
VERIFICATION INVESTIGATION REVISED SECTION 24.0
SWMU 71, Flash Burn Parts Area (Draft)
Task Order No. 4
Radford Army Ammunition Plant, Virginia

Prepared for:

U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010-5401
Contract No. DAAA15-90-D-0015

 **DAMES & MOORE**
2807 N. Parham Road, Suite 114, Richmond, VA 23294

August 19, 1994

VERIFICATION INVESTIGATION REVISED SECTION 24.0
SWMU 71, Flash Burn Parts Area (Draft)
Task Order No. 4
Radford Army Ammunition Plant, Virginia

Prepared for:

U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010-5401
Contract No. DAAA15-90-D-0015



DAMES & MOORE

2807 N. Parham Road, Suite 114, Richmond, VA 23294

August 19, 1994

VERIFICATION INVESTIGATION
Revised Section 24.0
SWMU 71, Flash Burn Parts Area
(Draft)

Task Order No. 4
Radford Army Ammunition Plant, Virginia

Submitted to:

Commander, U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010-5401

Contract No. DAAA15-90-D-0015

Prepared by:

Dames & Moore
2807 N. Parham Road, Suite 114
Richmond, Virginia 23294

August 19, 1994

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

24.0	VERIFICATION INVESTIGATION OF SWMU 71, FLASH BURN PARTS AREA	24-1
24.1	SWMU 71 BACKGROUND AND INVESTIGATION PROGRAM (Revised)	24-1
24.1.1	SWMU History	24-1
24.1.2	Previous Investigations	24-3
24.1.3	VI Program (Revised)	24-3
24.2	ENVIRONMENTAL SETTING	24-3
24.2.1	Topography	24-3
24.2.2	Geology and Soils	24-3
24.2.3	Groundwater Conditions	24-5
24.2.4	Surface Water Drainage	24-5
24.3	CONTAMINATION ASSESSMENT (Revised)	24-5
24.4	BASELINE RISK ASSESSMENT	24-11
24.4.1	Human Health Evaluation	24-11
24.4.2	Environmental Evaluation	24-12
24.4.3	Conclusions of Human Health and Environmental Evaluation	24-12
24.5	CONCLUSIONS (Revised)	24-12
24.6	RECOMMENDED ACTION (Revised)	24-13

REFERENCES

APPENDIX A: Chemical Abbreviations and Analytical Data

APPENDIX B: Supporting Information from Final Draft VI Report

FIGURES

<u>No.</u>	<u>Title</u>	<u>Page</u>
24-1	Location Map, SWMU 71, Flash Burn Parts Area	24-2
24-2	Locations of Soil Samples, SWMU 71, Flash Burn Parts Area (new figure)	24-4

TABLES

<u>No.</u>	<u>Title</u>	<u>Page</u>
24-1	Summary of Analytical Data for Soil Samples Collected at SMWU 71	24-6
24-2	Summary of Analytical Data for Phase II Soil Samples Collected at SWMU 71 (new table)	24-8

LIST OF ACRONYMS AND ABBREVIATIONS

AEC	U.S. Army Environmental Center
EPA	U.S. Environmental Protection Agency
gm	Gram
HBN	Health Based Number
IRDMIS	Installation Restoration Data Management Information System
MCL	Maximum Contaminant Level
mg/l	Milligrams per liter
msl	Mean sea level
NG	Nitroglycerin
PQL	Practical Quantitation Limit
QA	Quality Assurance
QC	Quality Control
RAAP	Radford Army Ammunition Plant
RAGS	Risk Assessment Guideline for Superfund
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SVOC	Semivolatile Organic Compound
SWMU	Solid Waste Management Unit
TAL	Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
ug/g	Micrograms per gram
USACE	U.S. Army Corps of Engineers
USAEHA	U.S. Army Environmental Hygiene Agency
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
VaDOH	Virginia Department of Health
VDEQ	Virginia Department of Environmental Quality
VHMR	Virginia Hazardous Waste Management Regulations
VI	Verification Investigation
VPI&SU	Virginia Polytechnic Institute and State University
VDWM	Virginia Department of Waste Management

24.0 VERIFICATION INVESTIGATION OF SWMU 71, FLASH BURN PARTS AREA

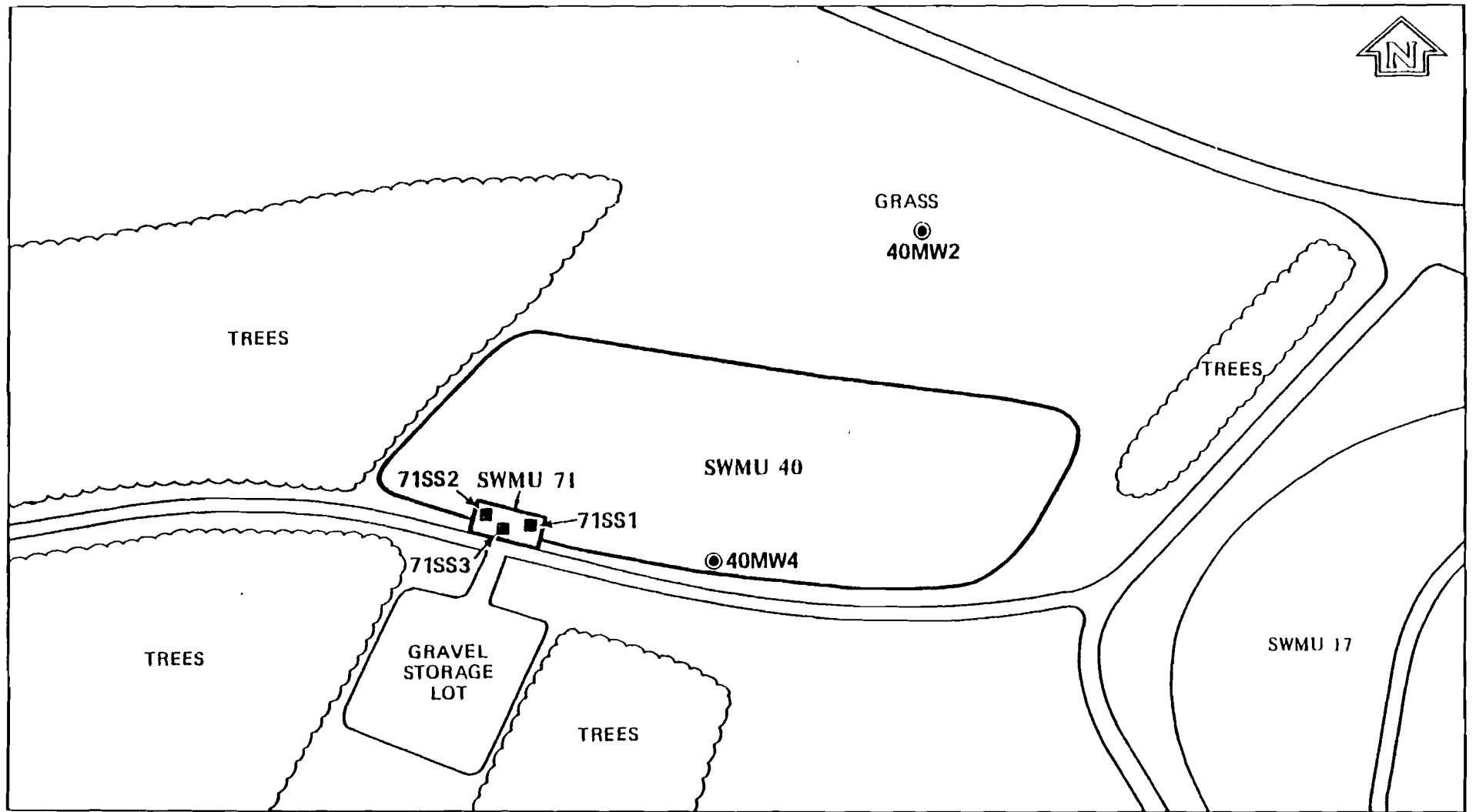
24.1 SWMU 71 BACKGROUND AND INVESTIGATION PROGRAM (Revised)

This report is a revision of the Radford Army Ammunition Plant (RAAP) Verification Investigation (VI) Section 24.0, which presented the results of investigations conducted at Solid Waste Management Unit (SWMU) 71, Flash Burn Parts Area in the final draft VI report dated October 29, 1992. The additional studies conducted at SWMU 71 in 1993 which resulted in this revised section were authorized by the U.S. Army Environmental Center (AEC) under Contract No. DAAA15-90-D-0015, Task Order 4. The scope of the additional studies was developed following a review of the final draft VI report by AEC and upon comments on the report by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Environmental Quality (VDEQ).

The additional data has resulted in revised text in several subsections and these revised subsections have had (revised) appended to the subsection title. Table 24-2 and Figure 24-2 have been added to this revised section report to present the data collected in 1993. Table 24-1 and Figure 24-1 have been reproduced as presented in the 1992 VI Report. This revised section report is not intended to be a stand alone document; all background information about RAAP and the overall VI program is presented in the final draft VI Report. Appendix A to this report presents the chemical data acquired for the VI program and Appendix B presents supporting information referenced from the final draft VI Report.

24.1.1 SWMU History

The inactive Flash Burn Parts Area (SWMU 71) is located in the south-central portion of the Main Manufacturing Area, in the southwest corner of the Sanitary Landfill (NG Area) (SWMU 40) (Figure 24-1). It consists of an open, hard packed, gravel area, about 25 feet by 50 feet in size, where metal process pipes potentially contaminated with propellant were flash burned from about 1962 to 1982. The pipes were then reused or sold for scrap. Reportedly, oil soaked straw was used on occasion to create the burning environment for decontamination.

**LEGEND:**

- Soil Sample
- Monitoring Well

FIGURE 24-1
LOCATION MAP
SWMU 71 – FLASH BURN PARTS AREA
RADFORD ARMY AMMUNITION PLANT, VIRGINIA

24.1.2 Previous Investigations

This SWMU was identified in the Resource Conservation and Recovery Act (RCRA) Facility Assessment (USEPA, 1987) as having a potential for releasing contaminants into the environment and was included in the RCRA Permit for Corrective Action and Incinerator Operation (USEPA, 1989) as warranting investigation. No site-specific investigations have been conducted at this location prior to this VI.

24.1.3 VI Program (Revised)

Three surface soil samples (71SS1, 71SS2 and 71SS3) were collected within this unit in February 1992 to determine whether surface soils have been impacted through the release of hazardous constituents during flashing operations (Figure 24-2). Each sample was collected from a depth of 0 to 6 inches below any gravel or surface organic root zone and analyzed for Target Analyte List (TAL) metals, explosives, and total petroleum hydrocarbons (TPHs). TPH analysis, though not required by the permit, was recommended due to the use of fuel oil in the flashing operations. Based on the results of the laboratory analyses, 12 additional soil samples were collected in July 1993 to better define the horizontal and vertical distribution of detected analytes. Eight samples of surficial soil were collected from 0 to 0.5 feet and five samples were collected from a depth of 4 feet. These 12 samples and one sample duplicate were analyzed for TAL metals, Toxicity Characteristic Leaching Procedure (TCLP) metals and TPHs.

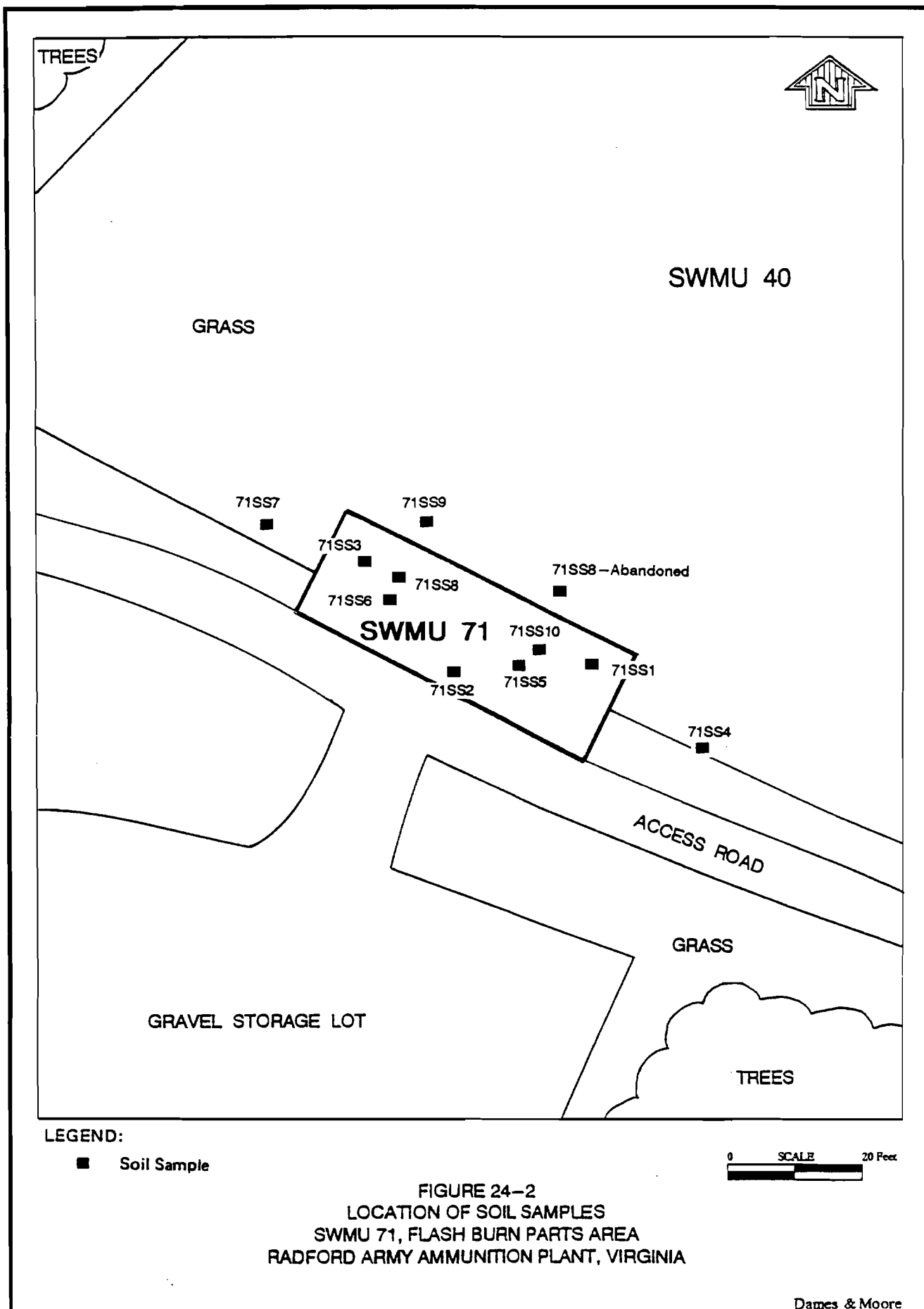
24.2 ENVIRONMENTAL SETTING

24.2.1 Topography

The topography of SWMU 71 is generally level but is steeply sloping immediately north of SWMU 40. The elevation of SWMU 71 is approximately 1,900 feet msl. SWMU 17 is approximately 300 feet east of SWMU 71. There is a gravel storage lot to the south of SWMU 71. The area is accessible by paved roads.

24.2.2 Geology and Soils

No site-specific investigation was performed in this area. However, borings conducted at SWMU 40 indicated that bedrock is only a few feet below ground surface and



consists of badly weathered and broken limestone layers. Several feet of SWMU 40 landfill material probably underlies SWMU 71 and overlies the natural ground surface.

24.2.3 Groundwater Conditions

No site-specific hydrogeologic investigation was performed in this area. However, this SWMU is located over karst limestone bedrock with a deep water table, more than 100 feet deep, with an unknown flow direction.

24.2.4 Surface Water Drainage

Based on topography, surface water runoff appears to flow generally northward and discharges into the New River. The New River is approximately 1.2 miles north of SWMU 71. According to RAAP utility maps, no manholes, catch basins, or storm drains exist in the immediate vicinity of SWMU 71.

24.3 CONTAMINATION ASSESSMENT (Revised)

The 1992 VI field program at SWMU 71 included the analyses of three shallow soil samples (71SS1, 71SS2, and 71SS3) collected from the Flash Burn Parts Area (Table 24-1). The samples were obtained from the surface where metals, residual explosives and oil wastes would most likely be present.

The 1993 VI field program at SWMU 71 included the analyses of seven soil samples (plus one duplicate) collected from the surface and five samples collected from soils at a depth of 4 feet. Paired shallow and deeper samples were taken at only five locations (71SS4, 71SS5, 71SS6, 71SS7 and 71SS9) and only surface samples were taken at two locations (71SS8 and 71SS10). A sample pair were attempted to be collected from a location several feet north of the east half of the site (71SS8 - Abandoned on Figure 24-2). However, landfill debris from SWMU 40 was present throughout this area and soil sampling for the purpose of delineating the impacted area of SWMU 71 was not feasible. The two soil samples scheduled for collection from this location were redesignated as additional surface soil samples collected from within the boundaries of SWMU 71.

The three soil samples collected in 1992 from SWMU 71 indicate that the concentrations of eight metals--arsenic, barium, beryllium, copper, mercury, selenium,

Table 24-1
Summary of Analytical Data For Soil Samples Collected At SWMU 71
Radford Army Ammunition Plant, Virginia

SITE ID		71SS1	71SS2	71SS3	
FIELD ID		RVFS*67	RVFS*68	RVFS*69	
S. DATE		05-feb-92	05-feb-92	05-feb-92	
DEPTH (ft)		0.5	0.5	0.5	
MATRIX	PQLs	CSO	CSO	CSO	HBN
UNIT'S	UGG	UGG	UGG	UGG	UGG
<u>TAL Inorganics</u>					
ALUMINIUM	14.1	15200	4040	4880	230000
ARSENIC	30	[13]	[27]	[190]	0.5
BARIUM	1	166	155	161	1000
BERYLLIUM	0.2	[2.2]	[1.63]	[1.73]	0.1
CALCIUM	100	9130	3130 B	10100	NSA
CHROMIUM	4	40.8	19.1	14	400
COBALT	3	[13.1]	[5.48]	[2.29]	0.8
COPPER	7	53.5	40.9	46.5	2900
IRON	1000	27600	9720	32700	NSA
LEAD	2	97.2	76.6	147	200
MAGNESIUM	50	7610	1860	1240	NSA
MANGANESE	0.275	463	127	44.7	8000
MERCURY	0.1	0.227	0.372	2.7	20
NICKEL	3	18.3	11.1	7.11	1000
POTASSIUM	37.5	1620	640	1560	NSA
SELENIUM	40	LT 0.25	0.449	6.69	200
SILVER	4	1.2	0.97	1.76	200
SODIUM	150	457 B	289 B	377 B	NSA
THALLIUM	20	[25.2]	[13.9]	[32.7]	6
VANADIUM	0.775	50.9	17	22.7	560
ZINC	30.2	160	80.5	43.5	16000
<u>Explosives</u>	NA	None Detected	None Detected	None Detected	NSA
<u>Other</u>					
TOTAL PETROLEUM HYDROCARBONS	NA	61.2	55.2	79.5	NSA

Footnotes :

B = Analyte was detected in corresponding method blank; values are flagged if the sample concentration is less than 10 times the method blank concentration for common laboratory constituents and 5 times for all other constituents.

CSO = Chemical soil.

HBN = Health based number as defined in the RCRA permit. HBNs not specified in the permit were derived using standard exposure and intake assumptions consistent with EPA guidelines (51 Federal Register 33992, 34006, 34014, and 34028).

LT = Concentration is reported as less than the certified reporting limit.

NA = Not available; PQLs are not available for TICs detected in the library scans.

NSA = No standard (HBN) available; health effects data were not available for the calculation of a HBN. HBNs were not derived for TICs.

PQL = Practical quantitation limit; the lowest concentration that can be reliably detected at a defined level of precision for a given analytical method.

TAL = Target Analyte List.

UGG = Micrograms per gram.

[] = Brackets indicate that the detected concentration exceeds the HBN.

sodium and thallium--were higher than background comparison criteria for uplands soil (Table 4-14 in final draft VI report and included in Appendix B in this revised section report). These anomalously high concentrations were present in each of the three samples for all of the metals except for selenium and sodium, which exceeded criterion in only two samples. Each concentration exceeded their PQL, and arsenic, beryllium and thallium concentrations exceeded HBNs. Beryllium, which slightly exceeded criteria and may be at a natural concentration, has a low solubility and is expected to be adsorbed onto clay mineral surfaces at a low pH and to be complexed into insoluble compounds at high pH. In most natural environments, beryllium is likely to be absorbed or precipitated, rather than dissolved and is not expected to impact surface water, groundwater or the underlying soil. Thallium, which was also detected above the HBN and background criteria, is not expected to be a concern because it is relatively immobile in the environment and is not expected to impact surface water, groundwater or the underlying soil. Arsenic, due to the HBN exceedance, may be a concern in SWMU soils. Concentrations of barium, copper, mercury, selenium, and sodium were elevated above the background criteria but generally were one or more orders of magnitude less than HBN criteria and are not considered a concern. TPH concentrations of 61.2, 55.2, and 79.5 ug/g were reported for samples 71SS1, 71SS2 and 71SS3, respectively, confirming the reported use of waste oil or fuel to flash the material. Explosives were not detected in any of the samples collected from the site.

Based on the findings of the 1992 soil sample analyses, 12 additional soil samples were collected in 1993 to better define the horizontal and vertical extent of detected analytes. Table 24-2 presents the analytical data for the samples collected in 1993. Three metals (beryllium, cobalt and arsenic) exceeded HBNs at each of the 12 sample locations. The concentrations for these three metals were similar to the concentrations measured in the 1992 samples except for one detection of arsenic in the 4 feet depth sample at location 71SS9. The arsenic HBN is 0.5 ug/g and the background uplands soil concentration was calculated to be 9 ug/g. Four samples exceeded both the HBN and background criteria for arsenic but only the concentration of arsenic in sample 71SS9 (4 feet) exceeded background by more than 85%. The arsenic concentration reported for sample 71SS9 (4 feet) was 528 ug/g, whereas the highest arsenic concentration in samples collected in 1992 was 190 ug/g

Table 24-2
Summary of Analytical Data For Phase II Soil Samples Collected At SWMU 71
Radford Army Ammunition Plant, Virginia

SITE ID	71SS4	71SS4	71SS5	71SS5(dup)	71SS5	71SS6	71SS6		
FIELD ID	RDSV-29	RDSX-30	RDSX-31	RDSX-42	RDSX-32	RDSX-33	RDSX-34		
S. DATE	15-jul-93	15-jul-93	15-jul-93	15-jul-93	15-jul-93	15-jul-93	15-jul-93		
DEPTH (ft)	0.0	4.0	0.0	0.0	4.0	0.0	4.0		
MATRIX	CSO	CSO	CSO	CSO	CSO	CSO	CSO	HBN	
UNITS	UGG	UGG	UGG	UGG	UGG	UGG	UGG	UGG	
TAL Metals									
ALUMINUM	14.1	23300.00	26900.00	17400.00	24300.00	33100.00	13600.00	48300.00	230000
ARSENIC	30	[5.300]	[7.400]	[8.300]	[5.700]	[6.900]	[17.000]	[8.600]	0.5
BARIUM	1	264.000	87.100	80.300	99.900	56.000	151.000	111.000	1000
BERYLLIUM	0.2	[1.270]	[1.750]	<0.500	[1.430]	[2.370]	[1.060]	[3.190]	0.1
CADMIUM	2	<0.700	<0.700	3.360	<0.700	<0.700	<0.700	<0.700	40
CALCIUM	500	6280.000	1360.000	42800.00	1860.000	1730.000	4700.000	2000.000	NSA
CHROMIUM	4	35.700	51.100	23.500	36.600	47.600	33.400	63.500	400
COBALT	3	[15.000]	[14.300]	[4.270]	[5.680]	[15.900]	[12.100]	[14.9000]	0.8
COPPER	7	27.400	26.100	11.800	15.600	38.400	197.000	32.300	2900
IRON	1000	32000.00	46800.00	24600.00	38200.00	33700.00	26000.00	50500.00	NSA
LEAD	2	38.200	18.000	61.200	25.900	<10.500	51.400	21.900	200
MAGNESIUM	50	6720.000	7800.000	26000.00	2470.000	47300.00	5600.000	26900.00	NSA
MANGANESE	0.275	355.000	351.000	164.000	131.000	341.000	381.000	438.000	8000
MERCURY	0.1	0.124	<0.050	0.133	0.179	<0.050	0.272	0.088	20
NICKEL	3	22.100	31.100	7.700	11.100	41.200	323.000	46.200	1000
POTASSIUM	37.5	1810.000	1970.000	707.000	1020.000	7000.000	1370.000	4070.000	NSA
SELENIUM	40	<0.250	<0.250	<0.250	<0.250	<0.250	0.587	<0.250	200
SILVER	4	<0.589	<0.589	<0.589	<0.589	<0.589	1.160	<0.589	200
SODIUM	150	734.000	740.000	378.000	401.000	348.000	403.000	457.000	NSA
VANADIUM	0.775	58.700	80.700	55.100	80.200	67.300	41.100	103.000	560
ZINC	30.2	79.500	59.200	23.900	34.200	56.300	95.900	76.100	16000
TCLP Metals									TCLP
	UGL								UGL
BARIUM	20	895.000	276.000	407.000	379.000	347.000	768.000	339.000	100000
CADMIUM	1	<4.010	<4.010	<4.010	<4.010	<4.010	<4.010	<4.010	1000
Other									
TPHs	NA	553.000	<28.700	36.700	36.100	<28.700	723.000	40.800	NSA

24-8

15

Table 24-2 (Cont'd)

SITE ID		FIELD ID	S. DATE	DEPTH (ft)	MATRIX	UNITS	TAL Metals		ALUMINUM	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	MAGNESIUM	MANGANESE	MERCURY	NICKEL	POTASSIUM	SELENIUM	SILVER	SODIUM	VANADIUM	ZINC	TCLP Metals	UGL	20	1	NA	38.400	<28.700	<28.700	1330.000	1090.000	<28.800	NSA	
71SS7	RDSX-35	15-Jul-93	0.0	CSO	UGG	26300.00	48700.00	22200.00	13800.00	14400.00	23300.00	12.1	30	1	0.2	500	4	7	1000	2	50	0.275	0.1	3	37.5	40	4	150	0.775	30.2	UGL	495.000	354.000	<4.010	<4.010	806.000	755.000	944.000	1160.000	1000000	1000	
71SS7	RDSX-35	15-Jul-93	0.0	CSO	UGG	26300.00	48700.00	22200.00	13800.00	14400.00	23300.00	126.000	109.000	282.000	13900.00	670.000	644.000	495.000	375.000	1300.000	0.068	26.200	1770.000	<0.250	<0.589	416.000	433.000	117.000	66.200	63.800	72.900	57.500	22.500	11.700	52.200	1140.000	1080.000	805.000	60.100	72.600	NSA	
71SS7	RDSX-36	15-Jul-93	4.0	CSO	UGG	48700.00	22200.00	22200.00	13800.00	14400.00	23300.00	126.000	109.000	282.000	13900.00	670.000	644.000	495.000	375.000	1300.000	0.068	26.200	1770.000	<0.250	<0.589	416.000	433.000	117.000	66.200	63.800	72.900	57.500	22.500	11.700	52.200	1140.000	1080.000	805.000	60.100	72.600	NSA	
71SS8	RDSX-37	28-Jul-93	0.0	CSO	UGG	22200.00	22200.00	22200.00	13800.00	14400.00	23300.00	120.000	107.000	21900.00	78.200	133.000	4840.000	375.000	1300.000	0.068	26.200	1770.000	<0.250	<0.589	416.000	433.000	117.000	66.200	63.800	72.900	57.500	22.500	11.700	52.200	1140.000	1080.000	805.000	60.100	72.600	NSA		
71SS9	RDSX-39	15-Jul-93	0.0	CSO	UGG	13800.00	13800.00	13800.00	13800.00	14400.00	23300.00	120.000	107.000	21900.00	78.200	133.000	4840.000	375.000	1300.000	0.068	26.200	1770.000	<0.250	<0.589	416.000	433.000	117.000	66.200	63.800	72.900	57.500	22.500	11.700	52.200	1140.000	1080.000	805.000	60.100	72.600	NSA		
71SS9	RDSX-40	15-Jul-93	4.0	CSO	UGG	14400.00	14400.00	14400.00	14400.00	14700.00	6590.000	37.400	27.000	35700.00	21.700	9520.000	1300.000	6.400	52.200	1170.000	<0.250	<0.589	416.000	433.000	117.000	66.200	63.800	72.900	57.500	22.500	11.700	52.200	1140.000	1080.000	805.000	60.100	72.600	NSA				
71SS10	RDSX-38	28-Jul-93	0.0	CSO	UGG	23300.00	23300.00	23300.00	23300.00	23300.00	23300.00	380.000	380.000	116.000	123.000	21900.00	78.200	133.000	4840.000	375.000	1300.000	0.068	26.200	1770.000	<0.250	<0.589	416.000	433.000	117.000	66.200	63.800	72.900	57.500	22.500	11.700	52.200	1140.000	1080.000	805.000	60.100	72.600	NSA

Footnotes :
CSO = Chemical soil.
UGG = Micrograms per gram.
NA = Not available
UGL = Micrograms per liter.
IIBN = Health based number as defined in the RCRA permit. IIBNs not specified in the permit were derived using standard exposure and intake assumptions consistent with EPA guidelines (51 Federal Register 33992, 34006, 34014, and 34028).
NSA = No standard (IIBN) available; health effects data were not available for the calculation of a IIBN.
PQL = Practical quantitation limit; the lowest concentration that can be reliably detected at a defined level of precision for a given analytical method.
TAL = Target Analyte List.
TCLP = Toxicity Characteristic Leaching Procedure.
[] = Brackets indicate that the detected concentration exceeds the IIBN.

and only a maximum concentration of 16.6 ug/g in all other 1993 samples. Sample 71SS9 (4 feet) was collected from soil north of SWMU 71 which is part of the cover soil or fill of the adjacent SWMU 40. For this reason, the arsenic detected in sample 71SS9 (4 feet) is not considered attributable to past SWMU 71 activities. Thallium was not detected in any 1993 sample, but was detected in each 1992 sample.

Sixteen metals were detected in soil samples collected in 1993 at concentrations greater than the background uplands soils concentrations calculated for the VI at RAAP (presented on Table 4-14 in Appendix B). The detection of these metals -- aluminum, arsenic, barium, beryllium, cadmium, chromium, copper, iron, magnesium, manganese, mercury, nickel, potassium, selenium, sodium and vanadium -- could indicate that past practices at the site has resulted in metals being discharged into the soil. Only arsenic and beryllium exceeded both the VI specific calculated background concentrations and the permit-specified HBNs in at least one sample. Seven metals which exceeded background concentrations for the 1992 sample also exceeded background concentrations in the 1993 samples. The eighth 1992 metal to exceed the HBN -- thallium-- was not detected in any 1993 sample. The concentrations of metals detected in the 1993 samples supports the determination that arsenic may be a concern, just as was determined for the 1992 samples.

The TPH concentrations ranged from below the detection limit to 1330 ug/g. The two greatest concentrations were detected in the shallow (1330 ug/g) and deep (1090 ug/g) samples at location 71SS9, a location north of the flash burn area. The shallow samples at 71SS4 (553 ug/g) and 71SS6 (723 ug/g) also showed concentrations generally greater than all the other samples, all of which had concentrations of TPH less than 80 ug/g.

Data collected in 1993 was essentially the same as the data collected in 1992 except that soil TPH concentrations were greater than previously detected.

All samples collected in 1993 were subjected to TCLP analyses for metals. Only two metals were detected in the resulting leachate samples with barium detected in all samples and cadmium only detected in sample 71SS9 (4 feet). The detected concentrations were two to three orders of magnitude less than their respective TCLP criteria.

The concentrations of metals in the surface soil samples were compared to the concentrations measured from soil collected at a depth of 4 feet within the boundaries of SWMU 71. The concentrations of metals in the six shallow samples (71SS1, 71SS2, 71SS3, 71SS5 (0 feet), 71SS5-duplicate (0 feet), and 71SS6 (0 feet)) did not appear to be obviously different from the concentrations of metals in the two deeper samples (71SS5 (4 feet) and 71SS6 (4 feet)) for most metals. Some metals at location 71SS6 had noticeably higher concentrations in the shallow sample versus the deeper sample: copper at 197 ug/g versus 32.3 ug/g; lead at 51.4 ug/g versus 21.9 ug/g; and nickel at 323 ug/g versus 46.2 ug/g. However, none of the detected metals were at concentrations exceeding HBNs except for arsenic, beryllium and cobalt, as mentioned previously. These data indicates that the measurable impacts to site soils is limited to the surface and extends only to the boundaries of the site.

24.4 BASELINE RISK ASSESSMENT

Based on the contamination assessment presented in Section 24.3, one contaminant of concern--arsenic--has been identified in SWMU 71 soil. In addition, TPH was detected and may indicate the presence of waste oil or fuel constituents in site soil. Samples were not collected from other environmental media. The potential impact of arsenic in site soil to human health and the environment is discussed below in Sections 24.4.1 and 24.4.2, respectively.

24.4.1 Human Health Evaluation

SWMU 71 is an open gravel area, about 25 feet by 50 feet in size. The soil samples were collected from a depth of 0 to 6 inches below the gravel surface or deeper. Although potential soil exposure routes typically include incidental ingestion, inhalation, and dermal absorption of soil contamination, because the area is covered by gravel and the soil samples were collected from beneath the gravel cover, it is highly unlikely that receptors would contact this soil or that contaminants may become airborne. In addition, SWMU 71 is an inactive area and access to RAAP is strictly controlled, thereby further precluding contact by receptors. Therefore, the soil exposure pathways are not considered operable at this site.

Because future land use is assumed to be similar to the current land use scenario, the soil exposure pathways are also not considered operable for the future land use scenario.

24.4.2 Environmental Evaluation

Because this SWMU is located near an active burning area and highly used road, it is unlikely that environmental receptors would often approach this site and contact this soil. Any contact would be expected to be minimal and infrequent. Therefore, potential exposure to environmental receptors is expected to be insignificant.

24.4.3 Conclusions of the Human Health and Environmental Evaluation

Arsenic concentrations were determined to be greater than its HBN and background levels, and TPH was detected, potentially indicating the presence of waste oil or fuel constituents. However, due to the unlikelihood of human or environmental receptors contacting the soil or to the unlikelihood of the hard-packed soil to become airborne, the contamination detected in SWMU 71 shallow soil does not appear to present a current or potential future human health risk or environmental threat.

24.5 CONCLUSIONS (Revised)

Concentrations of eight metals exceeded background comparison criteria in three soil samples collected at the site in 1992. Elevated levels of arsenic, barium, beryllium, copper, mercury, selenium, sodium, and thallium indicate an impact on the surface soil from past site operations. Laboratory analyses of samples collected in 1993 indicates that aluminum, cadmium, chromium, iron, magnesium, manganese, nickel, potassium and vanadium are also at concentrations above background, but that thallium is not present at the site. Waste oil or fuel constituents may be present at the site as indicated by the results of the TPH analyses. Explosives were not detected in the soil samples and are not considered a concern. Arsenic was identified in the qualitative risk assessment as the only contaminant of concern; however, conditions are such that an imminent risk due to arsenic exposure cannot be identified.

24.6 RECOMMENDED ACTION (Revised)

A quantitative risk assessment for arsenic is recommended for SWMU 71 before remedial actions can be considered appropriate. If the risk assessment indicates an unacceptable risk exists due to detected arsenic, options for either isolating or removing the impacted surficial soil should be evaluated.

APPENDIX A

Chemical Abbreviations and Analytical Data

Test Name (Analyte)

8.24

ELEMENT IS USED IN THE FOLLOWING IR RECORDS AND DATA BASE TABLES:

Level 1		Level 2		Level 3	
Record	Column(s)	Record	Column(s)	Table(s)	DB Column
Analyte	2-7	3CC(all)	73-80	chem/zco	test_nm

ELEMENT SIZE AND CHARACTERISTICS:

6 alphanumeric characters, left justified

ELEMENT DESCRIPTION:

Code to identify the analyte or parameter being measured.

ACCEPTABLE CRITERIA:

- Required on all chemical and radiological records
- Must match one of the acceptable codes listed below
- For unknowns, must be within the range of UNK001 through UNK999
- Lab must be certified for the specific Test Name except when one of the following conditions exists:

Method is "99", non-USATIIAMA approved or semiquantitative screening
Method is "00", which is valid for the following Test Names:

ACIDIT	CORRTY	SALINE
ALK	CROCO	SALINI
ALKBIC	DO	SSOL
ALKCAR	DOC	TASTE
ALKIYD	EPTOX	TDS
ALKPHE	FIBGLS	TEMP
ALPHAG	FLASH	TOC
AMOS	FSTREP	TOTASH
ANPHO	HAJD	TOX
ASBEST	IGNIT	TPHAVG
BETAG	MINWOL	TPHC
BOD	ODOR	TPHDSL
CHARD	OILGR	TPHIGAS
CHRYG	ORGFIB	TREACT
COD	PARTIC	TSOLID
COLI	PII	TSS
COLOR	REACTY	TURBID
COND	RESIST	

8.24

Test Name (Analyte)

NOTE: For unknown compounds, use the code "UNKXXX" where "XXX" represents the number assigned by the field lab to the unknowns from 001 thru 999. The numbers are full field, so "unknown one" would be expressed as "UNK001" with the zeros included. The description of what "UNK001" represents will be defined in the contractor's reports and other documentation and be consistent within the same installation. Therefore "UNK001" can only represent one unique unknown for each installation.

ACCEPTABLE ENTRIES:

Chemical and Radiological Data:

(Sorted alphabetically by Test-Name code)

01NHCL	0.1N Hydrochloric acid
10CUDM	10-Cyclopentylundecanoic acid, methyl ester
10MEOH	10% Methanol
10MUDM	10-Methylundecanoic acid, methyl ester
10OEME	10-Octadecenoic acid, methyl ester
111TCE	1,1,1-Trichloroethane
112TCE	1,1,2-Trichloroethane
113MCH	1,1,3-Trimethylcyclohexane
11C1PE	1,1-Dichloro-1-propene
11C1PN	1,1-Dichloropropene
11DCE	1,1-Dichloroethylene / 1,1-Dichloroethene
11DCLE	1,1-Dichloroethane
11DCPE	1,1-Dichloropropene
11DMEB	(1,1-Dimethylethyl) benzene
11DPH	1,1-Diphenylhydrazine
11MCPB	1,1-Dimethylcyclopentane
1234MB	1,2,3,4-Tetramethylbenzene
123CPR	1,2,3-Trichloropropane
123MCH	1,2,3-Trimethylcyclohexane
123PDA	1,2,3-Propanetriol diacetate
123TCB	1,2,3-Trichlorobenzene
123TMB	1,2,3-Trimethylbenzene
124MCH	1,2,4-Trimethylcyclohexane
124TCB	1,2,4-Trichlorobenzene
124TMB	1,2,4-Trimethylbenzene
12DB3C	1,2-Dibromo-3-chloropropane
12DBD4	1,2-Dichlorobenzene-D4
12DBRE	1,2-Dibromoethane / Ethyl dibromide
12DCD4	1,2-Dichloroethane-D4

ACCEPTABLE ENTRIES: (Cont.)

12DCE	1,2-Dichloroethenes / 1,2-Dichloroethylenes (<i>cis</i> and <i>trans</i> isomers)
12DCLB	1,2-Dichlorobenzene
12DCLE	1,2-Dichloroethane
12DCLP	1,2-Dichloropropane
12DCPE	1,2-Dichloropropene, total
12DMB	1,2-Dimethylbenzene / o-Xylene
12DNAP	1,2-Dimethylnaphthalene
12DPB	1,2-Diphenylbenzene
12DPH	1,2-Diphenylhydrazine
12EPCI	Cyclohexene oxide / 1,2-Epoxy cyclohexene
12PEPB	1,2-Epoxyethylbenzene / Styrene oxide
12MCPE	1,2-Dimethylcyclopentane
12MTDM	12-Methyltetradecanoic acid, methyl ester
12TMCP	1,1,2,2-Tetramethylcyclopropane
13MCI	1,3,5-Trimethylcyclohexane
13STMB	1,3,5-Trimethylbenzene
13STNB	1,3,5-Trinitrobenzene
13BDE	1,3-Butadiene
13CPDO	1,3-Cyclopentadione
13BBD4	1,3-Dichlorobenzene-D4
13DCLB	1,3-Dichlorobenzene
13DCP	1,3-Dichloropropane
13DCPE	1,3-Dichloropropene
13DEB	1,3-Diethylbenzene
13DFB	1,3-Difluorobenzene
13DMB	1,3-Dimethylbenzene / m-Xylene
13DMBB	(1,3-Dimethylbutyl) benzene
13DMCI	1,3-Dimethylcyclohexane
13DNAP	1,3-Dimethylnaphthalene
13DNB	1,3-Dinitrobenzene
13DPPR	1,1'-(1,3-Propanediyl) bis(benzene) / 1,3-Diphenylpropane
13HIND	1,3-Dihydro-2H-indol-2-one
13MCPE	1,3-Dimethylcyclopentane
13TDAM	13-Tetradecynoic acid, methyl ester
14D2EB	1,4-Dimethyl-2-ethylbenzene
14DACB	1,4-Diacetylbenzene
14BBD4	1,4-Dichlorobenzene-D4
14DCBU	1,4-Dichlorobutane
14DCLB	1,4-Dichlorobenzene
14DFB	1,4-Difluorobenzene
14DIOX	1,4-Dioxane

ACCEPTABLE ENTRIES: (Cont.)

14DMB	1,4-Dimethylbenzene / p-Xylene
14DMCI	1,4-Dimethylcyclohexane
14DMNP	1,4-Dihydro-1,4-methanonaphthalene
14DMXA	1,4-Dimethoxyanthracene
14DNB	1,4-Dinitrobenzene
14HXDE	1,4-Hexadiene
14MPME	14-Methylpentadecanoic acid, methyl ester
15DNAP	1,5-Dimethylnaphthalene
15MIIME	15-Methylhexadecanoic acid, methyl ester
167TMN	1,6,7-Trimethylnaphthalene
16DMIN	1,6-Dimethylindan
16DNAP	1,6-Dimethylnaphthalene
16MIIME	16-Methylheptadecanoic acid, methyl ester
17PTCE	17-Pentatriacontene
18DNAP	1,8-Dimethylnaphthalene
18O18D	1,2,3,4,4A,5,8,8A-Octahydro-1,4,5,8-dimethanol-naphthalen-2-ol
1A3MPZ	1-Acetyl-3-methyl-5-pyrazolone
1A4IIMB	1-Acetyl-4-(1-hydroxy-1-methylethyl) benzene
1B4IIB	1-Benzyl-4-hydroxybenzimidazole
1C3L	1-Propanol
1C4L	1-Butanol
1CDMPZ	1-Carbamoyl-3,5-dimethyl-2-pyrazoline
1CII	1-Chlorohexane
1C124II	1-Chloro-2,4-hexadiene
1CLODC	1-Chlorooctadecane
1CNAP	1-Chloronaphthalene
1DODCL	1-Dodecanol
1E2IDB	1-Ethyl-2,4-dimethylbenzene
1E2MB	1-Ethyl-2-methylbenzene
1E2IB	1-Ethylhexylbenzene
1EIIIND	1-Ethylidene-111-indene
1EPB	1-Ethylpropylbenzene
1FNAP	1-Fluoronaphthalene
1HFDOL	1-Heptadecanol
1HX3OL	1-Hexen-3-ol
1HXE	1-Hexene
1M2PEC	1-Methyl-2-(2-propenyl) cyclopentane
1M7MEN	1-Methyl-7-(1-methylethyl) naphthalene
1MBAA	1-Methylbenz (A) anthracene
1MCPNE	1-Methylcyclopentene
1MDB	1-Methyldecylbenzene

ACCEPTABLE ENTRIES: (Cont.)

1MECIIX	1-Methylethylcyclohexane
1MECPR	1-Methylethylcyclopropane
1MEIND	1-Methylindan
1MFLRE	1-Methyl-9H-fluorene
1MNAP	1-Methylnaphthalene
1MNB	1-Methylnonylbenzene
1MPRB	(1-Methylpropyl) benzene
1MPYR	1-Methylpyrene
1MX1PE	1-Methoxy-1-propene
1N2ONE	1-Nitro-2-octanone
1NAPA	1-Naphthylamine
1NIIP	1-Nitroheptane
1NKCL	1.0N Potassium chloride solution
1NPN	1-Nitropropane
1OCTOL	1-Octanol
1PECIIX	1-Propenylcyclohexane
1PNAP	1-Phenylnaphthalene
17BC1A	1-t-Butylcyclohexanecarboxylic acid
210DMU	2,10-Dimethylundecane
2255CB	2,2',5,5'-Tetrachlorobiphenyl
225TCB	2,2',5-Trichlorobiphenyl
226TMO	2,2,6-Trimethyloctane
22DCP	2,2-Dichloropropane
22DMC4	2,2-Dimethylbutane
2345CB	2,3,4,5-Tetrachlorobiphenyl
2346CP	2,3,4,6-Tetrachlorophenol
2356CP	2,3,5,6-Tetrachlorophenol
235TCP	2,3,5-Trichlorophenol
235TMD	2,3,5-Trimethyldecane
236TMN	2,3,6-Trimethylnaphthalene
237TMO	2,3,7-Trimethyloctane
23C1PE	2,3-Dichloro-1-propene
23D2HL	2,3-Dimethyl-2-hexanol
23DCLP	2,3-Dichlorophenol
23DMC4	2,3-Dimethylbutane
23DMC5	2,3-Dimethylpentane
23DMP	2,3-Dimethylphenol
23DNAP	2,3-Dimethylnaphthalene
23IMP	2,2,3,3-Tetramethylpentane
245PCB	2,2',4,5,5'-Pentachlorobiphenyl
245T	2,4,5-Trichlorophenoxyacetic acid

ACCEPTABLE ENTRIES: (Cont.)

245TCP	2,4,5-Trichlorophenol
245TP	2-(2,4,5-Trichlorophenoxy) Propionic Acid
246MPY	2,4,6-Trimethylpyridine
246TBP	2,4,6-Tribromophenol
246TCA	2,4,6-Trichloroaniline
246TCP	2,4,6-Trichlorophenol
246TMO	2,4,6-Trimethyloctane
246TNP	2,4,6-Trinitrophenol / Picric acid
246TNR	2,4,6-Trinitroresorcinol / Styphnic acid
246TNT	2,4,6-Trinitrotoluene / alpha-Trinitrotoluene
247H0I	2,2,4,4,7,7-Hexamethyloctahydro-1H-indene
247TMO	2,4,7-Trimethyloctane
24D	2,4-Dichlorophenoxyacetic acid / 2,4-D
24DB	4-(2,4-Dichlorophenoxy)butyric acid / 2,4-DB
24DCB	2,4'-Dichlorobiphenyl
24DCLP	2,4-Dichlorophenol
24DMC5	2,4-Dimethylpentane
24DMD	2,4-Dimethyldecane
24DMIIX	2,4-Dimethylhexane
24DMPN	2,4-Dimethylphenol
24DNP	2,4-Dinitrophenol
24DNT	2,4-Dinitrotoluene
24M2PL	2,4-Dimethyl-2-pentanol
24NPD3	2,4-Dinitrophenol-D3
24T13P	2,2,4-Trimethyl-1,3-pentanediol
256TMD	2,5,6-Trimethyldecane
25C14D	2,5-Cyclohexadien-1,4-dione
25DCLP	2,5-Dichlorophenol
25DMP	2,5-Dimethylphenol
25DMPA	2,5-Dimethylphenanthrene
25DTIIF	2,5-Dimethyltetrahydrofuran
25ETIIF	2,5-Diethyltetrahydrofuran
25IIPC8	2,2',3,4,5,5',6-Hexachlorobiphenyl
25IIXCB	2,2',3,4,5,5'-Hexachlorobiphenyl
25OCCB	2,2',3,3',4,4',5,5'-Octachlorobiphenyl
261TMD	2,6,11-Trimethyldodecane
26DBMP	2,6-Di-tert-butyl-4-methylphenol / 2,6-Di-tert-butyl-4-cresol
26DCLP	2,6-Dichlorophenol
26DMO	2,6-Dimethyloctane
26DMP	2,6-Dimethylphenol
26DMST	2,6-Dimethylstyrene

ACCEPTABLE ENTRIES: (Cont.)

26DMUD	2,6-Dimethylundecane
26DNA	2,6-Dinitroaniline
26DNT	2,6-Dinitrotoluene
26IIPCB	2,2',3,4,4',5,6-Heptachlorobiphenyl
27DMO	2,7-Dimethyloctane
27DNAP	2,7-Dimethylnaphthalene
29DMUD	2,9-Dimethylundecane
2A46DA	2-Amino-4,6-dinitroaniline
2A46DT	2-Amino-4,6-dinitrotoluene
2A4NT	2-Amino-4-nitrotoluene
2ACAMF	2-Acetylaminofluorene
2BICP	2-Bromo-1-chloropropane
2BIOOL	2-Butyl-1-octanol
2B4MFU	2-(<i>t</i> -butyl)-4-methylfuran
2BEETO	2-(2-N-Butoxyethoxy) ethanol
2BEMDE	2,2-Bis(ethylmercapto) diethyl ether
2BMMPR	2,2-Bis(methylmercapto) propane
2BNMNM	2-Butyl-N-methylnorleucine, methyl ester
2BR1XA	2-Bromohexanoic acid
2BUTHF	2-Butyltetrahydrofuran
2BUXEL	2-Butoxyethanol
2C4E	2-Butene
2C6MPZ	2-Chloro-6-methoxy-10H-phenothiazine
2C7O	2-Heptanone / Methylpentyl ketone
2CBMN	<i>o</i> -Chlorobenzylidene malononitrile
2CECHO	2-(2-Cyanoethyl) cyclohexanone
2C146D	2-Cyclohexyl-4,6-dinitrophenol
2C1AEE	2-Cyclopentene-1-hendecanoic acid, ethyl ester
2C1E1L	2-Cyclohexen-1-ol
2C1E1O	2-Cyclohexen-1-one
2CLBP	2-Chlorobiphenyl
2CLEVE	(2-Chloroethoxy) ethene / 2-Chloroethylvinyl ether
2CLP	2-Chlorophenol
2CLPD4	2-Chlorophenol-D4
2CLT	2-Chlorotoluene
2CMCHO	2-(Cyanomethyl) cyclohexanone
2CNAP	2-Chloronaphthalene
2DMPEN	2,2-Dimethylpentane
2E11XL	2-Ethyl-1-hexanol
2E21PD	2-Ethyl-2-hydroxyethyl-1,3-propanediol
2E4MPL	2-Ethyl-4-methyl-1-pentanol

ACCEPTABLE ENTRIES: (Cont.)

2EC6A	2-Ethylhexanoic acid
2ECYBL	2-Ethylcyclobutanol
2EP	2-Ethylphenol
2FBP	2-Fluorobiphenyl
2FNAP	2-Fluoronaphthalene
2FP	2-Fluorophenol
2H8DDM	2-Hydroxybutanedioic acid, dimethyl ester
2H8NZL	2-Hydroxybenzaldehyde / Salicylaldehyde
2HNDOL	2-Hendecanol / 2-Undecanol
2HIYP	2-Hydroxybiphenyl
2M1DDL	2-Methyl-1-dodecanol
2M1PNE	2-Methyl-1-pentene
2M24P	2-Methyl-2,4-pentanediol
2M2BDA	2-Methyl-2-butenediamide
2M2C3L	2-Methyl-2-propanol / tert-Butanol
2M2H3B	2-Methyl-2-hydroxy-3-butyne
2M3IIXE	2-Methyl-3-hexene
2M3PNO	2-Methyl-3-pentanone
2MBZA	2-Methylbenzyl alcohol
2MC3	2-Methylpropane / Isobutane
2MC4	2-Methylbutane / Isopentane
2MC6	2-Methylhexane / Isoheptane
2MC7	2-Methylheptane / Isooctane
2MCPNE	2-Methylcyclopentanone
2MCYPL	2-Methylcyclopentanol
2MDEC	2-Methyldecane
2MDOD	2-Methyldodecane
2MENAP	2-(1-Methylethyl) naphthalene
2MEODE	2-Methyloctadecanoic acid
2MEPEN	2-Methylpentane
2MECO	2-Methyl-5-(1-methylethyl)-2-cyclohexen-1-one
2MNAP	2-Methylnaphthalene
2MP	2-Methylphenol / 2-Cresol / <i>o</i> -Cresol
2MPAIE	2-Isobutyric acid
2MPAII'	2-Methylpropanoic acid, 3-hydroxy-2,4,4-trimethyl-1,3-propanediyl ester
2MPAME	2-Methylpropanoic acid, methyl ester
2MPAE	2-Methyl-2-propanoic acid, 1,2-ethanediyl ester
2MPYR	2-Methylpyrene
2MTETD	2-Methyltetradecane
2MTHF	2-Methyltetrahydrofuran
2MTIIPM	2-Methylthio-4-hydroxypyrimidine

ACCEPTABLE ENTRIES: (Cont.)

2MX1PE	2-Methoxy-1-propene
2MXEL	2-(2-Methoxyethoxy) ethanol / Diethyleneglycol monomethyl ether
2MXMC3	2-Methoxy-2-methylpropane / tert-Butylmethyl ether
2MX1MB	2-Methoxy-2,3,3-trimethylbutane
2N3C	3-Methyl-2-nitrophenol / 2-Nitro-m-cresol
2NANIL	2-Nitroaniline
2NAPA	2-Naphthylamine
2NBZLZ	2-Nitrobenzalazine
2NKCL	2.0N Potassium chloride solution
2NNDPA	2-Nitro-N-nitrosodiphenylamine
2NODCO	2-Nonadecanone
2NP	2-Nitrophenol
2NPN	2-Nitropropane
2NT	2-Nitrotoluene
2OXBEL	2,2-Oxybis[ethanol] (obsolete - use DEGLYC)
2PETOI	2-Phenylethanol
2PIXEL	2-Phenoxyethanol
2PICO	2-Picoline
2PNAP	2-Phenyl-naphthalene
2PROL	2-Propanol
2PXEL	2-(2-Phenoxyethoxy) ethanol
2PY1OL	2-Propyn-1-ol
2SB46D	2-sec-Butyl-4,6-dinitrophenol
2TCLEA	1,1,1,2-Tetrachloroethane
2TMHPD	2,6,10,14-Tetramethylheptadecane
2TMPD	2,6,10,14-Tetramethylpentadecane
33DCBD	3,3'-Dichlorobenzidine
33DMBP	3,3'-Dimethoxybiphenyl / 3,3'-Dimethoxybenzidine
33DMEB	3,3'-Dimethylbiphenyl / 3,3'-Dimethylbenzidine
33DMIIX	3,3-Dimethylhexane
33DMPN	3,3-Dimethylpentane
344TPE	3,4,4-Trimethyl-2-pentene
345T1H	3,4,5-Trimethyl-1-hexene
34BZFA	3,4-Benzofluoranthene
34CBD6	3,3',4,4'-Tetrachlorobiphenyl-D6
34D1DE	3,4-Dimethyl-1-decene
34DCLP	3,4-Dichlorophenol
34DMP	3,4-Dimethylphenol
34DNT	3,4-Dinitrotoluene
35DMP	3,5-Dimethylphenol
35DNA	3,5-Dinitroaniline

ACCEPTABLE ENTRIES: (Cont.)

35DNP	3,5-Dinitrophenol
35DNT	3,5-Dinitrotoluene
35M3HIL	3,5-Dimethyl-3-hexanol
36DF9O	3,6-Dichlorofluorene-9-one
36DMO	3,6-Dimethyloctane
36TMPA	3,4,5,6-Tetramethylphenanthrene
37DMNN	3,7-Dimethylnonane
38DMUD	3,8-Dimethylundecane
3BPE111	3-Butenylpentyl ether
3C1C3E	3-Chloro-1-propene / Allyl chloride
3CHXD	3-Cyclohexyldecane
3CLP	3-Chlorophenol
3CLPRN	3-Chloropropionitrile
3CLT	3-Chlorotoluene
3CMCH	3-(Chloromethyl)-cyclohexene
3DC11EO	3,5-Dimethyl-2-cyclohexen-1-one
3E22MP	3-Ethyl-2,2-dimethylpentane / 3-(t-Butyl)-pentane
3E25DI	3-Ethyl-2,5-dimethyl-3-hexene
3EE2BO	3,4-Epoxy-3-ethyl-2-butanone
3EEBOD	3-Ethyl-5-(2-ethylbutyl)-octadecane
3E1XDE	3-Ethyl-1,4-hexadiene
3EP	3-Ethylphenol
3I1DMPL	3-(1-Hydroxymethyl)-4,4-dimethylpentanal
3I1DMPT	3-Hydroxy-2,7-dimethyl-4-[3H]-pteridinone
3I1XE2O	3-Hexen-2-one
3I1YBA	3-Hydroxybenzaldehyde
3M1PL	3-Methyl-1-pentanol
3M2C1O	3-Methoxy-2-cyclopenten-1-one
3M2C5E	3-Methyl-2-pentene
3M2C11O	3-Methyl-2-cyclohexen-1-one
3M211XL	3-Methyl-2-hexanol
3MSPNN	3-Methyl-5-propylnonane
3MBP	3-Methylbiphenyl
3MC6	3-Methylhexane
3MCA	3-Methylcholanthrene
3MCI1RY	3-Methylclarysene
3MDEC	3-Methyldecane
3MEPEN	3-Methylpentane
3MP	3-Methylphenol / 3-Cresol / m-Cresol
3MPANR	3-Methylphenanthrene
3MUND	3-Methylundecane

ACCEPTABLE ENTRIES: (Cont.)

3MXIMZ	3-Methoxyimidazole
3MXT	3-Methoxytoluene
3NANIL	3-Nitroaniline
3NT	3-Nitrotoluene
3OCTOL	3-Octanol
3OPPAE	3-Oxo-3-phenylpropanoic acid, ethyl ester
3PC3AC	3-Phenylpropanoyl chloride/Hydroclunanyl chloride
3PT	3-Propyltoluene
3SSE3L	(3beta)-Stigmast-5-en-3-ol
3TBUP	3-(t-Butyl) phenol
3TCHEO	3,5,5-Trimethyl-2-cyclohexen-1-one
41MEHIP	4-(1-Methylethyl) heptane
44DCBZ	4,4'-Dichlorobenzophenone
44DFBZ	4,4'-Difluorobenzophenone
44DMPE	4,4-Dimethyl-2-pentene
44DMUD	4,4-Dimethylundecane
468T1N	4,6,8-Trimethyl-1-nonene
46DN2C	2-Methyl-4,6-dinitrophenol / 4,6-Dinitro-2-cresol
47DMUD	4,7-Dimethylundecane
48DMHD	4,8-Dimethylhendecane
4A2NT	4-Amino-2-nitrotoluene
4A3SDT	4-Amino-3,5-dinitrotoluene
4ABP	4-Aminobiphenyl
4AMORP	4-Acetylmorpholine
4B3P2O	4-Butoxy-3-penten-2-one
4BFB	4-Bromofluorobenzene
4BRPPE	4-Bromophenylphenyl ether
4C3MBE	4-Chloro-3-methyl-1-butene
4CANIL	4-Chloroaniline
4CC1XL	4-Chlorocyclohexanol
4CL2C	2-Methyl-4-chlorophenol / 4-Chloro-2-cresol
4CL3C	3-Methyl-4-chlorophenol / 4-Chloro-m-cresol / 4-Chloro-3-cresol / 4-Chloro-3-methylphenol
4CLPPE	4-Chlorophenylphenyl ether
4CLT	4-Chlorotoluene
4DM2PL	4,4-Dimethyl-2-pentanol
4E2M1X	4-Ethyl-2-methylhexane
4E2OCE	4-Ethyl-2-octene
4ETM1P	4-Ethyl-2,2,6,6-tetramethylheptane
4FANIL	4-Fluoroaniline
4FT	4-Fluorotoluene

ACCEPTABLE ENTRIES: (Cont.)

41135BA	4-Hydroxy-3,5-dimethoxybenzaldehyde
4113MBA	4-Hydroxy-3-methoxybenzaldehyde / Vanillin
411AZOB	4-Hydroxyazobenzene
411YBA	4-Hydroxybenzaldehyde
41OMQU	4-Iodomethylquinuclidine
4M2PNO	4-Methyl-2-pentanone
4M2PPL	4-Methyl-2-propyl-1-pentanol
4MBP	4-Methylbiphenyl
4MBSA	4-Methylbenzene sulfonamide
4MC7	4-Methylheptane
4MDBFU	4-Methyldibenzofuran
4MENPA	4-(1-Methylethyl)-N-phenylaniline
4MFLRE	4-Methyl-9H-fluorene
4MMBIE	4-Methyl-1-(1-methylethyl)-bicyclo[3.1.0]hex-2-ene
4MP	4-Methylphenol / 4-Cresol / p-Cresol
4MPANR	4-Methylphenanthrene
4MPYR	4-Methylpyrene
4MXC1L	4-Methoxycyclohexanol
4MXP	4-Methoxyphenol
4NANIL	4-Nitroaniline
4NP	4-Nitrophenol
4NT	4-Nitrotoluene
4TBU2C	2-Methyl-4-(t-butyl) phenol / 4-t-Butyl-2-cresol
4TOP	4-t-Octylphenol
501150A	50% Hexane - 50% acetone
50MS0A	50% Methylene chloride - 50% acetone
50WMAN	50% Water - 25% Methanol - 25% acetonitrile
5CL2C	5-Chloro-o-cresol / 2-Methyl-5-chlorophenol
5E2M1P	5-Ethyl-2-methylheptane
5E5MD	5-Ethyl-5-methyldecane
5M21IXO	5-Methyl-2-hexanone
5MS11A1	5-Methyl-5-hydroxyhexanoic acid lactone
5N2OL	5-Norbornen-2-ol
5NOTOL	5-Nitro-o-toluidine
5PTRID	5-Propyltridecane
6CL3C	3-Methyl-6-chlorophenol / 6-Chloro-3-cresol
6E6MFV	6-Ethyl-6-methylfulvene
6M31PL	6-Methyl-3-heptanol
6MDOD	6-Methyldodecane
6MEPUR	6-Methylpurine
6MTRID	6-Methyltridecane

ACCEPTABLE ENTRIES: (Cont.)

6TBU2C	2-Methyl-6-(t-butyl) phenol / 6-t-Butyl-2-cresol
712DMA	7,12-Dimethylbenz(A)anthracene
7MTIUD	7-Methyltridecane
8MHNDL	8-Methyl-1,8 nonanediol
9FLENO	9-Fluorenone
9HFLRE	9H-Fluoren-9-one
9MBAAN	9-Methylbenz(A)anthracene
9MXANT	9-Methoxyanthracene
AACHXE	Acetic acid, cyclohexyl ester
AADMP	alpha, alpha-Dimethylphenethylamine
ABHC	alpha-Benzenehexachloride / alpha-Hexachlorocyclohexane
AC	Hydrogen cyanide / Hydrocyanic acid
AC228	Actinium 228
ACDHMW	Acids (high molecular weight)
ACET	Acetone
ACIE	Acetylcholinesterase
ACIDIT	Acidity
ACLDAN	alpha-Chlordane
ACILOR	alpha-Chlordane (obsolete-use ACLDAN)
ACND10	Acenaphthene-D10
ACPIIN	Acetophenone
ACROLN	Acrolein
ACRYLO	Acrylonitrile
ADHP	Ammonium dihydrogen phosphate
AENSLF	alpha-Endosulfan / Endosulfan I
AG	Silver
AG110M	Silver 110 (metastable)
AL	Aluminum
ALACL	Alachlor
ALAL	Aliphatic alcohols
ALDEHY	Aldehydes
ALDI	Aldicarb / 2-Methyl-2-(methylthio)propanal O-[(methylamino)carbonyl] oxime
ALDRN	Aldrin
ALHC	Aliphatic hydrocarbons
ALHMW	Alcohols (high molecular weight)
ALK	Alkalinity
ALKBIC	Alkalinity - bicarbonate
ALKCAR	Alkalinity - carbonate
ALKHYD	Alkalinity - hydroxide
ALKN	Alkanes

ACCEPTABLE ENTRIES: (Cont.)

ALKPIE	Alkalinity - phenolphthalein
ALPGF	Alpha gross-field
ALPGL	Alpha gross-lab
ALPGLA	Alpha gross-soluble acid fraction
ALPGLW	Alpha gross-soluble water fraction
ALPIAG	Alpha gross
ALPIPN	alpha-Pinene
ALYLOL	Allyl alcohol
AM241	Americium 241
AMCARB	Aminocarb
AMGD	Aminoguanidine
AMINCR	4-(Dimethylamino)-3-methylphenolmethyl carbamate / Mexacarbate
AMOS	Amosite asbestos
ANAPNE	Acenaphthene
ANAPYL	Acenaphthylene
ANELNT	Anion eluent
ANIL	Aniline
ANPIIO	Anthophyllite asbestos
ANTRC	Anthracene
ANTRCN	9-Anthracenecarbonitrile
ANTRQU	9,10-Anthracenedione / Anthraquinone
ARAMT	Aramite
AS	Arsenic
ASBEST	Asbestos
ASEXT	Arsenic extractable
ASTOT	Arsenic total
ATNBA	2,4,6-Trinitrobenzaldehyde
ATNT	alpha-Trinitrotoluene (obsolete - use 246TNT)
ATZ	Atrazine
AU	Gold
AYLETH	Allyl ether
AZACN	Azacyclononane
AZM	Azinphos methyl
B	Boron
B2CEXM	Bis (2-chloroethoxy) methane
B2CIPE	Bis (2-chloroisopropyl) ether
B2CLEE	Bis (2-chloroethyl) ether
B2EHP	Bis (2-ethylhexyl) phthalate
BA	Barium
BA140	Barium-140
BAANTR	Benzo(A)anthracene

ACCEPTABLE ENTRIES: (Cont.)

BAC	Benzal chloride
BAIIXE	Butanoic acid, 1-hexyl ester
BAPYR	Benzo[A]pyrene
BARBAN	4-Chloro-2-butyl m-chlorocarbanilate / Barban
BBFANT	Benzo[B]fluoranthene
BBFLRE	Benzo[B]fluorene
BBLIC	beta-Benzenehexachloride / beta-Hexachlorocyclohexane
BBNFN	Benzo[B]naphtho[2,3-D]furan
BBNITIP	Benzo[B]naphtho[1,2-D]thiophene
BBZP	Butylbenzyl phthalate
BCHPD	Bicyclo[2,2,1]hepta-2,5-diene
BCLDAN	beta-Chlordane
BCLME	Bis (chloromethyl) ether
BCMSO	Bis (carboxymethyl) sulfonate
SCMSO2	Bis (carboxymethyl) sulfone
BCPHCE	2,2-Bis(chlorophenyl)chloroethylene (DDT related)
BCY3IIX	Bicyclo[3,1,0]hexane
BDADME	Butanedioic acid, dimethyl ester
BDEANT	7H-Benz[DE]anthracen-7-one
BE	Beryllium
BE7	Beryllium 7
BEETO	1-(2-Butoxyethoxy) ethanol
BEGAG	Beta gamma gross
BENSLF	beta-Endosulfan / Endosulfan II
BENZA	Benzanthrone
BENZAL	Benzaldehyde
BENZID	Benzidine
BENZOA	Benzoic acid
BEP	2-Butoxyethanol phosphate
BEPYR	Benzo[E]pyrene
BETAG	Beta gross
BETGF	Beta gross-field
BETGL	Beta gross-lab
BETGLA	Beta gross-soluble acid fraction
BETGLW	Beta gross-soluble water fraction
BF2ANT	Benzobifluoranthene
BGIHFA	Benzo[G,H,I]fluoranthene
BGIHPY	Benzo[G,H,I]perylene
BIIC	BHC - nonspecific
BI	Bismuth
BI212	Bismuth 212

ACCEPTABLE ENTRIES: (Cont.)

BI214	Bismuth 214
BICYIIX	Bicyclohexyl
BIOBI	1,5-Bis (1,1-dimethylethyl)-3,3-dimethylbicyclo[3.1.0]hexane-2-one
BINAP	Binaphthyl
BJFANT	Benzo[J]fluoranthene
BKFANT	Benzo[K]fluoranthene
BIDX	Bladex
BMP	Butylmethyl phthalate
BOD	Biological oxygen demand
BOLS	Bolstar
BPBG	Butylphthalyl butylglycolate
BR	Bromide
BRC6H5	Bromobenzene
BRCLM	Bromochloromethane
BRDCLM	Bromodichloromethane
BRMCIL	Bromacil
BTAZON	3-(1-Methylethyl)-1H-2,1,3-benzothiadiazin-4(3H)-one-2,2-dioxide / Bentazon
BTC	Benzotrithloride
BTHIOL	Benzenethiol
BTMSOA	Bis (trimethylsilyl) oxalic acid
BTZ	Benzothiazole
BUC6H5	Butylbenzene
BUEETI1	Butylethyl ether
BZ	3-Quinuclidinyl benzilate
BZAL2M	alpha, alpha-Dimethylbenzenemethanol
BZALC	Benzyl alcohol
BZAPAN	Benzo[A]phenanthrene
BZCPAN	Benzo[C]phenanthrene
BZFANT	Benzo[fluoranthene]
BZIIQUN	Benzo[H]quinoline
BZOAME	Benzoic acid, methyl ester / Methyl benzoate
BZONII4	Benzoic acid, ammonium salt
BZOTIIP	Benzo[B]thiophene
BZOTRP	Benzo[B]thiophene
BZOTRZ	1H-Benzotriazole / 1,2,3-Benzotriazole
BZPA	Benzenephosphonic acid
BZYLBR	Benzyl bromide / alpha-Bromotoluene
BZYLCL	Benzyl chloride
C10	Decane
C11	Undecane

ACCEPTABLE ENTRIES: (Cont.)

C12	Dodecane
C12AMM	8-Methyldecanoic acid, methyl ester
C12DCE	cis-1,2-Dichloroethylene / cis-1,2-Dichloroethene
C13	Tridecane
C13DCP	cis-1,3-Dichloropropylene / cis-1,3-Dichloropropene
C14	Tetradecane
C14A	Tetradecanoic acid / Myristic acid
C14AME	Tetradecanoic acid, methyl ester
C15	Pentadecane
C15A	Pentadecanoic acid
C16	Hexadecane
C16A	Hexadecanoic acid / Palmitic acid
C16ABE	Hexadecanoic acid, butyl ester
C16ADM	Hexadecanoic acid, dimethyl ester
C16AEII	Hexadecanoic acid, bis (2-ethylhexyl) ester
C16AME	Hexadecanoic acid, methyl ester
C16SAT	Saturated hydrocarbons (C16)
C17	Heptadecane
C17A	C17 alkane
C17AM	Heptadecanoic acid, methyl ester
C18	Octadecane
C185FP	Bis (pentafluorophenyl) phenyl phosphine
C18A	C18 alkane
C18ABE	Octadecanoic acid, butyl ester
C18AE	Octadecanoic acid, ethyl ester
C18AME	Octadecanoic acid, methyl ester
C18AOD	Octadecanoic acid, octadecyl ester
C18UNS	C18H30O Unknown
C19	Nonadecane
C19A	Nonadecanoic acid
C19ADME	Carbonic acid, dimethyl ester
C20	Eicosane
C21	Heneicosane
C22UNS	C22H40O Unknown
C25	Pentacosane
C2AEE	Acetic acid, ethyl ester / Ethyl acetate
C2AVE	Acetic acid, vinyl ester / Vinyl acetate
C2I13CL	Chloroethene / Vinyl chloride
C2I15CL	Chloroethane
C30AME	Triacontanoic acid, methyl ester
C35	Pentatriacontane

ACCEPTABLE ENTRIES: (Cont.)

C36	Hexatriacontane
C3A2MB	Propanoic acid, 2-methylbutyl ester
C3AME	Propanoic acid, methyl ester
C4	Butane
C4HXL	cis-4-Hexen-1-ol
C5A	Pentanoic acid / Valeric acid
C6D6	Benzene-D6
C6I16	Benzene
C6H10I	Cyclohexanol
C7	Heptane
C7A	Heptanoic acid
C7NB1	Heptachloronorbomene
C8	Octane
C8A	C8 alkane
C8AME	Octanoic acid, methyl ester
C9	Nonane
CA	Calcium
CAA11	Chloroacetaldehyde
CACO3S	Calcium carbonate solution
CALLMW	Hydrocarbons (all molecular weights)
CAMBEN	3-Amino-2,5-dichlorobenzoic acid / Chloramben
CAME	Carbamic acid, methyl ester
CAMP	Camphor
CAPLCT	Caprolactam / 6-Aminohexanoic acid lactam
CAPTAN	Captan
CARB14	Carbon 14
CARBAZ	9H-Carbazole / Carbazole
CARBOF	2,3-Dihydro-2,2-dimethyl-7-benzofuranyl methylcarbamate
CATOL	Catechol
CBA	o-Chlorobenzaldehyde
CBCCH	cis-1-Bromo-2-chlorocyclohexane
CBOA	o-Chlorobenzoic acid
CC3	XXCC3
CCL2F2	Dichlorodifluoromethane
CCL3F	Trichlorofluoromethane
CCL4	Carbon tetrachloride
CCLDAN	cis-Chlordane
CCLF	Chlorofluoromethane
CCLF2	Chlorodifluoromethane
CCLF3	Trifluorochloromethane
CD	Cadmium

Test Name (Analyte)

8.24

ACCEPTABLE ENTRIES: (Cont.)

CD2CL2	Methylene chloride-D2
CDAC11	cis-1,2-Diacetoxycyclohexane
CDCEBU	cis-1,4-Dichloro-2-butene
CDCL3	Chloroform-D
CDNBIS	Chlorodinitrobenzene isomer
CE	Cerium
CE141	Cerium 141
CE144	Cerium 144
CEC	Cation exchange capacity
CF252	Californium 252
CG	Phosgene / Carbonyl chloride
CH2BR2	Methylene bromide
CH2CL2	Methylene chloride
CH3BR	Bromomethane
CH3CL	Chloromethane
CH3CN	Acetonitrile
CH3I	Iodomethane
CH4	Methane
CHARD	Calculated Hardness
CHBR3	Bromoform
CHCL2I	Dichloriodomethane
CHCL3	Chloroform
CHNO	Ethanolamine
CHNO2	Diethanolamine
CHO	1,2-Cyclohexane oxide
CHOLA	Cholestane
CHONE	Cyclohexanone
CHRY	Chrysene
CHRY5	Chrysotile asbestos
CK	Cyanogen chloride
CL	Chloride
CL10BP	Decachlorobiphenyl
CL2	Chlorine
CL2ACN	Dichloroacetonitrile
CL2BP	Dichlorobiphenyls
CL2BZ	Dichlorobenzenes
CL2CH2	Dichloromethane
CL2ET11	Ethylene chlorohydrin
CL2NAP	Dichloronaphthalenes
CL3BP	Trichlorobiphenyls
CL3C3E	Trichloropropenes

13 March 1992

8.24-19

8.24

Test Name (Analyte)

ACCEPTABLE ENTRIES: (Cont.)

CL3NAP	Trichloronaphthalenes
CL3P	Trichlorophenols
CL4BP	Tetrachlorobiphenyls
CL4NAP	Tetrachloronaphthalenes
CL4XYL	2,4,5,6-Tetrachlorometaxylene / Tetrachlorometaxylene
CL5B	Pentachlorobenzene
CL5BP	Pentachlorobiphenyls
CL5ET	Pentachloroethane
CL6BP	Hexachlorobiphenyls
CL6BZ	Hexachlorobenzene
CL6CP	Hexachlorocyclopentadiene
CL6ET	Hexachloroethane
CL7BP	Heptachlorobiphenyls
CL7NB	Heptachloronorbornadienes
CLBZL	Chlorobenzilate
CLC2A	Chloroacetic acid
CLC6D5	Chlorobenzene-D5
CLC6H5	Chlorobenzene / Monochlorobenzene
CLCY11X	Chlorocyclohexane
CLD	Chlorine demand
CLDAN	Chlordane
CLDEN	Chlordene
CLNAP	Chloronaphthalenes
CLO3	Chlorate
CLP	Chlorophenols
CLPRPM	Isopropyl m-chlorocarbanilate / Chlorpropham
CLTHL	Chlorothalonil
CLVRA	2-Chlorovinyl arsonic acid
CLXB	Chlorinated benzenes
CLXNAP	Chlorinated naphthalenes
CMME	Chloromethyl methyl ether
CMONOX	Carbon monoxide
CN	Chloroacetophenone
CO	Cobalt
CO2	Carbon dioxide
CO3	Carbonate
CO57	Cobalt 57
CO58	Cobalt 58
CO60	Cobalt 60
COD	Chemical oxygen demand
COLI	Fecal coliform

8.24-20

13 March 1992

ACCEPTABLE ENTRIES: (Cont.)

COLOR	Color
COND	Specific conductivity
COND-F	Specific conductivity as tested in the field
CORRTY	Corrositivity (tendency to corrode)
COUMA	Coumaphos
COUMRN	2,3-Dihydrobenzofuran / Coumaran
CPCXAL	Cyclopentanecarboxaldehyde
CPMS	p-Chlorophenylmethyl sulfide
CPMSO	p-Chlorophenylmethyl sulfoxide
CPMSO2	p-Chlorophenylmethyl sulfone
CPO	Cyclopentanone
CPYR	Chloropyrifos
CR	Chromium
CR3	Chromium, III
CR51	Chromium 51
CRBIL	Carbaryl
CRFRN	Carbofuran
CRJEX	Hexavalent chromium
CRO4	Chromate
CROCO	Crocidolite asbestos
CRTALD	Crotonaldehyde / trans-2-Butenal
CRYOF	Cryoflex
CS	Cesium
CS134	Cesium 134
CS137	Cesium 137
CS2	Carbon disulfide
CSOL	Cresols
CT	Chlorotoluene
CU	Copper
CUEXT	Copper extractable
CUTOT	Copper total
CX	Phosgene oxime / Dichloroformoxime
CYDODC	Cyclododecane
CYHX	Cyclohexane
CYHXA	Cyclohexylamine
CYHXB	Cyclohexylbenzene / Phenylcyclohexane
CYHXE	Cyclohexene
CYN	Cyanide
CYNAM	Amenable cyanide
CYNF	Cyanide, free form
CYOCIE	Cyclooctatetraene

ACCEPTABLE ENTRIES: (Cont.)

CYPD	Cyclopentadiene
CYPNE	Cyclopentene
CYSD12	Chrysene-D12
DALA	2,2-Dichloropropionic acid / Dalapon
DBABA	Dibenz(A,B)anthracene
DBAEPY	Dibenzo(A,E)pyrene
DBAIIA	Dibenz(A,I)anthracene
DBAIIPY	Dibenzo(A,I)pyrene
DBAIPY	Dibenzo(A,I)pyrene
DBAJA	Dibenz(A,J)acridine
DBATTS	2,4-Dihydroxybenzoic acid, tris-trimethylsilyl
DBCP	Dibromochloropropane
DBIC	delta-Benzenhexachloride / delta-Hexachlorocyclohexane
DBRCLM	Dibromochloromethane
DBRDCM	Dibromodichloromethane
DBTSPY	4,5-Dimethyl-2,6-bis(trimethylsiloxy)pyrimidine
DBUCLE	Dibutylchloride
DBZFUR	Dibenzofuran
DBZTHP	Dibenzothiophene
DCAA	2,4-Dichlorophenyl acetic acid / DCAA
DCAMBA	Dicamba / 2-Methoxy-3,6-dichlorobenzoic acid
DCBP11	Dichlorobenzophenone
DCBUT	Dichlorobutane
DCIIP	Dicyclohexyl phthalate
DCLB	Dichlorobenzene - nonspecific
DCLRN	Dichloran / Dichlorobenzalkonium chloride
DCMBF	5,7-Dichloro-2-methylbenzofuran
DCMPSX	Decamethylcyclopentasiloxane
D CPA	2,3,5,6-Tetrachloro-1,4-benzenedicarboxylic acid dimethyl ester / Dacthal
DCPD	Dicyclopentadiene
DCPL	Dichlorophenlactic
DDVP	Vapona / Dichlorvos / Dichlorophos
DEA	Diethylamine
DECYLB	Decylbenzene
DEDMP	Diethyldimethyl diphosphonate
DEETHI	Diethyl ether
DEGLYC	2,2-Oxybis(ethanol) / Diethylene glycol
DEMBZA	N,N-Diethyl-3-methylbenzamide
DEMO	Demeton-O
DEMP	Diethyl methylphosphonite / TR
DEMS	Demeton-S

ACCEPTABLE ENTRIES: (Cont.)

DEP	Diethyl phthalate
DEPD4	Diethyl phthalate-D4
DIHWPY	3,4-Dihydro-2H-1-benzopyran
DIHDMAC	9,10-Dihydro-9,9-dimethylacridine
DIACAL	Diacetone alcohol / 4-Hydroxy-4-methyl-2-pentanone
DIADS	Bis (diisopropylaminoethyl) disulfide
DIAEL	Bis (diisopropylamino) ethanol
DIAEP	S-Diisopropylaminoethyl methylphosphonothioate
DIAET	Bis (diisopropylamino) ethanethiol
DIATAT	Diallate / Diisopropylthiocarbamic acid
DIAS	Bis (diisopropylamino) ethylsulfide
DIASO2	Bis (diisopropylamino) ethylsulfonate
DIAZ	Diazinon
DIBP	Diisobutyl phthalate
DICLP	Dichlorophenols
DICOF	Dicofol
DICP	2-(2,4-Dichlorophenoxy)propionic acid / Dichloroprop
DIDDP	Diisopropylidimethyl diposphonate
DIESEL	Diesel fuel / Fuel oil no. 2
DIH2O	Deionized water
DIMP	Diisopropyl methylphosphonate
DINO	2,4-Dinitro-6-sec-butylphenol / DINOSEB
DIOP	Diisooctyl phthalate
DIOXOL	Dioxolane
DIPETH	Diisopropyl ether
DIPK	Diisopropyl ketone / Dimethyl-2-propanone
DIPUR	Diisopropyl urea
DISBCB	Diisobutyl carbinol
DISP	Phosphorus, dissolved (as P)
DIH11	Diethane
DIURON	3-(3,4-Dichlorophenyl)-1,1-dimethylurea / Diuron
DL2HPG	dl-2-(3-Hydroxyphenyl) glycine
DIH11N	Dieldrin
DM	Adamsite
DM1ACH	2,2-Dimethyl-1-acetylcyclohexane
DMA	Dimethylaniline (obsolete - use NNDMA)
DMCAR	Dimethyl dithiocarbonate
DMCP	Dimethylcyclopentane - nonspecific
DMCPDE	1,2-Dimethylcyclopentadiene
DMDS	Dimethyl disulfide
DMEBZO	4-(1,1-Dimethylethyl)benzoic acid

ACCEPTABLE ENTRIES: (Cont.)

DMETDA	N,N-Dimethyl-1,2-ethanediamine
DMETH	Dimethyl ether
DMIP	Dimethyl isophthalate
DMMP	Dimethyl methylphosphate
DMOATE	Dimethoate
DMP	Dimethyl phthalate
DMPCHE	3-(2,2-Dimethylpropoxy) cyclohexene
DMPHEN	Dimethyl phenol / Dimethylhydroxy benzene
DMPTHF	2,2-Dimethyl-5-(1-methylpropyl) tetrahydrofuran
DMXDMS	Dimethoxydimethylsilane
DNBEE	1,1-Di-n-butylethylene / 1,1-Di-n-butylethene
DNBP	Di-N-butyl phthalate
DNOP	Di-N-octyl phthalate
DNOPD4	Di-N-octyl phthalate-D4
DNPP	Di-N-pentyl phthalate
DNTISO	Dimethyltoluene isomer
DO	Dissolved oxygen
DOAD	Diocetyl adipate / Hexanedioic acid, dioctyl ester
DOAZ	Diocetyl azelate
DOC	Dissolved organic carbon
DODECB	Dodecylbenzene
DOETH	Diocetyl ether
DOPAM	4-(2-Aminoethyl) pyrocatechol / Dopamine
DPA	Diphenylamine
DPETH	Diphenyl ether
DPETYN	1,1-(1,2-Ethynediyl) bis(benzene)
DPII	Diphenylhydrazines - nonspecific
DPIINY	Diphenyl
DPNTLL	D-(-)-Pantolyl lactone
DPSO	Diphenyl sulfoxide
DPSULF	1,1-Thiobis(benzene) / Diphenyl sulfide
DRBM	Dibromomethane
DSEIDIN	Diseleno diindole
DSTON	Disulfoton
DTB4C	2,6-Di-tert-butyl-4-cresol (obsolete - use 26DBMP)
DTCHIBO	1.alpha.(E),4.alpha.-(1,4-Dihydroxy-2,6,6-trimethyl-2-cyclohexen-1-yl)-2-buten-1-one
DURS	Dursban
DXYA12	DXYA12
DYSCAN	GC-MS dye scan
EA2192	S-2-Diisopropylaminoethyl methylphosphonic acid

Test Name (Analyte)	8.24
---------------------	------

ACCEPTABLE ENTRIES: (Cont.)

EBCPGL	Ethyl-2,2-bis (4-chlorophenyl) glycolate
ED	Dichloroethyl arsine
EDBDAS	3-Phenylpropanol
EGMEE	Ethylene glycol, monoethyl ether / 1,1-Oxybis(2-ethoxy) ethane
EICOSL	1-Eicosanol
EMFUR	3-Ethyl-4-methyloctane
EMPA	Ethyl methylphosphonic acid / Ethyl methylphosphonate
EMS	Ethyl methanesulfonate
ENDRN	Endrin
ENDRNA	Endrin aldehyde
ENDRNK	Endrin ketone
ENHETU	Ethyl-N-hexyl ether
EPCLID	Epichlorohydrin / Chloromethyloxirane
EPIEN	Ethyl phenol / Ethylhydroxy benzene
EPTOX	Extraction procedure toxic organics
ESFSO4	Endosulfan sulfate
ET3MBZ	1-Ethyl-3-methylbenzene
ET4MBZ	1-Ethyl-4-methylbenzene
ETBD10	Ethylbenzene-D10
ETC6115	Ethylbenzene
ETCY11X	Ethylcyclohexane
ETIACD	Acetic acid / Ethanoic acid
ETHBR	Bromoethane / Ethyl bromide
ETHER	Ether - nonspecific
ETHION	Ethion
ETHOPR	Ethoprop
ETHPO4	Ethyl phosphate / Phosphoric acid, triethyl ester
ETMACR	Ethyl methacrylate
ETMEBZ	Ethylmethyl benzene
ETOH	Ethanol
ETOX	Ethylene oxide / Oxirane / Anprolene
EU	Europium
F	Fluoride
F10BP	Decafluorobiphenyl
FABPEE	Formic acid, beta-phenylethyl ester
FACIXE	Formic acid, cyclohexyl ester
FAMP11R	Famphur
FANT	Fluoranthene
FARN	Farnesol
FATAL	Fatty alcohols
FC2A	Fluoroacetic acid

13 March 1992

8.24-25

8.24	Test Name (Analyte)
------	---------------------

ACCEPTABLE ENTRIES: (Cont.)

FE	Iron
FE59	Iron 59
FENRN	3-Phenyl-1,1-dimethylurea / Fenuron
FENRNT	1,1-Dimethyl-3-phenylurea trichloroacetate
FIBGLS	Fibrous glass / Fiberglass
FLASH	Flash point
FLMTRN	1,1-Dimethyl-3-(A,A,A-trifluoro-m-tolyl)urea
FLRENE	Fluorene
FLUMET	Fluometuron
FNT	Fenthion
FOIL1	Fuel oil no. 1
FOIL6	Fuel oil no. 6
FORM	Formaldehyde / Methyl aldehyde
FREON	Freon / Dichlorofluoromethane
FRN112	Freon 112 / Tetrachlorodifluoroethane
FST	Fensulfthion
FSTREP	Fecal streptococci
FURAL	Furfuryl alcohol / 2-Furanmethanol
FURANS	Dibenzofurans - nonspecific
GA	Tabun / Ethyl N,N-dimethyl phosphoramidocyanidate
GALM	Gallium
GAMAG	Gamma gross
GAMMAS	Gamma scan / Gamma screen
GAS	Gasoline / Gasoline, regular
GB	Sarin / Isopropyl methylphosphonofluoridate
GBHC	gamma-Hexachlorocyclohexane (obsolete - use LIN)
GCHLOR	gamma-Chlordane (obsolete-use GCLDAN)
GCLDAN	gamma-Chlordane
GD	Soman / Pinacolyl methylphosphonofluoridate
GE	Germanium
GLPHST	Glyphosate
GRNDY	Green dye
GUNIT	Guanidine nitrate
II	Levinstein mustard
H2O	Water
H2S	Hydrogen sulfide
H3PO4	Phosphoric acid
HARD	Total hardness
HCBBD	Hexachlorobutadiene / Hexachloro-1,3-butadiene
HCNB	Hexachloronorbomadiene
HCO3	Bicarbonate

8.24-26

13 March 1992

3
4

ACCEPTABLE ENTRIES: (Cont.)

IID	Distilled mustard / Bis (2-chloroethyl) sulfide
IIEDODA	N,N-Bis(2-hydroxyethyl)dodecanamide
IIEAC	Hexanoic acid / Caproic acid
IIEANE	Hexane
HG	Mercury
HGEXT	Mercury extractable
HGTOT	Mercury total
IIMTCH	2,6,10,15,19,23-Hexamethyl-2,6,10,14,18,22-tetracosahexane
IIMX	Cyclotetramethylenetetranitramine
IIN	Nitrogen mustard
IO	Iodine
IPCDD	Heptachlorodibenzodioxin - nonspecific
IPCDF	Heptachlorodibenzofuran - nonspecific
HPCL	Heptachlor
HPCLE	Heptachlor epoxide
HPLH2O	HPLC-grade water
HPO4	Hydrolyzable phosphate
HTH	Hypochlorite
HWX013	Halowax 1013
HWX099	Halowax 1099
HXAB2E	Hexanedioic acid, bis (2-ethylhexyl) ester
HXADBE	Hexanedioic acid, dibutyl ester / Dibutyl adipate
HXADME	Hexanedioic acid, dimethyl ester / Dimethyl adipate
HXADOE	Hexanedioic acid, dioctyl ester (obsolete - use DOAD)
HXCDD	Hexachlorodibenzodioxin - nonspecific
HXCDF	Hexachlorodibenzofuran - nonspecific
HXCOS	Hexacosane
HXCPEH	Perchloropropene / Hexachloropropene
HXIIMAZ	4,5,6,7,8,8A-Hexahydro-8A-methyl-2-[111]-azulene
HXMETA	1,3,5,7-Tetraazatricyclo[3.3.1.3.7]decane / Hexamethylene tetramine
HXMTSX	Hexamethylcyclotrisiloxane
HYDARO	Hydroxylated aromatics / Aromatics, hydroxylated
HYDRND	11-Indene, octahydro- / Hydrindane
HYDRZ	Hydrazine
HYNB	7-Hydroxynorbornadiene
I	Iodine (as I)
I131	Iodine 131
ICDPYR	Indeno(1,2,3-C,D)pyrene
IGNIT	Ignitability
IMPA	Isopropyl methylphosphonic acid / Isopropyl methylphosphonate
IN	Indium

ACCEPTABLE ENTRIES: (Cont.)

INDAN	1-Hydroxy-2,3-methylene indan [M.W.146]
INDENE	Indene
INDOLE	Indole / 2,3-Benzopyrrole
IOCDF	Octachlorodibenzofuran, C13 isomeric
IPA	Isopropylamine
ISODR	Isodrin
ISOPBZ	Isopropylbenzene / Cumene
ISOPHR	Isophorone
ISOPT	Isopropyltoluene
ISOQUN	Isoquinoline
ISOVAL	3-Methylbutanoic acid / Isovaleric acid
ISOSAF	Isosafrole
ITCDD	2,3,7,8-Tetrachlorodibenzodioxin, C13 isomeric
ITCDF	2,3,7,8-Tetrachlorodibenzofuran, C13 isomeric
K	Potassium
K40	Potassium 40
KB	2-Diisopropylaminoethanol
KEP	Kepone / Chlordecone
KEND	Ketoendrin
L	Lewisite
LA	Lanthanum
LA140	Lanthanum 140
LACYBB	Lactic acid, cyclic butaneboronate
LAURIC	Lauric acid
LI	Lithium
LIGNIN	Lignin
LIN	Lindane / gamma-Benzenhexachloride / gamma-Hexachlorocyclohexane
LINRN	3-(3,4-Dichlorophenyl)-1-methoxy-1-methylurea / Linuron
LIPID	Lipids, percentage
LO	Lewisite oxide
LT	Bis (2-diisopropylaminoethyl) methylphosphonite
LT-A	Bis (2-diisopropylaminoethyl) methylphosphonate
MALO	Malononitrile
MBADOE	3 Methylbutanoic acid, 3,7-dimethyl-2,4,6-octatrienyl ester
MBAS	Foaming agents / Methylene blue active substance
MBOI	alpha-Methylbenzyl alcohol
MBZ	Metribuzin
MBZA	alpha-Methylbenzyl acetoacetate
MBZCAC	5-Methylbenzo(C)acridine
MBZCI	alpha-Methylbenzyl-2-chloroacetoacetate
MCPA	4-Chloro-o-tolylxyacetic acid / MCPA

ACCEPTABLE ENTRIES: (Cont.)

MCP	2-(4-Chloro-2-methylphenoxy)propionic acid / MCP
NDC	2-Methylundecanal / 2-Methylundecanal
ME2AE	Dimethyl arsenic acid
ME2C11	Dimethylundecanes
ME21IG	Dimethyl mercury
ME21PL	Methyl-2-heptanols
ME21PO	Methyl-2-heptanones
ME2NAP	Dimethylnaphthalenes
ME3C10	Trimethyldecanes
ME3C11	Trimethylundecanes
ME3C6	Trimethyl hexanes
ME3NAP	Trimethylnaphthalenes
MEAOA	Methyl arsonic acid
MEBPI	1,1'-Methylenebis(piperidine)
MEC6D8	Toluene-D8
MEC6H5	Toluene
MECC6	Methylcyclohexane
MECYBU	Methylcyclobutane
MECYDC	Methylcyclodecane
MECYP	Methylcyclopentane
MEIG	Methyl mercury
MEIGCL	Methyl mercury chloride
MEK	Methyl ethyl ketone / 2-Butanone
MELAM	Melanine / 1,3,5-Triazine-2,4,6-triamine
MEOH	Methanol
MEPIEN	Methylethyl phenol / Methylethylhydroxy benzene
MEPOH	2-Methylpentanol
MERP	Merphos
MES	Methyl sulfide / Thiobismethane
MESTOX	Mesityl oxide / 4-Methyl-3-penten-2-one
METARB	Methioarb
METICB	3,5-Dimethyl-4-(methylthio) phenyl methylcarbamate
METLAP	Methylnaphthalenes
METMYL	Methomyl
MEVIN	Mevinphos
MEXCLR	Methoxychlor
MG	Magnesium
MIYDRZ	Methylhydrazine
MIBCOH	Methyl isobutyl carbinol (4-methyl-2-pentanol)
MIBK	Methylisobutyl ketone
MINWOL	Mineral wool

ACCEPTABLE ENTRIES: (Cont.)

MIPK	Methylisopropyl ketone
MIREX	Mirex
MLNAT	Molinate
MLTHN	Malathion
MMS	Methyl methanesulfonate
MN	Manganese
MN54	Manganese 54
MNBK	Methyl-N-butyl ketone / 2-Hexanone
MNCRPH	Dimethyl-(E)-1-methyl-2-methylcarbamoylvinyl phosphate
MNRNTC	3-(p-Chlorophenyl)-1,1-dimethylurea trichloroacetate
MO	Molybdenum
MO99	Molybdenum 99
MONRN	3-(p-Chlorophenyl)-1,1-dimethylurea / Monuron
MP	Methylphenols
MPA	Methylphosphonic acid
MPDD	2-(m-Chlorophenyl)-2-(p-chlorophenyl)-1,1-dichloroethane
MPK	Methylpropyl ketone / 2-Pentanone
MPRTIN	Parathion methyl
MQFH2O	Milli-Q-filtered water
MSSCAN	GC MS organic scan
MTICRN	Methylacrylonitrile / 2-Methyl-2-propenenitrile / Methacrylonitrile
MTIMYL	S-Methyl-N-((methylcarbamoyl)-oxy)-thioactinidate
MTRITN	Methyl trithion
MTRZL	Metrazol / Cardiazole
MXCRBT	4-Dimethylamino-3,5-xylol N-methylcarbamate
N2KJEL	Nitrogen by Kjeldahl Method
NA	Sodium
NA22	Sodium 22
NaCl	Sodium chloride
NaClO	Sodium hypochlorite
NALED	Naled
NaOHME	50% 1M NaOH - 50% Methanol
NAP	Naphthalene
NAPD8	Naphthalene-D8
NB	Nitrobenzene
NB94	Niobium 94 / Columbium
NB95	Niobium 95 / Columbium
NBACET	n-Butylacetate
NBDS	Nitrobenzene-D5
NBBSA	N-Butyl-4-methylbenzenesulfonamide
NBUETH	1,1'-Oxybis(butane) / n-Butyl ether

ACCEPTABLE ENTRIES: (Cont.)

NC	Nitrocellulose
NC1	Nitrocellulose 12%N
NC2	Nitrocellulose 13.4%N
NCLN	Nouricyclanol
NCPPPA	N-(4-Chlorophenyl)-3-phenyl-2-propenamide
ND	Neodymium
NDHXA	N-Nitrodihexylamine
NDIOX	Nitrogen dioxide
NDMBSA	N,N-Dimethylbenzenesulfonamide
NDNPA	Nitrosodi-N-propylamine
NE2PEA	N-Ethyl-2-propenamide
NEBRN	1-n-Butyl-3-(3,4-dichlorophenyl)-1-methylurea / Neburon
NECHXA	N-Ethylcyclohexylamine
NG	Nitroglycerine
NI13	Ammonia
NI13N2	Ammonia nitrogen
NI14	Ammonium
NI14NIT	Ammonium nitrate
NI14PIC	Ammonium picrate / 2,4,6-Trinitrophenol ammonium salt
NHEDCA	N-(2-Hydroxyethyl)-decanamide
NI	Nickel
NI63	Nickel 63
NI0B	Niobium
NIT	Nitrite, nitrate - nonspecific
NITARO	Nitroaromatics
NMANIL	N-Methylaniline
NMCANE	N-Methylcarbamate acid, 1-naphthyl ester
NMNSOA	N-Methyl-N-nitrosoaniline
NN4IPL	N-Nitroso-4-hydroxyproline
NNADME	Nonanedioic acid, dimethyl ester
NNDEA	N-Nitrosodiethylamine
NNDMA	N,N-Dimethylaniline
NNDMEA	N-Nitrosodimethylamine
NNDNB	N-Nitroso-di-N-butylamine
NNDNPA	N-Nitrosodi-N-propylamine
NNDPA	N-Nitrosodiphenylamine
NNMEA	N-Nitrosomethylethylamine
NNMORP	N-Nitrosomorpholine
NNPIP	N-Nitrosopiperidine
NNPIPA	N-Nitrosopentylisopentylamine
NNPYRL	N-Nitrosopyrrolidine

ACCEPTABLE ENTRIES: (Cont.)

NO2	Nitrite
NO3	Nitrate
NONPIIE	Nonyl phenol (any isomer)
NPOX	Nonpurgeable organic halides
NPQ	Naphthoquinone
NQ	Nitroguanidine
NTMBSA	N,N,4-Trimethylbenzenesulfonamide
O2	Oxygen
OCADME	Octanedioic acid, dimethyl ester
OCDD	Octachlorodibenzodioxin - nonspecific
OCDF	Octachlorodibenzofuran - nonspecific
ODAPDM	Octadecanoic acid, (2-phenyl-1,3-dioxolan-4-yl) methyl ester
ODECA	Octadecanoic acid / Stearic acid
ODMNSX	Octadecamethylcyclononasiloxane
ODOR	Odor
OEMP	O-Ethyl methylphosphonate
OILGR	Oil & grease
OMCTSX	Octamethylcyclotetrasiloxane
OPDDD	2-(o-Chlorophenyl)-2-(p-chlorophenyl)-1,1-dichloroethane
OPDDE	2-(o-Chlorophenyl)-2-(p-chlorophenyl)-1,1-dichloroethene
OPDDT	2-(o-Chlorophenyl)-2-(p-chlorophenyl)1,1,1-trichloroethane
OPO4	Organophosphates
ORGFIB	Organic fibers
OS	Osmium
OXAL	Oxalic Acid
OXAMYL	Methyl N,N'-dimethyl-N-((methylcarbamoyl)oxy)-1-amyacetate / Oxamyl
OXAT	1,4-Oxathiane
OXCN	Oxacyclononane
OZONE	Ozone
P-1	Phosphorus
PA234	Protactinium 234
PA21DE	Propanoic acid, 2-hydroxydecyl ester
PA2MBE	Pentanoic acid, 2-methylbutyl ester
PAD4NE	Phosphoric acid, diethyl-4-nitrophenyl ester
PALL	Polynuclear aromatic hydrocarbons
PAODPE	Phosphoric acid, octyldiphenyl ester
PARTIC	Particulate matter / Particulates measured by filter
PATBUE	Propanoic acid, t-butyl ester
PATPE	Phosphoric acid, triphenyl ester
PB	Lead
PB211	Lead 211

Test Name (Analyte)

8.24

ACCEPTABLE ENTRIES: (Cont.)

PB212	Lead 212
PB214	Lead 214
PBSTY	Lead stypnate
PBTE	Lead, tetraethyl / Tetraethyllead
PCB016	PCB 1016
PCB221	PCB 1221
PCB232	PCB 1232
PCB242	PCB 1242
PCB248	PCB 1248
PCB254	PCB 1254
PCB260	PCB 1260
PCB262	PCB 1262
PCDD	Pentachlorodibenzodioxin - nonspecific
PCDF	Pentachlorodibenzofuran - nonspecific
PCH	Pentachlorohexane
PCLORM	Dimethyl-2,3,5,6-trichloropicolinic acid / Picloram
PCNB	Pentachloronitrobenzene
PCP	Pentachlorophenol
PCYMEN	4-(1-Methylethyl) toluene / p-Cymene
PD	Dichlorophenyl arsine
PDHYD	Phosphorus, dissolved hydrolyzable (as P)
PDMAB	p-Dimethylaminoazobenzene
PDMSLX	Polydimethyl siloxane / Dimethylpoly siloxane
PDORG	Phosphorus, dissolved organic (as P)
PEGE	Polyethyleneglycol ethers
PENAMD	N-Pentamide
PENTAN	Pentane
PERTIIN	Perthane
PETDIL	Petroleum distillates
PETN	Pentaerythritol tetranitrate
PFP	Pentafluorophenol
PII	pH
PII-F	pH as tested in the field
PIAD10	Phenanthrene-D10
PIANTR	Phenanthrene
PIENA	Phenacetin
PIENAA	Phenylacetic acid
PIEND5	Phenol-D5
PIEND6	Phenol-D6
PIENLC	Phenolics - nonspecific
PHENOL	Phenol

13 March 1992

8.24-33

8.24

Test Name (Analyte)

ACCEPTABLE ENTRIES: (Cont.)

PHOR	Phorate
PHTHA	1,2-Benzenedicarboxylic acid / Phthalic acid
PHTHL	Phthalates
PHXAA	Phenoxyacetic acid
PIYCP	1,2,3,4,5-Pentahydroxycyclopentane
PIYDR	Phosphorus, total hydrolyzable (as P)
PIYETH	1,1'-(1,3-Phenylene)ethanone
PIC3	3-Picoline
PIPER	Piperidine
PLEXI	Methyl methacrylate / Plexiglass
PMPA	Propyl methylphosphonic acid
PO4	Phosphate
PO4ORT	Orthophosphate
PORG	Phosphorus, total organic (as P)
POX	Purgeable organic halogen
PPDD	2,2-Bis (p-chlorophenyl)-1,1-dichloroethane
PPDE	2,2-Bis (p-chlorophenyl)-1,1-dichloroethene
PPDDT	2,2-Bis (p-chlorophenyl)-1,1,1-trichloroethane
PTDE	2,2-Bis (p-chlorophenyl)-2-phenyl-1,1-dichloroethene
PQUIN	1,4-Benzoquinone / p-Benzoquinone
PRC615	Propylbenzene / n-Propylbenzene
PROACD	Propionic acid
PROMET	Prometon / Primatol / 2,4-Bis(isopropylamino)-6-methoxy-1,3,5-triazine
PRONA	Pronamide
PROPIIM	Isopropyl carbanilate / IPC / Propham
PROPOX	Propylene oxide / Methyl oxirane
PROPRX	2-(1-Methyloxy)phenol methylcarbamate / Propoxur
PRTIN	Parathion
PT	Platinum
PTHZ	Phthalazinone
PU238	Plutonium 238 isotope
PU239	Plutonium 239 isotope
PU240	Plutonium 240 isotope
PYLD12	Perylene-D12
PYR	Pyrene
PYRD10	Pyrene-D10
PYRDIN	Pyridine
QA	2-Diisopropylaminoethyl methylphosphinate
QAL.T	Co-eluting compounds QA and LT (q.v.)
QB	2-Diisopropylaminoethyl ethyl methylphosphonate
QL	QL / Ethyl 2-diisopropylaminoethyl methylphosphonite

8.24-34

13 March 1992

35

ACCEPTABLE ENTRIES: (Cont.)

QUINO	Quinoline / Benzo(B)pyridine
RA	Radium
RA223	Radium 223
RA224	Radium 224
RA226	Radium 226
RA228	Radium 228
RB	Rubidium
RDX	Cyclonite / Hexahydro-1,3,5-trinitro-1,3,4-triazine
RE	Rhenium
REACTY	Reactivity
REDDY	Red dye
RESACI	Resin acids
RESIST	Resistivity
RESO	Resorcinol / 1,3-Benzenediol
RN	Radon
RN226	Radon 226
RO	Rhodium
RO106	Rhodium 106
RON	Rommel
ROTEN	Rotenone
RU	Ruthenium
RU103	Ruthenium 103
RU106	Ruthenium 106
S	Sulfur
S2CL2	Sulfur monochloride
SAFROL	Safrole / 5-(2-Propenyl)-1,3-benzodioxole
SALINE	Saline
SALINI	Salinity
SB	Antimony
SB124	Antimony-124
SB125	Antimony-125
SBBEN	sec-Butylbenzene / 2-Phenylbutane
SC	Scandium
SCN	Thiocyanate
SE	Selenium
SEVIN	Sevin / 1-Naphthalenol methylcarbamate
SFOTEP	Sulfotep / Thioldiphosphoric acid, tetraethyl ester
SI	Silica
SIDRN	1-(2-Methylcyclohexyl)-3-phenylurea / Siduron
SIL	Silicone
SILCON	Silicon

ACCEPTABLE ENTRIES: (Cont.)

SILVEX	Silvex
SIMAZ	Simazine / 6-Chloro-N,N'-diethyl-1,3,5-triazine-2,4-diamine
SN	Tin
SO2	Sulfur Dioxide
SO3	Sulfite
SO4	Sulfate
SPIRO	(1',5 <u>trans</u>)-7-Chloro-6-hydroxy-2',4'-dimethoxy-6'-methyl spiro [benzofuran-2-(3H)-1'-(2)-cyclohexene]-3, 4'-dione
SQUAL	Squalene
SR	Strontium
SR90	Strontium 90
SSOL	Settleable solids
STB	Super tropical bleach
STERO	Steroids
STIGMA	Stigmastenal
STIR	Stirophos / Tetrachlorvinphos
STROBN	Strobane / Teepine polychlorinates
STYPII	Stypluate ion
STYPIIA	Stypluate acid (obsolete - use 246TNR)
STYR	Styrene
SUADME	Sulfuric acid, dimethyl ester
SUIFID	Sulfide
SUPONA	Supona / 2-Chloro-1-(2,4-dichlorophenyl) vinyl diethyl phosphate
SWEP	Methyl N-(3,4-dichlorophenyl)carbamate / Swep
T12DCE	<u>trans</u> -1,2-Dichloroethene / <u>trans</u> -1,2-Dichloroethylene
T13DCP	<u>trans</u> -1,3-Dichloropropene
T1B2BC	<u>trans</u> -1-Bromo-2-butylcyclopropane
T2DEC	<u>trans</u> -2-Decene
TA	Tantalum
TANNIN	Tannin
TASTE	Taste
TBA	Tributylamine
TBASDE	Thiobutyric acid, S-decyl ester
TBBEN	tert-Butylbenzene / 2-Methyl-2-phenylpropane
TBCARB	2,2-Dimethyl-1-propanol / tert-Butylcarbinol / Neopentyl alcohol
TBP	Tributyl phosphate
TCB	Tetrachlorobenzenes
TCB1	1,2,4,5-Tetrachlorobenzene
TCB2	1,2,3,4-Tetrachlorobenzene
TCB3	1,2,3,5-Tetrachlorobenzene
TCDD	2,3,7,8-Tetrachlorodibenzo-p-dioxin / Dioxin

Test Name (Analyte)

8.24

ACCEPTABLE ENTRIES: (Cont.)

TCDF	2,3,7,8-Tetrachlorodibenzofuran
TCHDCS	<u>trans</u> -1,2-Cyclohexandiol, cyclic sulfite
TCLDAN	<u>trans</u> -Chlordane
TCLEA	1,1,2,2-Tetrachloroethane
TCLEE	Tetrachloroethylene / Tetrachloroethene
TCLTFE	1,1,2-Trichloro-1,2,2-trifluoroethane
TCN	Trichloronate
TCOS	Tetracosane
TCP	Trichloropropane
TCSAME	15-Tetracosenoic acid, methyl ester
TCST	Trichlorostyrenes
TCYN	Total cyanide
TDCBU	<u>trans</u> -1,4-Dichloro-2-butene
TDEMET	Demeton total
TDGCL	Thiodiglycol
TDGCLA	Thiodiglycolic acid
TDMIHSX	Tetradecamethyl hexasiloxane
TDODTL	tert-Dodecanethiol
TDS	Total dissolved solids
TE	Tellurium
TEGLME	Triethylene glycol, methyl ether
TEGLYC	2,2'-(1,2-Ethanediy[bis(oxy)]) bis(ethanol) / Triethylene glycol
TEMP	Temperature
TEMP-F	Temperature as tested in the field
TEPO4	Triethyl phosphate
TEPT	Tetrachlorocyclopentene
TETR	Tetrazene
TETRYL	Nitramine / N-Methyl-N,2,4,6-tetranitroaniline / Tetryl
TFAAPE	Trifluoroacetic acid, 1,5-pentanediy ester
TFDCLE	1,1,2-Trifluoro-1,2-dichloroethane
1FTCLE	1,1,1-Trichloro-2,2,2-trifluoroethane
TGLYME	Tetraglyme
TH	Thorium
TH227	Thorium 227
TH228	Thorium 228
TH230	Thorium 230
TH232	Thorium 232
TH234	Thorium 234
THBNC	Thiobencarb
THCDD	Total hexachlorodibenzo-p-dioxins
THCDF	Total hexachlorodibenzofurans

13 March 1992

8.24-37

8.24

Test Name (Analyte)

ACCEPTABLE ENTRIES: (Cont.)

THF	Tetrahydrofuran
THMINAP	1,2,3,4-Tetrahydro-1H-methylnaphthalene
THINAP	1,2,3,4-Tetrahydronaphthalene / Tetralin
THINCRB	Thiencarb
THIP2ML	Tetrahydropyran-2-methanol
THPCDD	Total heptachlorodibenzo-p-dioxins
THPCDF	Total heptachlorodibenzofurans
TI	Titanium
TINNIN	Tannin and lignin combined
TL	Thallium
TL208	Thallium 208
TM3PL	2,3,4-Trimethyl-3-pentanol
TMBPET	2-(2-(4-(1,1,3,3-Tetramethyl)butyl)phenoxy)ethanol
TMHPDO	3,3,6-Trimethyl-1,5-heptadien-4-one
TMIXL	3,5,5-Trimethyl-1-hexanol
TMNT	Total mononitrotoluenes
TMODEO	2,2,7,7-Tetramethyl-4,5-octadien-3-one
TMP	Trimethyl phosphate
TMPIAN	Tetramethylphenanthrene
TMPO	Trimethylphosphonate
TMPO3	Trimethyl phosphite
TMPO4	Trimethyl phosphate (obsolete - use TMP)
TMTCO	3,5,24-Trimethyltetracontane
TMUR	Tetramethylurea
TNBISO	Trinitrobenzene isomer
TNTISO	Trinitrotoluene isomer
TOC	Total organic carbon
TOCDD	Total octochlorodibenzo-p-dioxins
TOCDF	Total octachlorodibenzofurans
YOKU	Tokutluon / Prothiophos
TORC	Total organic content, 444C (ASTM)
TOTASH	Total ash / Ash, total
TOTCOL	Total coliform
TOTDDT	Total value of all DDT, DDE, DDD isomers
TOTGAF	Total gravimetric, acid fraction
TOTMG2	Total mercury
TOTPCB	Total PCBs
TOX	Total organic halogens
TPCDD	Total pentachlorodibenzo-p-dioxins
TPCDF	Total pentachlorodibenzofurans
THI	Thiophene

8.24-38

13 March 1992

ACCEPTABLE ENTRIES: (Cont.)

TPHVG	Total petroleum hydrocarbons, aviation gasoline fraction
TPHC	Total petroleum hydrocarbons
TPIDSL	Total petroleum hydrocarbons, diesel fraction
TPHGAS	Total petroleum hydrocarbons, gas fraction
TPO4	Total phosphates
TPP	Triphenylphosphate
TRCLE	Trichloroethylene / Trichloroethene
TREACT	Tramolite-actinolite asbestos
TREFLN	Trifluralin / Treflan
TRIBZ	Trichlorobenzenes
TRIMBZ	Trimethylbenzenes
TRIPT	Trichlorocyclopentene
TRITIUM	Tritium
TRITH	Trithion
TRMTDE	2,3,4-Trimethyl-4-tetradecene
TRO	Diethyl methylphosphonate
TRPD14	Terphenyl-D14
TRPHEN	Triphenylene
TRXMET	Trihalomethanes
TS	Total sulfur
TSALPE	p-Toluenesulfonic acid, heptyl ester
TSOLID	Total solids
TSS	Total suspended solids
TTCDD	Total tetrachlorodibenzo-p-dioxins
TTCDF	Total tetrachlorodibenzofurans
TTCP	Tetrachlorophenol
TICTFE	Trichlorotrifluoroethane
TTO	Total toxic organics
TU	Total uranium
TURBID	Turbidity
TVS	Total volatile solids
TXPHEN	Toxaphene
TXYLEN	Xylenes, total combined
U	Uranium
U234	Uranium 234
U235	Uranium 235
U238	Uranium 238
UDMH	Unsymmetrical dimethyl hydrazine
UNKXXX	Unknown compound, XXX = 001 thru 999
UREA	Urea / Carbamide / Carbonyl diamide
V	Vanadium

ACCEPTABLE ENTRIES: (Cont.)

VARIIFY	Various hydrocarbons with increasing M.W.
VFA	Vinyl formate
VM	O-Ethyl-S-(2-diethylaminoethyl) methylphosphonothiolate
VX	O-Ethyl-S-(2-diisopropylaminoethyl) methylphosphonothiolate
W	Tungsten
WP	White phosphorus
XPI.OSV	Explosive spray
XYLEN	Xylenes
Y	Yttrium
YB	Ytterbium
YELDY	Yellow dye
YL	Edyl methylphosphinate
YQLTR	Co-eluting compounds YL, QL and DEMP (q.v.)
ZINPIIS	Zinophos / Thionazin
ZN	Zinc
ZN65	Zinc 65
ZIR	Zirconium
ZR95	Zirconium 95

Chemical and Radiological Data:

(Sorted alphabetically by Test Name)

(1-Methylpropyl) benzene	1MPRB
(1',5 trans)-7-Chloro-6-hydroxy-2', 4-dimethoxy-6'-methyl spiro(benzofuran-2-(3H)-1'-(2)-cyclohexene]-3, 4'-dione	SPIRO
(1,1-Dimethylethyl) benzene	1DMEB
(1,3-Dimethylbutyl) benzene	13DMBB
(2-Chloroethoxy) ethene	2CLEVE
(3beta)-Stigmast-5-en-3-ol	3SSE3L
0.1N Hydrochloric acid	01NHCL
1-(2-Butoxyethoxy) ethanol	BEETO
1-(2-Methylcyclohexyl)-3-phenylurea	SIDRN
1-Acetyl-3-methyl-5-pyrazolone	1A3MPZ
1-Acetyl-4-(1-hydroxy-1-methylethyl) benzene	1A4HMB
1-Benzyl-4-hydroxybenzimidazole	1BY4HB
1-Butanol	1C4L
1-Carbamoyl-3,5-dimethyl-2-pyrazoline	1CDMPZ
1-Chloro-2,4-hexadiene	1CL24H
1-Chlorohexane	1CH
1-Chloronaphthalene	1CNAP

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrev.	Value	Flag	Internal Std. Code
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	MG	2160.000		
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	MN	1340.000		
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	NA	243.000		
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	NI	11.700		
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	PB	23.800		
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	SB	7.140	LT	
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	TL	6.620	LT	
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	V	55.800		
6SB1	RVFS*13	CSO	05-nov-1991	20.5	UGG	JS16	ZN	36.000		
6SB1	RVFS*13	CSO	05-nov-1991	20.5		00	PH	6.390		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JD19	AS	3.020		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JB01	HG	0.050	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JD15	SE	0.250	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	AG	0.589	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	AL	29400.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	BA	66.700		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	BE	0.500	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	CA	5170.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	CD	0.700	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	CO	11.300		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	CR	33.100		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	CU	14.500		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	FE	33300.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	K	1500.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	MG	4900.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	MN	303.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	NA	189.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	NI	12.600		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	PB	18.600		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	SB	7.140	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	TL	6.620	LT	
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	V	71.400		
6SB2	RVFS*14	CSO	04-nov-1991	14.0	UGG	JS16	ZN	49.000		
6SB2	RVFS*14	CSO	04-nov-1991	14.0		00	PH	7.250		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JD19	AS	2.780		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JB01	HG	0.050	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JD15	SE	0.250	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	AG	0.589	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	AL	10800.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	BA	97.600		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	BE	0.500	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	CA	824.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	CD	0.700	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	CO	14.300		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	CR	42.400		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	CU	9.160		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	FE	29100.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	K	538.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	MG	1010.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	MN	1020.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	NA	166.000		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	NI	7.340		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	PB	23.800		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	SB	7.140	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	TL	6.620	LT	
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	V	46.900		
6SB2	RVFS*15	CSO	04-nov-1991	22.0	UGG	JS16	ZN	40.200		
6SB2	RVFS*15	CSO	04-nov-1991	22.0		00	PH	6.640		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JB01	HG	0.227		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JD19	AS	13.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JD15	SE	0.250	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	135TNB	0.488	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	13DNB	0.496	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	246TNT	0.456	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	24DNT	0.424	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	26DNT	0.524	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	HMX	0.666	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	NB	2.410	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	RDX	0.587	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	LW12	TETRYL	0.731	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	AG	1.200		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	AL	15200.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	BA	166.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	BE	2.200		

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrv.	Value	Flag	Internal Std. Code
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	CA	9130.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	CD	0.700	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	CO	13.100		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	CR	40.800		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	CU	53.500		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	FE	27600.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	K	1620.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	MG	7610.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	MN	463.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	NA	457.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	NI	18.300		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	PB	97.200		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	SB	7.140	LT	
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	TL	25.200		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	V	50.900		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	JS16	ZN	160.000		
71SS1	RVFS*67	CSO	05-feb-1992	0.5	UGG	00	TPHC	61.200		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JB01	HG	0.372		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JD19	AS	27.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JD15	SE	0.449		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	135TNB	0.488	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	13DNB	0.496	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	246TNT	0.456	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	24DNT	0.424	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	26DNT	0.524	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	HMX	0.666	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	NB	2.410	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	RDX	0.587	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	LW12	TETRYL	0.731	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	AG	0.970		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	AL	4040.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	BA	155.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	BE	1.630		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	CA	3130.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	CD	0.700	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	CO	5.480		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	CR	19.100		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	CU	40.900		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	FE	9720.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	K	640.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	MG	1860.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	MN	127.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	NA	289.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	NI	11.100		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	PB	76.600		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	SB	7.140	LT	
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	TL	13.900		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	V	17.000		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	JS16	ZN	80.500		
71SS2	RVFS*68	CSO	05-feb-1992	0.5	UGG	00	TPHC	55.200		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JD19	AS	190.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JD15	SE	6.690		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	135TNB	0.488	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	13DNB	0.496	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	246TNT	0.456	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	24DNT	0.424	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	26DNT	0.524	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	HMX	0.666	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	NB	2.410	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	RDX	0.587	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	LW12	TETRYL	0.731	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	AG	1.760		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	AL	4880.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	BA	161.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	BE	1.730		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	CA	10100.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	CD	0.700	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	CO	2.290		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	CR	14.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	CU	46.500		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	FE	32700.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	K	1560.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	MG	1240.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	MN	44.700		

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrev.	Value	Flag	Internal Std. Code
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	NA	377.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	NI	7.110		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	PB	147.000		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	SB	7.140	LT	
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	TL	32.700		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	V	22.700		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	JS16	ZN	43.500		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	00	TPHC	79.500		
71SS3	RVFS*69	CSO	05-feb-1992	0.5	UGG	J801	HG	2.700		
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	111TCE	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	112TCE	1.200	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	110CE	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	11DCLE	0.680	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	12DCE	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	12DCLE	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	12DCLP	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	2CLEVE	0.710	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	ACET	13.000	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	ACROLN	100.000	ND	R
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	ACRYLO	100.000	ND	R
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	BRDCLM	0.590	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	C13DCP	0.580	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	C2AVE	8.300	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	C2H3CL	2.600	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	C2H5CL	1.900	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	C6H6	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CCL3F	1.400	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CCL4	0.580	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CH2CL2	2.300	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CH3BR	5.800	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CH3CL	3.200	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CHBR3	2.600	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CHCL3	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CL2BZ	10.000	ND	R
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CLC6H5	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	CS2	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	DBRCLM	0.670	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	ETC6H5	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	MEC6H5	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	MEK	6.400	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	MIBK	3.000	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	MNBK	3.600	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	STYR	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	T13DCP	0.700	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	TCLEA	0.510	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	TCLEE	1.600	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	TRCLE	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM20	XYLEN	0.840	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	124TCB	1.800	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	12DCLB	1.700	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	12DPH	2.000	ND	R
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	13DCLB	1.700	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	14DCLB	1.700	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	245TCP	5.200	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	246TCP	4.200	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	24DCLP	2.900	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	24DMPN	5.800	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	24DNP	21.000	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	24DNT	4.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	26DNT	0.790	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	2CLP	0.990	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	2CNAP	0.500	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	2MNAP	1.700	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	2MP	3.900	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	2NANIL	4.300	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	2NP	3.700	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	33DCBD	12.000	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	3NANIL	4.900	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	46DN2C	17.000	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	4BRPPE	4.200	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	4CANIL	7.300	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	4CL3C	4.000	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	4CLPPE	5.100	LT	
74MW1	RDWB*9	CGW	01-nov-1991	43.0	UGL	UM18	4MP	0.520	LT	

45

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrev.	Value	Flag	Internal Std. Code
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	DBRCLM	0.670	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	ETC6H5	0.500	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	FREON	20.000		S
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	MEC6H5	1.860		
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	MEK	6.400	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	MIBK	3.000	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	MN8K	3.600	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	STYR	0.500	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	T13DCP	0.700	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	TCLEA	0.510	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	TCLEE	1.600	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	TRCLE	0.500	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	UM20	XYLEN	0.840	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	SD09	TL	6.990	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	SD22	AS	2.540	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	SD21	SE	3.020	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	SD20	PB	1.840		
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	SD23	AG	0.250	LT	
BDH3	RDWC*61	CGW	11-feb-1992	100.0	UGL	00	TOC	1470.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JD19	AS	5.380		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.050		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	AL	19100.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	BA	56.500		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.922		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	CA	6270.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	CO	22.100		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	CR	32.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	CU	22.600		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	FE	28600.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	K	3160.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	MG	16200.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	MN	400.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	NA	211.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	NI	27.400		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	PB	255.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	V	55.700		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JS16	ZN	345.000		
BKSS1	RVFS*88	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JD19	AS	4.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.020		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	AL	10500.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	BA	147.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.802		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	CA	7430.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	CO	13.600		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	CR	21.300		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	CU	18.800		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	FE	25900.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	K	1690.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	MG	5760.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	MN	927.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	NA	239.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	NI	18.500		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	PB	68.100		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	V	28.900		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JS16	ZN	283.000		
BKSS10	RVFS*66	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JD19	AS	5.980		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.540		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	AL	12200.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	BA	152.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.500	LT	
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	CA	27100.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	CD	1.070		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	CO	11.500		

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrev.	Value	Flag	Internal Std. Code
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	CR	20.700		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	CU	15.400		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	FE	40800.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	K	1430.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	MG	9780.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	MN	1950.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	NA	382.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	NI	18.400		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	PB	264.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	V	32.300		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JS16	ZN	840.000		
BKSS2	RVFS*52	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JD19	AS	6.420		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.030		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	AL	9710.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	BA	74.200		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.799		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	CA	19600.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	CO	19.700		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	CR	39.800		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	CU	23.400		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	FE	31300.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	K	1520.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	MG	11200.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	MN	436.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	NA	246.000		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	NI	24.500		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	PB	80.800		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	V	60.400		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JS16	ZN	58.300		
BKSS3	RVFS*49	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JD19	AS	3.450		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.670		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	AL	16800.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	BA	180.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.720		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	CA	78000.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	CO	9.190		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	CR	20.200		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	CU	13.300		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	FE	22900.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	K	4180.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	MG	31800.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	MN	1000.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	NA	278.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	NI	15.600		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	PB	75.600		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	SB	9.780		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	V	36.600		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JS16	ZN	284.000		
BKSS4	RVFS*51	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JD19	AS	3.490		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.060		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	AL	7620.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	BA	88.500		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.500	LT	
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	CA	41300.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	CO	4.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	CR	12.500		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	CU	12.800		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	FE	11200.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	K	795.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	MG	22800.000		

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrev.	Value	Flag	Internal Std. Code
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	MN	221.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	NA	258.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	NI	6.200		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	PB	27.000		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	V	28.100		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JS16	ZN	69.700		
BKSS5	RVFS*64	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.541		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JD19	AS	8.070		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.200		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	AL	9730.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	BA	143.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.500	LT	
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	CA	12300.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	CO	13.300		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	CR	16.700		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	CU	42.600		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	FE	29500.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	K	1320.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	MG	4650.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	MN	914.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	NA	235.000		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	NI	24.100		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	PB	10.500	LT	
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	V	19.900		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JS16	ZN	60.400		
BKSS6	RVFS*89	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JD19	AS	3.520		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.570		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	AL	6830.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	BA	70.500		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.500	LT	
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	CA	100000.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	CO	5.040		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	CR	13.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	CU	14.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	FE	10500.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	K	1460.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	MG	41200.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	MN	199.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	NA	299.000		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	NI	11.300		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	PB	62.300		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	V	23.400		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JS16	ZN	73.200		
BKSS7	RVFS*90	CSO	10-mar-1992	0.5	UGG	JB01	HG	0.050	LT	
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JD15	SE	0.250	LT	
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JD19	AS	7.320		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	AG	1.050		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	AL	16600.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	BA	103.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.811		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	CA	23200.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	CO	12.900		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	CR	28.500		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	CU	16.300		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	FE	25100.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	K	2590.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	MG	12800.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	MN	298.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	NA	226.000		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	NI	27.400		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	PB	10.500	LT	
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	

48

Site ID	Field ID	Media	Date	Depth	Units	Analytical Method	Analyte Abbrev.	Value	Flag	Internal Std. Code
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	V	36.500		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	JS16	ZN	63.900		
BKSS8	RVFS*65	CSO	10-mar-1992	0.5	UGG	J801	HG	0.050	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	J015	SE	0.250	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	J019	AS	3.790		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	AG	0.589	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	AL	8380.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	BA	66.100		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	BE	0.500	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	CA	3560.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	CD	0.700	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	CO	12.500		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	CR	25.900		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	CU	7.860		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	FE	16900.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	K	656.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	MG	2370.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	MN	892.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	NA	205.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	NI	11.000		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	PB	27.400		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	SB	7.140	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	TL	6.620	LT	
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	V	27.700		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	JS16	ZN	36.100		
BKSS9	RVFS*113	CSO	10-mar-1992	0.5	UGG	J801	HG	0.050	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	SD20	PB	3.360		
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM17	NQ	30.900	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM19	NG	10.000	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	TF27	PO4	297.000		
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	TF26	N2KJEL	686.000		
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	TT10	CL	21100.000		
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	TT10	SD4	180000.000		
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	SB01	HG	0.243	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	SD09	TL	6.990	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	SD22	AS	2.540	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	SD21	SE	3.020	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	SD23	AG	0.250	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	124TCB	1.800	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	12DCLB	1.700	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	12DPH	2.000	ND	R
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	13DCLB	1.700	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	14DCLB	1.700	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	24STCP	5.200	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	246TCP	4.200	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	24DCLP	2.900	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	24DMPN	5.800	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	24DNP	21.000	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	24DNT	4.500	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	26DNT	0.790	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	2CLP	0.990	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	2CNAP	0.500	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	2MNAP	1.700	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	2MP	3.900	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	2NANIL	4.300	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	2NP	3.700	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	33DCBD	12.000	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	3NANIL	4.900	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	46DN2C	17.000	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4BRPPE	4.200	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4CANIL	7.300	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4CL3C	4.000	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4CLPPE	5.100	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4MP	0.520	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4NANIL	5.200	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	4NP	12.000	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	ABHC	4.000	ND	R
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	ACLDAN	5.100	ND	R
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	AENSLF	9.200	ND	R
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	ALDRN	4.700	ND	R
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	ANAPNE	1.700	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	ANAPYL	0.500	LT	
D-3	RDWA*3	CGW	17-sep-1991	28.0	UGL	UM18	ANTRC	0.500	LT	

Final Documentation Appendix Report
 Installation :Radford AAP, VA (RD)
 File Type: CSO
 Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS10	RDSX*38	0.0	28-JUL-93	ES	RDSX*38	00 /S	Total petroleum hydrocarbons	LT	28.8	UGG		
						J801/S	39-97-6	Mercury		6.82 E -2	UGG		
						JD15/S	82-49-2	Selenium	LT	.25	UGG		
						JD19/S	40-38-2	Arsenic		12	UGG		
						JS16/S	29-90-5	Aluminum		23300	UGG		
							39-89-6	Iron		35700	UGG		
							39-92-1	Lead		21.7	UGG		
							39-95-4	Magnesium		9520	UGG		
							39-96-5	Manganese		1300	UGG		
							40-02-0	Nickel		26.2	UGG		
							40-09-7	Potassium		1770	UGG		
							40-22-4	Silver	LT	.589	UGG		
							40-23-5	Sodium		805	UGG		
							40-28-0	Thallium	LT	6.62	UGG		
							40-36-0	Antimony	LT	7.14	UGG		
							40-39-3	Barium		380	UGG		
							40-41-7	Beryllium		2.12	UGG		
							40-43-9	Cadmium	LT	.7	UGG		
							40-47-3	Chromium		37.4	UGG		
							40-48-4	Cobalt		14.6	UGG		
							40-50-8	Copper		27	UGG		
							40-62-2	Vanadium		60.1	UGG		
							40-66-6	Zinc		72.6	UGG		
							40-70-2	Calcium		6590	UGG		
		RDSXL*38	0.0	09-AUG-93	ES	RDSXL*38	S801/W	Mercury	LT	.243	UGL		L
							SD21/W	Selenium	LT	3.02	UGL		
							SD22/W	Arsenic	LT	2.54	UGL		
							SS10/W	Lead	LT	18.6	UGL		
								Silver	LT	4.6	UGL		
								Barium		1160	UGL		
								Cadmium	LT	4.01	UGL		

* - Analyte Description has been truncated. See Data Dictionary

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS10	RDSXL*38	0.0	09-AUG-93	ES	RDSXL*38	SS10/W	40-47-3	Chromium	LT	6.02	UGL	
	71SS4	RDSX*29	0.0	15-JUL-93	ES	RDSX*29	00 /S		Total petroleum hydrocarbons		553	UGG	
							JB01/S	39-97-6	Mercury		.124	UGG	
							JD15/S	82-49-2	Selenium	LT	.25	UGG	
							JD19/S	40-38-2	Arsenic		5.3	UGG	
							JS16/S	29-90-5	Aluminum		23300	UGG	
								39-89-6	Iron		32000	UGG	
								39-92-1	Lead		38.2	UGG	
								39-95-4	Magnesium		6720	UGG	
								39-96-5	Manganese		355	UGG	
								40-02-0	Nickel		22.1	UGG	
								40-09-7	Potassium		1810	UGG	
								40-22-4	Silver	LT	.589	UGG	
								40-23-5	Sodium		734	UGG	
								40-28-0	Thallium	LT	6.62	UGG	
								40-36-0	Antimony	LT	7.14	UGG	
								40-39-3	Barium		264	UGG	
								40-41-7	Beryllium		1.27	UGG	
								40-43-9	Cadmium	LT	.7	UGG	
								40-47-3	Chromium		35.7	UGG	
								40-48-4	Cobalt		15	UGG	
								40-50-8	Copper		27.4	UGG	
								40-62-2	Vanadium		58.7	UGG	
								40-66-6	Zinc		79.5	UGG	
								40-70-2	Calcium		6280	UGG	
		RDSX*30	4.0	15-JUL-93	ES	RDSX*30	00 /S		Total petroleum hydrocarbons	LT	28.7	UGG	
							JB01/S	39-97-6	Mercury	LT	5.00 E -2	UGG	
							JD15/S	82-49-2	Selenium	LT	.25	UGG	
							JD19/S	40-38-2	Arsenic		7.4	UGG	
							JS16/S	29-90-5	Aluminum		26900	UGG	
								39-89-6	Iron		46800	UGG	
								39-92-1	Lead		18	UGG	
								39-95-4	Magnesium		7800	UGG	
								39-96-5	Manganese		351	UGG	
								40-02-0	Nickel		31.1	UGG	
								40-09-7	Potassium		1970	UGG	
								40-22-4	Silver	LT	.589	UGG	
								40-23-5	Sodium		740	UGG	
								40-28-0	Thallium	LT	6.62	UGG	
								40-36-0	Antimony	LT	7.14	UGG	
								40-39-3	Barium		87.1	UGG	
								40-41-7	Beryllium		1.75	UGG	
								40-43-9	Cadmium	LT	.7	UGG	
								40-47-3	Chromium		51.1	UGG	

* - Analyte Description has been truncated. See Data Dictionary

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS4	RDSX*30	4.0	15-JUL-93	ES RDSX*30	JS16/S	40-48-4	Cobalt		14.3	UGG		
							40-50-8	Copper		26.1	UGG		
							40-62-2	Vanadium		80.7	UGG		
							40-66-6	Zinc		59.2	UGG		
							40-70-2	Calcium		1360	UGG		
		RDSXL*29	0.0	22-JUL-93	ES RDSXL*29	SB01/W	39-97-6	Mercury	LT	.243	UGL		
						SD21/W	82-49-2	Selenium	LT	3.02	UGL		
						SD22/W	40-38-2	Arsenic	LT	5.1	UGL		
						SS10/W	39-92-1	Lead	LT	18.6	UGL		
							40-22-4	Silver	LT	4.6	UGL		
							40-39-3	Barium		895	UGL		
							40-43-9	Cadmium	LT	4.01	UGL		
							40-47-3	Chromium	LT	6.02	UGL		
		RDSXL*30	4.0	22-JUL-93	ES RDSXL*30	SB01/W	39-97-6	Mercury	LT	.243	UGL		
						SD21/W	82-49-2	Selenium	LT	3.02	UGL		
						SD22/W	40-38-2	Arsenic	LT	5.1	UGL		
						SS10/W	39-92-1	Lead	LT	18.6	UGL		
							40-22-4	Silver	LT	4.6	UGL		
							40-39-3	Barium		276	UGL		
							40-43-9	Cadmium	LT	4.01	UGL		
							40-47-3	Chromium	LT	6.02	UGL		
	71SS5	RDSX*31	0.0	15-JUL-93	ES RDSX*31	00 /S		Total petroleum hydrocarbons		36.7	UGG		
						JB01/S	39-97-6	Mercury		.133	UGG		
						JD15/S	82-49-2	Selenium	LT	.25	UGG		
						JD19/S	40-38-2	Arsenic		8.3	UGG		
						JS16/S	29-90-5	Aluminum		17400	UGG		
							39-89-6	Iron		24600	UGG		
							39-92-1	Lead		61.2	UGG		
							39-95-4	Magnesium		26000	UGG		
							39-96-5	Manganese		164	UGG		
							40-02-0	Nickel		7.7	UGG		
							40-09-7	Potassium		707	UGG		
							40-22-4	Silver	LT	.589	UGG		
							40-23-5	Sodium		378	UGG		
							40-28-0	Thallium	LT	6.62	UGG		
							40-36-0	Antimony	LT	7.14	UGG		
							40-39-3	Barium		80.3	UGG		
							40-41-7	Beryllium	LT	.5	UGG		
							40-43-9	Cadmium		3.36	UGG		
							40-47-3	Chromium		23.5	UGG		
							40-48-4	Cobalt		4.27	UGG		
							40-50-8	Copper		11.8	UGG		
							40-62-2	Vanadium		55.1	UGG		
							40-66-6	Zinc		23.9	UGG		

* - Analyte Description has been truncated. See Data Dictionary

Final Documentation Appendix Report
 Installation :Radford AAP, VA (RD)
 File Type: CSO
 Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab	Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS5	RDSX*31	0.0	15-JUL-93	ES	RDSX*31	JS16/S	40-70-2	Calcium		42800	UGG		
		RDSX*32	4.0	15-JUL-93	ES	RDSX*32	00 /S		Total petroleum hydrocarbons	LT	28.7	UGG		
							JB01/S	39-97-6	Mercury	LT	5.00 E -2	UGG		
							JD15/S	82-49-2	Selenium	LT	.25	UGG		
							JD19/S	40-38-2	Arsenic		6.9	UGG		
							JS16/S	29-90-5	Aluminum		33100	UGG		
								39-89-6	Iron		33700	UGG		
								39-92-1	Lead	LT	10.5	UGG		
								39-95-4	Magnesium		47300	UGG		
								39-96-5	Manganese		341	UGG		
								40-02-0	Nickel		41.2	UGG		
								40-09-7	Potassium		7000	UGG		
								40-22-4	Silver	LT	.589	UGG		
								40-23-5	Sodium		348	UGG		
								40-28-0	Thallium	LT	6.62	UGG		
								40-36-0	Antimony	LT	7.14	UGG		
								40-39-3	Barium		56	UGG		
								40-41-7	Beryllium		2.37	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		47.6	UGG		
								40-48-4	Cobalt		15.9	UGG		
								40-50-8	Copper		38.4	UGG		
								40-62-2	Vanadium		67.3	UGG		
								40-66-6	Zinc		56.3	UGG		
								40-70-2	Calcium		1730	UGG		
		RDSX*42	0.0	15-JUL-93	ES	RDSX*42	00 /S		Total petroleum hydrocarbons		36.1	UGG	D	
							JB01/S	39-97-6	Mercury		.179	UGG	D	
							JD15/S	82-49-2	Selenium	LT	.25	UGG	D	
							JD19/S	40-38-2	Arsenic		5.7	UGG	D	
							JS16/S	29-90-5	Aluminum		24300	UGG	D	
								39-89-6	Iron		38200	UGG	D	
								39-92-1	Lead		25.9	UGG	D	
								39-95-4	Magnesium		2470	UGG	D	
								39-96-5	Manganese		131	UGG	D	
								40-02-0	Nickel		11.1	UGG	D	
								40-09-7	Potassium		1020	UGG	D	
								40-22-4	Silver	LT	.589	UGG	D	
								40-23-5	Sodium		401	UGG	D	
								40-28-0	Thallium	LT	6.62	UGG	D	
								40-36-0	Antimony	LT	7.14	UGG	D	
								40-39-3	Barium		99.9	UGG	D	
								40-41-7	Beryllium		1.43	UGG	D	
								40-43-9	Cadmium	LT	.7	UGG	D	
								40-47-3	Chromium		36.6	UGG	D	

* - Analyte Description has been truncated. See Data Dictionary

29-JUL-94

16:07:51

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93

29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS5	RDSX*42	0.0	15-JUL-93	ES RDSX*42	JS16/S	40-48-4	Cobalt		5.68	UGG	D	
							40-50-8	Copper		15.6	UGG	D	
							40-62-2	Vanadium		80.2	UGG	D	
							40-66-6	Zinc		34.2	UGG	D	
							40-70-2	Calcium		1860	UGG	D	
		RDSXL*31	0.0	22-JUL-93	ES RDSXL*31	SB01/W	39-97-6	Mercury	LT	.243	UGL		
						SD21/W	82-49-2	Selenium	LT	3.02	UGL		
						SD22/W	40-38-2	Arsenic	LT	2.54	UGL		
						SS10/W	39-92-1	Lead	LT	18.6	UGL		
							40-22-4	Silver	LT	4.6	UGL		
							40-39-3	Barium		407	UGL		
							40-43-9	Cadmium	LT	4.01	UGL		
							40-47-3	Chromium	LT	6.02	UGL		
		RDSXL*32	4.0	22-JUL-93	ES RDSXL*32	SB01/W	39-97-6	Mercury	LT	.243	UGL		
						SD21/W	82-49-2	Selenium	LT	3.02	UGL		
						SD22/W	40-38-2	Arsenic	LT	2.54	UGL		
						SS10/W	39-92-1	Lead	LT	18.6	UGL		
							40-22-4	Silver	LT	4.6	UGL		
							40-39-3	Barium		347	UGL		
							40-43-9	Cadmium	LT	4.01	UGL		
							40-47-3	Chromium	LT	6.02	UGL		
		RDSXL*42	0.0	22-JUL-93	ES RDSXL*42	SB01/W	39-97-6	Mercury	LT	.243	UGL	D	
						SD21/W	82-49-2	Selenium	LT	3.02	UGL	D	
						SD22/W	40-38-2	Arsenic	LT	2.54	UGL	D	
						SS10/W	39-92-1	Lead	LT	18.6	UGL	D	
							40-22-4	Silver	LT	4.6	UGL	D	
							40-39-3	Barium		379	UGL	D	
							40-43-9	Cadmium	LT	4.01	UGL	D	
							40-47-3	Chromium	LT	6.02	UGL	D	
	71SS6	RDSX*33	0.0	15-JUL-93	ES RDSX*33	00 /S		Total petroleum hydrocarbons		723	UGG		
						JB01/S	39-97-6	Mercury		.272	UGG		
						JD15/S	82-49-2	Selenium		.587	UGG		
						JD19/S	40-38-2	Arsenic		17	UGG		
						JS16/S	29-90-5	Aluminum		13600	UGG		
							39-89-6	Iron		26000	UGG		
							39-92-1	Lead		51.4	UGG		
							39-95-4	Magnesium		5600	UGG		
							39-96-5	Manganese		381	UGG		
							40-02-0	Nickel		323	UGG		
							40-09-7	Potassium		1370	UGG		
							40-22-4	Silver		1.16	UGG		
							40-23-5	Sodium		403	UGG		
							40-28-0	Thallium	LT	6.62	UGG		
							40-36-0	Antimony	LT	7.14	UGG		

* - Analyte Description has been truncated. See Data Dictionary

29-JUL-94

16:07:51

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93

29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab	Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS6	RDSX*33	0.0	15-JUL-93	ES	RDSX*33	JS16/S	40-39-3	Barium		151	UGG		
								40-41-7	Beryllium		1.06	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		33.4	UGG		
								40-48-4	Cobalt		12.1	UGG		
								40-50-8	Copper		197	UGG		
								40-62-2	Vanadium		41.1	UGG		
								40-66-6	Zinc		95.9	UGG		
								40-70-2	Calcium		4700	UGG		
		RDSX*34	4.0	15-JUL-93	ES	RDSX*34	00 /S		Total petroleum hydrocarbons		40.8	UGG		
							JB01/S	39-97-6	Mercury		8.78 E -2	UGG		
							JD15/S	82-49-2	Selenium	LT	.25	UGG		
							JD19/S	40-38-2	Arsenic		8.6	UGG		
							JS16/S	29-90-5	Aluminum		48300	UGG		
								39-89-6	Iron		50500	UGG		
								39-92-1	Lead		21.9	UGG		
								39-95-4	Magnesium		26900	UGG		
								39-96-5	Manganese		438	UGG		
								40-02-0	Nickel		46.2	UGG		
								40-09-7	Potassium		4070	UGG		
								40-22-4	Silver	LT	.589	UGG		
								40-23-5	Sodium		457	UGG		
								40-28-0	Thallium	LT	6.62	UGG		
								40-36-0	Antimony	LT	7.14	UGG		
								40-39-3	Barium		111	UGG		
								40-41-7	Beryllium		3.19	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		63.5	UGG		
								40-48-4	Cobalt		14.9	UGG		
								40-50-8	Copper		32.3	UGG		
								40-62-2	Vanadium		103	UGG		
								40-66-6	Zinc		76.1	UGG		
								40-70-2	Calcium		2000	UGG		
		RDSXL*33	0.0	22-JUL-93	ES	RDSXL*33	SB01/W	39-97-6	Mercury	LT	.243	UGL		
							SD21/W	82-49-2	Selenium	LT	3.02	UGL		
							SD22/W	40-38-2	Arsenic	LT	5.1	UGL		
							SS10/W	39-92-1	Lead	LT	18.6	UGL		
								40-22-4	Silver	LT	4.6	UGL		
								40-39-3	Barium		768	UGL		
								40-43-9	Cadmium	LT	4.01	UGL		
								40-47-3	Chromium	LT	6.02	UGL		
		RDSXL*34	4.0	22-JUL-93	ES	RDSXL*34	SB01/W	39-97-6	Mercury	LT	.243	UGL		
							SD21/W	82-49-2	Selenium	LT	3.02	UGL		
							SD22/W	40-38-2	Arsenic	LT	5.1	UGL		

* - Analyte Description has been truncated. See Data Dictionary

74

29-JUL-94

16:07:51

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab	Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS6	RDSXL*34	4.0	22-JUL-93	ES	RDSXL*34	SS10/W	39-92-1	Lead	LT	18.6	UGL		
								40-22-4	Silver	LT	4.6	UGL		
								40-39-3	Barium		339	UGL		
								40-43-9	Cadmium	LT	4.01	UGL		
								40-47-3	Chromium	LT	6.02	UGL		
	71SS7	RDSX*35	0.0	15-JUL-93	ES	RDSX*35	00 /S		Total petroleum hydrocarbons		38.4	UGG		
							J801/S	39-97-6	Mercury	LT	5.00 E -2	UGG		
							JD15/S	82-49-2	Selenium	LT	.25	UGG		
							JD19/S	40-38-2	Arsenic		7.4	UGG		
							JS16/S	29-90-5	Aluminum		26300	UGG		
								39-89-6	Iron		28200	UGG		
								39-92-1	Lead	LT	10.5	UGG		
								39-95-4	Magnesium		27000	UGG		
								39-96-5	Manganese		1330	UGG		
								40-02-0	Nickel		28.5	UGG		
								40-09-7	Potassium		2630	UGG		
								40-22-4	Silver	LT	.589	UGG		
								40-23-5	Sodium		416	UGG		
								40-28-0	Thallium	LT	6.62	UGG		
								40-36-0	Antimony	LT	7.14	UGG		
								40-39-3	Barium		126	UGG		
								40-41-7	Beryllium		1.61	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		46.2	UGG		
								40-48-4	Cobalt		18.5	UGG		
								40-50-8	Copper		22.1	UGG		
								40-62-2	Vanadium		66.2	UGG		
								40-66-6	Zinc		63.8	UGG		
								40-70-2	Calcium		2180	UGG		
		RDSX*36	4.0	15-JUL-93	ES	RDSX*36	00 /S		Total petroleum hydrocarbons	LT	28.7	UGG		
							J801/S	39-97-6	Mercury		.13	UGG		
							JD15/S	82-49-2	Selenium	LT	.25	UGG		
							JD19/S	40-38-2	Arsenic		9.3	UGG		
							JS16/S	29-90-5	Aluminum		48700	UGG		
								39-89-6	Iron		62400	UGG		
								39-92-1	Lead		16.8	UGG		
								39-95-4	Magnesium		13900	UGG		
								39-96-5	Manganese		670	UGG		
								40-02-0	Nickel		57.5	UGG		
								40-09-7	Potassium		2900	UGG		
								40-22-4	Silver	LT	.589	UGG		
								40-23-5	Sodium		433	UGG		
								40-28-0	Thallium	LT	6.62	UGG		
								40-36-0	Antimony	LT	7.14	UGG		

* - Analyte Description has been truncated. See Data Dictionary

57

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab	Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS7	RDSX*36	4.0	15-JUL-93	ES	RDSX*36	JS16/S	40-39-3	Barium		109	UGG		
								40-41-7	Beryllium		4.7	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		65.7	UGG		
								40-48-4	Cobalt		13.8	UGG		
								40-50-8	Copper		40	UGG		
								40-62-2	Vanadium		117	UGG		
								40-66-6	Zinc		72.9	UGG		
								40-70-2	Calcium		1780	UGG		
		RDSXL*35	0.0	22-JUL-93	ES	RDSXL*35	SB01/W	39-97-6	Mercury	LT	.243	UGL		
							SD21/W	82-49-2	Selenium	LT	3.02	UGL		
							SD22/W	40-38-2	Arsenic	LT	5.1	UGL		
							SS10/W	39-92-1	Lead	LT	18.6	UGL		
								40-22-4	Silver	LT	4.6	UGL		
								40-39-3	Barium		495	UGL		
								40-43-9	Cadmium	LT	4.01	UGL		
								40-47-3	Chromium	LT	6.02	UGL		
		RDSXL*36	4.0	22-JUL-93	ES	RDSXL*36	SB01/W	39-97-6	Mercury	LT	.243	UGL		
							SD21/W	82-49-2	Selenium	LT	3.02	UGL		
							SD22/W	40-38-2	Arsenic	LT	2.54	UGL		
							SS10/W	39-92-1	Lead	LT	18.6	UGL		
								40-22-4	Silver	LT	4.6	UGL		
								40-39-3	Barium		354	UGL		
								40-43-9	Cadmium	LT	4.01	UGL		
								40-47-3	Chromium	LT	6.02	UGL		
	71SS8	RDSX*37	0.0	28-JUL-93	ES	RDSX*37	00 /S		Total petroleum hydrocarbons	LT	28.7	UGG		
							JB01/S	39-97-6	Mercury	LT	5.00 E -2	UGG		
							JD15/S	82-49-2	Selenium	LT	.25	UGG		
							JD19/S	40-38-2	Arsenic		7.5	UGG		
							JS16/S	29-90-5	Aluminum		22200	UGG		
								39-89-6	Iron		33400	UGG		
								39-92-1	Lead		22	UGG		
								39-95-4	Magnesium		7540	UGG		
								39-96-5	Manganese		644	UGG		
								40-02-0	Nickel		22.5	UGG		
								40-09-7	Potassium		1810	UGG		
								40-22-4	Silver	LT	.589	UGG		
								40-23-5	Sodium		629	UGG		
								40-28-0	Thallium	LT	6.62	UGG		
								40-36-0	Antimony	LT	7.14	UGG		
								40-39-3	Barium		282	UGG		
								40-41-7	Beryllium		1.61	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		34.9	UGG		

* - Analyte Description has been truncated. See Data Dictionary

Final Documentation Appendix Report
Installation :Radford AAP, VA (RD)
File Type: CSO

Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab	Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS8	RDSX*37	0.0	28-JUL-93	ES	RDSX*37	JS16/S	40-48-4	Cobalt		16.1	UGG		
								40-50-8	Copper		21.4	UGG		
								40-62-2	Vanadium		55.3	UGG		
								40-66-6	Zinc		64.7	UGG		
								40-70-2	Calcium		3650	UGG		
		RDSXL*37	0.0	09-AUG-93	ES	RDSXL*37	SB01/W	39-97-6	Mercury	LT	.243	UGL		L
							SD21/W	82-49-2	Selenium	LT	3.02	UGL		
							SD22/W	40-38-2	Arsenic	LT	2.54	UGL		
							SS10/W	39-92-1	Lead	LT	18.6	UGL		
								40-22-4	Silver	LT	4.6	UGL		
								40-39-3	Barium		806	UGL		
								40-43-9	Cadmium	LT	4.01	UGL		
								40-47-3	Chromium	LT	6.02	UGL		
	71SS9	RDSX*39	0.0	15-JUL-93	ES	RDSX*39	00 /S		Total petroleum hydrocarbons		1330	UGG		
							JB01/S	39-97-6	Mercury		17	UGG		
							JD15/S	82-49-2	Selenium	LT	.25	UGG		
							JD19/S	40-38-2	Arsenic		8.6	UGG		
							JS16/S	29-90-5	Aluminum		13800	UGG		
								39-89-6	Iron		21900	UGG		
								39-92-1	Lead		78.2	UGG		
								39-95-4	Magnesium		3050	UGG		
								39-96-5	Manganese		495	UGG		
								40-02-0	Nickel		11.7	UGG		
								40-09-7	Potassium		1210	UGG		
								40-22-4	Silver	LT	.589	UGG		
								40-23-5	Sodium		639	UGG		
								40-28-0	Thallium	LT	6.62	UGG		
								40-36-0	Antimony	LT	7.14	UGG		
								40-39-3	Barium		120	UGG		
								40-41-7	Beryllium		.951	UGG		
								40-43-9	Cadmium	LT	.7	UGG		
								40-47-3	Chromium		39.8	UGG		
								40-48-4	Cobalt		7.91	UGG		
								40-50-8	Copper		123	UGG		
								40-62-2	Vanadium		77.5	UGG		
								40-66-6	Zinc		170	UGG		
								40-70-2	Calcium		16000	UGG		
		RDSX*40	4.0	15-JUL-93	ES	RDSX*40	00 /S		Total petroleum hydrocarbons		1090	UGG		
							JB01/S	39-97-6	Mercury		6.4	UGG		
							JD15/S	82-49-2	Selenium		2.16	UGG		
							JD19/S	40-38-2	Arsenic		530	UGG		
							JS16/S	29-90-5	Aluminum		14400	UGG		
								39-89-6	Iron		48100	UGG		
								39-92-1	Lead		133	UGG		

* - Analyte Description has been truncated. See Data Dictionary

Final Documentation Appendix Report
 Installation :Radford AAP, VA (RD)
 File Type: CSO

Sampling Date Range: 01-JAN-93 29-JUL-94

Site Type	Site ID	Field Sample No.	Depth	Sample Date	Lab Lab Anly. No.	Meth/ Matrix	CAS No.	Analyte Description	Meas. Bool.	Conc.	Unit Meas.	Flag Codes	Data Quals
PLUG	71SS9	RDSX*40	4.0	15-JUL-93	ES RDSX*40	JS16/S	39-95-4	Magnesium		4840	UGG		
							39-96-5	Manganese		375	UGG		
							40-02-0	Nickel		52.2	UGG		
							40-09-7	Potassium		1140	UGG		
							40-22-4	Silver	LT	.589	UGG		
							40-23-5	Sodium		1080	UGG		
							40-28-0	Thallium	LT	6.62	UGG		
							40-36-0	Antimony	LT	7.14	UGG		
							40-39-3	Barium		107	UGG		
							40-41-7	Beryllium		1.29	UGG		
							40-43-9	Cadmium		.977	UGG		
							40-47-3	Chromium		41.7	UGG		
							40-48-4	Cobalt		25.4	UGG		
							40-50-8	Copper		116	UGG		
							40-62-2	Vanadium		92.1	UGG		
							40-66-6	Zinc		223	UGG		
							40-70-2	Calcium		14700	UGG		
		RDSXL*39	0.0	22-JUL-93	ES RDSXL*39	SB01/W	39-97-6	Mercury	LT	.243	UGL		
						SD21/W	82-49-2	Selenium	LT	3.02	UGL		
						SD22/W	40-38-2	Arsenic	LT	2.54	UGL		
						SS10/W	39-92-1	Lead	LT	18.6	UGL		
							40-22-4	Silver	LT	4.6	UGL		
							40-39-3	Barium		755	UGL		
							40-43-9	Cadmium	LT	4.01	UGL		
							40-47-3	Chromium	LT	6.02	UGL		
		RDSXL*40	4.0	22-JUL-93	ES RDSXL*40	SB01/W	39-97-6	Mercury	LT	.243	UGL		
						SD21/W	82-49-2	Selenium	LT	3.02	UGL		
						SD22/W	40-38-2	Arsenic	LT	2.54	UGL		
						SS10/W	39-92-1	Lead	LT	18.6	UGL		
							40-22-4	Silver	LT	4.6	UGL		
							40-39-3	Barium		944	UGL		
							40-43-9	Cadmium		5.13	UGL		
							40-47-3	Chromium	LT	6.02	UGL		

** End of Report - 1430 Records Found **

* - Analyte Description has been truncated. See Data Dictionary

58

APPENDIX B

Supporting Information From Final Draft VI Report

Table 4-13
Calculation of Background Comparison Levels
Radford Army Ammunition Plant, Virginia

Analyte	Site ID	BKSS1	BKSS2	BKSS3	BKSS4	BKSS5	BKSS6	BKSS7	BKSS8	BKSS9	BKSS10	Statistical Values		Background Comparison Level
	Site Type	PLUG	PLUG	PLUG	PLUG	PLUG	PLUG	PLUG	PLUG	PLUG	PLUG			
	Field ID	RVFS*88	RVFS*52	RVFS*49	RVFS*51	RVFS*64	RVFS*89	RVFS*90	RVFS*65	RVFS*113	RVFS*66			
	Date	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92			
	Depth	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	Mean	Std. Dev.	Mean + 2*(Std. Dev)
Aluminum		19100	12200	9710	16800	7620	9730	6830	16600	8380	10500	11747	4290	20328
Antimony		7.14 LT	7.14 LT	7.14 LT	9.78	7.14 LT	7.14 LT	7.14 LT	7.14 LT	7.14 LT	7.14 LT	7.40	0.83	9.07
Arsenic		5.380	5.980	6.420	3.450	3.490	8.070	3.520	7.320	3.790	4.000	5.14	1.73	8.61
Barium		56.5	152.0	74.2	180.0	88.5	143.0	70.5	103.0	66.1	147.0	108.08	43.75	195.58
Beryllium		0.922	0.500 LT	0.799	0.720	0.500 LT	0.500 LT	0.500 LT	0.811	0.500 LT	0.802	0.66	0.17	1.00
Cadmium		0.700 LT	1.070	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.74	0.12	0.97
Calcium		8270	27100	19600	78000	41300	12300	100000	23200	3560	7430	31878	32565	97006
Chromium		32.00	20.70	39.80	20.20	12.50	16.70	13.00	28.50	25.90	21.30	23.06	8.61	40.29
Cobalt		22.10	11.50	19.70	9.19	4.00	13.30	5.04	12.90	12.50	13.60	12.38	5.63	23.65
Copper		22.60	15.40	23.40	13.30	12.80	42.60	14.00	16.30	7.86	18.80	18.71	9.60	37.90
Iron		28600	40800	31300	22900	11200	29500	10500	25100	16900	25900	24270	9362	42993
Lead		255.00	264.00	80.80	75.60	27.00	10.50 LT	62.30	10.50 LT	27.40	68.10	88.12	94.01	276.13
Magnesium		16200	9780	11200	31800	22800	4650	41200	12800	2370	5760	15856	12571	40997
Manganese		400	1950	436	1000	221	914	199	298	892	927	724	536	1795
Mercury (Lev2)		0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05	0.00	0.05
Nickel		27.40	18.40	24.50	15.60	6.20	24.10	11.30	27.40	11.00	18.50	18.44	7.41	33.25
Potassium		3160	1430	1520	4180	795	1320	1460	2590	656	1690	1880	1104	4088
Selenium		0.250 LT	0.250 LT	0.250 LT	0.250 LT	0.250 LT	0.541	0.250 LT	0.250 LT	0.250 LT	0.250 LT	0.28	0.09	0.46
Silver		1.050	1.540	1.030	1.670	1.060	1.200	1.570	1.050	0.589 LT	1.020	1.18	0.33	1.83
Sodium		211	382	246	278	258	235	299	226	205	239	258	52	362
Thallium		6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62	0.00	6.62
Vanadium		55.70	32.30	60.40	36.60	28.10	19.90	23.40	36.50	27.70	28.90	34.95	13.28	61.50
Zinc		345.00	840.00	58.30	284.00	69.70	60.40	73.20	63.90	36.10	283.00	211	250	711

- 1) All data values are IRDMIS Level 3, except for mercury.
- 2) Units are in micrograms per gram (UGG).
- 3) LT = Less than the detection limit.

Table 4-14
Calculation of Background Comparison Levels for Upland Soils
Radford Army Ammunition Plant, Virginia

	Site ID	BKSS1	BKSS3	BKSS7	BKSS8	BKSS9	Statistical		Background
	Site Type	PLUG	PLUG	PLUG	PLUG	PLUG	Values		Comparison
	Field ID	RVFS*88	RVFS*49	RVFS*90	RVFS*65	RVFS*113			Level
	Date	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92			
	Depth	0.500	0.500	0.500	0.500	0.500	Mean	Std. Dev.	Mean + 2*(Std. Dev)
Analyte									
Aluminum		19100	9710	6830	16600	8380	12124	5398.4	22921
Antimony		7.14 LT	7.14 LT	7.14 LT	7.14 LT	7.14 LT	7.14	0	7.14
Arsenic		5.380	6.420	3.520	7.320	3.790	5.286	1.6423	9
Barium		56.5	74.2	70.5	103.0	66.1	74.06	17.478	109
Beryllium		0.922	0.799	0.500 LT	0.811	0.500 LT	0.7064	0.1944	1.10
Cadmium		0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.7	0	0.70
Calcium		6270	19600	100000	23200	3560	30526	39734	109994
Chromium		32.00	39.80	13.00	28.50	25.90	27.84	9.8078	47.46
Cobalt		22.10	19.70	5.04	12.90	12.50	14.448	6.7238	27.90
Copper		22.60	23.40	14.00	16.30	7.86	16.832	6.4267	29.69
Iron		28600	31300	10500	25100	16900	22480	8613.5	39707
Lead		255.00	80.80	62.30	10.50 LT	27.40	87.2	97.822	282.84
Magnesium		16200	11200	41200	12800	2370	16754	14588	45931
Manganese		400	436	199	298	892	445	266.48	978
Mercury (Lev2)		0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05	0	0.05
Nickel		27.40	24.50	11.30	27.40	11.00	20.32	8.455	37.23
Potassium		3160	1520	1460	2590	656	1877.2	993.31	3864
Selenium		0.250 LT	0.250 LT	0.250 LT	0.250 LT	0.250 LT	0.25	0	0.25
Silver		1.050	1.030	1.570	1.050	0.589 LT	1.0578	0.3475	1.75
Sodium		211	246	299	226	205	237.4	37.899	313.20
Thallium		6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62	0	6.62
Vanadium		55.70	60.40	23.40	36.50	27.70	40.74	16.576	73.89
Zinc		345.00	58.30	73.20	63.90	36.10	115.3	129.13	373.56

- 1) All data values are IRDMIS Level 3, except for mercury.
- 2) Units are in micrograms per gram (UGG).
- 3) LT = Less than the detection limit.

Table 4-15
Calculation of Background Comparison Levels For Alluvial Soils
Radford Army Ammunition Plant, Virginia

Analyte	Site ID	BKSS2	BKSS4	BKSS5	BKSS6	BKSS10	Statistical Values		Background Comparison Level
	Site Type	PLUG	PLUG	PLUG	PLUG	PLUG			
	Field ID	RVFS*52	RVFS*51	RVFS*64	RVFS*89	RVFS*66			
	Date	03/10/92	03/10/92	03/10/92	03/10/92	03/10/92			
	Depth	0.500	0.500	0.500	0.500	0.500	Mean	Std. Dev.	Mean + 2*(Std. Dev)
Aluminum		12200	16800	7620	9730	10500	11370	3452.6	18275
Antimony		7.14 LT	9.78	7.14 LT	7.14 LT	7.14 LT	7.668	1.1806	10.03
Arsenic		5.980	3.450	3.490	8.070	4.000	4.998	2.0042	9.01
Barium		152.0	180.0	88.5	143.0	147.0	142.1	33.287	209
Beryllium		0.500 LT	0.720	0.500 LT	0.500 LT	0.802	0.6044	0.1459	0.90
Cadmium		1.070	0.700 LT	0.700 LT	0.700 LT	0.700 LT	0.774	0.1655	1.10
Calcium		27100	78000	41300	12300	7430	33226	28332	89890
Chromium		20.70	20.20	12.50	16.70	21.30	18.28	3.6935	25.67
Cobalt		11.50	9.19	4.00	13.30	13.60	10.318	3.9449	18.21
Copper		15.40	13.30	12.80	42.60	18.80	20.58	12.534	45.65
Iron		40800	22900	11200	29500	25900	26060	10723	47506
Lead		264.00	75.60	27.00	10.50 LT	68.10	89.04	101.55	292.14
Magnesium		9780	31800	22800	4650	5760	14958	11862	38682
Manganese		1950	1000	221	914	927	1002.4	616.85	2236
Mercury (Lev2)		0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05	0	0.05
Nickel		18.40	15.60	6.20	24.10	18.50	16.56	6.5622	29.68
Potassium		1430	4180	795	1320	1690	1883	1324.7	4532
Selenium		0.250 LT	0.250 LT	0.250 LT	0.541	0.250 LT	0.3082	0.1301	0.57
Silver		1.540	1.670	1.060	1.200	1.020	1.298	0.2918	1.88
Sodium		382	278	258	235	239	278.4	60.385	399
Thallium		6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62 LT	6.62	0	6.62
Vanadium		32.30	36.60	28.10	19.90	28.90	29.16	6.1675	41.49
Zinc		840.00	284.00	69.70	60.40	283.00	307.42	317.14	942

- 1) All data values are IRDMIS Level 3, except for mercury.
- 2) Units are in micrograms per gram (UGG).
- 3) LT = Less than the detection limit.