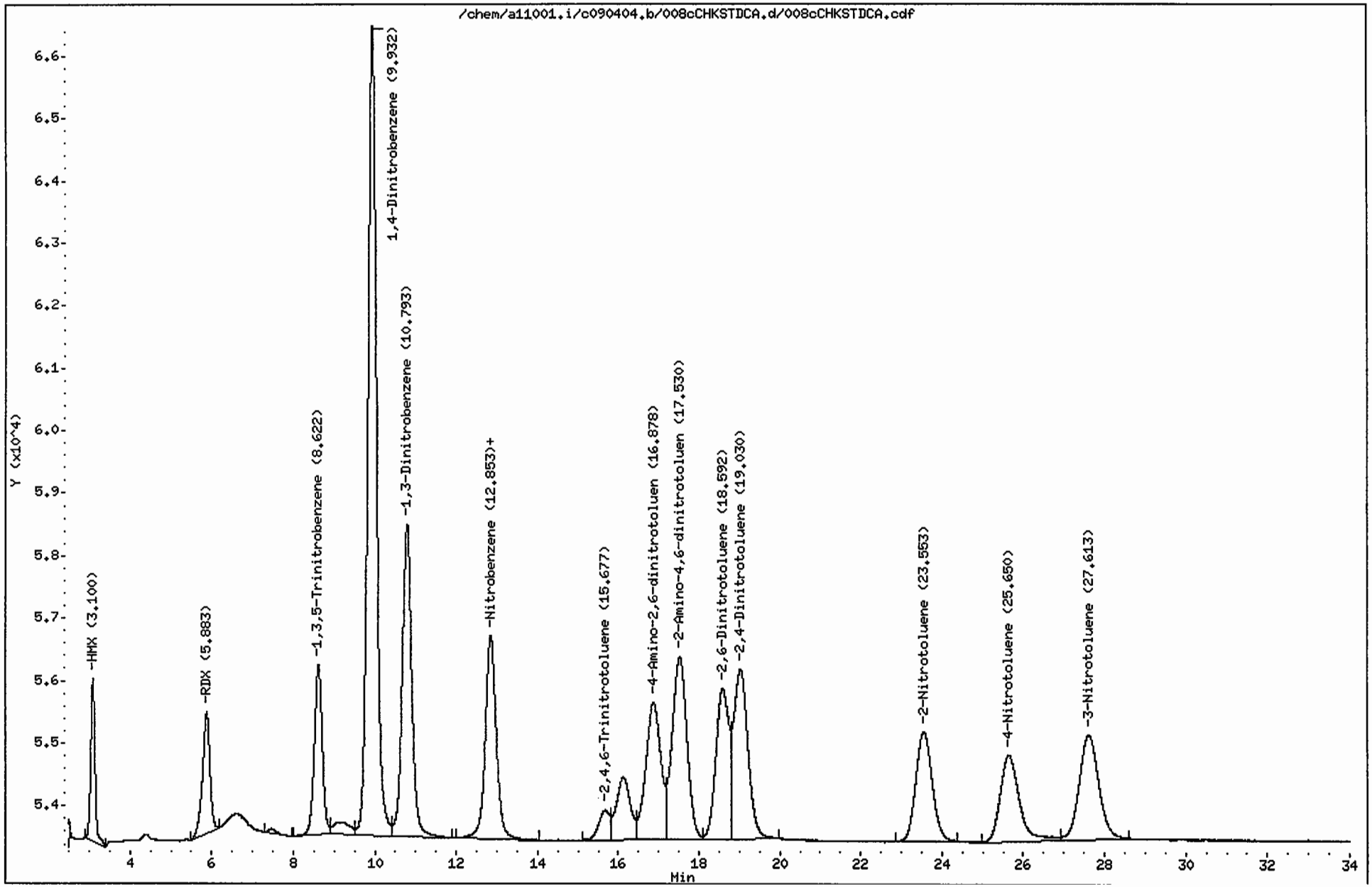
Sample Info: CHKSTDCA

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : CHKSTDCA
Client Smp Id : CHKSTDCA
Sample Type : QCCHECK
Sublist : all
Inj Date : 04-APR-2009 19:16
Inst ID : A11001
Operator : 2646
Spike Sublist : qccheck
Method : /chem/a11001.i/c090404.b/8330_10uL_v3.m
Misc. Info : None

RT	AREA
2.05	974
2.24	5377
2.49	2557
3.10	18952
5.88	24195
7.45	989
8.62	37022
9.18	5509
9.93	189673
10.79	80861
12.85	61312
12.85	61312
15.68	9245
16.13	23742
16.88	56770
17.53	74826
18.59	54124
19.03	66399
23.55	48743
25.65	45000
27.61	55555

Data File: /chem/a11001.i/c090404f.b/030c83304CG.d

Page 1

Date : 20-APR-2009 19:31

Client ID: 83304CG

Instrument: a11001.i

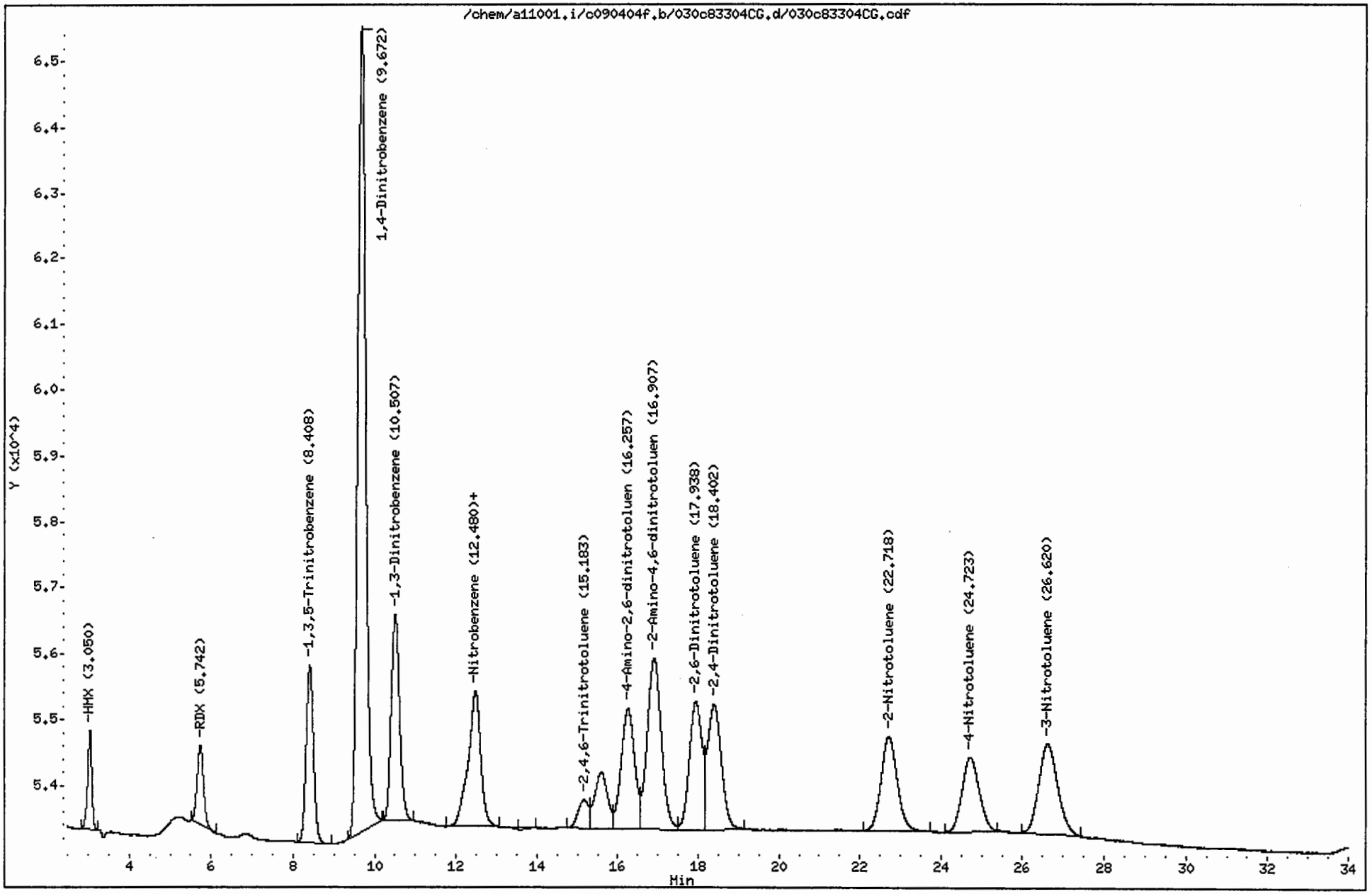
Sample Info: 83304CG

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CG Client Smp Id : 83304CG
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 20-APR-2009 19:31 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : None

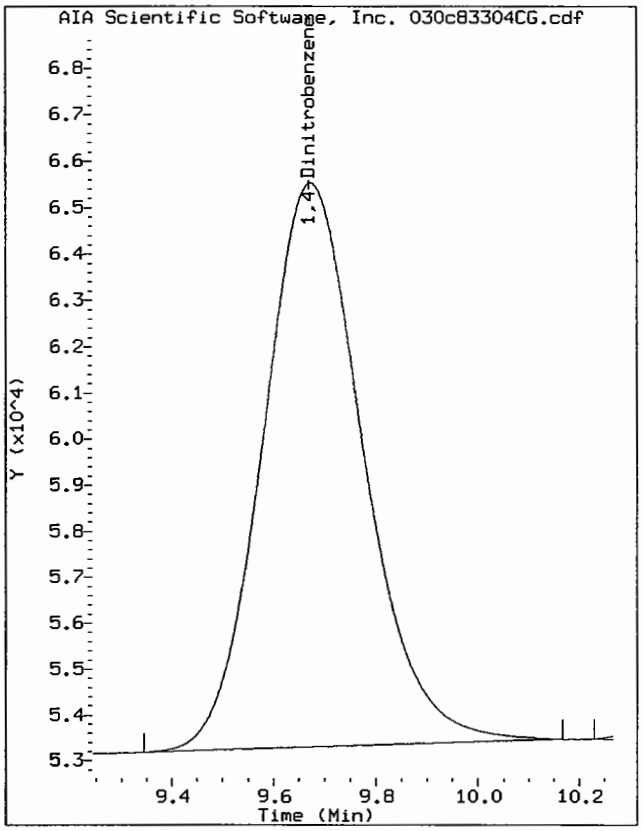
RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.06			1200								
2.23			1158								
3.05	2.98	3.18	10616	840	HMX	12.50000	849.2800	-1.1	15.0		
5.74	5.64	5.84	13278	1190	RDX	12.50000	1062.240	10.7	15.0		
8.41	8.21	8.61	33877	2757	1,3,5-Trinitrobenzene	12.50000	2710.160	1.7	15.0		
9.67	9.47	9.87	166825	3385	1,4-Dinitrobenzene	50.00000	3336.480	1.4	15.0	M2	
10.51	10.31	10.71	44510	3861	1,3-Dinitrobenzene	12.50000	3560.800	7.8	15.0	M2	
12.48	12.28	12.68*	44414	1180	Nitrobenzene	* 37.00000	1200.351	-1.7	15.0	M2	
12.48	12.28	12.68*	44414	1180	Tetryl	* 37.00000	1200.351	-1.7	15.0	M2	
13.73			530								
15.17	14.98	15.38	7728	859	2,4,6-Trinitrotoluene	12.50000	618.2160	28.0*	15.0	R	
15.60			19726								
16.25	16.06	16.46	43077	1699	4-Amino-2,6-dinitrotoluene	25.00000	1723.076	-1.4	15.0		
16.90	16.71	17.11	63283	2486	2-Amino-4,6-dinitrotoluene	25.00000	2531.336	-1.8	15.0		
17.94	17.64	18.24	42752	1712	2,6-Dinitrotoluene	25.00000	1710.092	0.1	15.0		
18.40	18.10	18.70	45227	3554	2,4-Dinitrotoluene	12.50000	3618.184	-1.8	15.0		
22.72	22.42	23.02	40002	1590	2-Nitrotoluene	25.00000	1600.080	-0.6	15.0		
24.72	24.43	25.03	32995	1359	4-Nitrotoluene	25.00000	1319.800	2.9	15.0	M2	
26.62	26.32	26.92	43785	1686	3-Nitrotoluene	25.00000	1751.360	-3.9	15.0	M2	

AS 4/21/09

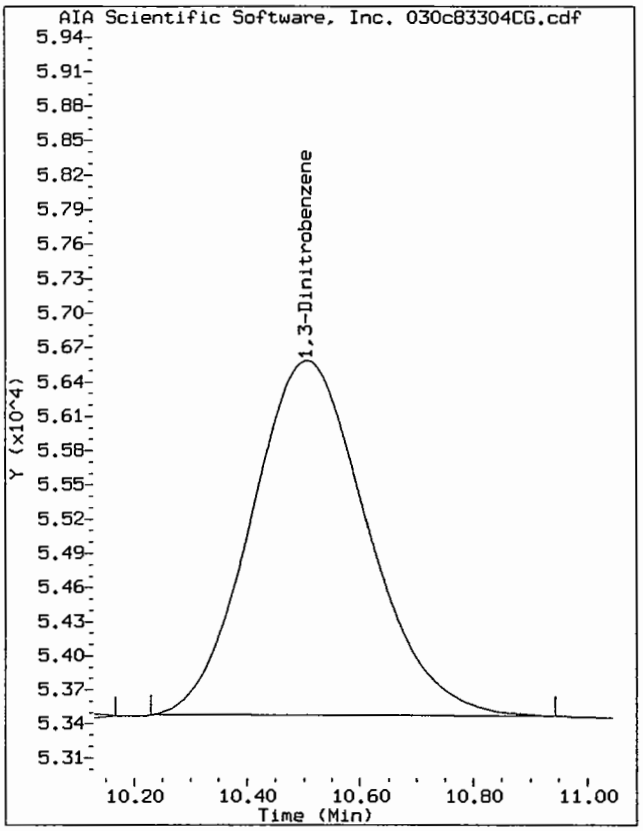
AS 4/21/09

$\bar{X} = 4.4\%$

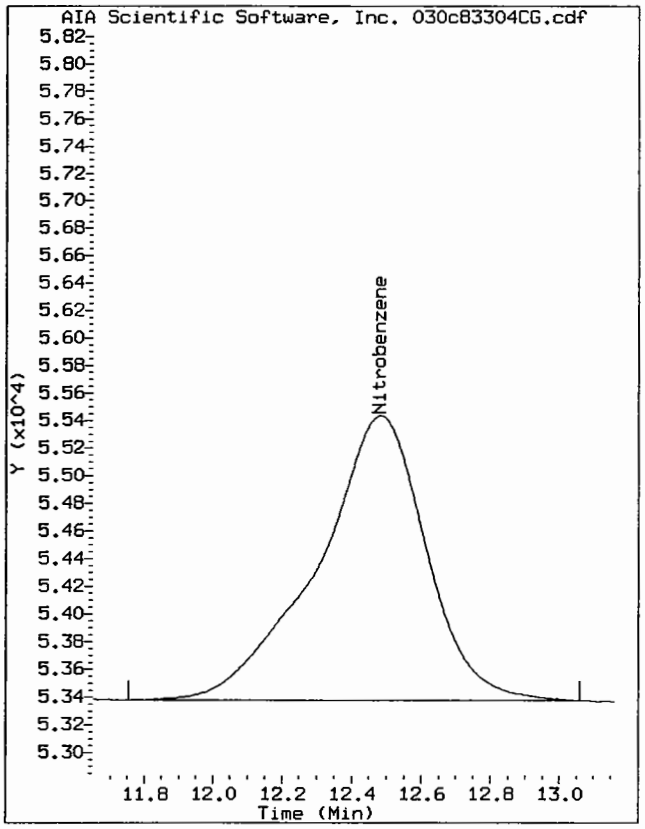
Manually Integrated Peaks



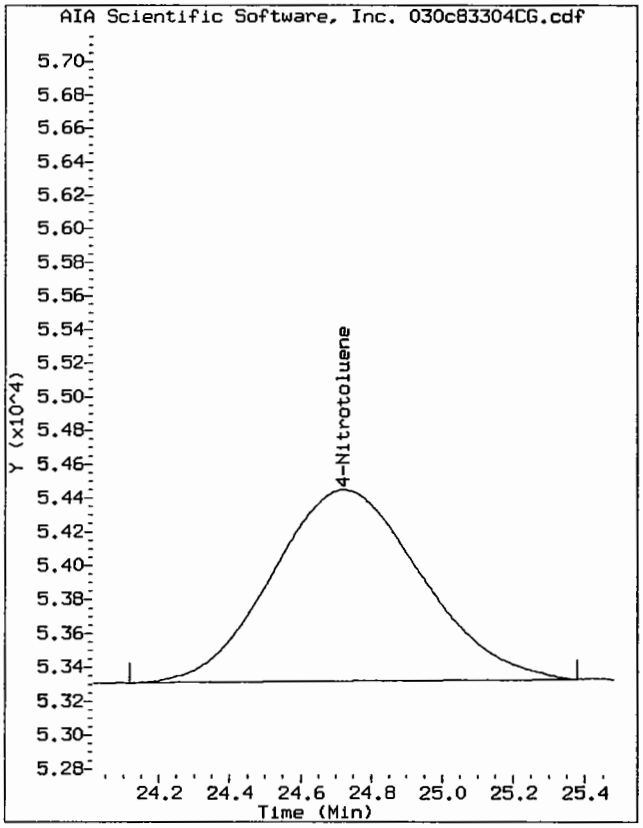
Start: 9.35 Stop: 10.17



Start: 10.23 Stop: 10.94

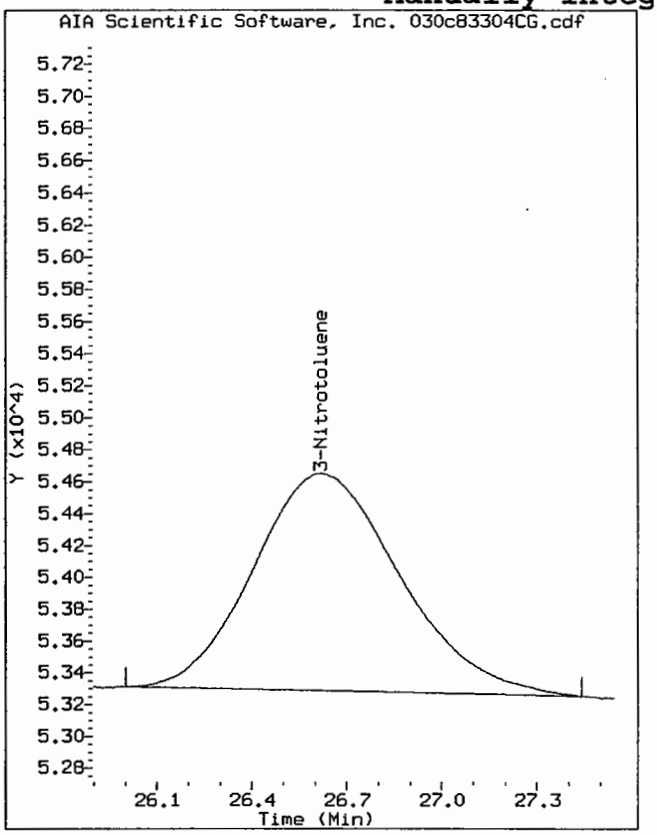


Start: 11.75 Stop: 13.06



Start: 24.12 Stop: 25.38

Manually Integrated Peaks



Start: 26.00 Stop: 27.44

Data File: /chem/a11001.i/c090404g.b/037c83304CH.d

Page 1

Date : 20-APR-2009 23:42

Client ID: 83304CH

Instrument: a11001.i

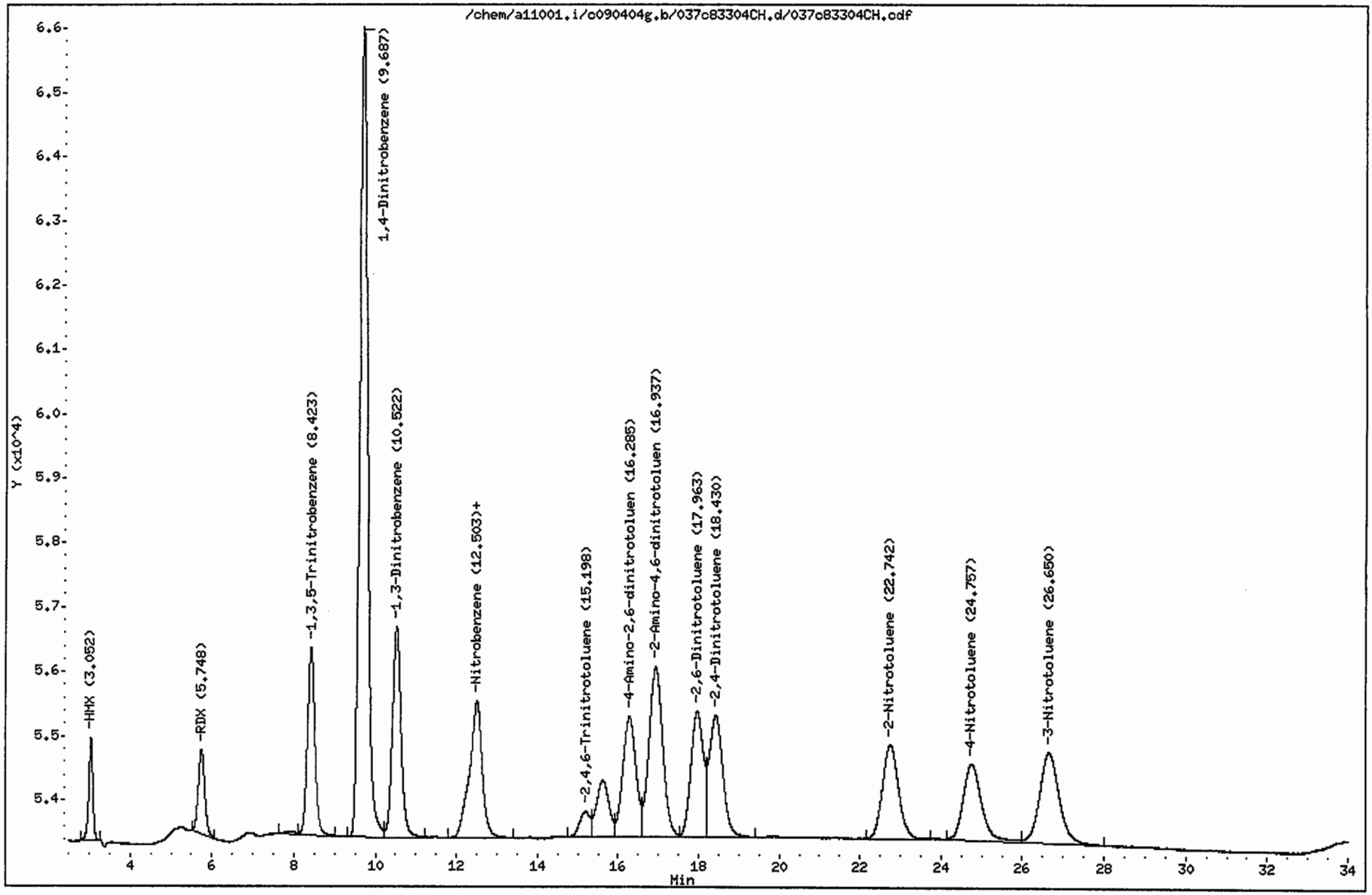
Sample Info: 83304CH

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CH Client Smp Id : 83304CH
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 20-APR-2009 23:42 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.10			1456								
2.23			1364								
3.05	2.98	3.18	10964	840	HMX	12.50000	877.0400	-4.4	15.0		
5.75	5.64	5.84	14189	1190	RDX	12.50000	1135.040	4.6	15.0		
7.86			588								
8.42	8.21	8.61	36546	2757	1,3,5-Trinitrobenzene	12.50000	2923.680	-6.0	15.0		
9.69	9.48	9.88	171502	3385	1,4-Dinitrobenzene	50.00000	3430.040	-1.3	15.0		
10.52	10.31	10.71	48392	3861	1,3-Dinitrobenzene	12.50000	3871.360	-0.3	15.0		
12.50	12.29	12.69*	46468	1180	Nitrobenzene	* 37.00000	1255.865	-6.4	15.0		
12.50	12.29	12.69*	46468	1180	Tetryl	* 37.00000	1255.889	-6.4	15.0		
15.20	14.99	15.39	6968	859	2,4,6-Trinitrotoluene	12.50000	557.4400	35.1*	15.0	R	
15.63			18860								
16.28	16.06	16.46	42793	1699	4-Amino-2,6-dinitrotoluene	25.00000	1711.680	-0.7	15.0		
16.94	16.71	17.11	62675	2486	2-Amino-4,6-dinitrotoluene	25.00000	2506.960	-0.8	15.0		
17.96	17.64	18.24	42054	1712	2,6-Dinitrotoluene	25.00000	1682.160	1.7	15.0		
18.43	18.11	18.71	44325	3554	2,4-Dinitrotoluene	12.50000	3545.920	0.2	15.0		
22.74	22.42	23.02	39851	1590	2-Nitrotoluene	25.00000	1594.040	-0.3	15.0		
24.76	24.43	25.03	37334	1359	4-Nitrotoluene	25.00000	1493.360	-9.9	15.0		
26.65	26.33	26.93	46843	1686	3-Nitrotoluene	25.00000	1873.720	-11.1	15.0		

AS 4/21/09

$\bar{x} = 6.0\%$

Data File: /chem/a11001.i/c090404h.b/047c83304CI.d

Page 1

Date : 21-APR-2009 05:41

Client ID: 83304CI

Instrument: a11001.i

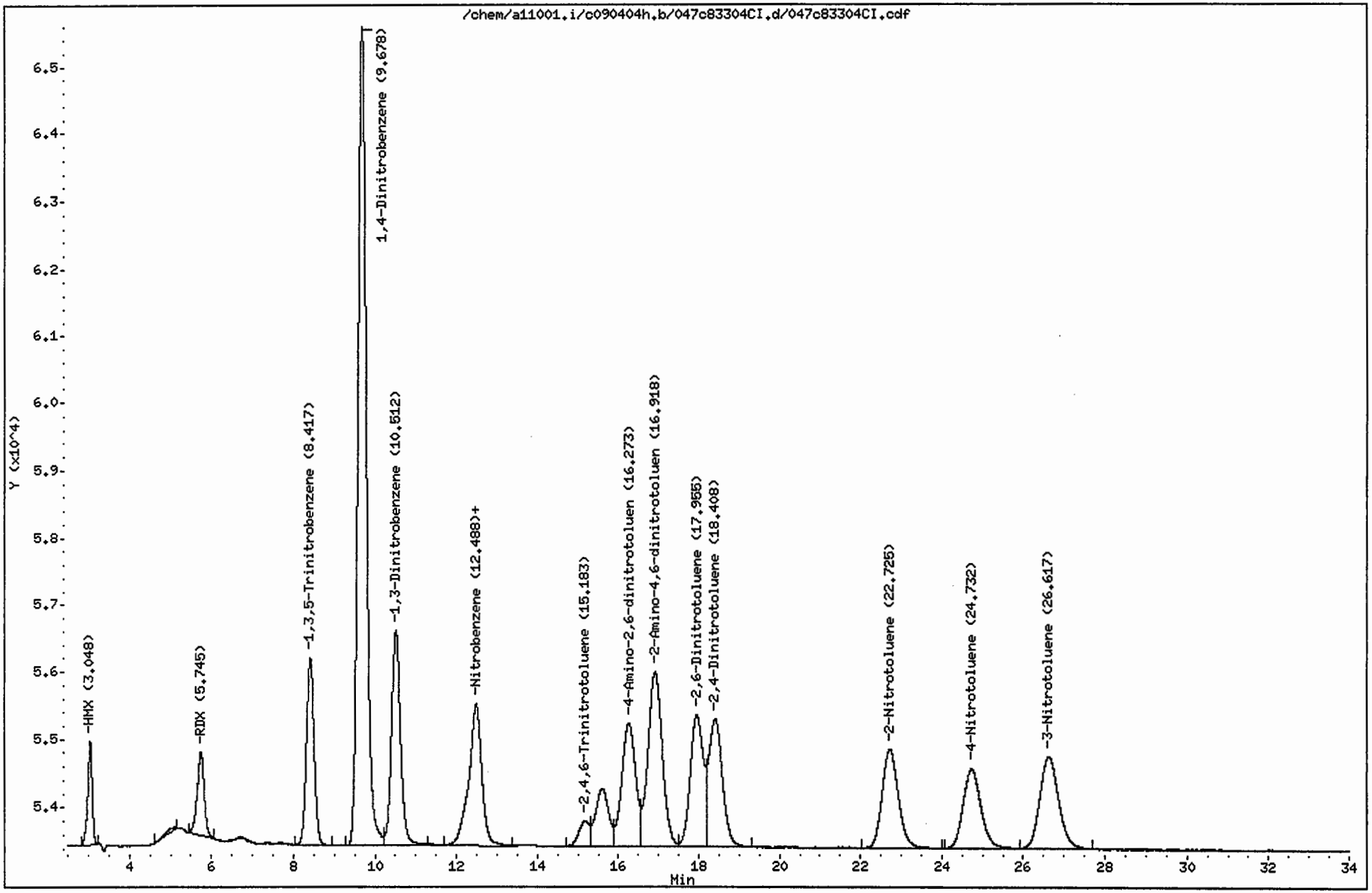
Sample Info: 83304CI

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83304CI Client Smp Id : 83304CI
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 21-APR-2009 05:41 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404h.b/8330_10uL_v3.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
2.08			1310								
2.23			1539								
3.05	2.98	3.18	11019	840	HMX	12.50000	881.4400	-4.9	15.0		
5.09			905								
5.74	5.64	5.84	14074	1190	RDX	12.50000	1125.840	5.4	15.0		
8.42	8.21	8.61	35945	2757	1,3,5-Trinitrobenzene	12.50000	2875.520	-4.3	15.0		
9.68	9.47	9.87	172064	3385	1,4-Dinitrobenzene	50.00000	3441.280	-1.7	15.0		
10.51	10.31	10.71	48628	3861	1,3-Dinitrobenzene	12.50000	3890.240	-0.8	15.0		
12.49	12.28	12.68*	46321	1180	Nitrobenzene	* 37.00000	1251.892	-6.1	15.0		
12.49	12.28	12.68*	46321	1180	Tetryl	* 37.00000	1251.911	-6.1	15.0		
15.16	14.98	15.38	7035	859	2,4,6-Trinitrotoluene	12.50000	562.8320	34.5*	15.0	R	
15.60			19089								
16.26	16.06	16.46	43633	1699	4-Amino-2,6-dinitrotoluene	25.00000	1745.316	-2.7	15.0		
16.92	16.71	17.11	63415	2486	2-Amino-4,6-dinitrotoluene	25.00000	2536.604	-2.0	15.0		
17.94	17.64	18.24	43356	1712	2,6-Dinitrotoluene	25.00000	1734.224	-1.3	15.0		
18.41	18.10	18.70	44233	3554	2,4-Dinitrotoluene	12.50000	3538.636	0.4	15.0		
22.72	22.42	23.02	40583	1590	2-Nitrotoluene	25.00000	1623.320	-2.1	15.0		
24.73	24.43	25.03	35635	1359	4-Nitrotoluene	25.00000	1425.400	-4.9	15.0		
26.62	26.32	26.92	43560	1686	3-Nitrotoluene	25.00000	1742.360	-3.3	15.0		

MS 4/21/09

$\bar{x} = 5.4\%$

Data File: /chem/a11001.i/b090402.b/003b83325BA.d

Date : 02-APR-2009 23:32

Client ID: 83325BA

Instrument: a11001.i

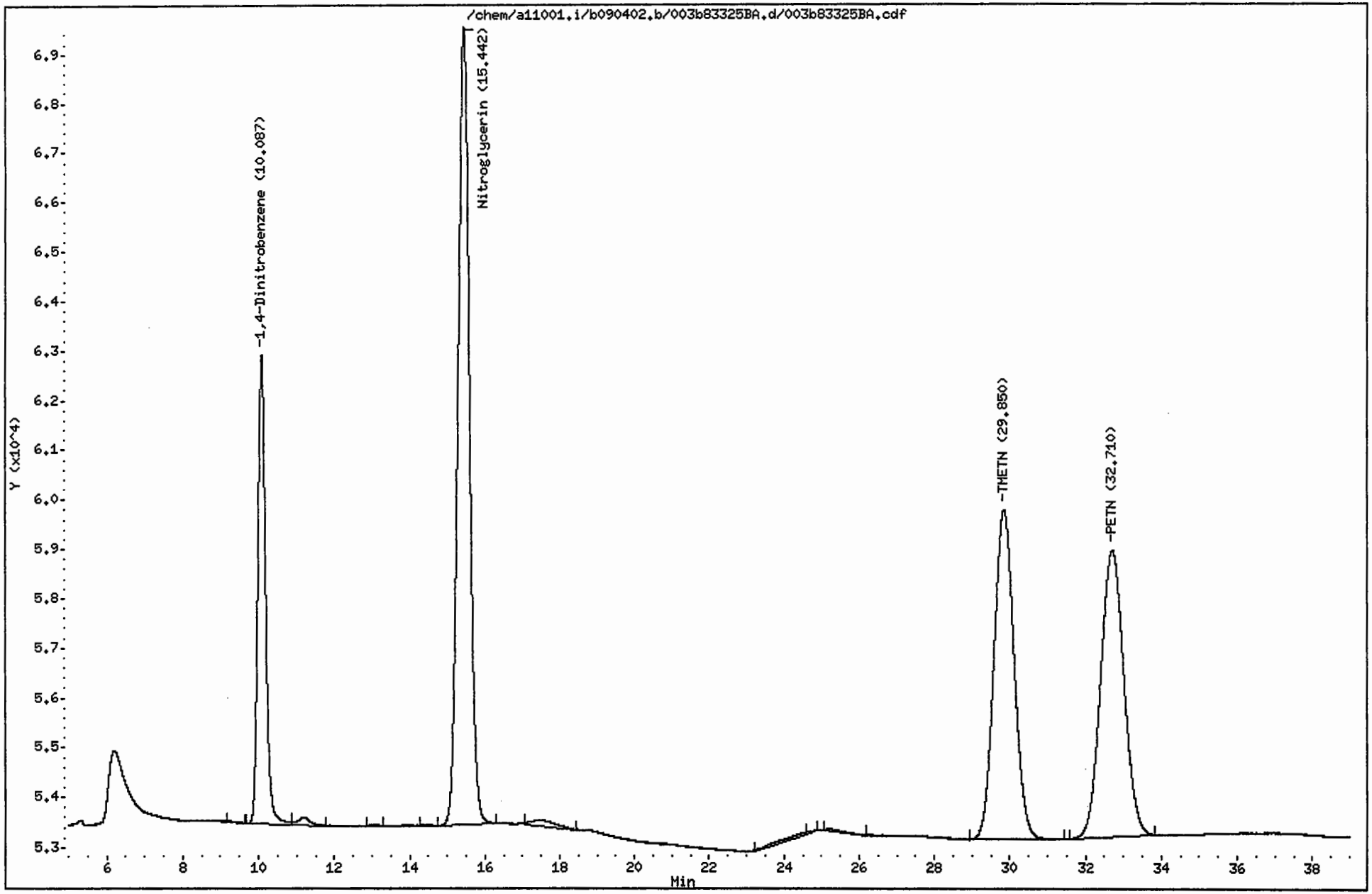
Sample Info: 83325BA

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83325BA Client Smp Id : 83325BA
Sample Type : INITIAL CAL: Level 5 Sublist : all
Inj Date : 02-APR-2009 23:32 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
9.22		313					
10.09	10.00 10.20	133520	1398	1,4-Dinitrobenzene	100.0000	1335.190	
11.19		3032					
13.05		483					
14.45		281					
15.44	15.35 15.55	341548	881	Nitroglycerin	400.0000	853.8675	
17.48		5792					
24.60		2563					
24.87		261					
25.18		1264					
29.85	29.67 30.07	244634	1056	TMETN	250.0000	978.5320	
32.71	32.51 32.91	244489	1033	PETN	250.0000	977.9560	

4/3/09

Data File: /chem/a11001.i/b090402.b/004b83324BA.d

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Date : 03-APR-2009 00:13

Client ID: 83324BA

Instrument: a11001.i

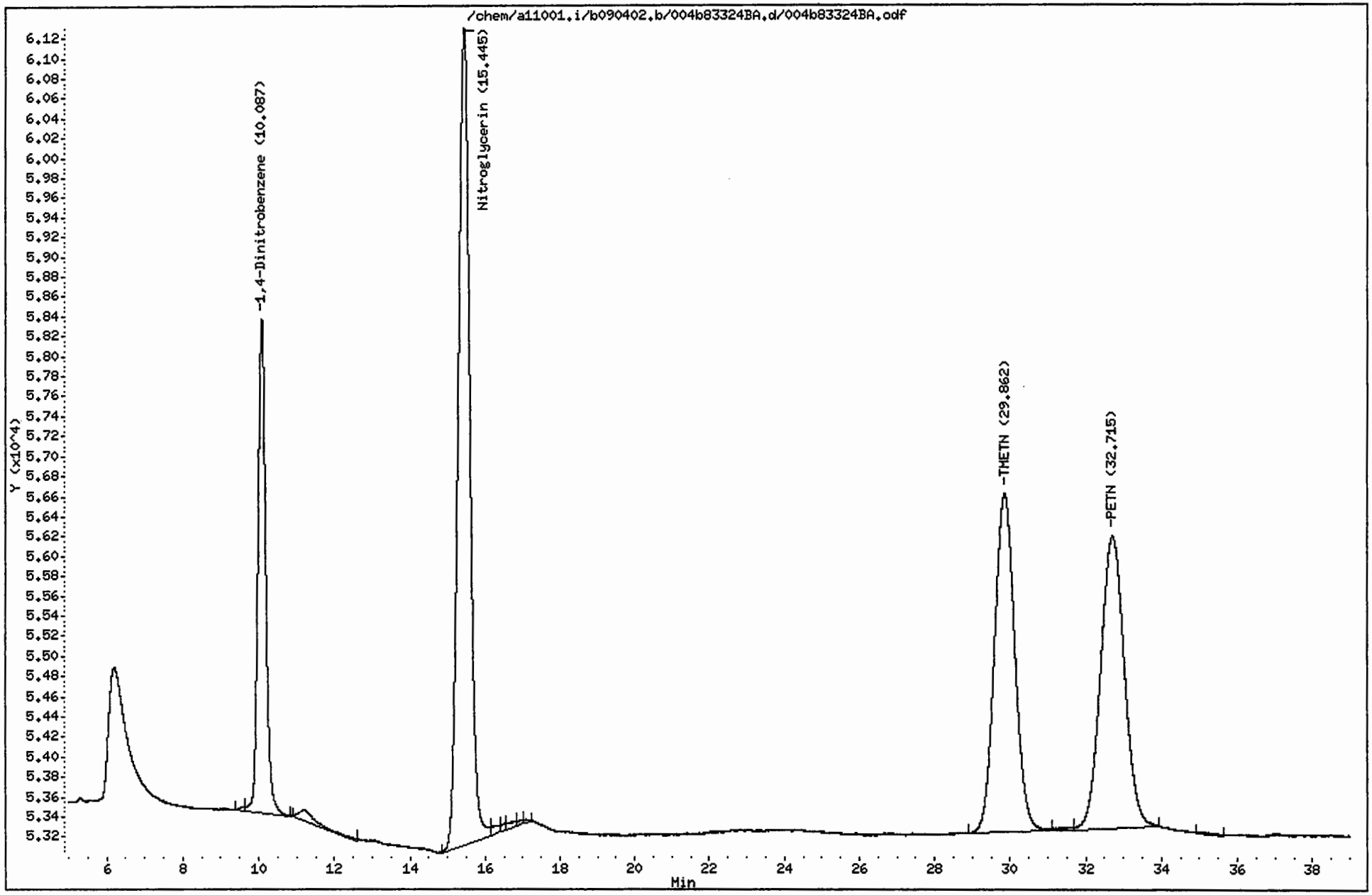
Sample Info: 83324BA

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83324BA Client Smp Id : 83324BA
Sample Type : INITIAL CAL: Level 4 Sublist : all
Inj Date : 03-APR-2009 00:13 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
9.60		435					
10.09	10.00 10.20	70380	1398	1,4-Dinitrobenzene	50.00000	1407.600	
11.20		3231					
15.44	15.35 15.55	176318	881	Nitroglycerin	200.0000	881.5900	
16.38		1293					
16.54		568					
16.84		979					
16.98		450					
17.08		266					
29.86	29.67 30.07	126749	1056	TMETN	125.0000	1013.984	
31.53		669					
32.72	32.51 32.91	127450	1033	PETN	125.0000	1019.600	
35.01		362					

MS
4/3/09

Data File: /chem/a11001.i/b090402.b/005b83323BA.d

Page 1

Date : 03-APR-2009 00:54

Client ID: 83323BA

Instrument: a11001.i

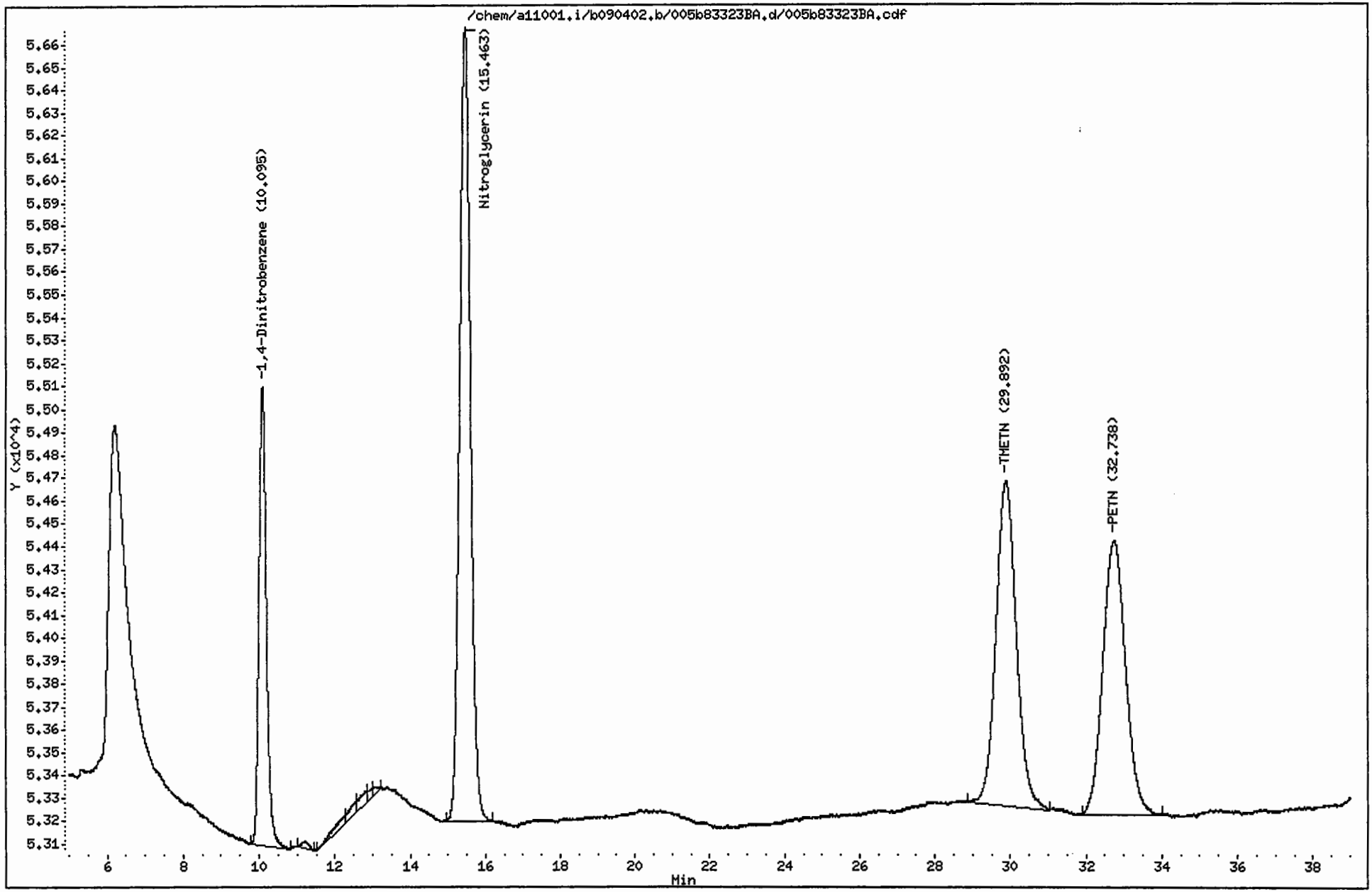
Sample Info: 83323BA

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

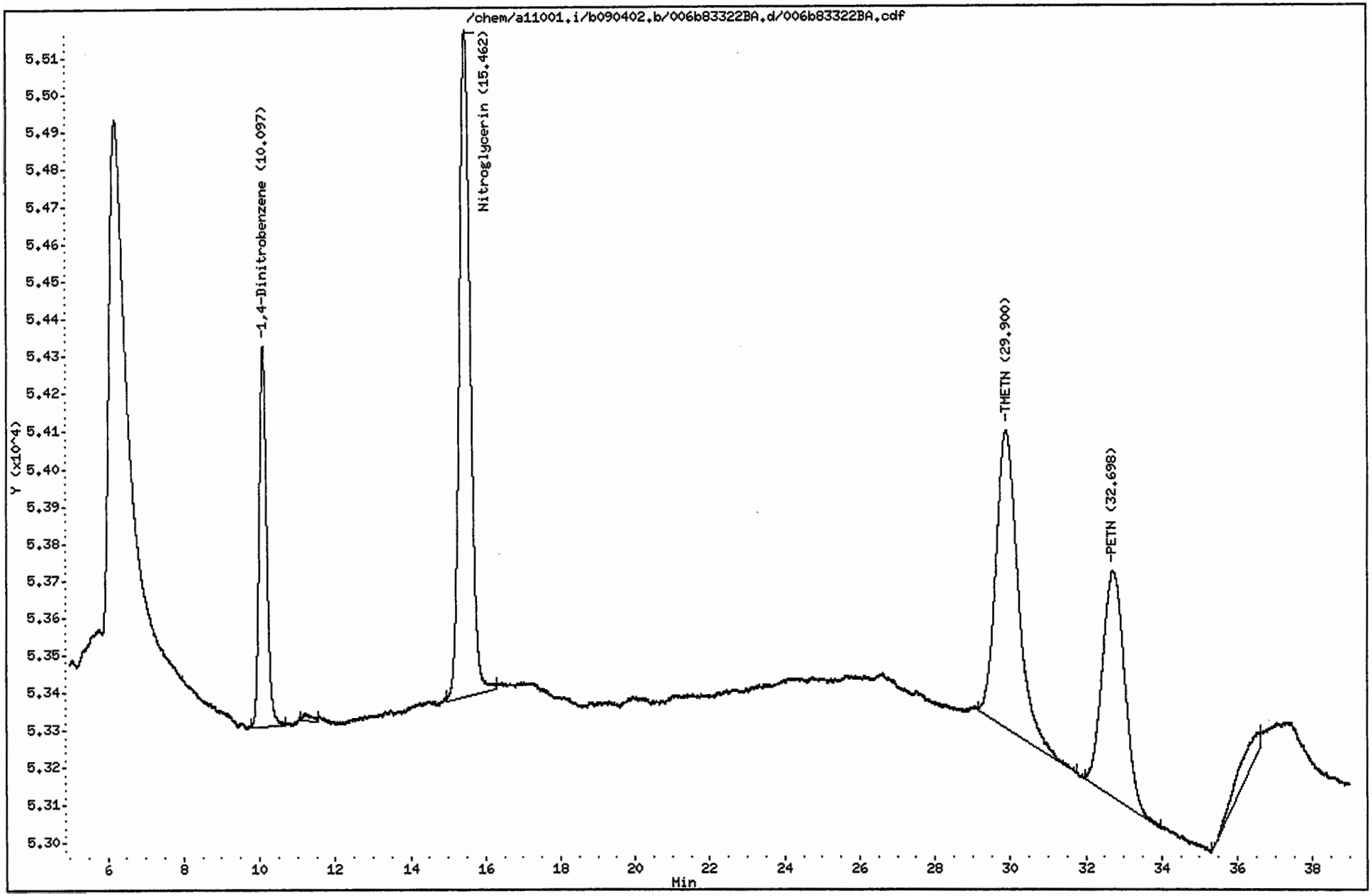
Lab Smp Id : 83323BA Client Smp Id : 83323BA
Sample Type : INITIAL CAL: Level 3 Sublist : all
Inj Date : 03-APR-2009 00:54 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
10.10	10.00 10.20	27095	1398	1,4-Dinitrobenzene	20.00000	1354.750	
11.20		447					
12.25		871					
12.53		731					
12.81		786					
12.99		389					
13.06		279					
15.46	15.35 15.55	69764	881	Nitroglycerin	80.00000	872.0500	
29.89	29.67 30.07	53375	1056	TMETN	50.00000	1067.480	
32.74	32.51 32.91	50086	1033	PETN	50.00000	1001.700	

ACS
4/3/09

Data File: /chem/a11001.i/b090402.b/006b83322BA.d
Date : 03-APR-2009 01:35
Client ID: 83322BA
Sample Info: 83322BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2512
Column diameter: 4.60



CompuChem

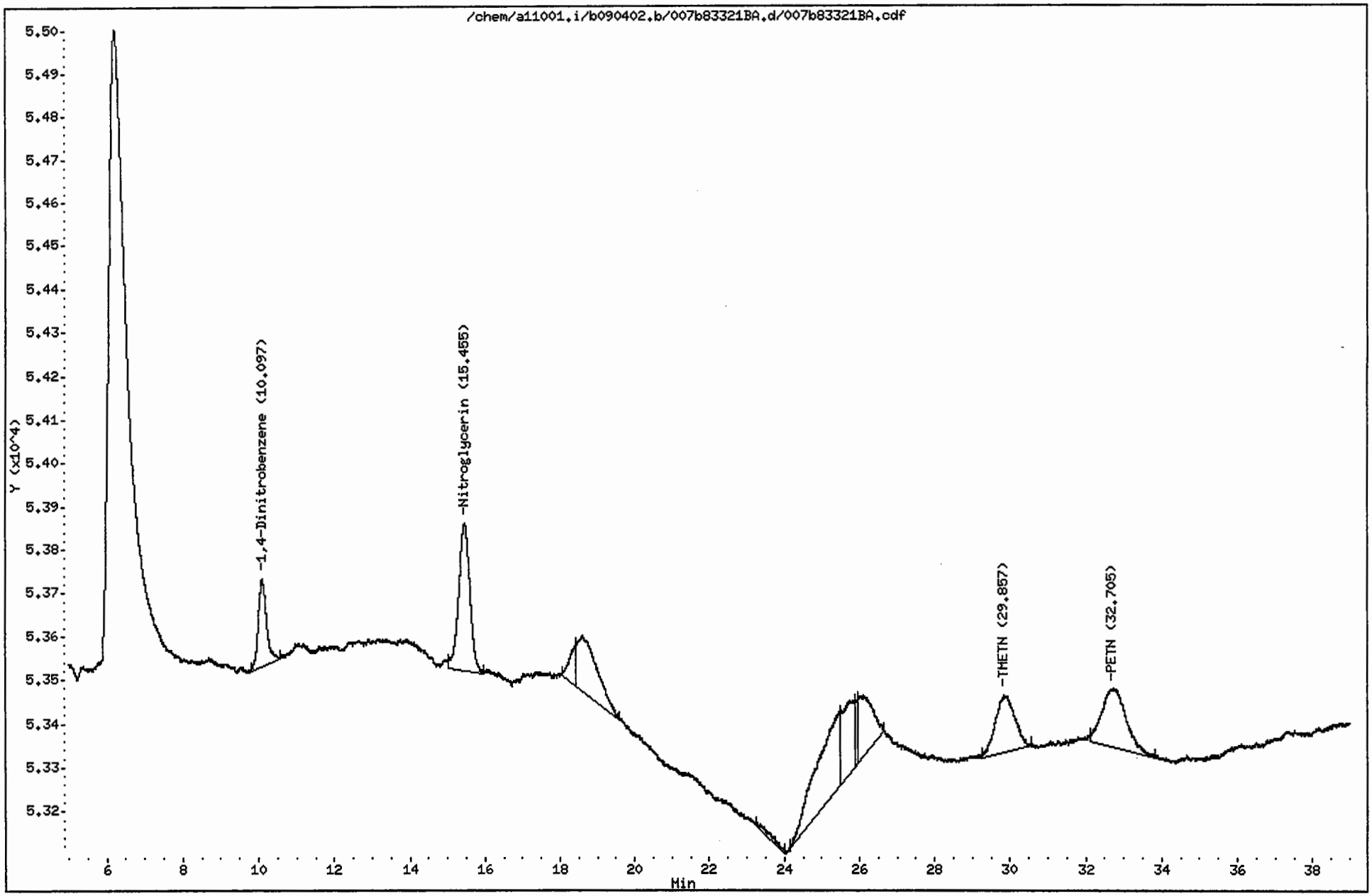
Lab Smp Id : 83322BA Client Smp Id : 83322BA
Sample Type : INITIAL CAL: Level 2 Sublist : all
Inj Date : 03-APR-2009 01:35 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
10.10	10.00 10.20	13833	1398	1,4-Dinitrobenzene	10.00000	1383.200	
11.23		264					
15.46	15.35 15.55	36357	881	Nitroglycerin	40.00000	908.9000	
29.90	29.67 30.07	32427	1056	TMETN	25.00000	1297.080	
32.70	32.51 32.91	24487	1033	PETN	25.00000	979.4400	
36.55		3311					

AS 4/3/09

Data File: /chem/a11001.i/b090402.b/007b83321BA.d
Date : 03-APR-2009 02:16
Client ID: 83321BA
Sample Info: 83321BA
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2512
Column diameter: 4.60



CompuChem

Lab Smp Id : 83321BA Client Smp Id : 83321BA
Sample Type : INITIAL CAL: Level 1 Sublist : all
Inj Date : 03-APR-2009 02:16 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	RF	FLAGS
10.10	10.00 10.20	3016	1398	1,4-Dinitrobenzene	2.000000	1507.500	
15.46	15.35 15.55	7122	881	Nitroglycerin	8.000000	890.2500	
18.43		1034					
18.61		4867					
23.28		411					
25.47		7795					
25.75		4058					
25.96		650					
26.11		3516					
29.86	29.67 30.07	4608	1056	TMETN	5.000000	921.6000	
32.70	32.51 32.91	5935	1033	PETN	5.000000	1186.800	

AS 4/3/09

Data File: /chem/a11001.i/b090402.b/008bCHKSTDBA.d

Date : 03-APR-2009 02:57

Client ID: CHKSTDBA

Instrument: a11001.i

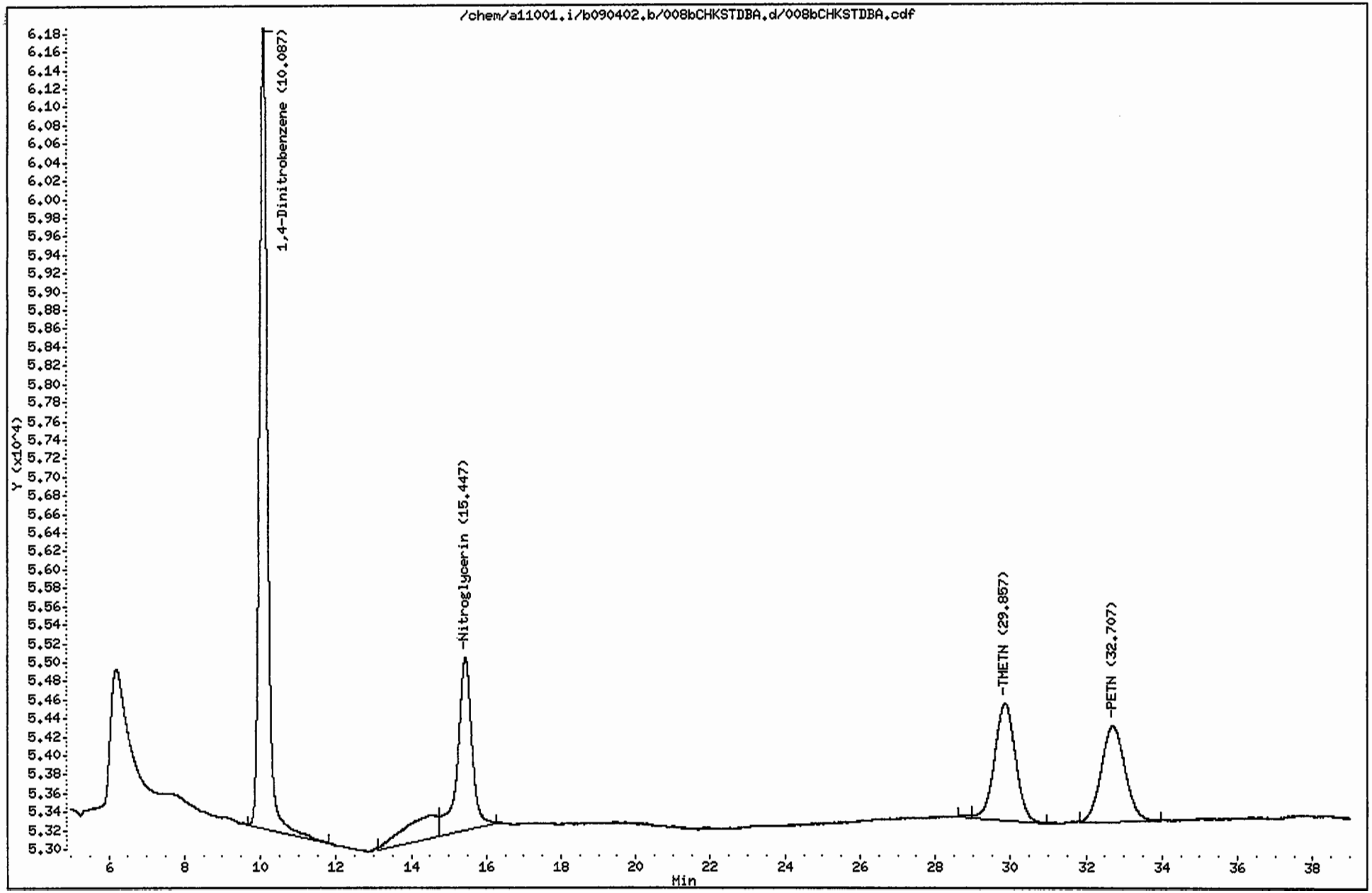
Sample Info: CHKSTDBA

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : CHKSTDBA
Client Smp Id : CHKSTDBA
Sample Type : QCCHECK
Sublist : all
Inj Date : 03-APR-2009 02:57
Inst ID : A11001
Operator : 2512
Spike Sublist : qccheck
Method : /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc. Info : None

RT	AREA
10.09	127251
14.52	15418
15.45	48897
28.74	418
29.86	47822
32.71	44881

AS 4/3/09

Report Date: 03-Apr-2009 07:35

CompuChem

RECOVERY REPORT

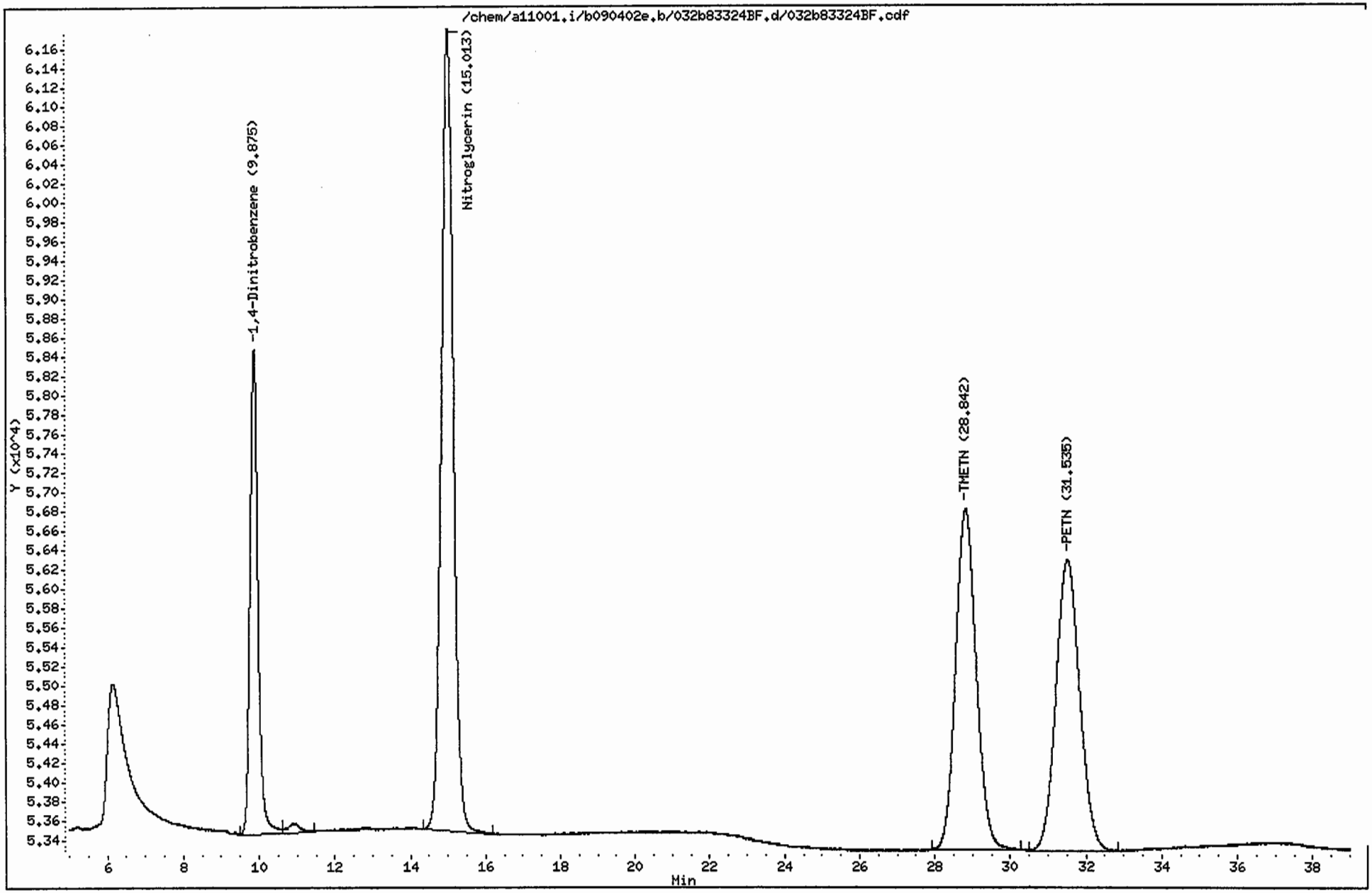
Client Name:
Client SDG: b090402
Sample Matrix: LIQUID
Fraction: 8330
Lab Smp Id: CHKSTDBA
Client Smp ID: CHKSTDBA
Level: LOW
Operator: 2512
Data Type: LC DATA
SampleType: QCCHECK
SpikeList File: qccheck.spk
Quant Type: ESTD
Sublist File: all.sub
Method File: /chem/a11001.i/b090402.b/8332TP_10uL_v1.m
Misc Info: None

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
10 Nitroglycerin	5.0	5.5	110.96	80-120
24 TMETN	5.0	4.5	90.59	80-120
25 PETN	5.0	4.3	86.88	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 7 1,4-Dinitrobenzene	10	9.1	91.04	50-150

Data File: /chem/a11001.i/b090402e.b/032b83324BF.d
Date : 22-APR-2009 17:54
Client ID: 83324BF
Sample Info: 83324BF
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2646
Column diameter: 4.60



CompuChem

Lab Smp Id : 83324BF Client Smp Id : 83324BF
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 22-APR-2009 17:54 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
9.88	9.78	9.98	72955	1398	1,4-Dinitrobenzene	50.00000	1459.102	-4.4	40.0		
10.91			2137								
15.01	14.91	15.11	183558	881	Nitroglycerin	200.0000	917.7900	-4.2	15.0		
28.84	28.64	29.04	133798	1056	TMETN	125.0000	1070.382	-1.4	40.0		
31.54	31.34	31.74	130544	1033	PETN	125.0000	1044.356	-1.1	40.0		

AG 4/23/09

Data File: /chem/a11001.i/b090402f.b/041b83324BG.d

Page 1

Date : 23-APR-2009 00:02

Client ID: 83324BG

Instrument: a11001.i

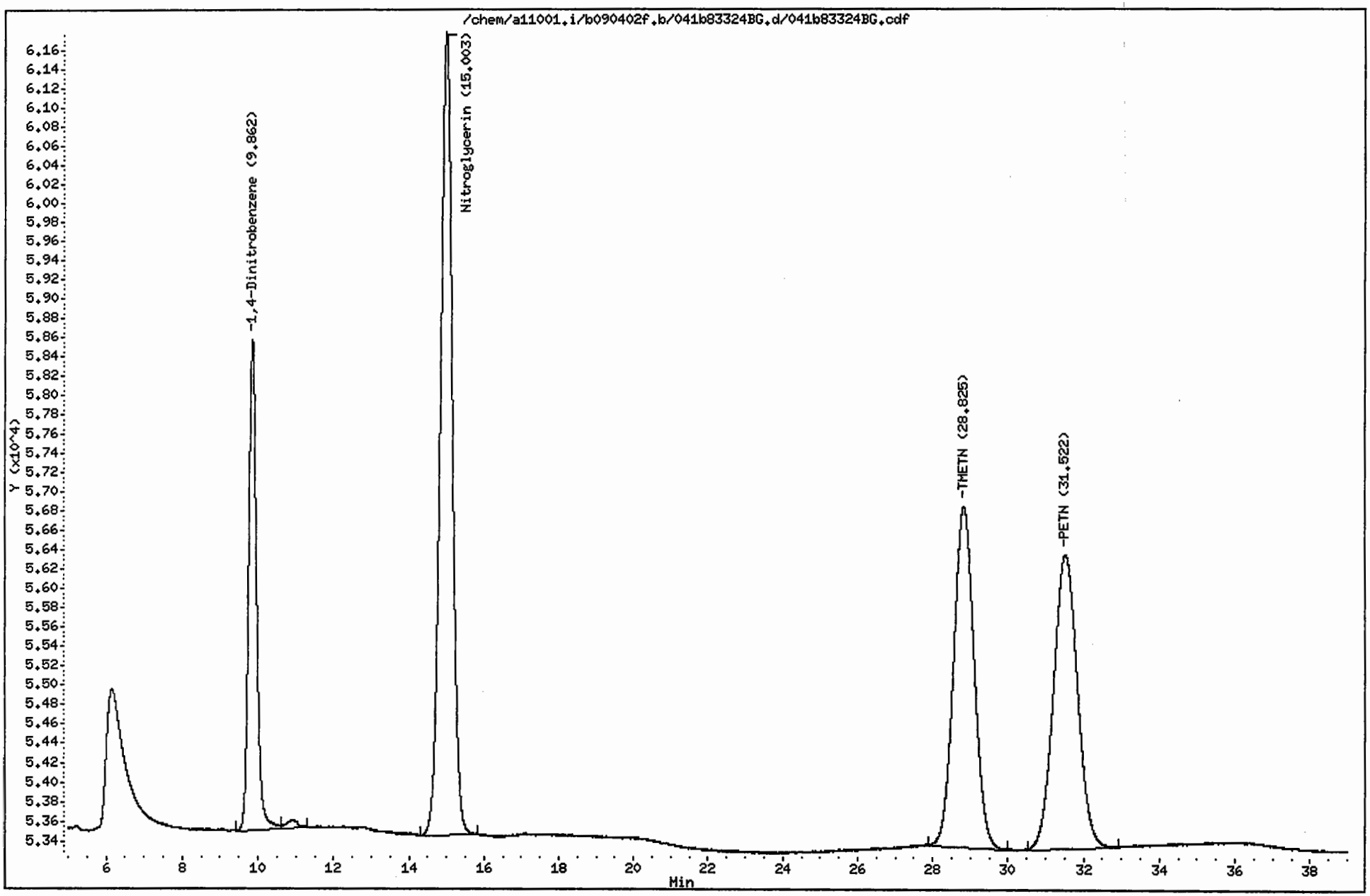
Sample Info: 83324BG

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83324BG Client Smp Id : 83324BG
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 23-APR-2009 00:02 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
9.86	9.78	9.98	74071	1398	1,4-Dinitrobenzene	50.00000	1481.428	-6.0	40.0		
10.93			1904								
15.00	14.91	15.11	183875	881	Nitroglycerin	200.0000	919.3745	-4.4	15.0		
28.82	28.64	29.04	132957	1056	TMETN	125.0000	1063.656	-0.7	40.0		
31.52	31.34	31.74	133073	1033	PETN	125.0000	1064.581	-3.1	40.0		

4/23/09

Data File: /chem/a11001.i/b090402g.b/049b83324BH.d

Date : 23-APR-2009 05:29

Client ID: 83324BH

Instrument: a11001.i

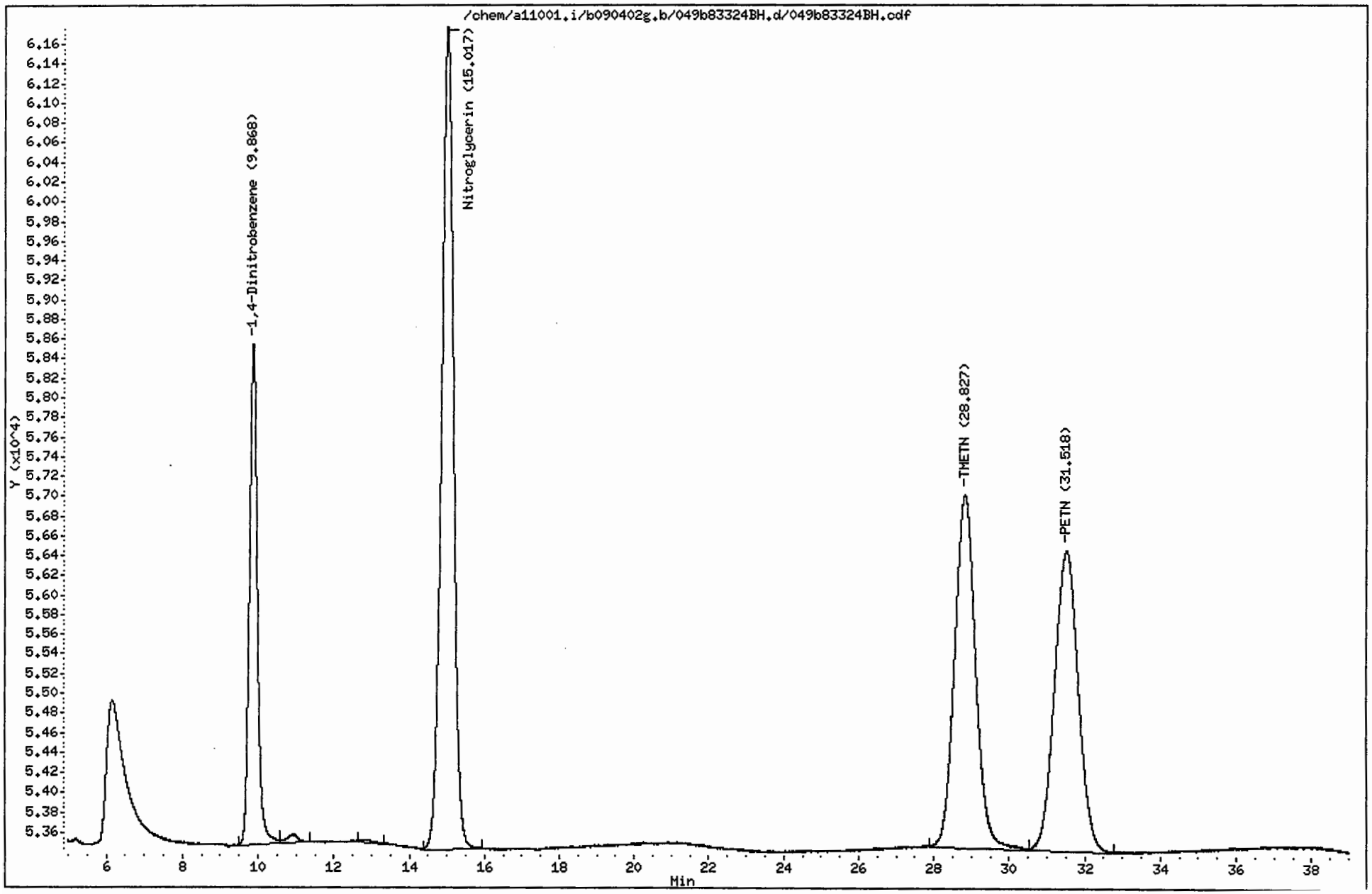
Sample Info: 83324BH

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 83324BH Client Smp Id : 83324BH
Sample Type : CONT CAL: Level 4 Sublist : all
Inj Date : 23-APR-2009 05:29 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402g.b/8332TP_10uL_v1.m
Misc. Info : None

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	STD AMT ON-COLUMN (Ng)	CCAL RF	%D	%D LIMIT	FLAGS	
9.87	9.78	9.98	73680	1398	1,4-Dinitrobenzene	50.00000	1473.607	-5.4	40.0		
10.93			1878								
12.77			655								
15.02	14.91	15.11	183189	881	Nitroglycerin	200.0000	915.9475	-4.0	15.0		
28.83	28.64	29.04	137339	1056	TMETN	125.0000	1098.710	-4.0	40.0		
31.52	31.34	31.74	131350	1033	PETN	125.0000	1050.804	-1.7	40.0		

AS 4/22/09

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COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4 / 4 / 09

Sequence ID: C090404 Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO (8330) 8332 Other_____

		FILE NAME		DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1	✓	1		4/4/09	C1B4C	61928	ZTZ	
2	✓	2		/ /	C1B4C	↓	↓	
3		3	✓	/ /	8330SCA	61929		
4		4	✓	/ /	4	↓		2X (500µL MeOH / 500µL STD)
5		5	✓	/ /	3			5X (500µL MeOH / 200µL STD)
6		6	✓	/ /	2			10X (900µL MeOH / 100µL STD)
7		7	✓	/ /	1			20X (950µL MeOH / 50µL STD)
8		8		/ /	8330CHKSTD	61709	↓	
9				/ /				
10				/ /				
11				/ /				
12				/ /				
13				/ /				
14				/ /		4/7/09		
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: _____ DATE 4/14/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/20/09

Sequence ID: C090404f Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO (8330) 8332 Other_____

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		FILE NAME		DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		30		4/20/09	83304CG	61929	2512	2X: 500µl standard in 500µl MeOH
2		31		/ /	LIBLKCG	61928		
3		32		/ /	904ZO13-BLK1	VOS1025		
4		33		/ /	BS1	↓		
5		34		/ /	BSD1			
6		35		/ /	MS1	0904098		
7		36		/ /	MSD1	↓	↓	
8				/ /				
9				/ /				
10				/ /				
11				/ /				
12				/ /				
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				AS 4/21/09
20				/ /				

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 4/21/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/20/09

Sequence ID: C090404g & h Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO (8330) 8332 Other_____

	S	FILE NAME	I	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		37	✓	4/20/09	83304CH	61929	2512	2x: 500µl standard in 500µl MeOH
2		38	✓	4/21/09	LIB2KCH	61928		
3		39	✓	/ /	0904098-01	0904098		
4		40	✓	/ /	02			
5		41	✓	/ /	03			
6		42	✓	/ /	04			
7		43	✓	/ /	05			
8		44	✓	/ /	06			
9		45	✓	/ /	0904103-01	0904103		
10		46	✓	/ /	02			
11		47	✓	/ /	83304CI	61929		2x: 500µl standard in 500µl MeOH
12		48	✓	/ /	LIB2KCI	61928		
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				AG 4/21/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: KCH DATE 4/21/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/2/09

Sequence ID: b 040402 AS 4/3/09 Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO 8330 (8332) Other

		FILE NAME		DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS/ETC./DISPOSITION
1		1		4/2/09	4B4C	61929	ae	
2		2		/ /	↓	↓		
3		3		/ /	8332SBA	61848		
4		4		4/3/09	4			2x (20µl STD / 980µl MeOH)
5		5		/ /	3			5x (20µl STD / 380µl MeOH)
6		6		/ /	2			10x (100µl STD / 900µl MeOH)
7		7		/ /	1			50x (20µl STD / 980µl MeOH)
8		8		/ /	8332CHKSTD 1A	61844		
9				/ /				
10				/ /				
11				/ /				
12				/ /				
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				AS 4/3/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 04/02/09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/22/09
Sequence ID: b090402e Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO 8330 (8332) Other_____

	CAL STD	FILE NAME	RUN LOG	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		31		4 22 09	LIBLK	61928	2646	
2		32		/ /	8332BD	61898		2X: 500µl standard in 500µl MeOH
3		33		/ /	LIBLKBD	61928		
4		34		/ /	9040615-BLK	various		
5		35		/ /	BS2	↓		
6		36		/ /	BSD2	↓		
7		37		/ /	MS2	0904098		
8		38		/ /	MSD2	↓		
9		39		/ /	0904103-01	0904103		
10		40		↓ /	↓ 02	↓	↓	
11				/ /				
12				/ /				
13				/ /				
14				/ /				
15				/ /				
16				/ /				
17				/ /				
18				/ /				
19				/ /				
20				/ /				jr 4/22/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: [signature] DATE 4.23.09

10/30/08: jr

COMPUCHEM a Division of Liberty Analytical Corp
HPLC RUN LOG
LOGBOOK 5 E 8

Instrument ID A11001 DATE 4/23/09
Sequence ID: b090402f&g Amt. Inj. 10 µL

Column: (Primary) Confirmation Method: 610 8310 MIDCO 8330 (8332) Other

	FILE NAME	DATE	CompuChem #	CASE/SDG#	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1	41	4/23/09	83324BG	61898	2646	2x: 500µl standard in 500µl MeOH
2	42		LIBLKBG	~~618~~ 61928		
3	43		0904098-01	NS 4/22/09		
4	44		02	0904098		
5	45		03			
6	46		04			
7	47		05			
8	48		06			
9	49		83324Bt1	61898		
10	50		LIBLKBtH	61928		2x · 500µl standard in 500µl MeOH
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						NS 4/23/09

The presence of the Chemist's/Analyst's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist/analyst together with the chemist's/analyst's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

REVIEWED BY: DATE 4·23·09

10/30/08: jr

4. Raw QC Data

    a. Blank Data

    b. Laboratory Control Sample Data

    c. Matrix Spike Data

    d. Matrix Spike Duplicate Data

a. Blank Data

Arranged by type of blank (method, then instrument), and shall be in chronological order, by instrument.

- Tabulated Results (Form I)
- Chromatograms and date system printout(s) by instrument used for analysis

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PBLKGZ

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404f.b/032c9042013-BLK1.d

Date : 20-APR-2009 20:43

Client ID: PBLKGZ

Instrument: a11001.i

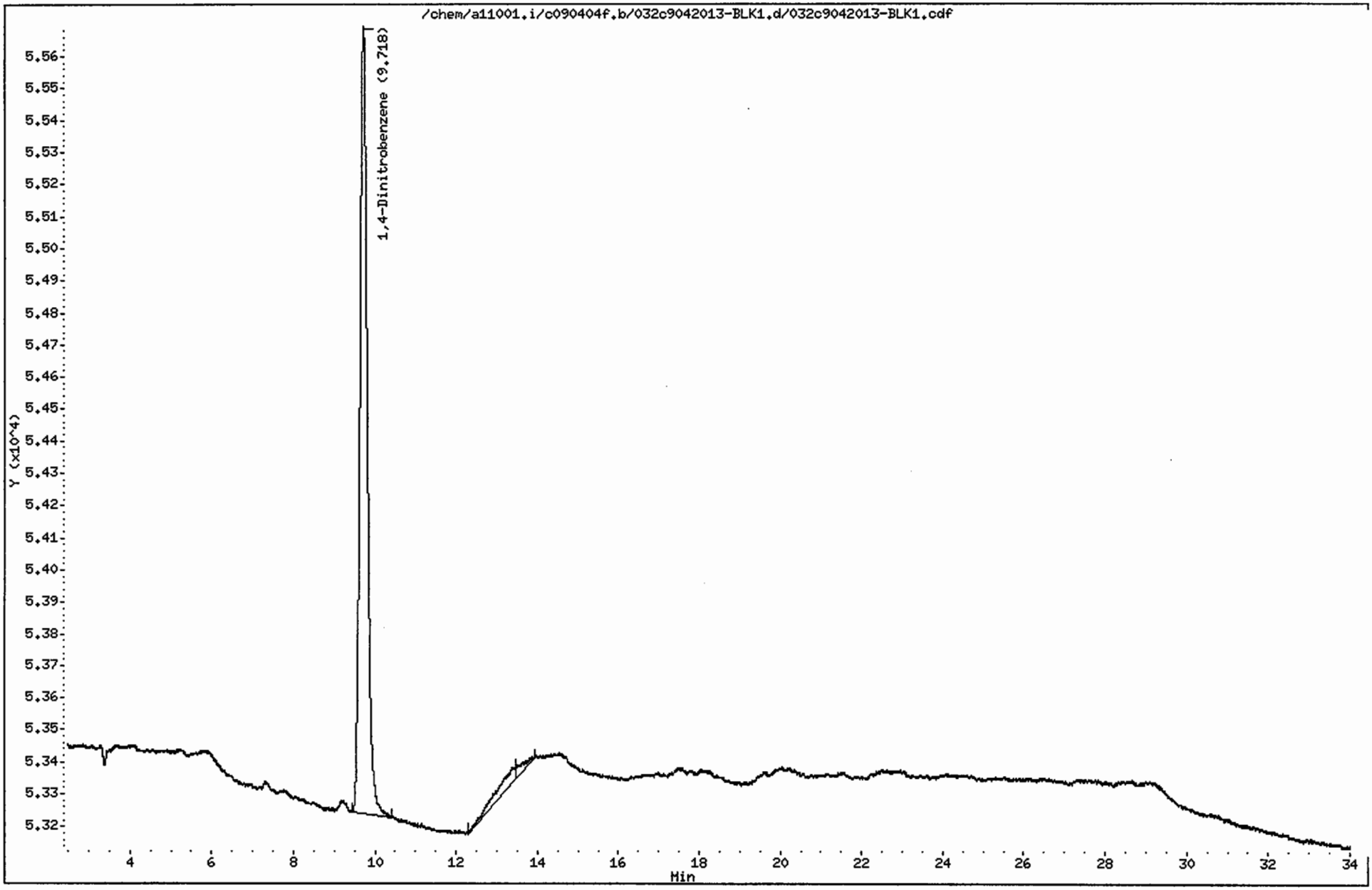
Sample Info: 9042013-BLK1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BLK1 Client Smp Id : PBLKGZ
Sample Type : BLANK Sublist : HWMU13
Inj Date : 20-APR-2009 20:43 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : PBLKGZ

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.10			1316								
9.72	9.47	9.87	30827	3385	1,4-Dinitrobenzene	9.106437	18.21287		91.1	39 - 132	
13.48			1738								
13.89			519								

KGH 4/21/09

ASSIGNED TO: L McKoy

EMP ID NUMBER: 2171

COMPUCHEM
EXTRACTION WORKSHEET *
EXPLOSIVE IN WATER BY SOLID PHASE EXTRACTION
Method 3535 FOR METHOD 8330

DATE EXTRACTED/POSTED: 4-20-09

BATCH NO.: -1082

4-20-3

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	COMMENTS
1	0904098-01	13MW5	SAMPLE	500	10.0	
2	0904098-02	13MW3	SAMPLE	500		
3	0904098-03	13MW4	SAMPLE	500		
4	0904098-04	13MWDUP	SAMPLE	500		
5	0904098-05	13MW6	SAMPLE	506		
6	0904098-06	13MW7	SAMPLE	506		
7	0904103-01	13MW1	SAMPLE	500		
8	0904103-02	13MW2	SAMPLE	506		
9	9042013-BLK1	PBLKGZ	MB	500		
10	9042013-BS1	PGZLCS	LCS	500		
11	9042013-BS2	PHALCS	LCS-8332	500		8332 SK 1.0mL Lot: 012609-03
12	9042013-BSD1	PGZLCSD	LCSD	500		
13	9042013-BSD2	PHALCSD	LCSD-8332	500		
14	9042013-MS1	Matrix Spike	MS	500		
15	9042013-MS2	Matrix Spike	MS-8332	500		
16	9042013-MSD1	Matrix Spike Dup	MSD	500		
17	9042013-MSD2	Matrix Spike Dup	MSD-8332	500	10.0	
18						
19						
20						
21						
22						
23						
24						
25						
26						

4-20-09

4-20-09

4-20-09

			Explosives	SURROGATE & SPIKE ADDED BY	
SURROGATE	No.	1,4-DNB		FINAL VOLUME VERIFIED	
	Amt.	1.0 ml	4-20-09		
	Lot #	62072	INITIALS DATE	SUPERVISOR REVIEWED	
SPIKE	No.	8330Full			
	Amt.	1.0 ml	Witness ML/BFP 4-20-09		
	Lot #	62059	Initials Date		

Manufacturer and lot number of reagents/solvents used ACN - 62229

Rev. 7/24/03:dce

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKGZ

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BLK1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/034b9042013-BLK1.d

Date : 22-APR-2009 19:16

Client ID: PBLKGZ

Instrument: a11001.i

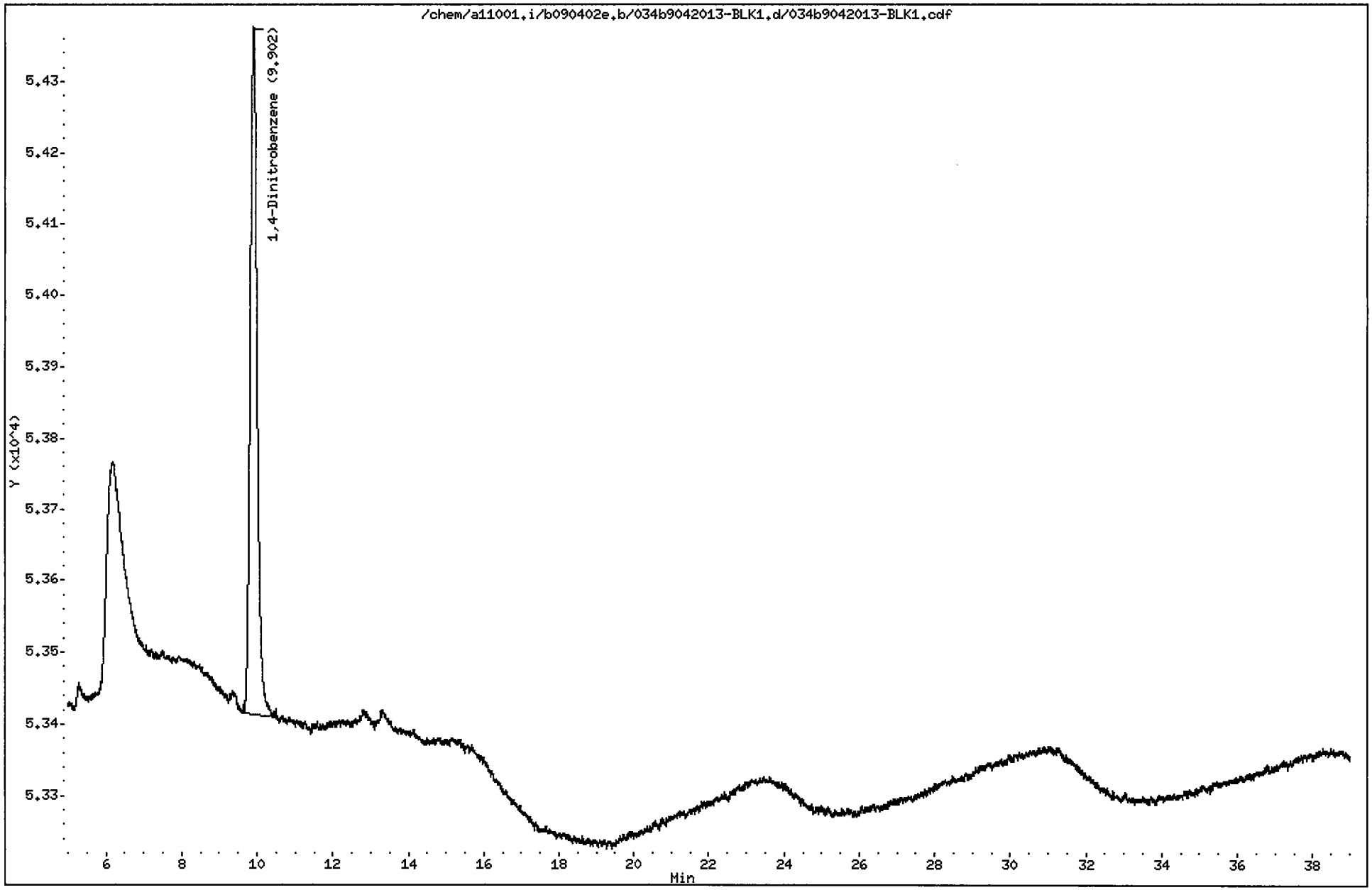
Sample Info: 9042013-BLK1

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BLK1 Client Smp Id : PBLKGZ
Sample Type : BLANK Sublist : nitro
Inj Date : 22-APR-2009 19:16 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : PBLKGZ

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12186	1398	1,4-Dinitrobenzene	8.718189	17.43638		87.2	50 - 150	

AS 4/23/09

ASSIGNED TO: L McKoy

EMP ID NUMBER: 2171

COMPUCHEM
EXTRACTION WORKSHEET *
EXPLOSIVE IN WATER BY SOLID PHASE EXTRACTION
Method 3535 FOR METHOD 8330

DATE EXTRACTED/POSTED: 4-20-09

BATCH NO.: 9042013

-1082-

4-20-3

	COMPUCHEM NUMBER	CLIENT SAMPLE ID	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	COMMENTS
1	0904098-01	13MW5	SAMPLE	500	10.0	
2	0904098-02	13MW3	SAMPLE	500		
3	0904098-03	13MW4	SAMPLE	500		
4	0904098-04	13MWDUP	SAMPLE	500		
5	0904098-05	13MW6	SAMPLE	506		
6	0904098-06	13MW7	SAMPLE	506		
7	0904103-01	13MW1	SAMPLE	500		
8	0904103-02	13MW2	SAMPLE	506		
9	9042013-BLK1	PBLKGZ	MB	500		
10	9042013-BS1	PGZLCS	LCS	500		
11	9042013-BS2	PHALCS	LCS-8332	500		8332 SK 1.0mL Lot: 012609-03
12	9042013-BSD1	PGZLCSD	LCSD	500		
13	9042013-BSD2	PHALCSD	LCSD-8332	500		
14	9042013-MS1	Matrix Spike	MS	500		
15	9042013-MS2	Matrix Spike	MS-8332	500		
16	9042013-MSD1	Matrix Spike Dup	MSD	500		
17	9042013-MSD2	Matrix Spike Dup	MSD-8332	500	10.0	
18						
19						
20						
21						
22						
23						
24						
25						
26						

4-20-09

4-20-09

4-20-09

		Explosives	SURROGATE & SPIKE ADDED BY
SURROGATE	No.	1,4-DNB	
	Amt.	1.0 ml	INITIALS: AN DATE: 4-20-09
	Lot #	62072	
SPIKE	No.	8330Full	
	Amt.	1.0 ml	Witness: ML/BFP, 4-20-09 (Initials, Date)
	Lot #	62059	

FINAL VOLUME VERIFIED

SUPERVISOR REVIEWED

Manufacturer and lot number of reagents/solvents used ACN - 62229

Rev. 7/24/03:dce

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKBF

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: LIBLKBF

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/033bLIBLKBF.d

Page 1

Date : 22-APR-2009 18:35

Client ID: LIBLKBF

Instrument: a11001.i

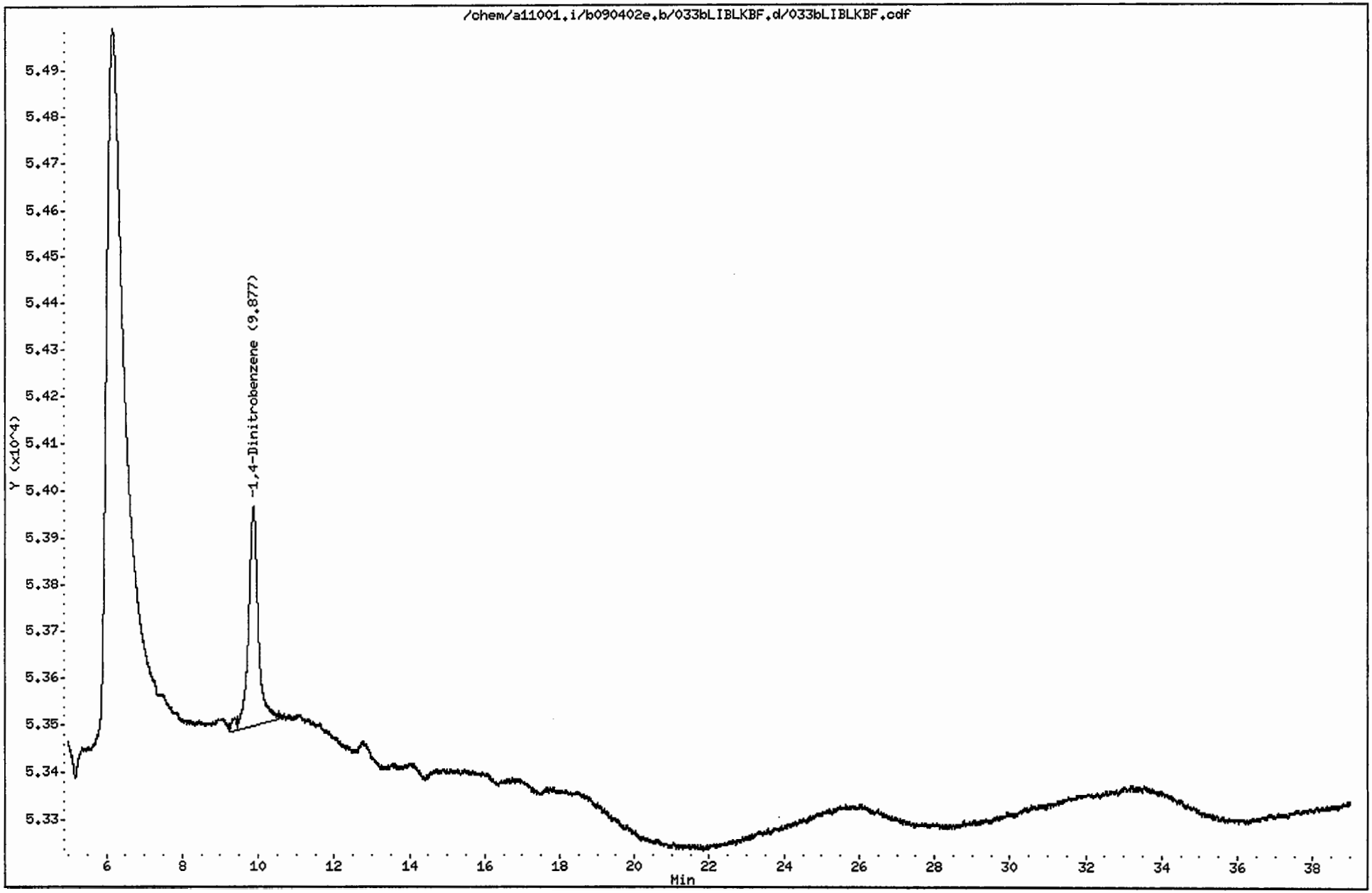
Sample Info: LIBLKBF

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKBF Client Smp Id : LIBLKBF
Sample Type : INSTBLANK Sublist : all
Inj Date : 22-APR-2009 18:35 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
9.36			262						
9.88	9.78	9.98	8271	1398	1,4-Dinitrobenzene	5.917511	11.83502		

NS 23 4/22/09
NS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKBG

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: LIBLKBG

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402f.b/042bLIBLKBG.d

Page 1

Date : 23-APR-2009 00:43

Client ID: LIBLKBG

Instrument: a11001.i

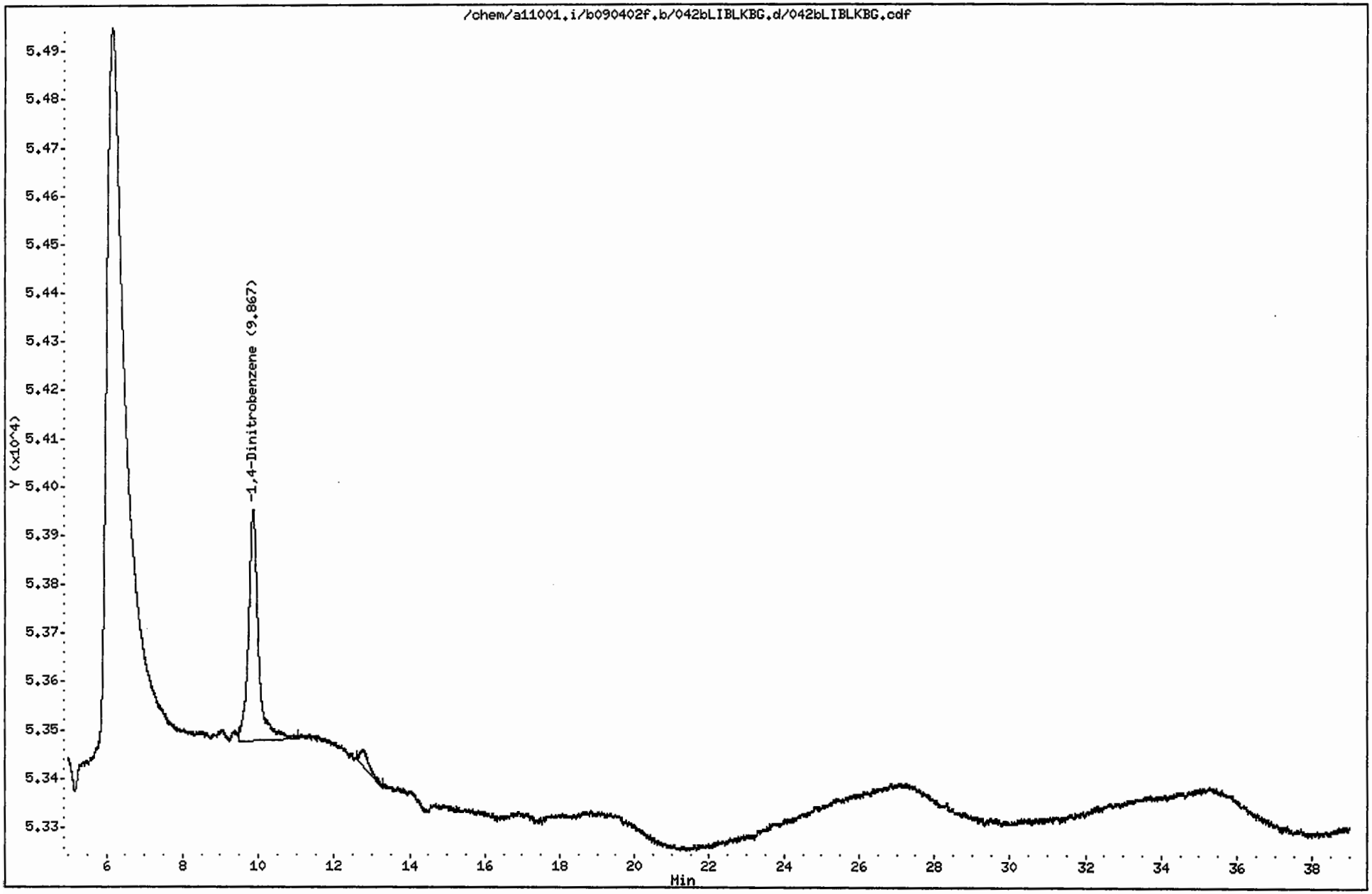
Sample Info: LIBLKBG

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKBG Client Smp Id : LIBLKBG
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 00:43 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402f.b/8332TP_10uL_v1.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
9.87	9.78	9.98	8715	1398	1,4-Dinitrobenzene	6.234846	12.46969		
12.75			588						

AS 4/22/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKBH

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: LIBLKBH

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/23/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	16	U

FORM I PEST

Data File: /chem/a11001.i/b090402g.b/050bLIBLKBH.d

Page 1

Date : 23-APR-2009 06:10

Client ID: LIBLKBH

Instrument: a11001.i

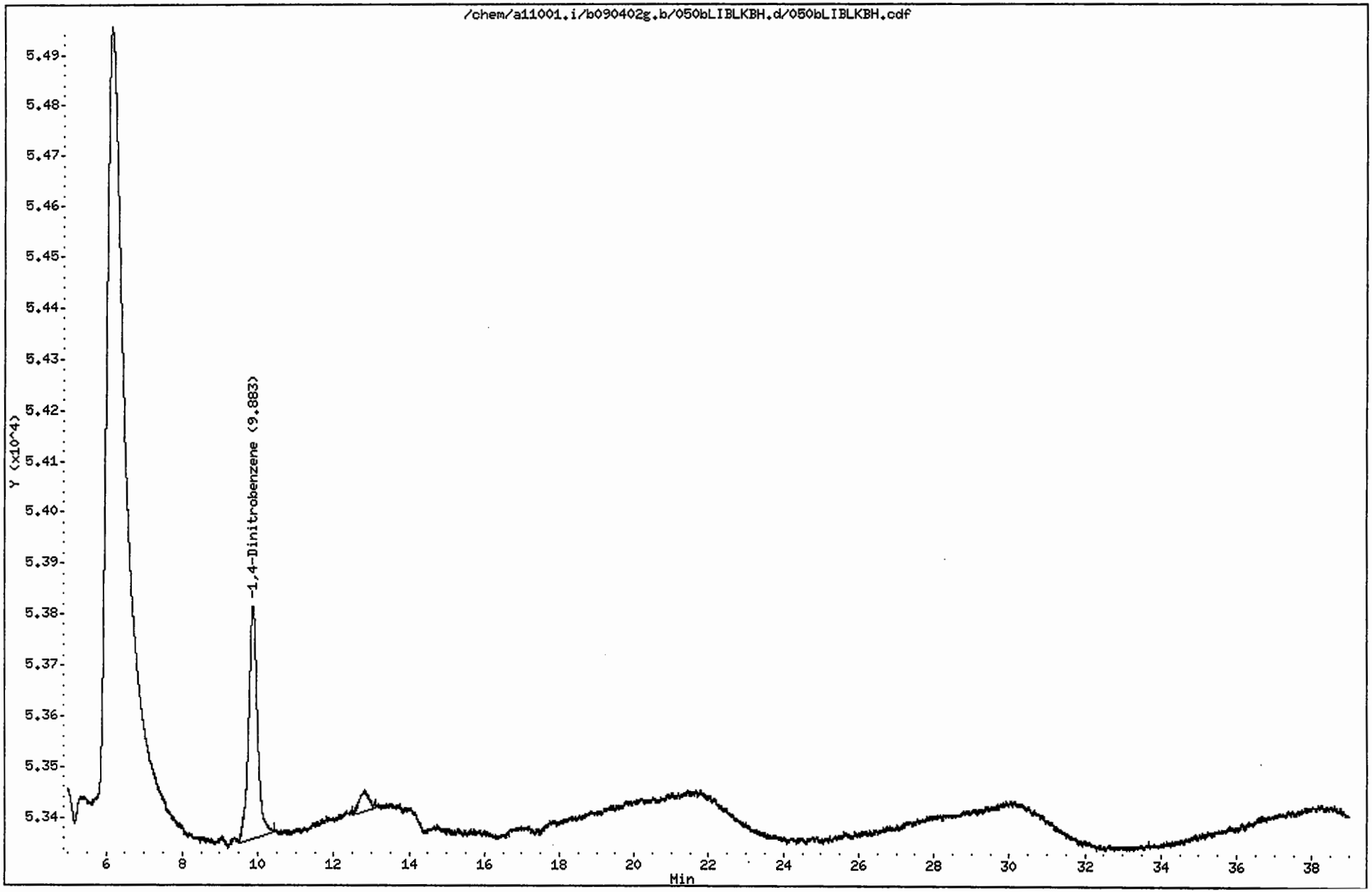
Sample Info: LIBLKBH

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKBH Client Smp Id : LIBLKBH
Sample Type : INSTBLANK Sublist : all
Inj Date : 23-APR-2009 06:10 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/b090402g.b/8332TP_10uL_v1.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
9.88	9.78	9.98	7377	1398	1,4-Dinitrobenzene	5.277868	10.55574		
12.81			773						

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKCG

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: LIBLKCG

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404f.b/031cLIBLKCG.d

Page 1

Date : 20-APR-2009 20:07

Client ID: LIBLKCG

Instrument: a11001.i

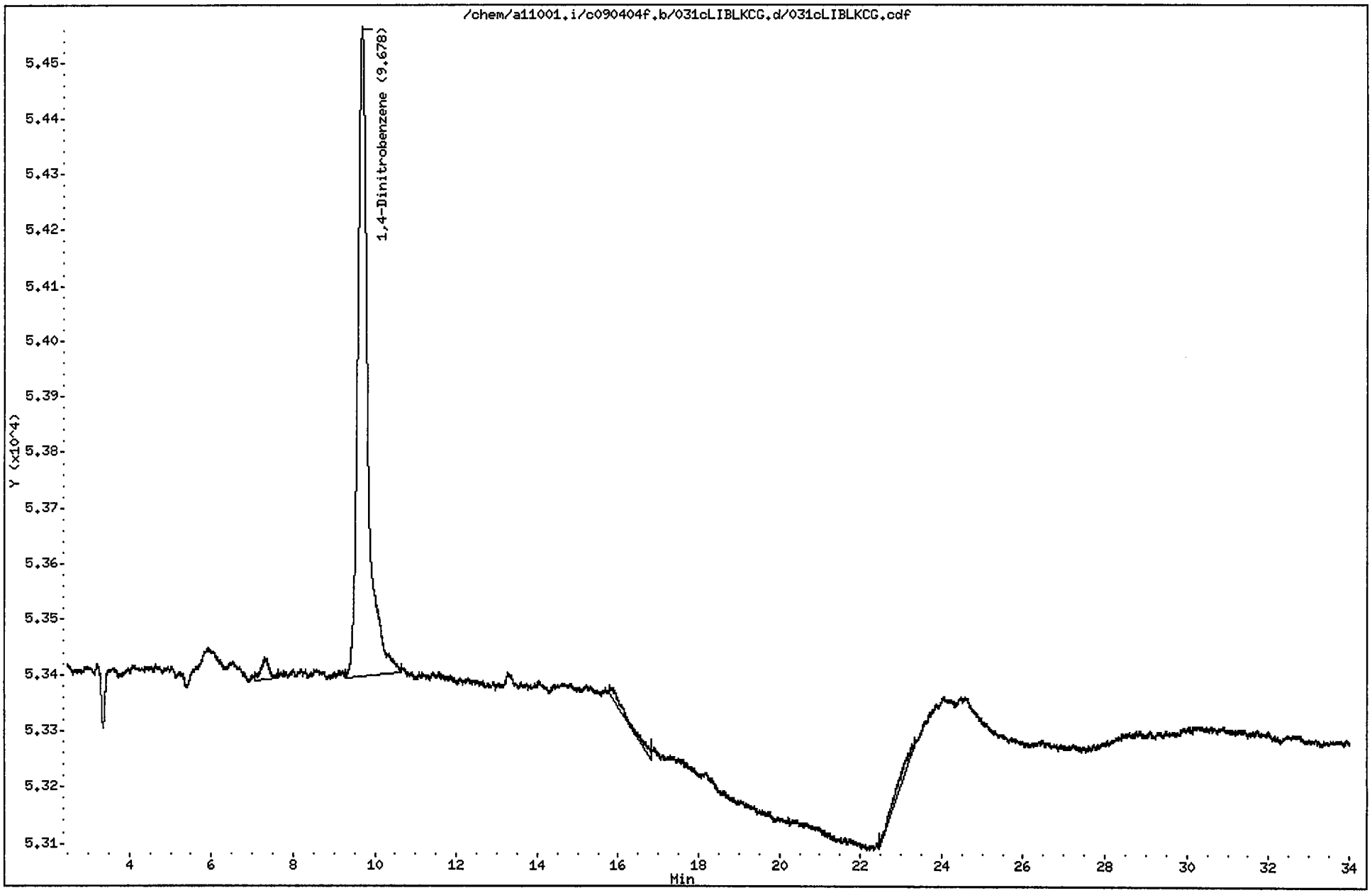
Sample Info: LIBLKCG

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKCG Client Smp Id : LIBLKCG
Sample Type : INSTBLANK Sublist : all
Inj Date : 20-APR-2009 20:07 Inst ID : A11001
Operator : 2646
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
2.05			2046						
2.23			3001						
7.31			510						
9.68	9.47	9.87	20075	3385	1,4-Dinitrobenzene	5.930351	11.86070		
15.85			594						
23.33			724						

AG 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKCH

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: LIBLKCH

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404g.b/038cLIBLKCH.d

Date : 21-APR-2009 00:18

Client ID: LIBLKCH

Instrument: a11001.i

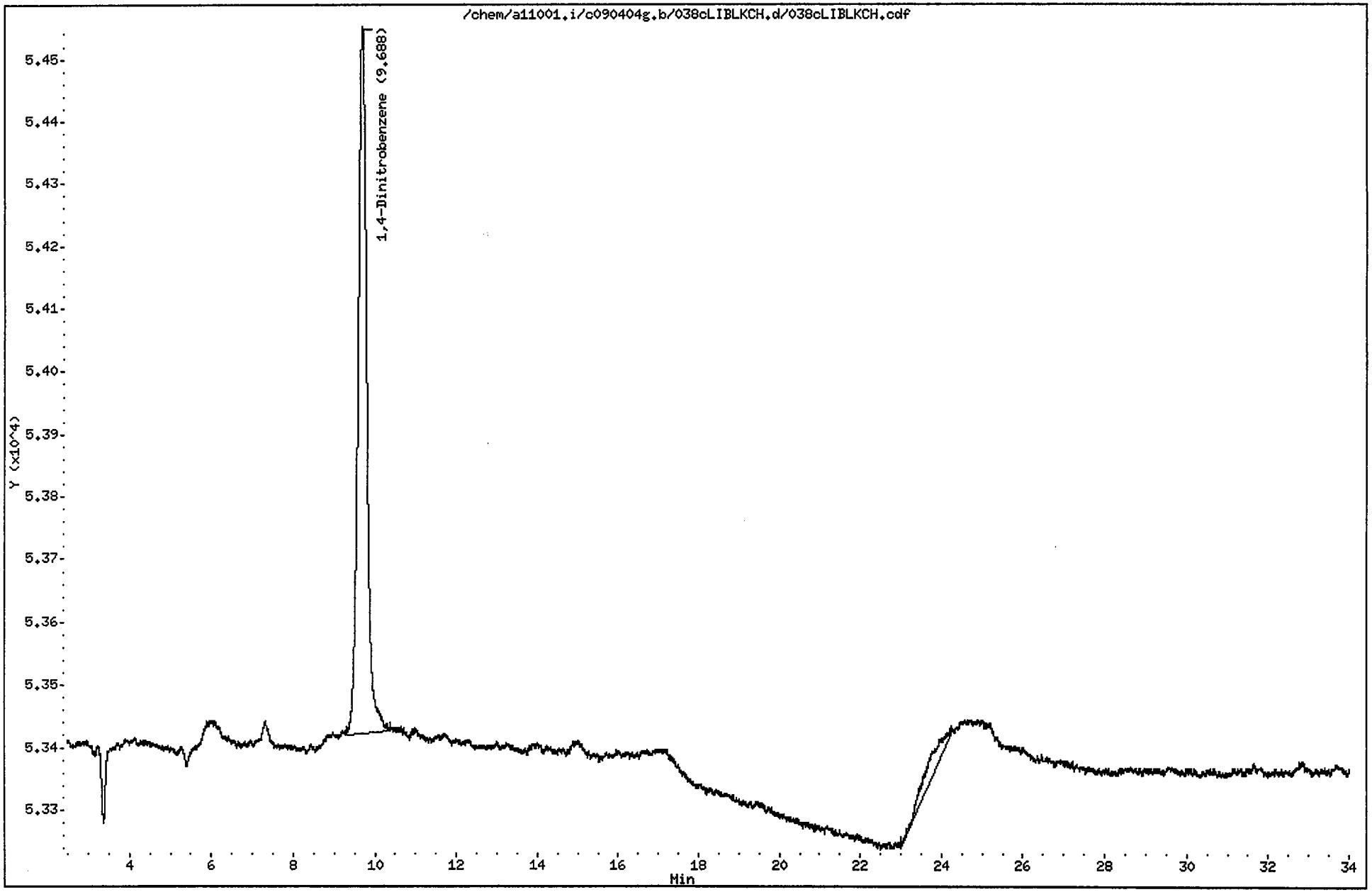
Sample Info: LIBLKCH

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKCH Client Smp Id : LIBLKCH
Sample Type : INSTBLANK Sublist : all
Inj Date : 21-APR-2009 00:18 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404g.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
2.02			1185						
2.23			4101						
9.69	9.48	9.88	16836	3385	1,4-Dinitrobenzene	4.973652	9.947304		
24.23			1461						

AS 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LIBLKCI

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: LIBLKCI

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/21/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	2.5	U
99-65-0	1,3-Dinitrobenzene	2.5	U
606-20-2	2,6-Dinitrotoluene	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U

Data File: /chem/a11001.i/c090404h.b/048cLIBLKCI.d

Date : 21-APR-2009 06:17

Client ID: LIBLKCI

Instrument: a11001.i

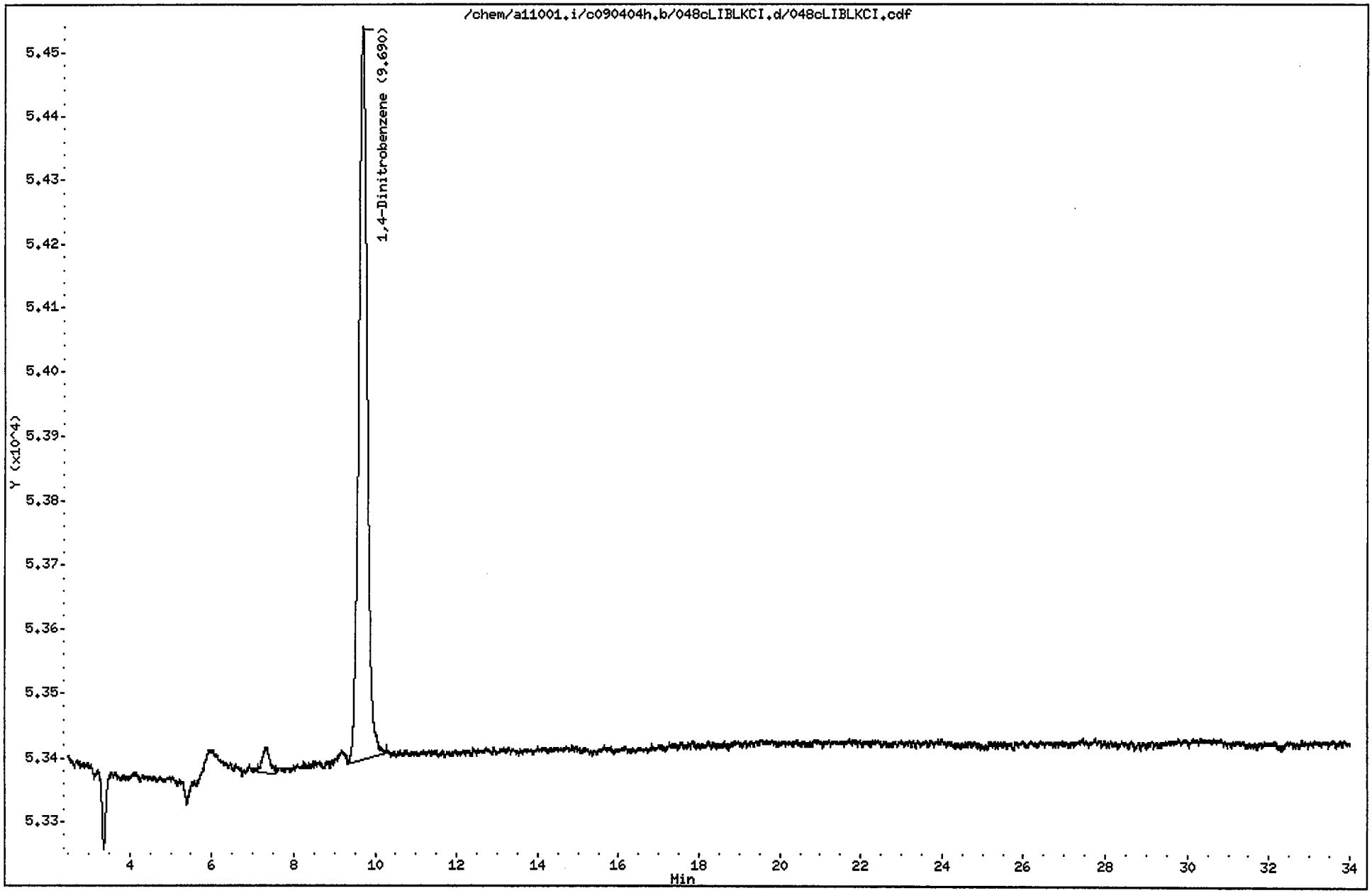
Sample Info: LIBLKCI

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : LIBLKCI Client Smp Id : LIBLKCI
Sample Type : INSTBLANK Sublist : all
Inj Date : 21-APR-2009 06:17 Inst ID : A11001
Operator : 2512
Method : /chem/a11001.i/c090404h.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	FLAGS
2.16			2189						
2.24			3471						
7.36			501						
9.69	9.47	9.87	16393	3385	1,4-Dinitrobenzene	4.842724	9.685449		

AS 4/21/09

b. Laboratory Control Sample Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCS

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.8	
99-65-0	1,3-Dinitrobenzene	7.5	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.9	

Data File: /chem/a11001.i/c090404f.b/033c9042013-BS1.d

Page 1

Date : 20-APR-2009 21:19

Client ID: PGZLCS

Instrument: a11001.i

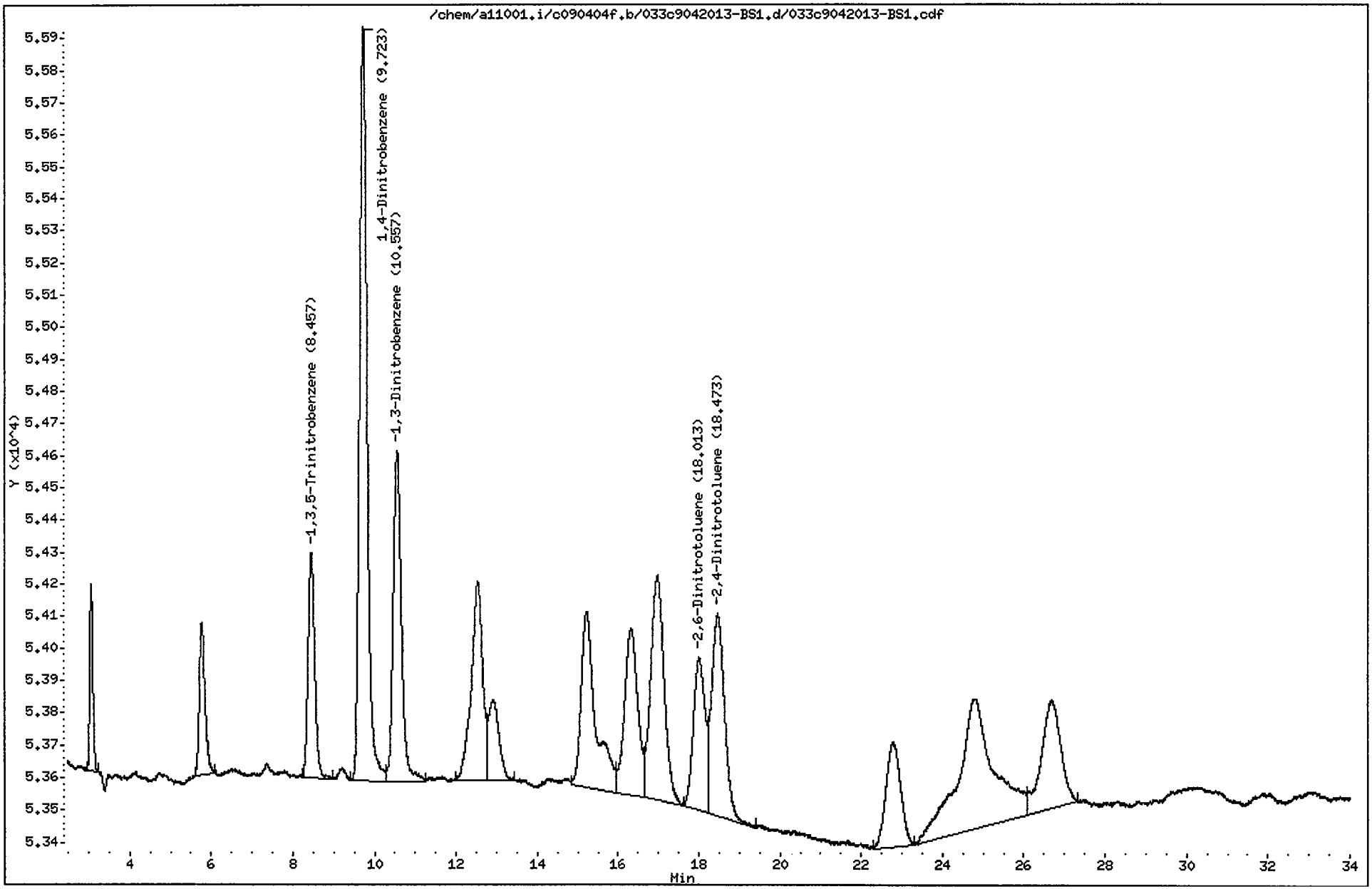
Sample Info: 9042013-BS1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BS1 Client Smp Id : PGZLCS
Sample Type : LCS Sublist : HWMU13
Inj Date : 20-APR-2009 21:19 Inst ID : A11001
Operator : 2512 Spike Sublist : HWMU13
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : PGZLCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.09			1550								
3.08			3013								
5.78			4501								
8.46	8.21	8.61	7968	2757	1,3,5-Trinitrobenzene	2.889232	5.778464	2.500000	72.2	50 - 150	
9.72	9.47	9.87	30161	3385	1,4-Dinitrobenzene	8.909987	17.81997		89.1	39 - 132	
10.56	10.31	10.71	14423	3861	1,3-Dinitrobenzene	3.735654	7.471307	2.500000	93.4	50 - 150	
12.54			12063								
12.93			4353								
15.23			13625								
16.32			11743								
16.98			16101								
18.01	17.64	18.24	9270	1712	2,6-Dinitrotoluene	5.415072	10.83014	5.000000	90.3	50 - 150	
18.47	18.10	18.70	13969	3554	2,4-Dinitrotoluene	3.930819	7.861639	5.000000	98.3	50 - 150	
22.78			8075								
24.80			24681								
26.68			11221								

4/21/09

1D

EPA SAMPLE NO.

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

PHALCS

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BS2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	17	

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/035b9042013-BS2.d

Date : 22-APR-2009 19:57

Client ID: PHALCS

Instrument: a11001.i

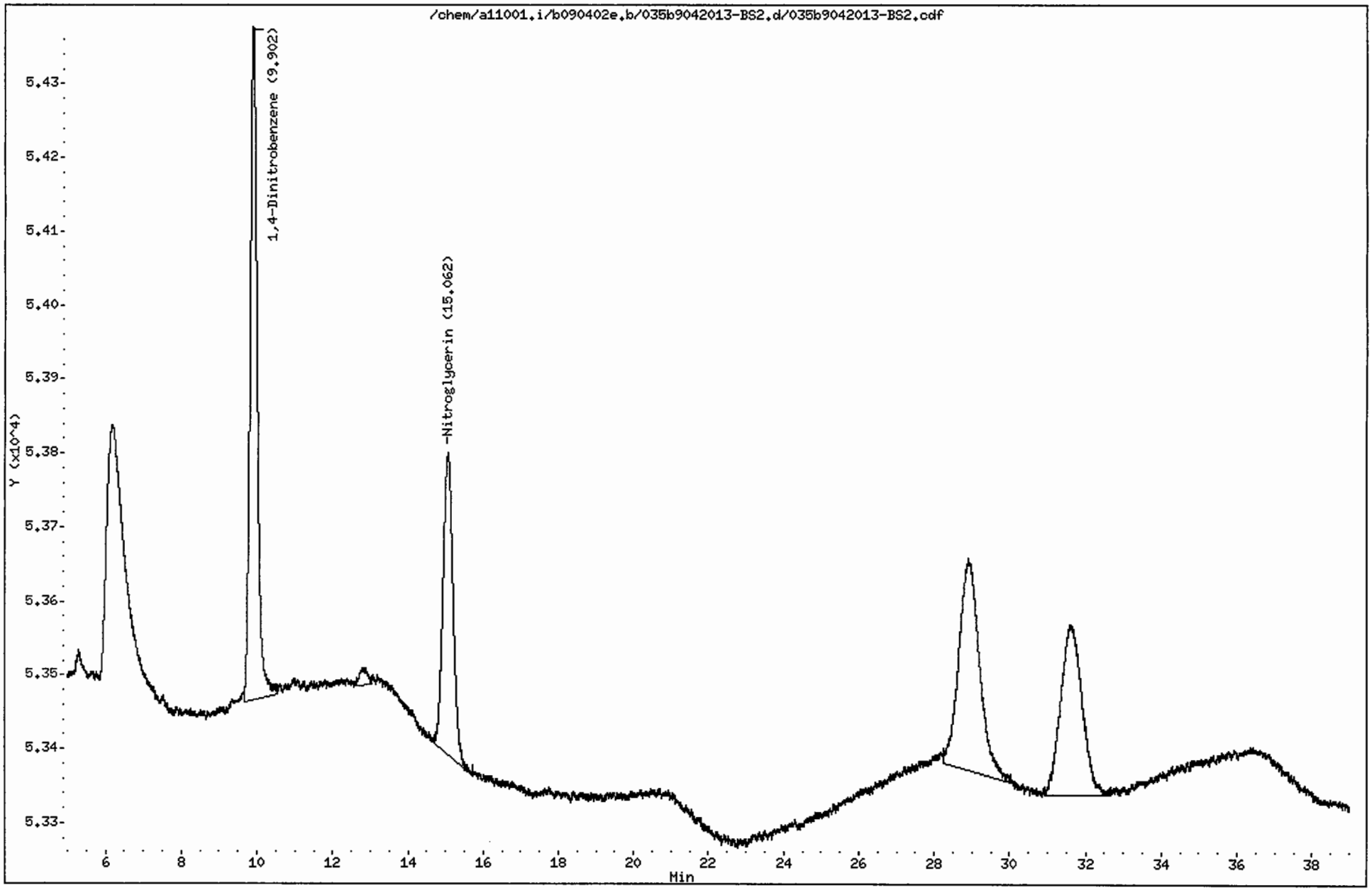
Sample Info: 9042013-BS2

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BS2 Client Smp Id : PHALCS
Sample Type : LCS Sublist : nitro
Inj Date : 22-APR-2009 19:57 Inst ID : A11001
Operator : 2646 Spike Sublist : NITRO
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : PHALCS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	11822	1398	1,4-Dinitrobenzene	8.458232	16.91646		84.6	50 - 150	
12.77			319								
15.06	14.91	15.11	7630	881	Nitroglycerin	8.657452	17.31490	16.00000	86.6	50 - 150	
28.91			10886								
31.62			9082								

AS 4/23/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PGZLCSD

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received:

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	5.6	
99-65-0	1,3-Dinitrobenzene	7.0	
606-20-2	2,6-Dinitrotoluene	11	
121-14-2	2,4-Dinitrotoluene	7.8	

Data File: /chem/a11001.i/c090404f.b/034c9042013-BSD1.d

Page 1

Date : 20-APR-2009 21:55

Client ID: PGZLCSD

Instrument: a11001.i

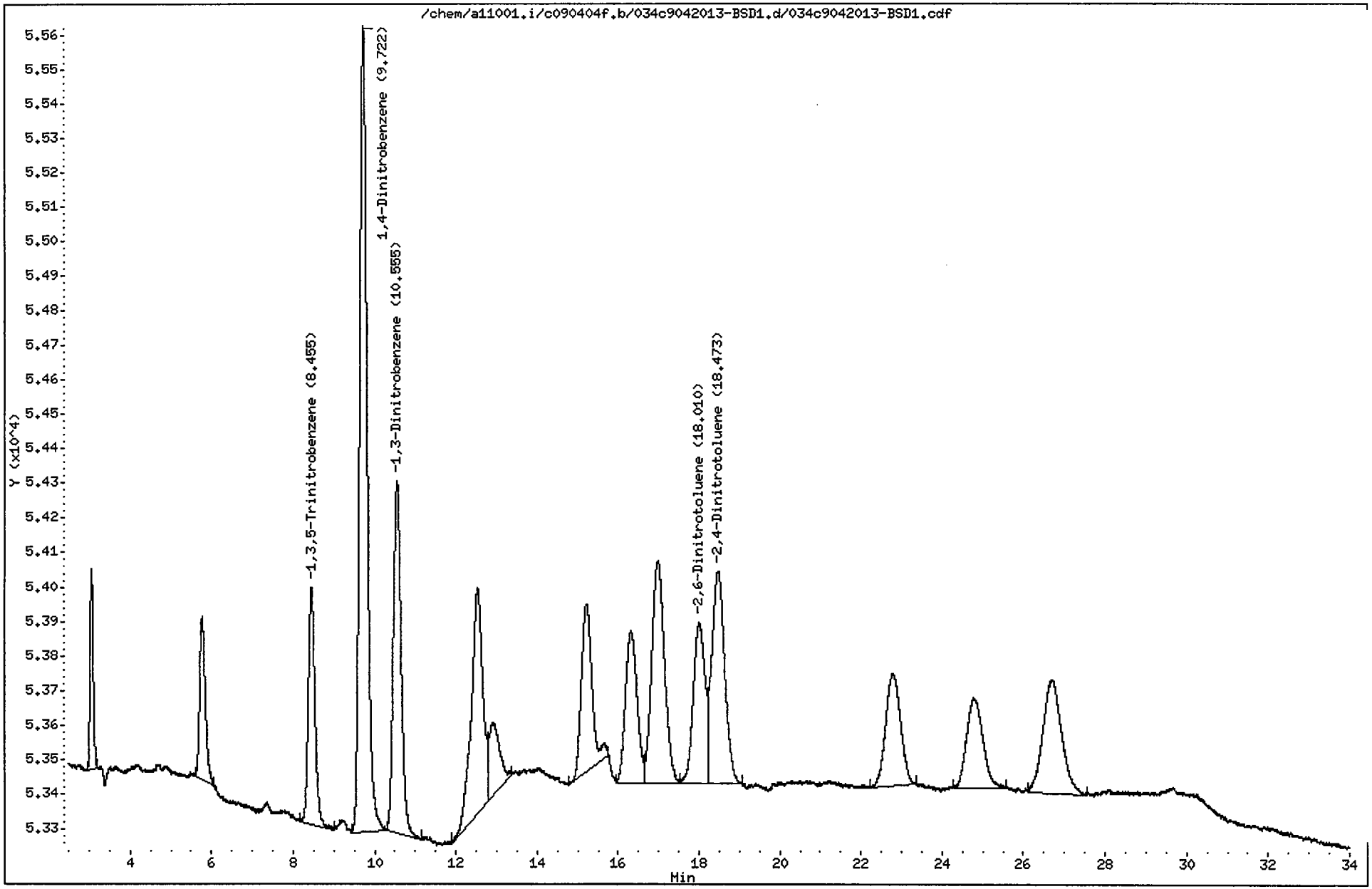
Sample Info: 9042013-BSD1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BSD1 Client Smp Id : PGZLCSD
Sample Type : LCSD Sublist : HWMU13
Inj Date : 20-APR-2009 21:55 Inst ID : A11001
Operator : 2512 Spike Sublist : HWMU13
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : PGZLCSD

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW	AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.19		1649								
2.25		1468								
3.08		3059								
5.78		4450								
8.46	8.21 8.61	7774	2757	1,3,5-Trinitrobenzene	2.818878	5.637756	2.500000	70.5	50 - 150	
9.72	9.47 9.87	29373	3385	1,4-Dinitrobenzene	8.676905	17.35381		86.8	39 - 132	
10.56	10.31 10.71	13497	3861	1,3-Dinitrobenzene	3.495813	6.991627	2.500000	87.4	50 - 150	
12.54		12917								
12.92		3827								
15.23		8921								
16.33		8833								
16.99		14290								
18.01	17.64 18.24	9499	1712	2,6-Dinitrotoluene	5.548857	11.09771	5.000000	92.5	50 - 150	
18.47	18.10 18.70	13860	3554	2,4-Dinitrotoluene	3.899866	7.799732	5.000000	97.5	50 - 150	
22.80		8416								
24.77		7383								
26.73		10732								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PHALCSD

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-BSD2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	18	

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/036b9042013-BSD2.d

Date : 22-APR-2009 20:38

Client ID: PHALCSD

Instrument: a11001.i

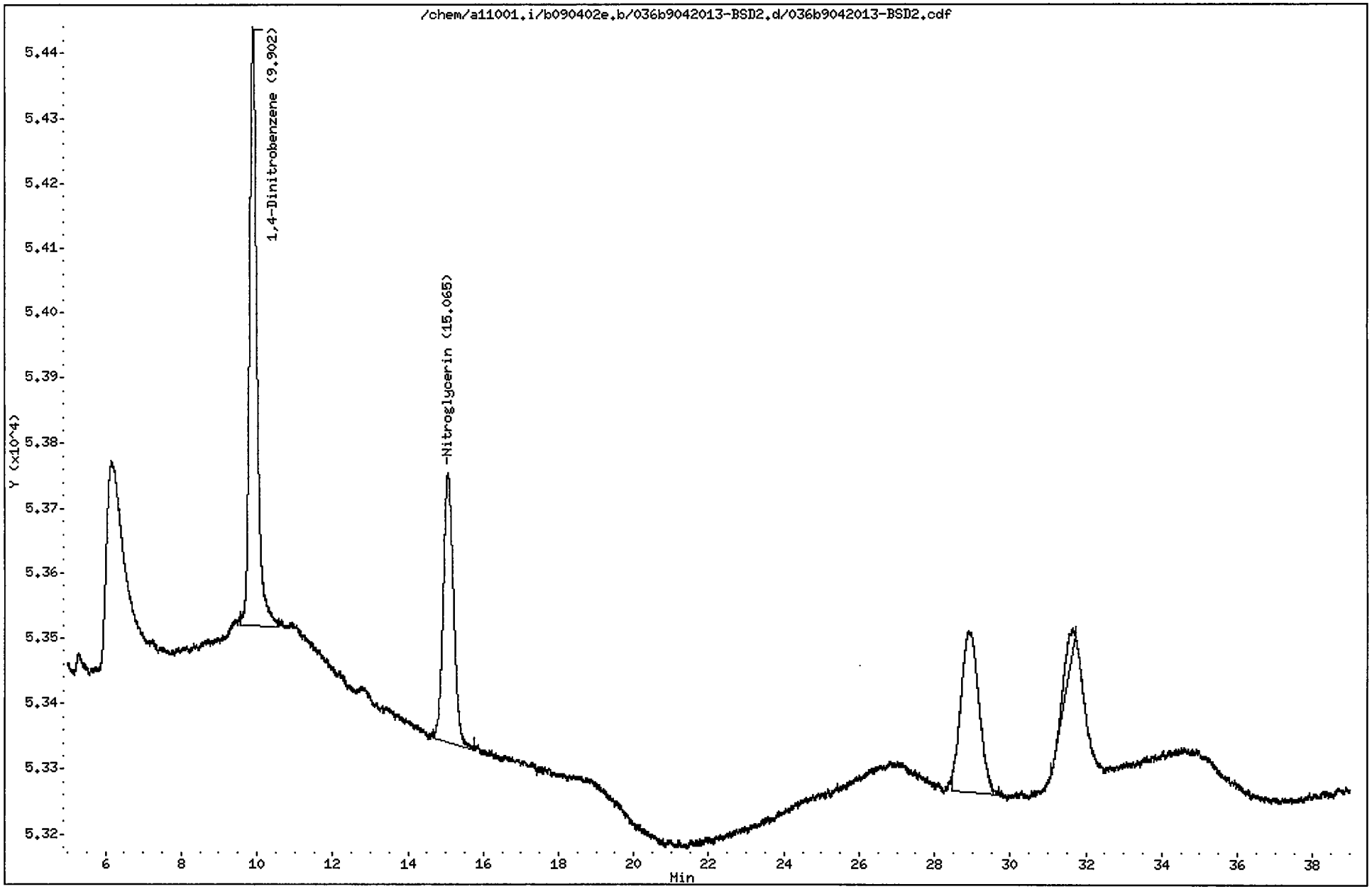
Sample Info: 9042013-BSD2

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-BSD2 Client Smp Id : PHALCSD
Sample Type : LCSD Sublist : nitro
Inj Date : 22-APR-2009 20:38 Inst ID : A11001
Operator : 2646 Spike Sublist : NITRO
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : PHALCSD

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12454	1398	1,4-Dinitrobenzene	8.909928	17.81986		89.1	50 - 150	
15.06	14.91	15.11	7792	881	Nitroglycerin	8.841490	17.68298	16.00000	88.4	50 - 150	
28.90			8226								
31.62			995								

4/23/09

c. Matrix Spike Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MS1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	6.8	
99-65-0	1,3-Dinitrobenzene	7.1	
606-20-2	2,6-Dinitrotoluene	12	
121-14-2	2,4-Dinitrotoluene	9.3	

FORM I PEST

Data File: /chem/a11001.i/c090404f.b/035c9042013-MS1.d

Page 1

Date : 20-APR-2009 22:31

Client ID: 13MW5MS

Instrument: a11001.i

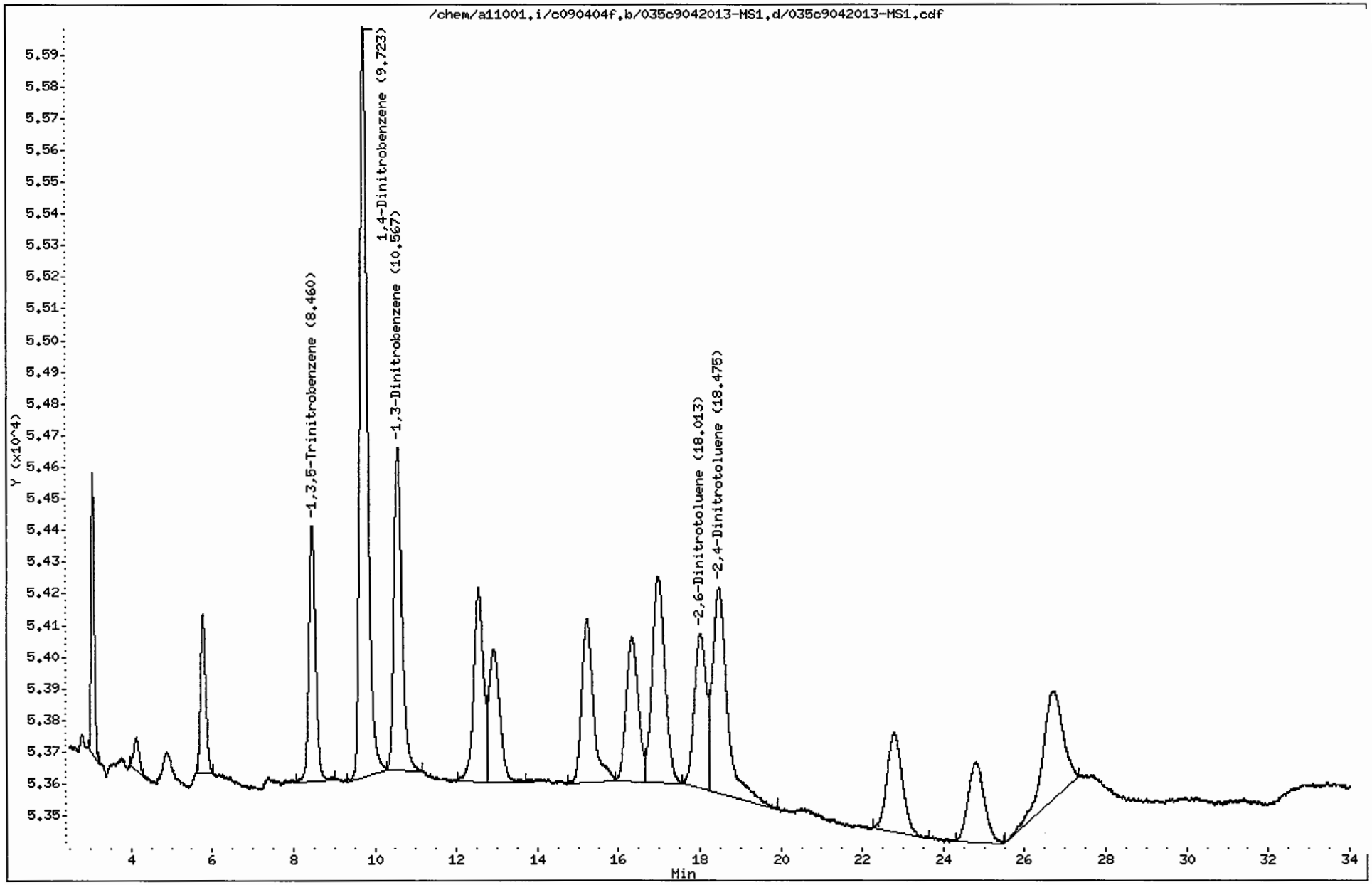
Sample Info: 9042013-MS1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-MS1 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : HWMU13
Inj Date : 20-APR-2009 22:31 Inst ID : A11001
Operator : 2512 Spike Sublist : HWMU13
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.06			1170								
2.17			901								
2.43			662								
3.07			4678								
4.14			963								
5.78			4397								
8.46	8.21	8.61	9387	2757	1,3,5-Trinitrobenzene	3.403832	6.807665	2.500000	85.1	50 - 150	
9.72	9.47	9.87	30317	3385	1,4-Dinitrobenzene	8.956071	17.91214		89.6	39 - 132	
10.57	10.31	10.71	13792	3861	1,3-Dinitrobenzene	3.571961	7.143923	2.500000	89.3	50 - 150	
12.55			10227								
12.92			7736								
15.23			10340								
16.34			9411								
16.99			14259								
18.01	17.64	18.24	9863	1712	2,6-Dinitrotoluene	5.761510	11.52302	5.000000	96.0	50 - 150	
18.48	18.10	18.70	16607	3554	2,4-Dinitrotoluene	4.672860	9.345721	5.000000	116.8	50 - 150	
22.79			8218								
24.80			7096								
26.72			12232								

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MS

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MS2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	18	

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/037b9042013-MS2.d

Date : 22-APR-2009 21:18

Client ID: 13MW5MS

Instrument: a11001.i

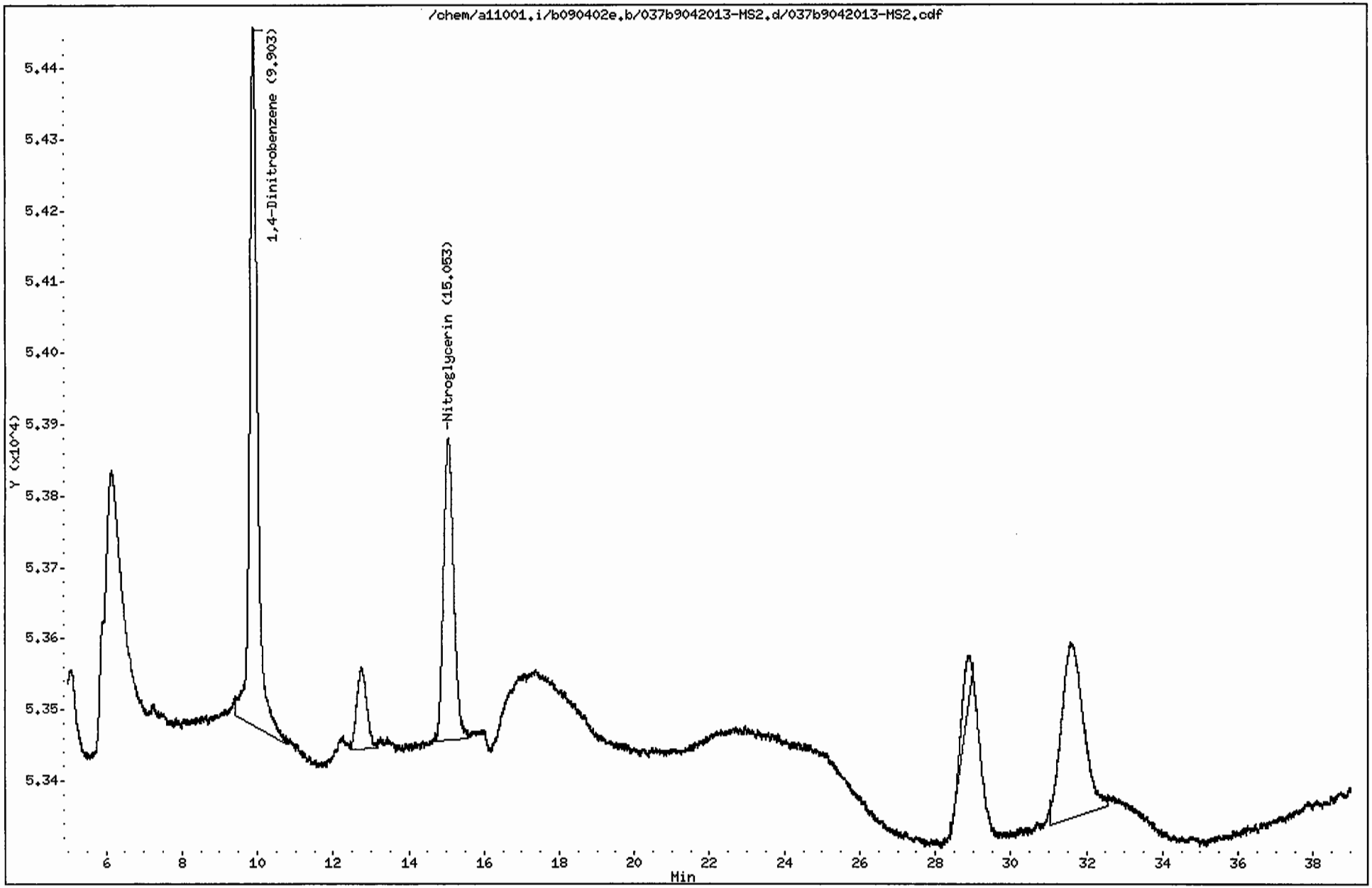
Sample Info: 9042013-MS2

Volume Injected (uL): 10.0

Operator: 2646

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-MS2 Client Smp Id : 13MW5MS
Sample Type : MS Sublist : nitro
Inj Date : 22-APR-2009 21:18 Inst ID : A11001
Operator : 2646 Spike Sublist : NITRO
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : 13MW5MS

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	14364	1398	1,4-Dinitrobenzene	10.27696	20.55393		102.8	50 - 150	
12.77			2049								
15.05	14.91	15.11	7890	881	Nitroglycerin	8.952855	17.90571	16.00000	89.5	50 - 150	
28.91			1258								
31.59			9915								

AD 4/23/09

d. Matrix Spike Duplicate Data

- Tabulated Results (Form I)

- Chromatograms and data system printout(s)

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8330

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MSD1

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/20/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-35-4	1,3,5-Trinitrobenzene	6.8	
99-65-0	1,3-Dinitrobenzene	7.8	
606-20-2	2,6-Dinitrotoluene	16	
121-14-2	2,4-Dinitrotoluene	9.4	

Data File: /chem/a11001.i/c090404f.b/036c9042013-MSD1.d

Date : 20-APR-2009 23:07

Client ID: 13MW5MSD

Instrument: a11001.i

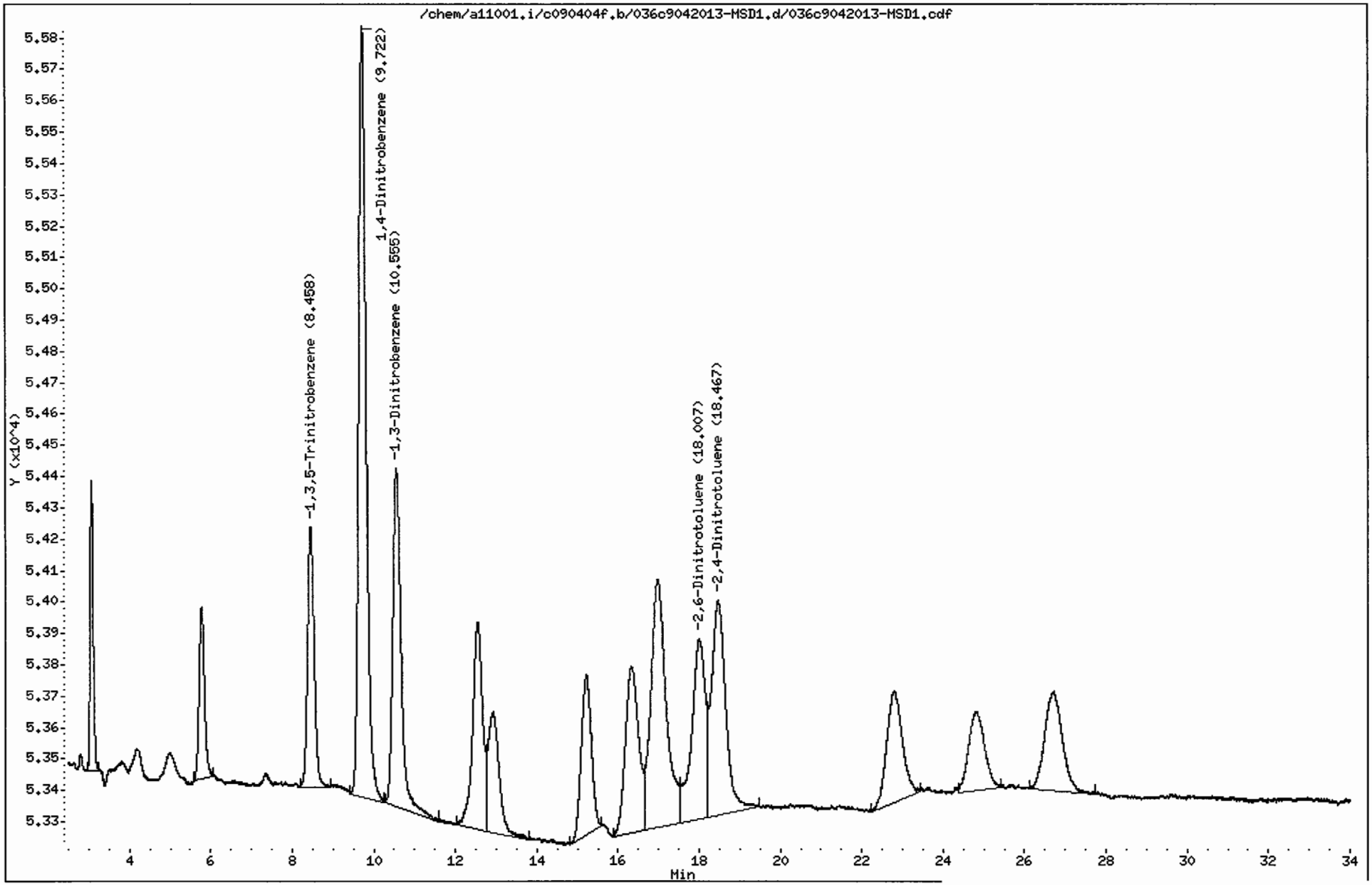
Sample Info: 9042013-MSD1

Volume Injected (uL): 10.0

Operator: 2512

Column phase: C18

Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-MSD1 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : HWMU13
Inj Date : 20-APR-2009 23:07 Inst ID : A11001
Operator : 2512 Spike Sublist : HWMU13
Method : /chem/a11001.i/c090404f.b/8330_10uL_v3.m
Misc. Info : None

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
2.07			545								
2.16			649								
3.07			4875								
5.78			4998								
8.46	8.21	8.61	9320	2757	1,3,5-Trinitrobenzene	3.379535	6.759070	2.500000	84.5	50 - 150	
9.72	9.47	9.87	30763	3385	1,4-Dinitrobenzene	9.087531	18.17506		90.9	39 - 132	
10.56	10.31	10.71	15033	3861	1,3-Dinitrobenzene	3.893648	7.787295	2.500000	97.3	50 - 150	
12.54			11151								
12.92			7215								
15.22			8731								
16.34			12031								
16.98			21177								
18.01	17.64	18.24	13382	1712	2,6-Dinitrotoluene	7.817356	15.63471	5.000000	130.3	50 - 150	
18.47	18.10	18.70	16634	3554	2,4-Dinitrotoluene	4.680458	9.360916	5.000000	117.0	50 - 150	
22.80			9410								
24.82			6877								
26.72			9600								

Kelly 4/21/09

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13MW5MSD

Lab Name: COMPUCHEM Contract: 8332

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: 0904098

Matrix: (soil/water) WATER Lab Sample ID: 9042013-MSD2

Sample wt/vol: 500.0 (g/ml) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/15/09

Extraction: (SepF/Cont/Sonc) SOLIDPHASE Date Extracted:04/20/09

Concentrated Extract Volume: 10000(ul) Date Analyzed: 04/22/09

Injection Volume: 10.0(uL) Dilution Factor: 1.0

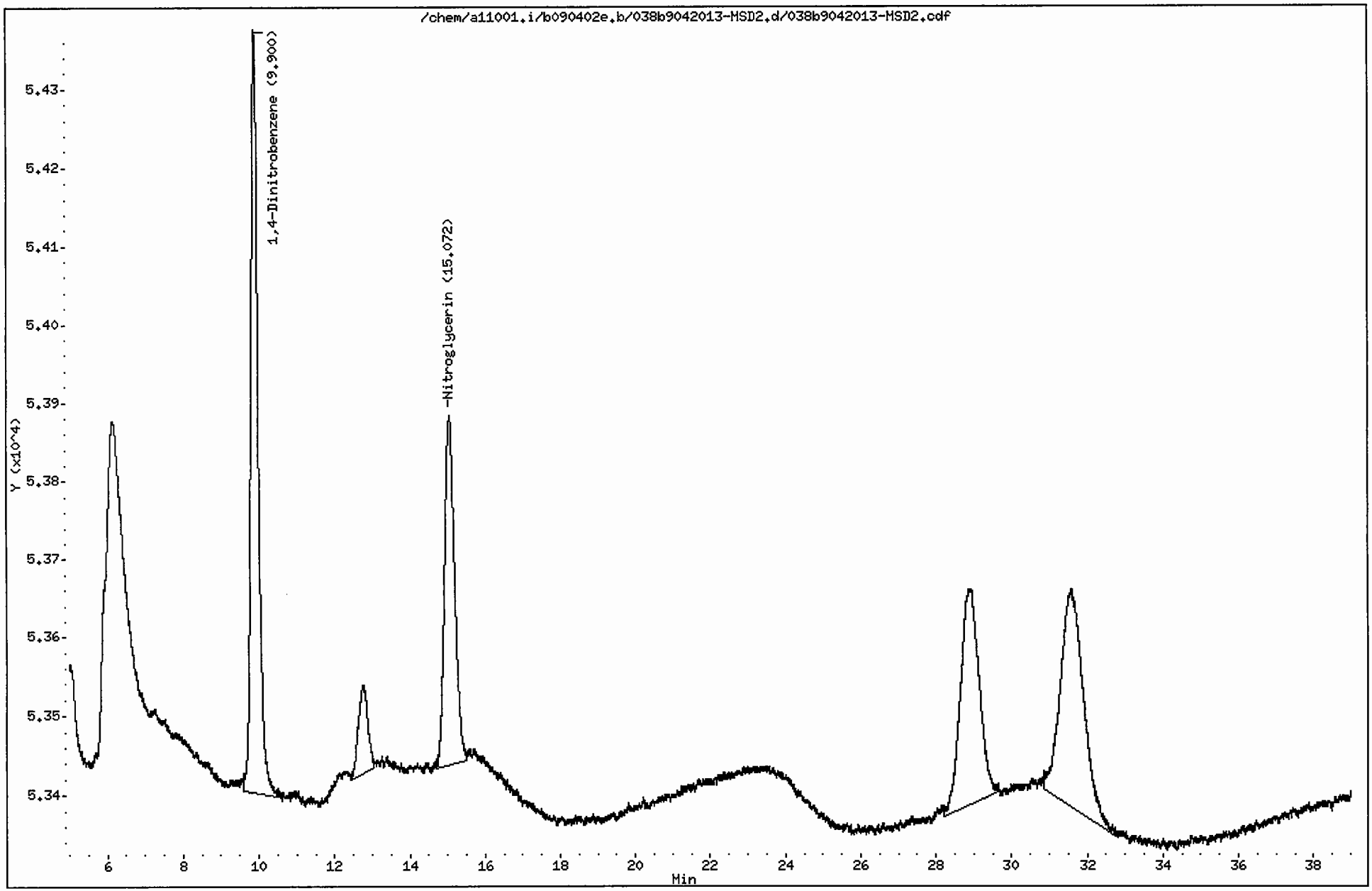
GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
55-63-0	Nitroglycerin	19	

FORM I PEST

Data File: /chem/a11001.i/b090402e.b/038b9042013-MSD2.d
Date : 22-APR-2009 21:59
Client ID: 13MW5MSD
Sample Info: 9042013-MSD2
Volume Injected (uL): 10.0
Column phase: C18

Instrument: a11001.i
Operator: 2646
Column diameter: 4.60



CompuChem

Lab Smp Id : 9042013-MSD2 Client Smp Id : 13MW5MSD
Sample Type : MSD Sublist : nitro
Inj Date : 22-APR-2009 21:59 Inst ID : A11001
Operator : 2646 Spike Sublist : NITRO
Method : /chem/a11001.i/b090402e.b/8332TP_10uL_v1.m
Misc. Info : 13MW5MSD

Formula: Conc=(Area/RF) * DF * (Uf * Vt/(Vi * Vo))

DF Dilution Factor: 1.0 Uf GPC Unit Factor: 1
Vt Final Volume: 10000(ul) Vi Injection Volume: 10(ul)
Vo Sample Volume: 500.0(ml)

RT	RT WINDOW		AREA	QUANT RF	COMPOUND	CONCENTRATIONS ON-COLUMN (Ng)	CONCENTRATIONS FINAL (ug/L)	ADJUSTED PQL (ug/L)	% REC	RECOVERY LIMITS	FLAGS
9.90	9.78	9.98	12877	1398	1,4-Dinitrobenzene	9.212775	18.42555		92.1	50 - 150	
12.78			1941								
15.07	14.91	15.11	8256	881	Nitroglycerin	9.367565	18.73513	16.00000	93.7	50 - 150	
28.89			9473								
31.61			11679								

AD 4/23/09

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Total # of Pages in this Document 207

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

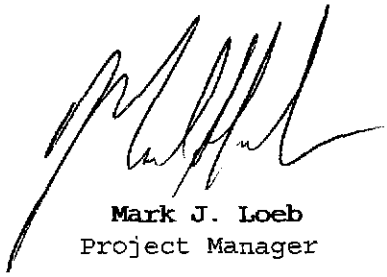
RAAP, RADFORD, VIRGINIA 2009

Lot #: A9F180214

Janet Frazier

Draper Aden & Associates Inc
2206 South Main Street
Blackburg, VA 24060

TESTAMERICA LABORATORIES, INC.



Mark J. Loeb
Project Manager

July 7, 2009

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CASE NARRATIVE

A9F180214

The following report contains the analytical results for five water samples and one quality control sample submitted to TestAmerica North Canton by Draper Aden Associates from the RAAP, Radford, Virginia 2009 Site. The samples were received June 18, 2009, according to documented sample acceptance procedures.

The Total Sulfides analysis was performed at the TestAmerica Pittsburgh Laboratory.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Janet Frazier on June 26, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.2°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The matrix spike/matrix spike duplicate(s) for batch(es) 9177173 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A9F180214

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
13MW5 06/17/09 09:15 004				
Total Sulfide	1.6 B	3.0	mg/L	SW846 9030B/9034
13MW6 06/17/09 08:25 005				
Total Sulfide	2.4 B	3.0	mg/L	SW846 9030B/9034
13MW7 06/17/09 11:55 006				
Total Sulfide	4.0	3.0	mg/L	SW846 9030B/9034

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METHOD SUMMARY

METHODS SUMMARY

A9F180214

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Sulfides, Total 9030B/9034	SW846 9030B/903	SW846 9030B/903
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

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SAMPLE SUMMARY

SAMPLE SUMMARY

A9F180214

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LE6WG	001	TRIP BLANK 1	06/17/09	
LE6W8	002	13MW3	06/17/09	11:00
LE6XD	003	13MW4	06/17/09	10:10
LE6XJ	004	13MW5	06/17/09	09:15
LE6XL	005	13MW6	06/17/09	08:25
LE6XP	006	13MW7	06/17/09	11:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SHIPPING
AND
RECEIVING DOCUMENTS

CHAIN OF CUSTODY RECORD

JUF 6/15/09 Batch 02 JUF

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-330-966-9387

Client:	Draper Aden Associates	**Consultant:**	Draper Aden Associates	**Sample Site:**	RAAP, Radford, Virginia
Attn:	0	**Attn:**	Janet C. Frazier	**Location:**	HWMU13/Open Burning Ground
Address:	0	**Address:**	2206 South Main Street	**Event:**	June 2009 Verification Groundwater Monito
	0		Blacksburg, Virginia 24060	**DAA JN:**	B03204-06 07
Phone:	0	**Phone:**	(540) 552-0444	**Lab JN:**	
Fax:	0	**Fax:**	(540) 552-0291		
Fax:	0				

Project Specific (PS) QC: ☑ YES ☐ NO
Sample Collection for Project Complete? ☑ YES ☐ NO
Carrier: _____
Tracking Number: _____

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCl; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (Specify); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: ☑ YES ☐ NO
Bill: ☐ Client ☑ Consultant
Preserved and shipped on ice: ☑ YES ☐ NO

Box 4 - Sample Type				G	G								
Box 3 - Filtered/Unfiltered				U	U								
Required pH of Sample				>9	<2								
Box 2 - Preservative				E / F	A								
Box 5 - Sample Container Type				1-1L P	3-40 ml V								
Sample ID	**Date: 2009**	**Time**	**Box 1: Matrix**	**Number of Bottles**	**Sulfide - 9034/9030B**	**8260B/5030B 25 ml purge volume (Sample for 1,1,1-trichloroethane& trichlorofluoromethane ONLY)**							
Trip Blank 1	6/17		T	3		X							
13MW3		1100	GW	3		X							
13MW4		1010	GW	1	X								
13MW5		0915	GW	1	X								
13MW6		0825	GW	1	X								
13MW7	6/17	1155	GW	1	X								

GENERAL NOTES: Level 4 with EDD and PDF. (Sample for 1,1,1-trichloroethane & trichlorofluoromethane ONLY)

√ report to MDL. JUF 6/15/09

8260B - 25 ml purge

JUF 6-15-09

Clients Special Instructions: Level 4 with EDD and PDF.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No

Describe problems, if any:

Sampler Name (Print): Dale Slaughter	Date: 6/17/09	#1 Relinquished by (Signature): Dale Slaughter	Date: 6/17/09	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature: Dale Slaughter	Time: 0600	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Tyler Emery	Date: 6/17/09	#1 Received by (Signature):	Date:	#2 Received by (Signature):	Date: 6-18-09	30 DYS ORG/6 MTHS INORG
Sampler Signature: Tyler Emery	Time: 0600	Company Name:	Time:	Company Name: TANC	Time: 1000	

Y/1 JUF 6/19

North Canton

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A7F180214

North Canton Facility

Client Draper Aden Project RAAP Radford By: [signature] (Signature)

Cooler Received on 6-18-09 Opened on 6-18-09

FedEx ☐ UPS ☒ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____

TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 3.2 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☒ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐

Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

_____

_____

_____

_____

_____

_____

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 031909-HNO_3; *Sulfuric Acid Lot#* 100108-H_2SO_4; *Sodium Hydroxide Lot#* 073007 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 050205-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
4	7.9	6-18-09	[initials]
5	7.9	"	"
6	7.9	"	"
7	7.9	"	"

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
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GCMS VOLATILE DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QC SUMMARY DATA

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F180214

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	INTRA-LAB QC	104	105	97	88	00
02	TRIP BLANK 1	104	108	97	87	00
03	13MW3	104	109	93	84	00
04	METHOD BLK. LFM6Q1AA	98	99	99	92	00
05	LCS LFM6Q1AC	98	101	102	110	00
06	LAB MS/MSD D	96	99	101	111	00
07	LCSD LFM6Q1AD	97	95	101	109	00
08	LAB MS/MSD S	99	98	102	112	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(73-122)
SRG02	= 1,2-Dichloroethane-d4	(61-128)
SRG03	= Toluene-d8	(76-110)
SRG04	= 4-Bromofluorobenzene	(74-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AC
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Chloromethane	10	7.3	73	48- 123	
Bromomethane	10	11	105	64- 129	
Vinyl chloride	10	7.2	72	61- 120	
Chloroethane	10	7.4	74	66- 126	
Methylene chloride	10	9.1	91	78- 118	
Acetone	10	8.5	85	22- 200	
Carbon disulfide	10	9.6	96	73- 139	
1,1-Dichloroethene	10	9.3	93	63- 130	
1,1-Dichloroethane	10	10	101	86- 123	
1,2-Dichloroethene (total	20	20	99	82- 116	
Chloroform	10	10	102	84- 128	
1,2-Dichloroethane	10	11	107	79- 136	
2-Butanone	10	8.7	87	28- 237	
1,1,1-Trichloroethane	10	11	114	78- 140	
Carbon tetrachloride	10	11	113	75- 149	
Bromodichloromethane	10	11	106	87- 130	
1,2-Dichloropropane	10	9.3	93	82- 115	
cis-1,3-Dichloropropene	10	9.7	97	84- 130	
Trichloroethene	10	9.4	94	75- 122	
Dibromochloromethane	10	11	109	81- 138	
1,1,2-Trichloroethane	10	9.5	95	83- 122	
Benzene	10	9.4	94	80- 116	
trans-1,3-Dichloropropene	10	11	112	84- 130	
Bromoform	10	9.9	99	76- 150	
4-Methyl-2-pentanone	10	9.2	92	78- 141	
2-Hexanone	10	10	105	35- 200	
Tetrachloroethene	10	10	100	88- 113	
1,1,2,2-Tetrachloroethane	10	9.3	93	85- 118	
Toluene	10	10	104	74- 119	
Chlorobenzene	10	10	104	76- 117	
Ethylbenzene	10	11	109	86- 116	

(Continued on next page)

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AC
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Styrene	10	10	101	85- 117	
Xylenes (total)	30	34	112	87- 116	
cis-1,2-Dichloroethene	10	10	102	85- 113	
trans-1,2-Dichloroethene	10	9.6	96	80- 120	
Dichlorodifluoromethane	10	8.0	80	70- 130	
Trichlorofluoromethane	10	11	110	70- 130	
1,1,2-Trichloro-1,2,2-tri	10	11	106	70- 130	
Methyl acetate	10	7.5	75	70- 130	
Methyl tert-butyl ether (	10	11	107	70- 130	
Cyclohexane	10	7.1	71	70- 130	
Methylcyclohexane	10	6.8	68*	70- 130	a
1,2-Dibromoethane	10	9.8	98	70- 130	
Isopropylbenzene	10	10	105	70- 130	
1,3-Dichlorobenzene	10	11	110	70- 130	
1,4-Dichlorobenzene	10	11	109	70- 130	
1,2-Dichlorobenzene	10	10	105	70- 130	
1,2-Dibromo-3-chloropropa	10	9.3	93	70- 130	
1,2,4-Trichlorobenzene	10	10	102	70- 130	
Methyl tert-butyl ether	10	11	107	70- 130	
n-Hexane	10	8.3	83	70- 130	
o-Xylene	10	11	113	70- 130	
m-Xylene & p-Xylene	20	22	111	70- 130	
2-Chloroethyl vinyl ether	10	6.2	62*	70- 130	a
Acetonitrile	30	22	73	50- 130	
Acrolein	30	25	83	50- 130	
Vinyl acetate	10	11	107	70- 130	
Acrylonitrile	30	23	77	50- 130	
Bromobenzene	10	11	108	70- 130	
Bromochloromethane	10	9.7	97	70- 130	
n-Butylbenzene	10	9.6	96	70- 130	
sec-Butylbenzene	10	11	109	70- 130	

(Continued on next page)

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AC
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
tert-Butylbenzene	10	11	113	70- 130	
2-Chlorotoluene	10	11	111	70- 130	
4-Chlorotoluene	10	11	113	70- 130	
Dibromomethane	10	9.7	97	70- 130	
1,3-Dichloropropane	10	9.6	96	70- 130	
2,2-Dichloropropane	10	12	122	70- 130	
1,1-Dichloropropene	10	9.8	98	70- 130	
Hexachlorobutadiene	10	9.6	96	70- 130	
Iodomethane	10	10	100	70- 130	
Isopropyl ether	10	10	100	70- 130	
p-Isopropyltoluene	10	11	105	70- 130	
Naphthalene	10	8.2	82	70- 130	
n-Propylbenzene	10	12	120	70- 130	
1,1,1,2-Tetrachloroethane	10	11	112	70- 130	
1,2,3-Trichlorobenzene	10	9.5	95	70- 130	
1,2,3-Trichloropropane	10	10	102	70- 130	
1,2,4-Trimethylbenzene	10	11	110	70- 130	
1,3,5-Trimethylbenzene	10	12	116	70- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 2 out of 80 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AD
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Dibromomethane	10	9.7	97	70 - 130	
1,3-Dichloropropane	10	9.5	95	70 - 130	
2,2-Dichloropropane	10	12	117	70 - 130	
1,1-Dichloropropene	10	9.6	96	70 - 130	
Hexachlorobutadiene	10	9.2	92	70 - 130	
Iodomethane	10	9.6	96	70 - 130	
Isopropyl ether	10	9.4	94	70 - 130	
p-Isopropyltoluene	10	10	102	70 - 130	
Naphthalene	10	7.3	73	70 - 130	
n-Propylbenzene	10	12	120	70 - 130	
1,1,1,2-Tetrachloroethane	10	11	106	70 - 130	
1,2,3-Trichlorobenzene	10	8.5	85	70 - 130	
1,2,3-Trichloropropane	10	11	106	70 - 130	
1,2,4-Trimethylbenzene	10	11	107	70 - 130	
1,3,5-Trimethylbenzene	10	11	115	70 - 130	
Chloromethane	10	6.1	61	48 - 123	
Bromomethane	10	8.6	86	64 - 129	
Vinyl chloride	10	6.8	68	61 - 120	
Chloroethane	10	6.0	60*	66 - 126	a
Methylene chloride	10	8.6	86	78 - 118	
Acetone	10	7.3	73	22 - 200	
Carbon disulfide	10	9.2	92	73 - 139	
1,1-Dichloroethene	10	9.1	91	63 - 130	
1,1-Dichloroethane	10	9.7	97	86 - 123	
1,2-Dichloroethene (total	20	19	95	82 - 116	
Chloroform	10	9.8	98	84 - 128	
1,2-Dichloroethane	10	10	102	79 - 136	
2-Butanone	10	8.2	82	28 - 237	
1,1,1-Trichloroethane	10	11	110	78 - 140	
Carbon tetrachloride	10	11	110	75 - 149	
Bromodichloromethane	10	10	101	87 - 130	

(Continued on next page)

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AD
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2-Dichloropropane	10	8.9	89	82 - 115	
cis-1,3-Dichloropropene	10	9.4	94	84 - 130	
Trichloroethene	10	9.1	91	75 - 122	
Dibromochloromethane	10	11	106	81 - 138	
1,1,2-Trichloroethane	10	9.2	92	83 - 122	
Benzene	10	8.9	89	80 - 116	
trans-1,3-Dichloropropene	10	11	106	84 - 130	
Bromoform	10	9.7	97	76 - 150	
4-Methyl-2-pentanone	10	8.8	88	78 - 141	
2-Hexanone	10	9.6	96	35 - 200	
Tetrachloroethene	10	10	100	88 - 113	
1,1,2,2-Tetrachloroethane	10	9.1	91	85 - 118	
Toluene	10	10	102	74 - 119	
Chlorobenzene	10	10	101	76 - 117	
Ethylbenzene	10	11	107	86 - 116	
Styrene	10	9.7	97	85 - 117	
Xylenes (total)	30	32	108	87 - 116	
cis-1,2-Dichloroethene	10	9.8	98	85 - 113	
trans-1,2-Dichloroethene	10	9.3	93	80 - 120	
Dichlorodifluoromethane	10	7.3	73	70 - 130	
Trichlorofluoromethane	10	10	102	70 - 130	
1,1,2-Trichloro-1,2,2-tri	10	10	101	70 - 130	
Methyl acetate	10	7.0	70	70 - 130	
Methyl tert-butyl ether (	10	10	102	70 - 130	
Cyclohexane	10	6.9	69*	70 - 130	a
Methylcyclohexane	10	6.6	66*	70 - 130	a
1,2-Dibromoethane	10	9.3	93	70 - 130	
Isopropylbenzene	10	10	101	70 - 130	
1,3-Dichlorobenzene	10	11	106	70 - 130	
1,4-Dichlorobenzene	10	10	104	70 - 130	
1,2-Dichlorobenzene	10	10	103	70 - 130	

(Continued on next page)

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Lot #: A9F260000 WO #: LFM6Q1AD
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,2-Dibromo-3-chloropropa	10	8.7	87	70- 130	
1,2,4-Trichlorobenzene	10	9.3	93	70- 130	
Methyl tert-butyl ether	10	10	102	70- 130	
n-Hexane	10	7.6	76	70- 130	
o-Xylene	10	11	109	70- 130	
m-Xylene & p-Xylene	20	21	107	70- 130	
2-Chloroethyl vinyl ether	10	5.9	59*	70- 130	a
Acetonitrile	30	21	70	50- 130	
Acrolein	30	22	72	50- 130	
Vinyl acetate	10	10	105	70- 130	
Acrylonitrile	30	22	73	50- 130	
Bromobenzene	10	11	106	70- 130	
Bromochloromethane	10	9.0	90	70- 130	
n-Butylbenzene	10	9.2	92	70- 130	
sec-Butylbenzene	10	11	107	70- 130	
tert-Butylbenzene	10	11	110	70- 130	
2-Chlorotoluene	10	11	110	70- 130	
4-Chlorotoluene	10	11	111	70- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 4 out of 80 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CN
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	10	ND	9.5	95	62- 130	
Chloromethane	10	ND	7.3	73	40- 137	
Bromomethane	10	ND	12	118	55- 145	
Vinyl chloride	10	ND	7.6	76*	88- 126	a
Chloroethane	10	ND	10	102	59- 142	
Methylene chloride	10	ND	8.9	89	82- 115	
Acetone	10	ND	8.8	88	45- 128	
Carbon disulfide	10	ND	9.3	93	69- 138	
1,1-Dichloroethane	10	ND	10	101	88- 127	
1,2-Dichloroethene (total	20	ND	20	98	86- 115	
Chloroform	10	ND	10	102	83- 141	
1,2-Dichloroethane	10	ND	10	101	71- 160	
2-Butanone	10	ND	7.2	72	71- 123	
1,1,1-Trichloroethane	10	ND	11	115	71- 162	
Carbon tetrachloride	10	ND	11	113	63- 176	
Bromodichloromethane	10	ND	9.8	98	80- 146	
1,2-Dichloropropane	10	ND	8.9	89	87- 114	
cis-1,3-Dichloropropene	10	ND	8.1	81*	82- 130	a
Trichloroethene	10	ND	9.2	92	62- 130	
Dibromochloromethane	10	ND	9.7	97	71- 158	
1,1,2-Trichloroethane	10	ND	8.8	88	86- 129	
Benzene	10	ND	9.0	90	78- 118	
trans-1,3-Dichloropropene	10	ND	9.6	96	73- 147	
Bromoform	10	ND	8.1	81	58- 176	
4-Methyl-2-pentanone	10	ND	7.3	73*	82- 135	a
2-Hexanone	10	ND	8.1	81	81- 128	
Tetrachloroethene	10	ND	9.8	98	85- 121	
1,1,2,2-Tetrachloroethane	10	ND	8.2	82*	88- 116	a

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CN
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
Toluene	10	ND	10	101	70 - 119	
Chlorobenzene	10	ND	10	102	76 - 117	
Ethylbenzene	10	ND	10	104	86 - 132	
Styrene	10	ND	9.5	95	83 - 120	
Xylenes (total)	30	ND	32	107	89 - 121	
cis-1,2-Dichloroethene	10	ND	9.9	99	87 - 114	
trans-1,2-Dichloroethene	10	ND	9.8	98	85 - 116	
Dichlorodifluoromethane	10	ND	7.4	74	70 - 130	
Trichlorofluoromethane	10	ND	11	111	70 - 130	
1,1,2-Trichloro-1,2,2-tri	10	ND	10	101	70 - 130	
Methyl acetate	10	ND	6.7	67*	70 - 130	a
Methyl tert-butyl ether (	10	ND	9.5	95	70 - 130	
Cyclohexane	10	ND	6.5	65*	70 - 130	a
Methylcyclohexane	10	ND	5.9	59*	70 - 130	a
1,2-Dibromoethane	10	ND	8.8	88	70 - 130	
Isopropylbenzene	10	ND	9.9	99	70 - 130	
1,3-Dichlorobenzene	10	ND	10	104	70 - 130	
1,4-Dichlorobenzene	10	ND	10	102	70 - 130	
1,2-Dichlorobenzene	10	ND	10	100	70 - 130	
1,2-Dibromo-3-chloropropa	10	ND	7.0	70	70 - 130	
1,2,4-Trichlorobenzene	10	ND	8.4	84	70 - 130	
Methyl tert-butyl ether	10	ND	9.5	95	70 - 130	
n-Hexane	10	ND	6.4	64*	70 - 130	a
o-Xylene	10	ND	11	107	70 - 130	
m-Xylene & p-Xylene	20	ND	22	108	70 - 130	
2-Chloroethyl vinyl ether	10	ND	0.0	0*	70 - 130	a
Acetonitrile	30	ND	20	68	50 - 130	
Acrolein	30	ND	22	73	50 - 130	

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CN
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
Acrylonitrile	30	ND	20	68	50 - 130	
Vinyl acetate	10	ND	8.4	84	70 - 130	
Bromobenzene	10	ND	10	101	70 - 130	
Bromochloromethane	10	ND	9.2	92	70 - 130	
n-Butylbenzene	10	ND	8.6	86	70 - 130	
sec-Butylbenzene	10	ND	10	101	70 - 130	
tert-Butylbenzene	10	ND	10	104	70 - 130	
2-Chlorotoluene	10	ND	10	103	70 - 130	
4-Chlorotoluene	10	ND	11	108	70 - 130	
Dibromomethane	10	ND	9.1	91	70 - 130	
1,3-Dichloropropane	10	ND	8.9	89	70 - 130	
2,2-Dichloropropane	10	ND	11	114	70 - 130	
1,1-Dichloropropene	10	ND	9.5	95	70 - 130	
Hexachlorobutadiene	10	ND	8.1	81	70 - 130	
Iodomethane	10	ND	10	102	70 - 130	
Isopropyl ether	10	ND	9.3	93	70 - 130	
p-Isopropyltoluene	10	ND	9.9	99	70 - 130	
Naphthalene	10	ND	6.0	60*	70 - 130	a
n-Propylbenzene	10	ND	11	111	70 - 130	
1,1,1,2-Tetrachloroethane	10	ND	11	107	70 - 130	
1,2,3-Trichlorobenzene	10	ND	7.8	78	70 - 130	
1,2,3-Trichloropropane	10	ND	9.0	90	70 - 130	
1,2,4-Trimethylbenzene	10	ND	10	102	70 - 130	
1,3,5-Trimethylbenzene	10	ND	11	109	70 - 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 10 out of 80 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CP
BATCH: 9177173

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Bromomethane	10	11	113	4.3	30	55- 145	
Vinyl chloride	10	7.5	75*	1.4	30	88- 126	a
Chloroethane	10	9.1	91	11	30	59- 142	
Methylene chloride	10	8.6	86	3.4	30	82- 115	
Acetone	10	9.4	94	5.9	30	45- 128	
Carbon disulfide	10	9.2	92	1.7	41	69- 138	
1,1-Dichloroethane	10	9.9	99	1.8	30	88- 127	
1,2-Dichloroethene (total	20	19	97	1.4	30	86- 115	
Chloroform	10	9.9	99	2.5	30	83- 141	
1,2-Dichloroethane	10	10	100	0.85	30	71- 160	
2-Butanone	10	7.5	75	4.3	30	71- 123	
1,1,1-Trichloroethane	10	11	113	1.2	30	71- 162	
Carbon tetrachloride	10	11	110	3.2	30	63- 176	
Bromodichloromethane	10	9.6	96	2.2	30	80- 146	
1,2-Dichloropropane	10	8.9	89	0.47	30	87- 114	
cis-1,3-Dichloropropene	10	8.0	80*	1.2	30	82- 130	a
Trichloroethene	10	9.1	91	0.35	20	62- 130	
Dibromochloromethane	10	9.9	99	2.4	30	71- 158	
1,1-Dichloroethene	10	9.5	95	0.21	20	62- 130	
Chloromethane	10	7.2	72	0.63	39	40- 137	
1,1,2-Trichloroethane	10	8.8	88	0.27	30	86- 129	
Benzene	10	9.0	90	0.24	20	78- 118	
trans-1,3-Dichloropropene	10	9.5	95	1.5	30	73- 147	
Bromoform	10	8.2	82	1.8	30	58- 176	
4-Methyl-2-pentanone	10	7.2	72*	2.6	30	82- 135	a
2-Hexanone	10	8.3	83	1.6	30	81- 128	
Tetrachloroethene	10	9.8	98	0.35	30	85- 121	
1,1,2,2-Tetrachloroethane	10	8.3	83*	1.3	30	88- 116	a

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SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CP
BATCH: 9177173

COMPOUND	SPIKE ADDED	MSD CONCENT.	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Toluene	10	10	102	1.0	20	70- 119	
Chlorobenzene	10	10	102	0.26	20	76- 117	
Ethylbenzene	10	11	106	1.7	30	86- 132	
Styrene	10	9.6	96	0.95	30	83- 120	
Xylenes (total)	30	32	107	0.16	30	89- 121	
cis-1,2-Dichloroethene	10	9.8	98	0.80	30	87- 114	
trans-1,2-Dichloroethene	10	9.6	96	2.1	30	85- 116	
Dichlorodifluoromethane	10	7.5	75	0.75	30	70- 130	
Trichlorofluoromethane	10	11	112	0.77	30	70- 130	
1,1,2-Trichloro-1,2,2-tri	10	10	103	2.8	30	70- 130	
Methyl acetate	10	6.8	68*	2.1	30	70- 130	a
Methyl tert-butyl ether (	10	9.5	95	0.020	30	70- 130	
Cyclohexane	10	6.8	68*	3.8	30	70- 130	a
Methylcyclohexane	10	6.2	62*	4.8	30	70- 130	a
1,2-Dibromoethane	10	8.8	88	0.20	30	70- 130	
Isopropylbenzene	10	9.9	99	0.58	30	70- 130	
1,3-Dichlorobenzene	10	11	106	1.9	30	70- 130	
1,4-Dichlorobenzene	10	10	104	1.7	30	70- 130	
1,2-Dichlorobenzene	10	10	100	0.050	30	70- 130	
1,2-Dibromo-3-chloropropa	10	7.8	78	12	30	70- 130	
1,2,4-Trichlorobenzene	10	8.7	87	3.4	30	70- 130	
Methyl tert-butyl ether	10	9.5	95	0.020	30	70- 130	
n-Hexane	10	7.0	70	9.8	30	70- 130	
o-Xylene	10	11	107	0.29	30	70- 130	
m-Xylene & p-Xylene	20	21	107	0.38	30	70- 130	
2-Chloroethyl vinyl ether	10	0.0	0*	0.0	30	70- 130	a
Acetonitrile	30	20	66	1.7	30	50- 130	
Acrolein	30	22	74	0.86	30	50- 130	

(Continued on next page)

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Draper Aden Associates Inc

Lab Code: TALCAN SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A9F180168 WO #: LE6J31CP
BATCH: 9177173

COMPOUND	SPIKE ADDED	MSD CONCENT.	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Acrylonitrile	30	21	70	2.2	30	50- 130	
Vinyl acetate	10	8.7	87	3.6	30	70- 130	
Bromobenzene	10	10	101	0.11	30	70- 130	
Bromochloromethane	10	9.0	90	2.1	30	70- 130	
n-Butylbenzene	10	8.8	88	2.1	30	70- 130	
sec-Butylbenzene	10	10	102	1.3	30	70- 130	
tert-Butylbenzene	10	12	116	12	30	70- 130	
2-Chlorotoluene	10	11	105	2.3	30	70- 130	
4-Chlorotoluene	10	11	107	0.48	30	70- 130	
Dibromomethane	10	9.3	93	1.6	30	70- 130	
1,3-Dichloropropane	10	9.0	90	0.36	30	70- 130	
2,2-Dichloropropane	10	11	111	3.0	30	70- 130	
1,1-Dichloropropene	10	9.5	95	0.17	30	70- 130	
Hexachlorobutadiene	10	8.7	87	7.4	30	70- 130	
Iodomethane	10	10	100	2.2	30	70- 130	
Isopropyl ether	10	9.4	94	0.29	30	70- 130	
p-Isopropyltoluene	10	9.9	99	0.010	30	70- 130	
Naphthalene	10	6.6	66*	8.7	30	70- 130	a
n-Propylbenzene	10	11	113	1.6	30	70- 130	
1,1,1,2-Tetrachloroethane	10	11	106	1.2	30	70- 130	
1,2,3-Trichlorobenzene	10	8.4	84	8.2	30	70- 130	
1,2,3-Trichloropropane	10	9.2	92	1.7	30	70- 130	
1,2,4-Trimethylbenzene	10	10	103	0.19	30	70- 130	
1,3,5-Trimethylbenzene	10	11	109	0.38	30	70- 130	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 80 outside limits
Spike Recovery: 9 out of 80 outside limits

COMMENTS:

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: LFM6Q1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALCAN

SDG Number:

Lab File ID: UXM8944.D

Lot Number: A9F180214

Date Analyzed: 06/25/09

Time Analyzed: 16:21

Matrix: WATER

Date Extracted: 06/25/09

GC Column: DB624 ID: .18

Extraction Method: 5030B/8260B

Instrument ID: UX16

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	LE6J31AR	UXM8956.D	06/25/09	20:48
02	LAB MS/MSD	LE6J31CN S	UXM8957.D	06/25/09	21:09
03	LAB MS/MSD	LE6J31CP D	UXM8958.D	06/25/09	21:30
04	TRIP BLANK 1	LE6WG1AA	UXM8963.D	06/25/09	23:14
05	13MW3	LE6W81AA	UXM8964.D	06/25/09	23:34
06	CHECK SAMPLE	LFM6Q1AC C	UXM8942.D	06/25/09	15:39
07	DUPLICATE CHECK	LFM6Q1AD L	UXM8943.D	06/25/09	16:00
08					
09					
10					
11					
12					
13					
14					
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16					
17					
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COMMENTS:

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: A9F180214

Lab File ID: BFB1088 BFB Injection Date: 05/07/09

Instrument ID: A3UX16 BFB Injection Time: 1110

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	44.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 100.0% of mass 95	81.8
175	5.0 - 9.0% of mass 174	5.4 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.6 (96.1)1
177	5.0 - 9.0% of mass 176	5.2 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXM7626	05/07/09	1342
02	VSTD020	100NG-IC	UXM7627	05/07/09	1403
03	VSTD010	50NG-IC	UXM7628	05/07/09	1424
04	VSTD005	25NG-IC	UXM7629	05/07/09	1445
05	VSTD002	10NG-IC	UXM7630	05/07/09	1505
06	VSTD010	50NG-IC	UXM7631	05/07/09	1526
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: A9F180214

Lab File ID: BFB1142 BFB Injection Date: 06/25/09

Instrument ID: A3UX16 BFB Injection Time: 1350

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	51.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	76.3
175	5.0 - 9.0% of mass 174	5.7 (7.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.4 (97.6)1
177	5.0 - 9.0% of mass 176	4.8 (6.4)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXM8941	06/25/09	1518
02	LFM6Q-CHK	LFM6Q1AC	UXM8942	06/25/09	1539
03	LFM6Q-CKDUP	LFM6Q1AD	UXM8943	06/25/09	1600
04	LFM6Q-BLK	LFM6Q1AA	UXM8944	06/25/09	1621
05	TRIP BLANK 1	LE6WG1AA	UXM8963	06/25/09	2314
06	13MW3	LE6W81AA	UXM8964	06/25/09	2334
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: A9F180214

Lab File ID (Standard): UXM8941 Date Analyzed: 06/25/09

Instrument ID: A3UX16 Time Analyzed: 1518

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(CBZ) AREA #	RT	IS2(DCB) AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	691311	8.34	360329	10.57	948376	5.64
	UPPER LIMIT	1382622	8.84	720658	11.07	1896752	6.14
	LOWER LIMIT	345656	7.84	180165	10.07	474188	5.14
	EPA SAMPLE NO.						
01	LFM6Q-CHK	667308	8.34	362127	10.57	943691	5.64
02	LFM6Q-CKDUP	710551	8.34	369998	10.57	1003334	5.64
03	LFM6Q-BLK	650662	8.34	289942	10.58	929285	5.64
04	TRIP BLANK 1	589271	8.34	249387	10.58	819786	5.64
05	13MW3	593418	8.34	248490	10.57	807968	5.64
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SAMPLE DATA

Draper Aden Associates Inc

Client Sample ID: TRIP BLANK 1

GC/MS Volatiles

Lot-Sample #...: A9F180214-001 **Work Order #...:** LE6WG1AA **Matrix.....:** WQ
Date Sampled...: 06/17/09 **Date Received..:** 06/18/09
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.21

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Lab Smp Id: LE6WG1AA Client Smp ID: TRIP BLANK 1
Inj Date : 25-JUN-2009 23:14
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LE6WG1AA,5ML/5ML
Misc Info : M90625A,8260LLUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	819786	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	589271	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.584	10.573	(1.000)	249387	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	173419	51.7762	10.355
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	206865	53.9172	10.783
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	614815	48.6704	9.734
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	181076	43.2769	8.655
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
14 Dichlorofluoromethane	67	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	3.137	3.137	(0.556)	16176	7.39520	1.479
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					
19 Iodomethane	142	Compound Not Detected.					
20 Carbon Disulfide	76	Compound Not Detected.					

21 Methylene Chloride	84	3.529	3.529 (0.626)	8051	1.78552	0.3571
22 Acetonitrile	41	Compound Not Detected.				

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					
	66 Bromoform	173	Compound Not Detected.					
	67 Isopropylbenzene	105	Compound Not Detected.					
	68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
	70 1,2,3-Trichloropropane	110	Compound Not Detected.					
	71 Bromobenzene	156	Compound Not Detected.					
	72 n-Propylbenzene	120	Compound Not Detected.					
	73 2-Chlorotoluene	126	Compound Not Detected.					
	74 1,3,5-Trimethylbenzene	105	Compound Not Detected.					

75	4-Chlorotoluene	126	Compound Not Detected.
76	tert-Butylbenzene	119	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	Compound Not Detected.					
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
89	Ethyl Ether	59	Compound Not Detected.					
91	3-Chloropropene	76	Compound Not Detected.					
92	Isopropyl Ether	87	Compound Not Detected.					
93	2-Chloro-1,3-butadiene	53	Compound Not Detected.					
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	Compound Not Detected.					
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	Compound Not Detected.					
99	n-Butanol	56	Compound Not Detected.					
100	Methyl Methacrylate	41	Compound Not Detected.					
101	2-Nitropropane	41	Compound Not Detected.					
103	Cyclohexanone	55	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	Compound Not Detected.					
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	Compound Not Detected.					
153	1,2,3-Trimethylbenzene	105	Compound Not Detected.					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

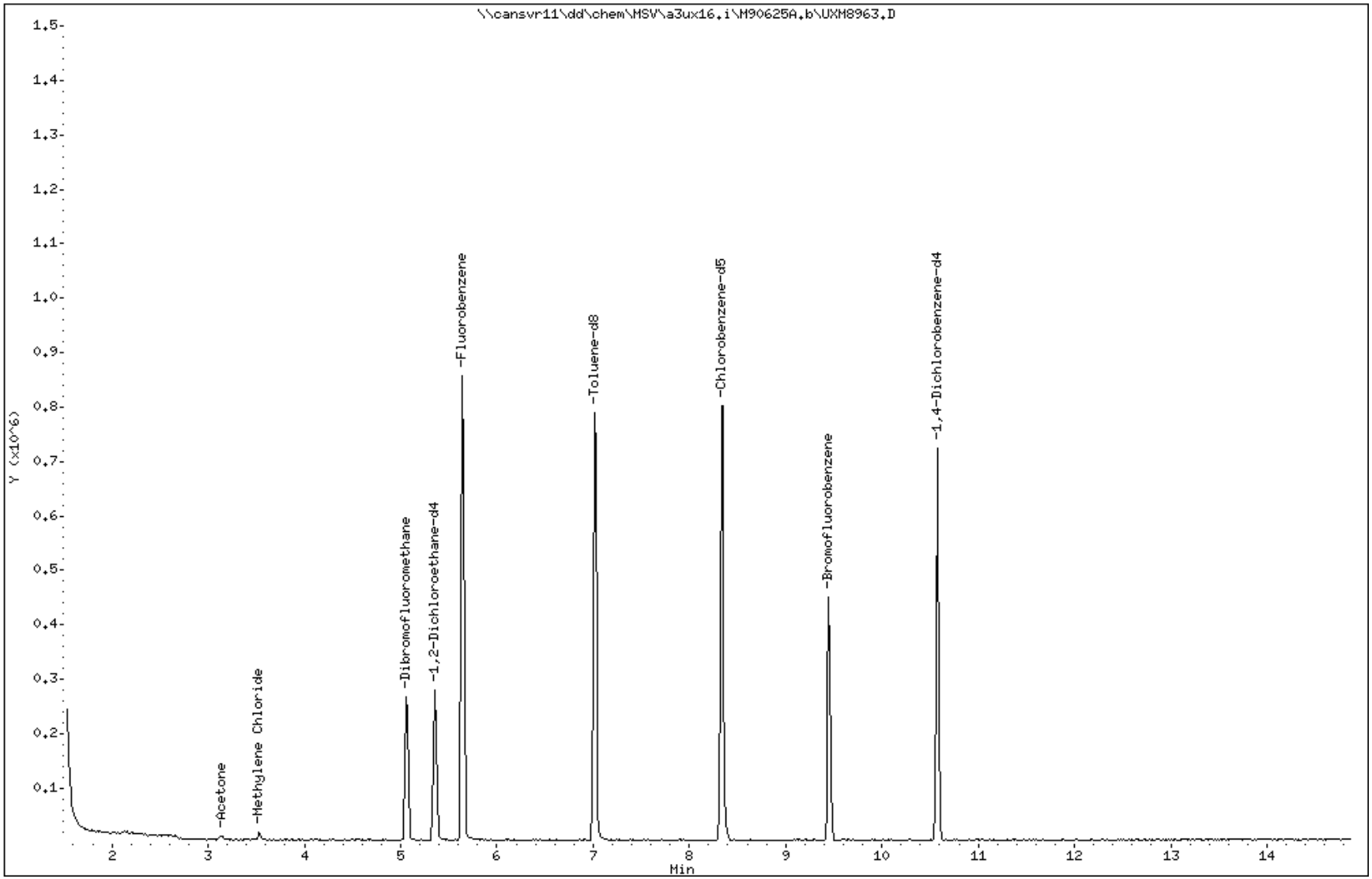
Instrument ID: a3ux16.i
Lab File ID: UXM8963.D
Lab Smp Id: LE6WG1AA
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Client Smp ID: TRIP BLANK 1
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	819786	-13.56
2 Chlorobenzene-d5	691311	345656	1382622	589271	-14.76
3 1,4-Dichlorobenze	360329	180165	720658	249387	-30.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.58	0.11

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D
Date : 25-JUN-2009 23:14
Client ID: TRIP BLANK 1 Instrument: a3ux16.i
Sample Info: LE6WG1AA,5ML/5ML
Purge Volume: 5.0 Operator: 1644
Column phase: DB624 Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D

Date : 25-JUN-2009 23:14

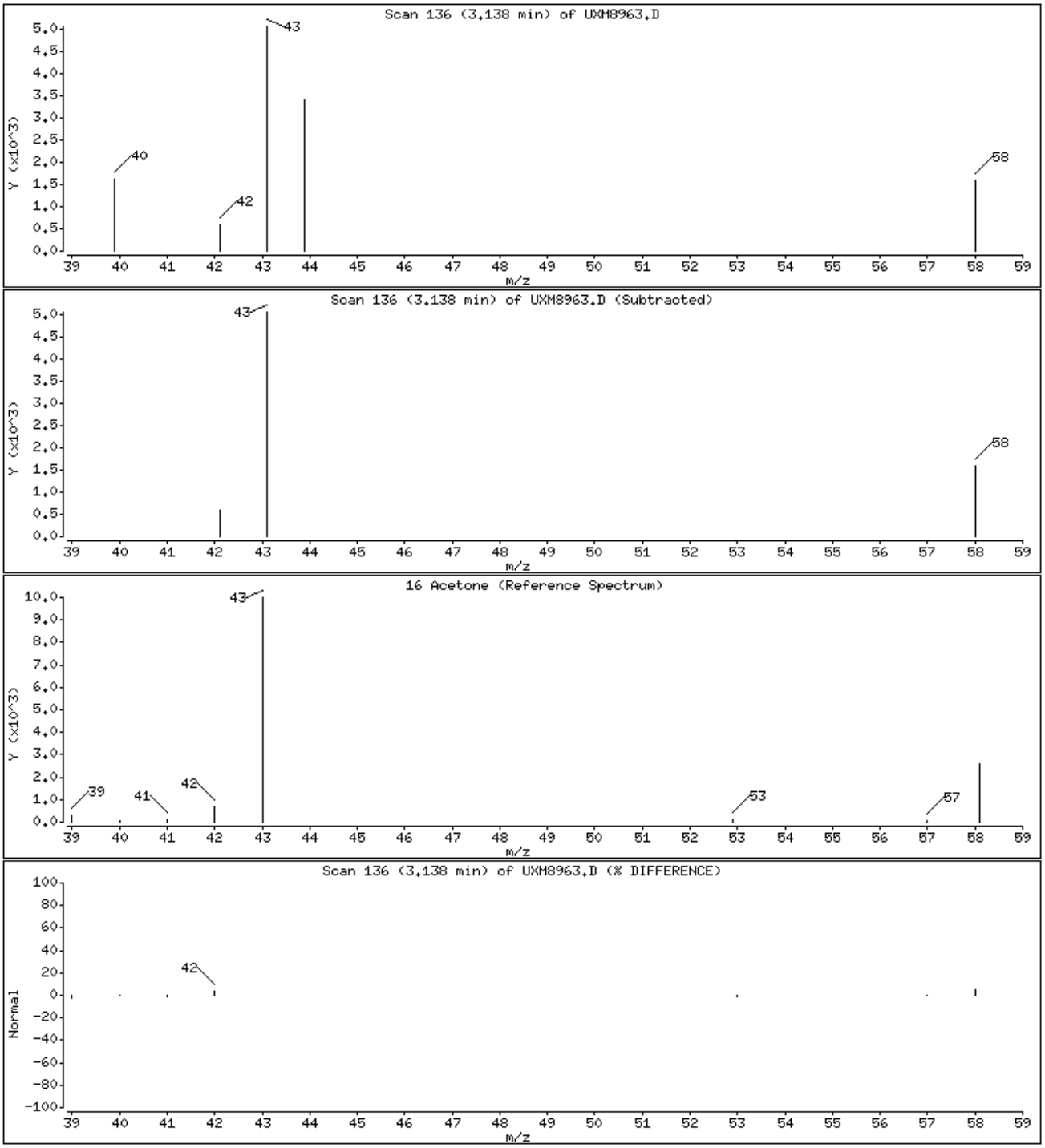
Client ID: TRIP BLANK 1 Instrument: a3ux16.i

Sample Info: LE6WG1AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

16 Acetone Concentration: 1.479 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8963.D

Date : 25-JUN-2009 23:14

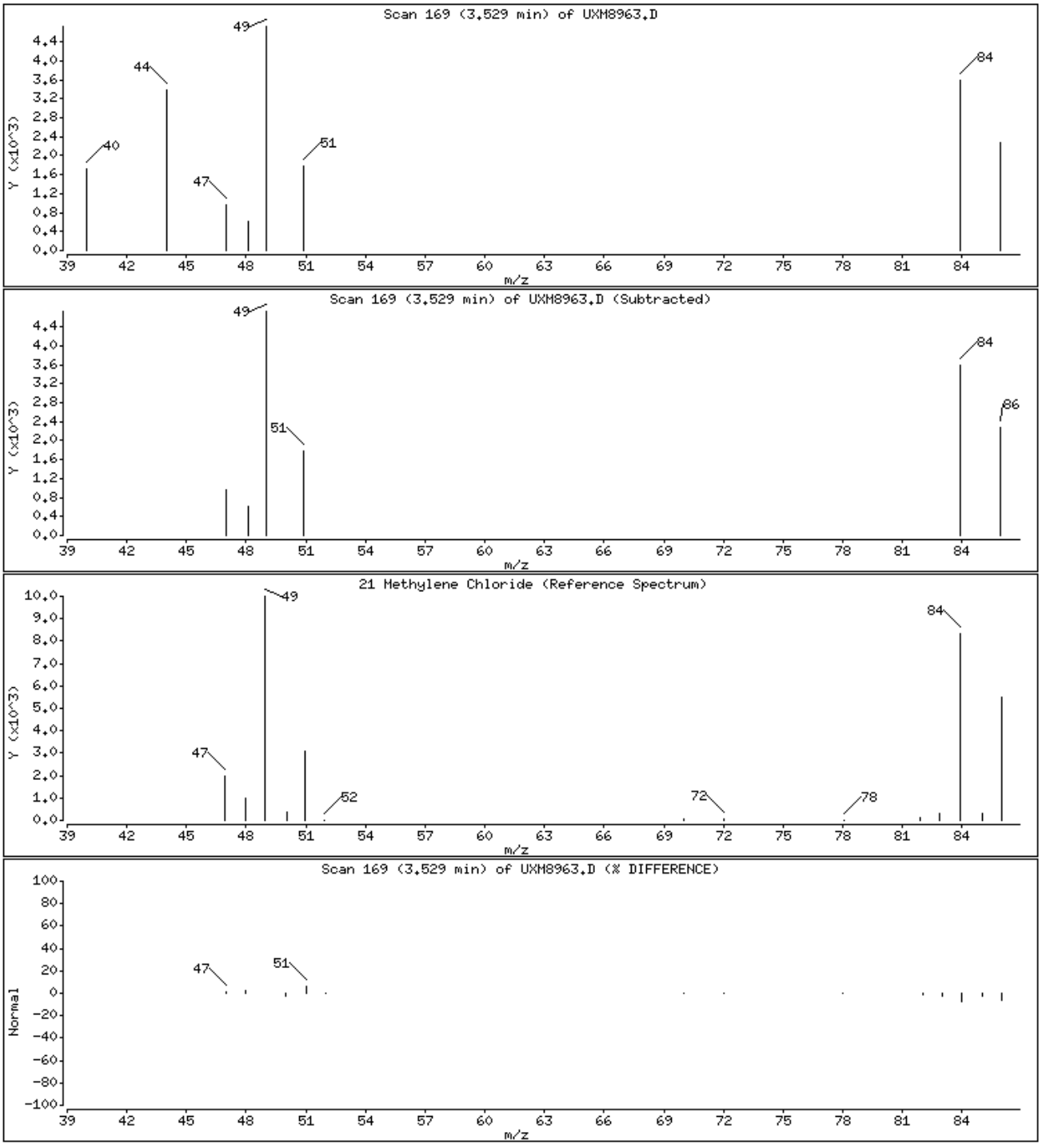
Client ID: TRIP BLANK 1 Instrument: a3ux16.i

Sample Info: LE6WG1AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

21 Methylene Chloride Concentration: 0.3571 ug/L



Draper Aden Associates Inc

Client Sample ID: 13MW3

GC/MS Volatiles

Lot-Sample #...: A9F180214-002 **Work Order #...:** LE6W81AA **Matrix.....:** WG
Date Sampled...: 06/17/09 11:00 **Date Received..:** 06/18/09
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.21

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Lab Smp Id: LE6W81AA Client Smp ID: 13MW3
Inj Date : 25-JUN-2009 23:34
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LE6W81AA,5ML/5ML
Misc Info : M90625A,8260LLUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1	Fluorobenzene	96	5.639	5.639	(1.000)	807968	50.0000	
* 2	Chlorobenzene-d5	117	8.343	8.343	(1.000)	593418	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	10.572	10.573	(1.000)	248490	50.0000	
$ 4	Dibromofluoromethane	113	5.070	5.058	(0.899)	171306	51.8934	10.379
$ 5	1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	205830	54.4322	10.886
$ 6	Toluene-d8	98	7.027	7.015	(0.842)	589731	46.3585	9.272
$ 7	Bromofluorobenzene	95	9.446	9.446	(1.132)	177101	42.0311	8.406
8	Dichlorodifluoromethane	85	Compound Not Detected.					
9	Chloromethane	50	Compound Not Detected.					
10	Vinyl Chloride	62	Compound Not Detected.					
11	Bromomethane	94	Compound Not Detected.					
12	Chloroethane	64	Compound Not Detected.					
13	Trichlorofluoromethane	101	Compound Not Detected.					
14	Dichlorofluoromethane	67	Compound Not Detected.					
15	Acrolein	56	Compound Not Detected.					
16	Acetone	43	Compound Not Detected.					
17	1,1-Dichloroethene	96	Compound Not Detected.					
18	Freon-113	151	Compound Not Detected.					
19	Iodomethane	142	Compound Not Detected.					
20	Carbon Disulfide	76	Compound Not Detected.					

21	Methylene Chloride	84	Compound Not Detected.
22	Acetonitrile	41	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	23 Acrylonitrile	53	Compound Not Detected.					
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	4.928	4.928	(0.874)	7115	1.11085	0.2222
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	50940	12.3894	2.478
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	5.960	5.960	(1.057)	8952	2.17411	0.4348
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					
	66 Bromoform	173	Compound Not Detected.					
	67 Isopropylbenzene	105	Compound Not Detected.					
	68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
	70 1,2,3-Trichloropropane	110	Compound Not Detected.					
	71 Bromobenzene	156	Compound Not Detected.					
	72 n-Propylbenzene	120	Compound Not Detected.					
	73 2-Chlorotoluene	126	Compound Not Detected.					
	74 1,3,5-Trimethylbenzene	105	Compound Not Detected.					

75	4-Chlorotoluene	126	Compound Not Detected.
76	tert-Butylbenzene	119	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
78	sec-Butylbenzene	105	Compound Not Detected.					
79	4-Isopropyltoluene	119	Compound Not Detected.					
80	1,3-Dichlorobenzene	146	Compound Not Detected.					
81	1,4-Dichlorobenzene	146	Compound Not Detected.					
82	n-Butylbenzene	91	Compound Not Detected.					
83	1,2-Dichlorobenzene	146	Compound Not Detected.					
84	1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86	Hexachlorobutadiene	225	Compound Not Detected.					
87	Naphthalene	128	Compound Not Detected.					
88	1,2,3-Trichlorobenzene	180	Compound Not Detected.					
89	Ethyl Ether	59	Compound Not Detected.					
91	3-Chloropropene	76	Compound Not Detected.					
92	Isopropyl Ether	87	Compound Not Detected.					
93	2-Chloro-1,3-butadiene	53	Compound Not Detected.					
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	Compound Not Detected.					
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	Compound Not Detected.					
99	n-Butanol	56	Compound Not Detected.					
100	Methyl Methacrylate	41	Compound Not Detected.					
101	2-Nitropropane	41	Compound Not Detected.					
103	Cyclohexanone	55	Compound Not Detected.					
98	Cyclohexane	56	Compound Not Detected.					
143	Methyl Acetate	43	Compound Not Detected.					
144	Methylcyclohexane	83	Compound Not Detected.					
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	Compound Not Detected.					
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	Compound Not Detected.					
153	1,2,3-Trimethylbenzene	105	Compound Not Detected.					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Report Date: 26-Jun-2009 10:02

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

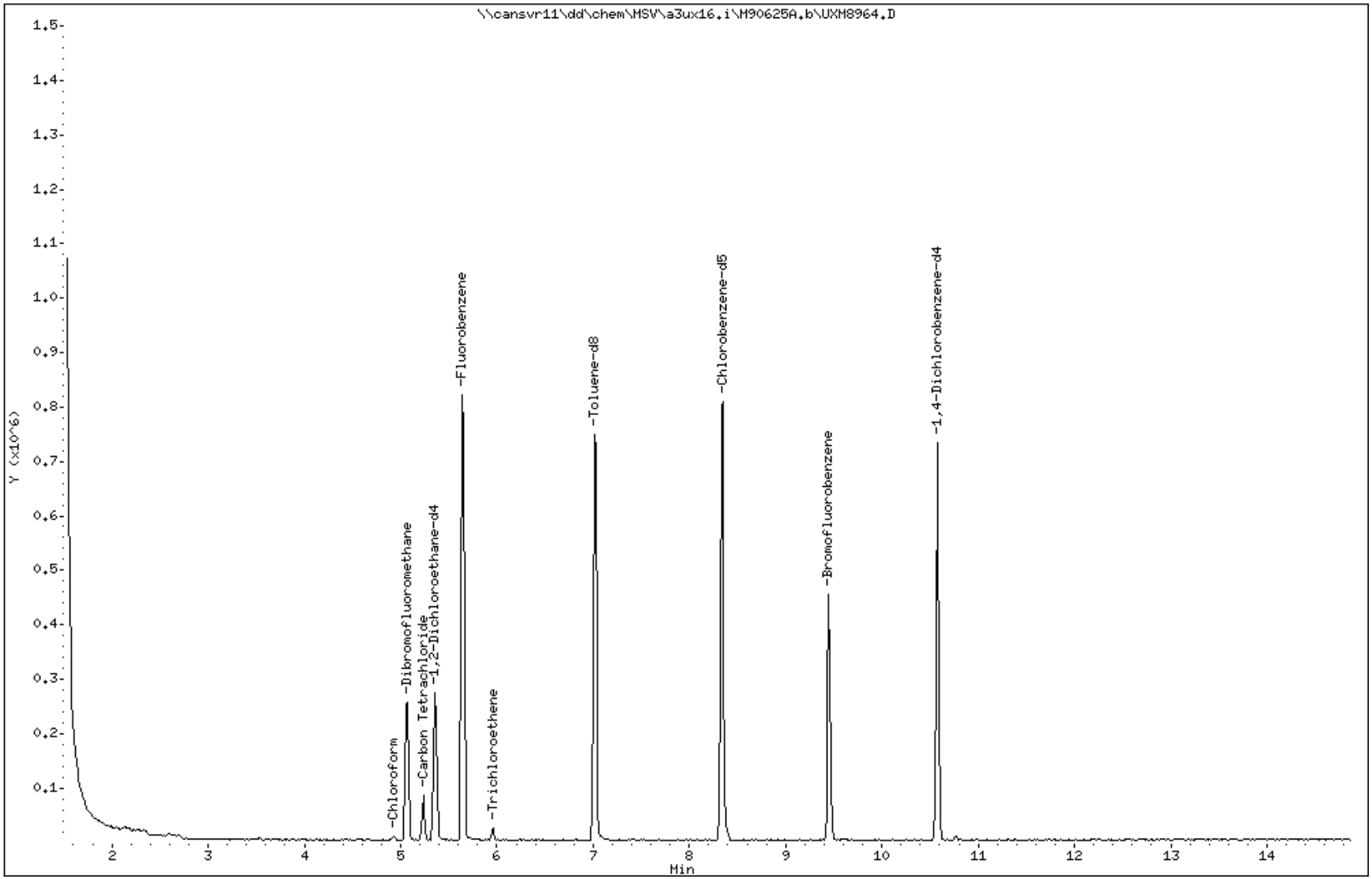
Instrument ID: a3ux16.i
Lab File ID: UXM8964.D
Lab Smp Id: LE6W81AA
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Client Smp ID: 13MW3
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	807968	-14.81
2 Chlorobenzene-d5	691311	345656	1382622	593418	-14.16
3 1,4-Dichlorobenze	360329	180165	720658	248490	-31.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D
Date : 25-JUN-2009 23:34
Client ID: 13MW3 Instrument: a3ux16.i
Sample Info: LE6W81AA,5ML/5ML
Purge Volume: 5.0 Operator: 1644
Column phase: DB624 Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D

Date : 25-JUN-2009 23:34

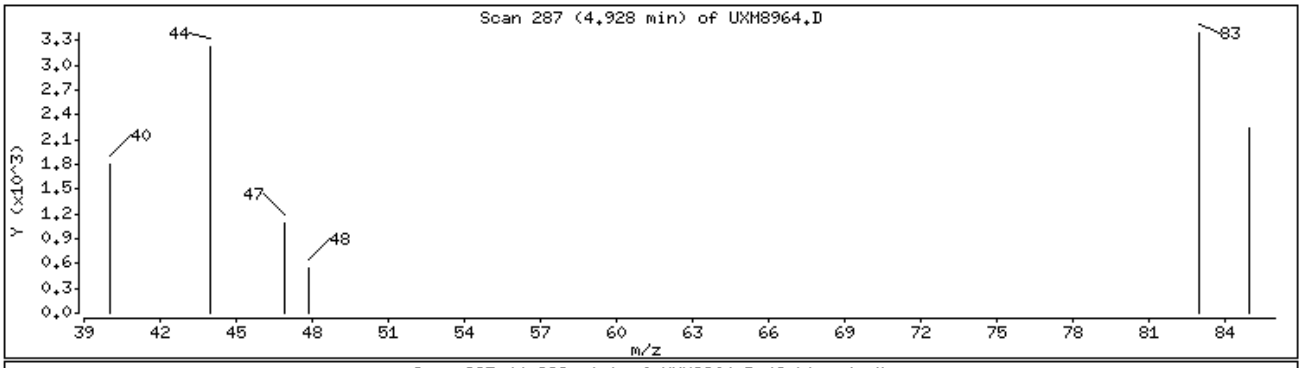
Client ID: 13MW3 Instrument: a3ux16.i

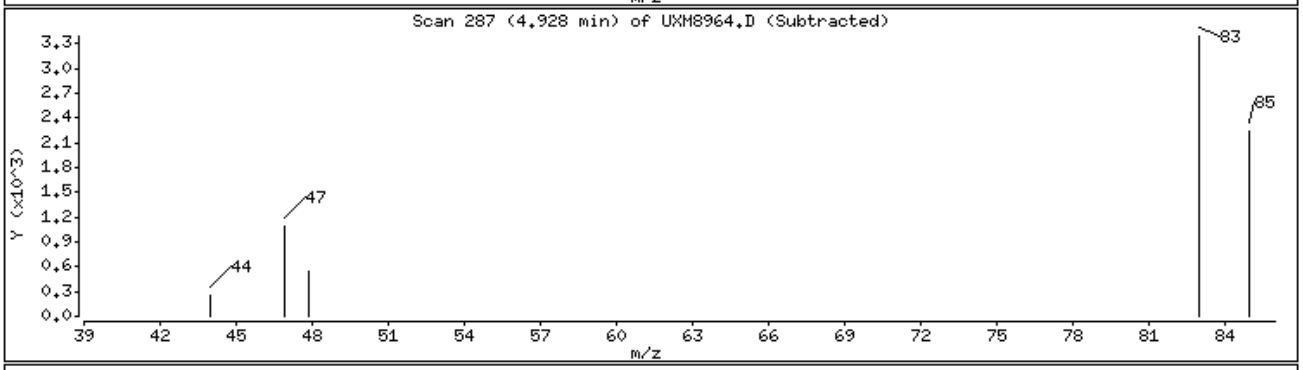
Sample Info: LE6W81AA,5ML/5ML

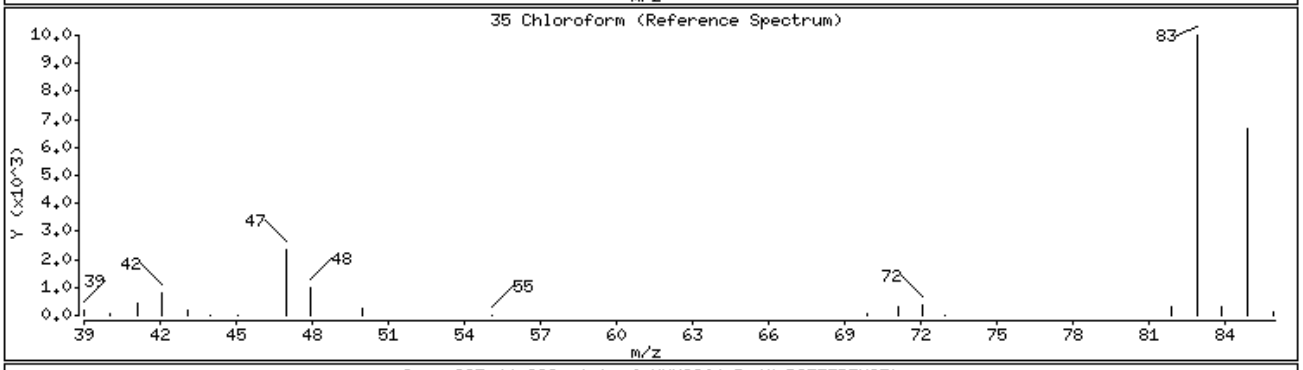
Purge Volume: 5.0 Operator: 1644

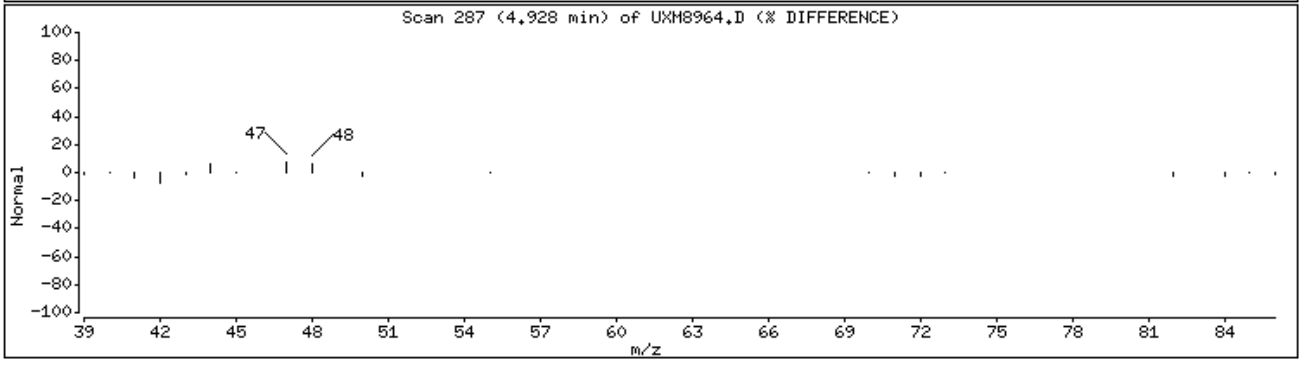
Column phase: DB624 Column diameter: 0.18

35 Chloroform Concentration: 0.2222 ug/L









Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D

Date : 25-JUN-2009 23:34

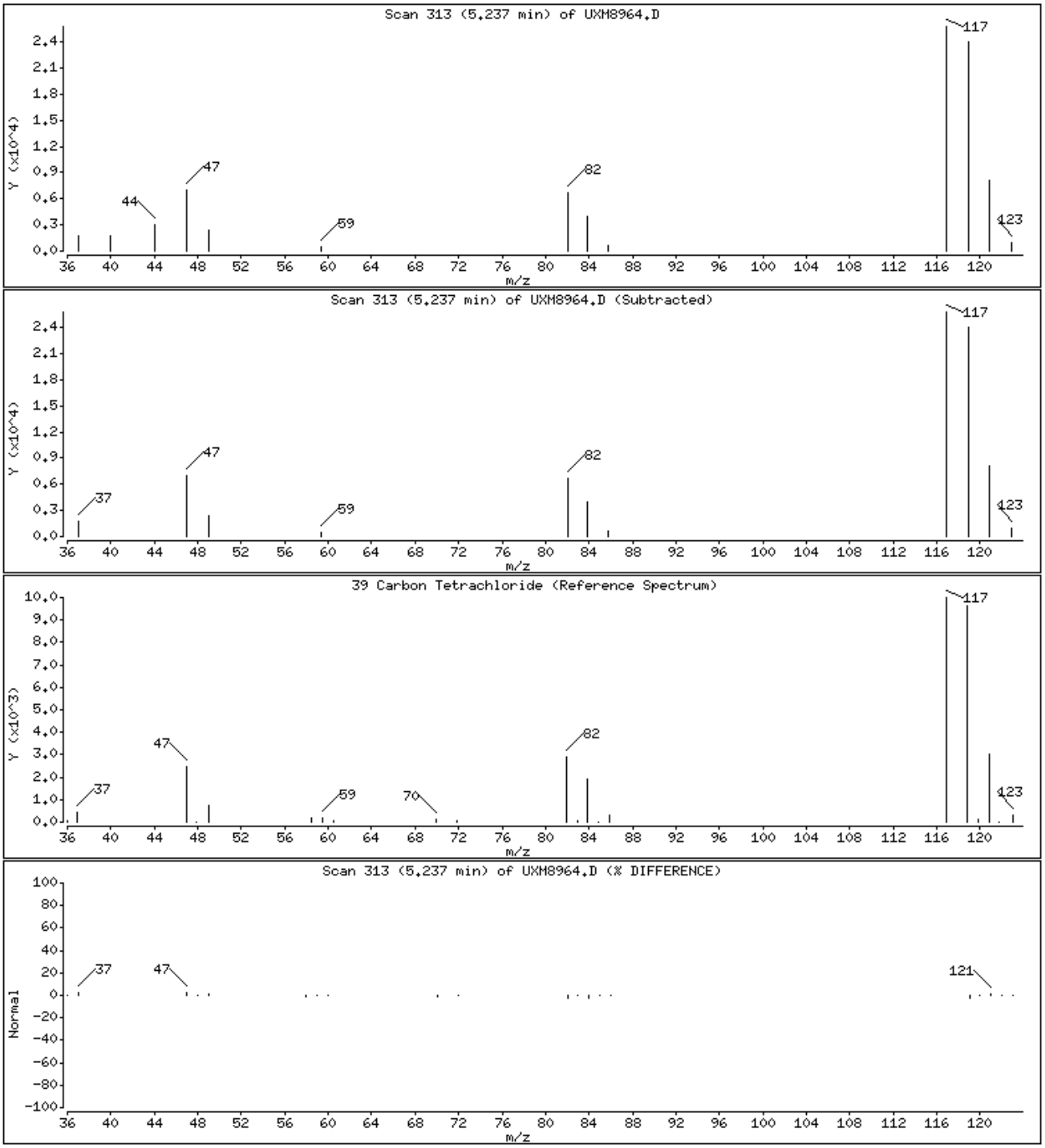
Client ID: 13MW3 Instrument: a3ux16.i

Sample Info: LE6W81AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

39 Carbon Tetrachloride Concentration: 2.478 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8964.D

Date : 25-JUN-2009 23:34

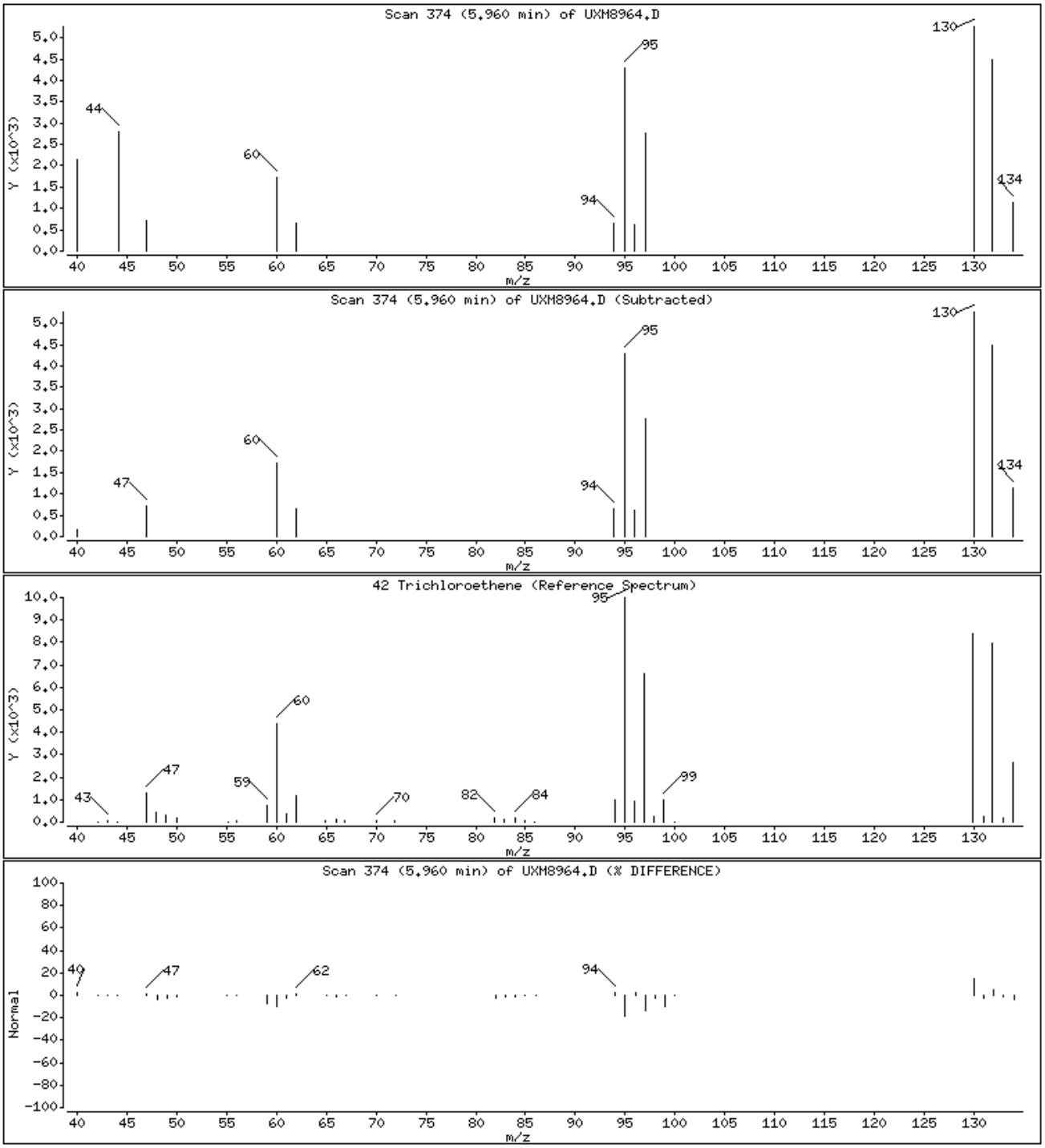
Client ID: 13MW3 Instrument: a3ux16.i

Sample Info: LE6W81AA,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

42 Trichloroethene Concentration: 0.4348 ug/L



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

STANDARD DATA

Report Date: 07-May-2009 15:29

Calibration History

Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Start Cal Date: 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
11-FEB-2009 20:10	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
07-MAY-2009 15:26	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Cal Level: 2 , Cal Amount: 10.00000		
11-FEB-2009 19:49	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
07-MAY-2009 15:05	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Cal Level: 3 , Cal Amount: 25.00000		
11-FEB-2009 19:28	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
07-MAY-2009 14:45	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Cal Level: 4 , Cal Amount: 50.00000		
11-FEB-2009 19:07	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
07-MAY-2009 14:24	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Cal Level: 5 , Cal Amount: 100.00000		
11-FEB-2009 18:46	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
07-MAY-2009 14:03	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Cal Level: 6 , Cal Amount: 200.00000		
11-FEB-2009 18:25	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D
07-MAY-2009 13:42	2-8260	

\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D		

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

07-MAY-2009 14:24	2-8260	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D		
07-MAY-2009 16:08	3-IX	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7633.D		

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

North Canton

Work Instruction WI-NC-041A_110308
Effective _____

Data review checklist: 8260 A/8260B/624 Initial Calibration

Method (check the applicable box): ☐ 8260A ☐8260B ☐ 624

Analysis Date: 5-7-09 **Run batch ID:** 9128-042

Curve ID: M90507 **(curve ID must include instrument designation and date reference)**

Acceptance criteria is found in the applicable laboratory SOP. If item is N/A, mark as such in Notes column

Item for review	Level I Yes	Level I No	Level II Yes	Level II No
Tune:				
BFB passes, all points within 12 hr clock (24 hr for 624)	Yes		Yes	
All calibration points ID'd on Calibration Summary Form	Yes		Yes	
Documentation: Raw data and run logs present for all points	Yes		Yes	
Run log and Raw data clearly indicate method by version	Yes		Yes	
RLs: Minimum of 5 points, lowest standards at or below RL	Yes		Yes	
Linearity: 8260 CCCs ≤ 30% RSD	Yes		Yes	
Linear Regression curve fit for all >15% RSD (35% 624) r2>0.980 (r>0.990)	Yes		Yes	
Plots for all Linear Regressions printed	Yes		Yes	
Response: SPCCs all pass minimum response factors	Yes		Yes	
ICV- Second source standard Analytes 60-140% recovery, problem compounds may be allowed outside these limits, but must be evaluated (acrolein, acrylonitrile, 2-ceve, propionitrile, trans 1,4-dichloro-2-butene) Internal Standards 50-200% of recent curve	Yes		Yes	
Manual integrations: necessary, correct & documented	NA		NA	
Other: Verify Avg RF on Cal Summary matches Avg RF on Con Cal form	NA		NA	

Reviewed by Analyst/ Level I: Jay R. Wilson Date: 5.8.09

Reviewed by Peer/Sup/ Level II: Thomas E Stalter Date: 5/13/09

By signing in "Reviewed by" above I agree that I have reviewed the data as indicated on this checklist.

*Peer/Sup only: In addition to the items above, all manual integrations in this package have been reviewed and found acceptable.

Reviewed by Peer/Sup: _____ Date: _____

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD
	8 Dichlorodifluoromethane	0.16390	0.15158	0.20307	0.21245	0.20325	0.19483	0.18818	13.042
	9 Chloromethane	0.31395	0.31457	0.27787	0.29530	0.28098	0.31411	0.29946	5.742
	10 Vinyl Chloride	0.33698	0.31953	0.31498	0.31963	0.30991	0.31895	0.31999	2.854
	11 Bromomethane	0.11237	0.12262	0.10129	0.11467	0.10848	0.11629	0.11262	6.443
	12 Chloroethane	0.11218	0.08780	0.07718	0.09060	0.08567	0.09463	0.09134	12.870
	13 Trichlorofluoromethane	0.24601	0.23167	0.27343	0.28318	0.27669	0.26875	0.26329	7.608
	14 Dichlorofluoromethane	0.24583	0.27972	0.26040	0.31727	0.27981	0.33740	0.28674	12.044
	15 Acrolein	0.03990	0.03951	0.03662	0.03781	0.03818	0.03743	0.03824	3.275
	16 Acetone	0.11435	0.08123	0.06624	0.06234	0.05857	0.05625	0.07316	30.104
	17 1,1-Dichloroethene	0.23024	0.21637	0.22159	0.22564	0.22672	0.23788	0.22641	3.251
	18 Freon-113	0.14543	0.12028	0.17743	0.17678	0.17431	0.16463	0.15981	14.273
	19 Iodomethane	0.36923	0.36662	0.35002	0.35292	0.34890	0.38113	0.36147	3.576
	20 Carbon Disulfide	0.68758	0.67127	0.68615	0.71058	0.72046	0.79004	0.71101	5.994
	21 Methylene Chloride	0.33102	0.29748	0.25737	0.25360	0.24580	0.26482	0.27501	11.915
	22 Acetonitrile	0.03425	0.03078	0.02744	0.02764	0.02681	0.02639	0.02889	10.562
	23 Acrylonitrile	0.09118	0.08561	0.08266	0.08545	0.08299	0.08317	0.08518	3.766
	24 Methyl tert-butyl ether	0.50886	0.51848	0.51153	0.54495	0.55443	0.57769	0.53599	5.143
	25 trans-1,2-Dichloroethene	0.26106	0.24984	0.24642	0.25359	0.25191	0.27055	0.25556	3.449
	26 Hexane	0.03173	0.03114	0.05876	0.05850	0.06148	0.05236	0.04899	28.430
	27 Vinyl acetate	0.30433	0.30355	0.30840	0.33434	0.34884	0.36591	0.32756	8.022
	28 1,1-Dichloroethane	0.45244	0.42760	0.40339	0.41194	0.40145	0.43491	0.42195	4.733
	29 tert-Butyl Alcohol	0.01276	0.01260	0.01241	0.01299	0.01330	0.01232	0.01273	2.893
	30 2-Butanone	0.10997	0.08711	0.08407	0.09188	0.08998	0.08505	0.09134	10.496
M	31 1,2-Dichloroethene (total)	0.26006	0.25042	0.24556	0.25402	0.25153	0.27393	0.25592	3.914
	32 cis-1,2-dichloroethene	0.25906	0.25100	0.24470	0.25444	0.25116	0.27730	0.25628	4.418
	33 2,2-Dichloropropane	0.21181	0.21497	0.21382	0.21898	0.22552	0.22371	0.21814	2.553
	34 Bromochloromethane	0.14042	0.12400	0.11833	0.11999	0.11847	0.12856	0.12496	6.825
	35 Chloroform	0.42142	0.40423	0.37945	0.39103	0.37543	0.40663	0.39637	4.439

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	36 Tetrahydrofuran	0.04747	0.04637	0.04758	0.05183	0.05110	0.05123	0.04926	4.827
	37 1,1,1-Trichloroethane	0.29001	0.28579	0.28882	0.29497	0.29659	0.30756	0.29396	2.643
	38 1,1-Dichloropropene	0.28478	0.28527	0.31791	0.32830	0.32475	0.34255	0.31393	7.578
	39 Carbon Tetrachloride	0.24834	0.23249	0.25460	0.25838	0.26293	0.26988	0.25444	5.109
	40 1,2-Dichloroethane	0.31012	0.29511	0.28097	0.28610	0.27393	0.29463	0.29014	4.380
	41 Benzene	1.11488	1.04435	1.01194	1.02782	1.00625	1.10295	1.05136	4.439
	42 Trichloroethene	0.26623	0.25141	0.24265	0.25444	0.24678	0.26734	0.25481	3.969
	43 1,2-Dichloropropane	0.25380	0.24274	0.23375	0.24313	0.23784	0.25283	0.24402	3.274
	44 1,4-Dioxane	0.00174	0.00191	0.00200	0.00217	0.00227	0.00214	0.00204	9.554
	45 Dibromomethane	0.13753	0.12472	0.12182	0.12813	0.12696	0.13363	0.12880	4.510
	46 Bromodichloromethane	0.26537	0.25355	0.24917	0.25833	0.26004	0.29032	0.26280	5.548
	47 2-Chloroethyl vinyl ether	0.09576	0.09404	0.10624	0.11666	0.13231	0.13526	0.11338	15.697
	48 cis-1,3-Dichloropropene	0.27893	0.28429	0.29674	0.32489	0.34177	0.37786	0.31741	12.045
	49 4-Methyl-2-pentanone	0.16448	0.15741	0.16169	0.17288	0.18185	0.17769	0.16933	5.684
	50 Toluene	1.29206	1.28082	1.30619	1.33118	1.33754	1.43539	1.33053	4.197
	51 trans-1,3-Dichloropropene	0.28288	0.28303	0.30822	0.33338	0.35800	0.38389	0.32490	12.648
	52 Ethyl Methacrylate	0.23536	0.25709	0.28968	0.33218	0.35241	0.36638	0.30552	17.401
	53 1,1,2-Trichloroethane	0.27262	0.25976	0.24245	0.24918	0.24729	0.25205	0.25389	4.262
	54 1,3-Dichloropropane	0.46914	0.45078	0.44697	0.44703	0.45323	0.45968	0.45447	1.890
	55 Tetrachloroethene	0.26230	0.22908	0.24816	0.25104	0.25272	0.26051	0.25064	4.750
	56 2-Hexanone	0.12901	0.12721	0.13631	0.14650	0.14999	0.14697	0.13933	7.076
	57 Dibromochloromethane	0.21563	0.20823	0.21551	0.22105	0.23353	0.25244	0.22440	7.181
	58 1,2-Dibromoethane	0.23506	0.22857	0.23353	0.23175	0.23617	0.23958	0.23411	1.618
	59 Chlorobenzene	0.90416	0.85807	0.82272	0.83883	0.83054	0.88117	0.85591	3.697
	60 1,1,1,2-Tetrachloroethane	0.28330	0.26449	0.25289	0.26253	0.26314	0.28937	0.26929	5.186
	61 Ethylbenzene	0.38479	0.38212	0.41681	0.43993	0.45437	0.48865	0.42778	9.702
	62 m + p-Xylene	0.45667	0.49111	0.53377	0.56140	0.57164	0.62146	0.53934	10.958
M	63 Xylenes (total)	0.44626	0.47755	0.51851	0.54785	0.55796	0.61000	0.52635	11.180
	64 Xylene-o	0.42543	0.45044	0.48799	0.52074	0.53060	0.58708	0.50038	11.690
	65 Styrene	0.63577	0.68764	0.78732	0.87356	0.91186	1.02450	0.82011	17.725
	66 Bromoform	0.12748	0.12135	0.12075	0.13435	0.14132	0.15493	0.13336	9.875
	67 Isopropylbenzene	0.93877	1.01896	1.15455	1.26182	1.30803	1.44104	1.18719	15.789
	68 1,1,2,2-Tetrachloroethane	0.66962	0.62768	0.57504	0.58750	0.57651	0.54768	0.59734	7.351
	69 1,4-Dichloro-2-butene	0.06090	0.06488	0.07869	0.09848	0.09265	0.11192	0.08459	23.584
	70 1,2,3-Trichloropropane	0.19396	0.16598	0.16482	0.16415	0.16055	0.15296	0.16707	8.377
	71 Bromobenzene	0.64254	0.60987	0.59186	0.60613	0.60418	0.63148	0.61434	3.076

Report Date : 07-May-2009 14:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
72 n-Propylbenzene	0.48098	0.48964	0.57798	0.63270	0.66426	0.68412	0.58828	14.874	
73 2-Chlorotoluene	0.51936	0.54322	0.56223	0.58468	0.58649	0.61148	0.56791	5.853	
74 1,3,5-Trimethylbenzene	1.39366	1.47234	1.68837	1.84582	1.91511	2.02058	1.72265	14.525	
75 4-Chlorotoluene	0.55038	0.56266	0.57245	0.60610	0.60308	0.62865	0.58722	5.110	
76 tert-Butylbenzene	1.28191	1.22178	1.37128	1.52363	1.60832	1.69779	1.45079	13.021	
77 1,2,4-Trimethylbenzene	1.32490	1.54937	1.73847	1.90704	1.95320	2.09723	1.76170	16.191	
78 sec-Butylbenzene	1.55687	1.64349	1.89550	2.04355	2.15772	2.27788	1.92917	14.812	
79 4-Isopropyltoluene	1.16130	1.23944	1.52529	1.69381	1.78853	1.94871	1.55951	19.953	
80 1,3-Dichlorobenzene	1.17600	1.12665	1.06906	1.11167	1.11423	1.17824	1.12931	3.704	
81 1,4-Dichlorobenzene	1.24380	1.20975	1.11102	1.13911	1.14655	1.20202	1.17538	4.315	
82 n-Butylbenzene	0.98908	0.98097	1.12258	1.27122	1.39898	1.55418	1.21950	18.923	
83 1,2-Dichlorobenzene	1.16629	1.06766	1.05972	1.08774	1.08055	1.12895	1.09848	3.735	
84 1,2-Dibromo-3-chloropropane	0.08040	0.07315	0.07097	0.07781	0.08390	0.08250	0.07812	6.620	
85 1,2,4-Trichlorobenzene	0.47683	0.46326	0.43635	0.48503	0.51311	0.56454	0.48985	9.076	
86 Hexachlorobutadiene	0.24779	0.21799	0.22009	0.22399	0.22779	0.23095	0.22810	4.719	
87 Naphthalene	0.83096	0.85323	0.89683	1.13762	1.32309	1.36899	1.06845	22.623	
88 1,2,3-Trichlorobenzene	0.45541	0.44686	0.43846	0.48919	0.49263	0.50149	0.47067	5.711	
89 Ethyl Ether	0.20093	0.21483	0.21098	0.21483	0.19691	0.20397	0.20707	3.654	
90 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91 3-Chloropropene	0.09584	0.10910	0.11251	0.12423	0.12027	0.12935	0.11522	10.462	
92 Isopropyl Ether	0.18535	0.21145	0.21850	0.22774	0.21181	0.22569	0.21342	7.186	
93 2-Chloro-1,3-butadiene	0.27547	0.30036	0.29637	0.30806	0.30368	0.31680	0.30012	4.654	
94 Propionitrile	0.02998	0.03291	0.03105	0.03209	0.03133	0.03187	0.03154	3.169	
95 Ethyl Acetate	0.16199	0.16874	0.18046	0.18301	0.16979	0.17899	0.17383	4.726	
96 Methacrylonitrile	0.11347	0.11956	0.11876	0.13196	0.12096	0.12652	0.12187	5.317	
97 Isobutanol	0.00658	0.00724	0.00734	0.00768	0.00750	0.00847	0.00747	8.271	<-
98 Cyclohexane	0.31044	0.28766	0.46366	0.48258	0.50307	0.47770	0.42086	22.683	
99 n-Butanol	0.00845	0.00590	0.00627	0.00629	0.00654	0.00726	0.00679	13.754	<-
100 Methyl Methacrylate	0.13128	0.13726	0.14084	0.15269	0.14139	0.15853	0.14367	7.030	
101 2-Nitropropane	0.03706	0.03774	0.03936	0.04214	0.04432	0.04707	0.04128	9.538	
102 Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103 Cyclohexanone	0.04979	0.05350	0.06407	0.08214	0.08773	0.09488	0.07202	26.144	
104 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
134 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
135 Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Report Date : 07-May-2009 14:58

TestAmerica North Canton

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Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:41
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD	
136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M 137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
141 1,3,5-Trichlorobenzene	0.60668	0.60737	0.55680	0.59099	0.61745	0.66945	0.60812	6.055	
143 Methyl Acetate	0.17900	0.17351	0.16095	0.16230	0.15966	0.15754	0.16549	5.231	
144 Methylcyclohexane	0.24364	0.23161	0.41186	0.43663	0.45535	0.41745	0.36609	27.521	
145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
146 2-Methylnaphthalene	0.19951	0.21927	0.21644	0.30271	0.47593	0.47407	0.31466	41.086	
147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
149 Vinyl Acetate-86	0.03449	0.03052	0.03699	0.04004	0.04220	0.04445	0.03812	13.515	
150 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
151 t-Butyl ethyl ether	0.54040	0.62529	0.60606	0.65230	0.61732	0.64561	0.61450	6.543	
152 t-Amyl methyl ether	0.46482	0.52174	0.53632	0.59773	0.57207	0.60822	0.55015	9.753	
153 1,2,3-Trimethylbenzene	1.62037	1.82441	1.95483	2.22378	2.06577	2.23808	1.98787	12.056	
$ 4 Dibromofluoromethane	0.19617	0.21820	0.19756	0.20189	0.19823	0.21365	0.20428	4.565	
$ 5 1,2-Dichloroethane-d4	0.23960	0.24920	0.22706	0.22549	0.22486	0.23783	0.23401	4.193	
$ 6 Toluene-d8	0.98307	1.07179	1.05051	1.07269	1.09447	1.15858	1.07185	5.339	
$ 7 Bromofluorobenzene	0.29579	0.33664	0.34360	0.36506	0.37492	0.41415	0.35503	11.245	

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Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Dichlorodifluoromethane	0.16390	0.15158	0.20307	0.21245	0.20325	0.19483	AVRG		0.18818		13.04156
9 Chloromethane	0.31395	0.31457	0.27787	0.29530	0.28098	0.31411	AVRG		0.29946		5.74214
10 Vinyl Chloride	0.33698	0.31953	0.31498	0.31963	0.30991	0.31895	AVRG		0.31999		2.85385
11 Bromomethane	0.11237	0.12262	0.10129	0.11467	0.10848	0.11629	AVRG		0.11262		6.44338
12 Chloroethane	0.11218	0.08780	0.07718	0.09060	0.08567	0.09463	AVRG		0.09134		12.87030
13 Trichlorofluoromethane	0.24601	0.23167	0.27343	0.28318	0.27669	0.26875	AVRG		0.26329		7.60757
14 Dichlorofluoromethane	0.24583	0.27972	0.26040	0.31727	0.27981	0.33740	AVRG		0.28674		12.04449
15 Acrolein	0.03990	0.03951	0.03662	0.03781	0.03818	0.03743	AVRG		0.03824		3.27465
16 Acetone	35048	50026	108958	203856	389070	724366	WLINR	-0.21017	0.05511		0.99876
17 1,1-Dichloroethene	0.23024	0.21637	0.22159	0.22564	0.22672	0.23788	AVRG		0.22641		3.25110
18 Freon-113	0.14543	0.12028	0.17743	0.17678	0.17431	0.16463	AVRG		0.15981		14.27296
19 Iodomethane	0.36923	0.36662	0.35002	0.35292	0.34890	0.38113	AVRG		0.36147		3.57587
20 Carbon Disulfide	0.68758	0.67127	0.68615	0.71058	0.72046	0.79004	AVRG		0.71101		5.99391
21 Methylene Chloride	0.33102	0.29748	0.25737	0.25360	0.24580	0.26482	AVRG		0.27501		11.91483

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Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	22 Acetonitrile	0.03425	0.03078	0.02744	0.02764	0.02681	0.02639	AVRG		0.02889		10.56195
	23 Acrylonitrile	0.09118	0.08561	0.08266	0.08545	0.08299	0.08317	AVRG		0.08518		3.76641
	24 Methyl tert-butyl ether	0.50886	0.51848	0.51153	0.54495	0.55443	0.57769	AVRG		0.53599		5.14331
	25 trans-1,2-Dichloroethene	0.26106	0.24984	0.24642	0.25359	0.25191	0.27055	AVRG		0.25556		3.44892
	26 Hexane	4862	9587	48327	95647	204202	337122	LINR	-0.01985	0.05426		0.99060
	27 Vinyl acetate	0.30433	0.30355	0.30840	0.33434	0.34884	0.36591	AVRG		0.32756		8.02236
	28 1,1-Dichloroethane	0.45244	0.42760	0.40339	0.41194	0.40145	0.43491	AVRG		0.42195		4.73313
	29 tert-Butyl Alcohol	0.01276	0.01260	0.01241	0.01299	0.01330	0.01232	AVRG		0.01273		2.89334
	30 2-Butanone	0.10997	0.08711	0.08407	0.09188	0.08998	0.08505	AVRG		0.09134		10.49590
M	31 1,2-Dichloroethene (total)	0.26006	0.25042	0.24556	0.25402	0.25153	0.27393	AVRG		0.25592		3.91413
	32 cis-1,2-dichloroethene	0.25906	0.25100	0.24470	0.25444	0.25116	0.27730	AVRG		0.25628		4.41818
	33 2,2-Dichloropropane	0.21181	0.21497	0.21382	0.21898	0.22552	0.22371	AVRG		0.21814		2.55304
	34 Bromochloromethane	0.14042	0.12400	0.11833	0.11999	0.11847	0.12856	AVRG		0.12496		6.82451
	35 Chloroform	0.42142	0.40423	0.37945	0.39103	0.37543	0.40663	AVRG		0.39637		4.43899
	36 Tetrahydrofuran	0.04747	0.04637	0.04758	0.05183	0.05110	0.05123	AVRG		0.04926		4.82665
	37 1,1,1-Trichloroethane	0.29001	0.28579	0.28882	0.29497	0.29659	0.30756	AVRG		0.29396		2.64276
	38 1,1-Dichloropropene	0.28478	0.28527	0.31791	0.32830	0.32475	0.34255	AVRG		0.31393		7.57834
	39 Carbon Tetrachloride	0.24834	0.23249	0.25460	0.25838	0.26293	0.26988	AVRG		0.25444		5.10947
	40 1,2-Dichloroethane	0.31012	0.29511	0.28097	0.28610	0.27393	0.29463	AVRG		0.29014		4.37955
	41 Benzene	1.11488	1.04435	1.01194	1.02782	1.00625	1.10295	AVRG		1.05136		4.43852
	42 Trichloroethene	0.26623	0.25141	0.24265	0.25444	0.24678	0.26734	AVRG		0.25481		3.96868
	43 1,2-Dichloropropane	0.25380	0.24274	0.23375	0.24313	0.23784	0.25283	AVRG		0.24402		3.27433

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Last Edit : 07-May-2009 15:07 williams1

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	44 1,4-Dioxane	0.00174	0.00191	0.00200	0.00217	0.00227	0.00214	AVRG		0.00204		9.55370
	45 Dibromomethane	0.13753	0.12472	0.12182	0.12813	0.12696	0.13363	AVRG		0.12880		4.51036
	46 Bromodichloromethane	0.26537	0.25355	0.24917	0.25833	0.26004	0.29032	AVRG		0.26280		5.54823
	47 2-Chloroethyl vinyl ether	29349	57912	174749	381478	878964	1741893	WLINR	0.09906	0.13414		0.99671
	48 cis-1,3-Dichloropropene	0.27893	0.28429	0.29674	0.32489	0.34177	0.37786	AVRG		0.31741		12.04476
	49 4-Methyl-2-pentanone	0.16448	0.15741	0.16169	0.17288	0.18185	0.17769	AVRG		0.16933		5.68423
	50 Toluene	1.29206	1.28082	1.30619	1.33118	1.33754	1.43539	AVRG		1.33053		4.19664
	51 trans-1,3-Dichloropropene	0.28288	0.28303	0.30822	0.33338	0.35800	0.38389	AVRG		0.32490		12.64839
	52 Ethyl Methacrylate	28271	61471	187673	433745	942332	1926198	WLINR	0.03746	0.34744		0.99347
	53 1,1,2-Trichloroethane	0.27262	0.25976	0.24245	0.24918	0.24729	0.25205	AVRG		0.25389		4.26169
	54 1,3-Dichloropropane	0.46914	0.45078	0.44697	0.44703	0.45323	0.45968	AVRG		0.45447		1.89029
	55 Tetrachloroethene	0.26230	0.22908	0.24816	0.25104	0.25272	0.26051	AVRG		0.25064		4.75039
	56 2-Hexanone	0.12901	0.12721	0.13631	0.14650	0.14999	0.14697	AVRG		0.13933		7.07577
	57 Dibromochloromethane	0.21563	0.20823	0.21551	0.22105	0.23353	0.25244	AVRG		0.22440		7.18118
	58 1,2-Dibromoethane	0.23506	0.22857	0.23353	0.23175	0.23617	0.23958	AVRG		0.23411		1.61804
	59 Chlorobenzene	0.90416	0.85807	0.82272	0.83883	0.83054	0.88117	AVRG		0.85591		3.69742
	60 1,1,1,2-Tetrachloroethane	0.28330	0.26449	0.25289	0.26253	0.26314	0.28937	AVRG		0.26929		5.18637
	61 Ethylbenzene	0.38479	0.38212	0.41681	0.43993	0.45437	0.48865	AVRG		0.42778		9.70245
	62 m + p-Xylene	0.45667	0.49111	0.53377	0.56140	0.57164	0.62146	AVRG		0.53934		10.95793
M	63 Xylenes (total)	0.44626	0.47755	0.51851	0.54785	0.55796	0.61000	AVRG		0.52635		11.18032
	64 Xylene-o	0.42543	0.45044	0.48799	0.52074	0.53060	0.58708	AVRG		0.50038		11.69038
	65 Styrene	76367	164417	510083	1140662	2438271	5386241	WLINR	0.03737	0.93343		0.99161

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Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
66 Bromoform	0.12748	0.12135	0.12075	0.13435	0.14132	0.15493	AVRG		0.13336		9.87512
67 Isopropylbenzene	112763	243638	748001	1647634	3497595	7576125	WLINR	0.03419	1.33396		0.99425
68 1,1,2,2-Tetrachloroethane	0.66962	0.62768	0.57504	0.58750	0.57651	0.54768	AVRG		0.59734		7.35060
69 1,4-Dichloro-2-butene	3551	8119	27369	70916	136015	341432	WLINR	0.06855	0.10765		0.99135
70 1,2,3-Trichloropropane	0.19396	0.16598	0.16482	0.16415	0.16055	0.15296	AVRG		0.16707		8.37720
71 Bromobenzene	0.64254	0.60987	0.59186	0.60613	0.60418	0.63148	AVRG		0.61434		3.07562
72 n-Propylbenzene	0.48098	0.48964	0.57798	0.63270	0.66426	0.68412	AVRG		0.58828		14.87394
73 2-Chlorotoluene	0.51936	0.54322	0.56223	0.58468	0.58649	0.61148	AVRG		0.56791		5.85262
74 1,3,5-Trimethylbenzene	1.39366	1.47234	1.68837	1.84582	1.91511	2.02058	AVRG		1.72265		14.52504
75 4-Chlorotoluene	0.55038	0.56266	0.57245	0.60610	0.60308	0.62865	AVRG		0.58722		5.11026
76 tert-Butylbenzene	1.28191	1.22178	1.37128	1.52363	1.60832	1.69779	AVRG		1.45079		13.02055
77 1,2,4-Trimethylbenzene	77256	193897	604663	1373243	2867378	6397801	WLINR	0.03647	1.99177		0.99718
78 sec-Butylbenzene	1.55687	1.64349	1.89550	2.04355	2.15772	2.27788	AVRG		1.92917		14.81209
79 4-Isopropyltoluene	67716	155110	530515	1219697	2625630	5944732	WLINR	0.04219	1.80618		0.99141
80 1,3-Dichlorobenzene	1.17600	1.12665	1.06906	1.11167	1.11423	1.17824	AVRG		1.12931		3.70416
81 1,4-Dichlorobenzene	1.24380	1.20975	1.11102	1.13911	1.14655	1.20202	AVRG		1.17538		4.31518
82 n-Butylbenzene	57674	122764	390449	915392	2053758	4741165	WLINR	0.06094	1.50635		0.99362
83 1,2-Dichlorobenzene	1.16629	1.06766	1.05972	1.08774	1.08055	1.12895	AVRG		1.09848		3.73483
84 1,2-Dibromo-3-chloropropane	0.08040	0.07315	0.07097	0.07781	0.08390	0.08250	AVRG		0.07812		6.62003
85 1,2,4-Trichlorobenzene	0.47683	0.46326	0.43635	0.48503	0.51311	0.56454	AVRG		0.48985		9.07553
86 Hexachlorobutadiene	0.24779	0.21799	0.22009	0.22399	0.22779	0.23095	AVRG		0.22810		4.71940
87 Naphthalene	48454	106778	311930	819190	1942341	4176243	WLINR	0.06763	1.35476		0.99303

Report Date : 07-May-2009 15:08

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
88	1,2,3-Trichlorobenzene	0.45541	0.44686	0.43846	0.48919	0.49263	0.50149	AVRG		0.47067		5.71088	
89	Ethyl Ether	0.20093	0.21483	0.21098	0.21483	0.19691	0.20397	AVRG		0.20707		3.65393	
90	Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
91	3-Chloropropene	0.09584	0.10910	0.11251	0.12423	0.12027	0.12935	AVRG		0.11522		10.46166	
92	Isopropyl Ether	0.18535	0.21145	0.21850	0.22774	0.21181	0.22569	AVRG		0.21342		7.18596	
93	2-Chloro-1,3-butadiene	0.27547	0.30036	0.29637	0.30806	0.30368	0.31680	AVRG		0.30012		4.65421	
94	Propionitrile	0.02998	0.03291	0.03105	0.03209	0.03133	0.03187	AVRG		0.03154		3.16872	
95	Ethyl Acetate	0.16199	0.16874	0.18046	0.18301	0.16979	0.17899	AVRG		0.17383		4.72620	
96	Methacrylonitrile	0.11347	0.11956	0.11876	0.13196	0.12096	0.12652	AVRG		0.12187		5.31681	
97	Isobutanol	0.00658	0.00724	0.00734	0.00768	0.00750	0.00847	AVRG		0.00747		8.27085	<-
98	Cyclohexane	47575	88575	381316	788999	1670998	3075846	WLINR	0.04870	0.49640		0.99763	
99	n-Butanol	0.00845	0.00590	0.00627	0.00629	0.00654	0.00726	AVRG		0.00679		13.75410	<-
100	Methyl Methacrylate	0.13128	0.13726	0.14084	0.15269	0.14139	0.15853	AVRG		0.14367		7.03015	
101	2-Nitropropane	0.03706	0.03774	0.03936	0.04214	0.04432	0.04707	AVRG		0.04128		9.53811	
102	Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
103	Cyclohexanone	28907	65315	208684	534579	1187822	2553066	WLINR	0.73333	0.09343		0.99492	
104	Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
105	Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
134	Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
135	Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
136	Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
M 137	Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

Report Date : 07-May-2009 15:08

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
141 1,3,5-Trichlorobenzene	0.60668	0.60737	0.55680	0.59099	0.61745	0.66945	AVRG		0.60812		6.05457	
143 Methyl Acetate	0.17900	0.17351	0.16095	0.16230	0.15966	0.15754	AVRG		0.16549		5.23071	
144 Methylcyclohexane	37338	71315	338714	713867	1512492	2687921	WLINR	0.05528	0.44254		0.99567	
145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
146 2-Methylnaphthalene	23168	53537	141008	393989	1288734	2551230	QUAD	0.36884	2.05394	-0.01427	0.99265	
147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
149 Vinyl Acetate-86	0.03449	0.03052	0.03699	0.04004	0.04220	0.04445	AVRG		0.03812		13.51471	
150 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
151 t-Butyl ethyl ether	0.54040	0.62529	0.60606	0.65230	0.61732	0.64561	AVRG		0.61450		6.54305	
152 t-Amyl methyl ether	0.46482	0.52174	0.53632	0.59773	0.57207	0.60822	AVRG		0.55015		9.75324	
153 1,2,3-Trimethylbenzene	1.62037	1.82441	1.95483	2.22378	2.06577	2.23808	AVRG		1.98787		12.05624	
$ 4 Dibromofluoromethane	0.19617	0.21820	0.19756	0.20189	0.19823	0.21365	AVRG		0.20428		4.56468	
$ 5 1,2-Dichloroethane-d4	0.23960	0.24920	0.22706	0.22549	0.22486	0.23783	AVRG		0.23401		4.19295	
$ 6 Toluene-d8	0.98307	1.07179	1.05051	1.07269	1.09447	1.15858	AVRG		1.07185		5.33874	
$ 7 Bromofluorobenzene	0.29579	0.33664	0.34360	0.36506	0.37492	0.41415	AVRG		0.35503		11.24496	

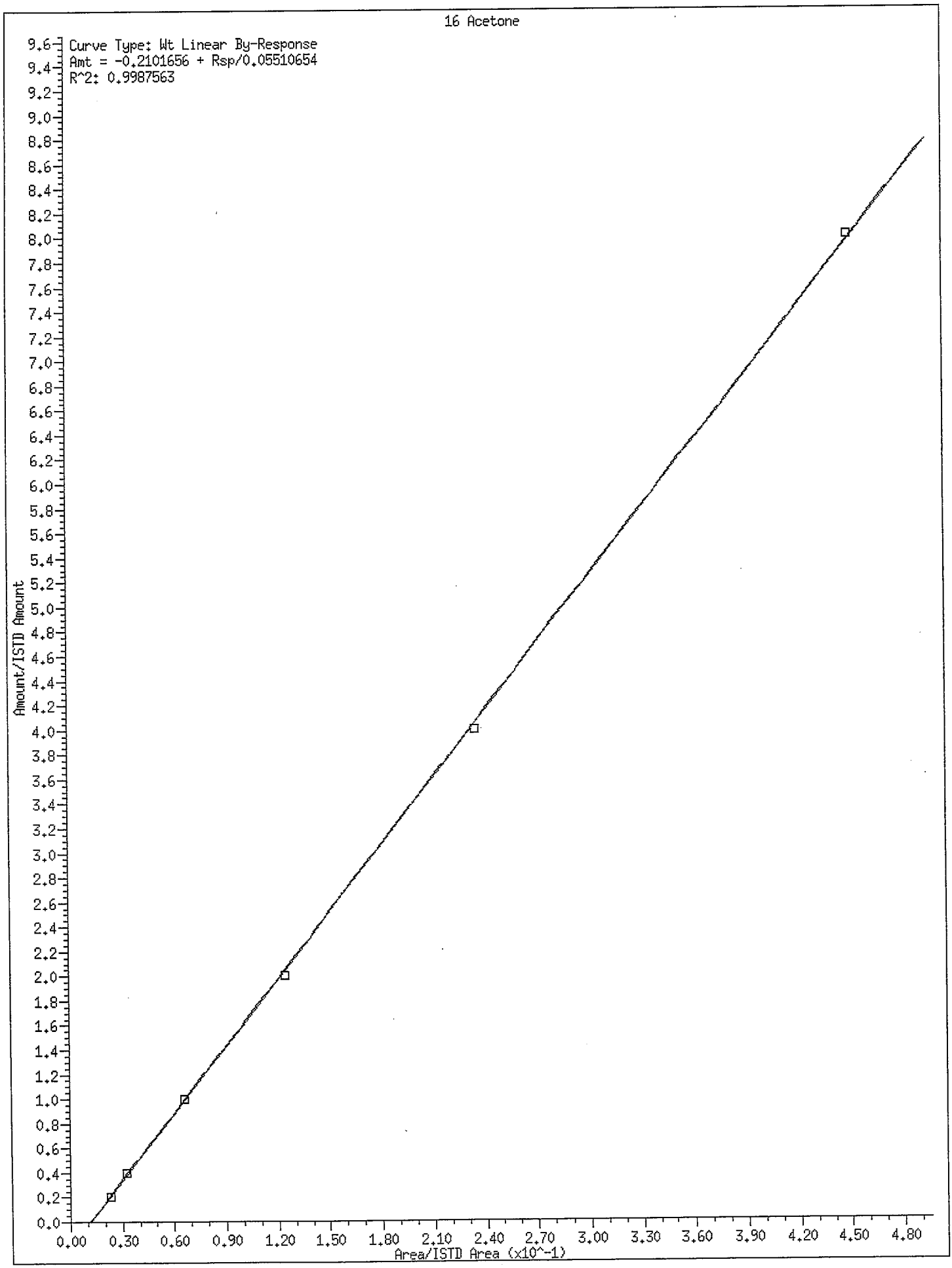
Report Date : 07-May-2009 15:08

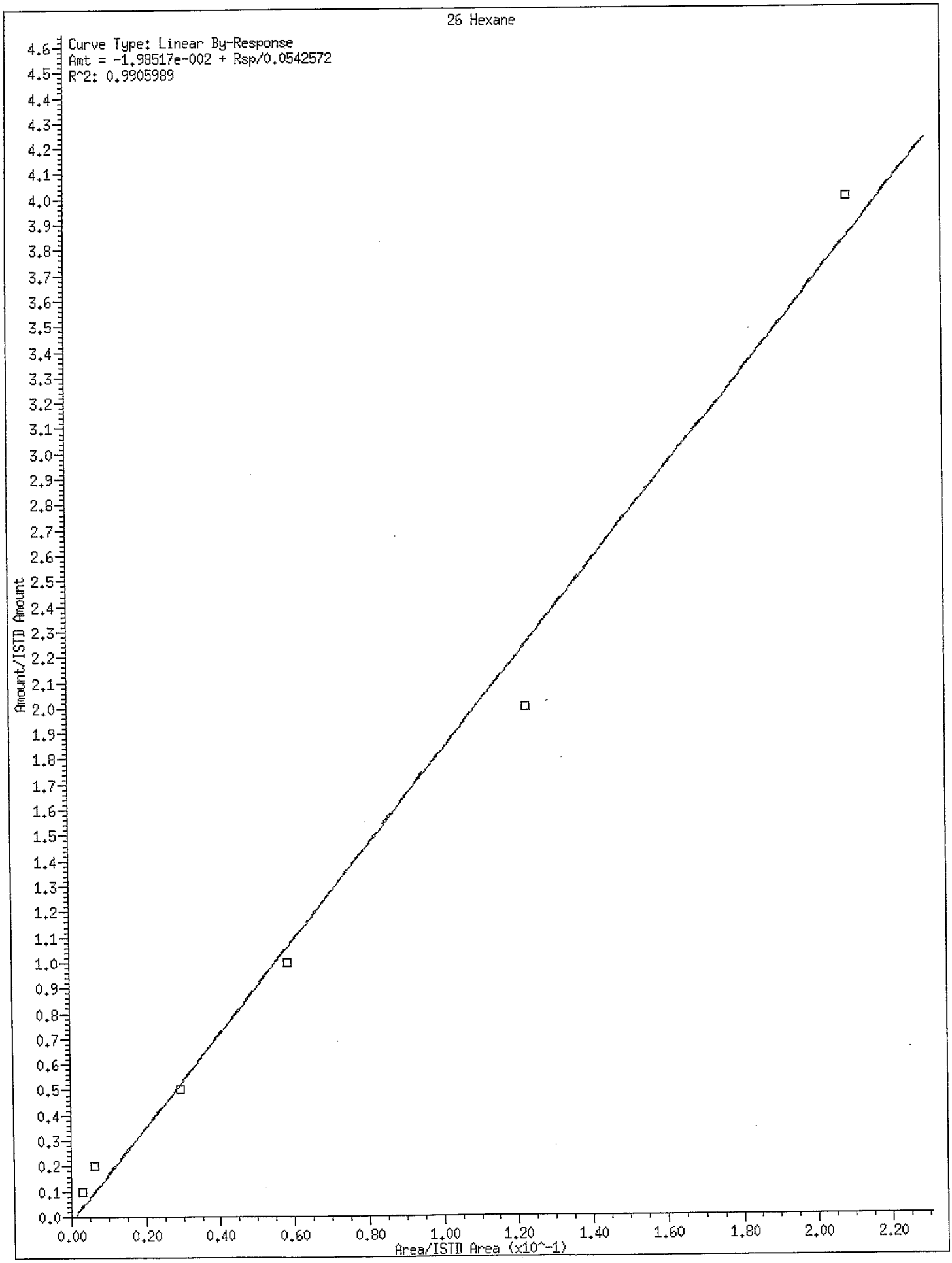
TestAmerica North Canton

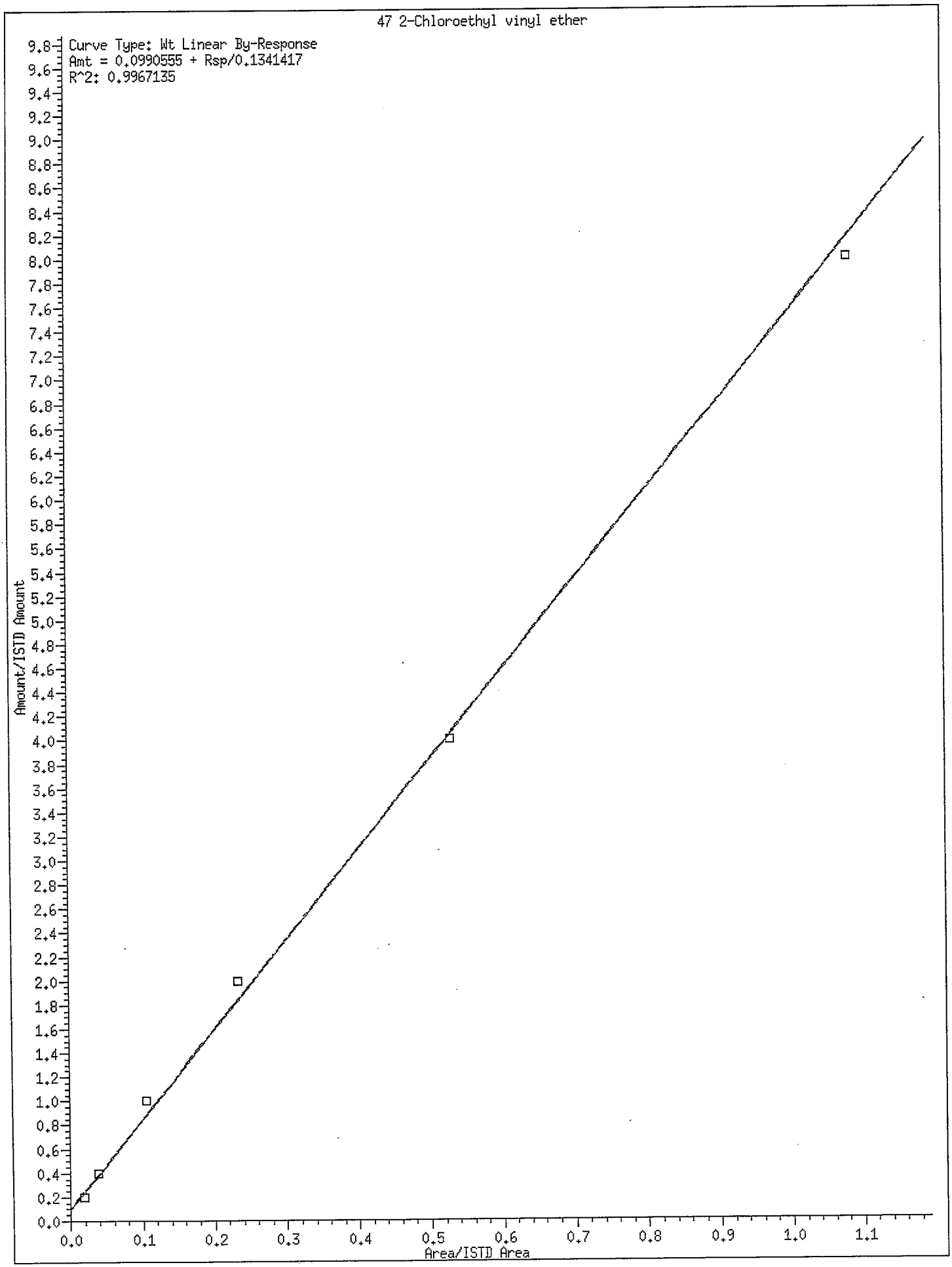
INITIAL CALIBRATION DATA

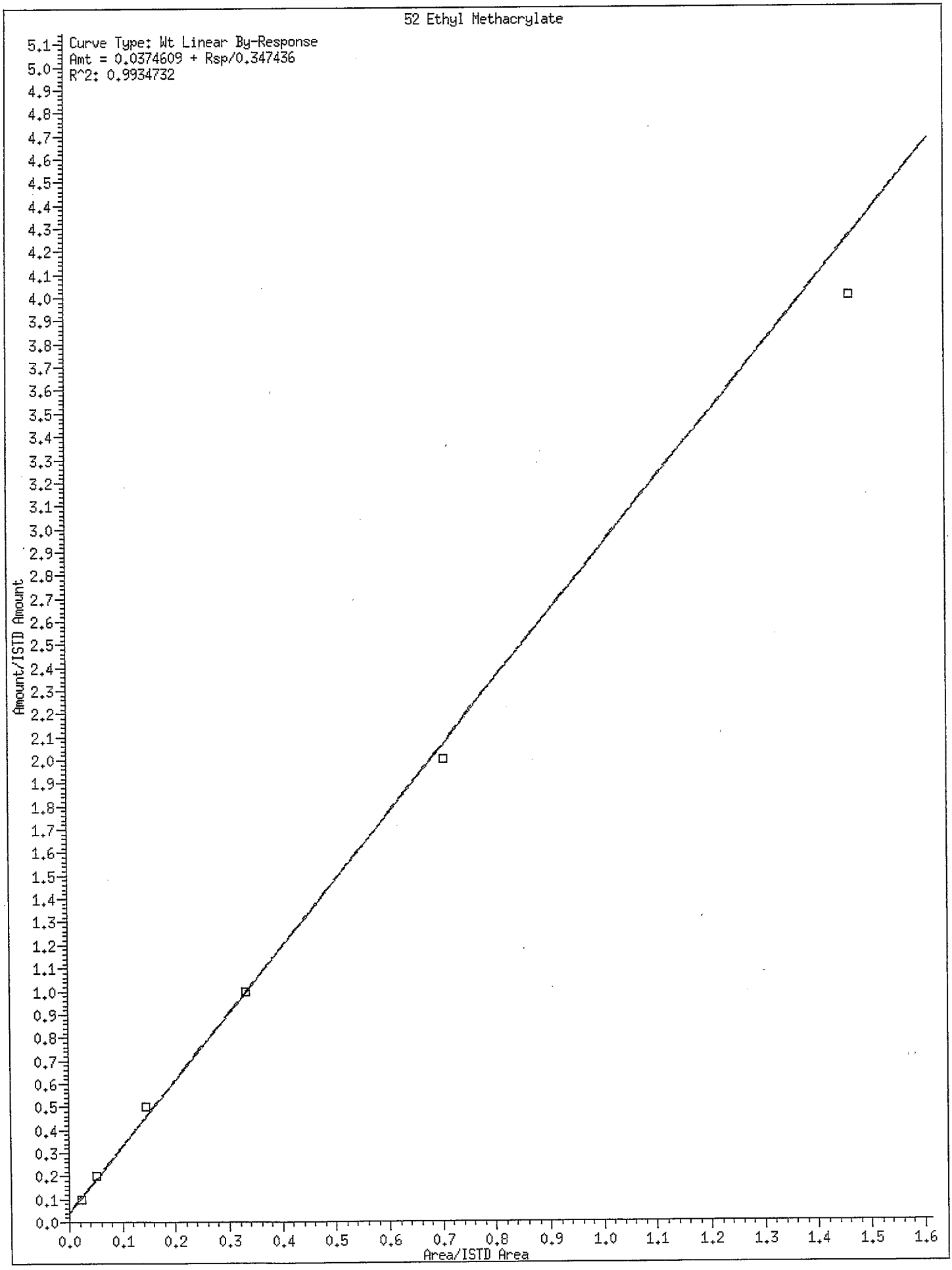
Start Cal Date : 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Last Edit : 07-May-2009 15:07 williamsl

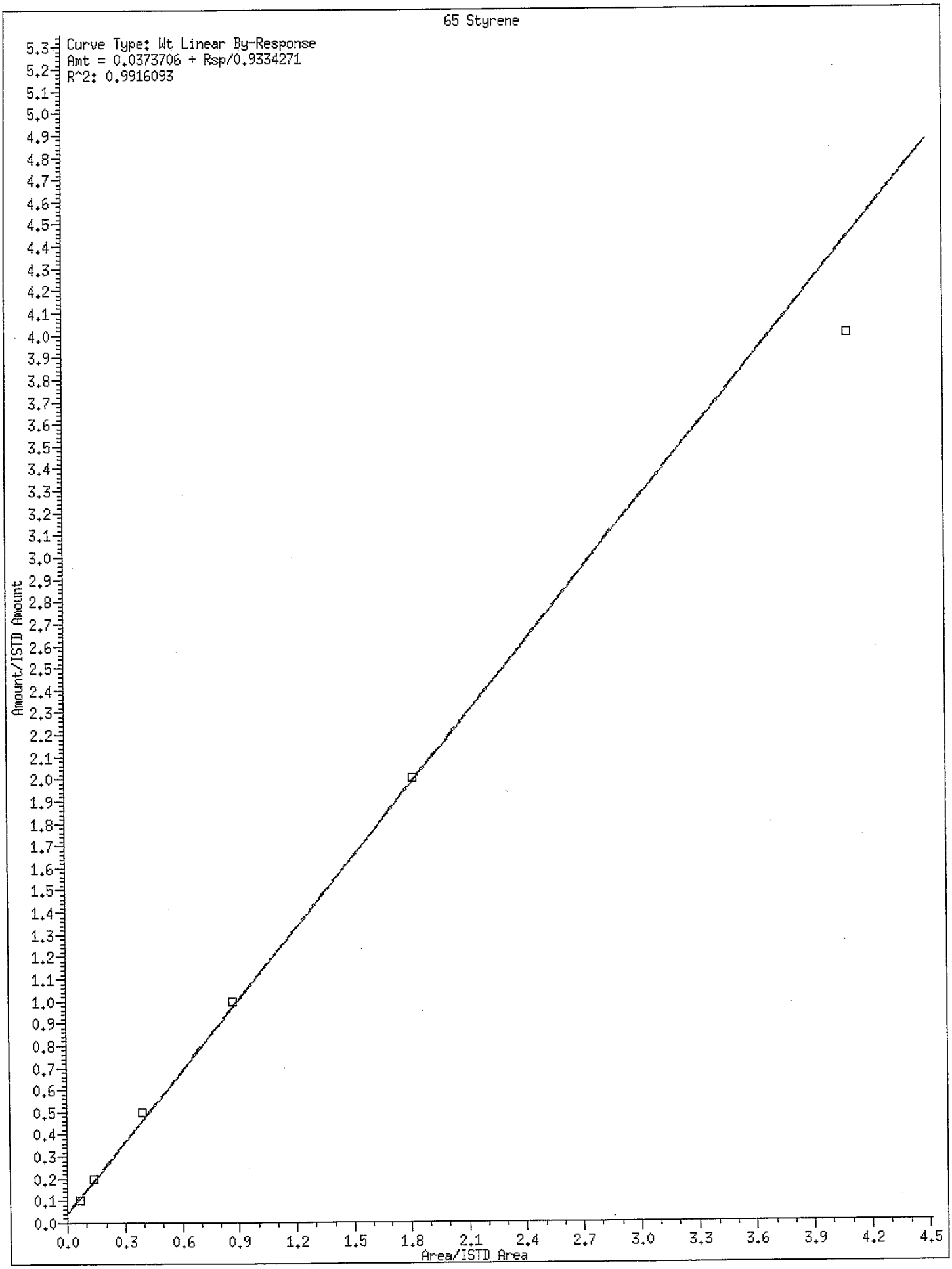
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

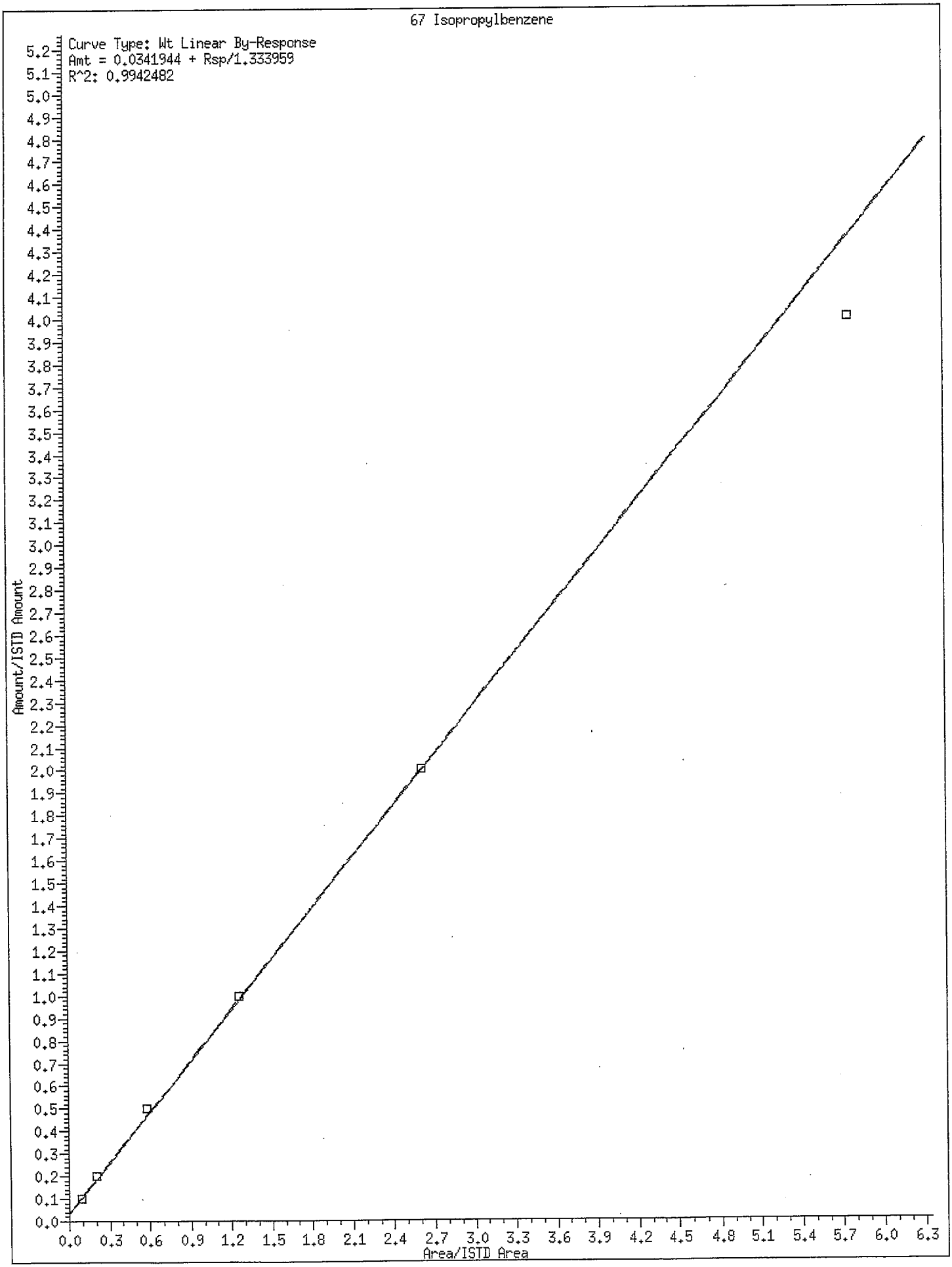

16 Acetone
Curve Type: Wt Linear By-Response
Amt = -0.2101656 + Rsp/0.05510654
R^2: 0.9987563
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
6.0
6.2
6.4
6.6
6.8
7.0
7.2
7.4
7.6
7.8
8.0
8.2
8.4
8.6
8.8
9.0
9.2
9.4
9.6
0.00
0.30
0.60
0.90
1.20
1.50
1.80
2.10
2.40
2.70
3.00
3.30
3.60
3.90
4.20
4.50
4.80

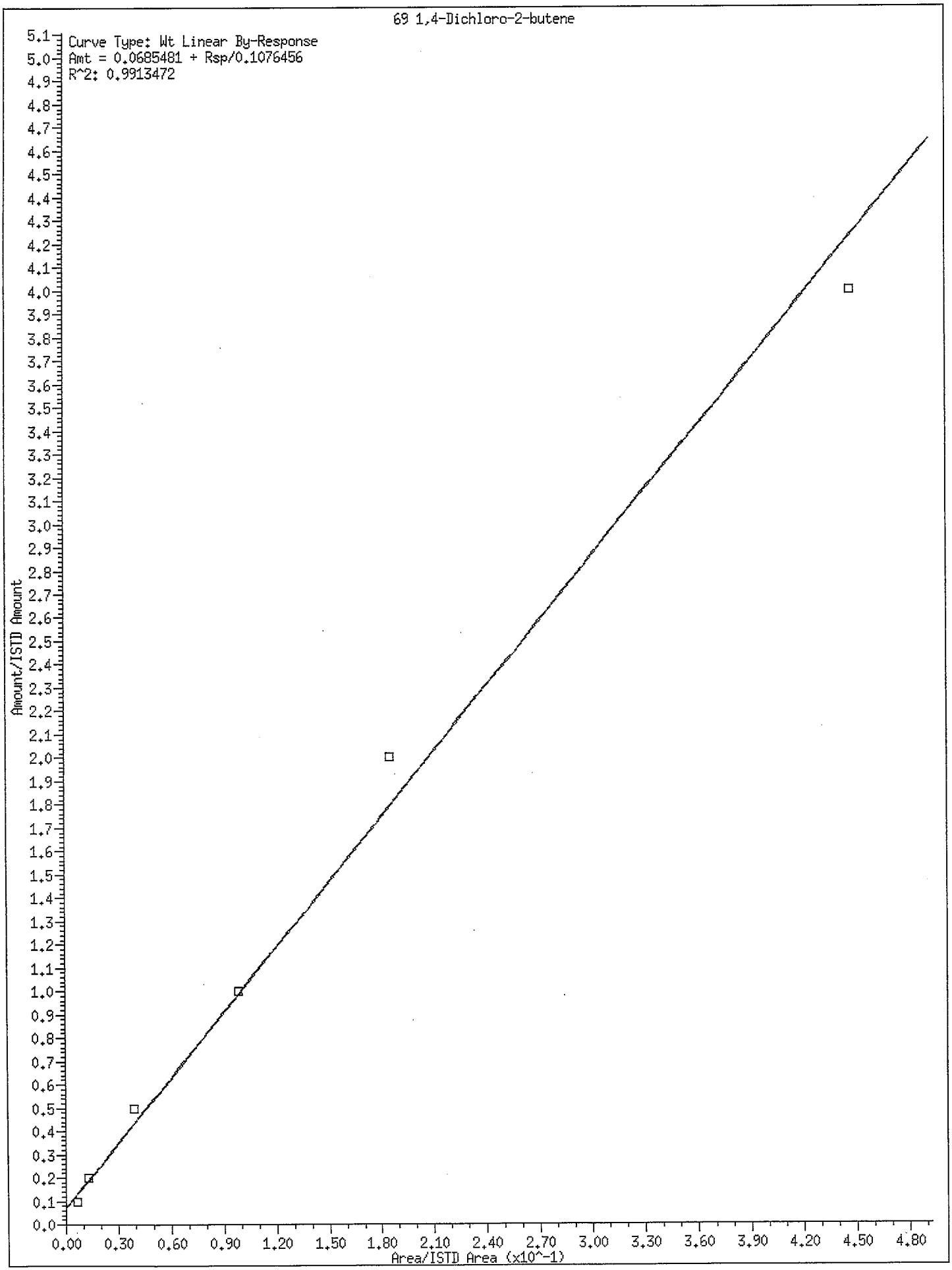

26 Hexane
Curve Type: Linear By-Response
Amt = -1.98517e-002 + Rsp/0.0542572
R^2: 0.9905989
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
4.4
4.5
4.6
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80
2.00
2.20

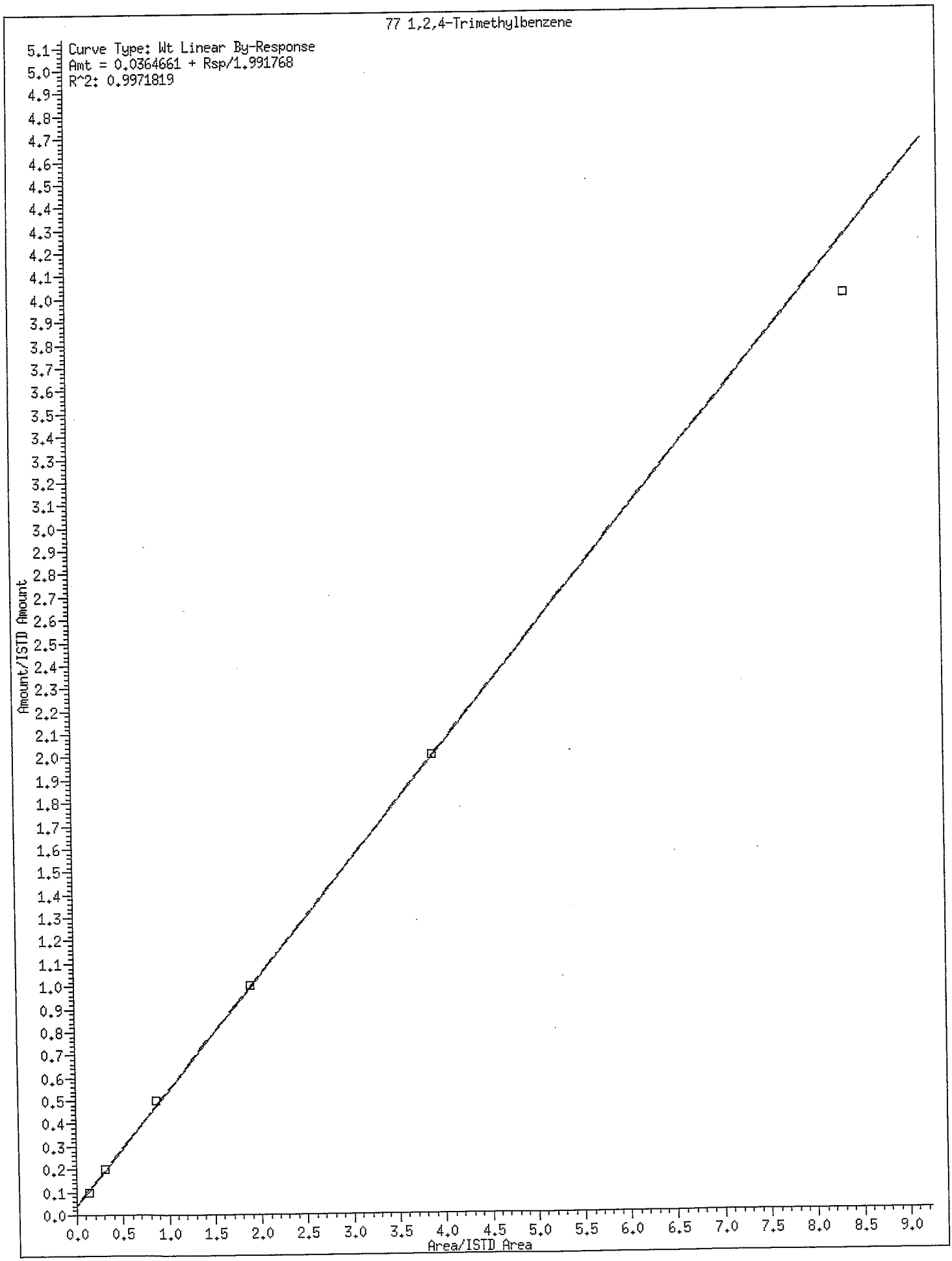

47 2-Chloroethyl vinyl ether
Curve Type: Wt Linear By-Response
Amt = 0.0990555 + Rsp/0.1341417
R^2: 0.9967135
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1

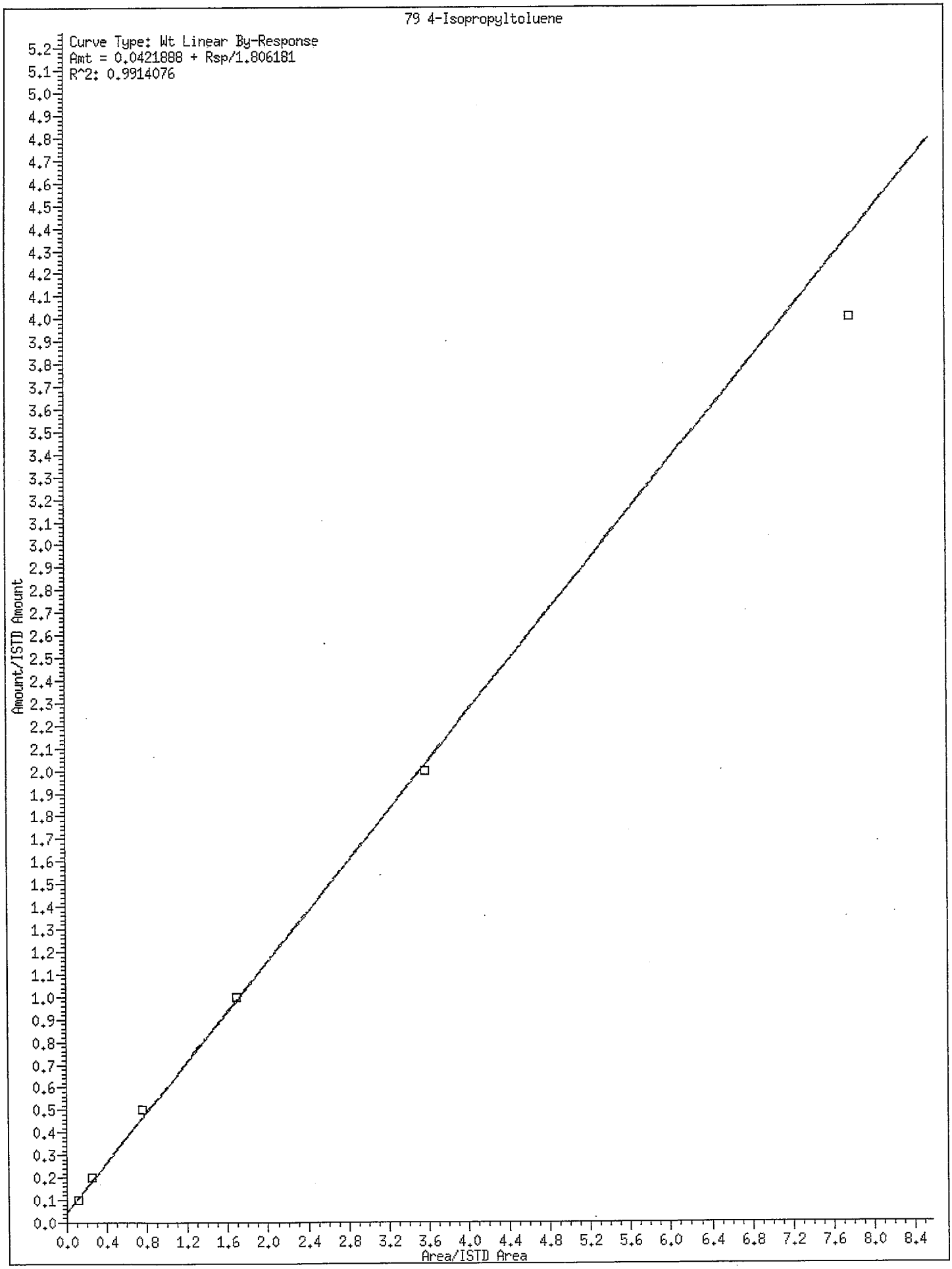

52 Ethyl Methacrylate
Curve Type: Wt Linear By-Response
Amt = 0.0374609 + Rsp/0.347436
R^2: 0.9934732
Amount/ISTD Amount
Area/ISTD Area

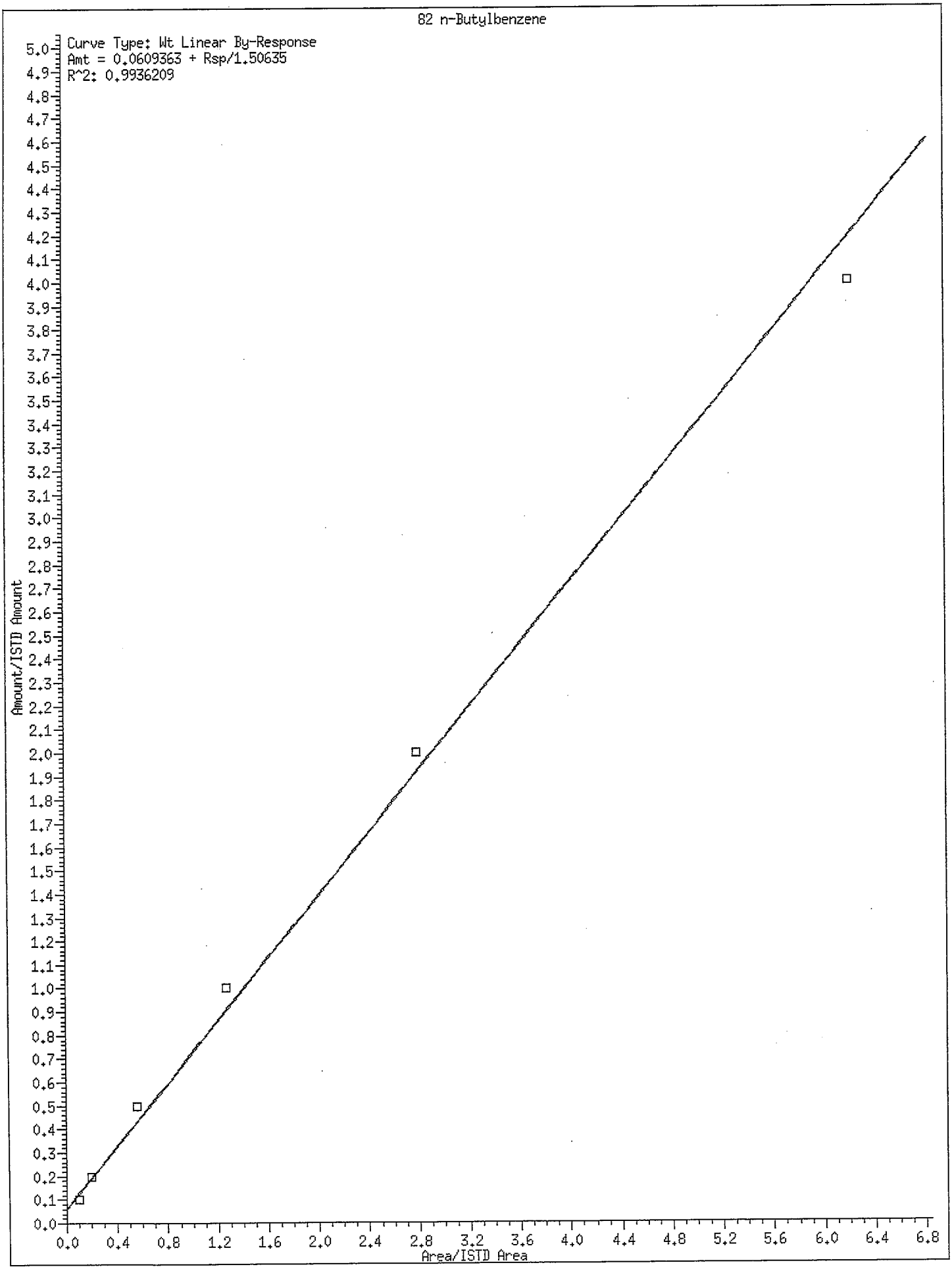

65 Styrene
Curve Type: Wt Linear By-Response
Amt = 0.0373706 + Rsp/0.9334271
R^2: 0.9916093
Amount/ISTD Amount
Area/ISTD Area
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5

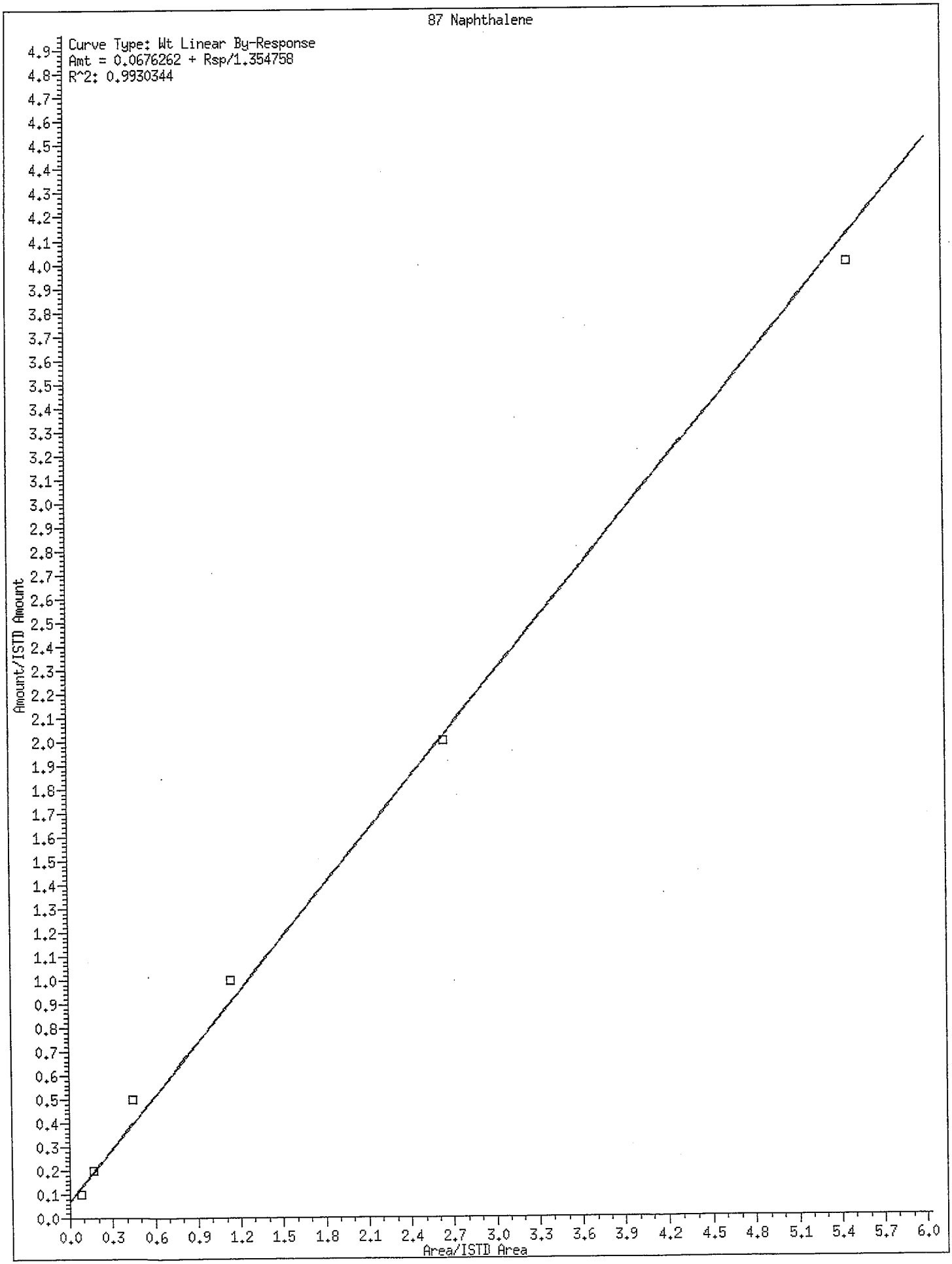

67 Isopropylbenzene
Curve Type: Wt Linear By-Response
Amt = 0.0341944 + Rsp/1.333959
R^2: 0.9942482
Amount/ISTD Amount
Area/ISTD Area
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2

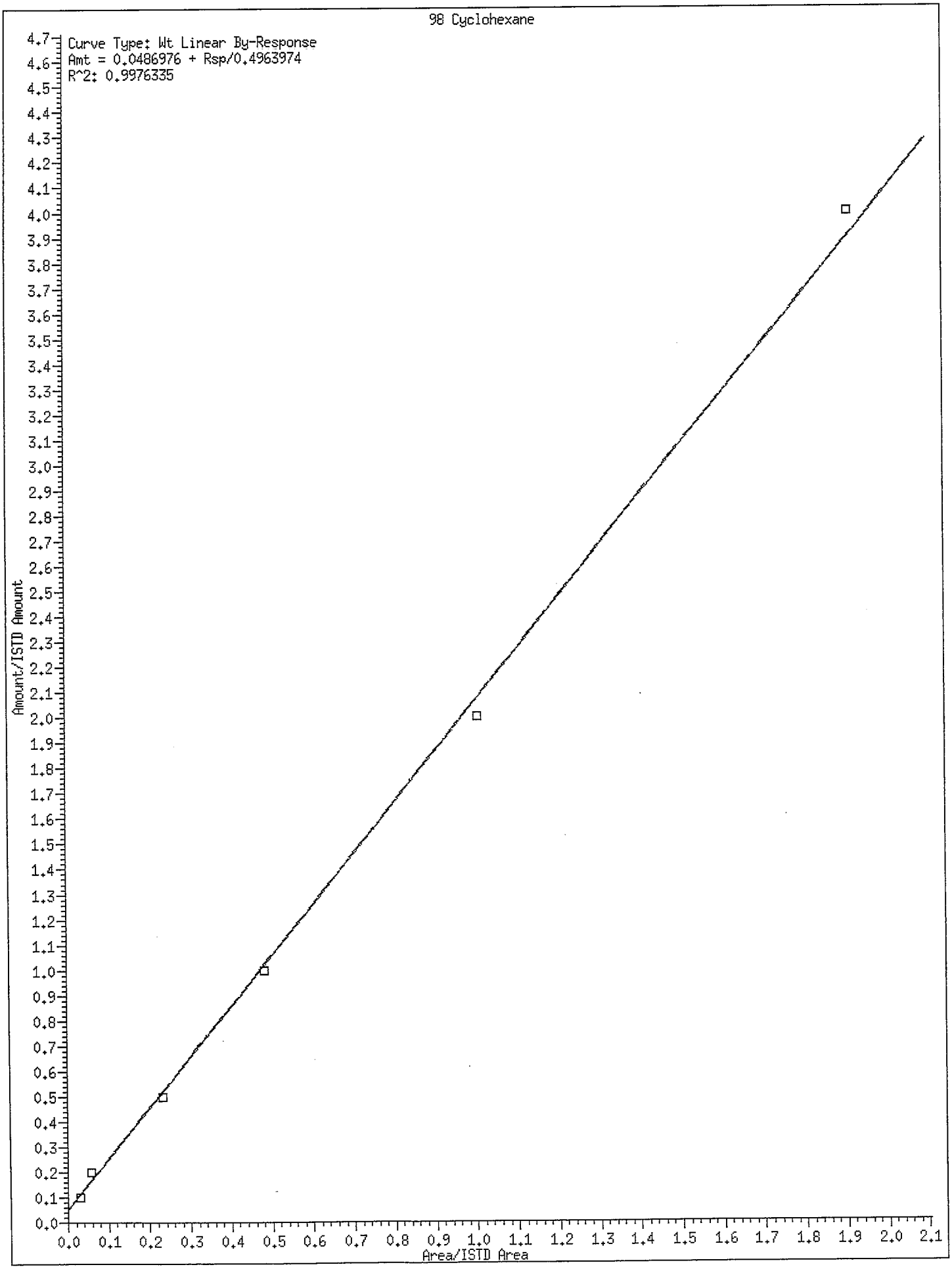

69 1,4-Dichloro-2-butene
Curve Type: Wt Linear By-Response
Amt = 0.0685481 + Rsp/0.1076456
R^2: 0.9913472
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.00 0.30 0.60 0.90 1.20 1.50 1.80 2.10 2.40 2.70 3.00 3.30 3.60 3.90 4.20 4.50 4.80

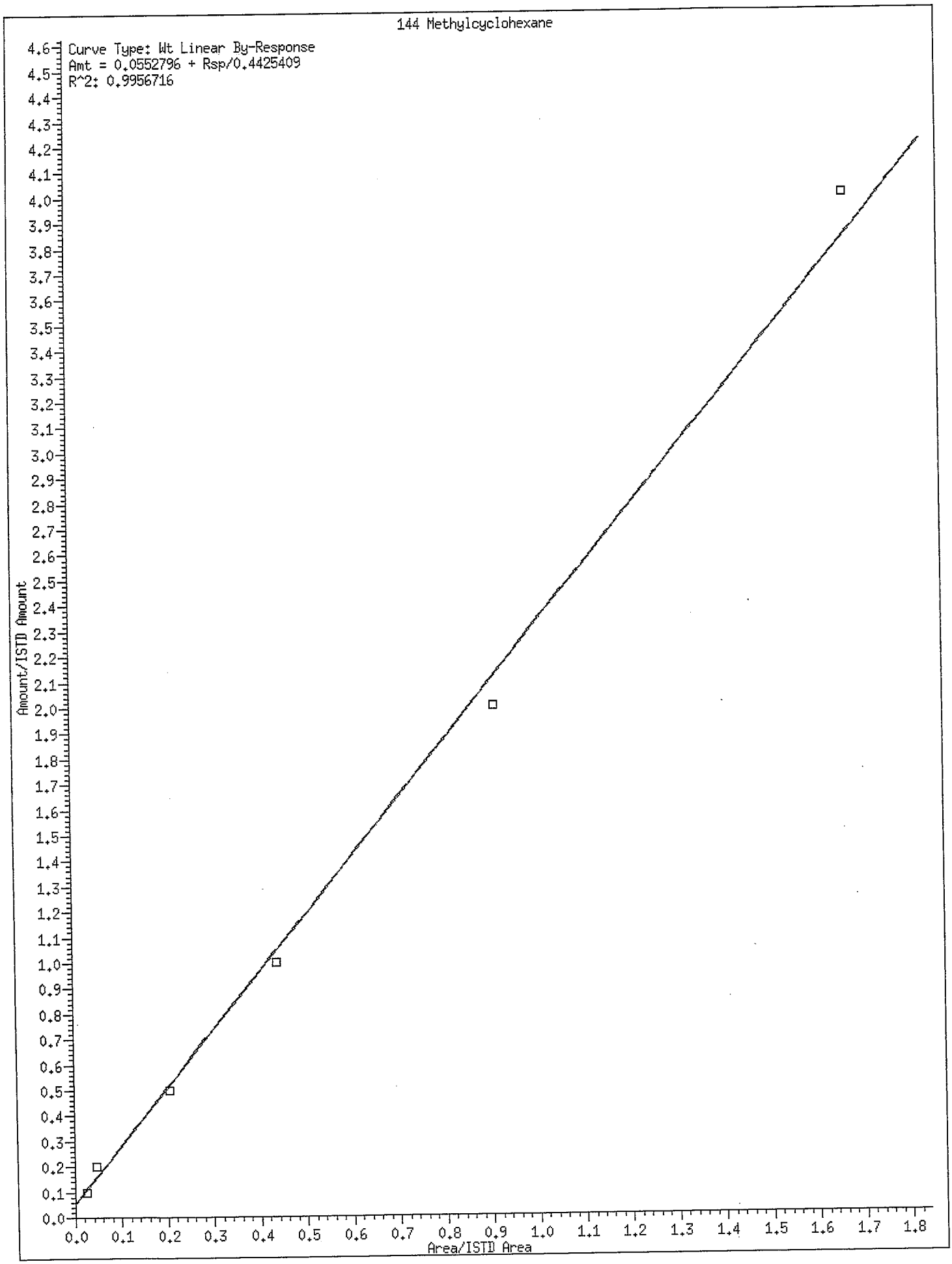

77 1,2,4-Trimethylbenzene
Curve Type: Wt Linear By-Response
Amt = 0.0364661 + Rsp/1.991768
R^2: 0.9971819
Amount/ISTD Amount
Area/ISTD Area


79 4-Isopropyltoluene
Curve Type: Wt Linear By-Response
Amt = 0.0421888 + Rsp/1.806181
R^2: 0.9914076
Amount/ISTD Amount
Area/ISTD Area


82 n-Butylbenzene
Curve Type: Wt Linear By-Response
Amt = 0.0609363 + Rsp/1.50635
R^2: 0.9936209
Amount/ISTD Amount
Area/ISTD Area
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8


87 Naphthalene
Curve Type: Wt Linear By-Response
Amt = 0.0676262 + Rsp/1.354758
R^2: 0.9930344
Amount/ISTD Amount
Area/ISTD Area


98 Cyclohexane
Curve Type: Wt Linear By-Response
Amt = 0.0486976 + Rsp/0.4963974
R^2: 0.9976335
Amount/ISTD Amount
Area/ISTD Area


144 Methylcyclohexane
Curve Type: Wt Linear By-Response
Amt = 0.0552796 + Rsp/0.4425409
R^2: 0.9956716
Amount/ISTD Amount
Area/ISTD Area
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Lab Smp Id: 200NG-IC
Inj Date : 07-MAY-2009 13:42
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 200NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,6
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 20:10 Cal File: UXM5916.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1609708	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1314354	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	762649	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	1375674	200.000	209.17
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	1531354	200.000	203.27
$	6 Toluene-d8	98	7.015	7.015	(0.841)	6091135	200.000	216.18
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	2177344	200.000	233.30
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	1254482	200.000	207.07
	9 Chloromethane	50	1.785	1.785	(0.317)	2022513	200.000	209.78
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	2053657	200.000	199.35
	11 Bromomethane	94	2.236	2.236	(0.397)	748795	200.000	206.52
	12 Chloroethane	64	2.343	2.343	(0.415)	609323	200.000	207.20
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	1730424	200.000	204.15
	15 Acrolein	56	2.983	2.983	(0.529)	2409809	2000.00	1957.3
	16 Acetone	43	3.137	3.137	(0.556)	724366	400.000	397.79
	17 1,1-Dichloroethene	96	3.078	3.078	(0.546)	1531641	200.000	210.13
	18 Freon-113	151	3.101	3.101	(0.550)	1060048	200.000	206.04
	19 Iodomethane	142	3.220	3.220	(0.571)	2454025	200.000	210.88
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	5086915	200.000	222.23
	21 Methylene Chloride	84	3.528	3.528	(0.626)	1705162	200.000	192.59
	22 Acetonitrile	41	3.398	3.398	(0.603)	1699283	2000.00	1827.3
	23 Acrylonitrile	53	3.754	3.754	(0.666)	1071060	400.000	390.58

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	3719642	200.000	215.56
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	1742030	200.000	211.73
26 Hexane	86	4.015	4.015	(0.712)	337122	200.000	192.00
27 Vinyl acetate	43	4.181	4.181	(0.741)	2356005	200.000	223.41
28 1,1-Dichloroethane	63	4.145	4.145	(0.735)	2800323	200.000	206.14
29 tert-Butyl Alcohol	59	3.635	3.635	(0.645)	1586842	4000.00	3871.7
30 2-Butanone	43	4.655	4.655	(0.825)	1095255	400.000	372.44
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	1785486	200.000	216.40
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	1440445	200.000	205.11
34 Bromochloromethane	128	4.857	4.857	(0.861)	827770	200.000	205.76
35 Chloroform	83	4.928	4.928	(0.874)	2618210	200.000	205.18
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	329878	200.000	207.99
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	1980353	200.000	209.26
38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	2205652	200.000	218.24
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	1737726	200.000	212.14
40 1,2-Dichloroethane	62	5.414	5.414	(0.960)	1897069	200.000	203.09
41 Benzene	78	5.414	5.414	(0.960)	7101696	200.000	209.81
42 Trichloroethene	130	5.959	5.959	(1.057)	1721355	200.000	209.84
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	1627921	200.000	207.22
44 1,4-Dioxane	88	6.256	6.256	(1.109)	689475	10000.0	10502
45 Dibromomethane	93	6.256	6.256	(1.109)	860432	200.000	207.51
46 Bromodichloromethane	83	6.386	6.386	(1.132)	1869330	200.000	220.95
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	1741893	400.000	408.30
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	2432974	200.000	238.09
49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	2288179	400.000	419.74
50 Toluene	91	7.074	7.074	(0.848)	7546446	200.000	215.76
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	2018244	200.000	236.31
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	1926198	200.000	212.78
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	1325143	200.000	198.55
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	2416744	200.000	202.29
55 Tetrachloroethene	164	7.572	7.572	(0.908)	1369629	200.000	207.88
56 2-Hexanone	43	7.643	7.643	(0.916)	1545329	400.000	421.92
57 Dibromochloromethane	129	7.797	7.797	(0.935)	1327184	200.000	224.99
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	1259583	200.000	204.68
59 Chlorobenzene	112	8.367	8.367	(1.003)	4632657	200.000	205.90
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	1521334	200.000	214.92
61 Ethylbenzene	106	8.461	8.461	(1.014)	2569050	200.000	228.46
62 m + p-Xylene	106	8.568	8.568	(1.027)	6534515	400.000	460.90
64 Xylene-o	106	8.948	8.948	(1.072)	3086503	200.000	234.65
65 Styrene	104	8.960	8.960	(1.074)	5386241	200.000	221.38
66 Bromoform	173	9.149	9.149	(1.097)	814514	200.000	232.33
67 Isopropylbenzene	105	9.292	9.292	(1.114)	7576125	200.000	217.76
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	1670747	200.000	183.37
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	341432	200.000	211.37
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	466620	200.000	183.11
71 Bromobenzene	156	9.600	9.600	(0.908)	1926395	200.000	205.58
72 n-Propylbenzene	120	9.695	9.695	(0.917)	2086977	200.000	232.58
73 2-Chlorotoluene	126	9.790	9.790	(0.926)	1865381	200.000	215.34
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	6163962	200.000	234.59
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	1917756	200.000	214.11
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	5179279	200.000	234.05
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	6397801	200.000	212.41
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	6948881	200.000	236.15
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	5944732	200.000	217.89

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	3594344	200.000	208.67
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	3666886	200.000	204.53
82	n-Butylbenzene	91	10.940	10.940	(1.035)	4741165	200.000	209.40
83	1,2-Dichlorobenzene	146	10.975	10.975	(1.038)	3443970	200.000	205.55
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	251685	200.000	211.22
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	1722184	200.000	230.49
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	704535	200.000	202.50
87	Naphthalene	128	12.825	12.825	(1.213)	4176243	200.000	205.48
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	1529834	200.000	213.09
98	Cyclohexane	56	5.141	5.141	(0.912)	3075846	200.000	194.90
143	Methyl Acetate	43	3.433	3.433	(0.609)	2028747	400.000	380.78
144	Methylcyclohexane	83	6.125	6.125	(1.086)	2687921	200.000	191.43
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	2042213	200.000	220.17
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	286209	200.000	233.24

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

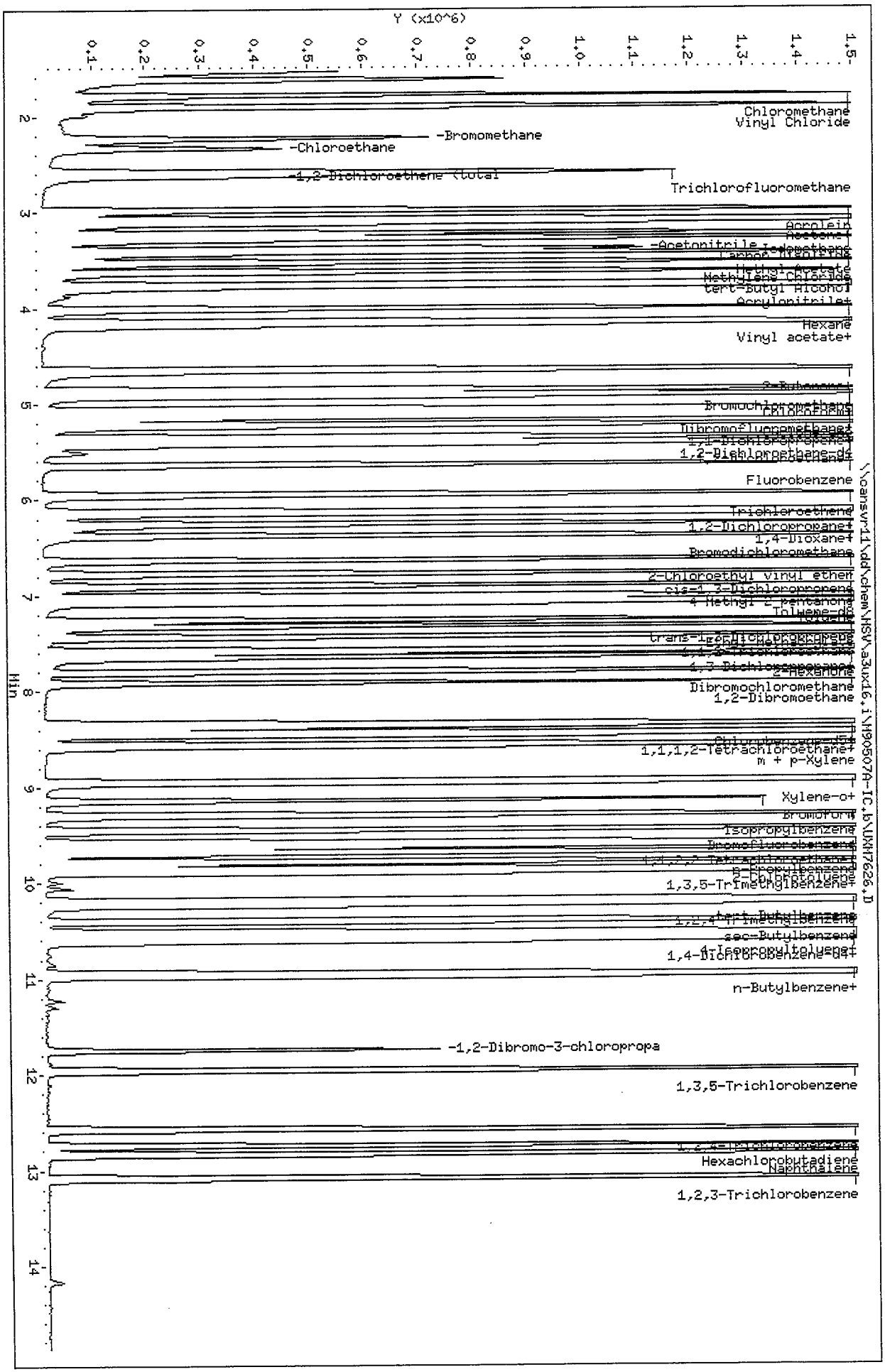
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7626.D
Lab Smp Id: 200NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,6

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1609708	-1.54
2 Chlorobenzene-d5	1305765	652883	2611530	1314354	0.66
3 1,4-Dichlorobenze	720090	360045	1440180	762649	5.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7626.D
Date : 07-MAY-2009 13:42
Client ID:
Sample Info: 200NG-IC
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18
Y (x10^6)
Min
\\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7626.D
Chloromethane
Vinyl Chloride
-Bromomethane
-Chloroethane
-1,2-Dichloroethene (total
Trichlorofluoromethane
Acrolein
Acetone+
-Acetonitrile
Methyl Acetate
Methylene Chloride
tert-Butyl Alcohol
Acrylonitrile+
Hexane
Vinyl acetate+
Bromochloromethane
Fluorobenzene
Trichloroethene
1,2-Dichloropropane+
1,4-Dioxane+
Bromodichloromethane
2-Chloroethyl vinyl ether
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene-d8
trans-1,3-Dichloropropene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane
1,1,1,2-Tetrachloroethane+
m + p-Xylene
Xylene-o+
Bromoform
Isopropylbenzene
1,3,5-Trimethylbenzene
sec-Butylbenzene
1,4-Dichlorobenzene-d4
n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
1,3,5-Trichlorobenzene
Hexachlorobutadiene
Naphthalene
1,2,3-Trichlorobenzene

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Lab Smp Id: 100NG-IC
Inj Date : 07-MAY-2009 14:03
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 100NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,5
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 18:25 Cal File: UXM5911.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1660787	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1336974	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.573	10.573	(1.000)	734019	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	658452	100.000	97.038
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	746882	100.000	96.090
$	6 Toluene-d8	98	7.015	7.015	(0.841)	2926552	100.000	102.11
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	1002504	100.000	105.60
	8 Dichlorodifluoromethane	85	1.607	1.607	(0.285)	675106	100.000	108.01
	9 Chloromethane	50	1.785	1.785	(0.317)	933282	100.000	93.826
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	1029376	100.000	96.847
	11 Bromomethane	94	2.248	2.248	(0.399)	360336	100.000	96.326
	12 Chloroethane	64	2.343	2.343	(0.415)	284563	100.000	93.789
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	919050	100.000	105.09
	15 Acrolein	56	2.983	2.983	(0.529)	1268055	1000.00	998.28
	16 Acetone	43	3.137	3.137	(0.556)	389070	200.000	202.05
	17 1,1-Dichloroethene	96	3.078	3.078	(0.546)	753083	100.000	100.14
	18 Freon-113	151	3.102	3.102	(0.550)	578967	100.000	109.07
	19 Iodomethane	142	3.220	3.220	(0.571)	1158897	100.000	96.523
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	2393059	100.000	101.33
	21 Methylene Chloride	84	3.529	3.529	(0.626)	816434	100.000	89.376
	22 Acetonitrile	41	3.386	3.386	(0.601)	890535	1000.00	928.17
	23 Acrylonitrile	53	3.754	3.754	(0.666)	551300	200.000	194.86

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	1841573	100.000	103.44
25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	836736	100.000	98.571
26 Hexane	86	4.015	4.015	(0.712)	204202	100.000	112.31
27 Vinyl acetate	43	4.193	4.193	(0.743)	1158694	100.000	106.50
28 1,1-Dichloroethane	63	4.145	4.145	(0.735)	1333433	100.000	95.140
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	883693	2000.00	2089.8
30 2-Butanone	43	4.655	4.655	(0.825)	597781	200.000	197.02
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	834238	100.000	98.002
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	749094	100.000	103.39
34 Bromochloromethane	128	4.857	4.857	(0.861)	393506	100.000	94.805
35 Chloroform	83	4.928	4.928	(0.874)	1247022	100.000	94.718
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	169727	100.000	103.72
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	985160	100.000	100.90
38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	1078671	100.000	103.45
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	873355	100.000	103.34
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	909871	100.000	94.411
41 Benzene	78	5.414	5.414	(0.960)	3342319	100.000	95.708
42 Trichloroethene	130	5.960	5.960	(1.057)	819700	100.000	96.849
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	790018	100.000	97.471
44 1,4-Dioxane	88	6.268	6.268	(1.111)	377479	5000.00	5572.7
45 Dibromomethane	93	6.256	6.256	(1.109)	421695	100.000	98.570
46 Bromodichloromethane	83	6.386	6.386	(1.132)	863731	100.000	98.950
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	878964	200.000	202.22
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	1135215	100.000	107.67
49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	1208064	200.000	214.79
50 Toluene	91	7.074	7.074	(0.848)	3576523	100.000	100.53
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	957269	100.000	110.19
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	942332	100.000	103.30
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	661240	100.000	97.399
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	1211924	100.000	99.727
55 Tetrachloroethene	164	7.572	7.572	(0.908)	675769	100.000	100.83
56 2-Hexanone	43	7.643	7.643	(0.916)	802153	200.000	215.30
57 Dibromochloromethane	129	7.798	7.798	(0.935)	624456	100.000	104.07
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	631499	100.000	100.88
59 Chlorobenzene	112	8.367	8.367	(1.003)	2220823	100.000	97.036
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	703617	100.000	97.717
61 Ethylbenzene	106	8.462	8.462	(1.014)	1214954	100.000	106.22
62 m + p-Xylene	106	8.568	8.568	(1.027)	3057086	200.000	211.98
64 Xylene-o	106	8.948	8.948	(1.072)	1418794	100.000	106.04
65 Styrene	104	8.960	8.960	(1.074)	2438271	100.000	99.558
66 Bromoform	173	9.138	9.138	(1.095)	377889	100.000	105.97
67 Isopropylbenzene	105	9.292	9.292	(1.114)	3497595	100.000	99.766
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	846345	100.000	96.514
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	136015	100.000	89.498
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	235699	100.000	96.098
71 Bromobenzene	156	9.600	9.600	(0.908)	886955	100.000	98.345
72 n-Propylbenzene	120	9.695	9.695	(0.917)	975155	100.000	112.92
73 2-Chlorotoluene	126	9.790	9.790	(0.926)	860983	100.000	103.27
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	2811453	100.000	111.17
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	885343	100.000	102.70
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	2361070	100.000	110.86
77 1,2,4-Trimethylbenzene	105	10.229	10.229	(0.967)	2867378	100.000	99.887
78 sec-Butylbenzene	105	10.395	10.395	(0.983)	3167613	100.000	111.85
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	2625630	100.000	101.13

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80 1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	1635727	100.000	98.664
81 1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	1683177	100.000	97.547
82 n-Butylbenzene	91	10.940	10.940	(1.035)	2053758	100.000	95.919
83 1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	1586287	100.000	98.367
84 1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	123169	100.000	107.40
85 1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	753270	100.000	104.75
86 Hexachlorobutadiene	225	12.743	12.743	(1.205)	334406	100.000	99.864
87 Naphthalene	128	12.826	12.826	(1.213)	1942341	100.000	101.04
88 1,2,3-Trichlorobenzene	180	13.087	13.087	(1.238)	723203	100.000	104.66
98 Cyclohexane	56	5.141	5.141	(0.912)	1670998	100.000	103.78
143 Methyl Acetate	43	3.434	3.434	(0.609)	1060652	200.000	192.95
144 Methylcyclohexane	83	6.126	6.126	(1.086)	1512492	100.000	105.66
141 1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	906447	100.000	101.53
149 Vinyl Acetate-86	86	4.193	4.193	(0.743)	140187	100.000	110.73

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7627.D
Lab Smp Id: 100NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24

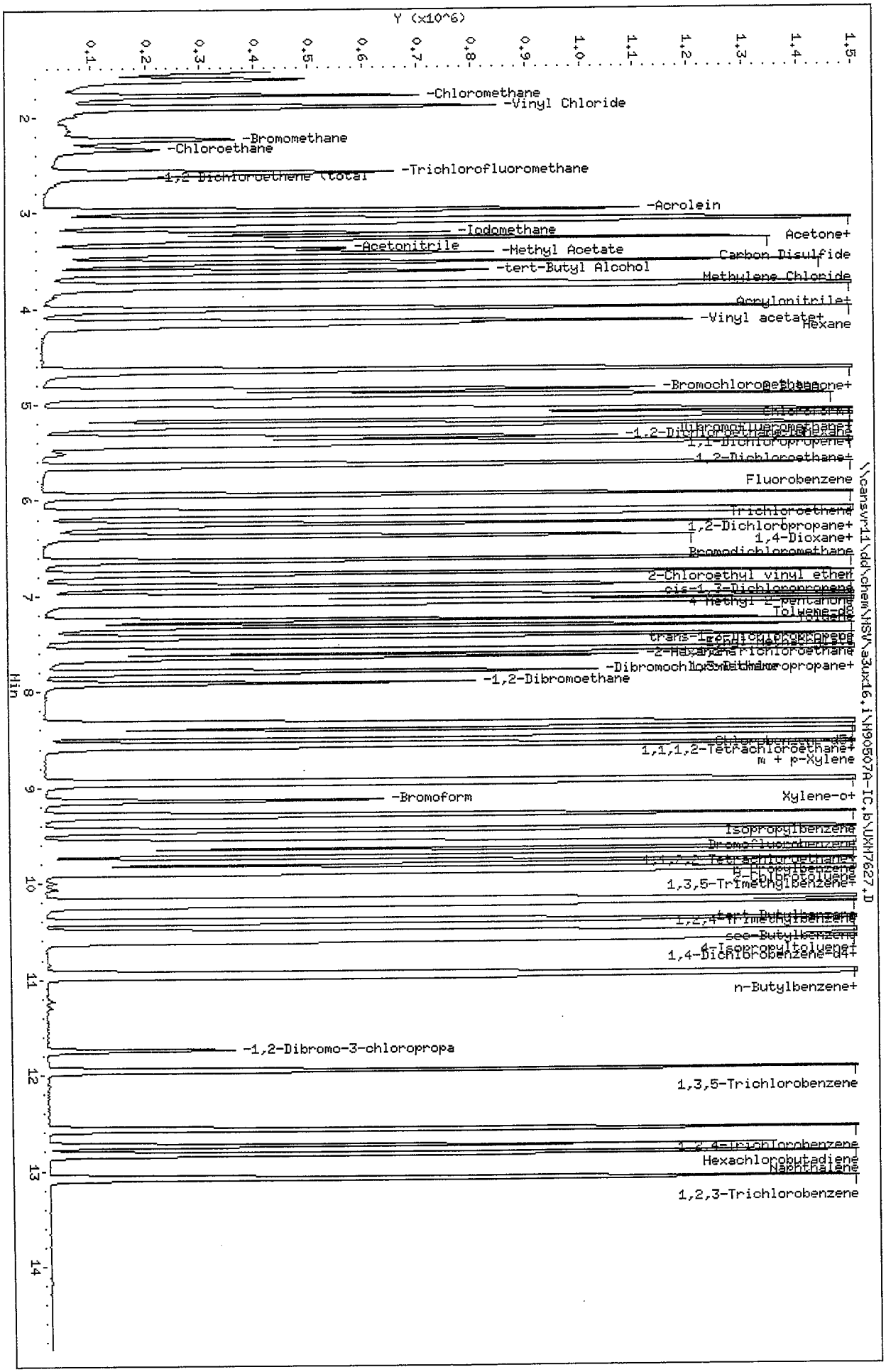
Level: LOW
Sample Type: WATER

Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1660787	1.58
2 Chlorobenzene-d5	1305765	652883	2611530	1336974	2.39
3 1,4-Dichlorobenze	720090	360045	1440180	734019	1.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7627.D
Date : 07-MAY-2009 14:03
Client ID:
Sample Info: 100NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

\\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7627.D

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Lab Smp Id: 50NG-IC
Inj Date : 07-MAY-2009 14:24
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 50NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,4
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 20:10 Cal File: UXM5916.D
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1634945	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1305765	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	720090	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	330084	50.0000	49.414
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	368670	50.0000	48.181
$	6 Toluene-d8	98	7.015	7.015	(0.841)	1400683	50.0000	50.039
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	476686	50.0000	51.414
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	347342	50.0000	56.449
	9 Chloromethane	50	1.785	1.785	(0.317)	482798	50.0000	49.305
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	522572	50.0000	49.942
	11 Bromomethane	94	2.248	2.248	(0.399)	187472	50.0000	50.908
	12 Chloroethane	64	2.354	2.354	(0.418)	148120	50.0000	49.591
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	462980	50.0000	53.777
	15 Acrolein	56	2.995	2.995	(0.531)	618218	500.000	494.38
	16 Acetone	43	3.137	3.137	(0.556)	203856	100.000	102.62
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	368904	50.0000	49.830
	18 Freon-113	151	3.113	3.113	(0.552)	289033	50.0000	55.311
	19 Iodomethane	142	3.232	3.232	(0.573)	577002	50.0000	48.817
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	1161762	50.0000	49.970
	21 Methylene Chloride	84	3.528	3.528	(0.626)	414620	50.0000	46.106
	22 Acetonitrile	41	3.398	3.398	(0.603)	451971	500.000	478.52
	23 Acrylonitrile	53	3.754	3.754	(0.666)	279408	100.000	100.32

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	890960	50.0000	50.836
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	414605	50.0000	49.614
26 Hexane	86	4.026	4.026	(0.714)	95647	50.0000	52.919
27 Vinyl acetate	43	4.192	4.192	(0.743)	546634	50.0000	51.035
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	673494	50.0000	48.813
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	424665	1000.00	1020.1
30 2-Butanone	43	4.667	4.667	(0.828)	300441	100.000	100.59
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	416002	50.0000	49.642
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	358019	50.0000	50.193
34 Bromochloromethane	128	4.868	4.868	(0.863)	196180	50.0000	48.011
35 Chloroform	83	4.928	4.928	(0.874)	639312	50.0000	49.327
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	84744	50.0000	52.607
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	482255	50.0000	50.172
38 1,1-Dichloropropene	75	5.236	5.236	(0.928)	536760	50.0000	52.290
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	422442	50.0000	50.775
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	467755	50.0000	49.303
41 Benzene	78	5.414	5.414	(0.960)	1680425	50.0000	48.880
42 Trichloroethene	130	5.959	5.959	(1.057)	416000	50.0000	49.928
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	397510	50.0000	49.819
44 1,4-Dioxane	88	6.268	6.268	(1.111)	177354	2500.00	2659.6
45 Dibromomethane	93	6.256	6.256	(1.109)	209481	50.0000	49.740
46 Bromodichloromethane	83	6.386	6.386	(1.132)	422352	50.0000	49.150
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	381478	100.000	91.923
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	531173	50.0000	51.177
49 4-Methyl-2-pentanone	43	6.908	6.908	(1.225)	565288	100.000	102.09
50 Toluene	91	7.074	7.074	(0.848)	1738203	50.0000	50.024
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	435312	50.0000	51.305
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	433745	50.0000	49.677
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	325367	50.0000	49.071
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	583716	50.0000	49.181
55 Tetrachloroethene	164	7.572	7.572	(0.908)	327800	50.0000	50.081
56 2-Hexanone	43	7.643	7.643	(0.916)	382590	100.000	105.14
57 Dibromochloromethane	129	7.797	7.797	(0.935)	288637	50.0000	49.254
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	302607	50.0000	49.496
59 Chlorobenzene	112	8.367	8.367	(1.003)	1095312	50.0000	49.002
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	342802	50.0000	48.745
61 Ethylbenzene	106	8.461	8.461	(1.014)	574451	50.0000	51.421
62 m + p-Xylene	106	8.568	8.568	(1.027)	1466113	100.000	104.09
64 Xylene-o	106	8.948	8.948	(1.072)	679969	50.0000	52.035
65 Styrene	104	8.960	8.960	(1.074)	1140662	50.0000	48.662
66 Bromoform	173	9.137	9.137	(1.095)	175436	50.0000	50.371
67 Isopropylbenzene	105	9.292	9.292	(1.114)	1647634	50.0000	49.006
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	423053	50.0000	49.176
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	70916	50.0000	49.171
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	118205	50.0000	49.126
71 Bromobenzene	156	9.600	9.600	(0.908)	436467	50.0000	49.331
72 n-Propylbenzene	120	9.695	9.695	(0.917)	455599	50.0000	53.775
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	421019	50.0000	51.476
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	1329158	50.0000	53.575
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	436445	50.0000	51.607
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	1097152	50.0000	52.510
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	1373243	50.0000	49.696
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	1471540	50.0000	52.964
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	1219697	50.0000	48.999

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	800505	50.0000	49.219
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	820260	50.0000	48.457
82	n-Butylbenzene	91	10.940	10.940	(1.035)	915392	50.0000	45.242
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	783269	50.0000	49.511
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	56033	50.0000	49.803
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	349264	50.0000	49.508
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	161296	50.0000	49.100
87	Naphthalene	128	12.825	12.825	(1.213)	819190	50.0000	45.367
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	352263	50.0000	51.967
98	Cyclohexane	56	5.141	5.141	(0.912)	788999	50.0000	51.044
143	Methyl Acetate	43	3.433	3.433	(0.609)	530702	100.000	98.070
144	Methylcyclohexane	83	6.125	6.125	(1.086)	713867	50.0000	52.096
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	425567	50.0000	48.591
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	65469	50.0000	52.529

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

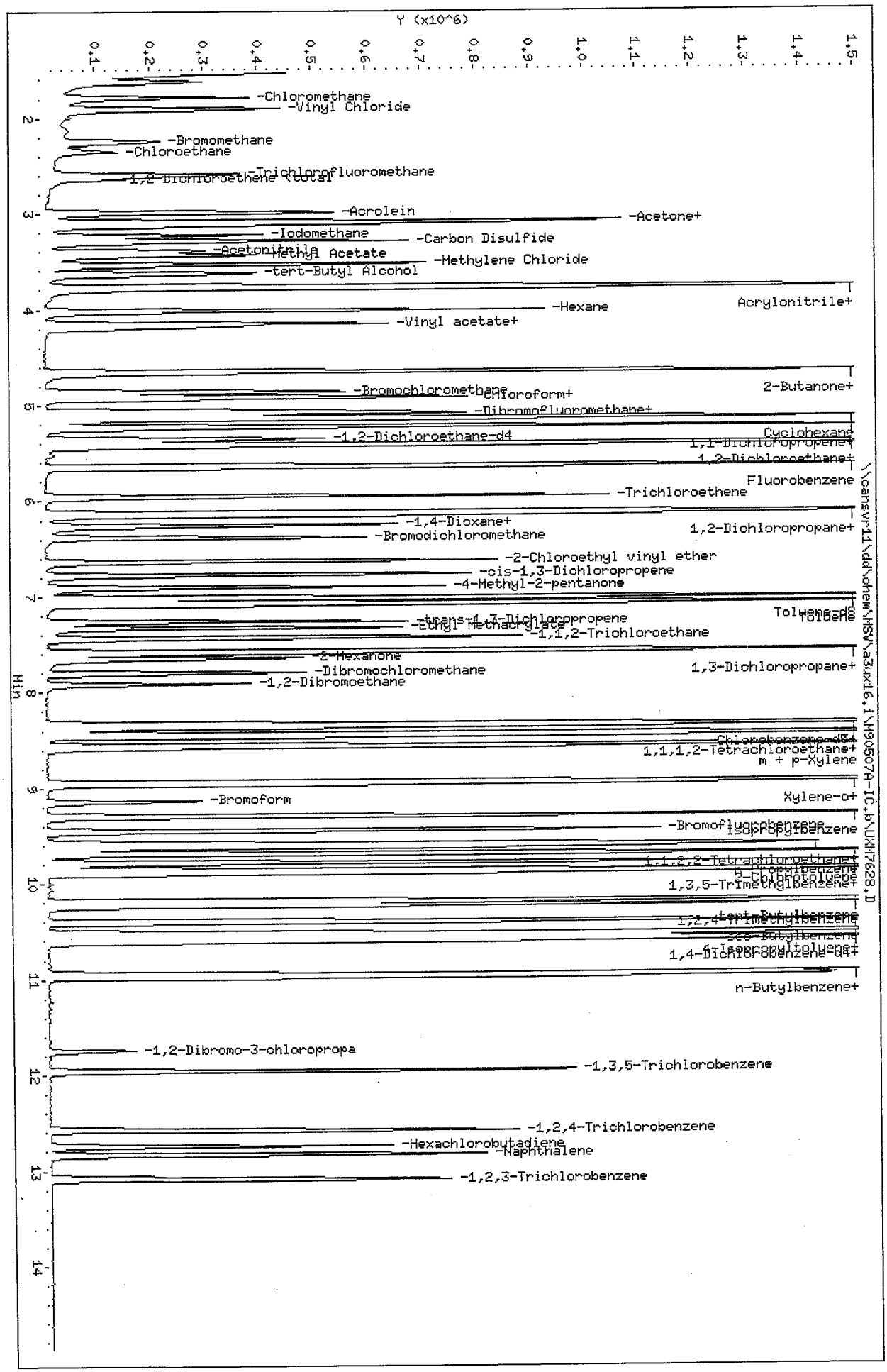
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7628.D
Lab Smp Id: 50NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,4

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1634945	0.00
2 Chlorobenzene-d5	1305765	652883	2611530	1305765	0.00
3 1,4-Dichlorobenze	720090	360045	1440180	720090	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7628.D
Date : 07-MAY-2009 14:24
Client ID:
Sample Info: 50NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Lab Smp Id: 25NG-IC
Inj Date : 07-MAY-2009 14:45
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 25NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 18:46 Cal File: UXM5912.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1644791	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1295741	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.573	10.573	(1.000)	695626	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	162470	25.0000	24.177
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	186730	25.0000	24.257
$	6 Toluene-d8	98	7.015	7.015	(0.841)	680592	25.0000	24.502
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	222609	25.0000	24.196
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	167002	25.0000	26.978
	9 Chloromethane	50	1.785	1.785	(0.317)	228515	25.0000	23.197
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	259037	25.0000	24.608
	11 Bromomethane	94	2.248	2.248	(0.399)	83300	25.0000	22.484
	12 Chloroethane	64	2.355	2.355	(0.418)	63472	25.0000	21.123
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	224866	25.0000	25.963
	15 Acrolein	56	2.995	2.995	(0.531)	301194	250.000	239.42
	16 Acetone	43	3.137	3.137	(0.556)	108958	50.0000	49.597
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	182236	25.0000	24.468
	18 Freon-113	151	3.114	3.114	(0.552)	145915	25.0000	27.756
	19 Iodomethane	142	3.232	3.232	(0.573)	287857	25.0000	24.208
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	564287	25.0000	24.126
	21 Methylene Chloride	84	3.529	3.529	(0.626)	211657	25.0000	23.396
	22 Acetonitrile	41	3.398	3.398	(0.603)	225634	250.000	237.46
	23 Acrylonitrile	53	3.754	3.754	(0.666)	135963	50.0000	48.524

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	420682	25.0000	23.859
25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	202657	25.0000	24.106
26 Hexane	86	4.015	4.015	(0.712)	48327	25.0000	26.084
27 Vinyl acetate	43	4.193	4.193	(0.743)	253626	25.0000	23.538
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	331750	25.0000	23.900
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	204149	500.000	487.47
30 2-Butanone	43	4.667	4.667	(0.828)	138273	50.0000	46.016
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	201242	25.0000	23.871
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	175846	25.0000	24.506
34 Bromochloromethane	128	4.869	4.869	(0.863)	97313	25.0000	23.673
35 Chloroform	83	4.928	4.928	(0.874)	312058	25.0000	23.933
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	39127	25.0000	24.144
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	237525	25.0000	24.563
38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	261448	25.0000	25.317
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	209385	25.0000	25.016
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	231066	25.0000	24.209
41 Benzene	78	5.414	5.414	(0.960)	832218	25.0000	24.063
42 Trichloroethene	130	5.960	5.960	(1.057)	199557	25.0000	23.807
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	192236	25.0000	23.948
44 1,4-Dioxane	88	6.268	6.268	(1.111)	82378	1250.00	1228.0
45 Dibromomethane	93	6.256	6.256	(1.109)	100183	25.0000	23.645
46 Bromodichloromethane	83	6.386	6.386	(1.132)	204917	25.0000	23.704
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	174749	50.0000	44.554
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	244039	25.0000	23.372
49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	265943	50.0000	47.743
50 Toluene	91	7.074	7.074	(0.848)	846241	25.0000	24.543
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	199689	25.0000	23.717
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	187673	25.0000	22.717
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	157079	25.0000	23.874
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	289581	25.0000	24.587
55 Tetrachloroethene	164	7.572	7.572	(0.908)	160773	25.0000	24.753
56 2-Hexanone	43	7.643	7.643	(0.916)	176619	50.0000	48.915
57 Dibromochloromethane	129	7.798	7.798	(0.935)	139620	25.0000	24.009
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	151298	25.0000	24.938
59 Chlorobenzene	112	8.367	8.367	(1.003)	533016	25.0000	24.030
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	163837	25.0000	23.477
61 Ethylbenzene	106	8.462	8.462	(1.014)	270041	25.0000	24.359
62 m + p-Xylene	106	8.568	8.568	(1.027)	691624	50.0000	49.483
64 Xylene-o	106	8.948	8.948	(1.072)	316153	25.0000	24.381
65 Styrene	104	8.960	8.960	(1.074)	510083	25.0000	22.955
66 Bromoform	173	9.138	9.138	(1.095)	78233	25.0000	22.636
67 Isopropylbenzene	105	9.292	9.292	(1.114)	748001	25.0000	23.347
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	200005	25.0000	24.066
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	27369	25.0000	21.702
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	57327	25.0000	24.663
71 Bromobenzene	156	9.600	9.600	(0.908)	205858	25.0000	24.085
72 n-Propylbenzene	120	9.695	9.695	(0.917)	201030	25.0000	24.562
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	195551	25.0000	24.750
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	587237	25.0000	24.502
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	199106	25.0000	24.371
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	476948	25.0000	23.630
77 1,2,4-Trimethylbenzene	105	10.229	10.229	(0.967)	604663	25.0000	23.644
78 sec-Butylbenzene	105	10.395	10.395	(0.983)	659280	25.0000	24.564
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	530515	25.0000	23.222

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80 1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	371834	25.0000	23.666
81 1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	386427	25.0000	23.631
82 n-Butylbenzene	91	10.940	10.940	(1.035)	390449	25.0000	21.678
83 1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	368583	25.0000	24.118
84 1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	24685	25.0000	22.712
85 1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	151768	25.0000	22.269
86 Hexachlorobutadiene	225	12.743	12.743	(1.205)	76549	25.0000	24.122
87 Naphthalene	128	12.826	12.826	(1.213)	311930	25.0000	19.931
88 1,2,3-Trichlorobenzene	180	13.087	13.087	(1.238)	152501	25.0000	23.289
98 Cyclohexane	56	5.141	5.141	(0.912)	381316	25.0000	25.786
143 Methyl Acetate	43	3.434	3.434	(0.609)	264734	50.0000	48.628
144 Methylcyclohexane	83	6.126	6.126	(1.086)	338714	25.0000	26.031
141 1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	193661	25.0000	22.890
149 Vinyl Acetate-86	86	4.193	4.193	(0.743)	30419	25.0000	24.260

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

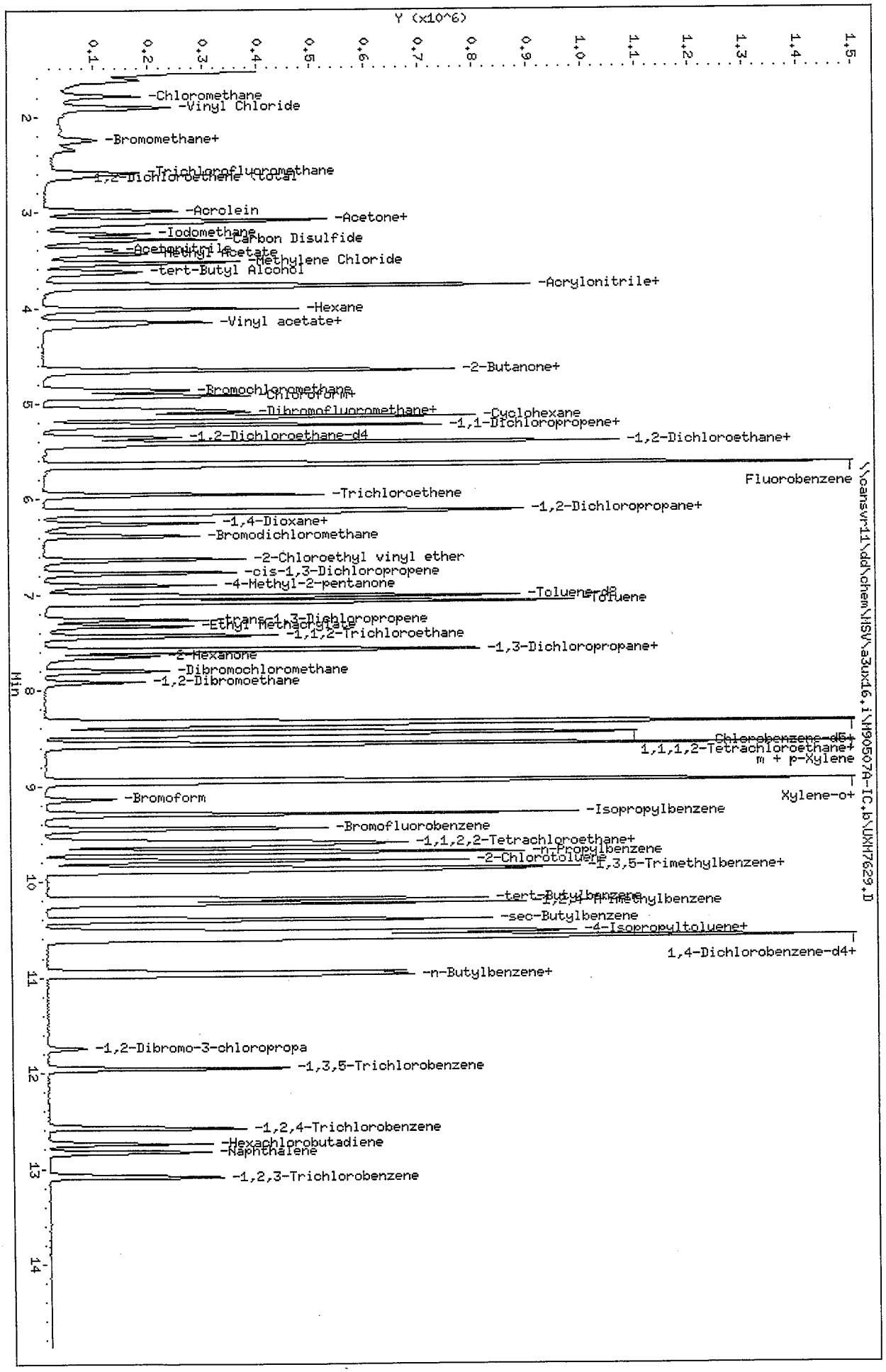
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7629.D
Lab Smp Id: 25NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1644791	0.60
2 Chlorobenzene-d5	1305765	652883	2611530	1295741	-0.77
3 1,4-Dichlorobenze	720090	360045	1440180	695626	-3.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7629.D
Date : 07-MAY-2009 14:45
Client ID:
Sample Info: 25NG-IC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Lab Smp Id: 10NG-IC
Inj Date : 07-MAY-2009 15:05
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 10NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,2
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 19:28 Cal File: UXM5914.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1539556	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1195523	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	625728	50.0000	
$	4 Dibromofluoromethane	113	5.070	5.070	(0.899)	67186	10.0000	10.681
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	76733	10.0000	10.649
$	6 Toluene-d8	98	7.015	7.015	(0.841)	256270	10.0000	9.999
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	80491	10.0000	9.482
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	46672	10.0000	8.055
	9 Chloromethane	50	1.785	1.785	(0.317)	96860	10.0000	10.504
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	98386	10.0000	9.985
	11 Bromomethane	94	2.248	2.248	(0.399)	37757	10.0000	10.888
	12 Chloroethane	64	2.343	2.343	(0.415)	27035	10.0000	9.612
	13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	71334	10.0000	8.799
	15 Acrolein	56	2.995	2.995	(0.531)	121655	100.000	103.31
	16 Acetone	43	3.137	3.137	(0.556)	50026	20.0000	18.974
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	66622	10.0000	9.557
	18 Freon-113	151	3.101	3.101	(0.550)	37035	10.0000	7.526
	19 Iodomethane	142	3.232	3.232	(0.573)	112885	10.0000	10.142
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	206691	10.0000	9.441
	21 Methylene Chloride	84	3.528	3.528	(0.626)	91596	10.0000	10.817
	22 Acetonitrile	41	3.398	3.398	(0.603)	94776	100.000	106.56
	23 Acrylonitrile	53	3.754	3.754	(0.666)	52723	20.0000	20.102

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	159645	10.0000	9.673
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	76927	10.0000	9.776
26 Hexane	86	4.026	4.026	(0.714)	9587	10.0000	4.746
27 Vinyl acetate	43	4.192	4.192	(0.743)	93465	10.0000	9.267
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	131664	10.0000	10.134
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	77603	200.000	197.97
30 2-Butanone	43	4.667	4.667	(0.828)	53646	20.0000	19.073
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	77287	10.0000	9.794
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	66192	10.0000	9.855
34 Bromochloromethane	128	4.868	4.868	(0.863)	38182	10.0000	9.923
35 Chloroform	83	4.928	4.928	(0.874)	124468	10.0000	10.198
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	14278	10.0000	9.413
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	87999	10.0000	9.722
38 1,1-Dichloropropene	75	5.236	5.236	(0.928)	87838	10.0000	9.087
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	71587	10.0000	9.137
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	90869	10.0000	10.171
41 Benzene	78	5.414	5.414	(0.960)	321568	10.0000	9.933
42 Trichloroethene	130	5.959	5.959	(1.057)	77412	10.0000	9.867
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	74743	10.0000	9.948
44 1,4-Dioxane	88	6.268	6.268	(1.111)	29373	500.000	467.78
45 Dibromomethane	93	6.256	6.256	(1.109)	38404	10.0000	9.684
46 Bromodichloromethane	83	6.386	6.386	(1.132)	78071	10.0000	9.648
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	57912	20.0000	18.974
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	87535	10.0000	8.956
49 4-Methyl-2-pentanone	43	6.908	6.908	(1.225)	96937	20.0000	18.592
50 Toluene	91	7.074	7.074	(0.848)	306249	10.0000	9.626
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	67673	10.0000	8.711
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	61471	10.0000	9.273
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	62111	10.0000	10.231
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	107784	10.0000	9.919
55 Tetrachloroethene	164	7.572	7.572	(0.908)	54775	10.0000	9.140
56 2-Hexanone	43	7.643	7.643	(0.916)	60833	20.0000	18.260
57 Dibromochloromethane	129	7.797	7.797	(0.935)	49789	10.0000	9.280
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	54651	10.0000	9.763
59 Chlorobenzene	112	8.367	8.367	(1.003)	205168	10.0000	10.025
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	63241	10.0000	9.822
61 Ethylbenzene	106	8.462	8.462	(1.014)	91367	10.0000	8.933
62 m + p-Xylene	106	8.568	8.568	(1.027)	234854	20.0000	18.212
64 Xylene-o	106	8.948	8.948	(1.072)	107702	10.0000	9.002
65 Styrene	104	8.960	8.960	(1.074)	164417	10.0000	9.235
66 Bromoform	173	9.137	9.137	(1.095)	29015	10.0000	9.099
67 Isopropylbenzene	105	9.292	9.292	(1.114)	243638	10.0000	9.348
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	78552	10.0000	10.508
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	8119	10.0000	9.454
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	20772	10.0000	9.935
71 Bromobenzene	156	9.600	9.600	(0.908)	76322	10.0000	9.927
72 n-Propylbenzene	120	9.695	9.695	(0.917)	61276	10.0000	8.323
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	67982	10.0000	9.565
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	184257	10.0000	8.547
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	70415	10.0000	9.582
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	152901	10.0000	8.422
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	193897	10.0000	9.602
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	205676	10.0000	8.519
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	155110	10.0000	8.972

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	140995	10.0000	9.976
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	151395	10.0000	10.292
82	n-Butylbenzene	91	10.940	10.940	(1.035)	122764	10.0000	9.559
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	133613	10.0000	9.719
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	9154	10.0000	9.363
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	57975	10.0000	9.457
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	27280	10.0000	9.556
87	Naphthalene	128	12.825	12.825	(1.213)	106778	10.0000	9.679
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	55923	10.0000	9.494
98	Cyclohexane	56	5.141	5.141	(0.912)	88575	10.0000	8.230
143	Methyl Acetate	43	3.445	3.445	(0.611)	106850	20.0000	20.968
144	Methylcyclohexane	83	6.125	6.125	(1.086)	71315	10.0000	7.998
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	76010	10.0000	9.988
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	9398	10.0000	8.008

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

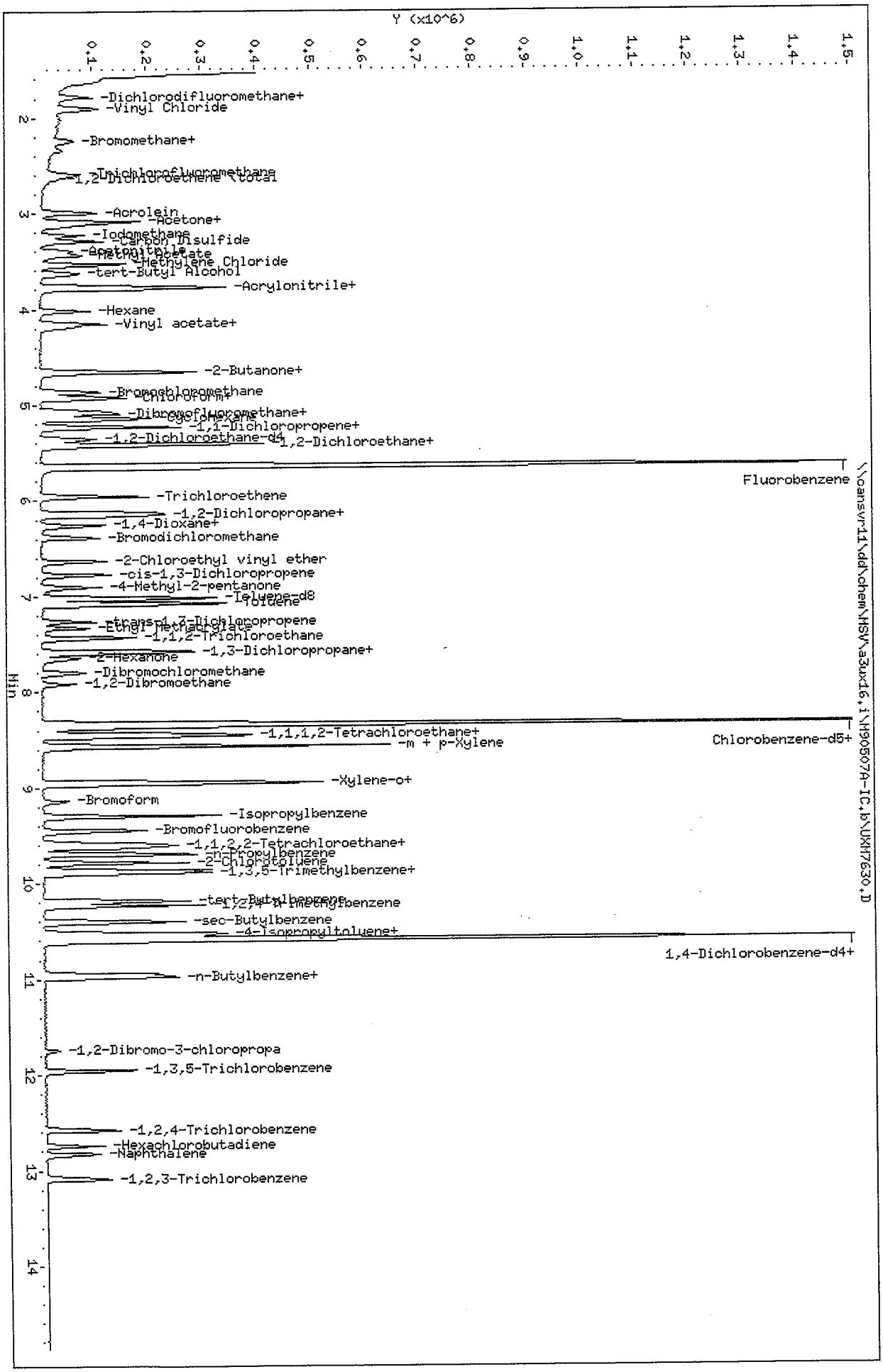
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7630.D
Lab Smp Id: 10NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,2

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1539556	-5.83
2 Chlorobenzene-d5	1305765	652883	2611530	1195523	-8.44
3 1,4-Dichlorobenze	720090	360045	1440180	625728	-13.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\MSV\a3ux16,i\H90507A-IC,b\UXH7630.D
Date : 07-MAY-2009 15:05
Client ID:
Sample Info: 10NG-IC
Purge Volume: 5.0
Column Phase: DB624

Instrument: a3ux16,i
Operator: 1644
Column diameter: 0.18

\\cansvr11\dd\chem\MSV\a3ux16,i\H90507A-IC,b\UXH7630.D

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Lab Smp Id: 50NG-IC
Inj Date : 07-MAY-2009 15:26
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 50NG-IC
Misc Info : M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,1
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:10 a3ux16.i Quant Type: ISTD
Cal Date : 11-FEB-2009 19:49 Cal File: UXM5915.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1532482	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1201181	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	583106	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	30063	5.00000	4.801
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	36718	5.00000	5.119
$	6 Toluene-d8	98	7.015	7.015	(0.841)	118084	5.00000	4.586
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	35530	5.00000	4.166
	8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	25117	5.00000	4.355
	9 Chloromethane	50	1.785	1.785	(0.317)	48113	5.00000	5.242
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	51642	5.00000	5.265
	11 Bromomethane	94	2.260	2.260	(0.401)	17221	5.00000	4.989
	12 Chloroethane	64	2.354	2.354	(0.418)	17192	5.00000	6.141
	13 Trichlorofluoromethane	101	2.603	2.603	(0.462)	37701	5.00000	4.672
	15 Acrolein	56	2.995	2.995	(0.531)	61152	50.0000	52.173
	16 Acetone	43	3.137	3.137	(0.556)	35048	10.0000	10.242
	17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	35284	5.00000	5.085
	18 Freon-113	151	3.101	3.101	(0.550)	22287	5.00000	4.550
	19 Iodomethane	142	3.232	3.232	(0.573)	56584	5.00000	5.107
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	105370	5.00000	4.835
	21 Methylene Chloride	84	3.528	3.528	(0.626)	50728	5.00000	6.018
	22 Acetonitrile	41	3.398	3.398	(0.603)	52488	50.0000	59.286
	23 Acrylonitrile	53	3.766	3.766	(0.668)	27947	10.0000	10.705

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	77982	5.00000	4.747
25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	40007	5.00000	5.108
26 Hexane	86	4.026	4.026	(0.714)	4862	5.00000	1.931
27 Vinyl acetate	43	4.192	4.192	(0.743)	46638	5.00000	4.645
28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	69335	5.00000	5.361
29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	39109	100.000	100.23
30 2-Butanone	43	4.667	4.667	(0.828)	33706	10.0000	12.039
32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	39700	5.00000	5.054
33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	32459	5.00000	4.855
34 Bromochloromethane	128	4.868	4.868	(0.863)	21519	5.00000	5.618
35 Chloroform	83	4.928	4.928	(0.874)	64582	5.00000	5.316
36 Tetrahydrofuran	42	4.904	4.904	(0.870)	7275	5.00000	4.818
37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	44443	5.00000	4.933
38 1,1-Dichloropropene	75	5.236	5.236	(0.928)	43642	5.00000	4.536
39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	38058	5.00000	4.880
40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	47525	5.00000	5.344
41 Benzene	78	5.414	5.414	(0.960)	170853	5.00000	5.302
42 Trichloroethene	130	5.959	5.959	(1.057)	40799	5.00000	5.224
43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	38894	5.00000	5.200
44 1,4-Dioxane	88	6.268	6.268	(1.111)	13337	250.000	213.38
45 Dibromomethane	93	6.256	6.256	(1.109)	21076	5.00000	5.339
46 Bromodichloromethane	83	6.386	6.386	(1.132)	40667	5.00000	5.049
47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	29349	10.0000	12.091
48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	42746	5.00000	4.394
49 4-Methyl-2-pentanone	43	6.908	6.908	(1.225)	50411	10.0000	9.713
50 Toluene	91	7.074	7.074	(0.848)	155200	5.00000	4.855
51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	33979	5.00000	4.353
52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	28271	5.00000	5.260
53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	32747	5.00000	5.369
54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	56352	5.00000	5.161
55 Tetrachloroethene	164	7.572	7.572	(0.908)	31507	5.00000	5.233
56 2-Hexanone	43	7.643	7.643	(0.916)	30993	10.0000	9.259
57 Dibromochloromethane	129	7.797	7.797	(0.935)	25901	5.00000	4.805
58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	28235	5.00000	5.020
59 Chlorobenzene	112	8.367	8.367	(1.003)	108606	5.00000	5.282
60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	34030	5.00000	5.260
61 Ethylbenzene	106	8.462	8.462	(1.014)	46220	5.00000	4.498
62 m + p-Xylene	106	8.568	8.568	(1.027)	109709	10.0000	8.467
64 Xylene-o	106	8.948	8.948	(1.072)	51102	5.00000	4.251
65 Styrene	104	8.960	8.960	(1.074)	76367	5.00000	5.274
66 Bromoform	173	9.137	9.137	(1.095)	15313	5.00000	4.779
67 Isopropylbenzene	105	9.292	9.292	(1.114)	112763	5.00000	5.228
68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	39046	5.00000	5.605
69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	3551	5.00000	6.256
70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	11310	5.00000	5.805
71 Bromobenzene	156	9.600	9.600	(0.908)	37467	5.00000	5.230
72 n-Propylbenzene	120	9.695	9.695	(0.917)	28046	5.00000	4.088
73 2-Chlorotoluene	126	9.778	9.778	(0.925)	30284	5.00000	4.572
74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	81265	5.00000	4.045
75 4-Chlorotoluene	126	9.885	9.885	(0.935)	32093	5.00000	4.686
76 tert-Butylbenzene	119	10.181	10.181	(0.963)	74749	5.00000	4.418
77 1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	77256	5.00000	5.149
78 sec-Butylbenzene	105	10.394	10.394	(0.983)	90782	5.00000	4.035
79 4-Isopropyltoluene	119	10.537	10.537	(0.997)	67716	5.00000	5.324

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	68573	5.00000	5.207
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	72527	5.00000	5.291
82	n-Butylbenzene	91	10.940	10.940	(1.035)	57674	5.00000	6.330
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	68007	5.00000	5.309
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	4688	5.00000	5.146
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	27804	5.00000	4.867
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	14449	5.00000	5.432
87	Naphthalene	128	12.825	12.825	(1.213)	48454	5.00000	6.448
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	26555	5.00000	4.838
98	Cyclohexane	56	5.141	5.141	(0.912)	47575	5.00000	5.562
143	Methyl Acetate	43	3.434	3.434	(0.609)	54862	10.0000	10.816
144	Methylcyclohexane	83	6.125	6.125	(1.086)	37338	5.00000	5.517
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	35376	5.00000	4.988
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	5285	5.00000	4.524(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Report Date: 07-May-2009 15:10

TestAmerica North Canton

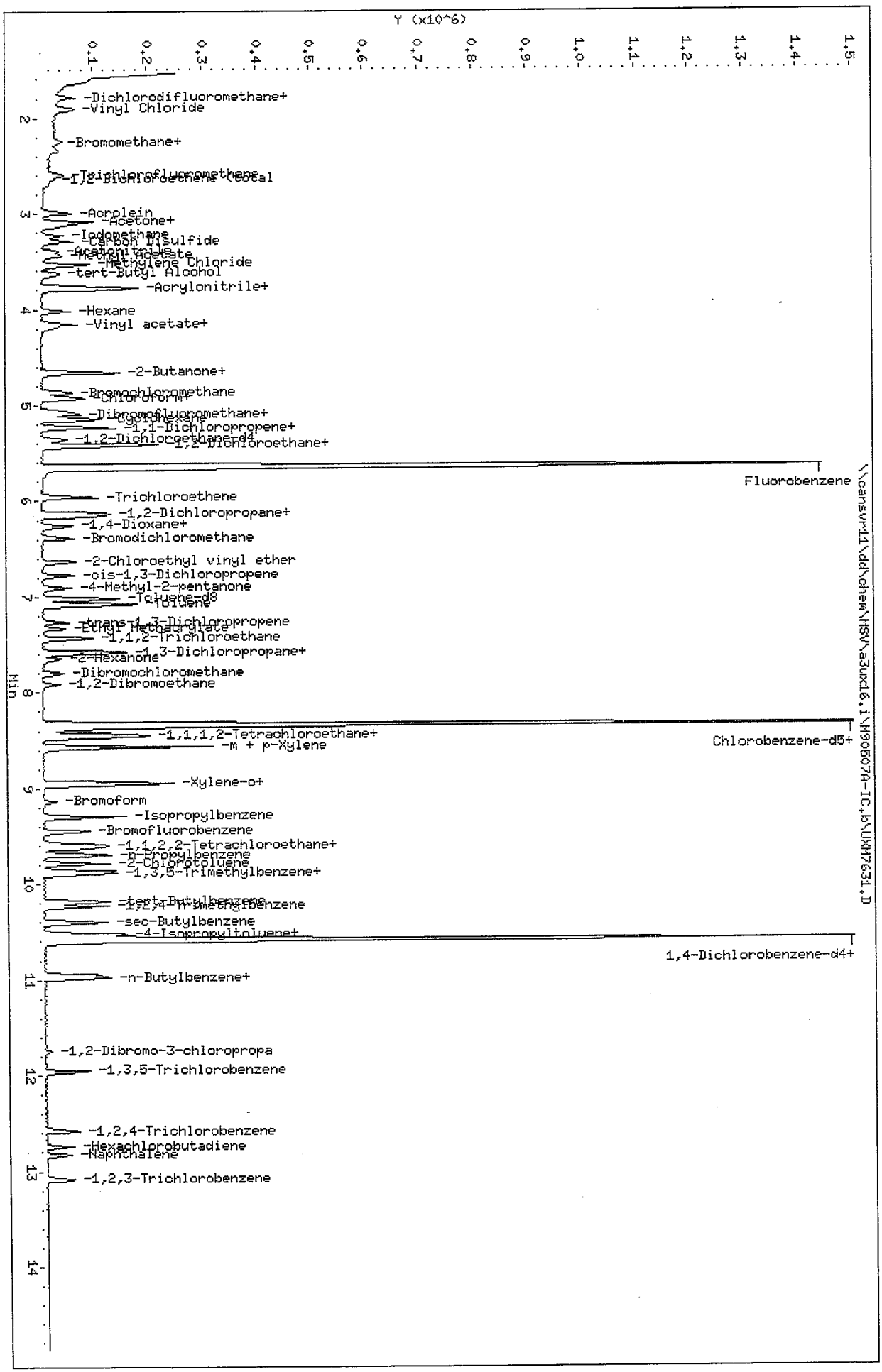
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7631.D
Lab Smp Id: 50NG-IC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Calibration Date: 07-MAY-2009
Calibration Time: 14:24
Level: LOW
Sample Type: WATER
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,2-8260.SUB,1644,1,1

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1532482	-6.27
2 Chlorobenzene-d5	1305765	652883	2611530	1201181	-8.01
3 1,4-Dichlorobenze	720090	360045	1440180	583106	-19.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Data File: \\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7631.D
Date : 07-MAY-2009 15:26
Client ID:
Sample Info: 50NG-IC
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane+
-Vinyl Chloride
-Bromomethane+
-Trichlorofluoromethane
-1,2-Dichloroethene (total
-Acrolein
-Acetone+
-Iodomethane
-Carbon Disulfide
-Acetonitrile
-Methyl Acetate
-Methylene Chloride
-tert-Butyl Alcohol
-Acrylonitrile+
-Hexane
-Vinyl acetate+
-2-Butanone+
-Bromochloromethane
-Chloroform
-Dibromofluoromethane+
-Cyclohexane
-1,1-Dichloropropene+
-1,2-Dichloroethane-d4
-1,2-Dichloroethane+
Fluorobenzene
\\cansvr11\dd\chem\HSV\a3ux16.i\H90507A-IC.b\UXH7631.D
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethyl vinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
-Toluene-d8
-Toluene
-trans-1,3-Dichloropropene
-Ethyl Methacrylate
-1,1,2-Trichloroethane
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m + p-Xylene
Chlorobenzene-d5+
-Xylene-o+
-Bromoform
-Isopropylbenzene
-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-4-Isopropyltoluene+
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
-1,3,5-Trichlorobenzene
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Lab Smp Id: ICV
Inj Date : 07-MAY-2009 15:47
Operator : 1644 Inst ID: a3ux16.i
Smp Info : ICV
Misc Info : M90507A-IC,8260LLUX16,,1644,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:12 williamsl Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 7 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANPMSV23

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	1630386	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	1291470	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.572	10.572	(1.000)	709801	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	328516	49.3174	9.863
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	376560	49.3497	9.870
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	1418549	51.2384	10.248
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	495176	53.9990	10.800
8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	309361	50.4168	10.083
9 Chloromethane	50	1.785	1.785	(0.317)	434362	44.4824	8.896
10 Vinyl Chloride	62	1.904	1.904	(0.338)	488109	46.7792	9.356
11 Bromomethane	94	2.248	2.248	(0.399)	151458	41.2431	8.249
12 Chloroethane	64	2.354	2.354	(0.418)	122390	41.0908	8.218
13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	456436	53.1653	10.633
14 Dichlorofluoromethane	67	Compound Not Detected.					
15 Acrolein	56	2.995	2.995	(0.531)	195774	156.997	31.399
16 Acetone	43	3.137	3.137	(0.556)	102703	46.6474	9.329
17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	375825	50.9069	10.181
18 Freon-113	151	3.113	3.113	(0.552)	330726	63.4665	12.693
19 Iodomethane	142	3.232	3.232	(0.573)	587923	49.8802	9.976
20 Carbon Disulfide	76	3.291	3.291	(0.584)	1221690	52.6943	10.539
21 Methylene Chloride	84	3.528	3.528	(0.626)	417727	46.5820	9.316
22 Acetonitrile	41	3.398	3.398	(0.603)	122596	130.160	26.032

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	23 Acrylonitrile	53	3.754	3.754	(0.666)	386079	139.005	27.801
	24 Methyl tert-butyl ether	73	3.777	3.777	(0.670)	872601	49.9274	9.985
	25 trans-1,2-Dichloroethene	96	3.777	3.777	(0.670)	413520	49.6228	9.924
	26 Hexane	86	4.015	4.026	(0.712)	104773	58.2278	11.646
	27 Vinyl acetate	43	4.192	4.192	(0.743)	1122391	105.083	21.016
	28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	691069	50.2267	10.045
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	386528	931.112	186.22
	30 2-Butanone	43	4.667	4.667	(0.828)	137309	46.0994	9.220
M	31 1,2-Dichloroethene (total)	96				837964	100.414	20.083
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	424444	50.7913	10.158
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	369813	51.9918	10.398
	34 Bromochloromethane	128	4.868	4.868	(0.863)	196361	48.1900	9.638
	35 Chloroform	83	4.928	4.928	(0.874)	635525	49.1718	9.834
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	81336	50.6330	10.127
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	490594	51.1820	10.236
	38 1,1-Dichloropropene	75	5.224	5.236	(0.926)	518070	50.6102	10.122
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	433490	52.2485	10.450
	40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	458886	48.5035	9.701
	41 Benzene	78	5.414	5.414	(0.960)	1691624	49.3435	9.869
	42 Trichloroethene	130	5.959	5.959	(1.057)	400891	48.2493	9.650
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	393359	49.4368	9.887
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	6.256	6.256	(1.109)	208314	49.6009	9.920
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	427812	49.9246	9.985
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	176629	45.3338	9.067
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	508293	49.1099	9.822
	49 4-Methyl-2-pentanone	43	6.896	6.908	(1.223)	255521	46.2774	9.255
	50 Toluene	91	7.074	7.074	(0.848)	1718020	49.9907	9.998
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	434930	51.8272	10.365
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	313479	47.8016	9.560
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	578422	49.2745	9.855
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	326217	50.3905	10.078
	56 2-Hexanone	43	7.643	7.643	(0.916)	169499	47.0981	9.420
	57 Dibromochloromethane	129	7.797	7.797	(0.935)	297350	51.3020	10.260
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	301246	49.8183	9.964
	59 Chlorobenzene	112	8.367	8.367	(1.003)	1087116	49.1735	9.835
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	333222	47.9077	9.582
	61 Ethylbenzene	106	8.461	8.461	(1.014)	566639	51.2829	10.256
	62 m + p-Xylene	106	8.568	8.568	(1.027)	1474885	105.872	21.174
M	63 Xylenes (total)	106				2160841	158.946	31.789
	64 Xylene-o	106	8.948	8.948	(1.072)	685956	53.0741	10.615
	65 Styrene	104	8.960	8.960	(1.074)	1113063	48.0348	9.607
	66 Bromoform	173	9.137	9.137	(1.095)	171178	49.6926	9.938
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	1640122	49.3111	9.862
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	418063	49.3008	9.860
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	112451	77.0143	15.403
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	125460	52.8975	10.579
	71 Bromobenzene	156	9.600	9.600	(0.908)	420206	48.1820	9.636
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	457961	54.8376	10.968
	73 2-Chlorotoluene	126	9.790	9.778	(0.926)	402636	49.9422	9.988
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	1297553	53.0594	10.612
	75 4-Chlorotoluene	126	9.885	9.885	(0.935)	431901	51.8103	10.362
	76 tert-Butylbenzene	119	10.181	10.181	(0.963)	1071159	52.0097	10.402

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	10.228	10.228	(0.967)	1343439	49.3363	9.867
78	sec-Butylbenzene	105	10.394	10.394	(0.983)	1431838	52.2826	10.456
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	1211093	49.3429	9.868
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	780834	48.7057	9.741
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	810600	48.5806	9.716
82	n-Butylbenzene	91	10.940	10.940	(1.035)	913797	45.7792	9.156
83	1,2-Dichlorobenzene	146	10.975	10.976	(1.038)	751034	48.1614	9.632
84	1,2-Dibromo-3-chloropropane	157	11.746	11.746	(1.111)	54648	49.2757	9.855
85	1,2,4-Trichlorobenzene	180	12.576	12.576	(1.190)	325526	46.8116	9.362
86	Hexachlorobutadiene	225	12.742	12.742	(1.205)	142579	44.0315	8.806
87	Naphthalene	128	12.825	12.825	(1.213)	700609	39.8103	7.962
88	1,2,3-Trichlorobenzene	180	13.086	13.086	(1.238)	323013	48.3430	9.669
89	Ethyl Ether	59	2.864	2.865	(0.508)	331089	49.0340	9.807
91	3-Chloropropene	76	3.291	3.422	(0.584)	1221690	325.183	65.037
92	Isopropyl Ether	87	4.204	4.205	(0.746)	337247	48.4605	9.692
93	2-Chloro-1,3-butadiene	53	4.015	4.229	(0.712)	19807	2.02394	0.4048
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	4.667	4.703	(0.828)	137309	24.2244	4.845
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	5.295	5.296	(0.635)	459285	2380.69	476.14
99	n-Butanol	56	5.639	5.865	(0.676)	7990	45.5892	9.118
100	Methyl Methacrylate	41	6.137	6.233	(1.088)	427384	91.2314	18.246
101	2-Nitropropane	41	6.635	6.577	(1.177)	8780	6.52235	1.304
103	Cyclohexanone	55	9.398	9.399	(0.889)	80188	97.1250	19.425
98	Cyclohexane	56	5.141	5.141	(0.912)	692579	45.2226	9.044
143	Methyl Acetate	43	3.433	3.433	(0.609)	219687	40.7103	8.142
144	Methylcyclohexane	83	6.125	6.125	(1.086)	620350	45.7535	9.151
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	4.192	4.192	(0.743)	69421	55.8552	11.171
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	5.414	5.486	(0.960)	28753	1.60281	0.3206(a)
153	1,2,3-Trimethylbenzene	105	10.643	10.644	(1.007)	1365012	48.3706	9.674

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Lab Smp Id: ICV
Inj Date : 07-MAY-2009 15:47
Operator : 1644 Inst ID: a3ux16.i
Smp Info : ICV
Misc Info : M90507A-IC,8260LLUX16,,1644,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Meth Date : 07-May-2009 15:12 williamsl Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 7 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANPMSV23

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a3ux16.i
Lab File ID: UXM7632.D
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,,1644,3

Calibration Date: 07-MAY-2009
Calibration Time: 14:24

Level: LOW
Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1634945	817473	3269890	1630386	-0.28
2 Chlorobenzene-d5	1305765	652883	2611530	1291470	-1.09
3 1,4-Dichlorobenze	720090	360045	1440180	709801	-1.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

TestAmerica North Canton

RECOVERY REPORT

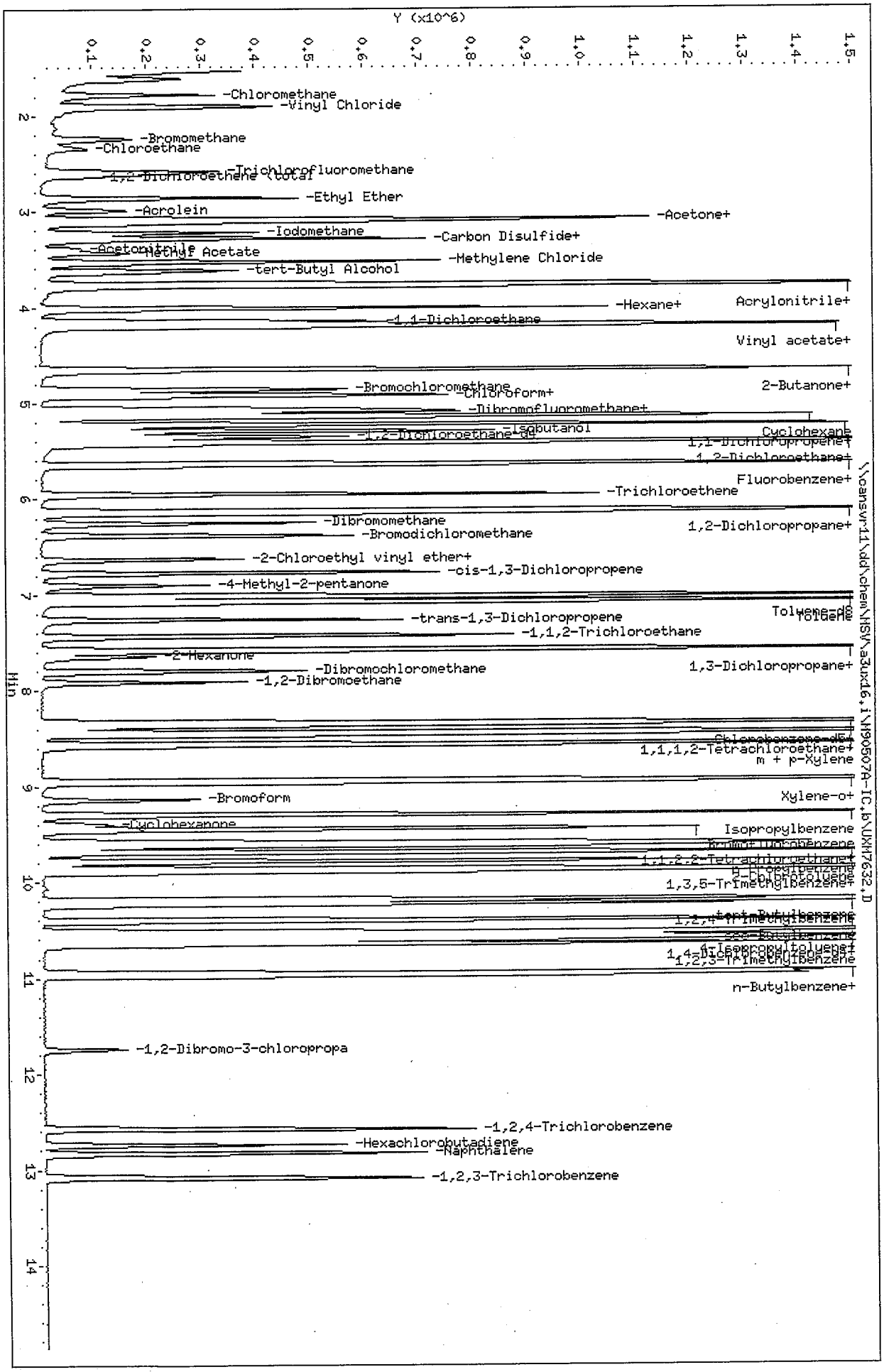
Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: DOD-ck.spk
Sublist File: 4-8260+IX.sub
Client SDG: SDGa00932
Fraction: VOA
Operator: 1644
SampleType: METHSPIKE
Quant Type: ISTD
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\8260LLUX16.m
Misc Info: M90507A-IC,8260LLUX16,,1644,3

	SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	17	1,1-Dichloroethene	10.000	10.181	101.81	45-155
	42	Trichloroethene	10.000	9.650	96.50	45-155
	59	Chlorobenzene	10.000	9.835	98.35	45-155
	50	Toluene	10.000	9.998	99.98	45-155
	41	Benzene	10.000	9.869	98.69	45-155
	16	Acetone	10.000	9.329	93.29	45-155
	20	Carbon Disulfide	10.000	10.539	105.39	45-155
	9	Chloromethane	10.000	8.896	88.96	45-155
	11	Bromomethane	10.000	8.249	82.49	45-155
	10	Vinyl Chloride	10.000	9.356	93.56	45-155
	12	Chloroethane	10.000	8.218	82.18	45-155
	21	Methylene Chloride	10.000	9.316	93.16	45-155
	28	1,1-Dichloroethane	10.000	10.045	100.45	45-155
M	31	1,2-Dichloroethene	20.000	20.083	100.41	45-155
	35	Chloroform	10.000	9.834	98.34	45-155
	40	1,2-Dichloroethane	10.000	9.701	97.01	45-155
	30	2-Butanone	10.000	9.220	92.20	45-155
	37	1,1,1-Trichloroeth	10.000	10.236	102.36	45-155
	39	Carbon Tetrachlori	10.000	10.450	104.50	45-155
	46	Bromodichlorometha	10.000	9.985	99.85	45-155
	43	1,2-Dichloropropan	10.000	9.887	98.87	45-155
	48	cis-1,3-Dichloropr	10.000	9.822	98.22	45-155
	54	1,3-Dichloropropan	10.000	9.855	98.55	45-155
	57	Dibromochlorometha	10.000	10.260	102.60	45-155
	53	1,1,2-Trichloroeth	10.000	9.560	95.60	45-155
	51	trans-1,3-Dichloro	10.000	10.365	103.65	45-155
	66	Bromoform	10.000	9.938	99.39	45-155
	49	4-Methyl-2-pentano	10.000	9.255	92.55	45-155
	56	2-Hexanone	10.000	9.420	94.20	45-155
	55	Tetrachloroethene	10.000	10.078	100.78	45-155
	68	1,1,2,2-Tetrachlor	10.000	9.860	98.60	45-155
	61	Ethylbenzene	10.000	10.256	102.57	45-155
	65	Styrene	10.000	9.607	96.07	45-155
M	63	Xylenes (total)	30.000	31.789	105.96	45-155
	32	cis-1,2-dichloroet	10.000	10.158	101.58	45-155
	25	trans-1,2-Dichloro	10.000	9.924	99.25	45-155
	8	Dichlorodifluorome	10.000	10.083	100.83	45-155
	13	Trichlorofluoromet	10.000	10.633	106.33	45-155
	70	1,2,3-Trichloropro	10.000	10.579	105.79	45-155
	18	Freon-113	10.000	12.693	126.93	45-155

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7632.D
Report Date: 07-May-2009 15:13

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
24 Methyl tert-butyl	10.000	9.985	99.85	45-155
58 1,2-Dibromoethane	10.000	9.964	99.64	45-155
67 Isopropylbenzene	10.000	9.862	98.62	45-155
80 1,3-Dichlorobenzen	10.000	9.741	97.41	45-155
81 1,4-Dichlorobenzen	10.000	9.716	97.16	45-155
83 1,2-Dichlorobenzen	10.000	9.632	96.32	45-155
84 1,2-Dibromo-3-chlo	10.000	9.855	98.55	45-155
85 1,2,4-Trichloroben	10.000	9.362	93.62	45-155
98 Cyclohexane	10.000	9.044	90.45	45-155
143 Methyl Acetate	10.000	8.142	81.42	45-155
144 Methylcyclohexane	10.000	9.151	91.51	45-155
71 Bromobenzene	10.000	9.636	96.36	45-155
34 Bromochloromethane	10.000	9.638	96.38	45-155
82 n-Butylbenzene	10.000	9.156	91.56	45-155
78 sec-Butylbenzene	10.000	10.456	104.57	45-155
76 tert-Butylbenzene	10.000	10.402	104.02	45-155
73 2-Chlorotoluene	10.000	9.988	99.88	45-155
75 4-Chlorotoluene	10.000	10.362	103.62	45-155
45 Dibromomethane	10.000	9.920	99.20	45-155
33 2,2-Dichloropropan	10.000	10.398	103.98	45-155
38 1,1-Dichloropropen	10.000	10.122	101.22	45-155
86 Hexachlorobutadien	10.000	8.806	88.06	45-155
19 Iodomethane	10.000	9.976	99.76	45-155
92 Isopropyl Ether	10.000	9.692	96.92	45-155
79 4-Isopropyltoluene	10.000	9.868	98.69	45-155
87 Naphthalene	10.000	7.962	79.62	45-155
72 n-Propylbenzene	10.000	10.968	109.68	45-155
60 1,1,1,2-Tetrachlor	10.000	9.582	95.82	45-155
88 1,2,3-Trichloroben	10.000	9.669	96.69	45-155
77 1,2,4-Trimethylben	10.000	9.867	98.67	45-155
74 1,3,5-Trimethylben	10.000	10.612	106.12	45-155
149 Vinyl Acetate-86	10.000	11.171	111.71	45-155
62 m + p-Xylene	20.000	21.174	105.87	45-155
64 Xylene-o	10.000	10.615	106.15	45-155

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 Dibromofluorometha	10.000	9.863	98.63	73-122
$ 5 1,2-Dichloroethane	10.000	9.870	98.70	61-128
$ 6 Toluene-d8	10.000	10.248	102.48	76-110
$ 7 Bromofluorobenzene	10.000	10.800	108.00	74-116


Data File: \\cansvr11\dd\chem\HSV\a3ux16,i\M90507A-IC,b\UXM7632,D
Date : 07-MAY-2009 15:47
Client ID:
Sample Info: ICV
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16,i
Operator: 1644
Column diameter: 0.18
Y (x10^6)
Min
-Chloromethane
-Vinyl Chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Ethyl Ether
-Acrolein
-Acetone+
-Iodomethane
-Carbon Disulfide+
-Methyl Acetate
-Methylene Chloride
-tert-Butyl Alcohol
-Hexane+
Acrylonitrile+
-1,1-Dichloroethane
Vinyl acetate+
2-Butanone+
-Bromochloromethane
-Chloroform+
-Dibromofluoromethane+
-Isobutanol
Cyclohexane
1,1-Dichloropropene+
1,2-Dichloroethane+
Fluorobenzene+
-Trichloroethene
1,2-Dichloropropane+
-Dibromomethane
-Bromodichloromethane
-2-Chloroethyl vinyl ether+
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
Toluene-d8
Toluene
-trans-1,3-Dichloropropene
-1,1,2-Trichloroethane
-2-Hexanone
1,3-Dichloropropane+
-Dibromochloromethane
-1,2-Dibromoethane
Chlorobenzene-d5+
1,1,1,2-Tetrachloroethane+
m + p-Xylene
-Bromoform
Xylene-o+
-Cyclohexanone
Isopropylbenzene
Bromofluorobenzene+
1,1,2,2-Tetrachloroethane+
Chlorobenzene+
p-Chlorotoluene+
1,3,5-Trimethylbenzene+
tert-Butylbenzene
1,2,4-Trimethylbenzene
sec-Butylbenzene
p-Isopropyltoluene+
1,4-Dichlorobenzene-d4+
1,2,3-Trimethylbenzene
n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
\\cansvr11\dd\chem\HSV\a3ux16,i\M90507A-IC,b\UXM7632,D

Report Date: 26-Jun-2009 09:16

Calibration History

Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Start Cal Date: 11-FEB-2009 16:00
End Cal Date : 07-MAY-2009 15:26
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
11-FEB-2009 20:10	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5916.D
07-MAY-2009 15:26	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7631.D
Cal Level: 2 , Cal Amount: 10.00000		
11-FEB-2009 19:49	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5915.D
07-MAY-2009 15:05	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7630.D
Cal Level: 3 , Cal Amount: 25.00000		
11-FEB-2009 19:28	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5914.D
07-MAY-2009 14:45	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7629.D
Cal Level: 4 , Cal Amount: 50.00000		
11-FEB-2009 19:07	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5913.D
07-MAY-2009 14:24	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7628.D
Cal Level: 5 , Cal Amount: 100.00000		
11-FEB-2009 18:46	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5912.D
07-MAY-2009 14:03	2-8260	\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7627.D
Cal Level: 6 , Cal Amount: 200.00000		
11-FEB-2009 18:25	3-IX	\\cansvr11\dd\chem\MSV\a3ux16.i\M90211A-IC.b\UXM5911.D
07-MAY-2009 13:42	2-8260	

\\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\UXM7626.D		

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

25-JUN-2009 15:18	2-8260	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D		
25-JUN-2009 14:57	3-IX	
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8940.D		

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 25-JUN-2009 15:18
Lab File ID: UXM8941.D Init. Cal. Date(s): 11-FEB-2009 07-MAY-2009
Analysis Type: WATER Init. Cal. Times: 16:00 15:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Dibromofluoromethane	0.20428	0.20346	0.20346	0.010	0.40406	50.00000	Averaged
$ 5 1,2-Dichloroethane-d4	0.23401	0.23564	0.23564	0.010	-0.69634	50.00000	Averaged
$ 6 Toluene-d8	1.07185	1.12027	1.12027	0.010	-4.51699	50.00000	Averaged
$ 7 Bromofluorobenzene	0.35503	0.37712	0.37712	0.010	-6.22203	50.00000	Averaged
8 Dichlorodifluoromethane	0.18818	0.20185	0.20185	0.010	-7.26435	50.00000	Averaged
9 Chloromethane	0.29946	0.24653	0.24653	0.100	17.67531	50.00000	Averaged
10 Vinyl Chloride	0.31999	0.26102	0.26102	0.010	18.42935	20.00000	Averaged
11 Bromomethane	0.11262	0.12148	0.12148	0.010	-7.86795	50.00000	Averaged
12 Chloroethane	0.09134	0.06940	0.06940	0.010	24.02276	50.00000	Averaged
13 Trichlorofluoromethane	0.26329	0.31250	0.31250	0.010	-18.69229	50.00000	Averaged
15 Acrolein	0.03824	0.02728	0.02728	0.010	28.67447	50.00000	Averaged
16 Acetone	100	89.58888	0.05516	0.010	10.41112	0.000e+000	Wt Linear
17 1,1-Dichloroethene	0.22641	0.20412	0.20412	0.010	9.84557	20.00000	Averaged
18 Freon-113	0.15981	0.13625	0.13625	0.010	14.74124	50.00000	Averaged
19 Iodomethane	0.36147	0.35443	0.35443	0.010	1.94857	50.00000	Averaged
20 Carbon Disulfide	0.71101	0.65760	0.65760	0.010	7.51231	50.00000	Averaged
21 Methylene Chloride	0.27501	0.24154	0.24154	0.010	12.17341	50.00000	Averaged
22 Acetonitrile	0.02889	0.02157	0.02157	0.010	25.33087	50.00000	Averaged
23 Acrylonitrile	0.08518	0.06803	0.06803	0.010	20.13312	50.00000	Averaged
24 Methyl tert-butyl ether	0.53599	0.57051	0.57051	0.010	-6.44057	50.00000	Averaged
25 trans-1,2-Dichloroethene	0.25556	0.23421	0.23421	0.010	8.35389	50.00000	Averaged
26 Hexane	50.00000	34.73196	0.03877	0.010	30.53609	0.000e+000	Linear
27 Vinyl acetate	0.32756	0.31149	0.31149	0.010	4.90534	50.00000	Averaged
28 1,1-Dichloroethane	0.42195	0.40553	0.40553	0.100	3.89354	50.00000	Averaged
29 tert-Butyl Alcohol	0.01273	0.01250	0.01250	0.010	1.79036	50.00000	Averaged
30 2-Butanone	0.09134	0.08187	0.08187	0.010	10.37254	50.00000	Averaged
M 31 1,2-Dichloroethene (total)	0.25592	0.23885	0.23885	0.010	6.66921	50.00000	Averaged
32 cis-1,2-dichloroethene	0.25628	0.24349	0.24349	0.010	4.98970	50.00000	Averaged
33 2,2-Dichloropropane	0.21814	0.24704	0.24704	0.010	-13.25114	50.00000	Averaged
34 Bromochloromethane	0.12496	0.11527	0.11527	0.010	7.75788	50.00000	Averaged
35 Chloroform	0.39637	0.39117	0.39117	0.010	1.30979	20.00000	Averaged
36 Tetrahydrofuran	0.04926	0.04957	0.04957	0.010	-0.61283	50.00000	Averaged
37 1,1,1-Trichloroethane	0.29396	0.32492	0.32492	0.010	-10.53170	50.00000	Averaged
38 1,1-Dichloropropene	0.31393	0.29528	0.29528	0.010	5.93931	50.00000	Averaged
39 Carbon Tetrachloride	0.25444	0.27505	0.27505	0.010	-8.10121	50.00000	Averaged
40 1,2-Dichloroethane	0.29014	0.30602	0.30602	0.010	-5.47161	50.00000	Averaged
41 Benzene	1.05136	0.94220	0.94220	0.010	10.38289	50.00000	Averaged
42 Trichloroethene	0.25481	0.23002	0.23002	0.010	9.72704	50.00000	Averaged
43 1,2-Dichloropropane	0.24402	0.22563	0.22563	0.010	7.53487	20.00000	Averaged
44 1,4-Dioxane	0.00204	0.00166	0.00166	0.001	18.39033	50.00000	Averaged
45 Dibromomethane	0.12880	0.12209	0.12209	0.010	5.20490	50.00000	Averaged
46 Bromodichloromethane	0.26280	0.26959	0.26959	0.010	-2.58473	50.00000	Averaged
47 2-Chloroethyl vinyl ether	100	66.65846	0.08277	0.010	33.34154	0.000e+000	Wt Linear

|_____|_____|_____|_____|____|_____|_____|_____|

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 25-JUN-2009 15:18
Lab File ID: UXM8941.D Init. Cal. Date(s): 11-FEB-2009 07-MAY-2009
Analysis Type: WATER Init. Cal. Times: 16:00 15:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.31741	0.32241	0.32241	0.010	-1.57330	50.00000	Averaged
49 4-Methyl-2-pentanone	0.16933	0.16762	0.16762	0.010	1.01232	50.00000	Averaged
50 Toluene	1.33053	1.36556	1.36556	0.010	-2.63275	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.32490	0.36473	0.36473	0.010	-12.26064	50.00000	Averaged
52 Ethyl Methacrylate	50.00000	49.42966	0.33046	0.010	1.14067	0.000e+000	Wt Linear
53 1,1,2-Trichloroethane	0.25389	0.24329	0.24329	0.010	4.17701	50.00000	Averaged
54 1,3-Dichloropropane	0.45447	0.44035	0.44035	0.010	3.10726	50.00000	Averaged
55 Tetrachloroethene	0.25064	0.24308	0.24308	0.010	3.01304	50.00000	Averaged
56 2-Hexanone	0.13933	0.15116	0.15116	0.010	-8.48992	50.00000	Averaged
57 Dibromochloromethane	0.22440	0.24390	0.24390	0.010	-8.69222	50.00000	Averaged
58 1,2-Dibromoethane	0.23411	0.22546	0.22546	0.010	3.69312	50.00000	Averaged
59 Chlorobenzene	0.85591	0.85887	0.85887	0.300	-0.34500	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.26929	0.28802	0.28802	0.010	-6.95499	50.00000	Averaged
61 Ethylbenzene	0.42778	0.44535	0.44535	0.010	-4.10658	20.00000	Averaged
62 m + p-Xylene	0.53934	0.56948	0.56948	0.010	-5.58792	50.00000	Averaged
M 63 Xylenes (total)	0.52635	0.56106	0.56106	0.010	-6.59309	50.00000	Averaged
64 Xylene-o	0.50038	0.54421	0.54421	0.010	-8.75964	50.00000	Averaged
65 Styrene	50.00000	50.62068	0.91013	0.010	-1.24137	0.000e+000	Wt Linear
66 Bromoform	0.13336	0.13555	0.13555	0.100	-1.63710	50.00000	Averaged
67 Isopropylbenzene	50.00000	49.03824	1.26269	0.010	1.92353	0.000e+000	Wt Linear
68 1,1,2,2-Tetrachloroethane	0.59734	0.55390	0.55390	0.300	7.27269	50.00000	Averaged
69 1,4-Dichloro-2-butene	50.00000	59.12270	0.11991	0.010	-18.24539	0.000e+000	Wt Linear
70 1,2,3-Trichloropropane	0.16707	0.16609	0.16609	0.010	0.58788	50.00000	Averaged
71 Bromobenzene	0.61434	0.65210	0.65210	0.010	-6.14611	50.00000	Averaged
72 n-Propylbenzene	0.58828	0.67125	0.67125	0.010	-14.10368	50.00000	Averaged
73 2-Chlorotoluene	0.56791	0.62167	0.62167	0.010	-9.46570	50.00000	Averaged
74 1,3,5-Trimethylbenzene	1.72265	1.93961	1.93961	0.010	-12.59453	50.00000	Averaged
75 4-Chlorotoluene	0.58722	0.64733	0.64733	0.010	-10.23687	50.00000	Averaged
76 tert-Butylbenzene	1.45079	1.56007	1.56007	0.010	-7.53249	50.00000	Averaged
77 1,2,4-Trimethylbenzene	50.00000	52.86059	2.03309	0.010	-5.72119	0.000e+000	Wt Linear
78 sec-Butylbenzene	1.92917	2.01141	2.01141	0.010	-4.26287	50.00000	Averaged
79 4-Isopropyltoluene	50.00000	49.69991	1.71914	0.010	0.60018	0.000e+000	Wt Linear
80 1,3-Dichlorobenzene	1.12931	1.20321	1.20321	0.010	-6.54412	50.00000	Averaged
81 1,4-Dichlorobenzene	1.17538	1.23948	1.23948	0.010	-5.45428	50.00000	Averaged
82 n-Butylbenzene	50.00000	44.94322	1.26221	0.010	10.11356	0.000e+000	Wt Linear
83 1,2-Dichlorobenzene	1.09848	1.17193	1.17193	0.010	-6.68607	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.07812	0.07468	0.07468	0.010	4.40049	50.00000	Averaged
85 1,2,4-Trichlorobenzene	0.48985	0.46448	0.46448	0.010	5.18062	50.00000	Averaged
86 Hexachlorobutadiene	0.22810	0.20051	0.20051	0.010	12.09394	50.00000	Averaged
87 Naphthalene	50.00000	39.93039	0.99030	0.010	20.13922	0.000e+000	Wt Linear
88 1,2,3-Trichlorobenzene	0.47067	0.40769	0.40769	0.010	13.38240	50.00000	Averaged
98 Cyclohexane	50.00000	38.85223	0.36155	0.010	22.29553	0.000e+000	Wt Linear
143 Methyl Acetate	0.16549	0.14555	0.14555	0.010	12.05176	50.00000	Averaged

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Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 25-JUN-2009 15:18
Lab File ID: UXM8941.D Init. Cal. Date(s): 11-FEB-2009 07-MAY-2009
Analysis Type: WATER Init. Cal. Times: 16:00 15:26
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	50.00000	35.52276	0.28994	0.010	28.95449	0.000e+000	Wt Linear
141 1,3,5-Trichlorobenzene	0.60812	0.59055	0.59055	0.010	2.89001	50.00000	Averaged
149 Vinyl Acetate-86	0.03812	0.03425	0.03425	0.010	10.13670	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Lab Smp Id: 50NG-CC
Inj Date : 25-JUN-2009 15:18
Operator : 1644 Inst ID: a3ux16.i
Smp Info : 50NG-CC
Misc Info : M90625A,8260LLUX16,2-8260.SUB,1644,2
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-8260.SUB
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	948376	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	691311	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.573	10.573	(1.000)	360329	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	192956	50.0000	49.798
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	223472	50.0000	50.348
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	774452	50.0000	52.258
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	260704	50.0000	53.111
8 Dichlorodifluoromethane	85	1.619	1.619	(0.287)	191428	50.0000	53.632
9 Chloromethane	50	1.785	1.785	(0.317)	233805	50.0000	41.162
10 Vinyl Chloride	62	1.904	1.904	(0.338)	247547	50.0000	40.785
11 Bromomethane	94	2.248	2.248	(0.399)	115211	50.0000	53.934
12 Chloroethane	64	2.355	2.355	(0.418)	65818	50.0000	37.989
13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	296370	50.0000	59.346
15 Acrolein	56	2.995	2.995	(0.531)	258683	500.000	356.63
16 Acetone	43	3.137	3.137	(0.556)	104625	100.000	89.589
17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	193578	50.0000	45.077
18 Freon-113	151	3.114	3.114	(0.552)	129218	50.0000	42.629
19 Iodomethane	142	3.232	3.232	(0.573)	336129	50.0000	49.026
20 Carbon Disulfide	76	3.291	3.291	(0.584)	623651	50.0000	46.244

21 Methylene Chloride	84	3.529	3.529 (0.626)	229066	50.0000	43.913
22 Acetonitrile	41	3.398	3.398 (0.603)	204551	500.000	373.34
23 Acrylonitrile	53	3.754	3.754 (0.666)	129034	100.000	79.867

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	541058	50.0000	53.220
	25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	222121	50.0000	45.823
	26 Hexane	86	4.027	4.027	(0.714)	36765	50.0000	34.732
	27 Vinyl acetate	43	4.193	4.193	(0.743)	295412	50.0000	47.547
	28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	384591	50.0000	48.053
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	237150	1000.00	982.10
	30 2-Butanone	43	4.667	4.667	(0.828)	155287	100.000	89.627
M	31 1,2-Dichloroethene (total)	96				453041	100.000	93.328
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	230920	50.0000	47.505
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	234288	50.0000	56.626
	34 Bromochloromethane	128	4.869	4.869	(0.863)	109317	50.0000	46.121
	35 Chloroform	83	4.928	4.928	(0.874)	370980	50.0000	49.345
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	47007	50.0000	50.306
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	308143	50.0000	55.266
	38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	280039	50.0000	47.030
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	260853	50.0000	54.051
	40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	290220	50.0000	52.736
	41 Benzene	78	5.414	5.414	(0.960)	893562	50.0000	44.808
	42 Trichloroethene	130	5.960	5.960	(1.057)	218149	50.0000	45.136
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	213982	50.0000	46.232
	44 1,4-Dioxane	88	6.268	6.268	(1.111)	78918	2500.00	2040.2
	45 Dibromomethane	93	6.256	6.256	(1.109)	115791	50.0000	47.398
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	255671	50.0000	51.292
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	157000	100.000	66.658
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	305763	50.0000	50.787
	49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	317928	100.000	98.988
	50 Toluene	91	7.074	7.074	(0.848)	944026	50.0000	51.316
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	252144	50.0000	56.130
	52 Ethyl Methacrylate	69	7.323	7.323	(0.878)	228449	50.0000	49.430
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	168188	50.0000	47.911
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	304420	50.0000	48.446
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	168047	50.0000	48.493
	56 2-Hexanone	43	7.643	7.643	(0.916)	208998	100.000	108.49
	57 Dibromochloromethane	129	7.798	7.798	(0.935)	168613	50.0000	54.346
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	155865	50.0000	48.153
	59 Chlorobenzene	112	8.367	8.367	(1.003)	593744	50.0000	50.172
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	199108	50.0000	53.477
	61 Ethylbenzene	106	8.462	8.462	(1.014)	307873	50.0000	52.053
	62 m + p-Xylene	106	8.568	8.568	(1.027)	787375	100.000	105.59
M	63 Xylenes (total)	106				1163594	150.000	159.97
	64 Xylene-o	106	8.948	8.948	(1.072)	376219	50.0000	54.380
	65 Styrene	104	8.960	8.960	(1.074)	629184	50.0000	50.621
	66 Bromoform	173	9.149	9.149	(1.097)	93706	50.0000	50.818
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	872909	50.0000	49.038
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	199585	50.0000	46.364
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	43206	50.0000	59.123
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	59847	50.0000	49.706
	71 Bromobenzene	156	9.600	9.600	(0.908)	234971	50.0000	53.073
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	241870	50.0000	57.052
	73 2-Chlorotoluene	126	9.790	9.790	(0.926)	224004	50.0000	54.733
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	698896	50.0000	56.297
	75 4-Chlorotoluene	126	9.885	9.885	(0.935)	233253	50.0000	55.118

76 tert-Butylbenzene	119	10.181	10.181 (0.963)	562137	50.0000	53.766
77 1,2,4-Trimethylbenzene	105	10.229	10.229 (0.967)	732581	50.0000	52.860

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
78	sec-Butylbenzene	105	10.395	10.395	(0.983)	724768	50.0000	52.131
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	619456	50.0000	49.700
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	433552	50.0000	53.272
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	446622	50.0000	52.727
82	n-Butylbenzene	91	10.940	10.940	(1.035)	454812	50.0000	44.943
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	422280	50.0000	53.343
84	1,2-Dibromo-3-chloropropane	157	11.747	11.747	(1.111)	26911	50.0000	47.800
85	1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	167364	50.0000	47.410
86	Hexachlorobutadiene	225	12.743	12.743	(1.205)	72251	50.0000	43.953
87	Naphthalene	128	12.826	12.826	(1.213)	356835	50.0000	39.930
88	1,2,3-Trichlorobenzene	180	13.087	13.087	(1.238)	146901	50.0000	43.309
98	Cyclohexane	56	5.141	5.141	(0.912)	342885	50.0000	38.852
143	Methyl Acetate	43	3.434	3.434	(0.609)	276069	100.000	87.948
144	Methylcyclohexane	83	6.126	6.126	(1.086)	274974	50.0000	35.523
141	1,3,5-Trichlorobenzene	180	11.960	11.960	(1.131)	212792	50.0000	48.555
149	Vinyl Acetate-86	86	4.193	4.193	(0.743)	32484	50.0000	44.932

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8941.D
Report Date: 25-Jun-2009 15:34

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

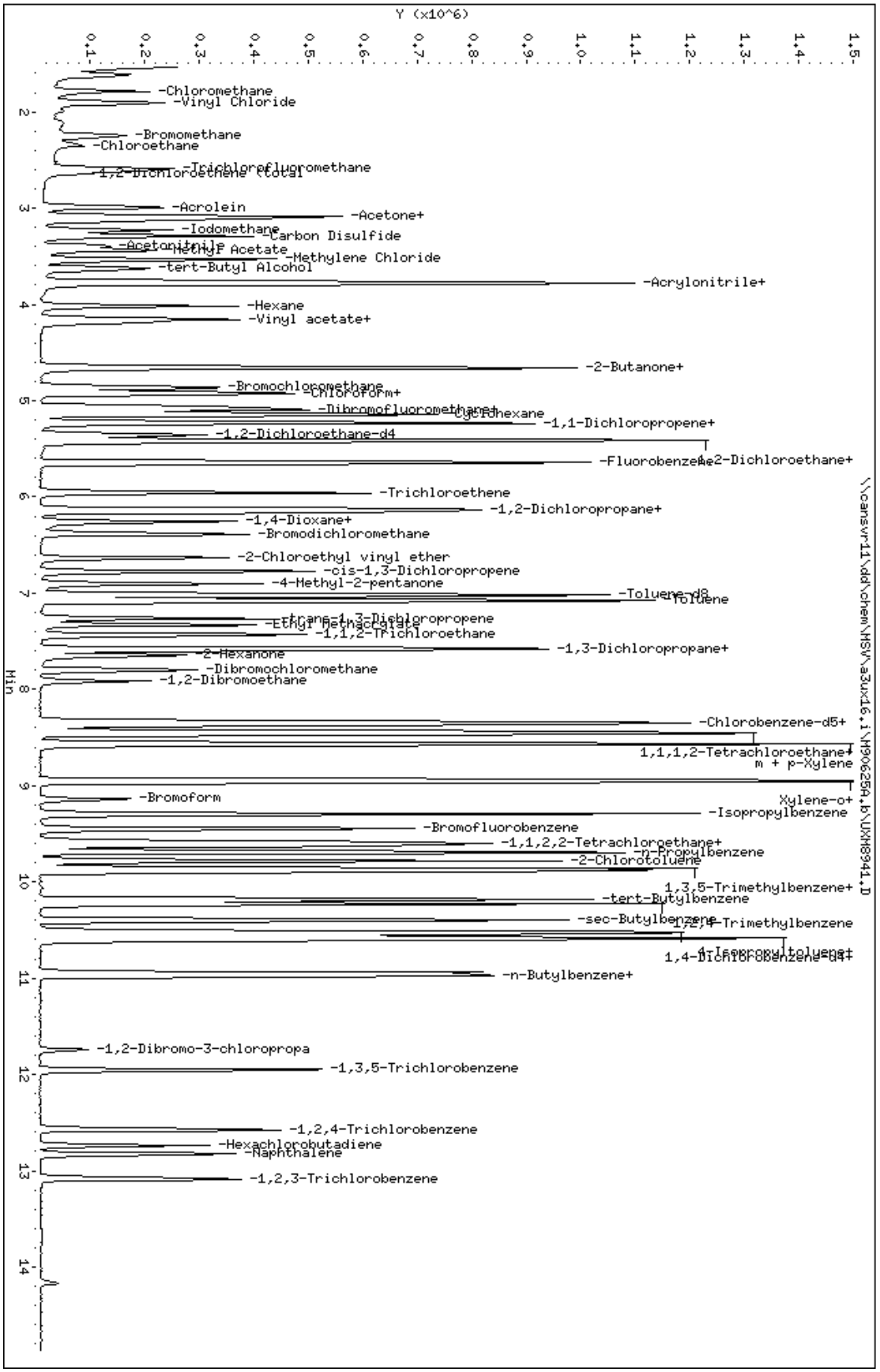
Instrument ID: a3ux16.i
Lab File ID: UXM8941.D
Lab Smp Id: 50NG-CC
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,2-8260.SUB,1644,2

Calibration Date: 25-JUN-2009
Calibration Time: 14:57
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	1005010	502505	2010020	948376	-5.64
2 Chlorobenzene-d5	697970	348985	1395940	691311	-0.95
3 1,4-Dichlorobenze	297356	148678	594712	360329	21.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXN8941.D
Date : 25-JUN-2009 15:18
Client ID:
Sample Info: 50NG-CC
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RAW QC DATA

TestAmerica North Canton

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A.b\BFB1088.D
Lab Smp Id: 50ng bfb Client Smp ID: 50NG BFB
Inj Date : 07-MAY-2009 11:10
Operator : 1644 Inst ID: a3ux16.i
Smp Info :
Misc Info : M90507A,BFBUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A.b\BFBUX16.m
Meth Date : 05-Feb-2009 13:38 quayler Quant Type: ESTD
Cal Date : 01-MAR-2000 19:29 Cal File: uxx0287.d
Als bottle: 27 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: CANSVR11

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
3.739	3.740	-0.001	95	63144			100.00- 100.00	100.00
3.739	3.740	-0.001	50	10002			15.00- 40.00	15.84
3.739	3.740	-0.001	75	28096			30.00- 60.00	44.50
3.739	3.740	-0.001	96	4256			5.00- 9.00	6.74
3.739	3.740	-0.001	173	219			0.00- 2.00	0.42
3.739	3.740	-0.001	174	51648			50.00- 100.00	81.79
3.739	3.740	-0.001	175	3400			5.00- 9.00	6.58
3.739	3.740	-0.001	176	49624			95.00- 101.00	96.08
3.739	3.740	-0.001	177	3296			5.00- 9.00	6.64

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\BFB1088.D Page 1

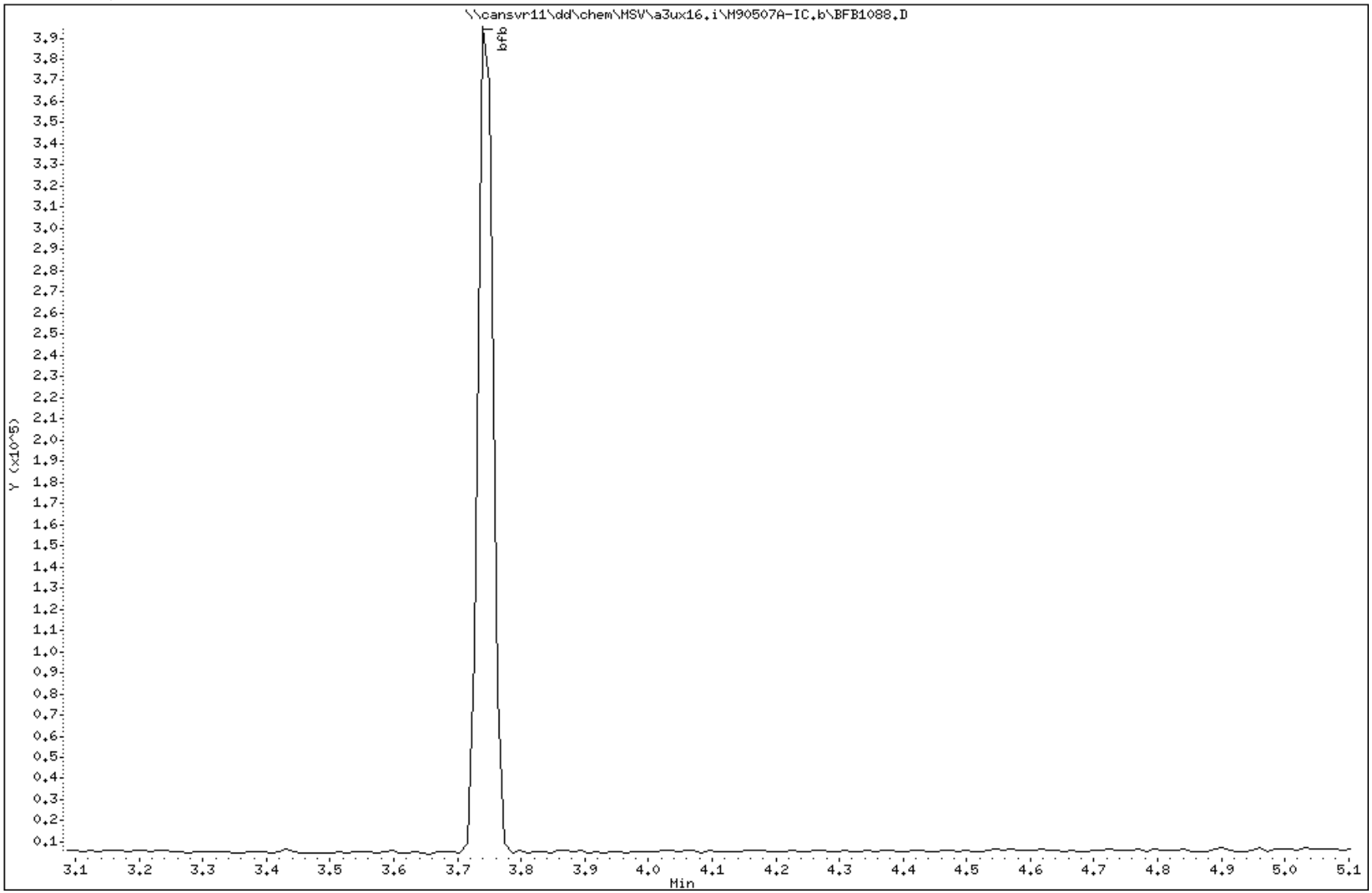
Date : 07-MAY-2009 11:10

Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90507A-IC.b\BFB1088.D

Date : 07-MAY-2009 11:10

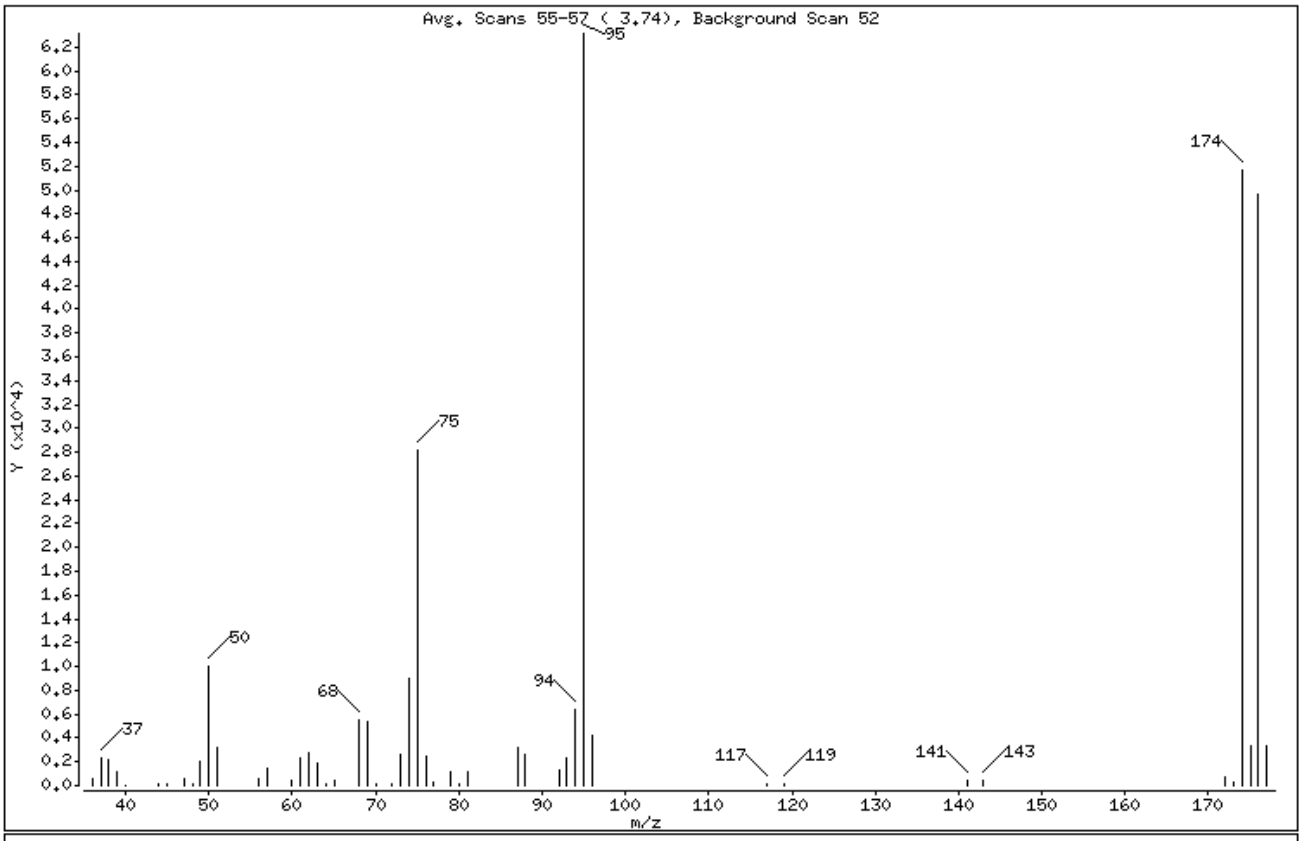
Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.84
75	30.00 - 60.00% of mass 95	44.50
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.35 (0.42)
174	50.00 - 100.00% of mass 95	81.79
175	5.00 - 9.00% of mass 174	5.38 (6.58)
176	95.00 - 101.00% of mass 174	78.59 (96.08)
177	5.00 - 9.00% of mass 176	5.22 (6.64)

Date : 07-MAY-2009 11:10

Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18

Data File: BFB1088.D
Spectrum: Avg. Scans 55-57 (3.74), Background Scan 52
Location of Maximum: 95.00
Number of points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	525	57.00	1412	75.00	28096	117.00	211
37.00	2257	60.00	398	76.00	2412	119.00	174
38.00	2199	61.00	2298	77.00	225	141.00	387
39.00	1144	62.00	2755	79.00	1189	143.00	462
40.00	12	63.00	1829	80.00	184	172.00	661
44.00	172	64.00	173	81.00	1211	173.00	219
45.00	211	65.00	433	87.00	3126	174.00	51648
47.00	642	68.00	5520	88.00	2606	175.00	3400
48.00	172	69.00	5427	92.00	1291	176.00	49624
49.00	2046	70.00	198	93.00	2347	177.00	3296
50.00	10002	72.00	167	94.00	6382		
51.00	3221	73.00	2568	95.00	63144		
56.00	592	74.00	8948	96.00	4256		

TestAmerica North Canton

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D
Lab Smp Id: 50ng bfb Client Smp ID: 50NG BFB
Inj Date : 25-JUN-2009 13:50
Operator : 1644 Inst ID: a3ux16.i
Smp Info :
Misc Info : M90625A,BFBUX16,,1644
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFBUX16.m
Meth Date : 05-Feb-2009 13:38 quayler Quant Type: ESTD
Cal Date : 01-MAR-2000 19:29 Cal File: uxx0287.d
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: CANSVR11

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
3.739	3.740	-0.001	95	48680			100.00- 100.00	100.00
3.739	3.740	-0.001	50	9977			15.00- 40.00	20.50
3.739	3.740	-0.001	75	24968			30.00- 60.00	51.29
3.739	3.740	-0.001	96	3329			5.00- 9.00	6.84
3.739	3.740	-0.001	173	0	0.0	0.0	0.00- 2.00	0.00
3.739	3.740	-0.001	174	37136			50.00- 100.00	76.29
3.739	3.740	-0.001	175	2758			5.00- 9.00	7.43
3.739	3.740	-0.001	176	36232			95.00- 101.00	97.57
3.739	3.740	-0.001	177	2337			5.00- 9.00	6.45

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D Page 1

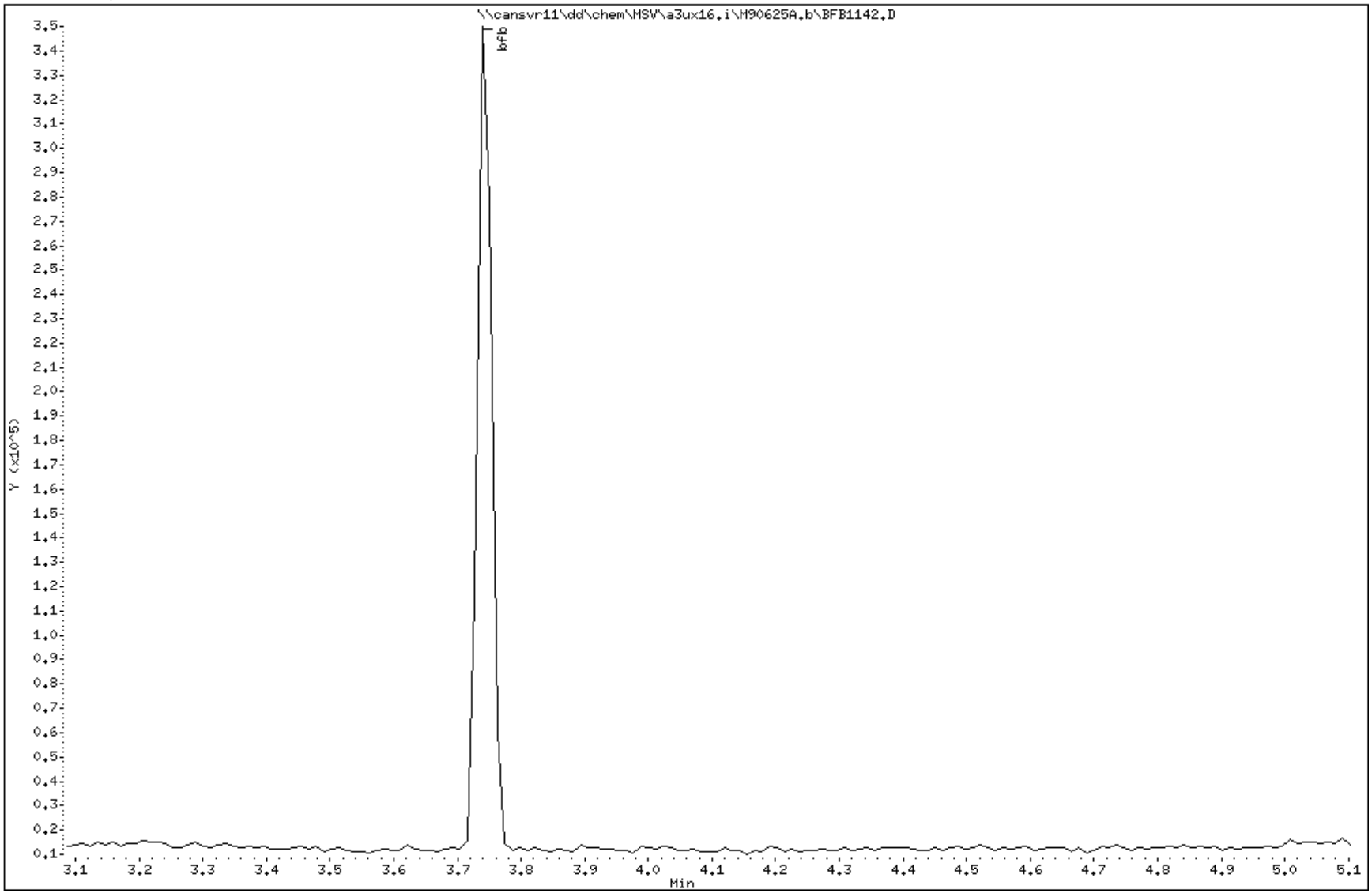
Date : 25-JUN-2009 13:50

Client ID: 50NG BFB Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0 Operator: 1644

Column phase: DB624 20M Column diameter: 0.18



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D

Date : 25-JUN-2009 13:50

Client ID: 50NG BFB

Instrument: a3ux16.i

Sample Info:

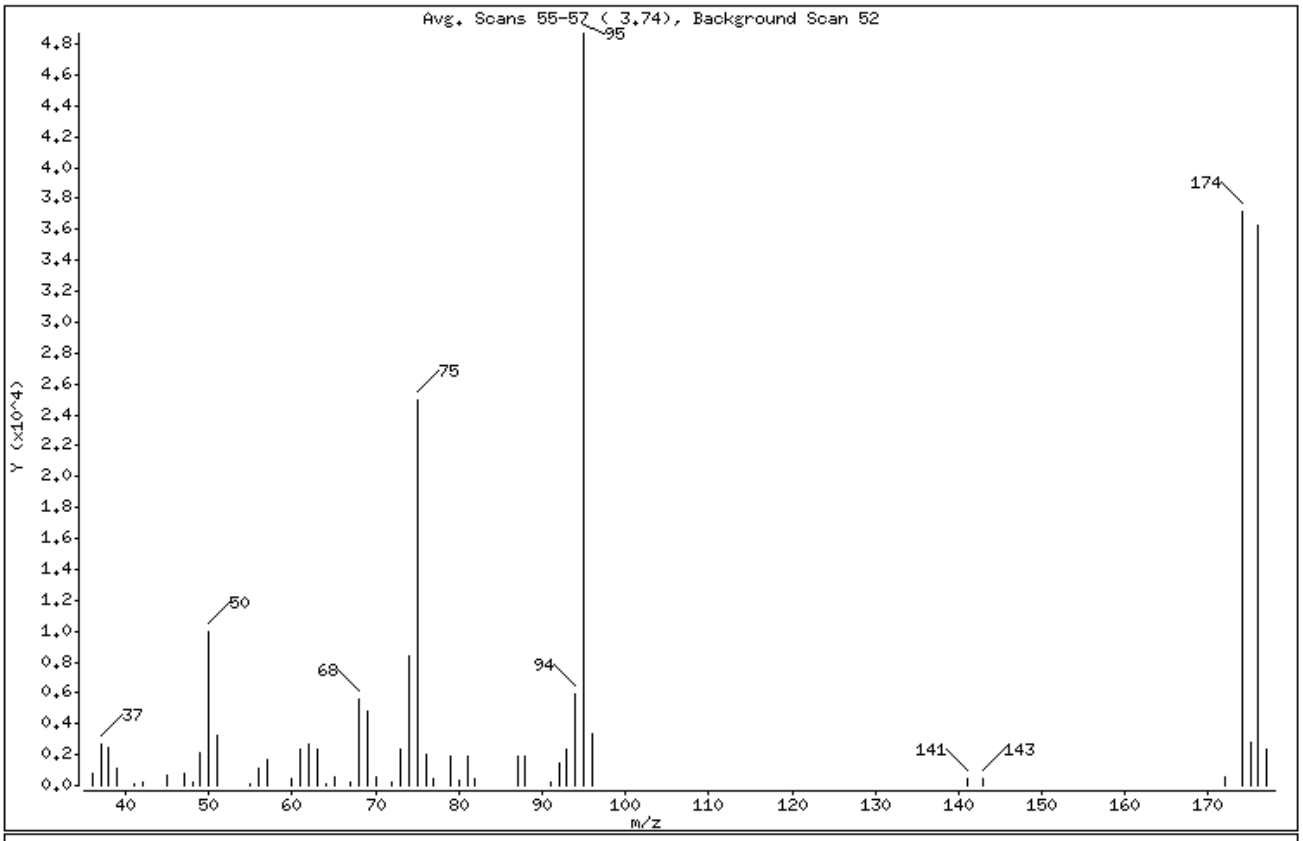
Volume Injected (uL): 1.0

Operator: 1644

Column phase: DB624 20M

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.50
75	30.00 - 60.00% of mass 95	51.29
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	76.29
175	5.00 - 9.00% of mass 174	5.67 (7.43)
176	95.00 - 101.00% of mass 174	74.43 (97.57)
177	5.00 - 9.00% of mass 176	4.80 (6.45)

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\BFB1142.D

Date : 25-JUN-2009 13:50

Client ID: 50NG BFB

Instrument: a3ux16.i

Sample Info:

Volume Injected (uL): 1.0

Operator: 1644

Column phase: DB624 20M

Column diameter: 0.18

Data File: BFB1142.D
Spectrum: Avg. Scans 55-57 (3.74), Background Scan 52
Location of Maximum: 95.00
Number of points: 50

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	747	56.00	1069	73.00	2321	93.00	2358
37.00	2692	57.00	1635	74.00	8367	94.00	5942
38.00	2480	60.00	466	75.00	24968	95.00	48680
39.00	1115	61.00	2385	76.00	2040	96.00	3329
41.00	151	62.00	2689	77.00	459	141.00	433
42.00	171	63.00	2366	79.00	1891	143.00	470
45.00	682	64.00	167	80.00	301	172.00	512
47.00	737	65.00	566	81.00	1874	174.00	37136
48.00	196	67.00	168	82.00	480	175.00	2758
49.00	2178	68.00	5568	87.00	1913	176.00	36232
50.00	9977	69.00	4818	88.00	1953	177.00	2337
51.00	3198	70.00	613	91.00	208		
55.00	118	72.00	190	92.00	1423		

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1,1-Trichloroethane	114	(78 - 140)			SW846 8260B
	110	(78 - 140)	3.4	(0-30)	SW846 8260B
Trichlorofluoromethane	110	(70 - 130)			SW846 8260B
	102	(70 - 130)	7.2	(0-30)	SW846 8260B
Chloromethane	73	(48 - 123)			SW846 8260B
	61	(48 - 123)	18	(0-30)	SW846 8260B
Bromomethane	105	(64 - 129)			SW846 8260B
	86	(64 - 129)	20	(0-30)	SW846 8260B
Vinyl chloride	72	(61 - 120)			SW846 8260B
	68	(61 - 120)	5.3	(0-30)	SW846 8260B
Chloroethane	74	(66 - 126)			SW846 8260B
	60 a	(66 - 126)	21	(0-30)	SW846 8260B
Methylene chloride	91	(78 - 118)			SW846 8260B
	86	(78 - 118)	5.2	(0-30)	SW846 8260B
Acetone	85	(22 - 200)			SW846 8260B
	73	(22 - 200)	15	(0-95)	SW846 8260B
Carbon disulfide	96	(73 - 139)			SW846 8260B
	92	(73 - 139)	4.9	(0-30)	SW846 8260B
1,1-Dichloroethene	**93**	**(63 - 130)**			**SW846 8260B**
	91	**(63 - 130)**	**2.8**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethane	101	(86 - 123)			SW846 8260B
	97	(86 - 123)	4.5	(0-30)	SW846 8260B
1,2-Dichloroethene (total)	99	(82 - 116)			SW846 8260B
	95	(82 - 116)	3.6	(0-30)	SW846 8260B
Chloroform	102	(84 - 128)			SW846 8260B
	98	(84 - 128)	4.4	(0-30)	SW846 8260B
1,2-Dichloroethane	107	(79 - 136)			SW846 8260B
	102	(79 - 136)	4.7	(0-30)	SW846 8260B
2-Butanone	87	(28 - 237)			SW846 8260B
	82	(28 - 237)	6.3	(0-65)	SW846 8260B
Carbon tetrachloride	113	(75 - 149)			SW846 8260B
	110	(75 - 149)	2.0	(0-30)	SW846 8260B
Bromodichloromethane	106	(87 - 130)			SW846 8260B
	101	(87 - 130)	4.7	(0-30)	SW846 8260B
1,2-Dichloropropane	93	(82 - 115)			SW846 8260B
	89	(82 - 115)	4.5	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
cis-1,3-Dichloropropene	97	(84 - 130)			SW846 8260B
	94	(84 - 130)	2.8	(0-30)	SW846 8260B
Trichloroethene	**94**	**(75 - 122)**			**SW846 8260B**
	91	**(75 - 122)**	**3.2**	**(0-20)**	**SW846 8260B**
Dibromochloromethane	109	(81 - 138)			SW846 8260B
	106	(81 - 138)	2.8	(0-30)	SW846 8260B
1,1,2-Trichloroethane	95	(83 - 122)			SW846 8260B
	92	(83 - 122)	3.5	(0-30)	SW846 8260B
Benzene	**94**	**(80 - 116)**			**SW846 8260B**
	89	**(80 - 116)**	**5.2**	**(0-20)**	**SW846 8260B**
trans-1,3-Dichloropropene	112	(84 - 130)			SW846 8260B
	106	(84 - 130)	4.9	(0-30)	SW846 8260B
Bromoform	99	(76 - 150)			SW846 8260B
	97	(76 - 150)	2.0	(0-30)	SW846 8260B
4-Methyl-2-pentanone	92	(78 - 141)			SW846 8260B
	88	(78 - 141)	4.0	(0-32)	SW846 8260B
2-Hexanone	105	(35 - 200)			SW846 8260B
	96	(35 - 200)	9.0	(0-52)	SW846 8260B
Tetrachloroethene	100	(88 - 113)			SW846 8260B
	100	(88 - 113)	0.030	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	93	(85 - 118)			SW846 8260B
	91	(85 - 118)	1.2	(0-30)	SW846 8260B
Toluene	**104**	**(74 - 119)**			**SW846 8260B**
	102	**(74 - 119)**	**2.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**			**SW846 8260B**
	101	**(76 - 117)**	**3.1**	**(0-20)**	**SW846 8260B**
Ethylbenzene	109	(86 - 116)			SW846 8260B
	107	(86 - 116)	1.9	(0-30)	SW846 8260B
Styrene	101	(85 - 117)			SW846 8260B
	97	(85 - 117)	4.6	(0-30)	SW846 8260B
Xylenes (total)	112	(87 - 116)			SW846 8260B
	108	(87 - 116)	3.5	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	102	(85 - 113)			SW846 8260B
	98	(85 - 113)	3.7	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	96	(80 - 120)			SW846 8260B
	93	(80 - 120)	3.6	(0-30)	SW846 8260B
Dichlorodifluoromethane	80	(70 - 130)			SW846 8260B
	73	(70 - 130)	8.8	(0-30)	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	106	(70 - 130)			SW846 8260B
	101	(70 - 130)	4.9	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Methyl acetate	75	(70 - 130)			SW846 8260B
	70	(70 - 130)	7.0	(0-30)	SW846 8260B
Methyl tert-butyl ether (MTBE)	107	(70 - 130)			SW846 8260B
	102	(70 - 130)	4.6	(0-30)	SW846 8260B
Cyclohexane	71	(70 - 130)			SW846 8260B
	69 a	(70 - 130)	2.8	(0-30)	SW846 8260B
Methylcyclohexane	68 a	(70 - 130)			SW846 8260B
	66 a	(70 - 130)	1.8	(0-30)	SW846 8260B
1,2-Dibromoethane	98	(70 - 130)			SW846 8260B
	93	(70 - 130)	5.3	(0-30)	SW846 8260B
Isopropylbenzene	105	(70 - 130)			SW846 8260B
	101	(70 - 130)	3.2	(0-30)	SW846 8260B
1,3-Dichlorobenzene	110	(70 - 130)			SW846 8260B
	106	(70 - 130)	3.2	(0-30)	SW846 8260B
1,4-Dichlorobenzene	109	(70 - 130)			SW846 8260B
	104	(70 - 130)	5.2	(0-30)	SW846 8260B
1,2-Dichlorobenzene	105	(70 - 130)			SW846 8260B
	103	(70 - 130)	1.9	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro-propane	93	(70 - 130)			SW846 8260B
	87	(70 - 130)	7.3	(0-30)	SW846 8260B
1,2,4-Trichloro-benzene	102	(70 - 130)			SW846 8260B
	93	(70 - 130)	9.9	(0-30)	SW846 8260B
Methyl tert-butyl ether	107	(70 - 130)			SW846 8260B
	102	(70 - 130)	4.6	(0-30)	SW846 8260B
n-Hexane	83	(70 - 130)			SW846 8260B
	76	(70 - 130)	8.5	(0-30)	SW846 8260B
o-Xylene	113	(70 - 130)			SW846 8260B
	109	(70 - 130)	3.2	(0-30)	SW846 8260B
m-Xylene & p-Xylene	111	(70 - 130)			SW846 8260B
	107	(70 - 130)	3.7	(0-30)	SW846 8260B
2-Chloroethyl vinyl ether	62 a	(70 - 130)			SW846 8260B
	59 a	(70 - 130)	4.4	(0-30)	SW846 8260B
Acetonitrile	73	(50 - 130)			SW846 8260B
	70	(50 - 130)	4.5	(0-30)	SW846 8260B
Acrolein	83	(50 - 130)			SW846 8260B
	72	(50 - 130)	15	(0-30)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl acetate	107	(70 - 130)			SW846 8260B
	105	(70 - 130)	1.7	(0-30)	SW846 8260B
Acrylonitrile	77	(50 - 130)			SW846 8260B
	73	(50 - 130)	5.3	(0-30)	SW846 8260B
Bromobenzene	108	(70 - 130)			SW846 8260B
	106	(70 - 130)	1.5	(0-30)	SW846 8260B
Bromochloromethane	97	(70 - 130)			SW846 8260B
	90	(70 - 130)	7.4	(0-30)	SW846 8260B
n-Butylbenzene	96	(70 - 130)			SW846 8260B
	92	(70 - 130)	3.9	(0-30)	SW846 8260B
sec-Butylbenzene	109	(70 - 130)			SW846 8260B
	107	(70 - 130)	1.7	(0-30)	SW846 8260B
tert-Butylbenzene	113	(70 - 130)			SW846 8260B
	110	(70 - 130)	2.0	(0-30)	SW846 8260B
2-Chlorotoluene	111	(70 - 130)			SW846 8260B
	110	(70 - 130)	0.64	(0-30)	SW846 8260B
4-Chlorotoluene	113	(70 - 130)			SW846 8260B
	111	(70 - 130)	2.2	(0-30)	SW846 8260B
Dibromomethane	97	(70 - 130)			SW846 8260B
	97	(70 - 130)	0.77	(0-30)	SW846 8260B
1,3-Dichloropropane	96	(70 - 130)			SW846 8260B
	95	(70 - 130)	1.7	(0-30)	SW846 8260B
2,2-Dichloropropane	122	(70 - 130)			SW846 8260B
	117	(70 - 130)	4.1	(0-30)	SW846 8260B
1,1-Dichloropropene	98	(70 - 130)			SW846 8260B
	96	(70 - 130)	1.6	(0-30)	SW846 8260B
Hexachlorobutadiene	96	(70 - 130)			SW846 8260B
	92	(70 - 130)	4.5	(0-30)	SW846 8260B
Iodomethane	100	(70 - 130)			SW846 8260B
	96	(70 - 130)	4.0	(0-30)	SW846 8260B
Isopropyl ether	100	(70 - 130)			SW846 8260B
	94	(70 - 130)	5.8	(0-30)	SW846 8260B
p-Isopropyltoluene	105	(70 - 130)			SW846 8260B
	102	(70 - 130)	3.0	(0-30)	SW846 8260B
Naphthalene	82	(70 - 130)			SW846 8260B
	73	(70 - 130)	12	(0-30)	SW846 8260B
n-Propylbenzene	120	(70 - 130)			SW846 8260B
	120	(70 - 130)	0.43	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	112	(70 - 130)			SW846 8260B
	106	(70 - 130)	4.8	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	95	(70 - 130)			SW846 8260B
	85	(70 - 130)	11	(0-30)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,2,3-Trichloropropane	102	(70 - 130)			SW846 8260B
	106	(70 - 130)	3.2	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	110	(70 - 130)			SW846 8260B
	107	(70 - 130)	2.7	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	116	(70 - 130)			SW846 8260B
	115	(70 - 130)	0.89	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	95	(61 - 128)
Toluene-d8	102	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	109	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD
Prep Date.....: 06/25/09 **Analysis Date..:** 06/25/09
Prep Batch #...: 9177173
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1,1-Trichloroethane	10	11	ug/L	114		SW846 8260B
	10	11	ug/L	110	3.4	SW846 8260B
Trichlorofluoromethane	10	11	ug/L	110		SW846 8260B
	10	10	ug/L	102	7.2	SW846 8260B
Chloromethane	10	7.3	ug/L	73		SW846 8260B
	10	6.1	ug/L	61	18	SW846 8260B
Bromomethane	10	11	ug/L	105		SW846 8260B
	10	8.6	ug/L	86	20	SW846 8260B
Vinyl chloride	10	7.2	ug/L	72		SW846 8260B
	10	6.8	ug/L	68	5.3	SW846 8260B
Chloroethane	10	7.4	ug/L	74		SW846 8260B
	10	6.0 a	ug/L	60	21	SW846 8260B
Methylene chloride	10	9.1	ug/L	91		SW846 8260B
	10	8.6	ug/L	86	5.2	SW846 8260B
Acetone	10	8.5	ug/L	85		SW846 8260B
	10	7.3	ug/L	73	15	SW846 8260B
Carbon disulfide	10	9.6	ug/L	96		SW846 8260B
	10	9.2	ug/L	92	4.9	SW846 8260B
1,1-Dichloroethene	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	10	**9.1**	**ug/L**	**91**	**2.8**	**SW846 8260B**
1,1-Dichloroethane	10	10	ug/L	101		SW846 8260B
	10	9.7	ug/L	97	4.5	SW846 8260B
1,2-Dichloroethene (total)	20	20	ug/L	99		SW846 8260B
	20	19	ug/L	95	3.6	SW846 8260B
Chloroform	10	10	ug/L	102		SW846 8260B
	10	9.8	ug/L	98	4.4	SW846 8260B
1,2-Dichloroethane	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	102	4.7	SW846 8260B
2-Butanone	10	8.7	ug/L	87		SW846 8260B
	10	8.2	ug/L	82	6.3	SW846 8260B
Carbon tetrachloride	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	110	2.0	SW846 8260B
Bromodichloromethane	10	11	ug/L	106		SW846 8260B
	10	10	ug/L	101	4.7	SW846 8260B
1,2-Dichloropropane	10	9.3	ug/L	93		SW846 8260B
	10	8.9	ug/L	89	4.5	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
cis-1,3-Dichloropropene	10	9.7	ug/L	97		SW846 8260B
	10	9.4	ug/L	94	2.8	SW846 8260B
Trichloroethene	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	10	**9.1**	**ug/L**	**91**	**3.2**	**SW846 8260B**
Dibromochloromethane	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	106	2.8	SW846 8260B
1,1,2-Trichloroethane	10	9.5	ug/L	95		SW846 8260B
	10	9.2	ug/L	92	3.5	SW846 8260B
Benzene	**10**	**9.4**	**ug/L**	**94**		**SW846 8260B**
	10	**8.9**	**ug/L**	**89**	**5.2**	**SW846 8260B**
trans-1,3-Dichloropropene	10	11	ug/L	112		SW846 8260B
	10	11	ug/L	106	4.9	SW846 8260B
Bromoform	10	9.9	ug/L	99		SW846 8260B
	10	9.7	ug/L	97	2.0	SW846 8260B
4-Methyl-2-pentanone	10	9.2	ug/L	92		SW846 8260B
	10	8.8	ug/L	88	4.0	SW846 8260B
2-Hexanone	10	10	ug/L	105		SW846 8260B
	10	9.6	ug/L	96	9.0	SW846 8260B
Tetrachloroethene	10	10	ug/L	100		SW846 8260B
	10	10	ug/L	100	0.030	SW846 8260B
1,1,2,2-Tetrachloroethane	10	9.3	ug/L	93		SW846 8260B
	10	9.1	ug/L	91	1.2	SW846 8260B
Toluene	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	10	**10**	**ug/L**	**102**	**2.4**	**SW846 8260B**
Chlorobenzene	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	10	**10**	**ug/L**	**101**	**3.1**	**SW846 8260B**
Ethylbenzene	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	107	1.9	SW846 8260B
Styrene	10	10	ug/L	101		SW846 8260B
	10	9.7	ug/L	97	4.6	SW846 8260B
Xylenes (total)	30	34	ug/L	112		SW846 8260B
	30	32	ug/L	108	3.5	SW846 8260B
cis-1,2-Dichloroethene	10	10	ug/L	102		SW846 8260B
	10	9.8	ug/L	98	3.7	SW846 8260B
trans-1,2-Dichloroethene	10	9.6	ug/L	96		SW846 8260B
	10	9.3	ug/L	93	3.6	SW846 8260B
Dichlorodifluoromethane	10	8.0	ug/L	80		SW846 8260B
	10	7.3	ug/L	73	8.8	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	10	11	ug/L	106		SW846 8260B
	10	10	ug/L	101	4.9	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Methyl acetate	10	7.5	ug/L	75		SW846 8260B
	10	7.0	ug/L	70	7.0	SW846 8260B
Methyl tert-butyl ether (MTBE)	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	102	4.6	SW846 8260B
Cyclohexane	10	7.1	ug/L	71		SW846 8260B
	10	6.9 a	ug/L	69	2.8	SW846 8260B
Methylcyclohexane	10	6.8 a	ug/L	68		SW846 8260B
	10	6.6 a	ug/L	66	1.8	SW846 8260B
1,2-Dibromoethane	10	9.8	ug/L	98		SW846 8260B
	10	9.3	ug/L	93	5.3	SW846 8260B
Isopropylbenzene	10	10	ug/L	105		SW846 8260B
	10	10	ug/L	101	3.2	SW846 8260B
1,3-Dichlorobenzene	10	11	ug/L	110		SW846 8260B
	10	11	ug/L	106	3.2	SW846 8260B
1,4-Dichlorobenzene	10	11	ug/L	109		SW846 8260B
	10	10	ug/L	104	5.2	SW846 8260B
1,2-Dichlorobenzene	10	10	ug/L	105		SW846 8260B
	10	10	ug/L	103	1.9	SW846 8260B
1,2-Dibromo-3-chloro-propane	10	9.3	ug/L	93		SW846 8260B
	10	8.7	ug/L	87	7.3	SW846 8260B
1,2,4-Trichloro-benzene	10	10	ug/L	102		SW846 8260B
	10	9.3	ug/L	93	9.9	SW846 8260B
Methyl tert-butyl ether	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	102	4.6	SW846 8260B
n-Hexane	10	8.3	ug/L	83		SW846 8260B
	10	7.6	ug/L	76	8.5	SW846 8260B
o-Xylene	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	109	3.2	SW846 8260B
m-Xylene & p-Xylene	20	22	ug/L	111		SW846 8260B
	20	21	ug/L	107	3.7	SW846 8260B
2-Chloroethyl vinyl ether	10	6.2 a	ug/L	62		SW846 8260B
	10	5.9 a	ug/L	59	4.4	SW846 8260B
Acetonitrile	30	22	ug/L	73		SW846 8260B
	30	21	ug/L	70	4.5	SW846 8260B
Acrolein	30	25	ug/L	83		SW846 8260B
	30	22	ug/L	72	15	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl acetate	10	11	ug/L	107		SW846 8260B
	10	10	ug/L	105	1.7	SW846 8260B
Acrylonitrile	30	23	ug/L	77		SW846 8260B
	30	22	ug/L	73	5.3	SW846 8260B
Bromobenzene	10	11	ug/L	108		SW846 8260B
	10	11	ug/L	106	1.5	SW846 8260B
Bromochloromethane	10	9.7	ug/L	97		SW846 8260B
	10	9.0	ug/L	90	7.4	SW846 8260B
n-Butylbenzene	10	9.6	ug/L	96		SW846 8260B
	10	9.2	ug/L	92	3.9	SW846 8260B
sec-Butylbenzene	10	11	ug/L	109		SW846 8260B
	10	11	ug/L	107	1.7	SW846 8260B
tert-Butylbenzene	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	110	2.0	SW846 8260B
2-Chlorotoluene	10	11	ug/L	111		SW846 8260B
	10	11	ug/L	110	0.64	SW846 8260B
4-Chlorotoluene	10	11	ug/L	113		SW846 8260B
	10	11	ug/L	111	2.2	SW846 8260B
Dibromomethane	10	9.7	ug/L	97		SW846 8260B
	10	9.7	ug/L	97	0.77	SW846 8260B
1,3-Dichloropropane	10	9.6	ug/L	96		SW846 8260B
	10	9.5	ug/L	95	1.7	SW846 8260B
2,2-Dichloropropane	10	12	ug/L	122		SW846 8260B
	10	12	ug/L	117	4.1	SW846 8260B
1,1-Dichloropropene	10	9.8	ug/L	98		SW846 8260B
	10	9.6	ug/L	96	1.6	SW846 8260B
Hexachlorobutadiene	10	9.6	ug/L	96		SW846 8260B
	10	9.2	ug/L	92	4.5	SW846 8260B
Iodomethane	10	10	ug/L	100		SW846 8260B
	10	9.6	ug/L	96	4.0	SW846 8260B
Isopropyl ether	10	10	ug/L	100		SW846 8260B
	10	9.4	ug/L	94	5.8	SW846 8260B
p-Isopropyltoluene	10	11	ug/L	105		SW846 8260B
	10	10	ug/L	102	3.0	SW846 8260B
Naphthalene	10	8.2	ug/L	82		SW846 8260B
	10	7.3	ug/L	73	12	SW846 8260B
n-Propylbenzene	10	12	ug/L	120		SW846 8260B
	10	12	ug/L	120	0.43	SW846 8260B
1,1,1,2-Tetrachloroethane	10	11	ug/L	112		SW846 8260B
	10	11	ug/L	106	4.8	SW846 8260B
1,2,3-Trichlorobenzene	10	9.5	ug/L	95		SW846 8260B
	10	8.5	ug/L	85	11	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A9F260000-173 LFM6Q1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,2,3-Trichloropropane	10	10	ug/L	102		SW846 8260B
	10	11	ug/L	106	3.2	SW846 8260B
1,2,4-Trimethylbenzene	10	11	ug/L	110		SW846 8260B
	10	11	ug/L	107	2.7	SW846 8260B
1,3,5-Trimethylbenzene	10	12	ug/L	116		SW846 8260B
	10	11	ug/L	115	0.89	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	95	(61 - 128)
Toluene-d8	102	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	109	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Report Date: 25-Jun-2009 15:54

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Lab Smp Id: LCS
Inj Date : 25-JUN-2009 15:39
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LCS
Misc Info : M90625A,8260LLUX16,,1644,3
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 3 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	5.639	5.639	(1.000)	943691	50.0000	
* 2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	667308	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.572	10.573	(1.000)	362127	50.0000	
$ 4 Dibromofluoromethane	113	5.058	5.058	(0.897)	189552	49.1623	9.832
$ 5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	223711	50.6522	10.130
$ 6 Toluene-d8	98	7.015	7.015	(0.841)	728486	50.9250	10.185
$ 7 Bromofluorobenzene	95	9.446	9.446	(1.132)	260316	54.9395	10.988
8 Dichlorodifluoromethane	85	1.607	1.619	(0.285)	142594	40.1487	8.030
9 Chloromethane	50	1.773	1.785	(0.315)	205941	36.4368	7.287
10 Vinyl Chloride	62	1.904	1.904	(0.338)	216272	35.8094	7.162
11 Bromomethane	94	2.248	2.248	(0.399)	111815	52.6041	10.521
12 Chloroethane	64	2.343	2.355	(0.415)	63773	36.9910	7.398
13 Trichlorofluoromethane	101	2.592	2.592	(0.460)	272313	54.7996	10.960
14 Dichlorofluoromethane	67	2.604	2.556	(0.462)	6044	1.11681	0.2234
15 Acrolein	56	2.995	2.995	(0.531)	90268	125.064	25.013
16 Acetone	43	3.137	3.137	(0.556)	55167	42.5333	8.507
17 1,1-Dichloroethene	96	3.090	3.090	(0.548)	199713	46.7367	9.347
18 Freon-113	151	3.102	3.114	(0.550)	160338	53.1586	10.632
19 Iodomethane	142	3.232	3.232	(0.573)	341671	50.0814	10.016
20 Carbon Disulfide	76	3.291	3.291	(0.584)	646030	48.1411	9.628

21 Methylene Chloride	84	3.528	3.529 (0.626)	235745	45.4181	9.084
22 Acetonitrile	41	3.398	3.398 (0.603)	59709	109.522	21.904

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Report Date: 25-Jun-2009 15:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	23 Acrylonitrile	53	3.754	3.754	(0.666)	186444	115.974	23.195
	24 Methyl tert-butyl ether	73	3.778	3.778	(0.670)	541522	53.5304	10.706
	25 trans-1,2-Dichloroethene	96	3.778	3.778	(0.670)	231992	48.0970	9.619
	26 Hexane	86	4.015	4.027	(0.712)	43580	41.5643	8.313
	27 Vinyl acetate	43	4.193	4.193	(0.743)	697286	112.787	22.557
	28 1,1-Dichloroethane	63	4.157	4.157	(0.737)	403284	50.6390	10.128
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	230417	958.951	191.79
	30 2-Butanone	43	4.667	4.667	(0.828)	75310	43.6827	8.736
M	31 1,2-Dichloroethene (total)	96				477886	98.9338	19.787
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	245894	50.8368	10.167
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	250865	60.9331	12.187
	34 Bromochloromethane	128	4.868	4.869	(0.863)	114648	48.6104	9.722
	35 Chloroform	83	4.928	4.928	(0.874)	382196	51.0894	10.218
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	44331	47.6781	9.536
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	316482	57.0433	11.409
	38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	289485	48.8581	9.772
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	270167	56.2585	11.252
	40 1,2-Dichloroethane	62	5.426	5.426	(0.962)	291953	53.3141	10.663
	41 Benzene	78	5.414	5.414	(0.960)	930697	46.9024	9.380
	42 Trichloroethene	130	5.959	5.960	(1.057)	225569	46.9034	9.381
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	213883	46.4406	9.288
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	6.256	6.256	(1.109)	118288	48.6600	9.732
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	262942	53.0129	10.602
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	65923	30.9911	6.198
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	290850	48.5495	9.710
	49 4-Methyl-2-pentanone	43	6.908	6.896	(1.225)	147022	46.0029	9.200
	50 Toluene	91	7.074	7.074	(0.848)	926426	52.1711	10.434
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	241938	55.7956	11.159
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	161715	47.7246	9.545
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	291620	48.0787	9.616
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	167959	50.2115	10.042
	56 2-Hexanone	43	7.643	7.643	(0.916)	97542	52.4549	10.491
	57 Dibromochloromethane	129	7.798	7.798	(0.935)	163546	54.6090	10.922
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	153303	49.0655	9.813
	59 Chlorobenzene	112	8.367	8.367	(1.003)	592709	51.8866	10.377
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	200509	55.7909	11.158
	61 Ethylbenzene	106	8.462	8.462	(1.014)	310737	54.4273	10.885
	62 m + p-Xylene	106	8.568	8.568	(1.027)	802058	111.426	22.285
M	63 Xylenes (total)	106				1178281	167.762	33.552
	64 Xylene-o	106	8.948	8.948	(1.072)	376223	56.3365	11.267
	65 Styrene	104	8.960	8.960	(1.074)	607448	50.6295	10.126
	66 Bromoform	173	9.138	9.149	(1.095)	88408	49.6699	9.934
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	899851	52.2540	10.451
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	200156	46.2654	9.253
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	78402	103.991	20.798
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	61888	51.1460	10.229
	71 Bromobenzene	156	9.600	9.600	(0.908)	239649	53.8609	10.772
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	255479	59.9627	11.992
	73 2-Chlorotoluene	126	9.778	9.790	(0.925)	227400	55.2867	11.057
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	720860	57.7782	11.556

75 4-Chlorotoluene	126	9.885	9.885 (0.935)	240579	56.5673	11.313
76 tert-Butylbenzene	119	10.181	10.181 (0.963)	591086	56.2544	11.251

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Report Date: 25-Jun-2009 15:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	10.229	10.229	(0.967)	768564	55.1016	11.020
78	sec-Butylbenzene	105	10.395	10.395	(0.983)	760890	54.4579	10.892
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	661115	52.6482	10.530
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	448847	54.8776	10.976
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	465660	54.7018	10.940
82	n-Butylbenzene	91	10.940	10.940	(1.035)	490525	48.0087	9.602
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	417492	52.4764	10.495
84	1,2-Dibromo-3-chloropropane	157	11.746	11.747	(1.111)	26351	46.5727	9.314
85	1,2,4-Trichlorobenzene	180	12.577	12.577	(1.190)	181219	51.0796	10.216
86	Hexachlorobutadiene	225	12.743	12.743	(1.205)	79505	48.1258	9.625
87	Naphthalene	128	12.826	12.826	(1.213)	370088	41.0996	8.220
88	1,2,3-Trichlorobenzene	180	13.086	13.087	(1.238)	161494	47.3747	9.475
89	Ethyl Ether	59	2.864	2.864	(0.508)	174473	44.6418	8.928
91	3-Chloropropene	76	3.291	3.422	(0.584)	646030	297.085	59.417
92	Isopropyl Ether	87	4.204	4.204	(0.746)	201152	49.9373	9.987
93	2-Chloro-1,3-butadiene	53	4.015	4.228	(0.712)	9333	1.64764	0.3295
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	4.667	4.702	(0.828)	71629	21.8325	4.366
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	5.295	5.295	(0.635)	251752	2525.52	505.10
99	n-Butanol	56	5.639	5.865	(0.676)	7142	78.8667	15.773
100	Methyl Methacrylate	41	6.256	6.232	(1.109)	4971	1.83329	0.3666
101	2-Nitropropane	41	6.635	6.588	(1.177)	6100	7.82889	1.566
103	Cyclohexanone	55	9.398	9.398	(0.889)	45582	104.029	20.806
98	Cyclohexane	56	5.141	5.141	(0.912)	310842	35.6129	7.122
143	Methyl Acetate	43	3.434	3.434	(0.609)	117270	37.5446	7.509
144	Methylcyclohexane	83	6.125	6.126	(1.086)	259025	33.7759	6.755
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	14.177	14.166	(1.341)	3048	19.3065	3.861
149	Vinyl Acetate-86	86	4.193	4.193	(0.743)	38404	53.3839	10.677
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	5.414	5.497	(0.960)	15672	1.50933	0.3019(a)
153	1,2,3-Trimethylbenzene	105	10.644	10.644	(1.007)	771360	53.5769	10.715

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Report Date: 25-Jun-2009 15:54

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

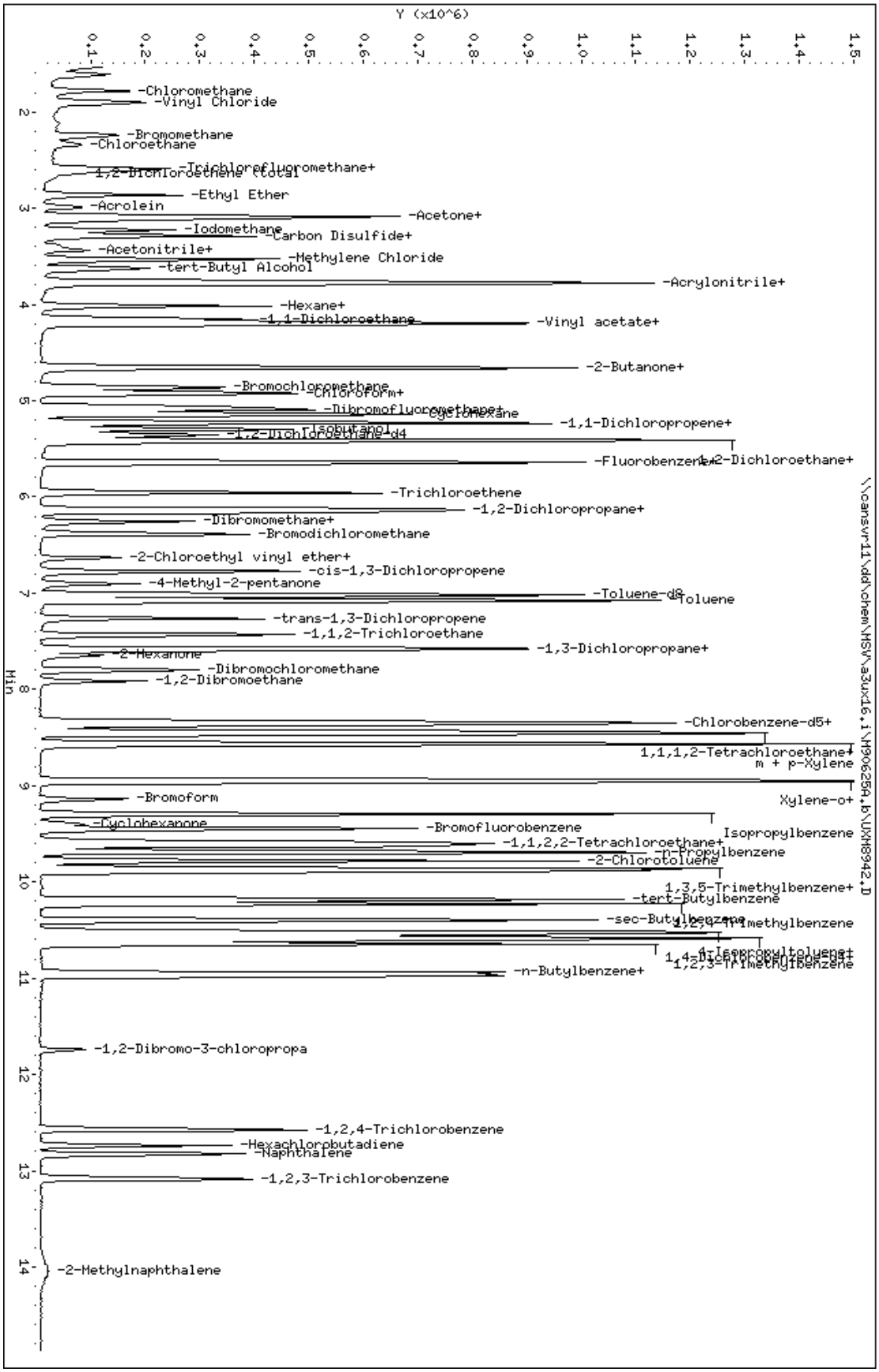
Instrument ID: a3ux16.i
Lab File ID: UXM8942.D
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644,3

Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	943691	-0.49
2 Chlorobenzene-d5	691311	345656	1382622	667308	-3.47
3 1,4-Dichlorobenze	360329	180165	720658	362127	0.50

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8942.D
Date : 25-JUN-2009 15:39
Client ID:
Sample Info: LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Lab Smp Id: LCSD
Inj Date : 25-JUN-2009 16:00
Operator : 1644 Inst ID: a3ux16.i
Smp Info : LCSD
Misc Info : M90625A,8260LLUX16,,1644,3
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 4 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
*	1 Fluorobenzene	96	5.639	5.639	(1.000)	1003334	50.0000	
*	2 Chlorobenzene-d5	117	8.343	8.343	(1.000)	710551	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.572	10.573	(1.000)	369998	50.0000	
$	4 Dibromofluoromethane	113	5.058	5.058	(0.897)	198094	48.3236	9.665
$	5 1,2-Dichloroethane-d4	65	5.355	5.355	(0.950)	223552	47.6074	9.521
$	6 Toluene-d8	98	7.015	7.015	(0.841)	769795	50.5377	10.108
$	7 Bromofluorobenzene	95	9.446	9.446	(1.132)	275261	54.5582	10.912
	8 Dichlorodifluoromethane	85	1.607	1.619	(0.285)	138752	36.7447	7.349
	9 Chloromethane	50	1.785	1.785	(0.317)	182888	30.4345	6.087
	10 Vinyl Chloride	62	1.904	1.904	(0.338)	218040	33.9561	6.791
	11 Bromomethane	94	2.248	2.248	(0.399)	97111	42.9706	8.594
	12 Chloroethane	64	2.343	2.355	(0.415)	54820	29.9077	5.982
	13 Trichlorofluoromethane	101	2.580	2.592	(0.458)	269342	50.9797	10.196
	14 Dichlorofluoromethane	67	2.343	2.556	(0.415)	4978	0.86516	0.1730
	15 Acrolein	56	2.983	2.995	(0.529)	82891	108.016	21.603
	16 Acetone	43	3.125	3.137	(0.554)	52046	36.5579	7.312
	17 1,1-Dichloroethene	96	3.078	3.090	(0.546)	206418	45.4343	9.087
	18 Freon-113	151	3.102	3.114	(0.550)	162272	50.6016	10.120
	19 Iodomethane	142	3.232	3.232	(0.573)	348924	48.1043	9.621
	20 Carbon Disulfide	76	3.291	3.291	(0.584)	653979	45.8365	9.167

21 Methylene Chloride	84	3.528	3.529 (0.626)	237824	43.0949	8.619
22 Acetonitrile	41	3.386	3.398 (0.600)	60674	104.676	20.935

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	23 Acrylonitrile	53	3.754	3.754	(0.666)	188037	110.012	22.002
	24 Methyl tert-butyl ether	73	3.777	3.778	(0.670)	550040	51.1402	10.228
	25 trans-1,2-Dichloroethene	96	3.777	3.778	(0.670)	238021	46.4135	9.283
	26 Hexane	86	4.015	4.027	(0.712)	42650	38.1804	7.636
	27 Vinyl acetate	43	4.192	4.193	(0.743)	722549	109.926	21.985
	28 1,1-Dichloroethane	63	4.145	4.157	(0.735)	409735	48.3907	9.678
	29 tert-Butyl Alcohol	59	3.623	3.623	(0.643)	220813	864.352	172.87
	30 2-Butanone	43	4.655	4.667	(0.825)	75184	41.0172	8.203
M	31 1,2-Dichloroethene (total)	96				489932	95.3983	19.080
	32 cis-1,2-dichloroethene	96	4.655	4.655	(0.825)	251911	48.9848	9.797
	33 2,2-Dichloropropane	77	4.655	4.655	(0.825)	256014	58.4873	11.697
	34 Bromochloromethane	128	4.868	4.869	(0.863)	113175	45.1333	9.027
	35 Chloroform	83	4.928	4.928	(0.874)	388703	48.8705	9.774
	36 Tetrahydrofuran	42	4.904	4.904	(0.870)	43687	44.1925	8.838
	37 1,1,1-Trichloroethane	97	5.094	5.094	(0.903)	325341	55.1542	11.031
	38 1,1-Dichloropropene	75	5.224	5.224	(0.926)	303018	48.1020	9.620
	39 Carbon Tetrachloride	117	5.236	5.236	(0.928)	281453	55.1246	11.025
	40 1,2-Dichloroethane	62	5.414	5.426	(0.960)	296216	50.8770	10.175
	41 Benzene	78	5.414	5.414	(0.960)	939271	44.5207	8.904
	42 Trichloroethene	130	5.959	5.960	(1.057)	232405	45.4522	9.090
	43 1,2-Dichloropropane	63	6.149	6.149	(1.090)	217284	44.3745	8.875
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	6.256	6.256	(1.109)	124790	48.2832	9.657
	46 Bromodichloromethane	83	6.386	6.386	(1.132)	266653	50.5653	10.113
	47 2-Chloroethyl vinyl ether	63	6.635	6.635	(1.177)	66476	29.6487	5.930
	48 cis-1,3-Dichloropropene	75	6.778	6.778	(1.202)	300711	47.2116	9.442
	49 4-Methyl-2-pentanone	43	6.896	6.896	(1.223)	150116	44.1788	8.836
	50 Toluene	91	7.074	7.074	(0.848)	963148	50.9382	10.188
	51 trans-1,3-Dichloropropene	75	7.264	7.264	(0.871)	245342	53.1372	10.627
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	7.430	7.430	(0.891)	166255	46.0784	9.216
	54 1,3-Dichloropropane	76	7.584	7.584	(0.909)	305282	47.2680	9.454
	55 Tetrachloroethene	164	7.572	7.572	(0.908)	178885	50.2232	10.045
	56 2-Hexanone	43	7.643	7.643	(0.916)	94951	47.9540	9.591
	57 Dibromochloromethane	129	7.797	7.798	(0.935)	169328	53.0988	10.620
	58 1,2-Dibromoethane	107	7.916	7.916	(0.949)	154751	46.5147	9.303
	59 Chlorobenzene	112	8.367	8.367	(1.003)	611808	50.2991	10.060
	60 1,1,1,2-Tetrachloroethane	131	8.438	8.438	(1.011)	203538	53.1871	10.637
	61 Ethylbenzene	106	8.462	8.462	(1.014)	324590	53.3937	10.679
	62 m + p-Xylene	106	8.568	8.568	(1.027)	822963	107.372	21.474
M	63 Xylenes (total)	106				1211054	161.949	32.390
	64 Xylene-o	106	8.948	8.948	(1.072)	388091	54.5769	10.915
	65 Styrene	104	8.960	8.960	(1.074)	616467	48.3419	9.668
	66 Bromoform	173	9.149	9.149	(1.097)	92295	48.6980	9.740
	67 Isopropylbenzene	105	9.292	9.292	(1.114)	927376	50.6299	10.126
	68 1,1,2,2-Tetrachloroethane	83	9.576	9.576	(0.906)	202083	45.7172	9.143
	69 1,4-Dichloro-2-butene	53	9.624	9.624	(0.910)	77157	100.289	20.058
	70 1,2,3-Trichloropropane	110	9.624	9.624	(0.910)	65266	52.7903	10.558
	71 Bromobenzene	156	9.600	9.600	(0.908)	241181	53.0521	10.610
	72 n-Propylbenzene	120	9.695	9.695	(0.917)	262162	60.2223	12.044
	73 2-Chlorotoluene	126	9.790	9.790	(0.926)	230854	54.9325	10.986
	74 1,3,5-Trimethylbenzene	105	9.861	9.861	(0.933)	729972	57.2639	11.453

75	4-Chlorotoluene	126	9.885	9.885 (0.935)	240423	55.3281	11.066
76	tert-Butylbenzene	119	10.181	10.181 (0.963)	592134	55.1553	11.031

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
77	1,2,4-Trimethylbenzene	105	10.228	10.229	(0.967)	763483	53.6235	10.725
78	sec-Butylbenzene	105	10.394	10.395	(0.983)	764438	53.5479	10.710
79	4-Isopropyltoluene	119	10.537	10.537	(0.997)	654865	51.1055	10.221
80	1,3-Dichlorobenzene	146	10.513	10.513	(0.994)	444390	53.1768	10.635
81	1,4-Dichlorobenzene	146	10.596	10.596	(1.002)	451617	51.9235	10.385
82	n-Butylbenzene	91	10.940	10.940	(1.035)	480833	46.1827	9.236
83	1,2-Dichlorobenzene	146	10.976	10.976	(1.038)	418492	51.4830	10.297
84	1,2-Dibromo-3-chloropropane	157	11.746	11.747	(1.111)	25029	43.2951	8.659
85	1,2,4-Trichlorobenzene	180	12.576	12.577	(1.190)	167765	46.2814	9.256
86	Hexachlorobutadiene	225	12.742	12.743	(1.205)	77639	45.9965	9.199
87	Naphthalene	128	12.825	12.826	(1.213)	333148	36.6125	7.322
88	1,2,3-Trichlorobenzene	180	13.086	13.087	(1.238)	147582	42.3726	8.474
89	Ethyl Ether	59	2.864	2.864	(0.508)	181181	43.6024	8.720
91	3-Chloropropene	76	3.291	3.422	(0.584)	653979	282.863	56.572
92	Isopropyl Ether	87	4.204	4.204	(0.746)	201789	47.1175	9.423
93	2-Chloro-1,3-butadiene	53	4.015	4.228	(0.712)	9575	1.58988	0.3180
94	Propionitrile	54	Compound Not Detected.					
95	Ethyl Acetate	43	4.655	4.702	(0.825)	76161	21.8339	4.367
96	Methacrylonitrile	41	Compound Not Detected.					
97	Isobutanol	41	5.295	5.295	(0.635)	246270	2320.18	464.04
99	n-Butanol	56	5.639	5.865	(0.676)	7371	76.4418	15.288
100	Methyl Methacrylate	41	6.137	6.232	(1.088)	254218	88.1815	17.636
101	2-Nitropropane	41	6.635	6.588	(1.177)	6049	7.30194	1.460
103	Cyclohexanone	55	9.398	9.398	(0.889)	45016	101.777	20.355
98	Cyclohexane	56	5.141	5.141	(0.912)	320788	34.6391	6.928
143	Methyl Acetate	43	3.434	3.434	(0.609)	116297	35.0198	7.004
144	Methylcyclohexane	83	6.125	6.126	(1.086)	270031	33.1718	6.634
141	1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146	2-Methylnaphthalene	142	Compound Not Detected.					
149	Vinyl Acetate-86	86	4.192	4.193	(0.743)	40118	52.4514	10.490
151	t-Butyl ethyl ether	59	Compound Not Detected.					
152	t-Amyl methyl ether	73	5.414	5.497	(0.960)	15744	1.42613	0.2852(a)
153	1,2,3-Trimethylbenzene	105	10.644	10.644	(1.007)	771544	52.4497	10.490

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Report Date: 25-Jun-2009 16:15

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

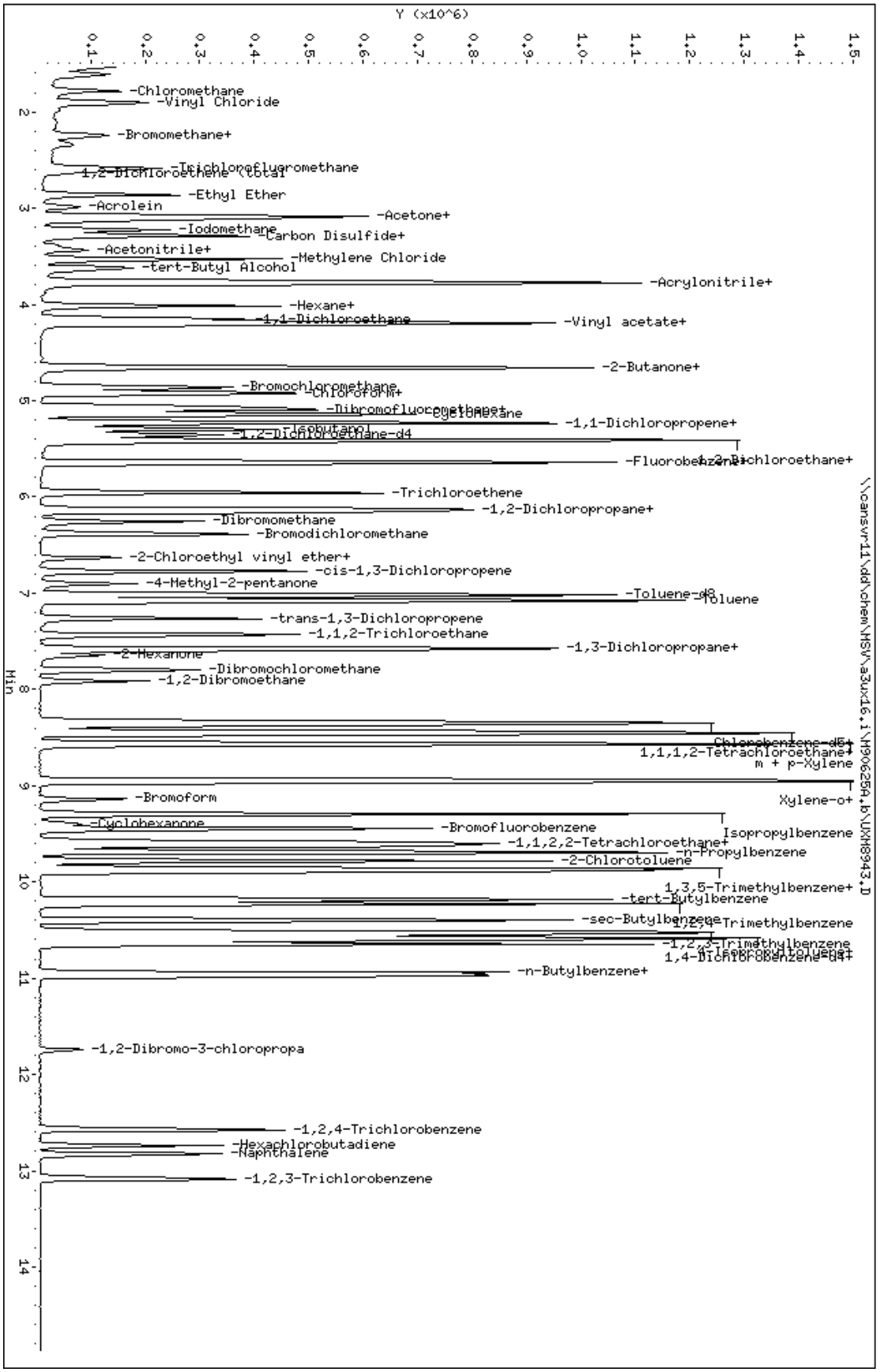
Instrument ID: a3ux16.i
Lab File ID: UXM8943.D
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644,3

Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	1003334	5.79
2 Chlorobenzene-d5	691311	345656	1382622	710551	2.78
3 1,4-Dichlorobenze	360329	180165	720658	369998	2.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.00
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.57	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
-Chloromethane
-Vinyl Chloride
-Bromomethane+
-Trichlorofluoromethane
1,2-Dichloroethene (total
-Ethyl Ether
-Acrolein
-Acetone+
-Iodomethane
-Carbon Disulfide+
-Acetonitrile+
-Methylene Chloride
-tert-Butyl Alcohol
-Acrylonitrile+
-Hexane+
-1,1-Dichloroethane
-Vinyl acetate+
-2-Butanone+
-Bromochloromethane
-Chloroform+
-Dibromofluoromethane+
Cyclohexane
-1,1-Dichloropropene+
Isobutanol
-1,2-Dichloroethane-d4
-Fluorobenzene+
1,2-Dichloroethane+
-Trichloroethene
-1,2-Dichloropropane+
-Dibromomethane
-Bromodichloromethane
-2-Chloroethyl vinyl ether+
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
-Toluene-d8
-Toluene
-trans-1,3-Dichloropropene
-1,1,2-Trichloroethane
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane
Chlorobenzene-d5+
1,1,1,2-Tetrachloroethane+
m + p-Xylene
Xylene-o+
-Bromoform
-Cyclohexanone
-Bromofluorobenzene
Isopropylbenzene
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene
-2-Chlorotoluene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-sec-Butylbenzene
1,2,4-Trimethylbenzene
-1,2,3-Trimethylbenzene
4-Isopropyltoluene+
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8943.D
Date : 25-JUN-2009 16:00
Client ID:
Sample Info: LCSD
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A9F180214 **Work Order #...:** LFM6Q1AA **Matrix.....:** WATER
MB Lot-Sample #: A9F260000-173

Prep Date.....: 06/25/09 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 06/25/09 **Prep Batch #...:** 9177173
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Lab Smp Id: VBLK
Inj Date : 25-JUN-2009 16:21
Operator : 1644 Inst ID: a3ux16.i
Smp Info : VBLK,5ML/5ML
Misc Info : M90625A,8260LLUX16,,1644,3,,BLANK,,0
Comment   :
Method   : \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Meth Date : 25-Jun-2009 15:34 Quant Type: ISTD
Cal Date : 11-FEB-2009 19:07 Cal File: UXM5913.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1	Fluorobenzene	96	5.639	5.639	(1.000)	929285	50.0000	
* 2	Chlorobenzene-d5	117	8.343	8.343	(1.000)	650662	50.0000	
* 3	1,4-Dichlorobenzene-d4	152	10.584	10.573	(1.000)	289942	50.0000	
$ 4	Dibromofluoromethane	113	5.058	5.058	(0.897)	186244	49.0532	9.811
$ 5	1,2-Dichloroethane-d4	65	5.354	5.355	(0.950)	215653	49.5847	9.917
$ 6	Toluene-d8	98	7.015	7.015	(0.841)	688051	49.3289	9.866
$ 7	Bromofluorobenzene	95	9.446	9.446	(1.132)	211885	45.8622	9.172
8	Dichlorodifluoromethane	85	Compound Not Detected.					
9	Chloromethane	50	Compound Not Detected.					
10	Vinyl Chloride	62	Compound Not Detected.					
11	Bromomethane	94	Compound Not Detected.					
12	Chloroethane	64	Compound Not Detected.					
13	Trichlorofluoromethane	101	Compound Not Detected.					
14	Dichlorofluoromethane	67	Compound Not Detected.					
15	Acrolein	56	Compound Not Detected.					
16	Acetone	43	Compound Not Detected.					
17	1,1-Dichloroethene	96	Compound Not Detected.					
18	Freon-113	151	Compound Not Detected.					
19	Iodomethane	142	Compound Not Detected.					
20	Carbon Disulfide	76	Compound Not Detected.					

21 Methylene Chloride	84	3.540	3.529 (0.628)	8208	1.60585	0.3212
22 Acetonitrile	41	3.398	3.398 (0.603)	4747	8.84220	1.768
23 Acrylonitrile	53	Compound Not Detected.				

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	24 Methyl tert-butyl ether	73	Compound Not Detected.					
	25 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	26 Hexane	86	Compound Not Detected.					
	27 Vinyl acetate	43	Compound Not Detected.					
	28 1,1-Dichloroethane	63	Compound Not Detected.					
	29 tert-Butyl Alcohol	59	Compound Not Detected.					
	30 2-Butanone	43	Compound Not Detected.					
M	31 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	32 cis-1,2-dichloroethene	96	Compound Not Detected.					
	33 2,2-Dichloropropane	77	Compound Not Detected.					
	34 Bromochloromethane	128	Compound Not Detected.					
	35 Chloroform	83	Compound Not Detected.					
	36 Tetrahydrofuran	42	Compound Not Detected.					
	37 1,1,1-Trichloroethane	97	Compound Not Detected.					
	38 1,1-Dichloropropene	75	Compound Not Detected.					
	39 Carbon Tetrachloride	117	Compound Not Detected.					
	40 1,2-Dichloroethane	62	Compound Not Detected.					
	41 Benzene	78	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,2-Dichloropropane	63	Compound Not Detected.					
	44 1,4-Dioxane	88	Compound Not Detected.					
	45 Dibromomethane	93	Compound Not Detected.					
	46 Bromodichloromethane	83	Compound Not Detected.					
	47 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
	48 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	49 4-Methyl-2-pentanone	43	Compound Not Detected.					
	50 Toluene	91	Compound Not Detected.					
	51 trans-1,3-Dichloropropene	75	Compound Not Detected.					
	52 Ethyl Methacrylate	69	Compound Not Detected.					
	53 1,1,2-Trichloroethane	97	Compound Not Detected.					
	54 1,3-Dichloropropane	76	Compound Not Detected.					
	55 Tetrachloroethene	164	Compound Not Detected.					
	56 2-Hexanone	43	Compound Not Detected.					
	57 Dibromochloromethane	129	Compound Not Detected.					
	58 1,2-Dibromoethane	107	Compound Not Detected.					
	59 Chlorobenzene	112	Compound Not Detected.					
	60 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	61 Ethylbenzene	106	Compound Not Detected.					
	62 m + p-Xylene	106	Compound Not Detected.					
M	63 Xylenes (total)	106	Compound Not Detected.					
	64 Xylene-o	106	Compound Not Detected.					
	65 Styrene	104	Compound Not Detected.					
	66 Bromoform	173	Compound Not Detected.					
	67 Isopropylbenzene	105	Compound Not Detected.					
	68 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	69 1,4-Dichloro-2-butene	53	Compound Not Detected.					
	70 1,2,3-Trichloropropane	110	Compound Not Detected.					
	71 Bromobenzene	156	Compound Not Detected.					
	72 n-Propylbenzene	120	Compound Not Detected.					
	73 2-Chlorotoluene	126	Compound Not Detected.					
	74 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	75 4-Chlorotoluene	126	Compound Not Detected.					

76	tert-Butylbenzene	119	Compound Not Detected.
77	1,2,4-Trimethylbenzene	105	Compound Not Detected.

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

						CONCENTRATIONS	
	QUANT SIG					ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ug/L)
78 sec-Butylbenzene	105	Compound Not Detected.					
79 4-Isopropyltoluene	119	Compound Not Detected.					
80 1,3-Dichlorobenzene	146	Compound Not Detected.					
81 1,4-Dichlorobenzene	146	Compound Not Detected.					
82 n-Butylbenzene	91	10.940	10.940	(1.034)	2195	3.29810	0.6596
83 1,2-Dichlorobenzene	146	Compound Not Detected.					
84 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
85 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
86 Hexachlorobutadiene	225	Compound Not Detected.					
87 Naphthalene	128	Compound Not Detected.					
88 1,2,3-Trichlorobenzene	180	13.086	13.087	(1.236)	3873	1.41901	0.2838
89 Ethyl Ether	59	Compound Not Detected.					
91 3-Chloropropene	76	Compound Not Detected.					
92 Isopropyl Ether	87	Compound Not Detected.					
93 2-Chloro-1,3-butadiene	53	Compound Not Detected.					
94 Propionitrile	54	Compound Not Detected.					
95 Ethyl Acetate	43	Compound Not Detected.					
96 Methacrylonitrile	41	Compound Not Detected.					
97 Isobutanol	41	Compound Not Detected.					
99 n-Butanol	56	Compound Not Detected.					
100 Methyl Methacrylate	41	Compound Not Detected.					
101 2-Nitropropane	41	Compound Not Detected.					
103 Cyclohexanone	55	Compound Not Detected.					
98 Cyclohexane	56	Compound Not Detected.					
143 Methyl Acetate	43	Compound Not Detected.					
144 Methylcyclohexane	83	6.125	6.126	(1.086)	760	2.85638	0.5713
141 1,3,5-Trichlorobenzene	180	Compound Not Detected.					
146 2-Methylnaphthalene	142	Compound Not Detected.					
149 Vinyl Acetate-86	86	Compound Not Detected.					
151 t-Butyl ethyl ether	59	Compound Not Detected.					
152 t-Amyl methyl ether	73	Compound Not Detected.					
153 1,2,3-Trimethylbenzene	105	Compound Not Detected.					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Report Date: 26-Jun-2009 09:10

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

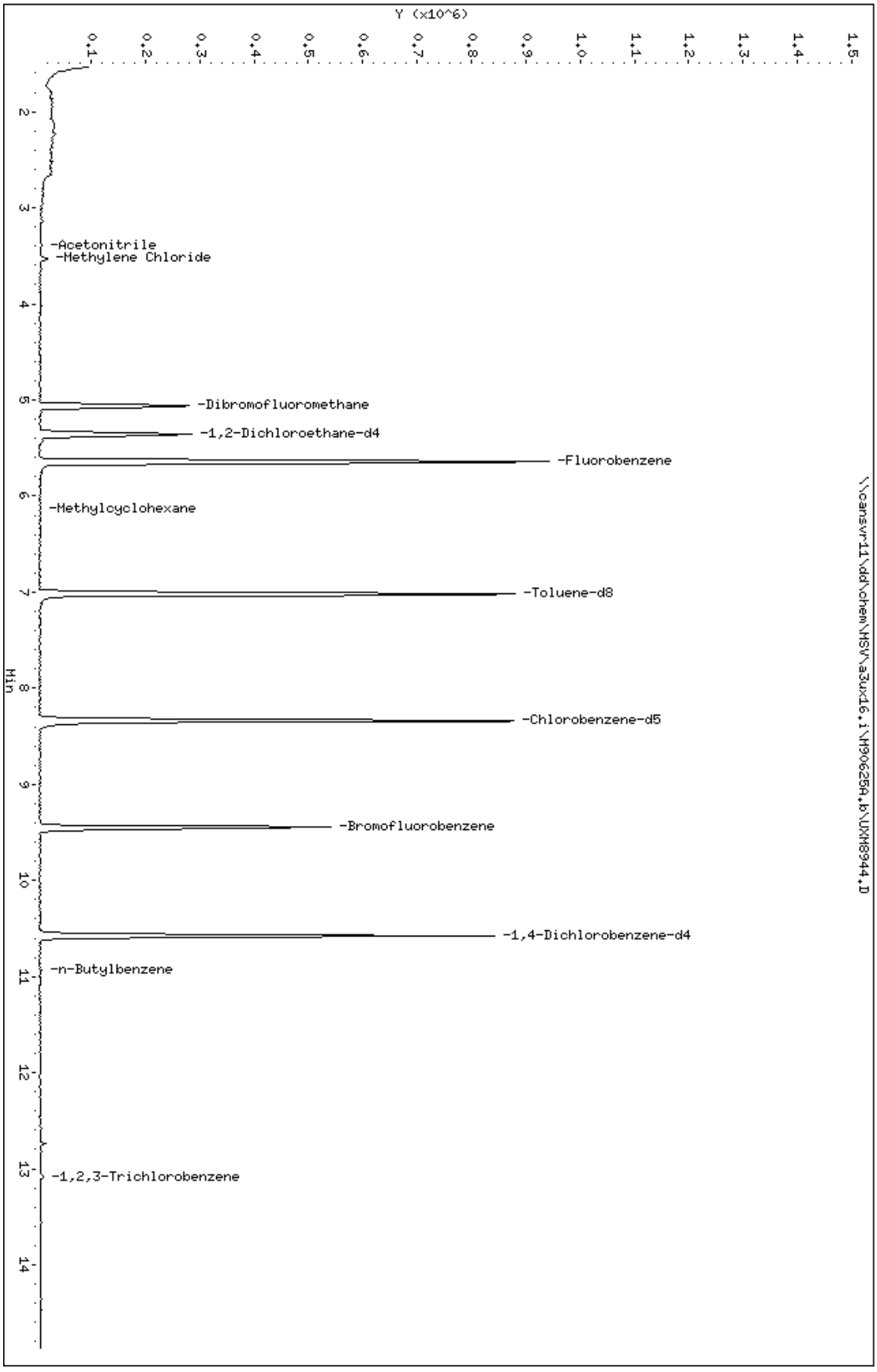
Instrument ID: a3ux16.i
Lab File ID: UXM8944.D
Lab Smp Id: VBLK
Analysis Type: VOA
Quant Type: ISTD
Operator: 1644
Method File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\8260LLUX16.m
Misc Info: M90625A,8260LLUX16,,1644,3,,BLANK,,0

Calibration Date: 25-JUN-2009
Calibration Time: 15:18
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	948376	474188	1896752	929285	-2.01
2 Chlorobenzene-d5	691311	345656	1382622	650662	-5.88
3 1,4-Dichlorobenze	360329	180165	720658	289942	-19.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Fluorobenzene	5.64	5.14	6.14	5.64	-0.01
2 Chlorobenzene-d5	8.34	7.84	8.84	8.34	-0.00
3 1,4-Dichlorobenze	10.57	10.07	11.07	10.58	0.11

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.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Date : 25-JUN-2009 16:21
Client ID:
Sample Info: VBLK,5ML/5ML
Purge Volume: 5.0
Column phase: DB624
Instrument: a3ux16.i
Operator: 1644
Column diameter: 0.18
\\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D
Y (x10^6)
Min
-Acetonitrile
-Methylene Chloride
-Dibromofluoromethane
-1,2-Dichloroethane-d4
-Fluorobenzene
-Methylcyclohexane
-Toluene-d8
-Chlorobenzene-d5
-Bromofluorobenzene
-1,4-Dichlorobenzene-d4
-n-Butylbenzene
-1,2,3-Trichlorobenzene

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

Client ID:

Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0

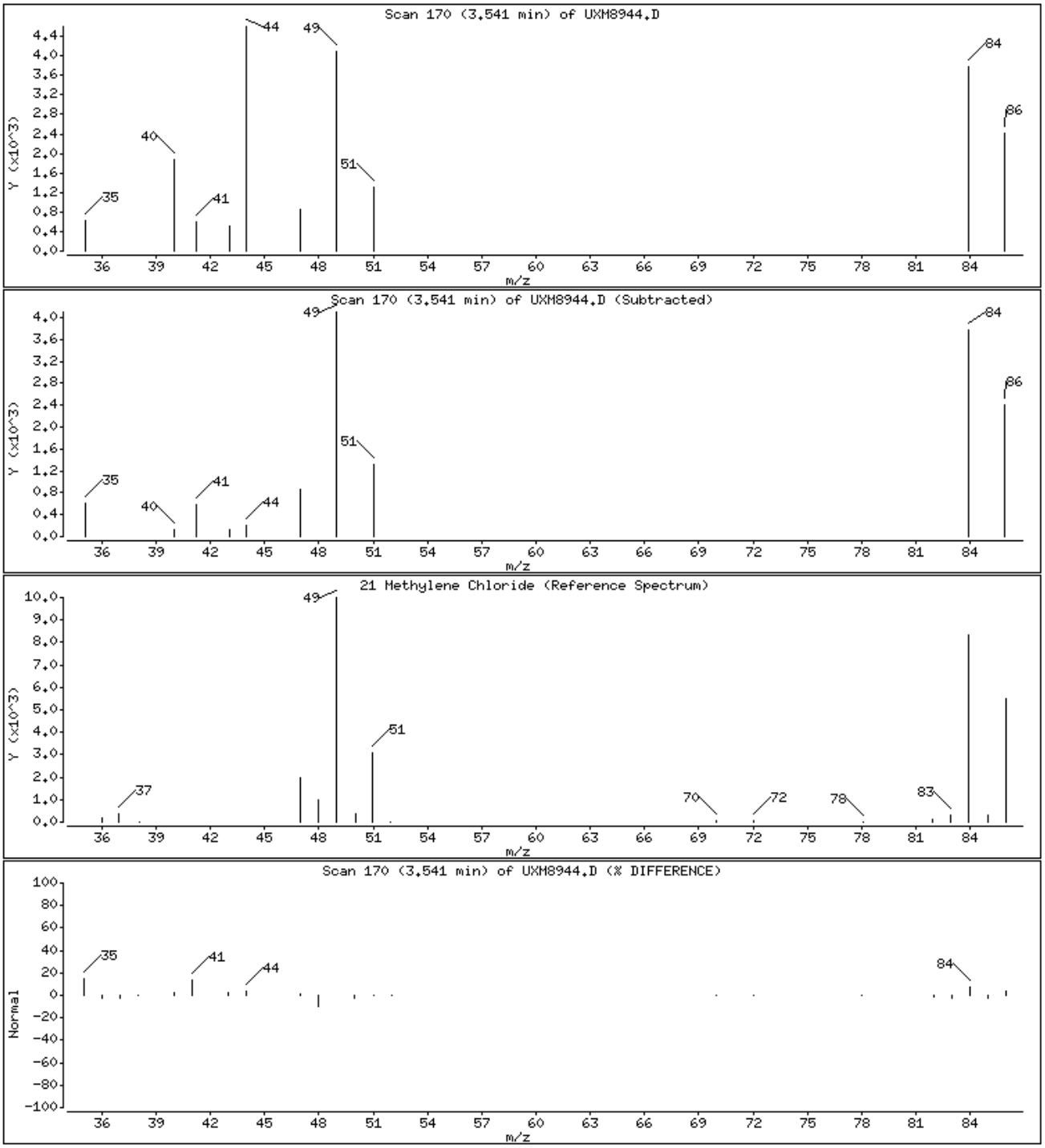
Operator: 1644

Column phase: DB624

Column diameter: 0.18

21 Methylene Chloride

Concentration: 0.3212 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

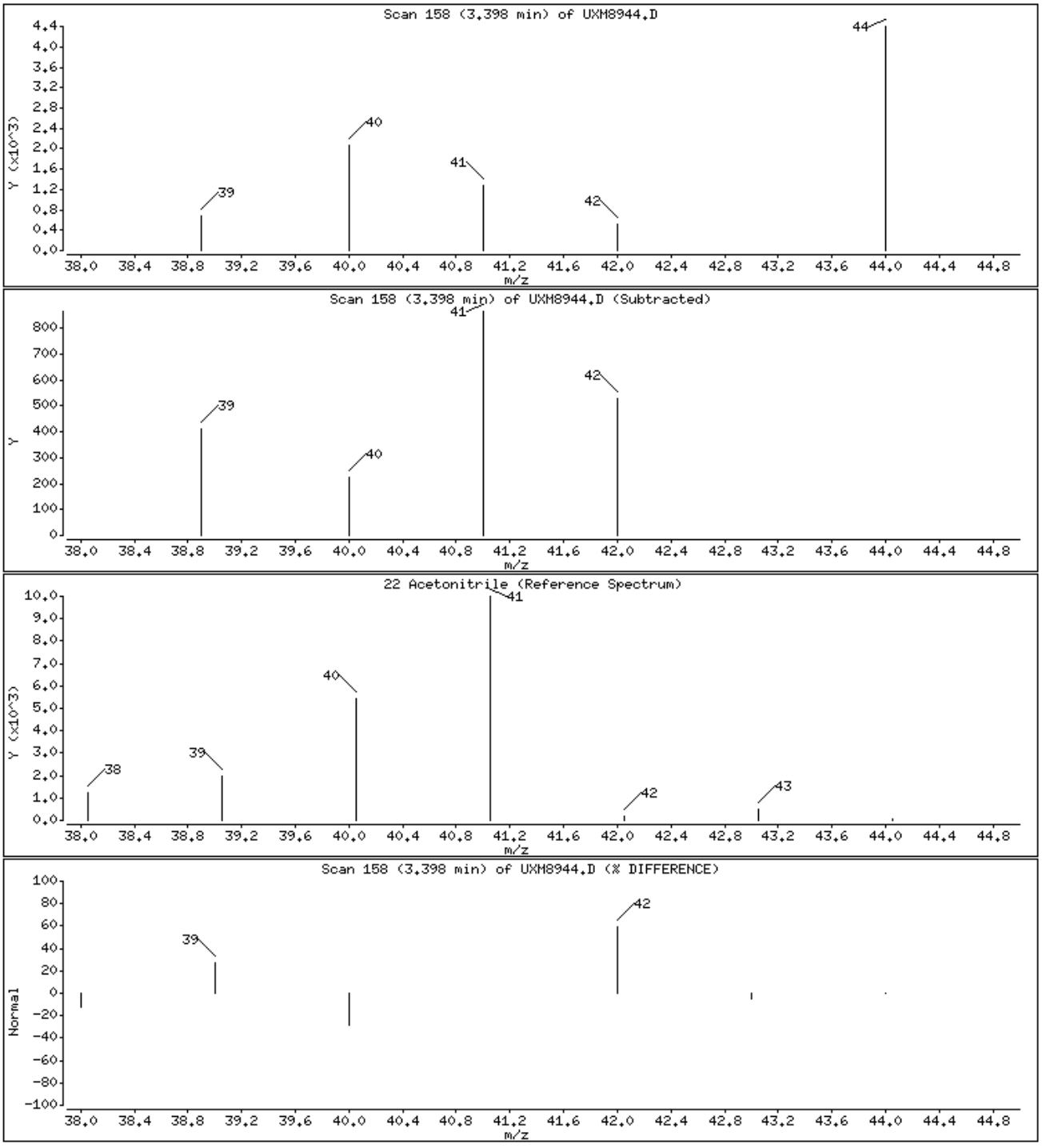
Client ID: Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

22 Acetonitrile Concentration: 1.768 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

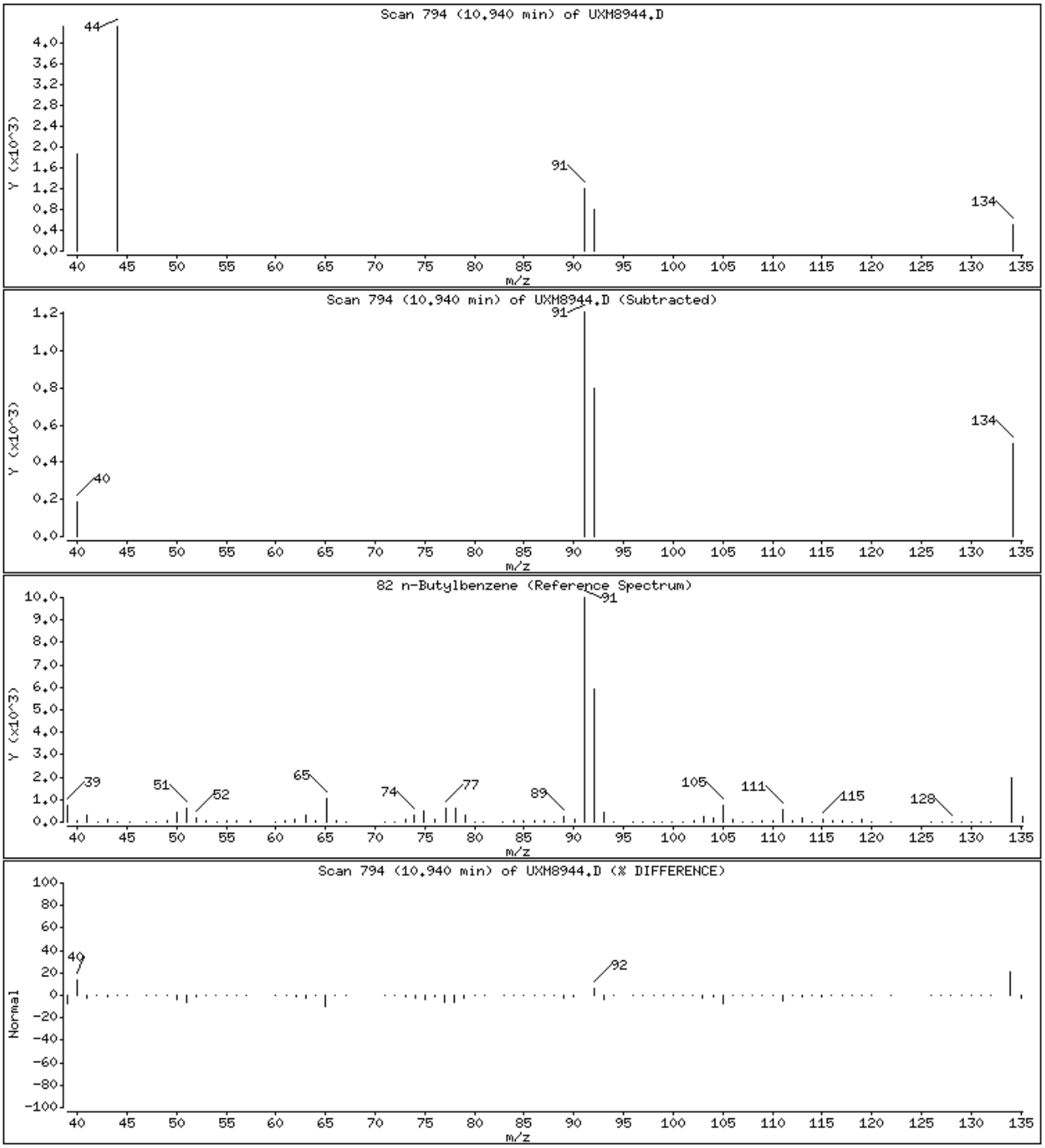
Client ID: Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

82 n-Butylbenzene Concentration: 0.6596 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

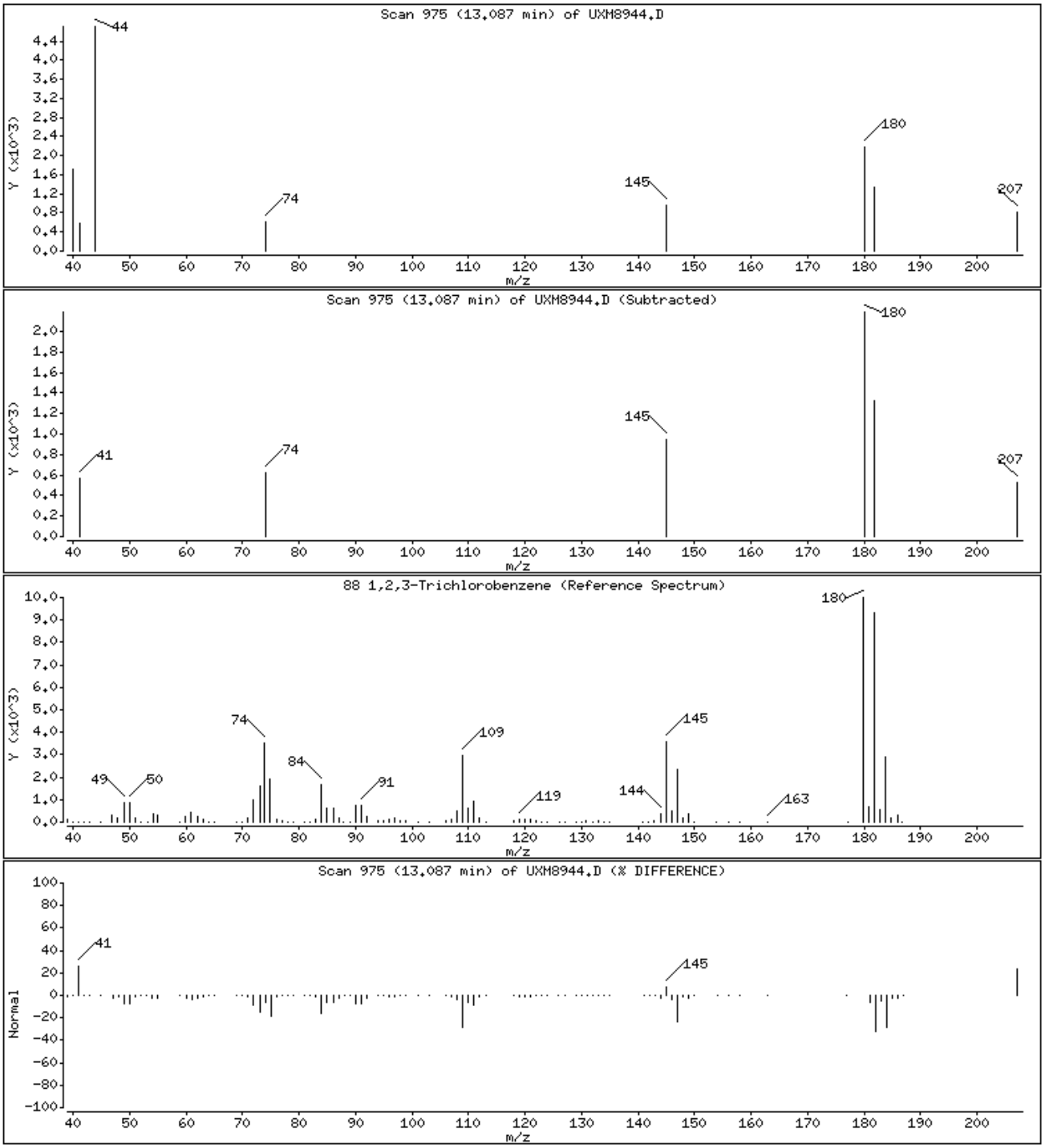
Client ID: Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0 Operator: 1644

Column phase: DB624 Column diameter: 0.18

88 1,2,3-Trichlorobenzene Concentration: 0.2838 ug/L



Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M90625A.b\UXM8944.D

Date : 25-JUN-2009 16:21

Client ID:

Instrument: a3ux16.i

Sample Info: VBLK,5ML/5ML

Purge Volume: 5.0

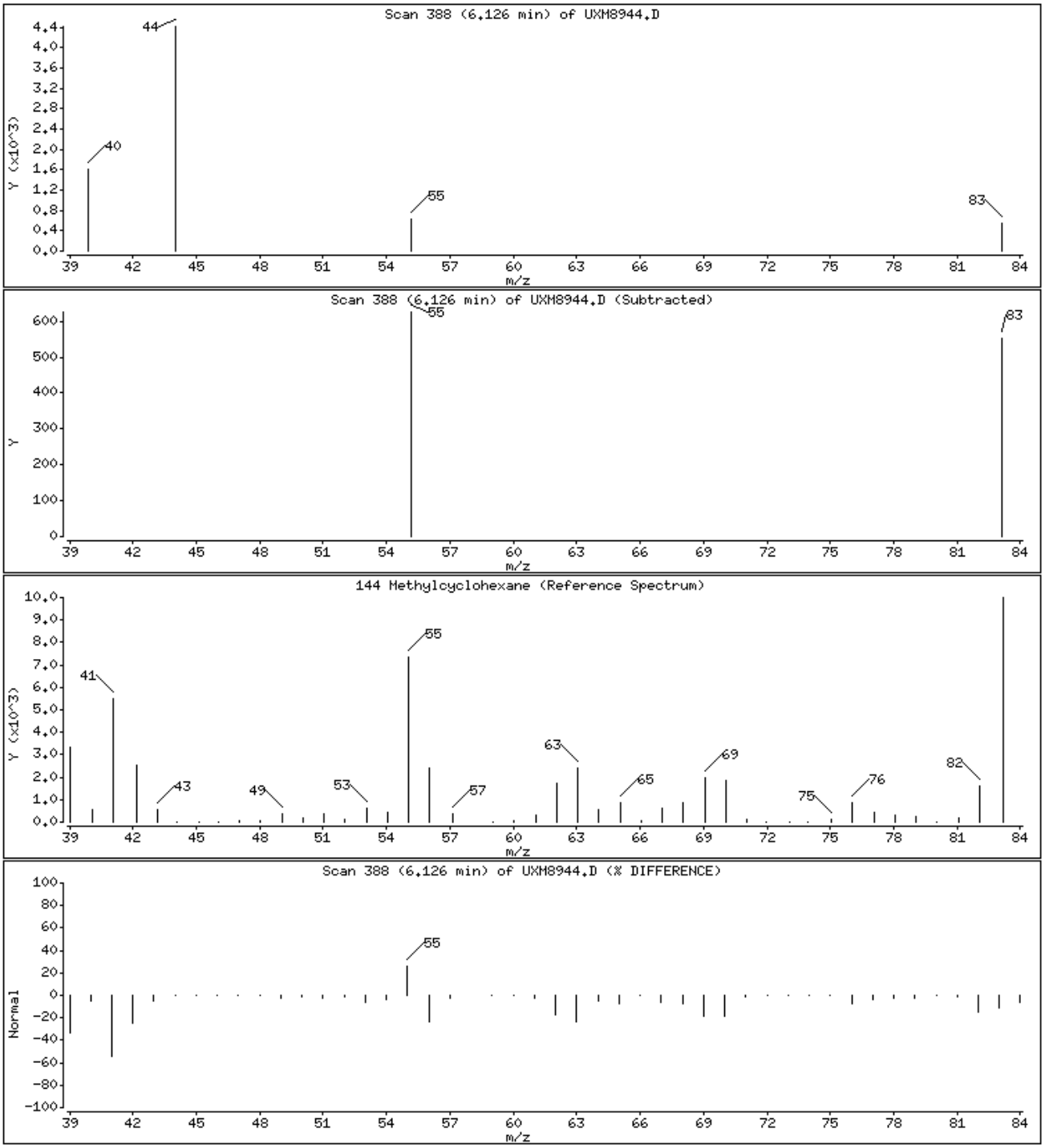
Operator: 1644

Column phase: DB624

Column diameter: 0.18

144 Methylcyclohexane

Concentration: 0.5713 ug/L



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

MISCELLANEOUS DATA

UX16
Batch # 9128-042

TestAmerica-North Canton
GC/MS VOA Run Log

Date: 5.7.09

Method: 8260B SIM

Column
Type: DB624
Length 20 M
I.D. 0.18 mm
Flow Rate 0.4ml/min

BFB
100 C for 0.1 min
to 200 C @ 20 C/min
Hold -- min
IS # V7563 SS # V7597

Analysis
40 C for 2 min
to 200 C @ 15 C/min
to -- C @ -- C/min
Hold 3 min
5/14

Purge & Trap
Trap: #10
Purge: 11
Desorb: 1 min @240 C
Bake: 5 min @ 250 C
Heated purge: Yes No

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Std number/ Sample prep	Comments	Sample status
	BFB		BFB1088	50ng	V7449	11:10	OK
1	8260CAL		UXM7626	200ng	V7598, 7599 V7593, 7592		OK
2			7627	100ng			OK
3			7628	50ng		M90507	OK
4			7629	25ng			OK
5			7630	10ng			OK
6			7631	5ng			OK
7	ICV		7632	50ng	V7588		OK
8	A9		7633		V7600, 7601	M90211	OK
9	LCS		7634		V7598	LCK8F1AC	OK
10	LCSD		7635			1AD	OK
11	BLANK		7636	5ml		1AA	OK
12	LA4HT1A0		7637				OK
13	LA4HV1AA		7638				OK
14	LA4HX1AA		7639				OK
15	LA4HX1AC	MS	7640		+50ng		OK
16	LA4HX1AD	MSD	7641				OK
17	LA4HO1AA		7642				OK
18	LA4H31A0		7643				OK
19	LA4H41A0		7644				OK
20	LA4H51AA		7645				OK
21	LA4H61AA		7646				OK
22	LA4H91AA		7647				OK
23	LA4JC1AA		7648				OK
24	LA4JD1AA		7649				OK
25	LA4JG1AA		7650				OK
26	LA4JH1AA		7651				OK
27	LA4KA1AA		7652				OK

VOID

LW 5.7.09

1634945

Analyst: LW
Level 2 review: JB Date 5/13/09

PDF Made: ✓

92

UX16
Batch # 9177173

TestAmerica-North Canton
GC/MS VOA Run Log

Date: 6.25-09

Method: (8260B) SIM

Column
Type: DB624
Length 20 M
I.D. 0.18 mm
Flow Rate 0.4ml/min

BFB
100 C for 0.1 min
to 200 C @ 20 C/min
Hold -- min
IS # V7756 SS # V7747

Analysis
40 C for 2 min
to 200 C @ 15 C/min
to -- C @ -- C/min
Hold 3 min
6/26

Purge & Trap
Trap: #10
Purge: 11
Desorb: 1 min @240 C
Bake: 5 min @ 250 C
Heated purge: Yes (No)

Auto num	Sample ID Workorder#	Method	File Name	Amt purged	Std number / Sample	Comments	Sample status
	BFB		BFB1142	50ng	V7449	(13:50)	OK
1	AQ		UXM8940		V7738 V7765	m90211	OK
2	8260		8941		V7770, V7771 V7775	m90507	OK
3	LCS		8942		V7777	LFM6QIAC	OK
4	LCSD		8943	↓	↓	↓ IAD	OK
5	BLANK		8944	5ml		↓ IAA	OK
6	LE3GAIAC		8945				OK
7	LE3GNIAA		8946				OK
8	LE3R5IAA		8947				OK
9	LE3W6IAA		8948				OK
10	LE3XEIAA		8949				OK
11	LE3XGIAA		8951				OK
12	LE3XJIAA		8953				OK
13	LFFGJIAE		8952				OK
14	LFFGNIAE		8954				OK
15	LE6JFIAR		8954				OK
16	LE6J3IAR		8955				OK
17	LE6J3ICN	MS	8956		50ng		OK
18	LE6J3ICP	MSD	8957		↓		OK
19	LE6KWIAQ		8959				OK
20	LE6KXIAQ		8959	↓			OK
21	LE6K3IAQ		8961	0.0015ng/5ml		(R) ~~75ml~~ WRONG DIL	—
22	LE6K5IAQ		8963	↓		(R)	—
23	LE6WGIAA		8962	5ml			OK
24	LE6W8IAA		8964				OK
25	LE3TDIAM		8964			(R) 2.5ml	—
26	LE3T3IAM		8966				OK
27	LE3T5IAA		8966				OK
					VOID	6.26.09	
					LW		

9178376

Analyst: LW
Level 2 review: TB Date 6/26/09
PDF Made: ✓

Lot: A9F180214

A9F180214

Sample	Work Order	SAC	Client Sample ID	pH	Free Chlorine
1	LE6WG-1AA	XX I 25 QK 01	TRIP BLANK 1	<2	N
2	LE6W8-1AA	XX I 25 QK 01	13MW3	<2	N

Lot/SDG Number: **A9F180214**

Sample Control Chain of Custody - TAL North Canton
GC/MS Volatiles

Lot Number	Sample	Work Order	Analysis Type	Analysis Date	Analyst
A9F180214	1	LE6WG1AA	Volatile Organics, GC/MS (8260B)	06/25/09	Larry Williams
A9F180214	2	LE6W81AA	Volatile Organics, GC/MS (8260B)	06/25/09	Larry Williams

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PITTSBURGH DATA

Draper Aden Associates Inc

Client Sample ID: 13MW4

General Chemistry

Lot-Sample #...: A9F180214-003 **Work Order #...:** LE6XD **Matrix.....:** WG
Date Sampled...: 06/17/09 10:10 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	3.0	mg/L	SW846 9030B/9034	06/22-06/23/09	9173478

Dilution Factor: 1 MDL.....: 1.2

Draper Aden Associates Inc

Client Sample ID: 13MW5

General Chemistry

Lot-Sample #...: A9F180214-004 **Work Order #...:** LE6XJ **Matrix.....:** WG
Date Sampled...: 06/17/09 09:15 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	**1.6 B**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/22-06/23/09**	**9173478**

Dilution Factor: 1 MDL.....: 1.2

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

Draper Aden Associates Inc

Client Sample ID: 13MW6

General Chemistry

Lot-Sample #...: A9F180214-005 **Work Order #...:** LE6XL **Matrix.....:** WG
Date Sampled...: 06/17/09 08:25 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	**2.4 B**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/22-06/23/09**	**9173478**

Dilution Factor: 1 MDL.....: 1.2

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

Draper Aden Associates Inc

Client Sample ID: 13MW7

General Chemistry

Lot-Sample #...: A9F180214-006 **Work Order #...:** LE6XP **Matrix.....:** WG
Date Sampled...: 06/17/09 11:55 **Date Received..:** 06/18/09

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	**4.0**	**3.0**	**mg/L**	**SW846 9030B/9034**	**06/22-06/23/09**	**9173478**

Dilution Factor: 1 MDL.....: 1.2

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A9F180214 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide		Work Order #: LFERF1AA		MB Lot-Sample #:	C9F220000-478	
	ND	3.0	mg/L	SW846 9030B/9034	06/22-06/23/09	9173478
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: A9F180214 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide		WO#:LFERF1AC-LCS/LFERF1AD-LCSD				LCS Lot-Sample#: C9F220000-478	
	100	(85 - 115)			SW846 9030B/9034	06/22-06/23/09	9173478
	100	(85 - 115)	0.0	(0-20)	SW846 9030B/9034	06/22-06/23/09	9173478

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: A9F180214 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide	WO#:LFERF1AC-LCS/LFERF1AD-LCSD LCS Lot-Sample#: C9F220000-478							
	19.2	19.2	mg/L	100		SW846 9030B/9034	06/22-06/23/09	9173478
	19.2	19.2	mg/L	100	0.0	SW846 9030B/9034	06/22-06/23/09	9173478

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

North Canton

TestAmerica Laboratories, Inc.

SAMPLE ANALYSIS REQUISTION

Laboratory **TestAmerica Pittsburgh**
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238

Lab Request SR112869

Report Package: **Expanded Deliverables**

Need Analytical Report 2009-06-30

Client Code: 385158

Project Manager: MARK LOEB

Sample I.D.	Work Order Number	Client Sample ID	Sampling Date	Analysis Required
A9F180214-3	LE6XD	13MW4	2009-06-17 10:10	WATER, 9030B/9034, Sulfides, Total (9030
A9F180214-4	LE6XJ	13MW5	2009-06-17 9:15	WATER, 9030B/9034, Sulfides, Total (9030
A9F180214-5	LE6XL	13MW6	2009-06-17 8:25	WATER, 9030B/9034, Sulfides, Total (9030
A9F180214-6	LE6XP	13MW7	2009-06-17 11:55	WATER, 9030B/9034, Sulfides, Total (9030

1 x 500

1

Please use Client Sample ID for report

Call MARK LOEB with questions at 330-497-9396

at the TAL North Canton Laboratory

Shipping Method: FEDEX

Need detection limit and analysis date included in report.

Please send a signed copy of this form with the report at completion of analysis.

Relinquished by: _____ Date/Time: 6-18-09 3:00

Relinquished by: _____ Date/Time: _____

Received for lab by: _____ Date/Time: 6 19 9 955

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

199

Cooler Receipt Form

TestAmerica Pittsburgh

Client: TA NCANTON Project: JC Quote: _____

Cooler Rec'd & Opened for Temp. Check on: 6/19/9 ~~6/20/9~~

Coolers Opened and Unpacked on: 6/20/9 By: JC (Signature)

TestAmerica Pittsburgh Lot Number: A9F180214

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location F			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? FOAM, BUBBLE BAGS			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?	✓		
9.	Were all bottles sealed in separate plastic bags?	✓		
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?	✓		
15.	Was a sufficient amount of sample sent in each bottle?			

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Cooler Receipt Form

TestAmerica Pittsburgh

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	hrdnss PH<2			

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	2.0	10

*Acceptable Temperature Range: 4°C ± 2°C

Sample	Lot Number**

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

ORIGIN ID: PHDA
AL HAIDET
TEST AMERICA
4101 SHUFFEL DR
NORTH CANTON, OH 44720
UNITED STATES US
Ship Date: 18JUN09
ActWgt: 52.7 LB
System#: 507102/CAFE2361
Account: S *********
(412) 963-7058
TO SAMPLE RECIEVING
TEST AMERICA LABS-PA
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH, PA 15238
FedEx
Expres
Ref: AL HAIDET
Dept: AL HAIDET
Delivery Address Baroode
BILL RECIPIEN
PRIORITY OVERNIGHT
TRK# 9784 4669 6394
Form 0201
FRI
Deliver By
19JUN09
PIT
A2
15238 -PA-US
65 AGCA

Upload

TestAmerica Pittsburgh

Sulfide Log Sheet

9030B/9034/4500-S/376.1

6/23/2009 3:48 PM

Batch	Lot Number	SDG
9173478	A9F180214	N/A
	C9F170218	
	C9F180340	

Analyst:	Dennis Baker
Date:	06/23/09
Start Time:	15:25
Balance ID:	WC1493
Pipette ID:	H30608
Stock Std. ID No.:	Std 2545-09
CCV Std. ID No.:	Std 2546-09
True Value:	960 ppm
Prep: 6/17/2009	**Exp:** 06-24-09

True Value LCS/ICV:	19.2
True Value CCV:	19.2
True Value MS/MSD:	19.2

LCS 1.000 **ml of** 960 **ppm** **ID No.:** Std 2545-09 = 19.2 **ppm Range +/-15%**

CCV 1.000 **ml of** 960 **ppm** **ID No.:** Std 2546-09 = 19.2 **ppm Range +/-15%**

$$\text{sulfide mg/L} = \frac{[(\text{ml of Iodine} \times \text{N Iodine}) - \text{mL } Na_2S_2O_3 \times \text{N } Na_2S_2O_3)] \times 16{,}000}{\text{ml Sample}}$$

Iodine Standardization ID No.: Std 1591-09

$$\text{N Iodine} = \frac{10 \text{ mL } Na_2S_2O_3 \times 0.025 \text{ N of } Na_2S_2O_3}{20.0 \text{ mL of Iodine Solution}} \quad (0.025)$$

Sodium Thiosulfate Standardization Id No.: Std 1625-09

Titration 1: 10 mls, 0.025 Normality

Titration 2: 10 mls, 0.025 Normality

0.025 Avg.

$$\frac{(10 \text{ mL of } KH(IO_3)^2) \times (0.025\text{N } KH(IO_3)^2)}{\text{mL of } Na_2S_2O_3}$$

Relative Percent Difference

X1 = Orig Result X2 = Duplicate

$$\left(\frac{X1-X2}{(X1+X2)/2}\right) \times 100 = 0.0\%$$

MS Percent Recovery

$$100 \times \left(\frac{\text{Obs Conc of MS} - \text{Conc of Samp}}{\text{True Spike Conc}}\right) = \frac{-}{19.20}$$

Sample ID:

MSD Percent Recovery

$$100 \times \left(\frac{\text{Obs Conc of MSD} - \text{Conc of Samp}}{\text{True Spike Conc}}\right) = \frac{-}{19.20}$$

Sample ID:

%Rec/RPD

TestAmerica Pittsburgh

Sulfide Log Sheet

9030B/9034/4500-S/376.1

6/23/2009 3:48 PM

Upload

Sample ID	Sample ML	mL of Iodine	ml of $NA_2S_2O_3$	Conc Smp	Dilution Factor	LDL	Was sample filtered and preserved in lab? (Y/N)	Percent %
ICV	50.0	10.0	7.6	19.20	1	3.00	N	100.00
ICB	50.0	10.0	10.0	ND	1	3.00	N	
LCS	50.0	10.0	7.6	19.20	1	3.00	N	100.00
LCS-Dup	50.0	10.0	7.6	19.20	1	3.00	N	100.00
MB	50.0	10.0	10.0	ND	1	3.00	N	
A9F180214-3	50.0	10.0	10.0	ND	1	3.00	N	
A9F180214-4	50.0	10.0	9.8	1.60	1	3.00	N	
A9F180214-5	50.0	10.0	9.7	2.40	1	3.00	N	
A9F180214-6	50.0	10.0	9.5	4.00	1	3.00	N	
C9F170218-7	50.0	10.0	9.7	2.40	1	3.00	N	
C9F170218-8	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-9	50.0	10.0	9.8	1.60	1	3.00	N	
CCV	50.0	10.0	7.6	19.20	1	3.00	N	100.00
CCB	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-10	50.0	10.0	9.8	1.60	1	3.00	N	
C9F170218-11	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-12	50.0	10.0	10.0	ND	1	3.00	N	
C9F170218-13	50.0	10.0	9.7	2.40	1	3.00	N	
C9F180340-5	50.0	10.0	10.0	ND	1	3.00	N	
C9F180340-6	50.0	10.0	9.8	1.60	1	3.00	N	
C9F180340-7	50.0	10.0	9.7	2.40	1	3.00	N	
CCV	50.0	10.0	7.6	19.20	1	3.00	N	100.00
CCB	50.0	10.0	10.0	ND	1	3.00	N	

DB 6-23-09

DB 6-23-09

Analyst: DJ-a Baker Date: 6-23-09

Reviewed By: see DRC Date: ———

New Dennis Baker 6/23/2009 3:15:43 PM

TestAmerica Pittsburgh

Sulfide 9030B/9034 Distillation Worksheet

Batch No: **9173478**

Method Sulfide 9030B/9034	**Matrix** Water	**Lot Numbers** A9F180214, C9F170218, C9F180340
Start Time 16:15	**Stop Time** 17:45	
Analyst Ken Balazic	**Date** 6/22/09	
Analyst Sign: Ken Balazic		

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Expiration Date	Sulfide Present (Y/N) [1]	Comments
LFERF1AA B	50	50		NA	
LFERF1AC C					+1.0 mL of STD 2545-09
LFERF1AD L					+1.0 mL of STD 2545-09
LE4L01A4					
LE4L21A4					
LE4LH1AR					
LE4LK1A4					
LE4LL1A4					
LE4LR1A4					
LE4LV1A4					
LE6XD1AA			2009-06-24		
LE6XJ1AA			2009-06-24		
LE6XL1AA			2009-06-24		
LE6XP1AA			2009-06-24		
LE7981AJ					
LE7991AJ			6-22-09		
LE8AA1AJ	↓	↓	2009-06-24	↓	

[1] If sulfides are present, treat sample with powdered cadmium or lead carbonate until there is no reaction to the lead acetate paper.

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

Reagents:

Zinc Acetate, Std 0586-09, StandardsLog
Sulfide LCS, Std 2545-09, Standards Log
Sulfide CCV, Std 2546-09, Standards Log
Sulfide Stock, Std 0688-06, Standards Log

NOTE: Distillates are disposed of 14 days after analysis

Balance ID:	NA
Pipet #:	J20176
LCS True Value:	19.2mg/L
LCS StdsLogID:	STD2545-09
MS/MSD Conc.:	NA
MS/MSD StdsLogID:	NA

Digestate(s)	(Received) Date	Time	Analyst	Location	(Relinquished) Date	Time	Analyst	Location
ALL ABOVE	6-22-09	1829	KSB	WC	6-22-09	1829	KSB	REF 2
ALL ABOVE	6-23-09	1510	DB	REF-2	6-23-09	1550	DB	disposed

Additional Comments:

Reviewed By: D.A Balazic Date: 6-23-09

WC-82-9173478

REQUESTED BY: **BALAZICK**

9173478

METHOD: TV Sulfides, Total (9030B-dist/9034-titrat.)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
PITTSBURGH 20	LE6XD-1-AA		659279	385158	I-06-TV	A9F180214	003		WATER	1	1
PITTSBURGH 20	LE6XJ-1-AA		659280	385158	I-06-TV	A9F180214	004		WATER	1	1
PITTSBURGH 20	LE6XL-1-AA		659281	385158	I-06-TV	A9F180214	005		WATER	1	1
PITTSBURGH 20	LE6XP-1-AA		659282	385158	I-06-TV	A9F180214	006		WATER	1	1
21A,B,CLP1	LE4LH-1-AR		659272	352201	I-06-TV	C9F170218	007		WATER	15	1
21A,B,CLP1	LE4LK-1-A4		659273	352201	I-06-TV	C9F170218	008		WATER	15	1
21A,B,CLP1	LE4LL-1-A4		659274	352201	I-06-TV	C9F170218	009		WATER	15	1
21A,B,CLP1	LE4LR-1-A4		659275	352201	I-06-TV	C9F170218	010		WATER	16	1
21A,B,CLP1	LE4LV-1-A4		659276	352201	I-06-TV	C9F170218	011		WATER	15	1
21A,B,CLP1	LE4L0-1-A4		659277	352201	I-06-TV	C9F170218	012		WATER	15	1
21A,B,CLP1	LE4L2-1-A4		659278	352201	I-06-TV	C9F170218	013		WATER	15	1
22D	LE798-1-AJ		659283	048434	I-06-TV	C9F180340	005		WATER	6	1
22D	LE799-1-AJ		659284	048434	I-06-TV	C9F180340	006		WATER	6	1
22D	LE8AA-1-AJ		659285	048434	I-06-TV	C9F180340	007		WATER	6	1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
		62208 1449
		6/22/09 1520

***** END OF REPORT *****

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

4/9/09

KHH
B03204-07
DAS/TAE

74MW2

DTW - 56.32
Post Purge DTW - 56.34

Begin Purge (1444)
Initial Purge - Clear

Time	Temp(°)	Cond(us)	DO mg/L	pH	ORP(mv)	Purge K	Desc
(1445)	14.15	267	10.20	7.42	88.0	0.3 L/min	Clear
(1450)	14.26	271	9.89	7.39	96.5	"	Clear
(1455)	14.27	271	9.78	7.38	105.3	"	Clear
(1500)	14.24	272	9.71	7.36	110.7	"	Clear
(1505)	14.06	273	9.65	7.36	115.8	"	Clear
(1510)	13.83	272	9.58	7.36	118.4	"	Clear
(1515)	13.79	272	9.55	7.37	120.1	"	Clear
(1515)	Readings Stable						
(1528)	14.12	272	9.63	7.36	138.8	Post Purge Reading	

DS 4/9/09

Sample Time (1520)
Samples Collected: (3)8260, (2)8011, (1)TMI

4-15-09
LJK Completed

B03204-07
DAS/TAE

General Notes

Weather - Overcast, 40's
PPE - Eye Protection, Nitrile gloves, Cotton Suits, Hard Hats
Calibrations - YSI 650 MDS
pH - 4.00 = 4.00, 7.00 = 7.00, 10.00 = 9.97
Conductivity reads 1414 us in 1413 us std
DO% = 100

- Dedicated tubing and well skirts used at each well
- All equipment decon'ed between each well
- Purge water contained and disposed of at dedicated location onsite
- All samples collected, stored and transported on ice in coolers

STATIC WATER LEVEL TABLE - Unit 13

WELL	DTW	Post Purge DTW	Notes
13MW1	20.80	20.97	
13MW2	21.24	22.48	
13MW3	12.93	12.96	
13MW4	16.32	16.44	
13MW5	16.45	16.58	
13MW6	16.02	16.18	
13MW7	15.20	15.36	

13MW6

DTW - 16.02
Post Purge DTW - 16.18

Begin Purge (0703)
Initial Purge - Clear

Time	Temp(°)	Cond(us)	DO mg/L	pH	ORP(mv)	Purge K	Desc
(0705)	12.12	850	5.97	6.88	182.2	0.3 L/min	Clear
(0710)	12.00	851	5.57	6.84	184.1	"	Clear
(0715)	12.10	853	5.42	6.84	185.0	"	Clear
(0720)	12.19	853	5.37	6.89	183.2	"	Clear
(0725)	12.30	852	5.15	6.86	182.6	"	Clear

13MW6 (Cont.)

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(MV)	Purge L	Desc
(0730)	12.41	853	5.06	6.87	181.4	0.3 L/min	Clear
(0735)	12.43	853	5.02	6.85	181.8	"	Clear
(0735)	Readings Stable						
(0800)	12.52	851	4.70	6.83	179.6	Post Purge Reading	

Sample Time (0740)

Samples Collected: (3)8260, (2)8280, (2)8332, (2)8330, (2)8151
(1)314.0; (1)TM, (1)CN, (1)Sulfide, (2)8270, (2)8081/8082

13MW5

DTW - 16.45
Post Purge DTW - 16.58

Begin Purge (0817)
Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(MV)	Purge L	Desc
(0820)	12.04	662	5.98	6.81	187.5	0.3 L/min	Clear
(0825)	11.80	673	5.76	6.80	188.2	"	Clear
(0830)	11.95	681	5.64	6.80	188.3	"	Clear
(0835)	12.09	688	5.59	6.80	188.3	"	Clear
(0840)	12.18	692	5.56	6.82	186.7	"	Clear
(0845)	12.06	698	5.58	6.82	187.3	"	Clear
(0845)	Readings Stable						
(0947)	Stable	687	6.01	6.87	181.1	Post Purge Reading	

DS 4/13/09 Sample Time (0850)

Samples Collected: (9)8260, (6)8280, (4)8332, (6)8330, (6)8151
(3)314.0, (3)TM, (3)Sulfide, (3)CN, (6)8270, (6)8081/8082

13MW DUP

Sample Time (1050)

Samples Collected: (3)8260, (2)8280, (2)8332, (2)8330
(2)8151, (2)8270, (2)8081/8082
(1)314.0, (1)TM, (1)CN, (1)Sulfide

* Duplicate well sampled at 13MW4

13MW4

DTW - 16.32
Post Purge DTW - 16.44

Begin Purge (1004)
Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(MV)	Purge L	Desc
(1005)	12.04	418	7.26	6.78	182.8	0.3 L/min	Clear
(1010)	11.74	416	7.10	6.74	186.1	"	Clear
(1015)	11.74	416	6.98	6.72	187.0	"	Clear
(1020)	11.74	414	6.88	6.72	187.2	"	Clear
(1025)	11.82	409	6.79	6.71	187.3	"	Clear
(1030)	11.88	407	6.77	6.71	187.7	"	Clear
(1030)	Readings Stable						
(1108)	12.12	380	7.05	6.66	176.2	Post Purge Reading	

Sample Time (1035)

Samples Collected: (3)8260, (2)8280, (2)8332, (2)8330, (2)8151
(2)8081/8082, (1)314.0, (1)TM, (1)CN, (1)Sulfide, (2)8270

13MW3

DTW - 12.93
Post Purge DTW - 12.96

Begin Purge (1122)
Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(MV)	Purge L	Desc
(1125)	12.03	571	7.22	6.81	180.3	0.3 L/min	Clear
(1130)	11.92	578	6.38	6.81	181.4	"	Clear
(1135)	11.96	585	5.96	6.80	182.4	"	Clear
(1140)	12.03	590	5.73	6.80	182.4	"	Clear
(1145)	11.97	593	5.70	6.80	182.8	"	Clear
(1150)	11.99	593	5.65	6.79	183.3	"	Clear
(1155)	12.10	594	5.62	6.79	183.5	"	Clear
(1155)	Readings Stable						
(1216)	12.38	594	5.68	6.79	189.1	Post Purge Reading	

Sample Time (1200)

Samples Collected: (3)8260, (2)8280, (2)8332, (2)8330, (2)8151, (2)82
(2)8081/8082, (1)314.0, (1)TM, (1)CN, (1)Salfid

6-15-09
ZDK complete

Static Water Level Table - Unit 7

WELL	DTW	Post Purge DTW	Notes
7W12B	24.60	24.62	
7W9C	13.94	16.86	
7W10B	15.09	15.66	
7W10C	18.94	20.67	
7W13	18.33	20.19	
7MW6	25.61	29.97	
7W11B	24.78	25.04	
7WCA	24.67	26.55	
7W9B	22.40	SWL ONLY	
7W11	23.77	"	
7MW5	24.72	"	

7W13

DTW - 18.33 — Begin Purge (1253)

Post Purge DTW - 20.19 — Initial Purge - Clear

Time	Temp(°)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge L	Desc
(1255)	13.06	1268	7.00	7.36	101.7	0.3 L/min	Clear
(1300)	13.32	1286	4.86	7.23	17.1	"	Clear
(1305)	13.49	1310	4.00	7.21	-3.0	"	Clear
(1310)	13.40	1327	3.71	7.22	-13.7	"	Clear
(1315)	13.22	1333	3.70	7.23	-5.8	"	Clear
(1320)	13.25	1331	3.72	7.25	-2.0	"	Clear
(1325)	13.18	1335	3.71	7.25	2.6	"	Clear
(1330)	13.07	1334	3.70	7.26	5.0	"	Clear
(1330)	Readings Stable						

Sample Time (1335)

Samples Collected: (1) TM, (1) CN, (2) 8270

(1344)	12.98	1345	3.85	7.27	10.0	Post Purge Reading	

7W10C

DTW - 18.94 — Begin Purge (1403)

Post Purge DTW - 20.67 — Initial Purge - Clear

Time	Temp(°)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge L	Desc
(1405)	12.71	806	2.05	7.06	92.5	0.3 L/min	Clear
(1410)	13.20	797	1.91	7.06	93.1	"	Clear
(1415)	13.46	794	1.97	7.06	96.8	"	Clear
(1420)	13.33	796	1.97	7.05	100.9	"	Clear
(1425)	13.14	796	1.89	7.04	104.2	"	Clear
(1430)	13.13	795	1.90	7.03	105.3	"	Clear
(1435)	13.04	794	1.92	7.03	107.1	"	Clear
(1435)	Readings Stable						
(1452)	12.83	786	1.88	7.04	94.1	"	Clear

Sample Time (1440)

Samples Collected: (1) TM, (1) CN, (2) 8270

7W9C

DTW - 13.94 — Begin Purge (1513)

Post Purge DTW - 16.86 — Initial Purge - Clear

Time	Temp(°)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge L	Desc
(1515)	12.40	1141	2.63	6.83	115.2	0.3 L/min	Clear
(1520)	12.31	1167	1.96	6.77	125.4	"	Clear
(1525)	12.25	1185	1.72	6.74	128.1	"	Clear
(1530)	12.26	1190	1.68	6.73	124.2	"	Clear
(1535)	12.27	1198	1.69	6.73	109.0	"	Clear
(1540)	12.27	1203	1.72	6.73	106.5	"	Clear
(1545)	12.30	1202	1.78	6.75	100.6	"	Clear
(1545)	Readings Stable						
(1600)	12.39	1186	2.06	6.76	90.3	Post Purge Reading	

Sample Time (1550)

Samples Collected: (1) TM, (1) CN, (2) 8270

B03264-07
DAS/TQE

General Notes

Weather- Overcast, Raining, 40's
PPE- Eye Protection, Nitrile gloves, Cotton Suits, Hard Hats
Calibrations- YSI 650 MDS
pH - 4.00 = 4.00, 7.00 = 7.00, 10.00 = 10.01
Conductivity reads 1413 us in 1413 us std
DO% = 100

- Dedicated tubing and well skirts used at each well
- All equipment deconed between each well
- Purge water contained and disposed of at dedicated location onsite
- All samples collected, stored and transported in coolers on ice.

13MW2

DTW - 21.24 Begin Purge (0734)
Post Purge DTW - 22.48 Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge L	Desc
(0735)	12.40	975	8.24	6.95	189.1	0.3 L/min	Clear
(0740)	12.43	826	6.40	6.90	187.6	"	Clear
(0745)	12.50	779	5.94	6.89	187.3	"	Clear
(0750)	12.46	744	5.46	6.88	185.4	"	Clear
(0755)	12.48	718	5.15	6.87	184.8	"	Clear
(0800)	12.44	705	4.90	6.87	185.6	"	Clear
(0805)	12.34	685	4.62	6.86	184.5	"	Clear
(0810)	12.31	680	4.54	6.86	184.4	"	Clear
(0810)	Readings Stable						
(0831)	12.76	656	4.17	6.84	182.6		Post Purge Reading

DS 4/14/09

Sample Time (0815)
Samples Collected: (3)8260, (2)8332, (2)8330, (1)314.0, (1)TM
(2)8270

13MW1

DTW - 20.80 Begin Purge (0858)
Post Purge DTW - 20.97 Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge L	Desc
(0900)	12.08	690	6.36	6.81	196.2	0.3 L/min	Clear
(0905)	12.07	692	4.89	6.84	194.5	"	Clear
(0910)	12.10	695	3.87	6.85	191.3	"	Clear
(0915)	12.11	697	3.59	6.85	189.3	"	Clear
(0920)	12.00	697	3.80	6.85	186.1	"	Clear
(0925)	11.93	697	3.67	6.85	185.2	"	Clear
(0930)	11.90	696	3.61	6.85	183.7	"	Clear
(0930)	Readings Stable						
(0953)	12.30	678	3.92	6.81	180.3		Post Purge Reading

Sample Time (0935)
Samples Collected: (3)8260, (2)8332, (2)8330, (1)314.0, (1)TM
(2)8270

13MW1

DTW - 15.20 Begin Purge (1014)
Post Purge DTW - 15.36 Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge L	Desc
(1015)	11.55	703	5.02	6.95	183.2	0.3 L/min	Clear
(1020)	11.63	697	4.20	6.95	180.1	"	Clear
(1025)	11.69	696	4.08	6.95	177.7	"	Clear
(1030)	11.77	695	4.05	6.95	176.3	"	Clear
(1035)	11.72	696	4.03	6.95	174.7	"	Clear
(1040)	11.72	698	3.99	6.95	172.8	"	Clear
(1045)	11.68	697	3.95	6.94	172.2	"	Clear
(1045)	Readings Stable						
(1112)	11.88	698	3.86	6.94	167.9		Post Purge Reading

Sample Time (1050)
Samples Collected: (3)8260, (2)8280, (2)8332, (2)8330, (2)8151
(2)8081/8082, (1)314.0, (1)TM, (1)CN, (1)Sulfide, (2)8270

General Notes

Weather - Overcast, Showers, 60's
PPE - Eye Protection, Nitrile gloves, cotton suits
Calibrations - YSI 650 MDS
pH - 4.00 = 4.00, 7.00 = 7.00, 10.00 = 9.98
Conductivity reads 1413 us in 1413 us std.
DO % = 100

- Dedicated tubing and well skirts used at each well
- All equipment decon'ed between each well
- Purge water disposed of at dedicated location onsite
- All samples collected, stored & transported on ice in coolers

13MW6

DTW - 14.17 Begin Purge (0749)
Post Purge DTW - 14.19 Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mv)	Purge Rate(gpm)	Vol(gal)
(0750)	14.73	850	5.58	4.56	200.4	0.34/min	Clear
(0755)	14.80	903	4.24	6.72	190.6	"	"
(0800)	14.77	900	3.90	6.68	185.2	"	"
(0805)	14.72	893	3.71	6.69	181.3	"	"
(0810)	14.75	886	3.66	6.70	179.0	"	"
(0815)	14.74	881	3.60	6.71	176.2	"	"
(0820)	14.65	873	3.54	6.71	173.4	"	"

(0820) Readings Stable

Sample Time (0825)
Samples Collected: (1) sulfide

All Notes copied from DAS personal Field Book # 1.

13MW3 (13MW3)

DTW - 11.68 Begin Purge (1023 ~~1023~~)
Post Purge DTW - 11.68 Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mv)	Purge Rate(gpm)	Desc.
(1025)	15.99	529	7.54	6.75	175.7	0.34/min	Clear
(1030)	15.77	514	6.63	6.67	177.1	"	"
(1035)	15.73	507	6.40	6.65	177.0	"	"
(1040)	15.66	496	6.20	6.63	176.3	"	"
(1045)	15.66	492	6.16	6.63	175.4	"	"
(1050)	15.67	488	6.14	6.63	174.8	"	"
(1055)	15.79	485	6.13	6.64	173.6	"	"

(1055) Readings Stable

Sample Time (1100)
Samples Collected: (3) 8260, (3) 8260

13MW5

DTW - 14.45 Begin Purge (0842)
Post Purge DTW - 14.51 Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mv)	Purge Rate(gpm)	Desc
(0845)	14.76	707	6.74	6.77	176.6	0.34/min	Clear
(0850)	15.01	681	6.57	6.75	177.1	"	"
(0855)	15.00	674	6.49	6.75	176.6	"	"
(0900)	15.02	669	6.43	6.75	176.7	"	"
(0905)	15.02	664	6.38	6.74	176.4	"	"
(0910)	15.01	661	6.34	6.74	176.5	"	"
( )						"	"

(0910) Readings Stable

Sample Time (0915)
Samples Collected: (1) Sulfide

6/17/09

RAAP
B03204-87
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FB#8

13MW4

DTW - 13.96

Begin Purge (0937)

Post Purge DTW - 13.99

Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge(gpm)	Desc
(0940)	14.91	446	6.87	6.68	175.5	0.3 4/min	Clear
(0945)	14.83	449	6.14	6.60	177.6	"	"
(0950)	14.65	451	5.95	6.60	177.0	"	"
(0955)	14.57	451	5.90	6.60	176.6	"	"
(1000)	14.44	453	5.81	6.60	176.8	"	"
(1005)	14.42	452	5.79	6.60	176.3		

(1005) Readings Stable

Sample Time (1010)

Samples Collected: (1) Sulfide

13MW7

DTW - 13.81

Begin Purge (1120)

Post Purge DTW - 13.81

Initial Purge - Clear

Time	Temp(C)	Cond(us)	DO mg/L	pH	ORP(mV)	Purge(gpm)	Desc
(1120)	14.40	700	2.59	6.85	159.9	0.34/min	Clear
(1125)	14.15	696	1.22	6.76	161.2	"	"
(1130)	13.90	676	1.08	6.78	156.0	"	"
(1135)	13.79	649	1.10	6.82	150.7	"	"
(1140)	13.68	619	1.14	6.82	149.8	"	"
(1145)	13.69	603	1.29	6.82	149.4	"	"
(1150)	13.70	597	1.27	6.82	149.3		

(1150) Readings Stable

Sample Time (1155)

Samples Collected: (1) Sulfide

SRK 8.26.09
Completed