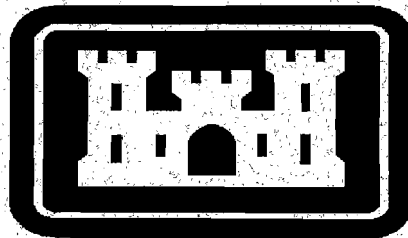


**ASH DELINEATION AND
CHARACTERIZATION REPORT
FOR
AREA OF CONCERN (AOC)-S
FORT RUCKER, ALABAMA**

FINAL

**U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT**

JULY 2008



CH2M HILL

**Contract No. DACA21-02-D-0005
Task Order CK45**

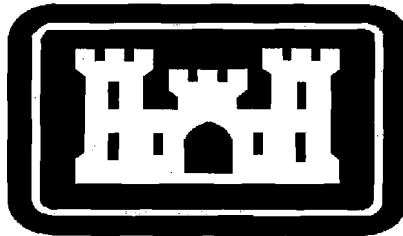
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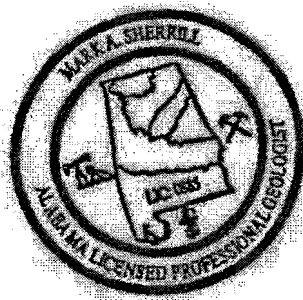
**Contract No. DACA21-02-D-0005
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Groundwater Scientist Certification

"I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as demonstrated by State registration, professional Certifications, or completion of accredited university programs that enable me to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action. I further certify that this Report was prepared and/or reviewed by myself or by a subordinate working under my direction."



Mark A. Sherrill



PG No. 885
Expires February 28, 2010

DATE: July 10, 2008

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Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
AOC	Area of Concern
bgs	below ground surface
DQSR	Data Quality Summary Report
DPT	Direct Push Technology
EPA	U.S. Environmental Protection Agency
GPS	global positioning satellite
HWMMA	Hazardous Waste Management and Minimization Act
mg/kg	milligrams per kilogram
NFA	No Further Action
PPE	personal protective equipment
PRG	Preliminary Remediation Goal
RFI	Resource Conservation and Recovery Act Facility Investigation
SWMU	Solid Waste Management Unit
USACE	United States Army Corps of Engineers
VOC	volatile organic compound

1. Introduction

This Ash Delineation and Characterization Report have been prepared for the United States Army Corps of Engineers (USACE), Mobile District, by CH2M HILL, under Contract No. DACA21-02-D-0005, Task Order CK 45. This Report describes work completed during the delineation and characterization of ash encountered at Area of Concern (AOC) - S.

Field activities conducted during the investigation included soil borings, soil and ash sample collection, sample handling and shipping, and waste handling. The following sections describe the purpose and organization of this report.

1.1 Purpose of Investigation

During drilling of direct push technology (DPT) borings and installation of temporary groundwater monitoring wells during the screening phase of the Resource Conservation and Recovery Act Facility Investigation (RFI) conducted at AOC-S in June and July 2007, ash was encountered in DPT borings DPT-05, DPT-06, DPT-08, and DPT-15. As observed during the RFI, ash may be encountered in different layers within the same borehole to a maximum depth of 25 feet below ground surface (bgs). Specifically, ash was encountered at the following locations and depths:

- DPT-05 (0 to 10 feet bgs)
- DPT-06 (5 to 15 feet bgs)
- DPT-08 (15 to 25 feet bgs)
- DPT-15 (0 to 10 feet bgs)

The purpose of this investigation is to gather the environmental data necessary to delineate and characterize the horizontal and vertical extent of the ash encountered during the RFI conducted at AOC-S and assess the nature and extent of potential environmental impact associated with the ash. The investigation followed the *Final Work Plan for Ash Delineation and Characterization at Area of Concern (AOC)-S, Fort Rucker, Alabama* (December 2007).

1.2 Organization of the Report

The Ash Delineation and Characterization report for AOC-S is organized as follows:

- **Section 1:** Provides project overview, introduces the purpose for the investigation and organization of the report.
- **Section 2:** Describes the site background and description.
- **Section 3:** Introduces the field activities performed during the investigation
- **Section 4:** Discusses the investigation results, including the horizontal and vertical extent of ash and the nature and extent of contamination.
- **Section 5:** Discusses the conclusions and recommendations.

Appendices include the DPT Boring Logs (**Appendix A**) and the Analytical Data and Data Quality Summary Report (DQSR) (**Appendix B**).

2. Site Description

2.1 Installation and Site Background

Fort Rucker commenced operations in 1942 in response to the United States military escalation following the attack on Pearl Harbor. It was originally named the Ozark Triangular Division Camp and became Camp Rucker in 1943. It was renamed Fort Rucker in 1955. Fort Rucker has been the site of an infantry training ground, aviation school flight training, and heliport. Since 1973, the mission at Fort Rucker has been to maintain and operate facilities and provide services and material to support rotary and fixed-wing pilot training for Army aviation enlisted specialists and related test activities.

Fort Rucker is located approximately 20 miles northwest of Dothan, Alabama, and is bounded by the towns of Enterprise on the west, Daleville on the south, and Ozark on the east. Fort Rucker totals approximately 62,430 acres, most of which is situated in Dale and Coffee Counties.

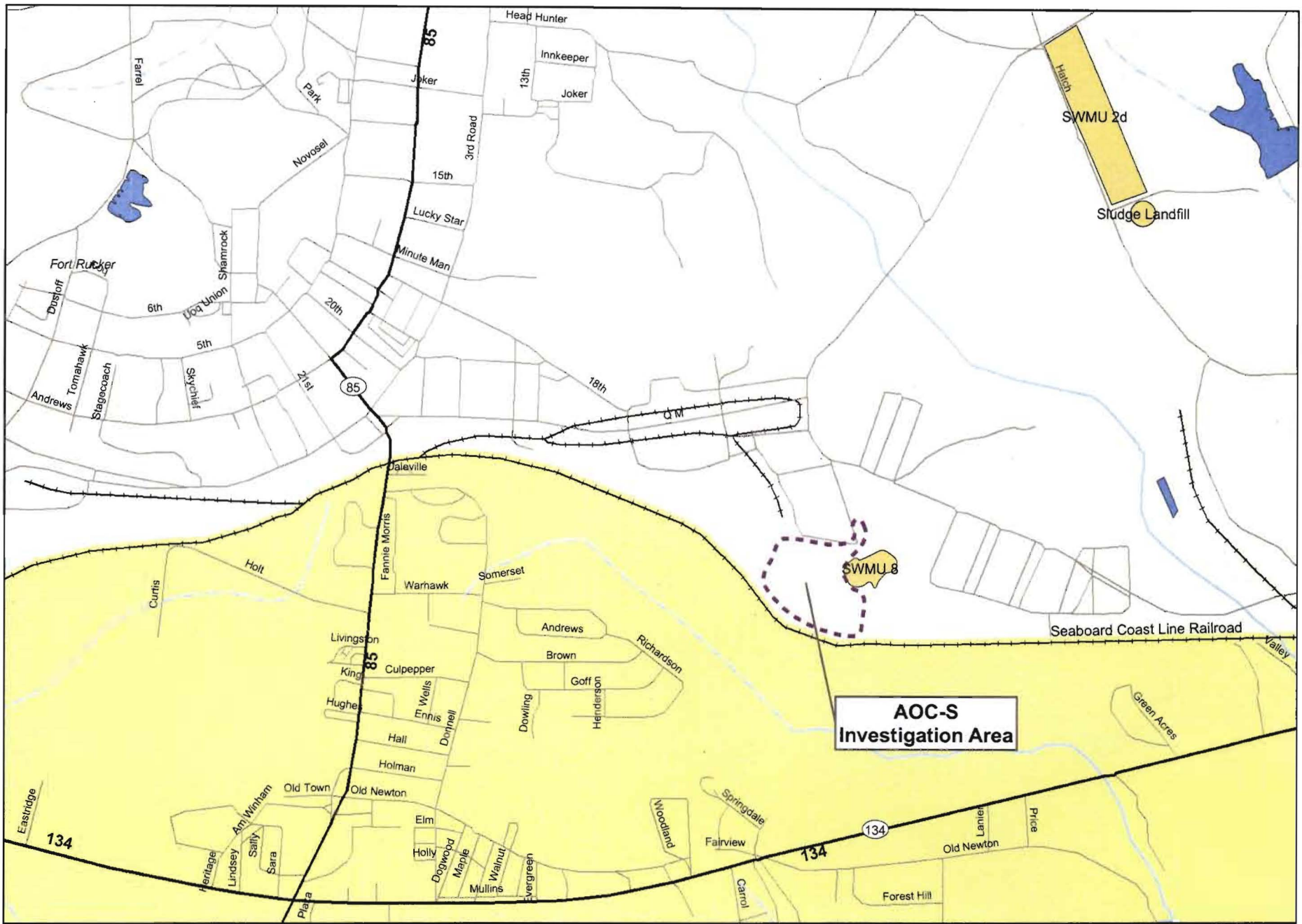
2.2 Site Location and Description

The area to be investigated has been designated as AOC-S in Fort Rucker's Hazardous Waste Management and Minimization Act (HWMMA) permit. AOC-S is located west of Solid Waste Management Unit (SWMU) 8 and south of a vehicle storage/maintenance yard. SWMU 8 is a closed ash landfill comprising approximately 4.3 acres along the southern edge of Fort Rucker. The location of AOC-S is presented on **Figure 2-1**. The SWMU 8 landfill was operated from the 1940s until 1952 (M&E, 1995). Ash from the former incinerator buildings 1410, 1411, and 1412 were disposed of at SWMU 8. A map of the AOC-S investigation area is presented on **Figure 2-2**.

During drilling of DPT borings and installation of temporary groundwater monitoring wells during the screening phase of the RFI conducted at AOC-S in June and July 2007, ash was encountered in DPT borings DPT-05, DPT-06, DPT-08, and DPT-15. As observed during the RFI, ash may be encountered in different layers within the same borehole to a maximum depth of 25 feet bgs.

Specifically, ash was encountered at the following depths:

- DPT-05 (0 to 10 feet bgs)
- DPT-06 (5 to 15 feet bgs)
- DPT-08 (15 to 25 feet bgs)
- DPT-15 (0 to 10 feet bgs)



- AOC-S Investigation Area
- SWMU
- Water
- Limited Access Highway
- Highway
- Major Road
- Local Road

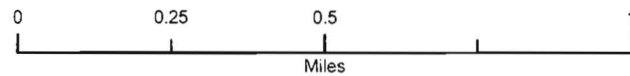







Figure 2-1
Location of AOC-S
Fort Rucker, Alabama



-  Existing Monitoring Well
-  Extent of Closed Incinerator Ash Landfill (SWMU 8)
-  Direction of Groundwater Flow
-  Trail
-  AOC-S Investigation Area

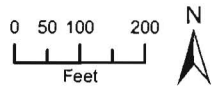


Figure 2-2
AOC-S Investigation Area
Fort Rucker, Alabama

3. Investigation Activities

3.1 Utility Clearance

Prior to mobilization to the field, CH2M HILL contacted the Fort Rucker utilities consisting of Shaw Infrastructure; Directorate of Information Management; Century Telephone; Southeast Alabama Gas; Alabama Power; and American Water Services to obtain available information regarding subsurface utilities at the AOC-S investigation area and the necessary utility clearances and digging permits to perform the subsurface investigation.

3.2 DPT Borings

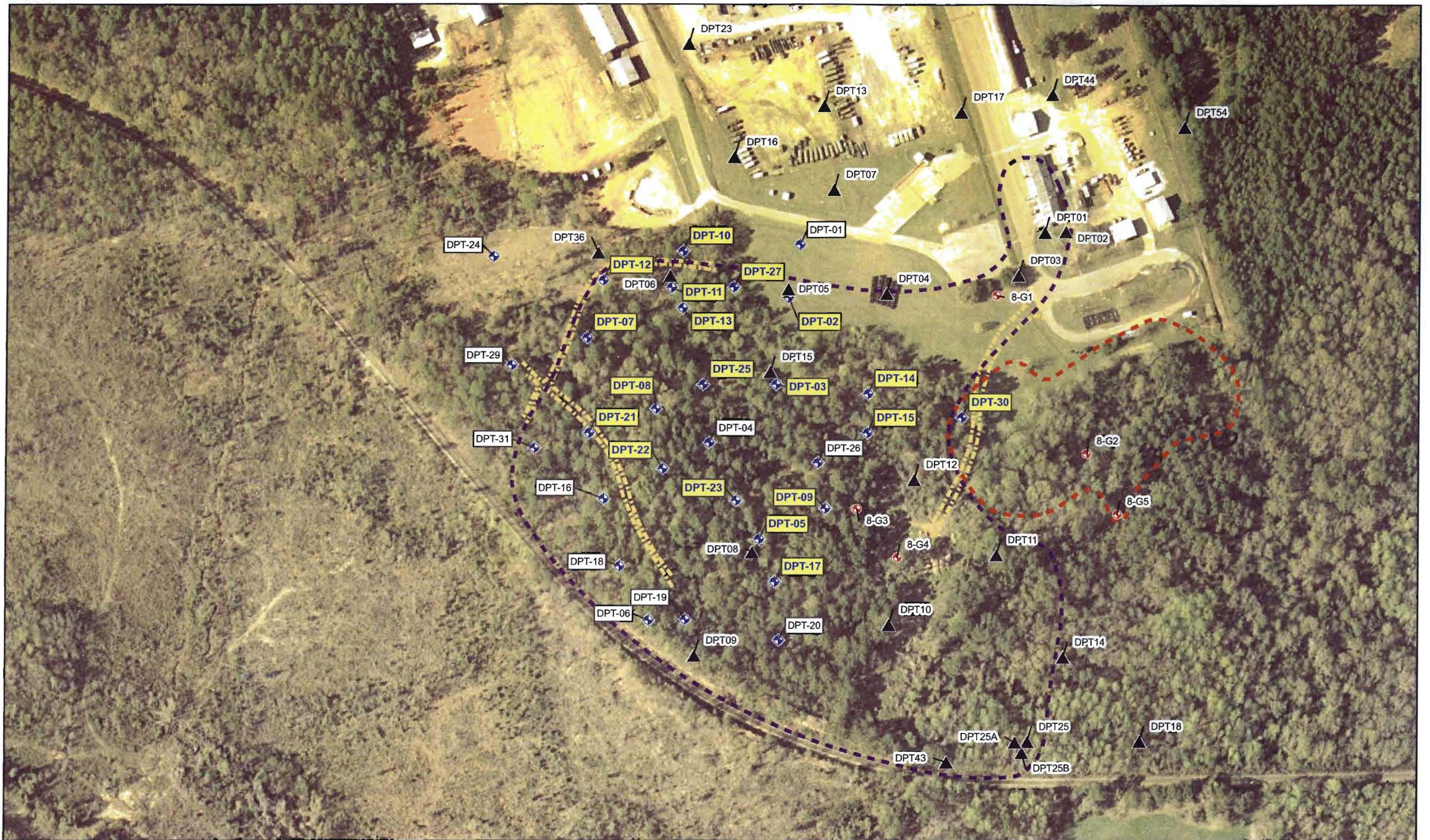
A DPT soil investigation was conducted from January 14 through January 19, 2008, to gather data to delineate the horizontal and vertical extent of ash encountered during the RFI conducted at AOC-S and assess the nature and extent of potential environmental impact associated with the ash. Thirty DPT soil borings were drilled to a maximum depth of 25 feet bgs. Ash and soil samples were collected from each DPT boring where ash was encountered. One composite sample from each distinct ash layer(s) encountered in each DPT boring was collected and analyzed for Alabama Department of Environmental Management (ADEM) Chapter 13 Appendix I metals and a discrete sample was collected from each distinct ash layer(s) encountered in each DPT boring and analyzed for ADEM Chapter 13 Appendix I volatile organic compounds (VOCs). One discrete soil sample was collected directly below the deepest ash layer encountered in each DPT boring and analyzed for ADEM Chapter 13 Appendix I VOCs and metals.

The DPT borings were drilled in a phased approach at the following locations:

- Six DPT borings (DPT-01 through DPT-06) were drilled along a general north-south trending line (including previous DPT borings DPT-05, DPT-08, and DPT-15 where ash was encountered) and three DPT borings (DPT-07 through DPT-09) were drilled along a general northwest-southeast trending line as an initial attempt to define the lateral and vertical extent of the ash.
- Eight DPT borings (DPT-10 through DPT-17) were drilled in a grid pattern to further define the lateral and vertical extent of the ash based on the results of the initial nine DPT borings.

Based on the observation of ash in the first 17 DPT borings, an additional 13 DPT borings (DPT-18 through DPT-27, DPT-29 through DPT-31) were drilled to further delineate the lateral and vertical extent of the ash. The remaining 13 DPT borings were adjusted in the field as necessary to delineate the lateral and vertical extent of ash.

The locations of the DPT soil borings are shown on **Figure 3-1**.



- ◆ Ash Delineation Boring
- Existing Monitoring Well
- ▲ Previous DPT Boring Location
- Extent of Closed Incinerator Ash Landfill (SWMU 8)
- Trail
- AOC-S Investigation Area
- DPT-22 Blue Text indicates ash encountered in boring

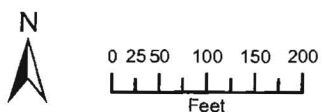


Figure 3-1
 DPT Boring Locations
 Ash Delineation and Characterization
 AOC-S
 FT Rucker, Alabama

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3.3 Surveying and Mapping

The latitude and longitude of each DPT soil boring was determined in the field using a Trimble Pro XRS global positioning satellite (GPS) instrument with an accuracy of 3 feet. The latitude and longitude of each DPT soil boring are presented on **Table 3-1**. The wooden stakes identifying each DPT boring will be left in place to more easily locate the boring if additional sampling is required to determine if a possible detection was an isolated event.

3.4 Waste Management

Waste generated during the investigation included soil cuttings; drilling wastes; used personal protective equipment (PPE) such as gloves; used disposable sampling equipment; decontamination fluids; and general trash, such as paper, wrappers, and similar wastes. All waste, except for general trash and PPE, were placed into drums and moved to the fenced, covered area adjacent to Building 1121. One drum of liquid waste and one drum of solid waste were generated during the completion of the DPT soil borings. The wastes will be managed and disposed of by a subcontractor and supervised by CH2M HILL after completion of the field activities performed as part of the RFI at AOC-S.

TABLE 3-1
 Summary of DPT Boring GPS Coordinates
 AOC-S Ash Delineation Characterization

DPTID	Point_ID	Ash	Longitude		Latitude	
			Decimal Degrees	Decimal Degrees	Decimal Degrees	Decimal Degrees
DPT-01	39	0	-85.69358742590	31.31891981970		
DPT-02	36	1	-85.69367440210	31.31858940310		
DPT-03	30	1	-85.69376657180	31.31804508030		
DPT-04	32	0	-85.69424668970	31.31768716500		
DPT-05	23	1	-85.69389492260	31.31708146600		
DPT-06	19	0	-85.69469523140	31.31658244840		
DPT-07	10	1	-85.69512902510	31.31835123200		
DPT-08	31	1	-85.69463216970	31.31790245730		
DPT-09	25	1	-85.69341104730	31.31726901250		
DPT-10	6	1	-85.69442977090	31.31888495560		
DPT-11	7	1	-85.69451514920	31.31865945110		
DPT-12	9	1	-85.69500931190	31.31870822300		
DPT-13	8	1	-85.69443318700	31.31852959230		
DPT-14	27	1	-85.69309541900	31.31798020160		
DPT-15	26	1	-85.69310162590	31.31773501650		
DPT-16	15	0	-85.69501356160	31.31734492960		
DPT-17	21	1	-85.69378305300	31.31681511830		
DPT-18	18	0	-85.69490122890	31.31692405540		
DPT-19	35	0	-85.69442721970	31.31658553460		
DPT-20	20	0	-85.69375626970	31.31645042060		
DPT-21	33	1	-85.69511783090	31.31775618960		
DPT-22	34	1	-85.69458631640	31.31752744990		
DPT-23	22	1	-85.69405702190	31.31732476840		
DPT-24	11	0	-85.69580229010	31.31886504600		
DPT-25	29	1	-85.69428898040	31.31804886830		
DPT-26	24	0	-85.69346328130	31.31755379080		
DPT-27	5	1	-85.69406725740	31.31865594950		
DPT-29	12	0	-85.69567777750	31.31818664370		
DPT-30	28	1	-85.69242116050	31.31782512540		
DPT-31	13	0	-85.69551789850	31.31766534440		

Longitude		
Degrees	Minutes	Seconds
-85	41	36.91473324
-85	41	37.22784756
-85	41	37.55965848
-85	41	39.28808292
-85	41	38.02172136
-85	41	40.90283304
-85	41	42.46449036
-85	41	40.67581092
-85	41	36.27977028
-85	41	39.94717524
-85	41	40.25453712
-85	41	42.03352284
-85	41	39.9594732
-85	41	35.1435084
-85	41	35.16585324
-85	41	42.04882176
-85	41	37.6189908
-85	41	41.64442404
-85	41	39.93799092
-85	41	37.52257092
-85	41	42.42419124
-85	41	40.51073904
-85	41	38.60527884
-85	41	44.88824436
-85	41	39.44032944
-85	41	36.46781268
-85	41	38.64212664
-85	41	44.439999
-85	41	32.7161778
-85	41	43.8644346

Latitude		
Degrees	Minutes	Seconds
31	19	8.11135092
31	19	6.92185116
31	19	4.96228908
31	19	3.673794
31	19	1.4932776
31	19	-0.30318576
31	19	6.0644352
31	19	4.44884628
31	19	2.168445
31	19	7.98584016
31	19	7.17402396
31	19	7.3496028
31	19	6.70653228
31	19	4.72872576
31	19	3.8460594
31	19	2.44174656
31	19	0.53442588
31	19	0.92659944
31	18	59.70792456
31	19	-0.77848584
31	19	3.92228256
31	19	3.09881964
31	19	2.36916624
31	19	7.9141656
31	19	4.97592588
31	19	3.19364688
31	19	7.1614182
31	19	5.47191732
31	19	4.17045144
31	19	3.59523984

Latitude/Longitude = NAD 83

4. Investigation Results

The goal of the field activities is to delineate the horizontal and vertical extent of ash encountered during the RFI conducted at AOC-S and assess the nature and extent of potential environmental impact associated with the ash.

This section of the Report discusses the field tasks performed at AOC-S and the laboratory analytical results.

4.1 Ash Delineation

Thirty DPT soil borings were drilled from January 14 to January 19, 2008, to assist in determining the horizontal and vertical extent of ash at AOC-S. The DPT soil borings were located in a phased approach as described in Section 3.2. Continuous soil/ash samples were collected during drilling of the DPT soil borings. Ash was observed in 19 of the 30 DPT soil borings. The ash consisted of a black fine to coarse-grained material, with clasts up to ½ inch in diameter, glass fragments, and aggregate and was observed from ground surface to a maximum depth of 14 feet bgs. The thickness of the ash fill ranges from 1 to 10 feet. Two distinct layers of ash were encountered in only one DPT soil boring (DPT-13) during this investigation, however two distinct ash layers were encountered in DPT-08 during the AOC-S RFI.

A summary of the DPT boring logs are presented in **Table 4-1**. The DPT soil boring logs are included in **Appendix A**. The location of the DPT soil borings where ash was observed and the approximate boundary of the ash fill are shown on **Figure 4-1**. The area of ash covers approximately 11.5 acres.

4.2 Ash Characterization

A total of 20 ash samples were collected and analyzed for the ADEM Chapter 13 Appendix I VOCs and metals. As noted in Section 4.1, two distinct ash layers were observed in DPT-13. The ash analytical results are discussed in the following sections.

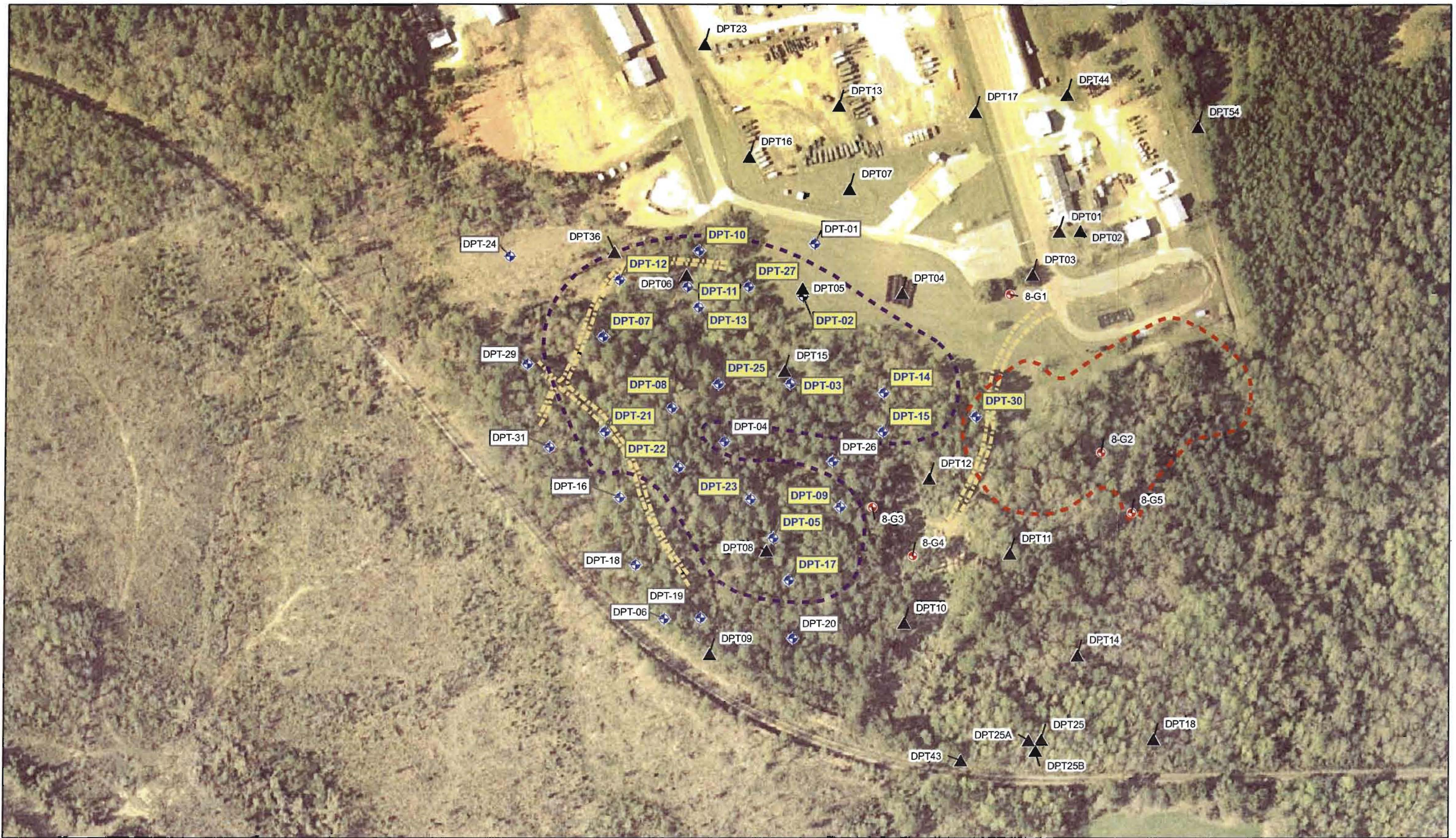
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TABLE 4-1
 Summary of DPT Boring Logs
 AOC-S Ash Delineation and Characterization, Fort Rucker, Alabama

Boring No.	Total Boring Depth (feet bgs)	Ash Observed?	Ash Interval(s) (feet bgs)	Thickness of Ash (feet)
DPT-01	20	No	-	-
DPT-02	20	Yes	0-10.5 (scattered)	10.5
DPT-03	20	Yes	0-4	4
DPT-04	20	No	-	-
DPT-05	25	Yes	4-10	6
DPT-06	20	No	-	-
DPT-07	20	Yes	5-5.5	0.5
DPT-08	20	Yes	4-8.5	4.5
DPT-09	25	Yes	0-4	4
DPT-10	20	Yes	0-4	4
DPT-11	20	Yes	0-10 (scattered)	10
DPT-12	20	Yes	0-4	4
DPT-13	20	Yes	0-4 7-13	4 6
DPT-14	20	Yes	0-10 (scattered)	10
DPT-15	20	Yes	0-1	1
DPT-16	20	No	-	-
DPT-17	20	Yes	2.5-3	0.5
DPT-18	20	No	-	-
DPT-19	20	No	-	-
DPT-20	20	No	-	-
DPT-21	20	Yes	3-5	2
DPT-22	25	Yes	0-11	11
DPT-23	25	Yes	0-5	5
DPT-24	5*	No	-	-
DPT-25	20	Yes	8-14.5	6.5
DPT-26	20	No	-	-
DPT-27	20	Yes	0-7.5	7.5
DPT-28	Not Drilled	-	-	-
DPT-29	20	No	-	-
DPT-30	20	Yes	0-4	4
DPT-31	20	No	-	-

Notes:

* Boring offset additional four times; construction debris encountered at depth of five feet
 bgs = below ground surface



- Approximate Boundary of Ash
- ◆ Ash Delineation Boring
- Extent of Closed Incinerator Ash Landfill (SWMU 8)
- ⊕ Existing Monitoring Well
- Trail
- ▲ Previous DPT Boring Location AOC-S Groundwater Investigation (2007)
- DPT-22 Blue Text indicates ash encountered in boring

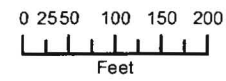


Figure 4-1
 Ash Delineation Map
 AOC-S
 FT Rucker, Alabama

4.2.1 VOC Analytical Results

Thirteen ADEM Chapter 13 Appendix I VOCs were detected in the ash samples. The detections consisted of the following VOCs:

VOC	Location
Acetone	DPT-02, -03, -07, -09, -10, -11, -12, -13, -15, -17, -22, -23, -25, -30
Benzene	DPT-02, -11, -15, -21, -23, -25
Carbon Disulfide	DPT-11, -13, -23
Carbon Tetrachloride	DPT-05, -14
Chloromethane	DPT-11, -23
Iodomethane	DPT-11
Methyl Ethyl Ketone	DPT-03, -05, -07, -11, -12, -13, -14, -17, -22, -23, -25
Methyl Isobutyl Ketone	DPT-23
Methylene Chloride	DPT-05, -10, -14
Toluene	DPT-02, -21, -23, -25
Tetrachloroethene	DPT-05, -30
Xylenes	DPT-21, -25
1,2-Dichloropropane	DPT-25

The majority of detections were estimated values, between the method detection limit and the reporting limit.

The VOCs concentrations were compared against the Environmental Protection Agency (EPA) Region 9 Residential Preliminary Remediation Goals (PRGs). All detections and detection limits were significantly below their respective Residential PRG indicating that the VOCs do not pose a risk to human health and the environment from direct contact.

The VOC analyses are summarized in **Table 4-2**.

4.2.2 Metals Analytical Results

All ADEM Chapter 13 Appendix I metals detected in the ash samples were compared against the EPA Region 9 Residential PRGs, with the exception of arsenic. Arsenic was compared to a residential cleanup level of 40 milligrams per kilograms (mg/kg) established by EPA Region 4 in February 2004, and accepted by ADEM during investigation performed by Contaminant Controls, Inc. at SWMU 8. All detections and detection limits were

TABLE 4-2
Summary of VOC Analytical Results
AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-02 ASH	DPT-02 SOIL	DPT-03 ASH	DPT-03 SOIL	DPT-05 ASH	DPT-05 SOIL	DPT-07 ASH	DPT-07 SOIL	DPT-08 ASH	DPT-08 SOIL	DPT-09 ASH	DPT-09 SOIL	DPT-10 ASH
		SampleID	DPT-02 ASH (8-10')	DPT-02 SOIL (10-12')	DPT-03 ASH (0-4')	DPT-03 SOIL (5-8')	DPT-05 ASH (6-10')	DPT-05 SOIL (11-12')	DPT-07 ASH (5-6')	DPT-07 SOIL (6-8')	DPT-08 ASH (4-8')	DPT-08 SOIL (10-12')	DPT-09 ASH (0-4')	DPT-09 SOIL (8-10')	DPT-10 ASH (0-4')
		Sample Date	1/14/2008	1/14/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/17/2008	1/17/2008	1/17/2008
Analytes	Unit	PRG ^{Res}													
SW8260B															
1,1,1,2-Tetrachloroethane	ug/Kg	3200	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 U	2.5 U	10 U
1,1,1-Trichloroethane	ug/Kg	1200000	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 UJ	4.3 U	2.5 U	5.2 U
1,1,2,2-Tetrachloroethane	ug/Kg	410	4 UJ	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 UJ	2.5 U	10 U
1,1,2-Trichloroethane	ug/Kg	730	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 U	2.5 U	5.2 U
1,1-Dichloroethane	ug/Kg	510000	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 UJ	4.3 U	2.5 U	5.2 U
1,1-Dichloroethene	ug/Kg	120000	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
1,2,3-Trichloropropane	ug/Kg	34	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 U	2.5 U	10 U
1,2-Dibromo-3-chloropropane	ug/Kg	460	8 UJ	4.6 U	5.5 U	5.5 U	11 U	4.2 U	5.2 UJ	5.5 U	12 UJ	5.6 U	8.5 UJ	5 U	5.2 U
1,2-Dibromoethane (Ethylene dibromide)	ug/Kg	32	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 U	2.5 U	10 U
1,2-Dichlorobenzene	ug/Kg	600000	4 UJ	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 UJ	2.5 U	5.2 U
1,2-Dichloroethane	ug/Kg	280	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
1,2-Dichloropropane	ug/Kg	340	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 UJ	4.3 U	2.5 U	5.2 U
1,4-Dichlorobenzene	ug/Kg	3400	4 UJ	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 UJ	2.5 U	10 U
2-Hexanone	ug/Kg	No PRG	20 U	12 U	14 U	14 U	22 U	10 U	13 UJ	11 U	24 UJ	14 U	21 U	12 U	10 U
Acetone	ug/Kg	14000000	35 J	3.1 J	48	21 J	180 U	28J	32 J	88 U	200 UJ	37 J	14 J	4 J	61 J
Acrylonitrile	ug/Kg	210	20 U	12 U	14 U	14 U	89 U	10 U	13 UJ	44 U	98 UJ	14 UJ	21 U	12 U	42 U
Benzene	ug/Kg	640	0.86 J	2.3 U	2.8 U	2.8 U	11 U	0.28 J	2.6 UJ	5.5 U	12 UJ	2.8 UJ	4.3 U	2.5 U	5.2 U
Bromochloromethane	ug/Kg	No PRG	8 U	4.6 U	5.5 U	5.5 U	22 U	4.2 U	5.2 UJ	11 U	24 UJ	5.6 UJ	8.5 U	5 U	10 U
Bromodichloromethane	ug/Kg	820	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 U	2.5 U	5.2 U
Bromoform	ug/Kg	62000	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 U	2.5 U	10 U
Bromomethane	ug/Kg	3900	8 UJ	4.6 UJ	5.5 UJ	5.5 UJ	22 U	4.2 UJ	5.2 UJ	11 UJ	24 UJ	6.4 J	8.5 UJ	5 UJ	10 U
Carbon disulfide	ug/Kg	360000	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
Carbon tetrachloride	ug/Kg	250	4 U	2.3 U	2.8 U	2.8 U	13	2.1 U	2.6 UJ	8.4	12 UJ	2.8 UJ	4.3 U	2.5 U	5.2 U
Chlorobenzene	ug/Kg	150000	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 U	2.5 U	5.2 U
Chloroethane	ug/Kg	3000	8 U	4.6 U	5.5 U	5.5 U	22 U	4.2 U	5.2 UJ	11 U	24 UJ	5.6 UJ	8.5 U	5 U	10 U
Chloroform	ug/Kg	220	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
Chloromethane	ug/Kg	47000	8 U	4.6 U	5.5 U	5.5 U	45 U	4.2 U	5.2 UJ	22 U	49 UJ	3.5 J	8.5 U	5 U	21 U
cis-1,2-Dichloroethene	ug/Kg	43000	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
cis-1,3-Dichloropropene	ug/Kg	No PRG	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 UJ	4.3 U	2.5 U	5.2 U
Dibromochloromethane	ug/Kg	1100	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 U	2.5 U	10 U
Dibromomethane	ug/Kg	67000	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
Ethylbenzene	ug/Kg	400000	4 U	2.3 U	2.8 U	2.8 U	45 U	2.1 U	2.6 UJ	22 U	49 UJ	2.8 U	4.3 U	2.5 U	21 U
Iodomethane (methyl iodide)	ug/Kg	No PRG	20 U	12 U	14 U	14 U	11 U	10 U	13 UJ	5.5 U	12 UJ	14 UJ	21 U	12 U	5.2 U
Methyl ethyl ketone (2-butanone)	ug/Kg	22000000	40 U	23 U	9.6 J	1.9 J	87 J	4.9 J	4.1 J	88 U	200 UJ	3.7 J	43 U	0.86 J	84 U
Methyl isobutyl ketone	ug/Kg	5300000	20 U	12 U	14 U	14 U	45 U	10 U	13 UJ	22 U	49 UJ	14 UJ	21 U	12 U	21 U
Methylene chloride	ug/Kg	9100	8 U	4.6 U	5.5 U	5.5 U	72	4.2 U	5.2 UJ	8.6 J	24 UJ	4 J	8.5 U	5 U	100
Styrene	ug/Kg	1700000	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 U	2.5 U	5.2 U
Tetrachloroethene (PCE)	ug/Kg	480	4 U	2.3 U	2.8 U	2.8 U	7.5 J	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 U	2.5 U	5.2 U
Toluene	ug/Kg	520000	0.94 J	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 U	4.3 U	2.5 U	10 U
trans-1,2-Dichloroethene	ug/Kg	69000	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
trans-1,3-Dichloropropene	ug/Kg	No PRG	4 U	2.3 U	2.8 U	2.8 U	11 U	2.1 U	2.6 UJ	5.5 U	12 UJ	2.8 U	4.3 U	2.5 U	5.2 U
trans-1,4-dichloro-2-butene	ug/Kg	No PRG	20 UJ	12 U	14 U	14 U	89 U	10 U	13 UJ	44 U	98 UJ	14 U	21 UJ	12 U	42 U
Trichloroethene (TCE)	ug/Kg	53	4 U	2.3 U	2.8 U	2.8 U	22 U	2.1 U	2.6 UJ	11 U	24 UJ	2.8 UJ	4.3 U	2.5 U	10 U
Trichlorofluoromethane	ug/Kg	390000	8 U	4.6 U	5.5 U	5.5 U	11 U	4.2 U	5.2 UJ	5.5 U	12 UJ	5.6 UJ	8.5 U	5 U	5.2 U
Vinyl acetate	ug/Kg	430000	20 U	12 U	14 U	14 U	45 U	10 U	13 UJ	22 U	49 UJ	14 UJ	21 U	12 U	21 U
Vinyl chloride	ug/Kg	79	8 U	4.6 U	5.5 U	5.5 U	22 U	4.2 U	5.2 UJ	11 U	24 UJ	5.6 UJ	8.5 U	5 U	10 U
Xylenes, total	ug/Kg	270000	4 U	2.3 U	2.8 U	2.8 U	45 U	2.1 U	2.6 UJ	22 U	49 UJ	2.8 U	4.3 U	2.5 U	21 U

Notes:
 All results are reported in micrograms per kilograms (ug/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
 PRG^{Res} - EPA Region 9 Residential Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits(reported in ug/kg) obtained from 2004 Table.
 No PRG - No Residential PRG established.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.

TABLE 4-2
Summary of VOC Analytical Results
AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-10 SOIL	DPT-11 ASH	DPT-11 SOIL	DPT-12 ASH	DPT-12 SOIL	DPT-13 ASH	DPT-13 ASH	DPT-13 SOIL	DPT-14 ASH	DPT-14 SOIL	DPT-15 ASH	DPT-15 SOIL	DPT-17 ASH
		SampleID	DPT-10 SOIL (4-5')	DPT-11 ASH (8-10')	DPT-11 SOIL (10-12')	DPT-12 ASH (0-4')	DPT-12 SOIL (4-5')	DPT-13 ASH (0-4')	DPT-13 ASH (7-13')	DPT-13 SOIL (13-16')	DPT-14 ASH (4-8')	DPT-14 SOIL (10-12')	DPT-15 ASH (0-1')	DPT-15 SOIL (2-4')	DPT-17 ASH (2-3')
		Sample Date	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/19/2008
Analytes	Unit	PRG ¹ Res													
SW8260B															
1,1,1,2-Tetrachloroethane	ug/Kg	3200	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
1,1,1-Trichloroethane	ug/Kg	1200000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
1,1,2,2-Tetrachloroethane	ug/Kg	410	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
1,1,2-Trichloroethane	ug/Kg	730	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
1,1-Dichloroethane	ug/Kg	510000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
1,1-Dichloroethene	ug/Kg	120000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
1,2,3-Trichloropropane	ug/Kg	34	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
1,2-Dibromo-3-chloropropane	ug/Kg	460	4.2 U	6.8 U	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	11 U	4.6 U	4.2 U	4.7 U	4.7 U
1,2-Dibromoethane (Ethylene dibromide)	ug/Kg	32	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
1,2-Dichlorobenzene	ug/Kg	600000	2.1 U	3.3 J	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
1,2-Dichloroethane	ug/Kg	280	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
1,2-Dichloropropane	ug/Kg	340	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
1,4-Dichlorobenzene	ug/Kg	3400	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
2-Hexanone	ug/Kg	No PRG	10 U	17 U	12 U	14 UJ	12 U	11 U	14 U	11 U	22 U	12 U	10 U	12 U	12 U
Acetone	ug/Kg	14000000	17 J	28 J	4.9 J	19 J	3.3 J	26	37	18 J	180 U	23 U	86	23 U	21 J
Acrylonitrile	ug/Kg	210	10 U	17 U	12 U	14 UJ	12 U	11 U	14 U	11 U	90 U	12 U	10 U	12 U	12 U
Benzene	ug/Kg	640	2.1 U	0.32 J	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	0.93 J	2.3 U	2.4 U
Bromochloromethane	ug/Kg	No PRG	4.2 U	6.8 U	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	22 U	4.6 U	4.2 U	4.7 U	4.7 U
Bromodichloromethane	ug/Kg	820	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
Bromoform	ug/Kg	62000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
Bromomethane	ug/Kg	3900	4.2 UJ	6.8 UJ	4.8 UJ	5.6 UJ	4.9 UJ	4.6 UJ	5.5 UJ	4.3 UJ	22 U	4.6 UJ	4.2 UJ	4.7 UJ	4.7 UJ
Carbon disulfide	ug/Kg	360000	2.1 U	0.99 J	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
Carbon tetrachloride	ug/Kg	250	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	14	2.3 U	2.1 U	2.3 U	2.4 U
Chlorobenzene	ug/Kg	150000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
Chloroethane	ug/Kg	3000	4.2 U	6.8 U	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	22 U	4.6 U	4.2 U	4.7 U	4.7 U
Chloroform	ug/Kg	220	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
Chloromethane	ug/Kg	47000	4.2 U	5.2 J	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	45 U	4.6 U	4.2 U	4.7 U	4.7 U
cis-1,2-Dichloroethene	ug/Kg	43000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
cis-1,3-Dichloropropene	ug/Kg	No PRG	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
Dibromochloromethane	ug/Kg	1100	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
Dibromomethane	ug/Kg	67000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
Ethylbenzene	ug/Kg	400000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	45 U	2.3 U	2.1 U	2.3 U	2.4 U
Iodomethane (methyl iodide)	ug/Kg	No PRG	10 U	1.6 J	12 U	14 UJ	12 U	11 U	14 U	11 U	11 U	12 U	10 U	12 U	12 U
Methyl ethyl ketone (2-butanone)	ug/Kg	22000000	1.8 J	5.6 J	2.4 U	2.1 J	2.4 U	2.2 J	9.3 J	22 U	110 J	23 U	21 U	1.8 J	2.5 J
Methyl isobutyl ketone	ug/Kg	5300000	10 U	17 U	12 U	14 UJ	12 U	11 U	14 U	11 U	45 U	12 U	10 U	12 U	12 U
Methylene chloride	ug/Kg	9100	4.2 U	6.8 U	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	87	4.6 U	4.2 U	4.7 U	4.7 U
Styrene	ug/Kg	1700000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
Tetrachloroethene (PCE)	ug/Kg	480	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
Toluene	ug/Kg	520000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
trans-1,2-Dichloroethene	ug/Kg	69000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
trans-1,3-Dichloropropene	ug/Kg	No PRG	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	11 U	2.3 U	2.1 U	2.3 U	2.4 U
trans-1,4-dichloro-2-butene	ug/Kg	No PRG	10 U	17 U	12 U	14 UJ	12 U	11 U	14 U	11 U	90 U	12 U	10 U	12 U	12 U
Trichloroethene (TCE)	ug/Kg	53	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	22 U	2.3 U	2.1 U	2.3 U	2.4 U
Trichlorofluoromethane	ug/Kg	390000	4.2 U	6.8 U	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	11 U	4.6 U	4.2 U	4.7 U	4.7 U
Vinyl acetate	ug/Kg	430000	10 U	17 U	12 U	14 UJ	12 U	11 U	14 U	11 U	45 U	12 U	10 U	12 U	12 U
Vinyl chloride	ug/Kg	79	4.2 U	6.8 U	4.8 U	5.6 UJ	4.9 U	4.6 U	5.5 U	4.3 U	22 U	4.6 U	4.2 U	4.7 U	4.7 U
Xylenes, total	ug/Kg	270000	2.1 U	3.4 U	2.4 U	2.8 UJ	2.4 U	2.3 U	2.8 U	2.2 U	45 U	2.3 U	2.1 U	2.3 U	2.4 U

Notes:
 All results are reported in micrograms per kilograms (ug/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
 PRG^{Res} - EPA Region 9 Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits (reported in ug/kg) obtained from 2004 Table.
 No PRG - No Residential PRG established.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.

TABLE 4-2
Summary of VOC Analytical Results
AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-17 SOIL	DPT-21 ASH	DPT-21 SOIL	DPT-22 ASH	DPT-22 SOIL	DPT-23 ASH	DPT-23 SOIL	DPT-25 ASH	DPT-25 SOIL	DPT-27 ASH	DPT-27 SOIL	DPT-30 ASH	DPT-30 SOIL
		SampleID	DPT-17 SOIL (5-7')	DPT-21 ASH (3-4')	DPT-21 SOIL (5-6')	DPT-22 ASH (7-8')	DPT-22 SOIL (11-12')	DPT-23 ASH (0-4')	DPT-23 SOIL (5-7')	DPT-25 ASH (11-14')	DPT-25 SOIL (14-16')	DPT-27 ASH (4-6')	DPT-27 SOIL (8-10')	DPT-30 ASH (0-4')	DPT-30 SOIL (5-8')
		Sample Date	1/19/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008	1/19/2008	1/19/2008	1/19/2008	1/19/2008	1/19/2008	1/19/2008
Analytes	Unit	PRG ^{1 Res}													
SW8260B															
1,1,1,2-Tetrachloroethane	ug/Kg	3200	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
1,1,1-Trichloroethane	ug/Kg	1200000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
1,1,2,2-Tetrachloroethane	ug/Kg	410	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 UJ	3 U	3 U	14 U	5.4 U	13 U
1,1,2-Trichloroethane	ug/Kg	730	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
1,1-Dichloroethane	ug/Kg	510000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
1,1-Dichloroethene	ug/Kg	120000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
1,2,3-Trichloropropane	ug/Kg	34	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
1,2-Dibromo-3-chloropropane	ug/Kg	460	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	5.1 U	4.5 U	12 UJ	6 U	6.1 U	7.2 U	11 U	6.6 U
1,2-Dibromoethane (Ethylene dibromide)	ug/Kg	32	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
1,2-Dichlorobenzene	ug/Kg	600000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 UJ	3 U	3 U	7.2 U	5.4 U	6.6 U
1,2-Dichloroethane	ug/Kg	280	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
1,2-Dichloropropane	ug/Kg	340	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
1,4-Dichlorobenzene	ug/Kg	3400	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 UJ	3 U	3 U	14 U	5.4 U	13 U
2-Hexanone	ug/Kg	No PRG	13 U	13 UJ	14 U	15 UJ	22 U	13 U	11 U	30 U	15 U	15 U	14 U	27 U	13 U
Acetone	ug/Kg	14000000	8.2 J	27 UJ	28 U	66 J	45 U	28	23 U	78 J	8 J	30 U	120 U	13 J	100 U
Acrylonitrile	ug/Kg	210	13 U	13 UJ	14 U	15 UJ	22 U	13 U	11 U	30 U	15 U	15 U	58 U	27 U	53 U
Benzene	ug/Kg	640	2.6 U	1.4 J	2.8 U	3 UJ	4.5 U	1.3 J	2.3 U	2.8 J	3 U	3 U	7.2 U	5.4 U	6.6 U
Bromochloromethane	ug/Kg	No PRG	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	5.1 U	4.5 U	12 U	6 U	6.1 U	14 U	11 U	13 U
Bromodichloromethane	ug/Kg	820	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
Bromoform	ug/Kg	62000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
Bromomethane	ug/Kg	3900	5.1 UJ	5.4 UJ	5.5 UJ	6 UJ	9 UJ	5.1 UJ	4.5 UJ	12 UJ	6 UJ	6.1 UJ	14 U	11 UJ	13 U
Carbon disulfide	ug/Kg	360000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	3	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
Carbon tetrachloride	ug/Kg	250	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	9.2	5.4 U	9.1
Chlorobenzene	ug/Kg	150000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
Chloroethane	ug/Kg	3000	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	5.1 U	4.5 U	12 U	6 U	6.1 U	14 U	11 U	13 U
Chloroform	ug/Kg	220	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
Chloromethane	ug/Kg	47000	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	0.84 J	4.5 U	12 U	6 U	6.1 U	29 U	11 U	26 U
cis-1,2-Dichloroethene	ug/Kg	43000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
cis-1,3-Dichloropropene	ug/Kg	No PRG	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
Dibromochloromethane	ug/Kg	1100	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
Dibromomethane	ug/Kg	67000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
Ethylbenzene	ug/Kg	400000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	29 U	5.4 U	26 U
Iodomethane (methyl iodide)	ug/Kg	No PRG	13 U	13 UJ	14 U	15 UJ	22 U	13 U	11 U	30 U	15 U	15 U	7.2 U	27 U	6.6 U
Methyl ethyl ketone (2-butanone)	ug/Kg	22000000	26 U	27 UJ	28 U	8 J	45 U	6.5 J	23 U	12 J	1.7 J	30 U	120 U	54 U	100 U
Methyl isobutyl ketone	ug/Kg	5300000	13 U	13 UJ	14 U	15 UJ	22 U	0.7 J	11 U	30 U	0.44 J	15 U	29 U	27 U	26 U
Methylene chloride	ug/Kg	9100	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	5.1 UJ	4.5 U	12 U	6 U	6.1 U	78	11 U	81
Styrene	ug/Kg	1700000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
Tetrachloroethene (PCE)	ug/Kg	480	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	12	6.6 U
Toluene	ug/Kg	520000	2.6 U	0.59 J	2.8 U	3 UJ	4.5 U	0.79 J	2.3 U	2.1 J	3 U	3 U	14 U	5.4 U	13 U
trans-1,2-Dichloroethene	ug/Kg	69000	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
trans-1,3-Dichloropropene	ug/Kg	No PRG	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	7.2 U	5.4 U	6.6 U
trans-1,4-dichloro-2-butene	ug/Kg	No PRG	13 U	13 UJ	14 U	15 UJ	22 U	13 U	11 U	30 UJ	15 U	15 U	58 U	27 U	53 U
Trichloroethene (TCE)	ug/Kg	53	2.6 U	2.7 UJ	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	6 U	3 U	3 U	14 U	5.4 U	13 U
Trichlorofluoromethane	ug/Kg	390000	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	5.1 U	4.5 U	12 U	6 U	6.1 U	7.2 U	11 U	6.6 U
Vinyl acetate	ug/Kg	430000	13 U	13 UJ	14 U	15 UJ	22 U	13 U	11 U	30 U	15 U	15 U	29 U	27 U	26 U
Vinyl chloride	ug/Kg	79	5.1 U	5.4 UJ	5.5 U	6 UJ	9 U	5.1 U	4.5 U	12 U	6 U	6.1 U	14 U	11 U	13 U
Xylenes, total	ug/Kg	270000	2.6 U	2.1 J	2.8 U	3 UJ	4.5 U	2.6 U	2.3 U	8.4 J	3 U	3 U	29 U	5.4 U	26 U

Notes:
 All results are reported in micrograms per kilograms (ug/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
 PRG^{Res} - EPA Region 9 Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits(reported in ug/kg) obtained from 2004 Table.
 No PRG - No Residential PRG established.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.

significantly below their respective Residential Cleanup Level indicating that the metals do not pose a risk to human health and the environment from direct contact.

The metals analyses are summarized in Table 4-3.

4.3 Impact to Underlying Soil

A total of 19 native soil samples were collected and analyzed for the ADEM Chapter 13 Appendix I VOCs and metals. As noted in Section 3.2, the soil samples were collected below the last distinct ash layer encountered in each DPT boring. The soil analytical results are discussed in the following sections.

4.3.1 VOC Analytical Results

Eight ADEM Chapter 13 Appendix I VOCs were detected in the soil underlying the ash. The detections consisted of the following VOCs:

VOC	Location
Acetone	DPT-02, -03, -05, -08, -09, -10, -11, -12, -13, -17, -25
Benzene	DPT-05
Bromomethane	DPT-08
Carbon Tetrachloride	DPT-07, -27, -30
Chloromethane	DPT-08
Methyl Ethyl Ketone	DPT-03, -05, -08, -09, -10, -15, -25
Methylene Chloride	DPT-07, -08, -27, -30
Methyl Isobutyl Ketone	DPT-25

With the exception of bromomethane and methyl isobutyl ketone, these VOCs were also detected in the ash. However, the majority of detections were estimated values, between the method detection limit and the reporting limit.

The VOCs concentrations were compared against the EPA Region 9 Residential PRGs. All detections and detection limits were significantly below their respective Residential PRG indicating that the VOCs do not pose a risk to human health and the environment from direct contact.

The VOC analyses are summarized in Table 4-2.

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TABLE 4-3
 Summary of Metals Analytical Results
 AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-02 ASH	DPT-02 SOIL	DPT-03 ASH	DPT-03 SOIL	DPT-05 ASH	DPT-05 SOIL	DPT-07 ASH	DPT-07 SOIL	DPT-08 ASH	DPT-08 SOIL	DPT-09 ASH
		SampleID	DPT-02 ASH (8-10')	DPT-02 SOIL (10-12')	DPT-03 ASH (0-4')	DPT-03 SOIL (5-8')	DPT-05 ASH (6-10')	DPT-05 SOIL (11-12')	DPT-07 ASH (5-6')	DPT-07 SOIL (6-8')	DPT-08 ASH (4-8')	DPT-08 SOIL (10-12')	DPT-09 ASH (0-4')
		Sample Date	1/14/2008	1/14/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/15/2008	1/17/2008
Analytes	Unit	PRG ^{1 Res}											
SW6010B													
Antimony	mg/Kg	31	0.34 U	0.31 U	0.29 U	1.2 U	0.27 U	0.28 U	0.31 U	0.27 U	0.35 U	0.29 U	0.79 J
Arsenic	mg/Kg	40*	11.3	5.9	5	8.5	4.9	4.1	10.1	1	7	4.9	21.9
Barium	mg/Kg	5400	771	13.4	26.5	26.3	123	5.5 J	119	17	170	16.2	124
Beryllium	mg/Kg	150	1.3J	0.23 J	0.22 J	0.22 J	0.46J	0.46J	0.51J	0.11 U	0.77J	0.18 J	0.74J
Cadmium	mg/Kg	37	0.79	0.62	0.53	0.23 U	0.71	0.6	0.35	0.092 J	0.27 J	0.54	1.1
Chromium, total	mg/Kg	210	15.1	30	26	28.7	25.9	31.2	12.7	5.1	13.2	27.8	23.4
Lead	mg/Kg	400	142	9.3	9.5	27.9	124	14.6	55.7	3	26.1	6.8	70.4
Nickel	mg/Kg	1600	16.4	4.8	5	46.9	7.9	8.6	8.8	2.2	9.1	4.1	14.2
Selenium	mg/Kg	390	0.53	0.18 U	0.18 U	0.7 U	0.16 U	0.17 U	1.5	0.16 U	0.22 J	0.17 U	0.27 J
Silver	mg/Kg	390	0.068 U	0.061 U	0.058 U	0.058 U	0.054 U	0.055 U	0.061 U	0.053 U	0.071 U	0.058 U	0.065 U
Thallium	mg/Kg	5.2	0.61 J	0.18 U	0.18 U	0.7 U	0.16 U	0.17 U	0.18 U	0.16 U	0.21 U	0.17 U	0.2 U
Vanadium	mg/Kg	78	33.9	65.3	51.8	113	37.6	37.8	25.4	9.4	24.7	58	32.1
Zinc	mg/Kg	23000	231	8.7	12.3	185	35.4	26.3	62.4	6.6	29.6	10.1	117
SW7471A													
Mercury	mg/Kg	23	0.033 J	0.015 U	0.047	1.9	0.17	0.015 U	0.4	0.014 U	0.15	0.014 U	0.17

Notes:
 All results are reported in milligrams per kilograms (mg/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
 PRG^{Res} - EPA Region 9 Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits(reported in ug/kg) obtained from 2004 Table.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.
 40* = EPA Region 4 Residential Cleanup Level for Arsenic

TABLE 4-3
 Summary of Metals Analytical Results
 AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-09 SOIL	DPT-10 ASH	DPT-10 SOIL	DPT-11 ASH	DPT-11 SOIL	DPT-12 ASH	DPT-12 SOIL	DPT-13 ASH	DPT-13 ASH	DPT-13 SOIL	DPT-14 ASH
		SampleID	DPT-09 SOIL (8-10')	DPT-10 ASH (0-4')	DPT-10 SOIL (4-5')	DPT-11 ASH (8-10')	DPT-11 SOIL (10-12')	DPT-12 ASH (0-4')	DPT-12 SOIL (4-5')	DPT-13 ASH (0-4')	DPT-13 ASH (7-13')	DPT-13 SOIL (13-16')	DPT-14 ASH (4-8')
		Sample Date	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008	1/17/2008
Analytes	Unit	PRG^{1 Res}											
SW6010B													
Antimony	mg/Kg	31	0.3 U	0.29 U	0.29 U	0.31 U	0.28 U	0.33 U	0.27 U	0.28 U	0.3 U	0.29 U	0.3 U
Arsenic	mg/Kg	40*	2.5	5	6	8.1	4.3	4.3	2.3	3.9	6.9	4.2	5.9
Barium	mg/Kg	5400	4 J	44.1	33.2	129	18.4	94.4	29.9	36.1	24.3	12.5	124
Beryllium	mg/Kg	150	0.75J	0.29J	0.46J	0.84J	0.18 J	0.6J	0.24 J	0.24 J	0.13 J	0.12 J	0.58J
Cadmium	mg/Kg	37	2.2	0.55	0.63	0.61	0.53	0.3 J	0.42	0.68	1.4	0.92	0.6
Chromium, total	mg/Kg	210	10.8	16.4	25.8	20.6	22.2	12	13.1	18.5	25.6	26.6	14.6
Lead	mg/Kg	400	4.2	14.3	10.2	42.9	7.4	19.7	5.9	19.5	76.6	6	36.4
Nickel	mg/Kg	1600	12.3	5.8	6.9	11.4	4.1	8.1	4.6	5.2	6.1	3.7	8.3
Selenium	mg/Kg	390	0.18 U	0.17 U	0.17 U	0.49	0.17 U	0.65	0.16 U	0.18 J	0.21 J	0.17 U	0.37
Silver	mg/Kg	390	0.06 U	0.058 U	0.058 U	0.061 U	0.057 U	0.066 U	0.055 U	0.055 U	0.089 J	0.058 U	0.059 U
Thallium	mg/Kg	5.2	0.18 U	0.17 U	0.17 U	0.18 U	0.17 U	0.2 U	0.16 U	0.17 U	0.18 U	0.17 U	0.18 U
Vanadium	mg/Kg	78	29.1	32	50.2	41	49.5	21.3	25.7	34	47.4	49.8	36
Zinc	mg/Kg	23000	52.3	22.2	13.7	44.4	9	30.7	16.2	71	42.2	8.7	43.8
SW7471A													
Mercury	mg/Kg	23	0.015 U	0.025 J	0.046	0.22	0.015 U	0.079	0.014 U	0.056	1.2	0.019 J	0.08

Notes:
 All results are reported in milligrams per kilograms (mg/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
 PRG^{Res} - EPA Region 9 Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits(reported in ug/kg) obtained from 2004 Table.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.
 40* = EPA Region 4 Residential Cleanup Level for Arsenic

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TABLE 4-3
 Summary of Metals Analytical Results
 AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-14 SOIL	DPT-15 ASH	DPT-15 SOIL	DPT-17 ASH	DPT-17 SOIL	DPT-21 ASH	DPT-21 SOIL	DPT-22 ASH	DPT-22 SOIL	DPT-23 ASH	DPT-23 SOIL
		SampleID	DPT-14 SOIL (10-12')	DPT-15 ASH (0-1')	DPT-15 SOIL (2-4')	DPT-17 ASH (2-3')	DPT-17 SOIL (5-7')	DPT-21 ASH (3-4')	DPT-21 SOIL (5-6')	DPT-22 ASH (7-8')	DPT-22 SOIL (11-12')	DPT-23 ASH (0-4')	DPT-23 SOIL (5-7')
		Sample Date	1/17/2008	1/17/2008	1/17/2008	1/19/2008	1/19/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008	1/18/2008
Analytes	Unit	PRG ^{1 Res}											
SW6010B													
Antimony	mg/Kg	31	0.57 U	0.28 U	0.58 U	0.29 U	0.31 U	0.31 U	0.6 U	0.34 U	0.33 U	0.29 U	0.29 U
Arsenic	mg/Kg	40*	6.1	4.9	8.6	3.4	6.4	1.4	7.5	5.3	1.6	5.6	3.2
Barium	mg/Kg	5400	12.1	43.3	30.2	77.6	2.7 J	11.2 J	9.5 J	12.3 J	3.9 J	33.5	8.8 J
Beryllium	mg/Kg	150	0.14 J	0.35J	0.4J	0.24 J	0.94J	0.12 U	0.44 J	0.32 J	0.14 J	0.38J	0.14 J
Cadmium	mg/Kg	37	0.12 U	0.84	0.12 U	0.77	1.7	0.25 J	0.12 U	1.5	0.6	1.4	0.48
Chromium, total	mg/Kg	210	44.1	24.1	41.3	15.2 J	20.5 J	7.8	39.8	44.4	15	25.8	9.3
Lead	mg/Kg	400	9	9.9	13.9	198	4.1	9.9	5.7	130	2.1	47.2	2.1
Nickel	mg/Kg	1600	4.5 J	6.7	10	5.2	9.2	2.5	8.8	10.1	9.2	10.1	7
Selenium	mg/Kg	390	0.34 U	0.17 U	0.43 J	0.34	0.18 U	0.19 U	0.43 J	0.2 U	0.2 U	0.17 U	0.17 U
Silver	mg/Kg	390	0.057 U	0.056 U	0.058 U	0.058 U	0.061 U	0.062 U	0.058 U	0.088 J	0.067 U	0.36 J	0.057 U
Thallium	mg/Kg	5.2	0.34 U	0.17 U	0.35 U	0.18 U	0.18 U	0.19 U	0.36 U	0.2 U	0.2 U	0.17 U	0.17 U
Vanadium	mg/Kg	78	77.8	43.6	79.4	19.1	47.1	12.3	71.1	49.4	11.8	36.7	14.3
Zinc	mg/Kg	23000	9.6	13.4	15.6	189 J	26.5 J	8.6	17.4	47.6	18.5	68.7	13.4
SW7471A													
Mercury	mg/Kg	23	0.015 U	0.057	0.064	0.053	0.018 J	0.018 J	0.021 J	0.33	0.016 U	0.12	0.015 U

Notes:
 All results are reported in milligrams per kilograms (mg/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
PRG^{Res} - EPA Region 9 Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits(reported in ug/kg) obtained from 2004 Table.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.
40* = EPA Region 4 Residential Cleanup Level for Arsenic

TABLE 4-3
 Summary of Metals Analytical Results
 AOC-S Ash Delineation & Characterization

Soil and ASH Results		StationID	DPT-25 ASH	DPT-25 SOIL	DPT-27 ASH	DPT-27 SOIL	DPT-30 ASH	DPT-30 SOIL
		SampleID	DPT-25 ASH (11-14')	DPT-25 SOIL (14-16')	DPT-27 ASH (4-6')	DPT-27 SOIL (8-10')	DPT-30 ASH (0-4')	DPT-30 SOIL (5-8')
		Sample Date	1/19/2008	1/19/2008	1/19/2008	1/19/2008	1/19/2008	1/19/2008
Analytes	Unit	PRG ^{1Res}						
SW6010B								
Antimony	mg/Kg	31	1.6 J	0.28 U	0.29 U	0.28 U	0.35 U	0.29 U
Arsenic	mg/Kg	40*	24.3	3.7	4.3	5.4	18.1	2.8
Barium	mg/Kg	5400	186	11.1 J	21.2	17.2	466	14.8
Beryllium	mg/Kg	150	0.64J	0.24 J	0.37J	0.3J	1.3J	0.21 J
Cadmium	mg/Kg	37	4.6	0.74	0.65	0.93	0.61	0.73
Chromium, total	mg/Kg	210	42.4 J	19.1 J	28.2 J	26.6 J	9.6 J	16.9 J
Lead	mg/Kg	400	89.4	5.5	9.7	8.9	12.3	5.6
Nickel	mg/Kg	1600	22	3.2	5.4	5.2	17.1	4.3
Selenium	mg/Kg	390	1	0.17 U	0.18 U	0.17 U	0.6	0.17 U
Silver	mg/Kg	390	0.27 J	0.056 U	0.058 U	0.057 U	0.07 U	0.057 U
Thallium	mg/Kg	5.2	0.42 U	0.17 U	0.18 U	0.17 U	0.21 U	0.17 U
Vanadium	mg/Kg	78	29.4	33.9	40.9	53	26.1	34.7
Zinc	mg/Kg	23000	881 J	18.6 J	12.2 J	10.1 J	1020 J	89.4 J
SW7471A								
Mercury	mg/Kg	23	0.2	0.02 J	0.038	0.03 J	0.034 J	0.024 J

Notes:
 All results are reported in milligrams per kilograms (mg/kg)
 Values Bold and Shaded Grey are hits above the (PRG^{Res}) Level
 PRG^{Res} - EPA Region 9 Residential Preliminary Remediation Goals
 1 = EPA Region 9 PRG Residential Limits(reported in mg/kg) obtained from 2004 Table.
 U - The analyte was analyzed for , but not detected.
 J - estimated value
 UJ- Value non-detected estimated.
 40* = EPA Region 4 Residential Cleanup Level for Arsenic



4.3.2 Metals Analytical Results

All ADEM Chapter 13 Appendix I metals detected in the soil underlying the ash were compared against the EPA Region 9 Residential Preliminary PRGs, with the exception of arsenic. Arsenic was compared to a residential cleanup level of 40 milligrams per kilograms (mg/kg) established by EPA Region 4 in February 2004, and accepted by ADEM during investigation performed by Contaminant Controls, Inc. at SWMU 8. All detections and detection limits were significantly below their respective Residential Cleanup Level with the exception of vanadium. Vanadium was detected slightly above its Residential PRG of 78 milligrams per kilogram (mg/kg) in soil at DPT-03 and DPT-15 at concentrations of 113 mg/kg and 79.4 mg/kg, respectively. The elevated concentrations of vanadium represent isolated occurrences in the subsurface, as supported by the occurrence of vanadium above the Residential PRG at only two of the 19 locations sampled. Vanadium in subsurface soils was also evaluated relative to protection of groundwater from soil leaching. The elevated concentrations of vanadium were significantly below the Migration to Groundwater Soil Screening Level of 300 mg/kg. Furthermore, the elevated concentrations of vanadium are significantly below the Industrial PRG for vanadium of 1,000 mg/kg.

The metals analyses are summarized in **Table 4-3**.

5. Conclusions and Recommendations

5.1 Conclusions

Ash Delineation

- Ash was observed in 19 of the 30 DPT soil borings.
- Ash consists of a black, fine- to coarse-grained material, with clasts up to ½-inch in diameter, glass fragments, and aggregate.
- Ash was observed to a depth of 14 feet bgs, with thicknesses ranging from one to 10 feet.
- Ash covers approximately 11.5 acres.

Ash Characterization

- Thirteen ADEM Chapter 13 Appendix I VOCs were detected in the ash fill.
- The VOC concentrations were significantly below their respective Residential PRG indicating that the VOCs do not pose a risk to human health and the environment from direct contact.
- All ADEM Chapter 13 Appendix I metals detected were significantly below their respective Residential PRG, or as with arsenic, below its EPA Region 4 residential cleanup level indicating that the metals do not pose a risk to human health and the environment from direct contact.

Underlying Soil

- Eight ADEM Chapter 13 Appendix I VOCs were detected in the soil underlying the ash fill.
- The VOCs were significantly below their respective Residential PRG indicating that the VOCs do not pose a risk to human health and the environment from direct contact.
- ADEM Chapter 13 Appendix I metals were detected significantly below their respective Residential PRG, or as with arsenic, below its EPA Region 4 residential cleanup level with the exception of vanadium.
- Vanadium was detected at slightly elevated concentrations (113 mg/kg and 79.4 mg/kg) at two of the 19 locations.
- Elevated concentrations of vanadium represent isolated occurrences in the subsurface and do not exceed the Migration to Groundwater Soil Screening Level of 300 mg/kg.

5.2 Recommendations

Based on the findings of the Ash Delineation and Characterization at AOC-S, No Further Action (NFA) is recommended.

6. References

CH2M HILL. *Final Work Plan for Ash Delineation and Characterization at Area of Concern (AOC)-S, Fort Rucker, Alabama*. December 2007.

Simon, Ted. *Assessing the Risk of Arsenic in Soil: Considering Bioavailability and Subchronic Toxicity and the Protective Risk Range*. USEPA. February 2004.

Appendix A
DPT Boring Logs



PROJECT NUMBER
363742.01.02

BORING NUMBER
DPT 01

SHEET 1 OF 1

SOIL BORING LOG

58

PROJECT: USACE Ft. Rucker ASH Delineation

LOCATION: Ft. Rucker, Alabama

ELEVATION

DRILLING CONTRACTOR: Beart Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 62-20DT

WATER LEVELS

START: 1/14/08

END: 1/14/08

LOGGER: A. Teemati

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 6" @ 4" @ 6" @	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION FD (ppt) (Soil headspace)
	RECOVERY (IN)	WTYPE			
0-4	0			Post-holed to 4' by American Water	
4-8	3'			Reddish Brown Silty sand fine to med grained dry	5
8-12	4'			Same as 4'-8' except: more silt $\frac{1}{2}$, dry/moist	10
12-16	4'			same as 4'-8' except: moist	15
16-20	4'			same as 4'-8' except: coarse sand, ^{hard} moist	20
20					Terminate boring @ 20' 25

LEGEND
FD Photo Lithograph Dilatometer
T Test
SPT Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT 02	SHEET 1 OF 1
SOIL BORING LOG		

60

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boart Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6020DT START: 1/14/08 END: 1/14/08 LOGGER: A. TAVATL

DEPTH BELOW SURFACE (FT)	RECOVERY (IN)		STANDARD PENETRATION TEST RESULTS (IN)	SOIL DESCRIPTION	COMMENTS
	INTERVAL (FT)	#/TYPE			
0-4	2			Brownish Red Sand/silt med (coarse grained, dry w/ rounded to sub-rounded black clasts (ASH?))	
4-8	1.5			Brownish Tan Silty Sand, fine to med grained, dry/moist w/ small fragments of same ASH rubble mixed w/ fragments of glass and aggregate (gravel) (7.5-8")	⊕ ASH Sample 0-10'
8-10	3			8-10.5' Brownish Tan to Gray Silty Sand w/ clay w/ ASH layers fragments up to 1/8" 10.5-11.5' Reddish Brown Sandy Clay	⊕ Native Soil Sample 10.5'-11.5'
10-12	4			Same as 10.5'-11.5' except: increased grain size to med/coarse black spec (ASH?) @ 15"	
12-16	4			Same as 10.5'-11.5' except: Coarse grained	
16-20					Terminate Boring @ 20'

LEGEND:
 PLO Photo Location Detector
 T Tape
 SST Soil Screen Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT(B)	SHEET 1 OF 3
SOIL BORING LOG		

62

PROJECT: USACE FL Rucker ASH Demonstration	LOCATION: FL Rucker, Alabama
ELEVATION:	DRILLING CONTRACTOR: Boat Longyear
DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6520DT	
WATER LEVELS:	START: 11/5/08
	END:
	LOGGER: A. TRUATI

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS S ₆₀ S ₁₅ S ₃₀ (N)	SOIL DESCRIPTION	COMMENTS
	RECOVERY (IN)	W/TYPE			
4	0-4'	2'		Brownish Tan Sand w/silt Med/coarse grained, moist, Mixed in small to med. sized pieces of aggregate (gravel) and Ashtringer (upto 1/2") < 10% of coverage	ASHT Sample (0-4)
8	4-8'	1'		Brown to Reddish yellow Silty sand, med/coarse grain. Trace clay, Moist	Native Soil Sample (5-8)
16	8-12'	3'		Red to Reddish Brown, smudged from (A) Sand & (D) Clayey Sand. Medium grained, Moist, trace Black mottling < 5%	
16	12-16'	3.5'		Same as @ 8-12' except: More clay, increased black mottling to 10%, increased grain size to med/coarse	
20	16-20'	3.5'		16-18' Same as @ 12-16' except: decrease clay & increase sand size. 18-20' Reddish yellow sand & / gravel, Poorly graded, dry/ moist	

LEGEND
 PID - Photo Logger Detector
 T - Time
 SPT - Soil Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-04	SHEET 1 OF 1
SOIL BORING LOG		

61

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Rein Longyear

DRILLING METHOD AND EQUIPMENT USED: Gageprodg 88200T
 WATER LEVELS: START: 1/15/08 END: 1/15/08 LOGGER: A. Teo/ATL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 6"-0'-0" (IN)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
	RECOVERY (IN)	#/TYPE			
0-4	2.5'			Brownish Red to Red Silty Sand w/ Gray aggregate (fine) @ 2.5', moist, medium grained	
4-8	4'			Red to reddish yellow sand w/ silt. Increased grain size. Finest to very coarse w/ depth, moist, trace gravel 7-8'	
8-12	4'			Same as 4-8' except: Increased grain size to sandy Gravelly Sand. Moist	
12-16	4'			Same as 4-8' except: decreased grain size to medium grain	
16-20				Same as 4-8' except: Very moist, well graded medium sand	
20-30					Terminate boring @ 20'

LEGEND
 PHD Probe Penetration Detector
 T Test
 SPT Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-05	SHEET 1 OF 1
SOIL BORING LOG		

66

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama

ELEVATION: DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6625DT DRILLING CONTRACTOR: Boon Longyear

WATER LEVELS: START: 1/15/08 END: 1/15/08 LOGGER: A. TeMALL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS (blows/ft)	SOIL DESCRIPTION	COMMENTS
	RECOVERY (IN)	TYPE			
0-4	1.5'			Reddish Brown to Brown Silty Sand w/ Organics, Gray gravel (cf sil), dry/moist	
4-8	2.5'			Gray to Grayish Tan Silty Sand w/ASH, dry/moist	
8-10	2'			Same as @ 4-8' except: Reddish Yellow Sand w/ASH @ 10.5' - 12'	Take Ash sample @ 6'-10' Take soil sample @ 11'-12'
10-15	3.5'			Reddish Yellow to Yellow Sand, Fine to medium gravel	
15-20	4'			Same as @ 12'-16' except: wet @ 18'-20'	
20-24	4'			Same as @ 12'-16' except: 20'-23' Increased clay content to sandy clay. Saturated	Terminate boring @ 24'

LEGEND
 PD - Proba Penetration Detector
 T - Time
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-07	SHEET 1 OF 1
SOIL BORING LOG		

70

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Arizona
 ELEVATION: DRILLING CONTRACTOR: Dean Longyear
 DRILLING METHOD AND EQUIPMENT USED: Geoprobe P6200T

DEPTH BELOW SURFACE (FT)		RECOVERY (IN)		STANDARD PENETRATION TEST RESULTS (blows/ft)	SOIL DESCRIPTION	COMMENTS
INTERVAL (FT)		RECOVERY (IN)	R/T TYPE		SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
0-4	3'				Brown to Red Sand w/ Silt Moist, Med fine grained	
4-8	3'				4-5' Reddish Yellow Silty Sand 5-5.5' Ash layer inter-layered Light Brown Silty Sand 5.5'-8' Yellow to Yellowish Red moist	⊕ Take Ash sample VEG's ⊕ Take Soil Sample @ 5.5'-8'
8-12	4'				Red Sandy Clay, Firm to Very Firm, Dry/Moist	
12-16	4'				Same as 8-12	
16-20	4'				Red Sand w/ clay Moist Firm	Terminate Boring @ 20'

LEGEND
 PD Photo Installation Detector
 T Time
 SP7 Split Spoon Sampler



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-08
SHEET 1 OF 1	
SOIL BORING LOG	

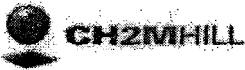
72

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Best Logistics

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 662031 START: 1/15/08 END: 1/15/08 LOGGER: A. TERRILL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS (blows/ft)	SOIL DESCRIPTION	COMMENTS
	RECOVERY (%)	WTYPE			
0-4	3'			Brown to Reddish Brown Silty Sand, moist, medium to fine grained	
4-8	2'			Brownish gray to gray Sand w/ ASH and glass, moist	⊕ AST
8-12	4'			8-8.5' same as 4-8 8.5'-12' Yellowish Red to red Sandy Clay w/ gravel, moist. Firm, stiff	
12-16	4'			8-10 Red Gravelly Sand w/ clay, Firm stiff, dry/moist	
16-20	3.5'			Yellowish Red to Reddish Black Sand, well graded, trace gravel	
20					Terminate Boring @ 20'

LEGEND
 PID Photo Ionization Detector
 T Time
 SP3 Split Spoon Sample



PROJECT NUMBER
363742.01.02

BORING NUMBER
DPT-09

SHEET 1 OF 1

SOIL BORING LOG

74

PROJECT: USACE Ft. Rucker ASH Delineation

LOCATION: Ft. Rucker, Alabama

ELEVATION: DRILLING METHOD AND EQUIPMENT USED: Geoprobe 682007

DRILLING CONTRACTOR: Boart Longyear

DEPTH BELOW SURFACE (FT)			START	END	LOGGER	DATE
INTERVAL (FT)	RECOVERY (IN)		STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION	COMMENTS	
	DEPTH	TYPE			DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION	PG (cont) (Soil headspace)
0-4	3'			Reddish Brown to Red Berty Grained Sand, fine to coarse, Moist, inter-layered with ASH fragments (black)	Ⓢ	Collected sample of ASH
4-8	2'			Red to Reddish Yellow Silty Sand Moist, fine to med to coarse grain	Ⓢ	Native Soil Sample
8-12	1'			Same as 4-8 except: trace clay		
12-16	3'			Same as 4-8 except: thin layer of debris (glass - no ash visible) clayey to silty coarse, color change to yellowish orange, Moist, fine grained		
16-20	4'			Same as 4-8 except: change to Sand w/ clay, color change to orange to yellowish red, Moist fine grained		
20-24	4'			Same as 16-20' except: color change to red	Ⓢ	Terminate Boring @ 20'
24						Ⓢ Terminate Boring @ 24'

LEGEND
 P.D. - Probe Penetration Data
 T - Test
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-10	SHEET 1 OF 1
SOIL BORING LOG		

76

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Scott Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT
 WATER LEVELS: START: 11/10/08 END: LOGGER: A. TORRILL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 6" SPT (IN)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	RECOVERY (IN)	%TYPE			
4	0' 2'			Brown to Reddish Brown Silty Sand w/ interlayers ASH fragments (black), Moist Fine to med grained	① ASH sample @ 0'-4' For voc's & Metals
8	3.5'			Red Silty Sand, Moist Moist, Fine to med grained	② Native soil Sample @ 4-5'
12	3'			Same as 5' 4-8'	
16	3.5'			Same as 5' 4-8' except increase grain size to med/coarse	
20	4'			Reddish Yellow to Yellow partly graded sand w/ gravel, moist, med/coarse sand	③ Terminate Array @ 20'

LEGEND
 PFI Photo Ionization Detector
 T Time
 SPT Split Spore Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-11	SHEET 1 OF 1
SOIL BORING LOG		

70

PROJECT: USACE Ft Rucker ASH Delineation LOCATION: Ft Rucker, Alabama

ELEVATION: DRILLING CONTRACTOR: Boart Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT START: 1/17/08 END: LOGGER: A. TENNILE

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS (blows/ft)	SOIL DESCRIPTION	COMMENTS
	RECOVERY (IN)	W/TYPE			
4	25'			Reddish Brown Silty sand w/ inter-layered ASH fragments	⊗ ASH Sample collected
8	2'			Red to Reddish Yellow Silty Sand w/ thin ASH bed last 1/2' of sample on F.C. moist and grainy	
12	2'			ASH layer @ 8'-10' 10'-12' Red Silty Sand moist, fine to med grain	⊗ ASH sample collected ⊗ Native soil sample collected
16	3'			Red Silty Sand w/ clay med to coarse. Moist	
20	3'			Red to Reddish Yellow Sand w/ clay, coarse. Moist	⊗ Terminate boring @ 20'

LEGEND
 PID - Photo Identification Device
 T - Time
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-12	SHEET 1 OF 1
SOIL BORING LOG		

h

PROJECT: USACE Ft. Rucker ABH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boyd Longyear
 DRILLING METHOD AND EQUIPMENT USED: Geoprobe DR20DT
 WATER LEVELS: START: 11/10/08 END: LOGGER: A. TRIFALL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		RECOVERY (%)	M TYPE	STANDARD PENETRATION TEST RESULTS (N)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION PID (ppm) (Soil headspace)
	START	END					
4	0'4"	3'				Reddish Yellow to Yellow Silty Sand w/ interlayered Ash Fragments (Black), Moist, Med to coarse grained	ASH Sample @ 0-4' for VOCs & metals
8	4'8"	3.5'				Reddish Yellow to Red Silty Sand, Moist, Med. to coarse grained	Native Soil Sample @ 4.5'
12	8'0"	4'				Same as 4'8" except: color change to Reddish Brown, fine to med grained, med	
16	12'0"	4'				Same as 8'0" except: color change to Yellowish Orange	
20	16'0"	4'				Same as 12'0" except: color change to Orange, more wet, fine grained	
25	20'0"						Terminate boring

LEGEND
 PID Photo Ionization Detector
 T Time
 SPT Split Spore Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-13	SHEET 1 OF 1
SOIL BORING LOG		

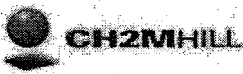
fr

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boat Logistics

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6520D START: 1/17/08 END: LOGGER: A. TAINATI

DEPTH BELOW SURFACE (FT)	INTERNAL (FT)		STANDARD PENETRATION TEST RESULTS 6" x 6" x 6" (IN)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
	RECOVERY (IN)	#/TYPE			
4	3'			Reddish Brown Silty Sand w/ ASH fragments, interbedded, moist, med grained	6'-4' ASH sample for Vol's & Metals
8	2.5'			Red Silty Sand, med. st, fractured, grained 7'-8' Yellowish Brown Silty Sand w/ ASH (black) and gl. ss. med st.	
12	3.5'			Same as 6' 7'-8' 11'-12' color change to Reddish Yellow	11'-13' ASH sample for Vol's & Metals 13'-16' Native Soil sample
16	4'			Same as 8' 11'-12' 13'-16' Red Silty Sand, med. Fract to Med grained	
20	4'			Same as 13'-16'	Terminates boring @ 20'

LEGEND
 PID - Pressurization Device
 T - Time
 SPT - Soil Spoon Sampler



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT - 14	SHEET 1 OF 1
SOIL BORING LOG		

h4

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Scott Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT START: 1/7/03 END: LOGGER: A. Tevate

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS G-S-G' (N)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION PND (feet) (Soil Headspace)
	RECOVERY (IN)	TYPE			
0	2			Reddish Brown Silty Sand w/ interlayered ASH and glass fragments. Moist, fine to coarse grained.	
4	2			Same as 0-4'	⊕ ASA Sample 0-10'
8	2.5			Same as 0-4 except. More Fragments @ 10' 10'-12' No visible ASH	⊕ Native Soil Sample 10'-12'
12	4			Red to Reddish Brown Silty Sand, Moist, trace clay, med firm.	
16	4			Same as 0-16' except. Increased grain size to coarse gravel, poorly sorted sand.	
20					⊕ Terminate boring @ 20'

LEGEND
 PND - Penetration Detector
 T - Test
 SPT - Split Spore Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-15	SHEET 1 OF 1
SOIL BORING LOG		

86

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boat Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT START: 1/7/08 END: LOGGER: A. Teasdale

DEPTH BELOW SURFACE (FT)		STANDARD PENETRATION TEST RESULTS (0'-3" 3'-6" IN)	SOIL DESCRIPTION	COMMENTS
INTERVAL (FT)	RECOVERY (IN) #/TYPE			
4	3'		Reddish Brown Silty Sand w/ interlayered ASH fragments (Black), 0-1' moist. Fine grained.	ASHT Sample 0-1' Negative Soil Sample 1-4'
4	4'		Reddish ASHT Same as 0-4' except NO ASH	
8	4'		Same as 0-4-8' except: increase grain size to med/ coarse	
12	4'		Same as 0-8' ^{8-12'} except: color change to Reddish Yellow increase grain size to coarse	
16	4'		Reddish Yellow to Pink to White at poorly graded Sand, Moist	
20				Terminate boring @ 20'

LEGEND
 FID Photo Identification Detector
 T Trace
 SPT Soil Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-16	SHEET 1 OF 1
SOIL BORING LOG		

88

PROJECT: USACE Ft. Rucker ASH Debris
 LOCATION: Ft. Rucker, Alabama
 DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT
 DRILLING CONTRACTOR: Boat Langyear
 WATER LEVELS: START: 11/18/08 END: LOGGER: A. TIRRELL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 0'-0'-0' (IN)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION PID (feet) (Soil headspace)
	RECOVERY (IN)	WTYPE			
0	0-4			No Recovery	
4	4-8	4'		Yellowish Red to Orange Silty Sand and Clay, Moist, Med Firm, Fine grained sand	
8	8-12	4'		Same as 4-8 except less silt & clay	
12	12-16	4'		Same as 4-8 except color change to Yellow to Reddish Yellow, Saturated @ 14'-16'	
16	16-20			Same as 12-16 except saturated @ 16-17', Purple to Pink to Tan Fat Clay lens @ 17-19.5', very Firm, very stiff 19.5'-20' same as 16-19	
20					Terminated boring @ 20'

LEGEND
 PID Photo Ionization Detector
 T Test
 SPT Split Spore Sampler



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-17	SHEET 1 OF 1
SOIL BORING LOG		

80

PROJECT: USACE Ft. Rucker ASH Detonation LOCATION: Ft. Rucker, Alabama

ELEVATION: DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT DRILLING CONTRACTOR: Bolt Long, Inc.

WATER LEVELS: START: 1/5/08 END: LOGGER: A. TOSKAL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 0'-5'-5'-5'-IN	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION PID (ft) (SOIL HEADSPACE)
	RECOVERY (IN)	% TYPE			
0-4	2.5'			Yellowish Red to Red Sand and Silt. A Silt/Debris layer (gls)	Sample collected for Vocs & Metals
4-4.8	2.5'			Reddish yellow to Red Sand moist, well graded, medium grained	Ash layer @ 2.5-3'
8-12	3'			Yellow to Reddish Brown Sand w/clay, moist, well graded, medium grained	
12-16	3.5'			Same as 8-12' except, less clay, fine grained, color change to Orange	
16-20	3'			Same as 12-16' except, color change to Yellow	
20					Terminate boring @ 20' Additional sample taken 15' south of boring on hill where Ash layer exposed from bulldozer clearing path to site DPT-17A

LEGEND
 PID Photo Ionization Detector
 Y Test
 SPT Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-18
SHEET 1 OF 1	
SOIL BORING LOG	

fr

PROJECT: USACE Ft. Rucker ASH Containment LOCATION: Ft. Rucker, Alabama

ELEVATION: DRILLING CONTRACTOR: Scan Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT WATER LEVELS: START: 108108 END: LOGGER: A. TAVATL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS (blows/ft)	SOIL DESCRIPTION	COMMENTS
	RECOVERY (%)	SOIL TYPE			
4	3'			Reddish yellow Silty Sand. Moist, Fine grained, dark brown organic. 1-1.5' 0.3' Ft of sample	
8	4'			Reddish Yellow to Orange Silty Sand, moist/wet, Fine grained	
12	4'			Same as 8-8' except color changes Orange, trace clay.	
16	4'			Same as 8-8' except: Fat clay. Yellow to white, very fine, very silty. @ 13.5' 14' increase grain size @ 15'-16' to coarse saturated 15'-16'	
20	4'			Same as 8-8' except: saturated 17'-20' sandy clay, med firm, med stiff	
					Terminated boring @ 20'

LEGEND:
 PFD - Photo Documentation Director
 T - Title
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-19	SHEET 1 OF 1
SOIL BORING LOG		

84

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Beart Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6200T
 WATER LEVELS: START: 1/18/08 END: LOGGERS: A. TERRILL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS SPT (blows/ft)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOGS, TESTS, AND INSTRUMENTATION
	RECOVERY (%)	#TYPE			
4	3'			Reddish Brown to Red Silty Sand w/ clay, Moist, Fine grained. 2' CAT	
8	35'			Reddish Yellow to Red Sandy Silt, Moist, Fine to med grain	
12	35'			Same as 4-8'	
16	35'			Yellowish Red to Orange Sand, Moist, med to coarse grained, Saturated @ 15'-16'	
20	4'			Same as 12-16' except: Saturated, Sandy Clay @ 15'-20' Firm, med stiff	
					⊗ Terminate boring @ 20'

LEGEND:
 PID - Photo Identification Device
 T - Time
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-20	SHEET 1 OF 1
SOIL BORING LOG		

86

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boart Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT
 WATER LEVELS: START 1/18/08 END 1/18/08
 LOGGER: A. TRISTRAM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 0'-0" to 3" (IN)	SOIL DESCRIPTION	COMMENTS
	RECOVERY (IN)	MTYPE			
4	3'			Yellowish Red to Red Silty Sand, Moist, Fine grained	
8	3'			Reddish Yellow SPT Same as 4-8 except color change to Reddish Yellow trace clay	
12	4'			Same as 4-8 except color change to Reddish Brown, increase clay to 10% very moist	
16	4'			Same as 4-8 SPT Reddish Brown Sandy clay, Stiff med firm.	
20	4'			Same as 4-8-16'	Terminate boring @ 20'

LEGEND
 PID Photo Irradiation Detector
 T Time
 SPT Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT. 21	SHEET 1 OF 1
SOIL BORING LOG		

88

PROJECT USACE Ft. Rucker ASH Delineation LOCATION Ft. Rucker, Alabama
 ELEVATION DRILLING METHOD AND EQUIPMENT USED Geoprobe 6620DT
 WATER LEVELS START 11/18/08 END LOGGER A. TEARL

DRILLING METHOD AND EQUIPMENT USED Geoprobe 6620DT
 WATER LEVELS START 11/18/08 END LOGGER A. TEARL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 0'-0" - 0'-0" (IN)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION
	RECOVERY (IN)	TYPE			
4	25'			Reddish Brown to Light Brown Silty Sand, interlayered w/ ASH fragments, 0.4' Black ASH layer @ 3.5'-4'	ASH Sample @ 3'-4'
8	35'			4-5' Ash mix w/ gray sand 5-8' Red to Reddish Brown Silty Sand, moist, fine grained	Native Soil Sample @ 5'-6'
13	35'			Same as 65'-8'	
16	3			Same as 65'-8' except: 13'-16' silty Reddish Yellow to Yellow Sand w/ silt, saturated, fine to med grained	
20	35'			Yellow to Gray to Red Sand w/ silt, saturated, fine to med grained	Terminated boring @ 20'

LEGEND
 PID Photo Identification Director
 T Time
 SPT Soil Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-22	SHEET 1 OF 1
SOIL BORING LOG		

100

PROJECT: USACE Ft. Rucker ASH Demolition LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Brian Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 8620DT
 WATER LEVELS: START: 1/18/09 END: LOGGER: A. Testa

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION	COMMENTS
	RECOVERY (IN)	#TYPE			
4	2'		0-2'-2" 06	Reddish Brown to Reddish Yellow Silty Sand w/ ASH Fragments (Black) intermixed throughout (up to 1/8") moist, fine med grained	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION P.O. (Soil headspace)
8	3'			Same as 6'-0'-4' except: Color Reddish Brown to Orange and Gray, ASH Fragments up to 1/8"	⊗ 7' ASH Sample for VOC's & metals
12	3'			Same as 6'-4' except: ASH stops @ 11" med coarse 11"-13" Yellow to Orange Sand, Fine Grained, Moist.	⊗ 11'-0' Native Soil Sample for VOC's & metals
16	3.5'			Same as 6'-11'-12'	
20	3.5'			Same as 6'-11'-12' except: Color changes @ Orange to Yellow to Pink w/ Depth.	
24	4'			Same as 6'-16'-20' except: Saturated @ 23'-24'	⊗ Boring Terminated @ 24'

LEGEND
 P.O. Photo Identification Detector
 T. Test
 SPT. Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-23	SHEET 1 OF 1
SOIL BORING LOG		

102

PROJECT: USAGE FL Rucker ASH Delineation LOCATION: FL Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boat Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 682903
 WATER LEVELS: START: 1/18/08 END: LOGGER: A. Trivanti

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 6"-6'-6" (ft)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
	RECOVERY (IN)	WTYPE			
4	2.5'			Brown to Brownish Red Silty Sand, AS interlayered with ASH fragments (black). Moist fine to med grained.	ASH Sample 0-5'
8	2'			Reddish Brown to Red Silty Sand, moist, fine to med grained. ASH fragments.	Native Soil Sample 5-8'
12	0			No Recovery	
16	3			Yellow Silty Sand, moist fine grained	
20	3'			Same as 12-16'	
24	3.5'			Same as 12-16' except color change to Red @ 23-24'	Terminated Boring @ 24'

LEGEND
 BID Photo Narration Detector
 T Time
 SPT Soil Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-24	SHEET 1 OF 1
SOIL BORING LOG		

104

PROJECT: USACE Ft. Rucker ASH Demolition	LOCATION: Ft. Rucker, Alabama
ELEVATION:	DRILLING CONTRACTOR: Soar Logistics
DRILLING METHOD AND EQUIPMENT USED: Casagrande Piezot	LOGGER: A. Testa
WATER LEVELS:	START: 11/18/08 END:

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS K-5'-4'-5' PS	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
	RECOVERY (%)	RYTYPE			
4				Reddish brown to Brown Silt/Sand w/ gray aggregate gravel & concrete fragments, also felt paper, iron, other debris	PD (ccs) (Soil headspace)
8					No ASH to 5' Boring terminated @ 5' after 5 attempts to offset due to construction debris & rubble
15					
20					
25					

LEGEND:
 PD - Photo Identification Detector
 T - Thin
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-25	SHEET 1 OF 1
SOIL BORING LOG		

125

PROJECT: USAGE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Best Longyear
 DRILLING METHOD AND EQUIPMENT USED: Geoprobe G820DT

WATER LEVELS: START: 1/19/09 END: LOGGER: A. TRATL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 6"-6'-6" (%)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
	RECOVERY (IN)	K-TYPE			
4	0.5'			Reddish Brown Silty Sand Moist. Fine med gravel	PS (soil) (Soil headdress)
8	4'			Same as 0-4'	
12	3.5'			Same as 0-4' except: Ash / glass	
16	4'			Brown to Gray Silty sand w/ ASH / Glass Fragments (12-14.5') 14.5'-16' Same as 0-4' except. Increased grain size to coarse w/ gravel	Ⓢ Ash Sample @ 11'-14.5'
20	4'			Same as 14.5'-16'	Ⓢ Native Soil @ 14.5'-16'
20					Ⓢ Terminating @ 20'



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-26	SHEET 1 OF 1
SOIL BORING LOG		

106

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING METHOD AND EQUIPMENT USED: Geoprobe 662107 DRILLING CONTRACTOR: Boat Longbar

WATER LEVELS: START: *valves* END: LOGGER: A. TOSATI

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 5'-0"-5'-0" (IN)	SOIL DESCRIPTION SOIL NAME, UCCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS AND INSTRUMENTATION PIU (psf) (Soil headspace)
	RECOVERY (IN)	WTYPE			
4	2.5'			Red to Reddish Brown Silty Sand Moist, Fine sand & gravel trace (Coarse small 1/8") Ash fragments	
8	3'			Saturated Same as 8-0' except: No AGA	
12	4'			Red silty silt to Orange Sand, No s/coarse sand w/ trace gravel, moist	
16	3.5'			Same as 8-12' except: Saturated @ 15'-16' to 16 No gravel	
20	3.5'			Pink to Orange Sand Gently Sand, Saturated, Med. coarse	Terminated Terminated boring @ 20'

LEGEND
 PIU Photo Indicator Detector
 T Time
 SPT Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-27	SHEET 1 OF 1
SOIL BORING LOG		

107

PROJECT: USADE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Beard Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT
 WATER LEVELS: START: 11/9/88 END: LOGGER: A. ToanATL

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 2" x 4" x 6" (N)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, CHILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
	RECOVERY (IN)	#/TYPE			
4				Reddish Brown Silty Sand w/ASH fragments (black)	ASH Sample 6816'
8				Same as 4' except: 7.5-8' NO ASH	
12				Red to Reddish Yellow Silty Sand, moist, fine to med. grain.	Soil Sample 6820'
16				Same	
20				Same as 8-12' except: gravel Sand w/ gravel; increasing grain size to med/coarse w/ gravel twist.	

LEGEND
 PID - Penetration Detector
 T - Time
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-29	SHEET 1 OF 1
SOIL BORING LOG		

108

PROJECT - USACE Ft. Rucker ASH Delineation LOCATION - Ft. Rucker, Alabama

ELEVATION: DRILLING METHOD AND EQUIPMENT USED: Geoprobe 66200T DRILLING CONTRACTOR: Soan Longyear

WATER LEVELS: START: 11/8/08 END: LOGGER: A. TRIVETT

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (%)		STANDARD PENETRATION TEST RESULTS E-C-F-P IN	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
		BT	MT			
						PID (feet) (Soil headspace)
4	3'				Brownish Red to Reddish Yellow Silty Sand w/ Organics (0-0.5') Moist, Fine med grained	
8	4'				Red Sandy Clay, Firm, stiff, Dry	
12	4'				Same as 4-8' except: slight color variance to Orange to Reddish Yellow	
16					Same as 8-12' except: Saturated @ 13'-16'	
20					Same as 8-12' except: Fat Clay @ 18.5-19' Purple to Pink to Tan, very Firm, very stiff, Dry	
						Boring Terminated @ 20'

LEGEND
 PID - Photo Identification Detector
 T - Test
 SPT - Split Spoon Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-20
SHEET 1 OF 1	
SOIL BORING LOG	

009

PROJECT: USACE Ft. Rucker ASH Drilling Borehole LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Becht Longyear
 DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6520GT

WATER LEVELS: START: 1/17/08 END: LOGGER: A. TEGMATE

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)		STANDARD PENETRATION TEST RESULTS 0-6" SPT (lb)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION PID (ppm) (soil headspace)
	RECOVERY (%)	#/TYPE			
4				Brown to Reddish Brown Silty sand w/ Ash fragments (Black) Moist, Finest grained	ASH sample @ 0'4'
8				Reddish Brown to Red Silty sand, Moist, med grained	Native Soil sample @ 8'0"
12				Same as 4-8 except: increased grain size to med/coarse, wet	
16				Reddish Yellow to Orange Sand Moist/wet, med/coarse, Saturated	QB-16'
20				Same as 12-16 except: Saturated, coarse, trace gravel	Terminated boring @ 20'

LEGEND
 PD Probe Penetration Detector
 T Time
 SPT Soil Boring Sample



PROJECT NUMBER 363742.01.02	BORING NUMBER DPT-3	SHEET 1 OF 1
SOIL BORING LOG		

100

PROJECT: USACE Ft. Rucker ASH Delineation LOCATION: Ft. Rucker, Alabama
 ELEVATION: DRILLING CONTRACTOR: Boart Longyear

DRILLING METHOD AND EQUIPMENT USED: Geoprobe 6620DT START: 11/1/08 END: LOGGER: A. Terrell

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)		STANDARD PENETRATION TEST RESULTS 5'-6" S'-6"	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
		#/TYPE				
	2'				Brown to Light Brown Silty Sand w/ organics (0-0.5%), med. fine grained	(Photo used) (Soil headdress)
4	2.5'				Light Brown to Tan Sand, fine to med grained, moist	
8	3.5'				Same as 4-8' except: wet. 10-12' Sandy Clay, wet, med fine grained stff	
12	4'				Reddish Yellow Sandy Clay, fine grained, saturated, firm/very firm, very stiff	
16	4'				Same as 12-16' except 19-20' White to Pink to Gray Sand, med to coarse, saturated	
20						Ⓟ Boring terminated @ 20'

LEGEND

- PHD Photo Identification Detector
- T Time
- SPT Soil Spoon Sample

Appendix B
Analytical Data and Data Quality Summary
Report

**ANALYTICAL REPORT
MAIN DATA PACKAGE - INORGANIC**

CH2M HILL, Inc.

WO #0801086

EMPIRICAL LABORATORIES, LLC

A handwritten signature in black ink, appearing to read 'Marcia K. McGinnity', with a large, sweeping flourish extending to the right.

**Marcia K. McGinnity
Senior Project Manager**

FEBRUARY 6, 2008


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WO# 0801086

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INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801086
January, 2008

Empirical Laboratories ID	Client ID
0801086-01	DPT-02 SOIL
0801086-02	DPT-03 SOIL
0801086-03	DPT-05 SOIL
0801086-04	DPT-07 SOIL
0801086-05	DPT-08 SOIL
0801086-08	DPT-02 ASH
0801086-09	DPT-03 ASH
0801086-10	DPT-05 ASH
0801086-11	DPT-07 ASH
0801086-12	DPT-08 ASH

I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.


Betty DeVille
Inorganic Lab Manager

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

US EPA SW846

- Method 6010B was used to analyze ICAP metals using a TJA 61E Trace ICAP after digestion by method 3050B.
- Method 7471A was used to digest and analyze mercury using a FIMs Mercury analyzer.

Note: A "U" on the forms indicates that the analyte is reported down to the ILMO4.2 CRDL for ICAP metals. The "B" flag indicates that the analyte result is between the CRDL and the

INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801086
January, 2008

laboratory MDL. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

IV. PREPARATION

USEPA SW846 method 3005A was used to digest ICAP metals. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

V. ANALYSIS

- A. Calibration:** All calibration criteria were met with the following exception: The third CCV in the first ICAP analysis was out of the specification limits of 90 to 110% for beryllium at 115.9%. All samples in this SDG were impacted with the exception of sample DPT-07 soil which had a concentration less than the MDL. All other sample concentrations may be biased high. The highest concentration for beryllium in the samples is 1.3 mg/kg and the PRG concentration is 120 mg/kg.
- B. Blanks:** All blank criteria were met with the following exception: The preparation blank for lead was out of the specification limits for lead at 0.098 mg/kg. All sample concentrations were greater than ten times the concentration of the blank. There is no impact to the sample data.
- C. Spikes:** All matrix spikes quality control criteria were met.
- D. Duplicates:** All duplicate quality control criteria were met.
- E. Samples:** All sample analysis proceeded normally.
- F. Laboratory Control Samples:** All percent recovery quality control criteria were met.

CH2M Hill, Inc.

Parameters Requested

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801086-01	DPT-02 SOIL	Soil	01/14/08 2:25:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-02	DPT-03 SOIL	Soil	01/15/08 8:25:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-03	DPT-05 SOIL	Soil	01/15/08 9:40:00 AM	% Solids Antimony Arsenic Barium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801086-03	DPT-05 SOIL	Soil	01/15/08 9:40:00 AM	Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-04	DPT-07 SOIL	Soil	01/15/08 11:00:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-05	DPT-08 SOIL	Soil	01/15/08 1:45:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium


Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801086-05	DPT-08 SOIL	Soil	01/15/08 1:45:00 PM	Vanadium Zinc
0801086-08	DPT-02 ASH	Soil	01/17/08 3:10:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-09	DPT-03 ASH	Soil	01/17/08 1:45:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-10	DPT-05 ASH	Soil	01/17/08 2:10:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801086-10	DPT-05 ASH	Soil	01/17/08 2:10:00 PM	Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-11	DPT-07 ASH	Soil	01/17/08 3:10:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801086-12	DPT-08 ASH	Soil	01/17/08 1:25:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc

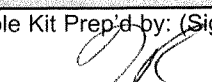
EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43732

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Results to: <u>(A)</u> Name: <u>Adrian Toet, Marc Sherril</u> Company: <u>CH2MHILL</u> Address: <u>1000 Abernathy Rd Suite 1600</u> City: <u>Atlanta, GA</u> State, Zip: <u>30328</u> Phone: <u>(678) 938-0923</u> Fax: _____ E-mail: <u>MSherril@CH2M.COM</u>	Send Invoice to: Name: <u>Same</u> Company: _____ Address: _____ City: _____ State, Zip: _____ Phone: _____ Fax: _____ E-mail: _____	Analysis Requirements: App | Metals 6010B App | VOC 8260B	Lab Use Only: VOA Headspace Y N <u>(NA)</u> Field Filtered Y <u>(N)</u> NA Correct Containers <u>(Y)</u> N NA Discrepancies Y <u>(N)</u> NA Cust. Seals Intact <u>(Y)</u> N NA Containers Intact <u>(Y)</u> N NA Airbill #: _____ CAR #: _____
Project No./Name: <u>363742.02.01</u>	Sampler's (Signature): 		

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	1	3	-08*	-09	-10	-11	-12	Comments	No. of Bottles	Lab Use Only Containers/Pres.
0801086-01	1/14/08 1125	DPT-02	S	1	3	-08*						4	1M, 3J
-02	1/15/08 0825	DPT-03	↓	↓	↓	-09						↓	↓
-03	0940	DPT-05	↓	↓	↓	-10						↓	↓
-04	1100	DPT-07	↓	↓	↓	-11						↓	↓
-05	1345	DPT-08	↓	↓	↓	-12						↓	↓
-06	1455	DPT-17	↓	↓	↓							↓	↓
-07	1500	DPT-17A *	↓	↓	↓						* Cancelled 1/18/08 ego	3	3J

Sample Kit Prep'd by: (Signature) 	Date/Time	Received By: (Signature)	REMARKS:	Details:
Relinquished by: (Signature)	Date/Time	Received By: (Signature)	* All VOC received on 1/16/08 were shifted to separate sample IDs. Correlating samples received 1/18/08, #0 TAT updated.	Page <u>1</u> of <u>1</u>
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. _____ of _____
Received for laboratory by: (Signature)	Date/Time 9:00 1-16-08	Temperature 2.8°C		Date Shipped _____
				Shipped By _____
				Turnaround _____

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43733

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Results to: Name: <u>See Sheet 1</u> Company: _____ Address: _____ City: _____ State, Zip: _____ Phone: _____ Fax: _____ E-mail: _____ Project No./Name: _____		Send Invoice to: Name: _____ Company: _____ Address: _____ City: _____ State, Zip: _____ Phone: _____ Fax: _____ E-mail: _____ Sampler's (Signature): _____		Analysis Requirements: App 1 Metals 6010B App 1 VOC 8260B										Lab Use Only: VOA Headspace Y N <u>NA</u> Field Filtered Y <u>N</u> NA Correct Containers <u>Y</u> N NA Discrepancies Y <u>N</u> NA Cust. Seals Intact <u>Y</u> N NA Containers Intact <u>Y</u> N NA Airbill #: _____ CAR #: _____		
--	--	---	--	--	--	--	--	--	--	--	--	--	--	---	--	--

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix																Comments	No. of Bottles	Lab Use Only Containers/Pres.
0801108 -09	11/7/08 125	DPT-13 ASH 0'-4'	S	1	3														4	3J, 1M	
↓ -10	↓	DPT-13 ASH 7'-13'		1	3														4	↓	
↓ -11	↓	DPT-13 SOIL		1	3														4	↓	
0801086 -12	1325	DPT-08 ASH		1															1	1M	
↓ -05	↓	DPT-08 SOIL			3														3	3J	
↓ -09	1345	DPT-03 ASH		1															1	1M	
↓ -02	↓	DPT-03 SOIL			3														3	3J	
↓ -10	1410	DPT-05 ASH		1															1	1M	
↓ -03	↓	DPT-05 SOIL			3														3	3J	
0801108 -01	1435	DPT-09 ASH		1															1	1M	
↓ -02	↓	DPT-09 SOIL			3														3	3J	
0801086 -11	↓ 1510	DPT-07 ASH		1															1	1M	

Sample Kit Prep'd by: (Signature)	Date/Time	Received By: (Signature)	REMARKS:
Relinquished by: (Signature)	Date/Time	Received By: (Signature)	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)	
Received for Laboratory by: (Signature)	Date/Time	Temperature	

Date/Time: 11/7/08 1900
 Date/Time: 1-18-08 9:00
 Temperature: 4.4°C

Details:	
Page <u>2</u> of <u>3</u>	
Cooler No. <u>1</u> of <u>1</u>	
Date Shipped <u>11/7/08</u>	
Shipped By <u>AT</u>	
Turnaround <u>STD</u>	

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

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 Empirical Laboratories, LLC

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43135

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to:	Send Invoice to:	Analysis Requirements:	Lab Use Only:
Name <u>See Sheet 1</u>	Name _____	App 1 Metals 6010B App 1 VOC 8260B	VOA Headspace Y N <u>NA</u>
Company _____	Company _____		Field Filtered Y <u>N</u> NA
Address _____	Address _____		Correct Containers <u>Y</u> N NA
City _____	City _____		Discrepancies Y <u>N</u> NA
State, Zip _____	State, Zip _____		Cust. Seals Intact <u>Y</u> N NA
Phone _____	Phone _____		Containers Intact <u>Y</u> N NA
Fax _____	Fax _____		Airbill #: _____
E-mail _____	E-mail _____	CAR #: _____	
Project No./Name:	Sampler's (Signature):		

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	3	1	3	3	3	3	3	3	3	3	3	3	3	3	Comments	No. of Bottles	Lab Use Only Containers/Pres.
0801086-04	1/17/08 1510	DPT-07 SOIL	S																3	3J
↓ -08	↓ 1530	DPT-02 ASH			1														1	1M
↓ -01	↓	DPT-02 SOIL				3													3	3J
0801108-12	1550	DPT-14 ASH			1	3													4	3J, 1M
↓ -13	↓	DPT-14 SOIL			1	3													4	↓
↓ -14	↓ 1620	DPT-15 ASH			1	3													4	↓
↓ -15	↓ ↓	DPT-15 SOIL			1	3													4	↓

Sample Kit Prep'd by: (Signature) 	Date/Time	Received By: (Signature)	REMARKS:	Details:
Relinquished by: (Signature) 	Date/Time 1/17/08 1900	Received By: (Signature)		Page <u>3</u> of <u>3</u>
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. <u>1</u> of <u>1</u>
Received for Laboratory by: (Signature) 	Date/Time 1-18-08	Temperature 4.4°C		Date Shipped <u>1/17/08</u>
				Shipped By <u>AT</u>
				Turnaround <u>STD</u>

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801086 COC ID(s): 43732

Client CH2m Hill Project Ft. Rucker

Sample Custodian E.J. Overby Today's Date 1-16-08

Date/Time Samples Received 1-16-08 9:00

Airbill Number FX

Cooler Opened: Date 1-16-08

Chain of custody seal intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Chain of custody provided?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Sample labels present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Bottle labels correspond w/COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-15-08

Type of coolant used Ice

Coolant condition : Melted _____ Partially melted/frozen
Frozen _____

of Coolers 1 Temp. of Coolers 2.8°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

Samples received on 1/18/08 added to this WO#.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-02 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-01
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	5.9			P
7440-39-3	Barium	13.4			P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.62			P
7440-47-3	Chromium	30.0			P
7439-92-1	Lead	9.3			P
7439-97-6	Mercury	0.015	U		AV
7440-02-0	Nickel	4.8			P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.061	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	65.3			P
7440-66-6	Zinc	8.7			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-03 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-02
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	8.5			P
7440-39-3	Barium	26.3			P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	0.23	U		P
7440-47-3	Chromium	28.7			P
7439-92-1	Lead	27.9			P
7439-97-6	Mercury	1.9			AV
7440-02-0	Nickel	46.9			P
7782-49-2	Selenium	0.70	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.70	U		P
7440-62-2	Vanadium	113			P
7440-66-6	Zinc	185			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-05 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-03
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 94.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.28	U		P
7440-38-2	Arsenic	4.1			P
7440-39-3	Barium	5.5	B		P
7440-41-7	Beryllium	0.46			P
7440-43-9	Cadmium	0.60			P
7440-47-3	Chromium	31.2			P
7439-92-1	Lead	14.6			P
7439-97-6	Mercury	0.015	U		AV
7440-02-0	Nickel	8.6			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.055	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	37.8			P
7440-66-6	Zinc	26.3			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-07 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-04
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.27	U		P
7440-38-2	Arsenic	1.0			P
7440-39-3	Barium	17.0			P
7440-41-7	Beryllium	0.11	U		P
7440-43-9	Cadmium	0.092	B		P
7440-47-3	Chromium	5.1			P
7439-92-1	Lead	3.0			P
7439-97-6	Mercury	0.014	U		AV
7440-02-0	Nickel	2.2			P
7782-49-2	Selenium	0.16	U		P
7440-22-4	Silver	0.053	U		P
7440-28-0	Thallium	0.16	U		P
7440-62-2	Vanadium	9.4			P
7440-66-6	Zinc	6.6			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-08 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-05
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	4.9			P
7440-39-3	Barium	16.2			P
7440-41-7	Beryllium	0.18	B		P
7440-43-9	Cadmium	0.54			P
7440-47-3	Chromium	27.8			P
7439-92-1	Lead	6.8			P
7439-97-6	Mercury	0.014	U		AV
7440-02-0	Nickel	4.1			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	58.0			P
7440-66-6	Zinc	10.1			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-02 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-08
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 75.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.34	U		P
7440-38-2	Arsenic	11.3			P
7440-39-3	Barium	771			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.79			P
7440-47-3	Chromium	15.1			P
7439-92-1	Lead	142			P
7439-97-6	Mercury	0.033	B		AV
7440-02-0	Nickel	16.4			P
7782-49-2	Selenium	0.53			P
7440-22-4	Silver	0.068	U		P
7440-28-0	Thallium	0.61	B		P
7440-62-2	Vanadium	33.9			P
7440-66-6	Zinc	231			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-03 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Matrix (soil/water): SOIL Lab Sample ID: 0801086-09

Level (low/med): LOW Date Received: 01/16/08

% Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	5.0			P
7440-39-3	Barium	26.5			P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	0.53			P
7440-47-3	Chromium	26.0			P
7439-92-1	Lead	9.5			P
7439-97-6	Mercury	0.047			AV
7440-02-0	Nickel	5.0			P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	51.8			P
7440-66-6	Zinc	12.3			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

 _____

Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-05 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Matrix (soil/water): SOIL Lab Sample ID: 0801086-10

Level (low/med): LOW Date Received: 01/16/08

% Solids: 92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.27	U		P
7440-38-2	Arsenic	4.9			P
7440-39-3	Barium	123			P
7440-41-7	Beryllium	0.46			P
7440-43-9	Cadmium	0.71			P
7440-47-3	Chromium	25.9			P
7439-92-1	Lead	124			P
7439-97-6	Mercury	0.17			AV
7440-02-0	Nickel	7.9			P
7782-49-2	Selenium	0.16	U		P
7440-22-4	Silver	0.054	U		P
7440-28-0	Thallium	0.16	U		P
7440-62-2	Vanadium	37.6			P
7440-66-6	Zinc	35.4			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

 _____

Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-07 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086
 Matrix (soil/water): SOIL Lab Sample ID: 0801086-11
 Level (low/med): LOW Date Received: 01/16/08
 % Solids: 81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	10.1			P
7440-39-3	Barium	119			P
7440-41-7	Beryllium	0.51			P
7440-43-9	Cadmium	0.35			P
7440-47-3	Chromium	12.7			P
7439-92-1	Lead	55.7			P
7439-97-6	Mercury	0.40			AV
7440-02-0	Nickel	8.8			P
7782-49-2	Selenium	1.5			P
7440-22-4	Silver	0.061	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	25.4			P
7440-66-6	Zinc	62.4			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-08 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Matrix (soil/water): SOIL Lab Sample ID: 0801086-12

Level (low/med): LOW Date Received: 01/16/08

% Solids: 73.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.35	U		P
7440-38-2	Arsenic	7.0			P
7440-39-3	Barium	170			P
7440-41-7	Beryllium	0.77			P
7440-43-9	Cadmium	0.27	B		P
7440-47-3	Chromium	13.2			P
7439-92-1	Lead	26.1			P
7439-97-6	Mercury	0.15			AV
7440-02-0	Nickel	9.1			P
7782-49-2	Selenium	0.22	B		P
7440-22-4	Silver	0.071	U		P
7440-28-0	Thallium	0.21	U		P
7440-62-2	Vanadium	24.7			P
7440-66-6	Zinc	29.6			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Barium	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.100	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	0.050	U	P
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	0.100	U	P
Lead	1.5	U	1.5	U	1.5	U	1.5	U	0.098	B	P
Mercury	0.080	U	0.080	U	0.080	U			0.013	U	AV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	0.050	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	0.260	B	P

USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	5.0	U	5.0	U	5.0	U	5.0	U			P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U			P
Barium	5.0	U	5.0	U	5.0	U	5.0	U			P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U			P
Lead	1.5	U	1.5	U	1.5	U	1.5	U			P
Nickel	5.0	U	5.0	U	5.0	U	5.0	U			P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U			P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U			P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U			P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U			P

USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-07 SOILS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.3110	0.0143 U	0.36	86.4		AV

Comments:

USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-07 SOILSD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.3086	0.0143 U	0.36	85.7		AV

Comments:

USEPA - CLP

6

DUPLICATES

SAMPLE NO.

DPT-07 SOILSD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 93.0 % Solids for Duplicate: 93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)		Duplicate (D)		RPD	Q	M
			C		C			
Mercury		0.3110		0.3086		0.8		AV

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801086

Solid LCS Source: HighPurity,Spex

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Antimony				12.5	12.0		10.0 | 15.0	96.0
Arsenic				12.5	12.1		10.0 | 15.0	96.8
Barium				100.0	105.8		80.0 | 120.0	105.8
Beryllium				2.5	2.8		2.0 | 3.0	112.0
Cadmium				6.3	6.3		5.0 | 7.5	100.8
Chromium				10.0	10.5		8.0 | 12.0	105.0
Lead				12.5	12.7		10.0 | 15.0	101.6
Mercury				0.33	0.28		0.3 | 0.4	84.8
Nickel				25.0	25.6		20.0 | 30.0	102.4
Selenium				12.5	11.9		10.0 | 15.0	95.2
Silver				12.5	13.5		10.0 | 15.0	108.0
Thallium				12.5	11.9		10.0 | 15.0	95.2
Vanadium				25.0	26.5		20.0 | 30.0	106.0
Zinc				25.0	27.4		20.0 | 30.0	109.6

ANALYTICAL REPORT
MAIN DATA PACKAGE – VOLATILES

CH2M HILL, Inc.
WO #0801086

EMPIRICAL LABORATORIES, LLC

A handwritten signature in black ink, appearing to read 'Marcia K. McGinnity', with a large, sweeping flourish extending to the right.

Marcia K. McGinnity
Senior Project Manager

FEBRUARY 6, 2008

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WO #0801086

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ORGANIC CASE NARRATIVE - VOLATILES
CH2M Hill, Inc. – Ft. Rucker
Work order: 0801086

Sampled	Received	Lab ID	Client ID
14-Jan-2008	18-Jan-2008	0801086-01	DPT-02 SOIL
15-Jan-2008	18-Jan-2008	0801086-02	DPT-03 SOIL
15-Jan-2008	18-Jan-2008	0801086-03	DPT-05 SOIL
15-Jan-2008	18-Jan-2008	0801086-04	DPT-07 SOIL
15-Jan-2008	18-Jan-2008	0801086-05	DPT-08 SOIL
15-Jan-2008	18-Jan-2008	0801086-06	DPT-17 SOIL
15-Jan-2008	16-Jan-2008	0801086-07	DPT-17A
17-Jan-2008	16-Jan-2008	0801086-08	DPT-02 ASH
17-Jan-2008	16-Jan-2008	0801086-09	DPT-03 ASH
17-Jan-2008	16-Jan-2008	0801086-10	DPT-05 ASH
17-Jan-2008	16-Jan-2008	0801086-11	DPT-07 ASH
17-Jan-2008	16-Jan-2008	0801086-12	DPT-08 ASH

Method: The samples were extracted/analyzed for client specified analyte lists by USEPA SW-846 Methods 5035/8260B (terracore field sampling then purge and trap followed by capillary column GC/MS) for soils upon receipt to the laboratory in satisfactory condition.

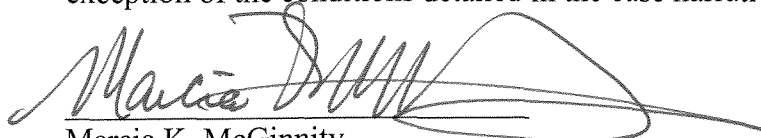
Comments: The analyses for these samples were satisfactorily completed within sample holding times and met the corresponding specifications with the following notes/exceptions:

- Notes: Samples were received in two shipments with the first received 1/16/08 and the second received 1/18/08. Samples DPT-17 Soil and DPT-17A were cancelled by the sampler and indicated as expected for resampling.
- Sample weights: Terracore containers were shipped with sample weights between 5 and 15 grams. The standard laboratory cutoff for analysis weight on low-level vials is 8 grams. However, arrangements were made for low-level analysis despite the high sample weights. Internal standard area count issues were monitored and any with less than 30% relative to the continuing calibration area counts were analyzed from the methanol extract. All analyses were performed to provide the lowest quantitation limits possible.
- Holding Time: Due to an initial evaluation from the GC/MS manager that the low-level analysis of sample DPT-08 ASH was acceptable, considering the high sample weight, the methanol extract was not analyzed until 19 days after sampling.
- Analyte List: All samples were reported for the appendix I analyte list specified in the statement of work.
- BFB Tuning: All method tuning criteria were met.
- Calibration Criteria: All method calibration criteria were met.
- Method Blank Results: Positive results for bromomethane, chloromethane, 1,4-dichlorobenzene and/or toluene were detected in methanol blanks V3MBLK0128 and V3MBLK0205. Reported concentrations in the associated samples are qualified with a "B".
- Surrogate Recoveries: All recoveries were within limits with the exception of toluene-d8 with a positive bias and bromofluorobenzene with a negative bias in the low-level analyses of

samples DPT-07 ASH and DPT-08 ASH. This is attributed to the sample weight and decreased internal standard area counts as discussed below.

- LCS(/LCSD) results: Chloromethane exceeded the upper recovery limit of 130% at (115%)/142% in spike samples V1BLK0118LCS/LCSD. All other recoveries (and relative percent differences) were within limits.
- MS/MSD results: Not applicable.
- Internal Standard Area Counts: Due to the sample weight, area counts for DCB were less than 50% of that found in the associated continuing calibration verification (CCV) for samples DPT-02 ASH (48.7%), DPT-07 ASH (31.9%), and DPT-08 ASH (27.6%). Area counts for FLB were less than 50% of that found in the associated CCV at 38.2% in sample DPT-08 SOIL. Due to the low area count for DCB in sample DPT-08 ASH, it was also analyzed from the methanol extract. A list of internal standard associations is attached for reference.
- Dilutions: Due to extremely poor low-level analyses on samples DPT-07 SOIL and DPT-05 ASH, these samples were reported from the methanol extract, only. Sample DPT-08 was reported from the low-level vial and methanol extract.

I certify that, to the best of my knowledge and based upon my inquiry of those individuals immediately responsible for obtaining the information, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.



Marcia K. McGinnity
Senior Project Manager

ANALYTICAL REPORT TERMS AND QUALIFIERS (ORGANIC)

- MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.
- EQL:** The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.
- U:** The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.
- B:** The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The data pass the identification criteria indicating that the compound is present, but the calculated result is less than the EQL.

INTERNAL STANDARD ASSOCIATION / QUANT ION TABLE

COMPOUND	QUANT MASS	* I.S.	COMPOUND	QUANT MASS	* I.S.
*Fluorobenzene (1)	96		Dibromomethane	93	1
*Chlorobenzene-d5 (2)	117		1,1,2-Trichloroethane	83	2
*1,4-Dichlorobenzene-d4 (3)	152		1,2,3-Trichloropropane	110	2
Bromomethane	94	1	Hexachlorobutadiene	225	3
Chloroethane	64	1	Isopropylbenzene	105	2
Vinyl chloride	62	1	Isopropyltoluene	119	3
Chloromethane	50	1	Methylene Chloride	84	1
Dichlorodifluoromethane	85	1	Naphthalene	128	3
Acetonitrile	41	1	Propionitrile	54	1
Allyl chloride	41	1	n-Propylbenzene	91	3
Trichlorofluoromethane	101	1	Styrene	104	2
Benzene	78	1	1,1,1,2-Tetrachloroethane	131	2
Bromobenzene	156	3	1,1,2,2-Tetrachloroethane	83	3
Bromochloromethane	128	1	Tetrachloroethene	166	2
Bromodichloromethane	83	2	Toluene	92	2
Bromoform	173	2	1,2,3-Trichlorobenzene	180	3
n-Butylbenzene	91	3	1,2,4-Trichlorobenzene	180	3
sec-Butylbenzene	105	3	1,2,4-Trimethylbenzene	105	3
tert-butylbenzene	119	3	1,3,5-Trimethylbenzene	105	3
Carbon tetrachloride	117	1	m-Xylene	91	2
Chlorobenzene	112	2	p-Xylene	91	2
Chloroform	83	1	o-Xylene	91	2
Chloroprene	53	1	Acrolein	56	1
2-Chlorotoluene	91	3	Acrylonitrile	53	1
4-Chlorotoluene	91	3	Tetrahydrofuran	42	1
Dibromochloromethane	129	2	MTBE	73	1
1,2-Dibromo-3-chloropropane	157	3	Methacrylonitrile	41	1
1,2-Dibromoethane	107	2	Methyl methacrylate	41	1
1,2-Dichlorobenzene	146	3	Ethyl methacrylate	69	2
1,3-Dichlorobenzene	146	3	1,1,2-Trichlorotrifluoroethane	101	1
1,4-Dichlorobenzene	146	3	Cyclohexane	56	1
1,1-Dichloroethane	63	1	Methylcyclohexane	83	1
1,2-Dichloroethane	62	1	Methyl acetate	43	1
1,1-Dichloroethene	96	1	Carbon disulfide	76	1
cis-1,2-Dichloroethene	96	1	Iodomethane	142	1
trans-1,2-Dichloroethene	96	1	Vinyl acetate	43	1
trans-1,4-Dichloro-2-butene	53	3	2-Chloroethyl vinyl ether	63	1
1,2-Dichloropropane	63	1	Acetone	43	1
1,3-Dichloropropane	76	2	2-butanone	43	1
2,2-Dichloropropane	77	1	2-hexanone	43	2
1,1-Dichloropropene	75	1	Isobutyl alcohol	43	1
cis-1,3-Dichloropropene	75	1	1,4-Dioxane	88	1
trans-1,3-Dichloropropene	75	2	4-methyl-2-pentanone	43	1
Ethylbenzene	91	2	Dibromofluoromethane (S)	111	1
1,1,1-Trichloroethane	97	1	1,2-Dichloroethane-d4 (S)	102	1
Trichloroethene	95	1	Toluene-d8 (S)	98	2
			Bromofluorobenzene (S)	95	2

*I.S.=internal Standard.

S=surrogate.

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43732

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to: Name: <u>Adrian T. Mark Sherril</u> Company: <u>CH2M HILL</u> Address: <u>1000 Abernathy Rd Suite 1600</u> City: <u>Atlanta GA</u> State, Zip: <u>30328</u> Phone: <u>(678) 938-0923</u> Fax: _____ E-mail: <u>MSherril@CH2M.COM</u>	Send Invoice to: Name: <u>Same</u> Company: _____ Address: _____ City: _____ State, Zip: _____ Phone: _____ Fax: _____ E-mail: _____	Analysis Requirements: App | Metals 6010B App | VOC 8260B	Lab Use Only: VOA Headspace Y N <u>NA</u> Field Filtered Y <u>N</u> NA Correct Containers <u>Y</u> N NA Discrepancies Y <u>N</u> NA Cust. Seals Intact <u>Y</u> N NA Containers Intact <u>Y</u> N NA Airbill #: _____ CAR #: _____
Project No./Name: <u>363742.02.01</u>		Sampler's (Signature): 	

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	No. of Bottles	Comments	Lab Use Only Containers/Pres.
0801086-01	1/14/08 0425	DPT-02	S	4		1M, 3J
-02	1/15/08 0825	DPT-03				
-03	0940	DPT-05				
-04	1100	DPT-07				
-05	1345	DPT-08				
-06	1455	DPT-17				
-07	1500	DPT-17A *		3	* Cancelled 1/18/08 ego.	3J

Sample Kit Prep'd by: (Signature) 	Date/Time	Received By: (Signature)	REMARKS: * All VOC received on 1/16/08 were shifted to separate sample IDs. Correlating samples received 1/18/08, #0 TAT updated.	Details: Page <u>1</u> of <u>1</u> Cooler No. _____ of _____ Date Shipped _____ Shipped By _____ Turnaround _____
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		
Received for Laboratory by: (Signature)	Date/Time 1-16-08 9:00	Temperature 2.8°C		

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

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SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Invoice to: Name _____ Company _____ Address _____ City _____ State, Zip _____ Phone _____ Fax _____ E-mail _____		Analysis Requirements: (Grid for analysis requirements)										Lab Use Only: VOA Headspace Y N <u>NA</u> Field Filtered Y <u>N</u> NA Correct Containers <u>Y</u> N NA Discrepancies Y <u>N</u> NA Cust. Seals Intact <u>Y</u> N NA Containers Intact <u>Y</u> N NA Airbill #: _____ CAR #: _____		
Results to: Name <u>See Sheet 1</u> Company _____ Address _____ City _____ State, Zip _____ Phone _____ Fax _____ E-mail _____		Project No./Name: _____ Sampler's (Signature): _____		App 1 Metals 6010B App 1 VOC 8260B										

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix											Comments	No. of Bottles	Lab Use Only Containers/Pres.	
0801108 -09	1/17/08 125	DPT-13 ASH 0-4'	S	1	3											4	3J, 1M
↓ -10	↓	DPT-13 ASH 7-13'		1	3											4	↓
↓ -11	↓	DPT-13 SOIL		1	3											4	↓
0801086 -12	1325	DPT-08 ASH		1												1	1M
↓ -05	↓	DPT-08 SOIL			3											3	3J
↓ -09	1345	DPT-03 ASH		1												1	1M
↓ -02	↓	DPT-03 SOIL			3											3	3J
↓ -10	1410	DPT-05 ASH		1												1	1M
↓ -03	↓	DPT-05 SOIL			3											3	3J
0801108 -01	1435	DPT-09 ASH		1												1	1M
↓ -02	↓	DPT-09 SOIL			3											3	3J
0801086 -11	1510	DPT-07 ASH		1												1	1M

Sample Kit Prep'd by: (Signature) _____ Relinquished by: (Signature) _____ Relinquished by: (Signature) _____ Received for Laboratory by: (Signature) _____	Date/Time 1/17/08 1900 9:00 1-18-08	Received By: (Signature) _____ Received By: (Signature) _____ Received By: (Signature) _____ Temperature 4.4°C	REMARKS:	Details: Page <u>2</u> of <u>3</u> Cooler No. <u>1</u> of <u>1</u> Date Shipped <u>1/17/08</u> Shipped By <u>AT</u> Turnaround <u>STD</u>
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Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

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EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43135

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to:	Send Invoice to:	Analysis Requirements:	Lab Use Only:
Name: <u>See Sheet 1</u>	Name: _____	App 1 Metals 6010B App 1 VOC 8260B	VOA Headspace Y N <u>NA</u>
Company: _____	Company: _____		Field Filtered Y <u>N</u> NA
Address: _____	Address: _____		Correct Containers <u>Y</u> N NA
City: _____	City: _____		Discrepancies Y <u>N</u> NA
State, Zip: _____	State, Zip: _____		Cust. Seals Intact <u>Y</u> N NA
Phone: _____	Phone: _____	Containers Intact <u>Y</u> N NA	
Fax: _____	Fax: _____	Airbill #: _____	CAR #: _____
E-mail: _____	E-mail: _____		
Project No./Name: _____	Sampler's (Signature): _____		

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix												Comments	No. of Bottles	Lab Use Only Containers/Pres.
0801086-04	1/17/08 1510	DPT-07 SOIL	S	3												3	35
↓ -08	↓ 1530	DPT-02 ASH		1												1	1M
↓ -01	↓	DPT-02 SOIL		3												3	3J
0801108-12	1550	DPT-14 ASH		1	3											4	3J, 1M
↓ -13	↓	DPT-14 SOIL		1	3											4	↓
↓ -14	↓ 1620	DPT-15 ASH		1	3											4	↓
↓ -15	↓ ↓	DPT-15 SOIL		1	3											4	↓

Sample Kit Prep'd by: (Signature)	Date/Time	Received By: (Signature)	REMARKS:	Details:
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Page <u>3</u> of <u>3</u>
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. <u>1</u> of <u>1</u>
Received for Laboratory by: (Signature)	Date/Time	Temperature		Date Shipped <u>1/17/08</u>
	<u>9:00</u> 1-18-08	<u>4.4°C</u>	Shipped By <u>AT</u>	Turnaround <u>STD</u>

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC 0801086

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801086 COC ID(s): 43732

Client CH2m Hill Project Ft. Rucker

Sample Custodian E.J. Overby Today's Date 1-16-08

Date/Time Samples Received 1-16-08 9:00

Airbill Number FX

Cooler Opened: Date 1-16-08

Chain of custody seal intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Chain of custody provided?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Sample labels present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Bottle labels correspond w/COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-15-08

Type of coolant used Ice

Coolant condition : Melted Partially melted/frozen
Frozen

of Coolers 1 Temp. of Coolers 2.8°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

Samples received on 1/18/08 added to this CO#.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-02 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-01

Sample wt/vol: 12.8 (g/mL) G Lab File ID: 108601A

Level: (low/med) LOW Date Sampled: 01/17/08 15:30

% Moisture: not dec. 16 Date Analyzed: 01/23/08 11:24

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	0.93	23	3.1	J
107-13-1-----	Acrylonitrile	0.65	12		U
71-43-2-----	Benzene	0.22	2.3		U
74-97-5-----	Bromochloromethane	0.20	4.6		U
75-27-4-----	Bromodichloromethane	0.14	2.3		U
75-25-2-----	Bromoform	0.46	2.3		U
74-83-9-----	Bromomethane	0.34	4.6		U
78-93-3-----	2-Butanone	0.65	23		U
75-15-0-----	Carbon disulfide	0.60	2.3		U
56-23-5-----	Carbon tetrachloride	0.41	2.3		U
108-90-7-----	Chlorobenzene	0.16	2.3		U
75-00-3-----	Chloroethane	0.51	4.6		U
67-66-3-----	Chloroform	0.26	2.3		U
74-87-3-----	Chloromethane	0.24	4.6		U
124-48-1-----	Dibromochloromethane	0.16	2.3		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.56	4.6		U
106-93-4-----	1,2-Dibromoethane	0.20	2.3		U
74-95-3-----	Dibromomethane	0.19	2.3		U
95-50-1-----	1,2-Dichlorobenzene	0.17	2.3		U
106-46-7-----	1,4-Dichlorobenzene	0.26	2.3		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.7	12		U
75-34-3-----	1,1-Dichloroethane	0.25	2.3		U
107-06-2-----	1,2-Dichloroethane	0.21	2.3		U
75-35-4-----	1,1-Dichloroethene	0.56	2.3		U
156-59-2-----	cis-1,2-Dichloroethene	0.56	2.3		U
156-60-5-----	trans-1,2-Dichloroethene	0.51	2.3		U
78-87-5-----	1,2-Dichloropropane	0.21	2.3		U
10061-01-5----	cis-1,3-Dichloropropene	0.23	2.3		U
10061-02-6----	trans-1,3-Dichloropropene	0.15	2.3		U
100-41-4-----	Ethylbenzene	0.35	2.3		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.39	12		U
75-09-2-----	Methylene chloride	0.29	4.6		U
108-10-1-----	4-Methyl-2-pentanone	0.27	12		U
100-42-5-----	Styrene	0.16	2.3		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	2.3		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.20	2.3		U
127-18-4-----	Tetrachloroethene	0.45	2.3		U
108-88-3-----	Toluene	0.40	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-02 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-01

Sample wt/vol: 12.8 (g/mL) G Lab File ID: 108601A

Level: (low/med) LOW Date Sampled: 01/17/08 15:30

% Moisture: not dec. 16 Date Analyzed: 01/23/08 11:24

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.42	2.3		U
79-00-5-----	1,1,2-Trichloroethane	0.16	2.3		U
79-01-6-----	Trichloroethene	0.40	2.3		U
75-69-4-----	Trichlorofluoromethane	0.44	4.6		U
96-18-4-----	1,2,3-Trichloropropane	0.32	2.3		U
108-05-4-----	Vinyl acetate	0.26	12		U
75-01-4-----	Vinyl chloride	0.51	4.6		U
1330-20-7-----	Xylene (total)	0.32	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-03 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-02

Sample wt/vol: 10.4 (g/mL) G Lab File ID: 108602A

Level: (low/med) LOW Date Sampled: 01/17/08 13:45

% Moisture: not dec. 13 Date Analyzed: 01/23/08 12:02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			Q
		MDL	RL	CONC	
67-64-1	Acetone	1.1	28	21	J
107-13-1	Acrylonitrile	0.77	14		U
71-43-2	Benzene	0.26	2.8		U
74-97-5	Bromochloromethane	0.23	5.5		U
75-27-4	Bromodichloromethane	0.16	2.8		U
75-25-2	Bromoform	0.55	2.8		U
74-83-9	Bromomethane	0.40	5.5		U
78-93-3	2-Butanone	0.77	28	1.9	J
75-15-0	Carbon disulfide	0.72	2.8		U
56-23-5	Carbon tetrachloride	0.48	2.8		U
108-90-7	Chlorobenzene	0.19	2.8		U
75-00-3	Chloroethane	0.60	5.5		U
67-66-3	Chloroform	0.30	2.8		U
74-87-3	Chloromethane	0.29	5.5		U
124-48-1	Dibromochloromethane	0.19	2.8		U
96-12-8	1,2-Dibromo-3-chloropropane	0.66	5.5		U
106-93-4	1,2-Dibromoethane	0.24	2.8		U
74-95-3	Dibromomethane	0.22	2.8		U
95-50-1	1,2-Dichlorobenzene	0.20	2.8		U
106-46-7	1,4-Dichlorobenzene	0.30	2.8		U
110-57-6	trans-1,4-Dichloro-2-butene	4.4	14		U
75-34-3	1,1-Dichloroethane	0.30	2.8		U
107-06-2	1,2-Dichloroethane	0.25	2.8		U
75-35-4	1,1-Dichloroethene	0.66	2.8		U
156-59-2	cis-1,2-Dichloroethene	0.66	2.8		U
156-60-5	trans-1,2-Dichloroethene	0.60	2.8		U
78-87-5	1,2-Dichloropropane	0.25	2.8		U
10061-01-5	cis-1,3-Dichloropropene	0.28	2.8		U
10061-02-6	trans-1,3-Dichloropropene	0.18	2.8		U
100-41-4	Ethylbenzene	0.41	2.8		U
591-78-6	2-Hexanone	1.3	14		U
74-88-4	Iodomethane	0.46	14		U
75-09-2	Methylene chloride	0.34	5.5		U
108-10-1	4-Methyl-2-pentanone	0.32	14		U
100-42-5	Styrene	0.19	2.8		U
630-20-6	1,1,1,2-Tetrachloroethane	0.18	2.8		U
79-34-5	1,1,2,2-Tetrachloroethane	0.24	2.8		U
127-18-4	Tetrachloroethene	0.53	2.8		U
108-88-3	Toluene	0.47	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-03 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-02

Sample wt/vol: 10.4 (g/mL) G Lab File ID: 108602A

Level: (low/med) LOW Date Sampled: 01/17/08 13:45

% Moisture: not dec. 13 Date Analyzed: 01/23/08 12:02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.50	2.8		U
79-00-5-----	1,1,2-Trichloroethane	0.19	2.8		U
79-01-6-----	Trichloroethene	0.47	2.8		U
75-69-4-----	Trichlorofluoromethane	0.52	5.5		U
96-18-4-----	1,2,3-Trichloropropane	0.38	2.8		U
108-05-4-----	Vinyl acetate	0.30	14		U
75-01-4-----	Vinyl chloride	0.60	5.5		U
1330-20-7-----	Xylene (total)	0.38	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-05 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-03

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 108603A

Level: (low/med) LOW Date Sampled: 01/15/08 09:40

% Moisture: not dec. 6 Date Analyzed: 01/23/08 12:41

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG CONC	Q
		MDL	(ug/L or ug/Kg) RL		
67-64-1-----	Acetone	0.84	21	28	
107-13-1-----	Acrylonitrile	0.59	10		U
71-43-2-----	Benzene	0.20	2.1	0.28	J
74-97-5-----	Bromochloromethane	0.18	4.2		U
75-27-4-----	Bromodichloromethane	0.13	2.1		U
75-25-2-----	Bromoform	0.42	2.1		U
74-83-9-----	Bromomethane	0.30	4.2		U
78-93-3-----	2-Butanone	0.59	21	4.9	J
75-15-0-----	Carbon disulfide	0.55	2.1		U
56-23-5-----	Carbon tetrachloride	0.37	2.1		U
108-90-7-----	Chlorobenzene	0.14	2.1		U
75-00-3-----	Chloroethane	0.46	4.2		U
67-66-3-----	Chloroform	0.23	2.1		U
74-87-3-----	Chloromethane	0.22	4.2		U
124-48-1-----	Dibromochloromethane	0.14	2.1		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.50	4.2		U
106-93-4-----	1,2-Dibromoethane	0.18	2.1		U
74-95-3-----	Dibromomethane	0.17	2.1		U
95-50-1-----	1,2-Dichlorobenzene	0.16	2.1		U
106-46-7-----	1,4-Dichlorobenzene	0.23	2.1		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.4	10		U
75-34-3-----	1,1-Dichloroethane	0.23	2.1		U
107-06-2-----	1,2-Dichloroethane	0.19	2.1		U
75-35-4-----	1,1-Dichloroethene	0.50	2.1		U
156-59-2-----	cis-1,2-Dichloroethene	0.50	2.1		U
156-60-5-----	trans-1,2-Dichloroethene	0.46	2.1		U
78-87-5-----	1,2-Dichloropropane	0.19	2.1		U
10061-01-5----	cis-1,3-Dichloropropene	0.21	2.1		U
10061-02-6----	trans-1,3-Dichloropropene	0.13	2.1		U
100-41-4-----	Ethylbenzene	0.32	2.1		U
591-78-6-----	2-Hexanone	0.97	10		U
74-88-4-----	Iodomethane	0.35	10		U
75-09-2-----	Methylene chloride	0.26	4.2		U
108-10-1-----	4-Methyl-2-pentanone	0.24	10		U
100-42-5-----	Styrene	0.15	2.1		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.13	2.1		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.18	2.1		U
127-18-4-----	Tetrachloroethene	0.41	2.1		U
108-88-3-----	Toluene	0.36	2.1		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-07 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-04

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 0108604D

Level: (low/med) MED Date Sampled: 01/15/08 11:00

% Moisture: not dec. 7 Date Analyzed: 01/28/08 18:01

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG	Q
		MDL	(ug/L or ug/Kg) RL CONC		
67-64-1-----	Acetone	37	88		U
107-13-1-----	Acrylonitrile	18	44		U
71-43-2-----	Benzene	2.6	5.5		U
74-97-5-----	Bromochloromethane	3.3	11		U
75-27-4-----	Bromodichloromethane	2.6	5.5		U
75-25-2-----	Bromoform	2.9	11		U
74-83-9-----	Bromomethane	2.9	11		U
78-93-3-----	2-Butanone	32	88		U
75-15-0-----	Carbon disulfide	3.3	11		U
56-23-5-----	Carbon tetrachloride	2.4	5.5	8.4	
108-90-7-----	Chlorobenzene	2.2	5.5		U
75-00-3-----	Chloroethane	3.1	11		U
67-66-3-----	Chloroform	2.9	11		U
74-87-3-----	Chloromethane	6.2	22		U
124-48-1-----	Dibromochloromethane	3.1	11		U
96-12-8-----	1,2-Dibromo-3-chloropropane	2.0	5.5		U
106-93-4-----	1,2-Dibromoethane	3.1	11		U
74-95-3-----	Dibromomethane	3.1	11		U
95-50-1-----	1,2-Dichlorobenzene	2.4	5.5		U
106-46-7-----	1,4-Dichlorobenzene	2.2	11		U
110-57-6-----	trans-1,4-Dichloro-2-butene	13	44		U
75-34-3-----	1,1-Dichloroethane	2.4	5.5		U
107-06-2-----	1,2-Dichloroethane	2.9	11		U
75-35-4-----	1,1-Dichloroethene	2.9	11		U
156-59-2-----	cis-1,2-Dichloroethene	3.1	11		U
156-60-5-----	trans-1,2-Dichloroethene	3.3	11		U
78-87-5-----	1,2-Dichloropropane	2.4	5.5		U
10061-01-5----	cis-1,3-Dichloropropene	1.8	5.5		U
10061-02-6----	trans-1,3-Dichloropropene	2.6	5.5		U
100-41-4-----	Ethylbenzene	7.7	22		U
591-78-6-----	2-Hexanone	4.0	11		U
74-88-4-----	Iodomethane	2.6	5.5		U
75-09-2-----	Methylene chloride	5.1	11	8.6	J
108-10-1-----	4-Methyl-2-pentanone	7.7	22		U
100-42-5-----	Styrene	2.0	5.5		U
630-20-6-----	1,1,1,2-Tetrachloroethane	3.3	11		U
79-34-5-----	1,1,2,2-Tetrachloroethane	2.9	11		U
127-18-4-----	Tetrachloroethene	2.2	5.5		U
108-88-3-----	Toluene	3.5	11		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-07 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-04

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 0108604D

Level: (low/med) MED Date Sampled: 01/15/08 11:00

% Moisture: not dec. 7 Date Analyzed: 01/28/08 18:01

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	2.6	5.5		U
79-00-5-----	1,1,2-Trichloroethane	2.2	5.5		U
79-01-6-----	Trichloroethene	5.1	11		U
75-69-4-----	Trichlorofluoromethane	2.6	5.5		U
96-18-4-----	1,2,3-Trichloropropane	3.1	11		U
108-05-4-----	Vinyl acetate	11	22		U
75-01-4-----	Vinyl chloride	4.4	11		U
1330-20-7----	Xylene (total)	10	22		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-08 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-05

Sample wt/vol: 10.4 (g/mL) G Lab File ID: 108605B

Level: (low/med) LOW Date Sampled: 01/15/08 13:45

% Moisture: not dec. 14 Date Analyzed: 01/23/08 13:57

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	1.1	28	37	
107-13-1-----	Acrylonitrile	0.78	14		U
71-43-2-----	Benzene	0.26	2.8		U
74-97-5-----	Bromochloromethane	0.23	5.6		U
75-27-4-----	Bromodichloromethane	0.17	2.8		U
75-25-2-----	Bromoform	0.56	2.8		U
74-83-9-----	Bromomethane	0.40	5.6	6.4	
78-93-3-----	2-Butanone	0.78	28	3.7	J
75-15-0-----	Carbon disulfide	0.73	2.8		U
56-23-5-----	Carbon tetrachloride	0.49	2.8		U
108-90-7-----	Chlorobenzene	0.19	2.8		U
75-00-3-----	Chloroethane	0.61	5.6		U
67-66-3-----	Chloroform	0.31	2.8		U
74-87-3-----	Chloromethane	0.29	5.6	3.5	J
124-48-1-----	Dibromochloromethane	0.19	2.8		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.67	5.6		U
106-93-4-----	1,2-Dibromoethane	0.24	2.8		U
74-95-3-----	Dibromomethane	0.23	2.8		U
95-50-1-----	1,2-Dichlorobenzene	0.21	2.8		U
106-46-7-----	1,4-Dichlorobenzene	0.31	2.8		U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.5	14		U
75-34-3-----	1,1-Dichloroethane	0.30	2.8		U
107-06-2-----	1,2-Dichloroethane	0.26	2.8		U
75-35-4-----	1,1-Dichloroethene	0.67	2.8		U
156-59-2-----	cis-1,2-Dichloroethene	0.67	2.8		U
156-60-5-----	trans-1,2-Dichloroethene	0.61	2.8		U
78-87-5-----	1,2-Dichloropropane	0.26	2.8		U
10061-01-5----	cis-1,3-Dichloropropene	0.28	2.8		U
10061-02-6----	trans-1,3-Dichloropropene	0.18	2.8		U
100-41-4-----	Ethylbenzene	0.42	2.8		U
591-78-6-----	2-Hexanone	1.3	14		U
74-88-4-----	Iodomethane	0.46	14		U
75-09-2-----	Methylene chloride	0.35	5.6	4.0	J
108-10-1-----	4-Methyl-2-pentanone	0.32	14		U
100-42-5-----	Styrene	0.20	2.8		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.18	2.8		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.24	2.8		U
127-18-4-----	Tetrachloroethene	0.54	2.8		U
108-88-3-----	Toluene	0.48	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-08 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-05

Sample wt/vol: 10.4 (g/mL) G Lab File ID: 108605B

Level: (low/med) LOW Date Sampled: 01/15/08 13:45

% Moisture: not dec. 14 Date Analyzed: 01/23/08 13:57

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane _____	0.50	2.8		U
79-00-5-----	1,1,2-Trichloroethane _____	0.20	2.8		U
79-01-6-----	Trichloroethene _____	0.47	2.8		U
75-69-4-----	Trichlorofluoromethane _____	0.53	5.6		U
96-18-4-----	1,2,3-Trichloropropane _____	0.39	2.8		U
108-05-4-----	Vinyl acetate _____	0.31	14		U
75-01-4-----	Vinyl chloride _____	0.61	5.6		U
1330-20-7-----	Xylene (total) _____	0.39	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-02 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-08

Sample wt/vol: 8.3 (g/mL) G Lab File ID: 108608A

Level: (low/med) LOW Date Sampled: 01/14/08 14:25

% Moisture: not dec. 25 Date Analyzed: 01/18/08 15:55

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG CONC	UG/KG Q
		MDL	(ug/L or ug/Kg) RL		
67-64-1-----	Acetone	1.6	40	35	J
107-13-1-----	Acrylonitrile	1.1	20		U
71-43-2-----	Benzene	0.38	4.0	0.86	J
74-97-5-----	Bromochloromethane	0.34	8.0		U
75-27-4-----	Bromodichloromethane	0.24	4.0		U
75-25-2-----	Bromoform	0.80	4.0		U
74-83-9-----	Bromomethane	0.58	8.0		U
78-93-3-----	2-Butanone	1.1	40		U
75-15-0-----	Carbon disulfide	1.0	4.0		U
56-23-5-----	Carbon tetrachloride	0.71	4.0		U
108-90-7-----	Chlorobenzene	0.27	4.0		U
75-00-3-----	Chloroethane	0.88	8.0		U
67-66-3-----	Chloroform	0.44	4.0		U
74-87-3-----	Chloromethane	0.42	8.0		U
124-48-1-----	Dibromochloromethane	0.27	4.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.96	8.0		U
106-93-4-----	1,2-Dibromoethane	0.34	4.0		U
74-95-3-----	Dibromomethane	0.33	4.0		U
95-50-1-----	1,2-Dichlorobenzene	0.30	4.0		U
106-46-7-----	1,4-Dichlorobenzene	0.44	4.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	6.4	20		U
75-34-3-----	1,1-Dichloroethane	0.43	4.0		U
107-06-2-----	1,2-Dichloroethane	0.37	4.0		U
75-35-4-----	1,1-Dichloroethene	0.96	4.0		U
156-59-2-----	cis-1,2-Dichloroethene	0.96	4.0		U
156-60-5-----	trans-1,2-Dichloroethene	0.88	4.0		U
78-87-5-----	1,2-Dichloropropane	0.37	4.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.40	4.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.26	4.0		U
100-41-4-----	Ethylbenzene	0.60	4.0		U
591-78-6-----	2-Hexanone	1.8	20		U
74-88-4-----	Iodomethane	0.67	20		U
75-09-2-----	Methylene chloride	0.50	8.0		U
108-10-1-----	4-Methyl-2-pentanone	0.47	20		U
100-42-5-----	Styrene	0.28	4.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.26	4.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.34	4.0		U
127-18-4-----	Tetrachloroethene	0.78	4.0		U
108-88-3-----	Toluene	0.69	4.0	0.94	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-02 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-08

Sample wt/vol: 8.3 (g/mL) G Lab File ID: 108608A

Level: (low/med) LOW Date Sampled: 01/14/08 14:25

% Moisture: not dec. 25 Date Analyzed: 01/18/08 15:55

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.72	4.0		U
79-00-5-----	1,1,2-Trichloroethane	0.28	4.0		U
79-01-6-----	Trichloroethene	0.68	4.0		U
75-69-4-----	Trichlorofluoromethane	0.76	8.0		U
96-18-4-----	1,2,3-Trichloropropane	0.56	4.0		U
108-05-4-----	Vinyl acetate	0.44	20		U
75-01-4-----	Vinyl chloride	0.88	8.0		U
1330-20-7-----	Xylene(total)	0.56	4.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-03 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-09

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 108609A

Level: (low/med) LOW Date Sampled: 01/15/08 08:25

% Moisture: not dec. 13 Date Analyzed: 01/18/08 16:33

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
67-64-1-----	Acetone	1.1	28	48	
107-13-1-----	Acrylonitrile	0.77	14		U
71-43-2-----	Benzene	0.26	2.8		U
74-97-5-----	Bromochloromethane	0.23	5.5		U
75-27-4-----	Bromodichloromethane	0.16	2.8		U
75-25-2-----	Bromoform	0.55	2.8		U
74-83-9-----	Bromomethane	0.40	5.5		U
78-93-3-----	2-Butanone	0.77	28	9.6	J
75-15-0-----	Carbon disulfide	0.72	2.8		U
56-23-5-----	Carbon tetrachloride	0.48	2.8		U
108-90-7-----	Chlorobenzene	0.19	2.8		U
75-00-3-----	Chloroethane	0.60	5.5		U
67-66-3-----	Chloroform	0.30	2.8		U
74-87-3-----	Chloromethane	0.29	5.5		U
124-48-1-----	Dibromochloromethane	0.19	2.8		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.66	5.5		U
106-93-4-----	1,2-Dibromoethane	0.24	2.8		U
74-95-3-----	Dibromomethane	0.22	2.8		U
95-50-1-----	1,2-Dichlorobenzene	0.20	2.8		U
106-46-7-----	1,4-Dichlorobenzene	0.30	2.8		U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.4	14		U
75-34-3-----	1,1-Dichloroethane	0.30	2.8		U
107-06-2-----	1,2-Dichloroethane	0.25	2.8		U
75-35-4-----	1,1-Dichloroethene	0.66	2.8		U
156-59-2-----	cis-1,2-Dichloroethene	0.66	2.8		U
156-60-5-----	trans-1,2-Dichloroethene	0.60	2.8		U
78-87-5-----	1,2-Dichloropropane	0.25	2.8		U
10061-01-5----	cis-1,3-Dichloropropene	0.28	2.8		U
10061-02-6----	trans-1,3-Dichloropropene	0.18	2.8		U
100-41-4-----	Ethylbenzene	0.41	2.8		U
591-78-6-----	2-Hexanone	1.3	14		U
74-88-4-----	Iodomethane	0.46	14		U
75-09-2-----	Methylene chloride	0.34	5.5		U
108-10-1-----	4-Methyl-2-pentanone	0.32	14		U
100-42-5-----	Styrene	0.19	2.8		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.18	2.8		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.24	2.8		U
127-18-4-----	Tetrachloroethene	0.53	2.8		U
108-88-3-----	Toluene	0.47	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-03 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-09

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 108609A

Level: (low/med) LOW Date Sampled: 01/15/08 08:25

% Moisture: not dec. 13 Date Analyzed: 01/18/08 16:33

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.50	2.8		U
79-00-5-----	1,1,2-Trichloroethane	0.19	2.8		U
79-01-6-----	Trichloroethene	0.47	2.8		U
75-69-4-----	Trichlorofluoromethane	0.52	5.5		U
96-18-4-----	1,2,3-Trichloropropane	0.38	2.8		U
108-05-4-----	Vinyl acetate	0.30	14		U
75-01-4-----	Vinyl chloride	0.60	5.5		U
1330-20-7-----	Xylene (total)	0.38	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-05 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-10

Sample wt/vol: 6.0 (g/mL) G Lab File ID: 0108610D

Level: (low/med) MED Date Sampled: 01/15/08 09:40

% Moisture: not dec. 8 Date Analyzed: 01/28/08 18:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG CONC	UG/KG Q
		MDL	(ug/L or ug/Kg) RL		
67-64-1	Acetone	76	180		U
107-13-1	Acrylonitrile	36	89		U
71-43-2	Benzene	5.4	11		U
74-97-5	Bromochloromethane	6.7	22		U
75-27-4	Bromodichloromethane	5.4	11		U
75-25-2	Bromoform	5.8	22		U
74-83-9	Bromomethane	5.8	22		U
78-93-3	2-Butanone	65	180	87	J
75-15-0	Carbon disulfide	6.7	22		U
56-23-5	Carbon tetrachloride	4.9	11	13	
108-90-7	Chlorobenzene	4.5	11		U
75-00-3	Chloroethane	6.3	22		U
67-66-3	Chloroform	5.8	22		U
74-87-3	Chloromethane	12	45		U
124-48-1	Dibromochloromethane	6.3	22		U
96-12-8	1,2-Dibromo-3-chloropropane	4.0	11		U
106-93-4	1,2-Dibromoethane	6.3	22		U
74-95-3	Dibromomethane	6.3	22		U
95-50-1	1,2-Dichlorobenzene	4.9	11		U
106-46-7	1,4-Dichlorobenzene	4.5	22		U
110-57-6	trans-1,4-Dichloro-2-butene	27	89		U
75-34-3	1,1-Dichloroethane	4.9	11		U
107-06-2	1,2-Dichloroethane	5.8	22		U
75-35-4	1,1-Dichloroethene	5.8	22		U
156-59-2	cis-1,2-Dichloroethene	6.3	22		U
156-60-5	trans-1,2-Dichloroethene	6.7	22		U
78-87-5	1,2-Dichloropropane	4.9	11		U
10061-01-5	cis-1,3-Dichloropropene	3.6	11		U
10061-02-6	trans-1,3-Dichloropropene	5.4	11		U
100-41-4	Ethylbenzene	16	45		U
591-78-6	2-Hexanone	8.0	22		U
74-88-4	Iodomethane	5.4	11		U
75-09-2	Methylene chloride	10	22	72	
108-10-1	4-Methyl-2-pentanone	16	45		U
100-42-5	Styrene	4.0	11		U
630-20-6	1,1,1,2-Tetrachloroethane	6.7	22		U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	22		U
127-18-4	Tetrachloroethene	4.5	11	7.5	J
108-88-3	Toluene	7.2	22		U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-05 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-10

Sample wt/vol: 6.0 (g/mL) G Lab File ID: 0108610D

Level: (low/med) MED Date Sampled: 01/15/08 09:40

% Moisture: not dec. 8 Date Analyzed: 01/28/08 18:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	5.4	11		U
79-00-5-----	1,1,2-Trichloroethane	4.5	11		U
79-01-6-----	Trichloroethene	10	22		U
75-69-4-----	Trichlorofluoromethane	5.4	11		U
96-18-4-----	1,2,3-Trichloropropane	6.3	22		U
108-05-4-----	Vinyl acetate	22	45		U
75-01-4-----	Vinyl chloride	8.9	22		U
1330-20-7-----	Xylene (total)	21	45		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-07 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-11

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 108611B

Level: (low/med) LOW Date Sampled: 01/17/08 15:10

% Moisture: not dec. 19 Date Analyzed: 01/23/08 15:14

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
67-64-1	Acetone	1.0	26	32
107-13-1	Acrylonitrile	0.73	13	U
71-43-2	Benzene	0.24	2.6	U
74-97-5	Bromochloromethane	0.22	5.2	U
75-27-4	Bromodichloromethane	0.16	2.6	U
75-25-2	Bromoform	0.52	2.6	U
74-83-9	Bromomethane	0.38	5.2	U
78-93-3	2-Butanone	0.73	26	4.1 J
75-15-0	Carbon disulfide	0.68	2.6	U
56-23-5	Carbon tetrachloride	0.46	2.6	U
108-90-7	Chlorobenzene	0.18	2.6	U
75-00-3	Chloroethane	0.57	5.2	U
67-66-3	Chloroform	0.29	2.6	U
74-87-3	Chloromethane	0.27	5.2	U
124-48-1	Dibromochloromethane	0.18	2.6	U
96-12-8	1,2-Dibromo-3-chloropropane	0.62	5.2	U
106-93-4	1,2-Dibromoethane	0.22	2.6	U
74-95-3	Dibromomethane	0.21	2.6	U
95-50-1	1,2-Dichlorobenzene	0.19	2.6	U
106-46-7	1,4-Dichlorobenzene	0.29	2.6	U
110-57-6	trans-1,4-Dichloro-2-butene	4.2	13	U
75-34-3	1,1-Dichloroethane	0.28	2.6	U
107-06-2	1,2-Dichloroethane	0.24	2.6	U
75-35-4	1,1-Dichloroethene	0.62	2.6	U
156-59-2	cis-1,2-Dichloroethene	0.62	2.6	U
156-60-5	trans-1,2-Dichloroethene	0.57	2.6	U
78-87-5	1,2-Dichloropropane	0.24	2.6	U
10061-01-5	cis-1,3-Dichloropropene	0.26	2.6	U
10061-02-6	trans-1,3-Dichloropropene	0.17	2.6	U
100-41-4	Ethylbenzene	0.39	2.6	U
591-78-6	2-Hexanone	1.2	13	U
74-88-4	Iodomethane	0.43	13	U
75-09-2	Methylene chloride	0.32	5.2	U
108-10-1	4-Methyl-2-pentanone	0.30	13	U
100-42-5	Styrene	0.18	2.6	U
630-20-6	1,1,1,2-Tetrachloroethane	0.17	2.6	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	2.6	U
127-18-4	Tetrachloroethene	0.50	2.6	U
108-88-3	Toluene	0.45	2.6	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-07 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-11

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 108611B

Level: (low/med) LOW Date Sampled: 01/17/08 15:10

% Moisture: not dec. 19 Date Analyzed: 01/23/08 15:14

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane _____	0.47	2.6		U
79-00-5-----	1,1,2-Trichloroethane _____	0.18	2.6		U
79-01-6-----	Trichloroethene _____	0.44	2.6		U
75-69-4-----	Trichlorofluoromethane _____	0.49	5.2		U
96-18-4-----	1,2,3-Trichloropropane _____	0.36	2.6		U
108-05-4-----	Vinyl acetate _____	0.29	13		U
75-01-4-----	Vinyl chloride _____	0.57	5.2		U
1330-20-7-----	Xylene (total) _____	0.36	2.6		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-08 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-12

Sample wt/vol: 8.7 (g/mL) G Lab File ID: 108612B

Level: (low/med) LOW Date Sampled: 01/15/08 13:45

% Moisture: not dec. 27 Date Analyzed: 01/23/08 15:52

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
67-64-1-----	Acetone	1.6	40	18	J
107-13-1-----	Acrylonitrile	1.1	20		U
71-43-2-----	Benzene	0.37	4.0	0.51	J
74-97-5-----	Bromochloromethane	0.33	7.9		U
75-27-4-----	Bromodichloromethane	0.24	4.0		U
75-25-2-----	Bromoform	0.79	4.0		U
74-83-9-----	Bromomethane	0.57	7.9		U
78-93-3-----	2-Butanone	1.1	40		U
75-15-0-----	Carbon disulfide	1.0	4.0		U
56-23-5-----	Carbon tetrachloride	0.70	4.0		U
108-90-7-----	Chlorobenzene	0.27	4.0		U
75-00-3-----	Chloroethane	0.87	7.9		U
67-66-3-----	Chloroform	0.44	4.0		U
74-87-3-----	Chloromethane	0.41	7.9		U
124-48-1-----	Dibromochloromethane	0.27	4.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.95	7.9		U
106-93-4-----	1,2-Dibromoethane	0.34	4.0		U
74-95-3-----	Dibromomethane	0.32	4.0		U
95-50-1-----	1,2-Dichlorobenzene	0.29	4.0		U
106-46-7-----	1,4-Dichlorobenzene	0.44	4.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	6.3	20		U
75-34-3-----	1,1-Dichloroethane	0.43	4.0		U
107-06-2-----	1,2-Dichloroethane	0.36	4.0		U
75-35-4-----	1,1-Dichloroethene	0.95	4.0		U
156-59-2-----	cis-1,2-Dichloroethene	0.95	4.0		U
156-60-5-----	trans-1,2-Dichloroethene	0.87	4.0		U
78-87-5-----	1,2-Dichloropropane	0.36	4.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.40	4.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.25	4.0		U
100-41-4-----	Ethylbenzene	0.59	4.0		U
591-78-6-----	2-Hexanone	1.8	20		U
74-88-4-----	Iodomethane	0.66	20		U
75-09-2-----	Methylene chloride	0.49	7.9		U
108-10-1-----	4-Methyl-2-pentanone	0.46	20		U
100-42-5-----	Styrene	0.28	4.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.25	4.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.34	4.0		U
127-18-4-----	Tetrachloroethene	0.77	4.0		U
108-88-3-----	Toluene	0.68	4.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-08 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-12

Sample wt/vol: 8.7 (g/mL) G Lab File ID: 108612B

Level: (low/med) LOW Date Sampled: 01/15/08 13:45

% Moisture: not dec. 27 Date Analyzed: 01/23/08 15:52

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.71	4.0		U
79-00-5-----	1,1,2-Trichloroethane	0.28	4.0		U
79-01-6-----	Trichloroethene	0.67	4.0		U
75-69-4-----	Trichlorofluoromethane	0.75	7.9		U
96-18-4-----	1,2,3-Trichloropropane	0.56	4.0		U
108-05-4-----	Vinyl acetate	0.44	20		U
75-01-4-----	Vinyl chloride	0.87	7.9		U
1330-20-7-----	Xylene (total)	0.56	4.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-08 ASHDL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-12DL

Sample wt/vol: 7.0 (g/mL) G Lab File ID: 0108612D

Level: (low/med) MED Date Sampled: 01/17/08 13:25

% Moisture: not dec. 27 Date Analyzed: 02/05/08 17:52

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	83	200		UD
107-13-1-----	Acrylonitrile	40	98		UD
71-43-2-----	Benzene	5.9	12		UD
74-97-5-----	Bromochloromethane	7.4	24		UD
75-27-4-----	Bromodichloromethane	5.9	12		UD
75-25-2-----	Bromoform	6.4	24		UD
74-83-9-----	Bromomethane	6.4	24		UD
78-93-3-----	2-Butanone	71	200		UD
75-15-0-----	Carbon disulfide	7.4	24		UD
56-23-5-----	Carbon tetrachloride	5.4	12		UD
108-90-7-----	Chlorobenzene	4.9	12		UD
75-00-3-----	Chloroethane	6.9	24		UD
67-66-3-----	Chloroform	6.4	24		UD
74-87-3-----	Chloromethane	14	49	26	JBD
124-48-1-----	Dibromochloromethane	6.9	24		UD
96-12-8-----	1,2-Dibromo-3-chloropropane	4.4	12		UD
106-93-4-----	1,2-Dibromoethane	6.9	24		UD
74-95-3-----	Dibromomethane	6.9	24		UD
95-50-1-----	1,2-Dichlorobenzene	5.4	12		UD
106-46-7-----	1,4-Dichlorobenzene	4.9	24		UD
110-57-6-----	trans-1,4-Dichloro-2-butene	29	98		UD
75-34-3-----	1,1-Dichloroethane	5.4	12		UD
107-06-2-----	1,2-Dichloroethane	6.4	24		UD
75-35-4-----	1,1-Dichloroethene	6.4	24		UD
156-59-2-----	cis-1,2-Dichloroethene	6.9	24		UD
156-60-5-----	trans-1,2-Dichloroethene	7.4	24		UD
78-87-5-----	1,2-Dichloropropane	5.4	12		UD
10061-01-5----	cis-1,3-Dichloropropene	3.9	12		UD
10061-02-6----	trans-1,3-Dichloropropene	5.9	12		UD
100-41-4-----	Ethylbenzene	17	49		UD
591-78-6-----	2-Hexanone	8.8	24		UD
74-88-4-----	Iodomethane	5.9	12		UD
75-09-2-----	Methylene chloride	11	24		UD
108-10-1-----	4-Methyl-2-pentanone	17	49		UD
100-42-5-----	Styrene	4.4	12		UD
630-20-6-----	1,1,1,2-Tetrachloroethane	7.4	24		UD
79-34-5-----	1,1,2,2-Tetrachloroethane	6.4	24		UD
127-18-4-----	Tetrachloroethene	4.9	12		UD
108-88-3-----	Toluene	7.8	24		UD

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-08 ASHDL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: 0801086-12DL

Sample wt/vol: 7.0 (g/mL) G Lab File ID: 0108612D

Level: (low/med) MED Date Sampled: 01/17/08 13:25

% Moisture: not dec. 27 Date Analyzed: 02/05/08 17:52

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
71-55-6-----	1,1,1-Trichloroethane	5.9	12	UD
79-00-5-----	1,1,2-Trichloroethane	4.9	12	UD
79-01-6-----	Trichloroethene	11	24	UD
75-69-4-----	Trichlorofluoromethane	5.9	12	UD
96-18-4-----	1,2,3-Trichloropropane	6.9	24	UD
108-05-4-----	Vinyl acetate	24	49	UD
75-01-4-----	Vinyl chloride	9.8	24	UD
1330-20-7----	Xylene (total)	23	49	UD

FORM I VOA

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	V1BLK0118LCS	93	96	102	96	0
02	V1BLK0118	94	87	103	97	0
03	DPT-02 ASH	106	104	120	88	0
04	DPT-03 ASH	99	99	102	102	0
05	V1BLK0118LCS	96	97	93	97	0
06	V1BLK0123LCS	95	91	100	95	0
07	V1BLK0123	94	93	104	96	0
08	DPT-02 SOIL	98	102	101	97	0
09	DPT-03 SOIL	100	101	101	97	0
10	DPT-05 SOIL	102	98	105	87	0
11	DPT-08 SOIL	111	82	89	108	0
12	DPT-07 ASH	103	96	128*	72*	2
13	DPT-08 ASH	112	107	134*	68*	2
14	V1BLK0123LCS	95	92	101	98	0
15						
16						
17						
18						
19						
20						
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22						
23						
24						
25						
26						
27						
28						
29						
30						

	EL	SPIKE
	QC LIMITS	CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	30
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	30
SMC3 (TOL) = Toluene-d8	(80-120)	30
SMC4 (BFB) = Bromofluorobenzene	(80-125)	30

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Level: (low/med) MED

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	V3MBLK0128LC	99	99	99	99	0
02	V3MBLK0128	99	102	102	105	0
03	DPT-07 SOIL	100	103	102	105	0
04	DPT-05 ASH	100	101	102	104	0
05						
06						
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11						
12						
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28						
29						
30						

	EL QC LIMITS	SPIKE CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	1500
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	1500
SMC3 (TOL) = Toluene-d8	(80-120)	1500
SMC4 (BFB) = Bromofluorobenzene	(80-125)	1500

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Level: (low/med) MED

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V3MBLK0205LC	103	100	94	95	0
02	V3MBLK0205	102	102	98	99	0
03	DPT-08 ASHDL	101	101	97	99	0
04						
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		EL	SPIKE
		QC LIMITS	CONC (ug/Kg)
SMC1	(DFM) = Dibromofluoromethane	(80-125)	1500
SMC2	(DCE) = 1,2-Dichloroethane-d4	(75-140)	1500
SMC3	(TOL) = Toluene-d8	(80-120)	1500
SMC4	(BFB) = Bromofluorobenzene	(80-125)	1500

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V1BLK0118 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	0.0000	70.90	71	20-160
Acrylonitrile	250.0	0.0000	223.7	89	35-180
Benzene	50.00	0.0000	47.74	95	75-125
Bromochloromethane	50.00	0.0000	42.28	84	70-125
Bromodichloromethane	50.00	0.0000	44.70	89	70-130
Bromoform	50.00	0.0000	46.38	93	55-135
Bromomethane	50.00	0.0000	35.36	71	30-160
2-Butanone	100.0	0.0000	159.6	160	30-160
Carbon disulfide	50.00	0.0000	62.36	125	45-160
Carbon tetrachloride	50.00	0.0000	43.52	87	65-135
Chlorobenzene	50.00	0.0000	47.03	94	75-125
Chloroethane	50.00	0.0000	50.81	102	40-155
Chloroform	50.00	0.0000	44.01	88	70-125
Chloromethane	50.00	0.0000	57.39	115	50-130
Dibromochloromethane	50.00	0.0000	46.21	92	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	43.86	88	40-135
1,2-Dibromoethane	50.00	0.0000	44.25	88	70-125
Dibromomethane	50.00	0.0000	44.30	89	75-130
1,2-Dichlorobenzene	50.00	0.0000	46.30	93	75-120
1,4-Dichlorobenzene	50.00	0.0000	47.44	95	70-125
1,1-Dichloroethane	50.00	0.0000	48.41	97	75-125
1,2-Dichloroethane	50.00	0.0000	40.59	81	70-125
1,1-Dichloroethene	50.00	0.0000	46.37	93	65-135
cis-1,2-Dichloroethene	50.00	0.0000	45.93	92	65-125
trans-1,2-Dichloroethen	50.00	0.0000	46.15	92	65-135
1,2-Dichloropropane	50.00	0.0000	49.31	99	70-120
cis-1,3-Dichloropropene	50.00	0.0000	48.65	97	70-125
trans-1,3-Dichloroprope	50.00	0.0000	48.77	98	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V1BLK0118 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	46.87	94	75-125
2-Hexanone	100.0	0.0000	86.04	86	45-145
Iodomethane	50.00	0.0000	51.73	103	55-165
Methylene chloride	50.00	0.0000	45.95	92	55-140
4-Methyl-2-pentanone	100.0	0.0000	97.98	98	45-145
Styrene	50.00	0.0000	46.40	93	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	45.16	90	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	53.28	106	55-130
Tetrachloroethene	50.00	0.0000	52.08	104	65-140
Toluene	50.00	0.0000	49.00	98	70-125
1,1,1-Trichloroethane	50.00	0.0000	42.73	85	70-135
1,1,2-Trichloroethane	50.00	0.0000	47.00	94	60-125
Trichloroethene	50.00	0.0000	47.76	96	75-125
Trichlorofluoromethane	50.00	0.0000	45.89	92	25-185
1,2,3-Trichloropropane	50.00	0.0000	44.23	88	65-130
Vinyl acetate	100.0	0.0000	95.26	95	50-135
Vinyl chloride	50.00	0.0000	49.77	100	60-125
Xylene (total)	150.0	0.0000	135.0	90	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V1BLK0118 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	68.00	68	4	50	20-160
Acrylonitrile	250.0	232.8	93	4	50	35-180
Benzene	50.00	48.56	97	2	50	75-125
Bromochloromethane	50.00	45.20	90	7	50	70-125
Bromodichloromethane	50.00	46.40	93	4	50	70-130
Bromoform	50.00	46.00	92	1	50	55-135
Bromomethane	50.00	35.89	72	1	50	30-160
2-Butanone	100.0	145.3	145	9	50	30-160
Carbon disulfide	50.00	59.71	119	4	50	45-160
Carbon tetrachloride	50.00	46.14	92	6	50	65-135
Chlorobenzene	50.00	47.69	95	1	50	75-125
Chloroethane	50.00	60.86	122	18	50	40-155
Chloroform	50.00	46.21	92	5	50	70-125
Chloromethane	50.00	71.25	142*	22	50	50-130
Dibromochloromethane	50.00	45.63	91	1	50	65-130
1,2-Dibromo-3-chloropro	50.00	43.59	87	1	50	40-135
1,2-Dibromoethane	50.00	44.79	90	1	50	70-125
Dibromomethane	50.00	45.59	91	3	50	75-130
1,2-Dichlorobenzene	50.00	45.56	91	2	50	75-120
1,4-Dichlorobenzene	50.00	42.74	85	10	50	70-125
1,1-Dichloroethane	50.00	49.37	99	2	50	75-125
1,2-Dichloroethane	50.00	42.46	85	4	50	70-125
1,1-Dichloroethene	50.00	51.04	102	10	50	65-135
cis-1,2-Dichloroethene	50.00	46.77	94	2	50	65-125
trans-1,2-Dichloroethen	50.00	46.40	93	0	50	65-135
1,2-Dichloropropane	50.00	49.98	100	1	50	70-120
cis-1,3-Dichloropropene	50.00	48.33	97	1	50	70-125
trans-1,3-Dichloroprope	50.00	43.45	87	12	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V1BLK0118 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	48.10	96	2	50	75-125
2-Hexanone	100.0	77.48	77	10	50	45-145
Iodomethane	50.00	55.82	112	8	50	55-165
Methylene chloride	50.00	50.06	100	8	50	55-140
4-Methyl-2-pentanone	100.0	95.89	96	2	50	45-145
Styrene	50.00	48.00	96	3	50	75-125
1,1,1,2-Tetrachloroetha	50.00	45.58	91	1	50	75-125
1,1,2,2-Tetrachloroetha	50.00	50.48	101	5	50	55-130
Tetrachloroethene	50.00	61.39	123	16	50	65-140
Toluene	50.00	45.16	90	8	50	70-125
1,1,1-Trichloroethane	50.00	44.66	89	4	50	70-135
1,1,2-Trichloroethane	50.00	42.05	84	11	50	60-125
Trichloroethene	50.00	49.75	100	4	50	75-125
Trichlorofluoromethane	50.00	51.19	102	11	50	25-185
1,2,3-Trichloropropane	50.00	43.21	86	2	50	65-130
Vinyl acetate	100.0	80.36	80	17	50	50-135
Vinyl chloride	50.00	58.99	118	17	50	60-125
Xylene (total)	150.0	138.3	92	2	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits

Spike Recovery: 1 out of 92 outside limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086
 Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	0.0000	80.80	81	20-160
Acrylonitrile	250.0	0.0000	238.6	95	35-180
Benzene	50.00	0.0000	48.40	97	75-125
Bromochloromethane	50.00	0.0000	44.21	88	70-125
Bromodichloromethane	50.00	0.0000	45.44	91	70-130
Bromoform	50.00	0.0000	47.20	94	55-135
Bromomethane	50.00	0.0000	37.74	75	30-160
2-Butanone	100.0	0.0000	155.4	155	30-160
Carbon disulfide	50.00	0.0000	61.73	123	45-160
Carbon tetrachloride	50.00	0.0000	44.16	88	65-135
Chlorobenzene	50.00	0.0000	47.41	95	75-125
Chloroethane	50.00	0.0000	53.19	106	40-155
Chloroform	50.00	0.0000	44.84	90	70-125
Chloromethane	50.00	0.0000	61.35	123	50-130
Dibromochloromethane	50.00	0.0000	45.33	91	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	43.26	86	40-135
1,2-Dibromoethane	50.00	0.0000	44.79	90	70-125
Dibromomethane	50.00	0.0000	44.65	89	75-130
1,2-Dichlorobenzene	50.00	0.0000	45.90	92	75-120
1,4-Dichlorobenzene	50.00	0.0000	48.79	98	70-125
1,1-Dichloroethane	50.00	0.0000	50.24	100	75-125
1,2-Dichloroethane	50.00	0.0000	41.14	82	70-125
1,1-Dichloroethene	50.00	0.0000	49.66	99	65-135
cis-1,2-Dichloroethene	50.00	0.0000	46.63	93	65-125
trans-1,2-Dichloroethen	50.00	0.0000	47.40	95	65-135
1,2-Dichloropropane	50.00	0.0000	49.87	100	70-120
cis-1,3-Dichloropropene	50.00	0.0000	47.71	95	70-125
trans-1,3-Dichloroprope	50.00	0.0000	47.82	96	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086
 Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	47.36	95	75-125
2-Hexanone	100.0	0.0000	92.31	92	45-145
Iodomethane	50.00	0.0000	54.94	110	55-165
Methylene chloride	50.00	0.0000	48.22	96	55-140
4-Methyl-2-pentanone	100.0	0.0000	99.28	99	45-145
Styrene	50.00	0.0000	45.78	92	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	45.08	90	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	53.90	108	55-130
Tetrachloroethene	50.00	0.0000	51.07	102	65-140
Toluene	50.00	0.0000	49.50	99	70-125
1,1,1-Trichloroethane	50.00	0.0000	43.88	88	70-135
1,1,2-Trichloroethane	50.00	0.0000	46.44	93	60-125
Trichloroethene	50.00	0.0000	46.84	94	75-125
Trichlorofluoromethane	50.00	0.0000	48.40	97	25-185
1,2,3-Trichloropropane	50.00	0.0000	43.24	86	65-130
Vinyl acetate	100.0	0.0000	97.80	98	50-135
Vinyl chloride	50.00	0.0000	52.62	105	60-125
Xylene (total)	150.0	0.0000	137.5	92	70-120

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	70.42	70	14	50	20-160
Acrylonitrile	250.0	250.8	100	5	50	35-180
Benzene	50.00	50.03	100	3	50	75-125
Bromochloromethane	50.00	44.97	90	2	50	70-125
Bromodichloromethane	50.00	46.15	92	2	50	70-130
Bromoform	50.00	48.63	97	3	50	55-135
Bromomethane	50.00	34.94	70	8	50	30-160
2-Butanone	100.0	153.1	153	1	50	30-160
Carbon disulfide	50.00	61.64	123	0	50	45-160
Carbon tetrachloride	50.00	45.39	91	3	50	65-135
Chlorobenzene	50.00	49.26	98	4	50	75-125
Chloroethane	50.00	54.45	109	2	50	40-155
Chloroform	50.00	46.14	92	3	50	70-125
Chloromethane	50.00	62.74	125	2	50	50-130
Dibromochloromethane	50.00	48.42	97	6	50	65-130
1,2-Dibromo-3-chloropro	50.00	46.30	93	7	50	40-135
1,2-Dibromoethane	50.00	48.03	96	7	50	70-125
Dibromomethane	50.00	46.56	93	4	50	75-130
1,2-Dichlorobenzene	50.00	45.91	92	0	50	75-120
1,4-Dichlorobenzene	50.00	48.05	96	2	50	70-125
1,1-Dichloroethane	50.00	51.14	102	2	50	75-125
1,2-Dichloroethane	50.00	42.77	86	4	50	70-125
1,1-Dichloroethene	50.00	49.37	99	0	50	65-135
cis-1,2-Dichloroethene	50.00	48.10	96	3	50	65-125
trans-1,2-Dichloroethen	50.00	48.49	97	2	50	65-135
1,2-Dichloropropane	50.00	51.99	104	4	50	70-120
cis-1,3-Dichloropropene	50.00	49.62	99	4	50	70-125
trans-1,3-Dichloroprope	50.00	49.52	99	3	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086
 Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	49.27	98	4	50	75-125
2-Hexanone	100.0	91.42	91	1	50	45-145
Iodomethane	50.00	57.84	116	5	50	55-165
Methylene chloride	50.00	53.50	107	10	50	55-140
4-Methyl-2-pentanone	100.0	105.8	106	6	50	45-145
Styrene	50.00	48.40	97	6	50	75-125
1,1,1,2-Tetrachloroetha	50.00	47.48	95	5	50	75-125
1,1,2,2-Tetrachloroetha	50.00	54.14	108	0	50	55-130
Tetrachloroethene	50.00	59.10	118	14	50	65-140
Toluene	50.00	51.13	102	3	50	70-125
1,1,1-Trichloroethane	50.00	44.66	89	2	50	70-135
1,1,2-Trichloroethane	50.00	49.14	98	6	50	60-125
Trichloroethene	50.00	48.34	97	3	50	75-125
Trichlorofluoromethane	50.00	49.11	98	1	50	25-185
1,2,3-Trichloropropane	50.00	46.43	93	7	50	65-130
Vinyl acetate	100.0	94.87	95	3	50	50-135
Vinyl chloride	50.00	52.61	105	0	50	60-125
Xylene (total)	150.0	141.2	94	3	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits

Spike Recovery: 0 out of 92 outside limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V3MBLK0128 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	5000	0.0000	4202	84	20-160
Acrylonitrile	12500	0.0000	13260	106	35-180
Benzene	2500	0.0000	2396	96	75-125
Bromochloromethane	2500	0.0000	2508	100	70-125
Bromodichloromethane	2500	0.0000	2557	102	70-130
Bromoform	2500	0.0000	2739	110	55-135
Bromomethane	2500	17.02	2451	97	30-160
2-Butanone	5000	0.0000	5230	105	30-160
Carbon disulfide	2500	0.0000	3050	122	45-160
Carbon tetrachloride	2500	0.0000	2540	102	65-135
Chlorobenzene	2500	0.0000	2401	96	75-125
Chloroethane	2500	0.0000	2716	109	40-155
Chloroform	2500	0.0000	2400	96	70-125
Chloromethane	2500	0.0000	2714	108	50-130
Dibromochloromethane	2500	0.0000	2752	110	65-130
1,2-Dibromo-3-chloropro	2500	0.0000	2352	94	40-135
1,2-Dibromoethane	2500	0.0000	2523	101	70-125
Dibromomethane	2500	0.0000	2504	100	75-130
1,2-Dichlorobenzene	2500	0.0000	2416	97	75-120
1,4-Dichlorobenzene	2500	0.0000	2444	98	70-125
1,1-Dichloroethane	2500	0.0000	2438	98	75-125
1,2-Dichloroethane	2500	0.0000	2471	99	70-125
1,1-Dichloroethene	2500	0.0000	2526	101	65-135
cis-1,2-Dichloroethene	2500	0.0000	2274	91	65-125
trans-1,2-Dichloroethen	2500	0.0000	2356	94	65-135
1,2-Dichloropropane	2500	0.0000	2460	98	70-120
cis-1,3-Dichloropropene	2500	0.0000	2600	104	70-125
trans-1,3-Dichloroprope	2500	0.0000	2861	114	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086
 Matrix Spike - Client Sample No.: V3MBLK0128 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	2500	0.0000	2323	93	75-125
2-Hexanone	5000	0.0000	5232	105	45-145
Iodomethane	2500	0.0000	2674	107	55-165
Methylene chloride	2500	0.0000	2569	103	55-140
4-Methyl-2-pentanone	5000	0.0000	5427	108	45-145
Styrene	2500	0.0000	2603	104	75-125
1,1,1,2-Tetrachloroetha	2500	0.0000	2466	99	75-125
1,1,2,2-Tetrachloroetha	2500	0.0000	2626	105	55-130
Tetrachloroethene	2500	0.0000	2333	93	65-140
Toluene	2500	8.614	2441	97	70-125
1,1,1-Trichloroethane	2500	0.0000	2435	97	70-135
1,1,2-Trichloroethane	2500	0.0000	2465	99	60-125
Trichloroethene	2500	0.0000	2417	97	75-125
Trichlorofluoromethane	2500	0.0000	2989	120	25-185
1,2,3-Trichloropropane	2500	0.0000	2509	100	65-130
Vinyl acetate	5000	0.0000	5234	105	50-135
Vinyl chloride	2500	0.0000	2805	112	60-125
Xylene (total)	7500	0.0000	6708	89	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 46 outside limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086
 Matrix Spike - Client Sample No.: V3MBLK0205 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	5000	0.0000	4335	87	20-160
Acrylonitrile	12500	0.0000	14160	113	35-180
Benzene	2500	0.0000	2471	99	75-125
Bromochloromethane	2500	0.0000	2630	105	70-125
Bromodichloromethane	2500	0.0000	2689	108	70-130
Bromoform	2500	0.0000	2580	103	55-135
Bromomethane	2500	0.0000	1896	76	30-160
2-Butanone	5000	0.0000	5081	102	30-160
Carbon disulfide	2500	0.0000	3114	124	45-160
Carbon tetrachloride	2500	0.0000	2575	103	65-135
Chlorobenzene	2500	0.0000	2281	91	75-125
Chloroethane	2500	0.0000	2983	119	40-155
Chloroform	2500	0.0000	2579	103	70-125
Chloromethane	2500	25.05	3276	130	50-130
Dibromochloromethane	2500	0.0000	2619	105	65-130
1,2-Dibromo-3-chloropro	2500	0.0000	2127	85	40-135
1,2-Dibromoethane	2500	0.0000	2435	97	70-125
Dibromomethane	2500	0.0000	2662	106	75-130
1,2-Dichlorobenzene	2500	0.0000	2294	92	75-120
1,4-Dichlorobenzene	2500	5.134	2297	92	70-125
1,1-Dichloroethane	2500	0.0000	2558	102	75-125
1,2-Dichloroethane	2500	0.0000	2752	110	70-125
1,1-Dichloroethene	2500	0.0000	2511	100	65-135
cis-1,2-Dichloroethene	2500	0.0000	2363	94	65-125
trans-1,2-Dichloroethen	2500	0.0000	2430	97	65-135
1,2-Dichloropropane	2500	0.0000	2529	101	70-120
cis-1,3-Dichloropropene	2500	0.0000	2555	102	70-125
trans-1,3-Dichloroprope	2500	0.0000	2722	109	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____



FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix Spike - Client Sample No.: V3MBLK0205 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	2500	0.0000	2264	90	75-125
2-Hexanone	5000	0.0000	5184	104	45-145
Iodomethane	2500	0.0000	2576	103	55-165
Methylene chloride	2500	0.0000	2702	108	55-140
4-Methyl-2-pentanone	5000	0.0000	5768	115	45-145
Styrene	2500	0.0000	2437	97	75-125
1,1,1,2-Tetrachloroetha	2500	0.0000	2377	95	75-125
1,1,2,2-Tetrachloroetha	2500	0.0000	2652	106	55-130
Tetrachloroethene	2500	0.0000	2311	92	65-140
Toluene	2500	9.272	2342	93	70-125
1,1,1-Trichloroethane	2500	0.0000	2532	101	70-135
1,1,2-Trichloroethane	2500	0.0000	2493	100	60-125
Trichloroethene	2500	0.0000	2503	100	75-125
Trichlorofluoromethane	2500	0.0000	3356	134	25-185
1,2,3-Trichloropropane	2500	0.0000	2438	98	65-130
Vinyl acetate	5000	0.0000	5702	114	50-135
Vinyl chloride	2500	0.0000	3065	123	60-125
Xylene (total)	7500	0.0000	6549	87	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 46 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0118

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Lab File ID: V1BLK01 Lab Sample ID: V1BLK0118

Date Analyzed: 01/18/08 Time Analyzed: 1206

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO. =====	LAB SAMPLE ID =====	LAB FILE ID =====	TIME ANALYZED =====
01	V1BLK0118LCS	V1BLK0118LCS	V1LCSAP9	1050
02	DPT-02 ASH	0801086-08	108608A	1555
03	DPT-03 ASH	0801086-09	108609A	1633
04	V1BLK0118LCS	V1BLK0118LCSD	V1LCSDA9	2023
05				
06				
07				
08				
09				
10				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0118

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0118

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/18/08 12:06

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: MDL	(ug/L or ug/Kg) RL CONC	UG/KG Q
67-64-1-----	Acetone	2.0	50	U
107-13-1-----	Acrylonitrile	1.4	25	U
71-43-2-----	Benzene	0.47	5.0	U
74-97-5-----	Bromochloromethane	0.42	10	U
75-27-4-----	Bromodichloromethane	0.30	5.0	U
75-25-2-----	Bromoform	1.0	5.0	U
74-83-9-----	Bromomethane	0.72	10	U
78-93-3-----	2-Butanone	1.4	50	U
75-15-0-----	Carbon disulfide	1.3	5.0	U
56-23-5-----	Carbon tetrachloride	0.88	5.0	U
108-90-7-----	Chlorobenzene	0.34	5.0	U
75-00-3-----	Chloroethane	1.1	10	U
67-66-3-----	Chloroform	0.55	5.0	U
74-87-3-----	Chloromethane	0.52	10	U
124-48-1-----	Dibromochloromethane	0.34	5.0	U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10	U
106-93-4-----	1,2-Dibromoethane	0.43	5.0	U
74-95-3-----	Dibromomethane	0.41	5.0	U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0	U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25	U
75-34-3-----	1,1-Dichloroethane	0.54	5.0	U
107-06-2-----	1,2-Dichloroethane	0.46	5.0	U
75-35-4-----	1,1-Dichloroethene	1.2	5.0	U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0	U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0	U
78-87-5-----	1,2-Dichloropropane	0.46	5.0	U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0	U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0	U
100-41-4-----	Ethylbenzene	0.75	5.0	U
591-78-6-----	2-Hexanone	2.3	25	U
74-88-4-----	Iodomethane	0.83	25	U
75-09-2-----	Methylene chloride	0.62	10	U
108-10-1-----	4-Methyl-2-pentanone	0.58	25	U
100-42-5-----	Styrene	0.35	5.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0	U
127-18-4-----	Tetrachloroethene	0.97	5.0	U
108-88-3-----	Toluene	0.86	5.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0118

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0118

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/18/08 12:06

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.90	5.0		U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0		U
79-01-6-----	Trichloroethene	0.85	5.0		U
75-69-4-----	Trichlorofluoromethane	0.95	10		U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0		U
108-05-4-----	Vinyl acetate	0.55	25		U
75-01-4-----	Vinyl chloride	1.1	10		U
1330-20-7-----	Xylene (total)	0.70	5.0		U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0123

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Lab File ID: V1BLK01 Lab Sample ID: V1BLK0123

Date Analyzed: 01/23/08 Time Analyzed: 1044

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1BLK0123LCS	V1BLK0123LCS	V1LCSAP9	0928
02	DPT-02 SOIL	0801086-01	108601A	1124
03	DPT-03 SOIL	0801086-02	108602A	1202
04	DPT-05 SOIL	0801086-03	108603A	1241
05	DPT-07 ASH	0801086-11	108611B	1514
06	DPT-08 ASH	0801086-12	108612B	1552
07	V1BLK0123LCS	V1BLK0123LCSD	V1LCSDA9	1942
08				
09				
10				
11				
12				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0123

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0123

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/23/08 10:44

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	2.0	50		U
107-13-1-----	Acrylonitrile	1.4	25		U
71-43-2-----	Benzene	0.47	5.0		U
74-97-5-----	Bromochloromethane	0.42	10		U
75-27-4-----	Bromodichloromethane	0.30	5.0		U
75-25-2-----	Bromoform	1.0	5.0		U
74-83-9-----	Bromomethane	0.72	10		U
78-93-3-----	2-Butanone	1.4	50		U
75-15-0-----	Carbon disulfide	1.3	5.0		U
56-23-5-----	Carbon tetrachloride	0.88	5.0		U
108-90-7-----	Chlorobenzene	0.34	5.0		U
75-00-3-----	Chloroethane	1.1	10		U
67-66-3-----	Chloroform	0.55	5.0		U
74-87-3-----	Chloromethane	0.52	10		U
124-48-1-----	Dibromochloromethane	0.34	5.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10		U
106-93-4-----	1,2-Dibromoethane	0.43	5.0		U
74-95-3-----	Dibromomethane	0.41	5.0		U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0		U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25		U
75-34-3-----	1,1-Dichloroethane	0.54	5.0		U
107-06-2-----	1,2-Dichloroethane	0.46	5.0		U
75-35-4-----	1,1-Dichloroethene	1.2	5.0		U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0		U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0		U
78-87-5-----	1,2-Dichloropropane	0.46	5.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0		U
100-41-4-----	Ethylbenzene	0.75	5.0		U
591-78-6-----	2-Hexanone	2.3	25		U
74-88-4-----	Iodomethane	0.83	25		U
75-09-2-----	Methylene chloride	0.62	10		U
108-10-1-----	4-Methyl-2-pentanone	0.58	25		U
100-42-5-----	Styrene	0.35	5.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0		U
127-18-4-----	Tetrachloroethene	0.97	5.0		U
108-88-3-----	Toluene	0.86	5.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0123

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0123

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/23/08 10:44

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
71-55-6-----	1,1,1-Trichloroethane	0.90	5.0	U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0	U
79-01-6-----	Trichloroethene	0.85	5.0	U
75-69-4-----	Trichlorofluoromethane	0.95	10	U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0	U
108-05-4-----	Vinyl acetate	0.55	25	U
75-01-4-----	Vinyl chloride	1.1	10	U
1330-20-7----	Xylene (total)	0.70	5.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1	Acetone	84	200		U
107-13-1	Acrylonitrile	40	100		U
71-43-2	Benzene	6.0	12		U
74-97-5	Bromochloromethane	7.5	25		U
75-27-4	Bromodichloromethane	6.0	12		U
75-25-2	Bromoform	6.5	25		U
74-83-9	Bromomethane	6.5	25	17	J
78-93-3	2-Butanone	72	200		U
75-15-0	Carbon disulfide	7.5	25		U
56-23-5	Carbon tetrachloride	5.5	12		U
108-90-7	Chlorobenzene	5.0	12		U
75-00-3	Chloroethane	7.0	25		U
67-66-3	Chloroform	6.5	25		U
74-87-3	Chloromethane	14	50		U
124-48-1	Dibromochloromethane	7.0	25		U
96-12-8	1,2-Dibromo-3-chloropropane	4.5	12		U
106-93-4	1,2-Dibromoethane	7.0	25		U
74-95-3	Dibromomethane	7.0	25		U
95-50-1	1,2-Dichlorobenzene	5.5	12		U
106-46-7	1,4-Dichlorobenzene	5.0	25		U
110-57-6	trans-1,4-Dichloro-2-butene	30	100		U
75-34-3	1,1-Dichloroethane	5.5	12		U
107-06-2	1,2-Dichloroethane	6.5	25		U
75-35-4	1,1-Dichloroethene	6.5	25		U
156-59-2	cis-1,2-Dichloroethene	7.0	25		U
156-60-5	trans-1,2-Dichloroethene	7.5	25		U
78-87-5	1,2-Dichloropropane	5.5	12		U
10061-01-5	cis-1,3-Dichloropropene	4.0	12		U
10061-02-6	trans-1,3-Dichloropropene	6.0	12		U
100-41-4	Ethylbenzene	18	50		U
591-78-6	2-Hexanone	9.0	25		U
74-88-4	Iodomethane	6.0	12		U
75-09-2	Methylene chloride	12	25		U
108-10-1	4-Methyl-2-pentanone	18	50		U
100-42-5	Styrene	4.5	12		U
630-20-6	1,1,1,2-Tetrachloroethane	7.5	25		U
79-34-5	1,1,2,2-Tetrachloroethane	6.5	25		U
127-18-4	Tetrachloroethene	5.0	12		U
108-88-3	Toluene	8.0	25	8.6	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		UG/KG Q
		MDL	RL CONC	
71-55-6-----	1,1,1-Trichloroethane	6.0	12	U
79-00-5-----	1,1,2-Trichloroethane	5.0	12	U
79-01-6-----	Trichloroethene	12	25	U
75-69-4-----	Trichlorofluoromethane	6.0	12	U
96-18-4-----	1,2,3-Trichloropropane	7.0	25	U
108-05-4-----	Vinyl acetate	25	50	U
75-01-4-----	Vinyl chloride	10	25	U
1330-20-7-----	Xylene (total)	24	50	U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V3MBLK0205

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Lab File ID: V3MBLK01 Lab Sample ID: V3MBLK0205

Date Analyzed: 02/05/08 Time Analyzed: 1522

Column: RTX-VRX ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V3MBLK0205LC	V3MBLK0205LCS	V3LCSAP9	1325
02	DPT-08 ASHDL	0801086-12DL	0108612D	1752
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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14				
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17				
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22				
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26				
27				
28				
29				
30				

COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0205

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01086

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0205

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 02/05/08 15:22

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		UG/KG Q
		MDL	RL CONC	
71-55-6-----	1,1,1-Trichloroethane	6.0	12	U
79-00-5-----	1,1,2-Trichloroethane	5.0	12	U
79-01-6-----	Trichloroethene	12	25	U
75-69-4-----	Trichlorofluoromethane	6.0	12	U
96-18-4-----	1,2,3-Trichloropropane	7.0	25	U
108-05-4-----	Vinyl acetate	25	50	U
75-01-4-----	Vinyl chloride	10	25	U
1330-20-7-----	Xylene (total)	24	50	U

FORM I VOA

**ANALYTICAL REPORT
MAIN DATA PACKAGE - INORGANIC**

CH2M HILL, Inc.

WO #0801108

EMPIRICAL LABORATORIES, LLC

A handwritten signature in black ink, appearing to read 'Marcia K. McGinnity', with a long horizontal flourish extending to the right.

**Marcia K. McGinnity
Senior Project Manager**

FEBRUARY 7, 2008

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WO# 0801108

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INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801108
January, 2008

Empirical Laboratories ID	Client ID
0801108-01	DPT-09 ASH
0801108-02	DPT-09 SOIL
0801108-03	DPT-12 ASH
0801108-04	DPT-12 SOIL
0801108-05	DPT-10 ASH
0801108-06	DPT-10 SOIL
0801108-07	DPT-11 ASH
0801108-08	DPT-11 SOIL
0801108-09	DPT-13 ASH (0-4)
0801108-10	DPT-13 ASH (7-13)
0801108-11	DPT-13 SOIL
0801108-12	DPT-14 ASH
0801108-13	DPT-14 SOIL
0801108-14	DPT-15 ASH
0801108-15	DPT-15 SOIL

I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.


Betty DeVille
Inorganic Lab Manager

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

US EPA SW846

- Method 6010B was used to analyze ICAP metals using a TJA 61E Trace ICAP after digestion

INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801108
January, 2008

by method 3050B.

- Method 7471A was used to digest and analyze mercury using a FIMs Mercury analyzer.

Note: A "U" on the forms indicates that the analyte is reported down to the ILMO4.2 CRDL for ICAP metals. The "B" flag indicates that the analyte result is between the CRDL and the laboratory MDL. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

IV. PREPARATION

USEPA SW846 method 3005A was used to digest ICAP metals. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

V. ANALYSIS

- A. Calibration:** All calibration criteria were met with the following exception: The third through the fifth CCV in the first ICAP analysis was out of the specification limits of 90 to 110% for beryllium at 115.9, 122.2 and 122.7%. All samples in this SDG were impacted. All sample concentrations may be biased high. The highest concentration for beryllium in the samples is 0.84 mg/kg and the PRG concentration is 120 mg/kg.
- B. Blanks:** All blank criteria were met with the following exception: The preparation blank for lead was out of the specification limits for lead at 0.098 mg/kg. All sample concentrations were greater than ten times the concentration of the blank. There is no impact to the sample data.
- C. Spikes:** All matrix spikes quality control criteria were met.
- D. Duplicates:** All duplicate quality control criteria were met.
- E. Samples:** All sample analysis proceeded normally.
- F. Laboratory Control Samples:** All percent recovery quality control criteria were met.

CH2M Hill, Inc.

Parameters Requested

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801108-01	DPT-09 ASH	Soil	01/17/08 2:35:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-02	DPT-09 SOIL	Soil	01/16/08 8:45:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-03	DPT-12 ASH	Soil	01/17/08 9:45:00 AM	% Solids Antimony Arsenic Barium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801108-03	DPT-12 ASH	Soil	01/17/08 9:45:00 AM	Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-04	DPT-12 SOIL	Soil	01/16/08 9:45:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-05	DPT-10 ASH	Soil	01/17/08 10:15:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801108-05	DPT-10 ASH	Soil	01/17/08 10:15:00 AM	Vanadium Zinc
0801108-06	DPT-10 SOIL	Soil	01/16/08 10:20:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-07	DPT-11 ASH	Soil	01/17/08 8:45:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-08	DPT-11 SOIL	Soil	01/17/08 8:45:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801108-08	DPT-11 SOIL	Soil	01/17/08 8:45:00 AM	Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-09	DPT-13 ASH (0-4)	Soil	01/17/08 12:15:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-10	DPT-13 ASH (7-13)	Soil	01/17/08 12:15:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801108-11	DPT-13 SOIL	Soil	01/17/08 12:15:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-12	DPT-14 ASH	Soil	01/17/08 3:50:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-13	DPT-14 SOIL	Soil	01/17/08 3:50:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801108-13	DPT-14 SOIL	Soil	01/17/08 3:50:00 PM	Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-14	DPT-15 ASH	Soil	01/17/08 4:20:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801108-15	DPT-15 SOIL	Soil	01/17/08 4:20:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43734

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to:		Send Invoice to:		Analysis Requirements:						Lab Use Only:			
Name <u>Mark Sherril</u>		Name <u>Same</u>		Appl Metals 60108 Appl VOC 82608						VOA Headspace	Y	N	<u>NA</u>
Company <u>CH2MHILL</u>		Company _____								Field Filtered	Y	<u>N</u>	NA
Address <u>1000 Abernathy Rd</u>		Address _____								Correct Containers	<u>Y</u>	N	NA
City <u>Suite 1600 Atlanta</u>		City _____								Discrepancies	Y	<u>N</u>	NA
State, Zip <u>GA, 30328</u>		State, Zip _____								Cust. Seals Intact	<u>Y</u>	N	NA
Phone <u>(770) 604-9182</u>		Phone _____		Containers Intact	<u>Y</u>	N	NA						
Fax <u>(770) 604-9183</u>		Fax _____		Airbill #: _____				CAR #: _____					
E-mail <u>MSherril@CH2M.COM</u>		E-mail _____											
Project No./Name: <u>363742 01.02</u>				Sampler's (Signature): <u>[Signature]</u>									

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix							Comments	No. of Bottles	Lab Use Only Containers/Pres.	
0801108 -01	1/16/08 0845	DPT-09 ASH	S	3								3	35
-02	↓	DPT-09 SOIL	S	1								1	1M
-03	0845	DPT-12 ASH		3								3	35
-04	↓	DPT-12 SOIL		1								1	1M
-05	1020	DPT-10 ASH		3								3	35
-06	↓	DPT-10 SOIL		1								1	1M
-07	1/17/08 0845	DPT-11 ASH		1	3							4	35, 1M
-08	↓	DPT-11 SOIL		1	3							4	35, 1M
-03	0845	DPT-12 ASH		1								1	1M
-04	↓	DPT-12 SOIL		3								3	35
-05	105	DPT-10 ASH		1								1	1M
-06	↓	DPT-10 SOIL		3								3	35

Sample Kit Prep'd by: (Signature) <u>[Signature]</u>		Date/Time	Received By: (Signature)		REMARKS:	Details:	
Relinquished by: (Signature) <u>[Signature]</u>		Date/Time <u>1/17/08 1900</u>	Received By: (Signature)			Page <u>1</u> of <u>3</u>	
Relinquished by: (Signature)		Date/Time	Received By: (Signature)			Cooler No. <u>1</u> of <u>1</u>	
Received for Laboratory by: (Signature) <u>[Signature]</u>		Date/Time <u>1-18-08</u>	Temperature	<u>4.4°C</u>		Date Shipped <u>1/17/08</u>	
					Shipped By <u>AT</u>	Turnaround <u>STD</u>	

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43733

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to:	Send Invoice to:	Analysis Requirements:	Lab Use Only:
Name <u>See Sheet 1</u>	Name _____	App 1 Metals 6010B App 1 VOC 8260B	VOA Headspace Y N <u>NA</u>
Company _____	Company _____		Field Filtered Y <u>N</u> NA
Address _____	Address _____		Correct Containers <u>Y</u> N NA
City _____	City _____		Discrepancies Y <u>N</u> NA
State, Zip _____	State, Zip _____		Cust. Seals Intact <u>Y</u> N NA
Phone _____	Phone _____		Containers Intact <u>Y</u> N NA
Fax _____	Fax _____	Airbill #: _____	
E-mail _____	E-mail _____	CAR #: _____	
Project No./Name:	Sampler's (Signature):		

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	77
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EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801108, 0801086 COC ID(s): 43734

Client CH2M Hill Project Ft. Rucker

Sample Custodian E.J. Overby Today's Date 1-18-08

Date/Time Samples Received 1-18-08 9:00

Airbill Number FX

Cooler Opened: Date 1-18-08

Chain of custody seal intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Chain of custody provided?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Sample labels present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Bottle labels correspond w/COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-17-08

Type of coolant used Ice

Coolant condition : Melted _____ Partially melted/frozen
Frozen _____

of Coolers 1 Temp. of Coolers 4.4°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

Samples in this shipment were added to WO# 0801086.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-09 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Lab Sample ID: 0801108-01

Level (low/med): LOW Date Received: 01/18/08

% Solids: 78.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.79	B		P
7440-38-2	Arsenic	21.9			P
7440-39-3	Barium	124			P
7440-41-7	Beryllium	0.74			P
7440-43-9	Cadmium	1.1			P
7440-47-3	Chromium	23.4			P
7439-92-1	Lead	70.4			P
7439-97-6	Mercury	0.17			AV
7440-02-0	Nickel	14.2			P
7782-49-2	Selenium	0.27	B		P
7440-22-4	Silver	0.065	U		P
7440-28-0	Thallium	0.20	U		P
7440-62-2	Vanadium	32.1			P
7440-66-6	Zinc	117			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

_____

Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-09 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-02
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 85.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.30	U		P
7440-38-2	Arsenic	2.5			P
7440-39-3	Barium	4.0	B		P
7440-41-7	Beryllium	0.75			P
7440-43-9	Cadmium	2.2			P
7440-47-3	Chromium	10.8			P
7439-92-1	Lead	4.2			P
7439-97-6	Mercury	0.015	U		AV
7440-02-0	Nickel	12.3			P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.060	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	29.1			P
7440-66-6	Zinc	52.3			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-12 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-03
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 79.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.33	U		P
7440-38-2	Arsenic	4.3			P
7440-39-3	Barium	94.4			P
7440-41-7	Beryllium	0.60			P
7440-43-9	Cadmium	0.30	B		P
7440-47-3	Chromium	12.0			P
7439-92-1	Lead	19.7			P
7439-97-6	Mercury	0.079			AV
7440-02-0	Nickel	8.1			P
7782-49-2	Selenium	0.65			P
7440-22-4	Silver	0.066	U		P
7440-28-0	Thallium	0.20	U		P
7440-62-2	Vanadium	21.3			P
7440-66-6	Zinc	30.7			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-12 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-04
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 89.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.27	U		P
7440-38-2	Arsenic	2.3			P
7440-39-3	Barium	29.9			P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.42			P
7440-47-3	Chromium	13.1			P
7439-92-1	Lead	5.9			P
7439-97-6	Mercury	0.014	U		AV
7440-02-0	Nickel	4.6			P
7782-49-2	Selenium	0.16	U		P
7440-22-4	Silver	0.055	U		P
7440-28-0	Thallium	0.16	U		P
7440-62-2	Vanadium	25.7			P
7440-66-6	Zinc	16.2			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-10 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-05
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	5.0			P
7440-39-3	Barium	44.1			P
7440-41-7	Beryllium	0.29			P
7440-43-9	Cadmium	0.55			P
7440-47-3	Chromium	16.4			P
7439-92-1	Lead	14.3			P
7439-97-6	Mercury	0.025	B		AV
7440-02-0	Nickel	5.8			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	32.0			P
7440-66-6	Zinc	22.2			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-10 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-06
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	6.0			P
7440-39-3	Barium	33.2			P
7440-41-7	Beryllium	0.46			P
7440-43-9	Cadmium	0.63			P
7440-47-3	Chromium	25.8			P
7439-92-1	Lead	10.2			P
7439-97-6	Mercury	0.046			AV
7440-02-0	Nickel	6.9			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	50.2			P
7440-66-6	Zinc	13.7			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-11 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-07
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 80.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	8.1			P
7440-39-3	Barium	129			P
7440-41-7	Beryllium	0.84			P
7440-43-9	Cadmium	0.61			P
7440-47-3	Chromium	20.6			P
7439-92-1	Lead	42.9			P
7439-97-6	Mercury	0.22			AV
7440-02-0	Nickel	11.4			P
7782-49-2	Selenium	0.49			P
7440-22-4	Silver	0.061	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	41.0			P
7440-66-6	Zinc	44.4			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-11 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-08
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.28	U		P
7440-38-2	Arsenic	4.3			P
7440-39-3	Barium	18.4			P
7440-41-7	Beryllium	0.18	B		P
7440-43-9	Cadmium	0.53			P
7440-47-3	Chromium	22.2			P
7439-92-1	Lead	7.4			P
7439-97-6	Mercury	0.015	U		AV
7440-02-0	Nickel	4.1			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.057	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	49.5			P
7440-66-6	Zinc	9.0			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-13 ASH (0-4)

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Lab Sample ID: 0801108-09

Level (low/med): LOW Date Received: 01/18/08

% Solids: 92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.28	U		P
7440-38-2	Arsenic	3.9			P
7440-39-3	Barium	36.1			P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.68			P
7440-47-3	Chromium	18.5			P
7439-92-1	Lead	19.5			P
7439-97-6	Mercury	0.056			AV
7440-02-0	Nickel	5.2			P
7782-49-2	Selenium	0.18	B		P
7440-22-4	Silver	0.055	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	34.0			P
7440-66-6	Zinc	71.0			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-13 ASH (7-13)

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Lab Sample ID: 0801108-10

Level (low/med): LOW Date Received: 01/18/08

% Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.30	U		P
7440-38-2	Arsenic	6.9			P
7440-39-3	Barium	24.3			P
7440-41-7	Beryllium	0.13	B		P
7440-43-9	Cadmium	1.4			P
7440-47-3	Chromium	25.6			P
7439-92-1	Lead	76.6			P
7439-97-6	Mercury	1.2			AV
7440-02-0	Nickel	6.1			P
7782-49-2	Selenium	0.21	B		P
7440-22-4	Silver	0.089	B		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	47.4			P
7440-66-6	Zinc	42.2			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

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Empirical Laboratories

Form I - IN

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USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-13 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-11
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 89.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	4.2			P
7440-39-3	Barium	12.5			P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	0.92			P
7440-47-3	Chromium	26.6			P
7439-92-1	Lead	6.0			P
7439-97-6	Mercury	0.019	B		AV
7440-02-0	Nickel	3.7			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	49.8			P
7440-66-6	Zinc	8.7			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-14 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Lab Sample ID: 0801108-12

Level (low/med): LOW Date Received: 01/18/08

% Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.30	U		P
7440-38-2	Arsenic	5.9			P
7440-39-3	Barium	124			P
7440-41-7	Beryllium	0.58			P
7440-43-9	Cadmium	0.60			P
7440-47-3	Chromium	14.6			P
7439-92-1	Lead	36.4			P
7439-97-6	Mercury	0.080			AV
7440-02-0	Nickel	8.3			P
7782-49-2	Selenium	0.37			P
7440-22-4	Silver	0.059	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	36.0			P
7440-66-6	Zinc	43.8			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

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USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-14 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108
 Matrix (soil/water): SOIL Lab Sample ID: 0801108-13
 Level (low/med): LOW Date Received: 01/18/08
 % Solids: 89.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.57	U		P
7440-38-2	Arsenic	6.1			P
7440-39-3	Barium	12.1			P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.12	U		P
7440-47-3	Chromium	44.1			P
7439-92-1	Lead	9.0			P
7439-97-6	Mercury	0.015	U		AV
7440-02-0	Nickel	4.5	B		P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.057	U		P
7440-28-0	Thallium	0.34	U		P
7440-62-2	Vanadium	77.8			P
7440-66-6	Zinc	9.6			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-15 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Lab Sample ID: 0801108-14

Level (low/med): LOW Date Received: 01/18/08

% Solids: 85.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.28	U		P
7440-38-2	Arsenic	4.9			P
7440-39-3	Barium	43.3			P
7440-41-7	Beryllium	0.35			P
7440-43-9	Cadmium	0.84			P
7440-47-3	Chromium	24.1			P
7439-92-1	Lead	9.9			P
7439-97-6	Mercury	0.057			AV
7440-02-0	Nickel	6.7			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.056	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	43.6			P
7440-66-6	Zinc	13.4			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

_____

Empirical Laboratories

Form I - IN

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USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-15 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Lab Sample ID: 0801108-15

Level (low/med): LOW Date Received: 01/18/08

% Solids: 84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.58	U		P
7440-38-2	Arsenic	8.6			P
7440-39-3	Barium	30.2			P
7440-41-7	Beryllium	0.40			P
7440-43-9	Cadmium	0.12	U		P
7440-47-3	Chromium	41.3			P
7439-92-1	Lead	13.9			P
7439-97-6	Mercury	0.064			AV
7440-02-0	Nickel	10.0			P
7782-49-2	Selenium	0.43	B		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.35	U		P
7440-62-2	Vanadium	79.4			P
7440-66-6	Zinc	15.6			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

Form I - IN

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USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Barium	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.100	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	0.050	U	P
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	0.100	U	P
Lead	1.5	U	1.5	U	1.5	U	1.5	U	0.098	B	P
Mercury	0.080	U	0.080	U	0.080	U	0.080	U	0.013	U	AV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	0.050	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	0.260	B	P

USEPA - CLP

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BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank		M	
			1	C	2	C	3	C	C			
Antimony			5.0	U	5.0	U				-0.277	B	P
Arsenic			3.0	U	3.0	U				0.150	U	P
Barium			5.0	U	5.0	U				0.250	U	P
Beryllium			2.0	U	2.0	U				0.100	U	P
Cadmium			1.0	U	1.0	U				0.050	U	P
Chromium			2.0	U	2.0	U				0.100	U	P
Lead			1.5	U	1.5	U				0.075	U	P
Nickel			5.0	U	5.0	U				0.250	U	P
Selenium			3.0	U	3.0	U				0.150	U	P
Silver			1.0	U	1.0	U				0.050	U	P
Thallium			3.0	U	3.0	U				0.150	U	P
Vanadium			5.0	U	5.0	U				0.250	U	P
Zinc			5.0	U	5.0	U				0.416	B	P

USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	5.0	U	5.0	U	5.0	U	5.0	U			P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U			P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U			P
Lead	1.5	U	1.5	U	1.5	U	1.5	U			P
Mercury	0.080	U	0.080	U					0.013	U	AV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U			P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U			P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U			P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U			P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U			P

USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-11 SOILS

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108Matrix (soil/water): SOIL Level (low/med): LOW% Solids for Sample: 88.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	13.8389	0.2827 U	14.35	96.4		P
Arsenic	75 - 125	18.2151	4.2993	14.35	97.0		P
Barium	75 - 125	136.5445	18.3618	114.78	103.0		P
Beryllium	75 - 125	3.5738	0.1789 B	2.87	118.3		P
Cadmium	75 - 125	7.9217	0.5334	7.17	103.0		P
Chromium	75 - 125	34.1446	22.2461	11.48	103.6		P
Lead	75 - 125	22.1939	7.3754	14.35	103.3		P
Nickel	75 - 125	32.7442	4.1369	28.70	99.7		P
Selenium	75 - 125	14.1437	0.1696 U	14.35	98.6		P
Silver	75 - 125	16.7669	0.0565 U	14.35	116.8		P
Thallium	75 - 125	13.2496	0.1696 U	14.35	92.3		P
Vanadium	75 - 125	79.7103	49.5023	28.70	105.3		P
Zinc	75 - 125	39.4310	9.0365	28.70	105.9		P

Comments:



Empirical Laboratories

Form V (PART 1) - IN

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USEPA - CLP

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DUPLICATES

SAMPLE NO.

DPT-11 SOILD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 88.0 % Solids for Duplicate: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)		Duplicate (D)		RPD	Q	M
			C		C			
Antimony		0.2827	U	0.2944	U			P
Arsenic		4.2993		4.4643		3.8		P
Barium	11.3	18.3618		19.5221		6.1		P
Beryllium		0.1789	B	0.1926	B	7.4		P
Cadmium	0.3	0.5334		0.6494		19.6		P
Chromium		22.2461		22.9608		3.2		P
Lead		7.3754		7.7951		5.5		P
Nickel	2.3	4.1369		4.9679		18.3		P
Selenium		0.1696	U	0.1766	U			P
Silver		0.0565	U	0.0589	U			P
Thallium		0.1696	U	0.1766	U			P
Vanadium		49.5023		51.2590		3.5		P
Zinc		9.0365		10.3860		13.9		P

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Solid LCS Source: HighPurity

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Antimony				12.5	12.0		10.0 | 15.0	96.0
Arsenic				12.5	12.1		10.0 | 15.0	96.8
Barium				100.0	105.8		80.0 | 120.0	105.8
Beryllium				2.5	2.8		2.0 | 3.0	112.0
Cadmium				6.3	6.3		5.0 | 7.5	100.0
Chromium				10.0	10.5		8.0 | 12.0	105.0
Lead				12.5	12.7		10.0 | 15.0	101.6
Mercury				0.33	0.28		0.3 | 0.4	84.8
Nickel				25.0	25.6		20.0 | 30.0	102.4
Selenium				12.5	11.9		10.0 | 15.0	95.2
Silver				12.5	13.5		10.0 | 15.0	108.0
Thallium				12.5	11.9		10.0 | 15.0	95.2
Vanadium				25.0	26.5		20.0 | 30.0	106.0
Zinc				25.0	27.4		20.0 | 30.0	109.6

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108Solid LCS Source: HighPurity

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Antimony				12.5	11.5		10.0 | 15.0	92.0
Arsenic				12.5	11.6		10.0 | 15.0	92.8
Barium				100.0	101.2		80.0 | 120.0	101.2
Beryllium				2.5	3.0		2.0 | 3.0	120.0
Cadmium				6.3	6.1		5.0 | 7.5	96.8
Chromium				10.0	10.5		8.0 | 12.0	105.0
Lead				12.5	12.6		10.0 | 15.0	100.8
Nickel				25.0	25.2		20.0 | 30.0	100.8
Selenium				12.5	12.0		10.0 | 15.0	96.0
Silver				12.5	14.2		10.0 | 15.0	113.6
Thallium				12.5	11.7		10.0 | 15.0	93.6
Vanadium				25.0	26.1		20.0 | 30.0	104.4
Zinc				25.0	27.8		20.0 | 30.0	111.2

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801108

Solid LCS Source: HighPurity

Aqueous LCS Source: _____


Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Mercury				0.33	0.29		0.3 | 0.4	87.9

ANALYTICAL REPORT
MAIN DATA PACKAGE – VOLATILES

CH2M Hill, Inc.

WO #0801108

Empirical Laboratories, LLC



Marcia K. McGinnity
Senior Project Manager

FEBRUARY 7, 2008

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WO #0801108

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ORGANIC CASE NARRATIVE - VOLATILES
CH2M Hill, Inc. - Ft. Rucker
Work order: 0801108

Sampled	Received	Lab ID	Client ID
17-Jan-2008	18-Jan-2008	0801108-01	DPT-09 ASH
16-Jan-2008	18-Jan-2008	0801108-02	DPT-09 SOIL
17-Jan-2008	18-Jan-2008	0801108-03	DPT-12 ASH
16-Jan-2008	18-Jan-2008	0801108-04	DPT-12 SOIL
17-Jan-2008	18-Jan-2008	0801108-05	DPT-10 ASH
16-Jan-2008	18-Jan-2008	0801108-06	DPT-10 SOIL
17-Jan-2008	18-Jan-2008	0801108-07	DPT-11 ASH
17-Jan-2008	18-Jan-2008	0801108-08	DPT-11 SOIL
17-Jan-2008	18-Jan-2008	0801108-09	DPT-13 ASH (0-4)
17-Jan-2008	18-Jan-2008	0801108-10	DPT-13 ASH (7-13)
17-Jan-2008	18-Jan-2008	0801108-11	DPT-13 SOIL
17-Jan-2008	18-Jan-2008	0801108-12	DPT-14 ASH
17-Jan-2008	18-Jan-2008	0801108-13	DPT-14 SOIL
17-Jan-2008	18-Jan-2008	0801108-14	DPT-15 ASH
17-Jan-2008	18-Jan-2008	0801108-15	DPT-15 SOIL

Method: The samples were extracted/analyzed for client specified analyte lists by USEPA SW-846 Methods 5035/8260B (terracore field sampling then purge and trap followed by capillary column GC/MS) for soils upon receipt to the laboratory in satisfactory condition.

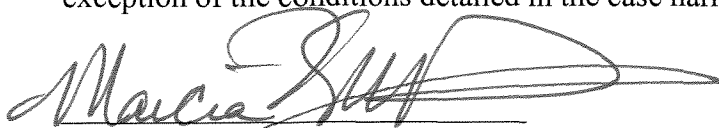
Comments: The analyses for these samples were satisfactorily completed within sample holding times and met the corresponding specifications with the following notes/exceptions:

- Sample weights: Terracore containers were shipped with sample weights between 5 and 15 grams. The standard laboratory cutoff for analysis weight on low-level vials is 8 grams. However, arrangements were made for low-level analysis despite the high sample weights. Internal standard area count issues were monitored and any with less than 30% relative to the continuing calibration area counts were analyzed from the methanol extract. All analyses were performed to provide the lowest quantitation limits possible.
- Analyte List: All samples were reported for the appendix I analyte list specified in the statement of work.
- BFB Tuning: All method tuning criteria were met. Analyses of spike samples V1BLK0123LCSD, V1BLK0123ELCSD and V1BLK0124LCSD were started 12 hours 6 minutes, 12 hours 29 minutes and 12 hours 27 minutes, respectively, after the associated BFB tuning standard.
- Calibration Criteria: All method calibration criteria were met.
- Method Blank Results: Positive results for acetone, bromomethane and/or toluene were detected in methanol blanks V1BLK0124 and V3MBLK0128. Reported concentrations in the associated samples are qualified with a "B".
- Surrogate Recoveries: All recoveries were within limits with the exception of toluene-d8 with a positive bias and bromofluorobenzene with a negative bias in the low-level analysis of

sample DPT-12 ASH. This is attributed to the sample weight and decreased internal standard area counts as discussed below.

- LCS(/LCSD) results: Chloromethane and 2-butanone exceeded the upper recovery limits in spike samples V1BLK0123LCS/LCSD, V1BLK0123ELCS/LCSD and V1BLK0124LCS/LCSD. All other recoveries (and relative percent differences) were within limits.
- MS/MSD results: Not applicable.
- Internal Standard Area Counts: Due to the sample weight, area counts for DCB were less than 50% of that found in the associated continuing calibration verification (CCV) for samples DPT-09 ASH (48.9%) and DPT-12 ASH (32.8%). A list of internal standard associations is attached for reference.
- Dilutions: Due to extremely poor low-level analyses on samples DPT-10 ASH and DPT-14 ASH, these samples were reported from the methanol extract, only.

I certify that, to the best of my knowledge and based upon my inquiry of those individuals immediately responsible for obtaining the information, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.



Marcia K. McGinnity
Senior Project Manager

ANALYTICAL REPORT TERMS AND QUALIFIERS (ORGANIC)

- MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.
- EQL:** The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.
- U:** The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.
- B:** The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The data pass the identification criteria indicating that the compound is present, but the calculated result is less than the EQL.

INTERNAL STANDARD ASSOCIATION / QUANT ION TABLE

COMPOUND	QUANT MASS	* I.S.	COMPOUND	QUANT MASS	* I.S.
*Fluorobenzene (1)	96		Dibromomethane	93	1
*Chlorobenzene-d5 (2)	117		1,1,2-Trichloroethane	83	2
*1,4-Dichlorobenzene-d4 (3)	152		1,2,3-Trichloropropane	110	2
Bromomethane	94	1	Hexachlorobutadiene	225	3
Chloroethane	64	1	Isopropylbenzene	105	2
Vinyl chloride	62	1	Isopropyltoluene	119	3
Chloromethane	50	1	Methylene Chloride	84	1
Dichlorodifluoromethane	85	1	Naphthalene	128	3
Acetonitrile	41	1	Propionitrile	54	1
Allyl chloride	41	1	n-Propylbenzene	91	3
Trichlorofluoromethane	101	1	Styrene	104	2
Benzene	78	1	1,1,1,2-Tetrachloroethane	131	2
Bromobenzene	156	3	1,1,2,2-Tetrachloroethane	83	3
Bromochloromethane	128	1	Tetrachloroethene	166	2
Bromodichloromethane	83	2	Toluene	92	2
Bromoform	173	2	1,2,3-Trichlorobenzene	180	3
n-Butylbenzene	91	3	1,2,4-Trichlorobenzene	180	3
sec-Butylbenzene	105	3	1,2,4-Trimethylbenzene	105	3
tert-butylbenzene	119	3	1,3,5-Trimethylbenzene	105	3
Carbon tetrachloride	117	1	m-Xylene	91	2
Chlorobenzene	112	2	p-Xylene	91	2
Chloroform	83	1	o-Xylene	91	2
Chloroprene	53	1	Acrolein	56	1
2-Chlorotoluene	91	3	Acrylonitrile	53	1
4-Chlorotoluene	91	3	Tetrahydrofuran	42	1
Dibromochloromethane	129	2	MTBE	73	1
1,2-Dibromo-3-chloropropane	157	3	Methacrylonitrile	41	1
1,2-Dibromoethane	107	2	Methyl methacrylate	41	1
1,2-Dichlorobenzene	146	3	Ethyl methacrylate	69	2
1,3-Dichlorobenzene	146	3	1,1,2-Trichlorotrifluoroethane	101	1
1,4-Dichlorobenzene	146	3	Cyclohexane	56	1
1,1-Dichloroethane	63	1	Methylcyclohexane	83	1
1,2-Dichloroethane	62	1	Methyl acetate	43	1
1,1-Dichloroethene	96	1	Carbon disulfide	76	1
cis-1,2-Dichloroethene	96	1	Iodomethane	142	1
trans-1,2-Dichloroethene	96	1	Vinyl acetate	43	1
trans-1,4-Dichloro-2-butene	53	3	2-Chloroethyl vinyl ether	63	1
1,2-Dichloropropane	63	1	Acetone	43	1
1,3-Dichloropropane	76	2	2-butanone	43	1
2,2-Dichloropropane	77	1	2-hexanone	43	2
1,1-Dichloropropene	75	1	Isobutyl alcohol	43	1
cis-1,3-Dichloropropene	75	1	1,4-Dioxane	88	1
trans-1,3-Dichloropropene	75	2	4-methyl-2-pentanone	43	1
Ethylbenzene	91	2	Dibromofluoromethane (S)	111	1
1,1,1-Trichloroethane	97	1	1,2-Dichloroethane-d4 (S)	102	1
Trichloroethene	95	1	Toluene-d8 (S)	98	2
			Bromofluorobenzene (S)	95	2

*I.S.=internal Standard.

S=surrogate.

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43735

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Empirical Laboratories, LLC

Send Results to: Name <u>See Sheet 1</u> Company _____ Address _____ City _____ State, Zip _____ Phone _____ Fax _____ E-mail _____	Send Invoice to: Name _____ Company _____ Address _____ City _____ State, Zip _____ Phone _____ Fax _____ E-mail _____	Analysis Requirements: App 1 Metals 6010B App 1 VOC 8260B	Lab Use Only: VOA Headspace Y N <u>NA</u> Field Filtered Y <u>N</u> NA Correct Containers <u>Y</u> N NA Discrepancies Y <u>N</u> NA Cust. Seals Intact <u>Y</u> N NA Containers Intact <u>Y</u> N NA Airbill #: _____ CAR #: _____	
Project No./Name: _____		Sampler's (Signature): _____		

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix														Comments	No. of Bottles	Lab Use Only Containers/Pres.	
0801086-04	1/17/08 1510	DPT-07 SOIL	S	3															3	3J
↓ -08	↓ 1530	DPT-02 ASH		1															1	1M
↓ -01	↓	DPT-02 SOIL		3															3	3J
0801108-12	1550	DPT-14 ASH		1	3														4	3J, 1M
↓ -13	↓	DPT-14 SOIL		1	3														4	↓
↓ -14	↓ 1620	DPT-15 ASH		1	3														4	↓
↓ -15	↓	DPT-15 SOIL		1	3														4	↓

Sample Kit Prep'd by: (Signature) <u>[Signature]</u>	Date/Time	Received By: (Signature)	REMARKS:	Details:
Relinquished by: (Signature) <u>[Signature]</u>	Date/Time	Received By: (Signature)		Page <u>3</u> of <u>3</u>
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. <u>1</u> of <u>1</u>
Received for Laboratory by: (Signature) <u>[Signature]</u>	Date/Time	Temperature		Date Shipped <u>1/17/08</u>
	<u>1-18-08</u>	<u>9:00</u> <u>4.4°C</u>		Shipped By <u>AT</u>
				Turnaround <u>STD</u>

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

00007

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801108, 0801086 COC ID(s): 43734

Client CH2m Hill Project Ft. Rucker

Sample Custodian E.J. Overby Today's Date 1-18-08

Date/Time Samples Received 1-18-08 9:00

Airbill Number FX

Cooler Opened: Date 1-18-08

Chain of custody seal intact? Yes No

Chain of custody provided? Yes No

Sample labels present? Yes No

Bottle labels correspond w/COC Yes No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-17-08

Type of coolant used Ice

Coolant condition : Melted Partially melted/frozen
Frozen

of Coolers 1 Temp. of Coolers 4.4°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

Samples in this shipment were added to WO# 0801086.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-09 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-01

Sample wt/vol: 7.5 (g/mL) G Lab File ID: 110801A

Level: (low/med) LOW Date Sampled: 01/17/08 14:35

% Moisture: not dec. 22 Date Analyzed: 01/23/08 16:31

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
67-64-1	Acetone	1.7	43	14	J
107-13-1	Acrylonitrile	1.2	21		U
71-43-2	Benzene	0.40	4.3		U
74-97-5	Bromochloromethane	0.36	8.5		U
75-27-4	Bromodichloromethane	0.26	4.3		U
75-25-2	Bromoform	0.85	4.3		U
74-83-9	Bromomethane	0.61	8.5		U
78-93-3	2-Butanone	1.2	43		U
75-15-0	Carbon disulfide	1.1	4.3		U
56-23-5	Carbon tetrachloride	0.75	4.3		U
108-90-7	Chlorobenzene	0.29	4.3		U
75-00-3	Chloroethane	0.94	8.5		U
67-66-3	Chloroform	0.47	4.3		U
74-87-3	Chloromethane	0.44	8.5		U
124-48-1	Dibromochloromethane	0.29	4.3		U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	8.5		U
106-93-4	1,2-Dibromoethane	0.37	4.3		U
74-95-3	Dibromomethane	0.35	4.3		U
95-50-1	1,2-Dichlorobenzene	0.32	4.3		U
106-46-7	1,4-Dichlorobenzene	0.47	4.3		U
110-57-6	trans-1,4-Dichloro-2-butene	6.8	21		U
75-34-3	1,1-Dichloroethane	0.46	4.3		U
107-06-2	1,2-Dichloroethane	0.39	4.3		U
75-35-4	1,1-Dichloroethene	1.0	4.3		U
156-59-2	cis-1,2-Dichloroethene	1.0	4.3		U
156-60-5	trans-1,2-Dichloroethene	0.94	4.3		U
78-87-5	1,2-Dichloropropane	0.39	4.3		U
10061-01-5	cis-1,3-Dichloropropene	0.43	4.3		U
10061-02-6	trans-1,3-Dichloropropene	0.27	4.3		U
100-41-4	Ethylbenzene	0.64	4.3		U
591-78-6	2-Hexanone	2.0	21		U
74-88-4	Iodomethane	0.71	21		U
75-09-2	Methylene chloride	0.53	8.5		U
108-10-1	4-Methyl-2-pentanone	0.49	21		U
100-42-5	Styrene	0.30	4.3		U
630-20-6	1,1,1,2-Tetrachloroethane	0.27	4.3		U
79-34-5	1,1,2,2-Tetrachloroethane	0.37	4.3		U
127-18-4	Tetrachloroethene	0.83	4.3		U
108-88-3	Toluene	0.73	4.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-09 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-01

Sample wt/vol: 7.5 (g/mL) G Lab File ID: 110801A

Level: (low/med) LOW Date Sampled: 01/17/08 14:35

% Moisture: not dec. 22 Date Analyzed: 01/23/08 16:31

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
71-55-6-----	1,1,1-Trichloroethane	0.77	4.3		U
79-00-5-----	1,1,2-Trichloroethane	0.30	4.3		U
79-01-6-----	Trichloroethene	0.72	4.3		U
75-69-4-----	Trichlorofluoromethane	0.81	8.5		U
96-18-4-----	1,2,3-Trichloropropane	0.60	4.3		U
108-05-4-----	Vinyl acetate	0.47	21		U
75-01-4-----	Vinyl chloride	0.94	8.5		U
1330-20-7-----	Xylene (total)	0.60	4.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-09 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-02

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 110802B

Level: (low/med) LOW Date Sampled: 01/16/08 08:45

% Moisture: not dec. 15 Date Analyzed: 01/23/08 17:09

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	0.99	25	4.0	J
107-13-1-----	Acrylonitrile	0.69	12		U
71-43-2-----	Benzene	0.23	2.5		U
74-97-5-----	Bromochloromethane	0.21	5.0		U
75-27-4-----	Bromodichloromethane	0.15	2.5		U
75-25-2-----	Bromoform	0.50	2.5		U
74-83-9-----	Bromomethane	0.36	5.0		U
78-93-3-----	2-Butanone	0.69	25	0.86	J
75-15-0-----	Carbon disulfide	0.64	2.5		U
56-23-5-----	Carbon tetrachloride	0.44	2.5		U
108-90-7-----	Chlorobenzene	0.17	2.5		U
75-00-3-----	Chloroethane	0.55	5.0		U
67-66-3-----	Chloroform	0.27	2.5		U
74-87-3-----	Chloromethane	0.26	5.0		U
124-48-1-----	Dibromochloromethane	0.17	2.5		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.60	5.0		U
106-93-4-----	1,2-Dibromoethane	0.21	2.5		U
74-95-3-----	Dibromomethane	0.20	2.5		U
95-50-1-----	1,2-Dichlorobenzene	0.18	2.5		U
106-46-7-----	1,4-Dichlorobenzene	0.27	2.5		U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.0	12		U
75-34-3-----	1,1-Dichloroethane	0.27	2.5		U
107-06-2-----	1,2-Dichloroethane	0.23	2.5		U
75-35-4-----	1,1-Dichloroethene	0.60	2.5		U
156-59-2-----	cis-1,2-Dichloroethene	0.60	2.5		U
156-60-5-----	trans-1,2-Dichloroethene	0.55	2.5		U
78-87-5-----	1,2-Dichloropropane	0.23	2.5		U
10061-01-5----	cis-1,3-Dichloropropene	0.25	2.5		U
10061-02-6----	trans-1,3-Dichloropropene	0.16	2.5		U
100-41-4-----	Ethylbenzene	0.37	2.5		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.41	12		U
75-09-2-----	Methylene chloride	0.31	5.0		U
108-10-1-----	4-Methyl-2-pentanone	0.29	12		U
100-42-5-----	Styrene	0.17	2.5		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.16	2.5		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.21	2.5		U
127-18-4-----	Tetrachloroethene	0.48	2.5		U
108-88-3-----	Toluene	0.43	2.5		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-09 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-02

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 110802B

Level: (low/med) LOW Date Sampled: 01/16/08 08:45

% Moisture: not dec. 15 Date Analyzed: 01/23/08 17:09

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL CONC	UG/KG Q
71-55-6-----	1,1,1-Trichloroethane	0.45	2.5	U
79-00-5-----	1,1,2-Trichloroethane	0.17	2.5	U
79-01-6-----	Trichloroethene	0.42	2.5	U
75-69-4-----	Trichlorofluoromethane	0.47	5.0	U
96-18-4-----	1,2,3-Trichloropropane	0.35	2.5	U
108-05-4-----	Vinyl acetate	0.27	12	U
75-01-4-----	Vinyl chloride	0.55	5.0	U
1330-20-7-----	Xylene (total)	0.35	2.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-12 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-03

Sample wt/vol: 11.3 (g/mL) G Lab File ID: 110803A

Level: (low/med) LOW Date Sampled: 01/16/08 09:45

% Moisture: not dec. 21 Date Analyzed: 01/23/08 17:47

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL	UG/KG CONC Q
67-64-1-----	Acetone	1.1	28	19 J
107-13-1-----	Acrylonitrile	0.78	14	U
71-43-2-----	Benzene	0.26	2.8	U
74-97-5-----	Bromochloromethane	0.23	5.6	U
75-27-4-----	Bromodichloromethane	0.17	2.8	U
75-25-2-----	Bromoform	0.56	2.8	U
74-83-9-----	Bromomethane	0.40	5.6	U
78-93-3-----	2-Butanone	0.78	28	2.1 J
75-15-0-----	Carbon disulfide	0.73	2.8	U
56-23-5-----	Carbon tetrachloride	0.49	2.8	U
108-90-7-----	Chlorobenzene	0.19	2.8	U
75-00-3-----	Chloroethane	0.61	5.6	U
67-66-3-----	Chloroform	0.31	2.8	U
74-87-3-----	Chloromethane	0.29	5.6	U
124-48-1-----	Dibromochloromethane	0.19	2.8	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.67	5.6	U
106-93-4-----	1,2-Dibromoethane	0.24	2.8	U
74-95-3-----	Dibromomethane	0.23	2.8	U
95-50-1-----	1,2-Dichlorobenzene	0.21	2.8	U
106-46-7-----	1,4-Dichlorobenzene	0.31	2.8	U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.5	14	U
75-34-3-----	1,1-Dichloroethane	0.30	2.8	U
107-06-2-----	1,2-Dichloroethane	0.26	2.8	U
75-35-4-----	1,1-Dichloroethene	0.67	2.8	U
156-59-2-----	cis-1,2-Dichloroethene	0.67	2.8	U
156-60-5-----	trans-1,2-Dichloroethene	0.61	2.8	U
78-87-5-----	1,2-Dichloropropane	0.26	2.8	U
10061-01-5----	cis-1,3-Dichloropropene	0.28	2.8	U
10061-02-6----	trans-1,3-Dichloropropene	0.18	2.8	U
100-41-4-----	Ethylbenzene	0.42	2.8	U
591-78-6-----	2-Hexanone	1.3	14	U
74-88-4-----	Iodomethane	0.46	14	U
75-09-2-----	Methylene chloride	0.35	5.6	U
108-10-1-----	4-Methyl-2-pentanone	0.32	14	U
100-42-5-----	Styrene	0.20	2.8	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.18	2.8	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.24	2.8	U
127-18-4-----	Tetrachloroethene	0.54	2.8	U
108-88-3-----	Toluene	0.48	2.8	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-12 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-03

Sample wt/vol: 11.3 (g/mL) G Lab File ID: 110803A

Level: (low/med) LOW Date Sampled: 01/16/08 09:45

% Moisture: not dec. 21 Date Analyzed: 01/23/08 17:47

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
71-55-6-----	1,1,1-Trichloroethane	0.50	2.8	U
79-00-5-----	1,1,2-Trichloroethane	0.20	2.8	U
79-01-6-----	Trichloroethene	0.48	2.8	U
75-69-4-----	Trichlorofluoromethane	0.53	5.6	U
96-18-4-----	1,2,3-Trichloropropane	0.39	2.8	U
108-05-4-----	Vinyl acetate	0.31	14	U
75-01-4-----	Vinyl chloride	0.61	5.6	U
1330-20-7-----	Xylene (total)	0.39	2.8	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-12 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-04

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 110804B

Level: (low/med) LOW Date Sampled: 01/17/08 09:45

% Moisture: not dec. 11 Date Analyzed: 01/23/08 18:25

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	0.98	24	3.3	J
107-13-1-----	Acrylonitrile	0.68	12		U
71-43-2-----	Benzene	0.23	2.4		U
74-97-5-----	Bromochloromethane	0.20	4.9		U
75-27-4-----	Bromodichloromethane	0.15	2.4		U
75-25-2-----	Bromoform	0.49	2.4		U
74-83-9-----	Bromomethane	0.35	4.9		U
78-93-3-----	2-Butanone	0.68	24		U
75-15-0-----	Carbon disulfide	0.63	2.4		U
56-23-5-----	Carbon tetrachloride	0.43	2.4		U
108-90-7-----	Chlorobenzene	0.16	2.4		U
75-00-3-----	Chloroethane	0.54	4.9		U
67-66-3-----	Chloroform	0.27	2.4		U
74-87-3-----	Chloromethane	0.25	4.9		U
124-48-1-----	Dibromochloromethane	0.16	2.4		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.58	4.9		U
106-93-4-----	1,2-Dibromoethane	0.21	2.4		U
74-95-3-----	Dibromomethane	0.20	2.4		U
95-50-1-----	1,2-Dichlorobenzene	0.18	2.4		U
106-46-7-----	1,4-Dichlorobenzene	0.27	2.4		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.9	12		U
75-34-3-----	1,1-Dichloroethane	0.26	2.4		U
107-06-2-----	1,2-Dichloroethane	0.22	2.4		U
75-35-4-----	1,1-Dichloroethene	0.58	2.4		U
156-59-2-----	cis-1,2-Dichloroethene	0.58	2.4		U
156-60-5-----	trans-1,2-Dichloroethene	0.54	2.4		U
78-87-5-----	1,2-Dichloropropane	0.22	2.4		U
10061-01-5----	cis-1,3-Dichloropropene	0.24	2.4		U
10061-02-6----	trans-1,3-Dichloropropene	0.16	2.4		U
100-41-4-----	Ethylbenzene	0.36	2.4		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.40	12		U
75-09-2-----	Methylene chloride	0.30	4.9		U
108-10-1-----	4-Methyl-2-pentanone	0.28	12		U
100-42-5-----	Styrene	0.17	2.4		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.16	2.4		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.21	2.4		U
127-18-4-----	Tetrachloroethene	0.47	2.4		U
108-88-3-----	Toluene	0.42	2.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-12 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-04

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 110804B

Level: (low/med) LOW Date Sampled: 01/17/08 09:45

% Moisture: not dec. 11 Date Analyzed: 01/23/08 18:25

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG CONC	UG/KG Q
		MDL	(ug/L or ug/Kg) RL		
71-55-6-----	1,1,1-Trichloroethane	0.44	2.4		U
79-00-5-----	1,1,2-Trichloroethane	0.17	2.4		U
79-01-6-----	Trichloroethene	0.41	2.4		U
75-69-4-----	Trichlorofluoromethane	0.46	4.9		U
96-18-4-----	1,2,3-Trichloropropane	0.34	2.4		U
108-05-4-----	Vinyl acetate	0.27	12		U
75-01-4-----	Vinyl chloride	0.54	4.9		U
1330-20-7-----	Xylene (total)	0.34	2.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-10 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-05

Sample wt/vol: 13.6 (g/mL) G Lab File ID: 0110805D

Level: (low/med) MED Date Sampled: 01/16/08 10:20

% Moisture: not dec. 12 Date Analyzed: 01/28/08 19:00

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1-----	Acetone	35	84	61	J
107-13-1-----	Acrylonitrile	17	42		U
71-43-2-----	Benzene	2.5	5.2		U
74-97-5-----	Bromochloromethane	3.1	10		U
75-27-4-----	Bromodichloromethane	2.5	5.2		U
75-25-2-----	Bromoform	2.7	10		U
74-83-9-----	Bromomethane	2.7	10		U
78-93-3-----	2-Butanone	30	84		U
75-15-0-----	Carbon disulfide	3.1	10		U
56-23-5-----	Carbon tetrachloride	2.3	5.2		U
108-90-7-----	Chlorobenzene	2.1	5.2		U
75-00-3-----	Chloroethane	2.9	10		U
67-66-3-----	Chloroform	2.7	10		U
74-87-3-----	Chloromethane	5.8	21		U
124-48-1-----	Dibromochloromethane	2.9	10		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.9	5.2		U
106-93-4-----	1,2-Dibromoethane	2.9	10		U
74-95-3-----	Dibromomethane	2.9	10		U
95-50-1-----	1,2-Dichlorobenzene	2.3	5.2		U
106-46-7-----	1,4-Dichlorobenzene	2.1	10		U
110-57-6-----	trans-1,4-Dichloro-2-butene	12	42		U
75-34-3-----	1,1-Dichloroethane	2.3	5.2		U
107-06-2-----	1,2-Dichloroethane	2.7	10		U
75-35-4-----	1,1-Dichloroethene	2.7	10		U
156-59-2-----	cis-1,2-Dichloroethene	2.9	10		U
156-60-5-----	trans-1,2-Dichloroethene	3.1	10		U
78-87-5-----	1,2-Dichloropropane	2.3	5.2		U
10061-01-5----	cis-1,3-Dichloropropene	1.7	5.2		U
10061-02-6----	trans-1,3-Dichloropropene	2.5	5.2		U
100-41-4-----	Ethylbenzene	7.3	21		U
591-78-6-----	2-Hexanone	3.8	10		U
74-88-4-----	Iodomethane	2.5	5.2		U
75-09-2-----	Methylene chloride	4.8	10	100	U
108-10-1-----	4-Methyl-2-pentanone	7.3	21		U
100-42-5-----	Styrene	1.9	5.2		U
630-20-6-----	1,1,1,2-Tetrachloroethane	3.1	10		U
79-34-5-----	1,1,2,2-Tetrachloroethane	2.7	10		U
127-18-4-----	Tetrachloroethene	2.1	5.2		U
108-88-3-----	Toluene	3.3	10		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-10 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-05

Sample wt/vol: 13.6 (g/mL) G Lab File ID: 0110805D

Level: (low/med) MED Date Sampled: 01/16/08 10:20

% Moisture: not dec. 12 Date Analyzed: 01/28/08 19:00

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	2.5	5.2		U
79-00-5-----	1,1,2-Trichloroethane	2.1	5.2		U
79-01-6-----	Trichloroethene	4.8	10		U
75-69-4-----	Trichlorofluoromethane	2.5	5.2		U
96-18-4-----	1,2,3-Trichloropropane	2.9	10		U
108-05-4-----	Vinyl acetate	10	21		U
75-01-4-----	Vinyl chloride	4.2	10		U
1330-20-7-----	Xylene (total)	9.8	21		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-10 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-06

Sample wt/vol: 13.5 (g/mL) G Lab File ID: 110806A

Level: (low/med) LOW Date Sampled: 01/17/08 10:15

% Moisture: not dec. 12 Date Analyzed: 01/23/08 23:59

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			Q
		MDL	(ug/L or ug/Kg) RL	UG/KG CONC	
67-64-1	Acetone	0.85	21	17	J
107-13-1	Acrylonitrile	0.59	10		U
71-43-2	Benzene	0.20	2.1		U
74-97-5	Bromochloromethane	0.18	4.2		U
75-27-4	Bromodichloromethane	0.13	2.1		U
75-25-2	Bromoform	0.42	2.1		U
74-83-9	Bromomethane	0.30	4.2		U
78-93-3	2-Butanone	0.59	21	1.8	J
75-15-0	Carbon disulfide	0.55	2.1		U
56-23-5	Carbon tetrachloride	0.37	2.1		U
108-90-7	Chlorobenzene	0.14	2.1		U
75-00-3	Chloroethane	0.47	4.2		U
67-66-3	Chloroform	0.23	2.1		U
74-87-3	Chloromethane	0.22	4.2		U
124-48-1	Dibromochloromethane	0.14	2.1		U
96-12-8	1,2-Dibromo-3-chloropropane	0.51	4.2		U
106-93-4	1,2-Dibromoethane	0.18	2.1		U
74-95-3	Dibromomethane	0.17	2.1		U
95-50-1	1,2-Dichlorobenzene	0.16	2.1		U
106-46-7	1,4-Dichlorobenzene	0.23	2.1		U
110-57-6	trans-1,4-Dichloro-2-butene	3.4	10		U
75-34-3	1,1-Dichloroethane	0.23	2.1		U
107-06-2	1,2-Dichloroethane	0.19	2.1		U
75-35-4	1,1-Dichloroethene	0.51	2.1		U
156-59-2	cis-1,2-Dichloroethene	0.51	2.1		U
156-60-5	trans-1,2-Dichloroethene	0.47	2.1		U
78-87-5	1,2-Dichloropropane	0.19	2.1		U
10061-01-5	cis-1,3-Dichloropropene	0.21	2.1		U
10061-02-6	trans-1,3-Dichloropropene	0.14	2.1		U
100-41-4	Ethylbenzene	0.32	2.1		U
591-78-6	2-Hexanone	0.97	10		U
74-88-4	Iodomethane	0.35	10		U
75-09-2	Methylene chloride	0.26	4.2		U
108-10-1	4-Methyl-2-pentanone	0.24	10		U
100-42-5	Styrene	0.15	2.1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.14	2.1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.18	2.1		U
127-18-4	Tetrachloroethene	0.41	2.1		U
108-88-3	Toluene	0.36	2.1		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-10 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-06

Sample wt/vol: 13.5 (g/mL) G Lab File ID: 110806A

Level: (low/med) LOW Date Sampled: 01/17/08 10:15

% Moisture: not dec. 12 Date Analyzed: 01/23/08 23:59

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.38	2.1		U
79-00-5-----	1,1,2-Trichloroethane	0.15	2.1		U
79-01-6-----	Trichloroethene	0.36	2.1		U
75-69-4-----	Trichlorofluoromethane	0.40	4.2		U
96-18-4-----	1,2,3-Trichloropropane	0.30	2.1		U
108-05-4-----	Vinyl acetate	0.23	10		U
75-01-4-----	Vinyl chloride	0.47	4.2		U
1330-20-7----	Xylene (total)	0.30	2.1		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-11 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-07

Sample wt/vol: 9.2 (g/mL) G Lab File ID: 110807A

Level: (low/med) LOW Date Sampled: 01/17/08 08:45

% Moisture: not dec. 20 Date Analyzed: 01/24/08 05:34

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
67-64-1-----	Acetone	1.4	34	28 J
107-13-1-----	Acrylonitrile	0.95	17	U
71-43-2-----	Benzene	0.32	3.4	0.32 J
74-97-5-----	Bromochloromethane	0.28	6.8	U
75-27-4-----	Bromodichloromethane	0.20	3.4	U
75-25-2-----	Bromoform	0.68	3.4	U
74-83-9-----	Bromomethane	0.49	6.8	U
78-93-3-----	2-Butanone	0.95	34	5.6 J
75-15-0-----	Carbon disulfide	0.88	3.4	0.99 J
56-23-5-----	Carbon tetrachloride	0.60	3.4	U
108-90-7-----	Chlorobenzene	0.23	3.4	U
75-00-3-----	Chloroethane	0.75	6.8	U
67-66-3-----	Chloroform	0.37	3.4	U
74-87-3-----	Chloromethane	0.35	6.8	5.2 J
124-48-1-----	Dibromochloromethane	0.23	3.4	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.82	6.8	U
106-93-4-----	1,2-Dibromoethane	0.29	3.4	U
74-95-3-----	Dibromomethane	0.28	3.4	U
95-50-1-----	1,2-Dichlorobenzene	0.25	3.4	3.3 J
106-46-7-----	1,4-Dichlorobenzene	0.37	3.4	U
110-57-6-----	trans-1,4-Dichloro-2-butene	5.4	17	U
75-34-3-----	1,1-Dichloroethane	0.37	3.4	U
107-06-2-----	1,2-Dichloroethane	0.31	3.4	U
75-35-4-----	1,1-Dichloroethene	0.82	3.4	U
156-59-2-----	cis-1,2-Dichloroethene	0.82	3.4	U
156-60-5-----	trans-1,2-Dichloroethene	0.75	3.4	U
78-87-5-----	1,2-Dichloropropane	0.31	3.4	U
10061-01-5----	cis-1,3-Dichloropropene	0.34	3.4	U
10061-02-6----	trans-1,3-Dichloropropene	0.22	3.4	U
100-41-4-----	Ethylbenzene	0.51	3.4	U
591-78-6-----	2-Hexanone	1.6	17	U
74-88-4-----	Iodomethane	0.56	17	1.6 J
75-09-2-----	Methylene chloride	0.42	6.8	U
108-10-1-----	4-Methyl-2-pentanone	0.39	17	U
100-42-5-----	Styrene	0.24	3.4	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.22	3.4	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.29	3.4	U
127-18-4-----	Tetrachloroethene	0.66	3.4	U
108-88-3-----	Toluene	0.58	3.4	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-11 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-07

Sample wt/vol: 9.2 (g/mL) G Lab File ID: 110807A

Level: (low/med) LOW Date Sampled: 01/17/08 08:45

% Moisture: not dec. 20 Date Analyzed: 01/24/08 05:34

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.61	3.4		U
79-00-5-----	1,1,2-Trichloroethane	0.24	3.4		U
79-01-6-----	Trichloroethene	0.58	3.4		U
75-69-4-----	Trichlorofluoromethane	0.65	6.8		U
96-18-4-----	1,2,3-Trichloropropane	0.48	3.4		U
108-05-4-----	Vinyl acetate	0.37	17		U
75-01-4-----	Vinyl chloride	0.75	6.8		U
1330-20-7-----	Xylene (total)	0.48	3.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-11 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-08

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 110808A

Level: (low/med) LOW Date Sampled: 01/17/08 08:45

% Moisture: not dec. 12 Date Analyzed: 01/24/08 06:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			
		MDL	(ug/L or ug/Kg) RL	UG/KG CONC		Q
67-64-1-----	Acetone	0.96	24	4.9	J
107-13-1-----	Acrylonitrile	0.67	12		U
71-43-2-----	Benzene	0.22	2.4		U
74-97-5-----	Bromochloromethane	0.20	4.8		U
75-27-4-----	Bromodichloromethane	0.14	2.4		U
75-25-2-----	Bromoform	0.48	2.4		U
74-83-9-----	Bromomethane	0.34	4.8		U
78-93-3-----	2-Butanone	0.67	24		U
75-15-0-----	Carbon disulfide	0.62	2.4		U
56-23-5-----	Carbon tetrachloride	0.42	2.4		U
108-90-7-----	Chlorobenzene	0.16	2.4		U
75-00-3-----	Chloroethane	0.53	4.8		U
67-66-3-----	Chloroform	0.26	2.4		U
74-87-3-----	Chloromethane	0.25	4.8		U
124-48-1-----	Dibromochloromethane	0.16	2.4		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.57	4.8		U
106-93-4-----	1,2-Dibromoethane	0.20	2.4		U
74-95-3-----	Dibromomethane	0.20	2.4		U
95-50-1-----	1,2-Dichlorobenzene	0.18	2.4		U
106-46-7-----	1,4-Dichlorobenzene	0.26	2.4		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.8	12		U
75-34-3-----	1,1-Dichloroethane	0.26	2.4		U
107-06-2-----	1,2-Dichloroethane	0.22	2.4		U
75-35-4-----	1,1-Dichloroethene	0.57	2.4		U
156-59-2-----	cis-1,2-Dichloroethene	0.57	2.4		U
156-60-5-----	trans-1,2-Dichloroethene	0.53	2.4		U
78-87-5-----	1,2-Dichloropropane	0.22	2.4		U
10061-01-5----	cis-1,3-Dichloropropene	0.24	2.4		U
10061-02-6----	trans-1,3-Dichloropropene	0.15	2.4		U
100-41-4-----	Ethylbenzene	0.36	2.4		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.40	12		U
75-09-2-----	Methylene chloride	0.30	4.8		U
108-10-1-----	4-Methyl-2-pentanone	0.28	12		U
100-42-5-----	Styrene	0.17	2.4		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	2.4		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.20	2.4		U
127-18-4-----	Tetrachloroethene	0.46	2.4		U
108-88-3-----	Toluene	0.41	2.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-11 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-08

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 110808A

Level: (low/med) LOW Date Sampled: 01/17/08 08:45

% Moisture: not dec. 12 Date Analyzed: 01/24/08 06:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.43	2.4		U
79-00-5-----	1,1,2-Trichloroethane	0.17	2.4		U
79-01-6-----	Trichloroethene	0.41	2.4		U
75-69-4-----	Trichlorofluoromethane	0.45	4.8		U
96-18-4-----	1,2,3-Trichloropropane	0.34	2.4		U
108-05-4-----	Vinyl acetate	0.26	12		U
75-01-4-----	Vinyl chloride	0.53	4.8		U
1330-20-7-----	Xylene (total)	0.34	2.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-13 A
SH (0-4)

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-09

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 110809A

Level: (low/med) LOW Date Sampled: 01/17/08 12:15

% Moisture: not dec. 9 Date Analyzed: 01/24/08 06:50

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
67-64-1	Acetone	0.91	23	26	
107-13-1	Acrylonitrile	0.64	11		U
71-43-2	Benzene	0.21	2.3		U
74-97-5	Bromochloromethane	0.19	4.6		U
75-27-4	Bromodichloromethane	0.14	2.3		U
75-25-2	Bromoform	0.46	2.3		U
74-83-9	Bromomethane	0.33	4.6		U
78-93-3	2-Butanone	0.64	23	2.2	J
75-15-0	Carbon disulfide	0.59	2.3		U
56-23-5	Carbon tetrachloride	0.40	2.3		U
108-90-7	Chlorobenzene	0.16	2.3		U
75-00-3	Chloroethane	0.50	4.6		U
67-66-3	Chloroform	0.25	2.3		U
74-87-3	Chloromethane	0.24	4.6		U
124-48-1	Dibromochloromethane	0.16	2.3		U
96-12-8	1,2-Dibromo-3-chloropropane	0.55	4.6		U
106-93-4	1,2-Dibromoethane	0.20	2.3		U
74-95-3	Dibromomethane	0.19	2.3		U
95-50-1	1,2-Dichlorobenzene	0.17	2.3		U
106-46-7	1,4-Dichlorobenzene	0.25	2.3		U
110-57-6	trans-1,4-Dichloro-2-butene	3.6	11		U
75-34-3	1,1-Dichloroethane	0.25	2.3		U
107-06-2	1,2-Dichloroethane	0.21	2.3		U
75-35-4	1,1-Dichloroethene	0.55	2.3		U
156-59-2	cis-1,2-Dichloroethene	0.55	2.3		U
156-60-5	trans-1,2-Dichloroethene	0.50	2.3		U
78-87-5	1,2-Dichloropropane	0.21	2.3		U
10061-01-5	cis-1,3-Dichloropropene	0.23	2.3		U
10061-02-6	trans-1,3-Dichloropropene	0.15	2.3		U
100-41-4	Ethylbenzene	0.34	2.3		U
591-78-6	2-Hexanone	1.0	11		U
74-88-4	Iodomethane	0.38	11		U
75-09-2	Methylene chloride	0.28	4.6		U
108-10-1	4-Methyl-2-pentanone	0.26	11		U
100-42-5	Styrene	0.16	2.3		U
630-20-6	1,1,1,2-Tetrachloroethane	0.15	2.3		U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	2.3		U
127-18-4	Tetrachloroethene	0.44	2.3		U
108-88-3	Toluene	0.39	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-13 A SH (0-4)

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-09

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 110809A

Level: (low/med) LOW Date Sampled: 01/17/08 12:15

% Moisture: not dec. 9 Date Analyzed: 01/24/08 06:50

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.41	2.3		U
79-00-5-----	1,1,2-Trichloroethane	0.16	2.3		U
79-01-6-----	Trichloroethene	0.39	2.3		U
75-69-4-----	Trichlorofluoromethane	0.43	4.6		U
96-18-4-----	1,2,3-Trichloropropane	0.32	2.3		U
108-05-4-----	Vinyl acetate	0.25	11		U
75-01-4-----	Vinyl chloride	0.50	4.6		U
1330-20-7-----	Xylene (total)	0.32	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-13 A
SH (7-13)

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-10

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 110810A

Level: (low/med) LOW Date Sampled: 01/17/08 12:15

% Moisture: not dec. 14 Date Analyzed: 01/24/08 07:28

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	1.1	28	37	
107-13-1-----	Acrylonitrile	0.77	14		U
71-43-2-----	Benzene	0.26	2.8		U
74-97-5-----	Bromochloromethane	0.23	5.5		U
75-27-4-----	Bromodichloromethane	0.16	2.8		U
75-25-2-----	Bromoform	0.55	2.8		U
74-83-9-----	Bromomethane	0.40	5.5		U
78-93-3-----	2-Butanone	0.77	28	9.3	J
75-15-0-----	Carbon disulfide	0.72	2.8	14	
56-23-5-----	Carbon tetrachloride	0.48	2.8		U
108-90-7-----	Chlorobenzene	0.19	2.8		U
75-00-3-----	Chloroethane	0.61	5.5		U
67-66-3-----	Chloroform	0.30	2.8		U
74-87-3-----	Chloromethane	0.29	5.5		U
124-48-1-----	Dibromochloromethane	0.19	2.8		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.66	5.5		U
106-93-4-----	1,2-Dibromoethane	0.24	2.8		U
74-95-3-----	Dibromomethane	0.22	2.8		U
95-50-1-----	1,2-Dichlorobenzene	0.20	2.8		U
106-46-7-----	1,4-Dichlorobenzene	0.30	2.8		U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.4	14		U
75-34-3-----	1,1-Dichloroethane	0.30	2.8		U
107-06-2-----	1,2-Dichloroethane	0.25	2.8		U
75-35-4-----	1,1-Dichloroethene	0.66	2.8		U
156-59-2-----	cis-1,2-Dichloroethene	0.66	2.8		U
156-60-5-----	trans-1,2-Dichloroethene	0.61	2.8		U
78-87-5-----	1,2-Dichloropropane	0.25	2.8		U
10061-01-5-----	cis-1,3-Dichloropropene	0.28	2.8		U
10061-02-6-----	trans-1,3-Dichloropropene	0.18	2.8		U
100-41-4-----	Ethylbenzene	0.41	2.8		U
591-78-6-----	2-Hexanone	1.3	14		U
74-88-4-----	Iodomethane	0.46	14		U
75-09-2-----	Methylene chloride	0.34	5.5		U
108-10-1-----	4-Methyl-2-pentanone	0.32	14		U
100-42-5-----	Styrene	0.19	2.8		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.18	2.8		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.24	2.8		U
127-18-4-----	Tetrachloroethene	0.53	2.8		U
108-88-3-----	Toluene	0.47	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-13 A SH (7-13)

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-10

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 110810A

Level: (low/med) LOW Date Sampled: 01/17/08 12:15

% Moisture: not dec. 14 Date Analyzed: 01/24/08 07:28

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.50	2.8		U
79-00-5-----	1,1,2-Trichloroethane	0.19	2.8		U
79-01-6-----	Trichloroethene	0.47	2.8		U
75-69-4-----	Trichlorofluoromethane	0.52	5.5		U
96-18-4-----	1,2,3-Trichloropropane	0.38	2.8		U
108-05-4-----	Vinyl acetate	0.30	14		U
75-01-4-----	Vinyl chloride	0.61	5.5		U
1330-20-7-----	Xylene (total)	0.38	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-13 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-11

Sample wt/vol: 13.1 (g/mL) G Lab File ID: 110811A

Level: (low/med) LOW Date Sampled: 01/17/08 12:15

% Moisture: not dec. 11 Date Analyzed: 01/24/08 08:06

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	0.86	22	18	J
107-13-1-----	Acrylonitrile	0.60	11		U
71-43-2-----	Benzene	0.20	2.2		U
74-97-5-----	Bromochloromethane	0.18	4.3		U
75-27-4-----	Bromodichloromethane	0.13	2.2		U
75-25-2-----	Bromoform	0.43	2.2		U
74-83-9-----	Bromomethane	0.31	4.3		U
78-93-3-----	2-Butanone	0.60	22		U
75-15-0-----	Carbon disulfide	0.56	2.2		U
56-23-5-----	Carbon tetrachloride	0.38	2.2		U
108-90-7-----	Chlorobenzene	0.15	2.2		U
75-00-3-----	Chloroethane	0.47	4.3		U
67-66-3-----	Chloroform	0.24	2.2		U
74-87-3-----	Chloromethane	0.22	4.3		U
124-48-1-----	Dibromochloromethane	0.15	2.2		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.52	4.3		U
106-93-4-----	1,2-Dibromoethane	0.18	2.2		U
74-95-3-----	Dibromomethane	0.18	2.2		U
95-50-1-----	1,2-Dichlorobenzene	0.16	2.2		U
106-46-7-----	1,4-Dichlorobenzene	0.24	2.2		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.4	11		U
75-34-3-----	1,1-Dichloroethane	0.23	2.2		U
107-06-2-----	1,2-Dichloroethane	0.20	2.2		U
75-35-4-----	1,1-Dichloroethene	0.52	2.2		U
156-59-2-----	cis-1,2-Dichloroethene	0.52	2.2		U
156-60-5-----	trans-1,2-Dichloroethene	0.47	2.2		U
78-87-5-----	1,2-Dichloropropane	0.20	2.2		U
10061-01-5----	cis-1,3-Dichloropropene	0.22	2.2		U
10061-02-6----	trans-1,3-Dichloropropene	0.14	2.2		U
100-41-4-----	Ethylbenzene	0.32	2.2		U
591-78-6-----	2-Hexanone	0.99	11		U
74-88-4-----	Iodomethane	0.36	11		U
75-09-2-----	Methylene chloride	0.27	4.3		U
108-10-1-----	4-Methyl-2-pentanone	0.25	11		U
100-42-5-----	Styrene	0.15	2.2		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.14	2.2		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.18	2.2		U
127-18-4-----	Tetrachloroethene	0.42	2.2		U
108-88-3-----	Toluene	0.37	2.2		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-13 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-11

Sample wt/vol: 13.1 (g/mL) G Lab File ID: 110811A

Level: (low/med) LOW Date Sampled: 01/17/08 12:15

% Moisture: not dec. 11 Date Analyzed: 01/24/08 08:06

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.39	2.2		U
79-00-5-----	1,1,2-Trichloroethane	0.15	2.2		U
79-01-6-----	Trichloroethene	0.37	2.2		U
75-69-4-----	Trichlorofluoromethane	0.41	4.3		U
96-18-4-----	1,2,3-Trichloropropane	0.30	2.2		U
108-05-4-----	Vinyl acetate	0.24	11		U
75-01-4-----	Vinyl chloride	0.47	4.3		U
1330-20-7-----	Xylene (total)	0.30	2.2		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-14 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-12

Sample wt/vol: 6.5 (g/mL) G Lab File ID: 0110812D

Level: (low/med) MED Date Sampled: 01/17/08 15:50

% Moisture: not dec. 14 Date Analyzed: 01/28/08 19:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000(uL) Soil Aliquot Volume: 100(uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	UG/KG Q
67-64-1	Acetone	76	180		U
107-13-1	Acrylonitrile	36	90		U
71-43-2	Benzene	5.4	11		U
74-97-5	Bromochloromethane	6.8	22		U
75-27-4	Bromodichloromethane	5.4	11		U
75-25-2	Bromoform	5.8	22		U
74-83-9	Bromomethane	5.8	22		U
78-93-3	2-Butanone	65	180	110	J
75-15-0	Carbon disulfide	6.8	22		U
56-23-5	Carbon tetrachloride	5.0	11	14	
108-90-7	Chlorobenzene	4.5	11		U
75-00-3	Chloroethane	6.3	22		U
67-66-3	Chloroform	5.8	22		U
74-87-3	Chloromethane	13	45		U
124-48-1	Dibromochloromethane	6.3	22		U
96-12-8	1,2-Dibromo-3-chloropropane	4.0	11		U
106-93-4	1,2-Dibromoethane	6.3	22		U
74-95-3	Dibromomethane	6.3	22		U
95-50-1	1,2-Dichlorobenzene	5.0	11		U
106-46-7	1,4-Dichlorobenzene	4.5	22		U
110-57-6	trans-1,4-Dichloro-2-butene	27	90		U
75-34-3	1,1-Dichloroethane	5.0	11		U
107-06-2	1,2-Dichloroethane	5.8	22		U
75-35-4	1,1-Dichloroethene	5.8	22		U
156-59-2	cis-1,2-Dichloroethene	6.3	22		U
156-60-5	trans-1,2-Dichloroethene	6.8	22		U
78-87-5	1,2-Dichloropropane	5.0	11		U
10061-01-5	cis-1,3-Dichloropropene	3.6	11		U
10061-02-6	trans-1,3-Dichloropropene	5.4	11		U
100-41-4	Ethylbenzene	16	45		U
591-78-6	2-Hexanone	8.1	22		U
74-88-4	Iodomethane	5.4	11		U
75-09-2	Methylene chloride	10	22	87	
108-10-1	4-Methyl-2-pentanone	16	45		U
100-42-5	Styrene	4.0	11		U
630-20-6	1,1,1,2-Tetrachloroethane	6.8	22		U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	22		U
127-18-4	Tetrachloroethene	4.5	11		U
108-88-3	Toluene	7.2	22	17	JB

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-14 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-12

Sample wt/vol: 6.5 (g/mL) G Lab File ID: 0110812D

Level: (low/med) MED Date Sampled: 01/17/08 15:50

% Moisture: not dec. 14 Date Analyzed: 01/28/08 19:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	5.4	11		U
79-00-5-----	1,1,2-Trichloroethane	4.5	11		U
79-01-6-----	Trichloroethene	10	22		U
75-69-4-----	Trichlorofluoromethane	5.4	11		U
96-18-4-----	1,2,3-Trichloropropane	6.3	22		U
108-05-4-----	Vinyl acetate	22	45		U
75-01-4-----	Vinyl chloride	9.0	22		U
1330-20-7-----	Xylene (total)	21	45		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-14 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-13

Sample wt/vol: 12.2 (g/mL) G Lab File ID: 110813B

Level: (low/med) LOW Date Sampled: 01/17/08 15:50

% Moisture: not dec. 11 Date Analyzed: 01/24/08 13:28

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	0.92	23	4.2	JB
107-13-1-----	Acrylonitrile	0.65	12		U
71-43-2-----	Benzene	0.22	2.3		U
74-97-5-----	Bromochloromethane	0.19	4.6		U
75-27-4-----	Bromodichloromethane	0.14	2.3		U
75-25-2-----	Bromoform	0.46	2.3		U
74-83-9-----	Bromomethane	0.33	4.6		U
78-93-3-----	2-Butanone	0.65	23		U
75-15-0-----	Carbon disulfide	0.60	2.3		U
56-23-5-----	Carbon tetrachloride	0.41	2.3		U
108-90-7-----	Chlorobenzene	0.16	2.3		U
75-00-3-----	Chloroethane	0.51	4.6		U
67-66-3-----	Chloroform	0.25	2.3		U
74-87-3-----	Chloromethane	0.24	4.6		U
124-48-1-----	Dibromochloromethane	0.16	2.3		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.55	4.6		U
106-93-4-----	1,2-Dibromoethane	0.20	2.3		U
74-95-3-----	Dibromomethane	0.19	2.3		U
95-50-1-----	1,2-Dichlorobenzene	0.17	2.3		U
106-46-7-----	1,4-Dichlorobenzene	0.25	2.3		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.7	12		U
75-34-3-----	1,1-Dichloroethane	0.25	2.3		U
107-06-2-----	1,2-Dichloroethane	0.21	2.3		U
75-35-4-----	1,1-Dichloroethene	0.55	2.3		U
156-59-2-----	cis-1,2-Dichloroethene	0.55	2.3		U
156-60-5-----	trans-1,2-Dichloroethene	0.51	2.3		U
78-87-5-----	1,2-Dichloropropane	0.21	2.3		U
10061-01-5----	cis-1,3-Dichloropropene	0.23	2.3		U
10061-02-6----	trans-1,3-Dichloropropene	0.15	2.3		U
100-41-4-----	Ethylbenzene	0.35	2.3		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.38	12		U
75-09-2-----	Methylene chloride	0.29	4.6		U
108-10-1-----	4-Methyl-2-pentanone	0.27	12		U
100-42-5-----	Styrene	0.16	2.3		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	2.3		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.20	2.3		U
127-18-4-----	Tetrachloroethene	0.45	2.3		U
108-88-3-----	Toluene	0.40	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-14 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-13

Sample wt/vol: 12.2 (g/mL) G Lab File ID: 110813B

Level: (low/med) LOW Date Sampled: 01/17/08 15:50

% Moisture: not dec. 11 Date Analyzed: 01/24/08 13:28

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.42	2.3		U
79-00-5-----	1,1,2-Trichloroethane	0.16	2.3		U
79-01-6-----	Trichloroethene	0.39	2.3		U
75-69-4-----	Trichlorofluoromethane	0.44	4.6		U
96-18-4-----	1,2,3-Trichloropropane	0.32	2.3		U
108-05-4-----	Vinyl acetate	0.25	12		U
75-01-4-----	Vinyl chloride	0.51	4.6		U
1330-20-7----	Xylene (total)	0.32	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-15 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-14

Sample wt/vol: 13.9 (g/mL) G Lab File ID: 110814A

Level: (low/med) LOW Date Sampled: 01/17/08 16:20

% Moisture: not dec. 15 Date Analyzed: 01/24/08 14:06

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----Acetone	0.85	21	86	B
107-13-1-----Acrylonitrile	0.59	10		U
71-43-2-----Benzene	0.20	2.1	0.93	J
74-97-5-----Bromochloromethane	0.18	4.2		U
75-27-4-----Bromodichloromethane	0.13	2.1		U
75-25-2-----Bromoform	0.42	2.1		U
74-83-9-----Bromomethane	0.30	4.2		U
78-93-3-----2-Butanone	0.59	21		U
75-15-0-----Carbon disulfide	0.55	2.1		U
56-23-5-----Carbon tetrachloride	0.37	2.1		U
108-90-7-----Chlorobenzene	0.14	2.1		U
75-00-3-----Chloroethane	0.47	4.2		U
67-66-3-----Chloroform	0.23	2.1		U
74-87-3-----Chloromethane	0.22	4.2		U
124-48-1-----Dibromochloromethane	0.14	2.1		U
96-12-8-----1,2-Dibromo-3-chloropropane	0.51	4.2		U
106-93-4-----1,2-Dibromoethane	0.18	2.1		U
74-95-3-----Dibromomethane	0.17	2.1		U
95-50-1-----1,2-Dichlorobenzene	0.16	2.1		U
106-46-7-----1,4-Dichlorobenzene	0.23	2.1		U
110-57-6-----trans-1,4-Dichloro-2-butene	3.4	10		U
75-34-3-----1,1-Dichloroethane	0.23	2.1		U
107-06-2-----1,2-Dichloroethane	0.20	2.1		U
75-35-4-----1,1-Dichloroethene	0.51	2.1		U
156-59-2-----cis-1,2-Dichloroethene	0.51	2.1		U
156-60-5-----trans-1,2-Dichloroethene	0.47	2.1		U
78-87-5-----1,2-Dichloropropane	0.20	2.1		U
10061-01-5----cis-1,3-Dichloropropene	0.21	2.1		U
10061-02-6----trans-1,3-Dichloropropene	0.14	2.1		U
100-41-4-----Ethylbenzene	0.32	2.1		U
591-78-6-----2-Hexanone	0.98	10		U
74-88-4-----Iodomethane	0.35	10		U
75-09-2-----Methylene chloride	0.26	4.2		U
108-10-1-----4-Methyl-2-pentanone	0.24	10		U
100-42-5-----Styrene	0.15	2.1		U
630-20-6-----1,1,1,2-Tetrachloroethane	0.14	2.1		U
79-34-5-----1,1,2,2-Tetrachloroethane	0.18	2.1		U
127-18-4-----Tetrachloroethene	0.41	2.1		U
108-88-3-----Toluene	0.36	2.1		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-15 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-14

Sample wt/vol: 13.9 (g/mL) G Lab File ID: 110814A

Level: (low/med) LOW Date Sampled: 01/17/08 16:20

% Moisture: not dec. 15 Date Analyzed: 01/24/08 14:06

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.38	2.1		U
79-00-5-----	1,1,2-Trichloroethane	0.15	2.1		U
79-01-6-----	Trichloroethene	0.36	2.1		U
75-69-4-----	Trichlorofluoromethane	0.40	4.2		U
96-18-4-----	1,2,3-Trichloropropane	0.30	2.1		U
108-05-4-----	Vinyl acetate	0.23	10		U
75-01-4-----	Vinyl chloride	0.47	4.2		U
1330-20-7-----	Xylene (total)	0.30	2.1		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-15 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: 0801108-15

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 110815B

Level: (low/med) LOW Date Sampled: 01/17/08 16:20

% Moisture: not dec. 16 Date Analyzed: 01/24/08 14:44

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG	Q
		MDL	(ug/L or ug/Kg) RL		
67-64-1-----	Acetone	0.94	23	20	JB
107-13-1-----	Acrylonitrile	0.66	12		U
71-43-2-----	Benzene	0.22	2.3		U
74-97-5-----	Bromochloromethane	0.20	4.7		U
75-27-4-----	Bromodichloromethane	0.14	2.3		U
75-25-2-----	Bromoform	0.47	2.3		U
74-83-9-----	Bromomethane	0.34	4.7		U
78-93-3-----	2-Butanone	0.66	23	1.8	J
75-15-0-----	Carbon disulfide	0.61	2.3		U
56-23-5-----	Carbon tetrachloride	0.41	2.3		U
108-90-7-----	Chlorobenzene	0.16	2.3		U
75-00-3-----	Chloroethane	0.52	4.7		U
67-66-3-----	Chloroform	0.26	2.3		U
74-87-3-----	Chloromethane	0.24	4.7		U
124-48-1-----	Dibromochloromethane	0.16	2.3		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.56	4.7		U
106-93-4-----	1,2-Dibromoethane	0.20	2.3		U
74-95-3-----	Dibromomethane	0.19	2.3		U
95-50-1-----	1,2-Dichlorobenzene	0.17	2.3		U
106-46-7-----	1,4-Dichlorobenzene	0.26	2.3		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.8	12		U
75-34-3-----	1,1-Dichloroethane	0.25	2.3		U
107-06-2-----	1,2-Dichloroethane	0.22	2.3		U
75-35-4-----	1,1-Dichloroethene	0.56	2.3		U
156-59-2-----	cis-1,2-Dichloroethene	0.56	2.3		U
156-60-5-----	trans-1,2-Dichloroethene	0.52	2.3		U
78-87-5-----	1,2-Dichloropropane	0.22	2.3		U
10061-01-5----	cis-1,3-Dichloropropene	0.23	2.3		U
10061-02-6----	trans-1,3-Dichloropropene	0.15	2.3		U
100-41-4-----	Ethylbenzene	0.35	2.3		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.39	12		U
75-09-2-----	Methylene chloride	0.29	4.7		U
108-10-1-----	4-Methyl-2-pentanone	0.27	12		U
100-42-5-----	Styrene	0.16	2.3		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	2.3		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.20	2.3		U
127-18-4-----	Tetrachloroethene	0.46	2.3		U
108-88-3-----	Toluene	0.40	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-15 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix: (soil/water) SOIL Lab Sample ID: 0801108-15
 Sample wt/vol: 12.6 (g/mL) G Lab File ID: 110815B
 Level: (low/med) LOW Date Sampled: 01/17/08 16:20
 % Moisture: not dec. 16 Date Analyzed: 01/24/08 14:44
 GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.42	2.3		U
79-00-5-----	1,1,2-Trichloroethane	0.16	2.3		U
79-01-6-----	Trichloroethene	0.40	2.3		U
75-69-4-----	Trichlorofluoromethane	0.44	4.7		U
96-18-4-----	1,2,3-Trichloropropane	0.33	2.3		U
108-05-4-----	Vinyl acetate	0.26	12		U
75-01-4-----	Vinyl chloride	0.52	4.7		U
1330-20-7-----	Xylene (total)	0.33	2.3		U

FORM I VOA

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V1BLK0123LCS	95	91	100	95	0
02	V1BLK0123	94	93	104	96	0
03	DPT-09 ASH	106	103	119	81	0
04	DPT-09 SOIL	98	98	105	96	0
05	DPT-12 ASH	100	96	121*	72*	2
06	DPT-12 SOIL	97	97	101	98	0
07	V1BLK0123LCS	95	92	101	98	0
08	V1BLK0123ELC	94	95	103	95	0
09	V1BLK0123E	94	93	106	97	0
10	DPT-10 SOIL	99	99	104	99	0
11	DPT-11 ASH	96	92	105	90	0
12	DPT-11 SOIL	100	110	103	97	0
13	DPT-13 ASH (	104	102	104	93	0
14	DPT-13 ASH (	99	100	111	95	0
15	DPT-13 SOIL	101	100	101	95	0
16	V1BLK0123ELC	94	94	101	97	0
17	V1BLK0124LCS	94	94	102	97	0
18	V1BLK0124	97	93	102	94	0
19	DPT-14 SOIL	100	101	103	95	0
20	DPT-15 ASH	98	97	106	88	0
21	DPT-15 SOIL	100	98	103	97	0
22	V1BLK0124LCS	96	98	103	99	0
23						
24						
25						
26						
27						
28						
29						
30						

	EL QC LIMITS	SPIKE CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	30
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	30
SMC3 (TOL) = Toluene-d8	(80-120)	30
SMC4 (BFB) = Bromofluorobenzene	(80-125)	30

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Level: (low/med) MED

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V3MBLK0128LC	99	99	99	99	0
02	V3MBLK0128	99	102	102	105	0
03	DPT-10 ASH	100	104	103	106	0
04	DPT-14 ASH	100	102	101	104	0
05						
06						
07						
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30						

		EL	SPIKE
		QC LIMITS	CONC (ug/Kg)
SMC1	(DFM) = Dibromofluoromethane	(80-125)	1500
SMC2	(DCE) = 1,2-Dichloroethane-d4	(75-140)	1500
SMC3	(TOL) = Toluene-d8	(80-120)	1500
SMC4	(BFB) = Bromofluorobenzene	(80-125)	1500

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate results reported from a diluted analysis

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	0.0000	80.80	81	20-160
Acrylonitrile	250.0	0.0000	238.6	95	35-180
Benzene	50.00	0.0000	48.40	97	75-125
Bromochloromethane	50.00	0.0000	44.21	88	70-125
Bromodichloromethane	50.00	0.0000	45.44	91	70-130
Bromoform	50.00	0.0000	47.20	94	55-135
Bromomethane	50.00	0.0000	37.74	75	30-160
2-Butanone	100.0	0.0000	155.4	155	30-160
Carbon disulfide	50.00	0.0000	61.73	123	45-160
Carbon tetrachloride	50.00	0.0000	44.16	88	65-135
Chlorobenzene	50.00	0.0000	47.41	95	75-125
Chloroethane	50.00	0.0000	53.19	106	40-155
Chloroform	50.00	0.0000	44.84	90	70-125
Chloromethane	50.00	0.0000	61.35	123	50-130
Dibromochloromethane	50.00	0.0000	45.33	91	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	43.26	86	40-135
1,2-Dibromoethane	50.00	0.0000	44.79	90	70-125
Dibromomethane	50.00	0.0000	44.65	89	75-130
1,2-Dichlorobenzene	50.00	0.0000	45.90	92	75-120
1,4-Dichlorobenzene	50.00	0.0000	48.79	98	70-125
1,1-Dichloroethane	50.00	0.0000	50.24	100	75-125
1,2-Dichloroethane	50.00	0.0000	41.14	82	70-125
1,1-Dichloroethene	50.00	0.0000	49.66	99	65-135
cis-1,2-Dichloroethene	50.00	0.0000	46.63	93	65-125
trans-1,2-Dichloroethen	50.00	0.0000	47.40	95	65-135
1,2-Dichloropropane	50.00	0.0000	49.87	100	70-120
cis-1,3-Dichloropropene	50.00	0.0000	47.71	95	70-125
trans-1,3-Dichloroprope	50.00	0.0000	47.82	96	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	47.36	95	75-125
2-Hexanone	100.0	0.0000	92.31	92	45-145
Iodomethane	50.00	0.0000	54.94	110	55-165
Methylene chloride	50.00	0.0000	48.22	96	55-140
4-Methyl-2-pentanone	100.0	0.0000	99.28	99	45-145
Styrene	50.00	0.0000	45.78	92	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	45.08	90	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	53.90	108	55-130
Tetrachloroethene	50.00	0.0000	51.07	102	65-140
Toluene	50.00	0.0000	49.50	99	70-125
1,1,1-Trichloroethane	50.00	0.0000	43.88	88	70-135
1,1,2-Trichloroethane	50.00	0.0000	46.44	93	60-125
Trichloroethene	50.00	0.0000	46.84	94	75-125
Trichlorofluoromethane	50.00	0.0000	48.40	97	25-185
1,2,3-Trichloropropane	50.00	0.0000	43.24	86	65-130
Vinyl acetate	100.0	0.0000	97.80	98	50-135
Vinyl chloride	50.00	0.0000	52.62	105	60-125
Xylene (total)	150.0	0.0000	137.5	92	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	70.42	70	14	50	20-160
Acrylonitrile	250.0	250.8	100	5	50	35-180
Benzene	50.00	50.03	100	3	50	75-125
Bromochloromethane	50.00	44.97	90	2	50	70-125
Bromodichloromethane	50.00	46.15	92	2	50	70-130
Bromoform	50.00	48.63	97	3	50	55-135
Bromomethane	50.00	34.94	70	8	50	30-160
2-Butanone	100.0	153.1	153	1	50	30-160
Carbon disulfide	50.00	61.64	123	0	50	45-160
Carbon tetrachloride	50.00	45.39	91	3	50	65-135
Chlorobenzene	50.00	49.26	98	4	50	75-125
Chloroethane	50.00	54.45	109	2	50	40-155
Chloroform	50.00	46.14	92	3	50	70-125
Chloromethane	50.00	62.74	125	2	50	50-130
Dibromochloromethane	50.00	48.42	97	6	50	65-130
1,2-Dibromo-3-chloropro	50.00	46.30	93	7	50	40-135
1,2-Dibromoethane	50.00	48.03	96	7	50	70-125
Dibromomethane	50.00	46.56	93	4	50	75-130
1,2-Dichlorobenzene	50.00	45.91	92	0	50	75-120
1,4-Dichlorobenzene	50.00	48.05	96	2	50	70-125
1,1-Dichloroethane	50.00	51.14	102	2	50	75-125
1,2-Dichloroethane	50.00	42.77	86	4	50	70-125
1,1-Dichloroethene	50.00	49.37	99	0	50	65-135
cis-1,2-Dichloroethene	50.00	48.10	96	3	50	65-125
trans-1,2-Dichloroethen	50.00	48.49	97	2	50	65-135
1,2-Dichloropropane	50.00	51.99	104	4	50	70-120
cis-1,3-Dichloropropene	50.00	49.62	99	4	50	70-125
trans-1,3-Dichloroprope	50.00	49.52	99	3	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix Spike - Client Sample No.: V1BLK0123 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	49.27	98	4	50	75-125
2-Hexanone	100.0	91.42	91	1	50	45-145
Iodomethane	50.00	57.84	116	5	50	55-165
Methylene chloride	50.00	53.50	107	10	50	55-140
4-Methyl-2-pentanone	100.0	105.8	106	6	50	45-145
Styrene	50.00	48.40	97	6	50	75-125
1,1,1,2-Tetrachloroetha	50.00	47.48	95	5	50	75-125
1,1,2,2-Tetrachloroetha	50.00	54.14	108	0	50	55-130
Tetrachloroethene	50.00	59.10	118	14	50	65-140
Toluene	50.00	51.13	102	3	50	70-125
1,1,1-Trichloroethane	50.00	44.66	89	2	50	70-135
1,1,2-Trichloroethane	50.00	49.14	98	6	50	60-125
Trichloroethene	50.00	48.34	97	3	50	75-125
Trichlorofluoromethane	50.00	49.11	98	1	50	25-185
1,2,3-Trichloropropane	50.00	46.43	93	7	50	65-130
Vinyl acetate	100.0	94.87	95	3	50	50-135
Vinyl chloride	50.00	52.61	105	0	50	60-125
Xylene (total)	150.0	141.2	94	3	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits

Spike Recovery: 0 out of 92 outside limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V1BLK0123E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	0.0000	74.66	75	20-160
Acrylonitrile	250.0	0.0000	252.5	101	35-180
Benzene	50.00	0.0000	50.23	100	75-125
Bromochloromethane	50.00	0.0000	46.32	93	70-125
Bromodichloromethane	50.00	0.0000	46.53	93	70-130
Bromoform	50.00	0.0000	49.95	100	55-135
Bromomethane	50.00	0.0000	37.70	75	30-160
2-Butanone	100.0	0.0000	166.2	166*	30-160
Carbon disulfide	50.00	0.0000	62.52	125	45-160
Carbon tetrachloride	50.00	0.0000	46.27	92	65-135
Chlorobenzene	50.00	0.0000	48.84	98	75-125
Chloroethane	50.00	0.0000	54.88	110	40-155
Chloroform	50.00	0.0000	47.49	95	70-125
Chloromethane	50.00	0.0000	62.03	124	50-130
Dibromochloromethane	50.00	0.0000	48.01	96	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	47.86	96	40-135
1,2-Dibromoethane	50.00	0.0000	47.44	95	70-125
Dibromomethane	50.00	0.0000	47.66	95	75-130
1,2-Dichlorobenzene	50.00	0.0000	45.12	90	75-120
1,4-Dichlorobenzene	50.00	0.0000	47.51	95	70-125
1,1-Dichloroethane	50.00	0.0000	52.39	105	75-125
1,2-Dichloroethane	50.00	0.0000	43.19	86	70-125
1,1-Dichloroethene	50.00	0.0000	50.63	101	65-135
cis-1,2-Dichloroethene	50.00	0.0000	48.55	97	65-125
trans-1,2-Dichloroethen	50.00	0.0000	48.69	97	65-135
1,2-Dichloropropane	50.00	0.0000	52.13	104	70-120
cis-1,3-Dichloropropene	50.00	0.0000	48.72	97	70-125
trans-1,3-Dichloroprope	50.00	0.0000	48.90	98	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix Spike - Client Sample No.: V1BLK0123E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	48.33	97	75-125
2-Hexanone	100.0	0.0000	95.00	95	45-145
Iodomethane	50.00	0.0000	58.26	116	55-165
Methylene chloride	50.00	0.0000	50.54	101	55-140
4-Methyl-2-pentanone	100.0	0.0000	106.8	107	45-145
Styrene	50.00	0.0000	47.38	95	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	46.29	92	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	54.93	110	55-130
Tetrachloroethene	50.00	0.0000	64.05	128	65-140
Toluene	50.00	0.0000	50.57	101	70-125
1,1,1-Trichloroethane	50.00	0.0000	44.98	90	70-135
1,1,2-Trichloroethane	50.00	0.0000	49.03	98	60-125
Trichloroethene	50.00	0.0000	48.60	97	75-125
Trichlorofluoromethane	50.00	0.0000	49.87	100	25-185
1,2,3-Trichloropropane	50.00	0.0000	47.24	94	65-130
Vinyl acetate	100.0	0.0000	89.01	89	50-135
Vinyl chloride	50.00	0.0000	53.54	107	60-125
Xylene (total)	150.0	0.0000	139.9	93	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V1BLK0123E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	64.76	65	14	50	20-160
Acrylonitrile	250.0	231.6	93	9	50	35-180
Benzene	50.00	47.87	96	5	50	75-125
Bromochloromethane	50.00	43.00	86	7	50	70-125
Bromodichloromethane	50.00	45.32	91	3	50	70-130
Bromoform	50.00	47.21	94	6	50	55-135
Bromomethane	50.00	29.89	60	23	50	30-160
2-Butanone	100.0	134.8	135	21	50	30-160
Carbon disulfide	50.00	56.17	112	11	50	45-160
Carbon tetrachloride	50.00	44.28	88	4	50	65-135
Chlorobenzene	50.00	45.86	92	6	50	75-125
Chloroethane	50.00	53.18	106	3	50	40-155
Chloroform	50.00	45.48	91	4	50	70-125
Chloromethane	50.00	65.39	131*	5	50	50-130
Dibromochloromethane	50.00	46.04	92	4	50	65-130
1,2-Dibromo-3-chloropro	50.00	39.44	79	19	50	40-135
1,2-Dibromoethane	50.00	45.22	90	5	50	70-125
Dibromomethane	50.00	46.09	92	3	50	75-130
1,2-Dichlorobenzene	50.00	42.42	85	6	50	75-120
1,4-Dichlorobenzene	50.00	38.06	76	22	50	70-125
1,1-Dichloroethane	50.00	47.18	94	10	50	75-125
1,2-Dichloroethane	50.00	41.98	84	3	50	70-125
1,1-Dichloroethene	50.00	46.65	93	8	50	65-135
cis-1,2-Dichloroethene	50.00	45.72	91	6	50	65-125
trans-1,2-Dichloroethen	50.00	43.26	86	12	50	65-135
1,2-Dichloropropane	50.00	50.57	101	3	50	70-120
cis-1,3-Dichloropropene	50.00	45.72	91	6	50	70-125
trans-1,3-Dichloroprope	50.00	44.58	89	9	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix Spike - Client Sample No.: V1BLK0123E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	45.93	92	5	50	75-125
2-Hexanone	100.0	79.89	80	17	50	45-145
Iodomethane	50.00	51.42	103	12	50	55-165
Methylene chloride	50.00	48.46	97	4	50	55-140
4-Methyl-2-pentanone	100.0	99.83	100	7	50	45-145
Styrene	50.00	44.64	89	6	50	75-125
1,1,1,2-Tetrachloroetha	50.00	45.21	90	2	50	75-125
1,1,2,2-Tetrachloroetha	50.00	51.39	103	7	50	55-130
Tetrachloroethene	50.00	63.38	127	1	50	65-140
Toluene	50.00	47.47	95	6	50	70-125
1,1,1-Trichloroethane	50.00	43.98	88	2	50	70-135
1,1,2-Trichloroethane	50.00	46.20	92	6	50	60-125
Trichloroethene	50.00	45.53	91	6	50	75-125
Trichlorofluoromethane	50.00	48.76	98	2	50	25-185
1,2,3-Trichloropropane	50.00	42.54	85	10	50	65-130
Vinyl acetate	100.0	71.13	71	22	50	50-135
Vinyl chloride	50.00	51.31	103	4	50	60-125
Xylene (total)	150.0	131.0	87	6	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits
 Spike Recovery: 2 out of 92 outside limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	2.760	75.00	72	20-160
Acrylonitrile	250.0	0.0000	252.1	101	35-180
Benzene	50.00	0.0000	49.65	99	75-125
Bromochloromethane	50.00	0.0000	44.80	90	70-125
Bromodichloromethane	50.00	0.0000	45.42	91	70-130
Bromoform	50.00	0.0000	48.62	97	55-135
Bromomethane	50.00	0.0000	35.94	72	30-160
2-Butanone	100.0	0.0000	168.4	168*	30-160
Carbon disulfide	50.00	0.0000	62.17	124	45-160
Carbon tetrachloride	50.00	0.0000	44.71	89	65-135
Chlorobenzene	50.00	0.0000	49.98	100	75-125
Chloroethane	50.00	0.0000	53.80	108	40-155
Chloroform	50.00	0.0000	46.28	92	70-125
Chloromethane	50.00	0.0000	63.34	127	50-130
Dibromochloromethane	50.00	0.0000	48.71	97	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	47.48	95	40-135
1,2-Dibromoethane	50.00	0.0000	48.05	96	70-125
Dibromomethane	50.00	0.0000	46.91	94	75-130
1,2-Dichlorobenzene	50.00	0.0000	47.23	94	75-120
1,4-Dichlorobenzene	50.00	0.0000	47.41	95	70-125
1,1-Dichloroethane	50.00	0.0000	50.90	102	75-125
1,2-Dichloroethane	50.00	0.0000	42.81	86	70-125
1,1-Dichloroethene	50.00	0.0000	49.24	98	65-135
cis-1,2-Dichloroethene	50.00	0.0000	47.52	95	65-125
trans-1,2-Dichloroethen	50.00	0.0000	47.95	96	65-135
1,2-Dichloropropane	50.00	0.0000	51.40	103	70-120
cis-1,3-Dichloropropene	50.00	0.0000	48.86	98	70-125
trans-1,3-Dichloroprope	50.00	0.0000	50.61	101	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	49.41	99	75-125
2-Hexanone	100.0	0.0000	97.14	97	45-145
Iodomethane	50.00	0.0000	55.38	111	55-165
Methylene chloride	50.00	0.0000	51.11	102	55-140
4-Methyl-2-pentanone	100.0	0.0000	108.7	109	45-145
Styrene	50.00	0.0000	49.15	98	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	47.47	95	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	54.83	110	55-130
Tetrachloroethene	50.00	0.0000	55.14	110	65-140
Toluene	50.00	0.0000	51.53	103	70-125
1,1,1-Trichloroethane	50.00	0.0000	44.84	90	70-135
1,1,2-Trichloroethane	50.00	0.0000	49.82	100	60-125
Trichloroethene	50.00	0.0000	47.85	96	75-125
Trichlorofluoromethane	50.00	0.0000	48.67	97	25-185
1,2,3-Trichloropropane	50.00	0.0000	46.81	94	65-130
Vinyl acetate	100.0	0.0000	101.9	102	50-135
Vinyl chloride	50.00	0.0000	52.46	105	60-125
Xylene (total)	150.0	0.0000	142.7	95	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	70.33	68	6	50	20-160
Acrylonitrile	250.0	252.8	101	0	50	35-180
Benzene	50.00	49.22	98	1	50	75-125
Bromochloromethane	50.00	45.43	91	1	50	70-125
Bromodichloromethane	50.00	45.92	92	1	50	70-130
Bromoform	50.00	47.12	94	3	50	55-135
Bromomethane	50.00	34.58	69	4	50	30-160
2-Butanone	100.0	159.0	159	6	50	30-160
Carbon disulfide	50.00	62.41	125	0	50	45-160
Carbon tetrachloride	50.00	44.46	89	0	50	65-135
Chlorobenzene	50.00	48.48	97	3	50	75-125
Chloroethane	50.00	57.19	114	6	50	40-155
Chloroform	50.00	46.32	93	0	50	70-125
Chloromethane	50.00	67.61	135*	6	50	50-130
Dibromochloromethane	50.00	46.85	94	4	50	65-130
1,2-Dibromo-3-chloropro	50.00	45.59	91	4	50	40-135
1,2-Dibromoethane	50.00	46.65	93	3	50	70-125
Dibromomethane	50.00	46.00	92	2	50	75-130
1,2-Dichlorobenzene	50.00	45.70	91	3	50	75-120
1,4-Dichlorobenzene	50.00	49.44	99	4	50	70-125
1,1-Dichloroethane	50.00	47.95	96	6	50	75-125
1,2-Dichloroethane	50.00	43.08	86	1	50	70-125
1,1-Dichloroethene	50.00	51.45	103	4	50	65-135
cis-1,2-Dichloroethene	50.00	48.05	96	1	50	65-125
trans-1,2-Dichloroethen	50.00	47.20	94	2	50	65-135
1,2-Dichloropropane	50.00	51.75	104	1	50	70-120
cis-1,3-Dichloropropene	50.00	48.76	98	0	50	70-125
trans-1,3-Dichloroprope	50.00	48.62	97	4	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	48.55	97	2	50	75-125
2-Hexanone	100.0	88.12	88	10	50	45-145
Iodomethane	50.00	57.90	116	4	50	55-165
Methylene chloride	50.00	51.74	103	1	50	55-140
4-Methyl-2-pentanone	100.0	108.2	108	0	50	45-145
Styrene	50.00	47.91	96	2	50	75-125
1,1,1,2-Tetrachloroetha	50.00	46.15	92	3	50	75-125
1,1,2,2-Tetrachloroetha	50.00	53.82	108	2	50	55-130
Tetrachloroethene	50.00	57.06	114	3	50	65-140
Toluene	50.00	50.81	102	1	50	70-125
1,1,1-Trichloroethane	50.00	44.52	89	1	50	70-135
1,1,2-Trichloroethane	50.00	48.23	96	3	50	60-125
Trichloroethene	50.00	48.23	96	1	50	75-125
Trichlorofluoromethane	50.00	49.95	100	2	50	25-185
1,2,3-Trichloropropane	50.00	46.80	94	0	50	65-130
Vinyl acetate	100.0	86.72	87	16	50	50-135
Vinyl chloride	50.00	55.02	110	5	50	60-125
Xylene (total)	150.0	140.8	94	1	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits
 Spike Recovery: 2 out of 92 outside limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V3MBLK0128 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	5000	0.0000	4202	84	20-160
Acrylonitrile	12500	0.0000	13260	106	35-180
Benzene	2500	0.0000	2396	96	75-125
Bromochloromethane	2500	0.0000	2508	100	70-125
Bromodichloromethane	2500	0.0000	2557	102	70-130
Bromoform	2500	0.0000	2739	110	55-135
Bromomethane	2500	17.02	2451	97	30-160
2-Butanone	5000	0.0000	5230	105	30-160
Carbon disulfide	2500	0.0000	3050	122	45-160
Carbon tetrachloride	2500	0.0000	2540	102	65-135
Chlorobenzene	2500	0.0000	2401	96	75-125
Chloroethane	2500	0.0000	2716	109	40-155
Chloroform	2500	0.0000	2400	96	70-125
Chloromethane	2500	0.0000	2714	108	50-130
Dibromochloromethane	2500	0.0000	2752	110	65-130
1,2-Dibromo-3-chloropro	2500	0.0000	2352	94	40-135
1,2-Dibromoethane	2500	0.0000	2523	101	70-125
Dibromomethane	2500	0.0000	2504	100	75-130
1,2-Dichlorobenzene	2500	0.0000	2416	97	75-120
1,4-Dichlorobenzene	2500	0.0000	2444	98	70-125
1,1-Dichloroethane	2500	0.0000	2438	98	75-125
1,2-Dichloroethane	2500	0.0000	2471	99	70-125
1,1-Dichloroethene	2500	0.0000	2526	101	65-135
cis-1,2-Dichloroethene	2500	0.0000	2274	91	65-125
trans-1,2-Dichloroethen	2500	0.0000	2356	94	65-135
1,2-Dichloropropane	2500	0.0000	2460	98	70-120
cis-1,3-Dichloropropene	2500	0.0000	2600	104	70-125
trans-1,3-Dichloroprope	2500	0.0000	2861	114	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix Spike - Client Sample No.: V3MBLK0128 Level:(low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	2500	0.0000	2323	93	75-125
2-Hexanone	5000	0.0000	5232	105	45-145
Iodomethane	2500	0.0000	2674	107	55-165
Methylene chloride	2500	0.0000	2569	103	55-140
4-Methyl-2-pentanone	5000	0.0000	5427	108	45-145
Styrene	2500	0.0000	2603	104	75-125
1,1,1,2-Tetrachloroetha	2500	0.0000	2466	99	75-125
1,1,2,2-Tetrachloroetha	2500	0.0000	2626	105	55-130
Tetrachloroethene	2500	0.0000	2333	93	65-140
Toluene	2500	8.614	2441	97	70-125
1,1,1-Trichloroethane	2500	0.0000	2435	97	70-135
1,1,2-Trichloroethane	2500	0.0000	2465	99	60-125
Trichloroethene	2500	0.0000	2417	97	75-125
Trichlorofluoromethane	2500	0.0000	2989	120	25-185
1,2,3-Trichloropropane	2500	0.0000	2509	100	65-130
Vinyl acetate	5000	0.0000	5234	105	50-135
Vinyl chloride	2500	0.0000	2805	112	60-125
Xylene (total)	7500	0.0000	6708	89	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 46 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0123

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Lab File ID: V1BLK01 Lab Sample ID: V1BLK0123

Date Analyzed: 01/23/08 Time Analyzed: 1044

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1BLK0123LCS	V1BLK0123LCS	V1LCSAP9	0928
02	DPT-09 ASH	0801108-01	110801A	1631
03	DPT-09 SOIL	0801108-02	110802B	1709
04	DPT-12 ASH	0801108-03	110803A	1747
05	DPT-12 SOIL	0801108-04	110804B	1825
06	V1BLK0123LCS	V1BLK0123LCSD	V1LCSDA9	1942
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0123

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0123

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/23/08 10:44

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	2.0	50	U
107-13-1-----	Acrylonitrile	1.4	25	U
71-43-2-----	Benzene	0.47	5.0	U
74-97-5-----	Bromochloromethane	0.42	10	U
75-27-4-----	Bromodichloromethane	0.30	5.0	U
75-25-2-----	Bromoform	1.0	5.0	U
74-83-9-----	Bromomethane	0.72	10	U
78-93-3-----	2-Butanone	1.4	50	U
75-15-0-----	Carbon disulfide	1.3	5.0	U
56-23-5-----	Carbon tetrachloride	0.88	5.0	U
108-90-7-----	Chlorobenzene	0.34	5.0	U
75-00-3-----	Chloroethane	1.1	10	U
67-66-3-----	Chloroform	0.55	5.0	U
74-87-3-----	Chloromethane	0.52	10	U
124-48-1-----	Dibromochloromethane	0.34	5.0	U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10	U
106-93-4-----	1,2-Dibromoethane	0.43	5.0	U
74-95-3-----	Dibromomethane	0.41	5.0	U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0	U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25	U
75-34-3-----	1,1-Dichloroethane	0.54	5.0	U
107-06-2-----	1,2-Dichloroethane	0.46	5.0	U
75-35-4-----	1,1-Dichloroethene	1.2	5.0	U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0	U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0	U
78-87-5-----	1,2-Dichloropropane	0.46	5.0	U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0	U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0	U
100-41-4-----	Ethylbenzene	0.75	5.0	U
591-78-6-----	2-Hexanone	2.3	25	U
74-88-4-----	Iodomethane	0.83	25	U
75-09-2-----	Methylene chloride	0.62	10	U
108-10-1-----	4-Methyl-2-pentanone	0.58	25	U
100-42-5-----	Styrene	0.35	5.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0	U
127-18-4-----	Tetrachloroethene	0.97	5.0	U
108-88-3-----	Toluene	0.86	5.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0123

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0123

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/23/08 10:44

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.90	5.0		U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0		U
79-01-6-----	Trichloroethene	0.85	5.0		U
75-69-4-----	Trichlorofluoromethane	0.95	10		U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0		U
108-05-4-----	Vinyl acetate	0.55	25		U
75-01-4-----	Vinyl chloride	1.1	10		U
1330-20-7-----	Xylene (total)	0.70	5.0		U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0123E

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108
 Lab File ID: V1BLK01E Lab Sample ID: V1BLK0123E
 Date Analyzed: 01/23/08 Time Analyzed: 2321
 Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y
 Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	V1BLK0123ELC	V1BLK0123ELCS	V1LCSA9E	2204
02	DPT-10 SOIL	0801108-06	110806A	2359
03	DPT-11 ASH	0801108-07	110807A	0534
04	DPT-11 SOIL	0801108-08	110808A	0612
05	DPT-13 ASH (	0801108-09	110809A	0650
06	DPT-13 ASH (	0801108-10	110810A	0728
07	DPT-13 SOIL	0801108-11	110811A	0806
08	V1BLK0123ELC	V1BLK0123ELCSD	V1LCSD9E	0844
09				
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COMMENTS :

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0123E

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0123E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01E

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/23/08 23:21

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
67-64-1-----	Acetone	2.0	50	U
107-13-1-----	Acrylonitrile	1.4	25	U
71-43-2-----	Benzene	0.47	5.0	U
74-97-5-----	Bromochloromethane	0.42	10	U
75-27-4-----	Bromodichloromethane	0.30	5.0	U
75-25-2-----	Bromoform	1.0	5.0	U
74-83-9-----	Bromomethane	0.72	10	U
78-93-3-----	2-Butanone	1.4	50	U
75-15-0-----	Carbon disulfide	1.3	5.0	U
56-23-5-----	Carbon tetrachloride	0.88	5.0	U
108-90-7-----	Chlorobenzene	0.34	5.0	U
75-00-3-----	Chloroethane	1.1	10	U
67-66-3-----	Chloroform	0.55	5.0	U
74-87-3-----	Chloromethane	0.52	10	U
124-48-1-----	Dibromochloromethane	0.34	5.0	U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10	U
106-93-4-----	1,2-Dibromoethane	0.43	5.0	U
74-95-3-----	Dibromomethane	0.41	5.0	U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0	U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25	U
75-34-3-----	1,1-Dichloroethane	0.54	5.0	U
107-06-2-----	1,2-Dichloroethane	0.46	5.0	U
75-35-4-----	1,1-Dichloroethene	1.2	5.0	U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0	U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0	U
78-87-5-----	1,2-Dichloropropane	0.46	5.0	U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0	U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0	U
100-41-4-----	Ethylbenzene	0.75	5.0	U
591-78-6-----	2-Hexanone	2.3	25	U
74-88-4-----	Iodomethane	0.83	25	U
75-09-2-----	Methylene chloride	0.62	10	U
108-10-1-----	4-Methyl-2-pentanone	0.58	25	U
100-42-5-----	Styrene	0.35	5.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0	U
127-18-4-----	Tetrachloroethene	0.97	5.0	U
108-88-3-----	Toluene	0.86	5.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0123E

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0123E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01E

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/23/08 23:21

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
71-55-6-----	1,1,1-Trichloroethane	0.90	5.0	U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0	U
79-01-6-----	Trichloroethene	0.85	5.0	U
75-69-4-----	Trichlorofluoromethane	0.95	10	U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0	U
108-05-4-----	Vinyl acetate	0.55	25	U
75-01-4-----	Vinyl chloride	1.1	10	U
1330-20-7----	Xylene (total)	0.70	5.0	U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Lab File ID: V1BLK01 Lab Sample ID: V1BLK0124

Date Analyzed: 01/24/08 Time Analyzed: 1212

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	V1BLK0124LCS	V1BLK0124LCS	V1LCSAP9	1055
02	DPT-14 SOIL	0801108-13	110813B	1328
03	DPT-15 ASH	0801108-14	110814A	1406
04	DPT-15 SOIL	0801108-15	110815B	1444
05	V1BLK0124LCS	V1BLK0124LCSD	V1LCSDA9	2144
06				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/24/08 12:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG
		MDL	(ug/L or ug/Kg) RL	CONC		Q
67-64-1-----	Acetone	2.0	50	2.8	J
107-13-1-----	Acrylonitrile	1.4	25		U
71-43-2-----	Benzene	0.47	5.0		U
74-97-5-----	Bromochloromethane	0.42	10		U
75-27-4-----	Bromodichloromethane	0.30	5.0		U
75-25-2-----	Bromoform	1.0	5.0		U
74-83-9-----	Bromomethane	0.72	10		U
78-93-3-----	2-Butanone	1.4	50		U
75-15-0-----	Carbon disulfide	1.3	5.0		U
56-23-5-----	Carbon tetrachloride	0.88	5.0		U
108-90-7-----	Chlorobenzene	0.34	5.0		U
75-00-3-----	Chloroethane	1.1	10		U
67-66-3-----	Chloroform	0.55	5.0		U
74-87-3-----	Chloromethane	0.52	10		U
124-48-1-----	Dibromochloromethane	0.34	5.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10		U
106-93-4-----	1,2-Dibromoethane	0.43	5.0		U
74-95-3-----	Dibromomethane	0.41	5.0		U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0		U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25		U
75-34-3-----	1,1-Dichloroethane	0.54	5.0		U
107-06-2-----	1,2-Dichloroethane	0.46	5.0		U
75-35-4-----	1,1-Dichloroethene	1.2	5.0		U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0		U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0		U
78-87-5-----	1,2-Dichloropropane	0.46	5.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0		U
100-41-4-----	Ethylbenzene	0.75	5.0		U
591-78-6-----	2-Hexanone	2.3	25		U
74-88-4-----	Iodomethane	0.83	25		U
75-09-2-----	Methylene chloride	0.62	10		U
108-10-1-----	4-Methyl-2-pentanone	0.58	25		U
100-42-5-----	Styrene	0.35	5.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0		U
127-18-4-----	Tetrachloroethene	0.97	5.0		U
108-88-3-----	Toluene	0.86	5.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/24/08 12:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL	UG/KG CONC Q
71-55-6-----	1,1,1-Trichloroethane	0.90	5.0	U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0	U
79-01-6-----	Trichloroethene	0.85	5.0	U
75-69-4-----	Trichlorofluoromethane	0.95	10	U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0	U
108-05-4-----	Vinyl acetate	0.55	25	U
75-01-4-----	Vinyl chloride	1.1	10	U
1330-20-7-----	Xylene (total)	0.70	5.0	U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Lab File ID: V3MBLK01 Lab Sample ID: V3MBLK0128

Date Analyzed: 01/28/08 Time Analyzed: 1731

Column: RTX-VRX ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V3MBLK0128LC	V3MBLK0128LCS	V3LCS01	1235
02	DPT-10 ASH	0801108-05	0110805D	1900
03	DPT-14 ASH	0801108-12	0110812D	1931
04				
05				
06				
07				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1-----	Acetone	84	200		U
107-13-1-----	Acrylonitrile	40	100		U
71-43-2-----	Benzene	6.0	12		U
74-97-5-----	Bromochloromethane	7.5	25		U
75-27-4-----	Bromodichloromethane	6.0	12		U
75-25-2-----	Bromoform	6.5	25		U
74-83-9-----	Bromomethane	6.5	25	17	J
78-93-3-----	2-Butanone	72	200		U
75-15-0-----	Carbon disulfide	7.5	25		U
56-23-5-----	Carbon tetrachloride	5.5	12		U
108-90-7-----	Chlorobenzene	5.0	12		U
75-00-3-----	Chloroethane	7.0	25		U
67-66-3-----	Chloroform	6.5	25		U
74-87-3-----	Chloromethane	14	50		U
124-48-1-----	Dibromochloromethane	7.0	25		U
96-12-8-----	1,2-Dibromo-3-chloropropane	4.5	12		U
106-93-4-----	1,2-Dibromoethane	7.0	25		U
74-95-3-----	Dibromomethane	7.0	25		U
95-50-1-----	1,2-Dichlorobenzene	5.5	12		U
106-46-7-----	1,4-Dichlorobenzene	5.0	25		U
110-57-6-----	trans-1,4-Dichloro-2-butene	30	100		U
75-34-3-----	1,1-Dichloroethane	5.5	12		U
107-06-2-----	1,2-Dichloroethane	6.5	25		U
75-35-4-----	1,1-Dichloroethene	6.5	25		U
156-59-2-----	cis-1,2-Dichloroethene	7.0	25		U
156-60-5-----	trans-1,2-Dichloroethene	7.5	25		U
78-87-5-----	1,2-Dichloropropane	5.5	12		U
10061-01-5----	cis-1,3-Dichloropropene	4.0	12		U
10061-02-6----	trans-1,3-Dichloropropene	6.0	12		U
100-41-4-----	Ethylbenzene	18	50		U
591-78-6-----	2-Hexanone	9.0	25		U
74-88-4-----	Iodomethane	6.0	12		U
75-09-2-----	Methylene chloride	12	25		U
108-10-1-----	4-Methyl-2-pentanone	18	50		U
100-42-5-----	Styrene	4.5	12		U
630-20-6-----	1,1,1,2-Tetrachloroethane	7.5	25		U
79-34-5-----	1,1,2,2-Tetrachloroethane	6.5	25		U
127-18-4-----	Tetrachloroethene	5.0	12		U
108-88-3-----	Toluene	8.0	25	8.6	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01108

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG CONC	UG/KG Q
		MDL	(ug/L or ug/Kg) RL		
71-55-6-----	1,1,1-Trichloroethane	6.0	12		U
79-00-5-----	1,1,2-Trichloroethane	5.0	12		U
79-01-6-----	Trichloroethene	12	25		U
75-69-4-----	Trichlorofluoromethane	6.0	12		U
96-18-4-----	1,2,3-Trichloropropane	7.0	25		U
108-05-4-----	Vinyl acetate	25	50		U
75-01-4-----	Vinyl chloride	10	25		U
1330-20-7-----	Xylene (total)	24	50		U

FORM I VOA

**ANALYTICAL REPORT
MAIN DATA PACKAGE - INORGANIC SECTION**

CH2M HILL, Inc.

WO #0801118

EMPIRICAL LABORATORIES, LLC

A handwritten signature in black ink, appearing to read "Marcia K. McGinnity". The signature is fluid and cursive, with a large, sweeping flourish at the end.

**Marcia K. McGinnity
Senior Project Manager**

FEBRUARY 8, 2008

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WO# 0801118

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INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801118
January, 2008

Empirical Laboratories ID	Client ID
0801118-01	DPT-23 ASH
0801118-02	DPT-23 SOIL
0801118-03	DPT-22 ASH
0801118-04	DPT-22 SOIL
0801118-05	DPT-21 ASH
0801118-06	DPT-21 SOIL

I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.


Betty DeVille
Inorganic Lab Manager

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

US EPA SW846

- Method 6010B was used to analyze ICAP metals using a TJA 61E Trace ICAP after digestion by method 3050B.
- Method 7471A was used to digest and analyze mercury using a FIMs Mercury analyzer.

Note: A "U" on the forms indicates that the analyte is reported down to the ILMO4.2 CRDL for ICAP metals. The "B" flag indicates that the analyte result is between the CRDL and the laboratory MDL. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

IV. PREPARATION

INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801118
January, 2008

USEPA SW846 method 3005A was used to digest ICAP metals. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

V. ANALYSIS

- A. Calibration:** All calibration criteria were met with the following exception: The second and third CCV in the first ICAP analysis was out of the specification limits of 90 to 110% for beryllium at 122.2 and 122.7. Samples DPT-23 ASH, DPT-23 SOIL, DPT-22 ASH, DPT-22 SOIL and DPT-21 ASH were impacted for beryllium. The sample concentrations for these sample may be biased high. The highest concentration for beryllium in the samples impacted is 0.38 mg/kg and the PRG concentration is 120 mg/kg.
- B. Blanks:** All blank criteria were met.
- C. Spikes:** All matrix spikes quality control criteria were met.
- D. Duplicates:** All duplicate quality control criteria were met.
- E. Samples:** All sample analysis proceeded normally.
- F. Laboratory Control Samples:** All percent recovery quality control criteria were met.

CH2M Hill, Inc.

Parameters Requested

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801118-01	DPT-23 ASH	Soil	01/18/08 10:25:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801118-02	DPT-23 SOIL	Soil	01/18/08 10:25:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801118-03	DPT-22 ASH	Soil	01/18/08 1:15:00 PM	% Solids Antimony Arsenic Barium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801118-03	DPT-22 ASH	Soil	01/18/08 1:15:00 PM	Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801118-04	DPT-22 SOIL	Soil	01/18/08 1:15:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801118-05	DPT-21 ASH	Soil	01/18/08 2:20:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801118-05	DPT-21 ASH	Soil	01/18/08 2:20:00 PM	Vanadium Zinc
0801118-06	DPT-21 SOIL	Soil	01/18/08 2:20:00 PM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801118-07	Blind Duplicate	Soil	01/18/08	% Solids

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43726

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to: Name: <u>Mark Sherril</u> Company: <u>CH2 M HILL</u> Address: <u>1000 Abernathy Rd Ste 1600</u> City: <u>Atlanta, GA</u> State, Zip: <u>GA 30328</u> Phone: <u>(678) 938-0973</u> Fax: <u>(770) 604-9153</u> E-mail: _____	Send Invoice to: <u>Same</u> Name: _____ Company: _____ Address: _____ City: _____ State, Zip: _____ Phone: _____ Fax: _____ E-mail: _____	Analysis Requirements: App 1 Metals 60108 App 1 VOC 82608	Lab Use Only: VOA Headspace Y <input checked="" type="radio"/> N NA Field Filtered Y <input checked="" type="radio"/> N NA Correct Containers <input checked="" type="radio"/> Y N NA Discrepancies Y <input checked="" type="radio"/> N NA Cust. Seals Intact <input checked="" type="radio"/> Y N NA Containers Intact <input checked="" type="radio"/> Y N NA Airbill #: _____ CAR #: _____
Project No./Name:		Sampler's (Signature):	

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	No. of Bottles	Lab Use Only Containers/Pres.	Comments
080118-01	1/18/08 1025	DPT-23 ASH	S	13	1M, 35	
-02	↓	DPT-23 SOIL	↓	↓	↓	
-03	1315	DPT-22 ASH	↓	↓	↓	
-04	↓	DPT-22 SOIL	↓	↓	↓	
-05	1400	DPT-21 ASH	↓	↓	↓	
-06	↓	DPT-21 SOIL	↓	↓	↓	
-07	11/18/08	Blind Duplicate	S	13	↓	

Sample Kit Prep'd by: (Signature)	Date/Time	Received By: (Signature)	REMARKS:	Details:
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Page <u>1</u> of <u>1</u>
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. <u>1</u> of <u>1</u>
Received for Laboratory by: (Signature)	Date/Time	Temperature		Date Shipped <u>1/18/08</u>
	Date/Time	Temperature	Shipped By <u>AT</u>	Turnaround <u>std</u>

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801118 COC ID(s): 43726

Client CH2m Hill Project Ft. Rucker

Sample Custodian E.J. Overby Today's Date 1-21-08

Date/Time Samples Received 1-19-08 10:00

Airbill Number FX

Cooler Opened: Date 1-19-08

Chain of custody seal intact? Yes No

Chain of custody provided? Yes No

Sample labels present? Yes No

Bottle labels correspond w/COC Yes No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-18-08

Type of coolant used Ice

Coolant condition : Melted _____ Partially melted/frozen

Frozen _____

of Coolers 1 Temp. of Coolers 3.2°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-23 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118
 Matrix (soil/water): SOIL Lab Sample ID: 0801118-01
 Level (low/med): LOW Date Received: 01/19/08
 % Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	5.6			P
7440-39-3	Barium	33.5			P
7440-41-7	Beryllium	0.38			P
7440-43-9	Cadmium	1.4			P
7440-47-3	Chromium	25.8			P
7439-92-1	Lead	47.2			P
7439-97-6	Mercury	0.12			AV
7440-02-0	Nickel	10.1			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.36	B		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	36.7			P
7440-66-6	Zinc	68.7			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-23 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Lab Sample ID: 0801118-02

Level (low/med): LOW Date Received: 01/19/08

% Solids: 89.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	3.2			P
7440-39-3	Barium	8.8	B		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.48			P
7440-47-3	Chromium	9.3			P
7439-92-1	Lead	2.1			P
7439-97-6	Mercury	0.015	U		AV
7440-02-0	Nickel	7.0			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.057	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	14.3			P
7440-66-6	Zinc	13.4			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

_____

Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-22 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Lab Sample ID: 0801118-03

Level (low/med): LOW Date Received: 01/19/08

% Solids: 77.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.34	U		P
7440-38-2	Arsenic	5.3			P
7440-39-3	Barium	12.3	B		P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	1.5			P
7440-47-3	Chromium	44.4			P
7439-92-1	Lead	130			P
7439-97-6	Mercury	0.33			AV
7440-02-0	Nickel	10.1			P
7782-49-2	Selenium	0.20	U		P
7440-22-4	Silver	0.088	B		P
7440-28-0	Thallium	0.20	U		P
7440-62-2	Vanadium	49.4			P
7440-66-6	Zinc	47.6			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-22 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Lab Sample ID: 0801118-04

Level (low/med): LOW Date Received: 01/19/08

% Solids: 75.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.33	U		P
7440-38-2	Arsenic	1.6			P
7440-39-3	Barium	3.9	B		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.60			P
7440-47-3	Chromium	15.0			P
7439-92-1	Lead	2.1			P
7439-97-6	Mercury	0.016	U		AV
7440-02-0	Nickel	9.2			P
7782-49-2	Selenium	0.20	U		P
7440-22-4	Silver	0.067	U		P
7440-28-0	Thallium	0.20	U		P
7440-62-2	Vanadium	11.8			P
7440-66-6	Zinc	18.5			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-21 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Lab Sample ID: 0801118-05

Level (low/med): LOW Date Received: 01/19/08

% Solids: 83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	1.4			P
7440-39-3	Barium	11.2	B		P
7440-41-7	Beryllium	0.12	U		P
7440-43-9	Cadmium	0.25	B		P
7440-47-3	Chromium	7.8			P
7439-92-1	Lead	9.9			P
7439-97-6	Mercury	0.018	B		AV
7440-02-0	Nickel	2.5			P
7782-49-2	Selenium	0.19	U		P
7440-22-4	Silver	0.062	U		P
7440-28-0	Thallium	0.19	U		P
7440-62-2	Vanadium	12.3			P
7440-66-6	Zinc	8.6			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-21 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118
 Matrix (soil/water): SOIL Lab Sample ID: 0801118-06
 Level (low/med): LOW Date Received: 01/19/08
 % Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.60	U		P
7440-38-2	Arsenic	7.5			P
7440-39-3	Barium	9.5	B		P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.12	U		P
7440-47-3	Chromium	39.8			P
7439-92-1	Lead	5.7			P
7439-97-6	Mercury	0.021	B		AV
7440-02-0	Nickel	8.8			P
7782-49-2	Selenium	0.43	B		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.36	U		P
7440-62-2	Vanadium	71.1			P
7440-66-6	Zinc	17.4			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



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3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	5.0	U	5.0	U	5.0	U	5.0	U	-0.277	B	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Barium	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.100	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	0.050	U	P
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	0.100	U	P
Lead	1.5	U	1.5	U	1.5	U	1.5	U	0.075	U	P
Mercury	0.080	U	0.080	U	0.080	U			0.013	U	AV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	0.050	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.150	U	P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	0.250	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	0.416	B	P

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3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank		M
			1	C	2	C	3	C	C		
Antimony			5.0	U							P
Arsenic			3.0	U							P
Barium			5.0	U							P
Beryllium			2.0	U							P
Cadmium			1.0	U							P
Chromium			2.0	U							P
Lead			1.5	U							P
Nickel			5.0	U							P
Selenium			3.0	U							P
Silver			1.0	U							P
Thallium			3.0	U							P
Vanadium			5.0	U							P
Zinc			5.0	U							P

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3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Antimony	5.0	U	5.0	U	5.0	U	5.0	U			P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U			P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U			P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U			P
Lead	1.5	U	1.5	U	1.5	U	1.5	U			P
Nickel	5.0	U	5.0	U	5.0	U	5.0	U			P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U			P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U			P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U			P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U			P

USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-21 SOILS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.3772 |	0.0214 | B	0.39	91.2		AV

Comments:



USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-21 SOILSD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.3652	0.0214 B	0.38	90.5		AV

Comments:



USEPA - CLP

6

DUPLICATES

SAMPLE NO.

DPT-21 SOILSD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.0 % Solids for Duplicate: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)		Duplicate (D)		RPD	Q	M
			C		C			
Mercury		0.3772		0.3652		3.2		AV

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801118
 Solid LCS Source: HighPurity
 Aqueous LCS Source: _____

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Antimony				12.5	11.5		10.0 | 15.0	92.0
Arsenic				12.5	11.6		10.0 | 15.0	92.8
Barium				100.0	101.2		80.0 | 120.0	101.2
Beryllium				2.5	3.0		2.0 | 3.0	120.0
Cadmium				6.3	6.1		5.0 | 7.5	96.8
Chromium				10.0	10.5		8.0 | 12.0	105.0
Lead				12.5	12.6		10.0 | 15.0	100.8
Mercury				0.33	0.29		0.3 | 0.4	87.9
Nickel				25.0	25.2		20.0 | 30.0	100.8
Selenium				12.5	12.0		10.0 | 15.0	96.0
Silver				12.5	14.2		10.0 | 15.0	113.6
Thallium				12.5	11.7		10.0 | 15.0	93.6
Vanadium				25.0	26.1		20.0 | 30.0	104.4
Zinc				25.0	27.8		20.0 | 30.0	111.2

ANALYTICAL REPORT
MAIN DATA PACKAGE – VOLATILES

CH2M Hill, Inc.

WO #0801118

Empirical Laboratories, LLC

A handwritten signature in black ink, appearing to read 'Marcia K. McGinnity', with a large, sweeping flourish extending to the right.

Marcia K. McGinnity
Senior Project Manager

FEBRUARY 8, 2008

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WO #0801118

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ORGANIC CASE NARRATIVE - VOLATILES
CH2M Hill, Inc. – Ft. Rucker
Work order: 0801118

Sampled	Received	Lab ID	Client ID
18-Jan-2008	19-Jan-2008	0801118-01	DPT-23 ASH
18-Jan-2008	19-Jan-2008	0801118-02	DPT-23 SOIL
18-Jan-2008	19-Jan-2008	0801118-03	DPT-22 ASH
18-Jan-2008	19-Jan-2008	0801118-04	DPT-22 SOIL
18-Jan-2008	19-Jan-2008	0801118-05	DPT-21 ASH
18-Jan-2008	19-Jan-2008	0801118-06	DPT-21 SOIL
18-Jan-2008	19-Jan-2008	0801118-07	Blind Duplicate

Method: The samples were extracted/analyzed for client specified analyte lists by USEPA SW-846 Methods 5035/8260B (terracore field sampling then purge and trap followed by capillary column GC/MS) for soils upon receipt to the laboratory in satisfactory condition.

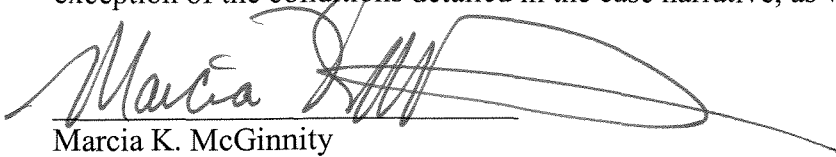
Comments: The analyses for these samples were satisfactorily completed within sample holding times and met the corresponding specifications with the following notes/exceptions:

- Sample weights: Terracore containers were shipped with sample weights between 5 and 15 grams. The standard laboratory cutoff for analysis weight on low-level vials is 8 grams. However, arrangements were made for low-level analysis despite the high sample weights. Internal standard area count issues were monitored and any with less than 30% relative to the continuing calibration area counts were analyzed from the methanol extract. All analyses were performed to provide the lowest quantitation limits possible.
- Analyte List: All samples were reported for the appendix I analyte list specified in the statement of work.
- BFB Tuning: All method tuning criteria were met. Analysis of spike sample V1BLK0124LCSD was started 12 hours 27 minutes after the associated BFB tuning standard.
- Calibration Criteria: All method calibration criteria were met.
- Method Blank Results: Positive results for acetone, bromomethane and/or toluene were detected in methanol blanks V1BLK0124 and V3MBLK0128. Reported concentrations in the associated samples are qualified with a "B".
- Surrogate Recoveries: All recoveries were within limits with the exception of toluene-d8 with a positive bias and bromofluorobenzene with a negative bias in the low-level analysis of sample DPT-21 ASH and d4-1,2-dichloroethane with a negative bias in sample DPT-22 ASH. These are attributed to the sample weight and decreased internal standard area counts as discussed below.
- LCS(/LCSD) results: Chloromethane and 2-butanone exceeded the upper recovery limits in spike samples V1BLK0124LCS/LCSD. All other recoveries (and relative percent differences) were within limits.
- MS/MSD results: Not applicable.
- Internal Standard Area Counts: Due to the sample weight, area counts for DCB were less than 50% of that found in the associated continuing calibration verification (CCV) for samples DPT-22 ASH (49.5%) and DPT-21 ASH (33.2%). A list of internal standard

associations is attached for reference.

- Dilutions: Due to extremely poor low-level analyses on sample Blind Duplicate was reported from the methanol extract, only.

I certify that, to the best of my knowledge and based upon my inquiry of those individuals immediately responsible for obtaining the information, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.

A handwritten signature in black ink, appearing to read "Marcia K. McGinnity", written over a horizontal line. The signature is stylized and cursive.

Marcia K. McGinnity
Senior Project Manager

ANALYTICAL REPORT TERMS AND QUALIFIERS (ORGANIC)

- MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.
- EQL:** The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.
- U:** The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.
- B:** The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The data pass the identification criteria indicating that the compound is present, but the calculated result is less than the EQL.

INTERNAL STANDARD ASSOCIATION / QUANT ION TABLE

COMPOUND	QUANT MASS	* I.S.	COMPOUND	QUANT MASS	* I.S.
*Fluorobenzene (1)	96		Dibromomethane	93	1
*Chlorobenzene-d5 (2)	117		1,1,2-Trichloroethane	83	2
*1,4-Dichlorobenzene-d4 (3)	152		1,2,3-Trichloropropane	110	2
Bromomethane	94	1	Hexachlorobutadiene	225	3
Chloroethane	64	1	Isopropylbenzene	105	2
Vinyl chloride	62	1	Isopropyltoluene	119	3
Chloromethane	50	1	Methylene Chloride	84	1
Dichlorodifluoromethane	85	1	Naphthalene	128	3
Acetonitrile	41	1	Propionitrile	54	1
Allyl chloride	41	1	n-Propylbenzene	91	3
Trichlorofluoromethane	101	1	Styrene	104	2
Benzene	78	1	1,1,1,2-Tetrachloroethane	131	2
Bromobenzene	156	3	1,1,2,2-Tetrachloroethane	83	3
Bromochloromethane	128	1	Tetrachloroethene	166	2
Bromodichloromethane	83	2	Toluene	92	2
Bromoform	173	2	1,2,3-Trichlorobenzene	180	3
n-Butylbenzene	91	3	1,2,4-Trichlorobenzene	180	3
sec-Butylbenzene	105	3	1,2,4-Trimethylbenzene	105	3
tert-butylbenzene	119	3	1,3,5-Trimethylbenzene	105	3
Carbon tetrachloride	117	1	m-Xylene	91	2
Chlorobenzene	112	2	p-Xylene	91	2
Chloroform	83	1	o-Xylene	91	2
Chloroprene	53	1	Acrolein	56	1
2-Chlorotoluene	91	3	Acrylonitrile	53	1
4-Chlorotoluene	91	3	Tetrahydrofuran	42	1
Dibromochloromethane	129	2	MTBE	73	1
1,2-Dibromo-3-chloropropane	157	3	Methacrylonitrile	41	1
1,2-Dibromoethane	107	2	Methyl methacrylate	41	1
1,2-Dichlorobenzene	146	3	Ethyl methacrylate	69	2
1,3-Dichlorobenzene	146	3	1,1,2-Trichlorotrifluoroethane	101	1
1,4-Dichlorobenzene	146	3	Cyclohexane	56	1
1,1-Dichloroethane	63	1	Methylcyclohexane	83	1
1,2-Dichloroethane	62	1	Methyl acetate	43	1
1,1-Dichloroethene	96	1	Carbon disulfide	76	1
cis-1,2-Dichloroethene	96	1	Iodomethane	142	1
trans-1,2-Dichloroethene	96	1	Vinyl acetate	43	1
trans-1,4-Dichloro-2-butene	53	3	2-Chloroethyl vinyl ether	63	1
1,2-Dichloropropane	63	1	Acetone	43	1
1,3-Dichloropropane	76	2	2-butanone	43	1
2,2-Dichloropropane	77	1	2-hexanone	43	2
1,1-Dichloropropene	75	1	Isobutyl alcohol	43	1
cis-1,3-Dichloropropene	75	1	1,4-Dioxane	88	1
trans-1,3-Dichloropropene	75	2	4-methyl-2-pentanone	43	1
Ethylbenzene	91	2	Dibromofluoromethane (S)	111	1
1,1,1-Trichloroethane	97	1	1,2-Dichloroethane-d4 (S)	102	1
Trichloroethene	95	1	Toluene-d8 (S)	98	2
			Bromofluorobenzene (S)	95	2

*I.S.=internal Standard.

S=surrogate.

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43726

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to: Name: <u>Mark Sheril</u> Company: <u>CH2M HILL</u> Address: <u>1000 Abernathy Rd Ste 600</u> City: <u>Atlanta, GA</u> State, Zip: <u>GA 30328</u> Phone: <u>(678) 938-0923</u> Fax: <u>(770) 604-9183</u> E-mail: _____	Send Invoice to: Name: <u>Same</u> Company: _____ Address: _____ City: _____ State, Zip: _____ Phone: _____ Fax: _____ E-mail: _____	Analysis Requirements: (Grid of 12 columns for analysis requirements)	Lab Use Only: VOA Headspace Y <u>N</u> NA Field Filtered Y <u>N</u> NA Correct Containers <u>Y</u> N NA Discrepancies Y <u>N</u> NA Cust. Seals Intact <u>Y</u> N NA Containers Intact <u>Y</u> N NA Airbill #: _____ CAR #: _____
Project No./Name: _____		Sampler's (Signature): _____	

App 1 Metals 60108
 App 1 VOC 82608

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	No. of Bottles	Lab Use Only Containers/Pres.	Comments
080118-01	1/18/08 10:25	DPT-23 ASH	S	13	4	IM, 35
-02	↓	DPT-23 SOIL	↓	↓	↓	
-03	13:15	DPT-22 ASH	↓	↓	↓	
-04	↓	DPT-22 SOIL	↓	↓	↓	
-05	14:20	DPT-21 ASH	↓	↓	↓	
-06	↓	DPT-21 SOIL	↓	↓	↓	
-07	1/18/08	Blind Duplicate	S	13	4	

Sample Kit Prep'd by: (Signature) _____ Relinquished by: (Signature) _____ Relinquished by: (Signature) _____ Received for Laboratory by: (Signature) _____	Date/Time _____ 1/19/08 18:00 1-19-08 1-21-08	Received By: (Signature) _____ Received By: (Signature) _____ Received By: (Signature) _____ Temperature 3.2°C	REMARKS: _____	Details: Page <u>1</u> of <u>1</u> Cooler No. <u>1</u> of <u>1</u> Date Shipped <u>1/18/08</u> Shipped By <u>AT</u> Turnaround <u>Std</u>
--	---	--	----------------	--

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

Empirical Laboratories, LLC
 00005

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801118 COC ID(s): 43726

Client CH2M Hill Project Ft. Rucker

Sample Custodian E.J. Overby Today's Date 1-21-08

Date/Time Samples Received 1-19-08 10:00

Airbill Number FX

Cooler Opened: Date 1-19-08

Chain of custody seal intact? Yes No

Chain of custody provided? Yes No

Sample labels present? Yes No

Bottle labels correspond w/COC Yes No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-18-08

Type of coolant used Ice

Coolant condition : Melted _____ Partially melted/frozen
Frozen _____

of Coolers 1 Temp. of Coolers 3.2°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-23 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-01

Sample wt/vol: 11.3 (g/mL) G Lab File ID: 111801B

Level: (low/med) LOW Date Sampled: 01/18/08 10:25

% Moisture: not dec. 14 Date Analyzed: 01/24/08 15:22

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
67-64-1	Acetone	1.0	26	28	B
107-13-1	Acrylonitrile	0.72	13		U
71-43-2	Benzene	0.24	2.6	1.3	J
74-97-5	Bromochloromethane	0.22	5.1		U
75-27-4	Bromodichloromethane	0.15	2.6		U
75-25-2	Bromoform	0.51	2.6		U
74-83-9	Bromomethane	0.37	5.1		U
78-93-3	2-Butanone	0.72	26	6.5	J
75-15-0	Carbon disulfide	0.67	2.6	3.0	
56-23-5	Carbon tetrachloride	0.45	2.6		U
108-90-7	Chlorobenzene	0.18	2.6		U
75-00-3	Chloroethane	0.57	5.1		U
67-66-3	Chloroform	0.28	2.6		U
74-87-3	Chloromethane	0.27	5.1	0.84	J
124-48-1	Dibromochloromethane	0.18	2.6		U
96-12-8	1,2-Dibromo-3-chloropropane	0.62	5.1		U
106-93-4	1,2-Dibromoethane	0.22	2.6		U
74-95-3	Dibromomethane	0.21	2.6		U
95-50-1	1,2-Dichlorobenzene	0.19	2.6		U
106-46-7	1,4-Dichlorobenzene	0.28	2.6		U
110-57-6	trans-1,4-Dichloro-2-butene	4.1	13		U
75-34-3	1,1-Dichloroethane	0.28	2.6		U
107-06-2	1,2-Dichloroethane	0.24	2.6		U
75-35-4	1,1-Dichloroethene	0.62	2.6		U
156-59-2	cis-1,2-Dichloroethene	0.62	2.6		U
156-60-5	trans-1,2-Dichloroethene	0.57	2.6		U
78-87-5	1,2-Dichloropropane	0.24	2.6		U
10061-01-5	cis-1,3-Dichloropropene	0.26	2.6		U
10061-02-6	trans-1,3-Dichloropropene	0.16	2.6		U
100-41-4	Ethylbenzene	0.39	2.6		U
591-78-6	2-Hexanone	1.2	13		U
74-88-4	Iodomethane	0.43	13		U
75-09-2	Methylene chloride	0.32	5.1		U
108-10-1	4-Methyl-2-pentanone	0.30	13	0.70	J
100-42-5	Styrene	0.18	2.6		U
630-20-6	1,1,1,2-Tetrachloroethane	0.16	2.6		U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	2.6		U
127-18-4	Tetrachloroethene	0.50	2.6		U
108-88-3	Toluene	0.44	2.6	0.79	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-23 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-01

Sample wt/vol: 11.3 (g/mL) G Lab File ID: 111801B

Level: (low/med) LOW Date Sampled: 01/18/08 10:25

% Moisture: not dec. 14 Date Analyzed: 01/24/08 15:22

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.46	2.6		U
79-00-5-----	1,1,2-Trichloroethane	0.18	2.6		U
79-01-6-----	Trichloroethene	0.44	2.6		U
75-69-4-----	Trichlorofluoromethane	0.49	5.1		U
96-18-4-----	1,2,3-Trichloropropane	0.36	2.6		U
108-05-4-----	Vinyl acetate	0.28	13		U
75-01-4-----	Vinyl chloride	0.57	5.1		U
1330-20-7-----	Xylene (total)	0.36	2.6		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-23 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-02

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 111802B

Level: (low/med) LOW Date Sampled: 01/18/08 10:25

% Moisture: not dec. 11 Date Analyzed: 01/24/08 16:00

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1-----	Acetone	0.91	23	9.6	JB
107-13-1-----	Acrylonitrile	0.64	11		U
71-43-2-----	Benzene	0.21	2.3		U
74-97-5-----	Bromochloromethane	0.19	4.5		U
75-27-4-----	Bromodichloromethane	0.14	2.3		U
75-25-2-----	Bromoform	0.45	2.3		U
74-83-9-----	Bromomethane	0.33	4.5		U
78-93-3-----	2-Butanone	0.64	23		U
75-15-0-----	Carbon disulfide	0.59	2.3		U
56-23-5-----	Carbon tetrachloride	0.40	2.3		U
108-90-7-----	Chlorobenzene	0.15	2.3		U
75-00-3-----	Chloroethane	0.50	4.5		U
67-66-3-----	Chloroform	0.25	2.3		U
74-87-3-----	Chloromethane	0.24	4.5		U
124-48-1-----	Dibromochloromethane	0.15	2.3		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.54	4.5		U
106-93-4-----	1,2-Dibromoethane	0.20	2.3		U
74-95-3-----	Dibromomethane	0.19	2.3		U
95-50-1-----	1,2-Dichlorobenzene	0.17	2.3		U
106-46-7-----	1,4-Dichlorobenzene	0.25	2.3		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.6	11		U
75-34-3-----	1,1-Dichloroethane	0.24	2.3		U
107-06-2-----	1,2-Dichloroethane	0.21	2.3		U
75-35-4-----	1,1-Dichloroethene	0.54	2.3		U
156-59-2-----	cis-1,2-Dichloroethene	0.54	2.3		U
156-60-5-----	trans-1,2-Dichloroethene	0.50	2.3		U
78-87-5-----	1,2-Dichloropropane	0.21	2.3		U
10061-01-5----	cis-1,3-Dichloropropene	0.23	2.3		U
10061-02-6----	trans-1,3-Dichloropropene	0.14	2.3		U
100-41-4-----	Ethylbenzene	0.34	2.3		U
591-78-6-----	2-Hexanone	1.0	11		U
74-88-4-----	Iodomethane	0.38	11		U
75-09-2-----	Methylene chloride	0.28	4.5		U
108-10-1-----	4-Methyl-2-pentanone	0.26	11		U
100-42-5-----	Styrene	0.16	2.3		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.14	2.3		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.20	2.3		U
127-18-4-----	Tetrachloroethene	0.44	2.3		U
108-88-3-----	Toluene	0.39	2.3		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-23 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-02

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 111802B

Level: (low/med) LOW Date Sampled: 01/18/08 10:25

% Moisture: not dec. 11 Date Analyzed: 01/24/08 16:00

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL CONC	UG/KG Q
71-55-6-----	1,1,1-Trichloroethane	0.41	2.3	U
79-00-5-----	1,1,2-Trichloroethane	0.16	2.3	U
79-01-6-----	Trichloroethene	0.39	2.3	U
75-69-4-----	Trichlorofluoromethane	0.43	4.5	U
96-18-4-----	1,2,3-Trichloropropane	0.32	2.3	U
108-05-4-----	Vinyl acetate	0.25	11	U
75-01-4-----	Vinyl chloride	0.50	4.5	U
1330-20-7-----	Xylene (total)	0.32	2.3	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-22 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-03

Sample wt/vol: 10.9 (g/mL) G Lab File ID: 111803B

Level: (low/med) LOW Date Sampled: 01/18/08 13:15

% Moisture: not dec. 23 Date Analyzed: 01/24/08 16:38

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----Acetone	1.2	30	66	B
107-13-1-----Acrylonitrile	0.84	15		U
71-43-2-----Benzene	0.28	3.0		U
74-97-5-----Bromochloromethane	0.25	6.0		U
75-27-4-----Bromodichloromethane	0.18	3.0		U
75-25-2-----Bromoform	0.60	3.0		U
74-83-9-----Bromomethane	0.43	6.0		U
78-93-3-----2-Butanone	0.84	30	8.0	J
75-15-0-----Carbon disulfide	0.78	3.0		U
56-23-5-----Carbon tetrachloride	0.53	3.0		U
108-90-7-----Chlorobenzene	0.20	3.0		U
75-00-3-----Chloroethane	0.66	6.0		U
67-66-3-----Chloroform	0.33	3.0		U
74-87-3-----Chloromethane	0.31	6.0		U
124-48-1-----Dibromochloromethane	0.20	3.0		U
96-12-8-----1,2-Dibromo-3-chloropropane	0.72	6.0		U
106-93-4-----1,2-Dibromoethane	0.26	3.0		U
74-95-3-----Dibromomethane	0.25	3.0		U
95-50-1-----1,2-Dichlorobenzene	0.22	3.0		U
106-46-7-----1,4-Dichlorobenzene	0.33	3.0		U
110-57-6-----trans-1,4-Dichloro-2-butene	4.8	15		U
75-34-3-----1,1-Dichloroethane	0.32	3.0		U
107-06-2-----1,2-Dichloroethane	0.28	3.0		U
75-35-4-----1,1-Dichloroethene	0.72	3.0		U
156-59-2-----cis-1,2-Dichloroethene	0.72	3.0		U
156-60-5-----trans-1,2-Dichloroethene	0.66	3.0		U
78-87-5-----1,2-Dichloropropane	0.28	3.0		U
10061-01-5----cis-1,3-Dichloropropene	0.30	3.0		U
10061-02-6----trans-1,3-Dichloropropene	0.19	3.0		U
100-41-4-----Ethylbenzene	0.45	3.0		U
591-78-6-----2-Hexanone	1.4	15		U
74-88-4-----Iodomethane	0.50	15		U
75-09-2-----Methylene chloride	0.37	6.0		U
108-10-1-----4-Methyl-2-pentanone	0.35	15		U
100-42-5-----Styrene	0.21	3.0		U
630-20-6-----1,1,1,2-Tetrachloroethane	0.19	3.0		U
79-34-5-----1,1,2,2-Tetrachloroethane	0.26	3.0		U
127-18-4-----Tetrachloroethene	0.58	3.0		U
108-88-3-----Toluene	0.52	3.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-22 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-03

Sample wt/vol: 10.9 (g/mL) G Lab File ID: 111803B

Level: (low/med) LOW Date Sampled: 01/18/08 13:15

% Moisture: not dec. 23 Date Analyzed: 01/24/08 16:38

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		
		MDL	RL	CONC Q
71-55-6-----	1,1,1-Trichloroethane	0.54	3.0	U
79-00-5-----	1,1,2-Trichloroethane	0.21	3.0	U
79-01-6-----	Trichloroethene	0.51	3.0	U
75-69-4-----	Trichlorofluoromethane	0.57	6.0	U
96-18-4-----	1,2,3-Trichloropropane	0.42	3.0	U
108-05-4-----	Vinyl acetate	0.33	15	U
75-01-4-----	Vinyl chloride	0.66	6.0	U
1330-20-7-----	Xylene (total)	0.42	3.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-22 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-04

Sample wt/vol: 7.5 (g/mL) G Lab File ID: 111804B

Level: (low/med) LOW Date Sampled: 01/18/08 13:15

% Moisture: not dec. 25 Date Analyzed: 01/24/08 17:16

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----Acetone	1.8	45	6.1	JB
107-13-1-----Acrylonitrile	1.2	22		U
71-43-2-----Benzene	0.42	4.5		U
74-97-5-----Bromochloromethane	0.38	9.0		U
75-27-4-----Bromodichloromethane	0.27	4.5		U
75-25-2-----Bromoform	0.90	4.5		U
74-83-9-----Bromomethane	0.65	9.0		U
78-93-3-----2-Butanone	1.2	45		U
75-15-0-----Carbon disulfide	1.2	4.5		U
56-23-5-----Carbon tetrachloride	0.79	4.5		U
108-90-7-----Chlorobenzene	0.30	4.5		U
75-00-3-----Chloroethane	0.99	9.0		U
67-66-3-----Chloroform	0.49	4.5		U
74-87-3-----Chloromethane	0.47	9.0		U
124-48-1-----Dibromochloromethane	0.30	4.5		U
96-12-8-----1,2-Dibromo-3-chloropropane	1.1	9.0		U
106-93-4-----1,2-Dibromoethane	0.38	4.5		U
74-95-3-----Dibromomethane	0.37	4.5		U
95-50-1-----1,2-Dichlorobenzene	0.33	4.5		U
106-46-7-----1,4-Dichlorobenzene	0.49	4.5		U
110-57-6-----trans-1,4-Dichloro-2-butene	7.2	22		U
75-34-3-----1,1-Dichloroethane	0.48	4.5		U
107-06-2-----1,2-Dichloroethane	0.41	4.5		U
75-35-4-----1,1-Dichloroethene	1.1	4.5		U
156-59-2-----cis-1,2-Dichloroethene	1.1	4.5		U
156-60-5-----trans-1,2-Dichloroethene	0.99	4.5		U
78-87-5-----1,2-Dichloropropane	0.41	4.5		U
10061-01-5----cis-1,3-Dichloropropene	0.45	4.5		U
10061-02-6----trans-1,3-Dichloropropene	0.29	4.5		U
100-41-4-----Ethylbenzene	0.67	4.5		U
591-78-6-----2-Hexanone	2.1	22		U
74-88-4-----Iodomethane	0.74	22		U
75-09-2-----Methylene chloride	0.56	9.0		U
108-10-1-----4-Methyl-2-pentanone	0.52	22		U
100-42-5-----Styrene	0.31	4.5		U
630-20-6-----1,1,1,2-Tetrachloroethane	0.29	4.5		U
79-34-5-----1,1,2,2-Tetrachloroethane	0.38	4.5		U
127-18-4-----Tetrachloroethene	0.87	4.5		U
108-88-3-----Toluene	0.77	4.5		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-22 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-04

Sample wt/vol: 7.5 (g/mL) G Lab File ID: 111804B

Level: (low/med) LOW Date Sampled: 01/18/08 13:15

% Moisture: not dec. 25 Date Analyzed: 01/24/08 17:16

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL CONC	UG/KG Q
71-55-6-----	1,1,1-Trichloroethane	0.81	4.5	U
79-00-5-----	1,1,2-Trichloroethane	0.31	4.5	U
79-01-6-----	Trichloroethene	0.76	4.5	U
75-69-4-----	Trichlorofluoromethane	0.85	9.0	U
96-18-4-----	1,2,3-Trichloropropane	0.63	4.5	U
108-05-4-----	Vinyl acetate	0.49	22	U
75-01-4-----	Vinyl chloride	0.99	9.0	U
1330-20-7-----	Xylene (total)	0.63	4.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-21 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-05

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 111805A

Level: (low/med) LOW Date Sampled: 01/18/08 14:20

% Moisture: not dec. 17 Date Analyzed: 01/24/08 17:55

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
67-64-1	Acetone	1.1	27	27	B
107-13-1	Acrylonitrile	0.75	13		U
71-43-2	Benzene	0.25	2.7	1.4	J
74-97-5	Bromochloromethane	0.22	5.4		U
75-27-4	Bromodichloromethane	0.16	2.7		U
75-25-2	Bromoform	0.54	2.7		U
74-83-9	Bromomethane	0.39	5.4		U
78-93-3	2-Butanone	0.75	27		U
75-15-0	Carbon disulfide	0.70	2.7		U
56-23-5	Carbon tetrachloride	0.47	2.7		U
108-90-7	Chlorobenzene	0.18	2.7		U
75-00-3	Chloroethane	0.59	5.4		U
67-66-3	Chloroform	0.30	2.7		U
74-87-3	Chloromethane	0.28	5.4		U
124-48-1	Dibromochloromethane	0.18	2.7		U
96-12-8	1,2-Dibromo-3-chloropropane	0.64	5.4		U
106-93-4	1,2-Dibromoethane	0.23	2.7		U
74-95-3	Dibromomethane	0.22	2.7		U
95-50-1	1,2-Dichlorobenzene	0.20	2.7		U
106-46-7	1,4-Dichlorobenzene	0.30	2.7		U
110-57-6	trans-1,4-Dichloro-2-butene	4.3	13		U
75-34-3	1,1-Dichloroethane	0.29	2.7		U
107-06-2	1,2-Dichloroethane	0.25	2.7		U
75-35-4	1,1-Dichloroethene	0.64	2.7		U
156-59-2	cis-1,2-Dichloroethene	0.64	2.7		U
156-60-5	trans-1,2-Dichloroethene	0.59	2.7		U
78-87-5	1,2-Dichloropropane	0.25	2.7		U
10061-01-5	cis-1,3-Dichloropropene	0.27	2.7		U
10061-02-6	trans-1,3-Dichloropropene	0.17	2.7		U
100-41-4	Ethylbenzene	0.40	2.7		U
591-78-6	2-Hexanone	1.2	13		U
74-88-4	Iodomethane	0.45	13		U
75-09-2	Methylene chloride	0.33	5.4		U
108-10-1	4-Methyl-2-pentanone	0.31	13		U
100-42-5	Styrene	0.19	2.7		U
630-20-6	1,1,1,2-Tetrachloroethane	0.17	2.7		U
79-34-5	1,1,2,2-Tetrachloroethane	0.23	2.7		U
127-18-4	Tetrachloroethene	0.52	2.7		U
108-88-3	Toluene	0.46	2.7	0.59	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-21 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-05

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 111805A

Level: (low/med) LOW Date Sampled: 01/18/08 14:20

% Moisture: not dec. 17 Date Analyzed: 01/24/08 17:55

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.48	2.7		U
79-00-5-----	1,1,2-Trichloroethane	0.19	2.7		U
79-01-6-----	Trichloroethene	0.46	2.7		U
75-69-4-----	Trichlorofluoromethane	0.51	5.4		U
96-18-4-----	1,2,3-Trichloropropane	0.38	2.7		U
108-05-4-----	Vinyl acetate	0.30	13		U
75-01-4-----	Vinyl chloride	0.59	5.4		U
1330-20-7-----	Xylene (total)	0.38	2.7	2.1	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-21 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-06

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 111806A

Level: (low/med) LOW Date Sampled: 01/18/08 14:20

% Moisture: not dec. 14 Date Analyzed: 01/24/08 18:33

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	1.1	28	5.9	JB
107-13-1-----	Acrylonitrile	0.77	14		U
71-43-2-----	Benzene	0.26	2.8		U
74-97-5-----	Bromochloromethane	0.23	5.5		U
75-27-4-----	Bromodichloromethane	0.16	2.8		U
75-25-2-----	Bromoform	0.55	2.8		U
74-83-9-----	Bromomethane	0.40	5.5		U
78-93-3-----	2-Butanone	0.77	28		U
75-15-0-----	Carbon disulfide	0.72	2.8		U
56-23-5-----	Carbon tetrachloride	0.48	2.8		U
108-90-7-----	Chlorobenzene	0.19	2.8		U
75-00-3-----	Chloroethane	0.61	5.5		U
67-66-3-----	Chloroform	0.30	2.8		U
74-87-3-----	Chloromethane	0.29	5.5		U
124-48-1-----	Dibromochloromethane	0.19	2.8		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.66	5.5		U
106-93-4-----	1,2-Dibromoethane	0.24	2.8		U
74-95-3-----	Dibromomethane	0.23	2.8		U
95-50-1-----	1,2-Dichlorobenzene	0.20	2.8		U
106-46-7-----	1,4-Dichlorobenzene	0.30	2.8		U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.4	14		U
75-34-3-----	1,1-Dichloroethane	0.30	2.8		U
107-06-2-----	1,2-Dichloroethane	0.25	2.8		U
75-35-4-----	1,1-Dichloroethene	0.66	2.8		U
156-59-2-----	cis-1,2-Dichloroethene	0.66	2.8		U
156-60-5-----	trans-1,2-Dichloroethene	0.61	2.8		U
78-87-5-----	1,2-Dichloropropane	0.25	2.8		U
10061-01-5----	cis-1,3-Dichloropropene	0.28	2.8		U
10061-02-6----	trans-1,3-Dichloropropene	0.18	2.8		U
100-41-4-----	Ethylbenzene	0.41	2.8		U
591-78-6-----	2-Hexanone	1.3	14		U
74-88-4-----	Iodomethane	0.46	14		U
75-09-2-----	Methylene chloride	0.34	5.5		U
108-10-1-----	4-Methyl-2-pentanone	0.32	14		U
100-42-5-----	Styrene	0.19	2.8		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.18	2.8		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.24	2.8		U
127-18-4-----	Tetrachloroethene	0.54	2.8		U
108-88-3-----	Toluene	0.47	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-21 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-06

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 111806A

Level: (low/med) LOW Date Sampled: 01/18/08 14:20

% Moisture: not dec. 14 Date Analyzed: 01/24/08 18:33

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.50	2.8		U
79-00-5-----	1,1,2-Trichloroethane	0.19	2.8		U
79-01-6-----	Trichloroethene	0.47	2.8		U
75-69-4-----	Trichlorofluoromethane	0.52	5.5		U
96-18-4-----	1,2,3-Trichloropropane	0.39	2.8		U
108-05-4-----	Vinyl acetate	0.30	14		U
75-01-4-----	Vinyl chloride	0.61	5.5		U
1330-20-7-----	Xylene (total)	0.39	2.8		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLIND DUPLICATE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-07

Sample wt/vol: 7.9 (g/mL) G Lab File ID: 0111807D

Level: (low/med) MED Date Sampled: 01/18/08 :

% Moisture: not dec. 14 Date Analyzed: 01/28/08 20:00

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	62	150		U
107-13-1-----	Acrylonitrile	30	74		U
71-43-2-----	Benzene	4.4	9.2		U
74-97-5-----	Bromochloromethane	5.5	18		U
75-27-4-----	Bromodichloromethane	4.4	9.2		U
75-25-2-----	Bromoform	4.8	18		U
74-83-9-----	Bromomethane	4.8	18		U
78-93-3-----	2-Butanone	53	150		U
75-15-0-----	Carbon disulfide	5.5	18		U
56-23-5-----	Carbon tetrachloride	4.0	9.2	4.4	J
108-90-7-----	Chlorobenzene	3.7	9.2		U
75-00-3-----	Chloroethane	5.2	18		U
67-66-3-----	Chloroform	4.8	18		U
74-87-3-----	Chloromethane	10	37		U
124-48-1-----	Dibromochloromethane	5.2	18		U
96-12-8-----	1,2-Dibromo-3-chloropropane	3.3	9.2		U
106-93-4-----	1,2-Dibromoethane	5.2	18		U
74-95-3-----	Dibromomethane	5.2	18		U
95-50-1-----	1,2-Dichlorobenzene	4.0	9.2		U
106-46-7-----	1,4-Dichlorobenzene	3.7	18		U
110-57-6-----	trans-1,4-Dichloro-2-butene	22	74		U
75-34-3-----	1,1-Dichloroethane	4.0	9.2		U
107-06-2-----	1,2-Dichloroethane	4.8	18		U
75-35-4-----	1,1-Dichloroethene	4.8	18		U
156-59-2-----	cis-1,2-Dichloroethene	5.2	18		U
156-60-5-----	trans-1,2-Dichloroethene	5.5	18		U
78-87-5-----	1,2-Dichloropropane	4.0	9.2		U
10061-01-5----	cis-1,3-Dichloropropene	3.0	9.2		U
10061-02-6----	trans-1,3-Dichloropropene	4.4	9.2		U
100-41-4-----	Ethylbenzene	13	37		U
591-78-6-----	2-Hexanone	6.6	18		U
74-88-4-----	Iodomethane	4.4	9.2		U
75-09-2-----	Methylene chloride	8.5	18	120	U
108-10-1-----	4-Methyl-2-pentanone	13	37		U
100-42-5-----	Styrene	3.3	9.2		U
630-20-6-----	1,1,1,2-Tetrachloroethane	5.5	18		U
79-34-5-----	1,1,2,2-Tetrachloroethane	4.8	18		U
127-18-4-----	Tetrachloroethene	3.7	9.2		U
108-88-3-----	Toluene	5.9	18		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLIND DUPLICATE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: 0801118-07

Sample wt/vol: 7.9 (g/mL) G Lab File ID: 0111807D

Level: (low/med) MED Date Sampled: 01/18/08 :

% Moisture: not dec. 14 Date Analyzed: 01/28/08 20:00

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	4.4	9.2		U
79-00-5-----	1,1,2-Trichloroethane	3.7	9.2		U
79-01-6-----	Trichloroethene	8.5	18		U
75-69-4-----	Trichlorofluoromethane	4.4	9.2		U
96-18-4-----	1,2,3-Trichloropropane	5.2	18		U
108-05-4-----	Vinyl acetate	18	37		U
75-01-4-----	Vinyl chloride	7.4	18		U
1330-20-7-----	Xylene (total)	17	37		U

FORM I VOA

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V1BLK0124LCS	94	94	102	97	0
02	V1BLK0124	97	93	102	94	0
03	DPT-23 ASH	98	99	110	84	0
04	DPT-23 SOIL	95	93	103	97	0
05	DPT-22 ASH	82	72*	108	86	1
06	DPT-22 SOIL	98	92	101	98	0
07	DPT-21 ASH	102	94	127*	74*	2
08	DPT-21 SOIL	98	101	105	99	0
09	V1BLK0124LCS	96	98	103	99	0
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11						
12						
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	EL QC LIMITS	SPIKE CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	30
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	30
SMC3 (TOL) = Toluene-d8	(80-120)	30
SMC4 (BFB) = Bromofluorobenzene	(80-125)	30

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118
 Level: (low/med) MED

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V3MBLK0128LC	99	99	99	99	0
02	V3MBLK0128	99	102	102	105	0
03	BLIND DUPLIC	102	105	101	104	0
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	EL QC LIMITS	SPIKE CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	1500
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	1500
SMC3 (TOL) = Toluene-d8	(80-120)	1500
SMC4 (BFB) = Bromofluorobenzene	(80-125)	1500

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate results reported from a diluted analysis

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	2.760	75.00	72	20-160
Acrylonitrile	250.0	0.0000	252.1	101	35-180
Benzene	50.00	0.0000	49.65	99	75-125
Bromochloromethane	50.00	0.0000	44.80	90	70-125
Bromodichloromethane	50.00	0.0000	45.42	91	70-130
Bromoform	50.00	0.0000	48.62	97	55-135
Bromomethane	50.00	0.0000	35.94	72	30-160
2-Butanone	100.0	0.0000	168.4	168*	30-160
Carbon disulfide	50.00	0.0000	62.17	124	45-160
Carbon tetrachloride	50.00	0.0000	44.71	89	65-135
Chlorobenzene	50.00	0.0000	49.98	100	75-125
Chloroethane	50.00	0.0000	53.80	108	40-155
Chloroform	50.00	0.0000	46.28	92	70-125
Chloromethane	50.00	0.0000	63.34	127	50-130
Dibromochloromethane	50.00	0.0000	48.71	97	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	47.48	95	40-135
1,2-Dibromoethane	50.00	0.0000	48.05	96	70-125
Dibromomethane	50.00	0.0000	46.91	94	75-130
1,2-Dichlorobenzene	50.00	0.0000	47.23	94	75-120
1,4-Dichlorobenzene	50.00	0.0000	47.41	95	70-125
1,1-Dichloroethane	50.00	0.0000	50.90	102	75-125
1,2-Dichloroethane	50.00	0.0000	42.81	86	70-125
1,1-Dichloroethene	50.00	0.0000	49.24	98	65-135
cis-1,2-Dichloroethene	50.00	0.0000	47.52	95	65-125
trans-1,2-Dichloroethen	50.00	0.0000	47.95	96	65-135
1,2-Dichloropropane	50.00	0.0000	51.40	103	70-120
cis-1,3-Dichloropropene	50.00	0.0000	48.86	98	70-125
trans-1,3-Dichloroprope	50.00	0.0000	50.61	101	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118
 Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	49.41	99	75-125
2-Hexanone	100.0	0.0000	97.14	97	45-145
Iodomethane	50.00	0.0000	55.38	111	55-165
Methylene chloride	50.00	0.0000	51.11	102	55-140
4-Methyl-2-pentanone	100.0	0.0000	108.7	109	45-145
Styrene	50.00	0.0000	49.15	98	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	47.47	95	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	54.83	110	55-130
Tetrachloroethene	50.00	0.0000	55.14	110	65-140
Toluene	50.00	0.0000	51.53	103	70-125
1,1,1-Trichloroethane	50.00	0.0000	44.84	90	70-135
1,1,2-Trichloroethane	50.00	0.0000	49.82	100	60-125
Trichloroethene	50.00	0.0000	47.85	96	75-125
Trichlorofluoromethane	50.00	0.0000	48.67	97	25-185
1,2,3-Trichloropropane	50.00	0.0000	46.81	94	65-130
Vinyl acetate	100.0	0.0000	101.9	102	50-135
Vinyl chloride	50.00	0.0000	52.46	105	60-125
Xylene (total)	150.0	0.0000	142.7	95	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	70.33	68	6	50	20-160
Acrylonitrile	250.0	252.8	101	0	50	35-180
Benzene	50.00	49.22	98	1	50	75-125
Bromochloromethane	50.00	45.43	91	1	50	70-125
Bromodichloromethane	50.00	45.92	92	1	50	70-130
Bromoform	50.00	47.12	94	3	50	55-135
Bromomethane	50.00	34.58	69	4	50	30-160
2-Butanone	100.0	159.0	159	6	50	30-160
Carbon disulfide	50.00	62.41	125	0	50	45-160
Carbon tetrachloride	50.00	44.46	89	0	50	65-135
Chlorobenzene	50.00	48.48	97	3	50	75-125
Chloroethane	50.00	57.19	114	6	50	40-155
Chloroform	50.00	46.32	93	0	50	70-125
Chloromethane	50.00	67.61	135*	6	50	50-130
Dibromochloromethane	50.00	46.85	94	4	50	65-130
1,2-Dibromo-3-chloropro	50.00	45.59	91	4	50	40-135
1,2-Dibromoethane	50.00	46.65	93	3	50	70-125
Dibromomethane	50.00	46.00	92	2	50	75-130
1,2-Dichlorobenzene	50.00	45.70	91	3	50	75-120
1,4-Dichlorobenzene	50.00	49.44	99	4	50	70-125
1,1-Dichloroethane	50.00	47.95	96	6	50	75-125
1,2-Dichloroethane	50.00	43.08	86	1	50	70-125
1,1-Dichloroethene	50.00	51.45	103	4	50	65-135
cis-1,2-Dichloroethene	50.00	48.05	96	1	50	65-125
trans-1,2-Dichloroethen	50.00	47.20	94	2	50	65-135
1,2-Dichloropropane	50.00	51.75	104	1	50	70-120
cis-1,3-Dichloropropene	50.00	48.76	98	0	50	70-125
trans-1,3-Dichloroprope	50.00	48.62	97	4	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	48.55	97	2	50	75-125
2-Hexanone	100.0	88.12	88	10	50	45-145
Iodomethane	50.00	57.90	116	4	50	55-165
Methylene chloride	50.00	51.74	103	1	50	55-140
4-Methyl-2-pentanone	100.0	108.2	108	0	50	45-145
Styrene	50.00	47.91	96	2	50	75-125
1,1,1,2-Tetrachloroetha	50.00	46.15	92	3	50	75-125
1,1,2,2-Tetrachloroetha	50.00	53.82	108	2	50	55-130
Tetrachloroethene	50.00	57.06	114	3	50	65-140
Toluene	50.00	50.81	102	1	50	70-125
1,1,1-Trichloroethane	50.00	44.52	89	1	50	70-135
1,1,2-Trichloroethane	50.00	48.23	96	3	50	60-125
Trichloroethene	50.00	48.23	96	1	50	75-125
Trichlorofluoromethane	50.00	49.95	100	2	50	25-185
1,2,3-Trichloropropane	50.00	46.80	94	0	50	65-130
Vinyl acetate	100.0	86.72	87	16	50	50-135
Vinyl chloride	50.00	55.02	110	5	50	60-125
Xylene (total)	150.0	140.8	94	1	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits

Spike Recovery: 2 out of 92 outside limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix Spike - Client Sample No.: V3MBLK0128 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	5000	0.0000	4202	84	20-160
Acrylonitrile	12500	0.0000	13260	106	35-180
Benzene	2500	0.0000	2396	96	75-125
Bromochloromethane	2500	0.0000	2508	100	70-125
Bromodichloromethane	2500	0.0000	2557	102	70-130
Bromoform	2500	0.0000	2739	110	55-135
Bromomethane	2500	17.02	2451	97	30-160
2-Butanone	5000	0.0000	5230	105	30-160
Carbon disulfide	2500	0.0000	3050	122	45-160
Carbon tetrachloride	2500	0.0000	2540	102	65-135
Chlorobenzene	2500	0.0000	2401	96	75-125
Chloroethane	2500	0.0000	2716	109	40-155
Chloroform	2500	0.0000	2400	96	70-125
Chloromethane	2500	0.0000	2714	108	50-130
Dibromochloromethane	2500	0.0000	2752	110	65-130
1,2-Dibromo-3-chloropro	2500	0.0000	2352	94	40-135
1,2-Dibromoethane	2500	0.0000	2523	101	70-125
Dibromomethane	2500	0.0000	2504	100	75-130
1,2-Dichlorobenzene	2500	0.0000	2416	97	75-120
1,4-Dichlorobenzene	2500	0.0000	2444	98	70-125
1,1-Dichloroethane	2500	0.0000	2438	98	75-125
1,2-Dichloroethane	2500	0.0000	2471	99	70-125
1,1-Dichloroethene	2500	0.0000	2526	101	65-135
cis-1,2-Dichloroethene	2500	0.0000	2274	91	65-125
trans-1,2-Dichloroethen	2500	0.0000	2356	94	65-135
1,2-Dichloropropane	2500	0.0000	2460	98	70-120
cis-1,3-Dichloropropene	2500	0.0000	2600	104	70-125
trans-1,3-Dichloroprope	2500	0.0000	2861	114	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118
 Matrix Spike - Client Sample No.: V3MBLK0128 Level:(low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	2500	0.0000	2323	93	75-125
2-Hexanone	5000	0.0000	5232	105	45-145
Iodomethane	2500	0.0000	2674	107	55-165
Methylene chloride	2500	0.0000	2569	103	55-140
4-Methyl-2-pentanone	5000	0.0000	5427	108	45-145
Styrene	2500	0.0000	2603	104	75-125
1,1,1,2-Tetrachloroetha	2500	0.0000	2466	99	75-125
1,1,2,2-Tetrachloroetha	2500	0.0000	2626	105	55-130
Tetrachloroethene	2500	0.0000	2333	93	65-140
Toluene	2500	8.614	2441	97	70-125
1,1,1-Trichloroethane	2500	0.0000	2435	97	70-135
1,1,2-Trichloroethane	2500	0.0000	2465	99	60-125
Trichloroethene	2500	0.0000	2417	97	75-125
Trichlorofluoromethane	2500	0.0000	2989	120	25-185
1,2,3-Trichloropropane	2500	0.0000	2509	100	65-130
Vinyl acetate	5000	0.0000	5234	105	50-135
Vinyl chloride	2500	0.0000	2805	112	60-125
Xylene (total)	7500	0.0000	6708	89	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
 Spike Recovery: 0 out of 46 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Lab File ID: V1BLK01 Lab Sample ID: V1BLK0124

Date Analyzed: 01/24/08 Time Analyzed: 1212

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1BLK0124LCS	V1BLK0124LCS	V1LCSAP9	1055
02	DPT-23 ASH	0801118-01	111801B	1522
03	DPT-23 SOIL	0801118-02	111802B	1600
04	DPT-22 ASH	0801118-03	111803B	1638
05	DPT-22 SOIL	0801118-04	111804B	1716
06	DPT-21 ASH	0801118-05	111805A	1755
07	DPT-21 SOIL	0801118-06	111806A	1833
08	V1BLK0124LCS	V1BLK0124LCSD	V1LCSDA9	2144
09				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/24/08 12:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1-----	Acetone	2.0	50	2.8	J
107-13-1-----	Acrylonitrile	1.4	25		U
71-43-2-----	Benzene	0.47	5.0		U
74-97-5-----	Bromochloromethane	0.42	10		U
75-27-4-----	Bromodichloromethane	0.30	5.0		U
75-25-2-----	Bromoform	1.0	5.0		U
74-83-9-----	Bromomethane	0.72	10		U
78-93-3-----	2-Butanone	1.4	50		U
75-15-0-----	Carbon disulfide	1.3	5.0		U
56-23-5-----	Carbon tetrachloride	0.88	5.0		U
108-90-7-----	Chlorobenzene	0.34	5.0		U
75-00-3-----	Chloroethane	1.1	10		U
67-66-3-----	Chloroform	0.55	5.0		U
74-87-3-----	Chloromethane	0.52	10		U
124-48-1-----	Dibromochloromethane	0.34	5.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10		U
106-93-4-----	1,2-Dibromoethane	0.43	5.0		U
74-95-3-----	Dibromomethane	0.41	5.0		U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0		U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25		U
75-34-3-----	1,1-Dichloroethane	0.54	5.0		U
107-06-2-----	1,2-Dichloroethane	0.46	5.0		U
75-35-4-----	1,1-Dichloroethene	1.2	5.0		U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0		U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0		U
78-87-5-----	1,2-Dichloropropane	0.46	5.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0		U
100-41-4-----	Ethylbenzene	0.75	5.0		U
591-78-6-----	2-Hexanone	2.3	25		U
74-88-4-----	Iodomethane	0.83	25		U
75-09-2-----	Methylene chloride	0.62	10		U
108-10-1-----	4-Methyl-2-pentanone	0.58	25		U
100-42-5-----	Styrene	0.35	5.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0		U
127-18-4-----	Tetrachloroethene	0.97	5.0		U
108-88-3-----	Toluene	0.86	5.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/24/08 12:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.90	5.0		U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0		U
79-01-6-----	Trichloroethene	0.85	5.0		U
75-69-4-----	Trichlorofluoromethane	0.95	10		U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0		U
108-05-4-----	Vinyl acetate	0.55	25		U
75-01-4-----	Vinyl chloride	1.1	10		U
1330-20-7-----	Xylene (total)	0.70	5.0		U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Lab File ID: V3MBLK01 Lab Sample ID: V3MBLK0128

Date Analyzed: 01/28/08 Time Analyzed: 1731

Column: RTX-VRX ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	V3MBLK0128LC	V3MBLK0128LCS	V3LCS01	1235
02	BLIND DUPLIC	0801118-07	0111807D	2000
03				
04				
05				
06				
07				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118
 Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01
 Level: (low/med) MED Date Sampled: _____
 % Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31
 GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
67-64-1	Acetone	84	200	U
107-13-1	Acrylonitrile	40	100	U
71-43-2	Benzene	6.0	12	U
74-97-5	Bromochloromethane	7.5	25	U
75-27-4	Bromodichloromethane	6.0	12	U
75-25-2	Bromoform	6.5	25	U
74-83-9	Bromomethane	6.5	25	17 J
78-93-3	2-Butanone	72	200	U
75-15-0	Carbon disulfide	7.5	25	U
56-23-5	Carbon tetrachloride	5.5	12	U
108-90-7	Chlorobenzene	5.0	12	U
75-00-3	Chloroethane	7.0	25	U
67-66-3	Chloroform	6.5	25	U
74-87-3	Chloromethane	14	50	U
124-48-1	Dibromochloromethane	7.0	25	U
96-12-8	1,2-Dibromo-3-chloropropane	4.5	12	U
106-93-4	1,2-Dibromoethane	7.0	25	U
74-95-3	Dibromomethane	7.0	25	U
95-50-1	1,2-Dichlorobenzene	5.5	12	U
106-46-7	1,4-Dichlorobenzene	5.0	25	U
110-57-6	trans-1,4-Dichloro-2-butene	30	100	U
75-34-3	1,1-Dichloroethane	5.5	12	U
107-06-2	1,2-Dichloroethane	6.5	25	U
75-35-4	1,1-Dichloroethene	6.5	25	U
156-59-2	cis-1,2-Dichloroethene	7.0	25	U
156-60-5	trans-1,2-Dichloroethene	7.5	25	U
78-87-5	1,2-Dichloropropane	5.5	12	U
10061-01-5	cis-1,3-Dichloropropene	4.0	12	U
10061-02-6	trans-1,3-Dichloropropene	6.0	12	U
100-41-4	Ethylbenzene	18	50	U
591-78-6	2-Hexanone	9.0	25	U
74-88-4	Iodomethane	6.0	12	U
75-09-2	Methylene chloride	12	25	U
108-10-1	4-Methyl-2-pentanone	18	50	U
100-42-5	Styrene	4.5	12	U
630-20-6	1,1,1,2-Tetrachloroethane	7.5	25	U
79-34-5	1,1,2,2-Tetrachloroethane	6.5	25	U
127-18-4	Tetrachloroethene	5.0	12	U
108-88-3	Toluene	8.0	25	8.6 J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01118

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	6.0	12		U
79-00-5-----	1,1,2-Trichloroethane	5.0	12		U
79-01-6-----	Trichloroethene	12	25		U
75-69-4-----	Trichlorofluoromethane	6.0	12		U
96-18-4-----	1,2,3-Trichloropropane	7.0	25		U
108-05-4-----	Vinyl acetate	25	50		U
75-01-4-----	Vinyl chloride	10	25		U
1330-20-7-----	Xylene (total)	24	50		U

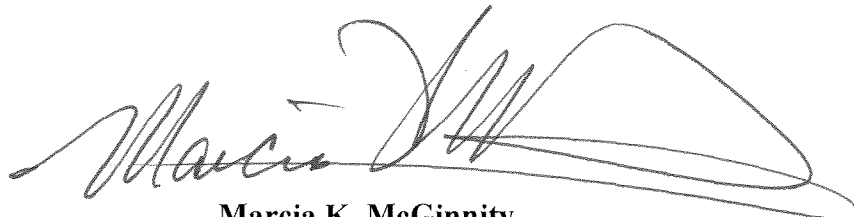
FORM I VOA

**ANALYTICAL REPORT
MAIN DATA PACKAGE - INORGANIC SECTION**

CH2M HILL, Inc.

WO #0801123

EMPIRICAL LABORATORIES, LLC

A handwritten signature in black ink, appearing to read 'Marcia K. McGinnity', with a large, sweeping flourish at the end.

**Marcia K. McGinnity
Senior Project Manager**

FEBRUARY 12, 2008


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WO# 0801123

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**INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801123
January, 2008**

Empirical Laboratories ID	Client ID
0801123-01	DPT-27 ASH
0801123-02	DPT-27 SOIL
0801123-03	DPT-25 ASH
0801123-04	DPT-25 SOIL
0801123-05	DPT-17 ASH
0801123-06	DPT-17 SOIL
0801123-07	DPT-30 ASH
0801123-08	DPT-30 SOIL
0801123-09	EB
0801123-11	Blind Duplicate

I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.


Betty DeVille
Inorganic Lab Manager

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

US EPA SW846

- Method 6010B was used to analyze ICAP metals using a TJA 61E Trace ICAP after digestion by method 3050B.
- Method 7471A was used to digest and analyze mercury using a FIMs Mercury analyzer.

Note: A "U" on the forms indicates that the analyte is reported down to the ILMO4.2 CRDL for ICAP metals. The "B" flag indicates that the analyte result is between the CRDL and the

INORGANIC CASE NARRATIVE
CH2M HILL
Fort Rucker
SDG & Work Order # 0801123
January, 2008

laboratory MDL. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

IV. PREPARATION

USEPA SW846 method 3005A was used to digest ICAP metals. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

V. ANALYSIS

- A. Calibration:** All calibration criteria were met with the following exception: The second and third CCV in the first ICAP analysis was out of the specification limits of 90 to 110% for beryllium at 122.2 and 122.7. These CCVs impacted the LCSS only. There was no impact to the sample data.
- B. Blanks:** All blank criteria were met.
- C. Spikes:** All matrix spikes quality control criteria were met with the following exceptions: The matrix spike was out of the specification limits of 75 to 125% for antimony at 12.6%, for chromium at 127.4% and for zinc at 128.6% for sample DPT-30 SOIL. The post digestion spike recovery was at 96.6% for antimony, at 104.4% for chromium and at 108.2% for zinc. **All associated data are flagged with an "N" on the final report.**
- D. Duplicates:** All duplicate quality control criteria were met.
- E. Samples:** All sample analysis proceeded normally.
- F. Laboratory Control Samples:** All percent recovery quality control criteria were met.

CH2M Hill, Inc.

Parameters Requested

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801123-01	DPT-27 ASH	Soil	01/19/08 8:05:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-02	DPT-27 SOIL	Soil	01/19/08 8:05:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-03	DPT-25 ASH	Soil	01/19/08 8:40:00 AM	% Solids Antimony Arsenic Barium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801123-03	DPT-25 ASH	Soil	01/19/08 8:40:00 AM	Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-04	DPT-25 SOIL	Soil	01/19/08 8:40:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-05	DPT-17 ASH	Soil	01/19/08 9:45:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801123-05	DPT-17 ASH	Soil	01/19/08 9:45:00 AM	Vanadium Zinc
0801123-06	DPT-17 SOIL	Soil	01/19/08 9:45:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-07	DPT-30 ASH	Soil	01/19/08 10:30:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-08	DPT-30 SOIL	Soil	01/19/08 10:30:00 AM	% Solids Antimony Arsenic Barium Beryllium Cadmium

Lab Sample ID	Field ID	Matrix	Date Time Sampled	Parameters requested
0801123-08	DPT-30 SOIL	Soil	01/19/08 10:30:00 AM	Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-09	EB	Water	01/19/08 11:00:00 AM	Antimony Arsenic Barium Beryllium Cadmium Chromium Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc
0801123-11	Blind Duplicate	Soil	01/19/08	% Solids

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43151

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to:		Send Invoice to:		Analysis Requirements:								Lab Use Only:						
Name <u>Mark Sherril</u>		Name <u>Same</u>		App 1 Metals 6010B	App 1 VOC 8260B										VOA Headspace	Y	<u>N</u>	NA
Company <u>CH2MHILL</u>		Company _____													Field Filtered	Y	<u>N</u>	NA
Address <u>1000 Abernathy Rd</u>		Address _____													Correct Containers	<u>Y</u>	N	NA
City <u>Atlanta</u> Ste <u>1600</u>		City _____													Discrepancies	Y	<u>N</u>	NA
State <u>GA</u> Zip <u>30328</u>		State, Zip _____													Cust. Seals Intact	<u>Y</u>	N	NA
Phone <u>(678) 938-0923</u>		Phone _____		Containers Intact	<u>Y</u>	N	NA											
Fax <u>(770) 604-9183</u>		Fax _____		Airbill #: _____														
E-mail <u>Msherril@CH2M.com</u>		E-mail _____		CAR #: _____														
Project No./Name: <u>363742 01.02</u>		Sampler's (Signature) <u>J. Sherril</u>																

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix																Comments	No. of Bottles	Lab Use Only Containers/Pres.
<u>0801123-01</u>	<u>1/10/08 0805</u>	<u>DPT-27 ASH</u>	<u>S</u>	<u>1</u>	<u>3</u>															<u>4</u>	<u>1M, 3J</u>
<u>-02</u>	<u>↓</u>	<u>DPT-27 SOIL</u>	<u>|</u>	<u>1</u>	<u>3</u>																
<u>-03</u>	<u>0840</u>	<u>DPT-25 ASH</u>	<u>|</u>	<u>1</u>	<u>3</u>																
<u>-04</u>	<u>↓</u>	<u>DPT-25 SOIL</u>	<u>|</u>	<u>1</u>	<u>3</u>																
<u>-05</u>	<u>0945</u>	<u>DPT-17 ASH</u>	<u>|</u>	<u>1</u>	<u>3</u>																
<u>-06</u>	<u>↓</u>	<u>DPT-17 SOIL</u>	<u>|</u>	<u>1</u>	<u>3</u>																
<u>-07</u>	<u>1030</u>	<u>DPT-30 ASH</u>	<u>|</u>	<u>1</u>	<u>3</u>																
<u>-08</u>	<u>↓</u>	<u>DPT-30 SOIL</u>	<u>↓</u>	<u>1</u>	<u>3</u>																
<u>-09</u>	<u>1100</u>	<u>EB</u>	<u>W</u>	<u>1</u>	<u>3</u>													<u>Equipment Blank</u>	<u>4</u>	<u>1C-NI, 3J-HY</u>	
<u>-10</u>	<u>0700</u>	<u>Trip Blank</u>	<u>W</u>	<u>3</u>														<u>Trip Blank</u>	<u>3</u>	<u>2J-HY</u>	
<u>↓ -11</u>	<u>↓</u>	<u>Blind Duplicate</u>	<u>S</u>	<u>1</u>	<u>3</u>													<u>*No metals.</u>	<u>4</u>	<u>1D, 3J</u>	

Sample Kit Prep'd by: (Signature) <u>[Signature]</u>	Date/Time	Received By: (Signature)	REMARKS: <u>* No volume for Metals included.</u> <u>E-mail confirmation w/ A. Teal that</u> <u>Blind Duplicate is not to be</u> <u>analyzed for metals.</u>	Details:
Relinquished by: (Signature) <u>[Signature]</u>	Date/Time <u>1/21/08 1500</u>	Received By: (Signature)		Page <u>1</u> of <u>1</u>
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. <u>1</u> of <u>1</u>
Received for Laboratory by: (Signature) <u>[Signature]</u>	Date/Time <u>1-22-08 9:00</u>	Temperature <u>2.9°C</u>		Date Shipped <u>1/21/08</u>
				Shipped By <u>AT</u>
				Turnaround <u>Std</u>

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801123 COC ID(s): 43731

Client CH2M Hill Project A. Rucker

Sample Custodian E.J. Overby Today's Date 1-22-08

Date/Time Samples Received 1-22-08 9:00

Airbill Number FX

Cooler Opened: Date 1-22-08

Chain of custody seal intact?	<input checked="" type="radio"/> Yes	No
Chain of custody provided?	<input checked="" type="radio"/> Yes	No
Sample labels present?	<input checked="" type="radio"/> Yes	No
Bottle labels correspond w/COC	<input checked="" type="radio"/> Yes	No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-21-08

Type of coolant used Ice

Coolant condition : Melted _____ Partially melted/frozen
Frozen _____

of Coolers 1 Temp. of Coolers 2.9°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing ~~_____~~

If broken or leaking list sample ID#s and bottle types affected:
- No jar for metals included - 'Blind Duplicate'

Comments:

USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-27 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Lab Sample ID: 0801123-01

Level (low/med): LOW Date Received: 01/22/08

% Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	4.3			P
7440-39-3	Barium	21.2			P
7440-41-7	Beryllium	0.37			P
7440-43-9	Cadmium	0.65			P
7440-47-3	Chromium	28.2		N	P
7439-92-1	Lead	9.7			P
7439-97-6	Mercury	0.038			AV
7440-02-0	Nickel	5.4			P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	40.9			P
7440-66-6	Zinc	12.2		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

 _____

Empirical Laboratories

Form I - IN

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USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-27 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123
 Matrix (soil/water): SOIL Lab Sample ID: 0801123-02
 Level (low/med): LOW Date Received: 01/22/08
 % Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.28	U	N	P
7440-38-2	Arsenic	5.4			P
7440-39-3	Barium	17.2			P
7440-41-7	Beryllium	0.30			P
7440-43-9	Cadmium	0.93			P
7440-47-3	Chromium	26.6		N	P
7439-92-1	Lead	8.9			P
7439-97-6	Mercury	0.030	B		AV
7440-02-0	Nickel	5.2			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.057	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	53.0			P
7440-66-6	Zinc	10.1		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-25 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123
 Matrix (soil/water): SOIL Lab Sample ID: 0801123-03
 Level (low/med): LOW Date Received: 01/22/08
 % Solids: 74.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	1.6	B	N	P
7440-38-2	Arsenic	24.3			P
7440-39-3	Barium	186			P
7440-41-7	Beryllium	0.64			P
7440-43-9	Cadmium	4.6			P
7440-47-3	Chromium	42.4		N	P
7439-92-1	Lead	89.4			P
7439-97-6	Mercury	0.20			AV
7440-02-0	Nickel	22.0			P
7782-49-2	Selenium	1.0			P
7440-22-4	Silver	0.27	B		P
7440-28-0	Thallium	0.42	U		P
7440-62-2	Vanadium	29.4			P
7440-66-6	Zinc	881		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

 _____

Empirical Laboratories

Form I - IN

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USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-25 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Lab Sample ID: 0801123-04

Level (low/med): LOW Date Received: 01/22/08

% Solids: 91.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.28	U	N	P
7440-38-2	Arsenic	3.7			P
7440-39-3	Barium	11.1	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.74			P
7440-47-3	Chromium	19.1		N	P
7439-92-1	Lead	5.5			P
7439-97-6	Mercury	0.020	B		AV
7440-02-0	Nickel	3.2			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.056	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	33.9			P
7440-66-6	Zinc	18.6		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

Form I - IN

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USEPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-17 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123
 Matrix (soil/water): SOIL Lab Sample ID: 0801123-05
 Level (low/med): LOW Date Received: 01/22/08
 % Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	77.6			P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.77			P
7440-47-3	Chromium	15.2		N	P
7439-92-1	Lead	198			P
7439-97-6	Mercury	0.053			AV
7440-02-0	Nickel	5.2			P
7782-49-2	Selenium	0.34			P
7440-22-4	Silver	0.058	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	19.1			P
7440-66-6	Zinc	189		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-17 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123
 Matrix (soil/water): SOIL Lab Sample ID: 0801123-06
 Level (low/med): LOW Date Received: 01/22/08
 % Solids: 84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.31	U	N	P
7440-38-2	Arsenic	6.4			P
7440-39-3	Barium	2.7	B		P
7440-41-7	Beryllium	0.94			P
7440-43-9	Cadmium	1.7			P
7440-47-3	Chromium	20.5		N	P
7439-92-1	Lead	4.1			P
7439-97-6	Mercury	0.018	B		AV
7440-02-0	Nickel	9.2			P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.061	U		P
7440-28-0	Thallium	0.18	U		P
7440-62-2	Vanadium	47.1			P
7440-66-6	Zinc	26.5		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-30 ASH

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Lab Sample ID: 0801123-07

Level (low/med): LOW Date Received: 01/22/08

% Solids: 71.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.35	U	N	P
7440-38-2	Arsenic	18.1			P
7440-39-3	Barium	466			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.61			P
7440-47-3	Chromium	9.6		N	P
7439-92-1	Lead	12.3			P
7439-97-6	Mercury	0.034	B		AV
7440-02-0	Nickel	17.1			P
7782-49-2	Selenium	0.60			P
7440-22-4	Silver	0.070	U		P
7440-28-0	Thallium	0.21	U		P
7440-62-2	Vanadium	26.1			P
7440-66-6	Zinc	1020		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

Form I - IN

000015

USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DPT-30 SOIL

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Lab Sample ID: 0801123-08

Level (low/med): LOW Date Received: 01/22/08

% Solids: 90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	2.8			P
7440-39-3	Barium	14.8			P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	0.73			P
7440-47-3	Chromium	16.9		N	P
7439-92-1	Lead	5.6			P
7439-97-6	Mercury	0.024	B		AV
7440-02-0	Nickel	4.3			P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.057	U		P
7440-28-0	Thallium	0.17	U		P
7440-62-2	Vanadium	34.7			P
7440-66-6	Zinc	89.4		N	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



Empirical Laboratories

Form I - IN

000016

USEPA - CLP

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EB

Lab Name: Empirical Laboratories Contract: CH2M Hill
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123
 Matrix (soil/water): WATER Lab Sample ID: 0801123-09
 Level (low/med): LOW Date Received: 01/22/08
 % Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	0.75	U		P
7440-39-3	Barium	1.2	U		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	0.25	U		P
7440-47-3	Chromium	0.50	U		P
7439-92-1	Lead	0.38	U		P
7439-97-6	Mercury	0.080	U		AV
7440-02-0	Nickel	1.2	U		P
7782-49-2	Selenium	0.75	U		P
7440-22-4	Silver	0.25	U		P
7440-28-0	Thallium	0.75	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	1.5	B		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____



USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	5.0	U	5.0	U	5.0	U	5.0	U	1.250	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.750	U	P
Barium	5.0	U	5.0	U	5.0	U	5.0	U	1.250	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.500	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	0.250	U	P
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	0.500	U	P
Lead	1.5	U	1.5	U	1.5	U	1.5	U	0.375	U	P
Mercury	0.080	U	0.080	U	0.080	U	0.080	U	0.080	U	AV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U	1.250	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.750	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	0.250	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.750	U	P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	1.250	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	1.250	U	P

USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank		C	M	
			1	C	2	C	3	C					
Antimony			5.0	U	5.0	U					-0.277	B	P
Arsenic			3.0	U	3.0	U					0.150	U	P
Barium			5.0	U	5.0	U					0.250	U	P
Beryllium			2.0	U	2.0	U					0.100	U	P
Cadmium			1.0	U	1.0	U					0.050	U	P
Chromium			2.0	U	2.0	U					0.100	U	P
Lead			1.5	U	1.5	U					0.075	U	P
Nickel			5.0	U	5.0	U					0.250	U	P
Selenium			3.0	U	3.0	U					0.150	U	P
Silver			1.0	U	1.0	U					0.050	U	P
Thallium			3.0	U	3.0	U					0.150	U	P
Vanadium			5.0	U	5.0	U					0.250	U	P
Zinc			5.0	U	5.0	U					0.416	B	P

USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Antimony	5.0	U	5.0	U	5.0	U	5.0	U			P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U			P
Barium	5.0	U	5.0	U	5.0	U	5.0	U			P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U			P
Lead	1.5	U	1.5	U	1.5	U	1.5	U			P
Mercury	0.080	U	0.080	U	0.080	U	0.080	U	0.013	U	AV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U			P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U			P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U			P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U			P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U			P

USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Mercury									0.013	U	AV

USEPA - CLP

3

BLANKS

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Beryllium	2.0	U	2.0	U	2.0	U				P	

USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-30 SOILS

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123Matrix (soil/water): SOIL Level (low/med): LOW% Solids for Sample: 90.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	1.7172 | B	0.2864 | U	13.62	12.6	N	P
Arsenic	75 - 125	13.8543	2.7832	13.62	81.3		P
Barium	75 - 125	125.3648	14.7971	108.93	101.5		P
Beryllium	75 - 125	2.8985	0.2121 | B	2.72	98.8		P
Cadmium	75 - 125	7.3606	0.7273	6.81	97.4		P
Chromium	75 - 125	30.7407	16.8710	10.89	127.4	N	P
Lead	75 - 125	19.5351	5.5838	13.62	102.4		P
Mercury	75 - 125	0.3500	0.0241 | B	0.35	93.1		AV
Nickel	75 - 125	31.9479	4.2737	27.23	101.6		P
Selenium	75 - 125	10.6976	0.1718 | U	13.62	78.5		P
Silver	75 - 125	15.2930	0.0573 | U	13.62	112.3		P
Thallium	75 - 125	12.2403	0.1718 | U	13.62	89.9		P
Vanadium	75 - 125	66.5396	34.7463	27.23	116.8		P
Zinc	75 - 125	124.3741	89.3579	27.23	128.6	N	P

Comments:



Empirical Laboratories

Form V (PART 1) - IN

000023

USEPA - CLP

5A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-30 SOILSD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.3684	0.0241	B 0.37	93.1		AV

Comments:



USEPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

DPT-30 SOILA

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS _____ SDG No.: 0801123Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Antimony		241.53		5.00	U	250.0	96.6		P
Arsenic		292.37		48.59		250.0	97.5		P
Barium		2325.53		258.36		2000.0	103.4		P
Beryllium		56.35		3.70	B	50.0	105.3		P
Cadmium		143.23		12.70		125.0	104.4		P
Chromium		503.47		294.57		200.0	104.4		P
Lead		366.06		97.49		250.0	107.4		P
Nickel		586.96		74.62		500.0	102.5		P
Selenium		257.86		3.00	U	250.0	103.1		P
Silver		313.71		1.00	U	250.0	125.5		P
Thallium		246.35		3.00	U	250.0	98.5		P
Vanadium		1136.93		606.67		500.0	106.1		P
Zinc		2101.28		1560.19		500.0	108.2		P

Comments: _____



USEPA - CLP

6

DUPLICATES

SAMPLE NO.

DPT-30 SOILD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 90.0 % Solids for Duplicate: 90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)		Duplicate (D)		RPD	Q	M
			C		C			
Antimony		0.2864	U	0.2737	U			P
Arsenic		2.7832		3.0124		7.9		P
Barium	11.5	14.7971		15.6832		5.8		P
Beryllium		0.2121	B	0.2237	B	5.3		P
Cadmium	0.3	0.7273		0.7942		8.8		P
Chromium		16.8710		18.6590		10.1		P
Lead		5.5838		5.7819		3.5		P
Nickel	2.3	4.2737		4.8106		11.8		P
Selenium		0.1718	U	0.1642	U			P
Silver		0.0573	U	0.0547	U			P
Thallium		0.1718	U	0.1642	U			P
Vanadium		34.7463		37.7260		8.2		P
Zinc		89.3579		104.3501		15.5		P

USEPA - CLP

6

DUPLICATES

SAMPLE NO.

DPT-30 SOILSD

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 90.0 % Solids for Duplicate: 90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury		0.3500		0.3684		5.1		AV

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M HillLab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123Solid LCS Source: HighPurityAqueous LCS Source: HighPurity

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Antimony	5.0	4.64	92.8	12.5	11.5		10.0 | 15.0	92.0
Arsenic	5.0	5.02	100.4	12.5	11.6		10.0 | 15.0	92.8
Barium	40.0	38.62	96.6	100.0	101.2		80.0 | 120.0	101.2
Beryllium	1.0	1.12	112.0	2.5	3.0		2.0 | 3.0	120.0
Cadmium	2.5	2.57	102.8	6.3	6.1		5.0 | 7.5	96.8
Chromium	4.0	3.91	97.8	10.0	10.5		8.0 | 12.0	105.0
Lead	5.0	5.00	100.0	12.5	12.6		10.0 | 15.0	100.8
Mercury	2.00	1.98	99.0					
Nickel	10.0	9.85	98.5	25.0	25.2		20.0 | 30.0	100.8
Selenium	5.0	4.84	96.8	12.5	12.0		10.0 | 15.0	96.0
Silver	5.0	4.80	96.0	12.5	14.2		10.0 | 15.0	113.6
Thallium	5.0	4.32	86.4	12.5	11.7		10.0 | 15.0	93.6
Vanadium	10.0	9.62	96.2	25.0	26.1		20.0 | 30.0	104.4
Zinc	10.0	10.55	105.5	25.0	27.8		20.0 | 30.0	111.2

USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Solid LCS Source: HighPurity

Aqueous LCS Source: HighPurity

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Mercury				0.33	0.29		0.3 | 0.4	87.9



USEPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: Empirical Laboratories Contract: CH2M Hill

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 0801123

Solid LCS Source: HighPurity

Aqueous LCS Source: HighPurity

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Mercury				0.33	0.29		0.3 | 0.4	87.9

ANALYTICAL REPORT
MAIN DATA PACKAGE – VOLATILES

CH2M Hill, Inc.

WO #0801123

Empirical Laboratories, LLC

A handwritten signature in black ink, appearing to read 'Marcia K. McGinnity', with a long horizontal flourish extending to the right.

Marcia K. McGinnity
Senior Project Manager

FEBRUARY 11, 2008

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WO #0801123

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ORGANIC CASE NARRATIVE - VOLATILES
CH2M Hill, Inc. – Ft. Rucker
Work order: 0801123

Sampled	Received	Lab ID	Client ID
19-Jan-2008	22-Jan-2008	0801123-01	DPT-27 ASH
19-Jan-2008	22-Jan-2008	0801123-02	DPT-27 SOIL
19-Jan-2008	22-Jan-2008	0801123-03	DPT-25 ASH
19-Jan-2008	22-Jan-2008	0801123-04	DPT-25 SOIL
19-Jan-2008	22-Jan-2008	0801123-05	DPT-17 ASH
19-Jan-2008	22-Jan-2008	0801123-06	DPT-17 SOIL
19-Jan-2008	22-Jan-2008	0801123-07	DPT-30 ASH
19-Jan-2008	22-Jan-2008	0801123-08	DPT-30 SOIL
19-Jan-2008	22-Jan-2008	0801123-09	EB
19-Jan-2008	22-Jan-2008	0801123-10	Trip Blank
19-Jan-2008	22-Jan-2008	0801123-11	Blind Duplicate

Method: The samples were extracted/analyzed for client specified analyte lists by USEPA SW-846 Methods 5030B/8260B or 5035/8260B (VOA vial or terracore field sampling then purge and trap followed by capillary column GC/MS) for waters or soils upon receipt to the laboratory in satisfactory condition.

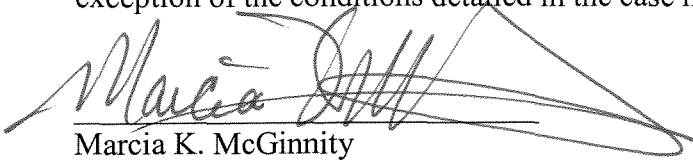
Comments: The analyses for these samples were satisfactorily completed within sample holding times and met the corresponding specifications with the following notes/exceptions:

- Sample weights: Terracore containers were shipped with sample weights between 5 and 15 grams. The standard laboratory cutoff for analysis weight on low-level vials is 8 grams. However, arrangements were made for low-level analysis despite the high sample weights. Internal standard area count issues were monitored and any with less than 30% relative to the continuing calibration area counts were analyzed from the methanol extract. All analyses were performed to provide the lowest quantitation limits possible.
- Holding Times: Due to analyst oversight, samples Trip blank and EB were analyzed 17 days after sampling.
- Analyte List: All samples were reported for the appendix I analyte list specified in the statement of work.
- BFB Tuning: All method tuning criteria were met. Analysis of spike sample V1BLK0124LCSD was started 12 hours 27 minutes after the associated BFB tuning standard.
- Calibration Criteria: All method calibration criteria were met.
- Method Blank Results: Positive results for acetone, bromomethane and/or toluene were detected in methanol blanks V1BLK0124 and V3MBLK0128. Reported concentrations in the associated samples are qualified with a "B".
- Surrogate Recoveries: All recoveries were within limits with the exception of toluene-d8 with a positive bias in the low-level analysis of samples DPT-25 ASH and Blind Duplicate. These are attributed to the sample matrix.
- LCS(/LCSD) results: Chloromethane and/or 2-butanone exceeded the upper recovery limits in spike samples V1BLK0124LCS/LCSD and V3BLK0205LCS. All other recoveries (and

relative percent differences) were within limits.

- MS/MSD results: Not applicable.
- Internal Standard Area Counts: Due to the sample weight, area counts for DCB were less than 50% of that found in the associated continuing calibration verification (CCV) for samples DPT-25 ASH (48.6%) and DPT-30 ASH (49.2%). A list of internal standard associations is attached for reference.
- Dilutions: Due to extremely poor low-level analyses on samples DPT-27 SOIL and DPT-30 SOIL, these samples were reported from the methanol extract, only.

I certify that, to the best of my knowledge and based upon my inquiry of those individuals immediately responsible for obtaining the information, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.



Marcia K. McGinnity
Senior Project Manager

ANALYTICAL REPORT TERMS AND QUALIFIERS (ORGANIC)

- MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.
- EQL:** The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.
- U:** The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.
- B:** The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The data pass the identification criteria indicating that the compound is present, but the calculated result is less than the EQL.

INTERNAL STANDARD ASSOCIATION / QUANT ION TABLE

COMPOUND	QUANT MASS	* I.S.	COMPOUND	QUANT MASS	* I.S.
*Fluorobenzene (1)	96		Dibromomethane	93	1
*Chlorobenzene-d5 (2)	117		1,1,2-Trichloroethane	83	2
*1,4-Dichlorobenzene-d4 (3)	152		1,2,3-Trichloropropane	110	2
Bromomethane	94	1	Hexachlorobutadiene	225	3
Chloroethane	64	1	Isopropylbenzene	105	2
Vinyl chloride	62	1	Isopropyltoluene	119	3
Chloromethane	50	1	Methylene Chloride	84	1
Dichlorodifluoromethane	85	1	Naphthalene	128	3
Acetonitrile	41	1	Propionitrile	54	1
Allyl chloride	41	1	n-Propylbenzene	91	3
Trichlorofluoromethane	101	1	Styrene	104	2
Benzene	78	1	1,1,1,2-Tetrachloroethane	131	2
Bromobenzene	156	3	1,1,2,2-Tetrachloroethane	83	3
Bromochloromethane	128	1	Tetrachloroethene	166	2
Bromodichloromethane	83	2	Toluene	92	2
Bromoform	173	2	1,2,3-Trichlorobenzene	180	3
n-Butylbenzene	91	3	1,2,4-Trichlorobenzene	180	3
sec-Butylbenzene	105	3	1,2,4-Trimethylbenzene	105	3
tert-butylbenzene	119	3	1,3,5-Trimethylbenzene	105	3
Carbon tetrachloride	117	1	m-Xylene	91	2
Chlorobenzene	112	2	p-Xylene	91	2
Chloroform	83	1	o-Xylene	91	2
Chloroprene	53	1	Acrolein	56	1
2-Chlorotoluene	91	3	Acrylonitrile	53	1
4-Chlorotoluene	91	3	Tetrahydrofuran	42	1
Dibromochloromethane	129	2	MTBE	73	1
1,2-Dibromo-3-chloropropane	157	3	Methacrylonitrile	41	1
1,2-Dibromoethane	107	2	Methyl methacrylate	41	1
1,2-Dichlorobenzene	146	3	Ethyl methacrylate	69	2
1,3-Dichlorobenzene	146	3	1,1,2-Trichlorotrifluoroethane	101	1
1,4-Dichlorobenzene	146	3	Cyclohexane	56	1
1,1-Dichloroethane	63	1	Methylcyclohexane	83	1
1,2-Dichloroethane	62	1	Methyl acetate	43	1
1,1-Dichloroethene	96	1	Carbon disulfide	76	1
cis-1,2-Dichloroethene	96	1	Iodomethane	142	1
trans-1,2-Dichloroethene	96	1	Vinyl acetate	43	1
trans-1,4-Dichloro-2-butene	53	3	2-Chloroethyl vinyl ether	63	1
1,2-Dichloropropane	63	1	Acetone	43	1
1,3-Dichloropropane	76	2	2-butanone	43	1
2,2-Dichloropropane	77	1	2-hexanone	43	2
1,1-Dichloropropene	75	1	Isobutyl alcohol	43	1
cis-1,3-Dichloropropene	75	1	1,4-Dioxane	88	1
trans-1,3-Dichloropropene	75	2	4-methyl-2-pentanone	43	1
Ethylbenzene	91	2	Dibromofluoromethane (S)	111	1
1,1,1-Trichloroethane	97	1	1,2-Dichloroethane-d4 (S)	102	1
Trichloroethene	95	1	Toluene-d8 (S)	98	2
			Bromofluorobenzene (S)	95	2

*I.S.=internal Standard.

S=surrogate.

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

43151

SHIP TO: 227 French Landing Drive, Suite 550 ♦ Nashville, TN 37228 ♦ 615-345-1115 ♦ (fax) 615-846-5426

Send Results to:	Send Invoice to:	Analysis Requirements:										Lab Use Only:							
Name: <u>Mark Sherrill</u>	Name: <u>Same</u>	App 1 Metals 6010B	App 1 VOC 8260B													VOA Headspace	Y	<u>N</u>	NA
Company: <u>CH2MHILL</u>	Company:			Field Filtered	Y	<u>N</u>	NA												
Address: <u>1000 Abernethy Rd</u>	Address:			Correct Containers	<u>Y</u>	N	NA												
City: <u>Atlanta</u>	City:			Discrepancies	Y	<u>N</u>	NA												
State, Zip: <u>GA 30328</u>	State, Zip:			Cust. Seals Intact	<u>Y</u>	N	NA												
Phone: <u>(678) 938-0923</u>	Phone:			Containers Intact	<u>Y</u>	N	NA												
Fax: <u>(770) 604-9183</u>	Fax:	Airbill #:			CAR #:														
E-mail: <u>Msherrill@CH2M.com</u>	E-mail:	Project No./Name: <u>363742.01.02</u>			Sampler's (Signature): <u>J. Johnson</u>														

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix														Comments	No. of Bottles	Lab Use Only Containers/Pres.
<u>2801123-01</u>	<u>1/21/08 0805</u>	<u>DPT-27 ASH</u>	<u>S</u>	<u>1</u>	<u>3</u>													<u>4</u>	<u>1M, 3J</u>
<u>-02</u>	<u>↓</u>	<u>DPT-27 SOIL</u>		<u>1</u>	<u>3</u>														
<u>-03</u>	<u>0840</u>	<u>DPT-25 ASH</u>		<u>1</u>	<u>3</u>														
<u>-04</u>	<u>↓</u>	<u>DPT-25 SOIL</u>		<u>1</u>	<u>3</u>														
<u>-05</u>	<u>0945</u>	<u>DPT-17 ASH</u>		<u>1</u>	<u>3</u>														
<u>-06</u>	<u>↓</u>	<u>DPT-17 SOIL</u>		<u>1</u>	<u>3</u>														
<u>-07</u>	<u>1030</u>	<u>DPT-30 ASH</u>		<u>1</u>	<u>3</u>														
<u>-08</u>	<u>↓</u>	<u>DPT-30 SOIL</u>	<u>✓</u>	<u>1</u>	<u>3</u>														
<u>-09</u>	<u>1100</u>	<u>EB</u>	<u>W</u>	<u>1</u>	<u>3</u>											<u>Equipment Blank</u>	<u>4</u>	<u>1C-NI, 3J-HY</u>	
<u>-10</u>	<u>0700</u>	<u>Trip Blank</u>	<u>W</u>	<u>3</u>												<u>Trip Blank</u>	<u>3</u>	<u>2J-HY</u>	
<u>✓ -11</u>	<u>↓</u>	<u>Blind Duplicate</u>	<u>S</u>	<u>1</u>	<u>3</u>											<u>*No metals.</u>	<u>4</u>	<u>1D, 3J</u>	

Sample Kit Prep'd by: (Signature)	Date/Time	Received By: (Signature)	REMARKS: * No volume for Metals included. E-mail confirmation w/ A. Teal that Blind Duplicate is not to be analyzed for metals.	Details:	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Page <u>1</u> of <u>1</u>	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)		Cooler No. <u>1</u> of <u>1</u>	
Received for Laboratory by: (Signature)	Date/Time	Temperature		Date Shipped <u>1/21/08</u>	
	<u>1-22-08</u>	<u>2.9°C</u>	Shipped By <u>AT</u>		
			Turnaround <u>Std</u>		

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

EMPIRICAL LABORATORIES COOLER RECEIPT FORM

LIMS Number: 0801123 COC ID(s): 43731

Client CH2M Hill Project A. Rucker

Sample Custodian E.J. Overby Today's Date 1-22-08

Date/Time Samples Received 1-22-08 9:00

Airbill Number FX

Cooler Opened: Date 1-22-08

Chain of custody seal intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Chain of custody provided?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Sample labels present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Bottle labels correspond w/COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Number of Custody Seals on Cooler(s): 1 Seal Date(s): 1-21-08

Type of coolant used Ice

Coolant condition : Melted _____ Partially melted/frozen
 Frozen _____

of Coolers 1 Temp. of Coolers 2.9°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

- No jar for metals included - 'Blind Duplicate'

Comments:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-27 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-01

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 112301B

Level: (low/med) LOW Date Sampled: 01/19/08 08:05

% Moisture: not dec. 13 Date Analyzed: 01/24/08 19:49

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or RL	ug/Kg) CONC	
67-64-1-----	Acetone	1.2	30	22	JB
107-13-1-----	Acrylonitrile	0.85	15		U
71-43-2-----	Benzene	0.29	3.0		U
74-97-5-----	Bromochloromethane	0.26	6.1		U
75-27-4-----	Bromodichloromethane	0.18	3.0		U
75-25-2-----	Bromoform	0.61	3.0		U
74-83-9-----	Bromomethane	0.44	6.1		U
78-93-3-----	2-Butanone	0.85	30		U
75-15-0-----	Carbon disulfide	0.79	3.0		U
56-23-5-----	Carbon tetrachloride	0.54	3.0		U
108-90-7-----	Chlorobenzene	0.21	3.0		U
75-00-3-----	Chloroethane	0.67	6.1		U
67-66-3-----	Chloroform	0.34	3.0		U
74-87-3-----	Chloromethane	0.32	6.1		U
124-48-1-----	Dibromochloromethane	0.21	3.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.73	6.1		U
106-93-4-----	1,2-Dibromoethane	0.26	3.0		U
74-95-3-----	Dibromomethane	0.25	3.0		U
95-50-1-----	1,2-Dichlorobenzene	0.22	3.0		U
106-46-7-----	1,4-Dichlorobenzene	0.34	3.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.9	15		U
75-34-3-----	1,1-Dichloroethane	0.33	3.0		U
107-06-2-----	1,2-Dichloroethane	0.28	3.0		U
75-35-4-----	1,1-Dichloroethene	0.73	3.0		U
156-59-2-----	cis-1,2-Dichloroethene	0.73	3.0		U
156-60-5-----	trans-1,2-Dichloroethene	0.67	3.0		U
78-87-5-----	1,2-Dichloropropane	0.28	3.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.30	3.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.20	3.0		U
100-41-4-----	Ethylbenzene	0.46	3.0		U
591-78-6-----	2-Hexanone	1.4	15		U
74-88-4-----	Iodomethane	0.51	15		U
75-09-2-----	Methylene chloride	0.38	6.1		U
108-10-1-----	4-Methyl-2-pentanone	0.35	15		U
100-42-5-----	Styrene	0.21	3.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.20	3.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.26	3.0		U
127-18-4-----	Tetrachloroethene	0.59	3.0		U
108-88-3-----	Toluene	0.52	3.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-27 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-01

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 112301B

Level: (low/med) LOW Date Sampled: 01/19/08 08:05

% Moisture: not dec. 13 Date Analyzed: 01/24/08 19:49

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.55	3.0		U
79-00-5-----	1,1,2-Trichloroethane	0.21	3.0		U
79-01-6-----	Trichloroethene	0.52	3.0		U
75-69-4-----	Trichlorofluoromethane	0.58	6.1		U
96-18-4-----	1,2,3-Trichloropropane	0.43	3.0		U
108-05-4-----	Vinyl acetate	0.34	15		U
75-01-4-----	Vinyl chloride	0.67	6.1		U
1330-20-7----	Xylene (total)	0.43	3.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-27 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-02

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 0112302D

Level: (low/med) MED Date Sampled: 01/19/08 08:05

% Moisture: not dec. 13 Date Analyzed: 01/28/08 20:30

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: MDL	(ug/L or ug/Kg) RL	UG/KG CONC	UG/KG Q
67-64-1	Acetone	48	120		U
107-13-1	Acrylonitrile	23	58		U
71-43-2	Benzene	3.4	7.2		U
74-97-5	Bromochloromethane	4.3	14		U
75-27-4	Bromodichloromethane	3.4	7.2		U
75-25-2	Bromoform	3.7	14		U
74-83-9	Bromomethane	3.7	14		U
78-93-3	2-Butanone	42	120		U
75-15-0	Carbon disulfide	4.3	14		U
56-23-5	Carbon tetrachloride	3.2	7.2	9.2	U
108-90-7	Chlorobenzene	2.9	7.2		U
75-00-3	Chloroethane	4.0	14		U
67-66-3	Chloroform	3.7	14		U
74-87-3	Chloromethane	8.0	29		U
124-48-1	Dibromochloromethane	4.0	14		U
96-12-8	1,2-Dibromo-3-chloropropane	2.6	7.2		U
106-93-4	1,2-Dibromoethane	4.0	14		U
74-95-3	Dibromomethane	4.0	14		U
95-50-1	1,2-Dichlorobenzene	3.2	7.2		U
106-46-7	1,4-Dichlorobenzene	2.9	14		U
110-57-6	trans-1,4-Dichloro-2-butene	17	58		U
75-34-3	1,1-Dichloroethane	3.2	7.2		U
107-06-2	1,2-Dichloroethane	3.7	14		U
75-35-4	1,1-Dichloroethene	3.7	14		U
156-59-2	cis-1,2-Dichloroethene	4.0	14		U
156-60-5	trans-1,2-Dichloroethene	4.3	14		U
78-87-5	1,2-Dichloropropane	3.2	7.2		U
10061-01-5	cis-1,3-Dichloropropene	2.3	7.2		U
10061-02-6	trans-1,3-Dichloropropene	3.4	7.2		U
100-41-4	Ethylbenzene	10	29		U
591-78-6	2-Hexanone	5.2	14		U
74-88-4	Iodomethane	3.4	7.2		U
75-09-2	Methylene chloride	6.6	14	78	U
108-10-1	4-Methyl-2-pentanone	10	29		U
100-42-5	Styrene	2.6	7.2		U
630-20-6	1,1,1,2-Tetrachloroethane	4.3	14		U
79-34-5	1,1,2,2-Tetrachloroethane	3.7	14		U
127-18-4	Tetrachloroethene	2.9	7.2		U
108-88-3	Toluene	4.6	14		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-27 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-02

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 0112302D

Level: (low/med) MED Date Sampled: 01/19/08 08:05

% Moisture: not dec. 13 Date Analyzed: 01/28/08 20:30

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	3.4	7.2		U
79-00-5-----	1,1,2-Trichloroethane	2.9	7.2		U
79-01-6-----	Trichloroethene	6.6	14		U
75-69-4-----	Trichlorofluoromethane	3.4	7.2		U
96-18-4-----	1,2,3-Trichloropropane	4.0	14		U
108-05-4-----	Vinyl acetate	14	29		U
75-01-4-----	Vinyl chloride	5.8	14		U
1330-20-7-----	Xylene (total)	14	29		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-25 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-03

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 112303B

Level: (low/med) LOW Date Sampled: 01/19/08 08:40

% Moisture: not dec. 26 Date Analyzed: 01/24/08 21:05

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1-----	Acetone	2.4	60	78	B
107-13-1-----	Acrylonitrile	1.7	30		U
71-43-2-----	Benzene	0.57	6.0	2.8	J
74-97-5-----	Bromochloromethane	0.51	12		U
75-27-4-----	Bromodichloromethane	0.36	6.0		U
75-25-2-----	Bromoform	1.2	6.0		U
74-83-9-----	Bromomethane	0.87	12		U
78-93-3-----	2-Butanone	1.7	60	12	J
75-15-0-----	Carbon disulfide	1.6	6.0		U
56-23-5-----	Carbon tetrachloride	1.1	6.0		U
108-90-7-----	Chlorobenzene	0.41	6.0		U
75-00-3-----	Chloroethane	1.3	12		U
67-66-3-----	Chloroform	0.66	6.0		U
74-87-3-----	Chloromethane	0.63	12		U
124-48-1-----	Dibromochloromethane	0.41	6.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.4	12		U
106-93-4-----	1,2-Dibromoethane	0.52	6.0		U
74-95-3-----	Dibromomethane	0.49	6.0		U
95-50-1-----	1,2-Dichlorobenzene	0.44	6.0		U
106-46-7-----	1,4-Dichlorobenzene	0.66	6.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	9.6	30		U
75-34-3-----	1,1-Dichloroethane	0.65	6.0		U
107-06-2-----	1,2-Dichloroethane	0.55	6.0		U
75-35-4-----	1,1-Dichloroethene	1.4	6.0		U
156-59-2-----	cis-1,2-Dichloroethene	1.4	6.0		U
156-60-5-----	trans-1,2-Dichloroethene	1.3	6.0		U
78-87-5-----	1,2-Dichloropropane	0.55	6.0	3.3	J
10061-01-5----	cis-1,3-Dichloropropene	0.60	6.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.38	6.0		U
100-41-4-----	Ethylbenzene	0.90	6.0		U
591-78-6-----	2-Hexanone	2.8	30		U
74-88-4-----	Iodomethane	1.0	30		U
75-09-2-----	Methylene chloride	0.75	12		U
108-10-1-----	4-Methyl-2-pentanone	0.70	30		U
100-42-5-----	Styrene	0.42	6.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.38	6.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.52	6.0		U
127-18-4-----	Tetrachloroethene	1.2	6.0		U
108-88-3-----	Toluene	1.0	6.0	2.1	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-25 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-03

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 112303B

Level: (low/med) LOW Date Sampled: 01/19/08 08:40

% Moisture: not dec. 26 Date Analyzed: 01/24/08 21:05

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
71-55-6-----	1,1,1-Trichloroethane	1.1	6.0		U
79-00-5-----	1,1,2-Trichloroethane	0.42	6.0		U
79-01-6-----	Trichloroethene	1.0	6.0		U
75-69-4-----	Trichlorofluoromethane	1.1	12		U
96-18-4-----	1,2,3-Trichloropropane	0.84	6.0		U
108-05-4-----	Vinyl acetate	0.66	30		U
75-01-4-----	Vinyl chloride	1.3	12		U
1330-20-7-----	Xylene (total)	0.84	6.0	8.4	

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-25 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-04

Sample wt/vol: 9.2 (g/mL) G Lab File ID: 112304A

Level: (low/med) LOW Date Sampled: 01/19/08 08:40

% Moisture: not dec. 9 Date Analyzed: 01/25/08 02:37

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG	
		MDL	(ug/L or ug/Kg) RL CONC			Q
67-64-1	Acetone	1.2	30	8.0	J
107-13-1	Acrylonitrile	0.84	15		U
71-43-2	Benzene	0.28	3.0		U
74-97-5	Bromochloromethane	0.25	6.0		U
75-27-4	Bromodichloromethane	0.18	3.0		U
75-25-2	Bromoform	0.60	3.0		U
74-83-9	Bromomethane	0.43	6.0		U
78-93-3	2-Butanone	0.84	30	1.7	J
75-15-0	Carbon disulfide	0.78	3.0		U
56-23-5	Carbon tetrachloride	0.53	3.0		U
108-90-7	Chlorobenzene	0.20	3.0		U
75-00-3	Chloroethane	0.66	6.0		U
67-66-3	Chloroform	0.33	3.0		U
74-87-3	Chloromethane	0.31	6.0		U
124-48-1	Dibromochloromethane	0.20	3.0		U
96-12-8	1,2-Dibromo-3-chloropropane	0.72	6.0		U
106-93-4	1,2-Dibromoethane	0.26	3.0		U
74-95-3	Dibromomethane	0.24	3.0		U
95-50-1	1,2-Dichlorobenzene	0.22	3.0		U
106-46-7	1,4-Dichlorobenzene	0.33	3.0		U
110-57-6	trans-1,4-Dichloro-2-butene	4.8	15		U
75-34-3	1,1-Dichloroethane	0.32	3.0		U
107-06-2	1,2-Dichloroethane	0.28	3.0		U
75-35-4	1,1-Dichloroethene	0.72	3.0		U
156-59-2	cis-1,2-Dichloroethene	0.72	3.0		U
156-60-5	trans-1,2-Dichloroethene	0.66	3.0		U
78-87-5	1,2-Dichloropropane	0.28	3.0		U
10061-01-5	cis-1,3-Dichloropropene	0.30	3.0		U
10061-02-6	trans-1,3-Dichloropropene	0.19	3.0		U
100-41-4	Ethylbenzene	0.45	3.0		U
591-78-6	2-Hexanone	1.4	15		U
74-88-4	Iodomethane	0.50	15		U
75-09-2	Methylene chloride	0.37	6.0		U
108-10-1	4-Methyl-2-pentanone	0.35	15	0.44	J
100-42-5	Styrene	0.21	3.0		U
630-20-6	1,1,1,2-Tetrachloroethane	0.19	3.0		U
79-34-5	1,1,2,2-Tetrachloroethane	0.26	3.0		U
127-18-4	Tetrachloroethene	0.58	3.0		U
108-88-3	Toluene	0.52	3.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-25 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-04

Sample wt/vol: 9.2 (g/mL) G Lab File ID: 112304A

Level: (low/med) LOW Date Sampled: 01/19/08 08:40

% Moisture: not dec. 9 Date Analyzed: 01/25/08 02:37

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.54	3.0		U
79-00-5-----	1,1,2-Trichloroethane	0.21	3.0		U
79-01-6-----	Trichloroethene	0.51	3.0		U
75-69-4-----	Trichlorofluoromethane	0.57	6.0		U
96-18-4-----	1,2,3-Trichloropropane	0.42	3.0		U
108-05-4-----	Vinyl acetate	0.33	15		U
75-01-4-----	Vinyl chloride	0.66	6.0		U
1330-20-7-----	Xylene (total)	0.42	3.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-17 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-05

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 112305B

Level: (low/med) LOW Date Sampled: 01/19/08 09:45

% Moisture: not dec. 14 Date Analyzed: 01/25/08 03:15

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----	Acetone	0.95	24	21	J
107-13-1-----	Acrylonitrile	0.66	12		U
71-43-2-----	Benzene	0.22	2.4		U
74-97-5-----	Bromochloromethane	0.20	4.7		U
75-27-4-----	Bromodichloromethane	0.14	2.4		U
75-25-2-----	Bromoform	0.47	2.4		U
74-83-9-----	Bromomethane	0.34	4.7		U
78-93-3-----	2-Butanone	0.66	24	2.5	J
75-15-0-----	Carbon disulfide	0.62	2.4		U
56-23-5-----	Carbon tetrachloride	0.42	2.4		U
108-90-7-----	Chlorobenzene	0.16	2.4		U
75-00-3-----	Chloroethane	0.52	4.7		U
67-66-3-----	Chloroform	0.26	2.4		U
74-87-3-----	Chloromethane	0.25	4.7		U
124-48-1-----	Dibromochloromethane	0.16	2.4		U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.57	4.7		U
106-93-4-----	1,2-Dibromoethane	0.20	2.4		U
74-95-3-----	Dibromomethane	0.19	2.4		U
95-50-1-----	1,2-Dichlorobenzene	0.18	2.4		U
106-46-7-----	1,4-Dichlorobenzene	0.26	2.4		U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.8	12		U
75-34-3-----	1,1-Dichloroethane	0.26	2.4		U
107-06-2-----	1,2-Dichloroethane	0.22	2.4		U
75-35-4-----	1,1-Dichloroethene	0.57	2.4		U
156-59-2-----	cis-1,2-Dichloroethene	0.57	2.4		U
156-60-5-----	trans-1,2-Dichloroethene	0.52	2.4		U
78-87-5-----	1,2-Dichloropropane	0.22	2.4		U
10061-01-5----	cis-1,3-Dichloropropene	0.24	2.4		U
10061-02-6----	trans-1,3-Dichloropropene	0.15	2.4		U
100-41-4-----	Ethylbenzene	0.36	2.4		U
591-78-6-----	2-Hexanone	1.1	12		U
74-88-4-----	Iodomethane	0.39	12		U
75-09-2-----	Methylene chloride	0.29	4.7		U
108-10-1-----	4-Methyl-2-pentanone	0.28	12		U
100-42-5-----	Styrene	0.17	2.4		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	2.4		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.20	2.4		U
127-18-4-----	Tetrachloroethene	0.46	2.4		U
108-88-3-----	Toluene	0.41	2.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-17 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-05

Sample wt/vol: 12.3 (g/mL) G Lab File ID: 112305B

Level: (low/med) LOW Date Sampled: 01/19/08 09:45

% Moisture: not dec. 14 Date Analyzed: 01/25/08 03:15

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL	UG/KG CONC Q
71-55-6-----	1,1,1-Trichloroethane	0.43	2.4	U
79-00-5-----	1,1,2-Trichloroethane	0.17	2.4	U
79-01-6-----	Trichloroethene	0.40	2.4	U
75-69-4-----	Trichlorofluoromethane	0.45	4.7	U
96-18-4-----	1,2,3-Trichloropropane	0.33	2.4	U
108-05-4-----	Vinyl acetate	0.26	12	U
75-01-4-----	Vinyl chloride	0.52	4.7	U
1330-20-7----	Xylene (total)	0.33	2.4	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-17 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-06

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 112306B

Level: (low/med) LOW Date Sampled: 01/19/08 09:45

% Moisture: not dec. 16 Date Analyzed: 01/25/08 03:54

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
67-64-1-----	Acetone	1.0	26	8.2 J
107-13-1-----	Acrylonitrile	0.72	13	U
71-43-2-----	Benzene	0.24	2.6	U
74-97-5-----	Bromochloromethane	0.22	5.1	U
75-27-4-----	Bromodichloromethane	0.15	2.6	U
75-25-2-----	Bromoform	0.51	2.6	U
74-83-9-----	Bromomethane	0.37	5.1	U
78-93-3-----	2-Butanone	0.72	26	U
75-15-0-----	Carbon disulfide	0.67	2.6	U
56-23-5-----	Carbon tetrachloride	0.45	2.6	U
108-90-7-----	Chlorobenzene	0.17	2.6	U
75-00-3-----	Chloroethane	0.57	5.1	U
67-66-3-----	Chloroform	0.28	2.6	U
74-87-3-----	Chloromethane	0.27	5.1	U
124-48-1-----	Dibromochloromethane	0.17	2.6	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.62	5.1	U
106-93-4-----	1,2-Dibromoethane	0.22	2.6	U
74-95-3-----	Dibromomethane	0.21	2.6	U
95-50-1-----	1,2-Dichlorobenzene	0.19	2.6	U
106-46-7-----	1,4-Dichlorobenzene	0.28	2.6	U
110-57-6-----	trans-1,4-Dichloro-2-butene	4.1	13	U
75-34-3-----	1,1-Dichloroethane	0.28	2.6	U
107-06-2-----	1,2-Dichloroethane	0.24	2.6	U
75-35-4-----	1,1-Dichloroethene	0.62	2.6	U
156-59-2-----	cis-1,2-Dichloroethene	0.62	2.6	U
156-60-5-----	trans-1,2-Dichloroethene	0.57	2.6	U
78-87-5-----	1,2-Dichloropropane	0.24	2.6	U
10061-01-5----	cis-1,3-Dichloropropene	0.26	2.6	U
10061-02-6----	trans-1,3-Dichloropropene	0.16	2.6	U
100-41-4-----	Ethylbenzene	0.39	2.6	U
591-78-6-----	2-Hexanone	1.2	13	U
74-88-4-----	Iodomethane	0.43	13	U
75-09-2-----	Methylene chloride	0.32	5.1	U
108-10-1-----	4-Methyl-2-pentanone	0.30	13	U
100-42-5-----	Styrene	0.18	2.6	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.16	2.6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.22	2.6	U
127-18-4-----	Tetrachloroethene	0.50	2.6	U
108-88-3-----	Toluene	0.44	2.6	U



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-17 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-06

Sample wt/vol: 11.5 (g/mL) G Lab File ID: 112306B

Level: (low/med) LOW Date Sampled: 01/19/08 09:45

% Moisture: not dec. 16 Date Analyzed: 01/25/08 03:54

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL	UG/KG CONC Q
71-55-6-----	1,1,1-Trichloroethane	0.46	2.6	U
79-00-5-----	1,1,2-Trichloroethane	0.18	2.6	U
79-01-6-----	Trichloroethene	0.44	2.6	U
75-69-4-----	Trichlorofluoromethane	0.49	5.1	U
96-18-4-----	1,2,3-Trichloropropane	0.36	2.6	U
108-05-4-----	Vinyl acetate	0.28	13	U
75-01-4-----	Vinyl chloride	0.57	5.1	U
1330-20-7----	Xylene (total)	0.36	2.6	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-30 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix: (soil/water) SOIL Lab Sample ID: 0801123-07
 Sample wt/vol: 6.5 (g/mL) G Lab File ID: 112307A
 Level: (low/med) LOW Date Sampled: 01/19/08 10:30
 % Moisture: not dec. 29 Date Analyzed: 01/25/08 04:32
 GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG	Q
		MDL	(ug/L or ug/Kg) RL CONC		
67-64-1-----	Acetone	2.2	54	13	J
107-13-1-----	Acrylonitrile	1.5	27		U
71-43-2-----	Benzene	0.51	5.4		U
74-97-5-----	Bromochloromethane	0.46	11		U
75-27-4-----	Bromodichloromethane	0.33	5.4		U
75-25-2-----	Bromoform	1.1	5.4		U
74-83-9-----	Bromomethane	0.78	11		U
78-93-3-----	2-Butanone	1.5	54		U
75-15-0-----	Carbon disulfide	1.4	5.4		U
56-23-5-----	Carbon tetrachloride	0.96	5.4		U
108-90-7-----	Chlorobenzene	0.37	5.4		U
75-00-3-----	Chloroethane	1.2	11		U
67-66-3-----	Chloroform	0.60	5.4		U
74-87-3-----	Chloromethane	0.56	11		U
124-48-1-----	Dibromochloromethane	0.37	5.4		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.3	11		U
106-93-4-----	1,2-Dibromoethane	0.47	5.4		U
74-95-3-----	Dibromomethane	0.44	5.4		U
95-50-1-----	1,2-Dichlorobenzene	0.40	5.4		U
106-46-7-----	1,4-Dichlorobenzene	0.60	5.4		U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.7	27		U
75-34-3-----	1,1-Dichloroethane	0.59	5.4		U
107-06-2-----	1,2-Dichloroethane	0.50	5.4		U
75-35-4-----	1,1-Dichloroethene	1.3	5.4		U
156-59-2-----	cis-1,2-Dichloroethene	1.3	5.4		U
156-60-5-----	trans-1,2-Dichloroethene	1.2	5.4		U
78-87-5-----	1,2-Dichloropropane	0.50	5.4		U
10061-01-5----	cis-1,3-Dichloropropene	0.54	5.4		U
10061-02-6----	trans-1,3-Dichloropropene	0.35	5.4		U
100-41-4-----	Ethylbenzene	0.82	5.4		U
591-78-6-----	2-Hexanone	2.5	27		U
74-88-4-----	Iodomethane	0.90	27		U
75-09-2-----	Methylene chloride	0.67	11		U
108-10-1-----	4-Methyl-2-pentanone	0.63	27		U
100-42-5-----	Styrene	0.38	5.4		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.35	5.4		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.47	5.4		U
127-18-4-----	Tetrachloroethene	1.0	5.4	12	
108-88-3-----	Toluene	0.93	5.4		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-30 ASH

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-07

Sample wt/vol: 6.5 (g/mL) G Lab File ID: 112307A

Level: (low/med) LOW Date Sampled: 01/19/08 10:30

% Moisture: not dec. 29 Date Analyzed: 01/25/08 04:32

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
71-55-6-----	1,1,1-Trichloroethane	0.98	5.4	U
79-00-5-----	1,1,2-Trichloroethane	0.38	5.4	U
79-01-6-----	Trichloroethene	0.92	5.4	U
75-69-4-----	Trichlorofluoromethane	1.0	11	U
96-18-4-----	1,2,3-Trichloropropane	0.76	5.4	U
108-05-4-----	Vinyl acetate	0.60	27	U
75-01-4-----	Vinyl chloride	1.2	11	U
1330-20-7-----	Xylene (total)	0.76	5.4	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-30 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-08

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 0112308D

Level: (low/med) MED Date Sampled: 01/19/08 10:30

% Moisture: not dec. 11 Date Analyzed: 01/28/08 21:00

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1-----	Acetone	45	100		U
107-13-1-----	Acrylonitrile	21	53		U
71-43-2-----	Benzene	3.2	6.6		U
74-97-5-----	Bromochloromethane	4.0	13		U
75-27-4-----	Bromodichloromethane	3.2	6.6		U
75-25-2-----	Bromoform	3.4	13		U
74-83-9-----	Bromomethane	3.4	13		U
78-93-3-----	2-Butanone	38	100		U
75-15-0-----	Carbon disulfide	4.0	13		U
56-23-5-----	Carbon tetrachloride	2.9	6.6	9.1	U
108-90-7-----	Chlorobenzene	2.6	6.6		U
75-00-3-----	Chloroethane	3.7	13		U
67-66-3-----	Chloroform	3.4	13		U
74-87-3-----	Chloromethane	7.4	26		U
124-48-1-----	Dibromochloromethane	3.7	13		U
96-12-8-----	1,2-Dibromo-3-chloropropane	2.4	6.6		U
106-93-4-----	1,2-Dibromoethane	3.7	13		U
74-95-3-----	Dibromomethane	3.7	13		U
95-50-1-----	1,2-Dichlorobenzene	2.9	6.6		U
106-46-7-----	1,4-Dichlorobenzene	2.6	13		U
110-57-6-----	trans-1,4-Dichloro-2-butene	16	53		U
75-34-3-----	1,1-Dichloroethane	2.9	6.6		U
107-06-2-----	1,2-Dichloroethane	3.4	13		U
75-35-4-----	1,1-Dichloroethene	3.4	13		U
156-59-2-----	cis-1,2-Dichloroethene	3.7	13		U
156-60-5-----	trans-1,2-Dichloroethene	4.0	13		U
78-87-5-----	1,2-Dichloropropane	2.9	6.6		U
10061-01-5----	cis-1,3-Dichloropropene	2.1	6.6		U
10061-02-6----	trans-1,3-Dichloropropene	3.2	6.6		U
100-41-4-----	Ethylbenzene	9.3	26		U
591-78-6-----	2-Hexanone	4.8	13		U
74-88-4-----	Iodomethane	3.2	6.6		U
75-09-2-----	Methylene chloride	6.1	13	81	U
108-10-1-----	4-Methyl-2-pentanone	9.3	26		U
100-42-5-----	Styrene	2.4	6.6		U
630-20-6-----	1,1,1,2-Tetrachloroethane	4.0	13		U
79-34-5-----	1,1,1,2-Tetrachloroethane	3.4	13		U
127-18-4-----	Tetrachloroethene	2.6	6.6		U
108-88-3-----	Toluene	4.2	13		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DPT-30 SOIL

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-08

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 0112308D

Level: (low/med) MED Date Sampled: 01/19/08 10:30

% Moisture: not dec. 11 Date Analyzed: 01/28/08 21:00

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000(uL) Soil Aliquot Volume: 100(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	3.2	6.6		U
79-00-5-----	1,1,2-Trichloroethane	2.6	6.6		U
79-01-6-----	Trichloroethene	6.1	13		U
75-69-4-----	Trichlorofluoromethane	3.2	6.6		U
96-18-4-----	1,2,3-Trichloropropane	3.7	13		U
108-05-4-----	Vinyl acetate	13	26		U
75-01-4-----	Vinyl chloride	5.3	13		U
1330-20-7-----	Xylene(total)	12	26		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EB

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) WATER Lab Sample ID: 0801123-09

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0112309

Level: (low/med) LOW Date Sampled: 01/19/08 11:00

% Moisture: not dec. _____ Date Analyzed: 02/05/08 16:52

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		
		MDL	RL	UG/L CONC Q
67-64-1-----	Acetone	1.7	10	U
107-13-1-----	Acrylonitrile	0.81	5.0	U
71-43-2-----	Benzene	0.12	1.0	U
74-97-5-----	Bromochloromethane	0.15	2.0	U
75-27-4-----	Bromodichloromethane	0.12	1.0	U
75-25-2-----	Bromoform	0.13	1.0	U
74-83-9-----	Bromomethane	0.13	2.0	U
78-93-3-----	2-Butanone	1.4	10	U
75-15-0-----	Carbon disulfide	0.15	1.0	U
56-23-5-----	Carbon tetrachloride	0.11	1.0	U
108-90-7-----	Chlorobenzene	0.10	1.0	U
75-00-3-----	Chloroethane	0.14	2.0	U
67-66-3-----	Chloroform	0.13	1.0	U
74-87-3-----	Chloromethane	0.28	2.0	U
124-48-1-----	Dibromochloromethane	0.14	1.0	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.090	2.0	U
106-93-4-----	1,2-Dibromoethane	0.14	1.0	U
74-95-3-----	Dibromomethane	0.14	1.0	U
95-50-1-----	1,2-Dichlorobenzene	0.11	1.0	U
106-46-7-----	1,4-Dichlorobenzene	0.10	1.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.60	5.0	U
75-34-3-----	1,1-Dichloroethane	0.11	1.0	U
107-06-2-----	1,2-Dichloroethane	0.13	1.0	U
75-35-4-----	1,1-Dichloroethene	0.13	1.0	U
156-59-2-----	cis-1,2-Dichloroethene	0.14	1.0	U
156-60-5-----	trans-1,2-Dichloroethene	0.15	1.0	U
78-87-5-----	1,2-Dichloropropane	0.11	1.0	U
10061-01-5----	cis-1,3-Dichloropropene	0.080	1.0	U
10061-02-6----	trans-1,3-Dichloropropene	0.12	1.0	U
100-41-4-----	Ethylbenzene	0.35	1.0	U
591-78-6-----	2-Hexanone	0.18	5.0	U
74-88-4-----	Iodomethane	0.12	5.0	U
75-09-2-----	Methylene chloride	0.23	2.0	U
108-10-1-----	4-Methyl-2-pentanone	0.35	5.0	U
100-42-5-----	Styrene	0.090	1.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	1.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.13	1.0	U
127-18-4-----	Tetrachloroethene	0.10	1.0	U
108-88-3-----	Toluene	0.16	1.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EB

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) WATER Lab Sample ID: 0801123-09

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0112309

Level: (low/med) LOW Date Sampled: 01/19/08 11:00

% Moisture: not dec. _____ Date Analyzed: 02/05/08 16:52

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/L	Q
		MDL	(ug/L or ug/Kg) RL CONC		
71-55-6-----	1,1,1-Trichloroethane	0.12	1.0		U
79-00-5-----	1,1,2-Trichloroethane	0.10	1.0		U
79-01-6-----	Trichloroethene	0.23	1.0		U
75-69-4-----	Trichlorofluoromethane	0.12	2.0		U
96-18-4-----	1,2,3-Trichloropropane	0.14	1.0		U
108-05-4-----	Vinyl acetate	0.50	5.0		U
75-01-4-----	Vinyl chloride	0.20	2.0		U
1330-20-7----	Xylene (total)	0.47	1.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) WATER Lab Sample ID: 0801123-10

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0112310

Level: (low/med) LOW Date Sampled: 01/19/08 07:00

% Moisture: not dec. _____ Date Analyzed: 02/05/08 15:52

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO. COMPOUND MDL RL CONC Q

67-64-1-----Acetone	1.7	10			U
107-13-1-----Acrylonitrile	0.81	5.0			U
71-43-2-----Benzene	0.12	1.0			U
74-97-5-----Bromochloromethane	0.15	2.0			U
75-27-4-----Bromodichloromethane	0.12	1.0			U
75-25-2-----Bromoform	0.13	1.0			U
74-83-9-----Bromomethane	0.13	2.0			U
78-93-3-----2-Butanone	1.4	10			U
75-15-0-----Carbon disulfide	0.15	1.0			U
56-23-5-----Carbon tetrachloride	0.11	1.0			U
108-90-7-----Chlorobenzene	0.10	1.0			U
75-00-3-----Chloroethane	0.14	2.0			U
67-66-3-----Chloroform	0.13	1.0			U
74-87-3-----Chloromethane	0.28	2.0			U
124-48-1-----Dibromochloromethane	0.14	1.0			U
96-12-8-----1,2-Dibromo-3-chloropropane	0.090	2.0			U
106-93-4-----1,2-Dibromoethane	0.14	1.0			U
74-95-3-----Dibromomethane	0.14	1.0			U
95-50-1-----1,2-Dichlorobenzene	0.11	1.0			U
106-46-7-----1,4-Dichlorobenzene	0.10	1.0			U
110-57-6-----trans-1,4-Dichloro-2-butene	0.60	5.0			U
75-34-3-----1,1-Dichloroethane	0.11	1.0			U
107-06-2-----1,2-Dichloroethane	0.13	1.0			U
75-35-4-----1,1-Dichloroethene	0.13	1.0			U
156-59-2-----cis-1,2-Dichloroethene	0.14	1.0			U
156-60-5-----trans-1,2-Dichloroethene	0.15	1.0			U
78-87-5-----1,2-Dichloropropane	0.11	1.0			U
10061-01-5----cis-1,3-Dichloropropene	0.080	1.0			U
10061-02-6----trans-1,3-Dichloropropene	0.12	1.0			U
100-41-4-----Ethylbenzene	0.35	1.0			U
591-78-6-----2-Hexanone	0.18	5.0			U
74-88-4-----Iodomethane	0.12	5.0			U
75-09-2-----Methylene chloride	0.23	2.0	0.35		J
108-10-1-----4-Methyl-2-pentanone	0.35	5.0			U
100-42-5-----Styrene	0.090	1.0			U
630-20-6-----1,1,1,2-Tetrachloroethane	0.15	1.0			U
79-34-5-----1,1,2,2-Tetrachloroethane	0.13	1.0			U
127-18-4-----Tetrachloroethene	0.10	1.0			U
108-88-3-----Toluene	0.16	1.0			U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) WATER Lab Sample ID: 0801123-10

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0112310

Level: (low/med) LOW Date Sampled: 01/19/08 07:00

% Moisture: not dec. _____ Date Analyzed: 02/05/08 15:52

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)		UG/L	Q
		MDL	RL			CONC
71-55-6-----	1,1,1-Trichloroethane	0.12	1.0		U
79-00-5-----	1,1,2-Trichloroethane	0.10	1.0		U
79-01-6-----	Trichloroethene	0.23	1.0		U
75-69-4-----	Trichlorofluoromethane	0.12	2.0		U
96-18-4-----	1,2,3-Trichloropropane	0.14	1.0		U
108-05-4-----	Vinyl acetate	0.50	5.0		U
75-01-4-----	Vinyl chloride	0.20	2.0		U
1330-20-7-----	Xylene (total)	0.47	1.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLIND DUPLICATE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-11

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 112311A

Level: (low/med) LOW Date Sampled: 01/19/08 :

% Moisture: not dec. 32 Date Analyzed: 01/25/08 05:49

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:			UG/KG Q
		MDL	(ug/L or ug/Kg) RL	CONC	
67-64-1	Acetone	2.6	66	64	J
107-13-1	Acrylonitrile	1.8	33		U
71-43-2	Benzene	0.62	6.6	6.0	J
74-97-5	Bromochloromethane	0.55	13		U
75-27-4	Bromodichloromethane	0.39	6.6		U
75-25-2	Bromoform	1.3	6.6		U
74-83-9	Bromomethane	0.95	13		U
78-93-3	2-Butanone	1.8	66		U
75-15-0	Carbon disulfide	1.7	6.6		U
56-23-5	Carbon tetrachloride	1.2	6.6		U
108-90-7	Chlorobenzene	0.45	6.6		U
75-00-3	Chloroethane	1.4	13		U
67-66-3	Chloroform	0.72	6.6		U
74-87-3	Chloromethane	0.68	13		U
124-48-1	Dibromochloromethane	0.45	6.6		U
96-12-8	1,2-Dibromo-3-chloropropane	1.6	13		U
106-93-4	1,2-Dibromoethane	0.56	6.6		U
74-95-3	Dibromomethane	0.54	6.6		U
95-50-1	1,2-Dichlorobenzene	0.49	6.6		U
106-46-7	1,4-Dichlorobenzene	0.72	6.6		U
110-57-6	trans-1,4-Dichloro-2-butene	10	33		U
75-34-3	1,1-Dichloroethane	0.71	6.6		U
107-06-2	1,2-Dichloroethane	0.60	6.6		U
75-35-4	1,1-Dichloroethene	1.6	6.6		U
156-59-2	cis-1,2-Dichloroethene	1.6	6.6		U
156-60-5	trans-1,2-Dichloroethene	1.4	6.6		U
78-87-5	1,2-Dichloropropane	0.60	6.6	5.7	J
10061-01-5	cis-1,3-Dichloropropene	0.66	6.6		U
10061-02-6	trans-1,3-Dichloropropene	0.42	6.6		U
100-41-4	Ethylbenzene	0.98	6.6		U
591-78-6	2-Hexanone	3.0	33		U
74-88-4	Iodomethane	1.1	33		U
75-09-2	Methylene chloride	0.81	13		U
108-10-1	4-Methyl-2-pentanone	0.76	33		U
100-42-5	Styrene	0.46	6.6		U
630-20-6	1,1,1,2-Tetrachloroethane	0.42	6.6		U
79-34-5	1,1,2,2-Tetrachloroethane	0.56	6.6		U
127-18-4	Tetrachloroethene	1.3	6.6		U
108-88-3	Toluene	1.1	6.6	3.8	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLIND DUPLICATE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: 0801123-11

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 112311A

Level: (low/med) LOW Date Sampled: 01/19/08 :

% Moisture: not dec. 32 Date Analyzed: 01/25/08 05:49

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		
		MDL	RL	CONC
71-55-6-----	1,1,1-Trichloroethane _____	1.2	6.6	U
79-00-5-----	1,1,2-Trichloroethane _____	0.46	6.6	U
79-01-6-----	Trichloroethene _____	1.1	6.6	U
75-69-4-----	Trichlorofluoromethane _____	1.2	13	U
96-18-4-----	1,2,3-Trichloropropane _____	0.92	6.6	U
108-05-4-----	Vinyl acetate _____	0.72	33	U
75-01-4-----	Vinyl chloride _____	1.4	13	U
1330-20-7-----	Xylene (total) _____	0.92	6.6	13

FORM I VOA

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	V1BLK0124LCS	94	94	102	97	0
02	V1BLK0124	97	93	102	94	0
03	DPT-27 ASH	95	92	107	89	0
04	DPT-25 ASH	101	95	123*	82	1
05	V1BLK0124LCS	96	98	103	99	0
06	V1BLK0124ELC	95	101	102	96	0
07	V1BLK0124E	93	91	102	95	0
08	DPT-25 SOIL	94	100	101	97	0
09	DPT-17 ASH	100	101	107	88	0
10	DPT-17 SOIL	96	94	100	98	0
11	DPT-30 ASH	100	100	109	88	0
12	BLIND DUPLIC	104	98	121*	82	1
13	V1BLK0124ELC	95	94	103	99	0
14						
15						
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27						
28						
29						
30						

	EL QC LIMITS	SPIKE CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	30
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	30
SMC3 (TOL) = Toluene-d8	(80-120)	30
SMC4 (BFB) = Bromofluorobenzene	(80-125)	30

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Level: (low/med) MED

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V3MBLK0128LC	99	99	99	99	0
02	V3MBLK0128	99	102	102	105	0
03	DPT-27 SOIL	100	103	100	103	0
04	DPT-30 SOIL	100	101	102	104	0
05						
06						
07						
08						
09						
10						
11						
12						
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30						

	EL	SPIKE
	QC LIMITS	CONC (ug/Kg)
SMC1 (DFM) = Dibromofluoromethane	(80-125)	1500
SMC2 (DCE) = 1,2-Dichloroethane-d4	(75-140)	1500
SMC3 (TOL) = Toluene-d8	(80-120)	1500
SMC4 (BFB) = Bromofluorobenzene	(80-125)	1500

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate results reported from a diluted analysis

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	V3BLK0205LCS	103	100	94	95	0
02	V3BLK0205	104	107	98	97	0
03	TRIP BLANK	103	106	99	100	0
04	EB	103	108	99	98	0
05						
06						
07						
08						
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28						
29						
30						

	EL QC LIMITS	SPIKE CONC (ug/L)
SMC1 (DFM) = Dibromofluoromethane	(85-120)	30
SMC2 (DCE) = 1,2-Dichloroethane-d4	(80-135)	30
SMC3 (TOL) = Toluene-d8	(85-115)	30
SMC4 (BFB) = Bromofluorobenzene	(85-120)	30

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate results reported from a diluted analysis

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	2.760	75.00	72	20-160
Acrylonitrile	250.0	0.0000	252.1	101	35-180
Benzene	50.00	0.0000	49.65	99	75-125
Bromochloromethane	50.00	0.0000	44.80	90	70-125
Bromodichloromethane	50.00	0.0000	45.42	91	70-130
Bromoform	50.00	0.0000	48.62	97	55-135
Bromomethane	50.00	0.0000	35.94	72	30-160
2-Butanone	100.0	0.0000	168.4	168*	30-160
Carbon disulfide	50.00	0.0000	62.17	124	45-160
Carbon tetrachloride	50.00	0.0000	44.71	89	65-135
Chlorobenzene	50.00	0.0000	49.98	100	75-125
Chloroethane	50.00	0.0000	53.80	108	40-155
Chloroform	50.00	0.0000	46.28	92	70-125
Chloromethane	50.00	0.0000	63.34	127	50-130
Dibromochloromethane	50.00	0.0000	48.71	97	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	47.48	95	40-135
1,2-Dibromoethane	50.00	0.0000	48.05	96	70-125
Dibromomethane	50.00	0.0000	46.91	94	75-130
1,2-Dichlorobenzene	50.00	0.0000	47.23	94	75-120
1,4-Dichlorobenzene	50.00	0.0000	47.41	95	70-125
1,1-Dichloroethane	50.00	0.0000	50.90	102	75-125
1,2-Dichloroethane	50.00	0.0000	42.81	86	70-125
1,1-Dichloroethene	50.00	0.0000	49.24	98	65-135
cis-1,2-Dichloroethene	50.00	0.0000	47.52	95	65-125
trans-1,2-Dichloroethen	50.00	0.0000	47.95	96	65-135
1,2-Dichloropropane	50.00	0.0000	51.40	103	70-120
cis-1,3-Dichloropropene	50.00	0.0000	48.86	98	70-125
trans-1,3-Dichloroprope	50.00	0.0000	50.61	101	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	49.41	99	75-125
2-Hexanone	100.0	0.0000	97.14	97	45-145
Iodomethane	50.00	0.0000	55.38	111	55-165
Methylene chloride	50.00	0.0000	51.11	102	55-140
4-Methyl-2-pentanone	100.0	0.0000	108.7	109	45-145
Styrene	50.00	0.0000	49.15	98	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	47.47	95	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	54.83	110	55-130
Tetrachloroethene	50.00	0.0000	55.14	110	65-140
Toluene	50.00	0.0000	51.53	103	70-125
1,1,1-Trichloroethane	50.00	0.0000	44.84	90	70-135
1,1,2-Trichloroethane	50.00	0.0000	49.82	100	60-125
Trichloroethene	50.00	0.0000	47.85	96	75-125
Trichlorofluoromethane	50.00	0.0000	48.67	97	25-185
1,2,3-Trichloropropane	50.00	0.0000	46.81	94	65-130
Vinyl acetate	100.0	0.0000	101.9	102	50-135
Vinyl chloride	50.00	0.0000	52.46	105	60-125
Xylene (total)	150.0	0.0000	142.7	95	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	70.33	68	6	50	20-160
Acrylonitrile	250.0	252.8	101	0	50	35-180
Benzene	50.00	49.22	98	1	50	75-125
Bromochloromethane	50.00	45.43	91	1	50	70-125
Bromodichloromethane	50.00	45.92	92	1	50	70-130
Bromoform	50.00	47.12	94	3	50	55-135
Bromomethane	50.00	34.58	69	4	50	30-160
2-Butanone	100.0	159.0	159	6	50	30-160
Carbon disulfide	50.00	62.41	125	0	50	45-160
Carbon tetrachloride	50.00	44.46	89	0	50	65-135
Chlorobenzene	50.00	48.48	97	3	50	75-125
Chloroethane	50.00	57.19	114	6	50	40-155
Chloroform	50.00	46.32	93	0	50	70-125
Chloromethane	50.00	67.61	135*	6	50	50-130
Dibromochloromethane	50.00	46.85	94	4	50	65-130
1,2-Dibromo-3-chloropro	50.00	45.59	91	4	50	40-135
1,2-Dibromoethane	50.00	46.65	93	3	50	70-125
Dibromomethane	50.00	46.00	92	2	50	75-130
1,2-Dichlorobenzene	50.00	45.70	91	3	50	75-120
1,4-Dichlorobenzene	50.00	49.44	99	4	50	70-125
1,1-Dichloroethane	50.00	47.95	96	6	50	75-125
1,2-Dichloroethane	50.00	43.08	86	1	50	70-125
1,1-Dichloroethene	50.00	51.45	103	4	50	65-135
cis-1,2-Dichloroethene	50.00	48.05	96	1	50	65-125
trans-1,2-Dichloroethen	50.00	47.20	94	2	50	65-135
1,2-Dichloropropane	50.00	51.75	104	1	50	70-120
cis-1,3-Dichloropropene	50.00	48.76	98	0	50	70-125
trans-1,3-Dichloroprope	50.00	48.62	97	4	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V1BLK0124 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	48.55	97	2	50	75-125
2-Hexanone	100.0	88.12	88	10	50	45-145
Iodomethane	50.00	57.90	116	4	50	55-165
Methylene chloride	50.00	51.74	103	1	50	55-140
4-Methyl-2-pentanone	100.0	108.2	108	0	50	45-145
Styrene	50.00	47.91	96	2	50	75-125
1,1,1,2-Tetrachloroetha	50.00	46.15	92	3	50	75-125
1,1,2,2-Tetrachloroetha	50.00	53.82	108	2	50	55-130
Tetrachloroethene	50.00	57.06	114	3	50	65-140
Toluene	50.00	50.81	102	1	50	70-125
1,1,1-Trichloroethane	50.00	44.52	89	1	50	70-135
1,1,2-Trichloroethane	50.00	48.23	96	3	50	60-125
Trichloroethene	50.00	48.23	96	1	50	75-125
Trichlorofluoromethane	50.00	49.95	100	2	50	25-185
1,2,3-Trichloropropane	50.00	46.80	94	0	50	65-130
Vinyl acetate	100.0	86.72	87	16	50	50-135
Vinyl chloride	50.00	55.02	110	5	50	60-125
Xylene (total)	150.0	140.8	94	1	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits

Spike Recovery: 2 out of 92 outside limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix Spike - Client Sample No.: V1BLK0124E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	0.0000	74.93	75	20-160
Acrylonitrile	250.0	0.0000	270.3	108	35-180
Benzene	50.00	0.0000	48.39	97	75-125
Bromochloromethane	50.00	0.0000	44.89	90	70-125
Bromodichloromethane	50.00	0.0000	46.36	93	70-130
Bromoform	50.00	0.0000	47.27	94	55-135
Bromomethane	50.00	0.0000	35.38	71	30-160
2-Butanone	100.0	0.0000	159.3	159	30-160
Carbon disulfide	50.00	0.0000	59.20	118	45-160
Carbon tetrachloride	50.00	0.0000	43.34	87	65-135
Chlorobenzene	50.00	0.0000	46.73	93	75-125
Chloroethane	50.00	0.0000	53.00	106	40-155
Chloroform	50.00	0.0000	45.52	91	70-125
Chloromethane	50.00	0.0000	59.74	119	50-130
Dibromochloromethane	50.00	0.0000	46.90	94	65-130
1,2-Dibromo-3-chloropro	50.00	0.0000	46.86	94	40-135
1,2-Dibromoethane	50.00	0.0000	47.18	94	70-125
Dibromomethane	50.00	0.0000	47.47	95	75-130
1,2-Dichlorobenzene	50.00	0.0000	43.02	86	75-120
1,4-Dichlorobenzene	50.00	0.0000	42.11	84	70-125
1,1-Dichloroethane	50.00	0.0000	48.18	96	75-125
1,2-Dichloroethane	50.00	0.0000	42.71	85	70-125
1,1-Dichloroethene	50.00	0.0000	48.03	96	65-135
cis-1,2-Dichloroethene	50.00	0.0000	46.95	94	65-125
trans-1,2-Dichloroethen	50.00	0.0000	45.68	91	65-135
1,2-Dichloropropane	50.00	0.0000	51.03	102	70-120
cis-1,3-Dichloropropene	50.00	0.0000	47.66	95	70-125
trans-1,3-Dichloroprope	50.00	0.0000	48.06	96	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V1BLK0124E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	46.71	93	75-125
2-Hexanone	100.0	0.0000	90.42	90	45-145
Iodomethane	50.00	0.0000	54.05	108	55-165
Methylene chloride	50.00	0.0000	50.84	102	55-140
4-Methyl-2-pentanone	100.0	0.0000	112.1	112	45-145
Styrene	50.00	0.0000	45.52	91	75-125
1,1,1,2-Tetrachloroetha	50.00	0.0000	46.32	93	75-125
1,1,2,2-Tetrachloroetha	50.00	0.0000	53.44	107	55-130
Tetrachloroethene	50.00	0.0000	62.55	125	65-140
Toluene	50.00	0.0000	48.35	97	70-125
1,1,1-Trichloroethane	50.00	0.0000	44.05	88	70-135
1,1,2-Trichloroethane	50.00	0.0000	48.36	97	60-125
Trichloroethene	50.00	0.0000	48.23	96	75-125
Trichlorofluoromethane	50.00	0.0000	46.92	94	25-185
1,2,3-Trichloropropane	50.00	0.0000	46.73	93	65-130
Vinyl acetate	100.0	0.0000	83.94	84	50-135
Vinyl chloride	50.00	0.0000	51.39	103	60-125
Xylene (total)	150.0	0.0000	132.5	88	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V1BLK0124E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acetone	100.0	66.88	67	11	50	20-160
Acrylonitrile	250.0	246.9	99	9	50	35-180
Benzene	50.00	49.71	99	3	50	75-125
Bromochloromethane	50.00	44.87	90	0	50	70-125
Bromodichloromethane	50.00	46.89	94	1	50	70-130
Bromoform	50.00	46.26	92	2	50	55-135
Bromomethane	50.00	34.68	69	2	50	30-160
2-Butanone	100.0	158.8	159	0	50	30-160
Carbon disulfide	50.00	60.43	121	2	50	45-160
Carbon tetrachloride	50.00	44.70	89	3	50	65-135
Chlorobenzene	50.00	47.61	95	2	50	75-125
Chloroethane	50.00	53.87	108	2	50	40-155
Chloroform	50.00	46.27	92	2	50	70-125
Chloromethane	50.00	62.25	124	4	50	50-130
Dibromochloromethane	50.00	46.26	92	1	50	65-130
1,2-Dibromo-3-chloropro	50.00	44.91	90	4	50	40-135
1,2-Dibromoethane	50.00	45.96	92	3	50	70-125
Dibromomethane	50.00	45.27	90	5	50	75-130
1,2-Dichlorobenzene	50.00	43.99	88	2	50	75-120
1,4-Dichlorobenzene	50.00	39.30	79	7	50	70-125
1,1-Dichloroethane	50.00	51.02	102	6	50	75-125
1,2-Dichloroethane	50.00	42.26	84	1	50	70-125
1,1-Dichloroethene	50.00	48.99	98	2	50	65-135
cis-1,2-Dichloroethene	50.00	47.28	94	1	50	65-125
trans-1,2-Dichloroethen	50.00	46.65	93	2	50	65-135
1,2-Dichloropropane	50.00	52.48	105	3	50	70-120
cis-1,3-Dichloropropene	50.00	47.14	94	1	50	70-125
trans-1,3-Dichloroprope	50.00	46.63	93	3	50	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V1BLK0124E Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Ethylbenzene	50.00	47.43	95	2	50	75-125
2-Hexanone	100.0	89.13	89	1	50	45-145
Iodomethane	50.00	57.29	114	6	50	55-165
Methylene chloride	50.00	50.63	101	0	50	55-140
4-Methyl-2-pentanone	100.0	103.4	103	8	50	45-145
Styrene	50.00	46.35	93	2	50	75-125
1,1,1,2-Tetrachloroetha	50.00	46.48	93	0	50	75-125
1,1,2,2-Tetrachloroetha	50.00	51.74	103	3	50	55-130
Tetrachloroethene	50.00	65.52	131	5	50	65-140
Toluene	50.00	49.69	99	3	50	70-125
1,1,1-Trichloroethane	50.00	44.13	88	0	50	70-135
1,1,2-Trichloroethane	50.00	48.18	96	0	50	60-125
Trichloroethene	50.00	46.72	93	3	50	75-125
Trichlorofluoromethane	50.00	48.93	98	4	50	25-185
1,2,3-Trichloropropane	50.00	43.71	87	7	50	65-130
Vinyl acetate	100.0	84.36	84	0	50	50-135
Vinyl chloride	50.00	52.72	105	2	50	60-125
Xylene (total)	150.0	135.9	91	2	50	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 46 outside limits

Spike Recovery: 0 out of 92 outside limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix Spike - Client Sample No.: V3MBLK0128 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Acetone	5000	0.0000	4202	84	20-160
Acrylonitrile	12500	0.0000	13260	106	35-180
Benzene	2500	0.0000	2396	96	75-125
Bromochloromethane	2500	0.0000	2508	100	70-125
Bromodichloromethane	2500	0.0000	2557	102	70-130
Bromoform	2500	0.0000	2739	110	55-135
Bromomethane	2500	17.02	2451	97	30-160
2-Butanone	5000	0.0000	5230	105	30-160
Carbon disulfide	2500	0.0000	3050	122	45-160
Carbon tetrachloride	2500	0.0000	2540	102	65-135
Chlorobenzene	2500	0.0000	2401	96	75-125
Chloroethane	2500	0.0000	2716	109	40-155
Chloroform	2500	0.0000	2400	96	70-125
Chloromethane	2500	0.0000	2714	108	50-130
Dibromochloromethane	2500	0.0000	2752	110	65-130
1,2-Dibromo-3-chloropro	2500	0.0000	2352	94	40-135
1,2-Dibromoethane	2500	0.0000	2523	101	70-125
Dibromomethane	2500	0.0000	2504	100	75-130
1,2-Dichlorobenzene	2500	0.0000	2416	97	75-120
1,4-Dichlorobenzene	2500	0.0000	2444	98	70-125
1,1-Dichloroethane	2500	0.0000	2438	98	75-125
1,2-Dichloroethane	2500	0.0000	2471	99	70-125
1,1-Dichloroethene	2500	0.0000	2526	101	65-135
cis-1,2-Dichloroethene	2500	0.0000	2274	91	65-125
trans-1,2-Dichloroethen	2500	0.0000	2356	94	65-135
1,2-Dichloropropane	2500	0.0000	2460	98	70-120
cis-1,3-Dichloropropene	2500	0.0000	2600	104	70-125
trans-1,3-Dichloroprope	2500	0.0000	2861	114	65-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V3MBLK0128 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	2500	0.0000	2323	93	75-125
2-Hexanone	5000	0.0000	5232	105	45-145
Iodomethane	2500	0.0000	2674	107	55-165
Methylene chloride	2500	0.0000	2569	103	55-140
4-Methyl-2-pentanone	5000	0.0000	5427	108	45-145
Styrene	2500	0.0000	2603	104	75-125
1,1,1,2-Tetrachloroetha	2500	0.0000	2466	99	75-125
1,1,2,2-Tetrachloroetha	2500	0.0000	2626	105	55-130
Tetrachloroethene	2500	0.0000	2333	93	65-140
Toluene	2500	8.614	2441	97	70-125
1,1,1-Trichloroethane	2500	0.0000	2435	97	70-135
1,1,2-Trichloroethane	2500	0.0000	2465	99	60-125
Trichloroethene	2500	0.0000	2417	97	75-125
Trichlorofluoromethane	2500	0.0000	2989	120	25-185
1,2,3-Trichloropropane	2500	0.0000	2509	100	65-130
Vinyl acetate	5000	0.0000	5234	105	50-135
Vinyl chloride	2500	0.0000	2805	112	60-125
Xylene (total)	7500	0.0000	6708	89	70-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
 Spike Recovery: 0 out of 46 outside limits

COMMENTS: _____

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix Spike - Client Sample No.: V3BLK0205

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Acetone	100.0	0.0000	86.70	87	40-140
Acrylonitrile	250.0	0.0000	283.2	113	35-180
Benzene	50.00	0.0000	49.42	99	80-120
Bromochloromethane	50.00	0.0000	52.59	105	65-130
Bromodichloromethane	50.00	0.0000	53.78	108	75-120
Bromoform	50.00	0.0000	51.60	103	70-130
Bromomethane	50.00	0.0000	37.93	76	30-145
2-Butanone	100.0	0.0000	101.6	102	30-150
Carbon disulfide	50.00	0.0000	62.29	124	35-160
Carbon tetrachloride	50.00	0.0000	51.50	103	65-140
Chlorobenzene	50.00	0.0000	45.61	91	80-120
Chloroethane	50.00	0.0000	59.66	119	60-135
Chloroform	50.00	0.0000	51.58	103	65-135
Chloromethane	50.00	0.0000	65.52	131*	40-125
Dibromochloromethane	50.00	0.0000	52.38	105	60-135
1,2-Dibromo-3-chloropro	50.00	0.0000	42.54	85	50-130
1,2-Dibromoethane	50.00	0.0000	48.70	97	80-120
Dibromomethane	50.00	0.0000	53.25	106	75-125
1,2-Dichlorobenzene	50.00	0.0000	45.87	92	70-120
1,4-Dichlorobenzene	50.00	0.0000	45.94	92	75-125
1,1-Dichloroethane	50.00	0.0000	51.15	102	70-135
1,2-Dichloroethane	50.00	0.0000	55.04	110	70-130
1,1-Dichloroethene	50.00	0.0000	50.22	100	70-130
cis-1,2-Dichloroethene	50.00	0.0000	47.26	94	70-125
trans-1,2-Dichloroethen	50.00	0.0000	48.60	97	60-140
1,2-Dichloropropane	50.00	0.0000	50.59	101	75-125
cis-1,3-Dichloropropene	50.00	0.0000	51.10	102	70-130
trans-1,3-Dichloroprope	50.00	0.0000	54.44	109	55-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER
 Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123
 Matrix Spike - Client Sample No.: V3BLK0205

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Ethylbenzene	50.00	0.0000	45.28	90	75-125
2-Hexanone	100.0	0.0000	103.7	104	55-130
Iodomethane	50.00	0.0000	51.52	103	50-140
Methylene chloride	50.00	0.0000	54.04	108	55-140
4-Methyl-2-pentanone	100.0	0.0000	115.4	115	60-135
Styrene	50.00	0.0000	48.73	97	65-135
1,1,1,2-Tetrachloroetha	50.00	0.0000	47.55	95	80-130
1,1,2,2-Tetrachloroetha	50.00	0.0000	53.04	106	65-130
Tetrachloroethene	50.00	0.0000	46.22	92	45-150
Toluene	50.00	0.0000	46.85	94	75-120
1,1,1-Trichloroethane	50.00	0.0000	50.63	101	65-130
1,1,2-Trichloroethane	50.00	0.0000	49.86	100	75-125
Trichloroethene	50.00	0.0000	50.06	100	70-125
Trichlorofluoromethane	50.00	0.0000	67.13	134	60-145
1,2,3-Trichloropropane	50.00	0.0000	48.75	98	75-125
Vinyl acetate	100.0	0.0000	114.0	114	60-150
Vinyl chloride	50.00	0.0000	61.31	123	50-145
Xylene (total)	150.0	0.0000	131.0	87	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
 Spike Recovery: 1 out of 46 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Lab File ID: V1BLK01 Lab Sample ID: V1BLK0124

Date Analyzed: 01/24/08 Time Analyzed: 1212

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1BLK0124LCS	V1BLK0124LCS	V1LCSAP9	1055
02	DPT-27 ASH	0801123-01	112301B	1949
03	DPT-25 ASH	0801123-03	112303B	2105
04	V1BLK0124LCS	V1BLK0124LCSD	V1LCSDA9	2144
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/24/08 12:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

CAS NO.	COMPOUND	MDL	RL	CONC	Q
67-64-1-----	Acetone	2.0	50	2.8	J
107-13-1-----	Acrylonitrile	1.4	25		U
71-43-2-----	Benzene	0.47	5.0		U
74-97-5-----	Bromochloromethane	0.42	10		U
75-27-4-----	Bromodichloromethane	0.30	5.0		U
75-25-2-----	Bromoform	1.0	5.0		U
74-83-9-----	Bromomethane	0.72	10		U
78-93-3-----	2-Butanone	1.4	50		U
75-15-0-----	Carbon disulfide	1.3	5.0		U
56-23-5-----	Carbon tetrachloride	0.88	5.0		U
108-90-7-----	Chlorobenzene	0.34	5.0		U
75-00-3-----	Chloroethane	1.1	10		U
67-66-3-----	Chloroform	0.55	5.0		U
74-87-3-----	Chloromethane	0.52	10		U
124-48-1-----	Dibromochloromethane	0.34	5.0		U
96-12-8-----	1,2-Dibromo-3-chloropropane	1.2	10		U
106-93-4-----	1,2-Dibromoethane	0.43	5.0		U
74-95-3-----	Dibromomethane	0.41	5.0		U
95-50-1-----	1,2-Dichlorobenzene	0.37	5.0		U
106-46-7-----	1,4-Dichlorobenzene	0.55	5.0		U
110-57-6-----	trans-1,4-Dichloro-2-butene	8.0	25		U
75-34-3-----	1,1-Dichloroethane	0.54	5.0		U
107-06-2-----	1,2-Dichloroethane	0.46	5.0		U
75-35-4-----	1,1-Dichloroethene	1.2	5.0		U
156-59-2-----	cis-1,2-Dichloroethene	1.2	5.0		U
156-60-5-----	trans-1,2-Dichloroethene	1.1	5.0		U
78-87-5-----	1,2-Dichloropropane	0.46	5.0		U
10061-01-5----	cis-1,3-Dichloropropene	0.50	5.0		U
10061-02-6----	trans-1,3-Dichloropropene	0.32	5.0		U
100-41-4-----	Ethylbenzene	0.75	5.0		U
591-78-6-----	2-Hexanone	2.3	25		U
74-88-4-----	Iodomethane	0.83	25		U
75-09-2-----	Methylene chloride	0.62	10		U
108-10-1-----	4-Methyl-2-pentanone	0.58	25		U
100-42-5-----	Styrene	0.35	5.0		U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.32	5.0		U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.43	5.0		U
127-18-4-----	Tetrachloroethene	0.97	5.0		U
108-88-3-----	Toluene	0.86	5.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/24/08 12:12

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)			UG/KG Q
		MDL	RL	CONC	
71-55-6-----	1,1,1-Trichloroethane	0.90	5.0		U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0		U
79-01-6-----	Trichloroethene	0.85	5.0		U
75-69-4-----	Trichlorofluoromethane	0.95	10		U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0		U
108-05-4-----	Vinyl acetate	0.55	25		U
75-01-4-----	Vinyl chloride	1.1	10		U
1330-20-7-----	Xylene (total)	0.70	5.0		U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V1BLK0124E

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Lab File ID: V1BLK01E Lab Sample ID: V1BLK0124E

Date Analyzed: 01/25/08 Time Analyzed: 0159

Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1BLK0124ELC	V1BLK0124ELCS	V1LCSA9E	0005
02	DPT-25 SOIL	0801123-04	112304A	0237
03	DPT-17 ASH	0801123-05	112305B	0315
04	DPT-17 SOIL	0801123-06	112306B	0354
05	DPT-30 ASH	0801123-07	112307A	0432
06	BLIND DUPLIC	0801123-11	112311A	0549
07	V1BLK0124ELC	V1BLK0124ELCSD	V1LCSD9E	0744
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124E

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01E

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/25/08 01:59

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: MDL	(ug/L or ug/Kg) RL	UG/KG CONC	UG/KG Q
67-64-1	Acetone	2.0	50		U
107-13-1	Acrylonitrile	1.4	25		U
71-43-2	Benzene	0.47	5.0		U
74-97-5	Bromochloromethane	0.42	10		U
75-27-4	Bromodichloromethane	0.30	5.0		U
75-25-2	Bromoform	1.0	5.0		U
74-83-9	Bromomethane	0.72	10		U
78-93-3	2-Butanone	1.4	50		U
75-15-0	Carbon disulfide	1.3	5.0		U
56-23-5	Carbon tetrachloride	0.88	5.0		U
108-90-7	Chlorobenzene	0.34	5.0		U
75-00-3	Chloroethane	1.1	10		U
67-66-3	Chloroform	0.55	5.0		U
74-87-3	Chloromethane	0.52	10		U
124-48-1	Dibromochloromethane	0.34	5.0		U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	10		U
106-93-4	1,2-Dibromoethane	0.43	5.0		U
74-95-3	Dibromomethane	0.41	5.0		U
95-50-1	1,2-Dichlorobenzene	0.37	5.0		U
106-46-7	1,4-Dichlorobenzene	0.55	5.0		U
110-57-6	trans-1,4-Dichloro-2-butene	8.0	25		U
75-34-3	1,1-Dichloroethane	0.54	5.0		U
107-06-2	1,2-Dichloroethane	0.46	5.0		U
75-35-4	1,1-Dichloroethene	1.2	5.0		U
156-59-2	cis-1,2-Dichloroethene	1.2	5.0		U
156-60-5	trans-1,2-Dichloroethene	1.1	5.0		U
78-87-5	1,2-Dichloropropane	0.46	5.0		U
10061-01-5	cis-1,3-Dichloropropene	0.50	5.0		U
10061-02-6	trans-1,3-Dichloropropene	0.32	5.0		U
100-41-4	Ethylbenzene	0.75	5.0		U
591-78-6	2-Hexanone	2.3	25		U
74-88-4	Iodomethane	0.83	25		U
75-09-2	Methylene chloride	0.62	10		U
108-10-1	4-Methyl-2-pentanone	0.58	25		U
100-42-5	Styrene	0.35	5.0		U
630-20-6	1,1,1,2-Tetrachloroethane	0.32	5.0		U
79-34-5	1,1,2,2-Tetrachloroethane	0.43	5.0		U
127-18-4	Tetrachloroethene	0.97	5.0		U
108-88-3	Toluene	0.86	5.0		U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V1BLK0124E

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: V1BLK0124E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1BLK01E

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/25/08 01:59

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

71-55-6-----	1,1,1-Trichloroethane	0.90	5.0		U
79-00-5-----	1,1,2-Trichloroethane	0.35	5.0		U
79-01-6-----	Trichloroethene	0.85	5.0		U
75-69-4-----	Trichlorofluoromethane	0.95	10		U
96-18-4-----	1,2,3-Trichloropropane	0.70	5.0		U
108-05-4-----	Vinyl acetate	0.55	25		U
75-01-4-----	Vinyl chloride	1.1	10		U
1330-20-7----	Xylene (total)	0.70	5.0		U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Lab File ID: V3MBLK01 Lab Sample ID: V3MBLK0128

Date Analyzed: 01/28/08 Time Analyzed: 1731

Column: RTX-VRX ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V3MBLK0128LC	V3MBLK0128LCS	V3LCS01	1235
02	DPT-27 SOIL	0801123-02	0112302D	2030
03	DPT-30 SOIL	0801123-08	0112308D	2100
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG
MDL RL CONC Q

67-64-1-----Acetone	84	200		U
107-13-1-----Acrylonitrile	40	100		U
71-43-2-----Benzene	6.0	12		U
74-97-5-----Bromochloromethane	7.5	25		U
75-27-4-----Bromodichloromethane	6.0	12		U
75-25-2-----Bromoform	6.5	25		U
74-83-9-----Bromomethane	6.5	25	17	J
78-93-3-----2-Butanone	72	200		U
75-15-0-----Carbon disulfide	7.5	25		U
56-23-5-----Carbon tetrachloride	5.5	12		U
108-90-7-----Chlorobenzene	5.0	12		U
75-00-3-----Chloroethane	7.0	25		U
67-66-3-----Chloroform	6.5	25		U
74-87-3-----Chloromethane	14	50		U
124-48-1-----Dibromochloromethane	7.0	25		U
96-12-8-----1,2-Dibromo-3-chloropropane	4.5	12		U
106-93-4-----1,2-Dibromoethane	7.0	25		U
74-95-3-----Dibromomethane	7.0	25		U
95-50-1-----1,2-Dichlorobenzene	5.5	12		U
106-46-7-----1,4-Dichlorobenzene	5.0	25		U
110-57-6-----trans-1,4-Dichloro-2-butene	30	100		U
75-34-3-----1,1-Dichloroethane	5.5	12		U
107-06-2-----1,2-Dichloroethane	6.5	25		U
75-35-4-----1,1-Dichloroethene	6.5	25		U
156-59-2-----cis-1,2-Dichloroethene	7.0	25		U
156-60-5-----trans-1,2-Dichloroethene	7.5	25		U
78-87-5-----1,2-Dichloropropane	5.5	12		U
10061-01-5----cis-1,3-Dichloropropene	4.0	12		U
10061-02-6----trans-1,3-Dichloropropene	6.0	12		U
100-41-4-----Ethylbenzene	18	50		U
591-78-6-----2-Hexanone	9.0	25		U
74-88-4-----Iodomethane	6.0	12		U
75-09-2-----Methylene chloride	12	25		U
108-10-1-----4-Methyl-2-pentanone	18	50		U
100-42-5-----Styrene	4.5	12		U
630-20-6-----1,1,1,2-Tetrachloroethane	7.5	25		U
79-34-5-----1,1,2,2-Tetrachloroethane	6.5	25		U
127-18-4-----Tetrachloroethene	5.0	12		U
108-88-3-----Toluene	8.0	25	8.6	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3MBLK0128

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) SOIL Lab Sample ID: V3MBLK0128

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V3MBLK01

Level: (low/med) MED Date Sampled: _____

% Moisture: not dec. 0 Date Analyzed: 01/28/08 17:31

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/KG Q
		MDL	(ug/L or ug/Kg) RL CONC	
71-55-6-----	1,1,1-Trichloroethane	6.0	12	U
79-00-5-----	1,1,2-Trichloroethane	5.0	12	U
79-01-6-----	Trichloroethene	12	25	U
75-69-4-----	Trichlorofluoromethane	6.0	12	U
96-18-4-----	1,2,3-Trichloropropane	7.0	25	U
108-05-4-----	Vinyl acetate	25	50	U
75-01-4-----	Vinyl chloride	10	25	U
1330-20-7----	Xylene (total)	24	50	U

FORM I VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

V3BLK0205

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Lab File ID: V3BLK01 Lab Sample ID: V3BLK0205

Date Analyzed: 02/05/08 Time Analyzed: 1451

Column: RTX-VRX ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V3BLK0205LCS	V3BLK0205LCS	V3LCSAP9	1325
02	TRIP BLANK	0801123-10	0112310	1552
03	EB	0801123-09	0112309	1652
04				
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3BLK0205

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) WATER Lab Sample ID: V3BLK0205

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V3BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. _____ Date Analyzed: 02/05/08 14:51

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L
MDL RL CONC Q

67-64-1-----	Acetone	1.7	10	U
107-13-1-----	Acrylonitrile	0.81	5.0	U
71-43-2-----	Benzene	0.12	1.0	U
74-97-5-----	Bromochloromethane	0.15	2.0	U
75-27-4-----	Bromodichloromethane	0.12	1.0	U
75-25-2-----	Bromoform	0.13	1.0	U
74-83-9-----	Bromomethane	0.13	2.0	U
78-93-3-----	2-Butanone	1.4	10	U
75-15-0-----	Carbon disulfide	0.15	1.0	U
56-23-5-----	Carbon tetrachloride	0.11	1.0	U
108-90-7-----	Chlorobenzene	0.10	1.0	U
75-00-3-----	Chloroethane	0.14	2.0	U
67-66-3-----	Chloroform	0.13	1.0	U
74-87-3-----	Chloromethane	0.28	2.0	U
124-48-1-----	Dibromochloromethane	0.14	1.0	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.090	2.0	U
106-93-4-----	1,2-Dibromoethane	0.14	1.0	U
74-95-3-----	Dibromomethane	0.14	1.0	U
95-50-1-----	1,2-Dichlorobenzene	0.11	1.0	U
106-46-7-----	1,4-Dichlorobenzene	0.10	1.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.60	5.0	U
75-34-3-----	1,1-Dichloroethane	0.11	1.0	U
107-06-2-----	1,2-Dichloroethane	0.13	1.0	U
75-35-4-----	1,1-Dichloroethene	0.13	1.0	U
156-59-2-----	cis-1,2-Dichloroethene	0.14	1.0	U
156-60-5-----	trans-1,2-Dichloroethene	0.15	1.0	U
78-87-5-----	1,2-Dichloropropane	0.11	1.0	U
10061-01-5----	cis-1,3-Dichloropropene	0.080	1.0	U
10061-02-6----	trans-1,3-Dichloropropene	0.12	1.0	U
100-41-4-----	Ethylbenzene	0.35	1.0	U
591-78-6-----	2-Hexanone	0.18	5.0	U
74-88-4-----	Iodomethane	0.12	5.0	U
75-09-2-----	Methylene chloride	0.23	2.0	U
108-10-1-----	4-Methyl-2-pentanone	0.35	5.0	U
100-42-5-----	Styrene	0.090	1.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.15	1.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.13	1.0	U
127-18-4-----	Tetrachloroethene	0.10	1.0	U
108-88-3-----	Toluene	0.16	1.0	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

V3BLK0205

Lab Name: EMPIRICAL LABS Contract: CH2MHILL FT RUCKER

Lab Code: EL Case No.: NA SAS No.: NA SDG No.: CH2.V01123

Matrix: (soil/water) WATER Lab Sample ID: V3BLK0205

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V3BLK01

Level: (low/med) LOW Date Sampled: _____

% Moisture: not dec. _____ Date Analyzed: 02/05/08 14:51

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		UG/L CONC	UG/L Q
		MDL	(ug/L or ug/Kg) RL		
71-55-6-----	1,1,1-Trichloroethane	0.12	1.0		U
79-00-5-----	1,1,2-Trichloroethane	0.10	1.0		U
79-01-6-----	Trichloroethene	0.23	1.0		U
75-69-4-----	Trichlorofluoromethane	0.12	2.0		U
96-18-4-----	1,2,3-Trichloropropane	0.14	1.0		U
108-05-4-----	Vinyl acetate	0.50	5.0		U
75-01-4-----	Vinyl chloride	0.20	2.0		U
1330-20-7-----	Xylene (total)	0.47	1.0		U

FORM I VOA

MEMORANDUM

CH2MHILL

Data Validation Summary – Fort Rucker, United States Army

TO: Mark Sherrill/CH2M HILL/ATL

FROM: Mark Stinnett/CH2M HILL/GNV
Ward Dickens/CH2M HILL/GNV
Herb Kelly/CH2M HILL/GNV

DATE: May 20, 2008

Introduction

The purpose of this memorandum is to present the results of the data validation process for the environmental samples collected at Fort Rucker. The samples were collected between January 14th and January 19th, 2008.

The samples were submitted to ELAB of Tennessee, LLC in Nashville, Tennessee, for the following analytical fractions:

- Volatile Organic Compounds (VOC) by SW-846 Method 8260B
- Metals by SW-846 Methods 6010B
- Mercury by SW-846 Method 7470A and 7471A

The samples and analyses performed are summarized in **Attachment^o1**.

The purpose of the data usability evaluation process is to assess the effect of the overall analytical process on the usability of the data. The two major categories of data evaluation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance with the method requirements; either the laboratory did, or did not, analyze the samples within the limits of the analytical method. Evaluation of matrix interferences is more subtle and involves the analysis of several areas of results, including surrogate spike recoveries, matrix spike (MS) recoveries, and duplicate sample results.

Before the analytical results were released by the laboratories, both the sample and quality control (QC) data were carefully reviewed to verify sample identity, instrument calibration, detection limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. Additionally, the QC data were reduced and the resulting data were reviewed to ascertain whether they were within the laboratory-defined limits for accuracy and precision. Any non-conforming data were discussed in the data package cover letter and case narrative.

The data validation and review process is independent of the laboratory's checks and focuses on the usability of the data to support the project data interpretation and decision-making processes.

The Quality Control areas that were reviewed and the resulting findings are documented within each subsection that follows. This data was validated for compliance with the analytical method requirements. This process also included a review of the data to assess the accuracy, precision, and completeness based upon procedures described in the guidance documents such as the *Environmental Protection Agency (EPA) National Functional Guidelines for Inorganic Data Review (EPA 2002)* and *National Functional Guidelines for Organic Data Review (EPA 1999.)* Quality assurance/quality control (QA/QC) summary forms and data reports were reviewed.

In those instances where multiple analyses were performed, the analytical run with the lowest reporting limits was used, if the QC criteria were met for that analysis. If a sample was analyzed more than one time due to a target parameter concentration above the calibration range, the results for all parameters from the lowest dilution were used, except for those parameters exceeding the calibration range which were reported from the diluted analysis. In those instances where multiple analyses were performed with QC criteria out in all analyses, the analytical run with the least number of exceptions or best possible QC was chosen for reporting purposes.

Sample results that were not within the acceptance limits were appended with a qualifying flag, which consisted of a single- or double-letter code that indicated a possible problem with the data. The qualifying flags originated during the data review and validation processes. These also include the secondary, or "sub-qualifier" flags. The secondary qualifiers provide the reasoning behind the assignment of a qualifier flag to the data. The secondary qualifiers are presented and defined below.

✓ The following primary flags were used to qualify the data:

[=] **Detect**. The analyte was analyzed for and detected at the concentration shown.

[J] **Estimate**. The analyte was present but the reported value may not be accurate or precise.

[U] **Non-detect**. The analyte was analyzed for but not detected above the method detection limit.

[UJ] **Detection limit estimate**. The analyte was analyzed for but qualified as not detected; the result is estimated.

[R] **Reject**. The data is not useable.

The secondary qualifiers provide the reasoning behind the assignment of a qualifier flag to the data and are defined in Attachment².

Once the data validation review and processes were completed, the entire data set was reviewed for chemical compound frequencies of detection, dilution factors that might affect data usability, and patterns of target compounds distribution. The data set was also evaluated to identify potential data limitations, uncertainties, or both in the analytical results. Attachment³ list changes in data qualifiers based upon the validation process excluding those that were "rejected" due to dilutions or re-runs only, and those results that

exceeded calibration range in the initial analyses, but where there is an acceptable result in a diluted analysis.

Organic Parameters

Quality Control Review

The following list represents the QA/QC measures that were reviewed during the data quality evaluation procedure for organic data.

- **Holding Times** – The holding times are evaluated to verify that samples were extracted and analyzed within established SW-846 holding times.
- **Blank samples** – Equipment blank, trip blank and laboratory method blank samples were provided for this project. Blank samples enable the reviewer to determine if a compound may be attributed to sampling or laboratory procedures, rather than environmental contamination from site activities.
- **Surrogate Recoveries** – Surrogate Compounds are added to each sample and the recoveries are used to monitor lab performance and possible matrix interference.
- **Lab Control Sample/Lab Control Sample Duplicate (LCS/LCSD)** – These samples are a "controlled matrix", either laboratory reagent water or Ottawa sand, in which target compounds have been added prior to extraction/analysis. The recoveries serve as a statistics to monitor the accuracy and precision of the method, including sample preparation.
- **Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples** – A matrix spike (and matrix spike duplicate) is an aliquot of sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A MS is used to document the bias of a method attributed to a given sample matrix. The matrix spike duplicate (MSD) is also spiked with identical concentrations of target analyte(s) as the MS. The recoveries of the MS and MSD are used to calculate the precision and thus the bias of a method in the same sample matrix.
- **Field Duplicate Samples** – Field duplicate analyses measure both field and laboratory precision and can also be affected by the homogeneity of the samples. This information can only be determined when target compounds are detected.
- **GC/MS Tuning** – The mass spectrum of the tuning compound is evaluated for method compliance. The criteria are established to verify the proper mass assignment and mass resolution.
- **Initial Calibration** – The initial calibration ensures that the instrument is capable of producing acceptable qualitative and quantitative data for the compounds of interest.
- **Continuing Calibration** – The continuing calibration checks satisfactory performance of the instrument and its predicted response to the target compounds.
- **Internal Standards** – The internal standards (retention time and response) are evaluated for method compliance. The internal standards are used in quantitation of the target

parameters and monitor the instrument sensitivity and response for stability during each analysis.

Volatile Organic Compounds (VOC) Analyses by SW-846 8260B

The QA/QC parameters for VOC analyses by SW-846 8260B for all of the samples were within acceptable control limits, except as noted below.

Holding Times

A single diluted sample was flagged for exceeding the analytical holding time. The original sample analysis indicated extremely low internal standard recoveries and due to the difficulty with the sample matrix, the laboratory re-analyzed this sample at a dilution and slightly outside the analytical hold time. All results for sample DPT-08ASHDL, were flagged "UJ" as estimated (there were no detects found in either analysis by the laboratory) for the associated VOC target parameters. The qualified results are listed in Attachment^o3 with a Validation Reason of "HTA".

Blank samples

Three VOC target parameters were detected in the associated blank samples as listed in Table^o1.

If a target parameter determined to be a contaminant had been reported in a field sample, and the concentration was below the level determined to be due to blank contamination, the following action(s) would have been taken:

- If the concentration was above the reporting limit, the numeric result was unchanged, but it was flagged "U", as undetected.
- If the target compound concentration is greater than the adjust blank value (determined by the validator) then no flag is applied to the result
- If the concentration was below the reporting limit, the numeric result was changed to the value of the reporting limit, and it was flagged "U", as undetected.

The results qualified due to blank contamination are listed in Attachment^o3 with a Validation Reason of "LBL".

Table 1. Blank Detections

Matrix	Sample ID	Sample Type	LR Type	Parameter
SO	DPT-14 ASH	N		Toluene
SO	DPT-14 SOIL	N		Acetone
SO	DPT-15 SOIL	N		Acetone
SO	DPT-21 SOIL	N		Acetone
SO	DPT-22 SOIL	N		Acetone
SO	DPT-23 SOIL	N		Acetone
SO	DPT-27 ASH	N		Acetone
SO	DPT-08 ASHDL	LR	DL	Chloromethane
SO	DPT-21 ASH	N		Acetone

Surrogate Recoveries

Six native samples plus the field duplicate were flagged due to surrogate recoveries being outside laboratory control limits. Samples were flagged as either estimated detects or non-detects depending upon the individual circumstance of the sample. If the VOC surrogate recovery was above the laboratory control limit only detected compounds are flagged as estimated using the "J" flag. If the VOC surrogate recovery was below the laboratory control limit both detected and non-detected target compounds are flagged as either estimated detect (J) or estimated non-detect (UJ). The results qualified due to surrogate recoveries are listed in Attachment 3 with Validation Reasons of "SSH" or "SSL". No samples were rejected due to surrogate recovery.

Field Duplicates

The native (DPT-23ASH) and its field duplicate were flagged as an estimated values for Methylene chloride. The duplicate sample indicated a target concentration of 120 ug/kg while the native sample was a non-detect. The data from these two samples were flagged as a result of inconsistencies in the analytical results between these two samples, and are listed in Attachment 3 with a Validation Reason of "FD".

Initial and Continuing Calibration Criteria

All initial calibration and continuing calibration criteria were within the analytical method criteria for the VOC fraction, except as noted below.

Acetone and Chloromethane were above QC Limits, while Bromomethane was below QC Limits in selected continuing calibration standards. Flags were applied to the compounds in the associated samples in the following manner:

- When the percent difference (%D) or RRF was low in the continuing calibration or second source standards, detected compounds were flagged "J" and non-detected compounds were flagged "UJ" for estimated.
- When the percent difference (%D) or RRF was high in the continuing calibration or second source standards, only detected compounds were flagged "J" for estimated.

The data were flagged as a result continuing calibration issues are listed in Attachment 3 with Validation Reasons of "CCVH" and "CCVL". No data were rejected as a result of calibration deficiencies.

Internal Standard Recovery

Nine VOC samples were flagged as either estimated results or non-detects due to low internal standard recovery. One sample, DPT-08ASH was rejected in its first analysis due to low internal standard recoveries and successfully re-analyzed with non-rejectable results in a diluted form. The low internal standard was a direct result of higher individual soil sample volumes taken during the sampling event and sent to the laboratory. During actual instrument injection some of these soil and ash samples with larger volumes may have interfered with the proper recovery of the internal standards. Another sample issue was that some of the soil and ash samples exhibited a unique quality of having a congealed type matrix once injected with standards and other aqueous media creating a physical

interference for the analytical procedure. The results for samples qualified due to low internal recoveries are listed in Attachment³ with a Validation Reason of "ISL".

Inorganic Parameters

Quality Control Review

The following list represents the QA/QC measures that are typically reviewed during the data quality evaluation procedure for inorganic parameters.

- **Holding Times** – The holding times are evaluated to verify that samples were extracted and analyzed within holding times.
- **Blank samples** – Equipment blank, preparation blank, and initial calibration blanks/continuing calibration blank samples were provided for this project. Blank samples enable the reviewer to determine if an analyte may be attributed to sampling or laboratory procedures, rather than environmental contamination from site activities.
- **Lab Control Sample (LCS)** – This sample is a "controlled matrix", in which target parameters have been added prior to digestion/analysis. The recoveries serve as a monitor of the overall performance of each step during the analysis, including sample preparation.
- **Field Duplicate Samples** – These samples are collected to determine precision between a native and it's duplicate. This information can only be determined when target compounds are detected.
- **Pre/Post Digestion Spike (MS/MSD)** – Spike recovery is used to evaluate potential matrix interferences, as well as accuracy. Precision information is also determined by calculating the reproducibility between the concentrations of each spiked parameter.
- **ICP Interference Check Sample** – This sample verifies the lab's interelement and background correction factors.
- **Initial Calibration Verification** – This parameter ensures that the instrument is capable of producing acceptable quantitative data for the target analyte list to be measured.
- **Continuing Calibration Verification** – This one-point, mid-range parameter establishes that the initial calibration is still valid by checking the performance of the instrument on a continual basis.
- **ICP Serial Dilution**– The serial dilution of samples quantitated by ICP determines whether or not significant physical or chemical interferences exist due to the sample matrix.

Metals Analyses by SW-846 6010B and 7470A/7471A

The QA/QC parameters for the Metals by SW-846 6010B analyses for all of the samples were within acceptable control limits, except as listed below.

Recoveries – MS/MSD and LCS/LCSD

All Matrix Spike (MS), Matrix Spike Duplicate (MSD), Post Spike (PS), Laboratory Control Sample (LCS) and Laboratory Control Duplicate Sample (LCSD) recoveries were within acceptable quality control limits with the some exceptions. Eight samples were flagged as estimated values due to spike recoveries being above the upper laboratory control limits. Two target metals (Zinc and total Chromium) were flagged as estimated due to this elevated recovery. The laboratory control limits for Zinc and Total Chromium in this instance was 75 to 125% recovery. The results were qualified due to high Matrix Spike Recoveries and are listed in Attachment³ with a Validation Note of "MSH".

Initial and Continuing Calibration Criteria

All initial calibration and continuing calibration criteria were within the analytical method criteria for the metal fraction, except as noted below. Beryllium was high in some continuing calibration standards and the associated sample results were qualified. Only detected results were qualified and are listed in Attachment³ with a Validation Note of "CCVH". No data were rejected as a result of calibration deficiencies.

Metals Results near the Instrument Detection Limit

The native samples were analyzed for the specific project list of metals. The MDL is defined as the minimum concentration of an analyte that can be identified, measured, and reported with 99% confidence that the analyte concentration is greater than zero. Sample results at or near the MDL are not accurate or precise. This situation is often caused by instrument noise, or low-level background shifts, rather than a true analyte signal. As concentrations approach a "quantitation limit", the confidence in the values increases. If the reported result was above the MDL, but below the RL, the data was qualified as "J", as estimated, with a Validation Reason of "IB".

Conclusion

A review of the analytical data was submitted by the laboratory contractor regarding the sampling event at Fort Rucker has been completed by CH2M HILL chemists. This review of the field sampling effort and analytical phase, the overall evaluation of the data indicates that the sample handling, shipment, and analytical procedures have been followed per EPA Guidelines. The data indicates that the laboratory's analytical processes were under control at the time of analysis. Furthermore, the data did have limited QC concerns as indicated in this text about the low internal standard recoveries within a sub-set of VOC samples. There was one native VOC sample rejected due to extremely low internal standard recoveries but this was improved upon in the re-analysis. Additionally, some samples had surrogate or matrix spike recoveries outside of laboratory control criteria but these exceptions did not warrant rejection of any data and were flagged as estimated values. It was determined during validation that no sample from this event contained records that were completely rejected as a result of the validation process. Re-analysis of certain samples was required in limited cases in order to capture a complete data set. The validation review demonstrated that with these exceptions, the data results can be used in the decision making process as qualified.

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Matrix	SDG	Lab Sample ID	Sample ID	Sample Type	LR Type	Date Collected	Metals	Mercury	Volatiles
SO	0801086	0801086-01	DPT-02 SOIL	N		1/14/2008	X	X	X
SO	0801086	0801086-08	DPT-02 ASH	N		1/14/2008	X	X	X
SO	0801086	0801086-02	DPT-03 SOIL	N		1/15/2008	X	X	X
SO	0801086	0801086-09	DPT-03 ASH	N		1/15/2008	X	X	X
SO	0801086	0801086-03	DPT-05 SOIL	N		1/15/2008	X	X	X
SO	0801086	0801086-10	DPT-05 ASH	N		1/15/2008	X	X	X
SO	0801086	0801086-04	DPT-07 SOIL	N		1/15/2008	X	X	X
SO	0801086	0801086-04MS	DPT-07 SOILMS	MS		1/15/2008		X	
SO	0801086	0801086-04MSD	DPT-07 SOILMSD	SD		1/15/2008		X	
SO	0801086	0801086-11	DPT-07 ASH	N		1/15/2008	X	X	X
SO	0801086	0801086-05	DPT-08 SOIL	N		1/15/2008	X	X	X
SO	0801086	0801086-12	DPT-08 ASH	N		1/15/2008	X	X	X
SO	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	1/15/2008			X
SO	0801108	0801108-07	DPT-11 ASH	N		1/17/2008	X	X	X
SO	0801108	0801108-08	DPT-11 SOIL	N		1/17/2008	X	X	X
SO	0801108	0801108-08D	DPT-11 SOILD	LR	D	1/17/2008	X		
SO	0801108	0801108-08MS	DPT-11 SOILMS	MS		1/17/2008	X		
SO	0801108	0801108-03	DPT-12 ASH	N		1/17/2008	X	X	X
SO	0801108	0801108-04	DPT-12 SOIL	N		1/17/2008	X	X	X
SO	0801108	0801108-05	DPT-10 ASH	N		1/17/2008	X	X	X
SO	0801108	0801108-06	DPT-10 SOIL	N		1/17/2008	X	X	X
SO	0801108	0801108-09	DPT-13 ASH (0-4)	N		1/17/2008	X	X	X
SO	0801108	0801108-10	DPT-13 ASH (7-13)	N		1/17/2008	X	X	X
SO	0801108	0801108-11	DPT-13 SOIL	N		1/17/2008	X	X	X
SO	0801108	0801108-01	DPT-09 ASH	N		1/17/2008	X	X	X
SO	0801108	0801108-02	DPT-09 SOIL	N		1/17/2008	X	X	X
SO	0801108	0801108-12	DPT-14 ASH	N		1/17/2008	X	X	X
SO	0801108	0801108-13	DPT-14 SOIL	N		1/17/2008	X	X	X
SO	0801108	0801108-14	DPT-15 ASH	N		1/17/2008	X	X	X
SO	0801108	0801108-15	DPT-15 SOIL	N		1/17/2008	X	X	X
SO	0801118	0801118-01	DPT-23 ASH	N		1/18/2008	X	X	X
SO	0801118	0801118-02	DPT-23 SOIL	N		1/18/2008	X	X	X
SO	0801118	0801118-03	DPT-22 ASH	N		1/18/2008	X	X	X
SO	0801118	0801118-04	DPT-22 SOIL	N		1/18/2008	X	X	X
SO	0801118	0801118-05	DPT-21 ASH	N		1/18/2008	X	X	X
SO	0801118	0801118-06	DPT-21 SOIL	N		1/18/2008	X	X	X
SO	0801118	0801118-06MS	DPT-21 SOILMS	MS		1/18/2008		X	
SO	0801118	0801118-06MSD	DPT-21 SOILMSD	SD		1/18/2008		X	
SO	0801118	0801118-07	Blind Duplicate	FD		1/18/2008			X
SO	0801123	0801123-11	Blind Duplicate2	FD		1/19/2008			X
WQ	0801123	0801123-10	Trip Blank	TB		1/19/2008			
SO	0801123	0801123-01	DPT-27 ASH	N		1/19/2008	X	X	X
SO	0801123	0801123-02	DPT-27 SOIL	N		1/19/2008	X	X	X
SO	0801123	0801123-03	DPT-25 ASH	N		1/19/2008	X	X	X
SO	0801123	0801123-04	DPT-25 SOIL	N		1/19/2008	X	X	X
SO	0801123	0801123-05	DPT-17 ASH	N		1/19/2008	X	X	X
SO	0801123	0801123-06	DPT-17 SOIL	N		1/19/2008	X	X	X
SO	0801123	0801123-07	DPT-30 ASH	N		1/19/2008	X	X	X
SO	0801123	0801123-08	DPT-30 SOIL	N		1/19/2008	X	X	X
SO	0801123	0801123-08D	DPT-30 SOILD	LR	D	1/19/2008	X		
SO	0801123	0801123-08MS	DPT-30 SOILMS	MS		1/19/2008	X	X	
SO	0801123	0801123-08MSD	DPT-30 SOILMSD	SD		1/19/2008		X	
WQ	0801123	0801123-09	EB	EB		1/19/2008	X	X	X

MATRIX CODE

SO - Soil
WQ - Water QC Samples

SAMPLE TYPE CODE

EB - Equipment Blank
FD - Field Duplicate
LR - Laboratory Replicate
MS - Matrix Spike
N - Native Sample
SD - Spike Duplicate
TB - Trip Blank

LABORATORY REPLICATE TYPE CODE

D - Duplicate
DL - Dilution

Validation Code	Definition
2SH	Second source calibration verification standard greater than the upper control limit
2SL	Second source calibration verification standard less than the lower control limit
ABH	Ambient blank concentration greater than the RL
ABL	Ambient blank concentration less than the RL
BKD	The result is qualified because the DDT and/or Endrin breakdown was greater than 20%.
CBKD	The result is qualified because the combined DDT/Endrin breakdown is greater than 30%.
CCBH	Continuing calibration blank concentration greater than the RL
CCBL	Continuing calibration blank concentration less than RL
CCC	CCC Failure
CCRRF	Continuing calibration relative response factor below the LCL
CCVF	Continuing Calibration not analyzed at the required frequency
CCVH	Continuing calibration recovery greater than upper control limit
CCVL	Continuing calibration recovery less than lower control limit
CF	Confirmation result
CFP	Confirmation precision exceeded
CO	Compounds were reported combined on one column
DL	Secondary dilution
EBH	Equipment blank concentration greater than the RL
EBL	Equipment blank concentration less than the RL
EMPC	Estimated Maximum Possible Concentration Reported
FBH	Field blank concentration greater than the RL
FBL	Field blank concentration less than the RL
FD	Field duplicate exceeds RPD criteria
GPC	The results are qualified due to GPC calibration deficiencies.
HTA	Analytical Holding Time exceeded
HTP	Preparation Holding Time exceeded
IB	Result between the MDL and RL
ICBH	Initial calibration blank concentration greater than the RL
ICBL	Initial calibration blank concentration less than RL
ICR2	Initial calibration exceeded the R2 for first order regression
ICRR	Exceeds RSD criteria and initial calibration exceeded the R2 for first order regression
ICRRF	Initial calibration relative response factor below the LCL
ICRSD	Initial calibration RSD exceeded
ICSH	Interference present and %recovery is greater than upper control limit
ICSL	Interference present and %recovery is less than lower control limit
ICSP	Single Point Initial Calibration used for Quantitation
ICVH	Initial calibration recovery exceeds the upper control limit
ICVL	Initial calibration recovery exceeds the lower control limit
ICVSH	Initial calibration verification recovery greater than upper control limit
ICVSL	Initial calibration verification recovery less than lower control limit
ISH	Internal standard response exceeded the UCL criteria
ISL	Internal standard response exceeded the LCL criteria
LBH	Laboratory blank contamination greater than the RL
LBL	Laboratory blank contamination less than the RL
LCSDH	LCSD recovery greater than criteria
LCSDL	LCSD recovery less than the criteria
LCSH	LCS recovery greater than criteria
LCSL	LCS recovery less than the criteria

LCSP	LCS/LCSD RPD criteria exceeded
LDP	Laboratory Duplicate Precision out
LR	Linear range exceeded. Concentration above linear range.
MSA	Quantitated by the method of standard additions
MSALL	Global matrix spike flagging
MSAR2	method of standard additions R2 out
MSDH	Matrix spike duplicate recovery criteria greater than the upper limit
MSDL	Matrix spike duplicate recovery criteria less than the lower limit
MSDP	Matrix Spike Duplicate RPD criteria exceedance
MSH	Matrix spike recovery criteria greater than the upper limit
MSL	Matrix spike recovery criteria less than the lower limit
NMS	Not Site-specific Matrix Spike
PH	Sample pH out. Not properly preserved.
PRM	Result differs from Preliminary Result
PSH	Post spike recovery criteria greater than the upper limit
PSL	Post spike recovery criteria less than the lower limit
RA	Sample was reanalyzed
RE	Sample was re-extracted and reanalyzed
RT	Result is outside the laboratory determined retention time window
SCRN	Screening method and/or data
SDIL	Serial Dilution %D exceeds the upper control limit
SPCC	SPCC Failure
SSH	Surrogate recovery greater than upper limit
SSL	Surrogate recovery less than lower limit
SSR	Surrogate spike recovery <10%
TBH	Trip blank concentration greater than the RL
TBL	Trip blank concentration less than the RL
TD	Total Concentration < Dissolved Concentration
TEMP	Cooler temperature out upon arrival
TIC	Tentatively identified compound
TN	GC/MS tune does not meet criteria
XCC	No Continuing Calibration analyzed in the analytical batch
X-DL	Data not used due to dilution; another value is more appropriate or data was not requested
XIC	No initial calibration analyzed in the analytical batch
XICVS	Initial calibration verification standard was not analyzed
XLCS	No LCS in the analytical batch
XLD	Laboratory Duplicate not reported
XMS	Matrix Spike not reported
XMSD	Matrix Spike Duplicate not reported
X-RE	Data not used due to reanalysis another value is more appropriate or data was not requested
XICS	No interference check standard in analytical batch
XSDIL	No Serial Dilution in the analytical batch

Matrix	Parameter Class	SBG	Lab Sample ID	Sample ID	Sample Type	LR Type	Analytical Method	Preparation Method	Leach Method	Parameter	Lab Result	Lab Qual	Final Result	Final Qual	Detection Limit	Reporting Limit	Units	Validation Notes
SO	Metals	0801086	0801086-08	DPT-02 ASH	N		SW6010B	SW3050B	NONE	Beryllium	1.3	=	1.3	J	0.14	0.34	mg/Kg	CCVH
SO	Metals	0801086	0801086-10	DPT-05 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.46	=	0.46	J	0.11	0.27	mg/Kg	CCVH
SO	Metals	0801086	0801086-03	DPT-05 SOIL	N		SW6010B	SW3050B	NONE	Beryllium	0.46	=	0.46	J	0.11	0.28	mg/Kg	CCVH
SO	Metals	0801086	0801086-11	DPT-07 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.51	=	0.51	J	0.12	0.31	mg/Kg	CCVH
SO	Metals	0801086	0801086-12	DPT-08 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.77	=	0.77	J	0.14	0.35	mg/Kg	CCVH
SO	Metals	0801108	0801108-01	DPT-09 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.74	=	0.74	J	0.13	0.33	mg/Kg	CCVH
SO	Metals	0801108	0801108-02	DPT-09 SOIL	N		SW6010B	SW3050B	NONE	Beryllium	0.75	=	0.75	J	0.12	0.3	mg/Kg	CCVH
SO	Metals	0801108	0801108-05	DPT-10 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.29	=	0.29	J	0.12	0.29	mg/Kg	CCVH
SO	Metals	0801108	0801108-06	DPT-10 SOIL	N		SW6010B	SW3050B	NONE	Beryllium	0.46	=	0.46	J	0.12	0.29	mg/Kg	CCVH
SO	Metals	0801108	0801108-07	DPT-11 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.84	=	0.84	J	0.12	0.31	mg/Kg	CCVH
SO	Metals	0801108	0801108-03	DPT-12 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.6	=	0.6	J	0.13	0.33	mg/Kg	CCVH
SO	Metals	0801108	0801108-12	DPT-14 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.58	=	0.58	J	0.12	0.3	mg/Kg	CCVH
SO	Metals	0801108	0801108-14	DPT-15 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.35	=	0.35	J	0.11	0.28	mg/Kg	CCVH
SO	Metals	0801108	0801108-15	DPT-15 SOIL	N		SW6010B	SW3050B	NONE	Beryllium	0.4	=	0.4	J	0.12	0.29	mg/Kg	CCVH
SO	Metals	0801118	0801118-01	DPT-23 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.38	=	0.38	J	0.12	0.29	mg/Kg	CCVH
SO	Metals	0801123	0801123-05	DPT-17 ASH	N		SW6010B	SW3050B	NONE	Chromium, total	15.2	=	15.2	J	0.12	0.58	mg/Kg	MSH
SO	Metals	0801123	0801123-05	DPT-17 ASH	N		SW6010B	SW3050B	NONE	Zinc	189	=	189	J	0.29	1.2	mg/Kg	MSH
SO	Metals	0801123	0801123-06	DPT-17 SOIL	N		SW6010B	SW3050B	NONE	Zinc	26.5	=	26.5	J	0.31	1.2	mg/Kg	MSH
SO	Metals	0801123	0801123-06	DPT-17 SOIL	N		SW6010B	SW3050B	NONE	Beryllium	0.94	=	0.94	J	0.12	0.31	mg/Kg	CCVH
SO	Metals	0801123	0801123-06	DPT-17 SOIL	N		SW6010B	SW3050B	NONE	Chromium, total	20.5	=	20.5	J	0.12	0.61	mg/Kg	MSH
SO	Metals	0801123	0801123-03	DPT-25 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.64	=	0.64	J	0.14	0.35	mg/Kg	CCVH
SO	Metals	0801123	0801123-03	DPT-25 ASH	N		SW6010B	SW3050B	NONE	Chromium, total	42.4	=	42.4	J	0.14	0.7	mg/Kg	MSH
SO	Metals	0801123	0801123-03	DPT-25 ASH	N		SW6010B	SW3050B	NONE	Zinc	881	=	881	J	0.7	2.8	mg/Kg	MSH
SO	Metals	0801123	0801123-04	DPT-25 SOIL	N		SW6010B	SW3050B	NONE	Chromium, total	19.1	=	19.1	J	0.11	0.56	mg/Kg	MSH
SO	Metals	0801123	0801123-04	DPT-25 SOIL	N		SW6010B	SW3050B	NONE	Zinc	18.6	=	18.6	J	0.28	1.1	mg/Kg	MSH
SO	Metals	0801123	0801123-01	DPT-27 ASH	N		SW6010B	SW3050B	NONE	Chromium, total	28.2	=	28.2	J	0.12	0.58	mg/Kg	MSH
SO	Metals	0801123	0801123-01	DPT-27 ASH	N		SW6010B	SW3050B	NONE	Beryllium	0.37	=	0.37	J	0.12	0.29	mg/Kg	CCVH
SO	Metals	0801123	0801123-01	DPT-27 ASH	N		SW6010B	SW3050B	NONE	Zinc	12.2	=	12.2	J	0.29	1.2	mg/Kg	MSH
SO	Metals	0801123	0801123-02	DPT-27 SOIL	N		SW6010B	SW3050B	NONE	Beryllium	0.3	=	0.3	J	0.11	0.28	mg/Kg	CCVH
SO	Metals	0801123	0801123-02	DPT-27 SOIL	N		SW6010B	SW3050B	NONE	Chromium, total	26.6	=	26.6	J	0.11	0.57	mg/Kg	MSH
SO	Metals	0801123	0801123-02	DPT-27 SOIL	N		SW6010B	SW3050B	NONE	Zinc	10.1	=	10.1	J	0.28	1.1	mg/Kg	MSH
SO	Metals	0801123	0801123-07	DPT-30 ASH	N		SW6010B	SW3050B	NONE	Beryllium	1.3	=	1.3	J	0.14	0.35	mg/Kg	CCVH
SO	Metals	0801123	0801123-07	DPT-30 ASH	N		SW6010B	SW3050B	NONE	Chromium, total	9.6	=	9.6	J	0.14	0.7	mg/Kg	MSH
SO	Metals	0801123	0801123-07	DPT-30 ASH	N		SW6010B	SW3050B	NONE	Zinc	1020	=	1020	J	0.7	2.8	mg/Kg	MSH
SO	Metals	0801123	0801123-08	DPT-30 SOIL	N		SW6010B	SW3050B	NONE	Zinc	89.4	=	89.4	J	0.29	1.1	mg/Kg	MSH
SO	Metals	0801123	0801123-08	DPT-30 SOIL	N		SW6010B	SW3050B	NONE	Chromium, total	16.9	=	16.9	J	0.11	0.57	mg/Kg	MSH
SO	VOC	0801086	0801086-08	DPT-02 ASH	N		SW8260B	SW5035	NONE	Bromomethane	8	U	8	UJ	0.58	8	ug/Kg	CCVL
SO	VOC	0801086	0801086-08	DPT-02 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	8	U	8	UJ	0.96	8	ug/Kg	ISL
SO	VOC	0801086	0801086-08	DPT-02 ASH	N		SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	20	U	20	UJ	6.4	20	ug/Kg	ISL
SO	VOC	0801086	0801086-08	DPT-02 ASH	N		SW8260B	SW5035	NONE	1,2-Dichlorobenzene	4	U	4	UJ	0.3	4	ug/Kg	ISL
SO	VOC	0801086	0801086-08	DPT-02 ASH	N		SW8260B	SW5035	NONE	1,4-Dichlorobenzene	4	U	4	UJ	0.44	4	ug/Kg	ISL
SO	VOC	0801086	0801086-08	DPT-02 ASH	N		SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	4	U	4	UJ	0.34	4	ug/Kg	ISL
SO	VOC	0801086	0801086-01	DPT-02 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	4.6	U	4.6	UJ	0.34	4.6	ug/Kg	CCVL
SO	VOC	0801086	0801086-09	DPT-03 ASH	N		SW8260B	SW5035	NONE	Bromomethane	5.5	U	5.5	UJ	0.4	5.5	ug/Kg	CCVL
SO	VOC	0801086	0801086-02	DPT-03 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	5.5	U	5.5	UJ	0.4	5.5	ug/Kg	CCVL
SO	VOC	0801086	0801086-03	DPT-05 SOIL	N		SW8260B	SW5035	NONE	Acetone	28	=	28	J	0.84	21	ug/Kg	CCVH
SO	VOC	0801086	0801086-03	DPT-05 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	4.2	U	4.2	UJ	0.3	4.2	ug/Kg	CCVL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	Tetrachloroethene (PCE)	2.6	U	2.6	UJ	0.5	2.6	ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	trans-1,3-Dichloropropene	2.6	U	2.6	UJ	0.17	2.6	ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	Bromoform	2.6	U	2.6	UJ	0.52	2.6	ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	Dibromomethane	2.6	U	2.6	UJ	0.21	2.6	ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	Bromochloromethane	5.2	U	5.2	UJ	0.22	5.2	ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	Toluene	2.6	U	2.6	UJ	0.45	2.6	ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	1,2-Dichlorobenzene	2.6	U	2.6	UJ	0.19	2.6	ug/Kg	ISL,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N		SW8260B	SW5035	NONE	Styrene	2.6	U	2.6	UJ	0.18	2.6	ug/Kg	SSL

SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Chloroethane	5.2 U	5.2 UJ	0.57	5.2 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	iodomethane (methyl iodide)	13 U	13 UJ	0.43	13 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	2.6 U	2.6 UJ	0.26	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Methylene chloride	5.2 U	5.2 UJ	0.32	5.2 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	2-Hexanone	13 U	13 UJ	1.2	13 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,2-Dichloropropane	2.6 U	2.6 UJ	0.24	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Trichlorofluoromethane	5.2 U	5.2 UJ	0.49	5.2 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Chlorobenzene	2.6 U	2.6 UJ	0.18	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Ethylbenzene	2.6 U	2.6 UJ	0.39	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Bromodichloromethane	2.6 U	2.6 UJ	0.16	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,1-Dichloroethane	2.6 U	2.6 UJ	0.28	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	2.6 U	2.6 UJ	0.22	2.6 ug/Kg	ISL,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Carbon disulfide	2.6 U	2.6 UJ	0.68	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,2-Dibromoethane (Ethylene dibromide)	2.6 U	2.6 UJ	0.22	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Vinyl chloride	5.2 U	5.2 UJ	0.57	5.2 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	5.2 U	5.2 UJ	0.62	5.2 ug/Kg	ISL,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,2-Dichloroethane	2.6 U	2.6 UJ	0.24	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Trichloroethene (TCE)	2.6 U	2.6 UJ	0.44	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Acetone	32 =	32 J	1	26 ug/Kg	CCVH,SSH,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Bromomethane	5.2 U	5.2 UJ	0.38	5.2 ug/Kg	CCVL,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Chloroform	2.6 U	2.6 UJ	0.29	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,1-Dichloroethene	2.6 U	2.6 UJ	0.62	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Benzene	2.6 U	2.6 UJ	0.24	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,1,2-Trichloroethane	2.6 U	2.6 UJ	0.18	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Xylenes, total	2.6 U	2.6 UJ	0.36	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Vinyl acetate	13 U	13 UJ	0.29	13 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Dibromochloromethane	2.6 U	2.6 UJ	0.18	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Carbon tetrachloride	2.6 U	2.6 UJ	0.46	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	2.6 U	2.6 UJ	0.57	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Chloromethane	5.2 U	5.2 UJ	0.27	5.2 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Acrylonitrile	13 U	13 UJ	0.73	13 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,1,1,2-Tetrachloroethane	2.6 U	2.6 UJ	0.17	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	2.6 U	2.6 UJ	0.62	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	13 U	13 UJ	0.3	13 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	13 U	13 UJ	4.2	13 ug/Kg	ISL,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,4-Dichlorobenzene	2.6 U	2.6 UJ	0.29	2.6 ug/Kg	ISL,SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,2,3-Trichloropropane	2.6 U	2.6 UJ	0.36	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-11	DPT-07 ASH	N	SW8260B	SW5035	NONE	1,1,1-Trichloroethane	2.6 U	2.6 UJ	0.47	2.6 ug/Kg	SSL
SO	VOC	0801086	0801086-04	DPT-07 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	11 U	11 UJ	2.9	11 ug/Kg	CCVL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Trichlorofluoromethane	7.9 U	7.9 R	0.75	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Benzene	0.51 J=	0.51 R	0.37	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	1,2-Dichlorobenzene	4 U	4 R	0.29	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	2-Hexanone	20 U	20 R	1.8	20 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Toluene	4 U	4 R	0.68	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Carbon tetrachloride	4 U	4 R	0.7	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Acetone	18 J=	18 R	1.6	40 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	1,1-Dichloroethene	4 U	4 R	0.95	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Xylenes, total	4 U	4 R	0.56	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	4 U	4 R	0.95	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	1,4-Dichlorobenzene	4 U	4 R	0.44	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Chloromethane	7.9 U	7.9 R	0.41	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	4 U	4 R	0.87	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Dibromomethane	4 U	4 R	0.32	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Acrylonitrile	20 U	20 R	1.1	20 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	1,2-Dibromoethane (Ethylene dibromide)	4 U	4 R	0.34	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	Chloroethane	7.9 U	7.9 R	0.87	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	trans-1,3-Dichloropropene	4 U	4 R	0.25	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N	SW8260B	SW5035	NONE	iodomethane (methyl iodide)	20 U	20 R	0.66	20 ug/Kg	ISL

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SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Chlorobenzene	4 U	4 R	0.27	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,2-Dichloropropane	4 U	4 R	0.36	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Ethylbenzene	4 U	4 R	0.59	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Carbon disulfide	4 U	4 R	1	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	4 U	4 R	0.4	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Bromomethane	7.9 U	7.9 R	0.57	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Bromochloromethane	7.9 U	7.9 R	0.33	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,2-Dichloroethane	4 U	4 R	0.36	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Vinyl acetate	20 U	20 R	0.44	20 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Bromoform	4 U	4 R	0.79	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Trichloroethene (TCE)	4 U	4 R	0.67	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Tetrachloroethene (PCE)	4 U	4 R	0.77	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,1-Dichloroethane	4 U	4 R	0.43	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Bromodichloromethane	4 U	4 R	0.24	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,1,1,2-Tetrachloroethane	4 U	4 R	0.25	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,2,3-Trichloropropane	4 U	4 R	0.56	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	4 U	4 R	0.34	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Styrene	4 U	4 R	0.28	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,1,1-Trichloroethane	4 U	4 R	0.71	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	7.9 U	7.9 R	0.95	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	1,1,2-Trichloroethane	4 U	4 R	0.28	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Dibromochloromethane	4 U	4 R	0.27	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Chloroform	4 U	4 R	0.44	4 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Vinyl chloride	7.9 U	7.9 R	0.87	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	20 U	20 R	6.3	20 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Methyl ethyl ketone (2-butanone)	40 U	40 R	1.1	40 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Methylene chloride	7.9 U	7.9 R	0.49	7.9 ug/Kg	ISL
SO	VOC	0801086	0801086-12	DPT-08 ASH	N		SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	20 U	20 R	0.46	20 ug/Kg	ISL
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	12 U	12 UJ	4.4	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	12 U	12 UJ	3.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Trichloroethene (TCE)	24 U	24 UJ	11	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Acetone	200 U	200 UJ	83	200 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Bromoform	24 U	24 UJ	6.4	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,1,2-Trichloroethane	12 U	12 UJ	4.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Chloroethane	24 U	24 UJ	6.9	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	24 U	24 UJ	6.9	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	24 U	24 UJ	7.4	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,1,1,2-Tetrachloroethane	24 U	24 UJ	7.4	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,2,3-Trichloropropane	24 U	24 UJ	6.9	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Chloromethane	26 JB=	49 UJ	14	49 ug/Kg	CCVH,HTA,LBL
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,4-Dichlorobenzene	24 U	24 UJ	4.9	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,1-Dichloroethene	24 U	24 UJ	6.4	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Xylenes, total	49 U	49 UJ	23	49 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Chlorobenzene	12 U	12 UJ	4.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,1,1-Trichloroethane	12 U	12 UJ	5.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Chloroform	24 U	24 UJ	6.4	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,1-Dichloroethane	12 U	12 UJ	5.4	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Bromodichloromethane	12 U	12 UJ	5.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,2-Dichlorobenzene	12 U	12 UJ	5.4	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Dibromochloromethane	24 U	24 UJ	6.9	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	98 U	98 UJ	29	98 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	2-Hexanone	24 U	24 UJ	8.8	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Methyl ethyl ketone (2-butanone)	200 U	200 UJ	71	200 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Benzene	12 U	12 UJ	5.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Vinyl chloride	24 U	24 UJ	9.8	24 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	49 U	49 UJ	17	49 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Trichlorofluoromethane	12 U	12 UJ	5.9	12 ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Bromomethane	24 U	24 UJ	6.4	24 ug/Kg	CCVL,HTA

SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Methylene chloride	24	U	24	UJ	11	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Toluene	24	U	24	UJ	7.8	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,2-Dibromoethane (Ethylene dibromide)	24	U	24	UJ	6.9	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	trans-1,3-Dichloropropene	12	U	12	UJ	5.9	12	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	iodomethane (methyl iodide)	12	U	12	UJ	5.9	12	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,2-Dichloroethane	24	U	24	UJ	6.4	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Bromochloromethane	24	U	24	UJ	7.4	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Dibromomethane	24	U	24	UJ	6.9	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Tetrachloroethene (PCE)	12	U	12	UJ	4.9	12	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Acrylonitrile	98	U	98	UJ	40	98	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,2-Dichloropropane	12	U	12	UJ	5.4	12	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Styrene	12	U	12	UJ	4.4	12	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Carbon tetrachloride	12	U	12	UJ	5.4	12	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Carbon disulfide	24	U	24	UJ	7.4	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Vinyl acetate	49	U	49	UJ	24	49	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	24	U	24	UJ	6.4	24	ug/Kg	HTA
SO	VOC	0801086	0801086-12DL	DPT-08 ASHDL	LR	DL	SW8260B	SW5035	NONE	Ethylbenzene	49	U	49	UJ	17	49	ug/Kg	HTA
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	1,1-Dichloroethane	2.8	U	2.8	UJ	0.3	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	1,2-Dichloroethane	2.8	U	2.8	UJ	0.26	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Dibromomethane	2.8	U	2.8	UJ	0.23	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Carbon tetrachloride	2.8	U	2.8	UJ	0.49	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Trichlorofluoromethane	5.6	U	5.6	UJ	0.53	5.6	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	6.4	=	6.4	J	0.4	5.6	ug/Kg	CCVL,ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	14	U	14	UJ	0.32	14	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Bromochloromethane	5.6	U	5.6	UJ	0.23	5.6	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	1,1,1-Trichloroethane	2.8	U	2.8	UJ	0.5	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	iodomethane (methyl iodide)	14	U	14	UJ	0.46	14	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Benzene	2.8	U	2.8	UJ	0.26	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Trichloroethene (TCE)	2.8	U	2.8	UJ	0.47	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Chloroform	2.8	U	2.8	UJ	0.31	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Carbon disulfide	2.8	U	2.8	UJ	0.73	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Acrylonitrile	14	U	14	UJ	0.78	14	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	1,2-Dichloropropane	2.8	U	2.8	UJ	0.26	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Vinyl chloride	5.6	U	5.6	UJ	0.61	5.6	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	1,1-Dichloroethene	2.8	U	2.8	UJ	0.67	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Chloroethane	5.6	U	5.6	UJ	0.61	5.6	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	2.8	U	2.8	UJ	0.28	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	2.8	U	2.8	UJ	0.67	2.8	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Vinyl acetate	14	U	14	UJ	0.31	14	ug/Kg	ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	Acetone	37	=	37	J	1.1	28	ug/Kg	CCVH,ISL
SO	VOC	0801086	0801086-05	DPT-08 SOIL	N		SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	2.8	U	2.8	UJ	0.61	2.8	ug/Kg	ISL
SO	VOC	0801108	0801108-01	DPT-09 ASH	N		SW8260B	SW5035	NONE	Bromomethane	8.5	U	8.5	UJ	0.61	8.5	ug/Kg	CCVL
SO	VOC	0801108	0801108-01	DPT-09 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	8.5	U	8.5	UJ	1	8.5	ug/Kg	ISL
SO	VOC	0801108	0801108-01	DPT-09 ASH	N		SW8260B	SW5035	NONE	1,2-Dichlorobenzene	4.3	U	4.3	UJ	0.32	4.3	ug/Kg	ISL
SO	VOC	0801108	0801108-01	DPT-09 ASH	N		SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	21	U	21	UJ	6.8	21	ug/Kg	ISL
SO	VOC	0801108	0801108-01	DPT-09 ASH	N		SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	4.3	U	4.3	UJ	0.37	4.3	ug/Kg	ISL
SO	VOC	0801108	0801108-01	DPT-09 ASH	N		SW8260B	SW5035	NONE	1,4-Dichlorobenzene	4.3	U	4.3	UJ	0.47	4.3	ug/Kg	ISL
SO	VOC	0801108	0801108-02	DPT-09 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	5	U	5	UJ	0.36	5	ug/Kg	CCVL
SO	VOC	0801108	0801108-06	DPT-10 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	4.2	U	4.2	UJ	0.3	4.2	ug/Kg	CCVL
SO	VOC	0801108	0801108-07	DPT-11 ASH	N		SW8260B	SW5035	NONE	Bromomethane	6.8	U	6.8	UJ	0.49	6.8	ug/Kg	CCVL
SO	VOC	0801108	0801108-08	DPT-11 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	4.8	U	4.8	UJ	0.34	4.8	ug/Kg	CCVL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	Bromochloromethane	5.6	U	5.6	UJ	0.23	5.6	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	Bromomethane	5.6	U	5.6	UJ	0.4	5.6	ug/Kg	CCVL,SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	Carbon tetrachloride	2.8	U	2.8	UJ	0.49	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	Benzene	2.8	U	2.8	UJ	0.26	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	5.6	U	5.6	UJ	0.67	5.6	ug/Kg	ISL,SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	Toluene	2.8	U	2.8	UJ	0.48	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N		SW8260B	SW5035	NONE	Bromodichloromethane	2.8	U	2.8	UJ	0.17	2.8	ug/Kg	SSL

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SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Carbon disulfide	2.8	U	2.8	UJ	0.73	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Acrylonitrile	14	U	14	UJ	0.78	14	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Chlorobenzene	2.8	U	2.8	UJ	0.19	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Chloroethane	5.6	U	5.6	UJ	0.61	5.6	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Chloromethane	5.6	U	5.6	UJ	0.29	5.6	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Dibromochloromethane	2.8	U	2.8	UJ	0.19	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	2.8	U	2.8	UJ	0.24	2.8	ug/Kg	ISL,SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,2-Dichlorobenzene	2.8	U	2.8	UJ	0.21	2.8	ug/Kg	ISL,SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,1,1-Trichloroethane	2.8	U	2.8	UJ	0.5	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,1,1,2-Tetrachloroethane	2.8	U	2.8	UJ	0.18	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,4-Dichlorobenzene	2.8	U	2.8	UJ	0.31	2.8	ug/Kg	ISL,SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Bromoform	2.8	U	2.8	UJ	0.56	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Iodomethane (methyl iodide)	14	U	14	UJ	0.46	14	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,1-Dichloroethene	2.8	U	2.8	UJ	0.67	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Trichlorofluoromethane	5.6	U	5.6	UJ	0.53	5.6	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,1,2-Trichloroethane	2.8	U	2.8	UJ	0.2	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	2.8	U	2.8	UJ	0.67	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Styrene	2.8	U	2.8	UJ	0.2	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Methylene chloride	5.6	U	5.6	UJ	0.35	5.6	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	2.8	U	2.8	UJ	0.61	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	14	U	14	UJ	0.32	14	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	2.8	U	2.8	UJ	0.28	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	trans-1,3-Dichloropropene	2.8	U	2.8	UJ	0.18	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,2-Dichloropropane	2.8	U	2.8	UJ	0.26	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Ethylbenzene	2.8	U	2.8	UJ	0.42	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	2-Hexanone	14	U	14	UJ	1.3	14	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,2-Dibromoethane (Ethylene dibromide)	2.8	U	2.8	UJ	0.24	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Tetrachloroethene (PCE)	2.8	U	2.8	UJ	0.54	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,2,3-Trichloropropane	2.8	U	2.8	UJ	0.39	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Xylenes, total	2.8	U	2.8	UJ	0.39	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Trichloroethene (TCE)	2.8	U	2.8	UJ	0.48	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Dibromomethane	2.8	U	2.8	UJ	0.23	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,1-Dichloroethane	2.8	U	2.8	UJ	0.3	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	14	U	14	UJ	4.5	14	ug/Kg	ISL,SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Vinyl acetate	14	U	14	UJ	0.31	14	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Chloroform	2.8	U	2.8	UJ	0.31	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	Vinyl chloride	5.6	U	5.6	UJ	0.61	5.6	ug/Kg	SSL
SO	VOC	0801108	0801108-03	DPT-12 ASH	N	SW8260B	SW5035	NONE	1,2-Dichloroethane	2.8	U	2.8	UJ	0.26	2.8	ug/Kg	SSL
SO	VOC	0801108	0801108-04	DPT-12 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	4.9	U	4.9	UJ	0.35	4.9	ug/Kg	CCVL
SO	VOC	0801108	0801108-09	DPT-13 ASH (0-4)	N	SW8260B	SW5035	NONE	Bromomethane	4.6	U	4.6	UJ	0.33	4.6	ug/Kg	CCVL
SO	VOC	0801108	0801108-10	DPT-13 ASH (7-13)	N	SW8260B	SW5035	NONE	Bromomethane	5.5	U	5.5	UJ	0.4	5.5	ug/Kg	CCVL
SO	VOC	0801108	0801108-11	DPT-13 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	4.3	U	4.3	UJ	0.31	4.3	ug/Kg	CCVL
SO	VOC	0801108	0801108-12	DPT-14 ASH	N	SW8260B	SW5035	NONE	Toluene	17	JB=	22	U	7.2	22	ug/Kg	LBL
SO	VOC	0801108	0801108-13	DPT-14 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	4.6	U	4.6	UJ	0.33	4.6	ug/Kg	CCVL
SO	VOC	0801108	0801108-13	DPT-14 SOIL	N	SW8260B	SW5035	NONE	Acetone	4.2	JB=	23	U	0.92	23	ug/Kg	LBL
SO	VOC	0801108	0801108-14	DPT-15 ASH	N	SW8260B	SW5035	NONE	Bromomethane	4.2	U	4.2	UJ	0.3	4.2	ug/Kg	CCVL
SO	VOC	0801108	0801108-14	DPT-15 ASH	N	SW8260B	SW5035	NONE	Acetone	86	B=	86	=	0.85	21	ug/Kg	
SO	VOC	0801108	0801108-15	DPT-15 SOIL	N	SW8260B	SW5035	NONE	Acetone	20	JB=	23	U	0.94	23	ug/Kg	LBL
SO	VOC	0801108	0801108-15	DPT-15 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	4.7	U	4.7	UJ	0.34	4.7	ug/Kg	CCVL
SO	VOC	0801118	0801118-07	Blind Duplicate	FD	SW8260B	SW5035	NONE	Bromomethane	18	U	18	UJ	4.8	18	ug/Kg	CCVL
SO	VOC	0801118	0801118-07	Blind Duplicate	FD	SW8260B	SW5035	NONE	Methylene chloride	120	=	120	J	8.5	18	ug/Kg	FD
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	Bromochloromethane	5.4	U	5.4	UJ	0.22	5.4	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	2-Hexanone	13	U	13	UJ	1.2	13	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	1,1,2-Trichloroethane	2.7	U	2.7	UJ	0.19	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	Chloroform	2.7	U	2.7	UJ	0.3	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	1,1,1-Trichloroethane	2.7	U	2.7	UJ	0.48	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	1,1,1,2-Tetrachloroethane	2.7	U	2.7	UJ	0.17	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N	SW8260B	SW5035	NONE	1,2,3-Trichloropropane	2.7	U	2.7	UJ	0.38	2.7	ug/Kg	SSL

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SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Acetone	27	B=	27	UJ	1.1	27	ug/Kg	LBL,SSH,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Bromoform	2.7	U	2.7	UJ	0.54	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Bromodichloromethane	2.7	U	2.7	UJ	0.16	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Vinyl chloride	5.4	U	5.4	UJ	0.59	5.4	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Tetrachloroethene (PCE)	2.7	U	2.7	UJ	0.52	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Acrylonitrile	13	U	13	UJ	0.75	13	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Iodomethane (methyl iodide)	13	U	13	UJ	0.45	13	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	2.7	U	2.7	UJ	0.23	2.7	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Dibromomethane	2.7	U	2.7	UJ	0.22	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Methyl ethyl ketone (2-butanone)	27	U	27	UJ	0.75	27	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Bromomethane	5.4	U	5.4	UJ	0.39	5.4	ug/Kg	CCVL,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Methylene chloride	5.4	U	5.4	UJ	0.33	5.4	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Trichloroethene (TCE)	2.7	U	2.7	UJ	0.46	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Styrene	2.7	U	2.7	UJ	0.19	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Vinyl acetate	13	U	13	UJ	0.3	13	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	5.4	U	5.4	UJ	0.64	5.4	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Carbon tetrachloride	2.7	U	2.7	UJ	0.47	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	2.7	U	2.7	UJ	0.27	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Chloroethane	5.4	U	5.4	UJ	0.59	5.4	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,2-Dichlorobenzene	2.7	U	2.7	UJ	0.2	2.7	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	2.7	U	2.7	UJ	0.64	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	13	U	13	UJ	4.3	13	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,4-Dichlorobenzene	2.7	U	2.7	UJ	0.3	2.7	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	trans-1,3-Dichloropropene	2.7	U	2.7	UJ	0.17	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Chlorobenzene	2.7	U	2.7	UJ	0.18	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Dibromochloromethane	2.7	U	2.7	UJ	0.18	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	2.7	U	2.7	UJ	0.59	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromoethane (Ethylene dibromide)	2.7	U	2.7	UJ	0.23	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	13	U	13	UJ	0.31	13	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Trichlorofluoromethane	5.4	U	5.4	UJ	0.51	5.4	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Chloromethane	5.4	U	5.4	UJ	0.28	5.4	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,2-Dichloroethane	2.7	U	2.7	UJ	0.25	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,1-Dichloroethene	2.7	U	2.7	UJ	0.64	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,2-Dichloropropane	2.7	U	2.7	UJ	0.25	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	1,1-Dichloroethane	2.7	U	2.7	UJ	0.29	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Ethylbenzene	2.7	U	2.7	UJ	0.4	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-05	DPT-21 ASH	N		SW8260B	SW5035	NONE	Carbon disulfide	2.7	U	2.7	UJ	0.7	2.7	ug/Kg	SSL
SO	VOC	0801118	0801118-06	DPT-21 SOIL	N		SW8260B	SW5035	NONE	Acetone	5.9	JB=	28	U	1.1	28	ug/Kg	LBL
SO	VOC	0801118	0801118-06	DPT-21 SOIL	N		SW8260B	SW5035	NONE	Bromomethane	5.5	U	5.5	UJ	0.4	5.5	ug/Kg	CCVL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,1,1-Trichloroethane	3	U	3	UJ	0.54	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,4-Dichlorobenzene	3	U	3	UJ	0.33	3	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,1,2-Trichloroethane	3	U	3	UJ	0.21	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Bromoform	3	U	3	UJ	0.6	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,1,1,2-Tetrachloroethane	3	U	3	UJ	0.19	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,2-Dichlorobenzene	3	U	3	UJ	0.22	3	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Vinyl acetate	15	U	15	UJ	0.33	15	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Dibromomethane	3	U	3	UJ	0.25	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Xylenes, total	3	U	3	UJ	0.42	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Acetone	66	B=	66	J	1.2	30	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,1-Dichloroethane	3	U	3	UJ	0.32	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	6	U	6	UJ	0.72	6	ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Vinyl chloride	6	U	6	UJ	0.66	6	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Bromodichloromethane	3	U	3	UJ	0.18	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Acrylonitrile	15	U	15	UJ	0.84	15	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Trichloroethene (TCE)	3	U	3	UJ	0.51	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Dibromochloromethane	3	U	3	UJ	0.2	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	1,2,3-Trichloropropane	3	U	3	UJ	0.42	3	ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N		SW8260B	SW5035	NONE	Styrene	3	U	3	UJ	0.21	3	ug/Kg	SSL

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SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	15 U	15 UJ	4.8	15 ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Chloroform	3 U	3 UJ	0.33	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Carbon tetrachloride	3 U	3 UJ	0.53	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	1,2-Dichloroethane	3 U	3 UJ	0.28	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Methylene chloride	6 U	6 UJ	0.37	6 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	1,2-Dibromoethane (Ethylene dibromide)	3 U	3 UJ	0.26	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Toluene	3 U	3 UJ	0.52	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	1,1-Dichloroethene	3 U	3 UJ	0.72	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	2-Hexanone	15 U	15 UJ	1.4	15 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Benzene	3 U	3 UJ	0.28	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	trans-1,3-Dichloropropene	3 U	3 UJ	0.19	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	iodomethane (methyl iodide)	15 U	15 UJ	0.5	15 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	1,2-Dichloropropane	3 U	3 UJ	0.28	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Bromomethane	6 U	6 UJ	0.43	6 ug/Kg	CCVL,SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Methyl isobutyl ketone (4-methyl-2-pentanone)	15 U	15 UJ	0.35	15 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	cis-1,3-Dichloropropene	3 U	3 UJ	0.3	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Carbon disulfide	3 U	3 UJ	0.78	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	cis-1,2-Dichloroethene	3 U	3 UJ	0.72	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Bromochloromethane	6 U	6 UJ	0.25	6 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Ethylbenzene	3 U	3 UJ	0.45	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Chlorobenzene	3 U	3 UJ	0.2	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Tetrachloroethene (PCE)	3 U	3 UJ	0.58	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Chloroethane	6 U	6 UJ	0.66	6 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Trichlorofluoromethane	6 U	6 UJ	0.57	6 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	3 U	3 UJ	0.26	3 ug/Kg	ISL,SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	trans-1,2-Dichloroethene	3 U	3 UJ	0.66	3 ug/Kg	SSL
SO	VOC	0801118	0801118-03	DPT-22 ASH	N	SW8260B	SW5035	NONE	Chloromethane	6 U	6 UJ	0.31	6 ug/Kg	SSL
SO	VOC	0801118	0801118-04	DPT-22 SOIL	N	SW8260B	SW5035	NONE	Acetone	6.1 JB=	45 U	1.8	45 ug/Kg	LBL
SO	VOC	0801118	0801118-04	DPT-22 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	9 U	9 UJ	0.65	9 ug/Kg	CCVL
SO	VOC	0801118	0801118-01	DPT-23 ASH	N	SW8260B	SW5035	NONE	Bromomethane	5.1 U	5.1 UJ	0.37	5.1 ug/Kg	CCVL
SO	VOC	0801118	0801118-01	DPT-23 ASH	N	SW8260B	SW5035	NONE	Acetone	28 B=	28 =	1	26 ug/Kg	
SO	VOC	0801118	0801118-01	DPT-23 ASH	N	SW8260B	SW5035	NONE	Methylene chloride	5.1 U	5.1 UJ	0.32	5.1 ug/Kg	FD
SO	VOC	0801118	0801118-02	DPT-23 SOIL	N	SW8260B	SW5035	NONE	Acetone	9.6 JB=	23 U	0.91	23 ug/Kg	LBL
SO	VOC	0801118	0801118-02	DPT-23 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	4.5 U	4.5 UJ	0.33	4.5 ug/Kg	CCVL
SO	VOC	0801123	0801123-11	Blind Duplicate2	FD	SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	13 U	13 UJ	1.6	13 ug/Kg	ISL
SO	VOC	0801123	0801123-11	Blind Duplicate2	FD	SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	33 U	33 UJ	10	33 ug/Kg	ISL
SO	VOC	0801123	0801123-11	Blind Duplicate2	FD	SW8260B	SW5035	NONE	1,2-Dichlorobenzene	6.6 U	6.6 UJ	0.49	6.6 ug/Kg	ISL
SO	VOC	0801123	0801123-11	Blind Duplicate2	FD	SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	6.6 U	6.6 UJ	0.56	6.6 ug/Kg	ISL
SO	VOC	0801123	0801123-11	Blind Duplicate2	FD	SW8260B	SW5035	NONE	Xylenes, total	13 =	13 J	0.92	6.6 ug/Kg	SSH
SO	VOC	0801123	0801123-11	Blind Duplicate2	FD	SW8260B	SW5035	NONE	1,4-Dichlorobenzene	6.6 U	6.6 UJ	0.72	6.6 ug/Kg	ISL
SO	VOC	0801123	0801123-05	DPT-17 ASH	N	SW8260B	SW5035	NONE	Bromomethane	4.7 U	4.7 UJ	0.34	4.7 ug/Kg	CCVL
SO	VOC	0801123	0801123-06	DPT-17 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	5.1 U	5.1 UJ	0.37	5.1 ug/Kg	CCVL
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	Xylenes, total	8.4 =	8.4 J	0.84	6 ug/Kg	SSH
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	Acetone	78 B=	78 J	2.4	60 ug/Kg	SSH
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	1,2-Dibromo-3-chloropropane	12 U	12 UJ	1.4	12 ug/Kg	ISL
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	1,2-Dichlorobenzene	6 U	6 UJ	0.44	6 ug/Kg	ISL
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	Bromomethane	12 U	12 UJ	0.87	12 ug/Kg	CCVL
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	trans-1,4-dichloro-2-butene	30 U	30 UJ	9.6	30 ug/Kg	ISL
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	1,1,2,2-Tetrachloroethane	6 U	6 UJ	0.52	6 ug/Kg	ISL
SO	VOC	0801123	0801123-03	DPT-25 ASH	N	SW8260B	SW5035	NONE	1,4-Dichlorobenzene	6 U	6 UJ	0.66	6 ug/Kg	ISL
SO	VOC	0801123	0801123-04	DPT-25 SOIL	N	SW8260B	SW5035	NONE	Bromomethane	6 U	6 UJ	0.43	6 ug/Kg	CCVL
SO	VOC	0801123	0801123-01	DPT-27 ASH	N	SW8260B	SW5035	NONE	Acetone	22 JB=	30 U	1.2	30 ug/Kg	LBL
SO	VOC	0801123	0801123-01	DPT-27 ASH	N	SW8260B	SW5035	NONE	Bromomethane	6.1 U	6.1 UJ	0.44	6.1 ug/Kg	CCVL
SO	VOC	0801123	0801123-07	DPT-30 ASH	N	SW8260B	SW5035	NONE	Bromomethane	11 U	11 UJ	0.78	11 ug/Kg	CCVL

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14 July 2008

Mr. Dennis Mayton
Engineering Division
U.S. Army Corps of Engineers, Mobile District
CESAM-EN-GG
109 Saint Joseph Street
Mobile, Alabama 36602-3630

**RE: Final Ash Delineation and Characterization Report for Area of Concern (AOC)-
S, Contract DACA21-02-D-0005, Task Order CK45
Fort Rucker, Alabama**

Dear Mr. Mayton:

Enclosed are two hardcopies of the referenced report plus an electronic version on CD. I have forwarded this Final Report under copy of this correspondence to Mr. Jim Swift (Fort Rucker), Mr. Rick O'Donnell (AEC), and Mr. Mark Harrison (ADEM).

If you have any questions regarding the contents of this report, please call me at 678-938-0923.

Sincerely,

CH2M HILL

A handwritten signature in black ink, appearing to read "M Sherrill", written in a cursive style.

Mark Sherrill, P.G.
Project Manager

cc: Mr. Jim Swift/Fort Rucker (2 hardcopies + CD)
Mr. Rick O'Donnell/AEC (1 hardcopy + CD)
Mr. Mark Harrison/ADEM (2 hardcopies)