Alliant Ammunition and Powder Company, L.L.C.

ANNUAL GROUNDWATER MONITORING REPORT

HAZARDOUS WASTE MANAGEMENT UNIT 10
CALENDAR YEAR 2001

Radford Army Ammunition Plant,
Radford, Virginia

March 1, 2002

Draper Aden Associates
2206 South Main Street
Blacksburg, Virginia 24060
DAA Job No. 7774.22

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CALENDAR YEAR 2001

RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

Submitted to:

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INTRODUCTION

This document presents the Annual Groundwater Monitoring Report for Hazardous Waste Management Unit 10 (HWMU-10) for calendar year 2001, and has been compiled in accordance with 9 VAC 20-60-265 and 40 CFR 265.90-94 (Subpart F). The Annual Groundwater Monitoring Report presents the following set of information for HWMU-10: basic information and unit identification, a description of the groundwater monitoring plan, a discussion of groundwater movement, an updated potentiometric map, a table of groundwater elevations, and detailed statistical evaluations of the analytical data. The report evaluates the analytical data from the four quarterly sampling events for the year 2001. The laboratory analytical results for the year 2001 are included in **Appendix A**.

HWMU-10 does not have a Post-Closure Care Permit; therefore, the Unit is in interim status. HWMU-10 was operated from 1980 to 1994, and received certification for clean closure for soils from the VDEQ on December 8, 1998; the Unit has been in interim status since that time. The post-closure care period for the Unit began with the closure on December 8, 1998, and will continue until December 8, 2028 (30 years). Part of the post-closure care period will be completed during the interim status period.

HWMU-10 ANNUAL GROUNDWATER MONITORING REPORT

CALENDAR YEAR: 2001
REPORT DATE: March 1, 2002

Prepared for the Virginia Department of Environmental Quality – Waste Division (VDEQ-WD) in accordance with 9 VAC 20-60-265 and 40 CFR 265.90-94 (Subpart F).

A. WASTE MANAGEMENT UNIT INFORMATION

UNIT NAME: Hazardous Waste Management Unit 10 (HWMU-10)
OWNER/OPERATOR: United States Army / Alliant Ammunition and Powder Company, LLC

UNIT LOCATION: Radford AAP Main Plant Area, Radford, Virginia

CLASS: Hazardous Waste Management Unit
TYPE: Closed Equalization Basin for the Biological Treatment System

B. GROUNDWATER MONITORING PLAN

MONITORING NETWORK
UPGRADIENT WELL: 10D4
DOWNGRADIENT WELLS: 10MW1, 10DDH2/10DDH2R*, 10D3, 10D3D
OBSERVATION WELLS: 10DG-1
(static water level measurements only)

* Well 10DDH2 was destroyed prior to Second Quarter 2001 and replaced with well 10DDH2R.

MONITORING STATUS: Groundwater Quality Assessment Program

DATA COLLECTION STATUS:

Quarterly Event	March 1-2, 2001
Quarterly Event	May 24, 2001
Quarterly Event	August 6, 2001
Quarterly Event	October 29-30, 2001

C. GROUNDWATER MOVEMENT

The monitoring wells at HWMU-10 are screened either across the alluvium/limestone bedrock interface or entirely within bedrock. The static water level measurements gathered during the 2001 quarterly monitoring events are summarized in **Table 1**. Groundwater fluctuations did not appear to exceed 2 to 3 feet annually, although individual wells tapping karst conduits could have experienced dramatic fluctuations following storm events. As shown on the

HWMU-10 Potentiometric Surface Map for Fourth Quarter 2001, groundwater movement beneath the site is generally to the north towards the New River.

For the purposes of this report, Darcian flow conditions were assumed for the alluvium and karst limestone bedrock beneath HWMU-10. As a result, the groundwater velocities were calculated by multiplying the hydraulic conductivity (determined from previously conducted slug tests) by the average hydraulic gradient across the site, and dividing by an assumed effective porosity for the aquifer materials. The average hydraulic gradient was determined by superimposing three evenly spaced flow line vectors over the Potentiometric Surface Map, measuring their lengths, calculating the head differential over the distances measured, and dividing the head differential by the length of the flow line vectors. The three calculated gradients were then averaged to a single value. Using this method, the average groundwater hydraulic gradient across the site based on Fourth Quarter 2001 groundwater elevations was calculated to be 0.016 ft/ft. Historical slug test data for the site yielded an average hydraulic conductivity of 4.9×10^{-4} ft/second. This value is consistent with literature values for karst limestone and for clayey, silty sand and gravel alluvium (Domenico and Schwartz, 1990).

The estimated groundwater velocity across the site was calculated to be approximately 1.69 ft/day or 617 ft/year, based on the following:

- an average hydraulic conductivity of 4.9×10^{-4} ft/second;
- an average hydraulic gradient of 0.016 ft/ft; and
- an assumed effective porosity of 0.40, based on a representative range of porosities for karst limestone and for clayey, silty sand and gravel alluvium (Domenico and Schwartz, 1990).

The actual groundwater flow velocities in the limestone bedrock may vary as much as one to two orders of magnitude from the velocity presented above, depending on water level conditions and the distribution of karst conduits.

D. STATISTICAL EVALUATIONS

D.1 HWMU-10 GROUNDWATER BACKGROUND CONCENTRATIONS

Background concentrations were calculated for each constituent in the groundwater monitoring program using the 1996-2001 quarterly analytical data from upgradient well 10D4. The background concentration calculations were based on site wide 95% confidence, 95% coverage upper prediction intervals. When adjusted for multiple comparisons of the background data, the minimum required false positive rate was approximately 1%. Therefore, a 99% confidence level (0.01 false positive rate) was used for all individual comparisons. These coverage limits were only achieved for constituent data on which parametric prediction intervals were performed. In cases where non-parametric prediction intervals were computed to determine the background levels, the confidence level and error rate were calculated based on the number of background data points available and number of future comparisons. Because the upper control limit of a non-parametric interval cannot be adjusted for multiple comparisons and

an inadequate number of background data, the number of resampling events required was adjusted to account for the high error rates inherent in those situations. No confidence levels were defined in cases where the background data were 100% non-detected; the detection limits of such constituents were used to define their respective background levels.

D.2 HWMU-10 STATISTICAL ANALYSIS

Statistical evaluations were performed for HWMU-10 as specified in VHWMR 9 VAC 20-60-570. The statistical evaluations were performed in accordance with the procedures and guidance provided in the following documents:

- Virginia Hazardous Waste Management Regulations, 9 VAC 20-60-790 H and I;
- VDEQ Guidance for statistical analysis titled "Data Analysis Plan," undated;
- Interim Final Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, USEPA, April 1989;
- Addendum to Interim Final Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, USEPA, July 1992; and
- Statistical Methods for Groundwater Monitoring, Gibbons, R.D., 1994.

Statistical threshold values were computed for the 27 constituents for which HWMU-10 is currently monitored based on the concentrations of those constituents in upgradient (background) well 10D4. The 1996-2001 quarterly monitoring data for well 10D4 were used for this purpose. Comparison statistical analyses were performed for all constituents which were detected in any downgradient well during Fourth Quarter 2001.

D.2.1 Background Data and Statistical Comparisons

Statistical analyses were performed using the 1996-2001 quarterly analytical results from upgradient well 10D4 as background data. Based on the percentage of non-detects and the distribution of the background data, methods of statistical comparisons varied. Background average, standard deviation and other descriptive statistical data were computed for all constituents and are presented in **Appendix B**.

The constituents listed below were 100% non-detected in the background data. The background threshold levels (BTLs) for these constituents were established as equal to their detection limits (DLs). Detections of these constituents in the downgradient wells during Fourth Quarter 2001 were compared to these BTLs.

Background Threshold Level (BTL) = Detection Limit (DL)				
Parameter	**Sample Size**	**% Non-Detects**	**DL (µg/l)**	**BTL (µg/l)**
Silver	24	100	0.2	0.2
Cyanide	24	100	10	10
2,6-Dintrotoluene	24	100	0.08	0.08

Background Threshold Level (BTL) = Detection Limit (DL)				
Parameter	**Sample Size**	**% Non-Detects**	**DL (µg/l)**	**BTL (µg/l)**
Bromodichloromethane	24	100	0.2	0.2
Chloromethane	24	100	0.3	0.3
Di-n-butylphthalate	24	100	5	5
trans 1,2-Dichloroethene	24	100	0.1	0.1
Trichloroethene	24	100	0.1	0.1
Trichlorofluoromethane	24	100	0.5	0.5

Non-parametric prediction intervals were computed for all of the constituents for which the data from background well 10D4 satisfied one of the following two criteria, per VDEQ regulations and guidance as well as USEPA guidance:

- Percentage of non-detects was greater than or equal to 50 and less than 100; or
- Percentage of non-detects was less than 50, but data was not normally distributed.

Non-parametric upper prediction limits (UPL) were computed for 17 constituents which met one of the above two criteria. The background threshold levels for these constituents were set as equal to their UPLs, with one exception. For pH, a two-sided parametric prediction interval was computed; therefore, the BTL for pH consisted of a range between the lower prediction limit (LPL) and the upper prediction limit. The confidence level and false positive rate were calculated based on the number of background data points available and number of future comparisons. For all constituents except pH, the confidence level was determined to be equal to 0.987, and the false positive rate was equal to 0.013. For pH, the confidence level was determined to be equal to 0.983, and the false positive rate was equal to 0.017. Since the upper control limit of a non-parametric interval cannot be adjusted for multiple comparisons and inadequate number of background data, the number of resampling events required was adjusted to account for the high error rates inherent in those situations. The number of confirmation resamples required for all constituents is 1. The background and relevant statistical data for these constituents are summarized below. Associated statistical computations are presented in **Appendix B**.

BTL = Upper Prediction Limit of Non-parametric Prediction Interval w/false positive rate=0.013 (false positive rate=0.017 for pH) BTL for pH = LPL – UPL of two-sided Prediction Interval				
Parameter	**Sample Size**	**% Non-Detects**	**DL (µg/l)**	**BTL (µg/l)**
Arsenic	24	88	1	2
Barium	24	0	2	226
Chromium	24	13	1	24
Copper	24	29	1	12
Lead	24	21	1	16
Mercury	24	96	0.2	0.2

BTL = Upper Prediction Limit of Non-parametric Prediction Interval w/false positive rate=0.013 (false positive rate=0.017 for pH) BTL for pH = LPL – UPL of two-sided Prediction Interval				
Parameter	**Sample Size**	**% Non-Detects**	**DL (µg/l)**	**BTL (µg/l)**
Nickel	24	96	15	26
Selenium	24	96	1	2
Thallium	24	83	1	3
Zinc	24	38	5	69
2,4-Dinitrotoluene	24	96	0.08	0.13
Chloroform	24	17	3.5	21.5
Methylethyl ketone	24	96	1.1	8.2
Xylene	24	96	0.1	3.0
TOC	24	92	1,000	84,275
TOX	24	63	5	77.5
pH	20	0	0.1 pH units	6.1 to 8.1 pH units

Specific conductivity exhibited normally distributed background data with less than 25% non-detects. A one sided parametric prediction interval was computed on the background data for specific conductivity. The UPL for specific conductivity was set as the BTL. The background concentration calculation was based on site wide 95% confidence, 95% coverage upper prediction interval. When adjusted for multiple comparisons of the background data, the minimum required false positive rate was approximately 1% (0.01). Therefore, a 99% confidence level (0.01 false positive rate) was used for the comparisons, which with the most conservative assumptions provided a site-wide false positive rate of 0.05. The background and relevant statistical data for specific conductivity are summarized below. The prediction interval computations for specific conductivity are presented in **Appendix B**.

BTL = UPL of one-sided Prediction Interval w/site-wide false positive rate=0.05 (individual comparisons false positive rate=0.01)				
Parameter	**Sample Size**	**% Non-Detects**	**DL (µg/l)**	**BTL (µg/l)**
Specific conductivity	20	0	1 µS/cm	438 µS/cm

D.2.2 RESULTS OF STATISTICAL COMPARISONS

The following table lists the constituents which were detected during the Fourth Quarter 2001 event at concentrations exceeding their respective background threshold levels (BTLs), and the downgradient wells in which they were detected. The table also compares the detected concentrations with the regulatory concentration limits for those constituents.

Parameter (BTL)	Monitoring Well	Concentration (µg/l)	Regulatory Limit (µg/l)
Spec. Cond. (438 µS/cm)	10DDH2R	974 µS/cm	na
Spec. Cond. (438 µS/cm)	10D3	926 µS/cm	na
Spec. Cond. (438 µS/cm)	10D3D	963 µS/cm	na
Spec. Cond. (438 µS/cm)	10MW1	489 µS/cm	na

Notes:

na – not applicable.

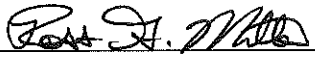
Field measurements of specific conductivity for wells 10DDH2, 10D3, 10D3D, and 10MW1 exceeded the BTL of 483 µS/cm. However, field measurements of specific conductivity are subject to wide variations, and are influenced by changes in ambient groundwater geochemistry. Therefore, statistical results for specific conductivity are inconclusive and do not warrant further action.

Any HWMU-10 target constituents not listed above were not detected in the downgradient monitoring wells at concentrations exceeding their respective BTLs.

SIGNATURE/CERTIFICATION

Prepared by:

Name: Ross Miller, Project Hydrogeologist

Signature: 

Company: Draper Aden Associates

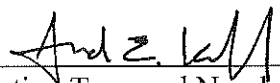
Address: 2206 South Main Street

City/State/Zip: Blacksburg, Virginia 24060-6600

Virginia Professional Certification:

I certify that I have prepared or supervised preparation of the attached report, that it has been prepared in accordance with industry standards and practices, and that the information contained herein is truthful and accurate to the best of my knowledge.

Name: Andrew E. Kassoff, Senior Hydrogeologist

Signature: 

Virginia Professional Certification Type and Number: PG 873

Company: Draper Aden Associates

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TABLE

TABLE 1
HWMU-10
GROUNDWATER ELEVATIONS - 2001
RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

MONITORING WELL ID	ELEVATION TOP OF WELL	FIRST QUARTER 2001		SECOND QUARTER 2001		THIRD QUARTER 2001		FOURTH QUARTER 2001	
		DTW	GW ELEV	DTW	GW ELEV	DTW	GW ELEV	DTW	GW ELEV
10D4	1715.72	23.48	1692.24	23.30	1692.42	23.20	1692.52	23.40	1692.32
10DDH2	1702.38	18.45	1683.93	NM	NM	NM	NM	NM	NM
10DDH2R	1704.38	*	*	*	*	18.88	1685.50	20.80	1683.58
10D3	1702.91	19.40	1683.51	17.05	1685.86	17.58	1685.33	19.60	1683.31
10D3D	1703.00	19.40	1683.60	17.15	1685.85	18.00	1685.00	19.81	1683.19
10MW1	1703.28	19.90	1683.38	17.75	1685.53	17.98	1685.30	19.97	1683.31

NOTES:
DTW - Depth to water from ground surface.
GW ELEV - Groundwater elevation.
NM - Not measured. Well 10DDH2 was destroyed prior to Second Quarter 2001.
* - Well 10DDH2R was installed as a replacement for well 10DDH2 in July 2001 and was not sampled until Third Quarter 2001.
All elevations in feet above mean sea level.

FIGURE

HWMU-10 POTENTIOMETRIC SURFACE MAP
FOURTH QUARTER 2001

APPENDIX A

YEAR 2001 LABORATORY ANALYTICAL RESULTS

YEAR 2001 DETECTED ANALYTICAL RESULTS
HAZARDOUS WASTE MANAGEMENT UNIT 10
RADFORD ARMY AMMUNITION PLANT, RADFORD VIRGINIA
Concentrations in ug/L

Well	Sample Date	Barium	Chromium	Copper	Lead	Zinc	Chloroform	Total Organic Carbon	Total Organic Carbon Rep2	Total Organic Carbon Rep3	Total Organic Carbon Rep4
10D4 (Background)	3/2/01	170	-	-	2.02	-	6.72	-	-	-	-
	5/24/01	146	-	-	1.08	-	5.97	2300	2000	2100	2100
	8/6/01	140	5.06	-	1.4	19	7.98	-	-	-	-
	10/30/01	139	-	-	-	-	11.5	-	-	-	-
10D3	3/2/01	55.7	-	-	-	-	1.24	-	-	-	-
	5/24/01	46.2	-	-	-	-	1.77	1200	1100	1100	1000
	8/6/01	45.5	-	-	-	-	1.58	-	-	-	-
	10/30/01	48.3	-	-	-	-	-	-	-	-	-
10D3D	3/2/01	46.6	-	-	-	-	1.66	-	-	-	-
	5/24/01	41.7	-	-	-	-	1.7	1200	1100	1200	1200
	8/6/01	45.8	-	-	-	25.3	1.54	-	-	-	-
	10/30/01	44.9	-	-	-	-	1.51	40000	39700	40000	39800
10DDH2 / 10DDH2R	3/2/01	83.1	12.4	12.6	8.82	80.3	-	-	-	-	-
	8/6/01	53	5.09	-	-	19.6	-	-	-	-	-
	10/30/01	43.8	-	-	-	-	-	1000	-	-	-
10MW-1	3/2/01	98.3	-	-	-	-	5.62	-	-	-	-
	5/24/01	109	-	-	-	-	4.39	1000	1000	1100	1000
	8/6/01	99.2	-	-	-	12	3.94	-	-	-	-
	10/30/01	95	-	-	-	-	5.22	-	-	-	-

Notes:
- : Not detected

HWMU 10
First Quarter 2001

Site ID	Well ID	Coll. Date	Analyte	Units	Result	Quant Limit	Test No	Qualifiers
HWMU 10	10D4	3/1/2001	Mercury	µg/L	ND	1	SW7470	
HWMU 10	10D4	3/1/2001	Arsenic	µg/L	ND	10	SW6020	
HWMU 10	10D4	3/1/2001	Barium	µg/L	170	10	SW6020	
HWMU 10	10D4	3/1/2001	Chromium	µg/L	ND	5	SW6020	
HWMU 10	10D4	3/1/2001	Copper	µg/L	ND	5	SW6020	
HWMU 10	10D4	3/1/2001	Lead	µg/L	2.02	1	SW6020	
HWMU 10	10D4	3/1/2001	Nickel	µg/L	ND	10	SW6020	
HWMU 10	10D4	3/1/2001	Silver	µg/L	ND	2	SW6020	
HWMU 10	10D4	3/1/2001	Thallium	µg/L	ND	1	SW6020	
HWMU 10	10D4	3/1/2001	Zinc	µg/L	ND	10	SW6020	
HWMU 10	10D4	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D4	3/1/2001	Selenium	µg/L	ND	10	SW7740	
HWMU 10	10D4	3/1/2001	2,4-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10D4	3/1/2001	2,6-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10D4	3/1/2001	Di-n-butyl phthalate	µg/L	ND	10	SW8270C	
HWMU 10	10D4	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D4	3/1/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D4	3/1/2001	Chloroform	µg/L	6.72	1	SW8260B	
HWMU 10	10D4	3/1/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D4	3/1/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10D4	3/1/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10D4	3/1/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10D4	3/1/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10D4	3/1/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D4	3/1/2001	2-Butanone	µg/L	ND	10	SW8260B	
HWMU 10	10D4	3/1/2001	Cyanide, Total	µg/L	ND	20	SW9010B	
HWMU 10	10D4 Rep 2	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D4 Rep 2	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D4 Rep 3	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D4 Rep 3	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D4 Rep 4	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D4 Rep 4	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10DDH2	3/1/2001	Mercury	µg/L	ND	1	SW7470	
HWMU 10	10DDH2	3/1/2001	Arsenic	µg/L	ND	10	SW6020	
HWMU 10	10DDH2	3/1/2001	Barium	µg/L	83.1	10	SW6020	
HWMU 10	10DDH2	3/1/2001	Chromium	µg/L	12.4	5	SW6020	
HWMU 10	10DDH2	3/1/2001	Copper	µg/L	12.6	5	SW6020	
HWMU 10	10DDH2	3/1/2001	Lead	µg/L	8.82	1	SW6020	
HWMU 10	10DDH2	3/1/2001	Nickel	µg/L	ND	10	SW6020	
HWMU 10	10DDH2	3/1/2001	Silver	µg/L	ND	2	SW6020	
HWMU 10	10DDH2	3/1/2001	Thallium	µg/L	ND	1	SW6020	
HWMU 10	10DDH2	3/1/2001	Zinc	µg/L	80.3	10	SW6020	
HWMU 10	10DDH2	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10DDH2	3/1/2001	Selenium	µg/L	ND	10	SW7740	
HWMU 10	10DDH2	3/1/2001	2,4-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10DDH2	3/1/2001	2,6-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10DDH2	3/1/2001	Di-n-butyl phthalate	µg/L	ND	10	SW8270C	
HWMU 10	10DDH2	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10DDH2	3/1/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	Chloroform	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10DDH2	3/1/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10DDH2	3/1/2001	2-Butanone	µg/L	ND	10	SW8260B	
HWMU 10	10DDH2	3/1/2001	Cyanide, Total	µg/L	ND	20	SW9010B	
HWMU 10	10DDH2 Rep 2	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10DDH2 Rep 2	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10DDH2 Rep 3	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10DDH2 Rep 3	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10DDH2 Rep 4	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10DDH2 Rep 4	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3	3/1/2001	Mercury	µg/L	ND	1	SW7470	
HWMU 10	10D3	3/1/2001	Arsenic	µg/L	ND	10	SW6020	
HWMU 10	10D3	3/1/2001	Barium	µg/L	55.7	10	SW6020	
HWMU 10	10D3	3/1/2001	Chromium	µg/L	ND	5	SW6020	
HWMU 10	10D3	3/1/2001	Copper	µg/L	ND	5	SW6020	

HWMU 10
First Quarter 2001

Site ID	Well ID	Coll. Date	Analyte	Units	Result	Quant Limit	Test No	Qualifiers
HWMU 10	10D3	3/1/2001	Lead	µg/L	ND	1	SW6020	
HWMU 10	10D3	3/1/2001	Nickel	µg/L	ND	10	SW6020	
HWMU 10	10D3	3/1/2001	Silver	µg/L	ND	2	SW6020	
HWMU 10	10D3	3/1/2001	Thallium	µg/L	ND	1	SW6020	
HWMU 10	10D3	3/1/2001	Zinc	µg/L	ND	10	SW6020	
HWMU 10	10D3	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3	3/1/2001	Selenium	µg/L	ND	10	SW7740	
HWMU 10	10D3	3/1/2001	2,4-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10D3	3/1/2001	2,6-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10D3	3/1/2001	Di-n-butyl phthalate	µg/L	ND	10	SW8270C	
HWMU 10	10D3	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3	3/1/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D3	3/1/2001	Chloroform	µg/L	1.24	1	SW8260B	
HWMU 10	10D3	3/1/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D3	3/1/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10D3	3/1/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10D3	3/1/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10D3	3/1/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10D3	3/1/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D3	3/1/2001	2-Butanone	µg/L	ND	10	SW8260B	
HWMU 10	10D3	3/1/2001	Cyanide, Total	µg/L	ND	20	SW9010B	
HWMU 10	10D3 Rep 2	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3 Rep 2	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3 Rep 3	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3 Rep 3	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3 Rep 4	3/1/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3 Rep 4	3/1/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10 TRIP BLANK	3/1/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	Chloroform	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/1/2001	2-Butanone	µg/L	ND	10	SW8260B	
HWMU 10	10D3D	3/2/2001	Cyanide, Total	µg/L	ND	20	SM4500-CN CE	
HWMU 10	10D3D	3/2/2001	Mercury	µg/L	ND	1	SW7470	
HWMU 10	10D3D	3/2/2001	Arsenic	µg/L	ND	10	SW6020	
HWMU 10	10D3D	3/2/2001	Barium	µg/L	46.6	10	SW6020	
HWMU 10	10D3D	3/2/2001	Chromium	µg/L	ND	5	SW6020	
HWMU 10	10D3D	3/2/2001	Copper	µg/L	ND	5	SW6020	
HWMU 10	10D3D	3/2/2001	Lead	µg/L	ND	1	SW6020	
HWMU 10	10D3D	3/2/2001	Nickel	µg/L	ND	10	SW6020	
HWMU 10	10D3D	3/2/2001	Silver	µg/L	ND	2	SW6020	
HWMU 10	10D3D	3/2/2001	Thallium	µg/L	ND	1	SW6020	
HWMU 10	10D3D	3/2/2001	Zinc	µg/L	ND	10	SW6020	
HWMU 10	10D3D	3/2/2001	Selenium	µg/L	ND	10	SW7740	
HWMU 10	10D3D	3/2/2001	2,4-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10D3D	3/2/2001	2,6-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10D3D	3/2/2001	Di-n-butyl phthalate	µg/L	ND	10	SW8270C	
HWMU 10	10D3D	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3D	3/2/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D3D	3/2/2001	Chloroform	µg/L	1.66	1	SW8260B	
HWMU 10	10D3D	3/2/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D3D	3/2/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10D3D	3/2/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10D3D	3/2/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10D3D	3/2/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10D3D	3/2/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10D3D	3/2/2001	2-Butanone	µg/L	ND	10	SW8260B	
HWMU 10	10D3D	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3D Rep 2	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3D Rep 2	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3D Rep 3	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3D Rep 3	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10D3D Rep 4	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10D3D Rep 4	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10MW1	3/2/2001	Cyanide, Total	µg/L	ND	20	SM4500-CN CE	

HWMU 10
First Quarter 2001

Site ID	Well ID	Coll. Date	Analyte	Units	Result	Quant Limit	Test No	Qualifiers
HWMU 10	10MW1	3/2/2001	Mercury	µg/L	ND	1	SW7470	
HWMU 10	10MW1	3/2/2001	Arsenic	µg/L	ND	10	SW6020	
HWMU 10	10MW1	3/2/2001	Barium	µg/L	98.3	10	SW6020	
HWMU 10	10MW1	3/2/2001	Chromium	µg/L	ND	5	SW6020	
HWMU 10	10MW1	3/2/2001	Copper	µg/L	ND	5	SW6020	
HWMU 10	10MW1	3/2/2001	Lead	µg/L	ND	1	SW6020	
HWMU 10	10MW1	3/2/2001	Nickel	µg/L	ND	10	SW6020	
HWMU 10	10MW1	3/2/2001	Silver	µg/L	ND	2	SW6020	
HWMU 10	10MW1	3/2/2001	Thallium	µg/L	ND	1	SW6020	
HWMU 10	10MW1	3/2/2001	Zinc	µg/L	ND	10	SW6020	
HWMU 10	10MW1	3/2/2001	Selenium	µg/L	ND	10	SW7740	
HWMU 10	10MW1	3/2/2001	2,4-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10MW1	3/2/2001	2,6-Dinitrotoluene	µg/L	ND	10	SW8270C	
HWMU 10	10MW1	3/2/2001	Di-n-butyl phthalate	µg/L	ND	10	SW8270C	
HWMU 10	10MW1	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10MW1	3/2/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10MW1	3/2/2001	Chloroform	µg/L	5.62	1	SW8260B	
HWMU 10	10MW1	3/2/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10MW1	3/2/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10MW1	3/2/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10MW1	3/2/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10MW1	3/2/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10MW1	3/2/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10MW1	3/2/2001	2-Butanone	µg/L	ND	10	SW8260B	
HWMU 10	10MW1	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10MW1 Rep 2	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10MW1 Rep 2	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10MW1 Rep 3	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10MW1 Rep 3	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10MW1 Rep 4	3/2/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
HWMU 10	10MW1 Rep 4	3/2/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
HWMU 10	10 TRIP BLANK	3/2/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	Chloroform	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	Chloromethane	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	o-Xylene	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	Trichloroethene	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
HWMU 10	10 TRIP BLANK	3/2/2001	2-Butanone	µg/L	ND	10	SW8260B	

HWMU-10
Second Quarter 2001

ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10 10D4-A	5/24/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10 10D4-A	5/24/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10 10D4-A	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D4-A	5/24/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10 10D4-A	5/24/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10 10D4-A	5/24/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10 10D4-A	5/24/2001	Total Organic Carbon	µg/L	2300	1,000	SW9060	
SITE 10 10D4-A	5/24/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10 10D4-A	5/24/2001	Chloroform	µg/L	5.97	1	SW8260B	
SITE 10 10D4-A	5/24/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10 10D4-A	5/24/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10 10D4-A	5/24/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10 10D4-A	5/24/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10 10D4-A	5/24/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10 10D4-A	5/24/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10 10D4-A	5/24/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10 10D4-A	5/24/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10 10D4-A	5/24/2001	Barium	µg/L	146	10	SW6020	
SITE 10 10D4-A	5/24/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10 10D4-A	5/24/2001	Copper	µg/L	ND	5	SW6020	
SITE 10 10D4-A	5/24/2001	Lead	µg/L	1.08	1	SW6020	
SITE 10 10D4-A	5/24/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10 10D4-A	5/24/2001	Silver	µg/L	ND	2	SW6020	
SITE 10 10D4-A	5/24/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10 10D4-A	5/24/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10 10D4-A	5/24/2001	Zinc	µg/L	ND	10	SW6010B	
SITE 10 10D4-B	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D4-B	5/24/2001	Total Organic Carbon	µg/L	2000	1,000	SW9060	
SITE 10 10D4-C	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D4-C	5/24/2001	Total Organic Carbon	µg/L	2100	1,000	SW9060	
SITE 10 10D4-D	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D4-D	5/24/2001	Total Organic Carbon	µg/L	2100	1,000	SW9060	
SITE 10 10D3-A	5/24/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10 10D3-A	5/24/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10 10D3-A	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3-A	5/24/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10 10D3-A	5/24/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10 10D3-A	5/24/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10 10D3-A	5/24/2001	Total Organic Carbon	µg/L	1200	1,000	SW9060	
SITE 10 10D3-A	5/24/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10 10D3-A	5/24/2001	Chloroform	µg/L	1.77	1	SW8260B	
SITE 10 10D3-A	5/24/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10 10D3-A	5/24/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10 10D3-A	5/24/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10 10D3-A	5/24/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10 10D3-A	5/24/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10 10D3-A	5/24/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10 10D3-A	5/24/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10 10D3-A	5/24/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10 10D3-A	5/24/2001	Barium	µg/L	46.2	10	SW6020	
SITE 10 10D3-A	5/24/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10 10D3-A	5/24/2001	Copper	µg/L	ND	5	SW6020	
SITE 10 10D3-A	5/24/2001	Lead	µg/L	ND	1	SW6020	
SITE 10 10D3-A	5/24/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10 10D3-A	5/24/2001	Silver	µg/L	ND	2	SW6020	
SITE 10 10D3-A	5/24/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10 10D3-A	5/24/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10 10D3-A	5/24/2001	Zinc	µg/L	ND	10	SW6010B	
SITE 10 10D3 - B	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3 - B	5/24/2001	Total Organic Carbon	µg/L	1100	1,000	SW9060	
SITE 10 10D3 - C	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3 - C	5/24/2001	Total Organic Carbon	µg/L	1100	1,000	SW9060	
SITE 10 10D3 - D	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3 - D	5/24/2001	Total Organic Carbon	µg/L	1000	1,000	SW9060	
SITE 10 10D3D - A	5/24/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10 10D3D - A	5/24/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10 10D3D - A	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3D - A	5/24/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10 10D3D - A	5/24/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	

ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10 10D3D - A	5/24/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10 10D3D - A	5/24/2001	Total Organic Carbon	µg/L	1200	1,000	SW9060	
SITE 10 10D3D - A	5/24/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	Chloroform	µg/L	1.7	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10 10D3D - A	5/24/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10 10D3D - A	5/24/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10 10D3D - A	5/24/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10 10D3D - A	5/24/2001	Barium	µg/L	41.7	10	SW6020	
SITE 10 10D3D - A	5/24/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10 10D3D - A	5/24/2001	Copper	µg/L	ND	5	SW6020	
SITE 10 10D3D - A	5/24/2001	Lead	µg/L	ND	1	SW6020	
SITE 10 10D3D - A	5/24/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10 10D3D - A	5/24/2001	Silver	µg/L	ND	2	SW6020	
SITE 10 10D3D - A	5/24/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10 10D3D - A	5/24/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10 10D3D - A	5/24/2001	Zinc	µg/L	ND	10	SW6010B	
SITE 10 10D3D - B	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3D - B	5/24/2001	Total Organic Carbon	µg/L	1100	1,000	SW9060	
SITE 10 10D3D - C	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3D - C	5/24/2001	Total Organic Carbon	µg/L	1200	1,000	SW9060	
SITE 10 10D3D - D	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 10D3D - D	5/24/2001	Total Organic Carbon	µg/L	1200	1,000	SW9060	
SITE 10 MW1- A	5/24/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10 MW1- A	5/24/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10 MW1- A	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 MW1- A	5/24/2001	2,4-Dinitrotoluene	µg/L	ND	8	SW8270C	
SITE 10 MW1- A	5/24/2001	2,6-Dinitrotoluene	µg/L	ND	8	SW8270C	
SITE 10 MW1- A	5/24/2001	Di-n-butyl phthalate	µg/L	ND	8	SW8270C	
SITE 10 MW1- A	5/24/2001	Total Organic Carbon	µg/L	1000	1,000	SW9060	
SITE 10 MW1- A	5/24/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10 MW1- A	5/24/2001	Chloroform	µg/L	4.39	1	SW8260B	
SITE 10 MW1- A	5/24/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10 MW1- A	5/24/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10 MW1- A	5/24/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10 MW1- A	5/24/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10 MW1- A	5/24/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10 MW1- A	5/24/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10 MW1- A	5/24/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10 MW1- A	5/24/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10 MW1- A	5/24/2001	Barium	µg/L	109	10	SW6020	
SITE 10 MW1- A	5/24/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10 MW1- A	5/24/2001	Copper	µg/L	ND	5	SW6020	
SITE 10 MW1- A	5/24/2001	Lead	µg/L	ND	1	SW6020	
SITE 10 MW1- A	5/24/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10 MW1- A	5/24/2001	Silver	µg/L	ND	2	SW6020	
SITE 10 MW1- A	5/24/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10 MW1- A	5/24/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10 MW1- A	5/24/2001	Zinc	µg/L	ND	10	SW6010B	
SITE 10 MW1- B	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 MW1- B	5/24/2001	Total Organic Carbon	µg/L	1000	1,000	SW9060	
SITE 10 MW1- C	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 MW1- C	5/24/2001	Total Organic Carbon	µg/L	1100	1,000	SW9060	
SITE 10 MW1- D	5/24/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10 MW1- D	5/24/2001	Total Organic Carbon	µg/L	1000	1,000	SW9060	
TRIP BLANK	5/24/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	Chloroform	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	Chloromethane	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
TRIP BLANK	5/24/2001	o-Xylene	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	Trichloroethene	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
TRIP BLANK	5/24/2001	2-Butanone	µg/L	ND	10	SW8260B	

HWMU-10
Third Quarter 2001

SiteID	ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10	10D4- A	8/6/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10D4- A	8/6/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10D4- A	8/6/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D4- A	8/6/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D4- A	8/6/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10D4- A	8/6/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10	10D4- A	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4- A	8/6/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D4- A	8/6/2001	Chloroform	µg/L	7.98	1	SW8260B	
SITE 10	10D4- A	8/6/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D4- A	8/6/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10D4- A	8/6/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10D4- A	8/6/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D4- A	8/6/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D4- A	8/6/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10D4- A	8/6/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10D4- A	8/6/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10D4- A	8/6/2001	Barium	µg/L	140	10	SW6020	
SITE 10	10D4- A	8/6/2001	Chromium	µg/L	5.06	5	SW6020	
SITE 10	10D4- A	8/6/2001	Lead	µg/L	1.4	1	SW6020	
SITE 10	10D4- A	8/6/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10D4- A	8/6/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10D4- A	8/6/2001	Zinc	µg/L	19	10	SW6020	
SITE 10	10D4- A	8/6/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10D4- A	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D4- A	8/6/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10D4-B	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-B	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D4-C	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-C	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D4-D	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-D	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-A	8/6/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10D3-A	8/6/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10D3-A	8/6/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D3-A	8/6/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D3-A	8/6/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10D3-A	8/6/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10	10D3-A	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-A	8/6/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	8/6/2001	Chloroform	µg/L	1.58	1	SW8260B	
SITE 10	10D3-A	8/6/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	8/6/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10D3-A	8/6/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	8/6/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	8/6/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	8/6/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	8/6/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10D3-A	8/6/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10D3-A	8/6/2001	Barium	µg/L	45.5	10	SW6020	
SITE 10	10D3-A	8/6/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10D3-A	8/6/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10D3-A	8/6/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10D3-A	8/6/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10D3-A	8/6/2001	Zinc	µg/L	ND	10	SW6020	
SITE 10	10D3-A	8/6/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10D3-A	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-A	8/6/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10D3-B	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-B	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-C	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-C	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-D	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-D	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-A	8/6/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10D3D-A	8/6/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10D3D-A	8/6/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D3D-A	8/6/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	

SiteID	ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10	10D3D-A	8/6/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10D3D-A	8/6/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10	10D3D-A	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3D-A	8/6/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	Chloroform	µg/L	1.54	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10D3D-A	8/6/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	8/6/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10D3D-A	8/6/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10D3D-A	8/6/2001	Barium	µg/L	45.8	10	SW6020	
SITE 10	10D3D-A	8/6/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10D3D-A	8/6/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10D3D-A	8/6/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10D3D-A	8/6/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10D3D-A	8/6/2001	Zinc	µg/L	25.3	10	SW6020	
SITE 10	10D3D-A	8/6/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10D3D-A	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-A	8/6/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10D3D-B	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3D-B	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-C	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3D-C	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-D	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3D-D	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1- A	8/6/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10MW1- A	8/6/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10MW1- A	8/6/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10MW1- A	8/6/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10MW1- A	8/6/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10MW1- A	8/6/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10	10MW1- A	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1- A	8/6/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	Chloroform	µg/L	3.94	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10MW1- A	8/6/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1- A	8/6/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10MW1- A	8/6/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10MW1- A	8/6/2001	Barium	µg/L	99.2	10	SW6020	
SITE 10	10MW1- A	8/6/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10MW1- A	8/6/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10MW1- A	8/6/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10MW1- A	8/6/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10MW1- A	8/6/2001	Zinc	µg/L	12	10	SW6020	
SITE 10	10MW1- A	8/6/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10MW1- A	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1- A	8/6/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10MW1- B	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1- B	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1- C	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1- C	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1-D	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1-D	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R- A	8/6/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10DDH2R- A	8/6/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10DDH2R- A	8/6/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10DDH2R- A	8/6/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10DDH2R- A	8/6/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10DDH2R- A	8/6/2001	Mercury	µg/L	ND	1	SW7470	
SITE 10	10DDH2R- A	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R- A	8/6/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	

SiteID	ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10	10DDH2R- A	8/6/2001	Chloroform	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10DDH2R- A	8/6/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Barium	µg/L	53	10	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Chromium	µg/L	5.09	5	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Zinc	µg/L	19.6	10	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10DDH2R- A	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R- A	8/6/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10DDH2R- B	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R- B	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R- C	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R- C	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R- D	8/6/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R- D	8/6/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	TRIP BLANK 8/06	8/6/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	Chloroform	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 8/06	8/6/2001	2-Butanone	µg/L	ND	10	SW8260B	

HWMU-10
Fourth Quarter 2001

SiteID	ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10	10D4-A	10/29/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10D4-A	10/29/2001	Mercury	µg/L	ND	1	SW7470A	
SITE 10	10D4-A	10/29/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10D4-A	10/29/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10D4-A	10/29/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D4-A	10/29/2001	Chloroform	µg/L	11.5	1	SW8260B	
SITE 10	10D4-A	10/29/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D4-A	10/29/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10D4-A	10/29/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10D4-A	10/29/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D4-A	10/29/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D4-A	10/29/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10D4-A	10/29/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D4-A	10/29/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D4-A	10/29/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10D4-A	10/29/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10D4-A	10/29/2001	Barium	µg/L	139	10	SW6020	
SITE 10	10D4-A	10/29/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10D4-A	10/29/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10D4-A	10/29/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10D4-A	10/29/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10D4-A	10/29/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10D4-A	10/29/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10D4-A	10/29/2001	Zinc	µg/L	ND	10	SW6020	
SITE 10	10D4-A	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-A	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D4-B	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-B	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D4-C	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-C	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D4-D	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D4-D	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-A	10/29/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10D3-A	10/29/2001	Mercury	µg/L	ND	1	SW7470A	
SITE 10	10D3-A	10/29/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10D3-A	10/29/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10D3-A	10/29/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	Chloroform	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10D3-A	10/29/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3-A	10/29/2001	2,4-Dinitrotoluene	µg/L	ND	8	SW8270C	
SITE 10	10D3-A	10/29/2001	2,6-Dinitrotoluene	µg/L	ND	8	SW8270C	
SITE 10	10D3-A	10/29/2001	Di-n-butyl phthalate	µg/L	ND	8	SW8270C	
SITE 10	10D3-A	10/29/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10D3-A	10/29/2001	Barium	µg/L	48.3	10	SW6020	
SITE 10	10D3-A	10/29/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10D3-A	10/29/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10D3-A	10/29/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10D3-A	10/29/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10D3-A	10/29/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10D3-A	10/29/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10D3-A	10/29/2001	Zinc	µg/L	ND	10	SW6020	
SITE 10	10D3-A	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-A	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-B	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-B	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-C	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-C	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3-D	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10D3-D	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-A	10/29/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10D3D-A	10/29/2001	Mercury	µg/L	ND	1	SW7470A	
SITE 10	10D3D-A	10/29/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10D3D-A	10/29/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10D3D-A	10/29/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	

SiteID	ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10	10D3D-A	10/29/2001	Chloroform	µg/L	1.51	1	SW8260B	
SITE 10	10D3D-A	10/29/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	10/29/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10D3D-A	10/29/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	10/29/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	10/29/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	10/29/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10D3D-A	10/29/2001	2,4-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D3D-A	10/29/2001	2,6-Dinitrotoluene	µg/L	ND	9	SW8270C	
SITE 10	10D3D-A	10/29/2001	Di-n-butyl phthalate	µg/L	ND	9	SW8270C	
SITE 10	10D3D-A	10/29/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10D3D-A	10/29/2001	Barium	µg/L	44.9	10	SW6020	
SITE 10	10D3D-A	10/29/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10D3D-A	10/29/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10D3D-A	10/29/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10D3D-A	10/29/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10D3D-A	10/29/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10D3D-A	10/29/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10D3D-A	10/29/2001	Zinc	µg/L	ND	10	SW6020	
SITE 10	10D3D-A	10/29/2001	Total Organic Carbon	µg/L	40000	1,000	SW9060	
SITE 10	10D3D-A	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-B	10/29/2001	Total Organic Carbon	µg/L	39700	1,000	SW9060	
SITE 10	10D3D-B	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-C	10/29/2001	Total Organic Carbon	µg/L	40000	1,000	SW9060	
SITE 10	10D3D-C	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10D3D-D	10/29/2001	Total Organic Carbon	µg/L	39800	1,000	SW9060	
SITE 10	10D3D-D	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R-A	10/29/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10DDH2R-A	10/29/2001	Mercury	µg/L	ND	1	SW7470A	
SITE 10	10DDH2R-A	10/29/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10DDH2R-A	10/29/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	Chloroform	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10DDH2R-A	10/29/2001	2,4-Dinitrotoluene	µg/L	ND	8	SW8270C	
SITE 10	10DDH2R-A	10/29/2001	2,6-Dinitrotoluene	µg/L	ND	8	SW8270C	
SITE 10	10DDH2R-A	10/29/2001	Di-n-butyl phthalate	µg/L	ND	8	SW8270C	
SITE 10	10DDH2R-A	10/29/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Barium	µg/L	43.8	10	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Zinc	µg/L	ND	10	SW6020	
SITE 10	10DDH2R-A	10/29/2001	Total Organic Carbon	µg/L	1000	1,000	SW9060	
SITE 10	10DDH2R-A	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R-B	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R-B	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R-C	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R-C	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10DDH2R-D	10/29/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10DDH2R-D	10/29/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	TRIP BLANK 1(	10/29/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	Chloroform	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1(	10/29/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	Mercury	µg/L	ND	1	SW7470A	

SiteID	ClientSampID	CollectionDate	Analyte	Units	Result	QuantLimit	TestNo	Qualifiers
SITE 10	10MW1-A	10/30/2001	Selenium	µg/L	ND	10	SW7740	
SITE 10	10MW1-A	10/30/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	10MW1-A	10/30/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	Chloroform	µg/L	5.22	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	10MW1-A	10/30/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	
SITE 10	10MW1-A	10/30/2001	2,4-Dinitrotoluene	µg/L	ND	10	SW8270C	
SITE 10	10MW1-A	10/30/2001	2,6-Dinitrotoluene	µg/L	ND	10	SW8270C	
SITE 10	10MW1-A	10/30/2001	Di-n-butyl phthalate	µg/L	ND	10	SW8270C	
SITE 10	10MW1-A	10/30/2001	Arsenic	µg/L	ND	10	SW6020	
SITE 10	10MW1-A	10/30/2001	Barium	µg/L	95	10	SW6020	
SITE 10	10MW1-A	10/30/2001	Chromium	µg/L	ND	5	SW6020	
SITE 10	10MW1-A	10/30/2001	Copper	µg/L	ND	5	SW6020	
SITE 10	10MW1-A	10/30/2001	Lead	µg/L	ND	1	SW6020	
SITE 10	10MW1-A	10/30/2001	Nickel	µg/L	ND	10	SW6020	
SITE 10	10MW1-A	10/30/2001	Silver	µg/L	ND	2	SW6020	
SITE 10	10MW1-A	10/30/2001	Thallium	µg/L	ND	1	SW6020	
SITE 10	10MW1-A	10/30/2001	Zinc	µg/L	ND	10	SW6020	
SITE 10	10MW1-A	10/30/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1-A	10/30/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1-A	10/30/2001	Cyanide, Total	µg/L	ND	20	SW9010/9012A	
SITE 10	10MW1-B	10/30/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1-B	10/30/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1-C	10/30/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1-C	10/30/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	10MW1-D	10/30/2001	Total Organic Carbon	µg/L	ND	1,000	SW9060	
SITE 10	10MW1-D	10/30/2001	Total Organic Halides (TOX)	µg/L	ND	20	SW9020B	
SITE 10	TRIP BLANK 1	10/30/2001	2-Butanone	µg/L	ND	10	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	Bromodichloromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	Chloroform	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	Chloromethane	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	m,p-Xylene	µg/L	ND	2	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	o-Xylene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	trans-1,2-Dichloroethene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	Trichloroethene	µg/L	ND	1	SW8260B	
SITE 10	TRIP BLANK 1	10/30/2001	Trichlorofluoromethane	µg/L	ND	1	SW8260B	

APPENDIX B

STATISTICAL ANALYSIS RESULTS

The GRITS/STAT v5.0 software package does not recognize the years 2000 and 2001. Therefore, in order to conduct the statistical analyses for this report, the sample dates for the eight quarters of laboratory analytical results for the years 2000 and 2001 were entered into the statistical package as follows:

- **First Quarter 2000** entered as **December 10, 1999**
- **Second Quarter 2000** entered as **December 11, 1999**
- **Third Quarter 2000** entered as **December 12, 1999**
- **Fourth Quarter 2000** entered as **December 13, 1999**
- **First Quarter 2001** entered as **December 14, 1999**
- **Second Quarter 2001** entered as **December 15, 1999**
- **Third Quarter 2001** entered as **December 16, 1999**
- **Fourth Quarter 2001** entered as **December 17, 1999**

Data Set Summary

Report Printed: 02-15-2002 15:45

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:As Arsenic, total

CAS Number: 7440-38-2
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.500 ppb	-0.693	(* Nondetect *)
Jun 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Sep 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Dec 31 1996	0.500 ppb	-0.693	(* Nondetect *)
Mar 31 1997	0.500 ppb	-0.693	(* Nondetect *)
Jun 30 1997	2.000 ppb	0.693	
Sep 30 1997	0.500 ppb	-0.693	(* Nondetect *)
Dec 31 1997	0.500 ppb	-0.693	(* Nondetect *)
Mar 18 1998	2.000 ppb	0.693	
May 27 1998	0.500 ppb	-0.693	(* Nondetect *)
Sep 04 1998	0.500 ppb	-0.693	(* Nondetect *)
Dec 07 1998	0.500 ppb	-0.693	(* Nondetect *)
Mar 16 1999	0.500 ppb	-0.693	(* Nondetect *)
May 28 1999	0.500 ppb	-0.693	(* Nondetect *)
Jul 23 1999	0.500 ppb	-0.693	(* Nondetect *)
Nov 08 1999	1.000 ppb	0.000	
Dec 10 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 11 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 12 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 13 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 14 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 15 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 16 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 17 1999	0.500 ppb	-0.693	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 88

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	2.000 ppb	Ln Maximum:	0.693
Mean:	0.646 ppb	Ln Mean:	-0.549
Std. Dev.:	0.429 ppb	Ln Std. Dev.:	0.408

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Arsenic, total(CAS Number:7440-38-2)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 2.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.000 ppb

Data Set Summary

Report Printed: 02-15-2002 15:47

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Ba Barium, total

CAS Number: 7440-39-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 2.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln
Mar 31 1996	83.000 ppb	4.419
Jun 30 1996	102.000 ppb	4.625
Sep 30 1996	102.000 ppb	4.625
Dec 31 1996	97.000 ppb	4.575
Mar 31 1997	105.000 ppb	4.654
Jun 30 1997	122.000 ppb	4.804
Sep 30 1997	99.000 ppb	4.595
Dec 31 1997	121.000 ppb	4.796
Mar 18 1998	129.000 ppb	4.860
May 27 1998	96.000 ppb	4.564
Sep 04 1998	139.000 ppb	4.934
Dec 07 1998	125.000 ppb	4.828
Mar 16 1999	226.000 ppb	5.421
May 28 1999	119.000 ppb	4.779
Jul 23 1999	130.000 ppb	4.868
Nov 08 1999	164.000 ppb	5.100
Dec 10 1999	137.000 ppb	4.920
Dec 11 1999	126.000 ppb	4.836
Dec 12 1999	142.000 ppb	4.956
Dec 13 1999	157.000 ppb	5.056
Dec 14 1999	170.000 ppb	5.136
Dec 15 1999	146.000 ppb	4.984
Dec 16 1999	140.000 ppb	4.942
Dec 17 1999	139.000 ppb	4.934

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 0

Minimum:	83.000 ppb	Ln Minimum:	4.419
Maximum:	226.000 ppb	Ln Maximum:	5.421
Mean:	129.833 ppb	Ln Mean:	4.842
Std. Dev.:	30.451 ppb	Ln Std. Dev.:	0.221

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	48.300 ppb	3.877

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	48.300 ppb	Ln Minimum:	3.877
Maximum:	48.300 ppb	Ln Maximum:	3.877
Mean:	48.300 ppb	Ln Mean:	3.877
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	44.900 ppb	3.804

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	44.900 ppb	Ln Minimum:	3.804
Maximum:	44.900 ppb	Ln Maximum:	3.804
Mean:	44.900 ppb	Ln Mean:	3.804
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	43.800 ppb	3.780

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	43.800 ppb	Ln Minimum:	3.780
Maximum:	43.800 ppb	Ln Maximum:	3.780
Mean:	43.800 ppb	Ln Mean:	3.780
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	95.000 ppb	4.554

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	95.000 ppb	Ln Minimum:	4.554
Maximum:	95.000 ppb	Ln Maximum:	4.554
Mean:	95.000 ppb	Ln Mean:	4.554
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 15:47

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Ba Barium, total

CAS Number: 7440-39-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 2.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:24

Scale	Minimum	Maximum	Mean	Std Dev
Original:	83.000	226.000	129.833	30.451
Log:	4.419	5.421	4.842	0.221

Pooled Statistics
Observations: 24

Statistic	Original Scale	Log Scale
Mean:	129.833	4.842
Std Dev:	30.451	0.221
Skewness:	1.189*	0.386
Kurtosis:	2.274	0.393
Minimum:	83.000	4.419
Maximum:	226.000	5.421
CV:	0.235	0.046

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.9119*	0.9160	0.8840

Log:	0.9688	0.9160	0.8840

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Barium, total(CAS Number:7440-39-3)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 226.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	48.300 ppb

Well:10D3D

Sample Date	Observation
12/17/99	44.900 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	43.800 ppb

Well:10MW1

Sample Date	Observation
12/17/99	95.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:00

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cr Chromium, total

CAS Number: 7440-47-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	6.000 ppb	1.792	
Jun 30 1996	5.000 ppb	1.609	
Sep 30 1996	3.000 ppb	1.099	
Dec 31 1996	4.000 ppb	1.386	
Mar 31 1997	8.000 ppb	2.079	
Jun 30 1997	5.000 ppb	1.609	
Sep 30 1997	8.000 ppb	2.079	
Dec 31 1997	4.000 ppb	1.386	
Mar 18 1998	16.000 ppb	2.773	
May 27 1998	8.000 ppb	2.079	
Sep 04 1998	7.000 ppb	1.946	
Dec 07 1998	8.000 ppb	2.079	
Mar 16 1999	24.000 ppb	3.178	
May 28 1999	4.000 ppb	1.386	
Jul 23 1999	7.000 ppb	1.946	
Nov 08 1999	12.000 ppb	2.485	
Dec 10 1999	4.000 ppb	1.386	
Dec 11 1999	4.000 ppb	1.386	
Dec 12 1999	3.000 ppb	1.099	
Dec 13 1999	5.000 ppb	1.609	
Dec 14 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 15 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 16 1999	5.060 ppb	1.621	
Dec 17 1999	0.500 ppb	-0.693	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 13

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	24.000 ppb	Ln Maximum:	3.178
Mean:	6.315 ppb	Ln Mean:	1.497
Std. Dev.:	5.143 ppb	Ln Std. Dev.:	0.980

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 16:00

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cr Chromium, total

CAS Number: 7440-47-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:24

Scale	Minimum	Maximum	Mean	Std Dev
Original:	0.500	24.000	6.315	5.143
Log:	-0.693	3.178	1.497	0.980

Pooled Statistics
Observations: 24

Statistic	Original Scale	Log Scale
Mean:	6.315	1.497
Std Dev:	5.143	0.980
Skewness:	1.930*	-1.079*
Kurtosis:	4.234	0.993
Minimum:	0.500	-0.693
Maximum:	24.000	3.178
CV:	0.814	0.655

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.7968*	0.9160	0.8840

Log:	0.8462*	0.9160	0.8840

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Chromium, total(CAS Number:7440-47-3)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 24.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:02

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cu Copper, total

CAS Number: 7440-50-8
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	2.000 ppb	0.693	
Jun 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Sep 30 1996	1.000 ppb	0.000	
Dec 31 1996	4.000 ppb	1.386	
Mar 31 1997	2.000 ppb	0.693	
Jun 30 1997	3.000 ppb	1.099	
Sep 30 1997	2.000 ppb	0.693	
Dec 31 1997	2.000 ppb	0.693	
Mar 18 1998	8.000 ppb	2.079	
May 27 1998	2.000 ppb	0.693	
Sep 04 1998	2.000 ppb	0.693	
Dec 07 1998	0.500 ppb	-0.693	(* Nondetect *)
Mar 16 1999	12.000 ppb	2.485	
May 28 1999	1.000 ppb	0.000	
Jul 23 1999	3.000 ppb	1.099	
Nov 08 1999	7.000 ppb	1.946	
Dec 10 1999	2.000 ppb	0.693	
Dec 11 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 12 1999	1.000 ppb	0.000	
Dec 13 1999	4.000 ppb	1.386	
Dec 14 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 15 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 16 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 17 1999	0.500 ppb	-0.693	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 29

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	12.000 ppb	Ln Maximum:	2.485
Mean:	2.562 ppb	Ln Mean:	0.478
Std. Dev.:	2.814 ppb	Ln Std. Dev.:	0.973

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 16:02

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cu Copper, total

CAS Number: 7440-50-8
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:24

Scale	Minimum	Maximum	Mean	Std Dev
Original:	0.500	12.000	2.562	2.814
Log:	-0.693	2.485	0.478	0.973

Pooled Statistics
Observations: 24

Statistic	Original Scale	Log Scale
Mean:	2.562	0.478
Std Dev:	2.814	0.973
Skewness:	2.034*	0.280
Kurtosis:	3.762	-0.853
Minimum:	0.500	-0.693
Maximum:	12.000	2.485
CV:	1.098	2.034

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.7201*	0.9160	0.8840

Log:	0.9036*	0.9160	0.8840

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Copper, total(CAS Number:7440-50-8)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 12.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:11

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Pb Lead, total

CAS Number: 7439-92-1
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.500 ppb	-0.693	(* Nondetect *)
Jun 30 1996	2.000 ppb	0.693	
Sep 30 1996	2.000 ppb	0.693	
Dec 31 1996	4.000 ppb	1.386	
Mar 31 1997	2.000 ppb	0.693	
Jun 30 1997	3.000 ppb	1.099	
Sep 30 1997	1.000 ppb	0.000	
Dec 31 1997	2.000 ppb	0.693	
Mar 18 1998	7.000 ppb	1.946	
May 27 1998	1.000 ppb	0.000	
Sep 04 1998	2.000 ppb	0.693	
Dec 07 1998	0.500 ppb	-0.693	(* Nondetect *)
Mar 16 1999	16.000 ppb	2.773	
May 28 1999	0.500 ppb	-0.693	(* Nondetect *)
Jul 23 1999	2.000 ppb	0.693	
Nov 08 1999	3.000 ppb	1.099	
Dec 10 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 11 1999	1.000 ppb	0.000	
Dec 12 1999	1.000 ppb	0.000	
Dec 13 1999	2.000 ppb	0.693	
Dec 14 1999	2.020 ppb	0.703	
Dec 15 1999	1.080 ppb	0.077	
Dec 16 1999	1.400 ppb	0.336	
Dec 17 1999	0.500 ppb	-0.693	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 21

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	16.000 ppb	Ln Maximum:	2.773
Mean:	2.417 ppb	Ln Mean:	0.450
Std. Dev.:	3.226 ppb	Ln Std. Dev.:	0.868

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 16:11

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Pb Lead, total

CAS Number: 7439-92-1
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:24

Scale	Minimum	Maximum	Mean	Std Dev
Original:	0.500	16.000	2.417	3.226
Log:	-0.693	2.773	0.450	0.868

Pooled Statistics
Observations: 24

Statistic	Original Scale	Log Scale
Mean:	2.417	0.450
Std Dev:	3.226	0.868
Skewness:	3.383*	0.643
Kurtosis:	11.493	0.516
Minimum:	0.500	-0.693
Maximum:	16.000	2.773
CV:	1.335	1.928

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.5415*	0.9160	0.8840

Log:	0.9113*	0.9160	0.8840

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval

Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Lead, total(CAS Number:7439-92-1)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 16.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:07

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Hg Mercury

CAS Number: 7439-97-6
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.200 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.100 ppb	-2.303	(* Nondetect *)
Jun 30 1996	0.100 ppb	-2.303	(* Nondetect *)
Sep 30 1996	0.100 ppb	-2.303	(* Nondetect *)
Dec 31 1996	0.100 ppb	-2.303	(* Nondetect *)
Mar 31 1997	0.100 ppb	-2.303	(* Nondetect *)
Jun 30 1997	0.100 ppb	-2.303	(* Nondetect *)
Sep 30 1997	0.100 ppb	-2.303	(* Nondetect *)
Dec 31 1997	0.200 ppb	-1.609	
Mar 18 1998	0.100 ppb	-2.303	(* Nondetect *)
May 27 1998	0.100 ppb	-2.303	(* Nondetect *)
Sep 04 1998	0.100 ppb	-2.303	(* Nondetect *)
Dec 07 1998	0.100 ppb	-2.303	(* Nondetect *)
Mar 16 1999	0.100 ppb	-2.303	(* Nondetect *)
May 28 1999	0.100 ppb	-2.303	(* Nondetect *)
Jul 23 1999	0.100 ppb	-2.303	(* Nondetect *)
Nov 08 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 10 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 11 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 12 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 13 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 14 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 15 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 16 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 17 1999	0.100 ppb	-2.303	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 96

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.200 ppb	Ln Maximum:	-1.609
Mean:	0.104 ppb	Ln Mean:	-2.274
Std. Dev.:	0.020 ppb	Ln Std. Dev.:	0.141

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Mercury(CAS Number:7439-97-6)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 0.200 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<0.200 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<0.200 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<0.200 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<0.200 ppb

Data Set Summary

Report Printed: 02-15-2002 16:09

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Ni Nickel, total

CAS Number: 7440-02-0
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 15.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	7.500 ppb	2.015	(* Nondetect *)
Jun 30 1996	7.500 ppb	2.015	(* Nondetect *)
Sep 30 1996	7.500 ppb	2.015	(* Nondetect *)
Dec 31 1996	7.500 ppb	2.015	(* Nondetect *)
Mar 31 1997	26.000 ppb	3.258	
Jun 30 1997	7.500 ppb	2.015	(* Nondetect *)
Sep 30 1997	7.500 ppb	2.015	(* Nondetect *)
Dec 31 1997	7.500 ppb	2.015	(* Nondetect *)
Mar 18 1998	7.500 ppb	2.015	(* Nondetect *)
May 27 1998	7.500 ppb	2.015	(* Nondetect *)
Sep 04 1998	7.500 ppb	2.015	(* Nondetect *)
Dec 07 1998	7.500 ppb	2.015	(* Nondetect *)
Mar 16 1999	7.500 ppb	2.015	(* Nondetect *)
May 28 1999	7.500 ppb	2.015	(* Nondetect *)
Jul 23 1999	7.500 ppb	2.015	(* Nondetect *)
Nov 08 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 10 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 11 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 12 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 13 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 14 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 15 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 16 1999	7.500 ppb	2.015	(* Nondetect *)
Dec 17 1999	7.500 ppb	2.015	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 96

Minimum:	7.500 ppb	Ln Minimum:	2.015
Maximum:	26.000 ppb	Ln Maximum:	3.258
Mean:	8.271 ppb	Ln Mean:	2.067
Std. Dev.:	3.776 ppb	Ln Std. Dev.:	0.254

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	7.500 ppb	2.015 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	7.500 ppb	Ln Minimum:	2.015
Maximum:	7.500 ppb	Ln Maximum:	2.015
Mean:	7.500 ppb	Ln Mean:	2.015
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	7.500 ppb	2.015 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	7.500 ppb	Ln Minimum:	2.015
Maximum:	7.500 ppb	Ln Maximum:	2.015
Mean:	7.500 ppb	Ln Mean:	2.015
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	7.500 ppb	2.015 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	7.500 ppb	Ln Minimum:	2.015
Maximum:	7.500 ppb	Ln Maximum:	2.015
Mean:	7.500 ppb	Ln Mean:	2.015
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	7.500 ppb	2.015 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	7.500 ppb	Ln Minimum:	2.015
Maximum:	7.500 ppb	Ln Maximum:	2.015
Mean:	7.500 ppb	Ln Mean:	2.015
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Nickel, total(CAS Number:7440-02-0)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 26.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<15.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<15.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<15.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<15.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:12

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Se Selenium, total

CAS Number: 7782-49-2
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.500 ppb	-0.693	(* Nondetect *)
Jun 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Sep 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Dec 31 1996	0.500 ppb	-0.693	(* Nondetect *)
Mar 31 1997	0.500 ppb	-0.693	(* Nondetect *)
Jun 30 1997	0.500 ppb	-0.693	(* Nondetect *)
Sep 30 1997	0.500 ppb	-0.693	(* Nondetect *)
Dec 31 1997	0.500 ppb	-0.693	(* Nondetect *)
Mar 18 1998	0.500 ppb	-0.693	(* Nondetect *)
May 27 1998	0.500 ppb	-0.693	(* Nondetect *)
Sep 04 1998	0.500 ppb	-0.693	(* Nondetect *)
Dec 07 1998	2.000 ppb	0.693	
Mar 16 1999	0.500 ppb	-0.693	(* Nondetect *)
May 28 1999	0.500 ppb	-0.693	(* Nondetect *)
Jul 23 1999	0.500 ppb	-0.693	(* Nondetect *)
Nov 08 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 10 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 11 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 12 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 13 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 14 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 15 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 16 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 17 1999	0.500 ppb	-0.693	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 96

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	2.000 ppb	Ln Maximum:	0.693
Mean:	0.563 ppb	Ln Mean:	-0.635
Std. Dev.:	0.306 ppb	Ln Std. Dev.:	0.283

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Selenium, total(CAS Number:7782-49-2)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 2.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.000 ppb

Data Set Summary

Report Printed: 02-15-2002 15:45

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Ag Silver, total

CAS Number: 7440-22-4
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.200 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.100 ppb	-2.303	(* Nondetect *)
Jun 30 1996	0.100 ppb	-2.303	(* Nondetect *)
Sep 30 1996	0.100 ppb	-2.303	(* Nondetect *)
Dec 31 1996	0.100 ppb	-2.303	(* Nondetect *)
Mar 31 1997	0.100 ppb	-2.303	(* Nondetect *)
Jun 30 1997	0.100 ppb	-2.303	(* Nondetect *)
Sep 30 1997	0.100 ppb	-2.303	(* Nondetect *)
Dec 31 1997	0.100 ppb	-2.303	(* Nondetect *)
Mar 18 1998	0.100 ppb	-2.303	(* Nondetect *)
May 27 1998	0.100 ppb	-2.303	(* Nondetect *)
Sep 04 1998	0.100 ppb	-2.303	(* Nondetect *)
Dec 07 1998	0.100 ppb	-2.303	(* Nondetect *)
Mar 16 1999	0.100 ppb	-2.303	(* Nondetect *)
May 28 1999	0.100 ppb	-2.303	(* Nondetect *)
Jul 23 1999	0.100 ppb	-2.303	(* Nondetect *)
Nov 08 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 10 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 11 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 12 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 13 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 14 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 15 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 16 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 17 1999	0.100 ppb	-2.303	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 16:21

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Tl Thallium, total

CAS Number: 7440-28-0
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.500 ppb	-0.693	(* Nondetect *)
Jun 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Sep 30 1996	0.500 ppb	-0.693	(* Nondetect *)
Dec 31 1996	1.000 ppb	0.000	
Mar 31 1997	2.000 ppb	0.693	
Jun 30 1997	0.500 ppb	-0.693	(* Nondetect *)
Sep 30 1997	3.000 ppb	1.099	
Dec 31 1997	2.000 ppb	0.693	
Mar 18 1998	0.500 ppb	-0.693	(* Nondetect *)
May 27 1998	0.500 ppb	-0.693	(* Nondetect *)
Sep 04 1998	0.500 ppb	-0.693	(* Nondetect *)
Dec 07 1998	0.500 ppb	-0.693	(* Nondetect *)
Mar 16 1999	0.500 ppb	-0.693	(* Nondetect *)
May 28 1999	0.500 ppb	-0.693	(* Nondetect *)
Jul 23 1999	0.500 ppb	-0.693	(* Nondetect *)
Nov 08 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 10 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 11 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 12 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 13 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 14 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 15 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 16 1999	0.500 ppb	-0.693	(* Nondetect *)
Dec 17 1999	0.500 ppb	-0.693	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 83

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	3.000 ppb	Ln Maximum:	1.099
Mean:	0.750 ppb	Ln Mean:	-0.474
Std. Dev.:	0.643 ppb	Ln Std. Dev.:	0.527

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.500 ppb	-0.693 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.500 ppb	Ln Minimum:	-0.693
Maximum:	0.500 ppb	Ln Maximum:	-0.693
Mean:	0.500 ppb	Ln Mean:	-0.693
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Thallium, total(CAS Number:7440-28-0)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 3.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:25

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Zn Zinc, total

CAS Number: 7440-66-6
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 5.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation		Ln	
Mar 31 1996	2.500	ppb	0.916	(* Nondetect *)
Jun 30 1996	8.000	ppb	2.079	
Sep 30 1996	2.500	ppb	0.916	(* Nondetect *)
Dec 31 1996	17.000	ppb	2.833	
Mar 31 1997	33.000	ppb	3.497	
Jun 30 1997	20.000	ppb	2.996	
Sep 30 1997	69.000	ppb	4.234	
Dec 31 1997	61.000	ppb	4.111	
Mar 18 1998	7.000	ppb	1.946	
May 27 1998	8.000	ppb	2.079	
Sep 04 1998	17.000	ppb	2.833	
Dec 07 1998	6.000	ppb	1.792	
Mar 16 1999	52.000	ppb	3.951	
May 28 1999	2.500	ppb	0.916	(* Nondetect *)
Jul 23 1999	11.000	ppb	2.398	
Nov 08 1999	8.000	ppb	2.079	
Dec 10 1999	26.000	ppb	3.258	
Dec 11 1999	2.500	ppb	0.916	(* Nondetect *)
Dec 12 1999	2.500	ppb	0.916	(* Nondetect *)
Dec 13 1999	2.500	ppb	0.916	(* Nondetect *)
Dec 14 1999	2.500	ppb	0.916	(* Nondetect *)
Dec 15 1999	2.500	ppb	0.916	(* Nondetect *)
Dec 16 1999	19.000	ppb	2.944	
Dec 17 1999	2.500	ppb	0.916	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 38

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	69.000 ppb	Ln Maximum:	4.234
Mean:	16.021 ppb	Ln Mean:	2.137
Std. Dev.:	19.319 ppb	Ln Std. Dev.:	1.155

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 16:25

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Zn Zinc, total

CAS Number: 7440-66-6
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 5.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:24

Scale	Minimum	Maximum	Mean	Std Dev
Original:	2.500	69.000	16.021	19.319
Log:	0.916	4.234	2.137	1.155

Pooled Statistics
Observations: 24

Statistic	Original Scale	Log Scale
Mean:	16.021	2.137
Std Dev:	19.319	1.155
Skewness:	1.642*	0.354
Kurtosis:	1.583	-1.171
Minimum:	2.500	0.916
Maximum:	69.000	4.234
CV:	1.206	0.541

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.7268*	0.9160	0.8840

Log:	0.8720*	0.9160	0.8840

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Zinc, total(CAS Number:7440-66-6)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 69.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<5.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<5.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<5.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<5.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:04

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cyanide Cyanide, total

CAS Number: 143-33-9
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 10.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	5.000 ppb	1.609	(* Nondetect *)
Jun 30 1996	5.000 ppb	1.609	(* Nondetect *)
Sep 30 1996	5.000 ppb	1.609	(* Nondetect *)
Dec 31 1996	5.000 ppb	1.609	(* Nondetect *)
Mar 31 1997	5.000 ppb	1.609	(* Nondetect *)
Jun 30 1997	5.000 ppb	1.609	(* Nondetect *)
Sep 30 1997	5.000 ppb	1.609	(* Nondetect *)
Dec 31 1997	5.000 ppb	1.609	(* Nondetect *)
Mar 18 1998	5.000 ppb	1.609	(* Nondetect *)
May 27 1998	5.000 ppb	1.609	(* Nondetect *)
Sep 04 1998	5.000 ppb	1.609	(* Nondetect *)
Dec 07 1998	5.000 ppb	1.609	(* Nondetect *)
Mar 16 1999	5.000 ppb	1.609	(* Nondetect *)
May 28 1999	5.000 ppb	1.609	(* Nondetect *)
Jul 23 1999	5.000 ppb	1.609	(* Nondetect *)
Nov 08 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 10 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 11 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 12 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 13 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 14 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 15 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 16 1999	5.000 ppb	1.609	(* Nondetect *)
Dec 17 1999	5.000 ppb	1.609	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	5.000 ppb	Ln Minimum:	1.609
Maximum:	5.000 ppb	Ln Maximum:	1.609
Mean:	5.000 ppb	Ln Mean:	1.609
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	5.000 ppb	1.609 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	5.000 ppb	Ln Minimum:	1.609
Maximum:	5.000 ppb	Ln Maximum:	1.609
Mean:	5.000 ppb	Ln Mean:	1.609
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	5.000 ppb	1.609 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	5.000 ppb	Ln Minimum:	1.609
Maximum:	5.000 ppb	Ln Maximum:	1.609
Mean:	5.000 ppb	Ln Mean:	1.609
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	5.000 ppb	1.609 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	5.000 ppb	Ln Minimum:	1.609
Maximum:	5.000 ppb	Ln Maximum:	1.609
Mean:	5.000 ppb	Ln Mean:	1.609
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	5.000 ppb	1.609 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	5.000 ppb	Ln Minimum:	1.609
Maximum:	5.000 ppb	Ln Maximum:	1.609
Mean:	5.000 ppb	Ln Mean:	1.609
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 15:38

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:2,4-DNT 2,4-Dinitrotoluene

CAS Number: 121-14-2
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.080 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.040 ppb	-3.219	(* Nondetect *)
Jun 30 1996	0.040 ppb	-3.219	(* Nondetect *)
Sep 30 1996	0.040 ppb	-3.219	(* Nondetect *)
Dec 31 1996	0.040 ppb	-3.219	(* Nondetect *)
Mar 31 1997	0.040 ppb	-3.219	(* Nondetect *)
Jun 30 1997	0.040 ppb	-3.219	(* Nondetect *)
Sep 30 1997	0.040 ppb	-3.219	(* Nondetect *)
Dec 31 1997	0.040 ppb	-3.219	(* Nondetect *)
Mar 18 1998	0.040 ppb	-3.219	(* Nondetect *)
May 27 1998	0.040 ppb	-3.219	(* Nondetect *)
Sep 04 1998	0.040 ppb	-3.219	(* Nondetect *)
Dec 07 1998	0.040 ppb	-3.219	(* Nondetect *)
Mar 16 1999	0.040 ppb	-3.219	(* Nondetect *)
May 28 1999	0.040 ppb	-3.219	(* Nondetect *)
Jul 23 1999	0.130 ppb	-2.040	
Nov 08 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 10 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 11 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 12 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 13 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 14 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 15 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 16 1999	0.040 ppb	-3.219	(* Nondetect *)
Dec 17 1999	0.040 ppb	-3.219	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 96

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.130 ppb	Ln Maximum:	-2.040
Mean:	0.044 ppb	Ln Mean:	-3.170
Std. Dev.:	0.018 ppb	Ln Std. Dev.:	0.241

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:2,4-Dinitrotoluene(CAS Number:121-14-2)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 0.130 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<0.080 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<0.080 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<0.080 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<0.080 ppb

Data Set Summary

Report Printed: 02-15-2002 15:41

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:2,6-DNT 2,6-Dinitrotoluene

CAS Number: 606-20-2
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.080 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln
Mar 31 1996	0.040 ppb	-3.219 (* Nondetect *)
Jun 30 1996	0.040 ppb	-3.219 (* Nondetect *)
Sep 30 1996	0.040 ppb	-3.219 (* Nondetect *)
Dec 31 1996	0.040 ppb	-3.219 (* Nondetect *)
Mar 31 1997	0.040 ppb	-3.219 (* Nondetect *)
Jun 30 1997	0.040 ppb	-3.219 (* Nondetect *)
Sep 30 1997	0.040 ppb	-3.219 (* Nondetect *)
Dec 31 1997	0.040 ppb	-3.219 (* Nondetect *)
Mar 18 1998	0.040 ppb	-3.219 (* Nondetect *)
May 27 1998	0.040 ppb	-3.219 (* Nondetect *)
Sep 04 1998	0.040 ppb	-3.219 (* Nondetect *)
Dec 07 1998	0.040 ppb	-3.219 (* Nondetect *)
Mar 16 1999	0.040 ppb	-3.219 (* Nondetect *)
May 28 1999	0.040 ppb	-3.219 (* Nondetect *)
Jul 23 1999	0.040 ppb	-3.219 (* Nondetect *)
Nov 08 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 10 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 11 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 12 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 13 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 14 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 15 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 16 1999	0.040 ppb	-3.219 (* Nondetect *)
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.040 ppb	-3.219 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.040 ppb	Ln Minimum:	-3.219
Maximum:	0.040 ppb	Ln Maximum:	-3.219
Mean:	0.040 ppb	Ln Mean:	-3.219
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 15:50

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:BrCl2Me Bromodichloromethane

CAS Number: 75-27-4
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.200 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.100 ppb	-2.303	(* Nondetect *)
Jun 30 1996	0.100 ppb	-2.303	(* Nondetect *)
Sep 30 1996	0.100 ppb	-2.303	(* Nondetect *)
Dec 31 1996	0.100 ppb	-2.303	(* Nondetect *)
Mar 31 1997	0.100 ppb	-2.303	(* Nondetect *)
Jun 30 1997	0.100 ppb	-2.303	(* Nondetect *)
Sep 30 1997	0.100 ppb	-2.303	(* Nondetect *)
Dec 31 1997	0.100 ppb	-2.303	(* Nondetect *)
Mar 18 1998	0.100 ppb	-2.303	(* Nondetect *)
May 27 1998	0.100 ppb	-2.303	(* Nondetect *)
Sep 04 1998	0.100 ppb	-2.303	(* Nondetect *)
Dec 07 1998	0.100 ppb	-2.303	(* Nondetect *)
Mar 16 1999	0.100 ppb	-2.303	(* Nondetect *)
May 28 1999	0.100 ppb	-2.303	(* Nondetect *)
Jul 23 1999	0.100 ppb	-2.303	(* Nondetect *)
Nov 08 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 10 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 11 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 12 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 13 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 14 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 15 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 16 1999	0.100 ppb	-2.303	(* Nondetect *)
Dec 17 1999	0.100 ppb	-2.303	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.100 ppb	-2.303 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.100 ppb	Ln Minimum:	-2.303
Maximum:	0.100 ppb	Ln Maximum:	-2.303
Mean:	0.100 ppb	Ln Mean:	-2.303
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 15:58

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Chlorofm Chloroform

CAS Number: 67-66-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 3.500 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	1.750 ppb	0.560	(* Nondetect *)
Jun 30 1996	4.200 ppb	1.435	
Sep 30 1996	3.800 ppb	1.335	
Dec 31 1996	6.300 ppb	1.841	
Mar 31 1997	3.400 ppb	1.224	
Jun 30 1997	3.600 ppb	1.281	
Sep 30 1997	1.750 ppb	0.560	(* Nondetect *)
Dec 31 1997	1.750 ppb	0.560	(* Nondetect *)
Mar 18 1998	1.750 ppb	0.560	(* Nondetect *)
May 27 1998	7.100 ppb	1.960	
Sep 04 1998	11.200 ppb	2.416	
Dec 07 1998	15.600 ppb	2.747	
Mar 16 1999	6.500 ppb	1.872	
May 28 1999	10.100 ppb	2.313	
Jul 23 1999	13.100 ppb	2.573	
Nov 08 1999	21.500 ppb	3.068	
Dec 10 1999	4.900 ppb	1.589	
Dec 11 1999	8.010 ppb	2.081	
Dec 12 1999	6.010 ppb	1.793	
Dec 13 1999	6.610 ppb	1.889	
Dec 14 1999	6.720 ppb	1.905	
Dec 15 1999	5.970 ppb	1.787	
Dec 16 1999	7.980 ppb	2.077	
Dec 17 1999	11.500 ppb	2.442	

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 17

Minimum:	1.750 ppb	Ln Minimum:	0.560
Maximum:	21.500 ppb	Ln Maximum:	3.068
Mean:	7.129 ppb	Ln Mean:	1.744
Std. Dev.:	4.804 ppb	Ln Std. Dev.:	0.705

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	1.750 ppb	0.560 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	1.750 ppb	Ln Minimum:	0.560
Maximum:	1.750 ppb	Ln Maximum:	0.560
Mean:	1.750 ppb	Ln Mean:	0.560
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	1.510 ppb	0.412

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	1.510 ppb	Ln Minimum:	0.412
Maximum:	1.510 ppb	Ln Maximum:	0.412
Mean:	1.510 ppb	Ln Mean:	0.412
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	1.750 ppb	0.560 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	1.750 ppb	Ln Minimum:	0.560
Maximum:	1.750 ppb	Ln Maximum:	0.560
Mean:	1.750 ppb	Ln Mean:	0.560
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	5.220 ppb	1.652

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	5.220 ppb	Ln Minimum:	1.652
Maximum:	5.220 ppb	Ln Maximum:	1.652
Mean:	5.220 ppb	Ln Mean:	1.652
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 15:54

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Chlorofm Chloroform

CAS Number: 67-66-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 3.500 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:24

Scale	Minimum	Maximum	Mean	Std Dev
Original:	1.750	21.500	7.129	4.804
Log:	0.560	3.068	1.744	0.705

Pooled Statistics
Observations: 24

Statistic	Original Scale	Log Scale
Mean:	7.129	1.744
Std Dev:	4.804	0.705
Skewness:	1.271*	-0.276
Kurtosis:	1.576	-0.586
Minimum:	1.750	0.560
Maximum:	21.500	3.068
CV:	0.674	0.404

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.8853*	0.9160	0.8840

Log:	0.9457	0.9160	0.8840

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Chloroform(CAS Number:67-66-3)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 21.500 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<3.500 ppb

Well:10D3D

Sample Date	Observation
12/17/99	1.510 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<3.500 ppb

Well:10MW1

Sample Date	Observation
12/17/99	5.220 ppb

Data Set Summary

Report Printed: 02-15-2002 15:50

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:ChlMeth Chloromethane

CAS Number: 74-87-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.300 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln
Mar 31 1996	0.150 ppb	-1.897 (* Nondetect *)
Jun 30 1996	0.150 ppb	-1.897 (* Nondetect *)
Sep 30 1996	0.150 ppb	-1.897 (* Nondetect *)
Dec 31 1996	0.150 ppb	-1.897 (* Nondetect *)
Mar 31 1997	0.150 ppb	-1.897 (* Nondetect *)
Jun 30 1997	0.150 ppb	-1.897 (* Nondetect *)
Sep 30 1997	0.150 ppb	-1.897 (* Nondetect *)
Dec 31 1997	0.150 ppb	-1.897 (* Nondetect *)
Mar 18 1998	0.150 ppb	-1.897 (* Nondetect *)
May 27 1998	0.150 ppb	-1.897 (* Nondetect *)
Sep 04 1998	0.150 ppb	-1.897 (* Nondetect *)
Dec 07 1998	0.150 ppb	-1.897 (* Nondetect *)
Mar 16 1999	0.150 ppb	-1.897 (* Nondetect *)
May 28 1999	0.150 ppb	-1.897 (* Nondetect *)
Jul 23 1999	0.150 ppb	-1.897 (* Nondetect *)
Nov 08 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 10 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 11 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 12 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 13 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 14 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 15 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 16 1999	0.150 ppb	-1.897 (* Nondetect *)
Dec 17 1999	0.150 ppb	-1.897 (* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.150 ppb	Ln Minimum:	-1.897
Maximum:	0.150 ppb	Ln Maximum:	-1.897
Mean:	0.150 ppb	Ln Mean:	-1.897
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.150 ppb	-1.897 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.150 ppb	Ln Minimum:	-1.897
Maximum:	0.150 ppb	Ln Maximum:	-1.897
Mean:	0.150 ppb	Ln Mean:	-1.897
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.150 ppb	-1.897 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.150 ppb	Ln Minimum:	-1.897
Maximum:	0.150 ppb	Ln Maximum:	-1.897
Mean:	0.150 ppb	Ln Mean:	-1.897
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.150 ppb	-1.897 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.150 ppb	Ln Minimum:	-1.897
Maximum:	0.150 ppb	Ln Maximum:	-1.897
Mean:	0.150 ppb	Ln Mean:	-1.897
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.150 ppb	-1.897 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.150 ppb	Ln Minimum:	-1.897
Maximum:	0.150 ppb	Ln Maximum:	-1.897
Mean:	0.150 ppb	Ln Mean:	-1.897
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 16:07

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Di-N-Bu Di-n-Butylphthalate

CAS Number: 84-74-2
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 5.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	2.500 ppb	0.916	(* Nondetect *)
Jun 30 1996	2.500 ppb	0.916	(* Nondetect *)
Sep 30 1996	2.500 ppb	0.916	(* Nondetect *)
Dec 31 1996	2.500 ppb	0.916	(* Nondetect *)
Mar 31 1997	2.500 ppb	0.916	(* Nondetect *)
Jun 30 1997	2.500 ppb	0.916	(* Nondetect *)
Sep 30 1997	2.500 ppb	0.916	(* Nondetect *)
Dec 31 1997	2.500 ppb	0.916	(* Nondetect *)
Mar 18 1998	2.500 ppb	0.916	(* Nondetect *)
May 27 1998	2.500 ppb	0.916	(* Nondetect *)
Sep 04 1998	2.500 ppb	0.916	(* Nondetect *)
Dec 07 1998	2.500 ppb	0.916	(* Nondetect *)
Mar 16 1999	2.500 ppb	0.916	(* Nondetect *)
May 28 1999	2.500 ppb	0.916	(* Nondetect *)
Jul 23 1999	2.500 ppb	0.916	(* Nondetect *)
Nov 08 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 10 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 11 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 12 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 13 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 14 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 15 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 16 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 17 1999	2.500 ppb	0.916	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 16:23

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:TranDCEE trans-1,2-Dichloroethene

CAS Number: 156-60-5
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.100 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.050 ppb	-2.996	(* Nondetect *)
Jun 30 1996	0.050 ppb	-2.996	(* Nondetect *)
Sep 30 1996	0.050 ppb	-2.996	(* Nondetect *)
Dec 31 1996	0.050 ppb	-2.996	(* Nondetect *)
Mar 31 1997	0.050 ppb	-2.996	(* Nondetect *)
Jun 30 1997	0.050 ppb	-2.996	(* Nondetect *)
Sep 30 1997	0.050 ppb	-2.996	(* Nondetect *)
Dec 31 1997	0.050 ppb	-2.996	(* Nondetect *)
Mar 18 1998	0.050 ppb	-2.996	(* Nondetect *)
May 27 1998	0.050 ppb	-2.996	(* Nondetect *)
Sep 04 1998	0.050 ppb	-2.996	(* Nondetect *)
Dec 07 1998	0.050 ppb	-2.996	(* Nondetect *)
Mar 16 1999	0.050 ppb	-2.996	(* Nondetect *)
May 28 1999	0.050 ppb	-2.996	(* Nondetect *)
Jul 23 1999	0.050 ppb	-2.996	(* Nondetect *)
Nov 08 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 10 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 11 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 12 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 13 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 14 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 15 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 16 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 17 1999	0.050 ppb	-2.996	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 15:42

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:2Butanon 2-Butanone (Methyl ethyl ketone)

CAS Number: 78-93-3
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1.100 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.550 ppb	-0.598	(* Nondetect *)
Jun 30 1996	0.550 ppb	-0.598	(* Nondetect *)
Sep 30 1996	0.550 ppb	-0.598	(* Nondetect *)
Dec 31 1996	0.550 ppb	-0.598	(* Nondetect *)
Mar 31 1997	0.550 ppb	-0.598	(* Nondetect *)
Jun 30 1997	0.550 ppb	-0.598	(* Nondetect *)
Sep 30 1997	0.550 ppb	-0.598	(* Nondetect *)
Dec 31 1997	0.550 ppb	-0.598	(* Nondetect *)
Mar 18 1998	0.550 ppb	-0.598	(* Nondetect *)
May 27 1998	0.550 ppb	-0.598	(* Nondetect *)
Sep 04 1998	0.550 ppb	-0.598	(* Nondetect *)
Dec 07 1998	0.550 ppb	-0.598	(* Nondetect *)
Mar 16 1999	8.200 ppb	2.104	
May 28 1999	0.550 ppb	-0.598	(* Nondetect *)
Jul 23 1999	0.550 ppb	-0.598	(* Nondetect *)
Nov 08 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 10 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 11 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 12 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 13 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 14 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 15 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 16 1999	0.550 ppb	-0.598	(* Nondetect *)
Dec 17 1999	0.550 ppb	-0.598	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 96

Minimum:	0.550 ppb	Ln Minimum:	-0.598
Maximum:	8.200 ppb	Ln Maximum:	2.104
Mean:	0.869 ppb	Ln Mean:	-0.485
Std. Dev.:	1.562 ppb	Ln Std. Dev.:	0.552

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.550 ppb	-0.598 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.550 ppb	Ln Minimum:	-0.598
Maximum:	0.550 ppb	Ln Maximum:	-0.598
Mean:	0.550 ppb	Ln Mean:	-0.598
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.550 ppb	-0.598 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.550 ppb	Ln Minimum:	-0.598
Maximum:	0.550 ppb	Ln Maximum:	-0.598
Mean:	0.550 ppb	Ln Mean:	-0.598
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.550 ppb	-0.598 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.550 ppb	Ln Minimum:	-0.598
Maximum:	0.550 ppb	Ln Maximum:	-0.598
Mean:	0.550 ppb	Ln Mean:	-0.598
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.550 ppb	-0.598 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.550 ppb	Ln Minimum:	-0.598
Maximum:	0.550 ppb	Ln Maximum:	-0.598
Mean:	0.550 ppb	Ln Mean:	-0.598
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:2-Butanone (Methyl ethyl ketone)(CAS Number:78-93-3)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 8.200 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1.100 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<1.100 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1.100 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1.100 ppb

Data Set Summary

Report Printed: 02-15-2002 16:15

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:TCE Trichloroethene (-ethylene)

CAS Number: 79-01-6
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.100 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.050 ppb	-2.996	(* Nondetect *)
Jun 30 1996	0.050 ppb	-2.996	(* Nondetect *)
Sep 30 1996	0.050 ppb	-2.996	(* Nondetect *)
Dec 31 1996	0.050 ppb	-2.996	(* Nondetect *)
Mar 31 1997	0.050 ppb	-2.996	(* Nondetect *)
Jun 30 1997	0.050 ppb	-2.996	(* Nondetect *)
Sep 30 1997	0.050 ppb	-2.996	(* Nondetect *)
Dec 31 1997	0.050 ppb	-2.996	(* Nondetect *)
Mar 18 1998	0.050 ppb	-2.996	(* Nondetect *)
May 27 1998	0.050 ppb	-2.996	(* Nondetect *)
Sep 04 1998	0.050 ppb	-2.996	(* Nondetect *)
Dec 07 1998	0.050 ppb	-2.996	(* Nondetect *)
Mar 16 1999	0.050 ppb	-2.996	(* Nondetect *)
May 28 1999	0.050 ppb	-2.996	(* Nondetect *)
Jul 23 1999	0.050 ppb	-2.996	(* Nondetect *)
Nov 08 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 10 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 11 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 12 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 13 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 14 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 15 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 16 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 17 1999	0.050 ppb	-2.996	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 16:16

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:TClFlMe Trichlorofluoromethane

CAS Number: 75-69-4
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.500 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.250 ppb	-1.386	(* Nondetect *)
Jun 30 1996	0.250 ppb	-1.386	(* Nondetect *)
Sep 30 1996	0.250 ppb	-1.386	(* Nondetect *)
Dec 31 1996	0.250 ppb	-1.386	(* Nondetect *)
Mar 31 1997	0.250 ppb	-1.386	(* Nondetect *)
Jun 30 1997	0.250 ppb	-1.386	(* Nondetect *)
Sep 30 1997	0.250 ppb	-1.386	(* Nondetect *)
Dec 31 1997	0.250 ppb	-1.386	(* Nondetect *)
Mar 18 1998	0.250 ppb	-1.386	(* Nondetect *)
May 27 1998	0.250 ppb	-1.386	(* Nondetect *)
Sep 04 1998	0.250 ppb	-1.386	(* Nondetect *)
Dec 07 1998	0.250 ppb	-1.386	(* Nondetect *)
Mar 16 1999	0.250 ppb	-1.386	(* Nondetect *)
May 28 1999	0.250 ppb	-1.386	(* Nondetect *)
Jul 23 1999	0.250 ppb	-1.386	(* Nondetect *)
Nov 08 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 10 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 11 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 12 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 13 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 14 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 15 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 16 1999	0.250 ppb	-1.386	(* Nondetect *)
Dec 17 1999	0.250 ppb	-1.386	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND):100

Minimum:	0.250 ppb	Ln Minimum:	-1.386
Maximum:	0.250 ppb	Ln Maximum:	-1.386
Mean:	0.250 ppb	Ln Mean:	-1.386
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.250 ppb	-1.386 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.250 ppb	Ln Minimum:	-1.386
Maximum:	0.250 ppb	Ln Maximum:	-1.386
Mean:	0.250 ppb	Ln Mean:	-1.386
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.250 ppb	-1.386 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.250 ppb	Ln Minimum:	-1.386
Maximum:	0.250 ppb	Ln Maximum:	-1.386
Mean:	0.250 ppb	Ln Mean:	-1.386
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.250 ppb	-1.386 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.250 ppb	Ln Minimum:	-1.386
Maximum:	0.250 ppb	Ln Maximum:	-1.386
Mean:	0.250 ppb	Ln Mean:	-1.386
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.250 ppb	-1.386 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.250 ppb	Ln Minimum:	-1.386
Maximum:	0.250 ppb	Ln Maximum:	-1.386
Mean:	0.250 ppb	Ln Mean:	-1.386
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Data Set Summary

Report Printed: 02-15-2002 16:23

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Xylene Xylene

CAS Number: 1330-20-7
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 0.100 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	0.050 ppb	-2.996	(* Nondetect *)
Jun 30 1996	0.050 ppb	-2.996	(* Nondetect *)
Sep 30 1996	0.050 ppb	-2.996	(* Nondetect *)
Dec 31 1996	0.050 ppb	-2.996	(* Nondetect *)
Mar 31 1997	0.050 ppb	-2.996	(* Nondetect *)
Jun 30 1997	0.050 ppb	-2.996	(* Nondetect *)
Sep 30 1997	0.050 ppb	-2.996	(* Nondetect *)
Dec 31 1997	0.050 ppb	-2.996	(* Nondetect *)
Mar 18 1998	0.050 ppb	-2.996	(* Nondetect *)
May 27 1998	0.050 ppb	-2.996	(* Nondetect *)
Sep 04 1998	0.050 ppb	-2.996	(* Nondetect *)
Dec 07 1998	0.050 ppb	-2.996	(* Nondetect *)
Mar 16 1999	3.000 ppb	1.099	
May 28 1999	0.050 ppb	-2.996	(* Nondetect *)
Jul 23 1999	0.050 ppb	-2.996	(* Nondetect *)
Nov 08 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 10 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 11 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 12 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 13 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 14 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 15 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 16 1999	0.050 ppb	-2.996	(* Nondetect *)
Dec 17 1999	0.050 ppb	-2.996	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 96

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	3.000 ppb	Ln Maximum:	1.099
Mean:	0.173 ppb	Ln Mean:	-2.825
Std. Dev.:	0.602 ppb	Ln Std. Dev.:	0.836

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	0.050 ppb	-2.996 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	0.050 ppb	Ln Minimum:	-2.996
Maximum:	0.050 ppb	Ln Maximum:	-2.996
Mean:	0.050 ppb	Ln Mean:	-2.996
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Xylene(CAS Number:1330-20-7)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 3.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<0.100 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<0.100 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<0.100 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<0.100 ppb

Data Set Summary

Report Printed: 02-15-2002 16:17

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:TOC Total Organic Carbon

CAS Number: - -
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 1000.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	500.000 ppb	6.215	(* Nondetect *)
Jun 30 1996	500.000 ppb	6.215	(* Nondetect *)
Sep 30 1996	500.000 ppb	6.215	(* Nondetect *)
Dec 31 1996	500.000 ppb	6.215	(* Nondetect *)
Mar 31 1997	500.000 ppb	6.215	(* Nondetect *)
Jun 30 1997	500.000 ppb	6.215	(* Nondetect *)
Sep 30 1997	500.000 ppb	6.215	(* Nondetect *)
Dec 31 1997	500.000 ppb	6.215	(* Nondetect *)
Mar 18 1998	500.000 ppb	6.215	(* Nondetect *)
May 27 1998	500.000 ppb	6.215	(* Nondetect *)
Sep 04 1998	500.000 ppb	6.215	(* Nondetect *)
Dec 07 1998	500.000 ppb	6.215	(* Nondetect *)
Mar 16 1999	84275.000 ppb	11.342	
May 28 1999	500.000 ppb	6.215	(* Nondetect *)
Jul 23 1999	500.000 ppb	6.215	(* Nondetect *)
Nov 08 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 10 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 11 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 12 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 13 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 14 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 15 1999	2125.000 ppb	7.662	
Dec 16 1999	500.000 ppb	6.215	(* Nondetect *)
Dec 17 1999	500.000 ppb	6.215	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 92

Minimum:	500.000 ppb	Ln Minimum:	6.215
Maximum:	84275.000 ppb	Ln Maximum:	11.342
Mean:	4058.333 ppb	Ln Mean:	6.489
Std. Dev.:	17089.291 ppb	Ln Std. Dev.:	1.075

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	500.000 ppb	6.215 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	500.000 ppb	Ln Minimum:	6.215
Maximum:	500.000 ppb	Ln Maximum:	6.215
Mean:	500.000 ppb	Ln Mean:	6.215
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	39875.000 ppb	10.594

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	39875.000 ppb	Ln Minimum:	10.594
Maximum:	39875.000 ppb	Ln Maximum:	10.594
Mean:	39875.000 ppb	Ln Mean:	10.594
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	500.000 ppb	6.215 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	500.000 ppb	Ln Minimum:	6.215
Maximum:	500.000 ppb	Ln Maximum:	6.215
Mean:	500.000 ppb	Ln Mean:	6.215
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	500.000 ppb	6.215 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	500.000 ppb	Ln Minimum:	6.215
Maximum:	500.000 ppb	Ln Maximum:	6.215
Mean:	500.000 ppb	Ln Mean:	6.215
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Total Organic Carbon(CAS Number:- -)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 84275.000 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<1000.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	39875.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<1000.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<1000.000 ppb

Data Set Summary

Report Printed: 02-15-2002 16:20

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:TOX Total Organic Halogens, Halides

CAS Number: - -
MCL: 0.000 ppb
ACL: 0.000 ppb
Detect Limit: 5.000 ppb

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln	
Mar 31 1996	2.500 ppb	0.916	(* Nondetect *)
Jun 30 1996	7.500 ppb	2.015	
Sep 30 1996	2.500 ppb	0.916	(* Nondetect *)
Dec 31 1996	2.500 ppb	0.916	(* Nondetect *)
Mar 31 1997	2.500 ppb	0.916	(* Nondetect *)
Jun 30 1997	2.500 ppb	0.916	(* Nondetect *)
Sep 30 1997	6.250 ppb	1.833	
Dec 31 1997	26.500 ppb	3.277	
Mar 18 1998	77.500 ppb	4.350	
May 27 1998	8.000 ppb	2.079	
Sep 04 1998	10.000 ppb	2.303	
Dec 07 1998	5.500 ppb	1.705	
Mar 16 1999	8.000 ppb	2.079	
May 28 1999	2.500 ppb	0.916	(* Nondetect *)
Jul 23 1999	21.500 ppb	3.068	
Nov 08 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 10 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 11 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 12 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 13 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 14 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 15 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 16 1999	2.500 ppb	0.916	(* Nondetect *)
Dec 17 1999	2.500 ppb	0.916	(* Nondetect *)

Well ID:10D4 Summary Statistics

Observations (N): 24
Nondetects (%ND): 63

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	77.500 ppb	Ln Maximum:	4.350
Mean:	8.677 ppb	Ln Mean:	1.519
Std. Dev.:	15.895 ppb	Ln Std. Dev.:	0.946

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	2.500 ppb	0.916 (* Nondetect *)

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND):100

Minimum:	2.500 ppb	Ln Minimum:	0.916
Maximum:	2.500 ppb	Ln Maximum:	0.916
Mean:	2.500 ppb	Ln Mean:	0.916
Std. Dev.:	0.000 ppb	Ln Std. Dev.:	0.000

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Total Organic Halogens, Halides(CAS Number:- -)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n): 24
Conf. Level (1-α): 96.000%

UL: 77.500 ppb
LL: 0.000

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	ND<5.000 ppb

Well:10D3D

Sample Date	Observation
12/17/99	ND<5.000 ppb

Well:10DDH2R

Sample Date	Observation
12/17/99	ND<5.000 ppb

Well:10MW1

Sample Date	Observation
12/17/99	ND<5.000 ppb

Data Set Summary

Report Printed: 02-15-2002 15:56

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cond F Specific Conductivity, Field

CAS Number: - -
MCL: 0.000 umhos/cm
ACL: 0.000 umhos/cm
Detect Limit: 1.000 umhos/cm

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation		Ln
Jun 30 1996	290.000	umhos/cm	5.670
Jun 30 1997	370.000	umhos/cm	5.914
Sep 30 1997	370.000	umhos/cm	5.914
Dec 31 1997	420.000	umhos/cm	6.040
Mar 18 1998	350.000	umhos/cm	5.858
May 27 1998	310.000	umhos/cm	5.737
Sep 04 1998	310.000	umhos/cm	5.737
Dec 07 1998	320.000	umhos/cm	5.768
Mar 16 1999	270.000	umhos/cm	5.598
May 28 1999	300.000	umhos/cm	5.704
Jul 23 1999	332.000	umhos/cm	5.805
Nov 08 1999	383.000	umhos/cm	5.948
Dec 10 1999	349.250	umhos/cm	5.856
Dec 11 1999	368.000	umhos/cm	5.908
Dec 12 1999	363.750	umhos/cm	5.896
Dec 13 1999	381.500	umhos/cm	5.944
Dec 14 1999	435.000	umhos/cm	6.075
Dec 15 1999	412.000	umhos/cm	6.021
Dec 16 1999	419.000	umhos/cm	6.038
Dec 17 1999	374.000	umhos/cm	5.924

Well ID:10D4 Summary Statistics

Observations (N): 20
Nondetects (%ND): 0

Minimum:	270.000 umhos/cm	Ln Minimum:	5.598
Maximum:	435.000 umhos/cm	Ln Maximum:	6.075
Mean:	356.375 umhos/cm	Ln Mean:	5.868
Std. Dev.:	46.347 umhos/cm	Ln Std. Dev.:	0.133

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	926.000 umhos/cm	6.831

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	926.000 umhos/cm	Ln Minimum:	6.831
Maximum:	926.000 umhos/cm	Ln Maximum:	6.831
Mean:	926.000 umhos/cm	Ln Mean:	6.831
Std. Dev.:	0.000 umhos/cm	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	963.000 umhos/cm	6.870

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	963.000 umhos/cm	Ln Minimum:	6.870
Maximum:	963.000 umhos/cm	Ln Maximum:	6.870
Mean:	963.000 umhos/cm	Ln Mean:	6.870
Std. Dev.:	0.000 umhos/cm	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	974.000 umhos/cm	6.881

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	974.000 umhos/cm	Ln Minimum:	6.881
Maximum:	974.000 umhos/cm	Ln Maximum:	6.881
Mean:	974.000 umhos/cm	Ln Mean:	6.881
Std. Dev.:	0.000 umhos/cm	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	489.000 umhos/cm	6.192

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	489.000 umhos/cm	Ln Minimum:	6.192
Maximum:	489.000 umhos/cm	Ln Maximum:	6.192
Mean:	489.000 umhos/cm	Ln Mean:	6.192
Std. Dev.:	0.000 umhos/cm	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 15:56

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:Cond F Specific Conductivity, Field

CAS Number: - -
MCL: 0.000 umhos/cm
ACL: 0.000 umhos/cm
Detect Limit: 1.000 umhos/cm

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:20

Scale	Minimum	Maximum	Mean	Std Dev
Original:	270.000	435.000	356.375	46.347
Log:	5.598	6.075	5.868	0.133

Pooled Statistics
Observations: 20

Statistic	Original Scale	Log Scale
Mean:	356.375	5.868
Std Dev:	46.347	0.133
Skewness:	-0.092	-0.310
Kurtosis:	-0.873	-0.773
Minimum:	270.000	5.598
Maximum:	435.000	6.075
CV:	0.130	0.023

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.9683	0.9050	0.8680

Log:	0.9629	0.9050	0.8680

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Parametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:Specific Conductivity, Field(CAS Number:- -)

ONE-TAILED UPPER PARAMETRIC PREDICTION INTERVAL

Observations (n):	20
Shapiro-Wilk (W):	0.9683
Critical W,α=0.01:	0.8680
Mean:	356.375 umhos/cm
Std Dev:	46.347 umhos/cm
DF:	19
Conf. Level (1-α):	0.9500
Future Samples (k):	1
$t_{\left[1-\alpha,\frac{1}{k}\right]}$:	1.7291
Kappa:	1.7718
UL:	438.493 umhos/cm
LL:	-∞

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	926.000 umhos/cm *

Well:10D3D

Sample Date	Observation
12/17/99	963.000 umhos/cm *

Well:10DDH2R

Sample Date	Observation
12/17/99	974.000 umhos/cm *

Well:10MW1

Sample Date	Observation
12/17/99	489.000 umhos/cm *

Data Set Summary

Report Printed: 02-15-2002 16:27

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:pH F pH, Field

CAS Number: - -
MCL: 0.000 SU
ACL: 0.000 SU
Detect Limit: 0.100 SU

Start Date:Mar 31 1996
End Date:Dec 17 1999

Well ID:10D4

Sample Date	Observation	Ln
Jun 30 1996	6.500 SU	1.872
Jun 30 1997	6.800 SU	1.917
Sep 30 1997	6.900 SU	1.932
Dec 31 1997	6.800 SU	1.917
Mar 18 1998	6.500 SU	1.872
May 27 1998	6.100 SU	1.808
Sep 04 1998	6.300 SU	1.841
Dec 07 1998	6.600 SU	1.887
Mar 16 1999	8.090 SU	2.091
May 28 1999	6.910 SU	1.933
Jul 23 1999	7.390 SU	2.000
Nov 08 1999	7.100 SU	1.960
Dec 10 1999	6.870 SU	1.927
Dec 11 1999	6.300 SU	1.841
Dec 12 1999	6.290 SU	1.839
Dec 13 1999	6.670 SU	1.898
Dec 14 1999	6.570 SU	1.883
Dec 15 1999	6.540 SU	1.878
Dec 16 1999	6.350 SU	1.848
Dec 17 1999	6.550 SU	1.879

Well ID:10D4 Summary Statistics

Observations (N): 20
Nondetects (%ND): 0

Minimum:	6.100 SU	Ln Minimum:	1.808
Maximum:	8.090 SU	Ln Maximum:	2.091
Mean:	6.706 SU	Ln Mean:	1.901
Std. Dev.:	0.449 SU	Ln Std. Dev.:	0.064

Well ID:10D3

Sample Date	Observation	Ln
Dec 17 1999	6.790 SU	1.915

Well ID:10D3 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	6.790 SU	Ln Minimum:	1.915
Maximum:	6.790 SU	Ln Maximum:	1.915
Mean:	6.790 SU	Ln Mean:	1.915
Std. Dev.:	0.000 SU	Ln Std. Dev.:	0.000

Well ID:10D3D

Sample Date	Observation	Ln
Dec 17 1999	6.880 SU	1.929

Well ID:10D3D Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	6.880 SU	Ln Minimum:	1.929
Maximum:	6.880 SU	Ln Maximum:	1.929
Mean:	6.880 SU	Ln Mean:	1.929
Std. Dev.:	0.000 SU	Ln Std. Dev.:	0.000

Well ID:10DDH2R

Sample Date	Observation	Ln
Dec 17 1999	6.630 SU	1.892

Well ID:10DDH2R Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	6.630 SU	Ln Minimum:	1.892
Maximum:	6.630 SU	Ln Maximum:	1.892
Mean:	6.630 SU	Ln Mean:	1.892
Std. Dev.:	0.000 SU	Ln Std. Dev.:	0.000

Well ID:10MW1

Sample Date	Observation	Ln
Dec 17 1999	6.940 SU	1.937

Well ID:10MW1 Summary Statistics

Observations (N): 1
Nondetects (%ND): 0

Minimum:	6.940 SU	Ln Minimum:	1.937
Maximum:	6.940 SU	Ln Maximum:	1.937
Mean:	6.940 SU	Ln Mean:	1.937
Std. Dev.:	0.000 SU	Ln Std. Dev.:	0.000

Normality Tests

Report Printed: 02-15-2002 16:27

Facility:RAAPHWMU10 Haz. Waste Unit 10 - RAAP

Address:

City:Radford ST:VA Zip:24141
County:MONTGOMERY

Contact:
Phone:( ) -

Permit Type:Background

Constituent:pH F pH, Field

CAS Number: - -
MCL: 0.000 SU
ACL: 0.000 SU
Detect Limit: 0.100 SU

Start Date:Mar 31 1996
End Date:Dec 17 1999

Normality Test on Observations for wells listed below:

Well:10D4 Position:Upgradient Observations:20

Scale	Minimum	Maximum	Mean	Std Dev
Original:	6.100	8.090	6.706	0.449
Log:	1.808	2.091	1.901	0.064

Pooled Statistics
Observations: 20

Statistic	Original Scale	Log Scale
Mean:	6.706	1.901
Std Dev:	0.449	0.064
Skewness:	1.520*	1.302*
Kurtosis:	2.670	1.998
Minimum:	6.100	1.808
Maximum:	8.090	2.091
CV:	0.067	0.034

Shapiro-Wilk Statistics

Scale	Test Statistic	5% Critical Value	1% Critical Value
Original:	0.8695*	0.9050	0.8680

Log:	0.8976*	0.9050	0.8680

* Indicates statistically significant evidence of non-normality.
GRIT/STAT Version 5.0

Nonparametric Prediction Interval
Report Printed February 15,2002

Facility:Haz. Waste Unit 10 - RAAP
Parameter:pH, Field(CAS Number:- -)

TWO-TAILED PARAMETRIC PREDICTION INTERVAL

Observations (n): 20
Conf. Level (1-α): 90.480%

UL: 8.090 SU
LL: 6.100 SU

BACKGROUND TO COMPLIANCE WELL COMPARISON

Well:10D3

Sample Date	Observation
12/17/99	6.790 SU

Well:10D3D

Sample Date	Observation
12/17/99	6.880 SU

Well:10DDH2R

Sample Date	Observation
12/17/99	6.630 SU

Well:10MW1

Sample Date	Observation
12/17/99	6.940 SU