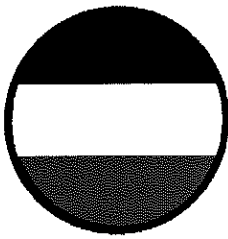
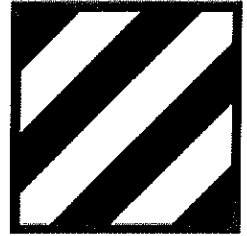


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**Soil Gas Survey Report
for the
Bulk Fuel Facility (HAA-09)
at
Hunter Army Airfield, Georgia**

Prepared for



U.S. ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

Contract No. DACA21-95-D0022
Delivery Order 0033

November 1999

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Prepared by

**Science Applications International Corporation
800 Oak Ridge Turnpike
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contributed to the preparation of this document and should not be considered an eligible contractor for its review.

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ACRONYMS

AST	aboveground storage tank
AVGAS	aviation gasoline
BFF	Bulk Fuel Facility
bgs	below ground surface
CAP	Corrective Action Plan
DPW	Directorate of Public Works
DRO	diesel-range organic
EPA	U.S. Environmental Protection Agency
FSP	Field Sampling Plan
GA DNR	Georgia Department of Natural Resources
GA EPD	Georgia Environmental Protection Division
GRO	gasoline-range organic
GSSL	Generic Soil Screening Level
HAAF	Hunter Army Airfield
IWQS	Instream Water Quality Standards
MCL	maximum contaminant level
PAH	polynuclear aromatic hydrocarbon
PDO	Old Property Disposal
ppm	parts per million

RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SAP	Sampling and Analysis Plan
STL	Soil Threshold Level
SVOC	semivolatile organic compound
TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VOC	volatile organic compound

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1.0 INTRODUCTION

This document represents the Soil Gas Survey Report for the Bulk Fuel Facility (HAA-09) (BFF) located at Hunter Army Airfield (HAAF), Georgia. The investigation was performed by Science Applications International Corporation for the Fort Stewart Directorate of Public Works (DPW), Environmental Branch, through the U.S. Army Corps of Engineers (USACE), Savannah District under contract DACA21-95-D-0022, Delivery Order 0033. All investigative activities were performed in accordance with the Sampling and Analysis Plan (SAP) (SAIC 1999) submitted to USACE and Fort Stewart DPW in January 1999.

1.1 PROJECT OBJECTIVES

The overall objective of this investigation is to provide recommendations for future investigative activities at the BFF. To assist with the recommendations, a soil gas survey at the BFF was conducted, and surface water and sediment samples were collected from Lamar Canal. The objectives of the soil gas survey were to

- determine qualitative nature and extent of volatile organic compound (VOC), semivolatile organic compound (SVOC), total petroleum hydrocarbons (TPH)-gasoline-range organic (GRO), and TPH-diesel-range organic (DRO) contamination at the site;
- identify areas of significant contaminant concentration in the soil and/or groundwater; and
- determine the optimal locations for future Corrective Action Plan (CAP) confirmatory soil borings and permanent monitoring wells.

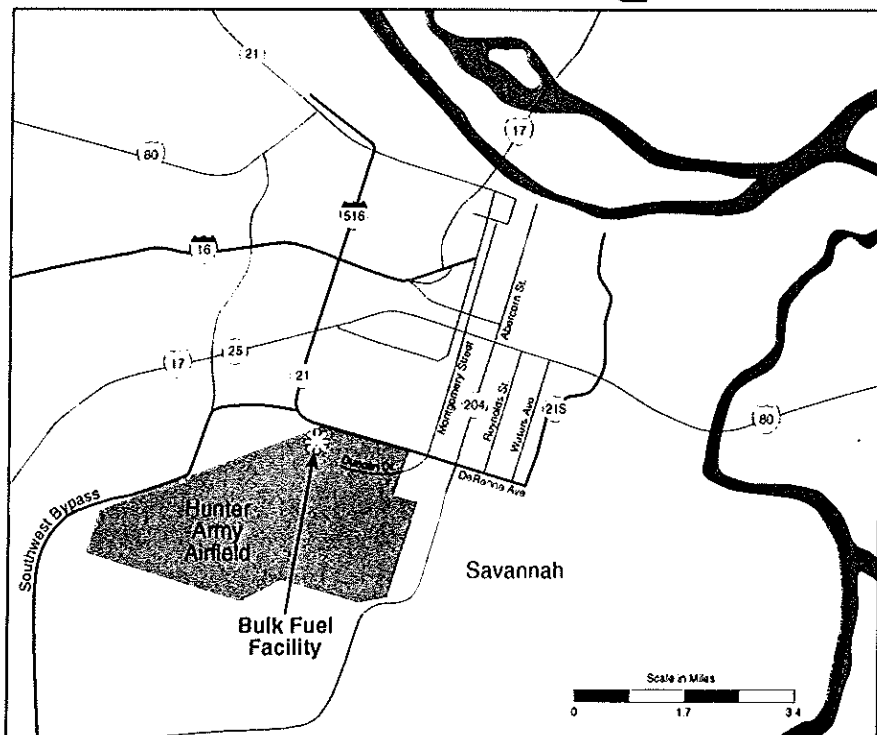
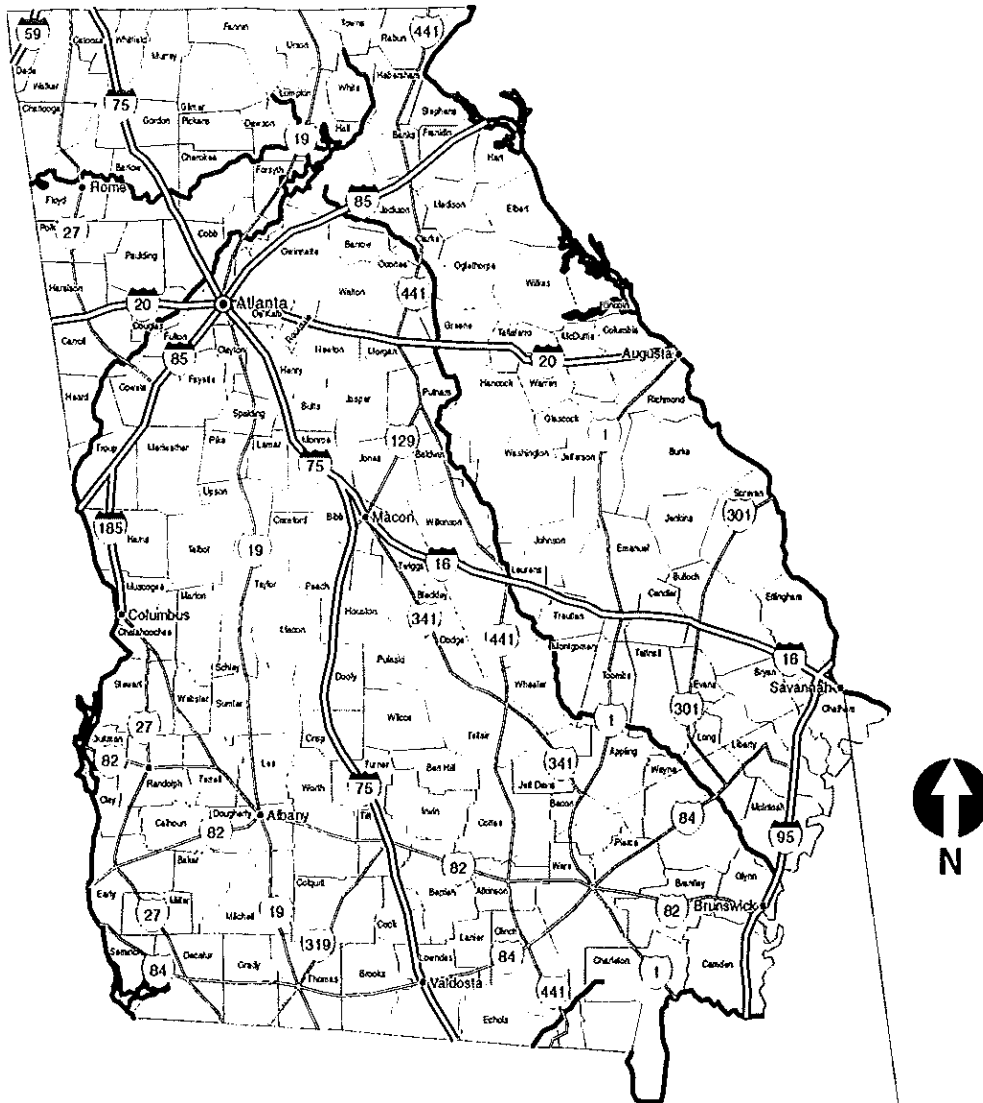
The objectives of the Lamar Canal surface water and sediment investigation were to

- determine the nature and extent of VOC and SVOC contamination in surface water;
- determine the nature and extent of VOC, SVOC, TPH-DRO, and TPH-GRO contamination in sediment; and
- determine if contamination in Lamar Canal, if identified, is related to past releases from the BFF.

This investigation was conducted in two phases. The first phase was conducted in January and February 1999 and consisted of conducting the soil gas survey and locating sampling points along Lamar Canal. The second phase was conducted in May 1999 and consisted of collecting sediment and surface water samples from along Lamar Canal. This activity was originally scoped to take place in February 1999; however, due to above-normal surface water levels brought on by heavy precipitation during February, this activity was postponed and accomplished as a separate phase.

1.2 SITE LOCATION AND DESCRIPTION

HAAF is located in Chatham County within the southwestern portion of the city of Savannah, Georgia (Figure 1-1). The Installation is bounded to the north by the city of Savannah, to the south and east by suburban residential and light commercial areas, and to the west by the Little Ogeechee



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Figure 1-1. Regional Map of Georgia Showing Location of Hunter Army Airfield

River. The Installation currently serves as an aircraft support base for Fort Stewart Army Reservation and the U.S. Coast Guard.

The HAAF BFF is located near the northwestern boundary of the HAAF on Perimeter Road. The facility is approximately 600 feet by 1,200 feet and covers an area of approximately 16.5 acres. The facility contains five aboveground storage tanks (ASTs) ranging in capacity from 500,000 to 1,500,000 gallons, aboveground and underground piping, and off-loader stations and pump stations for the distribution of fuel to and from the ASTs. A 2,000-gallon underground storage tank (UST), which was used for emergency overflow containment was removed by EarthTech on June 24, 1994. A 550-gallon UST, used to store JP-4 fuel, was previously located in the north-central portion of the facility. This UST (UST 117) was closed in-place in 1996 and is discussed further in Section 1.3.

Lamar Canal, located southeast of the BFF, drains the northwestern portion of the HAAF. Lamar Canal flows to the southwest into the Little Ogeechee (Forrest) River, which is part of the Lower Ogeechee watershed.

1.3 SITE HISTORY AND PREVIOUS INVESTIGATIONS

In the past, the BFF has been used to store JP-4, motor gasoline, #2 fuel oil, diesel, and aviation gasoline (AVGAS) and was used to supply fuel to the following six pump houses (PHs): PH #1, ten 50,000-gallon USTs; PH #2, ten 50,000-gallon USTs; PH #3, ten 25,000-gallon USTs; PH #4, ten 25,000-gallon USTs; PH #5, ten 25,000-gallon USTs; and PH #6, ten 25,000-gallon USTs. The BFF and associated ASTs and pipeline are currently used to store JP-8 and to supply fuel to the USTs located at PH #3, PH #4, and PH #5. Several releases involving these fuel types have occurred at the facility since its construction in 1950, some of which are known to have impacted Lamar Canal. However, documentation of these incidences was not maintained.

UST 117 (Figure 1-2) was closed in place by Anderson Columbia Environmental, Inc., on September 30, 1996. One soil sample contained an elevated concentration of benzene (0.013 mg/kg) that exceeded the Georgia Environmental Protection Division (GA EPD) applicable soil threshold level of 0.008 mg/kg for sites located greater than 500 feet from a withdrawal point and within 2 miles of a public water supply (i.e., Table A, Column 2). A closure report with recommendation for a CAP-Part A is being submitted by Fort Stewart. In addition, CAP-Part B investigations of the USTs associated with PH #1, PH #2, and PH #6 along piping from the BFF have been conducted. The CAP-Part B Report prepared for PH #6 was submitted to GA EPD in August 1998, and on November 20, 1998, a "No Further Action Required" status was granted for the site (correspondence, Lewis to Spears). During a meeting held with USACE, Fort Stewart, and GA EPD USTMP personnel in January 1999, it was agreed that additional sampling at PH #1 and PH #2 was necessary. The CAP-Part B Reports for both sites are currently scheduled for submittal in December 1999.

1.4 LOCAL GEOLOGY AND HYDROGEOLOGY

The HAAF is located within the Barrier Island Sequence District of the Coastal Plain Physiographic Province of the Southeast United States (Clark and Zisa 1976). The Barrier Island Sequence District in Chatham and Bryan counties is characterized by the existence of several marine terraces, steplike topographic surfaces that decrease in elevation toward the coast. These marine terraces, and their associated deposits, are the results of sea level fluctuations that occurred during the Pleistocene Epoch. The surficial (Quaternary) deposits in Chatham and Bryan counties, in decreasing elevation and age, are

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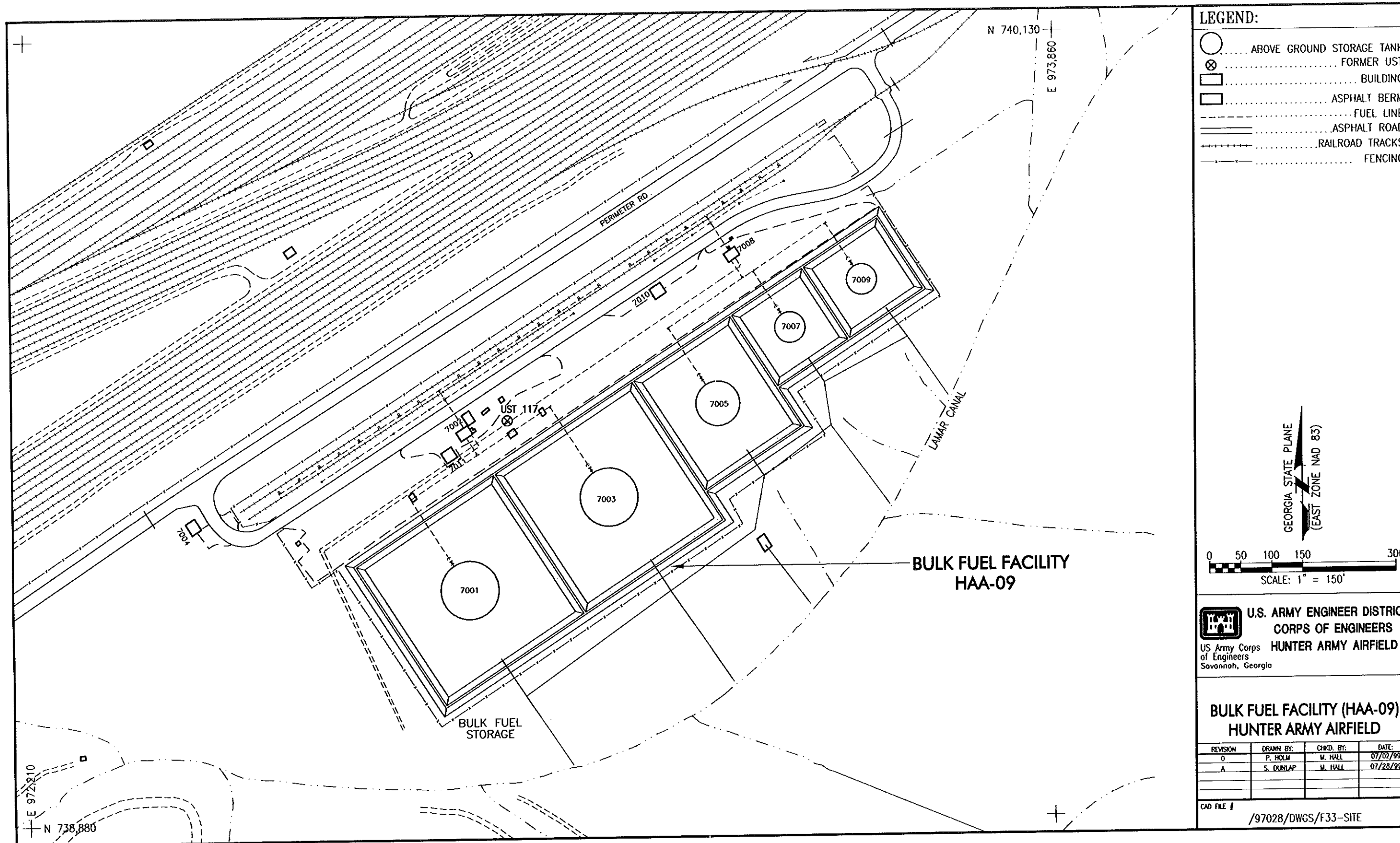


Figure 1-2. Bulk Fuel Facility (HAA-09), Hunter Army Airfield, Georgia

part of the Okefenokee, Wicomico, Penholoway, Pamlico, and Silver Bluff terrace complexes (Wilkes et al. 1974; GA DNR 1976; Huddleston 1988).

The HAAF, as well as most of Chatham County, is underlain by the Pleistocene Pamlico Terrace. The Pleistocene Satilla Formation (formerly known as the Pamlico Formation) consists of deposits of the Pamlico Terrace complex and other terrace complexes in the region (Huddleston 1988). The Satilla Formation is a lithologically heterogeneous unit that consists of variably bedded to non-bedded sand and variably bedded silty to sandy clay. During the Pleistocene, these sand and clay deposits were formed in offshore and inner continental shelf, barrier island, and marsh/lagoonal-type environments (Huddleston 1988). According to the Geologic Map of Georgia (GA DNR 1976), clay beds of marsh origin, which were deposited on the northwestern side of the former Pamlico Barrier Island complex, exist in the western quarter of the HAAF. Very fine- to coarse-grained sand deposits of barrier island origin are more common throughout the remaining areas of the HAAF.

The hydrogeology in the vicinity of the HAAF is mostly influenced by two aquifer systems. These are referred to as the Principal (Floridan) Aquifer and the Surficial Aquifer (Miller 1990). The Principal Aquifer is the lowermost hydrologic unit and is regionally extensive from South Carolina through Georgia, Alabama, and most of Florida. Known elsewhere as the Floridan, this aquifer, approximately 800 feet in total thickness, is composed primarily of Tertiary-age limestone including the Bug Island Formation, the Ocala Group, and the Suwannee Limestone. Groundwater from the Floridan is used primarily for drinking water (Arora 1984). According to Miller (1990), one of the largest cones of depression produced in the Floridan exists directly beneath Savannah, Georgia. Net water-level decline in the Floridan system between the predevelopment period and 1980 exceeded 80 feet beneath Savannah. In addition, according to 1980 estimates, more than 500 million gallons of water per day were withdrawn from the Floridan for public and industrial use in southeast Georgia—more than any other region.

The confining layer for the Floridan is the phosphatic clay of the Hawthorn Group. There are minor occurrences of aquifer material within the Hawthorn Group; however, they have limited utilization (Miller 1990). The Surficial Aquifer overlies the Hawthorn confining unit.

The Surficial Aquifer consists of widely varying amounts of sand and clay ranging from 55 to 150 feet in thickness and is composed primarily of the Satilla and Cypresshead formations in the Savannah vicinity (Arora 1984). This aquifer is primarily used for domestic lawn and agricultural irrigation. The top of the water table ranges from approximately 2 to 10 feet below ground surface (bgs) (Miller 1990). Groundwater in the Surficial Aquifer system is under unconfined, or water table, conditions. However, thin clay beds create confined or semiconfined conditions locally, as is the case at the HAAF where thin, surficial clay beds are present in the western quadrant (GA DNR 1979).

Groundwater encountered at the BFF is part of the Surficial Aquifer. Given that all public and nonpublic water supply wells draw water from the Floridan Aquifer and that the Hawthorn confining unit separates the Floridan Aquifer from the Surficial Aquifer, it is concluded that there is no hydraulic interconnection between the BFF (and associated plumes, if applicable) and water supply withdrawal points.

2.0 PASSIVE SOIL/GROUNDWATER GAS SURVEY

2.1 METHODOLOGY

Three hundred GORE-SORBER® passive soil gas receptor modules and associated duplicates (Figure 2-1) were installed in and adjacent to the BFF from January 18 to January 21, 1999. The modules were installed to qualitatively evaluate contamination in the soil and groundwater underlying the site. The following sections describe the rationale for the sample grid, module installation, module collection, and module analysis.

2.1.1 Sample Grid Rationale

Sample locations were determined using two grids set up on 50-foot and 75-foot centers (Figure 2-1). This allowed greater aerial coverage of the BFF to ensure delineation of contamination. The 50-foot center grid was used to characterize known or highly suspected areas of contamination such as in the bermed areas and around pumping stations. The 75-foot-center grid was used to assess areas less likely to be contaminated. Both grids provided the same resolution, but the 50-foot grid provided a greater density of data for more accurate contouring of contaminant concentrations.

Sample locations were established and marked by a land surveyor before the modules were installed. After all locations were marked, the points were cleared by the Fort Stewart utilities contractor. The northeast-southwest trending traverses were set parallel to the concrete road surface running along the railroad spur inside BFF. All sample locations along Perimeter Road were set 6 feet from the pavement due to ongoing grading of the road shoulder at the time of installation. The first three traverses from Perimeter Road were located slightly less than 50 feet apart to prevent having all locations fall on concrete or paved surfaces.

One northeast-southwest trending traverse originally contained 12 sample locations on top of the northeastern berm of ASTs 7001 and 7003 (Figure 2-1). However, these locations were relocated to alternating sides of the berm to provide better coverage of the area. Five of the locations were moved to the outside toe of the berm, and seven were relocated to the inside toe of the berm. In other instances, sample locations were relocated away from large obstacles such as the fuel tanks. These points were kept as close as possible to the proposed locations.

2.1.2 Module Installation

All soil gas receptor modules were installed at an optimal depth of 2.0 to 3.0 feet bgs as defined by W. L. Gore and Associates installation procedures. Groundwater levels were observed to be greater than 3 feet bgs in an excavation trench at the site prior to module installation.

Modules were installed in a two-stage process. In the first stage, a hole was made by advancing a 0.5-inch-diameter tile probe attached to a slide hammer to a depth of 3.0 feet bgs. In some instances it was necessary to use a hammer drill with a 1-inch bit to reach the required depth. The second stage consisted of attaching a large cork to the module with a nylon cord, slipping the module onto a stainless steel, 0.2-inch-diameter insertion rod, and pushing the module down the hole to 3.0 feet bgs. The module was left in the ground at 3.0 feet bgs upon removal of the insertion rod. The attached cork was secured to prevent any surface water from entering the hole. The target depth for all modules was 3.0 feet bgs; however, some modules could only be installed at a maximum depth of 2.0 feet bgs due to refusal of the module even after repeated reopening of the hole to 3.0 feet bgs. All downhole equipment was

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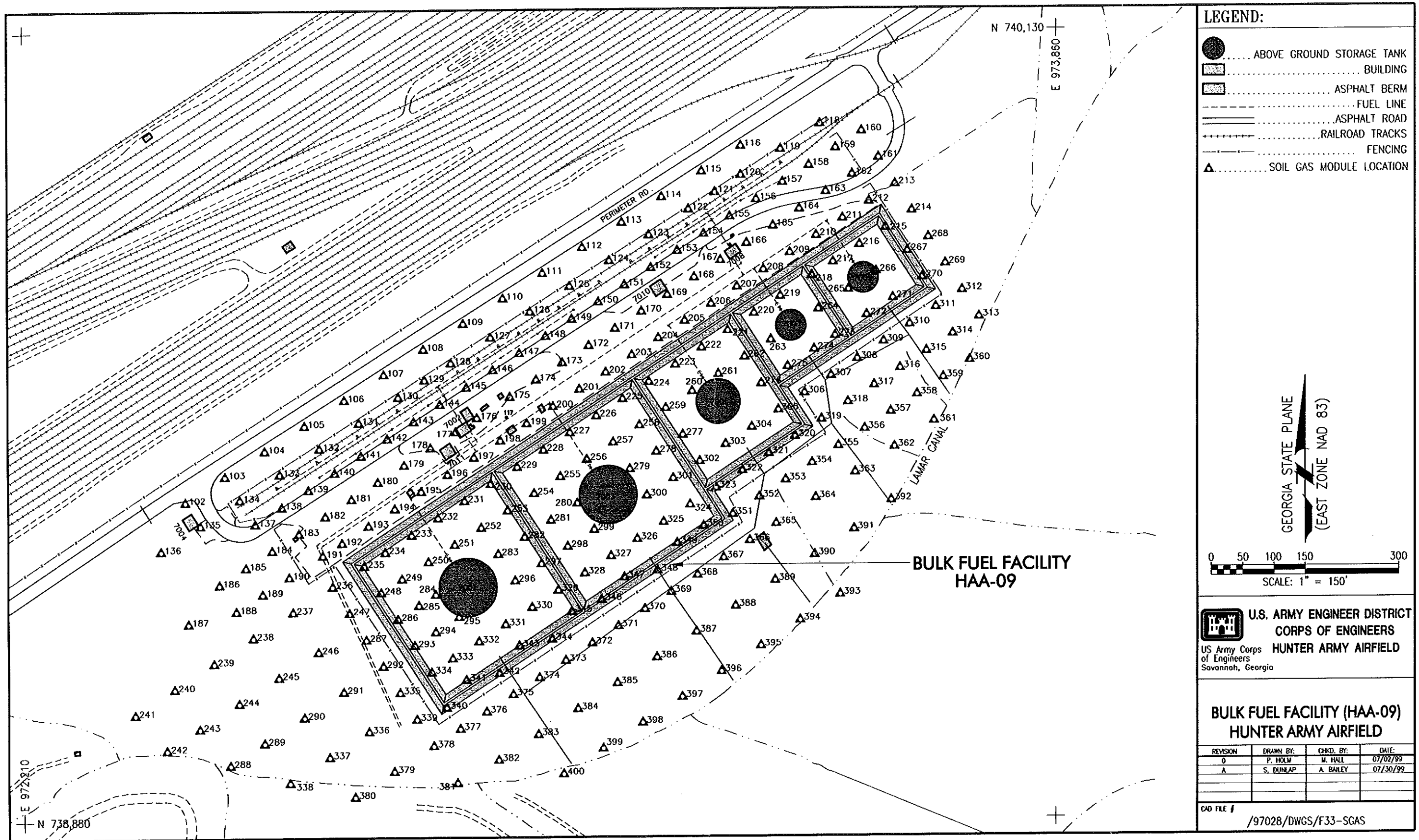


Figure 2-1. Soil Gas Survey Sample Locations at the Bulk Fuel Facility

decontaminated following the installation of each module and prior to the installation of the next module in accordance with Section 4.5.2.4 of the SAP (SAIC 1999). In addition, a clean pair of nitrile gloves was donned before handling each module to prevent cross-contamination.

Thirty-six out of the 300 modules were installed in water resulting from either ponded surface water or a locally elevated groundwater table. This did not affect the integrity of the modules as GORE-SORBER® modules are designed for placement in or out of water.

All modules were installed between January 18 and January 21, 1999. The time and date of installation as well as module serial number were recorded in the logbook for each module site. Other field observations were recorded as well including whether there was an odor associated with the borehole, whether the module was installed in water, the depth at which the module was installed, and whether product was encountered. A total of 15 trip blank modules were kept with the sample team during module installation.

2.1.3 Module Collection

Modules were collected approximately 14 days after installation from February 1 through February 3, 1999. Prior to and during the module collection period, heavy rainfall was reported in the area, and at the time of module collection, 267 of the 300 modules were observed to be under water.

The modules were pulled from the ground by the cork and attached cord. The cork and cord were removed from the module and the module placed back into the vial from which the receptor was originally removed. This was ensured by matching the serial number of the module to serial number of the corresponding vial. A clean pair of nitrile gloves was donned before the collection of each module. The 15 trip blank modules were also kept with the sample team during module collection.

The time and date of collection and module serial number were recorded in the logbook. Other observations were recorded, including the presence or absence of petroleum odor, whether the module was installed in water, the depth at which the module was installed, and the presence or absence of free product indicated by staining on the module.

Installation and collection dates and times were transferred by module number and sample location to the chain-of-custody forms. All additional information including odor, module moisture, and the presence of free product were also recorded on the chain-of-custody forms. The modules, including trip blanks, secured in their respective vials, were packed into specifically designed boxes for shipment to the W. L. Gore and Associates Screening Module Laboratory on February 3, 1999. The GORE-SORBER® passive soil gas modules used in this investigation did not require temperature preservation; therefore, shipment on ice and temperature control blanks were not used. The modules were received by the W. L. Gore and Associates Screening Module Laboratory on February 4, 1999. A copy of the chain-of-custody form is provided in the GORE-SORBER® Screening Survey Final Report, which is included as Appendix A of this report.

2.1.4 Module Analysis

The sorbers from each module were analyzed using a gas chromatograph equipped with mass selective detectors coupled with automated thermal desorption units. In addition, chromatographs of 60 samples were evaluated against standards for fluid mix matches to determine likely sources for the detected soil and/or groundwater gas.

2.1.4.1 Gas chromatograph

Sorbers were analyzed according to a modified U.S. Environmental Protection Agency (EPA) Method 8260A/8270B using state of the art gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. The results are reported as soil gas mass levels present in the vapor phase or $\mu\text{g/sorber}$. Sample preparation involved removing the sorbers from the protective sample module and transferring one or more sorbers to a thermal desorption tube for analysis. All sorbers were analyzed for the Gore Expanded Target Compounds (VOCs and SVOCs), diesel-range petroleum hydrocarbons, and gasoline-range petroleum hydrocarbons. The analysis of modules is presented in detail in the GORE-SORBER[®] Screening Survey Final Report (Appendix A).

Sorbers from modules showing evidence of contact with free product were not directly analyzed in order to protect the analytical instrumentation from apparent high levels in the gaseous state. Sorbers collected from locations 266, 279, 280, 299, and 326 were noted as stained and had strong petroleum odor. These sorbers were placed in separate jars containing "identically clean" sorbers as a headspace exposure method. The "clean" sorbers were then analyzed instead of the original field-exposed sorber. The results from these sorbers, therefore, are not comparable to other sorber results, but can help in determining areas of elevated contaminant concentrations ("hot spots").

2.1.4.2 Fluid mix matching

Fluid matches were conducted on 60 of the 300 modules. The modules were selected based on the results of module analysis and on sample location. Modules with extremely low or nondetect results were not chosen because of uncharacteristic chromatographs. Modules were chosen to adequately characterize areas with a dense population of highly exposed modules without limiting the number of modules available from other areas. Modules showing evidence of contact with free product were not excluded from the selection process.

Tentative fluid matches were based on interpretation and comparison of the module chromatographic patterns to the chromatographic patterns for known fuels. According to the chromatographic patterns, AVGAS was identified as the primary constituent found at the BFF. A total of 58 modules were identified as having fuel patterns that included AVGAS, AVGAS with heavier fuels, and heavier grades of jet/aviation fuel. For one sample module (287), a fluid match for polynuclear aromatic hydrocarbons (PAHs) was identified, and for sample module 291, a fluid match for terpenes was identified. The results of the fluid mix matching are provided in Appendix A.

2.2 NATURE AND EXTENT OF CONTAMINATION

Results of the soil gas survey are presented in Appendix A. Considering the past and present uses of the BFF and assuming that the site will reside under the jurisdiction of the UST Management Program, the soil gas data for combined PAHs, benzene, TPH-DRO, and TPH-GRO were used to evaluate the site conditions. The data for these four compounds are summarized in Table 2-1. Color concentration contour maps, representing the mass of compound desorbed from the sample modules, were created from the data set for each of the four compounds by W. L. Gore and Associates and are presented in Appendix A.

The maps identify distinct continuous soil gas contaminant plumes for each of the four selected compounds. No open-ended plumes were observed, indicating that the soil gas survey was successful in defining the extent of the subsurface contamination. Each of the plumes generally encompassed areas along the rail spur, fuel lines, and adjacent to each AST. Areas with the highest concentrations were identified around pumping stations 7002 and 7008, AST 7003, and AST 7009. Because benzene is the only regulated compound, its concentration contour map (Figure 2-2) can be used to identify the areas of greatest concern at the BFF, which are AST 7003 and pumping station 7002.

Table 2-1. Passive Soil Gas Survey Results for Combined PAHs, Benzene, TPH-DRO, and TPH-GRO at the Bulk Fuel Facility, Hunter Army Airfield

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
101	303190			0.02	0.14
102	303191			0.02	1.39
103	303189			0.03	0.55
104	303192			0.02	0.88
105	303193			0.01	0.71
106	303194	0.07		0.03	0.20
107	303195			0.09	1.66
108	303196			0.21	2.35
109	303197			0.21	2.43
110	303198			0.27	3.24
111	303199			0.13	2.26
112	303200			0.19	1.49
114	303202			0.05	2.42
115	303203			0.33	3.61
116	303204			0.06	0.12
117	303205			0.09	0.37
118	303206			0.15	2.19
119	303207			0.05	3.07
120	303208			0.09	2.77
121	303209			0.24	73.22
122	303210	0.12		0.16	102.74
123	303211			0.08	5.39
124	303212	0.65	0.23	3.10	24.38
125	303213	16.00	8.61	1,256.14	2,791.61
126	303214	1.59	3.61	559.83	1,528.42
127	303215	59.45	1.85	5,136.23	6,663.50
128	303216	7.98	4.00	22.07	189.23
129	303217	4.44	0.21	71.45	90.16
130	303218	2.81	2.98	11.23	250.77
131	303219	0.13		2.34	6.54
132	303220	1.37	0.13	24.83	11.55
133	303221	8.32	0.18	285.45	570.06
134	303222	3.23	3.02	160.65	2,029.01
135	303223			0.30	3.14
136	303224			0.30	1.29
137	303225		0.08	0.29	1.26
138	303226		0.35	1.06	692.21
139	303227	0.07	1.03	50.38	32.04
140	303228	11.95		0.45	2.18
141	303229	10.38	12.99	157.21	2,410.16

*Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons–diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons–gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and

TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
142	303230	2.94	1.34	1.27	123.49
143	303231	0.33	0.05	0.40	1.08
144	303232	53.24	18.16	1,240.24	2,182.85
145	303233	2.11	2.07	54.25	2,066.02
146	303234	80.04	3.92	1,518.42	669.06
147	303235	3.08	0.31	169.21	1,546.47
148	303236	8.16	13.64	34.60	1,535.96
149	303237	7.26	0.16	1.53	163.62
150	303238	0.13	0.12	2.23	19.05
151	303239		0.09	0.28	2.58
152	303240	4.93	0.27	10.62	1,805.27
153	303241	0.15		0.15	3.77
154	303242	26.21	14.56	70.13	2,181.66
155	303243	16.58	0.05	1.41	24.51
156	303244	0.08	0.10	1.96	3.80
157	303245			0.25	1.80
158	303246			0.23	0.85
159	303247			0.21	2.80
160	303248			0.24	2.49
161	303280			0.12	2.09
162	303279			0.15	1.84
163	303278	0.09		0.56	0.29
164	303277	0.24		0.62	0.79
165	303276	0.89		1.98	2.69
165	303364	8.67	0.28	1,216.81	1,001.02
166	303275	16.59	56.81	458.49	3,444.89
167	303274			0.23	13.04
168	303273		0.05	0.18	0.76
169	303272			0.29	1.14
170	303271	0.07		15.65	3.30
171	303270			0.31	0.99
172	303269			0.14	2.18
173	303268			0.23	1.96
174	303267		0.17	0.54	8.99
175	303266			0.39	2.01
176	303265	3.30	2.72	169.87	291.94
177	303264	17.93	57.87	109.05	709.60
178	303263			0.20	1.02
179	303262			0.18	0.11
180	303261			0.22	0.52
181	303260			0.25	3.30

"Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons-diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons-gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
182	303253			0.14	2.28
183	303252			0.27	1.07
184	303251			0.19	0.43
185	303250			0.29	5.61
186	303249			0.19	8.82
187	303038			0.05	0.19
188	303186			0.04	0.05
189	303185			0.03	0.15
190	303184			0.02	0.04
191	303308		0.27	2.74	512.26
192	303307		0.05	1.24	8.53
193	303306			2.38	1.87
194	303305	49.06	0.85	1,738.59	282.68
195	303304		0.08	5.70	19.21
196	303303	0.09	0.25	6.01	29.63
197	303302		0.10	3.10	35.82
198	303301		0.05	1.02	44.81
199	303300			0.18	1.18
200	303299		0.10	0.47	5.13
201	303298		0.06	0.44	5.77
202	303297		0.11	5.06	8.96
203	303296	0.39	0.07	34.23	8.70
204	303295		0.10	30.40	6.53
205	303294			6.32	1.32
206	303293	0.19	0.12	23.52	6.42
207	303292	0.07		5.65	3.61
208	303286			0.25	0.99
209	303285			0.60	4.31
210	303284	0.11	0.08	8.40	1.12
211	303283			0.42	0.39
212	303282		0.05	0.21	5.57
213	303281		0.05	0.16	1.93
214	303160			0.00	0.02
215	303081			0.05	0.35
216	303362	42.24	0.33	4,101.83	862.21
217	303361	28.86	0.45	136.73	62.50
218	303077				0.45
219	303078				2.78
220	303079				0.21
221	303350		0.04	0.45	5.47
222	303349		0.06	0.43	4.53

*Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons–diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons–gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and

TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
223	303348	20.49	0.08	91.13	14.42
224	303347		0.05	0.71	7.46
225	303319		0.14	0.83	24.21
226	303318			0.85	0.45
227	303317		0.08	0.15	4.61
228	303316		0.10	0.62	17.28
229	303315		0.08	0.20	10.07
230	303314		0.25	0.89	31.01
231	303313		0.10	0.34	12.47
232	303312		0.08	0.86	12.75
233	303311		0.07	0.91	8.28
234	303310		0.12	0.61	6.12
235	303309		0.22	1.15	9.23
236	303161			0.01	0.05
237	303179			0.00	0.05
238	303180				0.01
239	303181			0.02	0.01
240	303182			0.24	2.56
241	303183			0.10	0.57
242	303177			0.02	0.48
243	303176			0.00	0.01
244	303175			0.01	0.01
245	303174			0.06	0.14
246	303178			0.00	0.08
247	303162				0.20
248	303039			0.02	0.32
249	303040			0.06	2.28
250	303041			0.04	2.18
251	303042			0.01	0.27
252	303043			0.01	0.14
253	303044			0.01	0.17
254	303327		0.07	0.30	8.70
255	303326		0.13	5.39	7.71
256	303325		0.42	1.27	62.86
257	303324	6.90	20.22	80.99	1,712.99
258	303323		0.06	0.19	4.88
259	303354			0.45	1.28
260	303353	0.08		2.57	1,629.51
261	303352	3.78	0.52	2.88	89.41
262	303351			0.30	9.46
263	303080	0.12	0.18	1.37	97.64

"Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons—diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons—gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
264	303076			0.00	0.38
265	303364	146.64	1.71	5,208.41	4,368.56
266"	303363	35.27	0.79	1,937.95	262.89
267	303082			0.02	1.26
268	303159				0.01
269	303158			0.00	0.02
270	303083			0.71	0.70
271	303366	0.43	0.10	359.61	2,116.21
272	303365	0.90	1.26	590.84	1,938.85
273	303075			0.01	0.33
274	303074			2.45	708.64
275	303073			0.08	276.28
276	303360		0.06	3.93	29.33
277	303355			0.54	6.41
278	303331	0.09	0.41	4.37	53.63
279"	303330	10.81	13.50	289.49	4,219.51
280"	303329	14.45	33.59	290.22	3,796.92
281	303328		0.39	0.95	43.76
282	303045			0.01	0.20
283	303046			0.01	0.26
284	303047			1.46	19.59
285	303048	1.69		12.53	293.83
286	303049			0.02	0.44
287	303163	12.76		0.19	0.05
288	303173			0.01	0.03
289	303172			0.02	0.02
290	303171			0.03	0.02
291	303170			3.59	10.79
292	303164	0.12		0.04	0.40
293	303050			0.01	0.60
294	303051	0.07		4.80	16.78
295	303052	12.14	0.41	155.28	343.68
296	303053			0.02	0.24
297	303054			0.03	0.06
298	303335	0.16	0.10	12.41	27.70
299"	303334	12.53	20.45	236.38	4,261.03
300	303333	5.22	9.07	136.96	2,874.02
301	303332			7.25	6.50
302	303356			0.70	24.68
303	303357	0.81	0.08	2.20	107.47
304	303358	5.14	1.78	7.03	743.83

"Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons–diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons–gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
305	303359		0.09	1.71	1,609.68
306	303157			0.01	0.04
307	303156			0.01	0.03
308	303155			0.01	0.08
309	303154			0.02	0.04
310	303153			0.01	0.09
311	303152			0.02	0.03
312	303151			0.03	0.01
313	303150			0.02	0.04
314	303149			0.04	0.01
315	303148			0.02	0.02
316	303147			0.03	0.00
317	303146			0.01	0.01
318	303114			0.01	0.01
319	303113				0.32
320	303072				0.16
321	303071			0.00	0.12
322	303070			0.00	0.26
323	303069			0.00	0.78
324	303342		0.07	4.13	11.28
325	303339	1.14	0.53	94.94	67.81
326^a	303338	13.24	117.77	181.75	4,039.36
327	303337		0.35	1.96	57.51
328	303336		0.40	2.44	42.65
329	303055			0.01	0.22
330	303056			22.69	462.71
331	303057	5.17	1.77	145.63	2,963.86
332	303058			0.04	1.80
333	303059			5.34	1.54
334	303060			0.12	2.21
335	303165			0.08	0.45
336	303167			0.02	0.04
337	303168			0.03	0.03
338	303169			0.02	0.01
339	303166			0.04	0.35
340	303061			0.03	0.19
341	303062			0.03	0.70
342	303063			0.10	2.34
343	303064			0.01	0.17
344	303065		0.04	0.02	0.78
345	303066				0.14

^aSorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons–diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons–gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
346	303067			0.00	0.47
347	303346			11.50	5.55
348	303345		0.05	0.79	26.76
349	303344		0.07	1.28	10.71
350	303343		0.07	2.01	7.52
351	303068			0.99	0.39
352	303112				0.01
353	303111			0.00	
354	303110				0.01
355	303109			0.01	1.33
356	303108				0.08
357	303107				0.01
358	303106			0.00	0.32
359	303105				0.00
360	303104			0.00	0.01
361	303103				0.02
362	303102				0.01
363	303101			0.01	0.01
364	303100			0.00	0.00
365	303099			0.01	0.02
366	303098			0.01	0.04
367	303097			0.02	0.02
368	303096			0.04	0.96
369	303095			0.38	26.66
370	303094			0.01	0.08
371	303093			0.01	0.06
372	303092			0.02	0.12
373	303091			0.01	0.32
374	303090			0.02	0.16
375	303089			0.01	0.09
376	303088			0.01	0.02
377	303087			0.03	0.21
378	303086				0.05
379	303117			0.00	0.05
380	303115			0.00	0.02
381	303118			0.00	0.01
382	303119				0.03
383	303120			0.00	0.12
384	303122			0.00	0.05
385	303124			0.00	0.58
386	303126			0.00	0.01

*Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons–diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons–gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and TPH-DRO/GRO equals 1,000 µg/sorber.

Table 2-1 (continued)

Survey ID	Sample Name	Combined PAH (µg/sorber)	Benzene (µg/sorber)	TPH-DRO (µg/sorber)	TPH-GRO (µg/sorber)
387	303128			0.01	0.02
388	303130			0.01	0.01
389	303132				0.49
390	303142			0.09	0.11
391	303144			0.02	0.02
392	303145			0.04	0.01
393	303143			0.05	0.42
394	303141			0.01	0.01
395	303131			0.00	1.87
396	303129				0.03
397	303127			0.02	0.13
398	303125			0.05	0.09
399	303123			0.00	0.07
400	303121			0.00	0.01

"Sorbers collected at these locations were noted as being stained and having strong petroleum odors.

PAH = Polynuclear aromatic hydrocarbon.

TPH-DRO = Total petroleum hydrocarbons–diesel-range organic.

TPH-GRO = Total petroleum hydrocarbons–gasoline-range organic.

All results reported as soil gas mass levels present in the vapor phase or µg/sorber.

Values in bold represent concentrations exceeding the statistically determined significant contaminant concentration levels where combined PAHs equal 0.2 µg/sorber, benzene equals 0.6 µg/sorber, and TPH-DRO/GRO equals 1,000 µg/sorber.

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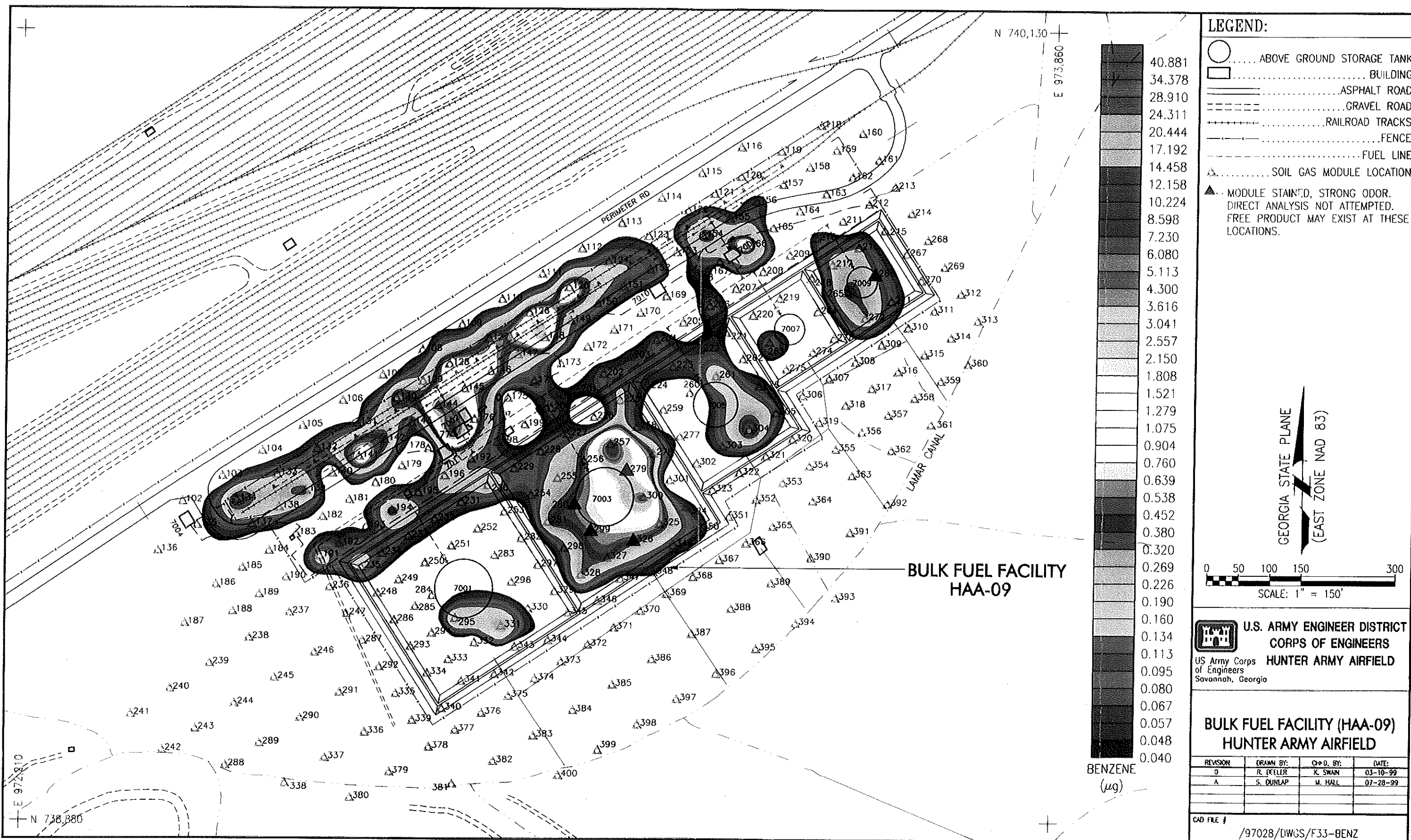


Figure 2-2. Soil Gas Concentration Contour Map for Benzene at the Bulk Fuel Facility

Two methods were used to determine areas of significant contaminant concentrations ("hot spots") at BFF. The first method involved overlapping the combined PAHs, benzene, TPH-DRO, and TPH-GRO plume maps. The areas at which the four plumes converged were considered areas of significant soil and/or groundwater contamination. According to the results, seven major areas located around the four ASTs, rail spurs, and pumping stations and three minor areas located adjacent to the fuel lines and AST 7003 were identified at BFF (Figure 2-3). The soil gas contaminant plume maps indicate that the engineered containment structures, for the most part, acted as effective barriers against the southeast, southwest, and northeast contaminant migration toward Lamar Canal. However, the plume map on Figure 2-3 shows that TPH-GRO was detected at sample location 369 and that combined PAHs were detected at sample locations 287 and 292, which are outside the bermed boundary.

The second method employed a statistical analysis of the soil gas data. This method was conducted to better define the "hot spots," enabling the locations of future CAP-Part A and Part B sampling points to be more precise. The distribution of the analytical data for combined PAHs, benzene, TPH-DRO, and TPH-GRO was examined to determine if some groups of samples represented distinct areas of higher concentrations. Probability plots were constructed for each of the four compounds. Using a log scale, cumulative probability was plotted on the horizontal axis while the concentrations were plotted on the vertical axis. The plots were examined for changes in the slope or inflections (breaks) in the line that would indicate a group of samples with a distinctly different variance or mean than the rest of the population. The plots were generally truncated at the low-concentration end because of nondetects with the line increasing linearly until a point where the slope increased (inflection point) and then decreased at the highest concentrations. The choice of the inflection point was based on a visual inspection of the plot for each compound and is, therefore, somewhat subjective. The group of samples occurring above the inflection point was considered to represent areas of significant contaminant concentrations. For the combined PAHs, benzene, TPH-DRO, and TPH-GRO plots, the inflection points occurred at 5.5, 0.6, 1,000, and 1,000 $\mu\text{g/sorber}$, respectively. Values exceeding these concentrations were considered to represent levels of significant contamination. These values have been identified on Table 2-1, and their respective sampling locations are identified on Figure 2-4.

As shown on Figure 2-4, the soil gas sampling locations exceeding the statistically developed criteria coincide with the "hot spot" areas determined by the plume overlays. The locations identified enhance the "hot spots" and provide more clarity to the plume definition. This information will be used in developing the proposed sampling locations for the CAP-Part A and Part B investigations discussed in Chapter 4.

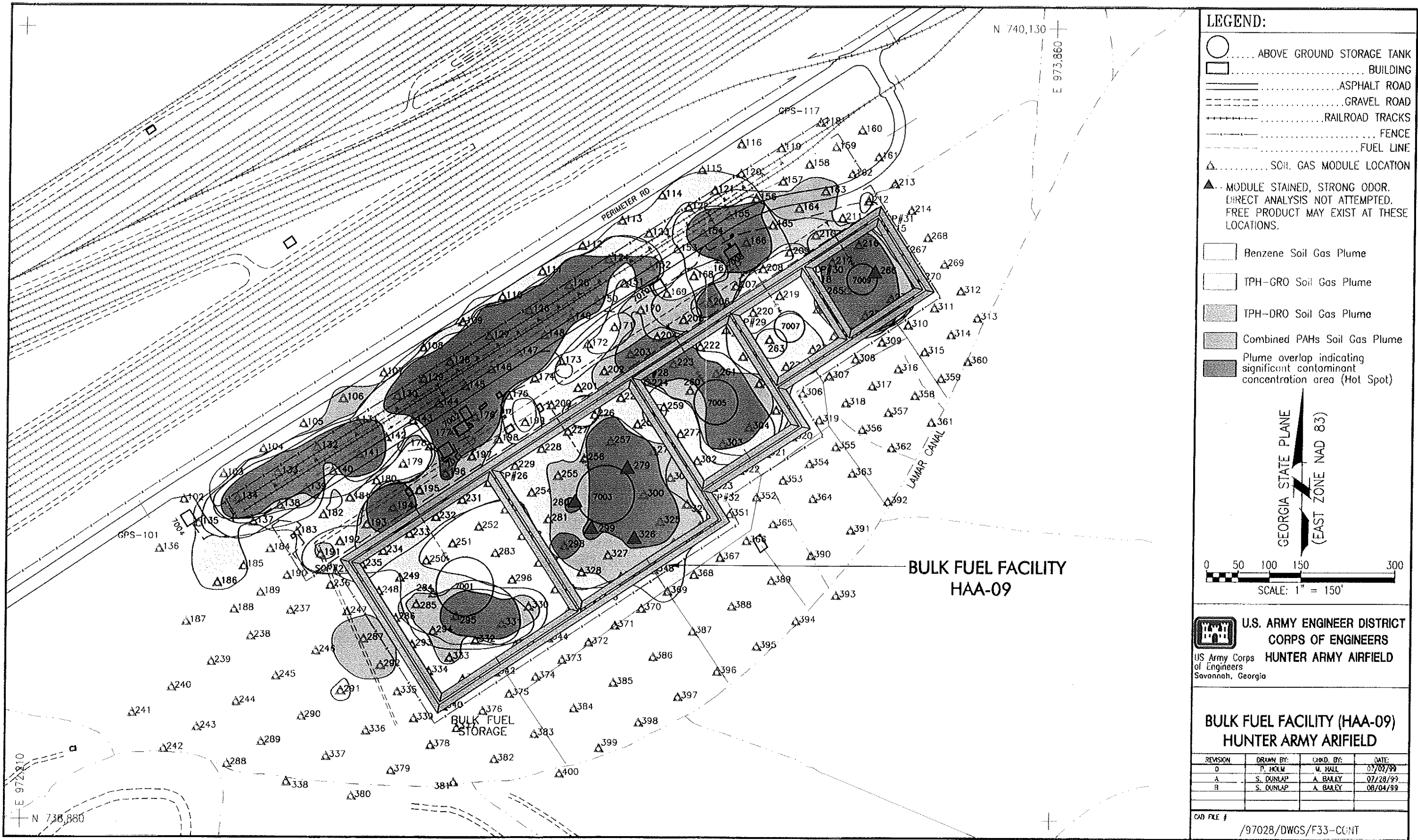


Figure 2-3. Combined Soil Gas Contaminant Concentration Plumes for Combined PAHs, Benzene, TPH-DRO, and TPH-GRO at the Bulk Fuel Facility

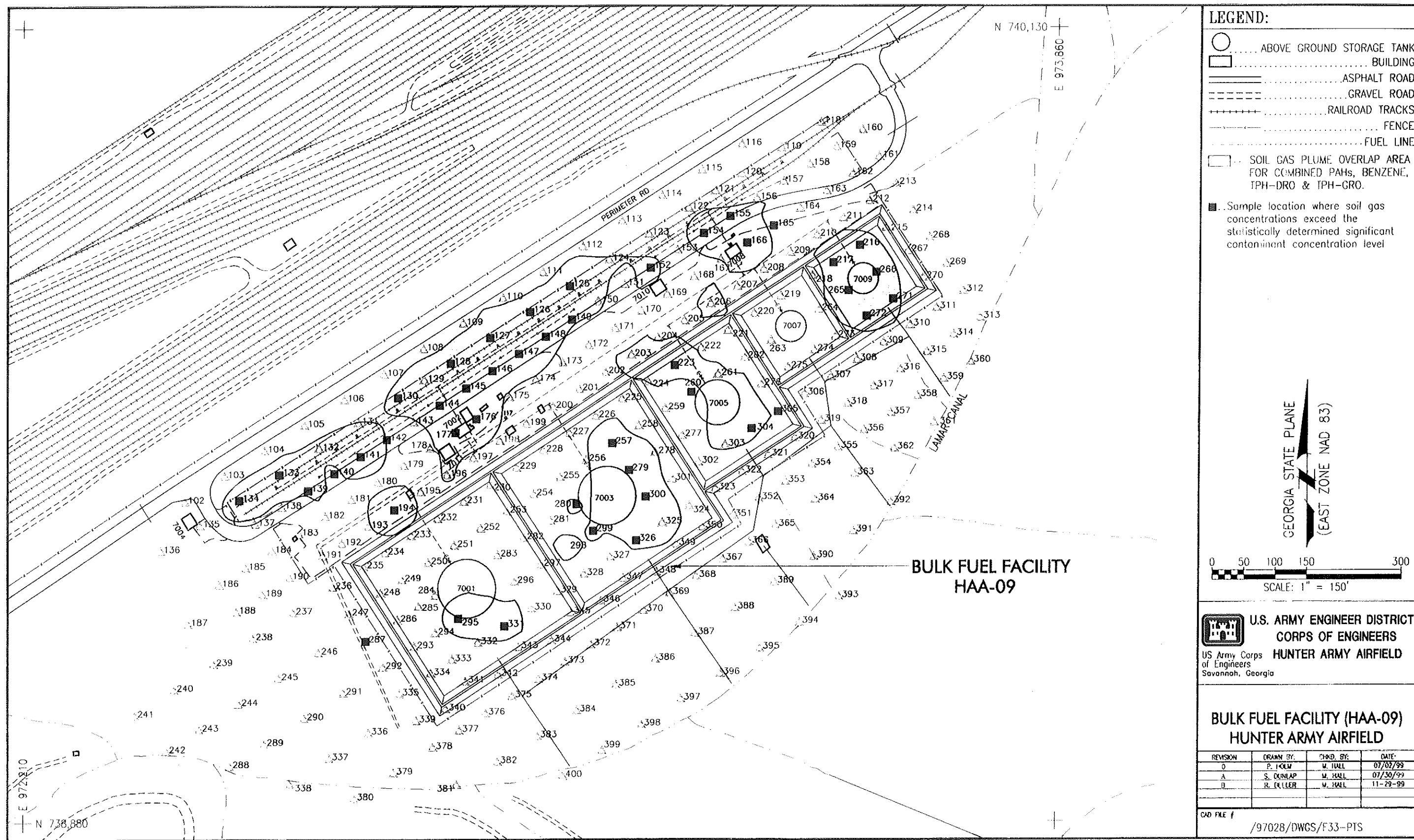


Figure 2-4. Significant Contaminant Concentration Area at the Bulk Fuel Facility

3.0 LAMAR CANAL SEDIMENT AND SURFACE WATER CHARACTERIZATION

Co-located sediment and surface water samples were collected from 21 locations in Lamar Canal to evaluate contamination (Figure 3-1). The following sections describe the rationale for sample distribution along the canal, methodology used to collect and analyze sediment and surface water samples, and nature and extent of contamination in the canal.

3.1 SAMPLE DISTRIBUTION RATIONALE

Sediment and surface water samples were collected from approximately 100 feet upgradient of the BFF, to downstream of the intersection of Lamar Canal with Perimeter Road near the 117th Georgia Air National Guard Base using 125-, 250-, and 500-foot sample intervals. Samples were originally proposed for collection every 250 feet for the first 2,500 feet and then every 500 feet for the remaining portion of the canal. However, during a site walkover, it was discovered that the section of the canal adjacent to the BFF was concrete lined and that most of the sediment from the canal channel, beginning approximately 1,500 feet downstream of the BFF, had been recently dredged (Figure 3-1). Therefore, the sample distribution interval was modified to accommodate the actual site conditions.

A sample was collected upstream of the concrete-lined portion of the canal (SWS-21), and samples were collected on varying intervals beginning after the concrete. The sampling interval below the concrete-lined portion of the canal was developed based on the assumption that the contamination was most likely to exist in the portion of the canal nearest the BFF site. The first 500 feet of the canal were sampled every 125 feet beginning at the terminus of the concrete (sample locations SWS-1, SWS-2, SWS-3, SWS-4, and SWS-20). The next 1,000 feet downstream, covering an area in which recent dredgings of the canal were not apparent, was sampled approximately every 250 feet or at locations where "sheens" were observed (SWS-5 through SWS-8). The remaining portion of the canal was sampled every 500 feet or at locations where "sheens" were observed (SWS-9 through SWS-19).

Sample locations were surveyed prior to sampling, and consequently some instream survey markers were lost during flood events. When an instream survey marker was not found during the sampling event, measurements from the nearest existing instream marker were made to locate the sample location. These locations were confirmed by flagging placed along the top of the canal bank during the surveying.

Samples were collected from sediment sinks, when available, in the designated sample locations. Abandoned stream channels often provided quiescent pools 1 to 3 feet deep with accumulations of sediment ranging from sandy, silty clay to medium-grained sand. Where sediment sinks were not identified, samples were collected from midstream. Sample location descriptions and field observations are provided in Table 3-1.

3.2 METHODOLOGY

Surface water and sediment samples were collected from co-located positions in the canal from May 4 through May 8, 1999 (Figure 3-1). Samples were collected beginning with the location farthest downstream and progressing upstream to prevent cross-contamination from suspended sediments and following the EPA protocol of sampling from least likely contaminated to most likely contaminated areas. In addition, surface water samples were collected before sediment samples to minimize cross-contamination. The following sections present the methodology used to collect and analyze the samples.

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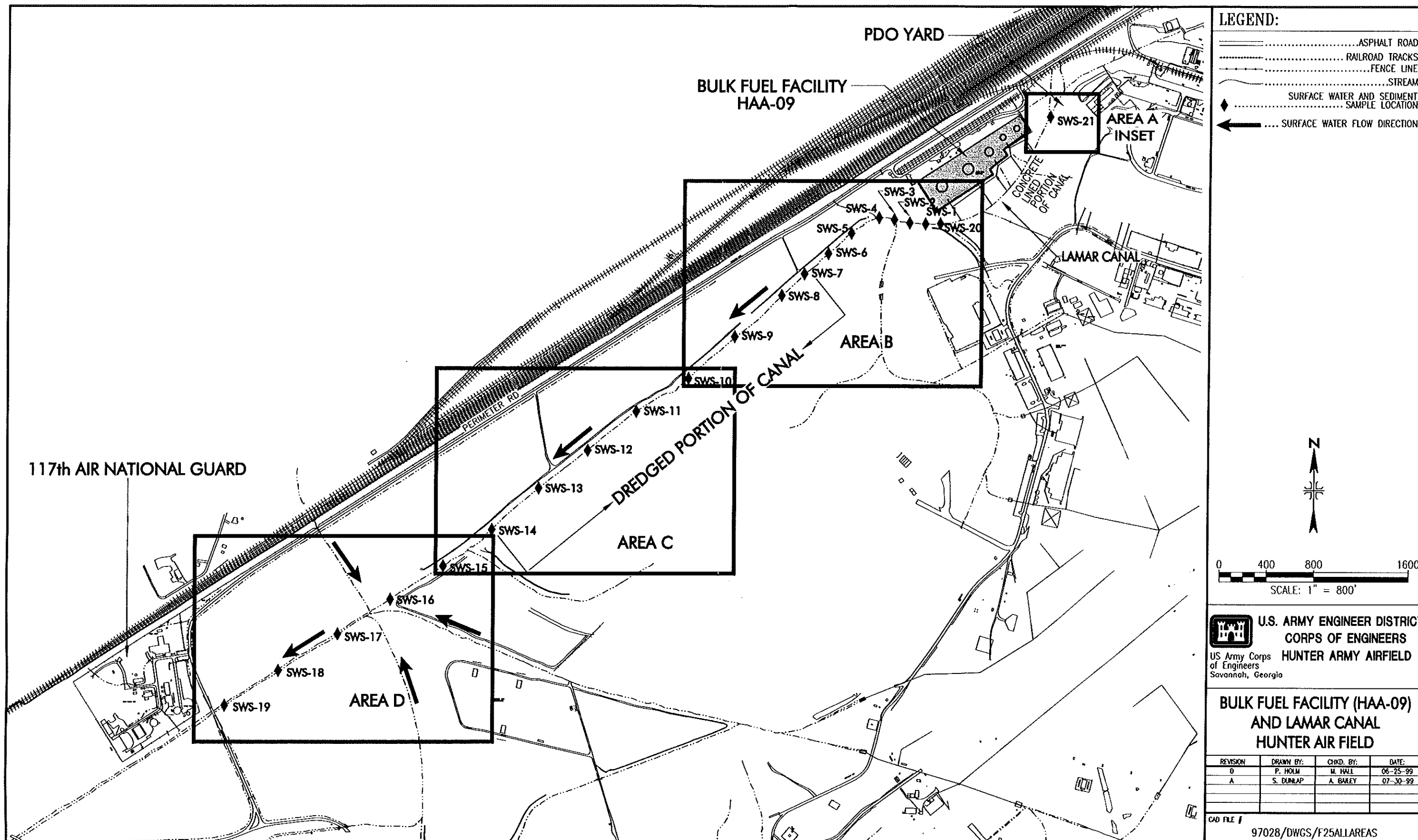


Figure 3-1. Lamar Canal Surface Water and Sediment Sampling Locations Overview

Table 3-1. Lamar Canal Sample Location Description and Water Quality Management

Station	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	pH	Temperature (°C)	Turbidity (NTUs)	Canal Dredged (Yes/No)	Sediment Type	Description of Sample Location
SWS-1	7.52	0.105	7.23	24.0	1	No	Sandy clay	Canal lined with concrete. Sample collected to the side of concrete slab.
SWS-2	7.48	1.106	7.24	24.0	44	No	Silty sand	Samples collected in large pool (~4 feet deep) at confluence of canal and tributary.
SWS-3	7.43	0.109	7.24	23.9	0	No	Sand	Samples collected midstream. Sediment sink not found in vicinity of sampling point.
SWS-4	7.04	0.106	7.26	24.1	3	No	Sandy clay	Samples collected in low-energy, abandoned channel.
SWS-5	8.61	0.109	7.23	24.1	1	No	Silty sand	Samples collected midstream. Sediment sink not found in vicinity of sampling point.
SWS-6	7.80	0.112	7.19	24.4	15	No	Sand	Samples collected from low-energy, abandoned channel (~3 feet deep). High release of sheen from sediment.
SWS-7	10.54	0.110	7.23	23.7	2	Yes	Sandy, silty clay	Samples collected from quiescent pool (~3 feet deep). Vegetation upstream serves as sediment trap.
SWS-8	8.61	0.111	7.27	23.4	9	Yes	Clayey sand	Samples collected from low-energy pool upstream of large, longitudinal sand bar.
SWS-9	8.85	0.113	7.16	23.4	3	Yes	Clayey sand	Samples collected from side of channel in algae-covered pool. Sheen detected.
SWS-10	9.09	0.110	7.07	22.7	0	Yes	Sand	Samples collected from midstream in algae-covered sediment. Sheen and strong petroleum odor detected.
SWS-11	9.23	0.110	7.25	23.6	1	Yes	Sand	Samples collected from midstream in small pool. Sample collected from area less affected by erosion.
SWS-12	9.34	0.109	7.50	24.6	16	Yes	Clayey, silty sand	Samples collected from midstream. Sediment sink not found in vicinity of sampling point.
SWS-13	10.16	0.108	7.58	24.1	8	Yes	Clayey sand	Samples collected from midstream sediment sink (~8 inches deep).
SWS-14	10.58	0.108	7.57	24.0	6	Yes	Clayey sand	Samples collected from midstream. Low-energy pool upstream of large, longitudinal sand bar.
SWS-15	8.67	0.107	7.33	22.8	3	No	Clayey silt	Samples collected from midstream sediment sink (~4 feet deep).
SWS-16	8.48	0.114	7.33	21.6	12	No	Clayey sand	Samples collected from low-energy pool upstream of tributary confluence and beaver dam. Some tidal influence noted.
SWS-17	4.83	0.181	7.08	21.0	11	No	Clayey sand	Samples collected in middle part of canal (2.5 feet deep). Slight sheen noted when sediment disturbed.
SWS-18	4.20	0.228	6.81	21.1	30	No	Clayey sand	Samples collected in middle part of canal (2.0 feet deep).
SWS-19	4.25	0.229	6.80	21.0	30	No	Clayey sand	Samples collected in middle part of canal (2.0 feet deep).
SWS-20	8.67	0.109	7.27	24.4	3	No	Sand	Sample collected to the side of concrete slab in a high-energy flow area.
SWS-21	10.72	0.101	7.48	25.0	2	No	Silty sand	Samples collected upstream of concrete-lined canal. This was the last sample collected.

3.2.1 Surface Water

Surface water was collected using a decontaminated dipper and was transferred to laboratory bottles appropriately prepreserved. Care was taken to ensure the sample location was approached from the downstream direction. The surface water was collected upstream from the person collecting the sample to prevent cross-contamination from any disturbed sediment. Samples were immediately labeled and packaged, and custody was maintained in accordance with Sections 5.0 and 6.0 of the Field Sampling Plan (FSP) (SAIC 1999).

Surface water samples were analyzed for VOCs and SVOCs using SW-846 EPA Methods 8260B and 8270, respectively. In addition, water quality parameters were measured at each sampling location along Lamar Canal. Temperature, pH, conductivity, turbidity, and dissolved oxygen were recorded. These results are presented in Table 3-1. Due to equipment failure during sampling, all instream water quality measurements were collected over a 2-hour period on the last day of canal sampling, May 8, 1999.

3.2.2 Sediment

The methodologies used to collect sediment samples varied according to the type of analysis and depth of water in the canal at the sampling location.

Sediment samples requiring VOC analysis (SW-846 EPA Method 8260B) were collected using three 5-gram Encore samplers. The samplers were inserted into the top 6 inches of sediment using a decontaminated stainless steel Encore T-handle attached to a decontaminated stainless steel rod.

Sediment samples requiring SVOCs, TPH-GRO, and TPH-DRO analysis (SW-846 EPA Methods 8270 and 8015) were collected using two methods. When the water was more than 6 inches deep, the sediment sample was collected using a decontaminated Teflon® coring device. When the water was less than 6 inches deep, the sediment sample was collected using a decontaminated trowel in accordance with EM-200-1-3. In each case the sample was collected from the top 6 inches of sediment and homogenized in a stainless steel bowl before being transferred to laboratory-provided sample jars. Samples were immediately labeled and packaged, and custody was maintained in accordance with Sections 5.0 and 6.0 of the FSP (SAIC 1999).

3.3 NATURE AND EXTENT OF CONTAMINATION

This section summarizes the analytical results for the surface water and sediment samples and provides a discussion of the contaminant concentrations and distribution in the surface water and sediment of Lamar Canal. An assessment of the analytical data is discussed in the Quality Control Summary Report, which is provided in Appendix B. The analytical data are provided in Appendix C.

3.3.1 Surface Water

The Lamar Canal surface water was evaluated using the analytical data from the 21 surface water samples collected (Figure 3-1). The data were compared to the EPA maximum contaminant levels (MCLs) and the Georgia Department of Natural Resources (GA DNR) Instream Water Quality Standards (IWQS). Table 3-2 provides a summary of the detected analytical results, and Figures 3-2 through 3-4 show the distribution of the detected VOC and SVOC compounds.

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Table 3-2. Summary of Analytes Detected in Lamar Canal Surface Water Samples

Station	Applicable Standards ^a	SWS-1	SWS-2	SWS-3	SWS-4	SWS-5	SWS-6	SWS-7	SWS-8	SWS-9	SWS-10	SWS-11
Sample ID		H01111	H02111	H03111	H04111	H05111	H06111	H07111	H08111	H09111	H10111	H11111
Sample Depth (feet bgs)		0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0
Media		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Date Collected		5/7/1999	5/7/1999	5/7/1999	5/7/1999	5/7/1999	5/7/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999
Sample Type		Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<i>Volatile Organic Compounds</i>												
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes, total	10,000	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
<i>Semivolatile Organic Compounds</i>												
Bis(2-ethylhexyl)phthalate	6	10.1 U	10.2 U	10 U	9.99 U	10.1 U	9.99 U	10.2 U	10 U	9.99 U	10 U	10 U

Station	Applicable Standards ^a	SWS-12	SWS-13	SWS-14	SWS-15	SWS-16	SWS-17	SWS-18	SWS-19	SWS-20	SWS-20	SWS-21
Sample ID		H12111	H13111	H14111	H15111	H16111	H17111	H18111	H19111	H20111	H20121	H21111
Sample Depth (feet bgs)		0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0
Media		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Date Collected		5/6/1999	5/6/1999	5/6/1999	5/5/1999	5/5/1999	5/5/1999	5/5/1999	5/4/1999	5/7/1999	5/7/1999	5/7/1999
Sample Type		Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Duplicate	Grab
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<i>Volatile Organic Compounds</i>												
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.68 J	10 U	10 U
Xylenes, total	10,000	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.51 J	5 U
<i>Semivolatile Organic Compounds</i>												
Bis(2-ethylhexyl)phthalate	6	10 U	10 U	10 U	10.4 U	688 J	67.9 =	10 U	10 U	10 U	10.1 U	10.1 U

^aU.S. Environmental Protection Agency maximum contaminant level.
 J = Indicates the value for the compound is an estimated value.
 U = Indicates the compound was not detected at the concentration reported.
 UJ = Indicates the compound was not detected above an approximated sample quantitation limit.
 = Indicates the compound was detected at the concentration reported.
 Values in bold exceed the applicable standard.

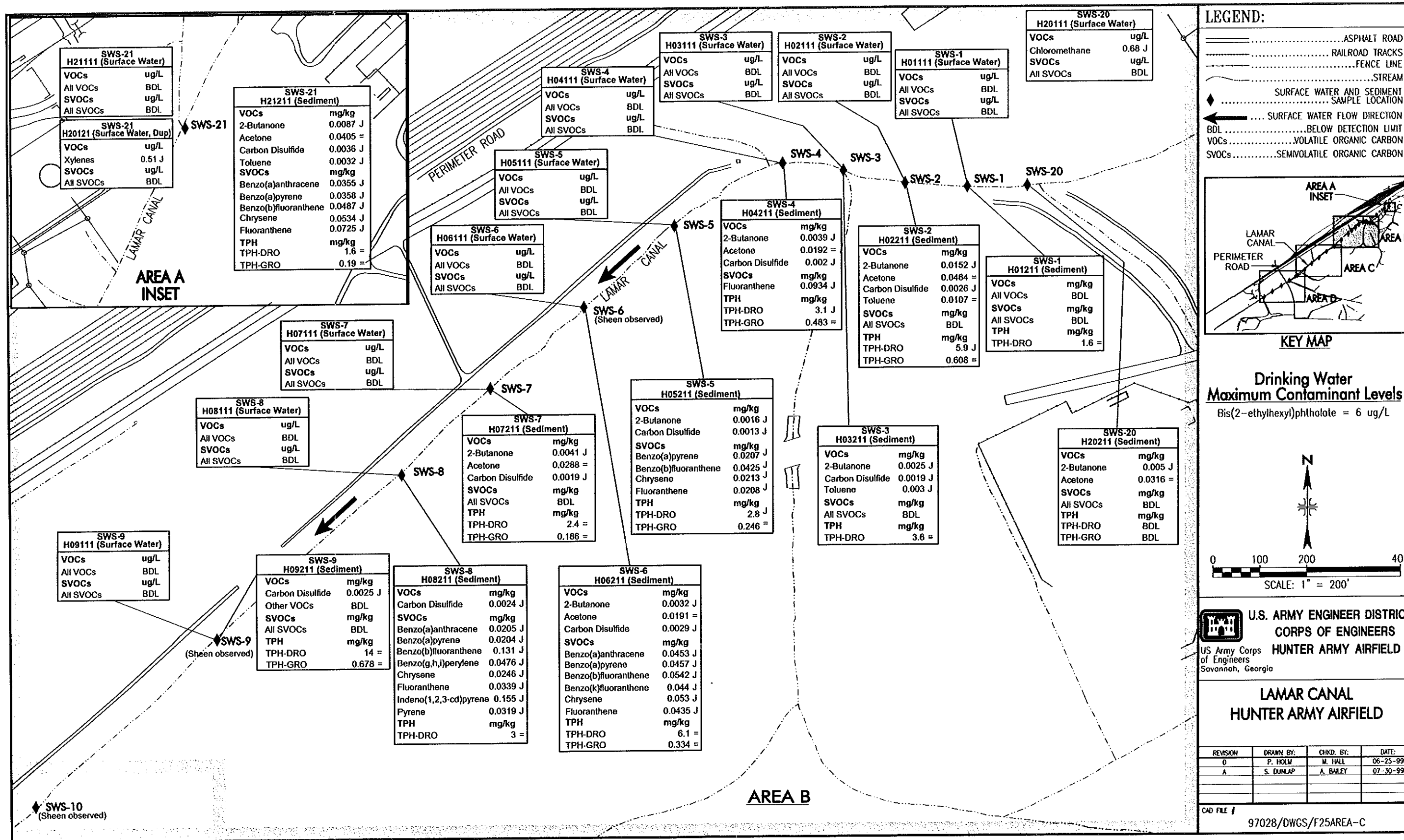


Figure 3-2. Lamar Canal Surface Water and Sediment Analytical Results for Areas A and B

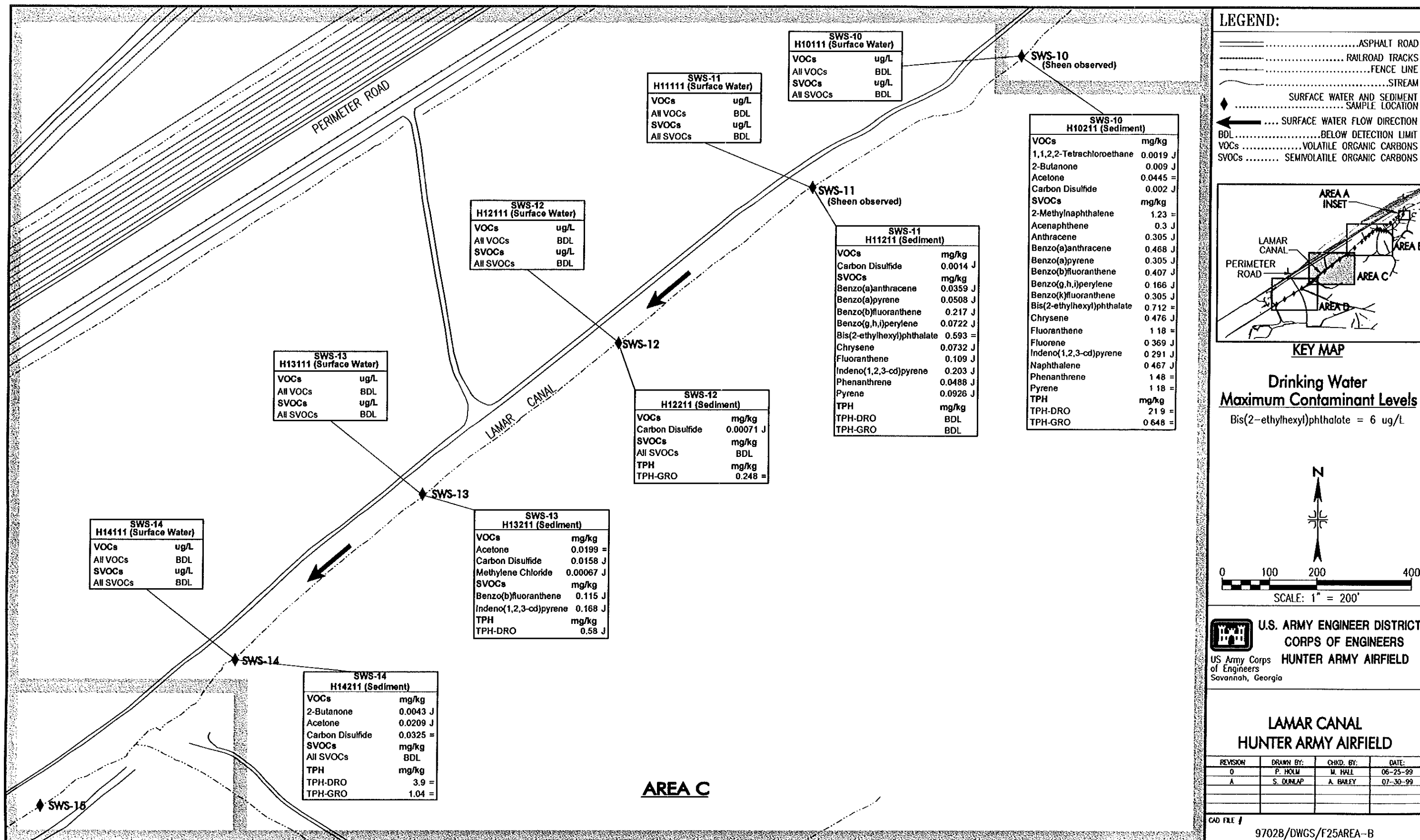


Figure 3-3. Lamar Canal Surface Water and Sediment Analytical Results for Area C

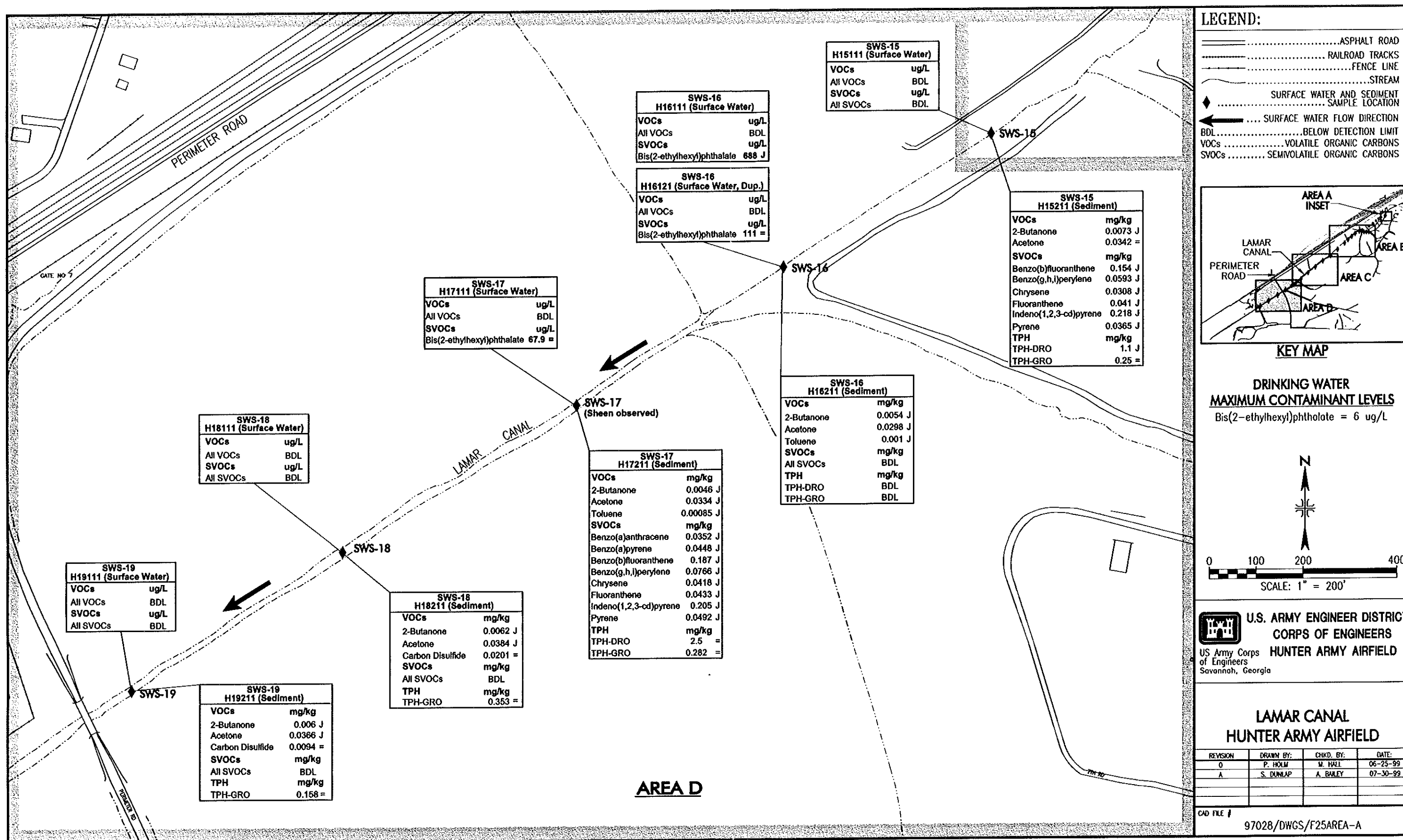


Figure 3-4. Lamar Canal Surface Water and Sediment Analytical Results for Area D

VOCs. Only chloromethane and total xylenes were detected in the surface water samples. Both analytes were detected at the same location, SWS-20 (Area B, Figure 3-2). Chloromethane was detected at a concentration of 0.68 µg/L, and total xylenes were detected at a concentration of 0.51 µg/L in the duplicate sample (H20121). However, in the primary sample (H20111), concentrations were not detected above the detection limit. Both concentrations reported represent estimated values (Table 3-2). The total xylenes concentration does not exceed its respective MCL or IWQS.

An MCL or IWQS does not exist for chloromethane. However, chloromethane is addressed in Section 391-3-6-.06 (Waste Treatment and Permit Requirements) of the GA DNR Rules and Regulations for Water Quality Control (GA DNR 1999). This section requires that whole effluent biomonitoring be used to develop either a site-specific criterion concentration or a whole effluent toxicity limit, with such a limit to be incorporated into permits. Chloromethane, otherwise known as methyl chloride, is a biodegradation product of carbon tetrachloride. Carbon tetrachloride is a compound typically associated with cleaning agents, aerosol sprays, coolants, solvents, and landfills. Considering that chloromethane is derived from substances other than petroleum and that it was detected at only one location at an estimated concentration, it is unlikely that its presence is the result of releases from the BFF.

SVOCs. Bis(2-ethylhexyl)phthalate was the only surface water SVOC detected. This SVOC was detected at a concentration of 688 µg/L at location SWS-16 and at a concentration of 67.9 µg/L at location SWS-17 (Area D, Figure 3-4). Both of these concentrations exceed the MCL of 6 µg/L and the IWQS of 5.92 µg/L (Table 3-2).

The sample locations are near the confluence of Lamar Canal and three tributaries (Figure 3-4). The confluence is located approximately 5,800 feet (approximately 1 mile) downstream from the BFF. Water quality parameters (Table 3-1) are suggestive of a significant change in the flow conditions between sample locations SWS-16 and SWS-17, the area in which the three tributaries enter the canal. Dissolved oxygen, pH, and temperature decreased in this area, while conductivity increased. These parameters remained relatively stable from SWS-18 to SWS-19. Considering the distance from the BFF, the absence of the constituent upstream from SWS-16 and SWS-17, and the fact that bis(2-ethylhexyl)phthalate is derived from substances other than petroleum, it is unlikely that this contamination is the result of releases from the BFF.

Based on the evaluation of the surface water VOC and SVOC data collected as part of this investigation, the Lamar Canal surface water does not appear to be contaminated with petroleum-related compounds. However, the investigation does indicate that at isolated locations the surface water has been affected by nonpetroleum-related compounds. Further investigation activities are suggested to identify the source(s) of the elevated concentrations of bis(2-ethylhexyl)phthalate and chloromethane.

3.3.2 Sediment

The sediment within Lamar Canal was evaluated using the analytical data from the 21 sediment samples collected (Figure 3-1). Table 3-3 provides a summary of the detected analytical results, and Figures 3-2 through Figure 3-4 show the distribution of the detected VOC, SVOC, TPH-DRO, and TPH-GRO compounds.

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Table 3-3. Summary of Analytes Detected in the Lamar Canal Sediment Samples

Station		SWS-1	SWS-2	SWS-3	SWS-4	SWS-5	SWS-6	SWS-7	SWS-8	SWS-9	SWS-10	SWS-11	SWS-12	SWS-13	SWS-14	SWS-15	SWS-16	SWS-17	SWS-18	SWS-19	SWS-20	SWS-21
Sample ID		H01211	H02211	H03211	H04211	H05211	H06211	H07211	H08211	H09211	H10211	H11211	H12211	H13211	H14211	H15211	H16211	H17211	H18211	H19211	H20211	H22211
Sample Depth (feet bgs)	Applicable	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Media	Soil	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Date Collected	Threshold	5/7/1999	5/7/1999	5/7/1999	5/7/1999	5/7/1999	5/7/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999	5/6/1999	5/5/1999	5/5/1999	5/5/1999	5/5/1999	5/4/1999	5/7/1999	5/7/1999
Sample Type	Levels ^a	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<i>Volatile Organic Compounds</i>																						
1,1,2,2-Tetrachloroethane		0.0063 U	0.0072 U	0.0062 U	0.007 U	0.0057 U	0.0068 U	0.0065 U	0.0061 U	0.0065 U	0.0019 J	0.0075 U	0.0067 U	0.0061 U	0.0064 U	0.012 U	0.0075 U	0.0072 U	0.0071 U	0.0072 U	0.0071 U	0.0071 U
2-Butanone		0.0136 U	0.0152 J	0.0025 J	0.0039 J	0.0016 J	0.0032 J	0.0041 J	0.0121 U	0.013 U	0.009 J	0.015 U	0.0134 U	0.0122 U	0.0043 U	0.0073 J	0.0054 J	0.0046 J	0.0062 J	0.006 J	0.005 J	0.0087 J
Acetone		0.0384 U	0.0464 =	0.017 U	0.0192 =	0.0115 U	0.0191 =	0.0288 =	0.0121 U	0.0169 U	0.0445 =	0.015 U	0.0134 U	0.0199 =	0.0209 J	0.0342 =	0.0298 J	0.0334 J	0.0384 J	0.0366 J	0.0316 =	0.0405 =
Carbon disulfide		0.0036 U	0.0026 J	0.0019 J	0.002 J	0.0013 J	0.0029 J	0.0019 J	0.0024 J	0.0025 J	0.002 J	0.0014 J	0.00071 J	0.0158 J	0.0325 =	0.012 U	0.0075 U	0.0072 U	0.0201 =	0.0094 =	0.0071 U	0.0036 J
Methylene chloride		0.0063 U	0.0072 U	0.0062 U	0.007 U	0.0057 U	0.0068 U	0.0065 U	0.0065 U	0.0066 U	0.008 U	0.0075 U	0.0067 U	0.00067 J	0.0007 J	0.012 U	0.0075 U	0.0072 U	0.0071 U	0.0072 U	0.0071 U	0.0071 U
Toluene	6.0	0.0031 U	0.0107 =	0.003 J	0.007 U	0.0057 U	0.0068 U	0.0065 U	0.0065 U	0.0013 J	0.008 U	0.0075 U	0.0067 U	0.0061 U	0.0064 U	0.012 U	0.001 J	0.00085 J	0.0071 U	0.0072 U	0.0071 U	0.0032 J
<i>Semivolatile Organic Compounds</i>																						
2-Methylnaphthalene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	1.23 =	0.498 U	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Acenaphthene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	0.3 J	0.498 U	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Anthracene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	0.305 J	0.498 U	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Benzo(a)anthracene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.0453 J	0.498 U	0.0205 J	0.463 U	0.468 J	0.0359 J	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.0352 J	0.546 U	0.513 U	0.505 U	0.0355 J
Benzo(a)pyrene		0.422 U	0.417 U	1.67 U	1.85 U	0.0207 J	0.0457 J	0.498 U	0.0204 J	0.463 U	0.305 J	0.0508 J	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.0448 J	0.546 U	0.513 U	0.505 U	0.0358 J
Benzo(b)fluoranthene		0.422 U	0.417 U	1.67 U	1.85 U	0.0425 J	0.0542 J	0.498 U	0.131 J	0.463 U	0.407 J	0.217 J	0.498 U	0.115 J	0.45 U	0.154 J	0.538 U	0.187 J	0.546 U	0.513 U	0.505 U	0.0487 J
Benzo(g,h,i)perylene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.0476 J	0.463 U	0.166 J	0.0722 J	0.498 U	0.457 U	0.45 U	0.0593 J	0.538 U	0.0766 J	0.546 U	0.513 U	0.505 U	0.498 U
Benzo(k)fluoranthene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.044 J	0.498 U	0.402 U	0.463 U	0.305 J	0.498 U	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Bis(2-ethylhexyl)phthalate		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	0.712 =	0.593 =	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Chrysene		0.422 U	0.417 U	1.67 U	1.85 U	0.0213 J	0.053 J	0.498 U	0.0246 J	0.463 U	0.476 J	0.0732 J	0.498 U	0.457 U	0.45 U	0.0308 J	0.538 U	0.0418 J	0.546 U	0.513 U	0.505 U	0.0534 J
Fluoranthene		0.422 U	0.417 U	1.67 U	0.0934 J	0.208 U	0.0435 J	0.498 U	0.0339 J	0.463 U	1.18 =	0.109 J	0.498 U	0.457 U	0.45 U	0.041 J	0.538 U	0.0433 J	0.546 U	0.513 U	0.505 U	0.0725 J
Fluorene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	0.369 J	0.498 U	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Indeno(1,2,3-cd)pyrene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.155 J	0.463 U	0.291 J	0.203 J	0.498 U	0.168 J	0.45 U	0.218 J	0.538 U	0.205 J	0.546 U	0.513 U	0.505 U	0.498 U
Naphthalene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	0.467 J	0.498 U	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Phenanthrene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.402 U	0.463 U	1.48 =	0.0488 J	0.498 U	0.457 U	0.45 U	0.585 U	0.538 U	0.505 U	0.546 U	0.513 U	0.505 U	0.498 U
Pyrene		0.422 U	0.417 U	1.67 U	1.85 U	0.412 U	0.444 U	0.498 U	0.0319 J	0.463 U	1.18 =	0.0926 J	0.498 U	0.457 U	0.45 U	0.0365 J	0.538 U	0.0492 J	0.546 U	0.513 U	0.505 U	0.498 U
<i>Total Petroleum Hydrocarbon Compounds</i>																						
Total PAHs					0.0934	0.1053	0.2857		0.4649		9.641	1.4955		0.283		0.5088		0.6829				0.2459
TPH-DRO		1.6 =	5.9 J	3.6 =	3.1 J	2.8 J	6.1 =	2.4 =	3 =	14 =	21.9 =	0.52 U	0.33 U	0.58 J	3.9 =	1.1 J	161 U	2.5 =	0.94 UJ	0.92 UJ	0.25 U	1.6 =
TPH-GRO		0.126 U	0.608 =	0.125 U	0.483 =	0.246 =	0.334 =	0.186 =	0.12 U	0.678 =	0.648 =	0.148 U	0.248 =	0.135 U	1.04 =	0.25 =	0.003 U	0.282 =	0.353 =	0.158 =	0.151 U	0.19 =

^aGeorgia Department of Natural Resources (GA DNR) Applicable Soil Threshold Levels (i.e., Table A, column 2).
 J = Indicates the value for the compound is an estimated value.
 PAH = Polynuclear aromatic hydrocarbon.
 U = Indicates the compound was not detected at the concentration reported.
 UJ = Indicates the compound was not detected above an approximated sample quantitation limit.
 = Indicates the compound was detected at the concentration reported.

Considering the past and present uses of the BFF and in keeping with the premise that the BFF will reside under the jurisdiction of the UST Management Program, the sediment data were evaluated using the GA DNR UST Guidelines and Applicable Soil Threshold Levels (STLs) (i.e., Table A, column 2). In addition, EPA Generic Soil Screening Levels (GSSLs) were used to assist with the evaluation of the sediment data (EPA 1996). The GSSLs were used for comparison purposes and do not represent regulatory limits. They were developed as guidelines for soil concentrations posing a threat to groundwater from leaching.

During the initial site walkover activities, it was noted that the portion of the canal located directly adjacent to the BFF was lined with concrete and was devoid of sediment (Figure 3-1). In addition, it was noted that approximately 2,800 feet (approximately 1/2 mile) from the BFF, a 3,800-foot (approximately 3/4-mile) segment of the canal had been dredged on multiple occasions (as evidenced by the spoil piles with varying degree of vegetative cover) (Figure 3-1). During sampling activities, it was noted that "sheens" appeared on the surface water when the sediment was disturbed at sampling locations SWS-6, SWS-9, SWS-10, SWS-11, SWS-16, and SWS-17 (Table 3-1). In addition, a strong petroleum odor was detected at location SWS-10.

VOCs. Six individual VOCs were reported above the detection limits in the sediment samples collected: 1,1,2,2-tetrachloroethane, 2-butanone, acetone, carbon disulfide, methylene chloride, and toluene (Table 3-3). Table 3-4 provides a summary of the number of detections for each of the analytes along with the maximum detected concentration and associated sample location. Of the VOCs detected, only toluene has an Applicable STL. Toluene was detected in six samples at concentrations ranging from 0.00085 mg/kg at SWS-17 to 0.0107 mg/kg at SWS-2. None of these concentrations exceeded the STL of 6 mg/kg (Table 3-3).

Established STLs do not exist for the remaining five detected analytes. To assist with the contaminant nature and extent evaluation, the data were screened against EPA GSSLs (Table 3-4). GSSLs with a dilution attenuation factor of 20 were used for the evaluation. Based on this screening, 1,1,2,2-tetrachloroethane, acetone, carbon disulfide, and methylene chloride had concentration levels well below their respective GSSLs. 2-Butanone, which was detected in 14 sediment samples at concentrations ranging from 0.0016 mg/kg at SWS-5 to 0.0152 mg/kg at SWS-2, does not have an EPA GSSL. However, a GSSL was calculated for this compound following the Soil Screening Guidance: Technical Background Document (EPA 1996). Based on the calculated value, all the reported concentrations were well below the GSSL (Table 3-4).

SVOCs. Sixteen individual SVOCs were reported above the detection limits in the sediment samples collected (Table 3-3). Fifteen of the detected analytes are PAH compounds with bis(2-ethylhexyl)phthalate being the other detected SVOC. The PAH compounds were detected at 10 of the 21 locations with bis(2-ethylhexyl)phthalate being detected at two locations (Figures 3-2 through 3-4). The sediment sample collected at location SWS-10 had detected concentrations for all 16 analytes. Table 3-4 provides a summary of the number of detections for each of the analytes along with the maximum detected concentration and associated sample location. None of the SVOCs detected has an Applicable STL (i.e., Table A, column 2).

To assist with the contaminant nature and extent evaluation, the GA DNR UST CAP-Part A guidance document was used (GA DNR 1998). Following the CAP-Part A requirements, PAH compounds were totaled for each sample, and the value was compared to the Site Ranking Form criterion of >0.660 mg/kg for total PAHs. Although this is not a regulatory level, it is an input value used in determining how contaminated a site is or, as used in this evaluation, to determine areas of concern along Lamar Canal. At three sampling locations, the total PAH values exceed the PAH criterion of >0.660 mg/kg. Locations

Table 3-4. Comparison of Maximum Detected Concentration in Sediment to Generic Soil Screening Levels

Analyte	Number of Detects	Maximum Concentration Detected (mg/kg)	Generic Soil Screening Levels ^a (mg/kg)	Sample Location
<i>Volatile Organic Compounds</i>				
1,1,2,2-Tetrachloroethane	1	0.0019	0.003	SWS-10
2-Butanone	14	0.0152	7.685 ^b	SWS-2
Acetone	14	0.0464	16	SWS-2
Carbon disulfide	16	0.0325	32	SWS-14
Methylene chloride	2	0.0007	0.02	SWS-14
Toluene	6	0.0107	12	SWS-2
<i>Semivolatile Organic Compounds</i>				
2-Methylnaphthalene	1	1.23	22.574	SWS-10
Acenaphthene	1	0.3	570	SWS-10
Anthracene	1	0.305	12,000	SWS-10
Benzo(a)anthracene	6	0.468	2	SWS-10
Benzo(a)pyrene	7	0.305	8	SWS-10
Benzo(b)fluoranthene	9	0.407	5	SWS-10
Benzo(g,h,i)perylene	5	0.166	394 ^b	SWS-10
Benzo(k)fluoranthene	2	0.305	49	SWS-10
Bis(2-ethylhexyl)phthalate	2	0.712	3,600	SWS-10
Chrysene	7	0.476	160	SWS-10
Fluoranthene	9	1.18	4,300	SWS-10
Fluorene	1	0.369	560	SWS-10
Indeno(1,2,3-cd)pyrene	6	0.291	14	SWS-10
Naphthalene	1	0.467	84	SWS-10
Phenanthrene	2	1.48	80.4 ^b	SWS-10
Pyrene	5	1.18	4,200	SWS-10
<i>Total Petroleum Hydrocarbons</i>				
TPH-DRO	15	21.9	^c	SWS-10
TPH-GRO	14	1.04	^c	SWS-14

^aGeneric Soil Screening Level (GSSL) value with a dilution attenuation factor of 20. The value was obtained from the U.S. Environmental Protection Agency Soil Screening Guidance: Technical Background Document (EPA 1996).

^bEPA-suggested GSSL value not available; GSSL calculated following Soil Screening Guidance: Technical Background Document (EPA 1996).

^cGSSL value not available.

SWS-10, SWS-11, and SWS-17 have total PAH values of 9.641 mg/kg, 1.495 mg/kg, and 0.6829 mg/kg, respectively (Table 3-3).

The SVOC data were also screened against EPA GSSLs (Table 3-4). GSSLs with a dilution attenuation factor of 20 were used for the evaluation. GSSLs were available for 13 analytes; however, EPA GSSLs were not available for 2-methylnaphthalene, benzo(g,h,i)perylene, or phenanthrene. For these compounds, GSSLs were calculated following the Soil Screening Guidance: Technical Background Document (EPA 1996). Based on the screening, none of the detected SVOCs were found to exceed their GSSLs (Table 3-4).

TPH. TPH-DRO was detected at 15 locations at concentrations ranging from 1.1 mg/kg at SWS-15 to 21.9 mg/kg at SWS-10. TPH-GRO was detected at 14 locations at concentrations ranging from 0.158 mg/kg at location SWS-19 to 1.04 mg/kg at SWS-14. Table 3-4 provides a summary of the number of detections for each TPH-DRO and TPH-GRO along with the maximum detected concentration and associated sample location. Applicable STLs (i.e., Table A, column 2) are not available for these two analytes.

Based on the evaluation of the sediment analytical data collected as part of this investigation, the sediment within Lamar Canal appears to be impacted by petroleum-related compounds at multiple isolated locations along the sampled portions of the canal. These locations tend to be in a portion of the canal where the surface water flow is reduced and the sedimentation rate is high (i.e., the dredged portion of canal). Elevated concentrations of total PAHs were found at locations SWS-10, SWS-11, and SWS-17, with concentrations of TPH-DRO greater than 10 parts per million (ppm) noted at locations SWS-9 and SWS-10. Also, at locations SWS-9, SWS-10, SWS-11, SWS-16, and SWS-17, petroleum sheens were noted to develop on the surface water when the sediment was disturbed. In addition, other nonpetroleum-related compounds such as 1,1,2,2-tetrachloroethane and bis(2-ethylhexyl)phthalate were also detected at locations SWS-10 and SWS-11, respectively.

Because the area of Lamar Canal directly adjacent to and downstream of the BFF does not appear to be impacted, as shown by the analytical results for SWS-20 and SWS-1 through SWS-5, and because the upstream sample (SWS-21) contains detected concentrations of VOCs, SVOCs, TPH-DRO, and TPH-GRO, it is difficult to determine if the impacted sediment within Lamar Canal can be directly attributed to the BFF. Therefore, further investigation of Lamar Canal is warranted to determine if the BFF is the source of the contamination.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

The overall objective of the investigation is to provide recommendations for future investigations at the BFF and to determine if contamination in Lamar Canal, if identified, is related to past and/or present releases from the BFF. To meet these objectives, a soil gas survey was conducted at the BFF, and surface water and sediment samples were collected from Lamar Canal. Data from both the soil gas survey and the Lamar Canal sediment and surface water investigation were evaluated under the assumption that the BFF will reside under the jurisdiction of the GA DNR UST Management Program.

The soil gas survey identified distinct continuous soil gas contaminant plumes for combined PAHs, benzene, TPH-DRO, and TPH-GRO with areas of significant contaminant concentrations ("hot spots") identified around Pumping Stations 7002 and 7008; ASTs 7001, 7003, 7005, and 7009; and the rail spur (see Figure 2-3). The most significant areas of contamination are associated with AST 7003 and Pumping Station 7002, where the highest concentrations of benzene and areas of free product were noted (see Figure 2-2).

The Lamar Canal investigation indicated that the surface water does not appear to be contaminated with petroleum-related compounds. However, the investigation does show that nonpetroleum compounds have affected the surface water, minimally, at isolated locations. Bis(2-ethylhexyl)phthalate was detected above the IWQS at sampling locations SWS-16 and SWS-17 (see Area D, Figure 3-4). In addition, chloromethane, which is a biodegradation product of carbon tetrachloride, was detected at sampling location SWS-20 (see Area B, Figure 3-2). Because these compounds are derived from substances other than petroleum products, it is unlikely that this contamination is the result of releases from the BFF.

The Lamar Canal sediment investigation, however, does indicate that sediment has been contaminated with petroleum-related compounds. Elevated combined PAHs were identified at sampling locations SWS-10, SWS-11, and SWS-17, with concentrations of TPH-DRO greater than 10 ppm noted at locations SWS-9 and SWS-10 (see Figures 3-3 and 3-4). In addition, at locations SWS-9, SWS-10, SWS-11, SWS-16, and SWS-17, petroleum sheens were noted to develop on the surface water when the sediment was disturbed. Because samples collected directly adjacent to and downstream of the BFF do not contain detected concentrations of BTEX, PAHs, TPH-DRO, or TPH-GRO compounds, and the upstream sample contains detected concentrations of petroleum-related compounds, it is difficult to determine if the BFF is the source of the contaminated sediment.

4.2 RECOMMENDATIONS

To comply with the GA DNR UST Management Program, the soil and groundwater contamination at the BFF and the sediment contamination in Lamar Canal will be investigated following the requirements of the CAP-Part A and CAP-Part B Guidance Documents (GA DNR 1998; GA DNR 1995).

Initially a CAP-Part A investigation will be conducted to characterize the soil and groundwater contamination at the "hot spot" areas identified by the soil gas survey and to determine if the BFF is contributing to the contamination of Lamar Canal.

Recommended activities include:

- using direct-push technology (Geoprobe) to sample soil and groundwater to define the lateral and vertical extents of contamination below applicable federal and state levels and to collect geotechnical data;
- installing permanent, 1-inch monitoring wells to determine groundwater flow direction, to obtain free product measurements, and to collect future groundwater samples; and
- collecting sediment and surface water samples.

Detailed recommendations for the CAP-Part B investigation will be made after the CAP-Part A investigation has been completed (i.e., in the CAP-Part A Site Investigation Plan). These recommendations include installing additional 1-inch and 2-inch-diameter monitoring wells and collecting groundwater samples from the new and existing wells. The locations of the new wells will be determined based on contaminant distribution and groundwater flow direction results. Soil borings may also be required if the contamination has not been defined.

4.2.1 Soil Characterization

A total of 33 soil borings are proposed to characterize vadose zone contamination at the BFF (Figure 4-1). A maximum of one soil sample will be collected at each boring location using direct-push technology (i.e., Geoprobe) and will be analyzed for BTEX, PAHs, and TPH-DRO/GRO using the current EPA analytical procedures. All soil samples selected for BTEX analysis will be collected using Encore™ Samplers. Soil sampling techniques will be the same as or similar to those outlined in the SAP for CAP-Part A site investigations at HAAF.

In addition to collecting soil samples for chemical analysis, it is recommended that one Shelby tube sample be collected for geotechnical and total organic carbon content analysis to calculate alternative threshold levels and to perform fate and transport modeling activities.

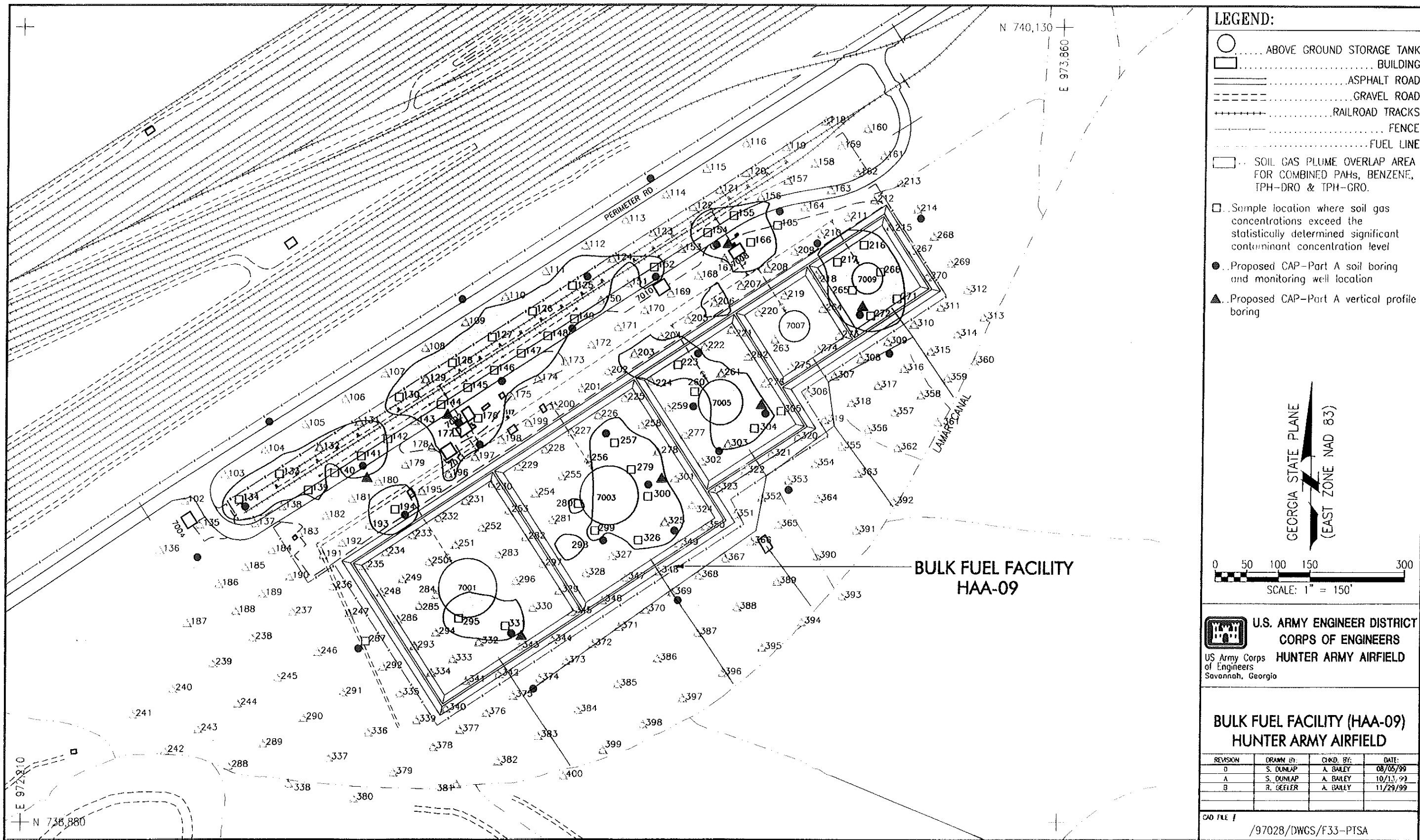
4.2.2 Groundwater Characterization

A total of 33 groundwater sampling locations, co-located with the proposed soil borings, will be used to characterize the vertical and horizontal extents of contamination at the site (Figure 4-1). At all 33 locations, groundwater samples will be collected from the top of the saturated zone using direct-push technology (Geoprobe) and will be analyzed for BTEX and PAHs. At seven additional locations, vertical profiles will be installed for the collection of groundwater samples every 5 feet until several zero headspace intervals are achieved. These samples will also be analyzed for BTEX and PAHs. Groundwater sampling techniques will be the same as or similar to those outlined in the SAP for CAP-Part A site investigations.

To allow future groundwater samples to be collected and to determine groundwater flow directions and free product thickness, permanent 1-inch monitoring wells will be installed at the 33 proposed co-located soil boring/groundwater sampling locations. Data collected from these points will be used to determine the extent of the CAP-Part B investigation activities.

4.2.3 Lamar Canal Characterization

It is recommended that surface water and sediment samples be collected at nine locations adjacent to the BFF and along Lamar Canal to assist in identification of the source of sediment contamination (Figure 4-2). At the five sampling locations located along the abandoned AST drain lines, co-located



- LEGEND:**
- ABOVE GROUND STORAGE TANK
 - BUILDING
 - ASPHALT ROAD
 - - - GRAVEL ROAD
 - +—+ RAILROAD TRACKS
 - FENCE
 - FUEL LINE
 - SOIL GAS PLUME OVERLAP AREA FOR COMBINED PAHs, BENZENE, TPH-DRO & TPH-GRO.
 - Sample location where soil gas concentrations exceed the statistically determined significant contaminant concentration level
 - Proposed CAP-Part A soil boring and monitoring well location
 - ▲ Proposed CAP-Part A vertical profile boring

GEORGIA STATE PLANE
(EAST ZONE NAD 83)

0 50 100 150 300
SCALE: 1" = 150'

**U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS**
HUNTER ARMY AIRFIELD
US Army Corps of Engineers
Savannah, Georgia

**BULK FUEL FACILITY (HAA-09)
HUNTER ARMY AIRFIELD**

REVISION	DRAWN BY	CHKD. BY	DATE
0	S. DUNLAP	A. BAILEY	08/05/99
A	S. DUNLAP	A. BAILEY	10/13/99
B	R. BEFLER	A. BAILEY	11/29/99

CAD FILE / /97028/DWGS/F33-PTSA

Figure 4-1. Proposed CAP-Part A Sampling Locations

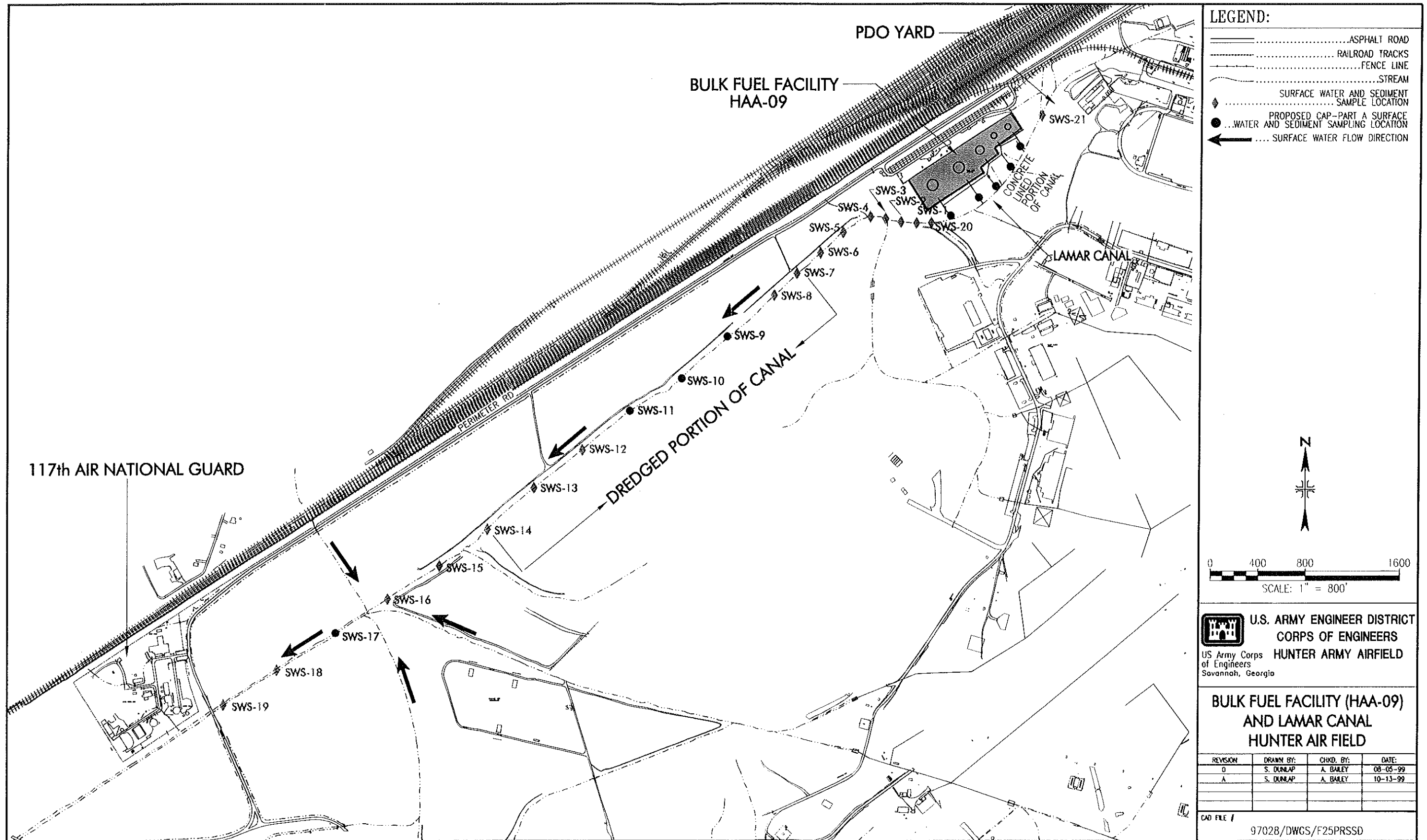


Figure 4-2. Proposed Surface Water and Sediment Sampling Locations

sediment and surface water samples will be collected at each location. It is recommended that one sediment sample, one surface water sample, and one core sample be collected at each of the four locations located along Lamar Canal. The core sample will be collected to a depth of 32 inches and field-screened using a photoionization detector. In addition, the soil core will be described (geographically) to provide a soil profile for each location. As part of the sampling activities, a detailed description of each sampling location will be completed. In addition, during surface water sampling, field measurements, including pH, specific conductance, and temperature, will be collected.

Surface water and sediment samples will be sent to an off-site analytical laboratory. Surface water samples will be analyzed for BTEX and PAHs. Sediment samples will be analyzed for BTEX, PAHs, TPH-DRO, and TPH-GRO. All sediment samples selected for BTEX analysis will be collected directly from the undisturbed sediment using Encore™ Samplers.

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APPENDIX A

**GORE-SORBER® SCREENING SURVEY
FINAL REPORT**



W. L. GORE & ASSOCIATES, INC.

100 CHESAPEAKE BLVD., P.O. BOX 10 • ELKTON, MARYLAND 21922-0010 • PHONE: 410/392-7600
FAX: 410/506-4780

GORE-SORBER® EXPLORATION SURVEY
GORE-SORBER® SCREENING SURVEY

1 of 7

GORE-SORBER® Screening Survey Final Report

HAA-09 Bulk Fuel Facility
Hunter Army Airfield

March 12, 1999

Gore Production Order No. 10054437

Prepared For:
SAIC
800 Oak Ridge Turnpike
Oak Ridge, TN 37831-2502

W.L. Gore & Associates, Inc.

Written/Submitted by:
Jay W. Hodny, Ph.D., Project Manager

Reviewed/Approved by:
Ray F. Fenstermacher, P.G., Project Manager

Analytical Data Reviewed by:
Jim E. Whetzel, Chemist

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**GORE-SORBER® Screening Survey
Final Report**

REPORT DATE: March 12, 1999

AUTHOR: JWH

SITE INFORMATION

Site Reference: HAA-09 Bulk Fuel Facility, Hunter Army Airfield

Customer Purchase Order Number: 11201523

Gore Production Order Number: 10054437

Gore Site Code: AWO

FIELD PROCEDURES

Modules shipped: 315

Installation Date(s): 1/18,19,20,21/99

Field work performed by: SAIC

Modules Installed: 300

Retrieval date(s): 2/1,2,3/99

Modules Retrieved: 299

Modules Lost in Field: 1

Exposure Time: 14 [days]

Trip Blanks Returned: 15

Unused Modules Returned: 0

Date/Time Received by Gore: 2/4/99 @ 12:30 PM

Chain of Custody Form attached:

Chain of Custody discrepancies: None

Comments: None

By: TC

**GORE-SORBER® Screening Survey
Final Report**

ANALYTICAL PROCEDURES

W.L. Gore & Associates' Screening Module Laboratory operates under the guidelines of its Quality Assurance Manual, Operating Procedures and Methods. The quality assurance program is consistent with Good Laboratory Practices (GLP) and ISO Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories", third edition, 1990. The Laboratory is audited regularly by a quality system design, development and auditing company.

Instrumentation consists of state of the art gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. Sample preparation simply involves cutting the tip off the bottom of the sample module and transferring one or more exposed sorbent containers (sorbent, each containing 40mg of a suitable granular adsorbent) to a thermal desorption tube for analysis. Sorbent remains clean and protected from dirt, soil, and ground water by the insertion/retrieval cord, and require no further sample preparation. Samples remain frozen until analysis and unanalyzed sorbent are archived in the freezer for potential future analysis.

Analytical Method Quality Assurance:

The analytical method employed is a modified EPA method 8260A/8270B. Before each run sequence, two instrument blanks, a sorbent containing 5µg BFB (Bromofluorobenzene), and a method blank are analyzed. The BFB mass spectra must meet the criteria set forth in the method before samples can be analyzed. A method blank and a sorbent containing BFB is also analyzed after every 30 samples and/or trip blanks. Standards containing the selected target compounds at three calibration levels of 5, 20, and 50µg are analyzed at the beginning of each run. The criterion for each target compound is less than 35% RSD (relative standard deviation). If this criterion is not met for any target compound, the analyst has the option of generating second- or third-order standard curves, as appropriate. A second-source reference standard, at a level of 10µg per target compound, is analyzed after every ten samples and/or trip blanks, and at the end of the run sequence. Positive identification of target compounds is determined by 1) the presence of the target ion and at least two secondary ions; 2) retention time versus reference standard; and, 3) the analyst's judgment.

NOTE: All data have been archived. Any replicate sorbent not used in the initial analysis will be discarded fifteen (15) days from the date of analysis.

Laboratory analysis: thermal desorption, gas chromatography, mass selective detection
Quality Assurance Level: 2 (ANA-4/GS3)

Instrument ID: # 3 **Chemist:** JW

Data Subdirectory: 10054437

Compounds/mixtures requested: Gore Expanded Target Compounds (A4), plus diesel-range petroleum hydrocarbons and gasoline-range petroleum hydrocarbons.

Deviations from Standard Method: The 5 µg MtBE standard was not included due to poor linearity.

Comments: Soil vapor analytes and abbreviations are tabulated in the Data Table Key (page 6).

**GORE-SORBER® Screening Survey
Final Report**

DATA TABULATION

CONTOUR MAPS ENCLOSED: Four B-sized color contour maps
LIST OF MAPS ENCLOSED:

- Benzene
- Gasoline-Range Petroleum Hydrocarbons (GRPH)
- Diesel-Range Petroleum Hydrocarbons (DRPH)
- Combined PAHs

NOTE: All data values presented in Appendix A represent masses of compound(s) desorbed from the GORE-SORBER Screening Modules received and analyzed by W.L. Gore, as identified in the Chain of Custody (Appendix A). The measurement traceability and instrument performance are reproducible and accurate for the measurement process documented. Semi-quantitation of the compound mass is based on either a single-level (QA Level 1) or three-level (QA Level 2) standard calibration.

General Comments:

- This survey reports soil gas mass levels present in the vapor phase. Vapors are subject to a variety of attenuation factors during migration away from the source concentration to the module. Thus, mass levels reported from the module will often be less than concentrations reported in soil and groundwater matrix data. In most instances, the soil gas masses reported on the modules compare favorably with concentrations reported in the soil or groundwater (e.g., where soil gas levels are reported at greater levels relative to other sampled locations on the site, matrix data should reveal the same pattern, and vice versa). However, due to a variety of factors, a perfect comparison between matrix data and soil gas levels can rarely be achieved.
- Soil gas signals reported by this method cannot be identified to soil adsorbed, groundwater, and/or free-product contamination. The soil gas signal reported from each module can evolve from all of these sources. Differentiation between soil and groundwater contamination can only be achieved with prior knowledge of the site history (i.e., the site is known to have groundwater contamination only).
- Currently, soil gas surveys are not designed to replace soil or groundwater matrix sampling. Following a soil gas survey, matrix sampling is recommended in select areas to establish the nature of the contamination (i.e., soil, groundwater, or both), and the relationship to the soil gas levels.

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Final Report**

- QA/QC trip blank modules were provided to document contamination occurring that was not part of the soil gas signal of interest (i.e., impact during module shipment, installation and retrieval, and storage). The trip blanks are identically manufactured and packaged soil gas modules to those modules placed in the subsurface. However, the trip blanks remain unopened during all phases of the soil gas survey. Levels reported on the trip blanks may indicate potential impact to modules other than the contaminant source of interest.
- Unresolved peak envelopes (UPEs) are represented as a series of compound peaks clustered together around a central GC elution time in the total ion chromatogram. Typically, UPEs are indicative of complex fluid mixtures that are present in the subsurface. UPEs observed early in the chromatogram are considered to indicate the presence of more volatile fluids, while UPEs observed later in the chromatogram may indicate the presence of less volatile fluids. Multiple UPEs may indicate the presence of multiple complex fluids. Attenuation of the VOC/SVOC soil gas components may suggest the presence of a less volatile fluid, when in fact, a more volatile fluid existed but the volatile components have weathered away.

Project Specific Comments:

- The minimum (gray) contour level, for each mapped analyte or group of analytes, was set at the maximum blank level observed or the method detection limit, whichever was greater. The maximum contour level was set at the maximum value observed.
- Stacked total ion chromatograms (TICs) are included in Appendix A. The last four digits of each module number are incorporated into the TIC identification (e.g.: AWO3341TC.D represents module #303341).
- Modules #303329, -330, -334, -338, and -363 were noted as stained and had a strong odor prior to sample analysis. In order to protect the analytical instrumentation from potential damage due to apparent high levels in the gas state, our practice is not to analyze the sorbers using our standard methods. The sorbers from each module were placed in separate jars containing identically clean sorbers as a headspace exposure method. After a period of time, the "clean" sorbers were analyzed instead of the original field-exposed sorbers. Therefore, the results of these analyses cannot be combined with the soil gas results from the other modules during mapping. The results are presented in the data table and provide qualitative information as to the nature of the compounds present.
- Nominal blank levels were reported for some target analytes. In our experience, GRPH and DRPH present in the blanks at these levels can be considered "background." Thus, target analyte levels, reported for the field-installed modules, that exceed trip and method blank levels, have a high probability of originating from on-site sources.
- Target chlorinated compounds were observed in low and non-detectable levels. The target petroleum-related analytes were observed in moderate to high levels at several sample locations.
- SAIC selected 60 modules for fluids matching. The results, tentative fluid matches, are summarized and defined in the attached table found in the Appendix. The identifications are tentative and based on our chemist's interpretation and comparison of the module chromatographic patterns to the chromatographic patterns for known fuels.

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- At the sample locations where modules appeared to be stained and had a strong odor, a red dot was placed on the map to indicate the potential for significant levels of target compounds in the soil gas. The locations were typically observed in conjunction with significant levels observed in adjacent modules. Also, these sample locations were located adjacent to two above ground storage tanks.
- Distinct, continuous soil gas plumes were observed for each of the analytes selected for mapping. The plumes generally encompassed each of the storage tanks and extended along a railroad spur adjacent to the tank farm.
- The soil gas sampling strategy appears to have encompassed the limits of the subsurface impact as defined by the soil gas survey results mapped. No open-ended plumes were observed extending into areas of the site not sampled for soil gas. If future soil gas sampling is undertaken adjacent to this area, the results can be combined onto one set of maps.

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GORE-SORBER® Screening Survey
Final Report

KEY TO DATA TABLE
HAA-09 Bulk Fuel Facility, Hunter Army Airfield

UNITS	
µg	micrograms (per sorber), reported for compounds
MDL	method detection limit
bdl	below detection limit
nd	non-detect
ANALYTES	
GRPH	gasoline-range petroleum hydrocarbons
DRPH	diesel-range petroleum hydrocarbons
BTEX	combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics)
BENZ	benzene
TOL	toluene
EtBENZ	ethylbenzene
mpXYL	m-, p-xylene
oXYL	o-xylene
C11,C13&C15	combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
UNDEC	undecane
TRIDEC	tridecane
PENTADEC	pentadecane
TMBs	combined masses of 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene
135TMB	1,3,5-trimethylbenzene
124TMB	1,2,4-trimethylbenzene
ct12DCE	cis- & trans-1,2-dichloroethene
t12DCE	trans-1,2-dichloroethene
c12DCE	cis-1,2-dichloroethene
NAPH&2-MN	combined masses of naphthalene and 2-methyl naphthalene
Combined PAHs	combined masses of naphthalene, 2-methyl naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, and pyrene.
NAPH	naphthalene
2MeNAPH	2-methyl naphthalene
MTBE	methyl t-butyl ether
PHEN	phenanthrene
11DCA	1,1-dichloroethane
CHCl ₃	chloroform
111TCA	1,1,1-trichloroethane
12DCA	1,2-dichloroethane
CCl ₄	carbon tetrachloride
TCE	trichloroethene
OCT	octane
PCE	tetrachloroethene
CIBENZ	chlorobenzene
14DCB	1,4-dichlorobenzene
BLANKS	
TBn	unexposed trip blanks, travels with the exposed modules
method blank	QA/QC module, documents analytical conditions during analysis

**CHAIN-OF-CUSTODY
RECORDS**

GORE-SORBER[®] Screening Survey Chain of Custody

For W.L. Gore & Associates use only
Production Order #

100 54437



W. L. Gore & Associates, Inc., Environmental Products Group

100 Chesapeake Boulevard • Elkton, Maryland 21921 • Tel: (410) 392-7500 • Fax: (410) 506-4730

Instructions: Customer must complete ALL shaded cells

Customer Name: SAIC
Address: 800 OAK Ridge TURNPIKE
OAK Ridge, TN 37830
Phone: (423) 481-4641
Fax: (423) 481-4601

Site Name: HAR-09 BULK FUEL FACILITY
Site Address: HUNTER ARMY AIRFIELD
Project Manager: Allison Bailey
Customer Project No.: DACA21-95-D-0022 #033
Customer P.O. #: 112P2299 Quote #: 12421

Serial # of Modules Shipped	through	=
<u>303035</u>		
<u>303037</u>		<u>303115</u>
<u>303117</u>		<u>303134</u>
<u>3141</u>		<u>303253</u>
<u>303260</u>		<u>303319</u>
GORE ANALYTICAL OPTION:		<u>303366</u>
<u>303323</u>		[<u>A 47</u>]

Serial # of Modules for Installation	= of Trip Blanks
<u>300</u>	<u>15</u>
Total Modules Shipped:	<u>315</u> Pieces
Total Modules Received:	<u>315</u> Pieces
Total Modules Installed:	<u>300</u> Pieces
Serial # of Trip Blanks (Client Decides)	<u># 303035</u> ✓
	<u># 303037</u> ✓ <u># 303084</u> ✓ <u># 303085</u> ✓ <u># 303341</u> ✓
	<u># 303133</u> ✓ <u># 303134</u> ✓ <u># 303187</u> ✓ <u># 303340</u> ✓
	<u># 303188</u> ✓ <u># 303287</u> ✓ <u># 303288</u> ✓
	<u>303289</u> ✓ <u>303290</u> ✓ <u>303291</u> ✓

Installation Performed By:
Name (please print): C. Wenzel, R. Langston, H. Smith, K. Swain
Company/Affiliation: SAIC
Installation Start Date and Time: 01-18-99 01:18 99 : 0700 AM PM
Installation Complete Date and Time: 02-03-99 01/21/99 : 1900 AM PM

Installation Method(s) (circle those that apply):
Slide Hammer Hammer Drill Auger
Other: NA
Total Modules Retrieved: 299 Pieces
Total Modules Lost in Field: 1 Pieces
Total Unused Modules Returned: 0 Pieces 15 TRIP BLANKS

Retrieval Performed By:
Name (please print): K. Swain, M. Hall
Company/Affiliation: SAIC
Retrieval Start Date and Time: 02-01-99 : 0800 AM PM
Retrieval Complete Date and Time: 02-03-99 : 1500 AM PM

Sequestered By	Date	Time
<u>T. C. Cox</u>	<u>1/11/99</u>	<u>12:00</u>
Affiliation: <u>W.L. Gore & Associates, Inc.</u>		
Sequestered By <u>Mitchell Hall</u>	<u>02/03/99</u>	<u>2000</u>
Affiliation: <u>SAIC</u>		
Sequestered by <u>To FedEx</u>	<u>2/03/99</u>	<u>2000</u>
Affiliation: <u>Tracking # 1777771650</u>		

Received By	Date	Time
Affiliation:		
Received By:		
Affiliation:		
Received By: <u>T. Cox</u>	<u>2/4/99</u>	<u>12:30</u>
Affiliation: <u>W.L. Gore & Associates, Inc.</u>		

GORE-SORBER® Screening Survey

Installation and Retrieval Log

* - module installed at 2.0 feet bgs
 † - module installed at 2.5 feet bgs
 ‡ - module installed at 2.75 feet bgs
 All others installed at 3.0 feet bgs

Page 1 of 8

SITE NAME & LOCATION

Bulk Fuel Storage Facility HAA-09
 Hunter Army Airfield, Savannah, GA
 Chatham County, GA

SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
301.	303332	01-20-99/1603	02-02-99/1442			✓	✓		
302.	303356	01-21-99/0947	02-02-99/1456			✓	✓		
303.	303357	01-21-99/0950	02-02-99/1457			✓	✓		
304.	303358	01-21-99/0953	02-03-99/0915			✓	✓		
305.	303359	01-21-99/0958	02-03-99/0930			✓	✓		
306.	303157	01-20-99/0955	02-02-99/0937			✓	✓		
307.	303156	01-20-99/0950	02-02-99/0932			✓	✓		
308.	303155	01-20-99/0944	02-02-99/0931			✓	✓		
309.	303154	01-20-99/0837	02-02-99/0930			✓	✓		
310.	303153	01-20-99/0832	02-02-99/0929			✓	✓		
311.	303152	01-20-99/0827	02-02-99/0929			✓	✓		
312.	303151	01-20-99/0824	02-01-99/1612			✓	✓		
313.	303150	01-19-99/1719	02-01-99/1618			✓	✓		
314.	303149	01-19-99/1715	02-01-99/1619			✓	✓		
315.	303148	01-19-99/1712	02-01-99/1620			✓	✓		
316.	303147	01-19-99/1708	02-01-99/1622			✓	✓		
317.	303146	01-19-99/1705	02-01-99/1624			✓	✓		
318.	303114	01-18-99/1705	02-01-99/1627			✓	✓		
319.	303072	01-21-99/0939	02-02-99/1148			✓	✓		
320.	303072	01-21-99/0939	02-02-99/1148			✓	✓		
321.	303071	01-21-99/0934	02-02-99/1147			✓	✓		
322.	303070*	01-21-99/0929	02-02-99/1145			✓	✓		
323.	303069	01-21-99/0923	02-02-99/1144			✓	✓		
324.	303342	01-21-99/0841	02-02-99/1444		✓		✓		
325.	303339	01-21-99/0835	02-02-99/1445			✓	✓		
326.	303338	01-21-99/0825	02-02-99/1446	✓	✓		✓	petroleum sheen on water	
327.	303337	01-20-99/1627	02-02-99/1448			✓	✓		
328.	303336	01-20-99/1623	02-02-99/1450			✓	✓		
329.	303055	01-20-99/1557	02-02-99/1122			✓	✓		
330.	303056	01-20-99/1602	02-02-99/1121			✓	✓		
331.	303057	01-20-99/1607	02-02-99/1125		✓		✓		
332.	303058	01-20-99/1612	02-02-99/1124			✓	✓		
333.	303059	01-20-99/1617	02-02-99/1123			✓	✓		
334.	303060	01-20-99/1622	02-02-99/1121			✓	✓	placed on inside of berm	
335.	303165	01-20-99/0955	02-02-99/1030			✓	✓		
336.	303167	01-20-99/1007	02-02-99/1002			✓	✓		
337.	303168	01-20-99/1014	02-02-99/1045			✓	✓		
338.	303169	01-20-99/1021	02-02-99/1701			✓	✓	submerged in Lamer can	
339.	303166	01-20-99/1000	02-02-99/1000			✓	✓		
340.	303061	01-21-99/0845	02-02-99/1134			✓	✓		
341.	303062	01-21-99/0850	02-02-99/1132			✓	✓		

GORE-SORBER® Screening Survey
Installation and Retrieval Log

SITE NAME & LOCATION

Bulk Fuel Storage Facility HAA-09
 Hunter Army Airfield, GA

Page 2 of 8

SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
342.	303063	01-21-99/0855	02-02-99/1750			✓		✓	
343.	303064	01-21-99/0859	02-02-99/1131			✓	✓		
344.	303065	01-21-99/0903	02-02-99/1137			✓		✓	placed outside berm
345.	303066	01-21-99/0907	02-02-99/1130			✓	✓		placed outside berm
346.	303067	01-21-99/0912	02-02-99/1139			✓		✓	placed outside berm
347.	303346	01-21-99/0902	02-02-99/1451			✓	✓		
348.	303345	01-21-99/0857	02-02-99/1140			✓	✓		
349.	303344	01-21-99/0852	02-02-99/1452			✓	✓		
350.	303343	01-21-99/0916	02-02-99/1454			✓	✓		
351.	303068	01-21-99/0917	02-02-99/1143			✓	✓		
352.	303068	01-18-99/1653	02-01-99/1630			✓	✓		
353.	303111	01-18-99/1648	02-01-99/1632			✓	✓		
354.	303110	01-18-99/1642	02-01-99/1634			✓	✓		
359.	303109	01-18-99/1637	02-01-99/1635			✓	✓		
358.	303108	01-18-99/1631	02-01-99/1638			✓	✓		
357.	303107	01-18-99/1624	02-01-99/1640			✓	✓		
356.	303106	01-18-99/1610	02-01-99/1642			✓	✓		
360.	303104	01-18-99/1604	02-02-99/1610			✓	✓		submerged in Lamm Canal
361.	303103	01-18-99/1551	02-02-99/1615			✓	✓		submerged in Lamm Canal
362.	303102*	01-18-99/1544	02-02-99/1701			✓	✓		
363.	303101	01-18-99/1536	02-02-99/1703			✓	✓		
364.	303100	01-18-99/1531	02-02-99/1704			✓	✓		
363.	303099	01-18-99/1520	02-02-99/1706			✓	✓		
366.	303098	01-18-99/1513	02-02-99/1707			✓		✓	
367.	303097	01-18-99/1452	02-02-99/1708			✓		✓	
368.	303096	01-18-99/1446	02-02-99/1709			✓	✓		
369.	303095	01-18-99/1441	02-02-99/1710			✓		✓	
370.	303094	01-18-99/1436	02-02-99/1711			✓	✓		
371.	303093	01-18-99/1430	02-02-99/1712			✓	✓		
372.	303092	01-18-99/1425	02-02-99/1713			✓	✓		
373.	303091	01-18-99/1420	02-03-99/1000			✓	✓		
374.	303090	01-18-99/1415	02-01-99/1714			✓	✓		
375.	303089	01-18-99/1410	02-01-99/1715			✓		✓	
376.	303088	01-18-99/1405	02-01-99/1716			✓	✓		
377.	303087	01-18-99/1400	02-01-99/1717			✓	✓		
378.	303086	01-18-99/1350	02-01-99/1718			✓	✓		
379.	303117	01-19-99/1457	02-01-99/1720			✓		✓	
381.	303115	01-19-99/1453	02-02-99/1646			✓	✓		submerged in Lamm Canal
	303118 +	01-19-99/1502	02-02-99/1645			✓	✓		submerged in Lamm Canal
382.	303119	01-19-99/1508	02-01-99/1724			✓	✓		
383.	303120	01-19-99/1522	02-01-99/1725			✓	✓		

GORE-SORBER® Screening Survey
Installation and Retrieval Log

SITE NAME & LOCATION

Bulk Fuel Facility HAA-09
 Hunter Army Airfield
 Chatham County, GA

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* SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
384.	303122	01-19-99/1533	02-02-99/1727			✓	✓		
385.	303124	01-19-99/1548	02-02-99/1732			✓	✓		
386.	303126	01-19-99/1559	02-02-99/1734			✓	✓		
387.	303128	01-19-99/1610	02-02-99/1737			✓	✓		
388.	303130	01-19-99/1622	02-02-99/1739			✓	✓		
389.	303132	01-19-99/1627	02-02-99/1740			✓	✓		
390.	303142	01-19-99/1647	02-02-99/0949			✓	✓	submerged in puddle	
391.	303144	01-19-99/1651	02-02-99/0945			✓	✓		
392.	303145	01-19-99/1657	02-02-99/1620			✓	✓		
393.	303143	01-19-99/1642	02-02-99/1625			✓	✓	submerged in cancer canal	
394.	303141	01-19-99/1631	02-02-99/1638			✓	✓	submerged in cancer canal	
395.	303131	01-19-99/1617	02-02-99/1738			✓	✓		
396.	303129	01-19-99/1604	02-02-99/1736			✓	✓		
397.	303127	01-19-99/1554	02-02-99/1735			✓	✓		
398.	303125	01-19-99/1544	02-02-99/1733			✓	✓		
399.	303123	01-19-99/1528	02-02-99/1730			✓	✓		
400.	303121	01-19-99/1514	02-02-99/1640			✓	✓		
101.	303190	01-18-99/1340	02-01-99/1010						
102.	303191	01-18-99/1410	02-01-99/1015			✓	✓		
103.	303189	01-18-99/1332	02-01-99/0905			✓	✓		
104.	303192	01-18-99/1415	02-01-99/0910			✓	✓		
105.	303193	01-18-99/1419	02-01-99/0915			✓	✓		
106.	303194	01-18-99/1424	02-01-99/0918			✓	✓		
107.	303195	01-18-99/1429	02-01-99/0919			✓	✓		
108.	303196	01-18-99/1434	02-01-99/0920			✓	✓		
109.	303197	01-18-99/1438	02-01-99/0921			✓	✓		
110.	303198	01-18-99/1446	02-01-99/0922			✓	✓		
111.	303199	01-18-99/1520	02-01-99/0923			✓	✓		
112.	303200	01-18-99/1525	02-01-99/0925			✓	✓		
113.	303201 +	01-18-99/1537	sample was not found						
114.	303202	01-18-99/1622	02-01-99/0935			✓	✓		
115.	303203	01-18-99/1643	02-01-99/0936			✓	✓		
116.	303204	01-18-99/1652	02-01-99/0937			✓	✓		
117.	303205	01-18-99/1659	02-01-99/0938			✓	✓		
118.	303206	01-19-99/0803	02-01-99/0940			✓	✓		
119.	303207	01-19-99/0809	02-01-99/0942			✓	✓		
120.	303208	01-19-99/0812	02-01-99/0945			✓	✓		
121.	303209	01-19-99/0817	02-01-99/0946			✓	✓		
122.	303210	01-19-99/0823	02-01-99/0947			✓	✓		
123.	303211	01-19-99/0827	02-01-99/0948			✓	✓		
124.	303212	01-19-99/0834	02-01-99/0949			✓	✓		
125.	303213	01-19-99/0840	02-01-99/0950	✓	✓		✓	petroleum sheen in water	

GORE-SORBER® Screening Survey
Installation and Retrieval Log

SITE NAME & LOCATION
 Bulk Fuel Storage Facility HAA-09
 Hunter Army Airfield
 Chatham County, GA

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SC. LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
126.	303214	01-19-99/0843	02-01-99/0952	✓	✓		✓		petroleum sheen on water
127.	303215	01-19-99/0847	02-01-99/0954	✓	✓	none	✓		petroleum sheen on water
128.	303216	01-19-99/0857	02-01-99/0956			✓	✓		
129.	303217	01-19-99/0905	02-01-99/0957			✓	✓		
130.	303218	01-19-99/0910	02-01-99/0958			✓	✓		
131.	303219	01-19-99/0920	02-01-99/1000			✓	✓		
132.	303220	01-19-99/0925	02-01-99/1002			✓	✓		
133.	303221	01-19-99/0930	02-01-99/1003			✓	✓		
134.	303222	01-19-99/0935	02-01-99/1004			✓	✓		
135.	303223	01-19-99/0940	02-01-99/1006			✓	✓		
136.	303224	01-19-99/0946	02-01-99/1007			✓		✓	
137.	303225	01-19-99/1045	02-01-99/1017			✓	✓		
138.	303226	01-19-99/1050	02-01-99/1018			✓		✓	
139.	303227	01-19-99/1053	02-01-99/1019		✓		✓		
140.	303228	01-19-99/1057	02-01-99/1021			✓	✓		
141.	303229	01-19-99/1100	02-01-99/1022			✓	✓		
142.	303230	01-19-99/1103	02-01-99/1024			✓	✓		
143.	303231	01-19-99/1105	02-01-99/1026			✓		✓	
144.	303232	01-19-99/1112	02-01-99/1029		✓			✓	
145.	303233	01-19-99/1115	02-01-99/1033			✓	✓		
146.	303234	01-19-99/1118	02-01-99/1035		✓	none	✓		
147.	303235	01-19-99/1121	02-01-99/1036		✓		✓		
148.	303236	01-19-99/1126	02-01-99/1037			✓	✓		
149.	303237	01-19-99/1130	02-01-99/1038			✓	✓		
150.	303238	01-19-99/1140	02-01-99/1040			✓	✓		
151.	303239	01-19-99/1150	02-01-99/1042			✓	✓		
152.	303240	01-19-99/1157	02-01-99/1043			✓	✓		
153.	303241	01-19-99/1203	02-01-99/1045			✓	✓		
154.	303242	01-19-99/1209	02-01-99/1047		✓		✓		
155.	303243	01-19-99/1215	02-01-99/1050		✓		✓		
156.	303244	01-19-99/1220	02-01-99/1051	✓	✓		✓		the petroleum sheen on water
157.	303245	01-19-99/1225	02-01-99/1053			✓	✓		
158.	303246	01-19-99/1235	02-01-99/1057			✓	✓		
159.	303247	01-19-99/1240	02-01-99/1059			✓	✓		
160.	303248	01-19-99/1245	02-01-99/1100			✓	✓		
161.	303280	01-19-99/1652	02-01-99/1102			✓		✓	
162.	303279	01-19-99/1632	02-01-99/1103			✓	✓		
163.	303278	01-19-99/1625	02-01-99/1109			✓		✓	under concrete road
	303277	01-19-99/1555	02-01-99/1111			✓	✓		
	303276	01-19-99/1550	02-01-99/1112			✓	✓		
166.	303275	01-19-99/1545	02-01-99/1114			✓	✓		
167.	303274	01-19-99/1533	02-01-99/1402			✓	✓		

GORE-SORBER® Screening Survey
Installation and Retrieval Log

SITE NAME & LOCATION
 Bulk Fuel Storage Facility HAM-09
 Hunter Army Airfield
 Chatham County, GA

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SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
168.	303273	01-19-99/1517	02-01-99/1404			✓	✓		
169.	303272	01-19-99/1511	02-01-99/1406			✓	✓		
170.	303271	01-19-99/1507	02-01-99/1408			✓	✓		
171.	303270	01-19-99/1459	02-03-99/0839			✓	✓	submerged in puddle	
172.	303269	01-19-99/1456	02-01-99/1415			✓	✓		
173.	303268	01-19-99/1452	02-01-99/1418			✓	✓		
174.	303267	01-19-99/1448	02-01-99/1420			✓	✓		
175.	303266	01-19-99/1443	02-01-99/1423			✓	✓		
176.	303265 +	01-19-99/1438	02-01-99/1425			✓	✓	submerged in puddle	
177.	303264 Δ	01-19-99/1432	02-01-99/1426			✓	✓		
178.	303263 +	01-19-99/1426	02-01-99/1430			✓	✓		
179.	303262	01-19-99/1420	02-01-99/1435			✓	✓		
180.	303261	01-19-99/1410	02-01-99/1436			✓	✓		
181.	303260	01-19-99/1400	02-01-99/1437			✓	✓		
182.	303253	01-19-99/1339	02-01-99/1438			✓	✓		
183.	303252	01-19-99/1328	02-01-99/1440			✓	✓		
184.	303251	01-19-99/1317	02-01-99/1442			✓	✓		
185.	303250	01-19-99/1311	02-01-99/1444			✓	✓		
186.	303249	01-19-99/1305	02-01-99/1448			✓	✓		
187.	303038	01-20-99/1219	02-03-99/0950			✓	✓		
188.	303186	01-20-99/1209	02-02-99/1042			✓	✓		
189.	303185	01-20-99/1205	02-02-99/1044	✓			✓	petroleum sheen on water	
190.	303184	01-20-99/1202	02-02-99/1043			✓	✓		
191.	303308	01-20-99/1218	02-01-99/1452			✓	✓		
192.	303307	01-20-99/1208	02-02-99/1800			✓	✓		
193.	303306	01-20-99/1142	02-01-99/1458			✓	✓		
194.	303305	01-20-99/1134	02-01-99/1500		✓		✓		
195.	303304	01-20-99/1125	02-01-99/1502			✓	✓		
196.	303303	01-20-99/1112	02-01-99/1504			✓	✓		
197.	303302	01-20-99/1108	02-01-99/1505			✓	✓		
198.	303301	01-20-99/1104	02-01-99/1507			✓	✓		
199.	303300	01-20-99/1052	02-01-99/1508			✓	✓		
200.	303299 *	01-20-99/1040	02-01-99/1510			✓	✓		
201.	303298	01-20-99/1025	02-02-99/1800			✓	✓	submerged in puddle	
202.	303297	01-20-99/1013	02-01-99/1514			✓	✓		
203.	303296	01-20-99/1007	02-01-99/1516			✓	✓		
204.	303295	01-20-99/0955	02-01-99/1517			✓	✓		
205.	303294	01-20-99/0945	02-01-99/1519			✓	✓		
206.	303293	01-20-99/0930	02-01-99/1520			✓	✓		
207.	303292	01-20-99/0915	02-01-99/1522			✓	✓		
208.	303286	01-20-99/0907	02-01-99/1532			✓	✓		
209.	303285	01-20-99/0856	02-01-99/1540			✓	✓		

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SITE NAME & LOCATION
 Bulk Fuel Storage Facility HAA-09
 Hunter Army Airfield
 Chatham County, GA

SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
210.	303284	01-20-99/0848	02-01-99/1543			✓		✓	
211.	303283	01-20-99/0831	02-01-99/1545			✓	✓		
212.	303282	01-20-99/0826	02-03-99/0940			✓	✓		
213.	303281	01-20-99/0818	02-01-99/1549			✓	✓		
214.	303160	01-20-99/0913	02-02-99/0915			✓	✓		
215.	303081	01-21-99/1027	02-02-99/1544			✓	✓		placed outside berm
216.	303362	01-21-99/1014	02-02-99/1528		✓			✓	
217.	303361	01-21-99/1010	02-02-99/1524		✓			✓	
218.	303077	01-21-99/1004	02-02-99/1515			✓	✓		placed inside berm
219.	303078	01-21-99/1008	02-02-99/1514			✓	✓		
220.	303079	01-21-99/1015	02-02-99/1513			✓	✓		
221.	303350	01-21-99/0923	02-02-99/1512			✓	✓		
222.	303349	01-21-99/0918	02-02-99/1510			✓	✓		
223.	303348	01-21-99/0914	02-02-99/1508			✓	✓		
224.	303347	01-21-99/0909	02-02-99/1507			✓	✓		
225.	303319	01-20-99/1508	02-02-99/1415			✓	✓		
6.	303318	01-20-99/1505	02-02-99/1417			✓	✓		submerged in puddle
227.	303317	01-20-99/1500	02-02-99/1419			✓	✓		submerged in puddle
228.	303316	01-20-99/1456	02-02-99/1420			✓	✓		
229.	303315	01-20-99/1452	02-02-99/1421		✓		✓		
230.	303314	01-20-99/1446	02-02-99/1730			✓	✓		
231.	303313	01-20-99/1442	02-02-99/1055			✓	✓		
232.	303312	01-20-99/1440	02-02-99/1054			✓	✓		
233.	303311	01-20-99/1438	02-02-99/1052			✓	✓		
234.	303310	01-20-99/1434	02-02-99/1051			✓	✓		
235.	303309	01-20-99/1426	02-02-99/1050			✓	✓		placed inside of berm
236.	303161	01-20-99/0935	02-02-99/1031			✓	✓		
237.	303179	01-20-99/1155	02-02-99/1029			✓	✓		
238.	303180	01-20-99/1149	02-02-99/1033			✓	✓		
239.	303181	01-20-99/1135	02-02-99/1035			✓	✓		
240.	303182	01-20-99/1139	02-02-99/1036			✓	✓		
241.	303183	01-20-99/1145	02-02-99/1038			✓	✓		
242.	303177	01-20-99/1125	02-03-99/1500			✓	✓		submerged in Lamar Canal
243.	303176	01-20-99/1122	02-02-99/1015			✓	✓		
244.	303175	01-20-99/1114	02-02-99/1016			✓	✓		
245.	303174	01-20-99/1110	02-02-99/1019			✓	✓		
246.	303178	01-20-99/1117	02-02-99/1021			✓	✓		
247.	303162	01-20-99/0940	02-02-99/1022			✓	✓		
3.	303039	01-20-99/1438	02-02-99/1105			✓	✓		placed inside of berm
249.	303040	01-20-99/1443	02-02-99/1745			✓	✓		
250.	303041	01-20-99/1447	02-02-99/1746			✓	✓		
251.	303042 +	01-20-99/1452	02-02-99/1102			✓	✓		

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Bulk Fuel Storage Facility HAA-09
 Hunter Army Airfield
 Chatham

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SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
252.	303043	01-20-99/1455	02-02-99/1101			✓	✓		
253.	303044	01-20-99/1500	02-02-99/1100			✓	✓		
254.	303327	01-20-99/1532	02-02-99/1423			✓	✓		
255.	303326	01-20-99/1507	02-02-99/1424			✓	✓		
256.	303325	01-20-99/1522	02-02-99/1425			✓	✓		
257.	303324	01-20-99/1516	02-02-99/1426			✓	✓		
258.	303323	01-20-99/1512	02-02-99/1428			✓	✓		
259.	303354	01-21-99/0943	02-02-99/1504			✓	✓		
260.	303353	01-21-99/0940	02-03-99/0900			✓	✓		
261.	303352	01-21-99/0934	02-03-99/0955			✓	✓		
262.	303351	01-21-99/0930	02-03-99/0945			✓	✓		
263.	303080	01-21-99/1020	02-02-99/1522			✓	✓		
264.	303070	01-21-99/0959	02-02-99/1532			✓	✓	placed inside berm	
265.	303364	01-21-99/1029	02-02-99/1538		✓			✓	
266.	303363	01-21-99/1018	02-02-99/1530		✓			✓	
267.	303082	01-21-99/1031	02-02-99/1543			✓	✓	placed outside berm	
268.	303159	01-20-99/0909	02-02-99/0924			✓	✓		
269.	303158	01-20-99/0904	02-02-99/0925			✓	✓		
270.	303083	01-21-99/1035	02-02-99/1542			✓	✓	placed outside berm	
271.	303366	01-21-99/1022	02-02-99/1532			✓		✓	
272.	303365	01-21-99/1026	02-02-99/1535			✓		✓	
273.	303075	01-21-99/0955	02-02-99/1518			✓	✓	placed inside berm	
274.	303074	01-21-99/0951	02-02-99/1519			✓	✓		
275.	303073	01-21-99/0946	02-02-99/1521			✓	✓		
276.	303360	01-21-99/1003	02-02-99/1500		✓		✓		
277.	303355	01-21-99/0945	02-02-99/1506			✓	✓		
278.	303331	01-20-99/1559	02-02-99/1429		✓		✓		
279.	303330	01-20-99/1553	02-02-99/1432			✓	✓		
280.	303329	01-20-99/1548	02-02-99/1425			✓	✓		
281.	303328	01-20-99/1544	02-02-99/1436			✓	✓		
282.	303045	01-20-99/1505	02-02-99/1112			✓	✓		
283.	303046	01-20-99/1509	02-02-99/1111			✓	✓		
284.	303047	01-20-99/1515	02-02-99/1109			✓	✓		
285.	303048	01-20-99/1519	02-02-99/1108			✓	✓		
286.	303049	01-20-99/1523	02-02-99/1107			✓	✓	placed inside of berm	
287.	303163	01-20-99/0945	02-02-99/1021			✓	✓		
288.	303173	01-20-99/1045	02-02-99/1700			✓	✓	submerged in laminar cell	
289.	303172	01-20-99/1039	02-02-99/1010			✓	✓		
290.	303171	01-20-99/1033	02-02-99/1009			✓	✓		
291.	303170	01-20-99/1027	02-02-99/1003			✓	✓		
292.	303164	01-20-99/0949	02-02-99/1031			✓	✓		
293.	303050	01-20-99/1528	02-02-99/1119			✓	✓	placed inside of berm	

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Bulk Fuel Storage Facility HAA-09
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SG LINE #	MODULE #	INSTALLATION DATE/TIME	RETRIEVAL DATE/TIME	EVIDENCE OF LIQUID HYDROCARBONS (LPH) or HYDROCARBON ODOR (Check as appropriate)			MODULE IN WATER (check one)		COMMENTS
				LPH	ODOR	NONE	YES	NO	
294.	303051 +	01-20-99/1534	02-02-99/1118			✓	✓		
295.	303052	01-20-99/1539	02-02-99/1117		✓		✓		
296.	303053	01-20-99/1546	02-02-99/1116			✓	✓		
297.	303054	01-20-99/1552	02-02-99/1115			✓	✓		
298.	303335	01-20-99/1618	02-02-99/1438			✓		✓	
299.	303334	01-20-99/1615	02-02-99/1439		✓		✓		
300.	303333	01-20-99/1608	02-02-99/1440		✓		✓		
301.	303035	with series	303038 - 303033					TRIP BLANK	
302.	303037	"	"					TRIP BLANK	
303.	303084	with series	303086 - 303115, 303117 - 303132					TRIP BLANK	
304.	303085	"	"						
305.	303133	with series	303141 - 303186						
306.	303134	"	"						
307.	303187	with series	303189 - 303234						
308.	303188	"	"						
309.	303287	with series	303235 - 303253, 303260 - 303286						
310.	303288	"	"						
311.	303289	with series	303292 - 303319, 303323 - 303359						
312.	303290	"	"						
313.	303291	"	"						
314.	303035								
315.	303037								
316.	303340	with series	303342 - 303366					TRIP BLANK	
317.	303341	"	"					TRIP BLANK	
318.									
319.									
320.									
321.									
322.									
323.									
324.									
325.									
326.									
327.									
328.									
329.									
330.	Relinquished by	Mitchell	02-03-99/2000						
331.	Relinquished to	Fedex	02-07-99/2000						
332.	Tracking #		1777771050						
333.									
334.									
335.	Mitchell H. Hall	Mitchell H. Hall						SAIC	

DATA TABLE

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 M44-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

DATE ANALYZED	SAMPLE NAME	MDL*	GRPH. ug	DRPH. ug	BTEX. ug	BENZ. ug	TOL. ug	EIBENZ. ug	mpXYL. ug	oXYL. ug	C11, C13, & C15. ug	UNDEC. ug	TRIDEC. ug	PENTADEC. ug	TMBS. ug	124TMB. ug	135TMB. ug	112DCE. ug	12DCE. ug
02/10/99	303097	0.02	0.02	0.01	0.04	0.01	0.03	0.03	0.03	0.03	0.05	0.05	0.00	0.07	0.04	0.04	0.04	0.05	0.08
02/10/99	303098	0.04	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/10/99	303099	0.02	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/10/99	303100	0.00	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303101	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303102	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303103	0.02	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303104	0.00	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303105	0.00	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303106	0.32	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303107	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303108	0.08	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303109	1.33	0.01	0.07	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00	0.04	0.04	0.04	0.05	0.08
02/11/99	303110	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303111	0.00	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303112	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303113	0.32	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303114	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303115	0.02	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303117	0.05	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303118	0.01	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303119	0.03	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303120	0.12	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303121	0.01	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303122	0.05	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303123	0.07	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303124	0.58	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303125	0.09	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303126	0.01	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303127	0.13	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303128	0.02	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	303129	0.03	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303130	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303131	1.87	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303132	0.49	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303141	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303142	0.11	0.06	0.13	0.13	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.04	0.04	0.04	0.05	0.08
02/12/99	303143	0.42	0.05	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.04	0.04	0.04	0.05	0.08
02/12/99	303144	0.02	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303145	0.01	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303146	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303147	0.00	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303148	0.02	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303149	0.04	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303150	0.04	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303151	0.01	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303152	0.03	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303153	0.09	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303154	0.04	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303155	0.08	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303156	0.03	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303157	0.04	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303158	0.02	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303159	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303160	0.02	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303161	0.05	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303162	0.20	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene

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awoclist

GORE SORBER SCREENING ANALYTICAL RESULTS

SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

DATE ANALYZED	SAMPLE NAME	GRPH Ug	DRPH Ug	BTEX Ug	BENZ Ug	TOL Ug	EIBENZ Ug	mpXYL Ug	oXYL Ug	C11, C13, & C15 Ug	UNDEC Ug	TRIDEC Ug	PENTADEC Ug	TMBs Ug	124TMB Ug	135TMB Ug	t12DCE Ug	i12DCE Ug	e12DCE Ug	
	MDL#			0.01	0.04	0.01	0.03	0.03	0.03	0.03	0.05	0.05	0.06	0.07	0.04	0.04	0.05	0.05	0.06	
02/12/99	303163	0.05	0.19	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303164	0.40	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303165	0.45	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303166	0.35	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303167	0.04	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303168	0.03	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303169	0.01	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303170	10.79	3.59	1.88	0.87	nd	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
02/12/99	303171	0.02	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303172	0.03	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303173	0.03	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303174	0.14	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303175	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303176	0.01	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303177	0.48	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303178	0.08	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303179	0.05	0.00	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303180	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303181	0.01	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303182	2.56	0.24	0.18	0.06	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
02/13/99	303183	0.57	0.10	0.12	0.06	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
02/13/99	303184	0.04	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303185	0.15	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303186	0.05	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303189	0.53	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303190	0.14	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303191	1.39	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303192	0.88	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303193	0.71	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303194	0.20	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303195	1.86	0.09	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303196	2.35	0.21	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
02/13/99	303197	2.43	0.21	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
02/13/99	303198	3.24	0.27	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
02/13/99	303199	2.26	0.13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303200	1.48	0.19	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303202	2.42	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303203	3.61	0.33	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303204	0.12	0.06	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303205	0.37	0.09	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303206	2.19	0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303207	3.07	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
02/13/99	303208	2.77	0.09	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	303209	73.22	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
02/13/99	303210	102.74	0.16	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
02/13/99	303211	5.39	0.08	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
02/13/99	303212	24.38	3.10	1.17	0.23	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
02/13/99	303213	3791.61	1258.14	1297.42	8.61	84.93	188.43	279.17	179.15	220.18	76.82	27.88	6.78	377.95	137.52	0.42	0.42	0.42	0.42	0.42
02/13/99	303214	1528.42	539.63	152.99	3.61	2.57	22.32	43.72	8.56	36.62	8.28	7.74	4.58	41.10	17.47	6.16	6.16	6.16	6.16	6.16
02/13/99	303215	6663.50	5138.23	417.12	1.85	0.86	70.11	110.28	30.91	505.27	60.91	153.48	72.50	230.53	94.11	42.31	42.31	42.31	42.31	42.31
02/16/99	303216	189.23	22.07	17.40	4.00	0.37	2.80	0.61	1.64	1.64	0.65	0.14	0.65	9.54	3.73	2.09	2.09	2.09	2.09	2.09
02/16/99	303217	90.15	71.45	2.82	0.21	0.15	0.18	0.60	0.33	14.59	2.73	4.09	0.95	4.53	1.70	1.13	1.13	1.13	1.13	1.13
02/16/99	303218	250.77	11.23	20.50	2.98	0.53	2.86	3.62	0.53	2.14	1.01	1.01	nd	7.47	2.81	1.86	1.86	1.86	1.86	1.86
02/16/99	303219	6.54	2.34	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
02/16/99	303220	11.55	24.83	0.98	0.13	nd	0.26	0.10	nd	0.26	0.40	0.47	0.53	0.81	0.07	0.61	0.61	0.61	0.61	0.61
02/16/99	303221	570.06	285.45	8.02	0.18	0.22	3.28	0.24	0.18	6.74	1.95	0.55	1.78	1.81	0.88	0.66	0.66	0.66	0.66	0.66
02/16/99	303222	2029.01	160.85	87.35	3.02	0.48	11.09	33.94	0.30	12.33	2.17	3.72	0.54	22.90	9.21	4.48	4.48	4.48	4.48	4.48

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorane.

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GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS

SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

DATE ANALYZED	SAMPLE NAME	GRPH, ug	DRPH, ug	BTEX, ug	BENZ, ug	TOL, ug	EIBENZ, ug	mpXYL, ug	oXYL, ug	C11, C13, &C15, ug	UNDEC, ug	TRIDEC, ug	PENTADEC, ug	TMBs, ug	12-TMB, ug	135TMB, ug	c12DCE, ug	112DCE, ug	c12DCE, ug	
02/16/99	303223	3.14	0.30	0.06	0.01	0.04	0.01	0.03	0.03	0.03	0.05	0.06	0.07	0.04	0.04	0.04	0.05	0.05	0.08	
02/16/99	303224	1.29	0.30	0.15	0.08	0.08	0.08	nd	nd	nd	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	
02/16/99	303225	1.26	0.29	0.15	0.08	0.08	0.08	nd	nd	nd	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	
02/16/99	303226	692.21	1.06	2.27	0.35	0.53	0.05	0.17	0.06	0.06	bdl	bdl	0.41	0.15	0.06	0.04	0.06	0.04	0.06	
02/16/99	303227	32.04	50.38	2.28	1.03	0.07	0.04	0.04	0.04	8.40	0.81	3.19	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303228	2.18	0.45	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303229	2410.16	157.21	93.10	12.99	0.70	32.04	0.65	0.35	4.25	0.62	1.14	0.74	0.31	0.12	0.07	0.07	0.04	0.06	
02/16/99	303230	123.49	1.27	14.11	1.34	0.34	1.82	3.52	0.06	0.06	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303231	1.08	0.40	0.10	0.05	0.05	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303232	2182.85	1240.24	527.09	18.16	0.64	238.19	5.37	2.37	14.78	3.59	2.97	1.88	3.78	1.23	1.32	0.06	0.04	0.06	
02/16/99	303233	2068.02	54.25	13.20	2.07	0.70	1.80	2.99	0.27	1.22	0.22	0.38	0.64	2.84	0.91	0.91	0.06	0.04	0.06	
02/16/99	303234	669.06	1518.42	118.23	3.92	1.71	48.40	4.34	1.48	25.81	5.51	6.37	2.04	5.93	2.81	0.30	0.30	0.30	0.30	
02/16/99	303235	1548.47	169.21	4.23	0.31	0.69	0.58	0.45	0.16	0.68	0.90	0.34	0.38	0.22	0.08	0.06	0.06	0.06	0.06	
02/16/99	303236	1535.96	34.80	110.84	13.64	0.65	6.73	34.18	0.44	0.67	0.15	0.17	0.17	34.48	11.88	10.72	0.06	0.06	0.06	
02/16/99	303237	163.62	1.53	0.77	0.16	0.17	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303238	19.05	2.23	0.34	0.12	0.12	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303239	2.58	0.28	0.87	0.09	0.09	0.09	0.09	0.09	0.09	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303240	1805.37	10.82	1.45	0.27	0.24	0.05	0.16	0.16	0.27	0.09	bdl	bdl	0.64	0.24	0.17	0.06	0.06	0.06	
02/16/99	303241	3.77	0.15	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303242	2181.66	70.13	64.84	14.56	0.23	16.97	0.81	0.10	2.23	0.34	0.57	0.40	0.05	0.05	0.05	0.05	0.05	0.05	
02/16/99	303243	24.51	1.41	0.19	0.05	0.10	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303244	3.80	1.96	0.21	0.10	0.10	0.10	0.10	0.10	0.10	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303245	1.80	0.25	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303246	0.85	0.23	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303247	2.80	0.21	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303248	2.49	0.24	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303249	8.82	0.19	0.25	0.41	0.09	0.09	0.09	0.09	0.09	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303250	5.61	0.29	0.41	0.21	0.21	0.21	0.21	0.21	0.21	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303251	0.43	0.19	0.25	0.41	0.09	0.09	0.09	0.09	0.09	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303252	1.07	0.27	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303253	2.28	0.14	0.05	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl
02/16/99	303254	3.30	0.25	0.07	0.10	0.10	0.10	0.10	0.10	0.10	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303255	0.52	0.22	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303256	0.11	0.18	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303257	1.02	0.20	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303258	709.60	109.05	159.82	57.87	0.64	20.55	0.77	0.15	2.53	0.42	0.71	0.28	35.58	17.78	0.06	0.06	0.06	0.06	
02/16/99	303259	281.94	169.87	20.92	2.72	0.52	1.85	4.90	0.96	26.28	2.36	9.12	3.32	9.15	3.14	2.88	0.06	0.06	0.06	
02/16/99	303260	2.01	0.39	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303261	8.99	0.54	0.85	0.17	0.07	0.07	0.07	0.07	0.07	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303262	1.96	0.23	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303263	2.18	0.14	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303264	0.99	0.31	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303265	3.30	15.65	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303266	1.14	0.28	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303267	0.76	0.18	0.10	0.05	0.05	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303268	13.04	0.23	0.07	0.07	0.07	0.07	0.07	0.07	0.07	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303269	3444.86	458.49	875.77	56.81	1.32	132.60	241.95	10.41	13.14	3.00	2.48	2.17	9.41	3.60	2.22	0.06	0.06	0.06	
02/16/99	303270	2.69	1.98	0.24	0.24	0.24	0.24	0.24	0.24	0.24	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303271	0.79	0.62	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303272	0.29	0.56	0.07	0.07	0.07	0.07	0.07	0.07	0.07	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303273	1.84	0.15	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303274	2.09	0.12	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303275	1.93	0.16	0.09	0.05	0.05	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303276	5.57	0.21	0.17	0.05	0.05	0.05	0.05	0.05	0.05	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303277	0.39	0.42	nd	nd	nd	nd	nd	nd	nd	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303278	1.12	8.40	0.16	0.08	0.08	0.08	0.08	0.08	0.08	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	
02/16/99	303279	4.31	0.60	0.34	0.08	0.08	0.08	0.08	0.08	0.08	bdl	bdl	0.41	0.15	0.05	0.06	0.06	0.04	0.06	

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorone.

CORE SORBER SCREENING ANALYTICAL RESULTS
SAIC, O'JE, TN
CORE EXPANDED TARGET VOCs(S)/VOCs (A4)
HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
SITE AWO - PRODUCTION ORDER #10054437

DATE ANALYZED	SAMPLE NAME MDLE	GRPH ug	DRPH ug	BTEX ug	BENZ ug	TOL ug	EIBENZ ug	mpXYL ug	oXYL ug	C11, C13, &C15 ug	UNDEC ug	TRIDEC ug	PENTADEC ug	TMBs ug	124TMB ug	135TMB ug	t12DCE ug	112DCE ug	t17DCE ug
01/17/99	303288	0.99	0.25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/17/99	303292	3.61	5.65	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/18/99	303293	6.42	23.52	0.68	0.12	0.08	bdl	0.09	0.07	0.15	bdl	bdl	bdl	0.11	0.04	bdl	0.04	nd	nd
02/18/99	303294	1.32	6.32	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/18/99	303295	6.53	30.40	0.46	0.10	0.06	nd	0.06	nd	0.12	bdl	bdl	bdl	0.04	bdl	bdl	nd	nd	nd
02/18/99	303296	8.70	34.23	0.13	0.07	0.07	nd	0.06	0.03	0.20	0.50	0.44	0.08	0.14	0.06	bdl	nd	nd	nd
02/18/99	303297	8.96	5.06	0.51	0.11	0.05	nd	0.06	0.03	0.15	bdl	bdl	bdl	0.12	0.05	bdl	nd	nd	nd
02/18/99	303298	5.77	0.44	0.28	0.08	nd	nd	0.06	0.06	0.04	bdl	bdl	bdl	0.10	0.04	bdl	nd	nd	nd
02/18/99	303299	5.13	0.47	0.31	0.10	nd	nd	0.04	0.04	bdl	bdl	bdl	bdl	0.14	0.08	bdl	nd	nd	nd
02/18/99	303300	1.18	0.18	nd	nd	nd	nd	nd	nd	bdl	bdl	bdl	bdl	0.08	0.14	bdl	nd	nd	nd
02/18/99	303301	44.81	1.02	0.46	0.05	nd	nd	0.03	nd	nd	nd	nd	nd	0.27	0.11	0.05	nd	nd	nd
02/18/99	303302	35.82	3.10	0.30	0.10	nd	nd	0.05	0.05	0.08	bdl	bdl	bdl	0.10	bdl	0.05	nd	nd	nd
02/18/99	303303	29.63	6.01	3.53	0.25	0.23	0.21	0.05	0.46	0.86	0.26	bdl	bdl	0.10	bdl	0.47	nd	nd	nd
02/18/99	303304	19.21	5.70	2.58	0.88	nd	0.16	0.74	0.62	0.87	0.43	bdl	bdl	2.95	1.24	0.47	nd	nd	nd
02/18/99	303305	282.68	1738.59	280.72	0.85	0.21	10.24	77.16	103.82	450.41	147.26	70.21	15.49	587.71	251.90	93.91	nd	nd	nd
02/18/99	303306	1.87	2.38	0.14	bdl	bdl	nd	bdl	0.03	0.26	0.06	bdl	bdl	0.36	0.25	0.06	nd	nd	nd
02/18/99	303307	8.53	1.24	0.25	0.05	0.10	nd	0.07	nd	0.13	0.06	bdl	bdl	0.35	0.15	0.04	nd	nd	nd
02/18/99	303308	512.26	2.74	1.39	0.27	0.10	0.06	0.23	0.08	0.22	0.10	bdl	bdl	0.66	0.27	0.13	nd	nd	nd
02/18/99	303309	9.23	1.15	0.66	0.22	nd	bdl	0.08	0.03	0.05	bdl	bdl	bdl	0.17	0.07	bdl	nd	nd	nd
02/18/99	303310	6.12	0.61	0.23	0.12	nd	nd	nd	nd	0.05	bdl	bdl	bdl	0.07	bdl	bdl	nd	nd	nd
02/18/99	303311	8.28	0.91	0.43	0.07	nd	nd	nd	nd	bdl	bdl	bdl	bdl	0.07	bdl	bdl	nd	nd	nd
02/18/99	303312	12.75	0.86	0.41	0.08	nd	bdl	0.09	0.08	bdl	bdl	bdl	bdl	0.07	0.12	0.04	nd	nd	nd
02/18/99	303313	12.47	0.34	0.19	0.10	nd	nd	0.04	nd	bdl	bdl	bdl	bdl	0.28	0.12	0.04	nd	nd	nd
02/18/99	303314	31.01	0.93	0.86	0.25	0.08	bdl	0.09	nd	nd	nd	nd	nd	0.15	0.06	bdl	nd	nd	nd
02/18/99	303315	10.07	0.20	0.29	0.08	bdl	nd	0.07	nd	bdl	bdl	bdl	bdl	0.11	bdl	bdl	nd	nd	nd
02/18/99	303316	17.28	0.62	0.80	0.10	0.04	0.05	0.18	0.05	bdl	bdl	bdl	bdl	0.06	bdl	bdl	nd	nd	nd
02/18/99	303317	4.61	0.15	0.18	0.08	nd	nd	nd	nd	bdl	bdl	bdl	bdl	0.29	0.11	0.06	nd	nd	nd
02/18/99	303318	0.45	0.85	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.04	bdl	bdl	nd	nd	nd
02/18/99	303319	24.21	0.83	1.02	0.14	0.02	0.08	0.27	nd	nd	nd	nd	nd	0.29	0.12	0.06	nd	nd	nd
02/18/99	303323	4.88	0.19	0.12	0.06	nd	nd	nd	nd	bdl	bdl	bdl	bdl	0.11	nd	nd	nd	nd	nd
02/18/99	303324	1712.96	80.99	365.14	20.22	12.31	40.61	92.40	33.68	18.43	1.16	5.95	2.20	29.46	11.76	5.94	nd	nd	nd
02/18/99	303325	62.86	1.27	1.99	0.42	0.08	0.10	0.36	0.09	0.07	bdl	bdl	bdl	0.35	0.12	0.10	nd	nd	nd
02/18/99	303326	7.71	5.39	0.40	0.13	nd	nd	0.06	nd	0.30	bdl	bdl	0.09	0.08	0.07	bdl	nd	nd	nd
02/18/99	303327	8.70	0.30	0.14	0.07	0.05	nd	nd	nd	nd	nd	nd	nd	0.06	bdl	bdl	nd	nd	nd
02/18/99	303328	8.76	0.95	1.78	0.39	0.05	0.10	0.35	nd	0.05	bdl	bdl	bdl	0.25	0.10	0.06	nd	nd	nd
02/18/99	303331	53.63	4.37	2.63	0.41	0.08	0.17	0.82	0.07	0.99	0.16	bdl	bdl	0.35	0.43	0.29	nd	nd	nd
02/18/99	303332	6.50	7.25	0.61	0.10	nd	nd	0.04	0.17	0.08	0.58	0.25	bdl	1.16	0.43	0.29	nd	nd	nd
02/18/99	303333	2874.02	136.98	128.99	9.07	1.44	15.54	37.87	1.15	24.25	2.85	8.78	0.99	18.50	7.00	4.50	nd	nd	nd
02/18/99	303335	27.70	12.41	1.22	0.10	0.03	0.11	0.37	nd	0.12	0.47	0.08	bdl	0.50	0.16	0.19	nd	nd	nd
02/18/99	303336	42.65	2.44	1.94	0.40	0.07	0.10	0.38	0.03	0.14	0.06	bdl	bdl	1.46	0.58	0.40	nd	nd	nd
02/18/99	303337	57.51	1.96	1.69	0.35	0.06	0.11	0.31	bdl	0.14	0.06	bdl	bdl	0.47	0.18	0.11	nd	nd	nd
02/18/99	303339	67.81	94.94	4.67	0.53	0.09	0.38	1.24	0.19	25.22	7.56	4.89	0.73	2.41	0.90	0.80	nd	nd	nd
02/18/99	303342	11.28	4.13	0.32	0.07	nd	nd	0.07	nd	0.07	0.45	0.20	bdl	0.60	0.24	0.60	nd	nd	nd
02/18/99	303343	7.52	2.01	0.41	0.07	0.06	bdl	0.06	0.06	0.19	0.08	bdl	bdl	0.24	0.09	0.05	nd	nd	nd
02/18/99	303344	10.71	1.28	0.48	0.07	nd	nd	0.11	0.06	0.09	bdl	bdl	bdl	0.15	0.06	bdl	nd	nd	nd
02/18/99	303345	28.76	0.78	0.37	0.05	0.07	nd	0.07	nd	bdl	bdl	bdl	bdl	0.14	0.06	bdl	nd	nd	nd
02/18/99	303346	5.55	11.50	0.05	bdl	bdl	nd	nd	nd	0.38	bdl	bdl	bdl	0.10	0.06	bdl	nd	nd	nd
02/18/99	303347	7.48	0.71	0.10	0.05	nd	nd	nd	nd	12.67	2.75	2.37	2.63	3.07	1.21	0.66	nd	nd	nd
02/18/99	303348	14.42	91.13	2.48	0.08	0.07	0.38	0.50	0.44	0.44	bdl	bdl	bdl	0.06	bdl	bdl	nd	nd	nd
02/18/99	303349	4.51	0.43	0.21	0.06	nd	nd	0.05	0.03	bdl	bdl	bdl	bdl	0.12	0.08	nd	nd	nd	nd
02/18/99	303350	5.47	0.45	0.15	0.04	nd	nd	0.03	bdl	bdl	bdl	bdl	bdl	0.04	bdl	bdl	nd	nd	nd
02/18/99	303351	9.46	0.30	0.05	nd	nd	nd	nd	nd	0.15	0.06	bdl	bdl	0.04	bdl	bdl	nd	nd	nd
02/18/99	303352	89.41	2.88	18.37	0.52	0.48	0.99	6.90	0.99	0.15	0.06	bdl	bdl	25.05	10.71	3.82	nd	nd	nd
02/18/99	303353	1629.51	2.57	0.04	nd	0.02	nd	0.07	bdl	0.07	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd
02/18/99	303354	1.28	0.45	nd	nd	nd	nd	nd	nd	bdl	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd
02/18/99	303355	6.41	0.54	0.15	bdl	bdl	nd	0.04	nd	bdl	bdl	bdl	bdl	0.08	bdl	bdl	nd	nd	nd
02/18/99	303356	24.68	0.70	0.12	nd	0.06	nd	nd	nd	bdl	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.
3/12/99

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS

SAIC, OAK RIDGE, TN

GORE EXPANDED TARGET VOC&SVOCs (A4)

HAA-08 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD

SITE AWO - PRODUCTION ORDER #10054437

DATE ANALYZED	SAMPLE NAME	GRPH ug	DRPH ug	BTEX ug	BENZ ug	TOL ug	EIBENZ ug	mpXYL ug	oXYL ug	C11, C13, &C15 ug	UNDEC ug	TRIDEC ug	PENTADEC ug	TMBS ug	124TMB ug	135TMB ug	c12DCE ug
02/19/99	303357	107.47	2.20	1.29	0.01	0.04	0.01	0.03	0.03	0.05	0.05	0.06	0.07	0.04	0.04	0.05	0.08
02/19/99	303358	743.83	7.03	178.67	1.78	3.31	12.89	66.71	9.30	0.87	0.40	0.40	0.40	30.54	11.34	7.85	0.08
02/19/99	303359	1609.68	1.71	0.35	0.09	0.06	0.04	0.11	0.22	0.10	0.23	0.23	0.23	0.08	0.12	0.04	0.12
02/19/99	303360	29.33	3.93	0.53	0.06	0.45	0.75	0.37	0.10	15.57	4.65	4.65	4.65	3.84	1.56	0.72	0.12
02/19/99	303361	82.50	136.73	3.35	0.45	0.33	0.12	0.47	0.17	236.07	51.20	116.36	116.36	0.34	0.34	0.08	0.12
02/19/99	303362	4368.56	5208.41	189.77	1.71	0.24	29.81	52.69	1.27	396.07	23.69	57.97	57.97	377.44	159.14	59.16	0.12
02/19/99	303363	1938.85	590.84	63.52	1.26	0.46	4.34	25.61	0.17	1.59	0.39	0.25	0.32	2.35	0.68	1.00	0.12
02/19/99	303366	2116.21	359.61	0.45	1.01	0.05	0.05	0.05	0.05	0.36	0.07	0.06	0.06	0.06	0.06	0.06	0.08
02/19/99	303329	3798.92	290.22	689.23	33.59	23.66	103.38	181.59	4.79	28.58	11.83	2.41	2.41	158.71	62.23	34.26	0.12
02/19/99	303330	4219.51	289.49	614.39	13.50	18.95	108.94	146.91	38.97	44.80	20.05	2.30	2.30	161.93	59.22	43.50	0.12
02/19/99	303334	4361.03	236.38	531.57	20.45	5.87	101.76	136.85	2.09	30.65	13.87	1.45	1.45	144.04	53.79	36.47	0.12
02/19/99	303338	4039.98	181.75	611.61	117.77	2.36	95.44	89.64	1.21	14.68	6.59	0.74	0.74	157.45	82.13	33.19	0.12
02/19/99	303363	262.69	1837.95	72.72	0.79	0.25	10.55	24.66	0.22	33.24	13.21	2.13	2.13	2.57	55.75	23.95	0.12
02/19/99	303364	1001.02	1216.81	31.85	0.29	0.10	6.43	8.00	0.23	4.19	0.41	1.07	1.07	1.24	42.01	3.50	0.12
02/08/99	303035	0.00	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/09/99	303037	0.11	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/10/99	303084	0.07	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/10/99	303085	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303133	0.02	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/12/99	303134	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303187	nd	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303189	nd	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303287	0.01	0.30	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303288	0.38	0.38	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303289	0.13	0.47	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303290	0.12	0.43	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303291	0.02	0.18	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	303340	2.92	0.51	0.43	nd	nd	0.04	0.18	nd	nd	nd	nd	nd	0.16	0.06	0.06	0.08
02/19/99	303341	0.91	0.37	0.09	nd	nd	nd	0.05	nd	nd	nd	nd	nd	nd	0.05	0.05	0.06
02/09/99	method blank	0.03	1.41	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/09/99	method blank	0.01	0.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/10/99	method blank	0.01	0.23	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/11/99	method blank	nd	0.13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/13/99	method blank	nd	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/15/99	method blank	0.02	0.23	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/16/99	method blank	0.14	0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/17/99	method blank	0.00	0.17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/17/99	method blank	0.01	0.31	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	method blank	0.01	1.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	method blank	0.02	0.29	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
02/19/99	Maximum	8663.90	5208.41	739.28	57.87	84.93	238.19	278.17	179.15	288.69	147.26	155.48	155.48	116.36	251.90	102.91	0.00
02/19/99	Standard Dev	699.52	516.05	57.58	5.19	5.01	20.23	24.51	12.57	27.75	10.84	11.27	11.27	9.07	28.75	19.06	0.00
02/19/99	Mean	202.10	84.15	10.05	0.88	0.42	3.24	4.11	1.41	4.07	1.43	1.55	1.55	1.09	3.98	2.71	0.00

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

GORE SORBER SCREENING ANALYTICAL RESULTS
 SAIC, OA
 E. TN
 GORE EXPANDED TARP (VOCs/SVOCs (A4))
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Combined PAHs, ug	NAPH1&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	11DCA, ug	111TCA, ug	12DCA, ug	TCE, ug	DCT, ug	PCE, ug	14DCB, ug	Acenaphthene, ug	Acenaphthylene, ug	Fluorene, ug	PHEN, ug	Anthracene, ug	Fluoranthene, ug
303038	0.04	0.04	0.04	0.05	0.45	0.26	0.10	0.06	0.06	0.03	0.02	0.03	0.06	0.05	0.05	0.05	0.05	0.05
303039	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303040	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303041	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303042	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303043	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303044	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303045	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303046	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303047	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303048	1.89	1.67	0.19	1.28	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303049	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303050	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303051	0.07	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303052	12.14	12.07	4.63	2.81	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303053	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303054	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303055	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303056	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303058	5.17	4.73	0.47	3.88	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303059	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303060	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303061	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303062	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303063	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303064	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303065	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303066	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303067	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303068	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303069	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303070	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303071	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303072	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303073	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303074	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303075	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303076	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303077	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303078	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303079	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303080	0.12	0.12	0.05	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303081	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303082	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303083	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303086	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303087	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303089	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303090	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303091	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303092	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303093	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303094	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303095	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303096	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene

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GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 CORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWD - PRODUCTION ORDER #10654437

SAMPLE NAME	Combined PAHs, ug	NAPH&2-MN, ug	NAPHI, ug	2MeNAPH, ug	MTBE, ug	1,1-DCA, ug	1,1,1-TCA, ug	1,2-DCA, ug	TCE, ug	OCT, ug	PCE, ug	1,4-DCB, ug	Acenaphthene, ug	Acenaphthylene, ug	Fluorene, ug	PHEN, ug	Anthracene, ug	Fluoranthene, ug	
	0.04	0.04	0.04	0.05	0.45	0.29	0.10	0.08	0.06	0.03	0.02	0.03	0.08	0.05	0.05	0.05	0.05	0.05	
303033	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303038	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303039	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303101	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303102	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303103	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303104	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303105	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303106	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303107	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303108	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303109	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303110	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303111	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303112	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303113	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303114	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303115	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303116	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303117	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303118	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303119	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303120	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303121	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303122	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303123	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303124	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303125	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303126	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303127	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303128	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303129	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303130	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303131	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303132	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303141	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303142	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303143	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303144	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303145	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303146	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303147	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303148	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303149	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303150	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303151	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303152	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303153	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303154	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303155	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303156	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303157	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303158	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303159	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303160	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303161	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303162	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

GORE SORBER SCREENING ANALYTICAL RESULTS
 SAIC, O.A. SE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Combined PAHs, ug	NAPH&2-MN, ug	NAPH, ug	2MONAPH, ug	MTBE, ug	11DCA, ug	111TCA, ug	12DCA, ug	TCE, ug	OC, ug	PCE, ug	14DCB, ug	Acenaphthene, ug	Acenaphthylene, ug	Fluorene, ug	PhEN, ug	Anthracene, ug	Fluoranthene, ug
303184	12.76	0.04	0.04	0.04	0.05	0.45	0.29	0.10	0.06	0.08	0.03	0.02	0.03	0.06	0.05	0.05	0.05	0.05
303185	0.12	1.96	0.84	0.84	0.29	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303186	0.12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303187	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303188	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303189	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303170	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303171	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303172	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303173	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303174	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303175	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303176	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303177	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303178	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303179	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303180	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303181	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303182	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303183	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303184	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303185	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303186	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303187	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303188	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303189	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303190	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303191	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303192	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303193	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303194	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303195	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303196	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303197	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303198	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303199	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303200	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303201	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303202	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303203	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303204	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303205	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303206	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303207	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303208	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303209	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303210	0.12	0.06	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303211	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303212	0.65	0.22	0.21	0.21	0.21	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303213	18.00	15.01	4.84	5.33	5.33	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303214	1.59	1.23	0.25	0.73	0.73	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303215	59.45	18.61	4.25	10.11	10.11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303216	7.98	2.05	0.85	0.36	0.36	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303217	4.44	3.76	0.67	2.41	2.41	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303218	2.81	2.65	0.62	1.01	1.01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303219	0.13	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303220	1.37	1.24	0.31	0.62	0.62	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303221	8.32	7.80	1.07	5.65	5.65	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303222	3.23	3.07	0.20	2.66	2.66	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

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GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOC&SVOCs (44)
 HAA-06 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10654437

SAMPLE NAME	Combined PAHs, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	11:1DCA, ug	12DCA, ug	TCE, ug	OCT, ug	PCE, ug	14DCB, ug	Acenaphthene, ug	Acenaphthylene, ug	Fluorene, ug	PHEN, ug	Anthracene, ug	Fluoranthene, ug	
ID#	0.04	0.04	0.04	0.05	0.45	0.28	0.10	0.06	0.03	0.02	0.03	0.06	0.05	0.05	0.05	0.05	0.05	
303218	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.05
303224	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303225	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303226	nd	nd	nd	nd	nd	nd	nd	nd	3.57	nd	nd	nd	nd	nd	nd	nd	nd	nd
303227	0.07	nd	nd	bdl	1.44	nd	nd	nd	0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd
303228	11.95	11.31	5.48	0.36	nd	nd	nd	nd	9.56	nd	0.60	0.60	0.43	0.95	0.24	0.16	0.16	0.16
303230	10.38	7.96	1.08	5.80	0.08	nd	nd	nd	0.31	nd	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
303231	2.94	2.91	1.42	0.08	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303232	0.33	0.33	0.16	0.08	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303233	53.24	47.86	18.94	9.99	nd	nd	nd	nd	3.38	nd	nd	nd	nd	nd	nd	nd	nd	nd
303234	2.11	1.93	0.21	1.51	nd	nd	nd	nd	19.60	nd	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
303235	80.04	76.66	31.88	12.90	nd	nd	nd	nd	7.10	nd	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
303236	3.08	2.88	0.79	1.29	nd	nd	nd	nd	0.85	nd	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
303237	8.16	5.54	0.92	3.69	nd	nd	nd	0.07	8.19	nd	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
303238	7.28	0.19	0.07	bdl	nd	nd	nd	nd	0.75	nd	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57
303239	0.13	nd	nd	nd	nd	nd	nd	nd	0.75	nd	nd	nd	nd	nd	nd	nd	nd	nd
303240	4.93	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303241	0.15	0.11	0.08	0.24	nd	nd	nd	nd	0.53	nd	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
303242	28.21	8.29	3.18	1.93	nd	nd	nd	nd	7.10	nd	5.08	5.08	5.08	5.08	5.08	5.08	5.08	5.08
303243	16.58	9.43	3.93	1.56	nd	nd	nd	nd	0.07	nd	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39
303244	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303245	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303246	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303247	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303248	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303249	nd	nd	nd	nd	nd	nd	nd	nd	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd
303250	nd	nd	nd	nd	nd	nd	nd	nd	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd
303251	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303252	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303253	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303254	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303255	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303256	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303257	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303258	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303259	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303260	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303261	nd	nd	nd	nd	nd	nd	nd	nd	0.17	nd	nd	nd	nd	nd	nd	nd	nd	nd
303262	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303263	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303264	17.93	17.67	4.51	6.64	nd	nd	nd	nd	2.39	nd	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
303265	3.30	3.12	0.51	2.11	nd	nd	nd	nd	12.30	nd	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
303266	nd	nd	nd	nd	nd	nd	nd	nd	0.17	nd	nd	nd	nd	nd	nd	nd	nd	nd
303267	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303268	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303269	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303270	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303271	0.07	0.05	bdl	bdl	0.79	nd	nd	nd	nd	nd	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl
303272	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303273	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303274	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303275	16.59	11.08	0.10	0.89	nd	nd	nd	nd	23.89	nd	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
303276	0.89	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303277	0.89	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303278	0.09	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303279	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303280	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303281	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303282	nd	nd	nd	nd	nd	nd	nd	nd	0.31	nd	nd	nd	nd	nd	nd	nd	nd	nd
303283	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303284	0.11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303285	nd	nd	nd	nd	nd	nd	nd	nd	0.22	nd	nd	nd	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

GORE SORBER SCREENING ANALYTICAL RESULTS
 SAIC, O. JE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Combined PAHs ug MDL=	NAPH&2-MN. ug MDL=	NAPH. ug MDL=	2MeNAPH. ug MDL=	MTBE. ug MDL=	11DOCA. ug MDL=	111TCA. ug MDL=	12DOCA. ug MDL=	TCE. ug MDL=	OCT. ug MDL=	PCE. ug MDL=	14DCB. ug MDL=	Acenaphthene. ug MDL=	Acenaphthylene. ug MDL=	Fluorene. ug MDL=	PHEN. ug MDL=	Anthracene. ug MDL=	Fluoranthene. ug MDL=	
303292	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303293	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303294	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303295	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303296	0.39	0.33	0.09	0.16	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303297	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303298	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303299	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303300	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303301	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303302	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303303	0.06	0.09	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303304	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303305	49.06	47.06	16.37	14.34	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303306	bdl	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303307	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303308	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303309	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303310	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303311	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303312	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303313	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303314	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303315	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303316	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303317	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303318	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303319	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303320	6.90	6.65	0.89	4.88	1.17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303321	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303322	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303323	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303324	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303325	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303326	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303327	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303328	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303331	0.06	0.09	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303332	bdl	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303333	5.22	5.15	1.16	2.84	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303335	0.16	0.16	0.06	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303336	bdl	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303337	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303339	1.14	1.14	0.35	0.45	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303342	bdl	bdl	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303343	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303344	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303345	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303346	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303347	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303348	20.49	19.16	3.68	11.80	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303349	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303350	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303351	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303352	3.78	3.78	1.82	0.14	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303353	0.08	0.08	bdl	bdl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303354	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303355	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303356	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

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GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Combined PAHs, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	11DCA, ug	11TCA, ug	12DCA, ug	TCE, ug	OCT, ug	PCE, ug	14DCB, ug	Acenaphthene, ug	Acenaphthylene, ug	Fluorene, ug	PHEN, ug	Anthracene, ug	Fluoranthene, ug
303110	0.04	0.04	0.04	0.04	0.05	0.45	0.29	0.10	0.06	0.08	0.02	0.08	0.06	0.05	0.05	0.05	0.05	0.05
303158	0.81	0.81	0.81	0.81	bbl	nd	nd	nd	nd	nd	0.10	nd	nd	nd	nd	nd	nd	nd
303159	5.14	5.14	2.09	2.09	0.97	bbl	nd	nd	nd	8.34	nd	nd	nd	nd	nd	nd	nd	nd
303160	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.58	nd	nd	nd	nd	nd	nd	nd	nd
303161	28.86	nd	bbl	bbl	bbl	nd	nd	nd	nd	0.26	nd	nd	nd	nd	nd	nd	nd	nd
303162	42.24	25.22	4.21	16.81	16.81	nd	nd	nd	nd	0.89	nd	nd	0.75	0.15	1.23	1.36	0.12	bbl
303163	146.64	7.27	7.27	15.68	60.27	nd	nd	nd	nd	2.59	nd	nd	3.09	1.09	6.83	0.93	0.09	nd
303165	0.90	0.90	0.10	28.25	60.27	nd	nd	nd	nd	7.04	nd	nd	7.04	4.78	6.59	8.98	1.48	bbl
303166	0.43	0.43	0.19	0.13	0.14	bbl	nd	nd	nd	6.19	nd	nd	bbl	bbl	bbl	0.08	0.43	bbl
303329	14.45	14.45	5.76	2.93	2.93	nd	nd	nd	nd	0.53	nd	nd	bbl	nd	bbl	0.05	0.16	0.16
303330	10.81	10.81	4.41	1.99	1.99	nd	nd	nd	nd	356.96	nd	nd	nd	nd	nd	nd	nd	nd
303334	12.53	12.53	5.20	2.13	2.13	nd	nd	nd	nd	470.89	nd	nd	nd	nd	nd	nd	nd	nd
303308	13.24	13.24	5.96	2.13	2.13	nd	nd	nd	nd	419.36	nd	nd	nd	nd	nd	nd	nd	nd
303363	35.27	8.45	2.45	3.55	3.55	nd	nd	nd	nd	409.27	nd	nd	nd	nd	nd	nd	nd	nd
303364	8.87	5.39	1.61	2.16	2.16	nd	nd	nd	nd	18.70	nd	nd	0.24	0.07	0.80	21.13	4.55	bbl
303035	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.58	nd	nd	0.13	0.05	0.07	1.93	0.43	0.67
303037	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303084	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303085	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303133	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303134	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303187	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303188	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303287	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303288	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.05	nd	nd	nd	nd	nd	nd	nd	nd
303290	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303291	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
303340	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.33	nd	nd	nd	nd	nd	nd	nd	nd
303341	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.09	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NAME	Combined PAHs, ug	NAPH&2-MN, ug	NAPH, ug	2MeNAPH, ug	MTBE, ug	11DCA, ug	11TCA, ug	12DCA, ug	TCE, ug	OCT, ug	PCE, ug	14DCB, ug	Acenaphthene, ug	Acenaphthylene, ug	Fluorene, ug	PHEN, ug	Anthracene, ug	Fluoranthene, ug
Maximum	118.43	88.52	31.88	60.27	60.27	1.44	0.05	0.09	0.14	0.00	546.53	0.00	7.04	4.78	6.83	15.04	3.58	13.71
Standard Dev.	9.42	6.72	2.88	4.12	4.12	0.12	0.00	0.00	0.01	0.00	37.28	0.00	0.66	0.29	0.84	1.25	0.28	0.90
Mean	1.98	1.28	0.54	0.74	0.01	0.00	0.00	0.00	0.00	4.93	0.00	0.00	0.13	0.03	0.11	0.20	0.04	0.10

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

GORE SORBER SCREENING ANALYTICAL RESULTS
 SAIC, C. GE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (44)
 HAA-08 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Pyrene, ug	CHCl3, ug	CCl4, ug	CIBENZ, ug
303038	0.05	0.09	0.27	0.03
303039	nd	nd	nd	nd
303040	nd	nd	nd	nd
303041	nd	nd	nd	nd
303042	nd	nd	nd	nd
303043	nd	nd	nd	nd
303044	nd	nd	nd	nd
303045	nd	nd	nd	nd
303046	nd	nd	nd	nd
303047	nd	nd	nd	nd
303048	nd	nd	nd	nd
303049	nd	nd	nd	nd
303050	nd	nd	nd	nd
303051	nd	nd	nd	nd
303052	nd	nd	nd	nd
303053	nd	nd	nd	nd
303054	nd	nd	nd	nd
303055	nd	nd	nd	nd
303056	nd	nd	nd	nd
303057	nd	nd	nd	nd
303058	nd	nd	nd	nd
303059	nd	nd	nd	nd
303060	nd	nd	nd	nd
303061	nd	nd	nd	nd
303062	nd	nd	nd	nd
303063	nd	nd	nd	nd
303064	nd	nd	nd	nd
303065	nd	nd	nd	nd
303066	nd	nd	nd	nd
303067	nd	nd	nd	nd
303068	nd	nd	nd	nd
303069	nd	nd	nd	nd
303070	nd	nd	nd	nd
303071	nd	nd	nd	nd
303072	nd	nd	nd	nd
303073	nd	nd	nd	nd
303074	nd	nd	nd	nd
303075	nd	nd	nd	nd
303076	nd	nd	nd	nd
303077	nd	nd	nd	nd
303078	nd	nd	nd	nd
303079	nd	nd	nd	nd
303080	nd	nd	nd	nd
303081	nd	nd	nd	nd
303082	nd	nd	nd	nd
303083	nd	nd	nd	nd
303086	nd	nd	nd	nd
303087	nd	nd	nd	nd
303088	nd	nd	nd	nd
303089	nd	nd	nd	nd
303090	nd	nd	nd	nd
303091	nd	nd	nd	nd
303092	nd	nd	nd	nd
303093	nd	nd	nd	nd
303094	nd	nd	nd	nd
303095	nd	nd	nd	nd
303096	nd	nd	nd	nd

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Pyrene, ug	CHCl3, ug	CCl4, ug	CIBENZ, ug
MDLF	0.05	0.06	0.27	0.03
303098	nd	nd	nd	nd
303099	nd	nd	nd	nd
303100	nd	nd	nd	nd
303101	nd	nd	nd	nd
303102	nd	nd	nd	nd
303103	nd	nd	nd	nd
303104	nd	nd	nd	nd
303105	nd	nd	nd	nd
303106	nd	nd	nd	nd
303107	nd	nd	nd	nd
303108	nd	nd	nd	nd
303109	nd	nd	nd	nd
303110	nd	nd	nd	nd
303111	nd	nd	nd	nd
303112	nd	nd	nd	nd
303113	nd	nd	nd	nd
303114	nd	nd	nd	nd
303115	nd	nd	nd	nd
303117	nd	nd	nd	nd
303118	nd	nd	nd	nd
303119	nd	nd	nd	nd
303120	nd	nd	nd	nd
303121	nd	nd	nd	nd
303122	nd	nd	nd	nd
303123	nd	nd	nd	nd
303124	nd	nd	nd	nd
303125	nd	nd	nd	nd
303126	nd	nd	nd	nd
303127	nd	nd	nd	nd
303128	nd	nd	nd	nd
303129	nd	nd	nd	nd
303130	nd	nd	nd	nd
303131	nd	nd	nd	nd
303132	nd	nd	nd	nd
303141	nd	nd	nd	nd
303142	nd	nd	nd	nd
303143	nd	nd	nd	nd
303144	nd	nd	nd	nd
303145	nd	nd	nd	nd
303146	nd	nd	nd	nd
303147	nd	nd	nd	nd
303148	nd	nd	nd	nd
303149	nd	nd	nd	nd
303150	nd	nd	nd	nd
303151	nd	nd	nd	nd
303152	nd	nd	nd	nd
303153	nd	nd	nd	nd
303154	nd	nd	nd	nd
303155	nd	nd	nd	nd
303156	nd	nd	nd	nd
303157	nd	nd	nd	nd
303158	nd	nd	nd	nd
303159	nd	nd	nd	nd
303160	nd	nd	nd	nd
303161	nd	nd	nd	nd
303162	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.
 3/12/99

SAMPLE NAME	Pyrene, ug	CHC3, ug	CC4, ug	CIBENZ, ug
MDL#	0.05	0.09	0.27	0.03
303164	0.40	nd	nd	nd
303165	nd	nd	nd	nd
303166	nd	nd	nd	nd
303167	nd	nd	nd	nd
303168	nd	nd	nd	nd
303169	nd	nd	nd	nd
303170	nd	nd	nd	nd
303171	nd	nd	nd	nd
303172	nd	nd	nd	nd
303173	nd	nd	nd	nd
303174	nd	nd	nd	nd
303175	nd	nd	nd	nd
303176	nd	nd	nd	nd
303177	nd	nd	nd	nd
303178	nd	nd	nd	nd
303179	nd	nd	nd	nd
303180	nd	nd	nd	nd
303181	nd	nd	nd	nd
303182	nd	nd	nd	nd
303183	nd	nd	nd	nd
303184	nd	nd	nd	nd
303185	nd	nd	nd	nd
303186	nd	nd	nd	nd
303189	nd	nd	nd	nd
303190	nd	nd	nd	nd
303191	nd	nd	nd	nd
303192	nd	nd	nd	nd
303193	nd	nd	nd	nd
303194	nd	nd	nd	nd
303195	nd	nd	nd	nd
303196	nd	nd	nd	nd
303197	nd	nd	nd	nd
303198	nd	nd	nd	nd
303199	nd	nd	nd	nd
303199	nd	nd	nd	nd
303200	nd	nd	nd	nd
303202	nd	nd	nd	nd
303203	nd	nd	nd	nd
303204	nd	nd	nd	nd
303205	nd	nd	nd	nd
303206	nd	nd	nd	nd
303207	nd	nd	nd	nd
303208	nd	nd	nd	nd
303209	nd	nd	nd	nd
303210	nd	nd	nd	nd
303211	nd	nd	nd	nd
303212	nd	nd	nd	nd
303213	nd	nd	nd	nd
303214	nd	nd	nd	nd
303215	9.25	nd	nd	nd
303216	6.32	nd	nd	nd
303217	0.89	nd	nd	nd
303218	0.23	nd	nd	nd
303219	0.08	nd	nd	nd
303220	nd	nd	nd	nd
303221	0.05	nd	nd	nd
303222	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWC - PRODUCTION ORDER #10654437

SAMPLE NAME	Pyrene, ug	ChC13, ug	CC4, ug	ChBENZ, ug
MDL=	0.05	0.09	0.27	0.03
303221	nd	nd	nd	nd
303224	nd	nd	nd	nd
303225	nd	nd	nd	nd
303226	nd	nd	nd	nd
303227	nd	nd	nd	nd
303228	nd	nd	nd	nd
303229	0.11	nd	nd	nd
303230	nd	nd	nd	nd
303231	nd	nd	nd	nd
303232	0.13	bd	nd	nd
303233	nd	nd	nd	nd
303234	0.08	nd	nd	nd
303235	nd	nd	nd	nd
303236	nd	nd	nd	nd
303237	0.27	nd	nd	nd
303238	0.06	nd	nd	nd
303239	nd	bd	nd	nd
303240	0.12	nd	nd	nd
303241	bd	nd	nd	nd
303242	0.98	nd	nd	nd
303243	0.06	nd	nd	nd
303244	nd	nd	nd	nd
303245	nd	nd	nd	nd
303246	nd	nd	nd	nd
303247	nd	nd	nd	nd
303248	nd	nd	nd	nd
303249	nd	nd	nd	nd
303250	nd	nd	nd	nd
303251	nd	nd	nd	nd
303252	nd	nd	nd	nd
303253	nd	nd	nd	nd
303260	nd	nd	nd	nd
303261	nd	bd	nd	nd
303262	nd	nd	nd	nd
303263	nd	nd	nd	nd
303264	nd	nd	nd	nd
303265	nd	nd	nd	nd
303266	nd	nd	nd	nd
303267	nd	nd	nd	nd
303268	nd	nd	nd	nd
303269	nd	nd	nd	nd
303270	nd	nd	nd	nd
303271	nd	nd	nd	nd
303272	nd	nd	nd	nd
303273	nd	nd	nd	nd
303274	nd	nd	nd	nd
303275	2.62	nd	nd	nd
303276	0.62	nd	nd	nd
303277	0.28	nd	nd	nd
303278	0.11	nd	nd	nd
303279	nd	nd	nd	nd
303280	nd	nd	nd	nd
303281	nd	nd	nd	nd
303282	nd	nd	nd	nd
303283	nd	nd	nd	nd
303284	nd	nd	nd	nd
303285	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.
 3/12/99

SAMPLE NAME	Pyrene, ug	CHCl3, ug	COCl4, ug	CIBENZ, ug
MDL=	0.05	0.09	0.27	0.03
303292	nd	0.11	nd	nd
303293	nd	nd	nd	nd
303294	nd	nd	nd	nd
303295	nd	nd	nd	nd
303296	nd	nd	nd	nd
303297	nd	nd	nd	nd
303298	nd	nd	nd	nd
303299	nd	nd	nd	nd
303300	nd	nd	nd	nd
303301	nd	nd	nd	nd
303302	nd	nd	nd	nd
303303	nd	nd	nd	nd
303304	nd	nd	nd	nd
303305	nd	nd	nd	nd
303306	nd	nd	nd	nd
303307	nd	nd	nd	nd
303308	nd	0.48	nd	nd
303309	nd	nd	nd	nd
303310	nd	nd	nd	nd
303311	nd	nd	nd	nd
303312	nd	nd	nd	nd
303313	nd	nd	nd	nd
303314	nd	nd	nd	nd
303315	nd	nd	nd	nd
303316	nd	nd	nd	nd
303317	nd	0.14	nd	nd
303318	nd	nd	nd	nd
303319	nd	nd	nd	nd
303320	nd	nd	nd	nd
303321	nd	nd	nd	nd
303322	nd	nd	nd	nd
303323	nd	nd	nd	nd
303324	nd	nd	nd	nd
303325	nd	nd	nd	nd
303326	nd	nd	nd	nd
303327	nd	nd	nd	nd
303328	nd	nd	nd	nd
303329	nd	nd	nd	nd
303330	nd	nd	nd	nd
303331	nd	nd	nd	nd
303332	nd	nd	nd	nd
303333	nd	nd	nd	nd
303334	nd	nd	nd	nd
303335	nd	nd	nd	nd
303336	nd	nd	nd	nd
303337	nd	nd	nd	nd
303338	nd	nd	nd	nd
303339	nd	nd	nd	nd
303340	nd	nd	nd	nd
303341	nd	nd	nd	nd
303342	nd	nd	nd	nd
303343	nd	nd	nd	nd
303344	nd	nd	nd	nd
303345	nd	nd	nd	nd
303346	nd	nd	nd	nd
303347	nd	nd	nd	nd
303348	nd	nd	nd	nd
303349	nd	nd	nd	nd
303350	nd	nd	nd	nd
303351	nd	nd	nd	nd
303352	nd	nd	nd	nd
303353	nd	nd	nd	nd
303354	nd	nd	nd	nd
303355	nd	nd	nd	nd
303356	nd	nd	nd	nd

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.
 3/12/99

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/VOCS (A-4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

SAMPLE NAME	Pyrene, ug	CHCl3, ug	CCl4, ug	CIBENZ, ug
MDL=	0.05	0.08	0.27	0.00
303328	nd	nd	nd	nd
303338	nd	nd	nd	nd
303359	nd	nd	nd	nd
303360	nd	nd	nd	nd
303361	nd	nd	nd	nd
303362	nd	nd	nd	nd
303364	nd	nd	nd	nd
303365	1.21	nd	nd	nd
303366	0.61	nd	nd	nd
303379	nd	nd	nd	nd
303390	nd	nd	nd	nd
303394	nd	nd	nd	nd
303398	nd	nd	nd	nd
303363	nd	nd	nd	nd
303364	0.64	nd	nd	nd
303365	nd	nd	nd	nd
303367	nd	nd	nd	nd
303084	nd	nd	nd	nd
303085	nd	nd	nd	nd
303133	nd	nd	nd	nd
303134	nd	nd	nd	nd
303187	nd	nd	nd	nd
303188	nd	nd	nd	nd
303287	nd	nd	nd	nd
30' .d8	nd	nd	nd	nd
303289	nd	nd	nd	nd
303290	nd	nd	nd	nd
303291	nd	nd	nd	nd
303340	nd	nd	nd	nd
303341	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
method blank	nd	nd	nd	nd
NAME	Pyrene, ug	CHCl3, ug	CCl4, ug	CIBENZ, ug
Maximum	9.25	0.49	0.00	0.00
Standard Dev.	0.68	0.03	0.00	0.00
Mean	0.06	0.00	0.00	0.00

Note: Phenanthrene, Anthracene, Fluoranthene, and Pyrene were quantitated using responses from Fluorene.

STACKED TOTAL ION CHROMATOGRAMS

The stated total ion chromatograms included in the original GORE-SORBER® Report were not included as part of this report appendix. The chromatograms can be found in their entirety in a copy of the original report maintained at Fort Stewart or Science Applications International Corporation.

FLUID-MATCHING RESULTS

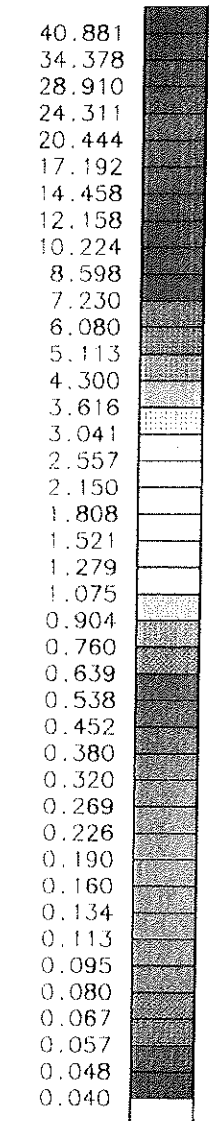
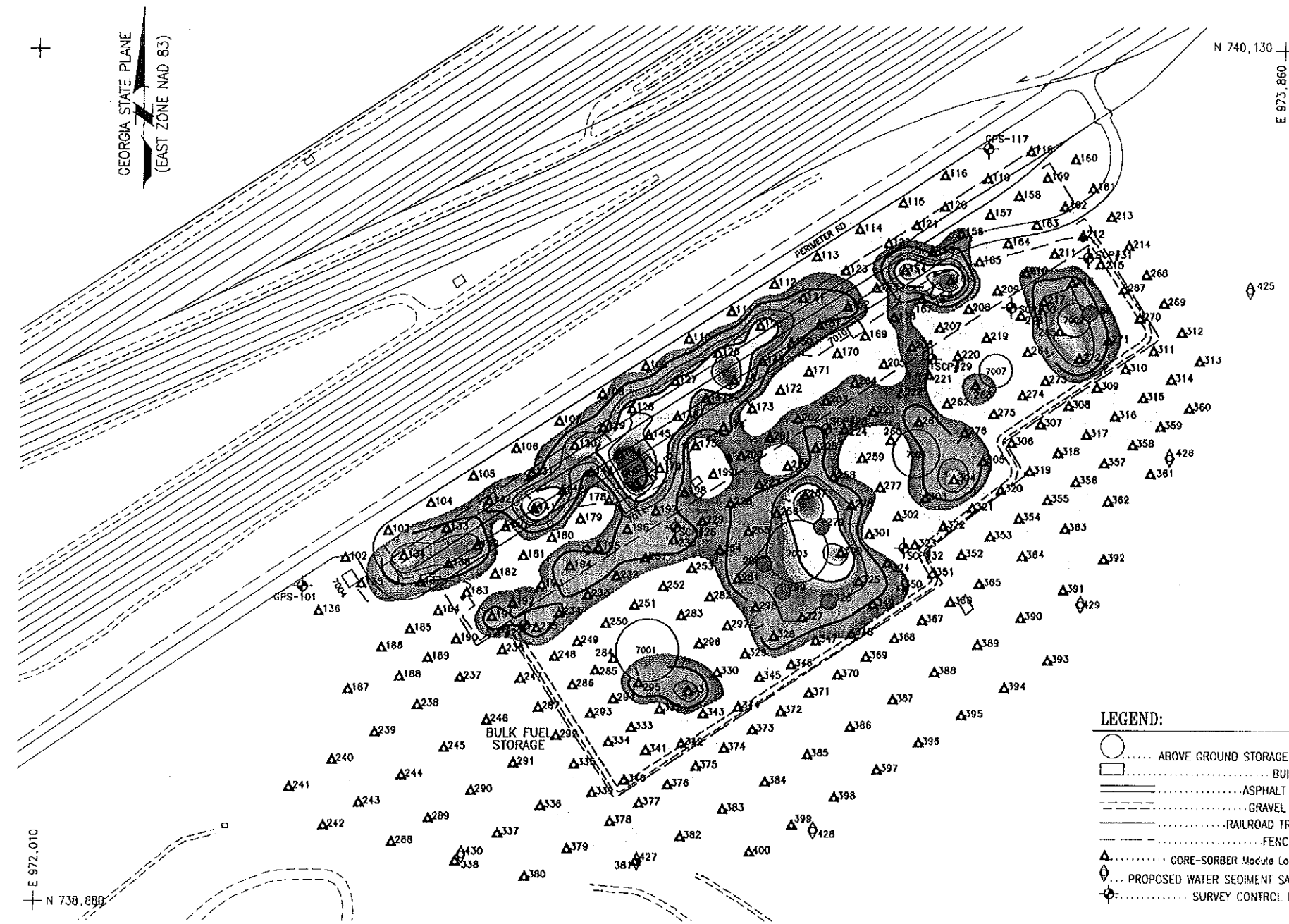
GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
 SAIC, OAK RIDGE, TN
 GORE EXPANDED TARGET VOCs/SVOCs (A4)
 HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD
 SITE AWO - PRODUCTION ORDER #10054437

Hunter Army Airfield Bulk Fuel Facility (HAA-09) Passive Soil Gas Investigation
 Modules designated for fluid mix matching by SAIC.

Avgas - Chromatographic Fingerprint most closely similar to aviation gasoline.
 Avgas plus - Chromatographic pattern is dominated by avgas fingerprint but other heavier fuels are also present.
 Mixture - One or more heavier grades of jet/aviation fuel are present. Avgas is not distinguishable from other light fractions of mixture.

DATE ANALYZED	Survey ID	SAMPLE NAME	Tentative Fluid Match
02/08/99	285	303048	Mixture
02/09/99	295	303052	Avgas plus
02/09/99	330	303058	Mixture
02/09/99	331	303057	Mixture
02/09/99	275	303073	Avgas
02/09/99	274	303074	Avgas
02/09/99	263	303080	Avgas
02/10/99	369	303095	Avgas plus
02/12/99	287	303163	PAHs
02/12/99	291	303170	Terpenes
02/16/99	122	303210	Avgas
02/16/99	124	303212	Avgas plus
02/16/99	125	303213	Mixture
02/16/99	126	303214	Mixture
02/16/99	127	303215	Mixture
02/16/99	128	303216	Avgas plus
02/16/99	130	303218	Avgas plus
02/16/99	133	303221	Mixture
02/16/99	134	303222	Mixture
02/16/99	138	303226	Avgas
02/16/99	141	303229	Mixture
02/16/99	142	303230	Avgas plus
02/16/99	144	303232	Mixture
02/16/99	146	303234	Mixture
02/16/99	147	303235	Mixture
02/16/99	148	303236	Mixture
02/16/99	149	303237	Avgas
02/16/99	152	303240	Avgas
02/16/99	154	303242	Avgas
02/17/99	177	303264	Avgas plus
02/17/99	176	303265	Avgas plus
02/17/99	166	303275	Avgas plus
02/17/99	165	303276	Avgas
02/18/99	196	303303	Avgas plus
02/18/99	194	303305	Mixture
02/18/99	191	303308	Avgas
02/18/99	225	303319	Avgas plus
02/18/99	256	303325	Avgas plus
02/18/99	281	303328	Avgas plus
02/18/99	280	303329	Mixture
02/18/99	279	303330	Mixture
02/19/99	278	303331	Avgas plus
02/19/99	300	303333	Mixture
02/19/99	298	303335	Avgas plus
02/19/99	328	303336	Avgas plus
02/19/99	327	303337	Avgas plus
02/19/99	326	303338	Mixture
02/19/99	348	303345	Avgas plus
02/19/99	223	303348	Mixture/avgas
02/19/99	281	303352	Avgas plus
02/19/99	260	303353	Avgas
02/19/99	303	303357	Avgas plus
02/19/99	304	303358	Avgas plus
02/19/99	217	303361	Mixture/avgas
02/19/99	216	303362	Mixture
02/19/99	266	303363	Mixture
02/19/99	165	303364	Avgas plus
02/19/99	265	303364	Avgas plus
02/19/99	272	303365	Avgas
02/19/99	271	303366	Avgas

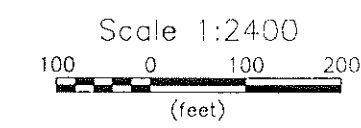
COLOR CONTOUR MAPS



LEGEND:

- ABOVE GROUND STORAGE TANK
- BUILDING
- ASPHALT ROAD
- - - GRAVEL ROAD
- RAILROAD TRACKS
- - - FENCING
- Δ GORE-SORBER Module Location
- ◇ PROPOSED WATER SEDIMENT SAMPLE
- SURVEY CONTROL POINT

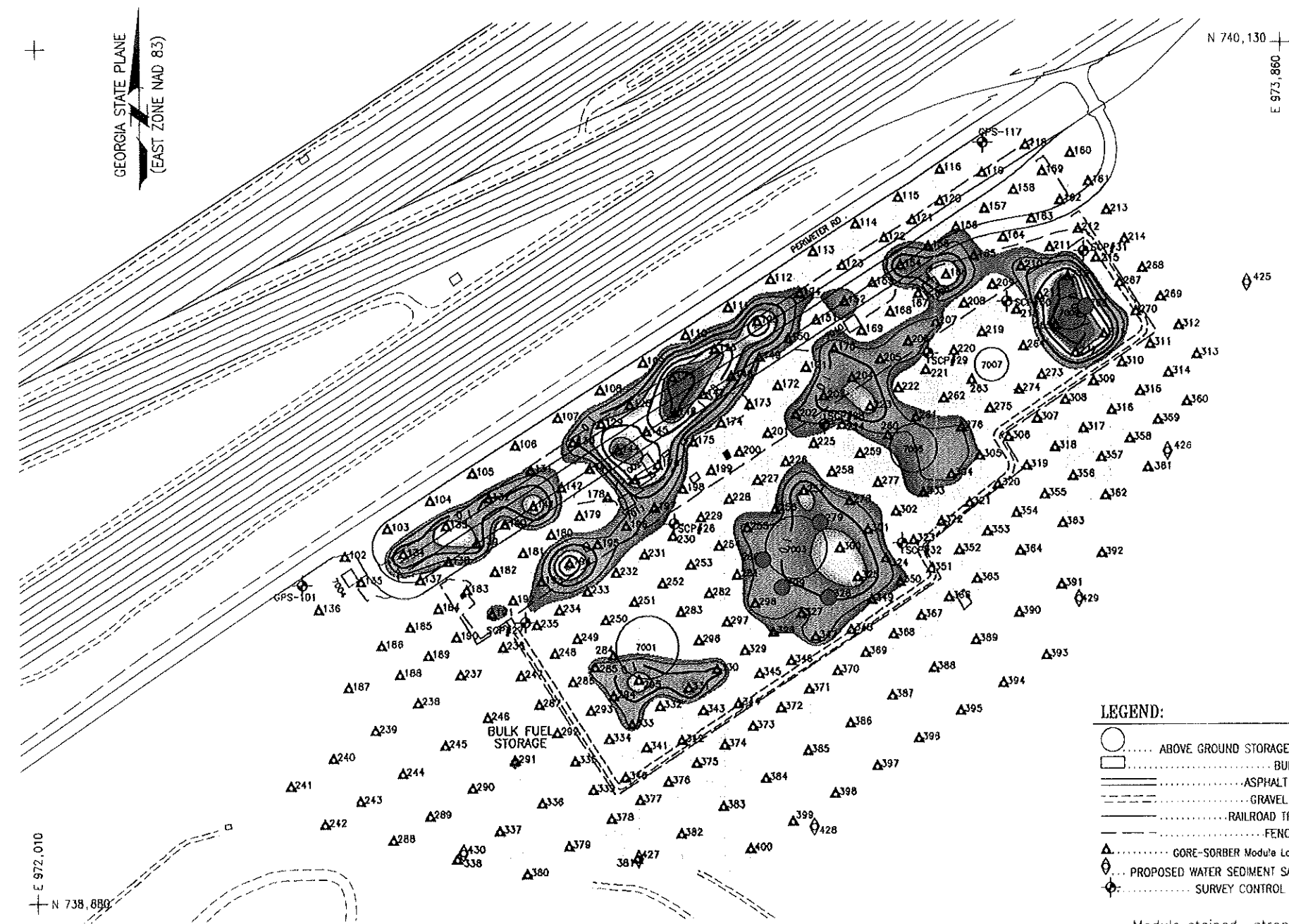
● Module stained, strong odor
 ● Direct analysis not attempted
 ● See report for more information



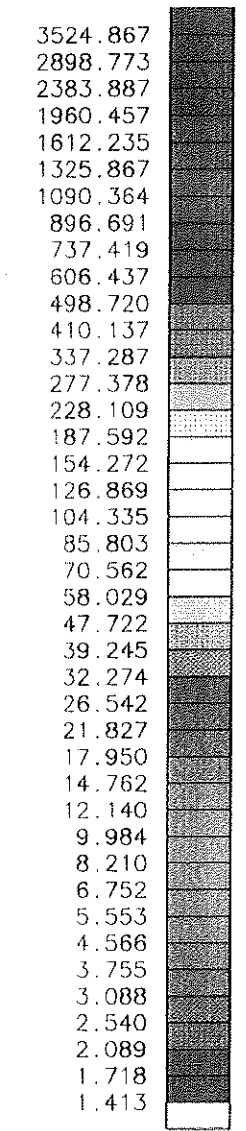
NOTE: CONTOUR PLOT REPRESENTS MASS OF COMPOUND DESORBED FROM GORE-SORBER SCREENING MODULES IDENTIFIED AND QUANTIFIED BY GAS CHROMATOGRAPH MASS SELECTIVE DETECTION.

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GORE-SORBER SCREENING SURVEY			
		W. L. GORE & ASSOCIATES, INC.	
P. O. BOX 10 100 CHESAPEAKE BLVD ELKTON, MD 21921 (410) 392-7600			
HA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD			REV. #
BENZENE			REV. DATE
SAC, Oak Ridge, TN			
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0001 SRD
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0002 PLT
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0003 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0004 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0005 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0006 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0007 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0008 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0009 JAB
DATE	BY	APP. BY	REV. NO.
7/18/1994	J. B. [unclear]	[unclear]	0010 JAB



GEORGIA STATE PLANE
(EAST ZONE NAD 83)

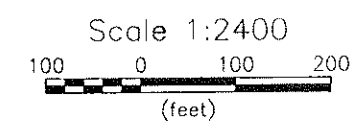


DRPH
[ug]

LEGEND:

- ABOVE GROUND STORAGE TANK
- BUILDING
- ASPHALT ROAD
- GRAVEL ROAD
- RAILROAD TRACKS
- FENCING
- GORE-SORBER Module Location
- PROPOSED WATER SEDIMENT SAMPLE
- SURVEY CONTROL POINT

Module stained, strong odor
 Direct analysis not attempted
 See report for more information

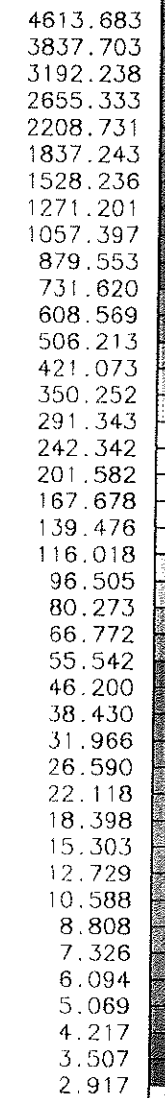
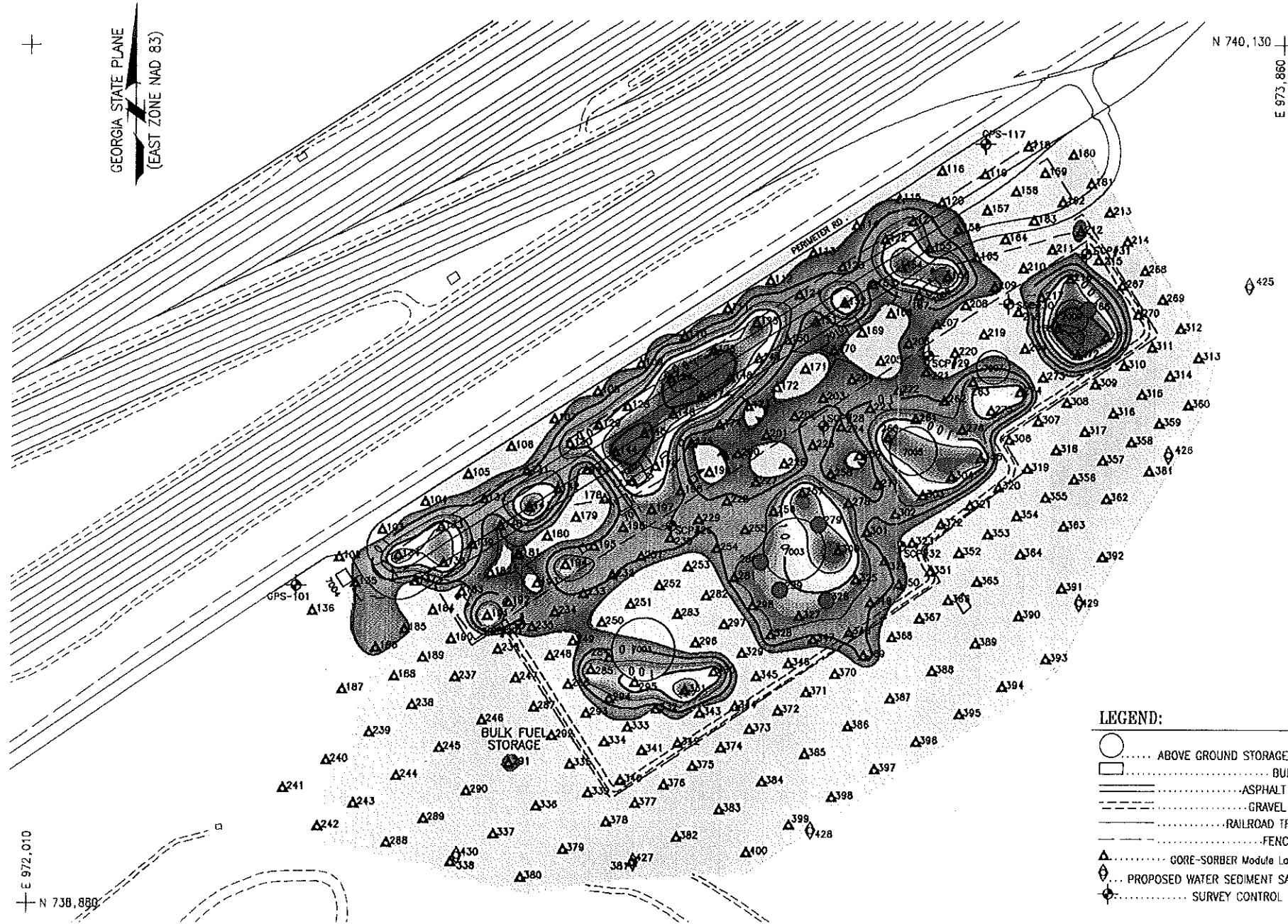


NOTE: CONTOUR PLOT REPRESENTS MASS OF COMPOUND DESORBED FROM GORE-SORBER SCREENING MODULES, IDENTIFIED AND QUANTIFIED BY GAS CHROMATOGRAPH MASS SELECTIVE DETECTION.

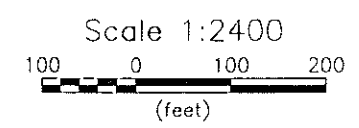
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GORE-SORBER SCREENING SURVEY			
		W.L. GORE & ASSOCIATES, INC.	
P.O. BOX 10 100 CHESAPEAKE BLVD ELKTON, MD 21921 (410) 392-7600			
HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD			REV. #
DIESEL-RANGE PETROLEUM HYDROCARBONS			REV. DATE
SAC, Oak Ridge, TN			
DATE DRAWN	24 FEB 1999	GRID FILE	8201 GRD
DRAWN BY	JW	POST FILE	82E PLOT
DATE CHECKED	18 FEB 1999	PROJECT NUMBER	10054437
CHECKED BY	JH	SITE CODE	AWO
ORIG. CAD:	SCBFF01.DWG		
GORE-SORBER	IS REG. U.S. PAT. & TM. OFF.		
GORE-SORBER SCREENING SURVEY	IS A SERVICE MARK OF W.L. GORE & ASSOCIATES		
GORE-SORBER SCREENING MODULE	IS A TRADEMARK OF W.L. GORE & ASSOCIATES		

GEORGIA STATE PLANE
(EAST ZONE NAD 83)



- LEGEND:**
- ABOVE GROUND STORAGE TANK
 - BUILDING
 - ▬ ASPHALT ROAD
 - - - GRAVEL ROAD
 - ▬ RAILROAD TRACKS
 - - - FENCING
 - △ GORE-SORBER Module Location
 - ◇ PROPOSED WATER SEDIMENT SAMPLE
 - SURVEY CONTROL POINT
- Module stained, strong odor
● Direct analysis not attempted
● See report for more information

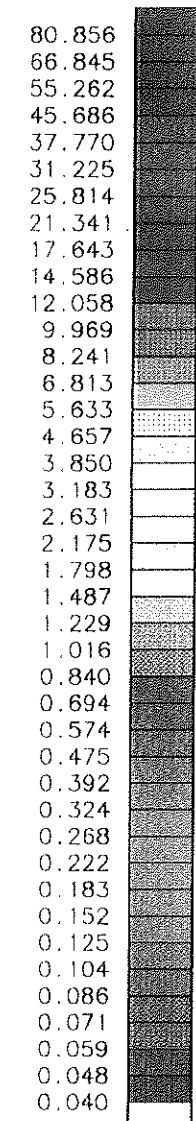
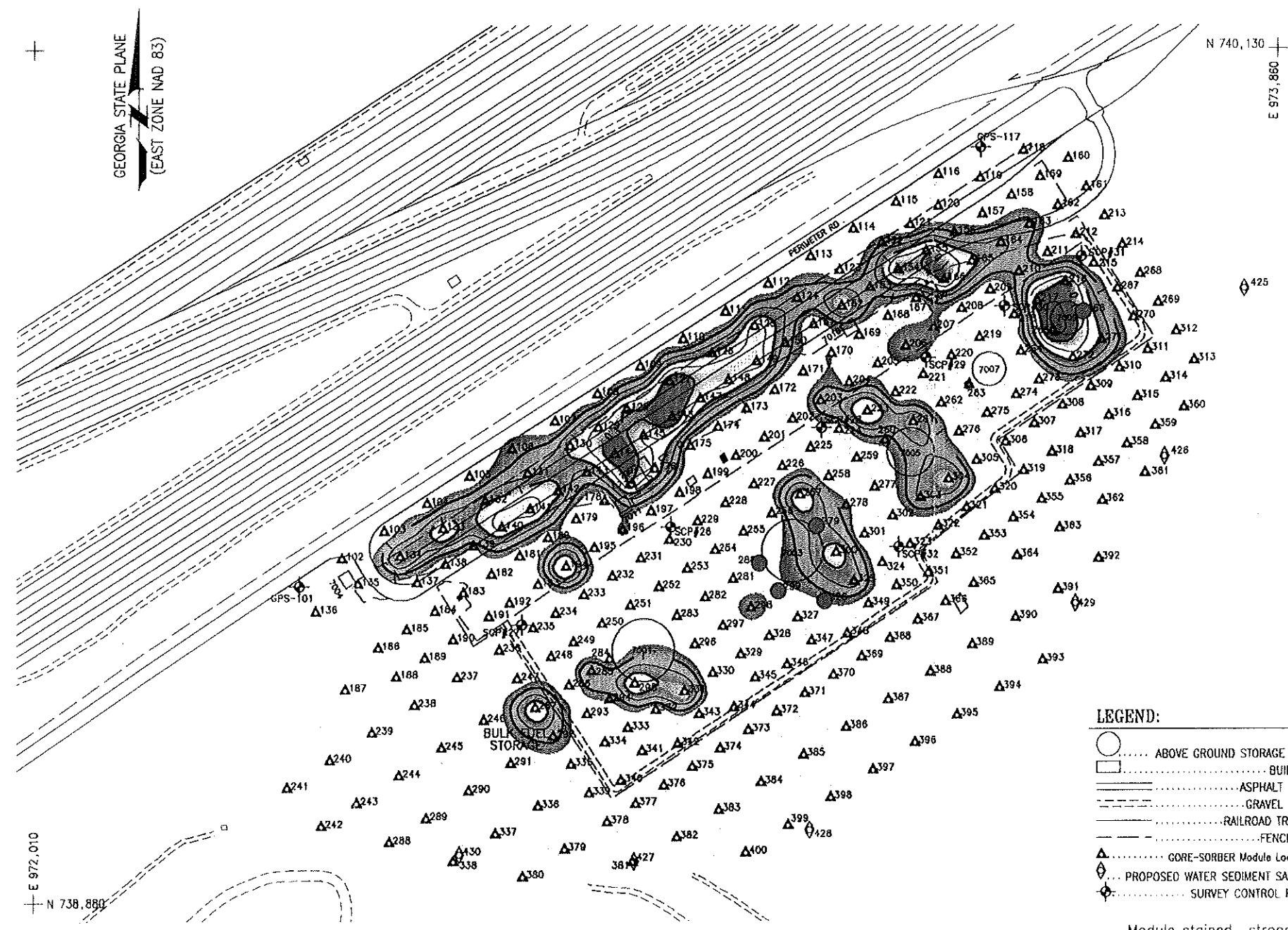


NOTE: CONTOUR PLOT REPRESENTS MASS OF COMPOUND DESORBED FROM GORE-SORBER SCREENING MODULES, IDENTIFIED AND QUANTIFIED BY GAS CHROMATOGRAPH MASS SELECTIVE DETECTION.

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GORE-SORBER SCREENING SURVEY			
		W.L. GORE & ASSOCIATES, INC.	
		P.O. BOX 10 100 CHESAPEAKE BLVD ELKTON, MD 21921 (410) 392-7600	
HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD			REV. #:
GASOLINE-RANGE PETROLEUM HYDROCARBONS			REV. DATE:
SAC, Oak Ridge, TN			
DATE:	2 FEB 1999	GRID FILE:	B101 GRD
PREP BY:	H	PILOT FILE:	B1E PLT
DATE PROCESSED:	06 FEB 1999	PROJECT NUMBER:	10054437
PREP BY:	H	SITE CODE:	AWO

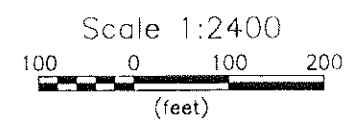
DRG. SAC: E2SEFP01.DWG
 GORE-SORBER IS A REGISTERED TRADEMARK OF W.L. GORE & ASSOCIATES.
 GORE-SORBER SCREENING SURVEY IS A SERVICE MARK OF W.L. GORE & ASSOCIATES.
 GORE-SORBER SCREENING MODULE IS A TRADEMARK OF W.L. GORE & ASSOCIATES.



PAHs [ug]

LEGEND:

- ABOVE GROUND STORAGE TANK
- BUILDING
- ASPHALT ROAD
- GRAVEL ROAD
- RAILROAD TRACKS
- FENCING
- GORE-SORBER Module Location
- PROPOSED WATER SEDIMENT SAMPLE
- SURVEY CONTROL POINT
- Module stained, strong odor
- Direct analysis not attempted
- See report for more information



NOTE: CONTOUR PLOT REPRESENTS MASS OF COMPOUND DESORBED FROM GORE-SORBER SCREENING MODULES, IDENTIFIED AND QUANTIFIED BY GAS CHROMATOGRAPH MASS SELECTIVE DETECTION.

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ORIG. CAD: E:\SBS\01.DWG
 GORE-SORBER: S REG. U.S. PAT. & T.M. OFF.
 GORE-SORBER SCREENING SURVEY: IS A SERVICE MARK OF W.L. GORE & ASSOCIATES
 GORE-SORBER SCREENING MODULE: IS A TRADEMARK OF W.L. GORE & ASSOCIATES

GORE-SORBER SCREENING SURVEY			
		W.L. GORE & ASSOCIATES, INC.	
P.O. BOX 10 100 CHESAPEAKE BLVD ELKTON, MD 21921 (410) 392-7600			
HAA-09 BULK FUEL FACILITY, HUNTER ARMY AIRFIELD			REV. #:
COMBINED PAHs			REV. DATE:
SNC, Oak Ridge, TN			
TITLE DRAWN	27 FEB 1999	ORIG. FILE:	CP01 GRD
DRAWN BY	JH	PLT FILE:	GPE FLT
DATE PLOTTED	24 FEB 1999	PROJECT NUMBER:	0054437
TRACED BY	JH	FILE CODE:	AWO

APPENDIX B

QUALITY CONTROL SUMMARY REPORT

B.1 INTRODUCTION

The purpose of this project was to document where significant contaminant concentrations exist relative to the Bulk Fuel Facility HAA-09 (BFF) located on the northwest boundary of Hunter Army Airfield (HAAF), Georgia. In addition, the nature and extent of potential petroleum contamination in Lamar Canal from BFF downstream was a primary concern. This work was conducted in accordance with Corps of Engineers (COE) Standard EM200-1-30.

Sampling activities at BFF were performed in two phases. In January 1999 investigation activities consisted of soil gas screening for petroleum signatures within the BFF site and in May 1999 of collecting sediment and surface water samples within and around identified areas of the Lamar Canal. Sample results were screened against background levels, Georgia Department of Natural Resources Underground Storage Tank action levels, Georgia Environmental Protection Division in-stream water quality standards, and U.S. Environmental Protection Agency (EPA) maximum contaminant levels and soil screening levels.

B.1.1 PROJECT OBJECTIVES

The overall purpose of the study was to determine the nature of contamination and identify areas of significant contaminant concentrations to assist with defining the scope for future site investigation activities. Specific objectives were defined in the Sampling and Analysis Plan (SAP) (SAIC 1999). In summary, the objectives of the project were as follows:

1. Analyze soil gas samples to provide data regarding the nature and extent of contamination at BFF.
2. Determine the nature and extent of petroleum contamination of Lamar Canal.
3. Determine the optimal locations for installation of permanent monitoring wells and confirmatory soil borings.

B.1.2 PROJECT IMPLEMENTATION

Fieldwork was performed in January and May of 1999 by Science Applications International Corporation (SAIC). A project-specific Site Health and Safety Plan was compiled for the work completed by SAIC and sub-tier contractors. Mr. Ken Swain was designated as Field Team Leader for the project. He was responsible for the collection of samples in accordance with the Work Plan, completion of the Daily Quality Control Reports (DQCRs), coordination of site access, shipment of samples to the laboratories, and documentation and correction of problems as they occurred. Mr. Swain was also the Quality Control (QC) Representative for the project. In this capacity he was responsible for data QC for the SAIC sampling effort. This included, but was not limited to, validation of both field and laboratory data in accordance with the Quality Assurance Project Plan (QAPP) and the SAP. As Laboratory and Analytical Data Coordinator, Mr. Nile Luedtke was responsible for maintaining analytical files for the project, approval of payment invoices from the laboratories, and documentation and correction of problems as they occurred. As the SAIC Project

Manager, Ms. Allison Bailey was responsible for overall project success, budgetary control, COE interfaces, and completion of Monthly Progress Reports (MPRs).

Two analytical laboratories were used by SAIC for testing samples collected by SAIC personnel. W.L. Gore & Associates, Elton, Maryland, provided soil gas sorbers and performed all screening analysis within areas of the BFF. General Engineering Laboratory (GEL) of Charleston, South Carolina, completed all water and sediment analysis from the Lamar Canal for: volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), gasoline-range organics (GROs), and diesel-range organics (DROs). The laboratories employed EPA analytical methods for all parameter determinations. GEL is validated through the COE Center of Excellence, Omaha, Nebraska, laboratories review process. The quality assurance (QA) split sample analyses laboratories for the entire project were coordinated by the COE South Atlantic Savannah Division (SAS) Laboratory in Marietta, Georgia.

B.1.3 PURPOSE OF THIS QUALITY CONTROL SUMMARY REPORT

Environmental data must always be interpreted relative to their known limitations and intended use. As can be expected in environmental media of this type, there are areas and data points where the user needs to be cautioned relative to the quality of the project information presented. The data validation process and this data quality assessment are intended to provide current and future data users assistance throughout the interpretation of these data.

The purposes of this Quality Control Summary Report are to describe QC procedures followed to ensure that data generated by SAIC during this investigation at HAAF would meet project requirements, to describe the quality of the data collected, and to describe problems encountered during the course of the study and their respective solutions. A QA report will be completed by the COE SAS Laboratory covering data generated from SAIC-collected QA split samples remanded to their custody.

This appendix provides an assessment of the analytical information gathered during the course of these investigations and documents that the quality of the data employed for the report met the objectives. Evaluation of field and laboratory QC measures constitutes the majority of this assessment; however, references are also directed toward those QA procedures that establish data credibility. The primary intent of this assessment is to illustrate that data generated for this investigation can withstand scientific scrutiny; are appropriate for their intended purpose; are technically defensible; and are of known and acceptable sensitivity, precision, and accuracy.

Multiple activities were performed to achieve the desired data quality in this project. As discussed in the text, decisions were made during the initial scoping to define the quality and quantity of data required. Data quality objectives (DQOs) were established to guide the implementation of the field sampling and laboratory analysis. A QA program was established to standardize procedures and to document activities. This program provided a means of detecting and correcting any deficiencies in the process. Upon receipt by the project team, data were subjected to a verification and validation review that identified and qualified problems related to the analysis. The review steps contributed to this final Data Quality Assessment (DQA), which demonstrates that data used in the investigation met the criteria and were appropriately employed.

B.2 QUALITY ASSURANCE PROGRAM

A QAPP was developed for this project and may be found as part of the official Work Plan. The purpose of the document was to enumerate the quantity and type of samples to be taken to inspect the various sites and to define the quantity and type of QA/QC samples to be used to evaluate the quality of the data obtained.

The QAPP established requirements for both field and laboratory QC procedures. In general, field QC duplicates and QA split samples were required for each environmental sample matrix collected at sites being investigated at a frequency of 10 percent; VOC trip blanks were to accompany each cooler containing water samples for VOC determinations; and analytical laboratory QC duplicates, matrix spikes (MSs), laboratory control samples (LCSs), and method blanks were required for every 20 samples or fewer of each matrix and analyte.

A primary goal of the QA program was to ensure that the quality of results for all environmental measurements was appropriate for their intended use. To this end a QAPP and standardized field procedures were compiled to guide the investigation. Through the process of readiness review, training, equipment calibration, QC implementation, and detailed documentation, the project has successfully accomplished the goals set by the QA program.

B.2.1 MONTHLY PROGRESS REPORTS

An MPR was completed by the SAIC Project Manager for every month during project implementation. The MPRs contain the following information: work completed, problems encountered, corrective actions/solutions, and summary of findings and upcoming work. These reports were issued to the Savannah Corps Project Manager and may be obtained through his office.

B.2.2 DAILY QUALITY CONTROL REPORTS

The Field Team Leader, Ken Swain, produced all DQCRs. These include information such as, but not limited to, subcontractors on site, equipment on site, work-performed summaries, QC activities, health and safety activities, problems encountered, and corrective actions. The DQCRs were submitted to the SAIC and Savannah Corps Project Managers and are on file with them.

B.2.3 LABORATORY "DEFINITIVE" LEVEL DATA REPORTING

The QAPP for this project identified requirements for laboratory data reporting and named W.L. Gore & Associates and GEL as the laboratories for the project. EPA "definitive" data have been reported, including the following basic information:

- laboratory case narratives,
- sample results,
- laboratory method blank results,
- LCS results,
- laboratory sample MS recoveries,

- laboratory duplicate results,
- surrogate recoveries (VOCs, SVOCs, GROs, DROs),
- sample extraction dates, and
- sample analysis dates.

This information from the laboratory, along with field information, provided the basis for subsequent data evaluation relative to sensitivity, precision, accuracy, representativeness, and completeness.

B.3 DATA VALIDATION

The objective when evaluating the quality of project data is to determine their usability. The evaluation is based on the interpretation of laboratory QC measures, field QC measures, and the project DQOs.

This project implemented the use of data validation checklists to facilitate laboratory data validation. These checklists were completed by the project-designated validation staff and were reviewed by the Project Laboratory Coordinator. SAIC has retained data validation checklists for each laboratory sample delivery group with laboratory data deliverables.

B.3.1 FIELD DATA VALIDATION

DQCRs were completed by the Field Team Leader. The DQCRs and other field-generated documents such as sampling logs, boring logs, daily health and safety summaries, daily safety inspections, equipment calibration and maintenance logs, and sample management logs were peer-reviewed on site. These logs and all associated field information have been delivered to the Savannah Corps Project Manager and can be obtained through his office.

B.3.2 LABORATORY DATA VALIDATION

Analytical data generated for this project have been subjected to a process of data verification, validation, and review. The following text describes this systematic process and the evaluation activities performed. Several criteria have been established against which the data are compared and from which a judgment is rendered regarding the acceptance and qualification of the data. The validation follows the QA/QC guidance outlined in EPA's Test Methods for Evaluation of Solid Waste (EPA SW-846). Overall, these guidelines mimic the most current editions of EPA's functional guidelines for reviewing organic and inorganic analyses conducted outside EPA's Contract Laboratory Program. Because it is beyond the scope of this report to cite those criteria, the reader is directed to the following documents for specific detail:

- SAIC's Technical Support Contractor QA Technical Procedure TP-DM-300-7, Data Validation Guidelines for Analytical Data (1995);
- EPA's USEPA National Functional Guidelines for Inorganic Data Review (1994a);
- EPA's USEPA National Functional Guidelines for Organic Data Review (1994b); and
- SAIC's Sampling and Analysis Plan for the Soil Gas Survey for Bulk Fuel Facility (HAA-09), Hunter Army Airfield, Georgia (1999).

Upon receipt of field and analytical data, verification staff performed a systematic examination of the reports, following standardized data package checklists to ensure the content, presentation, and administrative validity of the data. Discrepancies identified during this process were recorded and documented using the QA program's nonconformance report systems.

In conjunction with data package verification, laboratory electronic data diskettes were available. These diskette deliverables were subjected to review and verification against the hard-copy deliverable. Both structural and technical assessments of the laboratory-delivered electronic reports were performed. The structural evaluation ensured that all required data had been reported and that contract-specified requirements had been met (e.g., analytical holding times, contractual turnaround times).

During the validation phase of the review and evaluation process, data were subjected to a systematic technical review by examining all field and analytical QC results and laboratory documentation, following appropriate guidelines for laboratory data validation. These data validation guidelines define the technical review criteria, methods for evaluation of the criteria, and actions to be taken resulting from the review of these criteria. The primary objectives of this phase were to assess and summarize the quality and reliability of the data for the intended use and to document factors that might affect the usability of the data. Data verification/validation included, but was not necessarily limited to, the following parameters:

- Data completeness,
- Holding times,
- Calibration (initial and continuing),
- Method blanks,
- Sample results (review and verification with electronic data deliverable),
- Surrogate recovery,
- LCS analysis,
- Internal standard performance,
- MS recovery,
- Compound or element qualification,
- Detection levels, and
- Secondary dilutions.

As a result of this phase of the review, the data were qualified based on the technical assessment of the validation criteria. Qualifiers were applied to each field and analytical result to indicate the usability of the data for their intended purpose.

B.3.3 DEFINITION OF DATA QUALIFIERS (FLAGS)

During the data validation process, all laboratory data were assigned appropriate data validation flags and reason codes. Validation flags are defined as follows:

- “U” Indicates the analyte was analyzed for, but not detected above the level of the associated value.
- “J” Indicates the analyte was positively identified; however, the associated numerical value is an approximate concentration of the analyte in the sample.
- “UJ” Indicates the analyte was analyzed for, but not detected above the associated value; however, the reported value is an estimate, indicating a decreased knowledge of its accuracy or precision.

“R” Indicates the analyte value reported is unusable. The integrity of the analyte’s identification, accuracy, precision, or sensitivity has raised significant questions as to the reliability of the information presented.

“=” Indicates the analyte has been validated, the analyte has been positively identified, and the associated concentration value is accurate.

SAIC validation flagging codes are provided in Attachment 1, while copies of validation checklists and qualified data forms are on file with the analytical laboratory deliverable.

B.3.4 DATA ACCEPTABILITY

Three hundred Gore-Sorber screening modules were installed at the site for an exposure period of 14 days. At the conclusion of the exposure period, 299 were successfully retrieved. Of these, all but five modules were able to be analyzed quantitatively. Module numbers 303329, 303330, 303334, 303338, and 303363 were stained and had significant petroleum odor. These conditions disqualified them from quantitative analysis; however, they were qualitatively determined to have significant petroleum content. Therefore, the soil gas screening effort produced acceptable results for 98 percent of the modules distributed.

A total of 53 environmental sediment, surface water, and field QC samples were collected, with approximately 5,080 discrete analyses (i.e., analytes) being obtained, reviewed, and integrated into the assessment. (These totals do not include field measurements and field descriptions.) The project produced acceptable results for more than 99 percent of the sample analyses performed and successfully collected all required investigation samples. Rejected data were confined to the VOC, 2-butanone in surface water samples.

Table B-1 presents a summary of the number of investigation samples collected. It also tallies the successful collection of appropriate targeted field QC samples. Table B-2 provides a summary of rejected analyses grouped by medium and analyte category.

Table B-1. Quality Control Summary

Medium	Environmental Samples	Field Duplicates	Trip Blanks	Equipment Rinsate Blanks
GORE-SORBER®	299	-	15	-
Sediment	21	3	-	-
Groundwater	21	3	4	3
Totals	341	6	19	3

Through appropriate data verification, validation, and review, analytical information has been identified as estimated and rejected, where appropriate. None of the SVOC or GRO/DRO data were rejected. The VOC compound 2-butanone was rejected in most of the surface water samples. These rejections were due to poor initial instrument relative response factors in association with nondetect results for the compound. The majority of estimated values were assigned to analyte concentrations

analyte concentrations observed between the reporting level and method detection levels. Rejected results reflect a tendency to exhibit extreme negative bias and were, therefore, unable to support the requirements of the project. All data have been appropriately identified and qualified in the database and resulting report tables.

Table B-2. Summary of Rejected Analytes (grouped by medium and analysis group)

Medium	Analysis Group	Rejected/ Total	Percent Rejected
GORE-SORBER® Modules	Petroleum hydrocarbons	5/299	1.7
Sediment	Volatile organics	0/792	0.0
	Semivolatile organics	0/1,512	0.0
	GROs/DROs	0/48	0.0
	Subtotal	0/2,354	0.0
Groundwater	Volatile organics	13/1,023	1.3
	Semivolatile organics	0/1,701	0.0
	Miscellaneous	0/2	0.0
	Subtotal	13/2,726	0.5
Project Total		18/5,379	0.33

B.4 DATA EVALUATION

B.4.1 ACCURACY

Accuracy provides a gauge or measurement of the agreement between an observed result and the true value for an analysis. Analytical accuracy is evaluated by measuring the agreement between an analytical result and its known or true value. This level of agreement is generally determined through the use of LCSs, MS analysis, and performance evaluation samples. Accuracy, as measured through the use of LCSs, determines the method implementation accuracy independent of the sample matrix. The LCSs document laboratory analytical process control. Accuracy determined by the MS is a function of both matrix and analytical process. Tables B-3 and B-4 present average LCS recovery values for the various parameters under investigation during these studies. Method blank surrogate compound recoveries and method blank target compound spiked analyses are two forms of LCS analyses. Table B-5 consolidates the average sample MS recovery values for parameters.

GORE-SORBER@Screening

The measurement process and instrument performance relative to this soil gas screening are reproducible and accurate. Semiquantitative data have been provided based on a single point or three-level standard calibration. The report presents relative soil gas mass levels present in the soil vapor phase. Vapors and absorption factors are subject to a variety of attenuation factors during migration from the source concentration. The information and data presented in Appendix A for the soil gas screening are considered acceptable for the project goals.

Volatile Organic Compounds

VOC LCS, surrogate, and MS recovery information provides measures of accuracy. Recoveries determined for laboratory volatile organic method blank spike and method blank surrogate analyses indicated that the analytical processes for procedures were in control. Individual sample surrogate recoveries and sample MS recoveries indicated that analytical accuracy for these compounds was in control and that the data are usable.

Method blank surrogate recoveries (Table B-3) were within 80 to 100 percent for the volatile analyses, with average recoveries ranging from 87.5 percent for bromofluorobenzene in sediment to 92.2 percent for dibromofluoromethane in water. Summaries in Table B-4 show that sediment and water average LCS values range from 89.3 to 104.5 percent, with all recoveries being within 80 to 120 percent.

Sample MS recoveries (Table B-5) indicated that analytical accuracy was in control, with average sediment MS recoveries ranging from 89.0 to 100.5 percent. Average surface water sample MS recoveries ranged from 90.3 to 104.3 percent. All recoveries were consistent with LCS data in the 80 to 120 percent range.

Table B-3. Laboratory Control Sample Evaluation
Method Blank Average Surrogate Percent Recovery

Analysis	Sediment				Water			
	Average %Rec	Min. %Rec	Max. %Rec	N	Average %Rec	Min. %Rec	Max. %Rec	N
<i>Volatile Organic Compounds</i>								
Toluene-d8	90.7	84	96	6	89.6	85	98	5
Bromofluorobenzene	87.5	83	97	6	91.6	84	101	5
Dibromofluoromethane	89.3	84	97	6	92.2	86	99	5
<i>Semivolatle Organic Compounds</i>								
Nitrobenzene-d5	65.0	52	75	3	64.5	59	70	4
2-Fluorobiphenyl	61.0	54	66	3	64.8	60	70	4
Terphenyl-d14	79.0	77	80	3	83.3	65	98	4
2-Fluorophenol	70.7	65	74	3	42.5	39	49	4
Phenol-d5	70.7	57	78	3	27.3	23	33	4
2,4,6-Tribromophenol	70.3	60	79	3	70.8	62	77	4
<i>GRO Compounds</i>								
n-Propylbenzene	83.4	78	87	7	87	-	-	1
<i>DRO Compounds</i>								
o-Terphenyl	65.3	57	80	4	73	-	-	1

%Rec = Percent recovery.
DRO = Diesel-range organic.
GRO = Gasoline-range organic.
N = Number of determinations.

Table B-4. Laboratory Control Sample Evaluation
Method Blank Spike Average Percent Recovery

Analysis	Sediment			Water		
	Average %Rec	Min. %Rec	Max. %Rec	Average %Rec	Min. %Rec	Max. %Rec
<i>Volatile Organic Compounds</i>						
Benzene	93.5	85	100	96.5	90	106
Chlorobenzene	95.7	87	107	97.5	91	104
1,1-Dichloroethene	101.3	82	118	104.5	86	116
Toluene	89.3	82	96	93.8	89	101
Trichloroethene	94.7	87	103	98.0	94	105
<i>Semivolatle Organic Compounds</i>						
Acenaphthene	63.0	57	68	72.5	65	77
1,4-Dichlorobenzene	50.3	44	56	63.5	62	65
2,4-Dinitrotoluene	79.0	72	83	82.3	72	89
n-Nitrosodi-n-propylamine	64.7	59	69	76.0	63	92
Pyrene	79.7	70	90	83.3	72	90
1,2,4-Trichlorobenzene	54.7	50	58	66.0	62	69
4-Nitrophenol	76.7	70	90	20.3	15	29
Pentachlorophenol	87.3	78	98	87.5	74	107
Phenol	57.7	54	63	29.8	27	32
2-Chlorophenol	59.0	56	61	68.3	59	76
4-Chloro-3-methylphenol	70.0	68	73	78.0	67	88
<i>GRO Compounds</i>						
	94.9	92	98	100	-	-
<i>DRO Compounds</i>						
	54.3	52	61	69	-	-

%Rec = Percent recovery.
DRO = Diesel-range organic.
GRO = Gasoline-range organic.
N = Number of determinations.

Table B-5. Sample Matrix Spike Evaluation Average Percent Recovery

Analysis	Sediment			Water		
	Average %Rec	Min. %Rec	Max. %Rec	Average %Rec	Min. %Rec	Max. %Rec
<i>Volatile Organic Compounds</i>						
1,1-Dichloroethene	100.5	88	113	104.3	88	114
Benzene	93.5	85	102	94.5	90	101
Trichloroethane	89.0	84	94	93.2	91	96
Toluene	89.0	75	103	90.3	86	96
Chlorobenzene	94.5	82	107	95.0	90	103
<i>Semivolatle Organic Compounds</i>						
Acenaphthene	65.3	56	74	53.8	41	70
1,4-Dichlorobenzene	52.8	44	63	47.4	36	62
n-Nitrosodi-n-propylamine	67.2	54	83	56.6	41	70
1,2,4-Trichlorobenzene	58.7	50	63	50.3	39	64
2,4-Dinitrotoluene	73.2	68	82	57.1	42	74
Pyrene	81.5	77	91	68.0	48	91
Pentachlorophenol	92.0	80	98	74.8	54	112
Phenol	60.2	52	68	32.3	23	41
2-Chlorophenol	59.7	52	65	49.6	38	61
4-Chloro-3-methylphenol	71.2	63	85	59.1	44	75
4-Nitrophenol	79.8	70	86	43.0	44	58
<i>GRO Compounds</i>						
	82.8	66	98	-	-	-
<i>DRO Compounds</i>						
	67.5	51	85	-	-	-

%Rec = Percent recovery.
DRO = Diesel-range organic.
GRO = Gasoline-range organic.
N = Number of determinations.

Semivolatile Organic Compounds

Average LCS percent recovery values for SVOCs in sediments ranged from 50.3 percent for 1,4-dichlorobenzene to 87.3 percent for pentachlorophenol, while water average LCSs ranged from 20.8 for 4-nitrophenol to 87.5 percent for pentachlorophenol. These values are within the normally accepted advisory limits established by the analytical methods (Table B-6). They are also predominantly within project accuracy goals of 35 to 140 percent for SVOCs, with the exception of 4-nitrophenol and phenol in water. However, none of the data required qualification based on LCS recoveries. Method blank surrogate recoveries (Table B-3) were all well within acceptable ranges for SVOCs, with the exception of a few phenol-d5 and 2-fluorophenol levels, reinforcing that the analytical process was in control.

Sample MS information (Table B-5) for SVOCs parallels LCS data. Average percent recoveries range between 52.8 and 92.0 percent for sediments and between 32.3 and 74.8 percent for waters, with the overall accuracy for these measurements being considered acceptable. Individual exceptions, such as phenol, have been qualified.

GROs and DROs

Method blank surrogate and LCS recoveries for GROs and DROs were found to be acceptable. GRO values all fell within a 75- to 100-percent range, while DRO values ranged from 52 to 80 percent.

MS results were comparable to LCS values, with average sediment recoveries of 82.8 percent for GRO and 67.5 percent for DRO. None of the data required qualification based on these results.

B.4.2 PRECISION

Laboratory Precision

Table B-7 contains average Relative Percent Differences (RPDs) for laboratory duplicate sample pairs for the various analytical groups as a measure of analytical precision. Data are presented for parameters in which both values met or exceeded five times the project-required detection limits for that analyte. Data presented compare MS and MS duplicate values. As the RPD approaches zero, complete agreement is achieved between the duplicate sample pairs. Sample homogeneity, analytical method performance, and the quantity of analyte being measured all contribute to this measurement of sample analytical precision.

Sediment and water precision are considered acceptable when the RPD does not exceed 40. This limit was not exceeded for any analysis. Most RPD values were within a 20 percent window of acceptance. RPD values were acceptable for these samples and reflect great effort on the part of the field and laboratory teams to homogenize the samples prior to aliquotting and analysis.

Duplicate comparison for those data within five times the reporting level have also been reviewed and evaluated. Acceptance limits for these data were set at plus or minus two times the reporting level. In all cases laboratory duplicate comparisons at these low levels were in agreement.

Table B-6. Organic Surrogate, LCS, and MS Recovery Criteria—Percent Recovery (%Rec) and RPD

Analysis	Soil			Water	
	Min. RPD %Rec	Max. %Rec	RPD	Min. %Rec	Max. %Rec
<u>Volatile Organic Compounds</u>					
1,2-DICHLOROETHANE-d4	70	121		76	114
BROMOFLUOROBENZENE	59	113		86	115
TOLUENE-d8	84	138		88	110
1,1-DICHLOROETHANE 14	59	172	22	61	145
TRICHLOROETHENE 14	62	173	24	71	120
BENZENE 11	66	142	21	76	127
TOLUENE 13	59	139	21	76	125
CHLOROBENZENE 13	60	133	21	75	130
<u>Semivolatile Organic Compounds</u>					
1,2-DICHLOROBENZENE-d4	20	130		16	110
2,4,6-TRIBROMOPHENOL	19	122		10	123
2-CHLOROPHENOL-d4	20	130		33	110
2-FLUOROBIPHENYL	30	115		43	116
2-FLUOROPHENOL	25	121		21	110
NITROBENZENE-d5	23	120		35	114
PHENOL-d5	24	113		10	110
TERPHENYL-d14	18	137		33	141
PHENOL 42	26	90	35	12	110
2-CHLOROPHENOL 40	25	102	50	27	123
1,4-DICHLOROBENZENE 28	28	104	27	36	97
N-NITROSO-DI-N-PROPYLAMINE 38	41	126	38	41	116
1,2,4-TRICHLOROBENZENE 28	38	107	23	39	98
4-CHLORO-3-METHYLPHENOL 42	26	103	33	23	97
ACENAPHTHENE 31	31	137	19	46	118
4-NITROPHENOL 50	11	114	50	10	80
2,4-DINITROTOLUENE 38	28	89	47	24	96
PENTACHLOROPHENOL 50	17	109	47	9	103
PYRENE 31	35	142	36	26	127
<u>Pesticides/Polychlorinated Biphenyls</u>					
DECACHLOROBIPHENYL(1)	60	150		60	150
DECACHLOROBIPHENYL(2)	60	150		60	150
TETRACHLORO-m-XYLENE(t)	60	150		60	150

Table B-6 (continued)

Analysis	Soil			Water	
	Min. RPD %Rec	Max. %Rec	RPD	Min. %Rec	Max. %Rec
TETRACHLORO-m-XYLENE(2)	60	150		60	150
GAMMA-BHC (LINDANE) 50	46	127	15	56	123
HEPTACHLOR 31	35	130	20	40	131
ALDRIN 43	34	132	22	40	120
DIELDRIN 38	31	134	18	52	126
ENDRIN 45	42	139	21	56	121
4,4'-DDT 50	23	134	27	38	127

%Rec = Percent recovery.

LCS = Laboratory control sample.

MS = Matrix spike.

RPD = Relative Percent Difference.

Individual data points affected by poor precision measures appear in the data set qualified as estimated, when necessary. The precision for those data is considered acceptable, and the data have been determined to be usable for project objectives.

Field Precision

Field duplicate samples were collected to ascertain the contribution to variability (i.e., precision) due to the combination of environmental media, sampling consistency, and analytical precision. Field duplicate samples were collected from the same spatial and under the same temporal conditions as the primary environmental sample. Sediment samples were collected from the same sampling device after homogenization for all analytes except VOCs.

Table B-8 provides a summary of field duplicate comparisons by analyte. The table presents both absolute-difference and RPD evaluations for field duplicate measurements. The RPD was calculated only when both samples were more than five times the analyte reporting level. When one or both sample values were between the quantitation level and five times the analyte reporting level, the absolute difference was evaluated. If both samples registered no detection for a given analyte, precision was considered acceptable. All field duplicate pairs are included in the tabulation.

To review information, this DQA has implemented general criteria for comparison of absolute-difference measurements and RPDs. RPD criteria are identified below. Absolute difference criteria were set at three times the analyte reporting level.

Matrix	RPD Evaluation Categories			
	Good	Fair	Poor	Unacceptable
Water	<30%	<60%	<100%	>100%
Soil	<50%	<90%	<150%	>150%

Sediment field duplicates exhibited low concentrations, and comparisons were considered acceptable, with the exception of DROs in samples H09211/H09221. Most surface water analyte concentrations were not high enough to provide RPD evaluation; however, absolute-difference considerations and available RPD values indicated a "Good" comparison for the data, with the exception of one bis(2-ethylhexyl)phthalate comparison.

B.4.3 SENSITIVITY

Determination of minimum detectable values allows the investigation to assess the relative confidence that can be placed in a value in comparison to the magnitude or level of analyte concentration observed. The closer a measured value comes to the minimum detectable concentration, the lower the confidence and the greater the variation in the measurement. Project sensitivity goals were expressed as quantitation level goals in the QAPP. These levels were achieved or exceeded throughout the analytical process. There were individual exceptions that generated qualification of the data or elevation of detections levels when the original goal was not achieved. Variations observed were caused by fluctuations in moisture content or the need to dilute high concentration analytes into linear range for analysis.

Table B-7. Sample Matrix Spike Duplicate or Duplicate Evaluation—Relative Percent Difference

Analysis	Sediment			Water				
	Average RPD	Min. RPD	Max. RPD	N	Average RPD	Min. RPD	Max. RPD	N
<i>Volatiles Organic Compounds</i>								
1,1-Dichloroethene	-	-	-	-	4.0	4	4	3
Benzene	-	-	-	-	3.0	0	5	3
Trichloroethane	-	-	-	-	3.0	1	5	3
Toluene	-	-	-	-	3.7	1	6	3
Chlorobenzene	-	-	-	-	3.3	1	6	3
<i>Semivolatile Organic Compounds</i>								
Acenaphthene	6.6	2	12	3	9.8	8	11	4
1,4-Dichlorobenzene	7.3	2	15	3	13.0	9	15	4
n-Nitrosodi-n-propylamine	7.7	4	15	3	11.5	8	20	4
1,2,4-Trichlorobenzene	7.0	3	15	3	13.8	11	17	4
2,4-Dinitrotoluene	6.0	3	9	3	11.5	8	19	4
Pyrene	2.3	1	4	3	10.0	7	14	4
Pentachlorophenol	4.7	0	12	3	12.8	7	16	4
Phenol	5.7	0	13	3	12.8	7	20	4
2-Chlorophenol	8.0	5	14	3	12.8	10	19	4
4-Chloro-3-methylphenol	4.3	2	6	3	10.0	8	15	4
4-Nitrophenol	9.0	0	16	3	13.3	2	27	4
<i>GRO Compounds</i>								
	3.5	1	6	2	-	-	-	-
<i>DRO Compounds</i>								
	2.7	0	6	3	-	-	-	-

%Rec = Percent recovery.
 N = Number of determinations.
 RPD = Relative Percent Difference.

Evaluation of overall project sensitivity can be gained through review of field blank information. These actual sample analyses provide a comprehensive look at the combined sampling and analysis sensitivity attained by the project. Field QC blanks obtained during sampling activities included samples of VOC trip blank waters and final equipment rinsate blanks. Information for these blank determinations exhibited no values above reporting levels.

Analytical method blank determinations performed concurrently with each analytical batch were all within two times the analytical detection levels and had no impact on reported sample values. It has, therefore, been determined that analyses have not been affected through the transportation and storage process and that the procedures and precautions employed were effective in preserving sample analysis integrity.

B.4.4 REPRESENTATIVENESS AND COMPARABILITY

Representativeness expresses the degree to which data accurately reflect the analyte or parameter of interest for the environmental site and is the qualitative term most concerned with the proper design of the sampling program. Factors that affect the representativeness of analytical data include proper preservation, holding times, use of standard sampling and analytical methods, and determination of matrix or analyte interferences. All analytical holding times were met for this project. Sample preservation, receipt temperatures, analytical methodologies, and sediment sampling methodologies were documented as being adequate and consistently applied. Both sediment and surface water sampling methods have been effectively applied in this study.

Comparability, like representativeness, is a qualitative term relative to a project data set as an individual entity. The investigations employed appropriate sampling methodologies, site surveillance, use of standard sampling devices, uniform training, documentation of sampling, standard analytical protocols/procedures, QC checks with standard control limits, and universally accepted data reporting units to ensure comparability to other data sets. Through the proper implementation and documentation of these standard practices, the project has established the confidence that the data will be comparable to other project and programmatic information.

B.4.5 COMPLETENESS

Usable data are defined as those data that pass individual scrutiny during the verification and validation process and are accepted for unrestricted application to the human health risk assessment evaluation or equivalent-type applications. It has been determined that estimated data are acceptable for project objectives.

Objectives for this investigation have been achieved. The project produced valid results for more than 99 percent of the sample analyses performed and successfully collected all required investigation samples.

Table B-8. Sediment and Surface Water
Field Duplicate Evaluation—Relative Percent Difference and Absolute Difference

Analysis	Sediment H16211/H16221 RPD	Sediment H20211/H20221 RPD	Sediment H09211/H09221 RPD	Water H16111/H16121 RPD	Water H20111/H20121 RPD	Water H09111/H09121 RPD
<i>Volatile Organic Compounds</i>						
All Compounds	*	*	*	*	*	*
<i>Semivolatile Organic Compounds</i>						
All Compounds	*	*	*	*	*	*
Except bis(2-ethylhexyl)phthalate	*	*	*	UNAC	*	*
<i>GRO Compounds</i>						
	*	2	98	-	-	-
<i>DRO Compounds</i>						
	0	*	UNAC	-	-	-

* Acceptable = At least one value is greater than five times the reported detection level, and duplicate comparison is within three times the reported detection level.
 RPD = Relative Percent Difference.
 UNAC = Unacceptable. At least one value is less than five times the reported detection level, and duplicate comparison is greater than three times the reported detection level.

B.5 DATA QUALITY ASSESSMENT SUMMARY

The overall quality of the investigation information met or exceeded the established project objectives. Through proper implementation of the project data verification, validation, and assessment process, project information has been determined to be usable.

Data, as presented, have been qualified as usable but as estimated, when necessary. Estimated data accuracy, precision, or sensitivity was less than desired, but adequate for interpretation.

Data produced for this study demonstrated that they can withstand scientific scrutiny, are appropriate for their intended purpose, are technically defensible, and are of known and acceptable sensitivity, precision, and accuracy. Data integrity has been documented through proper implementation of QA/QC measures. The environmental information presented has an established confidence that allows utilization for the project objectives and provides data for future needs.

B.6 REFERENCES

EPA (U.S. Environmental Protection Agency) 1994a. USEPA National Functional Guidelines for Inorganic Data Review, EPA 540/R-94/013, Office of Emergency and Remedial Response, Washington, D.C.

EPA 1994b. USEPA National Functional Guidelines for Organic Data Review, EPA 540/R-94/012, Office of Emergency and Remedial Response, Washington, D.C.

EPA 1998. USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd edition, update III.

SAIC (Science Applications International Corporation) 1995. Data Validation Guidelines for Analytical Data, Quality Assurance Technical Procedure TP-DM-300-7, Rev.1.

SAIC 1999. Sampling and Analysis Plan for the Soil Gas Survey for Bulk Fuel Facility (HAA-09) Hunter Army Airfield, Georgia.

**ATTACHMENT 1
TO
APPENDIX B**

SAIC VALIDATION FLAGGING CODES

DATA VALIDATION REASON CODES**Organic, Inorganic, and Radiological Analytical Data****Holding Times**

- A01 Extraction holding times were exceeded.
- A02 Extraction holding times were grossly exceeded.
- A03 Analysis holding times were exceeded.
- A04 Analysis holding times were grossly exceeded.
- A05 Samples were not preserved properly.
- A06 Professional judgement was used to qualify the data.

GC/MS Tuning

- B01 Mass calibration was in error, even after applying expanded criteria.
- B02 Mass calibration was not performed every 12 hours.
- B03 Mass calibration did not meet ion abundance criteria.
- B04 Professional judgement was used to qualify the data.

Initial/Continuing Calibration – Organics

- C01 Initial calibration RRF was < 0.05 .
- C02 Initial calibration RDS was $> 30\%$.
- C03 Initial calibration sequence was not followed as required.
- C04 Continuing calibration RRF was < 0.05 .
- C05 Continuing calibration %D was $> 25\%$.
- C06 Continuing calibration was not performed at the required frequency.
- C07 Resolution criteria were not met.
- C08 RPD criteria were not met.
- C09 RDS criteria were not met.
- C10 Retention time of compounds was outside windows.
- C11 Compounds were not adequately resolved.
- C12 Breakdown of endrin or DDT was $> 30\%$.
- C13 Combined breakdown of endrin/DDT was $> 30\%$.
- C14 Professional judgement was used to qualify the data.

Initial/Continuing Calibration – Inorganics

- D01 ICV or CCV were not performed for every analyte.
- D02 ICV recovery was above the upper control limit.
- D03 ICV recovery was below the lower control limit.
- D04 CCV recovery was above the upper control limit.
- D05 CCV recovery was below the lower control limit.
- D06 Standard curve was not established with the minimum number of standards.
- D07 Instrument was not calibrated daily or each time the instrument was set up.
- D08 Correlation coefficient was <0.995 .
- D09 Mid range cyanide standard was not distilled.
- D10 Professional judgement was used to qualify the data.

ICP and Furnace Requirements

- E01 Interference check sample recovery was outside the control limit.
- E02 Duplicate injections were outside the control limit.
- E03 Post digestion spike recovery was outside the control limit.
- E04 MSA was required but not performed.
- E05 MSA correlation coefficient was <0.995 .
- E06 MSA spikes were not at the correct concentration.
- E07 Serial dilution criteria were not met.
- E08 Professional judgement was used to qualify the data.

Blanks

- F01 Sample data were qualified as a result of the method blank.
- F02 Sample data were qualified as a result of the field blank.
- F03 Sample data were qualified as a result of the equipment rinsate.
- F04 Sample data were qualified as a result of the trip blank.
- F05 Gross contamination exists.
- F06 Concentration of the contaminant was detected at a level below the CRQL.
- F07 Concentration of the contaminant was detected at a level less than the action limit, but greater than the CRQL.
- F08 Concentration of the contaminant was detected at a level that exceeds the action level.
- F09 No laboratory blanks were analyzed.
- F10 Blank had a negative value $>2\times$'s the IDL.
- F11 Blanks were not analyzed at required frequency.
- F12 Professional judgement was used to qualify the data.

Surrogate/Radiological Chemical Recovery

- G01 Surrogate/radiological chemical recovery was above the upper control limit.
- G02 Surrogate/radiological chemical recovery was below the lower control limit.
- G03 Surrogate recovery was <10%.
- G04 Surrogate recovery was zero.
- G05 Surrogate/radiological chemical recovery data was not present.
- G06 Professional judgement was used to qualify the data.
- G07 Radiological chemical recovery was <20%.
- G08 Radiological chemical recovery was >150%.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- H01 MS/MSD recovery was above the upper control limit.
- H02 MS/MSD recovery was below the lower control limit.
- H03 MD/MSD recovery was <10%.
- H04 MS/MSD pairs exceed the RPD limit.
- H05 No action was taken on MS/MSD limit.
- H06 Professional judgement was used to qualify the data.
- H07 Radiological MS/MSD recovery was <20%.
- H08 Radiological MS/MSD recovery was >160%.
- H09 Radiological MS/MSD samples were not analyzed at the required frequency.

Matrix Spike

- I01 MS recovery was above the upper control limit.
- I02 MS recovery was below the lower control limit.
- I03 MS recovery was <30%.
- I04 No action was taken on MS data.
- I05 Professional judgement was used to qualify the data.

Laboratory Duplicate

- J01 Duplicate RPD/radiological duplicate error ratio (DER) was outside the control limit.
- J02 Duplicate sample results were >5× the CRDL.
- J03 Duplicate sample results were <5× the CRDL.
- J04 Professional judgement was used to qualify the data.
- J05 Duplicate was not analyzed at the required frequency.

Internal Area Summary

- K01 Area counts were outside the control limits.
- K02 Extremely low area counts or performance was exhibited by a major drop off.
- K03 IS retention time varied by more than 30 seconds.
- K04 Professional judgement was used to qualify the data.

Pesticide Cleanup Checks

- L01 10% recovery was obtained during either check.
- L02 Recoveries during either check were >120%.
- L03 GPC Cleanup recoveries were outside the control limits.
- L04 Florisil cartridge cleanup recoveries were outside the control limits.
- L05 Professional judgement was used to qualify the data.

Target Compound Identification

- M01 Incorrect identifications were made.
- M02 Qualitative criteria were not met.
- M03 Cross contamination occurred.
- M04 Confirmatory analysis was not performed
- M05 No results were provided.
- M06 Analysis occurred outside 12 hr GC/MS window.
- M07 Professional judgement was used to qualify the data.
- M08 The %D between the two pesticide/PCB column checks was >25%.

Compound Quantitation and Reported CRQLs

- N01 Quantitation limits were affected by large off-scale peaks.
- N02 MDLs reported by the laboratory exceeded corresponding CRQLs.
- N03 Professional judgement used to qualify the data.

Tentatively Identified Compounds (TICs)

- O01 Compound was suspected laboratory contaminant and was not detected in the blank.
- O02 TIC result was not above 10× the level found in the blank.
- O03 Professional judgement was used to qualify analytical data.

Laboratory Control Samples (LCSs)

- P01 LCS recovery was above upper control limit.
- P02 LCS recovery was below lower control limit.
- P03 LCS recovery was <50%.
- P04 No action was taken on the LCS data.
- P05 LCS was not analyzed at required frequency.
- P06 Radiological LCS recovery was <50% for aqueous samples; <40% for solid samples.
- P07 Radiological LCS recovery was >150% for aqueous samples; >160% for solid samples.
- P08 Professional judgement was used to qualify the data.

Field Duplicate

- Q01 Field duplicate RPDs were >30% for waters and/or >50% for soils.
- Q02 Radiological field duplicate error ratio (DER) was outside the control limit.
- Q03 Duplicate sample results were >5× the CRDL.
- Q04 Duplicate sample results were <5× the CRDL.

Radiological Calibration

- R01 Efficiency calibration criteria were not met.
- R02 Energy calibration criteria were not met.
- R03 Resolution calibration criteria were not met.
- R04 Background determination criteria were not met.
- R05 Quench curve criteria were not met.
- R06 Absorption curve criteria were not met.
- R07 Plateau curve criteria were not met.
- R08 Professional judgement was used to qualify the data.

Radiological Calibration Verification

- S01 Efficiency verification criteria were not met.
- S02 Energy verification criteria were not met.
- S03 Resolution verification criteria were not met.
- S04 Background verification criteria were not met.
- S05 Cross-talk verification criteria were not met.
- S06 Professional judgement was used to qualify the data.

APPENDIX C

**ANALYTICAL LABORATORY DATA SHEETS AND
CHAIN-OF-CUSTODY RECORDS**

ANALYTICAL LABORATORY DATA

The analytical laboratory data and chain of custody for each surface water and sediment sample collected from Lamar Canal as part of the Soil Gas Survey at the Bulk Fuel Facility (HAA-09) are presented in this appendix. Data qualifiers and validation codes are presented below.

Laboratory Flags

- U** — Indicates that the compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution. For a soil/sediment sample, the value must also be corrected for percent moisture.
- J** — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the sample quantitation limit but greater than zero.
- P** — Used for pesticide/Aroclor target analytes when there is greater than 25 percent difference for detected concentrations between the two gas chromatography (GC) columns.
- C** — Applies to pesticide results where the identification has been confirmed by GC/mass spectrometry (MS). If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; instead, a laboratory-defined flag is used.
- B** — Used when the analyte is found in the associated blank as well as in the sample. Indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for TICs as well as for positively identified target compounds.
- E** — Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D** — Identifies all compounds identified^a in an analysis at a secondary dilution factor. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.
- A** — Indicates that a TIC is a suspected aldol-condensation product.
- X** — Other specific flags may be required to properly define the results. If used, they must be fully described and such description must be attached to the Sample Data Summary Package and the sample delivery group narrative.

Validation Flags

- U** — Indicates that the compound was analyzed for but was not detected above the reported sample quantitation limit.
- UJ** — Indicates that the compound was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the compound in the sample.
- J** — Indicates that the compound was positively identified; the associated numerical value is the approximate concentration of the compound in the sample.
- R** — Indicates that the sample results for the compound were rejected or unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the compound cannot be verified.
- =** — Indicates that the value has been validated, the compound has been positively identified, and the associated concentration value is accurate.

DATA QUALIFIER FLAGS FOR INORGANIC ANALYTICAL DATA

Laboratory Flags

- B** — Indicates that the reported value was obtained from a reading that was less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).
- U** — Indicates that the analyte was analyzed for but not detected.
- E** — Used when the reported value was estimated because of the presence of interference.
- M** — Indicates that the duplicate injection precision was not met.
- N** — Indicates that the spiked sample recovery was not within control limits.
- S** — Indicates that the reported value was determined by the method of standard additions (MSA).
- W** — Used when the post-digestion spike for furnace atomic absorption analysis is not within control limits (85 percent to 115 percent), while sample absorbance is less than 50 percent of spike absorbance.
- *** — Indicates that the duplicate analysis was not within control limits.
- +** — Indicates that the correlation coefficient for the MSA was less than 0.995.

Validation Flags

- U — Indicates that the analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ — Indicates that the compound was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the compound in the sample.
- J — Indicates that the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R — Indicates that the sample results for the analyte were rejected or unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- = — Indicates that the value has been validated, the analyte has been positively identified, and the associated concentration value is accurate.

ANALYTICAL DATA VALIDATION FLAGGING CODES

Holding Times

- A01 Extraction holding times were exceeded.
- A02 Extraction holding times were grossly exceeded.
- A03 Analysis holding times were exceeded.
- A04 Analysis holding times were grossly exceeded.
- A05 Samples were not preserved properly.
- A06 Professional judgment was used to qualify the data.

GC/MS Tuning

- B01 Mass calibration was in error, even after applying expanded criteria.
- B02 Mass calibration was not performed every 12 hours.
- B03 Mass calibration did not meet ion abundance criteria.
- B04 Professional judgment was used to qualify the data.

Initial/Continuing Calibration—Organics

- C01 Initial calibration RRF was less than 0.05.
- C02 Initial calibration RSD was greater than 30 percent.
- C03 Initial calibration sequence was not followed as required.
- C04 Continuing calibration RRF was less than 0.05.
- C05 Continuing calibration %D was greater than 25 percent.
- C06 Continuing calibration was not performed at the required frequency.
- C07 Resolution criteria were not met.

- C08 RPD criteria were not met.
- C09 RSD criteria were not met.
- C10 Retention time of compounds was outside windows.
- C11 Compounds were not adequately resolved.
- C12 Breakdown of endrin or DDT was greater than 20 percent.
- C13 Combined breakdown of endrin/DDT was greater than 30 percent.
- C14 Professional judgment was used to qualify the data.

Initial/Continuing Calibration–Inorganics

- D01 ICV or CCV was not performed for every analyte.
- D02 ICV recovery was above the upper control limit.
- D03 ICV recovery was below the lower control limit.
- D04 CCV recovery was above the upper control limit.
- D05 CCV recovery was below the lower control limit.
- D06 Standard curve was not established with the minimum number of standards.
- D07 Instrument was not calibrated daily or each time the instrument was set up.
- D08 Correlation coefficient was less than 0.995.
- D09 Mid-range cyanide standard was not distilled.
- D10 Professional judgment was used to qualify the data.

ICP and Furnace Requirements

- E01 Interference check sample recovery was outside the control limit.
- E02 Duplicate injections were outside the control limit.
- E03 Post-digestion spike recovery was outside the control limit.
- E04 MSA was required but not performed.
- E05 Correlation coefficient was less than 0.995.
- E06 MSA spikes were not at the correct concentration.
- E07 Serial dilution criteria were not met.
- E08 Professional judgment was used to qualify the data.

Blanks

- F01 Sample data were qualified as a result of the method blank.
- F02 Sample data were qualified as a result of the field blank.
- F03 Sample data were qualified as a result of the equipment rinsate.
- F04 Sample data were qualified as a result of the trip blank.
- F05 Gross contamination exists.
- F06 Concentration of the contaminant was detected at a level below the CRQL.
- F07 Concentration of the contaminant was detected at a level less than the action limit, but greater than the CRQL.
- F08 Concentration of the contaminant was detected at a level that exceeds the action level.
- F09 No laboratory blanks were analyzed.
- F10 Blank had a negative value greater than 2 times the IDL.
- F11 Blanks were not analyzed at required frequency.
- F12 Professional judgment was used to qualify the data.

Surrogate Recovery

- G01 Surrogate recovery was above the upper control limit.
- G02 Surrogate recovery was below the lower control limit.
- G03 Surrogate recovery was less than 10 percent.
- G04 Surrogate recovery was zero.
- G05 Surrogate recovery was not present.
- G06 Professional judgment was used to qualify the data.

Matrix Spike/Matrix Spike Duplicate

- H01 MS/MSD recovery was above the upper control limit.
- H02 MS/MSD recovery was below the lower control limit.
- H03 MS/MSD recovery was less than 10 percent.
- H04 MS/MSD pairs exceed the RPD limit.
- H05 No action was taken on MS/MSD results.
- H06 Professional judgment was used to qualify the data.

Matrix Spike

- I01 MS recovery was above the upper control limit.
- I02 MS recovery was below the lower control limit.
- I03 MS recovery was less than 30 percent.
- I04 No action was taken on MS data.
- I05 Professional judgment was used to qualify the data.

Laboratory Duplicate

- J01 Duplicate RPD/radiological DER was outside the control limit.
- J02 Duplicate sample results were greater than 5 times the CRDL.
- J03 Duplicate sample results were less than 5 times the CRDL.
- J04 Professional judgment was used to qualify the data.
- J05 Duplicate was not analyzed at the required frequency.

Internal Area Summary

- K01 Area counts were outside the control limits.
- K02 Extremely low area counts or performance was exhibited by a major drop off.
- K03 IS retention time varied by more than 30 seconds.
- K04 Professional judgment was used to qualify the data.

Pesticide Cleanup Checks

- L01 Ten percent recovery was obtained during either check.
- L02 Recoveries during either check were greater than 120 percent.
- L03 GPC cleanup recoveries were outside the control limits.

- L04 Florisil cartridge cleanup recoveries were outside the control limits.
- L05 Professional judgment was used to qualify the data.

Target Compound Identification

- M01 Incorrect identifications were made.
- M02 Qualitative criteria were not met.
- M03 Cross contamination occurred.
- M04 Confirmatory analysis was not performed.
- M05 No results were provided.
- M06 Analysis occurred outside 12-hour GC/MS window.
- M07 Professional judgment was used to qualify the data.
- M08 The %D between the two pesticide/PCB column checks was greater than 25 percent.

Compound Quantitation and Reported CRQLs

- N01 Quantitation limits were affected by large off-scale peaks.
- N02 MDLs reported by the laboratory exceeded corresponding CRQLs.
- N03 Professional judgment was used to qualify the data.

Laboratory Control Samples

- P01 LCS recovery was above upper control limit.
- P02 LCS recovery was below lower control limit.
- P03 LCS recovery was less than 50 percent.
- P04 No action was taken on the LCS data.
- P05 LCS was not analyzed at required frequency.
- P08 Professional judgment was used to qualify the data.

Field Duplicate

- Q01 No action was taken on the basis of field duplicate RPDs.
- Q03 Duplicate sample results were greater than 5 times the CRDL.
- Q04 Duplicate sample results were less than 5 times the CRDL.

**CHAIN-OF-CUSTODY
RECORDS**



SAIC - An Employee-Owned Company
Solutions - Applications - International Corporation

870 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4609

CHAIN OF CUSTODY RECORD

COC NO.: *BFFHARF 05089904*

PROJECT INFORMATION				REQUESTED PARAMETERS															TOTAL NUMBER OF CONTAINERS: <i>42</i>	
PROJECT NAME:	PROJECT NUMBER:	PROJECT MANAGER:	PROJECT DATE:																COOLER ID:	FEDEX NUMBER:
<i>Hunter BFF</i>	<i>033</i>	<i>Allison Bailey</i>																	<i>405</i>	
SAMPLE INFORMATION			OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS																	
Sample ID	Date Collected	Time Collected	Mark																	
<i>H04111</i>	<i>05/07/99</i>	<i>12:20</i>	<i>water</i>																	
<i>H04211</i>	<i>05/07/99</i>	<i>12:30</i>	<i>soil</i>																	
<i>H20121</i>	<i>05/07/99</i>	<i>15:40</i>	<i>water</i>																	
<i>H20221</i>	<i>05/07/99</i>	<i>15:50</i>	<i>soil</i>																	
<i>HTB005</i>	<i>05/07/99</i>	<i>09:30</i>	<i>water</i>																	
<i>H02111</i>	<i>05/07/99</i>	<i>15:08</i>	<i>water</i>																	
<i>H03111</i>	<i>05/07/99</i>	<i>15:30</i>	<i>water</i>																	
<i>R5GW03</i>	<i>05/07/99</i>	<i>14:50</i>	<i>water</i>																	
<i>H06111</i>	<i>05/07/99</i>	<i>17:20</i>	<i>water</i>																	
<i>H21111</i>	<i>05/07/99</i>	<i>11:00</i>	<i>water</i>																	
<i>H20111</i>	<i>05/07/99</i>	<i>19:20</i>	<i>water</i>																	
<i>H05111</i>	<i>05/07/99</i>	<i>15:40</i>	<i>water</i>																	
<i>H05111</i>	<i>05/07/99</i>	<i>11:45</i>	<i>water</i>																	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time																	
<i>Ken Swain</i>	<i>05/08/99</i>	<i>John Koehn</i>	<i>5/8/99</i>																	
COMPANY NAME:		COMPANY NAME:																		
<i>SAIC</i>	<i>0930</i>	<i>SAIC</i>	<i>1040</i>																	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time																	
<i>Debra Wunderly</i>	<i>5/4/99</i>	<i>John Koehn</i>	<i>5/8/99</i>																	
COMPANY NAME:		COMPANY NAME:																		
<i>SAIC</i>	<i>930</i>	<i>SAIC</i>	<i>1500</i>																	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time																	
<i>Debra Wunderly</i>	<i>5/6/99</i>	<i>P. Donoh</i>	<i>5/8/99</i>																	
COMPANY NAME:		COMPANY NAME:																		
<i>SAIC</i>	<i>1000</i>	<i>GEL</i>	<i>15:00</i>																	

Ensure samplers are packaged 3 per package and have a 48 hr holding disc. Includes a temp blank. Project #33



SATC An Employer-Owned Company
 Science Applications International Corporation

810 Oak Ridge Turnpike, Oak Ridge, TN 37831 (615) 481-4200

9905246%

CHAIN OF CUSTODY RECORD

COC NO.: BFF HAAF p5/p8 95

PROJECT NAME: Hunter BFF

PROJECT NUMBER: B33

PROJECT MANAGER: Allison Bailey

Sampler (Signature)

Printed Name

Ken Swain

Sample ID	Date Collected	Time Collected	Matrix
HΦ2111	05/07/99	1538	water
HΦ2211	05/07/99	1515	soil
HΦ1111	05/07/99	1530	water
HΦ1211	05/07/99	1535	soil

REQUESTED PARAMETERS

Requested Parameter	Moisture	VOC	SVOC	NO. of Bottles Vials	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
DRO, SUOCS				3	OPPM	
GRD Moisture				5		
MOISTURE				3		
				5		

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
<i>[Signature]</i>	05/08/99	Ken Swain	05/08/99
COMPANY NAME:		COMPANY NAME:	
SATC		SAIC	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
<i>[Signature]</i>	05/08/99	Ken Swain	05/08/99
COMPANY NAME:		COMPANY NAME:	
SATC		SAIC	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
<i>[Signature]</i>	05/08/99	P. Danner	05/08/99
COMPANY NAME:		COMPANY NAME:	
SATC		SAIC	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
<i>[Signature]</i>	05/08/99	P. Danner	05/08/99
COMPANY NAME:		COMPANY NAME:	
SAIC		SAIC	

TOTAL NUMBER OF CONTAINERS:	16	Cooler ID:	849
Cooler Temperature:	4°C	FEDEX NUMBER:	
Errors samples are packaged 3 per package and have 48 holding time. Includes temp blank Project # 33			



100 Old Mill Springs, Oak Ridge, TN 37831 (623) 457-4000

COC NO.: BFF HAAF 050899d

CHAIN OF CUSTODY RECORD

PROJECT INFORMATION			REQUESTED PARAMETERS										LABORATORY INFORMATION							
PROJECT NAME:	PROJECT NUMBER:	PROJECT MANAGER:	SYOC	VOC	DNOC	CMO	MOISTURE	No. of Retrieval Vials										LABORATORY NAME:		
Hunter BFF	033	Aubrey Bailey															General Engineering Laboratory			
Sampler (Signature)	Printed Name	Date Collected	Time Collected	Matrix	SYOC	VOC	DNOC	CMO	MOISTURE											LABORATORY ADDRESS:
<i>Ken Swain</i>	Ken Swain																2040 Savage Road Charleston, SC 29417			
Sample ID	Date Collected	Time Collected	Matrix	SYOC	VOC	DNOC	CMO	MOISTURE											PHONE NO.:	
H21211	05/07/99	1940	Soil														(803) 566-8171			
H21111	05/07/99	1930	Water																	
H20111	05/07/99	1540	Water																	
H20211	05/07/99	1550	Soil																	
H05111	05/07/99	1145	Water																	
H05211	05/07/99	1200	Soil																	
										OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS										
										DVA SCREENING										
										Cooler Temperature: 40C										
										FEDEX NUMBER:										
										TOTAL NUMBER OF CONTAINERS: 24										
										Cooler ID: 746										
										Enops samples are packaged 3 per package and have a 48 hr holding time. Includes a temp blank.										
										Project # 33										
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME					
<i>Ken Swain</i>	5/8/99 0920	<i>P. B. Hochstetler</i>	5/8/99 1040	<i>Ken Swain</i>	5/8/99 0920	<i>P. B. Hochstetler</i>	5/8/99 1500	<i>Ken Swain</i>	5/8/99 1040	<i>P. D. Jones</i>	5/8/99 1500	<i>Ken Swain</i>	5/8/99 1040	<i>P. D. Jones</i>	5/8/99 1500					
SAIC		SAIC		SAIC		SAIC		SAIC		SAIC		SAIC		SAIC						

152

COC NO.: BFF HAAF 05089902

CHAIN OF CUSTODY RECORD

PROJECT NAME: Hunter BFF

PROJECT NUMBER: 033

PROJECT MANAGER: Allison Bailey

Sample (Signed): *K.L. Ker Swain* (Printed Name)

Sample ID	Date Collected	Time Collected	Mixta
5 RSGWP3	05/07/99	1720	water
6 H0311	05/07/99	1450	water
7 H03211	05/07/99	1459	soil
8 H06111	05/07/99	1100	water
9 H06211	05/07/99	1115	soil

LABORATORY NAME: General Engineering Laboratory
 LABORATORY ADDRESS: 2040 Savage Road, Charleston, SC 29417
 PHONE NO: (803) 556-8171

LABORATORY COMMENTS, SPECIAL INSTRUCTIONS: *paper*

REQUESTED PARAMETERS: *5/10/99*

DATE/TIME	BY	COMPANY	DATE/TIME	BY	COMPANY
05/08/99 0930	<i>[Signature]</i>	SAIC	05/08/99 1040	<i>[Signature]</i>	SAIC
05/08/99 1040	<i>[Signature]</i>	SAIC	05/08/99 1500	<i>[Signature]</i>	SAIC

RECEIVED BY: *[Signature]* COMPANY NAME: *[Signature]*
 RECEIVED BY: *[Signature]* COMPANY NAME: *[Signature]*

TOTAL NUMBER OF CONTAINERS: 19
 Cooler ID: 785
 Cooler Temperature: Cool 4°C
 FEDEX NUMBER: *[Blank]*

Encore samples are packaged 3 per package and have 48 hr holding time.
 Includes a temp blank
 Project #33



Science Applications International Corporation
 An Employee-Owned Company
 44 Oak Ridge Terrace, Oak Ridge, TN 37831 (423) 471-4400

CHAIN OF CUSTODY RECORD

COC NO.: BFF H99E 1507790A

99052379

PROJECT NAME: Hunter BFF
 PROJECT NUMBER: 033
 PROJECT MANAGER: Aileen Bailey

Prepared Name: Ken Swain

Sample ID	Date Collected	Time Collected	Matrix	SWC	VOC	ORG SUCCS	GRD	MOISTURE	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
H09111	05/06/99	1530	water	3					3/1/99	1130	5/7/99	15:20
H09211	05/06/99	1540	sediment	3	1				3/1/99	1130	5/7/99	15:20
H09121	05/06/99	1530	water	3					3/1/99	1130	5/7/99	15:20
H09221	05/06/99	1540	sediment	3	1				3/1/99	1130	5/7/99	15:20

LABORATORY NAME: General Engineering Laboratory
 LABORATORY ADDRESS: 2040 Savage Road, Charleston, SC 29417
 PHONE NO: (803) 556-8171

LABORATORY COMMENTS: 48 hr holding time

REQUESTED PARAMETERS: VOC, SWC, ORG SUCCS, GRD, MOISTURE

RECEIVED BY: [Signature] COMPANY NAME: SATEC
 RECEIVED BY: [Signature] COMPANY NAME: SATEC
 RECEIVED BY: [Signature] COMPANY NAME: SATEC

RELINQUISHED BY: [Signature] COMPANY NAME: SATEC
 RELINQUISHED BY: [Signature] COMPANY NAME: SATEC

RECEIVED BY: P. Lawler COMPANY NAME: GSI
 RECEIVED BY: GSI

COOLER TEMPERATURE: 40C
 FEDEX NUMBER: 688
 TOTAL NUMBER OF CONTAINERS: 16
 Enclose samples are packaged 3 per container (48 hr holding time)
 Includes Temperature blank.

CHAIN OF CUSTODY RECORD

Requester (Signature)	Date Collected	Time Collected	Matrix	Requested Parameters	No. of Material/Vials	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
(Printed Name) Ken Surcin							
H10111	05/06/99	1514	Water	REQUESTED PARAMETERS DRO, SUCCS MOISTURE DRO VOC SVOC	3	0PRM	
H10211	05/06/99	1515	Sediment		5	/	
RSGW01	05/06/99	1745	Water		3	/	
RSGW02	05/06/99	1755	Water		3	/	
 Requester (Signature) _____ Date Collected _____ Time Collected _____ Matrix _____ Requested Parameters _____ No. of Material/Vials _____ OVA SCREENING _____ OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS _____ 							
ENQUIRED BY:	Date/Time	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:		
SAIC	05/07/99	0915	<i>[Signature]</i>	05/07/99	14		
SAIC	05/07/99	0915	<i>[Signature]</i>	05/07/99	756		
SAIC	05/07/99	1500	<i>[Signature]</i>	05/07/99	Encore samples packaged 3 per package (85% holding time)		
SAIC	05/07/99	1500	<i>[Signature]</i>	05/07/99	Includes Temp blank.		
				Code/ID: 756			
				Code/Temp: 40C			
				FEDEX NUMBER:			

CHAIN OF CUSTODY RECORD

COC NO.: BFF HNAF 05079802

PROJECT INFORMATION				REQUESTED PARAMETERS										LABORATORY INFORMATION			
PROJECT NAME:	PROJECT NUMBER:	PROJECT MANAGER:	Sampler (Signature)	Sample ID	Date Collected	Time Collected	Matrix	VOC	SVOC	VOC, SVOCs	GR0	MOISTURE	VOC, TPH (GR0)	No. of Bottles/Vials	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS	
Hunter BFF	033	Allison Bailey	<i>[Signature]</i>	H1111	05/06/99	1420	Water	3	3					5	OPPR	Encore Samples - see instructions	
			<i>[Signature]</i>	H1121	05/06/99	1430	Sediment	3	1					5			
			<i>[Signature]</i>	H1711	05/06/99	1740	Water	3	2					5			
			<i>[Signature]</i>	H1721	05/06/99	1750	Sediment	3	1					5			
			<i>[Signature]</i>	H1811	05/06/99	1510	Water	2						2			
			<i>[Signature]</i>	H1821	05/06/99	1530	Water	2						2			
			<i>[Signature]</i>	H1831	05/06/99	1610	Water	2						2			
			<i>[Signature]</i>	H19121	05/06/99	1530	Water	2						2			
			<i>[Signature]</i>	H196W01	05/06/99	1745	Water	2						2			
			<i>[Signature]</i>	H196W02	05/06/99	1755	Water	2						2			
			<i>[Signature]</i>	H13111	05/06/99	1120	Water	2						2			
			<i>[Signature]</i>	H12111	05/06/99	1210	Water	2						2			
			<i>[Signature]</i>	H17B004	05/06/99	0930	Water	2						2			
RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				Cooler Temperature: 4°C	
DATE: 05/07/99				DATE: 05/07/99				DATE: 05/07/99				DATE: 05/07/99				FEDEX NUMBER:	
COMPANY NAME: SAIC				COMPANY NAME: SAIC				COMPANY NAME: SAIC				COMPANY NAME: SAIC				Cooler ID: 174	
RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				TOTAL NUMBER OF CONTAINERS: 38	
DATE: 5/7/99				DATE: 5/7/99				DATE: 5/7/99				DATE: 5/7/99				Cooler ID: 174	
COMPANY NAME: SAIC				COMPANY NAME: SAIC				COMPANY NAME: SAIC				COMPANY NAME: SAIC				Encore samples packaged 3/pack (48 in total)	
RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				RECEIVED BY: <i>[Signature]</i>				Includes one temp. blank	
DATE: 5/7/99				DATE: 5/7/99				DATE: 5/7/99				DATE: 5/7/99					
COMPANY NAME: SAIC				COMPANY NAME: SAIC				COMPANY NAME: SAIC				COMPANY NAME: SAIC					

99050379

CHAIN OF CUSTODY RECORD

COC NO.: 8FFHRAE05079903

PROJECT NAME: Hunter BFF

PROJECT NUMBER: 033

PROJECT MANAGER: Allison Bailey

Sampler (Signature): *[Signature]* (Printed Name): Ken Swain

Sample ID	Date Collected	Time Collected	Matrix	SYOC	VOC	DMG, Seeps	DMG, Moisture	Requested Parameters	No. of Bottles/Vials	DVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
18 H08111	05/06/99	1610	Water	3	1	1	1	1	5	KS	
19 H08211	05/06/99	1620	Soil	3	1	1	1	1	5	KS	
20 H12111	05/06/99	1120	Water	3	1	1	1	1	3		
21 H12211	05/06/99	1130	Sediment	3	1	1	1	1	3		
22 H12111	05/06/99	1210	Water	3	1	1	1	1	5		
23 H12211	05/06/99	1220	Sediment	3	1	1	1	1	5		

1. 2. 1. 2. 1. 2. 1. 2.

RELINQUISHED BY: *[Signature]*

COMPANY NAME: SAIC

RECEIVED BY: *[Signature]*

COMPANY NAME: SAIC

RECEIVED BY: *[Signature]*

COMPANY NAME: SAIC

Date/Time: 05/07/99

COMPANY NAME: GEC

Date/Time: 5/7/99

COMPANY NAME: GEC

Date/Time: 5/7/99

COMPANY NAME: GEC

Date/Time: 5/7/99

COMPANY NAME: GEC

Date/Time: 5/7/99

COMPANY NAME: GEC

Date/Time: 5/7/99

COMPANY NAME: GEC

TOTAL NUMBER OF CONTAINERS: 24

Cooler ID: 538

Cooler Temperature: 40C

FEDEX NUMBER:

Each sample are packaged 3 per package (48x1.25)
 Includes 1 temperature blank

COC NO.: BFF HAAAF 0506992

CHAIN OF CUSTODY RECORD

PROJECT INFORMATION			REQUESTED PARAMETERS				LABORATORY INFORMATION	
PROJECT NAME: Hunter BFF			LABORATORY NAME: General Engineering Laboratory				LABORATORY ADDRESS: 2040 Savage Road, Charleston, SC 29417	
PROJECT NUMBER: 033			PHONE NO: (803) 556-8171				OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: 0905205	
PROJECT MANAGER: Allison Bailey			No. of Borehole Vials:				DTA SCREENING	
Sampler (Signature): <i>Ken Swain</i>			Date Collected				Time Collected	
Date Collected			Media				Matrix	
HTB002	05/04/99	2230	Water	2	2	2	NA	0905205-01
H17211	05/05/99	1025	Sediment	3	1	5	0ppm	02
H15111	05/05/99	1700	Water	3	1	5	0ppm	03
H15211	05/05/99	1715	Sediment	3	1	5	0ppm	04
H14111	05/06/99	0820	Water	3	1	5	0ppm	05
H14211	05/06/99	0840	Sediment	3	1	5	0ppm	06
H17111	05/05/99	1015	Water	2	1	2	0ppm	07
H16111	05/05/99	1430	Water	2	1	2	0ppm	08
H16121	05/05/99	1430	Water	2	1	2	0ppm	09
RELINQUISHED BY: <i>Ken Swain</i>			Date/Time: 05/06/99				RECEIVED BY: <i>Dennis Summers</i>	
COMPANY NAME: SAIC			Date/Time: 05/06/99				COMPANY NAME: SAIC	
RECEIVED BY: <i>M.V.S.</i>			Date/Time: 05/06/99				RELINQUISHED BY: <i>Dennis Summers</i>	
COMPANY NAME: SAIC			Date/Time: 05/06/99				COMPANY NAME: SAIC	
RELINQUISHED BY: <i>M.V.S.</i>			Date/Time: 05/06/99				RECEIVED BY: <i>Ken Swain</i>	
COMPANY NAME: SAIC			Date/Time: 05/06/99				COMPANY NAME: SAIC	

DATE/TIME	INITIALS	DATE/TIME	INITIALS	DATE/TIME	INITIALS	DATE/TIME	INITIALS
05/06/99	<i>Ken Swain</i>	05/06/99	<i>Dennis Summers</i>	05/06/99	<i>Dennis Summers</i>	05/06/99	<i>Ken Swain</i>
05/06/99	<i>M.V.S.</i>	05/06/99	<i>M.V.S.</i>	05/06/99	<i>M.V.S.</i>	05/06/99	<i>M.V.S.</i>

TOTAL NUMBER OF CONTAINERS: 33
 Cooler Temperature: 40C
 FEDEX NUMBER: 588
 Error ID: 588

Errors: samples packaged 3 per bag. (48 hr holding time)
 Temperature blank included

REC'D BFF-logged 5/6/99 11:45
 P. Power 5-6-99 11:45



FOR Oak Ridge Triangle, Oak Ridge, TN 37831 (423) 481-4800

An Employer-Owned Company
Solves Applications International Corporation

CHAIN OF CUSTODY RECORD

COC NO.: BFF-HARR-050699

PROJECT NAME: Hunter BFF

PROJECT NUMBER: 033

PROJECT MANAGER: Allison Bailey

Sampler (Signature)

Ken Swain
(Printed Name)
Ken Swain

Sample ID	Date Collected	Time Collected	Matrix
H17111	05/05/99	1015	Water
H17211	05/05/99	1025	Sediment
H16111	05/05/99	1430	Water
H16211	05/05/99	1450	Sediment
H16221	05/05/99	1450	Sediment
H16121	05/05/99	1430	Water

REQUEST: PARAMETERS

Parameter	Request	Result	Notes
DRG, SVOCs			
CRD, Metabolite			
MOISTURE			
NO. OF BOTTLES/VIALS			
3	Beer	10	
5	Beer	11	
3	Beer	12	
5	Beer	13	
5	Beer	14	
3	Beer	15	

LABORATORY NAME:
General Engineering Laboratory

LABORATORY ADDRESS:
2040 Savage Road
Charleston, SC 29417

PHONE NO: (803) 556-8171

DVA SCREENING

ONE-PART. NO. COMMENTS
SPECIAL INSTRUCTIONS

REUNDISHED BY:

COMPANY NAME:

RECEIVED BY:

COMPANY NAME:

REUNDISHED BY:

COMPANY NAME:

Date/Time

RECEIVED BY:

COMPANY NAME:

Date/Time

REUNDISHED BY:

COMPANY NAME:

Date/Time

RECEIVED BY:

COMPANY NAME:

Date/Time

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

24

Cooler Temperature:

4°C

FEDEX NUMBER:

NA

Ensure samples are packaged 3 per container. (48/48)
Temperature that is checked (1145)

Ken Swain
P. Nowak 5-6-99 11:45



190 Old Maple Turnpike, Oak Ridge, TN 37831 A231 611-6000

99051123

CHAIN OF CUSTODY RECORD

COC NO.: BFF HARR 05049101

PROJECT NAME: Hunter BFF
 PROJECT NUMBER: 033
 PROJECT MANAGER: Allison Bailey

Sampler (Signature): *Mitchell Hall* (Printed Name): Mitchell Hall

Sample ID	Date Collected	Time Collected	Matrix	SIOC	YOC	DDO, SIOC, YOC	MOISTURE	NO. OF BOTTLED VIALS
H19111	5-4-99	1620	WATER	3	2			5
H19211	5-4-99	1620	SOIL	3	1			5
HTB001	5-4-99	1530	WATER	2				2
H18111	5-5-99	0900	Water	3				5
H18211	5-5-99	0910	Soil	3				5

LABORATORY NAME: General Engineering Laboratory
 LABORATORY ADDRESS: 2040 Savage Road, Charleston, SC 29417
 PHONE NO: (803) 556-8171

CONCENTRATION: 0.0 ppm
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: NONE

CONCENTRATION: 0.0 ppm
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: NONE

CONCENTRATION: N/A
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: NONE

CONCENTRATION: 0.0 ppm
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: NONE

CONCENTRATION: 0.0 ppm
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: NONE

CONCENTRATION: 0.0 ppm
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS: NONE

TEMPERATURE: 4°C ± 2°C 5°C
 FEDEX NUMBER: N/A COURIER SERVICE USED

TOTAL NUMBER OF CONTAINERS: 22
 Cooler ID: 472

RECEIVED BY: *Raymond Reed*
 COMPANY NAME: G.E.L.

RELINQUISHED BY: *Raymond Reed*
 COMPANY NAME: G.E.L.

RECEIVED BY: *P. K. ...*
 COMPANY NAME: ...

RELINQUISHED BY: *...*
 COMPANY NAME: ...

DATE/TIME: 5/5/99 11:10
 DATE/TIME: 5/5/99 14:00
 DATE/TIME: 5/5/99 14:10

NOTE: ENCORE SAMPLES INCLUDED (48 HR HOLDING TIME)

**SURFACE WATER
DATA SHEETS**

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H01111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-22

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J433

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10 2.3	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

MVA
6/9/99

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UFO, F06
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H01111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-03

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T418

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.1	U
111-44-4	bis(2-chloroethyl) ether	10.1	U
95-57-8	2-chlorophenol	10.1	U
541-73-1	1,3-dichlorobenzene	10.1	U
106-46-7	1,4-dichlorobenzene	10.1	U
95-50-1	1,2-dichlorobenzene	10.1	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.1	U
95-48-7	2-methylphenol	10.1	U
621-64-7	N-nitroso-di-n-propylamine	10.1	U
106-44-5	m,p-cresol	10.1	U
67-72-1	hexachloroethane	10.1	U
98-95-3	nitrobenzene	10.1	U
78-59-1	isophorone	10.1	U
88-75-5	2-nitrophenol	10.1	U
105-67-9	2,4-dimethylphenol	10.1	U
111-91-1	bis(2-chloroethoxy)methane	10.1	U
120-83-2	2,4-dichlorophenol	10.1	U
120-82-1	1,2,4-trichlorobenzene	10.1	U
91-20-3	naphthalene	10.1	U
106-47-8	4-chloroaniline	20.2	U
87-68-3	hexachlorobutadiene	10.1	U
59-50-7	4-chloro-3-methylphenol	10.1	U
91-57-6	2-methylnaphthalene	10.1	U
77-47-4	hexachlorocyclopentadiene	10.1	U
88-06-2	2,4,6-trichlorophenol	10.1	U
95-95-4	2,4,5-trichlorophenol	10.1	U
91-58-7	2-chloronaphthalene	10.1	U
99-09-2	3-nitroaniline	25.2	U
88-74-4	2-nitroaniline	25.2	U
131-11-3	dimethylphthalate	10.1	U
606-20-2	2,6-dinitrotoluene	10.1	U
208-96-8	acenaphthylene	10.1	U
83-32-9	acenaphthene	10.1	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H01111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-03

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T418

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.2	U
132-64-9	dibenzofuran	10.1	U
121-14-2	2,4-dinitrotoluene	10.1	U
84-66-2	diethylphthalate	10.1	U
100-02-7	4-nitrophenol	20.2	U
86-73-7	fluorene	10.1	U
7005-72-3	4-chlorophenylphenylether	10.1	U
534-52-1	4,6-dinitro-2-methylphenol	10.1	U
100-01-6	4-nitroaniline	25.2	U
101-55-3	4-bromophenylphenylether	10.1	U
118-74-1	hexachlorobenzene	10.1	U
87-86-5	pentachlorophenol	10.1	U
85-01-8	phenanthrene	10.1	U
120-12-7	anthracene	10.1	U
84-74-2	di-n-butylphthalate	10.1	U
206-44-0	fluoranthene	10.1	U
129-00-0	pyrene	10.1	U
85-68-7	butylbenzylphthalate	10.1	U
56-55-3	benzo(a)anthracene	10.1	U
91-94-1	3,3'-dichlorobenzidine	50.5	U
218-01-9	chrysene	10.1	U
117-81-7	bis(2-ethylhexyl)phthalate	10.1	U
117-84-0	di-n-octylphthalate	10.1	U
205-99-2	benzo(b)fluoranthene	10.1	U
207-08-9	benzo(k)fluoranthene	10.1	U
50-32-8	benzo(a)pyrene	10.1	U
193-39-5	indeno(1,2,3-cd)pyrene	10.1	U
53-70-3	dibenz(a,h)anthracene	10.1	U
191-24-2	benzo(g,h,i)perylene	10.1	U
122-39-4	diphenylamine	10.1	U
86-74-8	Carbazole	10.1	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-21

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J432

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10.0	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

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U F01, F06
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-01

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 8T417

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.2	U
111-44-4	bis(2-chloroethyl) ether	10.2	U
95-57-8	2-chlorophenol	10.2	U
541-73-1	1,3-dichlorobenzene	10.2	U
106-46-7	1,4-dichlorobenzene	10.2	U
95-50-1	1,2-dichlorobenzene	10.2	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.2	U
95-48-7	2-methylphenol	10.2	U
621-64-7	N-nitroso-di-n-propylamine	10.2	U
106-44-5	m,p-cresol	10.2	U
67-72-1	hexachloroethane	10.2	U
98-95-3	nitrobenzene	10.2	U
78-59-1	isophorone	10.2	U
88-75-5	2-nitrophenol	10.2	U
105-67-9	2,4-dimethylphenol	10.2	U
111-91-1	bis(2-chloroethoxy)methane	10.2	U
120-83-2	2,4-dichlorophenol	10.2	U
120-82-1	1,2,4-trichlorobenzene	10.2	U
91-20-3	naphthalene	10.2	U
106-47-8	4-chloroaniline	20.4	U
87-68-3	hexachlorobutadiene	10.2	U
59-50-7	4-chloro-3-methylphenol	10.2	U
91-57-6	2-methylnaphthalene	10.2	U
77-47-4	hexachlorocyclopentadiene	10.2	U
88-06-2	2,4,6-trichlorophenol	10.2	U
95-95-4	2,4,5-trichlorophenol	10.2	U
91-58-7	2-chloronaphthalene	10.2	U
99-09-2	3-nitroaniline	25.5	U
88-74-4	2-nitroaniline	25.5	U
131-11-3	dimethylphthalate	10.2	U
606-20-2	2,6-dinitrotoluene	10.2	U
208-96-8	acenaphthylene	10.2	U
83-32-9	acenaphthene	10.2	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-01
 Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 8T417
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.4	U
132-64-9	dibenzofuran	10.2	U
121-14-2	2,4-dinitrotoluene	10.2	U
84-66-2	diethylphthalate	10.2	U
100-02-7	4-nitrophenol	20.4	U
86-73-7	fluorene	10.2	U
7005-72-3	4-chlorophenylphenylether	10.2	U
534-52-1	4,6-dinitro-2-methylphenol	10.2	U
100-01-6	4-nitroaniline	25.5	U
101-55-3	4-bromophenylphenylether	10.2	U
118-74-1	hexachlorobenzene	10.2	U
87-86-5	pentachlorophenol	10.2	U
85-01-8	phenanthrene	10.2	U
120-12-7	anthracene	10.2	U
84-74-2	di-n-butylphthalate	10.2	U
206-44-0	fluoranthene	10.2	U
129-00-0	pyrene	10.2	U
85-68-7	butylbenzylphthalate	10.2	U
56-55-3	benzo (a) anthracene	10.2	U
91-94-1	3,3'-dichlorobenzidine	51.0	U
218-01-9	chrysene	10.2	U
117-81-7	bis(2-ethylhexyl)phthalate	10.2	U
117-84-0	di-n-octylphthalate	10.2	U
205-99-2	benzo (b) fluoranthene	10.2	U
207-08-9	benzo (k) fluoranthene	10.2	U
50-32-8	benzo (a) pyrene	10.2	U
193-39-5	indeno (1,2,3-cd) pyrene	10.2	U
53-70-3	dibenz (a,h) anthracene	10.2	U
191-24-2	benzo (g,h,i) perylene	10.2	U
122-39-4	diphenylamine	10.2	U
86-74-8	Carbazole	10.2	U

FORM I SV-2

OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H03111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
 Matrix: (soil/water) WATER Lab Sample ID: 9905245-23
 Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J434
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: not dec. _____ Date Analyzed: 05/21/99
 GC Column: DB-624 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	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10 2.3	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

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FORM I VOA OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H03111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T420

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H03111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T420

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
122-39-4	diphenylamine	10.0	U
86-74-8	Carbazole	10.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H04111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-16

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J507

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10	U
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	5.0	U
71-55-6	1,1,1-trichloroethane	10.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

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U FOI, F06

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FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H04111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-16

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 8T425

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	9.9	U
111-44-4	bis(2-chloroethyl) ether	9.9	U
95-57-8	2-chlorophenol	9.9	U
541-73-1	1,3-dichlorobenzene	9.9	U
106-46-7	1,4-dichlorobenzene	9.9	U
95-50-1	1,2-dichlorobenzene	9.9	U
108-60-1	2,2'-Oxybis(1-chloropropane)	9.9	U
95-48-7	2-methylphenol	9.9	U
621-64-7	N-nitroso-di-n-propylamine	9.9	U
106-44-5	m,p-cresol	9.9	U
67-72-1	hexachloroethane	9.9	U
98-95-3	nitrobenzene	9.9	U
78-59-1	isophorone	9.9	U
88-75-5	2-nitrophenol	9.9	U
105-67-9	2,4-dimethylphenol	9.9	U
111-91-1	bis(2-chloroethoxy) methane	9.9	U
120-83-2	2,4-dichlorophenol	9.9	U
120-82-1	1,2,4-trichlorobenzene	9.9	U
91-20-3	naphthalene	9.9	U
106-47-8	4-chloroaniline	19.8	U
87-68-3	hexachlorobutadiene	9.9	U
59-50-7	4-chloro-3-methylphenol	9.9	U
91-57-6	2-methylnaphthalene	9.9	U
77-47-4	hexachlorocyclopentadiene	9.9	U
88-06-2	2,4,6-trichlorophenol	9.9	U
95-95-4	2,4,5-trichlorophenol	9.9	U
91-58-7	2-chloronaphthalene	9.9	U
99-09-2	3-nitroaniline	24.8	U
88-74-4	2-nitroaniline	24.8	U
131-11-3	dimethylphthalate	9.9	U
606-20-2	2,6-dinitrotoluene	9.9	U
208-96-8	acenaphthylene	9.9	U
83-32-9	acenaphthene	9.9	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H04111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-16

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 8T425

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
51-28-5	2,4-dinitrophenol	19.8	U
132-64-9	dibenzofuran	9.9	U
121-14-2	2,4-dinitrotoluene	9.9	U
84-66-2	diethylphthalate	9.9	U
100-02-7	4-nitrophenol	19.8	U
86-73-7	fluorene	9.9	U
7005-72-3	4-chlorophenylphenylether	9.9	U
534-52-1	4,6-dinitro-2-methylphenol	9.9	U
100-01-6	4-nitroaniline	24.8	U
101-55-3	4-bromophenylphenylether	9.9	U
118-74-1	hexachlorobenzene	9.9	U
87-86-5	pentachlorophenol	9.9	U
85-01-8	phenanthrene	9.9	U
120-12-7	anthracene	9.9	U
84-74-2	di-n-butylphthalate	9.9	U
206-44-0	fluoranthene	9.9	U
129-00-0	pyrene	9.9	U
85-68-7	butylbenzylphthalate	9.9	U
56-55-3	benzo(a)anthracene	9.9	U
91-94-1	3,3'-dichlorobenzidine	49.5	U
218-01-9	chrysene	9.9	U
117-81-7	bis(2-ethylhexyl)phthalate	9.9	U
117-84-0	di-n-octylphthalate	9.9	U
205-99-2	benzo(b)fluoranthene	9.9	U
207-08-9	benzo(k)fluoranthene	9.9	U
50-32-8	benzo(a)pyrene	9.9	U
193-39-5	indeno(1,2,3-cd)pyrene	9.9	U
53-70-3	dibenz(a,h)anthracene	9.9	U
191-24-2	benzo(g,h,i)perylene	9.9	U
122-39-4	diphenylamine	9.9	U
86-74-8	Carbazole	9.9	U

FORM I SV-2

OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H05111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-28

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J439

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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
74-87-3	-----chloromethane	10.0	U
74-83-9	-----bromomethane	10.0	U
75-01-4	-----vinyl chloride	2.0	U
75-00-3	-----chloroethane	10.0	U
75-09-2	-----methylene chloride	5.0	U
67-64-1	-----acetone	10 2.6	JB
75-15-0	-----carbon disulfide	5.0	U
75-35-4	-----1,1-dichloroethene	5.0	U
75-34-3	-----1,1-dichloroethane	5.0	U
67-66-3	-----chloroform	5.0	U
107-06-2	-----1,2-dichloroethane	5.0	U
78-93-3	-----2-butanone	10.0	U
71-55-6	-----1,1,1-trichloroethane	5.0	U
56-23-5	-----carbon tetrachloride	5.0	U
75-27-4	-----bromodichloromethane	5.0	U
78-87-5	-----1,2-dichloropropane	5.0	U
10061-01-5	-----cis-1,3-dichloropropene	5.0	U
79-01-6	-----trichloroethene	5.0	U
124-48-1	-----dibromochloromethane	5.0	U
79-00-5	-----1,1,2-trichloroethane	5.0	U
71-43-2	-----benzene	5.0	U
10061-02-6	-----trans-1,3-dichloropropene	5.0	U
75-25-2	-----bromoform	5.0	U
108-10-1	-----4-methyl-2-pentanone	10.0	U
591-78-6	-----2-hexanone	10.0	U
127-18-4	-----tetrachloroethene	5.0	U
79-34-5	-----1,1,2,2-tetrachloroethane	5.0	U
108-88-3	-----toluene	2.0	U
108-90-7	-----chlorobenzene	5.0	U
100-41-4	-----ethylbenzene	5.0	U
100-42-5	-----styrene	5.0	U
1330-20-7	-----xylenes (total)	5.0	U
540-59-0	-----1,2-dichloroethylene (total)	5.0	U

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U F01, F06
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H05111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-14

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T424

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.1	U
111-44-4	bis(2-chloroethyl) ether	10.1	U
95-57-8	2-chlorophenol	10.1	U
541-73-1	1,3-dichlorobenzene	10.1	U
106-46-7	1,4-dichlorobenzene	10.1	U
95-50-1	1,2-dichlorobenzene	10.1	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.1	U
95-48-7	2-methylphenol	10.1	U
621-64-7	N-nitroso-di-n-propylamine	10.1	U
106-44-5	m,p-cresol	10.1	U
67-72-1	hexachloroethane	10.1	U
98-95-3	nitrobenzene	10.1	U
78-59-1	isophorone	10.1	U
88-75-5	2-nitrophenol	10.1	U
105-67-9	2,4-dimethylphenol	10.1	U
111-91-1	bis(2-chloroethoxy)methane	10.1	U
120-83-2	2,4-dichlorophenol	10.1	U
120-82-1	1,2,4-trichlorobenzene	10.1	U
91-20-3	naphthalene	10.1	U
106-47-8	4-chloroaniline	20.2	U
87-68-3	hexachlorobutadiene	10.1	U
59-50-7	4-chloro-3-methylphenol	10.1	U
91-57-6	2-methylnaphthalene	10.1	U
77-47-4	hexachlorocyclopentadiene	10.1	U
88-06-2	2,4,6-trichlorophenol	10.1	U
95-95-4	2,4,5-trichlorophenol	10.1	U
91-58-7	2-chloronaphthalene	10.1	U
99-09-2	3-nitroaniline	25.2	U
88-74-4	2-nitroaniline	25.2	U
131-11-3	dimethylphthalate	10.1	U
606-20-2	2,6-dinitrotoluene	10.1	U
208-96-8	acenaphthylene	10.1	U
83-32-9	acenaphthene	10.1	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H05111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-14

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T424

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.2	U
132-64-9	dibenzofuran	10.1	U
121-14-2	2,4-dinitrotoluene	10.1	U
84-66-2	diethylphthalate	10.1	U
100-02-7	4-nitrophenol	20.2	U
86-73-7	fluorene	10.1	U
7005-72-3	4-chlorophenylphenylether	10.1	U
534-52-1	4,6-dinitro-2-methylphenol	10.1	U
100-01-6	4-nitroaniline	25.2	U
101-55-3	4-bromophenylphenylether	10.1	U
118-74-1	hexachlorobenzene	10.1	U
87-86-5	pentachlorophenol	10.1	U
85-01-8	phenanthrene	10.1	U
120-12-7	anthracene	10.1	U
84-74-2	di-n-butylphthalate	10.1	U
206-44-0	fluoranthene	10.1	U
129-00-0	pyrene	10.1	U
85-68-7	butylbenzylphthalate	10.1	U
56-55-3	benzo(a)anthracene	10.1	U
91-94-1	3,3'-dichlorobenzidine	50.5	U
218-01-9	chrysene	10.1	U
117-81-7	bis(2-ethylhexyl)phthalate	10.1	U
117-84-0	di-n-octylphthalate	10.1	U
205-99-2	benzo(b)fluoranthene	10.1	U
207-08-9	benzo(k)fluoranthene	10.1	U
50-32-8	benzo(a)pyrene	10.1	U
193-39-5	indeno(1,2,3-cd)pyrene	10.1	U
53-70-3	dibenz(a,h)anthracene	10.1	U
191-24-2	benzo(g,h,i)perylene	10.1	U
122-39-4	diphenylamine	10.1	U
86-74-8	Carbazole	10.1	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H06111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-25

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J436

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10 2.6	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

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U F01, F06
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H06111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-08

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 8T421

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	9.9	U
111-44-4	bis(2-chloroethyl) ether	9.9	U
95-57-8	2-chlorophenol	9.9	U
541-73-1	1,3-dichlorobenzene	9.9	U
106-46-7	1,4-dichlorobenzene	9.9	U
95-50-1	1,2-dichlorobenzene	9.9	U
108-60-1	2,2'-Oxybis(1-chloropropane)	9.9	U
95-48-7	2-methylphenol	9.9	U
621-64-7	N-nitroso-di-n-propylamine	9.9	U
106-44-5	m,p-cresol	9.9	U
67-72-1	hexachloroethane	9.9	U
98-95-3	nitrobenzene	9.9	U
78-59-1	isophorone	9.9	U
88-75-5	2-nitrophenol	9.9	U
105-67-9	2,4-dimethylphenol	9.9	U
111-91-1	bis(2-chloroethoxy) methane	9.9	U
120-83-2	2,4-dichlorophenol	9.9	U
120-82-1	1,2,4-trichlorobenzene	9.9	U
91-20-3	naphthalene	9.9	U
106-47-8	4-chloroaniline	19.8	U
87-68-3	hexachlorobutadiene	9.9	U
59-50-7	4-chloro-3-methylphenol	9.9	U
91-57-6	2-methylnaphthalene	9.9	U
77-47-4	hexachlorocyclopentadiene	9.9	U
88-06-2	2,4,6-trichlorophenol	9.9	U
95-95-4	2,4,5-trichlorophenol	9.9	U
91-58-7	2-chloronaphthalene	9.9	U
99-09-2	3-nitroaniline	24.8	U
88-74-4	2-nitroaniline	24.8	U
131-11-3	dimethylphthalate	9.9	U
606-20-2	2,6-dinitrotoluene	9.9	U
208-96-8	acenaphthylene	9.9	U
83-32-9	acenaphthene	9.9	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H06111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-08

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 8T421

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	19.8	U
132-64-9	dibenzofuran	9.9	U
121-14-2	2,4-dinitrotoluene	9.9	U
84-66-2	diethylphthalate	9.9	U
100-02-7	4-nitrophenol	19.8	U
86-73-7	fluorene	9.9	U
7005-72-3	4-chlorophenylphenylether	9.9	U
534-52-1	4,6-dinitro-2-methylphenol	9.9	U
100-01-6	4-nitroaniline	24.8	U
101-55-3	4-bromophenylphenylether	9.9	U
118-74-1	hexachlorobenzene	9.9	U
87-86-5	pentachlorophenol	9.9	U
85-01-8	phenanthrene	9.9	U
120-12-7	anthracene	9.9	U
84-74-2	di-n-butylphthalate	9.9	U
206-44-0	fluoranthene	9.9	U
129-00-0	pyrene	9.9	U
85-68-7	butylbenzylphthalate	9.9	U
56-55-3	benzo(a)anthracene	9.9	U
91-94-1	3,3'-dichlorobenzidine	49.5	U
218-01-9	chrysene	9.9	U
117-81-7	bis(2-ethylhexyl)phthalate	9.9	U
117-84-0	di-n-octylphthalate	9.9	U
205-99-2	benzo(b)fluoranthene	9.9	U
207-08-9	benzo(k)fluoranthene	9.9	U
50-32-8	benzo(a)pyrene	9.9	U
193-39-5	indeno(1,2,3-cd)pyrene	9.9	U
53-70-3	dibenz(a,h)anthracene	9.9	U
191-24-2	benzo(g,h,i)perylene	9.9	U
122-39-4	diphenylamine	9.9	U
86-74-8	Carbazole	9.9	U

FORM I SV-2

OLM03.0

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-07

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7J332

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.53 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10 2.7 JB	U F01, F06
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5 0.87 JB	U F01, F06

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-07
 Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 8T624
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

DATA VALIDATION
COPY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.2	U
111-44-4	bis(2-chloroethyl) ether	10.2	U
95-57-8	2-chlorophenol	10.2	U
541-73-1	1,3-dichlorobenzene	10.2	U
106-46-7	1,4-dichlorobenzene	10.2	U
95-50-1	1,2-dichlorobenzene	10.2	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.2	U
95-48-7	2-methylphenol	10.2	U
621-64-7	N-nitroso-di-n-propylamine	10.2	U
106-44-5	m,p-cresol	10.2	U
67-72-1	hexachloroethane	10.2	U
98-95-3	nitrobenzene	10.2	U
78-59-1	isophorone	10.2	U
88-75-5	2-nitrophenol	10.2	U
105-67-9	2,4-dimethylphenol	10.2	U
111-91-1	bis(2-chloroethoxy) methane	10.2	U
120-83-2	2,4-dichlorophenol	10.2	U
120-82-1	1,2,4-trichlorobenzene	10.2	U
91-20-3	naphthalene	10.2	U
106-47-8	4-chloroaniline	20.4	U
87-68-3	hexachlorobutadiene	10.2	U
59-50-7	4-chloro-3-methylphenol	10.2	U
91-57-6	2-methylnaphthalene	10.2	U
77-47-4	hexachlorocyclopentadiene	10.2	U
88-06-2	2,4,6-trichlorophenol	10.2	U
95-95-4	2,4,5-trichlorophenol	10.2	U
91-58-7	2-chloronaphthalene	10.2	U
99-09-2	3-nitroaniline	25.5	U
88-74-4	2-nitroaniline	25.5	U
131-11-3	dimethylphthalate	10.2	U
606-20-2	2,6-dinitrotoluene	10.2	U
208-96-8	acenaphthylene	10.2	U
83-32-9	acenaphthene	10.2	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-07

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 8T624

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.4	U
132-64-9	dibenzofuran	10.2	U
121-14-2	2,4-dinitrotoluene	10.2	U
84-66-2	diethylphthalate	10.2	U
100-02-7	4-nitrophenol	20.4	U
86-73-7	fluorene	10.2	U
7005-72-3	4-chlorophenylphenylether	10.2	U
534-52-1	4,6-dinitro-2-methylphenol	10.2	U
100-01-6	4-nitroaniline	25.5	U
86-30-6	N-nitroso-diphenylamine	10.2	U
101-55-3	4-bromophenylphenylether	10.2	U
118-74-1	hexachlorobenzene	10.2	U
87-86-5	pentachlorophenol	10.2	U
85-01-8	phenanthrene	10.2	U
120-12-7	anthracene	10.2	U
84-74-2	di-n-butylphthalate	10.2	U
206-44-0	fluoranthene	10.2	U
129-00-0	pyrene	10.2	U
85-68-7	butylbenzylphthalate	10.2	U
56-55-3	benzo (a) anthracene	10.2	U
91-94-1	3,3'-dichlorobenzidine	51.0	U
218-01-9	chrysene	10.2	U
117-81-7	bis (2-ethylhexyl) phthalate	10.2	U
117-84-0	di-n-octylphthalate	10.2	U
205-99-2	benzo (b) fluoranthene	10.2	U
207-08-9	benzo (k) fluoranthene	10.2	U
50-32-8	benzo (a) pyrene	10.2	U
193-39-5	indeno (1,2,3-cd) pyrene	10.2	U
53-70-3	dibenz (a,h) anthracene	10.2	U
191-24-2	benzo (g,h,i) perylene	10.2	U
86-74-8	Carbazole	10.2	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H08111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-11

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7J335

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.53 (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	
74-87-3	chloromethane	10.0	U	
74-83-9	bromomethane	10.0	U	
75-01-4	vinyl chloride	2.0	U	
75-00-3	chloroethane	10.0	U	
75-09-2	methylene chloride	5 1.9	JB	U FO1, FO6
67-64-1	acetone	10 3.7	JB	U FO1, FO6
75-15-0	carbon disulfide	5.0	U	
75-35-4	1,1-dichloroethene	5.0	U	
75-34-3	1,1-dichloroethane	5.0	U	
67-66-3	chloroform	5.0	U	
107-06-2	1,2-dichloroethane	5.0	U	
78-93-3	2-butanone	10.0	U	R CO1, CO4
71-55-6	1,1,1-trichloroethane	5.0	U	
56-23-5	carbon tetrachloride	5.0	U	
75-27-4	bromodichloromethane	5.0	U	
78-87-5	1,2-dichloropropane	5.0	U	
10061-01-5	cis-1,3-dichloropropene	5.0	U	
79-01-6	trichloroethene	5.0	U	
124-48-1	dibromochloromethane	5.0	U	
79-00-5	1,1,2-trichloroethane	5.0	U	
71-43-2	benzene	5.0	U	
10061-02-6	trans-1,3-dichloropropene	5.0	U	
75-25-2	bromoform	5.0	U	
108-10-1	4-methyl-2-pentanone	10.0	U	
591-78-6	2-hexanone	10.0	U	
127-18-4	tetrachloroethene	5.0	U	
79-34-5	1,1,2,2-tetrachloroethane	5.0	U	
108-88-3	toluene	2.0	U	
108-90-7	chlorobenzene	5.0	U	
100-41-4	ethylbenzene	5.0	U	
100-42-5	styrene	5.0	U	
1330-20-7	xylenes (total)	5.0	U	
540-59-0	1,2-dichloroethylene (total)	5 0.58	JB	U FO1, FO6

FORM I VOA

OLM03.0

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H08111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T625

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H08111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T625

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
86-30-6	N-nitroso-diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo (a) anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo (b) fluoranthene	10.0	U
207-08-9	benzo (k) fluoranthene	10.0	U
50-32-8	benzo (a) pyrene	10.0	U
193-39-5	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3	dibenz (a,h) anthracene	10.0	U
191-24-2	benzo (g,h,i) perylene	10.0	U
86-74-8	Carbazole	10.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-10

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7J334

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 0.82	JB
67-64-1	acetone	10 2.5	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5 0.65	JB

U
 ↓
 U FO1, FO6
 U FO1, FO6
 U
 ↓
 R CO1, CO4
 U
 ↓
 U FO1, FO6

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H091111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-24

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 8T628

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/16/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-95-2	phenol	9.9	U
111-44-4	bis(2-chloroethyl) ether	9.9	U
95-57-8	2-chlorophenol	9.9	U
541-73-1	1,3-dichlorobenzene	9.9	U
106-46-7	1,4-dichlorobenzene	9.9	U
95-50-1	1,2-dichlorobenzene	9.9	U
108-60-1	2,2'-Oxybis(1-chloropropane)	9.9	U
95-48-7	2-methylphenol	9.9	U
621-64-7	N-nitroso-di-n-propylamine	9.9	U
106-44-5	m,p-cresol	9.9	U
67-72-1	hexachloroethane	9.9	U
98-95-3	nitrobenzene	9.9	U
78-59-1	isophorone	9.9	U
88-75-5	2-nitrophenol	9.9	U
105-67-9	2,4-dimethylphenol	9.9	U
111-91-1	bis(2-chloroethoxy) methane	9.9	U
120-83-2	2,4-dichlorophenol	9.9	U
120-82-1	1,2,4-trichlorobenzene	9.9	U
91-20-3	naphthalene	9.9	U
106-47-8	4-chloroaniline	19.8	U
87-68-3	hexachlorobutadiene	9.9	U
59-50-7	4-chloro-3-methylphenol	9.9	U
91-57-6	2-methylnaphthalene	9.9	U
77-47-4	hexachlorocyclopentadiene	9.9	U
88-06-2	2,4,6-trichlorophenol	9.9	U
95-95-4	2,4,5-trichlorophenol	9.9	U
91-58-7	2-chloronaphthalene	9.9	U
99-09-2	3-nitroaniline	24.8	U
88-74-4	2-nitroaniline	24.8	U
131-11-3	dimethylphthalate	9.9	U
606-20-2	2,6-dinitrotoluene	9.9	U
208-96-8	acenaphthylene	9.9	U
83-32-9	acenaphthene	9.9	U

FORM I SV-1

OLM03.0

190

1C SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-24

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 8T628

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/16/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

51-28-5	2,4-dinitrophenol	19.8	U
132-64-9	dibenzofuran	9.9	U
121-14-2	2,4-dinitrotoluene	9.9	U
84-66-2	diethylphthalate	9.9	U
100-02-7	4-nitrophenol	19.8	U
86-73-7	fluorene	9.9	U
7005-72-3	4-chlorophenylphenylether	9.9	U
534-52-1	4,6-dinitro-2-methylphenol	9.9	U
100-01-6	4-nitroaniline	24.8	U
86-30-6	N-nitroso-diphenylamine	9.9	U
101-55-3	4-bromophenylphenylether	9.9	U
118-74-1	hexachlorobenzene	9.9	U
87-86-5	pentachlorophenol	9.9	U
85-01-8	phenanthrene	9.9	U
120-12-7	anthracene	9.9	U
84-74-2	di-n-butylphthalate	9.9	U
206-44-0	fluoranthene	9.9	U
129-00-0	pyrene	9.9	U
85-68-7	butylbenzylphthalate	9.9	U
56-55-3	benzo(a)anthracene	9.9	U
91-94-1	3,3'-dichlorobenzidine	49.5	U
218-01-9	chrysene	9.9	U
117-81-7	bis(2-ethylhexyl)phthalate	9.9	U
117-84-0	di-n-octylphthalate	9.9	U
205-99-2	benzo(b)fluoranthene	9.9	U
207-08-9	benzo(k)fluoranthene	9.9	U
50-32-8	benzo(a)pyrene	9.9	U
193-39-5	indeno(1,2,3-cd)pyrene	9.9	U
53-70-3	dibenz(a,h)anthracene	9.9	U
191-24-2	benzo(g,h,i)perylene	9.9	U
86-74-8	Carbazole	9.9	U

U

Duplicate
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

H09121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) WATER Lab Sample ID: 9905237-12
 Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7J336
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: not dec. _____ Date Analyzed: 05/20/99
 GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10-2.4	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5 0.59	JB

U
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 U F01, F06
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 U
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 R C01, C04
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 U
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 U F01, F06

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate 192
EPA SAMPLE NO.

H09121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-26
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8U122
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/17/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	3,4-methylphenol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H09121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-26
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8U122
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/17/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo (a) anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis (2-ethylhexyl) phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo (b) fluoranthene	10.0	U
207-08-9	benzo (k) fluoranthene	10.0	U
50-32-8	benzo (a) pyrene	10.0	U
193-39-5	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3	dibenz (a, h) anthracene	10.0	U
191-24-2	benzo (g, h, i) perylene	10.0	U
122-39-4	diphenylamine	10.0	U
86-74-8	Carbazole	10.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H10111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-09

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7J333

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane		10.0	U
74-83-9	bromomethane		10.0	U
75-01-4	vinyl chloride		2.0	U
75-00-3	chloroethane		10.0	U
75-09-2	methylene chloride		5.0	U
67-64-1	acetone		10 2.6	JB
75-15-0	carbon disulfide		5.0	U
75-35-4	1,1-dichloroethene		5.0	U
75-34-3	1,1-dichloroethane		5.0	U
67-66-3	chloroform		5.0	U
107-06-2	1,2-dichloroethane		5.0	U
78-93-3	2-butanone		10.0	U
71-55-6	1,1,1-trichloroethane		5.0	U
56-23-5	carbon tetrachloride		5.0	U
75-27-4	bromodichloromethane		5.0	U
78-87-5	1,2-dichloropropane		5.0	U
10061-01-5	cis-1,3-dichloropropene		5.0	U
79-01-6	trichloroethene		5.0	U
124-48-1	dibromochloromethane		5.0	U
79-00-5	1,1,2-trichloroethane		5.0	U
71-43-2	benzene		5.0	U
10061-02-6	trans-1,3-dichloropropene		5.0	U
75-25-2	bromoform		5.0	U
108-10-1	4-methyl-2-pentanone		10.0	U
591-78-6	2-hexanone		10.0	U
127-18-4	tetrachloroethene		5.0	U
79-34-5	1,1,2,2-tetrachloroethane		5.0	U
108-88-3	toluene		2.0	U
108-90-7	chlorobenzene		5.0	U
100-41-4	ethylbenzene		5.0	U
100-42-5	styrene		5.0	U
1330-20-7	xylenes (total)		5.0	U
540-59-0	1,2-dichloroethylene (total)		5 0.89	JB

U
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 U FO1, FO6
 U
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 R CO1, CO4
 U
 ↓
 U FO1, FO6

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H1C111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T619

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H10111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T619

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: decanted: (Y/N) Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
86-30-6	N-nitroso-diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
86-74-8	Carbazole	10.0	U

U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H11111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-05

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7J331

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 0.54	JB
67-64-1	acetone	10.0	U
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5 0.93	JB

U
↓
U F01, F06
U
↓
R C01, C04
U
↓
U F01, F06

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H11111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T623

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H11111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T623

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
86-30-6	N-nitroso-diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
86-74-8	Carbazole	10.0	U

FORM I SV-2

OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-16

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 5J408

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10.0	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

Handwritten: 10/19/99

Vertical notes:
U
U
F01, F06
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-22
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T627
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/16/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy) methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-22

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T627

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/16/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
86-30-6	N-nitroso-diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
86-74-8	Carbazole	10.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-15

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 5J407

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 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
74-87-3	-----chloromethane	10.0	U
74-83-9	-----bromomethane	10.0	U
75-01-4	-----vinyl chloride	2.0	U
75-00-3	-----chloroethane	10.0	U
75-09-2	-----methylene chloride	5.0	U
67-64-1	-----acetone	10.0	JB
75-15-0	-----carbon disulfide	5.0	U
75-35-4	-----1,1-dichloroethene	5.0	U
75-34-3	-----1,1-dichloroethane	5.0	U
67-66-3	-----chloroform	5.0	U
107-06-2	-----1,2-dichloroethane	5.0	U
78-93-3	-----2-butanone	10.0	U
71-55-6	-----1,1,1-trichloroethane	5.0	U
56-23-5	-----carbon tetrachloride	5.0	U
75-27-4	-----bromodichloromethane	5.0	U
78-87-5	-----1,2-dichloropropane	5.0	U
10061-01-5	-----cis-1,3-dichloropropene	5.0	U
79-01-6	-----trichloroethene	5.0	U
124-48-1	-----dibromochloromethane	5.0	U
79-00-5	-----1,1,2-trichloroethane	5.0	U
71-43-2	-----benzene	5.0	U
10061-02-6	-----trans-1,3-dichloropropene	5.0	U
75-25-2	-----bromoform	5.0	U
108-10-1	-----4-methyl-2-pentanone	10.0	U
591-78-6	-----2-hexanone	10.0	U
127-18-4	-----tetrachloroethene	5.0	U
79-34-5	-----1,1,2,2-tetrachloroethane	5.0	U
108-88-3	-----toluene	2.0	U
108-90-7	-----chlorobenzene	5.0	U
100-41-4	-----ethylbenzene	5.0	U
100-42-5	-----styrene	5.0	U
1330-20-7	-----xylenes (total)	5.0	U
540-59-0	-----1,2-dichloroethylene (total)	5.0	U

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-20
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T626
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-20

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T626

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
86-30-6	N-nitroso-diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
86-74-8	Carbazole	10.0	U

FORM I SV-2

OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H14111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) WATER Lab Sample ID: 9905205-05

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7I535

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. _____ Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 2.5	JB
67-64-1	acetone	10.0	U
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-53-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

Handwritten notes and arrows on the right side of the table:

- Vertical arrow pointing down with "U" at the top and bottom.
- Handwritten "F01, F06" next to the arrow.
- Handwritten "R C01, C04" next to the arrow.
- Handwritten "NMP" and "1/8/99" near the 5.0 concentration for methylene chloride.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H14111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4T510

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

108-95-2-----phenol	10.0	U
111-44-4-----bis(2-chloroethyl) ether	10.0	U
95-57-8-----2-chlorophenol	10.0	U
541-73-1-----1,3-dichlorobenzene	10.0	U
106-46-7-----1,4-dichlorobenzene	10.0	U
95-50-1-----1,2-dichlorobenzene	10.0	U
108-60-1-----2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7-----2-methylphenol	10.0	U
621-64-7-----N-nitroso-di-n-propylamine	10.0	U
106-44-5-----m,p-cresol	10.0	U
67-72-1-----hexachloroethane	10.0	U
98-95-3-----nitrobenzene	10.0	U
78-59-1-----isophorone	10.0	U
88-75-5-----2-nitrophenol	10.0	U
105-67-9-----2,4-dimethylphenol	10.0	U
111-91-1-----bis(2-chloroethoxy)methane	10.0	U
120-83-2-----2,4-dichlorophenol	10.0	U
120-82-1-----1,2,4-trichlorobenzene	10.0	U
91-20-3-----naphthalene	10.0	U
106-47-8-----4-chloroaniline	20.0	U
87-68-3-----hexachlorobutadiene	10.0	U
59-50-7-----4-chloro-3-methylphenol	10.0	U
91-57-6-----2-methylnaphthalene	10.0	U
77-47-4-----hexachlorocyclopentadiene	10.0	U
88-06-2-----2,4,6-trichlorophenol	10.0	U
95-95-4-----2,4,5-trichlorophenol	10.0	U
91-58-7-----2-chloronaphthalene	10.0	U
99-09-2-----3-nitroaniline	25.0	U
88-74-4-----2-nitroaniline	25.0	U
131-11-3-----dimethylphthalate	10.0	U
606-20-2-----2,6-dinitrotoluene	10.0	U
208-96-8-----acenaphthylene	10.0	U
83-32-9-----acenaphthene	10.0	U

U
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FORM I SV-1

OLM03 (

DATA VALIDATION
COPY

79

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 208

H14111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4T510

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

51-28-5-----	2,4-dinitrophenol	20.0	U
132-64-9-----	dibenzofuran	10.0	U
121-14-2-----	2,4-dinitrotoluene	10.0	U
84-66-2-----	diethylphthalate	10.0	U
100-02-7-----	4-nitrophenol	20.0	U
86-73-7-----	fluorene	10.0	U
7005-72-3-----	4-chlorophenylphenylether	10.0	U
534-52-1-----	4,6-dinitro-2-methylphenol	10.0	U
100-01-6-----	4-nitroaniline	25.0	U
122-39-4-----	diphenylamine	10.0	U
101-55-3-----	4-bromophenylphenylether	10.0	U
118-74-1-----	hexachlorobenzene	10.0	U
87-86-5-----	pentachlorophenol	10.0	U
85-01-8-----	phenanthrene	10.0	U
120-12-7-----	anthracene	10.0	U
84-74-2-----	di-n-butylphthalate	10.0	U
206-44-0-----	fluoranthene	10.0	U
129-00-0-----	pyrene	10.0	U
85-68-7-----	butylbenzylphthalate	10.0	U
56-55-3-----	benzo(a)anthracene	10.0	U
91-94-1-----	3,3'-dichlorobenzidine	50.0	U
218-01-9-----	chrysene	10.0	U
117-81-7-----	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0-----	di-n-octylphthalate	10.0	U
205-99-2-----	benzo(b)fluoranthene	10.0	U
207-08-9-----	benzo(k)fluoranthene	10.0	U
50-32-8-----	benzo(a)pyrene	10.0	U
193-39-5-----	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3-----	dibenz(a,h)anthracene	10.0	U
191-24-2-----	benzo(g,h,i)perylene	10.0	U
86-74-8-----	Carbazole	10.0	U

U

80

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF03W

Matrix: (soil/water) WATER

Lab Sample ID: 9905205-03

Sample wt/vol: 5.000 (g/ml) ML

Lab File ID: 7I534

Level: (low/med) LOW

Date Received: 05/06/99

% Moisture: not dec. _____

Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0 U	U
74-83-9	bromomethane	10.0 U	U
75-01-4	vinyl chloride	2.0 U	U
75-00-3	chloroethane	10.0 U	U
75-00-2	methylene chloride	10.0 U	U
67-64-1	acetone	5 2.7 JB	U F01, F06
75-15-0	carbon disulfide	10 2.7 JB	U F01, F06
75-35-4	1,1-dichloroethene	5.0 U	U
75-34-3	1,1-dichloroethane	5.0 U	U
67-66-3	chloroform	5.0 U	U
107-06-2	1,2-dichloroethane	5.0 U	U
75-33-3	2-butanone	5.0 U	U
71-55-6	1,1,1-trichloroethane	10.0 U	U R C01, C04
56-23-5	carbon tetrachloride	5.0 U	U
75-27-4	bromodichloromethane	5.0 U	U
78-87-5	1,2-dichloropropane	5.0 U	U
10061-01-5	cis-1,3-dichloropropene	5.0 U	U
79-01-6	trichloroethene	5.0 U	U
124-48-1	dibromochloromethane	5.0 U	U
79-00-5	1,1,2-trichloroethane	5.0 U	U
71-43-2	benzene	5.0 U	U
10061-02-6	trans-1,3-dichloropropene	5.0 U	U
75-25-2	bromoform	5.0 U	U
108-10-1	4-methyl-2-pentanone	5.0 U	U
591-78-6	2-hexanone	10.0 U	U
127-18-4	tetrachloroethene	10.0 U	U
79-34-5	1,1,2,2-tetrachloroethane	5.0 U	U
108-88-3	toluene	5.0 U	U
108-90-7	chlorobenzene	2.0 U	U
100-41-4	ethylbenzene	5.0 U	U
100-42-5	styrene	5.0 U	U
1330-20-7	xylenes (total)	5.0 U	U
540-59-0	1,2-dichloroethylene (total)	5.0 U	U

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-03

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 4T509

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

108-95-2	phenol	10.4	U
111-44-4	bis(2-chloroethyl) ether	10.4	U
95-57-8	2-chlorophenol	10.4	U
541-73-1	1,3-dichlorobenzene	10.4	U
106-46-7	1,4-dichlorobenzene	10.4	U
95-50-1	1,2-dichlorobenzene	10.4	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.4	U
95-48-7	2-methylphenol	10.4	U
621-64-7	N-nitroso-di-n-propylamine	10.4	U
106-44-5	m,p-cresol	10.4	U
67-72-1	hexachloroethane	10.4	U
98-95-3	nitrobenzene	10.4	U
78-59-1	isophorone	10.4	U
88-75-5	2-nitrophenol	10.4	U
105-67-9	2,4-dimethylphenol	10.4	U
111-91-1	bis(2-chloroethoxy)methane	10.4	U
120-83-2	2,4-dichlorophenol	10.4	U
120-82-1	1,2,4-trichlorobenzene	10.4	U
91-20-3	naphthalene	10.4	U
106-47-8	4-chloroaniline	20.8	U
87-68-3	hexachlorobutadiene	10.4	U
59-50-7	4-chloro-3-methylphenol	10.4	U
91-57-6	2-methylnaphthalene	10.4	U
77-47-4	hexachlorocyclopentadiene	10.4	U
88-06-2	2,4,6-trichlorophenol	10.4	U
95-95-4	2,4,5-trichlorophenol	10.4	U
91-58-7	2-chloronaphthalene	10.4	U
99-09-2	3-nitroaniline	26.0	U
88-74-4	2-nitroaniline	26.0	U
131-11-3	dimethylphthalate	10.4	U
606-20-2	2,6-dinitrotoluene	10.4	U
208-96-8	acenaphthylene	10.4	U
83-32-9	acenaphthene	10.4	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBBF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-03

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 4T509

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

51-28-5-----	2,4-dinitrophenol	20.8	U
132-64-9-----	dibenzofuran	10.4	U
121-14-2-----	2,4-dinitrotoluene	10.4	U
84-66-2-----	diethylphthalate	10.4	U
100-02-7-----	4-nitrophenol	20.8	U
86-73-7-----	fluorene	10.4	U
7005-72-3-----	4-chlorophenylphenylether	10.4	U
534-52-1-----	4,6-dinitro-2-methylphenol	10.4	U
100-01-6-----	4-nitroaniline	26.0	U
122-39-4-----	diphenylamine	10.4	U
101-55-3-----	4-bromophenylphenylether	10.4	U
118-74-1-----	hexachlorobenzene	10.4	U
87-86-5-----	pentachlorophenol	10.4	U
85-01-8-----	phenanthrene	10.4	U
120-12-7-----	anthracene	10.4	U
84-74-2-----	di-n-butylphthalate	10.4	U
206-44-0-----	fluoranthene	10.4	U
129-00-0-----	pyrene	10.4	U
85-68-7-----	butylbenzylphthalate	10.4	U
56-55-3-----	benzo(a)anthracene	10.4	U
91-94-1-----	3,3'-dichlorobenzidine	52.1	U
218-01-9-----	chrysene	10.4	U
117-81-7-----	bis(2-ethylhexyl)phthalate	10.4	U
117-84-0-----	di-n-octylphthalate	10.4	U
205-99-2-----	benzo(b)fluoranthene	10.4	U
207-08-9-----	benzo(k)fluoranthene	10.4	U
50-32-8-----	benzo(a)pyrene	10.4	U
193-39-5-----	indeno(1,2,3-cd)pyrene	10.4	U
53-70-3-----	dibenz(a,h)anthracene	10.4	U
191-24-2-----	benzo(g,h,i)perylene	10.4	U
86-74-8-----	Carbazole	10.4	U

U

23

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H16111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) WATER Lab Sample ID: 9905205-08

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7I537

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. _____ Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 1.8	JB
67-64-1	acetone	10 2.5	JR
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-33-3	2-butanone	5.0	U
71-55-6	1,1,1-trichloroethane	10.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	5.0	U
108-90-7	chlorobenzene	2.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylene (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

*MAP
6/10/99*

*U
U F01, F06
U F01, F06
U
R col, CO4
U*

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H16111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-12

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 4T641

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/16/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

USP

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

108-95-2	phenol	10.4	U
111-44-4	bis(2-chloroethyl) ether	10.4	U
95-57-8	2-chlorophenol	10.4	U
541-73-1	1,3-dichlorobenzene	10.4	U
106-46-7	1,4-dichlorobenzene	10.4	U
95-50-1	1,2-dichlorobenzene	10.4	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.4	U
95-48-7	2-methylphenol	10.4	U
621-64-7	N-nitroso-di-n-propylamine	10.4	U
106-44-5	m,p-cresol	10.4	U
67-72-1	hexachloroethane	10.4	U
98-95-3	nitrobenzene	10.4	U
78-59-1	isophorone	10.4	U
88-75-5	2-nitrophenol	10.4	U
105-67-9	2,4-dimethylphenol	10.4	U
111-91-1	bis(2-chloroethoxy)methane	10.4	U
120-83-2	2,4-dichlorophenol	10.4	U
120-82-1	1,2,4-trichlorobenzene	10.4	U
91-20-3	naphthalene	10.4	U
106-47-8	4-chloroaniline	20.8	U
87-68-3	hexachlorobutadiene	10.4	U
59-50-7	4-chloro-3-methylphenol	10.4	U
91-57-6	2-methylnaphthalene	10.4	U
77-47-4	hexachlorocyclopentadiene	10.4	U
88-06-2	2,4,6-trichlorophenol	10.4	U
95-95-4	2,4,5-trichlorophenol	10.4	U
91-58-7	2-chloronaphthalene	10.4	U
99-09-2	3-nitroaniline	26.0	U
88-74-4	2-nitroaniline	26.0	U
131-11-3	dimethylphthalate	10.4	U
606-20-2	2,6-dinitrotoluene	10.4	U
208-96-8	acenaphthylene	10.4	U
83-32-9	acenaphthene	10.4	U

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PS

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 214

H16111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-12
 Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 4T641
 Level: (low/med) LOW Date Received: 05/06/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/16/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

USE

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.8	U
132-64-9	dibenzofuran	10.4	U
121-14-2	2,4-dinitrotoluene	10.4	U
84-66-2	diethylphthalate	10.4	U
100-02-7	4-nitrophenol	20.8	U
86-73-7	fluorene	10.4	U
7005-72-3	4-chlorophenylphenylether	10.4	U
534-52-1	4,6-dinitro-2-methylphenol	10.4	U
100-01-6	4-nitroaniline	26.0	U
122-39-4	diphenylamine	10.4	U
101-55-3	4-bromophenylphenylether	10.4	U
118-74-1	hexachlorobenzene	10.4	U
87-86-5	pentachlorophenol	10.4	U
85-01-8	phenanthrene	10.4	U
120-12-7	anthracene	10.4	U
84-74-2	di-n-butylphthalate	10.4	U
206-44-0	fluoranthene	10.4	U
129-00-0	pyrene	10.4	U
85-68-7	butylbenzylphthalate	10.4	U
56-55-3	benzo(a)anthracene	10.4	U
91-94-1	3,3'-dichlorobenzidine	52.1	U
218-01-9	chrysene	10.4	U
117-81-7	bis(2-ethylhexyl)phthalate	688	U
117-84-0	di-n-octylphthalate	10.4	U
205-99-2	benzo(b)fluoranthene	10.4	U
207-08-9	benzo(k)fluoranthene	10.4	U
50-32-8	benzo(a)pyrene	10.4	U
193-39-5	indeno(1,2,3-cd)pyrene	10.4	U
53-70-3	dibenz(a,h)anthracene	10.4	U
191-24-2	benzo(g,h,i)perylene	10.4	U
86-74-8	Carbazole	10.4	U

688 306 ED J 005

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H16121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W
 Matrix: (soil/water) WATER Lab Sample ID: 9905205-09
 Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7I538
 Level: (low/med) LOW Date Received: 05/06/99
 % Moisture: not dec. _____ Date Analyzed: 05/15/99
 GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	10.0	U
67-64-1	acetone	5	JB
75-15-0	carbon disulfide	10	JB
75-35-4	1,1-dichloroethane	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
75-33-3	2-butanone	5.0	U
71-55-6	1,1,1-trichloroethane	10.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	5.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	10.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	5.0	U
108-90-7	chlorobenzene	2.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylene (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate 26
EPA SAMPLE NO.

H16121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-15
 Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 4T512
 Level: (low/med) LOW Date Received: 05/06/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

USE

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
108-95-2	phenol	10.2	U
111-44-4	bis(2-chloroethyl) ether	10.2	U
95-57-8	2-chlorophenol	10.2	U
541-73-1	1,3-dichlorobenzene	10.2	U
106-46-7	1,4-dichlorobenzene	10.2	U
95-50-1	1,2-dichlorobenzene	10.2	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.2	U
95-48-7	2-methylphenol	10.2	U
621-64-7	N-nitroso-di-n-propylamine	10.2	U
106-44-5	m,p-cresol	10.2	U
67-72-1	hexachloroethane	10.2	U
98-95-3	nitrobenzene	10.2	U
78-59-1	isophorone	10.2	U
88-75-5	2-nitrophenol	10.2	U
105-67-9	2,4-dimethylphenol	10.2	U
111-91-1	bis(2-chloroethoxy) methane	10.2	U
120-83-2	2,4-dichlorophenol	10.2	U
120-82-1	1,2,4-trichlorobenzene	10.2	U
91-20-3	naphthalene	10.2	U
106-47-8	4-chloroaniline	20.4	U
87-68-3	hexachlorobutadiene	10.2	U
59-50-7	4-chloro-3-methylphenol	10.2	U
91-57-6	2-methylnaphthalene	10.2	U
77-47-4	hexachlorocyclopentadiene	10.2	U
88-06-2	2,4,6-trichlorophenol	10.2	U
95-95-4	2,4,5-trichlorophenol	10.2	U
91-58-7	2-chloronaphthalene	10.2	U
99-09-2	3-nitroaniline	25.5	U
88-74-4	2-nitroaniline	25.5	U
131-11-3	dimethylphthalate	10.2	U
606-20-2	2,6-dinitrotoluene	10.2	U
208-96-8	acenaphthylene	10.2	U
83-32-9	acenaphthene	10.2	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DUPLICATE
EPA SAMPLE NO.

H16121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-15

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 4T512

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

USE

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

51-28-5-----	2,4-dinitrophenol	20.4	U
132-64-9-----	dibenzofuran	10.2	U
121-14-2-----	2,4-dinitrotoluene	10.2	U
84-66-2-----	diethylphthalate	10.2	U
100-02-7-----	4-nitrophenol	20.4	U
86-73-7-----	fluorene	10.2	U
7005-72-3-----	4-chlorophenylphenylether	10.2	U
534-52-1-----	4,6-dinitro-2-methylphenol	10.2	U
100-01-6-----	4-nitroaniline	25.5	U
122-39-4-----	diphenylamine	10.2	U
101-55-3-----	4-bromophenylphenylether	10.2	U
118-74-1-----	hexachlorobenzene	10.2	U
87-86-5-----	pentachlorophenol	10.2	U
85-01-8-----	phenanthrene	10.2	U
120-12-7-----	anthracene	10.2	U
84-74-2-----	di-n-butylphthalate	10.2	U
206-44-0-----	fluoranthene	10.2	U
129-00-0-----	pyrene	10.2	U
85-68-7-----	butylbenzylphthalate	10.2	U
56-55-3-----	benzo(a)anthracene	10.2	U
91-94-1-----	3,3'-dichlorobenzidine	51.0	U
218-01-9-----	chrysene	10.2	U
117-81-7-----	bis(2-ethylhexyl)phthalate	10.2	U
117-84-0-----	di-n-octylphthalate	10.2	U
205-99-2-----	benzo(b)fluoranthene	10.2	U
207-08-9-----	benzo(k)fluoranthene	10.2	U
50-32-8-----	benzo(a)pyrene	10.2	U
193-39-5-----	indeno(1,2,3-cd)pyrene	10.2	U
53-70-3-----	dibenz(a,h)anthracene	10.2	U
191-24-2-----	benzo(g,h,i)perylene	10.2	U
86-74-8-----	Carbazole	10.2	U

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218

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H17111

Job Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) WATER Lab Sample ID: 9905205-07

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7I536

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. _____ Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 2.2	JB
67-64-1	acetone	10 2.1	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

MAX 6/12/99

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U FO1, FO1
U FO1, FO6
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R CO1, CO4
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FORM I VOA

OLM03.0

16

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H17111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4T511

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

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FORM I SV-1

OLM03

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H17111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905205-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4T511

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
122-39-4	diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	67.9	
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
86-74-8	Carbazole	10.0	U

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C
K
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02W

Matrix: (soil/water) WATER Lab Sample ID: 9905112-04

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7I532

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: not dec. _____ Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 2.9	JB
67-64-1	acetone	10 1.6	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905112-04
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4S518
 Level: (low/med) LOW DATA VALIDATION Date Received: 05/05/99
 % Moisture: _____ decanted: (Y/N) COPY Date Extracted: 05/07/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/08/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF02W

Matrix: (soil/water) GROUNDH2O

Lab Sample ID: 9905112-04

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 48518

Level: (low/med) LOW DATA VALUE

Date Received: 05/05/99

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 05/07/99

Concentrated Extract Volume: 1.00 (mL)

Date Analyzed: 05/08/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	10.0	U
86-73-7	fluorene	20.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	10.0	U
101-55-3	4-bromophenylphenylether	25.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo (a) anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	10.0	U
218-01-9	chrysene	50.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo (b) fluoranthene	10.0	U
207-08-9	benzo (k) fluoranthene	10.0	U
50-32-8	benzo (a) pyrene	10.0	U
193-39-5	indeno (1,2,3-cd) pyrene	10.0	U
53-70-3	dibenz (a,h) anthracene	10.0	U
191-24-2	benzo (g,h,i) perylene	10.0	U
122-39-4	diphenylamine	10.0	U
86-74-8	Carbazole	10.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02W

Matrix: (soil/water) WATER Lab Sample ID: 9905112-01

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 7I530

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: not dec. Date Analyzed: 05/14/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 3.2	JB
67-64-1	acetone	10 1.9	JB
75-15-0	carbon disulfide	5 0.87	JB
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	5.0	U
71-55-6	1,1,1-trichloroethane	10.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	5.0	U
108-90-7	chlorobenzene	2.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

U
U FO1, FO6
U FO1, FO6
U FO1, FO6

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19111

Lab Name: GENERAL ENGINEERING LABCR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905112-01
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4S517
 Level: (low/med) LOW DATA VALIDATED Date Received: 05/05/99
 % Moisture: _____ decanted: (Y/N) Y Date Extracted: 05/07/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/08/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF02W

Matrix: (soil/water) GROUNDH2O

Lab Sample ID: 9905112-01

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 48517

Level: (low/med) LOW

Date Received: 05/05/99

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 05/07/99

Concentrated Extract Volume: 1.00 (mL)

Date Analyzed: 05/08/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	10.0	U
86-73-7	fluorene	20.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	10.0	U
101-55-3	4-bromophenylphenylether	25.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	10.0	U
218-01-9	chrysene	50.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
122-39-4	diphenylamine	10.0	U
86-74-8	Carbazole	10.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-27

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J438

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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

74-87-3	chloromethane	0.68	J
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10	5.4 JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

UG/L
 F01, F02

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T423

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T423

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
122-39-4	diphenylamine	10.0	U
86-74-8	Carbazole	10.0	U

Duplicate

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
Matrix: (soil/water) WATER Lab Sample ID: 9905245-18
Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J430
Level: (low/med) LOW Date Received: 05/08/99
% Moisture: not dec. _____ Date Analyzed: 05/20/99
GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10.0	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	5.0	U
108-90-7	chlorobenzene	5.0	J
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylene (total)	0.51	J
540-59-0	1,2-dichloroethylene (total)	5.0	U

Handwritten notes:
6/19/99

Handwritten notes:
U
F01, F06
U
F03, F06
U
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H20121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-18
 Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T426
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.1 U	U ↓
111-44-4	bis(2-chloroethyl) ether	10.1 U	
95-57-8	2-chlorophenol	10.1 U	
541-73-1	1,3-dichlorobenzene	10.1 U	
106-46-7	1,4-dichlorobenzene	10.1 U	
95-50-1	1,2-dichlorobenzene	10.1 U	
108-60-1	2,2'-Oxybis(1-chloropropane)	10.1 U	
95-48-7	2-methylphenol	10.1 U	
621-64-7	N-nitroso-di-n-propylamine	10.1 U	
106-44-5	m,p-cresol	10.1 U	
67-72-1	hexachloroethane	10.1 U	
98-95-3	nitrobenzene	10.1 U	
78-59-1	isophorone	10.1 U	
88-75-5	2-nitrophenol	10.1 U	
105-67-9	2,4-dimethylphenol	10.1 U	
111-91-1	bis(2-chloroethoxy) methane	10.1 U	
120-83-2	2,4-dichlorophenol	10.1 U	
120-82-1	1,2,4-trichlorobenzene	10.1 U	
91-20-3	naphthalene	10.1 U	
106-47-8	4-chloroaniline	20.2 U	
87-68-3	hexachlorobutadiene	10.1 U	
59-50-7	4-chloro-3-methylphenol	10.1 U	
91-57-6	2-methylnaphthalene	10.1 U	
77-47-4	hexachlorocyclopentadiene	10.1 U	
88-06-2	2,4,6-trichlorophenol	10.1 U	
95-95-4	2,4,5-trichlorophenol	10.1 U	
91-58-7	2-chloronaphthalene	10.1 U	
99-09-2	3-nitroaniline	25.2 U	
88-74-4	2-nitroaniline	25.2 U	
131-11-3	dimethylphthalate	10.1 U	
606-20-2	2,6-dinitrotoluene	10.1 U	
208-96-8	acenaphthylene	10.1 U	
83-32-9	acenaphthene	10.1 U	

FORM I SV-1

OLM03.0

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Duplicate

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20121

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-18
 Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T426
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.2	U
132-64-9	dibenzofuran	10.1	U
121-14-2	2,4-dinitrotoluene	10.1	U
84-66-2	diethylphthalate	10.1	U
100-02-7	4-nitrophenol	20.2	U
86-73-7	fluorene	10.1	U
7005-72-3	4-chlorophenylphenylether	10.1	U
534-52-1	4,6-dinitro-2-methylphenol	10.1	U
100-01-6	4-nitroaniline	25.2	U
101-55-3	4-bromophenylphenylether	10.1	U
118-74-1	hexachlorobenzene	10.1	U
87-86-5	pentachlorophenol	10.1	U
85-01-8	phenanthrene	10.1	U
120-12-7	anthracene	10.1	U
84-74-2	di-n-butylphthalate	10.1	U
206-44-0	fluoranthene	10.1	U
129-00-0	pyrene	10.1	U
85-68-7	butylbenzylphthalate	10.1	U
56-55-3	benzo (a) anthracene	10.1	U
91-94-1	3,3'-dichlorobenzidine	50.5	U
218-01-9	chrysene	10.1	U
117-81-7	bis (2-ethylhexyl) phthalate	10.1	U
117-84-0	di-n-octylphthalate	10.1	U
205-99-2	benzo (b) fluoranthene	10.1	U
207-08-9	benzo (k) fluoranthene	10.1	U
50-32-8	benzo (a) pyrene	10.1	U
193-39-5	indeno (1,2,3-cd) pyrene	10.1	U
53-70-3	dibenz (a, h) anthracene	10.1	U
191-24-2	benzo (g, h, i) perylene	10.1	U
122-39-4	diphenylamine	10.1	U
86-74-8	Carbazole	10.1	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-26

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J437

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/21/99

GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10.27	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

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U FO1, FO6
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-11

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T422

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.1	U
111-44-4	bis(2-chloroethyl) ether	10.1	U
95-57-8	2-chlorophenol	10.1	U
541-73-1	1,3-dichlorobenzene	10.1	U
106-46-7	1,4-dichlorobenzene	10.1	U
95-50-1	1,2-dichlorobenzene	10.1	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.1	U
95-48-7	2-methylphenol	10.1	U
621-64-7	N-nitroso-di-n-propylamine	10.1	U
106-44-5	m,p-cresol	10.1	U
67-72-1	hexachloroethane	10.1	U
98-95-3	nitrobenzene	10.1	U
78-59-1	isophorone	10.1	U
88-75-5	2-nitrophenol	10.1	U
105-67-9	2,4-dimethylphenol	10.1	U
111-91-1	bis(2-chloroethoxy)methane	10.1	U
120-83-2	2,4-dichlorophenol	10.1	U
120-82-1	1,2,4-trichlorobenzene	10.1	U
91-20-3	naphthalene	10.1	U
106-47-8	4-chloroaniline	20.2	U
87-68-3	hexachlorobutadiene	10.1	U
59-50-7	4-chloro-3-methylphenol	10.1	U
91-57-6	2-methylnaphthalene	10.1	U
77-47-4	hexachlorocyclopentadiene	10.1	U
88-06-2	2,4,6-trichlorophenol	10.1	U
95-95-4	2,4,5-trichlorophenol	10.1	U
91-58-7	2-chloronaphthalene	10.1	U
99-09-2	3-nitroaniline	25.2	U
88-74-4	2-nitroaniline	25.2	U
131-11-3	dimethylphthalate	10.1	U
606-20-2	2,6-dinitrotoluene	10.1	U
208-96-8	acenaphthylene	10.1	U
83-32-9	acenaphthene	10.1	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21111

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-11

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 8T422

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.2	U
132-64-9	dibenzofuran	10.1	U
121-14-2	2,4-dinitrotoluene	10.1	U
84-66-2	diethylphthalate	10.1	U
100-02-7	4-nitrophenol	20.2	U
86-73-7	fluorene	10.1	U
7005-72-3	4-chlorophenylphenylether	10.1	U
534-52-1	4,6-dinitro-2-methylphenol	10.1	U
100-01-6	4-nitroaniline	25.2	U
101-55-3	4-bromophenylphenylether	10.1	U
118-74-1	hexachlorobenzene	10.1	U
87-86-5	pentachlorophenol	10.1	U
85-01-8	phenanthrene	10.1	U
120-12-7	anthracene	10.1	U
84-74-2	di-n-butylphthalate	10.1	U
206-44-0	fluoranthene	10.1	U
129-00-0	pyrene	10.1	U
85-68-7	butylbenzylphthalate	10.1	U
56-55-3	benzo(a)anthracene	10.1	U
91-94-1	3,3'-dichlorobenzidine	50.5	U
218-01-9	chrysene	10.1	U
117-81-7	bis(2-ethylhexyl)phthalate	10.1	U
117-84-0	di-n-octylphthalate	10.1	U
205-99-2	benzo(b)fluoranthene	10.1	U
207-08-9	benzo(k)fluoranthene	10.1	U
50-32-8	benzo(a)pyrene	10.1	U
193-39-5	indeno(1,2,3-cd)pyrene	10.1	U
53-70-3	dibenz(a,h)anthracene	10.1	U
191-24-2	benzo(g,h,i)perylene	10.1	U
122-39-4	diphenylamine	10.1	U
86-74-8	Carbazole	10.1	U

Trip Blank

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HTB001

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02W

Matrix: (soil/water) WATER Lab Sample ID: 9905112-03

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 71531

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: not dec. _____ Date Analyzed: 05/14/99

GC Column: DB-624 ID: 0.53 (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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5 2.7	JB
67-64-1	acetone	10 2.6	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	0.87	J
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	1.0	J
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

MW 61 8/22

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F01, F01
U F01, F01
C4K-C4K-C

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank
EPA SAMPLE NO.

HTB002

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF03W

Matrix: (soil/water) WATER

Lab Sample ID: 9905205-01

Sample wt/vol: 5.000 (g/ml) ML

Lab File ID: 7I533

Level: (low/med) LOW

Date Received: 05/06/99

% Moisture: not dec. _____

Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-87-3	chloromethane		10.0	U
74-83-9	bromomethane		10.0	U
75-01-4	vinyl chloride		2.0	U
75-00-3	chloroethane		10.0	U
75-09-2	methylene chloride		5 3.2 2.6	JB
67-64-1	acetone		10	JB
75-15-0	carbon disulfide		5.0	U
75-35-4	1,1-dichloroethene		5.0	U
75-34-3	1,1-dichloroethane		5.0	U
67-66-3	chloroform		5.0	U
107-06-2	1,2-dichloroethane		0.96	J
78-93-3	2-butanone		5.0	U
71-55-6	1,1,1-trichloroethane		10.0	U
56-23-5	carbon tetrachloride		5.0	U
75-27-4	bromodichloromethane		5.0	U
78-87-5	1,2-dichloropropane		1.2	J
10061-01-5	cis-1,3-dichloropropene		5.0	U
79-01-6	trichloroethene		5.0	U
124-48-1	dibromochloromethane		5.0	U
79-00-5	1,1,2-trichloroethane		5.0	U
71-43-2	benzene		5.0	U
10061-02-6	trans-1,3-dichloropropene		5.0	U
75-25-2	bromoform		5.0	U
108-10-1	4-methyl-2-pentanone		5.0	U
591-78-6	2-hexanone		10.0	U
127-18-4	tetrachloroethene		10.0	U
79-34-5	1,1,2,2-tetrachloroethane		5.0	U
108-88-3	toluene		5.0	U
108-90-7	chlorobenzene		2.0	U
100-41-4	ethylbenzene		5.0	U
100-42-5	styrene		5.0	U
1330-20-7	xylenes (total)		5.0	U
540-59-0	1,2-dichloroethylene (total)		5.0	U

FORM I VOA

OLM03.0

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Top Blank
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

HTB004

Sample Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-17

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 5J409

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. Date Analyzed: 05/20/99

GC Column: DB-624 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

74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10 3.2	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	1.1	J
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	2.0	U
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

Handwritten notes and arrows on the right side of the table, including 'FO1, FO6' and a vertical arrow pointing downwards.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank
EPA SAMPLE NO.

HTB005

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W

Matrix: (soil/water) WATER Lab Sample ID: 9905245-20

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J431

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. _____ Date Analyzed: 05/20/99

GC Column: DB-624 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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	UU
75-01-4	vinyl chloride	2.0	UU
75-00-3	chloroethane	10.0	UU
75-09-2	methylene chloride	5.0	UU
67-64-1	acetone	10.27	UB
75-15-0	carbon disulfide	5.0	UU
75-35-4	1,1-dichloroethene	5.0	UU
75-34-3	1,1-dichloroethane	5.0	UU
67-66-3	chloroform	1.2	UU
107-06-2	1,2-dichloroethane	5.0	UU
78-93-3	2-butanone	10.0	UU
71-55-6	1,1,1-trichloroethane	5.0	UU
56-23-5	carbon tetrachloride	5.0	UU
75-27-4	bromodichloromethane	1.2	UU
78-87-5	1,2-dichloropropane	5.0	UU
10061-01-5	cis-1,3-dichloropropene	5.0	UU
79-01-6	trichloroethene	5.0	UU
124-48-1	dibromochloromethane	5.0	UU
79-00-5	1,1,2-trichloroethane	5.0	UU
71-43-2	benzene	5.0	UU
10061-02-6	trans-1,3-dichloropropene	5.0	UU
75-25-2	bromoform	5.0	UU
108-10-1	4-methyl-2-pentanone	10.0	UU
591-78-6	2-hexanone	10.0	UU
127-18-4	tetrachloroethene	5.0	UU
79-34-5	1,1,2,2-tetrachloroethane	5.0	UU
108-88-3	toluene	2.0	UU
108-90-7	chlorobenzene	5.0	UU
100-41-4	ethylbenzene	5.0	UU
100-42-5	styrene	5.0	UU
1330-20-7	xylene (total)	5.0	UU
540-59-0	1,2-dichloroethylene (total)	5.0	U

Handwritten notes:
MMP 6/9/99
FOI, FO2
A vertical arrow pointing downwards is on the right side of the table.

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Rinsate
EPA SAMPLE NO.

RSGW02

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-04
 Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 8T622
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.4	U
111-44-4	bis(2-chloroethyl) ether	10.4	U
95-57-8	2-chlorophenol	10.4	U
541-73-1	1,3-dichlorobenzene	10.4	U
106-46-7	1,4-dichlorobenzene	10.4	U
95-50-1	1,2-dichlorobenzene	10.4	U
108-60-1	2,2'-Oxybis(1-chloropropane)	10.4	U
95-48-7	2-methylphenol	10.4	U
621-64-7	N-nitroso-di-n-propylamine	10.4	U
106-44-5	m,p-cresol	10.4	U
67-72-1	hexachloroethane	10.4	U
98-95-3	nitrobenzene	10.4	U
78-59-1	isophorone	10.4	U
88-75-5	2-nitrophenol	10.4	U
105-67-9	2,4-dimethylphenol	10.4	U
111-91-1	bis(2-chloroethoxy)methane	10.4	U
120-83-2	2,4-dichlorophenol	10.4	U
120-82-1	1,2,4-trichlorobenzene	10.4	U
91-20-3	naphthalene	10.4	U
106-47-8	4-chloroaniline	20.8	U
87-68-3	hexachlorobutadiene	10.4	U
59-50-7	4-chloro-3-methylphenol	10.4	U
91-57-6	2-methylnaphthalene	10.4	U
77-47-4	hexachlorocyclopentadiene	10.4	U
88-06-2	2,4,6-trichlorophenol	10.4	U
95-95-4	2,4,5-trichlorophenol	10.4	U
91-58-7	2-chloronaphthalene	10.4	U
99-09-2	3-nitroaniline	26.0	U
88-74-4	2-nitroaniline	26.0	U
131-11-3	dimethylphthalate	10.4	U
606-20-2	2,6-dinitrotoluene	10.4	U
208-96-8	acenaphthylene	10.4	U
83-32-9	acenaphthene	10.4	U

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FORM I SV-1

OLM03.0

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Rinsate
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

RSGW02

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-04
 Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 8T622
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.8	U
132-64-9	dibenzofuran	10.4	U
121-14-2	2,4-dinitrotoluene	10.4	U
84-66-2	diethylphthalate	10.4	U
100-02-7	4-nitrophenol	20.8	U
86-73-7	fluorene	10.4	U
7005-72-3	4-chlorophenylphenylether	10.4	U
534-52-1	4,6-dinitro-2-methylphenol	10.4	U
100-01-6	4-nitroaniline	26.0	U
86-30-6	N-nitroso-diphenylamine	10.4	U
101-55-3	4-bromophenylphenylether	10.4	U
118-74-1	hexachlorobenzene	10.4	U
87-86-5	pentachlorophenol	10.4	U
85-01-8	phenanthrene	10.4	U
120-12-7	anthracene	10.4	U
84-74-2	di-n-butylphthalate	10.4	U
206-44-0	fluoranthene	10.4	U
129-00-0	pyrene	10.4	U
85-68-7	butylbenzylphthalate	10.4	U
56-55-3	benzo(a)anthracene	10.4	U
91-94-1	3,3'-dichlorobenzidine	52.1	U
218-01-9	chrysene	10.4	U
117-81-7	bis(2-ethylhexyl)phthalate	10.4	U
117-84-0	di-n-octylphthalate	10.4	U
205-99-2	benzo(b)fluoranthene	10.4	U
207-08-9	benzo(k)fluoranthene	10.4	U
50-32-8	benzo(a)pyrene	10.4	U
193-39-5	indeno(1,2,3-cd)pyrene	10.4	U
53-70-3	dibenz(a,h)anthracene	10.4	U
191-24-2	benzo(g,h,i)perylene	10.4	U
86-74-8	Carbazole	10.4	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Rinsate
EPA SAMPLE NO.

RSW03

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
Matrix: (soil/water) WATER Lab Sample ID: 9905245-24
Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 8J435
Level: (low/med) LOW Date Received: 05/08/99
% Moisture: not dec. _____ Date Analyzed: 05/21/99
GC Column: DB-624 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
74-87-3	chloromethane	10.0	U
74-83-9	bromomethane	10.0	U
75-01-4	vinyl chloride	2.0	U
75-00-3	chloroethane	10.0	U
75-09-2	methylene chloride	5.0	U
67-64-1	acetone	10.34	JB
75-15-0	carbon disulfide	5.0	U
75-35-4	1,1-dichloroethene	5.0	U
75-34-3	1,1-dichloroethane	5.0	U
67-66-3	chloroform	5.0	U
107-06-2	1,2-dichloroethane	5.0	U
78-93-3	2-butanone	10.0	U
71-55-6	1,1,1-trichloroethane	5.0	U
56-23-5	carbon tetrachloride	5.0	U
75-27-4	bromodichloromethane	5.0	U
78-87-5	1,2-dichloropropane	5.0	U
10061-01-5	cis-1,3-dichloropropene	5.0	U
79-01-6	trichloroethene	5.0	U
124-48-1	dibromochloromethane	5.0	U
79-00-5	1,1,2-trichloroethane	5.0	U
71-43-2	benzene	5.0	U
10061-02-6	trans-1,3-dichloropropene	5.0	U
75-25-2	bromoform	5.0	U
108-10-1	4-methyl-2-pentanone	10.0	U
591-78-6	2-hexanone	10.0	U
127-18-4	tetrachloroethene	5.0	U
79-34-5	1,1,2,2-tetrachloroethane	5.0	U
108-88-3	toluene	0.95	J
108-90-7	chlorobenzene	5.0	U
100-41-4	ethylbenzene	5.0	U
100-42-5	styrene	5.0	U
1330-20-7	xylenes (total)	5.0	U
540-59-0	1,2-dichloroethylene (total)	5.0	U

FORM I VOA

OLM03.0

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Rinsate
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

RSGW03

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-05
 Sample wt/vol: 800.0 (g/mL) ML Lab File ID: 8T419
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	12.5	U
111-44-4	bis(2-chloroethyl) ether	12.5	U
95-57-8	2-chlorophenol	12.5	U
541-73-1	1,3-dichlorobenzene	12.5	U
106-46-7	1,4-dichlorobenzene	12.5	U
95-50-1	1,2-dichlorobenzene	12.5	U
108-60-1	2,2'-Oxybis(1-chloropropane)	12.5	U
95-48-7	2-methylphenol	12.5	U
621-64-7	N-nitroso-di-n-propylamine	12.5	U
106-44-5	m,p-cresol	12.5	U
67-72-1	hexachloroethane	12.5	U
98-95-3	nitrobenzene	12.5	U
78-59-1	isophorone	12.5	U
88-75-5	2-nitrophenol	12.5	U
105-67-9	2,4-dimethylphenol	12.5	U
111-91-1	bis(2-chloroethoxy) methane	12.5	U
120-83-2	2,4-dichlorophenol	12.5	U
120-82-1	1,2,4-trichlorobenzene	12.5	U
91-20-3	naphthalene	12.5	U
106-47-8	4-chloroaniline	25.0	U
87-68-3	hexachlorobutadiene	12.5	U
59-50-7	4-chloro-3-methylphenol	12.5	U
91-57-6	2-methylnaphthalene	12.5	U
77-47-4	hexachlorocyclopentadiene	12.5	U
88-06-2	2,4,6-trichlorophenol	12.5	U
95-95-4	2,4,5-trichlorophenol	12.5	U
91-58-7	2-chloronaphthalene	12.5	U
99-09-2	3-nitroaniline	31.2	U
88-74-4	2-nitroaniline	31.2	U
131-11-3	dimethylphthalate	12.5	U
606-20-2	2,6-dinitrotoluene	12.5	U
208-96-8	acenaphthylene	12.5	U
83-32-9	acenaphthene	12.5	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Rinsate
EPA SAMPLE NO.

RSGW03

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905245-05
 Sample wt/vol: 800.0 (g/mL) ML Lab File ID: 8T419
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/13/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	25.0	U
132-64-9	dibenzofuran	12.5	U
121-14-2	2,4-dinitrotoluene	12.5	U
84-66-2	diethylphthalate	12.5	U
100-02-7	4-nitrophenol	25.0	U
86-73-7	fluorene	12.5	U
7005-72-3	4-chlorophenylphenylether	12.5	U
534-52-1	4,6-dinitro-2-methylphenol	12.5	U
100-01-6	4-nitroaniline	31.2	U
101-55-3	4-bromophenylphenylether	12.5	U
118-74-1	hexachlorobenzene	12.5	U
87-86-5	pentachlorophenol	12.5	U
85-01-8	phenanthrene	12.5	U
120-12-7	anthracene	12.5	U
84-74-2	di-n-butylphthalate	12.5	U
206-44-0	fluoranthene	12.5	U
129-00-0	pyrene	12.5	U
85-68-7	butylbenzylphthalate	12.5	U
56-55-3	benzo (a) anthracene	12.5	U
91-94-1	3,3'-dichlorobenzidine	62.5	U
218-01-9	chrysene	12.5	U
117-81-7	bis(2-ethylhexyl)phthalate	12.5	U
117-84-0	di-n-octylphthalate	12.5	U
205-99-2	benzo (b) fluoranthene	12.5	U
207-08-9	benzo (k) fluoranthene	12.5	U
50-32-8	benzo (a) pyrene	12.5	U
193-39-5	indeno (1,2,3-cd) pyrene	12.5	U
53-70-3	dibenz (a,h) anthracene	12.5	U
191-24-2	benzo (g,h,i) perylene	12.5	U
122-39-4	diphenylamine	12.5	U
86-74-8	Carbazole	12.5	U

U

SEDIMENT DATA SHEETS

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H01211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T436

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

108-95-2-----phenol	422	U
111-44-4-----bis(2-chloroethyl) ether	422	U
95-57-8-----2-chlorophenol	422	U
541-73-1-----1,3-dichlorobenzene	422	U
106-46-7-----1,4-dichlorobenzene	422	U
95-50-1-----1,2-dichlorobenzene	422	U
108-60-1-----2,2'-Oxybis(1-chloropropane)	422	U
95-48-7-----2-methylphenol	422	U
621-64-7-----N-nitroso-di-n-propylamine	422	U
106-44-5-----m,p-cresol	422	U
67-72-1-----hexachloroethane	422	U
98-95-3-----nitrobenzene	422	U
78-59-1-----isophorone	422	U
88-75-5-----2-nitrophenol	422	U
105-67-9-----2,4-dimethylphenol	422	U
111-91-1-----bis(2-chloroethoxy)methane	422	U
120-83-2-----2,4-dichlorophenol	422	U
120-82-1-----1,2,4-trichlorobenzene	422	U
91-20-3-----naphthalene	422	U
106-47-8-----4-chloroaniline	422	U
87-68-3-----hexachlorobutadiene	422	U
59-50-7-----4-chloro-3-methylphenol	422	U
91-57-6-----2-methylnaphthalene	422	U
77-47-4-----hexachlorocyclopentadiene	422	U
88-06-2-----2,4,6-trichlorophenol	422	U
95-95-4-----2,4,5-trichlorophenol	1050	U
91-58-7-----2-chloronaphthalene	422	U
99-09-2-----3-nitroaniline	1050	U
88-74-4-----2-nitroaniline	1050	U
131-11-3-----dimethylphthalate	422	U
606-20-2-----2,6-dinitrotoluene	422	U
208-96-8-----acenaphthylene	422	U
83-32-9-----acenaphthene	422	U

FORM I SV-1

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H01211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T436

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

Table with columns for CAS NO., COMPOUND, CONCENTRATION UNITS, and Q. Lists various organic compounds and their detection results.

Handwritten annotations including a vertical arrow and the text 'U F01, F01'.

FORM 1 Science Applications08-MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H01211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-04
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 034F3401
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 21 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	1.6	B

=F08

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H01211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I4017

Level: (low/med) LOW DATA VALIDATION Date Received: 05/08/99

% Moisture: not dec. 21 COPY Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	126	U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-02

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 5J316

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 20 Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	chloromethane	14.3	U
74-83-9	bromomethane	14.3	U
75-01-4	vinyl chloride	14.3	U
75-00-3	chloroethane	14.3	U
75-09-2	methylene chloride	7.2	U
67-64-1	acetone	46.4	B
75-15-0	carbon disulfide	2.6	J
75-35-4	1,1-dichloroethene	7.2	U
75-34-3	1,1-dichloroethane	7.2	U
67-66-3	chloroform	7.2	U
107-06-2	1,2-dichloroethane	7.2	U
78-93-3	2-butanone	15.2	
71-55-6	1,1,1-trichloroethane	7.2	U
56-23-5	carbon tetrachloride	7.2	U
75-27-4	bromodichloromethane	7.2	U
78-87-5	1,2-dichloropropane	7.2	U
10061-01-5	cis-1,3-dichloropropene	7.2	U
79-01-6	trichloroethene	7.2	U
124-48-1	dibromochloromethane	7.2	U
79-00-5	1,1,2-trichloroethane	7.2	U
71-43-2	benzene	7.2	U
10061-02-6	trans-1,3-dichloropropene	7.2	U
75-25-2	bromoform	7.2	U
108-10-1	4-methyl-2-pentanone	14.3	U
591-78-6	2-hexanone	14.3	U
127-18-4	tetrachloroethene	7.2	U
79-34-5	1,1,2,2-tetrachloroethane	7.2	U
108-88-3	toluene	10.7	
108-90-7	chlorobenzene	7.2	U
100-41-4	ethylbenzene	7.2	U
100-42-5	styrene	7.2	U
1330-20-7	xylenes (total)	7.2	U
540-59-0	1,2-dichloroethylene (total)	2.9	U

Handwritten notes on the right side of the table:
 - A vertical line with arrows at both ends spans from the top of the table to the bottom.
 - Next to this line, the text "C-11" is written vertically.
 - To the left of this line, there are handwritten notations: "J=CO8", "CO5", and "CO2".

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF05S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905245-02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 7T435

Level: (low/med) LOW

Date Received: 05/08/99

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL)

Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

108-95-2	phenol	417	U
111-44-4	bis(2-chloroethyl) ether	417	U
95-57-8	2-chlorophenol	417	U
541-73-1	1,3-dichlorobenzene	417	U
106-46-7	1,4-dichlorobenzene	417	U
95-50-1	1,2-dichlorobenzene	417	U
108-60-1	2,2'-Oxybis(1-chloropropane)	417	U
95-48-7	2-methylphenol	417	U
621-64-7	N-nitroso-di-n-propylamine	417	U
106-44-5	m,p-cresol	417	U
67-72-1	hexachloroethane	417	U
98-95-3	nitrobenzene	417	U
78-59-1	isophorone	417	U
88-75-5	2-nitrophenol	417	U
105-67-9	2,4-dimethylphenol	417	U
111-91-1	bis(2-chloroethoxy)methane	417	U
120-83-2	2,4-dichlorophenol	417	U
120-82-1	1,2,4-trichlorobenzene	417	U
91-20-3	naphthalene	417	U
106-47-8	4-chloroaniline	417	U
87-68-3	hexachlorobutadiene	417	U
59-50-7	4-chloro-3-methylphenol	417	U
91-57-6	2-methylnaphthalene	417	U
77-47-4	hexachlorocyclopentadiene	417	U
88-06-2	2,4,6-trichlorophenol	417	U
95-95-4	2,4,5-trichlorophenol	1040	U
91-58-7	2-chloronaphthalene	417	U
99-09-2	3-nitroaniline	1040	U
88-74-4	2-nitroaniline	1040	U
131-11-3	dimethylphthalate	417	U
606-20-2	2,6-dinitrotoluene	417	U
208-96-8	acenaphthylene	417	U
83-32-9	acenaphthene	417	U

U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T435

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 20 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	1040	U
132-64-9	dibenzofuran	417	U
121-14-2	2,4-dinitrotoluene	417	U
84-66-2	diethylphthalate	417	U
100-02-7	4-nitrophenol	1040	U
86-73-7	fluorene	417	U
7005-72-3	4-chlorophenylphenylether	417	U
534-52-1	4,6-dinitro-2-methylphenol	1040	U
100-01-6	4-nitroaniline	417	U
122-39-4	diphenylamine	417	U
101-55-3	4-bromophenylphenylether	417	U
118-74-1	hexachlorobenzene	417	U
87-86-5	pentachlorophenol	1040	U
85-01-8	phenanthrene	417	U
120-12-7	anthracene	417	U
84-74-2	di-n-butylphthalate	417	U
206-44-0	fluoranthene	417	U
129-00-0	pyrene	417	U
85-68-7	butylbenzylphthalate	417	U
56-55-3	benzo(a)anthracene	417	U
91-94-1	3,3'-dichlorobenzidine	417	U
218-01-9	chrysene	417	U
117-81-7	bis(2-ethylhexyl)phthalate	417	U
117-84-0	di-n-octylphthalate	417	U
205-99-2	benzo(b)fluoranthene	417	U
207-08-9	benzo(k)fluoranthene	417	U
50-32-8	benzo(a)pyrene	417	U
193-39-5	indeno(1,2,3-cd)pyrene	417	U
53-70-3	dibenz(a,h)anthracene	417	U
191-24-2	benzo(g,h,i)perylene	417	U
86-74-8	Carbazole	417	U

U

256

FORM 1 Science Applications 08-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H02211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-02
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 032F3201
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 20 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	5.9	B	J F08, 60

FORM I SV

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H02211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-02

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 1I505

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 20 Date Analyzed: 05/14/99

GC Column: J&W DB-624 (FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

DATA VERIFICATION
COPY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
-----	Gasoline Range Organics	608	=

FORM I VOA

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H03211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T437

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 20 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	1670	U
111-44-4	bis(2-chloroethyl) ether	1670	U
95-57-8	2-chlorophenol	1670	U
541-73-1	1,3-dichlorobenzene	1670	U
106-46-7	1,4-dichlorobenzene	1670	U
95-50-1	1,2-dichlorobenzene	1670	U
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	U
95-48-7	2-methylphenol	1670	U
621-64-7	N-nitroso-di-n-propylamine	1670	U
106-44-5	m,p-cresol	1670	U
67-72-1	hexachloroethane	1670	U
98-95-3	nitrobenzene	1670	U
78-59-1	isophorone	1670	U
88-75-5	2-nitrophenol	1670	U
105-67-9	2,4-dimethylphenol	1670	U
111-91-1	bis(2-chloroethoxy)methane	1670	U
120-83-2	2,4-dichlorophenol	1670	U
120-82-1	1,2,4-trichlorobenzene	1670	U
91-20-3	naphthalene	1670	U
106-47-8	4-chloroaniline	1670	U
87-68-3	hexachlorobutadiene	1670	U
59-50-7	4-chloro-3-methylphenol	1670	U
91-57-6	2-methylnaphthalene	1670	U
77-47-4	hexachlorocyclopentadiene	1670	U
88-06-2	2,4,6-trichlorophenol	1670	U
95-95-4	2,4,5-trichlorophenol	4170	U
91-58-7	2-chloronaphthalene	1670	U
99-09-2	3-nitroaniline	4170	U
88-74-4	2-nitroaniline	4170	U
131-11-3	dimethylphthalate	1670	U
606-20-2	2,6-dinitrotoluene	1670	U
208-96-8	acenaphthylene	1670	U
83-32-9	acenaphthene	1670	U

FORM I SV-1

OLM03.0

260

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H03211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T437

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 20 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	4170	U
132-64-9	dibenzofuran	1670	U
121-14-2	2,4-dinitrotoluene	1670	U
84-66-2	diethylphthalate	1670	U
100-02-7	4-nitrophenol	4170	U
86-73-7	fluorene	1670	U
7005-72-3	4-chlorophenylphenylether	1670	U
534-52-1	4,6-dinitro-2-methylphenol	4170	U
100-01-6	4-nitroaniline	1670	U
122-39-4	diphenylamine	1670	U
101-55-3	4-bromophenylphenylether	1670	U
118-74-1	hexachlorobenzene	1670	U
87-86-5	pentachlorophenol	4170	U
85-01-8	phenanthrene	1670	U
120-12-7	anthracene	1670	U
84-74-2	di-n-butylphthalate	1670	U
206-44-0	fluoranthene	1670	U
129-00-0	pyrene	1670	U
85-68-7	butylbenzylphthalate	1670	U
56-55-3	benzo(a)anthracene	1670	U
91-94-1	3,3'-dichlorobenzidine	1670	U
218-01-9	chrysene	1670	U
117-81-7	bis(2-ethylhexyl)phthalate	1670	U
117-84-0	di-n-octylphthalate	1670	U
205-99-2	benzo(b)fluoranthene	1670	U
207-08-9	benzo(k)fluoranthene	1670	U
50-32-8	benzo(a)pyrene	1670	U
193-39-5	indeno(1,2,3-cd)pyrene	1670	U
53-70-3	dibenz(a,h)anthracene	1670	U
191-24-2	benzo(g,h,i)perylene	1670	U
86-74-8	Carbazole	1670	U

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FORM 1 Science Applications08-MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H03211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-07
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 035F3501
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 20 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	3.6	B = F08

FORM I SV

262

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H03211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-07

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I4018

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 20 Date Analyzed: 05/13/99

GC Column: J&W DB-624 (FID) ID: 0.53 (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
	-----Gasoline Range Organics	125	U	U

FORM I VOA

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H04211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-17

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T442

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 28 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 7.0

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

108-95-2	phenol	1850	U
111-44-4	bis(2-chloroethyl) ether	1850	U
95-57-8	2-chlorophenol	1850	U
541-73-1	1,3-dichlorobenzene	1850	U
106-46-7	1,4-dichlorobenzene	1850	U
95-50-1	1,2-dichlorobenzene	1850	U
108-60-1	2,2'-Oxybis(1-chloropropane)	1850	U
95-48-7	2-methylphenol	1850	U
621-64-7	N-nitroso-di-n-propylamine	1850	U
106-44-5	m,p-cresol	1850	U
67-72-1	hexachloroethane	1850	U
98-95-3	nitrobenzene	1850	U
78-59-1	isophorone	1850	U
88-75-5	2-nitrophenol	1850	U
105-67-9	2,4-dimethylphenol	1850	U
111-91-1	bis(2-chloroethoxy)methane	1850	U
120-83-2	2,4-dichlorophenol	1850	U
120-82-1	1,2,4-trichlorobenzene	1850	U
91-20-3	naphthalene	1850	U
106-47-8	4-chloroaniline	1850	U
87-68-3	hexachlorobutadiene	1850	U
59-50-7	4-chloro-3-methylphenol	1850	U
91-57-6	2-methylnaphthalene	1850	U
77-47-4	hexachlorocyclopentadiene	1850	U
88-06-2	2,4,6-trichlorophenol	1850	U
95-95-4	2,4,5-trichlorophenol	4630	U
91-58-7	2-chloronaphthalene	1850	U
99-09-2	3-nitroaniline	4630	U
88-74-4	2-nitroaniline	4630	U
131-11-3	dimethylphthalate	1850	U
606-20-2	2,6-dinitrotoluene	1850	U
208-96-8	acenaphthylene	1850	U
83-32-9	acenaphthene	1850	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H04211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-17

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T442

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 28 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	4630	U
132-64-9	dibenzofuran	1850	U
121-14-2	2,4-dinitrotoluene	1850	U
84-66-2	diethylphthalate	1850	U
100-02-7	4-nitrophenol	4630	U
86-73-7	fluorene	1850	U
7005-72-3	4-chlorophenylphenylether	1850	U
534-52-1	4,6-dinitro-2-methylphenol	4630	U
100-01-6	4-nitroaniline	1850	U
122-39-4	diphenylamine	1850	U
101-55-3	4-bromophenylphenylether	1850	U
118-74-1	hexachlorobenzene	1850	U
87-86-5	pentachlorophenol	4630	U
85-01-8	phenanthrene	1850	U
120-12-7	anthracene	1850	U
84-74-2	di-n-butylphthalate	1850	U
206-44-0	fluoranthene	93.4	J
129-00-0	pyrene	1850	U
85-68-7	butylbenzylphthalate	1850	U
56-55-3	benzo (a) anthracene	1850	U
91-94-1	3,3'-dichlorobenzidine	1850	U
218-01-9	chrysene	1850	U
117-81-7	bis(2-ethylhexyl)phthalate	1850	U
117-84-0	di-n-octylphthalate	1850	U
205-99-2	benzo (b) fluoranthene	1850	U
207-08-9	benzo (k) fluoranthene	1850	U
50-32-8	benzo (a) pyrene	1850	U
193-39-5	indeno (1,2,3-cd) pyrene	1850	U
53-70-3	dibenz (a, h) anthracene	1850	U
191-24-2	benzo (g, h, i) perylene	1850	U
86-74-8	Carbazole	1850	U

U
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J
U F01, F06
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FORM 1 Science Applications 08-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H04211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-17

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 006F0601

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 28 decanted: (Y/N) N Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/26/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	3.1	B	JF08, 602

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H04211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-17

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 1I508

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 28 Date Analyzed: 05/14/99

GC Column: J&W DB-624(FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

DATA VALIDATION
CITY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
-----	Gasoline Range Organics	483	

268

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H05211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-15

Sample wt/vol: 5.4 (g/mL) G Lab File ID: 5J322

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 19 Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

74-87-3	chloromethane	11.5	U	U ↓ U F01, F01 J C05 ↓ J C05 U
74-83-9	bromomethane	11.5	U	
75-01-4	vinyl chloride	11.5	U	
75-00-3	chloroethane	11.5	U	
75-09-2	methylene chloride	5.7	U	
67-64-1	acetone	11.5	JB	
75-15-0	carbon disulfide	1.3	J	
75-35-4	1,1-dichloroethene	5.7	U	
75-34-3	1,1-dichloroethane	5.7	U	
67-66-3	chloroform	5.7	U	
107-06-2	1,2-dichloroethane	5.7	U	
78-93-3	2-butanone	1.6	J	
71-55-6	1,1,1-trichloroethane	5.7	U	
56-23-5	carbon tetrachloride	5.7	U	
75-27-4	bromodichloromethane	5.7	U	
78-87-5	1,2-dichloropropane	5.7	U	
10061-01-5	cis-1,3-dichloropropene	5.7	U	
79-01-6	trichloroethene	5.7	U	
124-48-1	dibromochloromethane	5.7	U	
79-00-5	1,1,2-trichloroethane	5.7	U	
71-43-2	benzene	5.7	U	
10061-02-6	trans-1,3-dichloropropene	5.7	U	
75-25-2	bromoform	5.7	U	
108-10-1	4-methyl-2-pentanone	11.5	U	
591-78-6	2-hexanone	11.5	U	
127-18-4	tetrachloroethene	5.7	U	
79-34-5	1,1,2,2-tetrachloroethane	5.7	U	
108-88-3	toluene	5.7	U	
108-90-7	chlorobenzene	5.7	U	
100-41-4	ethylbenzene	5.7	U	
100-42-5	styrene	5.7	U	
1330-20-7	xylenes (total)	5.7	U	
540-59-0	1,2-dichloroethylene (total)	2.3	U	

FORM I VOA

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

LAB SAMPLE NO.

H05211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-15
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T441
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 19 decanted: (Y/N) N Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

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

108-95-2	phenol	412	U
111-44-4	bis(2-chloroethyl) ether	412	U
95-57-8	2-chlorophenol	412	U
541-73-1	1,3-dichlorobenzene	412	U
106-46-7	1,4-dichlorobenzene	412	U
95-50-1	1,2-dichlorobenzene	412	U
108-60-1	2,2'-Oxybis(1-chloropropane)	412	U
95-48-7	2-methylphenol	412	U
621-64-7	N-nitroso-di-n-propylamine	412	U
106-44-5	m,p-cresol	412	U
67-72-1	hexachloroethane	412	U
98-95-3	nitrobenzene	412	U
78-59-1	isophorone	412	U
88-75-5	2-nitrophenol	412	U
105-67-9	2,4-dimethylphenol	412	U
111-91-1	bis(2-chloroethoxy)methane	412	U
120-83-2	2,4-dichlorophenol	412	U
120-82-1	1,2,4-trichlorobenzene	412	U
91-20-3	naphthalene	412	U
106-47-8	4-chloroaniline	412	U
87-68-3	hexachlorobutadiene	412	U
59-50-7	4-chloro-3-methylphenol	412	U
91-57-6	2-methylnaphthalene	412	U
77-47-4	hexachlorocyclopentadiene	412	U
88-06-2	2,4,6-trichlorophenol	412	U
95-95-4	2,4,5-trichlorophenol	1030	U
91-58-7	2-chloronaphthalene	412	U
99-09-2	3-nitroaniline	1030	U
88-74-4	2-nitroaniline	1030	U
131-11-3	dimethylphthalate	412	U
606-20-2	2,6-dinitrotoluene	412	U
208-96-8	acenaphthylene	412	U
83-32-9	acenaphthene	412	U

FORM I SV-1

OLM03.0

FORM 1 Science Applications 08-MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H05211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-15

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 039F3901

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics_____	2.8	B	J F08, G02

FORM I SV

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H05211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-15

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I4022

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 19 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	246	1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H06211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-09

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 5J319

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 25 Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	13.7	U
74-83-9	bromomethane	13.7	U
75-01-4	vinyl chloride	13.7	U
75-00-3	chloroethane	13.7	U
75-09-2	methylene chloride	6.8	U
67-64-1	acetone	19.1	B
75-15-0	carbon disulfide	2.9	J
75-35-4	1,1-dichloroethene	6.8	U
75-34-3	1,1-dichloroethane	6.8	U
67-66-3	chloroform	6.8	U
107-06-2	1,2-dichloroethane	6.8	U
78-93-3	2-butanone	3.2	J
71-55-6	1,1,1-trichloroethane	6.8	U
56-23-5	carbon tetrachloride	6.8	U
75-27-4	bromodichloromethane	6.8	U
78-87-5	1,2-dichloropropane	6.8	U
10061-01-5	cis-1,3-dichloropropene	6.8	U
79-01-6	trichloroethene	6.8	U
124-48-1	dibromochloromethane	6.8	U
79-00-5	1,1,2-trichloroethane	6.8	U
71-43-2	benzene	6.8	U
10061-02-6	trans-1,3-dichloropropene	6.8	U
75-25-2	bromoform	6.8	U
108-10-1	4-methyl-2-pentanone	13.7	U
591-78-6	2-hexanone	13.7	U
127-18-4	tetrachloroethene	6.8	U
79-34-5	1,1,2,2-tetrachloroethane	6.8	U
108-88-3	toluene	6.8	U
108-90-7	chlorobenzene	6.8	U
100-41-4	ethylbenzene	6.8	U
100-42-5	styrene	6.8	U
1330-20-7	xylenes (total)	6.8	U
540-59-0	1,2-dichloroethylene (total)	2.7	U

U
↓
J = F08
C05
↓
J = C05
↓

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H06211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T438

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 25 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	444	U
111-44-4	bis(2-chloroethyl) ether	444	U
95-57-8	2-chlorophenol	444	U
541-73-1	1,3-dichlorobenzene	444	U
106-46-7	1,4-dichlorobenzene	444	U
95-50-1	1,2-dichlorobenzene	444	U
108-60-1	2,2'-Oxybis(1-chloropropane)	444	U
95-48-7	2-methylphenol	444	U
621-64-7	N-nitroso-di-n-propylamine	444	U
106-44-5	m,p-cresol	444	U
67-72-1	hexachloroethane	444	U
98-95-3	nitrobenzene	444	U
78-59-1	isophorone	444	U
88-75-5	2-nitrophenol	444	U
105-67-9	2,4-dimethylphenol	444	U
111-91-1	bis(2-chloroethoxy)methane	444	U
120-83-2	2,4-dichlorophenol	444	U
120-82-1	1,2,4-trichlorobenzene	444	U
91-20-3	naphthalene	444	U
106-47-8	4-chloroaniline	444	U
87-68-3	hexachlorobutadiene	444	U
59-50-7	4-chloro-3-methylphenol	444	U
91-57-6	2-methylnaphthalene	444	U
77-47-4	hexachlorocyclopentadiene	444	U
88-06-2	2,4,6-trichlorophenol	444	U
95-95-4	2,4,5-trichlorophenol	1110	U
91-58-7	2-chloronaphthalene	444	U
99-09-2	3-nitroaniline	1110	U
88-74-4	2-nitroaniline	1110	U
131-11-3	dimethylphthalate	444	U
606-20-2	2,6-dinitrotoluene	444	U
208-96-8	acenaphthylene	444	U
83-32-9	acenaphthene	444	U

U

FORM I SV-1

OLM03.0

FORM 1 Science Applications 08-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H06211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-09
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 004F0401
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 25 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/26/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	-----Diesel Range Organics	6.1	B = F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H06211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I506

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 25 Date Analyzed: 05/14/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	334	=

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-08

Sample wt/vol: 5.8 (g/mL) G Lab File ID: 5J310

Level: (low/med) LOW DATA VALIDATION
COPY Date Received: 05/07/99

% Moisture: not dec. 33 Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	12.9	U
74-83-9	bromomethane	12.9	U
75-01-4	vinyl chloride	12.9	U
75-00-3	chloroethane	12.9	U
75-09-2	methylene chloride	6.5	U
67-64-1	acetone	28.8	B
75-15-0	carbon disulfide	1.9	J
75-35-4	1,1-dichloroethene	6.5	U
75-34-3	1,1-dichloroethane	6.5	U
67-66-3	chloroform	6.5	U
107-06-2	1,2-dichloroethane	6.5	U
78-93-3	2-butanone	4.1	J
71-55-6	1,1,1-trichloroethane	6.5	U
56-23-5	carbon tetrachloride	6.5	U
75-27-4	bromodichloromethane	6.5	U
78-87-5	1,2-dichloropropane	6.5	U
10061-01-5	cis-1,3-dichloropropene	6.5	U
79-01-6	trichloroethene	6.5	U
124-48-1	dibromochloromethane	6.5	U
79-00-5	1,1,2-trichloroethane	6.5	U
71-43-2	benzene	6.5	U
10061-02-6	trans-1,3-dichloropropene	6.5	U
75-25-2	bromoform	6.5	U
108-10-1	4-methyl-2-pentanone	12.9	U
591-78-6	2-hexanone	12.9	U
127-18-4	tetrachloroethene	6.5	U
79-34-5	1,1,2,2-tetrachloroethane	6.5	U
108-88-3	toluene	6.5	U
108-90-7	chlorobenzene	6.5	U
100-41-4	ethylbenzene	6.5	U
100-42-5	styrene	6.5	U
1330-20-7	xylenes (total)	6.5	U
540-59-0	1,2-dichloroethylene (total)	2.6	U

Handwritten notes and arrows on the right side of the table, including 'F03 C05' and 'C05' with arrows pointing to specific rows.

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T222

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	498	U
111-44-4	bis(2-chloroethyl) ether	498	U
95-57-8	2-chlorophenol	498	U
541-73-1	1,3-dichlorobenzene	498	U
106-46-7	1,4-dichlorobenzene	498	U
95-50-1	1,2-dichlorobenzene	498	U
108-60-1	2,2'-Oxybis(1-chloropropane)	498	U
95-48-7	2-methylphenol	498	U
621-64-7	N-nitroso-di-n-propylamine	498	U
106-44-5	m,p-cresol	498	U
67-72-1	hexachloroethane	498	U
98-95-3	nitrobenzene	498	U
78-59-1	isophorone	498	U
88-75-5	2-nitrophenol	498	U
105-67-9	2,4-dimethylphenol	498	U
111-91-1	bis(2-chloroethoxy)methane	498	U
120-83-2	2,4-dichlorophenol	498	U
120-82-1	1,2,4-trichlorobenzene	498	U
91-20-3	naphthalene	498	U
106-47-8	4-chloroaniline	498	U
87-68-3	hexachlorobutadiene	498	U
59-50-7	4-chloro-3-methylphenol	498	U
91-57-6	2-methylnaphthalene	498	U
77-47-4	hexachlorocyclopentadiene	498	U
88-06-2	2,4,6-trichlorophenol	498	U
95-95-4	2,4,5-trichlorophenol	1240	U
91-58-7	2-chloronaphthalene	498	U
99-09-2	3-nitroaniline	1240	U
88-74-4	2-nitroaniline	1240	U
131-11-3	dimethylphthalate	498	U
606-20-2	2,6-dinitrotoluene	498	U
208-96-8	acenaphthylene	498	U
83-32-9	acenaphthene	498	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T222

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	1240 U	U
132-64-9	dibenzofuran	498 U	
121-14-2	2,4-dinitrotoluene	498 U	
84-66-2	diethylphthalate	498 U	
100-02-7	4-nitrophenol	1240 U	
86-73-7	fluorene	498 U	
7005-72-3	4-chlorophenylphenylether	498 U	
534-52-1	4,6-dinitro-2-methylphenol	1240 U	
100-01-6	4-nitroaniline	498 U	
101-55-3	4-bromophenylphenylether	498 U	
118-74-1	hexachlorobenzene	498 U	
87-86-5	pentachlorophenol	1240 U	
85-01-8	phenanthrene	498 U	
120-12-7	anthracene	498 U	
84-74-2	di-n-butylphthalate	498 U	
206-44-0	fluoranthene	498 U	
129-00-0	pyrene	498 U	
85-68-7	butylbenzylphthalate	498 U	
56-55-3	benzo(a)anthracene	498 U	
91-94-1	3,3'-dichlorobenzidine	498 U	
218-01-9	chrysene	498 U	
117-81-7	bis(2-ethylhexyl)phthalate	498 U	
117-84-0	di-n-octylphthalate	498 U	
205-99-2	benzo(b)fluoranthene	498 U	
207-08-9	benzo(k)fluoranthene	498 U	
50-32-8	benzo(a)pyrene	498 U	
193-39-5	indeno(1,2,3-cd)pyrene	498 U	
53-70-3	dibenz(a,h)anthracene	498 U	
191-24-2	benzo(g,h,i)perylene	498 U	
122-39-4	diphenylamine	498 U	
86-74-8	Carbazole	498 U	

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 SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

H07211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-08
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 033F3301
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 33 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	2.4	B = FOB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H07211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-08

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I406

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 33 Date Analyzed: 05/13/99

GC Column: J&W DB-624 (FID) ID: 0.53 (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
	-----Gasoline Range Organics	186	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H08211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-19
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T223
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 17 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	402	U
111-44-4	bis(2-chloroethyl) ether	402	U
95-57-8	2-chlorophenol	402	U
541-73-1	1,3-dichlorobenzene	402	U
106-46-7	1,4-dichlorobenzene	402	U
95-50-1	1,2-dichlorobenzene	402	U
108-60-1	2,2'-Oxybis(1-chloropropane)	402	U
95-48-7	2-methylphenol	402	U
621-64-7	N-nitroso-di-n-propylamine	402	U
106-44-5	m,p-cresol	402	U
67-72-1	hexachloroethane	402	U
98-95-3	nitrobenzene	402	U
78-59-1	isophorone	402	U
88-75-5	2-nitrophenol	402	U
105-67-9	2,4-dimethylphenol	402	U
111-91-1	bis(2-chloroethoxy) methane	402	U
120-83-2	2,4-dichlorophenol	402	U
120-82-1	1,2,4-trichlorobenzene	402	U
91-20-3	naphthalene	402	U
106-47-8	4-chloroaniline	402	U
87-68-3	hexachlorobutadiene	402	U
59-50-7	4-chloro-3-methylphenol	402	U
91-57-6	2-methylnaphthalene	402	U
77-47-4	hexachlorocyclopentadiene	402	U
88-06-2	2,4,6-trichlorophenol	402	U
95-95-4	2,4,5-trichlorophenol	1000	U
91-58-7	2-chloronaphthalene	402	U
99-09-2	3-nitroaniline	1000	U
88-74-4	2-nitroaniline	1000	U
131-11-3	dimethylphthalate	402	U
606-20-2	2,6-dinitrotoluene	402	U
208-96-8	acenaphthylene	402	U
83-32-9	acenaphthene	402	U

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FORM I SV-1

OLM03.0

FORM 1 Science Applications 07-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H08211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-19
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 075F7501
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 17 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/21/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	3.0	B	

= F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H08211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-19

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I407

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 17 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	120	U U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF04S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905237-25

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: 5J314

Level: (low/med) LOW

DATA VALIDATION
COPY

Date Received: 05/07/99

% Moisture: not dec. 28

Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (ml)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	13.0	U
74-83-9	bromomethane	13.0	U
75-01-4	vinyl chloride	13.0	U
75-00-3	chloroethane	13.0	U
75-09-2	methylene chloride	13.0	U
67-64-1	acetone	6.5	U
75-15-0	carbon disulfide	16.9	B
75-35-4	1,1-dichloroethene	2.5	J
75-34-3	1,1-dichloroethane	6.5	U
67-66-3	chloroform	6.5	U
107-06-2	1,2-dichloroethane	6.5	U
78-93-3	2-butanone	6.5	U
71-55-6	1,1,1-trichloroethane	13.0	U
56-23-5	carbon tetrachloride	6.5	U
75-27-4	bromodichloromethane	6.5	U
78-87-5	1,2-dichloropropane	6.5	U
10061-01-5	cis-1,3-dichloropropene	6.5	U
79-01-6	trichloroethene	6.5	U
124-48-1	dibromochloromethane	6.5	U
79-00-5	1,1,2-trichloroethane	6.5	U
71-43-2	benzene	6.5	U
10061-02-6	trans-1,3-dichloropropene	6.5	U
75-25-2	bromoform	6.5	U
108-10-1	4-methyl-2-pentanone	6.5	U
591-78-6	2-hexanone	13.0	U
127-18-4	tetrachloroethene	13.0	U
79-34-5	1,1,2,2-tetrachloroethane	6.5	U
108-88-3	toluene	6.5	U
108-90-7	chlorobenzene	6.5	U
100-41-4	ethylbenzene	6.5	U
100-42-5	styrene	6.5	U
1330-20-7	xylenes (total)	6.5	U
540-59-0	1,2-dichloroethylene (total)	6.5	U
		2.6	U

U
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U F01, F07
J COS
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-25
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T226
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 28 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	463	U
111-44-4	bis(2-chloroethyl) ether	463	U
95-57-8	2-chlorophenol	463	U
541-73-1	1,3-dichlorobenzene	463	U
106-46-7	1,4-dichlorobenzene	463	U
95-50-1	1,2-dichlorobenzene	463	U
108-60-1	2,2'-Oxybis(1-chloropropane)	463	U
95-48-7	2-methylphenol	463	U
621-64-7	N-nitroso-di-n-propylamine	463	U
106-44-5	m,p-cresol	463	U
67-72-1	hexachloroethane	463	U
98-95-3	nitrobenzene	463	U
78-59-1	isophorone	463	U
88-75-5	2-nitrophenol	463	U
105-67-9	2,4-dimethylphenol	463	U
111-91-1	bis(2-chloroethoxy)methane	463	U
120-83-2	2,4-dichlorophenol	463	U
120-82-1	1,2,4-trichlorobenzene	463	U
91-20-3	naphthalene	463	U
106-47-8	4-chloroaniline	463	U
87-68-3	hexachlorobutadiene	463	U
59-50-7	4-chloro-3-methylphenol	463	U
91-57-6	2-methylnaphthalene	463	U
77-47-4	hexachlorocyclopentadiene	463	U
88-06-2	2,4,6-trichlorophenol	463	U
95-95-4	2,4,5-trichlorophenol	1160	U
91-58-7	2-chloronaphthalene	463	U
99-09-2	3-nitroaniline	1160	U
88-74-4	2-nitroaniline	1160	U
131-11-3	dimethylphthalate	463	U
606-20-2	2,6-dinitrotoluene	463	U
208-96-8	acenaphthylene	463	U
83-32-9	acenaphthene	463	U

FORM I SV-1

OLM03.0

290

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-25
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T226
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 28 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	1160	U
132-64-9	dibenzofuran	463	U
121-14-2	2,4-dinitrotoluene	463	U
84-66-2	diethylphthalate	463	U
100-02-7	4-nitrophenol	1160	U
86-73-7	fluorene	463	U
7005-72-3	4-chlorophenylphenylether	463	U
534-52-1	4,6-dinitro-2-methylphenol	1160	U
100-01-6	4-nitroaniline	463	U
101-55-3	4-bromophenylphenylether	463	U
118-74-1	hexachlorobenzene	463	U
87-86-5	pentachlorophenol	1160	U
85-01-8	phenanthrene	463	U
120-12-7	anthracene	463	U
84-74-2	di-n-butylphthalate	463	U
206-44-0	fluoranthene	463	U
129-00-0	pyrene	463	U
85-68-7	butylbenzylphthalate	463	U
56-55-3	benzo (a) anthracene	463	U
91-94-1	3,3'-dichlorobenzidine	463	U
218-01-9	chrysene	463	U
117-81-7	bis(2-ethylhexyl) phthalate	463	U
117-84-0	di-n-octylphthalate	463	U
205-99-2	benzo (b) fluoranthene	463	U
207-08-9	benzo (k) fluoranthene	463	U
50-32-8	benzo (a) pyrene	463	U
193-39-5	indeno (1,2,3-cd) pyrene	463	U
53-70-3	dibenz (a,h) anthracene	463	U
191-24-2	benzo (g,h,i) perylene	463	U
122-39-4	diphenylamine	463	U
86-74-8	Carbazole	463	U

U

H09211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-25
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 076F7601
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 28 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/21/99
 Injection Volume: 1.0 (uL) Dilution Factor: 3.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	-----Diesel Range Organics	14.0	B

= F08

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292

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-25

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 114010

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 28 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
-----	Gasoline Range Organics		678	

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H09221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-27

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5J315

Level: (low/med) LOW DATE RECEIVED: 05/07/99

% Moisture: not dec. 24 DATE ANALYZED: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	13.1	U
74-83-9	bromomethane	13.1	U
75-01-4	vinyl chloride	13.1	U
75-00-3	chloroethane	13.1	U
75-09-2	methylene chloride	6.6	U
67-64-1	acetone	41.0	B
75-15-0	carbon disulfide	2.2	J
75-35-4	1,1-dichloroethene	6.6	U
75-34-3	1,1-dichloroethane	6.6	U
67-66-3	chloroform	6.6	U
107-06-2	1,2-dichloroethane	6.6	U
78-93-3	2-butanone	6.3	J
71-55-6	1,1,1-trichloroethane	6.6	U
56-23-5	carbon tetrachloride	6.6	U
75-27-4	bromodichloromethane	6.6	U
78-87-5	1,2-dichloropropane	6.6	U
10061-01-5	cis-1,3-dichloropropene	6.6	U
79-01-6	trichloroethene	6.6	U
124-48-1	dibromochloromethane	6.6	U
79-00-5	1,1,2-trichloroethane	6.6	U
71-43-2	benzene	6.6	U
10061-02-6	trans-1,3-dichloropropene	6.6	U
75-25-2	bromoform	6.6	U
108-10-1	4-methyl-2-pentanone	13.1	U
591-78-6	2-hexanone	13.1	U
127-18-4	tetrachloroethene	6.6	U
79-34-5	1,1,2,2-tetrachloroethane	6.6	U
108-88-3	toluene	1.3	J
108-90-7	chlorobenzene	6.6	U
100-41-4	ethylbenzene	6.6	U
100-42-5	styrene	6.6	U
1330-20-7	xylenes (total)	6.6	U
540-59-0	1,2-dichloroethylene (total)	2.6	U

Handwritten notes on the right side of the table, including a vertical line with arrows and the text "FOR COS" and "CJ".

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EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H09221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-27
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T434
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 24 decanted: (Y/N) N Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	438 U	U
111-44-4	bis(2-chloroethyl) ether	438 U	
95-57-8	2-chlorophenol	438 U	
541-73-1	1,3-dichlorobenzene	438 U	
106-46-7	1,4-dichlorobenzene	438 U	
95-50-1	1,2-dichlorobenzene	438 U	
108-60-1	2,2'-Oxybis(1-chloropropane)	438 U	
95-48-7	2-methylphenol	438 U	
621-64-7	N-nitroso-di-n-propylamine	438 U	
106-44-5	m,p-cresol	438 U	
67-72-1	hexachloroethane	438 U	
98-95-3	nitrobenzene	438 U	
78-59-1	isophorone	438 U	
88-75-5	2-nitrophenol	438 U	
105-67-9	2,4-dimethylphenol	438 U	
111-91-1	bis(2-chloroethoxy)methane	438 U	
120-83-2	2,4-dichlorophenol	438 U	
120-82-1	1,2,4-trichlorobenzene	438 U	
91-20-3	naphthalene	438 U	
106-47-8	4-chloroaniline	438 U	
87-68-3	hexachlorobutadiene	438 U	
59-50-7	4-chloro-3-methylphenol	438 U	
91-57-6	2-methylnaphthalene	438 U	
77-47-4	hexachlorocyclopentadiene	438 U	
88-06-2	2,4,6-trichlorophenol	438 U	
95-95-4	2,4,5-trichlorophenol	1100 U	
91-58-7	2-chloronaphthalene	438 U	
99-09-2	3-nitroaniline	1100 U	
88-74-4	2-nitroaniline	1100 U	
131-11-3	dimethylphthalate	438 U	
606-20-2	2,6-dinitrotoluene	438 U	
208-96-8	acenaphthylene	438 U	
83-32-9	acenaphthene	438 U	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Science Applications 07-MAY-1999 S

286

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H09221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-27
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 003F0301
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 24 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/26/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	2.1	B	F08

FORM I SV

C-157

217B

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H09221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-27

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I4011

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 24 Date Analyzed: 05/13/99

GC Column: J&W DB-624 (FID) ID: 0.53 (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
-----	Gasoline Range Organics	232	M

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H10211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-02

Sample wt/vol: 5.4 (g/mL) G Lab File ID: 5J308

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 42 Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	16.0	U
74-83-9	bromomethane	16.0	U
75-01-4	vinyl chloride	16.0	U
75-00-3	chloroethane	16.0	U
75-09-2	methylene chloride	8.0	U
67-64-1	acetone	44.5	B
75-15-0	carbon disulfide	2.0	J
75-35-4	1,1-dichloroethene	8.0	U
75-34-3	1,1-dichloroethane	8.0	U
67-66-3	chloroform	8.0	U
107-06-2	1,2-dichloroethane	8.0	U
78-93-3	2-butanone	9.0	J
71-55-6	1,1,1-trichloroethane	8.0	U
56-23-5	carbon tetrachloride	8.0	U
75-27-4	bromodichloromethane	8.0	U
78-87-5	1,2-dichloropropane	8.0	U
10061-01-5	cis-1,3-dichloropropene	8.0	U
79-01-6	trichloroethene	8.0	U
124-48-1	dibromochloromethane	8.0	U
79-00-5	1,1,2-trichloroethane	8.0	U
71-43-2	benzene	8.0	U
10061-02-6	trans-1,3-dichloropropene	8.0	U
75-25-2	bromoform	8.0	U
108-10-1	4-methyl-2-pentanone	16.0	U
591-78-6	2-hexanone	16.0	U
127-18-4	tetrachloroethene	8.0	U
79-34-5	1,1,2,2-tetrachloroethane	1.9	J
108-88-3	toluene	8.0	U
108-90-7	chlorobenzene	8.0	U
100-41-4	ethylbenzene	8.0	U
100-42-5	styrene	8.0	U
1330-20-7	xylenes (total)	8.0	U
540-59-0	1,2-dichloroethylene (total)	3.2	U

Handwritten notes on the right side of the table:
A vertical arrow pointing downwards with the text "FOR CAS" written next to it.
A vertical arrow pointing downwards with the text "CYE" written next to it.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H10211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-02
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T220
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 42 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	1440	U
132-64-9	dibenzofuran	575	U
121-14-2	2,4-dinitrotoluene	575	U
84-66-2	diethylphthalate	575	U
100-02-7	4-nitrophenol	1440	U
86-73-7	fluorene	369	J
7005-72-3	4-chlorophenylphenylether	575	U
534-52-1	4,6-dinitro-2-methylphenol	1440	U
100-01-6	4-nitroaniline	575	U
101-55-3	4-bromophenylphenylether	575	U
118-74-1	hexachlorobenzene	575	U
87-86-5	pentachlorophenol	1440	U
85-01-8	phenanthrene	1480	
120-12-7	anthracene	305	J
84-74-2	di-n-butylphthalate	575	U
206-44-0	fluoranthene	1180	
129-00-0	pyrene	1180	
85-68-7	butylbenzylphthalate	575	U
56-55-3	benzo(a)anthracene	468	J
91-94-1	3,3'-dichlorobenzidine	575	U
218-01-9	chrysene	476	J
117-81-7	bis(2-ethylhexyl)phthalate	712	
117-84-0	di-n-octylphthalate	575	U
205-99-2	benzo(b)fluoranthene	407	J
207-08-9	benzo(k)fluoranthene	305	J
50-32-8	benzo(a)pyrene	305	J
193-39-5	indeno(1,2,3-cd)pyrene	291	J
53-70-3	dibenz(a,h)anthracene	575	U
191-24-2	benzo(g,h,i)perylene	166	J
122-39-4	diphenylamine	575	U
86-74-8	Carbazole	575	U

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FORM 1 Science Applications 07-MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H10211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-02
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 074F7401
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 42 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/21/99
 Injection Volume: 1.0 (uL) Dilution Factor: 2.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	21.9	B = F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H10211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I5011

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 42 Date Analyzed: 05/14/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	648	11

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H11211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5J309

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 33 Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	15.0	U
74-83-9	bromomethane	15.0	U
75-01-4	vinyl chloride	15.0	U
75-00-3	chloroethane	15.0	U
75-09-2	methylene chloride	7.5	U
67-64-1	acetone	15 14.2	JB
75-15-0	carbon disulfide	1.4	J
75-35-4	1,1-dichloroethene	7.5	U
75-34-3	1,1-dichloroethane	7.5	U
67-66-3	chloroform	7.5	U
107-06-2	1,2-dichloroethane	7.5	U
78-93-3	2-butanone	15.0	U
71-55-6	1,1,1-trichloroethane	7.5	U
56-23-5	carbon tetrachloride	7.5	U
75-27-4	bromodichloromethane	7.5	U
78-87-5	1,2-dichloropropane	7.5	U
10061-01-5	cis-1,3-dichloropropene	7.5	U
79-01-6	trichloroethene	7.5	U
124-48-1	dibromochloromethane	7.5	U
79-00-5	1,1,2-trichloroethane	7.5	U
71-43-2	benzene	7.5	U
10061-02-6	trans-1,3-dichloropropene	7.5	U
75-25-2	bromoform	7.5	U
108-10-1	4-methyl-2-pentanone	15.0	U
591-78-6	2-hexanone	15.0	U
127-18-4	tetrachloroethene	7.5	U
79-34-5	1,1,2,2-tetrachloroethane	7.5	U
108-88-3	toluene	7.5	U
108-90-7	chlorobenzene	7.5	U
100-41-4	ethylbenzene	7.5	U
100-42-5	styrene	7.5	U
1330-20-7	xylene (total)	7.5	U
540-59-0	1,2-dichloroethylene (total)	3.0	U

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H11211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-06
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T221
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 33 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	498	U
111-44-4	bis(2-chloroethyl) ether	498	U
95-57-8	2-chlorophenol	498	U
541-73-1	1,3-dichlorobenzene	498	U
106-46-7	1,4-dichlorobenzene	498	U
95-50-1	1,2-dichlorobenzene	498	U
108-60-1	2,2'-Oxybis(1-chloropropane)	498	U
95-48-7	2-methylphenol	498	U
621-64-7	N-nitroso-di-n-propylamine	498	U
106-44-5	m,p-cresol	498	U
67-72-1	hexachloroethane	498	U
98-95-3	nitrobenzene	498	U
78-59-1	isophorone	498	U
88-75-5	2-nitrophenol	498	U
105-67-9	2,4-dimethylphenol	498	U
111-91-1	bis(2-chloroethoxy)methane	498	U
120-83-2	2,4-dichlorophenol	498	U
120-82-1	1,2,4-trichlorobenzene	498	U
91-20-3	naphthalene	498	U
106-47-8	4-chloroaniline	498	U
87-68-3	hexachlorobutadiene	498	U
59-50-7	4-chloro-3-methylphenol	498	U
91-57-6	2-methylnaphthalene	498	U
77-47-4	hexachlorocyclopentadiene	498	U
88-06-2	2,4,6-trichlorophenol	498	U
95-95-4	2,4,5-trichlorophenol	1240	U
91-58-7	2-chloronaphthalene	498	U
99-09-2	3-nitroaniline	1240	U
88-74-4	2-nitroaniline	1240	U
131-11-3	dimethylphthalate	498	U
606-20-2	2,6-dinitrotoluene	498	U
208-96-8	acenaphthylene	498	U
83-32-9	acenaphthene	498	U

FORM I SV-1

OLM03.0

FORM 1 Science Applications 07-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H11211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-06
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 032F3201
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 33 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics_____	0.52	JB	UF01, F02

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H11211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 11405

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 33 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	148	U U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF04S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905237-23

Sample wt/vol: 5.6 (g/mL) G

Lab File ID: SJ313

Level: (low/med) LOW

Date Received: 05/07/99

% Moisture: not dec. 33

Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (ml)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	13.4	U
74-83-9	bromomethane	13.4	U
75-01-4	vinyl chloride	13.4	U
75-00-3	chloroethane	13.4	U
75-09-2	methylene chloride	13.4	U
67-64-1	acetone	6.7	U
75-15-0	carbon disulfide	13.4	JB
75-35-4	1,1-dichloroethene	0.71	J
75-34-3	1,1-dichloroethane	6.7	U
67-66-3	chloroform	6.7	U
107-06-2	1,2-dichloroethane	6.7	U
78-93-3	2-butanone	6.7	U
71-55-6	1,1,1-trichloroethane	13.4	U
56-23-5	carbon tetrachloride	6.7	U
75-27-4	bromodichloromethane	6.7	U
78-87-5	1,2-dichloropropane	6.7	U
10061-01-5	cis-1,3-dichloropropene	6.7	U
79-01-6	trichloroethene	6.7	U
124-48-1	dibromochloromethane	6.7	U
79-00-5	1,1,2-trichloroethane	6.7	U
71-43-2	benzene	6.7	U
10061-02-6	trans-1,3-dichloropropene	6.7	U
75-25-2	bromoform	6.7	U
108-10-1	4-methyl-2-pentanone	6.7	U
591-78-6	2-hexanone	13.4	U
127-18-4	tetrachloroethene	13.4	U
79-34-5	1,1,2,2-tetrachloroethane	6.7	U
108-88-3	toluene	6.7	U
108-90-7	chlorobenzene	6.7	U
100-41-4	ethylbenzene	6.7	U
100-42-5	styrene	6.7	U
1330-20-7	xylene (total)	6.7	U
540-59-0	1,2-dichloroethylene (total)	6.7	U
		2.7	U

NA
6/10/99

13.4

U
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U FOI, FO6
J COS
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-23

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T225

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	498	U
111-44-4	bis(2-chloroethyl) ether	498	U
95-57-8	2-chlorophenol	498	U
541-73-1	1,3-dichlorobenzene	498	U
106-46-7	1,4-dichlorobenzene	498	U
95-50-1	1,2-dichlorobenzene	498	U
108-60-1	2,2'-Oxybis(1-chloropropane)	498	U
95-48-7	2-methylphenol	498	U
621-64-7	N-nitroso-di-n-propylamine	498	U
106-44-5	m,p-cresol	498	U
67-72-1	hexachloroethane	498	U
98-95-3	nitrobenzene	498	U
78-59-1	isophorone	498	U
88-75-5	2-nitrophenol	498	U
105-67-9	2,4-dimethylphenol	498	U
111-91-1	bis(2-chloroethoxy) methane	498	U
120-83-2	2,4-dichlorophenol	498	U
120-82-1	1,2,4-trichlorobenzene	498	U
91-20-3	naphthalene	498	U
106-47-8	4-chloroaniline	498	U
87-68-3	hexachlorobutadiene	498	U
59-50-7	4-chloro-3-methylphenol	498	U
91-57-6	2-methylnaphthalene	498	U
77-47-4	hexachlorocyclopentadiene	498	U
88-06-2	2,4,6-trichlorophenol	498	U
95-95-4	2,4,5-trichlorophenol	1240	U
91-58-7	2-chloronaphthalene	498	U
99-09-2	3-nitroaniline	1240	U
88-74-4	2-nitroaniline	1240	U
131-11-3	dimethylphthalate	498	U
606-20-2	2,6-dinitrotoluene	498	U
208-96-8	acenaphthylene	498	U
83-32-9	acenaphthene	498	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-23
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T225
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 33 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
51-28-5	2,4-dinitrophenol	1240	U	U
132-64-9	dibenzofuran	498	U	
121-14-2	2,4-dinitrotoluene	498	U	
84-66-2	diethylphthalate	498	U	
100-02-7	4-nitrophenol	1240	U	
86-73-7	fluorene	498	U	
7005-72-3	4-chlorophenylphenylether	498	U	
534-52-1	4,6-dinitro-2-methylphenol	1240	U	
100-01-6	4-nitroaniline	498	U	
101-55-3	4-bromophenylphenylether	498	U	
118-74-1	hexachlorobenzene	498	U	
87-86-5	pentachlorophenol	1240	U	
85-01-8	phenanthrene	498	U	
120-12-7	anthracene	498	U	
84-74-2	di-n-butylphthalate	498	U	
206-44-0	fluoranthene	498	U	
129-00-0	pyrene	498	U	
85-68-7	butylbenzylphthalate	498	U	
56-55-3	benzo(a)anthracene	498	U	
91-94-1	3,3'-dichlorobenzidine	498	U	
218-01-9	chrysene	498	U	
117-81-7	bis(2-ethylhexyl)phthalate	498	U	
117-84-0	di-n-octylphthalate	498	U	
205-99-2	benzo(b)fluoranthene	498	U	
207-08-9	benzo(k)fluoranthene	498	U	
50-32-8	benzo(a)pyrene	498	U	
193-39-5	indeno(1,2,3-cd)pyrene	498	U	
53-70-3	dibenz(a,h)anthracene	498	U	
191-24-2	benzo(g,h,i)perylene	498	U	
122-39-4	diphenylamine	498	U	
86-74-8	Carbazole	498	U	

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 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H12211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-23

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 037F3701

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	-----Diesel Range Organics_____	0.33	JB

V F01, F06

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H12211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-23

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 11409

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 33 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	248	11

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-21

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 5J312

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 27 Date Analyzed: 05/19/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	12.2	U
74-83-9	bromomethane	12.2	U
75-01-4	vinyl chloride	12.2	U
75-00-3	chloroethane	12.2	U
75-09-2	methylene chloride	0.67	J
67-64-1	acetone	19.9	B
75-15-0	carbon disulfide	15.8	
75-35-4	1,1-dichloroethene	6.1	U
75-34-3	1,1-dichloroethane	6.1	U
67-66-3	chloroform	6.1	U
107-06-2	1,2-dichloroethane	6.1	U
78-93-3	2-butanone	12.2	U
71-55-6	1,1,1-trichloroethane	6.1	U
56-23-5	carbon tetrachloride	6.1	U
75-27-4	bromodichloromethane	6.1	U
78-87-5	1,2-dichloropropane	6.1	U
10061-01-5	cis-1,3-dichloropropene	6.1	U
79-01-6	trichloroethene	6.1	U
124-48-1	dibromochloromethane	6.1	U
79-00-5	1,1,2-trichloroethane	6.1	U
71-43-2	benzene	6.1	U
10061-02-6	trans-1,3-dichloropropene	6.1	U
75-25-2	bromoform	6.1	U
108-10-1	4-methyl-2-pentanone	12.2	U
591-78-6	2-hexanone	12.2	U
127-18-4	tetrachloroethene	6.1	U
79-34-5	1,1,2,2-tetrachloroethane	6.1	U
108-88-3	toluene	6.1	U
108-90-7	chlorobenzene	6.1	U
100-41-4	ethylbenzene	6.1	U
100-42-5	styrene	6.1	U
1330-20-7	xylenes (total)	6.1	U
540-59-0	1,2-dichloroethylene (total)	2.4	U

C4114 ← U
F08
C05

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-21
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T224
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 27 decanted: (Y/N) N Date Extracted: 05/10/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
108-95-2	phenol	457	U	U
111-44-4	bis(2-chloroethyl) ether	457	U	
95-57-8	2-chlorophenol	457	U	
541-73-1	1,3-dichlorobenzene	457	U	
106-46-7	1,4-dichlorobenzene	457	U	
95-50-1	1,2-dichlorobenzene	457	U	
108-60-1	2,2'-Oxybis(1-chloropropane)	457	U	
95-48-7	2-methylphenol	457	U	
621-64-7	N-nitroso-di-n-propylamine	457	U	
106-44-5	m,p-cresol	457	U	
67-72-1	hexachloroethane	457	U	
98-95-3	nitrobenzene	457	U	
78-59-1	isophorone	457	U	
88-75-5	2-nitrophenol	457	U	
105-67-9	2,4-dimethylphenol	457	U	
111-91-1	bis(2-chloroethoxy)methane	457	U	
120-83-2	2,4-dichlorophenol	457	U	
120-82-1	1,2,4-trichlorobenzene	457	U	
91-20-3	naphthalene	457	U	
106-47-8	4-chloroaniline	457	U	
87-68-3	hexachlorobutadiene	457	U	
59-50-7	4-chloro-3-methylphenol	457	U	
91-57-6	2-methylnaphthalene	457	U	
77-47-4	hexachlorocyclopentadiene	457	U	
88-06-2	2,4,6-trichlorophenol	457	U	
95-95-4	2,4,5-trichlorophenol	1140	U	
91-58-7	2-chloronaphthalene	457	U	
99-09-2	3-nitroaniline	1140	U	
88-74-4	2-nitroaniline	1140	U	
131-11-3	dimethylphthalate	457	U	
606-20-2	2,6-dinitrotoluene	457	U	
208-96-8	acenaphthylene	457	U	
83-32-9	acenaphthene	457	U	

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-21

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T224

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: 27 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5-----	2,4-dinitrophenol	1140	U
132-64-9-----	dibenzofuran	457	U
121-14-2-----	2,4-dinitrotoluene	457	U
84-66-2-----	diethylphthalate	457	U
100-02-7-----	4-nitrophenol	1140	U
86-73-7-----	fluorene	457	U
7005-72-3-----	4-chlorophenylphenylether	457	U
534-52-1-----	4,6-dinitro-2-methylphenol	1140	U
100-01-6-----	4-nitroaniline	457	U
101-55-3-----	4-bromophenylphenylether	457	U
118-74-1-----	hexachlorobenzene	457	U
87-86-5-----	pentachlorophenol	1140	U
85-01-8-----	phenanthrene	457	U
120-12-7-----	anthracene	457	U
84-74-2-----	di-n-butylphthalate	457	U
206-44-0-----	fluoranthene	457	U
129-00-0-----	pyrene	457	U
85-68-7-----	butylbenzylphthalate	457	U
56-55-3-----	benzo(a)anthracene	457	U
91-94-1-----	3,3'-dichlorobenzidine	457	U
218-01-9-----	chrysene	457	U
117-81-7-----	bis(2-ethylhexyl)phthalate	457	U
117-84-0-----	di-n-octylphthalate	457	U
205-99-2-----	benzo(b)fluoranthene	115	J
207-08-9-----	benzo(k)fluoranthene	457	U
50-32-8-----	benzo(a)pyrene	457	U
193-39-5-----	indeno(1,2,3-cd)pyrene	168	J
53-70-3-----	dibenz(a,h)anthracene	457	U
191-24-2-----	benzo(g,h,i)perylene	457	U
122-39-4-----	diphenylamine	457	U
86-74-8-----	Carbazole	457	U

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FORM 1 Science Applications 07-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H13211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905237-21
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 036F3601
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: 27 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	0.58	JB	J FDP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H13211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04S

Matrix: (soil/water) SOIL Lab Sample ID: 9905237-21

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 1I408

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. 27 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics _____	135	U U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

H14211

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF03S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905205-06

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: 7I546

Level: (low/med) LOW

Date Received: 05/06/99

% Moisture: not dec. 26

Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (ml)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	12.8	U
74-83-9	bromomethane	12.8	U
75-01-4	vinyl chloride	12.8	U
75-00-3	chloroethane	12.8	U
75-00-2	methylene chloride	6.4	U
67-64-1	acetone	20.9	B
75-15-0	carbon disulfide	32.5	B
75-35-4	1,1-dichloroethene	6.4	U
75-34-3	1,1-dichloroethane	6.4	U
67-66-3	chloroform	6.4	U
107-06-2	1,2-dichloroethane	6.4	U
74-93-3	2-butanone	6.4	U
71-55-6	1,1,1-trichloroethane	4.3	J
56-23-5	carbon tetrachloride	6.4	U
75-27-4	bromodichloromethane	6.4	U
78-87-5	1,2-dichloropropane	6.4	U
10061-01-5	cis-1,3-dichloropropene	6.4	U
79-01-6	trichloroethene	6.4	U
124-48-1	dibromochloromethane	6.4	U
79-00-5	1,1,2-trichloroethane	6.4	U
71-43-2	benzene	6.4	U
10061-02-6	trans-1,3-dichloropropene	6.4	U
75-25-2	bromoform	6.4	U
108-10-1	4-methyl-2-pentanone	6.4	U
591-78-6	2-hexanone	12.8	U
127-18-4	tetrachloroethene	12.8	U
79-34-5	1,1,2,2-tetrachloroethane	6.4	U
108-88-3	toluene	6.4	U
108-90-7	chlorobenzene	6.4	U
100-41-4	ethylbenzene	6.4	U
100-42-5	styrene	6.4	U
1330-20-7	xylenes (total)	6.4	U
540-59-0	1,2-dichloroethylene (total)	6.4	U
		2.6	U

U
↓
J F08, C05
= F08
U
↓
J C01, C04
U

FORM I VOA

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H14211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T210

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	450	U
111-44-4	bis(2-chloroethyl) ether	450	U
95-57-8	2-chlorophenol	450	U
541-73-1	1,3-dichlorobenzene	450	U
106-46-7	1,4-dichlorobenzene	450	U
95-50-1	1,2-dichlorobenzene	450	U
108-60-1	2,2'-Oxybis(1-chloropropane)	450	U
95-48-7	2-methylphenol	450	U
621-64-7	N-nitroso-di-n-propylamine	450	U
106-44-5	m,p-cresol	450	U
67-72-1	hexachloroethane	450	U
98-95-3	nitrobenzene	450	U
78-59-1	isophorone	450	U
88-75-5	2-nitrophenol	450	U
105-67-9	2,4-dimethylphenol	450	U
111-91-1	bis(2-chloroethoxy)methane	450	U
120-83-2	2,4-dichlorophenol	450	U
120-82-1	1,2,4-trichlorobenzene	450	U
91-20-3	naphthalene	450	U
106-47-8	4-chloroaniline	450	U
87-68-3	hexachlorobutadiene	450	U
59-50-7	4-chloro-3-methylphenol	450	U
91-57-6	2-methylnaphthalene	450	U
77-47-4	hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-trichlorophenol	450	U
95-95-4	2,4,5-trichlorophenol	1130	U
91-58-7	2-chloronaphthalene	450	U
99-09-2	3-nitroaniline	1130	U
88-74-4	2-nitroaniline	1130	U
131-11-3	dimethylphthalate	450	U
606-20-2	2,6-dinitrotoluene	450	U
208-96-8	acenaphthylene	450	U
83-32-9	acenaphthene	450	U

FORM I SV-1

OLM03.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 320

H14211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T210

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

51-28-5	2,4-dinitrophenol	1130	U
132-64-9	dibenzofuran	450	U
121-14-2	2,4-dinitrotoluene	450	U
84-66-2	diethylphthalate	450	U
100-02-7	4-nitrophenol	1130	U
86-73-7	fluorene	450	U
7005-72-3	4-chlorophenylphenylether	450	U
534-52-1	4,6-dinitro-2-methylphenol	1130	U
100-01-6	4-nitroaniline	450	U
101-55-3	4-bromophenylphenylether	450	U
118-74-1	hexachlorobenzene	450	U
87-86-5	pentachlorophenol	1130	U
85-01-8	phenanthrene	450	U
120-12-7	anthracene	450	U
84-74-2	di-n-butylphthalate	450	U
206-44-0	fluoranthene	450	U
129-00-0	pyrene	450	U
85-68-7	butylbenzylphthalate	450	U
56-55-3	benzo(a)anthracene	450	U
91-94-1	3,3'-dichlorobenzidine	450	U
218-01-9	chrysene	450	U
117-81-7	bis(2-ethylhexyl)phthalate	450	U
117-84-0	di-n-octylphthalate	450	U
205-99-2	benzo(b)fluoranthene	450	U
207-08-9	benzo(k)fluoranthene	450	U
50-32-8	benzo(a)pyrene	450	U
193-39-5	indeno(1,2,3-cd)pyrene	450	U
53-70-3	dibenz(a,h)anthracene	450	U
191-24-2	benzo(g,h,i)perylene	450	U
122-39-4	diphenylamine	450	U
86-74-8	Carbazole	450	U

FORM I SV-2

OLM03.0

FORM 1 Science Applications C6-MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H14211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBEF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-06

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 018F1801

Level: (low/med) LOW DATA VALIDATION Date Received: 05/06/99

% Moisture: 26 decanted: (Y/N) N COPY Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics _____	3.9	B

= F03

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H14211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I2019

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. 26 Date Analyzed: 05/11/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
	-----Gasoline Range Organics	1040	

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-04

Sample wt/vol: 3.7 (g/mL) G Lab File ID: 7J105

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. 43 Date Analyzed: 05/17/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	24.0	U
74-83-9	bromomethane	24.0	U
75-01-4	vinyl chloride	24.0	U
75-00-3	chloroethane	24.0	U
75-09-2	methylene chloride	12.0	U
67-64-1	acetone	34.2	B
75-15-0	carbon disulfide	12.0	U
75-35-4	1,1-dichloroethene	12.0	U
75-34-3	1,1-dichloroethane	12.0	U
67-66-3	chloroform	12.0	U
107-06-2	1,2-dichloroethane	12.0	U
78-93-3	2-butanone	7.3	J
71-55-6	1,1,1-trichloroethane	12.0	U
56-23-5	carbon tetrachloride	12.0	U
75-27-4	bromodichloromethane	12.0	U
78-87-5	1,2-dichloropropane	12.0	U
10061-01-5	cis-1,3-dichloropropene	12.0	U
79-01-6	trichloroethene	12.0	U
124-48-1	dibromochloromethane	12.0	U
79-00-5	1,1,2-trichloroethane	12.0	U
71-43-2	benzene	12.0	U
10061-02-6	trans-1,3-dichloropropene	12.0	U
75-25-2	bromoform	12.0	U
108-10-1	4-methyl-2-pentanone	24.0	U
591-78-6	2-hexanone	24.0	U
127-18-4	tetrachloroethene	12.0	U
79-34-5	1,1,2,2-tetrachloroethane	12.0	U
108-88-3	toluene	12.0	U
108-90-7	chlorobenzene	12.0	U
100-41-4	ethylbenzene	12.0	U
100-42-5	styrene	12.0	U
1330-20-7	xylene (total)	12.0	U
540-59-0	1,2-dichloroethylene (total)	4.8	U

12.0 5.3 JB
 U F03
 U F01, F06
 U
 J CO1, CO4

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 324

H15211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T209

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 43 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

108-95-2	phenol	585	U
111-44-4	bis(2-chloroethyl) ether	585	U
95-57-8	2-chlorophenol	585	U
541-73-1	1,3-dichlorobenzene	585	U
106-46-7	1,4-dichlorobenzene	585	U
95-50-1	1,2-dichlorobenzene	585	U
108-60-1	2,2'-Oxybis(1-chloropropane)	585	U
95-48-7	2-methylphenol	585	U
621-64-7	N-nitroso-di-n-propylamine	585	U
106-44-5	m,p-cresol	585	U
67-72-1	hexachloroethane	585	U
98-95-3	nitrobenzene	585	U
78-59-1	isophorone	585	U
88-75-5	2-nitrophenol	585	U
105-67-9	2,4-dimethylphenol	585	U
111-91-1	bis(2-chloroethoxy)methane	585	U
120-83-2	2,4-dichlorophenol	585	U
120-82-1	1,2,4-trichlorobenzene	585	U
91-20-3	naphthalene	585	U
106-47-8	4-chloroaniline	585	U
87-68-3	hexachlorobutadiene	585	U
59-50-7	4-chloro-3-methylphenol	585	U
91-57-6	2-methylnaphthalene	585	U
77-47-4	hexachlorocyclopentadiene	585	U
88-06-2	2,4,6-trichlorophenol	585	U
95-95-4	2,4,5-trichlorophenol	1460	U
91-58-7	2-chloronaphthalene	585	U
99-09-2	3-nitroaniline	1460	U
88-74-4	2-nitroaniline	1460	U
131-11-3	dimethylphthalate	585	U
606-20-2	2,6-dinitrotoluene	585	U
208-96-8	acenaphthylene	585	U
83-32-9	acenaphthene	585	U

FORM I SV-1

OLM03.0

FORM 1 Science Applications 06-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H15211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905205-04
 Sample wt/vol: 30.5 (g/mL) Lab File ID: 017F1701
 Level: (Low/med) LOW Date Received: 05/06/99
 % Moisture: 43 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	1.1	JB	J F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I2018

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. 43 Date Analyzed: 05/11/99

GC Column: J&W DB-624 (FID) ID: 0.53 (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
-----	Gasoline Range Organics	250	=

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H16211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF03S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905205-13

Sample wt/vol: 5.4 (g/mL) G

Lab File ID: 7I547

Level: (low/med) LOW

Date Received: 05/06/99

% Moisture: not dec. 38

Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (ml)

Soil Aliquot Volume: _____ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	14.9	U
74-83-9	bromomethane	14.9	U
75-01-4	vinyl chloride	14.9	U
75-00-3	chloroethane	14.9	U
75-09-2	methylene chloride	7.5	U
67-64-1	acetone	1.0	JB
75-15-0	carbon disulfide	29.8	B
75-35-4	1,1-dichloroethene	7.5	JB
75-34-3	1,1-dichloroethane	7.5	U
67-66-3	chloroform	7.5	U
107-06-2	1,2-dichloroethane	7.5	U
78-93-3	2-butanone	7.5	U
71-55-6	1,1,1-trichloroethane	5.4	J
56-23-5	carbon tetrachloride	7.5	U
75-27-4	bromodichloromethane	7.5	U
78-87-5	1,2-dichloropropane	7.5	U
10061-01-5	cis-1,3-dichloropropene	7.5	U
79-01-6	trichloroethene	7.5	U
124-48-1	dibromochloromethane	7.5	U
79-00-5	1,1,2-trichloroethane	7.5	U
71-43-2	benzene	7.5	U
10061-02-6	trans-1,3-dichloropropene	7.5	U
75-25-2	bromoform	7.5	U
108-10-1	4-methyl-2-pentanone	7.5	U
591-78-6	2-hexanone	14.9	U
127-18-4	tetrachloroethene	14.9	U
79-34-5	1,1,2,2-tetrachloroethane	7.5	U
108-88-3	toluene	7.5	U
108-90-7	chlorobenzene	1.0	J
100-41-4	ethylbenzene	7.5	U
100-42-5	styrene	7.5	U
1330-20-7	xylenes (total)	7.5	U
540-59-0	1,2-dichloroethylene (total)	7.5	U
		3.0	U

MAAP
6/2/99

U
↓
U FO1, FO6
J FO8, CO5
U FO1, FO6
U
↓
J CO1, CO4
U
↓
U
↓
U
↓
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H16211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-13

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T211

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 38 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	UG/KG	Q
108-95-2	phenol	538	U
111-44-4	bis(2-chloroethyl) ether	538	U
95-57-8	2-chlorophenol	538	U
541-73-1	1,3-dichlorobenzene	538	U
106-46-7	1,4-dichlorobenzene	538	U
95-50-1	1,2-dichlorobenzene	538	U
108-60-1	2,2'-Oxybis(1-chloropropane)	538	U
95-48-7	2-methylphenol	538	U
621-64-7	N-nitroso-di-n-propylamine	538	U
106-44-5	m,p-cresol	538	U
67-72-1	hexachloroethane	538	U
98-95-3	nitrobenzene	538	U
78-59-1	isophorone	538	U
88-75-5	2-nitrophenol	538	U
105-67-9	2,4-dimethylphenol	538	U
111-91-1	bis(2-chloroethoxy)methane	538	U
120-83-2	2,4-dichlorophenol	538	U
120-82-1	1,2,4-trichlorobenzene	538	U
91-20-3	naphthalene	538	U
106-47-8	4-chloroaniline	538	U
87-68-3	hexachlorobutadiene	538	U
59-50-7	4-chloro-3-methylphenol	538	U
91-57-6	2-methylnaphthalene	538	U
77-47-4	hexachlorocyclopentadiene	538	U
88-06-2	2,4,6-trichlorophenol	538	U
95-95-4	2,4,5-trichlorophenol	1340	U
91-58-7	2-chloronaphthalene	538	U
99-09-2	3-nitroaniline	1340	U
88-74-4	2-nitroaniline	1340	U
131-11-3	dimethylphthalate	538	U
606-20-2	2,6-dinitrotoluene	538	U
208-96-8	acenaphthylene	538	U
83-32-9	acenaphthene	538	U

FORM I SV-1

OLM03.8

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 330

H16211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-13

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T211

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 38 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

51-28-5	2,4-dinitrophenol	1340	U
132-64-9	dibenzofuran	538	U
121-14-2	2,4-dinitrotoluene	538	U
84-66-2	diethylphthalate	538	U
100-02-7	4-nitrophenol	1340	U
86-73-7	fluorene	538	U
7005-72-3	4-chlorophenylphenylether	538	U
534-52-1	4,6-dinitro-2-methylphenol	1340	U
100-01-6	4-nitroaniline	538	U
101-55-3	4-bromophenylphenylether	538	U
118-74-1	hexachlorobenzene	538	U
87-86-5	pentachlorophenol	1340	U
85-01-8	phenanthrene	538	U
120-12-7	anthracene	538	U
84-74-2	di-n-butylphthalate	538	U
206-44-0	fluoranthene	538	U
129-00-0	pyrene	538	U
85-68-7	butylbenzylphthalate	538	U
56-55-3	benzo(a)anthracene	538	U
91-94-1	3,3'-dichlorobenzidine	538	U
218-01-9	chrysene	538	U
117-81-7	bis(2-ethylhexyl)phthalate	538	U
117-84-0	di-n-octylphthalate	538	U
205-99-2	benzo(b)fluoranthene	538	U
207-08-9	benzo(k)fluoranthene	538	U
50-32-8	benzo(a)pyrene	538	U
193-39-5	indeno(1,2,3-cd)pyrene	538	U
53-70-3	dibenz(a,h)anthracene	538	U
191-24-2	benzo(g,h,i)perylene	538	U
122-39-4	diphenylamine	538	U
86-74-8	Carbazole	538	U

FORM I SV-2

OLM03.0

FORM 1 Science Applications06-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H16211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S
Matrix: (soil/water) SOIL Lab Sample ID: 9905205-13
Sample wt/vol: 30.5 (g/mL) G Lab File ID: 019F1901
Level: (low/med) LOW Date Received: 05/06/99
% Moisture: 38 decanted: (Y/N) NO COPY Date Extracted: 05/14/99
Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	1.9	B

F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H16211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-13

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 112020

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. 38 Date Analyzed: 05/11/99

GC Column: J&W DB-624 (FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
	-----Gasoline Range Organics_____	161	U	U

Duplicate
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

H16221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S
Matrix: (soil/water) SOIL Lab Sample ID: 9905205-14
Sample wt/vol: 5.2 (g/mL) G Lab File ID: 7I548
Level: (low/med) LOW Date Received: 05/06/99
% Moisture: not dec. 31 Date Analyzed: 05/15/99
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (ml) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
74-87-3	chloromethane	13.9	U	U
74-83-9	bromomethane	13.9	U	U
75-01-4	vinyl chloride	13.9	U	U
75-00-3	chloroethane	13.9	U	U
75-03-2	methylene chloride	6.9 1.1	JB	U FO1, FO6
67-64-1	acetone	36.3	B	U FO8, CO5
75-15-0	carbon disulfide	6.9 5.1	JB	U FO1, FO6
75-35-4	1,1-dichloroethene	6.9	U	U
75-32-3	1,1-dichloroethane	6.9	U	U
67-66-3	chloroform	6.9	U	U
107-06-2	1,2-dichloroethane	6.9	U	U
78-93-3	2-butanone	5.8	J	U CO1, CO4
71-55-6	1,1,1-trichloroethane	6.9	U	U
56-23-5	carbon tetrachloride	6.9	U	U
75-27-4	bromodichloromethane	6.9	U	U
78-87-5	1,2-dichloropropane	6.9	U	U
10061-01-5	cis-1,3-dichloropropene	6.9	U	U
79-01-6	trichloroethene	6.9	U	U
124-48-1	dibromochloromethane	6.9	U	U
79-00-5	1,1,2-trichloroethane	6.9	U	U
71-43-2	benzene	6.9	U	U
10061-02-6	trans-1,3-dichloropropene	6.9	U	U
75-25-2	bromoform	6.9	U	U
108-10-1	4-methyl-2-pentanone	13.9	U	U
591-78-6	2-hexanone	13.9	U	U
127-18-4	tetrachloroethene	6.9	U	U
79-34-5	1,1,2,2-tetrachloroethane	6.9	U	U
108-88-3	toluene	0.74	J	U
108-90-7	chlorobenzene	6.9	U	U
100-41-4	ethylbenzene	6.9	U	U
100-42-5	styrene	6.9	U	U
1330-20-7	xylenes (total)	6.9	U	U
540-59-0	1,2-dichloroethylene (total)	2.8	U	U

FORM I VOA

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

REF. SAMPLE NO. Duplicate

334

H16221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-14

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T212

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

108-95-2	phenol	483	U
111-44-4	bis(2-chloroethyl) ether	483	U
95-57-8	2-chlorophenol	483	U
541-73-1	1,3-dichlorobenzene	483	U
106-46-7	1,4-dichlorobenzene	483	U
95-50-1	1,2-dichlorobenzene	483	U
108-60-1	2,2'-Oxybis(1-chloropropane)	483	U
95-48-7	2-methylphenol	483	U
621-64-7	N-nitroso-di-n-propylamine	483	U
106-44-5	m,p-cresol	483	U
67-72-1	hexachloroethane	483	U
98-95-3	nitrobenzene	483	U
78-59-1	isophorone	483	U
88-75-5	2-nitrophenol	483	U
105-67-9	2,4-dimethylphenol	483	U
111-91-1	bis(2-chloroethoxy)methane	483	U
120-83-2	2,4-dichlorophenol	483	U
120-82-1	1,2,4-trichlorobenzene	483	U
91-20-3	naphthalene	483	U
106-47-8	4-chloroaniline	483	U
87-68-3	hexachlorobutadiene	483	U
59-50-7	4-chloro-3-methylphenol	483	U
91-57-6	2-methylnaphthalene	483	U
77-47-4	hexachlorocyclopentadiene	483	U
88-06-2	2,4,6-trichlorophenol	483	U
95-95-4	2,4,5-trichlorophenol	1210	U
91-58-7	2-chloronaphthalene	483	U
99-09-2	3-nitroaniline	1210	U
88-74-4	2-nitroaniline	1210	U
131-11-3	dimethylphthalate	483	U
606-20-2	2,6-dinitrotoluene	483	U
208-96-8	acenaphthylene	483	U
83-32-9	acenaphthene	483	U

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FORM I SV-1

OLM03.0

Duplicate

FORM 1 Science Applications 96-MAY 1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H16221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905205-14
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 020F2001
 Level: (low/med) LOW Date Received: 05/06/99
 % Moisture: 31 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

DATA NOT AT ALL
COPY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	-----Diesel Range Organics	1.9	B = F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H16221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-14

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I2021

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. 31 Date Analyzed: 05/11/99

GC Column: J&W DB-624 (FID) ID: 0.53 (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
-----	Gasoline Range Organics_____	145	U U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H17211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF03S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905205-02

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: 7I544

Level: (low/med) LOW

Date Received: 05/06/99

% Moisture: not dec. 34

Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (ml)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	14.4	U
74-83-9	bromomethane	14.4	U
75-01-4	vinyl chloride	14.4	U
75-00-3	chloroethane	14.4	U
75-09-2	methylene chloride	14.4	U
67-64-1	acetone	7.2	U
75-15-0	carbon disulfide	33.4	B
75-35-4	1,1-dichloroethane	7.2	JB
75-34-3	1,1-dichloroethane	7.2	"
67-66-3	chloroform	7.2	U
107-06-2	1,2-dichloroethane	7.2	U
78-93-3	2-butanone	7.2	U
71-55-6	1,1,1-trichloroethane	4.6	J
56-23-5	carbon tetrachloride	7.2	U
75-27-4	bromodichloromethane	7.2	U
78-87-5	1,2-dichloropropane	7.2	U
10061-01-5	cis-1,3-dichloropropene	7.2	U
79-01-6	trichloroethene	7.2	U
124-48-1	dibromochloromethane	7.2	U
79-00-5	1,1,2-trichloroethane	7.2	U
71-43-2	benzene	7.2	U
10061-02-6	trans-1,3-dichloropropene	7.2	U
75-25-2	bromoform	7.2	U
108-10-1	4-methyl-2-pentanone	7.2	U
591-78-6	2-hexanone	14.4	U
127-18-4	tetrachloroethene	14.4	U
79-34-5	1,1,2,2-tetrachloroethane	7.2	U
108-88-3	toluene	7.2	U
108-90-7	chlorobenzene	0.85	J
100-41-4	ethylbenzene	7.2	U
100-42-5	styrene	7.2	U
1330-20-7	xylenes (total)	7.2	U
540-59-0	1,2-dichloroethylene (total)	7.2	U
		2.9	U

↓
 J F03, C05
 U F01, F06
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 J C01, C04
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 U
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 U
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H17211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 8T208

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: 34 decanted: (Y/N) N Date Extracted: 05/10/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/11/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	505	U
111-44-4	bis(2-chloroethyl) ether	505	U
95-57-8	2-chlorophenol	505	U
541-73-1	1,3-dichlorobenzene	505	U
106-46-7	1,4-dichlorobenzene	505	U
95-50-1	1,2-dichlorobenzene	505	U
108-60-1	2,2'-Oxybis(1-chloropropane)	505	U
95-48-7	2-methylphenol	505	U
621-64-7	N-nitroso-di-n-propylamine	505	U
106-44-5	m,p-cresol	505	U
67-72-1	hexachloroethane	505	U
98-95-3	nitrobenzene	505	U
78-59-1	isophorone	505	U
88-75-5	2-nitrophenol	505	U
105-67-9	2,4-dimethylphenol	505	U
111-91-1	bis(2-chloroethoxy)methane	505	U
120-83-2	2,4-dichlorophenol	505	U
120-82-1	1,2,4-trichlorobenzene	505	U
91-20-3	naphthalene	505	U
106-47-8	4-chloroaniline	505	U
87-68-3	hexachlorobutadiene	505	U
59-50-7	4-chloro-3-methylphenol	505	U
91-57-6	2-methylnaphthalene	505	U
77-47-4	hexachlorocyclopentadiene	505	U
88-06-2	2,4,6-trichlorophenol	505	U
95-95-4	2,4,5-trichlorophenol	1260	U
91-58-7	2-chloronaphthalene	505	U
99-09-2	3-nitroaniline	1260	U
88-74-4	2-nitroaniline	1260	U
131-11-3	dimethylphthalate	505	U
606-20-2	2,6-dinitrotoluene	505	U
208-96-8	acenaphthylene	505	U
83-32-9	acenaphthene	505	U

FORM I SV-1

OLM03.0

FORM 1 Science Applications06 MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H17211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-02

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 016F1601

Level: (low/med) LOW **DATA VALIDATION** Date Received: 05/06/99

% Moisture: 34 decanted: (Y/N) N **COPY** Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/20/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	2.5	B

= F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H17211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF03S

Matrix: (soil/water) SOIL Lab Sample ID: 9905205-02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I2017

Level: (low/med) LOW Date Received: 05/06/99

% Moisture: not dec. 34 Date Analyzed: 05/11/99

GC Column: J&W DB-624 (FID) ID: 0.53 (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
	-----Gasoline Range Organics	282	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S

Matrix: (soil/water) SOIL Lab Sample ID: 9905112-05

Sample wt/vol: 5.8 (g/mL) G Lab File ID: 7I543

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: not dec. 39 Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	14.2	U
74-83-9	bromomethane	14.2	U
75-01-4	vinyl chloride	14.2	U
75-00-3	chloroethane	14.2	U
75-09-2	methylene chloride	7.1	U
67-64-1	acetone	38.4	B
75-15-0	carbon disulfide	20.1	B
75-35-4	1,1-dichloroethene	7.1	U
75-34-3	1,1-dichloroethane	7.1	U
67-66-3	chloroform	7.1	U
107-06-2	1,2-dichloroethane	7.1	U
78-93-3	2-butanone	6.2	J
71-55-6	1,1,1-trichloroethane	7.1	U
56-23-5	carbon tetrachloride	7.1	U
75-27-4	bromodichloromethane	7.1	U
78-87-5	1,2-dichloropropane	7.1	U
10061-01-5	cis-1,3-dichloropropene	7.1	U
79-01-6	trichloroethene	7.1	U
124-48-1	dibromochloromethane	7.1	U
79-00-5	1,1,2-trichloroethane	7.1	U
71-43-2	benzene	7.1	U
10061-02-6	trans-1,3-dichloropropene	7.1	U
75-25-2	bromoform	7.1	U
108-10-1	4-methyl-2-pentanone	14.2	U
591-78-6	2-hexanone	14.2	U
127-18-4	tetrachloroethene	7.1	U
79-34-5	1,1,2,2-tetrachloroethane	7.1	U
108-88-3	toluene	7.1	U
108-90-7	chlorobenzene	7.1	U
100-41-4	ethylbenzene	7.1	U
100-42-5	styrene	7.1	U
1330-20-7	xylene (total)	7.1	U
540-59-0	1,2-dichloroethylene (total)	2.8	U

U
J
F08, C05
F08
J
C01, C04
U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF02S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905112-05

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 4T213

Level: (low/med) LOW

Date Received: 05/05/99

% Moisture: 39 decanted: (Y/N) N

Date Extracted: 05/07/99

Concentrated Extract Volume: 1.00 (mL)

Date Analyzed: 05/11/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol		
111-44-4	bis(2-chloroethyl) ether	546	U
95-57-8	2-chlorophenol	546	U
541-73-1	1,3-dichlorobenzene	546	U
106-46-7	1,4-dichlorobenzene	546	U
95-50-1	1,2-dichlorobenzene	546	U
108-60-1	2,2'-Oxybis(1-chloropropane)	546	U
95-48-7	2-methylphenol	546	U
621-64-7	N-nitroso-di-n-propylamine	546	U
106-44-5	m,p-cresol	546	U
67-72-1	hexachloroethane	546	U
98-95-3	nitrobenzene	546	U
78-59-1	isophorone	546	U
88-75-5	2-nitrophenol	546	U
105-67-9	2,4-dimethylphenol	546	U
111-91-1	bis(2-chloroethoxy)methane	546	U
120-83-2	2,4-dichlorophenol	546	U
120-82-1	1,2,4-trichlorobenzene	546	U
91-20-3	naphthalene	546	U
106-47-8	4-chloroaniline	546	U
87-68-3	hexachlorobutadiene	546	U
59-50-7	4-chloro-3-methylphenol	546	U
91-57-6	2-methylnaphthalene	546	U
77-47-4	hexachlorocyclopentadiene	546	U
88-06-2	2,4,6-trichlorophenol	546	U
95-95-4	2,4,5-trichlorophenol	546	U
91-58-7	2-chloronaphthalene	1370	U
99-09-2	3-nitroaniline	546	U
88-74-4	2-nitroaniline	1370	U
131-11-3	dimethylphthalate	1370	U
606-20-2	2,6-dinitrotoluene	546	U
208-96-8	acenaphthylene	546	U
83-32-9	acenaphthene	546	U

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FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S

Matrix: (soil/water) SOIL Lab Sample ID: 9905112-05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 4T213

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: 39 decanted: (Y/N) N Date Extracted: 05/07/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/11/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	UG/KG	Q
51-28-5	2,4-dinitrophenol	1370	U
132-64-9	dibenzofuran	546	U
121-14-2	2,4-dinitrotoluene	546	U
84-66-2	diethylphthalate	546	U
100-02-7	4-nitrophenol	1370	U
86-73-7	fluorene	546	U
7005-72-3	4-chlorophenylphenylether	546	U
534-52-1	4,6-dinitro-2-methylphenol	1370	U
100-01-6	4-nitroaniline	546	U
101-55-3	4-bromophenylphenylether	546	U
118-74-1	hexachlorobenzene	546	U
87-86-5	pentachlorophenol	1370	U
85-01-8	phenanthrene	546	U
120-12-7	anthracene	546	U
84-74-2	di-n-butylphthalate	546	U
206-44-0	fluoranthene	546	U
129-00-0	pyrene	546	U
85-68-7	butylbenzylphthalate	546	U
56-55-3	benzo (a) anthracene	546	U
91-94-1	3,3'-dichlorobenzidine	546	U
218-01-9	chrysene	546	U
117-81-7	bis(2-ethylhexyl)phthalate	546	U
117-84-0	di-n-octylphthalate	546	U
205-99-2	benzo (b) fluoranthene	546	U
207-08-9	benzo (k) fluoranthene	546	U
50-32-8	benzo (a) pyrene	546	U
193-39-5	indeno (1,2,3-cd) pyrene	546	U
53-70-3	dibenz (a, h) anthracene	546	U
191-24-2	benzo (g, h, i) perylene	546	U
122-39-4	diphenylamine	546	U
86-74-8	Carbazole	546	U

U

FORM 1 Science Applications 05-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H18211RE

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905112-05
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 008F0801
 Level: (low/med) LOW Date Received: 05/05/99
 % Moisture: 39 decanted: (Y/N) N Date Extracted: 05/21/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/22/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics_____	0.94	JB	UJA01, F01, F0.

USE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H18211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S

Matrix: (soil/water) SOIL Lab Sample ID: 9905112-05

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 1H506

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: not dec. 39 Date Analyzed: 05/07/99

GC Column: J&W DB-624(FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

DATA VALIDATION
COPY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	-----Gasoline Range Organics_____	353	=

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S

Matrix: (soil/water) SOIL Lab Sample ID: 9905112-02

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 7I542

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: not dec. 35 Date Analyzed: 05/15/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	chloromethane	14.4	U	U ↓ J F08, C05 F08 ↓ J C01, C04 U
74-83-9	bromomethane	14.4	U	
75-01-4	vinyl chloride	14.4	U	
75-00-3	chloroethane	14.4	U	
75-09-2	methylene chloride	7.2	U	
67-64-1	acetone	36.6	B	
75-15-0	carbon disulfide	9.4	B	
75-35-4	1,1-dichloroethene	7.2	U	
75-34-3	1,1-dichloroethane	7.2	U	
67-66-3	chloroform	7.2	U	
107-06-2	1,2-dichloroethane	7.2	U	
78-93-3	2-butanone	6.0	J	
71-55-6	1,1,1-trichloroethane	7.2	U	
56-23-5	carbon tetrachloride	7.2	U	
75-27-4	bromodichloromethane	7.2	U	
78-87-5	1,2-dichloropropane	7.2	U	
10061-01-5	cis-1,3-dichloropropene	7.2	U	
79-01-6	trichloroethene	7.2	U	
124-48-1	dibromochloromethane	7.2	U	
79-00-5	1,1,2-trichloroethane	7.2	U	
71-43-2	benzene	7.2	U	
10061-02-6	trans-1,3-dichloropropene	7.2	U	
75-25-2	bromoform	7.2	U	
108-10-1	4-methyl-2-pentanone	14.4	U	
591-78-6	2-hexanone	14.4	U	
127-18-4	tetrachloroethene	7.2	U	
79-34-5	1,1,2,2-tetrachloroethane	7.2	U	
108-88-3	toluene	7.2	U	
108-90-7	chlorobenzene	7.2	U	
100-41-4	ethylbenzene	7.2	U	
100-42-5	styrene	7.2	U	
1330-20-7	xylene (total)	7.2	U	
540-59-0	1,2-dichloroethylene (total)	2.9	U	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905112-02
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 4T212
 Level: (low/med) LOW Date Received: 05/05/99
 % Moisture: 35 decanted: (Y/N) N Date Extracted: 05/07/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/11/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	513	U
111-44-4	bis(2-chloroethyl) ether	513	U
95-57-8	2-chlorophenol	513	U
541-73-1	1,3-dichlorobenzene	513	U
106-46-7	1,4-dichlorobenzene	513	U
95-50-1	1,2-dichlorobenzene	513	U
108-60-1	2,2'-Oxybis(1-chloropropane)	513	U
95-48-7	2-methylphenol	513	U
621-64-7	N-nitroso-di-n-propylamine	513	U
106-44-5	m,p-cresol	513	U
67-72-1	hexachloroethane	513	U
98-95-3	nitrobenzene	513	U
78-59-1	isophorone	513	U
88-75-5	2-nitrophenol	513	U
105-67-9	2,4-dimethylphenol	513	U
111-91-1	bis(2-chloroethoxy)methane	513	U
120-83-2	2,4-dichlorophenol	513	U
120-82-1	1,2,4-trichlorobenzene	513	U
91-20-3	naphthalene	513	U
106-47-8	4-chloroaniline	513	U
87-68-3	hexachlorobutadiene	513	U
59-50-7	4-chloro-3-methylphenol	513	U
91-57-6	2-methylnaphthalene	513	U
77-47-4	hexachlorocyclopentadiene	513	U
88-06-2	2,4,6-trichlorophenol	513	U
95-95-4	2,4,5-trichlorophenol	1280	U
91-58-7	2-chloronaphthalene	513	U
99-09-2	3-nitroaniline	1280	U
88-74-4	2-nitroaniline	1280	U
131-11-3	dimethylphthalate	513	U
606-20-2	2,6-dinitrotoluene	513	U
208-96-8	acenaphthylene	513	U
83-32-9	acenaphthene	513	U

U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S

Matrix: (soil/water) SOIL Lab Sample ID: 9905112-02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 4T212

Level: (low/med) LOW Date Received: 05/05/99

% Moisture: 35 decanted: (Y/N) N Date Extracted: 05/07/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/11/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
51-28-5	2,4-dinitrophenol	1280	U	U
132-64-9	dibenzofuran	513	U	
121-14-2	2,4-dinitrotoluene	513	U	
84-66-2	diethylphthalate	513	U	
100-02-7	4-nitrophenol	1280	U	
86-73-7	fluorene	513	U	
7005-72-3	4-chlorophenylphenylether	513	U	
534-52-1	4,6-dinitro-2-methylphenol	1280	U	
100-01-6	4-nitroaniline	513	U	
101-55-3	4-bromophenylphenylether	513	U	
118-74-1	hexachlorobenzene	513	U	
87-86-5	pentachlorophenol	1280	U	
85-01-8	phenanthrene	513	U	
120-12-7	anthracene	513	U	
84-74-2	di-n-butylphthalate	513	U	
206-44-0	fluoranthene	513	U	
129-00-0	pyrene	513	U	
85-68-7	butylbenzylphthalate	513	U	
56-55-3	benzo(a)anthracene	513	U	
91-94-1	3,3'-dichlorobenzidine	513	U	
218-01-9	chrysene	513	U	
117-81-7	bis(2-ethylhexyl)phthalate	513	U	
117-84-0	di-n-octylphthalate	513	U	
205-99-2	benzo(b)fluoranthene	513	U	
207-08-9	benzo(k)fluoranthene	513	U	
50-32-8	benzo(a)pyrene	513	U	
193-39-5	indeno(1,2,3-cd)pyrene	513	U	
53-70-3	dibenz(a,h)anthracene	513	U	
191-24-2	benzo(g,h,i)perylene	513	U	
122-39-4	diphenylamine	513	U	
86-74-8	Carbazole	513	U	

FORM 1 Science Applications 05-MAY-1999 SA
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H19211RE

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905112-02
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 007F0701
 Level: (low/med) LOW Date Received: 05/05/99
 % Moisture: 35 decanted: (Y/N) N Date Extracted: 05/21/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/22/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
-----	Diesel Range Organics	0.92	JB

OS A01, F01, F06

USE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H19211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF02S

Matrix: (soil/water) SOIL Lab Sample ID: 9905112-02

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 1H505

Level: (low/med) LOW DATA VALUE Date Received: 05/05/99

% Moisture: not dec. 35 0077 Date Analyzed: 05/07/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
	-----Gasoline Range Organics	158	==

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-13

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 5J406

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 34 Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	14.2	U
74-83-9	bromomethane	14.2	U
75-01-4	vinyl chloride	14.2	U
75-00-3	chloroethane	14.2	U
75-09-2	methylene chloride	7.1	U
67-64-1	acetone	31.6	B
75-15-0	carbon disulfide	7.1	U
75-35-4	1,1-dichloroethene	7.1	U
75-34-3	1,1-dichloroethane	7.1	U
67-66-3	chloroform	7.1	U
107-06-2	1,2-dichloroethane	7.1	U
78-93-3	2-butanone	5.0	J
71-55-6	1,1,1-trichloroethane	7.1	U
56-23-5	carbon tetrachloride	7.1	U
75-27-4	bromodichloromethane	7.1	U
78-87-5	1,2-dichloropropane	7.1	U
10061-01-5	cis-1,3-dichloropropene	7.1	U
79-01-6	trichloroethene	7.1	U
124-48-1	dibromochloromethane	7.1	U
79-00-5	1,1,2-trichloroethane	7.1	U
71-43-2	benzene	7.1	U
10061-02-6	trans-1,3-dichloropropene	7.1	U
75-25-2	bromoform	7.1	U
108-10-1	4-methyl-2-pentanone	14.2	U
591-78-6	2-hexanone	14.2	U
127-18-4	tetrachloroethene	7.1	U
79-34-5	1,1,2,2-tetrachloroethane	7.1	U
108-88-3	toluene	7.1	U
108-90-7	chlorobenzene	7.1	U
100-41-4	ethylbenzene	7.1	U
100-42-5	styrene	7.1	U
1330-20-7	xylenes (total)	7.1	U
540-59-0	1,2-dichloroethylene (total)	2.8	U

U
↓
= F08
U
↓
J CDS
U
↓

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-13

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T440

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 34 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	505	U
111-44-4	bis(2-chloroethyl) ether	505	U
95-57-8	2-chlorophenol	505	U
541-73-1	1,3-dichlorobenzene	505	U
106-46-7	1,4-dichlorobenzene	505	U
95-50-1	1,2-dichlorobenzene	505	U
108-60-1	2,2'-Oxybis(1-chloropropane)	505	U
95-48-7	2-methylphenol	505	U
621-64-7	N-nitroso-di-n-propylamine	505	U
106-44-5	m,p-cresol	505	U
67-72-1	hexachloroethane	505	U
98-95-3	nitrobenzene	505	U
78-59-1	isophorone	505	U
88-75-5	2-nitrophenol	505	U
105-67-9	2,4-dimethylphenol	505	U
111-91-1	bis(2-chloroethoxy)methane	505	U
120-83-2	2,4-dichlorophenol	505	U
120-82-1	1,2,4-trichlorobenzene	505	U
91-20-3	naphthalene	505	U
106-47-8	4-chloroaniline	505	U
87-68-3	hexachlorobutadiene	505	U
59-50-7	4-chloro-3-methylphenol	505	U
91-57-6	2-methylnaphthalene	505	U
77-47-4	hexachlorocyclopentadiene	505	U
88-06-2	2,4,6-trichlorophenol	505	U
95-95-4	2,4,5-trichlorophenol	1260	U
91-58-7	2-chloronaphthalene	505	U
99-09-2	3-nitroaniline	1260	U
88-74-4	2-nitroaniline	1260	U
131-11-3	dimethylphthalate	505	U
606-20-2	2,6-dinitrotoluene	505	U
208-96-8	acenaphthylene	505	U
83-32-9	acenaphthene	505	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-13

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T440

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 34 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	1260	U
132-64-9	dibenzofuran	505	U
121-14-2	2,4-dinitrotoluene	505	U
84-66-2	diethylphthalate	505	U
100-02-7	4-nitrophenol	1260	U
86-73-7	fluorene	505	U
7005-72-3	4-chlorophenylphenylether	505	U
534-52-1	4,6-dinitro-2-methylphenol	1260	U
100-01-6	4-nitroaniline	505	U
122-39-4	diphenylamine	505	U
101-55-3	4-bromophenylphenylether	505	U
118-74-1	hexachlorobenzene	505	U
87-86-5	pentachlorophenol	1260	U
85-01-8	phenanthrene	505	U
120-12-7	anthracene	505	U
84-74-2	di-n-butylphthalate	505	U
206-44-0	fluoranthene	505	U
129-00-0	pyrene	505	U
85-68-7	butylbenzylphthalate	505	U
56-55-3	benzo(a)anthracene	505	U
91-94-1	3,3'-dichlorobenzidine	505	U
218-01-9	chrysene	505	U
117-81-7	bis(2-ethylhexyl)phthalate	505	U
117-84-0	di-n-octylphthalate	505	U
205-99-2	benzo(b)fluoranthene	505	U
207-08-9	benzo(k)fluoranthene	505	U
50-32-8	benzo(a)pyrene	505	U
193-39-5	indeno(1,2,3-cd)pyrene	505	U
53-70-3	dibenz(a,h)anthracene	505	U
191-24-2	benzo(g,h,i)perylene	505	U
86-74-8	Carbazole	505	U

FORM I SV-2

OLM03.0

356

FORM 1 Science Applications 08-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H20211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-13
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: 038F3801
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 34 decanted: (Y/N) N Date Extracted: 05/14/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	-----Diesel Range Organics	0.25	JB

UF01, F06

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-13

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I507

Level: (low/med) LOW ~~DATA VALIDATION~~ Date Received: 05/08/99

% Moisture: not dec. 34 Date Analyzed: 05/14/99

GC Column: J&W DB-624(FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
-----	Gasoline Range Organics	151	U	U

FORM I VOA

Duplicate
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

H20221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA

SDG No.: HBFF05S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905245-19

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: 5J324

Level: (low/med) LOW

Date Received: 05/08/99

% Moisture: not dec. 33

Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (ml)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg). UG/KG		Q
74-87-3	chloromethane	14.5	U	
74-83-9	bromomethane	14.5	U	
75-01-4	vinyl chloride	14.5	U	
75-00-3	chloroethane	14.5	U	
75-09-2	methylene chloride	5.7	J	
67-64-1	acetone	24.6	B	
75-15-0	carbon disulfide	0.74	J	
75-35-4	1,1-dichloroethene	7.3	U	
75-34-3	1,1-dichloroethane	7.3	U	
67-66-3	chloroform	7.3	U	
107-06-2	1,2-dichloroethane	7.3	U	
78-93-3	2-butanone	4.5	J	
71-55-6	1,1,1-trichloroethane	7.3	U	
56-23-5	carbon tetrachloride	7.3	U	
75-27-4	bromodichloromethane	7.3	U	
78-87-5	1,2-dichloropropane	7.3	U	
10061-01-5	cis-1,3-dichloropropene	7.3	U	
79-01-6	trichloroethene	7.3	U	
124-48-1	dibromochloromethane	7.3	U	
79-00-5	1,1,2-trichloroethane	7.3	U	
71-43-2	benzene	7.3	U	
10061-02-6	trans-1,3-dichloropropene	7.3	U	
75-25-2	bromoform	7.3	U	
108-10-1	4-methyl-2-pentanone	14.5	U	
591-78-6	2-hexanone	14.5	U	
127-18-4	tetrachloroethene	7.3	U	
79-34-5	1,1,2,2-tetrachloroethane	7.3	U	
108-88-3	toluene	7.3	U	
108-90-7	chlorobenzene	7.3	U	
100-41-4	ethylbenzene	7.3	U	
100-42-5	styrene	7.3	U	
1330-20-7	xylenes (total)	7.3	U	
540-59-0	1,2-dichloroethylene (total)	2.9	U	

Handwritten notes and arrows on the right side of the table, including 'F08 C05' and 'C05' with arrows pointing to specific rows.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H20221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S
 Matrix: (soil/water) SOIL Lab Sample ID: 9905245-19
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T443
 Level: (low/med) LOW Date Received: 05/08/99
 % Moisture: 33 decanted: (Y/N) N Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	phenol	498	U
111-44-4	bis(2-chloroethyl) ether	498	U
95-57-8	2-chlorophenol	498	U
541-73-1	1,3-dichlorobenzene	498	U
106-46-7	1,4-dichlorobenzene	498	U
95-50-1	1,2-dichlorobenzene	498	U
108-60-1	2,2'-Oxybis(1-chloropropane)	498	U
95-48-7	2-methylphenol	498	U
621-64-7	N-nitroso-di-n-propylamine	498	U
106-44-5	m,p-cresol	498	U
67-72-1	hexachloroethane	498	U
98-95-3	nitrobenzene	498	U
78-59-1	isophorone	498	U
88-75-5	2-nitrophenol	498	U
105-67-9	2,4-dimethylphenol	498	U
111-91-1	bis(2-chloroethoxy)methane	498	U
120-83-2	2,4-dichlorophenol	498	U
120-82-1	1,2,4-trichlorobenzene	498	U
91-20-3	naphthalene	498	U
106-47-8	4-chloroaniline	498	U
87-68-3	hexachlorobutadiene	498	U
59-50-7	4-chloro-3-methylphenol	498	U
91-57-6	2-methylnaphthalene	498	U
77-47-4	hexachlorocyclopentadiene	498	U
88-06-2	2,4,6-trichlorophenol	498	U
95-95-4	2,4,5-trichlorophenol	1240	U
91-58-7	2-chloronaphthalene	498	U
99-09-2	3-nitroaniline	1240	U
88-74-4	2-nitroaniline	1240	U
131-11-3	dimethylphthalate	498	U
606-20-2	2,6-dinitrotoluene	498	U
208-96-8	acenaphthylene	498	U
83-32-9	acenaphthene	498	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Duplicate
EPA SAMPLE NO.

H20221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA

Case No.: NA

SAS No.: NA

SDG No.: HBFF05S

Matrix: (soil/water) SOIL

Lab Sample ID: 9905245-19

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 7T443

Level: (low/med) LOW

Date Received: 05/08/99

% Moisture: 33 decanted: (Y/N) N

Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL)

Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

51-28-5	2,4-dinitrophenol	1240	U
132-64-9	dibenzofuran	498	U
121-14-2	2,4-dinitrotoluene	498	U
84-66-2	diethylphthalate	498	U
100-02-7	4-nitrophenol	498	U
86-73-7	fluorene	1240	U
7005-72-3	4-chlorophenylphenylether	498	U
534-52-1	4,6-dinitro-2-methylphenol	498	U
100-01-6	4-nitroaniline	1240	U
122-39-4	diphenylamine	498	U
101-55-3	4-bromophenylphenylether	498	U
118-74-1	hexachlorobenzene	498	U
87-86-5	pentachlorophenol	498	U
85-01-8	phenanthrene	1240	U
120-12-7	anthracene	498	U
84-74-2	di-n-butylphthalate	498	U
206-44-0	fluoranthene	498	U
129-00-0	pyrene	498	U
85-68-7	butylbenzylphthalate	498	U
56-55-3	benzo(a)anthracene	498	U
91-94-1	3,3'-dichlorobenzidine	498	U
218-01-9	chrysene	498	U
117-81-7	bis(2-ethylhexyl)phthalate	498	U
117-84-0	di-n-octylphthalate	498	U
205-99-2	benzo(b)fluoranthene	498	U
207-08-9	benzo(k)fluoranthene	498	U
50-32-8	benzo(a)pyrene	498	U
193-39-5	indeno(1,2,3-cd)pyrene	498	U
53-70-3	dibenz(a,h)anthracene	498	U
191-24-2	benzo(g,h,i)perylene	498	U
86-74-8	Carbazole	498	U

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Duplicate

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Science Applications 08-MAY-1999 SA

H20221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-19

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 041F4101

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics_____	0.48	JB	= FOB

362

Duplicate

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H20221

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-19

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I509

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 33 Date Analyzed: 05/14/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
-----	Gasoline Range Organics	148	U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-10

Sample wt/vol: 5.2 (g/mL) G Lab File ID: 5J320

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 33 Date Analyzed: 05/20/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	chloromethane	14.3	U
74-83-9	bromomethane	14.3	U
75-01-4	vinyl chloride	14.3	U
75-00-3	chloroethane	14.3	U
75-09-2	methylene chloride	7.1	U
67-64-1	acetone	40.5	B
75-15-0	carbon disulfide	3.6	J
75-35-4	1,1-dichloroethene	7.1	U
75-34-3	1,1-dichloroethane	7.1	U
67-66-3	chloroform	7.1	U
107-06-2	1,2-dichloroethane	7.1	U
78-93-3	2-butanone	8.7	J
71-55-6	1,1,1-trichloroethane	7.1	U
56-23-5	carbon tetrachloride	7.1	U
75-27-4	bromodichloromethane	7.1	U
78-87-5	1,2-dichloropropane	7.1	U
10061-01-5	cis-1,3-dichloropropene	7.1	U
79-01-6	trichloroethene	7.1	U
124-48-1	dibromochloromethane	7.1	U
79-00-5	1,1,2-trichloroethane	7.1	U
71-43-2	benzene	7.1	U
10061-02-6	trans-1,3-dichloropropene	7.1	U
75-25-2	bromoform	7.1	U
108-10-1	4-methyl-2-pentanone	14.3	U
591-78-6	2-hexanone	14.3	U
127-18-4	tetrachloroethene	7.1	U
79-34-5	1,1,2,2-tetrachloroethane	7.1	U
108-88-3	toluene	3.2	J
108-90-7	chlorobenzene	7.1	U
100-41-4	ethylbenzene	7.1	U
100-42-5	styrene	7.1	U
1330-20-7	xylenes (total)	7.1	U
540-59-0	1,2-dichloroethylene (total)	2.8	U

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= FOB
J COS
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J COS
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C 24

364

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T439

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

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

108-95-2	phenol	498	U
111-44-4	bis(2-chloroethyl) ether	498	U
95-57-8	2-chlorophenol	498	U
541-73-1	1,3-dichlorobenzene	498	U
106-46-7	1,4-dichlorobenzene	498	U
95-50-1	1,2-dichlorobenzene	498	U
108-60-1	2,2'-Oxybis(1-chloropropane)	498	U
95-48-7	2-methylphenol	498	U
621-64-7	N-nitroso-di-n-propylamine	498	U
106-44-5	m,p-cresol	498	U
67-72-1	hexachloroethane	498	U
98-95-3	nitrobenzene	498	U
78-59-1	isophorone	498	U
88-75-5	2-nitrophenol	498	U
105-67-9	2,4-dimethylphenol	498	U
111-91-1	bis(2-chloroethoxy)methane	498	U
120-83-2	2,4-dichlorophenol	498	U
120-82-1	1,2,4-trichlorobenzene	498	U
91-20-3	naphthalene	498	U
106-47-8	4-chloroaniline	498	U
87-68-3	hexachlorobutadiene	498	U
59-50-7	4-chloro-3-methylphenol	498	U
91-57-6	2-methylnaphthalene	498	U
77-47-4	hexachlorocyclopentadiene	498	U
88-06-2	2,4,6-trichlorophenol	498	U
95-95-4	2,4,5-trichlorophenol	1240	U
91-58-7	2-chloronaphthalene	498	U
99-09-2	3-nitroaniline	1240	U
88-74-4	2-nitroaniline	1240	U
131-11-3	dimethylphthalate	498	U
606-20-2	2,6-dinitrotoluene	498	U
208-96-8	acenaphthylene	498	U
83-32-9	acenaphthene	498	U

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 7T439

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-dinitrophenol	1240	U
132-64-9	dibenzofuran	498	U
121-14-2	2,4-dinitrotoluene	498	U
84-66-2	diethylphthalate	498	U
100-02-7	4-nitrophenol	1240	U
86-73-7	fluorene	498	U
7005-72-3	4-chlorophenylphenylether	498	U
534-52-1	4,6-dinitro-2-methylphenol	1240	U
100-01-6	4-nitroaniline	498	U
122-39-4	diphenylamine	498	U
101-55-3	4-bromophenylphenylether	498	U
118-74-1	hexachlorobenzene	498	U
87-86-5	pentachlorophenol	1240	U
85-01-8	phenanthrene	498	U
120-12-7	anthracene	498	U
84-74-2	di-n-butylphthalate	498	U
206-44-0	fluoranthene	72.5	J
129-00-0	pyrene	498	U
85-68-7	butylbenzylphthalate	498	U
56-55-3	benzo(a)anthracene	35.5	J
91-94-1	3,3'-dichlorobenzidine	498	U
218-01-9	chrysene	53.4	J
117-81-7	bis(2-ethylhexyl)phthalate	498	U
117-84-0	di-n-octylphthalate	498	U
205-99-2	benzo(b)fluoranthene	48.7	J
207-08-9	benzo(k)fluoranthene	498	U
50-32-8	benzo(a)pyrene	35.8	J
193-39-5	indeno(1,2,3-cd)pyrene	498	U
53-70-3	dibenz(a,h)anthracene	498	U
191-24-2	benzo(g,h,i)perylene	498	U
86-74-8	Carbazole	498	U

U
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 498 29.7 JB
 498 66.6 JB
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 F01, F06
 F01, F06

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FORM 1 Science Applications 08-MAY-1999 SA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

H21211

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-10

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 005F0501

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: 33 decanted: (Y/N) N Date Extracted: 05/14/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/26/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG		Q
	-----Diesel Range Organics	1.6	B	= F08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H21211

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF05S

Matrix: (soil/water) SOIL Lab Sample ID: 9905245-10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1I4020

Level: (low/med) LOW Date Received: 05/08/99

% Moisture: not dec. 33 Date Analyzed: 05/13/99

GC Column: J&W DB-624(FID) ID: 0.53 (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
	-----Gasoline Range Organics	190	_____ =

FORM I VOA

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Binsate
EPA SAMPLE NO.

RSGW01

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-03
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T621
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	phenol	10.0	U
111-44-4	bis(2-chloroethyl) ether	10.0	U
95-57-8	2-chlorophenol	10.0	U
541-73-1	1,3-dichlorobenzene	10.0	U
106-46-7	1,4-dichlorobenzene	10.0	U
95-50-1	1,2-dichlorobenzene	10.0	U
108-60-1	2,2'-Oxybis(1-cnloropropane)	10.0	U
95-48-7	2-methylphenol	10.0	U
621-64-7	N-nitroso-di-n-propylamine	10.0	U
106-44-5	m,p-cresol	10.0	U
67-72-1	hexachloroethane	10.0	U
98-95-3	nitrobenzene	10.0	U
78-59-1	isophorone	10.0	U
88-75-5	2-nitrophenol	10.0	U
105-67-9	2,4-dimethylphenol	10.0	U
111-91-1	bis(2-chloroethoxy)methane	10.0	U
120-83-2	2,4-dichlorophenol	10.0	U
120-82-1	1,2,4-trichlorobenzene	10.0	U
91-20-3	naphthalene	10.0	U
106-47-8	4-chloroaniline	20.0	U
87-68-3	hexachlorobutadiene	10.0	U
59-50-7	4-chloro-3-methylphenol	10.0	U
91-57-6	2-methylnaphthalene	10.0	U
77-47-4	hexachlorocyclopentadiene	10.0	U
88-06-2	2,4,6-trichlorophenol	10.0	U
95-95-4	2,4,5-trichlorophenol	10.0	U
91-58-7	2-chloronaphthalene	10.0	U
99-09-2	3-nitroaniline	25.0	U
88-74-4	2-nitroaniline	25.0	U
131-11-3	dimethylphthalate	10.0	U
606-20-2	2,6-dinitrotoluene	10.0	U
208-96-8	acenaphthylene	10.0	U
83-32-9	acenaphthene	10.0	U

FORM I SV-1

OLM03.0

370

Rinsate
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

RSGW01

Lab Name: GENERAL ENGINEERING LABOR Contract: NA
 Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W
 Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-03
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 8T621
 Level: (low/med) LOW Date Received: 05/07/99
 % Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99
 Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/15/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-dinitrophenol	20.0	U
132-64-9	dibenzofuran	10.0	U
121-14-2	2,4-dinitrotoluene	10.0	U
84-66-2	diethylphthalate	10.0	U
100-02-7	4-nitrophenol	20.0	U
86-73-7	fluorene	10.0	U
7005-72-3	4-chlorophenylphenylether	10.0	U
534-52-1	4,6-dinitro-2-methylphenol	10.0	U
100-01-6	4-nitroaniline	25.0	U
86-30-6	N-nitroso-diphenylamine	10.0	U
101-55-3	4-bromophenylphenylether	10.0	U
118-74-1	hexachlorobenzene	10.0	U
87-86-5	pentachlorophenol	10.0	U
85-01-8	phenanthrene	10.0	U
120-12-7	anthracene	10.0	U
84-74-2	di-n-butylphthalate	10.0	U
206-44-0	fluoranthene	10.0	U
129-00-0	pyrene	10.0	U
85-68-7	butylbenzylphthalate	10.0	U
56-55-3	benzo(a)anthracene	10.0	U
91-94-1	3,3'-dichlorobenzidine	50.0	U
218-01-9	chrysene	10.0	U
117-81-7	bis(2-ethylhexyl)phthalate	10.0	U
117-84-0	di-n-octylphthalate	10.0	U
205-99-2	benzo(b)fluoranthene	10.0	U
207-08-9	benzo(k)fluoranthene	10.0	U
50-32-8	benzo(a)pyrene	10.0	U
193-39-5	indeno(1,2,3-cd)pyrene	10.0	U
53-70-3	dibenz(a,h)anthracene	10.0	U
191-24-2	benzo(g,h,i)perylene	10.0	U
86-74-8	Carbazole	10.0	U

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Science Applications 07-MAY-1999 SA

Binsate

R/SGW01

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) GROUNDH2O Lab Sample ID: 9905237-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 020F2001

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 05/11/99

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/12/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

DATA VALIDATION
COPY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/L		Q
	-----Diesel Range Organics_____	0.077	B	= F08

FORM I SV

372

Rinsate
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

RSGW01

Lab Name: GENERAL ENGINEERING LABOR Contract: NA

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: HBFF04W

Matrix: (soil/water) WATER Lab Sample ID: 9905237-13

Sample wt/vol: 10.00 (g/ml) ML Lab File ID: 115016

Level: (low/med) LOW Date Received: 05/07/99

% Moisture: not dec. _____ Date Analyzed: 05/14/99

GC Column: J&W DB-624(FID) ID: 0.53 (mm) Dilution Factor: 1.0

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

DATA VALIDATION
COPY

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
-----	Gasoline Range Organics	50.0	U

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